

Lefroy Resources Limited

**Combined Annual Technical Report
LEFROY PROJECT
EL35/2001, 2/2002, 43/2003, 44/2003,
45/2003, 39/2004, 12/2006,
13/2006, 30/2006, 13/2007, 16M/1991**

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October 2007**

LEFROY PROJECT AREA

**EL35/2001, 2/2002, 43/2003, 44/2003, 45/2003, 39/2004, 12/2006,
13/2006, 30/2006, 13/2007, 16M/1991**

1.0	SUMMARY	4
2.0	INTRODUCTION	6
3.0	LOCATION.....	6
4.0	LAND TENURE	7
5.0	GEOLOGY	9
5.1	Regional Geology	9
5.2	Structural Geology.....	9
6.0	PREVIOUS EXPLORATION.....	11
7.0	EXPLORATION	13
7.1	Data Compilation.....	13
7.2	Trench Geochemistry.....	13
7.3	Geophysics (Airborne).....	16
7.4	Drilling.....	16
	7.4.1 Methodology	21
7.5	Assaying.....	23
	7.5.1 Results	25
7.6	Metallurgical Testwork.....	27
7.7	Interpretation & Assessment of Exploration undertaken to date . . .	29
	7.7.1 Structural Control of Mineralisation.....	32
	7.7.2 Visualization of Structures.....	33
7.8	Environmental Rehabilitation	38
8.0	DISCUSSION	38
9.0	CONCLUSIONS & RECOMMENDATIONS.....	39
10.0	EXPENDITURE	41
11.0	REFERENCES	42
12.0	KEYWORDS.....	43

FIGURES

- Figure 1. Tenement Location Plan showing Historical Workings.
- Figure 2. Denison Project Area geochemical results displayed using hot colours to represent high Au values.
- Figure 3. Denison Geophysical Image
- Figure 4. Volunteer Soil Location Plan.
- Figure 5. Volunteer Costean Location Plan.
- Figure 6. Reprocessed Geophysical Image with Historical Workings.
- Figure 7. Drilling locations at the Pinafore and Chum lodes.
- Figure 8. Drilling locations at the Native Youth lode.
- Figure 9. Drilling locations at the Volunteer Lode.

TABLES

- Table 1. Tenure Status for Lefroy Resources Limited.
- Table 2. Historical Mines Production - Lefroy Goldfield.
- Table 3. Drill hole Statistics.
- Table 4. Best drilling results at Pinafore Reef.
- Table 5. Best drilling results at Native Youth Reef.
- Table 6. Expenditure at EL35/2001, 2/2002, 39/2004, 12/2006, 13/2006, 43/2003, 44/2003 and 45/2003.

APPENDICES

- APPENDIX A. Additional Information on Structural Geology based on Mapping in January, 2007 (Baxter, J. March 2007)
- APPENDIX B. Metallurgical test work report
- APPENDIX C. Airborne Geophysics Maps
- APPENDIX D. Digital Data (Supplied on accompanying CD-ROM); Includes:
Original data, Geophysical Images, Geological Logging Codes, Copies of all maps and reports

Note: All images produced in AGD94 zone 55.

1.0 SUMMARY

The reporting period encompasses the third field season for Lefroy Resources within their tenement package. During the year the Company implemented its Risk-Based Exploration strategy. The primary goal of the Exploration Strategy is to realize the full potential of the Lefroy Goldfield, by reclassifying as much of the 1.3 million ounce exploration potential into JORC compliant resource categories as possible. Since the Company commenced exploration on the project in November 2004 it has undertaken over 15,600m of RC and 5785m of diamond drilling at the Lefroy Goldfield. In addition a regional exploration program aimed at diversifying exploration risk was undertaken with significant activity undertaken at the Denison area located 70km east of the Lefroy Goldfield.

Exploration conducted during the period includes drilling, metallurgical test work, geological modelling and interpretation, airborne geophysics, soil sampling and trenching. A key focus of exploration has been to gain a sound understanding of the styles and controls of mineralisation present within the area. New and previously unrecognised styles of mineralisation in addition to lode-style material have been identified, providing exciting new exploration targets.

A detailed assessment of the exploration data completed by LEF has showed that the primary, high-grade quartz-sulphide “shoots” historically mined at the Lefroy Goldfield, which have been the principal focus for the Company, are discontinuous and unlikely to support a large-scale underground mining operation. This has significantly downgraded the aforementioned Exploration Potential (ASX Announcement 21 February, 2007).

Other aspects of the Project have however, been supported by the drilling results namely the ore-shoot thickness, shoot grade, structural model and stratigraphic controls. The Company now has an improved understanding of the “halo” gold mineralisation, found to be ubiquitous with high-grade shoots, at Lefroy.

Conceptually, there is scope to establish a series of 50K-100Koz (preliminary estimates) open pit-able resources on this “halo” gold. In addition if the discontinuous high-grade shoots are present, then the Company estimates that conceptually, several resources of up to 130Koz of gold could be defined near surface. More work is required before additional resources can be established (ASX Announcement 21 February, 2007).

Targeting of these broader “halo” systems is relatively straight forward, with several systems already identified i.e. the Pinafore Open-Pit-able Inferred Resource 49,345oz Au (ASX Announcement 4 October, 2005), Native Youth near surface mineralisation (LEF Annual Report 2005) and good indications at the Land O’ Cakes and Morning Star Reefs.

The company is in a strong position to build value based on the exploitation of these potentially open pit-able “halo” resources. Metallurgical characterization test work, currently underway (below) will be used to help quantify these systems and establish their potential.

The Company’s extensive landholding in the northeast of Tasmania takes in several mineralized structures including the historic Denison Goldfield to the east. Modern RC drilling and geochemistry (by Anglo Australian Resources NL) returned significant near surface mineralisation, interpreted as a disseminated gold hosted in sandstone deposit.

The Denison Project Area has been identified as an extensive, highly anomalous area which has the potential to host significant zones of gold mineralisation. The area extends from the town of Bridport in the north to the Lisle in the south. A number of highly prospective target areas have been identified, each of which if considered separately, could form a stand alone project. Regional scale activity has been implemented primarily aimed at developing the geological understanding of the Project Area to assist in prioritizing targets for further exploration.

Exploration work undertaken during the year includes regional geological mapping, aeromagnetic survey, petrology, selective soil and rock chip geochemistry, trench sampling at East Denison. These targets area scheduled to be followed up with RC drilling.

Total exploration expenditure to date is approximately \$4.4M.

2.0 INTRODUCTION

Lefroy Resources Limited (LEF) holds a 100% owned exploration land package in north east Tasmania. This consolidated tenement package contains at least three separate mineralised structures.

Exploration conducted during the period includes drilling, metallurgical test work, geological modelling and interpretation, airborne geophysics, soil sampling and trenching. A key focus of exploration has been to gain a sound understanding of the styles and controls of mineralisation present within the area. New and previously unrecognised styles of mineralisation in addition to lode-style material have been identified, providing exciting new exploration targets.

These tenements are considered to have good potential to host significant gold mineralisation. LEF is developing a good understanding of the mineralisation at its Lefroy project area and is developing sound exploration techniques that will be directly applicable in the north eastern Goldfields of Tasmania.

3.0 LOCATION

The Project Area is situated in north eastern Tasmania (Figure 1). The total project area is 883 square kilometres. The area is flanked by the Tamar River to the west, Noland Bay (Bass Strait) to the north, the town of Lebrina to the east, and the Tasman Highway to the south.

Tenements cover Crown Land, Commonwealth Government Land, State Forest and private property. Terrain is moderately undulating, and the Lefroy Goldfield can be accessed via sealed roads.

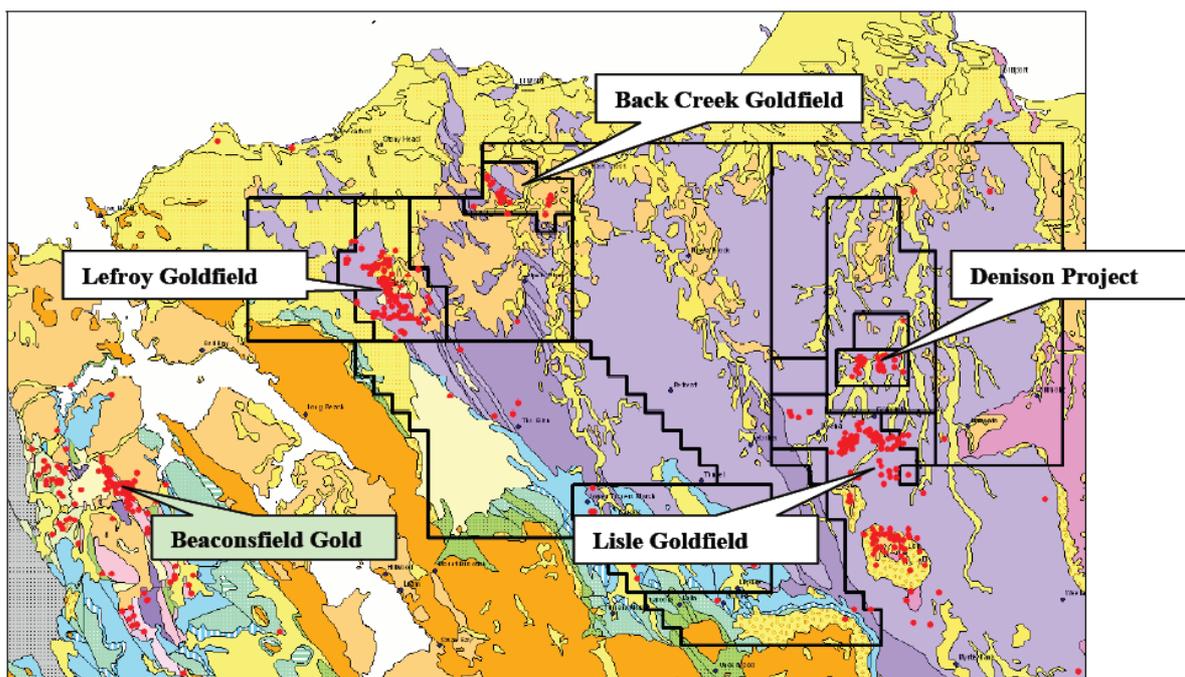


Figure 1. Tenement Location Plan showing Historical Workings.

4.0 LAND TENURE

Exploration Licence 35/2001 was granted to LEF on the 18th August 2004. The Licence was originally allocated to Sapphire Trading Ltd. on 10th October 2003, and then transferred to LEF. The EL carries a tenure period of 5 years, expiring in October 2008. The licence carries a minimum expenditure commitment of \$100,000 for the first 2 years. It covers 42 square kilometres and incorporates Crown Land (excluded from lease), Public Reserve, MDC Informal Reserve, State Forest and Private Property. The Mining Lease 16M/1991 (held by LEF) is contained within this Exploration Lease and covers 0.31 square kilometres.

Exploration Licence 2/2002 was granted to Lefroy on the 17th September 2004. The EL carries a tenure period of 5 years, expiring in September 2009. The Licence carries a minimum expenditure commitment of \$39,000 for the first 2 years. It covers 55 square kilometres and covers Crown Land, Public Reserve, MDC Informal Reserve, State Forest and Private Property.

Exploration Licences 43/2003, 44/2003 and 45/2003 were granted to LEF on the 15th October 2004. The ELs carry a tenure period of 5 years, expiring in October 2009. The combined Licences carry a minimum expenditure commitment of \$420,750 (\$104,250, \$177,750, \$138,750 respectively) for the first 2 years. They cover 561 square kilometres (139km²).

237km² and 185 km² respectively) and include Crown Land, Public Reserve, MDC Informal Reserve, State Forest and Private Property.

Exploration Licence 39/2004 was granted to LEF on the 17th September 2004. The EL carries a tenure period of 5 years, expiring in September 2009. The Licence carries a minimum expenditure of \$39,000 for the first two years. It covers 52 square kilometres and covers Crown Land, Public Reserve, MDC Informal Reserve, State Forest and Private Property.

Exploration Licence 12/2006 was granted to Lefroy Resources on the 21st July 2006 (formerly held by LEF as EL28/2003). The EL carries a tenure period of 5 years, expiring in July 2011. The Licence carries a minimum expenditure commitment of \$43,500 for the first 2 years. It covers 58 square kilometres and covers Crown Land, MDC Informal Reserve, State Forest and Private Property.

Exploration Licence 13/2006 was granted to Lefroy Resources on the 21st July 2006 (formerly held by LEF as EL12/2005). The EL carries a tenure period of 5 years, expiring in July 2011. The Licence carries a minimum expenditure commitment of \$82,125 for the first 2 years. It covers 8 square kilometres and covers Public Reserve, MDC Informal Reserve, State Forest and Private Property.

The full tenure status for LEF is shown in Table 1 below.

Table 1. Tenure Status for Lefroy Resources Limited.

Tenement ID	Area (Km2)	Prospect Area Name	Status
ML16M/91	0.31	Lefroy Mining Lease	Granted (to Nov 2010)
EL35/2001	42	Lefroy Project Area	Granted (to Oct 2008)
EL2/2002	55	Pipers River Project Area	Granted (to Oct 2008)
EL43/2003	139	Den Ranges Project Area	Granted (to Oct 2009)
EL44/2003	239	Lebrina Project Area	Granted (to Oct 2009)
EL45/2003	186	Nabowla Project Area	Granted (to Oct 2009)
EL13/2006	8	Denison Project Area	Granted (to Jul 2011)
EL39/2004	52	Ferny Hill Project Area	Granted (to Sep 2009)
EL12/2006	58	Bangor Project Area	Granted (to Jul 2011)
EL30/2006	17	Golconda	Application
EL13/2007	37	Lisle	Application
Total	779		

Key: ML = Mining Lease EL = Exploration Licence

5.0 GEOLOGY

5.1 Regional Geology

The Lefroy Goldfield is located in the Stony Head Sandstone within 2km of the contact with Turquoise Bluff Slate. The Stony Head Sandstone is a thick bedded and typically unfossiliferous sandstone dominated succession (Reed, 2004). The Turquoise Bluff Slate, by contrast, is predominantly fine-grained rocks (shale, mudstone, chert and fine-grained sandstone) (Reed, 2004). The rheological contrast between these units is a likely focus of deformation and mineralisation at Lefroy. Peak metamorphism does not correlate with the stratigraphic position and does not change across most of the large faults, indicating that peak metamorphism occurred after east directed thrusting and as a result of crustal thickening. This indicated metamorphism is post- D_1 . All of the mineralized host rock at Lefroy is within the Tippoogoree Group of the Mathinna Supergroup and virtually all is within the Stony Head Sandstone. A complete synopsis of the regional geology can be found in Baxter and Fulton (2006) – included as Appendix A, 2006 Annual technical report.

5.2 Structural Geology

The structural model for Lefroy has been modified and updated as more information has become available. During this reporting period Consultant Geologist John Baxter carried out extensive mapping of road cutting in the field. The results of these observations, in conjunction with reviewing the historical reports and drill hole core logging data can be found in Appendices A.

These structural geological reports outline the major updates made to the structural model and how this has affected the interpretation of the model for mineralisation. The outstanding points from these reports are included below:

“The earliest deformation fabric in the Lefroy district is recognised as an incipient flat lying cleavage (S_1). The fabric was identified by Rob Scott (2006). This cleavage is only seen in thin section, no exposure of F_1 folds occurs in the Lefroy district. D_1 is considered to be related to the development of the regional recumbent fold seen to the north. The sense of movement on this fold is west over east. The deformation even does not appear to contribute to the geometry of mineralisation at Lefroy and may be a precursor to the more evident D_2 folding.

The second deformation is a sequence of thrusts and accompanying folds that have transport of the hanging wall to the northeast (500578E, 544713N, 148RL) similar to that seen in the Australasian Slate Quarry (504600E, 5456500N). The folds are associated with a flat dipping stripy cleavage best seen in the Stony Head Sandstone. The axial surface of the folds dip $<15^\circ$ to the east and the folds plunge shallow to the north. The F_2 are exposed in the Richard Keele road cutting. This deformation appears to be the regional D_2 deformation identified by Powell and Baillie (1992) and Reed, 2004. It appears to control the distribution lithologies in the Lefroy Goldfield.

The third phase of deformation can be seen clearly in a road cutting where steeply dipping spaced cleavage cuts the stripy cleavage (498527E, 5448271N). Stereographic nets created from mapping in the district suggest D_1 to D_3 are demonstrations of progressive deformation as the geometry of the three events appears to be the similar. Folds (F_3) associated with D_3 and seen exposed in a road cutting at 512930E, 5452394N. The axial surface of these folds dips to the southwest at $50-70^\circ$. Plunge of the folds is shallow to the south. This deformation appears to be the regional D_3 identified by Powell and Baillie (1992) and Reed, 2004.

Reed reports that only folds that are upright in style (D_3) are present east of the Pipers River leading him to speculate that there is an unconformity separating these two structurally distinct domains, in which the Benambran-aged (or late Delamerian?) recumbent structures (D_2). This is supported from observations at Denison.

The fourth deformation event (D_4) in the Lefroy district can be seen locally as brittle steep dipping faults and associated drag folds. The faults generally strike east-west and dip steeply to the north or south. The sense of movement is oblique right lateral with a significant normal component. Minor folds associated with the faults plunge shallowly to the southeast. Quartz veins are deposited in the fault planes and these veins are associated with gold mineralisation. This deformation is associated with mineralisation at Lefroy. Mineralized shoots associated with these faults will plunge sub-horizontally, and consequently the deformation event is responsible for the sub-horizontal panels of mineralisation seen in the drilling.

The last deformation identified in the district (D₅) is a right lateral brittle fault array that partitions the stratigraphy. The faults strike south-southeasterly and dip steeply to the east from surface mapping. Movement on the faults appears to be limited probably less than 10m in strike slip. The deformation event has the potential to produce high grade shoots that plunge sub-vertically in a similar manner to some stopping on historical longitudinal sections. It is likely the steep plunging shoots expected from this deformation event have a higher proportion of free gold with arsenic depletion.”

6.0 PREVIOUS EXPLORATION

The Lefroy Goldfield contains many historic workings and shafts located on at least 30 gold reefs which were mined and subsequently abandoned in the early 1900's. Records indicate that the average mined grade of the field was in excess of 30g/t Au.

Reports suggest that as mining in the old goldfield progressed to depth, the ore became sulphidic and without the benefit of appropriate metallurgical technology many mines were closed as mill recoveries decreased. This factor, combined with water infiltration and increasing mining costs forced the eventual closure of the field. These high-grade gold lodes and shoots are a primary target for the Company, which is focusing its initial efforts on delineating and drill testing targets around the old workings and their potential extensions.

Previous intermittent exploration between 1966 and 1985 focused on the deep alluvial lead potential of the field and despite fairly encouraging results, there was no follow-up. In 1994 the operators of the Beaconsfield Goldmine commenced testing the Volunteer area for a low-grade bulk mineralisation near surface. The Volunteer deep, high-grade lode potential was eventually tested with two diamond drill holes and two sister holes. Deviation of these drill holes was a problem and resulted in the targets not being properly tested. One hole did however hit a splay from a reef assaying 0.4m @ 6.37g/t Au from 255.75m below the old workings. The tenements were surrendered due to financial commitments at Beaconsfield Goldmine.

To the east of the Lefroy Goldfield, mining commenced at the Denison Goldfield in the 1870's and continued until about 1911 (*Coroneos, 1993*). The most successful operation on the field was the Alacrity mine which produced 10.3kg of gold at an average grade of 48g/t Au (*Bottrill, 1994*). The Alacrity mine worked a 0.3 to 0.45m vein to a depth of 60m with

levels at 32, 46 and 60 metres. Two narrow veins were mined at the Sir William Denison Mine to a depth of 30m. Reid (1926) reports of several crushings that averaged 45.5, 46.7 and 243g/t Au. At the Wiangatta mine a narrow vein was mined to a depth of about 80m and averaged 68.4g/t Au.

Other mines in the area include;

- The Royal Treasury: produced 32 tonnes at an average grade of 6g/t Au,
- The Brooklyn: average grade of 6g/t Au,
- The Star: average grade 7.5g/t Au.

Historical exploration and work carried out within the Denison Area includes:

- Regional stream sediment surveys carried out by Billiton (*Randell, 1991*) and CRA (*Broadbent, 1982*). Billiton also completed a more detailed survey in the Denison area. Minus 80 μ mesh As and BLEG Au anomalies were reported with no apparent follow-up undertaken.
- BP Minerals (1983) flew an aeromagnetic survey over the area. This data was incorporated with additional data flown by the Tasmanian government into the NETGOLD project and together with regional gravity data.
- Argyle minerals (*Cromer, 1986, 1987a & b*) carried out trenching and rock chip sampling and drilled 6 shallow holes at the Denison Goldfield.

During 1995/2003 Anglo Australian Resources NL completed several phases of exploration in the Denison Area which included the activities:

- Interpretation of satellite imagery.
- Rock chip and mine dump sampling from the Globe, Sir William Denison and South Globe workings.
- One RC drill hole (SWD1) totalling 114.5m testing beneath the Sir William Denison workings.
- 1,284 conventional soil samples collected on the local Denison grid (designed to cover all the historical workings).
- 2 trenches at Sir William Denison and 9 trenches at East Denison.
- 525 Auger like samples, near bedrock soil samples on the East Denison grid.
- Interpretation of aeromagnetic, radiometric and gravity data.
- 146 MMI soil samples at East Denison.

- Rock chip sampling along NE trending structural corridor and follow-up soil sampling at Little Ballroom and Tip prospects.
- Trenching at the Tip prospect.
- 32 RC drill holes completed for a total of 2100m.
- A resource (pre-JORC compliant) of ~10,000oz @ 2g/t was estimated. No value was officially established and reported.

7.0 EXPLORATION

7.1 Data Compilation

LEF has continued to recover data and information from various government archives and agencies in Tasmania. This work continues to provide an important insight into exploration previously conducted on the tenements and surrounding areas. This data has been combined into LEFs digital 2D and 3D GIS (Geographic Information System) database.

Software platforms being utilized include:

- ArcGIS (with Geosoft Target Extension)
- Micromine Modules
- Microsoft Access, SQL Server and GBIS

Data collection and desktop GIS (Geographic Information System) compilation of the Denison Area continued. The data collated from previous exploration conducted by Anglo Australia Resources has been compiled and reviewed. A serious discrepancy in spatial locations of exploration and dataset nomenclature was identified and has been corrected. All cadastral and geological information has been digitised and put into the LEF digital database.

7.2 Trench Geochemistry

As part of Lefroy's Exploration Strategy, a requirement for developing a regional exploration program outside of the Lefroy Goldfield was identified. This work aims at reducing the investment risk and exploiting any opportunities which exist over the Company's large tenement package.

Geological evidence and literature reviews suggest north-east Tasmania is highly prospective for orogenic sediment-hosted disseminated gold deposits, similar to those being exploited at Fosterville in central Victoria. Fosterville, with a total gold endowment of over 3,000,000 ounces is now a major gold producer in Victoria. Previous explorers in the area and information sourced from historical records show that this style of mineralisation is present in Denison area. Despite the potential for the Denison to host large sediment-hosted disseminated gold deposits only limited exploration has been conducted to date. However a compilation of all legacy exploration conducted in the Denison area has identified several areas that are considered prospective.

Refer to [Figure 2](#) below:

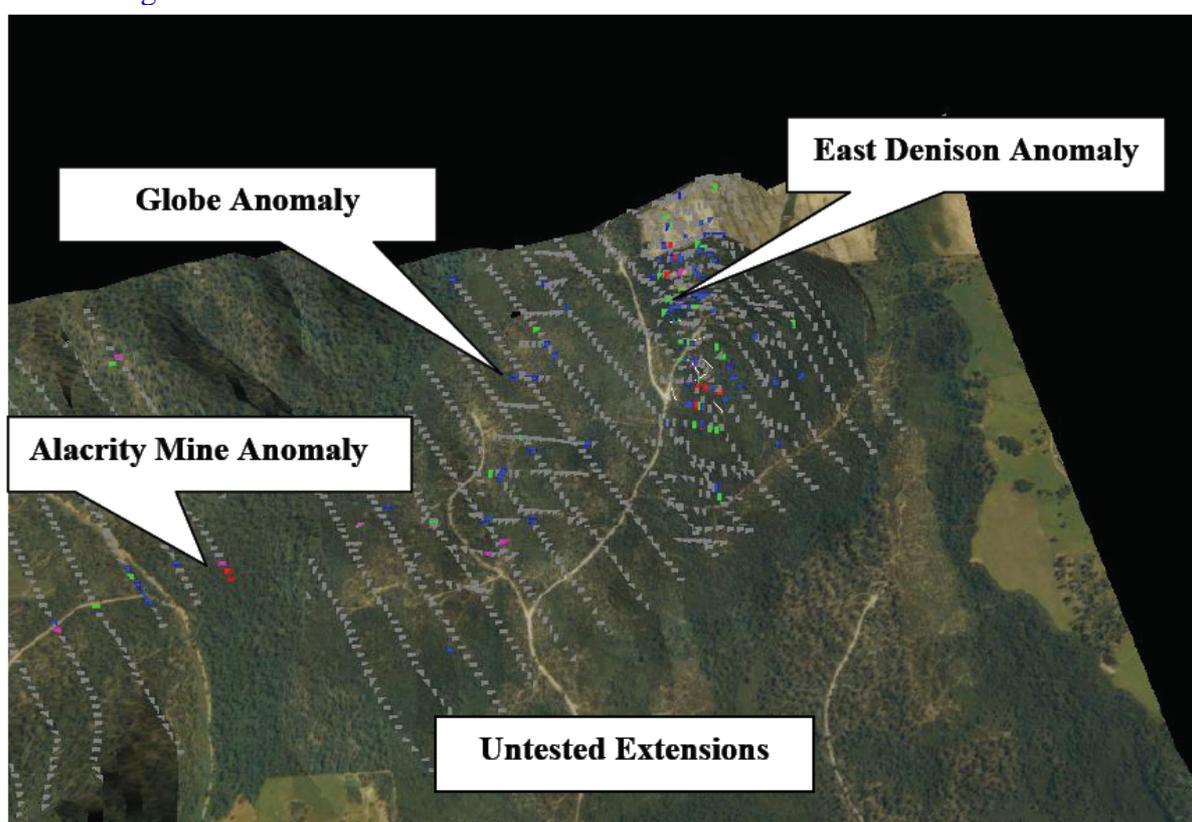


Figure 2: Denison Project Area geochemical results displayed using hot colors to represent high Au values. Results shown over aerial photography draped on a digital terrain model.

The East Denison Prospect is a coherent geochemical anomaly that is approximately 800m long by 120m wide (25ppb Au cut off). Limited drilling by previous explorers returned promising results as detailed below:

Hole ID	From	To	Interval	Au g/t**
EDRC12	6	12	6	2.65
EDRC16	8	14	6	6.38
EDRC27	12	20	8	2.04

Interpretation of this drilling data proved inconclusive in determining the prospectivity of the East Denison prospect. Therefore in order to obtain a better understanding of the controls of mineralisation in the area a program of trench sampling was undertaken over the central portion of the East Denison anomaly.

Assay results from this trenching program have returned promising results including

Trench Sampling – East Denison							
Hole ID	East	North	Dip/Azm	From	To	Interval	Au g/t**
DTR001	526553	5445917	0/121	30	36	6	2.13
DTR004	526570	5446221	5/113	78	120	42	2.10
DTR005	526581	5446156	7/111	36	38	2	1.48
				48	49	1	1.47
				63	69	6	1.34
DTR006	526581	5446156	4/1.67	62	108	46	1.36

- Coordinates in GDA 94, UTM Zone 55 grid system
- Cut off grade 1.00g/t, max 3m consecutive internal dilution
- Analysis by repeat fire assay

A total 7 trenches for a combined 788m of trenching was undertaken. The costeans were geologically mapped and 952 bedrock samples were collected. All assays were routinely assayed for Au by Aqua-Regia digest and analysed by Flame Atomic Absorption Spectrometry firstly, with any results returning values greater than 0.1 g/t Au being re-assayed by Fire Assay. Multi-element analysis (Cu, Pb, Zn, As, Sb, Ag) was also undertaken.

Mineralisation is associated with a steep dipping quartz stock-work system exhibiting strong silicification around the vein sets within a sericite carbonate altered bleached sandstone.

Follow-up trenching and drilling is currently being considered by the Company to advance the project.

7.3 Geophysics (Airborne)

In 2006, Mineral Resources Tasmania announced “TasExplore” – a four year Tasmanian government initiative. Part of this initiative was to acquire 200m spaced aeromagnetic and radiometric data over the north east of Tasmania. Lefroy was then able to infill this survey to 100m spaced data providing a much better dataset. An airborne geophysical survey was completed over the Denison and Back Creek goldfield. Processing and interpretation of this data is continuing

An example of the imagery is shown in Appendix C and D.

7.4 Drilling

Since the company commenced the 2006/07 Exploration Field Season in September 2006, 43 RC drill holes for 4,448m and 5 diamond holes for 834m at selected targets within the Lefroy goldfield have been completed.

Drilling has been completed on 4 of the “best” prospect areas. The program of work outlined in Canaris et al (Nov, 2006) included drilling parallel sections at 25m drill spacing to a depth of approximately 150m. These sections have been logged in detail and all intervals assayed.

A bulk sample of ore material derived from close spaced drilling at the Pinafore was also submitted for ore characterisation test work. Results are expected at the end of March 2007.

Table 1 Exploration Statistics on Priority Section Drilling

Prospect	RC Drilling		Diamond Drilling	
	Holes	Metres	Holes	Metres
Pinafore	14	1893	4	586.25
Native Youth	10	865	1	247.5
Land O’ Cakes	6	870		
Morning Star	7	820		
Total	37	4,448m	5	833.75m

In October 2006 close-spaced drilling at the Pinafore Prospect was undertaken to establish the distribution and continuity of mineralisation (Figure 2). This work provided considerable information regarding lode geometry, grade distribution, required drilling spacing and material for a bulk metallurgical sample. Type sections from Native Youth and Land of Cakes (Figure 3 and 4) show similar characteristics to that of the detailed Pinafore drilling.

A prominent feature of all of the sections drilled is the development of discontinuous high grade (>4g/t Au) zones of gold mineralization that are embedded in a broad zone of low grade (0.5-2.0g/t Au) gold-arsenic mineralisation (Figure 1). The low grade zones tend to parallel the easterly trending D₄ shears and appear to be continuous with depth explaining the conclusion of the statistical study that mineralization persists at depth (SRK, 2005). However the high grade shoots do not persist in depth more than 30m and can be traced along strike for about 40m. It is now clear that most high grade shoots are focussed on intersection zones of structures formed during D₂-D₃ (ground preparation) and the D₄ steeply dipping shears.

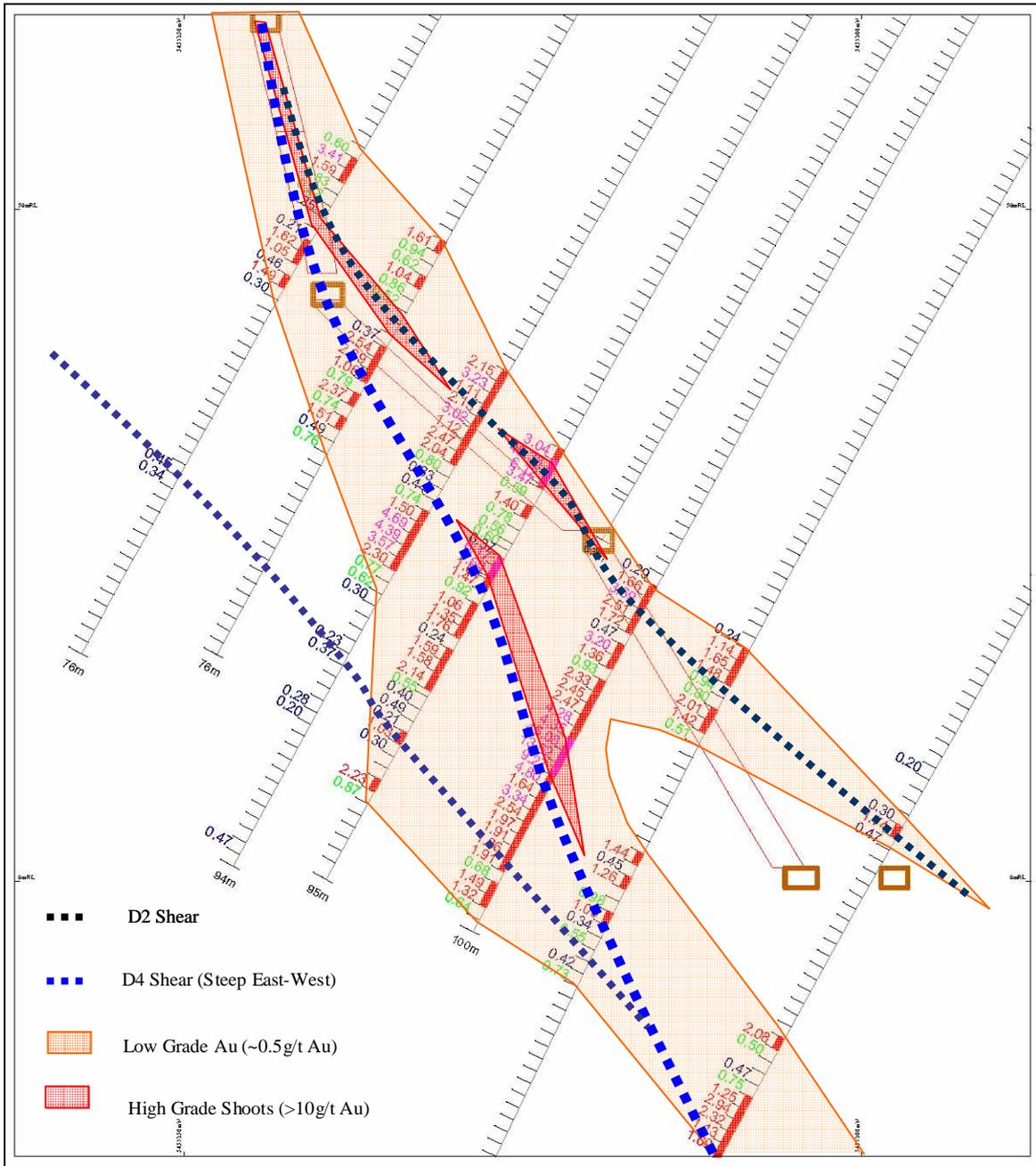


Figure 1. Part of Pinafore Cross Section 498,450mN showing lode geometry

Native Youth

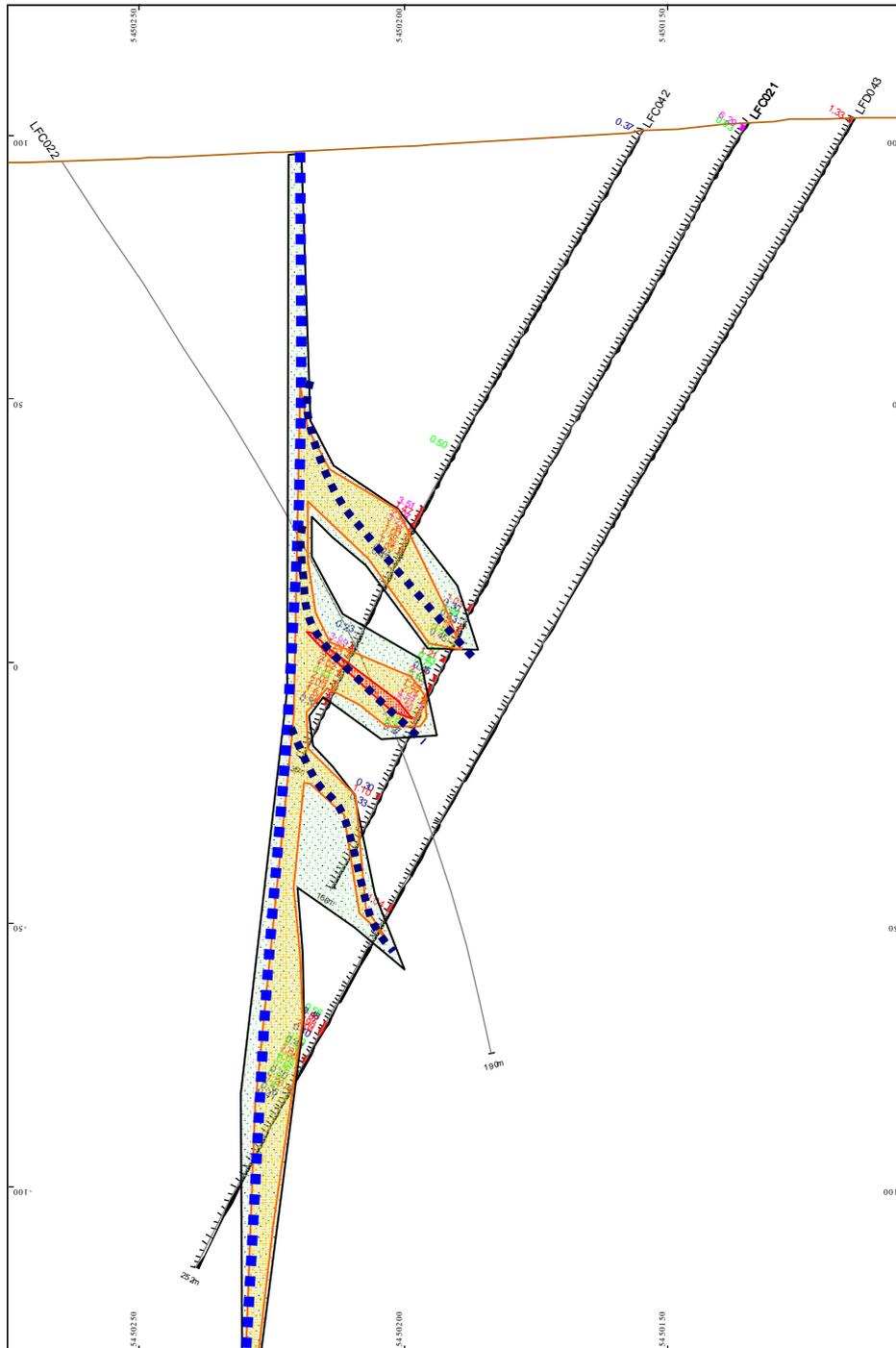


Figure 3. Part of Native Youth Cross Section showing lode geometry

7.4.1 Methodology

Table 2. Drill hole Statistics.

Hole Prefix	Type	No.	Metres	Company
LFC	RC	43	4,448	Lefroy Resources
LFD	DD	5	834	Lefroy Resources
Total		48	5,282	

Drill specifications

Drilling was completed by Gerald Spaulding Drillers of Devonport.

G & K 850 Drill Rig

- Track mounted
- G & K 850 drill rig with on-board sullair 350psi 900 cfm compressor run by KTA 19 Cummins Engine
- Deck engine is a 4 cylinder Detroit
- RC depth capacity is 200 metres
- Diamond HQ depth capacity is 400 metres
- Diamond NQ depth capacity is 800 metres
- Drill angle from vertical to 55 degrees

Track Mounted Auxiliary Compressor and Booster

- Auxiliary Compressor 350psi 750 cfm
- Hurricane Booster 750psi maximum

KL 800 Drill Rig (currently track mounted)

- Track mounted
- Rig Engine 6 CTA Cummins
- Diamond HQ depth capacity is 500 metres
- Diamond NQ depth capacity is 1000 metres
- Drill angle from vertical to 55 degrees

RC Hammer

- Premier PR 40 drill hammer
- Bit size 4 ¾"

Diamond holes were drilled using NQ2 (50mm) inside HQ-cased RC pre-collars.

Down-hole Survey Control

Collar locations were surveyed by hand-held GPS. Down-hole surveys were single shot dip only for RC holes and single shot dip and azimuth for diamond holes. Surveys were conducted every 50 metres, at the end of each hole and at the start of each diamond tail. Surveys were conducted at closer intervals for some holes to establish the rate of dip deviation. A few RC holes were later surveyed using a multi-shot instrument.

RC Hole Deviation

Hole deviation has been an ongoing problem at Lefroy and accounted for most RC holes drilled in the first half of the program deviating and missing their targets. It was discovered that by using a slimline bottom hole assembly and premier hammer, deviation could be controlled to allow successful hitting of drill targets. Drilling difficulties were encountered when passing through unexpected historical mine workings, resulting in drilling deviations and hole failure.

Sampling and Logging Procedures

Reverse Circulation Drilling

Every dry sample was put through a 3-tiered riffle splitter. Each bag collected a metre of sample at the cyclone and was then tipped into the splitter. When emptied, that bag was placed under the splitter to catch the next metre. Sample bag contamination should therefore be limited to the subsequent metre. The split portion for assay was collected in a pre-numbered calico bag. Wet or moist samples were not put through the splitter, they were spear-sampled. Standards were included every 50 samples initially and then at the rate of about 1 per 100 after the first few thousand metres. A blank was sent with every second standard.

Diamond Drilling

All diamond NQ2 core was halved and assayed. Coherent core was cut with a diamond saw along the long axis of the S_0/S_1 ellipse where possible. Incoherent core, e.g. fault gouge, was

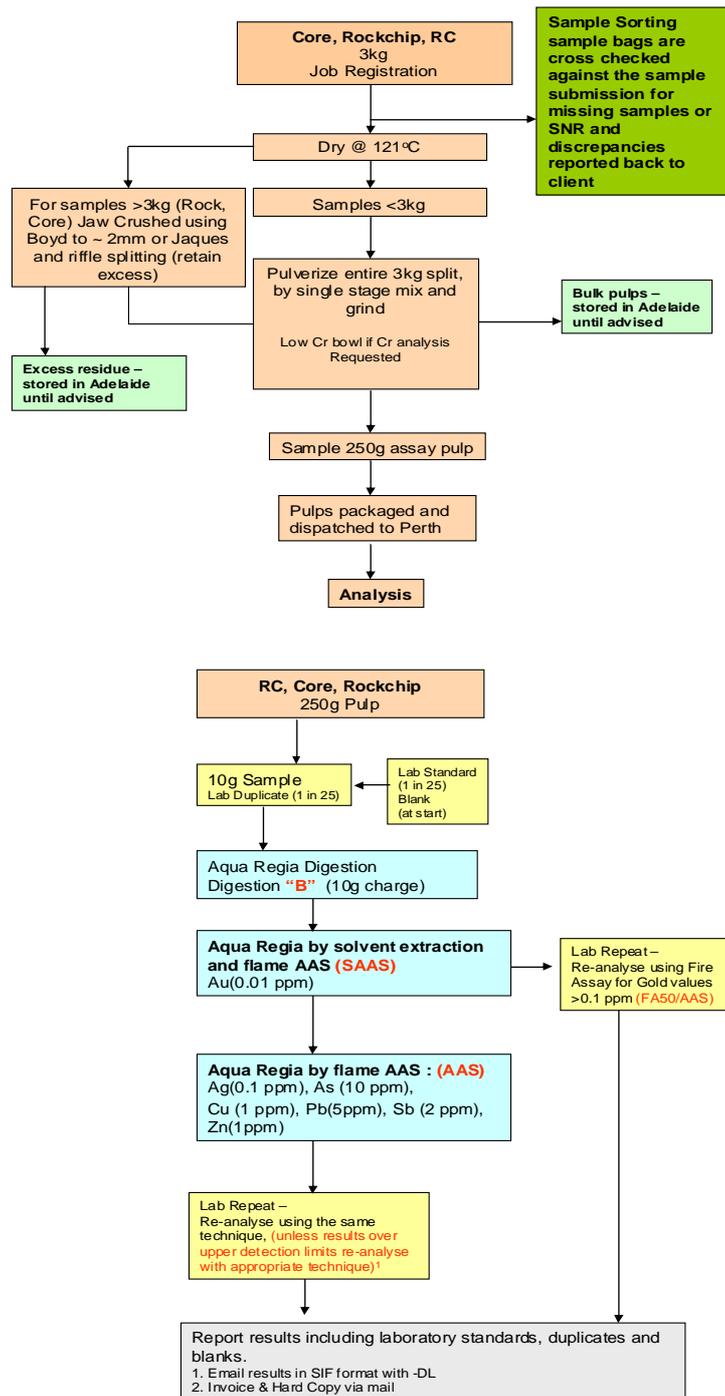
sampled with a spoon. The sample interval used for non-mineralised intervals was 1.5 or 1 metres. Some sub-metre samples were taken to test specific lithologies or quartz veins. Within mineralised zones sub-metre or metre (or rarely longer) assay intervals were used to determine variations in metal distribution due to lithological, structural, vein-related or alteration controls. Where no long ellipse was present, core was cut in such a way as to equally divide any in-homogeneities.

7.5 Assaying

The following are the sampling collection procedures and analytical techniques for drilling at the Lefroy Goldfield:

- 1m riffle split samples weighing approximately 3-4kg are sent to Genalysis Laboratory Services – Adelaide for sample preparation. A series of control standards are submitted with each batch in the ratio of approximately 1:25.
- All samples submitted for preparation are prepared in total. The whole sampled is dried, crushed as required (rock/core), single stage mix and four minute grind (SSMG) to nominal 85% passing 100 micron. QC laser sizing on every 25th pulp and % passing 100 micron are reported with results.
- One in every 25 samples were duplicated and 6% of selected samples have Au repeats after the first pass and blanks and internal control standards carried out for one in every 26 samples.
- The pulps are sent to Perth Genalysis for analysis.
- All assays are routinely assayed for Au by Aqua-Regia digest and analysed by Flame Atomic Absorption Spectrometry, firstly with any results returning values greater the 0.1 being re-assayed by Fire Assay. Multi-element analysis (Cu, Pb, Zn, As, Sb, Ag) is also undertaken. Each batch is then assessed for samples that have not been analysed for Au by Fire Assay. Significant Zones of elevated gold mineralisation are then Screen Fired.
- The flow charts shown below detail the sample preparation and analytical techniques used by Genalysis.

Adelaide Sample Preparation Flow Sheet - Core, Rockchip, RC



7.5.1 Results

Drill hole	Easting	Northing	Depth (m)	Dip/ Azimuth	Down Hole		Grade	
					From (m)	To (m)	Interval	Au (g/t)
Pinafore Prospect								
LFD109	498450	5451185	127.1	-59/000	No significant results			
LFD110	498450	5451192.5	95.4	-60/000	59	623	33	17.1 FA Collapsed slope
					63.8	64.8	1	1.4FA
					68.2	79.45	11.25	2.22FA
					83	84	1	1.03FA
					87	88	1	2.23FA
LFC111	498450	5451220	76	-60/000	34	36	2	2.50FA
					41	45	4	1.16FA
LFC112	498450	5451210	76	-60/000	41	42	1	1.61 FA
					44	45	1	1.04 SF
					50	57	7	1.63 SF
LFC113	498450	5451170	124	-60/000	77	80	3	1.34 FA
					82	84	2	1.64 FA
					94	95	1	1.18FA
					99	100	1	1.04FA
LFC114	498450	5451150	148	-60/000	93	94	1	1.74SF
					111	112	1	2.08SF
					116	122	6	1.87SF
Chum Prospect								
LFC102	498500	5451320	90	-60/000	84	85	1	1.28FA
LFC103	498500	5451300	154	-60/000	123	124	1	1.53SF

					132	133	1	1.12SF
LFC104	498500	5451280	198	-59/000	3	5	2	1.22FA
					177	178	1	1.1FA
LFC105	498330	5451315	100	-60/000	No significant mineralisation			
LFC106	498330	5451295	109	-60/000	107.5	109	1.5	3.04FA
LFD107	498330	5451274	154	-60/000	No significant mineralisation			
LFC108	498330	5451290	202	-63/000	144	145	1	1.05FA
South Pinafore Prospect								
LFC115	498645	5451025	148	-60/000	No significant mineralisation			
LFC116	498693	5451025	130	-75/000	No significant mineralisation			
LFC117	498750	5451000	154	-60/000	No significant mineralisation			
LFC118	498750	5450980	184	-60/000	No significant mineralisation			
LFD119	498750	5450960	216.55	-60/000	No significant mineralisation			
Land of Cakes Prospect								
LFC120	499041	5448603	100	-60/000	40	43	3	1.11
					56	58	2	1.48
LFC121	499040	5448580	180	-70/000	38	39	1	1.35FA
					115	116	1	1.42FA
LFC122	499125	5448615	100	-60/000	15	20	5	1.58SF
LFC123	499118	5448605	140	-60/000	33	41	8	1.88 SF
					48	53	5	1.04SF
LFC124	499112	5448592	148	-60/000	No significant mineralisation			
LFC125	499110	5448595	202	-70/000	No significant mineralisation			
Lefroy Township Area								
Nugget Prospect								
LFC127	498950	5450325	64	-60/180	No significant mineralisation			
LFC128	498950	5450350	64	-60/180	No significant mineralisation			

Hit or Miss Prospect								
LFC131	498950	5450110	64	-60/180	No significant mineralisation			
LFC132	498950	5450190	64	-60/180	No significant mineralisation			
LFC133	498950	5450160	46	-70/180	No significant mineralisation			
Native Youth Prospect								
LFC134	498900	5450235	142	-68/180	96	97	1	1.32
					100	103	3	1.99
LFC135	498900	5450280	172	-57/182	136	143	7	1.67
					168	171	3	1.07
LFD136	498900	5450288	247.5	-64/180	222.5	231.8	93	1.79
Morning Star Prospect								
LFC126	499000	5450425	82	-60/000	42	43	1	1.11
LFC129	499000	5450400	100	-60/000	77	78	1	1.94
LFC130	499000	5450375	166	-60/000	No significant mineralisation			
LFC137	498770	5450430	58	-59/000	No significant mineralisation			
LFC138	498770	5450410	100	-60/356	61	62	1	1.36
LFC139	498770	5450392	130	-59/358	No significant mineralisation			
LFC140	498770	5450374	184	-59/000	164	166	2	1.25
Bain and Richards / Golden Point and Crown Prospect								
LFC141	498870	5449872	13	-59/000	No significant mineralisation			
LFC142	498865	5449850	100	-59/000	49	49.5	0.5	1.55
					49.5	51		Slope
					51	52	1	3.36
LFC143	498860	5449832	136	-59/000	No significant mineralisation			

Note:

1. Au results based on Fire Assay analysis , [Blue font Screen fire assay analysis](#)
2. Intercepts calculated using a length weighted average of Au1
3. Down hole intercept widths based on minimum width of 1m, 1.0g/t Au trigger, 1.0 g/t Au minimum final grade with a maximum 2m consecutive internal waste.
4. Coordinates based on AGD94 zone 55.

7.6 Metallurgical Test work

In November 2006 a drill derived bulk sample was collected from the Pinafore lode to allow metallurgical testing to be undertaken. 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 department at Lefroy.

The primary purpose of the test work was to assess the amenability of gravity separation and cyanide leaching to the ore and also to assess the calculated head grade of the ore, obtained by differing assay and treatment methods. A 2,295kg sample was submitted from the Pinafore ore from which a composite sample weighing 183.5kg was generated. This sample was then used for the test work

Test work using larger sample sizes returned an average grade of **2.50 ppm Au** compared to **2.04 Au ppm** assayed using similar techniques to routine exploration analytical work. **This represents a 23% increase in grade.**

The test work has also shown that a 5kg sample produces a more representative assay result. In comparison exploration samples are typically 1kg screen fires. The Gravity Recoverable gold (GRG) test work produced a highest grade of **2.89 ppm Au** but has a higher potential analysis error is due to the number of samples required during the multiply leaches.

The GRG test work also concluded that a significant portion of the gold can be recovered by either a conventional jig or centrifuge concentrator.

Table 1 – Summary of Assay Methods

Method	LEF Exploration Analysis	Gekko Laboratories Test work Results			Variance	Comments
	Au ppm	Sample Size, gm	Au ppm			
AR (aqua regia)	1.01	25	1.73		+71%	High variability normally observed
FA – (fire assay)	2.43	Avg 2.38	40	2.54	+5%	LEF based on larger sample size
FA – Screened at 150	2.34		24	1.55	-34%	LEF based on larger sample size
BLEG – Intensive Leach 1 kg		1000	1.95			
BLEG – Intensive Leach 5 kg		5000	2.61			
Gravity Recoverable Gold GRG Test		23700	2.89			
Tabling Test		20000	2.54			
Average of all tests			2.26			

Test work using larger sample sizes returned an average grade of **2.50 ppm Au** compared to **2.04 Au ppm** (Gekko) for the Exploration type analysis techniques (FA and SF) **This represents a 23% increase in grade.**

The recoveries in the 1kg and 5kg BLEG (leaching Test work) were poor. 39.6% and 49.8% respectively. This is likely due to the high Arsenic content which is known to reduce leaching performance. This effect on leaching is normally rectified by adding lime.

Future work recommended by Gekko includes

Analysis

- The gold content of the ore should be determined by gravity test work utilizing large samples (>5kg).
- If gravity testing device should produce a number of products (e.g. Shaking table) which should all be analyzed using the duplicate screen fire assay technique. The weighted average of the assays should be calculated and used as the most reliable indicator of gold content.

Leaching Test work

- The Arsenic content of leach solutions should be followed in any future leach test work. Lime addition should be investigated if Arsenic is present in the leach solutions.

Rob Scott from Codes, University of Tasmania completed a study aimed at firstly characterising the microstructural relations and trace element composition of auriferous pyrite-arsenopyrite mineralisation at Lefroy, NE Tasmania, and compare with similar mineralisation at Fosterville, Central Victoria and secondly to determine the trace element composition of flattened (parallel to bedding) diagenetic pyrite nodules in black slate from a newly discovered Ludlow graptolite locality in NE Tasmania (>50 km SE of Lefroy), to provide baseline data for assessing trace element compositions of diagenetic pyrite in and adjacent to areas of known gold mineralisation in NE Tasmania and central Victoria.

Results from this work are contained within Appendix A

7.7 Interpretation and Assessment of Exploration undertaken to date

In the third quarter of 2006 the Company (LEF) developed an Exploration Strategy and Program that addressed its two corporate objectives. These objectives are to;

- Demonstrate the full potential of the Lefroy Goldfield Project Area
- Convert as much as possible of the 1.3Moz Exploration Potential into Inferred Resources.

Risk ranking of the developed Exploration Strategy generated a number of key bench marks that needed to be reached prior to proceeding to the next phase of the strategy. These bench marks aimed at reducing the risk profile of the Corporate Strategy and hence minimize expenditure and maximize return. The benchmarks were:

- Benchmark 1, Phase 1A and 1B – To improve the confidence level in the 1.3M Oz Au Exploration Potential (10% confidence level)
- Benchmark 2, Phase 2 - Resource Definition (+/- 50% confidence level)
- Benchmark 3, Phase 3 - Mine Development (100% confidence level)

The 2006/07 Exploration program has specifically focused on improving the confidence level in the 1.3M Oz Au Exploration Potential (Benchmark 1).

The two key assumptions that form the foundation of the 1.3M oz Exploration potential are as follows;

- 1. The geological controls of mineralisation remain consistent at depth**
- 2. The grades reported during mining remain consistent at depth.**

The global 1.3Moz Exploration Potential is based on the potential of a number of prospects. The 2006/2007 exploration program involved drilling on 4 of the “best” prospect areas followed by a full review of the performance of the geological model and the distribution of gold mineralization. As of the end of December 2006 approximately \$1.3M of the allocated \$1.6M 2006/2007 exploration budget has been spent.

This report summarizes the position of the project at Benchmark 1. It recommends that LEF does not proceed with Phase 2 and 3 as it is unlikely a 1M oz Au deposit will be discovered.

Results from the majority of the recent drilling program have now been assessed. The drilling has confirmed and further refined the exploration model, developed predominantly at Pinafore/Chum. The applicability of the model in the Lefroy Goldfield has also been demonstrated at the Land O’Cakes, Native Youth and Morning Star prospects.

Recognition of deformation zones (ground preparation) that have formed during the D₂ and D₃ deformation has advanced the geological model. Although there is no gold mineralization associated with D₂ and D₃ the ground preparation provides a focus for high grade mineralization during the D₄

deformation event. A late stage faulting event (D₅) results in small dilational jogs and appears to have localized gold enrichment. It is unclear if D₅ introduces further gold bearing fluids into the system.

The main mineralizing event (D₄) generates a broad envelope of mineralization that is typically low grade (0.5 – 2.5g/t Au) and has a strong arsenopyrite association. These zones are typically 300mL x 80mD x 10mW. These zones parallel the easterly trending D₄ shears and appear to be continuous with depth explaining the conclusion of the statistical study that mineralization persists at depth (SRK, 2005). However the high grade shoots are irregularly distributed and discontinuous, they do not persist in depth more than 25m and can be traced along strike for about 40m. It is now clear that most high grade shoots are focussed on intersection zones of structures formed during D₂-D₃ (ground preparation) and the D₄ steeply dipping shears. Based on historical records and drilling data these high grade shoots are typically between 0.3 to 2.1m wide. Given the size and distribution of the high grade systems, specific targeting to establish resources will be therefore difficult and expensive.

Targeting of the broader low grade systems is relatively easy with several systems already identified (Pinafore, Native Youth, Land O'Cakes, Volunteer and Morning Star).

Modeling of the broader low grade (grades typically ranging from 0.5 – 2.5g/t Au) systems are likely to contain 35 to 50Koz of gold with typical dimensions of 300mL x 10mW x 80mH. If high grade shoots are still present (i.e. not mined) then resources of up to 130K oz of gold is possible. Historical production records suggest that a combination of these high grades shoots (individual shoot size 25mH x 40mL x 2mW) may produce between 45K and 80K oz of gold within these broader zones.

The gold within these high grade shoots tends to display high nugget characteristics. Metallurgical and gold characterization test work currently underway will be used to help quantify the variability of the assay results returned from drilling. This variability is accepted to relate to the irregular distribution of gold within the sample (i.e. Nugget effect). An underestimation of grade is commonly observed.

The recent drilling has not been supportive of the key assumptions on which the Exploration Potential is based namely;

- Economic grade mineralization is continuous with depth on D₄ shears
- Shoots repeat at inflexions in the D₄ shears at predicted down-dip distances

The key assumptions that remain viable are:

- Shoot thickness
- Shoot grade
- Structural model
- Stratigraphic controls

The Company's corporate objective to convert as much as possible of the 1.3Moz Exploration Potential into Inferred Resources is now unlikely. There is scope to establish a series of 35 to 130Koz open pit resources (2.0 to 2.5g/t Au), however the discovery cost of establishing these resources may be high. As established the drilling undertaken to date indicates the high grade shoots are difficult to target.

7.7.1 Structural Control of Mineralisation

A 3D visualization model of the mineralization at Lefroy Goldfields has been developed to better understand the potential controls of mineralisation. The following parameters have been used

D₂ Deformation

- D₂ shears are easily distinguishable in drilling and a number of outcrops within the Lefroy Goldfield. An average orientation of 30° → 220 has been used. Based on shear geometry observed at Pinafore these systems are typically 40m wide. These are easily recognized as the intersection of D₂ structures with the easterly trending D₄ structures seen on longitudinal sections produces a ~60° westerly plunge on many workings.
- There appears to be a preference for D₂ shears to develop near contacts between sandstone and shale
- D₂ develops recumbent folds often with the lower limb sheared that created the stratigraphic architecture at Lefroy. Stripy cleavage in sandstone, slaty cleavage in slates and siltstone form axial planar to the recumbent folds.

D₃ Deformation

- D₃ deformation is a bit more difficult to define as it is seen as a north-easterly trending crenulation cleavage (S_c and S₃) that is mainly developed in siltstones and shales. Inclined upright folds have been observed associated with the crenulation cleavage as an axial plane.
- D₃ is zonal and is most likely absent from hinge zones in D₂. At Pinafore the D₃ zone appears to be 20m wide zone.
- D₂ and D₃ appear to be a product of a rotation of the stress field towards the end of the development of the recumbent folds. Neither of these events appears to be related to gold mineralization.

D₄ Shears

- D₄ shears strike east-west and are sub vertical. They are generally brittle in nature and are sometimes accompanied by drag folds adjacent to the shears.
- Movement on D₄ shears appears to be less than 20m
- D₄ shears are the principal focus of mineralization at Lefroy. Gold and arsenic mineralization is introduced during this event
- Mineralisation is located in D₄ (steep, East-West) shears and develops significant widths on splays (following D₂ structures (30° →130°)) in the shears. D₄ have consistent oblique (left-lateral) reverse movement that dilates these intersections.
- These zones are typically 300mL x 80mD x 10mW.
- Within the main D₄ shears these splays appear to repeat every 90m vertical and occur in pairs. Drilling to date has not defined any substantial additional D₂ shears. *It is likely then that the zone of D₂ deformation is likely to be around 170m. ie a core of lesser deformed rock bounded by 2 intensely deformed units (40m wide)*
- An apparent flattening of the dip of the Pinafore workings that follow the D₄ shear plane indicates a transition of the mineralization onto the flatter D₂ shears
- Based on historical records and drilling data, it appears D₄ shear structures are about 0.3 to 10m wide.

D₅ Faults

- D₅ faults strike south-southeasterly and are sub vertical. They are brittle in nature.
- Movement on D₅ faults appears to be less than 10m, generally with strike-slip displacement
- Where D₅ faults intersect the D₂/D₄ intersection zones there appears to be gold remobilization producing a gold only geochemical population

7.7.2 Visualization of Structures

The series of diagrams 3D presentations that follow represent a synthesis the observations made from drilling at Pinafore and Native Youth. The existing mine workings are on each diagram to allow orientation.

In Figure the zone of shearing attributed to D₂ is shown in green. This is an semi-continuous zone that has been identified on several drill sections. The shear zone dips approximately 30° →220°.

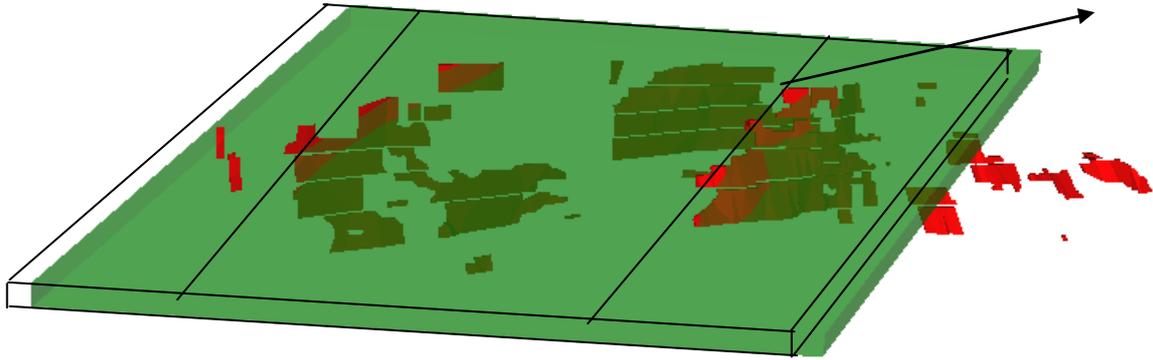


Figure 5. Pinafore workings showing the zone of D₂ shearing.

D₃ deformation has been identified in one zone at Pinafore. The zone dips -60° to 70° (Figure). It is considered that D₃ is not widely distributed and most likely the effects are not as widespread as the blue planar zone in Figure indicates. The D₂/D₃ intersection produces a shallowly plunging ($\sim 0^{\circ}$ to 110°) corridor shown in purple on Figure 6 that is 25 x 40m. The effect is to have a deformed zone that is approximately rectangular (Figure a & b) that has been subjected to a degree of ground preparation. This structure is associated with arsenic only mineralization and deformed arsenopyrite is seen parallel to cleavages in these zones.

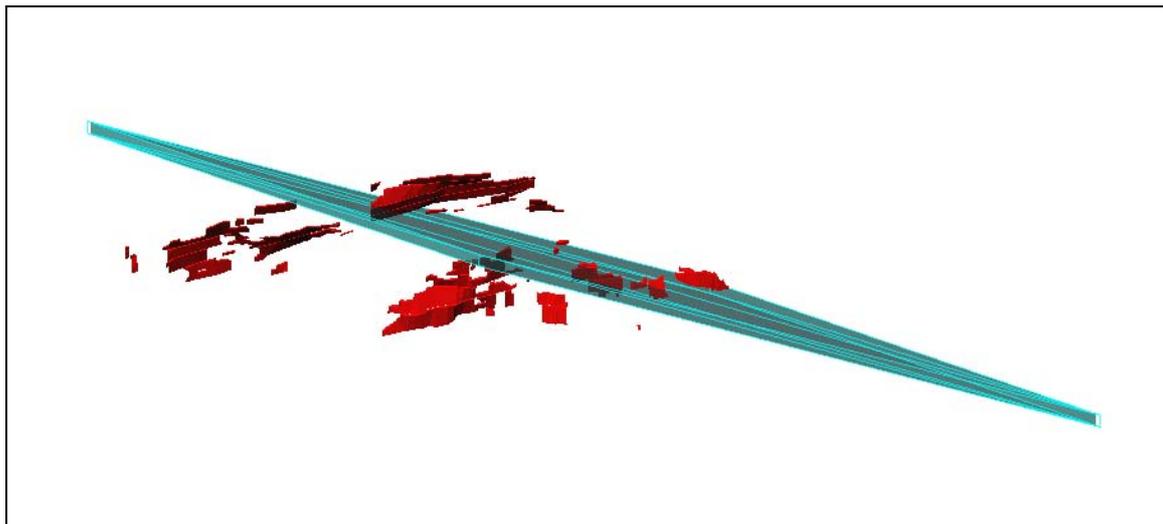


Figure 6. Zone of D₃ deformation at Pinafore.

D₂ / D₃ Intersection (orientated 0° to 110°) dimensions 20 x 40m

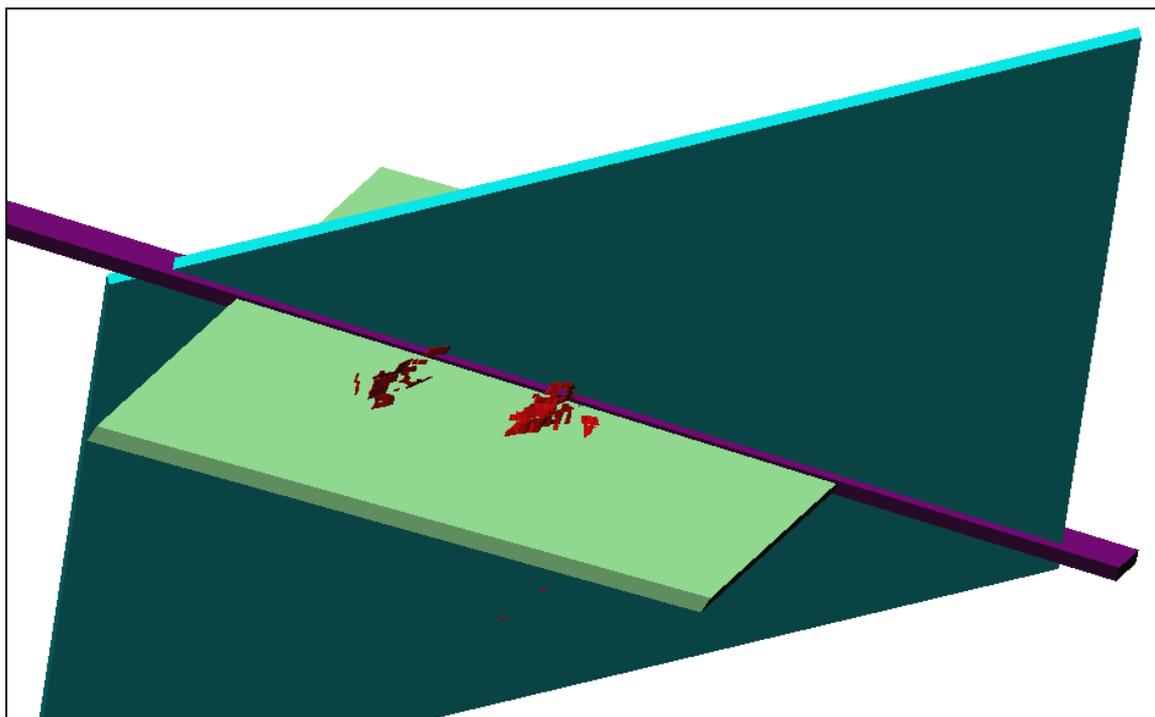


Figure 7. Intersection Zone of D₂ and D₃ deformation zones at Pinafore.

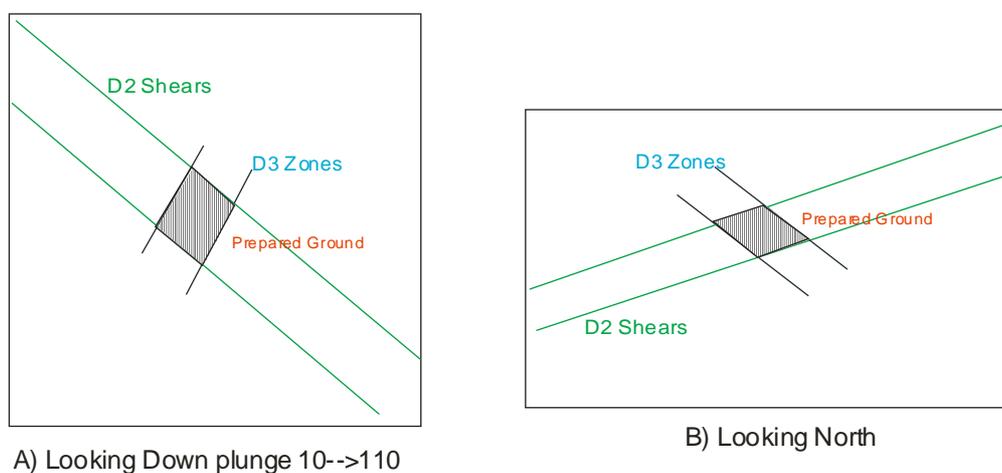


Figure 8. Diagrammatic intersection of D₂ and D₃ structures.

The main D₄ mineralization can be seen following the workings at Chum and Pinafore (Figure 9) is steeply dipping and shown in green. The visualization has been simplified by making the shear planar; in fact there are minor perturbations in the D₄ shears. The D₄ shear planes are mineralized by gold and arsenic but with low tenor (typically 0.5-2g/t Au). Where the D₄ shears intersect a zone of D₂/D₃ ground preparation high grade (>4g/t Au) shoots develop. These shoots have limited size, estimated as 25m x 40m x 2m (Figure 11).



Figure 9. D₄ shear with Pinafore and Chum workings.

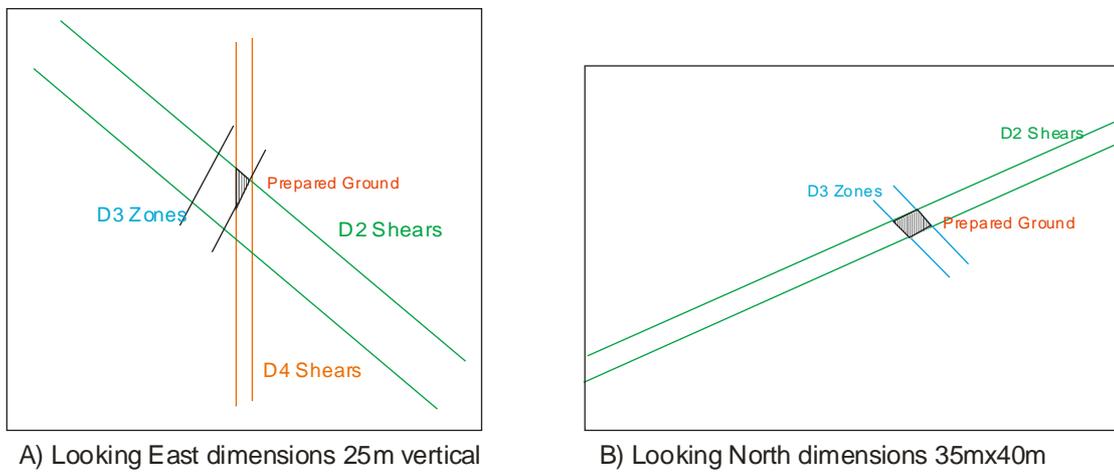


Figure 10. Diagrammatic intersection of D₄ with D₂/D₃ ground preparation.

Figure 11 is a 3D visualization of the main structures identified at the Native Youth. The main zone of mineralisation at Native Youth supports the structural model and is consistent with observations from within the Lefroy Goldfield.



Figure 11. Diagrammatic intersection of D₄ with D₂/D₃ ground preparation at Native Youth.

Interpretation and comments

- D₂ has produced flat lying shears and accompanying recumbent folds that control the architecture of the Lefroy Goldfield.
- Ground preparation has occurred during both the D₂ and D₃ deformation and created discrete zones favorable for the passage of hydrothermal fluids.
- The D₃ event was accompanied by arsenic deposition.
- D₄ shearing is accompanied by a gold-arsenic hydrothermal fluid that has deposited mineralization throughout the D₄ shear zone as 0.5-2g/t Au and 100- 16,000ppm As.
- When D₂/D₃ zones are intersected by D₄ mineralizing shears (steep, East-West) gold-arsenic bearing fluids become focused and enrichment in shoots takes place (up to 144g/t Au). These shoots are widely spaced and irregular. Based on historical records and drilling data these shoots are typically between 0.3 to 2m wide and have limited strike extent. The gold tends to display high nugget characteristics.
- Results from the drilling indicate that D₄ shears pinch considerably (<0.3m) away from the D₂/D₃ zone.
- Late faults (D₅) results in small dilational jogs that remobilize gold. It is unclear if this event introduces further gold bearing fluids into the system.

- Modeling of the broader low grade (grades typically ranging from 0.5 – 2.5g/t Au) systems and knowledge gained the Pinafore area are likely to contain 35 to 50Koz of gold with typical dimensions of 300mL x 10mW x 80mH. If high grade shoots are still present (i.e. not mined) then resources of up to 130K oz of gold is possible. Historical production records suggest that a combination of these high grades shoots (individual shoot size 25mH x 40mL x 2mW) may produce between 45K and 80K oz of gold within these broader zones.

7.8 Environmental Rehabilitation

Drill site rehabilitation is continuing in accordance with the Mineral Exploration Code of Practice provided by Mineral Resources Tasmania. Work undertaken includes:

- rubbish removal
- hole capping
- sumps in-filled
- weed control
- vegetation slashing
- track closure
- re-contouring of drill pads
- RC sample bag removal and farming at a nominated location on 16M/1991

Monitoring of rehabilitation sites is ongoing and all work is being photographically recorded and stored in an Environmental Database.

8.0 DISCUSSION

The preceding year has seen an exponential growth of knowledge of mineralisation at the Lefroy Goldfield. A combination of exploration techniques have been employed to their fullest advantage, including soil sampling, RC and diamond drilling in the field and 3D computer modelling in the office.

LEFs highly developed database has served as valuable platform on which exploration strategies and planning for the project can be undertaken. It is regularly added to and updated as more information becomes available. The structural model was incorporated into an exploration strategy and formed the framework for an exploration strategy.

LEF is now focussing much of its effort into defining resources within the Lefroy corridor and considering possible mining scenarios.

9.0 CONCLUSIONS & RECOMMENDATIONS

The reporting period encompassed the third field season for Lefroy Resources within the tenement package. During the year the Company implemented its Risk-Based Exploration strategy. The primary goal of the Exploration Strategy is to realize the full potential of the Lefroy Goldfield, by reclassifying as much of the 1.3 million ounce exploration potential into JORC compliant resource categories as possible. Since the Company commenced exploration on the project in November 2004 it has undertaken over 15,600m of RC and 5785m of diamond drilling at the Lefroy Goldfield. In addition a regional exploration program aimed at diversifying exploration risk was undertaken with significant activity undertaken at the Denison area located 70km east of the Lefroy Goldfield.

Exploration conducted during the period includes drilling, metallurgical test work, geological modelling and interpretation, airborne geophysics, soil sampling and trenching. A key focus of exploration has been to gain a sound understanding of the styles and controls of mineralisation present within the area. New and previously unrecognised styles of mineralisation in addition to lode-style material have been identified, providing exciting new exploration targets.

A detailed assessment of the exploration data completed by LEF has showed that the primary, high-grade quartz-sulphide “shoots” historically mined at the Lefroy Goldfield, which have been the principal focus for the Company, are discontinuous and unlikely to support a large-scale underground mining operation. This has significantly downgraded the aforementioned Exploration Potential (ASX Announcement 21 February, 2007).

Other aspects of the Project have however, been supported by the drilling results namely the ore-shoot thickness, shoot grade, structural model and stratigraphic controls. The Company now has an improved understanding of the “halo” gold mineralisation, found to be ubiquitous with high-grade shoots, at Lefroy.

Conceptually, there is scope to establish a series of 50K-100Koz (preliminary estimates) open pit-able resources on this “halo” gold. In addition if the discontinuous high-grade shoots are present, then the Company estimates that conceptually, several resources of up to 130Koz of gold could be defined near surface. More work is required before additional resources can be established (ASX Announcement 21 February, 2007).

Targeting of these broader “halo” systems is relatively straight forward, with several systems already identified i.e. the Pinafore Open-Pit-able Inferred Resource 49,345oz Au (ASX Announcement 4 October, 2005), Native Youth near surface mineralisation (LEF Annual Report 2005) and good indications at the Land O’ Cakes and Morning Star Reefs.

The company is in a strong position to build value based on the exploitation of these potentially open pit-able “halo” resources. Metallurgical characterization test work, currently underway (below) will be used to help quantify these systems and establish their potential.

The Denison Project Area has been identified as an extensive, highly anomalous area which has the potential to host significant zones of gold mineralisation. The area extends from the town of Bridport in the north to the Lisle in the south. A number of highly prospective target areas have been identified, each of which if considered separately, could form a stand alone project. Regional scale activity has been implemented primarily aimed at developing the geological understanding of the Project Area to assist in prioritizing targets for further exploration.

Exploration work undertaken during the Quarter includes regional geological mapping, petrology, selective soil and rock chip geochemistry, trench sampling at East Denison. These targets area scheduled to be followed up with RC drilling.

9.0 EXPENDITURE

Expenditure on the Lefroy Project area during the year July 2006 to June 2007 was as follows:

Table 5. Lefroy Project Area Expenditure.

EXPENDITURE	AMOUNT
General exploration costs, Admin, Tenement fees, travel and accommodation	258,698
Personnel	317,677
Geophysics	37,512
Gridding and Surveying	3,060
Drilling (RC, DD)	476,608
Assaying	204,534
Field Consumables and vehicle hire	61,290
Environmental and Heritage Studies, Rehabilitation	16,970
Engineering Studies	1,018
Geological Studies	45,765
TOTAL	1,423,132

10.0 REFERENCES

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11.0 KEYWORDS

Lefroy	Stoney Head Sandstone	Inferred Resource
Pinafore	Native Youth	Exploration Potential Resource
Volunteer	Chum	Stoney Head Sandstone
Drilling	Structural model	Turquoise Bluff Slate
Mathinna Group	Metallurgy	

APPENDIX A

**Additional Information on Structural Geology
Based on Mapping in January, 2007**

Baxter, J. March 2007

APPENDIX B

Metallurgical Test Work Report

APPENDIX C

Airborne Geophysics Maps

APPENDIX D

Digital Data

(Supplied on accompanying CD-ROM)

Includes:

Original data

Geophysical Images

Geological Logging Codes

Copies of all maps and reports