

ASF RESOURCES PTY LTD

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**TASMANIA**

**WILMOT PROJECT**

**EXPLORATION LICENCES: EL55/2007**

**3<sup>rd</sup> ANNUAL TECHNICAL REPORT**

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## 1. Summary

During the second year of grant for EL 55/2007 (Wilmot Project) ASF Resources generated exploration targets from a review of all historical data and compiling digital data within Mapinfo.

On the 26<sup>th</sup> April 2010 China Coal Geology Engineering Corporation (China Coal) entered into a conditional cooperative agreement with ASF Resources for the exploration of EL55/2007. China Coal will be responsible for funding the exploration programs and will spend approximately \$1.6M subject to Chinese Government approval.

The detailed review generated ten exploration targets based on the results of previous explorers and the application of ASF's exploration concepts. The exploration programme proposed to test these targets delayed and then postponed due to weather conditions during the period planned for the implementation of the exploration programme.

The programme as detailed in the previous annual report is planned for implementation in the 2011 summer season. Exploration will commence with surficial geochemical sampling and geological mapping in Stage 1 followed by grid based soil sampling and ground geophysical surveys. Following a successful conclusion to Stage 2 with the delineation of geological/geochemical and geophysical targets Stage 3 will involve drill testing of the targets.

## 2. Introduction

No on ground exploration activities were undertaken by China Coal during the reporting period. Exploration was initially delayed and then postponed due to weather conditions at the planned commencement of the exploration programme. The programme outlined in the previous Annual Report will be undertaken during the 2011 summer season.

For reasons of continuity, the main sections of the 2009-2010 Annual Report have been reproduced in this current report.

ASF Resources main targets on the project tenements are Cambrian Rosebery or Hellyer type, Zn-Pb-Cu-Au-rich VHMS mineralisation hosted by the Mount Read Volcanics (MRV).

The project tenements cover an area of moderate relief, which is occasionally heavily forested and incised (e.g. surrounding Lake Barrington, Leven River). It extends from the northeast slopes of Mount Roland (1233m ASL) near Beulah, west through the townships of Roland, West Kentish, Wilmot, Upper Castra and Nietta (Plan 1) towards the Loongana Range, as well as north through Preston and Central Castra towards Sprent. Access to the area is via numerous sealed arterial roads, minor sealed and unsealed roads, forestry tracks

and numerous 4WD tracks in private property. The only area of difficult access is in the western half of EL 15/2005, in the Leven River valley.

### 3. Location and Access

The Wilmot Project is located approximately 20km south west of Devonport and access to the tenement is via sealed and gravel roads which head in a southerly direction from Devonport. The project is bisected by the Wilmot and Forth Rivers and is adjacent to the Leven Gorge (Figures 1 & 2).

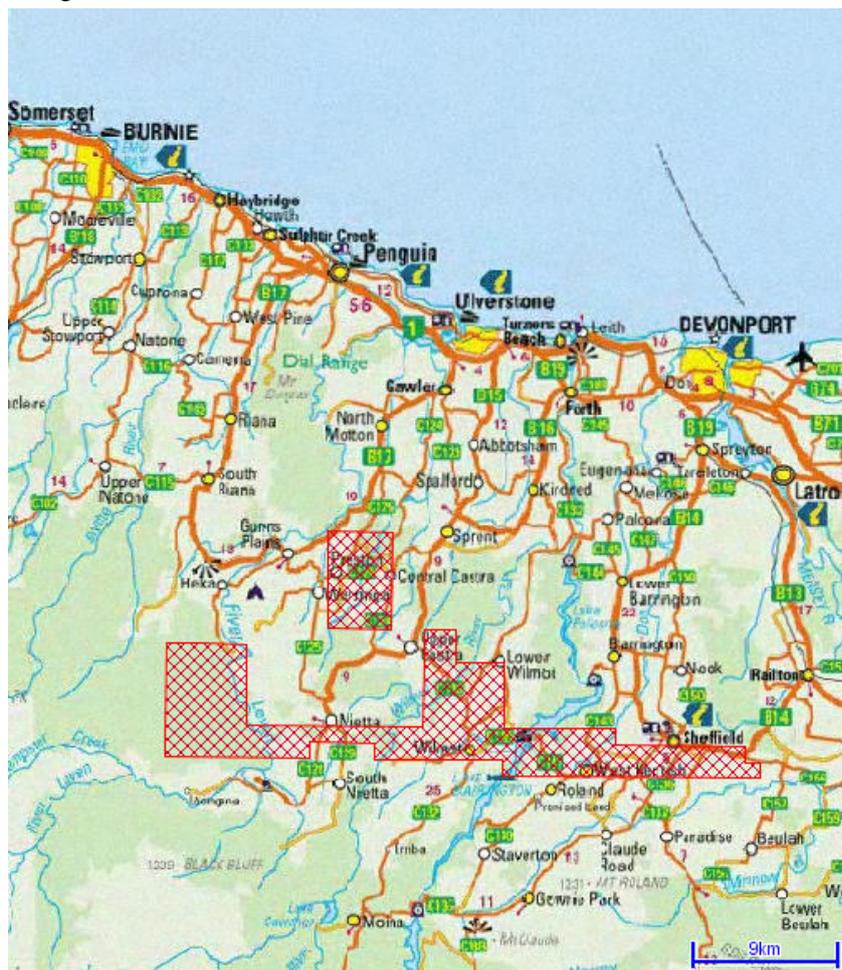


Figure 1: Location of E.L. 55/2007

### 4. Tenure

The Wilmot Project comprises one granted exploration licence (Table 1) which was granted to ASF Resources on the 23/07/2007.

Table 1 Tenement Register

Tenement	Area (km2)	Grant Date	Final Date	Expenditure Commitment

EL55/2007	148.9	5/06/2008	23/07/2013	\$375,000
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On the 26<sup>th</sup> April 2010 China Coal Geology Engineering Corporation (China Coal) entered into a conditional cooperative agreement with ASF Resources for the exploration of EL55/2007. China Coal will be responsible for funding the exploration programs and will spend approximately \$1.6M subject to Chinese Government approval.

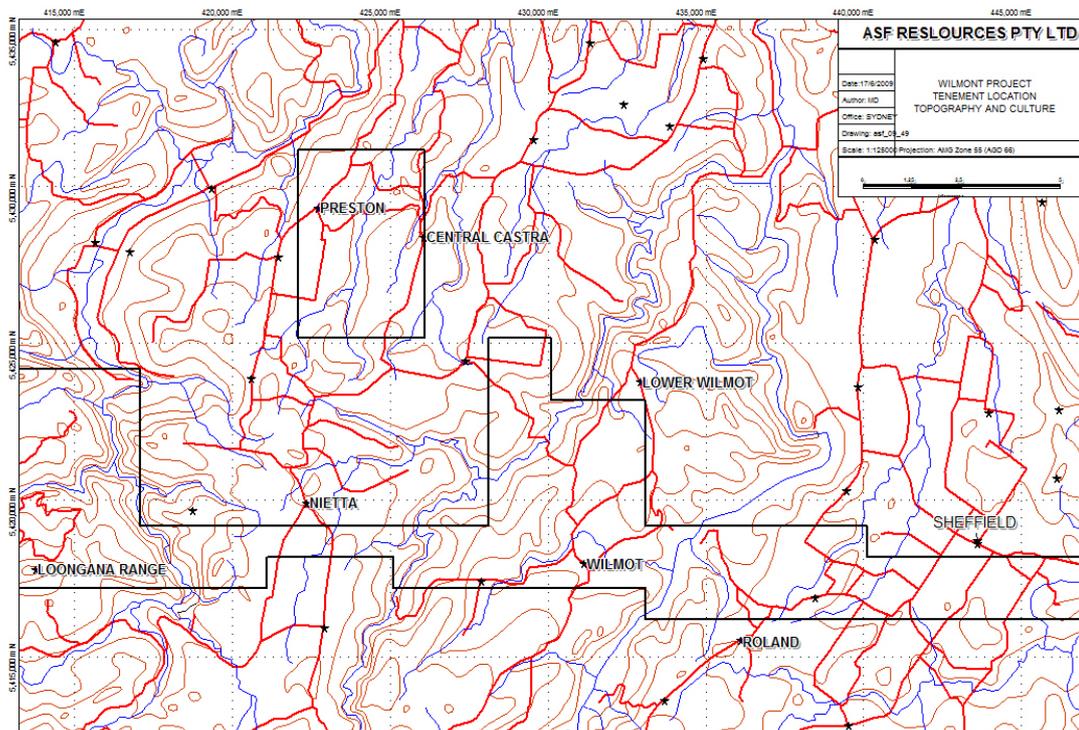


Figure 2: Detailed Location of E.L.55/2007

## 5. Regional Geology and Mineralisation

### 5.1 Regional Geology

The regional geological framework of the Mt Read Belt (MRB) is subdivided, from an exploration perspective, into three elements. The central MRB covering the area of outcrop from south of Queenstown to north of Hellyer, the northern MRB covering the area from Back Bluff eastwards through Gowrie Park and Mole Creek, and the Southern MRB comprising areas west and south of Macquarie Harbour. The project tenements are in the east-central part of the northern MRB.

Basement in the Central and Northern MRB is of Precambrian age, comprising predominantly greenschist facies metasediments with minor basalts and dolerites. Higher grade amphibolite and eclogite facies are also present within the Precambrian. This Precambrian basement, termed the Tyennan Block, lies to the south of the project tenements.

Cambrian volcanism and sedimentation developed on the Precambrian continental crust and, in the Central MRB, is subdivided into the Eo-Cambrian Tholeiitic Crimson Creek Formation (CCF), the mid to late Cambrian Dundas Group and the predominantly calcalkaline, Mt Read Volcanics (MRV).

The CCF was deposited in shallow but rapidly subsiding basins comprising basaltic lavas and volcanoclastics, turbidites, carbonates, chert and minor evaporites. This formation is not exposed in the licence area. Ultramafic cumulates and volcanic equivalents were thrust onto the CCF in the mid Cambrian. They are absent from the licence area.

The MRV, in the Central MRB, form a 200 km long by 20 km wide north-south trending belt along the eastern side of the Dundas Trough, adjacent to and in some areas overlapping and intruding the Precambrian basement. The northern extension of the MRV swings eastwards around the northern margin of the Tyennan Precambrian block.

The volcanics include intermediate to felsic lavas, subvolcanic porphyries and granites, volcanoclastics and basement-derived sedimentary rocks. The MRV host five economically significant volcanic hosted massive sulphide deposits all of which lie in the Central MRB.

During late CVC to early Tyndall Group time, Cambrian granitoids intruded the volcanic pile. The majority of the granitoids occur along the eastern margin of the volcanics and stitch the volcanics to the Tyennan Block.

Cambrian volcanism and sedimentation was followed by predominantly basement derived late Cambrian to Devonian age sedimentation, including siliciclastic conglomerate, sandstone and limestone. These sequences occur within, and peripheral to, the project area.

At least two phases of regional compression were associated with the mid Devonian Tabberabberan Orogeny. The development of folding, cleavage and regional thrusts in lower Palaeozoic rocks were associated with this event. Fold trends in the licence area are variable, some NW, and lesser E-W.

Deformation was followed by the extensive intrusion of Devonian to Carboniferous granitoids of batholithic proportions. The Dalcoath Granite (and associated hornfels aureole) outcrops south of the licence, and the Housetop Granite outcrops across a large area to the northwest of the project tenements. The Devonian granites are associated with carbonate replacement Sn mineralisation at Renison Bell and Mount Bischoff, and the Pb-Zn-Ag vein deposits of Zeehan and possibly the Tullah Fields. A similar setting may be interpreted for the base metal vein deposits in the district (eg. Round Hill workings).

The Ordovician and older rocks in the far eastern part of the licence are unconformably overlain by marine sediments, including tillite, forming the basal units of the Permian Parmeener Supergroup. Small bodies of Jurassic dolerite intrude the Permian sediments and older rocks.

After substantial erosion of this terrane, extensive Tertiary flood basalts and subvolcanic sediments were deposited. Basalt flows cover as much as 50% of the project area. In the Quaternary, talus deposits have developed on the lower slopes of Mt Roland and alluvial deposits have formed in the valley of major rivers.

## 5.2 Regional Mineralisation

The rocks of the Dundas Trough are host to significant polymetallic (Pb,Zn,Cu,Sn,Ag,Au) mineralisation including:

- Mt Lyell - 311Mt @ 0.97%Cu and 0.31g/t Au
- Rosebery - 34.03Mt @ 13.8%Zn, 4.1%Pb, 0.57%Cu, 143g/t Ag and 2.2g/t Au
- Hellyer - 16.5Mt @ 13.9%Zn, 7.2%Pb, 169g/t Ag and 2.55g/t Au

Mineralisation can be broadly classified into two associations.

1. Base metal and gold mineralisation related to volcanogenic processes associated with the emplacement of the MRV rocks, particularly the CVS, during the middle to late Cambrian.
2. Epigenetic Zn, Cu, Sn, Pb and Ag mineralisation associated with the intrusion of the Devonian Granites.

While it is generally accepted that the polymetallic mineralisation in the MRV is volcanogenic in nature, this has been questioned on the basis of observations that much of this mineralisation (eg Rosebery, Hercules) was emplaced subsequent to the main cleavage forming event and controlled by the interplay of cleavage and bedding in pure shear zones associated with carbonate altered lithologies (Dr. M. Tomkinson per.com.). If true then this model implies that lithologies in such settings outside the CVS may be prospective. Prior exploration has concentrated on the CVS based on a volcanogenic model. The Henty

Fault, reactivated during the Tyennan Orogeny tends to divide mineralisation of a Zn-Pb-Cu-Au volcanogenic association to the NW of the fault from a Cu-Au-Fe association to the SE of the fault. The Henty gold mine (2.83Mt @ 12.5g/t Au) is unusual for the region, being a gold only deposit located within the Henty Fault. The Devonian granites have mineralized a broad range of lithologies, generally close to and within the contact aureoles of the batholiths. Mineralisation is represented by simple high angle veins (Pb, Ag, Zn, Sn), skarn (Zn, Sn) and replacement bodies (Sn) which have resulted in some significant deposits such as Renison Bell (24.54Mt @ 1.41%Sn), Mt. Bischoff (10.54Mt @ 1.1%Sn) and Ocean (2.6Mt @ 7.7%Pb, 2.5%Zn, 55g/t Ag). The larger granite related deposits tend to be associated with reactive and or replaceable host rocks, usually carbonates.

## 6. Previous Exploration

Located in Northern Tasmania, EL 55 / 2007 is centred in the locality of Wilmot, extending north to Preston and Central Castra ; west past Nietta towards Loongana ; and east through Roland and West Kentish to Sheffield (Refer Figure 1). Current tenure (as at April 2008) is illustrated in Figure 1.

Records indicate that EL tenure in these areas has been varied, with exploration for base metals starting in the 1960's, with current philosophies and methods being employed since the mid 1970's. Commencing with the present day and working backwards, the most recent previous tenement holders were Zinifex Rosebery Mine, with EL 16/2005 Sheffield, EL 17/2005 Nietta and EL 18/2005 Central Castra. Following completion of an exploration programme from September 2005 until December 2006, sections of the tenements were relinquished, these forming the subsequently granted EL 55/2007.

Prior to the Zinifex tenure, a number of other companies have held EL's in this area, with varying degrees of overlap with EL 55/2007.

## 7. Current Exploration

In the current reporting period a full review of the geological setting and mineralisation styles within EL55/2007 was carried out. As a result of the fallout from the world economic setting funding was limited as a joint venture partner was sought to fund exploration within EL 55/2007.

All existing data was incorporated within a Mapinfo framework and known mineralisation in proximity was evaluated in relation to similar mineralisation existing within EL55/2007.

A matrix was set up to rank the 8 defined prospect areas (Appendix 1) so that exploration would proceed with testing the highest priority targets first.

## 8. Conclusions and Recommendations

A thorough review of all historical exploration information was carried out in conjunction with a digital data base including magnetics, radiometrics, DTM, cultural, stream sediment and rock geochemistry and drilling. This review resulted in the delineation of 8 prospects (**Appendix 1**) which will be explored during the 2010/2011 period.

Areas comprising outcropping Cambrian lithologies were subdivided according to a number of criteria including pre Tyndall/Tyndall geology, stream sediment/rock geochemistry, magnetic/radiometric signature, historical exploration results including drilling and proximity to known mineralisation. The prospects from east to west are: Barrington, Narrawa, Nietta, Castra, Upper Castra, Loyetea, Crosby west and Woodhouse. Areas with outcropping Tertiary Basalt based on magnetic signature and mapped geology were given a lower priority and may be evaluated by a combination of aerial magnetic and EM surveys to delineate prospective Cambrian geology and/or VHMS base metal /replacement tin mineralisation.

Exploration in the 2011/2012 period will be based on a staged approach with exploration success the key factor in advancing to the next stage:

**Stage1** - This will be the preliminary stage and involve prospect scale stream sediment and rock geochemical sampling, geological mapping and validation of the criteria used to select the prospects. During this stage aerial magnetic and EM surveys may be flown to delineate targets within the defined prospects and explore for buried targets beneath the basalt cover. Some preliminary soil sampling may be carried out.

**Stage2** - Based on exploration results from Stage 1 some areas may be gridded at intervals between 100m and 400m to facilitate soil sampling, geological mapping and ground geophysical surveys ie IP or magnetics. As required infill geochemistry and geophysics may be carried out.

**Stage3** - This is the drill testing stage which will target zones of anomalous geochemistry and geophysics from Stage 2 and likely involve a first round of RC/Diamond drilling and likely downhole geophysics.

## 9. Expenditure

The annual expenditure incurred for EL 14/2007 for the year ending 06<sup>th</sup> June 2010 was \$30,143 with a breakdown of expenditure shown below.

**Table 3 Expenditure Statement**

Cost Centres	Expenditure Incurred
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Geoscientific (Geology)	\$19,003
Geoscientific (Geochemistry)	\$4,694
Other Costs(Rental)	\$6,081
Administration	\$365
<b>TOTAL</b>	<b>\$30,143</b>

Total expenditure since inception of EL14/2007 is \$77,544.

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## APPENDIX 1 - WILMOT PROJECT PROSPECT DESCRIPTION



Prospect Name	Location	Topography	Vehicle Access	Regional Geology	Historical Drilling	Drilling	Drilling Intercepts
<b>Barrington</b>	Eastern Half r Sheffield	Flat in east at steepening in west towards Barrington River	Good	Mt Read Volcanic equivalent (pre Tyndall)	None	NE of 4 holes drilled by CRA at Lake Barrington prospect	3.5m @3.2% Cu 28g/t Au (from 167m) with 15.8m @ 1.1% Cu (from 156m)
<b>Narrawa</b>	Central Section near Wilmot	Undulating to moderated steep	Good	As above	Road base quarries	None	N/A
<b>Nietta</b>	Central section near Nietta	Undulating to moderated steep	Good	As above	None	None	N/A
<b>Castra</b>	Northern section near South Preston	Steep Close to Wilmot River with shallower gradients to east and west	Good	Mt Read Volcanic equivalent (pre Tyndall)	Two base metal working north of Preston Ag mine (Pb, Zn, Ag) and Castra (Ba, Pb)	None	N/A
<b>Castra North</b>	Northern Section Near Castra	Steep Close to Wilmot River	Good	As above	Prospecting pit with pyrite noted	None	N/A
<b>Loyetea</b>	Western Section (NW of Leven Canyon)	Steep to very Steep Adjacent to lever River, Steep elsewhere	Poor	Mt Read Volcanic (pre Tyndall)	Small prospecting at Loyetea South	Two drill holes at Loyeten and two to west at Challenger II DDH CD - 1	Very Low order base metal results Zn to 550ppm
<b>Crosby West</b>	Western Section north of Loyetea Prospect	As Above	Poor	Tyndall andesites	None west of Crosby creek	West of 3 holes drilled at Crosby Creek DD75CC1 to DD75CC3	1.2m @ 1.2% Zn from 119.5m 2.4m @ 1.2% Zn from 30.2m
<b>Woodhouse</b>	North west section north of Crosby West Prospect	moderately steep to steep	Good	Mt Read Volcanic (pre Tyndall)	Small prospecting pit at woodhouse	East of one dillhole at Loongana	1.8m @ 0.23% Zn from 13.2 m

Prospect Name	Magnetic	Radiometric	Geochemistry (Strews Soils)	Prospect Geology	Ranking Low(L) Med (M) High (H)
<b>Barrington</b>	Low order, couple of small spot highs in centre of prospect	High K/U/Th response in Nth at Sth high U in centre	High Cu (7500 ppm) at Zn (>500 ppm) in some streams	Dominated by Felsic Volcanics + miner intermediate volcanics	H
<b>Narrawa</b>	High magnetic response in east as part of higher overall response	High K/U/Th response in North at South	As Above	Felsic to intermediate sediments, volcaniclastic and volcanics	H
<b>Nietta</b>	Low order magnetic response	Generally high K response	Very minor surficial geochemistry	As Above	M/L
<b>Castra</b>	Lower order response	Some Small K highs Overall lower order response	Elevated Zn Geochemistry 100-500 ppm	Bimodal acid to intermediate volcanic, local chl/ser/barite alternation	H
<b>Castra North</b>	Lower order response		As Above	As Above	M
<b>Loyetea</b>	Low order response	Very high K response over most of prospect	Elevated Zn from 100-500 ppm in stream as to a lesser extent Pb Soil annually to 2900 ppm Pb	Altered tuffaceous shales, tuffs and agglomerates local sericite alternation	M/L
<b>Crosby West</b>	Very high magnetic response in east, low response in west	As above Lower Th/U response as well	1.5km anomaly at Crosby Creek 400-3000 ppm Pb 200-2400 ppm Zn 100-700 ppm Cu	Massive andesite + tuffaceous sediments	M
<b>Woodhouse</b>	Large Magnetic High in centre of tenement	Moderate to high K, U, Th, Signature	Low order stream geochemistry broad + 200 ppm Pb in Soil locally	Volcaniclastic Sediments Some Conglomerate	H