

China Coal Resources Pty Ltd

Lake Pieman Project – EL 15/2007

Relinquishment Report

Author: Carl Swensson

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1. Introduction

This report covers exploration conducted on the relinquished portion of EL15/2007, Lake Pieman from grant of title through to 23 July, 2012. During this period the tenement holder, ASF Resources Limited entered into a joint venture with China Coal Geology Engineering Corporation to explore for polymetallic mineralisation over the tenement under the joint venture company China Coal Resources Pty Ltd (CCR). The tenement has been transferred and registered to CCR. The tenement is valid until 23 July 2012.

The joint venture is exploring for epigenetic base metal mineralisation associated with Devonian granite emplacement with Renison Bell type mineralisation and skarn mineralisation being the primary exploration models.

2. Title, Location and Access

EL15/2007 is located 15km west of Renison Bell tin mine and approximately 30km west of Rosebery in western Tasmania (Fig.1) with an original area of 249 km². The area surrendered is shown in figure 2 and is an area of 131km² located over the western portion of the E.L.



Figure 1: Location and Access EL15/2007

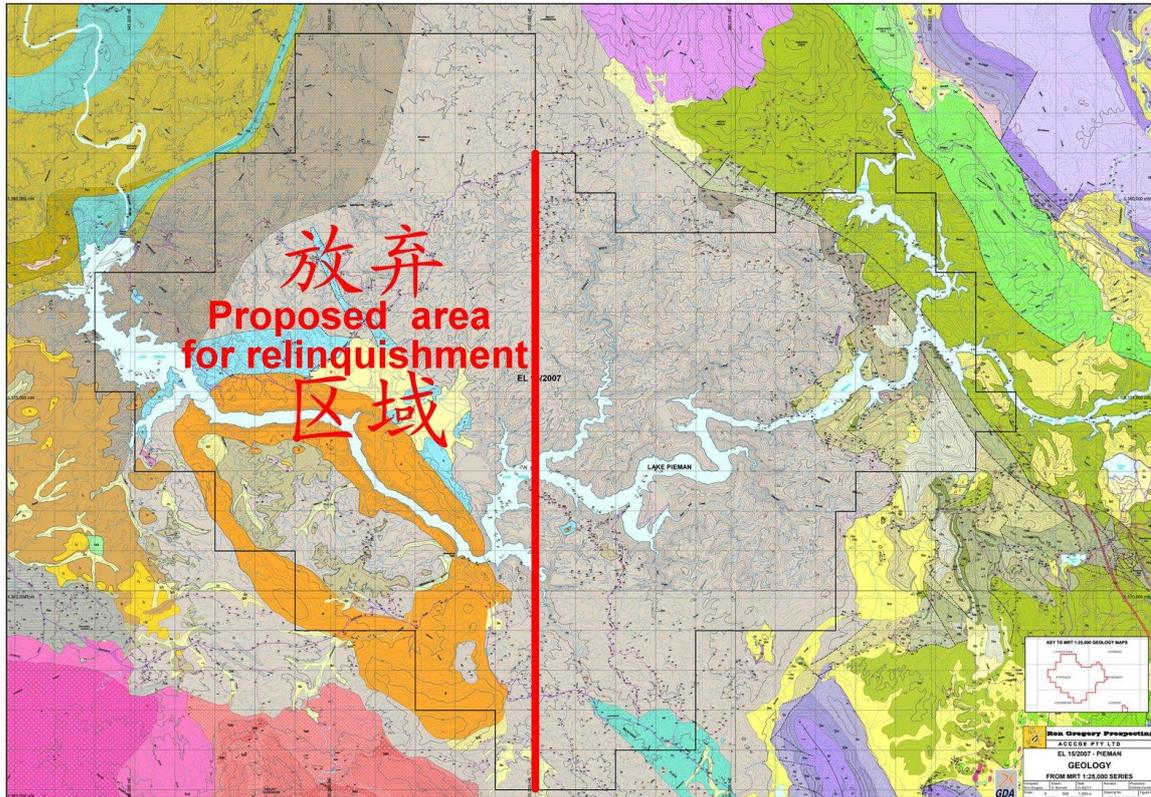


Figure 2: Location of Relinquished Area, EL15/2007

The West Coast Highway, A10, borders the eastern side of the tenement while the Pieman Road, 245, provides limited access to the northern sector of the tenement. The Zeehan-Granville Harbour road provides limited access to the southern areas of the tenement. The Pieman River and Dam traverses the centre of the tenement area. Access is limited and topography rugged with much of the tenement comprising the steep sides of the Pieman valley.

The tenement is thickly vegetated with vegetation varying from button grass and heath through thick tea tree scrub and mature eucalypt forest. Altitude difference throughout the tenement is 300-400m.

3.0 Regional Geology and Mineralisation

3.1 Geology and Tectonics

The oldest rocks in the region are the Meso to Neoproterozoic quartzitic rocks of the Tyennan Block which provide basement to the younger sequences in western and south-western Tasmania. In the area of interest the Tyennan Group is overlain by the quartzwacke turbidite rocks of the Oonah Formation (1000-750Ma) which were deposited in an N-S trending basin which was probably a precursor to the later Dundas Trough. The upper sequence of the Oonah Formation is dominated by pelites and/or carbonates with some mafic rocks and conglomerates. This part of the

sequence provides an important host to vein, skarn and replacement tin deposits at Zeehan and Mt. Bischoff.

The Oonah Formation is disconformably or unconformably overlain by the Success Creek and Crimson Creek Groups of the Togari Group of Upper Neoproterozoic to Lower Cambrian age (750-520Ma). In the area of interest these rocks tend to comprise a lower sequence of dolomitic shallow water sediments resting on basal conglomeratic sandstone followed by an upper mafic rift volcanics and associated volcanoclastic sediments. The lower dolomitic sequence is important hosts to the tin replacement deposits of Renison Bell.

The above sequence was subjected to a number of major deformations during the Tyennan Orogeny commencing with west the south directed compression (515 – 510Ma) followed by E-W extension from the Middle Cambrian which produced the linear narrow Dundas Trough. The Dundas Trough was an important depositional site for the Mount Read Volcanics and associated sediments and their associated polymetallic mineralisation.

The Mount Read Volcanics (MRV) are divided into three sequences. The Central Volcanic Sequence (CVS) is comprised of marine, proximal volcanics comprised of rhyolite and dacite domes and crypto domes, massive pumice breccias, andesite and rare basalts. The CVS is host to most of the polymetallic volcanogenic mineralisation in the Dundas Trough (Rosebery, Hellyer, and Que River). The CVS inter fingers with the Western Volcano-Sedimentary Sequence to the west comprised of lithicwacke turbidites, mudstones, siltstones, shale with subordinate intrusive rocks and lavas. The CVS inter fingers with the Eastern Quartz Phyrlic Sequence (EQPS) to the east, comprised of quartz phyrlic lavas, intrusive porphyries and volcanoclastics intruded by magnetite series granite.

The MRV on the western side of the Dundas Trough is overlain by the Tyndall Group comprised of quartz bearing volcanoclastic sandstone and conglomerates of mixed felsic and andesitic provenance. Some workers (Seymour et al, 2007) have suggested that the Tyndall Group is a time correlate of the EQPS to the east.

In the Late Cambrian – Lower Ordovician, a period of E-W compression caused basin inversion of the Dundas Trough, resulting in uplift of the Tyennan Block to the west and subsequent deposition of the Owen Group conglomerate in a half graben on the western side of the Dundas Trough. Basin inversion also caused reactivation of the major faults in the Dundas Trough.

In the Middle Devonian, Tasmania was affected by polyphase deformation, attendant folding and intrusion by major I – type granite batholiths. In the west most of the intrusions post-date the folding event and are represented by reduced, moderately to strongly fractionated I-type granite.

3.2 Mineralisation

The tenement locates in a highly mineralised region with major deposits of volcanogenic base metals associated with the Mount Read Volcanics and epigenetic

structure environment and volcanic activity as Dundas geosyncline in the Cambrian period, Tasmania.

3.2.2 Epigenetic Mineralisation

The mineralisation type is more common, which usually localised in the contact zone around the granite margins. The main deposit ore types are pyrometasomatic polymetallic ore including lead, silver, zinc, tin and skarn lead and zinc deposits. Examples include Renison Bell (24.54 Mt @ Sn1.41%), Mt Bischoff (10.54Mt @ Sn1.1%), Oceania (2.6Mt Pb7.7%, Zn2.5% and Ag55g/t).

Apart from the above mineral ores, there are also reported occurrences of alluvial tin, gold, osmium, iridium, platinum and lateritic nickel and cobalt, chromite. These findings indicate that it is possible that we can find relevant mineral ores in the ultrabasic rock which are constantly found in the tenement.

4.0 Tenement Geology, Structure and Mineralisation

The geology of the EL is dominated by the Neo-Proterozoic (1000-750Ma) Oonah Formation, a sequence of greywacke, pelites, siltstones and quartz sandstones. This unit was probably the precursor to the Dundas Trough. In the NE sector of the tenement, the overlying early Cambrian Success Creek Formation is present: a sequence of sandstones, siltstones, volcanoclastics with minor carbonate beds and tholeiitic basalts (Figure 2).

Intrusive rocks in the tenement are represented by Oonah Formation gabbro in the southwest and a few diabase veins in the east. Granite is seen in a small number of locations with the exposed area of about 15m².

Diabase veins are mainly distributed in the east of the work area. They have fine grained texture and massive structure). The main minerals are pyroxene and plagioclase, with less than 0.5 mm granularity. Some plagioclase have 1-2 mm granularity. Accessory minerals are sparsely disseminated iron pyrite and chalcopyrite with a grain size less than 0.1 mm and less than 0.1% content.

The weathering surface of granite is pale tan with a massive structure, mainly composed of feldspar and quartz, with the granularity of 2-5 mm. Feldspar has been weathered to kaolin, with clear quartz grains.

The strike of the strata in the tenement is mainly NW-SE and to a lesser extent, E-W and N-S direction. The rift structure mainly includes three direction groups: NW, NE and EW.

Based on the regional and local geological characteristics, CCR's exploration targets are iron ore, copper, zinc and tin of epigenetic vein and skarn styles as well as volcanogenic deposits.

To the immediate south of the tenement, tin mineralisation is developed within the aureole of the Devonian Heemskirk Granite both as veins associated with tourmaline and as alluvial deposits (Laffers, St. Dizier, and Tasman River). Similar tin deposits

occur to the immediate north of the tenement associated with the large Livingstone Creek Devonian granite batholith. The large replacement tin deposit of Renison Bell locates approximately 5km to the east of the tenement eastern boundary.

Within the EL, the only known mineral occurrences are alluvial tin workings at the Eureka alluvial tin field near Heemskirk Falls, two minor lead prospects and two pyrite prospects.

5.0 Review of Previous Exploration

Historically, it appears that there has been relatively little exploration undertaken over much of the area covered by EL 15/2007. The degree of overlap with prior tenements has been minimal, covering only small regions along the fringes of the present day licence, and in some instances exploration coverage may not have extended over these areas. Table 1 provides a brief summary of work completed by former tenement holders where overlap has occurred. A more detailed description of the nature of work and subsequent findings follows.

Table 1: Previous Work by Other Companies over EL 15/2007

Company	Period	Licence	Target	Exploration Activities
RGC Exploration	1989 – 1992 1993 - 1994	42/1987	Base metals, tin	C-horizon soil sampling, aeromagnetics, geological mapping & rock chip sampling. Diamond drilling at Sylvester (SY002 – SY016)) and one stratigraphic drill hole (PL001) at Parting Lake. Down hole SIROTEM survey of SY016. Feasibility study of Sylvester Prospect
Cavenridge P/L)) 1990-94?)	23/1990	Granite	Detailed review of previous exploration and follow-up field reconnaissance
Cavenridge P/L) ")	29/1992	Granite, tin	As above
Bruce Resources N.L.	1995	12/1994	Chromite, gold, osmiridium, platinoids & tin	Detailed literature search & assessment of prior exploration
JV : Goldstream Mining N.L. & Titan Resources	1995 - 1999 2000	43/1994	Proterozoic iron formation-hosted lode gold	Stream sediment sampling & aeromag survey of entire licence. Detailed follow-up of anomalous areas incl. stream sediment & soil sampling, & diamond drilling (8 cored DDH) Airborne heli-EM survey
Adamus Resources Ltd	2002 - present	18/2002	Ni, Platinoids & Au	Review of previous exploration & aeromag results with follow-up stream sediment sampling and analysis

RGC Exploration commenced work on **EL 42/1987** in 1989 with a programme including c-horizon soil sampling, aeromagnetics, detailed geological mapping and rock chip sampling. This EL had a small area of overlap in its top NW corner with EL 15/2007. Two areas were chosen for more detailed follow-up – Parting Lake and

Comstock (later named Sylvester) - and grids were established to cover the areas. During 1990/1992 diamond drilling was undertaken at Sylvester: to test a 1.2 km Zn-Pb-(Sn-Au) anomaly (holes SY002 & SY003) associated with ironstones and decomposed carbonates of the Upper Oonah Formation, and to test the source of two intense magnetic anomalies associated with the Balstrup Fault (SY004 & SY005). These delineated a significant base metals skarn, and a further 10 holes were completed to test the extent of the deposit. Exploration ceased in 1992, however, when drilling failed to identify any such extension. A single stratigraphic hole (PL001) was drilled at Parting Lake to test for potential base metal / stanniferous replacement deposits above a gravity defined granite cupola, however the hole failed to intersect significant carbonates.

In 1992 the northern half of the EL (which included the overlap with EL 15/2007) was relinquished. Work on the remaining tenure included a down-hole SIROTEM survey of DDH SY016 and a feasibility study of the Sylvester Prospect was undertaken. In 1994 joint venture partners were sought, unsuccessfully, and in 1995 the remainder of the EL was relinquished.

During the early 1990's, **Cavenridge Pty Ltd** carried out an exploration programme in the Mt Heemskirk area on **EL 23/1990**, which was subsequently expanded toward the west coast to become **EL 29/1992**. The top NE corner of these EL's was coincident with EL 15/2007. Their target was the mineralized Devonian-Carboniferous Heemskirk Granite for dimension stone as well as tin and base metal potential. A detailed review of previous exploration and results was undertaken, together with some field reconnaissance, and based on favourable projections, recommendations for future work programmes were proposed. It appears from subsequent reports, however, that no further investigations eventuated, and the EL was relinquished around 1995.

Located to the NE of EL 15/2007, **Bruce Resources NL** commenced exploration over **EL 12/1994** during 1995. Overlap with the present day EL 15/2007 is confined to a very small corner in the top NE section. Again, work comprised a detailed literature search and assessment of past exploration, with interest primarily focused on chromite, gold, osmiridium, platinoids and tin. The ultramafic rocks were regarded as being highly prospective for platinoids, gold and chromite while the Mt Lindsay tin skarn was considered indicative for the area to host granite related mineralization. Despite optimistic projections for the area's potential, it appears that no further investigations proceeded and the tenure was relinquished in 1995.

Following the granting of **EL 43/1994** to Joint Venture partners **Goldstream Mining NL and Titan Resources NL** in February 1995, an extensive exploration programme was commenced. This tenement was located to the NW of EL 15/2007, and again the area of overlap is extremely small compared to the overall size of the EL. The primary target was Proterozoic iron formation-hosted lode gold. Work undertaken prior to 1999 included stream sediment sampling and an aeromagnetic survey of the entire licence, which highlighted three areas of interest; Lefroy Ridge East and known historical workings at Rocky River and Lucy Spur. The prospects were followed up

with detailed stream sediment sampling, soil sampling and diamond drilling. A total of eight cored drill holes were completed over the three prospects, however with only low order gold anomalies identified, no further work was undertaken. In late 1999 approximately half of the EL (NW portion) was relinquished. In 2002 an airborne heli-EM survey was flown in conjunction with Mineral Resources Tasmania (MRT), targeting Cu-Zn bearing massive sulphides associated with the Savage River magnetite deposits. Follow-up investigations failed to identify any further areas of interest, and after extensive testing of all anomalies showed no economic mineralization, the remainder of the EL was relinquished in 2002.

Goldstream Mining also held several other tenements to the north and east of EL 43/1994 during the 1990's and beyond. In closest proximity to EL 15/2007 were EL 42/1996 and EL 22/1998, to the immediate north, however neither of these were coincident, and consequently have not been included in this review.

EL 18/2002 which is located to the NE of EL 15/2007, was granted to **Adamus Resources Ltd** in 2002. Their principal target focused on primary nickel, platinum and gold mineralization. As can be seen in the EL Map for 2003 in Appendix 1, overlap occurred in the NE corner of EL 15/2007. Following a review of historic exploration data and publicly available aeromagnetic data, Adamus carried out a stream sediment sampling programme from drainages to the west of Serpentine Ridge. All samples were analysed for low-level Au, Pt and Pd, and Cr, Cu, Ni and S. A review of these results led Adamus to identify some areas within the tenement as non-prospective, and a total area of some 40 sq km was identified for release in 2004. Included in this relinquished zone was the overlap portion with EL 15/2007. Adamus continue to have tenure for the remaining areas of the EL.

6. Exploration Conducted

Other than a review of previous exploration and general reconnaissance in the field utilizing existing limited access to familiarize the exploration team with the geology of the western portion of the EL, no exploration has been conducted over the relinquished portion of E.L. 15/2007.

As a consequence of an initial desk top study of the geology and mineral potential of the tenement and subsequent field reconnaissance, the most prospective area of the E.L. was considered to be the more iron-rich lithologies of the Crimson Creek Formation and Success Creek Group and exploration has focused on the eastern and north eastern sector of the title area. This work has comprised geological mapping, regional stream geochemistry and gridded soil geochemistry and detailed mapping. This work is in progress.

7. Environmental Considerations

No tracks or other access involving clearing or disturbance was undertaken and no rehabilitation was necessary.