

**Leached Cap Pty Ltd
E.L. 19/2012 Roger River
Annual Report Year 3**



Poly-lithic diatreme breccia, Whitewater Prospect

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SUMMARY

This report summarises the Year 3 activities within EL19/2012.

Leached Cap Pty Ltd has undertaken exploration of a 3 km long zone of outcropping silicification close to the Roger River Fault (RRF), primarily located in EL19/2012. The work to date has been designed to test the concept that the silicification is an intensely leached cap to an epithermal system which may contain gold mineralisation at depth. Low level soil and rock chip anomalism achieved by previous explorers, the presence of warm water springs and mounds along the faulted eastern margin of the Smithton Basin, and similarities between the geology at Roger River and established epithermal gold districts elsewhere, all support this model.

Four lines of Induced Polarisation (IP) and Resistivity were completed in 2014 over the RRF and silicification entirely within EL19/2012. The IP programme outlined chargeability anomalies to the east of the RRF, and resistivity outlined the RRF as a resistive zone steeply dipping to the east.

The chargeability anomalies show a shallow dip to the east which was the reason for applying for the additional area contained in EL3/2014.

In Year 2, hole RRD01 tested one of the chargeability highs and showed it was due to syngenetic pyrite within a sequence of primarily siltstones, shales and sandstones. This pyrite is unrelated to the RRF siliceous zone and therefore is concluded to not be an indicator of mineralization associated with the epithermal system. RRD01 consequently downgraded the chargeability anomalies and moved the focus for future exploration back to a corridor approximately 1 kilometre wide on either side of the RRF.

In Year 3, diamond drill holes RRD02 and 03 were completed for a total of 361.70 metres. Both holes demonstrated that there are detectable gold values and anomalous arsenic within the epithermal system. Importantly RRD02 demonstrated that the RRF is an easterly dipping reverse fault which has had numerous movements, the last post-dating silicification.

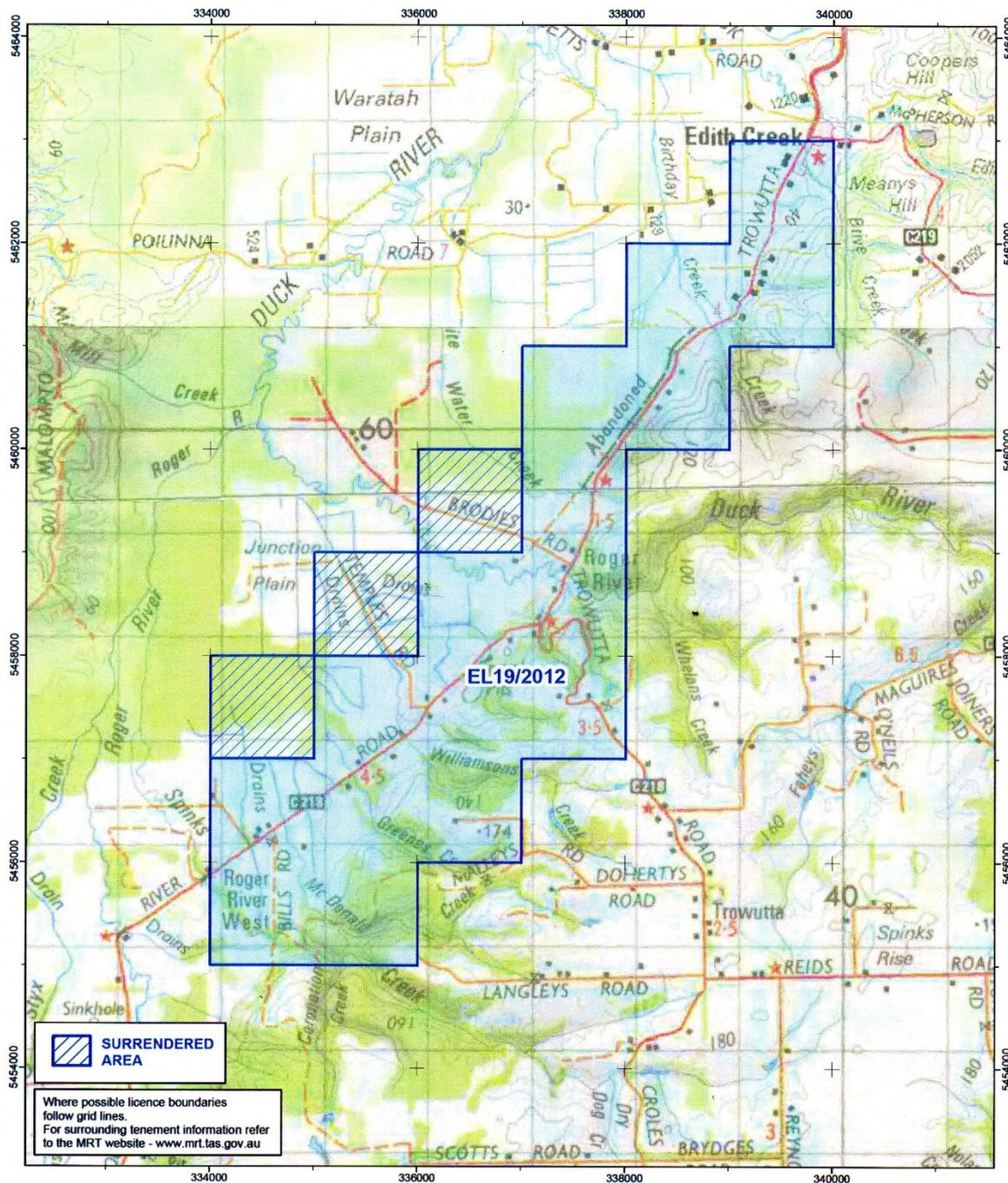
During the year, all available open file aeromagnetic and airborne electromagnetic survey data was re-processed and evaluated. This did not provide any immediate targets for follow-up apart from those already defined by previous mapping.

Depending on funding, a small close-spaced soil and stream sediment sampling programme is being planned for early 2016 in a northern section of the EL.

1. TENEMENT DETAILS

EL 19/2012 is a 16 km² licence centred on Duck River, approximately 25 km by road south of Smithton, NW Tasmania (Figure 1). The licence was granted to Leached Cap Pty Ltd (Leached Cap) by Mineral Resources Tasmania (MRT) for a 5 year term commencing on 17 November 2014. On 22 September 2015, a partial surrender application was submitted to reduce the area by 3km² to 16km² from the original 19km².

Land tenure comprises mainly private land which is a mix of several beef and dairy cattle farms, and eucalypt plantation and remnant native bush owned by Gunns Ltd. All year round access to the area is via the bitumen roads Trowutta Road and Roger River Road which run through the centre of the licence for its entire length (Fig. 1).



EL19/2012 16km²
Vicinity of Roger River

0 1 2 3 4 KM

1:50,000

Coordinate Datum - GDA94 MGA Zone 55



Base image by TASMAT
(www.tasmap.tas.gov.au)
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Figure 1. Location map showing EL19/2012 and the partial relinquishment blocks.

2. GEOLOGY

EL 19/2012 covers a northern portion of the Roger River Fault (RRF), a NNE trending major structure transecting Neoproterozoic rocks at the eastern margin of the Smithton Basin/Smithton Synclinorium (Smithton 1:50,000 Geological Atlas Series sheet, Roger and Togari 1:25,000 Digital Geological Atlas Series sheets). The RRF cuts through the eastern limb of a north-plunging synclinorium containing the Neoproterozoic Togari Group. The Togari Group consists of a basal dolomite-chert-lutite sequence (Black River Dolomite), overlain by an interstratified mixed sedimentary and volcanic sequence (Kanunnah Subgroup), overlain in turn by the Smithton Dolomite and the Salmon River Siltstone. A distinctive member of the Kunannah Subgroup is a massive basalt unit (Spinks Creek Volcanics).

In the area covered by EL3/2014 and EL19/2012 the precise location of the RRF is commonly masked by surficial sediment cover but it appears to be close to the contact between the Smithton Dolomite to the west and the Kunannah Subgroup to the east. Outcrop of the Smithton Dolomite is restricted to drainage ditches excavated into the flat lying farm land west of the fault and it is reasonable to interpret the fault location as being close to the persistent break in slope at the boundary between the well exposed Kunannah Subgroup on the eastern hill slopes and the largely regolith and soil covered Smithton Dolomite on the flat westerly side of the fault. The current dip direction on the Roger River Fault and the relationship between the fault and discrete zones of silicification are unclear and these are significant issues for the current exploration program, as will be discussed below. Although mapping suggests that the younger Smithton Dolomite appears to be down thrown to the west, implying a normal fault dipping to the west, Everard et al (2007) note that the Black River Dolomite and The Kunannah Subgroup thicken from west to east across the fault zone, suggesting syn-depositional growth faulting and the possibility of an easterly dip, at least during the Proterozoic. By comparison with other major basin bounding faults in western Tasmania it is likely that the Roger River Fault has been through at least two major orogenic deformation events during the Paleozoic and it may have been reactivated again during the regional Cenozoic rifting and volcanism associated with the development of the Bass Basin (Morrison, 2014).

3. EXPLORATION AIMS and PHILOSOPHY

Leached Cap is specifically targeting the zone of silicification which extends for approximately 3 km along the strike of the RRF. Prospectivity for epithermal gold mineralisation at depth beneath the outcropping silica has been established by previous mapping and exploration geochemistry (Turner, 2001, 2003, 2009) and the current exploration program is based on the concept that the outcropping silica represents heavily leached high level capping to an epithermal system analogous to some established gold epithermal provinces elsewhere on Earth (eg. Radtke and Davis, 1990). The presence of geologically juvenile mounds and warm water springs along the eastern margin of the Smithton Basin supports the model.

Morrison (2013) and Davis (2014) summarised the aims and results for the first two year programme in EL19/2012, with the aims to confirm the relationship between the outcropping silicification and the RRF, to test the current dip direction on the fault and to test for mineralisation at depth. This was achieved by a combination of re-interpreting existing magnetics and gravity data, conducting a new IP survey and the drilling of three

targets.

4. SUMMARY OF PREVIOUS EXPLORATION

Previous exploration which has direct relevance to the current programme is restricted to mapping, rock chip and soil geochemistry and on-ground gravity and magnetics, conducted by Greenstone Resources NL and Morrith Holdings Pty Ltd, between 2001 and 2003, on ELs 61/1994, 11/1997, 12/1997, 13/1997, 14/1997 and 17/2001 (Turner, 2002, 2003). Some further compilation and interpretation of results from this work was done for Manasia Mining and Metals Ltd on their EL 31/2005 (Turner, 2009).

Mapping demonstrated a series of outcropping bodies of erosion resistant micro crystalline cherty silica with a variety of textures ranging through massive, brecciated, banded, honeycombed and pitted. The outcrop is distributed along a narrow, 3 km long and up to 300 metres wide, zone conformable with the probable sub-crop position of the RRF.

Selective rock chip sampling on outcrop and several east-west lines of soil sampling across the zone detected spotty low level anomalism for; gold (max 15 ppb), arsenic (max 1273 ppm), antimony (max 30 ppm), copper (max 886 ppm), zinc (max 510 ppm) and lead (max 302 ppm). One rock chip sample from outcrop in an abandoned road aggregate quarry at Roger River (approximate location 336550E, 5457600N MGA) included visible barite and assayed almost 6% barium and 1.5 ppm mercury (Turner, 2003).

No follow up field work was conducted on this target prior to the current programme commenced by Leached Cap.

5. GEOPHYSICS

Phil Muir of SMEG consultants was requested to undertake a review and re-processing of all available airborne geophysical data over the Duck River and Roger River ELs. This work is contained in the Appendix I. No new targets for follow-up were defined.

6. DRILLING, LOGGING and ASSAYING

The diamond drilling of the chargeability anomaly in hole RRD01 in EL 19/2012 (Davis, 2014) demonstrated that the syngenetic sulphides clearly defined by the IP programme within siltstones, sandstones and shales to the east of the RRF were not related to the epithermal system along the RRF, and therefore the areas to the east and further than approximately 1 kilometre from the RRF are considered un-prospective for this style of mineralisation.

Drill hole locations are shown on Figure 2 and summarised in Table I which was completed by Jansvoon Pty Ltd using a small track-mounted rig. The drilling of hole RRD01 was completed in December 2014 and RRD02 and 03 were completed by February 2015, following which the core cutting and sampling was completed under the supervision of Ken

Morrison and the logging and core photography by him (Appendix II). A number of core samples were selected for petrology and this report is contained in Appendix III.

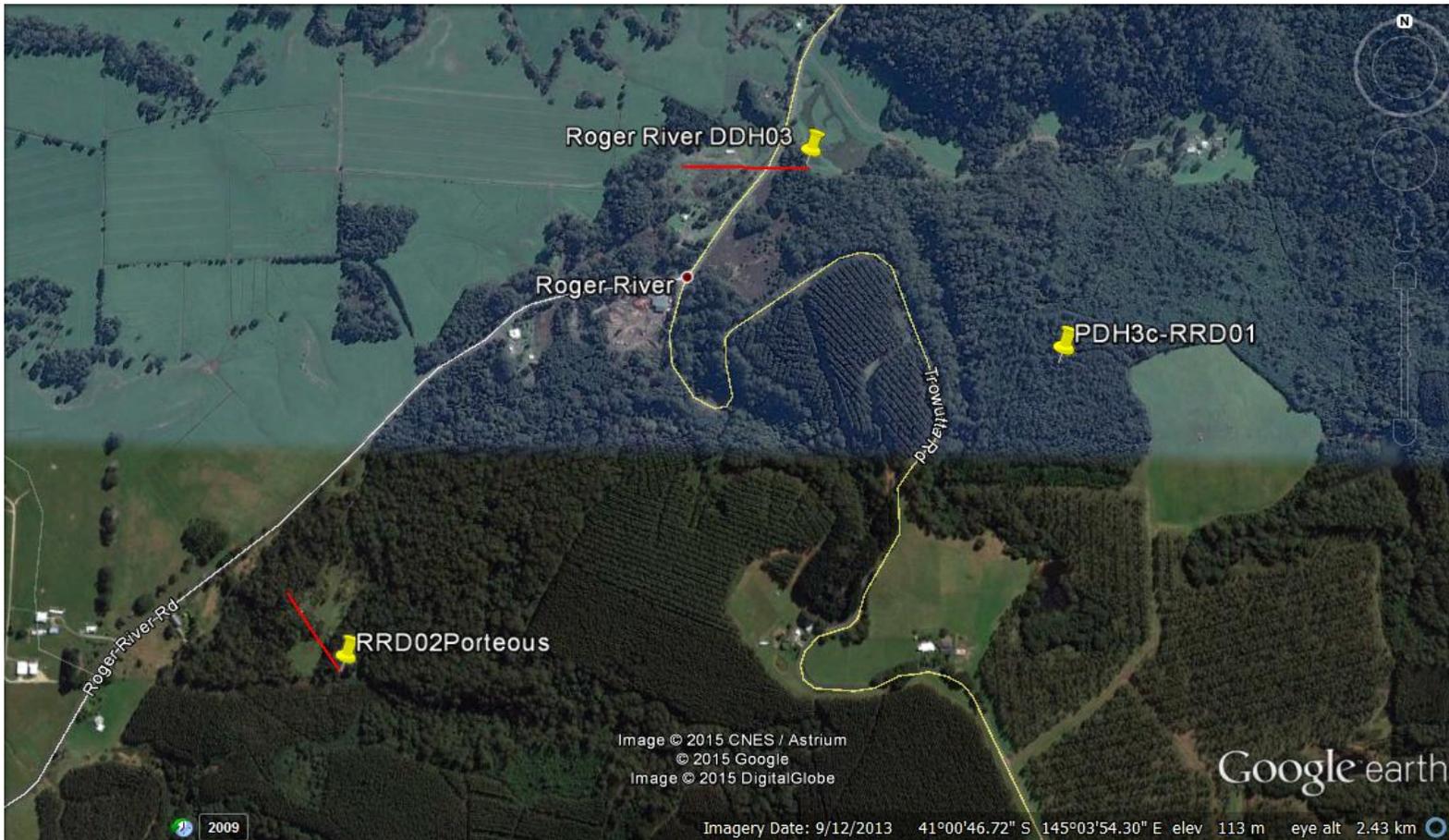


Figure 2. Locations of diamond drill holes RRD01, RRD02 and RRD03.

Drill hole number	Easting	Northing	Azimuth	Dip	Final depth	Comments
RRD01	337855	5458235	vertical	90	237.60	GPS, Tested IP anomaly
RRD02	336566	5457502	325	-60	217.10	GPS, intersected RRF
RRD03	337425	5458512	260	-60	144.60	GPS, did not reach target.

Table I. Summary of diamond drill holes

The assaying was undertaken the ALS Minerals Division of 39 River Road, Wivenhoe Tasmania, 7325, Australia. Gold assaying was undertaken by fire assay using a 50g sample, and As and Zn using ICP41. In-house standards were included.

7. EXPENDITURE

Expenditure to 3 December 2015 has been primarily on the drilling and assaying, logging, geophysics re-processing, geological interpretation and report compilations.

Category	Cost \$
Geology	46,212
Geophysics	2,640
Drilling	224,408
Rehabilitation	154
Administration	5,616
Other costs	3,591
Total	\$282,621

8. ENVIRONMENTAL ISSUES

All drill sites have been rehabilitated and reported to MRT by Ken Morrison.

9. PLANNED PROGRAMME

As the testing of the IP chargeability anomaly by RRD01 in EL19/2012 (Davis 2014) demonstrated that the chargeability anomalies are unrelated to the RRF epithermal system, the focus of the exploration has changed to testing the RRF and ancilliary structures for zones of precious metal mineralisation.

Subject to the availability of funds, a stream sediment along the range front and a targeted soil sampling programme may be carried in the north Whitewater Prospect area of EL19/2012 and EL3/2014 in early 2016. The location of this proposed programme is shown on Figure 3.

10. REFERENCES

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APPENDIX I
SMEG Airborne Geophysics Report

APPENDIX II

Geological logs, assays and core photographs

(Note: for photographs see CD)

APPENDIX III

Petrology report