EL27340
‘Top Springs’
ABNER PROJECT, NT

ANNUAL REPORT
ON EXPLORATION ACTIVITIES
YEAR ONE OF TENURE
25 November 2009 – 24 November 2010

submitted by J.Abello
TENEMENT REPORT INDEX

TENEMENT HOLDER: Legend International Holdings Inc.
TENEMENT MANAGER: Legend International Holdings Inc.
PROJECT: ABNER PROJECT
TENEMENT: EL27340
JOINT REPORT PERIOD: 25 November 2009 to 24 November 2010
DUE DATE: 24 December 2010
AUTHOR: J. Abello
STATE: Northern Territory
LATITUDE: 16° 57'00"S to 16° 58'00"S
LONGITUDE: 135° 38'00"E to 135° 44'00"E
MGA (easting): 569000mE - 576500mE
MGA (northing): 8123000mN - 8125000mN
1:250,000 SHEET: SD53-07 Walhallow
1:100,000 SHEET: 6064 Mallapunyah
COMMODITY: Diamonds
KEYWORDS: Diamonds, open file review, target generation, heavy mineral sampling
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SUMMARY
EL 27340 forms part of a major diamond exploration enterprise in the Northern Territory being undertaken by Legend International Holdings (Legend).

Legend has acquired a significant tenement holding in the NT, strategically surrounding the existing Merlin Diamond field and other regional prospects in the newly discovered Abner kimberlite.

Much of the focus this year was on proving up the resource of the Abner Pipe and on developing prospects close to the Abner Kimberlite.

TENEMENT STATUS
EL 27340 comprising 4 sub blocks was granted to Legend on 25 November 2009. During year 1 of tenure the company acquired and assessed open file data on the area and planned a field program for late 2010.

LOCATION AND ACCESS
EL 27340 is located 30 kilometres south of Cape Crawford and 65 kilometres west of the Merlin diamond mine on the Walhallow 1:250,000 map sheet in the northeastern part of the Northern Territory (Figure 1). It lies within the Mallapunyah Springs pastoral lease (PPL1075). Access to the area is via the Tablelands Highway and station tracks west of the Mallapunyah Station.
Figure 1: Location plan of EL27340
GEOLOGY

REGIONAL GEOLOGY

EL 27340 lies within the Batten Trough of the Mesoproterozoic McArthur Basin. The N-S trending Tawallah Fault Zone is the largest scale structure in the district and it is regarded as having similar significance to the Emu Fault, which lies 60km east of the tenement and is associated with McArthur River Zn-Pb mine and the Merlin diamond mine.

The 1800-1400Ma stratigraphy and mineralisation of the Batten Trough, from youngest to oldest, can be summarized as follows:

- Roper Group arenites, shales, iron formations and dolerite sills.
- Nathan Group (or Mt Rigg Group) carbonates that host Zn-Pb mineralisation, e.g. the Bulman Zn-Pb deposits.
- McArthur Group fine clastics and carbonates that host strata bound Zn-Pb-Ag and Cu deposits, e.g. the HYC (McArthur) Zn-Pb-Ag mine, Mariner Zn-Pb and Sly Creek Cu deposits.
- Tawallah Group arenites, black shales and basalts hosting Cu in the Redbank district and U at Westmoreland. There are also a number of Cu occurrences hosted Tawallah Group proximal to the McArthur Project area.

LOCAL GEOLOGY

Proterozoic outcrop within the project area is dominated by McArthur Group rocks with minor Nathan Group occurrences and Cretaceous cover rocks in the eastern part of the tenement.
Figure 2: Regional Geology
EXPLORATION

PREVIOUS EXPLORATION
Historic work in the area has included regional aeromagnetic surveys and reconnaissance sampling for diamonds and base metals.

Within EL 27340 there was only one sample gathered by CRA in the mid 1980’s. While this was negative, the sample size was small and recent work has shown that such sampling may not have been definitive.

On this basis, and owing to the proximity of the area to the Merlin diamond field and the fairly recent discovery at Abner Range, the area is regarded as prospective for diamonds.

WORK COMPLETED IN YEAR 1: 2009-2010
During year 1 of tenure, open file data was gathered and re-assessed. No strong new exploration leads were revealed however this could be because of a lack of previous HMA sampling.

A plan to increase the density of heavy mineral sampling was formed. Owing to an extended wet season in 2009 and heightened priority on exploration close to Abner Range no new field data was gathered over during the reporting period. Several HMA Samples have been planned and will be taken in December 2010. Results will hopefully be available in the next reporting period.

A regional geophysics review was conducted by Legend early in 2010 as part of a larger regional compilation. The data needs to be reviewed in more detail over EL27340 tenement area.

ENVIRONMENT AND REHABILITATION
No requirement for rehabilitation arose as no ground disturbing exploration was carried out.

CONCLUSIONS AND RECOMMENDATIONS
EL 27340 lies within 35 kilometres of the newly discovered, diamondiferous pipe at Abner Range. Geological reconnaissance suggests the area could contain a concealed kimberlite pipe and prior exploration has been minimal. A program of heavy mineral sampling is recommended during the 2011 field season.