



North
Australian
Diamonds
Limited
ABN 86 009 153 119

Annual Report – Year 3

Exploration Licence 25580

16th March 2009 to 15th March 2010
Northern Territory, Australia

Holder: North Australian Diamonds Limited

Operator: North Australian Diamonds Limited

Reporting Period: 16th March 2009 to 15th March 2010

Sheet Reference: Walhallow 1:250,000 (SE53-07)

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SUMMARY

This annual report outlines exploration activities undertaken by North Australian Diamonds Limited on Exploration Licence 25580 between the 16th March 2009 and 15th March 2010. This period represents year three of the licence.

On 18th September 2007 NADL granted Top End Uranium Limited (TEUL) the right of access to the land covered by EL 25580 for the purpose of exploring for, mining and processing minerals other than diamonds. This report includes work undertaken by both NADL and TEUL.

Exploration Licence 25580 is situated on the Walhallow (SE53-07) 1:250,000 geological mapsheet and the Lancewood (6163) 1:100,000 topographic mapsheet in the Northern Territory. It is located around 120 kilometres south of Borroloola and is accessed via existing unsealed tracks leading west from Kiana Station.

Previous exploration has included several wide spaced geophysical surveys by CRA and BHP and stream and loam sampling by CRA and Ashton Mining. Chromites and microdiamonds were recovered in loam samples in the north-eastern part of the licence and a single microdiamond was recovered in a stream sample in Spellesie Creek. Airborne surveys have been completed including electromagnetic, magnetic and gravity that have identified numerous kimberlite-type anomalies. Three anomalies were drilled that did not intersect kimberlite. Many of the anomalies were attributed to Proterozoic inliers within the younger limestone, however many anomalies remain that have not been adequately tested.

Field Work during the reporting period included geological reconnaissance and the collection of 16 reconnaissance stream and loam samples. Results for these samples are pending.

1.0 INTRODUCTION

This annual report outlines exploration activities undertaken by North Australian Diamonds Limited (NADL) on Exploration Licence 25580 between the 16th March 2009 and 15th March 2010. This period represents Year three of the licence.

On 18th September 2007 NADL granted Top End Uranium Limited (TEUL) the right of access to the land covered by EL 25580 for the purpose of exploring for, mining and processing minerals other than diamonds. This report includes work undertaken by both NADL and TEUL.

2.0 LOCATION AND ACCESS

Exploration Licence 25580 is situated on the Walhallow (SE53-07) 1:250,000 geological mapsheet and the Lancewood (6163) 1:100,000 topographic mapsheet in the Batten Region of the Northern Territory. It is located around 120 kilometres south of Borroloola and is accessed via existing unsealed tracks leading north from Kiana Station. A licence location map is provided as Figure 1.

3.0 LICENCE DETAILS

EL 25580 consists of 59 blocks (191.10 sq km), and was granted to NADL on 16th March 2007 for six years. Twenty nine blocks were relinquished during the reporting period and thirty blocks remain. Licence details for EL 25580 are outlined in Table 1 below.

Table 1: Licence Details for EL25580.

Name	Status	Effective Date	Grant Date	Expiry Date	Blocks	Relinquished Blocks	Holder	Percentage
EL25580	Grant	16/03/07	16/03/07	15/03/13	59	29	North Australian Diamonds Ltd	100

4.0 PHYSIOGRAPHY

4.1 Geomorphology

The licence is located almost entirely within the *Gulf Fall* physiographic division. The *Top Springs Erosion Surface* sub-division covers most of the licence and is described as a generally flat area with outcropping limestone. The southern part of the licence slopes upward from approximately 225m above sea level to 250m above sea level and includes

the marginal scarp of the *Barkly-Birdum Tableland*, which represents the original Tertiary landsurface. In the western part of the licence Spellesie Creek drains northward and erosion of the *Top Springs Erosion Surface* has exposed underlying dissected Proterozoic rocks. As a result of differential erosion the Proterozoic rocks occur at a higher elevation than the limestone of the *Top Springs Erosion Surface*. Rocky Creek drains northward in the eastern part of the licence.

4.2 Geology

The oldest rocks that crop out in the licence area are the folded and faulted sediments and volcanics of the Palaeoproterozoic Tawallah Group and McArthur Group. These occur as an inlier in the western part of the licence and are bound to the east by a north-trending fault that has an unconformable contact with the overlying Paleozoic Top Springs Limestone. Mesozoic (Cretaceous) aged sediments crop out in the scarp in the south of the licence and possibly also as outliers in the north where they unconformably overly the Top Springs Limestone. The limestone is covered by a thin veneer of residual sand probably derived from the eroding Cretaceous sediments to the south. More recent sands and gravels have deposited within active drainages and at the base of the scarp.

4.3 Airborne Geophysics

A complete set of NTGS geophysical and remote sensing data is available over the licence including aeromagnetic, radiometric and landsat data. CRA and BHP acquired wide spaced airborne geophysical data in the 1980's and 1990's that is not discussed here. Ashton Mining Limited conducted a HEM survey in 1999 that covered the north-eastern part of the licence and Gravity Diamonds conducted an airborne gravity and magnetic survey in 2003 that covered the whole licence area. Details of these two surveys are;

- Ashton 1999 HEM survey
 - Electromagnetics and Magnetics – 100m line spacing N-S
- Gravity Diamonds 2003 Gravity Survey
 - Gravity and Magnetics – 100m line spacing E-W

The geophysics data is relatively quiet over the area interpreted to be Top Springs Limestone. Proterozoic sediments and volcanics are clearly identified in the western part of the licence. The Ashton Mining and Gravity Diamonds data identified numerous

kimberlite-type responses and is discussed in more detail below.

5.0 PREVIOUS EXPLORATION

Numerous copper occurrences exist within Proterozoic rocks to the west and north of the licence and include the Kilgour Mine, which produced about 125 tons of copper ore from 1913 to 1955. A 900m diameter circular feature (referred to as Spear Creek) that may represent an impact crater is located 20 km west of the licence and is associated with minor base metals and microdiamonds.

During the 1980's CRA acquired airborne geophysical data and collected stream gravel and loam samples. A single microdiamond was recovered from a stream sample in Spellesie Creek in the western part of the licence. BHP completed wide spaced airborne geophysical surveys in the mid 1990's principally targeting base metals that did not identify anomalies worthy of follow-up. Ashton Mining in joint venture with BHP collected numerous stream gravel and several loam samples. Much of the exploration effort was focused in the north-eastern part of the licence east of Rocky Creek where Ashton recovered chromites and microdiamonds in loam samples. This area is also covered by a helicopter electromagnetic survey completed in 1999 that produced seven anomalies. Ground testing of six anomalies included field inspection, electromagnetic, magnetic and gravity surveying but not loam sampling. The anomalies were attributed to Proterozoic inliers and no drilling was undertaken.

In 2004 Gravity Diamonds Pty Ltd completed an airborne gravity and magnetic survey over the area that includes EL25580. Lines were flown in an east-west orientation at 100m spacing and gravity data acquired corresponded to approximately 60m station spacing. The data is therefore limited to detection of relatively large kimberlite pipes (ie larger than those typical of Merlin). The magnetic data is also of limited use due to the east-west flight line orientation. Nineteen gravity anomalies were identified of which three were drill tested. No kimberlite material was intersected. Four additional anomalies were field inspected but not loam sampled and an additional ten anomalies were not field inspected at all.

6.0 EXPLORATION COMPLETED DURING REPORTING PERIOD

Field Work during the reporting period included geological reconnaissance and the

collection of 16 reconnaissance stream and loam samples. The samples are being processed for indicator minerals through the company's laboratory in Perth. Results from these samples are pending.

Sample Number	Easting	Northing	Type	Date	Result
09-204-001	618836.99	8100393.9	Stream	8/8/2009	pending
09-204-002	619160.88	8101041.76	Stream	8/8/2009	pending
09-204-003	620219.05	8101300.95	Stream	8/8/2009	pending
09-204-004	618750.57	8098947	Stream	8/8/2009	pending
09-204-005	620067.87	8097975.27	Stream	8/8/2009	pending
09-204-006	616396.65	8094692.74	Stream	8/8/2009	pending
09-204-007	617303.74	8095988.48	Stream	8/8/2009	pending
09-204-008	608255.15	8094822.24	Stream	8/8/2009	pending
09-204-009	611386.58	8094714.32	Stream	8/8/2009	pending
09-204-010	608751.93	8098601.48	Stream	8/8/2009	pending
09-204-011	608233.6	8099292.54	Stream	8/8/2009	pending
09-204-012	609745.22	8099314.19	Stream	8/8/2009	pending
09-204-013	611559.27	8100480.28	Stream	8/8/2009	pending
09-204-014	614215.52	8100415.5	Stream	8/8/2009	pending
09-204-015	616612.64	8100437.15	Stream	8/8/2009	pending
09-204-016	608492.78	8097133.04	Stream	8/8/2009	pending

7.0 EXPENDITURE STATEMENT

The exploration expenditure attributed to EL25580 during the current reporting period amounted to \$95,615 and is detailed in the accompanying Exploration Expenditure reporting form.

8.0 PROPOSED EXPENDITURE AND WORK PROGRAM

The proposed expenditure for the next twelve months is \$90,000 and is to include;

- Ground Geophysical Surveys
- Stream sampling
- Costeaning/drilling

9.0 REFERENCES

Ashton Mining Limited (2000). Annual Report for EL7201 and EL7816. 26th February 1999 to 25th February 2000. ML Report No. 52445. NTGS Reference CR2000-0102.

Gravity Diamonds Limited (2006). Year Three and Final Report for SEL22767. NTGS Reference CR2006-0516.

NTGS Strike Website (2009).

Top End Uranium Limited (2008). Top End Uranium Limited Prospectus. September 2007.