



**NATURAL
RESOURCES
EXPLORATION**

PARTIAL RELINQUISHMENT REPORT

Mudges Bore (EL 27749)

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Titles / Tenements:	EL(s): 27749
Project Names:	Mudges Bore
Report Title:	Partial Relinquishment Report – Mudges Bore (EL27749)
Type of Report:	Partial Relinquishment Report
Author(s):	Munro, N.
Company Ref:	NRE_NT2012: Mudges Bore - Partial Relinquishment Report
Target Commodity / Commodities:	Phosphate & Base Metals
Date of Report:	21 March 2012

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Summary

Section 94 of the ***Mineral Titles Act*** requires the submission of a Relinquishment Report prepared by the titleholder for each current Exploration Licence. This Partial Relinquishment Report for EL27749 offers a summary of the activities undertaken on the relinquished area for the life of the permit, including any results produced by those activities.

Natural Resources Exploration ('NRE') is the sole titleholder and operator of EL27749. NRE was granted EL27749 on 27 July 2010 for a term of six (6) years. NRE was subsequently granted the approval from the Department of Resources to incorporate this tenure into Group Technical Reporting for the project area known by NRE as its 'Brunette Downs Project'.

The work and expenditure program for EL27749 consisted of a geological and geophysical review of existing data and information towards determining the location of possible phosphate mineralisation within the tenement as well as any possible base metal potential. NRE carried out a detailed desktop evaluation but also a detailed on-ground geological assessment of EL27749. NRE conducted an initial helicopter assisted reconnaissance program in relation to its Brunette Downs Project area which included an area covered by this Relinquishment Area. NRE also collected various samples during this activity and engaged in geological mapping of the area.

In a subsequent exploration program following NRE's initial helicopter assisted reconnaissance program, NRE attended the Darwin Core Library for the purposes of analysing waterbore cuttings available within or in close proximity to its Brunette Downs Project. However, no water bores located in the Relinquishment Area have been tested by NRE.

NRE met all work and expenditure commitments for EL27749 for the term of the licence.

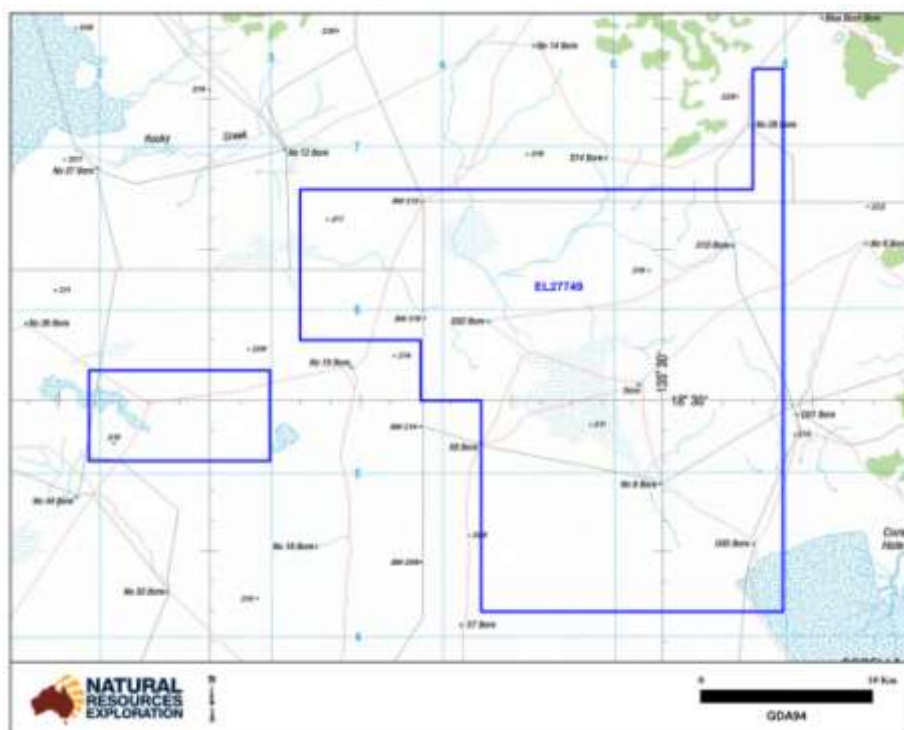
1. Introduction

Natural Resources Exploration's ('NRE') rationale and objectives for EL27749, more commonly known by NRE as its Mudges Bore Project, considered the evaluation of potential phosphate and base metal mineralisation within the tenement.

NRE also considered the potential for these forms of mineralisation across a broader area being known as NRE's 'Brunette Downs Project'. This tenure formed part of a number of tenures which make up NRE's 'Brunette Downs Project'. NRE's exploration rationale and objectives for its Brunette Downs Project also considered other targets such as potash, uranium and diamonds.

EL27749 was granted to NRE on 27 July 2010, consisting of a total of 451 sub-blocks. EL27749 is located largely on the flat Mitchell grassed plains of the Barkly Tablelands (**Figure 1**). The tenure is located entirely within the Neoproterozoic-Palaeozoic Georgina Basin, with a thin veneer of Carpentaria Basin rocks (Jurassic-Cretaceous) overlying the Georgina Basin rocks in some parts. **Figure 2** identifies the location of the relinquished area subject of this report.

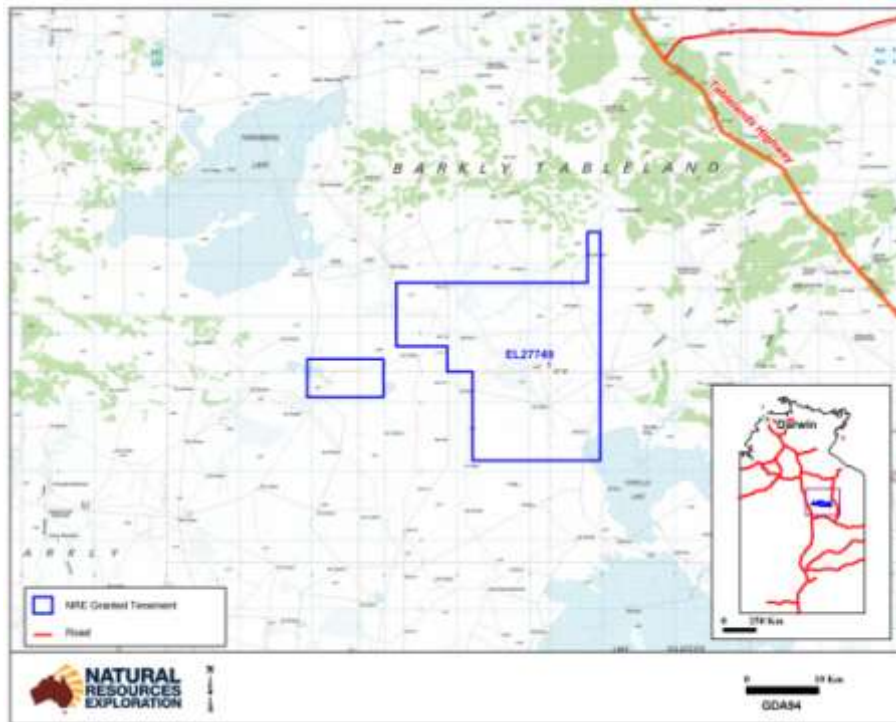
Figure 1. Topographic Map of Relinquished Area.



NRE conducted an extensive review of all previous exploration across the tenement, completed a reconnaissance helicopter assisted field trip and carried out soil and rock chip

sampling across the tenure. NRE also went on to conduct XRF analysis of water bore cuttings across the tenure, of those water bores held at the Darwin Core Library. On complete review of all desktop and field work conducted over the tenure, an area has now been nominated for relinquishment with the remainder of the tenure requiring follow-up work.

Figure 2. Location Map of Relinquished Area.

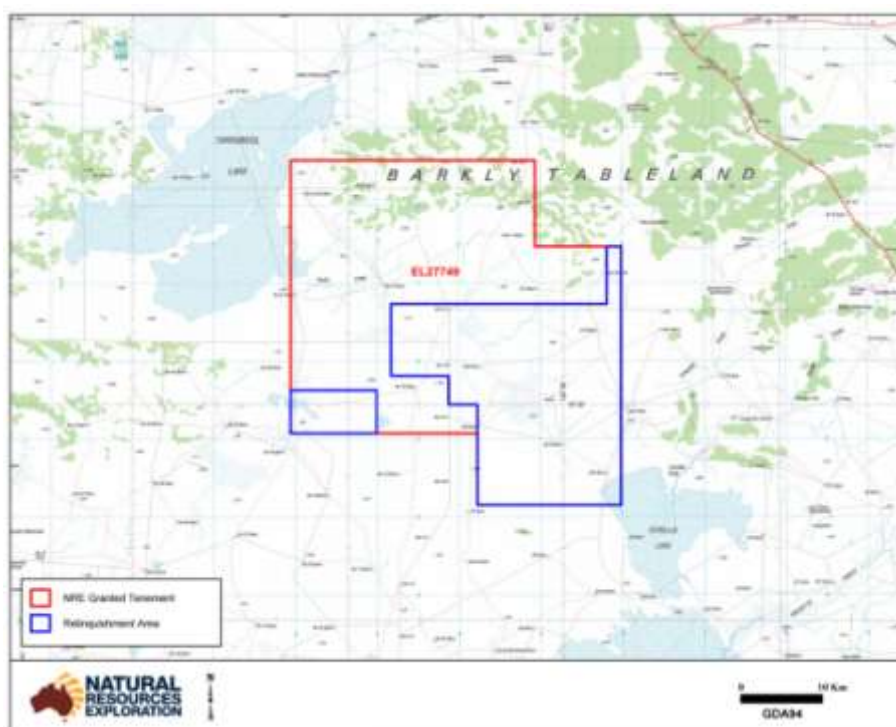


Currently, office-based exploration activities continue on the tenure with preliminary results confirming the need for further investigation.

2. History

EL27749 was granted to NRE for six (6) years commencing on 27 July 2010, as the sole titleholder and operator. NRE has recently nominated to relinquish 196 sub-blocks with the remainder of the permit comprising of 255 sub-blocks. **Figure 3** below identifies both the retained permit area and the relinquished permit area.

Figure 3. Relinquished Area & Permit Area Map.



The relinquished Sub-blocks subject to this report are as listed in **Table 1** below.

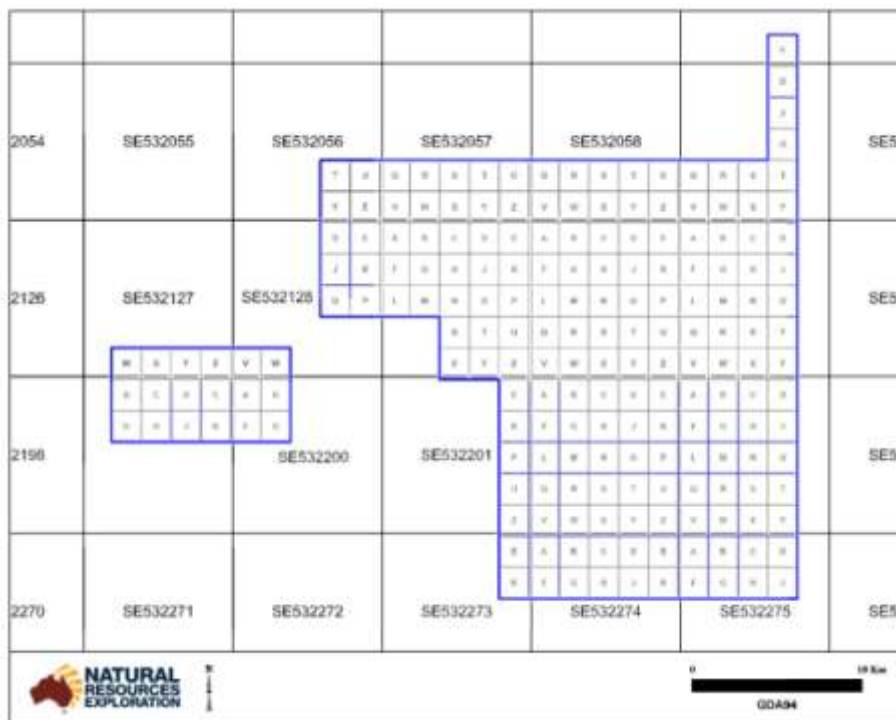
Table 1. Relinquishment Area Sub-block Identification.

Block Identification	Sub-block(s)
1987	Y.
2056	T, U, Y, Z.
2057	Q – Z.
2058	Q – Z.
2059	D, J, O, Q – T, V – Y.
2127	W – Z.
2128	D, E, J, K, O, P, V, W.
2129	A – P, S – U, X – Z.
2130	A – Z.
2131	A – D, F – J, L – O, Q – T, V – Y.
2199	B – E, G – K.

Block Identification	Sub-block(s)
2200	A, B, F, G.
2201	E, K, P, U, Z.
2202	A – Z.
2203	A – D, F – J, L – O, Q – T, V – Y.
2273	E, K.
2274	A – K.
2275	A – D, F – J.

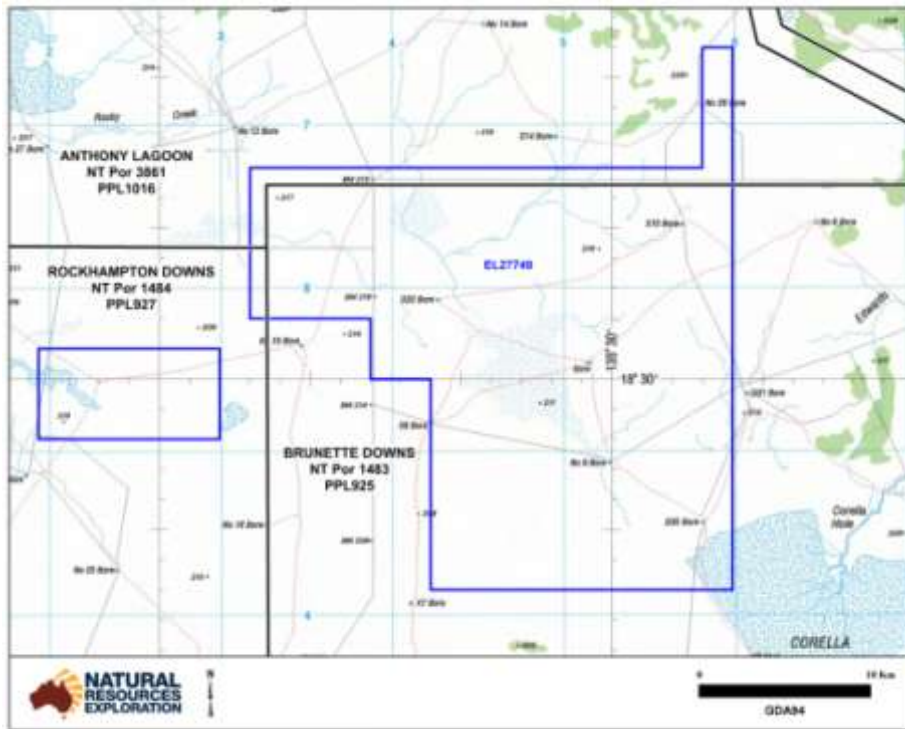
Figure 4 below illustrates the blocks and sub-blocks which have been nominated for relinquishment.

Figure 4. Sub-block Map of Relinquished Area.



Both the relinquished areas and retained permit area are located over surface lands that have not extinguished native title and which are comprised primarily of Perpetual Pastoral Leases (**Figure 5**).

Figure 5. Cadastral Map of Relinquished Area.



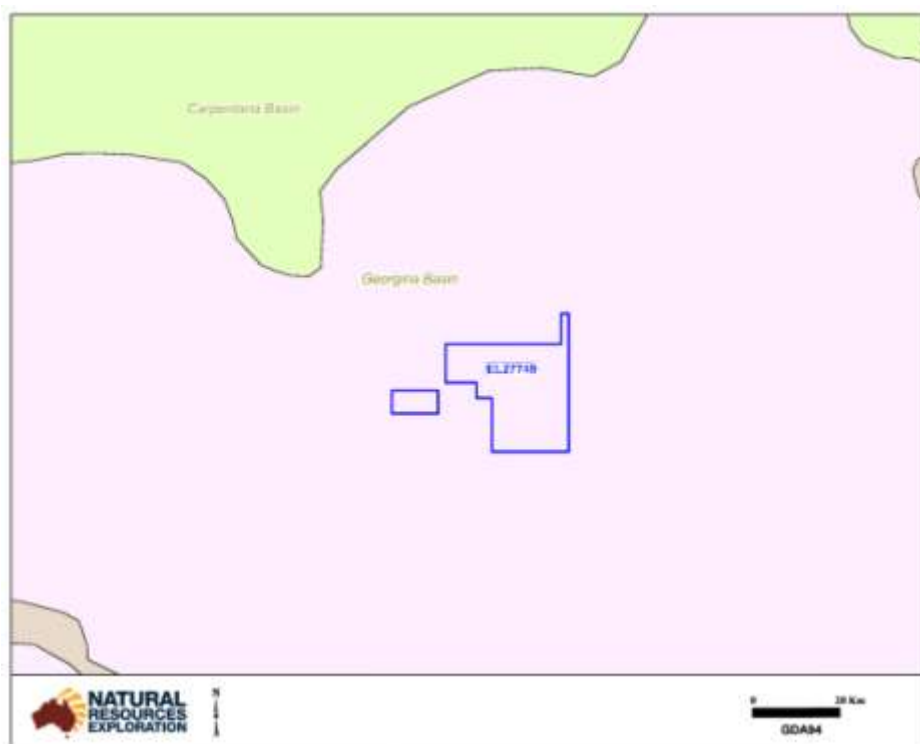
3. Geology

3.1 Regional Geology

EL27749 is located entirely within the Neoproterozoic-Palaeozoic Georgina Basin, with a thin veneer of Carpentaria Basin rocks (Jurassic-Cretaceous) overlying the Georgina Basin rocks in some parts to the north of the permit area.

The regional geology is shown in **Figure 6** below, being the North Australia Proterozoic Units (after Rawlings et al 2008). A general stratigraphic column illustrating the rock relationships across part of the Helen Springs 1:250,000 geological map is shown in **Figure 7**.

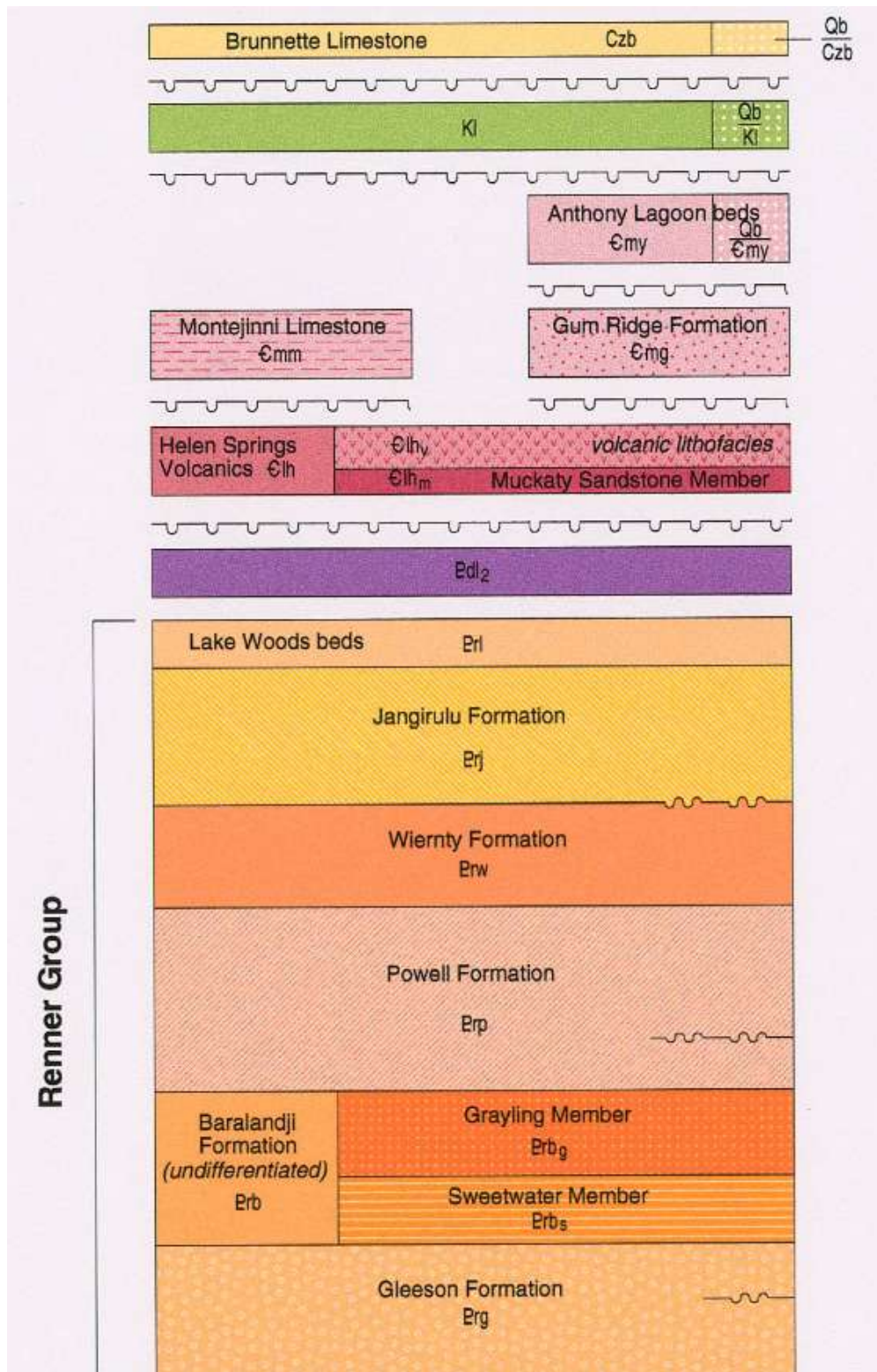
Figure 6. Regional Geology Map of Relinquished Area.



The Georgina Basin is a broad, northwest-southwest trending intracratonic depression which underlies an area of some 325,000 square kilometres of the Northern Territory and Queensland. Approximately 60 percent of the basin area lies within the Northern Territory.

In the northern and western parts of the Basin, the Georgina Basin is underlain by continental flood basalts of the Helen Springs Volcanics. These flood basalts are up to 500m thick and overlie the older Neoproterozoic Renner Group rocks.

Figure 7. Stratigraphic Column for rock units on the Helen Springs 1:250K Sheet.



The Kalkarindji continental flood basalt province is the new stratigraphic name (Glass and Philips, 2006) for a number of scattered basalt suites across northern and central Australia, including the sub-aerial Antrim Plateau Volcanics (minimum volume of 0.15 x 10⁶ cubic kilometres) and intrusive Milliwindi dolerite dyke in the north, and the stratigraphically correlated Nutwood Downs, Helen Springs, Peaker Piker and Colless Volcanics in the east (Dunn, 1963; Bultitude, 1976; Hanley and Wingate, 2000).

The Georgina Basin contains Cambrian and Ordovician, predominantly marine carbonate and clastic sediments, Devonian continental sediments and, in places, Neoproterozoic clastics. After an initial period of rift filling, sediments were deposited in a series of subtidal to supratidal environments over part of an extensive epicontinental shelf. The Palaeozoic sequence progressively thickens in the south-southeasterly direction, rarely exceeding 400 metres in the northern half of the basin, and reaching about 5000 metres in the southeast of the basin. The sedimentary sequence has been neither metamorphosed nor intruded by igneous rocks.

The basin has been deformed by minor to moderate folding and faulting, especially in the south and east, with moderate to severe folding and faulting and extensive overthrusting along the southern and southwestern margins. Most of the structural deformation occurred during the Late Devonian to Early Carboniferous Alice Springs Orogeny. The northern part of the Georgina Basin sequence is gently undulating with no pronounced folding recognised other than supratenuous (drape) folding.

3.2 Permit Geology

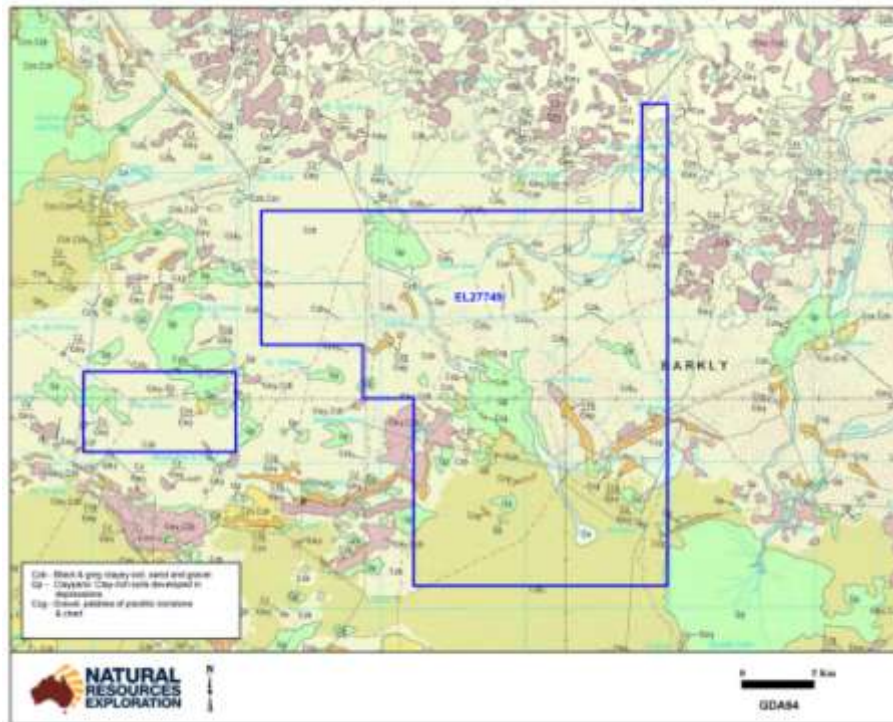
The permit / local geology within the area subject of relinquishment is generally poorly outcropping. The geology includes Cambrian units of the Georgina Basin with some remnant Cretaceous of the Dunmarra Basin and regolith (silcretes and calcretes) of Tertiary and Quaternary age and a unit known as the Brunette Limestone also of Tertiary-Miocene age.

In particular, the units shown on the Helen Springs and Brunette Downs 1:250,000 geological sheets indicate only sparsely outcropping units of the Anthony Lagoon Beds / Formation of Cambrian age. These are often present in a regolith form for example as accumulations of chert pebbles. Other outcropping lithotypes include the Brunette Limestone, a white limestone with chert nodules and chalcedony, which probably formed under lacustrine conditions.

The geology has been mapped and interpreted across the Helen Springs and Brunette Downs 1:250,000 geological sheets by government geologists who have mapped same in

two phases, in 1966 and in 2001. The permit geology of the relinquished area is illustrated in Figure 8 below.

Figure 8. Permit Geology Map of the Relinquished Area.



The Georgina Basin rocks generally outcrop poorly and much of the interpretation of the geology has been based on a limited amount of subsurface drilling for either petroleum or phosphate. There are essentially only three pre-Tertiary units present, the basement Helen Springs Volcanics, the Gum Ridge Formation and the Anthony Lagoon Formation.

4. Exploration Objectives and Rationale

The objective of NRE's exploration program on EL27749 and adjoining tenures is to consider and evaluate the potential for potash, phosphate and base metal mineralisation. The project was also considered for other targets such as uranium and diamonds during the early phases of exploration. Investigations were primarily aimed towards locating any outcropping of mineralisation and any indicators of possible subsurface mineralisation across the project area.

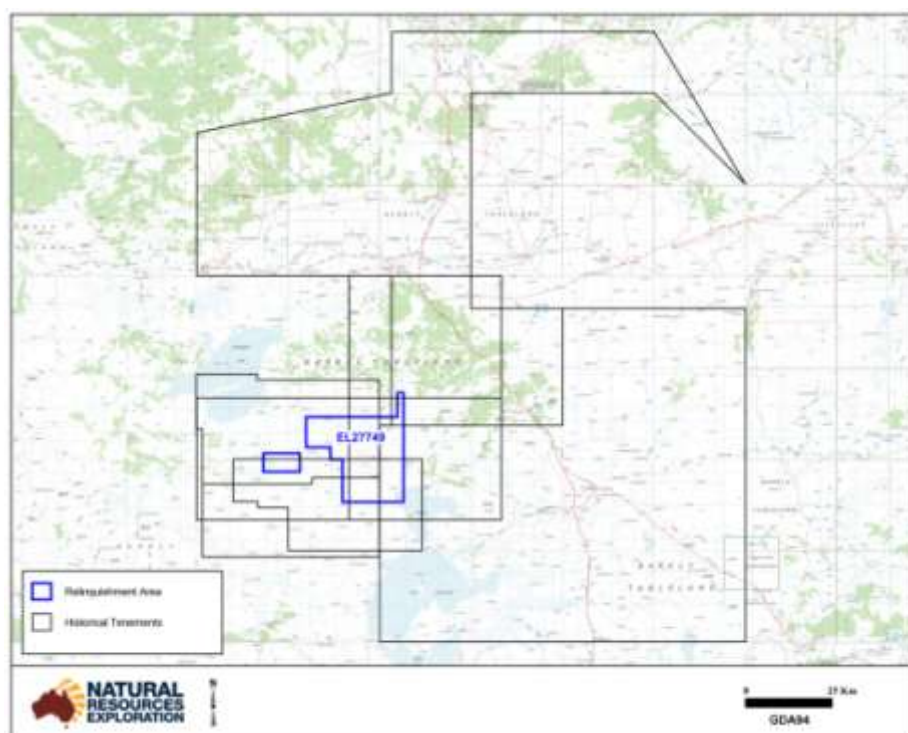
5. Exploration Activities carried out on the Relinquished Area

NRE's exploration activities during the term of the permit and in particular, of the relinquished area, consisted of both office-based and field activities. An initial regional assessment of the areas within NRE's Brunette Downs Project for phosphate and other commodities was conducted during the initial term.

The targets areas were identified based on desktop research of regional geological and geophysical data, augmented with compilation and assessment of all previous exploration results. The aim of work has been to carry out a field assessment of the prospects in order to identify target characteristics and define the next phase of exploration.

An array of material was assessed prior to field work, to assist with optimal target generation. This material included an extensive review of historic exploration conducted over the relinquished area. There has been a number of previous exploration tenements over the subject relinquished area (**Figure 9** below). A list of the previous exploration reports in relation to the relinquished area is shown in **Table 2** below.

Figure 9. Historical Tenements over the Relinquished Area.



There has been exploration for a variety of commodities across the relinquished area targeting diamonds, uranium and phosphate.

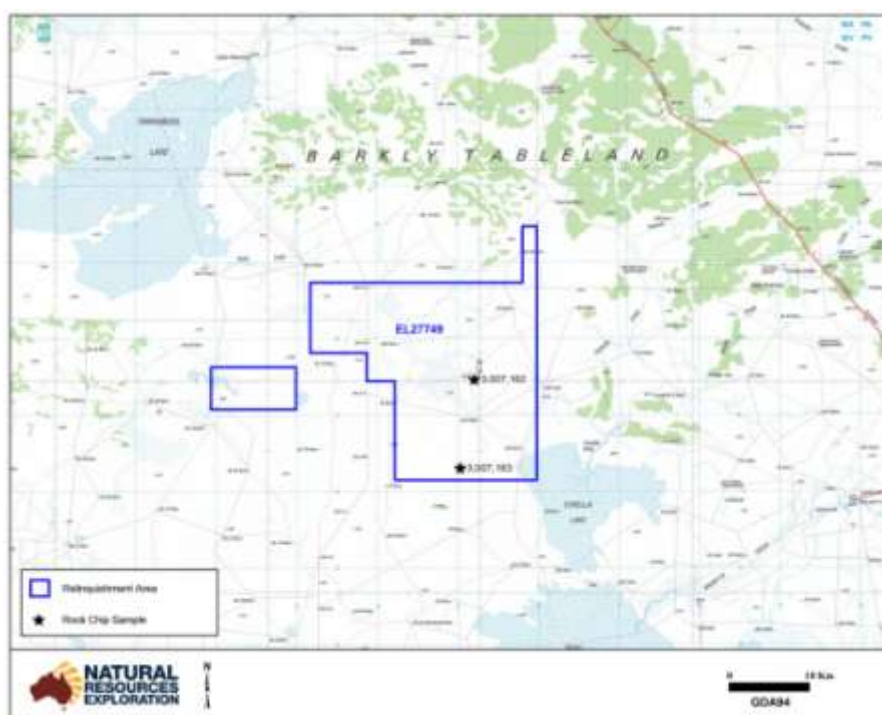
Table 2. Historical Reports.

Tenure	Period	Company Reports	Company
EL 23129	2003-2004	CR2004-0046	De Beers
EL 23130	2003-2004	CR2004-0046	De Beers
EL 4331	1983-1989	CR1984-0225,CR1985-0233,CR1986-0294	Ashton Mining Limited
EL 4330	1983-1989	CR1984-0224,CR1985-0232,CR1986-0293	Ashton Mining Limited
EL 4329	1983-1989	CR1984-0223,CR1985-0236,CR1986-0292	Ashton Mining Limited
AP 1919	1968	CR1968-0046	Tipperary Land Corporation
EL 2878	1980-1982	CR1982-0187	The Shell Company of Australia Limited
AP 1801	1967-1968	CR1968-0030	IMC Development Corporation

NRE completed a reconnaissance helicopter assisted field trip in October 2010. NRE introduced themselves to local landholders and assessed a number of field targets across their tenements which form NRE’s ‘Brunette Downs Project’. NRE also carried out geological mapping of the project area. The field trip proved successful in evaluating the tenement in the most effective and timely manner possible.

Geological characteristics were recorded at each site and bulk surface samples were collected. Two (2) samples were collected from within the relinquished area. **Figure 10** below identifies the location of these samples.

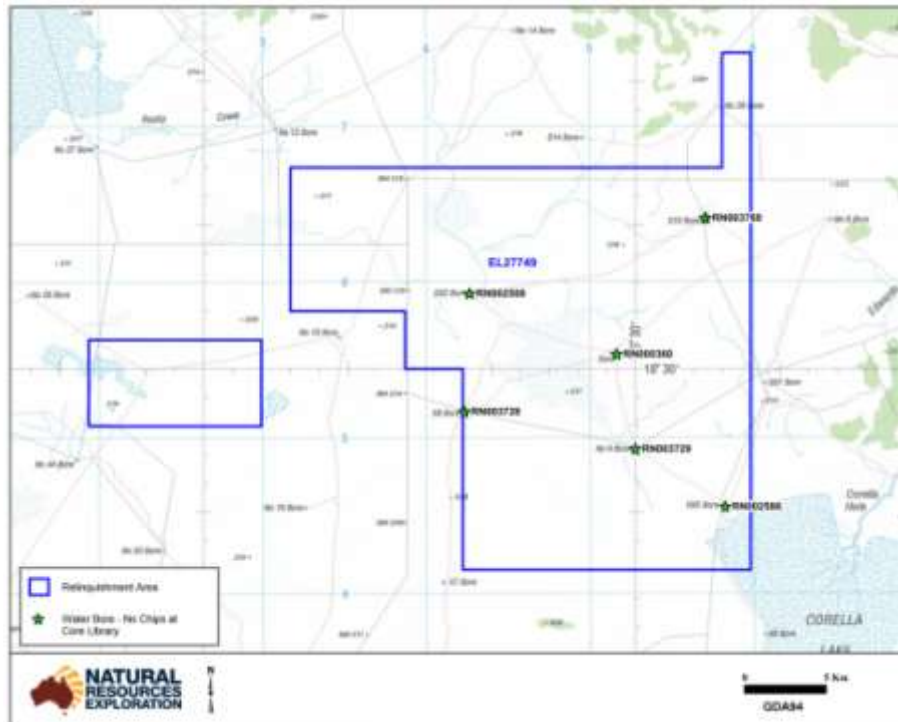
Figure 10. Rock Chip Sample locations within the Relinquished Area.



The results of the assaying of these samples by XRF are attached as **Appendix I**.

NRE also engaged Terra Search Pty. Ltd. to attend the Northern Territory's Darwin Core Facility to analyse a number of cuttings available from historically drilled water bores within its project areas. Six (6) water bores are located within the relinquished area however none of these water bores had chips available at the core library. **Figure 11** below identifies the location of these water bores.

Figure 11. Water Bore locations within the Relinquished Area.



6. Reports lodged during the reporting period

NRE lodged a Group Annual Technical Report with the Northern Territory Department of Resources on 25 August 2011, the report of which covered a number of tenures forming NRE's 'Brunette Downs Project'.

7. Conclusions

Natural Resources Exploration's exploration activities focused on delineating surface targets within the relinquished area with the aim of identifying any potash, phosphate or base metal mineralisation.

NRE conducted both office-based studies and field operations on EL27749 during the term of this tenure. NRE carried out a detailed geological assessment of the relinquished area which included considerable research prior to a helicopter reconnaissance program evaluating the area. Research included review and compilation of the data in the Northern Territory Geological Services' (NTGS) open file reports, air photo imagery and examination of the latest geological maps.

During NRE's helicopter reconnaissance program over the area, NRE targeted areas for ground evaluation on the basis of previous geophysical surveys, in particular aeromagnetics and radiometrics. Sites were tested using a scintillometer and by the taking of soil and rock samples. Geological observations were also recorded at each site. NRE also carried out XRF analysis of water bore cuttings across the broader area known as NRE's 'Brunette Downs Project', held at the Darwin Core Library.

The detailed geological assessment of the Brunette Downs Project has led to the following up of subsurface mineralisation indicators found in water bore cuttings, due to the lack of surface mineralisation identified during NRE's helicopter reconnaissance program. In relation to the relinquished area, NRE has concluded that the potential for mineralisation within this area is much lower than the remaining tenement area. NRE has delineated this area and nominated same after its extensive review of all previous exploration data and its newly acquired data in relation to this ground.

8. Bibliography

Bultitude RJ, 1976. Flood basalts of probably Early Cambrian age in northern Australia: in Johnson RW (editor) *Volcanism in Australasia*. Elsevier, New York 1 – 20.

Coniglio M and James NP, 1990. Origin of fine-grained carbonate and siliciclastic sediments in an Early Palaeozoic slope sequence, Cow Head Group, western Newfoundland. *Sedimentology* 37, 215 – 230.

Dunn PR, 1963. Hodgson Downs, Northern Territory. 1: 250 000 geological map series and explanatory notes, SD53-14. *Bureau of Mineral Resources, Australia*.

Glass LM and Philips D, 2002. A precise Ar-Ar age for the Kalkarinji low-Ti Continental Flood Basalt Province of northern Australia. *Australian National University, Research School of Earth Sciences, Annual Report 2001*.

Hanley LM and Wingate MTD, 2000. SHRIMP zircon age for an Early Cambrian dolerite dyke: an intrusive phase of the Antrim Plateau Volcanics of northern Australia. *Australian Journal of Earth Sciences* 47, 1029 – 1040.

Hussey KJ, Beier PR, Crispe AJ, Donnellan N and Kruse PD, 2008. *Helen Springs Northern Territory (Second Edition). 1:250 000 geological map series explanatory notes, SE53 – 10*. Northern Territory Geological Survey, Darwin and Australian Geological Survey Organisation, Canberra.

Kruse PD, 1990. Cambrian palaeontology of the Daly Basin. *Northern Territory Geological Survey, Report 7*.

Kruse PD, 2003. Georgina Basin stratigraphic drilling and petrography 1999 – 2002. *Northern Territory Geological Survey, Record 2003 – 005*.

Kruse PD, 2008. Georgina Basin stratigraphic drilling 2002 – 2006 and petrography 2000 – 2007. *Northern Territory Geological Survey, Record 2008 – 001*.

Kruse PD, Maier RC, Khan M and Dunster JN, 2010. *Walhallow-Brunette Downs-Alroy-Frew River, Northern Territory. 1:250 000 geological map series explanatory notes, SE53 – 07, SE53 – 11, SE53 – 15, SE 53 – 03*. Northern Territory Geological Survey, Darwin.

Note these (and many more) references are also located in the References section of the Mt Drummond 1:250,000 geological map series explanatory notes.

Appendix I

Rock Chip XRF Assay Results