YEAR 1

ANNUAL REPORT

BUCHANAN CREEK

EL28525

12/09/2011 to 11/09/2012

Title Holder:	**NATURAL RESOURCES EXPLORATION PTY. LTD.**
Operator:	Natural Resources Exploration Pty. Ltd.
Tenement Manager:	Becana Devencorn, Natural Resources Exploration Pty. Ltd.
Titles / Tenements:	EL(s): 28525
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Summary

Section 94 of the ***Mineral Titles Act*** requires the submission of an Annual Report prepared by the titleholder for each exploration licence. The purpose of the following Annual Report for Exploration Licence (EL) 28525 is to provide a summary of the activities carried out over the area, including results produced by those activities.

Natural Resources Exploration's ('NRE') has carried out a detailed geological assessment of its Buchanan Creek Prospect, Exploration Licence (EL) 28525, during the first year of grant. To delineate prospective areas for phosphate, uranium and diamond mineralisation and define the next phase of exploration, NRE carried out extensive office-based studies including desktop reviews of all previous exploration across EL28525 and its surrounding tenures in the Barkly region.

NRE also attended the Darwin Core Facility with a view to analysing water bore cuttings held at the library. NRE carried out both XRF and ALS Analysis of water bores located within EL28525 and within the region.

NRE is looking forward to undertaking further extensive exploration activities over its Buchanan Creek prospect during the second term of the licence.

1. Introduction

Natural Resources Exploration ('NRE') has carried out a detailed geological assessment of its Buchanan Creek Prospect, Exploration Licence (EL) 28525, during the first year of grant.

To delineate prospective areas for phosphate, uranium and diamonds mineralisation and define the next phase of exploration, NRE carried out extensive office-based studies including desktop reviews of all previous exploration across EL28525 and its surrounding tenures in the Barkly region.

NRE also attended the Darwin Core Facility with a view to analysing water bore cuttings held at the library. NRE carried out both XRF and ALS Analysis of water bores located within EL28525 and within the region.

Natural Resources Exploration ('NRE') is exploring for phosphate, uranium and diamonds in the Northern Territory's Barkly Sub-basin within the central Georgina Basin. Investigations were intended to locate any outcropping of any mineralisation and any indicators of any sub-surface any mineralisation within the tenement.

2. Tenure

NRE's exploration licence (EL) 28525, is more commonly known by NRE as its 'Buchanan Creek Prospect'. EL28525 was granted to NRE on 12 September 2011 consisting of 56 sub-blocks over the Barkly Tablelands. ***Table 1*** lists the pertinent tenement details.

Table 1. Tenement Details

Project Name	Tenement Name	Title No. (EL)	Sub-blocks	Sq. Km	Status	Grant Date	Term (Yrs)	Expiry Date
Barkly	Buchanan Creek	28525	56	182	Granted	12-Sep -11	6	11-Sep-17

Native Title

There is currently one Native Title Claim over the area, namely Dalmore Downs (DC01/30).

Recorded Sites

The Aboriginal Areas Protection Authority (the 'AAPA') has identified one restricted work area within the boundaries of the tenure.

2.1 Location and Access

EL28525 is located in the Barkly Tablelands approximately 350 kilometres to the northwest of Mount Isa and approximately 600 kilometres to the northeast of Alice Springs. The location of the project is shown in ***Figure 1.***

Access is from Mt Isa via the sealed Barkly Highway or Darwin via the sealed Stuart and Barkly Highways. Alternatively, EL28525 can be accessed by helicopter. Access to the project is identified in ***Figure 2***.

Figure 1. Location Map

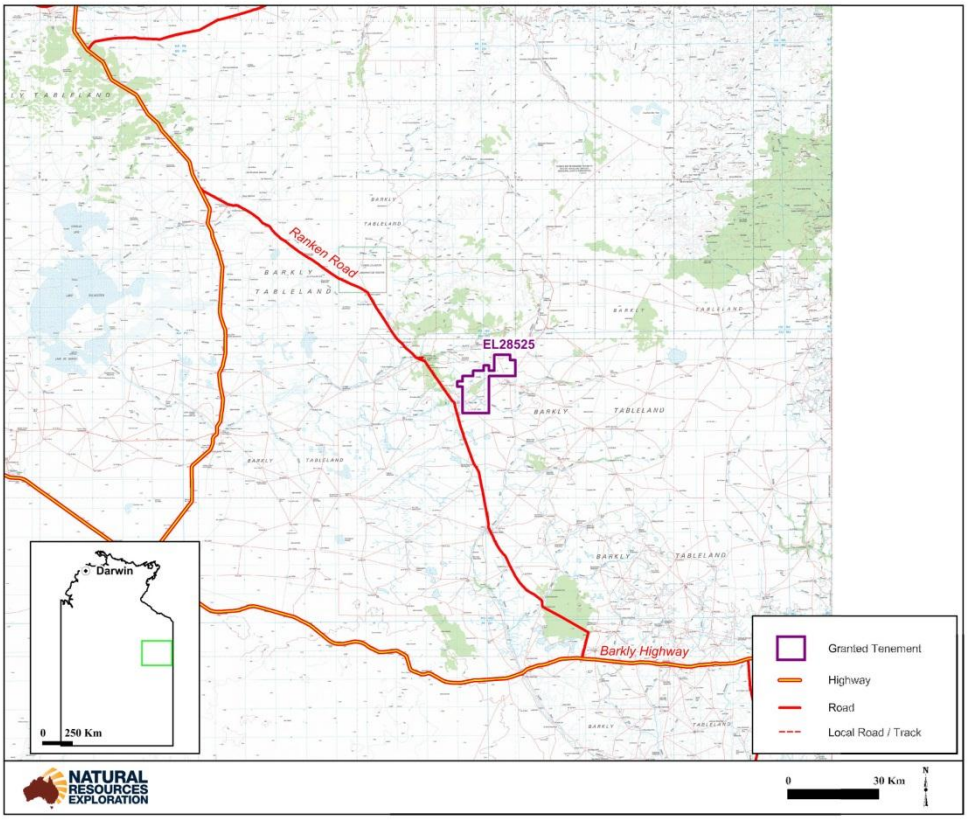
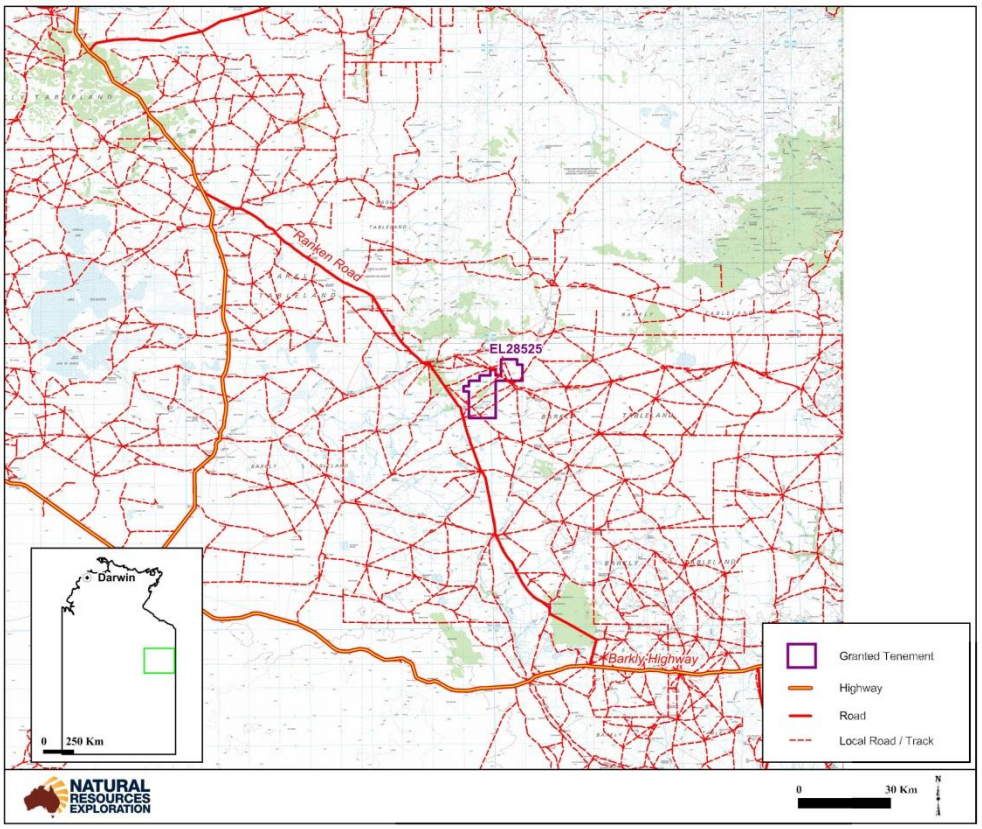


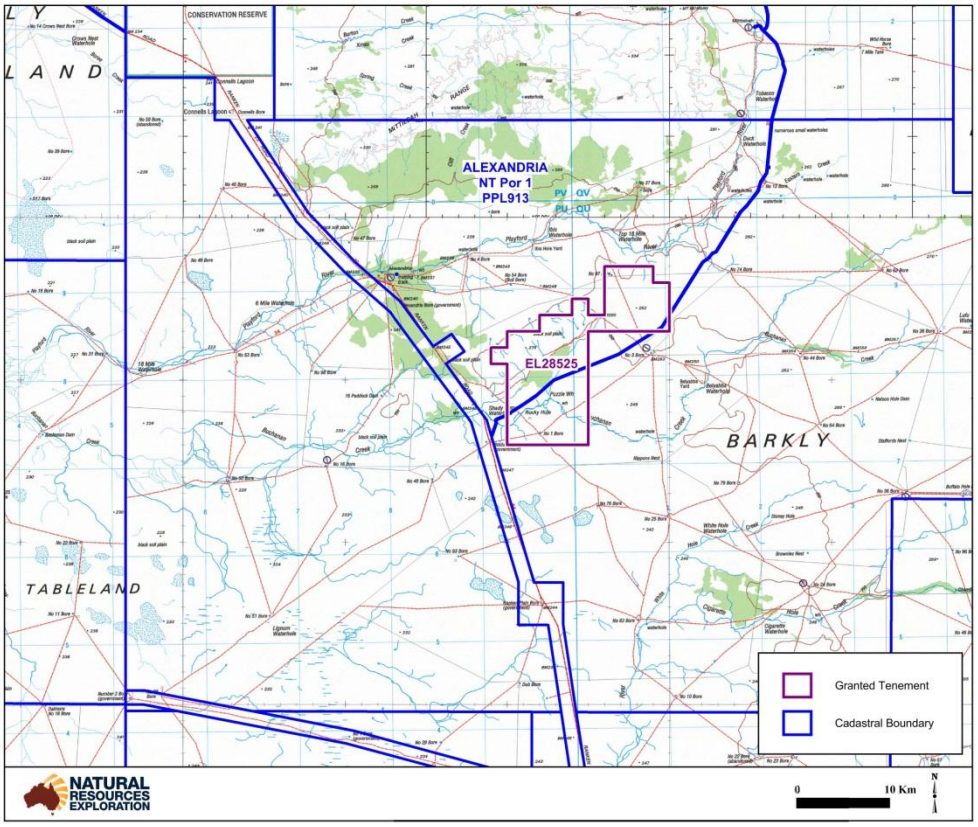
Figure 2. Access Map



Pastoral Leases

NRE's EL28525, Buchanan Creek Prospect overlies one (1) Perpetual Pastoral Leases namely, 'Alexandria' NT Portion 1 PPL 913. This Perpetual Pastoral Lease has been identified in ***Figure 3***.

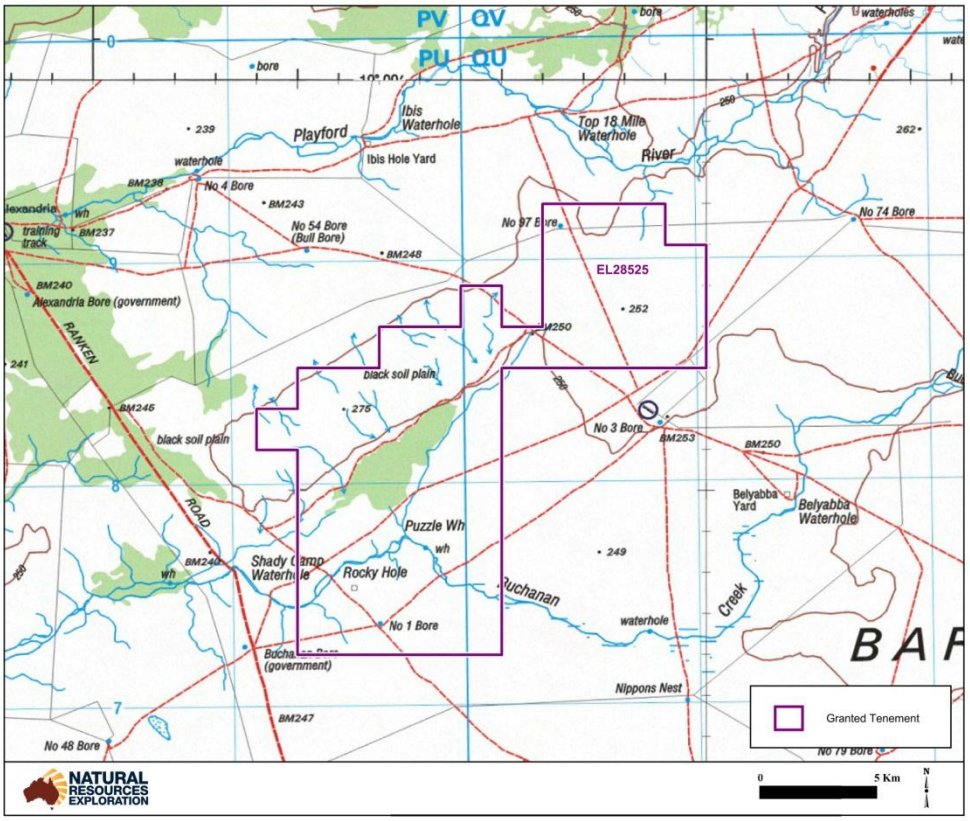
Figure 3. Cadastral Map



2.2 Topography and Drainage

The Barkly Tableland is a vast terrain of flat to very gently undulating black soil plains. The tenure is flat lying with clays soils and sheet wash. There are three lakes in the southern part of the tenure and minor outcrops of quartz sandstone and dolostone in the north eastern part of the tenure. The topography of the Buchanan Creek Prospect is depicted in ***Figure 4*** below.

Figure 4. Topography Map

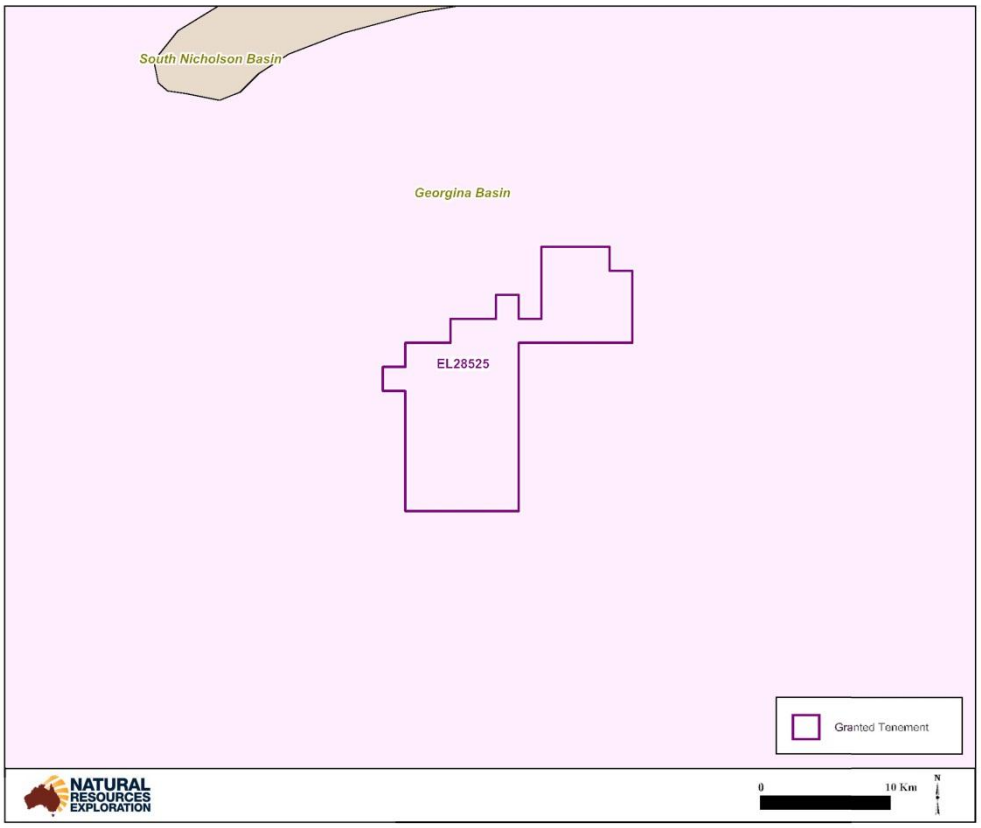


3. Geology

3.1 Regional Geology

EL28525 and the surrounding tenures within NRE's Barkly Project lie centrally within the Georgina Basin, straddling the boundary between the Barkly and Undilla Sub-basins (***Figure*** 5). Together with the Wiso and Daly Basins, which lie to the west and northwest respectively, the Georgina Basin constitutes an extensive (360,000 square kilometres remnant of the NeoProterozoic and Palaeozoic, sedimentary sequence that was originally deposited across an intra-continental platform that covered a large part of central Australia.

Figure 5. Regional Geology Map



The Georgina Basin comprises rocks ranging in age from Neoproterozoic to Devonian and covers an area of approximately 325,000 square kilometres. The Basin is elongated north west to south east and regional magnetic data can be used to infer a north west – south east structural grain with ridge and depression sub-basin topography.

3.2 Stratigraphy and sedimentology

Shergold and Druce (1980) subdivided the Basin sequence into three tectono-stratigraphic units or "tectotopes".

- Tectotope 1 is Neoproterozoic to Early Cambrian in age and consists of glacial, siliciclastic sediments overlain by marine and marginal marine or continental siliciclastic sediments.

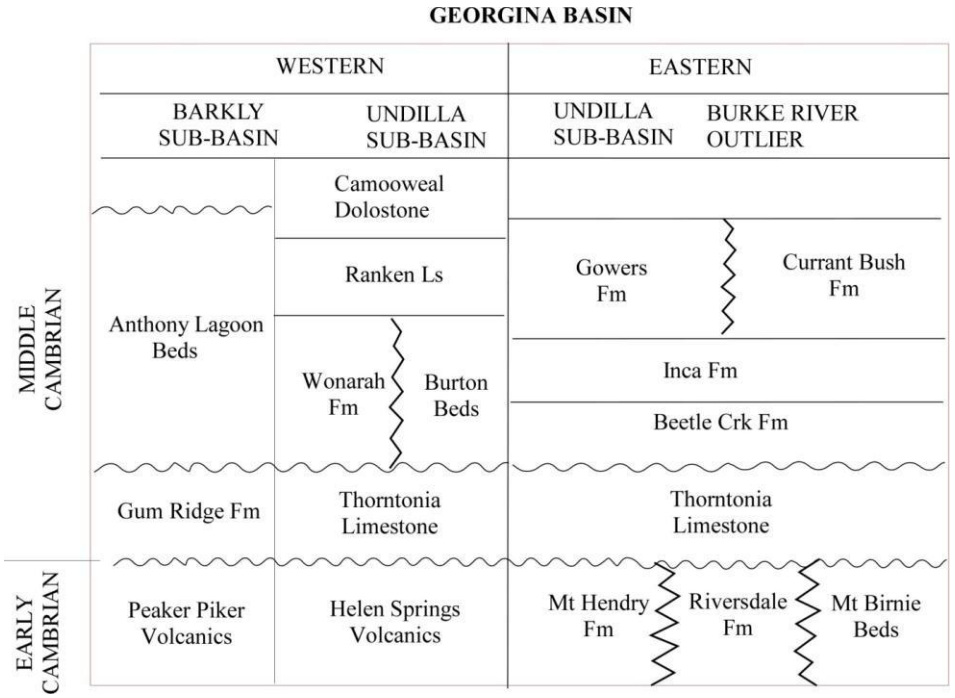
- Tectotope 2 is distributed widely across the Basin, is of Middle Cambrian to Ordovician in age and comprises sequences dominated by carbonates with some early siliciclastic units.

- Tectotope 3 is Ordovician to Devonian in age, dominated by siliciclastic rocks and occurs only in the south.

The significant phosphate deposits of the Georgina Basin occur in the Middle Cambrian and consequently the relevant part of the stratigraphy belongs to tectotopes 1 and 2. The sedimentology across the Basin is complex and consequently the stratigraphy developed by many people working in specific relatively localised areas includes a plethora of units and stratigraphic names.

As Cook (1989) noted that no single stratigraphic column can be provided for the Georgina Basin. ***Figure 6*** is an attempt to reconcile localised stratigraphic interpretations for the Early and middle Cambrian, which is most relevant to the discussion of phosphate mineralisation. The following outline of the geological history of the Georgina Basin from Neoproterozoic to Late Cambrian times is taken largely from Cook (1989). Sedimentation in the Georgina Basin was initiated in the Neoproterozoic in grabens formed by regional north east- south west extension. Tholeiitic basalts and felsic volcanic rocks were emplaced in the centre and north during the earliest Cambrian; these lie unconformably on Proterozoic basement and include the Helens Springs and Peaker Piper Volcanics. Elsewhere, the basal units of the Georgina Basin comprise conglomerates, sandstones, shales and glacial and fluvial sediments (e.g. Mount Birnie, Riversdale and Mount Hendry Formations).

Figure 6. Stratigraphic Summary of the Georgina Basin



Ongoing extension and subsidence were accompanied by a marine transgression and by the Middle Cambrian, the Basin was covered by a shallow intra-continental sea, rich in marine life. Extensive limestone and dolomitic sequences (e.g. Thorntonia Limestone and Gum Ridge Formation) were deposited. These also contain evidence for shallow, intertidal and highly saline conditions (e.g. algal structures and pseudomorphs of halite and gypsum crystals).

Following a short break in sedimentation, subsidence continued with the deposition of a sequence of siltstone and sandstones around the Basin margins and carbonate shoals in deeper water. Cook (1989) noted that this was a time when the Basin was characterised by a complex interplay of sedimentary environments, ranging from shallow marine, through intertidal and estuarine to lagoonal. It was also the time when the major phosphatic units (e.g. the Beetle Creek and Wonarah Formations and Anthony Lagoon and Burton Beds) and the phosphorites were deposited.

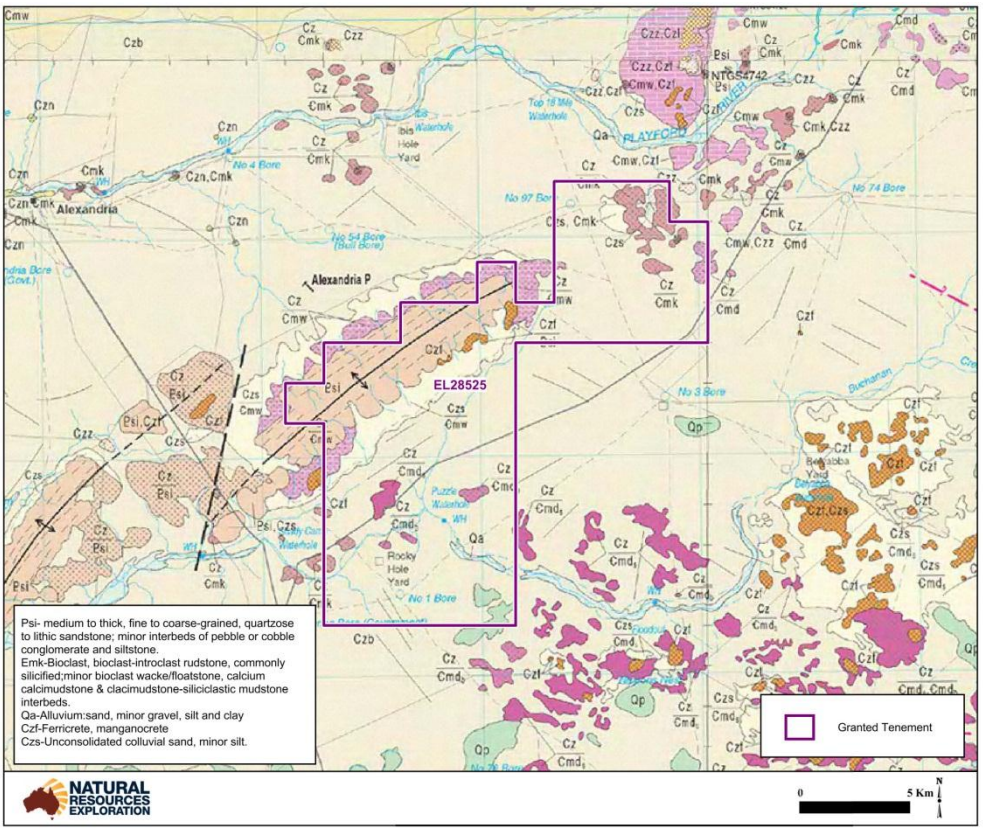
Formation of the phosphatic units of the Georgina Basin was followed by deposition of black organic-rich shales (Inca Formation) in near shore areas and shallow carbonates throughout most of the Basin. Carbonate sedimentation continued until uplift and erosion associated with the Delemarian Orogeny occurred in the Late Cambrian.

Howard (1990) used bore hole and drillhole, aeromagnetic and gravity data to define a phosphatic lithofacies within the Middle Cambrian of the Georgina, Wiso and Day Basins. The phosphatic horizon has an average width of 32 km and a thickness of between 10 and 190 metres. The strike length exceeds 2000 km. The phosphate deposits in the southeast are slightly younger than those found elsewhere. The dominant lithology of the phosphatic lithofacies is siltstone and the phosphatic horizon occurs either at basin margins, adjacent to Proterozoic basement (e.g. in the eastern Undilla sub-basin and Burke River outlier) or above structural basement highs (e.g. Barkly subbasin).

3.3 Permit Geology

EL28525 sits across the Barkly Tableland and overlies the Georgina Basin. The Barkly Tableland coincides closely with the north-central and northern parts of the Neoproterozoic to Palaeozoic Georgina Basin. Exposures of the basinal sediments in the area are rare, but where present, are typically composed of weakly deformed middle Cambrian carbonate sedimentary rocks. Locally overlying the Palaeozoic rocks are thin deposits of flat lying late Palaeogene limestone. Thin deposits of Cretaceous marine sediments also locally occur in the northern margin of the Barkly Tableland. The permit geology is illustrated in ***Figure 7***.

Figure 7. Permit Geology Map



4. NRE's Exploration Activities during the Reporting Period

In order to define the next phase of exploration, NRE's exploration program for the first term of its Buchanan Creek Prospect consisted of extensive desktop studies and a historic review of previous exploration over the tenure.

Our office-based studies have allowed us to delineate prospective areas for phosphate mineralisation. From these studies, NRE has begun modelling the phosphate horizon in the region with the view of conducting a future limited drilling program in conjunction with the surrounding tenures in the Barkly region.

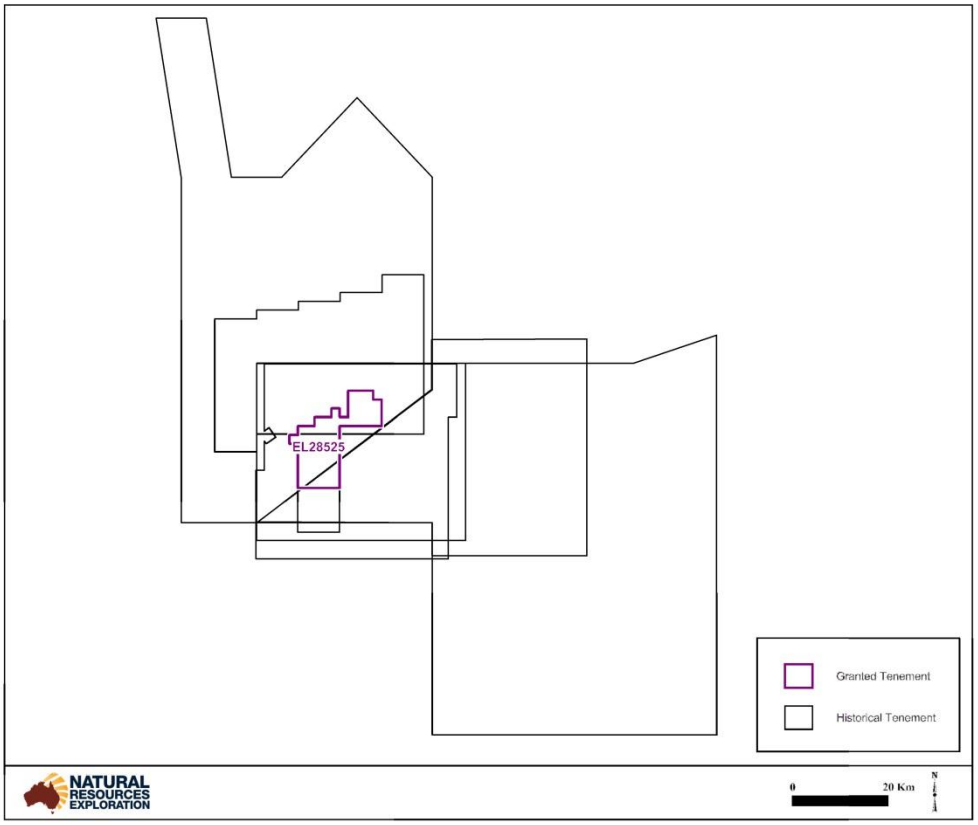
NRE also lodged an Exploration Report with the Northern Territory Department of Resources' Geoscience Division on 7 June, 2011. This report was required in respect of the XRF and ALS Assaying of Water Bore Chips at the Darwin Core Facility. The Exploration Report was titled ***'XRF & ALS Assaying of Water Bore Chips – Core Facility: Darwin'***.

4.1 Previous Exploration Studies

NRE has conducted an extensive review of historic exploration over EL28525. Historic exploration in this region has largely been for phosphate and diamond exploration with some uranium exploration. Encouraged by IMC's success in locating high grade phosphate in the late 1960's, a number of explorers have continued to search for phosphate in the region.

The Barkly region was part of the Australian Diamond Exploration Joint Venture regional programme to search for kimberlitic pipes. Results varied across the region with microdiamonds recovered, and intrusive pipes located. Recent exploration has favoured base metal mineralisation. A number of historic tenements have covered areas overlapping NRE's tenures and these are shown in ***Figure 8*** below.

Figure 8. Historic tenements over EL28525



NRE has reviewed a number of previous companies' exploration reports overlapping EL28525, including those listed in ***Table 2*** below.

Table 2. Historical Reports Reviewed by NRE

TENEMENT	PERIOD	COMPANY REPORTS	COMPANY
EL 26763	2008-2009	CR2009-1043	South Boulder Mines
EL 22978	2002-2003	CR2004-0044	De Beers Australia Exploration
EL 4530	1985-1991	CR1986-0111	Australian Diamond Exploration
EL 1082	1976-1977	CR1977-0040	Australian Fertilizers
AP 2159		CR1969-0022,CR1970-0038,CR1970-0083	IMC Development
AP 1788	1967-1968	CR1968-0030,CR1968-0057	IMC Development
AP 1766	1967-1971	CR1968-0030,CR1968-0031,CR1969-0022,CR1970-0037,CR1970-0038,CR1970-0039,CR1970-0082	IMC Development

4.2 Water Bore Cuttings Analysis

NRE attended the Northern Territory's Darwin Core Facility and conducted XRF Assaying of all water bore chips available within EL28525 as well as its surrounding tenures in the Barkly Region.

This exploration activity was completed in order to define any mineral potential within EL28525. The XRF Assaying of water bore chips at the Darwin Core Facility involved:

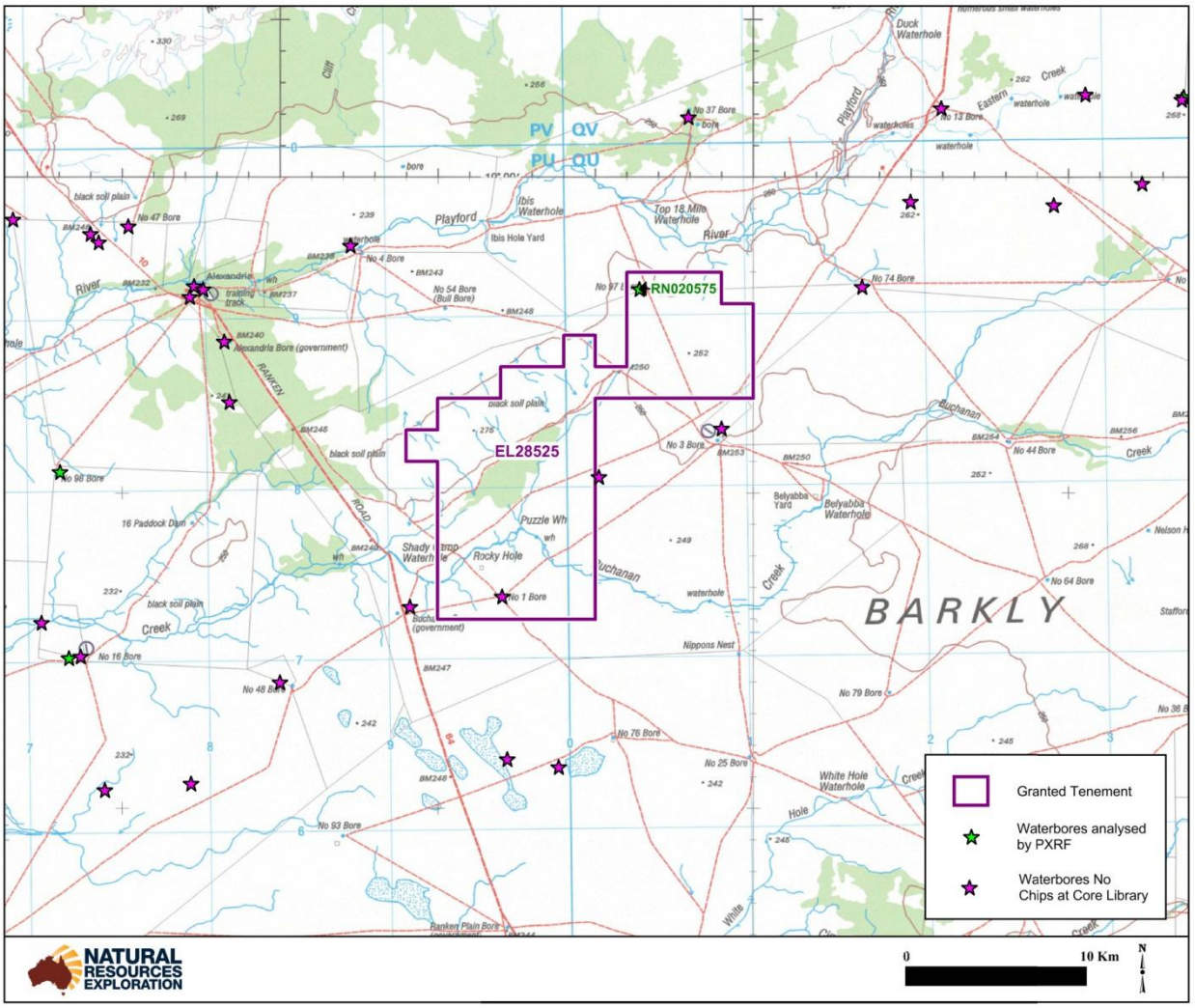
- Delineation of all water bores drilling in the project areas;
- Compilation and data entry of all relevant information recorded at the time of drilling, including geology intersected and water chemistry;
- Determination of water bore chips available for XRF analysis held at the Darwin Core Facility;
- Assessment and correlation of XRF results and geological data within each hole and across the project areas.

The XRF Analysis of water bore chips held at the Northern Territory Department of Resources' ('the Department') Darwin Core Facility has proved to be valuable to NRE in determining the mineral prospectivity of each of its project areas and specifically, in respect of each tenement.

After compilation and detailed interrogation of all currently available data within each tenement with the XRF results, NRE was provided with valuable insight into the mineral

potential of EL28525, its surrounding tenements and the region in general. The location of the water bores within or near NRE's Buchanan Creek Prospect is depicted in ***Figure 9.***

Figure 9. Water Bore Location Map



The Department kindly allowed NRE to set-up in the Darwin Core Facility where NRE's geologists undertook analysis of the water bore cuttings using a hand-held XRF device. There was one (1) additional water bore within EL28525 but no chips were held at the Core library.

Although not all water bores had cuttings available for testing ***(Table 3)***, NRE was able to test one (1) water bore within the Buchanan Creek Prospect ***(Table 4)***. Full results obtained are provided in ***Annexure 1.***

Table 3. Water Bores without cuttings

Hole_ID	MGA_53_E	MGA_53_N
RN000735	696315.7	7873647

Table 4. Water Bore tested using the XRF Device

Hole_ID	MGA_53_E	MGA_53_N
RN020575	704138.6	7891538

5. NRE's Exploration Activities for next 12 month period

The objective of NRE's exploration activities over the next 12 month period in relation to EL28525 is to delineate optimal drill targets for a limited drilling program within the region.

NRE intends to also take samples and take field assessments of the area with the objective of delineating optimal drill targets to test NRE's phosphate model and the phosphate potential of its tenements as well as obtain an indication of whether base metal mineralisation may be present within the region.

6. Reports lodged during the reporting period

NRE lodged an Exploration Report with the Northern Territory Department of Resources' Geoscience Division on 7 June, 2011. This report was required in respect of the XRF and ALS Assaying of Water Bore Chips at the Darwin Core Facility. The Exploration Report was titled ***'XRF & ALS Assaying of Water Bore Chips – Core Facility: Darwin'***.

NRE believes that no other reports were required to be lodged during this reporting period.

7. Conclusions

Natural Resources Exploration's exploration activities during the first term of EL28525 have been focused on determining the mineral prospectivity of the area, modelling phosphate horizons present in EL28525 and its surrounding tenements as well as delineating targets and developing a limited drilling program.

NRE believes that the region is prospective for fairly shallow phosphate mineralisation and NRE has successfully identified various targets for further exploration within EL28525 and other surrounding tenements. NRE will aim to conduct further studies in relation to these findings during its second term of grant with the view of considering conducting a limited drilling program.

NRE is looking forward to commencing its exploration activities during the second term of its Buchanan Creek prospect.

8. Bibliography

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Lyndsay-Park, K. (1980). Regional assessment and exploration model, Barkly Project. CSA Global Pty Ltd, Report No. 275.2008, for Mantle Mining Corporation Ltd.

Shergold, J.H., Druce, E.C. (1980). Upper Proterozoic and Lower Palaeozoic rocks of the Georgina Basin. In: Henderson, R.A., Stephenson, P.J. (Eds) The Geology and geophysics of northeastern Australia. Geological Society of Australia, Queensland Division, Brisbane, Australia, 149-174.

Shergold, J.H., Southgate, P.N. (1986). Middle Cambrian phosphatic and calcareous lithofacies along the eastern margin of the Georgina Basin, western Queensland. Australian Sedimentologists Group Field Guide No. 2, Geological Society of Australia, Sydney, Australia, 89 pages.

Note many more references are also located in the References section of the Alroy, Brunette Downs, Mt Drummond and Ranken 1:250,000 geological map series explanatory notes.

Appendix 1

Water Bore Cuttings XRF Assay Results