<table>
<thead>
<tr>
<th><strong>Title Holder:</strong></th>
<th>NATURAL RESOURCES EXPLORATION PTY. LTD.</th>
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<tbody>
<tr>
<td><strong>Operator:</strong></td>
<td>Natural Resources Exploration Pty. Ltd.</td>
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<tr>
<td><strong>Tenement Manager:</strong></td>
<td>Nicole Munro, Natural Resources Exploration Pty. Ltd.</td>
</tr>
<tr>
<td><strong>Titles / Tenements:</strong></td>
<td>EL(s): 27905</td>
</tr>
<tr>
<td><strong>Project Names:</strong></td>
<td>Nutwood Downs</td>
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<tr>
<td><strong>Report Title:</strong></td>
<td>Final Report – Nutwood Downs (EL 27905)</td>
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<td>Final Report</td>
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<tr>
<td><strong>Author(s):</strong></td>
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<td><strong>Company Ref:</strong></td>
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<tr>
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<td>Diamonds, Base Metals and Phosphate Mineralisation</td>
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<tr>
<td><strong>Date of Report:</strong></td>
<td>20 August 201329 January 2014</td>
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Summary

Section 34 of the *Mining Act* requires the submission of an Annual Report prepared by the titleholder for each exploration licence.

This Final Report for EL 27877, more commonly known to Natural Resources Exploration (‘NRE’) as its ‘Nutwood Downs’ Prospect which forms part of the approved Group Technical Reporting of the Daly Waters Project, provides a summary of the activities carried out over the permits in the life of the permit including any results produced by those activities.

NRE has carried out a detailed geological assessment of its Nutwood Downs Prospect, during the term. NRE’s exploration activities during the term also included considerable research prior to a site visit and initial reconnaissance program, sampling and geological mapping of the tenement.

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. NRE also carried out XRF analysis of water bore cuttings across the Daly Waters Project held at the Darwin and Alice Springs Core Libraries. NRE identified potential base metal mineralisation from these activities and thereafter designed a limited drilling program in order to obtain key geological information currently unavailable across the region, for example, depth to basement, as well as establish whether base metal mineralisation existed at a depth deeper than the somewhat shallow water bores previously drilled in the Daly Waters Region.

NRE applied for and was successful in its application for Drilling Collaboration with the Northern Territory Government as part of its Bringing Forward Initiative Program. NRE conducted a site visit and initial reconnaissance program on its Daly Waters Project as well as lodged a Mining Management Plan in respect of its drilling program. No drilling however was conducted on EL 27877.
1. Introduction

Natural Resources Exploration (‘NRE’) has conducted extensive office-based studies and field work during the term of EL27877 ‘Nutwood Downs Prospect’. This tenement formed part of a larger group known as the approved Group Technical Reporting for The Daly Waters Project.

The Daly Waters Project consisted of four (4) tenements (EL27877 Nutwood Downs, EL27878 Kalala, EL27879 Shenandoah and EL27905 Black Springs). Both EL27877 and EL27905 have now been surrendered.

The tenement and larger project area is located in the central north of the Northern Territory, approximately 500 kilometres southeast of Darwin. The township of Daly Waters is situated within an incised portion of the project area.

NRE conducted an extensive review of all previous exploration across the tenement, completed an initial site visit and reconnaissance program, applied for and was successful in a Drilling Collaboration Program with the Northern Territory Government and prepared and lodged a Mining Management Plan. NRE also went on to conduct XRF analysis of water bore cuttings across the tenures, held at the Darwin Core Library.

NRE’s exploration rationale and objectives for its Daly Waters Project considered the evaluation of 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 during the first year were intended to locate any outcropping of mineralisation and any indicators of any subsurface mineralisation across the tenements.

NRE did not conduct any drilling or geophysical surveys over EL 27877 and during the term conducted geological mapping, sampling and review of open file data.

2. Tenure

NRE’s Daly Waters Project consisted of four (4) granted exploration licences, EL27877, EL27878, EL27879 and EL27905. Together, these tenures covered an area of 1,415 sub-blocks across Daly Waters making up an area of approximately 4,688 square kilometres.

The first tenure, EL 27877 was granted on 27 July 2010, EL27879 on 3 August 2010 and 27878 and 27905 we both granted on 15 September 2010. Table 1 lists the pertinent tenement details for EL 27877.

Table 1. Tenement Details

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Tenement Name</th>
<th>Title No. (EL)</th>
<th>Sub-blocks</th>
<th>Sq. Km</th>
<th>Status</th>
<th>Grant Date</th>
<th>Surrender Date</th>
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<tr>
<td>Daly Waters</td>
<td>Nutwood Downs</td>
<td>27877</td>
<td>290</td>
<td>958</td>
<td>Granted</td>
<td>27 Jul 10</td>
<td>18 July 2013</td>
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NRE – Nutwood Downs (EL27877) – Final Report 4
Pastoral Leases

NRE’s Nutwood Downs Project overlies three (3) Pastoral Leases, namely NT Por 6365 PPL 1189 ‘Maryfield’, NT Por 697 PPL 1064 (“Kalala”) and NT Por 1513 PPL 1052 (“Nutwood Downs”). Pastoral Leases across the Project Area are located in Figure 1 below.

Figure 1. Cadastral Map

2.1 Location and Access

Location

EL27877 formed part of the Daly Waters Project which consisted of EL27877, 27878, 27879 and 27905 located in the central north of the Northern Territory, approximately 500 kilometres southeast of Darwin. The township of Daly Waters is situated within an incised portion of the project area in respect of EL 27878.

The Stuart, Buchanan and Carpentaria Highways intersect the project area and numerous minor roads and unpaved tracks cross the tenures. The Adelaide – Darwin Railway Line lies
approximately 1 kilometre away of EL27905 and 50 to 150 kilometres to the west of the remaining block of tenures.

Location and access to the project areas are identified in **Figure 2**.

**Figure 2.** Location and Access Map

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2.2 **Topography and Drainage**

The topography across the project is predominantly gently undulating, with elevation ranging between 200 and 250 meters above sea level.
2.3 Climate and Vegetation

The climate is monsoonal and subtropical; relatively cool and dry between April and October and warm to hot and humid during the wet season (November – March). Vegetation comprises typical savannah with low trees interspersed amongst grasslands with thickets of riverine vegetation along drainage lines.

The nearest weather monitoring station is at Daly Waters. Average temperatures at Daly Waters range from a low of 12°C in July to a high of 38°C in November/December. Average annual rainfall is 665mm with the majority of the rain falling in the ‘wet season’ from November through to March with January typically being the wettest month.

Average humidity ranges from a low during the dry season of 21% (August/September) and increases to a high during the wet season of 46% (February).
3. Geology

3.1 Regional Geology

The Daly Waters Project tenements are located in the central region of the Mesozoic Dunmarra Basin, an unmetamorphosed intracratonic basin unconformably part of the Neoproterozoic-Palaeozoic overlying the Georgina, Wiso and Daly Basins and Palaeoproterozoic-Mesoproterozoic sedimentary rocks of the McArthur Basin. The Dunmarra Basin is largely unmetamorphosed and attains a maximum thickness of ~100 meters. No mineral occurrences are known but potential is thought to exist for diamondiferous kimberlite pipes, phosphates, base metals and uranium. The regional geology is shown in Figure 3.

**Figure 3. Regional Geology Map**

The unmetamorphosed Georgina Basin is an intracratonic Neoproterozoic to Devonian sedimentary basin forming part of the Central Australian Platform Cover. The Basin is an erosional remnant of a series of originally interconnected central Australian intracratonic basins (the Centralian Super-Basin) that range from Neoproterozoic to Palaeozoic. The
Basin contains up to 3.7 kilometres of sedimentary rocks with frequent oil shows throughout. Although mainly explored for phosphate, oil and gas, several small lead-zinc occurrences are located along the southern margin. The large Wonarah phosphate deposit and a number of smaller deposits and prospects exist within the Basin. Base metal potential in the southern part of the basin has been highlighted by recent NTGS studies whilst a large part of the basin is currently under exploration for diamonds.

Like the Georgina Basin, the Wiso Basin (Cambrian to Devonian) is an unmetamorphosed intracratonic sedimentary basin that also forms part of the Central Australian Platform Cover. It unconformably overlies the Aileron Province metamorphic rocks to the south, Tanami Region and Victoria-Birrindudu Basin to the west, and Tennant Creek Region to the east. Cretaceous rocks of the Dunmarra Basin cover its northern margin. Sediments in the Wiso Basin are up to three (3) kilometres thick and although rare oil shows are noted in stratigraphic drillholes, no petroleum wells have been drilled. The Basin is considered prospective for petroleum and phosphate and is currently being explored for diamonds.

Similarly, the Daly Basin (Cambrian to Ordovician), is an unmetamorphosed sedimentary basin forming part of the Central Australian Platform Cover. Up to 1 kilometre thick, it unconformably overlies the Pine Creek Orogen metamorphic rocks and MacArthur Basin to the north and east and the Victoria Basin to the west. Cretaceous rocks of the Dunmarra Basin cover its southern margin. Little exploration has been conducted in the basin but it is a source of limestone suitable for quicklime and cement and potential exists for Mississippi Valley-Type (MVT) Pb-Zn occurrences. Some potential also exists for phosphate deposits. Unmetamorphosed sedimentary rocks of the Mesoproterozoic-Palaeoproterozoic McArthur Basin forms part of the North Australian Platform Cover and unconformably overlie the Palaeoproterozoic Pine Creek Orogen to the northwest, the Murphy Inlier to the southeast and Arnhem Inlier to the northeast. Hosting the McArthur River Zn-Pb-Ag mine, several minor occurrences of base metals and uranium are known and the basin is considered to have significant exploration potential for sediment hosted base metal deposits.

### 3.2 Permit Geology

The local geology is dominated by Cainozoic and Tertiary sedimentary units comprising alluvium and black soil (Cza), haematitic clayey soils, residual sands and ferruginous rubble (Czs), laterite, nodular and pisolith ironstone and ferruginous rubble (TI). These ferruginous and lateritic weathering profiles have developed over poorly exposed Crataceous marine sediments of the Mullaman Beds (Klm) (claystone, siltstone, glauconitic sandstone and ferruginous conglomerate) in response to prolonged weathering during the Tertiary.
The Cretaceous Mullaman Beds represent the oldest outcropping geology in the region. However, unconformably underlying this stratigraphy are Middle Cambrian Limestones and Lower Cambrian basic volcanics, primarily comprised of basalt.

The permit geology for all tenures is illustrated in Figure 4 below.

4. **NRE’s Exploration Activities during the Reporting Period**

NRE’s exploration program for the term consisted of an initial regional assessment of areas within the Daly Waters Project for phosphate, base metals and other commodities.

The targets within Nutwood Downs were identified based on desk top research of regional geological and geophysical data, augmented with compilation and assessment of all previous exploration results.

The aim of work was to identify areas of possible further exploration work and in particular, areas and models for mineralisation across the four (4) tenements forming the Daly Waters Project.
An array of material was assessed during the first term to assist with optimal target generation and included:

- Data from all previous exploration as documented in open file reports retrieved from the Northern Territory Government, including:
  - Surface geological sampling,
  - Geochemical anomalism mapping,
  - Geological mapping,
  - Detailed geophysical survey data,
  - Geophysical anomalism mapping,
  - Drilling results, and
  - Local and regional geological assessments and conclusions derived from exploration programs.

- Water bore data available for all bores drilled in the regions of interest. This data includes geological logging and water assaying.

- Geological maps provided by the Northern Territory Government.

- Aeromagnetics, aero-radiometrics and gravity surveys provided by the Northern Territory Government.

- Satellite imagery, ASTER and Google Earth imagery.

- Data supplied by landowners in relation to geological and topographic features of interest on their properties.

4.1 Previous Exploration Studies & Assessment

NRE has conducted an extensive review of historic exploration over its Daly Waters Project. The earliest exploration on record dates back to 1971 by Comalco which explored for bauxite. Much of the exploration since this time was for diamonds with a number of companies such as CRA Exploration Limited, AOG Minerals, Ashton Mining Ltd, De Beers Australia Exploration, Diamond Mines Australia and Aberfoyle Exploration.

Diamond exploration by these companies was ultimately considered as unsuccessful in locating kimberlite pipes. Previous exploration has been summarised in Table 2 and location of historic tenements is shown in Figure 5.
<table>
<thead>
<tr>
<th>Tenure Number</th>
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<td>EL 25958</td>
<td>2008-2009</td>
<td>CR2008-0759,CRI2009-1042</td>
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<td>EL 23019</td>
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<td>EL 25924</td>
<td>2007-2008</td>
<td>CR2008-0905,CRI2009-0367</td>
<td>Sandstone Uranium Pty Ltd</td>
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</table>
In addition to a comprehensive desk top study of all previous exploration associated with the Daly Waters Project region, water bore analysis and assessment of geophysical imagery has taken place across the tenure. Work has included the following:

**Geophysical Imagery Analysis**

- Assessment of regional radiometrics to identify any radiometric anomalies in the region – correlation with water bore data and surface geology.
- Assessment of regional aeromagnetics to identify any magnetic anomalies in the region – correlation with water bore data and geology; and
- Assessment of regional gravity data to identify any density anomalies in the region – correlation with water bore data and geology.

4.2 Water Bore Cuttings Analysis

NRE 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 around its Daly Waters Project (Figure 6).

The Northern Territory Geological Survey (NTGS) maintains a database and storage facility for samples from historic water bores drilling in the Northern Territory.

NTGS has, for research and exploration purposes, made available access to both their records and descriptions of the water bores as well as physical access to the samples kept for a large number of the bores at their facilities in both Darwin and Alice Springs. The water bore samples are kept in either Darwin or Alice Springs, according to the proximity of the water bores to these cities. All the water bore data relevant to the Daly Waters Project was located at the Darwin facility.

In January 2011, 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 and re-logged water bores. Work in relation to the water bore analysis included:

- Delineation of all water bores drilling in the project area;
- 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;
- XRF Analysis of all relevant water bore chips available for the project area
- Re-assay of selected samples at ALS laboratories for further confirmation of mineral anomalies;
- Accurate re-log of all relevant water bore chips available for the project area;
- Assessment of XRF results and geological data; and
- Correlation with historic exploration data and geophysical imagery and integration of all results to determine the mineral prospectivity within each tenement.

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’.
5. Reports lodged during the reporting period

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

6. Conclusions

NRE conducted extensive reviews in relation to the tenement and believes that no further exploration is warranted at this time. NRE made application to the Department to completely surrender the entire title for EL27877 under section 103 of the Mineral Titles Act. EL27877 was surrendered on 18 July 2013.
Bibliography


