COMBINED REPORT:
YEAR 2 ANNUAL & FINAL
21/10/2011 to 18/07/2013
Dingo Creek
(EL 28763)

Title Holder: NATURAL RESOURCES EXPLORATION PTY. LTD.
Operator: Natural Resources Exploration Pty. Ltd.
Tenement Manager: Nicole Munro, Natural Resources Exploration Pty. Ltd.
Titles / Tenements: EL(s): 28763
Project Names: Dingo Creek
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Target Commodity / Commodities: Rare Earth Elements, Precious Metals and Base metals
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Summary

Section 94 of the *Mineral Titles Act* requires the submission of reports prepared by the titleholder for each Exploration Licence about the authorised activities conducted under the title and other matters relating to the title. The following report is a combined Year 2 Annual and Final Report for Exploration Licence (EL) 28763, known to NRE as its ‘Dingo Creek Prospect’, prepared by Natural Resources Exploration (‘NRE’).

To delineate prospective areas for rare earth elements, base metals and precious metal mineralisation and define the next phase of exploration, Natural Resources Exploration (‘NRE’) has carried out extensive field activities and office-based studies on EL28763, known to NRE as its ‘Dingo Creek’ Prospect. Based on the assessment of the activities conducted within EL28763 itself, NRE made application to the Department to completely surrender the entire title for EL28763 under section 103 of the *Mineral Titles Act*.

Activities in the first year consisted of helicopter reconnaissance, geological mapping and rock chip sampling while office-based activities included desktop reviews of all previous exploration across the tenement, assessment of the geology, radiometrics, aeromagnetics, gravity and ASTER imagery. NRE also conducted a site visit to the Alice Spring Core Library for the purposes of testing available water bore cuttings within Dingo Creek Prospect area. These field activities are all reported on in the Year 1 Annual Report for EL28763.

The purpose of the following combined Annual and Final Report for EL28763 is to provide a summary of the activities carried out over the entire area of EL28763 up to the time when the title ceased to be in force, including any results produced by those activities.

NRE’s exploration rationale and objectives for its Dingo Creek Prospect considered the evaluation of potential rare earth, base metal and precious metal mineralisation. Investigations were intended to locate any outcropping of mineralisation and any indicators of any sub-surface mineralisation within the tenement. NRE carried out a detailed geological assessment of EL28763 including considerable research and extensive office-based studies. 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 believes that there is no rehabilitation required in relation to EL29281 as no field activities involving substantial land disturbance have been carried out during the term of the licence.
1. **Introduction**

Natural Resources Exploration (‘NRE’) was granted EL 28763 on 21 October 2011, consisting of a total of nine (9) sub-blocks. EL 28763 is located approximately 150 kilometres to the north east of Alice Springs in the Northern Territory.

NRE’s exploration rationale and objectives for its Dingo Creek Prospect considered the evaluation of rare earth elements, base metals and precious metals. Investigations were intended to locate any outcropping of mineralisation and any indicators of any sub-surface mineralisation within the tenement based on desktop reviews.

Based on the exploration activities conducted on EL28763, NRE made application to the Department to completely surrender the entire title for EL28763 under section 103 of the *Mineral Titles Act*. EL28763 was surrendered on 18 July 2013. During the entire term of its licence period, NRE was the sole titleholder and operator of EL28763.

NRE carried out a detailed geological assessment of EL28763 including considerable research and extensive office-based studies up until the title ceased to be in force over all of the title 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. NRE also collected two (2) samples and analysed those samples as part of its initial helicopter reconnaissance program involving sampling and geological mapping of the tenure.
2. Tenure

NRE’s exploration licence (EL) 28763, is more commonly known by NRE as its ‘Dingo Creek Project’. EL28763 was granted to NRE on 21 October 2011 consisting of 9 sub-blocks and covering an area of 28.57 square kilometres.

*Table 1* lists the pertinent tenement details.

**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>
</tr>
</thead>
<tbody>
<tr>
<td>Arunta</td>
<td>Dingo Creek</td>
<td>28763</td>
<td>9</td>
<td>28.57</td>
<td>Surrendered</td>
<td>21-Oct-11</td>
<td>18 July 2013</td>
</tr>
</tbody>
</table>

Native Title

There is currently no native title claims over the Dingo Creek Prospect (EL 28763).

Recorded Sacred Sites

There is no Recorded Sacred or Registered Sacred Sites within the Dingo Creek Prospect.

Pastoral Leases

NRE’s Dingo Creek Prospect overlies two (2) Pastoral Leases, namely ‘Delmore Downs’ NT Portion 714, PPL 1126 and ‘Delny’ NT Portion 756 PPL 1127.

*Figure 1* shows these leases in relation to the Dingo Creek Prospect area.
2.1 Location and Access

Location

The Dingo Creek Prospect area is located approximately 150 kilometres northeast of Alice Springs. The tenure is accessible from Alice Springs via the Stuart Highway, turning off onto the Plenty Highway and along the road heading north to Engenala until you reach Delmore Downs. Unsealed station tracks can be used to access various locations on the tenement.

The location and access of EL28763 is outlined in Figure 2 below.
2.2 Topography and Drainage

The topography of the Dingo Creek Prospect is relatively flat on red, sandy soil with an abundance of trees and grasslands. The topography varies in elevation between approximately 560 metres above sea level in the north and approximately 530 metres above sea level in the south. Dingo Creek runs to the south of the tenement as well as two unnamed estuaries. Bundey River runs just east of the tenement. Rock outcrops provide the only relief of the area.

The topography and drainage of the Dingo Creek Prospect is shown in Figure 3 below.
3. **Geology**

3.1 **Regional Geology**

The Dingo Creek Prospect lies within the Arunta Region in the Aileron geological province, which has been identified as an exploration target for deposits of rare earth elements, base metals and precious metals. The target geology in the EL 28763 area is the Tertiary sediment accumulations formed from the erosion of basement rocks and of granites and gneisses in the Reynolds Ranges and Strangways Complex. It is considered that the area is potentially analogous to the Frome Embayment in South Australia, in which uranium has been concentrated in reducing environs within Tertiary palaeo-channels from run-off of uranium bearing basement rocks.

The Regional Geology is depicted in **Figure 4** below.
Outcropping rocks of the Aileron Province within the Arunta project licenses include Proterozoic aged granites and gneisses and other metamorphics. Palaeozoic aged formations can be found in the region, which are composed of sedimentary members. Over the region, lie Quaternary deposits of sand, slit and alluvium from the Holocene.

The Arunta region is well faulted. The majority of faults trend east-west across the area, with few minor faults running perpendicular to the main fault trend.

3.2 Permit Geology

NRE’s Dingo Creek Prospect area has outcropping rocks of the Aileron Province within the Arunta project licenses include the Proterozoic aged Delmore Metamorphics (Calc-silicate rocks, gneisses, quartzite and epidosite. This can be found towards the corners of the Dingo Creek tenement.
Another Proterozoic aged rock found in the area is the Langford Gneiss formation. This consists of porphyroblastic gneiss and schistose biotite-muscovite gneiss. They occur in the south west section of the tenement.

A small section of Cenozoic aged rock called the Waite Formation is located within the southern part of EL28763. It contains chalcedonic limestone, sandstone, mudstone and sandy conglomerate.

The permit geology is illustrated in Figure 5 and the changes in the interpreted stratigraphic succession over time are shown in Table 2.

Figure 5.  Permit Geology Map
Table 2. Stratigraphy (adapted from Northern Territory Geological Survey, 1989)

<table>
<thead>
<tr>
<th>Era</th>
<th>Eon / Period</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cainozoic</td>
<td>Quaternary</td>
<td>Alluvium Red clayey soil and sand</td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td>Waite Formation</td>
</tr>
<tr>
<td>Precambrian</td>
<td>Proterozoic</td>
<td>Langford Gneiss Delmore Metamorphics</td>
</tr>
</tbody>
</table>

4. NRE’s Exploration Activities during the Reporting Period

NRE’s exploration program for the first term of EL28763 consisted of an extensive review of the tenement in order to delineate potential rare earth elements, base metals and precious metals surface targets within the area. Following NRE’s desktop studies, a reconnaissance helicopter assisted field trip of EL28763 was carried out. During this reconnaissance, rock chip samples were taken and are reported on in NRE’s First Year Annual Report.

NRE has been unable to identify any subsurface mineralisation within EL28763 in respect of phosphate, manganese and base metals. NRE believes that no further exploration is warranted within EL28763 at this time.

During the reporting period, NRE made application to the Department to completely surrender the entire title for EL28763 under section 103 of the *Mineral Titles Act*. EL28763 was surrendered on 18 July 2013.

4.1 Historic Exploration Studies

NRE has conducted an extensive review of historic exploration over EL28763. There has been relatively minor historic exploration across the tenement EL28763 in the past. However, geological reconnaissance including: soil sampling, rock chip sampling and stream sediment sampling has been conducted in the surrounding area. The historical exploration across the tenement is outlined below.
Tanami Exploration

Tanami Exploration held the tenement EL9806 during the period 2002-2007 and conducted some minor exploration. They were looking for and potential Tanami-style gold, iron oxide copper-gold (IOCG) and Tennant Creek-style copper-gold mineralisation. Nine (9) rock chip samples over their group of tenements in the area were collected during this period and no significant gold values were returned.

Previous exploration has been summarised in Table 3 and location of historic tenements is shown in Figure 6.

Table 3. Historic Tenures and Previous Companies’ Exploration Reports

<table>
<thead>
<tr>
<th>TENEMENT</th>
<th>PERIOD</th>
<th>COMPANY REPORTS</th>
<th>COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>EL 2493</td>
<td>1981-1982</td>
<td>CR1982-0358</td>
<td>CRA Exploration</td>
</tr>
</tbody>
</table>
4.2 Helicopter Reconnaissance, Geological Mapping & Sampling Program

NRE commenced a helicopter reconnaissance assisted field trip of the Dingo Creek Prospect in September 2011. NRE introduced themselves to the local landholders, assessed a number of field targets across the tenement and carried out geological mapping of the project area. NRE also collected samples from areas of interest identified during desktop studies. The field trip proved successful in evaluating the tenement in the most effective and timely manner possible.

During the helicopter reconnaissance program, rock chip and grab bulk soil samples were taken. A total of (two) 2 rock chip samples were collected within the boundary of the EL. These samples along with any interpretations from them have already been reported on in NRE’s first year Annual Report for the Dingo Creek tenement.
5. **Reports lodged during the reporting period**

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

6. **Conclusions**

Natural Resources Exploration’s (‘NRE’) exploration activities for its Dingo Creek Prospect have been focused on delineating surface targets for rare earth elements, base metal and precious metal mineralisation. NRE has conducted extensive reviews in relation to EL28763 including an assessment of aeromagnetic, gravity and radiometric data and believes there is no strong anomalism indicative of potential sub-surface mineralisation within the tenure.

NRE believes that this tenure holds low mineral prospectivity and no further exploration is warranted at this time. NRE made application to the Department to completely surrender the entire title for EL28763 under section 103 of the *Mineral Titles Act*. EL28763 was surrendered on 18 July 2013.

NRE believes that there is no rehabilitation required in relation to EL28763 as no works involving land disturbance have been carried out during the term of the licence.
Bibliography


