Annual Report
EL 27027
Roper Region, Northern Territory

Fertoz Pty Ltd
19 Livingston Ave.
Baulkam Hills
NSW 2153

Roper Project
1:100 000 Mapsheets: 5864 October, 5964 OT Downs,
5863 Buloonungroo
250 000 Mapsheets: SE5302 Tanumbirini, SE5303 Bauhinia Downs,
SE5306 Beetaloo
Commodity: Phosphate

WA Jettner B.Sc (Geol.)
Minesite Services Australia
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1. **EXECUTIVE SUMMARY**

In the latter part of October 2010 EL 27027 was purchased by Fertoz Pty Ltd from the previous titleholders FSL World Holdings Pty Ltd. The Exploration Licence consists of 482 graticular blocks, (1590 km$^2$) located in the Roper River Region of the Northern Territory. The licence was applied for to search for phosphate deposits located in the eastern Carpentaria Basin. The Exploration Licence covers the basin margin between the Carpentaria and McArthur basins.

2. **CONTACT DETAILS:**

**Tenement Holder:**
Fertoz Pty Ltd
19 Livingston Ave
Baulkham Hills
NSW 2153
Contact: Mr James Chisholm
Email: chisholmj@bigpond.com

**Tenement Manager:**
Complete Tenement Management
PO Box 2515
Darwin NT 0801
Contact: Mrs Wendy Jettner
Tel: 08 8981 1880
Email: contact@completetenement.com.au

**Geological Consultant:**
Minesite Services Australia
19 Flametree Cct
Rosebery NT 0832
Contact: Mr Andrew Jettner
Email: andrewjettner@yahoo.com.au
3. **INTRODUCTION**

EL 27027 was granted on the 3rd of September 2009 for a period of 6 years and this annual report covers work done in the first licence year (3/09/2009 – 2/09/2010). It has an area of 482 graticular blocks and is located on the eastern extents of the Carpentaria Basin.

There was effectively no field work done in the first year of tenure, the licence was sold to Fertoz Pty Ltd in October 2010 and this report is the first examination of the exploration history and geological potential by the new owners. The licence was applied for with the intention of exploring for phosphate and this will be done in the coming years.

EL 27027 is located 130km to the east of the Stuart Highway along the Carpentaria Highway and is on Beetaloo and Mungabroom Stations.

![Figure 1. EL 27027 Location Map](image-url)
4. **TENURE**

**a. Mining**
Exploration Licence 27027 was granted to FSL World Holdings on 3rd of September 2009 for a period of 6 years, expiring on 2nd September 2015.  
Fertoz Pty Ltd purchased the licence in late October 2010.  
The exploration licence consists of 482 graticular blocks (1590km$^2$) and is located within the Tanumbirini, Beetaloo and Bauhinia Downs 1:250 000 Mapsheets.

**b. Real Property**
The licence is located within PPL 1059 “Beetaloo Station” which is owned by Yarabala Pty Ltd (Beetaloo Station, Elliott NT 0862) and PPL 1018 “Mungabroom Station” which is also owned by Yarabala Pty Ltd (Beetaloo Station, Elliott NT 0862).

**c. Other Stakeholders**
Other stakeholders in the licence area consist of the Alawa peoples who own Cox River Station to the north, and the Wampaya peoples who own Anthony Lagoon Station to the south.

Figure 2. Real Property Tenure
5. **LOCATION AND ACCESS**

EL 27027 is located 130km to the east of Daly Waters, some 580km to the south of Darwin. Access to the general area from Darwin is via the Stuart Highway southwards to the Hi-way Inn, (some 10km to the east of Daly Waters), thence approx 135km to the east along the Carpentaria Highway which traverses the licence.

The licence is situated on Beetaloo Station and has limited access, there are few station roads and fences through the area. As can be seen from the accompanying map the Carpentaria Highway is to the north of the licence.

![Figure 3. EL 27027 Access](image-url)
6. **REGIONAL GEOLOGY**

The youngest rocks in the licence area are the sandstones, mudstones and limestones of the Carpentaria Basin. This basin has an age of between 205 and 65Ma. It unconformably overlies the sedimentary rocks of the McArthur and Georgina Basins.

In the licence area the Cretaceous shales and mudstones form an opaque cover which effectively masks the underlying basinal contact between the Carpentaria, and probably the Georgina, and McArthur basins.

For our search for phosphorite we need to be concentrating on the Top Springs limestone which probably represents the equivalent of the Tindall limestone in the Daly Basin and Wonarah Formation in the Georgina Basin. The Top Springs limestone is unconformably underlain by the Antrim Plateau Volcanics.

![Regional Geological Setting](image-url)
7. **Licence Geology**

The outcrop geology of EL 27027 consists of Cretaceous sediments of the Carpentaria Basin which are overlain by Tertiary laterite soils. These effectively mask and view of the underlying geology making geophysical examination of the area the only effective way of studying the underlying geology. We are seeking the basin margins to examine so in the absence of rock outcrop we have to look at other methods to achieve this aim.

Figure 5. Licence Geology
8. Previous Exploration

Exploration has been aimed towards diamonds as part of each of the major diamond explorers have continued their search across the Australian landscape. CRA Exploration were the first of the diamond explorers in the area in 1984, there efforts led to the discovery of 1 microdiamond to the north of the licence area. Follow up of this result by loam sampling produced generally negative results. This sample has tantalised subsequent explorers and the source has not been located as yet.

Other diamond explorers in the area have been Aberfoyle Exploration as part of the ADE Joint Venture with Ashton Mining. Helix Resources on their own in 1990 to 1991, and Ashton Mining for the ADE JV from 1993 to 1996.

CRA Exploration re-entered the area in 1993 and stayed to 1995. It seems that De Beers had 2 strategies, one was to lead the pack as Stockdale in the 1980s and 90s, and the second was to come back as De Beers in the 2000s and re-evaluate everyone else’s work. This was probably as a result of the findings at Merlin where the kimberlites did not exhibit a magnetic response (ie a deep seated dipole response). It was the magnetic response that was used to quickly examine large areas with ground follow up as necessary. This exploration strategy was proven to be flawed and so most of the ground was re-examined in the late 1990s and early 2000s.

<table>
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<tr>
<th>Licence No</th>
<th>Tenure Period</th>
<th>Open File Company Reports</th>
<th>Company</th>
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<tr>
<td>EL4552</td>
<td>20/06/84 – 19/06/90</td>
<td>CR1985-0218</td>
<td>CRA Exploration Pty Ltd</td>
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<tr>
<td>EL 6806</td>
<td>21/06/90 – 24/06/91</td>
<td>CR1991-0349</td>
<td>Helix Resources NL</td>
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<tr>
<td>EL 7558</td>
<td>19/12/91 – 16/12/92</td>
<td>CR1993-0155</td>
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<td>EL 8120</td>
<td>26/05/93 – 19/04/95</td>
<td>CR1994-0422</td>
<td>CRA Exploration Pty Ltd</td>
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<td>CR1995-0520</td>
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<td>CR2004-0019</td>
<td>De Beers Aust. Exploration</td>
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<td>EL 23026</td>
<td>7/03/03 – 16/02/04</td>
<td>CR2004-0045</td>
<td>De Beers Aust. Exploration</td>
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Table 1. Historical Exploration Reports
Figure 6. Historical Exploration Licences

a. **Field Work**
There was no field work done on the licence in the first year of tenure.

b. **Desktop Surveys**
Office work in the first year of tenure consisted of desktop surveys covering the various topics outlined in this technical report.
The acquisition of data to help elucidate the geological environment of the licence area will continue in the second year with the proposed acquisition of public data relating to the magnetics of the area to help define basement structure.

c. **Exploration Targeting**
Phosphate - It has been demonstrated that phosphorite deposits are usually to be found in restricted basin margins and may exhibit a subtle radiometric signature associated with the replacement of Ca in the phosphate lattice by Uranium. Palaeogeographic basin margins, or basin shorelines in the Cambrian represent the primary targets. These will be masked by the Cretaceous sediments of the Carpentaria Basin so aeromagnetics will be used to define the basin margins which is our exploration “fairway”.

d. **Prospect Generation**
Prospect generation in the licence area will depend of the remote sensing data that is able to be acquired. It is this methodology that will allow large areas to be efficiently examined as a first pass method. The above exploration model will be tested out in a number of different environments and positions around the Georgina and other basins in the Northern Territory by Fertoz over the next few years. Phosphate sampling of available water bores will also be undertaken. At the present time there have been no targets generated by the current study. The picture below shows that this exploration licence is still in the area seen as being prospective for phosphate exploration by the geologists of the Northern Territory Geological Survey.
Figure 7. Georgina Basin Phosphate Prospectivity (Dunster JN, Kruse PD, et al.)

The proposed work program for the second year of tenure (2010-2011) will consist of the following:

Acquisition of publicly available geophysical reports and data. Construction of exploration database.

Site Orientation Visit: introduction and familiarisation to the property owners, exploration licence examination, preliminary examination of desktop targets, - 4 men, 2 vehicles, 2 days

First pass exploration program: rockchip survey, geochemical survey, mapping activities, (incl. assays) - 4 men, 2 vehicles, 5 days

Exploration Reporting – 1 man, 3 days

Second pass exploration program: further rockchip surveying, geochemical surveying, mapping activities - 4 men, 2 vehicles, 7 days

Exploration Reporting – 1 man, 3 days

Preparation of the second annual report – 1 man, 4 days
11. **Expenditure Covenants**


The expenditure report for Year 1 (2009 – 2010) is included as Appendix 1 to this annual report.


The proposed expenditure for Year 2 is as follows:

- **Site orientation visit**: $6,000
- **First pass exploration program**: $27,000
- **Exploration reporting**: $3,500
- **Second pass exploration program**: $34,000
- **Exploration reporting**: $3,500
- **Annual report preparation**: $6,000

**Total Proposed Expenditure**: $80,000
12. **REFERENCES**

**Open File Company Reports**


Roiko HJ, (1993), EL7586 Newcastle Creek, EL 7587 Mundah, EL 7588 Buloonungaroo Creek, EL 7589 Beetaloo East, EL 7590 Wallhollow West, EL 7591 Tudinny Creek, EL 7594 Billycan Creek Combined First and Final Report for Period ending 28 October to 15 December 1992, CRA Exploration Pty Ltd unpublished company report, CR1993-0155.


**Published Reports**


Khan M, Ferenczi PA, *et al*, (2007), Phosphate testing of waterbores and diamond drillcore in the Georgina, Wiso and Daly Basins, Northern Territory, Northern Territory Geological Survey

