FINAL REPORT

EXPLORATION LICENCE 9198
"Four Mile Creek"

16th May, 1996 to 26th March, 1999

Licensee: Ashton Mining Limited

Operator: Ashton Mining Limited

Sheet Reference: 1:250,000 Bauhinia Downs (SE53-03)

Submitted to: Department of Mines and Energy, Darwin

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Ashton Mining Library

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May, 1999
Report Number: 52361
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SUMMARY

During the period 16th May, 1996 to 26th March, 1999, Ashton Mining Limited carried out an exploration programme within Exploration Licence 9198. This report provides details of work undertaken on the licence from the date of grant through to the surrender of the title in March 1999.

Work undertaken within EL 9198 comprised data review, reconnaissance sampling and bulk sampling. Nine stream samples were collected and processed for routine microdiamond and indicator mineral analysis, recovering two positive results. One sample reported a single microdiamond and the second sample reported chrome diopside and olivine. As this latter result was considered spurious, a check sample was collected to check the validity of the original result. Laboratory processing of this sample produced a negative result.

As part of Ashton’s reconnaissance bulk sample programme, a bulk stream sample was collected from within EL 9198. The sample reported two macrodiamonds, however the catchment for this drainage falls outside the boundary of the tenement. Due to disappointing results in EL 9198, the tenement was surrendered on the 26th March 1999.

Total exploration expenditure for EL 9198 amounted to $73,232.
1.0 INTRODUCTION

This report details exploration activities carried out by Ashton Mining Limited over Exploration Licence 9198 during the period 16\textsuperscript{th} May, 1996 to the 26\textsuperscript{th} March, 1999.

Exploration licence 9198 was granted to Ashton Mining on the 16\textsuperscript{th} May, 1996 for a period of six years. The original area of the licence covered 16 blocks but following statutory relinquishments, the licence comprised 8 blocks at the time of surrender (see Table 1). The tenement is located on the Bauhinia Downs (SE53-03) 1:250,000 map sheet. A location map showing the original and final extent of the licence is shown in Figure 1.

<table>
<thead>
<tr>
<th>Licence</th>
<th>Grant Date</th>
<th>Original No. of Blocks</th>
<th>First Reduction</th>
<th>Surrender No. of Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>9198</td>
<td>16/05/96</td>
<td>16</td>
<td>8</td>
<td>8</td>
</tr>
</tbody>
</table>

2.0 DIAMOND EXPLORATION

2.1 Year One

2.1.1 Stream Sampling

In the first year of tenure, a reconnaissance stream sampling programme was implemented with nine samples collected. The samples were forwarded to Ashton’s Perth laboratory for routine microdiamond and indicator mineral analysis. Sample locations are shown on Figure 2.
In the first year, processing was completed on three samples only, with one sample reporting a single microdiamond. Complete results were received in the following year with a sample (97037-004) reporting chrome-diopside and olivine. A complete listing of results is provided in Appendix 1.

2.1.2 Bulk Sampling

As part of reconnaissance bulk sampling programme, a suitable sample site was selected within EL 9198 during the reporting period. A substantial disturbance notice was lodged with the Department of Mines and Energy and sacred site locations were checked prior to collection. The 50 tonne sample was not collected and processed until the second reporting year.

2.2 Year Two

2.2.1 Stream Sampling

A check sample was collected from the same site as positive sample 97037-004, to check the validity of the original result. The 2 bag stream sample was forwarded to Ashton's Perth laboratory for microdiamond and indicator mineral analysis. A negative result was reported, providing confirmation that the original result was spurious, possibly due to laboratory contamination. The location of this sample is shown on Figure 2. Results are provided in Appendix 1.
ASHTON MINING LIMITED
A.D.E. JOINT VENTURE

EXPLORATION LICENCE 9198
FINAL REPORT
FIGURE 2
SAMPLE LOCATIONS

MAY, 1999
2.2.2 Bulk Sampling

The collection of the bulk sample, which was selected in the previous reporting period, was undertaken. The sample was collected using a front end loader and 6wd truck to transport the sample back to Ashton’s Heavy Media Separation (HMS) plant located at the Merlin project site, where it was sorted and processed to produce a concentrate that was despatched to the Ashton Perth laboratory. This material was put through a x-ray sorting machine and the resulting concentrate was hand sorted for diamonds. Two macrodiamonds were reported from the sample.

2.3 Laboratory Procedures

All samples were processed by the Ashton Mining Limited Laboratory in Perth, where they were concentrated by Wilfley Table and heavy liquid separation techniques. The heavy liquid used is tetrabromomethane with a specific gravity of 2.96. The concentrates were then screened into various size fractions, further concentrated by magnetic and electrostatic separation techniques and a comprehensive grain by grain examination carried out on the minus 1.0mm plus 0.425mm fractions.

3.0 REHABILITATION

Work undertaken by Ashton Mining, that is considered substantial disturbance, involved the collection of one bulk sample. Access to the tenement area and bulk sample site was via existing tracks, and therefore no new tracks were cleared or graded.
For collection of the bulk sample, a cut was made in the river bank to allow access to the sample site. Gravel was removed from the gravel bar and screened. The fine material was trucked away for processing. The oversized screenings were pushed back into the sample site and also used to rehabilitate the cut made in the river bank. The area was rechecked following the wet season to ensure the redistribution of gravel and to check the progress of the natural revegetation of the area.

4.0 EXPLORATION EXPENDITURE

Exploration expenditure for the life of the licence amounted to $73,232. A detailed breakdown of expenditure is given in Appendix 2.

5.0 CONCLUSIONS

Stream sampling within EL 9198 produced no significant results for further follow-up. Bulk sampling of a drainage reported two macrodiamonds, however the catchment for this drainage is outside EL 9198. No further work was proposed for EL 9198 and therefore surrender was recommended.
6.0 REFERENCES


APPENDIX 1

Sample Results
Sample Results for EL 9198  
*Final Report for the period 16/05/96 to 26/03/99*

<table>
<thead>
<tr>
<th>Sample</th>
<th>SampleType</th>
<th>Result</th>
<th>Diamond</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Micro</td>
</tr>
<tr>
<td>BAU 14065</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
<tr>
<td>BAU 14067</td>
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<tr>
<td>BAU 14072</td>
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<td>NEG</td>
<td>-</td>
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<tr>
<td>97037-001</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
<tr>
<td>97037-002</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
<tr>
<td>97037-003</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
<tr>
<td>97037-004</td>
<td>G</td>
<td>POS</td>
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</tr>
<tr>
<td>97037-005</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
<tr>
<td>97037-007</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
<tr>
<td>97066-007</td>
<td>BG</td>
<td>POS</td>
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</tr>
<tr>
<td>97105-014</td>
<td>G</td>
<td>NEG</td>
<td>-</td>
</tr>
</tbody>
</table>

G = Gravel  
BG = Bulk Gravel
APPENDIX 2

Statement of Expenditure
## Statement of Expenditure

**Exploration Licence 9198**

**Final Report**

For the Period
16\textsuperscript{th} May 1996 to 26\textsuperscript{th} March 1999

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geoscientist/Professional Staff</td>
<td>12,314</td>
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<tr>
<td>Field Support/Office Staff</td>
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<tr>
<td>Other Contractors</td>
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<tr>
<td>Travel/Accommodation/Meals</td>
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<td>Field Supplies</td>
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<tr>
<td>Equipment/Earthmoving Hire</td>
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<tr>
<td>Vehicles</td>
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<tr>
<td>Freight/Storage</td>
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<tr>
<td>Helicopter Charter</td>
<td>4,812</td>
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<tr>
<td>Fixed Wing Air Charter</td>
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</tr>
<tr>
<td>HMS Plant</td>
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</tr>
<tr>
<td>Laboratory</td>
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<tr>
<td>Drafting/Computing</td>
<td>760</td>
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<tr>
<td>Other</td>
<td>431</td>
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</tbody>
</table>

**Sub-Total**  
66,575

**Overheads**  
6,657

**Total:**  
$73,232