



Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

**Combined Annual Report (Keats Project)
For the Period 23 September 2006 to 22 September 2007
EL1640 Keats, EL1923 Keats 2
Northern Territory.**

Exploration Report No. 28209

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1	Rock Sample Ledger	Keats_2007_A_02_rockledger.txt

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pAI07_21	Tenement Location Plan	1:500,000
pAI07_22	EL1649 & EL1923 Rock Chip Sample Location	1:250,000

1. SUMMARY

This report describes exploration by Rio Tinto Exploration Pty Limited (RTX) within the Keats Project between the period 23 September 2006 to 22 September 2007. The Keats Project is comprised of two contiguous exploration licences, EL1640 Keats and EL1923 Keats 2. These tenements were previously reported under the Yambarra Combined Project but have now been split out into their own project (Keats) due to the farm-out of the Yambarra tenements to a third party. The tenements are owned by Ashton Mining Limited ("Ashton"), a subsidiary of Rio Tinto Ltd. Work programmes on the project area are managed and operated by RTX.

The Keats Project is located approximately 250km south west of Darwin on the Daly River/Port Keats Aboriginal Land Trust. The area covers portions of the Palaeozoic Bonaparte Basin.

Field activities involved consultation meetings with the Traditional Owners and rock sampling along existing access tracks. A total of 39 rock samples were collected and analysed for whole rock elements aimed at assessing the area for bauxite potential.

2. CONCLUSIONS AND RECOMMENDATIONS

A total of 39 rock samples were collected to assess the area for bauxite. The assay results were not received before the anniversary of the tenements.

Field observations made during the reconnaissance work have downgraded the area for bauxite potential. The laterite profile where exposed in coastal cliffs shows that there is a thin (1m-2m) ferruginous duricrust overlying mottled sandstone.

3. INTRODUCTION

This report describes exploration by RTX within the Keats Project area for the year ending 22 September 2007. The Keats Project is comprised of two contiguous exploration licences EL1640 Keats and EL1923 Keats 2 (pAI07_21). The project is located approximately 250km south west of Darwin on the Daly River/Port Keats Aboriginal Land Trust.

The tenements are owned by Ashton Mining Limited ("Ashton"), a subsidiary of Rio Tinto Ltd. Ashton Mining Limited applied for the tenements in the late 1970's and early 1980's prior to Ashton being acquired by Rio Tinto Limited in late 2000. The tenements were granted to Ashton on the 23 September 2003 and formed part of the broader Yambarra Project, which was focused on exploration for diamonds. The two tenements (EL1640 and EL1923) were split out of the Yambarra Project and combined together to form the Keats Project following the successful farm-out of the Yambarra Project to North Australia Diamonds Limited. The Keats Project was retained by RTX to explore for bauxite in the coastal area.

The project area is considered prospective for bauxite and diamonds.

4. TENEMENT DETAILS

Current tenement details are included in Table 1. Partial relinquishments of 178 sub-blocks from EL1640 and 192 sub-blocks from EL1923 were completed in 2005.

Table 1: Tenement Details

Tenement No	Tenement Name	Ownership	Application Date	Grant Date	Blocks Applied	Blocks Granted	Blocks Current
EL1640	Keats	Ashton Mining Ltd	2/06/1977	23/09/2002	389	356	178
EL1923	Keats 2	Ashton Mining Ltd	8/09/1978	23/09/2002	414	392	192

5. GEOMORPHOLOGY

The geomorphology of the Keats Project consists of smooth slightly elevated (approximately 50m elevation) “plateaus” close to the coast (see figure 1) mostly surrounded by flood plains. Steep breakaways of Permian sandstone generally form the inland or eastern margin to the “plateaus”. This area is described by Morgan as being part of the Cambridge Gulf Lowlands.

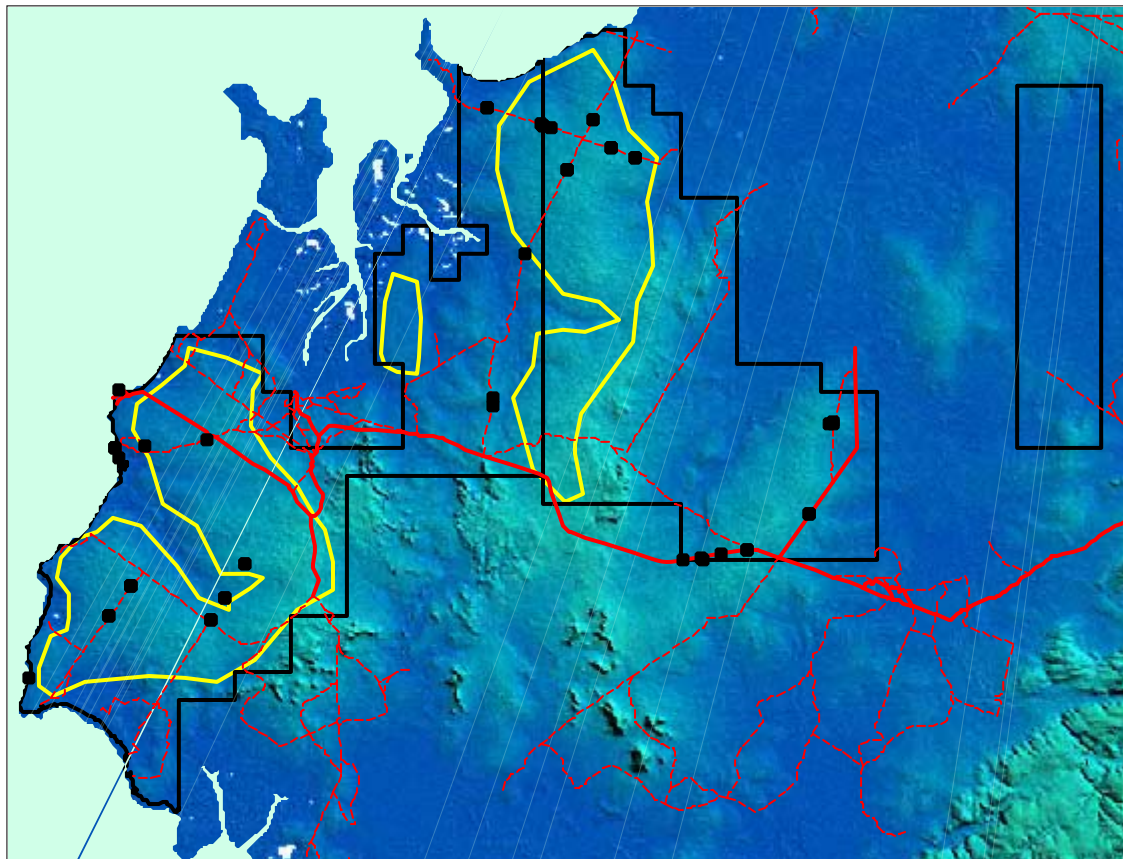


Figure 1: Image of Digital Terrain Model (SRTM Data)

Bauxite target areas (yellow) and location of rock samples (black circles).

6. GEOLOGY

The geology of the Keats Project is dominated by Permian to Triassic sediments of the Bonaparte Basin which are mostly covered by sandy soil and alluvium in the valleys.

Exploration during the current period has shown the area to be covered mostly by a sandy red soil which sits on a weathered quartz rich sediment of either Permian or Triassic age. An exposure of the weathered profile (see photo below) occurs along the coastal cliff on the western edge of the tenement. The profile consists of:

- Red sandy soil (1m-2m thick)
- Hard ferruginous duricrust of about 1m-2m thick. This material forms hard blocky boulders.
- Mottled zone (2m-4m thick)
- White saprolitic sandstone (unknown thickness)

Within the tenement there are areas of ferricrete which form blocky subcrop boulders. Within one of the gravel pits sampled there are common hard ferruginous nodules within a sandy matrix. This material is interpreted to be formed by the disaggregation of the underlying duricrust.

No obvious pisolitic material indicative of bauxite formation was recorded.

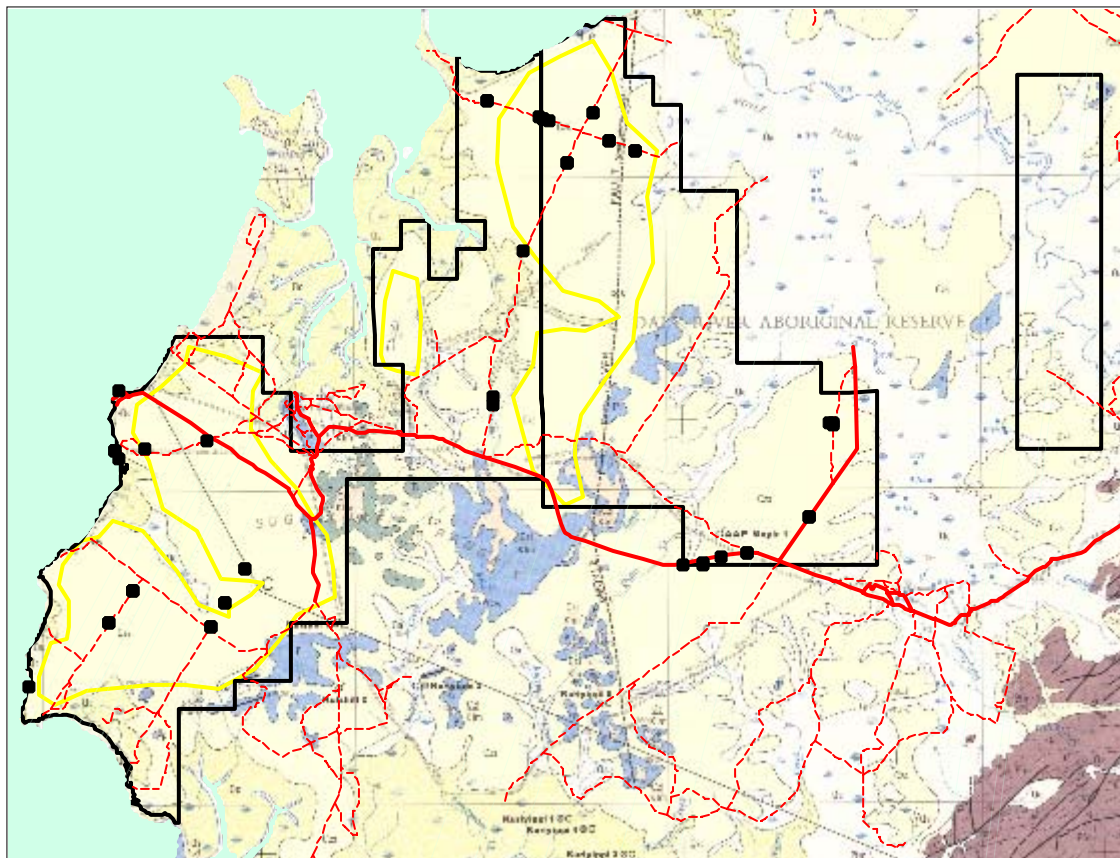


Figure 2: Geology (1:250,000)

Bauxite Target Areas (Yellow) and Location of Rock Samples (Black Circles).



Figure 3: Photo of the Coastline Cliff to the West of Port Keats

(Sample location 6786457).

7. GEOPHYSICS

Two regional scale aeromagnetic surveys cover the Yambarra Project area. In 1994 AGSO completed the Medusa Banks-Port Keats Survey over the western half of the project area at 500m line spacing and 100m elevation. In 1984 the NTGS completed the Litchfield South Survey over the eastern half of the area at 500m line spacing and 100 m elevation.

8. PREVIOUS EXPLORATION

The Keats area has been explored for coal and oil in the 1960's. These activities are described in Morgan 1972.

The Keats Project was part of the broader Yambarra Project prior to its farm-out to North Australia Diamonds. A summary of the work completed by Rio Tinto in previous years is given below;

September 2002-03 (Year 1)

The first year of diamond and nickel exploration of the Yambarra Project area by RTX was reported by Rheinberger (2003) and is summarised as follows:

- Review of previous exploration.
- Completion of aboriginal consultation meetings and site clearance surveys.
- Interpretation of existing magnetic and TM data.
- Establishment of an exploration camp.
- Collection of 220 helicopter supported gravel and stream sediment samples.
- Collection of 55 rock chip samples from the Murrentja intrusion.
- Smith and Curtis (2003) completed a Mine Management Plan.

Diamond exploration results provided initial encouragement given the wide spacing of the drainage gravel sampling. Rock chip sampling of the Murrentja intrusion did not return any elevated Ni assays.

The RTX camp was sited in an area of existing disturbance and did not additionally impact on the environment. All of the field-based exploration completed by RTX was helicopter-assisted and non-surface disturbing. No rehabilitation was required. The work focussed mostly on the eastern tenements of the Yambarra Project with no samples collected within EL1640 or EL1923.

September 2003-04 (Year 2)

The second year of diamond exploration by RTX was reported by Rheinberger (2004) and is summarised as follows:

- Scanning Electron Microprobe Analysis of 9485 indicator mineral grains from 167 samples.
- Trace Element Analysis of 103 indicator mineral grains from 18 samples.
- Interpretation of indicator mineral chemistry.
- Collection of 38 helicopter supported gravel and loam samples.

Results did not identify a primary kimberlite/lamproite source for diamonds in the project area.

September 2004-05 (Year 3)

The third year of diamond exploration by RTX was reported by Rheinberger (2005), Hartshorn (2005) and is summarised as follows:

- Review of published geological and topographic information to identify areas of possible bauxite mineralisation.
- Interpretation of Thematic Mapper and digital terrain data sets to define potential bauxite target areas.

Prospective bauxite areas were identified to be discrete but subtle elevated plateaux with smooth edges. The highest priority area was drilled on EL1924 with only minor evidence of

pisolite formation. Assay results were negative (Hartshorn 2005a). Targets were identified within EL1640 and EL1923.

A re-interpretation of indicator mineral chemistry and diamond results did not identify any areas for high priority follow up diamond exploration.

Hartshorn (2005b), (2005c) and (2005d) reported on the partial surrender of portions of EL 1924 Cape Ford, EL1640 Keats and EL1923 Keats 2 on 22 August 2005.

The proposed on-ground bauxite exploration for the Yambarra Project area was postponed during the reporting period while RTX tested higher priority bauxite projects/targets in the Northern Territory.

September 2005-06 (Year 4)

Exploration completed for the year ending 22 September 2006 consisted of the following:

- Additional interpretation of Thematic Mapper and digital terrain data sets to refine the size of the targeted plateau for bauxite and to prioritise these targets in the western 'coastal' portions of the project area.
- Review of the 2005 drill data from EL1924.
- Commercial negotiations to farm-out the eastern tenement holdings to a third party.

9. EXPLORATION COMPLETED FOR FIFTH YEAR ENDING 22 SEPTEMBER 2007

The exploration completed in the fifth year of EL1640 and EL1923 (Keats Project) was focused on the assessment of the area for bauxite potential. The work programme submitted to the NLC was approved by the Traditional Owners on 9 August 2007 at a work programme meeting held at Wadeye.

A reconnaissance rock sampling and mapping programme was completed between 21 August and 25 August 2007. This programme involved the collection of rock samples from gravel pits and rock exposures along existing tracks within the tenements. Termite ant nest samples were collected to test for gibbsite nodules that may have been brought up from the subsurface by the ants.

A total of 39 samples were collected (Appendix 1 and pAI07_22). A further 18 samples consisting of various sieved fractions of the termite nest material were also dispatched for assay. The results have not been received from the laboratory. Appendix 1 contains the sample ledger.

10. ENVIRONMENT

No ground-disturbing exploration activities were undertaken for the year ending 22 September 2007. All areas accessed are currently used roads within the tenement area. Representatives from the Traditional Owners accompanied all exploration activities.

11. EXPLORATION EXPENDITURE

The exploration expenditure attributed to the Keats Project by RTX for the fifth year of exploration was \$33,127 excluding tenement expenses.

12. **PROPOSED EXPLORATION**

Exploration by RTX in the next period will focus on evaluating the bauxite potential of the western coastal tenements. This work will include:

- Assessment of the rock samples once assays are received
- Aircore drilling of plateaus if results warrant

A notional budget for the project area is provided for \$50,000.

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LOCALITY

Port Keats

SD 5211

1:250 000

DESCRIPTOR

Combined Annual Report (Keats Project) for the Period 23 September 2006 to 22 September 2007, EL1640 Keats, EL1641 Port Keats, EL1923 Keats 2, Northern Territory. Rock sampling and mapping to assess the potential for bauxite was conducted.

KEYWORDS

Bauxite, Palaeozoic, Diamond, Port Keats, rock sampling.

APPENDIX 1

Keats_2007_A_02_rockledger.txt