



Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

**Final Report
for the Period Ending 21 August 2006,
EL3403 Barwolla, Yambarra Project,
Northern Territory.**

Exploration Report No. 27890

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SUMMARY OF ACTIVITIES

This final report describes exploration by Rio Tinto Exploration (RTE) within EL3403 Barwolla, Yambarra Project area, Northern Territory, for the period starting 23 September 2002 and ending 21 August 2006. EL3403 is located approximately 200km south west of Darwin on the Daly River/Port Keats Aboriginal Land Trust. The Yambarra Project area covers portions of the Palaeoproterozoic Pine Creek Orogen, the Mesoproterozoic Victoria-Birrinduddu Basin and the Palaeozoic Bonaparte Basin.

Work completed by RTE within EL3403 during the four years commencing 22 September 2002 and ending 21 August 2006 is as follows:

- Review of previous exploration.
- Aboriginal consultation meetings and site clearance surveys.
- Two mine management plans.
- Interpretation of existing magnetic and Thematic Mapper data.
- Three reconnaissance 40kg gravel samples. Scanning Electron Microprobe Analysis of kimberlite indicator mineral grains from the gravel samples. Interpretation of indicator mineral chemistry.
- Review of published geological and topographic information to identify areas of possible bauxite mineralisation.
- Two phases of interpretation of Thematic Mapper and digital terrain data sets to define potential bauxite target areas.

Two of the three gravel samples returned indicator minerals but none of the minerals have kimberlitic geochemistry.

No areas prospective for bauxite were identified within EL3403.

EL3403 was relinquished on 21 August 2006.

All of the field-based exploration completed by RTE was helicopter-assisted and non-surface disturbing. No rehabilitation activities were required.

VERIFICATION LISTING

Exploration Work Type	File Name	Format
Office Studies		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report preparation	27890 Barwolla (Final Report) WAp46684 (Tenement Location Plan)	.pdf .pdf
Other (specify)		
Airborne Exploration Surveys		
Aeromagnetics		
Radiometrics		
Electromagnetics		
Gravity		
Digital terrain modelling		
Other (specify)		
Remote Sensing		
Aerial photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		
Ground Exploration Surveys		
Geological Mapping		
Regional		
Reconnaissance		
Prospect		
Underground		
Costean		
Ground Geophysics		
Radiometrics		
Magnetics		
Gravity		
Digital terrain modelling		
Electromagnetics		
SP/AP/EP		
IP		
AMT		
Resistivity		
Complex resistivity		
Seismic reflection		
Seismic refraction		
Well logging		
Geophysical interpretation		
Other (specify)		
Geochemical Surveying		
Drill sample		
Stream sediment	WAp46685 Gravel Sample Location Plan Barwolla_2006_A_Sample.txt Barwolla_2006_A_Indicator_Summary.txt Barwolla_2006_A_SEM_SGA.txt	.pdf .txt .txt .txt
Soil		
Regolith		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other (specify)		
Drilling		
Aircore		
Auger		
Diamond		
Reverse circulation		
Rotary air blast		
Rotary percussion		
Tungsten carbide bit (coring)		
Groundwater drilling		
All drilling		
File Verification Listing (this table)	27890 Barwolla Keyling V	.pdf

