



## **Rio Tinto Exploration Pty. Limited**

ABN 76 000 057 125 / ACN 000 057 125

A member of the Rio Tinto Group

**Annual Report**  
**For the Period 18 May 2007 to 17 May 2008**  
**EL 22413 Baiguridji River**  
**Blue Mud Bay SD 5307**  
**Northern Territory**

**Exploration Report No. 28252**

Tenement Holder:	Rio Tinto Exploration Pty Limited
Date:	June 2008
Author:	M J Pankhurst
Submitted:	I M Clementson
Distribution:	Department of Primary Industry, Fisheries & Mines RTX Perth Information Centre

This report and its contents are confidential. All rights to the report and its contents (including, without limitation, rights to confidential information and copyright in all works (including photographs, diagrams, charts, maps and graphs) comprised in the report) remain the property of Rio Tinto Exploration Pty. Limited. No part of this report or the information contained in it may be disclosed to any person without the consent of Rio Tinto Exploration Pty. Limited. No part of this report, or the information contained in it may be reproduced (including being stored in any form), transmitted, published or used for any purpose without the prior consent of Rio Tinto Exploration Pty. Limited.

## **SUMMARY OF ACTIVITES**

Exploration Licence (EL) 22413 Baiguridji River was applied for by Rio Tinto Exploration Pty Limited (RTX) on 11 February 2000 and was granted on 18 May 2006. RTX is the sole manager and operator of this tenement. The original tenement application covered an area of 117km<sup>2</sup> (35 sub blocks) of which only 66.9km<sup>2</sup> (20 sub blocks) was granted. The remainder of the application area was rejected. EL 22413 is located 150km southwest of Nhulunbuy, east Arnhem Land, and consequently is processed under the Aboriginal Land Rights Act 1975 (ALRA).

This second annual report describes the exploration completed during the second year of the tenement, however this is the first year of ground work and included access track improvement and an aircore drill programme. EL 22413 forms part of the larger contiguous tenement package in east Arnhem Land, which is prospective for bauxite and base metals.

EL 22413 covers part of the subtle plateaus south of the Frederick Hills, and east of the Mitchell Ranges. This area has undergone a similar geomorphological history to that of the Cato Plateau, which is a known area of bauxite mineralisation of similar style to the nearby world class Gove deposit. The area is also considered prospective for base metal mineralisation similar to that of McArthur River (HYC) in the McArthur Basin. Diamonds are a subsidiary target.

Exploration was focused on:

- Review of previous exploration.
- Review of geology and geomorphology.
- Access track improvement
- Geologic Reconnaissance
- Aircore drill programme (five holes for 24m).

**VERIFICATION LISTING**

Exploration Work Type	File Name	Format
<b>Office Studies</b>		
Literature search		
Database compilation		
Computer modelling		
Reprocessing of data		
General research		
Report preparation	28252 Baiguridji River	.pdf
Other (specify)	pA107_014.pdf (Tenement Location)	.pdf
<b>Airborne Exploration Surveys</b>		
Aeromagnetics		
Radiometrics		
Electromagnetics		
Gravity		
Digital terrain modelling		
Other (specify)		
<b>Remote Sensing</b>		
Aerial photography		
LANDSAT		
SPOT		
MSS		
Radar		
Other (specify)		
<b>Ground Exploration Surveys</b>		
<b>Geological Mapping</b>		
Regional		
Reconnaissance		
Prospect		
Underground		
Costean		
<b>Ground Geophysics</b>		
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)		
<b>Geochemical Surveying</b>		
Drill sample	BaiguridjiRiver_2007_A_04_downholegeochem.txt	.txt
Stream sediment		
Soil		
Rock chip		
Regolith		
Water		
Biogeochemistry		
Isotope		
Whole rock		
Mineral analysis		
Other (specify)		
<b>Drilling</b>		
Aircore	pA108_009 Exploration Summary Plan BaiguridjiRiver_2007_A_02_drillcollars.txt BaiguridjiRiver_2007_A_03_lithology.txt	.pdf .txt .txt
Auger		
Diamond		
Reverse circulation		
Rotary air blast		
Rotary percussion		
Tungsten carbide bit (coring)		
Groundwater drilling		
All drilling		
<b>File Verification Listing (this table)</b>	28252 Baiguridji River V.doc	.doc

