



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 9 June 2010 to 8 June 2011
EL 385 Walker River,
SD5307 Blue Mud Bay
Northern Territory

Exploration Report No. 28962

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Distribution:	Department of Regional Development Primary Industry, Fisheries and Mines, NT RTX Perth Information Centre

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Plan No.	Title	Scale
pZn09_001.pdf	Tenement Location Plan	1:250 000

1. SUMMARY

This report documents work undertaken by Rio Tinto Exploration Pty. Limited (RTX) on Exploration Licence 385 during the seventh year of tenure to 8 June 2011.

RTX's activities during the tenure period were limited to farm-out negotiations and engagement with traditional owner representative body the NLC. A material offer was negotiated with a third party but failed to complete.

No field activities were completed on EL 385.

Negotiations were reinstated with the new third party and farm-out is expected to be concluded by mid 2011.

2. CONCLUSIONS AND RECOMMENDATIONS

No technical progress was made on this licence during the annual reporting period.

It is anticipated the introduction of a zinc-focussed third party explorer to EL 385 will expedite exploration on the tenement and adjoining EL applications in the Walker Trough held by RTX and its affiliate companies.

3. INTRODUCTION

Exploration Licence (EL) 385 was applied for on 19 January 1972. Partial consent of the application area resulted in the granting of non-contiguous, non-graticular, exploration licences 385 and 24304 to Rio Tinto Exploration Pty Limited (RTX) on 9 June 2004. The area of non-consent was renumbered as ELA 24305 and was placed in moratorium.

The tenement area is located approximately 180km south-west of Nhulunbuy, and 80km north of Numbulwar in south east Arnhem Land (Plan pZn09_001) and activities conducted on the tenement is in accordance with the provisions of the Aboriginal Land Rights Act 1975 (ALRA).

The tenement contains McArthur Group equivalent sediments adjacent to the eastern margin of the Walker Trough. The tenement is considered prospective for sedex-style base metal mineralisation, similar to that at McArthur River (HYC) lead-zinc deposit located approximately 300 km to the south.

EL 385 has undergone three partial surrenders with a total 7.76 km² retained. Tenement details are included in Table 1.

Table 1: Tenement Details

Tenement No.	Tenement Name	Ownership	Application Date	Grant Date	Blocks Applied	Blocks Granted	Blocks Retained
EL385	Walker River	Rio Tinto Exploration Pty Limited	19/1/1972	9/6/2004	102	38	~6

4. GEOLOGY

The tenement area covers a small part of the Paleo – Mesoproterozoic McArthur Basin, one of the principal tectonostratigraphic components of the Northern Australian Craton. A second principal unit, the Arnhem Inlier (Paleoproterozoic), is represented within the residual tenement application (ELA 24305) adjacent to the granted title, but as such is not discussed in this report. The geological description below is dominantly taken from Haines et al 1999.

Mapped units represented within the granted tenement area are include the Paleoproterozoic Grindall Formation, Coast Range Sandstone and Jalma Formation, the Mesoproterozoic Balbirini Dolomite (Nathan Group) and unnamed Cainozoic units.

The Grindall Formation crops out in the central portion of EL 385 and consists of red-brown to grey-green, fine to medium-grained, thin to thick-bedded, graded sandstone interbedded with red-brown to grey-green mudstone. The unit probably forms basement for much of the tenement area, although older units are present within the application covering the Coast Range.

The Coast Range Sandstone consists of white, medium to coarse-grained, thick-bedded, commonly pebbly quartz sandstone with lenticular basal pebble or cobble conglomerate. The unit unconformably overlies the Grindall Formation.

The Jalma Formation consists of brown to purple, medium-grained, thin to medium-bedded, ferruginous; fine-grained, thin-bedded sandstone near the base with local basal conglomerate and an upper recessive unit of laminated claystone. The Jalma Formation unconformably overlies the Coast Range sandstone and locally on Grindall Formation.

The Balbirini Dolomite is described as being up to 100 metres thick and consisting of chert, altered carbonate containing stromatolites, locally common ooids, evaporates and intraclast

breccia; lesser interbedded sandstone, chert clast rich and cross bedded. A basal sandstone and polymict, open framework conglomerate are present locally. This unit is presumed to unconformably overlie the underlying units, though the contacts are obscured by alluvium.

Thin Cenozoic units cover the entire eastern half of the original EL 385. These units consist of pisolitic and massive ferricrete and laterite. Quaternary deposits of alluvial gravel, sand, silt and clay are found in active channels and active deposits are forming on intertidal and supratidal flats. Sandy beach ridges comprised of shell rich sand are present along much of the coastline.

5. EXPLORATION COMPLETED DURING REPORTING PERIOD

Exploration completed during the reporting year was office-based and included:

- Commercial negotiations with third parties to farm-in to the tenement and adjoining EL applications held by RTX;
- Data and divestment package compilation; and
- Engagement with the NLC regarding ongoing RTX activities.

6. ENVIRONMENT

No ground disturbing work conducted during the period.

7. EXPLORATION EXPENDITURE

Expenditure incurred by RTX for the twelve months ending 8 June 2011 was \$9,017.00.

A full breakdown of expenditure for the reporting period is attached on the prescribed form.

8. PROPOSED EXPLORATION

It is anticipated the introduction of a zinc-focussed third party explorer to EL 385 will expedite exploration on the tenement and adjoining EL applications held by RTX. Stakeholder engagement will be an important early component of any work programmes conducted by the incoming third party.

REFERENCES

Haines, P W et al., (1999) 1:250 000 Geological Map Series Explanatory Notes. Blue Mud Bay SD53-7 Northern Territory Geological Survey.

LOCALITY

Blue Mud Bay

SD 5307

1:250 000

DESCRIPTOR

Annual Report for the Period from 9 June 2010 to 8 June 2011, EL 385 Walker River Northern Territory located within the Arnhem Land Aboriginal Land Trust, Northern Territory, Australia.

KEYWORDS

EL 385, Walker River, Blue Mud Bay, base metals, divestment

