Rio Tinto Exploration Pty. Limited

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A member of the Rio Tinto Group

Second Annual Report
For the Period Ending 8 June 2006,
EL24304 & EL385 Walker River,
SD5307 Blue Mud Bay,
Northern Territory

Exploration Report No. 27640

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1. SUMMARY

Exploration Licence (EL) 385 was applied for in 1972 by CRA Exploration Pty Limited (CRAE). Partial consent of the application area resulted in the granting of two separate licences (ELs 385 & 24304) in June 2004. The tenements are located approximately 180 km south-west of Nhulunbuy, and 80 km north of Numbulwar in south east Arnhem Land and consequently are processed under the Aboriginal Land Rights Act 1975 (ALRA).

The tenements are considered prospective for base metal mineralisation, similar to that at McArthur River (HYC) in the McArthur Basin. Subsidiary targets are diamonds and bauxite. The tenements contain McArthur Group equivalent sediments adjacent to the eastern margin of the Walker Trough. McArthur Group sediments are host to the McArthur River (HYC) lead-zinc deposit located approximately 300 km to the south.

Exploration completed during the current reporting period was directed at locating a stratabound base metal deposit by shallow auger drilling through an area of possible sand cover. Testing for bauxite was also conducted by auger drilling. The programme consisted of drilling a total 51 auger holes for 327m.

Results of the auger drilling did not show any anomalous geochemistry below the sand cover. No significant results were reported for the bauxite auger holes.

EL 24304 was relinquished in full on 4 May 2006 prior to the second anniversary. EL 385 was partially surrendered (19 blocks) on the 8 May 2006.

2. CONCLUSIONS AND RECOMMENDATIONS

No anomalous metal levels were returned in any of the auger sampling.

EL 24304 in full and approximately 50% of EL 385 have been relinquished following the lack of significant results from the auger sampling.

The retained area of EL 385 will be reviewed and close spaced soil sampling and geological mapping may be conducted.

3. INTRODUCTION

EL 385 was applied for in 1972 by CRAE. The tenement area is located approximately 180 km south-west of Nhulunbuy, and 80 km north of Numbulwar in south east Arnhem Land and consequently the applications are processed in accordance with the Aboriginal Land Rights Act 1975 (ALRA).

Partial consent of the initial application area was obtained in 2003. The consented land covered two separate areas of land and consequently two exploration licences (EL 385 and EL 24304) were granted to Rio Tinto Exploration (RTE) on 9 June 2004. The tenements were granted on a non-graticule basis. Tenement details are included in Table 1 below. The tenements are located on Plan WAp46091.

EL 24304 was relinquished in full on the 04 May 2006. EL 385 was partially surrendered on the 08 May 2006 with a total 31.06km^2 retained (see plan WAp 46570).

All exploration was completed in accordance with a Department of Business Industry & Resource Development (DBIRD) lodged and approved Mine Management Plan (Dwyer 2005, RTE Report 27359).

Table 1: Tenement Details

Tenement No.	Tenement Name	Ownership	Application Date	Grant Date	Blocks Applied	Blocks Granted
EL385	Walker River	Rio Tinto Exploration Pty Limited	19/01/1972	09/06/2004	102	38
EL24304	Walker River 2	Rio Tinto Exploration Pty Limited	19/01/1972	09/06/2004		3

4. GEOMORPHOLOGY

The tenement area comprises portions of two major physiographic subdivisions, the Gulf Fall and the Coastal Plain. The Gulf Fall comprises dissected hilly country draining towards the Gulf of Carpentaria and the Coastal Plain comprises low relief areas adjacent to the coast. The Coast Range divides the tenement area. This is a NNE trending line of hills with a maximum elevation of approximately 100 metres (after Haines et al 1999).

The Walker and Marura Rivers and Laurie Creek form major perennial water courses within the general vicinity of the tenements.

5. 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 Coat 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 interbeeded 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 EL 385 and all of EL 24304. 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. Active and recently active cheniers and sandy beach ridges are comprised of shelley sand and are present along much of the coastline.

6. GEOPHYSICS

The project area is covered by regional gravity and by airborne magnetic and radiometric data. The aeromagnetic data are from the Mitchell Ranges 1990 and Marumba 1988 Surveys. These surveys had east west oriented flight lines with a line spacing of 500 metres and a mean survey elevation of 100 metres.

Data has been acquired and reviewed. No features of interest are recognised within the tenement area.

7. PREVIOUS EXPLORATION

Two exploration licences have been held over the tenement area. Both of these existed prior to the grant of the ALRA in 1975. Authority to Prospect (AP) 1138 was granted to BHP Minerals in 1964 and was relinquished in 1972, however it only covered the tenement area between 1964 and 1967. No exploration from the tenement area was reported by BHP.

AP 1967 was held over the tenement area between 1969 and 1970 by Noranda Australia. Again no exploration was reported. Limited exploration comprised an airborne spectrometer survey and ground follow up of 5 anomalies. No economic uranium mineralisation was intersected. Anomalous radioactivity is due to thorium concentrations with minor associated uranium.

8. EXPLORATION COMPLETED DURING REPORTING PERIOD

Exploration completed during the reporting year included:

- Camp and access track construction.
- Auger drilling (51 holes for 327 metres) samples.
- Assaying of bottom of hole samples for base metals (52 samples)
- Assaying of selected holes for bauxite mineralisation (25 samples)

The work programme was subject to a comprehensive work programme clearance facilitated by the Northern Land Council. During this clearance, the traditional owners requested that we avoid entering the portion of the Coast Range covered by the granted titles. Accordingly work was done in this elevate terrain.

The auger sampling required a low impact access route to be made through the open forest of the coastal plain.

8.1 Auger sampling for base metal

A total of 52 samples were collected from variable depths depending on how far the auger could penetrate and the interpretation of weathered insitu bedrock. The samples were collected from an average of 6m depth with the maximum being 16m and minimum of 2m. Analysis was undertaken at Amdel Laboratories in Adelaide using the protocols in Table 2.

Table 2: Auger samples for base metals Analysis Protocols

Preparation	Digest	Method	Elements (lower detection limit)
Dry, Crush and Pulverise entire sample to nominal p97 95um.	Lead fusion fire assay (50 g charge) Aqua regia digest	ICPOES	Au (1 ppb), Pt (5 ppb), Pd (1 ppb).
Dry, Crush and Pulverise entire sample to nominal p97 95um.	HF/multi acid (0.5 g aliquot)	ICPMS /ICPOES	Ag (1 ppm), Al (10 ppm), As (3 ppm), Ba (10 ppm), Bi (5 ppm), Ca (10 ppm), Cd (5 ppm), Co (2 ppm), Cr (2 ppm), Cu (2 ppm), Fe (100 ppm), K (10 ppm), Mg (10 ppm), Mn (5 ppm), Mo (3 ppm), Na (10 ppm), Nb (5 ppm), Ni (2 ppm), P (5 ppm), Pb (5 ppm), S (50 ppm), Sb (5 ppm), Sr (2 ppm), Th (5 ppm), Ti (10 ppm), U (5 ppm), V (2 ppm), W (10 ppm), Zn (2 ppm) Zr (10 ppm).

*ICPMS

The results of the auger sampling did not show any significant anomalism in metals associated with lead zinc mineralisation. The auger drilling stopped in weathered material in all holes however this was interpreted to be mostly insitu and not a younger cover. The work was therefore considered effective in testing for bedrock geochemical anomalism.

Figure 1: Example of the auger drilled material.

Hole number AG05WR03

Sample 6072604 (1-2m) and 6072605 (2-3m) are in top right hand corner and sample 6072555 (11-12m) is in bottom left hand corner.

Figure 2: Auger drill at sit AG05WR03.

8.2 Auger sampling for bauxite

Drill holes that had lateritic material that was possibly bauxitic were sampled and analysed by XRF. Drill hole AG05WR51 had weakly elevated alumina (4m @ 23.6% Al_2O_3) from 2 metres with high silica (ave. 42% SiO_2). This material is indicative of lateritic weathered sandstone and is not considered significant for bauxite.

Table 3: Summary of sample assayed for bauxite

Hole number	Sample numbers	Depth
AG05WR01	6072551	0 - 1
AG05WR02	6072601-603	0 - 3
AG05WR03	6072604 - 605	1 - 3
AG05WR05	6072606 - 607	1 - 3
AG05WR12	6072609	0 - 1
AG05WR13	6072608	0 - 1
AG05WR15	6072610	0 - 1
AG05WR16	6072611	1 - 2
AG05WR24	6072612	0 – 1
AG05WR33	6072613	0 - 1
AG05WR43	6072615	0 - 1
AG05WR48	6072624	0 - 1
AG05WR49	6072625	0 - 1
AG05WR51	6072617 - 623	0 - 7

Table 4: Auger samples for bauxite Analysis Protocols

Preparation	Digest	Method	Elements (lower detection limit)
Dry, Crush and Pulverise entire sample to nominal p97 95um.	Fused bead	XRF-fused bead Thermo-gravimetric	Al_2O_3 CaO Fe_2O_3 K_2O MgO MnO Na_2O P_2O_5 (0.001) SiO_2 SO_3 TiO_2 ZrO_2 V_2O_5 (0.001) LOI (detection limit is 0.01% unless otherwise stated)

9. ENVIRONMENT

All exploration was completed in accordance with a DBIRD lodged and approved Mine Management Plan (Dwyer 2005). This report is included in Appendix 2.

All exploration activities were completed in accordance with the approved plan and no additional rehabilitation is required.

10. EXPLORATION EXPENDITURE

The exploration expenditure attributed to the project by RTE for the second year of exploration is detailed in Table 5.

Table 5: Exploration Expenditure

Element Summary Group Description	Total $
Drilling	11223.75
Cont Exploration – EXT	7180.76
Field and Transport	35567.73
General Office Support and Comm	607.83
Indirect Costs	38594.34
Laboratory Analysis	3927.01
Payroll and Benefits	46460.77
Rent and Property	3,517.98
Sundry Prof and Other	4331.82
Tenement Payments	29901.40
Travel and Accommodation	4787.58
Grand Total	**182,582.99**

11. PROPOSED EXPLORATION

A review of the data from the 2004 programme has resulted in some anomalous silver assays in rocks being recognised. Follow-up close spaced soil sampling of the western half of the tenement is being planned.

A notional budget for the project area is listed as follows:

Table 6: Proposed Expenditure

Description	**Amount $**
Soil sampling	30,000
Track preparation	10,000
Field and transport	20,000
Total	**60,000**

REFERENCES

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

Dwyer, K . — Walker River Mine Management Plan 2005. Rio Tinto Report 27359.

Rheinberger, G 2005 — First Annual Report for the Period Ending 8 June 2005, EL24304 & EL385 Walker River, SD5307 Blue Mud Bay, Northern Territory. Rio Tinto Report 27368.

Dunlop, A C et al., — Report on Prospecting Authority AP No 1967. Unpublished Company Report CR70-54.

LOCALITY

Blue Mud Bay	SD 5307	1:250 000

DESCRIPTOR

Second Annual Report for the Period Ending 8 June 2006, EL 385 Walker River, EL24304 Walker River 2, Northern Territory located within the Arnhem Land Aboriginal Land Trust, Northern Territory, Australia. Base metal and bauxite exploration consisted of drilling 52 auger holes and selected assaying.

KEYWORDS

Walker River, Blue Mud Bay, base metals, bauxite, auger drilling, XRF analysis, ICP analysis.

APPENDIX 1

Auger Samples Ledger and Results

EL385_2006_A_02_drillcollars.txt

EL385_2006_A_03_lithology.txt

EL385_2006_A_04_downholegeochem.txt

APPENDIX 2

Walker River Mine Management Plan 2004

26851 Walker River MMP.pdf

WAp45609.pdf

WAp46091.pdf