

**Fifth Annual Report**  
**for**  
**EL 37/2010 – Westbury**

**Reporting Period:** 7 November 2015 – 6 November 2016  
**Project Operator:** ABx4 Pty Ltd  
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# 1 ABSTRACT

## Objective:

Exploration Licence (EL) 37/2010 “Westbury” was applied for by ABx4 Pty Ltd (ABx4) in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Tertiary Volcanics, in an area with old peneplained surfaces preserved as plateaus. The goal of the program is to determine the quality and quantity of the bauxite in the area using an RC drill rig mounted on a light 12 tonne truck.

## Methodology:

1. Detailed geological mapping, including geomorphological mapping, to define the areas with best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive quartz, loss on ignition and other analyses as required in bauxite search.
4. Drill testing of zones with best potential defined by work under 1, 2. and 3, by an RC drill rig mounted on a light 12 tonne truck to get samples representing the whole bauxite profile.
5. Systematic drill testing at close spacings to obtain data for resource estimation in the best target areas defined by programme under 4.

## Results:

Work during the current year of tenure was limited to a brief desktop review. The objective of the review was to select any areas appropriate for relinquishment at the end of the five-year term when an Extension of Term application would be due. A decision was made to apply to retain all 71 units (71 km<sup>2</sup>)

**Recommendations for future work:**

Recommendations for future work include:

1. Detailed geological mapping, including geomorphological mapping, to define the areas with best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive quartz, loss on ignition and other analyses as required in bauxite search.
4. Drill testing of zones with best potential defined by work under 1, 2. and 3, by an RC drill rig mounted on a light 12 tonne truck to get samples representing the whole bauxite profile.
5. Systematic drill testing at close spacings to obtain data for resource estimation in the best target areas defined by programme under 4.

Specifically, further work is required to drill-test the previously inaccessible parts of the Rubble Flats deposit.

## 2 INTRODUCTION

### Exploration Rationale

Exploration Licences (EL) No. 37/2010 “Westbury” was applied for in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Tertiary Volcanics and Jurassic Dolerite in an area with old peneplained surfaces preserved as plateaus. The goal of the program is to determine the quality and quantity of bauxite in the area using an RC drill rig mounted on a light 12 tonne truck.

### Geological Setting

The historic work done by H.B. Owen (‘Bauxite in Australia’, 1954) demonstrated that bauxite in Tasmania can be found in both Jurassic Dolerite and Tertiary Basaltic Volcanics. According to Owen, these bauxite deposits - regardless of host rock type - are thought to form either as ‘grouped remnants of former continuous sheet’ or ‘formed in lenticular or pod shaped bodies in localised depressions’.

### Tenement Information

EL 37/2010 “Westbury” was granted on and from 7 November 2011 for a period of 5 years to ABx4 Pty Ltd, a wholly-owned subsidiary of Australian Bauxite Limited (ABx) (ASX:ABX). The original licence area of EL 37/2010 was 218 km<sup>2</sup>. Since grant ABx4 has made a series of voluntary relinquishments such that the tenement area is now 71 km<sup>2</sup>.

This is the Fifth Annual Report for the reporting period 7 November 2015 - 6 November 2016 incorporating the results from work completed during the fifth year of tenure.

The mineral category of EL 37/2010 is ‘Mineral Category is 1 – Metallic Minerals and Atomic Substances’.

### Tenure, including joint venture details and title transfers

EL 37/2010 “Westbury” is 100% owned by ABx4 which is a wholly-owned subsidiary of Australian Bauxite Limited.

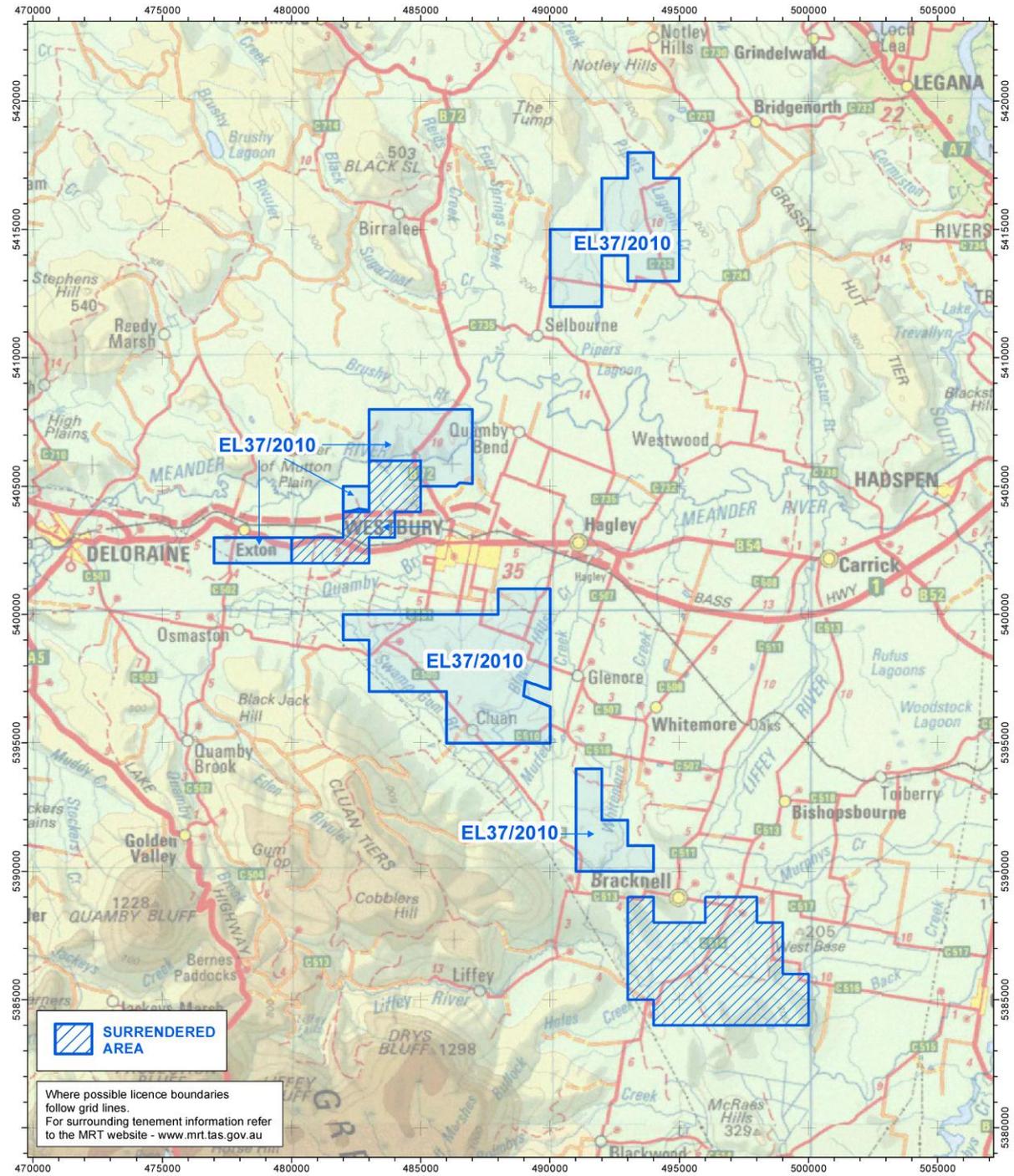
### Location

The Westbury tenement is centred on the town of Westbury and is approximately 68km from Bell Bay and 114km from Burnie which are both large operation ports. There is also a railway siding just south of Hagley next to the highway and away from residential areas. The Westbury tenement is ideally located for both rail and road transport to the port.

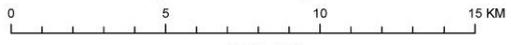
The majority of the land usage in the Westbury tenement is Plantation, natural forest and agricultural land with land categories 3-6. Gaining access to farming properties has been very successful; with all landowners contacted by ABx4 allowing exploration on their land.

**Department of State Growth**

MINERAL RESOURCES TASMANIA



**EL37/2010 (6 Parts) 71km<sup>2</sup>  
Vicinity of Westbury - Bracknell**



1:200,000

Coordinate Datum - GDA94 MGA Zone 55



Base image by TASMAR  
(www.tasmap.tas.gov.au)  
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Map 1. Location Map of EL 37/2010 “Westbury” showing current (blue shaded) and recently relinquished areas (diagonal lines). Datum GDA94 (MGA94 Zone 55).

### 3 REVIEW OF PREVIOUS WORK

#### Prior to Current Tenement

Historical references for bauxite in the Westbury Tenement are reported by H.B. Owen in his book “Bauxite in Australia”, 1954, which was the basis for Initial exploration of the area.

- Owen H.B, (1954), *Bauxite in Australia*, Bulletin 24
- Owen H.B (1946). *Rosevale, Country Devon, Tasmanian*. Bureau of Mineral Resources

Exploration for Bauxite was conducted by C.R.A Exploration Pty Limited (**CRA**) in the late 1960s and early 1970s. CRA decided to relinquish its tenement in central northern Tasmania as no worthwhile results were obtained.

Two reports were composed by CRA:

6. Miss S.E. Close, Feb 1970, *Scintillometer Search for Bauxite, Northwest Tasmania*, CRA Exploration Pty Limited
7. Miss S.E. Close, June 1971, *Final Report on Bauxite Search, Devonport E.L. 36/70 Tasmania*, CRA Exploration Pty Limited

#### Summary of Work Completed in First Three Years of Tenure

Exploration in the first year of tenure involved the successful identification of multiple bauxite targets. The deposits are located in areas mainly mapped as Category 4-6 class land. Four significant bauxite zones were identified: Bracknell target located south west of Bracknell, Rosevale Target located west of Rosevale, Birrallee Rod Target located north of Westbury and the Westbury targets located just south of Westbury.

In the second year of tenure, drill testing occurred at the Bracknell and Rosevale targets. A total of 78 holes were RC drilled for 884m. Drilling at Rosevale was relatively successful with an approximate estimated tonnage of around 0.5 million tonnes with potential for an expanded estimate with more drilling. However, the bauxite drilled in the Bracknell target was sub-economical.

Exploration in the third year of tenure consisted chiefly of field work and surface sampling activities. Bauxite was identified on the Egmont Property both in the valley and high on the ridge to the west where the property borders with the “Allen’s Bush” plantation property. The bauxite found on the ridge to the west constitutes the eastern extension of the Rubble Flats (formerly “Blackwood East”) Bauxite Deposits. The Glen-Avon and Baker Properties west of Birrallee Road were also investigated; only a very small amount of bauxite was found on the Glen-Avon Property such that it was not thought to be economically viable – these areas were proposed for relinquishment.

In the fourth year of tenure, ABx4 conducted close-space drilling on the Rubble Flats deposit and scout drilling on the Rosevale and Egmont Property targets. A total of 40 RC holes were drilled for 529m. The results of drilling on the rubble flats deposit were moderately successful, whereas the results from Rosevale and the Egmont property were relatively unsuccessful.

## **4 EXPLORATION COMPLETED DURING THE REPORTING PERIOD**

### **Regional Exploration Activities**

Work during the current year of tenure was limited to a brief desktop review. The objective of the review was to select any areas appropriate for relinquishment at the end of the five-year term when an Extension of Term application would be due. A decision was made to apply to retain all 71 units (71 km<sup>2</sup>).

## **5 DISCUSSION OF RESULTS**

Work during the current year of tenure was limited to a brief desktop review. The objective of the review was to select any areas appropriate for relinquishment at the end of the five-year term when an Extension of Term application would be due. A decision was made to apply to retain all 71 units (71 km<sup>2</sup>).

## 6 CONCLUSIONS AND RECOMMENDATIONS

Work during the current year of tenure was limited to a brief desktop review. The objective of the review was to select any areas appropriate for relinquishment at the end of the five-year term when an Extension of Term application would be due. A decision was made to apply to retain all 71 units (71 km<sup>2</sup>).

Westbury EL37/2010 is one of ABx4's most prospective tenements, along with adjacent tenements Deloraine EL9/2010 and Reedy Marsh EL16/2012. These tenements are all highly mineralised and are ideally located in close proximity to Bell Bay Port.

Recommendations for future work include:

1. Detailed geological mapping, including geomorphological mapping, to define the areas with best potential for bauxite.
2. Systematic sampling of natural outcrops and exposures in road cuts of bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive quartz, loss on ignition and other analyses as required in bauxite search.
4. Drill testing of zones with best potential defined by work under 1, 2. and 3, by an RC drill rig mounted on a light 12 tonne truck to get samples representing the whole bauxite profile.
5. Systematic drill testing at close spacings to obtain data for resource estimation in the best target areas defined by programme under 4.

Additional drilling is warranted on the Rubble Flats deposit in order to further delineate known ore zones and also to drill-test the inaccessible parts of the deposit that are currently covered by unharvested plantation.

## **7 ENVIRONMENT**

### **Surface Disturbing Operations:**

No activities causing a surface disturbance occurred within the current reporting period.

### **Surveys (archaeological, botanical):**

No archaeological or botanical surveys took place during the current reporting period.

### **Rehabilitation:**

All required rehabilitation has been completed.

## 8 EXPENDITURE

Table 1. Exploration expenditure for EL37/2010 over the current annual reporting period.

EL 37/2010 Westbury - Expenditure over tth Year of Tenure	
1. Geoscientific costs	
Geology	\$8,558
Geochemistry	
Geophysics	
Remote sensing	
2. Drilling and Gridding Costs	
Gridding	
Drilling	
Holes/metres	
3. Land Access Costs	
4. Rehabilitation Costs	
5. Feasability Study Costs	
6. Other Costs	
7. Administration Costs (< 10%)	
8. Total Costs	
	\$8,558

Note: Office Administration was met by parent company – Australian Bauxite Limited.

## 9 REFERENCES

T Coyte, 2012, *First Annual Report EL37/2010 Westbury, 31 October 2012*, ABx4 Pty Ltd.

T Coyte, 2013, *Second Annual Report EL37/2010 Westbury, 23 October 2013*, ABx4 Pty Ltd.

T Coyte, 2014, *Third Annual Report EL37/2010 Westbury, 3 October 2014*, ABx4 Pty Ltd.

T Coyte, 2015, *Fourth Annual Report EL37/2010 Westbury, 5 November 2015*, ABx4 Pty Ltd.

Vicary, M. (compiler) 2004. *Digital Geological Atlas 1:25 000 scale series. Sheet 4640 Westbury*. Mineral Resources Tasmania