Fourth Annual Report

for

EL18/2014 – Prossers Rd

UPDATED

Reporting Period:	2 December 2017 – 1 December 2018
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ABSTRACT

Objective:

Exploration Licence No. 18/2014 "Prossers Rd" was applied for by ABx4 Pty Ltd (**ABx4**) in order to facilitate an exploration program to discover economically viable deposits of bauxite associated with Jurassic Dolerite and Tertiary Volcanics. 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.

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 the bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive silica, 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:

No work occurred in the current year of tenure other than report preparation and a brief review of Tasmanian holdings by ABx4 Pty Ltd.

Recommendations for future work:

ABx intends to continue with its proposed work program of:

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 the bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive silica, loss on ignition and other analyses as required in the 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.

More specific recommendations include but are not limited to:

- Additional desktop work on the St Leonards deposits to assess the economic feasibility of a mining operation.
- Scout drilling in the Dilston area.

INTRODUCTION

Exploration Rationale

ABx4 Pty Ltd - the holder of Category 1 Exploration Licence EL 18/2014 - is the wholly owned subsidiary of Australian Bauxite Ltd. Australian Bauxite Limited (ABx) (ASX: ABX) is an exploration company that holds the core of the Tasmanian Bauxite Province with all tenements selected on 3 principles:

- Quality – good quality bauxite with potential for significant resource tonnages;
- Proximity – easy access to infrastructure connected to export ports; and
- Accessibility – free of socio-environmental or native title land constraints.

EL 18/2014 "Prossers Road" 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.

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 18/2014 "Prossers Rd" was granted on and from 2 December 2014 for a period of 5 years to ABx4 Pty Ltd, a wholly-owned subsidiary of Australian Bauxite Limited.

ABx4 applied to relinquish 21km^2 of the original 135km^2 of tenement area at the end of the first year of tenure and a further 58km^2 at the end of the third.

The mineral category of EL 18/2014 is; 'Mineral Category is 1 – Metallic Minerals and Atomic Substances'.

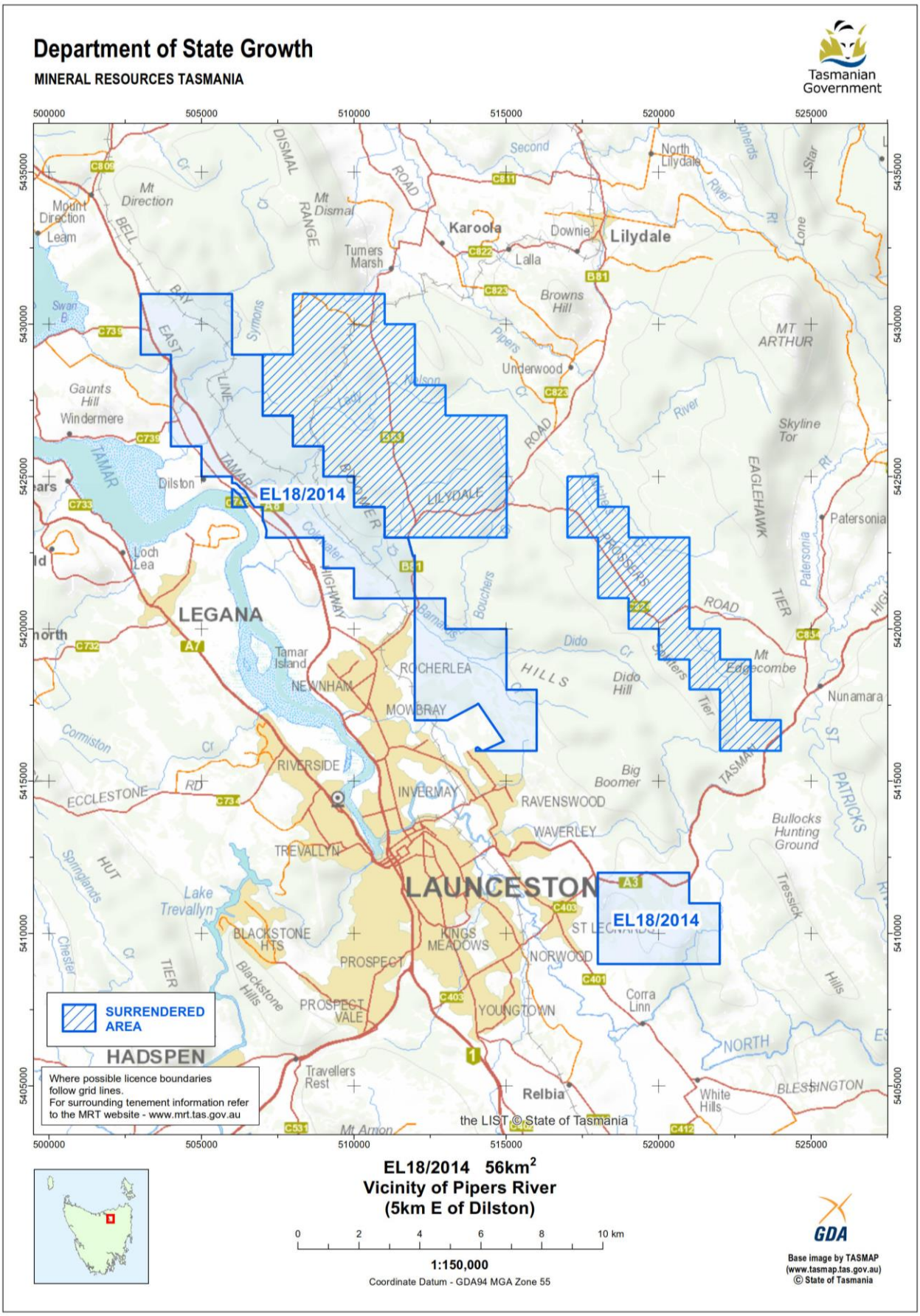
Tenure, including joint venture details and title transfers

EL 18/2014 "Prossers Rd" is 100% owned by ABx4 which is a wholly-owned subsidiary of Australian Bauxite Limited.

Location

The Prossers Rd tenement extends from directly east of Launceston in the St Leonards area along the eastern hills and extending north around Dilston and Turner's Marsh.

Prossers Rd is ideally located close to Bell Bay Port – only 24km by road from the northernmost part of the tenement – as well as the city of Launceston which offers a skilled work force and a wide variety of services.



Map 1. Location of EL 18/2014 “Prossers Rd” and the most recent area relinquishment. Map extracted from MRT website.

REVIEW OF PREVIOUS WORK

Literature Review

St Leonards

Initial work was completed by the Australian Bureau of Mineral Resources in conjunction with the Tasmanian Mines Department on the bauxite deposits in the St Leonards area in the mid-to-late 1940s. This work is reported in the BMR Bulletin No. 24 "*Bauxite in Australia*" by H.B. Owen (1954).

Owen describes a total of seven separate bauxite bodies developed upon Dolerite in the St. Leonards area, though noting that only Deposit No. 1 and No. 3 contain "appreciable quantities of economic bauxite". The total tonnages at St. Leonards was noted by H.B. Owen as being relatively small but having the advantage of being in close proximity to Launceston and only 38 miles from the Bell Bay alumina plant.

Owen describes the general geology of the deposits as follows:

"No. 1 Deposit crops out as a narrow bench following the contours along the western slopes of a valley trending south. The bauxite outcrop is continuous for 2,900 ft [~883m] on the valley side and also appears in small exposures at the head of the valley. The several small discontinuous outcrops which constitute Nos. 3 and 4 Deposits lie on the opposite side of the valley at a similar general elevation. It is probable that these bodies mark the outer edges of a once continuous sheet of laterite which lay on a surface dipping gently to the south-west."

Proved resources were calculated by Owen for Deposit No. 1 and No. 3 though these estimates **are not** considered "JORC-compliant". The "Summary of Reserves" has been reproduced in the table below.

Table 1. Historical (non-JORC compliant) resources calculated for St Leonards bauxite deposits.

Deposit No.	Tonnes	SiO2	Al2O3	Fe2O3	TiO2	Available Al2O3
		%	%	%	%	%
No. 1	112,300	5.6	41.7	25.7	2.2	37.7
No. 3	30,200	7.1	40.9	25.8	2.2	36.5
Total	**142,500**	**5.9**	**41.5**	**25.7**	**2.2**	**37.4**

Dilston

A reference to a small bauxite deposit north of Dilston (referred to as "Thorp") was also made in Owen's *Bauxite in Australia*. The single paragraph written on the deposit is as follows:

"Doleritic bauxite of granular texture outcrops on a farm named Thorp at about 1.5 miles north-west of Dilston Post Office and 0.5 mile east of the Georgetown road. The bauxite, which is believed to be thin, wedges out against dolerite to the north, east and south, but may continue to the west where a small exposure is visible in highly improved land adjacent to the farmstead. The deposit is not sufficiently large to warrant interference with the farm."

Work in Year 1 of tenure

In the first year of tenure, ABx4 investigated and did work in the St Leonards and Dilston areas in which bauxite deposits had been referenced in historical literature. In addition to comprehensive field traversing and surface sampling in both areas, ABx4 conducted a drilling program on the St Leonards historic bauxite deposit. A total of 68 Reverse Circulation (RC) holes were drilled for 715m. 31 of these 68 holes intersected bauxite of good quality. The collection of results suggested that the bauxite layer at St Leonards is a continuous sheet which could cover an area of somewhere between 4-12 km^2.

The bauxite samples taken from the Dilston area showed it is low-grade ferruginous bauxite/laterite. From previous experience good and/or high grade bauxite can occur underneath a ferruginous upper bauxite or "ferricrete" layer. Therefore it is possible that drilling the deposit may recover some higher quality bauxite that is currently not exposed at surface.

Work in Year 2 of tenure

In the 2nd year of tenure the drilling data from the St Leonards bauxite deposits was taken and simple metrics were calculated – such as bauxite thickness, overburden thickness and stripping ratios – to gain a preliminary understanding of the economic feasibility of the deposit. Certain parts of the deposit had relatively large stripping ratios as high as 9:1 and would not be economic to mine using traditional strip mining methods. More detailed work on this deposit is required to properly assess feasibility of mining.

EXPLORATION COMPLETED DURING THE REPORTING PERIOD – UPDATED 22 MARCH 2019

Regional Exploration Activities

No work occurred in the current year of tenure other than report preparation and a brief review of Tasmanian holdings by ABx4 Pty Ltd.

UPDATE 22 MARCH 2019 – MORE EXPLANATIONS

The review of Tasmanian holdings by ABx4 Pty Ltd during the current year of tenure being reported here included:

1. Reassessment of drill results indicated presence of significant tonnages of cement-grade bauxite on this tenement EL18
2. Scoping studies showed that the tenement can become a lower costs supplier of cement grade bauxite, should a suitable quarry site be found (see points 4 and 5 below).
3. ABx4 concluded that a resource modelling exercise is warranted, albeit based on wide-spaced drilling data.
4. The experience of ABx4 at its Bald Hill Bauxite Project mine on ML1964 and at bulk testwork at Fingal Rail near Conara will allow a reasonable estimate of mineability in the Prossers Road EL18/2014.
5. ABx4 has a paramount corporate policy which applies on all tenements and will be assessed in the next year of tenure by the experienced senior staff. The policy is as follows:

> 1. ABx endorses best practices on agricultural land, strives to leave land and environment better than we find it.
> 2. We only operate where welcomed.

DISCUSSION OF RESULTS – UPDATED 13 APRIL 2019

No work occurred in the current year of tenure other than report preparation and a brief review of Tasmanian holdings by ABx4 Pty Ltd.

UPDATE 22 MARCH 2019 – MORE DISCUSSIONS

The presence of significant tonnages of cement-grade bauxite on this tenement EL18 and the scoping studies which showed that the tenement can become a lower costs supplier of cement grade bauxite, is encouraging but it all depends on the identification of a suitable quarry site and subsequent landholder approvals, environmental approvals and development approvals.

A resource modelling exercise is planned for 2019 and if positive, a consideration of the possibility of achieving all the necessary approvals must then be carried out by experienced senior staff.

ABx4 has a paramount corporate policy which applies here as follows:

1. ABx endorses best practices on agricultural land, strives to leave land and environment better than we find it.
2. We only operate where welcomed.

CONCLUSIONS AND RECOMMENDATIONS

The EL18/2014 tenement covers a highly mineralised area - there is a great scope for further work.

ABx intends to continue with its proposed work program over the next 2 to 3 years of:

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 the bauxite profile.
3. Chemical analyses of samples, including specialist analyses to determine total and available alumina, total and reactive silica, loss on ignition and other analyses as required in the 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 spacing to obtain data for resource estimation in the best target areas defined by programme under 4.

More specific recommendations include but are not limited to:

- Additional desktop work on the St Leonards deposits to assess the feasibility of mining.
- Scout drilling or pit-sampling in the Dilston area.
- Bulk sample testwork, after all appropriate approvals and clearances have been applied for and approved, in the same manners as have been done on other tenements in northern Tasmania.

ENVIRONMENT

Surface Disturbing Operations:

No surface-disturbing activities took place during the current year of tenure.

Surveys (archaeological, botanical):

No surveys took place during the current year of tenure.

Rehabilitation:

No rehabilitation activities took place or were required during the current reporting period.

EXPENDITURE – UPDATED 22 MARCH 2019

Table 2. Exploration expenditure for EL18/2014 over the 4th annual reporting period.

EL 18/2014 Prossers Rd - Expenditure over 4th Year of Tenure		
1. Geoscientific costs		
	Geology	$3,000
	Geochemistry	
	Geophysics	
	Remote sensing	
2. Drilling and Gridding Costs		
	Gridding	
	Drilling	
	Holes/metres	
3. Land Access Costs		$700
4. Rehabilitation Costs		
5. Feasibility Study Costs		$700
6. Other Costs (assessment of cement-grade potential) 2 days		$2,000
7. Administration Costs	(< 10%)	$500
8. Total Costs		**$6,900**

Note: Actual Office Administration ($500) and senior staff costs on land access ($700) and logistics feasibility studies ($700) totalling approximately $1,900 was not allocated to this tenement specifically and was therefore met by parent company – Australian Bauxite Limited. These have been included here in the update completed on 22 March 2019.

REFERENCES

Bardenhagen, F. (1981). *Bauxite in Laterite in the Launceston Area*, Bardenhagen Enterprises.

Battaglia, T. and Coyte, T. (2016), *First Annual Report on EL18/2014 Prossers Rd*, MRT Submission, ABx4 Pty Ltd.

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Owen, H.B. (1954). *Bauxite in Australia*, Bureau of Mineral Resources, Geology & Geophysics, Bulletin 24, Geology and Geophysics.