Fifth Annual Report

on

EL 7/2010 – Conara

Reporting Period:	14 September 2014 – 13 September 2015
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Date:	10 September 2015

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1 ABSTRACT

Objective:

Exploration Licence (**EL**) 7/2010 "Conara" was applied for 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 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 Mitsubishi truck to get samples representing the whole bauxite profile.
5. Systematic drill testing at close spacing's to obtain data for resource estimation in the best target areas defined by programme under 4.
6. Mine-ability study of Tasmanian bauxite using a small excavator to dig bauxite and screen test on a larger scale.

Results:

Australian Bauxite Limited subsidiary company ABx4 completed scout drilling at the Toms Hill and an adjacent target within the Quorn Hall property, both to the East of Campbell Town. 13 RC holes were drilled for 156 metres across the two targets, one of which overlaps with the ABx4-held Ross tenement (EL3/2012) within which a further three holes were drilled.

Data entry and analysis of drilling data occurred subsequently, followed by selection of samples for chemical analysis at the ALS Laboratory in Brisbane. Unfortunately, no samples assayed met bauxite grade.

ABx4 also undertook an optical sorting study of the Fingal Rail Pit Samples which were collected in 2013. This was intended as a trial beneficiation process of the bauxite from the Fingal Rail bauxite deposit over which a mining lease will be sought in the short-to-medium term.

A review of ecological assessments was undertaken for the Nile Road target area by EcoTas.

Furthermore, several desktop reviews have taken place in the last 12 months in order to assess and prioritise the bauxite targets across all ABx4 tenements. This is an informal process and, as such, no reports or figures have culminated from any recent reviews.

Recommendations for future work:

Recommendation for future work include further:

1. Detailed geological mapping, including geomorphological mapping and study of satellite images to define the areas with the 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 silica, loss on ignition and sieving.
4. Drill testing of zones with best potential with an RC drill rig mounted on a light six wheel truck to get samples representing the whole bauxite profile.
5. Pit testing of the Fingal Rail target to test mineability of the deposit.
6. Sieve testing to find optimal sieve size for Tasmanian bauxites.
7. Testing new sample processing techniques to improve silica reduction.
8. Constant monitoring of rehabilitated pit locations.
9. New application for a Mining Lease over the Fingal Rail Deposit.
10. Commence detailed discussions with land holders in the Fingal Rail Area.

2 INTRODUCTION

Exploration Rationale

ABx4 Pty Ltd the holder of Category 1 Exploration Licences EL 7/2010 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.

Land within the tenement consists of freehold agricultural land with some forests and plantations.

EL 7/2010 "Conara" was applied for 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 was to determine the quality and quantity of the 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 7/2010 "Conara" was granted on and from 14 September 2010 for a period of 5 years to ABx4 Pty Ltd (**ABx4**).

This is the Fifth Annual Report for the reporting period 14 September 2014 - 13 September 2015 incorporating the results of work completed during the fifth year of tenure. This report will also accompany an application by ABx4 to extend the term of the exploration licence for another 12 months.

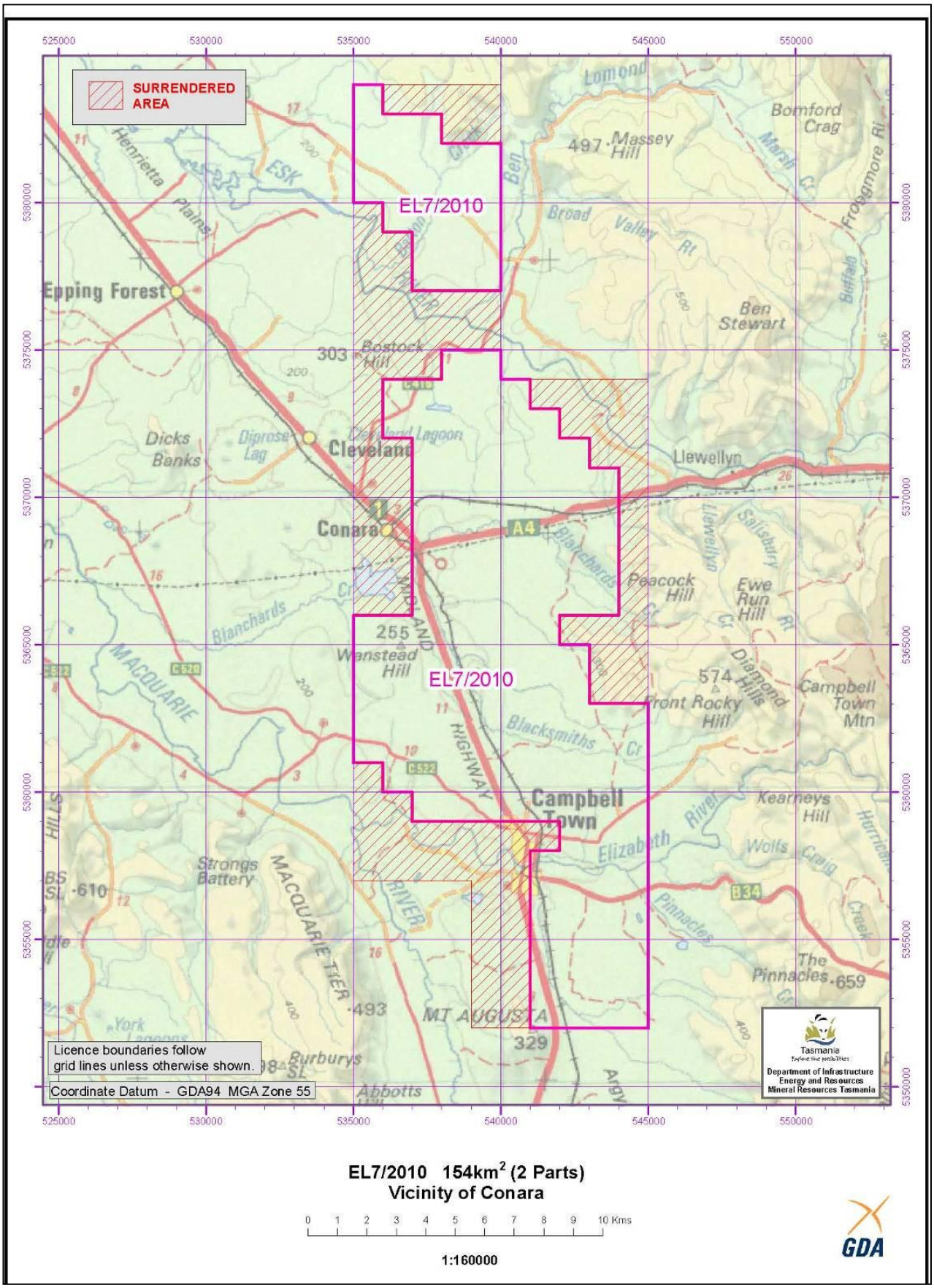
Total area of the original Mineral Category 1 licence was 238sq km, however, ABx4 chose to relinquished 85sq km in 2012 bringing the total area to 153sq km.

Tenure, including joint venture details and title transfers

EL7/2010 "Conara" is 100% owned by ABx4 which is a wholly-owned subsidiary of Australian Bauxite Limited.

Location

The Conara tenement is centred on the railway town of Conara where there is a railway siding and active railway. The tenement is only 90km from the large operating port at Bell Bay and the Midlands highway passes through the centre of the tenement. The Conara tenement is ideally located for both rail and road transport to the port. EL 7/2010 is close to the City of Launceston which could offer a wide range of services and skilled work force. The majority of the land usage in the tenement is private reserves, natural forest and agricultural land with land categories 4-6.



Map 1. Location of EL7/2010 “Conara”.

3 REVIEW OF PREVIOUS WORK

Work Completed during First Four Years of Tenure

In the first four years of tenure a total of 708 RC holes were drilled for 7,867 metres. A total of 2,857 drilling samples underwent specialist chemical analysis at ALS Laboratories, Brisbane. 1,718 of these tested samples were wet sieved at 0.26mm prior to analysis in order to test upgrade and yields of bauxitic material (majority of clay is washed out during this process).

Another 4,414 assays on drilling samples were conducted in-house using a hand-held Niton XRF device.

The results of drilling in the first four years of tenure led to the current JORC-compliant bauxite resources of 1.84 Mt inferred and a further 1.67 Mt indicted within the Conara tenement (these figures are recent to 2015 but build on previous estimates). Other targets have been drill-tested but did not contain economic quantities of bauxite.

Four test pits were dug in 2013 (three on the Bald Hill target, one on the Fingal Rail target) to assess resource extraction, mining equipment, processing equipment and shipping grade and yields.

A mining lease for the Bald Hill bauxite deposit was applied for and later approved on September 19, 2014. The Bald Hill Mine ("ML 1961P/M") opened in December 2014 and has been in production since January 2015.

A great amount of field reconnaissance, geological mapping and surface sampling (for chemical analysis) has been undertaken and has allowed geologists to prioritise targets for drilling and other works. Ten botanical and/or archaeological surveys have been conducted in the first four years.

Ongoing desktop reviews have also taken place over the past five years in order to assess and prioritise bauxite targets across all ABx4 tenements.

4 EXPLORATION COMPLETED DURING THE REPORTING PERIOD

Prospect-based Exploration Activities

March 2015 Drilling Programme

In March 2015, ABx4 drilled 13 holes for 156m at the Tom's Hill target and an adjacent Quorn Hall target (there are multiple targets within the Quorn Hall property) within the EL7/2010 Conara tenement.

Mapped Geology

Inspection of available geological data from the 'Snow Lake' sheet of the 1:50,000 Geological Map Series (MRT) show that the topographical highs which make the Tom's Hill and adjacent Quorn Hall targets are capped by Quaternary lag deposits consisting dominantly of Tertiary ferruginous fragments. These lag deposits derive from Tertiary Basaltic Volcanics which are preserved throughout the area, along with Quaternary Aeolian dune and sheet deposits which make up much of the flat-lying cleared farmland.

Bauxite is known to be associated with both Tertiary Basalt (see H.B. Owen, 1954) as well as the often-red ferruginous duricrusts which are known to occur throughout the Tasmanian central midlands. The weathering processes which are responsible for creating ferruginous duricrusts, and associated weathering profiles, could likely also contribute to bauxite mineralisation. Many bauxite deposits in Tasmania are overlain by hard iron-rich rocks which produce red soils (e.g. Rubble Flats deposit within ABx4's EL16/2012 Reedy Marsh tenement).

Drilling Results

Tom's Hill

Four holes were drilled in the Tom's Hill target (CN709-CN712). Logging of drill sample material indicated that these holes were very clay-rich, with fragments that were bauxitic in appearance lying within the clay matrix in the upper metres (ranging from 2 to 6 metres depth below surface depending on hole). These fragments were hard in CN709, though were gritty and/or friable in the other three.

The assay results of selected Tom's Hill drill samples support that the subsurface material is very clay-rich – both by the high reactive silica and low yields from wet screening sample at 0.26mm. In only one of the Tom's Hill drill samples that were assayed does Avl Al2O3 (Gibbsite) exceed 25%. It is possible that some gibbsite could occur within the fine clay-rich fraction that is washed away, however, this is not considered recoverable. The hard fragments within CN709 are likely to be iron-rich fragments (e.g. haematite) as opposed to bauxite. As such, no economic quantities of bauxite were discovered at the Tom's Hill target.

Quorn Hall Target #1

Twelve holes were drilled in the Quorn Hall Target #1 – nine within the Conara tenement (CN713-CN721) and three within the Ross tenement (RS001-RS003). Initial results of logging indicated that several metres of red/black pisolitic bauxite was intersected in most of the Quorn Hall Target holes and graded into a clay-rich bottom layer. In some holes hard "matte red" fragments occurred either instead

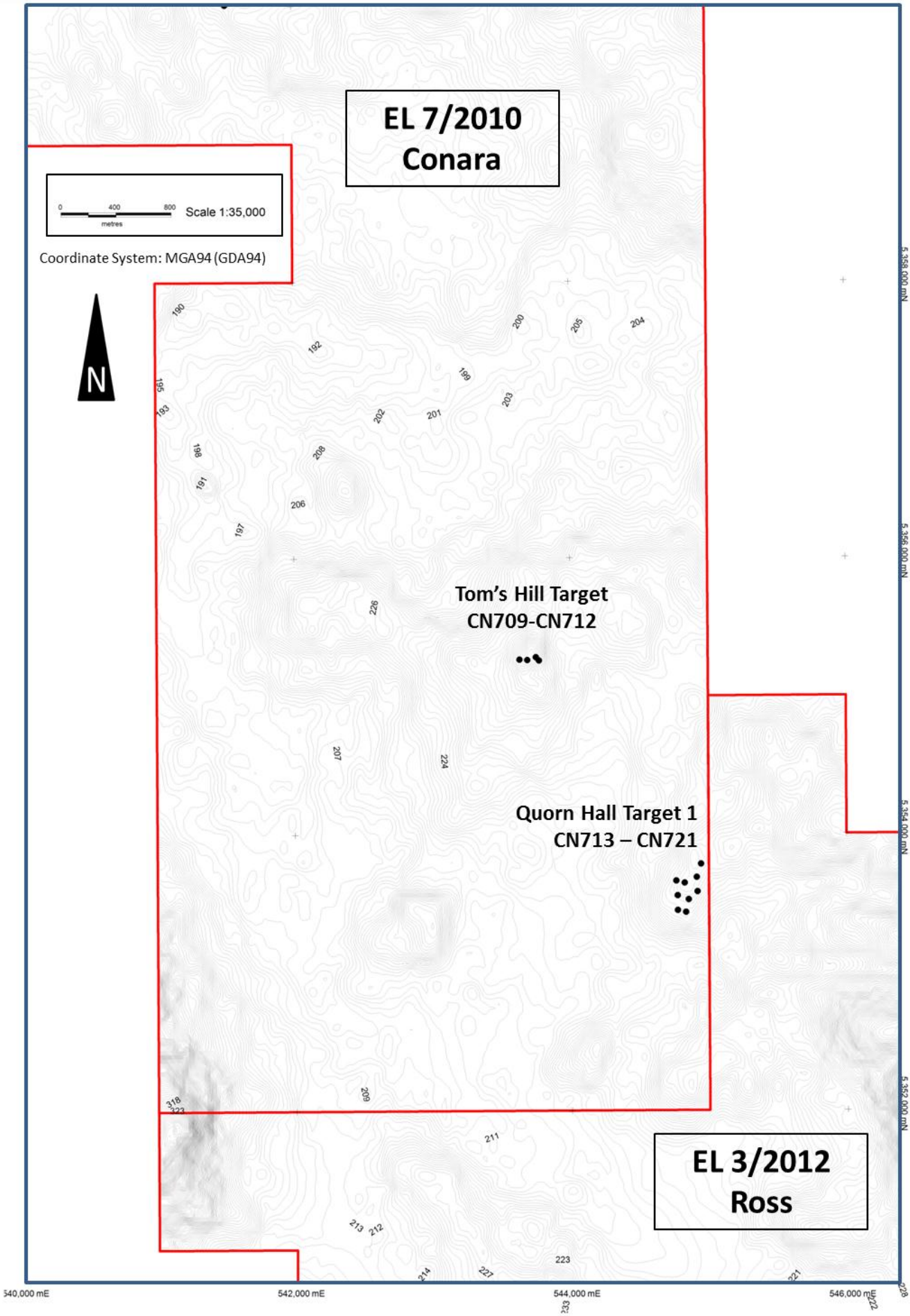
of the pisolitic bauxite layer or between the pisolitic bauxite layer and the underlying clay layer. Fragments of this material have been observed elsewhere and have been shown not to be bauxitic.

The prospective upper meters from holes CN713 and CN715 were assayed and yielded disappointing results. The upper layer thought to be pisolitic bauxite was instead very Fe-rich material and mostly clay (the average yield of the Fe-rich material from wet screening at 0.26mm was 35%). The gibbsite content in these CN713 and CN715 metres averaged less than 1% and suggests that no significant bauxite mineralisation occurs across the Quorn Hall Target #1. The hard matte red material found in some holes was not assayed but is likely to simply have a greater proportion of silica to iron. No economic quantities of bauxite were discovered at the Quorn Hall Target #1.

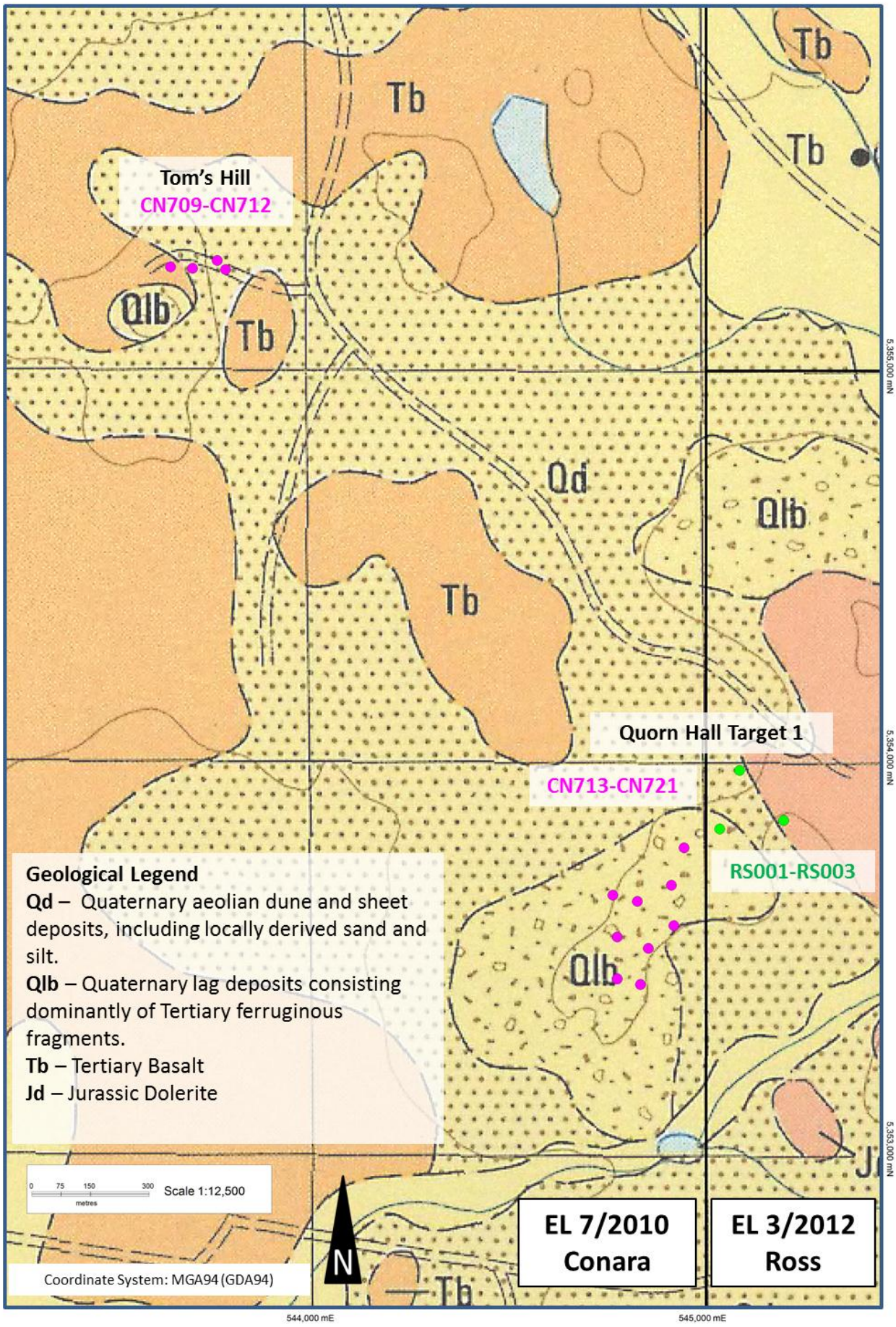
Table 1. Assay results from Tom's Hill and Quorn Hall targets (main fields of interest).

	Al-LICP01	Si-LICP01	ME-XRF13b	ME-XRF13b	ME-XRF13b	ME-XRF13b	ME-GRA05	Yield
Sample No.	Al2O3avl	Rx SiO2	Al2O3	SiO2	Fe2O3	TiO2	LOI	+0.26mm
CN70901	13.4	9	29.47	18.2	36.9	2.39	12.09	**24**
CN70902	16.6	9.8	30.25	16.3	35.1	2.81	15	**30.8**
CN70903	17.4	17.6	36.54	20.4	20.8	2.29	19.28	**26.5**
CN70904	16.8	19.7	37.93	20.9	18.05	2.44	19.9	**31**
CN70905	1.7	27.8	27.07	30.1	25.2	2.79	13.79	**16.8**
CN71001	2	22.2	23.41	33.3	29.3	1.82	11.56	**7.1**
CN71002	1	16.5	15.26	45.4	29.7	1.16	8.04	**9.8**
CN71003	0.8	24.8	21.03	59.8	7.79	2.04	8.97	**10.1**
CN71101	25.5	9	37.92	10.4	27.3	3.02	20.84	48.2
CN71102	23.3	11.7	37.28	12.6	25.4	3.1	21.12	**29.8**
CN71103	22	15.4	37.68	16.75	22	2.84	20.34	**20.1**
CN71104	10.6	17.9	29.23	18.7	31.8	3.19	16.38	**15**
CN71201	12	16.9	31.84	21.6	30	2.72	12.91	**22.8**
CN71202	1.8	24.2	24.24	25.2	33.5	2.71	13.35	**18.6**
CN71301	1.4	15.6	16.1	26.6	46.9	1.09	8.75	**5.5**
CN71302	1.2	16.8	16.74	26.7	44.4	1.28	10.41	**40.7**
CN71303	1	20.3	18.41	31.4	37.7	1.62	10.28	**24.6**
CN71304	0.9	14.7	14.14	32.1	41.7	1.99	9.54	**29.1**
CN71305	0.9	18	16.79	28.1	43.2	1.36	10.09	**44.8**
CN71501	1.1	10.7	12.2	23.4	53.6	1.34	8.96	**33.9**
CN71502	0.9	12.4	13.46	21.3	53.3	1.04	10.4	**28**
CN71503	0.4	35.3	26.83	43	16.25	1.64	11.77	**30.3**
CN71504	0.3	37.3	27.79	45.9	12.55	1.66	11.68	51.3
CN71505	0.5	28.3	22.98	40.8	22.8	2.31	10.58	**33**
CN71506	0.6	26.1	22.55	30.6	33.1	1.56	11.61	49.7
CN71507	0.8	14.8	14.86	19.2	54.3	0.91	10.23	**38.1**

Leach conditions to measure available alumina "Al2O3 Avl" & reactive silica "Rx SiO2" is 1g leached in 10ml of 90gpl NaOH at 143 degrees C for 30 mins.



Map 2. Locations of Conara targets drilled in 2015, overlying 1m contours of 1arc sec DEM-S data from NEDF Portal.



Map 3. Locations of Conara targets drilled in 2015, overlying Snow Lake 1:50,000 Geological Map Sheet (MRT).

Fingal Rail Bauxite Deposit - Optical Sorting Study

Objective

Work was done to assess whether optical sorting was a viable option for beneficiating the ore from the Fingal Rail bauxite deposit.

Method

Four samples were taken from the FRP001 bulk sample collected from the Fingal Rail bauxite deposit test pit work done in 2013. These four samples (OS001-OS004) were divided into six categories, mainly differing by colour:

G1. Light red/orange – relatively low density, no magnetic properties.

G2. Yellow/maroon – yellow quartz sand coating maroon mass, denser than Cat. G1. Weak magnetism in some clasts.

G3. Splotchy red/grey – nodular appearance, lower density similar to Cat. G1. Weak magnetism in some clasts.

G4. Maroon with dark zones – Maroon groundmass with dark irregular PDM nodules. Density is relatively high. Patches of moderately magnetic material in darker clasts – likely maghemite or magnetite.

G5. Over 60% black - Similar to Cat. G4 but with greater abundance of black zones containing PDM (dominant black mineral). Magnetism varies from weak to high.

G6. Over 90% black - Predominantly black PDM. PDM occurs mostly as massive black zones but also occur as pisolites within maroon mass in some samples. Greatest density of all groups. Magnetism varies from weak to high.

Each category of rock within each sample was then assayed using a hand-held Niton XRF device. Samples categories G1 – G6 from sample OS002 were washed to remove any silica and/or other fines from the hard nodules.

Figure 1. Washed samples from Sample 2 lined in order of Category 1 to 6 (left to right).

Results

As illustrated by graph, Al_2O_3 (%) and Fe_2O_3 (%) measurements were higher in the G3 to G5 range, with G1 and G6 generally having the lowest values in this series. Another clear trend was the increase in TiO_2 from G1 to G6. The SiO_2 levels were higher in categories G1 to G2, however, variance was a fairly low within this series.

Table 2. Assays of categories G1 to G6 from original samples OS001-OS004.

SAMPLE	Al2O3 %	SiO2 %	Fe2O3 %	TiO2 %	Weight (g)
G1-OS001	29.18	2.88	30.17	3.45	803.91
G2-OS001	42.62	5.47	32.37	6.55	1,394.57
G3-OS001	44.42	4.10	33.84	7.34	6,763.44
G4-OS001	46.03	2.15	32.50	7.46	2,538.75
G5-OS001	44.47	3.15	30.61	8.87	9,203.03
G6-OS001	39.62	1.63	28.90	9.14	731.83
G1-OS002W	33.91	1.16	34.43	3.95	607.66
G2-OS002W	40.95	3.74	33.77	5.76	1,493.53
G3-OS002W	46.56	3.98	32.93	8.19	7,129.00
G4-OS002W	45.96	1.72	33.38	7.46	3,935.82
G5-OS002W	45.25	1.69	30.35	8.66	4,952.19
G6-OS002W	41.90	1.10	27.28	8.67	2,954.69
G1-OS003	39.30	3.01	34.09	4.44	1,015.20
G2-OS003	41.03	6.24	32.37	5.81	2,370.46
G3-OS003	45.21	3.39	33.71	7.61	10,489.07
G4-OS003	44.02	2.28	34.22	7.12	1,015.28
G5-OS003	42.17	3.09	30.95	8.15	3,426.67
G6-OS003	38.82	2.95	28.84	9.41	3,936.55
G1-OS004	35.18	9.50	25.92	6.18	964.41
G2-OS004	40.97	4.37	34.53	6.51	1,543.51
G3-OS004	44.72	2.84	33.25	7.38	6,042.06
G4-OS004	44.18	1.66	32.33	7.25	1,466.23
G5-OS004	43.10	2.17	31.99	8.19	2,909.74
G6-OS004	41.07	1.47	30.49	8.84	4,308.79
G1 average	34.55	5.13	30.06	4.69	1,695.59
G2 average	41.54	5.36	33.09	6.29	3,401.04
G3 average	44.78	3.44	33.60	7.44	15,211.79
G4 average	44.74	2.03	33.02	7.28	4,478.04
G5 average	43.25	2.80	31.18	8.40	10,245.82
G6 average	39.84	2.02	29.41	9.13	5,965.93

Results

As illustrated by graph, Al_2O_3 (%) and Fe_2O_3 (%) measurements were higher in the G3 to G5 range, with G1 and G6 generally having the lowest values in this series. Another clear trend was the increase in TiO_2 from G1 to G6. The SiO_2 levels were higher in categories G1 to G2, however, variance was a fairly low within this series.

This study, as a rough and preliminary study, suggests there is a relationship between colour and composition of the hard nodules from the Fingal Rail bauxite deposit. As such, optical sorting is a possible beneficiation technique for Fingal Rail; however, more scientifically rigorous testing of optical sorting, as well as other beneficiation techniques, is warranted.

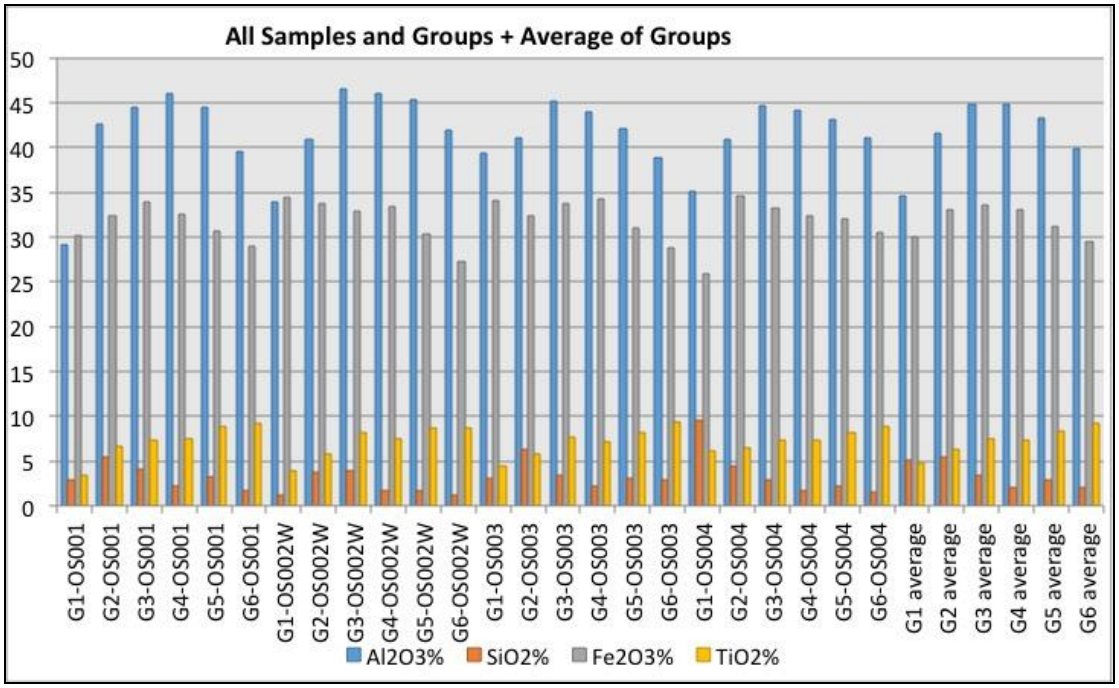


Figure 2. Graph of Assay Results of all Sample Subcategories.

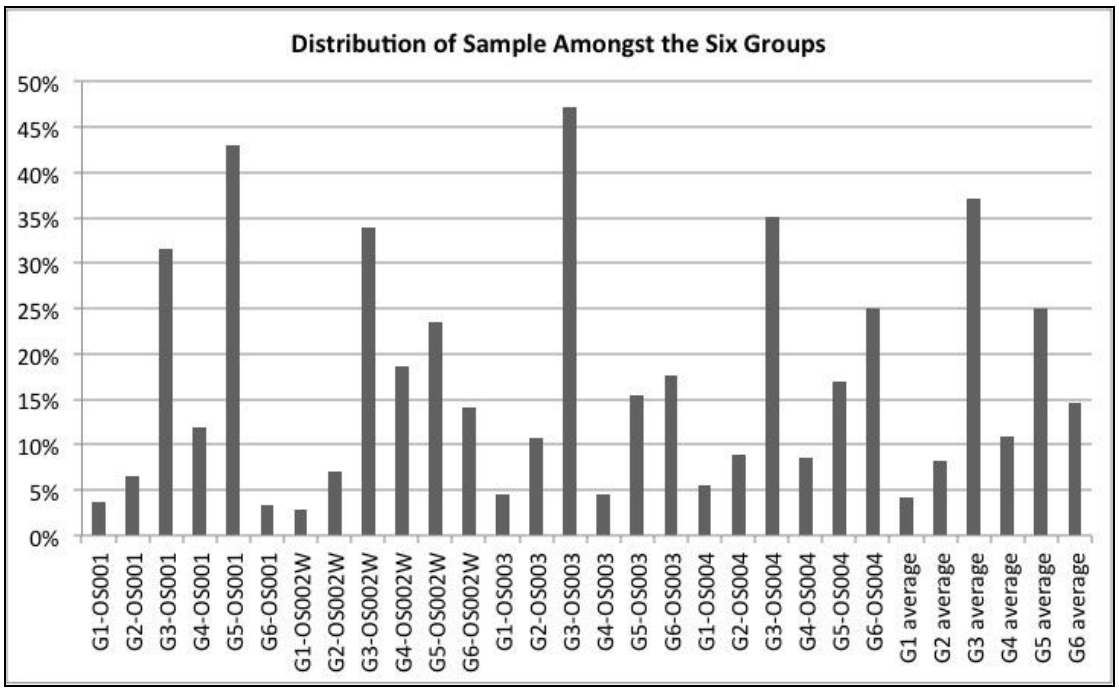


Figure 3. Graph of Total Mass of all Sample Subcategories.

Fingal Rail Bauxite Deposit – Other

Work has commenced in planning for test pit work to be done on the Fingal Rail bauxite deposit. The preparation is currently focused on the selection of test pit locations.

EcoTas have briefly reviewed the ecological issues of Fingal Rail area in order to establish how much more work is required before a draft DPEMP can be prepared.

Nile Road Bauxite Deposit

A review of ecological assessments was undertaken for the Nile Road target area by EcoTas in order to assess the viability of ecological conservation during mining.

A field trip was undertaken by EcoTas and ABx4 on September 3, 2015, in order to review threatened flora locations and to predict flowering times for key species in anticipation of a detailed flora and fauna survey which is planned to take place in late September or early October.

Regional Exploration Activities

Several desktop reviews have taken place in the last 12 months in order to assess and prioritise the bauxite targets across all ABx4 tenements. This is an informal process and, as such, no reports or figures have culminated from any recent reviews.

5 DISCUSSION OF RESULTS

During the current reporting period, ABx4 drill tested the Tom's Hill and Quorn Hall bauxite targets but did not find economical quantifies of bauxite in either location.

ABx4 conducted a preliminary study into the optical sorting of the Fingal Rail bauxite bulk samples collected from the 2013 pit sampling program. The study showed that there is a relationship between the grade of hard bauxitic nodules and their colour. Further testing is warranted.

A review of ecological assessments was undertaken for the Nile Road target area by EcoTas in order to assess the viability of ecological conservation during mining.

A field trip was undertaken by EcoTas and ABx4 on September 3, 2015, in order to review threatened flora locations and to predict flowering times for key species in anticipation of a detailed flora and fauna survey which is planned to take place in late September or early October.

Furthermore, several desktop reviews have taken place in the last 12 months in order to assess and prioritise the bauxite targets across all ABx4 tenements. This is an informal process and, as such, no reports or figures have culminated from any recent reviews.

6 CONCLUSIONS AND RECOMMENDATIONS

No further drilling is recommended on either the Tom's Hill target or the Quorn Hall target drilled in March 2015. However, there remain a number of targets on the Quorn Hall property that have not yet been drill-tested.

Optical sorting may be a possible beneficiation technique for the Fingal Rail bauxite; however, more work is required both on optical sorting and other possible beneficiation techniques.

ABx4 is in the process of lodging an application to extend the term of the EL7/2010 exploration licence for a further 12 months. The application will be submitted alongside this report.

Recommendations for future work include:

1. Detailed geological mapping, including geomorphological mapping and study of satellite images to define the areas with the 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 silica, loss on ignition and sieving.
4. Drill testing of zones with best potential with an RC drill rig mounted on a light six wheel truck to get samples representing the whole bauxite profile.
5. Pit testing of the Fingal Rail target to test mineability of the deposit.
6. Sieve testing to find optimal sieve size for Tasmanian bauxites.
7. Testing new sample processing techniques to improve silica reduction.
8. Constant monitoring of rehabilitated pit locations.
9. Preparation of a draft DPEMP in order to apply for a Mining Lease over the Fingal Rail Deposit. This may require further surveys be done in the Fingal Rail area.
10. Commence detailed discussions with land holders in the Fingal Rail Area.
11. Detailed Spring Flora and Fauna study of Nile Road Target.
12. Resource study of all Conara targets.

7 ENVIRONMENT

Surface Disturbing Operations:

13 reverse circulation (RC) holes were drilled during the current reporting period.

RC drilling results in a ~90mm diameter hole in the ground. *See Rehabilitation sub-section below.*

Surveys (archaeological, botanical):

No archaeological or botanical surveys were conducted in the current year of tenure.

A review of previous ecological surveys on the Nile Road target was completed by ECOtas and has been attached as an appendix.

A field trip was undertaken by EcoTas and ABx4 on September 3, 2015, in order to review threatened flora locations and to predict flowering times for key species in anticipation of a detailed flora and fauna survey which is planned to take place in late September or early October. However, this was a brief site visit, and not a survey, so no reports were produced.

A botanical and fauna habitat survey was conducted for the Quorn Hall drilling target in July 2013 – See the Third Annual Report on EL3/2010 "Ross".

Rehabilitation:

ABx4 has a policy of rehabilitating all drillholes immediately after they are drilled. The method of rehabilitation is to push an OctoPlug down to 1.5m depth and to fill the remaining hole with innocuous drillhole material and/or any excess topsoil. All drillholes were properly rehabilitated and to the satisfaction of the landholder.

8 EXPENDITURE

Table 3. Exploration expenditure for EL7/2010 over the 5th annual reporting period.

EL 7/2010 Conara - Expenditure over 5th Year of Tenure		
1. Geoscientific costs		
	Geology	$99,706
	Geochemistry	$9,213
	Geophysics	
	Remote sensing	
2. Drilling and Gridding Costs		
	Gridding	
	Drilling	$6,672
	Holes/metres	*13 for 156m*
3. Land Access Costs		
4. Rehabilitation Costs		
5. Feasability Study Costs		
6. Other Costs		$7,549
7. Administration Costs (< 10%)		
8. Total Costs		$123,140

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

9 REFERENCES

Calver et al, 1991, 1:50,000 Geology of the Snow Hill Area, Geological Atlas 1:50,000 Series, Mineral Resources Tasmania

H.B. Owen, 1954, Bauxite in Australia, Bulletin 24

T. Coyte, J. Rebek, EL 7/2010 Conara First Annual Report August 2011, *ABx4 Pty Ltd*

T. Coyte, J. Rebek, EL 7/2010 Conara Second Annual Report August 2012, *ABx4 Pty Ltd*

T. Coyte, EL 7/2010 Conara Third Annual Report January 2014, *ABx4 Pty Ltd*

T. Coyte, EL 7/2010 Conara Fourth Annual Report October 2014, *ABx4 Pty Ltd*