AUSTRALIAN **BAUXITE** LIMITED
ASX: ABZ

10 February 2010

Company Announcement Office
Australian Securities Exchange Limited

22 million tonnes maiden Inverell bauxite resource

- **Maiden Resource:** 22 million tonnes of gibbsite-rich bauxite on first target area on EL 6997
- Maiden Resource is based on drilling of less than 10% of known bauxite areas on EL 6997
- Gibbsitic bauxite upgrades to premium grades at high yields with simple screening; large proportion of the resource is Direct-Shipping Grade (**DSO**)
- Several additional deposits also identified; some covering areas larger than deposit A-B and many times larger than the maiden resource area
- Initial resource target for Inverell is between 200 and 300 million tonnes

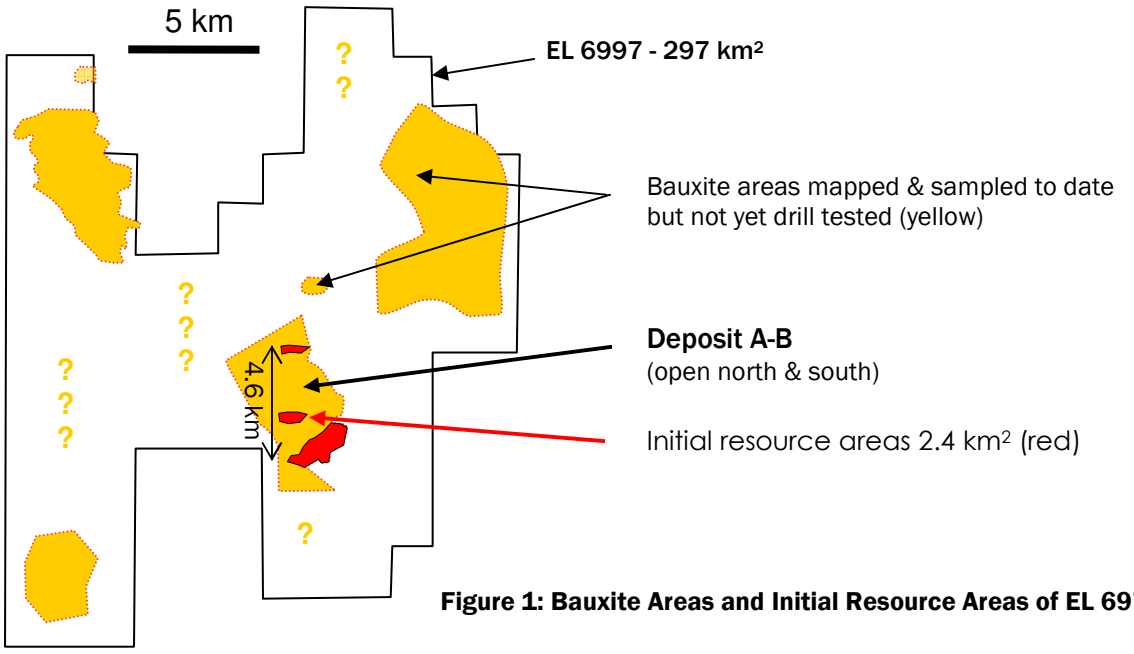

Figure 1: Bauxite Areas and Initial Resource Areas of EL 6977

Australian Bauxite Limited (**ABx**) has 17 bauxite exploration tenements in eastern Australia covering over 5,000 sq kms (see Figure 2). A small area of one tenement, EL 6977 at Inverell in northern NSW, has been drill tested by 118 holes totalling 1,773 metres. The drilling has only evaluated 15% to 30% of bauxite Deposit A-B which has been mapped for 4.6 kilometres to date and is open to the north and west (see Figure 1).

Deposit A-B is only one of 4 major bauxite areas identified to date on EL 6977; the initial resource area represents less than 10% of the known major bauxite areas identified. 40% to 50% of the tenement is yet to be explored.

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ABx has also recently identified additional major bauxite areas within another of its tenements - EL 7268 at Pindaroi (see Figure 2) located 10 kilometres northeast of EL 6977. Pindaroi bauxite zones appear similar in size to those in EL 6977. The potential for very large regional bauxite resources in these two tenements has been increased by these recent developments in EL 6977 and EL 7268.

Drilling in the initial resource area encountered a remarkably uniform bauxite layer typically 3.5 to 9 metres thick with less than 1 metre of overburden. Most of this very thick deposit lies at surface with no overburden.

The volume of the bauxite layer (all grades) in the drill-tested area was 24 million tonnes of raw, in-situ bauxite (all grades). Appendix 1 gives more details of the estimation.

Resource estimates* after application of cut-off grades for drilled area are summarised as follows:

Resource Category	Tonnes millions*	Thickness metres	Al_2O_3 %	SiO_2 %	Fe_2O_3 %	LOI %
Indicated Resources	6Mt	5.1m	38.8%	4.4%	28.1%	22.2%
Inferred Resources	16Mt	5.2m	37.8%	6.5%	27.7%	20.8%
Total Initial Resources	**22Mt**	**5.2m**	**38.1%**	**5.9%**	**27.8%**	**21.2%**

*** Cut-off grades applied:** 2 metres minimum thickness, 32% minimum Al_2O_3 & 8% maximum SiO_2

GOOD BENEFICIATION CHARACTERISTICS

Beneficiation: Bauxites tested to date show excellent potential for simple crushing, washing and screening to produce premium-grade beneficiated bauxite at high yields – see Appendix 1. The coarse grainsize and loose structure of the bauxite is thought to be responsible for these favourable beneficiation characteristics.

Available alumina at low-temperatures is relatively high at 85% of total Al_2O_3.

Reactive silica proportions at low temperatures is relatively low (a good feature) at 75% of total SiO_2.

Low goethite: Mineralogical studies of the bauxite suggest that abundances of the problematic iron hydroxide mineral species called goethite are very low to absent.

Iron-removal: Testwork results from a proprietary method developed by Hudson Resources Limited for low-cost removal of iron minerals from the bauxite using simple physical separation methods are progressing well. Early indications are that low-iron, high alumina bauxite can be produced which would allow some processed bauxite to be sold into higher priced bauxite markets.

DIRECT SHIPPING ORE GRADES

Direct Shipping Ore (DSO) is bauxite that is of sufficiently good quality that it can be mined and sold in its raw form after simple crushing and sizing. Approximately 75% of the deposit tested to date meets DSO grades.

POTENTIAL FOR RESOURCE EXPANSIONS

To date, the company's exploration team has investigated a small percentage of the two large bauxite tenements in the Inverell area as demonstrated by the following statistics:

Tenement	Name	Total Area & % of area explored to date	Bauxite Areas	Areas Drill-Tested to date
EL 6997	Inverell	297 km^2 (50-60% explored)	~90km^2 (4 areas)	less than 2.5km^2
EL 7268	Pindaroi	138 km^2 (25-35% explored)	~35km^2 (3 areas)	Nil

Deposit A-B is one of 4 major bauxite zones identified to date within Inverell project area. Recent exploration, including scout drilling suggests that deposit A-B is not the largest deposit. Prospects for a major expansion of resources to between 200 to 300 million tonnes are considered to be good but considerable drill testing is needed before estimation can be done and resources reported in accordance with the JORC Code. Until this drilling is done, estimations of total resources and the quality of those bauxite resources are uncertain.

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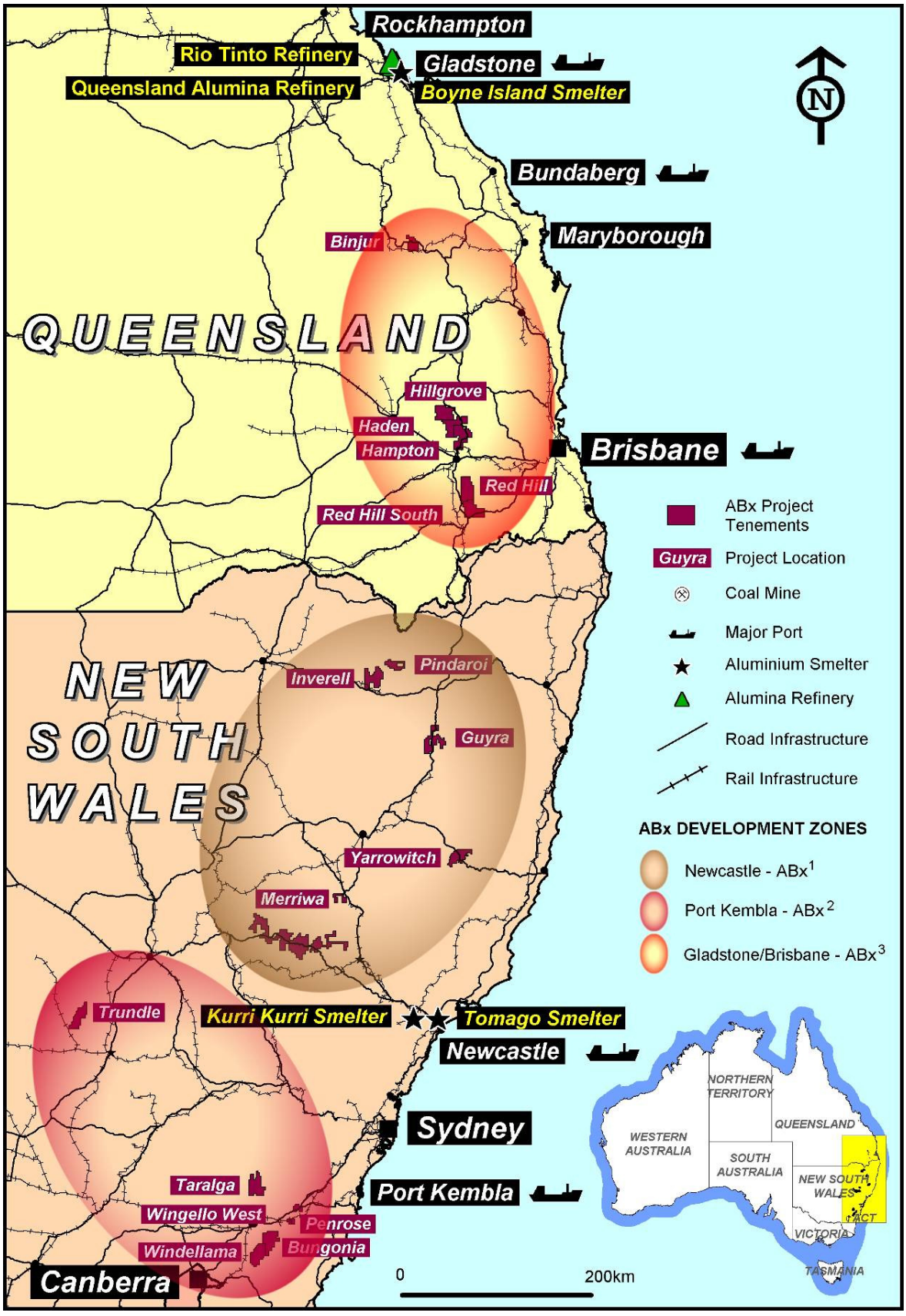

Figure 2 - Seventeen ABx Bauxite Tenements in Eastern Australia

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Within the eastern Australian Bauxite Provinces (see Figure 2), Australian Bauxite Limited has a total of 17 bauxite tenements, all containing confirmed bauxite occurrences.

Australian Bauxite Limited CEO, Ian Levy said; "This discovery of very thick, high quality bauxite is a good start for a rapidly growing small company that aspires to prove-up large bauxite resources over the next 2 years. Drilling during 2010 is expected to expand the drill tested area of deposit A-B substantially and will commence testing the other 3 major deposits already indentified at Inverell. We should also make headway in evaluating nearby Pindaroi which has indications of extensive bauxite zones. We hope to upgrade resource estimations in the Inverell-Pindaroi areas during the year.

"Thanks to the dedicated and disciplined work by our exploration team led by Jacob Rebek since 2006, we clearly control the core of major new bauxite provinces in Eastern Australia – better bauxite than most bauxites world-wide. This means that these new better bauxite resources will become available to the aluminium industry at large."

Australian Bauxite Limited (**ABx**) (ASX: ABZ) is an Australian exploration company that was admitted to the Official List of the Australian Stock Exchange on 21 December 2009. ABx was formed specifically for the purpose of acquiring the bauxite interests of Hudson Resources Limited; increasing the value of the portfolio through a staged development program in each of three bauxite provinces which will include exploration sampling, drill testing & analyses from a wide range of targets on all exploration tenements; resource definition drilling and bauxite metallurgical testwork on the more advanced prospects.

The ABx project tenements consist of seventeen exploration tenements granted or under application covering over 5,000 sq kms of ground considered prospective for bauxite; 3,477 sq kms in NSW and 1,617 sq kms in Queensland.

The bauxite deposits are located close to existing transport and other infrastructure, close to coal mines, industrial centres and ports on the east coast of Australia.

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Qualifying statement

The information in this announcement and Appendix A that relate to Resource Estimates are based on information compiled by Ian Levy who is a member of Australian Institute of Mining and Metallurgy. Mr. Levy is a qualified geologist and is a director of Australian Bauxite Limited.

Mr. Levy has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for Reporting of exploration Results, Mineral Resources and Ore Resources. Mr. Levy has consented in writing to the inclusion in the announcement and Appendix A of the matters based on information in the form and context in which it appears.

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APPENDIX A

INITIAL RESOURCE ESTIMATES FOR INITIAL RESOURCE AREA: INVERELL EL 6997

Drilling on a random pattern governed by site availability was done in the southwestern part of EL 6997 at a location selected because of a prominent bauxite plateau and ease of access. During 2009, 118 holes were drilled totalling 1,773 metres across the tenement to evaluate approximately 10% to 30% of a bauxite deposit called "**Deposit A-B**" which has been mapped for more than 4.6 kilometres to date and is open to the north and west (see Figure 1).

Estimation is based on samples collected at 1 metre intervals from the aircore drillholes and analysed at ALS Laboratories in Brisbane including trihydrate (THA) available alumina (Avl Al_2O_3) and reactive silica (Rx SiO_2) measurements. Estimation was done on full-hole intercepts and simple moving smoothed averaging with extrapolations up to 350 metres from data points for Inferred Resources and 150 metres for Indicated Resources, constrained by geological boundaries. Bauxite density was assumed at 1.8 tonnes per cubic metres.

1. **THICKNESS OF BAUXITE LAYER:** Typically 3.5 to 9 metres thick with minimal overburden cover.

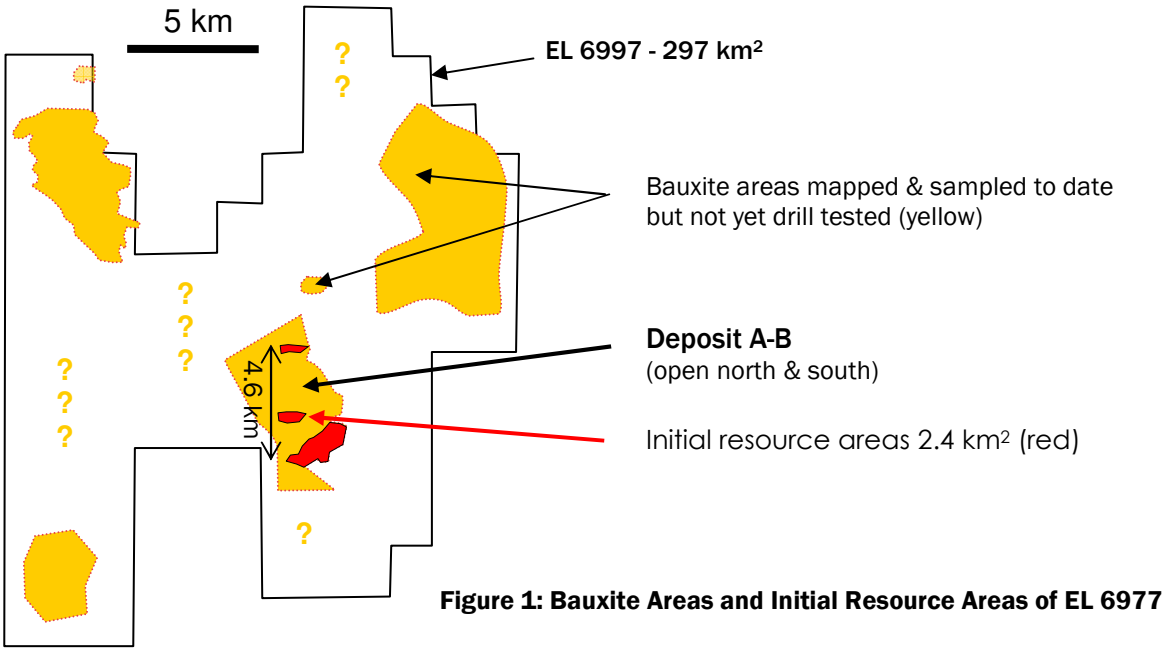

Figure 1: Bauxite Areas and Initial Resource Areas of EL 6977

2. **BAUXITE GRADES:** Drilling indicated a relatively uniform deposit with the following typical grades:

All bauxite 2m to 9m thick	RAW BAUXITE IN SITU					SIMPLE SCREENED BAUXITE					
	Total Al_2O_3%	Total SiO_2%	Total Fe_2O_3%	LOI %	Total A/S ratio	Weight % +1.2mm	Screened Al2O3 %	Screened SiO2%	Screened Fe2O3%	Screened LOI %	Screened A/S ratio
Average	38.8	4.4	28.9	22.2	8.8	31%	43.3	2.1	24.4	25.2	20.3
75 percentile	40.3	3.4	26.7	23.3	11.7	35%	47.4	1.7	20.3	26.5	27.9

Note: 75 percentile is the typical values at the 75th percentile (ie. if the worst 25% is excluded)

"A/S" is Al_2O_3% divided by SiO_2%. Values above 8 are good quality, above 12 is excellent quality.

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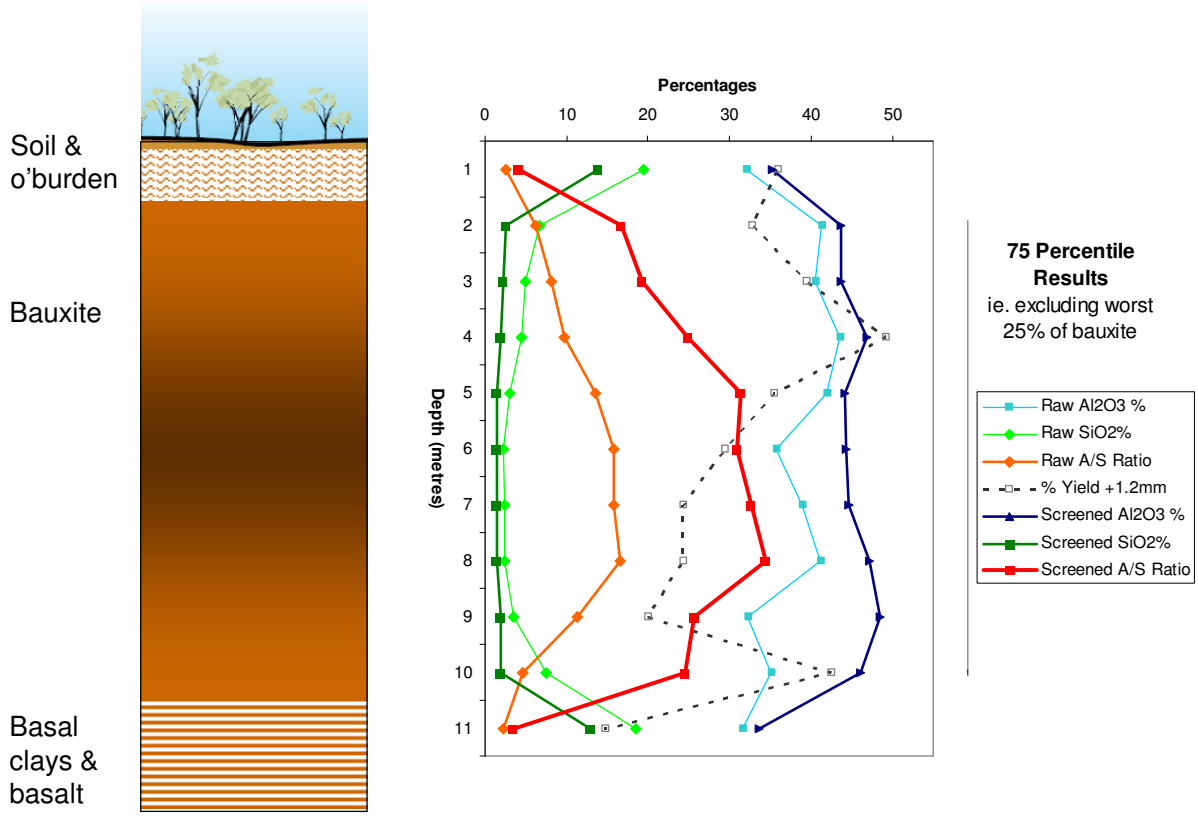
3. YIELDS FROM SIMPLE SCREENING

Screening at a relatively coarse 1.2 mm mesh demonstrated that the bauxite can be easily upgraded and that a finer screen size may be more appropriate and would produce high yields of high quality bauxite. To further assess potential yields, 169 bauxite samples were each screened into 3 size fractions and chemically analysed. On average, it would appear that **at 80% yield**, the recovered beneficiated bauxite will grade typically between 37% and 43% total Al_2O_3 and around 2.5% reactive SiO_2 – which is high-quality bauxite.

Figure 3: Inverell Bauxite: Summary Section



4. REACTIVE SILICA AND AVAILABLE ALUMINA (see graphs overleaf)

The 169 screened samples were analysed for reactive silica (Rx SiO_2) and available alumina (Avl Al_2O_3) under leach conditions that simulate of the mildest refinery leaching conditions which suit bauxite that is rich in gibbsite, the most valuable tryhydrate alumina mineral.

Reactive silica is that silica which dissolves into the caustic soda leach and is a measure of SiO_2 in reactive minerals, principally reactive clays. **Available alumina** is that portion of the Al_2O_3 that dissolves in the caustic soda leach and is net of the amount of Al_2O_3 required to remove the dissolved reactive silica.

CONCLUSIONS: In the bauxites of area A-B at Inverell:

Reactive Silica (Rx SiO_2):

Rx SiO_2 = 80% of SiO_2 in raw ore sample or 91% of SiO_2 in washed ore samples.

Available Alumina (Avl Al_2O_3)

Avl Al_2O_3 = 93% of Al_2O_3 - SiO_2 in raw ore sample and 93% of Al_2O_3 - SiO_2 in washed ore.

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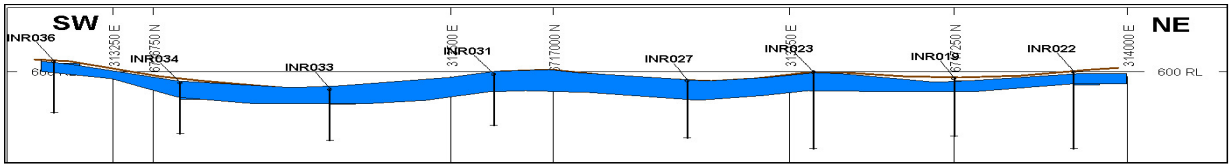
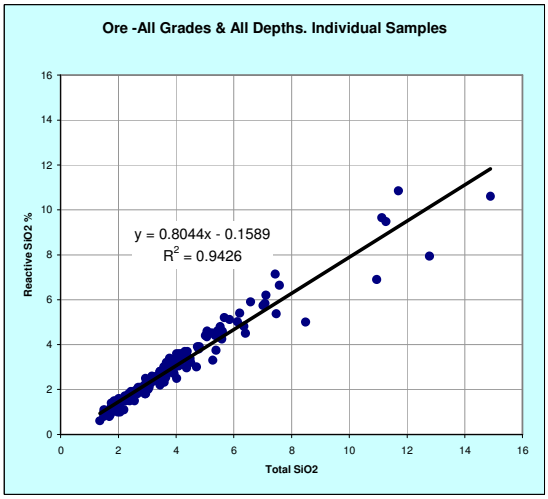
5. DEPOSIT STYLE

The deposit nature is a **mantle deposit** as a layer coating the topography (see following cross-section).



RAW INDIVIDUAL ORE SAMPLES



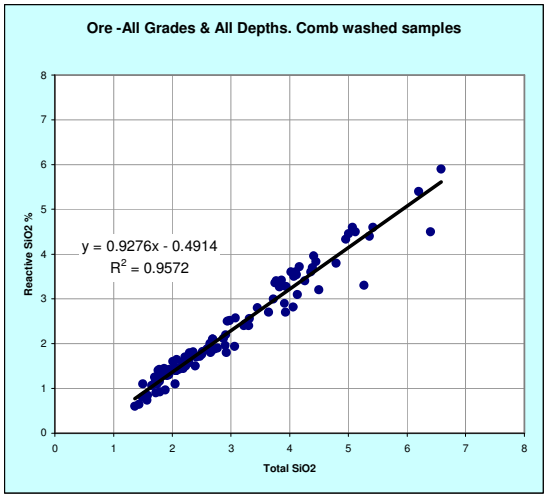
Regression line for individual samples

Rx SiO2 = 0.8044 x SiO2 - 0.1589

Results

Raw SiO2	Rx SiO2	Ratio
30.0	24.0	79.9%
35.0	28.0	80.0%
40.0	32.0	80.0%
45.0	36.0	80.1%

CUMULATIVE WASHED ORE SAMPLES



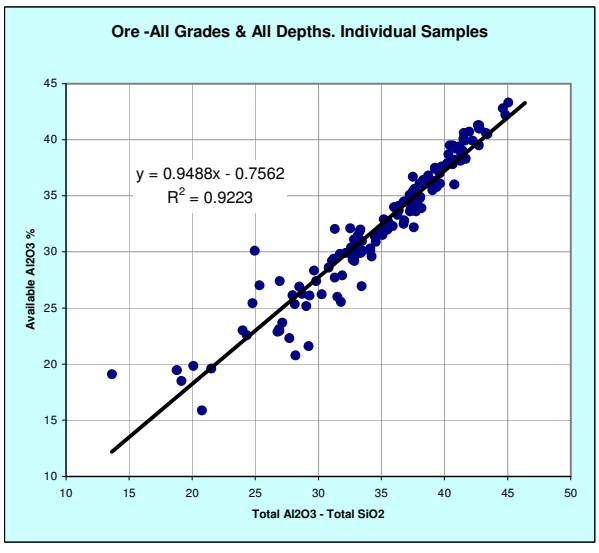
Regression line for cumulative washed samples

Rx SiO2 = 0.9276 x SiO2 - 0.4914

Results

Raw SiO2	Rx SiO2	Ratio
30.0	27.3	91.1%
35.0	32.0	91.4%
40.0	36.6	91.5%
45.0	41.3	91.7%

RAW INDIVIDUAL ORE SAMPLES



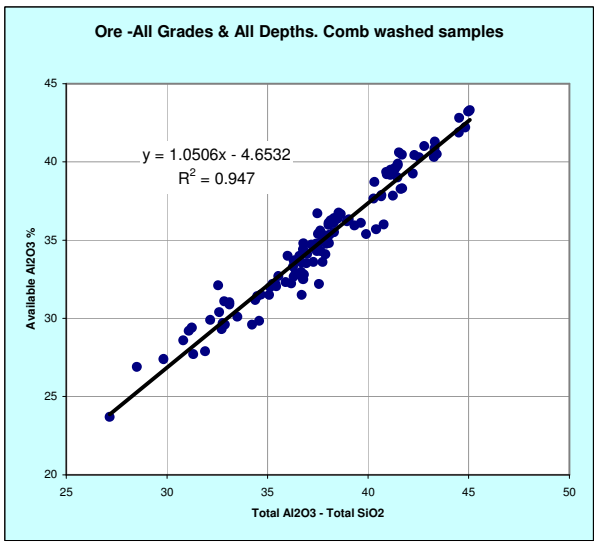
Regression line for individual samples

Avl Al2O3 = 0.9488 xAl2O3-SiO2 - 0.7562

Results

Raw Al2O3	Avl Al2O3	Ratio
30.0	27.7	92.4%
35.0	32.5	92.7%
40.0	37.2	93.0%
45.0	41.9	93.2%

CUMULATIVE WASHED ORE SAMPLES



Regression line for cumulative washed samples

Avl Al2O3 = 1.0506 xAl2O3-SiO2 - 4.6532

Results

Raw Al2O3	Avl Al2O3	Ratio
30.0	26.9	89.5%
35.0	32.1	91.8%
40.0	37.4	93.4%
45.0	42.6	94.7%