



ASX RELEASE

11 MAY 2015

MAIDEN BAUXITE RESOURCE – URQUHART BAUXITE PROJECT

SIMPLE - LOW COST - DIRECT SHIPPING BAUXITE (DSB) STRATEGY

A maiden bauxite resource including high grade material able to be direct shipped has been announced by bauxite and Heavy Minerals Sands (HMS) developer, Metallica Minerals Limited (ASX: "MLM") for its Urquhart Bauxite Project just 5km southwest of Weipa on Queensland's Cape York.

HIGHLIGHTS

- A 7.5 million tonne (Mt) Inferred Mineral Resource averaging 51% total aluminium oxide (Al_2O_3), 16.3% total silicon oxide (SiO_2) of DSB has been independently estimated by IMC Mining Pty Ltd in accordance with JORC (2012) guidelines - see Table 1
- This includes a higher grade portion of Inferred Mineral Resource of 4 Mt averaging 53.3% Al_2O_3 , 16.3% SiO_2 , 40.6% available alumina (AAI) and 4.9% reactive silica (RSi) at Area A – see Table 2
- Bauxite quality test results confirm the DSB product is suitable for export
- The Urquhart Bauxite Project is proposed as a straight forward mine-truck-barge-ship operation
- The Inferred Resource will form part of an Internal Scoping or Conceptual Development Study to be completed in June
- Permitting and environmental survey work has commenced and approvals are forecast to be completed by late in 2016
- The project is being planned as a 1.5-2 million tonne per year shallow mining (<7m depth), short trucking (~12km), barge to ship (~ 2km) operation with expected very low operating costs and low capital requirements
- A Mining Lease will be applied for to cover Area A and Area B bauxite resources
- The project is part of the broader Cape York Bauxite and HMS Joint Venture (JV) (MLM currently 60% and reducing to 50%)



Urquhart Bauxite Project Summary

The Urquhart Bauxite Project is situated approximately 5km southwest of Weipa on Queensland's Cape York Peninsula. Western Cape York is world-renowned for its extensive deposits of high-quality, export grade pisolitic bauxite.

The recent drill hole results and bauxite geological modelling confirm that the majority of the Urquhart resource is suitable for Direct Shipping Bauxite (DSB) that is planned to be barged either from the Urquhart Point HMS mining lease (owned 100% by the JV) or Hey Point (held by a private company) and transhipped in the sheltered Weipa Port area, see Figure 3. ASX Releases on 21 Jan 2015 and 3 Feb 2015 provided previous exploration drilling results. Subsequently additional DSB analyses are available for Area B and are summarised in Appendix 1.

The potential production of DSB allows for the expedited permitting and development of a relatively simple mining –truck-barge operation with lower capital and lower operating costs.

The Weipa type bauxite is of high quality export grade with high alumina content ($>50\% \text{ Al}_2\text{O}_3$) with the provinces bauxite profile well known to Chinese and other alumina refineries.

Metallica's Managing Director, Mr Andrew Gillies:

"The maiden bauxite estimate is a very positive result; it is significant that the inventory is very close to our Urquhart Point heavy mineral sand mine near Weipa as it keeps open the option of dual commodity processing; and its high Direct Shipping Bauxite (DSB) characteristic will assist fast track the permitting, evaluations and feasibility on the development of this high grade and very well located DS Bauxite resource. We have every expectation, based on current global bauxite market fundamentals, that the Urquhart Bauxite Project's development schedule will match increasingly positive bauxite market sales demand in 2016 and beyond."

Urquhart Bauxite Resource Estimate Description

Metallica Minerals Limited (**ASX: MLM**) is pleased to announce a maiden JORC 2012 compliant bauxite resource estimate for the Urquhart Bauxite Project, located approximately 5 km southwest of the township of Weipa on the western side of Cape York, Queensland.

The Urquhart Project consists of two (2) bauxite plateaus, known as Area A and Area B; both of which are wholly contained within EPM15268, which is held 60% by Oresome Australia Pty. Ltd (a wholly owned subsidiary of MLM) and 40% by Ozore Resources Pty. Ltd (earning to 50%).

The 2015 Resource estimate for the Urquhart Bauxite Project (for both Areas A and B) at the 45% Al_2O_3 cut-off for Direct Shipping Bauxite (DSB) is:

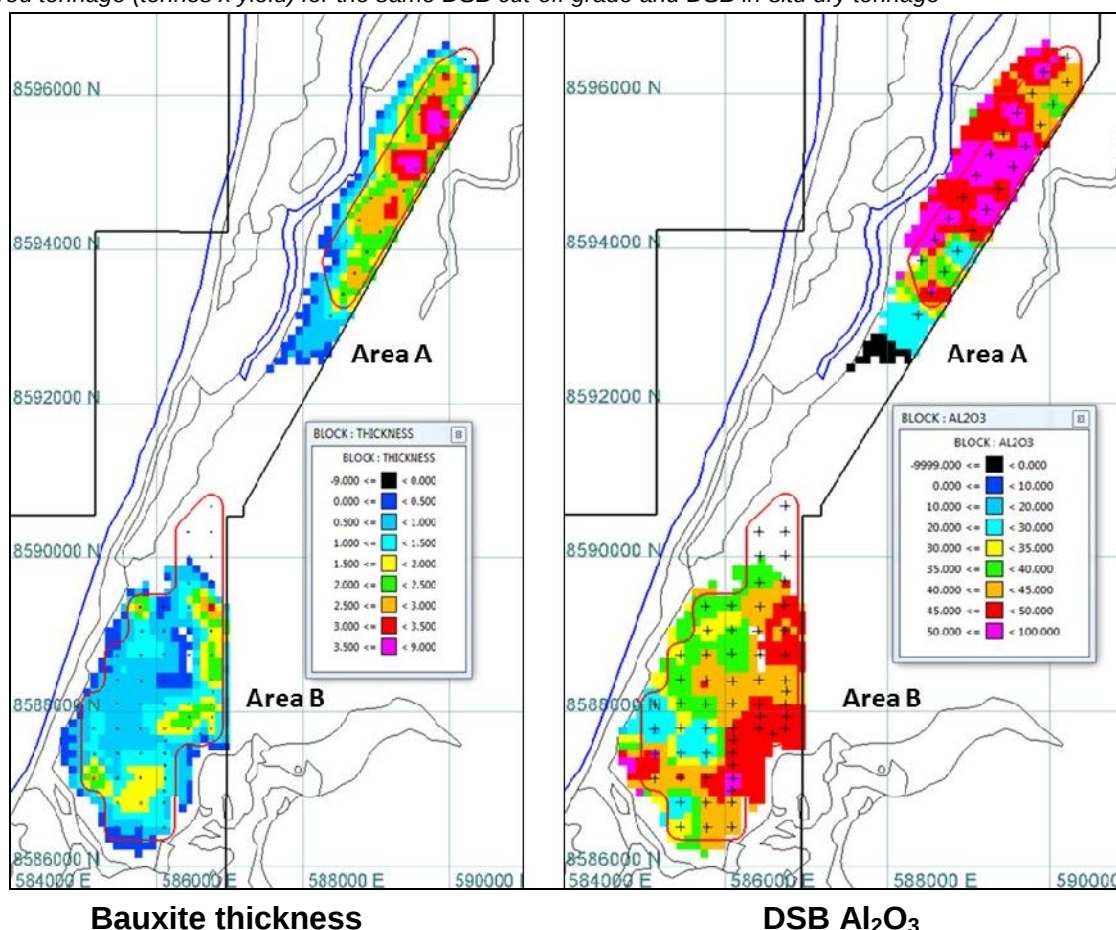
Inferred 7.5 Mt @ 51.0% Al_2O_3 , 16.3% SiO_2

Additional details by area are provided in Table 1 and a visual summary of the resource model presented in Figure 1

Table 1 – Urquhart DSB Resource statement details at 45% Al_2O_3 cut-off

Area	DSB (in-situ)			Screened 1.2 mm			
	Kt	Al_2O_3 %	SiO_2 %	Kt [^]	Yield %	Al_2O_3 %	SiO_2 %
A	5121	52.0	15.0	3769	73.6	56.8	7.0
B	2366	48.8	19.0	1505	63.6	54.4	9.3
Total	7487	51.0	16.3	5274	70.5	56.1	7.6

[^] Recovered tonnage (tonnes x yield) for the same DSB cut-off grade and DSB in-situ dry tonnage



Inferred Mineral resource with the red classification boundary and black tenement boundary

Figure 1: Plan of compiled bauxite horizon

Available alumina (AAI) and reactive silica (RSi) were selectively sampled for intervals below a 15% SiO_2 or above 48% Al_2O_3 threshold at Area A. This represents the lower half of the bauxite horizon defined in Area A. Subsequently, it was modelled as a separate domain where the assays for AAI and RSi analyses are complete.

In comparison, Area B has generally higher SiO₂ and a much smaller and less continuous lower bauxite domain as defined on a 15% SiO₂ or above 48% Al₂O₃ threshold. It has similar DSB chemistry but currently no available AAI and RSi analyses.

Estimates for the lower bauxite horizon as a higher grade subset of the 45% Al₂O₃ resource in Table 1 are provided in Table 2 and at an effective cut-off grade of 15% SiO₂. This includes available AAI and RSi information for Area A of:

Area A Inferred 4.0 Mt @ 53.3% Al₂O₃, 13.0% SiO₂, 40.6% AAI, 4.9% RSi

Table 2 – Urquhart DSB Resource statement for the lower Bauxite profile

Area	DSB (in-situ)					Screened 1.2 mm			
	Kt	Al ₂ O ₃ %	SiO ₂ %	AAI %	RSi %	Kt [^]	Yield %	Al ₂ O ₃ %	SiO ₂ %
A	3987	53.3	13.0	40.6	4.9	3037	76.2	57.1	6.7
B	777	52.7	13.2			486	62.6	56.1	7.0
Total	4764	53.2	13.0			3523	74.0	56.9	6.7

Tonnages are a subset of those reported in Table 1

[^] Recovered tonnage (tonnes x yield) for the same DSB cut-off grade and DSB in-situ dry tonnage

Figure 2 displays a relatively flat relationship between the available RSi and SiO₂ analyses that indicate lower grade DSB will only have marginally higher RSi.

The available data for screened analyses indicate half the SiO₂ can be removed at 1.2 mm wet screen.

Location

Urquhart Point (EPM15268) is located some 5 km southwest of the township of Weipa on the western side of Cape York, see Figure 3.

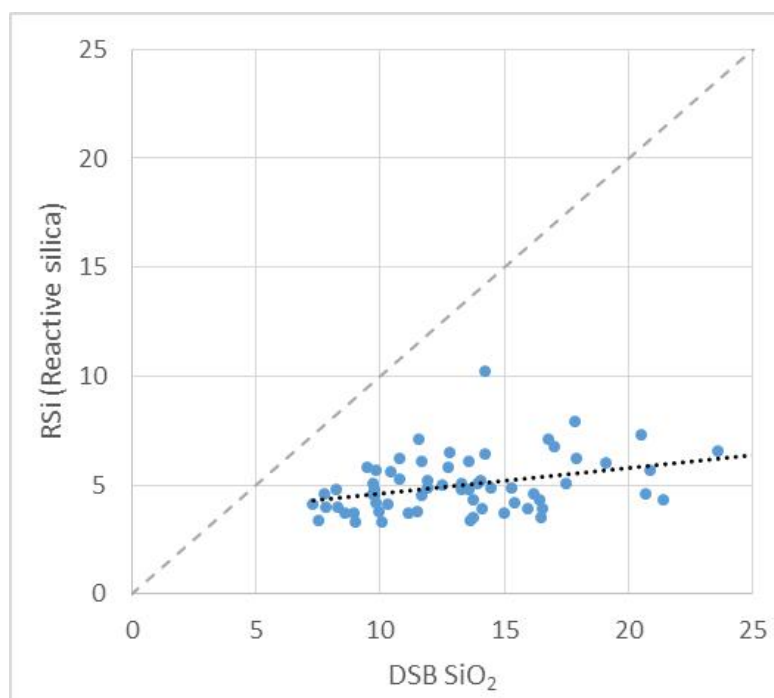


Figure 2: RSi – SiO₂ analyses (Area A)

Tenure

EPM 15268 is currently held 60 % by Oresome Australia Pty Ltd (a 100% owned subsidiary of Metallica Minerals Limited), and 40% by its Joint Venture Partner, Ozore Resources Pty. Ltd (earning 50%). A mining lease application is being prepared to cover Area A and B.

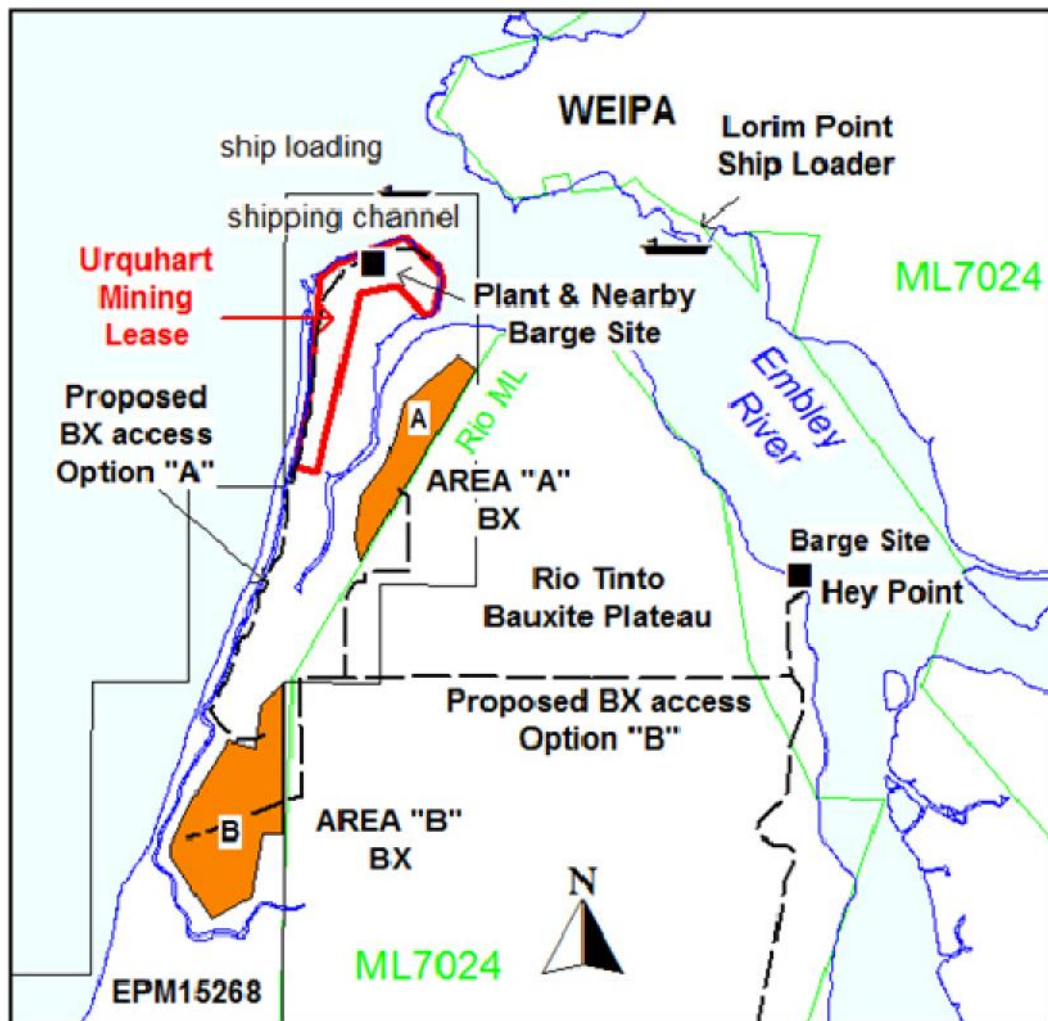


Figure 3: Urquhart Point Bauxite Project tenement (EPM 15268) & local setting

Geology

The deposit type is a bauxite laterite derived from the tropical to sub-tropical weathering of aluminous sediments. The deposit appears typical of the pisolitic bauxite style that occurs in the Weipa area on Cape York. The deposit is near the coast and is slightly deeper than normal as it is in places covered by unconformable sands.

Drilling

In late 2014 Metallica completed an initial phase of 85 drill holes targeting bauxite at Area A and Area B. Drilling was completed by Wallis Drilling using an aircore reverse circulation drill rig using a 93 mm drill bit, see Figure 1 & 5.

Sampling

Drilling was sampled and logged on 0.25 m intervals. Bauxitic material was selected for analysis and collected on 0.25 m or 0.5 m composited intervals. The entire sample was submitted to ALS for analysis. Sample preparation included an initial 50:50 split with preparation of the two halves where:

- Part A was wet screened at 1.2 mm for preparation of the coarse fraction
- Part B further split to 0.5 kg with final preparation for whole rock analysis (DSB)

Final preparation of each half included drying at 105°C and then pulverising to a nominal 85% passing below 75 microns.

Following DSB analysis results for Area A the intervals <15% SiO₂ were selected for analysis of RSi and AAI analysis.

Analysis

Sample analyses were undertaken by ALS laboratory in Brisbane. The analytical method included:

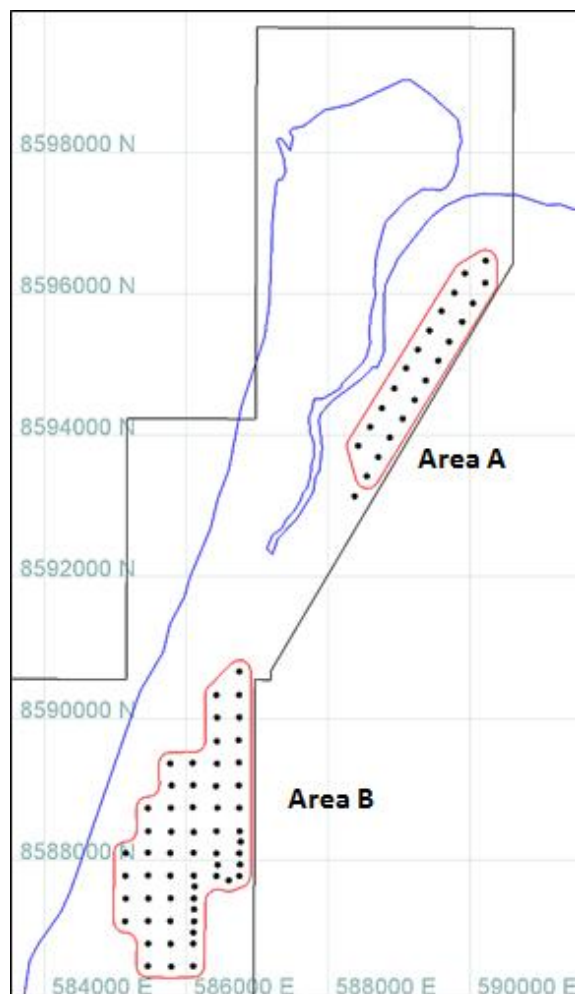
- Total oxide XRF multielement analysis that included Al₂O₃ and SiO₂
- Loss on ignition (LOI) by thermal gravimetric analysis (TGA) furnace
- AAI and RSi by microwave digestion, chemical separation and ICP-AES analysis

Estimation

A block model was constructed with 100 m x 100 m x 0.25 m dimension blocks. The bauxite horizon was estimated using Inverse Distance Squared and dynamic anisotropy for estimation. The results are summarised in Figure 1 and an example cross section from Area A is provided in Figure 5.

Classification

Variogram analysis confirmed the 320 m spaced drilling is sufficient to define Inferred Mineral Resources. Inferred Mineral Resources were extrapolated 160 m beyond the last drill hole. A JORC (2012) Table 1 summary description is provided as Appendix 2 to this announcement.



*Inferred Resource limit in red
Tenement boundary line in black*

Figure 4: Drill collars locations

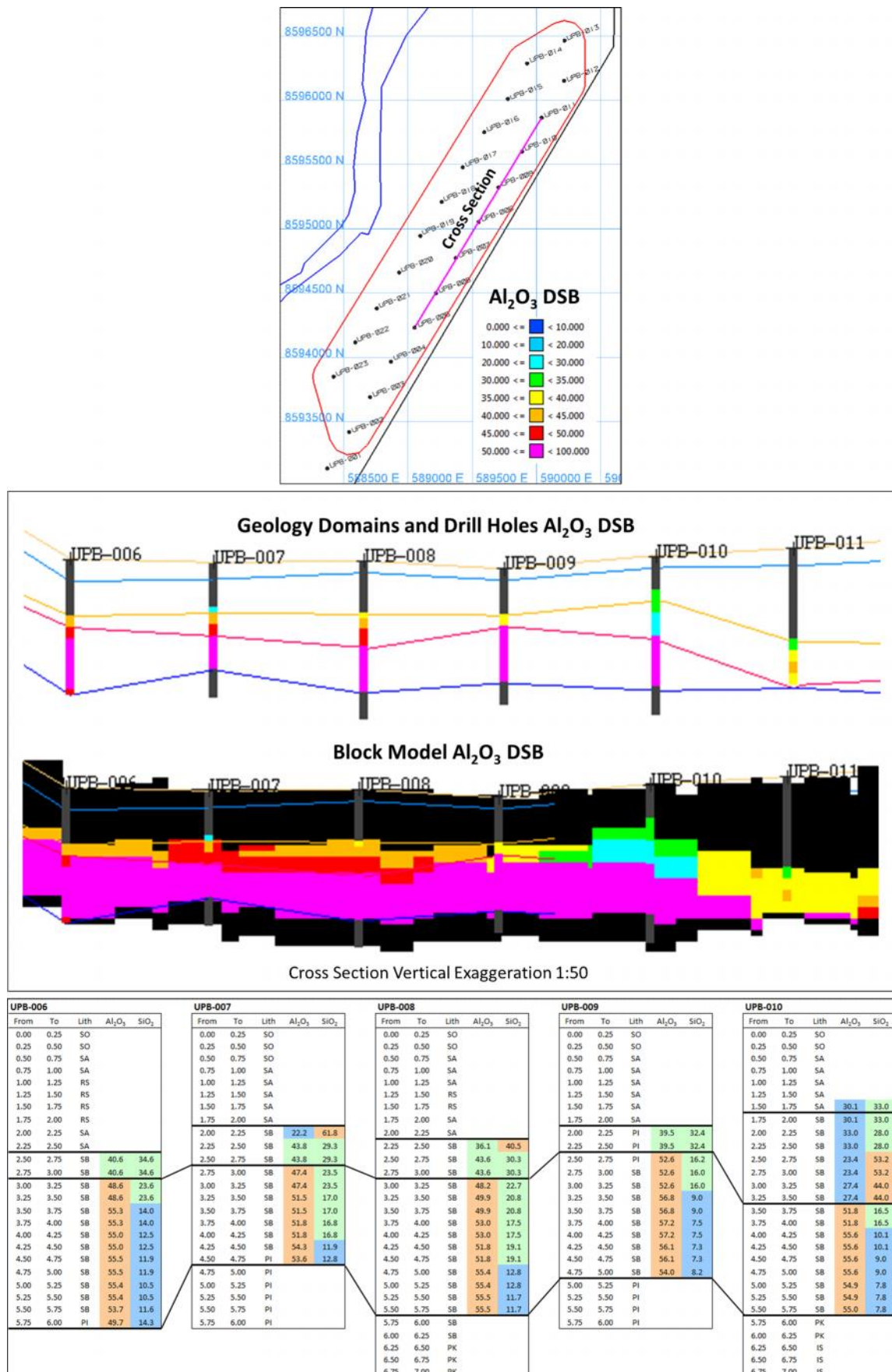


Figure 5: Area A drill plan (top) and example outlining bauxite zones drill cross section (middle & bottom)

Cut-off grade

A 45% Al_2O_3 cut-off grade is currently considered at the lower end of viable DSB mining in the current environment and was adopted for total resource reporting. The cut-off grade will be further assessed following this maiden resource statement and some conceptual mining assessment.

To enable reporting of the reactive silica and available alumina (which were predominately sampled around an upper 15% SiO_2 cut-off), an additional domain was developed. This domain is situated within the lower portion of the bauxite horizon for Area A and Area B, see Figure 5.

This is reported as a subset to the maiden resource estimate so that reactive silica and available alumina can be estimated and reported without being subject to the sample selection bias. It also represents a potential high grade cut-off threshold that will be reviewed in the upcoming internal scoping or conceptual mining and development study.

Mining

Mining for DSB operation is expected to follow normal shallow open pit strip mining operation adopted for Cape York bauxite deposits elsewhere.

Metallurgy

Available alumina and reactive silica analyses have been completed for the Area A and the resource subset estimated and reported for the areas with complete sampling available. The results indicate good alumina content and that despite relatively high SiO_2 DSB grade the reactive silica remains low.



Weipa (Urquhart) pisolitic bauxite



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Competent Person's Statement

The Technical information contained in this report has been compiled and/or supervised by Mr Andrew Gillies B.Sci (Geology) M.AusIMM (Managing Director of Metallica Minerals Ltd) who is a Competent Person and a Member of the Australasian Institute of Mining and Metallurgy (M.AusIMM). Mr Gillies has relevant experience in the exploration for this style of mineralisation and exploration results, being reported on to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Gillies consents to the inclusion of this information in the form and context in which it appears in this release.

The information in this report that relates to Mineral Resources is based on information compiled by John Horton, Associate of IMC Mining Pty Ltd, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Mr Horton has sufficient experience that is relevant to the style of mineralisation and the type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Horton consents to the inclusion in this release of matters based on his information in the form and context in which it appears.

The information in this report that relates to Mineral Exploration is based on information compiled by John Cameron (a geologist of over 25 years experience), and a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and a contract consultant to Metallica Minerals Ltd. Mr Cameron has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cameron consents to the inclusion of this information in the form and context in which it appears in this release/report.

Caution regarding Forward Looking Statements

Certain statements made in this announcement contain or comprise certain forward-looking statements. Although Metallica believes that the estimates and expectations reflected in such forward-looking statements are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, changes in economic and market conditions, success of business and operating initiatives, changes in the regulatory environment and other government actions, fluctuations in commodity prices and exchange rates and business and operational risk management. Metallica undertakes no obligation to update publically or release any revisions to these forward-looking statements to reflect events or circumstances after today's date or to reflect the occurrence of unanticipated events.

Appendix 1: EPM15268 Urquhart Point Bauxite - Area B Material DS Bauxite Exploration Drillhole Results

Drill hole	Date Drilled	Easting MGA94 Z54	Northing MGA94 Z54	RL (m)	Dip (deg)	TD (m)	Beneficiated ¹							DS Bauxite ²					
							Interval From (m)	Interval To (m)	Interval (m)	Yield (+1.2mm) %	Al ₂ O ₃ %	SiO ₂ %	Fe ₂ O ₃ %	Interval From (m)	Interval To (m)	Interval (m)	Al ₂ O ₃ %	SiO ₂ %	Fe ₂ O ₃ %
UPB-024	3/11/2014	586745	8588401	10	-90	4.00	0.75	3.25	2.50	60.94	50.26	11.90	13.26	No DS bauxite intersection					
UPB-025	3/11/2014	586740	8588090	0	-90	5.00	1.00	3.75	2.75	57.38	49.97	13.58	12.21	No DS bauxite intersection					
UPB-026	3/11/2014	586748	8597772	11	-90	6.00	2.75	4.25	1.50	68.60	54.49	12.36	8.70	No DS bauxite intersection					
UPB-027	3/11/2014	586429	8587769	14	-90	6.00	1.25	3.25	2.00	66.91	54.77	10.18	8.72	No DS bauxite intersection					
UPB-028	3/11/2014	586428	8588086	16	-90	5.00	2.00	3.50	1.50	55.82	54.21	11.37	8.81	No DS bauxite intersection					
UPB-029	3/11/2014	586428	8588402	16	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-030	3/11/2014	586102	8588390	13	-90	4.75	No bauxite intersection							No DS bauxite intersection					
UPB-031	4/11/2014	586107	8588102	ND	-90	6.00	3.00	4.00	1.00	61.50	51.04	12.49	10.66	No DS bauxite intersection					
UPB-032	4/11/2014	585101	8587780	5	-90	4.50	1.75	3.50	1.75	55.90	51.94	12.19	10.14	No DS bauxite intersection					
UPB-033	4/11/2014	587458	8587458	4	-90	4.25	1.50	2.50	1.00	50.55	53.48	11.14	7.26	DS bauxite intersection <0.5m					
UPB-034	4/11/2014	586105	8587131	10	-90	4.75	0.75	2.50	1.75	66.23	55.57	6.04	8.94	1.00	2.50	1.50	50.96	14.37	6.55
UPB-034B	4/11/2014	586107	8587131	10	-90	3.00	Twin hole - samples retained not assayed							Twin hole - samples retained not assayed					
UPB-035	4/11/2014	586095	8586813	13	-90	4.75	0.75	1.50	0.75	55.77	53.74	10.08	11.40	No DS bauxite intersection					
UPB-036	4/11/2014	586090	8586499	14	-90	3.00	0.75	2.00	1.25	63.82	46.68	12.99	17.19	No DS bauxite intersection					
UPB-037	4/11/2014	585786	8586492	17	-90	4.00	2.50	3.25	0.75	49.43	48.68	16.56	12.01	No DS bauxite intersection					
UPB-038	4/11/2014	585775	8586813	20	-90	5.00	1.75	3.75	2.00	55.95	54.72	9.62	9.77	No DS bauxite intersection					
UPB-039	4/11/2014	585773	8587134	18	-90	5.00	2.75	4.75	2.00	54.33	54.45	8.45	8.02	3.50	4.75	1.25	51.28	14.27	5.56
UPB-040	4/11/2014	585777	8587454	16	-90	5.00	3.00	4.00	1.00	30.85	48.52	15.29	11.89	No DS bauxite intersection					
UPB-041	4/11/2014	585773	8587775	17	-90	4.00	2.25	3.00	0.75	27.50	48.06	17.10	13.13	No DS bauxite intersection					
UPB-042	4/11/2014	585773	8588093	15	-90	3.00	1.50	2.25	0.75	56.87	53.60	10.09	10.93	DS bauxite intersection <0.5m					
UPB-043	4/11/2014	585786	8588395	18	-90	4.00	2.00	3.00	1.00	49.95	55.57	11.90	11.10	No DS bauxite intersection					
UPB-044	4/11/2014	585461	8588403	16	-90	6.00	2.25	3.00	0.75	34.70	49.25	17.44	14.20	No DS bauxite intersection					
UPB-044	4/11/2014	585461	8588403	16	-90	6.00	3.50	4.50	1.00	54.10	54.59	9.26	17.52	No DS bauxite intersection					
UPB-045	4/11/2014	586096	8586966	16	-90	3.00	0.50	2.25	1.75	56.77	54.49	9.16	9.76	1.00	2.00	1.00	51.72	14.25	5.55
UPB-046	4/11/2014	586110	8587299	17	-90	3.00	0.75	2.25	1.50	50.77	54.06	8.49	9.57	1.50	2.25	0.75	50.21	14.95	6.84
UPB-047	4/11/2014	586117	8587623	14	-90	3.00	1.25	2.25	1.00	60.85	57.38	6.72	7.62	DS bauxite intersection <0.5m					
UPB-048	4/11/2014	586443	8587924	14	-90	5.25	2.00	4.50	2.50	61.08	55.94	9.41	8.40	3.25	4.50	1.25	53.94	13.37	5.08
UPB-049	4/11/2014	586595	8587711	12	-90	4.75	No bauxite intersection							No DS bauxite intersection					
UPB-050	5/11/2014	586754	8587930	11	-90	4.25	Twin hole - samples retained not assayed							Twin hole - samples retained not assayed					
UPB-050B	5/11/2014	586754	8587932	11	-90	4.25	1.50	3.00	1.50	75.17	51.12	14.35	11.46	No DS bauxite intersection					
UPB-051	5/11/2014	586765	8588254	11	-90	4.75	Twin hole - samples retained not assayed							Twin hole - samples retained not assayed					
UPB-051B	5/11/2014	586765	8588250	11	-90	4.75	1.25	3.25	2.00	57.31	46.68	14.69	16.86	No DS bauxite intersection					
UPB-052	27/11/2014	586751	8588739	8	-90	4.75	1.75	4.00	2.25	62.53	53.83	10.30	9.15	No DS bauxite intersection					
UPB-053	27/11/2014	586743	8589055	9	-90	5.00	2.00	4.00	2.00	55.54	54.19	9.93	11.82	No DS bauxite intersection					
UPB-053	27/11/2014	586743	8589055	9	-90	5.00	3.00	3.75	0.75	30.63	47.63	15.09	17.10	No DS bauxite intersection					
UPB-054	27/11/2014	586741	8589377	12	-90	8.25	4.25	7.50	3.25	59.60	51.65	12.24	11.76	No DS bauxite intersection					
UPB-055	27/11/2014	586739	8589693	15	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-056	27/11/2014	586744	8590011	11	-90	5.00	No bauxite intersection							No DS bauxite intersection					
UPB-057	27/11/2014	586744	8590328	11	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-058	27/11/2014	586746	8590661	12	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-059	27/11/2014	586422	8590327	10	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-060	27/11/2014	586433	8590011	6	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-061	27/11/2014	586430	8589674	9	-90	6.00	4.25	5.50	1.25	45.12	54.94	10.50	8.76	No DS bauxite intersection					
UPB-062	27/11/2014	586431	8589358	9	-90	6.00	4.00	5.25	1.25	56.60	54.36	10.69	9.08	No DS bauxite intersection					
UPB-063	28/11/2014	586419	8589043	5	-90	6.00	No bauxite intersection							No DS bauxite intersection					
UPB-064	27/11/2014	586436	8588734	5	-90	6.00	3.00	4.00	1.00	15.45	44.83	16.77	19.31	No DS bauxite intersection					
UPB-065	27/11/2014	586086	8588744	2	-90	4.75	2.50	4.00	1.50	60.03	42.99	13.78	20.53	No DS bauxite intersection					
UPB-066	27/11/2014	586092	8589054	4	-90	5.25	3.75	4.25	0.50	55.55	57.92	8.84	9.66	No DS bauxite intersection					
UPB-067	27/11/2014	586090	8589369	4	-90	4.50	No bauxite intersection							No DS bauxite intersection					
UPB-068	28/11/2014	585775	8589359	ND	-90	8.50	4.75	7.75	3.00	73.21	45.07	16.83	17.54	No DS bauxite intersection					
UPB-069	28/11/2014	585791	8589050	ND	-90	6.00	4.50	5.50	1.00	49.20	45.02	15.06	17.27	No DS bauxite intersection					
UPB-070	28/11/2014	585778	8588735	0	-90	6.00	3.50	4.50	1.00	55.90	54.47	10.83	9.64	No DS bauxite intersection					
UPB-071	28/11/2014	585456	8588730	0	-90	4.75	3.50	4.25	0.75	51.00	45.16	17.87	15.96	No DS bauxite intersection					
UPB-072	28/11/2014	585460	8588090	2	-90	3.75	2.25	3.00	0.75	52.43	46.35	15.67	15.42	No DS bauxite intersection					
UPB-073	28/11/2014	585459	8587780	4	-90	3.00	2.25	2.75	0.50	51.30	47.10	17.85	11.90	No DS bauxite intersection					
UPB-074	28/11/2014	585463	8587455	10	-90	4.00	2.25	3.00	0.75	41.60	49.31	15.06	11.37	No DS bauxite intersection					
UPB-075	28/11/2014	585461	8586815	12	-90	4.75	2.25	3.75	1.50	42.83	51.20	11.70	11.67	No DS bauxite intersection					
UPB-076	28/11/2014	585455	8586499	6	-90	5.00	2.75	3.50	0.75	42.40	49.64	14.03	12.24	No DS bauxite intersection					

Appendix 2 JORC Code, 2012 Edition – Table 1 descriptions

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i>	Reverse Circulation aircore drill hole samples representing 0.25 m intervals were collected in plastic bags through a cyclone mounted on the drill rig. The entire sample was collected to ensure full representivity of the drilled material. All samples were geologically logged at the time of drilling to determine 1) the type of bauxite material, 2) which samples to composite over 0.5 m intervals, 3) which samples to retain for analysis and 4). when to stop the hole. Samples were collected as individual 0.25m samples or composited over successive 0.5m intervals where the logged material was geologically similar. Samples that contained pisolites in significant volume were logged as bauxitic and submitted for analysis. These samples were placed in polywoven sacks for dispatch to the laboratory. A small representative sub-sample (approx. 50 g) was collected for each 0.25 m interval and stored in a plastic sample tray for future reference.
Drilling techniques	<i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i>	Drilling was carried out by Wallis Drilling Pty Ltd using a Wallis Mantis 80 Aircore drill rig mounted on a 6x6 Toyota. Shallow (up to 10 m) vertical aircore holes were drilled using NQ rods and an NQ aircore drill bit with an outside diameter of 93 mm.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i> <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	Reverse Circulation aircore drilling was used due to its proven reliability in producing good representative sample recoveries across accurate sample intervals. To ensure representivity of the material being drilled the entire sample was collected for

Criteria	JORC Code explanation	Commentary
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	each 0.25 m interval of the drill hole.
Logging	- Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. - Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. - The total length and percentage of the relevant intersections logged.	All drilled intervals were logged by a competent geologist at 0.25 m intervals. The logging was undertaken in a qualitative manner and focussed on documenting the amount and nature of the overburden, the pisolitic intervals and the floor to mineralisation. The bauxitic horizons were defined by the presence of pisolites and the absence of ferricrete, ironstone and/or clays. Logging included visual estimates of pisolitic bauxite concentration and pisolite size and nature.
Sub-sampling techniques and sample preparation	- If core, whether cut or sawn and whether quarter, half or all core taken. - If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. - For all sample types, the nature, quality and appropriateness of the sample preparation technique. - Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples. - Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. - Whether sample sizes are appropriate to the grain size of the material being sampled.	No sub-sampling of material was undertaken at the time of collection. The entire sample was collected over each 0.25 m interval directly from the cyclone on the drill rig. Sample weights were on average between 2 and 3 kg for each 0.25 m sample and 4 to 6 kg for the composited 0.5 m samples. The samples were dispatched to the sample preparation facility at the ALS laboratory located in Virginia, Brisbane. For each drill hole, bauxite intervals were selected for Direct Shipping bauxite analysis using a threshold of $\geq 45\%$ total Al_2O_3 and $\leq 15\%$ total SiO_2, based on earlier analyses of beneficiated (+1.2mm) samples, and prepared for assay using the following method: - source and weigh B fraction of original sample split (the A fraction was beneficiated at +1.2mm and analysed previously); - the B fraction was then riffle split to collect approximately 0.5kg of material. The residue was retained and stored; - the sample was then dried at 105°C and then pulverised to a nominal 85% passing below 75 microns; 50g fractions were split off for total oxide analysis and the residue retained. This preparation is regarded as being appropriate for bauxite analyses.
Quality of assay data and laboratory	- The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. - For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining	Sample analyses were undertaken by ALS laboratory at its Stafford facility in Brisbane. The analytical methods applied to the pulverised sample were as follows: Total oxides by XRF (ALS code ME-XRF13n) for Al_2O_3, BaO, CaO, Cr_2O_3,

Criteria	JORC Code explanation	Commentary
tests	<i>the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i> <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i>	Fe₂O₃, K₂O, MgO, MnO, Na₂O, P₂O₅, SO₃, SiO₂, SrO, TiO₂, V₂O₅, Zn, ZrO₂; and - H₂O/LOI by TGA furnace (ALS code ME-GRA05) - Available Alumina (ALS code AI-LICP01) - Reactive Silica (ALS code Si-LICP01) No field duplicate samples were collected because the total sample was collected for analysis. Two standard bauxite reference samples were sourced from Geostats Pty Ltd in Perth. The bauxite reference samples were relabelled and renumbered prior to being provided to ALS to insert in each batch at a ratio of 1 standard in every 30 samples. Results of the analysis of the standards were all within one standard deviation of the certified values. In addition the laboratory undertook Quality Control measures with one in every 12 samples analysed in duplicate. Seven laboratory standards and one blank were run with each sample batch and the results reported.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i> <i>The use of twinned holes.</i> <i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i> <i>Discuss any adjustment to assay data.</i>	There are no public domain reports describing drilling for bauxite on the property. All drilling was completed in two phases in October/November and December 2014. Four twin drill holes were completed at Area A. Three of the available twin holes provide comparative assays. The results are similar and help define a near nugget variance in the directional variograms. ALS provided the analytical data in csv and pdf format. Field geology logs were manually merged with assay result in Excel for initial geological review. For the resource estimate the assay, geology and survey data were all imported into an Access database, merged and cross checked. The data has not been adjusted other than the management of below detection limit assay values.
Location of data points	<i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i> <i>Specification of the grid system used.</i> <i>Quality and adequacy of topographic control.</i>	Drill collars were initially located during drilling by a hand held Garmin GPS considered to have an accuracy of ± 2 m. 75 of the 81 drill holes (excluding twins) were later surveyed by a licensed independent surveyor using accurate DGPS. The grid system used was MGA GDA94 Zone 54L. Topography used available collar surveys and beyond that 90 m spaced shuttle radar (SRTM) data recalibrated to local controls.
Data spacing and	<i>Data spacing for reporting of Exploration Results.</i> <i>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade</i>	85 holes were drilled on a nominal 320 m by 320 m grid (Refer to Figure 4) The aim of the program was to test the presence of significant bauxite mineralization in

Criteria	JORC Code explanation	Commentary
<i>distribution</i>	<i>continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</i> <i>Whether sample compositing has been applied.</i>	two separated areas. The drill hole spacing was adequate to establish the degree of geological and grade continuity appropriate for an Inferred Mineral Resource estimate. Samples were collected as individual 0.25 m samples or composited into 0.5 m intervals where the geology was similar. No additional compositing of samples was undertaken.
<i>Orientation of data in relation to geological structure</i>	<i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> <i>If the relationship between the drilling orientation and the orientation of key mineralized structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i>	The mineralisation is regarded as horizontal due to the tabular nature of the style of deposit as demonstrated elsewhere on the Weipa Plateau. All drill holes were less than or 10m in length, vertical and intersected the mineralisation at an approximate 90° angle with all intercepts are regarded as having True Width. Considering the deposit type the sampling has shown the presence of broad zones of continuity of mineralisation in an unbiased manner.
<i>Sample security</i>	<i>The measures taken to ensure sample security.</i>	The samples were collected in large plastic sample bags on site which were secured using cable ties and bagged into white polywoven sacks and stored in a locked compound. The sacks were palletted and shrink-wrapped for shipment. It is considered that due to the nature (bauxite) and the value of the mineralisation potential, security interference was extremely remote.
<i>Audits or reviews</i>	<i>The results of any audits or reviews of sampling techniques and data.</i>	No independent audits of the drilling and sampling have been undertaken due to the early stage nature of the project.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i>	Urquhart Point EPM15268 is located some 5 km west of the township of Weipa on the western side of Cape York. EPM 15268 is currently held 60% by Oresome Australia Pty Ltd (a 100% owned subsidiary of Metallica Minerals Limited), and 40% by its Joint Venture Partner, Ozore Resources Pty. Ltd. Ozore can increase its JV interest to 50% upon contribution of a further A\$1.5 million to the Joint Venture. There is an exploration access agreement with the local Indigenous Groups represented by the Wik and Wik Way. The area is covered by the Cape York Regional Plan (CYRP).

Criteria	JORC Code explanation	Commentary
		EPM15268 is unaffected by the current CYRP and the tenement is in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	An appraisal has been undertaken on previous exploration for bauxite. Although some widespread sampling had taken place, there was no evidence of previous systematic, grid-based drilling. Oresome undertook a maiden auger drilling and sampling program within the tenement in 2014. Refer ASX Release dated 11 July 2014.
Geology	Deposit type, geological setting and style of mineralization.	The deposit type is bauxite laterite derived from the tropical to sub-tropical weathering of aluminous sediments.
Drill hole Information	- A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: - easting and northing of the drill hole collar - elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar - dip and azimuth of the hole - down hole length and interception depth - hole length. - If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	A total of 85 vertical air-core drill holes were completed in November 2014 in two areas at roughly 320 m spacing, see Figure 4. Area A contains 23 drill holes for 167.5 m, with a 7.3 m average depth Area B contains 63 drill holes for 304.7 m, with a 4.9 m average depth Both areas are relatively flat and low lying with collars between 4 and 13 m RL and the drill holes between 3 and 10 m in total depth.
Data aggregation methods	- In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. - Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. - The assumptions used for any reporting of metal equivalent values should be clearly stated.	For each drill hole, bauxite intervals were selected for DSB analysis using a threshold of $\geq 45\%$ total Al_2O_3 and $\leq 15\%$ total SiO_2 based on the results of analyses of beneficiated (+1.2 mm) samples. A minimum total bauxite interval thickness of 0.5m was applied. Down-hole assays were weighted on the basis of intercept thickness to determine the weighted average assay for the bauxite zone in each drill intercept. No upper cut-off grades were applied.
Relationship between mineralization widths and intercept	- These relationships are particularly important in the reporting of Exploration Results. - If the geometry of the mineralization with respect to the drill hole angle is known, its nature should be reported. - If it is not known and only the down hole lengths are reported, there	The mineralisation is regarded as horizontal due to the tabular nature of the style of deposit and because the holes are shallow (up to 10 m in length), drill hole deviation would be minimal and therefore the holes are considered vertical with all intercepts representing True Width.

Criteria	JORC Code explanation	Commentary
<i>lengths</i>	<i>should be a clear statement to this effect (eg 'down hole length, true width not known').</i>	Down hole depths are considered as True Widths.
<i>Diagrams</i>	<i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	Refer to Figures 1, 4 and 5.
<i>Balanced reporting</i>	<i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i>	Exploration results were previously released in Metallica ASX announcements dated 21 Jan 2015 and 3 Feb 2015 and are not repeated in this resource estimate. Subsequent to these DSO analyses were received for Area B which are summarized in Appendix 1
<i>Other substantive exploration data</i>	<i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	The drilled area was identified due to its recognised proximity to known bauxite deposits within the adjoining Rio Tinto ML, desk-top mapping of potential bauxite plateau features in satellite image studies and encouraging results from limited hand auger drilling completed in 2014. Refer ASX Release dated 11 July 2014.
<i>Further work</i>	<i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i> <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i>	It is envisaged that further drilling will be carried out later in 2015 and may include infill drilling of areas already drilled and testing of their lateral extensions.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Database integrity</i>	<i>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</i> <i>Data validation procedures used.</i>	The assay data were compiled directly from original assay laboratory result data files. Assays were matched to the logging data using the sample number. Cross checking all samples were matched allowed correction of some minor typographic errors.
<i>Site visits</i>	<i>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</i>	John Cameron an independent geologist supervised all drilling during October/November and December 2014. Andrew Gillies visited site on several occasions up to 2008.

Criteria	JORC Code explanation	Commentary
	<i>If no site visits have been undertaken indicate why this is the case.</i>	
Geological interpretation	<i>Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</i> <i>Nature of the data used and of any assumptions made.</i> <i>The effect, if any, of alternative interpretations on Mineral Resource estimation.</i> <i>The use of geology in guiding and controlling Mineral Resource estimation.</i> <i>The factors affecting continuity both of grade and geology.</i>	The pisolitic bauxite horizon is easily identified in RC drilling and can be used to identify all intervals requiring sampling. Assaying has confirmed the logging. The bauxite horizon shows evidence of being cut by an unconformity in places with the occurrence of sands and in some places transported bauxite. Nonetheless the bauxite horizon is relatively consistent and shows some evidence of following the small topography variations. The drilling has indicated a continuous bauxite horizon with thinner or low grade zones attributed to regional variations and possible erosion zones. Both screened and whole rock analyses were completed allowing the assessment of both direct shipping and beneficiated product mining options.
Dimensions	<i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i>	Area A is define by two lines of 320 m spaced drilling. The resource area covers 2.3 km². Though sandwiched between the coast line and the tenement boundary there is still scope to extend the resource area by up to 25%. Area A is relatively well defined with higher grade and more consistent mineralisation in over most drill holes Area B is defined by six lines of 320 m spaced drilling. The resource area covers 5.2 km². Though this area is larger and broader the bauxite horizon is weak towards the northern end and also at the southern extremity. There is less scope I scope to extend the resource area which could be increased by up to 20%. Area B is generally lower grade and will require upgrading or selective mining.
Estimation and modelling techniques	<i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i>	Estimation of 100 x 100 x 0.25 m blocks was undertaken for the bauxite horizon as defined by the geological logging using Inverse Distance Squared estimation methods. A restrictive vertical search limiting samples to only 1 m per drill hole is used to avoid over smoothing in the vertical direction. Dynamic anisotropy is used to assist the estimation follow the geology variations that are similar to the local topography undulations. Estimation included: - Whole rock (DSO) Al₂O₃ and SiO₂ - Screened yield and related coarse fraction Al₂O₃ and SiO₂ - Whole rock reactive silica and available alumina (Area A only)

Criteria	JORC Code explanation	Commentary
	<i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> <i>Any assumptions behind modelling of selective mining units.</i> <i>Any assumptions about correlation between variables.</i> <i>Description of how the geological interpretation was used to control the resource estimates.</i> <i>Discussion of basis for using or not using grade cutting or capping.</i> <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i>	Other elements are available but not estimated at this early stage of assessment. A fine vertical definition in the model is maintained to allow mining interval selection and options analysis. Grade cutting was not used as there were not outlier values evident and the grade were major rock elements and not positively skewed. The model result were assessed visually and compared to statistical means.
Moisture	<i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i>	All tonnages are estimated on a dry basis and moisture factors need to be applied for mining analysis.
Cut-off parameters	<i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i>	The results model is constructed in a manner suitable for assessing a range of cut-off scenarios. For this maiden resource statement a cut-off of 45% Al₂O₃ for whole rock grade is considered reasonable for providing an indication of potential direct shipping ore (DSO) operation. Screen test results indicate the resource could be wet screen upgraded as is commonly done elsewhere on Cape York. Additional lower grade resource will be available if wet screening is considered at a later stage.
Mining factors or assumptions	<i>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</i>	No width criteria is applied for the Resource reporting. However sampling was not undertaken on intervals less than 0.25 m. Bauxite horizon sample intervals range from 0.5 m to 4 m and average 1.6 m. Overburden to the bauxite horizon varies from 0.5 m to 9.5 m and averages 3.8 m. The resource presents as a flat tabular zone that should be able to be mined with industry standard practices and open pit mining.
Metallurgical factors or assumptions	<i>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</i>	Available alumina and reactive silica has been completed for Area A and is included in the DSB whole rock estimates. Domaining was established such that the selective samples could be reported for the higher grade zone where the available alumina and reactive silica analyses are complete for Area A.

Criteria	JORC Code explanation	Commentary
<i>Environmental factors or assumptions</i>	Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	Initially some out of pit dumping will be required but continuous mining in strips will allow progressive backfill and rehabilitation. This process is typical for Cape York bauxite operations and no additional environmental processes are known other than the potential limitation near coastal areas. Area A presents the closest Resource to the high tide zone starting at about 250 m. This is beyond any expected limitation.
<i>Bulk density</i>	- Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. - The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. - Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.	The initial drilling program was completed in October/November and December 2014 and at this stage no testing for density has been completed. The bauxitic pisolite zone is similar to Weipa type ore and other Cape York deposits. Based the consistency of other published resource data for similar deposits in Cape York it is considered reasonable to assume an in-situ bulk density of 1.5 t/m³ for the deposit at this early stage of exploration.
<i>Classification</i>	- The basis for the classification of the Mineral Resources into varying confidence categories. - Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). - Whether the result appropriately reflects the Competent Person's view of the deposit.	Blocks are classified as Inferred Mineral Resource where drilled to 320 m grid spacing with 160 m extrapolation beyond the drilling. Variograms were undertaken for DSB and screened yield and grades and all indicate a total range of about 3.5 m vertically and 400 m laterally. There is limited drilling as twins and limited 160 m spaced drill line that define the inner variogram structure and the range. The current data indicates the 320 m grid drilling pattern is close to the total range and adequate to define Inferred Mineral Resources.
<i>Audits or reviews</i>	The results of any audits or reviews of Mineral Resource estimates.	There has been no external review of the resource estimate or associated data.
<i>Discussion of relative accuracy/ confidence</i>	Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence	Area A is relatively consistent in the bauxite profile and higher in grade. It presents a higher confidence as a DSB resource as less mining selectivity will be required. Area B has a more variable bauxite profile and only some areas have sufficient grade to present as a DSB mining target. As a result the area is

Criteria	JORC Code explanation	Commentary
	<i>limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> <i>• The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>• These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i>	considered less accurate.