METALLICA MINERALS LIMITED
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ASX RELEASE
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METALLICA ANNOUNCES MOVE TO FULLY FLEDGED DUAL HMS & BAUXITE FOCUS ON PRIME CAPE YORK TENEMENT PORTFOLIO

Enhanced Strategy:

- **Significant areas of bauxite identified in review of Cape York tenement portfolio**
- **Bauxite potential of such magnitude that Metallica has adopted an all-encompassing dual Heavy Mineral Sands (HMS) - bauxite project focus and strategy for Western Cape York, Queensland**
- **Project is renamed under single banner "Cape York HMS & Bauxite Project" within world-renowned established high quality export grade bauxite province and the potential for a HMS province**
- **Strong synergies and cost savings present for the exploration, evaluation and possible future development of Cape York mining, transport, barging, export shipping infrastructure for both HMS and bauxite deposits. Especially the projects in close proximity, such as Urquhart Point and near Vrilya Point as potential dual development hubs**

New Project Outcomes:

- **Within Metallica's 100%-owned 2,500km² exploration tenement portfolio in Western Cape York bauxite province, Far North Queensland:**
  - **15 bauxite Exploration Target* areas delineated within existing tenements'area – highly prospective for HMS and/or Bauxite**
  - **Includes coastal bauxite targets near Vrilya Point, 160km north of Weipa, in addition to existing HMS targets and deposits such as T16 nearby**
  - **First pass reconnaissance sampling over mapped bauxite (the principal oretype for aluminium) confirms potential for export quality bauxite within the Urquhart Point EPM, near Weipa**
  - **Initial combined bauxite Exploration Target* across all Metallica exploration holdings in the range of 47Mt to 138Mt – see Table 1.**

Market outlook:

- **Increasing bauxite demand and prices are expected to intensify due to the simultaneous major reduction in bauxite supply from Indonesia and India, and increased demand for alumina to supply rising aluminium production and consumption in China, India and Middle East.**

***Exploration Target** - The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

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Near-Term Work Program:

- **Grid drill Urquhart Point and Vrilya bauxite projects in conjunction with HMS targets (starting with the T16 HMS deposit) in current September quarter (subject to funding)**

- **Develop conceptual exploration and development plan (subject to appropriate permitting) to identify accessible DSO (Direct Shipping Ore) bauxite to be simply mined, screened and trucked to a barge-ship operation, such as already planned for Urquhart Point Heavy Mineral Sands (HMS) project**

- **Gain Urquhart Point HMS project development funding**

Photo 1 : Photo looking east above the Urquhart Point mining lease and proposed HMS mining area (including barge loading sites) across the Embley River (a deep protected shipping channel), Weipa Port and Township. Further distance is Rio Tinto's Weipa bauxite mining and shipping operations.

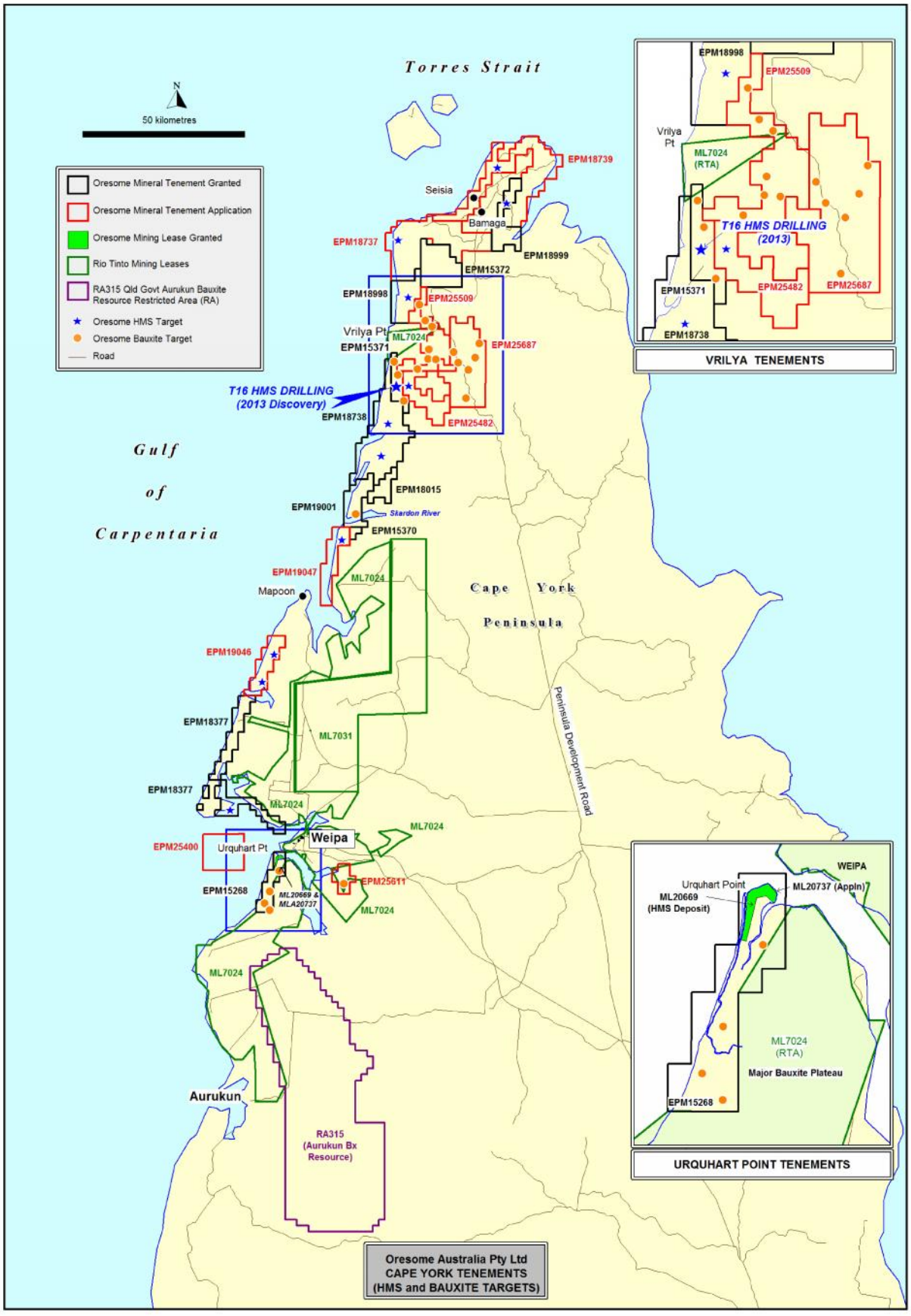

Figure 1: Metallica (Oresome) Cape York HMS and Bauxite project tenements and targets.

Metallica Minerals Limited (ASX:MLM) ("Metallica" or the Company) is pleased to announce it has commenced a detailed review of its extensive Cape York tenement portfolio with a view to ascertaining, in addition to its highly prospective Heavy Mineral Sands (HMS) project, the portfolio's potential to host significant bauxite deposits. Metallica, through its 100%-owned subsidiary, Oresome Australia Pty Ltd ("Oresome"), holds 100% of the Cape York Heavy Mineral Sands (HMS) and Bauxite (CY HMS-BX) Project which extends for approximately 300km from Weipa to the top of Cape York, in Far North Queensland (Figure 1).

The project comprises 11 Exploration Permits for Minerals (EPMs) and nine EPM Applications (EPMAs), covering approximately 2,500km^2 of Western Cape York, as well as one granted Mining Lease and one Mining Lease Application over the Urquhart Point HMS deposit, three kilometres southwest of Weipa.

The review has successfully identified 15 priority highly prospective bauxite zones within Oresome's tenement package near Urquhart and Vrilya Points adjoining Rio Tinto's mining leases, (which cover substantial good quality bauxite deposits) see Figures 1-4. The combined areas have an estimated Exploration Target* potential of 47 to 138 Million Tonnes (Mt) Bauxite (Table 1).

Table 1: Summary of Oresome's Current Regional Bauxite Exploration Target*

Project	Permit	Discrete Targets	Insitu mineralisation tonnage range (Mt)[2]	Total Al_2O_3 (%) [3]	Total SiO_2 (%) [3]
Urquhart Point	EPM15268	2	5 to 10	43-55	5-18
Vrilya	EPM15371	3	2 to 6	40-47	insufficient data[1]
	EPMA25509	7	12 to 36	40-48	10-19[1]
Vrilya East	EPMA25687	3	28 to 86	40-43	insufficient data[1]
	TOTAL	**15**	**47 to 138**		

[1] previous exploration reports SiO_2 data incomplete
[2] range based on measured areas of target plateaus, minimum thickness of $\geq$0.5m bauxite, estimated average thickness of 1.5m from previous exploration data and bulk density value of 1.5

[3] based on screened sample assay results.

***Exploration Target -** The potential quantity and grade of the bauxite deposits are conceptual in nature. There is insufficient information at this time to define a mineral resource and there is no certainty that further exploration will result in the determination of a mineral resource in these areas.

Urquhart Point Bauxite Targets

Recently completed bauxite exploration on EPM15268 Urquhart Point, where first phase reconnaissance hand auger drilling was completed over four laterite plateau areas (Area A, B, C and D) has so far intersected significant and good quality bauxite at Area A and B (Figure 1, 2, 3 and Table 2). The four plateau areas represent extensions and outliers of a major bauxite plateau within the adjacent large Rio Tinto Aluminium (RTA) mining lease (ML).

Most promising is **Area B** which lies approximately 6 kilometres south of Metallica's existing Urquhart Point HMS mining lease being proposed for development *(refer to*

ASX Release Maiden Ore Reserve and Positive Feasibility Study for Urquhart Point HMS project dated 24 June 2014). At Area B, eight shallow hand auger holes were drilled to either blade refusal or a maximum depth of 3.4m (limit of auger drill capacity) at a nominal 600m spacing. The auger samples were wet screened at ALS laboratories in Brisbane to remove the fine fraction (<1.2mm), and analysed for total oxides.

Five of the eight holes returned excellent grades (see Table 2) with a maximum of 57 per cent total Al_2O_3 and 6 per cent total SiO_2 in Hole AB6 (Figure 3 and Photo 2). Of the remaining three holes, two did not penetrate through the overburden and one (AB5) intersected kaolinitic ironstone at a depth of 2.5m.

Area A is located due east of Urquhart Point, adjacent to the boundary of the RTA ML covering an extensive bauxite plateau (see Figure 3). Area A was tested with two auger holes drilled to blade refusal. Both holes intersected bauxite at a shallow depth of 2.25 metres.

The first hole (AA1) assayed 53 per cent Al_2O_3 and 12.2 per cent SiO_2 in the interval 2.25-2.75 metres ending in bauxite. The second auger hole, located 1 kilometre southwest of the first hole, returned an assay interval of 0.75 metres ending in bauxite of 48 per cent Al_2O_3 and 17.1 per cent SiO_2 with the elevated silica level possibly attributed to contamination of the sample by overlying quartz (silica) sand material during augering.

Mapping and Sampling of Area A and Area B indicates that bauxite mineralisation on the two plateaus extends over a total Exploration Target* area of approximately 8km^2. The close proximity to a planned new barge site facility at Urquhart Point (4-6km distance) and or Hey Point (~7km distance) suggests that these areas may be capable of supporting a low-cost, export barge (Photo 1 & 4) and shipping bauxite operation.

Vrilya Bauxite Targets

The target areas south and east of Vrilya Point on EPM15371 and EPM25509 respectfully, are characterised by low lying, partly dissected and undulating laterite plateau which overlies flat-lying sandstone and siltstone rocks. The bauxite targets consist of numerous, scattered occurrences showing a typical Cape York pisolitic bauxite mineralogy. The areas have been the subject of reasonably extensive exploration in the 1970-80s which has resulted in a number of tonnage and grade estimates for the bauxite deposits by these earlier exploration companies which at the time were considered to be non-commercial. Recent data compilation and desk-top studies have outlined eight prospective plateau zones (Figure 4) within the Oresome tenements where previous exploration drilling encountered bauxite intervals grading in excess of 40% Al_2O_3. The accompanying total SiO_2 data, while incompletely reported, has a range from 10-19%. Under current and forecast market conditions Metallica considers these zones offer potential for commercial quantities of export quality bauxite to be delineated and are summarised in Tables 1 and 3.

Vrilya East Bauxite Targets

The Vrilya East tenement includes a 210km^2 area of dissected aluminous laterite plateaus, portions upon which previous company exploration reconnaissance

shallow drilling returned bauxite intervals up to 1.6m thick and >40% Al_2O_3 screened at >1mm. The historical exploration drilling comprised of approximately 30 wide-spaced holes targeting the main axis of the subdued plateau features at a nominal drill hole spacing of 1,600 metres. This broad spacing allows considerable potential for meaningful bauxite deposits to be identified both between and as extensions of the existing drill hole identified bauxite and within untested extensions of the plateaus. Areas previously drilled and which have confirmed significant bauxite is present, will be followed up with grid drilling over priority areas, to define higher grade bauxite zones and potential development opportunities.

The published 1:250,000 scale geological maps shows the general Vrilya area as comprising of Tertiary aluminous laterite including bauxite and the ironstone below it, and late Cretaceous – Jurassic Helby Beds. Limited outcrop exists in the Vrilya East permit area (EPMA 25687 covering 290km^2). However, for the most part, it appears to cover a 210km^2 area of dissected aluminous laterite plateaus. On this Vrilya East tenement, Oresome has completed desktop studies that indicate strong evidence that the majority of the surface geology is lateritised and potentially bauxite and not the currently mapped Cretaceous – Jurassic sandstones on government regional geology maps. This desktop work is further supported by analysis of satellite imagery and recent reconnaissance helicopter flyovers of the area (Photo 3).

Previous reconnaissance exploration drilling undertaken since the 1970s has recorded significant bauxite mineralisation forming the basis of the Exploration Targets* as summarised in Table 3. This has resulted in the identification of priority bauxite Exploration Targets* for follow-up grid drilling in the next stage of exploration as shown on Figures 1 and 4.

The Vrilya East area is well serviced with the Peninsula Development Road traversing the tenement, see Figure 4 and Photo 3.

Cape York HMS and bauxite project success will provide additional jobs and opportunity for local indigenous communities

Oresome has always been committed to employment of local traditional landowners during all phases of our projects from exploration, development to production. We have trained people in Napranum to carry out the ongoing monitoring requirements associated with the Urquhart Point mineral sands mining leases and have written commitments into our existing landowner agreement(s) associated with that project. Oresome are committed to working with the Traditional Landowners and local communities in a similar fashion on all of our projects, and when successful in establishing commercial resources, committing to future training and employment of local Traditional Landowners in those areas to promote employment and opportunity within the local communities.

We are fully aware that the best plan to improve lifestyle and prosperity in indigenous communities is through enabling responsible and sustainable economic developments (of which mining can be major part) to create real jobs.

Importantly, Metallica/Oresome has a strong relationship with the regions traditional landowners.

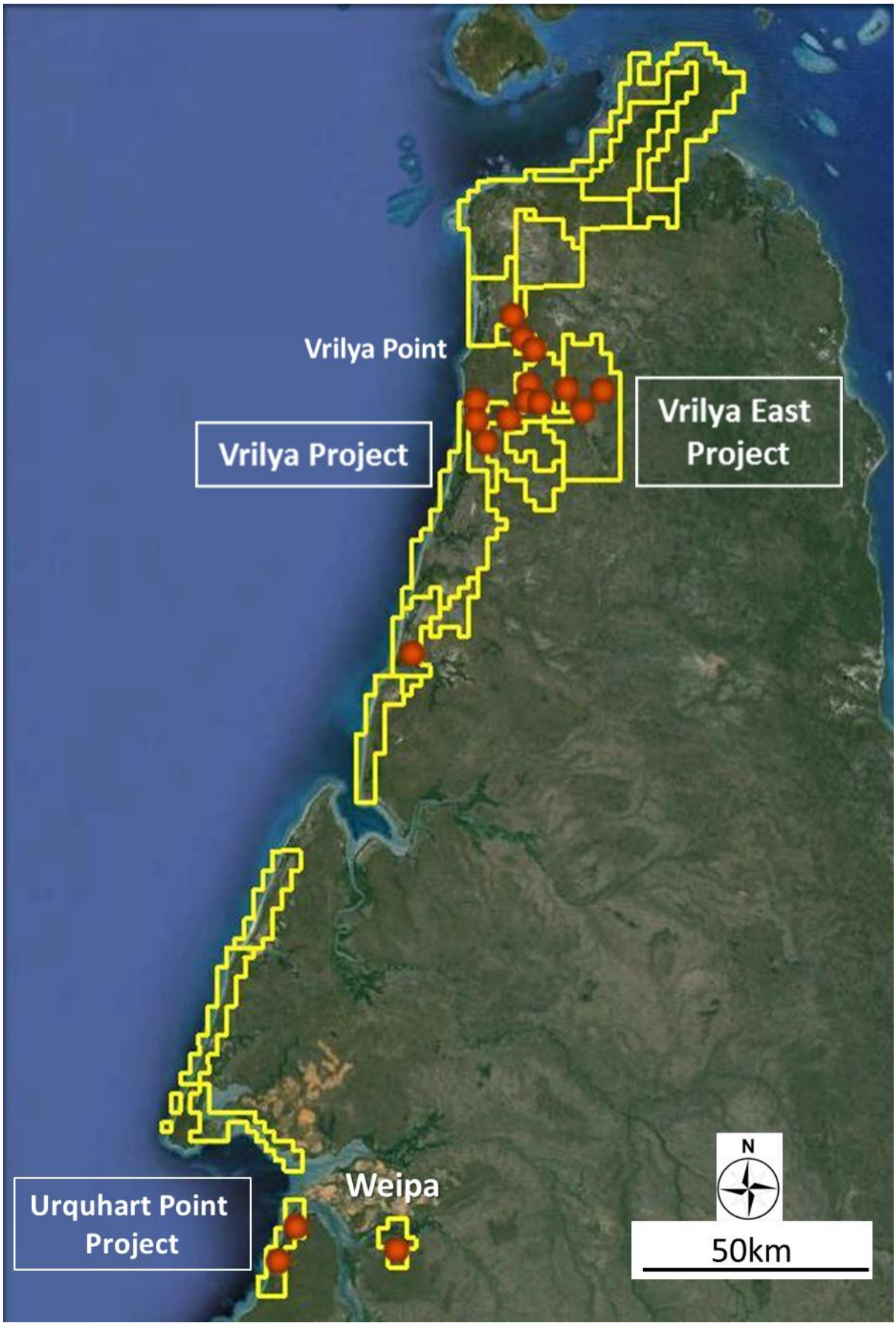

Figure 2: Location of **Oresome tenements on western coastal Cape York**, including the Urquhart Point, Vrilya and Vrilya East project areas, with priority bauxite targets highlighted in **orange**. The coastal tenements are all prospective for HMS deposits

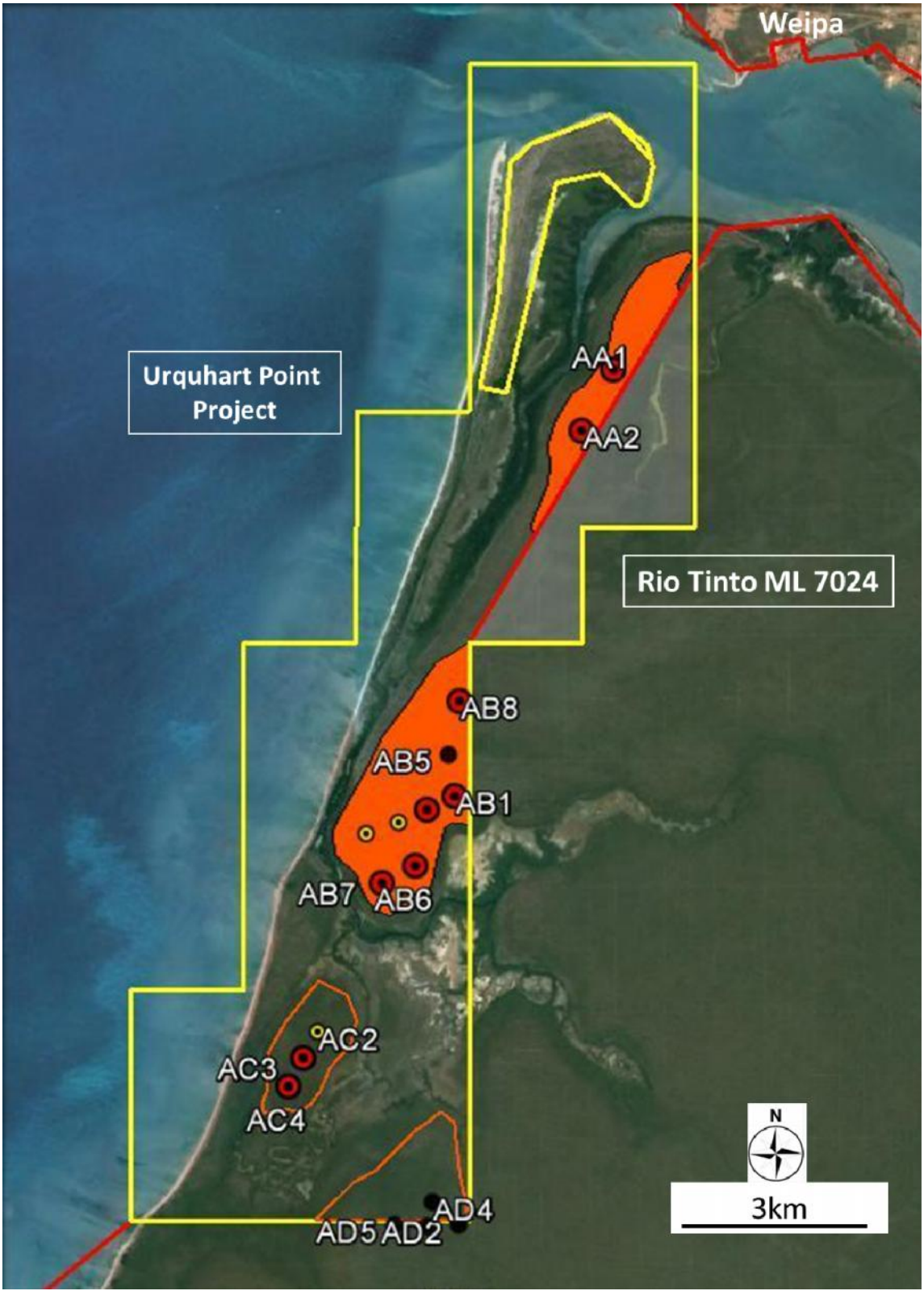

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Figure 3: Urquhart Point EPM15268 Location of targeted bauxite plateaus - Area A, B, C, D with summary shallow hand auger drill results – **Red hole** – bauxite intersected, **Yellow hole** - ended in overburden (i.e. bauxite or basement not reached) and **Black hole** - ended in non-bauxite. Full **orange polygons** outline future bauxite Exploration Targets planned for grid drilling.

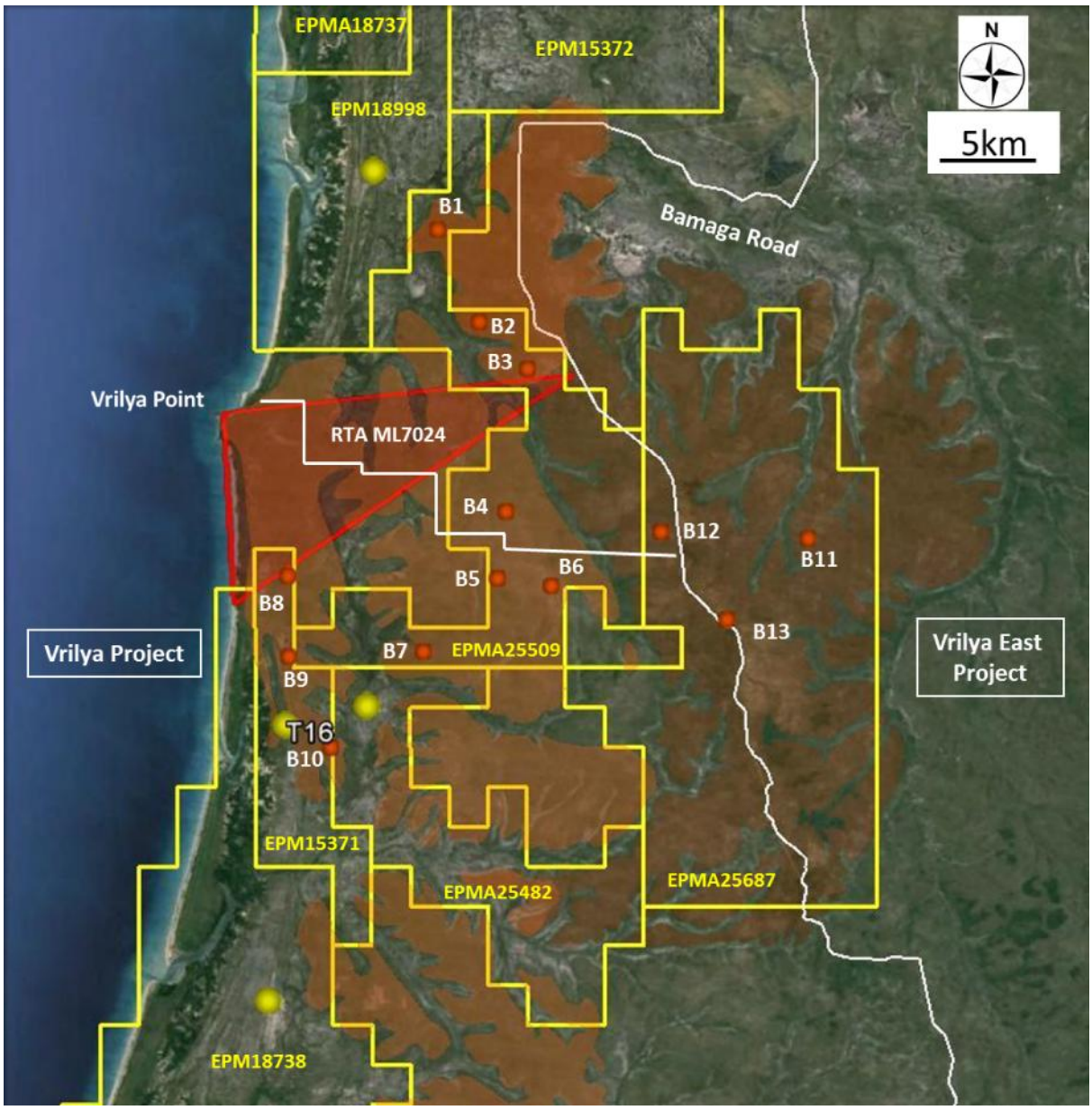

Figure 4: Oresome's Vrilya and Vrilya East Project Tenements (numbered) with outline of Government and Oresome mapped laterite plateaus, access routes and identified bauxite targets (**Orange circles**) and regional HMS targets (**Yellow Circles**).

Photo 2: Urquhart Point (EPM 15268) Area B high grade hand auger samples:
a) top - bauxite interval in AB6 which recorded 0.55m @ 57% Al_2O_3 and 6% SiO_2, (end of hole)
b) bottom - Auger hole AB1 pisolitic bauxite sample

Photo 3: Photo from helicopter showing large Vrilya East bauxite laterite plateaus where targets are for grid drilling

Photo 4: A local barge, travelling via the deep protected water shipping channel adjacent to the Urquhart Point mining lease, about to unload a drilling rig and other equipment on the beach at Urquhart Point. Similar barges can be used in the future for barging HMS concentrate and potentially bauxite for transhipment to a nearby ship.

Current Seaborne Bauxite Market

Early in 2014, the Indonesian Government confirmed its ban on bauxite exports, legislated to restrict bauxite exports from Indonesia, and reinforced that laws encouraging down-stream processing in Indonesia would remain in place. Indonesia was at that point, China's largest external provider of bauxite.

It is estimated that approximately 40 million tonnes of bauxite was exported from Indonesia to China in calendar 2013. Combined with other imports, China had built up an estimated 12 month stockpile of required bauxite imports. Once these stockpiles are exhausted, it is expected that China will require several new significant sources of imported bauxite to satisfy demand.

China is the World's largest alumina producer and consumer, but is short in bauxite, which is being consumed at an ever increasing rate. As a result, bauxite demand and prices are increasingly based on the continuing growth of the Chinese market and China is looking for a reliable, alternative, long-term supply of high-quality bauxite. Australia logistically is well placed to supply this demand.

Aluminium is now a more competitively priced metal than ever before and its consumption is rising faster than other metals. China has insufficient domestic bauxite to feed its burgeoning aluminium industry and imports 40% of its bauxite, mainly from Indonesia, Australia and India. Some bauxite is being imported from Guinea in West Africa, costing US$90 per tonne (imported to China) – a clear indication of market stress about security of supply.

Cape York's proximity to China means Australia provides a logistical advantage over many other alternative supply sources and therefore positions Metallica to take advantage of any increase in demand for Australian bauxite.

Bauxite demand is intensifying due to a perfect storm of simultaneous reduction in bauxite supply from Indonesia, India and China and increased demand for alumina to supply the rapidly rising aluminium production and consumption in China, India and the Middle East.

Future Plan

Subject to funding, Metallica and Oresome will actively continue planned development at Urquhart Point *(see ASX Release dated 24 June 2014*) the exploration on priority HMS targets and more than 15 regional bauxite exploration targets identified in previous exploration, including the already drilled and highly prospective T16 area, where extensive zircon rich HMS mineralisation was successfully defined: *Refer to ASX Release dated 22 January 2014.*

About Oresome's Regional Exploration Tenements

In addition to Urquhart Point HMS project near Weipa, which has a granted mining lease over a shallow high grade HMS deposit, Oresome holds approximately a further 2,500km² of exploration tenements in the Western Cape York region, prospective for HMS and bauxite (see Figure 1).

On 26 November 2013, Metallica announced it had discovered significant new zircon rich HMS mineralisation on its regional exploration target called T16, located approximately 160km north of the Urquhart Point Zircon Rutile Project.

In January 2014, *(see ASX Release dated 22 January 2014)* the Company announced it had received heavy mineral (HM) and HM assemblage analysis results from its maiden drilling of T16. All 36 holes drilled recorded significant HM mineralisation over a 1.8km by 0.8km area that is open in most directions, confirming potential of extensive zircon-rich HMS mineralisation. The HM mineralisation encountered to date is at or close to surface with an average thickness of approximately 3.5m and an average estimated in-situ HM content of approximately 1.7% HM. The zircon rich HM assemblage averaged approximately 33% zircon, 6% rutile and 11% other titanium minerals comprising 49% of the total HM.

The T16 HMS project is located within EPM 15371 and is the first regional tenement to be explored and is just one of the 20 tenements held 100% by Metallica. The drilled area (of which all holes intersected significant HMS mineralisation) is only a small portion of the T16 target area and this in turn, is only a small portion of the regional HMS prospective zone. In essence, there is excellent potential for additional and potentially major HMS discoveries.

Metallica plans (subject to adequate funding) to continue exploration of its extensive regional tenements along the 300km sandy coastal belt between Weipa and the tip of Cape York Peninsula. Exploration work will focus on the recently discovered zircon rich T16 HMS target and nearby bauxite plateau targets. Initial evaluations will also continue on at least 10 untested radiometric targets already identified within strandlines, sand dunes and inland sand formations. These features are not known to have been previously investigated for HMS accumulations and there is considered very good potential for extensive HMS mineralisation. Many of Oresome's tenements also contain bauxite. These bauxite areas will also be evaluated to establish the bauxite quality and extent, starting on well defined target Area A and Area B in the Urquhart Point tenement and immediately east and north of the T16 HMS project in the Vrilya area.

Photo 5: Oresome General Manager, Stewart Hagan undertaking regional HMS and bauxite reconnaissance sampling in an area south of the T16 HMS Discovery

What it Means, Summary and Comments

Metallica Minerals' Managing Director, Mr Andrew Gillies:

"The Company is very pleased to report this significant value-add opportunity to our Cape York tenements as we have two exciting provincial scale mineralisation targets (Heavy Minerals Sands (HMS) and bauxite) to evaluate in a dual, side by side manner".

"We are very confident that with a progressive systematic approach, we will make significant HMS and bauxite discoveries and for this reason, Metallica is very keen to start drilling on the many well defined HMS and bauxite targets on the Urquhart Point and Vrilya areas"

"Both HMS and bauxite mineralisation is typically blanket-like and widespread and occurs from surface or at very shallow depths (typically <3m). Hence, with even a modest drill metreage program, many holes can be drilled relatively quickly and cheaply on a grid pattern suitable for mineralisation definition.

"We are also very pleased with the positive feasibility outcome on the Urquhart Point HMS project and having now indicatively established that the mapped bauxite within the tenement is of good quality to justify detailed drill follow-up. By having two potential development propositions so close to each other, both targets can share project logistics and infrastructure and this benefit should not be underestimated. These potential benefits will provide savings and opportunities for both the HMS and bauxite projects. The Urquhart Point mining lease has several barge point options adjacent to deep water shipping channels and ship loading sites.

"Metallica's Cape York bauxite exploration strategy will prioritise the areas that are readily accessible, close to bargeable waters and which exhibit the best potential to host Direct Shipping Ores (DSO). Our conceptual development strategy is to establish a shallow dig, truck, simple mineral processing, and barge-ship HMS and or bauxite operations. These are relatively low capital and operating cost and can be commenced small scale and easily scaled up. As a result this allows us to capture smaller bauxite deposits for potential exploitation provided they are close to a barging and or ship loading site.

"Originally, when Metallica first committed to HMS exploration in Western Cape York after securing the known Urquhart Point HMS deposit near Weipa, we always believed it would be incredulous for it to be the only HMS deposit in the region. Nature rarely works that way and we believed there had to be other HMS deposits to be found within the 300km long belt of poorly explored ancient shorelines and more than 2,500 km^2 of mostly sandy coastline and hinterland. This logic was fully vindicated in October 2013 with the discovery of significant extensive zircon rich HMS mineralisation on the T16 target, the first regional target to be drill tested. There is little doubt of the scope to considerably increase the extent of T16's mineralisation.

"We also feel the same about the region's bauxite potential and are particularly excited for the bauxite potential adjacent to our Urquhart Point HMS project - given that Metallica plans to already have a barge and shipping HMS concentrate operation there. The second HMS and bauxite exploration and evaluation hub is

around the Vrilya Point area, approximately 160km north of Urquhart Point/Weipa, as shown in Figures 1 &4.

"Oresome is exploring within arguably the world's best bauxite province and at a very good time with rising bauxite demand and prices stemming from substantial growth in aluminium production and the substantial growth in seaborne trade of bauxite, especially now that China's principal bauxite supplier, Indonesia, has put an export ban on bauxite.

"In essence, we believe there is excellent scope to define major HMS and bauxite deposits in our 100% held tenements and very much look forward to commencing grid drilling on these multiple HMS and bauxite targets.

For more information please contact:-

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Competent Persons 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 who is a Member of the Australasian Institute of Mining and Metallurgy (M.AusIMM). Mr Gillies has relevant experience in the mineralisation, exploration results, Exploration Targets and Resources estimates 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 Exploration Results and Exploration Targets 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.

*See attached respective **Table 1** JORC Code, 2012 Edition **Section 1** (Sampling Techniques and Data) and **Section 2** (Reporting of Exploration Results) for Urquhart Point auger drilling and Vrilya and Vrilya East Exploration Targets.*

Table 2: EPM15268 Urquhart Point Hand Auger Drilling Results

Auger Hole	Total Depth	Depth To Bx	SAMPLE	Interval	+1.2mm Recovery %	Moisture %	Al2O3 %	Fe2O3 %	SiO2 %	LOI %	Comment
AA1	2.75m	2.25m	AA1 2.25 - 2.50		68.6	10.55	51.6	10.95	13.6	21.27	
			AA1 2.50 - 2.75		41.7	9.67	54.4	10.95	10.75	21.32	
			2.25-2.75	**0.50m***	**55.2**		**53**		**12.2**	**21**	***Hole ended in Bauxite at hand auger refusal**
AA2	3.0m	2.25m	AA2 2.25 - 2.50		66.8	7.06	47.7	13.55	18	18.4	
			AA2 2.50 - 2.75		51.8	6.28	50.4	11.75	14.5	20.83	
			AA2 2.75 - 3.00		68.4	5.49	45.8	14.15	18.7	19.02	
			2.25-3.00	**0.75m***	**62.3**		**48**		**17.1**	**19.4**	***Hole ended in Bauxite**
AB1	2.25m	1.0m	AB1 1.00 - 1.25		56.4	13.55	48.4	14.7	14.55	19.85	
			AB1 1.25 - 1.50		36.1	10.6	52.9	11.05	10.45	23.07	
			AB1 1.50 - 1.75		30.6	10.6	47.9	15.55	12.25	21.94	
			AB1 1.75 - 2.00		23.8	12.15	43.5	19.5	14.3	20.56	
			AB1 2.00 - 2.25		24.1	12.35	46.8	16.5	13	21.36	
			1.0-2.25	**1.25m***	**34.2**		**48**		**12.9**	**21.4**	***Hole ended in Bauxite**
AB2	2.50m	1.75m	AB2 1.75 - 2.00		59.3	7.24	48.6	17.05	14.85	17.01	
			AB2 2.00 - 2.25		43.4	7.28	51	13.1	12.5	20.68	
			AB2 2.25 - 2.50		43.4	9.11	55.6	8.17	10.65	22.54	
			1.75-2.50	**0.75m***	**48.7**		**52**		**12.7**	**20.1**	***Hole ended in Bauxite**
AB3	2.50m	N/A									Hole terminated in overburden
AB4	2.25m	N/A									Hole terminated in overburden
AB5	3.0m	N/A									Kaolinitic Ironstone intersected at 2.50m
AB6	1.30m	0.75m	AB6 0.75 - 1.00		55.6	8.1	56.5	9.81	7.53	22.72	
			AB6 1.00 - 1.25		43.3	11.05	57.7	6.97	4.88	26.97	
			AB6 1.25 - 1.30		55.7	10.35	57.3	6.84	5.09	27.19	
			0.75-1.30	**0.55m***	**51.5**		**57**		**6**	**26**	***Hole ended in Bauxite at hand auger refusal**

Table 2: EPM15268 Urquhart Point Hand Auger Drilling Results cont

Auger Hole	Total Depth	Depth To Bx	SAMPLE	Interval	+1.2mm Recovery %	Moisture %	Al2O3 %	Fe2O3 %	SiO2 %	LOI %	Comment
AB7	3.40m	2.75m	AB7 2.75 - 3.00		82.1	5.47	42.5	13.1	24.6	17.23	
			AB7 3.00 - 3.25		77	5.69	45.6	12.45	18.7	20.62	
			AB7 3.25 - 3.40		55.4	6.41	51.3	11.1	11.65	23.02	
			3.25-3.40	**0.15m***	**55**		**51**		**11.7**	**23.0**	***Hole ended in Bauxite at hand auger refusal**
AB8	3.0m	2.25m	AB8 2.25 - 2.50		76.2	4.62	49	16.5	13.4	18.92	
			AB8 2.50 - 2.75		56.6	4.43	48.2	17.1	14.1	18.37	
			AB8 2.75 - 3.00		73.3	3.89	47	17.6	15.95	17.32	
			2.25-3.00	**0.75m***	**68.7**		**48**		**14.5**	**18.2**	***Hole ended in Bauxite**
AC2	3.0m	N/A									Hole terminated in overburden
AC3	2.35m	2.0m	AC3 2.00 - 2.25		88.1	8.19	44.2	19.3	17.05	16.97	
			AC3 2.25 - 2.35		62.7	8.48	47.5	17.7	12.6	19.52	
			2.25-2.35	**0.10m***	**62.7**		**47.5**		**12.6**	**19.52**	***Hole ended in Bauxite at hand auger refusal**
AC4	2.75m	2.25m	AC4 2.25 - 2.50		88.7	10.7	41.5	17.7	23	15.35	
			AC4 2.50 - 2.75		58.4	10.85	46.7	18.05	12.85	19.78	
			2.50-2.75	**0.25m***	**58.4**		**46.7**		**12.9**	**19.8**	***Hole ended in Bauxite**
AD1	1.5m	N/A									Ironstone intersected at 1.50m
AD2	1.75m	N/A	AD2 1.00 - 1.75		53.2	14.85	20.7	44.6	23.8	9.34	Pisolitic Ironstone containing minor Bx pisolites intersected at 1.50m
AD3	1.75m	N/A	AD3 1.00 - 1.50		53.9	14.75	21.7	41.9	25.9	8.9	Pisolitic Ironstone containing minor Bx pisolites intersected at 1.50m
			AD3 1.50 - 1.75		49.3	15.45	22.1	38.4	28.3	9.71	
AD4	1.25m	N/A	AD4 0.75 - 1.25		51.7	14.7	21.7	42.5	25.3	8.87	Pisolitic Ironstone intersected at 0.75m containing minor Bx pisolites
AD5	1.75m	N/A	AD5 1.75 - 2.00		80	21.3	27.8	26.6	30.7	12.73	Kaolinitic Ironstone intersected at 1.75m

Table 3: Summary of Oresome's Vrilya Bauxite Exploration Targets for Future Drilling

Project	Tenement	Target	Overview
Vrilya	EPMA25509	B1	NW extension of Government mapped laterite plateau, target covers plateau area with reconnaissance drill hole (**Pacminex** 238N264E) returning 2.4m @ 38.3% Al_2O_3 from surface incl. 0.6m @ 42.4% Al_2O_3
		B2	1.5km^2 target area highlighted by 4 reconnaissance drill holes which all returned intervals >0.6m @ 40% Al_2O_3 incl. (**Shell** VP70) 4m @ 43.4% Al_2O_3 from surface
		B3	Target covers mapped bauxite plateau containing 2 reconnaissance drill holes incl. (**SHELL** VP75) which returned 2.5m @ 43.4% Al_2O_3 from 0.5m depth
		B4	3 reconnaissance drill holes which all returned intervals ≥1.0m @ 40% Al_2O_3 incl. (**Shell** VP103) 2m @ 42.9% Al_2O_3 from 2 - 4metres depth
		B5	Target plateau area includes 4 reconnaissance drill holes which all returned intervals ≥0.6m @ 40% Al_2O_3
		B6	Target plateau extends over 6km^2 where 9 reconnaissance drill holes on nominal 600m grid all returned >40% Al_2O_3 including (**Pacminex** 637924E 8750289N) 1.8m @ 47.3% Al_2O_3 from 1.8m depth
		B7	Target highlighted by 3 reconnaissance drill holes which all returned ≥0.6m @ >40% Al_2O_3 incl. (**Pacminex** 632479E 8746968N) 2.4m @ 42.3% Al_2O_3 from 0.6m depth
	EPM15371	B8	Southern extension of RTA ML Vrilya bauxite plateau where bauxite expected to be similar to RTA ML. Reconnaissance drill hole returned 0.6m@40.3% Al_2O_3 from 1.2m depth
		B9	Southeast extension of B8 plateau, reconnaissance drill hole (**Pacminex** 370S 90E 3) returned 0.6m @ 47.3% Al2O3 from 1.2m. Target located adjacent to T16 HMS project
		B10	Southern extension of plateau hosting Targets B8 and B9 and interpreted strike extension of T16 HMS project, reconnaissance drill hole (**Pacminex** 370S 90E 14) returned 0.6m@42.4% Al_2O_3 from 0.6m depth
Vrilya East	EPMA25687	B11	Plateau area (10km^2) tested by two regional drill hole incl. (**Pacminex** 296S 608E 8) 1.6m@42.1% Al_2O_3 from 0.2m depth
		B12	Regional reconnaissance drill hole located with plateau area of ~7km^2 including 2 holes (**Pacminex** 296S 608E 12, 296S 608E 13) returning 0.6m @ >40% Al_2O_3
		B13	Extensive plateau area of ~12km^2 tested by two regional drill holes (**Pacminex** 296S 608E 1, 296S 608E 18) the first which returned an intercept of 1.2m@43.3% Al_2O_3 from 0.6m depth

URQUHART POINT PROJECT – JORC CODE TABLE 1 (SECTION 1 AND 2)

The information provided in this table provides background information and details relating to the exploration activities undertaken within EPM15268 Urquhart Point and discussed in this release.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (e.g. 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.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Hand auger drill samples were taken at every 0.25 metre interval using a shell auger and collected by augering to the depth required (wherever possible) and then pulling the rods out to retrieve the sample from the shell. • To maintain representivity, the auger rods were marked at 0.25 metre intervals to ensure correct sample depths and the auger rods and shell cleaned thoroughly between each sample. A plastic bag was placed under the auger for each sample and the material caught in the shell collected for each interval. • All materials recovered from the auger were logged in the plastic bags and samples for analysis placed in a white polywoven sack for dispatch to the laboratory. • A small representative sub-sample (approx. 50g) was randomly selected for each 0.25 metre interval and stored in a plastic sample tray as a reference.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• Drill type was by auger (approximately 90mm diameter), manually drilled in and pulled out. Only one auger hole AB1 intersected the water table at which point augering ceased.
Drill sample	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative*	• Weights of material varied depending on moisture content (dry to moist or wet). Weights were not measured in the field and accurate recoveries are not determined due to the reconnaissance nature of the program. • Every attempt was made to maximize recovery for each drilled metre by

Criteria	JORC Code explanation	Commentary
recovery	*nature of the samples.* • *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.*	collecting each sample from the auger shell immediately when pulled from the hole. • It is considered that bias did not occur due to preferential loss of material. However some gain may have occurred due to contamination of the bauxite horizon by overburden soil/sand. If the case then this is likely to have resulted in an adverse bias i.e. silica sand contaminating and overstating adversely the silica content of the bauxite sample.
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.*	• The sampled 0.25 metre intervals were logged in detail and where considered relevant internal boundaries were noted. The level of detail required for this assessment was considered more than adequate for this reconnaissance exploration drilling program. • Logging included visual estimates of pisolitic bauxite concentration and pisolite size and nature. • A total of 157 samples representing each 0.25 metres of drilling were logged.
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.*	• The samples represented bauxite samples collected from a shell auger. • The samples were taken off the shell auger at the in-situ moisture content. • The samples were extracted off the auger adopting a method that is appropriate for bauxite for every 0.25 metre drilled. The sample extraction was carried out by a geologist / Competent Person. • Measures to avoid sample contamination and make sure sample representivity occurs were top priority. • No field duplication of samples was conducted due to the reconnaissance nature of this program. • The sample sizes from the field are appropriate being in the order of 2 kg each.
Quality of assay data and laboratory tests	• *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 the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*	• The samples were dispatched to and received by ALS laboratory in Brisbane. The samples were prepared for assay through the standard method of sorting, drying, and splitting down to approximately 1kg sizes and residues retained. The samples were weighed, dried, screened to separate the undersize (<1.2mm) and split to 50g fractions for total oxide analysis. • No geophysical tools have been used in analysis because it was not considered necessary for the intended outcome of this sampling program. • A standard methodology was applied for mineralogy determination. XRF analysis and H2O/LOI by TGA furnace was performed by ALS Brisbane. • In the laboratory as a Quality Control measure, every 10th sample was completed in duplicate and four laboratory standards and one blank were run in conjunction with the samples and data reported to Metallica.

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• This has been a reconnaissance exploration program to determine the presence or not of mineralisation and the data received was not intended for resource estimation purposes. • No twinned holes were used due to the early stage of this investigation into assessing the presence of mineralisation. • Documentation of the primary data will be included in a report detailing the reconnaissance program with data developed and tabulated in spreadsheets and document files held by the Competent Person and the host company. • There is no planned adjustment to assay data.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The drill collars were located by hand held GPS considered to have an accuracy of ± 4 m. • The system used was GDA94 Zone 54L. • The base topographic control is the local 1:50,000 topographic maps (Weipa and Winda Winda Creek) which is adequate to identify overall and specific locations.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• The drill holes were spaced at a nominal 600m spacing. • The aim of the program was to determine the presence or not of what appears to be significant bauxite mineralization for later delineation and possible resource drilling. The spacing was adequate for this purpose. • Samples representing 0.25 metre intervals for each bauxite interval in each drill hole were selected for analysis. No compositing of the logged bauxite intervals occurred.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Considering the deposit type the sampling has shown the presence of broad zones of continuity of mineralisation in an unbiased manner. The mineralisation is regarded as horizontal due to the nature of the style of deposit and as the holes are vertical all intercepts are regarded as having True Width •
Sample security	• *The measures taken to ensure sample security.*	• The samples were bagged into white polywoven sacks and stored in a locked shed, then palleted and shrink wrapped for shipment. It is considered that due to the style (bauxite) and the value of the mineralisation potential, interference was extremely remote.
Audits or	• *The results of any audits or reviews of sampling techniques and data.*	• A detailed review of the sample protocols has not been carried out as this is a reconnaissance exploration program not leading to resource estimation.

Criteria	JORC Code explanation	Commentary
reviews		

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *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.*	• Urquhart Point EPM15268 is held by Oresome Australia Pty Ltd, some 5 km west of the township of the Weipa on the western side of Cape York. There are no joint venture agreements, no historical sites and there is an agreement with the local Indigenous Groups represented by the Wik and Wik Way. The area is covered by the Cape York Regional Plan (CYRP). • EPM15268 is unaffected by the current Cape York Regional Plan. The regional tenements including the Vrilya area are currently not affected by the CYRP.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Previous exploration for bauxite has been limited to regional exploration traverses and sampling in the 1950's by Comalco as part of their Cape York Peninsula Reconnaissance program. While mention is made in the available QDEX reports of scout drilling and reconnaissance sampling there are no details on the location or results of this work and whether it included the area under EPM15268.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The target is bauxite laterite with >40% alumina content and average bulk silica < 20%.
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:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *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*	• There were 18 vertical auger holes, drilled to a maximum (limit of drill capacity) depth of 3.4 metres (averaging 2.4 metres) in 4 target areas within EPM15268. • Although regarded as inaccurate, the average RL of all collars from the hand held GPS was 12 m above sea level and this generally fits when comparing to the 1:50,000 Weipa and Winda Winda Creek topographic maps. • It is considered not pertinent to include all of the collar RLs and depths for the 18 holes for what is a preliminary reconnaissance mineral exploration program, however the Urquhart Point exploration target area is bounded by Eastings 583,000E and 590,500E and Northings 8,581,200N and 8,597,000N.

Criteria	JORC Code explanation	Commentary
	clearly explain why this is the case.	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• Samples were collected in the field representing each 0.25 metre in the drill hole. A total oxide analysis for each sample was derived through standard XRF laboratory analyses. • No weighting, maximum and/or minimum truncations or cut-off grades have been applied. • No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation 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 should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• Mineral relationships will be reported as they are identified. • The mineralisation is regarded as horizontal due to the nature of the style of deposit and as the holes are vertical all intercepts are regarded as having True Width. • The down hole depths are True Widths.
Diagrams	• *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.*	• A drill hole location map and bauxite intercept table are included as Figure 3 and Table 2 in this release.
Balanced reporting	• *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.*	• Representative reporting of both low and high grade results are reported (See Table 2 in this release).
Other substantive exploration data	• *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.*	• The site was identified because of its recognised proximity to known bauxite deposits within the adjoining Rio Tinto ML and the desk-top mapping of potential bauxite plateau features in satellite image studies. The regional exploration project area covers an area between Weipa and Bamaga near the tip of Cape York Peninsula (a distance of approximately 300 km) an area well known for major bauxite deposits predominantly covered by large mining leases held by Rio Tinto.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions,*	• It is planned that further drilling will be carried out later in 2014. • Follow-up drilling will include areas already drilled and their strike extensions.

Criteria	JORC Code explanation	Commentary
	including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	

VRILYA AND VRILYA EAST PROJECTS - JORC CODE 2012 TABLE 1 (SECTIONS 1 AND 2)

The information provided in this table provides background information, where available, relating to previous exploration activities undertaken within the areas of the Vrilya and Vrilya east projects where Metallica has identified a number of Exploration Targets for bauxite. By definition of JORC 'An Exploration Target is a statement or estimate of the exploration potential of a mineral deposit in a defined geological setting where the statement or estimate, quoted as range of tonnes and a range of grade (or quality), relates to mineralization for which there has been insufficient exploration to estimate a Mineral Resource.'

The Vrilya and Vrilya East project areas have been intermittently explored since the 1950's with the most detailed and relevant work, and most comprehensively reported work used in the estimation of the Exploration Targets, being undertaken by Pacminex in 1971-1972 (Pacminex Pty Ltd – Altarama Search Pty JV) and Shell in 1982-1983 (Shell Company of Australia – Maximal Mining Corporation Pty Ltd JV).

JORC CODE, 2012 EDITION – TABLE 1 REPORT TEMPLATE

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary

Sampling techniques	• *Nature and quality of sampling (e.g. 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.*
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*
	• *Aspects of the determination of mineralisation that are Material to the Public Report.*
	• *In cases where 'industry standard' work has been done this would be relatively simple (e.g. '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*
		• Pacminex
		  • Vacuum drill samples collected at 2 foot (61cm) intervals.
		• Shell
		  • Spiral auger with chevron bit samples collected at 50cm intervals.

Criteria	JORC Code explanation	Commentary
	there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	

Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).*	• Pacminex
		  • Vacuum drilling (approximately 50 mm diameter) on a 1,800 x 1,800 foot (550 x 550 metre) grid over plateaus considered prospective and scout vacuum drilling on plateaus considered less prospective at a spacing ranging between ½ to 2 miles (800 – 3200 metres) depending on access and topography. Where sampling below the water table was required a bucket auger (100mm diameter) was used. This drilling was undertaken on plateaus which lie both within and outside Oresome's current EPM's.
		• Shell
		  • Spiral auger using a chevron bit (100mm diameter). Maximum attainable depth with the spiral auger was 7.2 metres. The drilling depth constraint of 7.2m did not significantly impact the efficacy of the program as most holes intersected weathered bedrock with only ~10% of the holes ending in pisolitic bearing material. A total of 151 holes, drilled within and outside of Oresom's current EPM's, were drilled at a nominal spacing of 550m to test new potential bauxite areas, areas previously identified by Pacminex in the 1970's and the largest and highest elevation plateau within their tenement.

Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.*
	• *Measures taken to maximise sample recovery and ensure representative nature of the samples.*
	• *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.*
		• Pacminex
		  • Drill sample recovery details and characteristics from the vacuum and bucket auger drilling were not described in the available Queensland Digital Exploration Reports (QDEX).
		  • Prior to commencing grid based drilling Pacminex undertook an orientation program, to determine the most suitable drilling technique, comparing vacuum drilling (50mm and 76mm), auger drilling (76mm and 152mm) and bucket auger drilling (100mm). As a result of this work Pacminex adopted vacuum drilling of a 50mm hole as the standard drilling method as it was faster, easier to determine the limits of the laterite profile,

Criteria	JORC Code explanation	Commentary
		could adequately penetrate cemented bauxite and returned samples of a comparable quality to the other methods trialed. • Shell • Drill sample recovery details and sample characteristics from the spiral auger drilling were not described in the available QDEX reports. Sample preparation methodology is described below under Sub-sampling techniques and sample preparation. • At commencement of the drilling program Shell used a 100mm diameter sampling bucket but this was found to be unsatisfactory due to grinding of pisolites and slow penetration rates and the program was completed with the spiral auger.
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.*	• Pacminex • Geological drill logs were not provided in the available QDEX reports. The reports do describe the general occurrence and nature of the bauxite within the areas tested but this is not specific to individual drill holes. • Shell • Details of the logging procedures were not detailed in the available QDEX reports. Descriptive logs including the geological description for each interval drilled and sampled were provided in summary log sheet form along with assay data for each hole drilled. This logging included 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.*	• Pacminex • Samples were collected from a vacuum drill at 2 foot (61cm) intervals. Orientation screen testing work using 10, 16 and 25 mesh sieves (2mm, 1.19mm and 0.7mm respectively) determined that the greatest beneficiation of the bauxite occurred in the +16 mesh fraction of screened samples. Subsequent samples were dried and screened at 16 mesh sieve (1.19mm) and a sample of the +16 mesh fraction prepared for analysis. Further detail on the sample preparation

Criteria	JORC Code explanation	Commentary
	• *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.*	is not provided in the available QDEX reports. • Shell • Samples were collected from a spiral auger drill at 50cm intervals and sun dried and split on site and then processed in a field sample preparation facility by Comlabs Pty Ltd. One sample split was retained in storage and the other weighed, screened with a 1.00mm sieve, the plus 1mm and -1mm material weighed and the +1mm sample pulverised to +/- 50 mesh and +/-100g dispatched for analysis at Comlabs. Approximately 15%of the -1mm samples were also pulverised to +/- 50 mesh and +/- 100g analysed at Comlabs.

Quality of assay data and laboratory tests	• *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 the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.*
	• *Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*
		• Pacminex
		  • Analytical determinations were carried out at CSR Laboratories, Sydney. Alumina, total silica, iron and titanium contents were determined by X-Ray Fluorescence Spectrometry. Reactive silica was determined by wet chemical means. Quartz content was calculated as the difference between total and reactive silica and Loss on Ignition (LOI) determined as the loss of weight after heating a sample to 1000 degrees celsius for one hour.
		  • No QA/QC practices were described in the available QDEX reports.
		• Shell
		  • Analytical determinations were carried out by Comlabs Pty Ltd. Total alumina, silica iron, titanium and LOI was determined on all samples. In addition quartz content was measured on approximately 45% of the +1mm samples.
		  • No QA/QC practices were described in the available QDEX reports.

Verification of sampling	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.*	• Shell's program of drilling sought to verify the Pacminex data over the area tested and identified as being potential bauxite deposits by Pacminex and to also appraise the potential of lateral plateau extensions to that work. Shell's program included

Criteria	JORC Code explanation	Commentary
and assaying	• *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• drilling coincident drill sites to Pacminex where, based on the results of 14 coincident holes where 3 holes returned marked differences, Shell reported that the greatest differences were attributable to drill hole positional error; • drilling coincident drill sites to those drilled but apparently not assayed by Pacminex where, based on the results of 32 holes drilled of which 4 holes returned 'grade' intervals above the Pacminex cut-off (40% total alumina), Shell reported the possible contributing factors to not highlighting these areas as possible drill hole positional error or delays in Pacminex receiving assay data prior to completing its exploration results reporting and/or misjudgment by exploration personnel; • drilling sites not drilled by Pacminex where 18 holes were drilled and 3 holes intersected pisolitic intervals assaying greater than 40% total alumina. • Pacminex data used to identify Exploration Targets has been compiled from scanned copies of poor quality paper plans which provided the location of drill holes and the total alumina contents of the sampled intervals for drill hole assays. Complete assay data for all the drill holes is not provided in the available QDEX reports. Summary assay data for all intersections > 6 feet (1.8m) and averaging > 40% total alumina and < 10% reactive silica was provided, however this information did not consistently include results for drill holes in those areas identified as Exploration Targets in this study. • Shell data used to identify Exploration Targets has been compiled from scanned copies of good quality paper plans which located the drill holes, geological log sheets which included assay results, sample weights, screen results and geological characteristics data. • The data has been compiled into excel spreadsheets for analysis and validation.
Location of data points	• *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.* • *Specification of the grid system used.*	• Pacminex • Drill collars were located on a 1,800 x 1,800 foot (~550m x 550m) grid using survey control that provided by a combination of chain line and pegging along bulldozed tracks, cross lines pegged by survey crews and compass and vehicle odometer reading from cleared and pegged survey points which were

Criteria	JORC Code explanation	Commentary

	• *Quality and adequacy of topographic control.*	established by clearing and pegging bulldozed lines at 5,400 feet (1.65km) intervals. The reconnaissance drill holes were positioned by grid reference from the above grid using surveyed and pegged bulldozer tracks. The point of origin for this grid and the topographic control is not described.
		• Shell
		  • All drill holes were located along the existing Pacminex gridlines or extensions to these lines.
		  • Drill hole locations have been compiled in excel spreadsheets using the coordinate system GDA94 Zone 54L.

Data spacing and distribution	• *Data spacing for reporting of Exploration Results.*
	• *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.*
	• *Whether sample compositing has been applied.*
		• Pacminex
		  • The exploration program objective was directed towards general investigation of the bauxite potential of the area.
		  • Drill holes were drilled on a 1,800 x 1,800 foot (550 x 550 metre) grid over plateaus considered prospective and scout vacuum drilling on plateaus considered less prospective at a spacing ranging between ½ to 2 miles (800 – 3200 metres) depending on access and topography.
		  • Samples representing 2 foot (0.61m) intervals for each bauxite interval in each drill hole were selected for analysis. No description of the sample selection procedure or compositing of the logged bauxite intervals was reported.
		• Shell
		  • The exploration program objective was stated as identifying a bauxite deposit (s) that could support a profitable mining operation.
		  • Drill holes were drilled on a nominal 550m grid spacing along Pacminex gridlines.
		  • Samples representing 50cm intervals for each bauxite interval in each drill hole were selected for analysis. No description of the sample selection procedure or compositing of the logged

Criteria	JORC Code explanation	Commentary
		bauxite intervals was reported. • No Mineral resource or Ore Reserve calculations have been reported in this release.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Pacminex and Shell • Considering the deposit type the sampling has shown the presence of broad zones of continuity of mineralisation in an unbiased manner. The mineralisation is regarded as horizontal due to the nature of the style of deposit and as the holes are vertical all intercepts are regarded as having True Width.
Sample security	• *The measures taken to ensure sample security.*	• Pacminex and Shell • No chain of custody was documented in the available QDEX reports for either the Pacminex or Shell samples.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• A detailed review of the sample protocols has not been carried out as the information required is not documented in the available QDEX reports.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *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.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the*	• Pacminex • Exploration by Pacminex was undertaken between 1971/2 in JV with Altarama Search Pty over an area of 2859 square miles (4,601 square kilometres) of northern Cape York. The project area comprised of 9 Authorities to Prospect, A to P 818M, 827M, 828M, 941M, 942M, 943M, 955M, 985M, 990M granted to Altarama.

Criteria	JORC Code explanation	Commentary
	area.	• Shell • Exploration by Shell was undertaken between 1982/3 in JV with Maximal Mining Corporation Pty Ltd over an area of 189 sub-blocks in northwest Cape York. The project area comprised of 2 Authorities to Prospect, A to P 2894M and 2895M granted to Maximal on the 16th February 1981.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration of the general area was first undertaken as part of the regional Cape York reconnaissance bauxite mapping and sampling program conducted by H. Evans in 1956/7. Subsequently the immediate area of Vrilya Point was held under ATP 28 by Commonwealth Aluminium Laboratories Ltd which is now ML7024 held by Rio Tinto Aluminium. While available QDEX reports mention reconnaissance sampling and scout drilling there are no details on either the location or the results to confirm the areas subsequently explored by Pacminex and Shell were assessed by that work.

Geology	• *Deposit type, geological setting and style of mineralisation.*	• Pacminex
		  • The exploration program objective was directed towards general investigation of the bauxite potential of the area.
		• Shell
		  • The exploration program objective was stated as identifying a bauxite deposit (s) that could support a profitable mining operation.

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.*
		• **See table in Appendix 1 attached below**

Criteria	JORC Code explanation	Commentary
	• *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.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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.*	• No weighting, maximum and/or minimum truncations or cut-off grades have been applied in this release. • The Exploration Targets identified in this release are identified as laterite plateau areas where previous exploration had identified bauxite mineralization intercepts in drill holes returning ≥40% total alumina. • No aggregate intercepts are stated. • No metal equivalent values are used.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation 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 should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	• The mineralisation is regarded as horizontal due to the nature of the style of deposit and as the holes are vertical all intercepts are regarded as having True Width. • The down hole depths are True Widths.
Diagrams	• *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.*	• The release is describing the identification of Exploration Targets for future follow-up drilling and no significant discovery is being reported in this release. The locations of the identified Exploration Targets discussed in this release are shown on Figures 1, 2, and 4 and the previous exploration drill holes tabulated in Appendix 1 of this table.
Balanced reporting	• *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.*	• The Exploration Targets identified in this release are identified as laterite plateau areas where previous exploration had identified bauxite mineralization comprising >40% total alumina. Where lower grade mineralization was reported those holes and an area of influence equivalent to half the distance between drill holes surrounding the mineralized hole has been excluded from the identified Exploration Target areas and as a result are not reported in this release.

Criteria	JORC Code explanation	Commentary
Other substantive exploration data	• *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.*	• The area of Vrilya and Vrilya East Projects was targeted due to its recognised proximity to known bauxite deposits within the adjoining Rio Tinto ML and the desk-top identification of potential bauxite plateau features in satellite image studies. The regional exploration project area covers an area between Weipa and Bamaga near the tip of Cape York Peninsula (a distance of approximately 300 km) an area well known for major bauxite deposits predominantly covered by large mining leases held by Rio Tinto.
Further work	• *The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• It is planned that further drilling will be carried out later in 2014. • Follow-up drilling will focus on the Exploration Targets identified and include further drilling in areas already drilled and their strike extensions.

Appendix 1: Information on Material drill holes.

COMPANY	HOLE_ID	EAST MGA94	NORTH MGA94	TOTAL DEPTH	RL	DIP	DATE DRILLED	INTERVAL FROM METRES	INTERVAL TO METRES	INTERVAL METRES	TOTAL AL2O3
PACMINEX	112N 323E	634164	8763544	ND	ND	-90	1971	2.4	3.0	0.6	40.3
PACMINEX	112N 341E	634720	8763543	ND	ND	-90	1971	1.8	3.0	1.2	44.4
PACMINEX	238N 264E	632570	8767396	ND	ND	-90	1971	0.6	1.2	0.6	42.4
PACMINEX	296S 10	651094	8755923	ND	ND	-90	1971	0.6	1.2	0.6	40.6
PACMINEX	296S 464E	638487	8750849	ND	ND	-90	1971	1.2	1.8	0.6	40.6
PACMINEX	296S 500E	639628	8750850	ND	ND	-90	1971	1.8	3.0	1.2	42.1
PACMINEX	296S 608E 1	644606	8749818	ND	ND	-90	1971	0.6	1.8	1.2	43.3
PACMINEX	296S 608E 12	643031	8752949	ND	ND	-90	1971	0.6	1.2	0.6	42.1
PACMINEX	296S 608E 13	642187	8754365	ND	ND	-90	1971	1.2	1.8	0.6	40.0
PACMINEX	296S 608E 18	647690	8748155	ND	ND	-90	1971	1.2	1.8	0.6	40.1
PACMINEX	296S 608E 8	649963	8751753	ND	ND	-90	1971	0.2	1.8	1.6	42.1
PACMINEX	314S 464E	638468	8750291	ND	ND	-90	1971	2.4	3.0	0.6	41.8
PACMINEX	332S 464E	638433	8749761	ND	ND	-90	1971	0.6	1.2	0.6	40.6
PACMINEX	356S 446E	637928	8749193	ND	ND	-90	1971	3.0	3.7	0.6	45.8
PACMINEX	368S 464E	638468	8748690	ND	ND	-90	1971	0.2	1.2	1.0	48.6
PACMINEX	368S 464E	638468	8748690	ND	ND	-90	1971	0.2	1.8	1.6	43.8
PACMINEX	370S 90E 14	627532	8743428	ND	ND	-90	1971	0.6	1.2	0.6	42.4
PACMINEX	370S 90E 3	625487	8747726	ND	ND	-90	1971	1.2	1.8	0.6	47.3
PACMINEX	ND	636892	8761287	ND	ND	-90	1971	1.7	2.4	0.8	41.1
PACMINEX	ND	635179	8751895	ND	ND	-90	1971	1.8	2.4	0.6	40.1
PACMINEX	ND	635179	8751345	ND	ND	-90	1971	0.6	1.2	0.6	41.4
PACMINEX	ND	635196	8750807	ND	ND	-90	1971	1.1	1.8	0.7	40.4
PACMINEX	ND	635185	8750298	ND	ND	-90	1971	1.2	1.8	0.6	41.2
PACMINEX	ND	636832	8750818	ND	ND	-90	1971	1.8	3.7	1.8	44.1
PACMINEX	ND	637420	8750826	ND	ND	-90	1971	3.0	4.9	1.8	43.3
PACMINEX	ND	637924	8750289	ND	ND	-90	1971	1.8	3.7	1.8	47.3
PACMINEX	ND	631897	8748065	ND	ND	-90	1971	0.6	1.2	0.6	40.4
PACMINEX	ND	631890	8747490	ND	ND	-90	1971	1.2	1.8	0.6	40.4
PACMINEX	ND	632479	8746968	ND	ND	-90	1971	0.6	3.0	2.4	42.3
PACMINEX	ND	625372	8751355	ND	ND	-90	1971	1.2	1.8	0.6	40.3
SHELL	VP102	635620	8753913	7.2	ND	-90	OCT-NOV-1982	4.8	5.8	1.0	40.7
SHELL	VP103	635620	8754163	6.5	ND	-90	OCT-NOV-1982	2.0	4.0	2.0	43.0
SHELL	VP104	635620	8754413	5.9	ND	-90	OCT-NOV-1982	0.9	1.9	1.0	43.6
SHELL	VP70	634620	8764013	6.5	ND	-90	OCT-NOV-1982	0.0	4.0	4.0	43.5
SHELL	VP75	636270	8760713	5	ND	-90	OCT-NOV-1982	0.5	3.0	2.5	41.0
Note: ND - No data in available in QDEX reports											