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DISCOVERY OF NEW EUCLA BASIN HEAVY MINERAL BROWNFIELD RESOURCE

Iluka Resources Limited (Iluka) announces an Inferred Mineral Resource for the Sonoran heavy mineral (HM) deposit in the Eucla Basin, South Australia. Sonoran is located approximately 9 kilometres south east of Iluka's Jacinth-Ambrosia mining and concentrating operation (Figure 1). The resource addition is an encouraging result in Iluka's brownfield exploration efforts, and along with Typhoon and Atacama, is within an expected tie in radius of the Jacinth-Ambrosia infrastructure.

The discovery provides an Inferred Mineral Resource of 2.2 million tonnes of HM, estimated in accordance with the guidelines outlined in the JORC Code (2004) for the reporting of Exploration Results, Mineral Resources and Ore Reserves.

With the additional 4.46 million tonne net increase in the Eucla Basin Mineral Resources announced on 23 February 2012[1], the addition of Sonoran will take the total Eucla Basin HM resource to 20.53 million tonnes.

The Sonoran deposit has an ilmenite-dominated HM assemblage with an ilmenite content of 67 per cent and a zircon content of 17 per cent (refer Table 1).

Doug Warden, Iluka's General Manager of Exploration and Resource Development, stated: "The Sonoran discovery is a significant resource addition following on from the Atacama discovery a year ago.[2] Together, Sonoran, Atacama and Typhoon deposits add 11.3 million tonnes of HM, more than doubling the original resource at Jacinth and Ambrosia of 9.5 million tonnes of HM. Notwithstanding the lower zircon content of these satellite deposits (one third that of Jacinth-Ambrosia) at the current mining rate of 1000tph, these deposits may be able to extend the Eucla Basin mine life by more than 10 years."

"Exploration in 2012 will continue to focus on the brownfields area within 15 kilometres of Jacinth-Ambrosia and on several prospective greenfields targets within the Eucla Basin."

As part of Iluka's enhanced production project (EPP), Iluka is investigating the potential for the development of multiple resources within the Iluka inventory. This work includes the Eucla Basin deposits of Tripitaka, Atacama and Typhoon. It is likely that Sonoran will be included within this regional development scoping work.

Information on the Sonoran Deposit

The Sonoran deposit is located approximately 200 kilometres north west of Ceduna and approximately 9 kilometres south east of Jacinth-Ambrosia, on EL 3638 (100 per cent Iluka owned).

[1] Refer Iluka ASX release – Ore Reserves and Mineral Resources Increases, 23 February 2012.
[2] Refer Iluka ASX release – Additional Eucla Basin Brownfield Resource, 28 January 2011.

At a 3 per cent HM cut-off grade, the Sonoran deposit is approximately 2 kilometres long, up to 1.5 kilometres wide and 20 metres thick with 20 metres to 45 metres of sedimentary overburden. The entire Sonoran resource lies above the water table.

Grid based drilling conducted during 2011 has provided data for geological modelling of the deposit. From this an Inferred Mineral Resource estimate has been prepared, comprising 30 million tonnes of mineralised material including 2.2 million tonnes of HM above a cut-off grade of 3 per cent HM. The Sonoran deposit has combined ilmenite and leucoxene of 67 per cent and zircon content of 17 per cent with the average sizing for the HM at approximately 120 microns. The clay content is low at 8 per cent. The summary resource estimate is presented in Table 1 below and a discussion of the resource modelling is presented in Attachment 1.

Table 1 April 2012 Sonoran Mineral Resource (>3% HM cut-off grade)

Mineral Resource Category	Material Tonnes (Million)	In Situ HM Tonnes (Millions)	HM (%)	Clay (%)	HM Assemblage		
					Ilmenite *(%)	Zircon (%)	Rutile (%)
Inferred	30.1	2.2	7.3	8	67	17	2

*Includes leucoxene, which is a high grade titanium feedstock .

The resource estimation was based on samples collected from infill drilling of the deposit. This was completed using vertical holes on 8 drill sections spaced at approximately 400 metres along the strike length and at 100 metre to 200 metre spacing across the width of the deposit. All samples used in the resource estimate were collected at 1 to 1.5 metre intervals down hole.

Further details on the preparation of the resource estimate are presented in Attachment 1.

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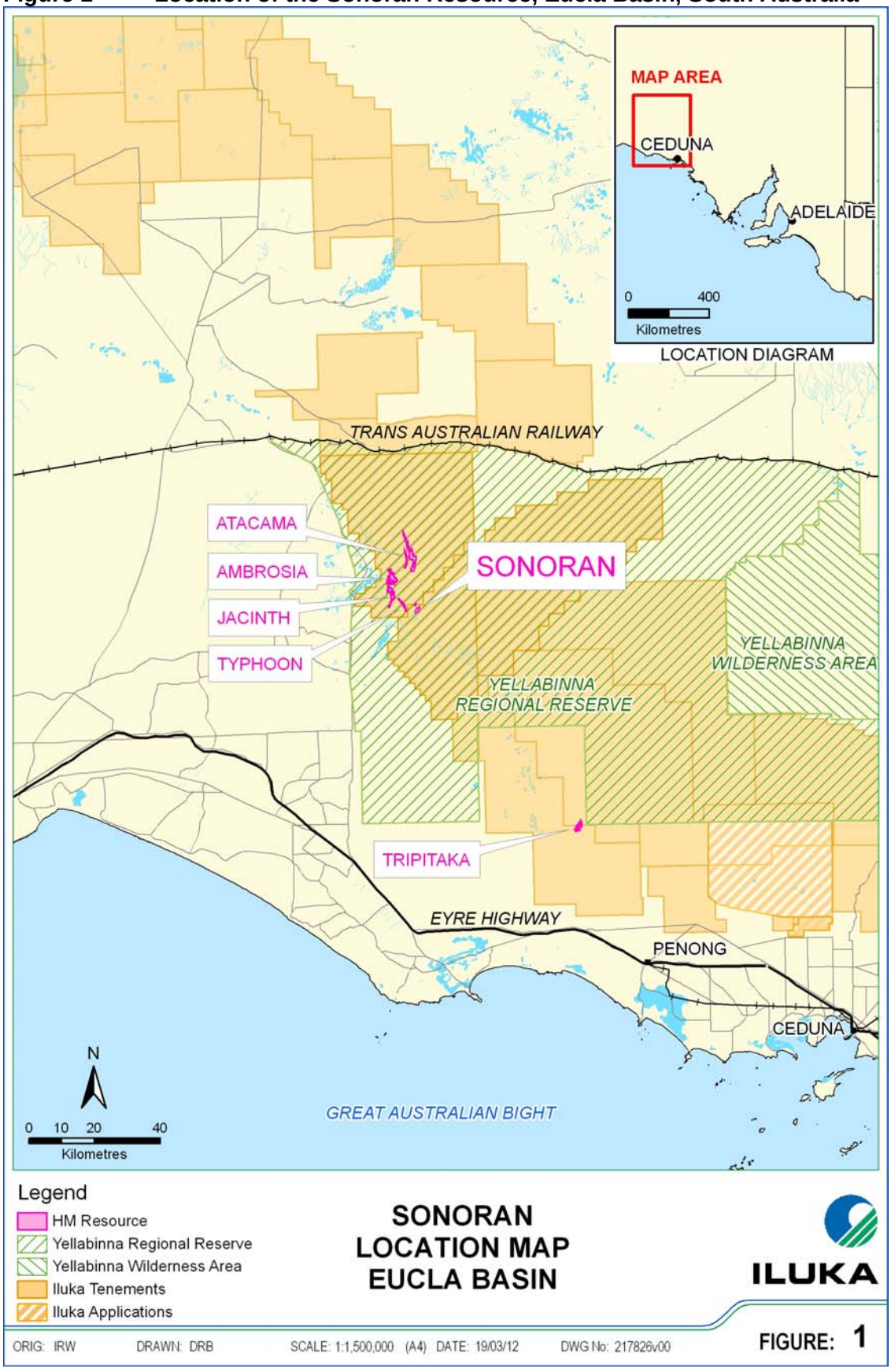
Figure 1 Location of the Sonoran Resource, Eucla Basin, South Australia



Attachment 1 – Sonoran Inferred Mineral Resource

Background

The Sonoran deposit is located 9 kilometres south east of Iluka's Jacinth-Ambrosia mineral sands mining and concentrating operations in South Australia. Sonoran was discovered during Iluka's brownfield exploration programme in 2011 (Figures 1 & 2). The programme targets mineral sands deposits that may be able to utilise existing infrastructure and potentially extend the current life of mine.

The Sonoran deposit is hosted in unconsolidated aeolian dune and underlying beach sands within the Ooldea Range. The geological character of Sonoran is similar to the nearby Atacama deposit, containing no significant clay or rock and situated above the water table.

One drill section is presented in Figure 3; showing 1 per cent and 3 per cent mineralised boundaries and a summary of significant drill intersections greater than 3 per cent HM appear in Table 2.

Work was conducted during 2011 and 2012 to prepare a Mineral Resource estimate in accordance with the JORC Code (2004). The current resource estimate will be included as part of Iluka's Mineral Resource inventory as of 2012.

The infill drilling of the deposit was undertaken using vertical NQ diameter air core drilling, with holes spaced from 100 metres to 200 metres apart across strike and drilled on 8 lines spaced at approximately 400 metres apart along strike. Down hole sampling was conducted at 1 to 1.5 metre intervals and samples were selected for assay on the basis of visual estimates of greater than 0.5 per cent HM.

Drill hole collar co-ordinates at Sonoran have been recorded utilising hand held GPS equipment. The QA/QC data from 2011 drilling and sampling programmes was assessed as part of the resource estimation process, and this included exploration blind standards, laboratory standards and field and laboratory duplicate analyses. Samples collected in the field were transported to Iluka's Hamilton laboratory where they were analysed using company standard heavy media separation (Lithium Heteropolytungstate) at a density of 2.85 grams per cubic centimetre) for HM. Clay and oversize fractions were screened at sizes of minus 53 micron and plus 2.0 millimetre respectively.

A total of 41 mineral composites were selected across all mineralised sections for mineralogical analysis. Mineral assemblage data was obtained by compositing the heavy mineral fraction of individual samples from similar geological horizons and then conducting a magnetic separation (Permroll Magnet), heavy media fractionation (Thallium Malonate Formate 3.85 to +4.38 grams per cubic centimetre) and X-ray Fluorescence analysis.

Geological Modelling

A geological resource model has been prepared for the Sonoran deposit using Datamine Studio mining software. Geological interpretations used to constrain the modelling were prepared by company geologists. The resource estimate was derived from a 3 dimensional block model constructed using geological and mineralogical domain constraints as per normal company practice. Industry standard block estimation techniques (Inverse Distance weighting) were used to interpolate grades into the model. The bulk density for the resource was estimated using the Iluka standard bulk density formula based on operational experience gained from mining this style of mineralisation.

Model cells were sized appropriately to provide a balance between representative geological and grade continuity and geostatistical volume variance.

The estimation of the mineral resource tonnes and grade was undertaken using a cut-off of 3 per cent HM and based on:

- statistical evaluation of the HM strand sample data;
- current operational practices for dry mining and concentrating HM strand mineralisation;
- consideration of mineralisation thickness vs. overburden ratios;
- the potential mining and extraction methodology; and
- the reasonable prospects for eventual economic extraction as determined by the Competent Person.

The Sonoran resource has been classified as Inferred, and reported in accordance with the JORC Code guidelines (2004), based on:

- drill hole spacing and sampling density;
- established geological continuity; and
- the level of confidence in the HM and mineralogical grade continuity established by the Competent Person.

The information in this report that relates to Mineral Resources is based on information compiled by Ian Warland who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Warland is a full time employee of Iluka and has sufficient experience which is relevant to the style of mineralisation and the type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr Warland consents to the inclusion in this report of the matters based on their information in the form and context in which it appears.

Figure 2 **Sonoran Resource Outline and Section Location, Eucla Basin, South Australia**

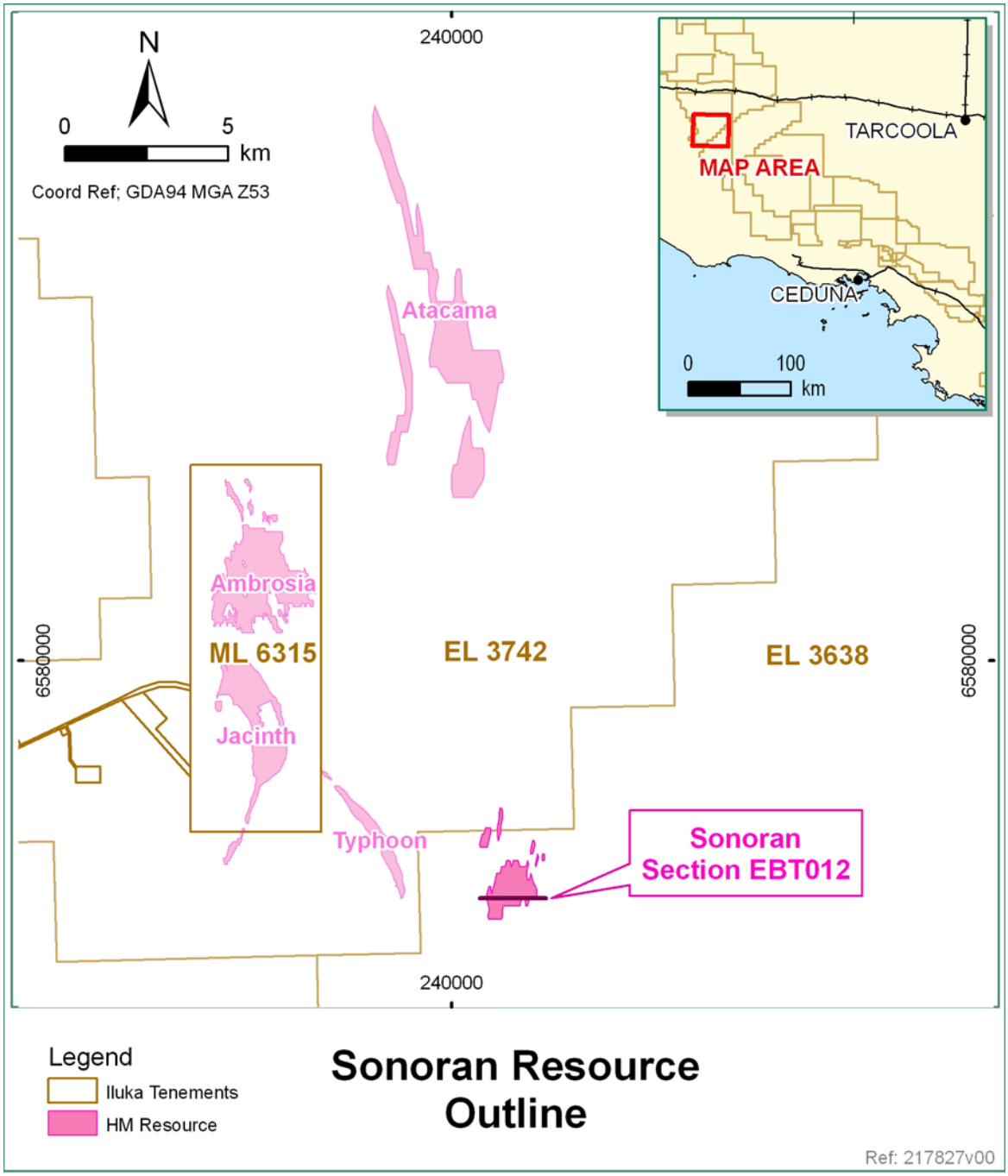


Table 2 **Summary of drilling results from intersections with >3%HM on Line EBT012.**

Hole ID	From (metres)	To (metres)	Interval (metres)	HM (%)	Clay (%)
YE4125	48.0	49.5	1.5	8.0	7
YE4126	48.0	52.5	4.5	8.0	7
YE4127	49.5	55.5	6.0	8.2	8
YE4128	46.5	55.5	9.0	9.4	7
YE4129	45.0	52.5	7.5	10.5	8
YE4130	30.0	49.5	19.5	6.3	11
YE4131	40.5	49.5	9.0	8.8	10
YE4132	37.5	46.5	9.0	8.3	9
YE4133	34.5	45.0	10.5	9.4	8
YE4134	39.0	54.0	15.0	5.6	8
YE4135	46.5	57.0	10.5	8.7	8
YE4136	48.0	58.5	10.5	7.5	9
YE4137	48.0	58.5	10.5	6.5	6
YE4138	46.5	55.5	9.0	7.3	6
YE4139	43.5	51.0	7.5	4.4	6
YE4140	43.5	54.0	10.5	6.4	6
YE4141	42.0	49.5	7.5	4.4	5
YE4142	42.0	45.0	3.0	5.3	6

Figure 3 **Summary drill section through the Sonoran resource (Line EBT012) highlighting the >3%HM core within the >1%HM envelope. Values do not include the small areas >3%HM that lie above the main orebody.**