

## QUARTERLY REPORT – DECEMBER 2014

### HIGHLIGHTS

- **Initial drill programme completed at the Eginbah iron ore prospect at the Talga iron ore project in the East Pilbara Western Australia.**
- **Continued assessment of new projects on a worldwide basis**

### EGINBAH IRON ORE PROSPECT

During the Quarter the Company completed an 8 hole, 812 metre RC drilling programme at the Eginbah iron ore prospect designed to test a 400 metre long outcropping massive goethite horizon. Sampling along this well-defined horizon returned assays up to 61.25% Fe.

The aim of the programme was to define a high grade (60% Fe) DSO iron ore resource.

The drilling confirmed the existence of a stratigraphically conformable northerly dipping Lode style of iron ore mineralisation down to a vertical depth of 139 metres and downhole widths up to 17 metres. The Fe grades were however disappointing with a best intercept of 14 metres @ 56.79% Fe from 31 metres in hole EGRC003. Intercepts above or equal to 50% Fe are presented in Table 2.

The results from the initial drilling programme at Eginbah were disappointing with respect to grade but it did show that the Lode style of mineralisation does occur within the Talga Project area. This style of mineralisation is host for the high grade hematite deposits mined historically at Mt Goldsworthy, Shay Gap and more recently Spinifex Ridge. Along strike and to the west of the Eginbah prospect several massive hematite occurrences occur within the same BIF horizon. Sampling along these outcropping hematite horizons has returned assays up to 66.4% Fe with mapping defining mineralised horizons up to 40 metres in width and up to 60 metres in strike length.

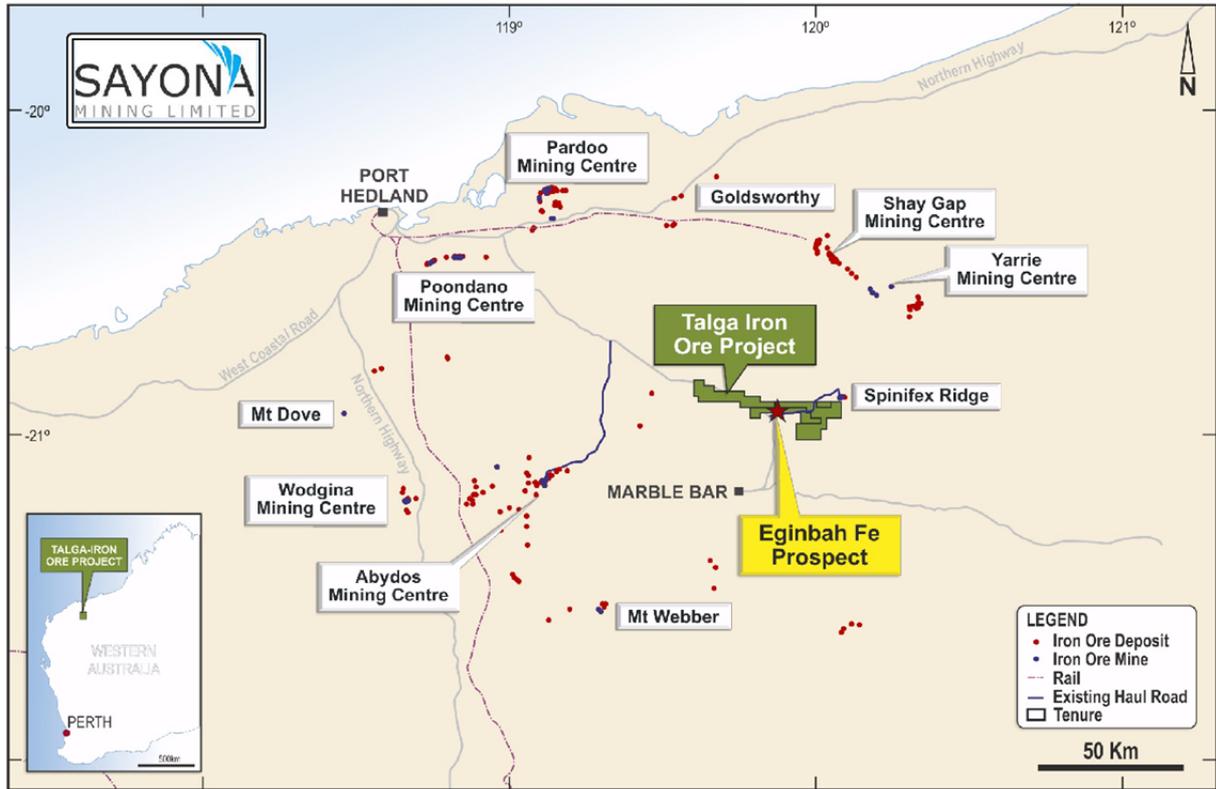


Figure 1 - Talga Iron Ore Project – Location.



Figure 2 - Eginbah Prospect.

## Drilling Programme

A track and drill pads were put in to allow access for a track-mounted Reverse Circulation (RC) drill rig and light vehicles. The contract was awarded to Mount Magnet Drilling using a Hymec drill rig with a booster and auxiliary compressor (also track mounted) producing up to 1,800CFM and 1,000psi.

Drilling started on 8th December and was completed on 14th December. In total eight holes were drilled for 812m. All drill collars were located using a hand held GPS. Details of the holes are given in Table 1.

**Table 1: Eginbah December 2014 Drilling Programme, Hole Details**

Hole	MGA_Z50_East	MGA_Z50_North	Depth (m)	Dip (°)	Azimuth (° mag.)
EGRC001	799 120	7 683 656	58	-55	170
EGRC002	799 120	7 683 659	100	-90	-
EGRC003	799 298	7 683 684	64	-55	150
EGRC004	799 292	7 683 686	130	-90	-
EGRC005	799 226	7 683 706	176	-87	-
EGRC006	799 200	7 683 684	118	-90	-
EGRC007	799 092	7 683 698	88	-55	170
EGRC008	799 307	7 683 689	78	-75	150
		Total	812		

Two samples were taken at metre intervals in consecutively numbered calico bags from the cone splitter attached to a cyclone. The remaining sample was laid out on the ground in rows. The holes were geologically logged and washed chips have been stored in chip trays.

All holes intersected a northward-dipping, east-west striking sedimentary sequence dominated by cherts, shales, BIFs and quartz-rich siltstones. There were possibly some very weathered mafics at the eastern end. Geological mapping of the excellent outcrop attracted attention to this particular part of the prospect. Mineralisation (not necessarily ore grade) was intersected in all holes, see Table 2, predominantly as hard, dense goethite with some haematite and limonite, generally with a higher grade core surrounded by lower grade material.

**Table 2: Eginbah December 2014 Drilling Programme, Intercepts  $\geq$  50% Fe**

Hole ID	Depth			Fe %	SiO <sub>2</sub> %	P ppm	Al <sub>2</sub> O <sub>3</sub> %	LOI %	Comment
	From m	To m	Interval m#						
EGRC001	10	12	2	52.35	12.85	1010	2.87	8.86	
	15	16	1	52.49	13	1480	1.98	9.37	
	17	19	2	50.95	14.94	1230	2.57	9.19	
	23	26	3	55	8.37	1213	2.16	10.36	
EGRC002	24	30	6	53.2	12.74	1160	1.11	9.67	
	36	37	1	50.37	17.13	1070	1.317	9.04	
	39	40	1	50.89	13.88	1020	2.74	13.88	
	45	48	3	52.8	13.06	1083	1.01	9.94	
	56	58	2	55.25	9.16	1475	0.87	10.23	
EGRC003	27	28	1	50.83	14.86	2330	2.22	9.24	39-40m no recovery

Hole ID	Depth		Interval m#	Fe %	SiO2 %	P ppm	Al2O3 %	LOI %	Comment
	From m	To m							
	29	30	1	50.33	16.12	1490	2.25	9.08	
	31	32	1	50.66	14.38	2810	3.6	8.71	
	31	45	14	56.79	7.73	898	1.71	9.11	
EGRC005	139	156	17	53.92	8.36	1246	3.23	10.64	
EGRC006	69	73	4	53.75	8.18	1547	3.47	10.85	
	77	93	16	54.83	9.24	1846	1.33	10.16	
	95	96	1	50.96	14.08	1770	1.38	9.64	
	97	99	2	51.5	11.74	1640	3.19	10.32	

*# Downhole widths are quoted. Intervals have been calculated using 50% Fe lower cut-off, minimum width 1m and no internal dilution. RC drill samples were collected as 1m cone split samples. All samples were analysed by X-Ray Fluorescence Spectrometry (XRF). Loss on Ignition (LOI) values were determined using Thermo-Gravimetric Analyses at 1000 degrees Celcius.*

The mineralised intersections were sampled at one metre intervals together with up to five metres of adjacent stratigraphy. These samples were re-bagged with a separate sequence of pre-numbered bags that allowed for field duplicates and standards to be inserted at pre-determined intervals. Standards (certified reference material) were placed in bags whose numbers ended in ...20, ...40, ...60, ...80 & ...100. Two of Geostats Pty Ltd's standards: GIOP-18 and GIOP-61 were used alternately. Field duplicates were added every 20th sample ie: ...10 was repeated as 11, ...30 as 31, ...50 as 51, ...70 as 71 and ...90 as 91. The duplicate material was taken from the second bag taken from the cone splitter. Overall 10% of all samples sent to the laboratory were for QA/QC purposes which is in keeping with industry standards.

The samples have been sent to Nagrom's Laboratory in Kelmscott WA where they were dried, crushed and pulverised then analysed for 23 elements, see Table 3, by XRF (Nagrom codes FUS01, XRF001 & TGA002) plus LOI by TGA.

The quality and condition of the samples from the drill rig were selectively weighed and a qualitative estimate made of the recovery. Overwhelmingly the samples were dry and only in hole EGRC005 were moist and wet samples encountered. Sample recovery was good to fair in all units other than goethitic mineralisation where the ground was broken and cavities were encountered.

Analytical results were only recently received subsequent to the quarter and a review of the project in light of these results is underway.

## PROJECT ACQUISITION

During the quarter the company continued its assessment of projects on a worldwide basis with a view to acquiring an advanced exploration/development project

Commodity focus has been principally coking coal, direct shipping iron ore, copper and graphite.

Jurisdictions examined have included Canada, Columbia, Brazil, Argentina, Indonesia, Turkey, Sweden, Sub Saharan Africa, Madagascar and various Australian States.

**CORPORATE**

All resolutions were passed at the Annual General Meeting held on 26 November 2014. (Refer ASX announcement 26/11/2014)

In December, the Company issued 6,000,000 new shares at \$0.005 per share in settlement of outstanding Director fees.

The Company held cash of \$983,457 at the end of the quarter.

**TENEMENT SCHEDULE**

The Company currently has no interest in any mining tenements.

For more information, please contact:

Dan O'Neill  
[doneill@sayonamining.com.au](mailto:doneill@sayonamining.com.au)

0407 596 942

Paul Crawford  
[pcrawford@sayonamining.com.au](mailto:pcrawford@sayonamining.com.au)

0416 104 633

**Competent Person Statement**

The information in this report that relates to exploration results is based on information compiled by Mr Dan O'Neill, who is a Member of the Australian Institute of Geoscientists (MAIG). Mr O'Neill is a Managing Director of Sayona Mining Limited and has sufficient experience relevant to the styles of mineralisation and types of deposit under consideration and the activities being undertaken to qualify as a Competent Person as defined by the 2012 Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012).

Mr O'Neill consents to the inclusion of his names in this report and to the issue of this report in the form and context in which it appears.

**EGINBAH IRON ORE PROSPECT**  
**JORC 2012 TABLE 1 – CHECKLIST OF ASSESSMENT AND REPORTING**  
**CRITERIA**

CRITERIA	EXPLANATION
Section 1, Sampling Techniques And Data	
Sampling Techniques	<p>Reverse Circulation (RC) chips collected via a cone splitter. Two three kilogram (average) duplicate samples taken per metre drilled, collected in a pre-numbered calico bag. One sample was submitted to the laboratory with the remaining duplicate kept for future reference.</p> <p>At the laboratory the sample was dried and crushed, samples in excess of 2kg are riffle split and pulverised. From this sub-sample a further sub-sample was taken to be analysed by XRF and LOI. The quality of sampling was monitored by the geologist during the drilling.</p> <p>To monitor the representative nature of the analytical samples duplicates were taken for every twentieth sample. QA/QC samples were taken in keeping with industry best practice.</p>
Drilling Techniques	RC drilling using a 140mm diameter, face-sampling hammer. Eight RC holes were drilled for 812 metres.
Drill Sample Recovery	<p>RC sample recovery was monitored by the geologist and field crew by observing the size and state of the sample (recorded as good, fair and poor) in the calico bags filled from the cone splitter. Selected samples were weighed.</p> <p>To ensure the samples are as representative as possible: Firstly the best available drilling contractors are selected for the program and secondly the field geologist is present during the drilling and monitors the sampling process.</p>
Logging of Rock Chips	<p>Rock chips from the one metre samples provided by the drillers were geologically logged to a level of detail appropriate for the stage of investigation and could contribute to any future mineral resource, metallurgical or other study that may be undertaken. None of the holes were tested with down-hole geophysical probes.</p>
Sub-Sampling and Sample Preparation	<p><b>Sub-Sampling</b>  Two samples of RC chips, with an average weight of approximately 3kg were taken from the cone splitter at the drill rig for each metre drilled. These samples went into pre-numbered calico bags. Every effort was made by the drillers to provide dry samples – no water was injected for dust suppression.</p> <p>The sample sizes varied in keeping with ground conditions, samples were smaller in broken and, very rarely, non-existent where cavities were encountered.</p> <p>Every effort was made to acquire a sample size and quality appropriate to the assess style of mineralisation (goethite/haematite), the thickness consistency and grade of the mineralisation and deleterious elements.</p> <p><b>Sample Preparation</b>  The sample was dried at 105°C for eight to twelve hours. The entire sample was crushed to below a nominal 6.3mm top size. Samples in excess of two kilograms were riffle split. The remaining sample was pulverised so that 80% is &lt;75µm.</p> <p><b>Quality Control Procedure</b></p>

	<p>Five duplicate samples, i.e. the second calico bag taken from the cone splitter, were inserted in every 100 samples (1:20) sent to the laboratory.</p> <p>Five certified reference material standards were inserted in every 100 samples.</p> <p>Combined QA/QC insertion rate of 1:10 (10%)</p> <p>Sample weights recorded by the laboratory for all samples submitted.</p> <p>Lab repeats taken and standards inserted at premeditated levels and frequency specified by the laboratory.</p>
Quality of Analytical Data and Laboratory Tests	<p>Samples from mineralised zones were submitted to Nagrom's Laboratory in Kelmscott WA and analysed for the full iron ore suite of elements by XRF (23 elements) and loss on ignition (LOI) by TGA.</p> <p>Nagrom's procedures are in keeping with industry standards and are appropriate for iron ore deposits.</p> <p>Samples are dried in ovens for 8 to 12 hours before being crushed to a nominal topsize of 6.3mm by a roll crusher. Where larger than 2kg the sample is riffle split to that size which is then pulverised in a LM5 mill so that 80% is &lt;75µm. A further 200g sub-sample is taken from which a 0.8g charge is fused with lithium metaborate to form the XRF charge (Nagrom method FUS01).</p> <p>Certified Reference Material standards, field duplicates and additional laboratory analyses are used for quality control.</p> <p>Certified Reference Material standards of the expected grades were inserted at set intervals at the drill site and further by the laboratory where deemed appropriate.</p> <p>Analysis of field duplicates and repeat analyses of laboratory pulps revealed that all results were within acceptable ranges.</p>
Verification of Sampling and Analyses	<p>Primary data was collected on a Toughbook at the drill site and the field office using Excel software which has specific options to prevent data entry errors.</p> <p>All data was sent to the company's consultant database administrator in Perth.</p>
Location of Data Points	<p>The drill collar locations and elevation (AHD RL) were measured using a hand held GPS with an expected accuracy of ±3m for easting and northing coordinates and ±5m for elevation.</p> <p>The drill rig was set up at the required azimuth by compass and the angle of the hole at its collar was measured by clinometer.</p> <p>All holes were subject to down-hole surveys giving dip and magnetic azimuth using Reflex Ezishot survey instrument. The dips indicated that the holes remain almost straight but some azimuth readings suggest possible magnetic interference.</p> <p>The grid system used on the Eginbah project is MGA/GDA94 Zone 50.</p>
Data Spacing and Distribution	<p>Drill hole positions were largely influenced by topography and where an adequate drill pad could be made on the steep terrain.</p> <p>The density of data points is not adequate for resource estimation.</p> <p>Samples were collected at metre intervals.</p>
Orientation of Data in Relation to Geological Structure	<p>The host stratigraphy generally dips to the north at between 50 and 80 degrees. Where possible holes were drilled at the shallowest possible angle of 55° to the south. However because of the</p>

	restricted space some holes were drilled vertically.
Sample Security	<p>Samples were packed in sealed polywoven sacks and stacked on pallets and covered with cling wrap. They were transported to Perth by truck and then to the laboratory by courier.</p> <p>Once delivered the samples will be stored in a secured yard until they are analysed.</p> <p>The laboratory receipts received samples against the sample despatch documents and issues a reconciliation report for every sample batch.</p>
Audits and Reviews	<p>The drill data was collected and processed by experienced consultants with considerable experience in this type of work.</p> <p>The recording and sampling methods together with the QA/QC protocols were taken from current industry standards.</p>
Section 2, Reporting of Exploration Results	
Mineral Tenement and Land Tenure Status	<p>The exploration prospect lies within exploration licence 45/4137, held by Brian Richardson a member of the Talga Syndicate who have signed an option agreement with Sayona Mining limited.</p> <p>The ground is subject to the Njamal native title claim, NNTT Number WC1999/008.</p> <p>At the time of writing the tenement was in good standing.</p>
Exploration Done By Other Parties	There is no record of iron ore exploration on this prospect.
Geology	The regional geology is thought to comprise Archaean mafic, ultramafic, volcanic units and sediments including BIF.
Drill Hole Information	Included in the body of the announcement.
Data Aggregation Methods	Included in body of announcement. Downhole intervals are quoted and no ore grade intercepts were recorded.
Relationship Between Mineralisation Widths and Intercept Lengths	The host stratigraphy dips north at between 50 and 80 degrees. This information has been gained not only from the drill holes but from extensive outcrop. All angled holes were drilled to the south at 55°, the flattest angle possible with this drill rig. Where a second hole was drilled it was drilled vertically because of available space and to create the widest possible distance between intercepts. The angled holes were relatively close to true widths however the vertical returned an exaggerated section across the mineralised intercept.
Diagrams	Included in the body of the announcement.
Balanced Reporting	<p>All drill hole details are reported but only intercepts <math>\geq 50\%</math> Fe are reported.</p> <p>Terms “significant” and “best” are used to highlight those results considered most important in the context of the announcement.</p>
Other Substantive Exploration Information and Data	The area has been mapped and rock chips sampled by the tenement holder and geologist Brian Richardson.
Further Work	Included in the body of the announcement.