Athena Resources

ACN 113 758 900

15 December 2014

The Company Announcements Office
ASX Limited
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SYDNEY NSW 2000

BYRO IRON ORE PROJECT

Mt NARRYER DAVIS TUBE RESULTS CONFIRM MAGNETITE BODY IS HIGH GRADE

OUTCROPING BODY CONTINUES TO DEPTH

COARSE 90µm GRIND, with up to 55.2% RECOVERY

AHRC0067 intersected 30m of iron ore including 4m of hematite plus 26m @ 29.38% Fe feed grade from 42m down hole of coarse grain magnetite with maximum magnetic susceptibility of 1131 SI units. Within this feed material is a highest Davis Tube Result of 71.32% Fe. Overall DTR result for the intersection is

- **26m @ 66.16%^{DTR} Fe from 42m**

Including

- **8m at 70.41%^{DTR} Fe from 54m**

MINERALISED ZONE CONTINUES TO DEPTH FROM OUTCROP AND REMAINS OPEN ALONG STRIKE AND TO DEPTH

AHRC0068 intersected 15m of coarse grain magnetite with maximum magnetic susceptibility of 1004 SI units

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- **16m @ 67.14%^{DTR} Fe from 28m**

Including

- **4m @ 69.68%^{DTR} Fe from 32m**

MINERALISED ZONE CONTINUES TO DEPTH FROM OUTCROP AND REMAINS OPEN ALONG STRIKE AND TO DEPTH

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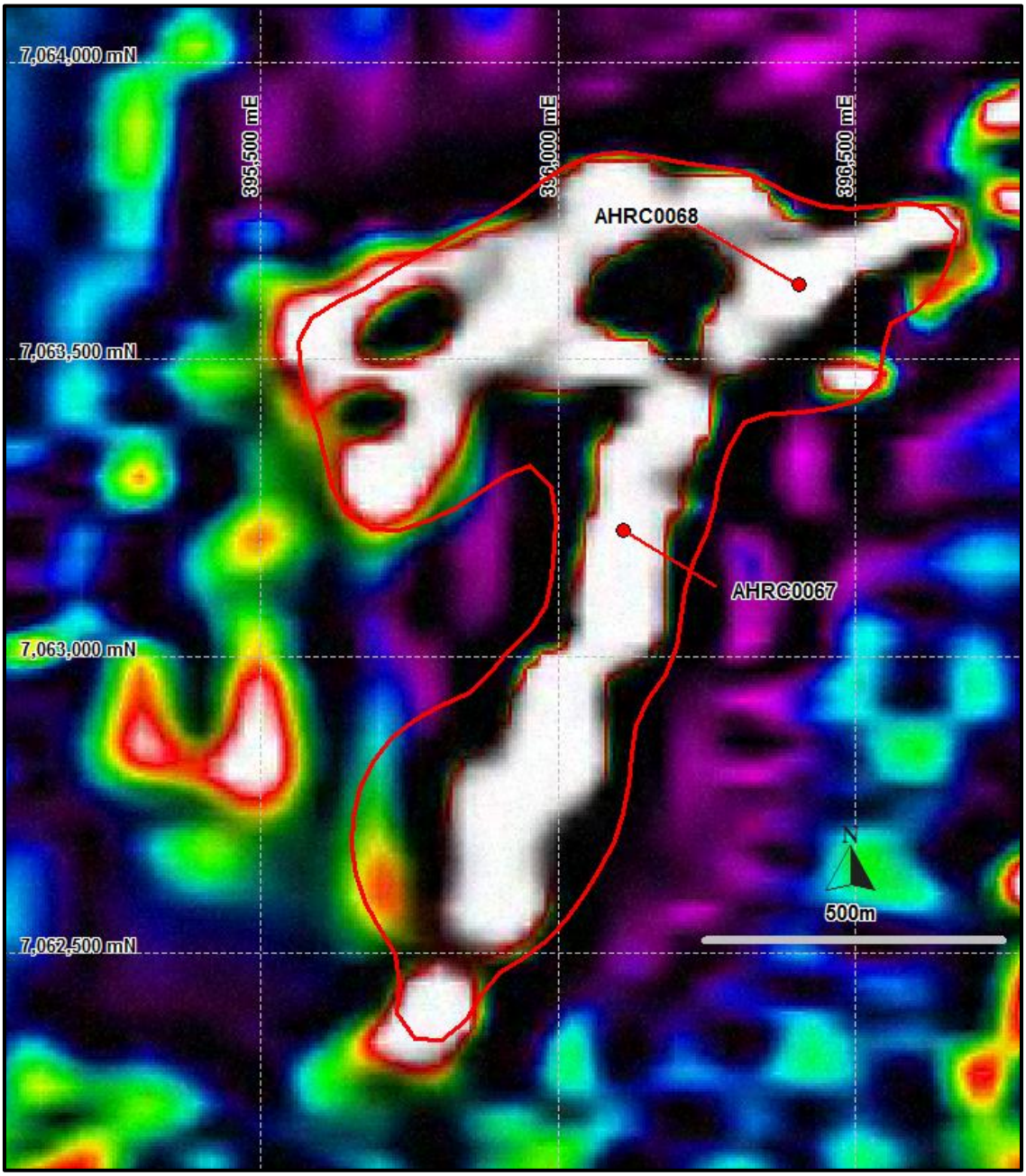
The Mount Narryer magnetite body is within tenement E09/1938 located 210 Km north from Mullewa and 310Km by road north from the Port of Geraldton. Drilling was completed by Mt Magnet Drilling and sample was recovered from the two holes for metallurgical tests and sent to Perth laboratories for optimum grind, liberation and recovery analysis. This was followed by head grade assay and DTR analysis. The samples display a large grain size of up 0.5mm. This is promising as this is similar to the grain size found at the Athena FE1 Resource in neighbouring tenement E09/1507. Metallurgical test work completed indicates similarities to the coarse grain magnetite at FE1 which also resulted in a coarse optimum grind size and other subsequent low cost processing characteristics.

Table 1 Collar Table

Hole ID	EOH	Easting	Northing	Dip	Azi	Tenement
AHRC0067	82m	396111	7063213	-60	97	E09/1938
AHRC0068	76m	396406	7063626	-60	336	E09/1938

Coordinate system MGA-94/50

Figure 1. Drill Hole Location over TMI Magnetic Imagery. (Red line = 1000nT isobar)



Davis Tube Test Work Details

Test work was undertaken to determine optimum grind and grade which has resulted in coarse 90µm grind and high 66.8% Fe listed below . The grades and grind size are very good and when considered in terms of proximity to the Port of Geraldton, have made the Narryer Body a priority for the companies iron exploration program in the Murchison district.

Results show very low levels of impurities, notably low levels of the common contaminants phosphorous and sulphur, Table 3.

Significantly the three major constituents are Magnetite, Silica and Oxygen forming 90% of the rock mass, Table 1. Removal of the discrete metamorphic silica fraction in a coarse grind is relatively simple as a result of the discrete quartz grains forming at the boundary of the relatively pure magnetite and not within the magnetite itself.

Grind times are low at below ten minutes to achieve milling to a P80 of 90µm, table 4a and 4b, a precursor to favourable impact, bond and ball mill indices. More detailed metallurgical test work will follow diamond drilling to establish the criteria for processing design.

Table 2 Optimum Grind DTR Head Assay

Sample ID	Assays (%)							
	Fe	SiO_2	Al_2O_3	TiO_2	P	S	Fe_3O_4	LOI_{1000}
AHRC0067-68	24.84	48.61	3.10	0.62	0.066	0.798	19.69	0.615

Table 3 Optimum Grind DTR Concentrate

Actual P_{80} (µm)	Feed	Mags		Assays (%)							
	g	g	%	Fe	SiO_2	Al_2O_3	TiO_2	P	S	Fe_3O_4	LOI_{1000}
45	20.00	4.27	21.4	69.99	1.80	0.54	0.17	0.002	0.174	93.27	-3.77
75	20.00	4.36	21.8	68.04	4.06	0.60	0.19	0.003	0.155	90.37	-3.16
90	**20.01**	**4.67**	**23.3**	**66.84**	**5.59**	**0.62**	**0.19**	**0.006**	**0.156**	**88.56**	**-3.12**
125	20.00	4.94	24.7	61.52	11.6	0.73	0.18	0.010	0.178	78.25	-2.52

Note: Fe: Iron; SiO2: Silicon Dioxide; AI2O3 : Aluminium Oxide; TiO2 Titanium Oxide P: Phosphorus; LOI: Loss On Ignition

Table 4a Grind Establishment Times

Sample ID	AHRC0067 - 68	
Mill Number P80 Size	Time (min)	Time (sec)
125 µm	5.75	345
106 µm	7.35	441
90 µm	**9.38**	**563**
75 µm	12.4	744
45 µm	27.3	640

Table 4b Grind Size Checks

Sample ID:	Bulk Comp P_{80} = 90 µm		
Size Fraction (µm)	Mass (g)	Mass (%)	Cumulative (%) Passing
90	**18.64**	**12.6**	**82.3**
63	29.27	19.8	62.6
45	20.36	13.7	48.9
-45	72.82	49.1	-
Total	148.61	100.3	

DTR Assay Details

AHRC0067 intersected a 30m section of iron ore including 4m of hematite plus 26m of coarse grain magnetite with maximum magnetic susceptibility of 1131 SI units and maximum DTR result of 71.32% Fe from composite 5 see table 5.

Figure 2 AHRC0067 Magnetite Rock Chips

Figure 3 shows the 30m intersection which includes **26m @ 66.16%^{DTR} Fe from 42m** down hole. Out crop has a surface expression of 35m on the horizontal plane with the body dipping steeply at 85° suggesting the body maintains a relatively uniform width. True width has not been calculated due to the limited amount of drilling. The highest grade within the ore zone was **8m at 70.41%^{DTR} Fe from 54m.**

AHRC0068 intersected 15m of coarse grain magnetite with maximum magnetic susceptibility of 1004 SI units assaying at **16m @ 67.14%^{DTR} Fe from 28m** including **4m @ 69.68%^{DTR} Fe from 32m**

Table 5. AHRC0067 DTR Head and DTR Assay Results

Sample ID	Head % Fe	DTR % Fe	SiO2	Al2O3	TiO2	P	S	LOI1000
Composite 1	36.3	68.78	2.83	0.37	0.14	0.002	0.017	-1.89
Composite 2	19.1	61.97	6.44	0.9	1.55	0.007	0.141	-1.91
Composite 3	11.6	64.17	5.26	0.84	0.86	0.014	0.331	IS
Composite 4	30.7	67.95	4.62	0.56	0.21	0.003	0.139	-3.14
Composite 5	43.0	**71.32**	0.58	0.43	0.13	0.001	0.006	-3.41
Composite 6	39.8	69.49	2.87	0.51	0.15	0.002	0.027	-3.31
Composite 7	30.9	66.41	7.06	0.43	0.11	0.003	0.042	-3.17
Composite 8	11.9	52.43	23.64	0.87	0.23	0.011	0.286	-2.5
Composite 9	9.0	60.07	10.88	1.28	0.59	0.005	0.987	IS

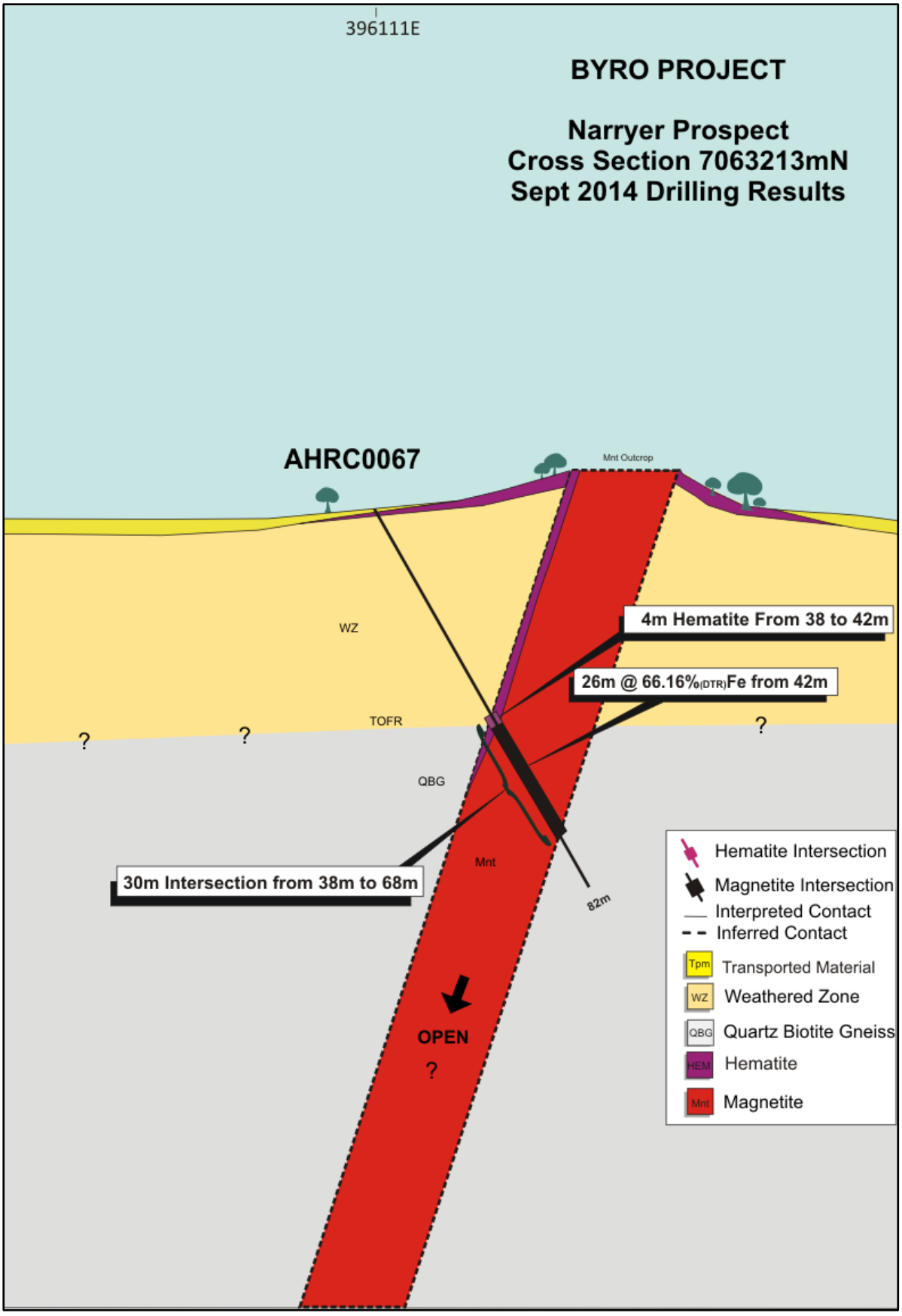
Note: Fe: Iron; SiO2: Silicon Dioxide; Al2O3 : Aluminium Oxide; TiO2 Titanium Oxide P: Phosphorus; LOI: Loss On Ignition

Table 6. AHRC0068 DTR Head and DTR Assay Results

Sample ID	Head % Fe	DTR % Fe	SiO2	Al2O3	TiO2	P	S	LOI1000
Composite 1	26.9	67.19	4.5	0.59	0.18	0.006	0.083	-2.97
Composite 2	31.9	69.68	2.55	0.46	0.04	0.003	0.021	-3.36
Composite 3	18.9	67.27	4.75	0.8	0.24	0.004	0.342	-3.17
Composite 4	21.9	64.42	8.01	0.88	0.4	0.007	0.177	-2.92

Note: Fe: Iron; SiO2: Silicon Dioxide; Al2O3 : Aluminium Oxide; TiO2 Titanium Oxide P: Phosphorus; LOI: Loss On Ignition

Figure 3. AHRC0067 Cross Section at Northing 7063213mN with DTR Results



From both holes drilled, AHDH00067 and AHDH0068 at Mt Narryer, it has been demonstrated the mineralised zone continues to depth from outcrop and remains open on

strike. These results give support to the magnetite exploration target estimates published August 2014 particularly in regards to depth of the stratigraphy. The Mount Narryer magnetite exploration target included a maximum of 127.5 million tonnes to a minimum of 37.8 million tonnes with a grade ranging from 36.4% Fe to 46.4% Fe from whole rock assay of surface samples.

Table 7. Narryer Exploration Estimate Parameters. (ASX: August 2014)

Parameter	Exploration Target Range	Mt Narryer
Width at Outcrop (m)	Maximum	45
GPS Field measurement contact to contact	Minimum	25
Vertical Depth (m) estimated	Maximum	150
(Estimated from outcrop and topography)	Minimum	100
Strike Length (m)	Maximum	5400
Measurement from GPS and Geophysics	Minimum	4320
Average SG (t/m3)	Maximum	3.5
	Minimum	3.5
Fe% Surface Assay	Maximum	46.38
	Minimum	36.4

Table 8. Narryer Exploration Estimate. (ASX: August 2014)

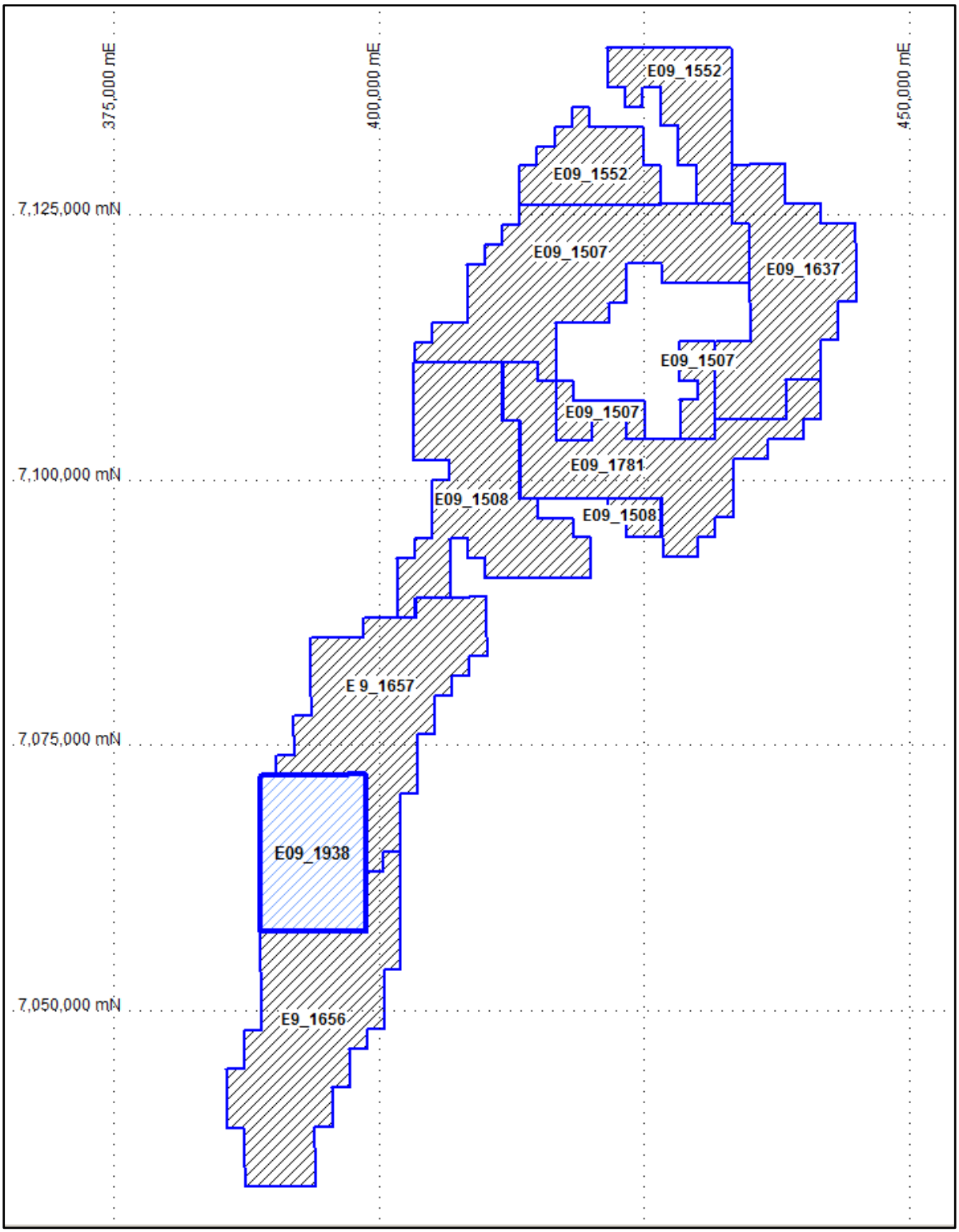
Location	Range	Tonnes	Mt	% Fe
Mt Narryer	Maximum	127,575,000.00	127.5	46.4
	Minimum	37,800,000.00	37.8	36.4

Drilling to date supports aspects of the estimates published earlier this year. The quantity and grade is conceptual in nature. There has been insufficient exploration to define a mineral resource. Further exploration is warranted to improve understanding and reduce uncertainty about this body.

About Athena Resources Limited.

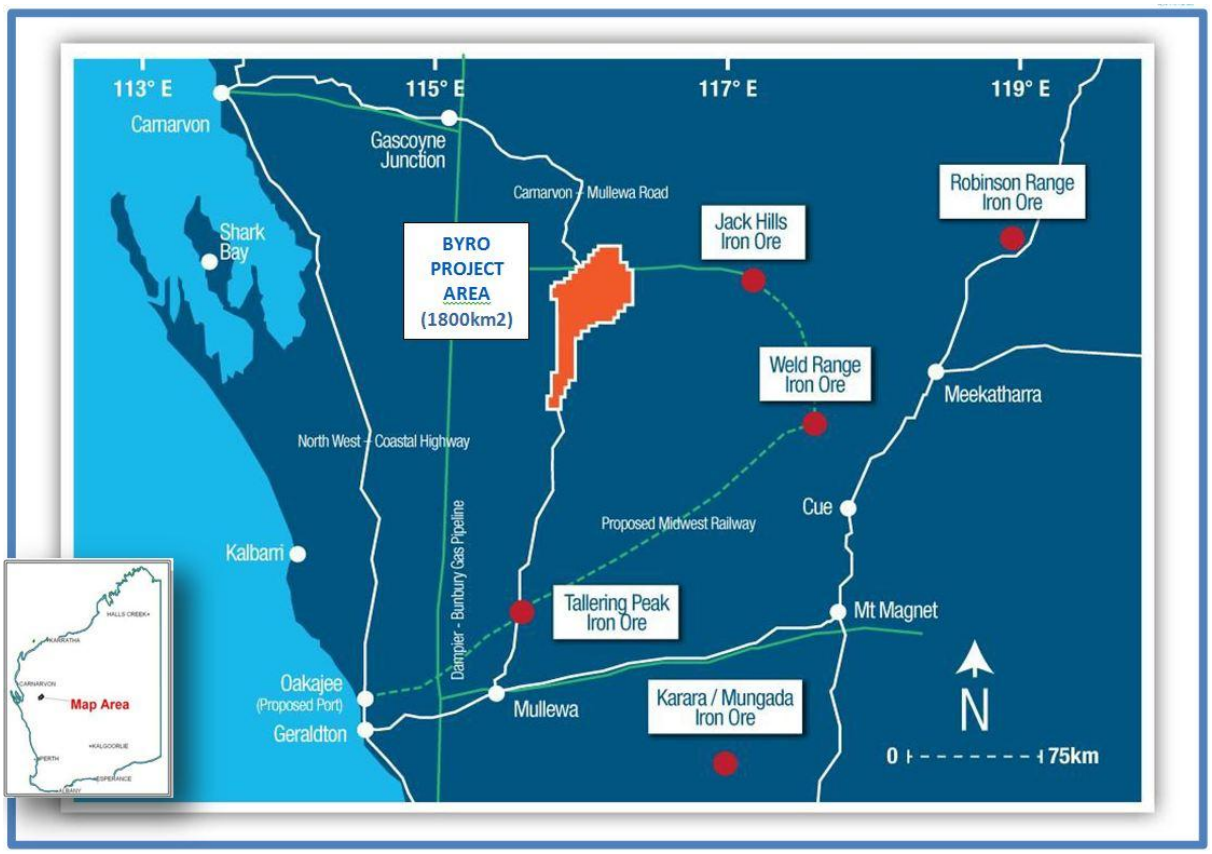
Athena Resources Limited (ASX:AHN), which is based in Perth was listed on the ASX in 2006 and currently has 173 million shares on issue. Athena owns a 100% interest in the Byro Project through its subsidiaries Complex Exploration and Byro Exploration where it is exploring for copper, nickel, PGE's and iron ore. Figure 4 below, shows the current tenement holdings which have been reduced in size since October 2014, this year towards meeting Department of Mines and Petroleum relinquishment requirements. Relinquishment was also in response to rising expenditure and was carried out on the basis that explored areas that have not produced significant exploration targets were withdrawn.

Figure 4 Athena Tenement Boundaries



The Byro Iron Ore Project is strategically located in the Midwest Iron province which includes a substantial mining sector. The projects southern boundary is 210km north of the Mullewa Rail Siding by road and 310km from the Port of Geraldton. Development of the Byro Iron project is expanding the overall resource in the Midwest region along with neighbours at the Gindalbie and Ansteel's Karara Iron Project, Sinosteel's Weld Range Project, the proposed Jack Hills Expansion Project, Padbury's Robinson Range Project, and Mt Gibson's Extension Hill Mine, amongst others. Access and improved infrastructure to the maturing iron ore province is growing with development of the CSIRO SKA Project and increased capacity and further development at the Port of Geraldton.

Figure 5 Regional Project Location



Yours faithfully

Ed Edwards
Managing Director
ATHENA RESOURCES LIMITED

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 (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.*	• This Report includes magnetic susceptibility readings taken from RC drill hole AHRC0067 and AHRC0068. The measurement tool used for Magnetic susceptibility was a hand held KT-10 with serial number # 8791
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	• Magnetic susceptibility readings were taken at every meter interval with the average reading noted from scanning mode
	• *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 (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	•
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Reverse Circulation (RC)
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*	• Samples recovered from cyclone splitter using 1m intervals and 2 to 4m composites • Collection of RC Chips from sieved sample • No bias was observed between recovery and sample quality or loss or gain

Criteria	JORC Code explanation	Commentary
	of fine/coarse material.	
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.*	• Drill chips have been geologically logged as well as recording major geotechnical features observable in chip over the full depth of the holes.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.*	• RC Drilling
	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	• Samples were dry rotary split
	• *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	• Industry standard sampling preparation procedures were used
	• *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	• Industry standard sampling preparation procedures were used
	• *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.*	• Industry standard sampling procedures were used • No field duplicate/second-half sampling
	• *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Average sample size from splitter was 5kg
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 (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• This report is on the one meter sample magnetic susceptibility results. Assays are pending. • The measurement tool used was a hand held KT-10 with serial number # 8791 using units of 10*-3 Standard SI units • Industry standard procedures were used in obtaining the magsus readings
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,*	• This report includes one meter sample magnetic susceptibility results. • No adjustments have been made to readings • Assays have been verified

Criteria	JORC Code explanation	Commentary
	data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	using standard QA QC methods
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.*	• Hand held GPS
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.*	• This report includes one meter sample magnetic susceptibility results. Assays are pending • Collar and end of hole surveys were taken and combined with collar location at surface
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.*	• This report includes one meter sample magnetic susceptibility results and composite assay results that are not affected by orientation.
	• *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.*	• No sampling bias was introduced by drilling orientation
Sample security	• *The measures taken to ensure sample security.*	• Sample security was maintained during all stages of preparation
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Sample security was maintained during all stages of preparation

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*	• Tenement referred to In this report E09/1931 is 100% Athena owned and operated within native title claim WAD 6033/98, made on behalf of the Wajarri Yamatji People.

Criteria	JORC Code explanation	Commentary
	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.*	• The tenements are in good standing and no known impediments exist. • See tenement listing attached.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Historic exploration within the project area largely confined to south of a line extending from Imagi Well to the Byro East intrusion (Melun Bore). The earliest work with any bearing on Athena's activities is that of Electrolic Zinc Co (1969) exploring for chromatite at Imagi Well, followed closely by Jododex Australia (1970-1974) at Byro East. Much of the exploration of a more regional nature is of limited use either because of the vagaries of the accuracy of positional information and the limited range of elements analysed. More recent surveys pertinent to Athena's current investigations include that of Redback Mining (1996-2002), Yilgarn Mining Limited (2003-2008) and Mithril (2007, JV with Yilgarn) at Byro East, and Western Mining Corporation (1976-1979) and Precious Metals Australia at Imagi Well. Newcrest Mining carried out a limited reconnaissance RAB drilling programme for platinum just to the east of Byro homestead (1998-1990).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive. Granite and migmatite are common

Criteria	JORC Code explanation	Commentary
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.*	• AHRC0067 and AHRC0068 see main body of announcement
	• *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.*	• No information has been excluded
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	• min max, ave, techniques were used in this report and all workings are shown within this report. References are used where information has been previously announced
	• *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.*	• aggregation has been used and is restricted to sample intervals which do not overlap assayed composite boundaries
	• *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• No metal equivalent are referred to in this report
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*	• See main body of report
	• . • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• All reference to widths are down hole length, true width is not calculated

Criteria	JORC Code explanation	Commentary
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.*	• Refer to Figures 1, 2, 3, 4 and 5 in the body of the report
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.*	• This report contains all meaningful drilling results for this campaign
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.*	• This report contains all meaningful drilling results for this campaign
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Drilling programs have been planned and approvals have been granted. The registration ID of the granted PoW's is E09/1781 **ID 36923** E09/1637 **ID 36920** E09/1552 **ID 36924** E09/1507 **ID 36922**
	• *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• The planned drilling information is commercially sensitive and is not included in this report.

INTEREST IN MINING TENEMENTS
Athena Resources Limited 100%

Byro

E09/1507	E – Exploration License
E09/1508	
E09/1552	
E09/1637	
E09/1656	
E09/1657	
E09/1781	
E09/1938	

Cautionary Notes

Forward Looking Statements

This announcement contains certain statements that may constitute "forward looking statements". Such statements are only predictions and are subject to inherent risks and uncertainties, which could cause actual values, results, performance achievements to differ materially from those expressed, implied or projected in any forward looking statements.

Drilling to date supports aspects of the estimates in this report which were published earlier this year. The quantity and grade reported is conceptual in nature. There has been insufficient exploration to define a mineral resource. Further exploration is warranted to improve understanding and reduce uncertainty about this body.

JORC Code Compliance Statement

Some of the information contained in this announcement is historic data that have not been updated to comply with the 2012 JORC Code. The information referred to in the announcement was prepared and first disclosed under the JORC Code 2004 edition. It has not been updated since to comply with the JORC Code 2012 edition on the basis that the information has not materially changed since it was last reported.

Competent Persons Statement

The information included in the announcement was compiled by Mr Liam Kelly, an employee of Athena Resources Limited. Mr Kelly is a Member of the Australasian Institute of Mining and Metallurgy, and has sufficient relevant experience in the styles of mineralisation and deposit styles under consideration to qualify as a Competent Person as defined in "The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012 Edition)". Mr Kelly consents to the inclusion of the information in the announcement in the context and format in which it appears and that the historical information was compliant with the relevant JORC Code, 2004 Edition, and new information announced in this report is compliant with the JORC Code 2012 Edition.

Competent Persons Disclosure

Mr Kelly is an employee of Athena Resources and currently holds securities in the company.