



**Athena**  
Resources

ACN 113 758 900

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The Company Announcements Office  
ASX Limited  
4 Floor, 20 Bridge Street  
SYDNEY NSW 2000

## **MILLY MILLY NICKEL INTRUSION DRILLING INTERCEPTS DISSEMINATED AND STRINGERS METAL SULPHIDES**

Athena Resources is pleased to announce that the company has intercepted disseminated and stringer metal sulphides in the first diamond hole AHDH0006 in this program.

Interpretation and targeting has been completed and drilling is underway for a second diamond drill hole AHDH0007 targeting the high amplitude gravity at Anomaly 1 on the western contact of the Milly Milly Intrusion.

The diamond drill hole AHDH0007 has an estimated shallow target depth between 200 and 450m.

Drilling follows the recently completed detailed gravity survey at the Milly Milly intrusion. AHDH0006 targeted a local gravity anomaly, coincident nickel soils anomaly and a structural zone and has been completed. Figures 1 and 2 show disseminated and stringer sulphides in core from two zones of mineralisation at this location on the western side of the Milly Milly Intrusion. AHDH0006 was ended at 279.7m

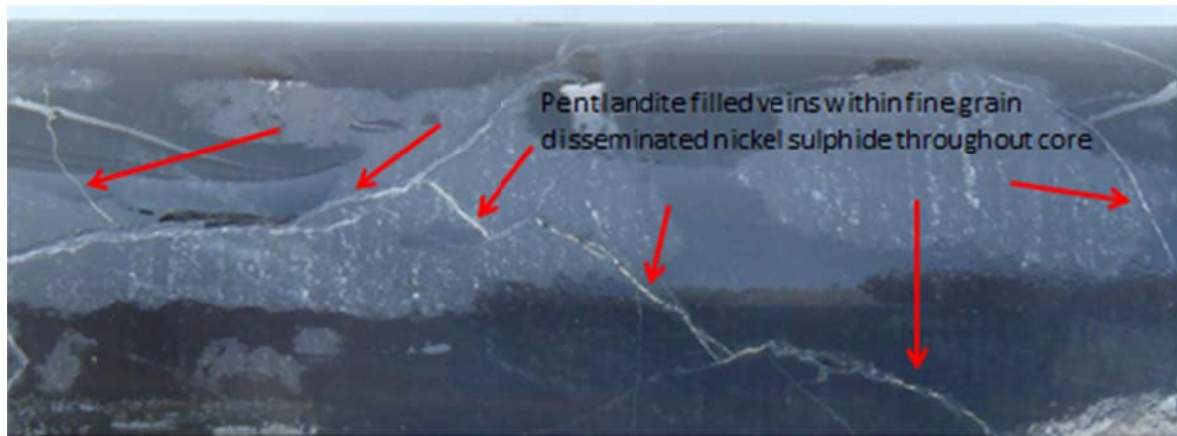
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**Figure 1 Pentlandite filled veins and disseminated sulphides in core from AHDH0006 at 70.4m down hole**



Metal sulphide assemblage of Pyrrhotite (Pyo) > Pentlandite (Pnt) > Copper (Cu) + Magnetite Mnt

**Figure 2 Pentlandite filled veins (2a) and disseminated sulphides (2b) in core from AHDH0006 at 225m down hole**

**Figure 2a**



**Figure 2b**



Metal sulphide assemblage visually identified as Pyrrhotite (Pyo) > Pentlandite (Pnt) > Copper (Cu) + Magnetite Mnt. Assays are pending.

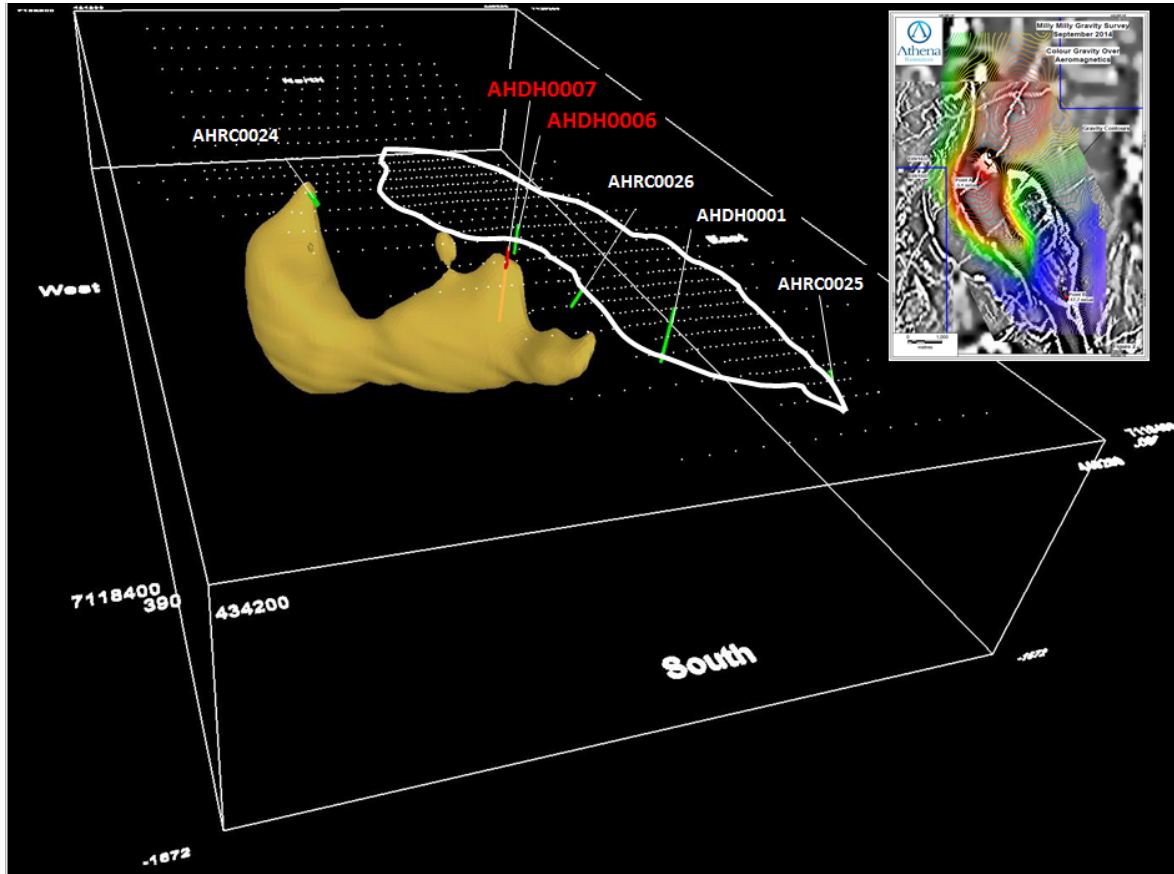
**Table 1**

Hole ID	mFrom	mTo	Intersection	Ore Style	Ore Zone
AHDH0006	68	84	16m	Disseminated/ Fine Stringers	Open
AHDH0006	222.07	231	8.93m	Disseminated/ Fine Stringers	Open

Hole_ID	Max_Depth	Orig_Grid_ID	Orig_East	Orig_North	Orig_RL	Azimuth	Dip
AHDH0006	279.70	MGA94_50	437453	7122279	380	360	-90

AHDH0007 is targeting Anomaly 1 (Figure 4), the peak of the very high amplitude gravity anomaly which is also coincident with a magnetic anomaly at the west contact striking 2.5 kilometres along the body. The western contact also hosts anomalous nickel in soils at four broad locations along the western margin of the northern lobe.

**Figure 3 3D Inversion Model of the Milly Milly Gravity Survey**



The 3D inversion model, Figure 3, is based on gravity data from the high resolution close space survey. The data is processed using algorithms and is now being tested. The anomaly model has a unique signature and displays an unmistakable proximal relationship with the Milly Milly Intrusion.

The current drill hole (AHDH0007) is the first attempt to target this new anomaly. Further interpretation and targeting is underway while this hole is being completed. It is expected to take up to nine days to drill to the source of the gravity high estimated to be at up to 450m.

The campaign which is supported by the Royalties for Regions Program includes a total of 1500m of diamond drilling, having currently completed 345m with 1155m to drill.



# Milly Milly Gravity Survey September 2014

## Gravity Inversion Over Aeromagnetics

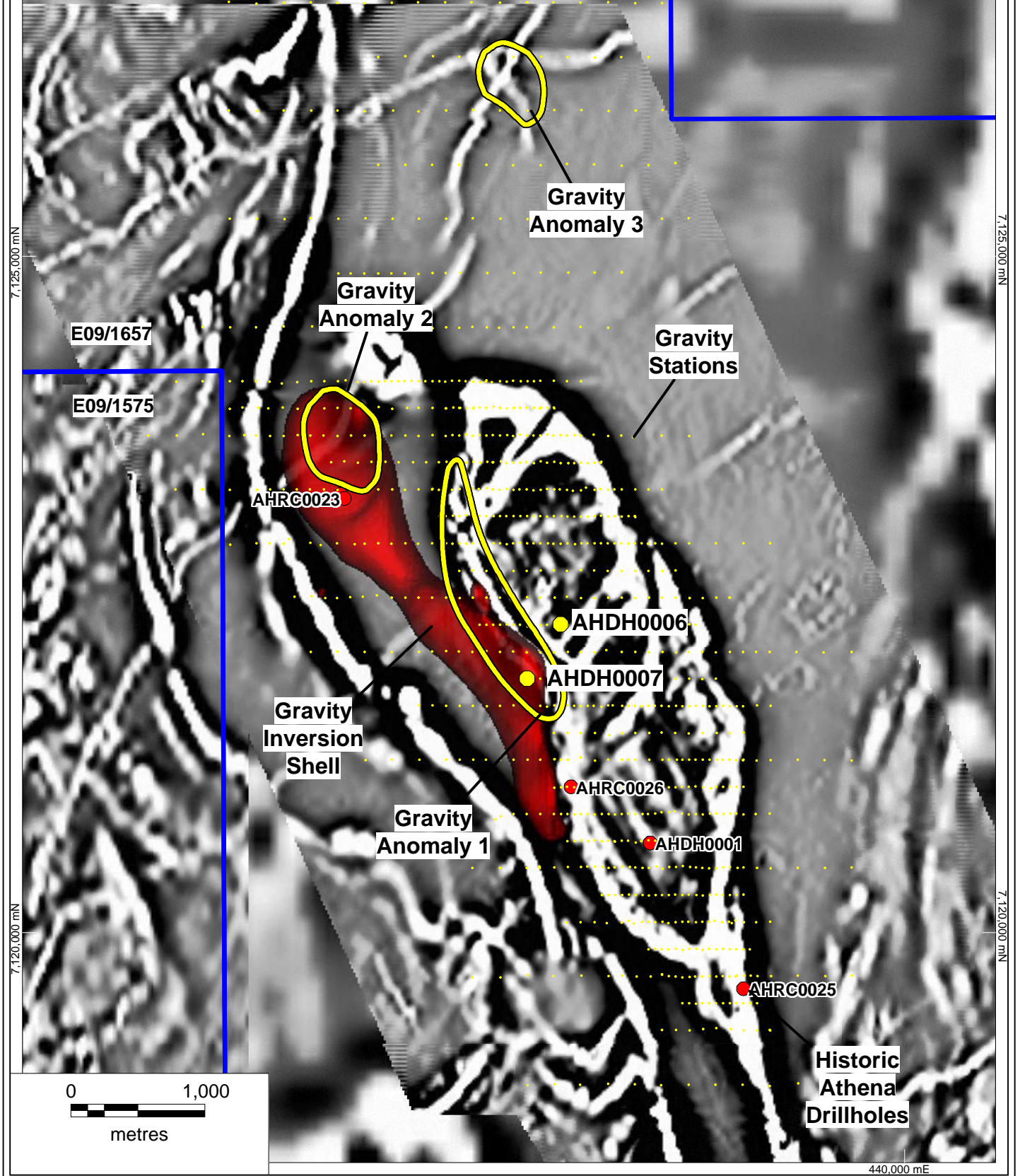


Figure 4

## About Athena Resources Limited.

Athena Resources Limited (ASX:AHN), which is based in Perth was listed on the ASX in 2006 and currently has 138 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. The Milly Milly intrusion forms part of the base metals project and is strategically located near the Carnarvon Mullewa Road an access way to the port of Geraldton.



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
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>This Report is on the visual inspection of diamond core drill hole ADHD0006. Assays pending .</li> </ul>
	<ul style="list-style-type: none"> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>Diamond Core NQ will be cut and half core submitted</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Collection of Diamond Core</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Logging</b>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>• Drill core has been logged and sampled</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	<ul style="list-style-type: none"> <li>• Sawn half core</li> </ul>
	<ul style="list-style-type: none"> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
	<ul style="list-style-type: none"> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic)</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p><i>protocols.</i></p> <ul style="list-style-type: none"> <li>• <i>Discuss any adjustment to assay data.</i></li> </ul>	
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>• <i>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</i></li> <li>• <i>Specification of the grid system used.</i></li> <li>• <i>Quality and adequacy of topographic control.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Hand held GPS</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Tenement referred to in this report E09/1637 is 100% Athena owned and operated within native title claim WAD 6033/98, made on behalf of the Wajarri Yamatji People.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li><i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<ul style="list-style-type: none"> <li>The tenements are in good standing and no known impediments exist.</li> <li>See tenement listing attached.</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>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).</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Upper amphibolite to granulite metamorphic facies with mafic to ultramafic intrusive. Granite and migmatite are common</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li><i>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:</i> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>ADHD0006 see Table 1 in main body of announcement</li> </ul>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No information has been excluded</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No weighting, min max, ave, truncation or cut off techniques were used in this report</li> </ul>
	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No aggregation has been used</li> </ul>
	<ul style="list-style-type: none"> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>No metal equivalent are referred to in this report</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<p>These relationships are particularly important in the reporting of Exploration Results.</p>	
	<ul style="list-style-type: none"> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>
	<ul style="list-style-type: none"> <li>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').</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Refer to Figures 1, 2, 3 and 4 in the body of the report</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>This Report is on the results of a gravity survey</li> </ul>
<b>Other substantive exploration</b>	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical</li> </ul>	<ul style="list-style-type: none"> <li>Geophysical gravity data was acquired over an area of 39 square kilometers and included 950 stations for a total of 65 line</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>data</b>	<i>survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i>	kilometers. The sample stations were at 50m, 100m and 200 meter spacing's. All measurements were taken in units of milliGals, and locations measured by DGPS technology
<b>Further work</b>	<ul style="list-style-type: none"> <li><i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> </ul>	<ul style="list-style-type: none"> <li>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</li> </ul>
	<ul style="list-style-type: none"> <li><i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>The planned drilling information is commercially sensitive and is not included in this report.</li> </ul>

**INTEREST IN MINING TENEMENTS**  
**Athena Resources Limited 100%**

**Byro**

E09/1507  
E09/1508  
E09/1552  
E09/1637  
E09/1638  
E09/1656  
E09/1657  
E09/1781  
E09/1938  
LA09/30  
LA09/37  
LA09/38

E – Exploration License  
LA – Miscellaneous Water Search Licence  
Application

**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.*

***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.*