

16 January 2015

ANOMALOUS ZINC, COPPER AND GOLD INTERSECTED AT JOGMEC JV, CLONCURRY

HIGHLIGHTS

- Results received for three diamond drill holes completed under the Cloncurry Joint Venture with JOGMEC;
- Drill hole MN14D37 at the Clonagh South target intersected massive pyrrhotite breccia and disseminated pyrrhotite and chalcopyrite, returning encouraging assays of 21m @ 0.56% Zn, 0.28% Cu and 0.06g/t Au (403 to 424m, downhole intercept). This includes 6m interval (418–424m) @ 1.36% Zn, 0.14% Cu and 0.07g/t Au
 - these results are 2km along strike from previous drillhole MNDDH14 containing broad zones of highly anomalous copper and elevated gold and cobalt, suggesting a significant linear mineralised system may exist;
- Additional targets at Gidyea Bore, Emu South and Cormorant South will be drilled after current monsoonal conditions abate.

Exploration for Cu-Au mineralisation within the Cloncurry Joint Venture in northwest Queensland is being undertaken in co-operation with JOGMEC (Japan Oil, Gas and Metals National Corporation, 52%) (*Figures 1-2*). A seven-hole drill program to appraise the Cu-Au potential at Jessievale, Cyclone, Emu South, Clonagh South, Gidyea Bore and Cormorant South targets commenced in mid November^{1,2}.

All targets are concealed by Mesozoic cover sediments ranging in thickness from 40-150m. Assay results for 3 diamond holes at the Jessievale, Cyclone and Clonagh South targets are presented below (*Tables 1-3*).



Figure 1: Location of the JOGMEC Cloncurry Joint Venture Project and other Minotaur Cu-Au prospective tenements in the Cloncurry region.

¹ Multiple copper-gold drill targets selected for JOGMEC JV, MEP report to ASX dated 10 October 2014

² Drilling underway at JOGMEC JV, MEP report to ASX dated 11 November 2014



ASX Release



Figure 2: Plan of Minotaur's 2014 drill holes and exploration targets along with pre-2014 Minotaur drill holes.

Drill Results and Analysis

Drill hole MN14D37 (Clonagh South) targeted a basement conductor, with no discernible positive magnetic or gravity signature, representing a continuation of the NNW-trending massive pyrrhotiterich breccia system on the eastern portion of the Cloncurry JV tenements (Cormorant trend, *Figure 2*).

Target	Hole ID	Easting (m)	Northing (m)	Dip	Azimuth (T)	Depth (m)
Jessievale	MN14D34	443727	7758388	-60	95	252.0
Cyclone	MN14D35	444930	7778950	-60	90	377.8
Clonagh South	MN14D37	471320	7776942	-50	254	517.6

 Table 1: Collar details for recent Minotaur drill holes within the Cloncurry

 Joint Venture. All coordinates refer to GDA94 datum, Zone 54.

Drill hole MN14D37 intersected metasedimentary gneisses containing several zones of massive pyrrhotite breccia along with alteration zones of disseminated pyrrhotite, amphibole and garnet, especially within the interval 402-428m.



Figure 3: Margin of pyrrhotite-rich breccia at 404.25m in hole MN14D37.



Figure 4: Disseminated pyrrhotite and chalcopyrite alteration within garnetiferous gneiss at 422.8m in hole MN14D37 and part of 1m interval assaying 2.41% Zn and 0.02% Cu.

This zone is anomalous in copper and gold, and locally zinc, returning a **21m interval @ 0.56% Zn**, **0.28% Cu and 0.06g/t Au** (403-424m, downhole intercept) (*Tables 2-3*). Within this 21m interval is a **6m subzone @ 1.36% Zn** (418-424m, downhole intercept). Maximum individual 1m assay results are 2.29% Zn (403-404m) and 2.41% Zn (422-423m) (downhole intercepts). Anomalous copper and gold occur throughout the interval, with maximum values for individual 1m samples of 0.84% Cu and 0.14g/t Au (405-406m, downhole intercept), indicating consistent, but low grade values (*Table 3*).

Hole	From	То	Interval (m)	Zn %	Cu %	Au g/t
MN14D34	74	75	1	<0.01	<0.01	0.94
MN14D37	403	424	21	0.56	0.28	0.06
includes	403	404	1	2.29	0.02	0.07
includes	419	420	1	2.02	0.01	0.07
includes	420	421	1	1.17	0.02	0.06
includes	422	423	1	2.41	0.02	0.10

Table 2: Summary of key mineralised intervals for holes MN14D34 andMN14D37. Depths tabulated are downhole depths as true thicknessesare unknown.



Drill Results and Analysis continued

The nearest historical drill hole to MN14D37 is hole MNDDH14, drilled by Minotaur in 2011, 2km along strike to the south-southeast. Multiple sulphide breccia zones up to 13.2m thick were intersected in that hole, including broad zones containing highly anomalous copper and elevated gold and cobalt, notably 11m @ 0.7% Cu (298-309 m), 13.2m @ 0.34% Cu (376.8-390 m) and 19.2m @ 0.27% Cu (410-429.2 m) (downhole intercepts). The best intersections were 1m @ 1.72% Cu (304-305 m) and 1.3m @ 1.9% Cu (450.7-452.0 m) (downhole intercepts)³.

Highly anomalous Cu, Au, Zn now recorded in two drill holes 2km apart along strike on the Cormorant trend suggest further investigation is warranted.

Drill hole MN14D34 (Jessievale) targeted a strong positive (7,000nT) magnetic anomaly for potential magnetite-hosted IOCG mineralisation similar in character to that present at Ernest Henry Mine. The drill hole intersected abundant magnetite-rich IOCG alteration, though with a sulphide assemblage dominated by pyrite rather than chalcopyrite and consistently low copper values.

Drill hole MN14D35 (Cyclone) targeted a discrete basement conductor within a structurally complex NNW-trending fault zone, the exploration target being sulphide-rich mineralisation similar in character to that occurring at the Artemis Prospect and Eloise Mine southeast of Cloncurry. However, pyritic and graphitic shale and phyllite were intersected, adequately accounting for the conductive anomaly.

Hole ID	From (m)	To (m)	Interval (m)	Cu ppm	Au g/t	Zn ppm
MN14D34	74	75	1	14	0.94	9
MN14D34	172.7	173.0	0.3	1760	0.07	27
MN14D35	182	183	1	56	0.12	2250
MN14D35	183	184	1	64	0.22	96
MN14D37	375	376	1	1090	0.03	132
MN14D37	376	377	1	1570	0.03	100
MN14D37	379	380	1	1565	0.13	86
MN14D37	380	381	1	1550	0.11	90
MN14D37	381	382	1	1110	0.04	52
MN14D37	382	383	1	2760	0.02	297
MN14D37	403	404	1	1940	0.07	22900
MN14D37	404	405	1	2900	0.07	1310
MN14D37	405	406	1	8450	0.14	2410
MN14D37	406	407	1	3400	0.04	3910
MN14D37	407	408	1	2120	0.04	323
MN14D37	408	409	1	1775	0.07	433
MN14D37	409	410	1	7560	0.03	681
MN14D37	410	411	1	6870	0.04	511
MN14D37	411	412	1	4250	0.06	520
MN14D37	412	413	1	1195	0.04	964
MN14D37	413	414	1	1310	0.04	129
MN14D37	414	415	1	2760	0.09	417
MN14D37	415	416	1	2640	0.08	1010
MN14D37	416	417	1	1970	0.06	478
MN14D37	417	418	1	2270	0.06	891
MN14D37	418	419	1	1150	0.11	7350
MN14D37	419	420	1	1135	0.07	20200
MN14D37	420	421	1	1960	0.06	11700
MN14D37	421	422	1	1140	0.05	8730
MN14D37	422	423	1	1580	0.1	24100
MN14D37	423	424	1	1390	0.05	9680
MN14D37	499	500	1	1030	0.04	49
MN14D37	500	501	1	519	0.02	95
MN14D37	501	502	1	1310	0.02	60
MN14D37	502	503	1	6410	0.06	184
MN14D37	503	504	1	1470	0.04	95

Table 3: Significant assays for holes MN14D34, MN14D35 andMN14D37. Samples with <0.2% Cu and/or <0.1g/t Au and/or 0.2% Zn</td>outside the reported intercepts have been omitted. Drill core analysedat ALS Laboratories (fire assay and AAS for Au, four acid digestand analysis by ICP-MS/ICP-AES for elements other than Au, ore gradeanalysis undertaken for samples where Zn >10,000 ppm. Depthstabulated are downhole depths; true thicknesses are not known.

³ An exciting new 10 kilometre long Cu-Au mineralisation trend discovered near Cloncurry. MEP report to ASX dated 5 September 2011



Next steps for the Cloncurry JV

The scheduled drill program for copper and gold mineralisation was only partly completed due to arrival of the wet season and delays in negotiating appropriate land access agreements. Another 4 drill holes and ~1,300m of drilling are programmed and budgeted. Drill holes are planned for two targets at Gidyea Bore (EM conductor and positive gravity anomaly) and Emu South (EM conductor) where there has been no prior historical drilling at either target. Consideration is also being given to another drill hole at Cormorant South near MN13D13 as a DHEM survey indicates that a strong off-hole conductor is present.

Competent Person's Statement

Information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Glen Little, who is a full-time employee of the Company and a Member of the Australian Institute of Geoscientists (AIG). Mr Little has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Little consents to inclusion in this document of the information in the form and context in which it appears.

For further information contact: Andrew Woskett (Managing Director) or

Tony Belperio (Director, Business Development) Minotaur Exploration Ltd T +61 8 8132 3400

APPENDIX 1

JORC CODE, 2012 EDITION

Section 1: Sampling Techniques and Data

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. 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 (eg 'reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 30g 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.	 Drill holes MN14D34–MN14D37 were drilled from surface initially by Rotary Mud method (4.75 inch diameter) to basement and then diamond coring technique to total depth to appraise nature of basement lithologies for IOCG style mineralisation. The NQ2 diamond drill bit size employed to sample the zone of interest is considered appropriate to indicate degree and extent of mineralisation. All drill core has been geologically logged, magnetic susceptibility and portable XRF measurements systematically recorded every 1m, specific gravity measurement recorded every 5m, core orientation determined where possible, photographs taken of all drill core trays, representative lithologies and mineralisation. Selected 1m intervals of quarter core were chosen for geochemical laboratory analysis based upon visual observations on lithologies, portable XRF measurements and perceived zones of alteration and mineralisation. Unsampled intervals are expected to be unmineralised.
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).	Professional drilling contractors QEx Drilling carried out the entire drill program (MN14D34-MN14D37) using their CT14 rig under the supervision of experienced Minotaur geological personnel and geological consultant. A Ranger Digital Downhole survey system was used every ~30m by QEx Drilling to determine hole orientation.



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Section 1: Sampling Techniques and Data continued

Criteria	JORC Code explanation	Commentary
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.	Received drill core length was measured and recorded and compared to actual metres drilled as reported by the drill contractor. The ratio of measured length to drilled length is used to calculate total core recovery. Core recoveries of 100% were predominantly obtained.
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.	All drill core was geologically logged, magnetic susceptibility and portable XRF measurements systematically recorded every 1m, specific gravity measurement recorded every 5m, core orientation determined where possible, all drill core trays photographed with select lithologies and zones of mineralisation photographed. Lithological, geological and drilling data for the entire hole was entered onsite into Minotaur's OCRIS Mobile logging system. Rock quality data (RQD) was not recorded and no comprehensive geotechnical assessment has been undertaken on the drill core as this is unnecessary for early-stage regional exploration.
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 maximise 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 core from drill holes MN14D34, MN14D35 and MN14D37 were cut and quarter core samples taken for geochemical analysis. In hole MN14D34, 1 metre composite samples were collected from 51-75m, 97-109m, 119-127m, 172-178m, 217-225m and 232-235m. In hole MN14D35, 1 metre composite samples were collected from 180-188m, 206-219m and 249-252m along with smaller samples at 234.97-235.1m, 278.9-279.5m, 357.24-357.39m, 361.4-361.7m, 362.5m-362.6m and 369.02-369.14m. In hole MN14D37, 1 metre composite samples were collected from 366-368m, 375-377m, 379-384m, 402-424m and 499-505m. The sampled intervals were selected based upon visual observations on lithologies, portable XRF measurements and perceived zones of alteration and mineralisation. Unsampled core intervals are expected to be unmineralised. Each laboratory submission sample was collected in an industry-standard calico bag with sample number written in black on the bag and sample number ticket inserted into the bag. Sub-samples were placed in large plastic polyweave bags, labeled with the sample number range and secured with a plastic cable tie for direct transport to ALS Laboratories in Mount Isa by a Minotaur representative.



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Section 1: Sampling Techniques and Data continued

Criteria	JORC Code explanation	Commentary
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 (i.e. lack of bias) and precision have been established.	 Results reported in the body of this Report pertain soley to quarter core samples from drill holes MN14D34, MN14D35 and MN14D37 analysed by ALS Laboratories. A 49-element suite including Cu, Zn, Pb, Ag was analysed by four acid digest and ICP-MS/ICP-AES finish (ALS method ME-MS61): four acid digest is considered a near total digest for base metals and appropriate for regional exploratory appraisal. Zn results above the upper detection limit of 10,000ppm for ALS method ME-MS61 were repeated with ALS method OG62 (four acid digest and ICP-AES or AAS finish): an appropriate method for evaluation of ore/high-grade material. Gold analyses by fire assay with AAS finish (ALS method Au-AA25) to 0.01 ppm detection limit. ALS analysed regular blanks (around 1 in 20), regular standards (around 1 in 10) and regular duplicates (around 1 in 10) when analysing the samples from drill holes MN14D34, MN14D35 and MN14D37. As part of Minotaur's quality control procedure, additional commercially-sourced standards (around 1 in 25) and duplicates (around 1 in 10) were also submitted by Minotaur to ALS simultaneously with drill core samples from MN14D34, MN14D35 and MN14D37. For the laboratory results received and reported in the body of this Report an acceptable level of accuracy and precision has been confirmed by Minotaur's QAQC protocols.
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.	All drilling data, including collar coordinates, hole orientation, total depth, sampling intervals and lithological logging, were recorded using OCRIS Mobile logging software with inbuilt data validation. Significant intersections have been verified by Minotaur's project geologists and laboratory assays are consistent with mineralised intervals highlighted by geological logging and portable XRF analyses. No twinned holes were undertaken. No adjustments to assay data were undertaken.



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Section 1: Sampling Techniques and Data continued

Criteria	JORC Code explanation	Commentary
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.	Drill hole collar locations (GDA94, MGA Zone 54) were determined using handheld GPS with an accuracy of +/- 3m, which is considered appropriate level of accuracy for regional drilling appraisal. RL determined from handheld GPS. Ranger Digital system used every ~30m downhole
		to determine hole orientation during drilling. No downhole surveys were conducted after completion of drilling.
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.	Results reported in the body of this Report pertain soley to quarter core samples from drill holes MN14D34, MN14D35 and MN14D37analysed by ALS Laboratories. Predominantly 1 metre intervals used for downhole geochemical sampling is considered appropriate for perceived degree of mineralisation present. There is no historic exploration drilling data within 1km of holes MN14D34, MN14D35 and MN14D37, thus historic data are of insufficient drilling density to determine extents of mineralisation along strike or at depth from holes MN14D34, MN14D35 and MN14D37. No mineral resource or ore reserve estimation has been undertaken.
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.	Drill hole orientation was optimised to intersect the centre of the target geophysical anomalies. No orientation-based sampling bias has been identified.
Sample security	The measures taken to ensure sample security.	All drill samples were stored at a secure location and delivered to the Laboratory for analysis by Company personnel. Remnant drill core from MN14D34, MN14D35 and MN14D37 has been permanently retained.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No independent audit or review undertaken.



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Section 2: Reporting of Exploration Results

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.	The drilling reported herein was conducted on portions of tenements EPM8608, 16975 and 19412 which form part of the Cloncurry Joint Venture between Minotaur Exploration and Japan Oil Gas and Metals National Corporation (JOGMEC). Exploration activities are managed by Minotaur Exploration under a jointly agreed work program for which JOGMEC are funding and Minotaur are diluting. There are no existing impediments to any tenement within the Cloncurry Joint Venture. Ground disturbing activities, such as drilling, required prior consultation and approval by appropriate Native Title party and landowners.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Extensive historical exploration by other companies across the JV tenements includes airborne magnetic surveys, gravity surveys, induced polarization (IP) surveys, EM surveys and diamond drilling. However, no prior drilling had taken place within 1km of holes MN14D34, MN14D35 and MN14D37.
Geology	Deposit type, geological setting and style of mineralisation.	Within the eastern portion of Mt Isa Block targeted mineralisation styles include: IOCG-style mineralisation associated with ~1590–1500Ma granitic intrusions and fluid movement along structural contacts e.g. Eloise Cu-Au; and sediment-hosted Zn+Pb+Ag±Cu±Au deposits e.g. Mt Isa, Cannington.
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 down hole length and interception depth 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 clearly explain why this is the case. 	Full drill collar details for drillholes MN14D34, MN14D35 and MN14D37, including location coordinates, orientation and final depth are provided in Table 1 of the body of this Report. Assay results are reported in <i>Tables 2-3</i> of the body of this Report.



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Section 2: Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
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. 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.	Assay results reported in the body of this Report pertain only to quarter core samples from drill holes MN14D34, MN14D35 and MN14D37 analysed by ALS Laboratories. No weighting, maximum and/or minimum grade truncations have been used. Assays are predominantly for 1 metre representative splits and are reported as downhole intervals. No aggregation of the assay results has been undertaken.
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 (eg 'down hole length, true width not known').	All depths and intervals are reported as downhole measurements. True widths for holes MN14D34, MN14D35 and MN14D37 are not known.
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.	See <i>Figure 2</i> of this 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.	All results of significance have been reported within this Report.
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.	No significant exploration data have been omitted.
Further work	The nature and scale of planned further work (eg 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.	Extent of any future investigations at the Jessievale, Cyclone and Clonagh South targets is dependent upon results achieved through completion of the remainder of the scheduled drill program and possible downhole geophysical surveying (DHEM).