

ASX RELEASE 6 AUGUST 2014

# MAHUMO PROJECT - CONFIRMATION OF HIGH GRADE COPPER/SILVER ASSAYS

The Board of MOD Resources Limited (ASX: MOD) is pleased to announce that new assay results for composite samples from mineralised intersections in previous shallow drill holes at the Mahumo Project have confirmed high copper and silver grades at both the West and East Zone deposits (Figure 1).

Composite assay results were obtained from nine diamond core drill hole intersections within or adjacent to two initial open pit shells which form part of the current conceptual mining study announced on 16 July 2014 (Table 1). Results are considered very encouraging for the following reasons:

## **West Zone** (six intersections)

- Average composite grade for six drill hole intersections is 1.7% Cu and 41g/t Ag
- Highest grade individual drill hole composite is **2.2% Cu and 85g/t Ag** in drill hole MO-55-D
- Copper sulphide (chalcocite) was identified visually in all intersections >40m down hole depth
- 85-93% acid soluble Cu reported in copper oxide intersections <40m down hole depth (Figure 2)

# **East Zone** (three intersections)

- Average composite grade for three drill hole intersections is 2.1% Cu and 55g/t Ag
- Highest grade individual drill hole composite is 2.8% Cu and 76g/t Ag in drill hole MO-090-D
- Copper sulphide (chalcocite) was identified visually in all intersections

The copper and silver results compare favourably with the pit optimisation study which delineated an average grade of **1.8% Cu and 47g/t Ag** within the pit shells assuming 80% copper processing recovery.

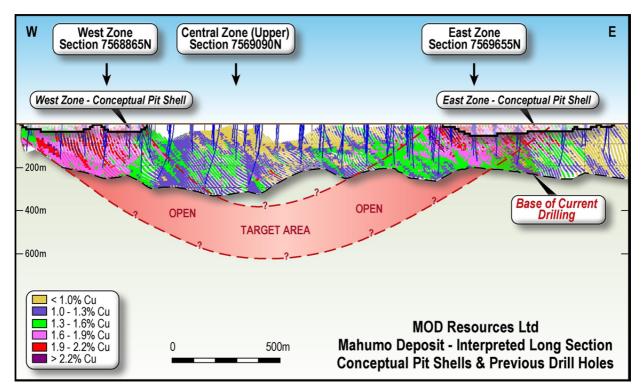


Figure 1: Preliminary interpretation of 2.5km long section at Mahumo showing West Zone and East Zone deposits

The results are part of the current metallurgical test work program for the conceptual mining study which is initially evaluating potential for two >500m long open pits. These pits could potentially provide access for underground mining of what appears to be an extensive vein related copper/silver deposit.



In addition to confirming high grade copper and silver assays, results of copper solubility for the nine drill hole intersections plotted in Figure 2 are also encouraging.

Figure 2 shows approximately 85-93% of the copper in intersections less than 40m depth appears to be acid soluble. Figure 2 also shows that copper intersections deeper than 40m depth have low acid solubility consistent with the dominance of sulphide mineralization recorded in these intersections.

The significance of the initial copper solubility results is that they support the current test work program which is evaluating the amenability of shallow mineralization for processing by conventional flotation.

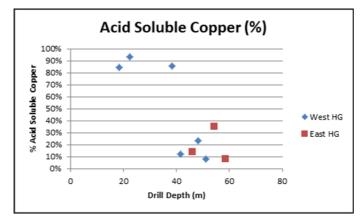


Figure 2: Acid Soluble Cu results from high grade intersections in 9 drill holes in the West and East Zones

# **Background**

Previous diamond drilling by MOD along 2.5km strike length defined extensive vein related copper/silver mineralisation interpreted to extend from 5-6m depth to the current limit of drilling  $\sim\!200\text{m}$  down dip (Example: Figure 3). A conceptual study is underway to evaluate potential for developing the high grade West and East Zones, initially by shallow open pit and potentially by underground.

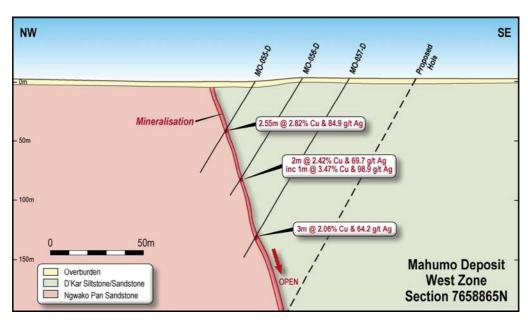


Figure 3: Cross section through West Zone showing current drill hole intersections

MOD has appointed mining consultants Orelogy to conduct a pit optimisation study for the West Zone and East Zone deposits using existing data. Further work (including metallurgical test work, resource infill drilling and drilling to test for extensions below the West Zone and East Zone deposits) is required to complete the study to a reportable standard and demonstrate the full potential of the Mahumo Project.



					Ma	humo	Projec	t : Samp	ling and Assay	/ Sheet			
										Weighted original Assays	Average of (ALS Results)	•	e Assays of (SGS Results)
INTE	RSECTIONS	BHID	SAMPLE NO	FROM (m)	TO (m)	Ag (ppm)	Cu (%)	Acid Soluble Copper (%)	Geologist Comments	Cu %	Ag (ppm)	Cu %	Ag (ppm)
			MO-296/D	21.0	22.0	56.4	2.75	2.26	Mainly				
	1	MO-001-D		22.0	23.0	13.1	1.06	1.13	chalcocite, minor	1.9	30	2.1	48
		MO-001-D		23.0	24.0	26.3	1.98		malachite				
		MO-002-D		17.0	18.0	6.8	1.89		Chalcosite - chrysocolla	1 5	2	1 2	
	2	MO-002-D MO-002-D		18.0 19.0	19.0 20.0	-	1.42	1.22 0.88		1.5	2	1.3	4
			MO-012/D MO-1629/D	49.6	50.0	60.1	1.92	0.08					
			MO-1629/D MO-1630/D	50.0	51.0	20.3	0.57	0.08	1				
Je	3		MO-1632/D	51.0	51.5	87.4	2.73	0.07	Mainly chalcocite	1.5	52	1.7	55
West Zone			MO-1633/D	51.5	52.5	97.0	2.80	0.28	†				
st.			MO-1663/D	40.0	41.0	58.4	1.67	0.18	Mainly chalcocite		60	2.0	58
Ve	4		MO-1664/D	41.0	42.0	81.3	2.52	0.24		1.8			
>			MO-1665/D	42.0	43.0	38.7	1.04	0.17					
		MO-055-D	MO-1690/D	46.9	47.3	94.0	3.23	0.86	Mainly chalcocite	2.8	84	2.2	85
	_	MO-055-D	MO-1692/D	47.3	48.1	62.2	2.16	0.20					
			MO-1693/D	48.1	49.1	117.0	3.77	0.27					
			MO-1694/D	49.1	49.4	30.8	0.99	0.50					
			MO-1747/D	37.0	38.0	31.8	1.02	0.91	Malachite /	Malachite / chrysocolla 1.8	55	1.3	
	6		MO-1748/D	38.0	39.0	67.8	1.92	1.60					28
		MO-058-D	MO-1749/D	39.0	40.0	64.9	2.37	2.01					
West Zone Composite												1.7	41
			MO-2710/D	56.00	57.00	7.5	3.20		1			2.1	
e)	7		MO-2714/D	59.00	60.00	90.7	3.54	0.33	Mainly chalcocite	2.9	54		28
East Zone			MO-2715/D	60.00	61.00	60.0	1.92	0.08					
Ž	8		MO-2852/D	45.00	46.00	39.9	1.32	0.07	Chalcocite - chrysocolla 2.8	2.8	80	2.8	76
ast	-		MO-2853/D	46.00	47.20	108.0	3.88	0.90					
ü	9		MO-2790/D MO-2792/D	53.00 54.00	54.00 55.00	41.6 23.3	1.41	0.49 0.48	Mainly chalcocite, minor	1.6	53	2.0	67
			MO-2792/D MO-2793/D	55.00	55.50	113.0	2.74	0.48	malachite	1.6	53	2.0	67
East Zone Composite			, =				-	•	,			2.1	55

Table 1: Copper and silver intersections from 9 shallow drill holes - showing original assays and new composite assay results

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## **Competent Person's Statement**

The information in this announcement that relates to Geological Data and Exploration Results at the Botswana Copper Project is reviewed and approved by Jacques Janse van Rensburg, BSc (Hons), General Manager Exploration (Africa) for MOD Resources Ltd. He is registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP) No. 400101/05 and has reviewed the technical information in this report. Mr Janse van Rensburg has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which it is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Janse van Rensburg consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

Information in this announcement relates to previously released exploration data disclosed under the JORC Code 2004. It has not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since it was last reported and is based on and fairly represents information reviewed and approved by Jacques Janse van Rensburg, BSc (Hons), General Manager Exploration (Africa) for MOD Resources Ltd.



He is registered as a Professional Natural Scientist with the South African Council for Natural Scientific Professions (SACNASP) No. 400101/05 and has reviewed the technical information in this report. Mr Janse van Rensburg has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and the activity which it is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Janse van Rensburg consents to the inclusion in this announcement of the matters based on information in the form and context in which it appears.

#### **Exploration Targets and Results**

This announcement refers to Exploration Targets as defined under Sections 18 and 19 of the 2012 JORC Code.

The Exploration Targets quantity and quality referred to in this announcement are conceptual in nature. There has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the Exploration Targets being delineated as a mineral resource. This announcement includes no reference to new Mineral Resources which haven't already been announced by MOD Resources Ltd previously.

#### **Forward Looking Statements**

This announcement may include forward-looking statements that are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of MOD Resources Limited. Examples of forward-looking statements used in this announcement include: 'confirmed high copper and silver grades at both the West and East Zone deposits', and; 'copper and silver results compare favourably with the pit optimisation study which delineated an average grade of 1.8% Cu and 47g/t Ag within the pit shells assuming 80% copper processing recovery', and: 'initially evaluating potential for two >500m long open pits. These pits could potentially provide access for underground mining of what appears to be an extensive vein related copper/silver deposit', and; 'Figure 2 also shows that copper intersections deeper than 40m depth have low acid solubility consistent with the dominance of sulphide mineralization', and; 'initial copper solubility results is that they support the current test work program which is evaluating the amenability of shallow mineralization for processing by conventional flotation', and: 'A conceptual study is underway to evaluate potential for developing the high grade West and East Zones, initially by shallow open pit and potentially by underground'.

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# JORC Code, 2012 Edition Table 1 Reporting Exploration Results from Botswana Copper Project Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <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> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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> <li>The remaining half portion of drill core retained on site in Botswana for the nine drill hole intersections listed in Table 1 were bagged and sent to Independent Metallurgical Operations (IMO) laboratory</li> <li>All bagged samples were weighed before dispatch to IMO in Perth</li> </ul>
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).	The nine drill holes referred to in this release were drilled by diamond core drilling (NQ diameter)
Drill sample recovery	<ul> <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> <li>Diamond drilling recorded recovery. Core recovery was good</li> <li>Drill core was sampled in 1m intervals or as appropriate to align with the geological contacts</li> </ul>
Logging	<ul> <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> <li>During the core logging geologists follow MOD's standard operating procedure for logging processes. The metre interval (from &amp; to) is recorded and the data below is described within the core logs:         <ul> <li>Major rock unit (colour, grain size, texture)</li> <li>Sub-unit</li> <li>Weathering</li> <li>Alteration (style and intensity)</li> <li>Mineralization, origin of mineralization, estimation of % sulphides/oxides)</li> <li>Veining (type, style, origin, intensity)</li> <li>Structure (joints, faults)</li> <li>Water and structure</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary			
		Photographs of each core tray were taken dry and wet  All mineralised intersections observed in diamond core were logged			
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <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> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul> <li>All diamond core samples for the nine drill hole intersections in Table 1 were taken as half core samples</li> <li>IMO took photos of all core samples as received</li> <li>Samples were segregated into individual 1m intervals, then passed through two stages of crushing</li> <li>Individual intervals were blended (ie composited) into the nine mineralized intersections listed in Table 1 by being passed through a rotary splitter 3 times to ensure a homogeneous blend</li> <li>Subsamples of each composite interval were sent to SGS Laboratory for analysis of Cu by methods AAS40Q and AAS42S. Ag and a suite of other elements also analysed by SGS</li> <li>A composite sample was also prepared by blending a subsample from each composite drill hole sample for the West Zone and East Zone and analysed by SGS</li> </ul>			
Quality of assay data and laboratory tests	<ul> <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> <li>Composite assay results from SGS for copper and silver for the nine mineralised intersections and also for the West Zone and East Zone composites are listed in Table 1. The SGS composite results are consistent with the results of the calculation of the weighted average of the individual 1m intervals originally analysed by ALS also listed in Table 1</li> <li>Standard laboratory procedures were used by both ALS and SGS</li> </ul>			
Verification of sampling and assaying	<ul> <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> <li>protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Independent Metallurgical     Operations (IMO) consulting     to MOD managed the sample     preparation and SGS analysis     program and compiled Table     1			



Criteria	JORC Code explanation	Commentary
Location of data points	<ul> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	No recent drilling done.     Composite Samples were     taken from half core intervals     from previously announced     drill holes
Data spacing and distribution  Orientation of data in relation to	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> </ul>	<ul> <li>Samples of half core for assaying were taken at 1m intervals in both drill holes.</li> <li>Sample compositing of half core was applied for the nine drill holes as listed in Table 1</li> <li>Drilling planned at right angles to known strike and at best practical angle to</li> </ul>
geological structure	<ul> <li>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.</li> </ul>	intersect the target mineralization at approximately right angles
Sample security	The measures taken to ensure sample security.	<ul> <li>Sample bags were tagged, logged and transported to IMO laboratory in Perth by DHL in a locked steel trunk</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>MOD's sampling procedure is done according to standard industry practice</li> </ul>

# **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	<ul> <li>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.</li> <li>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.</li> </ul>	PL686/2009 is a granted Prospecting Licence held by 100% by MOD Resources. MOD has met full expenditure obligations and has therefore applied to Botswana Mines to retain 100% of the area of PL686/2009
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	MOD has conducted substantial drilling on the Corner K deposit on PL686/2009 since the deposit was discovered in 2011. A maiden Mineral Resource was announced by MOD in September 2012
Geology	Deposit type, geological setting and style of mineralisation.	The visible copper mineralization intersected in drill holes on PL686/2009 is interpreted to be a Proterozoic or early Palaeozoic age vein related sediment hosted occurrence similar to other known deposits and mines in the central Kalahari Copper Belt



Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul> <li>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:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <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>	The information relating to the nine drill holes listed in Table 1 has not changed since release of the Corner K mineral resource in 2012 There is no material change to this drill hole information
Data aggregation methods	<ul> <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> <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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul> <li>Significant copper and silver intersections are reported by MOD as received from the lab</li> <li>Weighted averages, based on sample lengths are used to calculate the intercepts</li> <li>The SGS composite results are consistent with the results of the calculation of the weighted average of the individual 1m intervals originally analysed by ALS are also listed in Table 1</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <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> <li>True widths are not quoted</li> <li>Down hole widths are used throughout</li> </ul>
Diagrams	<ul> <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>	A long section, Figure 1, is contained in this release
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 significant intercepts are listed in Table 1
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.	All substantive data is reported



Criteria	JORC Code explanation	Commentary
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Any further work on PL686/2009 will be dependent on results from metallurgical test work currently in progress</li> <li>A diamond drilling program is proposed to infill the West Zone and East Zone deposits to a depth of approximately 50-60m to assist with estimating a resource</li> <li>A drilling program is being considered to test potential extensions at Mahumo</li> </ul>