ASX Announcement

22 September 2014

# Initial Assay Results Indicate High-Grade Graphite at Sevastopol and Rhea Prospects, Cloncurry, Queensland

### **HIGHLIGHTS:**

- Results from first scout Aircore drill hole completed at Sevastopol, indicate high-grade graphitic carbon grades present.
- GBM drillhole SVP001 returned significant graphite grades from the entire interval tested, 37.5m @ 8.1 % TGC from 0.5m including 19m @ 10.3 % TGC to base of hole at 38m
- Total Graphitic Carbon (TGC) analyses received for a suite of historic drill holes from Sevastopol and Rhea, re-sampled in August 2014 confirm graphite occurs over large areas at these prospects.
- Petrographic study for grain size determination, planning for the next phase of drilling, and exploration target size analysis for Sevastopol prospect is underway.
- Planning is also underway for the next phase of drill testing at Sevastopol.

Australian resources company **GBM Resources Limited** (ASX: **GBZ**) ("**GBM**" or "**the Company**") is pleased to advise completion of the first drill hole on one of the recently defined graphite prospects, Sevastopol, located within EPM16398 tenement and within four kilometres of the Ernest Henry mine, near Cloncurry in Queensland.

Aircore drill hole SVP001 was designed to test the graphitic shale unit at the location of thinnest cover sediments interpreted from historic drilling data. The hole intersected strongly graphitic grey-black weathered shale in Proterozoic basement from near-surface (0.5m down hole) and bottomed in the same material upon refusal at 38m. Analysis by SGS Laboratories Townsville returned 37.5m @ 8.0 % TGC from 0.5m including 19m @ 10.4 % total graphitic carbon (TGC) from 19m and a peak assay for the two-metre composite samples of 11.9% TGC.



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Drill product from a number of mostly shallow historic RC drillholes and one deeper diamond hole across the Sevastopol and Rhea prospects was located in Mt Isa. Graphitic intervals from the RC chips and diamond core was logged and sampled for TGC analysis. Results correlate well with SVP001 and confirm the presence of widespread, shallow high-grade graphitic carbon at both prospects. Average graphite analyses for all historic samples analysed from Sevastopol was 8% TGC with a peak analyses of 18.7 % TGC from 290m in the diamond hole. It should be noted that samples from previous RC holes were of washed drill chips and as such may not be representative and should be considered as indicative graphite occurrence, but not representative of grade.



**Figure 1:** Sevastopol graphite prospect. MIMDAS IP chargeability anomaly and interpreted graphite zone highlighted in red. Historic and GBM drill collars shown; where circled indicates graphitic shale intersection. Most historic drilling is shallow, only just penetrating basement rocks.

Hole ID	MGA54_E	MGA54_N	RL	Azimuth	Dip	EOH_Depth	Intercept	Intercept	Intercept	Grade
							From_m	To_m	Length_m	%TGC
SVP001	469170	7743000	149.7	0	-90	38.0	0.5	38	37.5	8.0
						(Including)	19.0	38.0	19.0	10.4

Table: Summary of drill hole details for Sevastopol drilling.

A suite of historic and GBM graphitic shale samples are presently undergoing petrographic analysis for initial qualitative grain size determination.



Figure 2: GBM Tenement outlines and graphite prospect location plan.

For further information please visit <u>www.gbmr.com.au</u> or contact:

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The information in this report that relates to Exploration Results is based on information compiled by Neil Norris, who is a Member or Fellow of The Australasian Institute of Mining and Metallurgy. Mr Norris is a holder of shares and options in the company and is a full-time employee of the company. Mr Norris has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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'. Mr Norris consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

## **Cloncurry Project -Checklist of Assessment and Reporting Criteria (JORC Code Table 1)** SECTION 1 SAMPLING TECHNIQUES AND DATA

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (e.g. 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.	<u>GBM Drilling:</u> Sampled using NQ2 tube aircore (AC) reverse circulation drilling using a 3" tri-wing bit. <u>Historic Drilling:</u> Sampled using NQ diamond drilling and reverse circulation (RC) drilling. Details of historic sampling not available at the time of writing.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used	GBM Drilling: Collar locations were recorded using a GPS by GBM with approximately 5m horizontal accuracy. Reverse circulation aircore drilling was used to obtain samples and will be suitable for resource estimation should this become necessary. All the samples were collected into bulk plastic bags and spear sampled from one metre intervals then composited as two-metre composite samples for assaying. The sampling techniques used adhere to GBM Resources Limited standard operating procedures for exploration drill product logging and sampling and are of a standard sufficient for resource estimation. All samples were dispatched to SGS Laboratories Townsville for processing. <u>Historic Drilling:</u> Core samples collected were diamond sawed into two quarter-core portions from remaining half-core and collected into calico bags from approximate 50cm intervals. As no bulk sample material was preserved, historic RC drill chips were composite sampled from plastic chip trays. For the majority of historic RC holes, the entire graphitic shale interval from each hole was required to be composited as one sample to obtain enough material for assay. As RC chip trays are generally filled from washed and sieved chips, the preserved sample is indicative. It is considered likely that some powdered graphite-rich material was washed out from the original sample which would potentially return lower TGC grades than from equivalent speared whole sample. These samples may not be representative and are considered to be indicative only.
	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information	Drilling: All aircore spear composites, historic diamond quarter-core samples and historic RC chip-tray composites discussed above were prepared and analysed by SGS Laboratories using standard lab codes PRP86 for preparation and CSA05V for TGC analysis. Details of the quoted methods are available from SGS Australia.

Criteria	JORC Code explanation	Commentary	
Drilling techniques	Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond	<u>GBM Drilling:</u> Aircore drilling was completed using NQ2 size twin-tube reverse circulation equipment and a 3" tri-wing bit. The hole was collared with a vertical azimuth and no down-hole surveys were completed.	
	tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	completed using NQ-sized equipment for the diamond core and unknown equipment and method for the RC component. Details of historic drilling not available at the time of writing.	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed	<u>GBM Drilling:</u> Drill sample recovery was logged and monitored on a metre by metre basis.	
		Historic Drilling: No sample recovery information is available.	
	Measures taken to maximise sample recovery and ensure representative nature of the samples	<u>GBM Drilling:</u> For AC drilling, the use of twin-wall tubes and face-sampling bits and cyclone cleanliness particularly with wet sample maximises sample representativeness.	
		<u>Historic Drilling:</u> No sample recovery information is available.	
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to proformial loss (agin	<u>GBM Drilling:</u> There is no relationship expected between sample recovery and grade, however this will be reviewed when sufficient results are available. Sample recoveries were consistently above 95%.	
	of fine/coarse material.	<u>Historic Drilling:</u> No sample recovery information is available.	
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.	For AC drilling; lithology, minerals, alteration, and oxidation were recorded. An estimate of graphite content was also recorded.	
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	All logging was qualitative.	
	The total length and percentage of	GBM Drilling: The drillhole was logged in full.	
	the relevant intersections logged	Historic Drilling: Sampled intervals only were logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Historic half-core was sampled by splitting it in half longitudinally with a diamond saw (quarter core). Half went for assay and the other was retained for reference.	
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	<u>GBM Drilling</u> : Dry RC chips were spear sampled directly from bulk polypropylene bags and composite sampled.	
	. ,	<u>Historic Drilling:</u> A representative portion of each RC trip tray interval (1 or 2m metre intervals) was spooned into a zip-lock bag, generally as a complete graphitic horizon intercept from each drill hole. For longer RC holes, graphitic intercepts were split into nominal 10m composite intervals.	
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	Sample preparation followed SGS standard methodologies for Total Graphitic Carbon analysis.	
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Standard spear-sampling techniques were used to maximise sample representivity.	

Criteria	JORC Code explanation	Commentary
	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.	Standard spear-sampling techniques were used to maximise sample representivity.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Drilling sample sizes employed are considered in line with general industry practice.
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.	SGS method CSA05V: An accurately weighed portion of pulverised material (0.1g) is digested using hydrochloric acid to remove calcium carbonate before being ashed to burn off organic carbon and then analysed via Eltra combustion furnace for Total Graphitic Carbon.
	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.	No geophysical tools were used to determine any element concentrations from either drilling or soil samples.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	Laboratory QAQC involves the use of internal lab standards using certified reference material, blanks, splits and replicates as part of the in house procedures. Assays are determined by CSA05V. These assay and sample preparation methods are industry standard and appropriate for the nature of the samples.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections reviewed by the Company's exploration manager.
	The use of twinned holes.	Not required at this time
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All Data, data entry procedures, data verification and data storage has been carried out by GBM staff in accordance with GBM Standard Operating Procedures (SOPs). GBM SOP's meet industry best practice standards. Final Data verification and data storage has been managed by GBM Data Management staff using industry standard Data Shed software.
	Discuss any adjustment to assay data.	No adjustments or calibrations were made to any assay data used.
Location of data points	Accuracy and quality of surveys used to locate drillholes (collar and down- hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	<u>GBM Drilling:</u> Collar surveys were completed by hand held GPS. If required in the future licenced surveyers using DGPS systems are available. No local grids are in use. Down hole surveys were not completed.
		Historic Drilling: Survey details for historic drillholes were not available at the time of writing.
	Specification of the grid system used.	The grid system used is GDA94 MGA Zone 55
	Quality and adequacy of topographic control.	Topographic control was provided by Queensland 1:250k mapsheet 50m gridded contour data.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Drilling is of a 'scout' exploration nature only.

Criteria	JORC Code explanation	Commentary
	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.	At this time drilling is not adequate to estimate a resource.
	Whether sample compositing has been applied.	No sample compositing was carried out.
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.	Drillhole orientation is determined where possible perpendicular to interpreted potential mineralised structures. Due to the nature of scout drilling of buried geophysical targets, this is often not feasible.
	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 orientation based sampling bias has been identified in the data at this point.
Sample security	The measures taken to ensure sample security.	Field staff followed GBM sampling SOPs and ensured sample security until the samples were dispatched to SGS laboratories.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits conducted at this time.

# 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.	In 2010 GBM entered a major Farm-in Agreement for the Cloncurry Project with multinational companies Pan Pacific Copper and Mitsui Corporation. The GBM/CED Cloncurry Project comprises ten granted EPM's and five application areas held by GBM's subsidiary company Isa Tenements Pty Ltd. The tenement area, granted and under application, totals over 2,500 km <sup>2</sup> . An agreement was reached in August 2014 to exclude the exploration rights to graphite from the CED Joint Venture for the Sevastopol and Rhea prospect areas. The exploration rights for graphite in these areas are 100% legally and beneficially owned by Isa Tenements Pty Ltd, a wholly-owned subsidiary of GBM Resources Ltd, and are excluded from the target minerals of the Farm-in Agreement.
	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 project tenure is secured via EPM. All APM applications are in process with no competing applications lodged. No known impediments.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Exploration within the Mt Margaret project area has historically focussed on Roll-front Uranium and IOCG deposit styles. No exploration for economic graphite deposits has taken place in the Mount Margaret area prior to GBM.</li> <li>The very large historical Mount Fort Constantine Joint Venture tenements have been explored by a number of companies prior to WMC. Early work by CRAE, Chevron, Teton and then ANZ Exploration, between 1974 and 1979, concentrated on exploring for roll-front uranium deposits in the Mesozoic cover sequences. Chevron in particular drilled a large number of holes, many of which intersected basement. BHP pegged most of the current lease area as the Mount Margaret tenement from 1984 - 1986 because the area contained the largest undrilled magnetic anomalies in the Mount Success exploring for magnetite skarn and ironstone-gold deposits.</li> <li>Hunter Resources were granted the tenements covering the EPM 8648 area in March 1990 and entered a joint venture with WMC, who managed the project. WMC identified 7 target areas, FC1 - 7 with TEM, as being prospective for Starra style magnetic iron oxide hosted Cu-Au mineralisation. During 1991 drilling identified ore grade intersections at FC5, subsequently named 'Ernest Henry'. In February 1992 the current tenements were granted to the WMC/Hunter Resources JV. MIMEX joined the JV in place of Hunter Resources JV. MIMEX joined the JV in place of Hunter Resources during 1993, although WMC continued to manage the project until 1996 when MIMEX assumed management and sole funding of the project. In 2003 Xstrata assumed management of exploration Pty Ltd (MIMEX) and Xstrata Copper Exploration Pty Ltd (MIMEX) and Xstrata Copper Exploration Pty Ltd (Xstrata) completed extensive exploration activities over many of the Mt Margaret tenements (FC1 to FC15 and other prospects outside GBM tenement areas). Activities included regional and prospect scale aeromagnetic, ground magnetic, gravity, TEM (transient electromagnetic), IP-resistivity (induced polariza</li></ul>

Criteria	JORC Code explanation	Commentary
		2003, designed to seek large sulphide systems in those areas of Mount Fort Constantine EPM 8648 not previously surveyed with either WMC IP-resistivity or MIMEX IP. Xstrata also conducted additional prospect scale ground magnetics, gravity and drilling. Most of the sub-blocks over the EPM8648 were relinquished by Xstrata and Newcrest post 2006. Newcrest Mining Limited (NML) acquired the Mt Margaret West EPM 14614 (now Dry Creek tenement - EPM 18172) and carried out work primarily restricted to reviewing geological, geophysical and geochemical data from previous drilling, due to the scarcity of outcrop within this tenement. Previously RC and core drill holes were scan logged, and samples submitted for Petrology to assist in understanding the mineralisation and geology of the area. During 2006 22 RC holes were drilled within the Mt Margaret West EPM 14614. NML determined that significant potential remains for a discovery of economic gold-copper mineralisation within the area.
Geology	Deposit type, geological setting and style of mineralisation.	Geologically the Mount Isa Inlier is divided into three broad tectonic units: the Western and Eastern Fold Belts and the intervening Kalkadoon-Leichardt Belt (KLB). The Western Fold Belt (WFB) is subdivided into the Lawn Hill Platform, Leichardt River Fault Trough, Ewen Block and Myally Shelf. The Eastern Fold Belt (EFB) is subdivided into the Mary Kathleen, Quamby-Malbon and Cloncurry-Selwyn zones and the KLB includes the western parts of the Wonga Belt and Duchess Belt.
		In the Mt Isa Inlier, a deformed and metamorphosed Proterozoic basement of mixed sedimentary and igneous rocks older than 1870Ma is overlain by Proterozoic supracrustal rocks which are subdivided into four major sequences each separated by unconformities. Cover Sequence 1, which is confined mainly to the KLB comprises a basal sequence of subaerial felsic volcanics deposited between 1870–1850Ma; Cover Sequences 2, 3 and 4 comprise mainly fluviatile and shallow marine/lacustrine sedimentary rocks and bimodal volcanics that were deposited between 1790–1720Ma, 1680–1620Ma and ~1620–1590Ma, respectively.
		Two major tectonostratigraphic events are recognised in the Mt Isa Inlier. The first was the Barramundi Orogeny which at 1870Ma regionally deformed the basement. The second involved two periods of crustal extension between 1790–1760Ma and 1680–1670Ma lead to basin formation. This period was terminated between 1620–1550Ma by regional compressional deformation and post orogenic granite emplacement resulting in folding and high and low angle faulting and regional metamorphism to amphibolite facies.
		Granites and mafic intrusions were emplaced at various times before 1100Ma. With those older than 1550Ma being generally metamorphosed and deformed. The major granite plutons are grouped into a number of batholiths, from west to east are the Sybella (~1670Ma) in the WFB, Kalkadoon (~1860Ma), Ewen (~1840Ma) and the Wonga (1740-1670Ma) Batholiths in the KLB, and the late to post tectonic Naraku (~1500Ma) and Williams (~1500Ma) Batholiths in the EFB. Other smaller granitic intrusions include the Weberra (~1700Ma), Big Toby (~1800Ma) and Yeldham (~1820Ma) granites.
		Most of the gold and copper produced to date in the Mt Isa Inlier has come from intrusive and/or shear and fault controlled deposits in the EFB.

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:</li> <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>	Refer to additional table outlining Drill hole Details
	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.	Information is included
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>	When reported, downhole averages are length weighted arithmetic grades of consecutive samples. No cutting is performed at this time. No metal equivalents have been reported for this project.
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.	Due to the early stage of exploration the geometry of mineralisation has yet to be determined.
	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').	Due to the early stage of exploration and modelling, reporting of true widths is not considered appropriate.
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 attached Maps and Plans.
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	Results for all intersections of known or interpreted mineralised zones are reported in the report.

Criteria	JORC Code explanation	Commentary
	misleading reporting of Exploration Results.	
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.	These are very early stage exploration results, however details of setting and factors considered relevant are included in report.
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Further work will be planned following a detailed review of available results. This is likely to include further drill testing of this project areas.
	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 extents of the interpreted mineralised zones are shown on figures included in the report.