

30 July 2014



ASX Announcement

New Graphite Discovery in Ghana

- **RAB drilling has intersected significant widths of graphitic schist at Wa South with most holes ending in mineralisation**
- **This is the first recorded occurrence of graphite in the area. Graphitic schist horizons are present over at least 3km strike with widths up to 100m**
- **This occurrence is 90km south of Castle's Kambale Graphite deposit that hosts an Inferred Resource of 14.4mt @ 7.2% C (graphitic carbon) for 1.03mt contained graphite**

Castle Minerals Limited (ASX:**CDT**) is pleased to announce that RAB drilling has intersected multiple wide graphitic schist horizons on its Wa Project in north west Ghana. Zones up to 100m wide have been reported from logging of RAB holes. The zones occur over at least 3km of strike based on drilling and interpretation of geophysical data.

Castle's Managing Director, Mr Mike Ivey, said; "This is a greenfields discovery made as a consequence of our gold exploration and given the current strong interest in graphite suggests that this prospect may hold significant value for Castle."

During the 2013/14 dry season, RAB drilling on the Wa Gold Project totalled 1,262 RAB holes for 29,861m. This work targeted areas considered prospective for gold and base metal mineralisation, particularly around the Bundi and Kpali gold prospects.

Ongoing assessment of this work identified significant graphitic schist intercepts within the oxide profile of a number of the RAB holes. The original drill samples for this drilling were only submitted for gold analysis and the sample pulps are now being recovered from the laboratory in Ghana. Upon receipt of the pulps, selected intervals will be submitted for carbon analysis. Castle cautions that it has no carbon assay data for this drilling and can make no comment on the graphite content until carbon analysis is completed.

The RAB drilling has only tested the oxide component of the graphitic zones and most intercepts remain open at depth and along strike. Figures 3-13 show pictures of the RAB cuttings with the graphitic schist presenting as dark coloured material.

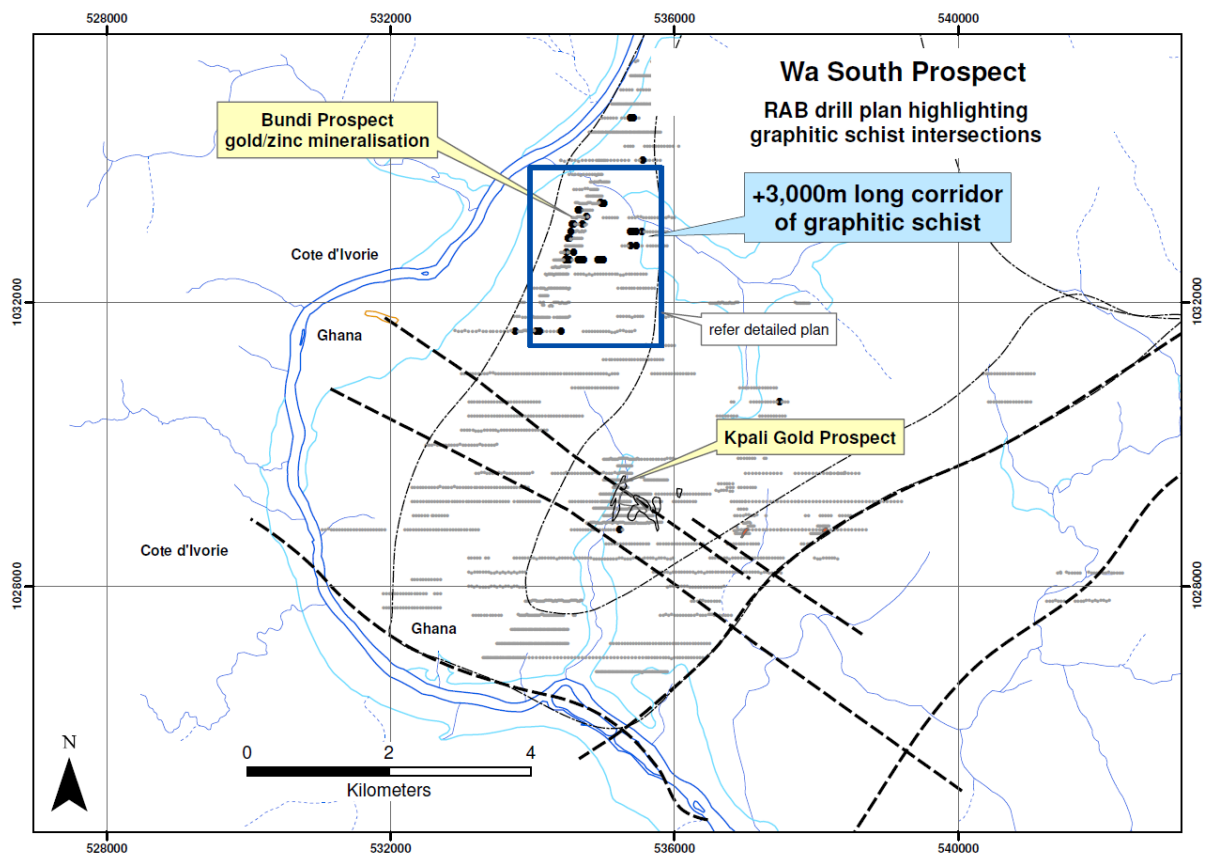


Figure 1: Wa South prospect – RAB hole collar locations with significant graphite schist intersections shown as larger black circles

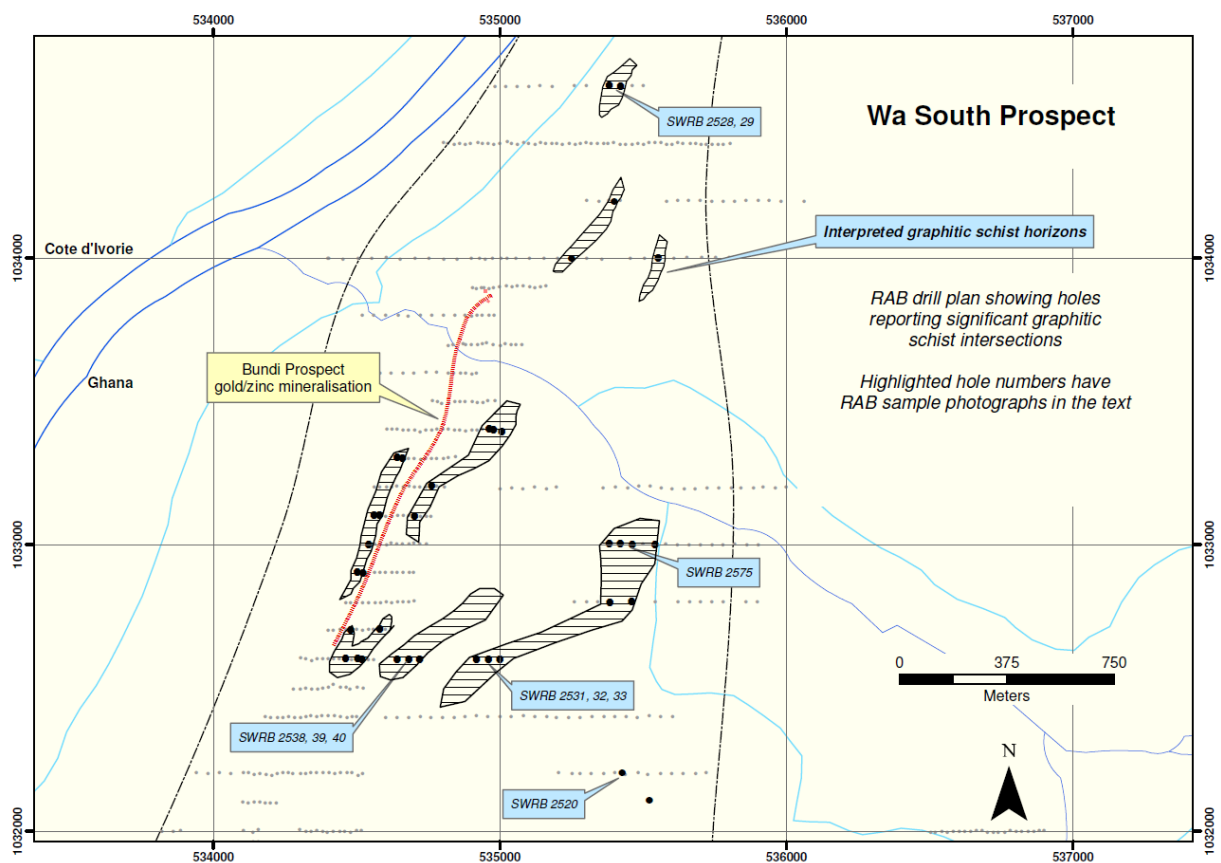


Figure 2: Wa South prospect – Interpreted graphitic schist horizons from RAB drilling



Figure 3: 13SWRB 465



Figure 8: 14SWRB 2520



Figure 11: 14SWRB 2575



Figure 4: 14SWRB 2533



Figure 9: 14SWRB 2540



Figure 12: SWRB 2628



Figure 5: 14SWRB 2532



Figure 6: 14SWRB 2538



Figure 10: 14SWRB 2531



Figure 13: 14SWRB 2629



Figure 7: 14SWRB 2539

Photographs of RAB samples at Wa South showing strong zones of graphitic schist (dark coloured material)

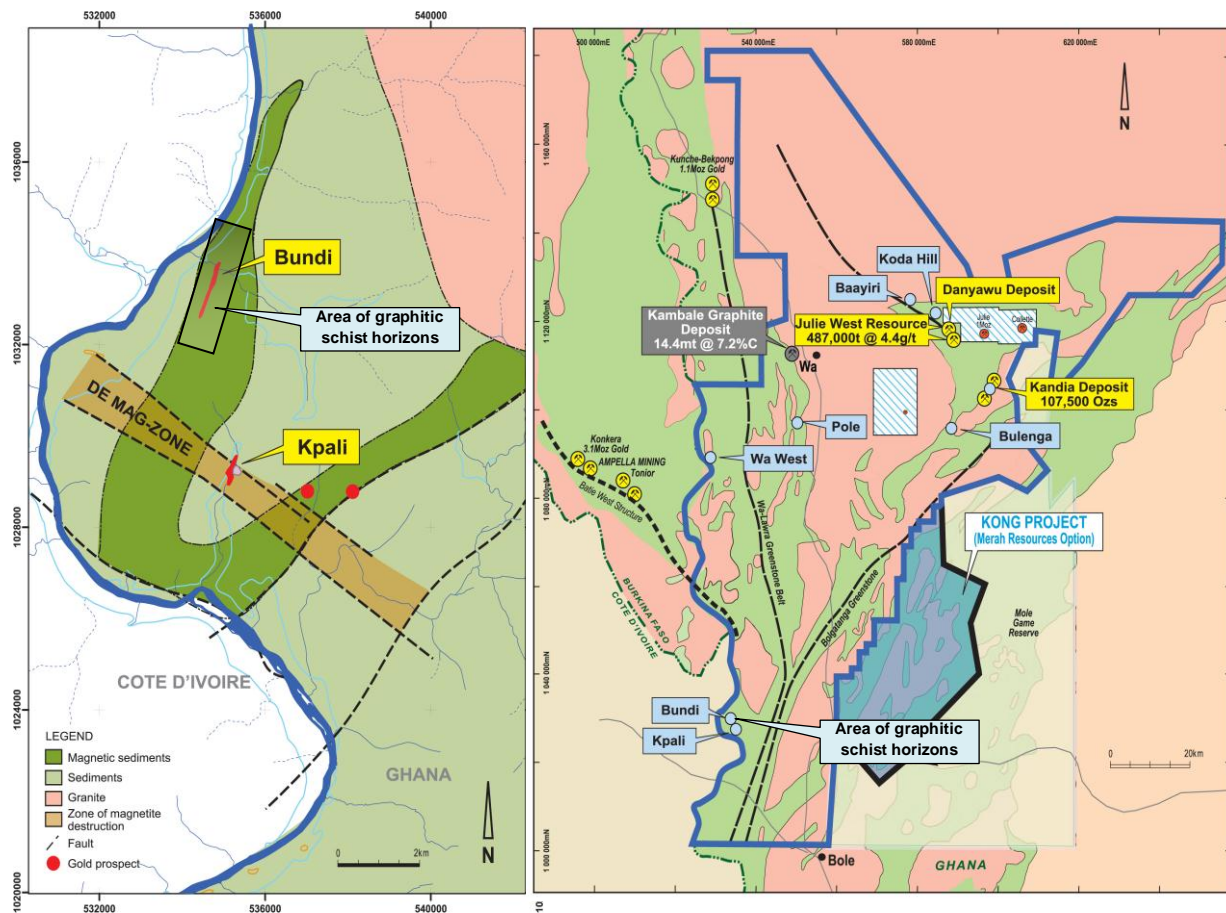


Figure 14: Wa Project and detail for Bundi and Kpali prospects in NW Ghana

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About Castle:

Castle Minerals listed on the Australian Stock Exchange in May 2006 (ASX code 'CDT') and has since acquired the rights to five mineral projects in Ghana, West Africa including Akoko, Antubia, Bondaye, Opon Mansi (application) and Wa covering more than 11,000km².

All granted projects are 100% owned by Castle Minerals (subject to Ghanaian Government right to a free-carried 10% interest). Castle's corporate objectives are exploration and development of its projects in Ghana and the acquisition and exploration of other mineral resource opportunities, particularly in West Africa. The country of Ghana has a long history of gold mining and exploration and is Africa's second largest gold producer behind South Africa.

Castle has so far, discovered seven green fields gold deposits in Ghana with six of those having a formal Mineral Resource completed for an aggregate total of 362,000 ounces. In addition Castle has defined an Inferred Mineral Resource at the Kambale graphite deposit in NW Ghana that contains 14.5 million tonnes @ 7.2% graphitic carbon.

Castle owns and operates its own RAB drill rig in Ghana completing over 100,000m of low cost drilling to date.

Information in this announcement that relates to Exploration Results and Mineral Resources is based on information compiled by Michael Ivey, Castle Minerals Limited Managing Director, who is a Member of The Australasian Institute of Mining and Metallurgy. Michael Ivey is a permanent consultant to Castle Minerals Limited and has sufficient experience that 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 JORC Code. Michael Ivey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Wa South RAB Drilling - Significant Graphitic Schist Intercepts from Logging							
Hole ID	Grid	HoleType	RL	UTMNorthing	UTMEasting	max_depth	Comments
14SWRB2520	UTM_30N	RAB	235	1032199	535437	50	Graphitic schist from 25m to EOH
14SWRB2531	UTM_30N	RAB	235	1032601	534999	27	Graphitic schist from 16m to EOH
14SWRB2532	UTM_30N	RAB	242	1032599	534960	30	Graphitic schist from 14m to EOH
14SWRB2533	UTM_30N	RAB	237	1032599	534918	36	Graphitic schist from 15m to EOH
14SWRB2538	UTM_30N	RAB	234	1032601	534719	30	Graphitic schist from 7m to 29m
14SWRB2539	UTM_30N	RAB	222	1032601	534682	39	Graphitic schist from 22m to EOH
14SWRB2540	UTM_30N	RAB	220	1032599	534641	27	Graphitic schist from 21m to EOH
14SWRB2575	UTM_30N	RAB	224	1033001	535462	19	Graphitic schist from 5m to 18m
14SWRB2628	UTM_30N	RAB	226	1034599	535421	22	Graphitic schist from 9m to EOH
13SWRB 337	UTM_30N	RAB	225	1033301	534660	11	Graphitic schist from 5m to EOH
13SWRB 361	UTM_30N	RAB	205	1033103	534579	18	Graphitic schist from 10m to EOH
13SWRB 362	UTM_30N	RAB	226	1033102	534560	6	Graphitic schist from 2m to EOH
13SWRB 373	UTM_30N	RAB	225	1033000	534542	21	Graphitic schist from 6m to EOH
13SWRB 383	UTM_30N	RAB	219	1032900	534522	14	Graphitic schist from 3m to EOH
13SWRB 384	UTM_30N	RAB	221	1032902	534502	25	Graphitic schist from 7m to EOH
13SWRB 430	UTM_30N	RAB	220	1034000	534399	20	Graphitic schist from 7m to EOH
13SWRB 433	UTM_30N	RAB	228	1034001	535253	12	Graphitic schist from 4m to EOH
13SWRB 436	UTM_30N	RAB	223	1034001	535103	24	Graphitic schist from 4m to EOH
13SWRB 464	UTM_30N	RAB	241	1031597	534099	30	Graphitic schist from 8m to EOH
13SWRB 465	UTM_30N	RAB	240	1031600	534052	32	Graphitic schist from 5m to EOH
13SWRB 471	UTM_30N	RAB	212	1031603	533753	30	Graphitic schist from 17m to EOH

JORC Code, 2012 Edition – Table 1

Section 1: Sampling Techniques and Data

Criteria	JORC Code explanation	Certified Person 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.	Sampling has been undertaken with Rotary Air Blast (RAB) drilling. Carbon analysis has yet to be undertaken.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Drill hole collar coordinates are in UTM grid (UTM WGS84 Zone 30N) and are measured by handheld GPS with accuracy of +/-2m.
	Aspects of the determination of mineralisation that are Material to the Public Report.	As per section below.
	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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Rotary Air Blast (RAB) drilling was used to obtain 1m open-hole samples, from which 5m composite samples were taken and sent to lab where 2kg was pulverised and assayed by 50g aqua regia for gold. The pulps from this work are being retrieved to enable carbon analysis.
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	RAB drilling has been conducted using a blade bit, usually to depth of refusal at the fresh rock interface. A hammer bit was used to penetrate any quartz veins encountered, or occasionally to penetrate and sample the fresh bedrock if required.

	oriented and if so, by what method, etc).	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	No methods for ascertaining RAB sample recoveries have been conducted. On the whole sample recoveries were good, with large samples recovered, and with low levels of groundwater intersected to date.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	No special measures have been undertaken – standard industry drilling techniques have been applied.
	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.	This relationship has not been tested, as it is not believed to be a concern.
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.	RAB chip samples have been routinely geologically logged and photographed in the field by geologists. The day's drilling plod sheets, and the collar, survey, logging and sampling data, were checked by the Senior Geologist, and sent to the Perth office each evening for loading into the company database. No specific geotechnical or metallurgical logging has been undertaken on the RAB drill samples to date.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Logging includes noting lithology, colour, weathering, grain size, structure, alteration, sulphide mineralisation, and veining. The sample piles, and washed chips, of each complete RAB hole are photographed.
	The total length and percentage of the relevant intersections logged.	Every metre sample from every hole has been logged individually.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	No core drilling to date.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	5m RAB composite samples scooped from several places from each 1m sample pile.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	5m composites in RAB drilling is considered appropriate for first-pass work to indicate the presence of mineralisation, in anticipation of subsequent follow up drilling and sampling.
	Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.	Every 50 th RAB sample is taken as a duplicate sample.
	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.	Analysis of duplicate results for gold has not raised any concerns about sample quality to date.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size and the chosen sampling techniques are considered appropriate. Graphite is relatively abundant in the mineralized samples.
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.	All RAB gold samples were submitted to Intertek Laboratory in Tarkwa, Ghana, for 50g Aqua Regia analysis for Au. Preparation was by drying and pulverising <2kg to nominally 95% passing 75µm in LM2 mill (lab method "PT01"). Analysis method was 50g Aqua Regia for Au, with AAS finish, 1ppb detection limit (lab method "AR50"). Both assay techniques are considered as total. Selected pulps from this work are being retrieved to enable carbon analysis. Results were sent by email as "csv files" to the Wa

		<p>and Perth offices.</p> <p>QAQC sample results (blanks, standards and duplicates) were checked and any problems were communicated and addressed with the lab before results were entered into the Castle database.</p> <p>63 Bundi zone RAB pulps, chosen from in and around the anomalous gold zones, were sent to Bureau Veritas Mineral Laboratories in Abidjan for multi-element geochemistry by ICP (Mixed Acid Digest with ICP-AES Finish – method code MA101).</p>
	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.	In 2013 Helicopter-borne Magnetics, Radiometrics and VTEM surveys was completed by Geotech Limited (Canada) on 200m spaced E-W lines, with interpretation of magnetic data by Bill Robertson of Value Adding Resources Pty Ltd (Perth), and VTEM data by Brett Adams of Spinifex Geophysics (Perth).
	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.	Carbon analysis has yet to be conducted.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Multiple RAB holes have been observed with significant graphitic schist and verified by senior geological personnel on site. Drill chips and sample photographs support the logging.
	The use of twinned holes.	No holes have been twinned to date.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	The daily drilling plod sheets, and the collar, survey, logging and sampling data, were checked by the Senior Geologist, and sent to the Perth office each evening for loading into the company database.
	Discuss any adjustment to assay data.	There has been no adjustment to assay data. Carbon assays are yet to be received.
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.	Drill hole collar coordinates are in UTM grid (UTM WGS84 Zone 30N) are measured by handheld GPS with accuracy of +/-2m.
	Specification of the grid system used.	UTM grid (UTM WGS84 Zone 30N) used exclusively
	Quality and adequacy of topographic control.	The topography in the area is largely flat. No other relative level (RL) control was used other than handheld GPS measurements, which in RL may be accurate to +/-20m.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	<p>RAB spacing ranged from 100m to 200m lines, and 20m to 40m collar spacing.</p> <p>The 2013 Helicopter-borne Magnetics, Radiometrics and VTEM survey was completed on 200m spaced E-W lines.</p>
	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.	Data is not sufficiently closely spaced to enable Mineral Resource classifications to be applied.
	Whether sample compositing has been applied.	RAB intercepts are from 5m composites.
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.	Both the Bundi and Kpali mineralised structures appear to be striking N to NNE, and dipping steeply to the west. The drilling azimuth of 090 appears to be appropriate at both prospects. Graphite schist

		horizons appear consistent with this regional strike but may have undergone some folding.
	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.	There is not considered to be any significant sampling bias from current information.
Sample security	The measures taken to ensure sample security.	Samples are systematically numbered and recorded, bagged in labelled polyweave sacks, and dispatched in batches to the lab using local transport. The lab confirms receipt of all samples on the submission form on arrival at the lab.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews of sampling techniques have been conducted.

▪ **Section 2: Reporting of Exploration Results**

Criteria	JORC Code explanation	Certified Person 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.	All the work contained in this report has been conducted on the 100% owned Degbiwu Prospecting Licence, granted on 30 April 2012, part of the Wa Project in NW Ghana. The Wa Project is 100% owned by Carlie Mining Limited (subject to Ghanaian Government right to a free-carried 10% interest). Carlie Mining is a 100% owned subsidiary of Castle Minerals Limited.
	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 concession is in good standing, and no known impediments exist. The Degbiwu Prospecting Licence, has recently been applied to be renewed as allowed under the terms of the Licence.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No previous exploration data is known from the immediate Degbiwu PL area, apart from wide-spaced regional BLEG sampling by Newmont, and regional geological mapping by Russian geologists in the 1960s.
Geology	Deposit type, geological setting and style of mineralisation.	Castle is exploring for mesothermal gold deposits in the Birimian host-rocks of NW Ghana. The highly anomalous levels of zinc in the Bundi Au-Zn prospect has highlighted there may also be potential for base metal (possibly VHMS-style) deposits in the Degbiwu PL area. Multiple wide graphitic schist horizons have been intersected sub parallel to Bundi gold mineralization.
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: <ul style="list-style-type: none"> ○ easting and northing of the drill hole collar ○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar ○ dip and azimuth of the hole ○ down hole length and interception depth ○ hole length. 	Appropriate tabulations for all significant RC and RAB results for gold and zinc in the Degbiwu PL area have been included in previous announcements to the ASX about Bundi and Kpali prospects: 22 nd April 2013 6 th May 2013 20 th May 2013 23 rd May 2013 24 th May 2013 17 th June 2013 4 th July 2013 28 th January 2014 31 st January 2014 18 th February 2014
	If the exclusion of this information is justified on the basis that the information is not Material and	Appropriate tabulations for all significant RC and RAB results for gold and zinc in the Degbiwu PL area have

	this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	been included in previous announcements to the ASX.
Data aggregation methods	In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated	Intercepts reported to date are based on visual logging. Graphite content has not been estimated no carbon assay data is currently available for this drilling and no comment on the graphite content can be made until carbon analysis is completed
	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.	Not applicable as Intercepts reported are based on visual logging no high grade zones have been discriminated.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalence used or stated.
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.	RAB holes are drilled at -60 to 090.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	From interpretation of available data, it is believed that on average the strike of mineralisation is N-NNE, and dipping steeply W.
	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').	Only the downhole lengths are reported. The true width is not precisely known at this time.
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 diagrams in this, and previous, announcements.
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.	Appropriate tabulations for all significant RC and RAB results for gold and zinc in the Degbiwu PL area have been included in previous announcements to the ASX.
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 other material exploration data to report at this time.
Further work	The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).	The original drill samples from RAB drilling were only submitted for gold analysis and the sample pulps are now being recovered from the laboratory in Ghana. Upon receipt of the pulps, selected intervals will be submitted for carbon analysis to determine Total Graphitic Carbon (TGC %).
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	See diagrams in this announcement.