

December 2009 Quarterly Report



Exploration program for 2010 tripled following capital raising and strong exploration results

Akoko Project

- RC drilling discovers significant extension to the Akoko North deposit which remains open and a new high grade east lode discovered. Significant intercepts include;

6m @ 4.94 g/t gold from 13m (ANRC 51)

4m @ 29.2 g/t gold from 26m (ANRC 51)

2m @ 5.89 g/t gold from 38m (ANRC 51)

5m @ 3.52 g/t gold from 13m (ANRC 49)

1m @ 47.8 g/t gold from 94m (ANRC 56)

- Drill results are awaited for Akoko South, Akoko West and a further phase of drilling at Akoko North that was completed in late January

WA Project

- New open ended gold anomaly defined at Julie West trending over at least 1600m with samples assaying up to 1,947 ppb gold
- 50km long gold anomaly defined along Jang Fault
- Julie West Heap Leach testwork achieves excellent gold extraction of 83.7%
- RC drilling at the Julie West deposit and related quartz vein and regional targets has been completed and results are expected late February
- Ground reconnaissance, mapping and 5,000 sample geochemistry program along the 40km long Batie West structure 50% complete

Corporate

- In October Castle completed the issue of 15 million shares at of \$0.15 per share raising a total of \$2.25 million
- In December US based resource funds subscribed for 7 million ordinary shares in Castle at a price of \$0.25 per share raising a further \$1.75 million
- Cash at quarter end was \$4.2 million

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Capital Structure
Quoted FPO: 80.90 million
Unlisted Options: 11.8m 25-35c

ASX Code: CDT

Board Members
Michael Ivey
Chairman, MD & CEO
Campbell Ansell
Non Executive Director
Michael Ashforth
Non Executive Director
Dennis Wilkins
Company Secretary

AKOKO PROJECT

(Castle Minerals 100%)

The Akoko Project consists of two granted Prospecting Licences and is located ~10 km east of Adamus Resources' Salman gold project and 25km south of the gold mining town of Tarkwa.

High Grade Gold Intercepts Extend Akoko North

RC drilling completed in December 2009 discovered a **significant extension to the Akoko North deposit and discovered a new high grade east lode**. Gold mineralisation for both these zones remains completely open to the south and at depth.

Wide spaced reconnaissance RC drilling was completed on 200m spaced lines south along strike of the existing Akoko North resource (1.4Mt @ 1.7g/t gold) and returned the following significant results.

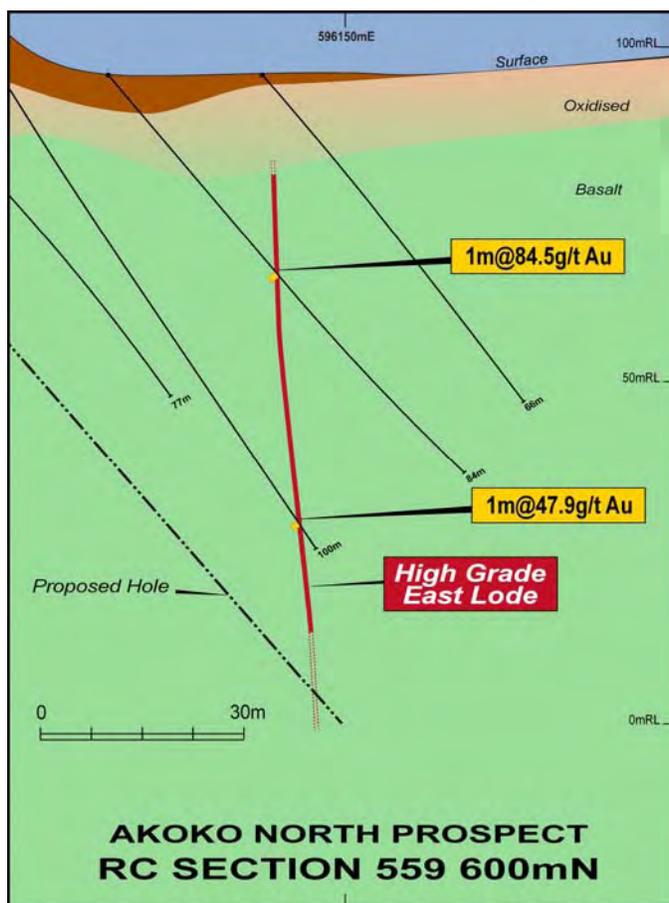
6m @ 4.94 g/t gold from 13m (ANRC 51)
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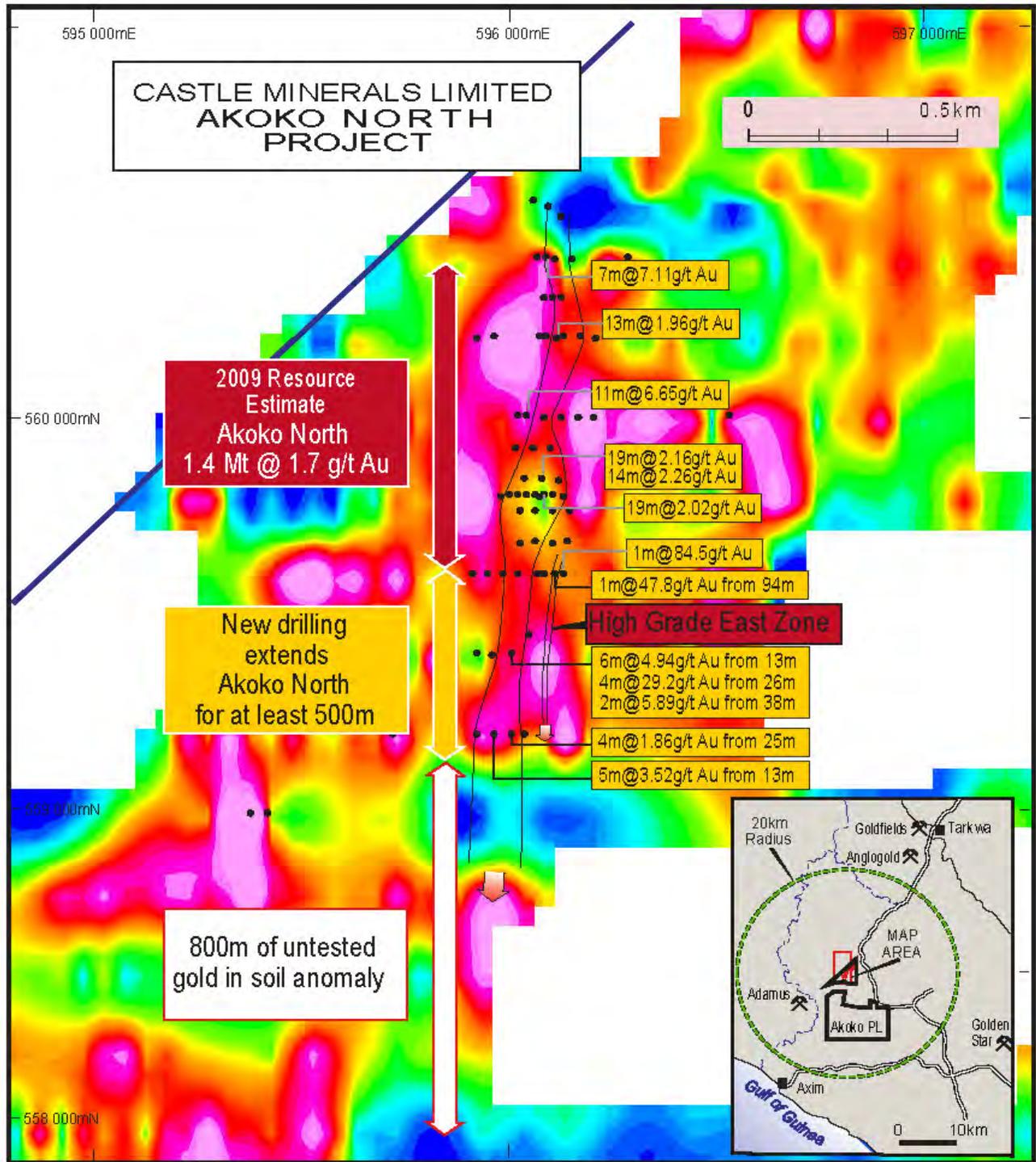
The geometry and geological setting of the mineralisation appears consistent with Akoko North with drill defined gold mineralisation now continuous over 1,500m of strike. **Strong gold geochemical anomalies extend a further 800m south of the current limit of drilling and remain to be tested. It is considered probable that further gold mineralisation will be discovered as this zone is drill tested.**

New High Grade East Lode Discovered

Previous drilling by Castle at Akoko North reported a primary intercept of 1m @ 84.5g/t gold from 40m on the then south eastern limit of drilling. A deeper hole beneath this intercept returned 1m @ 47.8 g/t gold from 94m down hole and like the earlier intercept was also hosted within a zone of silica/pyrite alteration. This new zone requires drill testing at depth and along strike to determine the continuity and extent of this very high grade mineralisation.

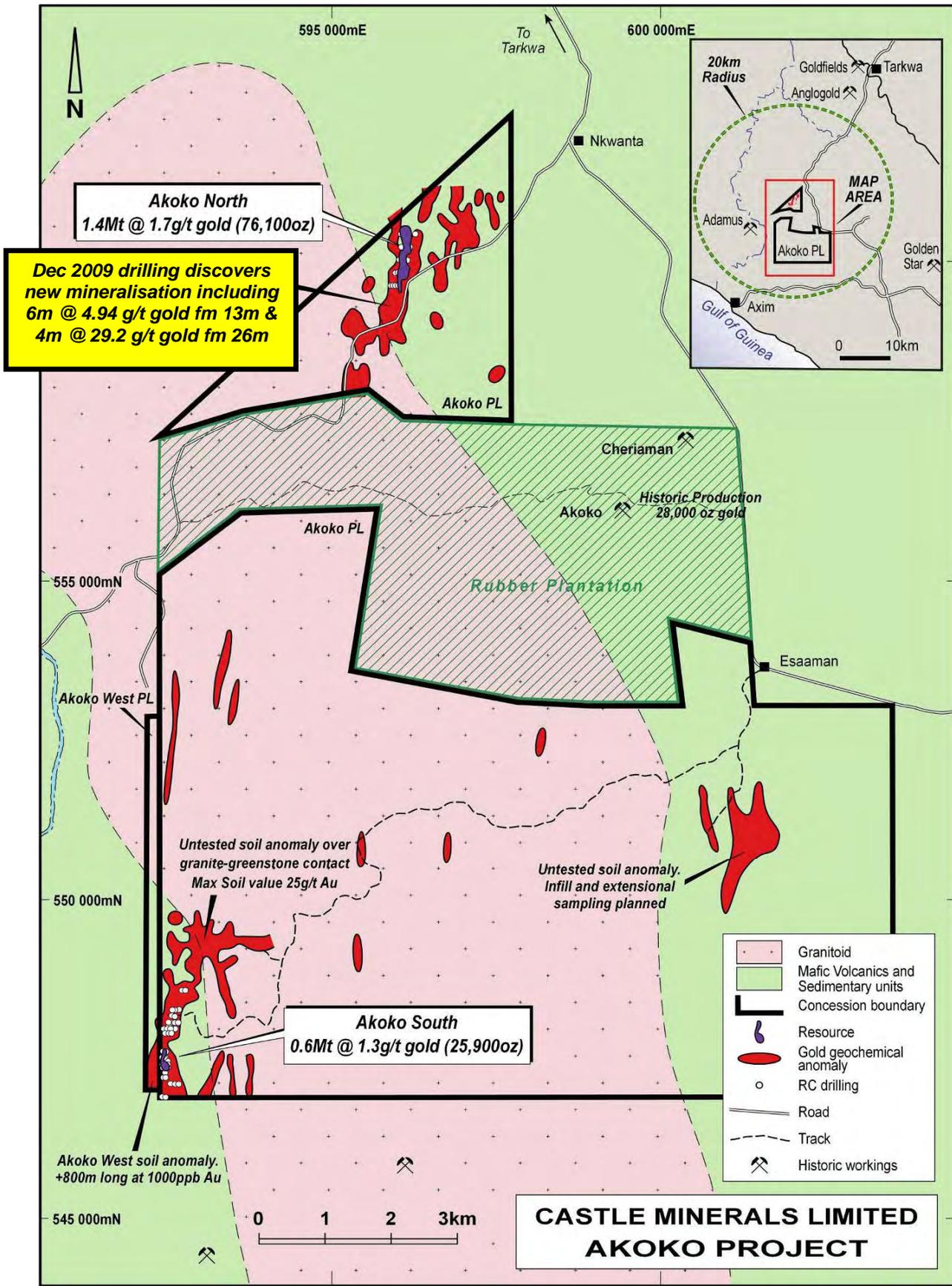
An RC rig returned to site in January and completed drilling at the Akoko South and Akoko West prospects and completed a further phase of drilling at Akoko North. Results for this work are expected to be received in late February.





Project Background

The Akoko Project is located 25km south of Tarkwa in south west Ghana in the prolific gold producing Ashanti belt. Gold mineralisation was first discovered on this greenfields project by Castle in late 2007. Since that time Castle has undertaken six RC drill programs and defined substantial oxide gold mineralisation at the Akoko North and Akoko South prospects.



WA PROJECT

(Castle Minerals 100%)

The Wa Project covers approximately 12,000km² in NW Ghana near the border with Burkina Faso and consists of three large Reconnaissance Licences and one Prospecting Licence application. The outcropping Julie West gold vein was discovered by Castle in June 2008, exploration since then has led to a gold resource of 415,000 tonnes @ 4.2g/t gold being established for a total of 56,200 ounces.

New Gold Anomaly Defined at Julie West

Soil geochemical sampling at the Julie West gold prospect in northern Ghana has defined a **new open ended gold anomaly trending over at least 1600m with samples assaying up to 1,947 ppb gold.**

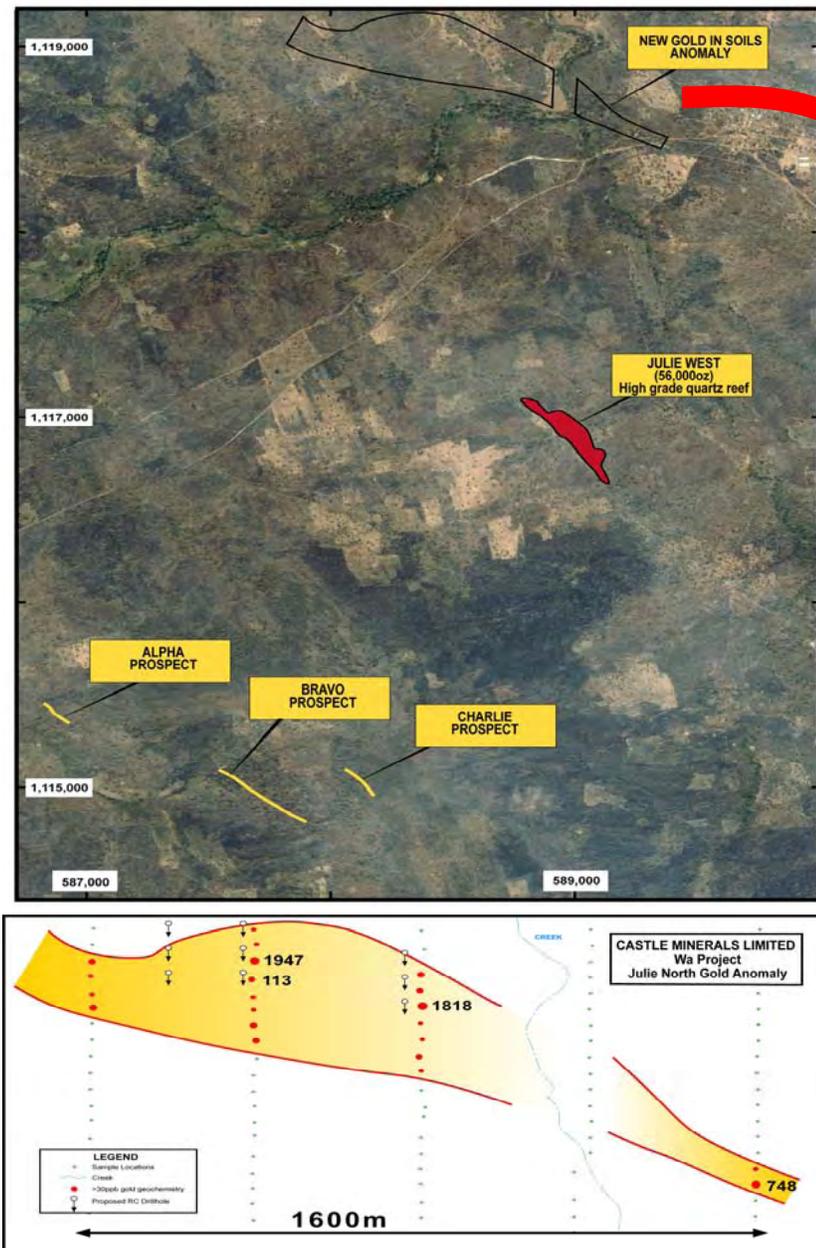
The anomaly is 2 kilometres north of the 56,000 ounce Julie West gold deposit and is oriented in a similar direction to other high grade quartz veins discovered by Castle in 2009.

RC drilling at the Julie West deposit and related quartz vein and regional targets has just been completed and results are expected late February.

Soil sampling is underway at a number of locations within the Wa Project including the interpreted south east extension of the gold bearing structure identified by Ampella (ASX: AMX) that is interpreted to extend onto Castle's Wa Project over about 40 strike kilometres.

50km Long Gold Anomaly Defined Along Jang Fault

Soil sampling has defined a 50km long trend of anomalous gold geochemistry exactly coincident with the interpreted position of the Jang Fault.



The Jang Fault is a 2,000km² Reconnaissance Licence that forms part of Castles Wa Project in northern Ghana. The soil sampling program is believed to be the first program ever conducted in the area.

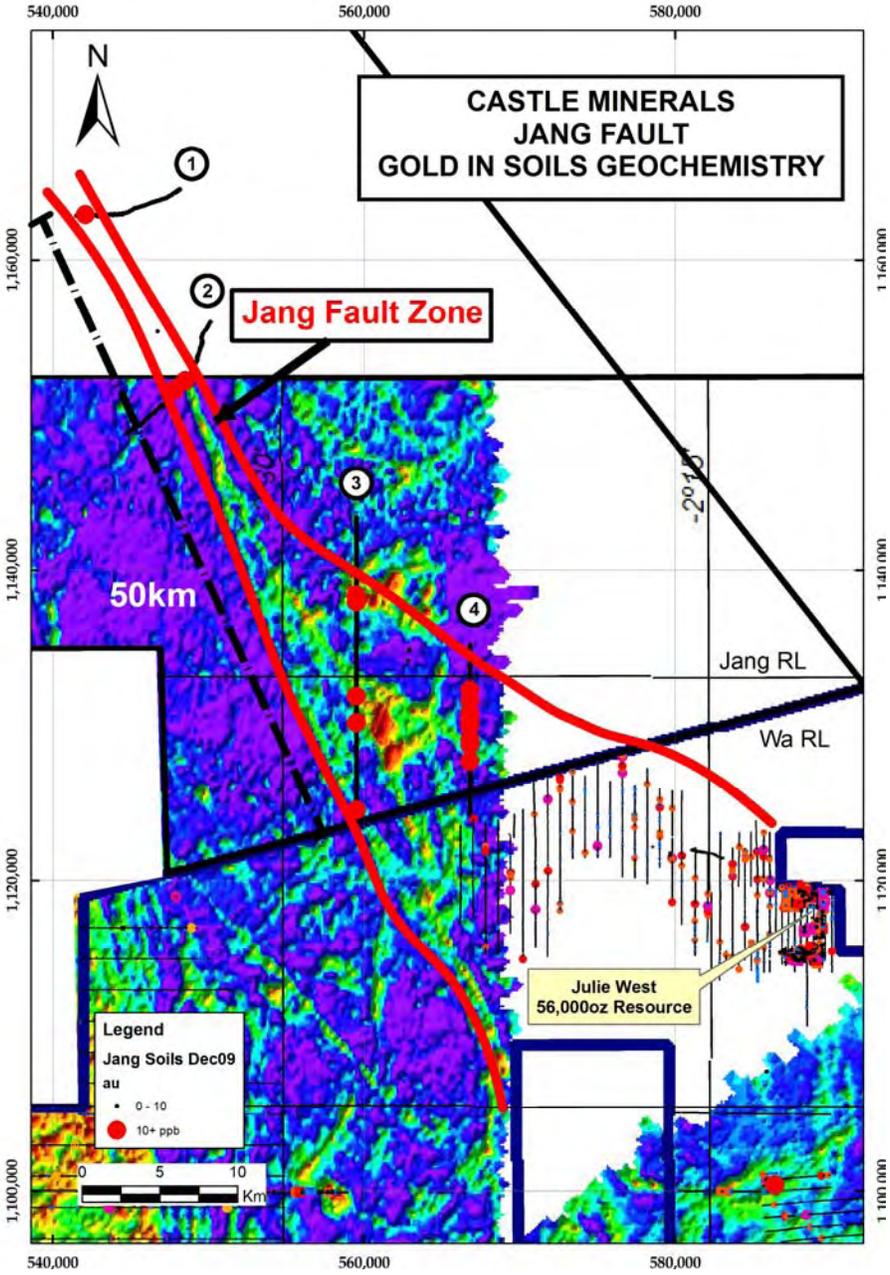
Four regional traverses (7-15km apart) were sampled and assayed via BLEG technique (bulk leach extractable gold) by Intertek Laboratories in Tarkwa. All four traverses reported strongly anomalous gold results (up to 103ppb gold) against very low background values. This work now provides a very specific target area for follow up exploration with more detailed sampling proposed to be undertaken as soon as possible.

The Jang Fault is a regional north-west trending structure that can be traced for at least 80km within Castle licences and is interpreted as a terrane boundary between intermediate to felsic “basin” type granitoids and mafic to intermediate “belt” type granitoids. “Belt” type granitoids are host to considerable gold mineralisation throughout Ghana including the Ayanfuri gold deposits (~5Moz) that commonly occurs as quartz stockwork style gold mineralisation.

The discrete but laterally extensive gold geochemical response from the sampling program conducted suggests the Jang Fault is a deep seated structure capable of hosting substantial gold mineralisation. Followup work will include infill sampling, mapping and geophysical interpretation. A drill rig has been booked in anticipation of testing targets generated.

The Jang Fault is a direct result of Castle’s generative geological work in Ghana. The area under licence was vacant ground that was pegged following reassessment of the area after the discovery of the Julie West gold deposit 20km to the south.

Ongoing exploration in this area now has a very specific target area some 50km long x 5km wide that in the first instance can be easily explored through detailed sampling.



Jang Fault soil traverses (1- 4) with gold geochemistry results over regional electromagnetic image

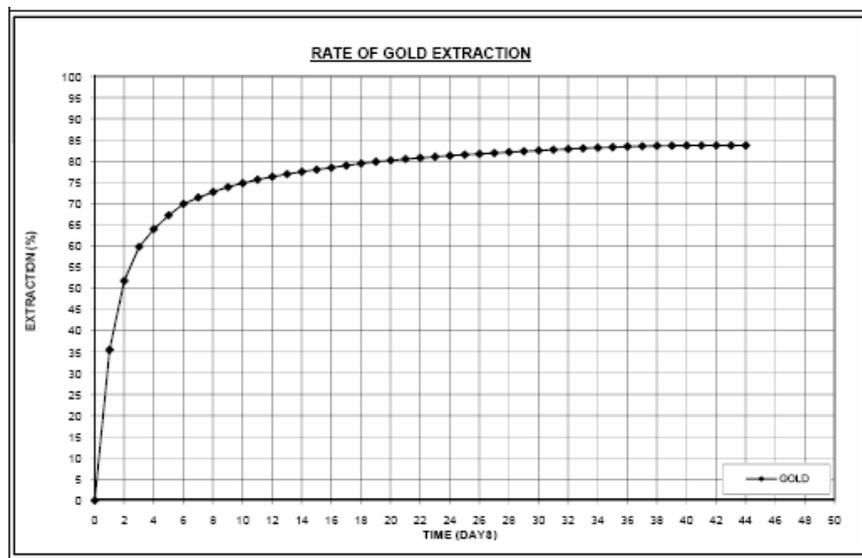
Julie West Heap Leach testwork achieves excellent gold extraction of 83.7%

A 200kg bulk metallurgical sample collected from surface outcrop at the Julie West deposit was delivered to AMMTEC in Perth for column leach testing. Column leach cyanidation testwork resulted in an excellent gold extraction level of 83.69% after thirty seven days of leaching.

Summary of findings and comments:

- Head assays indicate gold grade is relatively high (~12.6g/t gold calculated head grade) for a heap leach process, that is typically carried out on ores with a gold grade of 0.5 to 1.0g/t.
- Base metals are present in quite low concentrations.
- Carbon speciation assays indicate no organic/graphitic carbon content (below the analytical detection limit of 0.03%). Preg. robbing is not anticipated to occur during the cyanidation leach process.
- Sulphur speciation assays indicate mostly oxide ore with no detectable sulphide minerals.
- Initial coarse crush bottle roll tests indicated that a crush size of <6.3mm is optimal.
- Percolation testwork indicated that agglomeration of the sample is required to ensure proper solution penetration and passage through the ore during column leaching and also in a full scale heap leach operation.
- The column cyanidation leach testwork was carried out using a 50.0 kg sub-sample of the Master Composite agglomerated with lime (1 kg/t).
- The agglomerated pellets were cured for two days prior to loading onto a leach column for a 37-day static column cyanidation leach test.
- Column leach cyanidation testwork resulted in an excellent gold extraction level of 83.69% after thirty seven days of leaching.
- Gold dissolution kinetics were relatively rapid with the bulk of exposed cyanidable gold being solubilised within ten days from the start of column leaching process.
- Sodium cyanide consumption was relatively low, being 0.47 kg/t.

Heap leaching now offers a viable treatment option for the Julie West ore, however full recoveries (>95%) can be expected through conventional CIP/CIL processes. Ongoing exploration and the delineation of further resources will dictate the best treatment option. Mine planning studies will parallel the exploration effort at Julie West.



Cyanidation leach testwork rate of gold extraction results for 50.0 kg sub-sample of the Master Composite agglomerated with lime (1 kg/t) and leached for 37 days. Calculated head grade was 12.6g/t gold with gold extraction of 83.7%.

Corporate

In early October 2009 Castle received commitments from institutional and sophisticated investors for the issue of 15 million ordinary shares in Castle at a price of \$0.15 per share raising a total of \$2.25 million. The placement was ratified by shareholders at Castle's Annual General Meeting on 13 November 2009.

In December 2009 resource funds subscribed for 7 million ordinary shares in Castle at a price of \$0.25 per share raising a further \$1.75 million. Participants in this placement included US based funds Seamans Capital Management LLC and Walnut Street Capital Management LLC.

The additional funding will allow Castle to triple exploration efforts with additional staffing and drilling capacity booked for 2010. Cash reserves at quarter end were \$4.2 million and Castle has total issued capital of 80.9 million shares.

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Information in this announcement that relates to Exploration Results is based on information compiled by Michael Fowler, Castle Minerals Limited Exploration Manager, who is a Member of The Australasian Institute of Mining and Metallurgy. Michael Fowler is a permanent employee of 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 2004 JORC Code. Michael Fowler consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.