



## ANGLOGOLD ASHANTI

AngloGold Ashanti Limited

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## GREENFIELD EXPLORATION

Greenfield exploration activities were undertaken in six regions (Australia, Americas, China, Southeast Asia, Sub-Saharan Africa and the Middle East & North Africa) during Q1 2011. A total of 35,801 metres of diamond, RC and AC drilling was completed at existing priority targets and used to delineate new targets in Australia, Guinea, Gabon, the DRC, Egypt and the Solomon Islands. Expenditure this quarter was US\$18.60M compared to US\$18.94M in Q4 2010.

In **Australia**, in the Tropicana JV (AngloGold Ashanti 70%, Independence Group 30%) regional Greenfields exploration during the quarter was affected by seasonal, but larger than anticipated, rainfall events in the Tropicana area and adjacent Goldfields. Exploration programs were impacted, but have re-commenced. There are no significant results to report for the quarter. The Viking project (100% AGA) is SW of the Tropicana JV within the Albany-Fraser foreland tectonic setting that hosts the Tropicana deposit. Regional geochemical sampling programs recommenced in February. Aircore drilling of geochemical anomalies and an airborne magnetic survey are planned for the second quarter.

In late 2010, AGA entered a farm-in and joint venture agreement with Stellar Resources Limited over the Coronation Bore and Gairdner projects in the Gawler Craton of South Australia, targeting world-class Iron Oxide Copper Gold mineralisation. Land access negotiations have progressed with expectations of commencing geophysical surveys in the second quarter. At the Cornelia Range project, located in central Western Australia, land access negotiations advanced during the quarter and planning commenced for airborne geophysical surveying and field reconnaissance. AGA withdrew from the Saxby JV (NW Queensland) with Falcon Minerals Limited in February 2011 and has no further interest in the project.

Greenfields exploration in the **Americas** during the first quarter of 2011 continued focusing on early stage exploration in Colombia, Canada, USA, Brazil and Argentina. In **Canada**, Commander Resources (JV partner) is preparing for the field season at the Baffin Island Gold Project in Nunavut. In **Brazil** at the Falcão Joint Venture, 100m x 50m spaced infill soil sampling has been extended along strike to cover prospective areas of the target structure highlighted by the geophysics. To date 11 lines with a total length of 46.1km have been sampled. Drill testing is scheduled to commence in May. In **Colombia**, AGA field teams continued rock and soil sampling and mapping at Quebradona. In March, a diamond drilling program was initiated at the Chaquiro Project. A total of 694m were drilled in Q1 and drilling at Chaquiro continues.

In the **Solomon Islands**, exploration activities continued at the Kele and Mase Joint Ventures with XDM Resources; tenement applications associated with two additional Joint Venture agreements covering the New Georgia and Vangunu project areas progressed. At Kele diamond drilling resumed in late February, with 997m of drilling completed during the quarter. Other work included mechanical trenching totalling 1.71km and geochemical sampling with work focussed in the Babatia, Tango West, Konga, Arovo and Vulu prospect areas. Specialist activities included further geophysical, structural and spectral studies of the established mineralised prospect areas.

In the **Democratic Republic of the Congo**, regional exploration continued on Ashanti Goldfields Kilo (AGK)'s 5,487km<sup>2</sup> Kilo project. A 5,000m diamond drilling programme over key targets in the regional Kilo area that commenced last quarter at Mont Tsi continued and a total of 1,212m over 4 holes were drilled to test the mineralisation in and around intrusive bodies. Preliminary results are encouraging with hole MTDD001 returning an intercept of 23.03m @ 3.08 g/t Au. A follow-up soil sampling grid comprising 1,275 samples has been completed on the 2010 stream sediment sampling anomaly. Several soil anomalies have been identified so far and further investigations are underway. Follow-up of regional soil anomalies by trenching, detailed mapping and sampling is ongoing in the northern and central areas with encouraging results.

In **Gabon**, drilling continued on the Ndjolé licence being explored in a JV with Dome Ventures, To date, a total of 3,000m has been drilled at the LaMboumi prospect. Extensive sampling has been carried out with 16,000 samples on the Dome JV licences and 5,200 samples on AGA's own exploration licences, with robust anomalies that will be tested in the coming months. An EM and magnetic survey was flown during the first quarter over the Ndjole licence and preliminary results show that the prospective lithologies can be mapped in detail below the soil cover with the EM. This geophysical data will be used to generate further drill targets in the short term and direct the continuing soil sampling programme.

In **Tanzania**, a field mapping exercise was undertaken on the Lusahunga licences, some 150km west of Geita Gold Mine, to ground-truth the initial interpretation of airborne geophysical data from a survey completed in 2010. Grab samples yielded encouraging results up to 11 g/t Au and a follow-up sampling and drilling programme is being planned for later in the year.

In **Guinea**, regional exploration work on Blocks 2 and 4, that for part of the greater Siguiri mine tenement holdings is ongoing with soil sampling and drilling programmes underway. At the end of the first quarter, a total of 6,763 soil samples have been collected, including 2,454 from Block 2 and 4,309 from Block 4. The first phase of diamond drilling to better understand the geological model and mineralisation controls at Saraya (Block 2) has been completed. A total of 2,058m over 8 holes were drilled during the quarter and interpretation of the results is in progress. The first phase of reconnaissance aircore drilling in Block 3 (Koukoun) was also completed with a total of 9,840m over 107 holes. The interpretation of the findings is underway and preliminary results are encouraging. A reconnaissance aircore drilling programme in the Corridor Block was carried out and by the end of the first phase a total of 6,775m over 96 holes had been drilled.

Greenfields exploration in the **Middle East & North Africa** region is being undertaken by Thani Ashanti; a 50:50 Strategic Alliance between AngloGold Ashanti and Thani Investments. During Q1 2011, 1,822m of drilling was completed and results have been received from three of the nine holes. The results include: 12m @ 3.6 g/t Au from 178m; 14m @ 2.9 g/t Au from 193m in HUD001; 6m @ 4.3 g/t Au from 155m and 8m @ 2.3 g/t Au from 168m in HUD002; 1m @ 15.7 g/t Au from 133m and 6m @ 1.8 g/t Au from 175m in HUD003. Hutite is an historical underground Au mine, which ceased operations in 1952.

Historical production figures are not known. The deposit has many characteristics of other orogenic gold deposits throughout the world and mineralisation, including significant visible gold, has been defined by drilling over a strike length of 1.5km and remains open along strike and at depth. A second rig is scheduled to start drilling in April.

In Eritrea, the 10,000 line km airborne EM, magnetic and radiometric survey was completed at the Kerkasha and Akordat North exploration licences. The preliminary results of this survey are currently being interpreted and surface geochemical programmes have commenced.

Thani Ashanti signed a Heads of Terms with Stratex International in 2010 and will sign a Joint Venture Agreement in April 2011. The JV is for 11 exploration licences in the Afar region of Ethiopia and Djibouti and will explore for low-sulphidation, bonanza epithermal deposits. As part of this agreement, Thani Ashanti has a minimum exploration commitment of US\$1M, and can earn 51% interest in the licences by spending US\$3M. In addition, Thani Ashanti has completed a US\$0.5M private placement into Stratex International. Encouraging surface sample results from the Megenta prospect in Ethiopia will be followed up with 3,000m drill programme in Q2 2011. In addition, the Asal and Dimoli Khan ELs in Djibouti have returned positive rock chip assays, with eight of eighteen samples from Asal assaying between 0.22 – 3.08 g/t Au.

## **BROWNFIELDS EXPLORATION**

In **South Africa**, six deep surface drilling sites were in operation during the quarter, three on the Moab Khotsong Mine and three at Mponeng (WUDLs).

Deflection drilling continued in MMB5. Borehole MGR8 by-passed a string of rods that were dropped and continued to advance. The drilling of the long deflection in MGR6 continued despite significant in-hole complications. The hole is currently at a depth of 2 429.9m in Ventersdorp lavas. MHH2 is sited on the Hormah Prospecting Rights Area, south of Project Zaaiplaats. Percussion drilling did not start for MHH2 as planned and has been postponed until borehole MCY6 has been completed. Percussion drilling at MCY6 is still to start.

UD51 advanced from 1 029.8m to 1 436.4m, despite delays due to heavy losses of drilling water. Rigging was completed at UD59, some 900m east of UD51. The drilling of UD60 started with the drilling of a pilot/water hole.

In **Tanzania**, 13 440m of drilling was completed at Geita. Drilling into the Geita Hill cut back has confirmed the expected thick, high grade mineralisation. Extension drilling at Nyankanga Block 1 and Cut 8 to test for underground extension potential commenced with drilling targeting the main Nyankanga ore zone. Drilling was also completed over Star and Comet.

Regional Exploration drilling continued at the Kukaluma, Nyankumbu and Nyakabale West and Mgusu Prospects. At Nyakabale West, core-drilling is following-up on promising intersections. Geological mapping was completed over the Nyankumbu Prospect. An IP program was commenced over Kalondwa Hill and ground EM undertaken over the Star-Comet Extension target.

Significant advances in the understanding of the geological model for both the Geita Hill and Nyankanga orebodies were made during the quarter with the creation of detailed 3D geological models.

At Siguiri in **Guinea** a total of 34 950m drilling was completed. Exploration was focussed on 2 main projects and a number of smaller targets, with the aim of upgrading oxide Mineral Resources in Sokunu, Sintroko North, Seguélén North West and also Kozan Central West and Kosise South East within the Combined Pits areas. Results are encouraging particularly in the Kozan Central West area.

Reconnaissance and delineation drilling in the Balato North West target, and Sintroko West and Sokunu North West prospects was also completed with the aim of identifying new deposits (Balato NW target) and delineating them (Sokunu NW, Sintroko West). Results from Balato NW indicate that there is some mineralisation and more work is planned to fully assess the economic potential. Mineralisation below Sintroko South Pushback 1 has been found to continue to depth and the economic potential is under investigation.

Geochemical soil sampling for the first quarter covered an area on the south eastern edge of Block 1. Ground geophysics (IP) was completed over the Sokunu East target area, and has been used to refine the planned reconnaissance drilling program. Ground geophysics (IP and magnetics) was also completed over the Seguélén resources as a type-deposit for further targeting.

At Obuasi in **Ghana**, 1 026m of core drilling was completed and five mineralised reefs intersected. At Iduapriem planning is underway to test the underground potential of the orebody at depth before the end of the year.

Progress was made in the **Democratic Republic of the Congo** on the Mongbwalu project, with five diamond core holes (1 932.18m) and four RC holes (844m) drilled in the Adidi Resource area.

At Kibali drilling was focused primarily on feasibility work and underground infrastructure with holes completed for geotechnical studies (shaft hole, declines and underground stopes) and hydrogeological modeling. Holes confirmed the latest geological model and the alteration intensity support grades that are comparable to the block model.

One deep hole was commenced to test the down plunge extension to mineralisation of the KCD deposit and the Phase one RC drilling was completed on the Kibali deposit. At Kibali South the oxide grades are within expectations.

At Yatela and Sadiola in **Mali**, 30 871m of drilling was completed. At Yatela, drilling was completed over the Yatela NW pit area, Yatela gravity targets and included Mineral Resource drilling over the Yatela North deposit.

Resource conversion drilling at the Sadiola pit as part of the Sadiola Deep Sulphide project was successful and highlighted further potential along the N-S strike direction. Resource drilling at FN2 was completed and results indicate some minor extensions of the orebody outside the original resource area.

Drilling at Satifara JV was completed with data interpretation of all results indicating little potential for an economic orebody.

The more regional Sub-Laterite targets were drilled during the quarter with some potential for a small low-grade oxide resource at Manndakoto evident. Gradient array IP commenced over the strike length of the FE3/4 pit areas including the Timbabougouni trend, and ground gravity has continued over the Sadiola concession.

At Navachab in **Namibia** 9 473m was drilled, predominantly over the hangingwall and footwall vein extension areas.

At AGACSM in **Brazil**, drilling (15 131 m) was conducted at the Cuiabá Mine, CdS I Surface, CdS II Surface and Nova Lima Sul programs. In the Iron Quad Step Change Project, work continued at Pari with geological mapping, soil and trench sampling and diamond drilling underway. At Bento Rodrigues the stream sediment sampling program continues and the initial target generation exercise has indicated significant potential. Drilling commenced at the Mariana target, which represents the depth extensions of the historic Mariana Mine which produced an estimated 1.8 Moz during 18 and 19th century.

At MSG, the fast track exploration program is in progress to evaluate the regional potential of the Joint Venture. The program is targeted at Pequizão, Palmeiras, Structure IV and Mina Nova areas from surface and at the Structure III continuity below level 1000 from underground. 10 464m of diamond drilling was completed and targeted primarily the Pequizão, Palmeiras and Structure NW target areas.

At CVSA in **Argentina**, 3 019m of RC and 7 118m of diamond drilling was completed. Delays due to new import regulations impacted the import of spare parts by the RC drilling contractor over the past two months. This caused significant delays in drilling. Several veins were drilled with encouraging results in both vein texture encountered and assay results. Deep core holes to test down dip potential had variable success with no significant results in some and others with high grades over narrow widths. Trenching and channel sampling to facilitate drilling targeting was active on 14 different veins.

In the **United States of America** at Cripple Creek and Victor, 10 435m of drilling were completed. 5 985m were drilled as part of the MLE2 exploration program and 4 450m were drilled as part of the High Grade Study.

The assay results for the three MLE2 holes reported displayed significant ore grade gold mineralization well below the 2010 WHEX Design Pit bottom. Two out the six holes reported for the HGS Program intersected their intended high grade target zones and displayed grades at or slightly below that expected.

In **Colombia** at Gramalote, seven infill holes (1 595m) were drilled at Gramalote Central. Exploration drilling focused on Monjas East, Monjas West and Topacio North targets with five holes drilled (1 042m). Several significant intercepts were obtained from the Monjas West target.

At La Colosa, drilling continued with some delays. Results were obtained for eight boreholes during the quarter. All intersected ore grade material.

At Sunrise Dam in **Australia**, exploration continued to both extend the known Mineral Resources north of the open pit and underground and target and follow-up on significant intercepts returned from the deeper areas below the current workings (Vogue Prospect). This work was, in some instances, delayed and interrupted due to the significant rain event that Sunrise Dam experienced. The drilling for the period totaled 8 474m from 96 holes

### **AngloGold Ashanti/De Beers Joint Venture**

**South African Sea Areas:** The Phase 1 geophysical survey was successfully completed, acquiring over 3 300km of sleeve gun seismic data. A vibrocoring program commence during March. A minimum of 40 cores are expected from the campaign.

Historical footwall samples (800) from the northern concessions have been retrieved from the DBCM archives for assay analysis.