H1 2016 EXPLORATION UPDATE

GREENFIELDS

During the first half of the year, Greenfields exploration activities were undertaken in Australia, Colombia, Brazil, Argentina, USA, Guinea and Tanzania. The Greenfields exploration team completed 1,219m of diamond drilling in Colombia and 14,016m of aircore drilling in Australia. Total expenditure for the six months ended 30 June 2016 was $10m.

In **Australia**, at the Tropicana JV (AGA 70%) there was a formal hand-over to the mine-based team of the accountability for all tenements within 60kms of the mine. Further to the south in the Tropicana JV on the Oak Dam tenement, the Greenfields team continued to work with the traditional owners to determine where access for exploration would be allowed. In the Laverton District, aircore drilling was completed over priority targets with 91 holes drilled for a total of 5,742m. Drilling encountered strong carbonate-sericite alteration with minor pyrite or arsenopyrite in several holes with local quartz veining also observed. These alteration assemblages are characteristic of the mineralised trends within the project area. Q3 plans include follow-up drilling of these results as well as testing of further regional targets. At the Strawbridge Project (AGA 100%) H1 field work comprised geological mapping, surface soil geochemical sampling and first pass aircore drilling. A total of 778 soil samples and 197 aircore holes for 8,274m were completed over priority target areas.

In **Colombia**, drilling was completed at the Guintar project (AGA 100%) situated 40km west of Medellin. Three holes for 1,219m were completed in H1. In total, 10 holes for 4,185m have been completed since the beginning of the programme, which was designed to test for epithermal mineralisation over what is potentially a blind porphyry system. Assay results have been received with multiple narrow (2-6m) intersections running greater than 1g/t Au. Final compilation and review of all recent work at Guintar resulted in a recommendation that no further work is required. Work has now shifted to the Margaritas project area 2kms to the south where mapping, rock and soil geochemistry has been completed. Reconnaissance work was conducted in other locations within Antioquia province in the mid-Cauca belt.

Generative exploration occurred in **Brazil, Argentina, USA, Guinea** and **Tanzania**. In a significant development, Greenfields signed a new farm-in and JV agreement with Luna Gold to explore a ~2,000km^2 tenement package located in the Maranhão state of Brazil. In Tanzania the Meia Meia licence applications (850 km^2) in the Lake Victoria Greenstone Belt of Tanzania are pending and should be granted in Q3. The first phase of exploration was completed at the Niandan licence in Guinea (100km^2, 90km from Siguiri) and 491 surface samples were collected. Early stage work is progressing in Argentina and the USA.

BROWNFIELDS

During the first half of the year, Brownfields exploration activities were undertaken across the globe. Brownfields exploration, including equity accounted joint-ventures, completed 285,877m of diamond drilling at a total expenditure for the six months ended 30 June 2016 of which $27m was capitalised and $33m was expensed.

South Africa: The mother hole of borehole UD59 successfully intersected a 1.82m thick VCR reef at 3,888m below surface on 11 April. The hole has delivered three VCR intersections to date with the grades being higher than expected. A final medium deflection of 100m in length will be drilled targeting a thicker basal conglomerate intersection and the intersection is anticipated in mid-July.

Borehole UD60 reached 3,345m (284 m drilled in H1) when a bit-burn in resulted in an extended fishing operation. All the drill rods are recovered and the corebarrel left in the hole. A wedge has been inserted to bypass the obstruction. Despite the delay the hole remains on target to intersect reef before the end of 2016.

Borehole UD58A completed piloting to a depth of 3,027m. The final establishment of the ultra-deep derrick has been completed and drilling commenced two weeks ahead of schedule. Reef intersection is planned for April 2017.

Tanzania: At Geita Gold Mine, drilling activities included infill drilling at Nyankanga Cut 9 (Block 5 UG), Nyankanga Cut 8, Star & Comet Cut 3, Geita Hill East Cut 2, and Mineral Resource delineation drilling at Star & Comet UG and Geita Hill East UG. A total of 10,372m was drilled, comprising 4,392m RC and 5,980m DD.

Infill drilling at Nyankanga Cut 9 (Block 5) has been a priority since mining is now planned for late 2016/early 2017. Seven RC pre-collars (717m) and eight DD tails (682m) were drilled and focused on upgrading Inferred Mineral Resource.

Development of the Star & Comet Exploration Drive commenced in February and mapping is ongoing within the development. Mineral Resource delineation drilling at Star & Comet UG development project completed 19 holes (1,133m) from underground and 3 holes (204m) from surface. Deeps drilling added a total of 361m (including RC and DD) and 18 RC holes (2,060m) and eight DD holes (1,211m) were drilled at Cut 3 to confirm the down-dip continuity of the ore zones.

At Geita Hill East, six RC pre-collar (1062m) and seven DD holes (2,388m) were drilled to test the gold mineralisation beyond the open pit limits and support the assessment of underground potential of the deposit. The results confirmed down-dip continuity of the ore zone. As a result of access restrictions due to mining operations, only 2 RC holes (393m) were drilled at Geita Hill East Cut 2 infill drilling programme.

Ground preparation for the 3D seismic survey is ongoing with initial source testing completed during the first quarter and line clearing and detailed planning during the second quarter. The survey data acquisition will be completed and the initial processed products available in H2.

Guinea: At Siguri Gold Mine, a total of 29,415m was drilled. Exploration drilling included infill and reconnaissance drilling at Bidini North, Bidini South, Soloni, Kalamagna PB2, Seguelen PB2, Seguelen satellite pit, Silakoro, Kami 'starter pit', Balato NE and sterilisation drilling at Boukaria. Additionally, exploration supported the drilling of 12,893m allocated to Advance Grade Control within the Kami starter pit.

Fresh rock infill drilling continued at Bidini North & South with 1,054m DD and 2,223m RC drilled to complete the programme, and at Soloni for 470m RC drilled.

A detailed infill programme to GC, AGC and Indicated Mineral Resource spacing was completed at Kami, focused on the area of the fresh rock 'starter pit' to establish optimum spacing for grade control, assess selective mining opportunities and reduce risk in early fresh rock mining. A total of 14,656m was drilled, of which 1,763m was allocated to Mineral Resource infill drilling.

2,350m of infill drilling was completed at Kalamagna PB2 in order to improve confidence in the Mineral Resource model ahead of mining. Mineralisation strike and thickness was confirmed and in some areas slightly extended.

At Seguelen PB2a, 8,107m RC and 666m DD infill drilling was initated to upgrade portions of this area from Inferred to Indicated Mineral Resource, including within Area 1. This programme is ongoing with 46% of planned drilling completed.

5,024m Mineral Resource creation/delineation infill drilling was drilled at Silakoro, comprising 4,828m RC/AC drilling and 196m DD. A re-evaluation of the potential of this deposit to provide additional oxide feed will be completed at the conclusion of the drilling programme.

Reconnaissance drilling (2,960m RC) was carried out at the Balato NE target to test the gold-in-soil anomaly. Drilling results showed that the mineralisation is constrained to narrow quartz veins and hosted in coarse greywacke. Low down-dip or strike continuity is indicated and the target is not currently considered to have economic potential.

Sterilisation drilling and further infill drilling (4,200m RC) was carried out west of Boukaria village, in an area scheduled for village expansion. Although some reportable gold intersections were achieved, the mineralisation is not considered to have economic potential and the suitability for village expansion has been approved.

A geochemical soil sampling programme on the Saraya West EPL was initiated and is 80% complete.

Ghana: At Iduapriem Gold Mine, on the Bankyem/Block 1E target, the remaining trenches from 2015 exploration were sampled early in the first quarter. A total of 1,597m drilling was completed over the target, comprising 421m RC and 1,176m DD. Although numerous significant intersections were returned, the overall tenor of the reef is lower than expected and continuity an issue in some areas.

At Block 4S, 2,456m drilling was completed, including 501m RC and 1,955m DD, with some encouraging assay results returned. Conglomerate intercepts across all drillholes confirm the continuity of the orebody both along strike (from Block 3W to Block 4) and down dip. However, the drilling programme confirmed the existence of a major fault and several lesser structures impacting the conglomerate reef package.

Within the southern 'Cemetery' area at Block 7&8, a total of 796m were drilled in the quarter with some encouraging results. The programme is ongoing.

Interpretation of the airborne geophysical surveys flown in late 2015 was completed by Spectrem and further work, including development of a revised lease-scale geological map and target generation, was undertaken. Several additional targets have been identified as a result and will be further supported by soil geochemistry programs planned over portions of the western lease area.

Democratic Republic of Congo: At Kibali, exploration focused on Kombokolo, the Agbarabo-Rhino-Pakaka corridor, Tete Bakangwe, Sessenge SW and the KCD super pit. The forecast production shortfall has resulted in an emphasis on projects with potential to deliver oxide ounces to the plant in the relatively short term. Regional targets explored include Aindi Watsa, Memekazi Ridge and Zambula. A total of 7,953m was drilled near mine and 3,519m was drilled on regional targets.

The Kombokolo target has been tested as a potential higher-grade oxide Mineral Resource and will be evaluated based on a revised Mineral Resource estimate to be completed in early Q3. Three phases of drilling have been completed in 2016, with initial drilling twinning previous drillholes and subsequent drilling to infill and test extension potential. The results have been generally positive with one main ore lens and two thinner and lower grade lenses delineated.

Scout-drilling, targeting mineralised trench intercepts at Tete Bakangwe, confirmed the presence of high grade mineralised shoots plunging to the northeast along the main shear. However, the ore shoots are narrow and the target has been downgraded as a possible near-term Ore Reserve replacement.

An RC drilling programme of 24 holes was completed at Sessenge SW to follow up on trench and auger results. The mineralisation model was supported by some drilling results and further drilling is planned.

At KCD, a new geological model was completed and handed over to the MRM department. Results from the revised optimisation of the KCD super-pit, comprising KCD, Sessenge, Gorumbwa, Sessenge Gap and Durba Hill deposits, based on lithological and conceptual mineralised wireframes indicated a potential 16% increase in ounces, 9% reduction in strip ratio and a 1% reduction in grade.

Positive results were received from a single drillhole at Durba Hill, which was completed to in-fill the 230m gap between Sessenge and the KCD pit. The results indicate a possible link between Sessenge and KCD.

At Sessenge Gap, the first phase of the RC drill campaign was completed, consisting of 10 holes for 875m. Results received indicate an increase in thickness and grade from Gorumbwa towards the Sessenge pit.

An analysis of historic data and field validation work was completed on the 3.2 km long Agbarabo-Pakaka corridor, resulting in the identification of priority targets for exploration. Three trenches completed in the Rhino-Agbarabo Gap area support the potential within this area and towards the Agbarabo pit. The main Rhino target has been re-assessed and drilling is planned to test this new model. Trenching completed over the old waste dump soil anomaly is supporting development of a new model, which will be used for evaluation, although the results show it to be heterogeneous and generally low grade

At Zambula, the southernmost target of the KZ trend, a geological reassessment highlighted potential and existing trenches were reopened and sampled to assess exploration opportunities. Partial results received to date indicate relatively low grades for this distant target.

Drilling at the Memekazi Ridge target did not confirm down-plunge mineralisation potential and downgraded the target's potential as a high grade oxide deposit with no further work planned.

At Aindi Watsa, four scout holes confirmed the lithological control on mineralisation, as observed in trenches and mapping. Although results indicated that the target is generally a low-grade, uneconomic system, trenching to follow up one positive result from the western end is ongoing.

Republic of Mali – At Sadiola and Yatela, RC drilling totaling 11,716 m was completed during the first half of the year. Drilling focused on Sadiola North/FN (4,624m), FE2S (5,454m) and FE1W (1,638m).

Historical (2014) drilling conducted at FE2S returned numerous low-grade intersections. Initial infill drilling returned some low grade-grade intersections in the northern and southern parts of FE2S. The drilling grid was further reduced to 25m x 50m where 32 holes were drilled, returning some economic grades for these 2 zones.

At Sadiola North (including the FN pits), 34 holes were drilled during the first half of the year to test for oxide and postulated shallow sulphide mineralisation. Six holes were drilled to test the hanging-wall oxide mineralisation to the west of the Sadiola North pit and most returned significant oxide intersections in areas previously modelled as gaps. One hole was drilled at the base of the pit to collect metallurgical samples. Ten holes were drilled to test the down dip extension of the NE trending mineralisation, with generally disappointing results other than one hole with significant intercepts in the area designated for the northern project pit.

Six infill holes were drilled during to improve the Mineral Resource confidence on the northern limit of the FNbc planned pit. Around FN3, eleven holes were drilled to test the continuity of the oxide and sulphide mineralisation with encouraging results, particularly in oxide.

The FE1W target is defined by a robust arsenic termite anomaly. 14 holes were drilled and, although arsenopyrite was observed in some holes, gold assays were generally poor.

Based on previous results to the north of the Voyager East target, termite mounds sampling has been initiated and results to date confirm the existence of the arsenic anomaly.

In **Argentina**, drilling commenced at Cerro Vanguardia during Q2 after a delayed start with most of the drilling meters completed at the nearby Claudia JV. During the second quarter 4,174m were drilled in total, including 3,618m at the Claudia JV.

In **Brazil**, exploration continued at the Cuiaba, Lamego and CdS production centers for AGABM with 61,221m drilled during the quarter from the combined surface and underground drilling programs.

At Serra Grande, 36,295m were drilled as part of the exploration and Mineral Resource conversion programs. Surface exploration continued as preparation to establish drilling targets.

In **Colombia**, the Gramalote JV completed 1,279m of drilling to support site and infrastructure investigations as well as infill drilling to better define the saprolite horizon.

At La Colosa, 1,453m were drilled as the site investigation geotechnical drilling continued.

The Quebradona JV programme did not complete drilling during the half year and was focused on study work.

In **Australia**, at Sunrise Dam drilling targeted Vogue South, Vogue Deeps, north extensions to Cosmo and Cosmo East, Carey Shear, Below Carey high grade zone and Ulu Steeps for a total of 28,758m.

Drilling of Vogue South continues to infill the panel south of 99,200mN and above the 1600mRL, with the aim of providing an Indicated Mineral Resource. Assay results continue to be encouraging.

Drilling of Vogue Deeps continues with an 80m x 80m spaced drill pattern. The aim of the drilling is to extend the Vogue ore body beneath the 1600m RL. The first three holes from drilling have returned significant intercepts and visible gold has logged.

Results and observed geology in holes targeting the Carey Shear are very encouraging. Drill holes have continued to produced notable high grade intercepts (>15m thick) along a strike length of 160m. Drilling has proved Carey Shear to be a consistent, long term drill target which is still open along strike and down dip, highlighting the future potential of the mineralised system.

Infill drilling of northern extensions to Cosmo and Cosmo East has continued with the aim of providing an Indicated Mineral Resource. Significant intercepts have been returned over the quarter.

Drilling of the Below Carey high grade zone was completed during Q1. From the assays results, it appears the high grade intercepts that the drilling was targeting are apparent but narrow (<2m).

Ulu Steeps drilling returned some significant intercepts; however in general they were largely low tenor. Further assessment is required to determine the potential for northern extensions.

At Tropicana, the Long Island 100m x 100m drilling programme was completed and tested the strike and dip extensions of mineralisation along the length of the Tropicana gold system. A total of 16,670m of RC and 34,695m of DD drilling was completed. Infill drilling was completed on the Havana South High Grade Zone, identified during Long Island drilling in late April. A Mineral Resource model update is in progress.

Data from the seismic survey completed over the Crouching Tiger and Havana South areas during Q4, 2015 has been finalised, and merged with 2014 Tropicana-Havana seismic survey. Currently work is focusing on interpretation of the merged seismic survey model to identify potential strike and down-dip extensions to the Tropicana gold system.

A new regional exploration group was set-up based at Tropicana to manage the TJV exploration tenements (excluding the mine lease). In H1, regional exploration consisted of drilling and a ground-based geophysical survey. Aircore (AC), reverse circulation (RC) and diamond (DDH) drilling totalled 13,360m. AC drilling (9,616m) targeted the Sanpan, Zebra and Southern Regional Traverse areas with encouraging low-level results indicating possible along strike extensions to Sanpan and Zebra. RC and DDH drilling (2,613m and 1,131m respectively) targeted the Tumbleweed, Voodoo Child and Madras prospects. Assay results are still pending for the majority of drilling, however drilling at Tumbleweed has so far produced disappointing results. Some encouraging results from pre-collars at Voodoo Child have been returned along with favourable sulphide observations in the diamond core portions of a number of holes. Observations from holes at Madras are quite encouraging with both biotite alteration in schists and euhedral sulphides observed.

A ground based Sub-Audio Magnetic Electromagnetic geophysical survey consisting of ten 1 km x 1km loops was conducted over the Beetlejuice Ni-Cu-PGE prospect. The survey showed the likelihood of Ni sulphide mineralisation was low but indicated the possibility of a conductor south of loop one that may require some follow up work.

The regional dataset review and a large amount of regional structural re-interpretation work to aid targeting has been completed with a number of areas identified as being potentially prospective. A large number of these will be systematically targeted.