

# Exploration and Technology Innovation Update for the half year ended 31 December 2017

## GREENFIELDS EXPLORATION

During the second half of 2017, greenfields exploration activities were undertaken in Australia, Colombia, Brazil, Argentina and the USA, completing 41,117m of drilling globally. Total expenditure for the second half of 2017 was \$17m.

In **Australia**, exploration activity was focussed on the Butcher Well and Lake Carey farm-in (AGA earning 70%), within the Laverton district. The Reverse Circulation (RC) and Diamond Drilling (DD) at Butcher Well was completed in early June. In the second half of the year, 68 RC/DD holes were completed for 16,000m. The Camp Zone, discovered by AngloGold Ashanti (AGA) in the first half of 2017, has returned multiple intercepts of strong mineralisation over 500m of strike and 400m down plunge and is open at depth and to the south. This new discovery begins at approximately 300m below the surface and has underground potential. Further drilling into the steeply west-dipping Enigmatic zone better-defined the geometry and size of this lode although preliminary metallurgical results suggest that there is a refractory component to the mineralisation at both Enigmatic and Camp Zones. In addition, 15 RC holes were completed at Mt Minnie and defined a zone of gold mineralisation over a 600m strike at shallow depth. Five fences of RC holes spaced at 150m returned gold intersections at shallow depth, suggesting open pit potential.

At the Oak Dam project, within the Tropicana belt (Tropicana JV AGA - 70%), a large scale geochemical sampling program was completed in the second half of the year. Two significant gold in soil anomalies were delineated. Both anomalies are situated along major structures. The northern anomaly extends over at least 1.2km and displays several anomalous samples over each line. The southern anomaly is continuous over at least 600m. A follow up aircore program is planned for 2018.

In the **USA**, the reconnaissance rotosonic drill program at the Celina Project in Minnesota (100% AGA) returned no significant results from basal till sampling. AGA has been awarded ~380km<sup>2</sup> of new exploration leases in Minnesota via the annual State Nonferrous Metallic Mineral Public Lease Sale. The new leases overlie a prospective geological setting within the Wawa Subprovince, as identified through interpretation of recently acquired regional aeromagnetic data. Passive seismic geophysical surveys were completed on existing leases to better constrain overburden thickness and depth to bedrock. Additional reconnaissance rotosonic drilling is planned for the first quarter of 2018.

At the Silicon Project in Nevada (100% earn-in option agreement with Renaissance Gold) surface geochemical, geological and spectral mapping were completed with a total of 174 samples collected. DD of the main low-sulphidation vein target is scheduled for the first quarter of 2018.

In **Colombia** at Nuevo Guintar (100% AGA), the DD program was completed with 1,478m drilled in six holes, testing two targets. The target was a 500m by 300m, gold and multi-element soil geochemistry anomaly. Drilling intersected a thick low grade zone with the geometry still unclear. The target at Nuevo Guintar was a high grade epithermal deposit.

In **Brazil**, work concentrated on the Tromai Project which covers a ~2,000km<sup>2</sup> tenement package (AGA earning 70% from Equinox Gold Corp; formerly Trek Mining). DD and RC drilling continued (3,112m DD and 3,466m RC in the second half of the year) over known structures associated with artisanal mining and soil geochemistry. New targets were generated from the aeromagnetic and airborne EM surveys. Drilling results to date have been low-moderate in tenor and further drilling over the recently-generated targets is planned for the first quarter of 2018.

In **Argentina** and **Tanzania** early stage Greenfields generative exploration programmes progressed.

## BROWNFIELDS

During the second half of 2017, brownfields exploration activities were undertaken across the globe. Over the period, brownfields exploration completed 262,468m of drilling for a total expenditure of \$34m (capital) and \$28m (expensed).

**South Africa:** The surface exploration drilling activities in operation at the start of the year have been completed and both drill sites UD58A and UD60 have been rehabilitated and signed off by the respective landowners. The Ventersdorp Contact Reef was successfully intersected in both surface holes. Piloting of UD63 has commenced. Water was intersected in the pilot hole on the Hekpoort Andesite / Timeball Hill Shale contact at 123m depth. Percussion reached a depth of 302m, where a planned survey indicated a dogleg in the vertical hole at a depth of 261m. The severity of the dogleg is such that future drilling is placed under high risk and following an extensive investigation it was decided to abandon this hole as the pilot hole and instead use it as a water hole. A replacement pilot hole, UD63A, was started on 15 September. Percussion drilling to 400m has been completed. Site establishment is underway and the foundations have been completed. Diamond drilling is planned to commence in the first quarter of 2018. Percussion drilling at UD61 has been completed to 511m. Site establishment is underway and the foundations have been completed. Diamond drilling for this is also expected to commence in the first quarter of 2018.

**Tanzania:** Exploration drilling concentrated on Mineral Resource development drilling programmes at Matandani, Geita Hill underground Blocks 1 & 2, Nyankanga Block 5 and Star & Comet Cuts 2 & 3 Underground projects, exploratory drilling to test the Nyankanga 3D Seismic Targets 1 & 5 and reconnaissance drilling at the Selous Satellite target. 200 drillholes totaling 25,262m were completed.

Significant intersections were reported from Matandani BST, Nyankanga Block 5 and Star & Comet Underground projects, Geita Hill-Lone Blocks 1 & 2 and the Selous satellite target.

The first round of the expensed drilling programme was completed at Matandani. The aim was to test the down-dip extensions below the known mineralisation and constrain the geological controls in the relatively under-drilled zones, particularly on the western limb of Matandani deposit. The drilling was also aimed at reaffirming the geological model in areas of previous drilling and to define any possible down-plunge continuity of the ore shoots to support the refractory ore project. Three drillholes totaling 671m of DD were completed during the period along the western limb of the Matandani orebody and reported thick but low to medium grade intersections.

The Mineral Resource development drilling programme on areas adjacent to Geita Hill West and Lone Cone pits was completed. The purpose was to mitigate the production risks that might be associated with the Geita Hill-Lone Cone Blocks 1 & 2 underground Mineral Resource by converting the them to the Indicated category ahead of underground mine planning and development. A total of 31 drillholes (6,438m) of RC/DD drilling were completed. All assay results have been received and the drilling data handed over to the Mineral Resource evaluation team. Gold mineralisation at Geita Hill-Lone Cone area (Block 1 in particular) is suggesting a similar setting to Nyankanga. Good grades were also intersected on sheared contacts. Most the assay results from Block 2 (Geita Hill area) are relatively thin and less continuous than Block 1.

A Mineral Resource conversion drilling program to convert the Nyankanga Block 5 Upper underground Mineral Resource to Indicated was carried out. The programme was designed to test the potential down dip continuity of upper block mineralisation and the linkage with the lower block mineralisation. Drilling is in progress at Block 5 Lower for Mineral Resource conversion to Indicated. A total of 54 DD holes (4,012m) were completed. Most the assay results from Nyankanga Block 5 returned economic intersections as anticipated. The holes drilled to test the potential extension to the southwest and northeast returned poor results.

Two DD holes (1,107m) were completed at Nyankanga to test the 3D Seismic Targets 1 & 5. The overall geological setting of the targets suggests a down-plunge extension or repetition of the Nyankanga Block 5 mineralisation. Assay results were received for the 3D Seismic Target 5 borehole. Some significant intersections were reported and largely coincided with the zones of suspected mineralisation (Seismic reflectors). The second drillhole for Target 1 is still being processed.

Underground mining development at Star & Comet Cut 2 & 3 continued. A new interpretation suggested the existence of two parallel mineralised zones at Star & Comet Cut 3. Based on this information a set of horizontal boreholes were drilled to test the concept to the north. Following a successful drilling programme, encouraging intersections and an updated model, another ore drive was started to accurately define the extent of the second zone.

Mineral Resource development drilling at Star & Comet Cut 2 was carried out to further define the Star & Comet Cut 2 Mineral Resource model. The objective of the drilling was to infill the final conceptual portion of Star & Comet Cut 2 Mineral Resource model to Indicated. A total of sixty-nine DD holes (6,458m) were completed at Star & Comet Cut 2.

Thirty-six DD holes were completed at Star & Comet Cut 3 comprising of 1,941m of conceptual and 4,557m of Mineral Resource conversion drilling. Three holes (274m) were drilled to test the extension of Star & Comet Cut 3 mineralisation below the current life of mine.

The first round of a reconnaissance drilling programme was carried out at the Selous satellite target. The target is located to the NW of Nyamulilima Block. Four DD holes (423m) were completed. Geological observations from the first three vertical holes indicated presence of repeated BIF units (host rocks) and steep structures associated with mineralisation below a vertical depth of 100m. This observation triggered the fourth hole to be drilled at an incline. Three out of four holes returned significant and economic intersections related to steeply dipping structures.

**Guinea:** Exploration consisted of drilling in Block 1 and Block 2 mine license areas, soil sampling in the Saraya West license area and the collection of geometallurgical measurements. Total drilling amounts to 26,837m.

Within the Block 1 lease drilling was undertaken around the Seguelen and Sokunu pits and at the Silakoro prospect. At Seguelen two infill and one reconnaissance drill programme was undertaken. Infill drilling was done on the eastern side of Seguelen Push Back 1 as part of a Mineral Resource conversion programme. A second infill programme was undertaken to convert Inferred Mineral Resource to Indicated within the fresh rock. The drill programme also intended to better define the lower limit of this mineralised area. Multiple significant mineralised intersections were achieved.

At Sokunu, reconnaissance drilling was undertaken to test fresh rock potential below the pit. The drill programme is expected to be completed during the first quarter of 2018 when all submitted assays should be received from the laboratory.

At the Silakoro, infill drilling was undertaken to increase the level of confidence in isolated mineralised areas which were located outside of the main pit shell. In total 4,456m of RC drilling was done to the north and northeast of the planned Silakoro pits shell where Mineral Resource confidence levels were increased to Indicated, while new potential was discovered in the north-eastern extremity of the prospect, which requires follow-up drilling. A sterilisation programme was also undertaken at Silakoro to confirm the proposed layout of two planned waste dumps. Drilling showed that the selected areas have no significant mineralisation and that the sites can be utilised to place waste dumps.

Infill drilling commenced in the north of Kami pit to improve the Mineral Resource confidence level. Ten of the planned 51 RC holes were completed (1,222m) for which most assays are still awaited.

After prolonged delays associated with poor road infrastructure and the process of compensation for access, infill drilling commenced at Foulata where a total of 8,643m of drilling was completed. This comprised of 270 RC and 8 DD holes. The Foulata drill programme intends to increase the level of confidence in the orebody and to allow for the declaration of an Indicated Mineral Resource once completed.

A total of 6,314m of the Seguelen and 2,663m of Foulata core was XRF scanned for the Geomet study.

**Ghana:** Drilling (2,139m) at Block 1W / Nueng continued. Drilling targeted the fold model to confirm the conglomerate reef package near surface. The drilling intersected the conglomerate reef package at 153m in SU001. The later part of the drilling campaign continued to confirm a single, truncated A reef.

The mapping campaign in Block 5 Extension informed the decision to plan drill holes aimed to cut the mapped reef packages perpendicularly. A total of 2,412m was drilled with the aim of resolving the full extent of the reef packages along strike and the influence of faults and intrusives on the conglomerates. Recent mapping at the northern extent of the pit reveals continuation of the reefs with a south-east dip direction as opposed the eastern dip direction that exists within the main pit.

Field mapping was done at Nkyemia and Ajopa NW. Ajopa NW mapping was focused mainly at the north-western portions of Ajopa. A few samples collected for panning showed the presence of Au.

**Democratic Republic of the Congo:** Exploration activities were focused around the Kombokolo, Makoke, Rhino-Agbarabo, KZD, Kalimva, Ikamva, Ndala North and the South KZ areas in the second half. A total of 10,251m was drilled.

At Kombokolo, the information obtained from the two holes that were drilled support the down-plunge potential of the mineralised zone. Although the high-grade zone is narrower compared to the mineralisation intersected in up-plunge holes.

RC drilling to confirm the mineralisation potential took place at Makoke. Results show a decrease in both thickness and grade down dip for all mineralised lenses compared to the model.

Assay results from two trenches in the Aerodrome North to Pamao gap area reported mineralisation similar to the adjacent deposits, supporting the link between the two.

Drilling at Rhino-Agbarabo was mainly focused on developing mining flexibility and Mineral Resource addition with a second phase of drilling. The encouraging results for Rhino-Agbarabo will trigger a Mineral Resource conversion program early in the first quarter of 2018 to bring material in this pit to at least Inferred Mineral Resource.

Drilling at Kibali to test the folded BIF model of the main KCD orebody has supported the down plunge continuity of mineralised system for approximately 600m. A new domain (12000 lode) below the known 9000 lode was intersected and is interpreted to be the down plunge projection of Sessenge SW some 2.6km up plunge. Mineralisation in this lode is associated with pyrite and arsenopyrite on the contacts of the BIF. Wide-spaced drilling from underground will begin to test the 12000 lode model.

At the new discovery, Kalimva, the second phase (26 holes totalling 3,072m) of RC drilling was completed to test high grade shoots within the 1.6km long shear system. Logging and assay results received to date support a model with five stacked, plunging shoots of >2g/t within the 1.6km strike. A total of five new trenches were excavated, mapped and sampled to test for strike extensions of the Kalimva trend to the north and in the 1,300m gap between Kalimva and Oere in the south. Observations from trenches to the south support the continuity of the shear, but with narrower and weaker mineralisation than expected. North of Kalimva, trench KVTR0002 confirmed a potential 100m strike extension of mineralisation.

At Ikamva, seven RC holes were drilled in a fence, following up on the optimisation done in the western part of Ikamva. The observed mineralised zone is thinner and deeper than expected and some of the holes ended in mineralisation. Another phase of close spaced drilling is planned to further test this mineralisation.

Field work was undertaken at Ndala North and the South KZ areas with the objective of making new discoveries. At Ndala North Target, located 2.5km north of the Pakaka pit, there is a geophysical response on a trend parallel to the main KZ trend. On the South KZ trend three geological domains were identified, containing 4 targets. Field work started on the two priority targets in the Zakitoko area. Assay results of the 78 grab samples collected along the 4km strike length of blocks A and B at Zakitoko returned encouraging values within the banded ferruginous chert, confirming the potential of the target.

**Republic of Mali:** A total of 8,122m of RC drilling was completed at Sadiola South, Tambali West, Dogofile South, Timbabougouni, Voyager West, Tabakoto West and Lakanfla. Significant intersections were returned at Sadiola South and anomalous values were returned at Dogofile south. Both targets were followed up with the Dogofile South results showing no improvement while the results for the Sadiola South are awaited.

A total of 2,607m DD was completed at FE3, Tambali and Sadiola North focusing on shallow and deep transitional and sulphide potential. Significant results were obtained from FE3, FE4, and Tambali deep drilling, Sadiola North, Sadiola South and Voyager West.

At FE3, the DD tested the shallow sulphide mineralisation below the pit, especially in the zones where high grades were mined in the bottom of the pit. In total, five holes (1,097m) were completed and all the holes intersected the narrow zones of mineralisation suggesting a low potential. A broad mineralised zone was intersected in one of the boreholes, consisting of alternating narrow high grade and low-grade stringers. Two other holes returned significant results that confirm the primary source of the supergene enrichment. The results indicate that significant intersections are located on the northern half of the strike.

At Tambali, the drilling (1,214m) aimed at investigating sulphide mineralisation that has been modelled as steeply dipping towards the east. The northern hole TSDD-030 returned significant gold grades associated with narrow zones of pyrite-arsenopyrite mineralisation, and the main mineralisation does not appear to be confined only to the QFP-metagreywacke contact.

DD at Sadiola North targeted the deeper area where the NNE trending mineralised structures intersect the Sadiola Fracture Zone trend. Results confirmed a broad mineralised zone and the relevance of drilling towards the NW as suggested by the recent Mineral Resource interpretation.

Results for the FE4 sterilisation holes drilled during the first half confirmed the down-dip extension of the western mineralisation and the intersections were mainly within the oxide and transition zones. However, the area is considered sterile under the current economic conditions due to the stripping required to access the mineralisation and the adjacent main waste dump.

RC drilling focused on the new oxide targets identified in the targeting workshop of June 2017. Drilling was conducted where access was possible during the raining season.

At the Dogofile South 18 RC holes were drilled (2,762m) targeting a NW-SE trending deeply weathered zone. The drilling was conducted to test for potential oxide mineralisation in structural traps and very deep weathering (up to 250m in places) was encountered. Most results are still outstanding because of wet samples and results are expected in early in 2018.

Sadiola South target is located on the southeast extension of Sadiola pit and the area is considered for SSP waste dump position. The exploration thus also serves as sterilisation drilling. Fourteen holes (1,918m) were drilled and interpretations from the drilling suggests that the southern part of the Sadiola Pit is capped by an antiform, with the mineralisation mainly located on the west dipping limb of the fold. Results of the holes confirmed the up-dip projection of the Sadiola mineralisation, (but very low grades) with flat dips consistent with the folding.

Eleven RC holes (1,620m) were drilled at Lakanfla with the objective to test for mineralisation along the lithological contact. Previous drilling in this area was shallow and the current drilling aims to intersect fresh rock. Drilling information confirmed the deep weathering along the carbonate-metagreywacke contact but no assay results have been received to date. Weathering on the southern fence-line appears to be controlled by the contact between the carbonate and the metavolcanics.

Three RC holes (300m) were drilled at Timbabougouni to test a potential intersection of NE structure with lithological contact on the north extension of the FE4 main shear. The eastern hole intersected the metagreywacke-metapelite contact and the area has weakly disseminated medium-grained pyrite. Received assay results for two of the holes were poor.

At Voyager West a further 10 RC holes (984m) were drilled to follow up on a significant intersection from 2011 drilling, and to also test the strike of the FE4 main shear. Two holes returned shallow sulphide intersections. Using the sectional interpretation, the recent intersections dip towards the east while the previous intersections dipped west. That suggests a possible NNE trend for the mineralisation indicating a potential for oxide mineralisation although the depth of weathering is very shallow.

At Tabakoto West, five (538m) RC holes were drilled. The main target zone with the deep oxide potential along the strike of historical intersections was not tested. However, the drilling showed that the 'intrusion' intersected by historical southern holes does not extend to the north. The holes returned many wet samples that will be analysed in the first quarter in 2018 after drying.

During the second half of the year, 2,598 samples were analysed by XRF. 628 RC samples were analysed to confirm the lithologies at Dogofile South, Lakanfla, Timbabougouni and Sadiola South, whilst the other 1,970 samples represented core from the Tambali and FE4 drilling.

The results obtained from the FE Trend samples indicated that the trace element anomalies in the areas are subtle and obscured by using a constant plotting scale over the whole permit. At Sadiola South, the trace element concentrations are enriched in the weathered zone dropping to insignificant levels with the fresh rock. At Tambali the trace elements, define a broad alteration zone that terminates on the contact between the metagreywacke and the western carbonate horizon. The observation supports the idea that the contacts are structural where significant displacement occurred along the planes. These results indicate that the permit wide geochemical analyses are not reliable but the results should be considered by area and some intuition must be applied in the determination of the optimum approach.

In **Argentina**, a total of 2,725 m RC was drilled in 26 holes on 12 different structures. RC was used for shallow drilling and scouting in poorly known areas.

The RC drilling programme focused firstly on testing ground magnetic anomalies around Laura, Sonia and extensions of Vanguardia 2 veins and secondly on defining lateral and downdip extension of mineralisation in poorly-drilled areas of Ariadna, El Palo, Gesica, Patricia, Patty, Teresa, Vanguardia E, Verónica, Zorro veins.

Small sub-surface ore shoots were identified at the intersection of Laura and Sonia veins and at Gesica, while a completely new silver-rich Mineral Resource was developed on the Teresa-El Palo trend.

A DD programme was carried out using two rigs to drill a total of 8,524 m in 38 holes covering 10 veins.

DD was used to define downdip extension of mineralisation in under-drilled areas of the most important veins in the central productive domain. Drilling was successful in defining new Mineral Resource at Osvaldo Diez 2-8 and Zorro below current underground development. Additional Mineral Resource was also defined on a secondary vein at Luciana 1, drilling was partially successful at Vanguardia 3 and Gesica, and unsuccessful on the northern end of Gabriela.

The downdip extension of Mineral Resource was identified and delineated at Teresa, while two new areas were discovered testing the ground magnetic targets at a lateral extension of Vanguardia 2 (where several meters-wide mineralised vein breccias were intercepted by two deep holes at 238 m and 303 m respectively) as well as an unexpected interception of sub-surface disseminated mineralisation in the first of the two diamond holes drilled at Sonia.

Trenching was extensive and channel sampling is ongoing. To define new 2018 drilling targets an important trenching programme was completed. A total of 15,345m were excavated in 124 trenches and 2,172 m of sampling was cut in 71 channels. Trenching was focused in four areas: 1) Antonio, Laura, Sonia, Vanguardia 2 and Vanguardia 3 in the NW of the district; 2) Cuncuna and Sandra veins in the East; 3) Serena Sur in the main central part; 4) Teresa, El Palo, Laguna del Mineral, Ariadna and Patricia veins in the southern, silver-rich sector of the district.

A ground geophysics programme designed to search for shallow blind structures is also ongoing and will continue into 2018. A total of 29.6 Km<sup>2</sup> of ground magnetic were surveyed by a contractor in the southern part of the district, while several company-operated HLEM surveys were carried out over Cuncuna, Gesica, Molino, Vanguardia 2 and Teresa – El Palo veins areas, covering an area of 4.4 Km<sup>2</sup>.

In **Brazil**, at Cuiabá exploration was focused on underground drilling for ore body extension, Mineral Resource conversion and the testing of conceptual targets. Deep drilling moved from L28-30 to L24 to reach the northern hinge of the Cuiaba structure.

Funding for some regional drilling was redirected to fund an airborne geophysical survey (Gamma and Magnetic) around Cuiaba and Lamego mines. Regional mapping and sampling continued around Cuiaba at the Pompeu target. 45% of the soil sampling programme was completed with 582 samples collected.

At Lamego exploration focused on Carraguem SW ore body where drilling is being undertaken from a hangingwall drive. The results are promising, especially on the normal limb where the Carraguem ore body shows continuity along with Carraguem SW. Mineral Resource modelling is in progress.

Meanwhile at Córrego do Sítio exploration included underground Mineral Resource conversion drilling at CDSI, and surface Mineral Resource conversion drilling at Rosalino (CDSI), Pinta Bem (CDSII) and Anomalia I (CDSIII) and Mineral Resource addition drilling at Cachorro Bravo and Laranjeiras (CDSI). Blue sky exploratory drilling was limited to Anomalia I target. A total of 36,403m were drilled by the contractor and 12,319m by AGA.

Underground conversion drilling took place at Laranjeiras and Carvoaria targets. In the north of Laranjeiras drilling returned several high-grade intersections, including samples containing visible gold. The campaign on the middle and north portions of Carvoaria confirmed thick high-grade mineralisation on the main orebody and identified secondary lenses in the footwall. Good upside potential was seen at Bocaina where drilling intersected previously un-modelled ore.

Surface addition drilling at CDSI was undertaken at Laranjeiras and Cachorro Bravo. The results supported the current model and at Cachorro Bravo the surface drilling intersected mineralisation 330m down plunge from the last known intersection.

DD was completed on surface at Rosalino. The drilling campaign aimed to convert the Inferred Mineral Resource into Indicated where it did not previously meet the minimum spacing of 50 x 50 meters. Preliminary results received to date are encouraging.

The surface drilling campaign at Pinta Bem target aimed to convert the Inferred Mineral Resource into Indicated on the northeast portion. The drilling sites originally planned needed to be moved to comply with environmental requirements. Results to date confirm the continuity of the northern Pinta Bem orebody.

On the CDSIII oxide targets, 11 drillholes were completed. The process to obtain environmental permits led to a delay of the drilling campaign, compounded by drilling being pushed into the wet season.

The exploration team produced upside geological models for CDSI, II and III, which will form the basis for a conceptual study of the CDS complex for the next years. The full plan to explore the orebodies to -740m level was designed, including exploratory development, surface and underground drilling campaigns on various grid spacings.

At Serra Grande, a total of 14,557m was drilled. Exploration focused on extensions and infill of known orebodies related to the mining areas, this included drilling at Orebody IV, Structure III, Inga, Pequizado, Palmeiras and Mangaba. Field work continued on regional leases and CA's were signed with interested parties. Significant intersections were returned from the down-plunge extension of Orebody VI, confirming both grade and thickness, as well as on structures below Orebody VI. At Structure III and on Orebody A, significant intersections were obtained confirming the theory of the repetition of layers and the stacking of ore zones in addition to extending the projections down-plunge.

In **Colombia**, at Gramalote no drilling took place. Field based exploration focused on rock chip sampling and soil sampling at San Javier, Santa Barbara, and Encarnaciones targets to continue delineation of the quartz vein system identified in the area.

Drill planning was completed and construction of drill pads for the 2018 drilling programme was started. The metallurgical team was supported by the exploration team in the collection of samples for further metallurgical test work.

At La Colosa, no exploration occurred.

At the Quebradona no drilling took place during the second half and work mainly focused on supporting the Pre-Feasibility Study with field activities, core relogging and geotechnical logging

In **Australia**, drilling targeted Vogue Deeps, Carey Shear, Dolly Porphyry, Cosmo, Cosmo East and Elle orebodies, the Western Area of Vogue 1800, 1600 and 1400 Blocks, down dip extensions to

Cosmo, Carey Shear, Elle and Astro North. A total of 45,870m were drilled in the second half of the year.

Drilling of Vogue continued with the aim to drill to Indicated the 1600 Block (1600mRL-1400mRL) VW1 and VW2 and to define the potential in the 1600 and 1400 Blocks VW3. Results continue to be encouraging with significant intercepts returned from all panels.

Assay results from Mineral Resource delineation drilling in the southern panel of Cosmo and Cosmo East down dip were returned during the second half of the year. One significant intercept was returned from Cosmo East down dip, and three significant intercepts from an isolated area between the Dolly and Cosmo ore bodies. Further drilling from the southern panel will be completed during 2018.

Blue sky tangible drilling of Carey Shear continued. One significant intercept was returned for the Carey Shear with two further significant intercepts returned from further up hole. Drilling of this target will continue.

Mineral Resource definition drilling of the Elle target continued and that to the south commenced. Seven significant intercepts were returned for Elle, and nine significant intercepts related to the Midway shears from this area were received.

Blue sky tangible drilling of Astro North commenced in the last quarter of the year and is expected to be completed in 2018. Assay results are pending.

At Tropicana, extensional drilling at Boston Shaker to evaluate underground potential down dip of the Long Island pit design and minor infill drilling at Crouching Tiger took place. A total of 9,045m RC and 14,805m of DD, for a total of 23,850m was completed.

Significant intercepts were reported from extensional drilling at Boston Shaker supporting the underground potential. Drilling, in progress at Boston Shaker, will scope underground Mineral Resource at 100m x 100m drilling spacing to 700m down-dip of Long Island pit design. Following a scoping study, which is currently underway, a prefeasibility study on underground mining will begin in 2018, in conjunction with infill drilling programmes.

Regional brownfields exploration completed 16,936m of AC, 8,291m RC and 2,993 DD drilling, for a total of 28,159m.

A number of significant intercepts were returned from follow-up RC/DDH drilling at the New Zebra prospect and will be followed up in 2018.

AC drilling was completed at Chokolatini and Don Pedro prospects with no significant results returned. Meanwhile several encouraging results were reported from AC drilling at Angel Eyes which will be followed up in 2018.