11 February 2013

CARDINAL RESOURCES LIMITED
EXPLORATION AND TECHNICAL UPDATE

Cardinal Resources Ltd (ASX:CDV) ("Cardinal" or "the Company"), a gold focussed exploration company with four tenements in Ghana, West Africa, is pleased to announce our maiden technical report.

HIGHLIGHTS

- **2 Soil Geochemical Anomalies on the Ndongo Tenement (Bolgatanga Project) have been delineated;**
  - **3 km of strike with average 380ppb Au and 150 to 500m width;**
  - **1.3 km of strike with average 128ppb Au and 250m width.**
- **Detailed Airborne Geophysical Survey to commence in March 2013;**
  - **Survey to cover 3 tenements in NE Ghana ("Bolgatanga Project") totalling 7,649 line kms;**
  - **Survey to cover 1 tenement in SW Ghana ("Subranum Project") totalling 1,516 line kms;**
  - **Approximately 120 kms of interpreted shear structures within the tenements to be covered which will help identify gold bearing drill targets.**
- **Delineation Diamond Drilling planned for Subranum Tenement to expand on the current 97,600oz internal resource estimate**
- **Site Visit to the Democratic Republic of Congo (DRC) planned for March 2013**

1.0 CARDINAL PROJECTS

Cardinal Resources Limited (Cardinal) is a focused gold explorer who owns two gold exploration projects in two prospective NE-SW trending granite-greenstone belts in Ghana, namely the **Bolgatanga Project** (Nangodi and Bole-Bolgatanga Greenstone Belts, NE Ghana) and the **Subranum Project** (Sefwi Greenstone Belt, SW Ghana) (Figures 1 and2). Cardinal has also secured an option to acquire a 60% interest in two exploitation licences located within the **Kilo-Moto Greenstone Belt** in the Democratic Republic of Congo.

In order to rapidly progress exploration on the Ghana tenements and work towards defining significant gold resources, geophysical methods were used in conjunction with existing geological and geochemical information.

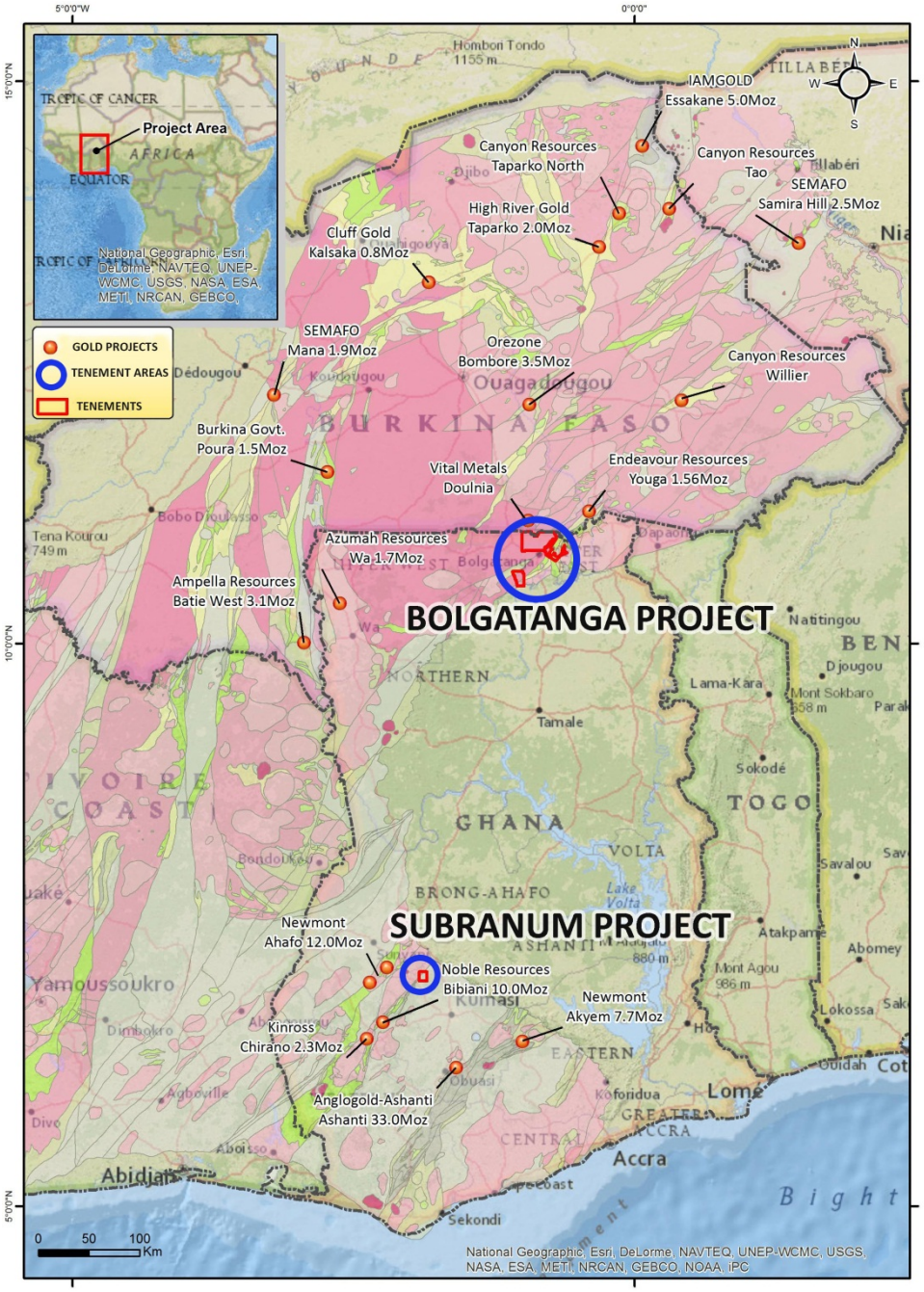

FIGURE 1: Bolgatanga and Subranum Projects in Ghana

The existing airborne geophysical data available to Cardinal over the tenements are from government sponsored surveys. The data from these surveys has been obtained and reprocessed by Southern Geoscience Consultants Pty Ltd (SGC), Perth, Australia, as images and contours of various enhancements.

The known gold deposits in Ghana and Burkina Faso, to the north, are predominantly structurally controlled. The processed existing airborne geophysical data has been interpreted to delineate structures, especially shear zones, which are a focus for gold mineralisation.

2.0 BOLGATANGA PROJECT

2.1 Existing Airborne Geophysical Surveys

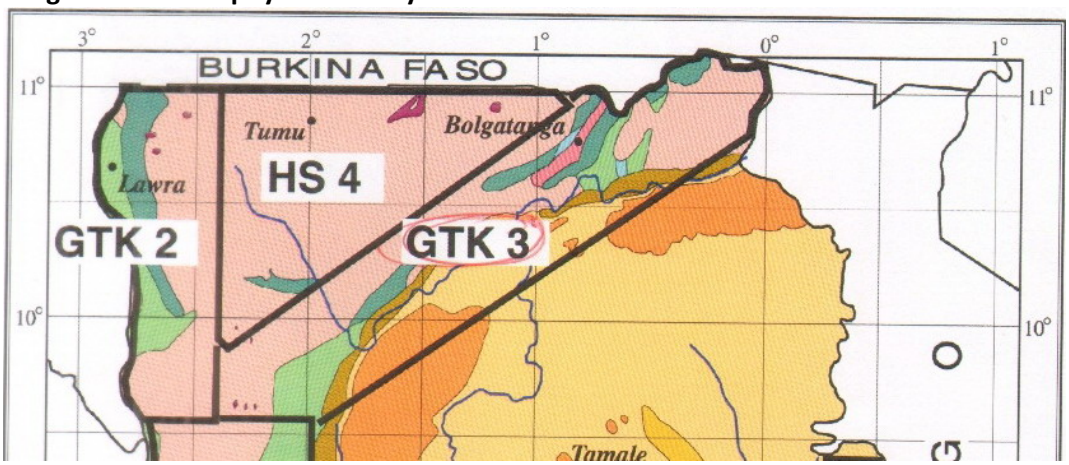

FIGURE 2: Existing Airborne Geophysical Surveys over Bolgatanga Tenements

Existing airborne geophysical data covering the Bolgatanga tenements is comprised of two surveys, namely the GTK3 survey flown by the Geological Survey of Finland in 1997 at 400m line spacing, and the HS4 survey flown by High Sense of Canada in 1999-2000 at 800m line spacing (Figure 2).

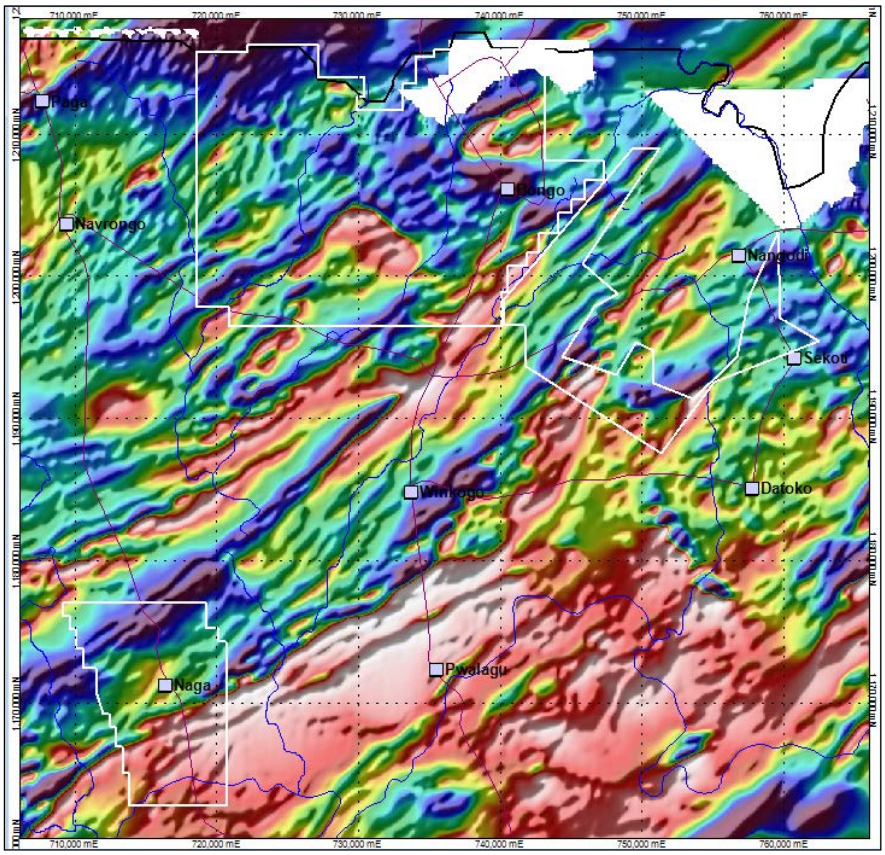

FIGURE 3: Bolgatanga Project - Existing Data Aeromagnetic Image (RTP TMI)
(RTP = Reduced To Pole; TMI = Total Magnetic Intensity) (white lines = tenements)

Data from these two surveys were reprocessed and merged by SGC to obtain aeromagnetic data (Figure 3) and radiometric data (Figure 4).

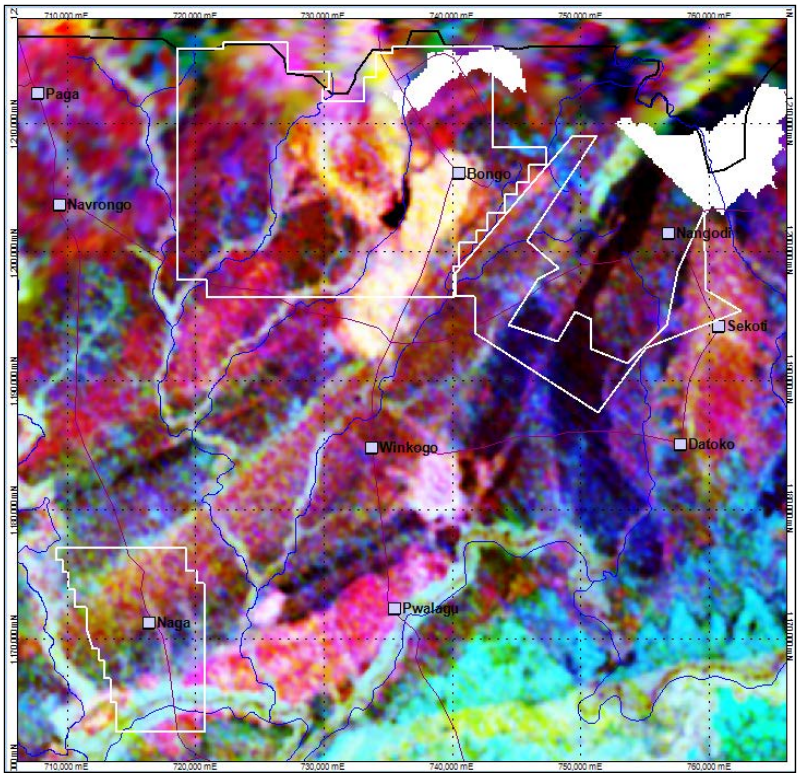

FIGURE 4: Bolgatanga Project - Existing Data Radiometric Image (K=red, U=blue, Th=green)

Structures interpreted from the existing Bolgatanga airborne geophysical data are shown in Figure 5. Several major NE-SW trending shear structures strike through the Cardinal tenements and have formed a focus for exploration and aided the interpretation of geochemical anomalies (Peters, 2013).

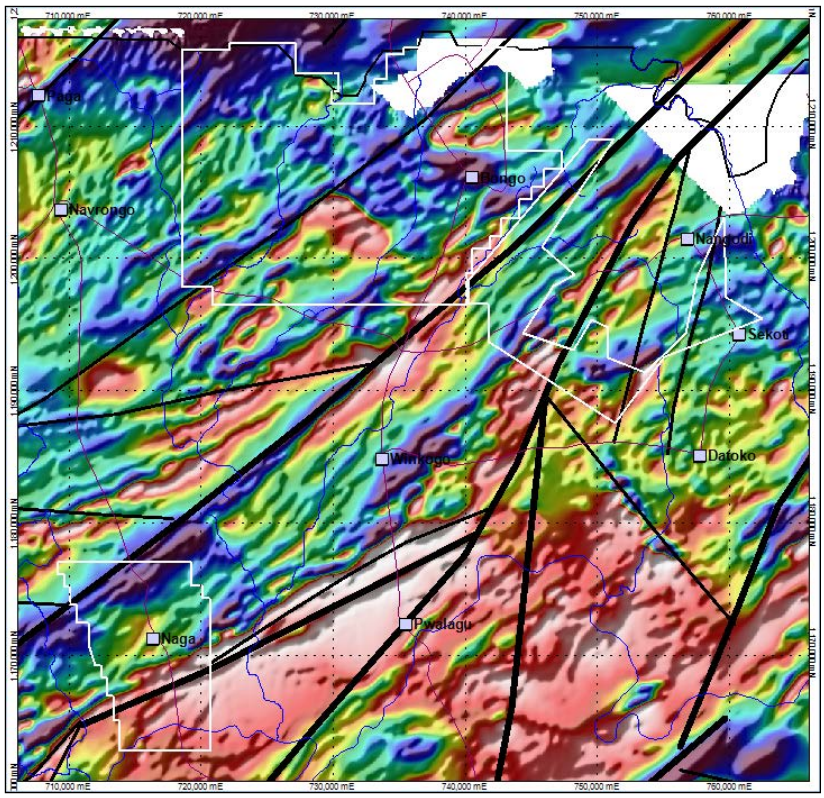

FIGURE 5: Bolgatanga Project - Interpreted Shear Structures (black lines)

2.2 Existing Geological Maps

Several geological maps of the project area were available and served as base maps to aid geological knowledge and a geochemical sampling program (Figures 6 and 7). The Bolgatanga Project area has known gold mineralisation occurring in a variety of styles with identified historic gold resources, artisanal workings and producing mines.

The Bole-Nangodi Greenstone Belts comprise two portions, with the **Bole-Bolgatanga Belt** extending regionally from SW to NE and the **Nangodi Belt** SE of the Bole-Bolgatanga Fault, extending into Burkina Faso (Figure 7).

2.3 Nangodi Greenstone Belt

The Nangodi Greenstone Belt is regarded as the southern extension of the Youga Greenstone Belt in Burkina Faso where it hosts the producing Youga gold mine (1.56 Moz Au; MEG database). Locally, the belt trends NNE-SSW over a distance of 30 km and turns to a more ENE-WSW trend in the south of the area. The Nangodi belt is highly folded with at least two phases of deformation being noted (D_1, D_2) and as such, is regarded as a series of refolded folds.

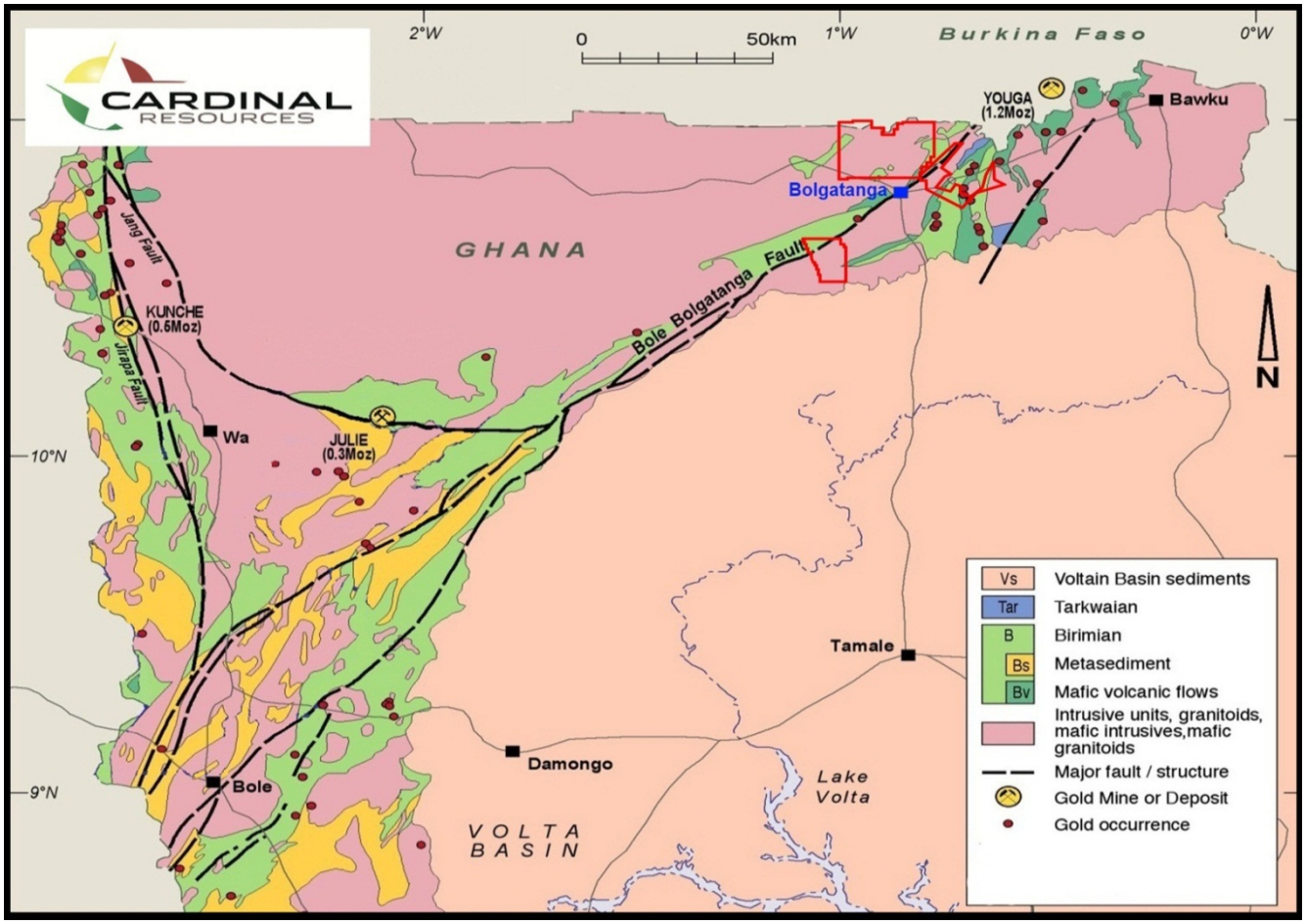

FIGURE 6: Regional Geology, Bole-Bolgatanga Fault (Shear) Zone & Greenstone Belt, and Nangodi Greenstone Belt (with gold occurrences and Cardinal Tenements)

Gold mineralisation in the Nangodi belt appears to be associated with the highly sheared, possibly thrusted margins of the belt as well as along the contacts between metasedimentary and volcanic rock units. Both the historic Nangodi gold mine (operated during the 1930's) and the currently producing Shaanxi gold mine are located along one of these contacts (Figure 7).

The Nangodi mine is located about 10 km NE of the Ndongo tenement and produced 18,620 ozs Au from 23,600 tonnes; a gold grade of approximately 25 g/t Au (Ghana Department of Mines records 1938). The currently producing Shaanxi gold mine is located 7-8 kms SE of the Ndongo tenement (Figure 7), with numerous gold producing artisanal workings and small scale mines located S of Shaanxi also along this contact.

Numerous chert horizons have been observed in the Nangodi Greenstone Belt developed within the metasediments and interbedded with the basaltic flows. These outcropping cherty chemical sediments have previously been described in Griffis, 2000 and by Melcher & Stumpfl, 1994. They are described as cherty chemical sediments that occur in the transition zone between the metasediment and volcaniclastic units and include a variety of facies including manganese-rich varieties, chert, carbonates, pyritic carbonaceous cherts, barium rich phyllites, carbonaceous phyllites and tourmalinites. These chemical metasediments are reported to be **enriched in gold values 4 to 5 times higher than normal background** for the area (Griffis, 2002; Melcher & Stumpfl, 1994).

According to Griffis, 2002, **virtually all of the gold deposits in the Nangodi area occur in shear zones quite close to these transition zone chemical sediments**, and it has been proposed that the gold in the vein deposits are remobilised from the chemical sediments by hydrothermal fluids of metamorphic origin.

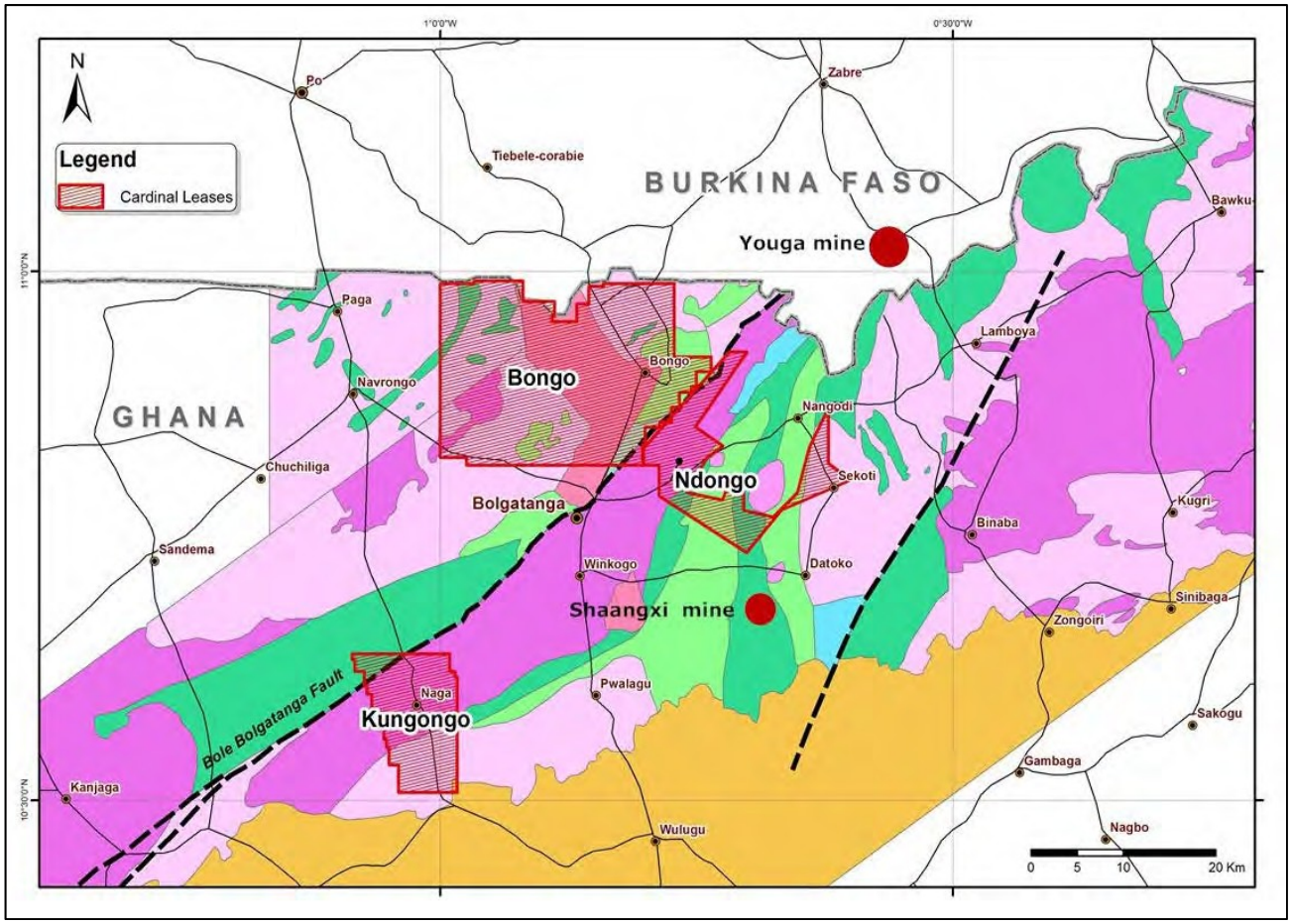

FIGURE 7: Geology map showing the location of the Bongo, Ndongo and Kungongo tenements and the producing Youga and Shaanxi gold mines

2.4 Bole-Bolgatanga Greenstone Belt

The Bole-Bolgatanga Greenstone Belt has been very highly tectonised by mainly NE trending fault systems that appear as a complex of anastomosing features, forming the **Bole-Bolgatanga Fault Zone**. This regional shear zone can be traced across the entire northern portion of Ghana, through Burkina Faso and into Niger (Figures 1 & 2).

The producing **Youga** (Burkina Faso) and **Samira Hill** (Niger) **Gold Mines** are located on, or very close to this Bole-Bolgatanga Fault (Shear) Zone (Figure 6). Greenstones occur along this shear zone in Burkina Faso, where numerous companies are actively exploring for gold deposits.

The Bole-Bolgatanga belt strikes in a NE-SW orientation and exhibits a more open style of folding compared to the Nangodi Belt. The principal fold axis (D_1) trends NE-SW, and a later (D_2) event trends SE-NW. The belt is intruded by numerous late granitoid complexes of both alkaline and calc alkaline affinities. A large intrusion of intermediate granodioritic material separates the Nangodi Fold Belt from the Bole Belt.

There are numerous gold occurrences along the extensive Bole-Bolgatanga Fault. A currently producing small scale mine SW of Bolgatanga is located on this fault and is producing impressive grades of gold (an ore sample assayed 97.0 g/t Au).

3.0 BOLGATANGA TENEMENTS

The three granted tenements in the Bolgatanga project area include **Ndongo**, **Bongo** and **Kungongo** (Figure 7), collectively covering an area of over 735 km^2. Ndongo straddles the Nangodi Greenstone Belt, while Bongo and Kungongo cover part of the NE extensions of the Bole-Bolgatanga Greenstone Belt (Figure 7). The two greenstone belts are separated by the regional Bole-Bolgatanga Fault (Shear) Zone, trending SW-NE across northern Ghana, through Burkina Faso, where the producing Youga Gold Mine is located and into Niger, where the producing Samira Hill Gold Mine is located.

3.1 Ndongo Tenement

The Ndongo tenement is located some 10 km NE of Bolgatanga and centered around the village of Nangodi. The granted Prospecting Licence covers an area of some 106 km^2 (Figure 7).

3.2 Bongo Tenement

The Bongo tenement is located in NE Ghana some 4 km north of Bolgatanga town and centered on the village of Bongo. The tenement covers an area of 447 km^2 and is a renewable Reconnaissance Licence (Figure 7).

3.3 Kungongo Tenement

The Kungongo tenement is located in NE Ghana some 25 km SW of Bolgatanga and centered on the village of Naga. The tenement covers an area of 106 km^2 and is a renewable Reconnaissance Licence (Figure 7).

4.0 NDONGO TENEMENT

The exploration strategy for the Ndongo Prospect is targeting structurally-controlled Paleoproterozoic greenstone belt gold deposits that range from small-scale, high-grade shear-hosted veins that occur along lithological contacts, to larger tonnage lower-grade deposits associated with stock works in felsic to intermediate intrusives. There is potential for the discovery of both large-scale open pit and high-grade underground deposits at this prospect.

4.1 Youga Gold Mine, Burkina Faso

The Youga Gold Mine is a producing mine and lies NE of the Ndongo Permit along strike within the extensions of the Nangodi Greenstone Belt. Total gold resources are approximately 1.12 Moz Au, with annual production about 80,000-90,000 ozs Au.

4.2 Shaanxi Mining Ghana Ltd (Shaanxi)

Shaanxi has targeted gold mineralisation along a **sheared lithological contact** between metabasalts and metasediments of the Nangodi Belt (Figure 2). This lithological contact is called the **"Eastern Sheared Contact Zone"** (ESCZ) by Cardinal geologists to identify this contact zone which continues along strike to the north into the Ndongo Tenement around Ndongo East. Shaanxi is located to the south of the Ndongo Tenement and is a significant operation including three head frames, which have been erected along the strike of the ore body, an assay laboratory, , extensive workshops, earth moving equipment, several drill rigs and a processing plant. A larger capacity processing plant is currently under construction. Some random ore samples were taken from this mine's waste pile, with the results ranging between 0.4 g/t and 1.3 g/t Au.

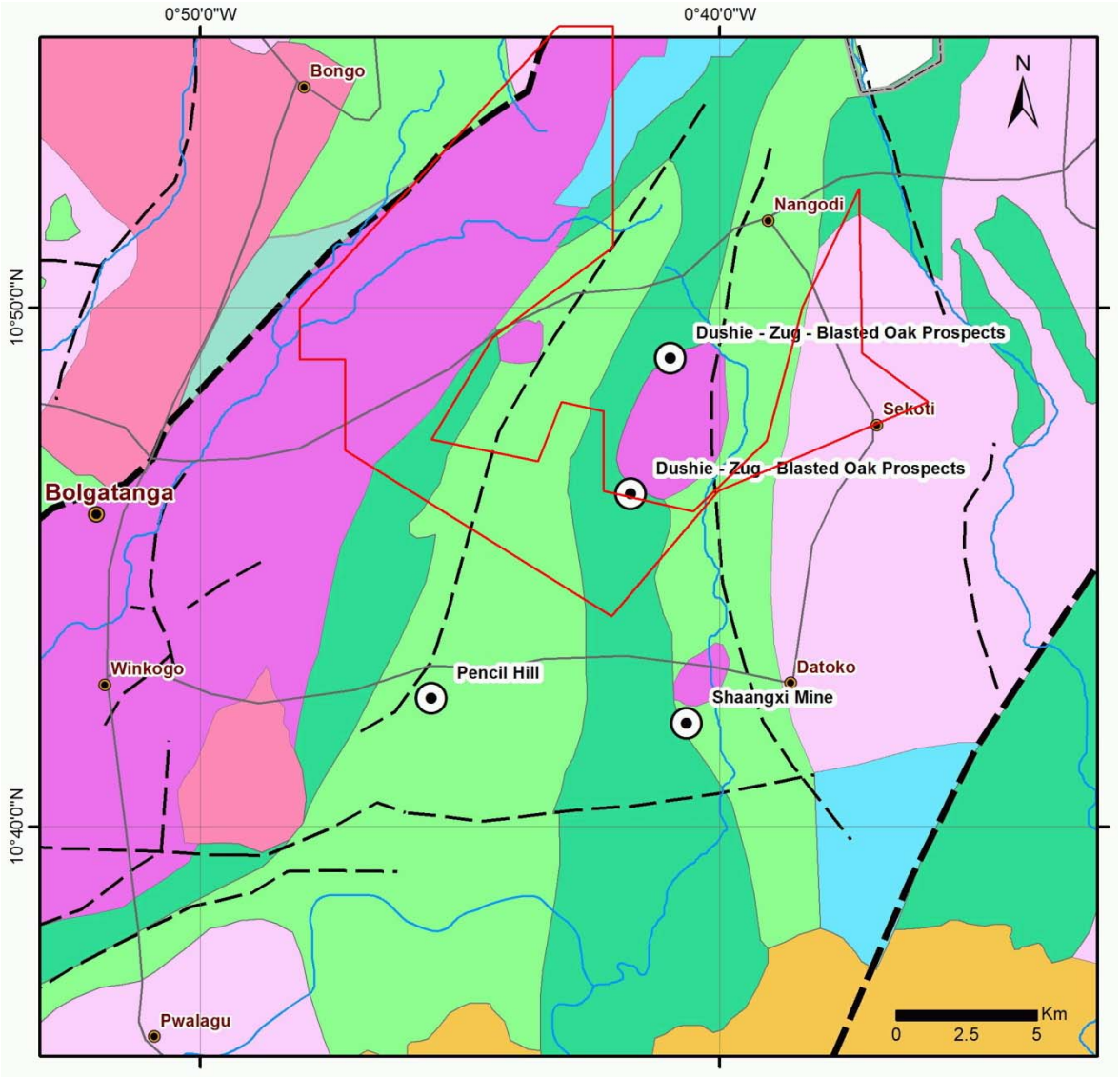

Figure 8: Nangodi Greenstone Belt, Ndongo Tenement with adjacent prospects and mines
Note Pencil Hill location with refolded cherts adjacent to anticlinal axis trace (Figure 9)
Refolded pencil chert zone at Ndongo Central (Figures 10B & 12) occurs in a very similar position

4.3 Artisanal Mine adjacent to Shaanxi Mining Ghana Ltd

A shallow artisanal underground mine has been developed adjacent to Shaanxi and is mining the same contact zone. The ore and wall rocks are highly sheared and altered (silica-chlorite-sericite-ankerite) and contain pyrite (Py) and arsenopyrite (As). Several samples of wall rocks and sub-ore were taken and grade between 2.5 g/t Au + 4,566 ppb As and 4.5 g/t Au + 560 ppb As. Verbal communication with the mine owner indicated that the ore rocks yield grades between 10-15g/t Au, although these grades could not be verified as there were no ore samples available for assay. **The above grades provide additional confirmation of the gold bearing potential of this ESCZ**.

4.4 "Eastern Sheared Contact Zone" south of Shaanxi Mining Ghana Ltd

This highly sheared contact zone was identified south of the Shaanxi Gold Mine within the Datoko Small Scale Permit Area. Several gold producing small scale mines are scattered along this ESCZ south of Shaanxi Mine confirming the continuity of the ESCZ and contained gold mineralisation.

The ESCZ, from the Ndongo Permit southwards to the Voltaian escarpments, is approximately 13 km long and is thus a high priority target zone for gold mineralisation. Several sub-parallel shears, over an approximate distance of 1.5 – 2.0 km to the east of the ESCZ, are also gold bearing and are being mined by small scale miners and artisans. This whole area is considered a priority target area for gold exploration and exploitation.

4.5 Abzu Gold Ltd (Abzu)

Abzu have two tenements, north (Nangodi) and south (Yameriga) of the Ndongo Tenement, situated within the Bole-Nangodi Greenstone Belt. The Nangodi and Yameriga concessions cover 216 km². These concessions cover areas previously explored by Africwest Gold NL, Etruscan Resources Inc (now Endeavour Mining Corporation), and Red Back Mining Inc (now Kinross Gold Corporation), and host numerous, extensive soil anomalies, some with important drill intercepts.

The Nangodi Main and Zupeliga Prospects are two of numerous targets within the Nangodi Tenement. The Nangodi Main target was previously drilled and one of several cross sections drilled by Africwest shows strong gold-bearing intercepts over a mineralized zone with **true widths of up to 60 m.** The mineralised zone is open in all directions. Intervals indicated are calculated by Abzu based on data provided by Red Back.

The Zupeliga Prospect comprises an anomalous zone of more than 500m occurring adjacent to a lithological contact between metabasalts and metasediments. Previous drilling by Etruscan Resources identified intercepts up to **21m at 2.31 g/t Au** and **10.5m at 3.14g/t Au.** Extensive artisanal mining activities are currently underway at this mineralized zone, confirming the gold bearing potential of this prospect.

This contact zone extends into the Ndongo Tenement, where it is called the Central Folded Zone (CFZ), which is anomalous over a 3 km strike length (see Figure 16). The above gold mineralised drill intercepts, as well as the current artisanal activities, at the Zupeliga Prospect identifies this CFZ as an important target area within the Ndongo Central Area.

Traverses outside the Ndongo Tenement located a prominent chert ridge ("Pencil Hill") with pencil cleavages indicating refolding (Figures 9 and 10). The normal folding throughout the Birimian Supergroup rocks of Ghana has D1 fold axes developed in NNE-SSW directions due to pressure in the Sigma 1 direction (Figure 10A). As this folding becomes more intense, often these folds are overturned, as has been observed in SW Ghana. When intense pressure is exerted in the Sigma 2 direction, this produces D2 folds, with fold axes in ESE-WNW directions (Figure 10B), thus creating possible fluid trap sites for gold mineralisation (Figure 11).

Figure 9: Cherty sediments showing pencil cleavages at Pencil Hill indicating refolding by the intersection of two cleavage directions (NNW and ESE)

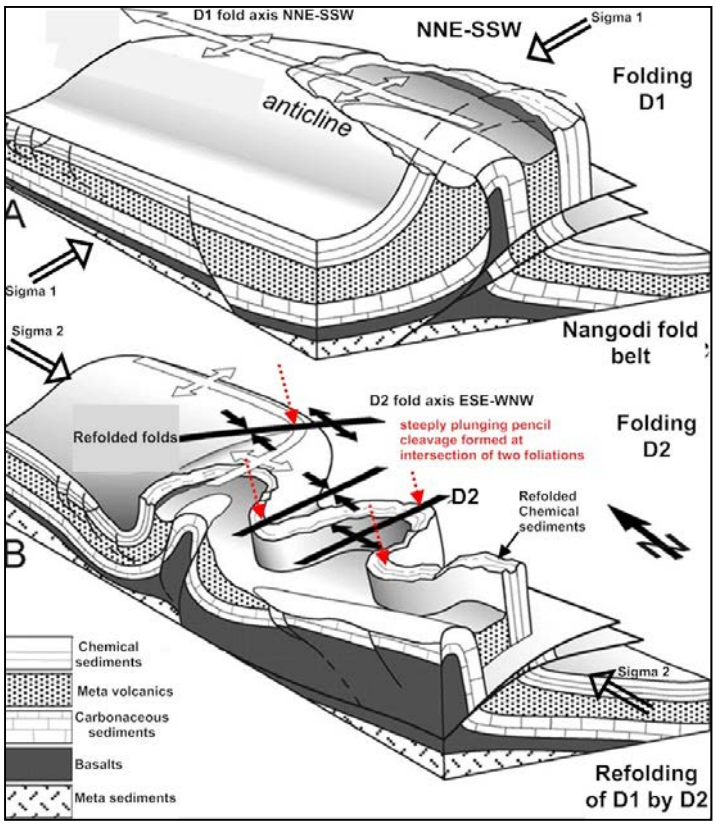

Figure 10: Diagrammatic model of the refolded folds at Pencil Hill & Ndongo Central (after Gleeson, 2012)

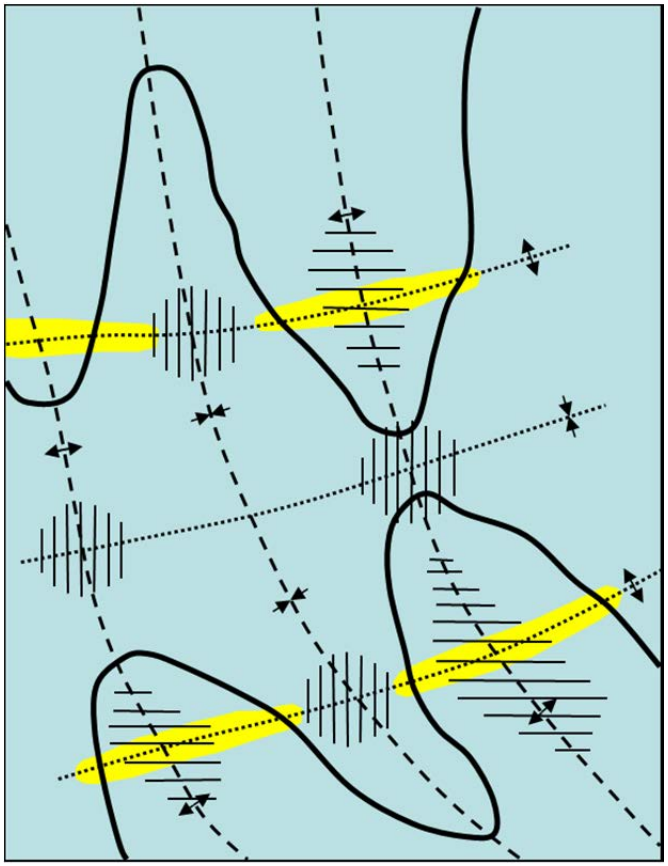

Figure 11: Hypothetical plan view of domical structures caused by refolded folds (D_1, D_2) and possible fluid trap sites (yellow shaded) (after Gleeson, 2012)

Figure 12: Ndongo Central Area - Refolded folds (D_2) with steep SW plunging pencil cleavages
(Red lines roughly outline the folds; white arrow indicates plunge direction)

Numerous prominent ridges and outcrops of cherty sediments have been located during the mapping and field observations within both the Ndongo East and Ndongo Central areas. These cherty sediments are often at least 2 km long, mostly striking NNE-SSW.

5.0 NDONGO GEOCHEMICAL PROGRAM

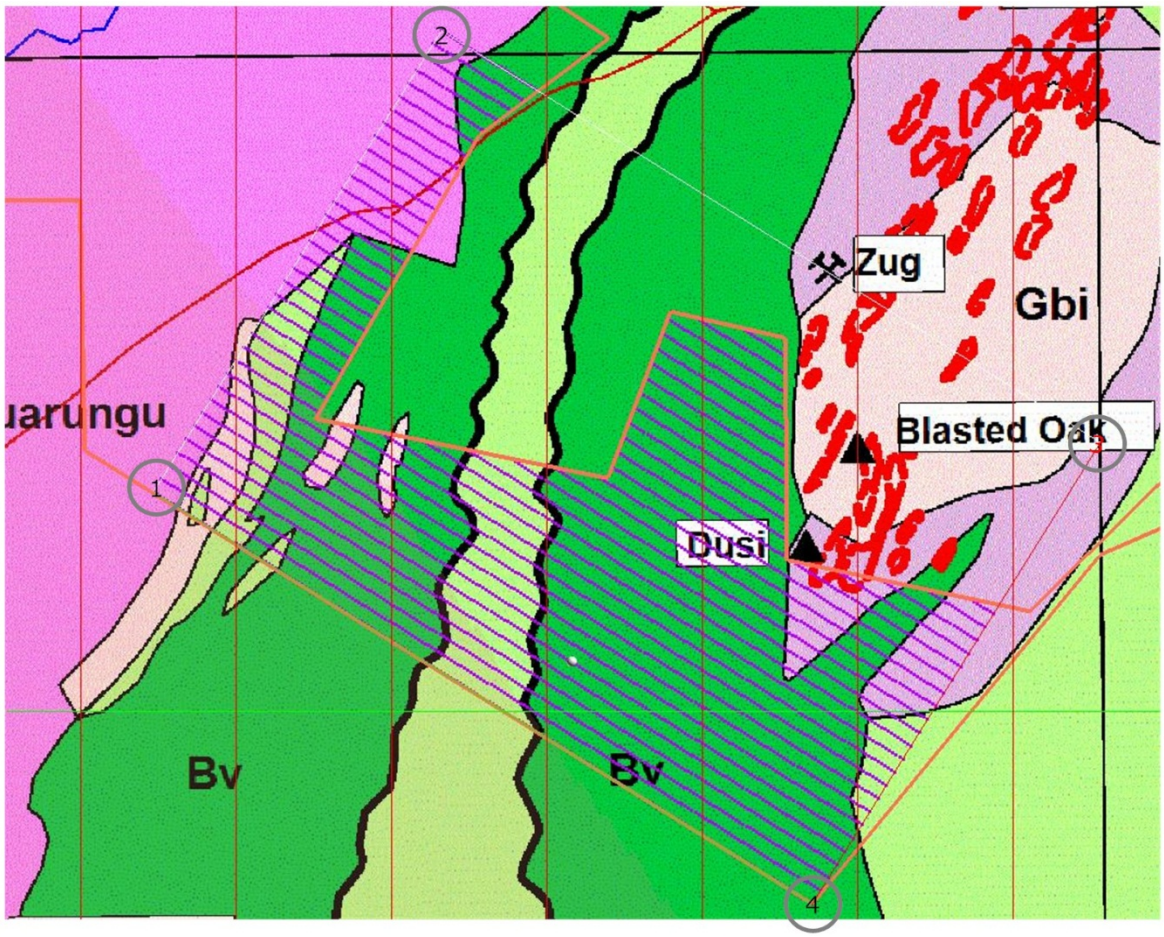

Figure 13: Ndongo Permit with soil grid superimposed
(Bv = metabasalts; light green = metasediments; Gbi = granodiorite pluton; light mauve = granodiorite to granite; dark pink = granodiorite to quartz diorite granitoids) Red lines = artisanal surface workings

The Ndongo Tenement comprises a number of different rock units which are the targets for exploration (Figure 13).

These target areas are:

- Ndongo East (contact zones between metabasalts, metasediments and granitoids);
- Ndongo Central (contact zones between metabasalts and metasediments); and,
- Ndongo West (contacts between metabasalts,, metasediments and granitoids).

A grid was constructed over the Ndongo Tenement with its origin at point 4, Figure 13. It was decided to use the SW boundary of the permit as the base line (bearing 302^{o} True), as this direction was suitable to traverse all of the target areas within the permit. The eastern bounding line of the grid was set at bearing 212^{o} True (points 3 and 4, Figure 13). The grid lines were set at 200m apart, with sample stations at 50m. This coarse grid allows a larger area to be initially covered by soil sampling, with subsequent infill lines at 100m spacing's in anomalous areas.

Soil sampling along the grid lines used a specifically designed, compact soil drill rig, fitted with either a percussion hammer or dropweights, to hammer hollow window sample tubes into the ground to collect undisturbed soil profiles from each selected grid point. The soils were placed into 1m long metal trays, transported to the core yard in Bolgatanga, photographed, logged and sampled (Figures 14 & 15).

Samples were taken of the saprolite horizons below both the transported soils and cobbles, as well as below the disturbed soil profiles due to farming activities. Samples (weighing up to 3kgs) were transported to, and analysed by, SGS Laboratory, Ougadougou, Burkina Faso, by BLEG bottle roll techniques, with residence times of 24 hours, and reported as ppb Au (Abbott, 2012A & 2012B).

Figure 14: Soil sample collected in window sample tube

Figure 15: Soil sample from hole ND1959 (Line 4) (Sample tray is 1m long)

1. 0.00-0.40m: Reddish brown sand with angular assorted cobbles & gravel
2. 0.40-1.50m: Reddish brown silty clay + scattered black Fe nodules
2. 1.50-2.60m: Dark brown clay with orange & red mottles
4. 2.60-4.00m: SAPROLITE: Light brown to orange pieces & fragments (sampled)

5.1 Geochemical Results

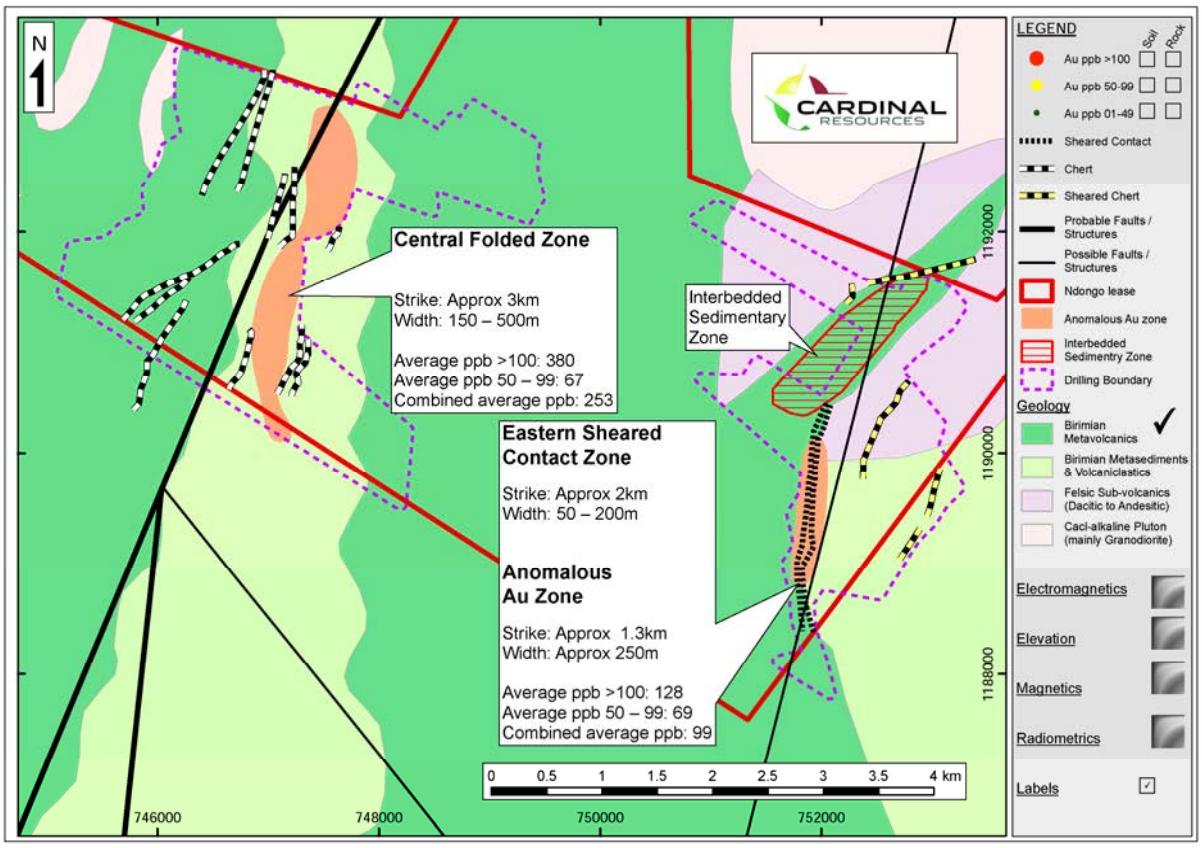

Figure 16: Ndongo East & Central Areas with continuous soil anomalies (>100 ppb Au)
Black lines indicate interpreted shear structures from magnetics image (Figures 5 and 17)

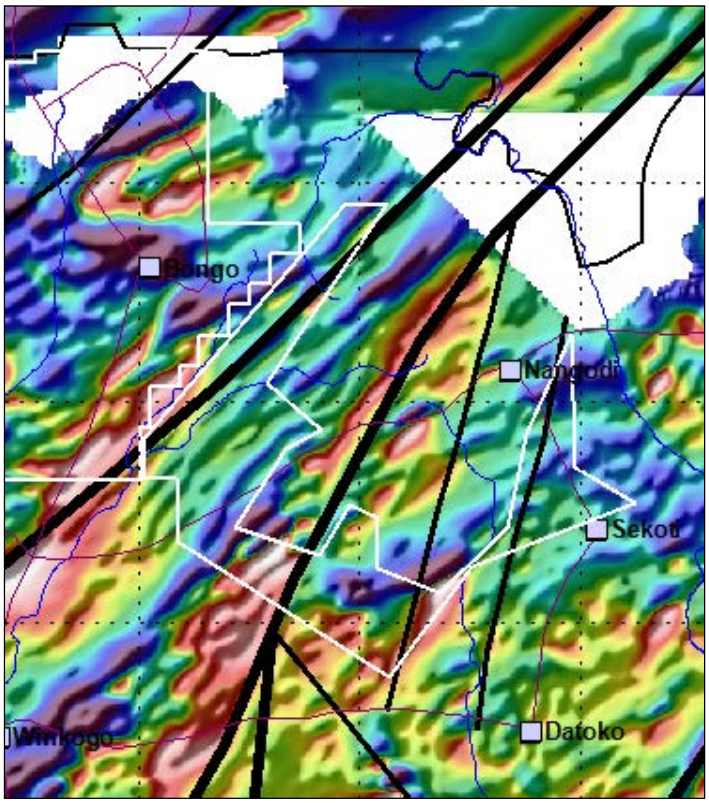

Figure 17: Ndongo Tenement Magnetics with interpreted shear structures (black lines)

The magnetics image has aided the interpretation of the anomalous geochemical results, it being apparent that the two anomalous geochemical zones delineated on Ndongo (Figure 16) are adjacent to interpreted shear structures in the east and centre of the tenement (Figure 17).

5.2 Eastern Sheared Contact Zone

The anomalous zone is located on a sheared lithological contact between metavolcanics and metasediments, this contact being a continuation of the sheared contact zone containing the Nangodi and Shaanxi gold mines (Figures 2 & 3) (Abbott, 2012A & 2012B).

This anomalous zone is also adjacent to a well defined, NE-SW striking interpreted geophysical shear structure located on the magnetics map (Figure 17). **This anomaly has a strike length of 1.3 km, a width of about 250m and average values of 128 ppb Au**.

5.3 Central Folded Zone

The anomalous zone is located along the trace of an anticlinal axis within metasediments and is bounded by cherty sediments and massive quartz vein outcrops (Figure 16). The refolded cherty sediments (Figure 12) are adjacent to this anomaly on its western side with the refolding likely to have formed traps for gold mineralising fluids (Figure 11).

This zone is also adjacent to a well defined, major NE-SW striking interpreted geophysical shear structure located on the magnetics map (Figure 17). **The geochemical anomaly has a strike length of approximately 3km, a width ranging between 150-500m and average values of 380 ppb Au**.

5.4 Continuation of Geochemical Program

- The soil sampling program will continue to cover the remainder of the Ndongo tenement;
- Anomalous results will be plotted and assessed for possible additional drill targets;
- A RC and diamond drilling program will be planned to further test the Eastern Sheared Contact Zone (ESCZ) and Central Folded Zone (CFZ) geochemical anomalies; and,
- As the ESCZ occurs along a range of hills, drill pads will be established on the hillsides, and tracks cleared for access to the drill sites. The CFZ is accessible to both drill rig and vehicles.

6.0 BONGO TENEMENT

This is a large permit with the extensive regional **Bole-Bolgatanga shear zone extending for 17 kms** along its south-eastern border, with Birimian metasediments adjacent to this shear zone (Abbott, 2010). Several other greenstones occur in this tenement, together with extensive granitoids.

A greenstone outcrop within one of the greenstone belts recognised in Burkina Faso was found in the NW corner of the Bongo tenement (Figure 18). This outcrop is highly foliated with sericite & chlorite alteration, and constitutes a potential gold mineralised unit, which warrants further investigation.

The project area is dominated by a complex series of metamorphosed granitoids in contact with tightly folded Birimian metasediments and metavolcanics, and the Bole-Bolgatanga Fault (Shear) Zone along its SE border (Figure 18).

6.1 Exploration Targets for Bongo Tenement

The exploration targets for the Bongo Tenement range from structurally controlled Paleoproterozoic greenstone belt gold deposits that occur along lithological contacts and the regional Bole-Bolgatanga Fault (Shear) Zone, to possible deposits associated with stockworks in felsic, intermediate and mafic granitoid intrusives.

As the **Bole – Bolgatanga Fault (Shear) Zone** extends for 17 kms along the south-eastern border of the tenement. It is considered a **high priority exploration target area.** Quartz vein (lode) and associated disseminated sulphide mineralisation are likely to be developed along this shear zone, as there are numerous gold showings along this extensive regional shear zone (Figures 6 & 18).

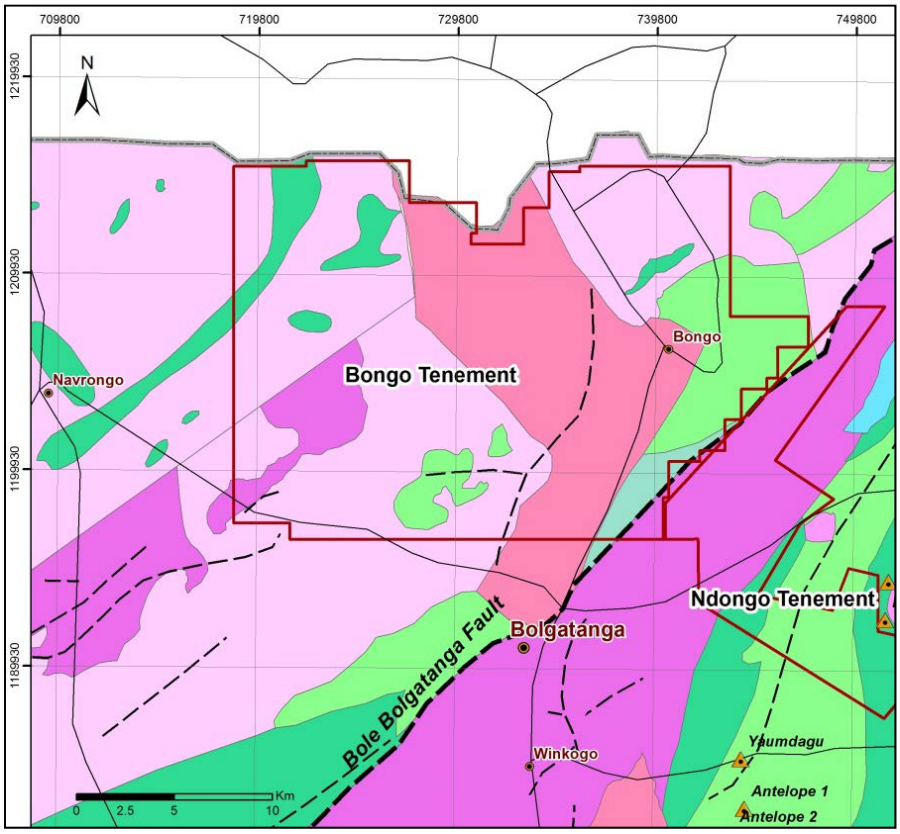

Figure 18: Bongo Tenement with Bole-Bolgatanga Fault (shear) Zone along its SE border

Another shear structure interpreted from the existing airborne magnetics data trends NE-SW across the centre of the tenement, and will also be the focus of exploration (Figure 19).

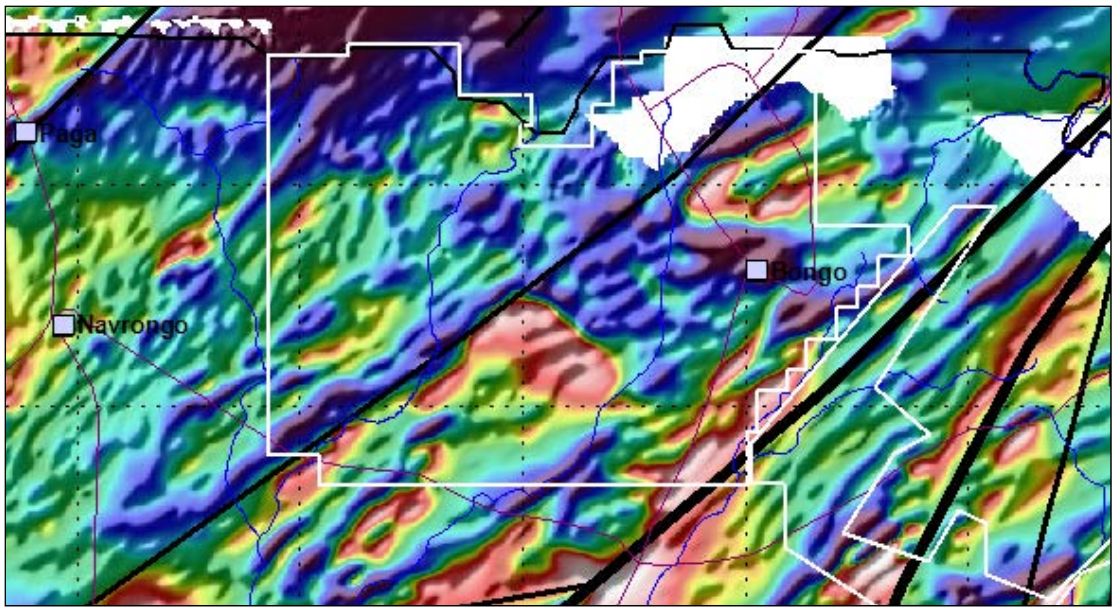

Figure 19: Bongo Tenement Magnetics with interpreted shear structures (black lines)

7.0 KUNGONGO TENEMENT

The extensive regional Bole-Bolgatanga shear zone occurs over a length of **6 kms** across the NW corner of the Kungongo Tenement, with another NE-SW orientated fault across its centre, containing Birimian greenstones which extend east of the tenement boundary (Abbott, 2010). Granitoids occur over a large portion of this tenement.

The project area is dominated by a complex series of metamorphosed granitoids in contact with tightly folded Birimian metasediments, metavolcanics, volcaniclastics and mafic volcanic flows, and the Bole-Bolgatanga Fault (Shear) Zone (Figure 20). The regional Bole-Bolgatanga shear zone extends NE through Burkina Faso and into Niger, and is considered to be highly prospective (Figure 6) (Abbott 2011 B & D).

Samples were taken at a small scale producing gold mine situated on the Bole-Bolgatanga Fault Zone, approximately 8km NE of the tenement (see "artisanal shafts" locality, Figure 20). The geology comprises:

- quartz reefs – deformed laminated smoky to black quartz veins, with visible gold specks. **A sample of the ore zone graded 97.0 g/t Au;** and,
- altered wallrocks – silica-carbonate-sericite altered greywackes with pyrite, arsenopyrite & chalcopyrite blebs & specks. Four samples collected assayed **4.8, 7.5, 8.0 and 10.5 g/t Au respectively.**

The Bole-Bolgatanga Fault Zone is considered a high priority exploration target for quartz vein and disseminated sulphide gold mineralisation.

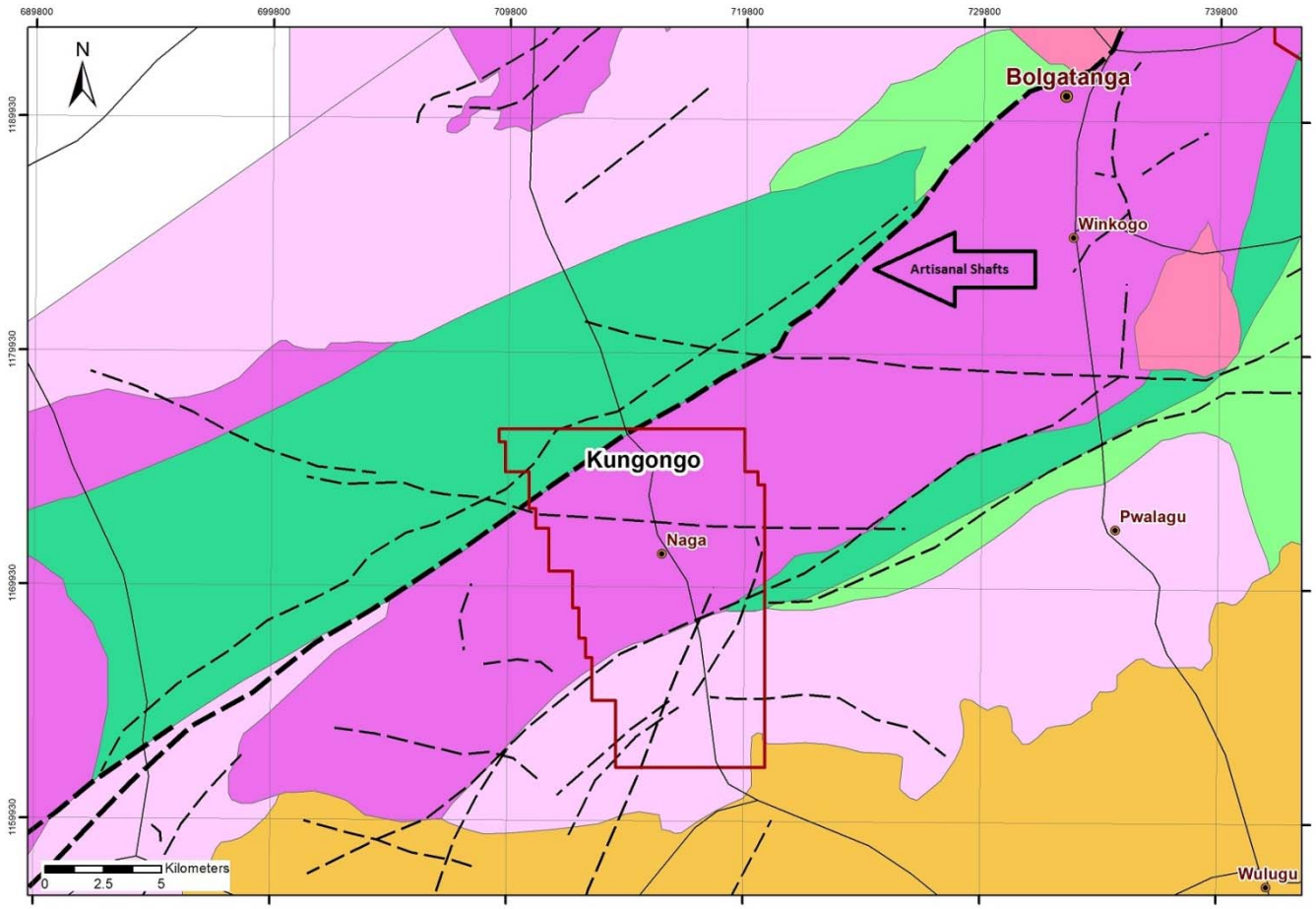

Figure 20: Kungongo Tenement Geology, with artisanal shafts on Bole-Bolgatanga Shear Zone

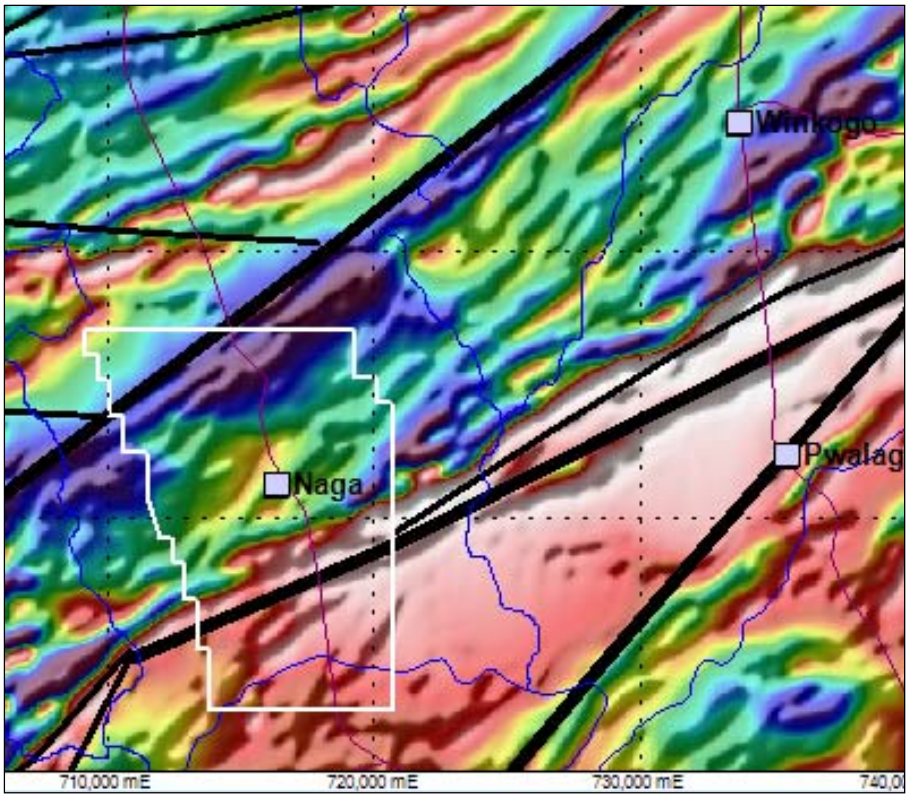

Figure 21: Kungongo Magnetics with interpreted shear structures (black lines)

The aeromagnetic survey of the Kungongo tenement has high and low magnetic features evident throughout most of the tenement, probably granitoids (Figure 21 and Figure 20). The Bole-Bolgatanga Shear Zone is evident in the NW corner of the tenement. The low magnetic greenstones extending into the centre of the tenement appear to extend further into the tenement than shown on the Figure 20 map. Along strike from these greenstones, trending WSW, is another low magnetic unit, which could also be a greenstone unit, again not shown on the geology map of Figure 20. Exploration targets are at the contacts between the high and low magnetic features.

7.1 Exploration Targets for Kungongo Tenement

The exploration targets for the Kungongo Tenement will be along the regional Bole-Bolgatanga Fault (Shear) Zone and along granite-greenstone lithological contacts. Where shear zones cross felsic, intermediate and mafic granitoid intrusives, mineralised stockworks may be developed.

Artisanal shafts have been sunk into mineralised metasediments and metavolcanics along this Bole-Bolgatanga Shear Zone to the NW of the tenement, **proving the prospectivity of this shear zone as a target for gold mineralisation** (Figure 20).

8.0 SUBRANUM PROJECT

Cardinal Resources Subranum Ltd, a wholly owned subsidiary of Cardinal Resources Limited, has entered into a Sale & Purchase Agreement with Newmont Ghana Gold Ltd (Newmont) for the purchase of the Subin Kasu Prospecting Licence, called the **Subranum Project**. The Subranum tenement of 68.7 km^2 is situated in southern Ghana, approximately 45 km from the city of Kumasi, and is located on the NE extension of the Sefwi-Bibiani Greenstone Belt (Figure 22), a prolific gold producing belt containing the Bibiani and Chirano Gold Mines, some 70-100 km to the SW, which have historically produced over 5 Moz gold.

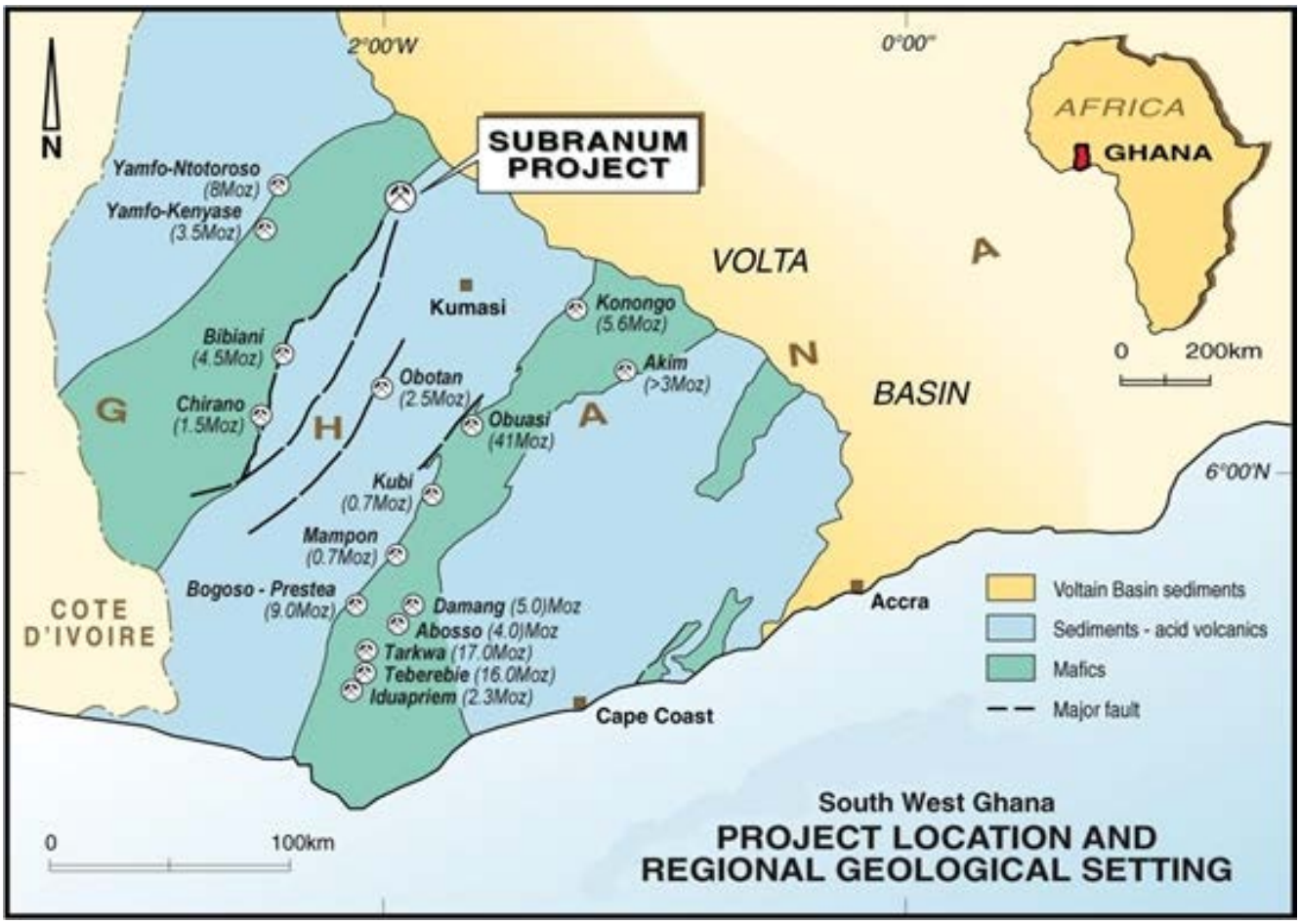

Figure 22: Subranum Project Location, Ashanti Region, Ghana (ca 2003)

Subranum is located over a 11 km strike length of the northern extension of the Bibiani Shear Zone, developed on the eastern margin of the Sefwi-Bibiani Gold Belt, at the interface between Birimian metavolcanic suites of rocks and Birimian metasedimentary suites of rocks (Figure 22).

8.1 Previous Exploration

Previous extensive exploration throughout the 139 sq km had already outlined a **5 km gold target**, with the remaining 6 km of the 11 km strike length remaining relatively unexplored. This exploration comprised geochemical sampling over the entire concession, trenching and 22 RC drill holes (West Min Ghana Limited 1999) (Figure 23).

Gold mineralisation is related to quartz veining and alteration halos within the country rocks characterized by (weak – moderate) sericite-silica-carbonate alteration. Sulphides are rare. Whilst high tenor gold values tend to coincide with zones of stronger quartz vein development, broader zones of lower grade persist into the altered hanging wall and footwall, even where quartz veining is absent (Newmont 2010).

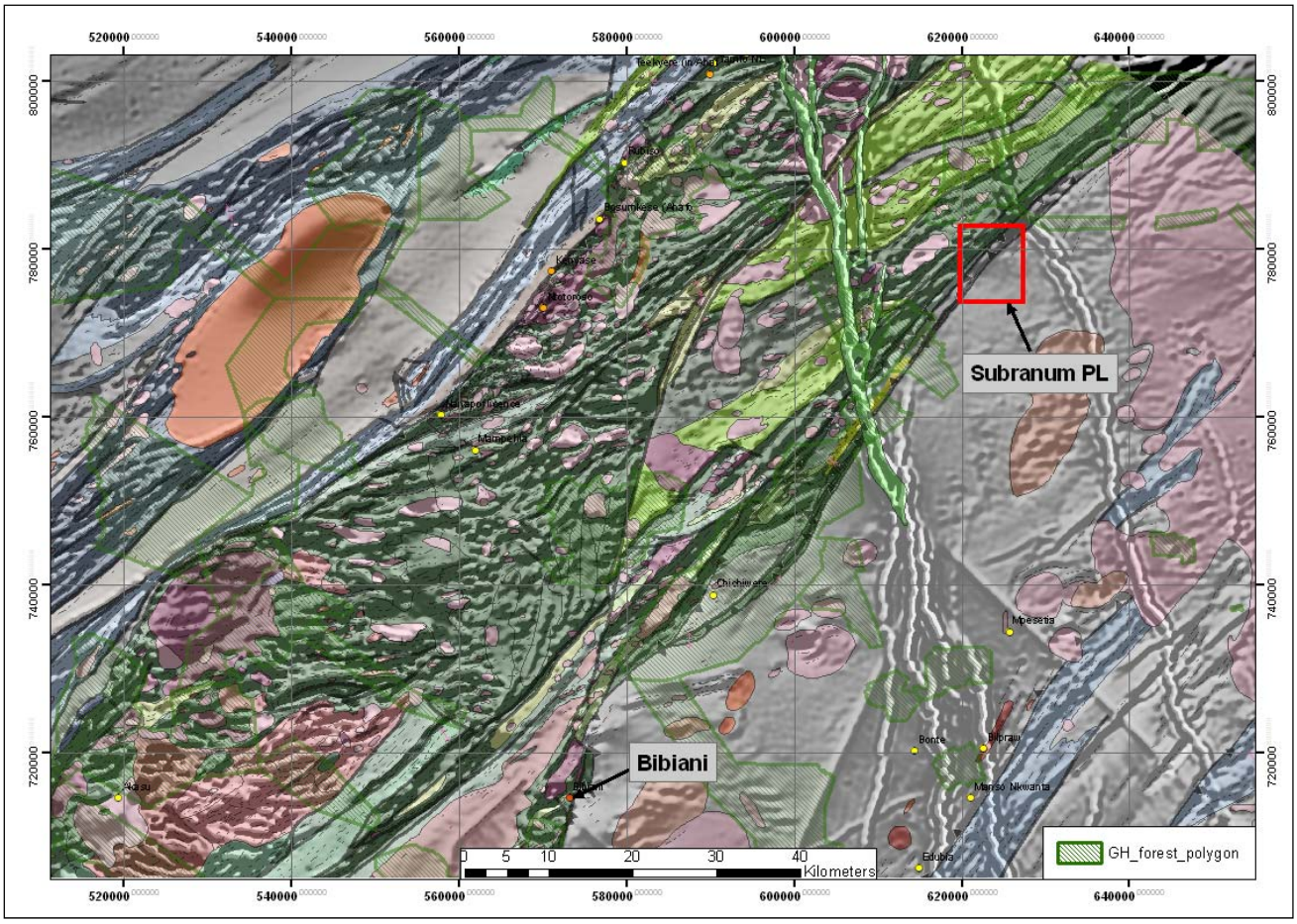

FIGURE 23: Regional Geology with Subranum Tenement straddling Bibiani Shear Zone

Newmont exploration at Subranum confirmed that the significant anomalous zone has a **5.2-km strike length.** Newmont drilling across strike, however, was only on 11 fences of varying distances between 200m to >500m apart (Figure 24).

SRK Cardiff was contracted to load the Newmont drill data into their Leapfrog GIS software to produce a package of 3D images of the Subranum ore bodies (Gleeson, 2012), to better understand the spatial relationships between the mineralised envelopes.

The mineralised envelopes appear to be disjointed along strike (Figure 25), but this is a function of the widely spaced fences of drill holes done by Newmont. **The mineralised envelopes, however, indicate that each drill fence encountered mineralisation along strike.**

8.2 Existing Airborne Geophysical Data

This data was obtained from the HS1 survey flown by High Sense of Canada in 1999-2000 at 400m line spacing. This data was reprocessed and merged by SGC to obtain an aeromagnetic image (Figure 26) and a radiometric image (Figure 27).

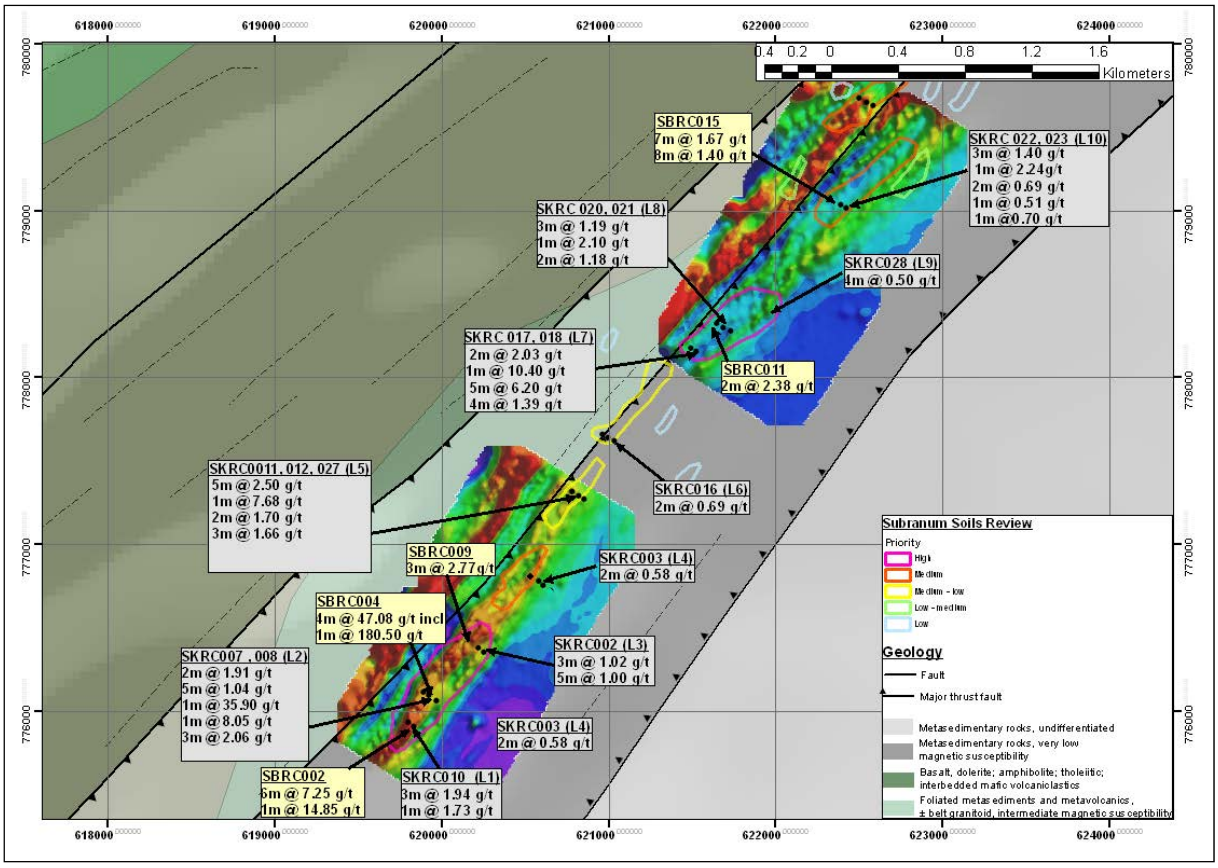

FIGURE 24: Subranum RC drilling Results. Intercepts with SKRC prefix is Newmont data and SBRC is from West Min historical data. Drillhole collars are black dots.

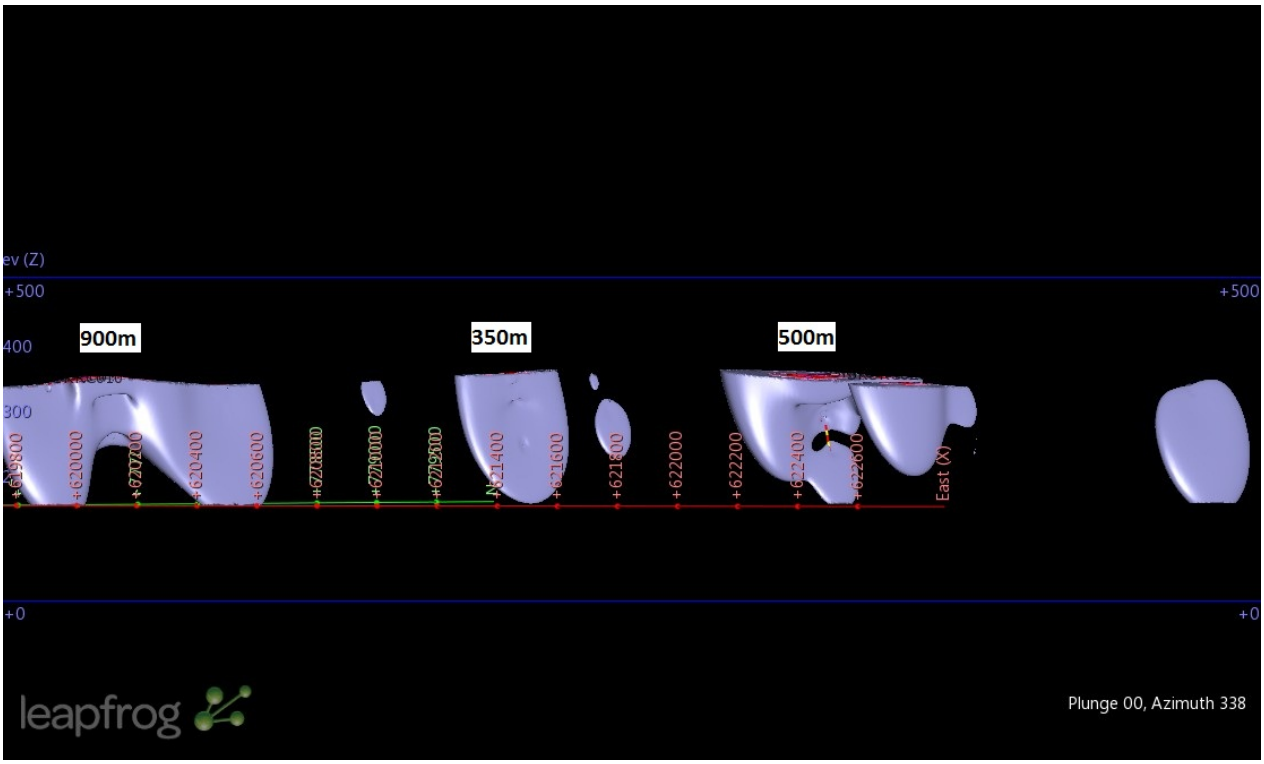

FIGURE 25: Subranum Mineralised Envelopes (>0.2 g/t Au)
(from SW (left) to NE (right))

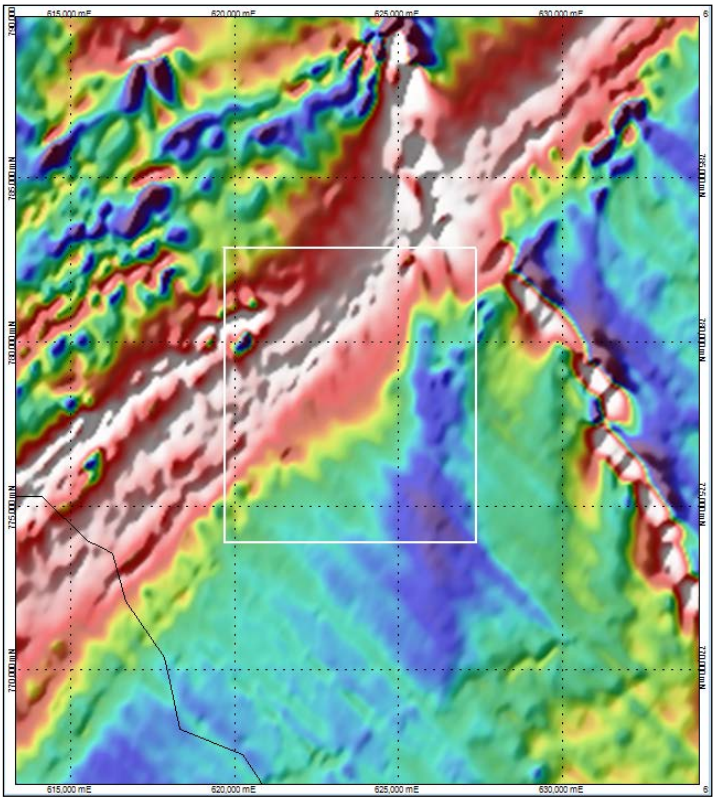

FIGURE 26: Subranum Project - Existing Data Magnetic Image (RTP TMI)
(RTP = Reduced To Pole; TMI = Total Magnetic Intensity) (white line = tenement)

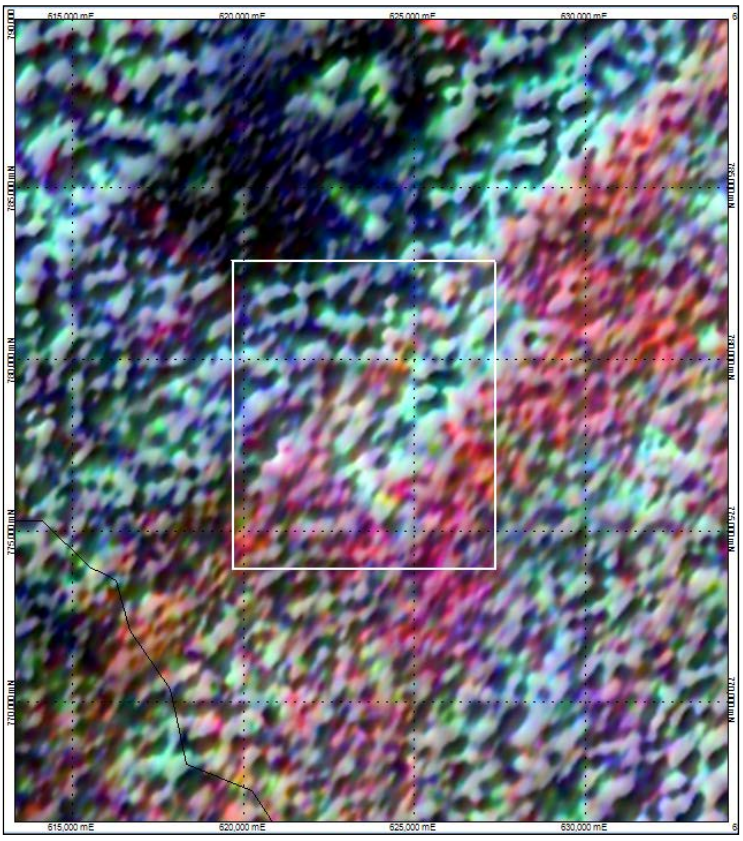

FIGURE 27: Subranum Project - Existing Data Radiometric Image
(K=red, U=blue, Th=green)

Structures interpreted from the existing airborne data are shown in Figure 28. Gold mineralisation detected from previous exploration closely correlates with the prominent NE-SW striking structure.

The N-S structure seems to have not been recognised previously but could form a focus for gold mineralisation. Previous soil sampling by West Min (1999) and Cambrian Mining Limited (Abbott 2003) delineated anomalous areas in the SE corner of the tenement, later confirmed by stream sediment sampling (Newmont 2010). This anomalous area could be related to this N-S shear structure (Figure 28) and will be further investigated.

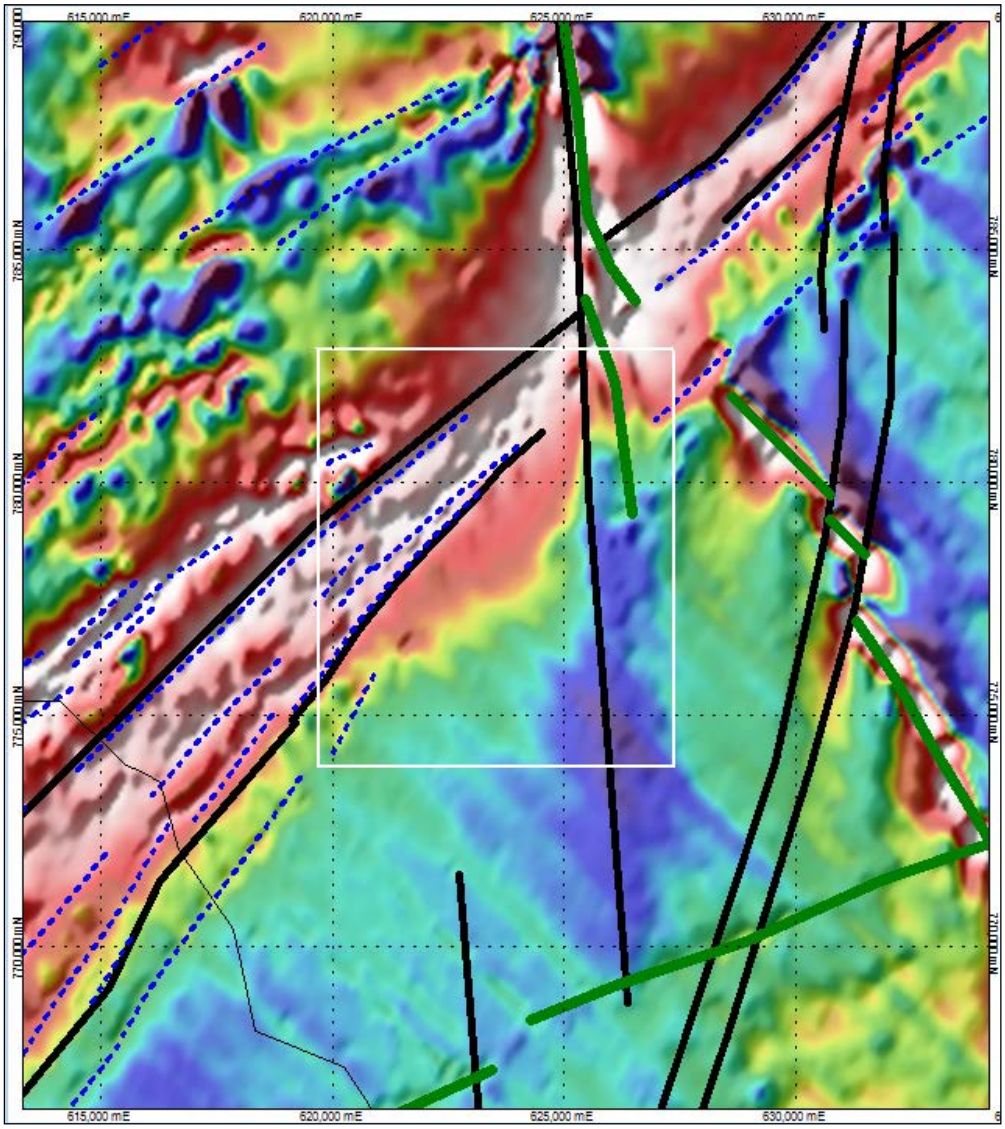

FIGURE 28: Subranum Project - Interpreted Structures (black)

Based on the data generated from Newmont's drilling and surface sampling program on the tenement, a preliminary resources estimate was completed using a simple polygonal geometric method on sections 200 to 500m apart, interpreted over the 4.0 km strike length of mineralization outlined. At a cut-off grade of 0,5 g/t Au, an inventory of **97,600 oz Au was broadly outlined** at a grade of 1,6 g/t Au. About 30% of the resources are developed in near surface oxide ore and 70% are in primary ore to a maximum depth of 50m. Mineralisation is open along strike and down dip (Newmont 2010).

8.3 Planned Drilling At Subranum

To properly evaluate the gold mineralisation contained within these anomalous zones, a systematic diamond drilling program will be undertaken at regular intervals across the strike length of these anomalies. This program will then determine whether the gold mineralisation is continuous or not and whether there is a plunge to the mineralisation.

Birimian gold mineralisation in other parts of Ghana and other West African countries tend to have fairly limited surface extents and plunges at variable angles downdip. Although there is an apparent 5.2 km strike length to the Subranum gold mineralization, there may be higher grade ore shoots developed within lower grade envelopes of mineralisation. Systematic drilling and careful interpretation will determine these parameters.

The initial diamond drill program will concentrate on the 3 high priority targets (Figure 24), with dimensions as follows (from SW to NE):

1: SW Target: 200m wide x 90m depth;
2: Central Target: 200m wide x 140m depth; and,
3: NE Target: 200m wide x 95m depth.

For targets 1 and 3, the drilling will be done along 3 fences, 100m apart, with 2 holes per fence, at -60^{o} inclined W, of 100m and 150m downhole respectively. Total metres drilled is estimated to be 1,500m for each target.

For target 2, the drilling will be done along 3 fences, 100m apart, with 2 holes per fence, at -60^{o} inclined W, of 150m and 200m downhole respectively. Total metres drilled is estimated to be 2,100m for this target.

West Min (Ghana) Ltd drilling indicated the possibility that some mineralising structures may dip to the west. It is proposed to drill 3 closely spaced 100m vertical diamond holes to test this possibility for a total of 300m.

The initial planned diamond drill program to test target areas 1, 2 and 3 will total 5,400m.

9.0 BOLGATANGA & SUBRANUM PLANNED NEW AIRBORNE SURVEYS

Although the existing airborne survey data is very useful in a regional context, the line spacing and spatial resolution is relatively low for detailed exploration. In order to significantly advance Cardinal's geological understanding and enable focussed targeting, it is desirable to acquire much higher resolution data using close line spacing. This is well illustrated by the images from a small ground magnetic survey at Subranum which are shown overlain on the aeromagnetic image in Figure 29. It is readily apparent that multiple thin magnetic units and subtle faults are seen in the close spaced ground magnetic data but not in the wide spaced airborne data.

It is impractical to cover the large areas involved with ground magnetic surveys, and thus detailed low level airborne surveys are the logical approach. An added advantage of airborne surveys is the simultaneous acquisition of radiometric data which is very useful for lithological mapping and also alteration mapping (potassium rich alteration is commonly associated with gold mineralisation).

For reasons of cost, it has been decided to fly the surveys with fixed wing aircraft rather than helicopter. Although the helicopter systems would have better terrain clearance performance in the more rugged areas, the cost would have been at least double that of fixed wing surveys.

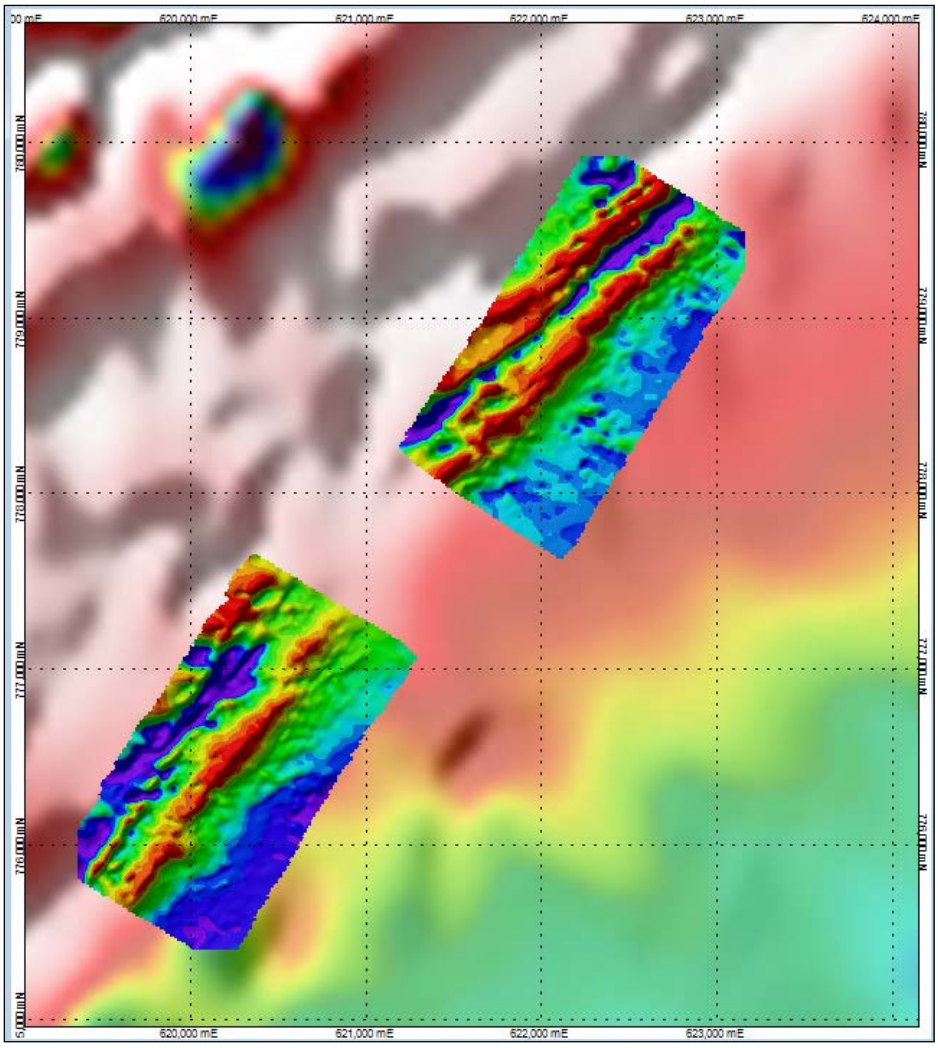

FIGURE 29: Subranum Project - Ground magnetic image over airborne magnetic image illustrating the gain in resolution.

9.1 Bolgatanga Project

The airborne survey planned to cover the Bolgatanga tenements will have the following parameters:

- Line Direction: NW-SE;
- Line Spacing: Mainly 100m with some small 200m spacing blocks;
- Flight Height: 50m;
- Line Kms: 7,649; and,
- Measured Parameters: Magnetics, radiometrics and elevation.

9.2 Subranum Project

The airborne survey planned to cover the Subranum tenement will have the following parameters:

- Line Direction: NW-SE;
- Line Spacing: 50m;
- Flight Height: 40m -50m;
- Line Kms: 1,516; and,
- Measured Parameters: Magnetics, radiometrics and elevation.

The 50m line spacing has been selected for this block to gain maximum detail over an area already known to contain gold mineralisation.

9.3 Survey Timeline

Terrascan Airborne Gmbh and Southern Geoscience Consultants Pty Ltd Perth have been engaged to carry out this work and it is expected that the surveys will commence in March 2013. The flying is estimated to take about two months with a single aircraft. Subsequent processing and interpretation will take approximately two to three months but earlier preliminary results can be used to guide exploration.

10.0 DUE DILIGENCE OF DEMOCRATIC REPUBLIC OF CONGO (DRC) PROJECT

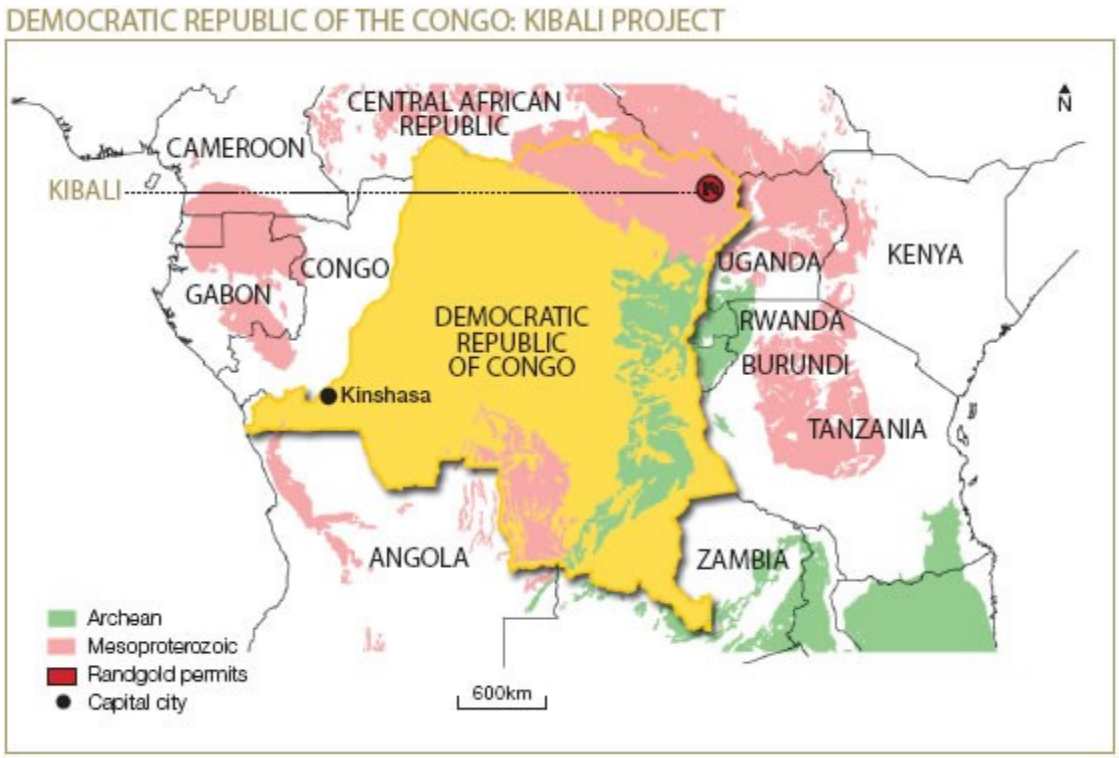

FIGURE 30: Kibali Gold Project, Kilo-Moto Greenstone Belt, NE Democratic Republic of Congo (DRC)

Cardinal has executed an Option Agreement with Connections SPRL, a company domiciled in the DRC, to acquire certain exploitation rights in the DRC ("Option Agreement").

Under the terms of the Option Agreement, Cardinal paid an Option Fee of US$50,000, being an option to acquire a 60% interest in a joint venture to be established in the DRC. On exercise of the option, Cardinal is required to pay a further US$500,000 to acquire its interest as contemplated by the Option Agreement.

Two exploitation licences currently held by Société Miniere de Kilo-Moto (a state owned resources company based in the DRC) PE 5051 and 5053, located over the Kilo-Moto greenstone belt in the far north eastern portion of DRC (Figure 30), are the subject of the Option Agreement.

10.1 Regional Geology and Projects

The Kilo-Moto Greenstone Belt (KMGB) is an Archaean belt which occurs in the far NE corner of the Democratic Republic of Congo (DRC) and is highly prospective as it hosted numerous historical gold mining operations.

Currently the KMGB is experiencing renewed interest in the form of exploration and mining activities with **Randgold Resources Limited / Anglogold Ashanti Limited Kibali Gold Project situated within this KMGB with gold resources of 20 Moz (Figures 30 & 31).**

The KMGB comprises volcano-sedimentary rocks and ironstone-chert horizons that have been metamorphosed to greenschist facies, as well as various granite-gneiss complexes.

In the Kibali district the majority of gold mineralisation identified to date is disseminated style, hosted within a sequence of coarse volcaniclastics, sedimentary rocks and banded ferruginous cherts. The mineralisation is generally structurally controlled and associated with quartz-carbonate alteration and pyrite.

10.2 DRC Prospectivity

The tenements to be assessed within the KMGB comprise #5051 & 5053 (coloured grey on Figure 31). The eastern boundary of #5051 is adjacent to Kibali's north western boundary, and #5053 is adjacent to parts of Erongo's #5049 eastern boundary and MII's #5050 eastern boundary.

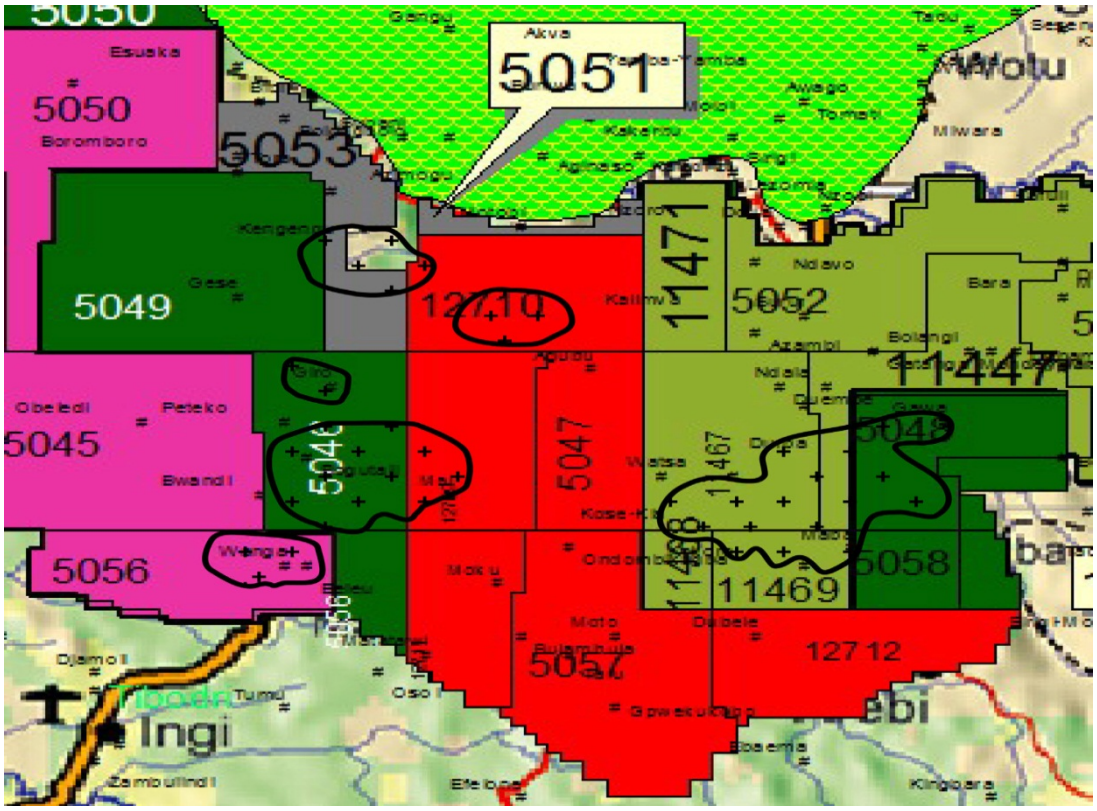

FIGURE 31: Properties on Kilo-Moto Greenstone Belt, in NE Democratic Republic of Congo, including granite gneiss complexes

Properties in the vicinity of the properties #5051 & 5053 include Kibali Gold Project (Olive green); Moku Goldmines Limited (Red); Erongo Energy Limited (Dark green, #5046, 5049, 5050); Mineral Invest International AB (Mauve).

A granite-gneiss complex occurs on #5053. **The contacts between this complex and adjacent schists and volcanics are considered to be highly prospective**, as the extensive soil anomalies on Kibali occur around a large granite-gneiss complex**.**

The two properties #5051 and #5053 are **highly prospective** for the following reasons:

- They occur within the highly prospective Kilo-Moto Greenstone Belt, which is currently experiencing renewed exploration and mining activity;
- Property #5053 contains a granite-gneiss complex, the contacts of which are regarded as being **very prospective**, with low strain dilation zones being formed around it; and,
- Property #5053 contains the NE extensions of schists and volcanics from Mineral Invest International AB #5050 property, which SRK considered to have the highest ranking potential to contain gold anomalies.

10.3 DRC Planned Site Visit

A site visit to the DRC project area is planned for March 2013.

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Competent Persons Statement

Information in this report that relates to the Bolgatanga Project is based on information compiled by Paul Abbott a full time employee of Cardinal Resources Limited, who is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Geological Society of South Africa. Paul Abbott has sufficient experience which 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 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Paul Abbott consents to the inclusion in this report of the statements based on his information in the form and context in which it appears.

APPENDIX 1: REFERENCES

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APPENDIX 2: AIRBORNE GEOPHYSICAL FILTER & IMAGE DESCRIPTIONS

Abbreviation	Name	Definition & Use
TMI	Total Magnetic Intensity	"Raw" data as measured in field, at a specific time and location (including height), in the presence of the earth's local magnetic field. Provides an overview of the magnetic signature of a particular area before any enhancement filtering
RTP	Reduced To Pole	The reduction-to-the-pole process recalculates the observed magnetic field to what it would look like at the north or south magnetic pole, where the Earth's magnetic inclination is vertical. It theoretically removes the asymmetry of the TMI anomaly and places the peak response directly over the magnetic bodies. In practice it can result in artefacts, particularly if remanence is present. It can also be misleading / unstable for N-S striking bodies in low-latitude environments.
AS or ANSIG	Analytic Signal	A combination of the vertical and horizontal derivatives. Generates a maximum directly over a discrete body, or alternatively maxima over the edges of wider bodies, regardless of the presence of any remanent magnetisation or the Earth's local magnetic inclination. It can therefore be a useful tool in reducing the difficulties associated with interpreting the location of bodies with remanent magnetisation and/or in low-latitude environments where the RTP is unstable. However, contrary to popular belief, the ANSIG is NOT totally independent of the inclination field or remanent magnetisation, with the size, shape and location of the calculated anomalies still affected by both of these factors.