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Mineral Exploration Consultancy

ABN 46 087 256 871

SANATANA RESOURCES INC.

TECHNICAL REPORT ON THE TIRUA PROJECT, NEW GEORGIA ISLAND, SOLOMON ISLANDS

FORM 43-101 F1

Latitude 8^0 29' 15" South
Longitude 157^0 48' 06" East
Datum: WGS 84

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1 SUMMARY

Sanatana Resources Inc. (Sanatana or the Issuer) is the holder of Prospecting Licence (PL) 03/19 over the Tirua Project (the Property or the Project) which is located on the island of New Georgia in the Western Province of the Solomon Islands. The PL is held by Exsol (SI) Limited, a Solomon Islands registered company wholly-owned by Sanatana.

The acquisition of the Property is through a Prospecting Agreement with a group of individuals and private companies and partnerships, termed the Vendors. Details of the Agreement are provided in the main body of the text.

The Property is centred on a breached, deeply eroded Pliocene-Pleistocene basaltic stratovolcano – the Kolo Caldera. Erosion has exposed a sub-volcanic, multiphase, intrusive complex in the centre of the caldera – the Tirua intrusions. The intrusions are surrounded by extensive flows of andesite and olivine basalt. The majority of the western and southern portions of the intrusive complex are characterised by low topographic relief and are covered by shallow alluvium or swamp.

The dominant structural trends in the Property are arc-parallel northwest striking faults and arc-normal northeast trending faults. Arcuate ring structures are also present and have likely resulted from the intrusion of the multiple stocks that form the core of the caldera.

The Property has been the subject of previous exploration campaigns focussed primarily on the discovery of porphyry copper-gold mineralisation.

The campaigns can be divided into an early phase during the 1980s and a later period that extended from 2006 to 2013. Newmont and BHP's work in the 1980s consisted of programs of stream sediment sampling, grid-based auger soil sampling and six (6) diamond drill holes that succeeded in defining two principal prospect areas, Humbe River and Suma Creek, based on broadly coincident copper and gold anomalism.

From 2006 to 2013 the area was held under PL 06/06 by Pacific Porphyry (SI) Limited (herein after referred to as PPSI) a subsidiary of Canadian company XDM Resources Inc. PPSI conducted exploration solely from 2006 to 2012 and then in joint venture with AngloGold Ashanti Limited (herein after referred to as AGA) from 2012 to 2013 when the PL expired.

Over the seven year period PPSI and AGA undertook grid-based soil sampling, extensive outcrop and rock float sampling, stream sediment sampling, combined aeromagnetic and radiometric surveying, dipole-dipole IP surveying, the excavation of trenches and collection of channel samples and the drilling of twelve (12) diamond drill holes and associated drill core sampling.

The work undertaken by the previous explorers, particularly PPSI and AGA, identified hydrothermal alteration, mineralogy and geochemical anomalism with strong affinities to epithermal gold and porphyry copper-gold mineralisation at a number of prospect areas within the Property – namely the Humbe and Broken Bridge prospects.

Porphyry-style copper-gold mineralisation and associated propylitic and potassic alteration, with an overprint of epithermal-style gold mineralisation, was intersected in several of the diamond drill holes completed by Newmont and PPSI/AGA in the Humbe and Broken Bridge areas. Some of the more significant intersections that were reported are 79 m at 0.36% Cu, 62 m at 0.45% Cu, 28 m at 0.42% Cu, 19 m at 1.12 g/t Au and 3 m at 2.52 g/t Au.

Epithermal and porphyry-style mineralisation and alteration are also present in broad areas that flank the eastern and southern margins of the Tirua intrusive complex. The alteration consists of zoned potassic-phyllic to outer propylitic alteration overprinted by a retrograde argillic event over an area of about 16 km^2. Within this area there are zones of argillic to advanced argillic alteration with anomalous gold and silver geochemistry up to 200 m wide that appear to occur along curvilinear structures over a strike length of 7.5 km. This area has been described as the East Kolo Epithermal Target by Sanatana and will be the primary focus of its initial exploration

With most of the previous exploration being focussed on discovering porphyry copper-gold mineralisation in the Humbe and Broken Bridge prospect area Sanatana sees the opportunity to explore the East Kolo Epithermal Target for potentially economic epithermal gold mineralisation through a systematic, phased program of exploration. Beyond that area the potential exists to outline further targets in the underexplored areas of the Property particularly to the west and south west of the central Tirua intrusive stocks.

A two-phase exploration program is proposed to test the East Kolo Epithermal Target (EKET).

Phase 1 will entail a combination of geological fact mapping and rock sampling of alteration across the EKET along recently developed logging tracks and streams that have not been previously mapped, and the infill and extension of existing soil sample grids over key parts of the EKET. Initial reconnaissance surveys are also proposed into under-explored areas of the property utilising the existing tracks developed by the now-completed logging activities. A budget of C$310,000 is proposed for this phase of work.

Phase 2 would consist of machine-assisted excavation of trenches across the EKET at regular intervals to provide exposures of bedrock that can be mapped for alteration and systematically channel sampled and scanned with a handheld spectrometer. This work would provide, at a minimum, alteration and geochemical vectors which could be followed up with drill testing of the targets and anomalies generated from Phase 1. The targets are envisaged as a combination of the enhanced geochemical anomalies generated from the Phase 1 infill and extension soil sampling, alteration vectors from the trench sampling, magnetic features related to alteration, structure and inferred intrusive stocks and areas of epithermal quartz float and outcrop. A total of 3000 m of drilling is proposed for the initial target definition as described above and a further 3000 m is allocated for more specific follow up of the results of the initial drilling. Non-technical work would involve camp construction and additional access tracks and drill pads. A budget of C$4.5 Million is proposed for this phase.

2 INTRODUCTION

This report has been prepared for Sanatana Resources Inc. (hereinafter referred to as Sanatana or the Issuer) in compliance with the guidelines outlined in National Instrument 43-101 to support disclosure being made on the Tirua Project (the Project or the Property) and may be used by that company for regulatory purposes and stock exchange filing.

A number of porphyry-style copper-gold and epithermal gold occurrences are located within the Property and are the focus of exploration to be undertaken by Sanatana through a Solomon Islands' subsidiary company. The Property is located in the southeast of the island of New Georgia in the Western Province of Solomon Islands.

The Qualified Person (QP) visited the property over two days between 5th and 6th November 2018. The QP inspected a selection of outcrops and trenches where mineralisation had been reported by previous explorers and where work is planned by Sanatana; collected ten (10) samples for the purposes of verification; inspected one site of previous drilling and verified the location of the hole.

The information presented in this report was derived from the following sources:

- Digital copies of technical reports (referenced where applicable in the text and in the **REFERENCES** section), analytical results, maps, photographs and documents relating to previous exploration undertaken in the property area and available in the public domain having been submitted to the Solomon Islands' Ministry of Mines, Energy and Rural Electrification or predecessor Ministries ;

- Selected academic papers (referenced where applicable in the text and in the **REFERENCES** section) pertaining to the regional geological and tectonic setting of Solomon Islands;

- Discussions with the supervising geologist who undertook work for Pacific Porphyry (SI) Limited, a previous explorer;

- A site visit undertaken by the Qualified Person (QP) between 5th and 6th November 2018.

3 RELIANCE ON OTHER EXPERTS

The QP has relied upon data provided by Sanatana (and its associated companies) and its consultants as well as a field visit and discussions with Sanatana personnel and personnel representing the Vendors to formulate his opinions and conclusions. The QP does not wish to include a disclaimer of responsibility.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Mining Tenure in Solomon Islands

Under the Mines and Mineral Act (revised 1996) of Solomon Islands the ownership of all minerals is “vested in the people and Government of Solomon Islands”.

Exploration activities can be carried out under a Prospecting Licence (PL), which is valid for an initial period of three (3) years. It can then be renewed twice for two (2) year periods over an area not exceeding half of the area remaining at the end of each period. The area of the PL cannot exceed 600 km^2 during its initial period. With the approval of the Minerals Board a PL can be renewed in whole if it is demonstrated that it is in the ‘national interest’.

A PL gives the holder the right to drill, excavate trenches, prepare roads and helicopter pads, erect camps and construct temporary buildings. The holder is also required to reach surface access agreements with landowners within the area of the PL application prior to it being granted.

A PL also provides the holder with the opportunity to apply for a Mining Lease should a commercial discovery be made. A Mining Lease is valid for an initial period of twenty-five (25) years and can be renewed for a further ten (10) year period.

4.2 Property Description

The Tirua Property consists of one Prospecting Licence (PL 03/19) that was issued to ExSol (SI) Limited (ExSol), a Solomon Islands registered company wholly-owned by Sanatana, on 31st January 2019 for a period of three years. The issue of the PL follows the acquisition of a Surface Access Agreement with Landowners. The QP has sighted a copy of the document of grant of the PL and the Surface Access Agreement (SAA)

The salient terms of the SAA are;

- The Landowners grant ExSol exclusive access to the land for mineral prospecting
- The SAA is valid for a period of three years from the grant of the PL
- Quarterly payments are made by ExSol to the Landowners

- Annual payments are made by ExSol to a Fund, agreed to by ExSol and the Landowners, to facilitate sustainable community development projects

The acquisition of the Tirua Property is by a prospecting agreement (the Agreement), which is subject to TSX Venture Exchange approval, signed between Sanatana and Trevor Wright, Sol Mar Por Pty Ltd, Brian D Edgar and Stadnyk and Partners (the Vendors). The terms of the Agreement are as follows:

- Within 10 business days of the issuance of the PL, 25,000,000 shares of the Company will be issued to the Vendors;
- Within 10 business days of the receipt by the Company of a resource report prepared in accordance with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") indicating a minimum resource of 1,000,000 ounces of gold (or gold equivalent if other metals are considered to be economic), 3,750,000 additional shares of the Company will be issued to the vendors;
- Within 10 business days of the receipt by the Company of a resource report prepared in accordance with NI 43-101 indicating a minimum resource of 2,000,000 ounces of gold (or gold equivalent if other metals are considered to be economic), 3,750,000 additional shares of the Company will be issued to the vendors;
- Within 10 business days of the receipt by the Company of a resource report prepared in accordance with NI 43-101 indicating a minimum resource of 3,000,000 ounces of gold (or gold equivalent if other metals are considered to be economic), 3,750,000 additional shares of the Company will be issued to the vendors; and
- Within 10 business days of the receipt by the Company of a resource report prepared in accordance with NI 43-101 indicating a minimum resource of 4,000,000 ounces of gold (or gold equivalent if other metals are considered to be economic), 3,750,000 additional shares of the Company will be issued to the vendors.

Apart from the conditions set by the Surface Access Agreement and the acquisition Agreement, described above, and royalties paid directly to the Government of Solomon Islands on production from any mining operation, the QP is not aware of any other encumbrances. The QP is not aware of any other agreements to which the Tirua Property is subject.

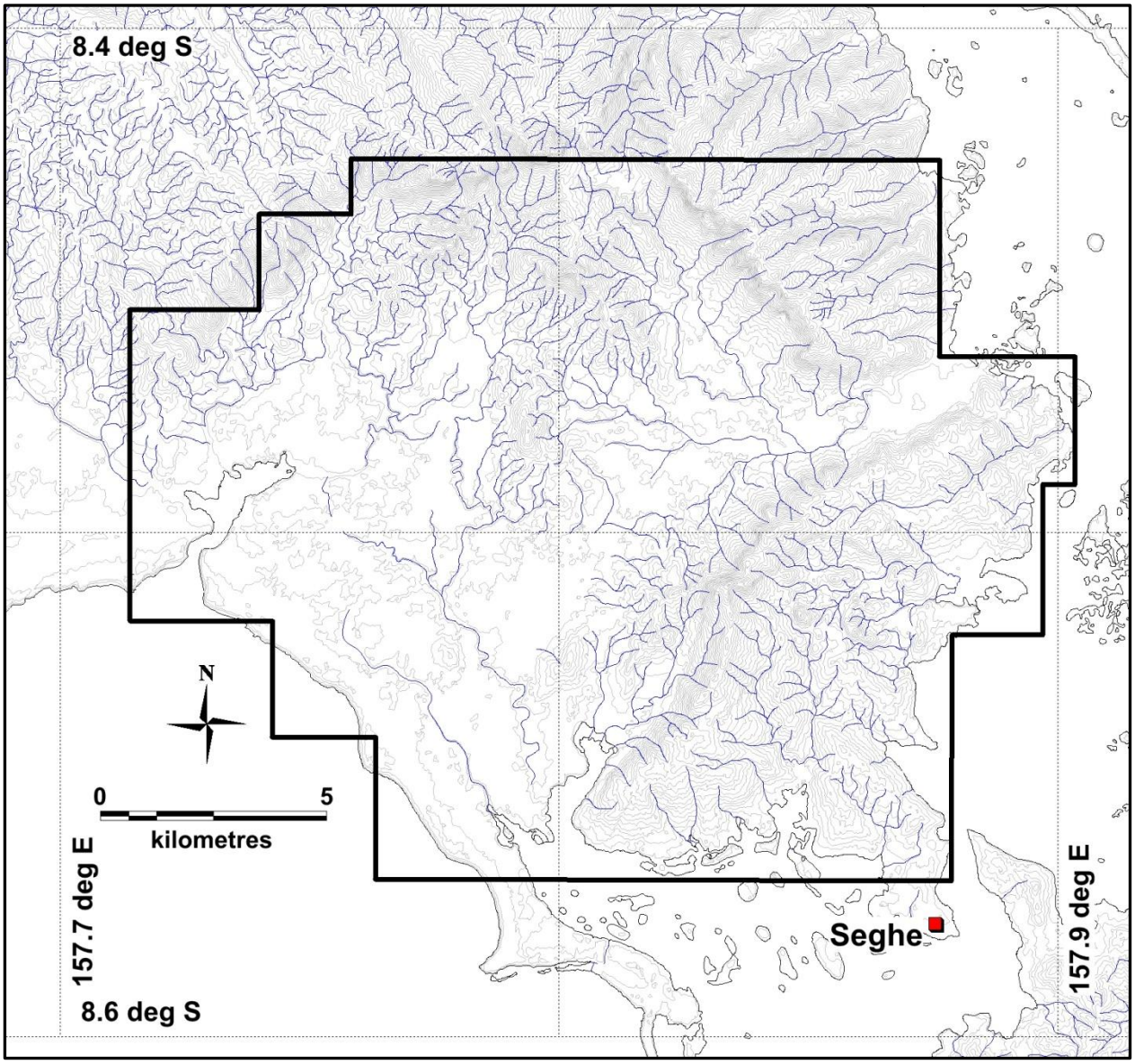
The QP is not aware of any specific political, financial, security or natural risks of operating in the Solomon Islands. Being a parliamentary democracy there is a risk of changes to mining and other laws and regulations that result from changes in government that may be detrimental to the mining industry. Sanatana has acknowledged the importance of having a proactive relationship with the Landowners to minimise the possibility of disagreements that may impact on its operations.

4.3 Property Location

The Project area is located in the south-eastern portion of the island of New Georgia approximately 250 km west north-west of Honiara, the capital of Solomon Islands (**Figures 1** and **2**). It is centred on longitude 157° 48' 06'' East and latitude 8° 29' 15'' South (WGS 84). PL 03/19 covers an area of 282 km^2 (**Figure 2**).

Datum: WGS84

Figure 1. Location of Tirua Project (image from Google Earth).



Datum: WGS84

Figure 2. Location and outline of PL 03/19.

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

Access to the Project area for field crews and supplies is via boat from Honiara and from the village of Seghe which lies to the south-east of the Project area. Seghe is serviced by regular flights from Honiara. Heavy equipment and bulk supplies, when required, would be delivered by barge to logging jetties located close to the Project.

Access within the Project area is provided via numerous logging tracks. The expansion of logging in recent years has improved access around the Project area such that around two thirds of the area is relatively accessible.

There are no detailed climate statistics available for the Project area however, in general, the islands of the Western Province of Solomon Islands experience a humid tropical climate with a mean annual temperature of 27^0 C. Annual rainfall is high, particularly at higher elevations away from the coast. Around 3000 mm of rains falls throughout the year with most occurring between December and June. It is possible to undertake most mineral exploration activities throughout the year. Based on its predicted expenditure rate Sanatana would complete its Phase 1 exploration program within a six month period.

Much of the Project area has been subjected to logging and widespread regrowth is occurring often with exotic species. Remnants of dense tropical rain forest remain in steep terrains. Some areas near the coast have been cleared for subsistence-style farming. The central sections of the Project area are relatively flat lying and contain areas of shallow alluvial cover and swamps with elevated, rugged topography on the northern and eastern boundaries of the Project (**Figure 2**).

The local population lives in several coastal villages within and immediately surrounding the Project area. The community of Seghe, situated immediately south-east of the Project, is the largest community where food supplies, fuel, basic medical services and specialist trade labour services are available. Seghe is also serviced by regular commercial air services from Honiara. Most exploration field labour would be employed from local villages.

6 HISTORY

The earliest report of exploration activity in the Project area pertains to reconnaissance ridge and spur sampling undertaken by Sol Exploration and Amoco Minerals in the early 1970s where quartz float containing polymetallic sulphides were observed within streams. Sol did not undertake any follow-up exploration.

In 1981-82 the British Geological Survey (BGS) undertook stream sediment sampling and auger soil sampling and confirmed the presence of sulphide-bearing veins within an extensive area of propylitic alteration. No follow-up work was undertaken by the BGS.

During the period 1983 to 1985, when access was limited by the lack of logging roads, Newmont undertook a program of exploration consisting of geological mapping of streambeds, rock chip sampling of outcrop and float material, grid-based hand auger bedrock sampling, ground magnetic surveying over an area of 6 km^2 and the drilling of six diamond holes for a total of 683.1 metres (Morrow, 1984a, 1984b, 1984c, 1985),. The sampling program identified two principal prospect areas, Humbe River and Suma Creek, based on broadly coincident copper and gold anomalism. The mapping also outlined areas of propylitic, chloritic, silica, pyrite and argillic alteration – typical of porphyry copper systems – and identified epithermal quartz-pyrite gold mineralisation.

The six diamond holes tested a number of geochemical anomalies and quartz-sulphide veins in the Humbe River area. The locations of the holes are shown in **Figure 13** in the **DRILLING** section. Five of the six holes intersected intervals of anomalous copper and gold mineralisation as summarised in the **DRILLING** section.

From 1987 to 1989 BHP Minerals conducted follow-up exploration in the geochemically anomalous areas defined by Newmont at Humbe River and Suma Creek. This work consisted of detailed drainage and grid-based auger soil sampling (Leaman, 1988). Alluvial gold was identified at Suma Creek but BHP was unable to define a bedrock source concluding that the gold was derived from re-worked alluvium in the area.

During the period 1989-1990 exploration was carried out by a joint venture consisting of BHP, Battle Mountain Gold Australia, Niugini Mining and Aurex. The work consisted of rock chip, stream sediment, float, trenching/pitting and bedrock auger soil sampling over previously identified prospects.

Melanesian Minerals Corporation undertook a data review and field inspection in 1998 but do not appear to have undertaken any work of significance.

From 2006 to 2013 the area was held under PL 06/06 by Pacific Porphyry (SI) Limited (herein after referred to as PPSI) a subsidiary of Canadian company XDM Resources Inc. PPSI conducted exploration solely from 2006 to 2012 and then in joint venture with AngloGold Ashanti Limited (herein after referred to as AGA) from 2012 to 2013 when the PL expired (McLean, 2010; Budiman et al., 2013).

Over the seven year period PPSI and AGA undertook the following exploration activities:

- Grid-based soil sampling over 196.95 line km with 5,480 samples collected and analysed,
- Reconnaissance rock chip sampling with 910 samples collected and analysed,
- Stream sediment sampling with 94 samples collected and analysed,
- Excavation of 23 trenches over a cumulative 1,081.5 m with 668 channel samples collected and analysed,
- 12 diamond drill holes for a cumulative 4,564.6 m with 4,566 core samples collected and analysed,
- Combined aeromagnetic and radiometric survey at 200 m north-south line spacing over a total of 1,259 line km,
- Dipole-dipole IP survey over 11 east-west lines at 200 m and 400 m spacing for a cumulative total of 34.85 line km.

This work resulted in the delineation of several areas of geochemical anomalism and associated hydrothermal alteration that is typical of porphyry copper-(gold) and epithermal gold mineralised systems. PPSI defined eleven (11) targets from a combination of mapping, rock and soil sampling and IP surveying but only drill tested four of them prior to the expiry of the PL (Budiman et al., 2013). The drill testing intersected moderately copper and gold anomalous zones of porphyry-style mineralisation in the Humbe and Broken Bridge prospect areas that had previously been drilled by Newmont.

As the results of the PPSI and AGA work programs are critical to Sanatana's proposed exploration strategy, program and budget they will be discussed in more detail in the **EXPLORATION** and **DRILLING** sections.

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional Geology and Metallogeny

The Solomon Islands are part of the currently active Outer Melanesian Arc System, lying on a complex convergent boundary between the Indo-Australian and Pacific Plates (**Figure 3**). The islands are composed of a diverse assemblage of rocks of Late Mesozoic to Cainozoic age that have formed and accreted within an intra-oceanic environment (Petterson et al, 1999).

Basement rocks include oceanic crust of Cretaceous and early Tertiary age and metamorphic equivalents (Bruns et al, 1989). Overlying the basement are rocks and features that reflect volcanic-arc growth during at least two periods – an Eocene to Early Miocene stage and a Late Miocene to present-day stage. The earlier stage island arc forms and underlies the northern chain of islands including Bougainville (PNG), Choiseul, part of Santa Isabel and Guadalcanal. The younger volcanic arc is superimposed on the earlier arc on Bougainville and underlies and forms the southern chain of islands including the Shortland Islands, the New Georgia Island group, the Russell Islands, Savo Island and western Guadacanal. Oligocene to Quaternary volcaniclastic and carbonate rocks cover much of the volcanic arc and lie within interarc basins such as the Central Solomons Trough.

The earlier-stage northern island arc formed from the south-westward-directed subduction of the Pacific Plate beneath the Indo-Australian Plate. Coincident with the formation of the island arc was the influx of volcaniclastic debris into the adjacent back-arc basins now represented by the Central Solomons Trough. During the middle Miocene there was a period of volcanic and tectonic inactivity during which extensive carbonates were laid down.

The later-stage island arc that formed the southern island chain resulted from reversal of the subduction zone and the north-easterly subduction of the Solomon Sea and Australian Plates beneath the Pacific Plate. As this is an oblique collision localised pull-apart basins and sea floor spreading centres have formed that are the sites of current volcanic activity. During this period mafic rocks of the Ontong Java Plateau, which forms the south-western margin of the Pacific Plate, have started to accrete onto the northern chain of islands that comprise the earlier volcanic arc.

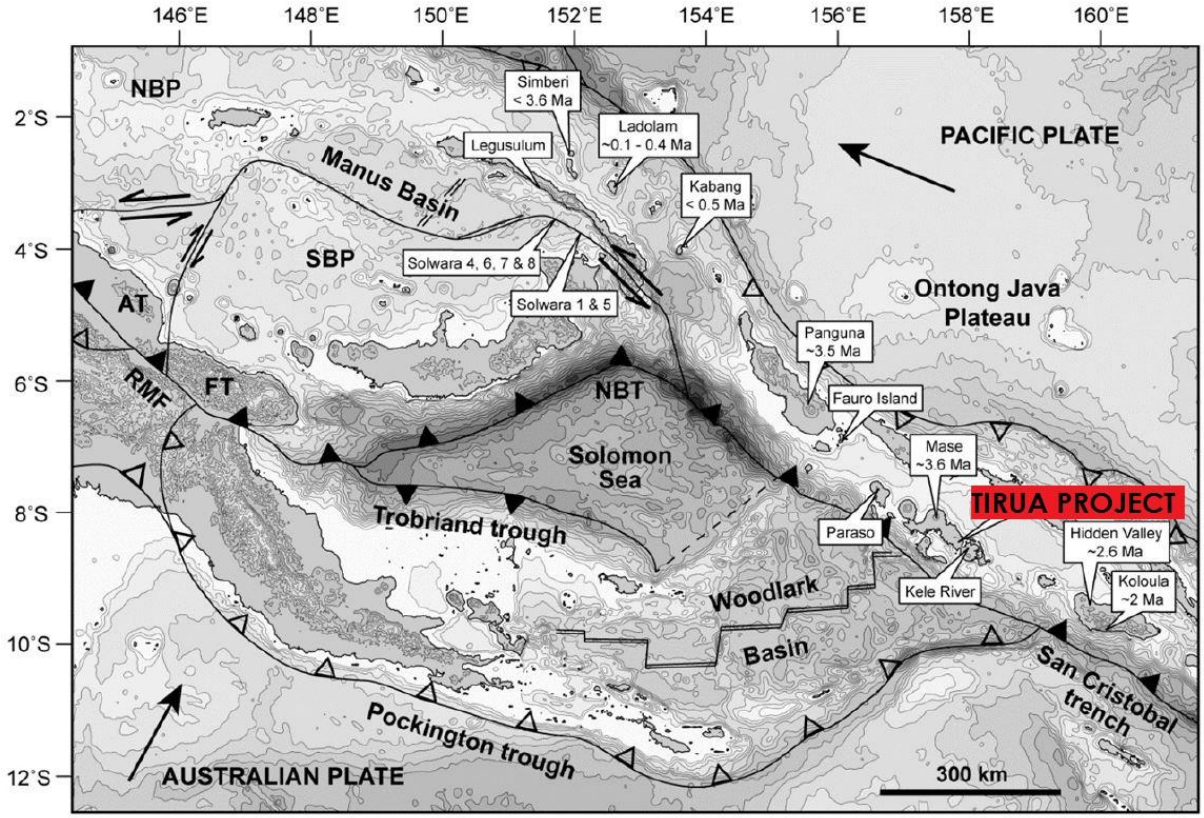


Figure 3. Regional tectonic setting of the southwest Pacific showing the location of the Tirua Project (from Holm et al., 2015).

The New Georgia Group of Islands, where the Tirua Project is located, consists of a north-west trending series of Tertiary to Recent composite volcanic centres. The general trend of these volcanic islands is parallel to the boundary between the Indo-Australian and Pacific Plates. The volcanic centres vary from single to coalesced and are in various stages of erosion. They represent a classical island arc setting. The Tirua Project is located in one these volcanic centres where the Woodlark Basin spreading centre is being subducted along the San Cristobal Trench beneath the Pacific Plate (**Figure 3** and Holm et al., 2015).

The regional tectonic and geological setting of the Tirua Project is similar to that of major porphyry copper-gold and epithermal gold deposits elsewhere within the southwest Pacific island arc system including the Panguna porphyry copper-gold deposit (5.3 Mt contained Cu and 19.3 Moz contained Au, 2013 resource statement from Bougainville Copper Ltd.), the Lihir epithermal gold deposit (52 Moz contained Au, 2018 resource statement from Newcrest Ltd),

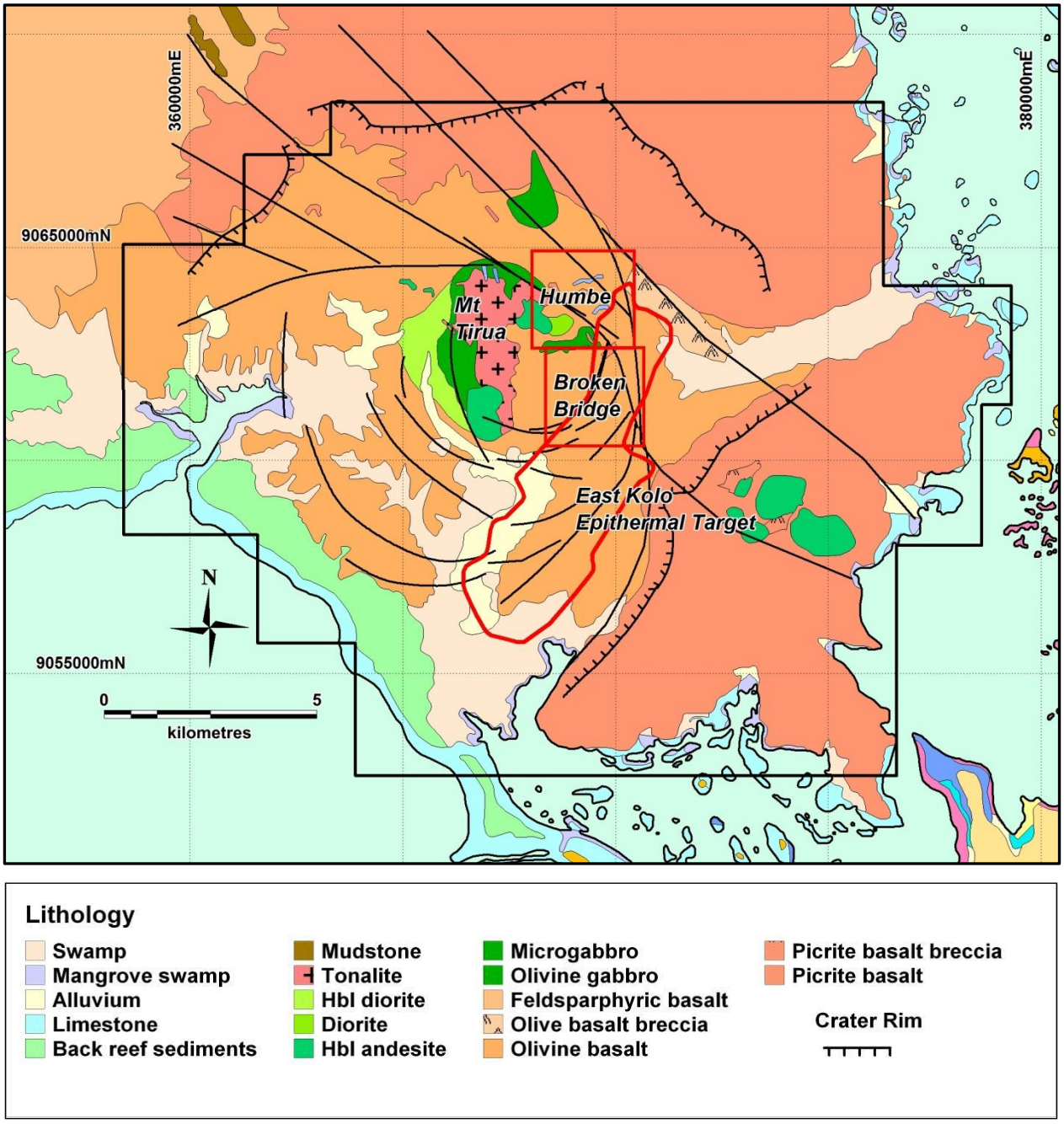
the Simberi epithermal gold deposit (3.71 Moz contained Au, 2018 St. Barbara Ltd resource statement) and Gold Ridge epithermal gold (1.28 Moz contained Au, 2010 reserve from Allied Gold Ltd.); all deposits that lie within the same volcanic arc as the New Georgia Group and are associated with similar aged igneous rocks (**Figure 5**). The presence of faults normal to the trend of the volcanic arc is also important for focussing magma intrusion and any associated hydrothermal fluids.

7.2 Project Geology

The Tirua Project is centred on a breached, deeply eroded Pliocene-Pleistocene basaltic stratovolcano – the Kolo Caldera. Erosion has exposed a sub-volcanic, multiphase, intrusive complex in the centre of the caldera. The outer part of the complex consists of an olivine biotite gabbro which grades outwards through hornblende gabbro to hornblende diorite. These rocks are intruded by hornblende biotite tonalite that forms a north-south trending ridge called Tirua Hill. Stocks and dykes of feldspar porphyritic andesite have also intruded the complex (**Figure 4**).

Around the south-western breached flank of the Kolo Caldera a Pleistocene raised reef limestone, with associated back-reef lagoonal sediments, forms a raised continuous cliff line of up to 40 m high. The majority of the western and southern portions of the intrusive complex are characterised by low topographic relief and are covered by shallow alluvium or swamp.

The dominant structural trends in the Project area are arc-parallel northwest striking faults and arc-normal northeast trending faults. Arcuate ring structures are also present and have likely resulted from the intrusion of the multiple stocks that form the core of the caldera.



Datum: WGS84. UTM Zone 57S

Figure 4. Project geology. (Created from Solomon Islands' government geological survey data).

7.3 Mineralisation

The work undertaken by previous explorers, particularly PPSI and AGA since 2006, has identified hydrothermal alteration, mineralogy and geochemical anomalism with strong affinities

to epithermal gold and porphyry copper-gold mineralisation at a number of prospect areas within the Tirua property. (The definition and naming of the prospect and target areas by previous explorers has been, in the QP's opinion, inconsistent and confusing. For the purposes of this report the following prospect names will be used; Humbe, Broken Bridge and the East Kolo Epithermal target (EKET); the latter being a current target area defined by Sanatana. The prospect and target areas referred to are shown in **Figure 4**).

Porphyry-style copper-gold mineralisation and associated propylitic and potassic alteration, with an overprint of epithermal-style gold mineralisation, has been intersected in several diamond drill holes completed by Newmont and PPSI/AGA in the Humbe and Broken Bridge areas (**Figure 13**). Some of the more significant intersections that were reported are 79 m at 0.36% Cu, 62 m at 0.45% Cu, 28 m at 0.42% Cu, 19 m at 1.12 g/t Au and 3 m at 2.52 g/t Au. A more detailed description of the drilling is presented in the **DRILLING** section.

Epithermal and porphyry-style mineralisation and alteration are also present in broad areas that flank the eastern and southern margins of the Mount Tirua intrusive complex respectively. The areas have been identified from reconnaissance and prospect scale mapping and sampling, soil sampling and trenching undertaken by both PPSI and AGA. The alteration consists of zoned potassic-phyllic to outer propylitic alteration overprinted by a retrograde argillic event over an area of about 16 km^2. Within this area there are zones of argillic to advanced argillic alteration with anomalous gold and silver geochemistry up to 200 m wide that appear to occur along curvilinear structures over a strike length of 7.5 km. This area has been described as the East Kolo Epithermal Target by Sanatana and will be the primary focus of its initial exploration (see **INTERPRETATION AND CONCLUSIONS** and **RECOMMENDATIONS** sections). **Plate 1** shows an outcrop of stockwork veining and pervasive clay alteration associated with epithermal-style mineralisation that yielded a grab sample result of 2.84 g/t Au from sampling undertaken by PPSI. **Plate 2** shows a rock sample, collected by the QP, with well developed bladed quartz replacement textures and druzy quartz that provided a result of 1.28 g/t Au.

The trenching, which is concentrated within the Broken Bridge area, has exposed epithermal-style gold mineralisation associated with argillic alteration and sheeted and stockwork quartz veining. Some significant results include 15 metres at 1.16 g/t Au and 8 metres at 0.62 g/t Au (see **EXPLORATION** section).

Elsewhere within the Tirua property reconnaissance stream sediment and rock chip sampling has returned some very encouraging gold results: 9.77 g/t and 4.18 g/t being examples from an area 5 km west of Humbe and 2.04 g/t from an area 3 km east of Humbe.

Plate 1. Outcrop of pervasive and intense clay alteration containing quartz stockwork veins that returned up to 2.84 g/t Au from PPSI sampling. (Photo by QP. See hammer for scale. 370077E/9059474N WGS84 Z 57S).

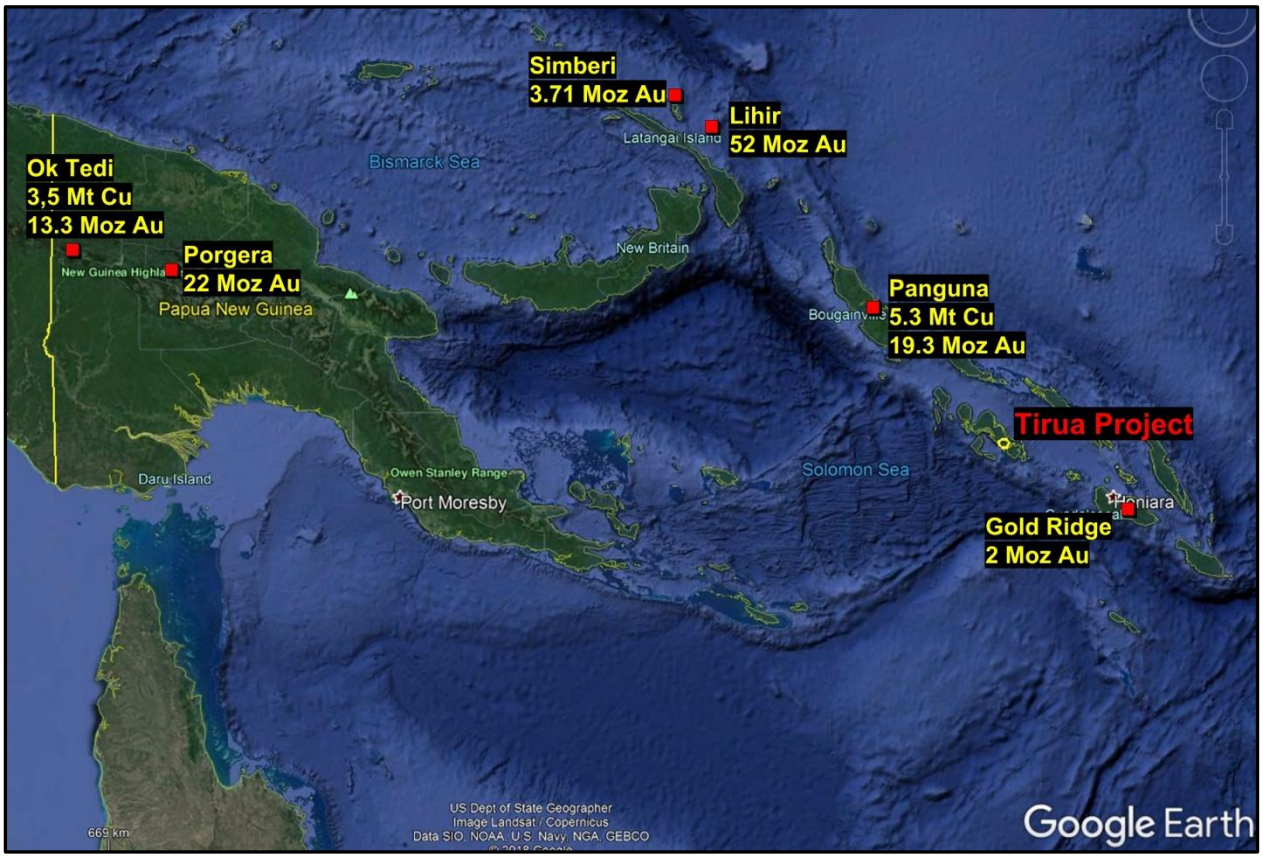
Plate 2. Quartz replacement textures and druzy quartz in a sample that returned 1.28 g/t Au. (Collected by the QP from 370300E/9061530N WGS84 Z57S).

8 DEPOSIT TYPES

The magmatic arcs of the SW Pacific region host many world-class gold and gold-copper deposits. Most of these fall into two clear types.

The classic mesothermal gold-rich porphyry copper category is represented by Panguna and OK Tedi in Papua New Guinea, Grasberg in Indonesia and the Namosi deposit in Fiji. The Panguna (Bougainville) deposit is the closest porphyry copper deposit to the Tirua Project being located approximately 350 km to the northwest within the same island arc sequence (**Figure 5**).

The other major group, classified as intrusion related epithermal gold deposits, is represented by Porgera, Simberi and Lihir in Papua New Guinea, Emperor in Fiji and Gold Ridge which is located on the island of Guadalcanal approximately 280 km southeast of Tirua within the same island arc sequence. Some of these epithermal deposits, such as Porgera Zone VII, host bonanza zones where significant tonnages grade in excess of 30 g/t Au. The sizes of the abovementioned deposits – in terms of contained metals – are shown in **Figure 5**.



Datum: WGS84

Figure 5. The location of the Tirua Project relative to significant porphyry copper-gold and epithermal gold deposits in the southwest Pacific region.

The volcanic and intrusive rock types associated with the Kolo Caldera in the Project area, along with the structural setting, provide a suitable environment for the development of porphyry copper-gold and epithermal gold deposits. This is further supported by the alteration and mineralisation styles discovered by previous explorers within the Project area and which are analogous to those within significant magmatic arc deposits.

The geological model supporting these styles of mineralisation is summarised in **Figure 6** which is modified from Lang et al (2000), Sillitoe (1995) and Corbett and Leach (1998).

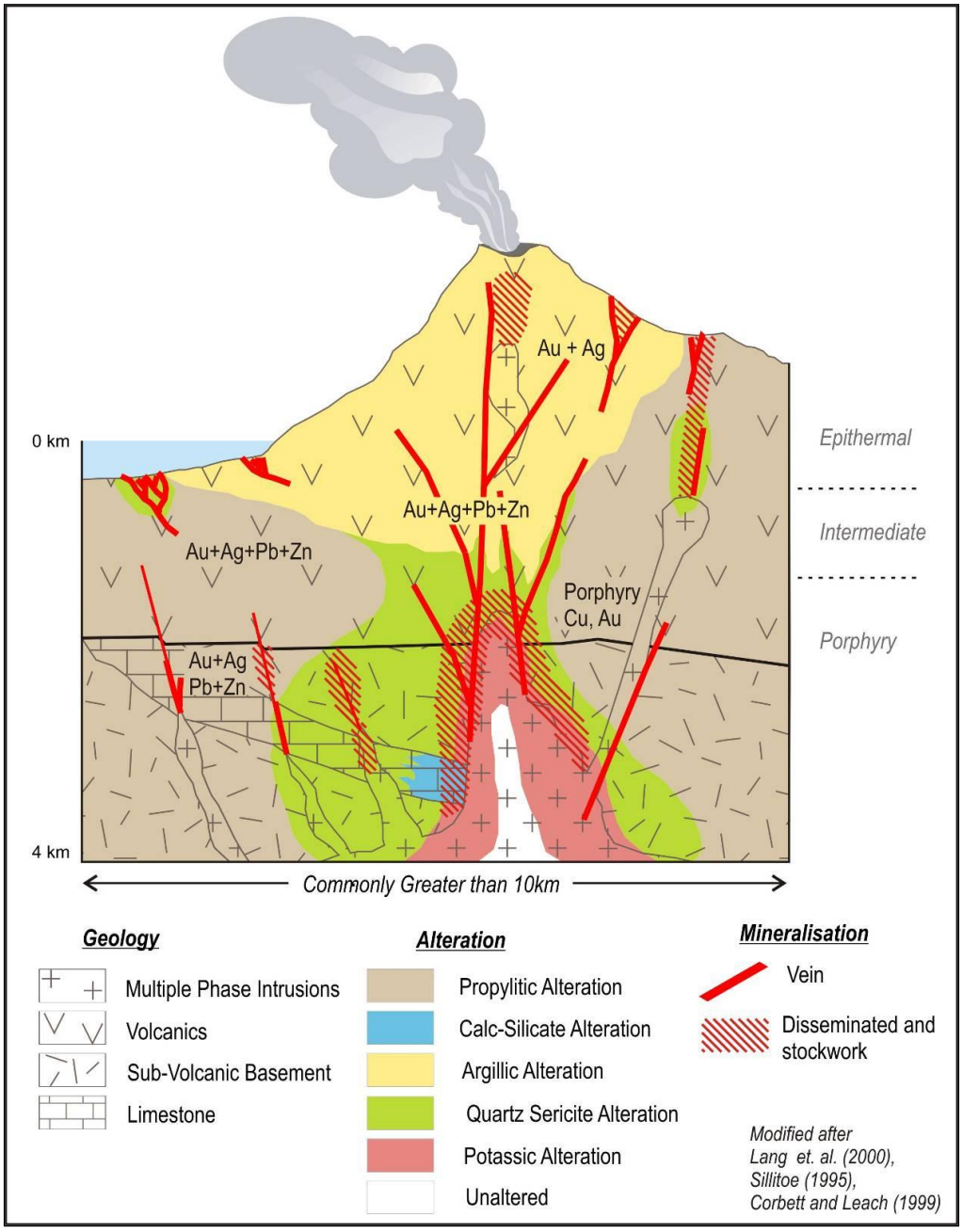


Figure 6. Conceptual model of a classic porphyry and epithermal system.

9 EXPLORATION

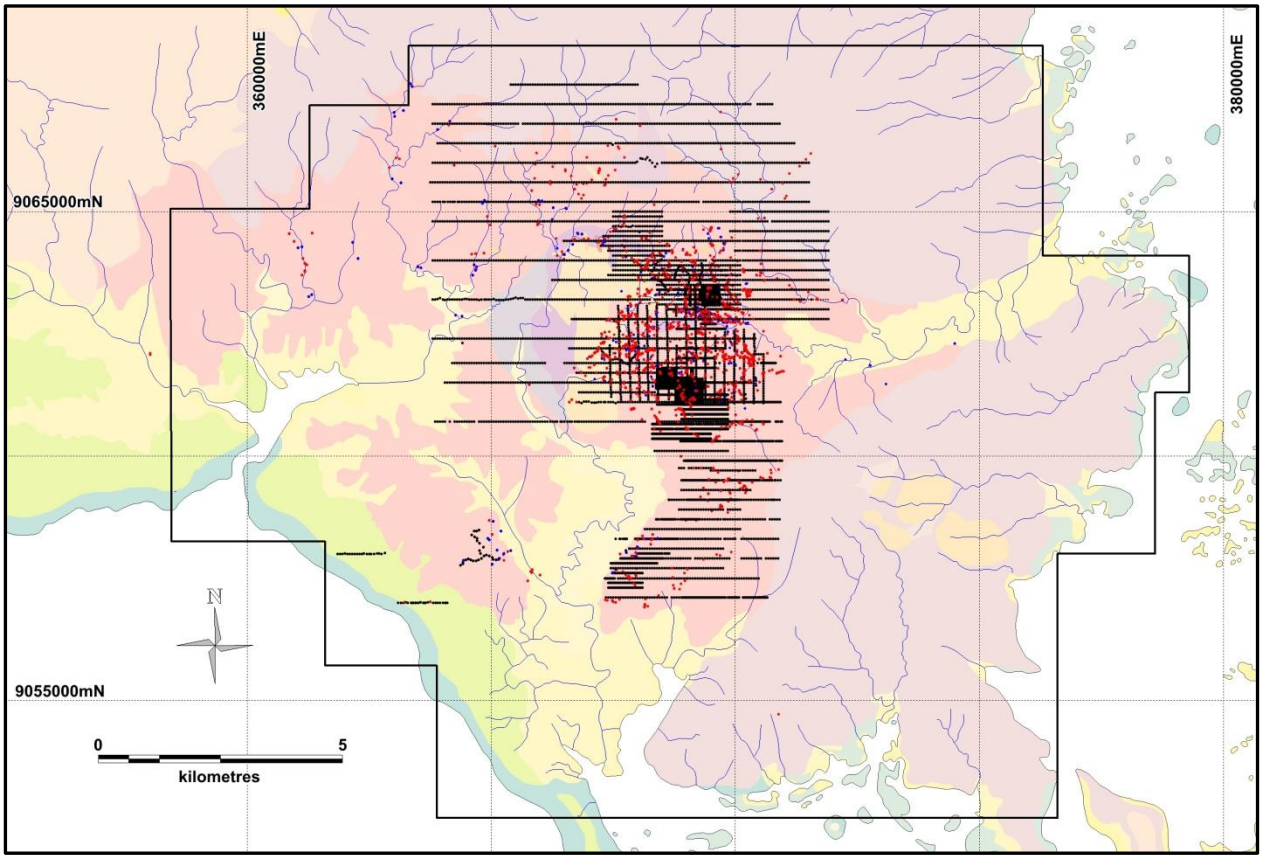
Sanatana has not undertaken any exploration work within the Tirua Property. The information presented in this section is a summary of exploration activities by previous explorers from reports available in the public domain. The work done by PPSI and its joint venture partner AGA is the most comprehensive and well documented (Budiman et al., 2013)

The work done by these parties since 2006, the grant of the PL, to August 2013 when the PL expired consisted of:

- Grid-based soil sampling over 196.95 line km with 5,480 samples collected and analysed,
- Reconnaissance rock chip sampling with 910 samples collected and analysed,
- Stream sediment sampling with 94 samples collected and analysed,
- Excavation of 23 trenches over a cumulative 1,081.5 m with 668 channel samples collected and analysed,
- 12 diamond drill holes for a cumulative 4,564.6 m with 4,566 core samples collected and analysed,
- Combined aeromagnetic and radiometric survey at 200 m north-south line spacing over a total of 1,259 line km,
- Dipole-dipole IP survey over 11 east-west lines at 200 m and 400 m spacing for a cumulative total of 34.85 line km.

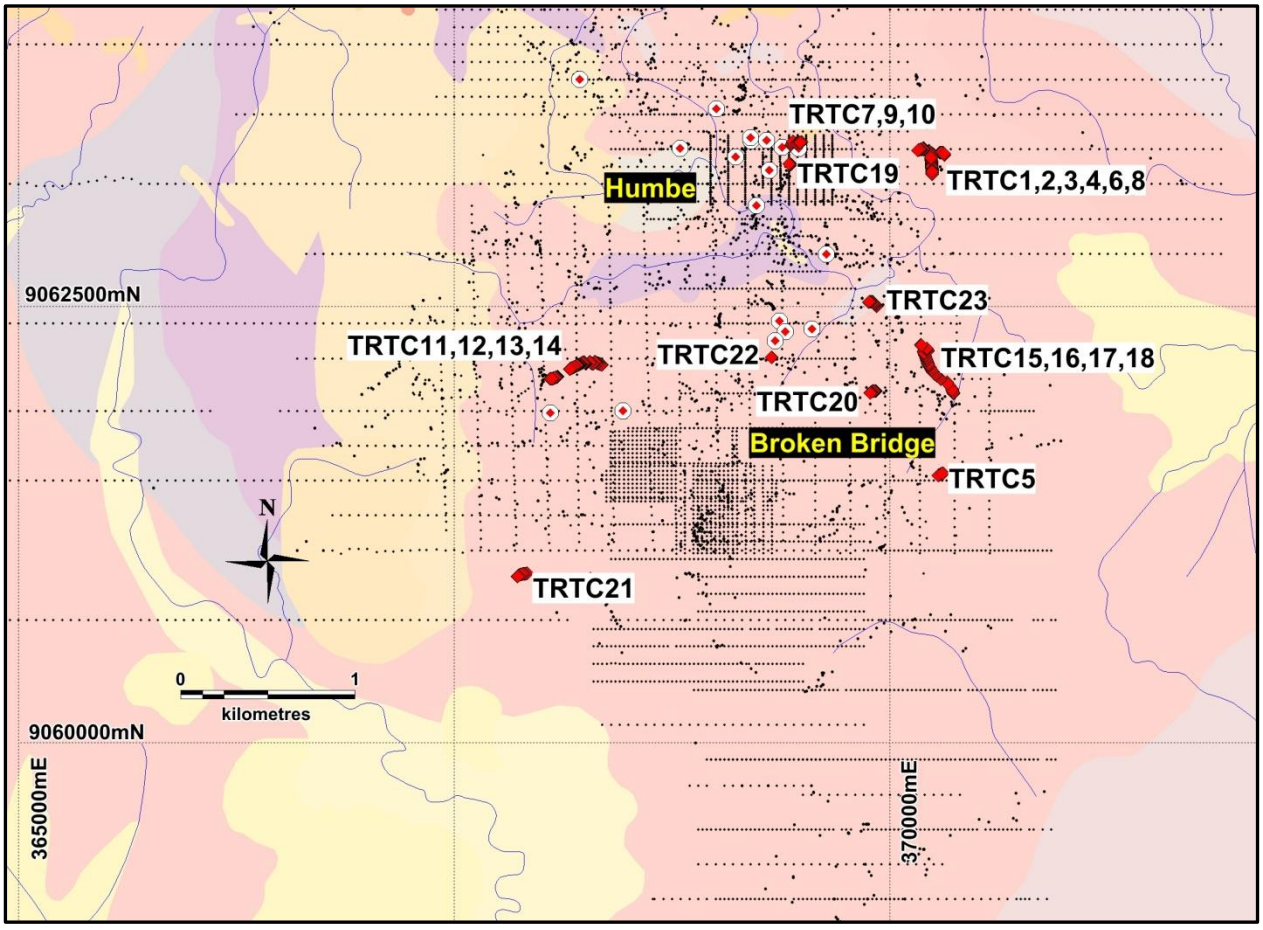
The distribution of the stream, rock and soil sampling is shown in **Figure 7**.

A total of twenty-three (23) trenches were excavated; ten in the Humbe area and thirteen within the Broken Bridge area (**Figure 8**). The positioning of the trenches was determined by anomalous rock and float samples as well as geological observations of alteration and veining. A summary of anomalous trench sampling results is presented in **Table 1**.



Datum: WGS84. UTM Zone 57S

Figure 7. Distribution of PPSI and AGA sampling. Black dots are soil samples; red dots are rock samples, blue dots are stream samples.



Datum: WGS84. UTM Zone 57S

Figure 8. Location of trenches (TRTC prefix) at the Humbe and Broken Bridge Prospects. Historical drill holes shown as red dots. (Geology legend as in figure 4. Data from Budiman et al., 2013).

Prospect	Trench ID	Significant Mineralisation	Min / Max Assays Results Au g/t
Tirua	TRTC05	2m @ 0.22 g/t Au	0.22
		9m @ 0.53 g/t Au	0.11 / 1.99
		2m @ 0.99 g/t Au	0.99
		6m @ 1.33 g/t Au	0.22/2.51
Tirua	TRTC06	1m @ 0.43 g/t Au	0.43
Tirua	TRTC07	1m @ 0.10 g/t Au	0.10
		1m @ 0.61 g/t Au	0.61
Tirua	TRTC09	5m @ 5.23 g/t Au (0pen both ends)	0.12/10.25
Tirua	TRTC10	4m @ 8.13 g/t Au	0.15/16.10
Tirua	TRTC11	1m @ 0.10 g/t Au	0.10
Tirua	TRTC13	1m @ 0.10 g/t Au	0.10
Tirua	TRTC14	2m @ 0.19 g/t Au	0.19
Tirua	TRTC16	24m @ 0.23 g/t Au	0.06/0.91
		16m @ 0.36 g/t Au (Open)	0.14/0.48
Tirua	TRTC17	4m @ 0.27 g/t Au	0.27
		14m @ 0.72 g/t Au (Open)	0.23/1.89
Tirua	TRTC18	15m @ 1.12 g/t Au (Open both ends)	0.27/5.50
Tirua	TRTC19	11.4m @ 0.99 g/t Au	0.07/3.88
Tirua	TRTC21	2m @ 0.58 g/t Au	0.58
		2m @ 0.19 g/t Au	0.19
		2m @ 0.20 g/t Au	0.20
		2m @ 0.10 g/t Au	0.20

Table 1. Summary of anomalous trench sampling results. (From Budiman et al., 2013). The relationship between the lengths of the sampled intervals and the true thickness of the mineralisation is not known.

Rock sampling of both outcrop and float was undertaken as part of the detailed geological mapping within the Humbe and Broken Bridge prospects as well as during more regional reconnaissance programs. The results from this sampling are shown in **Figures 9** and **10** for gold and copper respectively.

Highly anomalous gold results - >1 g/t – are shown to cluster to the east and southeast of the composite intrusive complex and to be spatially related to arcuate ring fractures. Two highly anomalous results of 9.77 g/t Au and 4.18 g/t Au are also reported from an area 5 km west of Humbe.

The anomalous copper results (>500 ppm) from the rock chip sampling show a similar distribution to the anomalous gold results.

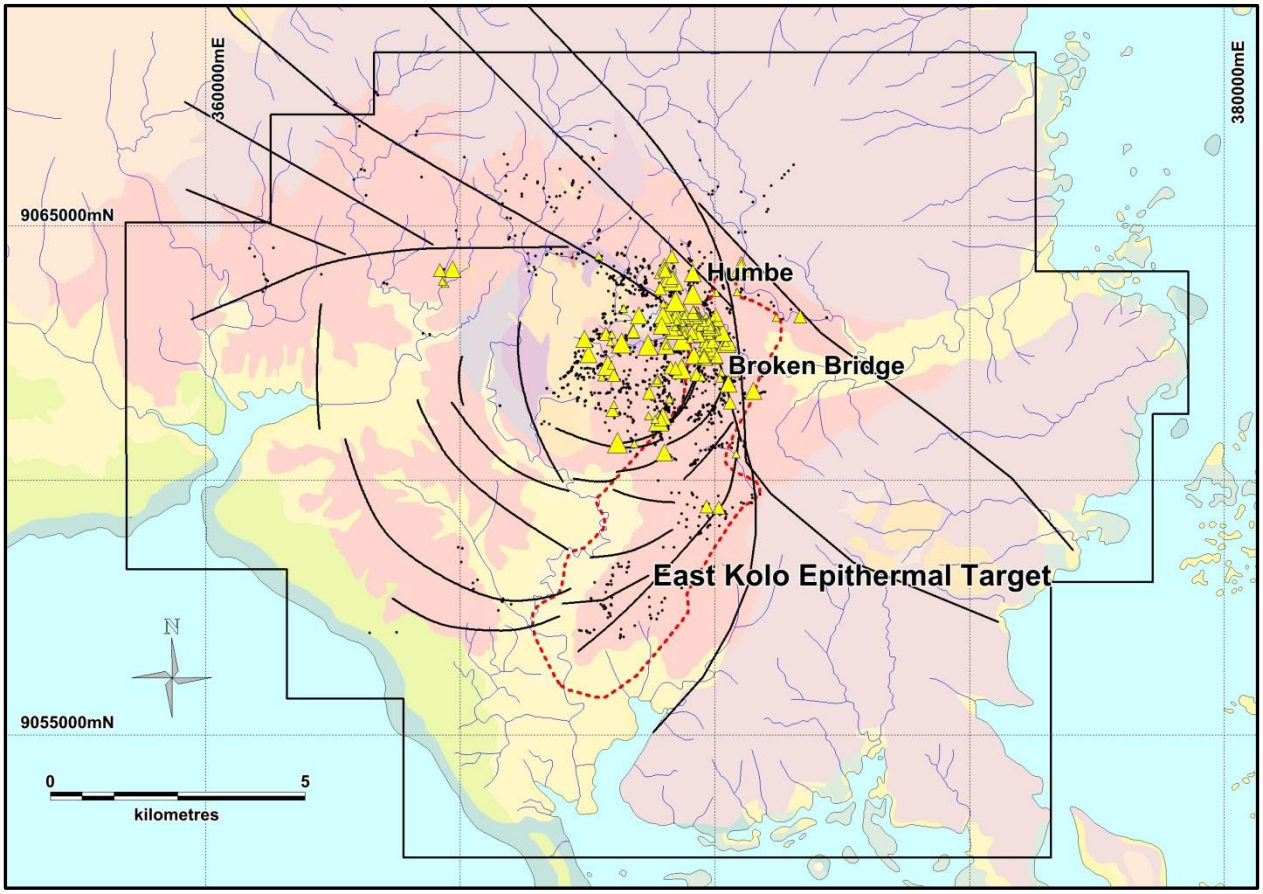


Figure 9. Distribution of rock chip and float sampling Au results >1 g/t. (Data from Budiman et al., 2013).

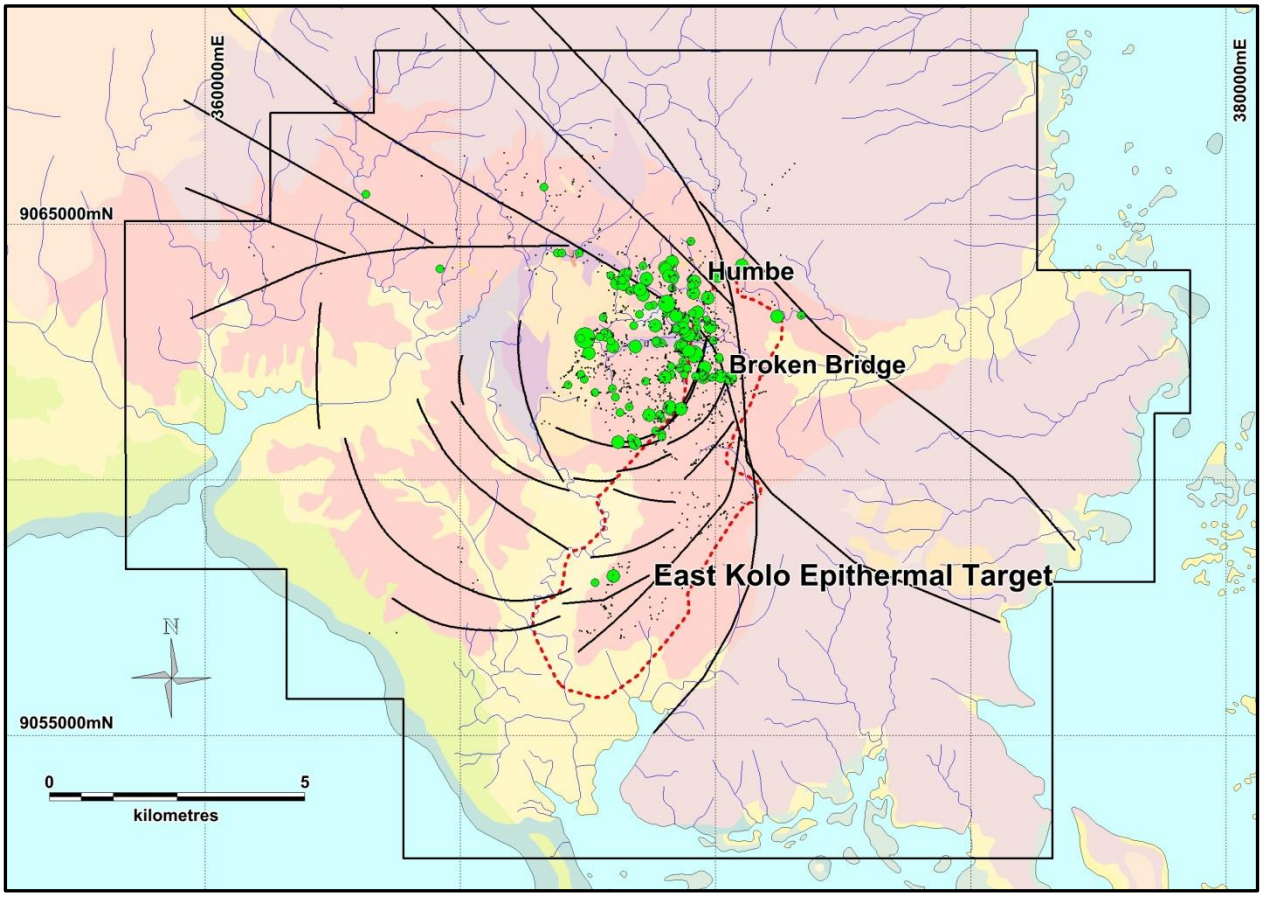
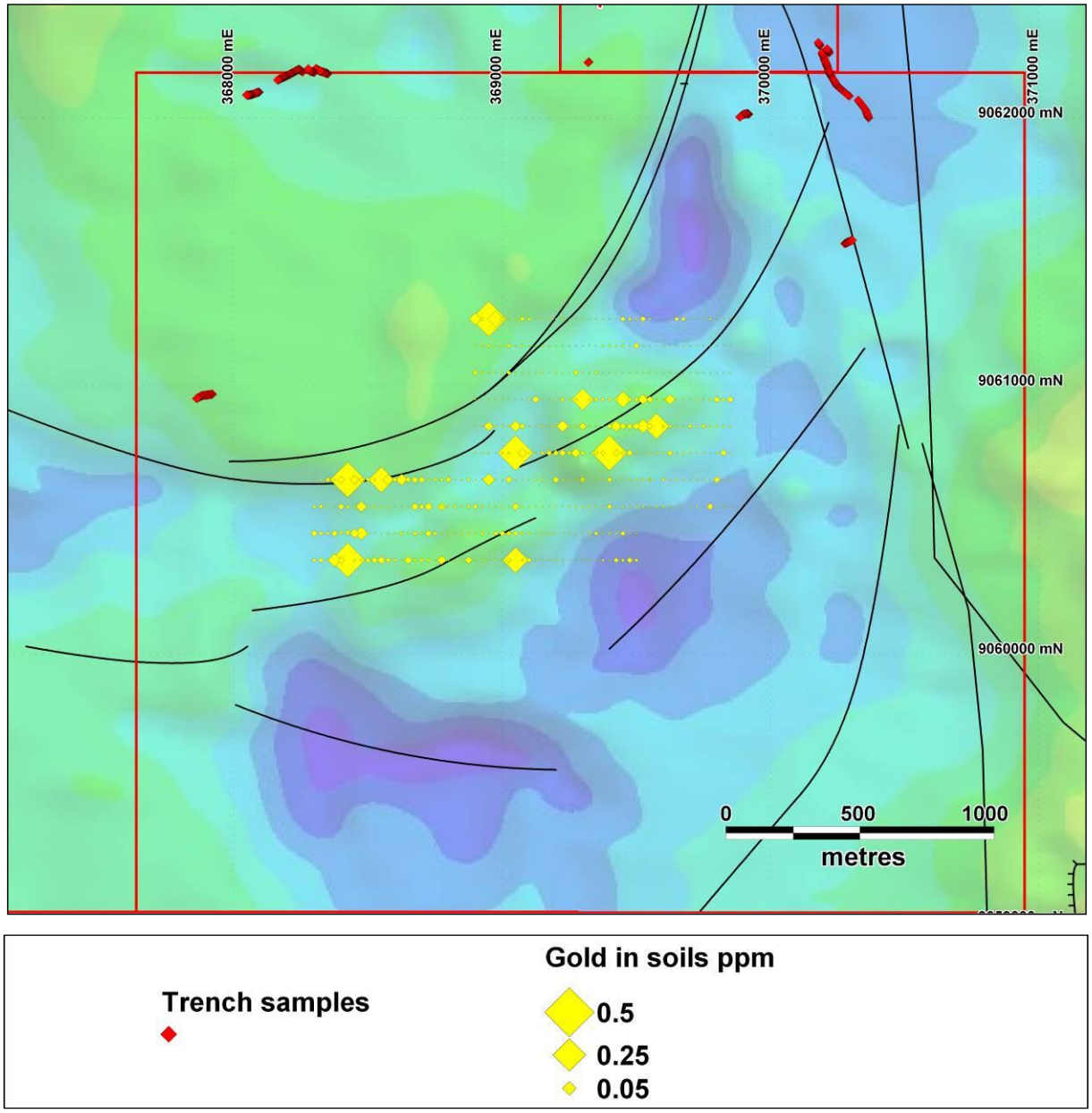


Figure 10. Distribution of rock chip and float sampling showing Cu results >500 ppm. (Data from Budiman et al., 2013).

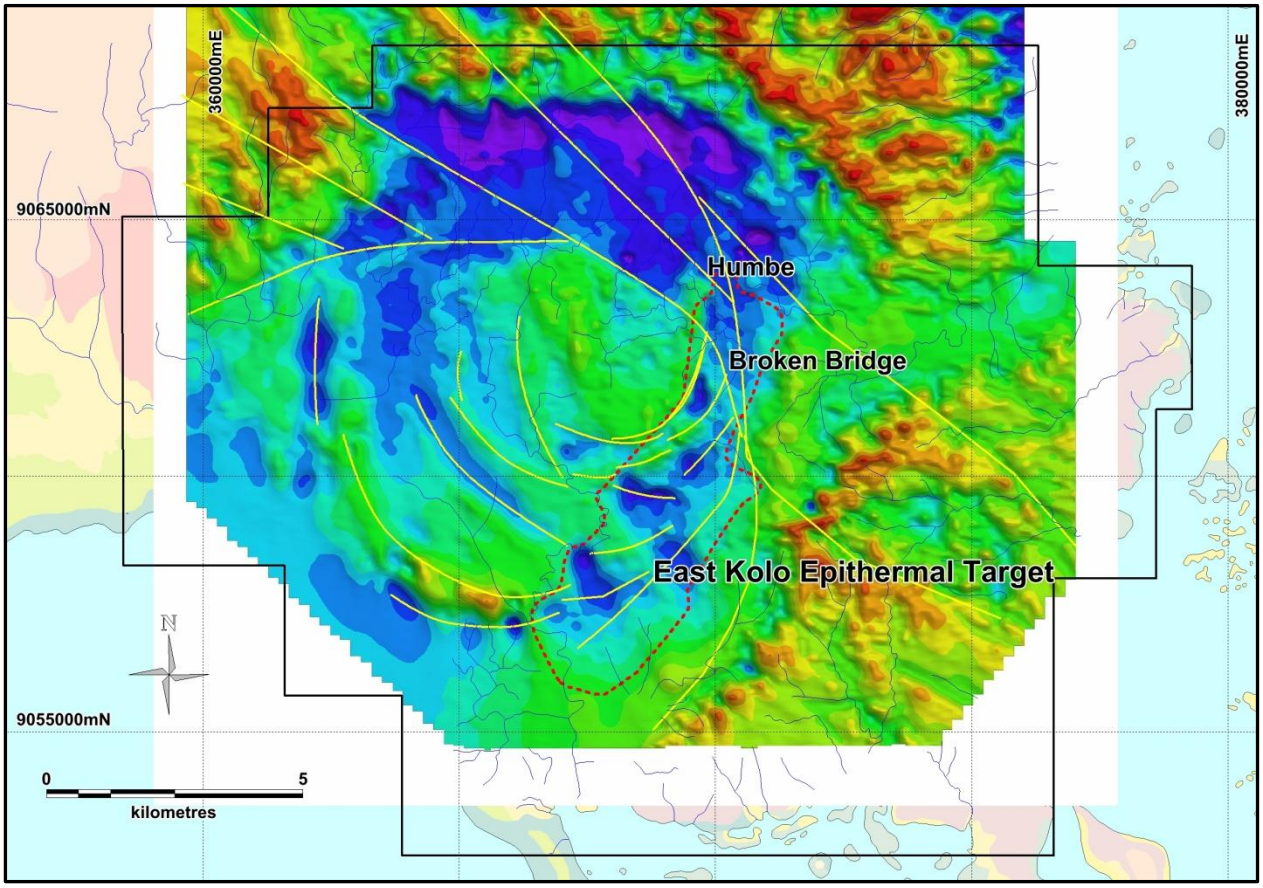
A total of 5,480 soil samples have been collected, primarily using an auger, over a number of variably sized grids extending from north of Humbe to the southern part of the EKET (**Figure 7**). The sampling generated a number of anomalous targets for PPSI and AGA and, in conjunction with IP surveying, provided a number of drill targets in the Humbe area. However a number of areas of gold anomalies remain to be followed up by trenching or drill testing. For example **Figure 11** shows gold anomalism (>0.25 g/t Au), associated with ring structures, developed over a strike extent of at least 1 km in the southern part of the Broken Bridge prospect.



Datum: WGS84. UTM Zone 57S

Figure 11. Soil sampling grid at Broken Bridge showing anomalous Au results. Reduced to pole aeromagnetic image. (From McLean, 2010).

An airborne magnetic and radiometric survey was commissioned by PPSI in early 2008. The survey was undertaken on north-south lines spaced at 200 metres. A reduced to the pole magnetic image is presented in **Figure 12**. The data was used to for structural interpretation, alteration mapping – particularly defining areas of magnetite destruction – and for identifying non-outcropping intrusive plugs.



Datum: WGS84. UTM Zone 57S

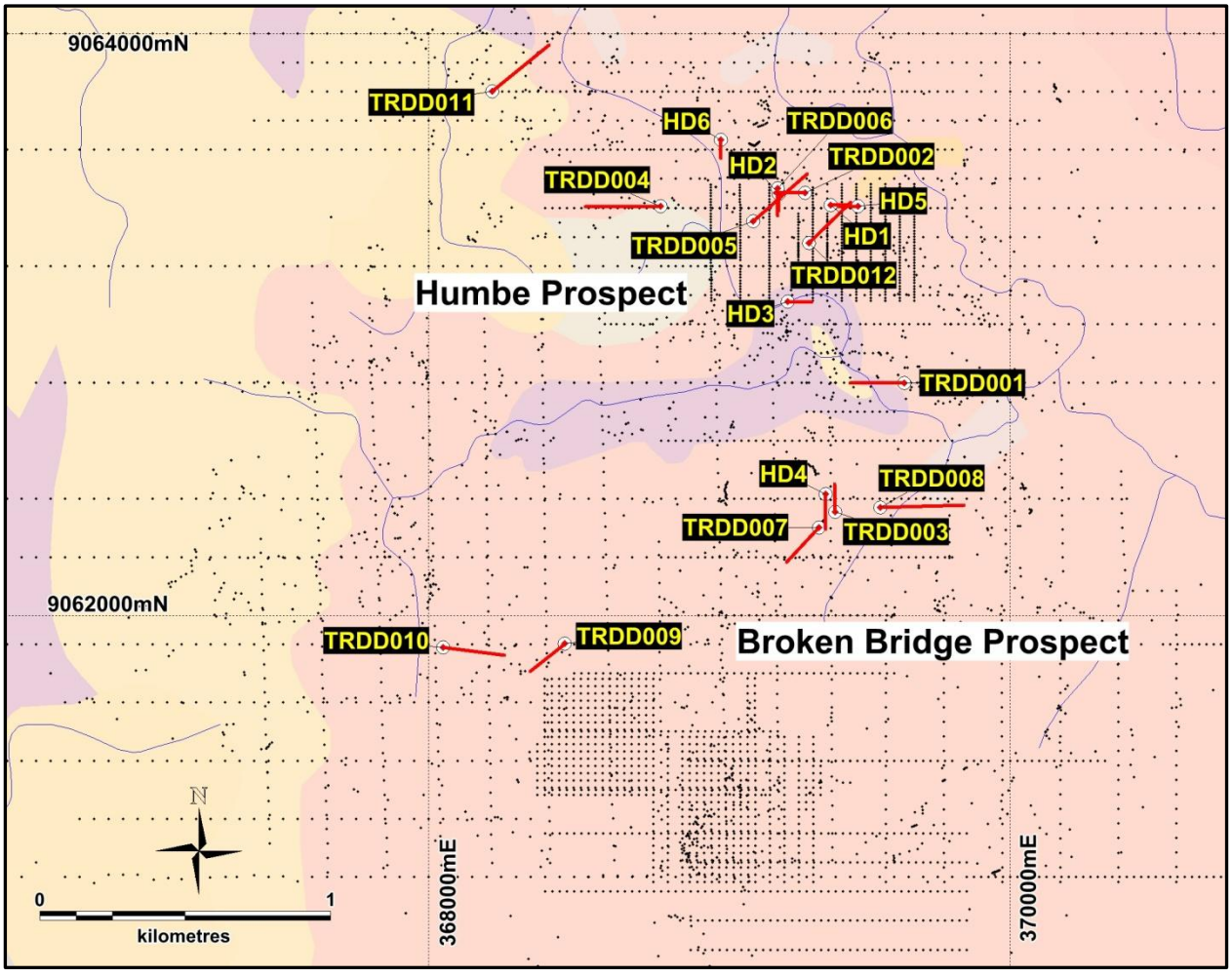
Figure 12. Reduced to the pole (RTP) image of aeromagnetic data showing interpreted ring structures. East Kolo Epithermal Target area outlined by red hashed boundary. (Data from Budiman et al., 2013 and McLean, 2010).

10 DRILLING

Sanatana has not undertaken any drilling within the Tirua Project area.

Eighteen (18) diamond drill holes were completed by previous explorers – six (6) by Newmont and twelve (12) by AGA. All of the holes were drilled in the Humbe and northern part of the Broken Bridge areas (**Figure 13**). The Newmont holes were drilled to test coincident copper and gold soil anomalies and returned best results of **62 m at 0.45% Cu** and **3 m at 2.52 g/t Au** in holes HD-2 and HD-5 respectively (Morrow, 1984b, 1984c). The relationship between the lengths of the quoted drill intersections and the true widths of the mineralisation is not known.

The holes drilled by AGA tested a combination of features; chargeability highs from the IP data; K highs in the radiometric data; gold and copper soil anomalies; circular magnetic highs; copper anomalism in Newmont hole HD-2. The drill hole collar details are presented in **Table 2**.



Datum: WGS84. UTM Zone 57S

Figure 13. Locations of historical drill holes (TRDD and HD prefixes) in the Humbe and Broken Bridge areas. Soil sampling sites shown as black dots. (Created from data in Budiman et al., 2013).

Hole No.	Easting WGS83 57S	Northing WGS84 57S	Azm UTM	Dip	Depth m
TRDD001	369635	9062800	270	-60	400
TRDD002	369293	9063453	270.4	-60	199.8
TRDD003	369398	9062356	360	-55	400
TRDD004	368797	9063406	270	-55	441.1
TRDD005	369128	9063367	045	-60	451
TRDD006	369193	9063477	180	-60	200
TRDD007	369336	9062297	225	-60	398.1
TRDD008	369552	9062372	090	-55	495.5
TRDD009	368461	9061907	225	-55	410.1
TRDD010	368055	9061879	090	-60	400
TRDD011	368219	9063802	045.4	-55	400
TRDD012	369308	9063281	045.4	-60	401

Table 2. Drill hole collar details for AGA diamond drill holes (from Budiman et al., 2013).

The following summary of the drilling results is taken from Budiman et al., 2013. Note that AGA sampled and analysed all drill core at 1 m intervals. The true widths of mineralised intervals are not known as the orientation of the mineralisation is not fully understood.

Hole TRDD001 tested a 190 m wide circular aeromagnetic feature adjacent to the eastern margin of the intrusive complex. The hole intersected a thick sequence of pebbly-granular volcaniclastic sandstone and matrix-supported polymictic breccia, overlain by microdiorite, medium to coarse grained equigranular diorite and basaltic lavas.

In the upper 150 m, magnetite, pyrite and rare chalcopyrite and bornite occurred on chloritic fractures. There was one interval of weak pervasive quartz-biotite from 84 to 90 m. In the lower 250 m, pyrite and rare chalcopyrite were associated with patchy zones of epidote + chlorite.

In the view of Budiman et al (2013) the magnetite-filled fractures and stringers in the uppermost 150 m of the hole were not sufficient enough to completely explain the large circular aeromagnetic feature.

The best results from the hole were **5 m at 0.22g/t Au from 1 m, 2 m at 2.6 g/t Au from 149 m and 10 m at 0.14% Cu from 192 m.**

Hole TRDD002 was designed to test the depth extent of an anomalous copper intersection in Newmont's hole HD-2 (62 m at 0.45% Cu) as well as a copper-gold soil anomaly and a magnetic low.

The hole intersected brecciated and altered basalt intruded by dykes of diorite and monzonite. The alteration consists of early potassic and pervasive weak to strong biotite-magnetite-K feldspar-chlorite alteration overprinted by chlorite-clay-garnet(?)-epidote-pyrite alteration. Traces of sulphides (pyrite, minor chalcopyrite and bornite) are present throughout the hole as disseminations and vein and fracture infills.

Low to moderate levels of copper and gold anomalism were reported throughout the hole with the best results being **1 m at 0.15 g/t Au and 0.15% Cu from 58 m** and **10 m at 0.11% Cu from 190 m**.

Hole TRDD003 was designed to test a copper and molybdenum soil anomaly nassociated with a magnetic low. The hole intersected a thick sequence of basaltic andesite intruded by diorite dykes and underlain by a strongly clay-altered (phyllic) rock interpreted as a lithic tuff. Pyrite is present throughout the hole with patches of arsenopyrite-magnetite-chalcopyrite.

The best results from the holes were **6 m at 0.52 g/t Au from 23 m and 19 m at 1.12 g/t Au from 114 m** interpreted to be associated with an epithermal mineralising event. Elevated copper values as present in the hole with the best interval being **5 m at 0.24% Cu from 108 m.**

Hole TRDD004 tested a copper and molybdenum soil anomaly associated with a chargeability high generated from the IP survey. The hole intersected a sequence of diorite, gabbro, monzonite and andesitic to basaltic volcanic rocks. Pervasive argillic alteration is noted in the upper part of the hole and prolytic alteration lower in the hole. Patches of silica alteration are present. Pyrite is present throughout the hole.

Moderately anomalous copper values are present in the hole but no significant mineralised intersections are present. The best results reported were **2 m at 0.12% Cu from 208 m.**

Hole TRDD005 was drilled to follow up the copper mineralisation intersected in Newmont's hole HD-2 as it was not encountered in hole TRDD002. The hole intersected basalt and andesite intruded by diorite-monzodiorite-gabbro. Calcite veinlets with pyrite-chalcopyrite-covelliet-bornite are present with associated biotite-magnetite-albite-chlorite alteration.

A number of wide, copper anomalous intervals were reported; **27 m at 0.15% Cu from 125 m, 70 m at 0.14% Cu from 161 m and 30 m at 0.23% Cu from 347 m.** Anomalous gold results are also reported; **19 m at 0.28 g/t Au from 356 m.**

Hole TRDD006 was also designed to follow up the copper mineralisation intersected in HD-2. The hole encountered basalt and microdiorite with patches of biotite and epidote alteration. Chrysocolla-filled veins and fractures are present at several intervals in the upper part of the hole.

The following copper anomalous intervals were reported; **79 m at 0.36% Cu from 7 m, 28 m at 0.42% Cu from 91 m and 35 m at 0.18% Cu from 135 m.** The best gold intersection was **10 m at 0.2 g/t Au from 75 m.**

Hole TRDD007 was designed to follow up the zone of strong phyllic alteration and associated gold anomalism (19 m at 1.12 g/t Au) intersected in hole TRDD003. The hole encountered mainly andesite and basalt with some weak to moderate phyllic, propylitic and potassic alteration. Chalcopyrite occurs in fractures and veins in the propylitic and potassic alteration zones.

The best mineralised intervals are as follows; **5 m at 0.42 g/t Au from 31 m, 9 m at 0.11% Cu from 5 m and 7 m at 0.16% Cu from 347 m.** Patches of anomalous copper and gold occur throughout the hole.

Hole TRDD008 was designed to test a chargeability high from the IP survey data and a coincident magnetic feature. The hole intersected a sequence of basalt, andesite and crystal tuff

intruded by various phases of diorite. Propylitic alteration is present with disseminations of chalcopyrite.

The best copper and gold intervals are as follows; **17 m at 0.23 g/t Au and 0.29% Cu from 258 m, 46 m at 0.14 g/t Au and 0.24 % Cu from 301 m and 24 m at 0.2 g/t Au and 0.22% Cu from 441 m.**

Hole TRDD009 tested anomalous copper and gold soil anomalism and a chargeability high from the IP survey data. The hole intersected basalt and andesite extensively intruded by diorite. Alteration is pervasive and consists of chlorite-pyrite, chlorite-clay-mica and silica-sericite. Minor chalcopyrite-covellite-bornite-magnetite is present. No significant mineralised intervals are present.

Hole TRDD010 tested a copper-gold-tin-tellurium soil anomaly coincident with a chargeability high, a magnetic high and a K radiometric anomaly. The hole intersected chlorite and epidote altered diorite and basalt with sparse fractured-filled sulphides. A number of narrow (1 m) copper and gold anomalous intervals were reported**; 1 m at 0.38 g/t Au from 17 m, 1 m at 0.54 g/t Au from 82 m, 1 m at 0.17% Cu from 393 m and 1 m at 1.63 g/t au from 399 m**.

Hole TRDD011 tested a zone of copper-gold-molybdenum-tin-tellurium soil anomalism coincident with a chargeability high from IP data and a magnetic feature. The hole intersected diorite, diorite porphyry, monzonite and tuff with biotite-K feldspar-magnetite, chlorite-epidote-tremolite and chlorite alteration. Pyrite, chalcopyrite, bornite and covellite are present in veinlets.

Low grade but anomalous copper and gold results are present over an interval of 200 m within which the best results are **15 m at 0.14% Cu from 106 m, 11 m at 0.14% Cu from 160 m and 29 m at 0.15% Cu from 235 m.**

Hole TRDD012 was designed to follow up the copper mineralisation intersected in holes HD-2 and TRDD005. The hole intersected basalt, basaltic andesite, hornblende diorite and intrusive breccia with weak epidote-chlorite-pyrite alteration. Two narrow intervals with moderately anomalous copper were reported; **5 m at 0.11% Cu from 7 m and 6 m at 0.11% Cu from 117 m.**

11 SAMPLE PREPARATION, ANALYSIS AND SECURITY

The sampling methodologies and approaches discussed below relate to previous exploration programs and are sourced from the relevant historical reports. Sanatana has not undertaken any sampling programs on the Tirua property

Newmont collected thirty-two (32) minus 80 mesh and pan concentrate samples from streams within the current PL area as part of a regional reconnaissance survey. This work was followed up by a grid based auger soil sampling program involving 118 samples collected from the Humbe River prospect. The samples were collected from a depth of between 1 metre and 5 metres. Newmont also collected thirteen (13) outcrop and float rock chip samples from the Humbe River area.

During 1987 to 1990, BHP and its joint venture partners collected fifty (50) pan concentrate stream sediment samples from the Suma Creek prospect area. In addition 684 auger soil samples were collected on a grid pattern over an area of 6 km^2 in the Humbe River and Suma Creek prospects. The samples were collected from the C-horizon at depths between 1 metre and 5 metres. Seventy-eight (78) outcrop and float rock chip samples were also collected from the Humbe River and Suma Creek prospect areas.

PPSI and AGA adopted the following sampling methodologies. For stream sediment sampling a minus 80 mesh and minus 200 mesh sample were collected from active sediment at each sample site. The quality of some samples may have been compromised by logging activities that have resulted in the silting up of streams. The results from historical sampling that pre-dates intense logging are likely to be less compromised.

Soil samples were collected using a hand auger to a maximum depth of 5 m from the C-horizon where possible. In most cases the sample depths were around 1 m. The bulk of the soil sampling was undertaken on variably-sized grids as shown in **Figure 7**. The soil regolith was logged to assist with geochemical interpretation.

Trenches were excavated using manual labour. They were usually completed to depths of between 1 m and 1.5 m. Channel samples were collected, usually over 1 metre intervals where

alteration and veining was noted and over 2 m elsewhere. They were also geologically logged and backfilled on completion of sampling and logging.

The sampling and analytical protocols discussed below relate to previous exploration programs and are sourced from the relevant historical reports. Sanatana has not undertaken any sampling programs on the Tirua property and as a consequence does not have any relationship with a commercial laboratory.

All samples from the previous exploration programmes by Newmont, BHP and its joint venture partners were dispatched to a commercial mineral laboratory in Honiara for sample preparation with some of the samples being sent to a commercial laboratory in Brisbane. The commercial laboratory is noted as Analabs in historical data for both companies. This laboratory company no longer exists.

All samples were analysed for gold with the majority of samples also being analysed for copper, lead, zinc, silver and arsenic. Both laboratories had their own internal check procedures for analyses.

There are no comments in the previous exploration reports regarding any sample security concerns.

Up to the end of 2010 PPSI prepared all its samples in its own sample preparation laboratory in Honiara. This process involved oven drying samples, crushing and pulverizing the samples prior to dispatch to Brisbane, Australia for analysis by ALS Global. Samples were pulverised to a nominal minus 75 microns.

Coarse rejects of the samples were stored at the Honiara laboratory until the receipt of the results then they are discarded. Duplicates of the pulps that were dispatched to ALS Global were retained at the Honiara laboratory. ALS Global's Brisbane laboratory has been accredited by the National Association of Testing Authorities, Australia (NATA) to operate in accordance with ISO/IEC 17025.

PPSI's sampling protocols dictated the use of standard, blank and duplicate samples as follows:

- In the field a coarse blank sample is inserted as the first sample in each batch and then at a minimum of one every fifty (50) samples.

- Certified reference samples are inserted into batches at a minimum of one every thirty-three (33) samples. The reference samples to be used are selected on the basis of the style of mineralisation and the expected metal values.

- Field duplicates are inserted into batches at a minimum of one every thirty-three (33) samples with the emphasis on collecting duplicates from material that is potentially mineralised.

- Laboratory duplicates are inserted at a minimum of one every fifty (50) samples for rock, soil and stream samples and every thirty-three (33) samples for drill core and trench samples, where possible within mineralised runs.

The QP understands that PPSI sold the Honiara sample preparation facility to Genalysis Intertek but that PPSI and AGA continued to use the facility to prepare its samples.

A strict Chain of Custody (COC) procedure applied to record PPSI's sample movements between site and the laboratory, including sample preparation. The preferred mode of transport for samples was via PPSI's transport vessel, MV Tara, where a PPSI employee had responsibility for the safe and secure transport of the samples. If samples are removed from the field by any other means they were accompanied by a company employee. Sample Security – Change of Custody forms were used to monitor the transport of samples.

11.1 Comments

The QP was responsible for preparing a Technical Report Form 43-101 F1 for XDM Resources Inc., the parent company of PPSI, in December 2010 (McLean, 2010). Up to that date the QP was familiar with the sampling methods, procedures and protocols used by PPSI and considered that they were accepted industry practise and would produce samples of appropriate quality for analyses. The QP stated that the sample preparation procedures followed by PPSI in its Honiara preparation facility were the standard procedures of certified commercial laboratories and were deemed acceptable. The Chain of Custody procedure followed by PPSI provided acceptable security from the collection of samples in the field to their receipt in the Honiara sample preparation facility.

12 DATA VERIFICATION

For verification purposes the QP collected ten (10) samples from a number of locations on the property that had previously reported anomalous gold results from PPSI's and AGA's work. Eight of these samples were rock samples collected from outcrops or float material (T1 to T8) and two were channel samples from trench TRTC05 (T9 and T10). The locations of the verification samples are shown in **Figure 14** and the results are presented in **Table 3**.

The QP was responsible for collecting, bagging and annotating the samples on site and carrying them as hand luggage on flights to Honiara and Brisbane, Australia. The QP hand delivered the samples to ALS Global's Brisbane laboratory where they were dried, crushed and pulverised and analysed for gold using fire assay with an atomic absorption finish (method AU-AA25) and 33 other elements using ICP-AES (method ME-ICP61). The laboratory was the same one used by PPSI and AGA for analyses. ALS Global's Brisbane laboratory has been accredited by the National Association of Testing Authorities, Australia (NATA) to operate in accordance with ISO/IEC 17025.

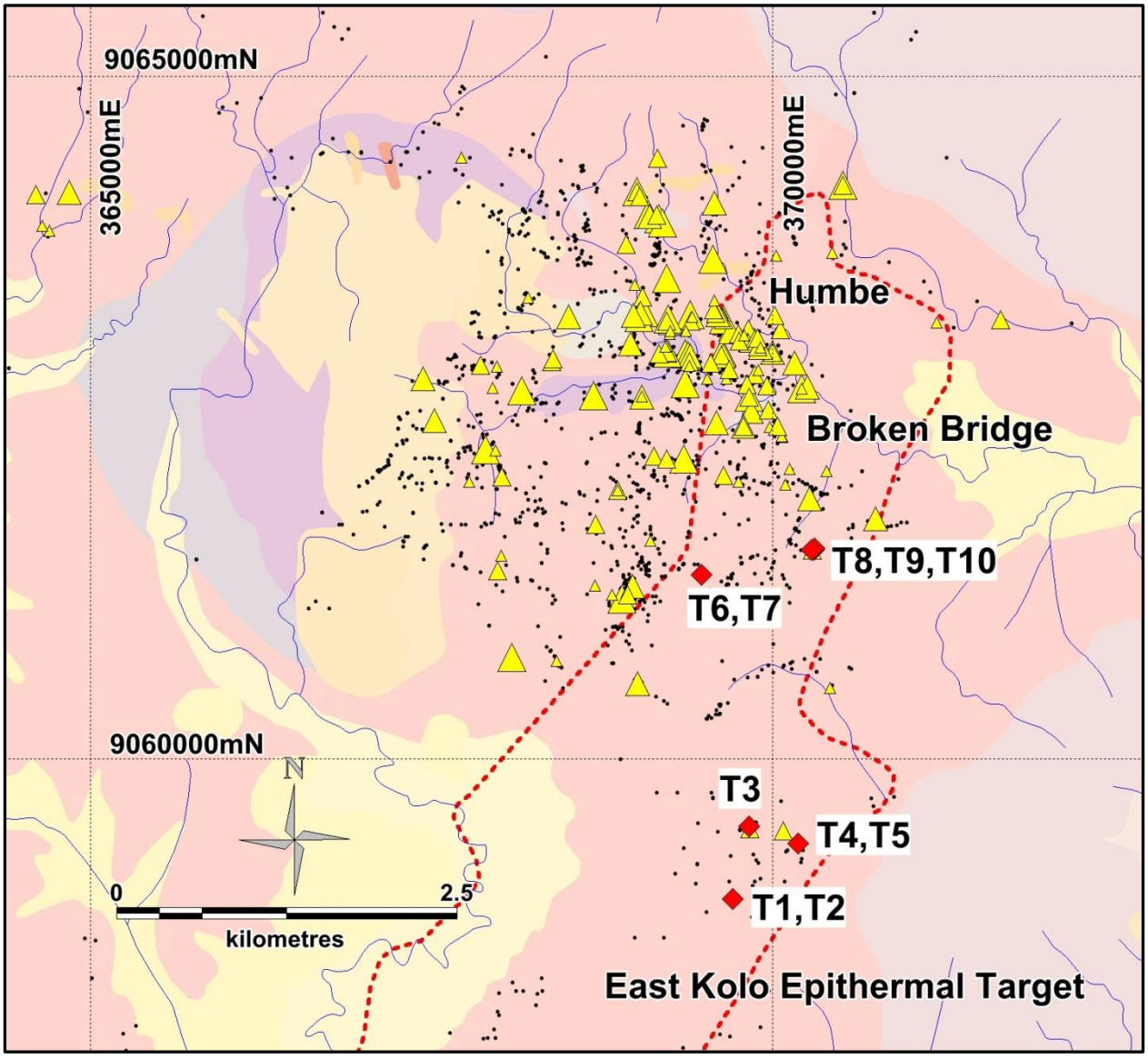
The QP did not insert any standard reference material with the batch of ten (10) samples. ALS Global undertook its own Quality Control and provided the QP with a certificate of results. The QP regards the processes of sample collection, preparation, security and analytical procedures as being appropriate.

		ALS lab code	Au-AA25	ME-ICP61	ME-ICP61	ME-ICP61
SAMPLE	Easting	Northing	Au	Ag	As	Cu
	WGS84 57S	WGS84 57S	ppm	ppm	ppm	ppm
T1	369706	9058973	0.19	<0.5	20	107
T2	369706	9058973	0.03	<0.5	14	14
T3	369827	9059504	0.21	<0.5	95	25
T4	370185	9059381	0.02	1.7	30	102
T5	370185	9059381	0.01	<0.5	423	110
T6	369477	9061352	0.15	28	114	737
T7	369477	9061352	0.02	6.5	27	550
T8	370300	9061530	1.28	1	42	5
T9	370304	9061542	7.88	<0.5	588	392
T10	370283	9061532	0.17	<0.5	89	162

Table 3. Verification sampling results

Six of the ten samples reported anomalous gold results (>0.1 ppm Au). The QP regards this as an acceptable outcome given the inherent difficulty in replicating results from areas of previous rock sampling. In the case of trench sample T9 (a 2 m channel sample) the gold value of 7.88 ppm was substantially higher than that from the original sample collected by PPSI; 2.51 ppm. Sample T8 recorded a value of 1.28 ppm Au from an outcrop that originally yielded a value of 3.32 ppm Au.

The QP visited the site of AGA's diamond drill hole TRDD010 and verified its collar location. No other holes were visited. The QP did not inspect any of the core from AGA's drill holes. The drill core was not stored on site and the QP was advised that the core had been shipped to the Ministry of Mines, Energy and Rural Electrification in Honiara for storage as required by law.



Datum: WGS84. UTM Zone 57S

Figure 14. Locations of verification samples in relation to rock samples with >1 g/t Au.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

No mineral processing and metallurgical testing has been undertaken within the Tirua Project area.

14 MINERAL RESOURCE ESTIMATES

No estimates of mineral resources have been undertaken within the Tirua Project area.

15 ADJACENT PROPERTIES

There are no adjacent properties that have a bearing on the Tirua Project.

16 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data and information pertaining to the Tirua Project.

17 INTERPRETATION AND CONCLUSIONS

The work undertaken by previous explorers in the area of the Tirua Project has identified hydrothermal alteration, mineralogy and geochemical anomalism with strong affinities to epithermal gold and porphyry copper-gold mineralisation.

Most of the previous work, mainly by PPSI and its joint venture partner AGA, has been focussed within the Humbe and Broken Bridge prospects on the eastern flank of the Mt Tirua intrusive complex following up encouraging indications of alteration and mineralisation. This work culminated in a program of twelve (12) diamond drill holes, concentrated within a relatively small area (3 to 4 km^2), that tested a combination of anomalous copper-gold soil geochemistry, IP chargeability highs, magnetic highs and lows, structural settings and copper intersections in existing drill holes (in particular Newmont's drill hole HD-2). The drilling indicated the presence of several intrusions – diorite, monzodiorite, monzonite and gabbro – with associated,

moderately developed porphyry-style copper mineralisation and accompanying potassic and propylitic alteration with an overprinted and peripheral epithermal gold mineralising event. Although the drilling undertaken to date has not provided economic intersections of copper or gold it has clearly demonstrated the potential for economic mineralisation within the property as a whole.

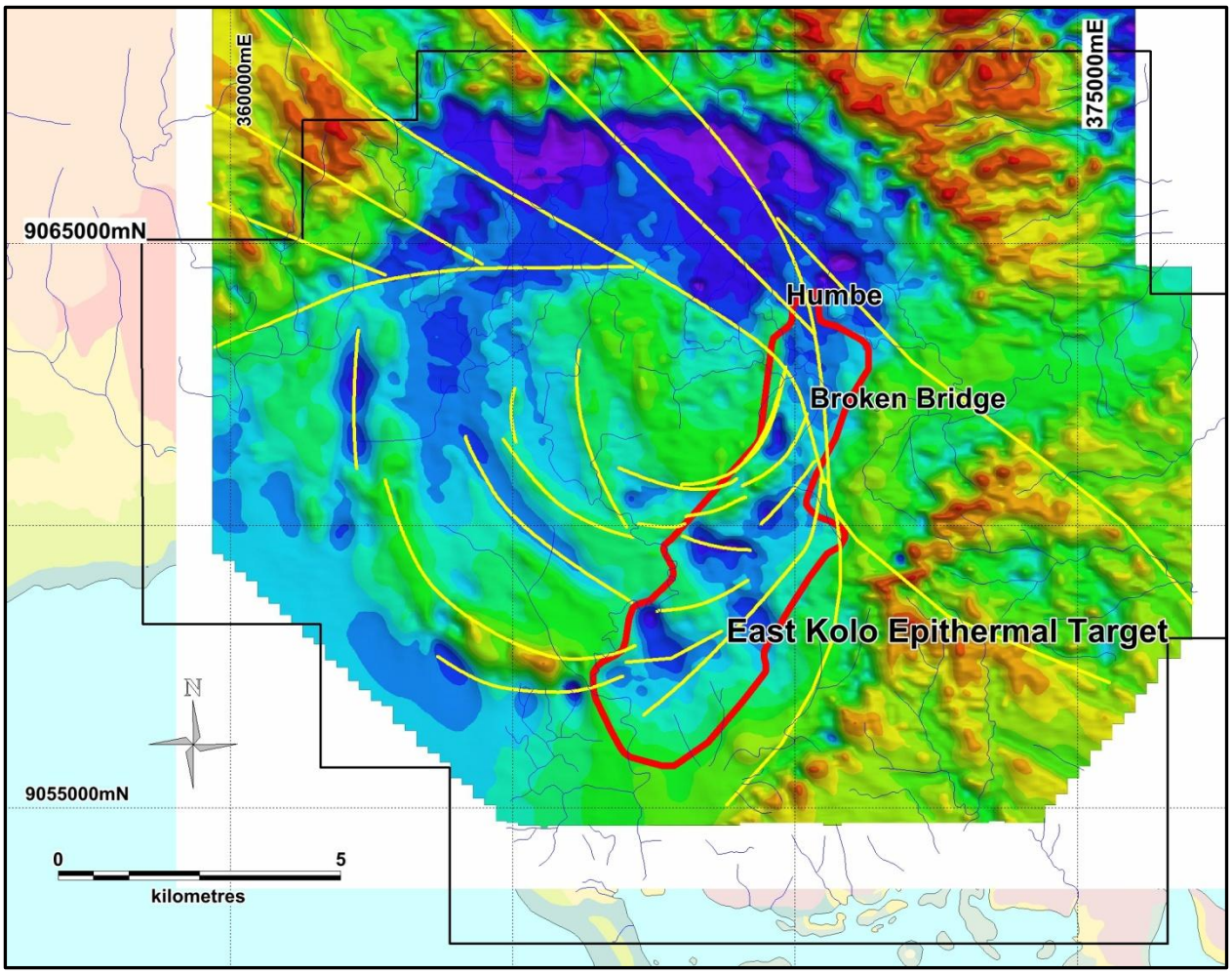
With much of the previous exploration being focussed on the potential for porphyry-style mineralisation associated with the intrusive centres around Mt Tirue the peripheral epithermal gold potential remains to be fully evaluated. The evidence for epithermal gold mineralisation is well demonstrated from the observation and sampling of quartz veins and outcrops with classical epithermal textures such as crustiform veins, colloform quartz, comb textures, bladed replacement textures and silica flooding. This is supported by the observation of phyllic, silica and pyrite alteration in outcrops and float material. Gold values of greater than 1g/t have been reported from 164 individual rock samples collected from outcrops and float material (**Figure 9**).

Sanatana has identified a broad target zone for epithermal gold mineralisation based on the distribution of the field evidence for epithermal mineralisation and alteration, the presence of anomalous soil geochemistry, the interpretation of prominent ring structures from the aeromagnetic data, the presence of magnetic lows that may represent magnetite destruction associated with hydrothermal processes and reversely polarised circular magnetic features that may represent buried intrusive centres. The zone, termed the East Kolo Epithermal Target (EKET), is approximately 9 km long, 1.5 km wide and occupies a position on the eastern side of the Kolo caldera (**Figure 15**).

Figure 16 presents a conceptual model for the Kolo Caldera showing the relationship between the porphyry copper-gold hydrothermal system, which is genetically and spatially associated with the Tirua intrusions, and a peripheral hydrothermal to geothermal system hosting intermediate to low sulphidation gold mineralisation. This would represent the position of the East Kolo Epithermal Target. High sulphidation epithermal gold mineralisation may be restricted due to the unroofing and erosion of the original Kolo volcano.

This model also provides support for other epithermal target areas peripheral to the central intrusive complex, in particular the western and south-western sides where ring structures are interpreted to be present and where limited reconnaissance mapping and rock sampling by the

previous explorers has returned two highly anomalous float samples – 9.77 g/t and 4.18 g/t Au – 5 km west of the Humbe prospect (**Figures 9 and 15**).



Datum: WGS84. UTM Zone 57S

Figure 15. Reduced to the pole (RTP) image of aeromagnetic data showing the East Kolo Epithermal Target (red outline) in relation to interpreted ring structures and magnetic lows.

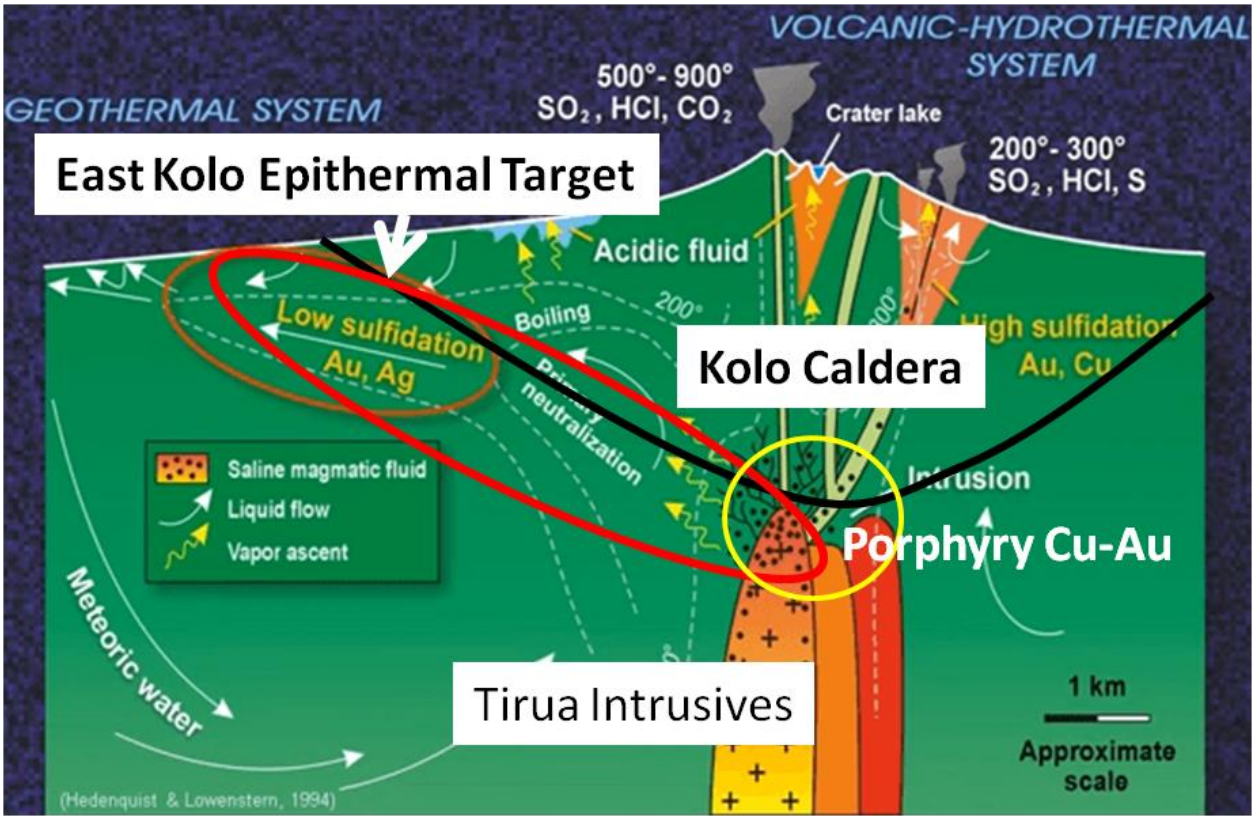


Figure 16. Conceptual model of Kolo Caldera showing the interpreted relationship between the porphyry Cu-Au hydrothermal system and the peripheral low sulphidation to intermediate sulphidation epithermal gold geothermal system. (Modified after figure sourced from www.911metallurgist.com web site).

In conclusion the East Kolo Epithermal Target represents an opportunity for Sanatana to discover potentially economic epithermal gold minerlisation through a systematic, phased program of exploration discussed in the **RECOMMENDATIONS** section below. Beyond that area the potential exists to outline further targets in the underexplored areas of the property particularly to the west and south-west of the central Tirua intrusive stocks.

18 RECOMMENDATIONS

The area defined as the East Kolo Epithermal Target will be the primary focus of exploration by Sanatana. It is regarded by the QP as being the most advanced and well defined of the potential epithermal target areas that exist within the property. As mentioned in the section above other

epithermal target areas potentially exit to the west and south-west of the Tirua intrusive stocks as well as other under-explored parts of the Kolo Caldera.

A two-phase exploration program is proposed to test the EKET.

Phase 1 Program

As outcrop is poorly developed in the property, weathering is locally intense, regrowth vegetation is thick and post-mineralisation cover is locally present, the field component of Phase 1 will entail a combination of geological fact mapping and rock sampling of alteration across the EKET along recently developed logging tracks and streams that have not been previously mapped, and the infill and extension of existing soil sample grids over key parts of the EKET. Initial reconnaissance surveys are also proposed into under-explored areas of the property utilising the existing tracks developed by the now-completed logging activities. The exact locations of the proposed activities will be determined by Sanatana personnel from close analyses of the existing exploration database.

Other activities may include the recovery and re-logging and sampling of the drill core from previous exploration programs to gain firsthand insight into the alteration and mineralisation that was intersected. Digital data from previous geophysical surveys could also be sought out and re-processed in an attempt to better highlight anomalies in the EKET.

The Phase 1 exploration program will allow Sanatana's exploration staff to become familiar with the geology, mineralisation, geography and logistics of the Property before commencing the Phase 2 Program.

Phase 2 Program

The Phase 2 work program is not contingent on positive results from the Phase 1 program. As described in Items 9, 10 and 17 previous explorers have defined a number of exploration targets that warrant further exploration irrespective of the results from the Phase 1 work.

Phase 2 would consist of machine-assisted excavation of trenches across the EKET at regular intervals to provide exposures of bedrock that can be mapped for alteration and systematically channel sampled and scanned with a handheld spectrometer. This work would provide, at a minimum, alteration and geochemical vectors which could be followed up with drill testing of the

targets and anomalies generated from Phase 1. The targets are envisaged as a combination of the enhanced geochemical anomalies generated from the Phase 1 soil sampling, alteration vectors from the trench sampling, magnetic features related to alteration, structure and inferred intrusive stocks and areas of epithermal quartz float and outcrop. A total of 3000 m of drilling is proposed for the initial target definition as described above and a further 3000 m is allocated for more specific follow up of the results of the initial drilling. Non-technical work would involve camp construction and additional access tracks and drill pads.

Budget Item	**C$**
Personnel	60,000
Consultants (Environmental and Geophysical data re-processing)	10,000
Exploration overheads	40,000
Travel and accommodation	20,000
Motor vehicles and canoes	20,000
Camp costs	50,000
Geology (Mapping and core re-logging)	20,000
Assaying (Soils / rock / core re-samples)	20,000
Freight	20,000
Capital expenditure (Field equipment and consumables)	20,000
Community costs	30,000
Total	**310,000**

Table 4. Proposed Phase 1 exploration budget in Canadian $.

Budget Item	**C$**
Personnel	800,000
Consultants	50,000
Exploration overheads	100,000
Travel and accommodation	90,000
Motor vehicles and canoes	60,000
Camp costs	400,000
Equipment hire	350,000

Assaying	700,000
Drilling	1,500,000
Freight	150,000
Capital expenditure	200,000
Community costs	100,000
Total	**4,500,000**

Table 5. Proposed Phase 2 exploration budget in Canadian $.

The author considers that the program of work and budget that is proposed is justified by the encouraging results from the previous exploration as well as the widespread occurrence of alteration and mineralisation that indicates the presence of a significant hydrothermal system with both epithermal gold and porphyry copper-gold characteristics. The author also believes that the allocated budget is sufficient to achieve the aims of testing the prospectively of the East Kolo Epithermal Target zone to host potentially economic epithermal gold mineralisation as a primary objective and porphyry-style copper-gold mineralisation as a secondary objective.

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DATE AND SIGNATURE PAGE

This Technical Report entitled “Sanatana Resources Inc. Technical Report on the Tirua Project, New Georgia Island, Solomon Islands” and dated 10th October 2019, was prepared and signed by the following author.

Neil McLean “signed”
FAusIMM, MSc, BSc (Hons), DIC
Chapel Hill, Queensland, Australia
Date: 10th October 2019

CERTIFICATE OF QUALIFIED PERSON

Neil McLean
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I, Neil McLean, do hereby certify that:

1. I am an independent consulting geologist.
2. I graduated from the University of Witwatersrand, South Africa, with a Bachelor of Science (Hons) in 1977.
3. I graduated from the University of London with a Master of Science (Mineral Exploration) and the Imperial College of Science and Technology, London, with a Diploma of the Imperial College (DIC) in 1979.
4. I am a Fellow in good standing with the Australasian Institute of Mining and Metallurgy (AusIMM).
5. I have worked as a geologist for a continuous period of 35 years; as a mine geologist in South Africa on the Messina copper mine; gold and base metal exploration in the Abitibi Belt of Ontario; gold exploration in the Eastern Goldfields of Western Australia; management of copper-gold exploration in New South Wales; management of copper-gold and zinc-lead-silver exploration programs in Queensland, Australia; director and principal geologist of Geo Discovery Group Pty Ltd, an Australian-based mineral exploration consulting group with personal exposure to gold, base metal, coal and uranium Projects in Australia, Argentina, Brazil, Philippines, South Korea, Indonesia, Solomon Islands and Mongolia; Exploration Manager for Cape Alumina Limited, a bauxite-focussed company; owner and director of Metalquest Pty Ltd, a mineral exploration consulting group.
6. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined by NI 43-101) and past relevant work experience, I fulfil the requirements to be a “qualified person” for the purposes of NI 43-101.
7. I am responsible for the preparation of, and this certificate relates to, the technical report titled “Sanatana Resources Inc. Technical Report on the Tirua Project, New Georgia Island, Solomon Islands” and dated 10th October 2019, the Technical Report relating to the Tirua property. I take responsibility for all the Items in the Technical Report. I visited the property on 5th and 6th November 2018.
8. I prepared a technical report for XDM Resources Inc, a previous explorer of the property, in compliance with NI 43-101 and dated 29th December 2010.
9. As of the date of this certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
10. I am independent of the issuer applying the test in section 1.5 of NI 43-101.

11. I have read National Instrument 43-101 and Form 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.

Signed and dated this 10th day of October, 2019, at Chapel Hill, Queensland, Australia

Neil McLean “signed”
FAusIMM, MSc, BSc (Hons), DIC