BROCKS CREEK PROJECT

MLN 1139

GDC Final Report

Geophysics and Drilling Collaborations (GDC) Program

Round 14

Tenure Holder:	Bacchus Resources Pty Ltd
Project Operator:	Bacchus Resources Pty Ltd
Commodity:	Gold (Au)
Mineral Province:	Pine Creek Orogen
Author:	David Ward, Harry Sarroff, Anthony Naves
Contact:	bean@bacchusresources.com
Date:	
Mapsheets:	1:250,000 Pine Creek (SD5208)
	1:100,000 Batchelor (5171)
Datum:	GDA94 Zone 52

COPYRIGHT STATEMENT

All information and data represented within this report refers directly to the work program guidelines presented by the Northern Territory Government in reference to the criteria accompanied by the Geophysics and Drilling Collaborations (GDC) Round 14 Program.

Work carried out to meet the department's requirements was solely conducted by the operator (Bacchus Resources Pty Ltd) with the exception of utilising an external contractor for drilling purposes only.

All relevant information expected by the department will be compiled, written and communicated in the appropriate format highlighted in the 'Final Report Template' in order to comply with the GDC requirements. Once the proposed drilling program has been complete, all relevant data has been compiled and laboratory assays have been delivered, a clear and concise report will be issued by Bacchus' to the department outlining the processes involved and the results obtained to assist with increasing exploration activities in under explored areas of the Northern Territory.

CONTENTS

LIST OF FIGURES

LIST OF TABLES

No index entries found.

LIST OF DIGITAL DATA FILES

File Name	Details
MLN1139_2021_C_01_reportbody.pdf	Geophysics and Drilling Collaborations (GDC) Final Report-Round 14
MLN1139_2021_C_02_DrillCollar.txt	Collar Data text file
MLN1139_2021_C_03_DrillSurveys.txt	Surveys Data text file
MLN1139_2021_C_04_DrillGeochem.txt	Geochemistry Data text file
MLN1139_2021_C_06_DrillLitho.txt	Lithology Data text file
MLN1139_2021_C_07_DrillMinerals.txt	Minerals Data text file
MLN1139_2021_C_08_DrillVeining.txt	Veining Data text file
MLN1139_2021_C_09_DrillStructure.txt	Structure Data text file
MLN1139_2021_C_10_DrillFractureFreq.txt	Fracture Frequency Data text file
MLN1139_2021_C_11_DrillGeotech.txt	Geotechnical Data text file
MLN1139_2021_C_12_DrillRockHardness.txt	Rock Hardness Data text file
MLN1139_2021_C_13_DrillDensity.txt	Density Data text file
MLN1139_2021_C_14_DrillCodes.txt	Geology Codes text file

1 ABSTRACT

Bacchus Resources (Bacchus) aimed to increase the knowledge of the Brocks Creek mineral system through deeper brownfields diamond drilling and bring forward resource development with the aid of the Geophysics and Drilling Collaborations (GDC) program funded by the Resourcing the Territory initiative.

Bacchus' Brocks Creek Project (MLN 1139) located 140 km southeast of Darwin lies within the Archaean to Palaeoproterozoic Pine Creek Orogen (PCO), one of the major mineral provinces of Australia. The PCO is host to significant mineral resources of gold, uranium and platinum group metals, as well as substantial base metals, silver, iron and tin-tantalum mineralisation with mining and exploration occurring in the region since the early 1870's.

The Brocks Creek Project has historically been the focus of open pit, underground and alluvial gold mining and has produced significant quantities of gold along the Brocks Creek Shear Zone and incorporates the main gold mineralisation of Brocks Creek, Faded Lily, Alligator and Rising Tide and the minor ore locations of Burgan, Crocodile and John Bull.

Bacchus GDC drilling program tested two target areas outside of the existing Identified Resources with five (5) deep diamond drill holes.

- Three between Faded Lily and Zapopan deposits to obtain structural and metallurgical samples from the hanging wall and footwall lodes and drilling deeper to test for an additional third lode stratigraphically below as well as testing the anticline axis position of the overturned Brocks Creek Anticline.
- Two at Alligator deposit designed to intersect both the hanging wall and footwall lodes obtaining structural and metallurgical samples for testing and to test the Burgan Lode at depth.

As a brownfield project, the targets are well defined as anticline hosted axial planar gold deposits with minor variations relative to the competency of the host rocks and orientations of the anticlines with remarkable similarities between all the significant deposits in the PCO.

There is a large volume of existing drillhole data defining the 'known' deposits along the Brocks Creek Shear Zone, with most of the shallow mineralisation mined out in the 1990's. The depressed gold prices at the time did not make it feasible for large near mine exploration programmes and as a result there are few holes drilled below or outside of the previously defined deposit outlines, and no drillholes deeper than 250 m outside of Zapopan.

The completion of drilling during 2021 sits below previous drilling in under-explored 'systems' of the deposit increasing the level of reserves and advancing the Project into resource development. Discovery of additional economic lodes within the known deposits will be fundamental to the redevelopment of Brocks Creek.

Overall the drillholes successfully intercepted the known mineralised lodes but did not intersect any unknown lodes.

The original grant proposal suggested that the diamond holes were to be used for metallurgical testing, this would have required destruction of the retained half core which was not possible under the collaborative funding agreement as the half core is to be offered to be stored in the core library.

2 INTRODUCTION

2.1.1 Location and Access

The Brocks Creek Project (MLN 1139) covers an area of 39 km^2, located approximately 140 km southeast of Darwin, Northern Territory (Figure 1). Access is via road 160 km south from Darwin along the Stuart Highway, then north-easterly along the Fountain Head road for 11 km where a graded all-weather unsealed road heads westward, connecting the bitumen Fountain Head road to the Brocks Creek processing site. A network of dry season tracks services the tenements internally.

The terrain within the project area is undulating with low ridges and flats, vegetated with tall and mixed grassy open savannah acacia and eucalypt woodland. Towards the north, the terrain is more elevated. Southwards, the gradient flattens to the Howley Creek alluvial plain. The climate is hot with periodic monsoonal rains between November and May. For the remainder of the year, it is warm to hot and largely dry.

The Project area overlies the Pine Creek (SD5208) 1:250,000 scale topographic and geology map sheet.

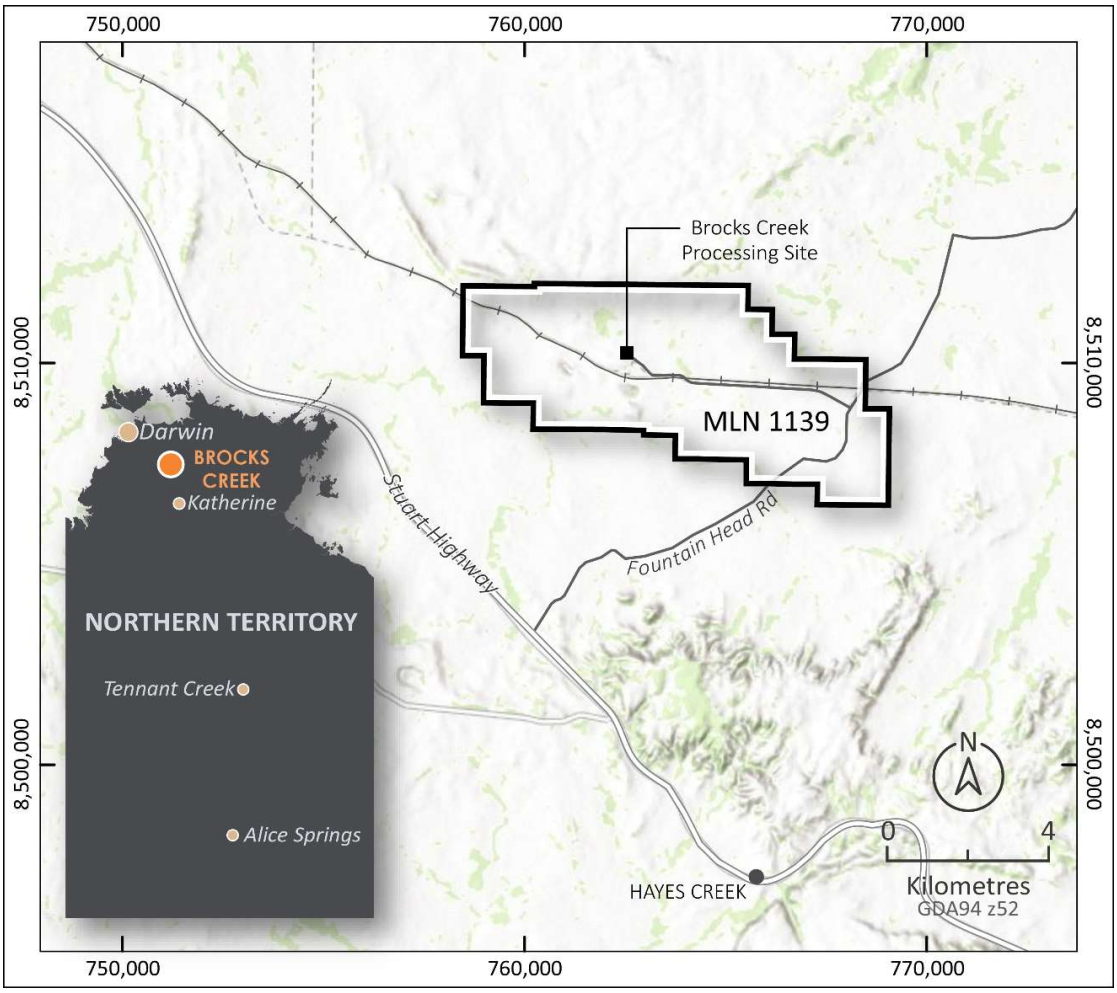


Figure 1: Location of Bacchus' Brocks Creek Project

2.2 Infrastructure

As the Brocks Creek site was historically a working facility, the infrastructure is well established and has been re-established and refurbished by Bacchus with on-site accommodation, office buildings and workshops. The site can be accessed year-round with an all-weather unsealed road connecting to the bitumen Fountain Head Road.

2.3 Landowners

The Project overlies Perpetual Pastoral Lease (PPL) 1217 (Douglas Station) and 1111 (Ban Ban Springs). A land access and compensation agreement are in place and up to date.

3 REGIONAL CONTEXT

3.1 Regional Geology

The Brocks Creek Project is situated within the Pine Creek Geosyncline, a tightly folded sequence of Lower Proterozoic rocks, 10-14 km in thickness, laid down on a rifted granitic Archaean basement between ~2.2-1.87Ga. The sequence is dominated by pelitic and psammitic (continental shelf shallow marine) sediments with locally significant inter-layered cherty tuff units. Pre-orogenic mafic sills of the Zamu Dolerite event (~1.87Ga) intruded formations of the South Alligator Group. During the Top End Orogeny (Nimbuwah Event ~1.87-1.85Ga) the sequence was tightly folded, faulted and pervasively altered with metamorphic grade averaging greenschist facies with phyllite in sheared zones (Watson, 2011).

The Cullen intrusive event introduced a suite of fractionated calc-alkaline granitic batholiths into the sequence in the period ~1.84-1.80 Ga. These high temperature I-type intrusives induced strong contact metamorphic aureoles 500 m to 2 km wide, ranging up to (garnet) amphibolite facies and created regionally extensive biotite and andalusite hornfels facies (Watson, 2011).

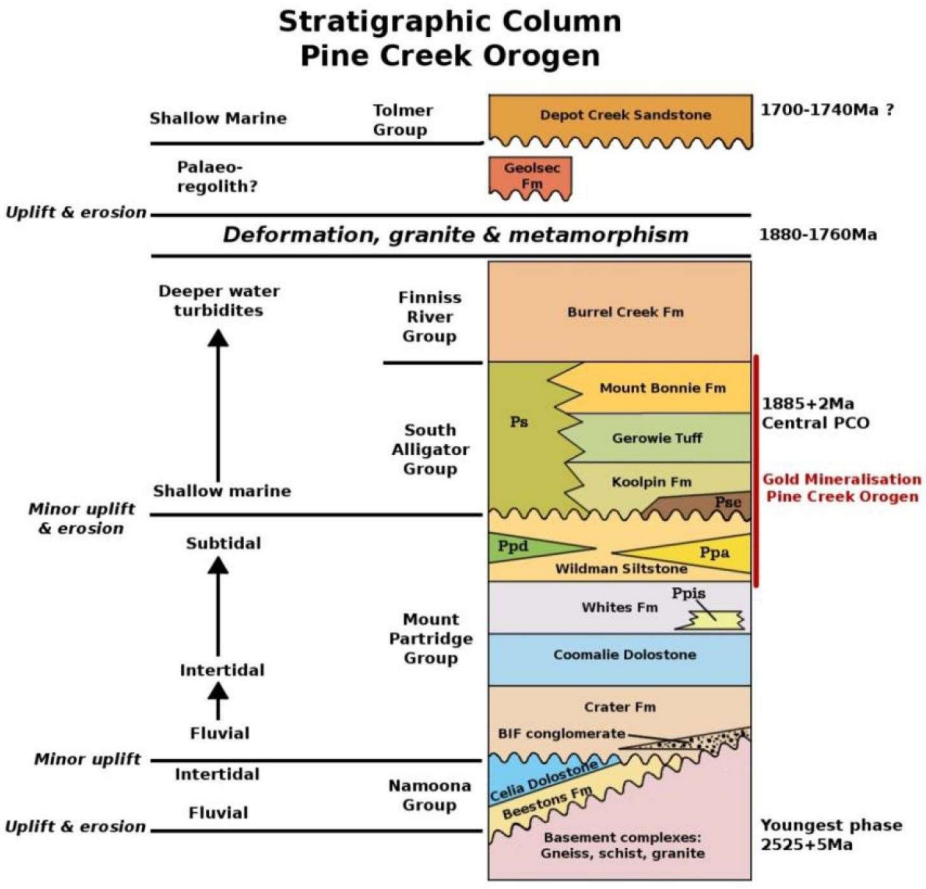


Figure 2: Stratigraphic Column, Pine Creek Orogen (Gillman, Muller, Andrews & Gerritsen, 2009)

3.2 Local Geology

Stratigraphy of the Brocks Creek Project area is dominated by Palaeoproterozoic meta-sedimentary rocks of the South Alligator Group and the overlying Finnis River Group, intruded by the Burnside Granite (Figure 3).

Rocks of the South Alligator Group comprising Koolpin Formation, Gerowie Tuff and Mt Bonnie Formation host most of the gold occurrences in the Pine Creek Orogen with the Brocks Creek – Zapopan gold mineralisation hosted by argillite and greywacke units of the upper Gerowie Tuff and lower Mount Bonnie Formation.

This rock sequence has been folded around the Brocks Creek-Zapopan (BKZ) Anticline, a tight WNW trending, shallow southeast plunging anticline which is evident over a strike length of 12 km. The axial plane of the BKZ Anticline is largely coincident but slightly asymmetrical to the Brocks Creek shear zone. The boundaries of the Formations within the South Alligator Group are gradational while the lower contact of the Group is unconformable with the Mt Partridge Group. The overlying Burrell Creek Formation is generally coarser and high energy greywacke dominant units.

Regionally, the South Alligator Group has been intruded and dilated by semi concordant pre-orogenic sills of the Zamu Dolerite.

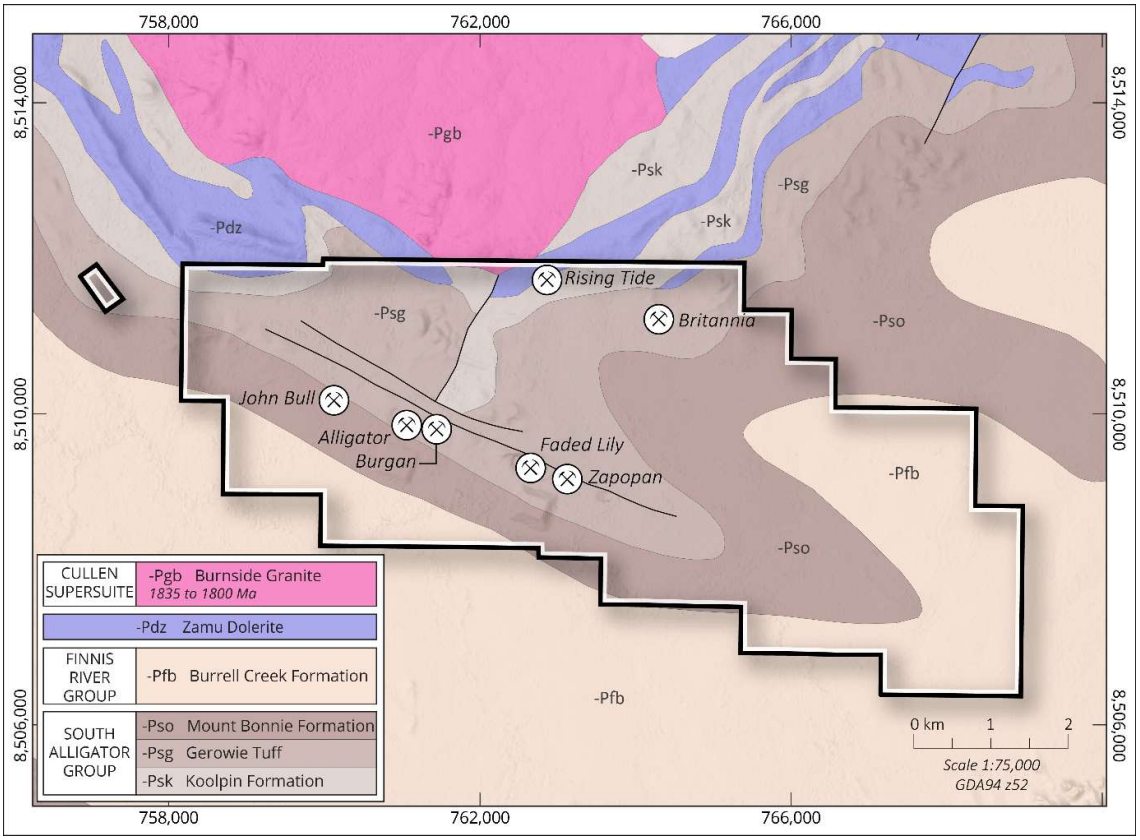


Figure 3: Brocks Creek Project – Regional geology and mines

3.3 Known Mineralisation

Gold mineralisation within the Pine Creek Orogen is preferentially developed within strata of the South Alligator Group and lower parts of the Finnis River Group along anticlines, strike-slip shear zones and duplex thrusts located in proximity to the Cullen Granite Batholith. Dated at ~1.74Ga (Sener, 2004) the gold events post-dated the Pine Creek Orogeny and Cullen intrusive events and has favoured suitable litho-structural sites in the biotite-hornfels contact facies.

The deposits within the Brocks Creek Project area includes Zapopan, Faded Lily, Homeward Bound, Alligator, Crocodile, John Bull, Rising Tide and Britannia deposits that extend discontinuously for approximately 5 km along the southern limb and hinge zone along the northwest-trending, east-dipping Brocks Creek Anticline, adjacent to the southern margin of the Burnside Granite (Figure 3). Mineralisation is present as concordant veins and stockworks, and rare stratabound replacement mineralisation, and as late vuggy veins and minor breccias (Sener, 2004).

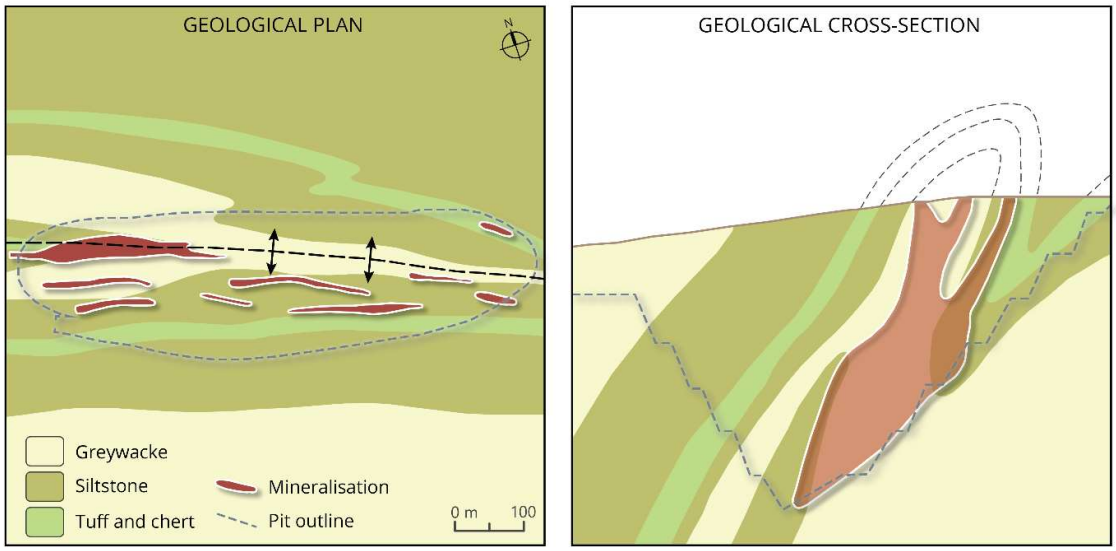


Figure 4: Schematic geological plan and cross-section of the Faded Lily pit shown as representative of the Brocks Creek Group (Sener, 2004)

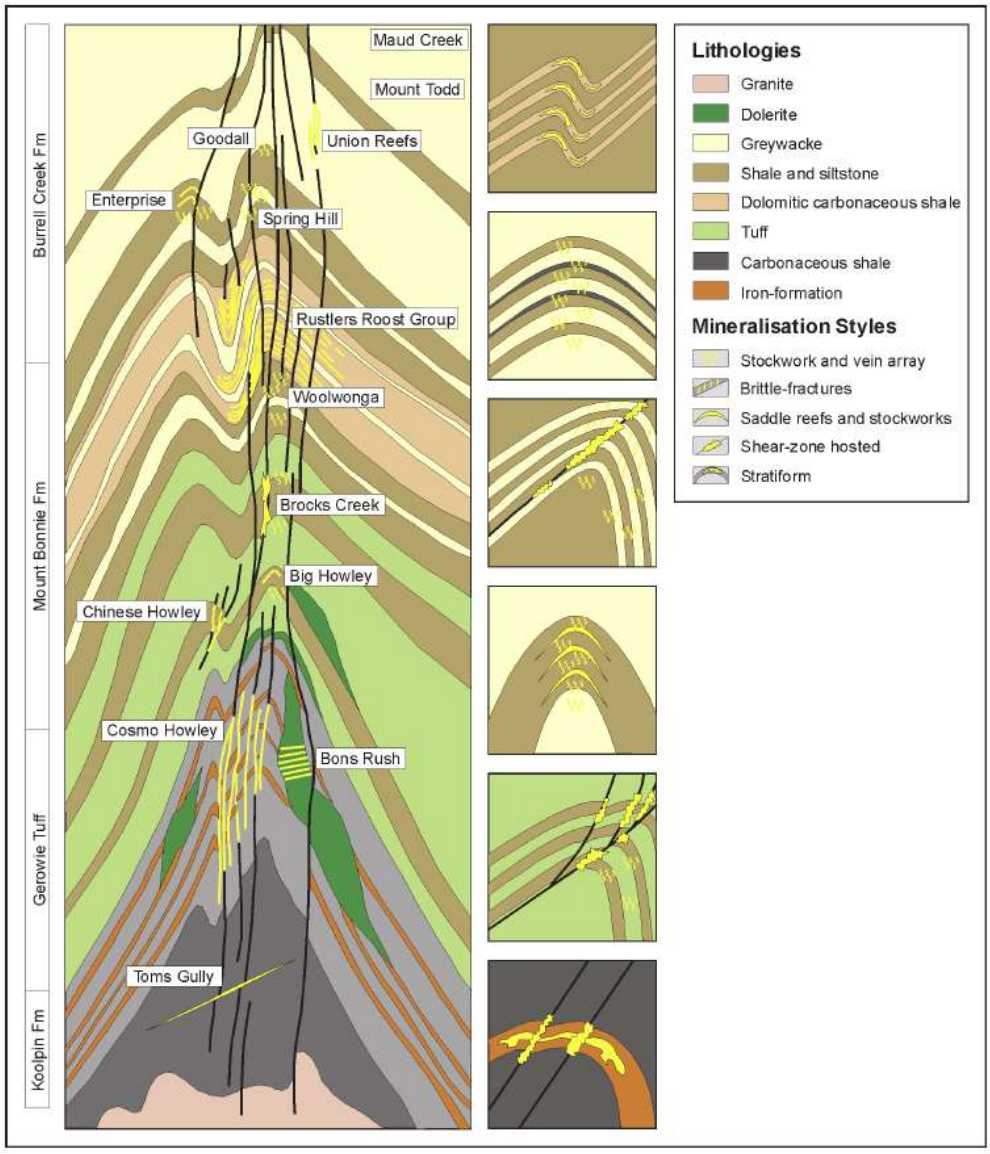


Figure 5: Structural and stratigraphic model for deposits of the Pine Creek Orogen (Sener, 2004)

4 PREVIOUS EXPLORATION

Gold was first discovered at the Brocks Creek area in 1871 when a gold-bearing reef was discovered near a low WNW-trending ridge near the Overland Telegraph line. Discovery of the Faded Lily line of reef, 4 km ESE of the John Bull Reef along the crest of the ridge system, soon followed. This was the prelude to a long period of alluvial working by Chinese miners and lode mining by English companies and Chinese tributers until 1914.

The area has had an on and off again mining history with an estimated 1,028 kg of gold produced from the John Bull, Crocodile, Alligator, Faded Lily and Zapopan reefs (Edwards, 2019). The most productive mine was Zapopan Underground Mine which produced approximately 823 kg of gold from 41,000 t of ore (Edwards, 2019).

Post-1980, Zapopan NL, Cyprus Australia, Top End Resources, Solomon Pacific, Acacia Resources Ltd, Buffalo Creek Mines, Territory Goldfields (Northern Gold), GBS Gold Australia and Newmarket Gold (formerly Crocodile Gold) have all explored and or mined within the Brocks Creek area.

From 1988 to 1990 Zapopan outlined an estimated resource of 66,000 oz of contained gold in the Brocks Creek area. In 1992, Cyprus located the Alligator deposit beneath auriferous scree to the west of the Faded Lily deposit (Edwards, 2019).

In mid-1994 Solomon acquired Brocks Creek and conducted a positive feasibility study of mining at the Faded Lily and Alligator deposits. Mining by open pit was scheduled at 1 Mt per annum for six years, commencing at Faded Lily (Edwards, 2019). Construction of the plant, access road and tailings storage facility were completed in March 1996.

Acacia (1996-2006) performed extensive work over the area with ground geophysics at Rising Tide, Zapopan and Burgan, exploration, resource and grade control drilling at Rising Tide, John Bull, Alligator, Crocodile, Zapopan, Burgan and Britannia and various geological mapping and surface geochemistry and feasibility studies at Faded Lily, Rising Tide and Alligator.

Acacia ceased mining the remaining open pit resources at Zapopan and Burgan in April 2000 after a total treatment of 4,834,287t @ 1.67 g/t gold and 485,209t of low-grade ore at 0.71 g/t gold. Fine ounces recovered totalled 254,741 (Edwards, 2015).

During 2003 underground diamond drilling at Zapopan Mine was performed and an updated resource block model was created. The Rising Tide deposit also underwent further modelling to estimate the resources at both Zapopan and Rising Tide (Bajwah, 2010).

In 2004, the mine was put on a care and maintenance program pending a decision to mine.

In 2006, GBS Gold Australia acquired Brocks Creek and successfully confirmed the down-plunge continuity of mineralisation at the Zapopan mine. Mining again commenced in October 2006 at Zapopan and Rising Tide until they were again placed into care and maintenance in October 2007 (Rising Tide) and April 2008 (Zapopan Underground Mine) when GBS went into administration.

In 2010 Crocodile Gold undertook surface and underground drilling programs in the Brocks Creek area to confirm continuity of mineralisation in areas with Indicated and Inferred resources. This drilling confirmed that mineralisation continues down-dip for at least 100 meters and remains open at depth.

Results from underground, returned significant grades and thicknesses. A significant interval was intercepted at a depth of 261 metres with an interval of 3.25 metres at 5.81 g/t gold. Another intercept of 5.45 metres was intersected at a depth of 337.25 metres grading at 6.76 g/t gold (Bajwah, 2010). These results confirm continuity of mineralisation in the current resource area and demonstrate the potential to upgrade the confidence level of these resources and ultimately to increase the level of reserves.

During 2011, exploration included an RC and diamond drilling program at the Rising Tide deposit as well as a high resolution VTEM survey. Drilling aimed at identifying mineralisation at depth, below the current pit looking at the potential for a cutback of the current open pit (Edwards, 2015). Results highlighted several intercepts at depth indicating the continuation of mineralisation below the pit. Some of the intercepts include 2m @ 3.59 g/t gold, 3m @ 1.93 g/t gold, 3m @ 5.44 g/t gold, 5m @ 2.81 g/t gold and 3m @ 3.49 g/t gold (Edwards, 2015).

Mining took place on the Rising Tide deposit during 2012 however ceased after a short time and placed on care and maintenance until the present.

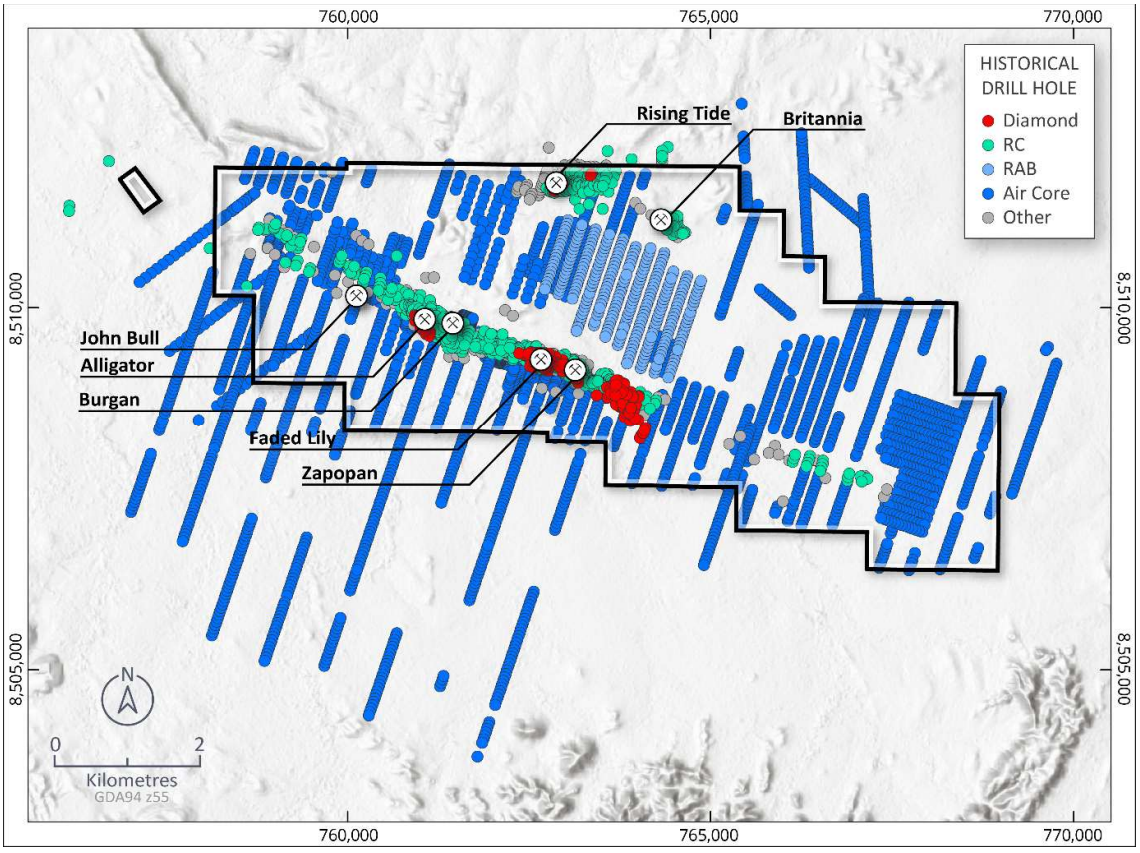


Figure 6: Brocks Creek Project - Historic drilling

5 EXPLORATION CONCEPT

5.1 Rationale

Anticline hosted gold deposits of the Pine Creek Orogen (PCO) have been known and relatively well understood for decades, from a regional perspective there is no better descriptor than as outlined by Sener (Figure 5).

As a brownfields project, the targets (defined in Section 5.2) are well defined as anticline hosted axial planar gold deposits with minor variations relative to the competency of the host rocks and orientations of the anticlines with remarkable similarities between all of the major deposits in the PCO. Locally there are variations and possible significant upside in discovering adjacent, deeper lodes to complement the known.

At Brocks Creek the anticline is tight and overturned with the interpreted axial plane dipping steeply to the south. Drilling deeper past the known lodes will intersect axial planar positions and potentially the same stratigraphic positions which host the known mineralisation in the opposing/underlying limb. The Discovery of additional economic lodes within the known deposits small footprint will be fundamental to the redevelopment of Brocks Creek.

There is a large volume of existing drillhole data defining the 'known' deposits along the Brocks Creek Shear Zone (Figure 7), with most of the shallow mineralisation mined out in the 1990's in the Alligator, Burgan, Faded Lily and Zapopan open pits. The depressed gold prices at the time did not afford large near mine exploration programmes and as a result there are few holes drilled below or outside of the previously defined deposit and no drillholes deeper than 250 m outside of Zapopan.

The anticline hosted deposits of the PCO are emplaced within or very close to tight anticlines. As a result, understanding the orientations of the bedding planes and veins within the deposit is fundamental in understanding the deposit as a whole. Oriented drill core is the industry standard of obtaining structural orientation of the bedding and mineralisation. In addition to the orientation data, large intact core is required for multiple metallurgical tests. For example, rock work index to inform the crushing and grinding requirements of a future mill; half PQ drill core will be used for this test work which is industry best practice.

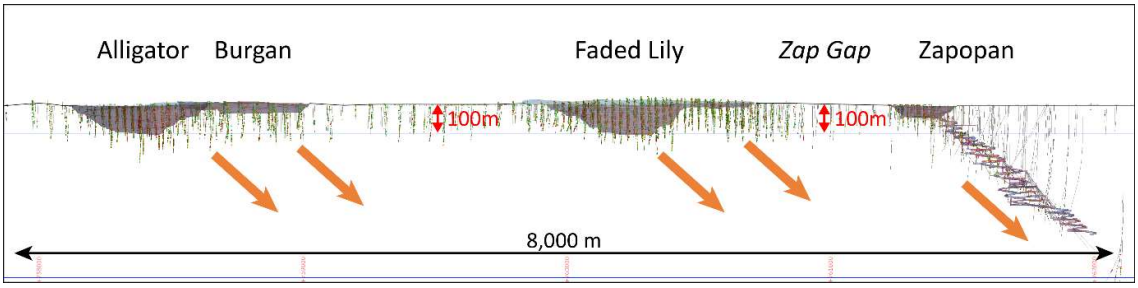


Figure 7: Brocks Creek Long Section along Brocks Creek-Zapopan structure looking North showing the shallow depth of investigation and potential extensions of deposits.

The proposed drilling program will target below previous shallow drilling to test onlapping mineralisation along strike between Alligator and Zapopan as well as to investigate under explored 'systems' of the deposit. The outcomes are expected to demonstrate the potential to upgrade the confidence level of these resources and ultimately increase the level of reserves to advance the Project into resource development. By identifying additional deposits in this project area, the economic viability of this project area can be assured.

Bacchus proposes to test three target areas outside of the existing Identified Resources with five (5) deep diamond drill holes (Figure 8).

- Two at ZapGap between Faded Lily and Zapopan deposits to obtain structural and metallurgical samples from the hanging wall and footwall lodes and drilling deeper to test for an additional third lode stratigraphically below as well as testing the anticline axis position of the overturned Brocks Creek Anticline (Figure 9, Figure 10, Figure 11).
- Two at Alligator deposit designed to intersect both the hanging wall and footwall lodes obtaining structural and metallurgical samples for testing and to test the Burgan Lode at depth (Figure 12, Figure 13, Figure 14).
- One at Rising Tide deposit to obtain structural and metallurgical samples and test for parallel lodes stratigraphically below which has never been tested (Figure 15).

Results from limited historical underground drilling confirmed the down-plunge continuity of mineralisation at the Zapopan mine with significant grades and thicknesses at depth in the current resource area and demonstrate the potential to upgrade the confidence level of these resources and ultimately to increase the level of reserves.

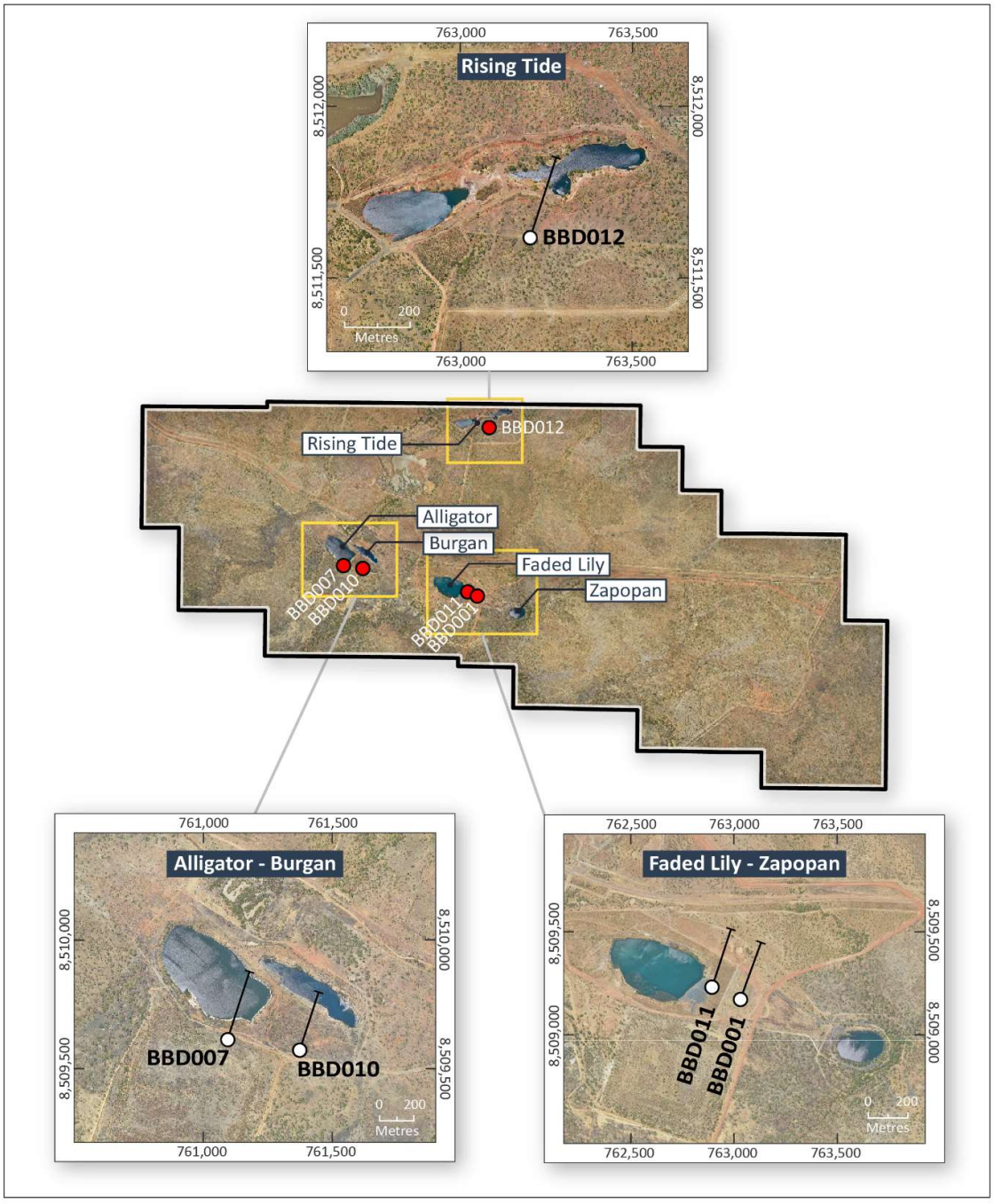


Figure 8: Brocks Creek Project - Proposed diamond drill holes with planned trace

6 DETAILS OF COLLABORATIVE PROGRAM

Collaborative Funding Drillholes:

- BBD001 (completed drilling, logging and lab analysis)
- BBD007 (completed drilling, logging and lab analysis)
- BBD010 (completed drilling, logging and lab analysis)
- BBD011 (completed drilling, logging and has not undergone lab analysis)
- BBD012 (completed drilling, logging and has not undergone lab analysis)

HOLE ID	GRID	EASTING	NORTHING	ELEVATION	TOTAL DEPTH	DIP	AZIGRID	DRILL METHOD	START DATE	END DATE	CORE DIAMETER
BBD001	MGA94_52	763033	8509169	107.67	299.11	-60	20	Diamond	5/06/2021	19/06/2021	HQ
BBD007	MGA94_52	761099	8509606	98.06	374.02	-60	18	Diamond	10/10/2021	21/11/2021	HQ
BBD010	MGA94_52	761354	8509533	99.4	324.57	-60	17	Diamond	29/01/2022	19/02/2022	HQ
BBD011	MGA94_52	762896	8509234	109.7	299	-60	17	Diamond	24/02/2022	5/03/2022	HQ
BBD012	MGA94_52	763232	8511634	124.5	356.23	-60	18	Diamond	8/03/2022	22/03/2022	HQ

Table 1: Brocks Creek Drillhole Collar Information

6.1 BBD001

Drilling commenced in early June 2021 with the maiden drillhole BBD001 testing the east-southeast extension of Faded Lilly Pit at Brocks Creek MLN1139 Project. As mentioned in (section 1) this initial target was designed to test the extension between the Faded Lilly and Zapopan deposits in order to obtain structural and metallurgical samples from the hanging wall and foot wall lodes. The hole was also designed to exceed historical drill depths to test for an additional stratigraphically lower third lode and test the anticline axis position of the Brocks Creek Anticline.

Hole BBD001 drilled to a total depth of 299.11m exceeds previous drillhole BKRCD161 total depth by approximately 70m. The purpose of this was to gain more knowledge of potentially deeper targets and gain a better geological understanding of a potential third load at depth.

6.2 BBD007

Drilling commenced in October 2021, and was the first hole designed for the 'Collaborative Funding Project'. BBD007 was collared near the Alligator Waste Dump (south side of the Alligator deposit) and aimed to intersect the main deposit's downward plunge component. The hole was also designed to exceed historical drill depths to test for an additional stratigraphically lower load to extend known mineralisation. The sequence forms the southern limb of a stratigraphically overturned east trending tightly folded anticline.

Hole BBD007 drilled to a total depth of 374m exceeds previous drillhole BKRC164 by 209m, the objective was to collect more robust structural and mineralogical data that would aid in the

identification of an interpreted deeper third load at the limb of an interpreted deeper anticline structure.

6.3 BBD010

Drilling commenced in January 2022, and 2 was the second of 2 holes designed to identify a deeper load associated with the Burgen open cut. The hole is collared above some previously tested mineralised structures to extend the current resource model and testing the potential for additional structures at depth.

Hole BBD010 drilled to a total depth of 324.57m exceeds previous hole 160.57m, designed to intersect both the hanging wall and footwall lodes obtaining structural and metallurgical samples for testing and the Burgan Lode at depth.

6.4 BBD011

Drilling commenced late February 2022, and was designed to obtain structural and metallurgical samples of the hanging wall and footwall lodes, as extending the BBD001 targets. Targeting a potential third lode to the North of faded lilly testing the anticline axis position of the overturned Brocks Creek Anticline.

Drill hole BBD011 located on top of a backfilled pit on the south side of the Faded Lilly Pit, testing the pit's depth and the existence of mineralised structures, designed to extend beyond the mineralised structures associated with BKRCD161.

6.5 BBD012

Drilling commenced in March 2022. Located South of the Rising Tide Pit, BBD012 is an exploratory hole to obtain structural testing for parallel lodes with potential supergene enrichment, which has never been tested. The structural targets comprise; low, shallow, south-dipping reverse fault planes within the Koolpin Formation parallel the underlying contact with the Zamu Dolerite Sill.

6.6 QA/QC Method

RSC Mining and Mineral Exploration (RSC) were engaged as consultants to undertake a maiden JORC resource at one of Bacchus' nearby neighbouring tenements, EL31306. Bacchus QA/QC methods have constantly been evolving to suit industry standards and have been critically analysed to suit the regulations set by the JORC code 2012. RSC reviewed all drilling, logging and QA/QC methods for their JORC resource report, which assisted with the re-evaluation of Bacchus' data acquisition and sampling process, ultimately improving in-house practices and understanding of what is required to develop a JORC resource.

In accordance with thorough QA/QC recommendations, Bacchus are submitting Certified Reference Material (CRM) every 25 samples and lab duplicates in areas of increased mineralisation to assist with industry standard, approved sampling methods. This method is currently accommodating the development of our Brocks Creek Project and will be considered a substantial system of 'Quality Control' in the next JORC resource.

6.7 Sampling Techniques

Core sampling was conducted after geological, geotechnical logging was completed and core photographs were taken. Samples were taken over the full length of the hole unless otherwise specified by the logging geologist and samples were collected in one-metre intervals. In some instances, sampling intervals were adjusted based on geological boundaries. To obtain representative grades of individual veins, smaller sample intervals were allowed as long as these were longer than 0.15 m.

6.7.1.1 Lab Fire Assays for Gold

All samples were sent to North Australian Laboratories (NAL) for analysis and dried at 140°C for a minimum of four hours or until the samples were dry. Diamond core was half cut and bagged at Bacchus' Pine Creek core facility. Diamond half core was crushed to ~10 mm, riffle split to ~3 kg and pulverised.

The remaining sample was pulverised to 90% passing 100μm in a vertical spindle pulveriser. The samples were then homogenised using a roll mixer on a rubber mat. 300-400 g sample material was collected in a paper sample bag for assaying.

Samples were assayed by Pb fire assay in batches of 50 samples including seven quality control samples. The samples were fused with a Pb oxide flux at 1000°C and a Pb-button (cupelled in a Magnesia cupel) containing the Au and Ag was recovered. In addition, a 50 g charge was used for the oxide material and a 25 or 33.3 g charge was used for the sulphide material.

6.8 Data Acquisition

6.8.1 Drillhole Surveys

All hole location coordinates were recorded using a hand-held GPS in UTM GDA94 Zone 52. Downhole Surveys were completed by AMWD staff using a Reflex EZ-SHOT. Surveys were obtained by the logging geologist and converted to an electronic copy for data storage purposes.

6.8.2 Geological Logging

Each diamond drillhole was logged in accordance with Bacchus' logging guidelines and involved logging all data to a consistent standard across the entire project area. Data obtained from each diamond drillhole is comprised of; *collars, surveys, lithology, veining, minerals, structure, density, Geotech, fracture frequency, rock hardness, orientation and sampling.*

All diamond core is logged systematically and in line with a particular standard set by Bacchus. Collar information is logged accordingly with the expectation that some of the information provided can only be collected at the conclusion of each drillhole.

Downhole surveys are obtained in intervals by the driller throughout the process of drilling. The intervals are discussed prior and the surveys are commonly taken every 30 metres in depth. The survey tools used for collecting downhole data are:

1. Trushot by Boart Longyear
2. Reflex EZ-Shot by REFLEX

Each survey tool accurately collects valuable downhole data such as azimuth, dip, magnetic anomaly detection. All information, including drillhole ID, time, date and drilling company are logged on a survey page and given to the field geologist on-site. Each survey page is collected and saved as an electronic copy and archived along with all other drillhole information. Surveys are then added to the drillhole data file throughout the remainder of the drillhole along with all other geological information.

Geological data such as veining, minerals, magnetic susceptibility, fracture frequency and sampling are all collected in one-metre intervals. Data relating to lithology are logged according to changes in stratigraphic sequences and can vary (sometimes) substantially throughout each drill hole. Logging lithology using this method is beneficial to 3D modelling as the size and parameters of units contribute to a broader understanding of lithological boundaries and how these boundaries may influence a particular deposit geochemically and structurally.

Structural information, another vital component when logging is also measured using a different approach. Structural features can be very important for a project and obtaining the correct structural information is a paramount in understanding the key parameters of a project and how these parameters contribute to the projects overall economic feasibility. Structural information is collected where there are important structural features. These features can be situated sporadically throughout an entire drillhole so measuring these features take place when there is a structural change. Structural information includes:

- Depth
- Size/width of structure
- Alpha/beta angles
- Structure type
- Orientation line confidence
- Shear sense
- Displacement
- Younging direction
- Minerals associated

Structural alpha and beta measurements are obtained using a kenometer. These measurements are then used to calculate the core structures' true dip and dip direction.

The importance of collecting bulk density measurements is principal in calculating resource definition. When calculating bulk density, Bacchus uses one of the most common methods 'The Archimedes Principle' in order to obtain bulk density measurements. The method involves weighing a piece of core firstly in air and then the same piece of core is suspended and weighed in water. The density is calculated as the mass of the sample in the air, divided by the volume (difference between the sample mass in air and in water).

The method in obtaining bulk density measurements includes:

1. Calibrating bench scales using standard weights
2. Tare scales
3. The collection of a sample of core
4. Measuring the start depth and end depth and calculating length of core sample

5. Weigh dry core sample and record the dry weight (grams)
6. Weigh the same core sample suspended on hooks in water and record the wet weight (grams)
7. The bulk density will automatically be calculated in the bulk density tab of the excel drill file

Geotechnical information is collected over the course of a single run which is usually the length of the drill tubes used by the drilling company. Drill tubes range in length but the drill tubes used over the course of the collaborations program are a total of three metres length. The importance of acquiring geotechnical data assists in the development of open-pit and underground mine designs. The geotechnical information collected aid geotechnical engineers in deciphering whether certain deposits are deemed economically or structurally viable during the preliminary stages of mine development. Geotechnical information collected includes:

1. Noting the start depth and end depth of a core run as well as core recovered and core drilled
2. Measuring the length of a core run
3. Counting the Rock Quality Designation (RQD) of a core run
4. Measuring the total length of RQD over a single run
5. Noting whether the core has been marked with an orientation line at the bottom of the core run

Counting the amount of natural fractures of core also contributes to geotechnical logging but this aspect of logging is done so in one-metre intervals.

Rock hardness was logged using the Field Strength Index (see table 2). Rock hardness was logged in intervals where the hardness of rock changed similarly to the system of orientation line logging. Orientation lines were logged in intervals where core was marked with orientation lines and where core had no orientation lines. Each interval would either be logged 'YES' the orientation has been marked, or 'NO' the orientation line has not been marked.

Field Strength Index	Range of Estimated UCS Values (MPa)	Assigned Intact Rock Strength (MPa)
R0	0.25 – 1	0.6
R1	1 – 5	2.5
R2	5 – 25	15
R3	25 – 50	38
R4	50 – 100	75
R5	100 – 250	175

Table 2: Intact Rock Strength Values Assigned to Field Strength Index (from ISRM, 1981)

7 RESULTS AND INTERPRETATIONS

7.1 Intercepts

Refer to criteria in Project deliverables-Final Report Template

Discuss the results and any subsequent interpretation made from these results. Include relevant maps, plans or cross-sections. Discuss whether the results will lead to any further exploration (greenfields projects), and / or resource or project development (brownfields projects).

SOURCE: Bacchus Resources Dropbox\Bacchus\Projects\NT\Brocks Creek\Administration\Collaborative Funding Application\2021\Final-report-template-and-deliverables

SAMPLE			LOCATION			SIGNIFICANT INTERSECTIONS					TOTAL DEPTH
HOLE No	HOLE DIP	HOLE AZIMUTH (Grid)	ZONE	MGA EAST (m)	MGA North (m)	SAMPLE INTERVAL (m)	From (m)	To (m)	Au (g/t)	Grams x Metres	
BBD001	-60	20	52	763033	8509169	7	31	38	0.81	5.65	299.11
BBD001	-60	20	52	763033	8509169	7	102	109	0.86	6.13	299.11
BBD007	-60	18	52	761099	8509606	69	180	249	0.93	64.1	374.02
BBD010	-60	17	52	761354	8509533	34	115	149	0.98	33.32	324.57
BBD010	-60	17	52	761354	8509533	7	178	185	2.25	15.74	324.57
BBD011	-60	17	52	762896	8509234	2	14	16	62.36	124.72	299
BBD011	-60	17	52	762896	8509234	4	69	73	0.99	3.95	299
BBD011	-60	17	52	762896	8509234	21	81	102	0.92	19.38	299

Table 2. Brocks Creek Drill Intercepts

7.2 Results and Interpretation

ZapGap

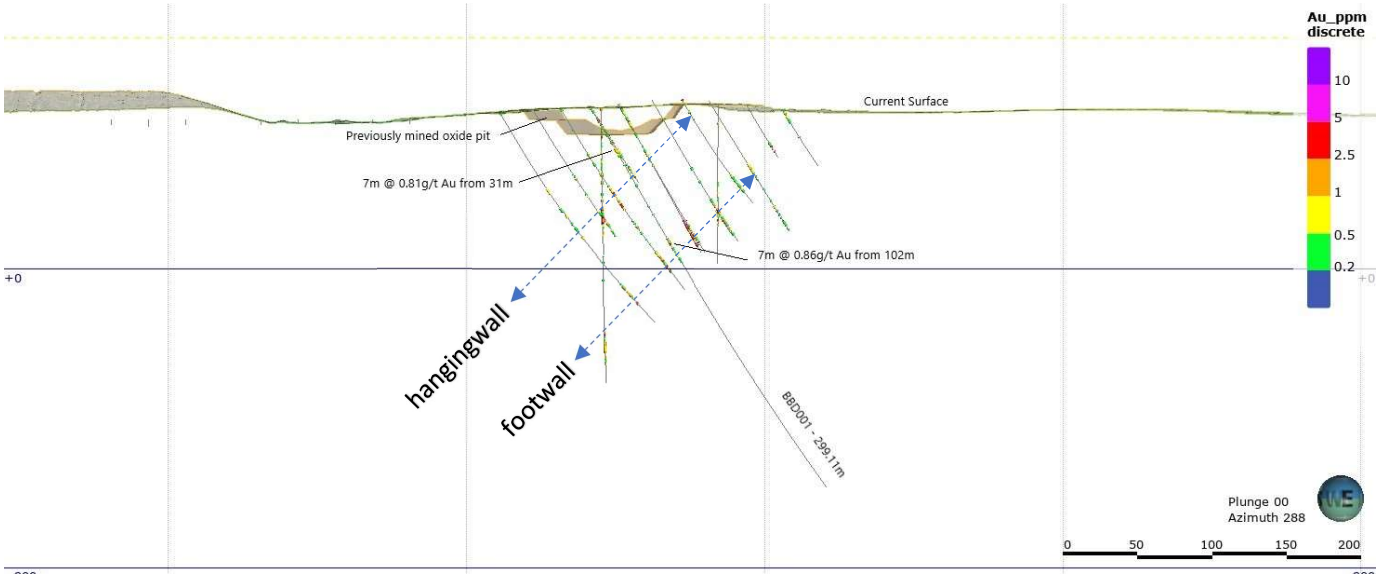
BBD001 *(Referred to as BBD001 in the Grant Proposal)*

BBD001 was the first of two holes at between Faded Lily and Zapopan deposits to obtain structural and metallurgical samples from the hanging wall and footwall lodes and drilling deeper to test for an additional third lode stratigraphically below as well as testing the anticline axis position of the overturned Brocks Creek Anticline.

BBD001 successfully intersected the footwall and hanging wall lodes, albeit lower grades than surrounding holes. The interpreted third lode was not intersected.

It was found that the footwall and hanging wall lodes were narrower and lower grades than originally anticipated. Footwall – 7m @ 0.81g/t Au from 31m; Hanging wall – 7m @ 0.86g/t Au from 102m. Consequently, further investigation has shown a significant free gold component to the deposit and it appears that there is a persistent grade under call on half core compared to RC samples, the sampling bias is not well understood yet and requires further investigation but increasing sample volume from half core to RC shows a significant increase in grades.

Metallurgical test work required destruction of the retained half core which was not permitted under the collaborative funding agreement, the retained half core was submitted to the core library as per the agreement.



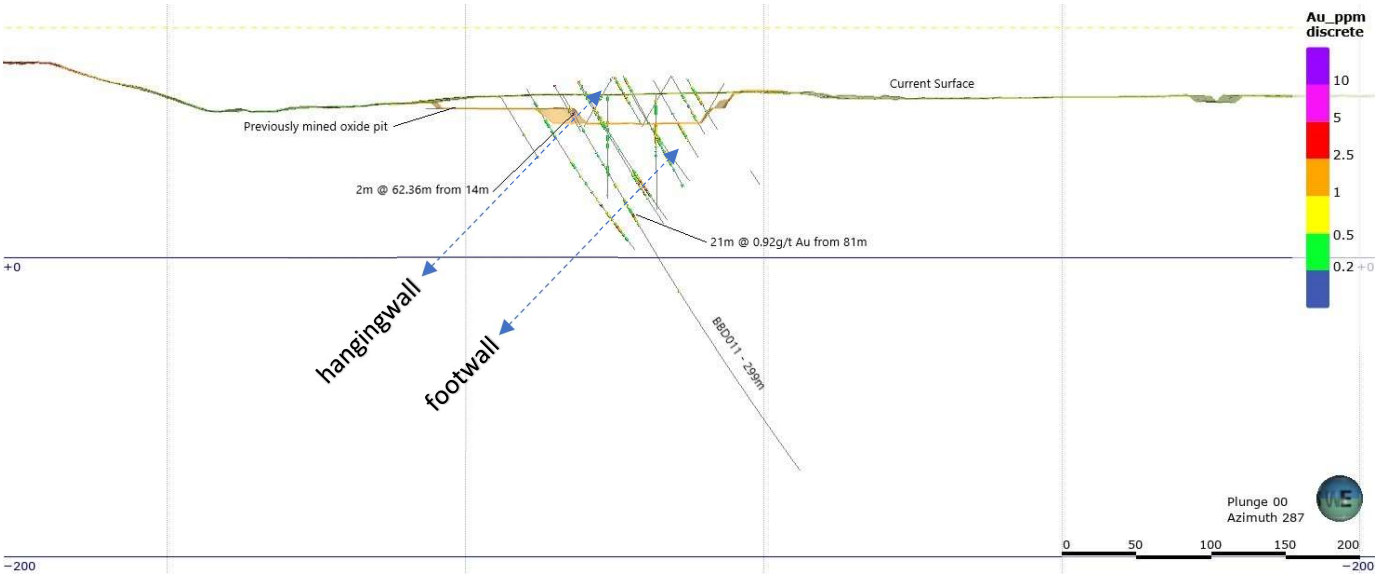
BBD011 *(Referred to as BBD002 in the Grant Proposal)*

BBD011 was the second of two holes at between Faded Lily and Zapopan deposits to obtain structural and metallurgical samples from the hanging wall and footwall lodes and drilling deeper to test for an additional third lode stratigraphically below as well as testing the anticline axis position of the overturned Brocks Creek Anticline.

BBD011 successfully intersected the footwall lode (21m @ 0.92g/t Au), it is interpreted that most of the hanging wall lode was mined out at this position in the oxide pit. BBD011 did not intersect a third lode below the footwall.

The previously mined oxide pit has been backfilled with benign waste rock from the Zappopan underground development, this material was sampled and assayed as two-meter whole core composites. The remnants of the hanging wall lode were intersected and sampled in the last 2m composite *(2m @ 62.36g/t Au from 14m)*, in retrospect this composite sample was in situ material below the waste dump and represents the bottom of the hanging wall lode. The high grades of this sample provide some evidence of the importance of increased sample volume within a deposit that has a high gravity gold component.

Metallurgical test work required destruction of the retained half core which was not permitted under the collaborative funding agreement, the retained half core was submitted to the core library as per the agreement.



Alligator

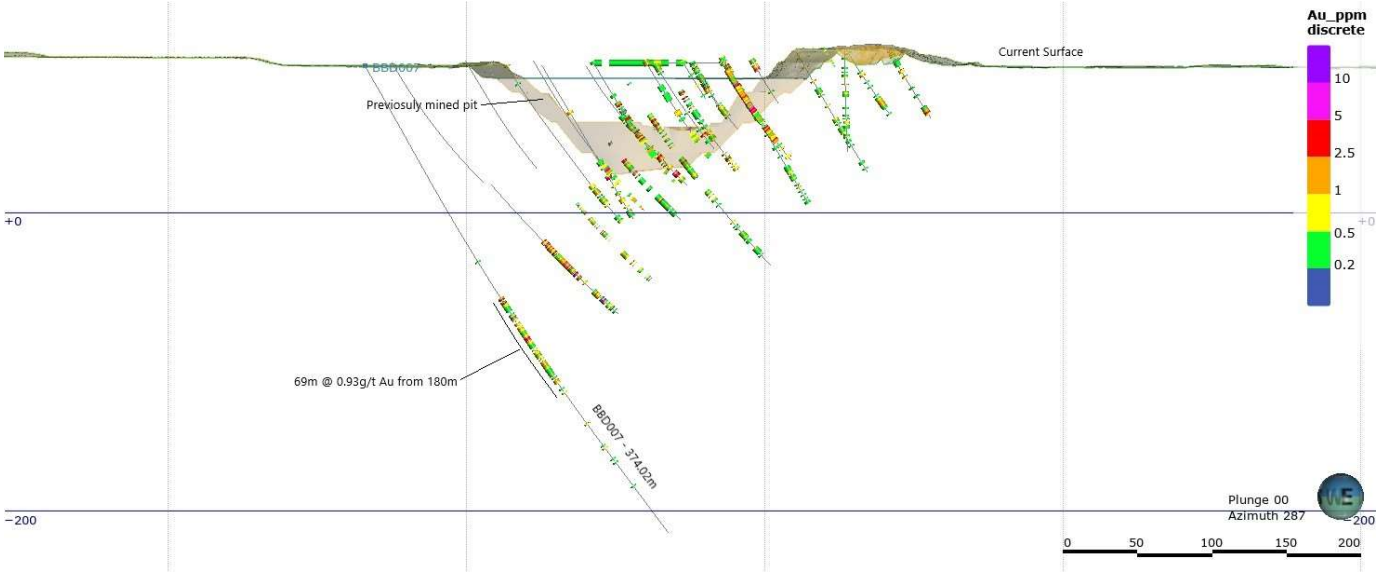
BBD007 *(Referred to as BBD004 in the Grant Proposal)*

BBD007 was the first of two proposed diamond drillholes designed to intersect both the hanging wall and footwall lodes obtaining structural and metallurgical samples for testing and the Burgan Lode at depth.

It was found that the mineralisation at Alligator was not as easily distinguished as Faded Lily into footwall and hanging wall lodes, BBD007 in particular intersected a zone of sheeted quartz sulphide veins in one coherent 'lode' down plunge of the main pit mineralisation (69m @ 0.93g/t Au from 180m).

The Burgan lode was not intersected at depth.

Metallurgical test work required destruction of the retained half core which was not permitted under the collaborative funding agreement, the retained half core was submitted to the core library as per the agreement.



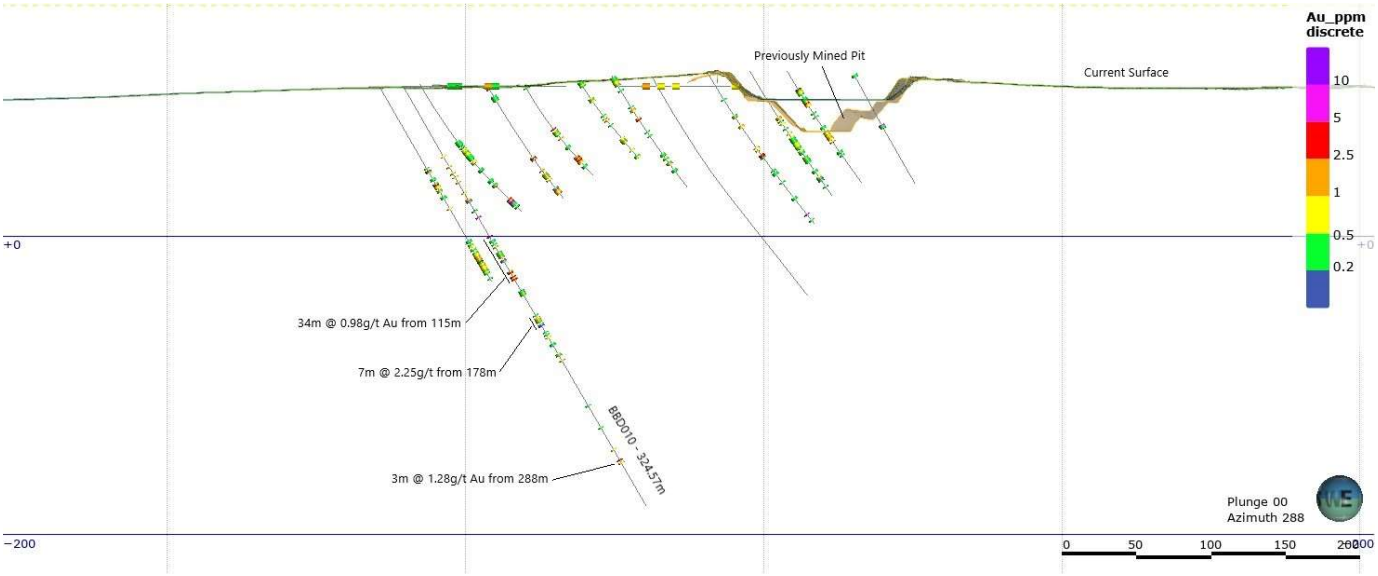
BBD010 *(Referred to as BBD003 in the Grant Proposal)*

BBD010 was the second of two proposed diamond drillholes designed to intersect both the hanging wall and footwall lodes obtaining structural and metallurgical samples for testing and the Burgan Lode at depth.

Assay results for BBD010 were sporadic but still returned respectable intervals of bulk grades (34m @ 0.98g/t Au from 115m) and individual assays up to 11.84g/t (184m-185m).

Minor gold mineralisation was intersected deep in the hole which may represent the Burgan lode at depth but grades and widths were low at that depth to be economically significant (3m @ 1.28g/t Au from 288m).

Metallurgical test work required destruction of the retained half core which was not permitted under the collaborative funding agreement, the retained half core was submitted to the core library as per the agreement.



Rising Tide

BBD012 (*(Referred to as BBD005 in the Grant Proposal)*

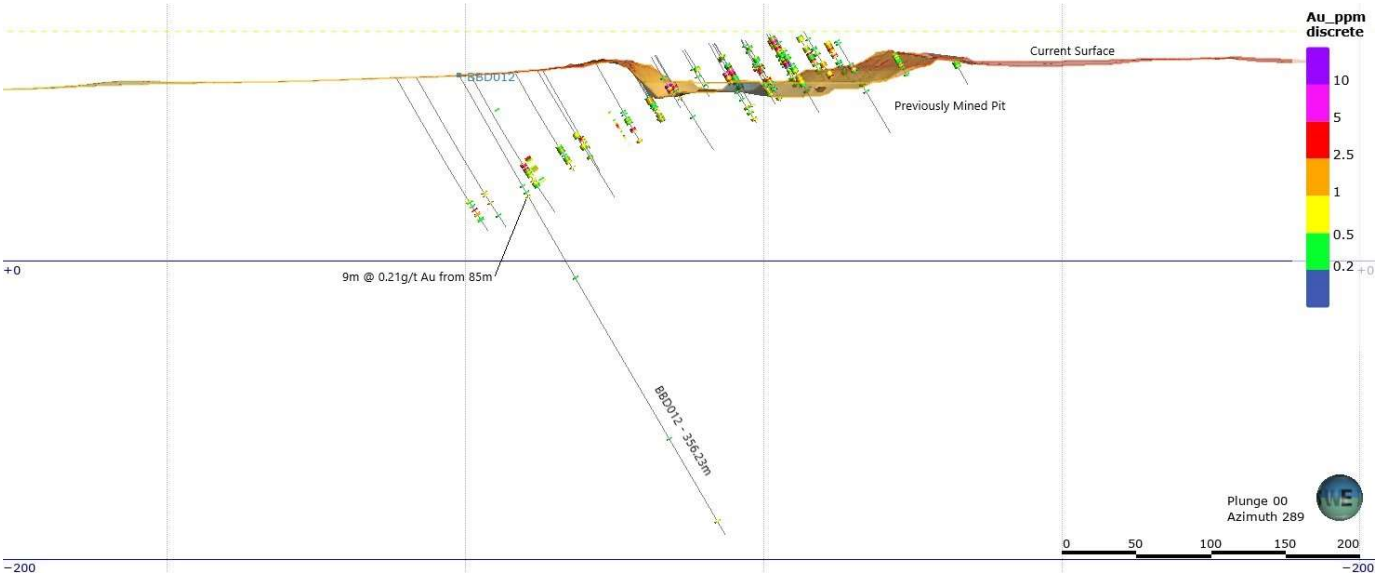
BBD012 was drilled at Rising Tide to obtain structural and metallurgical samples and test for parallel lodes stratigraphically below which has never been tested

Rising Tide is a relatively flat south dripping lode that had been mined as two small shallow open pits in the mid-2010's. BBD012 intersected a low-grade mineralised zone down dip of the previously defined zone (9m @ 0.21g/t from 85m).

The proximity of Rising Tide to the Burnside Granite meant that the hole had more interesting alteration assemblages related to the contact metamorphism not seen in the other deposits to the south, showing skarn textures with banded and semi-massive pyrrhotite with rare euhedral xenocrysts; hornfels alteration of sediments and pegmatitic dykes.

Visually there was some weak mineralisation towards the bottom of the hole and the planned depth of 300m was extended to 356m.

Metallurgical test work required destruction of the retained half core which was not permitted under the collaborative funding agreement, the retained half core was submitted to the core library as per the agreement.



8 CONCLUSION

The collaborative funded drilling at Brocks Creek were the first drillholes into the Faded Lily and Alligator deposits for nearly 30 years, all of the holes were the deepest drillholes into each of the three deposits Faded Lily, Alligator and Rising Tide.

The highlight should be considered the down plunge extension of the Alligator Deposit in hole BBD007 (69m @ 0.93g/t Au from 180m).

Additional lodes were not intersected in the drilling and the results of the drilling were overall consistent with the results of previous drilling and studies.

Significant findings from the drilling highlighted that whilst there was visible gold logged in the drill core, including flakes of gold in the bottom of the core tray in places it was not reflected in the assayed grades of the half core. It has been noted in the past that half core under-calls the gold grades relative to RC samples.

Metallurgical test work required destruction of the retained half core which was not permitted under the collaborative funding agreement, the retained half core was submitted to the core library as per the agreement.

REFERENCES

Ahmad M and Hollis JA, 2013. Chapter 5: Pine Creek Orogen: in Ahmad M and Munson TJ (compilers). 'Geology and mineral resources of the Northern Territory'. Northern Territory Geological Survey, Special Publication 5.

Bajwah, Z. U., 2010. Annual Exploration Report on the Brocks Creek Group – Year ending 26 June 2010. MLN1139, MLN176, MCN4689-4697, MCN4701-4703, MCN4863-4871, MCN4895-4899. *Crocodile Gold, Australia Operations Pty Ltd*. CR2010-0623.

Edwards, M., 2019. Brocks Creek Project Area, Care and Maintenance Operations Mining Management Plan 2019. Kirkland Lake Gold.

Gillman, A., Muller, F., Andrews, M., & Gerritsen, H., 2009. Overview of the Geology Mineral Resources and Reserves and Exploration Potential of the Northern Territory Gold Properties (Burnside Gold and Base Metal Projects, Tom's Gully Gold Project) Australia.

Sener A. K., 2004. Characteristics, Distribution and Timing of Gold Mineralisation in the Pine Creek Orogen, Northern Territory, Australia. pHd Thesis, University of Western Australia, Crawley, Perth WA 6009

ISRM (1981) Rock Characterization Testing and Monitoring. Brown, E., Ed., Pergamon Press, Oxford, 211 p.