



EL25194

**Annual Report
3 January 2024 to 2 January 2025
and
Final Report
2 January 2012 to 2 January 2025**

Part of GR164 – Bluebush-Bonanza Project

Holder	Australian Tenement Holdings Pty Ltd and Prodigy Gold NL
Operator	Prodigy Gold NL
Author	G Ferris
Date	February 2025
Report Lodged By	Gary Ferris
Email	gferris@prodigygold.com.au
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DIGITAL FILES

FILE	DESCRIPTION
EL25194_01_Surfacegeochem.txt	Surface sample assay results

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1.0 ABSTRACT

The Bluebush-Bonanza Project consists of 19 leases (Exploration Licences 23659, 24436, 25194, 26608, 26610, 27127, 27378, 27589, 28322, 28324, 28325, 28327, 28328, 28394, 29860, 31288, 31289, 31290 and 31291) in the Northern Territory and are approximately 610 km northwest of Alice Springs (Figure 1). The project area falls within the Tanami Region, a highly prospective area which is known to host well known gold deposits such as Newmont's Callie deposit and Northern Star's Goldrush deposit. All 19 tenements are registered to Australian Tenement Holdings Pty Ltd (ATH), a wholly owned subsidiary of Prodigy Gold NL (Prodigy) and Prodigy directly. The project area is being explored gold mineralisation.

EL25194 was part of the deal with Stockton Mining Ltd announced in April 2022 which included the old Pirate Project and 23 surrounding exploration tenements.¹ This deal was terminated in November 2024 and the tenements were returned to Prodigy. Prodigy has reviewed the tenements and has decided to relinquish EL25194.

2.0 INTRODUCTION

The Bluebush-Bonanza Project consists of 19 tenements that are located approximately 630 kilometres (km) northwest of Alice Springs. The Project is accessible from Alice Springs via the Tanami Highway, and station and exploration tracks. The Bonanza Project includes the Twin Bonanza Gold Project consisting of the Old Pirate High-Grade Gold Deposit Resource and the Buccaneer Porphyry Deposit Resource. The Twin Bonanza Gold Project is centred approximately 22 kilometres south of the Tanami Road and 14 kilometres east of the Western Australia – Northern Territory border. The Project spans the highly prospective "Trans Tanami Structure" – an inferred regional / tectonic geological feature which hosts numerous gold deposits.

The majority of the project area is dominated by various thicknesses of alluvial cover, the depth of which is greatest within palaeo drainage systems. Hills and ridges are common in northern and central parts of the project area and range in height from less than 30m to more than 200m above the surrounding plains. They are often steeply incised by narrow channels and creeks, which pass into outwash fans before disappearing into the surrounding sand plains. Vegetation is generally sparse, because of the arid climate and predominantly sandy soils, and consists mainly of spinifex with scattered low trees (mostly species of eucalyptus and acacia), shrubs and herbaceous plants. Few trees are taller than 8m with relatively large trees present only along creeks. There are no permanent watercourses in the region; however, water apparently persists in some creeks for at least a few months following seasonal rains.

The Bluebush-Bonanza Project area is located within the Southern Indigenous Protected Area and the land is managed by the Central Land Council (CLC).

This report is the annual technical report for EL25194 in respect of exploration carried out from 3 January 2024 to 23 January 2025 and the Final Report for the period 3 January 2012 to 2 January 2025.

¹ ASX 29 April 2022

3.0 TENURE

In May 2018, ABM Resources NL (ABM) changed its name to **Prodigy Gold NL** (Prodigy).

In 2012, sixteen additional tenements, ELs 26608, **25194**, 25844, 26610, 26616, 27124, 27127, 27339, 27378, 27813, 28322, 28323, 28324, 28325, 28327 and 28328, were granted to ABM; and were approved to be amalgamated with the existing GR164/10 Bonanza group. The group reporting ID was updated to GR164/12.

Tenement details for EL25194 are listed in **Table 1** and are illustrated in **Figure 1**.

During the reporting period, Prodigy Gold continued to work with Stockton Mining Pty Ltd (“Stockton”) on the divestment of 23 tenements, 19 of which form the Bluebush/Bonanza project area. Negotiations are still ongoing, with the End Date being extended to 30 June 2023².

Table 1 Tenement details

Tenement Number	Grant	Expiry	Blocks	Area km ²	Comments
EL25194	03-Jan-12	02-Jan-25	34	107.5	Relinquished 2 January 2025

4.0 GEOLOGY

4.1 Regional geology

The Granites Tanami Orogen (GTO) is part of the composite Precambrian North Australian Craton (Cawood and Korsch, 2008), and is a remote, poorly exposed and relatively poorly understood terrane mainly comprised of Paleoproterozoic folded sedimentary and volcanic rocks and granitoids. (Bagas et al., 2010, Bagas et al., 2014; Ahmad et al., 2013) (**Figure 2**). The oldest rocks in the region are gneisses, schists and granitoids of the Browns Range Metamorphics (2,530 to 2,500 Ma) and Billabong Complex (ca. 2,514 Ma) which are part of the poorly exposed Archean crystalline basement.

The region consists of two major Precambrian tectonic units – the Granites-Tanami Group and the Birrindudu Basin sediments. The oldest sequence of the Tanami Group is the mostly greenschist facies metamorphic grade sedimentary and volcanic rocks of the Mt Charles Formation (ca. 1,910 Ma) in the central Tanami and the Stubbins Formation in the western Tanami. The Mt Charles formation is between 600 - 1000 metres in thickness and consists of inter-bedded basalts with various sedimentary units, but is predominantly sedimentary. The Mt Charles formation is the host of the mineralisation of the Tanami goldfield and the Tanami Mine sequence is distinctive in that it has a significant (~50%) basaltic component.

Overlying the Mt Charles Formation are siltstones, cherts and lesser fine-grained sandstones interbedded with dolerite sills of the Dead Bullock Formation (DBF). These are interpreted on the basis

² Prodigy Gold: 2022, *Variation to Agreement with Stockton Regarding Old Pirate Project and Tanami Exploration Tenements*[online]

of their lithological and geochemical affinities to be laterally equivalent to the ‘Hurricane Sediments’ within the Mt Charles Formation. The DBF is host to the world class Callie Mine at Dead Bullock Soak (DBS). Within the DBF there are two sub-units (members); the Callie Member (which includes the Schist Hills Iron member (SHIM), Orac and Callie laminated Beds) and the Ferdies Member (which includes the Auron and Davidson/Blake Beds).

Two types of gold mineralisation have been recognised within the DBF; Callie style mineralisation found in a series of sheeted veins with a strike of 70° and a dip of 70° to the South. The veins are characterised by coarse and readily visible gold in quartz veins typically 1 cm in width and are commonly found in discrete “vein corridors” where they intersect the favourable stratigraphic units. Villa-style mineralisation is associated to sulphides and is generally fine grained. Villa-style mineralisation is often hosted by bedding or laminations and not necessarily by veins.

Conformably overlying the Mt Charles and Dead Bullock Formations is a regionally extensive blanket of sandy turbidites of the Killi Killi Formation (KKF). Deposition of the Killi Killi turbidites is considered by Bagas et al, (2007) to mark the transition of the Tanami Basin from a back-arc to a collisional setting. The KKF is host to the Coyote and Old Pirate mines.

The Tanami Group is unconformably overlain by siliciclastic sedimentary and felsic volcanic rocks of the Mount Winnecke Group and Ware Group that accumulated between ca. 1,825 and 1,810 Ma, followed by regional deformation and granite plutonism of the 1,800 to 1,790 Ma Stafford Event.

The Paleoproterozoic Pargee Sandstone, which has a maximum depositional age of ca. 1,768 Ma, unconformably overlies the pre-Stafford Event stratigraphy and is in turn unconformably overlain by the Mesoproterozoic (ca. 1,700 Ma?) Birrindudu Group. The Birrindudu Basin sediments consist of arenites, siltstones, limestone, shale, sandstone, stromatolitic chert and conglomerate.

These Proterozoic rocks are overlain by the Neoproterozoic Murraba Basin and Paleozoic Canning Basin to the west, the mid-Cambrian to Ordovician Wiso Basin to the east, and subaerial Cambrian Antrim plateau flood basalt of the Cambrian Kalkarindji Province (Ahmad et al., 2013).

A structural evolution involving between three (western Tanami; Bagas et al.; 2013) and at least six (eastern Tanami; Crispe et al., 2007) deformation events have been described. Regional metamorphism was typically lower to middle greenschist facies, though zones of lower and higher metamorphic grade exist locally (Huston et al., 2007).

The GTO is host to a suite of structurally controlled late tectonic orogenic gold deposits localised in and around the axes of anticlines (e.g. DBS, Coyote, Old Pirate), or by brittle to ductile strain partitioning within and around rheological heterogeneities in the rock package (e.g. The Granites, Groundrush, Tanami goldfield) (**Figure 3 and 4**).

4.2 Local geology

The local geology of the Bluebush-Bonanza project area is dominated by the Killi Killi Formation, Dead Bullock and Mt Charles Formations of the Tanami Group (**Figure 4**). Overlying these gold hosting formations, are the Pargee Sandstone and the Birrindudu Group cover sequences. These cover sequences are often expressed as the hills in the area, for example the Davidson Tablelands to the west of the Galaxy Prospect. The project area has then been intruded by granite bodies including Buccaneer. The area is poorly exposed with up to 95% sand cover.

The Bluebush-Bonanza area has been sub-divided into two principal geological domains. The Bonanza area, which is host to the Old Pirate and Buccaneer deposits and is typified by a low magnetic response. This low magnetic response is interpreted to correspond to the Killi Killi Formation and granitic intrusions. The Old Pirate Mine is located within this sequence.

The Bluebush area, is dominated by high magnetic response, which is interpreted to correlate with the prospective Dead Bullock and Mt Charles Formations which are the host rocks to the Callie deposit and Central Tanami pits respectively. The Bluebush area was main focus of Prodigy's 2018 drill programmes which are targeting large scale anomalies with the potential to host a 1-2 Moz scale deposit.

Due to the limited outcrop and reliance on geophysical interpretations to interpret the basement geology Prodigy commenced collecting baseline geochemical data across the company's tenure in 2017. From this geochemical data Prodigy is in the process of updating a local geological map for the region. The exploration work completed in 2018 will form the basis for a revised interpretation based of the litho-geochemistry.

5.0 PREVIOUS EXPLORATION

Gold was first discovered in the Tanami Desert in 1900, making it one of the last major gold belts discovered in Australia. Early geological investigations into the region were related to the evaluation of gold discoveries (e.g. Brown 1909, Talbot 1910, Gee 1911, Jensen 1915, Ellis 1927, Terry 1930, 1931 Kleeman 1934, Hossfeld 1940, Hughes 1940, Anglo-Queensland Mining 1941, Phillips 1959).

Since the first discovery of gold in 1900, over 175 gold occurrences have been discovered in the Tanami Region with a cumulative endowment of greater than 20 Moz. Most of this endowment is contained within three deposit clusters (Dead Bullock Soak Goldfield: >12 Moz Au, including Callie 7.3 Moz Au; Tanami Goldfield 2.0Moz Au; The Granites goldfield: 1.3 Moz Au) and a handful of important standalone deposits (Titania-Oberon: >5.0Moz Au; Groundrush: 1.6 Moz Au; Buccaneer: 0.5 Moz).

In 1983, North Flinders Mines Ltd commenced gold exploration in the Granites goldfields; leading to production in 1986. In 1989, mineralisation was delineated in the Dead Bullock Soak (DBS) goldfield. Open-cut mining commenced in the DBS field in 1991 and in the same year North Flinders Mines discovered the World-class gold deposit at Callie which is currently being mined and producing ~450koz per annum. Newmont is aggressively exploring Callie deeps and in 2017 completed a mill expansion.

At the Tanami goldfield, Harlock Pty Ltd commenced exploration in 1985 and mining commenced in at the Tanami Mine from 1987-2001 under Otter Gold NL, producing a total of 1.5 Million ounces from 43 shallow open cut deposits on the four main mine leases. Normandy/Newmont leased the Tanami Mill in 2001 in order to treat ore from its 100% owned Groundrush open pit and acquired Otter in 2002. Groundrush produced a total of 611,000 ounces on completion in 2005.

It has been less than two decades since the discovery of the Dead Bullock Soak goldfield but much of the exploration work undertaken since that discovery appears to have been focussed on brownfields and near-mine projects, which is not surprising given that more than half of the Granites-Tanami orogeny is concealed by transported cover. Hence, almost two decades later the Granites-Tanami Orogen is still "one of the most prospective underexplored gold provinces in Australia with the potential to host +1 million ounce gold deposits".

The Bluebush–Bonanza project area has been targeted for gold since the 1990s, with 19,277 holes drilled over the licences; however, most have these have utilised shallow drilling methods.

Exploration pre-2012 comprised lag sampling. A total of 179 lag samples are reported for EL25194 with the best result being 4ppb (2 samples). A total of 45 rock chip samples have been reported for EL25194 with 6ppb being the best result.

5.1 Exploration By ABM/Prodigy Gold

In 2012 exploration on EL25194 comprised geological mapping, rock chip and soil sampling. The sampling was undertaken over the Skullduggery prospect.

A total of 7 rock chip samples were collected with the best result reported being 3ppb Au. A total of 278 soil samples were collected with the best sample reporting 22ppb (see Figure 4).

The Skullduggery Prospect survey covers an area of magnetic and stratigraphic features including a large-scale granitic intrusion which could broadly be seen as an analogous geological setting to the Buccaneer mineralisation. The geology of the area comprises predominately turbiditic metasediments of the Killi Kill formation and granitic intrusives. Field mapping in 2012 identified porphyritic outcrop as well as other phases of a larger intrusion. Historical sampling in the area is limited, with scattered lag and a few RAB drill holes (approximately <20). It appears as if the area underlain by granite was deliberately not sampled to the same extent as the rest of the tenement as it was deemed unprospective. There is limited multielement data for the area. The sample spacing has been designed as a 500 x 500 m grid focusing on the Skullduggery Prospect and surrounding area (Plate 1A).

In conclusion the survey over Skullduggery area shows a very weak response across outcropping granites and a second single geochemical anomaly above hypothesised intruded diorites. The gold mainly responds locally to the outcrop but does not show a high tenor of anomalism, particularly when taking into account that the cover near to outcrop is minimal and therefore the ionic response should be stronger here in the presence of mineralisation.

In addition, there was little support for anomalism through multielement pathfinders, which was extremely limited across the survey. Arsenic in particular showed no response relative to gold anomalism; therefore other pathfinders may need to be relied upon for mineralisation interpretation.

The elevated gold response proximal to outcrop is spatially coincident with marginally elevated (slightly above background) Ag, Be, Bi, Br, Ca, Cd, Ce, Cr, Ga, Ge, Hf, In, La, Ni, Pb, Pt, Re, Se, Sn, Sr, Ta, Te, Ti, U, Yb and Zr. The unusual element suite may be generated by the porphyritic intrusion that outcrops at surface only in this area of the survey. Therefore, mineralisation pathfinders cannot be attributed directly to mineralisation as the unusual geochemical signature of the porphyritic outcrop is potentially masking any response and subsequent interpretation.

The response observed in the ionic leach and fire assay sampling does not warrant further investigation at this stage. Furthermore, the rock chip samples, collected during the mapping, showed little anomalism.

No further work was undertaken by Prodigy on EL25194.

6.0 **EXPLORATION COMPLETED**

No on-ground exploration was undertaken on EL25194 during the reporting period.

7.0 **CONCLUSIONS AND RECOMMENDATIONS**

EL25194 is located within the western Tanami region along the NT-WA border. Exploration undertaken by Prodigy on the tenement comprised rock chip and soil sampling. No significant results were returned and Prodigy decided to relinquish the tenement.

8.0

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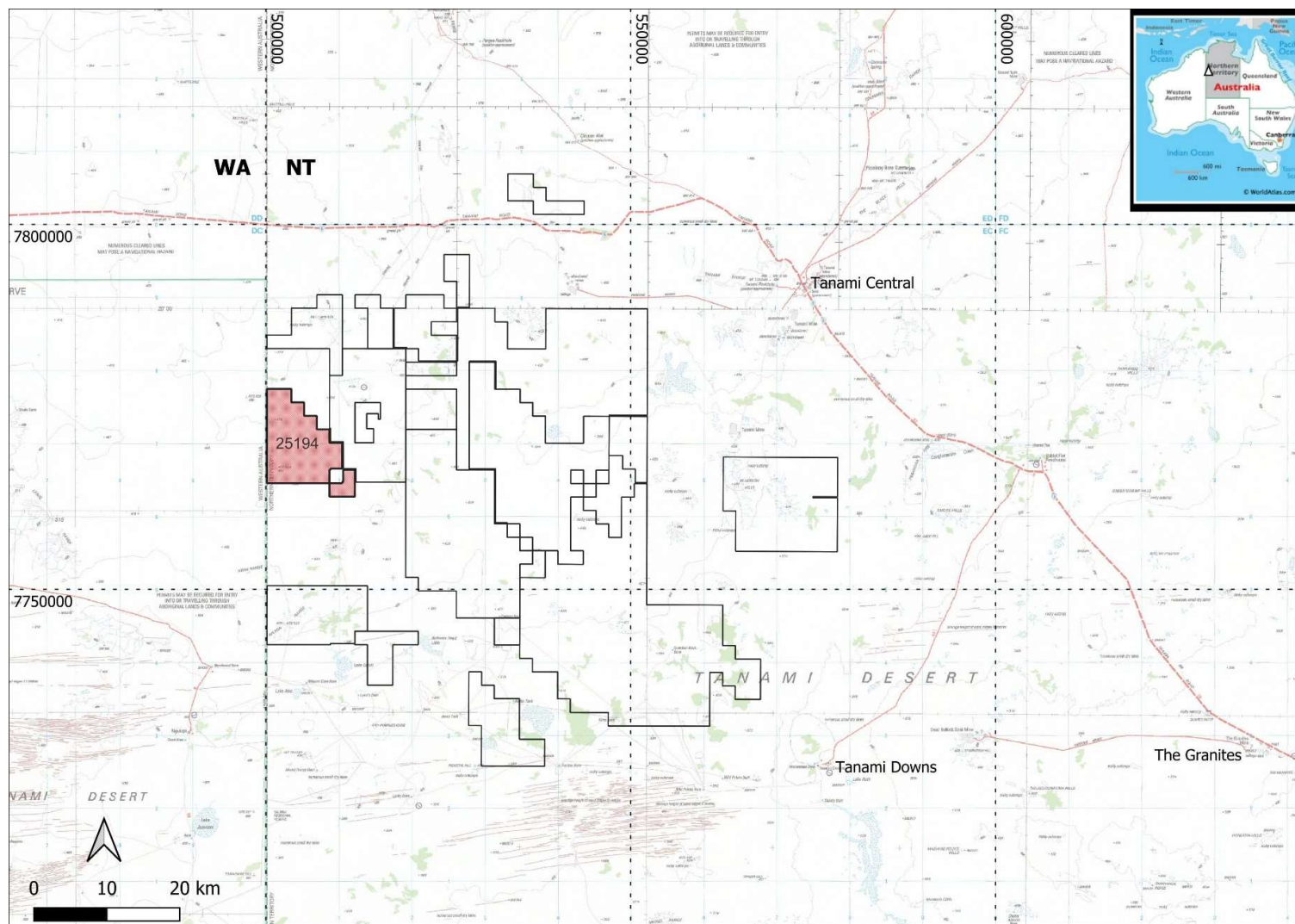


Figure 1. Location of EL25194

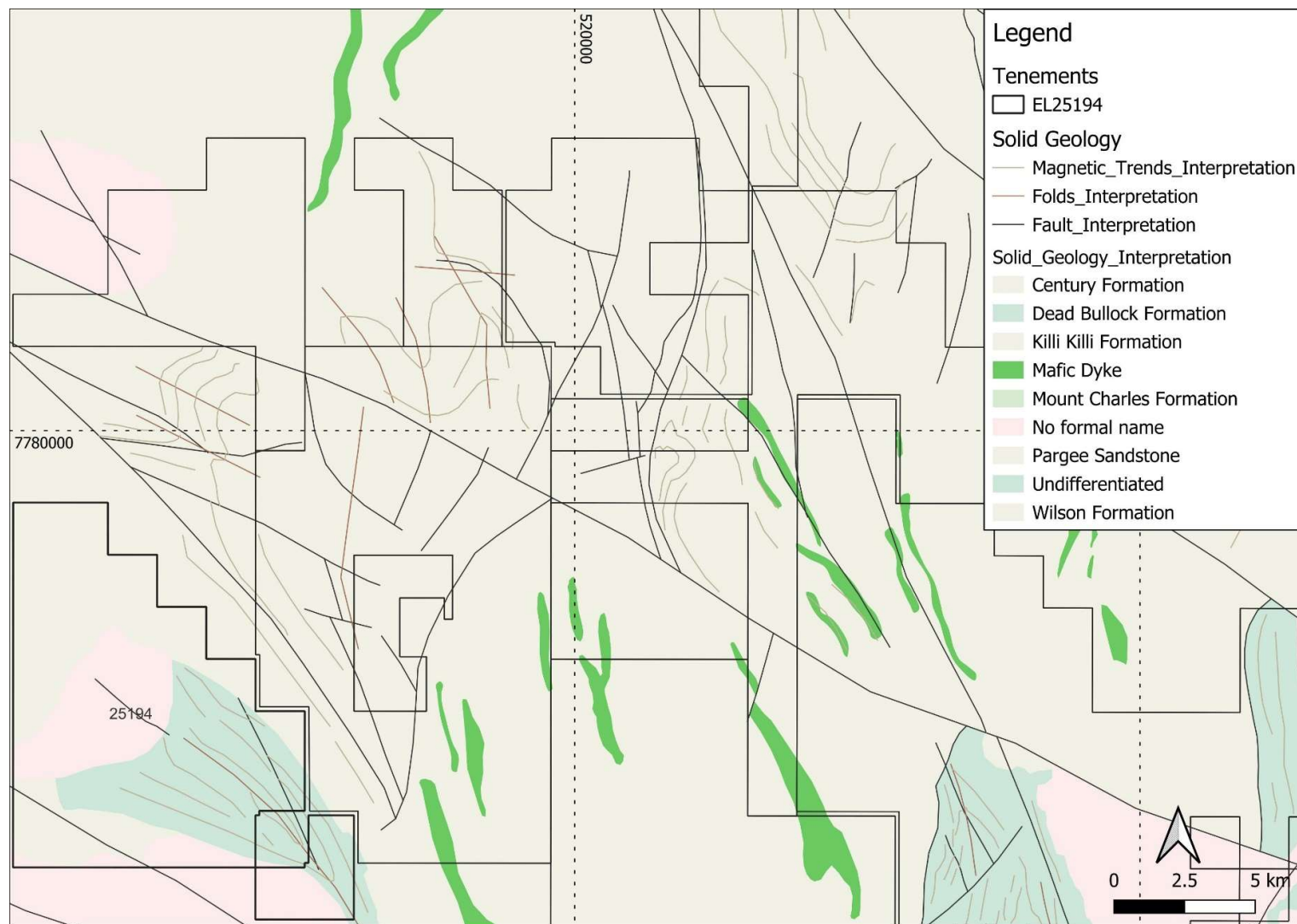


Figure 2. Solid geology interpretation for EL25194

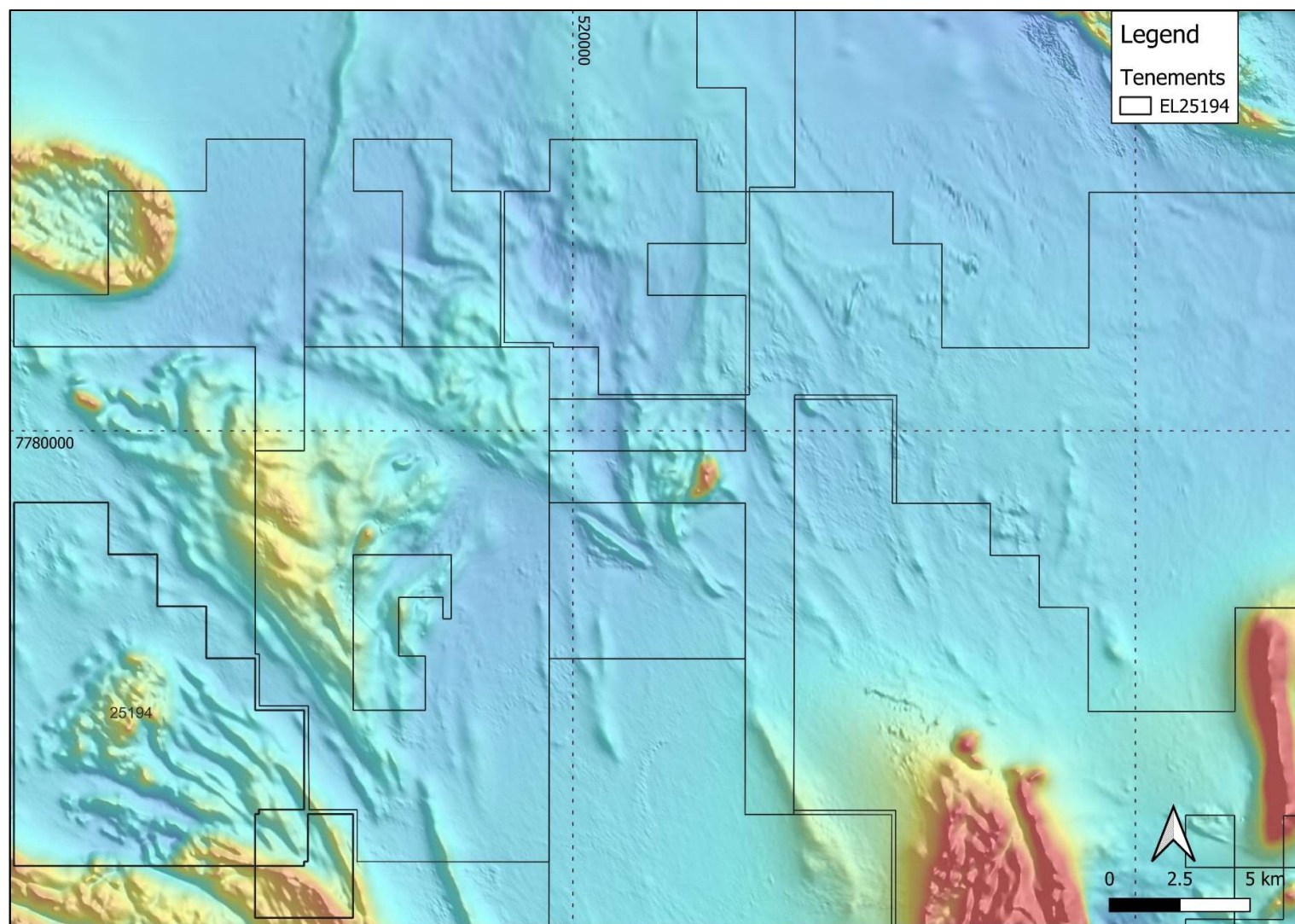


Figure 3. Total Magnetic intensity image

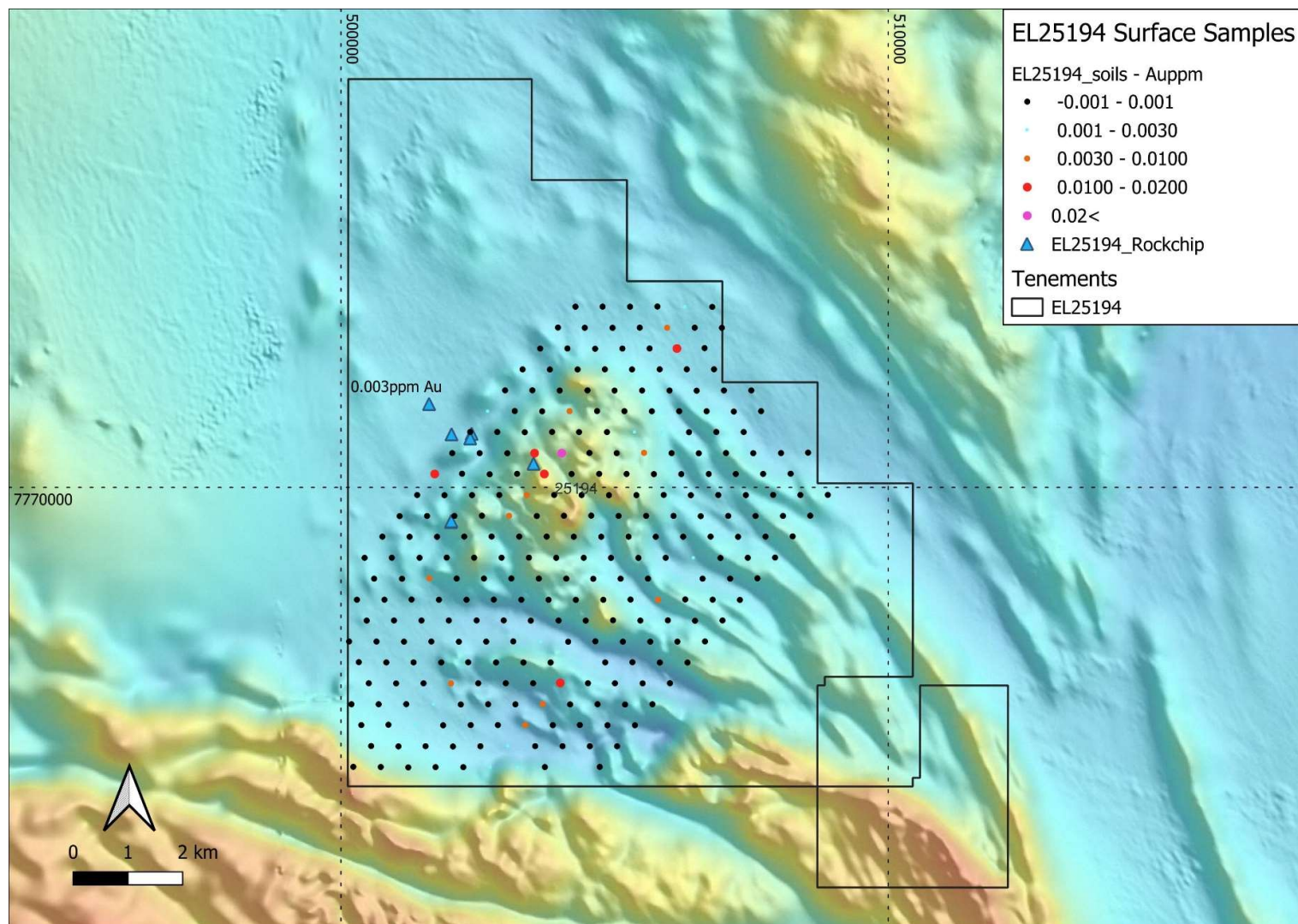


Figure 4. Prodigy surface sampling results for EL25194.