



Carpentaria Gold Pty Ltd
Ravenswood Operations

TECHNICAL REPORT NO: CG168

TITLE: EPM16487 "BURDEKIN"
ANNUAL REPORT FOR THE PERIOD ENDED 18th JANUARY 2013
RAVENSWOOD PROJECT, QUEENSLAND

HOLDER: CARPENTARIA GOLD PTY LTD

OPERATOR: CARPENTARIA GOLD PTY LTD

**INVESTIGATIONS
CONDUCTED BY:** CARPENTARIA GOLD PTY LTD

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1. Department of Natural Resources and Mines, Brisbane
2. Carpentaria Gold Pty Ltd, Ravenswood

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1 Introduction

Exploration Permit for Minerals 16847 Burdekin is centred approximately 115 kilometres south of Townsville, North Queensland (See Figure 1). The tenement, comprising 87 sub blocks, was granted to Carpentaria Gold Pty Ltd, a wholly owned subsidiary of Resolute Mining Ltd, by the Queensland Department of Mines and Energy on the 19th January 2011 for a period of five years.

The tenement is part of the Carpentaria Gold Pty Ltd Ravenswood project, explored by the company since 1977 at which time it was known as the Carpentaria Exploration Company Pty Ltd, included in the MIM Group of companies. In 2003 Xstrata completed an acquisition of MIM Holdings Ltd and in 2004 Carpentaria Gold Pty Ltd was acquired by Resolute Mining Ltd from Xstrata Queensland Limited.

The Ravenswood goldfield, located 40km southeast of Mingela, was discovered in 1868 with historic mining occurring from 1868 to 1967 and recent mining beginning in 1987. Exploration by Carpentaria Gold began with the granting of Authority to Prospect licence 1853 in 1977. The Nolan's deposit was discovered in 1992 and the large tonnage, low grade Sarsfield deposit was discovered in 1994. Mt Wright, approximately 10km north of Ravenswood, was discovered in 1992 with underground mining commencing in 2006.

The Ravenswood area contains breccia style and stockwork vein targets including Mt Wright-style breccia pipes, high-grade, low tonnage Sunset-style veins, and low-grade, high tonnage Nolans-Sarsfield stockwork style vein deposits, located within several prospective "corridors".

Work carried out by Carpentaria Gold Pty Ltd within EPM 16487 to the 18th January 2013 consisted of data and project review, which resulted in the nomination of 44 sub-blocks for relinquishment effective on 19th January 2013.

2 Location and Access

EPM 16847 Burdekin lies within the Charters Towers SF55-2 and Bowen SF55-3 1:250,000 Mapsheet areas, and the Ravenswood 8257 and Strathalbyn 8357 1:100,000 Mapsheet areas.

Access to the eastern portion of the permit is obtained via the sealed Burdekin Falls Dam Road south from Ravenswood whereas access to the western area is via the Broughton Road which runs south from Charters Towers. Station tracks provide access throughout most of the tenement.

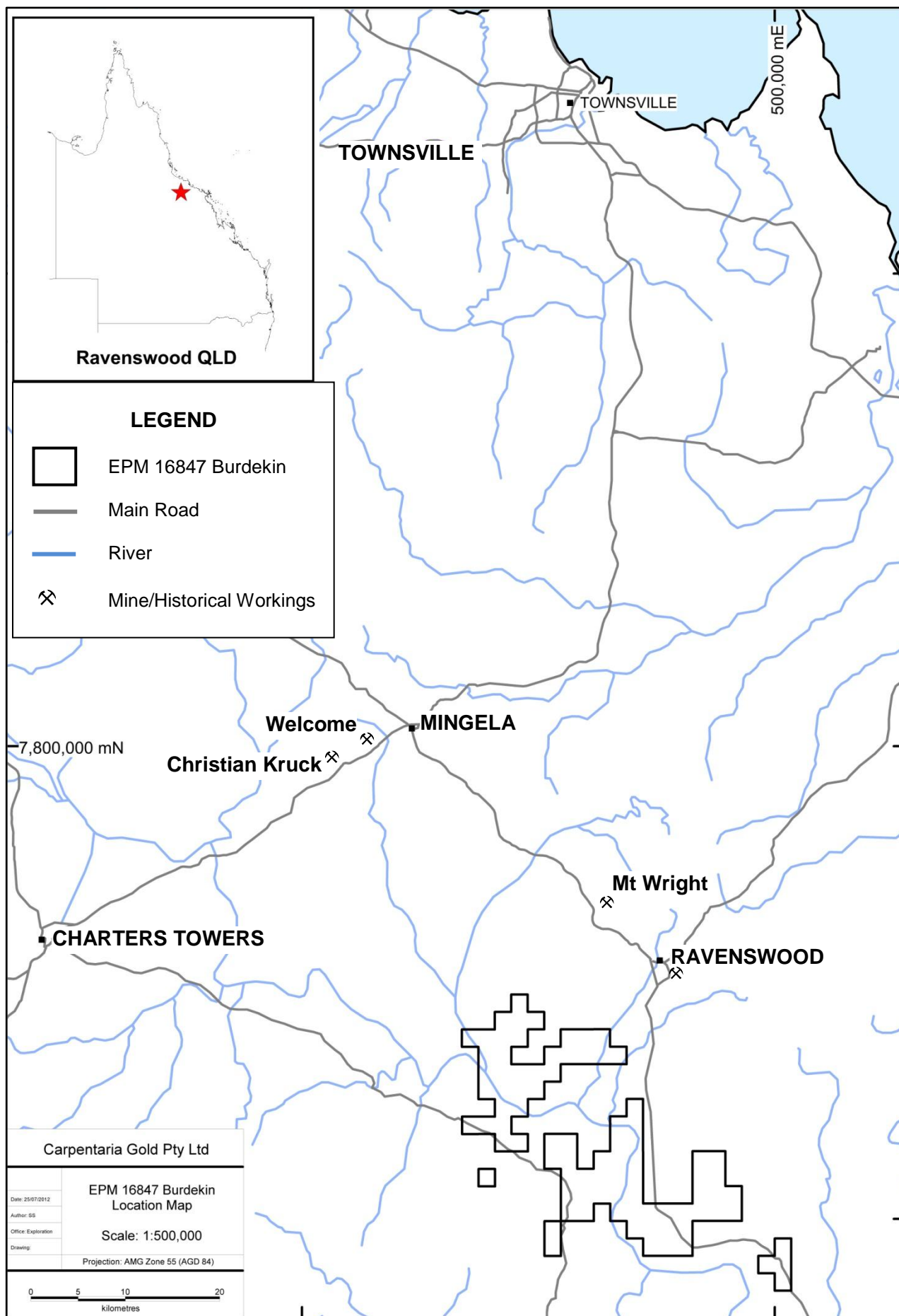


Figure 1: EPM 16847 Burdekin Location Map

3 Tenure

EPM 16847, comprising 87 sub-blocks was granted to Carpentaria Gold Pty Ltd on the 19th January 2011 for a term of 5 years (Refer Table 1 and Figure 2). The initial 87 sub-blocks, covering an area of approximately 280 km², were retained for two years with 44 sub-blocks relinquished effective 19th January 2013 (Table 2).

Table 1: EPM 16847 Burdekin Sub-blocks retained by Carpentaria Gold Pty Ltd

BIM	Block	Sub-blocks
CLER	179	F W
CLER	250	G H M N X Y
CLER	251	A B F G M Q R W
CLER	252	L M Q R V W X
CLER	322	C D
CLER	323	A B C D E G H J K N O P
CLER	324	A B C
CLER	325	L Q V

Table 2: EPM 16847 Burdekin Sub-blocks applied for relinquishment in January 2013

BIM	Block	Sub-blocks
CLER	105	U Y Z
CLER	106	V
CLER	177	B C D E H J N O P S T U Y Z
CLER	178	C D E G H J K L M Q
CLER	249	B C D J K S
CLER	250	P S T U Z
CLER	251	L V
CLER	322	G M
CLER	324	U

4 Native Title

The area of EPM 16847 lies wholly within the area of Registered Native Title Claim QC98/12 by the Birri People. Carpentaria Gold Pty Ltd has entered into a Heritage Agreement for Mineral Exploration with the Birri People, the “Birri EPM Agreement”.

5 Restricted Land

EPM 16847 falls within The Burdekin Falls Dam Catchment Area, a Category C Declared Catchment Area, with Reference No 206.

The top four sub-blocks intersect a Category B Endangered Regional Ecosystem - remnant and mature regrowth (biodiversity status).

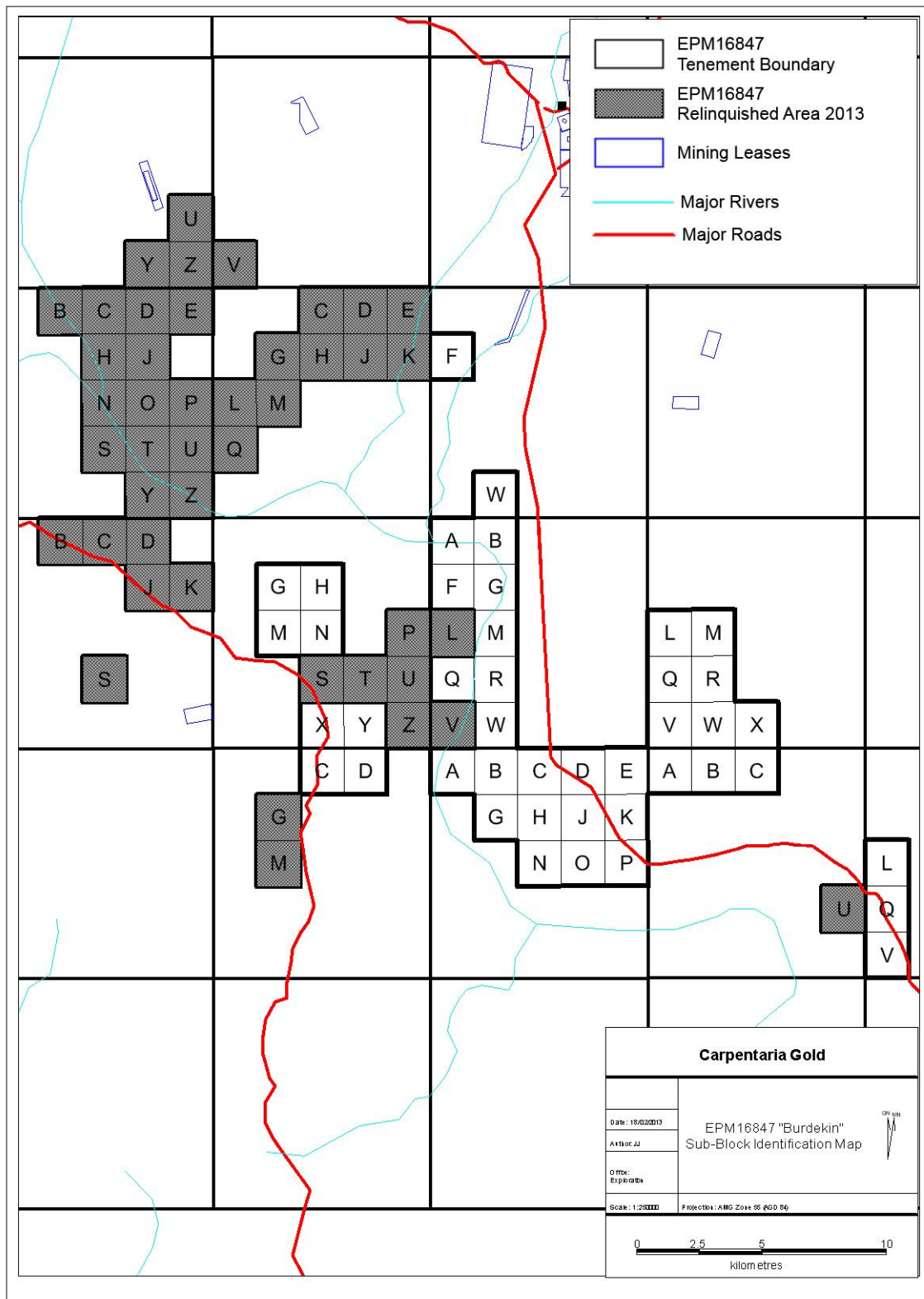


Figure 2: EPM 16847 Sub-block Identification Map

6 Regional Geology

EPM 16847 Burdekin is located within the Ravenswood Batholith, a major element of the Ravenswood-Lolworth Province. The Ravenswood-Lolworth Province is bounded to the North by the Broken River Province, to the south by the Drummond Basin and to the east by the Bowen Basin.

The Batholith includes a variety of Ordovician to Permian intrusive units, including granite, adamellite, granodiorite, tonalite, diorite and gabbro. Host units to the batholith include the Cambrian to Ordovician volcanics and sediments of the Seventy Mile Range Group and Early Palaeozoic Charters Towers Metamorphics, Argentine Metamorphics and Kirk River Beds.

'Basement' rocks within the EPM are represented by felsic to mafic volcanic units and associated sediments of the Early Ordovician Trooper Creek Formation and Ordovician Carse Creek Complex in the southern areas of the tenement (See Figure 3). Minor Cambrian to Ordovician sediments of the Mount Windsor Volcanics occurs in the eastern sub-blocks. Neoproterozoic to Cambrian schist, gneiss, amphibolites and quartzite units are confined along the south-eastern margin of the tenement.

The majority of the tenement contains a variety of Ordovician to Devonian granite, granodiorite, tonalite, and quartz-hornblende diorite to gabbro intrusive units. The intrusives are generally massive but are strongly fractured and hematite altered in the vicinity of major magnetic lineaments such as the Plumwood-Connolly Fault or Burdekin River Lineament.

The central area of the tenement is dominated by the Late Silurian Carse O Gowrie Granodiorite with Tertiary to Recent cover sequences associated with the Burdekin River extending to the northwest where the Silurian to Devonian Scoop Holes Granodiorite and Chippendale Granodiorite occur, with lesser amounts of Barrabas Adamellite and Wellington Springs Tonalite.

Carboniferous to Permian intrusive units of the Boori Igneous Complex occur in the far northern sub-blocks with Mt Canton, and Lulu Pocket Igneous Complexes occurring in the south eastern sub-blocks.

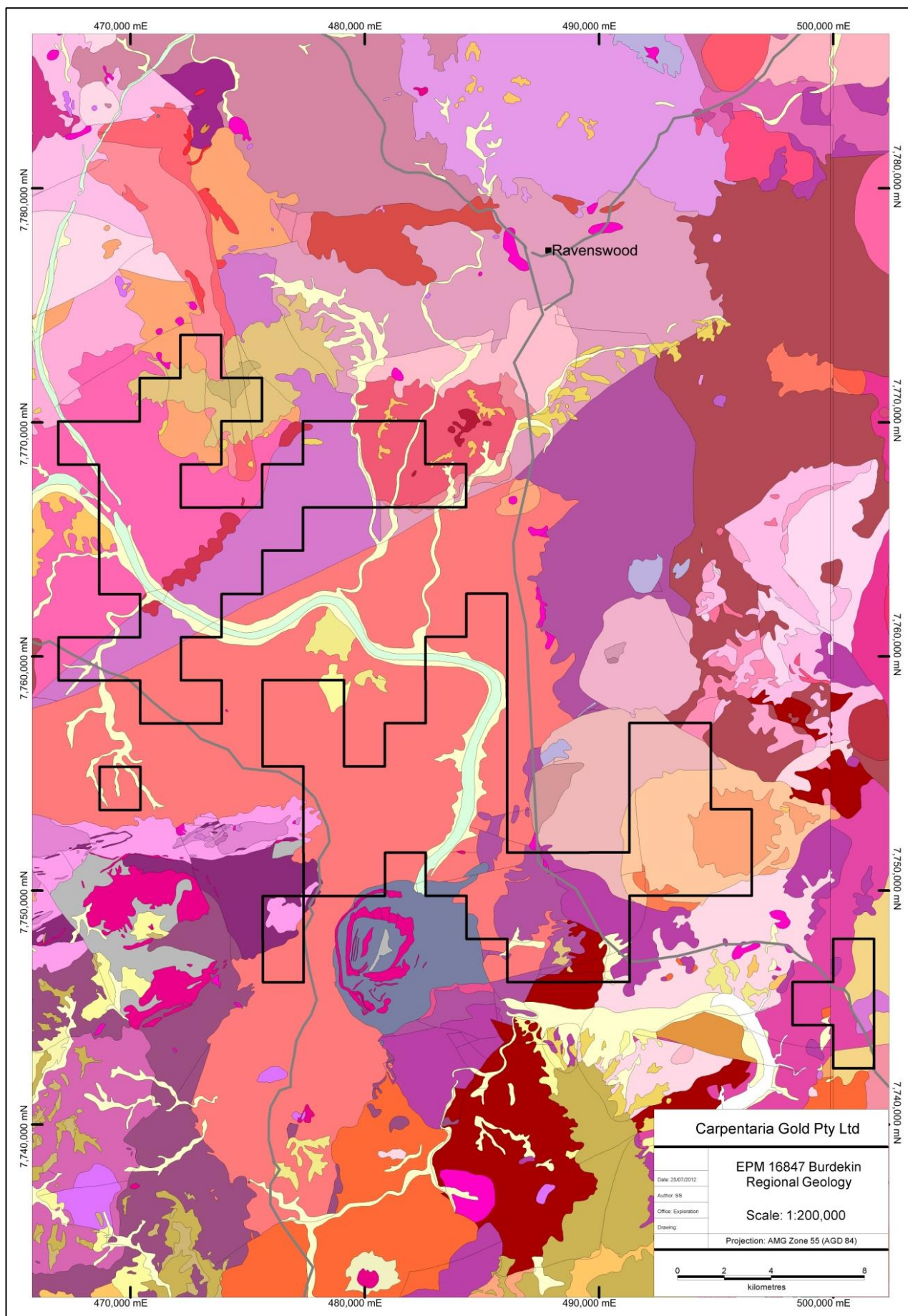


Figure 3: Regional Geology of EPM 16847 Burdekin
(Legend Overleaf)



Figure 4: Regional Geology Legend

7 Target Selection

Exploration has been designed to locate gold mineralisation adjacent to Carpentaria Gold's existing EPMs and within trucking distance of the processing plant at Ravenswood. Targeting is based on current mineralisation models and geochemical signatures associated with quartz veining and breccias within granitoids, as per the Ravenswood style deposits, and Mt Wright style deposits where gold mineralisation is associated with rhyolite intrusive units.

Targets include:

- Previously established Au prospects including Hanoverian, Burdekin, Hit Lucky, Sundown, Clinker and Blackfellow Mountain
- Splays off the NE-trending Plumwood-Connolly Fault known to host Au mineralisation at the Donnybrook, Lord Jane and Trieste prospects to the SW of Ravenswood
- Au-Cu mineralisation within the Donnybrook mineralised corridor
- Mineralisation associated with diorite intrusive units and the diorite/granitoid contacts

8 Previous Exploration

Previous company exploration activity in the region has targeted porphyry Cu-Mo style deposits, mesothermal vein and sub-volcanic breccia hosted Au deposits within the Ravenswood Batholith; large tonnage breccia hosted gold mineralisation similar to Mt Leyshon, alluvial gold resources, porphyry related vein, breccia and disseminated Au and base metal deposits, and depth extensions of mineralised lodes beneath historical gold workings.

Carpentaria Gold Pty Ltd, previously Carpentaria Exploration Company Pty Ltd and included in the MIM Group, has been exploring in the region adjacent to EPM 16847 since 1977. Historical tenements held by MIM/Carpentaria Gold Pty Ltd that overlap the current area of EPM 16847 are given in Table 3 with corresponding historical reports listed in Table 4.

Table 3: Historical Tenements Held by Carpentaria Gold within EPM 16847

Tenure	Company	Years
EPM 8630 Connolly	MIM Exploration Pty Ltd/Carpentaria Gold Pty Ltd	1992
EPM 9140 Mt Wright Amalgamated	MIM Exploration Pty Ltd/Carpentaria Gold Pty Ltd	1992 - 2006
EPM 10652	MIM Exploration Pty Ltd/Carpentaria Gold Pty Ltd	1995 - 2006
EPM 10688	MIM Exploration Pty Ltd/Carpentaria Gold Pty Ltd	1996 - 2006
EPM 10869	MIM Exploration Pty Ltd/Carpentaria Gold Pty Ltd	1996 - 1999

Exploration work conducted by Carpentaria Gold within historical tenements which overlap the sub blocks of EPM 116847 included stream sediment sampling, geological mapping, soil sampling, rock chip sampling, regional gravity surveys, and a heliborne magnetic survey.

A summary of work completed on each historical tenement is given in the 2012 Annual Report (Sutherland & Semwenda, 2012).

Table 4: Statutory Reporting by MIM Exploration Pty Ltd/Carpentaria Gold Pty Ltd

A to P/ EPM No.	Company Report No.	Report Type	Year
8630	CR24620	Annual Report	1993
9140	CR25193	Annual Report	1993
9140	CR26454	Annual Report	1994
9140	CR29337	Annual Report	1994
9140	CR27530	Annual Report	1995
9140	CR28367	Annual Report	1996
9140	CR29588	Part Relinquishment Report	1997
9140	CR29625	Annual Report	1997
9140	CR33215	Part Relinquishment Report	2001
9140	CR34415	Part Relinquishment Report	2002
9140	CR37441	Part Relinquishment Report	2003
10652	CR28549	Annual Report	1996
10652	CR29340	Annual Report	1997
10652	CR30452	Annual Report	1998
10652	CR31119	Part Relinquishment Report	1999
10652	CR33151	Part Relinquishment Report	2000
10652	CR32863	Part Relinquishment Report	2001
10652	CR34416	Part Relinquishment Report	2002
10652	CR38397	Part Relinquishment Report	2003
10652	CG122	Final Relinquishment Report	2006
10688	CR28548	Annual Report	1996
10688	CR29341	Annual Report	1997
10688	CR30453	Annual Report	1998
10688	CG123	Final Relinquishment Report	2006
10869	CR28705	Annual Report	1997
10869	TR2835	Annual Report	1997
10869	CR29885	Annual Report	1998
10869	CR30230	Part Relinquishment Report	1998
10869	CR31179	Part Relinquishment Report	1999
10869	CR34417	Part Relinquishment Report	2003
10869	CR37442	Part Relinquishment Report	2004
10869	CG124	Final Relinquishment Report	2006
9140/10652/10688/ 10869	TR3060	Combined Annual Report	1999
9140/10652/10688/ 10869	CR32098	Combined Annual Report	2000
9140/10652/10688/ 10869	TR3502	Combined Annual Report	2001
9140/10652/10688/ 10869	TR3519	Combined Annual Report	2002
9140/10652/10688/ 10869	TR CG112	Combined Annual Report	2003
9140/10652/10688/ 10869	TR CG113	Combined Annual Report	2004
9140/10652/10688/ 10869	TR CG117	Combined Annual Report	2005
9140/10652/10688/ 10869	TR CG127	Combined Annual Report	2006

A summary of historical exploration conducted by other companies within the area now covered by EPM 16847 is given in the 2012 Annual Report (Sutherland & Semwenda, 2012). Exploration work done on these tenements consisted of stream sediment sampling, geological mapping, rock chip sampling, soil sampling, bulk sampling of alluvial deposits, costeaning, an airborne magnetic survey, and a ground magnetic survey.

9 Exploration Work Completed on EPM 16847 Burdekin

Exploration work conducted by Carpentaria Gold Pty Ltd up to the 18th January 2013 consisted of predominately project reviews based on the data collected in the preceding period. No new samples were collected. A review of the regional geochemical data and geology was conducted, which assisted the process of nominating the required 44 sub-blocks for partial relinquishment.

As part of the review, five areas have been identified for follow-up geochemical sampling. All are in the Mt Canton / Lulu Pocket area. This will be completed in the next 12 months.

10 Environment

No environmental issues were identified for EPM 16847 Burdekin.

11 Quality Assurance and Quality Control

Standard QAQC procedures were followed for all surface sampling programs. Routine field duplicates, standards and blanks were inserted into all soil sampling programs at a rate of 1 in 50 and each batch of rock chip samples typically contained at least one blank sample.

No QAQC issues were identified for EPM 16847 Burdekin.

12 Planned Work

Further field work and surface geochemistry is planned for the following reporting period.

13 References

Sutherland, S. & Semwenda, A., 2012. Technical Report No 158. EPM16847 "Burdekin" Annual Report for the Period Ended 18th January 2012 Ravenswood Project, Queensland.