2018

ANNUAL REPORT EL 30054

PERIOD: 4/4/2017 TO 3/4/2018

CAMFIELD REGION, NORTHERN TERRITORY

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1:100 000 Mapsheet:5163 Camfield
1:250 000 Mapsheet: SE5208 Wave Hill
Commodity: Amethyst

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Minesite Services Australia
May 2018

Abstract:

EL 30054 is located 20km south of the Camfield Station Homestead along the Buntine Highway in the Victoria River region of the Northern Territory. The licence covers an exposed portion of the Antrim Plateau Volcanics which hosts specimens of amethyst located within the volcanics.

Field work consisted of a geological reconnaissance over a large part of the licence area seeking favourable sites for the location of amethyst. 22 samples of amethyst were removed to Darwin for closer examination and testing.

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Any information included in this report that originates from historical reports or other sources is listed in the “References” section at the end of the document.

This report may be released to open file as per Regulation 125(3)(a).

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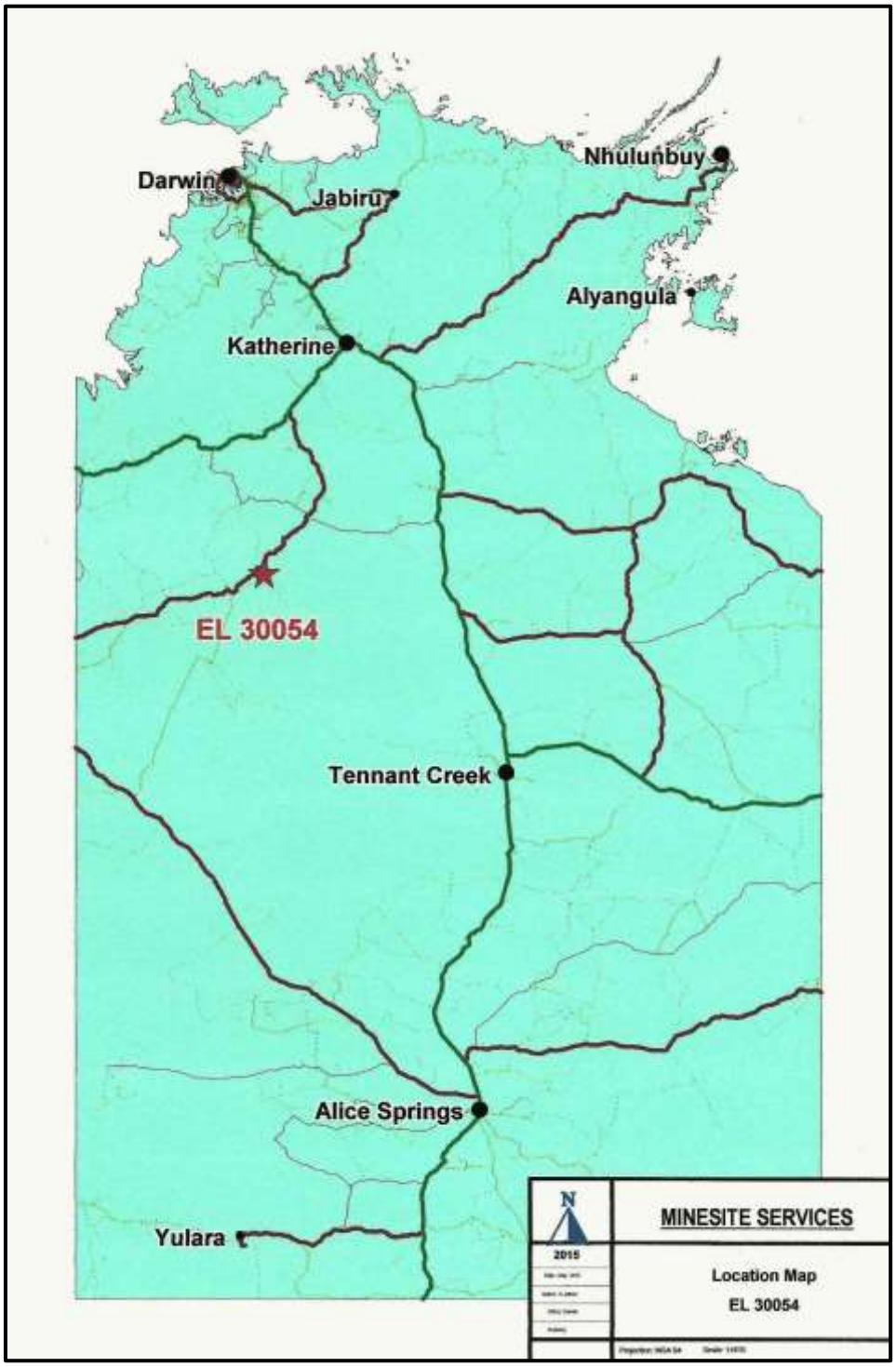
1. LOCATION

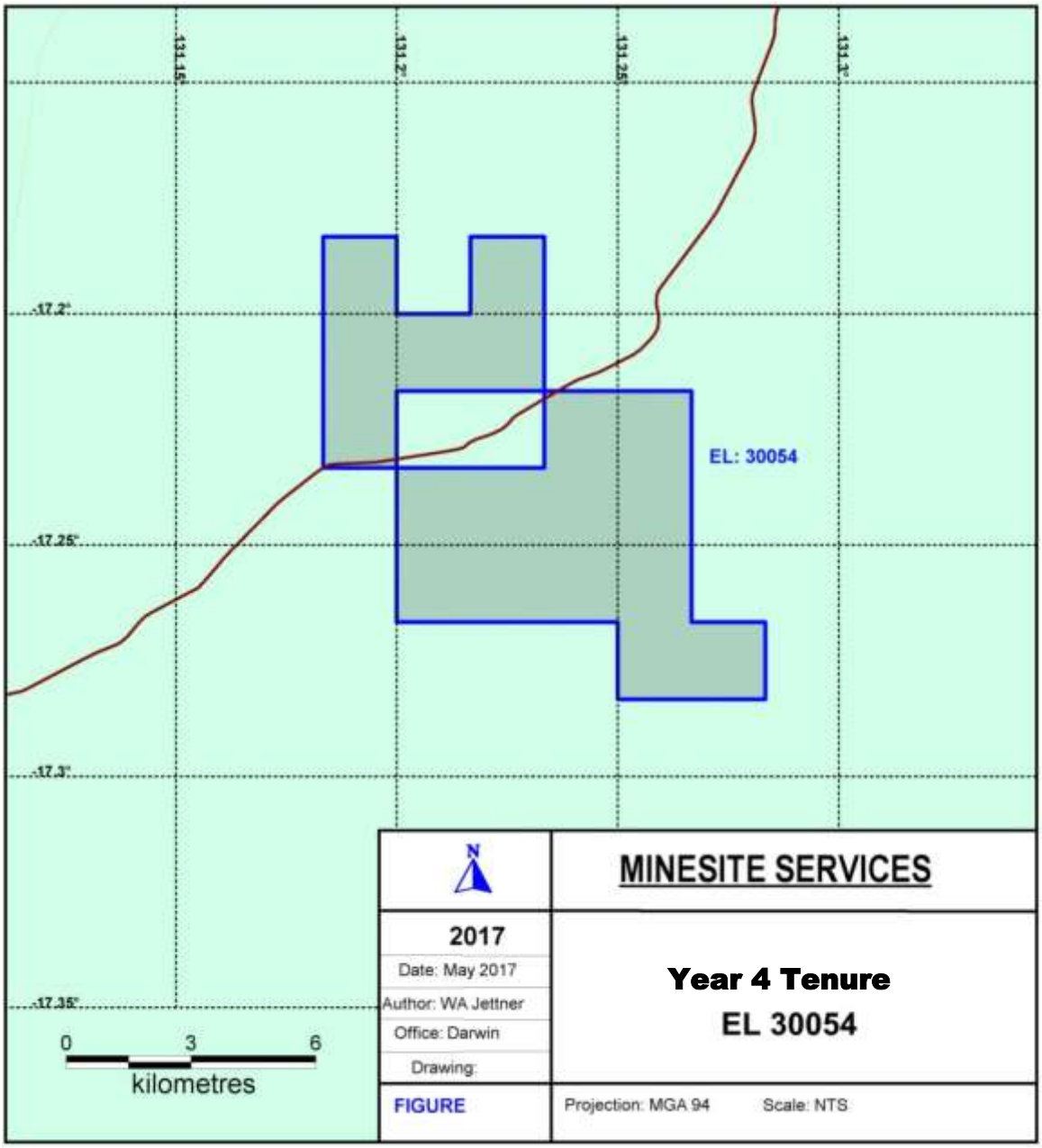
EL 30054 is located some 540km to the south of Darwin in the Northern Territory.
The licence has a regular shape having a north-south length of 10.7km with an east-west width of 10.7km and lies between 17° 11'S to 17° 17'S and 131° 11'E to 131° 17'E.
The licence is located upon the Camfield pastoral lease to the southwest of Katherine.



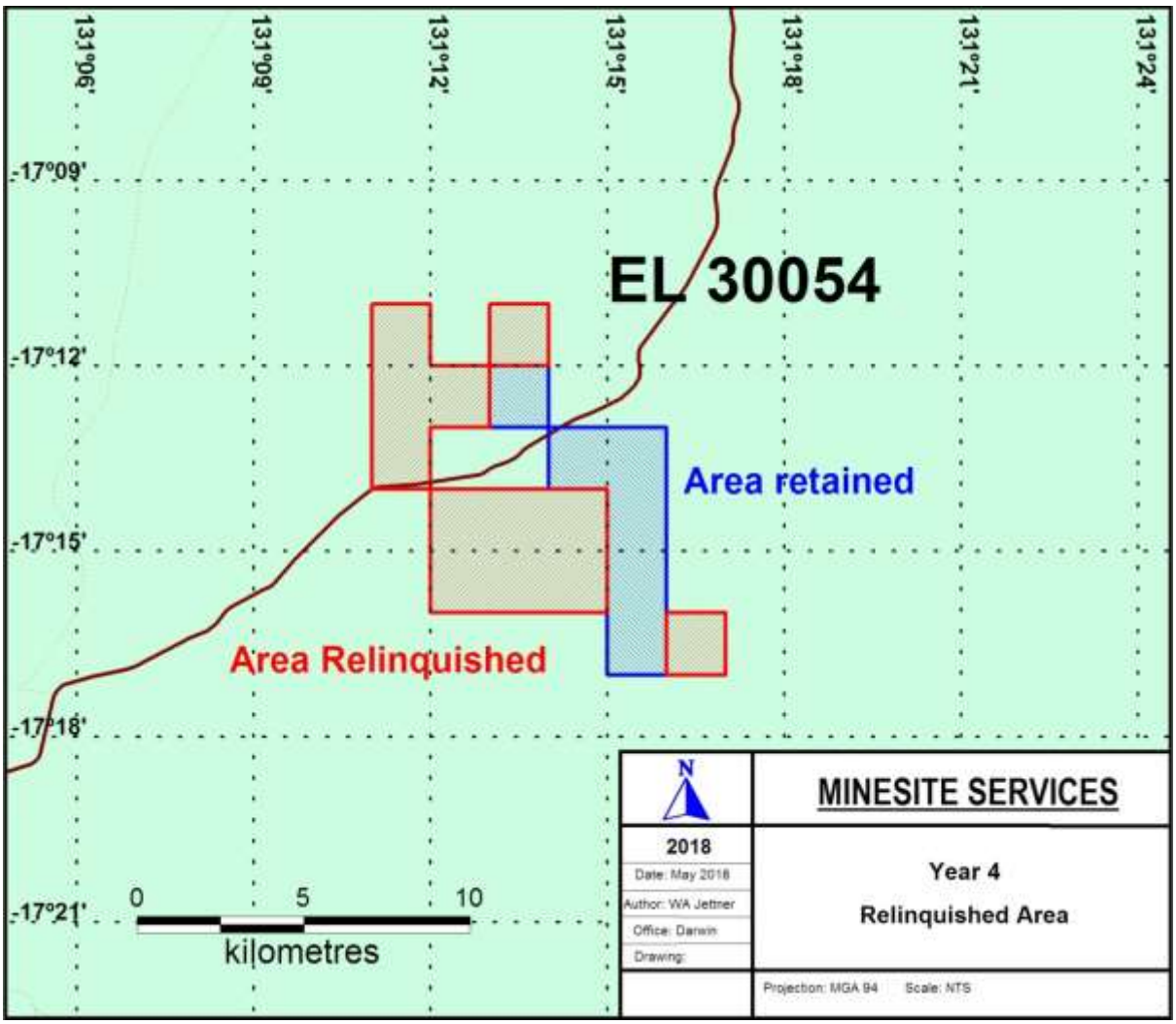
2. TITLE HISTORY

Mineral Tenure

EL 30054 was granted on 4/04/2014 and this report is the Fourth Annual Technical Report which covers activities in the period 4/04/2017 to 3/04/2018, being the fourth year of tenure. The licence has an area of 18 graticular blocks (58 km^2).



At the end of the fourth year of tenure 12 graticular subblocks were surrendered leaving an area of 6 graticular subblocks remaining for the fifth licence year.

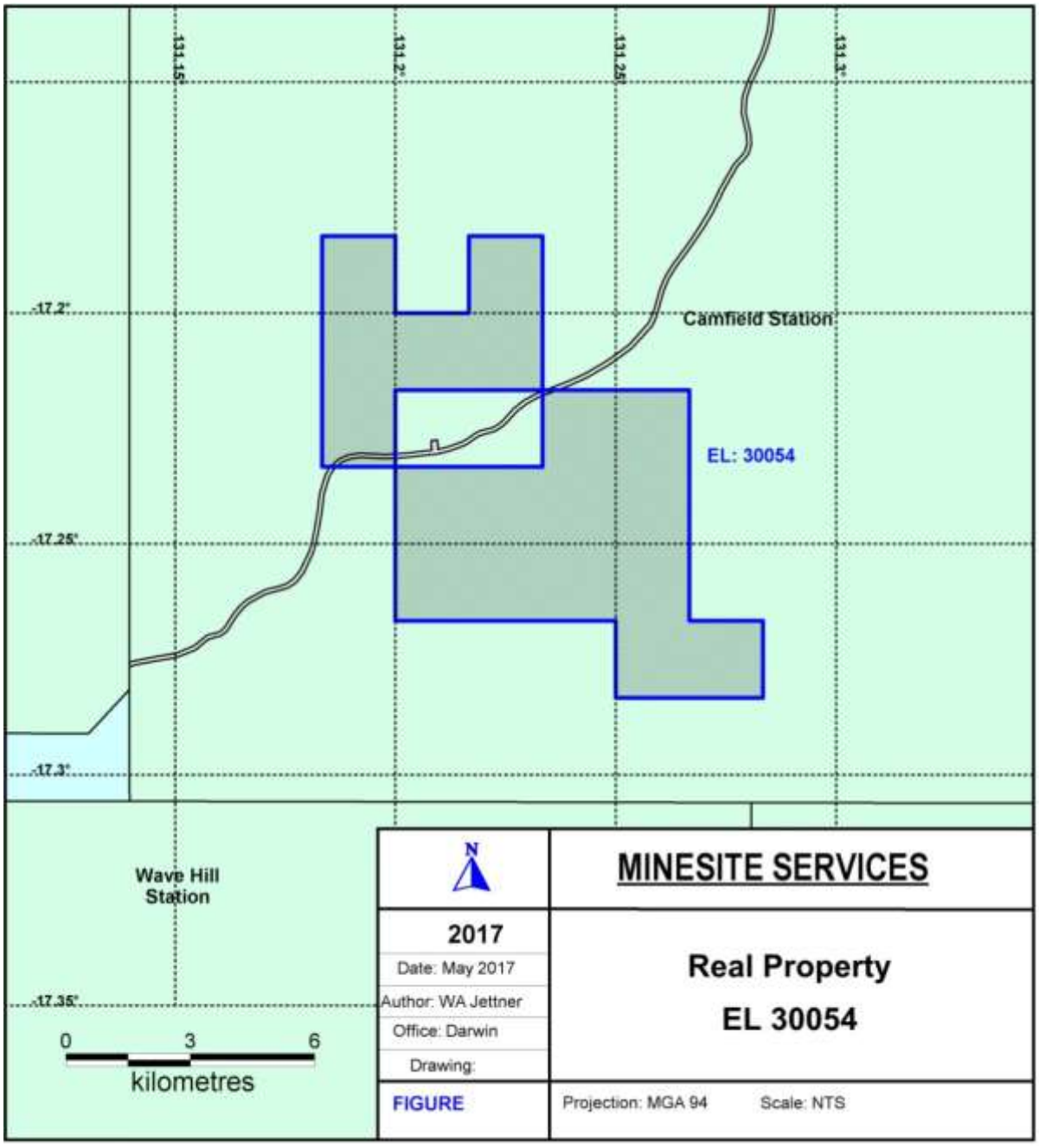


Area relinquished at the end of the fourth year of tenure

Real Property

EL 29051 is located on the following real property parcel:

NT PPL 1025 (NTP 3736) “Camfield Station” which is owned by the Australian Agricultural Company Ltd (PO Box 587 Brisbane QLD 4001).



3. PHYSIOGRAPHY

i. Geomorphology

The geomorphology of the licence area consists of north-south aligned low hills that are desiccated by drainage systems heading north. The area to the south and east of the licence consists of topographical lows reflecting the fracturing of the rocks and erosion of the volcanics whereas topographic highs are those areas where the rocks have been stiffened by the remnant Antrim Plateau Volcanics.

ii. Biogeography

In the licence a single vegetation type occursin the licence area, this is: low open woodlands consisting of Bloodwood and Box Eucalypts with an open-grassland understorey consisting of White Grass and Golden Beard Grass understorey

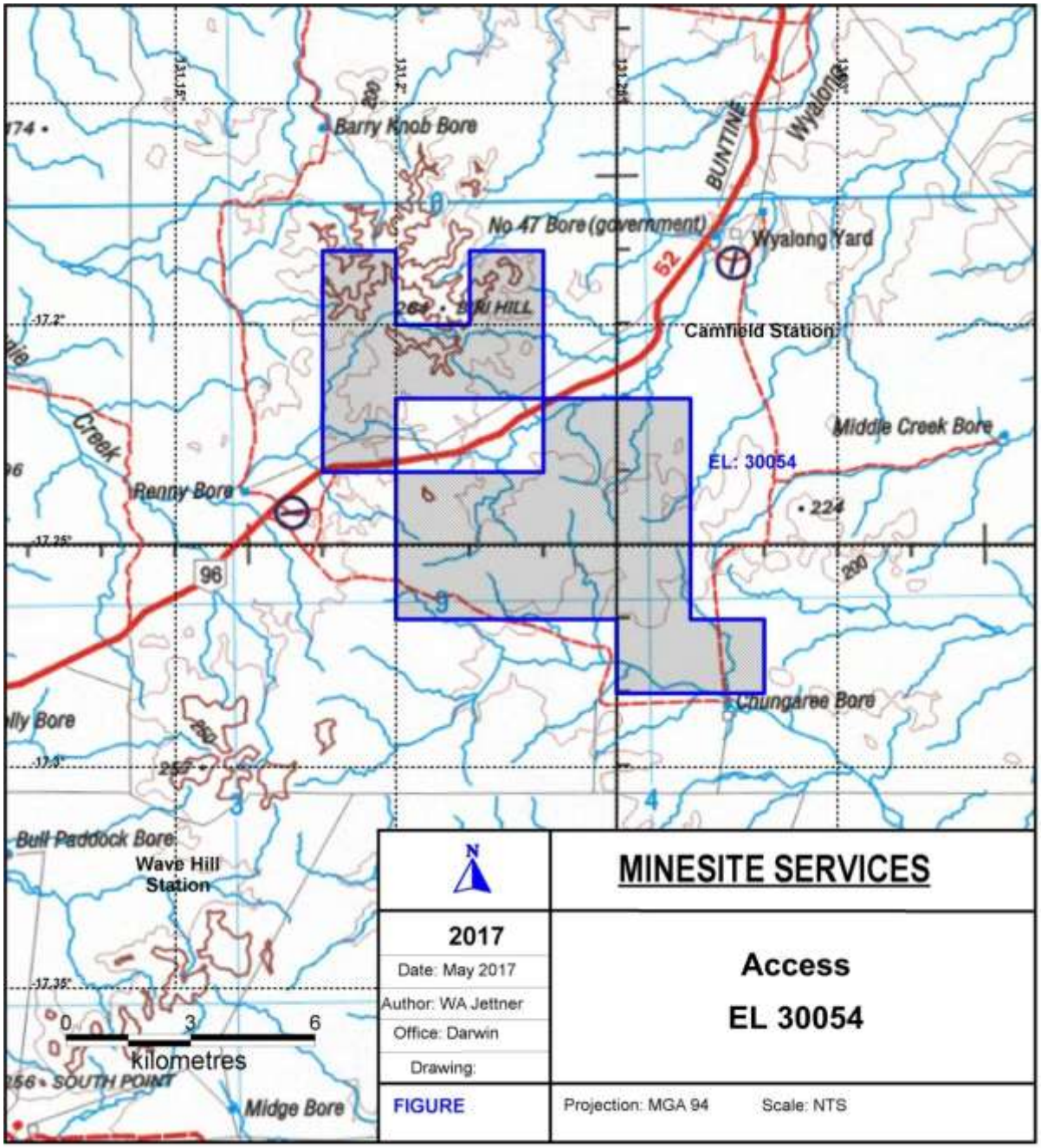
iii. Hydrology

Seasonal rains fall during the wet season, (depending on the year), and quickly runoff. The regional area is held under real property tenure as cattle stations whose main pursuit is open range cattle grazing. The area that the licence occurs is used by Camfield Station for grazing. Elsewhere cattle are supplied by natural accumulations of water in creeks and billabongs that are replenished during the wet season.

The groundwater of the area consists of locally fractured rocks based around shear zones. Bores drilled in this area generally give poor flows. Flow rates are less than 0.5 l/s.

4. ACCESS

Access to the exploration licence from Darwin is southwards along the Stuart Highway for 335km to Katherine then southwest for 125km along the Victoria Highway to the Willeroo Station Homestead, then southwards along the Buntine highway for 260km. The licence area is bisected by the Buntine Highway and has well maintained station roads which offer excellent access throughout. Access is considered to be good to excellent throughout the licence.

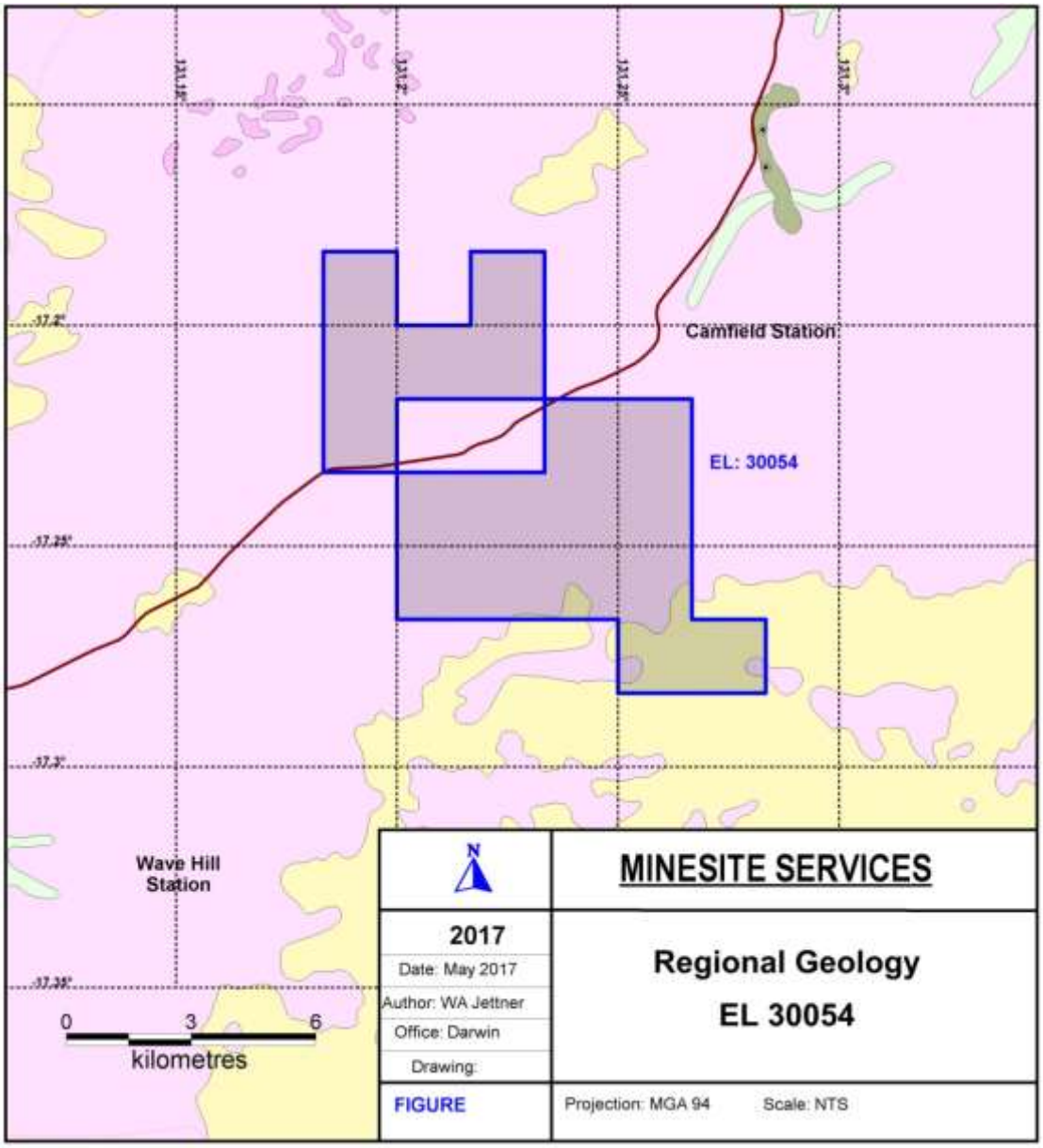


5. GEOLOGICAL SETTING

i. Regional Geology

EL 30054 is located within the Cambrian Kalkarindji Province located midway between the Victoria Basin and the Wiso Basin.

NTGS data indicates that basaltic lava flows in the NT are extensively contiguous' under covering strata across the Ord, Bonaparte, Daly, northern Wiso and northern Georgina Basins. The volcanic rocks consist predominantly of basaltic lava flows, minor flow breccia and agglomerate, and intrusive dolerite dykes are found in Western Australia. Thin interbeds (<10m thick) of well sorted crossbedded sandstone, siltstone, chert, sedimentary breccia and silicified stromatolites are locally present.



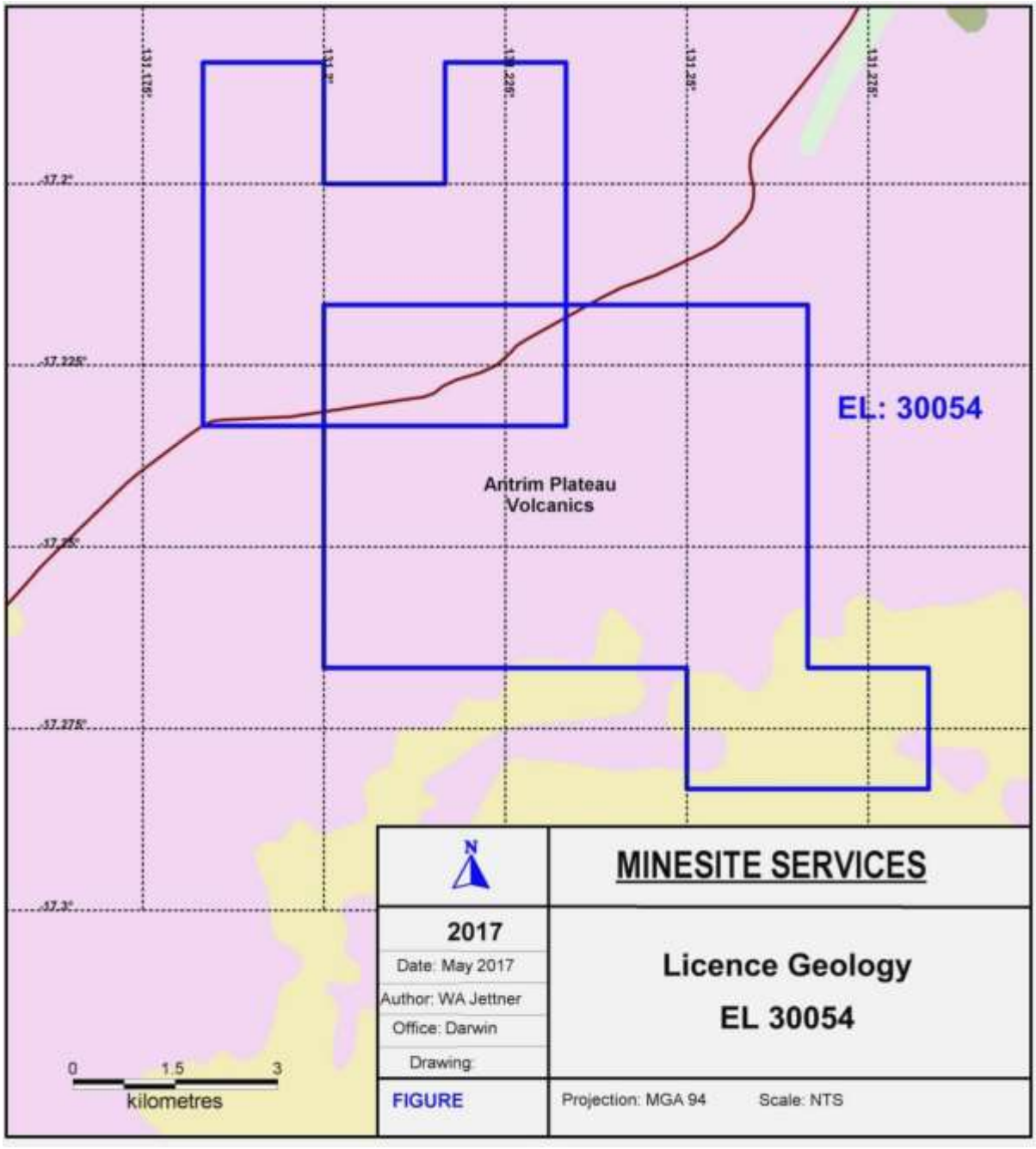
ii. Licence Geology

EL30054 is underlain by the Kalkarindji Suite which consists of Early Cambrian volcanic units of the Kalkarindji flood basalt province in Northern Australia.

The Antrim Plateau Volcanics unconformably overlie Proterozoic basement rocks and underlie sedimentary rocks of the Ord, Daly, northern Wiso and northern Georgina Basins in the NT. The unit may extent further to the north in the Arafura Basin as red-brown volcanic rocks encountered in drillhole Money Shoal – 1 which have historically been correlated with the Antrim Plateau Volcanics.

The Antrim Plateau volcanic succession has its greatest thickness in the east Kimberly region, where successive basalt flows dip 5-10° to the east and attain a maximum total thickness of 1100m. Individual non-basaltic flows in this succession are separated by conspicuous flow units. It is these units that are the hosts for amethyst voids, geoids and plates that are the target of this exploration program.

In general the Antrim Plateau Volcanics are unconformably overlain by early middle Cambrian carbonate units: Headleys Limestone in the Ord Basin, Montejinni Limestone in the Wiso Basin and Tindal limestone in the Daly Basin.


131.175°
131.2°
131.225°
131.25°
131.275°
17.2°
17.225°
17.25°
17.275°
17.3°
EL: 30054
Antrim Plateau
Volcanics
0
1.5
3
kilometres
N
MINESITE SERVICES
2017
Date: May 2017
Author: WA Jettner
Office: Darwin
Drawing:
Licence Geology
EL 30054
FIGURE
Projection: MGA 94
Scale: NTS

6. EXPLORATION AND MINING HISTORY

Exploration

Exploration activities have been conducted on and around the licence area for a number of years by a large number of exploration companies, a list of the licences and reports is tabulated below:

Table 1. Historical Exploration Licences and Open File Reports

Licence No	Licence Holder	Tenure Period From	Tenure Period To	Open File Company Reports
AP2068	Metals Exploration	24/10/1968	23/4/1969	CR1968/0035
AP2328	Metals Exploration			CR1970/0047
EL7881	Kajar	30/11/1992	29/11/1994	CR1994/0187
EL9262	Stockdale Prospecting	27/9/1995	12/10/1998	CR1996/0795
				CR1997/0651
				CR1998/0480
				CR1998/0733
EL23225	Ausquest	13/1/2003	2/12/2004	CR2004/0041
				CR2004/0729
EL27618	Proto Resources	13/5/2010	24/7/2012	CR2011/0320
				CR2012/0231
				CR2012/0664

Mining

There have been only minor mining activities conducted within the licence area and there is only one mine recorded, this was amethyst mining activity conducted on MCN 4490 (now surrendered).

Table 2. Historical Mines and Prospects

Mine/Prospect Name	Modat Site Id	Mineral Field	Commodity	Orebody Type
Unnamed 0010	10	Kalkaringi	Gems	Vein

7. EXPLORATION RATIONALE

EL 30054 is located 20km south of the Camfield Homestead along the Buntine Highway. The application covers an exposed portion of the Antrim Plateau Volcanics.
This locality hosts specimens of amethyst located within the volcanics as is evidenced by previous activities in MCN 4490 in the early 1990s, and specimens found in exploration activities in years 1 to 4.
The rationale is to explore the area to locate specimens and then to ascertain their quantity and quality.

8. EXPLORATION INDEX MAP

There has been no exploration index map constructed for EL30054.

9. GEOLOGICAL ACTIVITIES

Office Studies.

During the year further research on the localisation of amethyst in the Camfield area was undertaken, this included discussions with previous explorers and fossickers.

Field Studies

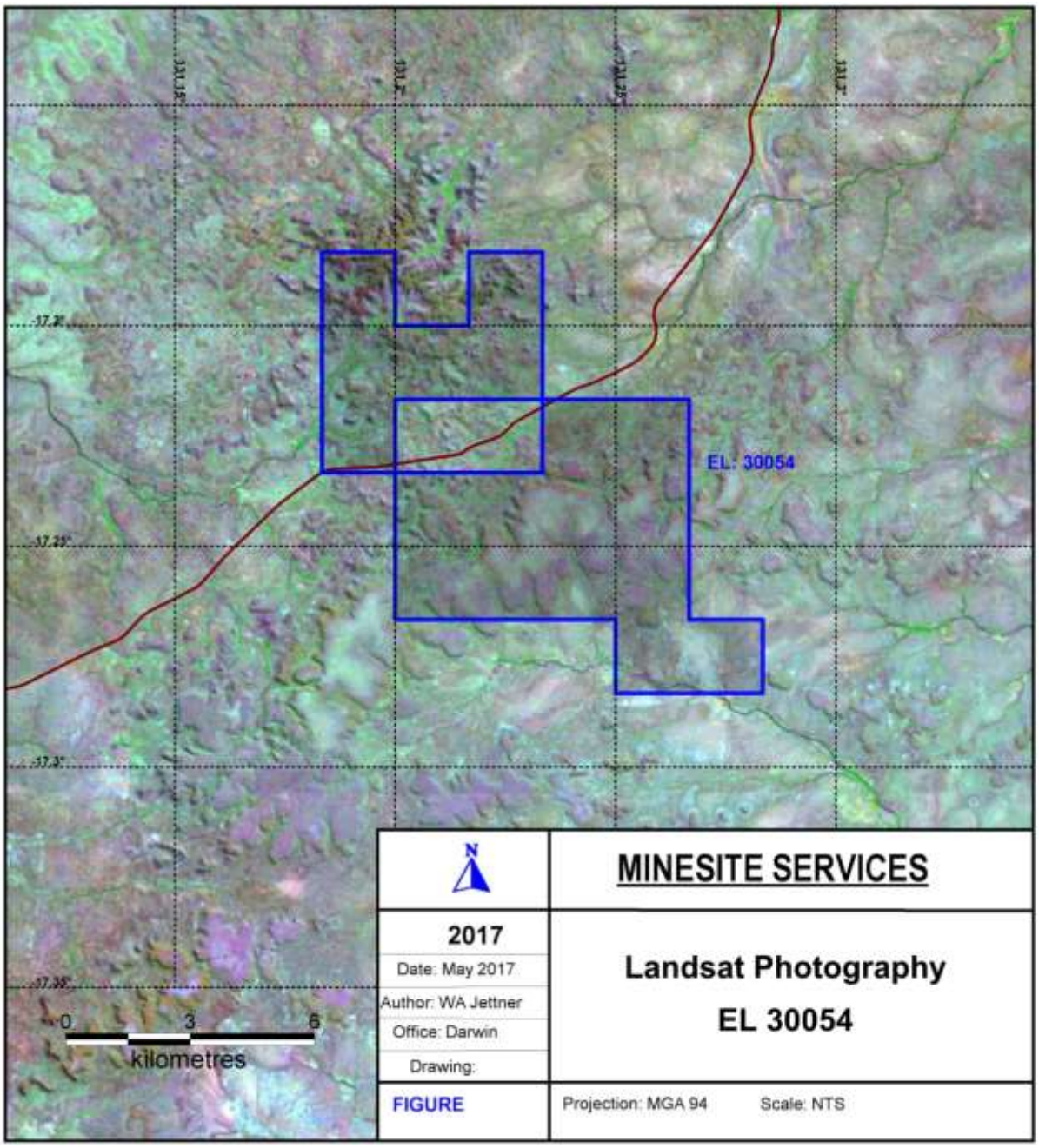
Field work on the licence during the year consisted of a field trip to the licence area in May/June 2017.
During this field trip a number of geological reconnaissance traverses were conducted along the southern and eastern sides of the licence.
There were 22 specimens of amethyst collected for further examination either at camp or later back in Darwin. There were many more specimens examined on site but not collected for further examination due to their poor quality.
The locations of those specimens that were removed from the licence are given in Appendix 1.

10. REMOTE SENSING

There were no remote sensing surveys done during the year.

Included below is an image taken from the DME Geoscience Data Package (DIP 008), LANDSAT 7.

The tile is: Landsat 7 Run W2, Path 105, Row 72, Acquisition date 1999.



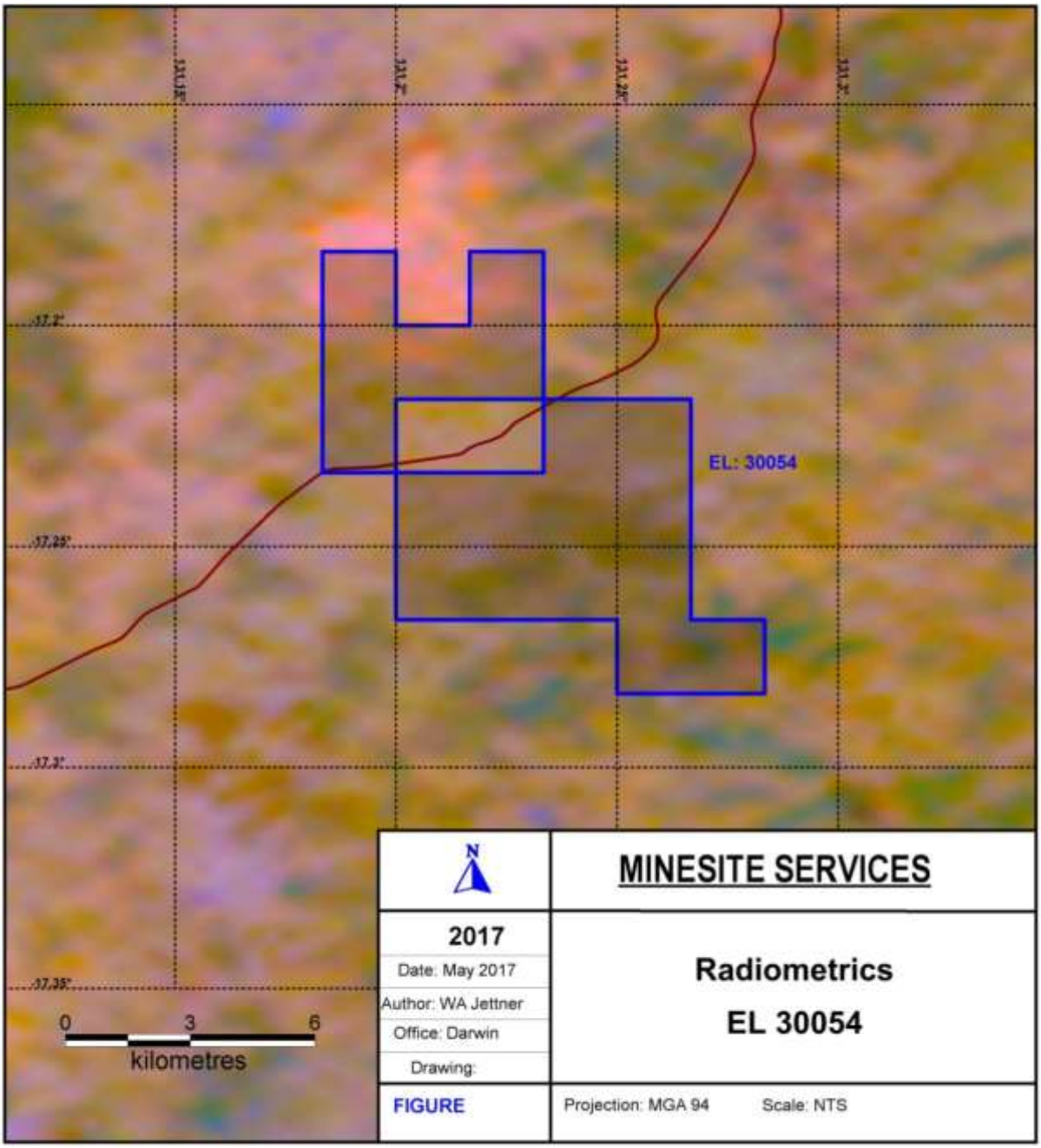
After DME Geoscience Data Package (DIP 008)

11. GEOPHYSICAL ACTIVITIES

Radiometrics

There have been no radiometric surveys conducted during the year.

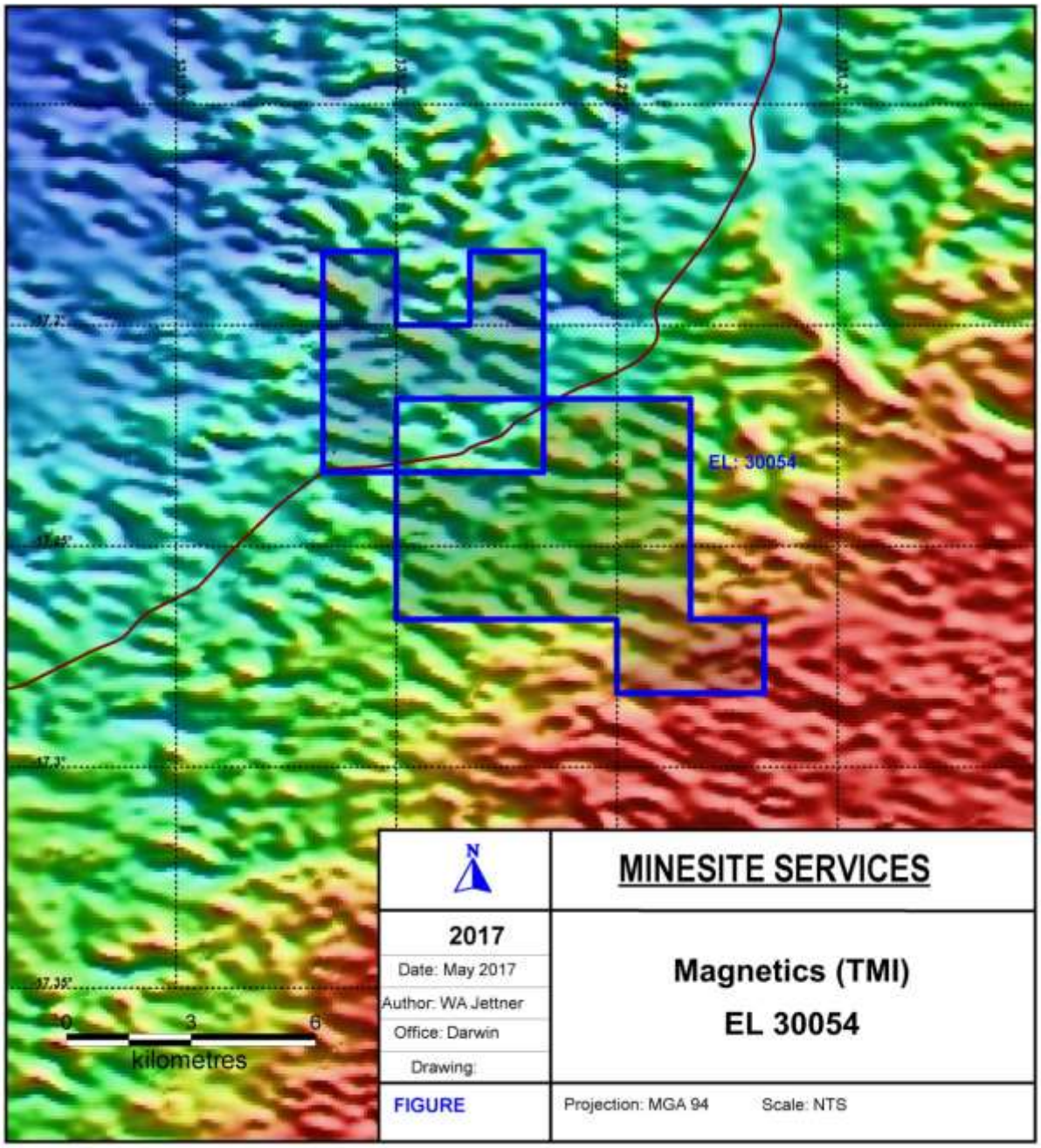
As can be seen from the following image obtained from the DME Geoscience Data Package (DIP 008), the radiometrics are relatively unobtrusive in the licence due to the extensive covering of Antrim Plateau Volcanics in the area.



After DME Geoscience Data Package (DIP 008)

Magnetics

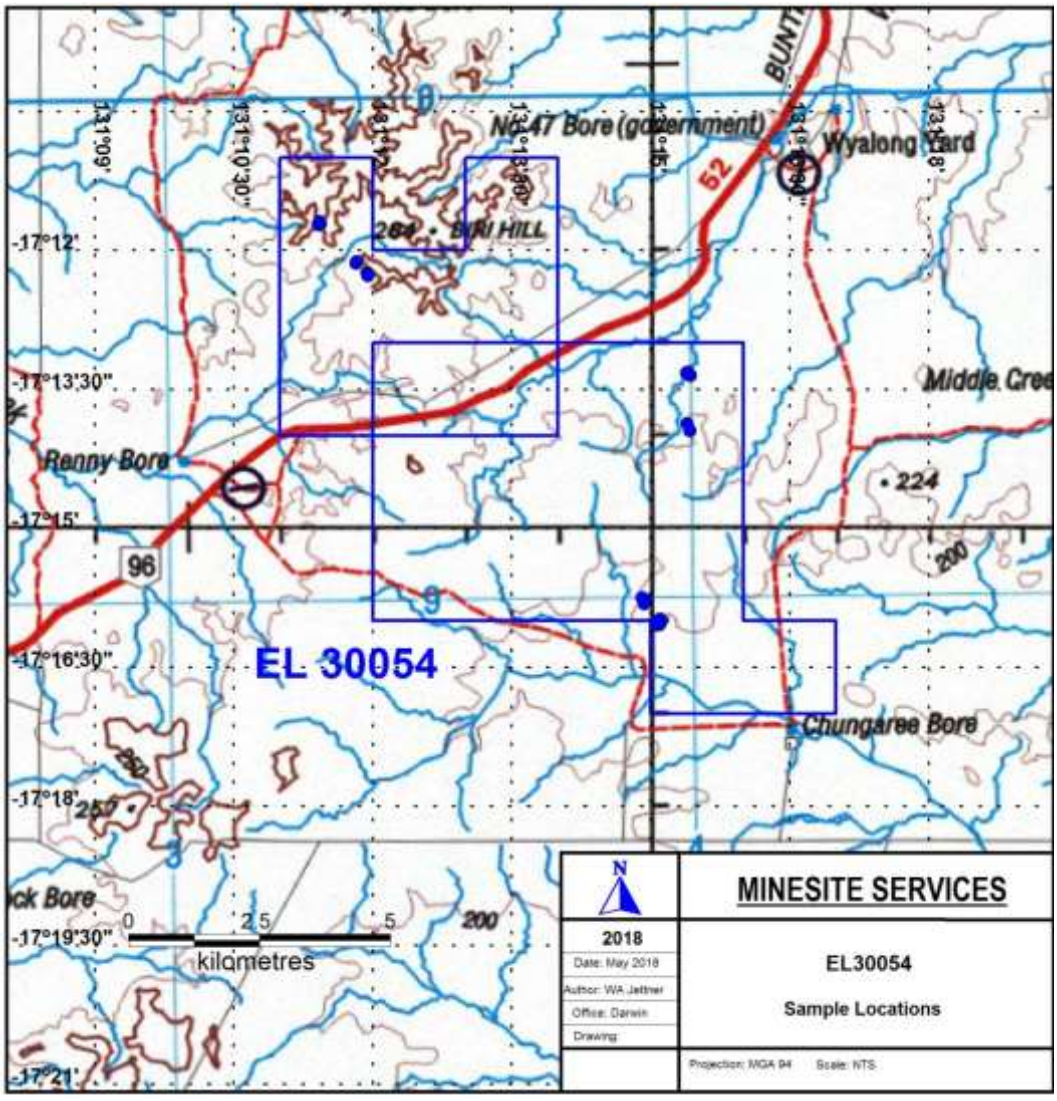
As can be seen from the image below (taken from the DME Geoscience Data Package (DIP 008) the area encompassed by EL 30054 is located along the north-western edge of where the Antrim Plateau Volcanics dive under cover as evidenced by the magnetic intensity becoming lower to the northwest whilst the same stippled pattern remains.



After DME Geoscience Data Package (DIP 008)

12. SURFACE SAMPLING

There were 22 surface samples taken during the year.
Their locations are shown below as blue circles.
In seeking suitable amethyst samples the quality is determined by observation rather than geochemical quantities/qualities.
The samples were obtained, observed and in some cases cut to observe the internal composition and structure. The samples examined during the third year were generally considered to be of second and third quality and the search for better quality specimens will continue in the fifth year.



The locations and results of this sampling are attached to this report as Appendix 1.

13. DRILLING

There were no drilling activities conducted during the year.
There are no drill holes recorded on either the drill hole location database or the core library catalogue database.

14. GEOTECHNICAL STUDIES

There were no geotechnical studies conducted during the year.

15. RESOURCES AND RESERVE ESTIMATION

There were no resource or reserve estimations done during the year.

16. CONCLUSIONS AND RECOMMENDATIONS

From the field exploration conducted during the fourth licence year the owner feels that further exploration is warranted with amethyst vein systems being targeted.
Due to the targeted nature of the exploration geological reconnaissance will be the most useful exploration tool and with this in mind the licence owners are continuing to engage with the previous operators in a cooperative effort to locate and catalogue occurrences of amethyst in the licence area.