



Spitfire Global Pty Ltd
Northern Territory Dogfight Project
GR146/10 Combined Annual Report
13th January 2011 to 12th January 2012

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GDA94

1:250,000 Mapsheets- SE5207

Limbunya, SE5211 Birrindudu,

1:100,000 Mapsheets- 4863 Limbunya,
4862 Inverway, 4962 Mount Barton, 4961

Styles

Commodities- Base Metals

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1. Abstract

The Northern Territory Dogfight project (GR146/10) is located approximately 600km South/South-West of Darwin and comprises the granted tenements EL27399, EL27400 and E28619 covering a total area of 2155 square kilometres.

The area is highly prospective for base metal mineralisation due to its unique geology; the interaction of the Cambrian aged Antrim Plateau volcanics and the underlying Limbunya group lithologies as well as the vesicular nature of the upper volcanic flow. This is combined with both local and regional faulting in the area which could allow fluid movements between lithologies. Due to this the area has been the focus of numerous reconnaissance and explorative activities in the past and present.

Work undertaken during the reporting year by Spitfire involved helicopter reconnaissance on targets across the granted licences leading to field observations and interpretations as well as in-situ rock chip samples being collected from surface. Following this, airborne geophysics was conducted across specific areas using magnetics and radiometrics to target structures and base metal anomalies. Based upon this information, further aerial electromagnetic surveys and reconnaissance trips will be undertaken in 2012 to help better define future drill targets.

2. Copyright

The owned information acquired by Spitfire includes all information under *the previous work by Spitfire* and *work during reporting year* sections; mainly chemical assay results stated and the aerial magnetics images. The rest of the information has been sourced from open reports and data through the Department of Resources – Minerals and Energy. The Minister has authority to publish the copyrighted information accordingly.

3. Regional location

The Northern Territory Base Metals project is centrally located approximately 600km South/South-West of Darwin just across the border from Western Australia. The licences are located over a number of pastoral leases in the Victoria Daly shire. It sits on freehold land.

4. Tenure

The project comprises the granted tenements EL27399, EL27400 and E28619 and covers a total area of 2155 square kilometres.

Licence	Date Granted	Area (square km)
E27399	13/01/10	746.45
E27400	13/01/10	790.13
E28619	16/12/10	618.46

Table 1 – Licence details

EL27400 was partially relinquished during this reporting year from 1586.65 to 793.53 square kilometres in area.

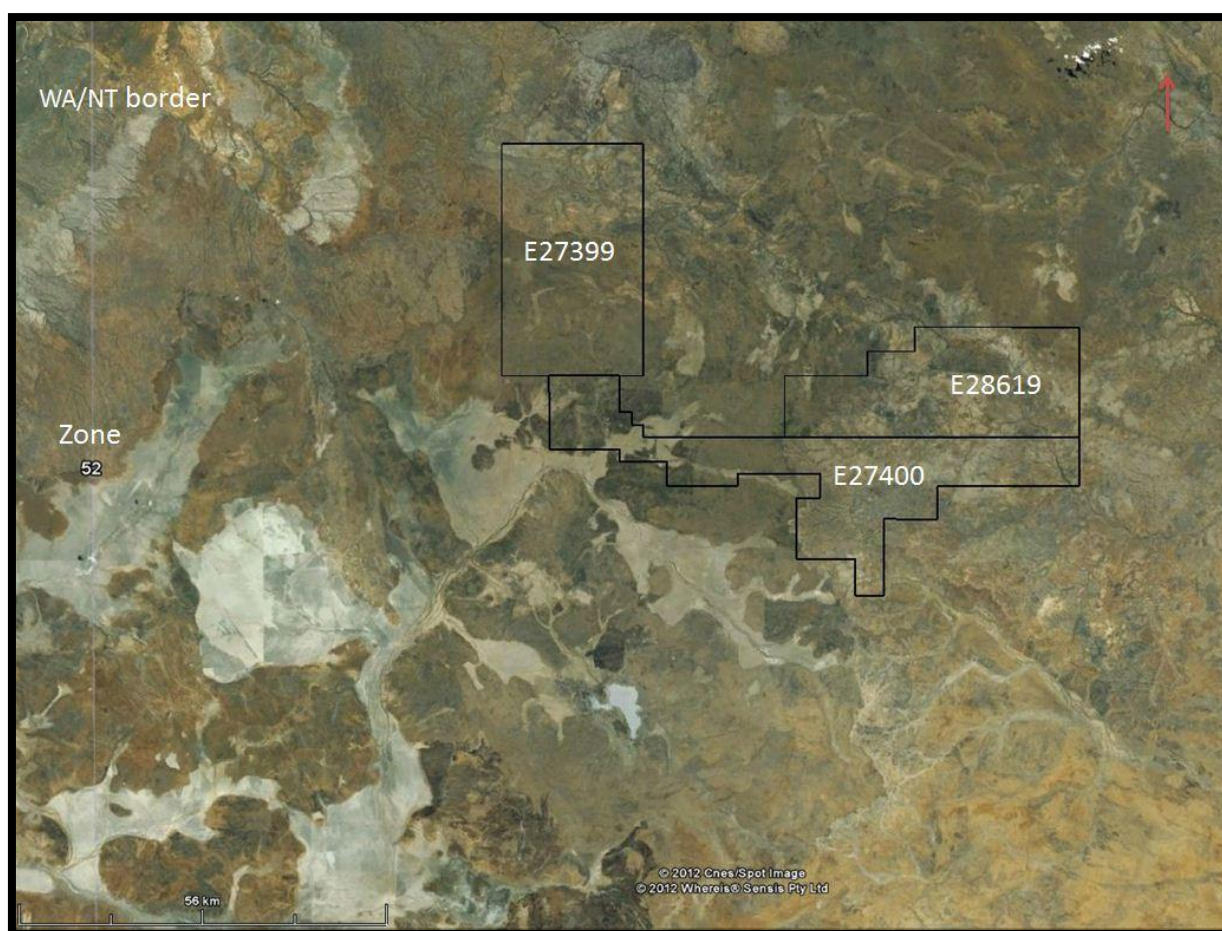


Fig 1- Northern Territory Dogfight project licences

5. Location and access

All the licences are mainly accessed via road from the Buntine highway via Duncan Road from WA. From the highway existing station and public tracks are used to access further into the licence areas. Licence EL27400 is located across the Riveren and Inverway pastoral leases, EL27399 is located across the Inverway and Limbunya leases and E28619 is solely on the Riveren pastoral lease.

6. Topography

Topography over the three licences is generally similar involving flatter, lower lying alluvial areas moving into elevated mesas of varying heights.

7. Regional geology

Regionally the project sits mainly in the Proterozoic aged Birrindudu basin with basement being the Archaean aged Inverway metamorphics. The pre-Cambrian Limbunya group is broadly composed of sandstones, siltstones, dolomites and volcanic tuffs. It is overlain by the Proterozoic Victoria basin sediments which contain the Wattie and Auvergne groups, composed of sandstones, conglomerates and dolomites. The target Antrim plateau volcanics of the Lower Cambrian Wiso basin overlie and interlie with the two sedimentary groups below and are overlain partially by remnant Cretaceous sediments in some areas with Tertiary cover composed generally of black soils and alluvium.

There is a regional anticlinal fold present is orientated to the East and has localised domal structures of uplifted upper Limbunya and lower Victoria basin sediments present along the anticline. Two main faults run through the area in the South, the NW-SE trending Limbunya and NE-SW trending Neave faults with several parallel off shoots and lineaments present.

8. Local geology

The Inverway basement is only present through thin sections of uplift in the regional anticline. which is mainly expressed off licence through surface veining and schists through the Stirling sandstone, the base member of the Limbunya sediments which are the main local lithological units (see table 2 below). Black shales which can occur within the Limbunya sediments are the targets for base metal accumulation. The overlying Victoria basin sediments only occur in the North Western corner of EL27399 and are otherwise not present.

The antrim plateau volcanic flows are composed mainly of massive fine grained thoiiletic basalt at depth with vesicular basalt and agglomerates present at flow surfaces which both over and interlie the Limbunya sediments dominantly in E27400 and partially in E27399. The project area is covered by Tertiary black soils and alluvium surrounding elevated mesas of laterite and exposed basalts. The Neave fault, which runs NE-SW, is likely to be a main feeder for the antrim volcanics and crosses through EL27400 from E28619 along with several offshoot faults and lineaments also present. To the North of the Neave in E28619 is upper Limbunya sediments.

Formation	Thickness	Lithologies
Fraynes Formation	- 120 m -	silty dolomite, siltstone, dolomite massive chert.
Campbell Springs Dolomite	- 300 m -	Stromatolitic dolomite, dolomite conglomerate.
Blue Hole Formation	- 150 to 300 m -	Silty dolomite, stromatolitic dolomite, siltstone
Farquharson Sandstone	- 40 to 165 m -	Grey and brown quartz sandstone, siltstone.
Kunja Siltstone	- 60 m -	Siltstone, silty dolomite
Mallabah Dolomite	- 15 m - 100 m -	Pink-buff dolomite siltstone, shale
Amos Knob Formation	- 50 m -	Dolomite, siltstone shale, sandstone.
Pear Tree Dolomite	-+105 m -	Brown dolomite, dolarenite, chert stromatolitic chert
Margery Formation	- 120 m -	Siltstone, claystone, minor dolomite and chert
Stirling Sandstone	- 120 m -	Brown quartz sandstone grit, conglomerate.

Table 2 – Limbunya group stratigraphy (Geopeko,1993)

9. Exploration rationale

Basic exploration model is focused on the interactions of the Antrim plateau volcanics and underlying Limbunya sediment groups in numerous ways:

- Direct interaction due to contact metamorphism and hydrothermal fluid alteration leading to the formation of base metal sulphides/oxides within the sediments when encountering sulphur/oxygen.
- Depletion of the volcanics by sulphur sinks within the sediments such as shales which concentrate base metals precipitation
- Indurated brines formed by compressional forces with the Limbunya sediments, containing mobile base metals leached from country rock, rising and travelling via structures and precipitating in porous and permeable layers of the volcanic flows

The models being used which follow these forms are:

- Michigan-style Copper Deposits within the Antrim Plateau Volcanics
- Magmatic Sulphide-Rich Nickel-Copper Deposits within the Antrim Plateau Volcanic
- Stratiform Zinc-Lead-Silver Deposits within the Birrindudu and Limbunya Groups

10. Previous Work before February 2011

10.1 Previous work by other companies

Geochemical stream sampling undertaken in the area by other explorers has mainly covered Northern areas of 27399 and central E27400; E28619. While analysis determined some anomalous values of gold, copper and zinc present, it did not lead to any significant discoveries through attempts to trace back to the source.

10.1.1 E27399

Geopeko drilled 4 RC holes (LMRC03, LMRC14, LMRC15, LMRC16) for a total of 338m and 2 diamond holes (LMDH5, LMDH9) for a total of 550m. The full logs are present in the open report CR19930144. They identified a pyritic black shale unit at varying depths within the Mallabah dolomite that contained minor sulphides. No further work was done and the licence was dropped.

Hole ID	Easting	Northing	Depth (m)
LMRC03	580171	8062645	90
LMRC14	575000	8064650	72
LMRC15	578500	8063050	114
LMRC16	582860	8061160	162
LMDH5	579250	8064910	400
LMDH9	582840	8061161	150

10.1.2 E27400

Ausquest drilled a diamond hole, ANTD003, at coordinates 566927 E, 8028309 N to a depth of 342.5m with the full log available in CR2004088. No substantial base metals were encountered.

10.1.3 E28619

One diamond hole was drilled by Bondi Mining Ltd, MURD002, at coordinates 643446 E, 8038216 N to a depth of 556.1m with the full log available in company report CR2009-0953.

10.2 Previous work undertaken by Spitfire

Spitfire undertook desktop studies on all licences and a short field visit to E27400 during the previous reporting year.

11. Work during reporting period February 2011 – February 2012

Below is a summary of work undertaken on both licences during the reporting period, the submitted expenditure reports summarise the overall expenditure for each during the reporting year, except for E28619. Work was done in consultation with Marston consultants.

The helicopter reconnaissance and rock chip sampling program was designed around public regional magnetics, local geology and structures in the target areas. The samples underwent

a XRF multi-suite analysis (SiO₂, Al₂O₃, CaO, Fe, K₂O, MgO, P, S, TiO₂, Mn, Ba, Zr, V, Cr, Zn, Cl, Co, Ni, Cu, As, Sn, Sr, Sb₂O₃, Na₂O, Pb) and fire assay for gold, platinum and lead. The outcome was possible detection of anomalous base metals elements based on natural element levels which would assist with refining targets. The laboratory used internal QAQC standards and duplicates to test accuracy and kept residues and pulps of the test work in storage.

The aerial magnetic surveys were devised to refine existing magnetics with the anomalies determined as a result assisting with targeting.

11.1 EL27399

Reconnaissance was undertaken over the Northern section of E27399 with a Marston consultant present. Numerous field observations and interpretations were made and rock chip samples taken from areas of interest.

11.1.1 Rock chip sampling

In-situ rock chip samples were taken from surface in the target areas during the reconnaissance. XRF was used for multi-suite and fire assay for gold, platinum and lead analysis. The full set of results is in the appendix. Sample three showed slightly higher copper values than the others but overall no anomalous base metal values were detected.

Sample Number	GDA 94 - UTM 52K coordinates	
	Northing	Easting
SNT001	8072160	578240
12 SNT002	8065972	576878
13 SNT003	8064660	564679
14 SNT004	8064718	564696
15 SNT005	8064630	564587

Table 3 – Coordinates rock chip samples EL27399

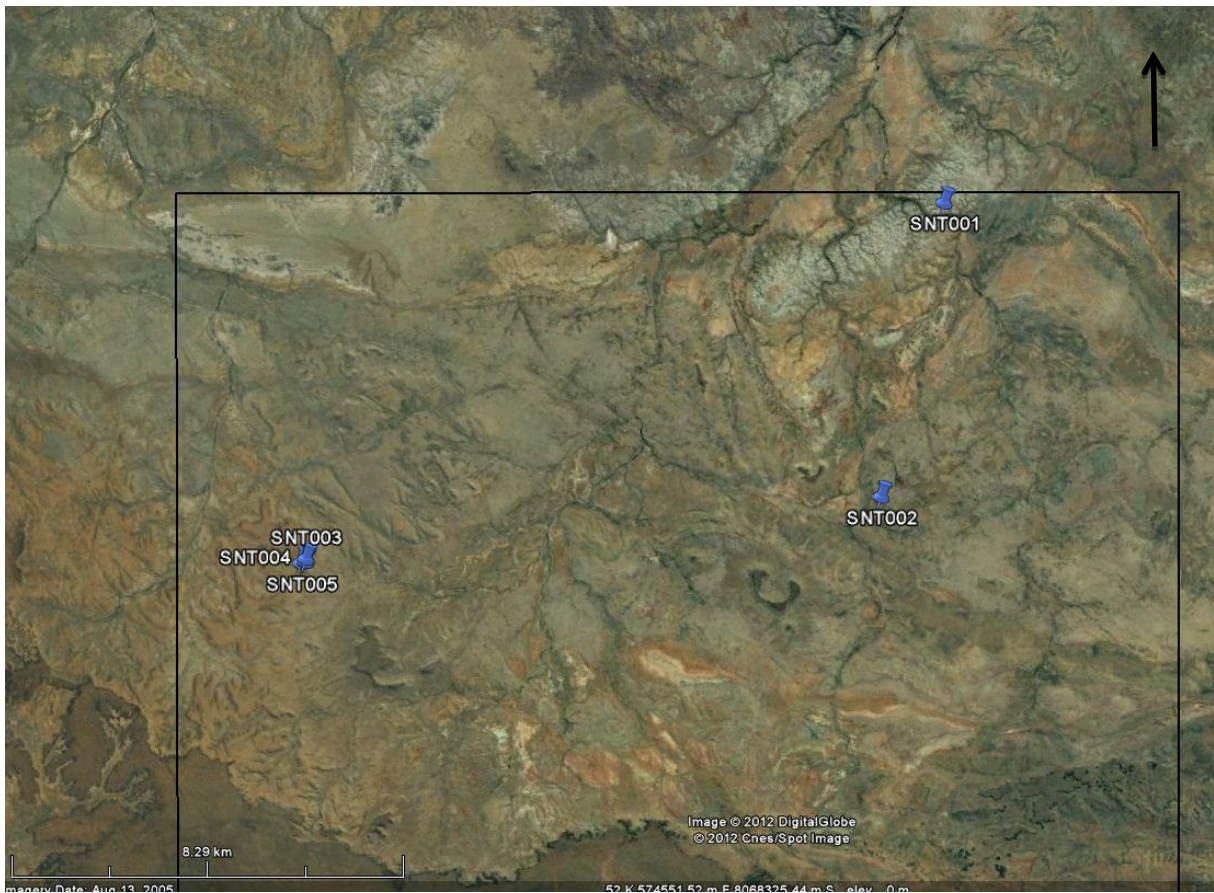


Fig.2 – Rock chip sample locations E27399 (GDA94 /Z52)

11.1.2 Geophysical survey EL27399

Based off reconnaissance and assay results, an aeromagnetic and radiometric survey was targeted and flown by Daishsat geodetic surveyors in late November 2011 over a specific corridor of interest (see figure 2 below). The survey lines were run at 000 – 180 degrees with 100m line spacing, 1000m tie separation and 40m terrain clearance, covering a distance of 2203 line kilometres. See digital appendix for all satellite imagery. Anomalies detected indicate a higher than normal magnetic reaction to the survey, in this case geologically they have been interpreted to potentially constitute base metal mineralisation within the Limbunya sediments.

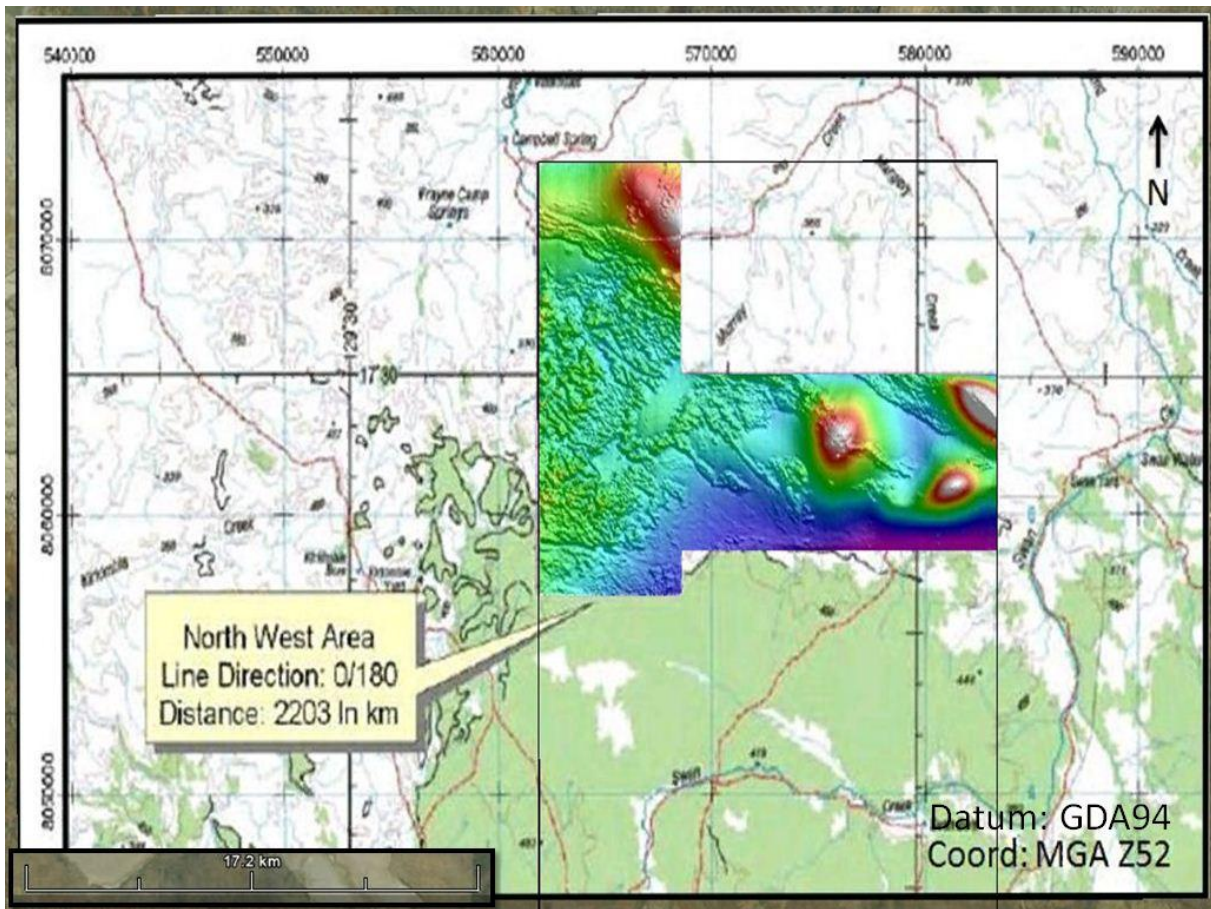


Fig.3 – E27399 survey boundary and processed aerial magnetic image

11.2 EL27400

Reconnaissance was undertaken over the central section of E27400 with a Marston consultant present. Numerous field observations and interpretations were made and rock chip samples taken from areas of interest.

11.2.1 Rock chip sampling

In-situ surface rock chip samples were taken in the target areas during the reconnaissance. The full set of results is in the appendix. No anomalous base metal values were detected. They were collected before the partial relinquishment of E27400 as such sample SNT006 is no longer applicable.

Sample Number	GDA 94 - UTM 52K coordinates	
	Northing	Easting
SNT006	8020223	647143
SNT007	8024929	620353
SNT008	8021884	620461
SNT009	8017111	621615

Table 4 – Coordinates rock chip samples EL27400

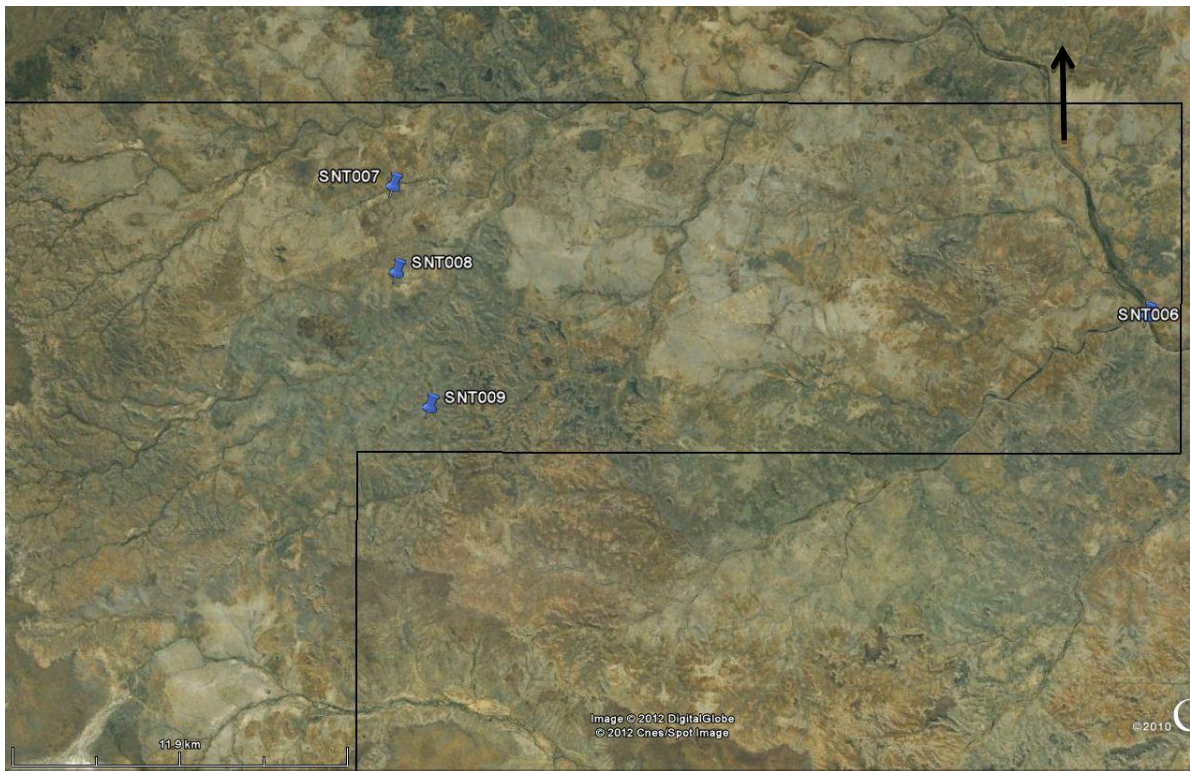


Fig 4- Rock chip sample locations E27400 pre relinquishment boundary (GDA94/ Z52)

11.2.2 Geophysical survey EL27400

Based off reconnaissance and assay results, an aeromagnetic and radiometric survey was targeted and flown by Daishsat geodetic surveyors in late November 2011 over a specific corridor of interest (see figure 4 below). The survey lines were run at 90 – 270 degrees with 100m line spacing, 1000m tie separation and 40m terrain clearance, covering a distance of 2378 line kilometres. See digital appendix for all survey imagery. Anomalies detected indicate a higher than normal magnetic reaction to the survey, in this case geologically they has been interpreted to potentially constitute base metal mineralisation within the Antrim plateau volcanics.

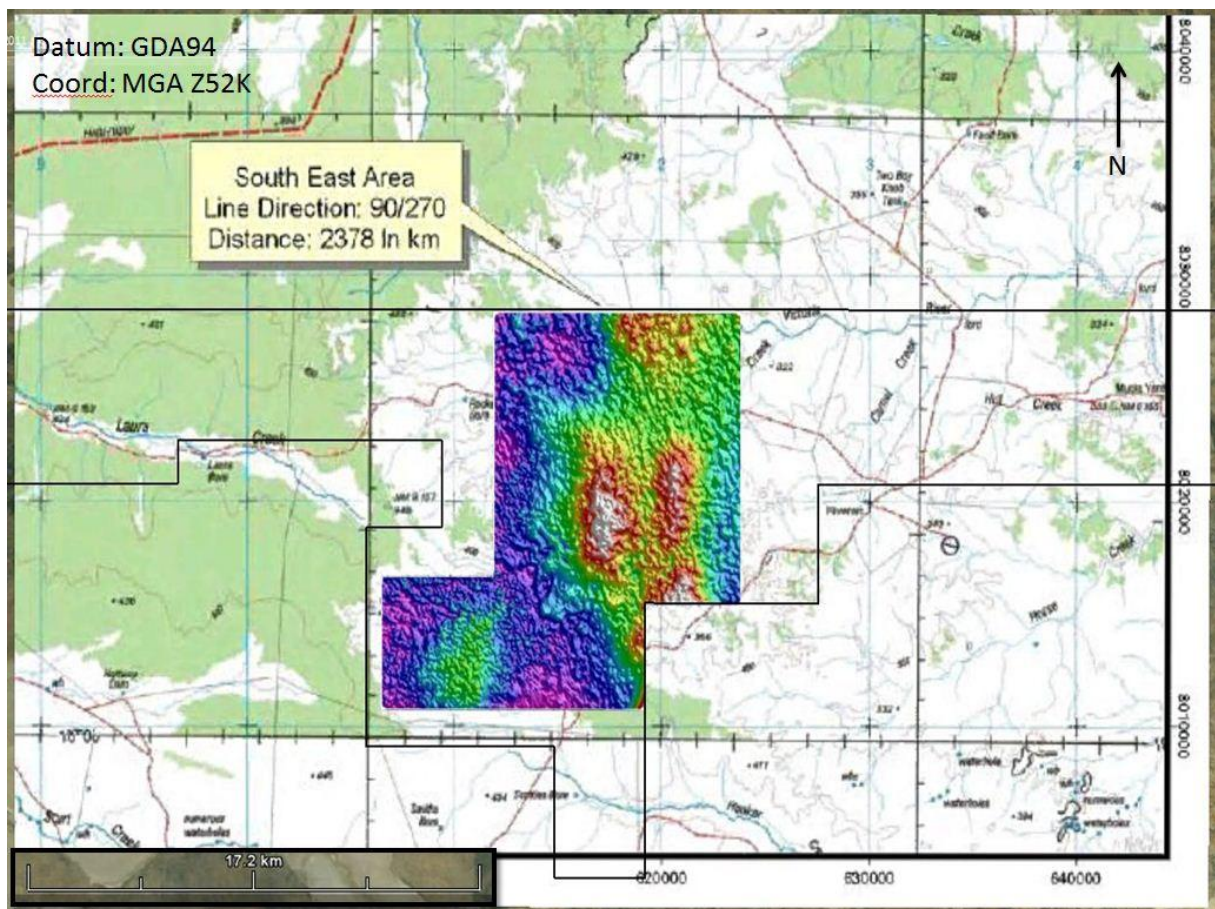


Fig.5 – E27400 survey boundary and processed aerial magnetic image

11.2.3 Partial relinquishment

Based on the review of data received, Spitfire partially relinquished 796.52 square kilometres of EL27400's 1586.65 square kilometre area in order to focus its attention on the identified central magnetic anomaly (see relinquishment report). This was done after the reconnaissance and survey activities, and left EL27400 with a current area of 793.53 square kilometres.

11.3 E28619

E28619 was granted late in 2011 and as such no work has been undertaken on it except basic desktop studies.

12. Conclusions and Recommendations

Based on the continued review of open and closed data, field observations and the aeromagnetic geophysical survey undertaken, Spitfire believes licences EL27399, EL27400 and E28619 all continue to hold potential for base metal mineralisation. It is currently planned to combine the data collected and use it to designate further electromagnetic surveys and helicopter work to be undertaken in the next reporting year with the continued aim of drilling.

13. References

'EL7140 and EL7141 combined report on Exploration during the second tenure year ending January 1993' (report CR19930144), Geopeko, 1993

'Bigley Springs Project, NT EL's 8307, 8308 and 8309 Annual Report for the period ending 22nd October, 1995' (report CR19950072), Burdekin Resources NL, 1995

'Antrim Project, Exploration Licences 22642 – 22645 and 2279 – 22751 Northern Territory Combined annual report for year ending 31/12/2003' (report CR20040088), M Gole, J Ashley and A Meakins

APPENDIX

Appendix 1 – Rock Chip assay results XRF and fire assay (also digital)

SAMPLE	Easting	Northing	Au	Pt	Pd	SiO2	Al2O3	CaO	Fe	K2O	MgO	P	S	TiO2	Mn	Ba	Zr
			ppb	ppb	ppb	%	%	%	%	%	%	%	%	%	%	%	%
SNT001	578240	8072160	2	NA	NA	1.461	0.542	29.43 9	0.638	0.072	21.35 4	0.002	<0.000 1	0.012	0.036	<0.00 1	0.00 4
SNT002	576878	8065972	29	NA	NA	46.57 6	15.24 1	14.28 4	7.835	0.752	5.327	0.053	0.0011	0.702	0.111	0.022	0.01 6
SNT003	564679	8064660	4	NA	NA	50.44 2	14.69 9	6.195	7.202	1.453	8.668	0.054	0.0038	0.832	0.100	0.023	0.01 8
SNT004	564696	8064718	2	NA	NA	50.78 3	15.08 3	7.426	6.948	1.424	8.021	0.047	0.0077	0.860	0.092	0.024	0.01 8
SNT005	564587	8064630	3	NA	NA	51.70 2	15.21 5	8.531	7.421	1.531	7.390	0.045	<0.000 1	0.857	0.059	0.032	0.01 7
SNT006	647143	8020223	<1	NA	NA	52.42 2	15.02 9	7.978	7.268	1.961	6.648	0.045	<0.000 1	0.875	0.123	0.032	0.01 7
SNT007	620353	8024929	<1	NA	NA	49.68 3	14.75 3	1.246	7.684	2.707	10.52 3	0.040	<0.000 1	0.821	0.134	0.029	0.01 5
SNT008	620461	8021884	<1	NA	NA	52.41 0	15.36 2	2.062	6.997	1.451	7.956	0.043	<0.000 1	0.875	0.056	0.026	0.01 7
SNT009	621615	8017111	1	NA	NA	53.08 5	14.86 4	9.668	7.159	1.223	6.408	0.045	<0.000 1	0.884	0.125	0.024	0.01 9

SAMPLE	V	Cr	Zn	Cl	Co	Ni	Cu	As	Sn	Sr	Sb2O3	Na2O	Pb	LOI(1000)
	%	%	%	%	%	%	%	%	%	%	%	%	%	%
SNT001	<0.0001	<0.0001	0.007	0.012	<0.001	0.0022	<0.0001	<0.001	0.0069	<0.0001	<0.0001	0.045	<0.0001	46.50
SNT002	0.0225	0.0145	0.008	0.014	0.004	0.0115	0.0030	<0.001	0.0079	0.0203	<0.0001	2.301	0.005	3.19
SNT003	0.0243	0.0155	0.009	0.015	0.003	0.0121	0.0140	<0.001	0.0042	0.0180	<0.0001	3.886	0.004	3.34
SNT004	0.0240	0.0096	0.008	0.013	0.005	0.0076	0.0023	<0.001	0.0068	0.0190	<0.0001	3.724	0.005	2.79
SNT005	0.0239	0.0296	0.009	0.017	0.005	0.0176	0.0023	<0.001	0.0062	0.0179	<0.0001	2.454	0.005	1.72
SNT006	0.0243	0.0170	0.011	0.007	0.005	0.0093	0.0027	<0.001	0.0072	0.0182	<0.0001	3.043	0.005	1.23
SNT007	0.0224	0.0101	0.020	0.009	0.005	0.0070	0.0010	<0.001	0.0029	0.0104	0.0023	3.951	0.003	4.70
SNT008	0.0182	0.0138	0.011	0.007	0.004	0.0076	0.0027	<0.001	0.0028	0.0262	<0.0001	5.351	0.003	4.62
SNT009	0.0259	0.0155	0.010	0.007	0.005	0.0079	0.0044	<0.001	0.0065	0.0176	<0.0001	2.373	0.004	0.33

