THUNDELARRA EXPLORATION

Internal Report

NORTH BURRUNDIE EL28519

Pine Creek

Northern Territory

Report No:	EL28519
Date:	November, 2012
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Accepted:	_____
Distribution:	Thundelarra Exploration

EXECUTIVE SUMMARY

A tenement review of EL28519, North Burrundie Project has been undertaken as first-pass exploration for Thundelarra Exploration. A compilation of previous exploration followed by ground reconnaissance has included target identification and rock chip sampling to define possible gold, base metal, tin and uranium mineralisation within the Pine Creek Geosyncline.

Previous exploration has been limited with focus on structural targets to identify anomalous gold in quartz veins within the Finniss River Group and structural areas within proximity to the Prices Springs Granite which occupies the majority of the south western area of EL28519.

Areas for reconnaissance were identified from airborne magnetics, favoured stratigraphic horizons, structural zones and previous exploration follow-up areas. Rock chip sampling targeted ferruginised quartz veins, gossaneous metasediments and elevated radioactivity in metasediments.

Further work will be dependent on results from rock chip samples.

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1 INTRODUCTION

A tenement review of EL28519 was necessary to determine further exploration targets if warranted from the results of the review. This incorporated the previous exploration history, which to date was minimal, field reconnaissance to areas of interest and rock chip sampling of outcrop during reconnaissance. Coordinates within this report are given in GDA94_52. EL28519 was granted to Element 92 on 26th October 2011 for a period of 6 years. The licence covers approximately 60 square kilometres.

2 LOCATION AND ACCESS

EL28519 is located 40 kilometres northwest of Pine Creek, directly north of the historical Burrundie Siding within the Cullen Mineral Field and covers both the Pine Creek (5271) and McKinlay River (5270) 100k map sheets within the 250k Pine Creek (SD52-08) map sheet. Access is via Goldfields Road which runs roughly parallel with the North Australian Railway track, FIGURE 1. A Gas Pipeline track branches off the Goldfields Track at 790,845E / 8,503,410N. Access to the northeast corner is via the Mount Wells Road and then along the track which leads to the Mavis Tin Prospect. EL28519 covers Ban Ban Springs Perpetual Pastoral Lease.

3 GEOLOGY

EL28519 is situated within the Pine Creek Geosyncline comprising Lower Proterozoic pelitic and psammitic sediments intruded by dolerite sills and Late Proterozoic granitoids which has undergone Lower Greenschist metamorphism to localised Amphibolite facies.

The majority of the tenement encompasses the Prices Springs Granite. Two textural types were noted in the field which is documented in the study of the Cullen Batholith (Bajwah, 1994). Type 1 comprises a finer-grained, grey, massive, muscovite-biotite granite and Type 2 is a coarser-grained, equigranular granite which in the field is indicative of structural lineaments, as this unit is found in saddles, is moderately to strongly jointed and weathered and contains an increase in quartz veining, Image 1.

Minor zones of porphyritic and aplite pegmatites also occur evident in the southwest corner of the tenement adjacent to the granite contact within the Burrell Creek Formation, Image 2.

The eastern portion comprises predominately Burrell Creek Formation of the Finniss River Group which unconformable overlies older units of the South Alligator Group, Koolpin Formation and Mount Bonnie Formation in the north western area.

In the southern portion airborne magnetics indicates a continuation of outcrop of the Koolpin and Zamu Dolerite bounded by the Prices Springs Granite. Ground truthing confirmed this and contact metamorphic aureole comprises knotted and needle-like andalusite schist which was evident in outcrop at 788,731E/8,506,831N.

4 MINERALISATION STYLE AND LOCAL MINES/OCCURRENCES

A series of mineral occurrences occur along a northwest trend on the eastern margin outside EL28519 and includes the historic Mount Wells tin mine, the Horners Creek polymetallic Cu-Pb-Zn-Ag veins and Horners Creek alluvial gold. To the north of the tenement is the Mavis Tin occurrence which comprises a small adit and workings. Access to these areas is restricted (Mavis containing a wire across the track). The Prices Springs Granite is considered the most likely source of cassiterite bearing quartz veins. Prospects are vein related and occur within the Burrell Creek Formation except for the Mavis Prospect which occurs within the Mount Bonnie Formation.

5 PREVIOUS EXPLORATION

Since 1981 there have been 15 companies and 17 exploration licences held over portions of EL28519, as listed in Table 1. This being the case however, exploration has been limited to only a few companies who've carried out actual ground work. A summary of fieldwork by previous explorers is given below. Mineralisation models have included:

- Stratiform (targeting the South Alligator Group – Koolpin Formation)
- Intrusive hosted gold
- Feldspar rich intrusive phase of the Zamu Dolerite
- Quartz vein hosted Au (gossaneous quartz reefs)

- Base metal and tin mineralisation (whether stratiform or quartz vein or pegmatite related)
- Disseminated gold in Zamu Dolerite
- Metal zonation from Mount Wells Sn system
- Quartz veins within axial cores
- Sulphidic, quartz stockworks within sheared vein complexes adjacent granite intrusive
- Alluvial gold

Table 1: Previous exploration companies

Report No	Company	Year - Granted	EL
CR1982-0396,CR1982-0397,CR1983-0017,CR1984-0003,CR1985-0063,CR1986-0108,CR1987-0157,CR1988-0245	Geopeko, Anaconda JV	19811126	EL 3138
CR1986-0222,CR1987-0156,CR1988-0390,CR1988-0391,CR1989-0784,CR1990-0065,CR1990-0402	CSR & Cyprus Gold Australia	19850628	EL 4734
CR1989-0375	Ross Mining	19880201	EL 5816
CR1988-0388,CR1989-0234	Pederson, Jacobsson, Smitt	19880316	EL 5600
CR1990-0046,CR1990-0686	Cyprus Gold Australia	19881024	EL 6138
CR1990-0016,CR1991-0121,CR1991-0127,CR1991-0516	Northern Gold	19881024	EL 6189
CR1990-0297,CR1991-0257	Rosequartz Mining	19890310	EL 6393
CR1992-0099,CR1992-0548	Northern Gold	19901126	EL 7114
CR1995-0074,CR1995-0178,CR1996-0091,CR1996-0226,CR1996-0846,CR1997-0115,CR1998-0139,CR1998-0332,CR1999-0089	Corporate Developments	19921113	EL 7725
CR1994-0778,CR1995-0643,CR1995-0644,CR1996-0643,CR1997-0512	Territory Goldfields	19930727	EL 8055
CR1995-0027,CR1996-0112,CR1996-0905,CR1997-0744,CR1998-0300,CR1998-0728,CR1999-0116,CR1999-0468,CR1999-0474,CR2000-0394,CR2001-	Acacia Resources / Anglogold Australia	19931124	EL 8047

0308,CR2002-0029			
CR1996-0401	Corporate Developments	19951124	EL 9285
CR1997-0142	Triple Eight Gold	19951204	EL 9388
CR1997-0773,CR1998-0695,CR1999-0141,CR1999-0475,CR2000-0400,CR2001-0012,CR2001-0224	Acacia Resources	19961101	EL 9581
		20001204	A 22866
CR2004-0260,CR2005-0034,CR2006-0144	Australasia Gold	20030414	EL 22301
CR2006-0198	Outdoor Press/Doug Stone	20040218	EL 23908
CR2010-0916, CR2011-1150	Great Western Exploration	2010	EL25026

5.1.1 Cyprus Gold Australia 1985

EL4734 covered the southwestern portion of North Burrundie. Cyprus collected rock chip samples to test for gold and base metals targeting the Zamu Dolerite. Of 95 collected 7 are within EL28519.
No targets were conclusive and the Zamu Dolerite was considered non-prospective as there is a general lack of alteration and quartz stockworking. Sample 686 contained 636ppm Cu taken from approximately 787,565E/8,504,326N. Mapped on the 100k mapsheet as Cainozoic soils but logged as ferruginous carbonaceous siltstone recognises the need for detailed mapping.

5.1.2 Northern Gold 1990

EL6189 covered the northeastern portion of North Burrundie. Extensive rock chip, stream sediment and soil sampling identified two anomalous zones:

- Anomaly 1: BLEG anomaly associated with quartz stockwork within a NW trending D2 shear which is 3.5km long and 1km wide. Rock chip collected from central area of anomalism returned 0.16% Pb, 0.03% Zn, 202ppm Cu and 290ppm As and one quartz rock chip returned 11.4ppm Au from the end of a 250m quartz vein. This vein was further sampled along the extent however negligible results led to relinquishment of tenement. Sampling around this area was carried out however two anomalous rock chips further to the northwest (and within EL28519) were not followed up in detail and include 0.16% Pb in gossaneous quartz vein and 0.925 Pb, 0.16% Zn and 1,180ppm Cu in quartz vein.
- Anomaly 2: anomalous Sn and base metals associated with quartz stockwork vein system in a D2 shear zone which appears to be a continuation of the Mount Wells vein system. This anomaly contained stream sediment of 290ppm Sn (outside EL28519).

Soil sampling (183 BLEG samples) taken on 50m intervals across anomalous zones however only assayed for gold. Results from this were discouraging with single point anomalies reflecting small gold bearing quartz veins. Due to the limited strike continuation tenement was relinquished.

An interpretation of the data in MapInfo highlighted maximum assays of stream sediments which highlighted areas of interest for ground follow-up. An extension to the base metal anomaly of Anomaly 1 was traversed to the northwest and reported below.

NOTE: the historical data has been entered into the database twice resulting in two points for each stream sample with a ~50m coordinate difference. The majority have the same values (allowing for deletion, there are a few which vary by decimal point which suggests a type when georeferencing. Duplication of the rockchips also has occurred however without referring to original report there is no indication which is the correct coordinate.

5.1.3 Acacia Resources (Anglogold Australia) 1995

From 1993-2001 EL 8047 covered a large portion of EL28519 however sampling was limited to a total of 3 rock chips and 7 stream sediments within EL28519.

In addition, 4 whole rock samples of the Prices Springs Granite have been collected by the NTGS.

6 EXPLORATION RESULTS

Areas were selectively targeted to visit in the field whether an airborne magnetic anomaly (Area 4 & 5), an airborne radiometric anomaly (as requested by Harry to go and collect a few rockchips – Area 1), lithological contacts and faulted zones (Area 2 & 3), areas of structure within the Prices Springs Granite (Area 6 & 10), geochemical anomaly outlined by previous exploration (Area 8) and south-western lineament evident in airphotos along strike from Mount Wells (Area 9). Below records the finding's.

(a) Area 1

Site visit to a radiometric anomaly requested by Harry to collect rock chips to follow-up a ground survey completed in previous year. Radiometric anomaly appears to be associated with a micaceous f-m.g metasediment of the Koolpin Formation. The unit is truncated by a large quartz ridge however no association with the quartz and the anomaly is recognised. The metasediment does not outcrop instead is evident as rubble. The anomalous zone extends for 23m and is ~2-3m wide recognised with the scintollometer, with an average of ~800cps (waist height), within this zone. Outside the zone, background is 200-400cps. The samples were taken where it reached a maximum of 1800cps on the surface, Image 3. Unfortunately no direct outcrop was responsible for the anomaly. Possible extension exists to the southeast where the zone is possibly masked beneath alluvial cover. Two samples at each end of zone: TK653495 and TK653496 will be assayed for uranium at the laboratory in Pine Creek.

There are quartz diggings ~20 x 20m at 787,400E, 8,505,120N however no records document this and is suspected to be carried out by prospectors.

(b) Area 2 & 3

Site visit to traverse the contact between the Mount Bonnie Formation and the Burrell Creek Formation in the NE of the tenement which is juxtaposed by a NE trending fault. The fault is mapped by multiple quartz blows continuous along strike, Image 4. The fault was traversed and samples collected of any ferruginised, bluish, quartz. The most interesting site was a bluish, ferruginised quartz vein within a thin greywacke unit (Burrell Creek Formation - sample TK653301), however XRF results showed little significance. The majority of the Burrell Creek Formation in this region is siltstone. Further transects along the faults to sample ferruginised quartz for a total of 6 samples (TK653497-500 & TK653301-02).

- XRF results returned >700ppm Ni (TK653499); >3000ppm As & >1000ppm Pb (TK653499, second reading); TK653302 returned >700ppm Cu & >1000ppm Mn.

(c) Area 4

Site visit to investigate a NE trending magnetic feature which is confirmed on the ground as the Zamu Dolerite. Two sample of the weakly ferruginised Zamu Dolerite with quartz veining were collected, TK653303-04, however XRF results were discouraging.

(d) Area 5

A continuation of the magnetic feature mentioned in Area 4 mapped outcropping Zamu Dolerite and Koolpin Formation (Image 5) surrounded by the Prices Springs Granite. This area is mapped as the Prices Springs Granite in the Pine Creek 100k data indicating detailed mapping necessary. Contact metamorphism was evident with spotted andalusite and needlelike andalusite formed in the Zamu Dolerite, Image 6. Two sites of gossan were identified and samples taken, TK653305-06, in Koolpin and Zamu respectively.

- XRF results included 562ppm Pb in TK653305 and >800ppm Pb, >400ppm Zn in TK653306.

(e) Area 6

Outcrop of the Prices Springs Granite (alongside the Gas Pipeline), displays the two textural types of granite; a f.g granite in comparison to a jointed, veined weathered, m.g-c.g granite as a result of late-stage deformation as seen elsewhere particularly in Area 10 mentioned below, Image 7.

(f) **Area 7**

Site visit to air photo anomalies (circular anomalies) were granite knolls (boulder hills) forming very circular outcropping hills of granite boulders surrounded by Tertiary sands, Image 8. No great interest.

(g) **Area 8**

Site visit to traverse the NW extent of a rock chip anomaly as identified by Northern Gold to the south (mentioned in previous exploration). The area comprised predominately siltstones of the Burrell Creek Formation, there were areas of interbedded siltstone/greywacke which were targeted in the traverse and mapped by Northern Gold. Again quartz blows mapped fault lines and sampling consisted of ferruginised quartz veins where found, Image 9. Chloritised vein selvedge's were also noted, and 5 samples were collected, TK653307-11.

- XRF results returned >3000ppm Pb, >400ppm Cu, 38ppm Ag & >200ppm W in TK653310 taken from ferruginised quartz with goethitic vugs showing slight discolouration (similar to weathered oxides). Further work is suggested to the east and to the northwest of this sample site.

(h) **Area 9**

Site visit to target airphoto trends in a NE direction which trends toward Mount Wells within the Burrell Creek Formation as it outcrops in the SE area of the tenement. Interesting to note, dolerite dyke (late-stage dykes) float and pegmatite's are evident within greywacke and siltstones of the Burrell Creek Formation which is in close proximity to the Prices Springs Granite, Image 10.

- One sample TK653312 returned XRF results >600ppm Cu, >4000ppm As and 141ppm Sn from ferruginised, layered quartz veining.

(i) **Area 10**

Site visit targeted mapped jointing by NTGS within the Prices Springs Granite as evident in the air photos. Airborne radiometrics reflects granite knolls similar to Area 7. The lineaments reflect structural corridors within the granite where the moderately weathered, jointed and quartz veined granite (as mentioned in Area 6) subcrops within the valleys and saddles surrounded by the unweathered granite knolls. One sample was taken where slight ferruginisation of the weathered granite has occurred.

Whilst accessing Area 10, there are a number of massive quartz blows which form ridges within the colluvium. One area showed a mylonitised possible outlier of sedimentary origin, a well layered kaolinitised rock which was intruded by multiple cockscomb quartz veining. This occurs adjacent to a late-stage dyke which transects the granite in a N-NW direction.

7 RECOMMENDATIONS

Further work is recommended around Area 8 and Area 9. Samples will be sent off for multi-element assay to the Pine Creek laboratory.

8 REFERENCES

Bajwah, Z.U., 1994. A Contribution of Geology, Petrology and Geochemistry To The Cullen Batholith and Related Hydrothermal Activity Responsible For Mineralisation, Pine Creek Geosyncline, Northern Territory, Report 8, Northern Territory Geological Survey.

Image 1: Textural types of Prices Springs Granite

Image 2: Pegmatite and dolerite dyke (AREA 9)

Image 3: Radiometric anomaly - sample medium (AREA 1)

Image 4: Massive quartz blow (AREA 2 & 3)

Image 5: Ferruginised unit of the Koolpin Formation (AREA 5)

Image 6: Spotted and needle-like andalusite (AREA 5)

Image 7: Quartz veining within weathered granite (AREA 6)

Image 8: Granite knolls (bouldery hills) (AREA 7)

Image 9: Burrell Creek Formation (AREA 8)

Image 10: Pegmatite within Burrell Creek Formation (AREA 9)

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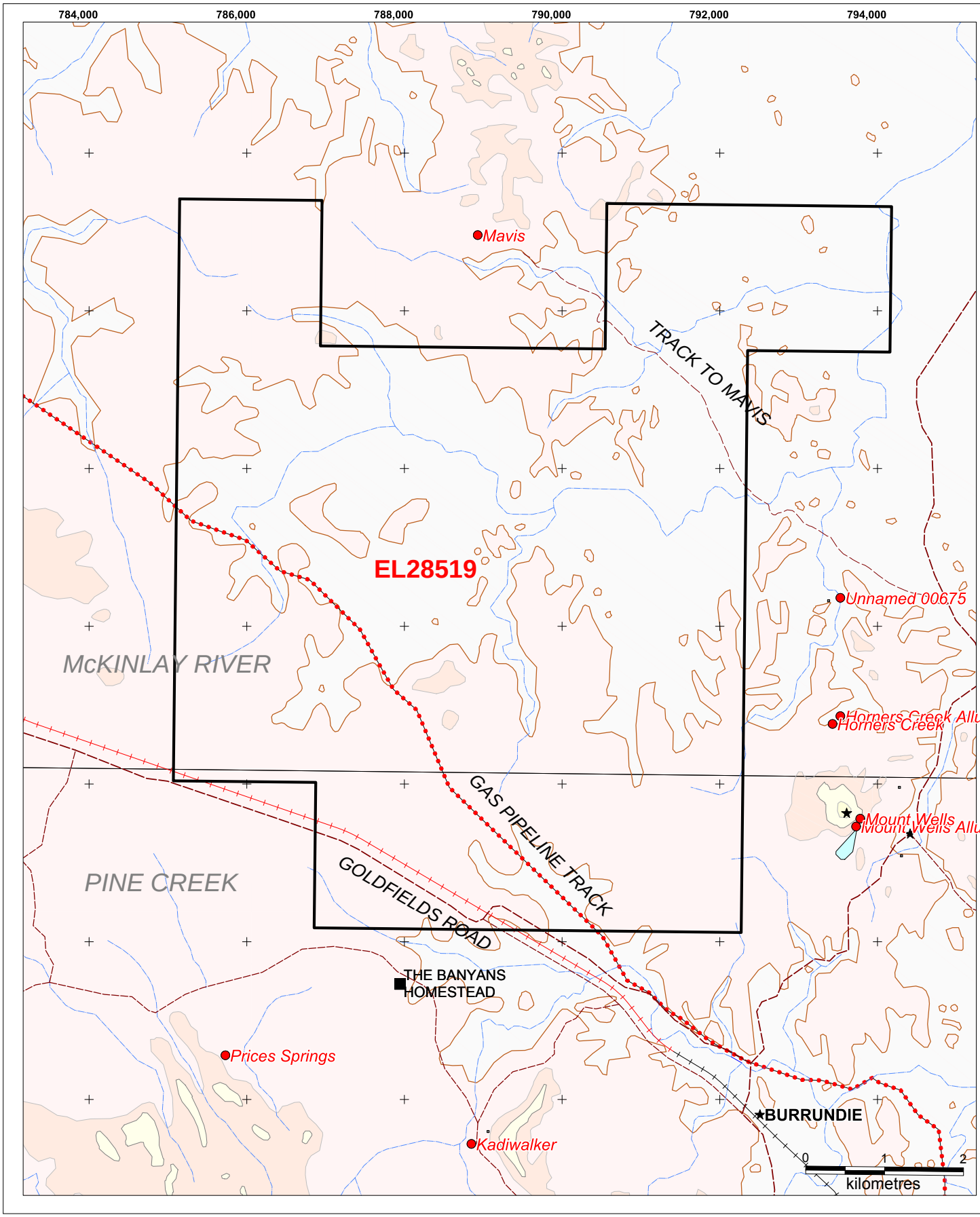
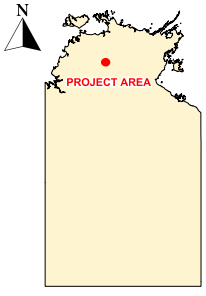




EL28519

MAP_100K
McKinlay River

NT_MineralOccurrences
Mount Wells

Place Names
BURRUNDIE
Point

Pipelines_PineCk_250K

Drainage_PineCk_250K

Roads_PineCk_250K
Line
Line
Line
Line

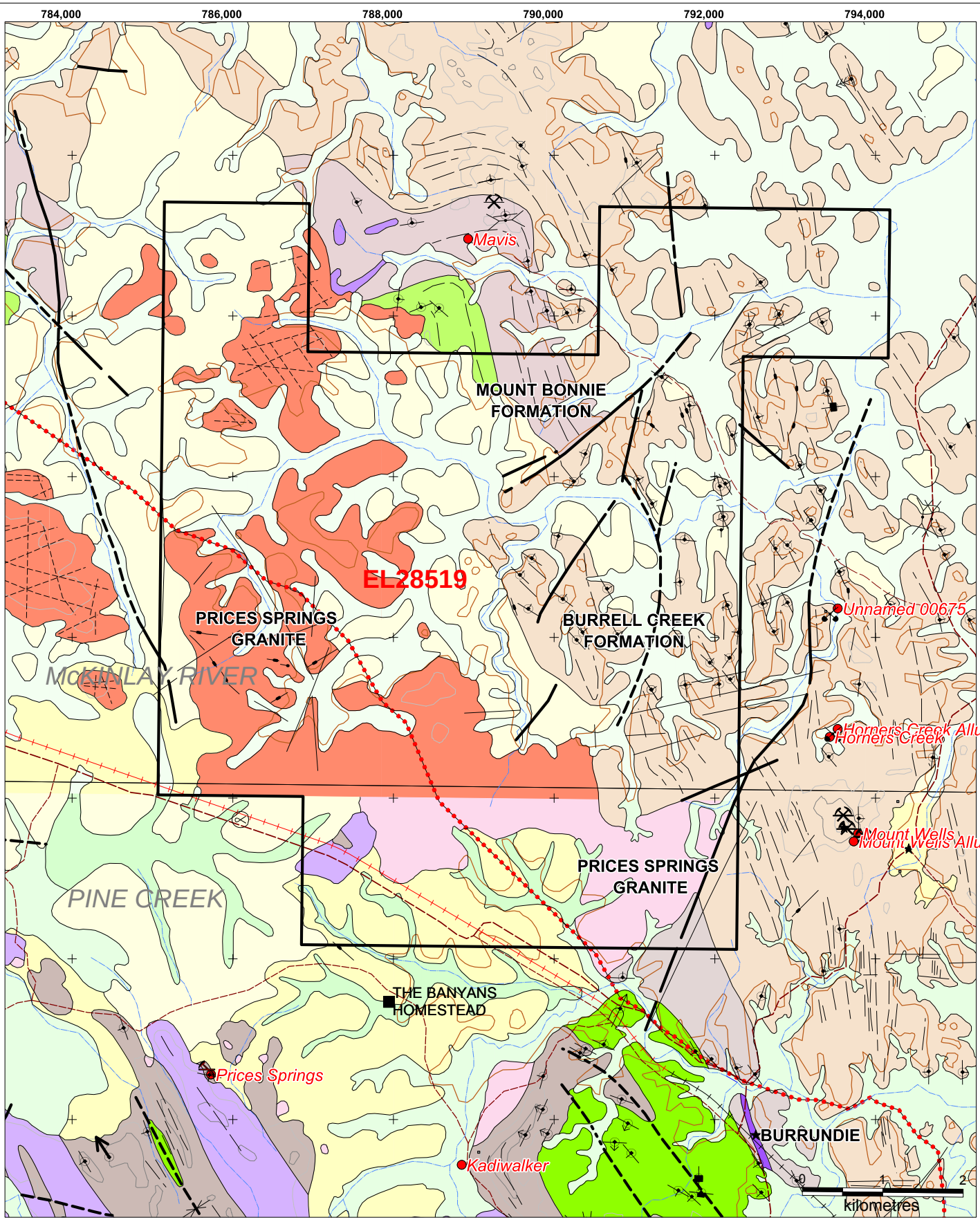
Homesteads
BANYA

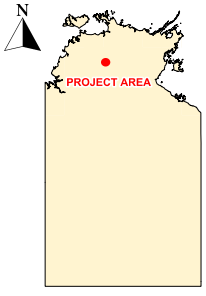
Rail_PineCk_

THUNDELARRA EXPLORATION

FIGURE 1
NORTH BURRUNDIE PROJECT
EL28519
Location Map

Drawn By: BL	Plan No.: NB_FIGURE 1
Checked by:	Date: November 2012
Projection: GDA94_52	Scale: 1:65,000 at A4





EL28519

MAP_100K
McKinlay River

NT_MineralOccurrences
Mount Wells

Place Names
BURRUNDIE
Point

Pipelines_PineCk_250K

Drainage_PineCk_250K

Roads_PineCk_250K
Line
Line
Line
Line

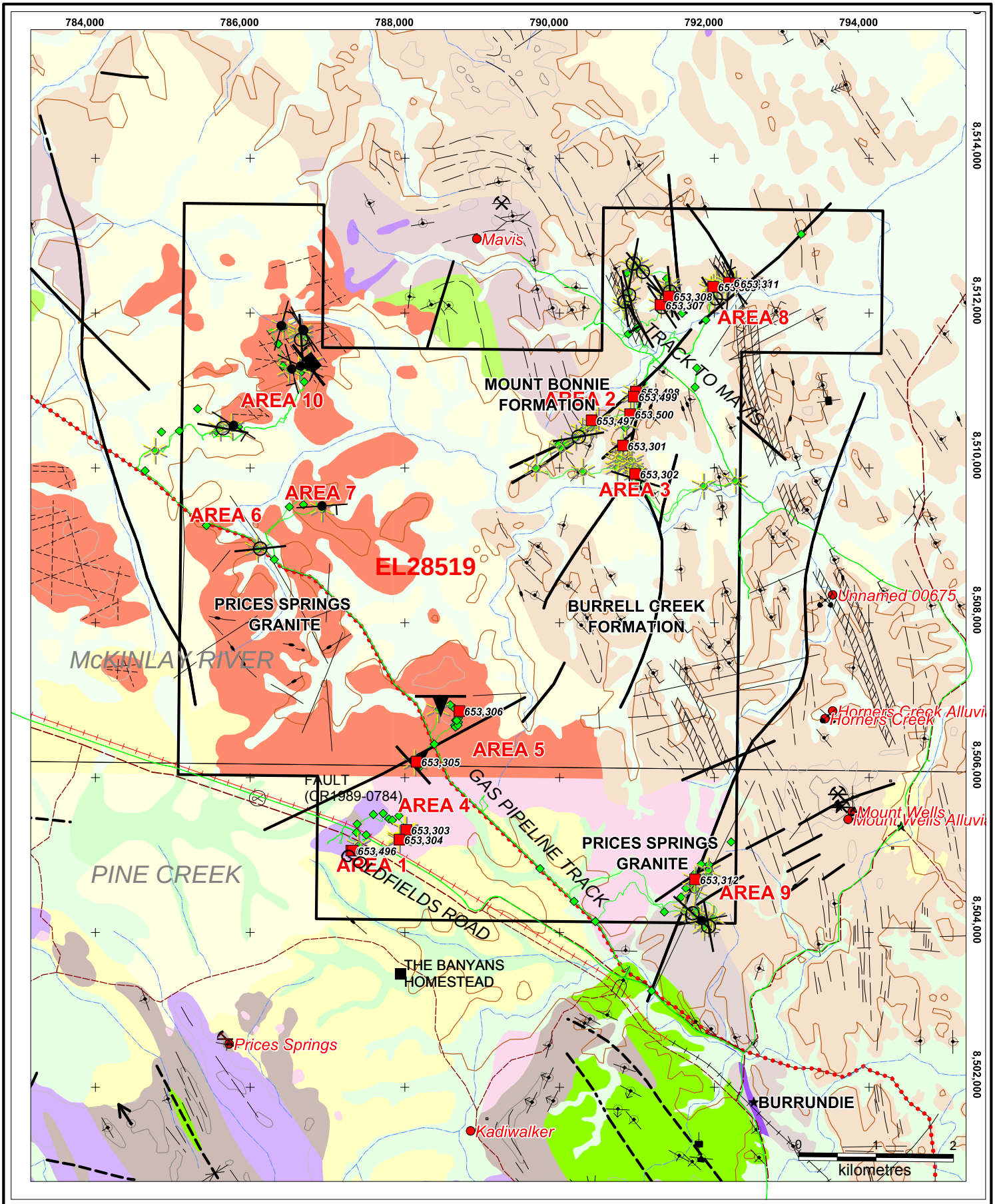
Homesteads
BANYA

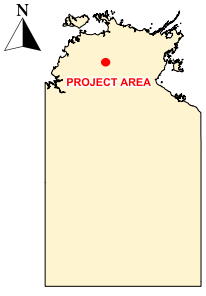
Rail_PineCk_

THUNDELARRA EXPLORATION

FIGURE 2
NORTH BURRUNDIE PROJECT
EL28519
Regional Geology Map
Pine Creek 100k (5271) Mapping
McKinlay River 100k (5270) Mapping

Drawn By: BL	Plan No.: NB_FIGURE 1
Checked by:	Date: November 2012
Projection: GDA94_52	Scale: 1:65,000 at A4





Quartz_occurrences

NthBurrundie_Rock chip samples

NthBurrundie_Waypoints Legend
(points attributed in MapInfo)

NthBurrundie_Tracks Legend

Faults Legend

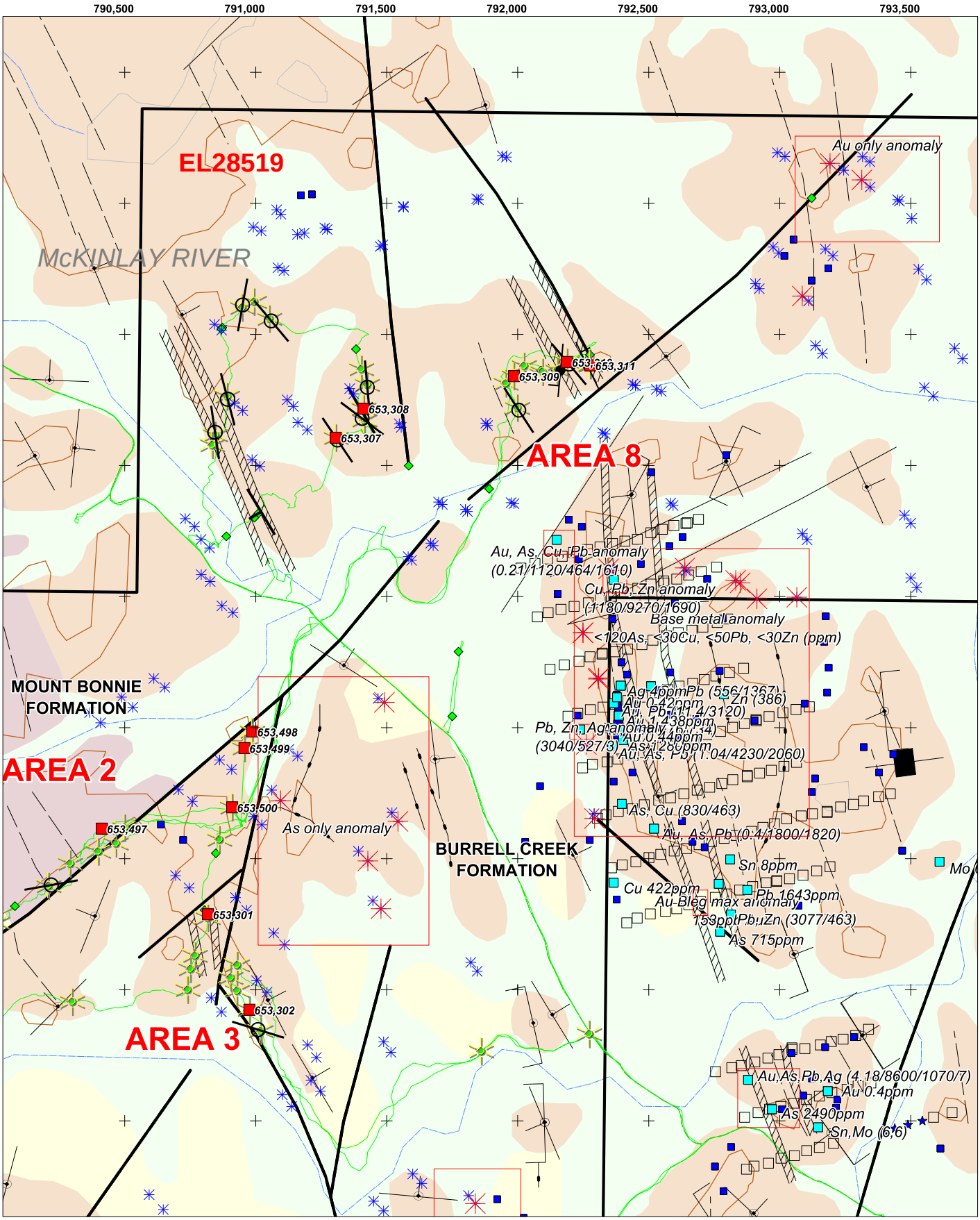
Greywacke Legend

Structural measurements

THUNDELARRA EXPLORATION

FIGURE 3
NORTH BURRUNDIE PROJECT
EL28519
Reconnaissance Locations

Drawn By: BL	Plan No.: NB_FIGURE 3
Checked by:	Date: November 2012
Projection: GDA94_52	Scale: 1:65,000 at A4



THUNDELARRA EXPLORATION

FIGURE 4
NORTH BURRUNDIE PROJECT
EL28519
Previous Exploration

Drawn By: BL	Plan No.: NB_FIGURE 4
Checked by:	Date: November 2012
Projection: GDA94_52	Scale: 1:20,000 at A4