DEEP YELLOW LIMITED

ABN 97 006 391 948

ANNUAL REPORT

Exploration Licences 23640, 25968, 25701, 25702 & 25941

MT DOREEN PROJECT

12 March 2008 – 11 March 2009

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Date: March 2009
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Target Commodity: Uranium
Datum/Zone: GDA94/Zone 55
250,000 K mapsheet: Mount Theo, Mount Doreen

Distribution:
- ❑ RDPIFR
- ❑ Native Title Unit - Central Land Council

CONTENTS

FIGURES

TABLES

DIGITAL APPENDICES

1.0 SUMMARY

The Mt Doreen Project lies within the Eastern Tanami region and is situated approximately 320 km northwest of Alice Springs. Exploration Licence 23640 was granted to Tanami Exploration NL (TENL) in 2003 and was acquired by Deep Yellow Ltd (DYL) in 2006. Exploration Licences 25968, 25701, 25702 and 25941 were granted to DYL during 2007. The commodity sought is uranium and the exploration programme sought to identify near-surface calcrete or sand hosted uranium, with secondary targets comprising tabular lignitic or redox traps within deeper basinal sediments. Exploration carried out during the reporting period included reconnaissance field trips, an airborne electromagnetic (AEM) survey comprising 865 line kilometres across EL25701 and an aircore drill programme. The drilling programme consisted of 219 holes for 7,329 metres and 436 samples across all tenements excluding EL25698.

2.0 INTRODUCTION

Exploration Licences 23640, 25968, 25701, 25702 and 25941 form the Mt Doreen Project. The Mt Doreen Project is located approximately 320 kilometres northwest of Alice Springs (Figure 1). The project area is situated on the Mount Theo (SF52-08) and Mount Doreen (SF52-12) 1:250 000 map sheets. Access from Alice Springs is via the Tanami Highway, and a network of station tracks and fence lines provide good access within the tenements.

The Mount Doreen region contains moderate relief comprising extensive high ranges of quartzite belonging to basal units of the Ngalia Basin, high rounded granite hills rising up to 250 metres above the surrounding terrain and low rounded ranges of schist and granite tors. Extensive low-lying areas surrounding the ranges comprise of sheet wash sand, clay and gravel, aeolian sand, wind incised fluvial gravel and sand, and minor calcrete and playa clay and silt.

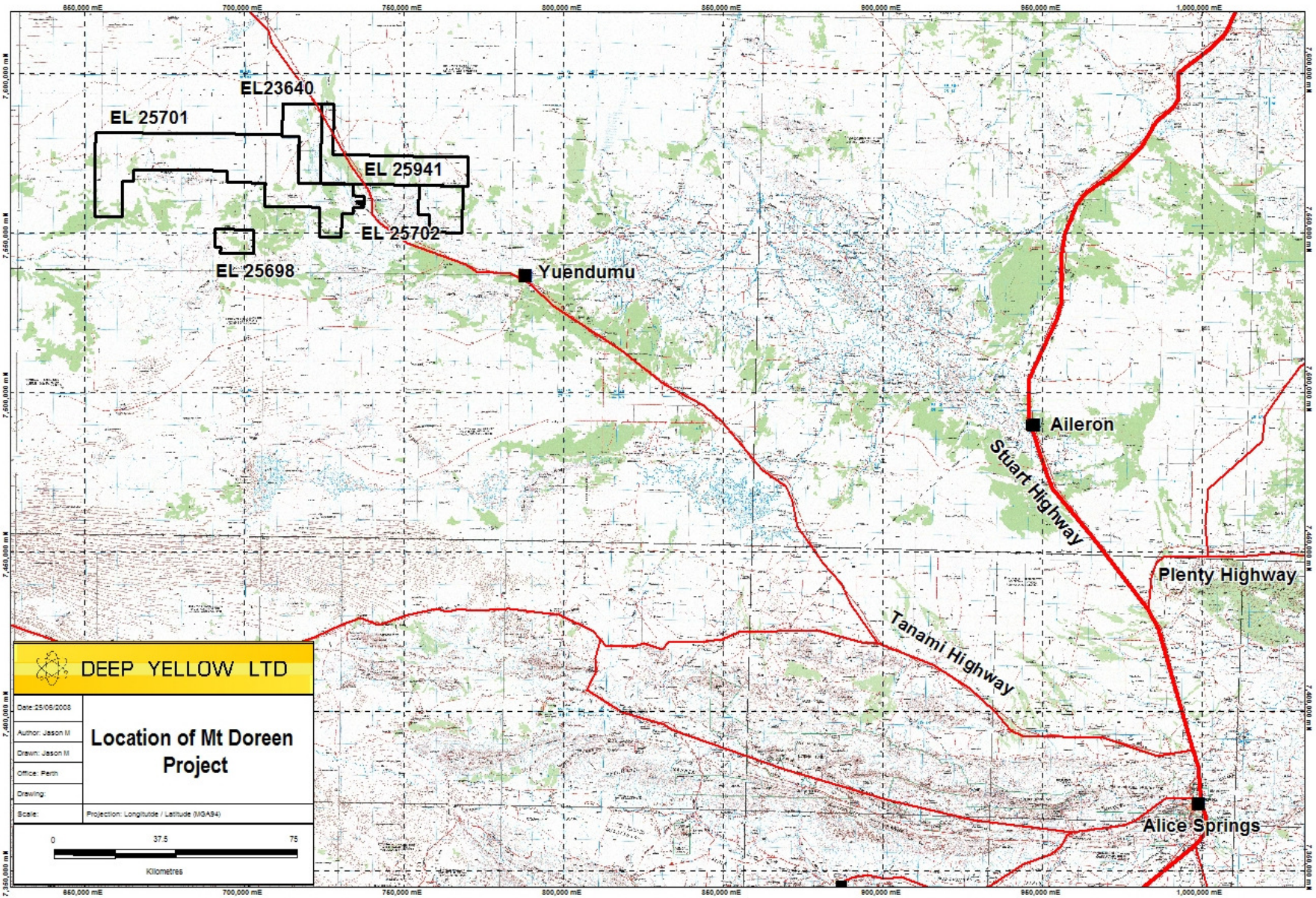

Figure 1 Tenement Location Plan

3.0 TENURE

Exploration Licence 23640 was granted on 12 March 2003 over an area of 114 blocks to TENL, a wholly owned subsidiary of Tanami Gold NL (TGNL). The tenement was acquired by DYL under the terms of an agreement with TGNL dated 28 June 2005 and a transfer was registered effective 5 December 2006. EL23640 was reduced to 74 blocks at the end of the third year of term.

Exploration Licences 25698, 25701, 25702 and 25941 were granted to DYL during September/October 2007 over the areas shown below.

Current tenement details are shown below.

Table 1: Tenement Details

Tenement No	Tenement	Blocks	Grant Date	Expiry Date
EL 23640	Yaloogarrie Creek	74	12-Mar-03	11-Mar-09
EL 25968	Carrington Bore	27	15-Oct-07	14-Oct-13
EL 25701	Mt Singleton	416	15-Oct-07	14-Oct-13
EL 25702	Mt Hardy	58	6-Sep-07	5-Sep-13
EL 25941	Atlee Creek	162	15-Oct-07	14-Oct-13

The Mt Doreen Project tenements lie wholly within the Mount Doreen Pastoral Lease. DYL negotiated an Exploration Agreement with the Central Land Council (CLC) to facilitate access to the tenements. DYL and the CLC, on behalf of the traditional Aboriginal owners, signed the Exploration Agreement on 13 August 2008. The CLC carried out a work area clearance in respect of the drilling programme in September/October 2008.

4.0 GEOLOGY

The Mt Doreen Project overlies within the Aileron Province of the northern Arunta region. The oldest rocks in the Mount Doreen area are metamorphosed Palaeoproterozoic siliciclastic sediments of the c. 1840 Ma Lander Group. These sediments were multiply deformed and variably metamorphosed during the c. 1840 Ma Stafford Event and numerous subsequent events

The Lander Group is interpreted to be stratigraphically equivalent to the Tanami Group, which hosts significant gold mineralisation at The Granites, Dead Bullock Soak and Coyote. The Lander Rock Formation comprises the oldest known basement and is really the most extensive basement unit. Along the southern margin of the project area lie outcropping uraniferous granitoids, feeding the north-flowing surface drainage.

The Ngalia Basin basal uraniferous sandstones also shed into the north-flowing drainage. The project area has potential to be a significant Tertiary/Quaternary depocentre as evidenced by the delta discharge complex at the termination of the present day Yaloogarrie Creek; just east of the project area.

5.0 REGOLITH AND GEOMORPHOLOGY

The Mount Doreen area has 10-20% basement exposure with large rounded hills and tors of granite and ranges and low ridges of metasediments. Strike extensive quartzite and quartz vein ridges are common. Areas of colluvium immediately surrounding exposed bedrock are amenable to surface geochemical methods.Even further from exposed bedrock are extensive Aeolian and sheetwash sandplains and minor lacustrine clay-calcrete-silcrete deposits which often from inverted topography. Well-developed surficial alluvial deposits are common. In many areas, a sand veneer covers these lacustrine deposits, with palaeochannels recorded up to 50m deep.

6.0 HISTORIC EXPLORATION

Prior to 2008, the following exploration was carried out in the Mount Doreen area:

- Michael Terry discovered quartz reefs containing arsenopyrite with minor gold for the Emu Mining Company in 1932,
- Bureau of Mineral Resources (BMR) conducted aeromagnetic, radiometric and gravity surveys in the 1960s,
- Northern Territory Geological Survey (NTGS) accessed the economic feasibility of the Mount Hardy and Clarke copper deposits from 1968 to 1972,
- BMR completed airborne magnetic and radiometric surveys in 1993,
- NTGS and BMR completed 2nd edition mapping of Mount Doreen sheet in the 1990s,
- Bruce and Mules explored the Silver King area for gold and base metals from 1988-1991
- MIM/Roebuck Resources joint venture targeted magnetic highs in the early 1990s and explored the Silver King deposit,
- Yuendumu Mining Company/Posgold explored the western parts of the Mount Doreen Area from 1992 to 1996, particularly Terry's Find, other targets were 'Buger' and 'Grasshopper'.
- BHP tested the northern Mount Doreen and southern Mount Theo mapsheets for Cu-Au in the late 1990s, based on AGSO studies (Wyborn, 1998)
- Tanami Gold NL (TGNL) carried out extensive geochemical sampling and drilling across the Mt Doreen Area from 2001 to 2005. The main areas targeted were Terry's Find, Mount Hardy and Pyramid Hill prospects.

7.0 EXPLORATION

Exploration carried out over the reporting period by DYL included reconnaissance field trips, AEM survey and an aircore drill programme.

7.1 Reconnaissance Field Trips

Three reconnaissance field trips were carried out over the reporting period to evaluate drill rig access, potential drill water supplies and drill targets.

Historic copper workings/anomalies across the project were visited to check for any uranium association. All copper workings/anomalies visited had no significant uranium signature.

Drill targets were identified by areas with little to no outcrop and evidence of deep transported material and drainage.

7.2 Airborne Electromagnetic (AEM) Survey

An AEM survey (RepTEM system) was flown by GPX Aeroscience Pty Ltd across EL 25701, 865 line km's were flown at 1.5 km spacing (Figure 3). The data obtained from the AEM survey aided in identifying potential palaeochannels. Survey data is attached as Appendix 5.

RepTEM System

Transmitter
Waveform – 25% duty cycle square wave
Pulse on Time – 5 ms (inclusive of 1ms cosine ramp on)
Pulse off Time – 15 ms
Pulse Current – 320 Amps
Switch on Ramp – 1 ms
Switch off Ramp – 55 µs 350
Tx Loop Area m2
Tx NIA – 112,000 112,000
Tx Frequency – 25Hz 25 Hz

Receiver
A-D Circuitry – 24bit
Sample Time – 0-12 ms
Sampling – 121 Linear channels
Windowed Data – 21 channels

Receiver Coil
Effective NA - Bandwidth -10,000 Square Metres
45,000 Hz
EM Data Channel Specifications
NB: Time 0 is at the start of the switch off ramp

21 Channel Sampling Scheme (55Us ramp)				
Channel	**Begin Time**	**End Time**	**Centre Time**	**Width in Time**
1	55	80	67.500	25.00
2	80	105	92.500	25.00
3	105	130	117.500	25.00
4	130	155	142.500	25.00
5	155	255	205.000	100.00
6	255	355	305.000	100.00
7	355	456.25	405.625	101.25
8	456.25	557.50	506.875	101.25
9	557.50	760.00	658.750	202.50
10	760.00	1063.75	911.875	303.75
11	1063.75	1468.75	1266.250	405.00
12	1468.75	1975.00	1721.875	506.25
13	1975.00	2582.50	2278.750	607.50
14	2582.50	3291.25	2936.875	708.75
15	3291.25	4101.25	3696.250	810.00
16	4010.25	5012.50	4556.875	911.25
17	5012.50	6025.00	5518.750	1012.50
18	6025.00	7138.75	6581.875	1113.75
19	7138.75	8353.75	7746.250	1215.00
20	8353.75	9670.00	9011.875	1316.25
21	9670.00	11391.25	10530.626	1721.25

Magnetic Data Specifications

The helicopter is equipped with a bird-mounted Geometrics G 822A Cesium vapor, optically pumped magnetometer continuously sampling at 1200 Hz.

The instrument has a sensitivity of 0.001 nT, with a sensor noise level of less than 0.1 nT. The magnetic readings are resampled to 50Hz with each sample containing an array of 24 readings. Adjacent readings are summed to minimise bias from the EM transmissions to produce the 25Hz magnetic array data. The mid time array positions are averaged to create the magnetic response.

The time-synchronized ground magnetic field data was digitally recorded at a 5.0 sec interval with a Geometrics G856 magnetometer to an accuracy of 0.1 n T.

Survey Boundaries

/#CoordinateSystem="GDA94 / Map Grid of Australia zone 52" / # D a t u m = G
D A 9 4 , 6 3 7 8 1 3 7 , 0 . 0 8 1 8 1 9 1 9 1 0 4 , 0 /#Projection="Transverse
Mercator",0,129,0.9996,500000,10000000 /#Units=m,1
/#Local Datum ="G DA94 to WGS 84 (1)",0,0,0,0,0,0,0

Easting	Northing
704960.96	7452762
704764.9	7438469.96
732076.99	7438071.38
732048.28	7436227.16
807159.62	7434873.62
807201.91	7437063.06
795955.94	7437293.3
796243.05	7451655.35
704960.96	7452762

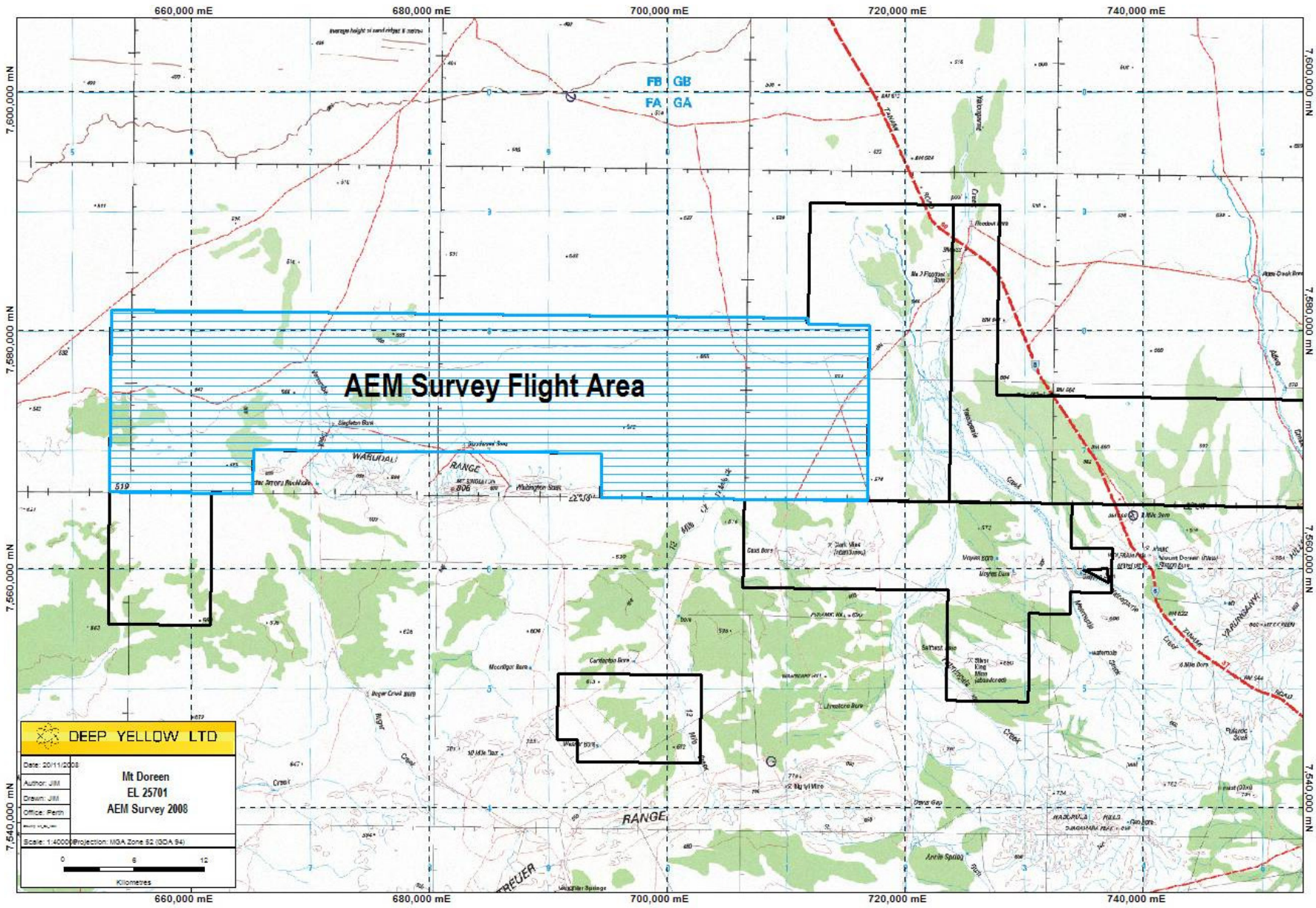

Figure 2 AEM Survey Flight Area

7.3 Aircore Drilling

Bostech Drilling Pty Ltd completed 219 aircore drillholes for a total of 7329 metres. Drill lines were positioned to intersect lines of potential paleodrainage or basinal depocentres. These lines were also positioned to comply with the relevant Aboriginal Site Avoidance Surveys. Holes were drilled from 3m to 115m metres in depth, and a composite 3-5 metre sample of the top 10 metres taken for uranium assay. All drill samples were measured for total gamma response with a hand-held RSS-125 spectrometer. All composite assay samples were submitted to ALS Chemex in Alice Springs and analysed for uranium by XRF (method ME_XRF_05) with a detection limit of 4 ppm.

Aircore drilling intersected near-surface gravelly sands around the Yaloogarrie Creek tenement; overlying shallow~deep clay-prone alluvium. Buried calcrete was not detected. The long east-west drill traverses across the Mt Singleton tenement intersected deep clay-prone alluvium over deeply weathered basement. The single line of drilling across the Mt Hardy tenement intersected shallow granite and metasediment. In all areas, the deeper sedimentary cover was found to be completely oxidised and clay-prone.

Results received showed that all 219 drill holes failed to intercept any significant mineralisation with 9ppm U over 5 metres being the highest assay returned.

The drill collar sites are shown on Figure 3. Drilling data for this programme, DO_AC1 to DO_AC219, are contained in Appendix 2.

Table 2 Drill Hole Summary

Tenement	Aircore Holes	Metres
EL 23640 – Yaloogarrie Creek	34	1184
EL 25941 - Atlee Creek	9	318
EL 25701 - Mt Singleton	156	5552
EL 25702 - Mt Hardy	20	275
Total	219	7329

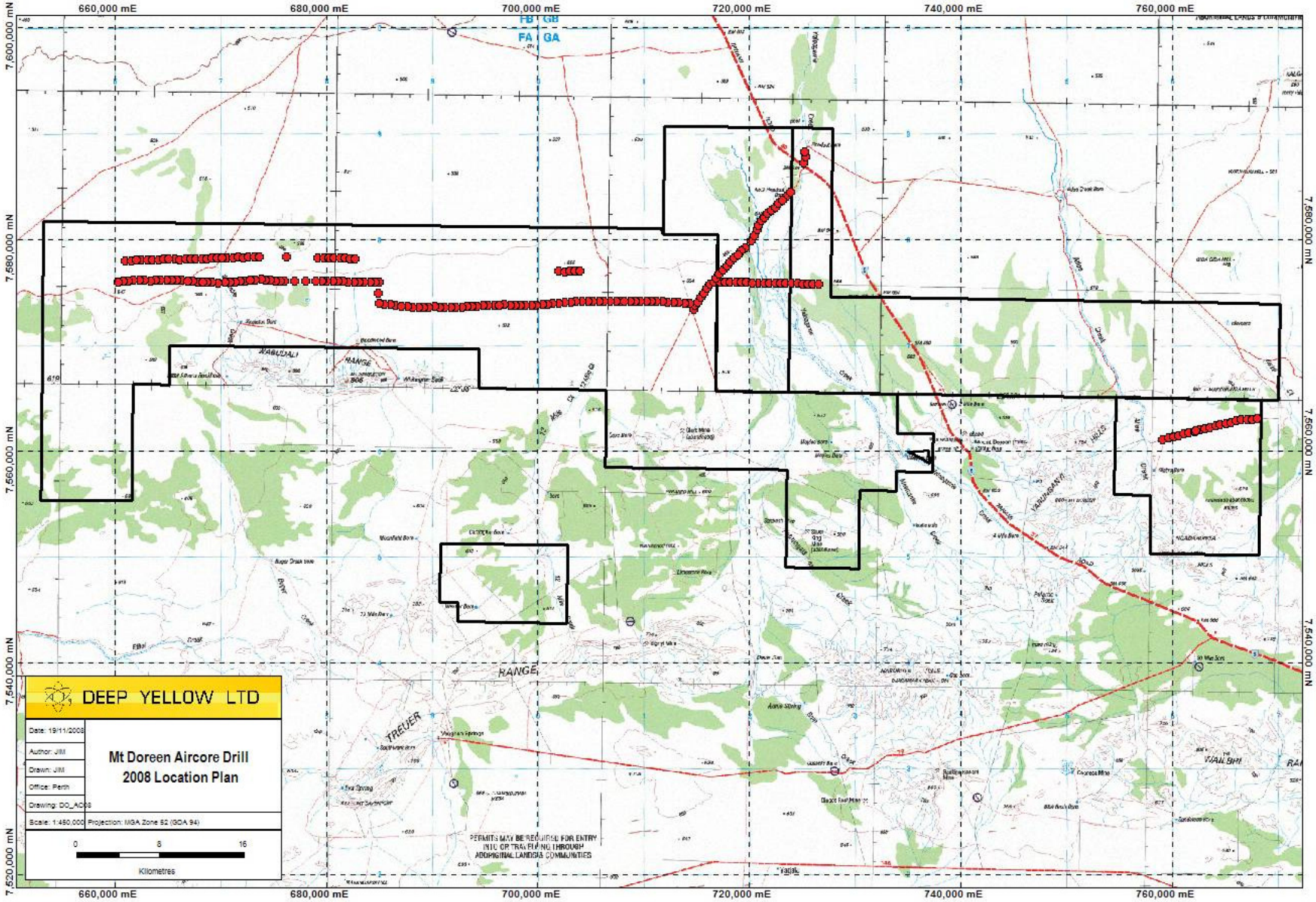

Figure 3 Aircore Drilling Location Plan

8.0 RADIATION MONITORING

All personnel were issued with personal radiation dosimeters (TLD badges); these being sourced and analysed by ARPANSA (Australian Radiation Protection and Nuclear Safety Agency). The highest dose reported by ARPANSA was 10 microSieverts, and this was sustained over a 3 month long drilling campaign. This is well within the ICRP annual limit of 20 milliSieverts. All vehicles and equipment were subject to washdown and radiological inspection prior to demobilisation.

9.0 REHABILITATION

All 219 aircore holes have been capped and covered, while the drill spoils still require rehabilitation. The affected areas are the subject of ongoing monitoring to ensure regeneration of the native spinifex ground cover.

10.0 PROPOSED EXPLORATION

The data collected from the 2008 drilling programme will be assessed to see if any further prospective areas remain to be tested.