



THUNDELARRA

EXPLORATION

Annual Report

FOR

Exploration License 23509

For the year ending

26/02/2010

Map Sheet 1:250,000 Pine Creek SD52-08

Title Holder: Biddlecombe Pty Ltd
Project Operator: Thundelarra Exploration Ltd/Element 92 Pty Ltd

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(Note that all figures are reproduced at 80% of original size)

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Summary

Exploration for uranium mineralisation was carried out on EL23509. Historical work over the tenement area has been largely restricted to prospecting and ground geochemical surveys for gold, tin and base-metals. The EL contains a number of abandoned tin mines, known as Bells Tin Mines or Hayes creek Tin Mines. Uranium exploration on EL23509 commenced as a result of exploration work in an adjacent tenement and the identification of anomalies on EL23509 from publicly available airborne radiometric data. During the previous reporting period grid ground radiometric surveys, trench channel sampling, geological mapping and rock chip sampling were carried out at Thunderball Extended Prospect and Mt Osborne Prospect.

During this reporting period 5 diamond Holes (272.3m) and 4 RC holes were drilled at Thunderball Extended Prospect and 3 RC holes (763m) were drilled at Corkscrew Prospect. A total of 248 drill-hole samples were assayed, consisting of 93 1-metre interval splits of RC samples, 91 4-metre composite RC samples and 64 half-core samples. Ground radiometric surveys, geological mapping and rock-chip sampling were carried out at Corkscrew Prospect. A total of 16 rock-chip samples were collected, and 22 line km of ground radiometric data were recorded. Two short trenches with a combined length of 20.9m were dug at Corkscrew Prospect and 22 trench channel samples from these trenches were assayed. Four trench samples were submitted for petrology.

Airborne magnetic, radiometric and EM surveys were carried out over most of the EL. A total of 1094 line km of airborne geophysics were flown over the EL.

1. Introduction

1.1 Project name and location

Exploration license EL23509 is located in the central eastern portion of the 1:250,000 Topography Sheet SD5208 Pine Creek. The EL lies 2.5km north-east of Hayes Creek Wayside Inn on the Stuart Highway. Access to the EL is off the Stuart Highway 2-3km east of Hayes Creek, along the old Hayes Creek Tin Mine Track or alternatively from the Grove Hill Road through Sandy Creek Mine. The NE part of the EL can be reached on foot from a track leading to a Radio Repeater Tower near Mount Osborne.

The EL is located within pastoral lease PL903 (Douglas Station).

1.2 Exploration License Details

EL23509 was granted on the 27th February 2003 to Biddlecombe Pty Ltd for a period of six years. The tenement was originally 83.75km² but has since been reduced to its present size of approximately 20km² or six graticules.

Thundelarra Exploration Ltd and Element 92 Pty Ltd (a subsidiary of Thundelarra) acquired an interest in the exploration license on 23 December 2008 by taking over an earlier option agreement struck between Biddlecombe Pty Ltd and Armada Exploration Pty Ltd.

During February 2009 a two year extension of term was granted.

1.3 Operator Details

EL 23509 has been held and operated by Thundelarra Exploration Ltd since 23 December 2008.

Prior to this date the tenement was operated by Armada Exploration Pty Ltd and Biddlecombe Pty Ltd.

Address and contact details for Thundelarra Exploration Ltd are:

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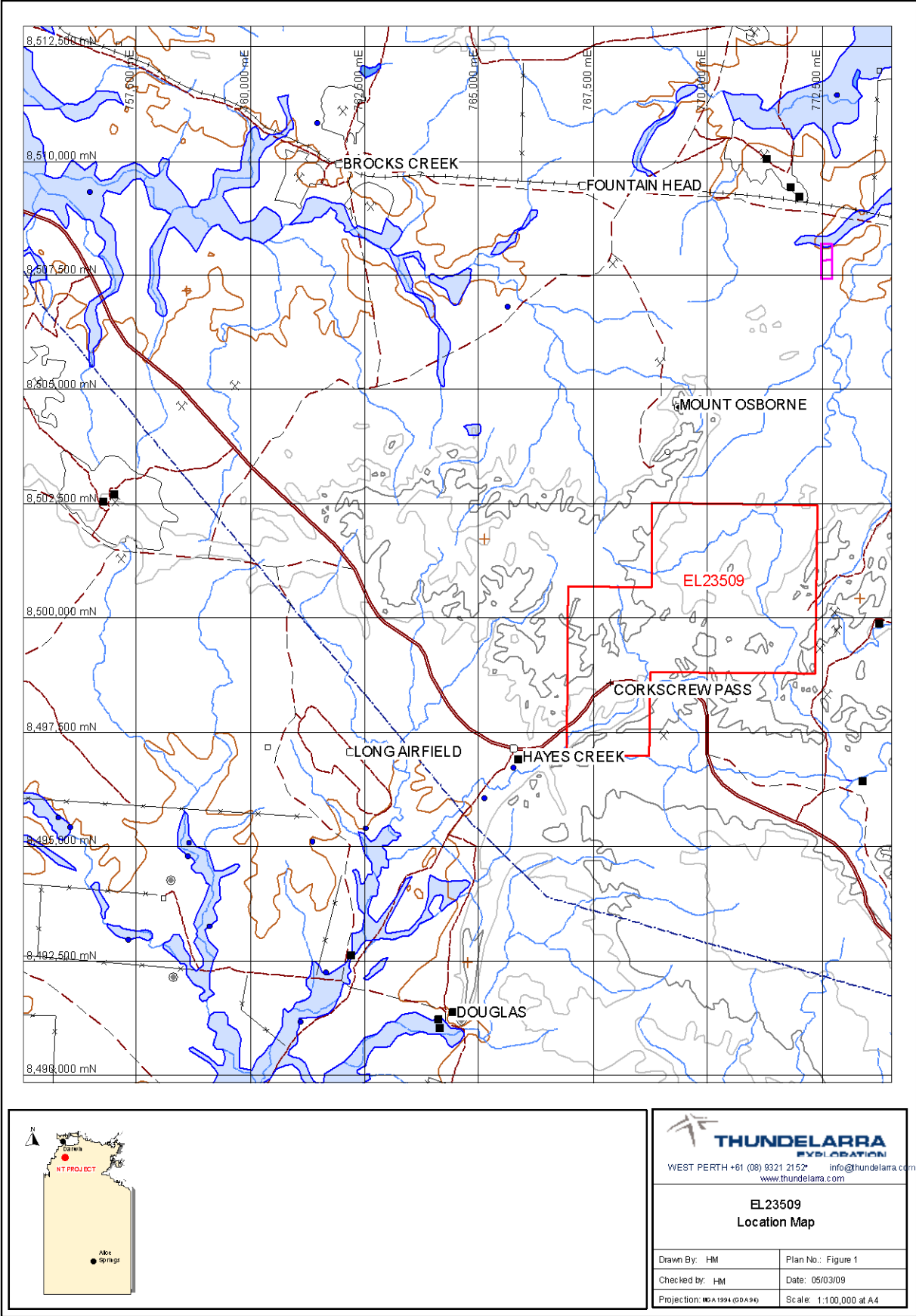


Figure 1. Location Map

2. Geology

EL23509 lies in the central portion of the Pine Creek Orogen. The Orogen consists of folded Early Proterozoic meta-sedimentary rocks on an interpreted granitic Archaean Basement. The Proterozoic rocks are tightly folded on NE trending axes and metamorphosed to greenschist-facies. They are intruded by pre-deformational basic igneous rocks of the Zamu Dolerite suite and syn- to post-deformational granites of the Cullen Suite.

The geology of EL 23509 is dominated by a series of parallel tight NNE plunging, anticlines developed in meta-sediments of the Burrell Creek Formation with meta-sediments of Mt Bonnie and Gerowie Tuff Formations at their cores. The sediments consist predominantly of carbonaceous shale and siltstones, siltstones, tuffaceous siltstones and greywacke, with minor chert horizons. Sills of Zamu dolerite are folded conformably with the sediments. A major regional fault zone, the Hayes Creek Fault, transects the south-eastern part of the EL. An empirical relationship appears to exist with the presence of anomalous uranium and the broad zone of intersection of the Hayes Creek fault with anticlinal culminations.

3. Previous Exploration Activity

The area of EL23509 was previously explored for gold, tin and base-metals.

The Hayes Creek or Bells Tin Mine and a number of smaller prospecting workings are located on the tenement which indicates considerable historical prospecting effort.

Some 156t of tin concentrate were mined from the Hayes Creek Tin Mines from 1914-1934 and briefly in 1962. There is also substantial evidence for earlier prospecting for alluvial gold in the headwaters of Yam Creek by Chinese prospectors at the turn of the century.

A number of MCN's have been held over the area of EL23509, although no information on activities on many of these could be obtained from the Departments' Industry Report Management System. They seem to have been mainly concerned with alluvial gold and tin mining.

Recorded modern company exploration commenced in 1967 when Placer Prospecting carried out stream sediment surveys over part of the tenement in a search for base-metals.

From 1977-1980 and 1982-1985 Geopeko carried out extensive exploration activities over the EL area. This included regional and prospect mapping, rock-chip sampling, soil sampling, photogeology and an airborne spectrometer-magnetometer survey. Target minerals were base-metals, tin and gold.

From 1976-1979 CRA carried out a soil sampling and mapping program over the area of the Bells Tin Mines in a quest for tin and base-metals.

Between 1985-1990 Oceania Exploration & Mining and Norgold carried out stream-sediment sampling, photogeology and rock-chip sampling.

During 1989 Trescabe Pty Ltd carried out an evaluation of the waste dumps of the Bells Tin Mines and determined an average grade of 0.28% Sn.

From 1990-1991 Magnum Gold carried out stream sediment and rock-chip sampling over part of the EL

Between 1990 and 1994 parts of the EL were held by prospectors who carried out loaming and alluvial sampling and minor rock chip sampling for gold. Small scale gold prospecting continues over the EL to the present.

During 1994-1996 Solomon Pacific carried out BLEG stream sediment sampling, structural interpretations, geological mapping, soil and rock-chip sampling in a search for gold mineralisation.

During 1997-1998 Northern Gold carried out regional soil sampling programs over part of the EL in the search for gold.

More recently during 2007 Armada Exploration carried out a program of rock-chip sampling and scintillometer traverses over the current EL in a search for gold and uranium mineralisation.

None of the above exploration efforts has resulted in the discovery of economic mineralisation apart from the limited production from the Hayes Creek/ Bells Tin Mines.

During 2008-2009 Thundelarra carried out ground radiometric surveys, geological mapping, rock-chip sampling and trenching. This led to the identification of significant near surface uranium mineralisation at Thunderball Extended Prospect.

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4. Target Commodities

Thundelarra is exploring EL23509 primarily for uranium mineralisation, but is also assessing the EL for other commodities, including gold and base-metals.

5. Exploration Methods

Thundelarra is assessing the EL as part of a package of contiguous EL's held either wholly by Thundelarra and its associates or under a joint-venture arrangement with Crocodile Gold Australia Ltd.

Thundelarra's strategy has been to acquire and analyse all historical exploration work, carry out airborne geophysical surveys (EM, Radiometrics, Magnetics), ground radiometric surveys and geological prospecting, geological mapping and follow up with scout RC or diamond drilling, where the topography allows it.

Ground radiometric surveys involve walking a nominal (generally at 25-35m line spacing), GPS controlled grid with a handheld spectrometer (Radiation solutions RS-125 or Exploranium GR135) which records Total Count Data at 1 second intervals and U, K and Th channel data at 30 second intervals. Grid areas are mapped at a nominal 1:1000 scale to provide the required geological data to assess the results from the radiometric surveys. Zones of anomalous radioactivity are followed by rock-chip sampling, pitting or trenching. In some areas where the topography is severe, instead of grid surveys, streamline radiometric surveys are carried out by walking the local drainage network.

Two short trenches were dug with an excavator at Corkscrew. Trenches were dug through colluviums into weathered bedrock. Channel sampling of the bedrock exposed in the trench walls was carried out in 1m intervals measured by tape-measure or in lesser intervals as dictated by geology.

Diamond drilling was carried out by Wild Drilling of Tennant Creek using a small track mounted rig. Performance of the drilling contractor was unsatisfactory, the relatively high core-loss experienced was attributable to poor drilling practice rather than to ground conditions and there were repeated rig breakdowns. NQ2, NQ3 and NQ core sizes were trialled during the program to attempt to reduce core loss. Contrary to expectations the drilling contractor achieved best recoveries using standard NQ size core, while NQ3 triple tubing resulted in poor recoveries due to inexperience and technical difficulties with the equipment. Core was selected for assay based on observed geology, mineralogy and/or anomalous hand-held spectrometer readings and was cut in half lengthwise using a core-saw. Samples were taken at even metre intervals or less as dictated by geological intervals.

RC drilling was carried out by Johannsen Drilling of Howard Springs using a Superrock 5000 rig with 550psi/1150cfm air, face sampling hammer and 145mm bit. Samples were collected through a cyclone and bagged in 1m intervals in plastic bags. Samples selected for assay were split through a 3 tier riffle splitter to approximately 3-4kg sample weight. Some holes were composite spear sampled in 4m intervals.

Most of the drill-holes were gamma logged by Borehole Wireline Services. Down-hole imaging was attempted on drill-hole TPCRC024 at Corkscrew but failed due to collapse of the hole. The collar positions of all Thunderball Extended holes were formally surveyed by Ausurv of Darwin. Collar positions for Corkscrew were recorded with handheld GPS with approximately 3m accuracy.

Geochemical assaying was carried out by NTEL Laboratories. The whole sample was crushed and ring-milled. Analysis was by total acid digest with an ICP-Mass Spectrometry finish. Samples were assayed for Ag(1), As(10), Bi(1), Co(1), Cu(5), Ni(5) Pb(2), Th(5), U(5), V(10) and Zn(10). Detection limits in ppm are given in brackets. Some of the RC samples were assayed for Au, Pt and Pd by Fire-Assay by Northern Assay Laboratories of Pine Creek to a 1ppb detection limit.

Petrography work was carried out by consultants Pathfinder Exploration Pty of Ocean Reef, WA.

6. Work Carried out and Results

Activities carried out by Thundelarra consisted of ground radiometric surveys, geological mapping and prospecting, rock-chip sampling, trench channel sampling, airborne magnetic-radiometric surveys, airborne Tempest EM surveys and a minor VTEM trial survey, as well as RC and Diamond Drilling.

In April 2008 Thundelarra entered into an agreement with Geoscience Australia to infill the planned government wide-spaced airborne Tempest EM survey of the Pine Creek Orogen to 330m line spacing over parts of EL23509. A total of 140 line km was flown by Fugro Airborne Surveys Pty Ltd over EL23509. This data has been previously supplied to the Mines Department as an addendum to the 2009 annual report for EL25553 as it covers a number of contiguous tenements.

A combined high resolution airborne magnetic-radiometric survey was flown over all of EL23509 by Thomson Aviation. A total of 780 line km of 25m spaced data collected. The results of this survey were processed by Southern Geoscience Consultants. This data has been recently supplied to the Mines Department as an appendix to Crocodile Gold's Annual report for EL23431.

A trial of VTEM airborne EM was carried out over Thundelarra's Thunderball Prospect on the adjacent EL23431. Several of the trial lines passed over EL23509 for a total of approximately 17.4 line km. This survey was conducted by Geotech Ltd. The data has already been supplied to the Department as an appendix to the annual report for EL23431.

Ground radiometric surveys were carried out in the Corkscrew Prospect area. A total of 22km of streamline ground radiometric traverses were completed along the Hayes Creek drainage system and adjacent creeks. A small detailed ground radiometric grid was completed near Corkscrew Prospect over a small airborne anomaly. Preliminary geological mapping was carried out over the areas where ground radiometrics were conducted as an aid to interpreting the results.

Rock chip sampling was carried out at Corkscrew Prospect and Mt Osborne Prospects. A total of 15 samples was collected. Some float samples from the Corkscrew Prospect area showed traces of green U-Cu clay minerals which assayed up to 1.95% U. A number of the collected samples have yet to be submitted for analysis.

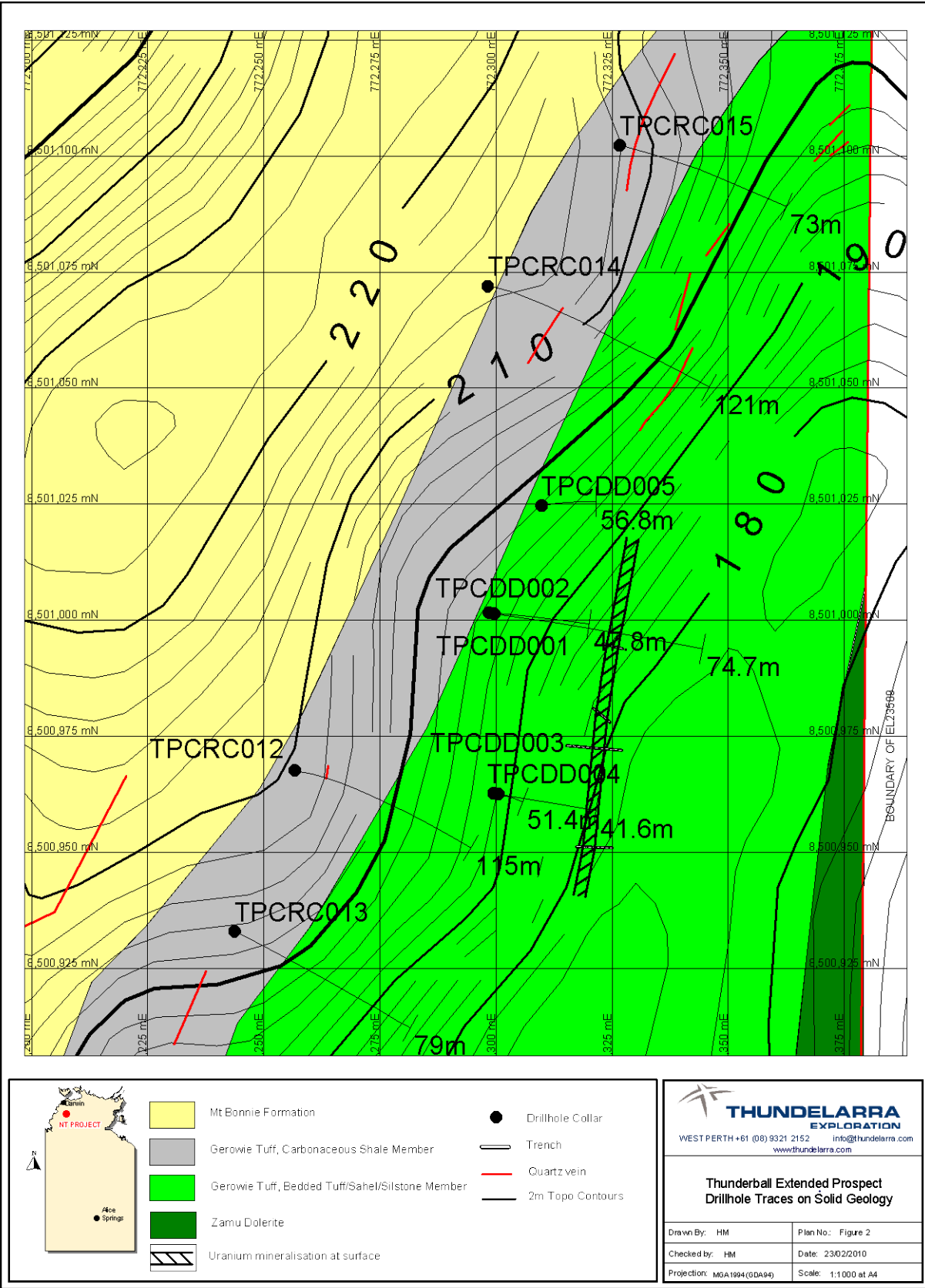
Two trenches were dug at Thunderball Extended prospect. Both intersected a narrow high grade uranium mineralised zone, which trends north and dips moderately west. THTR003 intersected a 0.4m wide zone that assayed 0.16% U, while trench THTR004 intersected a 0.5m wide zone assaying 2.59% U. Mineralisation in the trenches consisted of laminated green U-Cu clays apparently along a minor shear or fault surface. A total of 22 trench samples were assayed. Four samples were submitted for petrography, which essentially confirmed the tuffaceous nature of the host rocks.

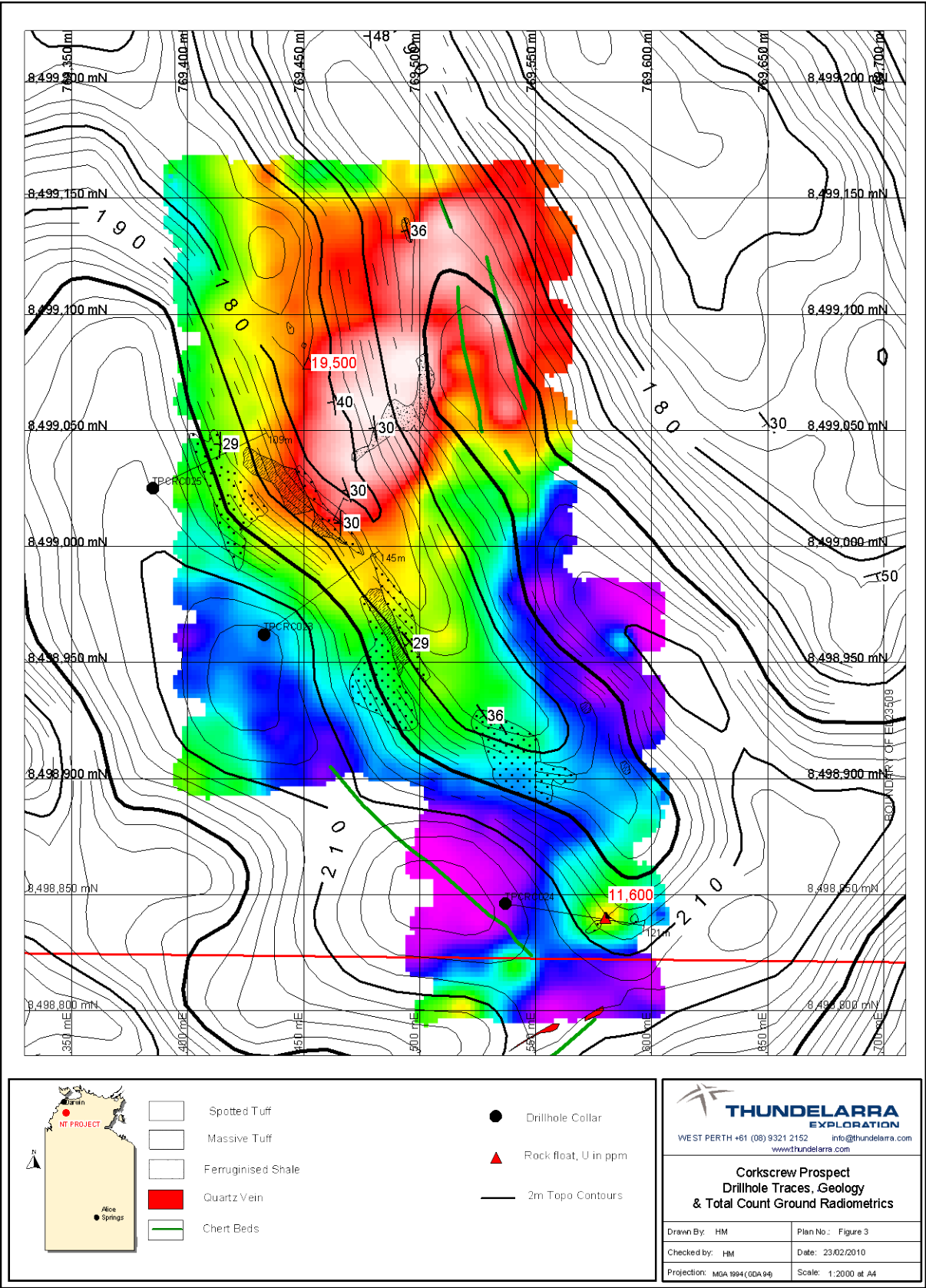
A program of 5 diamond drill-holes for a total of 272.3m was completed at Thunderball Extended to determine the significance of the mineralisation exposed by the trenching. All 5 holes intersected fracture hosted secondary uranium minerals below the surface zone of mineralisation, however, the intensity of mineralisation was weaker than what had been expected from the trench results, and a mineralogical change was observed in the drill core from green u-cu minerals in the upper zone of oxidation to yellow u minerals below the water table near the base of weathering. No primary uranium mineralisation was observed, the mineralised zone was intersected above the base of weathering. The apparent distinct narrow high grade structure seen in the trenches was not well developed in the drill core at depth, rather mineralisation occurred across a broader interval, up to 10m in TPCDD001 and was mainly restricted to narrow fracture and joint coatings. Mineralisation in the core was generally of lower grade, although an interval of 0.5m @ 0.28% U in TPCDD002 correlates well with the trench results. Host rocks to the mineralisation are carbonaceous siltstones with tuffaceous intercalations about 40m below the interpreted Mt Bonnie Formation-Gerowie Tuff contact. The mineralisation does not appear to be preferentially hosted by any particular rock type.

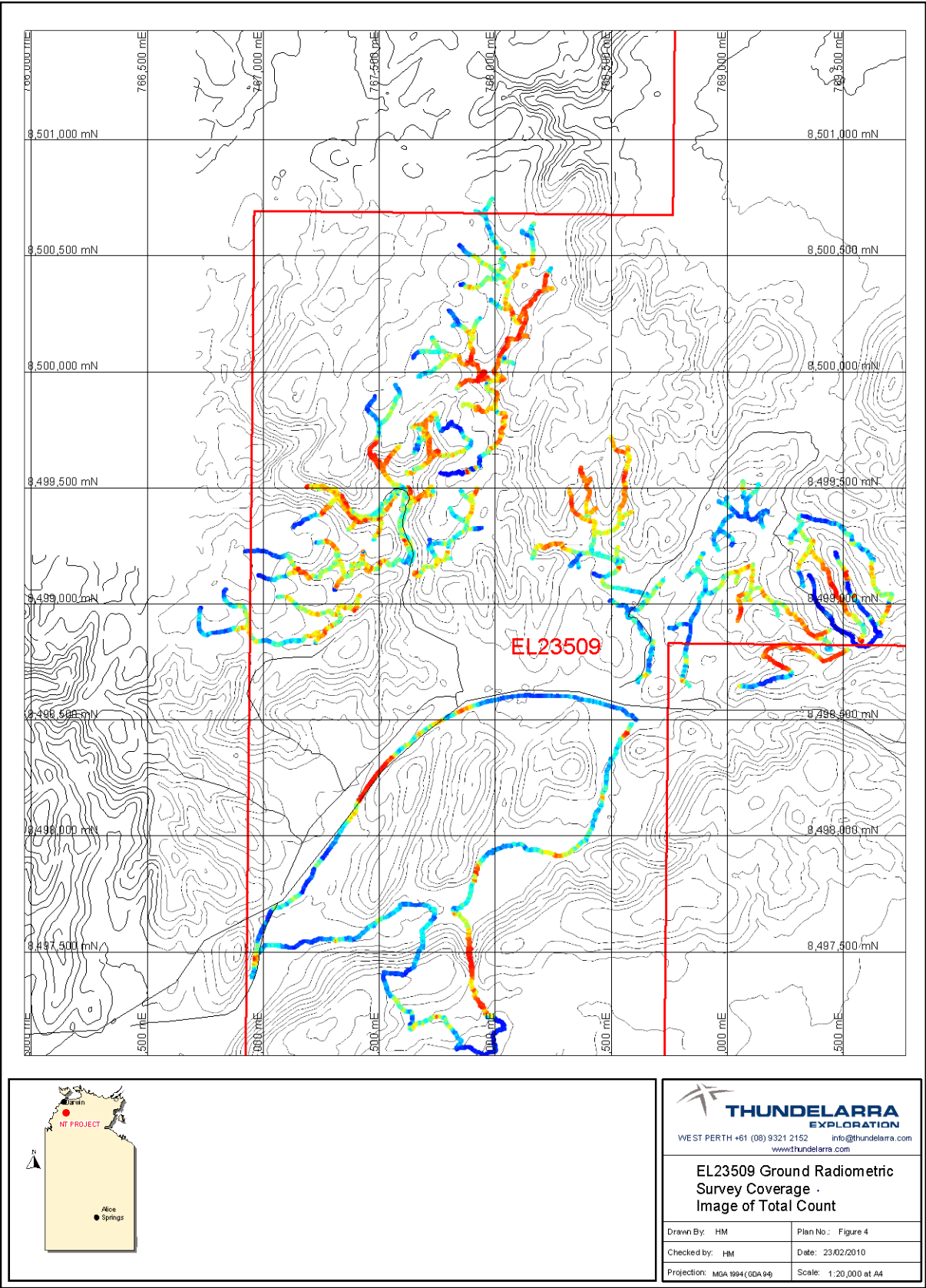
A total of 4 RC holes for 388m were drilled along strike of the Thunderball Extended mineralisation. Weak U mineralisation was intersected in three of the four holes. Mineralisation displayed a similar tendency as in the diamond drilling; the shallowest RC holes had the best U grades, in the oxide zone above the water-table while the deeper holes which targeted the mineralised zone below the base of weathering failed to intersect significant mineralisation. This suggests strongly that the Thunderball Extended U mineralisation is mainly of supergene origin, although a series of small north-west plunging shoots cannot be ruled out. Down-hole gamma logging correlated well with assay data, suggesting that core loss was not a significant factor for either RC or Diamond drilling.

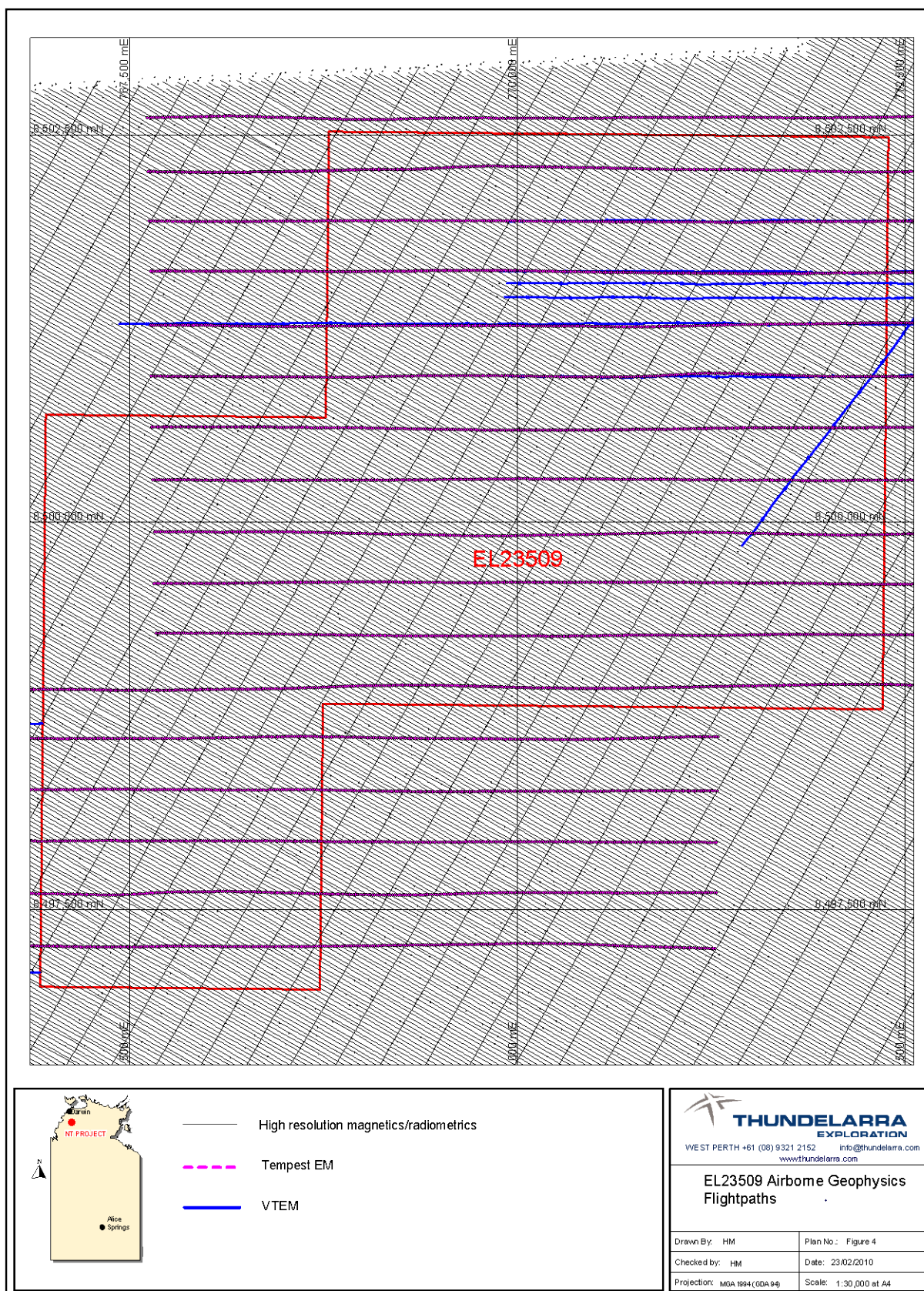
A further 3 RC holes for 375m were drilled at Corkscrew Prospect. Two of the holes were targeted underneath a prominent ground and airborne radiometric anomaly which was marked on the ground by a zone of strongly ferruginised, hematitic shale or siltstone. These two holes failed to intersect mineralisation or anomalous radioactivity, although the target zone was clearly intersected below the base of oxidation, where it consisted of a pyritic carbonaceous shale interval in an otherwise mainly tuffaceous (Gerowie Tuff) sequence. The anomaly is thus believed to have been caused by the surface concentration of U by ferruginisation, and is unlikely to be an indication of economic mineralisation. The third hole (TPCRC024) however was targeted into what is interpreted to be part of the Hayes Creek Fault Zone, and directly below the location of a 1.16% U float sample. This hole intersected one metre of 195ppm U at 80m depth. This is considered significant due to the structural setting.

Assay results and locations are presented in Figures 1-6 and Appendix I.











7. Environment

Ground disturbing activities were restricted to drill pad and access track construction. Drill pads at Corkscrew prospect were fully rehabilitated. Two drill pads and some 100m of access track at Thunderball Extended require follow-up rehabilitation. Disturbed areas of ground at Thunderball Extended require some further capping to reduce the naturally occurring, extremely high levels of radiation in the area.

8. Conclusions

Significant uranium mineralisation has been identified on EL23509 at Thunderball Extended and Corkscrew which requires substantial further evaluation work. The Hayes Creek Fault-zone is considered to be of some significance to Uranium mineralisation, as are anticlines which expose the Mt Bonnie-Gerowie Tuff contact. A number of uranium anomalies have been identified on EL23509 from airborne and ground radiometric surveys which will be investigated further.

9. Expenditure statement

A total of \$483,411 was spent on EL23509 by Thundelarra Exploration Ltd during the period.

A full expenditure report on the prescribed form is given in Appendix I.

10. Program and Budget

During the 2010 field-season Thundelarra will carry out RC and Diamond drilling on EL23509 at Corkscrew, Mt Osborne and Thunderball Extended Prospects. Further evaluation and ground follow up of the significant amount of geophysical data collected will be carried out..

The provisional budget for EL23509 for the second year of tenure is as follows:

Wages:	\$20,000
Vehicle:	\$4000
Assaying:	\$5000
Drilling:	\$60,000
Geophysical Surveys Processing:	\$10,000
Administrative Costs:	\$1000
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Total Budget	\$100,000

This budget is a minimum budget for the year; it is possible that actual expenditure will be substantially more.

Appendices

(supplied separately as digital data)