OTTER GOLD NL

4th ANNUAL REPORT
FOR
EL9592

23 OCTOBER 1999 – 22 OCTOBER 2000

TANAMI REGION
NORTHERN TERRITORY

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Otter Gold NL, Sydney
Otter Gold, Tanami Exploration Site
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TITLE: 4th Annual Report for Exploration Licence EL9592

PERIOD: 23 October 1999 to 22 October 2000

AUTHOR: Maryanne Muir

LOCATION: Birrindudu 1:250,000 SE 52-11

COMMODITY: Gold

DATE: February 2001

SUMMARY

Exploration Licence 9592 (Birrindudu) was granted on the 23rd of October 1996, for a period of six years. Regional helicopter surface sampling programmes and aeromagnetic and radiometric geophysical surveys have been completed during the fourth licence year.

Previous work on the area has involved regional surface sampling and infill over an area of elevated anomalism. Angle RAB has targeted this anomalism in the prospect area known as "Happyjack" with limited success.

Fifth year exploration will continue with emphasis on exploring for targets resulting from the regional surface sampling, and analysis of aeromagnetic and radiometric data. The emphasis may also extend to regional walkabout postholes to determine regolith more accurately. Some mention has been made of using 'worm' technology to highlight targets.

Total expenditure for EL9592 in the fourth year was $ 107 766.

Ongoing tenure of these Licences by Otter Gold NL means that this report should remain a **CLOSED FILE**.

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1.0 INTRODUCTION

During the 1999 - 2000 field season a significant helicopter surface sampling programme was completed over the region with limited success. The aim was to find targets on a larger scale than the Happyjack prospect.

This report documents the work undertaken on EL 9592 during the fourth term and outlines the proposed work programme for 2000-2001.

2.0 LOCATION AND EXPLORATION HISTORY

2.1 Location and Leasing

Exploration Licence 9592 (Birrindudu) was granted to Otter Gold NL on the 23 October 1996 for a period of six years. The exploration licence was subject of a joint venture agreement between Otter Gold Mines Ltd. and Stockdale Prospecting Ltd (SPL). In January 1999 SPL requested the withdrawal of EL 9592 from the Birrindudu Agreement.

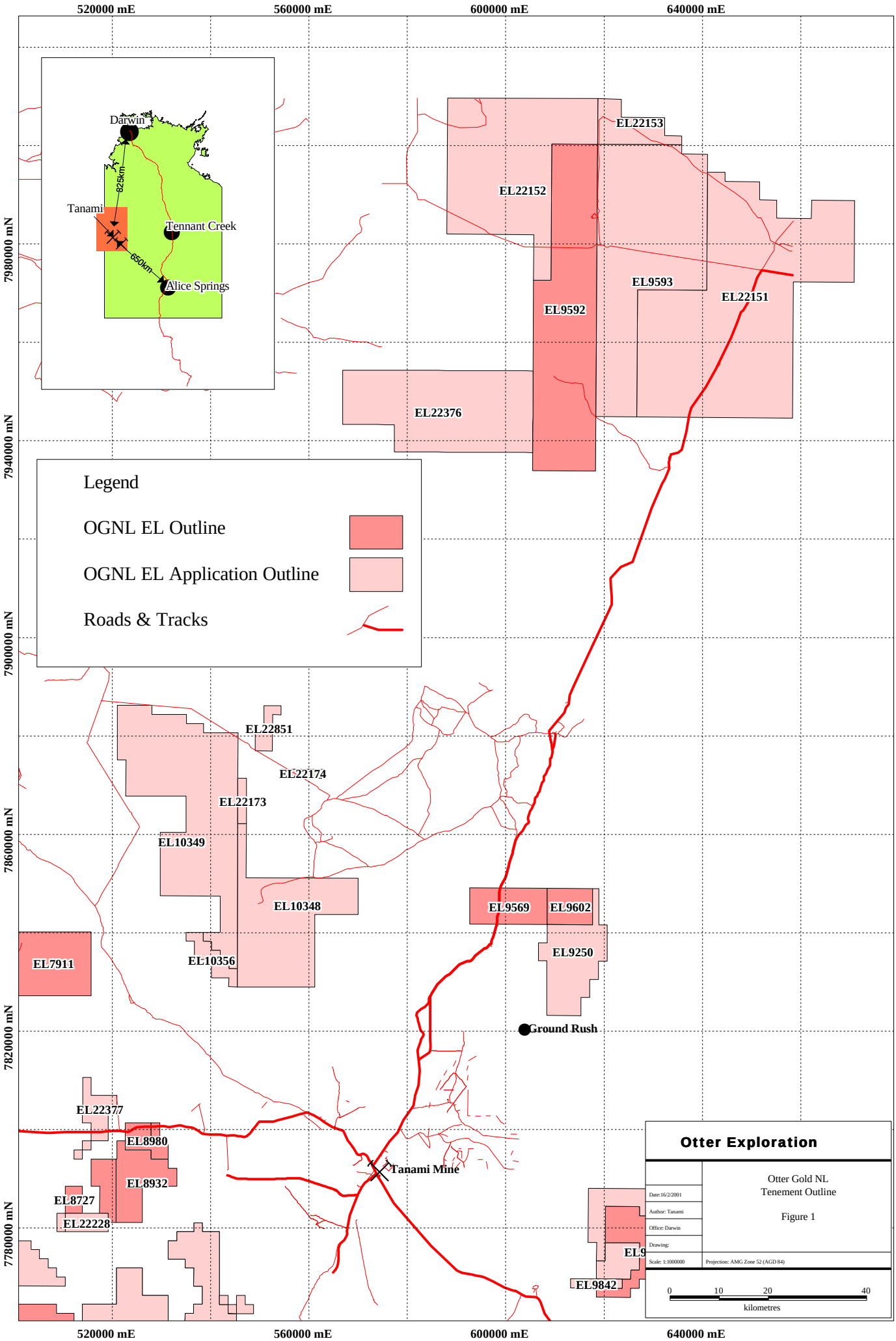
The tenement comprises 258 blocks covering an area of 838 square kilometres west of the Lajamanu Road, on the Birrindudu and Riveren pastoral leases. Exploration Licence (EL) 9592 is located on the western margin of the Styles and Mount Winnecke 1:100,000 map sheets. EL 9592 is located approximately 170km north-north east of the Tanami Mine Site via the Lajamanu Road (Figure 1).

2.2 Exploration History

Reconnaissance loam sampling carried out by Stockdale during 1997 on a 2km by 2km grid. Whilst sampling, a second smaller, sample was collected, these were then re-assayed by Otter Gold NL for low level gold using the ALS ZARG method. These results were reported in 'Supplement to Annual Report for Exploration Licence 9592 23 October 1997–22 October 1998. Analysis of results from this broad grid showed anomalism that appears coherent over several kilometres.

Third year exploration included regional soil sampling programmes and infill of targets generated within these programmes, with follow up of one target by Angle RAB. Drilling figures for the period were 21 RAB holes for 1,368 metres. The highest significant intercept values were 2m @1.70 g/t Au, 6m @ 0.78g/t Au and 2m @ 1.46g/t Au. Several zones of 0.2g/t Au significant intercepts were detected in eighty percent of the lines. Over 1,268 surface samples were collected, including infill samples over Happy Jack.

A mapping exercise was undertaken in the third year of exploration over the Happyjack region for three days and concluded that finer grained 'intrusions' exists within a coarse grained porphyry. There were also two types of quartz veins, igneous and mesothermal. The mesothermal veins tend to parallel the 'intrusions'. The igneous veins appear to produce alluvial gold in near by creeks.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7860000 mN
7820000 mN
7780000 mN
Darwin
825km
Tanami
Tennant Creek
650km
Alice Springs
EL22153
EL22152
EL9593
EL22151
EL9592
EL22376
Legend
OGNL EL Outline
OGNL EL Application Outline
Roads & Tracks
EL22851
EL22174
EL22173
EL10349
EL10348
EL10356
EL7911
EL9569
EL9602
EL9250
Ground Rush
EL22377
EL8980
EL8932
EL8727
EL22228
Tanami Mine
EL9842
Otter Exploration
Otter Gold NL
Tenement Outline
Figure 1
Date:16/2/2001
Author: Tanami
Office: Darwin
Drawing:
Scale: 1:1000000
Projection: AMG Zone 52 (AGD 84)
0
10
20
40
kilometres

3.0 GEOLOGY

3.1 Regional Geology

The Granites – Tanami Block is bounded to the west by the Canning Basin, and to the east by the Wiso Basin and is considered to be one of the western most Palaeoproterozoic inliers of the Northern Australian Orogenic Province. The block is thought to have developed around the Barramundi Orogeny – major event 1845 – 1840 Ma (Blake et al., 1979).

The stratigraphy of the Tanami Region has been revised as a result of an intensive study recently completed by the NTGS (Hendrickx et al., 2000). The stratigraphy outlined by Blake et al (1979) has had some significant modifications (Table 1).

<table>
<tr><th colspan="7">Blake et al (1979)</th><th colspan="3">Hendrickx et al (2000)</th></tr>
<tr><td colspan="2" rowspan="3">Birrindudu Group</td><td colspan="5">Coomarie Sandstone</td><td rowspan="3">Birrindudu Group</td><td>Coomarie Sandstone</td><td rowspan="3">Suplejack Downs Sandstone</td></tr>
<tr><td colspan="5">Talbot Well Formation</td><td>Talbot Well Formation</td></tr>
<tr><td colspan="5">Gardiner Sandstone</td><td>Gardiner Sandstone</td></tr>
<tr><td colspan="7">Suplejack Downs Sandstone</td><td colspan="3" rowspan="3">Nanny Goat Creek Volcanics
Mount Winnecke Group
Mount Charles Formation</td></tr>
<tr><td colspan="7">Mount Winnecke</td></tr>
<tr><td colspan="7">Pargee Sandstone</td><td colspan="3">Pargee Sandstone</td></tr>
<tr><td rowspan="2">Tanami Complex</td><td>Mt. Charles Beds</td><td>Killi Killi Beds</td><td>Nanny Goat Creek Beds</td><td>Nongra Beds</td><td>Helena Creek Beds</td><td rowspan="2"></td><td rowspan="2">Tanami Group</td><td colspan="2">Killi Killi Formation
Twigg Formation
Dead Bullock Formation</td></tr>
<tr><td colspan="5">MacFarlane Peak Group</td></tr>
<tr><td colspan="7">Archaean</td><td colspan="3">Browns Range Metamorphics
“Billabong Complex”</td></tr>
</table>

Table 1. Comparison of stratigraphic nomenclature (Hendrickx et al, 2000).

The Archaean Billabong Complex and Browns Range Metamorphics are the oldest rocks in the area. Browns Range Metamorphics comprise granitic gneiss and muscovite schist intruded by fine-grained granite, thin granitic sills, aplite and pegmatite. The Billabong Complex comprises banded granitic gneiss', which are generally elongated and fault bound.

Lying unconformably above the Archaean basement is the Palaeoproterozoic McFarland Peak Group. These rocks are characterised by a thick sequence of mafic volcanic, volcaniclastic and clastic sedimentary rocks, which possess a distinctive magnetic and gravity signature. This package of rocks is structurally complex and is considered to have a tectonic contact with the overlying Tanami Group.

The Tanami group is subdivided into three formations:

Twigg Formation:	purple siltstone with minor sandstone and chert
Killi Killi Formation:	turbiditic sandstone
Dead Bullock Formation:	siltstone, mudstone, chert and banded iron formation

The Dead Bullock Formation occurs at the base of the Tanami Group and is dominated by fine-grained sedimentary rocks. The rocks outcrop at Dead Bullock Soak, Lightning Ridge and Officer Hill. At the Granites the rocks have been metamorphosed to amphibolite facies to form andalusite, garnet and hornblende bearing schists. The Dead Bullock formation is host to significant gold mineralisation at the Granites and Dead Bullock Soak.

The Killi-Killi Formation conformably overlies the Dead Bullock Formation and is the most extensive formation in the group. The sequence of turbidites includes micaceous greywacke, quartzwacke, and lithic greywacke, quartz arenite and lithic arenite, interbedded with siltstone, mudstone and occasional thin chert beds. Detrital mica is a characteristic feature. The Killi-Killi is metamorphosed to lower greenschist facies and is interpreted to be up to 4km thick.

The Twigg formation is confined to a narrow package of rocks immediately west of the Tanami Mine corridor. It comprises a sequence of interbedded purple siltstone with thin-bedded chert and minor medium bedded greywacke.

The Pargee Sandstone unconformably overlies the Tanami Group and is exposed on the western side of the Coomarie Dome extending into Western Australia. The Pargee Sandstone comprises thick-bedded quartz arenite, lithic arenite and conglomerate with pebbly sandstone and conglomerate at the base.

The Mount Charles Formation comprises an intercalated package of basalts and turbiditic sediments, which occur on the western side of the Frankenia Dome. The Mount Charles Formation is host to structurally controlled vein hosted gold mineralisation in the Tanami Mine Corridor. Sediments include sandstone, mudstone, carbonaceous mudstones and intraclast conglomerate. Basalts are predominantly massive units with pillow basalts and basaltic breccias also evident.

The Mt Winnecke Group is also interpreted to lie unconformably over the Tanami Group. This group is divided into two units including siliciclastic sediments and felsic volcanics.

The Nanny Goat Volcanics are characterised by extrusive volcanic rocks including quartz-feldspar ignimbrite, feldspar ignimbrite, rhyolite lava, basalt and minor siliciclastic sediments.

The Birrindudu group comprises 3 units with Gardiner Sandstone at the base, overlain by Talbot Well Formation and Coomarie Sandstone. The Suplejack Down sandstone is interpreted to belong to this group but is relationship is unclear. The Birrindudu group lie unconformably over the Browns Range Metamorphics, MacFarlane Peak Group, Tanami Group, Pargee Sandstone, Nanny Goat Creek Volcanics and Mount Winnecke Group.

595000 mE 605000 mE 615000 mE 625000 mE 635000 mE

7995000 mN 7985000 mN 7975000 mN 7965000 mN 7955000 mN 7945000 mN 7935000 mN

EL22152 EL9592 EL9593

Geology Legend

- Sand, silt, clay: fluvial and lacustrine
- Sand, silt: alluvial and aeolian
- Sand, gravel: aeolian and piedmont
- Residual grey clay
- Calcrete, partly silicified
- Silcrete
- Laterite capping

- Quartz arenite, sublithic arenite, chert
- Antrim Plateau Volcanics

- Limbunya Group
- Coomarie Sandstone
- Talbot Well Formation
- Gardiner Sandstone

- Winnecke granites
- Winnecke granophyre
- Mount Winnecke formation
- Mount Winnecke formation tuffaceous
- Mount Winnecke formation acidics

- Helena Creek Beds
- Nongra Beds

Otter Exploration

Otter Gold NL
Regional Outcrop Geology
EL9592

Figure 2

Date: 16/2/2001
Author: mm
Office: Tanami
Drawing:
Scale: 1:200000
Projection: AMG Zone 52 (AGD 84)

0 2 4 8
kilometres

Cenozoic laterite, silcrete, calcrete, and Quaternary debris cover 60 – 70% of the Tanami Desert. The Quaternary sediments are generally unconsolidated, representing the most recent phase of erosion and deposition of sands, gravels and lithic fragments.

3.2 Local Geology

The major rock types within the Birrindudu region (EL9592) are the Winnecke Granophyre and its varieties. Outcrop of Helena Creek Beds is described as greywacke, tuff, phyllite, conglomerate, lithic arenite and acid porphyry. To the north the granophyre is overlain by a thick sheet of Cambrian Antrim Plateau Volcanics described as tholeiitic basalt (silica oversaturated, calcium rich with orthopyroxenes (iron and magnesium – the major type of basalt)) with minor tuffaceous sandstone, lithic arenites and cherts. See Figure 2.

Within the Happyjack region, more intensive field mapping programme was undertaken during the 1998 – 1999 field season. Essentially, granitoid porphyries have intruded an older granitoid lithology. These porphyries generally stand out as ridges (running in a north-south direction and dipping to the east). The porphyries are host to an early, igneous style of quartz veining (associated with potassic alteration). These are then cut by a later phase of mesothermal style quartz veining (associated with phyllic alteration).

4.0 EXPLORATION FOR 23 OCTOBER 1999 TO 22 OCTOBER 2000.

4.1 Regional Infill Surface Sampling Programmes

From the 14th February to the 23rd of February 2000, approximately 2306 soil samples were taken on a 400m x 400m grid from a 425 square kilometre region within the Birrindudu Lease. The samples were taken using two Robinson helicopters. Field staff and Hhelicopters crews would alternate after lunch. This allowed a “longer” working day and appropriate work conditions for staff.

Analysis was conducted using the ZARG method, with six results needing to be re-examined. Anomalies from 0 to 2.6ppb Au were reported in the results. Approximately 14 of these were above 0.5ppb Au. Several clusters have been recognised in preliminary data interpretation. To the north, there appears to be gold ‘seepage’ from beneath Antrim Plateau Volcanics or possibly some northwest trending features. There is a large north northwest trending, ‘patchy’ zone through the central north portion of the EL. This corresponds well with known drainage through the region. To the west of the southern region, there is a cluster of lower order of anomalies that correspond with cross-cutting NW trending structures with a possible component of N-S anomalism.

606000 mE

610000 mE

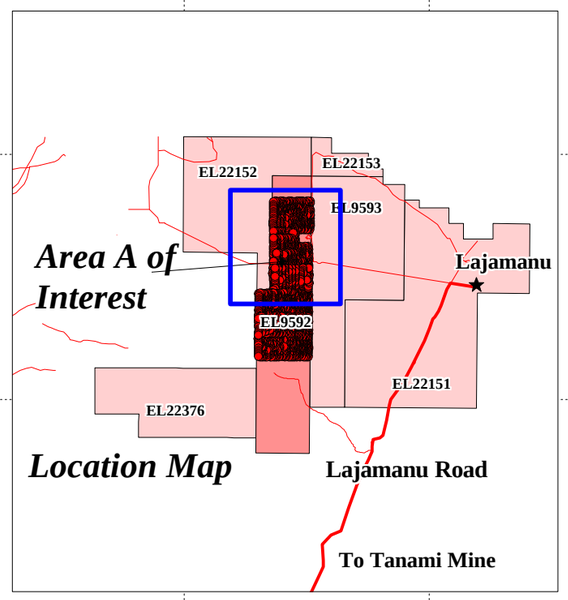
614000 mE

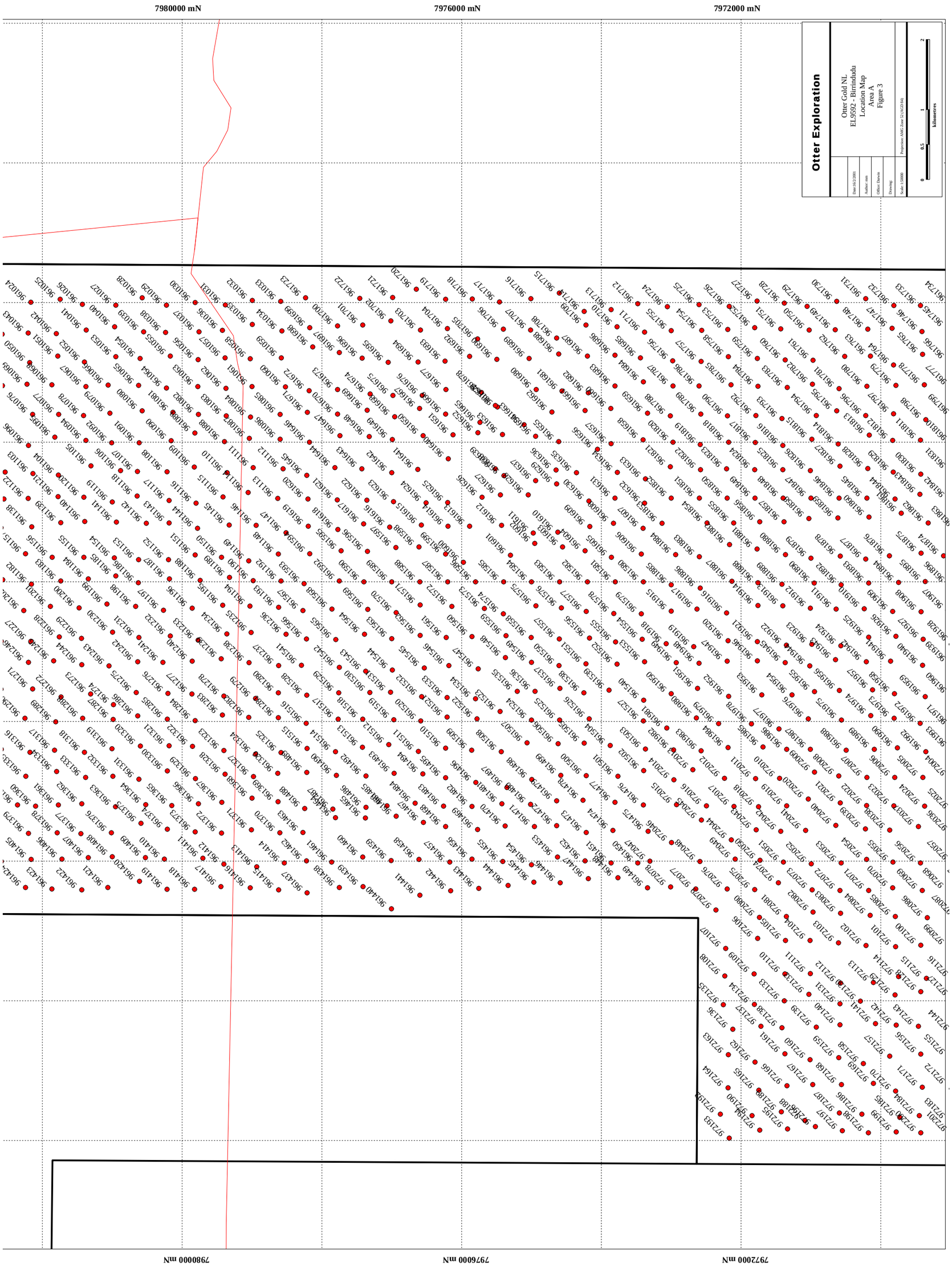
618000 mE

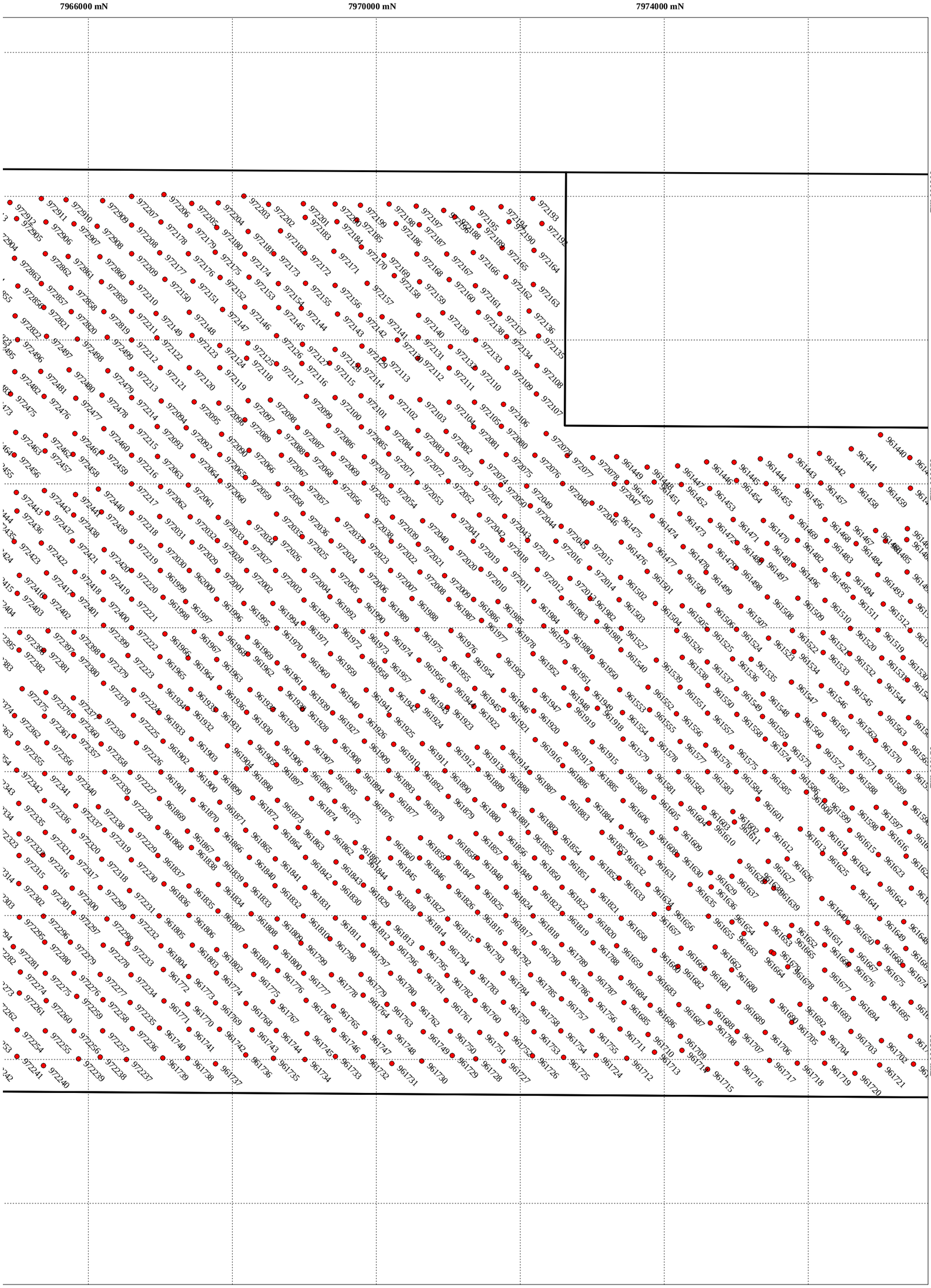
7992000 mN

7988000 mN

7984000 mN




7980000 mN
7976000 mN
7972000 mN
Otter Exploration
Otter Gold NL
EL9592 - Birrindudu
Location Map
Area A
Figure 3
Date:06/2/2009
Author: mm
Office: Darwin
Drawing:
Scale: 1:50000
Projection: AMG Zone 52 (AGD 84)
0
0.5
1
2
kilometres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7970000 mN
7974000 mN
606000 mE
610000 mE
614000 mE
618000 mE

7962000 mN

7958000 mN

7954000 mN

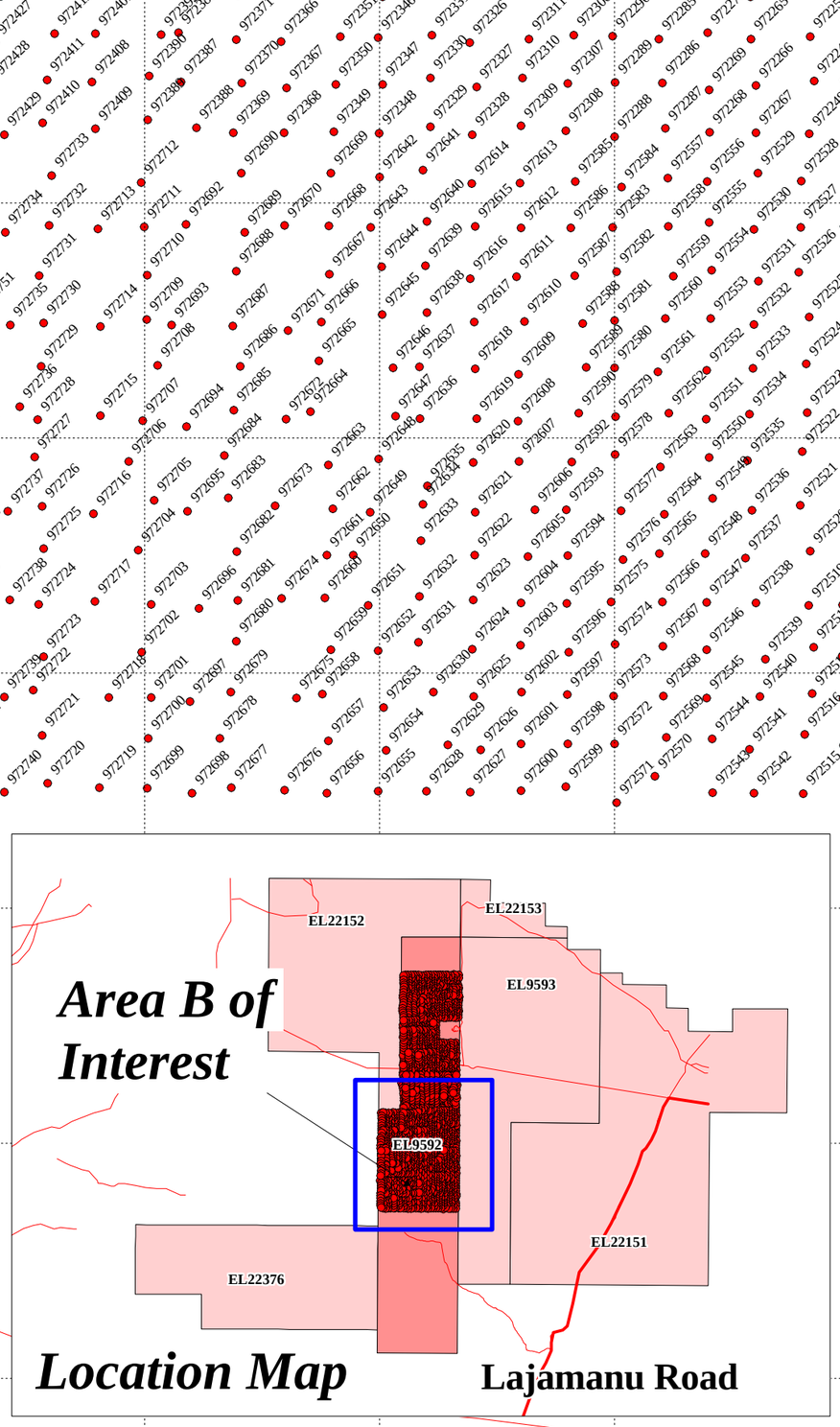
606000 mE

610000 mE

614000 mE

618000 mE

EL9592



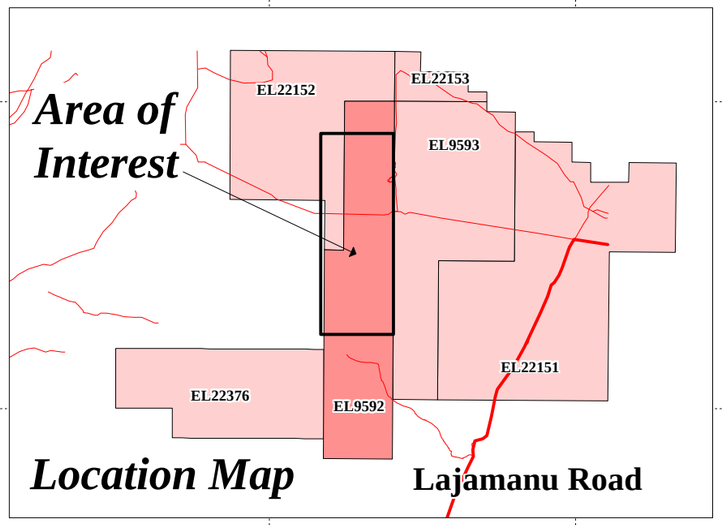
Otter Exploration

Date:16/2/2001	Otter Gold NL EL 9592 - Birrindudu Location Map Area B Figure 4
Author: mm	
Office: Tanami	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2

kilometres

600000 mE
610000 mE
620000 mE
630000 mE
7995000 mN
7985000 mN



EL22152

0.5
0.7
1.2
0.7
1
0.7
0.7
0.5
1

7975000 mN

7965000 mN

7955000 mN

600000 mE

610000 mE

620000 mE

EL9593

EL9592

0.8

0.6

2.6

0.9

0.6

Total Au - surface samples
Au (ppb)

0.5 to 500
0.3 to 0.5
0.2 to 0.3
0.1 to 0.2
0.05 to 0.1
0 to 0.05
all others

Otter Exploration

Otter Gold NL
EL9592 - Birrindudu
Helicopter Surface Sample
Results - Au (ppb)

Date:18/2/2001
Author: mm
Office: Tanami
Drawing:
Scale: 1:100000
Projection: AMG Zone 52 (AGD 84)

0 1 2 4
kilometres

Regolith data collected with the "tracknav system" while sampling from the helicopter has proven interesting. Analysis of the 'comments' column shows clusters of quartz. It is possible these quartz clusters may be analogous to assay results received or just representative of the outcrop regions. Similar data for sample type, topography and colour was received and appears to represent outcrop regions.

5.0 AEROMAGNETIC AND RADIOMETRIC SURVEY

During December, an airborne geophysical survey was flown by UTS Geophysics over two areas within EL 9592. A 5km x 8km survey was flown over the Happyjack region in the north of EL 9592, and a 5km x 5km survey was flown over a region known as Jumping jack to the south. The lines were flown in an east west (090 –270) direction at 50m spacing with samples taken every 4-5m using a FU24-950 aircraft. The navigation system used was differential GPS. Both areas were flown for aeromagnetics and radiometrics. See Figures 6 to 11 for images of the first vertical derivative overlain by the total magnetic image and the total count data.

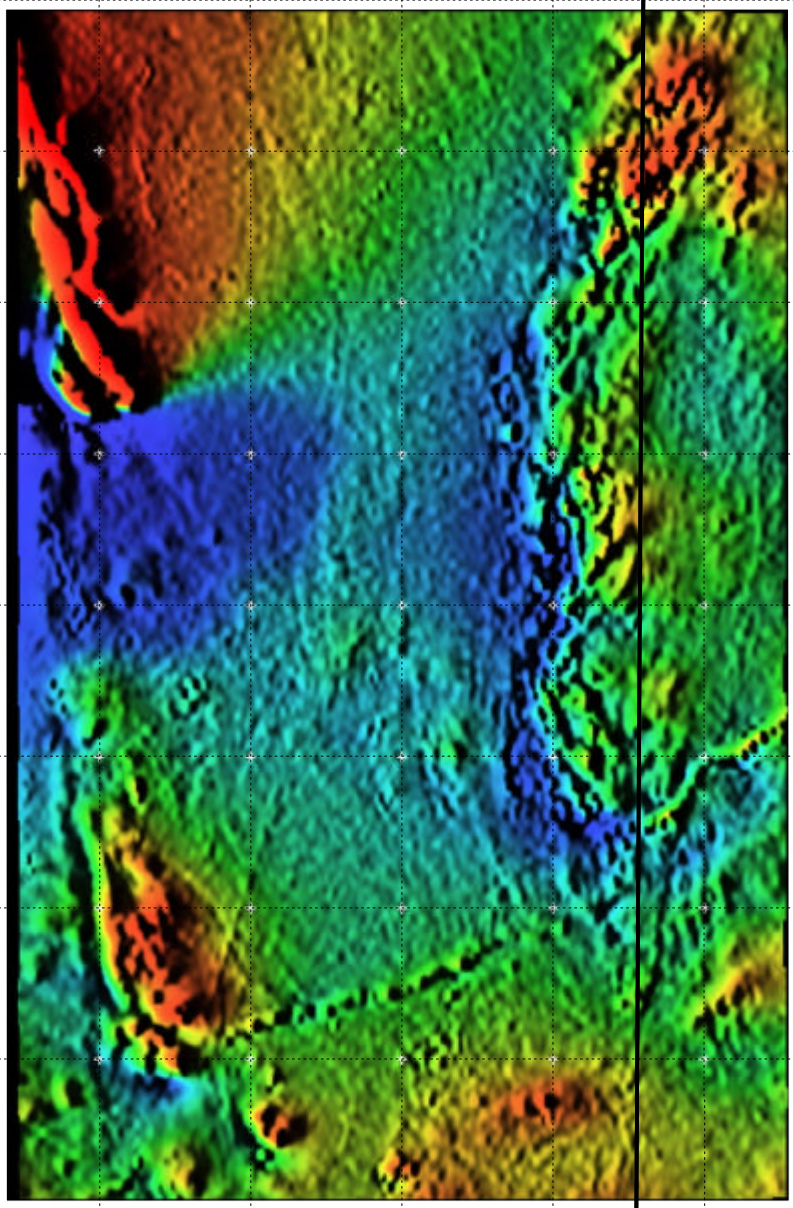
5.1 FLAGSTAFF GEOCONSULTANTS – INTERPRETATION OF AIRBORNE GEOPHYSICAL SURVEYS – BIRRINDUDU REGION

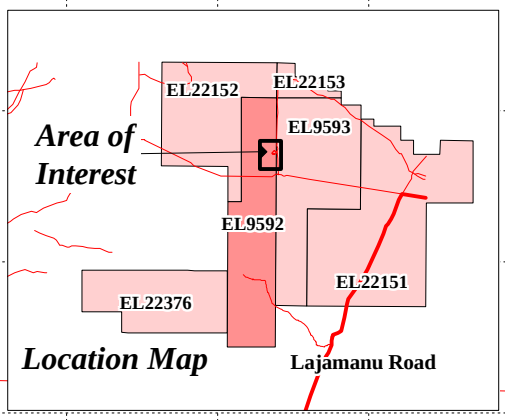
Nigel Hungerford has provided an interpretation of the Birrindudu region and several images (1vd and radiometric versions). He has noted thirteen target regions within the vicinity of EL9592. To the east of Happyjack, a prominent shear may be related to more significant mineralisation.

Within the Happyjack region, the radiometrics reveal a high potassium signature. It was not determined whether the radiometric potassium high was a factor of hydrothermal alteration or granite outcrop. The main use for the radiometrics appears to be in assessment of the regolith - for example, creeks in the eastern region of the tenement are clearly defined.

Several phases of intrusion are tentatively recognised in the Winnecke Granophyre. Also mentioned are at least two phases of faulting in the centre of the region – southwest to northeast post the main north south shear.

613000 mE
615000 mE
617000 mE
619000 mE
7990000 mN
7988000 mN
7986000 mN
7984000 mN
7982000 mN
7980000 mN





Otter Exploration

Date:17/2/2001	Otter Gold NL EL9592 - Birrindudu Happy Jack 1vd Aeromagnetics
Author: mm	
Office: Tanami	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2
kilometres

613000 mE

615000 mE

617000 mE

619000 mE

7990000 mN

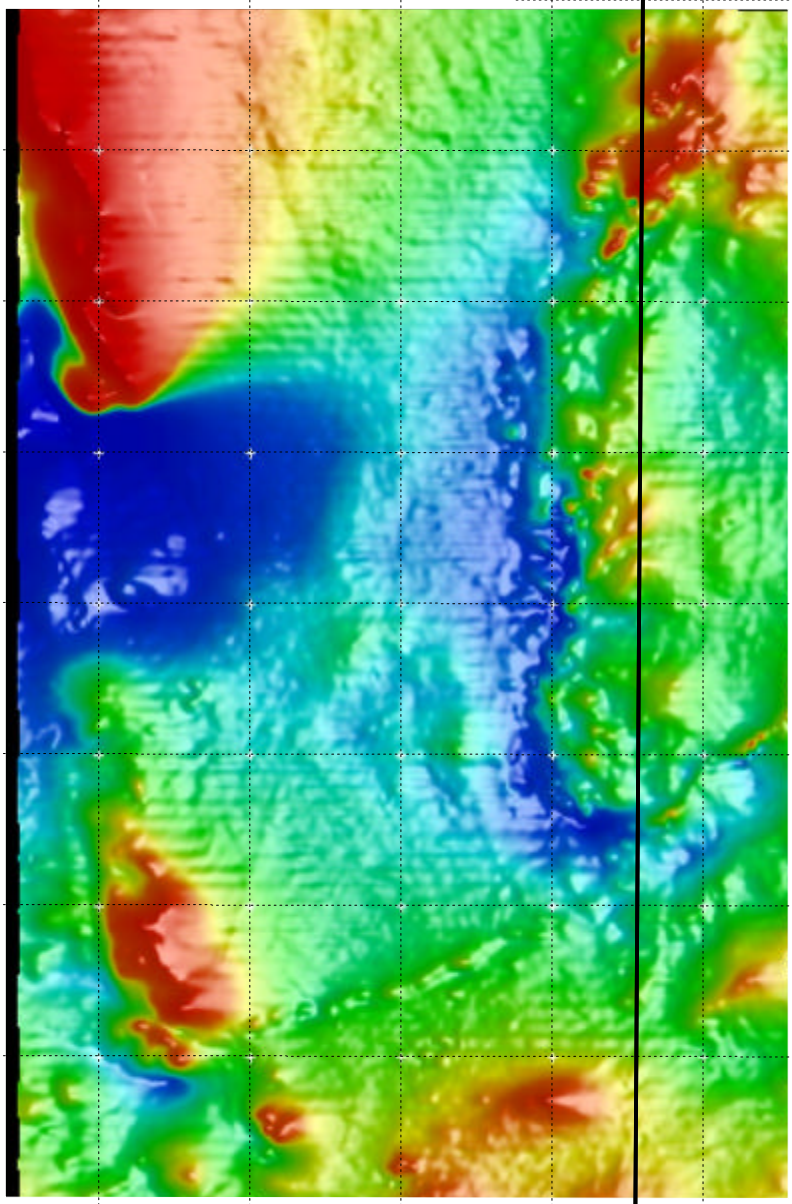
7988000 mN

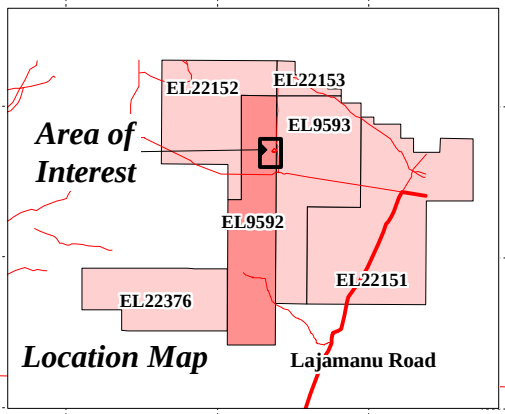
7986000 mN

7984000 mN

7982000 mN

7980000 mN





Otter Exploration

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Author: mm	
Office: Tanami	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2

kilometres

615000 mE

617000 mE

619000 mE

613000 mE
615000 mE
617000 mE
619000 mE
7990000 mN
7988000 mN
7986000 mN
7984000 mN
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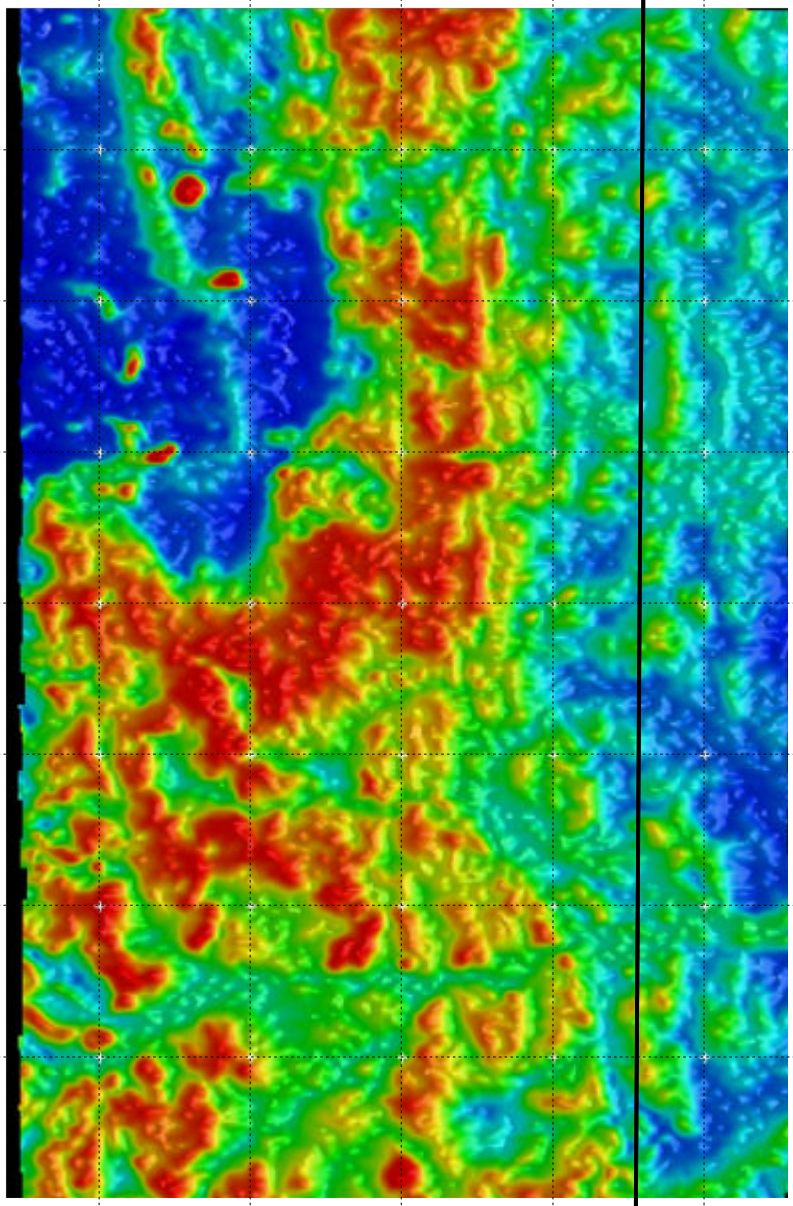

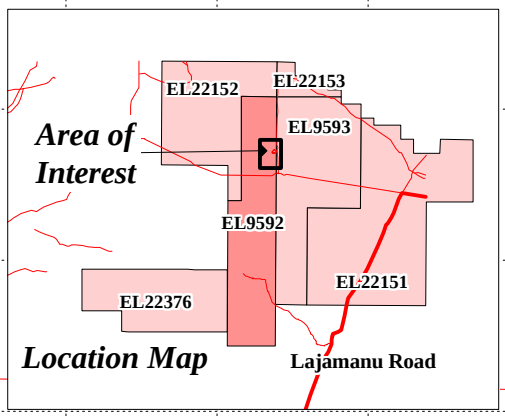

Otter Exploration

Otter Gold NL
EL9592 - Birrindudu
Happy Jack
Total Count Radiometrics

Date:17/2/2001
Author: mm
Office: Tanami
Drawing:
Scale: 1:50000
Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2
kilometres

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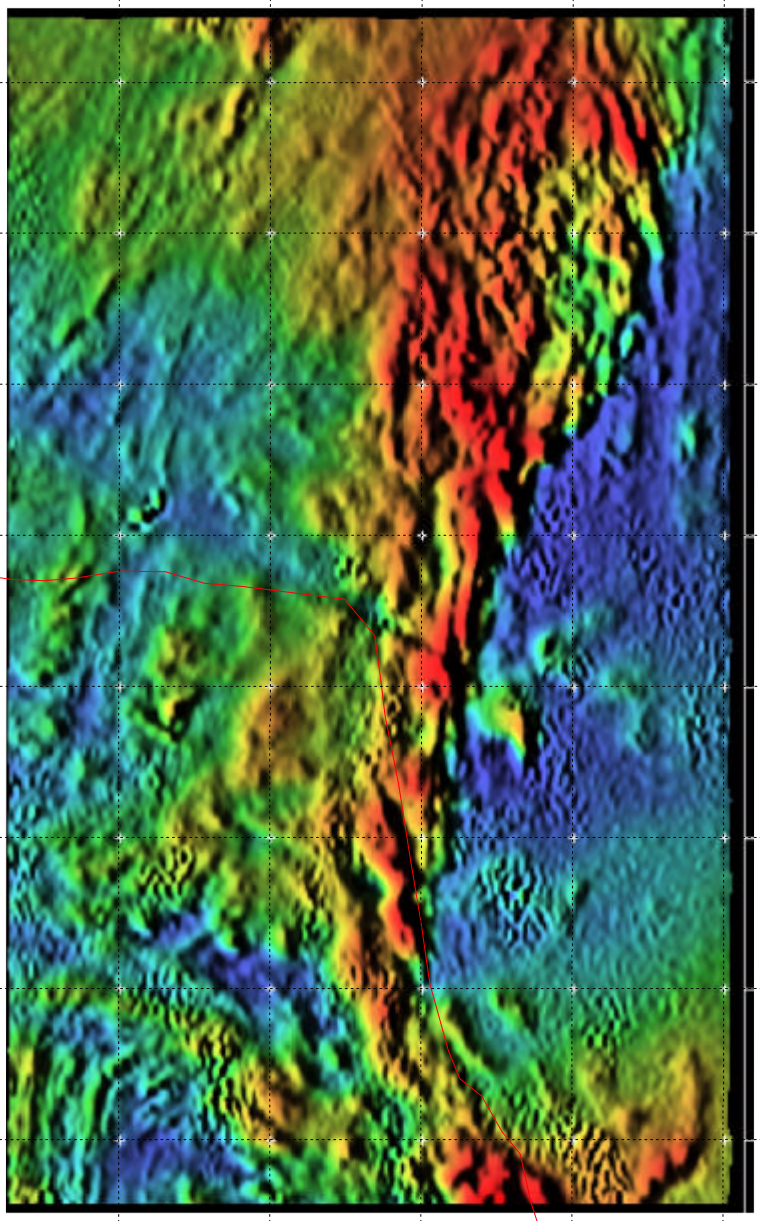
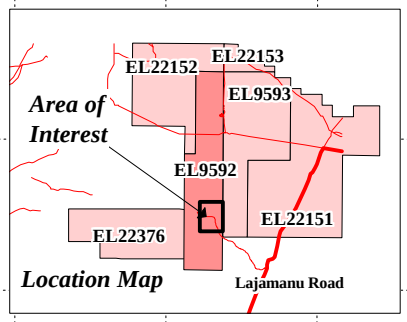
7956000 mN 7954000 mN 7952000 mN 7950000 mN 7948000 mN 7946000 mN





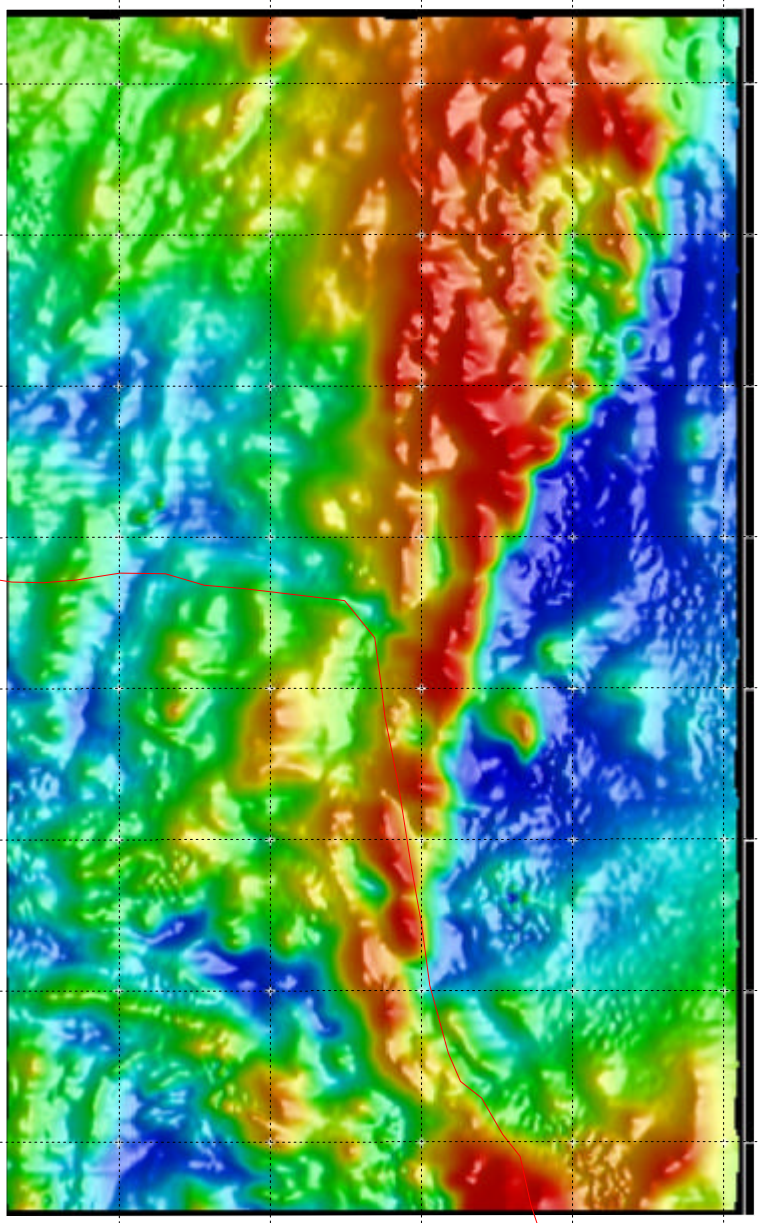
Otter Exploration

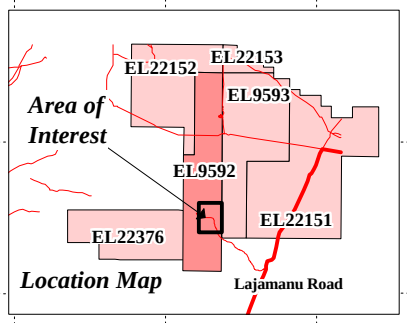
Date:18/2/2001	Otter Gold NL
Author: mm	EL9592 - Birrindudu
Office: Tanami	Jumping Jack
Drawing:	1VD Raw aeromagnetics
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2
kilometres

612000 mE 614000 mE 616000 mE 618000 mE

7956000 mN 7954000 mN 7952000 mN 7950000 mN 7948000 mN 7946000 mN





Otter Exploration

Date:18/2/2001	Otter Gold NL EL9592 - Birrindudu Jumping Jack TMI Raw aeromagnetics
Author: mm	
Office: Tanami	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2
kilometres

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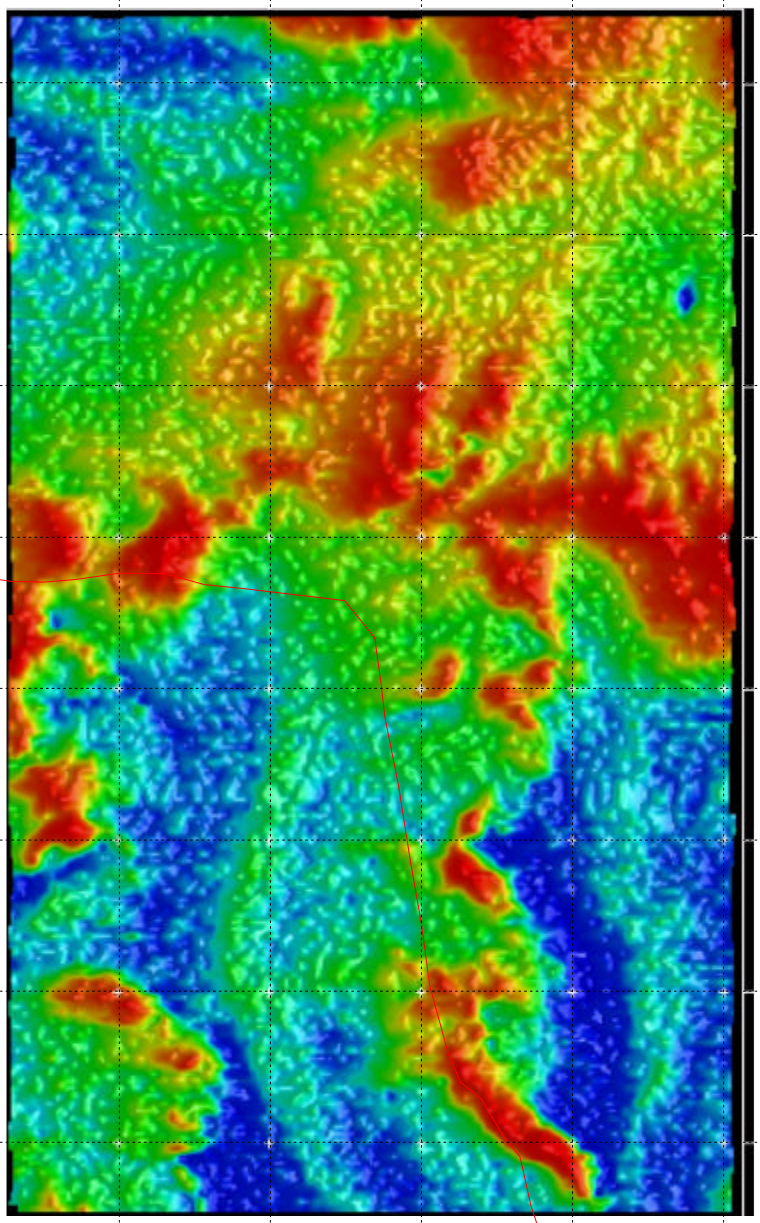
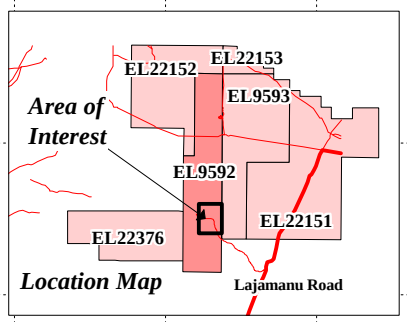
7956000 mN 7954000 mN 7952000 mN 7950000 mN 7948000 mN 7946000 mN

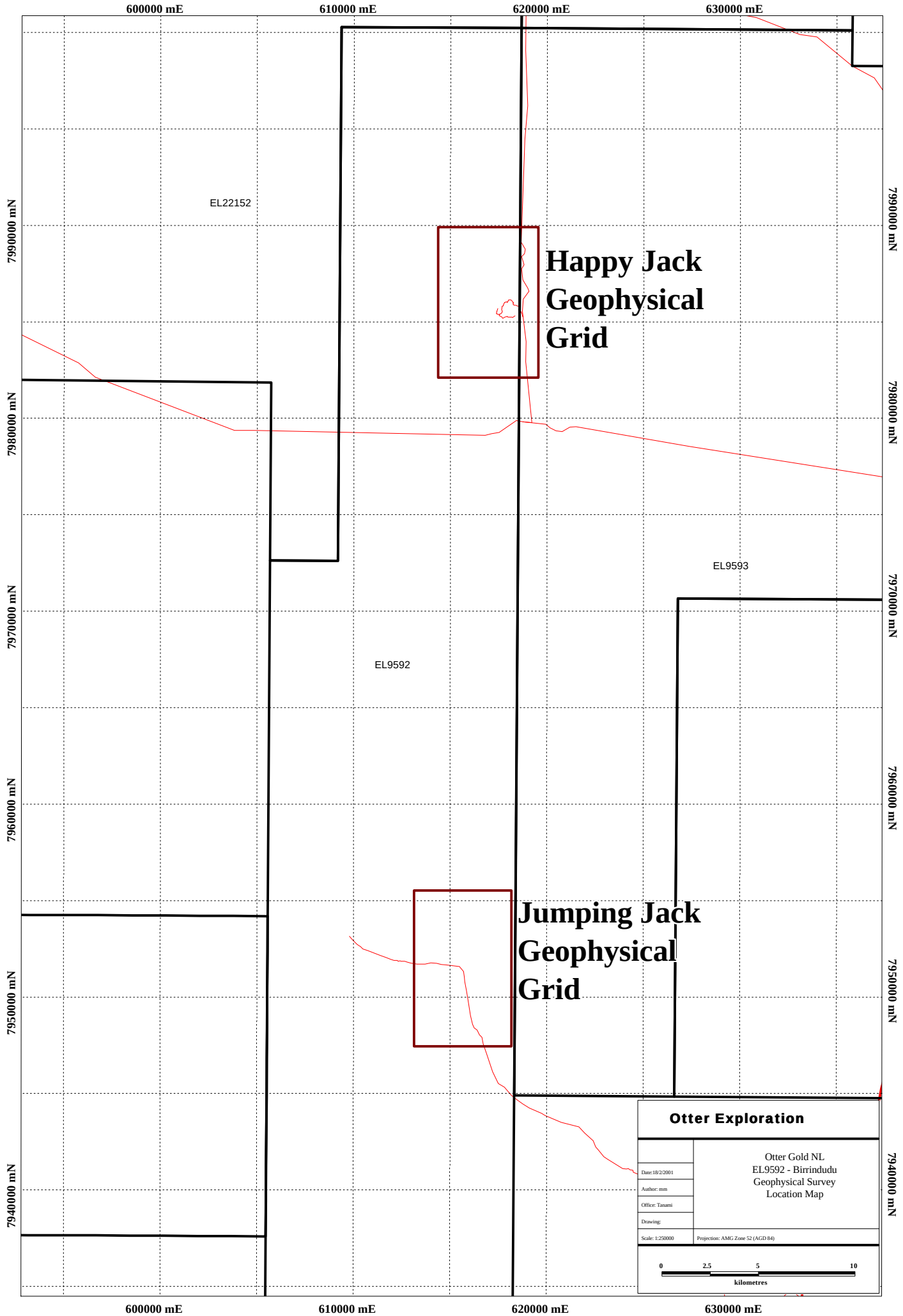




Otter Exploration

Date:18/2/2001	Otter Gold NL EL9592 - Birrindudu Jumping Jack Total Count Radiometrics
Author: mm	
Office: Tanami	
Drawing:	
Scale: 1:50000	Projection: AMG Zone 52 (AGD 84)

0 0.5 1 2
kilometres


600000 mE
610000 mE
620000 mE
630000 mE
7990000 mN
7980000 mN
7970000 mN
7960000 mN
7950000 mN
7940000 mN
EL22152
Happy Jack
Geophysical
Grid
EL9593
EL9592
Jumping Jack
Geophysical
Grid
Otter Exploration
Otter Gold NL
EL9592 - Birrindudu
Geophysical Survey
Location Map
Date:18/2/2001
Author: mm
Office: Tanami
Drawing:
Scale: 1:250000
Projection: AMG Zone 52 (AGD 84)
0
2.5
5
10
kilometres

6.0 EXPENDITURE FOR PERIOD 23/10/99 TO 22/10/00.

6.1 Expenditure for period 23/10/99 to 22/10/00 on EL 9592

Table 2 summarises the work programme for the fourth licence year and associated costs.

TABLE 2 Expenditure Summary for EL9592 (1999-2000)

Geology		$ 257
Geophysics		$ 46
Geochemistry		$ 78 090
Camp Logistics		$ 864
Administration		$ 28 509
Covenant	*Original*	*$56,000*
TOTAL		$107 766

7.0 PROPOSED WORK PROGRAMMES FOR 23/10/2000 TO 22/10/2001

7.1 Proposed Work Programmes for EL9592 Oct 2000-Oct 2001

The primary focus of work programmes in EL9592 will extend to regional walkabout postholes to determine regolith more accurately and regional reconnaissance mapping and interpretation of data with the potential for surface sampling.

The proposed programme and expenditure commitment is summarised in Table 3.

TABLE 3 Proposed Expenditure for EL9592, 2000 – 2001

Geology	$7000
Geochemistry	$11500
Drilling	$4300
Assays	$700
Survey	$2000
Camp Logistics	$2000
Administration	$2500
TOTAL	$30,000

Note: A waiver for reduction of EL9592 was sent to the NTDME on the 9th of October, 2000 siting a reassessment of exploration potential within the region is essential before any relinquishment occurs.

7.0 REFERENCES

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