TANAMI EXPLORATION NL

ABN 45 063 213 598

FINAL REPORT

EL 10398
Refrigerator Well

EL 10399
McDiarmid West

27 September 2000 – 25 August 2003

Author
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Distribution:

- ❑ Department of Business, Industry, & Resource Development (1)
- ❑ Central Land Council (1)
- ❑ Tanami Gold NL (1)

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CONTENTS

TABLES

FIGURES

PLATES

DIGITAL APPENDICES (supplied on CD) *File name*

1.0 SUMMARY

EL 10398 Refrigerator Well and EL 10399 McDiarmid West formed part of the Solitaire Project. Both tenements were granted to Tanami Exploration NL (TENL) on 27 September 2000 and surrendered on 25 August 2003. This Final Report describes exploration during the above period.

The tenements are situated within the North Province of the Palaeoproterozoic Arunta Block and are interpreted to be underlain by gneiss and granite.

Exploration in the first year was carried out by Goldfields of Australia (GFA), comprising minor lag and rock chip sampling on EL 10398 and reconnaissance Aircore drilling on both tenements. Most drillholes intersected felsic granitoids. All drillholes were tested with three metre composite samples once bedrock was intersected and with drillhole lag and BLEG samples. No elevated gold values > 6ppb were encountered.

During the second and third year of tenure various reviews were completed by TENL. The tenements were considered to be adequately tested by vacuum drilling conducted by Sons of Gwalia (previous exploration), and by Aircore drilling conducted by GFA. Based on the above drill and surface geochemistry results and the lack of major structures or untested magnetic targets the tenements were recommended for surrender.

2.0 INTRODUCTION

EL 10398 and 10399 formed part of the Solitaire Project, which is centred approximately 430 kilometres northwest of Alice Springs and 100 kilometres southeast of The Granites Gold Mine in the Tanami Region, Northern Territory (Figure 1). Both tenements were surrendered on 25 August 2003. This report covers exploration between 27 September 2000 and 25 August 2003.

Access to the project area is via the Tanami Highway, which cuts between EL 10399 to the west and EL 10398 to the east. The terrain is almost flat and 40% of the area is occupied by Tertiary to Recent paleodrainages up to 20km wide. Aeolian sand blankets the surface, leaving rare outcrops of lateritic capping, metasediments and occasional quartz blows to provide the only low hills in the project area.

3.0 TENURE

Exploration Licences 10398 and 10399 formed part of the Solitaire Project. Both licences were surrendered on 25 August 2003 with details shown in Table 1.

Table 1: Surrendered Solitaire Project Tenements

Tenement	Granted	Blocks	Area (sq. km)	Covenant
EL 10398	27.9.2000	21	67	$8,000
EL 10399	27.9.2000	7	22	$8,000
TOTAL		**28**	**89**	**$16,000**

The Solitaire Project comprised four tenements, which were granted to TENL on 27 September 2000. Exploration Licences 10398 and 10399 were granted as discrete areas following severance of the original area of EL 10217 applied for by TENL due to the grant of a competing application to Acacia Resources Limited.

The tenements lie on Aboriginal Land within the Central Desert Land Trust Area. The Company signed a Deed for Exploration covering the four tenements in August 2000.

In April 2000 the Company entered into a joint venture with GFA over the four exploration licence applications. Under the terms and conditions of the Solitaire Joint Venture, GFA was required to spend a minimum of $1.0 million during the first year of the tenure of the last granted licence. GFA withdrew from the joint venture in July 2001 after spending $1,070,736 on exploration.

4.0 PREVIOUS WORK

The project area was mapped by the BMR as part of the Mt Theo and Mt Solitaire 1:250,000 geological sheets (Stewart, 1976; Offe & Kennewell, 1978). The BMR also carried out regional gravity surveys in the late 1960's (Flavelle, 1965; Whitworth, 1970) and a regional airborne aeromagnetics and radiometric survey in 1994 (Brodie 1994).

An airborne magnetic survey with 500 metre line spacing was completed by AGSO in 1993 over the Mt Solitaire and Mt Theo sheets as part of a larger survey that included the Highland Rocks sheet to the immediate west. The results of the survey identified the southeast strike extension of the Trans-Tanami Structure (or G3 Gravity Lineament as it was then known) within the project area. At the time, this structure was emerging in significance as an important continental scale feature traversing close to the recently discovered The Granites and Dead Bullock Soak (DBS) gold deposits.

In 1994 Sons of Gwalia (SOG) used this rationale for the acquisition of about 5,000 km^2 of exploration licences. SOG applied the aeromagnetic data to direct surface sampling and drilling, specifically targeting magnetic domains. The exploration premise was an apparent coincidence of magnetic highs with The Granites and DBS gold deposits to the northwest.

From this constrained target generation strategy, SOG explored eighteen areas with reconnaissance vacuum drilling and follow up RAB drilling. Most of EL 10398 was tested with vacuum drilling, returning only gold values < 5ppb.

SOG ceased exploration in 1997 and surrendered their exploration licences in 1998 after failing to attract joint venture partners. TENL, along with several other companies applied for parts of the surrendered tenements. Subsequently, ELs 10216, 10217, 10398 and 10399 were granted to TENL in September 2000 after the "Consent to Explore" agreement with the CLC was approved.

5.0 GEOLOGY

The regional setting of the Solitaire Project area is interpreted as lying within the North Province of the Palaeoproterozoic Arunta Block (Stewart et al, 1984 and Hendrick et al 2000), which abuts the Tanami Inlier to the north.

Gold mineralisation within the Tanami Region is preferentially hosted by fine grained, generally ferruginous, carbonaceous sediments or mafic rocks of the Tanami Group (eg. Dead Bullock Formation), McFarlane Peak Group and Mt Charles Formation (Hendrickx et al, 2000). High-grade

mineralisation is spatially related to younger ovoid shaped I-type granitoid intrusions. Mineralisation is introduced with quartz-carbonate veins and chloritic alteration and is associated with shears, dilation zones and hosted in chemically reactive fine-grained metasediments.

Both EL 10398 and 10399 are interpreted to be underlain by gneiss complexes and granitoids.

6.0 EXPLORATION PROGRAMS

6.1 First Year Exploration

The first year of exploration was carried out by GFA. The exploration potential of each tenement was assessed and targets defined.

The western half of **EL 10398** comprises the eastern part of a north flowing paleodrainage, the depth of which was not determined by SOG. Shallow vacuum drilling had been completed by SOG over the eastern two thirds of this tenement. Most of the drilling reached bedrock and no anomalous gold was detected. The target was to test the bedrock in the western part of the tenement, if the cover is less than 50m and achieve deeper bedrock intersections along the southern and northern margins of the tenement.

EL 10399 had not previously been explored, as it lies completely within a paleodrainage system, is not magnetically anomalous and encompasses a small area. The target was to determine bedrock lithologies and any anomalous gold mineralisation by 1000m x 100m spaced drilling.

6.1.1 Surface Sampling

Where large areas of lag was present the location was recorded and closer spaced sampling was completed by vehicle, including a small sampling program on EL 10398.

A total of 15 lag and 5 rock chip samples were collected from EL 10398 (Plate 1). The samples were submitted to Australian Laboratory Services (ALS) in Alice Springs and analysed in Perth and Brisbane for Au by the ZARG method, and Cu, Pb, Zn, As, Ag, Bi, Sb, Mn, Fe, Ni and Co by ICPMS and Sn, W and Ti by XRF, see Table 5.

Table 2: Summary of Surface Samples

Tenement	Rockchip Samples	Surface Lag Samples
EL 10398	5	15
EL 10399	-	-

All data are attached in the Appendix in digital format.

6.1.2 Aircore Drilling

A dual purpose RAB and Aircore rig operated by Bostech Drilling Services of Perth was used to complete a drill program. A total of 33 Aircore holes were drilled to a designed depth of 50 metres or until drilling intersected approximately 12 metres of bedrock (Plate 2).

Table 3: Summary of Drilling

Program	EL No.	Aircore	
		Holes	Metres
Reconnaissance	10398	25	1038
	10399	8	405
TOTAL		**33**	**1443**

When drilling in the deep transported cover or adjacent to the paleodrainages composite samples were generally not collected until saprolite was recognised. In some cases a representative sample from a favourable cover horizon such as hardpan was sampled. In holes that terminated in cover at 50m or deeper, the last 6m were composite sampled.

Samples were submitted to Amdel Laboratories Ltd (Amdel) in Alice Springs where they were prepared before being sent to their laboratory in Adelaide for analysis of Au, Cu and As.

Commercially prepared sample standards of 50ppb gold were purchased and substituted for a drill sample at each sample number which ended in '30'. Each number which ended in '60' was a duplicate of the previous sample, and a sample of a blank (Tanami dune sand) was inserted at each number ending in '90'. Some of these checks were not submitted exactly on the planned number but were submitted adjacent to the planned delegated numbers.

In addition to the three metre composite sampling, near surface BLEG and lag samples were collected from each of the widely spaced reconnaissance holes. The samples were generally collected near the top of each hole beneath the aeolian sand cover. The lag represented +3mm material and the BLEG samples weighed approximately 2kg of –40# material. The drill derived lag samples were processed in the same manner as the surface lags samples.

The BLEG samples were processed by ALS using the following method:

- weigh sample
- remove a 200gm split for future reference
- remaining sample weighed and then leached (static) using 0.5% cyanide solution
- simple inversion after 8 and 16 hours (consists of inverting sealed container end over end once)
- solution organically extracted and read by a Zeemans furnace
- analysed for Au with a detection limit of 0.1ppb.

The lag and BLEG mediums provided additional geochemical information to the composite samples. Both were assayed with a lower level of detection for gold (0.1ppb). The BLEG medium and method of processing enables low levels of hydromorphically distributed gold to be detected which would not be detected by the composite sampling. Since the lag samples are often vein quartz rich they are positively biased and may have detected gold from a nearby source, which was not intersected by the reconnaissance drilling.

Table 4: Summary of Drill Samples

Tenement	Composite drill samples	Drill derived lag samples	Drill derived BLEG samples
EL 10398	168	25	25
EL 10399	23	8	8

Table 5: Analytical Details

Sample Type	Lab	Method Code	Method	Detection Limit
RAB, Aircore, Rock	Amdel	AA9	50g, AR/DIBK, C finish, AAS	1ppb Au 2ppm As 1ppm Cu
Lag	ALS	PM 225	50g, AR/DIBK, C finish, Zeeman AAS	0.1ppb Au
Lag		IC 225	Cu, Pb, Zn, As, Co, Ni Ag Fe Mn Bi, Sb	1ppb 0.2 ppm 0.01% 5 ppm 2 ppm
Lag		XRF1	Sn W, Ti	5 ppm 10 ppm
BLEG	ALS	PM 227	0.5% CN, static leach, DIBK, Zeeman AAS	0.1ppb Au

All drillhole and assay data are attached in the Appendix in digital format.

6.1.3 Results

Aircore drilling on **EL 10398** indicated that the Tertiary cover of this area is in excess of 60m. The bedrock geology was dominated by medium grained felsics with minor areas of mica schist and rare dolerite in the northeastern part. A 15m interval of fine grained, silicified, laminated shale and probable chert with minor biotite schist was intersected in one hole (SLAC 107). This lithology has similarities to the Dead Bullock Formation. The maximum gold assay from drilling of this tenement was 5ppb.

Drilling on **EL 10399** revealed deeply weathered felsics and rare mica schist overlain by transported cover varying from 33m - 60m in thickness. The western half of the tenement was not drilled as the cover was interpreted to be greater than 60m in depth coupled with no aeromagnetic evidence to suggest higher prospectivity. The maximum gold assay was 1ppb.

6.2 Second Year Exploration

Following withdrawal of GFA from the Joint Venture, TENL undertook a series of reviews of the data for the Mt Solitaire Project.

6.3 Third Year of Exploration

The Company undertook a detailed review of work completed by GFA in order to assess the prospectivity of the tenements following the completion of major drill programs by SOG and GFA.

Exploration Licences 10398 and 10399 were considered adequately tested by vacuum drilling conducted by Sons of Gwalia, and by Aircore drilling conducted by Goldfields of Australia. The drilling returned a maximum assay value of 6ppb Au hosted in weathered granite within EL 10398. Drilling within EL 10399 returned no significant results. No major structures or untested magnetic targets occur within the tenements and thus they were recommended for surrender.

7.0 REHABILITATION

7.1 Camps

Two camps were established during the course of exploration with only one being established at any one time. Rubbish from the southern camp was disposed of at The Granites Gold Mine rubbish dump (due to the short period of occupation of the camp). Rubbish from the northern camp was disposed of in an excavated hole with the rubbish being progressively covered to prevent it from being blown away or distributed by animals.

Campsites were cleaned up after being vacated and everything was either removed or buried in the rubbish pit and then covered. Minor oil spills associated with the power generator at each camp were dug up and buried.

7.2 Access Tracks

Several access tracks into the project area were part of a network constructed by SOG during their exploration of their larger land holding. These were all used during the field program. The other tracks were in reasonable condition.

7.3 Drilling

Custom concrete hole plugs made from pot plant moulds were used to plug drill holes. They were inserted at the completion of each hole prior to the rig moving to the next drill site. They were bedded into position in the drill holes with a shovel handle and then covered with soil and/or drill cuttings to form a low mound to allow for compaction following rain and to prevent water pooling above the hole.

8.0 REFERENCES

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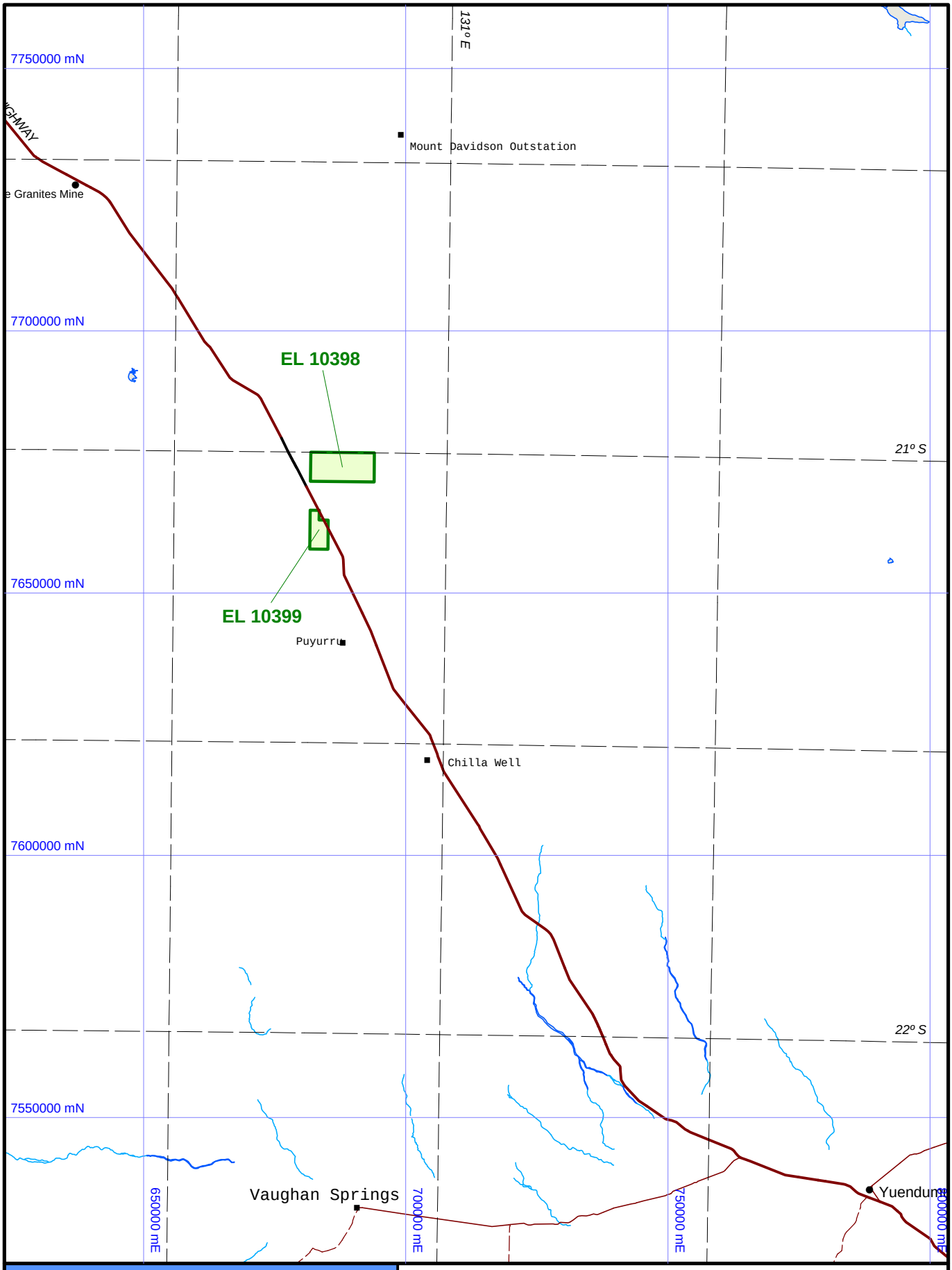
Stewart, A.J., 1976. Mount Theo, Northern Territory. *BMR 1:250,000 Geological Map and Explanatory Notes. SF52-8.*

Whitworth, D.N., 1970. Reconnaissance gravity survey of part of Northern Territory and Western Australia. *BMR Record 1970/15.*



TANAMI GOLD NL

SOLITAIRE

TENEMENT LOCATION

ORIGINATOR:	DATE:	DRAWN:
C.Rohde	**Jan 2004**	**M.H.Bailey**

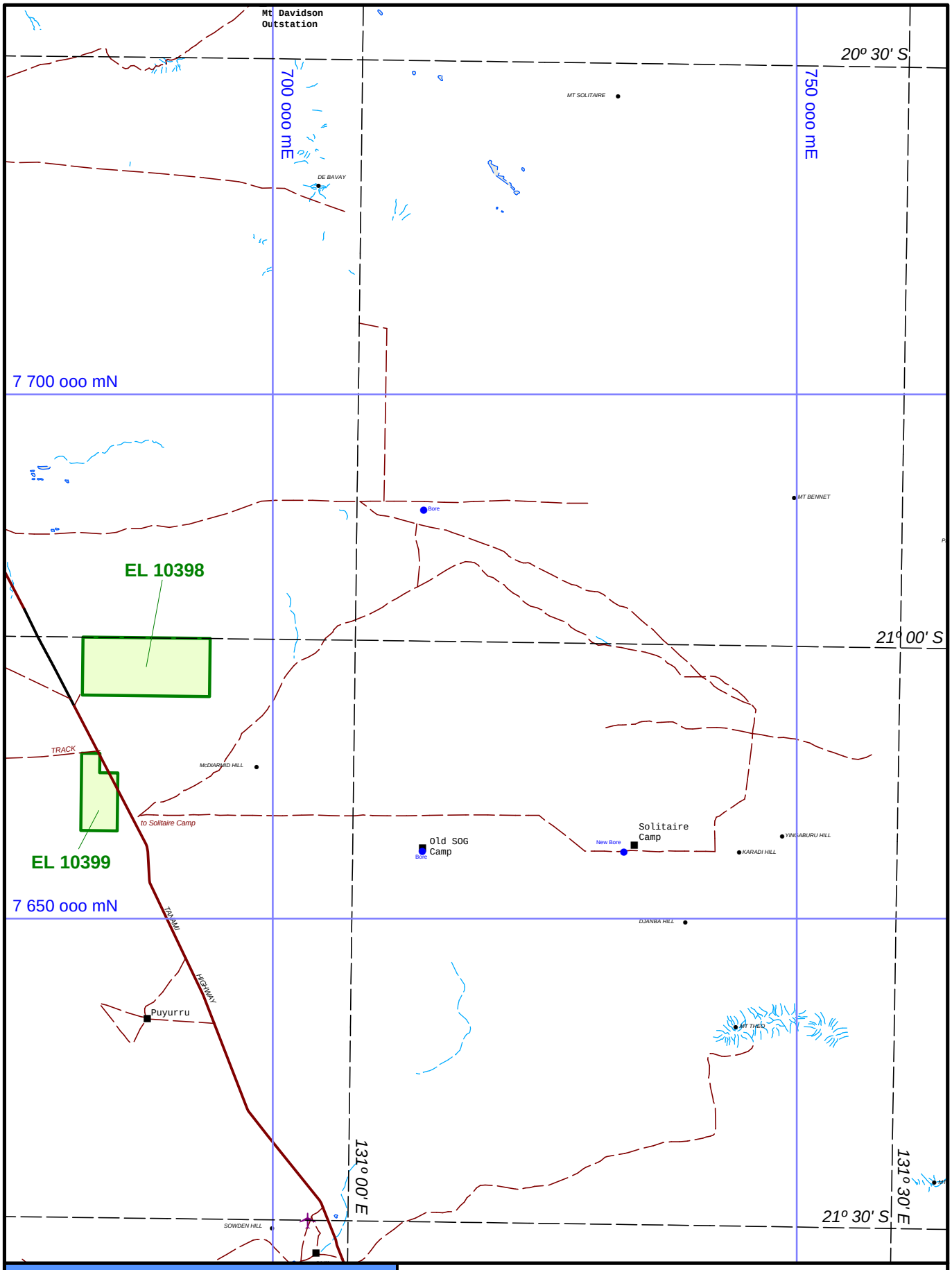
PLAN No: **26_Tt_006**

1 : 1,000,000

0 20 40 60

MGA Zone 52 (GDA94) kilometres

FIGURE 1



TANAMI GOLD NL

SOLITAIRE

TENEMENT LOCALITY

ORIGINATOR:	DATE:	DRAWN:
C.Rohde	**Jan 2004**	**M.H.Bailey**

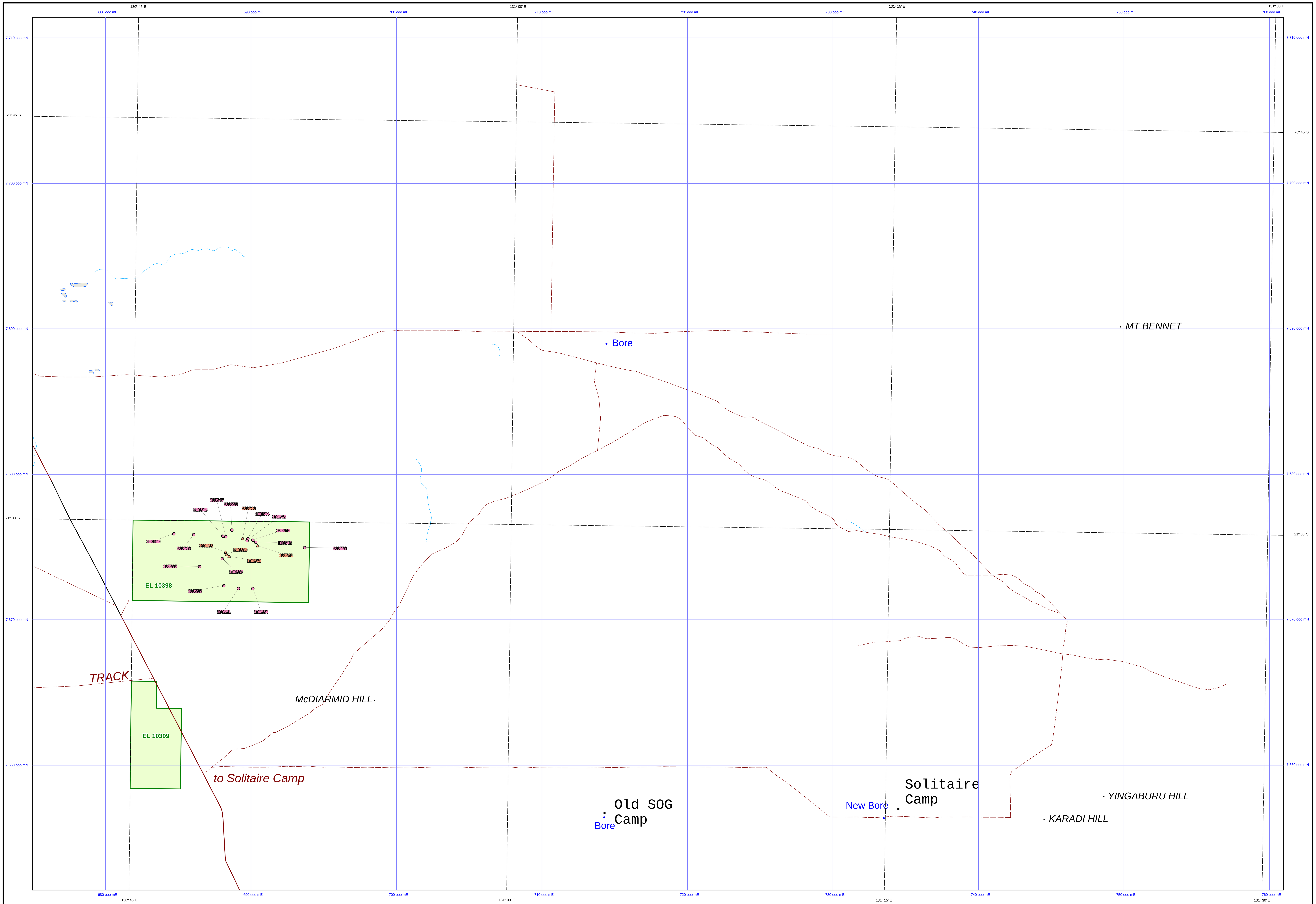
PLAN No: **26_Tt_007**

1 : 500,000

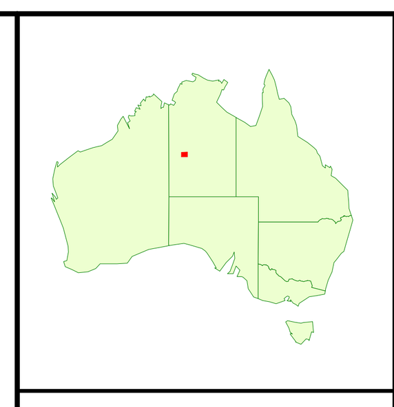
0 10 20 30

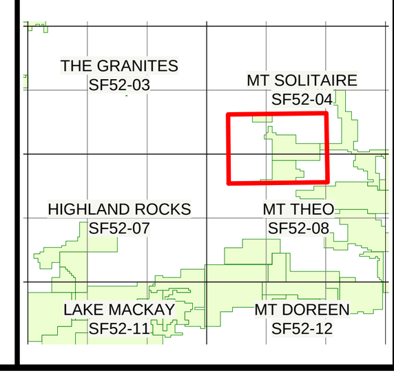
MGA Zone 52 (GDA94) kilometres

FIGURE 2



- △ ROCKCHIP SAMPLE
- ○ LAG SAMPLE





TANAMI GOLD NL

SOLITAIRE

ROCKCHIP and LAG SAMPLE LOCATIONS

2 0 2 4 8 12 kilometres

MGA Zone 52 (GDA94) **1 : 100,000**

ORIGINATOR:	DATE:	DRAWN:
C.Rohde	Jan 2004	M.H.Bailey

PLAN No: 26_Cm_001

PLATE 1

130° 45' E
680 000 mE
690 000 mE
700 000 mE
131° 00' E
710 000 mE
720 000 mE
730 000 mE
131° 15' E
740 000 mE
750 000 mE
760 000 mE
131° 30' E
7 710 000 mN
20° 45' S
7 700 000 mN
7 690 000 mN
7 680 000 mN
21° 00' S
7 670 000 mN
7 660 000 mN

MT BENNET

Bore

SLAG063 SLAG064 SLAG065 SLAG066 SLAG061 SLAG060 SLAG059 SLAG057 SLAG058 SLAG055 SLAG054
SLAG062 SLAG067 SLAG068
EL 10398
SLAG053 SLAG052 SLAG051 SLAG050 SLAG049 SLAG048 SLAG047 SLAG046

TRACK

SLAG082 SLAG083
SLAG081 SLAG074
EL 10399
SLAG080 SLAG077
SLAG079 SLAG078
SLAG076

McDIARMID HILL

to Solitaire Camp

Old SOG Camp

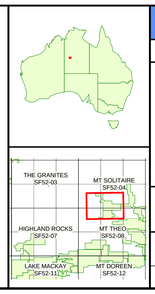
Bore

New Bore

Solitaire Camp

YINGABURU HILL

KARADI HILL



TANAMI GOLD NL

SOLITAIRE

AIRCORE DRILLHOLE LOCATIONS

2 0 2 4 8 12

MGA Zone 52 (GDA94) 1 : 100,000 kilometres

ORIGINATOR:	DATE:	DRAWN:
C.Rohde	Jan 2004	M.H.Bailey

PLAN No: 26_DI_013

PLATE 2