



for the
2002 FIELD SEASON

EL8803
EL8825

Syrene Lucky's Bore

NORTHERN TERRITORY

Volume 1 of 1

1:250,000 SHEET:

The Granites

SF52-03

1:100,000 SHEET:

MacFarlane
Pedestal Hills

4757
4758

AUTHOR:

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TENEMENT HOLDERS:

Newmont NFM (trading as Normandy NFM Limited)

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SUMMARY

The Western Non-TGEA Project, located in the Tanami desert region approximately 130km west-north-west of the Granites Gold Mine, currently comprises 2 exploration licences. EL's 8803 & 8825 were granted on the 29th April 1999. During 1999, Normandy NFM negotiated an agreement with the NT DME to provide technical reports on the Project Area for an entire field season rather than the anniversary year. A submission date of the 30th April each year was established. Originally this project group was comprised of 4 licences (EL's 8803 & 8999 (Syrene & Medussa), EL 8825 (Lucky's Bore) and EL 8593 (Nora)). During 2002 EL's 8999 and 8593 were relinquished in full and final reports were completed and sent to NTDBIRD.

This is the fourth annual report for the Western Tanami Project covering all work completed on the remaining 2 licences during the year to 31/12/2002.

Exploration during the reporting period was limited to surface sampling in EL 8825 (Lucky's Bore).

- Lag Sampling: 6 samples

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1. INTRODUCTION

This report covers the Western Tanami Project for the period ending 31/12/2002.

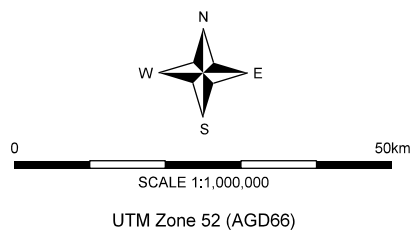
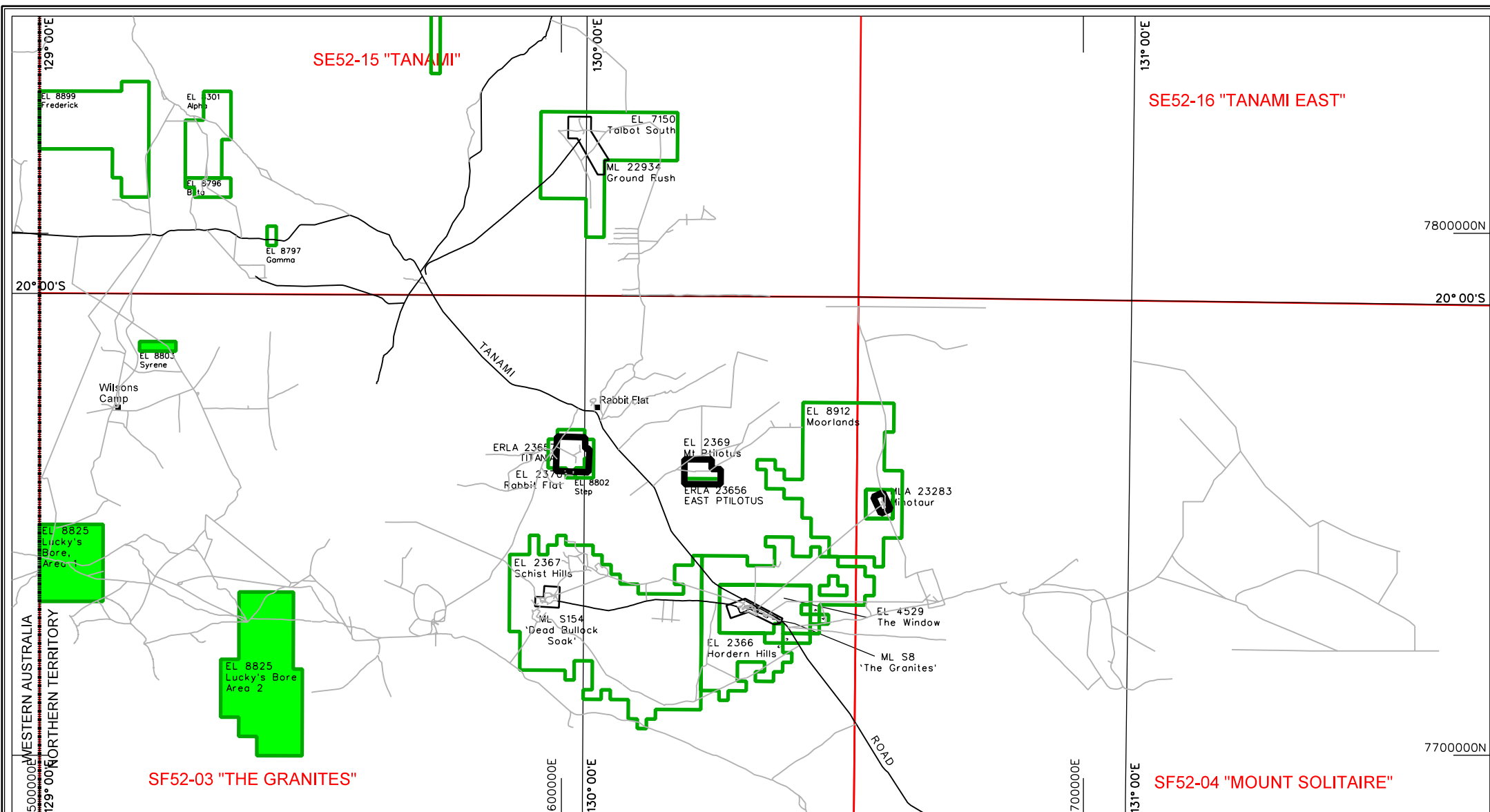
The Western Tanami Project is located south of the Tanami Road, within Aboriginal Freehold land approximately 130km west north west of the Granites Gold Mining Operations (Figure 1). Access to the Project area is via the Wilsons Camp Road, a well-formed road extending south for 40 km from its junction with the Tanami Highway, 20km east of the Western Australian border. Access within the EL's is then via graded tracks.

Exploration Licences 8803, 8999, 8593 & 8825 were granted to Normandy NFM on 29th April 1999 for a period of six years. Access to EL's 8803 & 8999 and approval of proposed Work Programs was granted by the CLC on 7th July, 1999 allowing work to commence in the second half of the field season. Access to EL 8593 and approval of proposed Work Programs was granted by the CLC on 11th September, 1999.

During 2002 a second relinquishment of the project took place. EL's 8593 & 8999 were relinquished in full and the remaining two EL's were reduced by 312 blocks to a holding of 179 blocks.

Table 1: Western Tanami Project Tenement Summary

| EL Number | Name | Grant Date | Expiry Date/Cessation | Blocks prior to 2002 Relinquishment | Current Blocks | Km ² |
|-----------|--------------|------------|-----------------------|-------------------------------------|----------------|-----------------|
| EL 8593 | Nora | 29/04/1999 | 10/05/2002 | 19 | - | 0 |
| EL 8803 | Syrene | 29/04/1999 | 28/04/05 | 8 | 4 | 12.85 |
| EL 8825 | Lucky's Bore | 29/04/1999 | 28/04/05 | 483 | 175 | 560.57 |
| EL 8999 | Medusa | 29/04/1999 | 28/04/2002 | 2 | - | 0 |
| | | | | | 179 | ~ 573 |



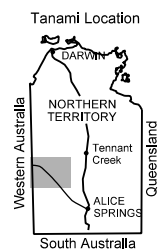
NORMANDY NFM LTD TRADING AS

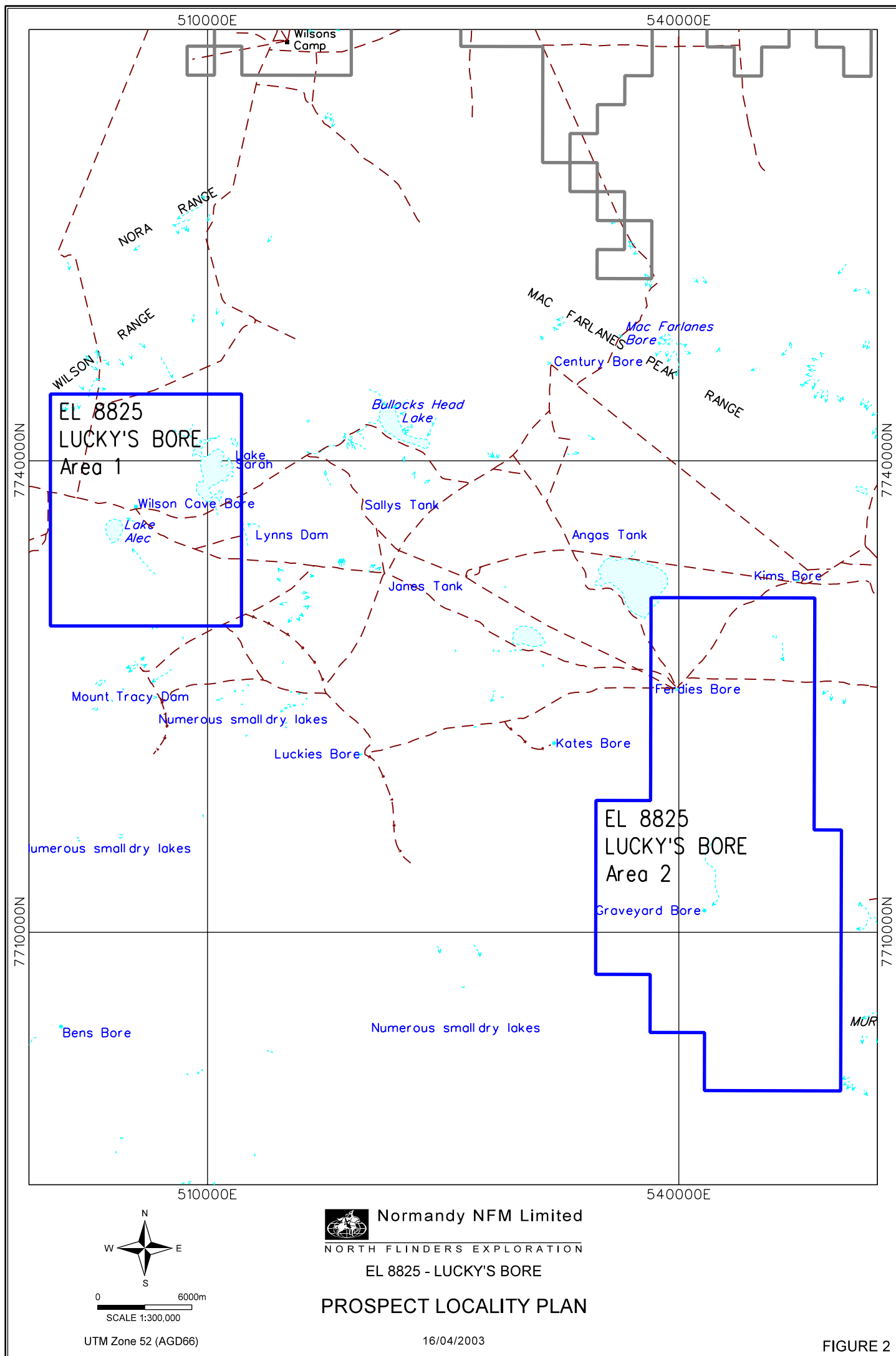
NEWMONT NFM

WESTERN TANAMI PROJECT EL's 8803 & 8825

TENEMENT LOCATION MAP

FIGURE 1





2. LOCATION, INFRASTRUCTURE, ACCESS, SURVEY CONTROL & ENVIRONMENTAL PRACTICE

2.1 Location, Access & Physiography

The Western Tanami Project is located in the Tanami Desert region, approximately 130km WNW of the Granites Gold Mine. The area is covered by the Granites (SF52-3), 1:250 000 series map sheet, as shown on [Figure 1](#).

The Project area is dominated by variable thicknesses of alluvial cover, the depth of which is greatest within palaeodrainage channels. Areas of subcropping to outcropping Palaeo-Proterozoic lithologies generally form low to moderate sized hills.

Sparse spinifex plains with isolated eucalypts are the typical vegetation found in the project area. Dense stands of mulga punctuate the landscape, but are usually no more than a few square kilometres in areal extent. Other vegetation includes shrubs (cassia) and low trees (mallee, tea tree and hakea). There are no permanent or perennial watercourses in the area.

2.2 Infrastructure

Prior to the presence of NFM in this part of the Tanami region, infrastructural support was almost completely lacking. Currently supplies are trucked or flown to the permanent camp at The Granites (within EL4529) from Alice Springs. Telephone and fax using microwave links service this camp. Water is provided by two remote borefields. One borefield lies 35km east of The Granites (Billabong) and the other 10km north-east of Dead Bullock Soak. Power is locally generated at exploration bases and mine sites. The nearest settlements are the Rabbit Flat roadhouse 50km to the northwest of The Granites on the Tanami Road and Tanami Downs homestead 60km to the west. The nearest settlement is Yuendumu some 250km southeast of The Granites on the Tanami Road.

2.3 Environmental Practice

Rehabilitation of exploration sites was carried out pursuant to Section 24(e) of the NT Mining Act and in accordance with the Departments "Guidelines for Rehabilitation of Exploration Sites",

- all drillholes were capped on completion,
- all grid lines and tracks were rehabilitated when no longer needed.

3. PREVIOUS EXPLORATION

The Syrene / Medussa portion of the Western Tanami Project was first held by the Power and Nuclear Corporation Pty Ltd (PNC) from 1988 to 1991 as EL 4829. In the subsequent period 1991 to 1994 Western Mining Corporation (WMC) held the ground under agreement with PNC as SEL 7423. No field work was conducted by WMC.

PNC was exploring throughout the region for uranium mineralisation by targeting anomalies generated from airborne magnetic and radiometric surveys. A high intensity magnetic feature (now the Bondi Prospect in EL 8803) was targeted as part of this project. Field reconnaissance and mapping were completed revealing the source of the magnetic anomaly to be multiple intrusives of syenitic to monzonitic composition.

A limited program of rotary air blasting (RAB) drilling and geochemical testing was conducted to test the intrusives for uranium mineralisation. Bulk samples also were collected to test for the potential for diamonds. Two micro-diamonds were identified leading to a program of diamond drilling and a 10 tonne bulk alluvial sample. When no further diamonds were found, the petrological analysis of the diamonds was interpreted to indicate 'offset' contamination. Of the geochemical sampling program, only three samples were analysed for Au. One of these returned 0.1g/t Au.

4. EXPLORATION OBJECTIVES

Exploration and mine studies have indicated that gold mineralisation in the region has an association with a range of geological environments. Models of gold occurrence for which the Tanami is believed to be most prospective include:

- Disseminated, stratabound deposits hosted by banded iron formations;
- Discordant stockwork deposits of gold in relatively late stage quartz veins;
- Gold mineralisation in veins hosted by shear zones with strong alteration characteristics;
- Deposits in regolith containing gold concentrated by alluvial, eluvial or alteritic processes.

With these models in mind, the Company's geologists have selected prospective target exploration areas based on regional geological, structural, geophysical and geochemical data.

The detailed assessment of these targets has been undertaken by a range of exploration techniques, designed to reveal the geology of the target area, and the presence of indicator elements, particularly gold itself, in anomalous quantities.

The task has been made difficult by the very extensive cover of windblown sand and other transported material, which conceals the rock and associated soil, typically to a thickness of several metres. This blanket covers as much as 98% of the region. Consequently the exploration process has relied heavily on point samples obtained by drilling to expose bedrock.

5. GEOLOGY

The Project Area lies astride the Granites - Tanami and Arunta provinces. The relationship between the Granites - Tanami and Arunta provinces is not well understood. Basement metasedimentary sequences in both regions are thought to be lateral equivalents (Blake et al., 1979) and the sequences merge with one another (Stewart et al., 1984).

The Granites - Tanami and the Northern Arunta provinces contain similar rock sequences and share similar Palaeoproterozoic magmatic, metamorphic and deformational histories. Both comprise of a deformed Palaeoproterozoic basement turbiditic sequence of greywacke, quartz sandstone, siltstone, shale, and minor mafic rocks and their moderate to high grade metamorphic equivalents (schist, gneiss, quartzite, amphibolite). The Tanami Block also contains chert, pyritic carbonaceous sediments and ironstone, whereas the Arunta Block has minor calc-silicates and meta-felsic volcanics (felsic orthogneiss).

During the Barramundi Orogeny (1890-1850 Ma, Page and Williams, 1988), the sedimentary sequences in the Arunta were intruded by mafic rocks, deformed and metamorphosed up to amphibolite facies. Granite plutons were emplaced in the closing stages of the Barramundi Orogeny, at about 1820 - 1800 Ma.

In the Arunta province, platform quartzite-shale-carbonate sediments (Reynolds Range Group) unconformably overlie the Barramundi metamorphic rocks and probably represent correlatives of the Hatches Creek Group of the Davenport Province to the north (Blake et al. 1987). Deformation of the Hatches Creek Group preceded granite intrusion at about 1660 Ma (Page and Williams 1988) and involved an early phase of upright northwest-trending folds and a second episode of northeast-trending folds. Faulting, thrusting and metamorphism accompanied both episodes of folding.

The Arunta province remained tectonically active after the Barramundi Orogeny with several metamorphic and deformational events, including the ~1800 Ma Strangways granulite event (Shaw et al, 1984), the 1760-1650 Ma Aileron retrogressive event (Windrim and McCulloch, 1986) and the most recent Carboniferous Alice Springs Orogeny. In the northern Arunta region, significant granitic magmatism occurred at 1780-1770, 1713, 1635 and 1570 Ma.

The basement provinces described above are unconformably overlain by younger, Neoproterozoic and Palaeozoic sediments of the Birrindudu, Wiso, Georgina and Ngalia basins (Wells and Moss, 1983).

The geology of the northern half of the project is dominated by Palaeo-Proterozoic sediments intruded by felsic to intermediate igneous bodies, with minor Antrim Plateau Volcanics. The southern half of the project, including the Luckys Bore Tenement, is dominated by Palaeozoic sequences overlying granitoid and possible Tanami Complex lithologies at depth.

6. WORK COMPLETED

6.1 EL8825 – Lucky's Bore

6.1.1 Lag Sampling

Work during the 2002 year comprised of field reconnaissance to assess prospectivity of remaining areas using surface lag sampling.

Area 1. Dominated by tertiary sediments over Palaeozoic sediments. Probable Proterozoic basement intersected (micaceous siltstone recorded) at approx 18m in two historical drill holes.

Area 2. Dominated by tertiary cover over Palaeozoic sediments and probable Cambrian (Antrim) rocks. Lag samples comprised of qtz vein, laterite and ferruginous rocky material possible representing veining in Muriel Range sandstone (cover) collected.

A total of 6 samples were collected and submitted to Genalysis Laboratories for analysis. All results from lag sampling conducted last month returned assays <1ppb Au. This work has downgraded the prospectivity of EL8825 (Area 2).

Sample locations are presented on [Figure 3](#), sample data presented in Table 2, and results in Appendix 1.

Table 2: Lag Sample Details

| Sample Number | Total | Genalysis Analytical Techniques | Elements Analysed |
|------------------|-------|---------------------------------|--|
| 3634201-206 | 6 | B/EETA A/MS A/AAS | Au Ag, Bi, Co, Mo, Pb, Sb, Sn, U, W Cu, Fe, Ni, Zn |
| 6 samples | | | |

7. REFERENCE LIST / ANNUAL REPORT BIBLIOGRAPHY

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APPENDIX 1: DIGITAL SAMPLE DATA

WEL_WASG1_SUR2002A.TXT

Northern Territory Department of Mines and Energy

REPORT METADATA FORM

(MINERAL EXPLORATION)

| PART A (DME USE ONLY) | | | | | |
|-----------------------|---------------|----------|-----------|----------|-----------|
| Report Number | Date Received | | | | |
| Collation | ___ pp. | ___ figs | ___ logs | ___ maps | ___ apps. |
| Media | ___ CDs | ___ 1.5" | ___ Exab. | ___ DLT | ___ vols. |

| PART B | | | | | |
|---------------------|--|------|-----------------------|------------|--|
| Tenure Number(s) | 8803 & 8825 | | Company Report Number | CR31092 | |
| Report Date | April 2003 | | Anniversary Date | 29/04/2003 | |
| Group Project Name | Western Tanami | | | | |
| Report Title | Fourth Annual Report for the Western Tanami Project for the 2002 Field Season. | | | | |
| | | | | | |
| | | | | | |
| Author(s) | M.Walter | | | | |
| Corporate Author(s) | Newmont Australia | | | | |
| Maps 1 : 250 000 | SF52-03 | | | | |
| Maps 1 : 100 000 | 4757 | 4758 | | | |

| Tectonic Units | | | |
|---|--|--|--|
| <input type="checkbox"/> Amadeus Basin | <input type="checkbox"/> Carpentaria Basin | <input type="checkbox"/> McArthur Basin | <input type="checkbox"/> Pine Creek Inlier |
| <input type="checkbox"/> Arafura Basin | <input type="checkbox"/> Daly Basin | <input type="checkbox"/> Money Shoal Basin | <input type="checkbox"/> Simpson Basin |
| <input type="checkbox"/> Arnhem Inlier | <input type="checkbox"/> Dunmarra Basin | <input type="checkbox"/> Murphy Inlier | <input type="checkbox"/> South Nicholson Basin |
| <input type="checkbox"/> Arunta Inlier | <input type="checkbox"/> Eromanga Basin | <input type="checkbox"/> Musgrave Block | <input type="checkbox"/> Tennant Creek Inlier |
| <input type="checkbox"/> Birrindudu Basin | <input type="checkbox"/> Fitzmaurice Mobile Zone | <input type="checkbox"/> Ngalia Basin | <input type="checkbox"/> Victoria Basin |
| <input type="checkbox"/> Bonaparte Basin | <input type="checkbox"/> Georgina Basin | <input type="checkbox"/> Ord Basin | <input type="checkbox"/> Warburton Basin |
| <input type="checkbox"/> Browse Basin | <input checked="" type="checkbox"/> Granites-Tanami Inlier | <input type="checkbox"/> Pedirka Basin | <input type="checkbox"/> Wiso Basin |
| Other structural units | | | |

| Stratigraphic Names | | | |
|---------------------|--|--|--|
| Killi Killi Beds | | | |
| | | | |

| AMF Thesaurus Terms - General | | | |
|---|---|---|---|
| <input type="checkbox"/> Geological mapping | <input type="checkbox"/> Regional Geology | <input type="checkbox"/> Stratigraphy | <input type="checkbox"/> Structural Geology |
| <input type="checkbox"/> Metallogenesis | <input type="checkbox"/> Remote sensing | <input type="checkbox"/> Imagery | <input type="checkbox"/> Landsat |
| <input type="checkbox"/> Petrology | <input type="checkbox"/> Lithology | <input type="checkbox"/> Literature reviews | <input type="checkbox"/> Metamorphism |
| <input type="checkbox"/> Lineaments | <input type="checkbox"/> Photogeology | <input type="checkbox"/> Reconnaissance | <input type="checkbox"/> Indicator minerals |
| Other terms ... | | | |

| AMF Thesaurus Terms - Target Minerals | | | |
|--|----------------------------------|--|--|
| <input checked="" type="checkbox"/> Gold | <input type="checkbox"/> Silver | <input type="checkbox"/> Tin | <input type="checkbox"/> Diamonds |
| <input type="checkbox"/> Lead | <input type="checkbox"/> Copper | <input type="checkbox"/> Platinum Group Minerals | <input type="checkbox"/> Industrial Minerals |
| <input type="checkbox"/> Zinc | <input type="checkbox"/> Uranium | <input type="checkbox"/> Bauxite | |
| Others... | | | |

| AMF Thesaurus Terms - Mining | | | |
|---|--|--|---|
| <input type="checkbox"/> Environmental impact surveys | <input type="checkbox"/> Feasibility studies | <input type="checkbox"/> Geostatistics | <input type="checkbox"/> Metallurgy |
| <input type="checkbox"/> Ore reserves | <input type="checkbox"/> Resource assessment | <input type="checkbox"/> Mineral resources | <input type="checkbox"/> Mining geology |
| <input type="checkbox"/> Mine design | <input type="checkbox"/> Mine drainage | <input type="checkbox"/> Mine evaluation | <input type="checkbox"/> Pits |
| Other terms ... | | | |
| | | | |

| AMF Thesaurus Terms - Geophysical Surveys | | | |
|--|---|---|--|
| <input type="checkbox"/> Aerial magnetic surveys | <input type="checkbox"/> Aerial radioactivity surveys | <input type="checkbox"/> Aerial EM surveys | <input type="checkbox"/> Ground EM surveys |
| <input type="checkbox"/> Gravity surveys | <input type="checkbox"/> Geophysical anomalies | <input type="checkbox"/> Gravity anomalies | <input type="checkbox"/> Bouger anomaly maps |
| <input type="checkbox"/> Sirotek surveys | <input type="checkbox"/> Ground magnetic surveys | <input type="checkbox"/> IP surveys | <input type="checkbox"/> Resistivity surveys |
| <input type="checkbox"/> Seismic surveys | <input type="checkbox"/> Magnetic anomalies | <input type="checkbox"/> Geophysical interpretation | <input type="checkbox"/> Geophysical logs |
| Other terms ... | | | |
| | | | |

| AMF Thesaurus Terms - Geochemical Exploration – Surface sampling | | | |
|--|---|--|--|
| <input type="checkbox"/> Geochemical sampling | <input type="checkbox"/> Stream sediment sampling | <input type="checkbox"/> Rock chip sampling | <input type="checkbox"/> Bulk sampling |
| <input type="checkbox"/> Soil sampling | <input type="checkbox"/> Heavy mineral sampling | <input type="checkbox"/> Geochemical anomalies | <input checked="" type="checkbox"/> Assaying |
| <input type="checkbox"/> Isotope geochemistry | <input type="checkbox"/> Whole rock analysis | <input type="checkbox"/> X ray diffraction | <input checked="" type="checkbox"/> Sample location maps |
| Other terms ... | Lag Sampling | | |
| | | | |

| AMF Thesaurus Terms - Geochemical Exploration - Drill sampling | | | |
|--|--|--|--|
| <input type="checkbox"/> Diamond drilling | <input type="checkbox"/> RAB drilling | <input type="checkbox"/> Percussion drilling | <input type="checkbox"/> Air drilling |
| <input type="checkbox"/> RC drilling | <input type="checkbox"/> Rotary drilling | <input type="checkbox"/> Vacuum drilling | <input type="checkbox"/> Auger drilling |
| <input type="checkbox"/> Drill core | <input type="checkbox"/> Drill cuttings | <input type="checkbox"/> Drill hole logs | <input type="checkbox"/> Drill core analysis |
| Other terms ... | | | |
| | | | |

| Drilling Type | No. of holes | Hole name(s) |
|------------------|--------------|--------------|
| Diamond | | |
| Percussion | | |
| Vacuum | | |
| RAB | | |
| Auger | | |
| Air | | |
| RC | | |
| Rotary | | |
| Other ... | | |

| Mine / Deposit / Prospects | Location - AMG | Location - Datum |
|----------------------------|----------------|------------------|
| Mines | | |
| | | |
| Deposits | | |
| | | |
| Prospects | | |
| | | |
| Other ... | | |
| | | |

