

**NORMANDY
POSEIDON**

POSEIDON EXPLORATION LIMITED

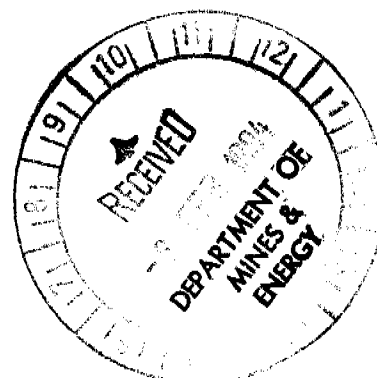
A.C.N. 006 306 690

A Member of the Normandy Poseidon Group

DARWIN OFFICE :
4/66 Coonawarra Road
WINNELLIE, Northern Territory

Telephone : (089) 84 4554
Facsimile : (089) 84 4565

PO Box 38970, Winnellie, NT 0821



EXPLORATION LICENCE 7939

BAMBOO CREEK WEST

FINAL REPORT

to the

Northern Territory Department of Mines and Energy

(Period: 11/12/92 - 10/12/93)

Map sheet (1:250,000): Fergusson River SD52-12

Map sheet (1:100,000): Jinduckin 5169

Author: E R Manning

Date: November 1993

Accepted by:

Distribution:

NTDME ✓

Adelaide Office

Perth Office

Darwin Office

Company report number: 11722

The contents of this report remain the property of Poseidon Exploration Limited and may not be published in whole or in part nor used in a company prospectus without the written consent of the company.

CR 94/106

CONTENTS

	<u>Page</u>
ABSTRACT	1
1.0 INTRODUCTION	2
1.1 Location and access	2
1.2 Tenement details	2
2.0 BACKGROUND TO EXPLORATION	2
2.1 Geology	2
2.2 Exploration objectives	4
3.0 EXPLORATION	4
3.1 Ground magnetic survey	4
3.2 Results and interpretation	4
4.0 CONCLUSION	5

FIGURES

Fig.1 (Plan No. NTD257) Location Map	1:50,000 scale	Page 3
Fig.2 () Ground Magnetic Profiles	1:2,500 scale	

APPENDICES

1. Expenditure summary.
2. Bibliographic data sheet.

REPORT NUMBER: 11722
TITLE: EXPLORATION LICENCE 7939 - BAMBOO CREEK WEST - FINAL REPORT
to the Northern Territory Department of Mines and Energy.
AUTHOR: E.R.Manning
DATE: December 1993



ABSTRACT

Exploration Licence 7939 was taken out to cover a discreet dipolar magnetic anomaly detected by a multiclient airborne survey.

Ground magnetic follow-up has indicated the anomaly to be due to shallow sourced magnetic noise and therefore unlikely to have any economic potential.

The area was relinquished on its first anniversary.

1.0 INTRODUCTION

1.1 Location and access

The area covered by Exploration Licence 7939 lies approximately 225 kilometres slightly east of south from Darwin (Figure 1) on Vacant Crown Land which is under aboriginal Land Claim.

There are no existing vehicular tracks into the area and access was gained by helicopter.

1.2 Tenement details

Exploration Licence 7939 was granted to Poseidon Exploration on 11th December 1992 covering an area of 97 square kilometres (30 graticular blocks). The expenditure commitment for the first year of tenure was \$10,500.

The area was relinquished in its entirety on the first anniversary date.

2.0 BACKGROUND TO EXPLORATION

2.1 Geology

Bamboo Creek West lies on the Wingate Plateau, a lateritised and poorly drained surface on Cretaceous Mullaman Beds, close to the fault-bounded western margin of the Daly Basin.

Around the edge of the plateau (and possibly extending into the licence area) are Proterozoic sediments of the Tolmer, Auvergne and Bullita Groups (Adelaidean / Carpentarian) and Palaeozoic volcanics and sediments of the Antrim Plateau Volcanics and Jarong Conglomerate (Lower Cambrian).

14°24'

8,405,000mN

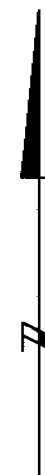
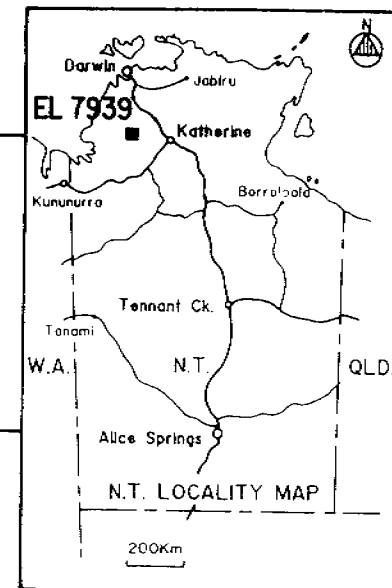
14°30'

716,000mE

726,000mE

AREA
OF
GROUND
MAGNETIC
SURVEY

EL 7939
30 GRATICULAR BLOCKS



POSEIDON EXPLORATION LIMITED

BAMBOO CREEK WEST
EL 7939
LOCATION MAP

Compiled E.R.M./K.S.J.	Date APRIL 1993	Scale 1 : 50,000	Plan No. NTD257
---------------------------	--------------------	---------------------	--------------------

2.2 Exploration objectives

The area was applied for to cover a discrete dipolar magnetic anomaly, similar to those associated with kimberlite diatremes, noted on multiclient airborne magnetic data.

A ground magnetic survey was planned to determine the nature of the magnetic source, its dimensions and its depth below surface in order to define a drilling target.

3.0 EXPLORATION

3.1 Ground magnetic survey

Since attempts to find a way into the area by road proved unsuccessful a Jetranger helicopter from Rotor Services in Darwin was used for access. Landing spots were hard to find due to tall trees (*E. jensenii* etc) but a suitable space was found at AMG 722230E 8401770N.

Gridding and 19.5 kilometres of ground magnetic readings were completed on 7th October 1993. The grid extended 1000 metres to the north, 500 metres south, and 400 metres to the east and west from an origin at AMG 722200E 8402000N. Deviations in compass bearings over short distances were noted due to shallow magnetic sources.

3.2 Results and interpretation

Survey specifications and magnetic profiles can be found on Figure 2. There is clearly a large envelope of shallow magnetic noise within the survey area, attributed to surface lateritisation with a possible contribution from flat lying basaltic flows below the Cretaceous cover.

It is not possible to discern any dipolar anomaly underlying the noise envelope and the original anomaly must therefore be assumed to be a result of smoothing of random noise signals by the airborne survey.

4.0 CONCLUSION

The discreet dipolar magnetic anomaly detected by multiclient airborne survey appears to be attributable to shallow sourced magnetic noise, with no underlying form and as such is of no further interest.

APPENDIX 1

EXPLORATION LICENCE 7939

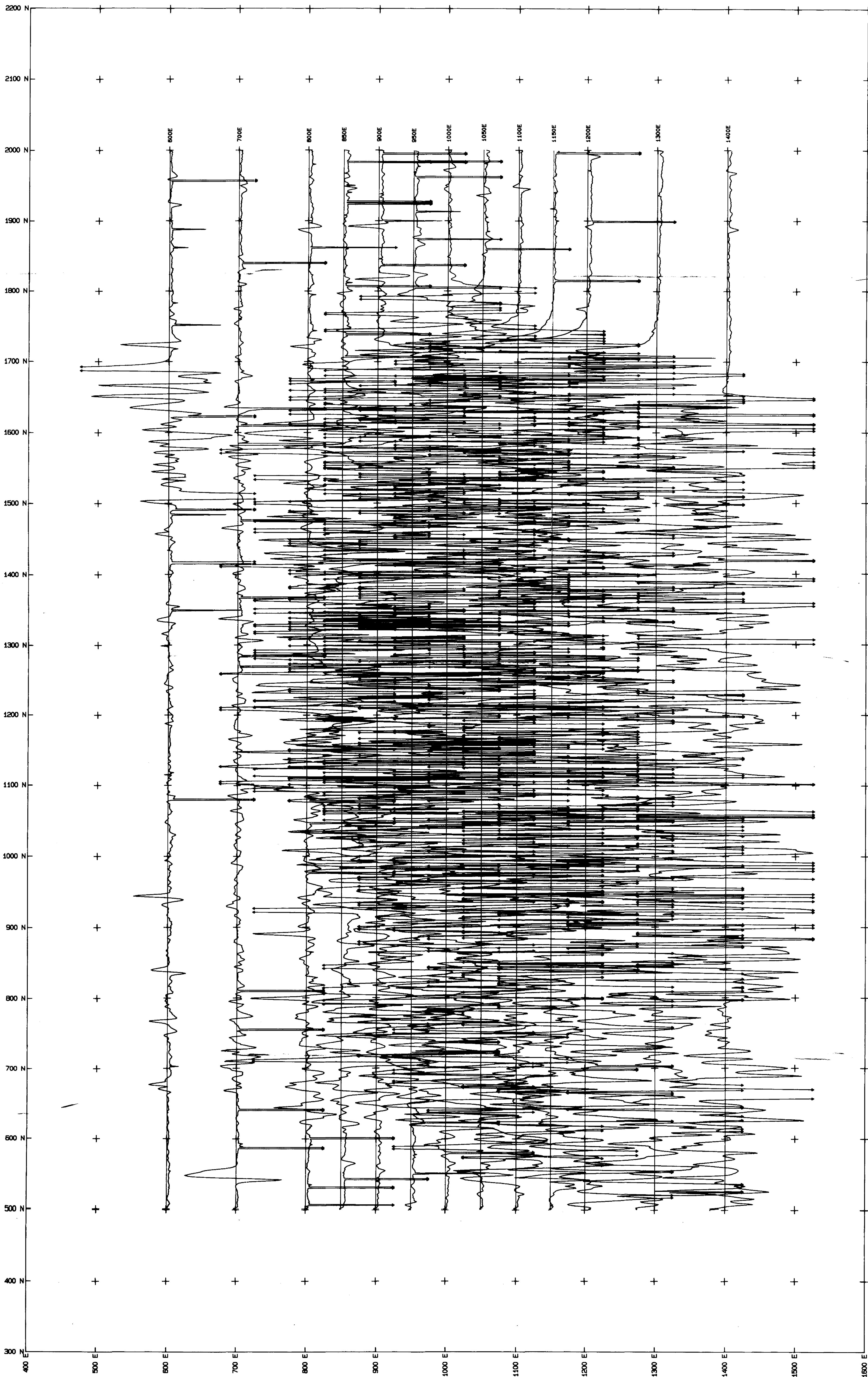
EXPENDITURE SUMMARY

Analytical & assay	250.00
Travel/accommodation/meals	20.50
Field supplies/exploration consumables	18.83
Field living	65.00
Vehicle operating costs	171.19
Air charter / helicopter	2,665.20
Tenement costs	630.00
Regional office allocation	1,272.99
Depreciation	379.08
Contractors (geophysics)	800.00
Salaries and wages	<u>2,136.57</u>
 TOTAL EXPENDITURE	 <u>\$8,409.36</u>

APPENDIX 2

BIBLIOGRAPHIC DATA SHEET

REPORT NUMBER	11722
PROSPECT NAME	Bamboo Creek West
OWNER	Poseidon Exploration Limited
KEYWORDS	Airborne magnetic survey Ground magnetic survey Kimberlite
COMMODITY	Diamond
TECTONIC UNIT	Victoria River Basin
1:250,000 MAP SHEET	Fergusson River Sd52-12
1:100,000 MAP SHEET	Jinduckin 5169



SPECIFICATIONS

MAGNETOMETER : POSNAG-1
 LINE SPACING : 100m
 STATION SPACING : 1m

SURVEY LOCATION : BASE LINES 500m APART WITH
 COTTON ODOMETER BETWEEN
 BASE LINES.
 OPERATOR : P. WALTON

BASE UNIT : GEOMETRICS 6856
 SAMPLING INTERVAL : 10 SECONDS

PROCESSING
 DIURNAL CORRECTION
 VERTICAL SCALE : 100nT/cm
 PROCESSED BY P. SMITH

