



COMPASS RESOURCES NL

ABN 51 010 536 820

Level 5, 384 Eastern Valley Way
Roseville NSW 2069
Telephone: 02 9417 3588
Facsimile: 02 9417 8750

Thirteenth
Annual Report of Exploration 2006
AN 364 – Mt. Fitch North

M. K. Boots
July 2006

CONTENTS

Introduction

Location and Access

Regional Geology

Previous Exploration

Work completed this year

Proposed Programme and Budget

Expenditure Report

Figure 1: Location Map 1:125,000

Appendix I Ground EM data

Appendix II Interpretation of EM

INTRODUCTION

Authority to Explore No. N364 (357.8 hectares) was granted to Compass NL for five years on 2 July, 1993. The tenement was joint ventured with Billiton Australia Gold Pty. Ltd. (later Acacia Resources Limited) on 4 August, 1993. Acacia managed the joint venture until mid-June 1997 when Compass Resources NL. resumed management.

A request for waiver of reduction of AN 364 was granted on 9 August 1995 for 12 months. A waiver of reduction of AN 364 was again granted on 12 July 1996 for 24 months enabling the retention of the total area until 1 July 1998. A small portion of the southeastern section of the tenement, which was on Aboriginal Freehold land, was relinquished in July 1998 when the tenement was renewed for a further two years. The tenement was renewed to July 2004 and an application for a further two year renewal submitted to the Department in March 2004.

The tenement now covers an area of 348.9 hectares.

Location and Access

AN 364 is situated approximately 15 kilometres north-northwest of the Batchelor township, approximately 80 kilometres south of Darwin (Figure 1). Access to the tenement is via sealed roads to Whites Road from Batchelor, then by unsealed roads to the abandoned North Australian Railway which leads north into the tenement. Access within the tenement to the gridded areas is provided by numerous well defined four wheel drive tracks.

An alternative access route during the dry period is from the Darwin River Dam area by travelling 10 kilometres south on the old railway line into the tenement.

AN 364 consists of undulating to flat landscape which drains towards the south and west. Vegetation is predominantly medium sized trees and a grassy understorey, though small patches of forest occur around semi-permanent springs and waterholes and in parts of the major drainages.

Average rainfall for the area is 1,500 mm per year, nearly all of which falls between the months of November and March. The tenement is largely inaccessible by road during these months.

REGIONAL GEOLOGY

The Mt. Fitch North tenement (AN 364) is situated on the western flank of the Rum Jungle Complex in the Rum Jungle Region of the Pine Creek Geosyncline. The oval shaped complex consists predominantly of granitoid rocks.

Unconformably overlying the granitoid basement is the Crater Formation (up to 600 metres thick) which forms the basal sequence of the Mt. Partridge Group and comprises two major arenaceous and rudaceous sequences. The Coomalie Dolomite conformably overlies the Crater Formation and has a reported maximum thickness of 1,000 metres. Immediately overlying the Coomalie Dolomite is the Whites Formation, a pyritic black shale sequence which frequently contains base metal sulphide mineralisation at its base.

PREVIOUS EXPLORATION

During the 1950s and 1960s, the Bureau of Mineral Resources and Territory Enterprises Pty. Ltd., undertook both base metal and uranium exploration along the Whites Formation-Coomalie Dolomite contact. This involved mapping, costeaning, geochemical and geophysical surveys culminating in significant diamond drill programmes. Only minor mineralisation was reported.

Between 1979 and 1983 Uranerz undertook some regional RAB geochemical sampling to the immediate west of the tenement.

Compass Resources NL drilled two drill holes to the immediate west of the tenement in 1990, intersecting encouraging lead and copper mineralisation.

During 1994/1995 Acacia Resources completed one precollared diamond drill hole (MFN 3, collared just west of the tenement) and during 1995/1996 completed 7 reverse circulation drill holes over a major copper geochemical and vegetation anomaly within the tenement.

The diamond drill hole intersected copper sulphide mineralisation at the base of the Whites Formation, whilst the reverse circulation holes showed the copper geochemical anomaly to be surficial in nature over tremolitic Coomalie Dolomite.

In the period 1997/1998, Compass Resources completed three diamond drill holes, 1 north of hole MFN 3 and two holes to the south. Hole MFN 4 located 50 metres to the north of MFN 3 intersected 14 metres of 1.94% copper at the base of the Whites Formation.

During the 2000 reporting period, two reverse circulation drill holes were completed to evaluate the tenor of the magnesite present in the Coomalie Dolomite.

During the 2003 field season, major planning for a holistic regional exploration was undertaken. It was proposed that a close spaced airborne electromagnetic survey be undertaken over the Company's tenements. This was based on the premise that a previously located EM anomaly at the nearby Mt. Fitch South prospect was due to that mineralisation. Subsequent drilling at this prospect in 2003 cast doubts on that interpretation; the area is deeply weathered and drilling of the northern extension of the EM anomaly failed to intersect sufficient sulphides to explain the anomaly.

Modelling of ground EM anomalies (following recommendation by Richard Brescianini) indicated that helicopter borne EM surveying was not suitable as it lacked sufficient power input to locate potentially subtle anomalies. This would leave the alternative as fixed winged EM surveying, which would require much longer flight lines than the helicopter system.

During the 2004 field season, two reverse circulation drill holes were drilled in this tenement. The first hole (04MFN07) was stopped short of the target (at 40 metres) due to excess water flow.

Drill hole 04MFN08 was completed at a depth of 45 metres intersecting only anomalous base metal values.

WORK COMPLETED LAST PERIOD

During the 2005 field season, planned drilling was not undertaken as weather conditions late in the year prevented access.

One line of trial ground EM (Sirotem) was completed over this tenement and adjoining tenement to the west. Profiles are appended.

Interpretation of this data suggests that a bedrock anomaly occurs to the west of AN364, and it is planned to drill evaluate this anomaly this year.

Compilation of previous explorers data into a comprehensive GIS database was commenced.

PROPOSED PROGRAMME AND BUDGET

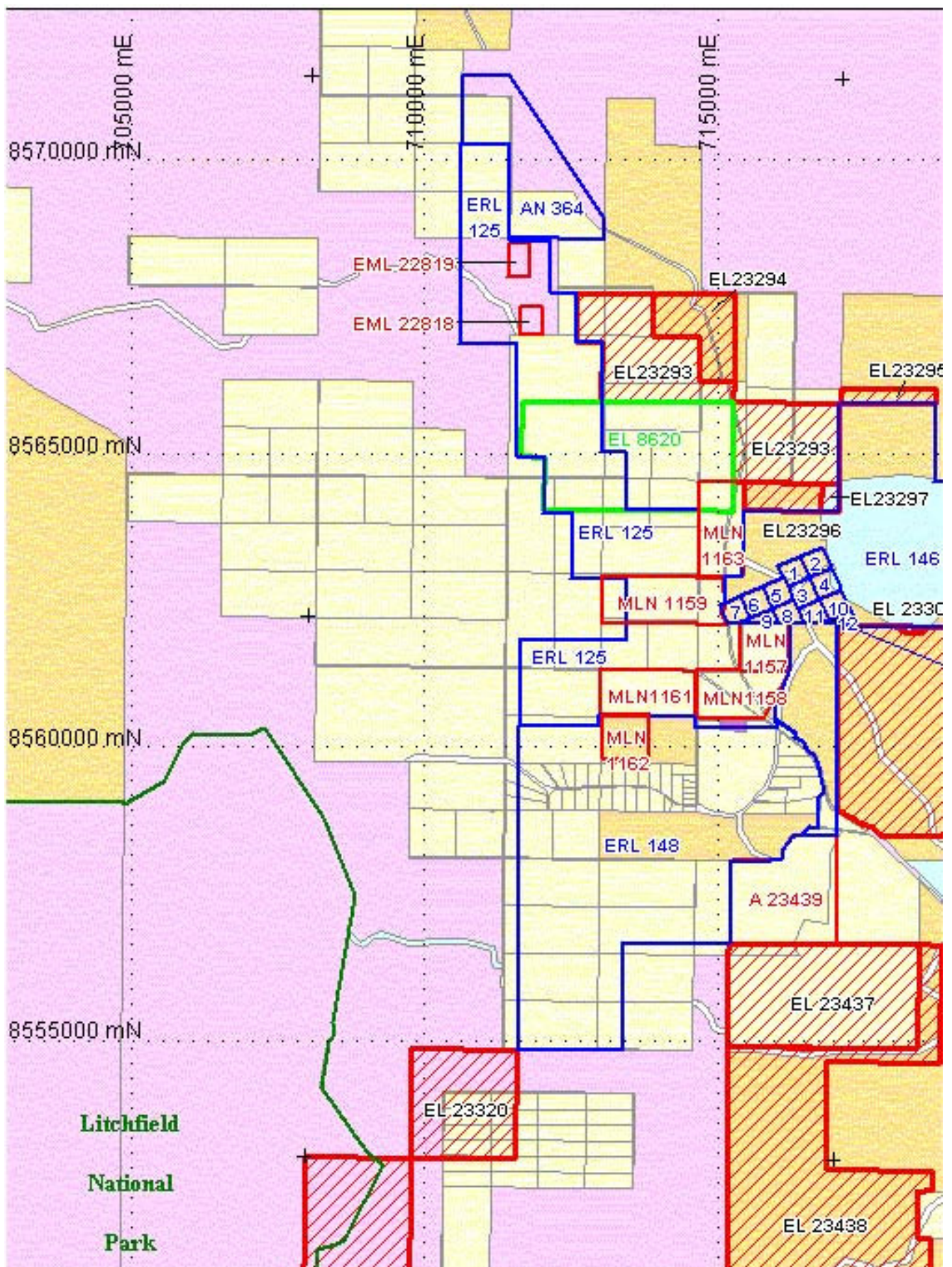
It is proposed that several RC holes be drilled along the contact of the Whites Formation and the underlying Coomalie Dolomite.

A budget of \$12,000 has been proposed for this exploration work.

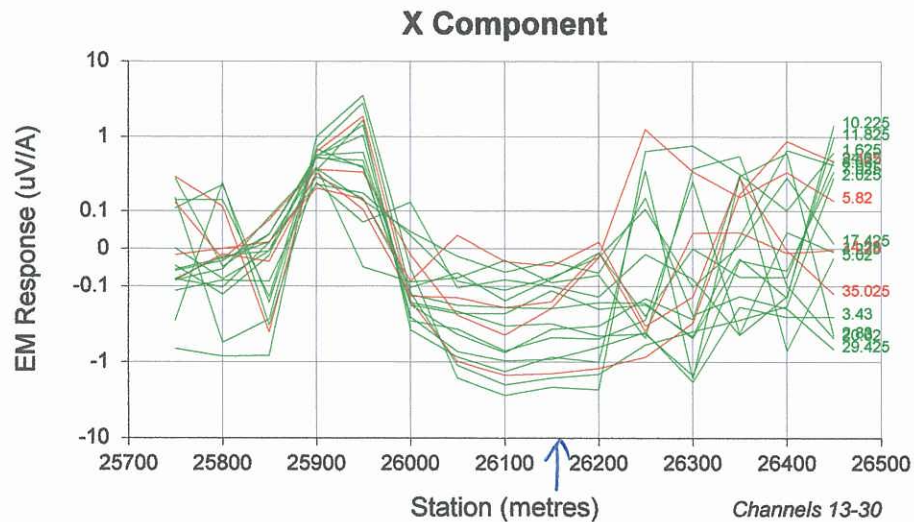
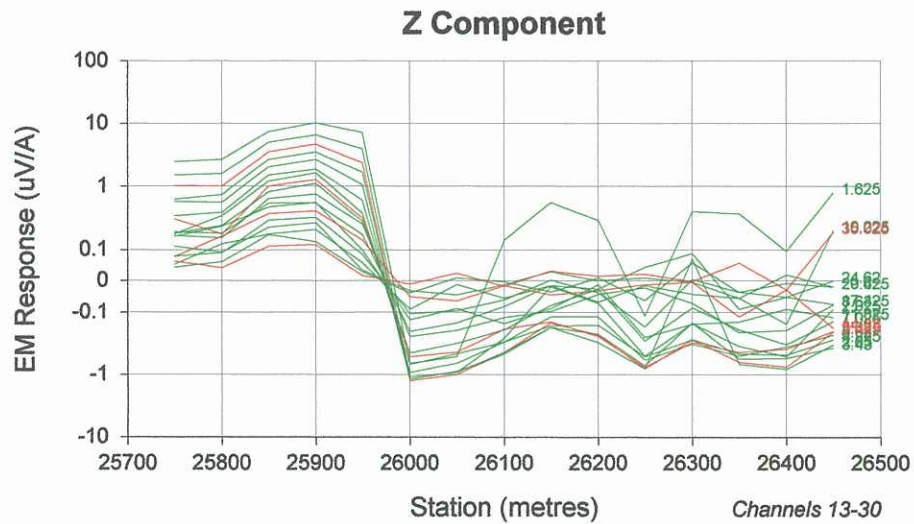
AN 364 – MT. FITCH NORTH
EXPENDITURE REPORT

Year ending 1 July, 2006

Salaries, wages, on costs	26,044.74
Land costs	1,302.73
Field Costs	11,294.60
Geological Consultants	1,089.75
Geochemical Costs	2,748.67
Geophysical/GIS	4,838.79
Overheads	7,097.17
Total expenditure	\$54,417.17



AN 364 LOCATION MAP



West

 ↑
 Drill Collar

East

WINDOW TIMES (ms) From the start of the Ramp

1	: 0.41	18	: 4.6
2	: 0.45	19	: 5.4
3	: 0.50	20	: 6.2
4	: 0.55	21	: 7.4
5	: 0.62	22	: 9.0
6	: 0.72	23	: 11
7	: 0.82	24	: 12
8	: 0.93	25	: 15
9	: 1.1	26	: 18
10	: 1.3	27	: 21
11	: 1.5	28	: 25
12	: 1.7	29	: 30
13	: 2.0	30	: 35
14	: 2.4	31	: 42
15	: 2.8	32	: 48
16	: 3.2	33	: 58
17	: 3.8	34	: 71

SURVEY PARAMETERS

Configuration : In-Loop
Station Spacing : 50 m

RECEIVER

Receiver : SMARTEM
Frequency : 3.12
Component : Z,X
Rx Coil :
Rx Area : 10000 turn-m

TRANSMITTER

Transmitter : ZT-30
Loop : None
Tx Moment : Unknown turn-m
Tx Current : 36-42 A
Turn Off : 0.35 ms

Mt Fitch

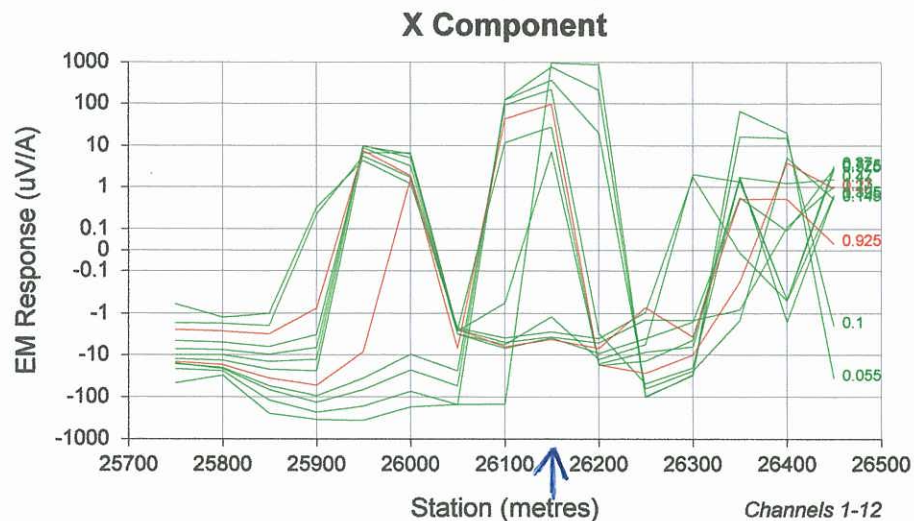
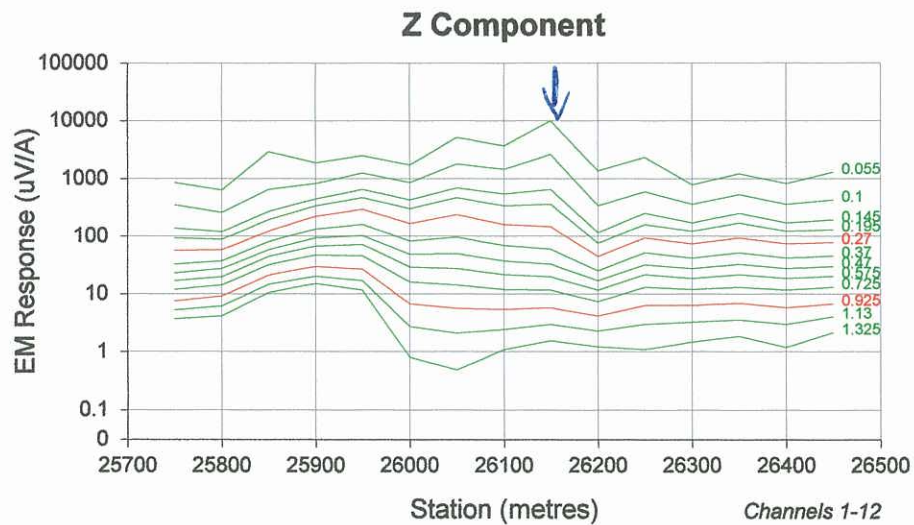
In-Loop EM Survey

PROFILES OF

EM RESPONSE

Line 62600 *N*

(Late channels
13 to 30)



WINDOW TIMES (ms) From the start of the Ramp

1 : 0.41	18 : 4.6
2 : 0.45	19 : 5.4
3 : 0.50	20 : 6.2
4 : 0.55	21 : 7.4
5 : 0.62	22 : 9.0
6 : 0.72	23 : 11
7 : 0.82	24 : 12
8 : 0.93	25 : 15
9 : 1.1	26 : 18
10 : 1.3	27 : 21
11 : 1.5	28 : 25
12 : 1.7	29 : 30
13 : 2.0	30 : 35
14 : 2.4	31 : 42
15 : 2.8	32 : 48
16 : 3.2	33 : 58
17 : 3.8	34 : 71

SURVEY PARAMETERS

Configuration : In-Loop
Station Spacing : 50 m

RECEIVER

Receiver : SMARTEM
Frequency : 3.12
Component : Z,X
Rx Coil :
Rx Area : 10000 turn-m

TRANSMITTER

Transmitter : ZT-30
Loop : None
Tx Moment : Unknown turn-m
Tx Current : 36-42 A
Turn Off : 0.35 ms

Mt Fitch

In-Loop EM Survey

**PROFILES OF
EM RESPONSE**

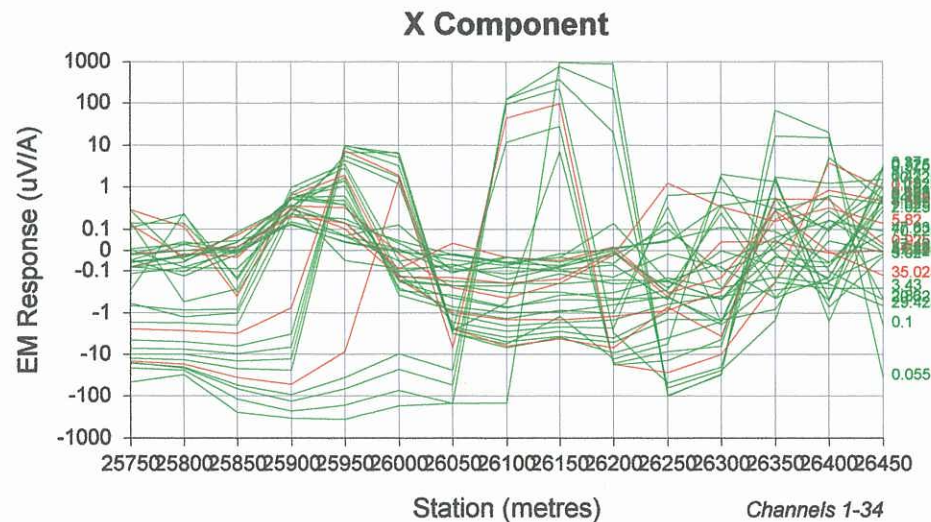
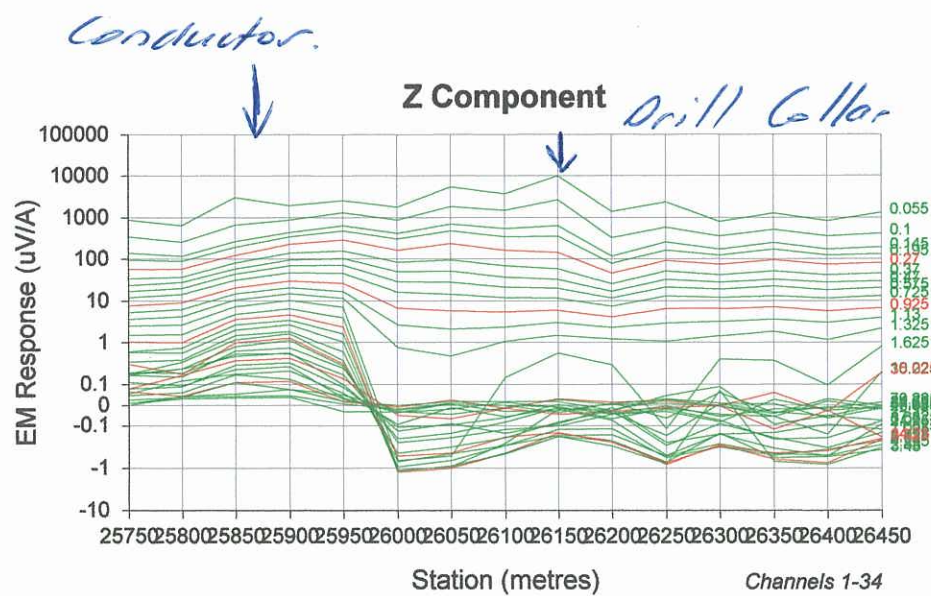
Line 62600 *~*

West

Drill Collar

East

*Early Channels
(1 to 12)*



WINDOW TIMES (ms)
From the start of the Ramp

1	: 0.41	18	: 4.6
2	: 0.45	19	: 5.4
3	: 0.50	20	: 6.2
4	: 0.55	21	: 7.4
5	: 0.62	22	: 9.0
6	: 0.72	23	: 11
7	: 0.82	24	: 12
8	: 0.93	25	: 15
9	: 1.1	26	: 18
10	: 1.3	27	: 21
11	: 1.5	28	: 25
12	: 1.7	29	: 30
13	: 2.0	30	: 35
14	: 2.4	31	: 42
15	: 2.8	32	: 48
16	: 3.2	33	: 58
17	: 3.8	34	: 71

SURVEY PARAMETERS

Configuration : In-Loop
Station Spacing : 50 m

RECEIVER

Receiver : SMARTEM
Frequency : 3.12
Component : Z,X
Rx Coil :
Rx Area : 10000 turn-m

TRANSMITTER

Transmitter : ZT-30
Loop : None
Tx Moment : Unknown turn-m
Tx Current : 36-42 A
Turn Off : 0.35 ms

Mt Fitch

In-Loop EM Survey

**PROFILES OF
EM RESPONSE**

Line 62600 ✓

West

East

(All 34 channels)

MOVING LOOP EM Surveys

Rum Jungle Region

NORTHERN TERRITORY

For

Compass Resources.

Comments by L. Wynn (Geophysicist / Operator)

October, 21st 2005.

Introduction.

One line of Moving Loop EM (MLEM) was completed at Mt Fitch North to;

- (a) Test for strike of electrically conductive mineralization and
- (b) Locate fault zones.

Survey Parameters.

Equipment used:

Transmitter: Zonge ZT-30.

Receiver: Smartem (V)

Coils: 3 component RVR

Survey specifications:

Frequency: 3.125 Hz

Stacks: 256 – 384

Channels read:

Channel1: Z (vertical component), Gain = Auto

Channel 2: Z, Gain = 40

Channel 3: X (horizontal component), Gain = Auto.

Timing: Sirotem Composite

Loop size: 100m by 2 turns.

Equivalent Current: 40 Amps, (20 amps x 2 turns).

Recording interval: 50m, 25m.

Results.

Results are presented in digital format.

Discussion.

Line 62600 N, 26150E. (Centered at MGA co-ordinates 8569500N 711625E)

This line was surveyed grid east west to test for a fault in the vicinity of a drill hole (04MFN8). A very weak early channel response occurs at 26150 E.

A significant conductor was detected at the western end of the line.

Preliminary interpretation indicates the conductor dips moderately (45 degrees) to the west. Depth to top of the conductor is 80 to 100 m.

Conclusions.

The conductor detected at the western end of line 62600 N requires further exploration.