M E M O R A N D U M

SUBJECT: **Baldrick 2011 FLEM Summary**

DATE: Friday, 20th of January, 2012

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Summary

- Four lines of fixed loop EM were acquired at Baldrick in 2011.
- There is no indication of sulfide mineralisation in the data.

Introduction

In April 2011 a 2.6 linekm fixed loop EM survey was undertaken at Mithril's Baldrick prospect. Acquisition was by GEM Geophysics and was part of a larger program in the Huckitta area. The aim of the survey was to identify massive sulfides that may be the cause of a gravity high to the NW of an outcropping gabbro. The gabbro has associated sulfides and plunges at approximately 20-30° in a NW direction. The gravity image with line and loop locations is shown in Figure 1.

Survey Specifications

The survey was undertaken with the following specifications; line and loop details are given in Tables 1 and 2.

- survey type – fixed loop EM
- loop size – 550*500m, single turn
- loop orientation – 45-225
- station spacing – 25m
- sensor – 3C fluxgate
- freq – 120ms
- receiver – SMARTem24
- transmitter – Zonge ZT-30

Line	Start_LocalX	End_LocalX	Start_E	Start_N	End_E	End_N	Length_km	Orientation
1000Y	1000	1650	546103	7425144	546563	7425603	0.65	45
1100Y	1000	1650	546033	7425214	546492	7425674	0.65	45
1200Y	1000	1650	546962	7425285	546422	7425745	0.65	45
1300Y	1000	1650	545891	7425356	546351	7425815	0.65	45

Table 1. Baldrick FLEM line details (MGA Z53)

Loop Corner	East	North	LocalX	LocalY
Baldrick_1	546209	7425108	1050	900
Baldrick_2	545856	7425462	1050	1400
Baldrick_3	546245	7425851	1600	1400
Baldrick_4	546598	7425497	1600	900

Table 2. Baldrick FLEM loop corner locations.

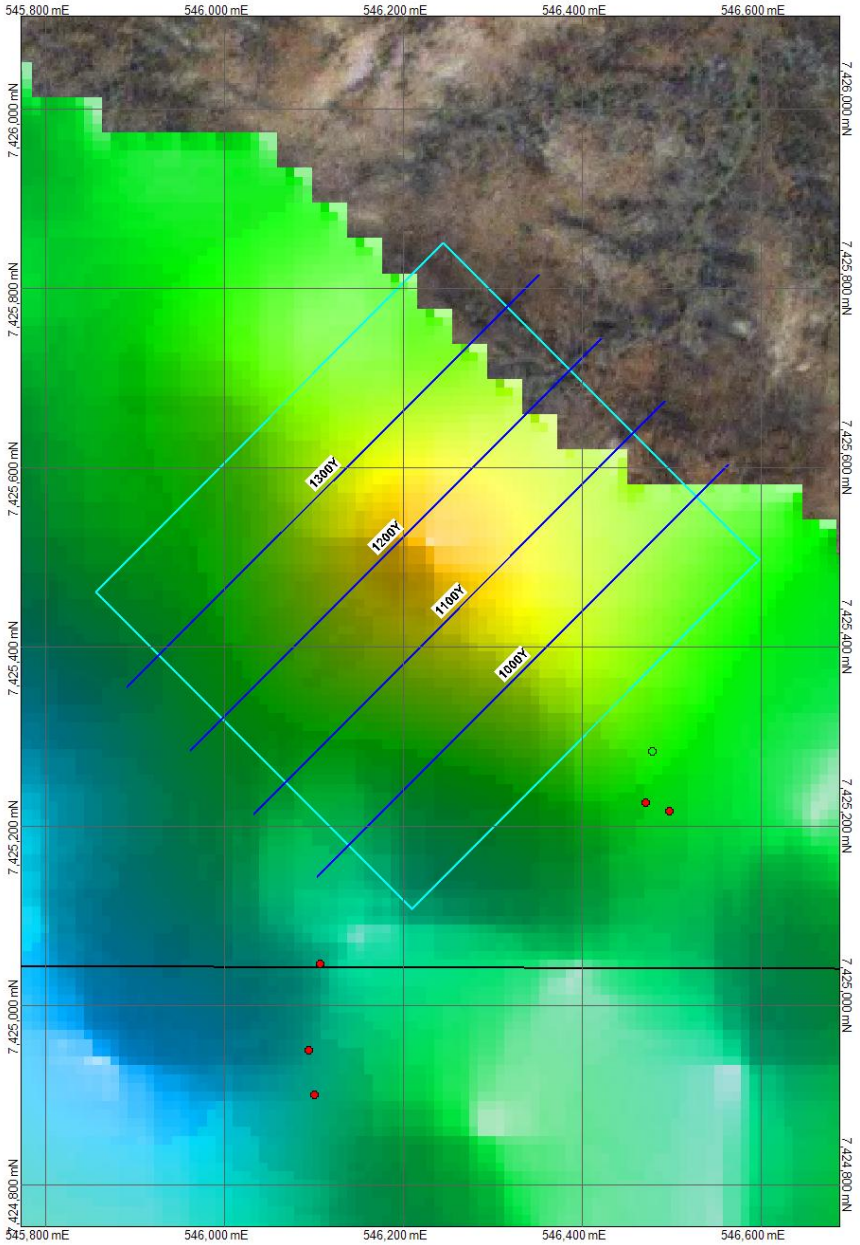

Figure 1. Location of Baldrick FLEM lines (blue) and fixed loop (light blue) overlain on gravity image (BA, 0.5VD). Drillhole collars are red and green (DHEM).

Results and Interpretation

There are no anomalies in the data that could be indicative of massive sulfide mineralisation. The ground is quite resistive and the signal has generally decayed by 6 ms (Z component). Profiles of the data for all four lines are shown in Figures 2-5.

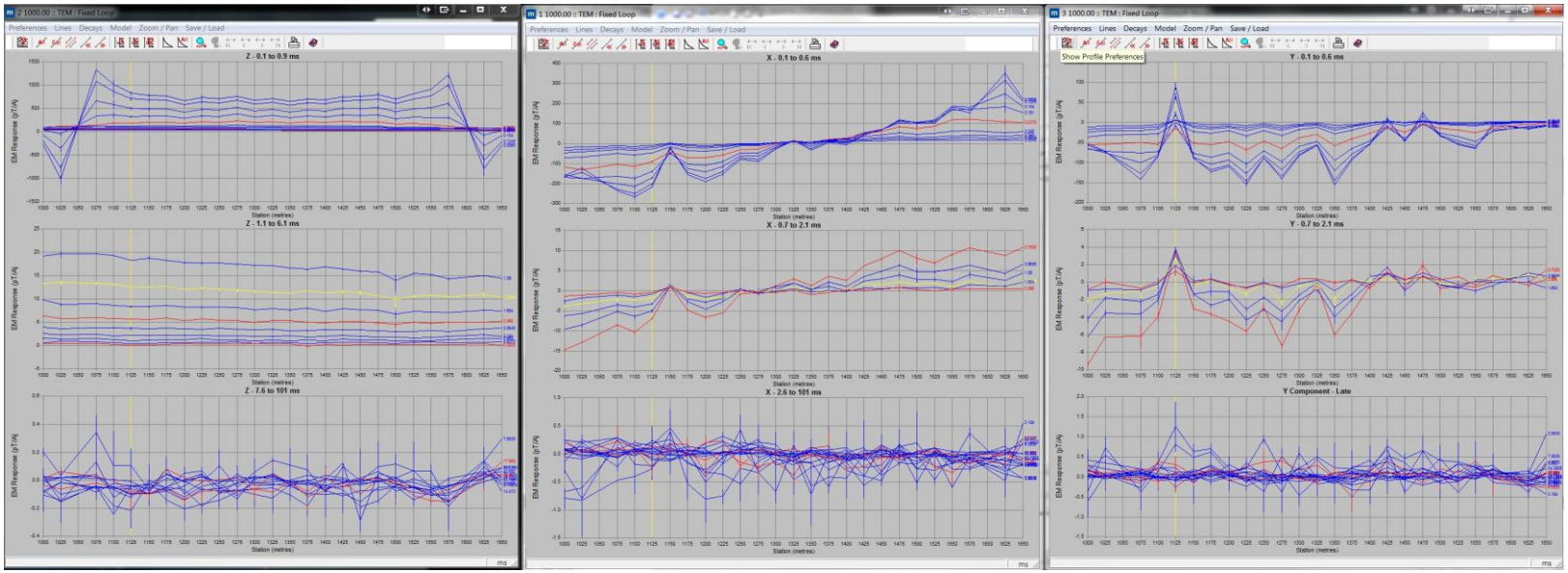

Figure 2. Line 1000Y profiles.

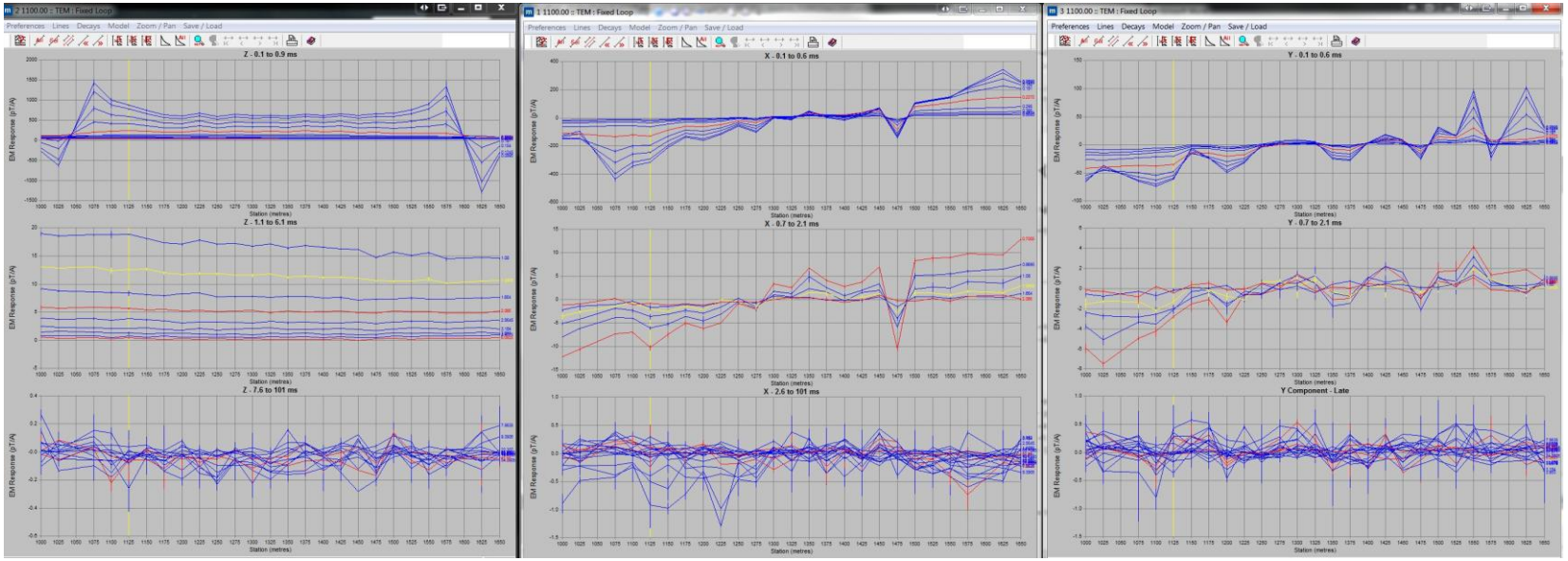

Figure 3. Lone 1100Y profiles.

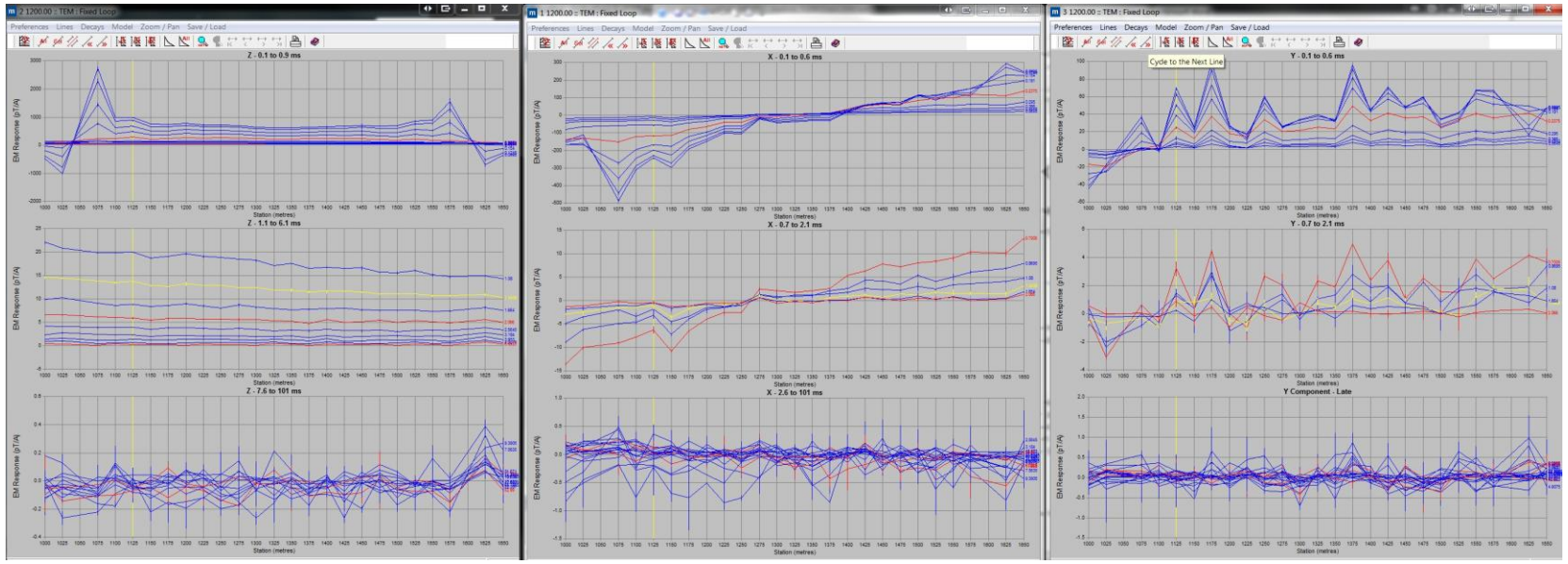

Figure 4. Line 1200Y profiles.

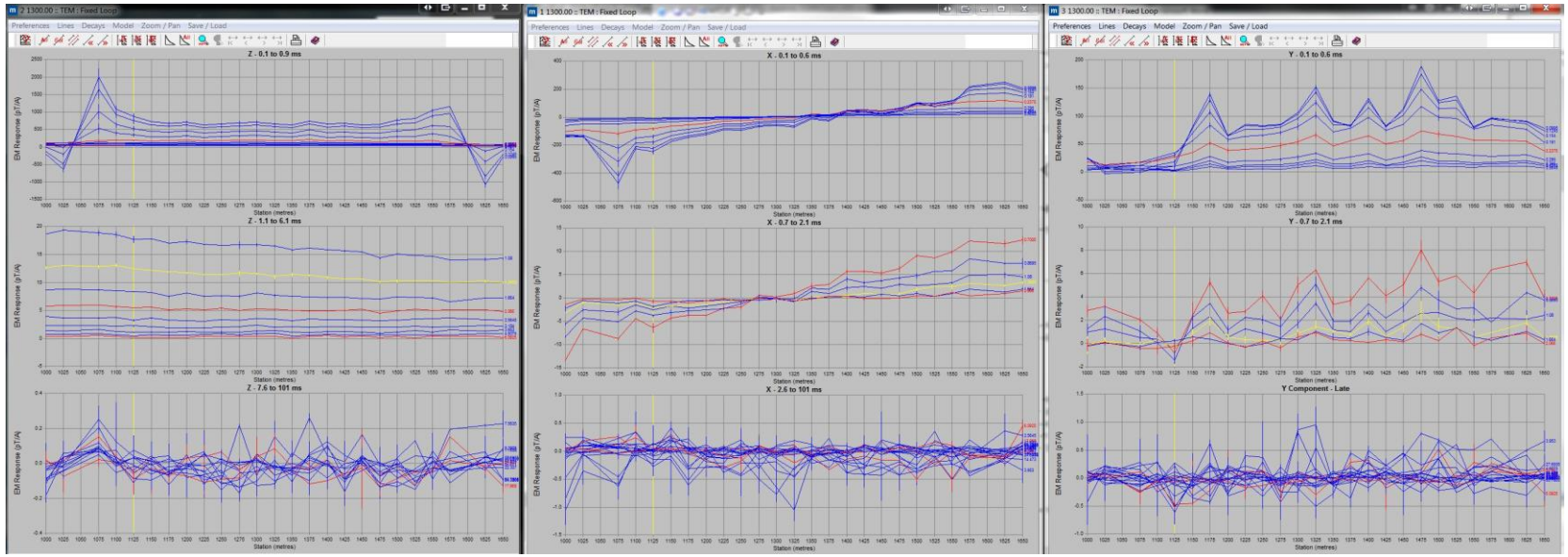

Figure 5. Line 1300Y profiles.