

Table 2

Airborne electro-magnetic (TEMPEST) Survey - Specification

Aircraft CASA 212 VH-TEM

Survey Name	El 3589 Survey
Survey Location	Alligator River
Contractor	FUGRO Airborne Surveys Pty Ltd
Approx. area covered	99km <sup>2</sup>
Navigation	Real Time Differential
Flying Height	120m
Flight Line Spacing	200m
Flight Line Direction	090-270 deg AMG
Base Frequency	25Hz
Transmitter area	186m <sup>2</sup>
Transmitter turns	1
Waveform	Square
Duty cycle	50%
Transmitter pulse width	10 ms
Transmitter off-time	10 ms
Peak current	300 A
Peak moment	55,800Am <sup>2</sup>
Average moment	27,900 Am <sup>2</sup>
Sample Rate	75 kHz
Sample interval	13 microseconds
Samples per half cycle	1500
System bandwidth	25 Hz to 37.5 kHz
Flying Height	120m (subject to safety considerations)
EM sensor	Towed bird with 3 component dB/dt coils
Tx-Rx horizontal separation	100m (nominal, actual value determined)
Tx-Rx vertical separation	55m (nominal, actual value determined)
Stacked data output interval	200 ms (~12m)
Number of output windows	15
Window centre times	15 windows (13 microsecs to 16.2 millisecs)
Magnetometer	Stinger-mounted cesium vapour

Compensation	Fully digital
Magnetometer output interval	200 ms (~12m)
Magnetometer Resolution	0.001nT
Typical noise level	0.1 nT
GDP Cycle Rate	1 second