

NORTH FLINDERS MINES LIMITED / ROEBUCK RESOURCES NL

TENNANT CREEK JOINT VENTURE

FINAL REPORT ON EL 7444 (JUBILEE EAST)
FOR PERIOD 29 JULY 1991 TO 23 MARCH 1994

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TENEMENT DETAILS

EL 7444 covered a single graticular block granted on 29th July 1991. Covenanted expenditure was \$5,000.

During 1993 an application was made to the N.T. Department of Mines and Energy to amalgamate three Exploration Licences (EL7415, 7442 and 7444) into a substitute E.L. However Aboriginal freehold was subsequently granted over four of the blocks within EL 7415. Consequently, the SEL application was withdrawn to avoid problems obtaining the necessary approvals. Prior to the SEL withdrawal, four blocks were relinquished as part of the SEL application requirements and these satisfied the relinquishment requirements of the Wolseley-Town Group of tenements. The single block comprising EL 7444 was given up as part of this package.

About one quarter of the tenement was overpegged by Authority C51.

LOCATION AND ACCESS

EL 7444 lay midway between the Jubilee Mine and Tennant Creek, 5km north-west of the town. Access is via the road to TC8, then station tracks to the north.

TOPOGRAPHY AND VEGETATION

The area covered by the tenement is flat and devoid of outcrop. Spinifex grass is the dominant vegetation type.

GEOLOGY

Although soil covered, aeromagnetic interpretation and work on adjacent tenements suggests that EL 7444 is underlain by porphyry and cut by an ESE extension of the shear associated with the Jubilee Mine 2.5km to the west.

PREVIOUS EXPLORATION AND MINING HISTORY

Regional airborne magnetic data (Austirex 1984 survey) covered EL 7444 and indicated a distinct anomaly just to the north of the north-east corner of Authority C51 which overlies the licence area. This has been labelled TC2 by Cuprex and TCIV Anom 4 by Geopeko. It is not known if the anomaly was tested further.

There are no mine workings on the exploration licence.

SUMMARY OF EXPLORATION BY ROEBUCK RESOURCES AND NORTH FLINDERS MINES

Interpretive Work by Roebuck Resources

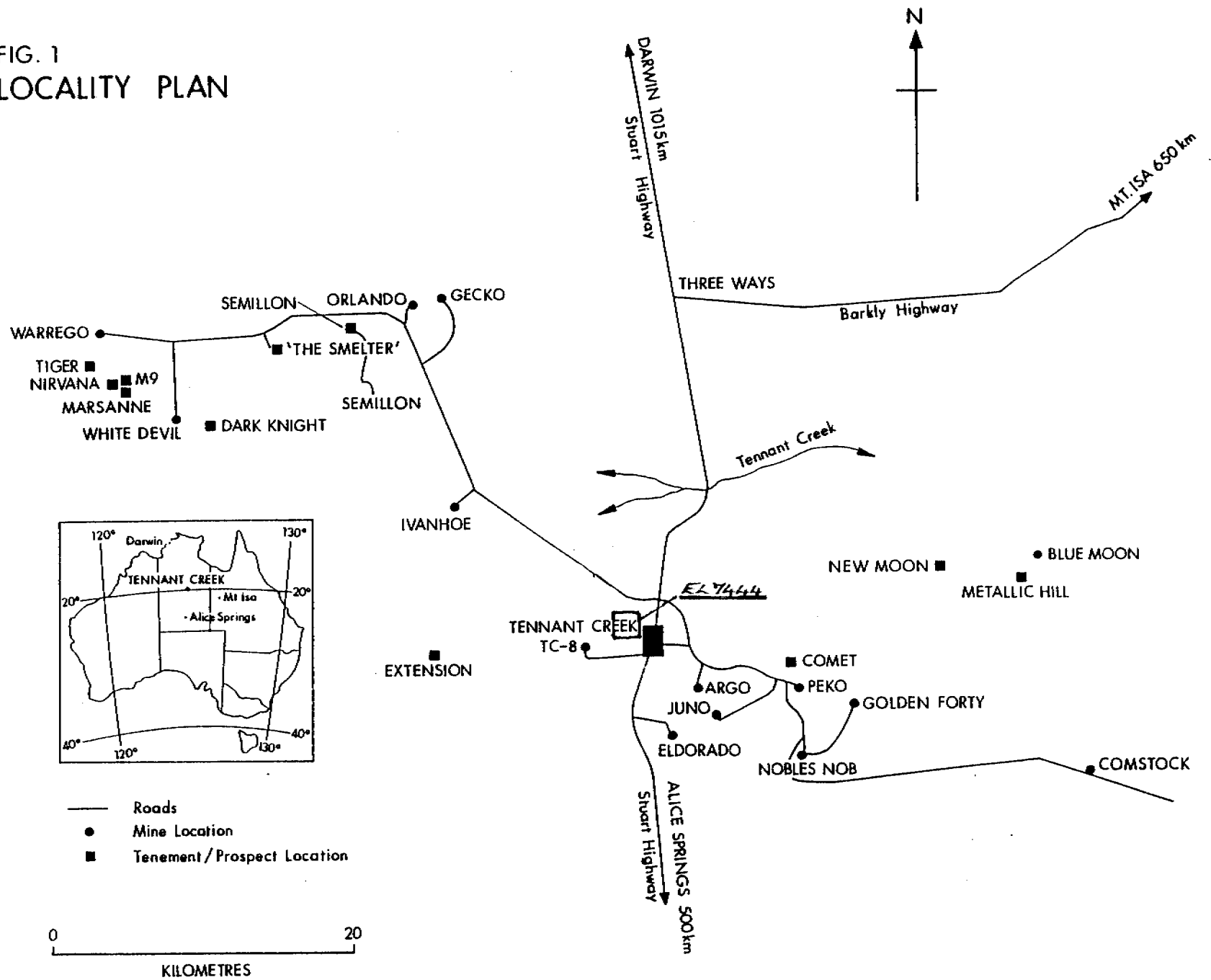
Aerial photography, existing mapping and airborne magnetic data were synthesised to produce hybrid plans at 1:25,000 showing geological and aeromagnetic features. Geological mapping was also undertaken, but no outcrop was found within EL 7444. Bulk leach extractable gold (BLEG) assay results from surveys previously conducted by other companies was also reviewed to see if this sampling technique had been appropriate.

Interpretive Work by North Flinders Mines

NFM acquired the Aerodata multiclient aeromagnetic and radiometric package after 1992. Using Geophysical Exploration Consultants Pty. Ltd. NFM produced a variety of linear and non-linear greyscale and pseudocolour magnetic images including shadowgrams and K, Th and U colour composite images. These have been studied and interpreted to locate any magnetic lithologies and structural trends associated with the tenement. The Aerodata digital datafiles were formatted, gridded and displayed as contoured plots at 1:100,000 and 1:25,000 scale.

Testing of the aeromagnetic anomaly might have ensued; however, as the least prospective ground in this proposed SEL had to be relinquished, EL 7444 has been terminated.

FIG. 1
LOCALITY PLAN



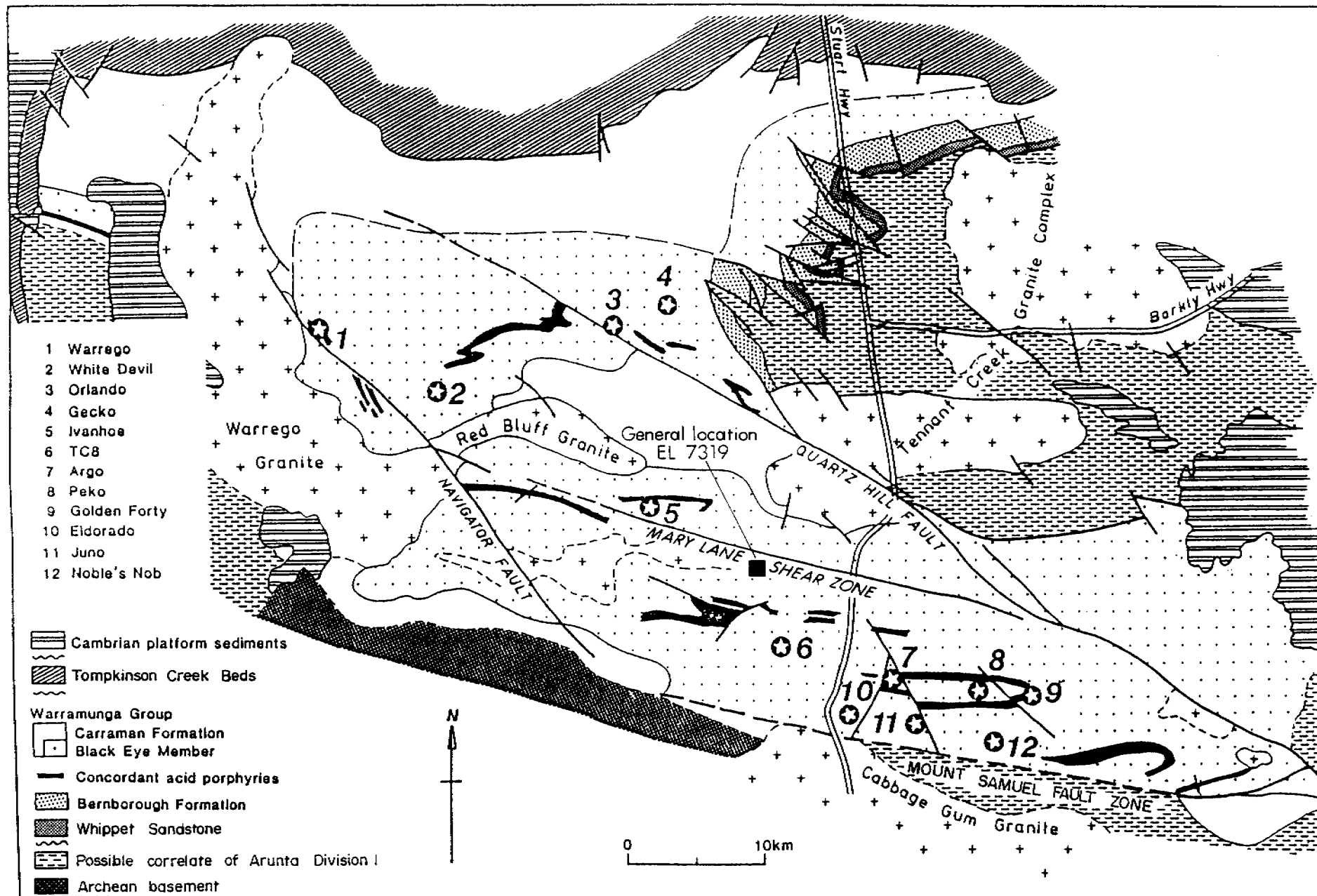


Fig 2 : Geology of the Tennant Creek Goldfield (after Fox, 1990)

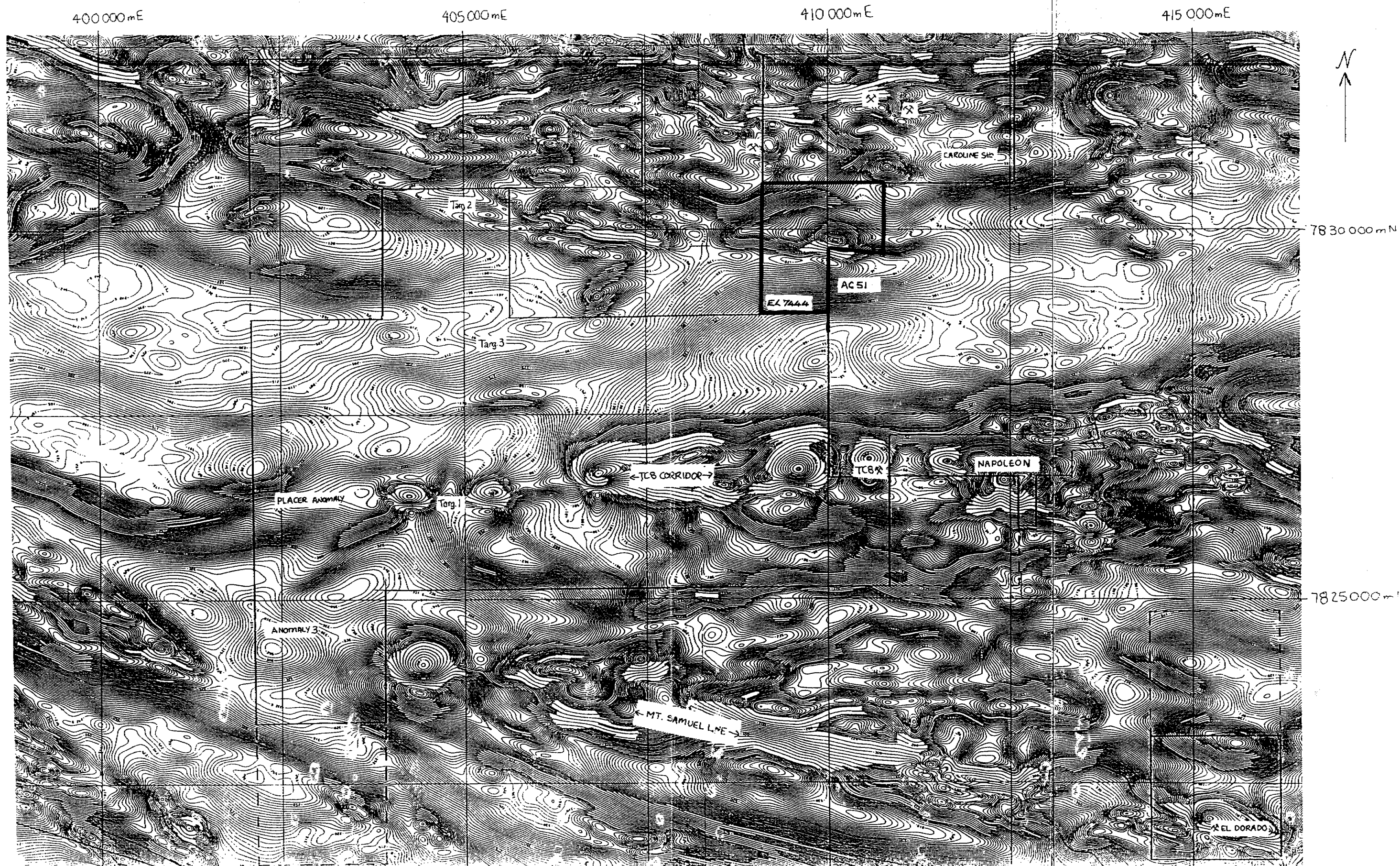
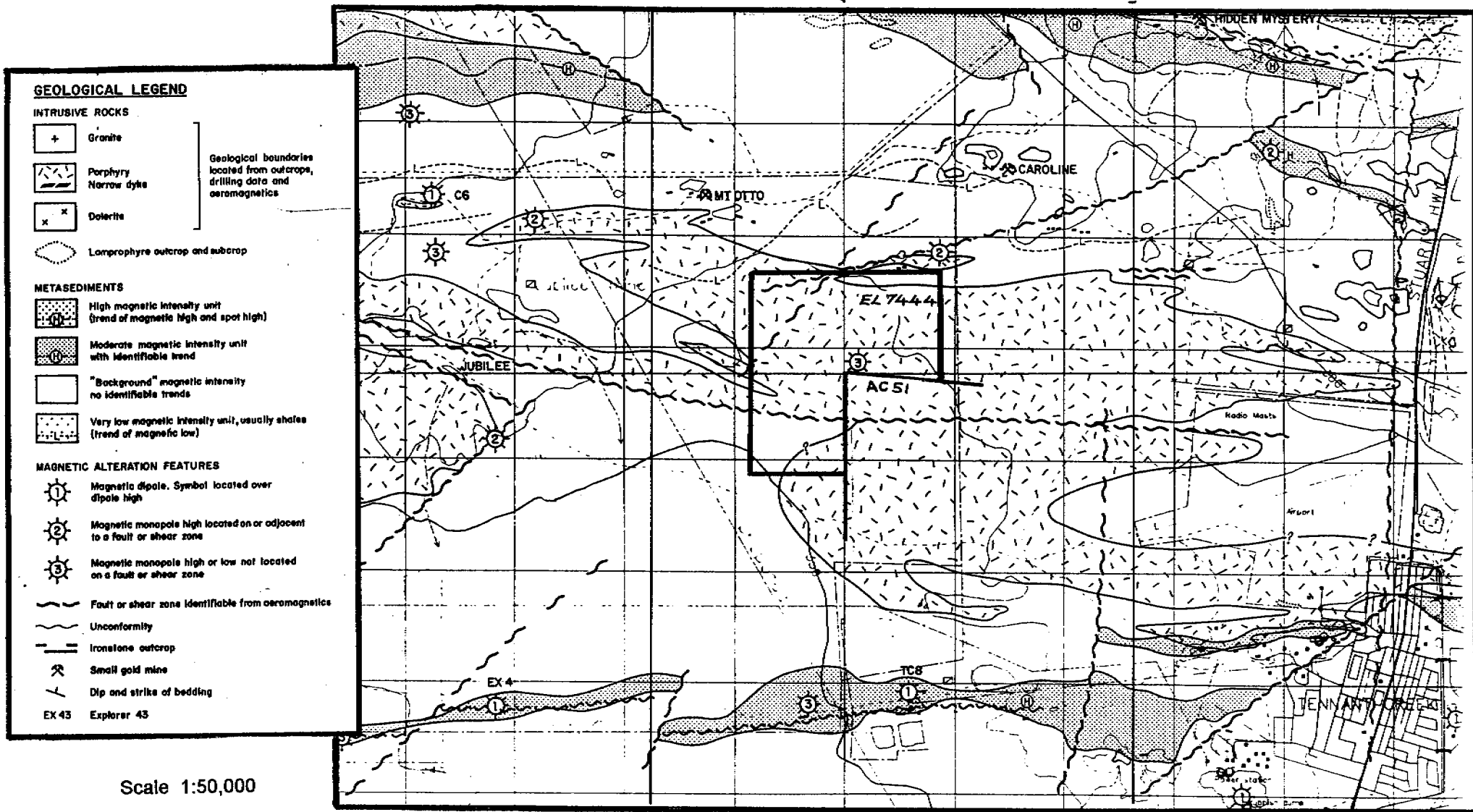


Figure 3. 1 : 50 000 Regional Airbourne Magnetic Contour Map showing relative locations of prospects.



PLAN SHOWING INTERPRETED GEOLOGY AND GEOPHYSICAL ANOMALIES