17. ANOMALY 14

17.1 Introduction

Anomaly 14 is located approximately 40 kilometres due north of the Granites. Access to the area is via the main Tanamai Highway followed by NFM tracks through Ptilotus, East Ptilotus and NE through Anomaly 10.

The two Anomaly 14 locations were identified by regional reconnaissance vacuum drilling. The first phase of subsequent exploration occurred during 1990 and consisted of 24 follow-up vacuum drill holes covering the two separate anomalous zones. The eastern zone returned scattered gold anomalies in recognisable greywacke and basic volcanics. The western zone was geochemically unresponsive and not tested further.

During the reporting period, the second phase of follow up vacuum drilling was undertaken. It produced Bulk Leach Extractable Gold (BLEG) and Bottom of Hole (BOH) gold anomalies, though upto 50% of holes failed to reach bedrock.

Later in the year a 66 hole RAB drilling program was completed. The silicified cover rocks which hindered vacuum drilling were successfully penetrated, but no anomalous gold mineralisation in bedrock was encountered.

17.2 Work Undertaken

The second phase of follow up vacuum drilling of the eastern zone comprised 25 drill holes (A14V025-A14V049).

VACUUM DRILLING SUMMARY OF WORK COMPLETED	
Number of Vacuum Holes	25
Total Metres Advanced	312
BOH Samples	71
BLEG Samples	28

The above summary includes a BLEG sample taken immediately beneath transported material, together with a BOH sample taken in recognisable bedrock.

BOH samples are submitted to Analabs for Au (method 334, 1ppb detection limit) and As (method 115, 5ppm detection limit). BLEG samples are 5kg and are submitted to Rapley Wilkinson Laboratories for Au (0.01ppb detection limit), Cu (0.01ppm detection limit) and Ag (0.01ppb detection limit) analyses.

Based on the results of this work, a subsequent RAB drilling program was carried out. Samples were collected for assay and petrological description. 66 RAB holes were drilled for a total of 1877 meters and 609 assay samples. Twelve petrological descriptions were provided.

Vertical RAB holes were drilled on an established grid on east-west traverses within the anomalous zone at 300m x 100-200m spacings. Alternate drill traverses were extended beyond the anomalous zone.

Drill samples were composited into three metre samples on site and dispatched for analysis for Au, (30g aqua regia digest with carbon rod finish) and As, (perchloric acid digestion/hydride generation with atomic absorption spectrometry finish.)

A suite of additional elements were assayed to test for possible mineralisation within the granite. Elements assayed and methods used are outlined in the appendices.

Representative samples were collected from each drill composite to assist geological interpretations and to act as a source for petrological work if required.

ANOMALY 14 WORK CARRIED OUT

Vacuum Drilling							RAB Drilling			
LATERITE ENDING	LAG	PETROLOGY	HOLES	METRES	SAMPLES	BCL	HOLES	METRES	SAMPLES	PERIOD
-	-	-	-	-	-	-	-	-	-	June 90
5	-	-	24	184.8	24	24	-	-	-	Dec 90
-	-	-	-	-	-	-	-	-	-	June 91
-	-	-	-	-	-	-	-	-	-	Dec 91
-	-	-	25	312	71	28	-	-	-	June 92
-	-	12	-	-	-	-	66	1877	609	Dec 92
5	-	12	49	496.8	95	52	66	1877	609	TOTALS

17.3 Results

Results from the last phase of vacuum drilling were partly inconclusive geochemically and geologically due to poor penetration in up to 50% of the holes caused by an indurated siliceous capping throughout the prospect area.

However, encouraging results were obtained in an area 2km long by 1km wide indicating anomalous BLEG results occurring coincidently with anomalous BOH gold results in an area 1.8km long by 0.5km wide (see figures in text).

SUMMARY OF ANOMALOUS VACUUM DRILLING RESULTS

	HOLE NO.	BLEG (AU ppb)
1990	A14V011	2.13
	012	0.84
	014	1.18
	017	1.71
	018	0.81
	022	0.81
1992	A14V028	0.91
	029	1.22
	032	1.09
	034	0.91
	038	1.66
	040	1.63
	043	1.12
	044	0.89
	045	0.82

	HOLE NO.	BOH(AU ppb)	BEDROCK
1990	A14V017	3	No Bedrock
	018	32	Silcrete/Granite
	019	3	No Bedrock
1992	A14V028	3	Silcrete/Granite?
	029	4	Silcrete/Granite?
	030	7	Silcrete/Granite?
	031	10	Silcrete
	032	32	Silcrete/Granite
	033	5	Silcrete
	034	36	Silcrete
	043	32	Granite
	044	32	Granite
	046	5	Silcrete
	047	9	Granite
	048	3	Granite

PEAK 1992 VACUUM DRILLING RESULTS

BLEG	Au	1.66 ppb
	Ag	2608 ppb
	Cu	3.13 ppm
BOH	Au	36 ppb
	As	50 ppm

Discussion - Geology

The geological setting at Anomaly 14 is dominated by a post tectonic (undeformed) granite intrusion. Magnetically the granite is represented by a broad circular low amplitude (80-90nT) twin peaked magnetic anomaly representing a simple single phase intrusive event. The granite itself is non-porphyritic, generally biotite rich and quartz poor, and is considered to have some similarities with A-type granites. A type granites are typical of Proterozoic moderately alkaline granitoids.

The margins of the granite consist of hornfelsed Madigan Beds. Remote from the contact aureole Madigan Beds sediments outcrop. Mafic volcanics were not intersected during RAB drilling.

The granite/metasediment contact has preferentially weathered within the granite and formed a topographic low . This site has accumulated drainage sediments. Silcrete formed at the base of this channel is responsible for the anomalous BOH Au and BCL Ag and Cu vacuum results. The method by which silcrete accumulates anomalous concentrations of Au (10-30ppb) is undetermined.

Davidson Beds were not intersected at Anomaly 14. Madigan Beds constitute the country rock to the granite intrusion. The potential for Au mineralisation in such a setting lies with granite related syngenetic porphyry style and epigenetic quartz-Au stockwork mineralisation.

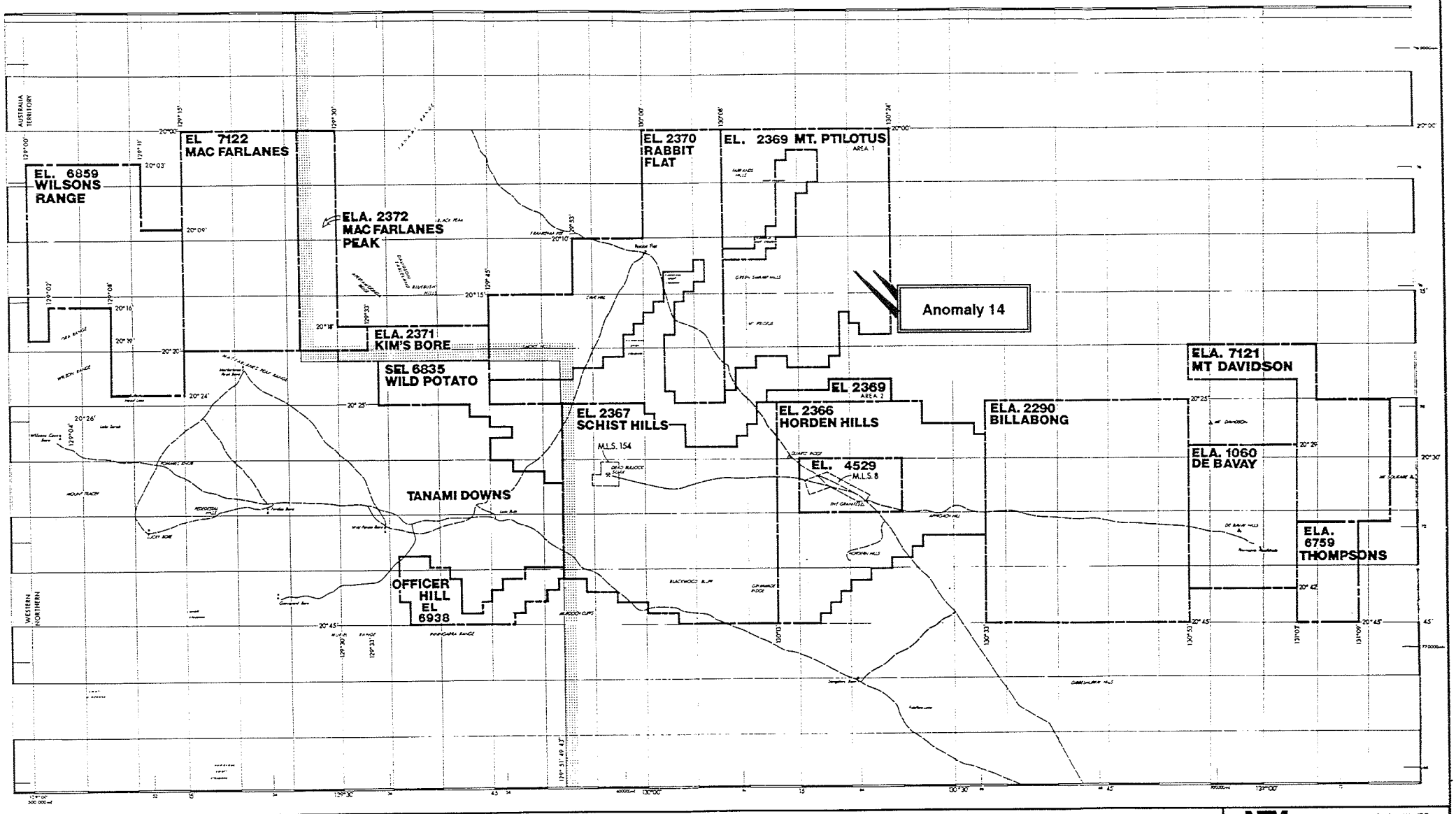
Average and peak Au/As values within Madigan Beds (Ptm), granite (Pg) and silcrete are shown below.

Unit	Average Au ppb/As ppm	Peak Au ppb/As ppm
Ptm	<1/15	2/35
Pg	2/15	11/20
Silcrete	3/10	31/15

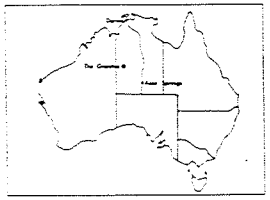
Quartz veining was noted within the Madigan Beds demonstrated poor correlation with elevated Au/As. The magnitude of the peak Au values returned during RAB drilling within the silcrete is in accordance with earlier vacuum BOH samples. No anomalous Cu-Mo or Sn-W results were received.

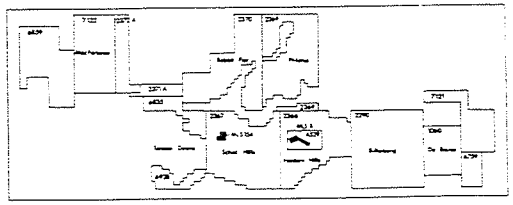
17.4 **Plans**

Drawing No.	Title	Scale
2700 1509	Anomaly 14 RAB Geology & Assay 10000N	1:500
2700 1510	Anomaly 14 RAB Geology & Assay 10300N	1:500
2700 1511	Anomaly 14 RAB Geology & Assay 10600N	1:500
2700 1512	Anomaly 14 RAB Geology & Assay 10900N	1:500
2700 1513	Anomaly 14 RAB Geology & Assay 11200N	1:500
2700 1514	Anomaly 14 RAB Geology & Assay 11500N	1:500
2700 1515	Anomaly 14 RAB Geology & Assay 11800N	1:500
2700 1516	Anomaly 14 Drillhole Location and Geology	1:5000



LOCATION MAP





LEGEND

NORTH FLINDERS MINES LIMITED

Tanami Reconnaissance : Northern Territory

EL LAYOUT

Fig. 17.1

Dwg. No. 20-1

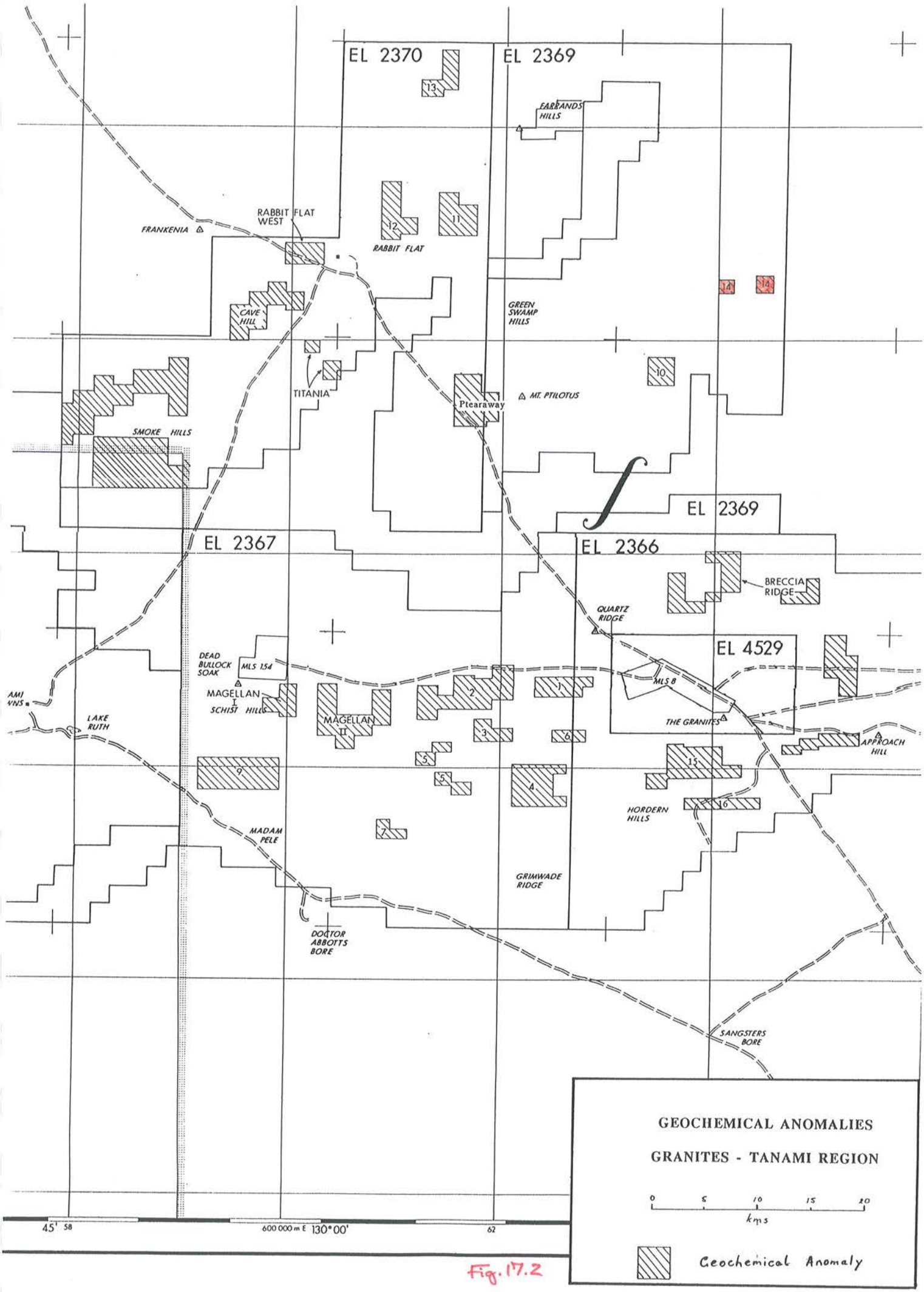
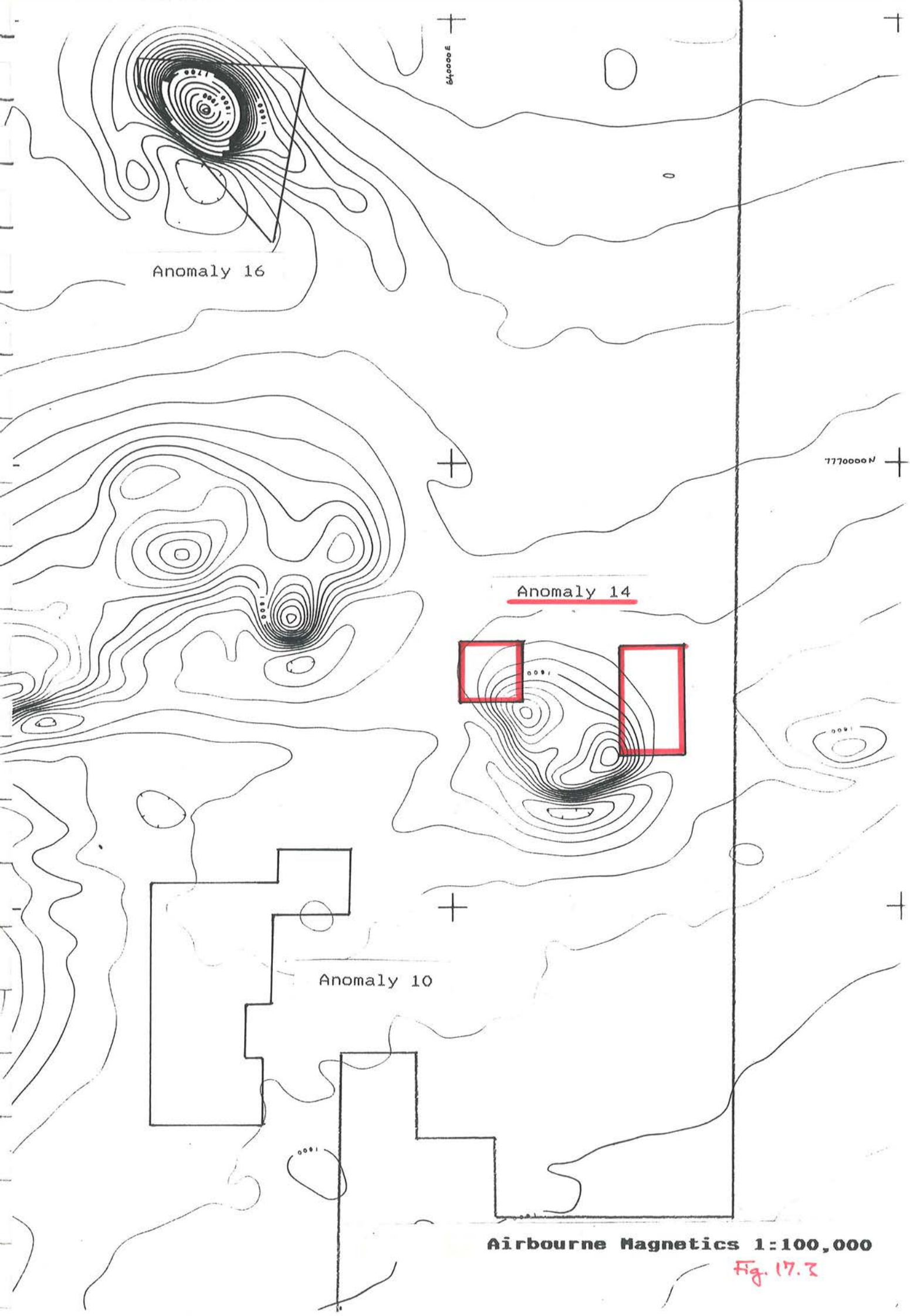
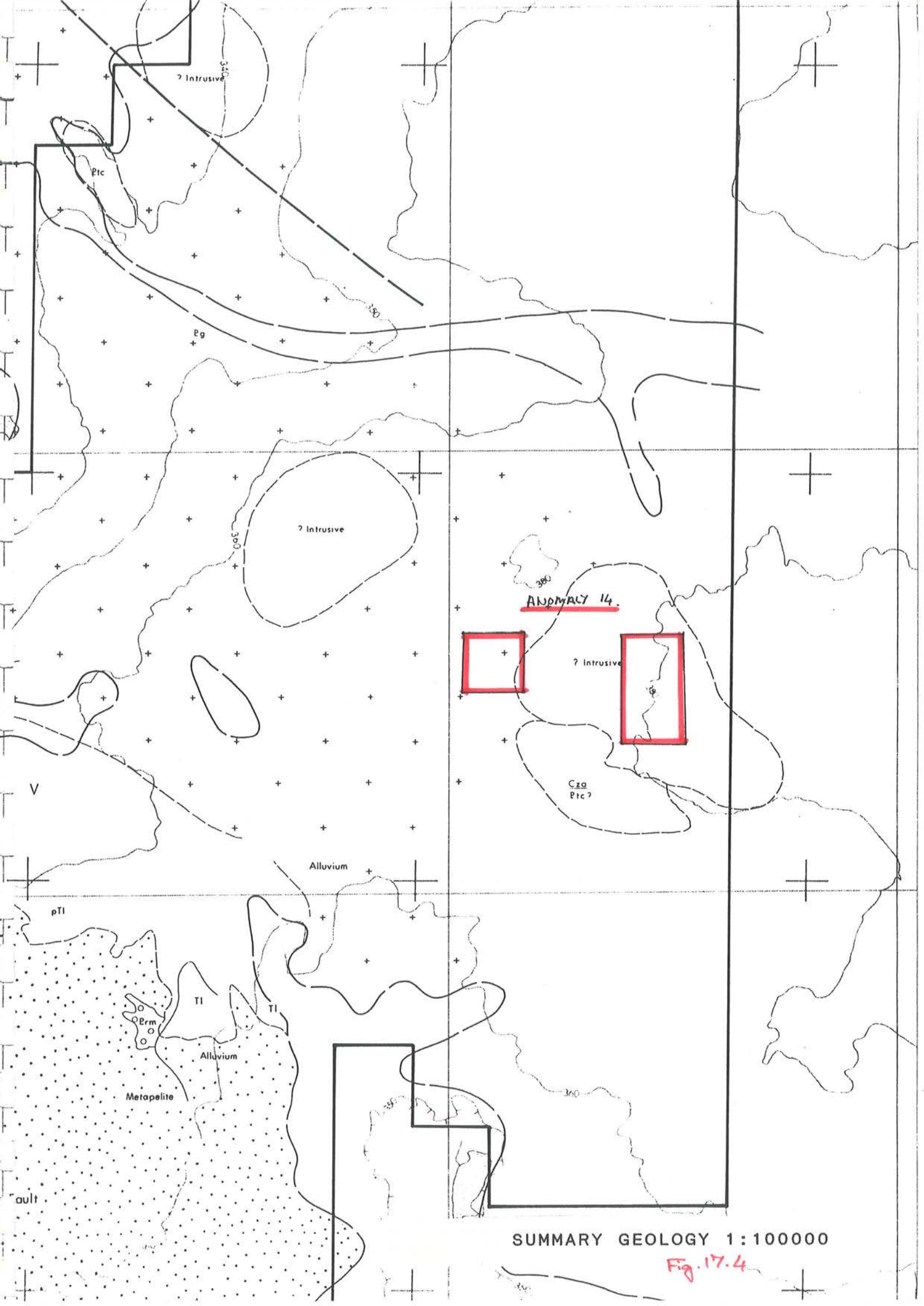

EL 2370
EL 2369
EARRANDS HILLS
RABBIT FLAT WEST
FRANKENIA
RABBIT FLAT
CAVE HILL
GREEN SWAMP HILLS
TITANIA
Ptearaway
MT. PTILOTUS
SMOKE HILLS
EL 2369
EL 2367
EL 2366
BRECCIA RIDGE
QUARTZ RIDGE
EL 4529
DEAD BULLOCK SOAK
MLS 154
MLS 8
MAGELLAN I SCHIST HILLS
MAGELLAN II
THE GRANITES
APPROACH HILL
AMI VNS
LAKE RUTH
HORDERN HILLS
MADAM PELE
GRIMWADE RIDGE
DOCTOR ABBOTTS BORE
SANGSTERS BORE
45' 58
600 000 m E
130° 00'
62
GEOCHEMICAL ANOMALIES
GRANITES - TANAMI REGION
0 5 10 15 20
kms
Geochemical Anomaly

Fig. 17.2



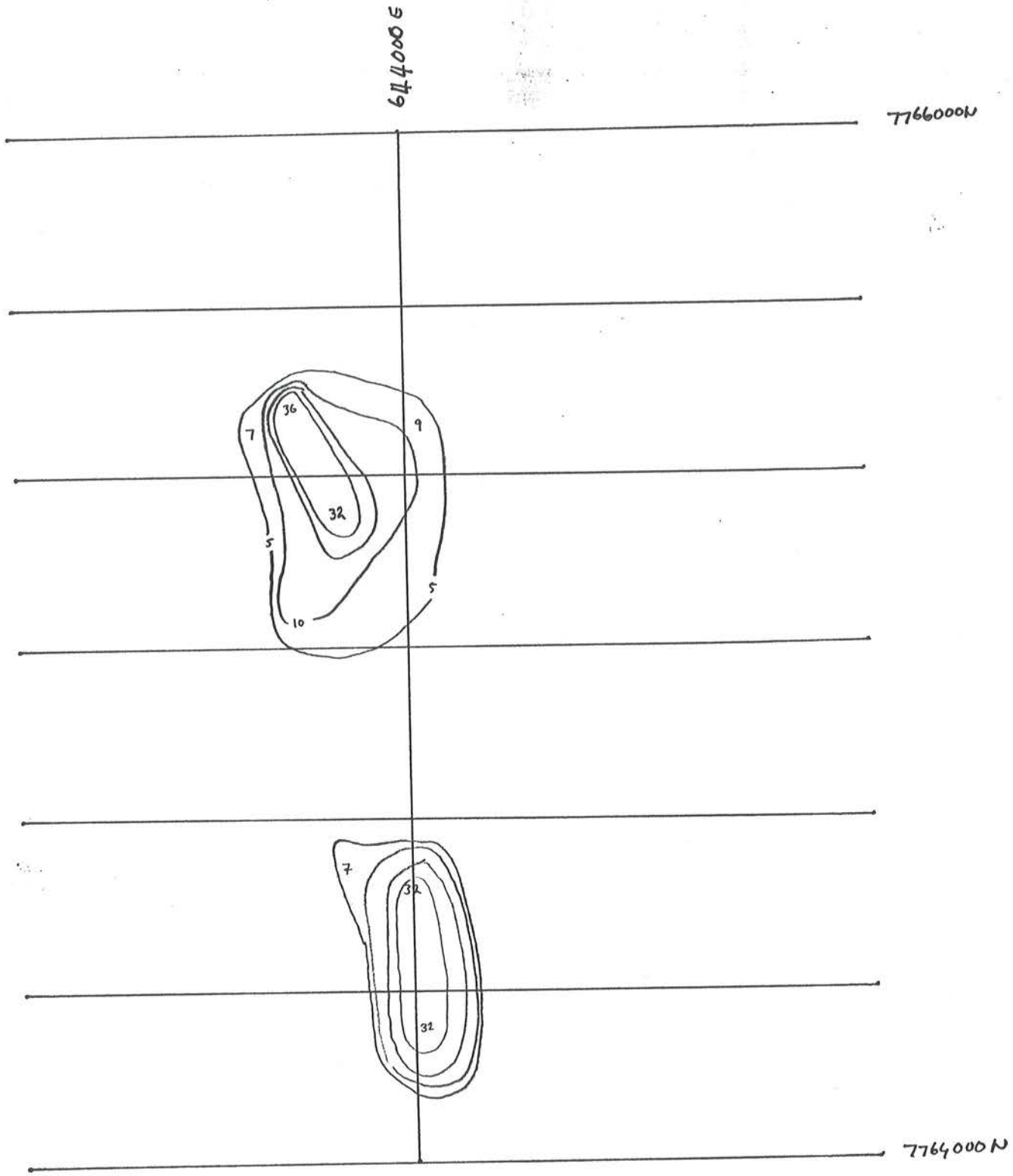
Airbourne Magnetics 1:100,000

Fig. 17.3



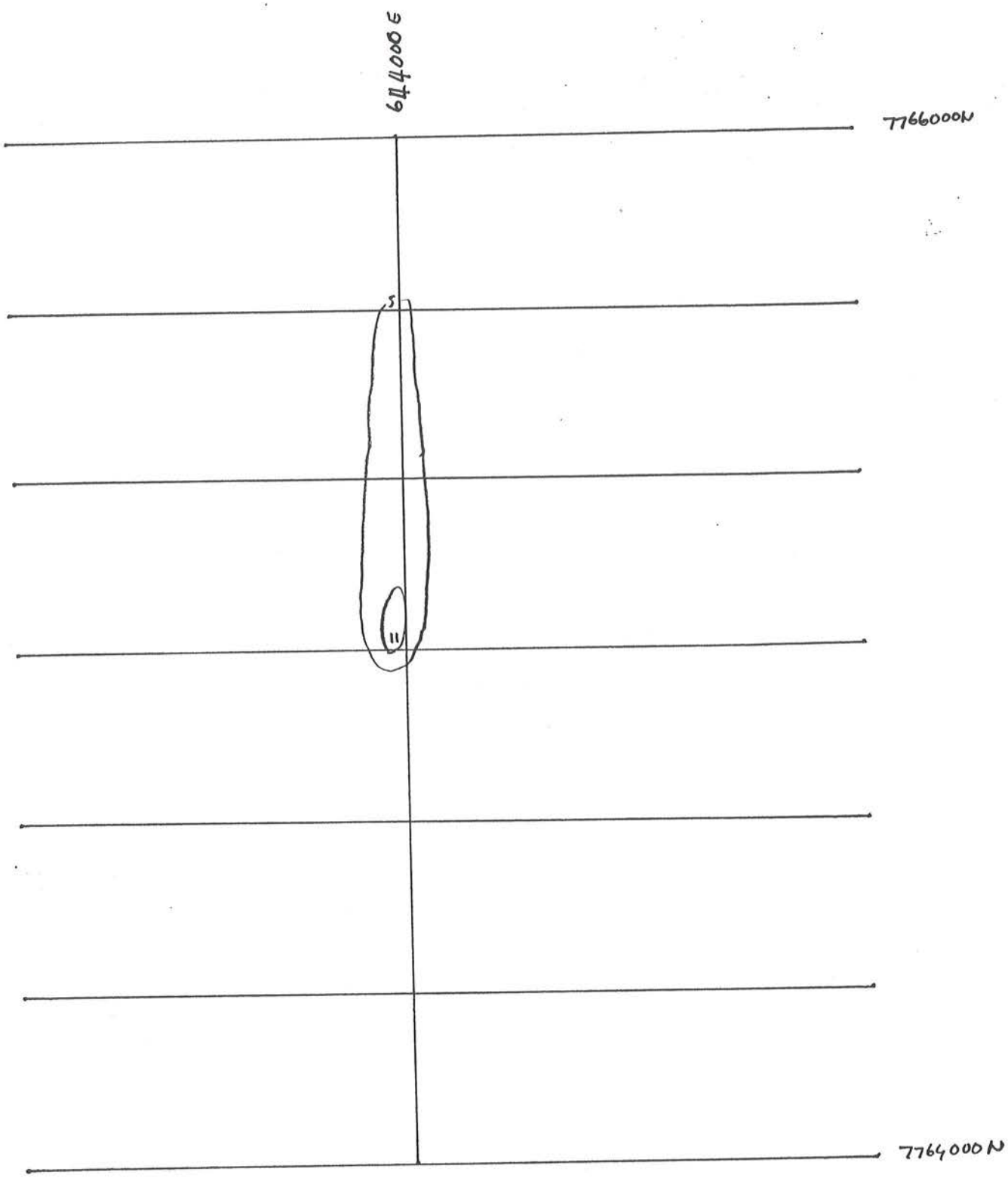
SUMMARY GEOLOGY 1:100000

Fig. 17.4



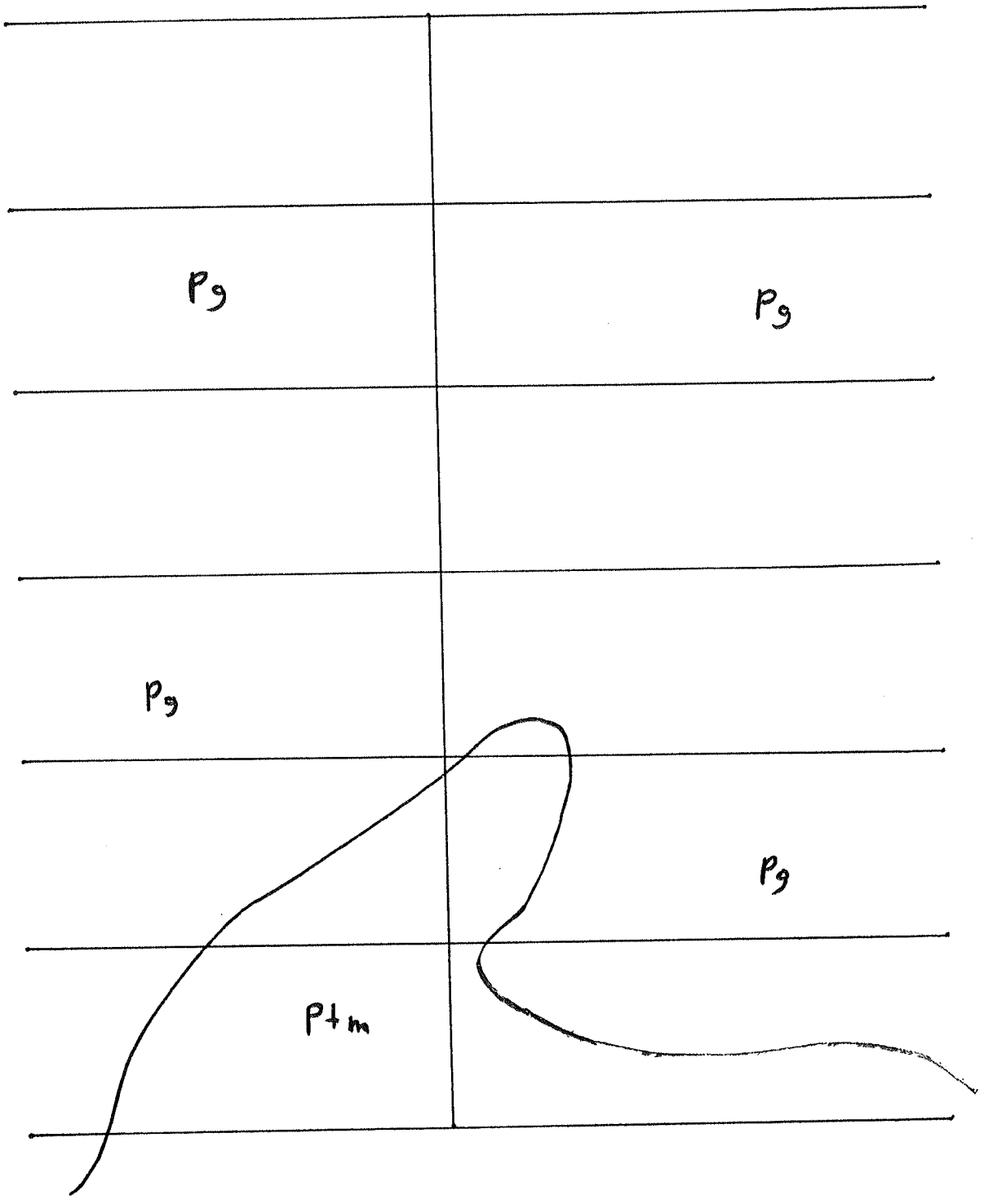
Anomaly 14 Colluvium Au Contours, Au > 5ppb

Fig. 17.5



Anomaly 14 Bedrock Au Contours, Au > 5ppb

Fig. 17.6



Anomaly 14 Geology

Fig. 17.7