

27. ANOMALY 20 (EL 7122)

27.1 Introduction

Anomaly 20 lies within the Macfarlanes exploration licence EL 7122, and is situated 100 kilometers west-north-west of The Granites Gold Mine. Access is via a track which turns south off the Tanami Highway 150 kilometers north-west of The Granites. The exploration area can be reached by travelling along this track for 35 kilometers to Anomaly 18 then by taking a branch track which continues to the south-east for a further 12 kilometers.

During 1991 reconnaissance vacuum drilling (to provide geochemical and lithological information beneath cover) yielded results which indicated Anomaly 20 required more detailed exploration.

27.2 Work Undertaken

In the course of the reporting period the exploration program comprised detailed mapping, composite rock chip sampling and vacuum/RAB drilling.

Mapping

A structural and lithological map was completed at a scale of 1:5000 over the principal area of outcrop.

Composite Rock Chip Sampling

19 composite rock chip samples were collected and assayed for gold (ppb) and arsenic (ppm).

Follow Up Vacuum Drilling

13 follow up vacuum holes were drilled on a 900 meter by 1000 meter grid for a total advance of 138.6 meters. Drilling details appear in the table below.

FOLLOW UP VACUUM DRILLING	Anom 20
No. of Holes	13 (A20V001-013)
Total Meterage	138.6
No. of BLEG Samples	13
No. of BOH Samples	13

RAB Drilling

At Anomaly 20 the proposed program of infill BLEG (bulk leach extractable gold) and BOH (base of hole) aircore sampling was changed to a fence of close spaced (25m apart) RAB drilling over the area of anomalous vacuum results obtained in 1991. One hole was also drilled under an area of "best looking" outcropping Davidson Beds (though no anomalous results were obtained from earlier surface rock chip sampling).

A total of 10 holes were drilled and 90 samples were collected. Samples were assayed for gold (ppb) and arsenic (ppm).

27.3 **Results**

Mapping

Detailed mapping of Anomaly 20 at a scale of 1:5000 has shown a well preserved layered succession outcrops as a series of dissected ridges striking in a northerly direction. Mapping indicates a slightly overturned sequence of steep westerly dipping metamorphosed Blake Beds overlain by Davidson Beds overlain in turn by a meta-pelite unit of possible Madigan Beds equivalence. These units then appear to have been sheared along a north north-west trending shear zone together with intrusive dolerites, amphibolites and minor granite. The greatest strain was accommodated within the graphitic schists of the Davidson Beds, with decreasing strain affecting the enclosing rock units. Later "Granites" granites are evident to the west and east with associated shearing occurring at the contact margins. Geochemically the area is unresponsive except in the north west where the 1991 reconnaissance vacuum drilling program highlighted BLEG results trending in a similar north-north-west orientation, possibly in sheared fine grained dolerite to basalt enclosed within possible Blake Bed metamorphosed sediments.

Composite Rock Chip Sampling

Rock chip sampling failed to identify any strongly anomalous gold or arsenic anomalies. Peak assay values are shown in the table below.

ANOMALY 20 ROCK CHIP SAMPLING - PEAK ASSAYS		
Peak Au(ppb)	Peak As(ppm)	No.of samples
5	90	27

Follow Up Vacuum Drilling

Anomaly 20 vacuum drilling encountered slightly anomalous bottom of hole (BOH) values within quartz-chlorite-magnetite-sericite + or - biotite schists and light green clays to fresh fine grained massive amphibolite/basalt. Within the amphibolite/basalt a thin graphitic unit was intersected which is interpreted as an anastomosing shear zone.

ANOMALOUS VACUUM DRILLING RESULTS - ANOMALY 20		
HOLE NO.	BLEG Au (ppb)	BOH Au (ppb)
A20V009	-	3
A20V011	-	3
A20V012	-	16
A20V013	-	7

RAB Drilling

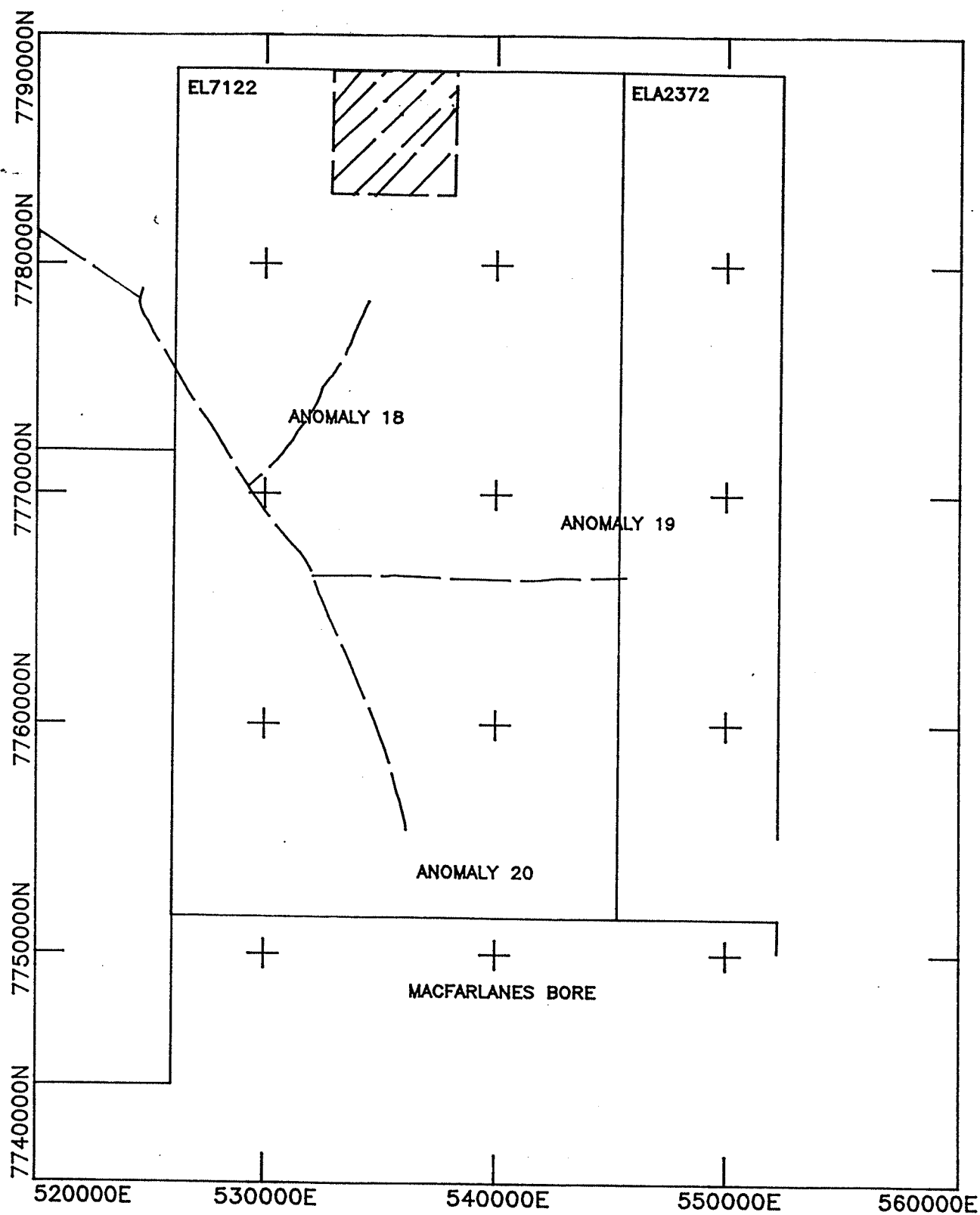
At Anomaly 20 results were disappointing with the peak gold value being 19ppb and no significant arsenic anomaly. The slightly elevated gold values are interpreted to reflect trace amounts of weak gold mineralisation associated with a ?sheared contact between sericite-quartz-chlorite+/-magnetite schist, possible Blake Beds, and amphibolite (dolerite?).

The one RAB hole beneath outcropping Davidson Beds intersected predominantly graphite schists with or without biotite with minor quartz veining together with a thin (2m) horizon of amphibole? garnet-bearing schist. No significant results were obtained.

ANOMALOUS(>10ppb Au, >50ppm As) RAB DRILLING RESULTS - ANOMALY 20			
HOLE No.	Au(ppb)	As(ppm)	GEOLOGY
A20RB002	10		Q SER CHL? SCH
A20RB003	19		Q SER CHL? MAG SCH
A20RB005	16		DOLERITE SAPROCK, QV
A20RB008R	15		AMPHIBOLITE

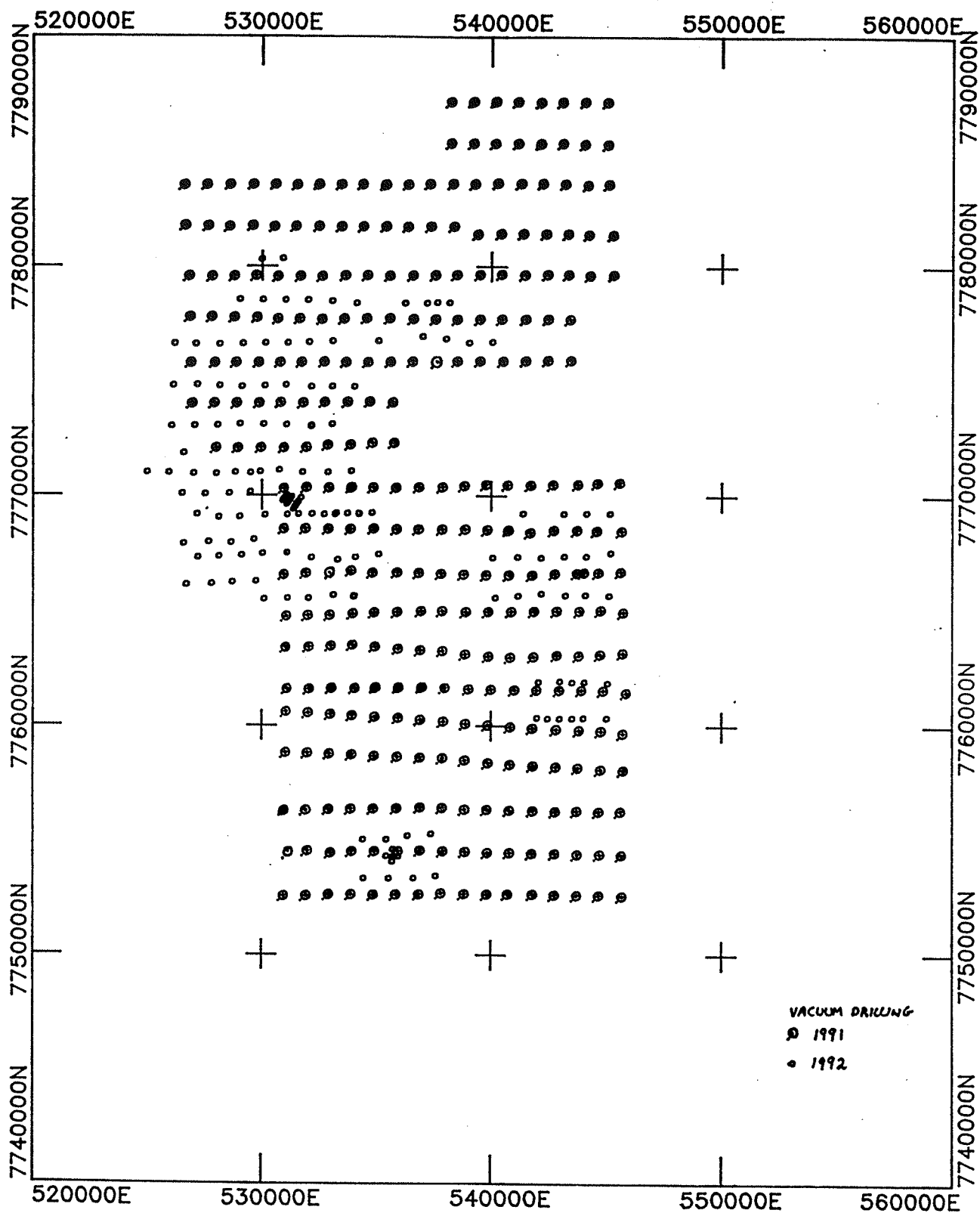
27.4 Plans

Drawing No.	Title	Scale
2800-1569	Anomaly 20 - Macfarlanes Geology	1:5000 approx



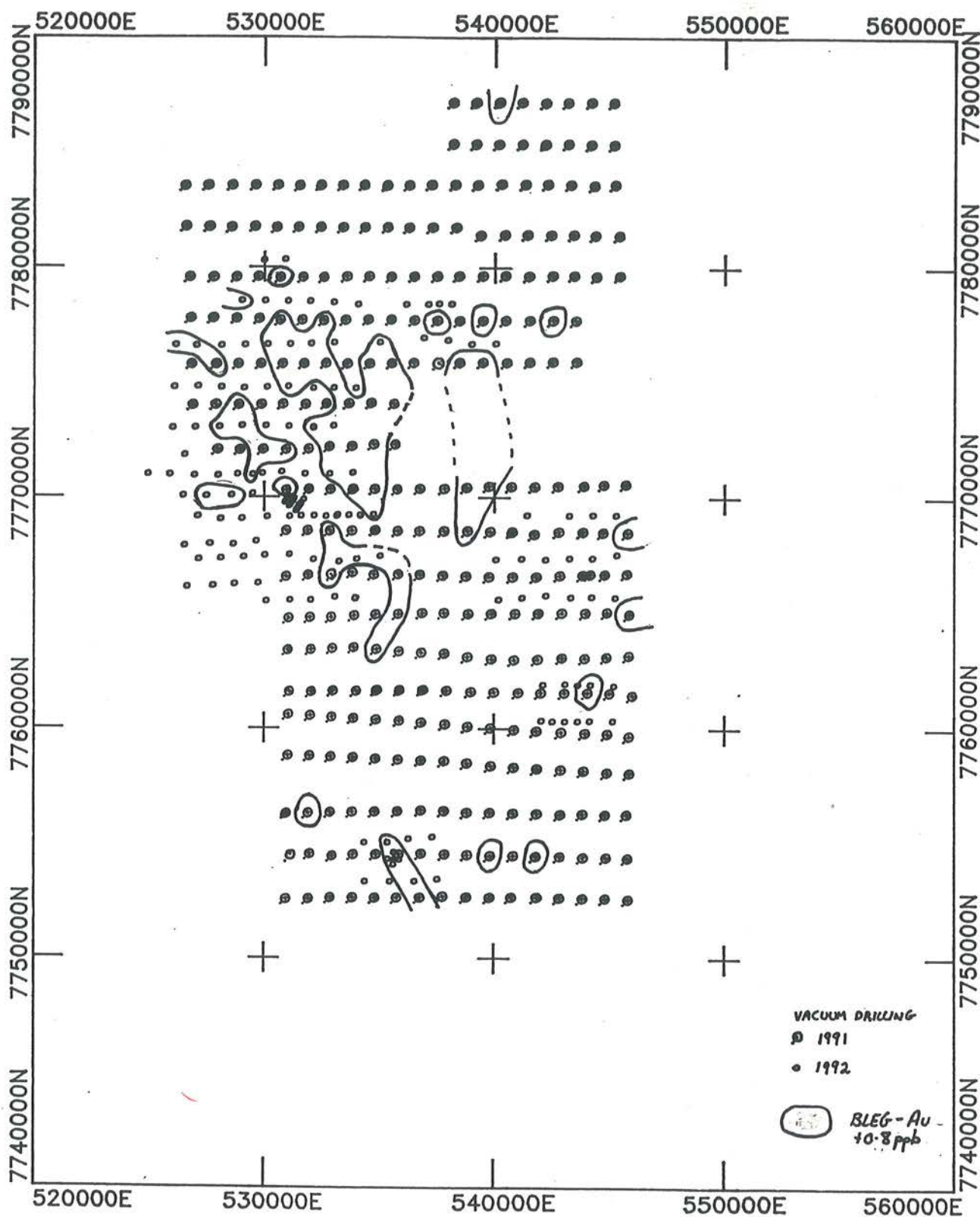
MACFARLANES PEAK RANGE
EL 7122
- ANOMALIES 18, 19 & 20

Fig. 27.2

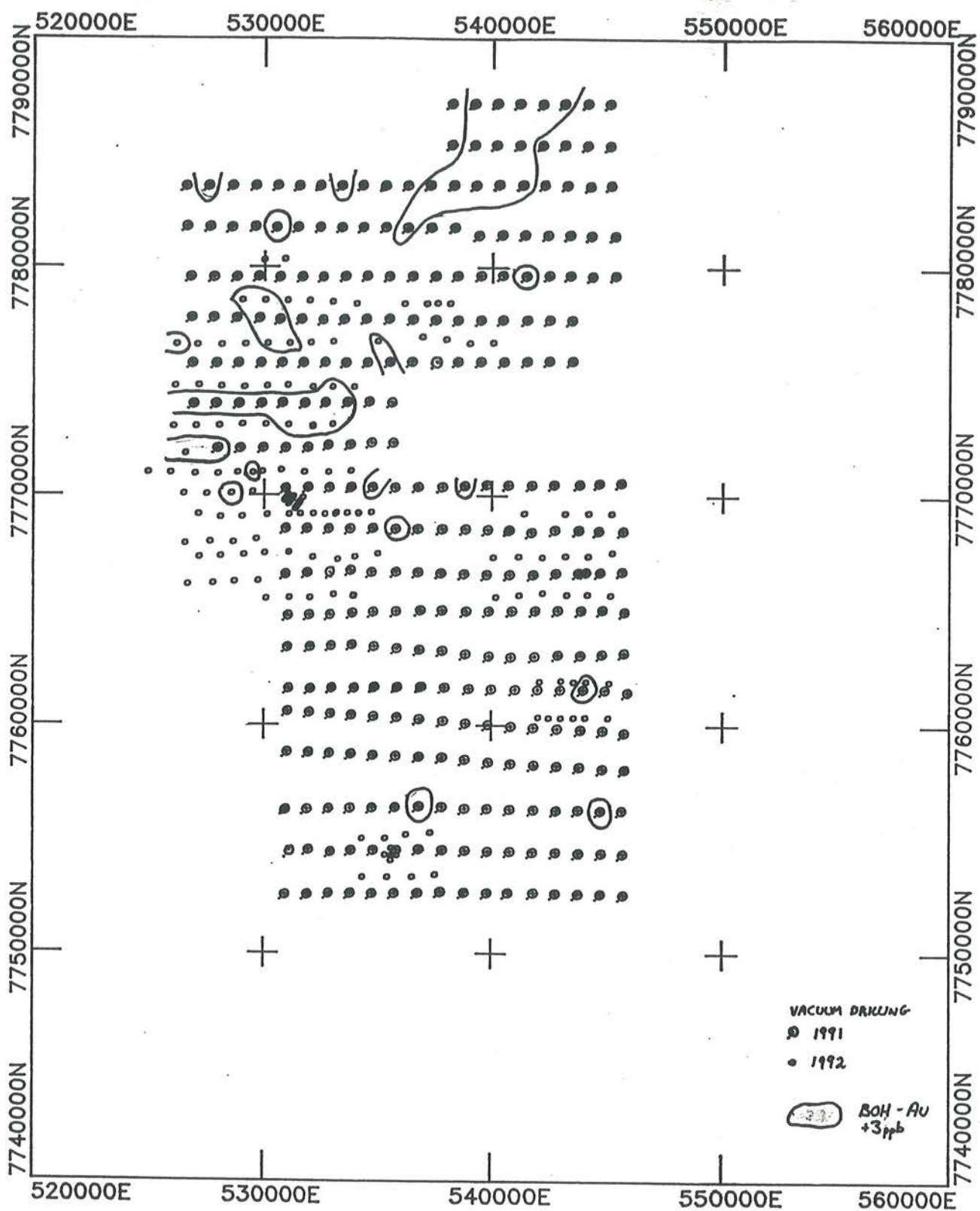


VACUUM DRILL HOLE
LOCATIONS

Fig. 27.3

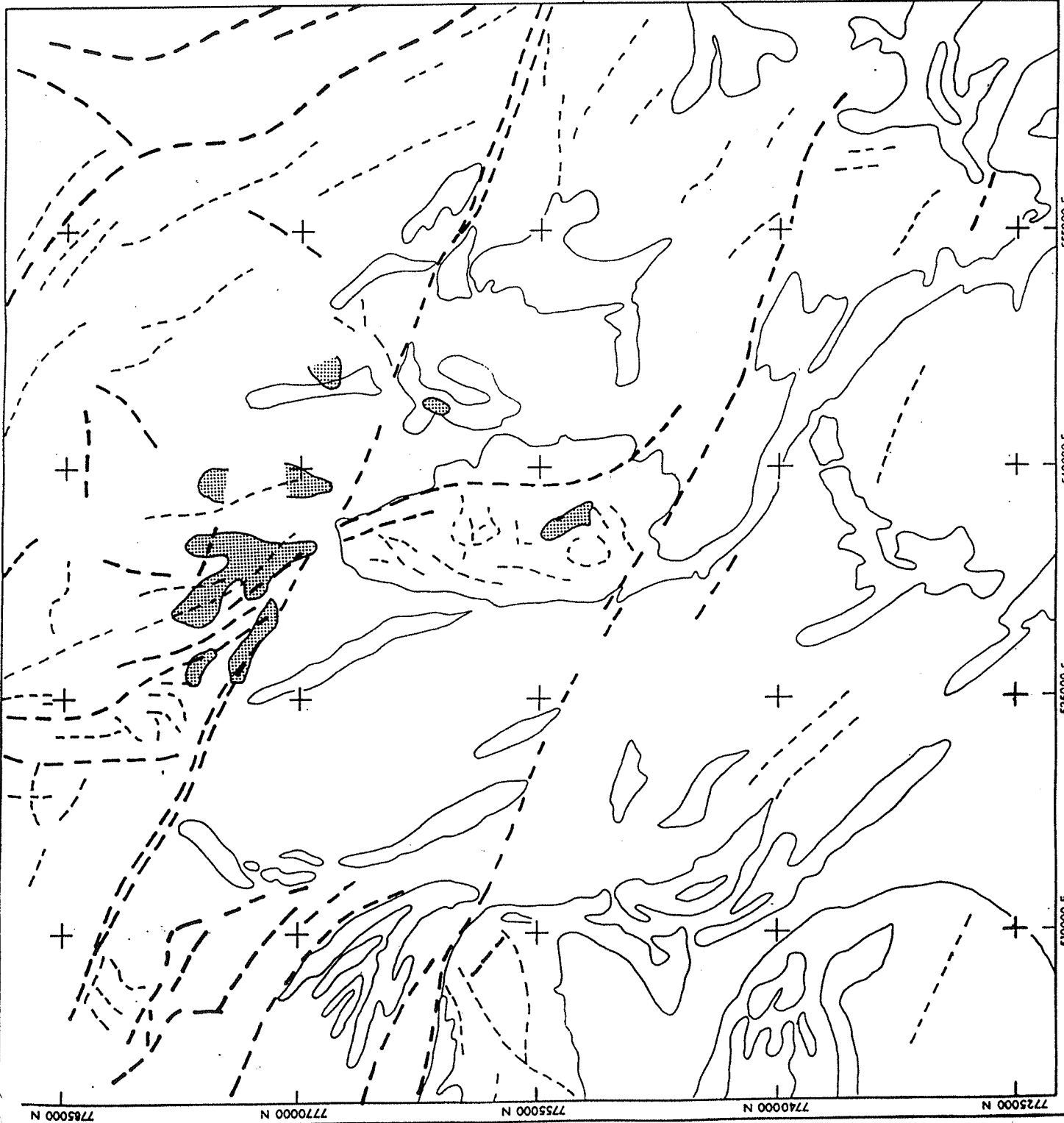


ANOMALOUS BLEG-Au
 Fig. 27.4



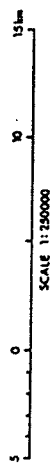
ANOMALOUS BOH-Au

Fig. 27.5



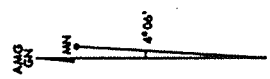
REFERENCE

- MAGNETIC UNIT
- PROMINENT MAGNETIC LINEAMENT
- MAGNETIC LINEAMENT
- GOLD ANOMALY (VACUUM DRILLING)



NORTH FLINDERS MINES LIMITED

DATA BY	BJ	MAY 92
DRAWN		
CHECKED		
APPROVED		
AMENDED		



Tanami Reconnaissance: Northern Territory

MACFARLANES RANGE
 AEO MAGNETIC INTERPRETATION
 (from Aerodata 1:500000 1st Derivative)

59.27.6