

25. ANOMALY 18 (EL 7122)

25.1 Introduction

Anomaly 18 (formerly Anomaly I and III in the previous Annual Report) lies within the Macfarlanes exploration licence EL 7122, and is situated 120 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 is situated 35 kilometers from the main road.

During 1991 reconnaissance vacuum drilling (to provide geochemical and lithological information beneath cover), lag and rock chip sampling yielded results which indicated Anomaly 18 required more detailed exploration.

25.2 Work Undertaken

Over the reporting period the exploration program comprised detailed mapping, soil sampling, composite rock chip sampling, stream sediment sampling and vacuum/aircore/RAB drilling.

Mapping

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

Soil Sampling

22 surface soil samples were collected at Anomaly 18 and assayed for gold (ppb) and arsenic (ppm).

Composite Rock Chip Sampling

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

Stream Sediment Sampling

2 stream sediment samples were treated by bulk cyanide leach methods (BCL or BLEG) and analysed for gold (ppb), silver (ppb) and copper (ppm).

Reconnaissance Vacuum Drilling

A total of 13 vacuum drill holes were completed south-west of Anomaly 18 in order to close off anomalous 1991 BLEG results.

Follow Up Vacuum Drilling

A total of 108 vacuum drill holes were completed for a total advance of 1136.1 metres. Seventy nine of these were 900x1000m infill holes based on 1991 reconnaissance results. The remaining were close spaced(50m) holes over the anomalous shear bounded zone delineated by rock chip and soil sampling.

Details of reconnaissance and follow up vacuum drilling are summarised in the table below.

RECONNAISSANCE VACUUM DRILLING	
No. of Holes	13 (LSV1165-1177)
Total Meterage	96m
No. of BLEG Samples	13
No. of BOH Samples	13
FOLLOW UP VACUUM DRILLING	
Anom 18	
No. of Holes	108
Total Meterage	(A18V001-108) 1136.1
No. of BLEG Samples	75
No. of BOH Samples	225

Aircore/RAB Drilling

The program, at Anomaly 18, began with planned aircore drilling, but difficulties encountered while drilling and the inefficiency of the method necessitated a change of drilling technique. Subsequent evaluation was by close spaced (nominal 200m) RAB drilling, along existing lines (900m apart), in areas of gold anomalous bedrock obtained in previous vacuum drilling. This drilling was too selective to enable a complete analysis of the mineralisation potential of the area, but has highlighted the known anomalous areas as "in situ" and not merely transported BLEG anomalies.

Work completed consisted of 72 RAB holes at Anomaly 18. Normal samples were assayed for gold (ppb) and arsenic (ppm). BLEG samples were assayed for gold (ppb) silver (ppb) and copper (ppm).

Details of the work are presented in the table below.

SUMMARY OF WORK COMPLETED			
	No of HOLES	No of SAMPLES	No of BLEG SAMPLES
ANOMALY 18	72	240	4

25.3 **Results**

Mapping

Detailed mapping at a scale of 1:5000, and surface geochemical sampling clearly shows a north-west (310° to 320°) trending shear bounded zone of banded hematitic cherts, probable Davidson Beds type equivalents, anomalous in gold and arsenic.

Soil Sampling

Limited surface soil sampling at Anomaly 18 showed some slight anomalism as indicated in the table which follows:

ANOMLAY 18 SOIL SAMPLING - PEAK ASSAYS		
Peak Au(ppb)	Peak As(ppm)	No.of samples
2	250	22

Composite Rock Chip Sampling

Banded hematitic cherts (probable Davidson Beds) has anomalous gold/arsenic geochemistry.

ANOMALY 18 ROCK CHIP SAMPLING - PEAK ASSAYS		
Peak Au(ppb)	Peak As(ppm)	No.of samples
29	>1000	36

Stream Sediment Sampling

No anomalous results were recorded.

ANOMALY 18 STREAM SEDIMENT SAMPLING - PEAK ASSAYS			
Peak Au(ppb)	Peak Cu (ppm)	Peak Ag (ppb)	No.of samples
0.11	0.02	1.25	2

Reconnalssance Vacuum Drilling

Some positive results were received for both bottom of hole (BOH) and bulk leach extractable gold (BLEG) samples. BLEG samples were collected from just below the transported surficial soil horizon. The success of this program indicates that the few remaining untested areas should also be drilled.

Follow Up Vacuum Drilling

Results of the initial 74 holes are very encouraging with anomalous areas shown on attached text figures. A highly anomalous result obtained in hole number A18V007(peak of 3.76ppm Au) was checked by resampling the original sample piles and three adjacent holes (1 to 20 metres away) were drilled. However results were disappointing (<0.008ppm). The discrepancy between these two sets of results is interpreted to indicate either laboratory contamination at sample preparation stage, or a very isolated gold occurrence with an area of influence restricted to less than one metre.

ANOMALOUS VACUUM DRILLING RESULTS - ANOMALY 18		
HOLE No.	BLEG Au(ppb)	BOH Au(ppb)
A18V0031.68		
4	1.08	
6		3
7	2.60	3760 ERROR?
8		3
16	2.76	26
18		31
19	1.00	
22	2.32	49
23	7.88	5
26		3
39		5
40		3
48	1.87	
52	6.79	
53	1.99	
72	1.16	6
73		4
74		3
80		4
81		3
86		3
88		4
92		8
95		3
101		5
104		3
106		7
107		8
108		4

RAB Drilling

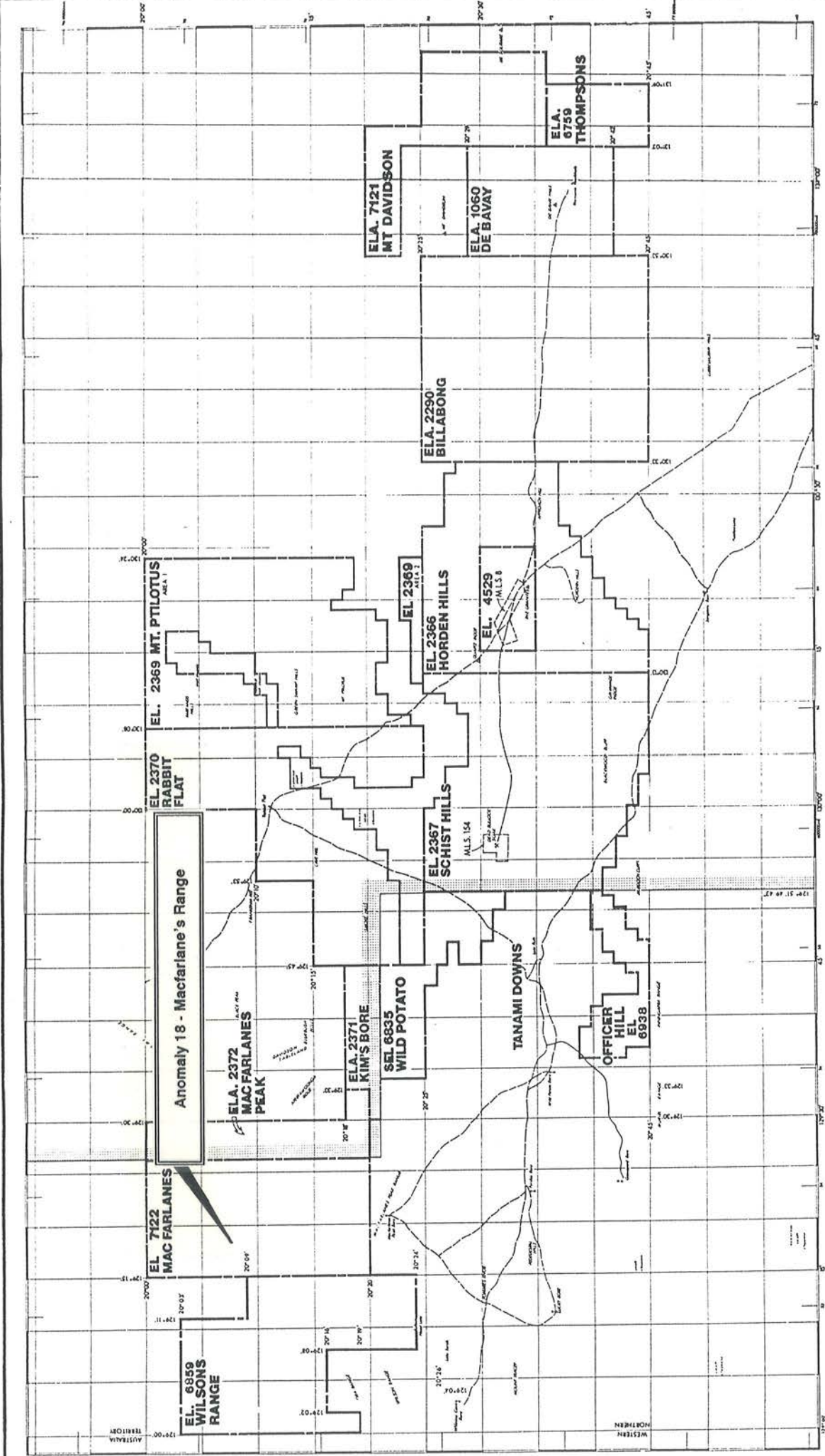
The Anomaly 18 RAB drilling results were encouraging with peak values of 150ppb Au and 190ppm As. These results indicate bedrock mineralisation is present within the area highlighted by anomalous vacuum BLEG and BOH results. However, no conclusions as to the style of mineralisation can be made except to say the anomalous bedrock mineralisation is associated with fine grained sediments of the interpreted Killi Killi Beds adjacent to the major WNW trending Dead Bullock Soak Fault. Typically the geology intersected consisted of metapelites, siltstones and quartz-mica sericite schists, with minor quartz veining evident.

The RAB drilling results are summarised in the table which follows.

ANOMALOUS(>10ppb Au, >50ppm As) RAB DRILLING RESULTS - ANOMLAY 18			
HOLE No.	Au(ppb)	As(ppm)	GEOLOGY
A18RB009		65	SILTSTONE, QV
A18RB012		65	PELITE
A18RB014		190	SILTSTONE
A18RB024		50	CLAYS
A18RB030	15		SER SCH, SILTSTONE
A18RB031	12		Q MICA SILTSTONE/SCH, QV
A18RB033		160	MUDSTONE, Q MICA SILTSTONE-SANDSTONE, GRAPHITIC?, QV
A18RB039	22	150	FERR, LIM Q MICA SANDSTONE
A18RB055		95	METAPELITE, SILTSTONE, QV
A18RB057		55	METAPELITE, tr QV
A18RB060	150	55	ABUND QV, PELITE
A18RB071		55	CLAYEY PELITE, MICACEOUS PSAMMITE/GREYWACKE, QV

25.4 **Plans**

All plans are presented as text figures in this report.



NORTH FLINDERS MINES LIMITED
 Tanami Reconnaissance - Northern Territory

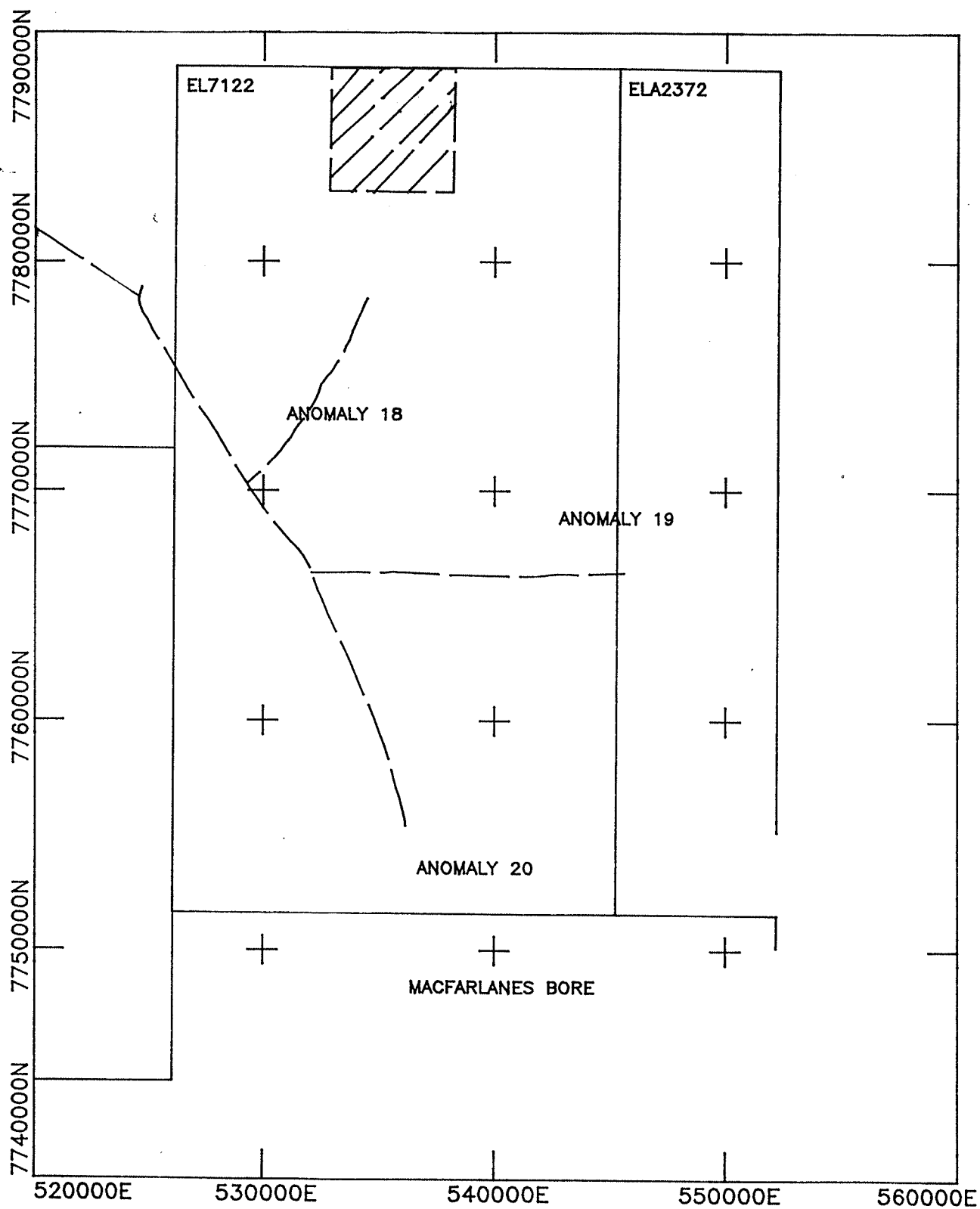
EL LAYOUT

DATE	10/01/01	FIG. No.	20-1
1. 1:10,000 Scale 2. 1:50,000 Scale 3. 1:100,000 Scale 4. 1:200,000 Scale 5. 1:500,000 Scale 6. 1:1,000,000 Scale 7. 1:2,000,000 Scale 8. 1:5,000,000 Scale 9. 1:10,000,000 Scale 10. 1:20,000,000 Scale 11. 1:50,000,000 Scale 12. 1:100,000,000 Scale 13. 1:200,000,000 Scale 14. 1:500,000,000 Scale 15. 1:1,000,000,000 Scale 16. 1:2,000,000,000 Scale 17. 1:5,000,000,000 Scale 18. 1:10,000,000,000 Scale 19. 1:20,000,000,000 Scale 20. 1:50,000,000,000 Scale 21. 1:100,000,000,000 Scale 22. 1:200,000,000,000 Scale 23. 1:500,000,000,000 Scale 24. 1:1,000,000,000,000 Scale 25. 1:2,000,000,000,000 Scale 26. 1:5,000,000,000,000 Scale 27. 1:10,000,000,000,000 Scale 28. 1:20,000,000,000,000 Scale 29. 1:50,000,000,000,000 Scale 30. 1:100,000,000,000,000 Scale 31. 1:200,000,000,000,000 Scale 32. 1:500,000,000,000,000 Scale 33. 1:1,000,000,000,000,000 Scale 34. 1:2,000,000,000,000,000 Scale 35. 1:5,000,000,000,000,000 Scale 36. 1:10,000,000,000,000,000 Scale 37. 1:20,000,000,000,000,000 Scale 38. 1:50,000,000,000,000,000 Scale 39. 1:100,000,000,000,000,000 Scale 40. 1:200,000,000,000,000,000 Scale 41. 1:500,000,000,000,000,000 Scale 42. 1:1,000,000,000,000,000,000 Scale 43. 1:2,000,000,000,000,000,000 Scale 44. 1:5,000,000,000,000,000,000 Scale 45. 1:10,000,000,000,000,000,000 Scale 46. 1:20,000,000,000,000,000,000 Scale 47. 1:50,000,000,000,000,000,000 Scale 48. 1:100,000,000,000,000,000,000 Scale 49. 1:200,000,000,000,000,000,000 Scale 50. 1:500,000,000,000,000,000,000 Scale 51. 1:1,000,000,000,000,000,000,000 Scale 52. 1:2,000,000,000,000,000,000,000 Scale 53. 1:5,000,000,000,000,000,000,000 Scale 54. 1:10,000,000,000,000,000,000,000 Scale 55. 1:20,000,000,000,000,000,000,000 Scale 56. 1:50,000,000,000,000,000,000,000 Scale 57. 1:100,000,000,000,000,000,000,000 Scale 58. 1:200,000,000,000,000,000,000,000 Scale 59. 1:500,000,000,000,000,000,000,000 Scale 60. 1:1,000,000,000,000,000,000,000,000 Scale 61. 1:2,000,000,000,000,000,000,000,000 Scale 62. 1:5,000,000,000,000,000,000,000,000 Scale 63. 1:10,000,000,000,000,000,000,000,000 Scale 64. 1:20,000,000,000,000,000,000,000,000 Scale 65. 1:50,000,000,000,000,000,000,000,000 Scale 66. 1:100,000,000,000,000,000,000,000,000 Scale 67. 1:200,000,000,000,000,000,000,000,000 Scale 68. 1:500,000,000,000,000,000,000,000,000 Scale 69. 1:1,000,000,000,000,000,000,000,000,000 Scale 70. 1:2,000,000,000,000,000,000,000,000,000 Scale 71. 1:5,000,000,000,000,000,000,000,000,000 Scale 72. 1:10,000,000,000,000,000,000,000,000,000 Scale 73. 1:20,000,000,000,000,000,000,000,000,000 Scale 74. 1:50,000,000,000,000,000,000,000,000,000 Scale 75. 1:100,000,000,000,000,000,000,000,000,000 Scale 76. 1:200,000,000,000,000,000,000,000,000,000 Scale 77. 1:500,000,000,000,000,000,000,000,000,000 Scale 78. 1:1,000,000,000,000,000,000,000,000,000,000 Scale 79. 1:2,000,000,000,000,000,000,000,000,000,000 Scale 80. 1:5,000,000,000,000,000,000,000,000,000,000 Scale 81. 1:10,000,000,000,000,000,000,000,000,000,000 Scale 82. 1:20,000,000,000,000,000,000,000,000,000,000 Scale 83. 1:50,000,000,000,000,000,000,000,000,000,000 Scale 84. 1:100,000,000,000,000,000,000,000,000,000,000 Scale 85. 1:200,000,000,000,000,000,000,000,000,000,000 Scale 86. 1:500,000,000,000,000,000,000,000,000,000,000 Scale 87. 1:1,000,000,000,000,000,000,000,000,000,000,000 Scale 88. 1:2,000,000,000,000,000,000,000,000,000,000,000 Scale 89. 1:5,000,000,000,000,000,000,000,000,000,000,000 Scale 90. 1:10,000,000,000,000,000,000,000,000,000,000,000 Scale 91. 1:20,000,000,000,000,000,000,000,000,000,000,000 Scale 92. 1:50,000,000,000,000,000,000,000,000,000,000,000 Scale 93. 1:100,000,000,000,000,000,000,000,000,000,000,000 Scale 94. 1:200,000,000,000,000,000,000,000,000,000,000,000 Scale 95. 1:500,000,000,000,000,000,000,000,000,000,000,000 Scale 96. 1:1,000,000,000,000,000,000,000,000,000,000,000,000 Scale 97. 1:2,000,000,000,000,000,000,000,000,000,000,000,000 Scale 98. 1:5,000,000,000,000,000,000,000,000,000,000,000,000 Scale 99. 1:10,000,000,000,000,000,000,000,000,000,000,000,000 Scale 100. 1:20,000,000,000,000,000,000,000,000,000,000,000,000 Scale 			

LEGEND

LOCATION MAP

Fig. 25.1



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

Fig. 25.2

ANOMALY 18 - Mac FARLANES

OUTCROP GEOLOGY

SCALE 1: 5000 APPROX

LEGEND

- gw GREYWACKE: MED & FINE grained quartz - muscovite greywacke, occasionally grey veined, minor shales.
- ch HAEMATITE - CHERT: Banded cherty haematite, tightly folded in places.
- λ BEDDINGS
- λ CLEAVAGE (UNDIFFERENTIATED)
- λ PLUNGE OF ANTICLINE
- λ PLUNGE OF SYNCLINE

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

Qa

G.R.T. MAY 1992

SATELLITE	POSITION	FIXES	N	E	σ
POSITION 1	530473	776 9457	44.1m		
POSITION 2	531387	776 9615	27.7m		

• BACK CHIT & SOIL
PREVY 311...

MAG NTH

3

1:5000

000080

955

mainly aeolian sand

956

Qa

957

958

959

960

961

962

963

964

965

966

967

968

969

ANOMALOUS
SHEAR BOUNDED
ZONE

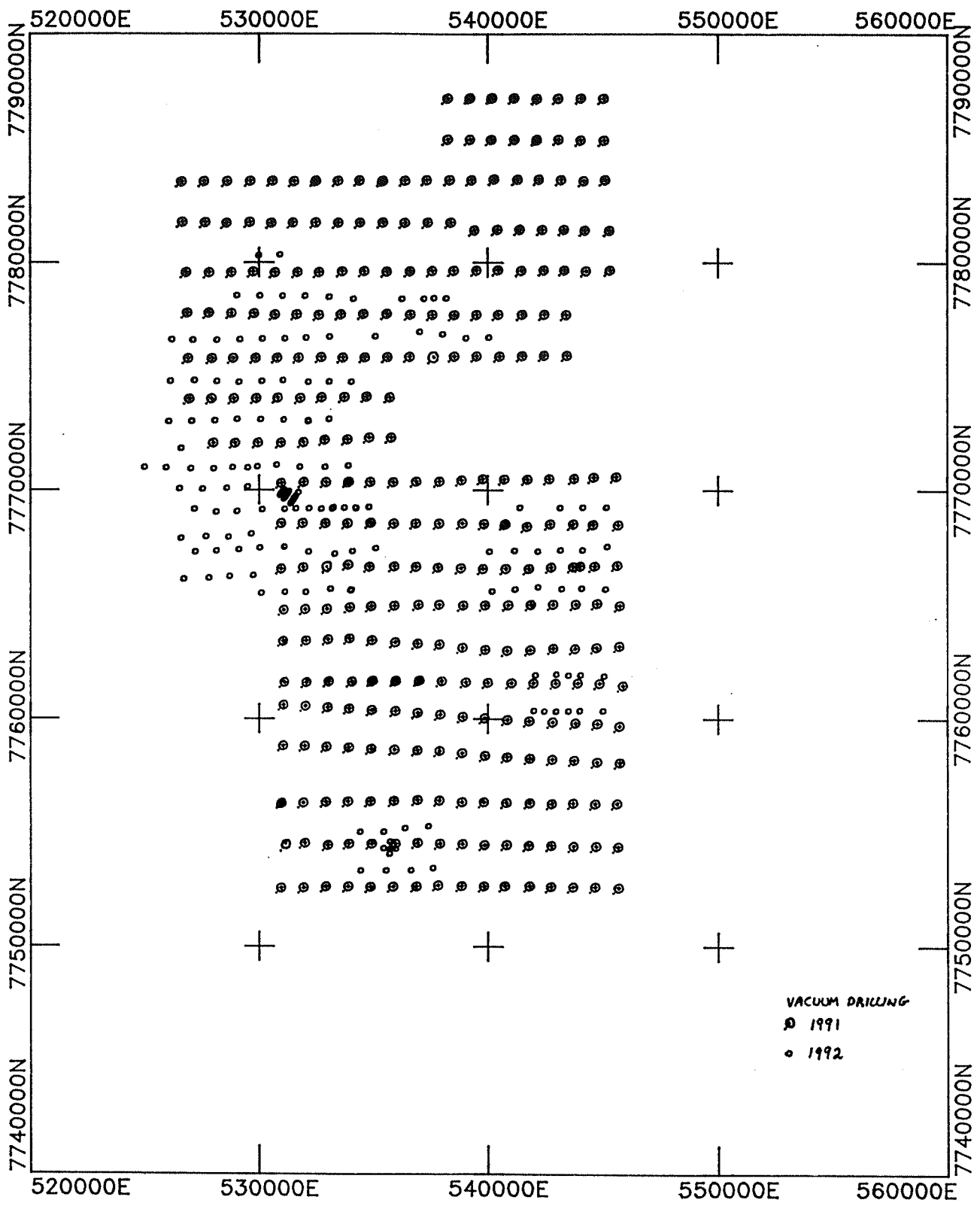
Shale +
Siltstone
Rubble

LAT

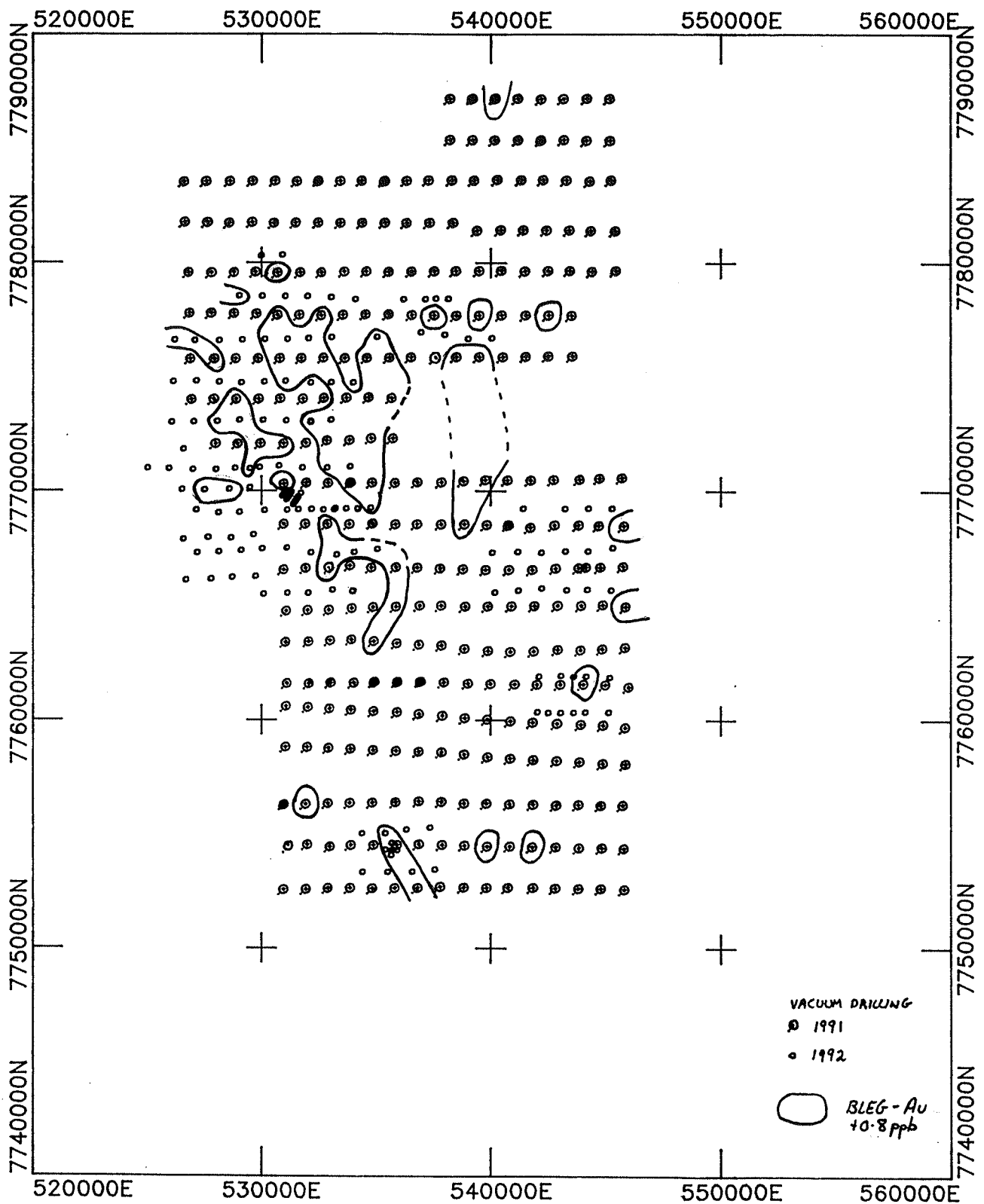
LAT

LAT

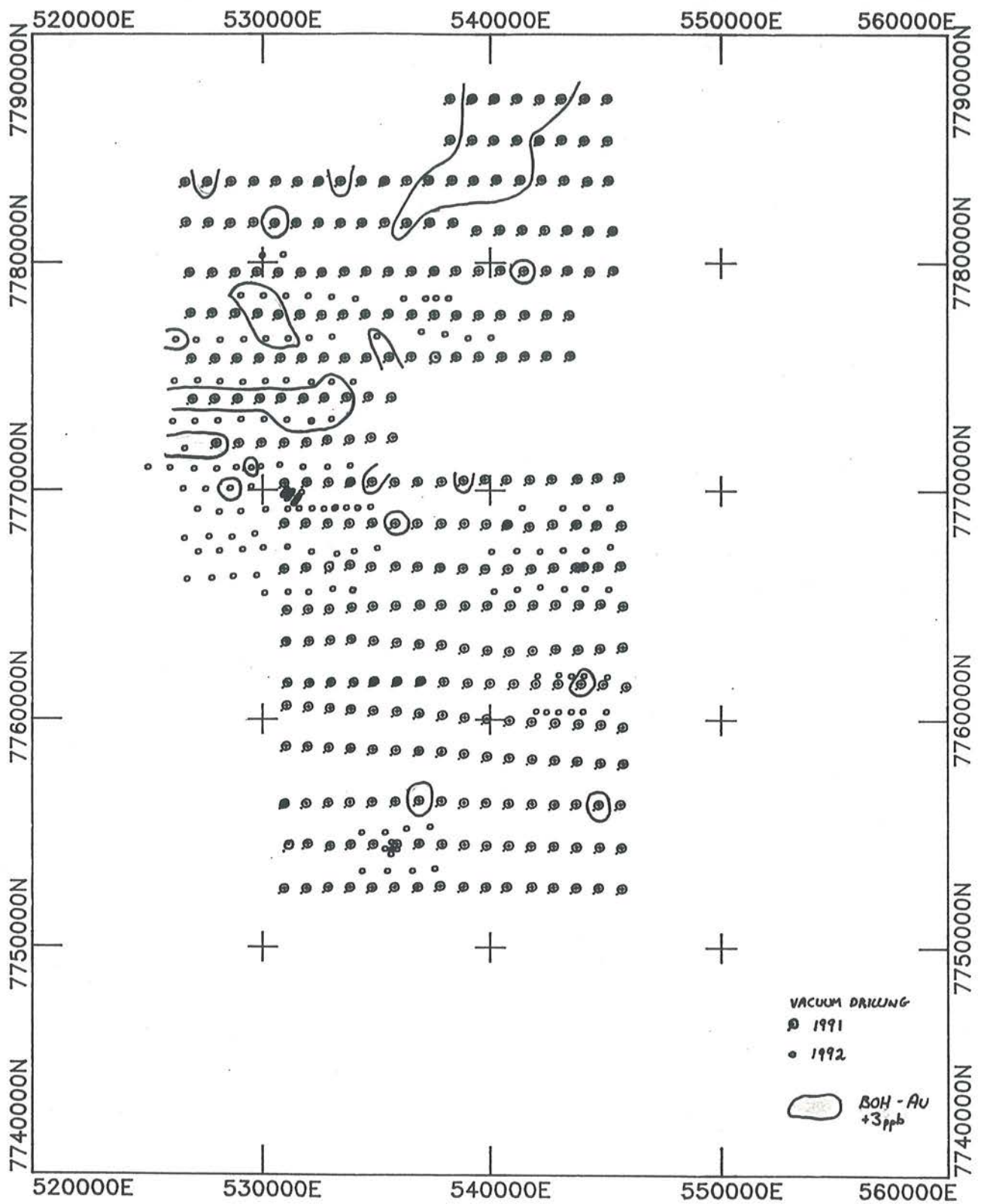
ANOMALY 18
ANOMALOUS SHEAR
BOUNDED ZONE
FIG. 25-3



VACUUM DRILL HOLE
LOCATIONS

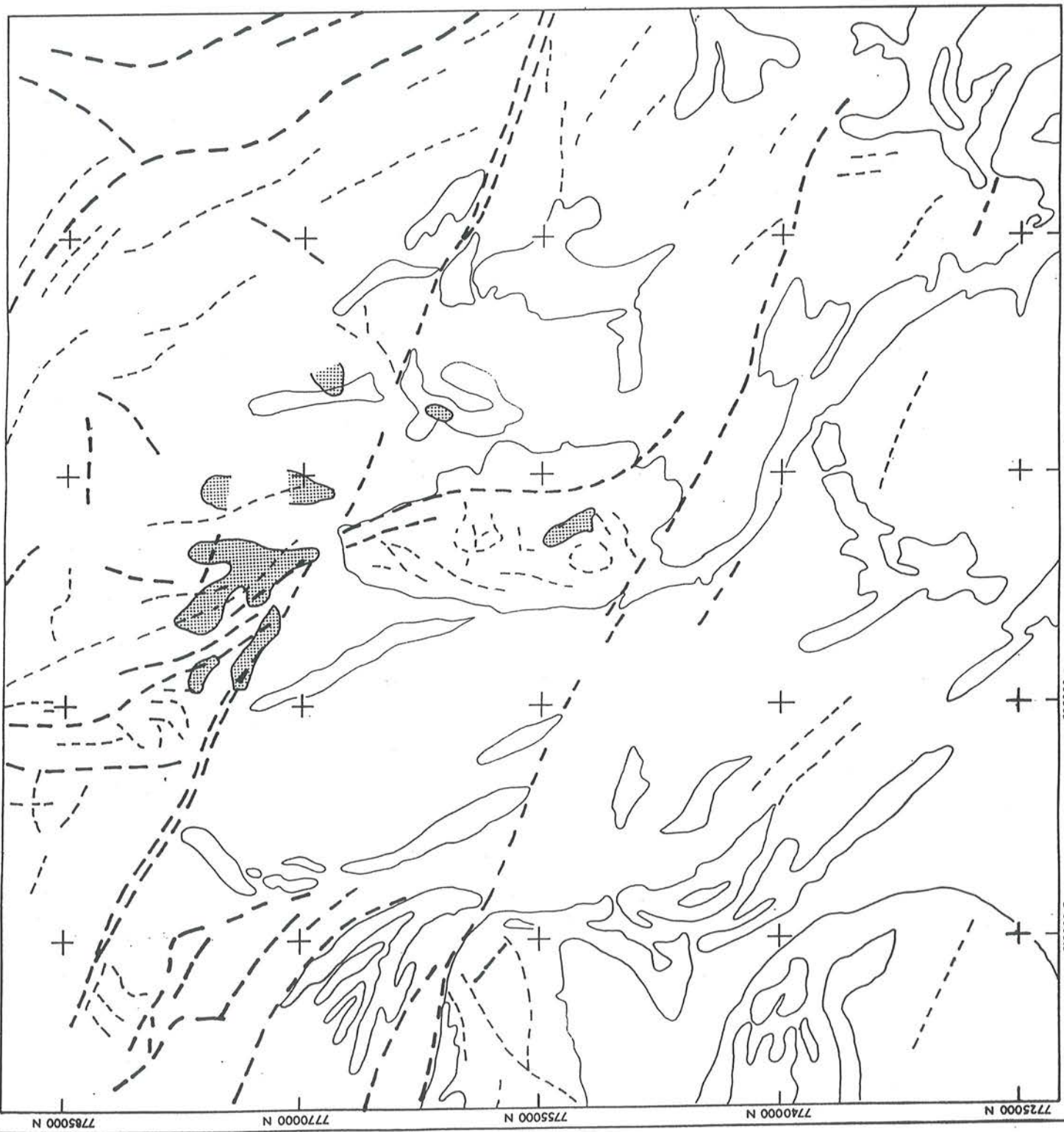


ANOMALOUS BLEG-Au



ANOMALOUS BOH - Au

Fig. 25.6



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		

ANG GRN

14N

4°00'

Tanami Reconnaissance: Northern Territory

MACFARLANES RANGE
AEROMAGNETIC INTERPRETATION
(From Aerodata 1:500000 1st Derivative)

Fig 25.7

SATELLITE POSITION FIXES

	E	N	σ
POSITION 1:	530473	7769457	44.1m
POSITION 2:	531387	7769615	27.7m

LEGEND

- gw GREYWACKE: MED & FINE grained quartz-muscovite greywacke, occasionally quartz veined, minor shales
- ch HAEMATITE - CHERT: Banded cherty haematite, tightly folded in places
- BEDDING
- CLEAVAGE (UNDIFFERENTIATED)
- PLUNGE OF ANTICLINE
- PLUNGE OF SYNCLINE
- Δ ROCK CHIP & SOIL PREFIX : 311

* SCALE AND GRID IS APPROXIMATE

