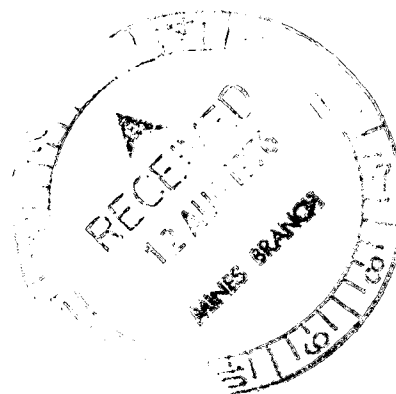




ANNUAL REPORT
FOR
EXPLORATION LICENCE 360
AUTOBAHN
FOR
YEAR ENDING 28TH MAY, 1976.

Distribution:

Mines Branch, N.T.
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C.P.M. Alice Springs.

17th June, 1976.

Compiled by D.H. Moore



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SUMMARY

A detailed Track Etch survey was carried out during the year. Subsequent drilling at Track Etch high values revealed areas of favourable lithology, but no mineralization.



INTRODUCTION

E.L. 360, Autobahn, was granted to Central Pacific Minerals N.L. for 12 months on the 28th May, 1972. It has been renewed yearly since that time. Previously, this area had been part of Authority to Prospect 3302 which was granted to this company for 6 months on the 29th August, 1971.

Details of location, access, topography, climate, history and previous investigations by other groups have been covered in the Annual Report for E.L. 360 for the year ending 28th May, 1973. Investigations by Central Pacific Minerals N.L. have also been covered in the Annual Reports for the exploration licence for the years 1973-4 and 1974-5.

This report describes the work carried out by Central Pacific Minerals N.L. under E.L. 360 for the year ending 28th May, 1976.

INVESTIGATIONS IN THE YEAR ENDED 28TH MAY, 1976.

1. DETAILED TRACK ETCH SURVEY

Following the regional Track Etch investigations conducted in 1974, a more detailed survey was carried out in the area along strike from the known mineralization. One hundred cups were laid on a spacing of 250 m. x 50 m. A total of 14 sample points recorded greater than 20 tracks/mm² with a maximum value of 37.8 tracks/mm². The values obtained in the 1975 survey were less than those from the 1974 survey. This was probably due to differing weather patterns before and during the investigations. The results are given in Map 1 and Appendix 1.

2. PERCUSSION DRILLING

In an attempt to locate the cause of the variation in radon concentrations, 9 holes were drilled at Anomaly 10.

The rig used was a Gemco-Fox unit. Three shallow percussion holes were drilled at each of 3 anomalies, with an accumulative depth of 163 m. Map 1 gives the locality and depth of each hole.

White coloured, coarse-grained limonitic sandstones were found in 2 holes. No significant radioactivity was detected in either the cuttings or by the down hole gamma probe. No reason for the radon anomalies was observed. Appendix 2 contains the geological logs and Appendix 3 the geophysical logs obtained during the programme.



CONCLUSIONS

The Track Etch programme has failed to outline any new areas of mineralization in the exploration licence. However white, potentially favourable sandstones have been located. These are similar to those seen on the western end of the Bigrlyi Prospect, and are probably along strike from them.



APPENDIX 1

FOLLOW-UP TRACK ETCH RESULTS

AUTOBAHN FOLLOW-UP TRACK ETCH

<u>Locality No.</u>	<u>Cup No.</u>	<u>T/E Result (T/mm²)</u>	<u>Radiometric Reading (cps)</u>
AU301	34351	7.8	30
2	2	7.8	30
3	3	7.8	30
4	4	6.5	30
5	5	3.3	35
6	6	9.8	30
7	7	7.2	30
8	8	11.1	30
9	9	12.4	30
10	60	8.5	30
1	1	7.8	30
2	2	14.3	30
3	3	11.7	30
4	4	26.1	30
5	5	8.5	30
6	6	7.2	30
7	7	19.6	30
8	8	15.0	30
9	9	13.0	35
20	70	7.2	50
1	2	4.6	35
2	3	4.6	30
3	4	11.1	35
4	5	4.6	35
5	6	7.8	35
6	7	10.4	35
7	8	18.9	35
8	9	10.4	30
9	80	4.6	30
30	1	28.7	30
1	2	7.8	30
2	3	14.3	30
3	4	9.1	30
4	5	15.0	30
5	6	22.8	30
6	7	11.7	30
7	-	26.7	30
8	8	11.7	30
9	9	17.0	30
40	90	8.5	30
1	1	11.7	45
2	2	9.8	45
3	3	28.7	45
4	4	7.2	35
5	5	13.7	55
AU28	6	16.3	40
AU346	7	17.0	35
7	8	6.5	35
8	9	6.5	35

<u>Locality No.</u>	<u>Cup No.</u>	<u>T/E Result (T/mm²)</u>	<u>Radiometric Reading (cps)</u>
AU349	34400	6.5	35
50	1	16.3	35
1	2	6.5	35
2	3	5.9	30
3	4	6.5	30
4	5	13.0	30
AU29	6	12.4	30
AU355	7	5.2	35
6	8	11.1	35
7	9	37.8	35
8	10	17.0	35
9	1	7.8	40
60	2	9.1	40
1	3	13.7	35
2	4	27.4	35
3	5	9.8	35
4	6	15.0	30
5	7	13.0	30
6	8	5.2	30
7	9	5.2	30
8	20	9.8	30
9	1	4.6	30
70	2	8.5	30
1	3	26.1	30
2	4	27.4	30
3	5	13.7	30
4	6	19.6	30
5	7	7.8	30
6	8	20.9	35
7	9	23.5	35
8	30	12.4	30
9	1	21.5	35
80	2	13.0	30
1	3	9.1	30
2	4	14.3	30
3	5	7.8	30
4	6	15.7	30
5	7	11.1	30
6	8	13.7	30
7	9	18.4	30
8	40	12.4	30
9	1	12.4	30
90	2	12.4	30
1	3	17.0	35
2	4	11.7	35
3	5	35.2	35
4	6	19.6	35
5	7	12.4	35
6	8	35.2	35
7	9	10.4	35
8	50	18.9	35



APPENDIX 2

GEOLOGICAL LOGS AUPH-1 TO AUPH-9



CENTRAL PACIFIC MINERALS N.L.

COORDINATES

PROJECT NT61 AUTOBAHN

LOG HOLE No.

AUPH1

COLLAR RL

LOCATION 25 METRES SOUTH

T/E LOCALITY AU343.

ANGLE FROM HORIZONTAL - 90° DIRECTION

Casing Scale Depth Run	METRES From To	DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
0		Sandstone m, dkylor, heavily laminated		
2		dkylor, heavily laminated		
4		m-c,		
6		Claystone dkylor		
8		Sandstone c, dkylor, friable, heavily laminated to mica		
10				
12		m-c dkylor, friable, Felspar Korol, Tr mica		
14				
16				
18		m-c dkylor, friable, heavily laminated		
20		dkylor bultgy		
		m-c, ultgy, friable, Tr mica, Felspar Kashimised.		
20		T.D. 20 METRES.		

DRILL NO.
TYPE GEMCO-FOX
DRILLER ROCKDRILL
Commenced 13/10/75
Completed 14/10/75
GEOPHYS. LOG. 2-AM

NOTES

WATER TABLE

DEPTH OF WEATHERING

LOGGED BY D.A.H.
DRAWN BY D.A.H.
CHECKED BY

SHEET 1 OF 1 SHEETS



CENTRAL PACIFIC MINERALS N.L.

COORDINATES

PROJECT NT61 AUTOBAHN
LOCATION T/E LOCALITY AV343

LOG HOLE No.

AUPH2

COLLAR RL

ANGLE FROM HORIZONTAL -90° DIRECTION -

Casing Scale Depth	Run	METRES From To	DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
			Alluvium moddrbr		
			Miner oxid. m sst.		
2			Sandstone. moddrbr - yllgy, f, siliceous, Miner Mn + limonite staining.		
			m, A/A.		
4			m, yllgy, friable, Ab limonite staining.		
			Hgy to gyrd, m, Ab limonite staining.		
6					
8			m, yllgy, friable, Kaol. fclspers, Ab limonite rich interbeds & minor dk yllgy claystone		
10			m-c yllgy, friable, fclspers Kaol.		
12					
14			Minor limonite staining & dk yllgy claystone		
16			m-c, yllgy, friable, fclspers Kaol.		
18			Minor lim stain - dk yllgy claystone		
20					

T.D. 20 METRES.

DRILL NO.
TYPE Gemco-Fox
DRILLER Rockwell
Commenced 14/10/75.
Completed 14/10/75.
GEOPHYS. LOG J-RAY

NOTES

WATER TABLE
DEPTH OF WEATHERINGLOGGED BY D.A.H.
DRAWN BY D.A.H.
CHECKED BY
SHEET 1 OF 1 SHEETS

CENTRAL PACIFIC MINERALS N.L.

COORDINATES

PROJECT NT 61 LOG HOLE No. AUTOBATH

AUPH3

COLLAR RL

LOCATION 25 metres North

T/E LOCALITY AUB343

ANGLE FROM HORIZONTAL -90° DIRECTION

Casing Scale Depth	Rac Run	METRES		DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
		From	To			
0				Alluvium modrd br.		
2				Sandstone gyrd, c, oxidized, very friable		
4				gyrd to dkylbr,		
6				Ab gngy, f, silic. sst.		
8				plrd purple, m.c, very friable.		
10				plrd, c-v.c. subangular, friable, minor plrd purple clay, Ab limonite coatings		
12						
14				vlty to dkylbr, c-v.c., friable, fclspars Kartimized, Ab limonite stainings		
16						
18						
20						

T.D. 20 METRES.

DRILL No.
 TYPE GEMCO-Fox
 DRILLER Rockdril
 Commenced 15/10/75
 Completed 15/10/75
 GEOPHYS. LOG J-RA4

NOTES

WATER TABLE
 DEPTH OF WEATHERING

LOGGED BY J.A.H.
 DRAWN BY J.A.H.
 CHECKED BY
 SHEET 1 OF 1 SHEETS



CENTRAL PACIFIC MINERALS N.L.

PROJECT NT61 AUTOBAIN
LOCATION 25 metres North
T/E LOCALITY AU 362.

LOG HOLE No.

AUPH4

COORDINATES

COLLAR RL

ANGLE FROM HORIZONTAL -90° DIRECTION

Casing Depth Run	Rec METRES From To	DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
0		Alluvium + Vaughan Springs Quartzite frags.	✓	
2			V.S.Q.	
4			V.S.Q.	
6		Quartzite Gravel. V.S.Q? vltgy.	✓	
8		Sandstone vltgy to yllgy, c-v.c., friable.	●	
		vltgy to ltgy, c, friable, feldspars Kaolinized.	●	
10			●	
12		Claystone Gred to ltgy, c, minor sand particles	—	
14		Sandstone vltgy to ltgy, c, friable, feldspars Kaolinized.	●	
16			●	
18			●	
20		C-v.c, minor lt or br clay	●	
		Claystone lt or br	—	

DRILL No.
TYPE GEMCO-FOX
DRILLER ROLKDRU
Commenced 15/10/75
Completed 16/10/75
GEOPHYS. LOG J-RAY.

NOTES

WATER TABLE
DEPTH OF WEATHERING

LOGGED BY D.A.H.
DRAWN BY D.A.H.
CHECKED BY
SHEET 1 OF 1 SHEETS

CENTRAL PACIFIC MINERALS N.L.

COORDINATES

COLLAR RL

ANGLE FROM HORIZONTAL -90° DIRECTION
 PROJECT NT 61 LOG HOLE No. AUPH5
 LOCATION T/E LOCALITY AU 362

Scale Depth Run	METRES		DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
	From	To			
0			Alluvium + Vaughan Springs Quartzite frags.		
2				V.S.D.	
4				V.S.D.	
6			Sandstone m, yllgy, friable.		
8			gyed, mmsi gngy, c-v.c., friable.		
10			Hgy to yllgy, c, friable, feldspar kaolinized		
12			gyed c-v.c., friable, mica (tr), limonite		
14					
16					
18					
20					

T.D. 20 METRES.

 DRILL No.
 TYPE GEMCO-FOX
 DRILLER ROCKDRIL
 Commenced 16/10/75
 Completed 16/10/75
 GEOPHYS. LOG 8-RAH

NOTES

 WATER TABLE
 DEPTH OF WEATHERING

 LOGGED BY D.A.H.
 DRAWN BY D.A.H.
 CHECKED BY
 SHEET 1 OF 1 SHEETS



CENTRAL PACIFIC MINERALS N.L.

COORDINATES.....

PROJECT NT61 AutoBATHN

LOG HOLE No.

AUPH6.

COLLAR RL.....

LOCATION T/E Locality A1362
25 metres South.

ANGLE FROM HORIZONTAL -90°. DIRECTION.....

Scale Depth	METRES		DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
	Run	From To			
0			Alluvium + Vaughan Spruige Quartzite frags.	✓	
2				V.S.Q.	
4				V.S.Q.	
6			Shale modrdbr. ggy, minor modrdbr.	✓	
8				✓	
10			Sandstone modrdbr, c-v.c, friable,	✓	
12			T.D. 10 METRES (HOLE CAVING BADLY)		
14					
16					

DRILL No.
TYPE GEMCO - FOX
DRILLER Rockdrill
Commenced 16/10/75
Completed 16/10/75
GEOPHYS. LOG J. RAY

NOTES

WATER TABLE
DEPTH OF WEATHERING

LOGGED BY D.A.H.
DRAWN BY D.A.H.
CHECKED BY
SHEET 1 OF 1 SHEETS

CENTRAL PACIFIC MINERALS N.L.

COORDINATES

COLLAR RL

PROJECT NT61 AUTOSAMN.

LOG HOLE No.

AU PIT 7

LOCATION 25 metres South

T/E LOCALITY AU 357 ANGLE FROM HORIZONTAL - 90°. DIRECTION

Scale Depth Run	METRES From To	DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
0		Alluvium mod rdb.		
2				
4		Sandy Clay mod rdb. gltg, in sand size, minor lathen Spinel Quartzite Gags.		
6				
8		gltg, in grain size.		
10		dkylbr.		
12		dkylor, Ab dkylor claystone.		
14				
16				
18		Plegylor to dkylor, in grain size sand.		
20				

T.D. 20 METRES.

DRILL No.

TYPE GEMLO - FOX.

DRILLER ROCKDRIL.

Commenced 16/10/75.

Completed 16/10/75.

GEOPHYS. LOG J-RAY.

NOTES

WATER TABLE

DEPTH OF WEATHERING

LOGGED BY D.A.H.

DRAWN BY D.A.H.

CHECKED BY

SHEET 1 OF 1 SHEETS

CENTRAL PACIFIC MINERALS N.L.

COORDINATES

COLLAR RL

LOG HOLE No. **AU PH8**
 PROJECT NT 61 AUTOBATHN
 LOCATION T/E LOCALITY AU357.

ANGLE FROM HORIZONTAL **-90°** DIRECTION

Depth Run	METRES From To	DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
0		Alluvium modrdbr.	~	
2		Sandy clay modrdbr to dkylbr, mmi + S. clay Spr. Quartzite fragments 5-7m	~	
4			~	
6			~	
8		pl. ylor and yll gy, m-c sand particles.	~	
10		DKylbr to dkylor	~	
12		yll gy.	~	
14		Sandstone yllay to sllay c-v.c., friable, feldspar kaolinized	~	
16			~	
18		pl. rd purple, c-v.c., friable.	~	
20		T.D. 20 METRES.	~	

DRILL No.
 TYPE **GEMCO-FOX**
 DRILLER **ROCK DRILL**
 Commenced **16/10/75**
 Completed **16/10/75**
 GEOPHYS. LOG **X-RAY**

NOTES

WATER TABLE

DEPTH OF WEATHERING

LOGGED BY **D.A.H.**
 DRAWN BY **S.A.H.**
 CHECKED BY

SHEET **1** OF **1** SHEETS

CENTRAL PACIFIC MINERALS N.L.

COORDINATES

COLLAR RL

PROJECT NT 61 AUTOBAHN

LOG HOLE No.

AUPH9

LOCATION T/E LOCALITY N357

25 metres North

ANGLE FROM HORIZONTAL -90° DIRECTION

Depth Metres	METRES		DESCRIPTION (Rock type, components, colour, grain size, weathering, alteration, mineralisation, etc.,)	Graphic Log	Sample No.
	From	To			
0			Alluvium Modrdb.	~	
2			Sandy Clay modrdb. to dkylbr, abun V.S. Quartzite frags.	~	
4				~	
6				~	
8				~	
10			ylgy to gngy	~	
12			dkrdb, ylgy and pleylor.	~	
14			T.D. 13 METRES (HOLE CAVING BADLY)	~	

DRILL No.
 TYPE Gemco - FOX
 DRILLER ROCK DRILL
 Commented 16/10/75
 Completed 16/10/75
 GEOPHYS. LOG J. RAY

NOTES

WATER TABLE

DEPTH OF WEATHERING

LOGGED BY J. A. H.
 DRAWN BY D. A. H.
 CHECKED BY

SHEET 1 OF 1 SHEETS



APPENDIX 3

GEOPHYSICAL LOGS AUPH-1 TO AUPH-9

SCALE 1:500

[illegible]

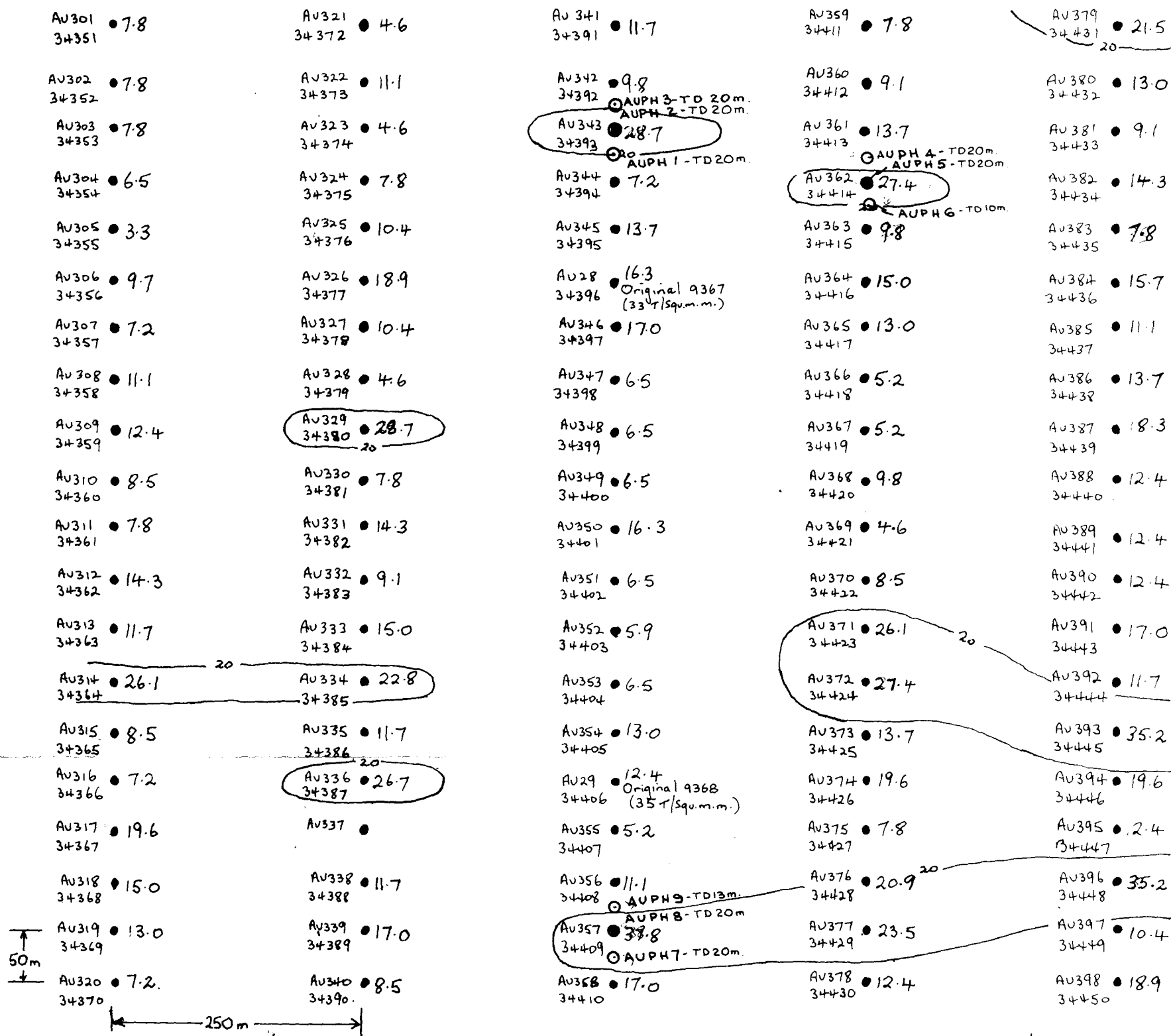
[illegible]

[illegible]

[illegible]

 MURPHY GEOPHYSICS PTY. LTD. LONGHIRE DATA		DATE 17-10-82
STATION	LOCATION	SOUNDING
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10001	AULT 2000M	2000 1000 1000
10002	AULT 2000M	2000 1000 1000
10003	AULT 2000M	2000 1000 1000
10004	AULT 2000M	2000 1000 1000
10005	AULT 2000M	2000 1000 1000
10006	AULT 2000M	2000 1000 1000
10007	AULT 2000M	2000 1000 1000
10008	AULT 2000M	2000 1000 1000
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10033	AULT 2000M	2000 1000 1000
10034	AULT 2000M	2000 1000 1000
10035	AULT 2000M	2000 1000 1000
10036	AULT 2000M	2000 1000 1000
10037	AULT 2000M	2000 1000 1000
10038	AULT 2000M	2000 1000 1000
10039	AULT 2000M	2000 1000 1000
10040	AULT 2000M	2000 1000 1000
10041	AULT 2000M	2000 1000 1000
10042	AULT 2000M	2000 1000 1000
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10052	AULT 2000M	2000 1000 1000
10053	AULT 2000M	2000 1000 1000
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10055	AULT 2000M	2000 1000 1000
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10061	AULT 2000M	2000 1000 1000
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10069	AULT 2000M	2000 1000 1000
10070	AULT 2000M	2000 1000 1000
10071	AULT 2000M	2000 1000 1000
10072	AULT 2000M	2000 1000 1000
10073	AULT 2000M	2000 1000 1000
10074	AULT 2000M	2000 1000 1000
10075	AULT 2000M	2000 1000 1000
10076	AULT 2000M	2000 1000 1000
10077	AULT 2000M	200

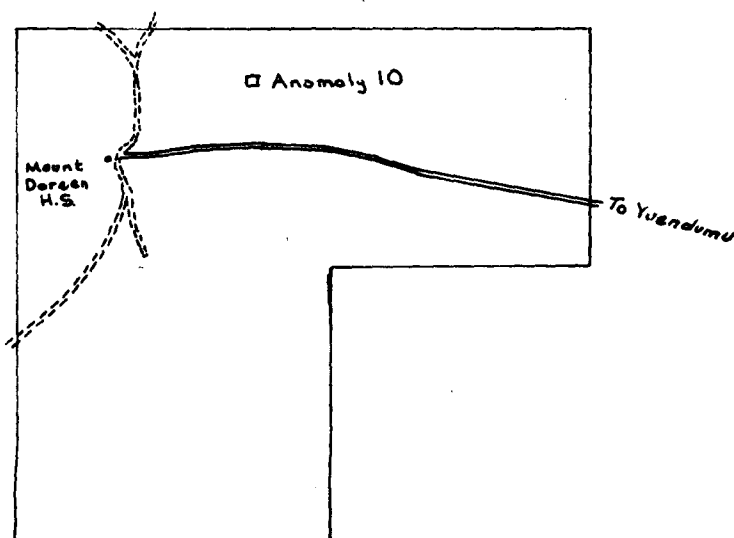
[illegible]



Note:- Contour interval $-20^\circ\text{T/sq.m.m.}$

- 7.2 Track Etch Value (T/Sq. m.m.)

AV320 Locality Number
34370 Track Etch Cup Number.



AUTOBAHN

NT 61

EL 360

LOCALITY MAP&CONTOURS
FOLLOW UP TRACK ETCH SURVEY
ANOMALY 10

1:5000

Aug '75

NT61-

DA'H

DAH

Nov/
75

MAP 1