

348000mE  
5360000mN  
5358500mN  
348000mE

350000mE  
5360000mN  
5358500mN  
350000mE

**LEGEND**

**Alteration**

- Argillic alteration
- Quartz and feldspar and/or tourmaline alteration
- Highly tourmalinized, occasionally with hematite
- Hydrothermal breccia
- Collapse

**Quartz - mica gneiss**

- Area of tourmaline nodules

**White (younger) granite**

- Fine grained
- Medium grained

**Red (older) granite**

- Medium grained
- Coarse grained

**Major lineament**

- Joint with dip
- Joint vertical
- Foliation
- Definite
- Approximate
- Interred

**Geological boundary**

- Old mines and prospects

**COMPILED NOTE**

This sheet is a composite of photo grammatic contours superimposed on a half tone reproduction of compiled orthophoto from aerial photography dated 12/12/77.

Orthophoto base mapping and photogrammetric contours by Aust. Aerial Mapping.

Aerial photography WMS RC8  
Aerial triangulation WMS A8  
Contouring WMS BB  
Orthophoto Zeiss Topocart

**REFERENCE**

- Contours
- Depressions
- Spot Heights
- Control
- N.B. Broken lines indicate lower reliability
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTRALIAN DATUM
- COORDINATES AUSTRALIAN MAP GRID
- Grid interval 200 metres

**SHEET AND INDEX LOCATION**

SHEET 1	SHEET 2
SHEET 3	SHEET 4
SHEET 5	SHEET 6

5357000mN  
348000mE

**REXON LIMITED**

**HEEMSKIRK AREA**

**GEOLOGICAL INTERPRETATION**

**GEOLOGIST:** K. WELLS

**DRAWN BY:** J. MATTHEWS

**DATE:** JUNE 1978

**SCALE:** 1:2000 METRES

**REVISIONS:**

**DRAWING NO.:**

HEEMSKIRK GRANITE AREA  
REXON LIMITED  
SHEET 3  
1:2000

348000mE  
5360000mN

350000mE  
5360000mN



5358500mN  
348000mE

5358500mN  
350000mE

LEGEND

- Joint with dip and magnetic bearing
- Joint vertical
- Foliation (of crystals)
- Geological boundary — definite
- Geological boundary — approximate
- Area of tourmaline nodules
- Old mines and prospects
- Sample / Locality numbers



COMPILED NOTE

This sheet is a composite of photo  
grammetric contours superimposed on a  
half tone reproduction of composite  
aerial photography from aerial photography  
taken 12/5/77.

Orthographic base mapping and  
photogrammetric contours  
by Aerial Aerial Mapping  
Aerial photography Wop HCB  
Aerial triangulation Wop AR  
Contouring Wop BR  
Orthographic Zero Topocart

REFERENCE

- Contours
- Depressions
- Spot Heights
- Contours
- N.B. Borehole indicator over weather
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUST HEIGHT DATUM
- CO-ORDINATES AUST MAP GRID
- Grid interval 200 metres

SHEET AND INDEX LOCATION

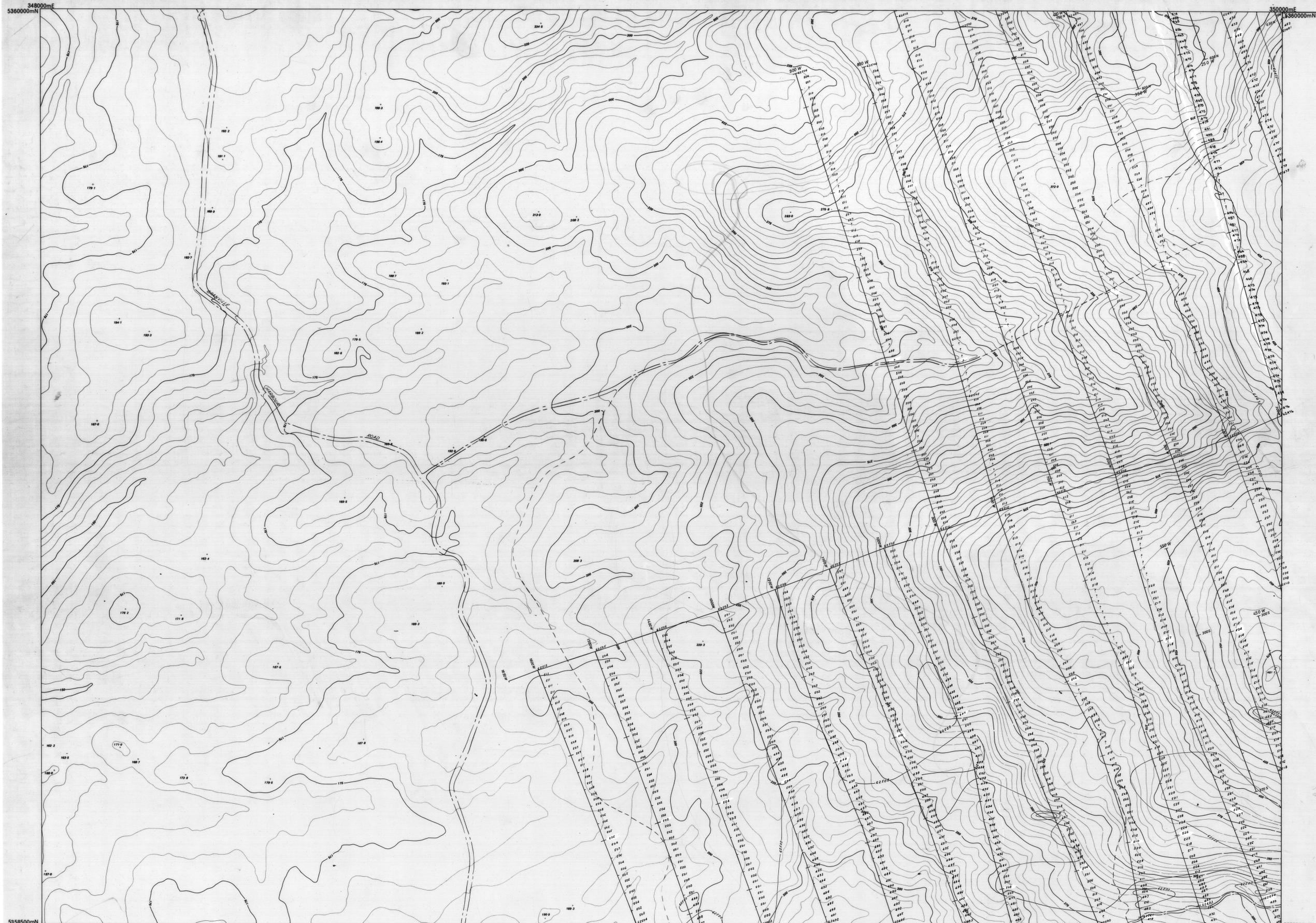


RENSON LIMITED

FEDERATION AREA  
GEOLOGY FACT PLAN

GEOLOGIST	K. WELLS	SCALE 1:2000 METRES
DRAWN BY	J. MATTHEWS	
DATE	JUNE 1978	
REVISIONS		DRAWING NO.

HEMISPHERE GEOPHYSICAL  
SERVICES  
SHEETS 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100



536000mE

350000mE

5358500mN

5360000mN

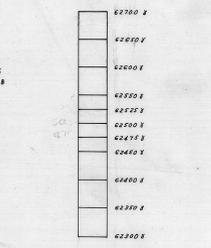
**COMPILED NOTE**  
 This sheet is a composite of photogrammetric contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/77.  
 Orthometric base mapping and photogrammetric contours by Aust. Aerial Mapping  
 Aerial photography: WIS RCS  
 Aerial triangulation: WIS AB  
 Contouring: WIS BS  
 Orthophotos: Zess Topocart

**REFERENCE**  
 Contours  
 Depressions  
 Spot Heights  
 Contour  
 N.B Broken lines indicate lower reliability  
 Contour interval 5 metres  
 Spot heights to 0.5 metres  
 REDUCED LEVELS TO AUSTRALIAN DATUM  
 COORDINATES AUSTRALIAN GRID  
 Grid interval 200 metres

**SHEET AND INDEX LOCATION**

SHEET 1	SHEET 2
SHEET 3	SHEET 4
SHEET 5	SHEET 6

1:2,000



**FEDERATION GRID**  
 MAGNETICS (TOTAL FIELD)

**REVISIONS**

NO.	DATE	BY	REVISIONS
1	JUNE 1988	H. ROBERTS	SCALE 1:2000 METRES
2		K. COLEMAN	

DRAWING NO.

Hemphill Granite Area  
 GE. L. 11/76 & S. P. L. 1873  
 223  
 Hemphill Granite Area  
 STRONGMAN SHEET 3, MAGNETICS  
 1:2,000

35000mE  
536000mN

352000mE  
5360000mN

5358500mN  
350000mE

5358500mN  
352000mE

350 000 E

351 000 E

5 359 500 N

5 359 000 N



COMPILED NOTE

This sheet is a composite of photogrammetric contours superimposed on a half tone reproduction of completed orthophotos from aerial photography dated 12-12-77.

Orthophoto base mapping and photogrammetric contours by Aust. Aerial Mapping.

Aerial photography W41 PCB  
Aerial interpretation W41 AB  
Contouring W41 BB  
Orthophotos Zeiss Topocart

REFERENCE

- Contours
- Depressions
- Spot Heights
- Contour Interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUST. HEIGHT DATUM
- COORDINATES AUSTRALIAN MAP GRID
- Grid interval 200 metres

SHEET AND INDEX LOCATION

SHEET 1	SHEET 2	4 M. AREA
SHEET 3	SHEET 4	
SHEET 5	SHEET 6	11

RENSON LIMITED

HEEMSKIRK AREA  
SURVEY TRAVERSES

GEOLOGIST: \_\_\_\_\_  
 DRAUGHTSMAN: \_\_\_\_\_  
 DATE: 22.11.78  
 REVISIONS: \_\_\_\_\_  
 SCALE: 1:20000 METRES  
 DRAWING NO. 4

Heemskirk Granite Area  
Sheet 4 of 12  
Scale 1:20000  
Date 22.11.78

Heemskirk Granite Area  
Sheet 4 of 12  
Scale 1:20000  
Date 22.11.78

350000mE  
5360000mN

352000mE  
5360000mN



5358500mN  
350000mE

5358500mN  
352000mE

COMPILATION NOTE

This sheet is a composite of photogrammetric contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/77.

Orthophoto base mapping and photogrammetric contouring by Aust. Aerial Mapping.

Aerial photography Wild FC8  
Aerial triangulation Wild AB  
Contouring Wild 88  
Orthophotos Zeiss Topocart

REFERENCE

-  Contours
-  Depressions
-  Spot Heights
-  Control
-  Broken lines indicate lower reliability
-  Contour interval 5 metres
-  Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTR. HEIGHT DATUM
- COORDINATES: AUSTR. MAP GRID
- Grid interval 200 metres

SHEET AND INDEX LOCATION



REINSON LIMITED

HEEMSKIRK AREA

GEOLOGIST:  
DRAUGHTSMAN:  
DATE:  
REVISIONS

SCALE 1:2000 METRES  
0 40 80

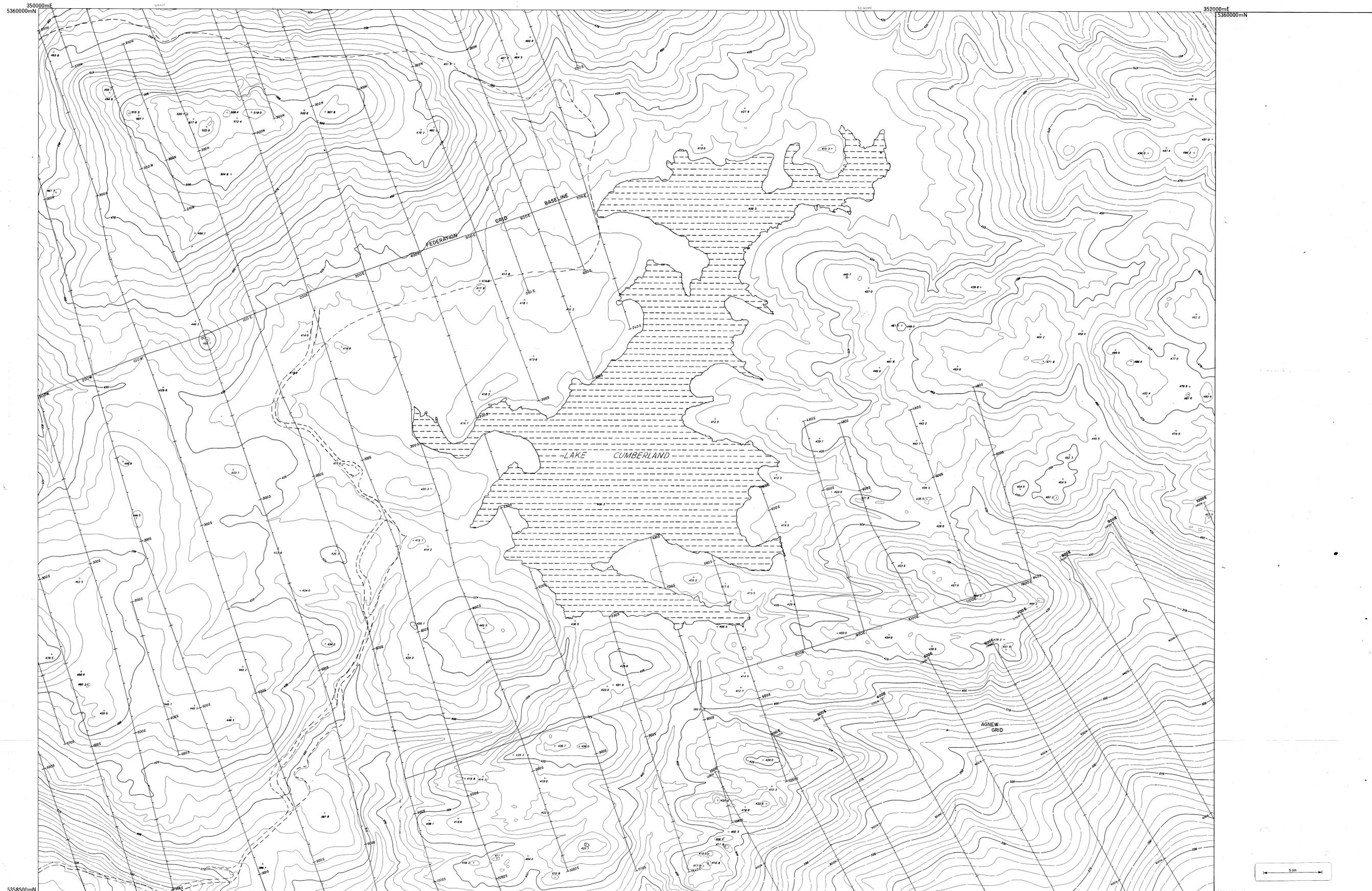
DRAWING NO.

1:2000

HEEMSKIRK AREA

Heemskirk Area  
KEL 11/78 & 8 F.L. 1879  
225

Heemskirk Geome Area  
Smythway  
1:2000  
SHEET 4



COMPILED NOTE  
 This sheet is a composite of photogrammetric contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/77.  
 Orthophoto base mapping and photogrammetric contours by Aust. Aerial Mapping.  
 Aerial photography Wild RC8  
 Aerial triangulation WAF AB  
 Contouring Wild B8  
 Orthophotos Zeiss Topocart

REFERENCE  
 Contours  
 Depressions  
 Spot Heights  
 Control  
 N.B. Broken lines indicate lower reliability.  
 Contour interval 5 metres.  
 Spot heights to 0.5 metres.  
 REDUCED LEVELS TO AUSTRALIAN HEIGHT DATUM  
 COORDINATES AUSTRALIAN MAP GRID  
 Grid interval 200 metres

SHEET AND INDEX LOCATION

SHEET 1	SHEET 2	SHEET 3
SHEET 4	SHEET 5	SHEET 6
SHEET 7	SHEET 8	SHEET 9
SHEET 10	SHEET 11	SHEET 12

5358500mN  
 350000mE

RENSON LIMITED

**HEEMSKIRK AREA**  
**FEDERATION AND SWEENEY GRIDS**

GEOLOGIST: \_\_\_\_\_  
 DRAUGHTSMAN: \_\_\_\_\_  
 DATE: \_\_\_\_\_

SCALE 1:20,000 METRES

REVISIONS: \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_

HEEMSKIRK AREA  
 SHEET 4, 1:20,000  
 SHEET NO. 226

35000mE  
536000mN

352000mE  
536000mN

5358500mN  
35000mE

5358500mN  
352000mE



LEGEND

- Joint with dip and magnetic bearing
- Joint vertical
- Foliation (of crystals)
- Geological boundary — definite
- Geological boundary — approximate
- Area of tourmaline nodules
- Old mines and prospects
- Sample / Locality numbers



COMPIATION NOTE

The map is a compilation of geologic contour, supplemented by a topographic reproduction of contour. Contour lines are not necessarily closed (i.e. they may be interrupted).

Contour lines were mapped and interpreted from:

- 1:50,000 Aerial Mapping
- 1:50,000 Aerial Photography
- 1:50,000 Aerial Photographs
- 1:50,000 Aerial Photographs
- 1:50,000 Aerial Photographs
- 1:50,000 Aerial Photographs

REFERENCE

- Contour
- Depression
- Spot Heights
- Contour line with magnetic bearing
- Contour interval 10 metres
- Spot heights 10 metres
- Contour interval 10 metres
- Spot heights 10 metres



RENSON LIMITED

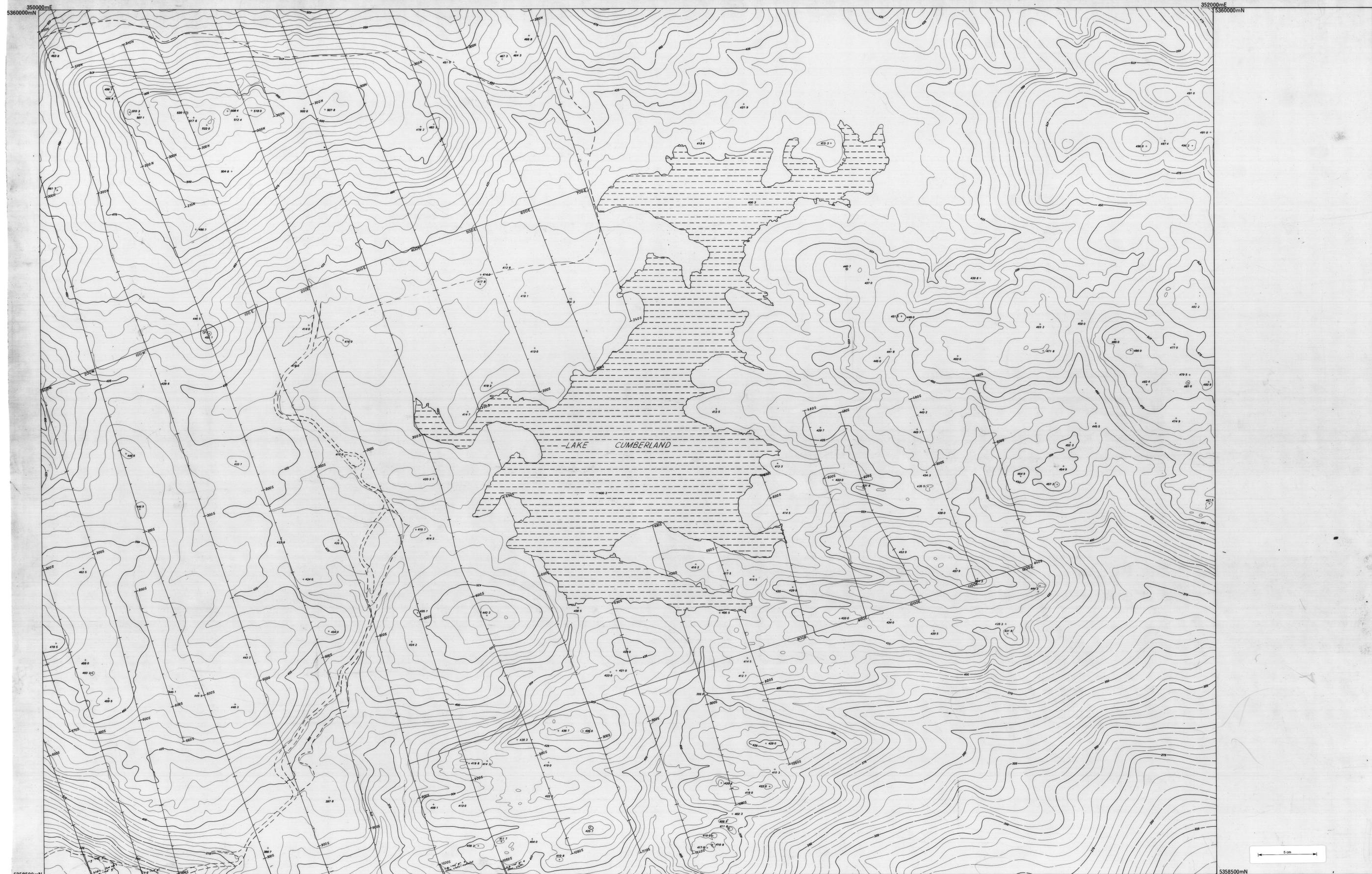
FEDERATION AREA

GEOLOGY FACT PLAN

GEOLOGIST: K. WELLS  
 DRAWN BY: J. MATTHEWS  
 DATE: JUNE 1978  
 SCALE: 1:2000 METRES  
 REVISIONS: [Table with 2 columns: No., Description]  
 DRAWING NO. [ ]

Sheet 227  
 E.L. 11/76 & S.P.L. 183

Horizontal Control: F.A. 1978  
 Vertical Control: F.A. 1978  
 SHEET 4  
 1:2000  
 227



35000mE  
536000mN  
5358500mN  
35000mE

352000mE  
536000mN  
5358500mN  
352000mE

LAKE CUMBERLAND

COMPILED NOTE

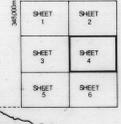
This sheet is a composite of photogrammetric contours superimposed on a full line reproduction of contour orthophotos from aerial photography dated 12/77.

Orthophoto base mapping and photogrammetric contours by Aust. Aerial Mapping  
Aerial photography Wild PC8  
Aerial triangulation Wild A8  
Contouring Wild B8  
Orthophotos Zeiss Topocart

REFERENCE

- Contours
- Depressions
- Spot Heights
- Control
- N.B. Broken lines indicate lower reliability
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTRALIAN DATUM
- COORDINATES AUSTRALIAN MAP GRID
- Grid interval 200 metres

SHEET AND INDEX LOCATION

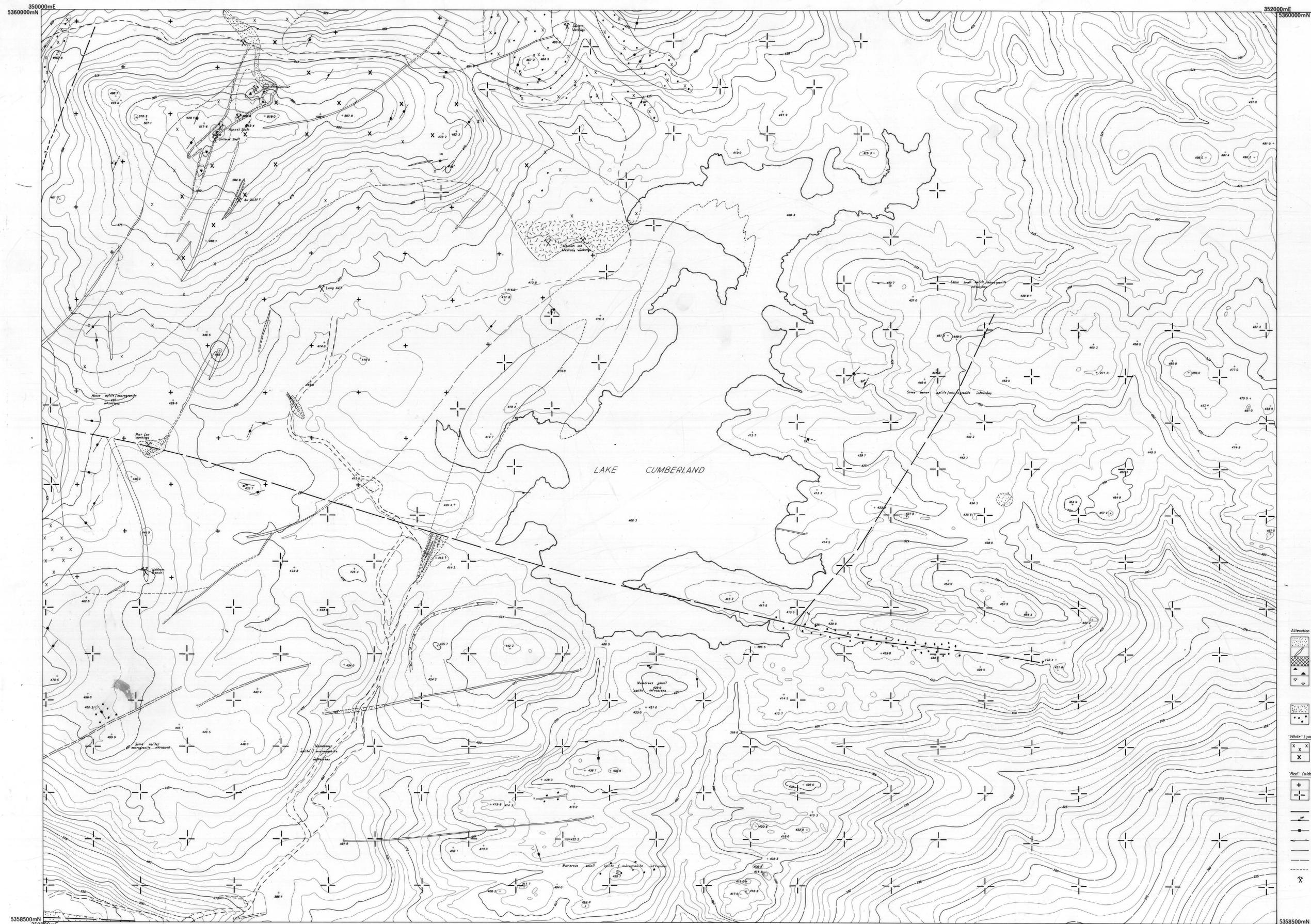


RENSON LIMITED

FEDERATION GRID  
FACTUAL GEOLOGY  
LINE MAPPING

GEOLOGIST: A. ROBERTS  
DRAUGHTSMAN: A. COLLON  
DATE: JUNE 1980  
REVISIONS: \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_

228  
 HEMISPHERIC GEOMETRIC FIELD  
 SHEET 4, FROM  
 GEOMETRY 1:2000  
 (E.L. 13/76 & S.P.L. 123)  
 25 - 2425  
 HEMISPHERIC GEOMETRIC FIELD  
 (E.L. 13/76 & S.P.L. 123)



**LEGEND**

**Alteration**

- Argillic alteration
- Quartz and feldspar and/or feldspathic alteration
- Totally tourmalinized, occasionally with hematite
- Hydrothermal
- Collapse
- White alteration 'cap' (overlain vein?)
- Breccia

Quartz - mica gneiss

Area of tourmaline nodules

**'White' (younger) granite**

- Fine grained
- Medium grained

**'Red' (older) granite**

- Medium grained
- Coarse grained

Major lineament

Joint with dip

Joint vertical

Foliation

Define

Approximate } Geological boundary

Inferred

Old mines and prospects

5 cm

**COMPILED NOTE**

The sheet is a composite of photo-grammetric contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/12/77.

Orthophoto base mapping and photogrammetric contours by Aust. Aerial Mapping

Aerial photography WMS PCB

Aerial triangulation WMS AB

Contouring WMS BB

Orthophoto Zestis Topocart

**REFERENCE**

- Contours
- Depressions
- Spot Heights
- Control
- N.B. Broken lines indicate lower reliability
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTRALIAN HEIGHT DATUM
- COORDINATES AUSTRALIAN MAP GRID
- Grid interval 200 metres

**SHEET AND INDEX LOCATION**

SHEET 1	SHEET 2
SHEET 3	SHEET 4
SHEET 5	SHEET 6

536000mE

5358500mN

**REVISIONS LIMITED**

**HEEMSKIRK AREA**

**GEOLOGICAL INTERPRETATION**

GEOLOGIST: J. WILLS

DRAWN BY: J. MATTHEWS

DATE: JUNE 1978

SCALE 1:2000 METRES

REVISIONS

DRAWING NO.

85 - 8485  
 Heemskirk Granite Area  
 (E.L. 117/8 & S.P.L. 129)  
 239  
 HEEMSKIRK GRANITE AREA  
 STANDARD SHEET 4, AREA  
 1:2,000



5360000mN  
350000mE  
5358500mN  
350000mE

352000mE  
5360000mN  
5358500mN  
352000mE

**COMPILATION NOTE**  
 This sheet is a composite of photo  
 orthometric contours superimposed on a  
 half tone reproduction of correlated  
 orthophotos from aerial photography  
 dated 1977.  
 Orthophoto base mapping and  
 photogrammetric contours  
 by Aust. Aerial Mapping  
 Aerial photography WMS PCB  
 Aerial triangulation WMS AB  
 Contouring WMS BB  
 Orthophotos Zeiss Topocart

**REFERENCE**

- Contour
- Depressions
- Spot Heights
- Control
- N.B Broken lines indicate lower reliability
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTRALIAN HEIGHT DATUM
- COORDINATES AUSTRALIAN MAP GRID
- Grid interval 200 metres

**SHEET AND INDEX LOCATION**

SHEET 1	SHEET 2
SHEET 3	SHEET 4
SHEET 5	SHEET 6

5360000mN  
352000mE

**REVISION LIMITED**

**FEDERATION GRID**  
**GROUND MAGNETICS (TOTAL FIELD)**

GEOLOGIST: P. KRETT  
 DRAUGHTSMAN: F. CALLEN  
 DATE: JUNE 1981

SCALE 1:2000 METRES

REVISIONS

DRAWING NO.

HEMSWORTH CONSULTING ENGINEERS  
 SHEET 7 OF 10  
 1:2000  
 230



1:2000  
 HEEMSKIRK AREA  
 SURVEY TRAVERSES

231  
 Heemskirk  
 (E.L. 11/76 & S.P. L. 12/77)

Sheemskirk Granite Fibre  
 Sheemskirk  
 1:2000  
 SHEET S-2048  
 Original

SHEET 3



5357000mN  
 350000mE  
 RENSON LIMITED  
**HEEMSKIRK AREA**  
**SURVEY TRAVERSES**  
 GEOLOGIST:  
 DRAUGHTSMAN:  
 DATE: FEB. 1981  
 REVISIONS  
 SCALE 1:2000 METRES  
 DRAWING NO. 5

**COMPILATION NOTE**  
 This sheet is a composite of photo  
 grammetric contours superimposed on a  
 half tone reproduction of compiled  
 orthophotos from aerial photography  
 dated 12/77.  
 Orthophoto base mapping and  
 photogrammetric contour  
 by Aust. Aerial Mapping.  
 Aerial photography WIG PCB  
 Aerial triangulation WIG AB  
 Contouring WIG BB  
 Orthophotos Zeiss Topocart

**REFERENCE**  
 Contours  
 Depressions  
 Spot Heights  
 Control  
 N.B. Broken lines indicate lower reliability  
 Contour interval 5 metres  
 Spot heights to 0.5 metres  
 REDUCED LEVELS TO AUSTR. HEIGHT DATUM  
 CO-ORDINATES AUSTR. MAP GRID.  
 Grid interval 200 metres

SHEET AND INDEX LOCATION

SHEET 1	SHEET 2	1/4 ACRES
SHEET 3	SHEET 4	
SHEET 5	SHEET 6	11

348000mE

5357000mN

348 000 E

349 000 E

349 000 E

5357000mN

5358000mN

5358500mN 348000mE

5358500mN 350000mE



5357000mN 348000mE

5357000mN 350000mE

COMPIATION NOTE

This sheet is a composite of photogrammetric contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/12/77.

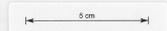
Orthophoto base mapping and photogrammetric contours by Aust. Aerial Mapping.

Aerial photography Wic. RC8  
 Aerial triangulation Wic. A8  
 Contouring Wic. B8  
 Orthophotos Zeiss Topocart

REFERENCE

- Contours
- Depressions
- Spot Heights
- Control
- N.S. Broken lines indicate lower reliability
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTR. HEIGHT DATUM
- COORDINATES AUSTR. MAP GRID
- Grid interval 200 metres

SHEET AND INDEX LOCATION



REINSON LIMITED  
**HEEMSKIRK AREA**

GEOLOGIST: \_\_\_\_\_  
 DRAUGHTSMAN: \_\_\_\_\_  
 DATE: \_\_\_\_\_  
 REVISIONS: \_\_\_\_\_

SCALE 1:2000 METRES

DRAWING NO. \_\_\_\_\_

1:2000

HEEMSKIRK AREA

HEEMSKIRK AREA  
 SHEET 1 OF 5  
 232

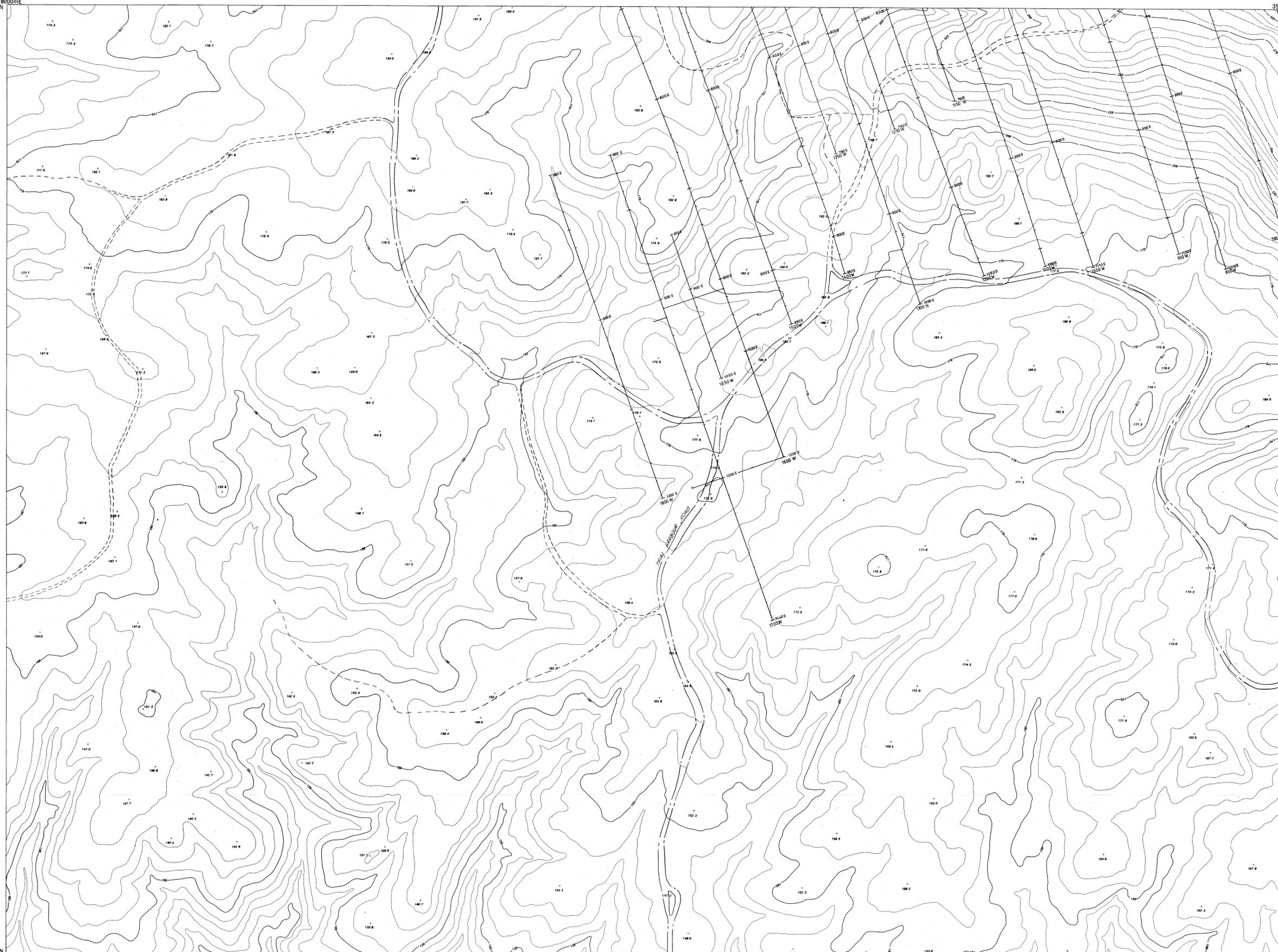
HEEMSKIRK AREA  
 SHEET 1 OF 5  
 1:2000

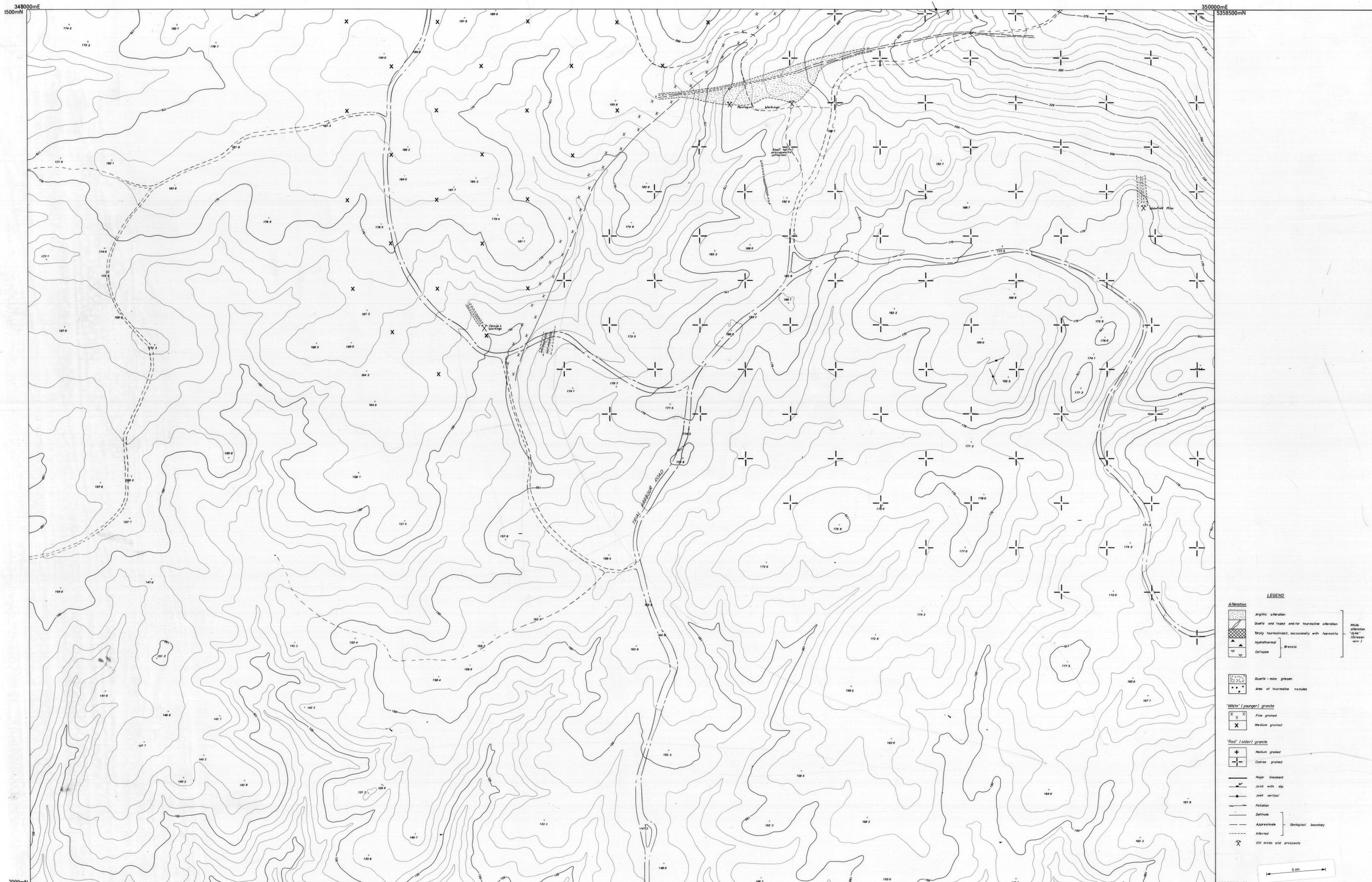
348000mE  
5358500mN

350000mE  
5358500mN

5357000mN  
348000mE

5357000mN  
350000mE





**LEGEND**

**Alteration**

- Argillic alteration
- Quartz and feldspar and/or tourmaline alteration
- Styly tourmalinized, occasionally with hematite
- Hydrothermal
- Collaps
- Breccia
- White alteration (see 'Other' on page 1)

**Quartz - mica gneiss**

- Area of tourmaline nodules

**'White' (younger) granite**

- Fine grained
- Medium grained

**'Red' (older) granite**

- Medium grained
- Coarse grained

**Major treatment**

- Joint with dip
- Joint vertical
- Foliation
- Definite
- Approximate
- Interval

**Geological boundary**

- Definite
- Interval

**Old mines and prospects**

- Old mines and prospects

**COMPILED NOTE**

This sheet is a composite of photo grammatic contours superimposed on a half tone reproduction of compiled orthophotos from aerial photography dated 12/12/77.

Orthophotos base mapping and photogrammetric contours by Aust. Aerial Mapping.

Aerial photography Wld PCB  
Aerial triangulation Wld AS  
Contouring Wld BB  
Orthophotos Zeiss Topocart

**REFERENCE**

- Contours
- Depressions
- Spot Heights
- Control
- N.B. Broken lines indicate lower reliability
- Contour interval 5 metres
- Spot heights to 0.5 metres
- REDUCED LEVELS TO AUSTRALIAN DATUM
- CO-ORDINATES AUSTRALIAN MAP GRID
- Grid interval 200 metres

**SHEET AND INDEX LOCATION**

SHEET 1	SHEET 2
SHEET 3	SHEET 4
SHEET 5	SHEET 6

1:400000mE  
5357000mN

**RENSON LIMITED**

**HEEMSKIRK AREA**

**GEOLOGICAL INTERPRETATION**

**GEOLOGIST:** K. WELLS  
**DRAUGHTSMAN:** J. MATTHEWS  
**DATE:** JUNE 1978

**SCALE 1:2000 METRES**

**REVISIONS**

**DRAWING NO.**

Heemskirk Granite Area  
 (E.L. 11/76 & S.P.L. 129)  
 234  
 Heemskirk Granite Area  
 SHEET 5, AREA  
 1:2,000  
 STRAED

