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DEPARTMENT OF
~~NATIONAL RESOURCES~~
NATIONAL DEVELOPMENT

060709⁺



BUREAU OF MINERAL RESOURCES,
GEOLOGY AND GEOPHYSICS

Record 1979/12



FOREST HOME, NORTH HEAD, and parts of
GILBERT RIVER and ESMERALDA 1:100 000 GEOLOGICAL SHEETS

CATALOGUE OF PRELIMINARY FIELD DATA COMPILATION SHEETS

by

D.E. MACKENZIE , I.W. WITHNALL , and E.M. BAKER

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Record 1979/12

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GILBERT RIVER and ESMERALDA 1:100 000 GEOLOGICAL SHEETS

CATALOGUE OF PRELIMINARY FIELD DATA COMPILATION SHEETS

by

D.E. MACKENZIE¹, I.W. WITHNALL², and E.M. BAKER²

¹BMR

²GSQ

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ESMERALDA 1:100 000 GEOLOGICAL SHEETS

Preliminary field compilation data sheets

The following geological maps and observation point overlays reproduced at approximately 1:100 000 scale are preliminary field compilations prepared at about 1:25 000 scale by the combined BMR-GSQ Georgetown Geological Party, mainly during July-October 1977 and July-August 1978. Reconnaissance and other initial work was carried out during August-September 1975, and during July and August 1976. J.H.C. Bain was a part-time member of the 1977 party, and also contributed to the 1975 work.

Petrographic and other laboratory studies are in progress, and may lead to some changes being made to these maps*. Such changes will be incorporated in 1:25 000 scale transparencies held by the Australian Government Printer, and in Preliminary edition 1:100 000 scale maps scheduled for printing in mid-1979.

Notification of any errors or omissions in these maps, and provision of any additional information that may be incorporated in the Preliminary edition maps would be greatly appreciated.

Copies of these maps are available from the Copy Service, Australian Government Printer (Production), P.O. Box 84, Canberra, A.C.T. 2600.

* Some changes have recently been made. There is an additional unit, the Townley Formation (Pt) between the Robertson River Formation (Br_{pu} , etc.) and the Heliman Formation (Eh_1 , etc.). The Townley Formation consists of white to grey sericitic or lithic-quartz siltstone and fine sandstone with minor amounts of quartzose siltstone and sandstone; blocky-jointed carbonaceous siltstone is common in the middle parts of the unit. The Robertson River Formation has been divided into a carbonaceous sandy upper part (Br_{pu} , Br_u), and a pelitic lower part (Br_{pl} , Br_l). The Heliman Formation has been divided into three unnamed members: two siliceous units (Eh_2 , Eh_3) separated by a sericitic, less siliceous unit (Eh_2).

INDEX TO ADJOINING SHEETS

GILBERT RIVER 7461	FOREST HOME 7561	GEORGETOWN 7661	MOUNT SURPRISE 7761	ST RONANS 7861	CASHMERE 7961
GEORGETOWN			EINASLEIGH		
ESMERALDA 7460	NORTH HEAD 7560	FORSAYTH 7660	EINASLEIGH 7760	CONJUBOY 7860	VALLEY OF LAGOONS 7960
PELHAM 7459	BELLFIELD 7559	GILBERTON 7659	LYNDHURST 7759	BURGES 7859	CLARKE RIVER 7959
GILBERTON			CLARKE RIVER		
ETHELDALE 7458	MOUNT NORMAN 7558	HAMPSTEAD 7658	CHUDLEIGH PARK 7758	WANDO VALE 7858	MARYVALE 7958

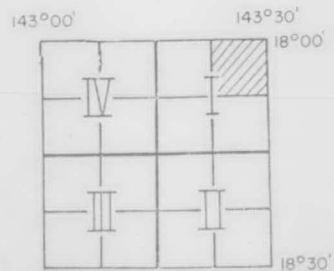
LOCALITY DIAGRAM



Reference

4

	Geological boundary
	Unlabeled geological boundary
	Fault showing relative horizontal movement where known
	Fault (D,U indicates relative movement down, up where known)
	Trace of anticlinal axis showing plunge
	Trace of synclinal axis showing plunge
	Trace of overturned anticlinal axis showing plunge
	Trace of overturned synclinal axis showing plunge
	Trace of monoclinial axis showing plunge
Where location of boundaries, folds and faults is approximately, line is broken, where inferred, queried, where concealed, boundaries and folds are dotted, faults are shown by short dashes	
	Bedding trend and anticlinal plunge
	Plunge of minor anticline
	Plunge of overturned or inclined minor fold with strike and direction of dip of axial plane
	Plunge of vertical minor fold
	Plunge of overturned or inclined minor fold showing strike and dip of axial plane, foliation (generation may be specified as below)
	Minor fold showing direction of mineral lineation parallel to axis, and strike and direction of dip of axial plane foliation
	Strike and dip of strata, facing known or inferred
	Strike and dip of strata, facing unknown
	Strike and dip of overturned strata
	Vertical bedding
	Horizontal bedding
	Dip < 5°
	Dip 5°-15°
	Dip 15°-45°
	Dip > 45°
Airphoto interpretation	
	Trend lines
	Joint pattern
	Lineament
	Strike and dip of cleavage
	Vertical cleavage
	Strike and dip of strata, facing known or inferred and coincident cleavage
	Strike and dip of strata, facing unknown and coincident cleavage
	Vertical strata, facing unknown and coincident cleavage
	Strike and dip of foliation
	Strike and dip of first generation foliation
	Strike and dip of second generation foliation
	Strike and dip of third generation foliation
	Vertical foliation, generation may be specified as above
	Strike and dip of strata, facing unknown, and coincident foliation
	Direction and plunge of crenulation
	Strike of horizontal crenulation
	Direction and plunge of mineral elongation
	Direction and plunge of intersection of cleavage or foliation and bedding
N.B. Lineation symbols generally used in combination with cleavage or foliation symbols	
	Dip and strike of platy flow
	Dike or vein (di-dolerite, p-pegmatite, q-quartz, rh-rhyolite, s-serpentine alteration)
	Location of rock sampled for isotopic age determination
	Prospect - little or no production
	Mine - Abandoned
	Prospect - Abandoned, no production
	Open cut or quarry
	Open cut or quarry, abandoned
	Alluvial workings, abandoned
	Battery not operating
	Road, unsurfaced
	Vehicular track
	Hamlet
	Building
	Well
	Fence
	Telephone
	Well with windpump
	Windpump
	Earth tank or dam
	Dam for water
	Position approximate



FOREST HOME

SCALE 1:100000

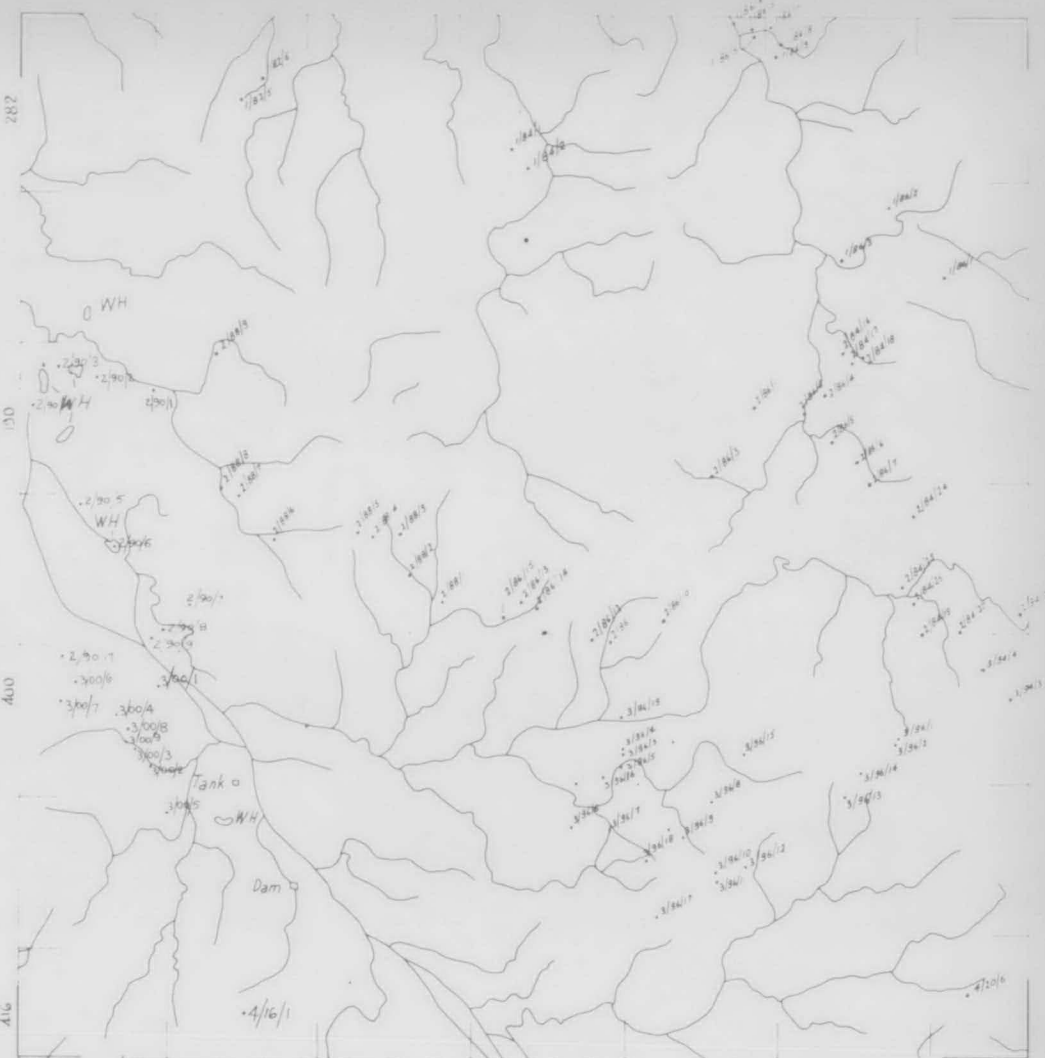


Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.

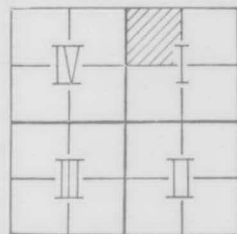
Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
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E54/A12/114



143°00' 143°30' 18°00'



FOREST HOME

SCALE 1:100000

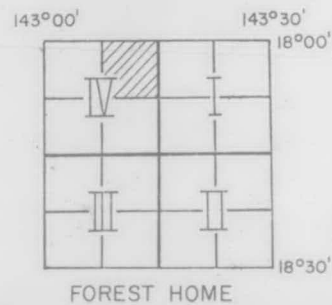
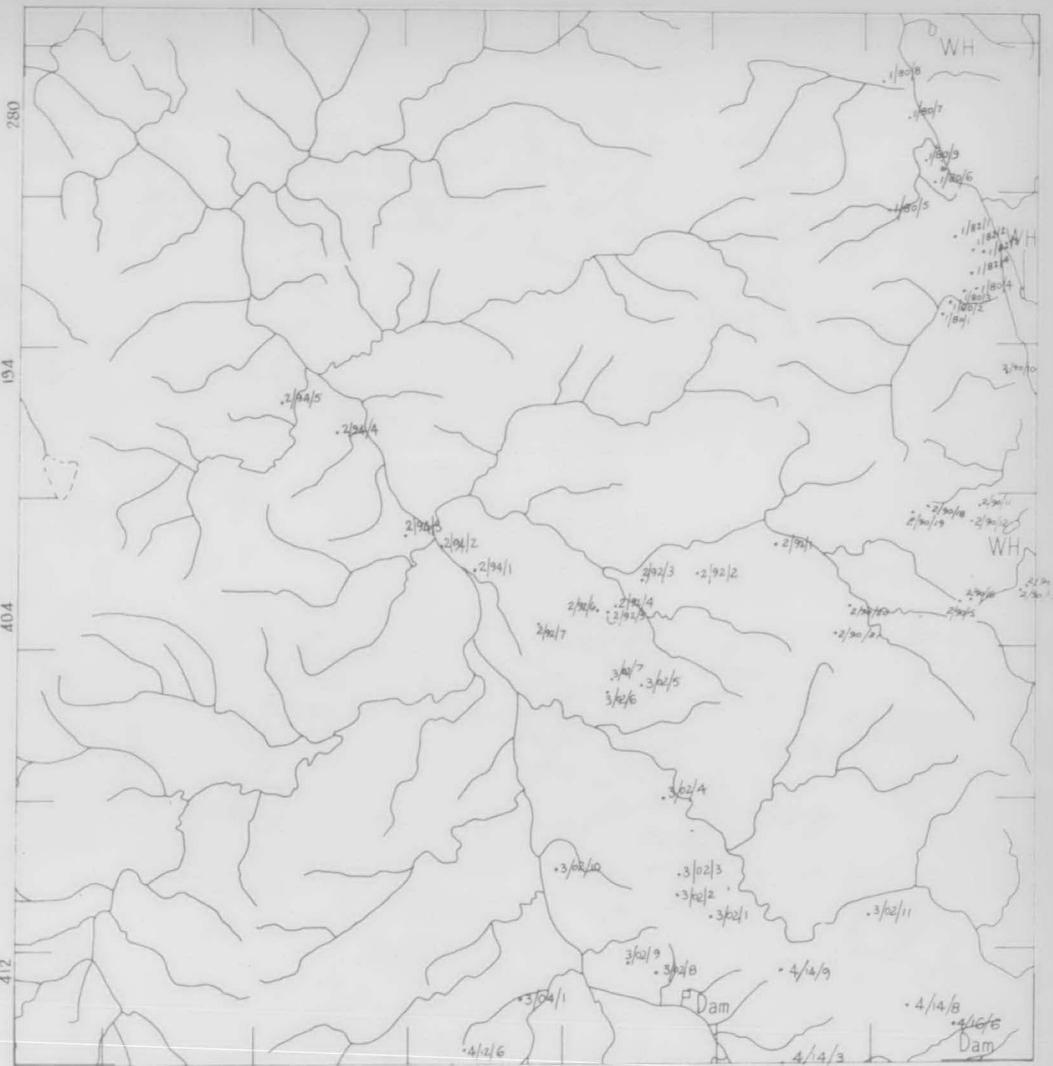
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Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.

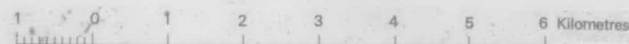
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E54/A12/115



SCALE 1:100000



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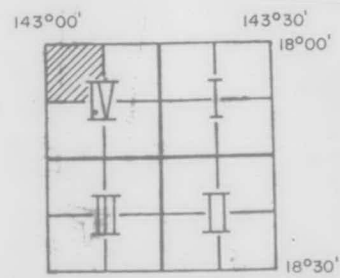


276 RUN 1 270

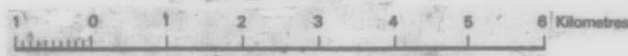
196 RUN 2 202

406 RUN 3 412

404 RUN 4 412



SCALE 1:100000



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Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
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6 FOREST HOME

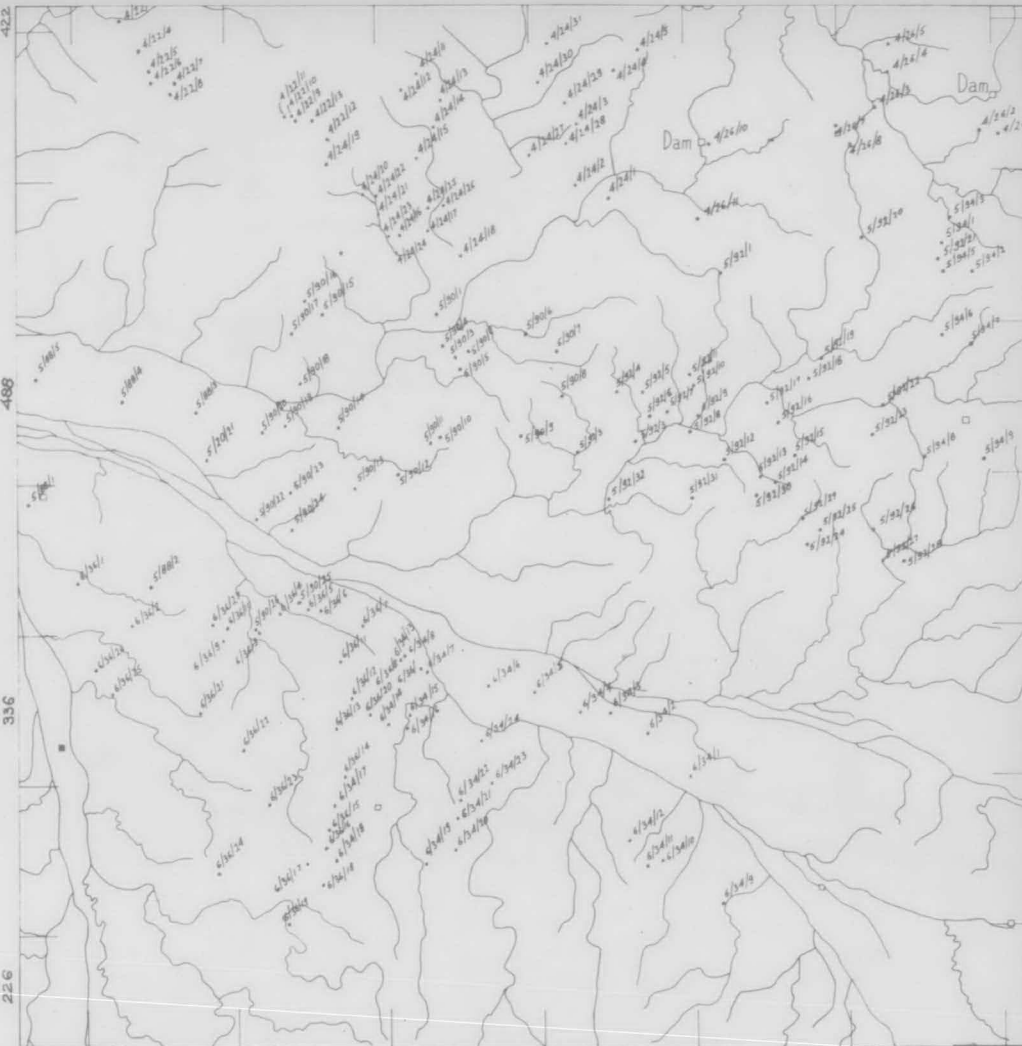


RUN 4 422

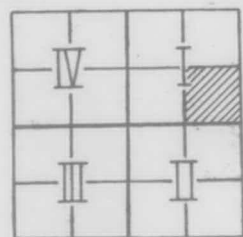
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332 RUN 6 336

230 RUN 7 226



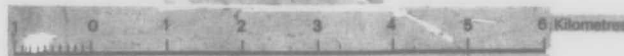
143°00' 143°30' 18°00'



FOREST HOME

18°30'

SCALE 1:100000

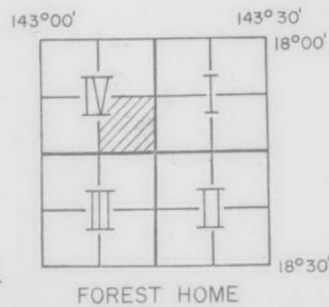
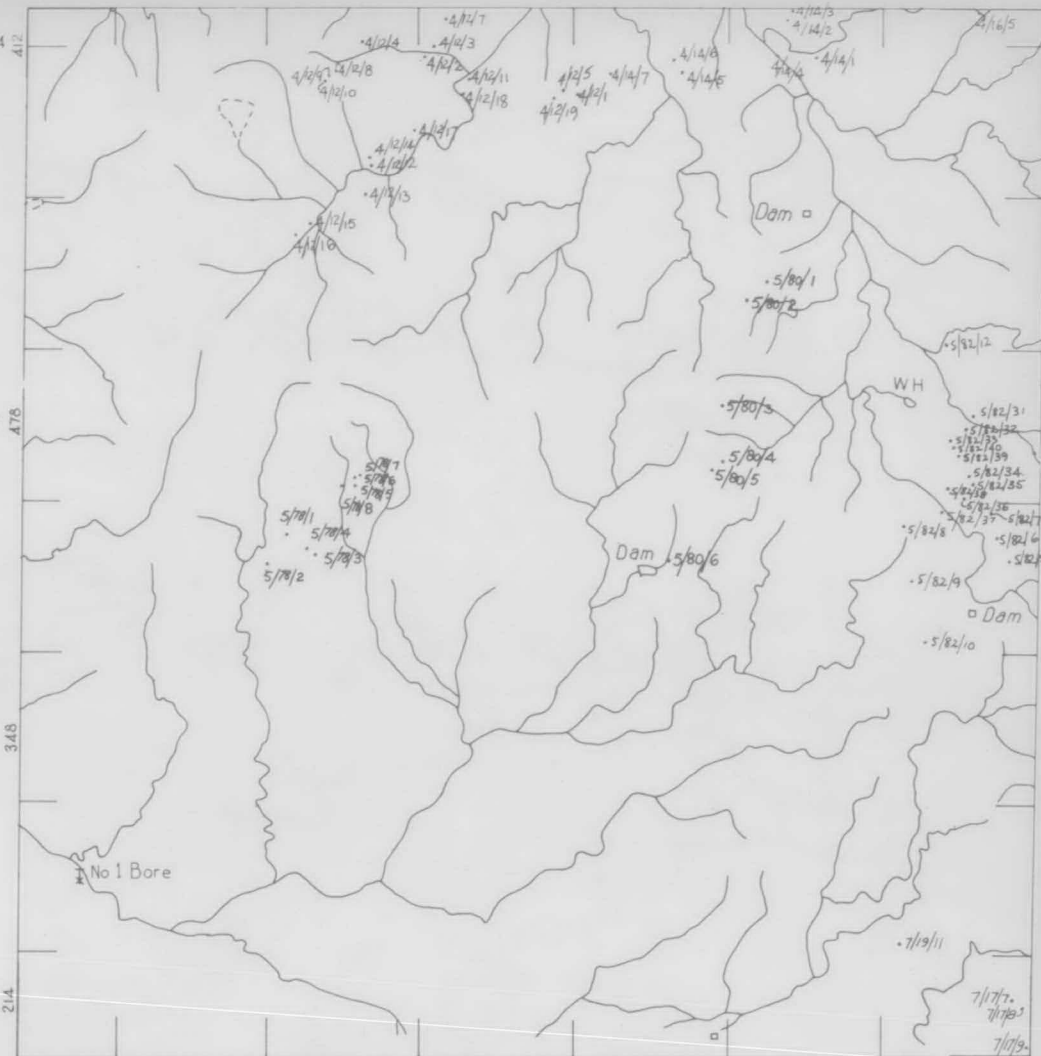
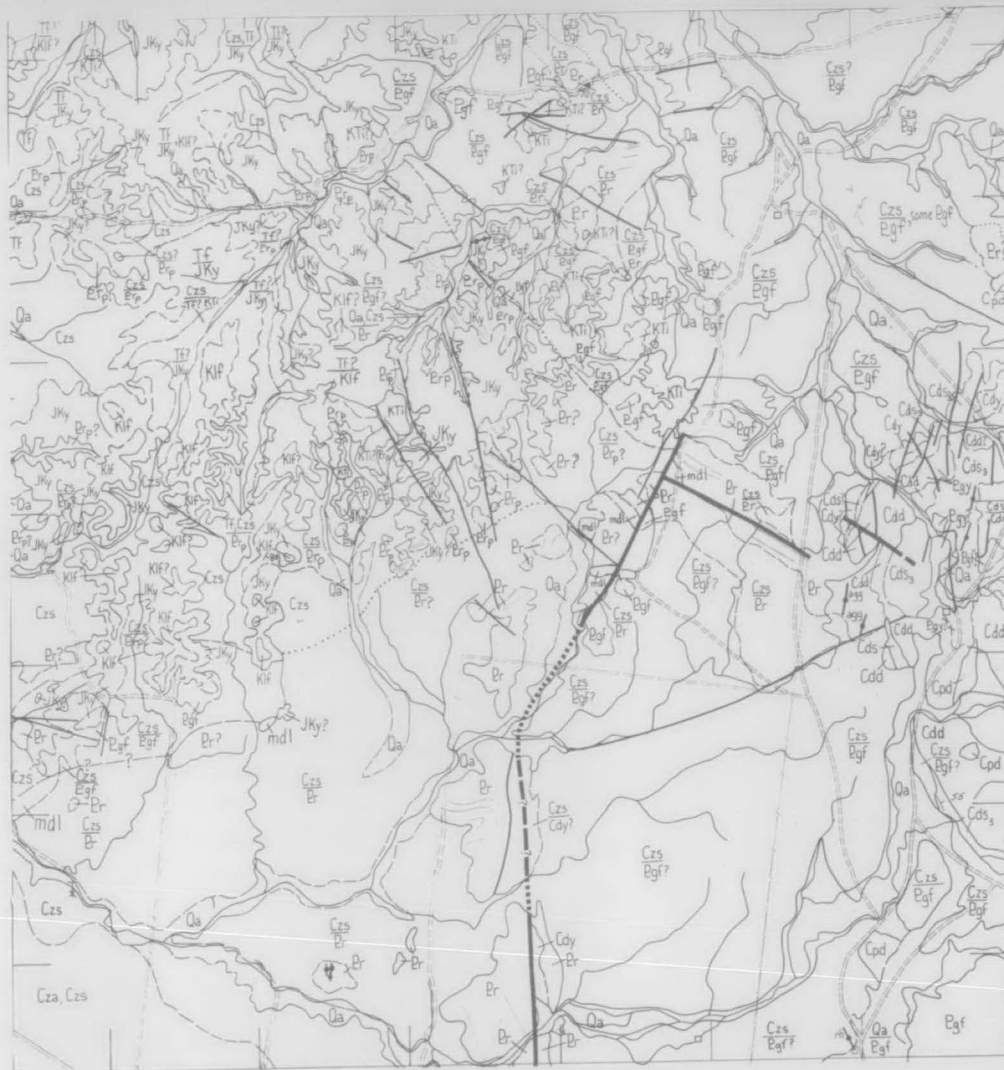


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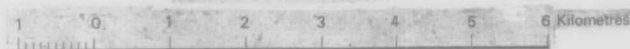
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E54/A12/118



SCALE 1:100000



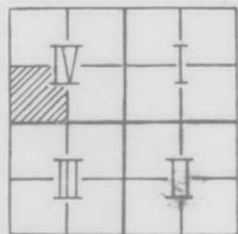
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1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.
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E54/A12/120



143°00' 143°30'

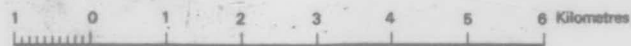


FOREST HOME

18°00'

18°30'

SCALE 1:100000



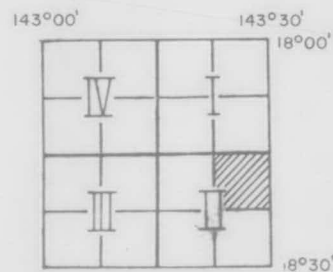
Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnell, E.M. Baker, GSQ.

1978 by D.E. Mackenzie, BMR; I.W. Withnell, GSQ.

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E54/A12/121



FOREST HOME

SCALE 1:100000



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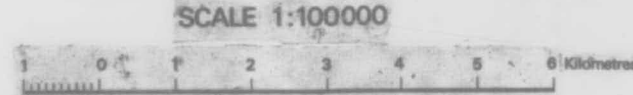
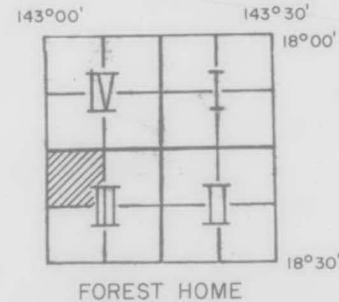
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E54/A12/123



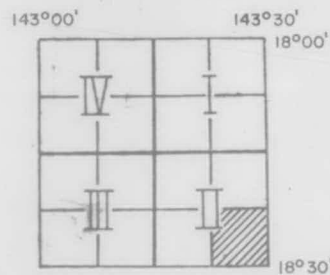
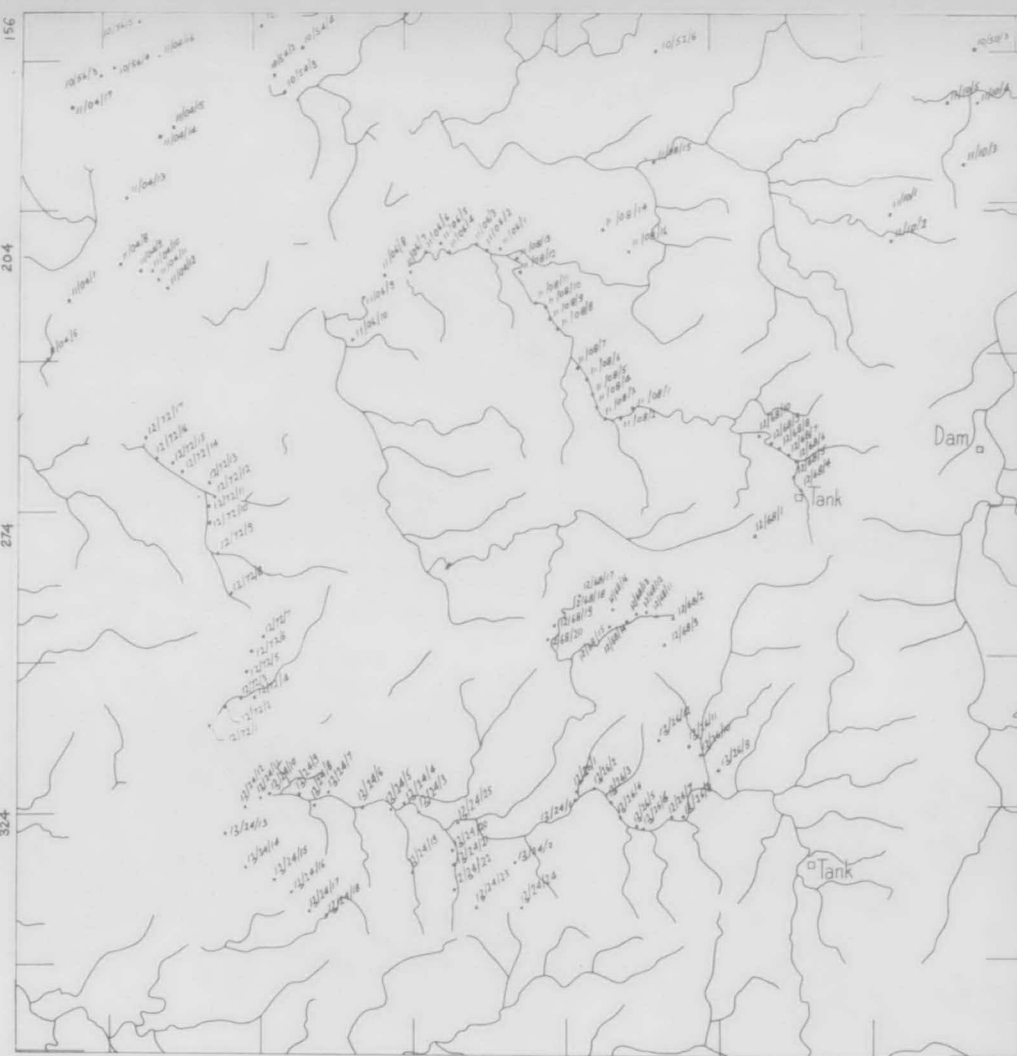
214 RUN 7 208
524 RUN 8 530
022 RUN 9 028
170 RUN 10 178



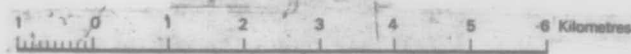
Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSO.
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E54/A12/126



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E54/A12/i28

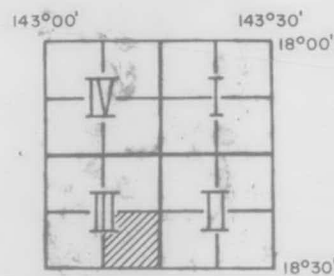


164 RUN 10 170

196 RUN 11 192

280 RUN 12 286

314 RUN 13 308



FOREST HOME

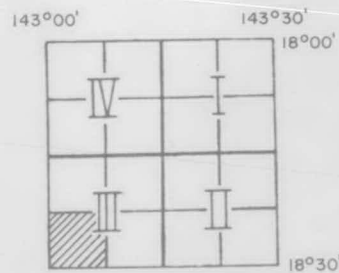
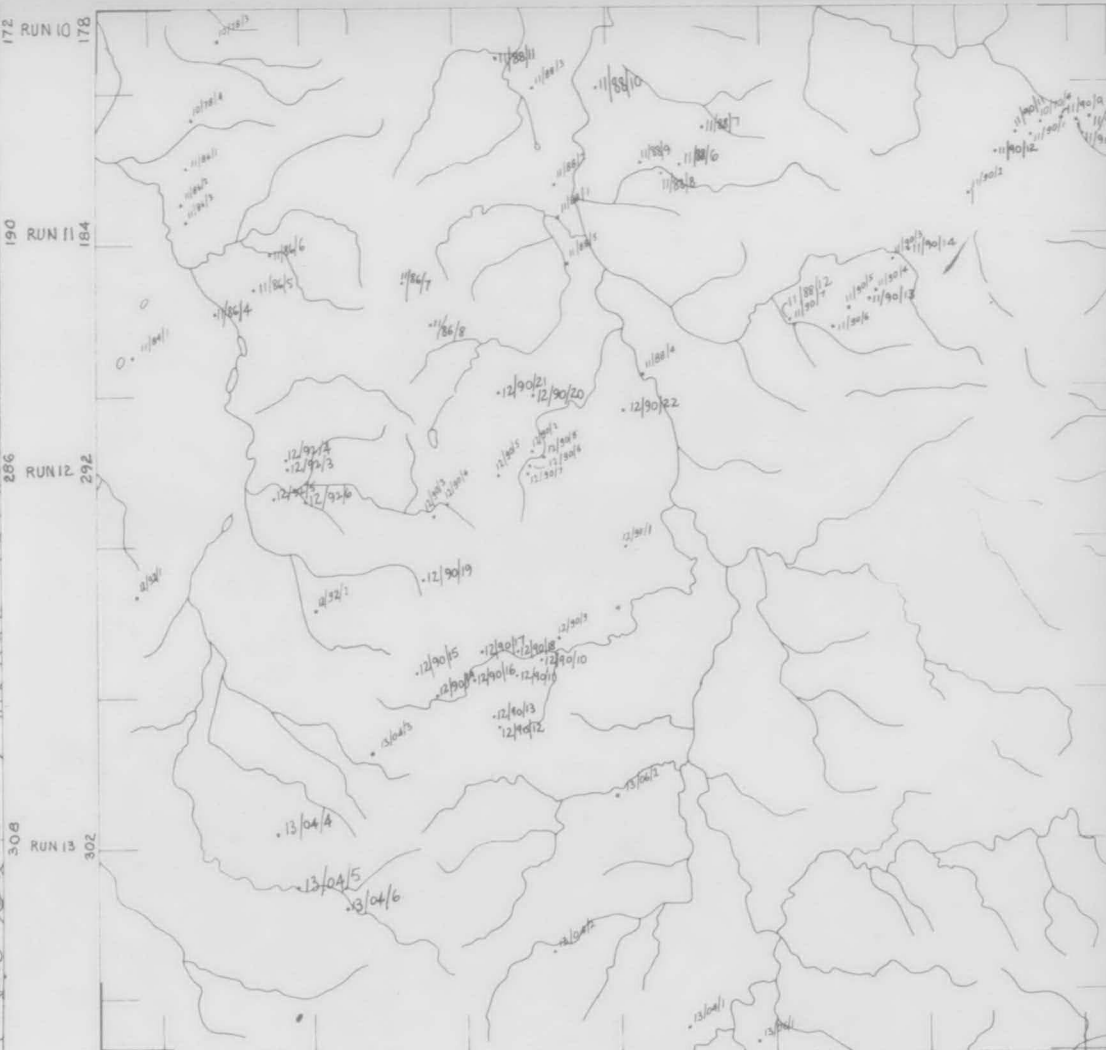
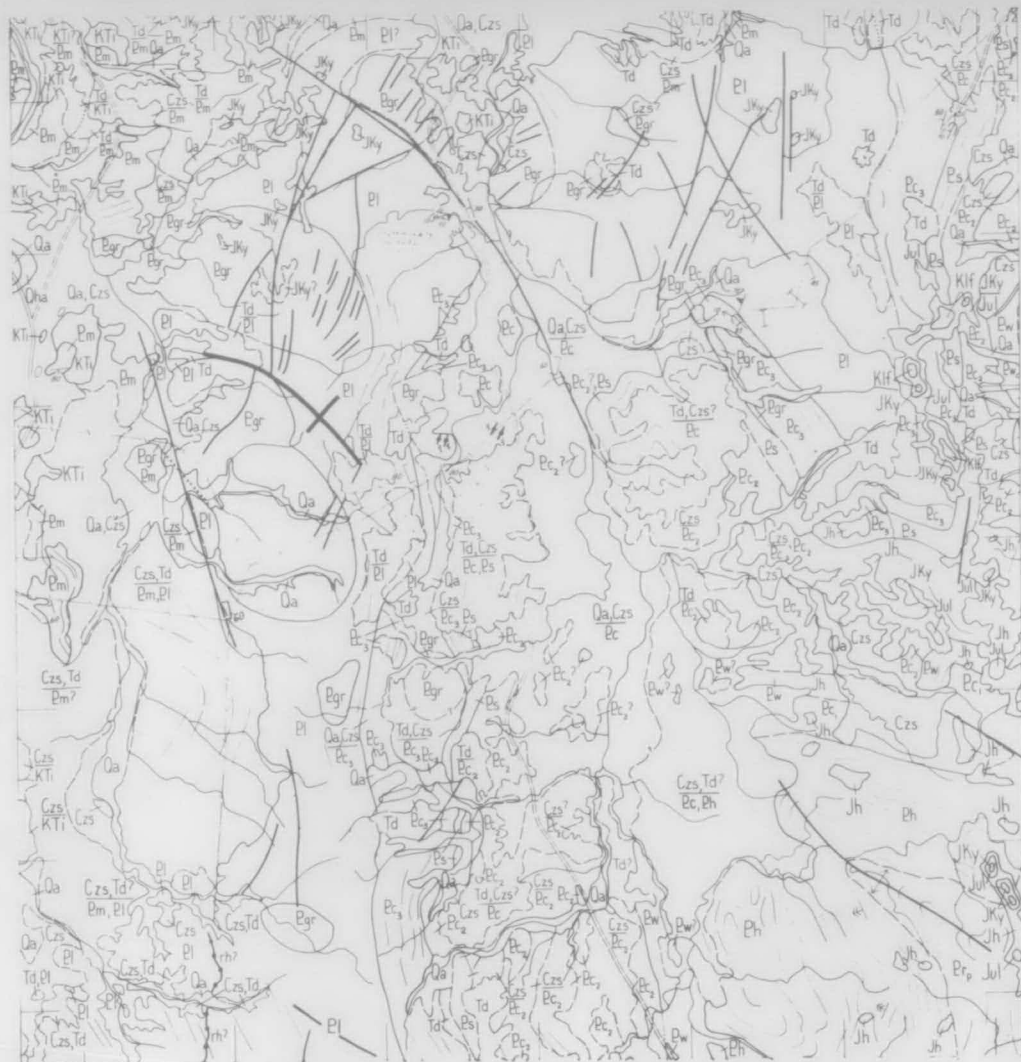
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1976 by D.E. Mackenzie, BMR; I.W. Withnall, GSO.
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E54/A12/131



4008

4016

4102

4108

RUN 2

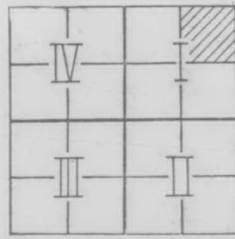
RUN 2

RUN 3

RUN 4



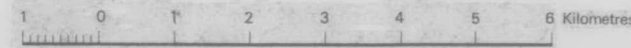
143°00' 143°30' 18°30'



NORTH HEAD

19°00'

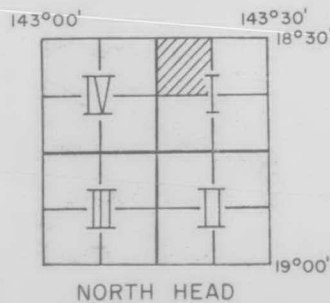
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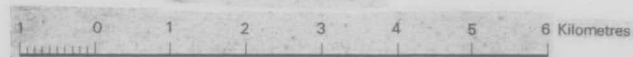
Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.
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SCALE 1:100000



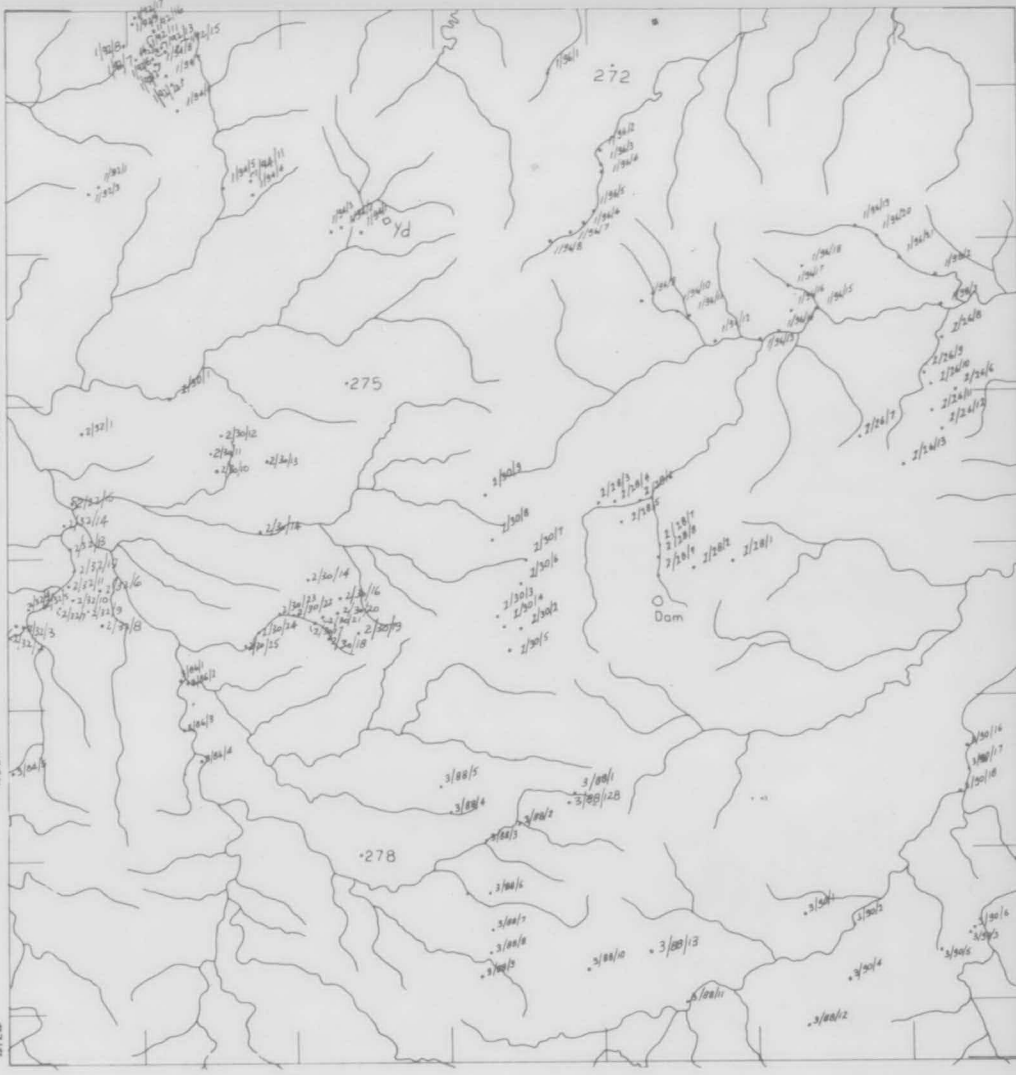
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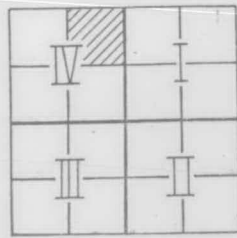
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3038 RUN 1 3552
4026 RUN 2 4032
4084 RUN 3
4120 RUN 4 4124

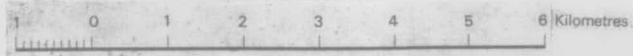


143°00' 143°30'
18°30'



NORTH HEAD

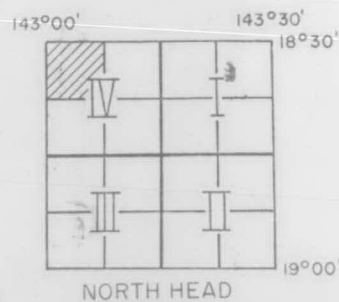
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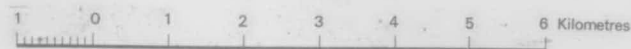
Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.
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E54/A12/135



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E54/A12/136

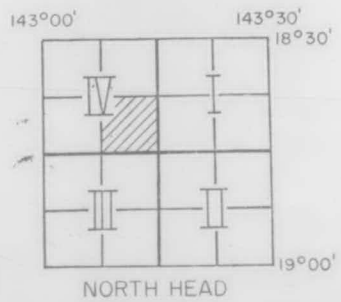
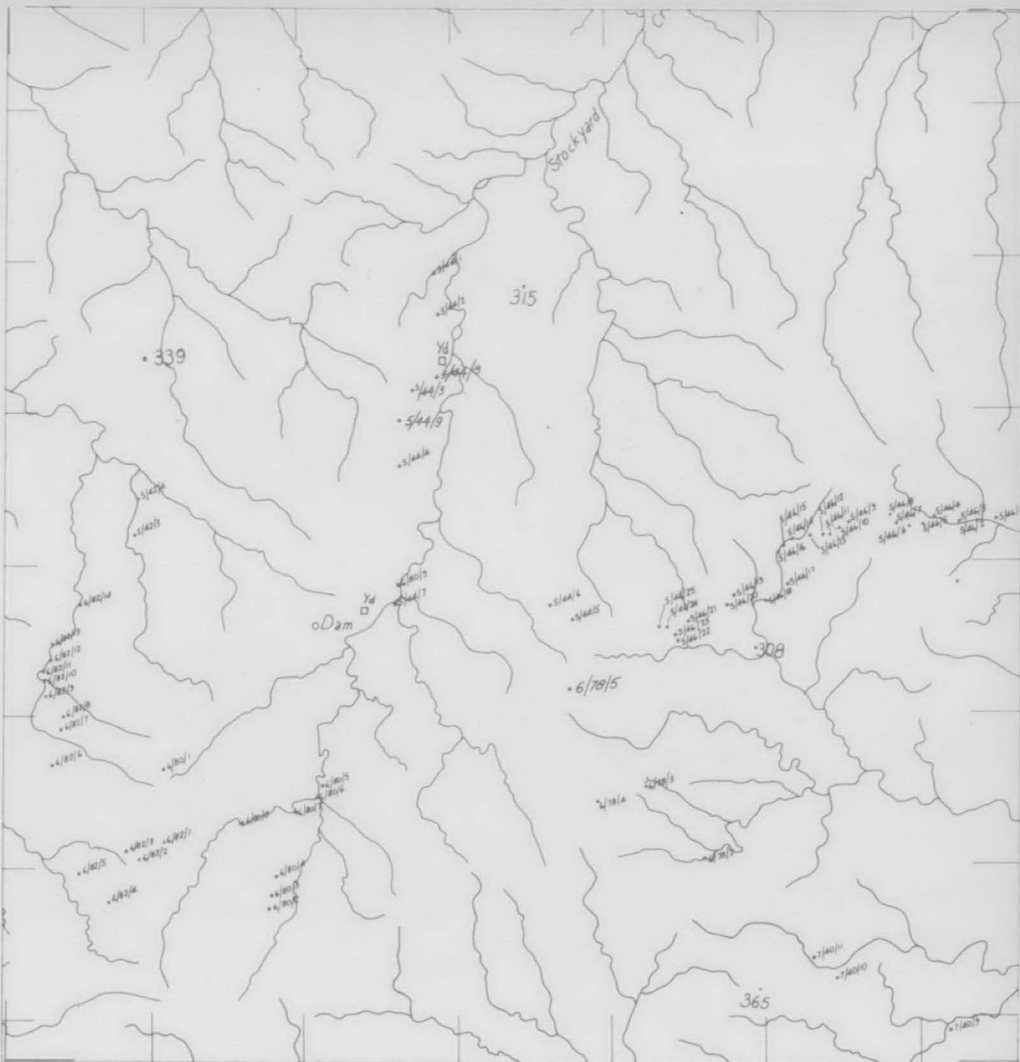


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4146 RUN 5 A142

4176 RUN 6 A162

4242 RUN 7 A236



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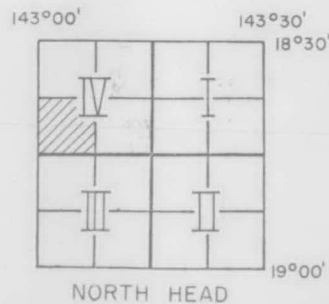


Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.

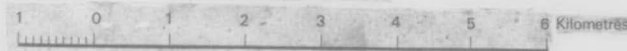
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E54/A12/140



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Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
I.C. O'Donnell, C.P. Knight.

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E54/A12/141

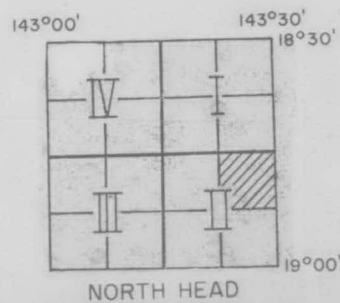


4252 RUN 7 4248

4258 RUN 8 4264

4308 RUN 9 4304

4312 RUN 10 4318



SCALE 1:100000



Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E. M. Baker, GSO.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSO.
Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
I.C. O'Donnell, C.P. Knight.

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E54/A12/143



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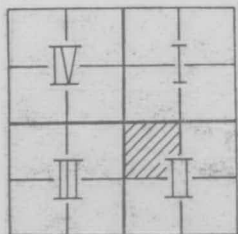
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4302 RUN 9 4298

4320 RUN 10 4324



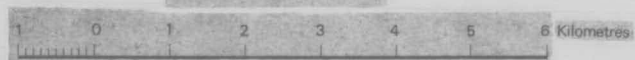
143°00' 143°30' 18°30'



NORTH HEAD

19°00'

SCALE 1:100000



Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.

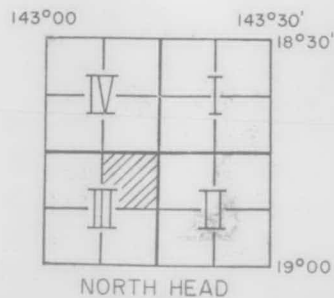
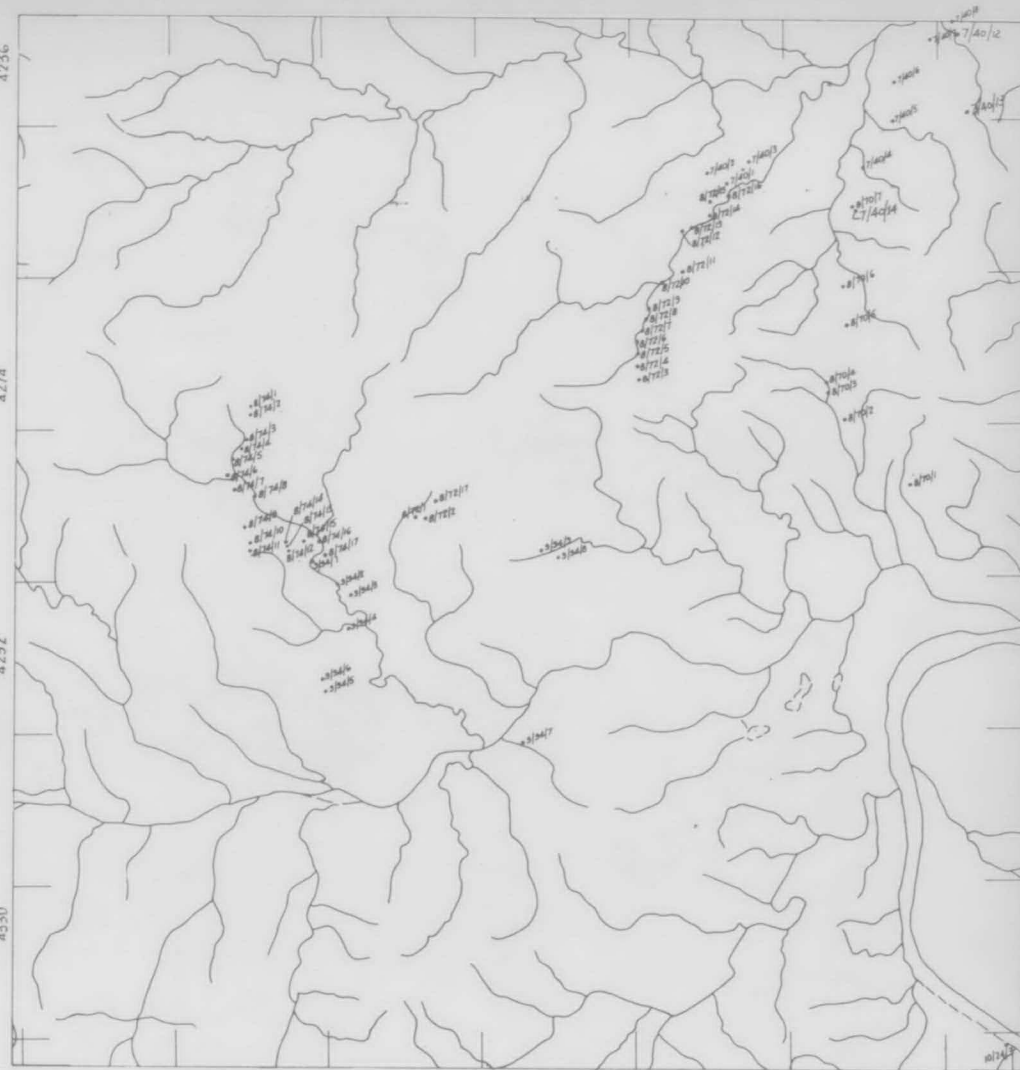
Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
I.C. O'Donnell, C.R. Knight.

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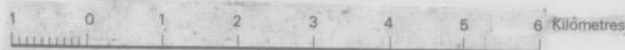
E54/A12/144



4240
RUN 7 4236
4270
RUN 8 4274
4238
RUN 9 4292
4326
RUN 10 4330



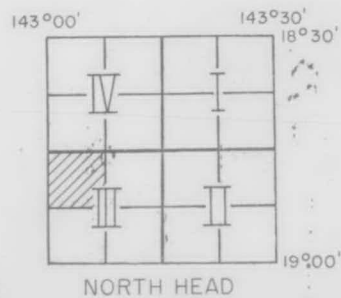
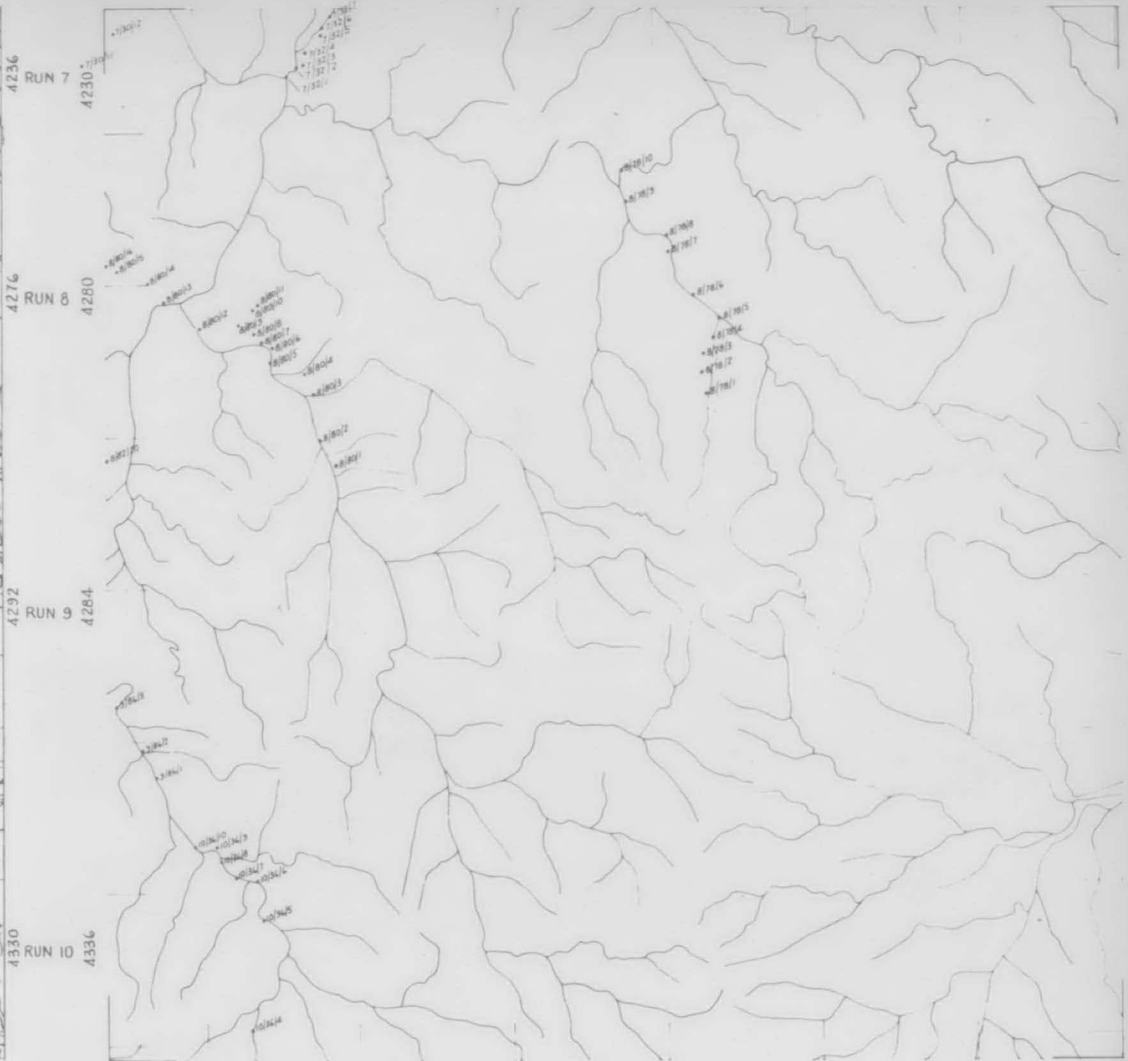
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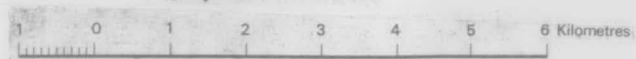
Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.
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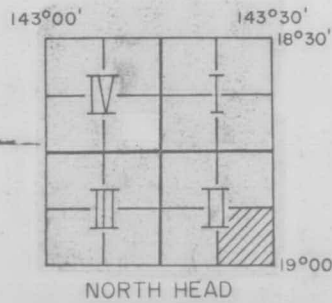
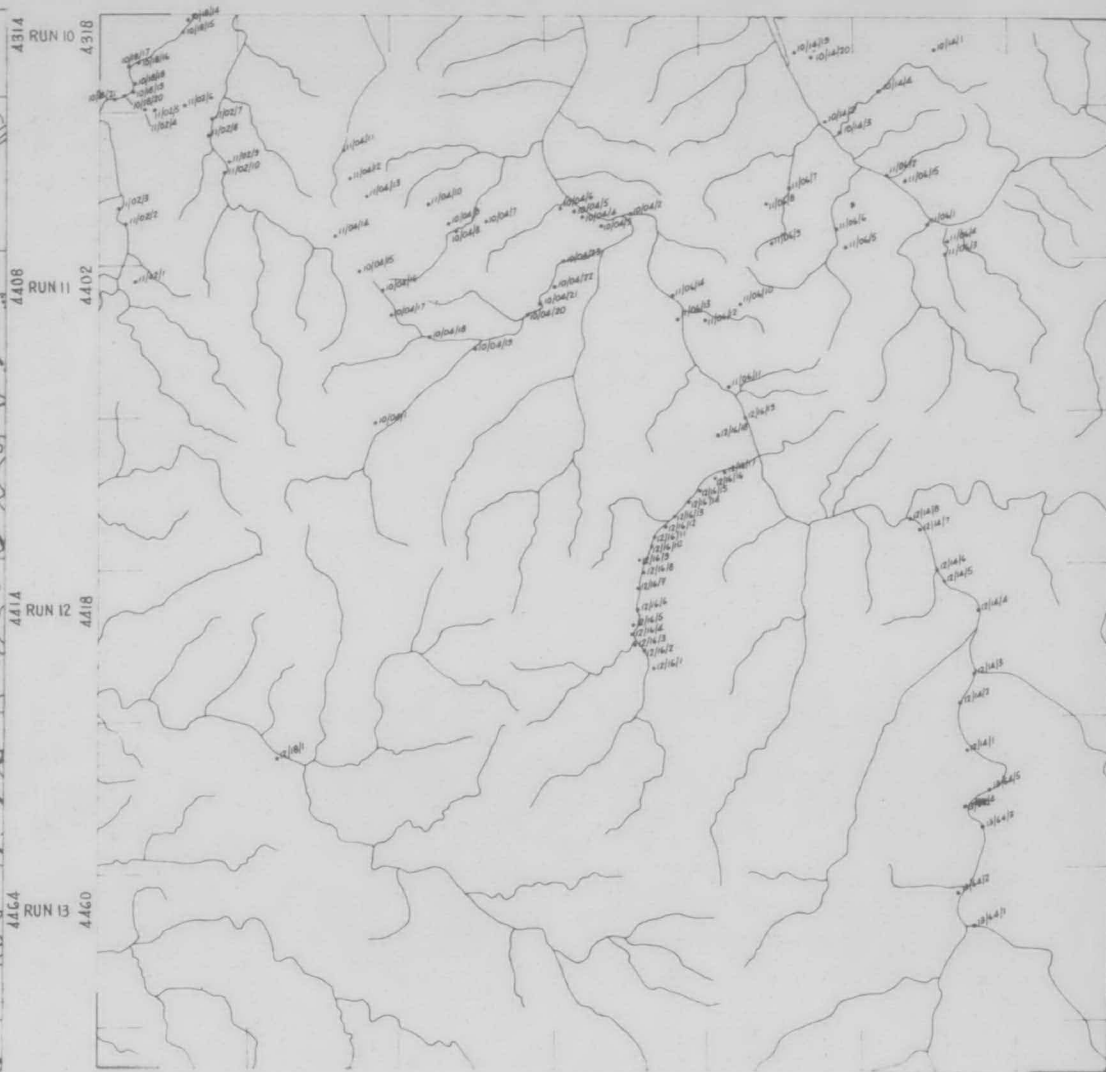
SCALE 1:100000



Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
 1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.
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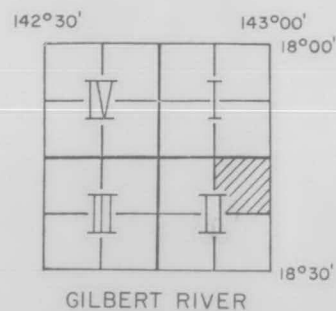
SCALE 1:100000



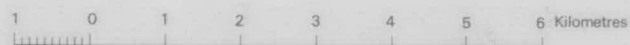
Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.
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E54/A12/148



SCALE 1:100000



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Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
I.C. O'Donnell, C.P. Knight.

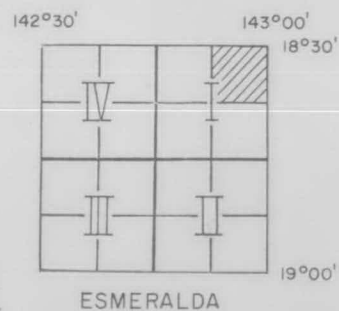
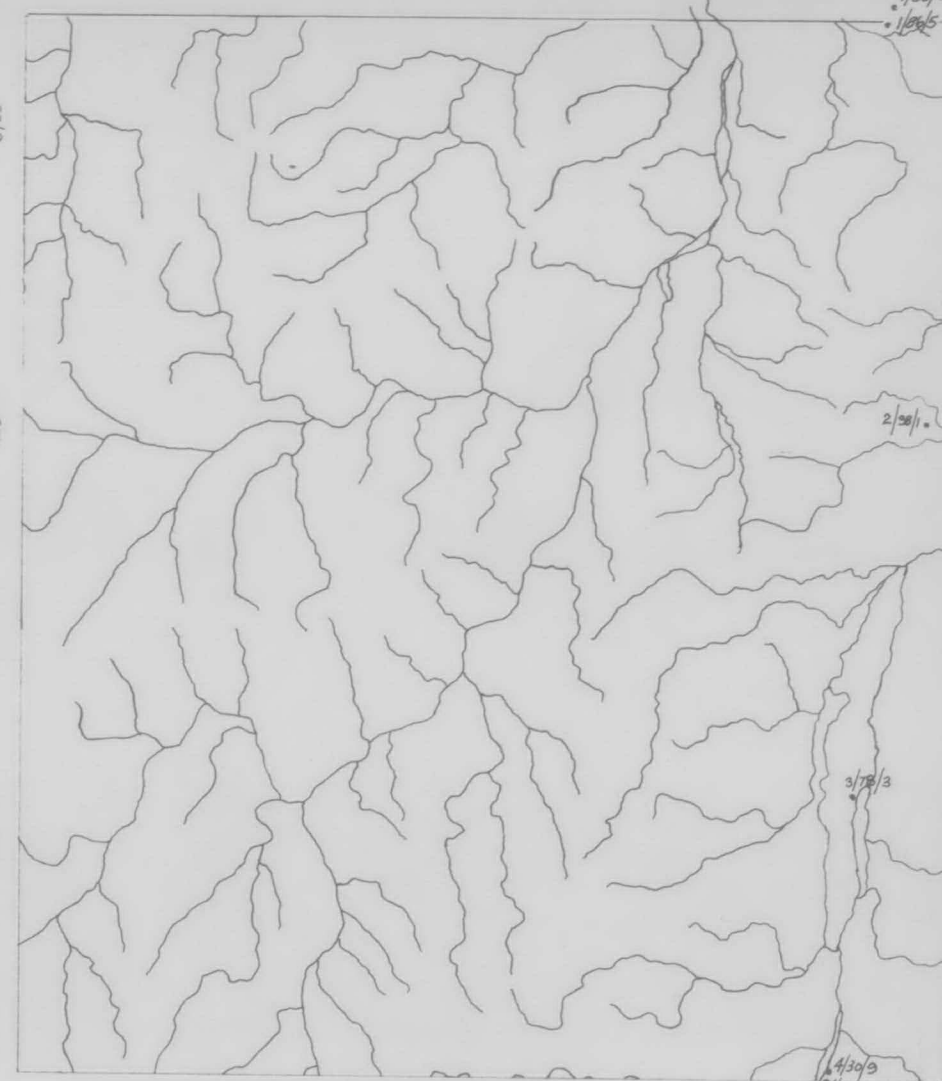
Record 1979 / 12

E54/A12/127

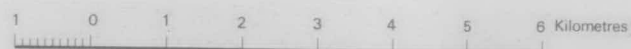
63



79 8702
RUN 1 8705
1122 RUN 2 1125
1180 RUN 3 1177
1196 RUN 4 1199



SCALE 1:100000

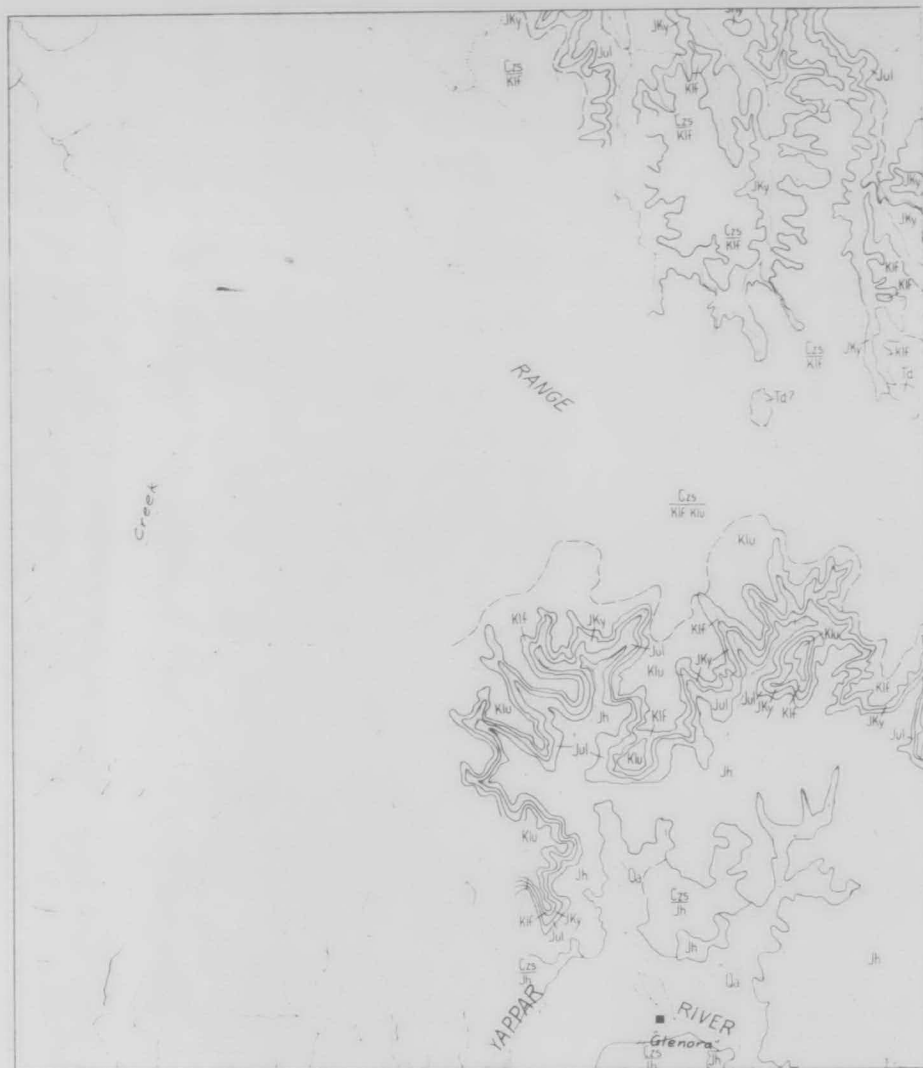


Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.

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Record 1979/12

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1888

1950

2034

2649

RUN 10

RUN 11

RUN 12

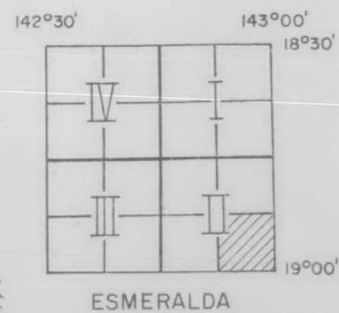
RUN 13

1892

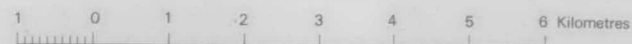
1946

2038

2652



SCALE 1:100000



Geology 1977 by D.E. Mackenzie, BMR; I.W. Withnall, E.M. Baker, GSQ.
1978 by D.E. Mackenzie, BMR; I.W. Withnall, GSQ.

Compiled 1977-1978 by D.E. Mackenzie, I.W. Withnall, P.L. Blythe,
I.C. O'Donnell, C.P. Knight.

Record 1979/12

E54/A12/152