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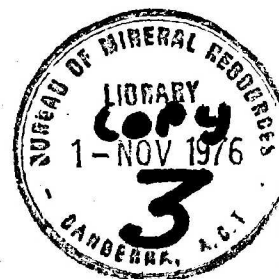
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BUREAU OF MINERAL RESOURCES, GEOLOGY AND GEOPHYSICS

RECORD 1976/63

GILBERTON 1:100 000 GEOLOGICAL SHEET
PRELIMINARY FIELD COMPILATION DATA SHEETS



by

J.H.C. BAIN¹, B.S. OVERSBY¹, I.W. WITHNALL² and E.M. BAKER²

¹BMR ²GSQ

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PRELIMINARY FIELD COMPILATION DATA SHEETS

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GILBERTON 1:100 000 GEOLOGICAL SHEET:

Preliminary field compilation data sheets

The following geological maps and observation point overlays reproduced here at approximately 1:100 000 scale are preliminary unchecked field compilations prepared at 1:25 000 scale by the BMR-GSQ Georgetown Geological Party during the June-August 1975 field season.

Petrographic and other laboratory studies are in progress, and may result in changes to these maps; such changes will be incorporated in the preliminary edition 1:100 000 scale map scheduled for printing in late 1976.

Notification of errors or omissions and the provision of additional information for incorporation in the preliminary map would be appreciated.

Copies of these maps and observation point overlays at 1:25 000 scale can be obtained from the Copy Service, Australian Government Printer (Production), P.O. Box 84, Canberra, ACT, 2600.

GILBERTON 1:100 000 GEOLOGICAL MAP

REFERENCE TO ACCOMPANY FIELD COMPILATION SHEETS, ORIGINAL PHOTOSCALE 1:25 000 APPROX.

CRAINOZOIC	QUATERNARY		Qh	active alluvium
			Qa	alluvium, mainly inactive
			Czs	soil, colluvium
MESOZOIC	Eulo Queen Group		M	quartz conglomerate, sandstone, siltstone
PALAEOZOIC	UPPER PALAEOZOIC	"Purkin granite"	Pz _{ug1}	grey-pink medium-very coarse equigranular porphyritic biotite granite, commonly leucocratic, minor aplite
		Butlers Volcanics	Pz _{u2}	
			Pz _{b2}	purple porphyritic rhyolitic lava?
		Bagstowe Ring Dyke Complex (units not necessarily in order of emplacement)	Pz _{b1}	pink-green rhyolitic ignimbrite.
			ad ₁	augite-hornblende-quartz trochylandesite
			mg ₁	porphyritic biotite hornblende microdiorite (Mt. Rous ring dyke)
			mg ₂	pink hornblende-biotite microgranite (east-west dyke)
			mg ₃	porphyritic hornblende microgranite
			mg ₄	pink leucocratic biotite microgranite (north east stock + central ring dyke)
			rh ₁	pink-brown, porphyritic (quartz-feldspar) rhyolite (Castle Hill dyke)
			rh ₂	grey porphyritic (quartz-feldspar) rhyolite (inner ring dykes)
			rh _{2a}	breccia within rh ₂
			rh ₃	grey porphyritic (quartz-feldspar) rhyolite, ignimbrite, agglomerate
			rh _{3a}	green rhyolite breccia within rh ₃
			rh ₄	brown porphyritic (quartz-feldspar, feldspar) rhyolite (outer ring dyke)
			rh ₅	pink-brown aphyric + porphyritic (quartz, feldspar) rhyolite (cone sheets)
			mg	microgranite
			rh	rhyolite
			di	diorite
			mdi	porphyritic microdiorite
			do	dolerite
			ad	andesite
			Affiliation unknown.	
		Agate Creek Volcanics	Pz _{ug3}	medium equigranular massive to foliated hornblende-biotite (orthoclase) granodiorite
			Pas	laminated grey siliceous siltstone, local buff sandstone
			Pab	basalt
			Par	banded porphyritic rhyolitic lava?
		PERMIAN	Paa	agglomerate, local pyroclastic + epiclastic sandstone
	DEVONIAN CARBONIFEROUS	Gilberton Formation	DC _g	thin-bedded micaceous arkose, cross-bedded pebbly and cobbly arkose.
			cg ₁	conglomerate
	SILURIAN - DEVONIAN	Robin Hood Granodiorite, "Mount Hogan granite"	SD _r	pink porphyritic biotite granodiorite (quartz phenocrysts)
			SD _h	coarse pink equigranular biotite-hornblende granite
			SD _{h3}	sericitized SD _h
		"Loafers granodiorite"	SD _{d3}	biotite leucogranite, pegmatite
			SD _{d2}	porphyritic biotite granite (alkali feldspar phenocrysts)
			Eml	weakly foliated hornblende-biotite (microcline) granodiorite

middle
Proterozoic

{ Digger Creek Granite

Pmd white-pink muscovite leucogranite and pegmatite, ± garnet
± biotite locally foliated

"Welfern granite"

Pmg cream-pink medium even grained foliated biotite
granite.

"Sawpit granodiorite"

Pms grey, foliated biotite leucogranodiorite
and tonalite

Cobbold "metadolerite"

Pmc metadolerite, metagabbro + amphibolite sills.

Bernecker Creek
Formation

Pmb calcareous siltstone and quartzite, commonly
cross-laminated.

Etheridge
Formation

Pmt siltstone phyllitic siltstone

qt quartzite

Pmv pillowed autobrecciated + amygdaloidal metabasalt flows
with interbedded siltstone; minor metadolerite to
metagabbro sills

a amphibolite

Robertson River
Metamorphics

Pmr schist, quartzite, calcsilicate rocks

Einasleigh
Metamorphics

Pme. biotite and calcsilicate gneiss, calcsilicate granofels, schist
migmatite, up to 50% unnamed leucogranite veins and dykes

PROTEROZOIC

	Fault
	Fault showing relative horizontal movement
	Lineament
	Trend lines
	Strike and dip of strata
	Strike and dip, facing not known
	Vertical beds, facing not known
	Strike of bedding and cleavage coincident
	Overtured bedding
	Horizontal bedding
	Dip of $<15^\circ$
	Dip of $15^\circ-45^\circ$
	Dip of $>45^\circ$
} air photo interpretation	
	Cleavage measured
	Lineation on cleavage
	Strike and dip of metamorphic foliation
	Vertical metamorphic foliation
	Foliation with plunge of crenulation lineation: L_1, L_2, L_3
	Lineation undifferentiated
	Lineation (mineral elongation)
	Lineation (bedding-cleavage intersection)
	Vertical metamorphic foliation
	Overtured anticline showing plunge
	Overtured syncline showing plunge
	Plunge of drag fold
	Plunge of minor antiform, with parallel lineation
	Plunge of minor synform with parallel lineation
	Plunge of overturned or inclined minor fold axis with strike and dip of axial plane
	Contorted metamorphic foliation
	Platy flow vertical
	Platy flow inclined
	Dyke or vein
	Sample locality for age determination
	Prospect, little or no production
	Mine
	Open cut or quarry
	Alluvial workings
	Mine (abandoned)
	Costean
	Battery or smelter abandoned

GILBERTON — LIST OF ABBREVIATIONS

a	amphibolite	lst	limestone
abnt	abundant	m	medium
agg, aglom	agglomerate	m/m, mets	metamorphics
alluv	alluvium	mig	migmatite
andal	andalusite	mgr	MICRO - granite
alt	altered	meg	medium even grained
aph	aphanitic	mdo	meta - dolerite
apl	aplite	mi	mica
ark	arkose	m-bas	meta - basalt
bas	basalt	mu	muscovite
bf	buff	mup	muscovite pegmatite
bi	biotite	num	numerous
bl	black	p	pegmatite
br, bn	brown	pk	pink
bndd	banded	pbly	pebbly
brec	breccia	po	por phry
c	coarse	phyll	phyllite
c̄	with	py	pyrite
calc	calcareous	phen, pheno	phenocrysts
cgn, cgl	conglomerate	q	quartz
chl	chlorite	qt	quartzite
col	colluvium	rh	rhyolite
cren	crenulation	sh	shale
crys	crystal	sil	sillimanite
dior, di	diorite	sist	siltstone
dk	dark	sl	slightly
eq	equigranular	ss	sandstone
f	fine	sch	schist
fs, fel	feldspar	text	texture
fract	fractured	v	very
ga	garnet	vc	very coarse
gd	granodiorite	wthrd	weathered
gn	green	wh	white
gns	gneiss	xen	xenolith
gr	granite		
gy	grey		
hb	hornblende		
int	intruded		
kfs	potassium feldspar		
lam	laminated		
leu, leuco	leucocratic		

RUN 1 5566
IWW

RUN 1 5562
B.O.

RUN 2 5516
IWW

RUN 2 5520
J.B.

RUN 3 5510
IWW

RUN 3 5504
IWW

RUN 4 5348
IWW

RUN 4 5542
IWW

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d	c	d
a	b	a
d	c	d

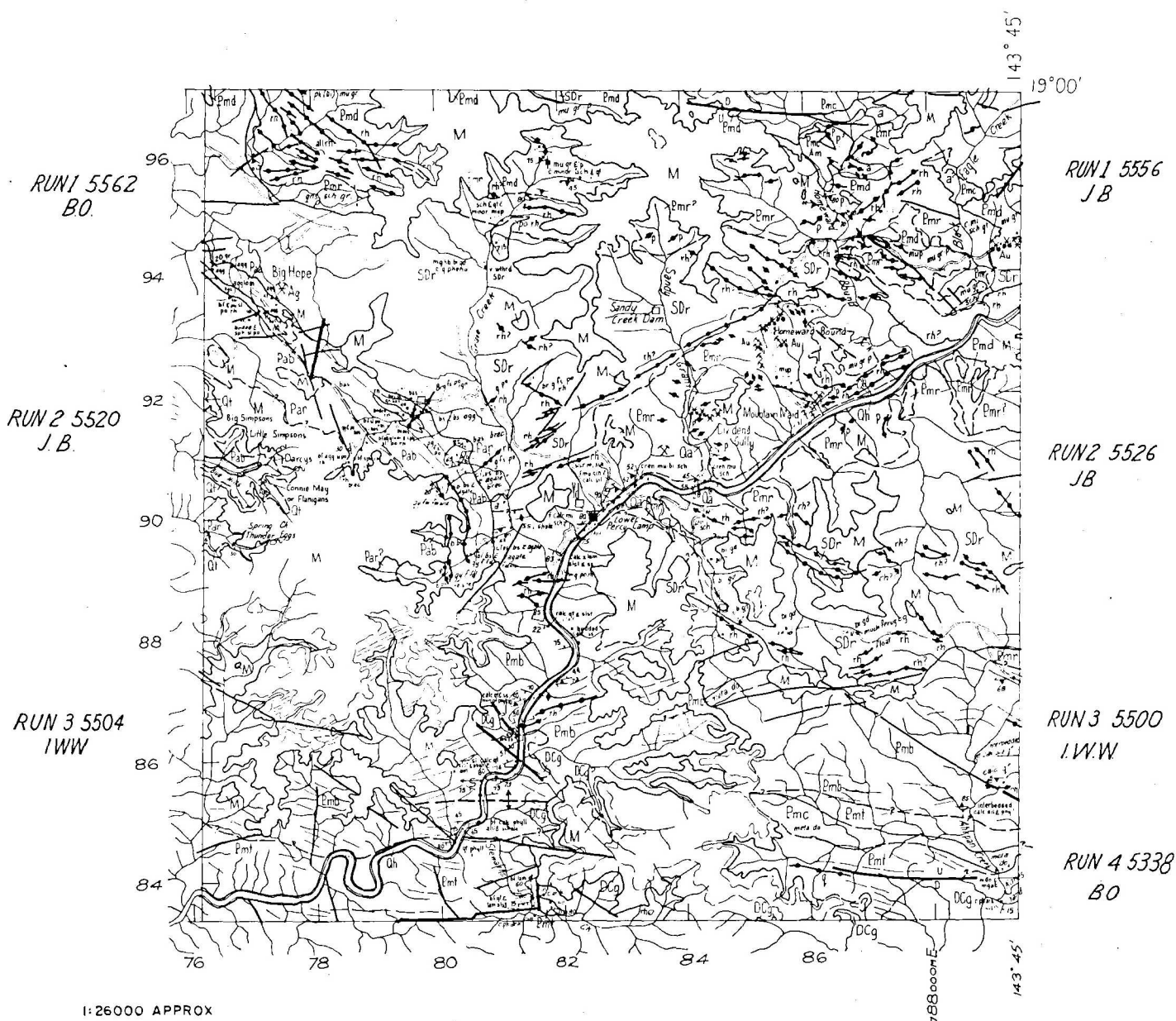
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d	c	d	c

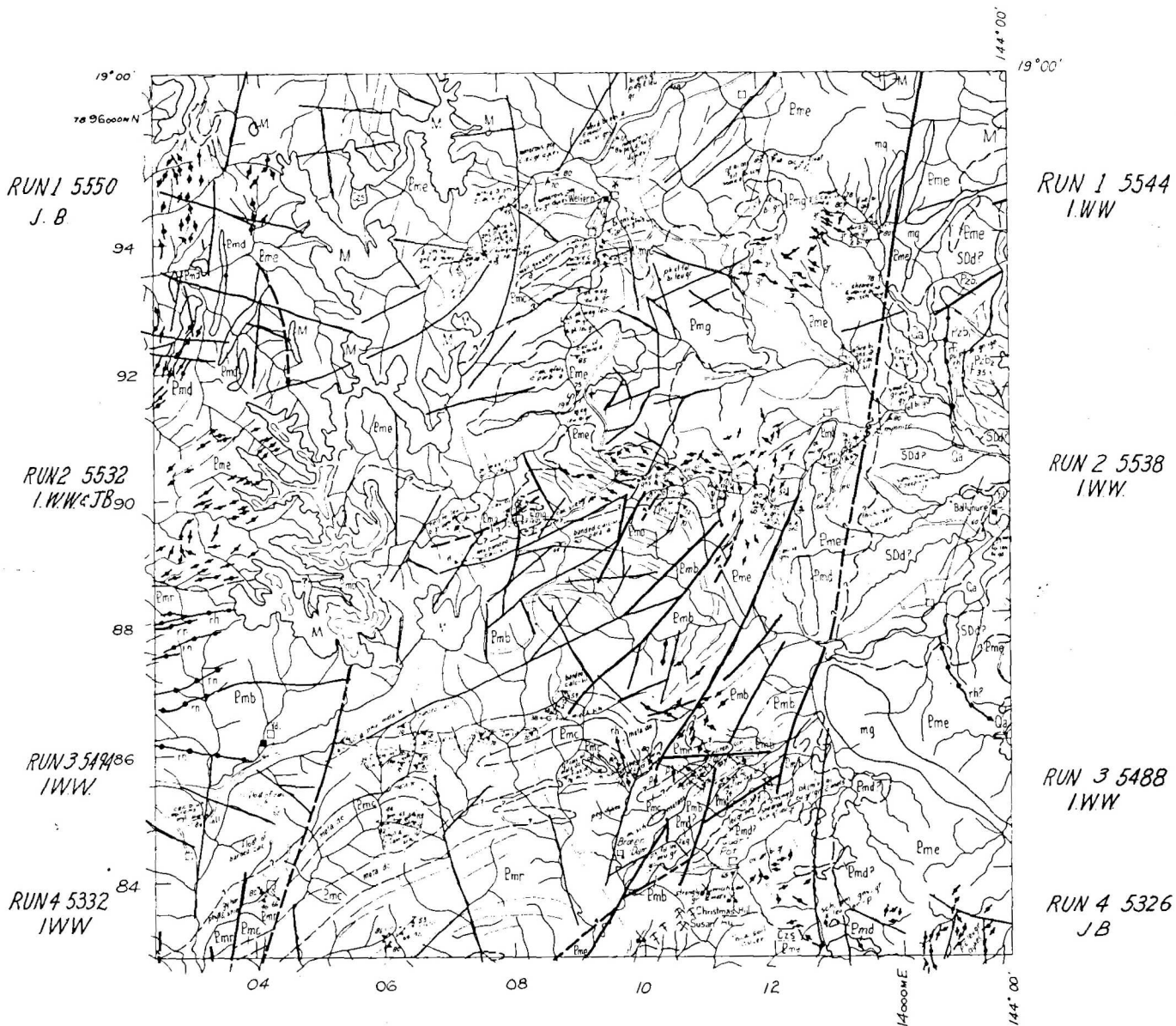
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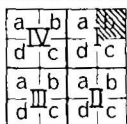
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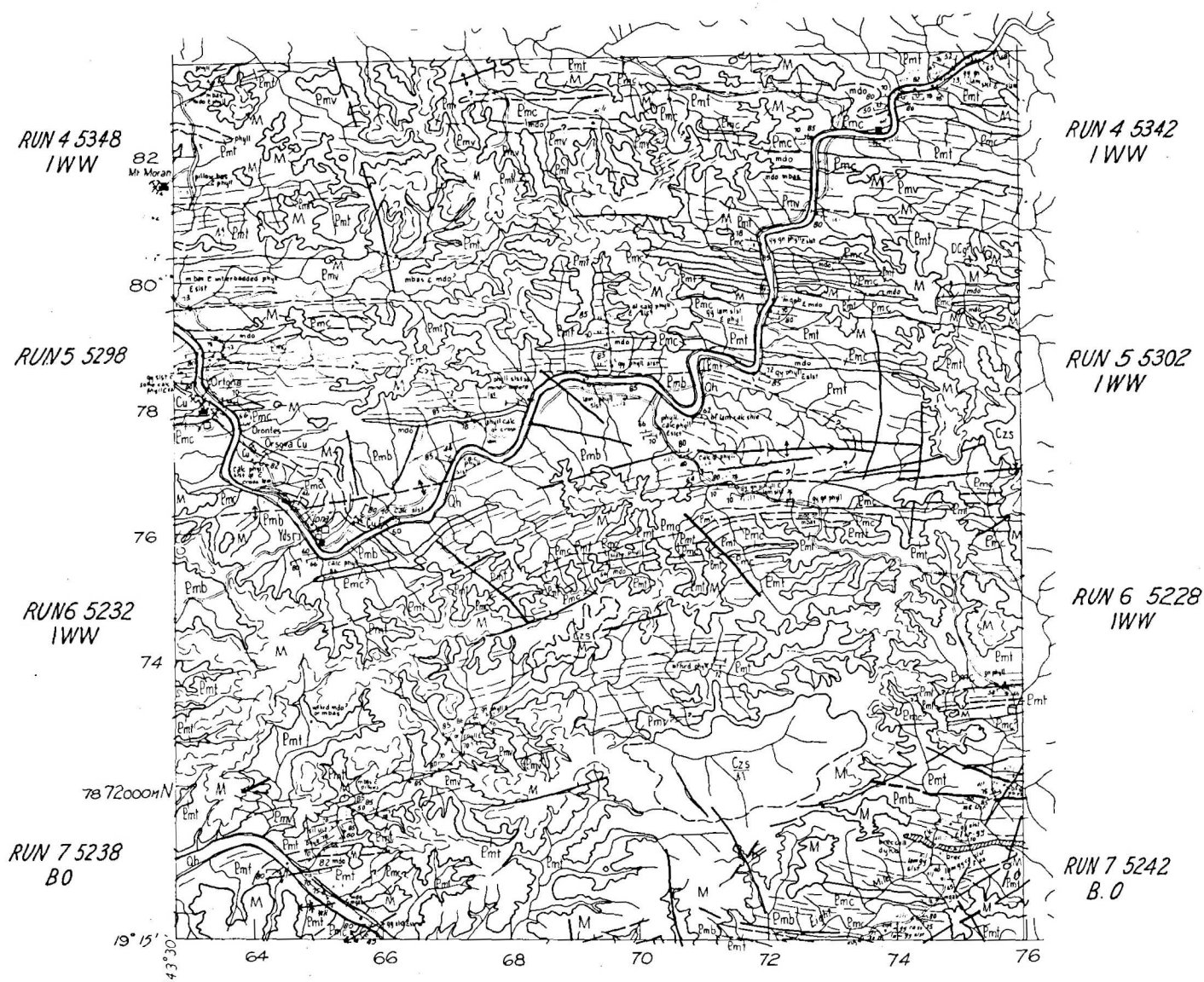
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a	b	a	b
c	d	c	d

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RUN 5 5304
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RUN 6 5226
BO

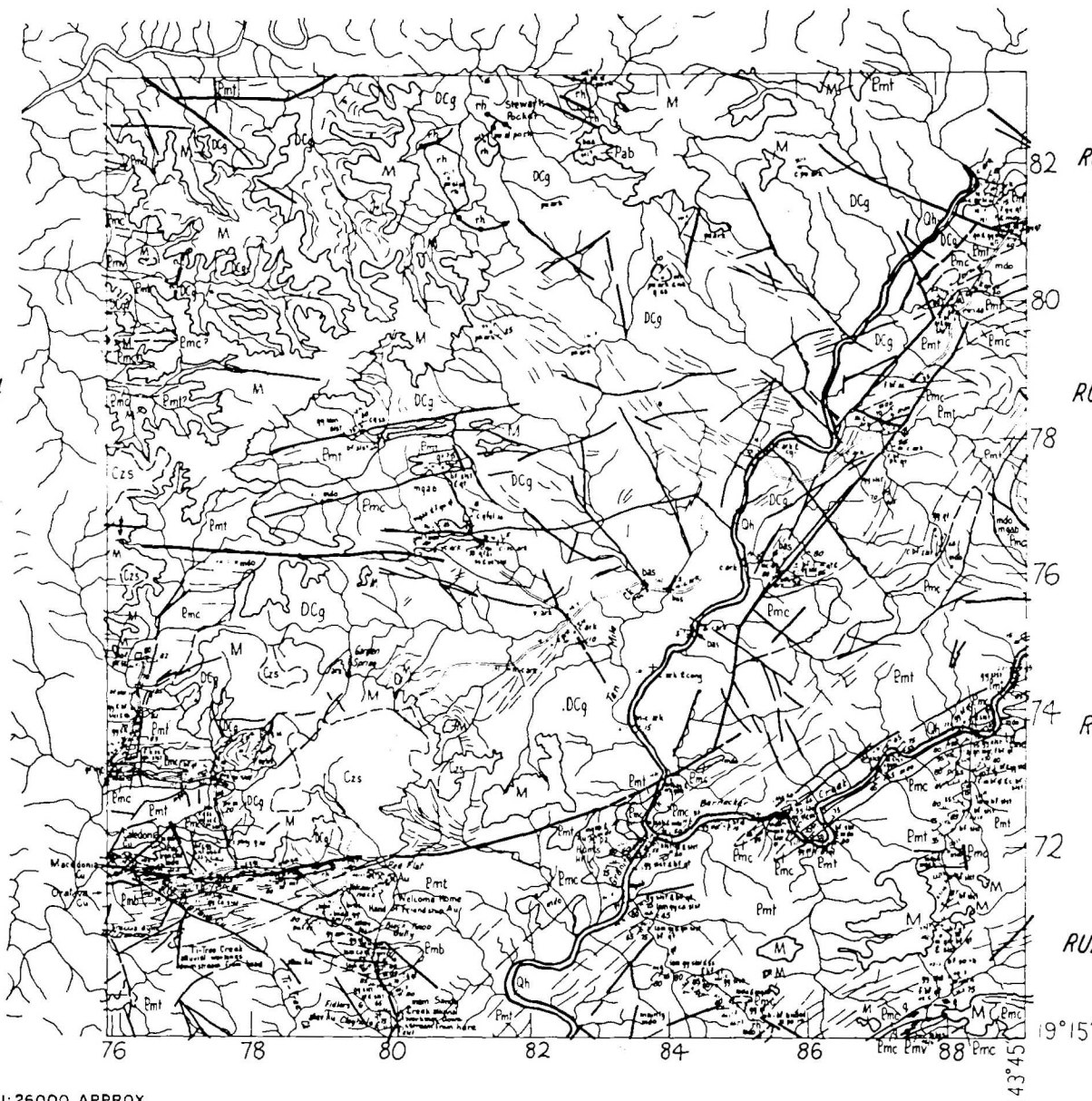
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RUN 4 5338
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RUN 5 5308
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RUN 6 5222
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RUN 7 5248
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a	b	a	b
d	c	d	c

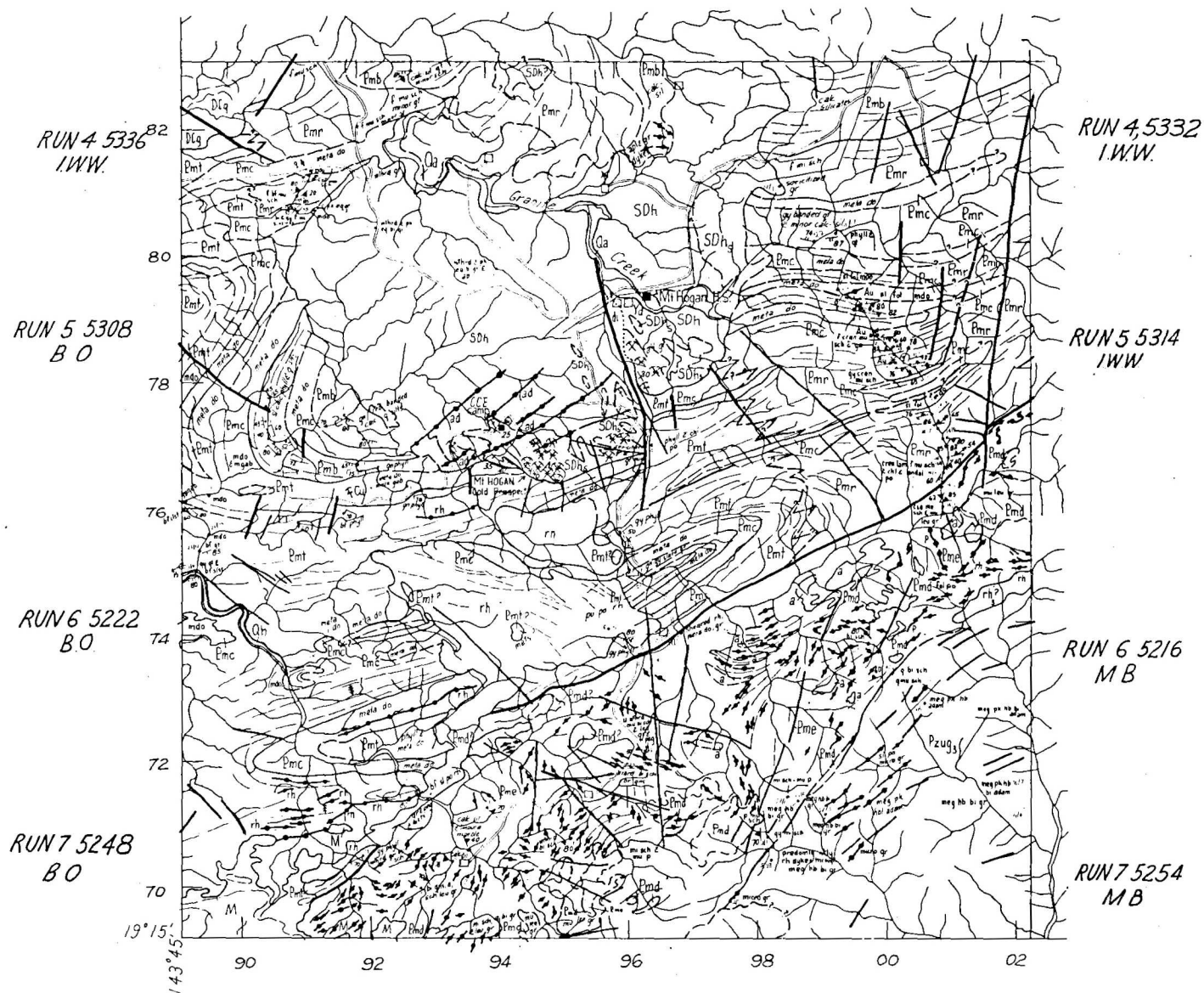
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d	c	d	c

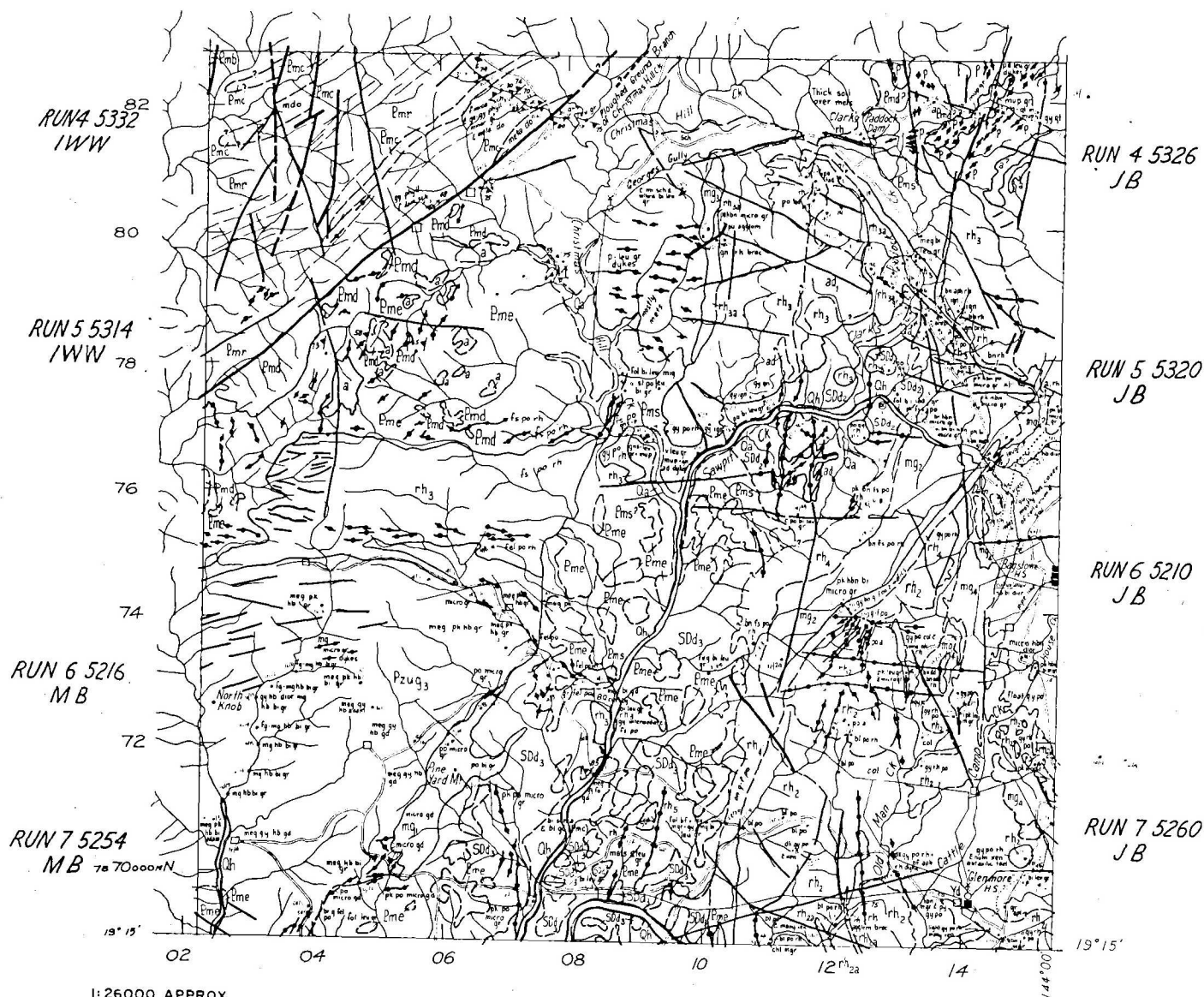
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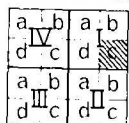
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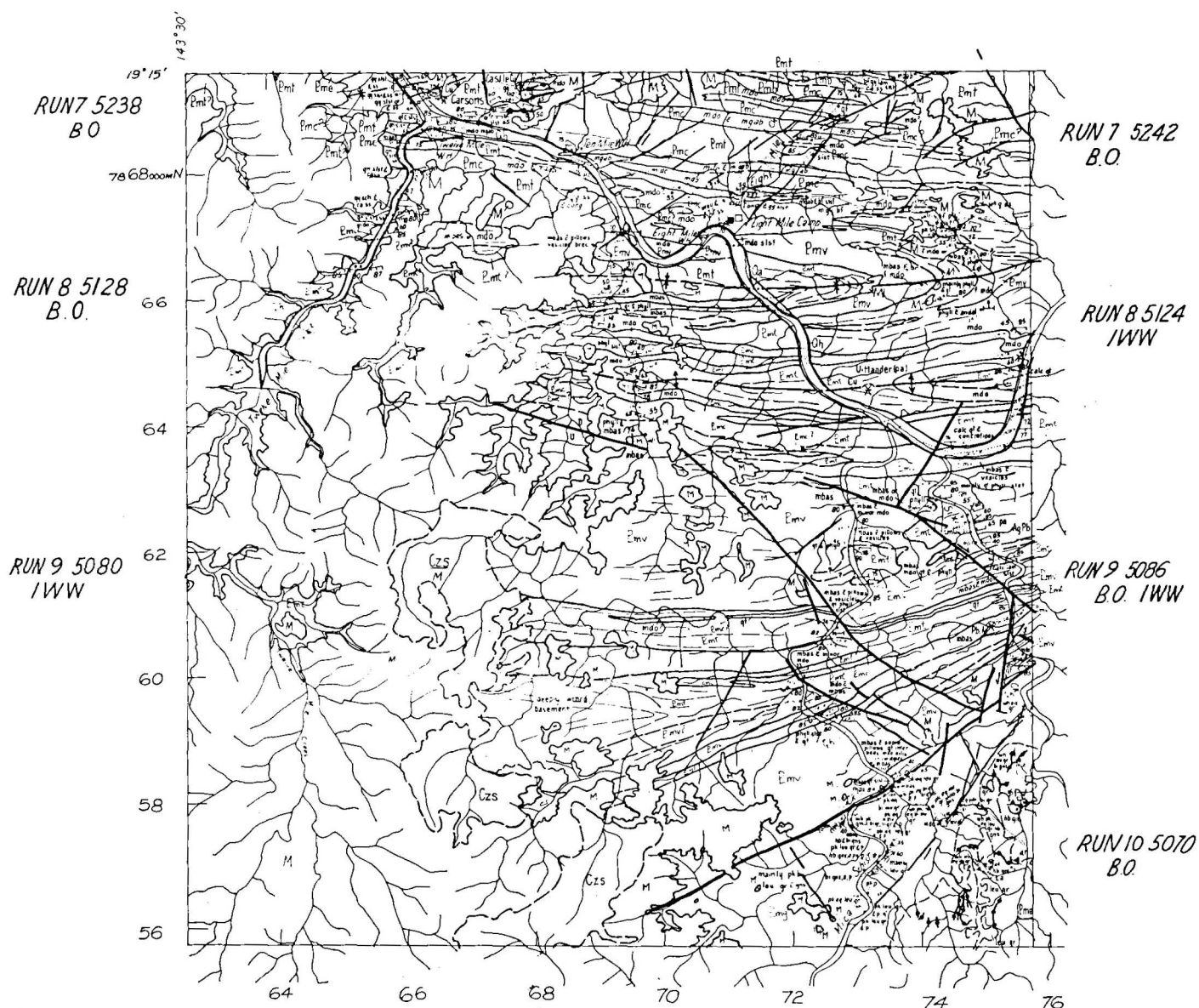
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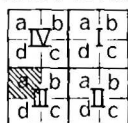
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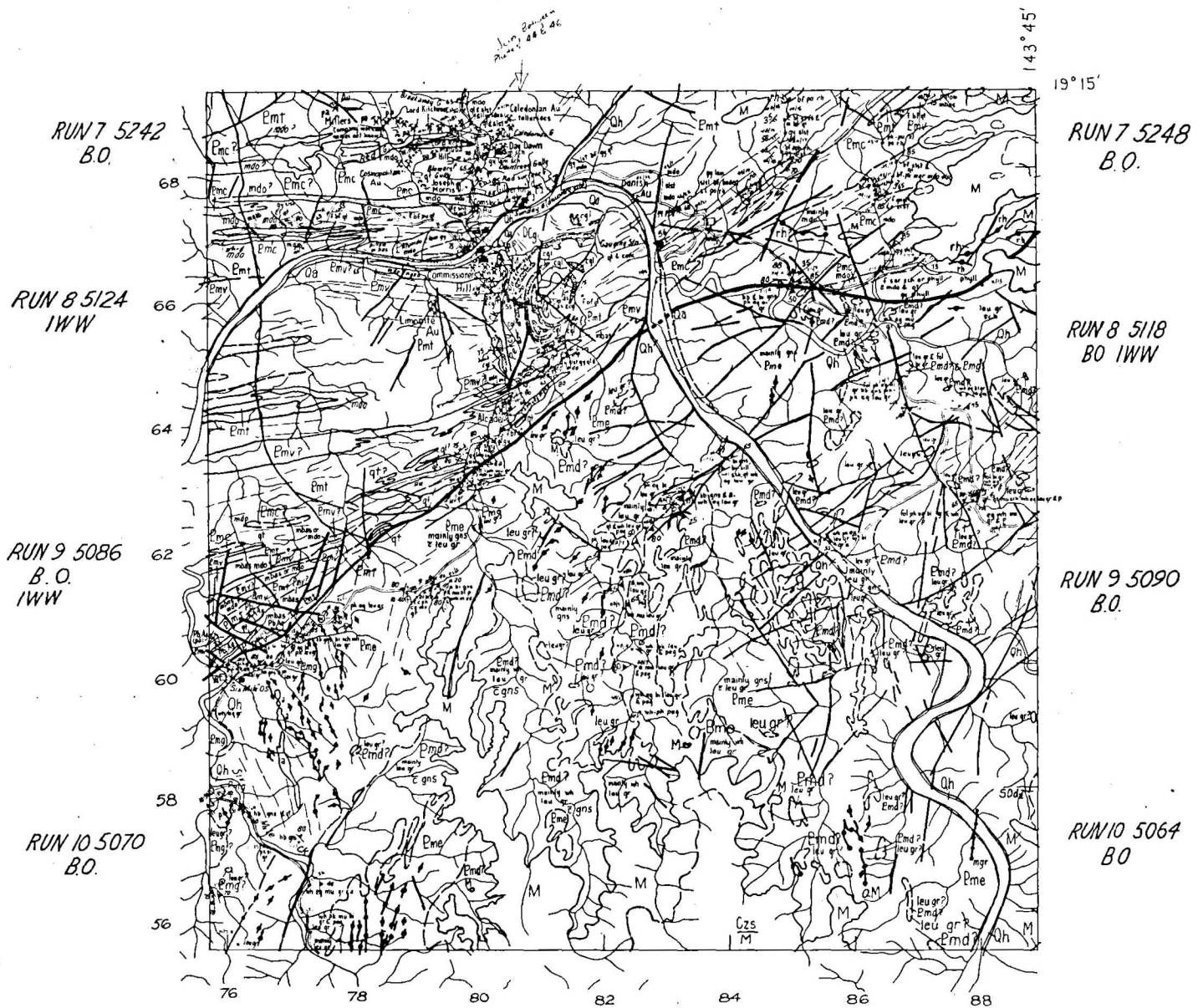
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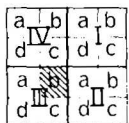
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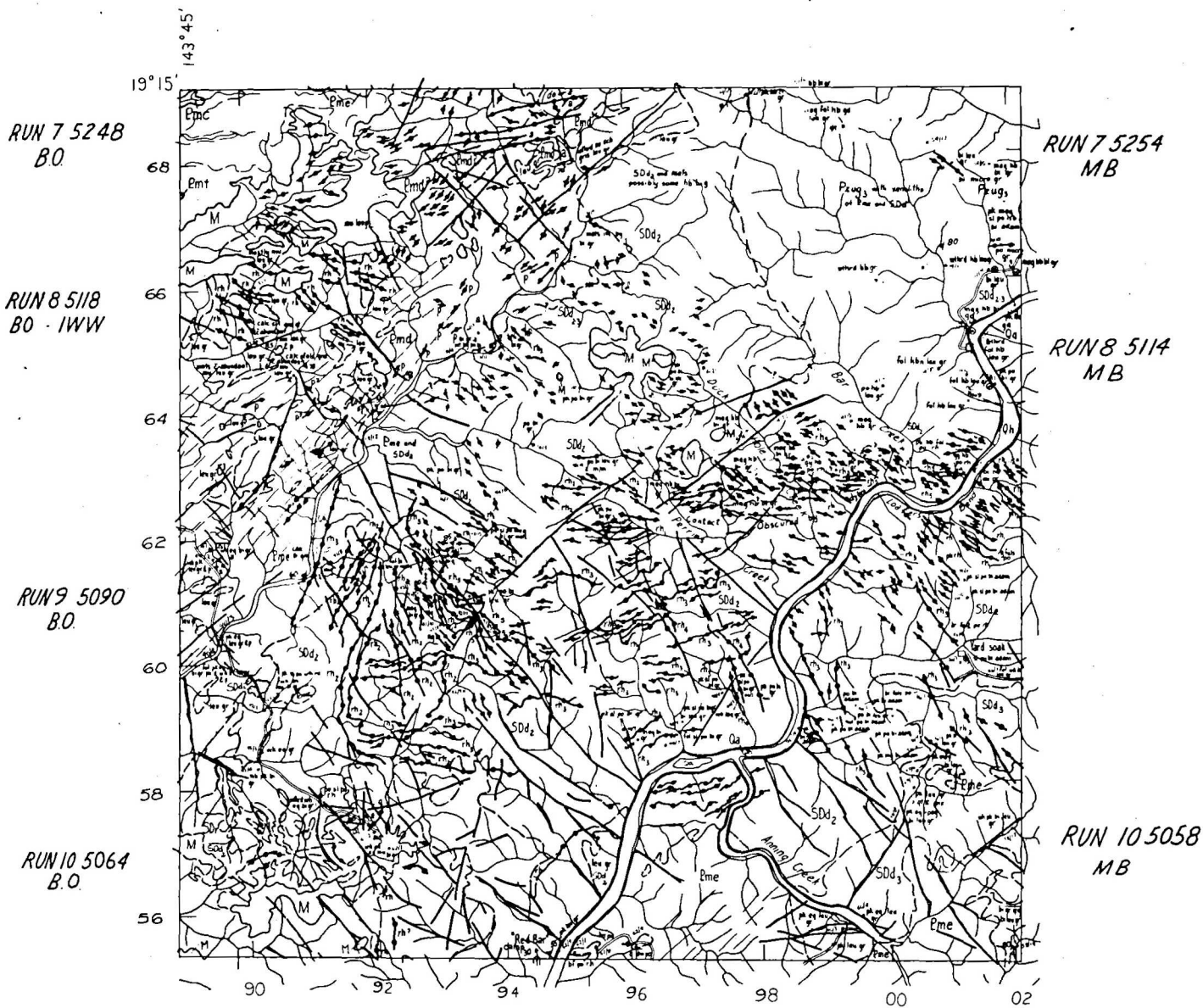
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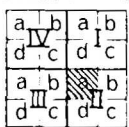
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RUN 8 5112
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RUN 9 5096
MB

RUN 10 5058
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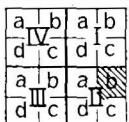
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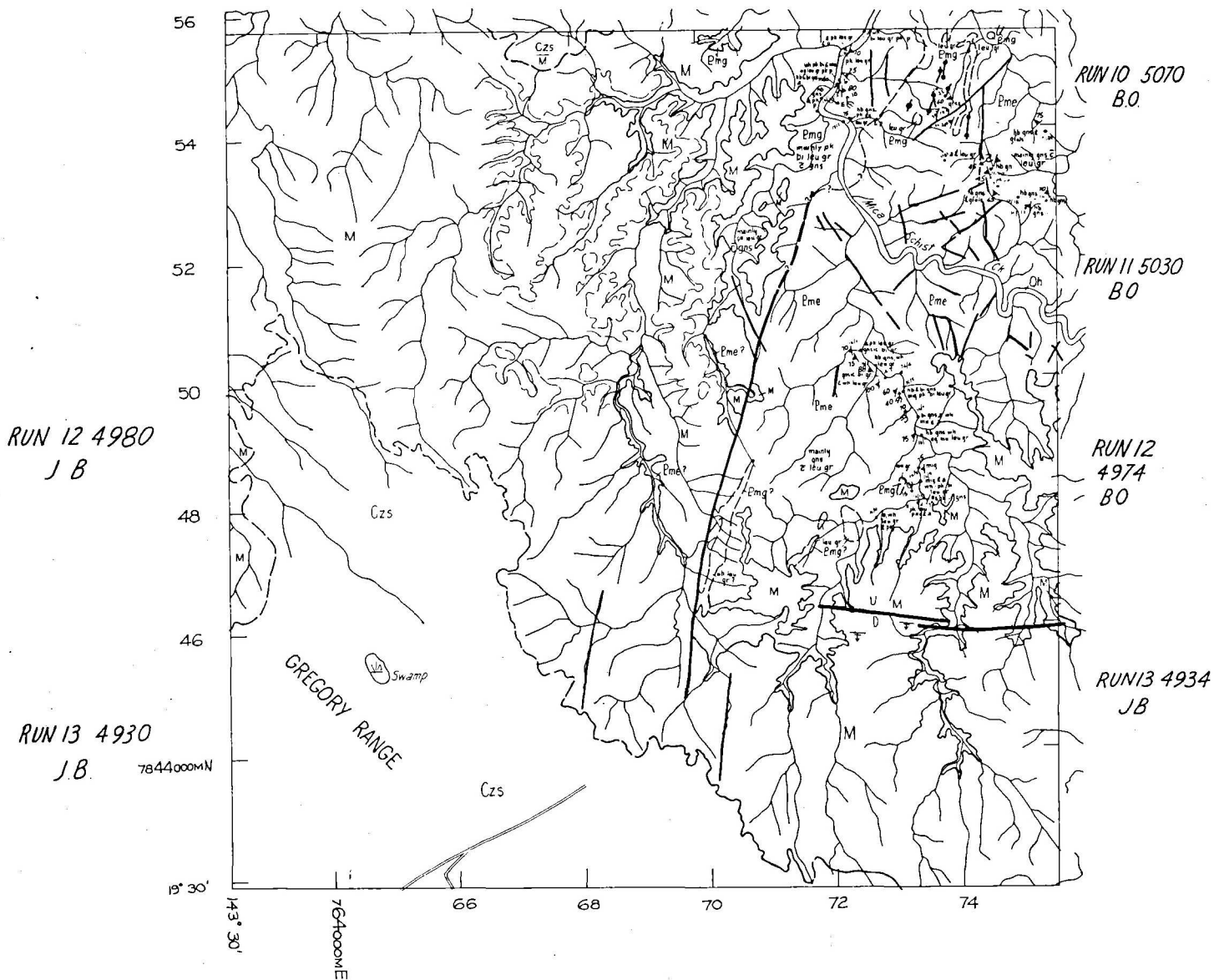
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(12 of 16) E54/A16/16



1:26000 APPROX

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d	c	d	c
a	b	a	b
d	c	d	c

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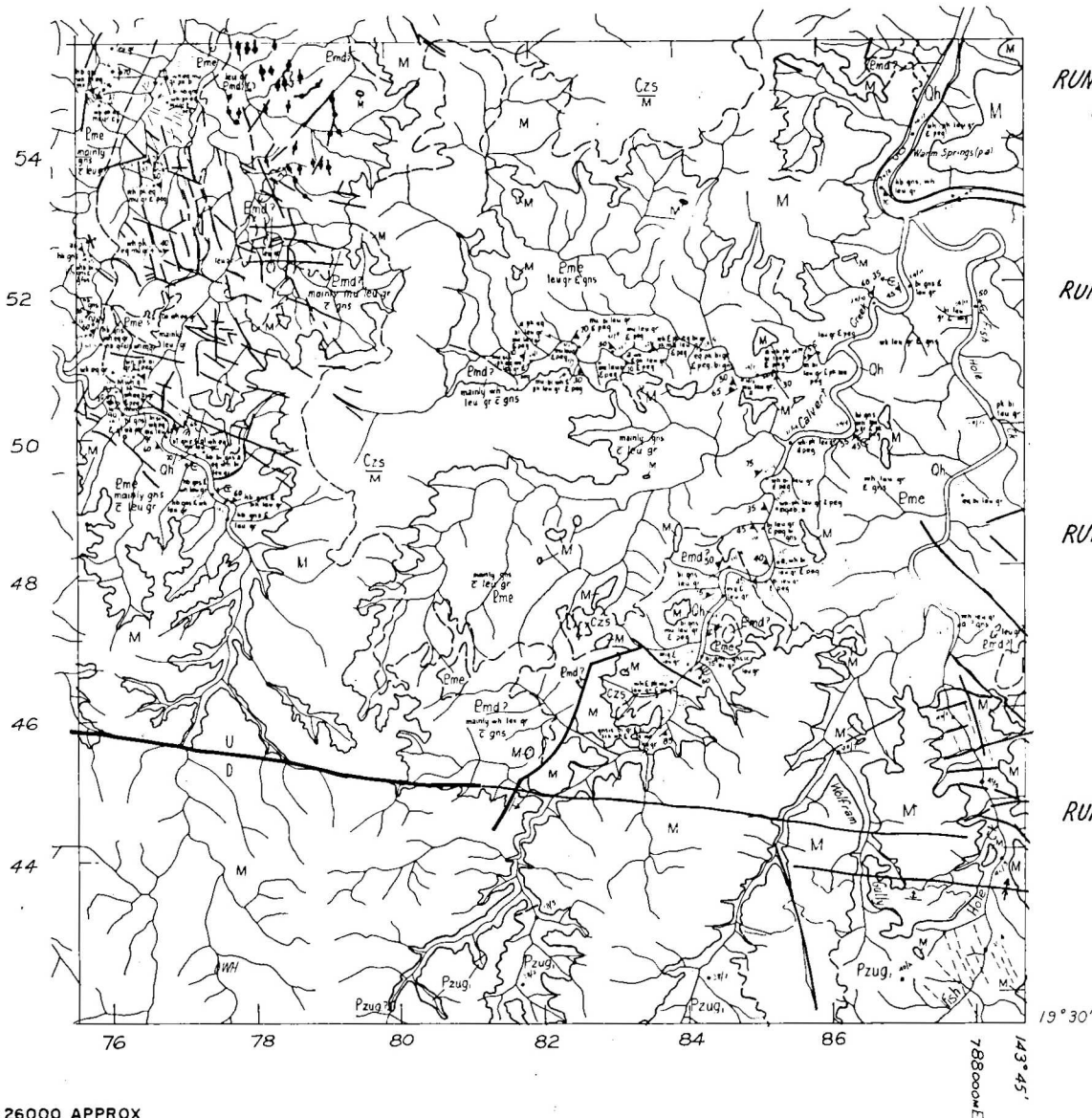
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RUN 12 4974
B0

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B0

RUN 13 4940
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d	c	d	c
a	b	a	b
d	c	d	c

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B.O.

RUN 10 5058
M.B.

RUN 11 5036
B.O.

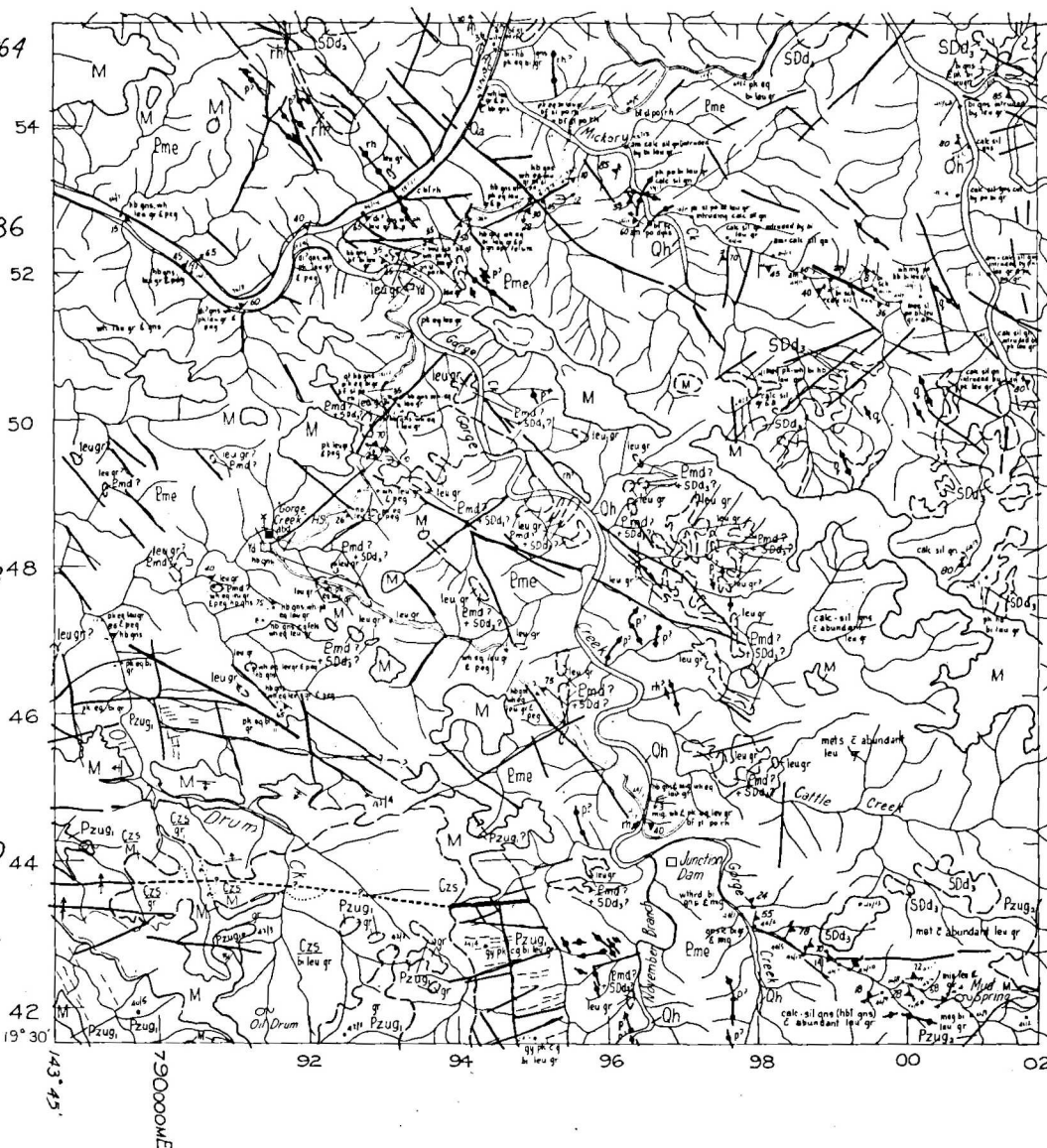
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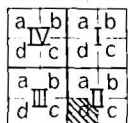
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M.B.

RUN 13 4940 44
J.B.

RUN 13 4946
J.B., I.W.W.



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RUN 10 5058
M B

RUN 10 5054
M B

RUN 11 5040
M B

RUN 11 5046
I WW

RUN 12 5064
M B

RUN 12 4958
J B

RUN 13 4946
J B, I WW

RUN 13 4952
J B

7842000m N

19° 30'

02

04

06

08

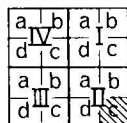
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12

14000m E

14° 00'

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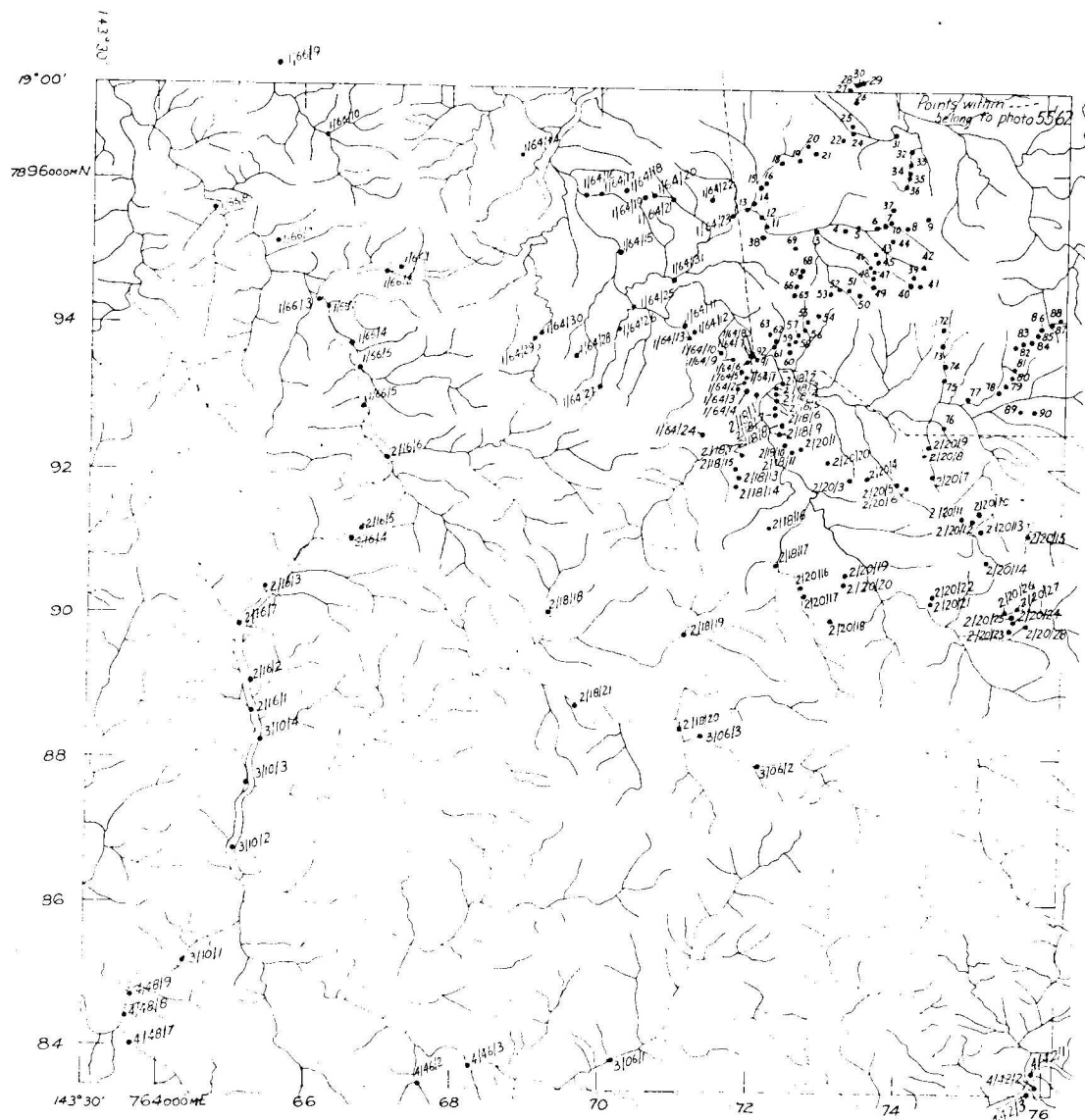
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IV	I
III	II

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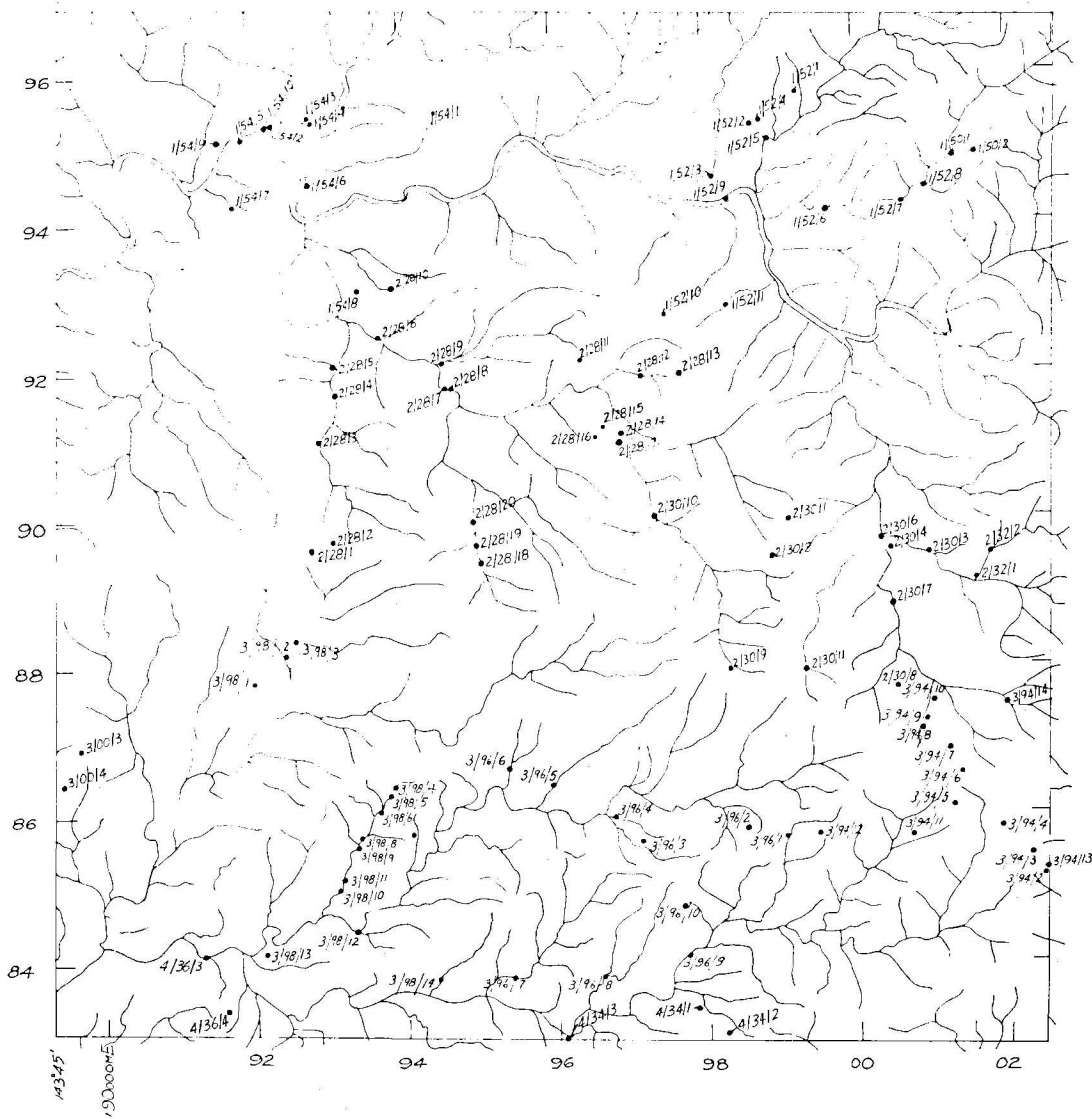
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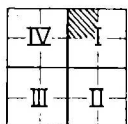
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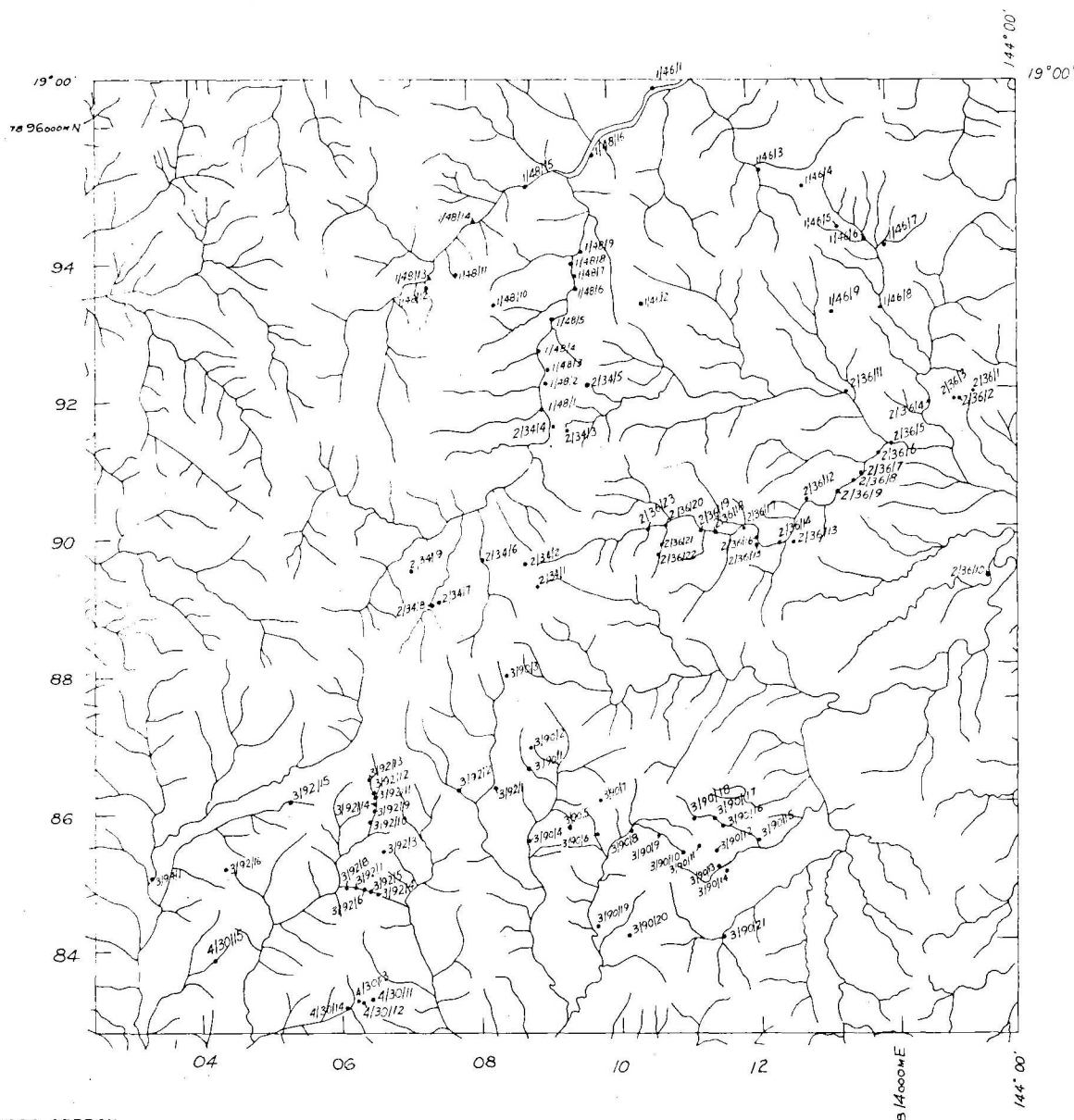
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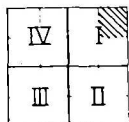
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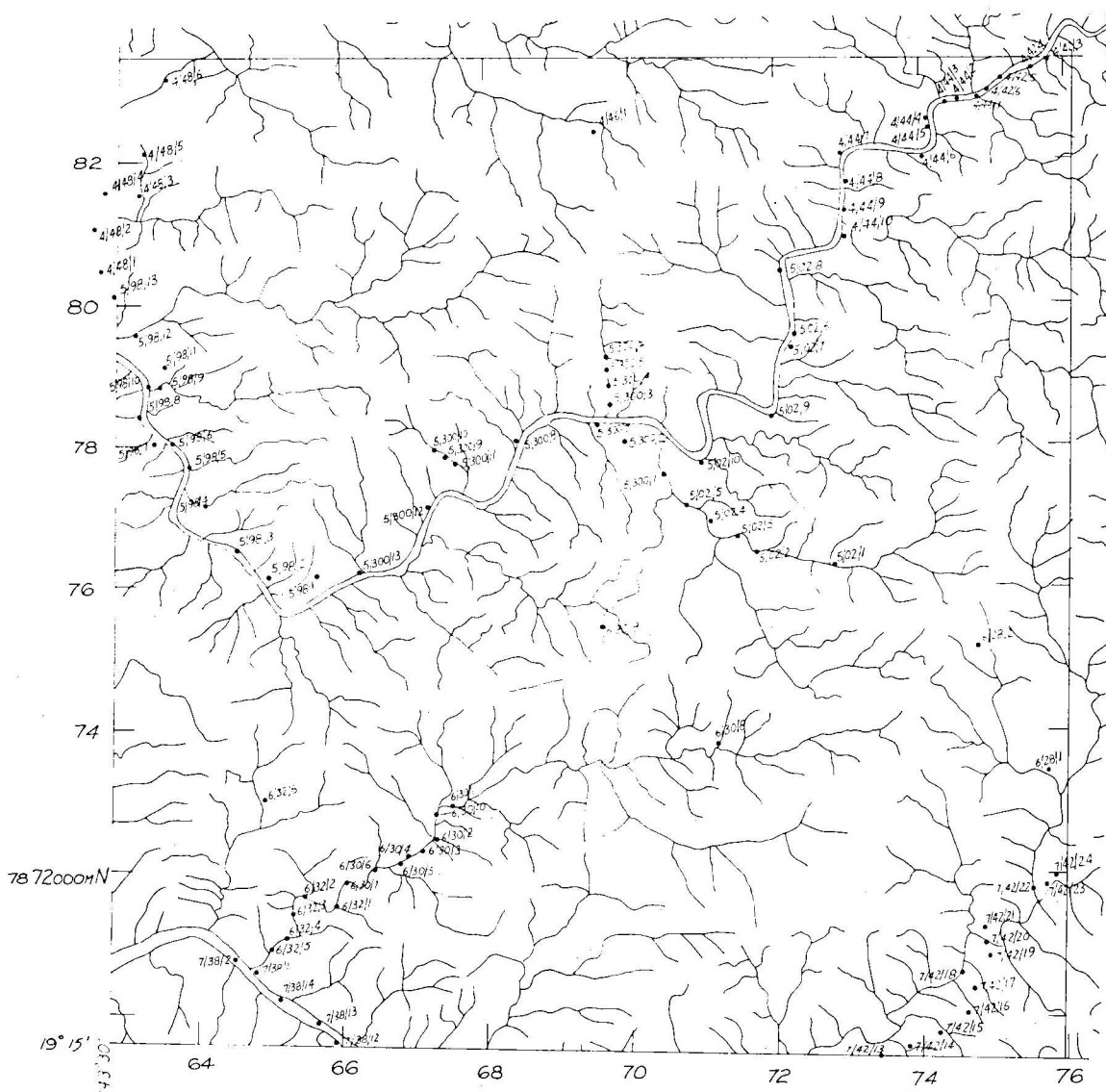
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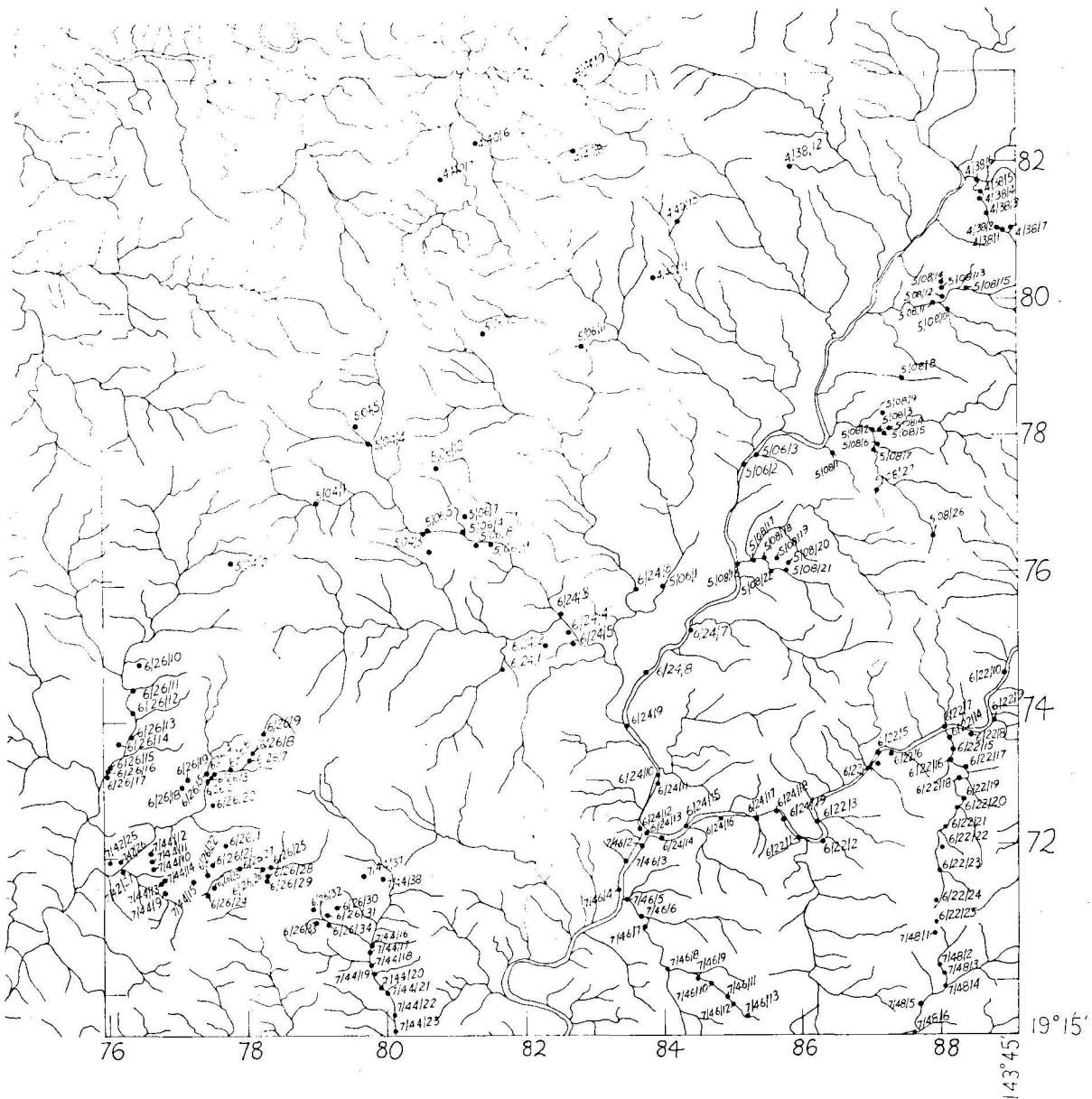
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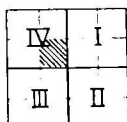
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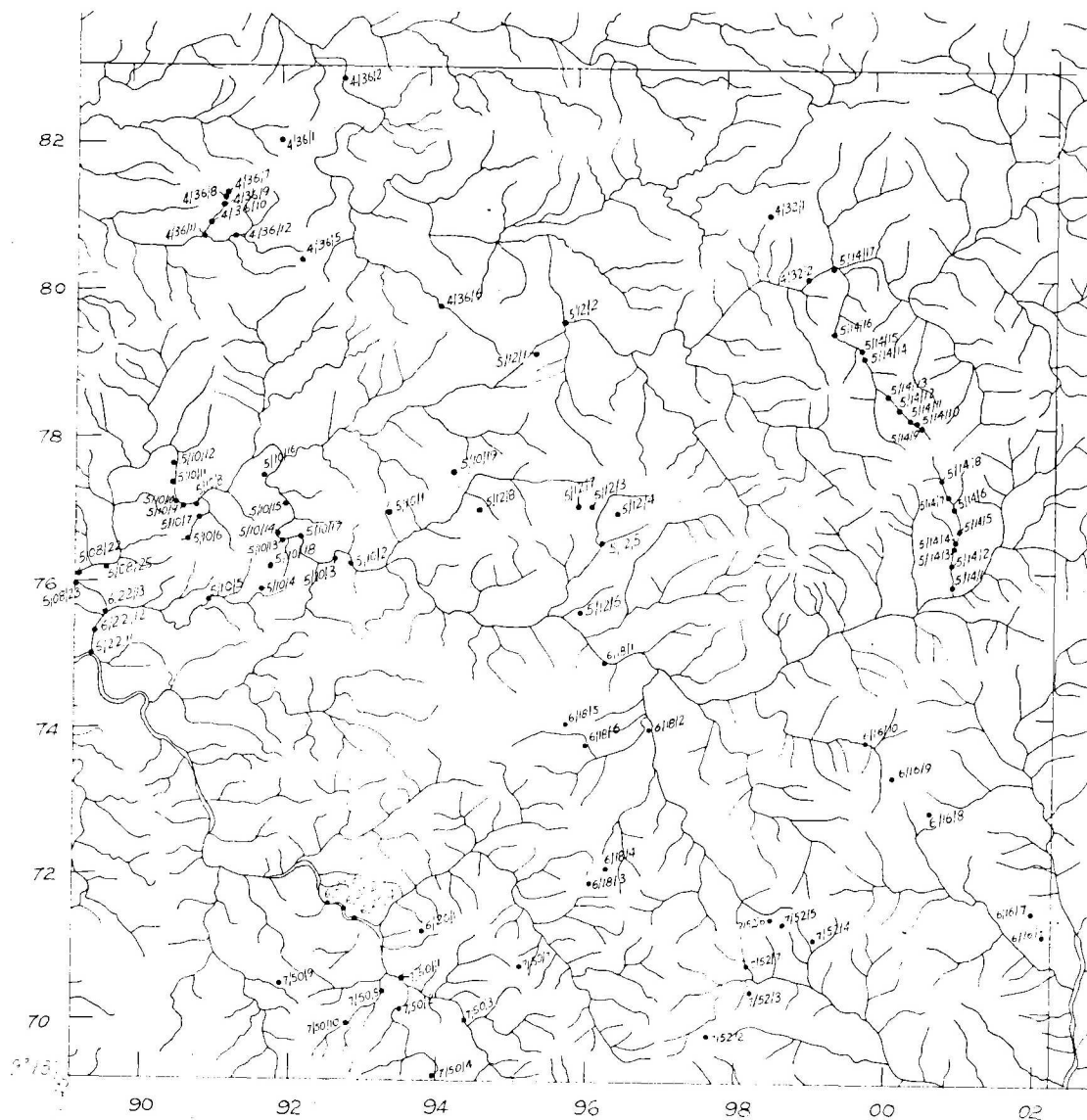
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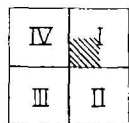
Drawn 1975 by : J. Mifsud (BMR)

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1:26000 APPROX



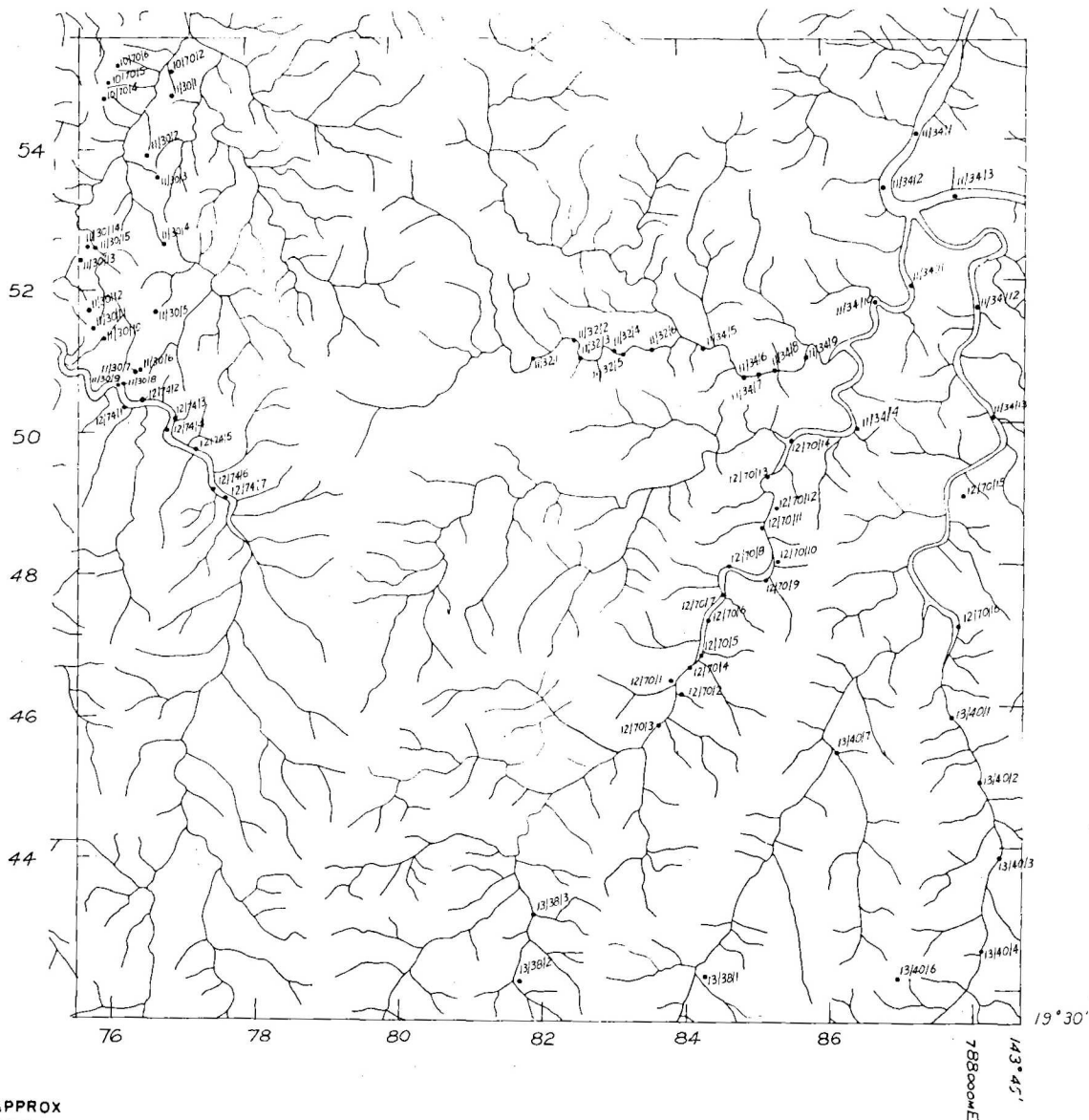
GILBERTON

Mapped 1975 by : J.H.C. Bain & B.S. Oversby (BMR)
I.W. Withnall & E.M. Baker (GSQ)

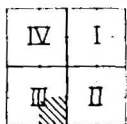
Drawn 1975 by : J. Mifsud (BMR)

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1:26000 APPROX



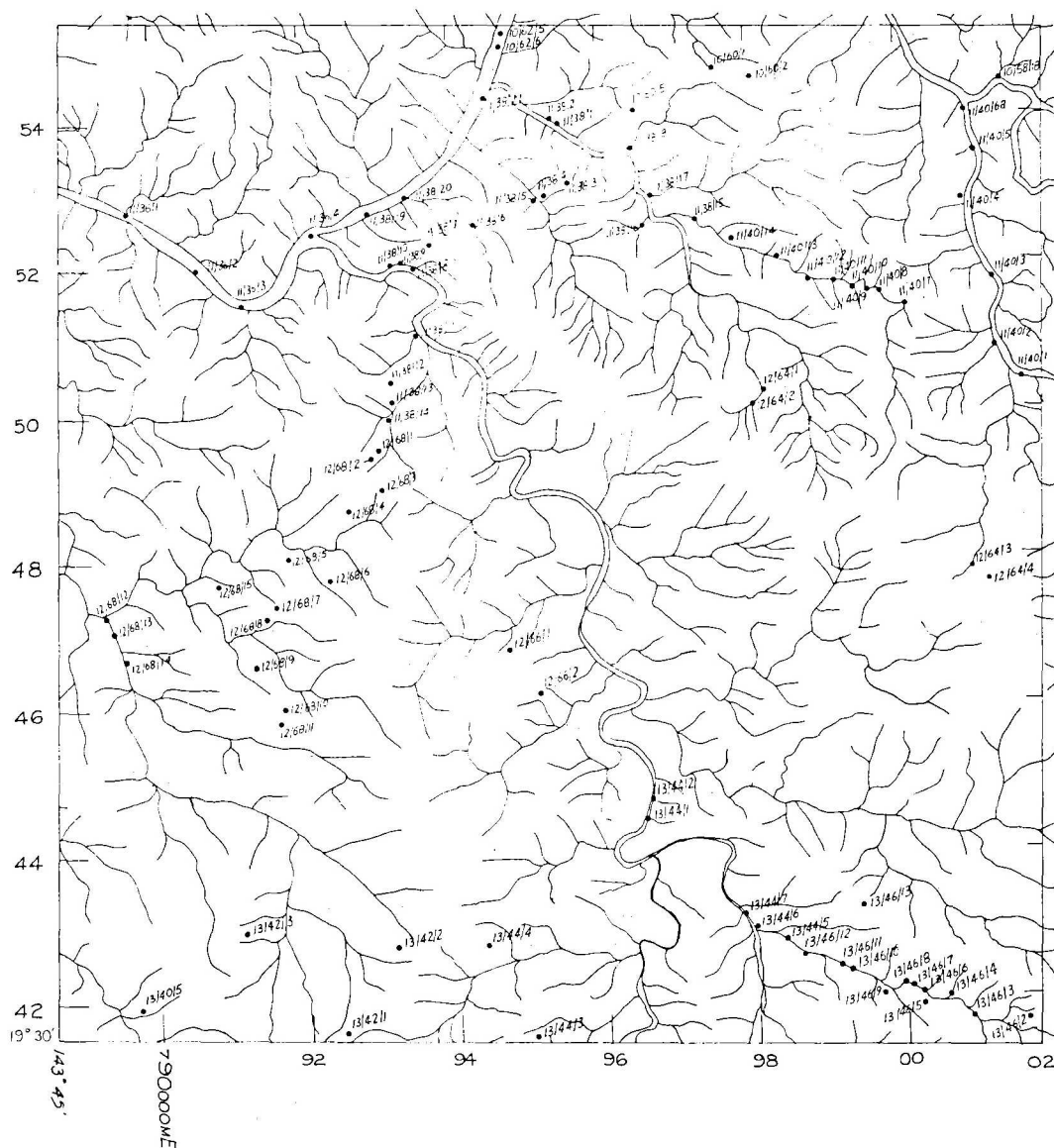
GILBERTON

Mapped 1975 by : J.H.C. Bain & B.S. Oversby (BMR)
I.W. Withnall & E.M. Baker (GSQ)

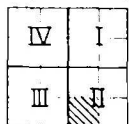
Drawn 1975 by : J. Mifsud (BMR)

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