

REPUBLIC OF THE PHILIPPINES
REPORT ON GEOLOGICAL SURVEY
OF
NORTHWESTERN LUZON

PHASE 1
SEP. 1979

METAL MINING AGENCY
JAPAN INTERNATIONAL COOPERATION
GOVERNMENT OF JAPAN

国際協力事業団

受入 月日 '84. 9. 27	118
登録No. 09234	66.1 MPN

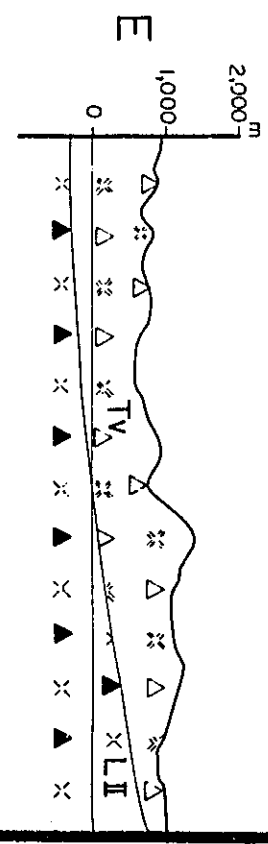
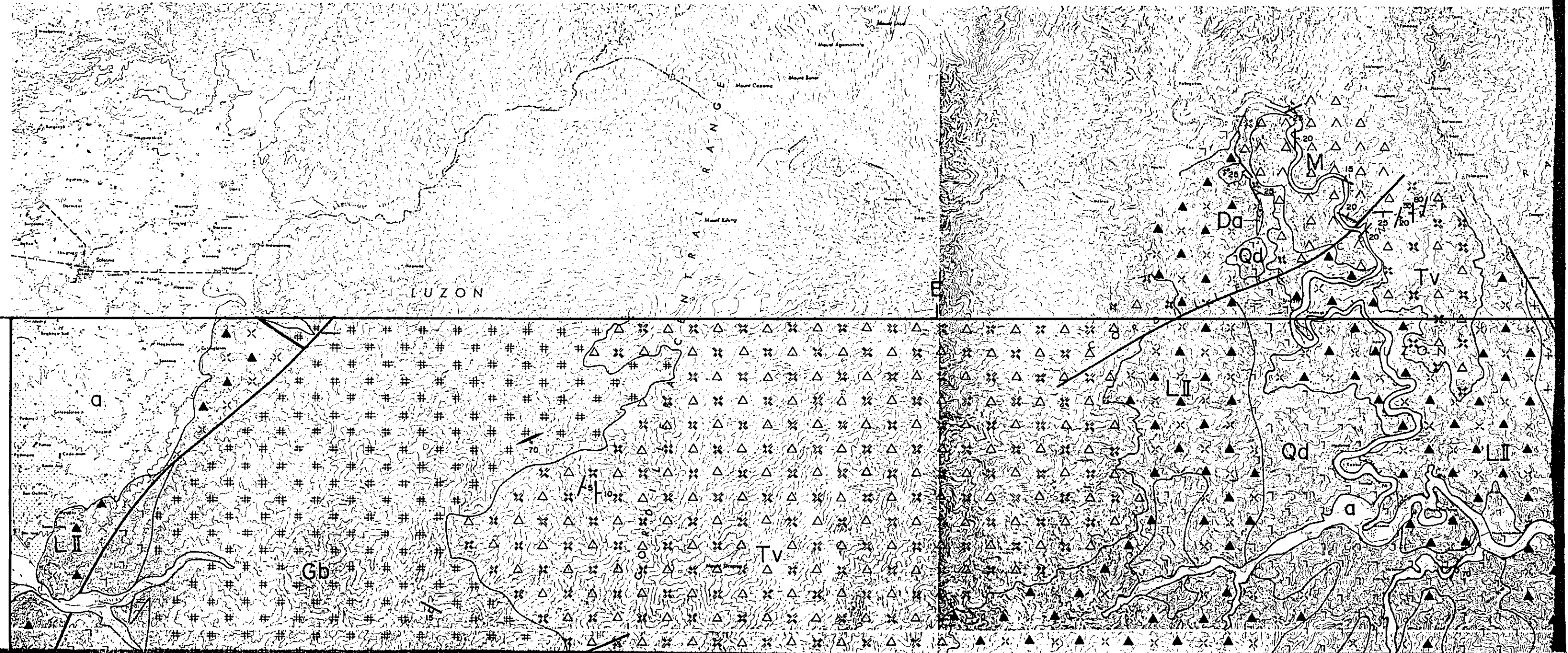
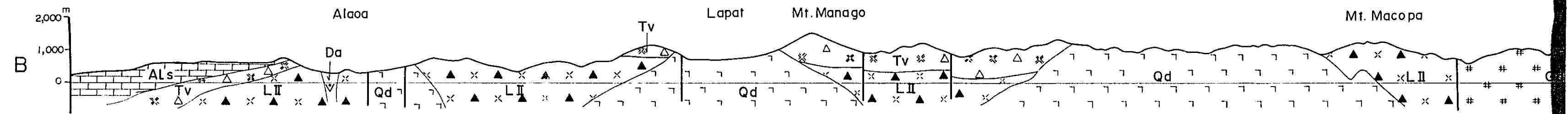
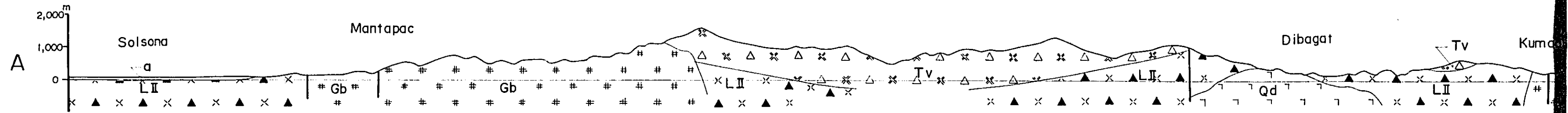
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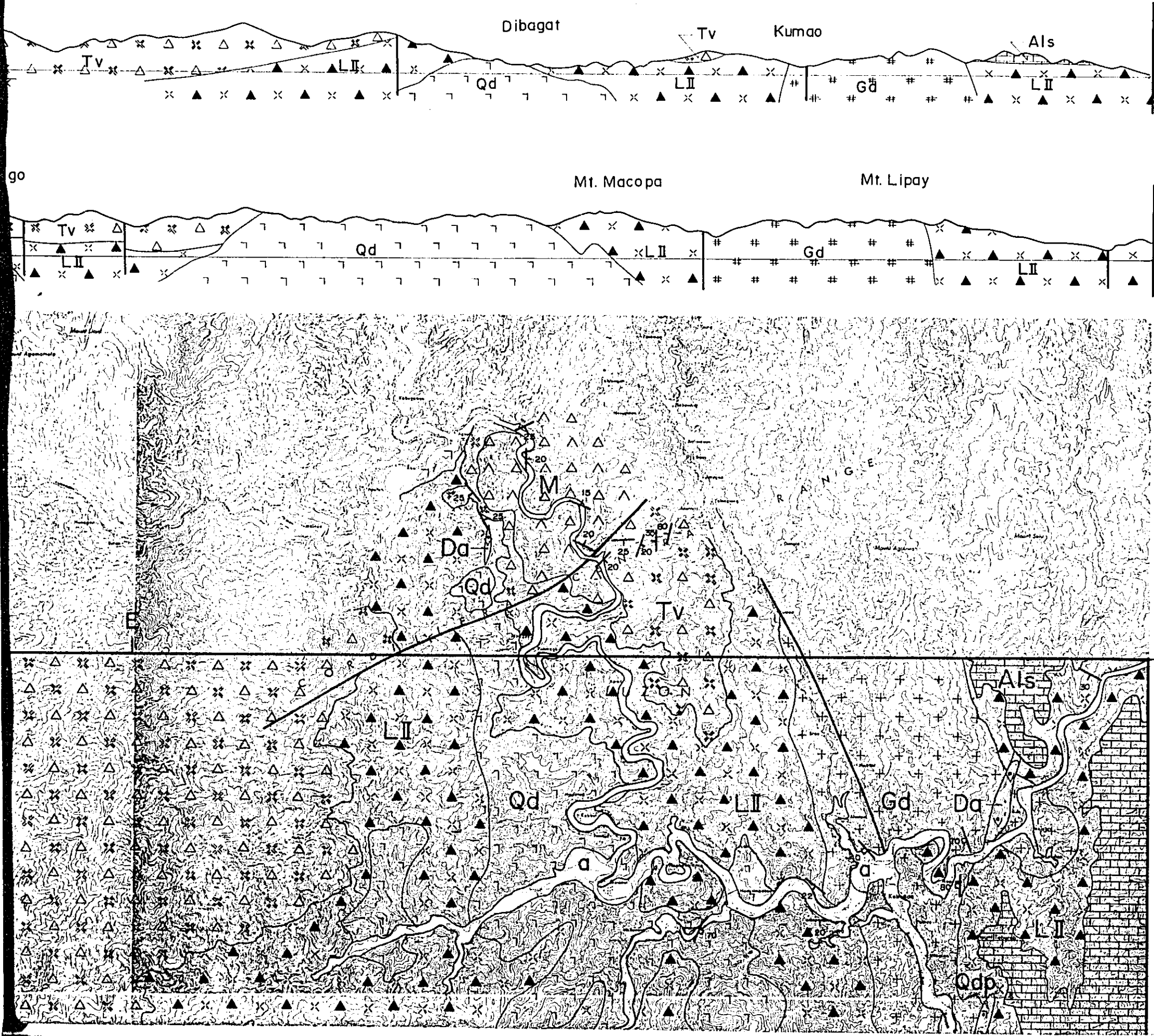
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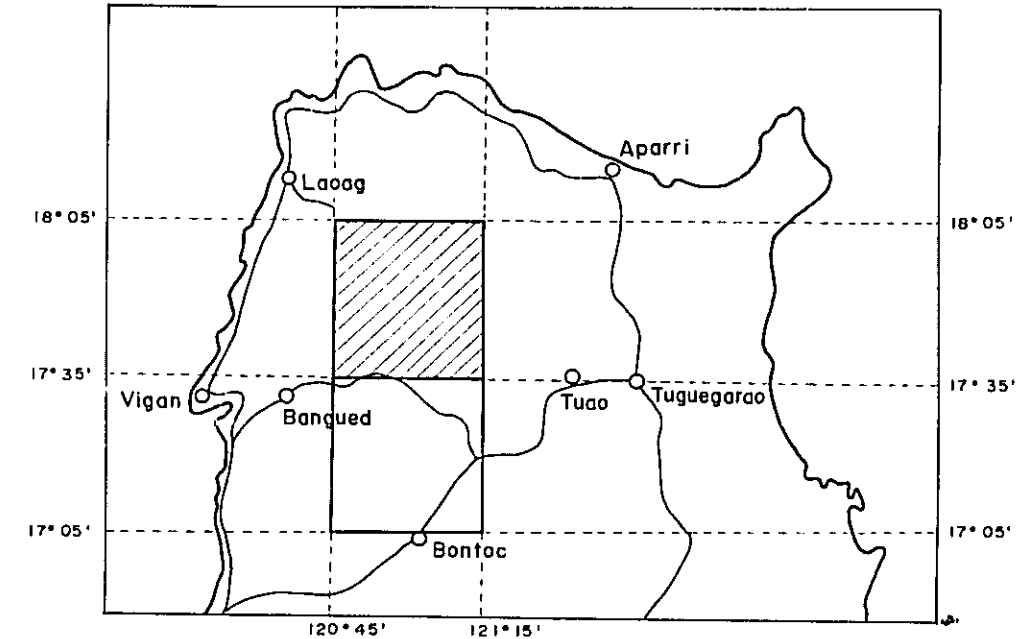


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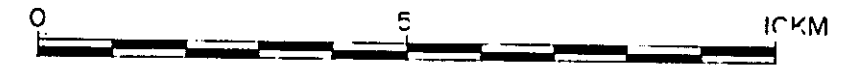
GEOLOGICAL SURVEY
OF
NORTHWESTERN LUZON
PHILIPPINES
(PHASE I)

Geological Map &
Geological Profiles

LOCATION INDEX



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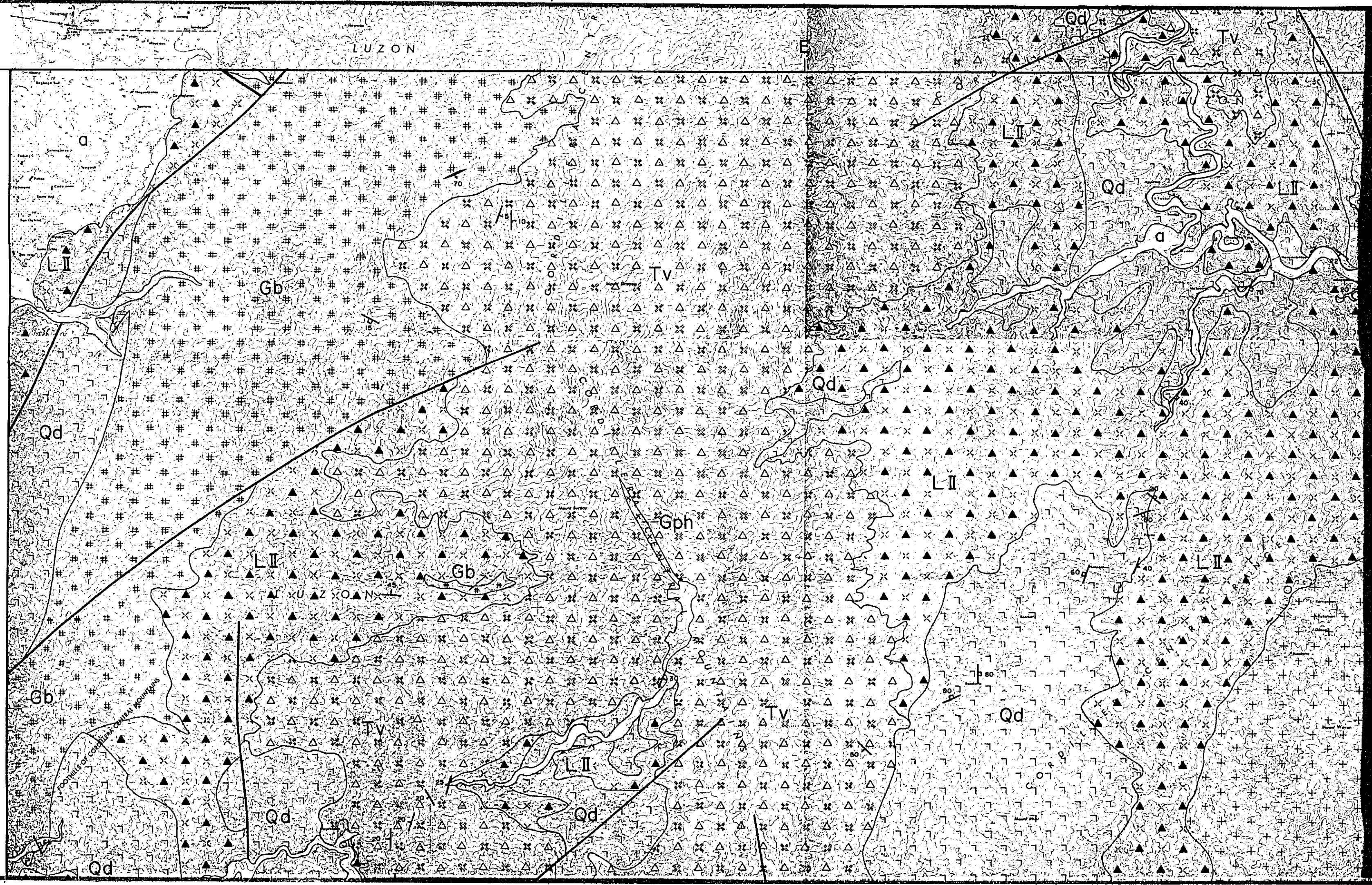
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GOVERNMENT OF JAPAN
September 1979

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LUZON

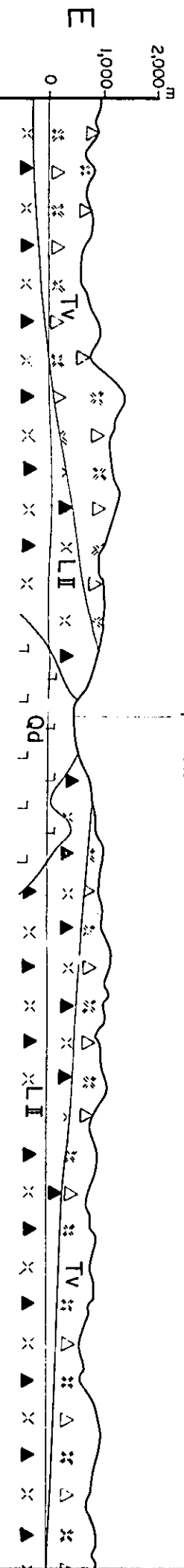
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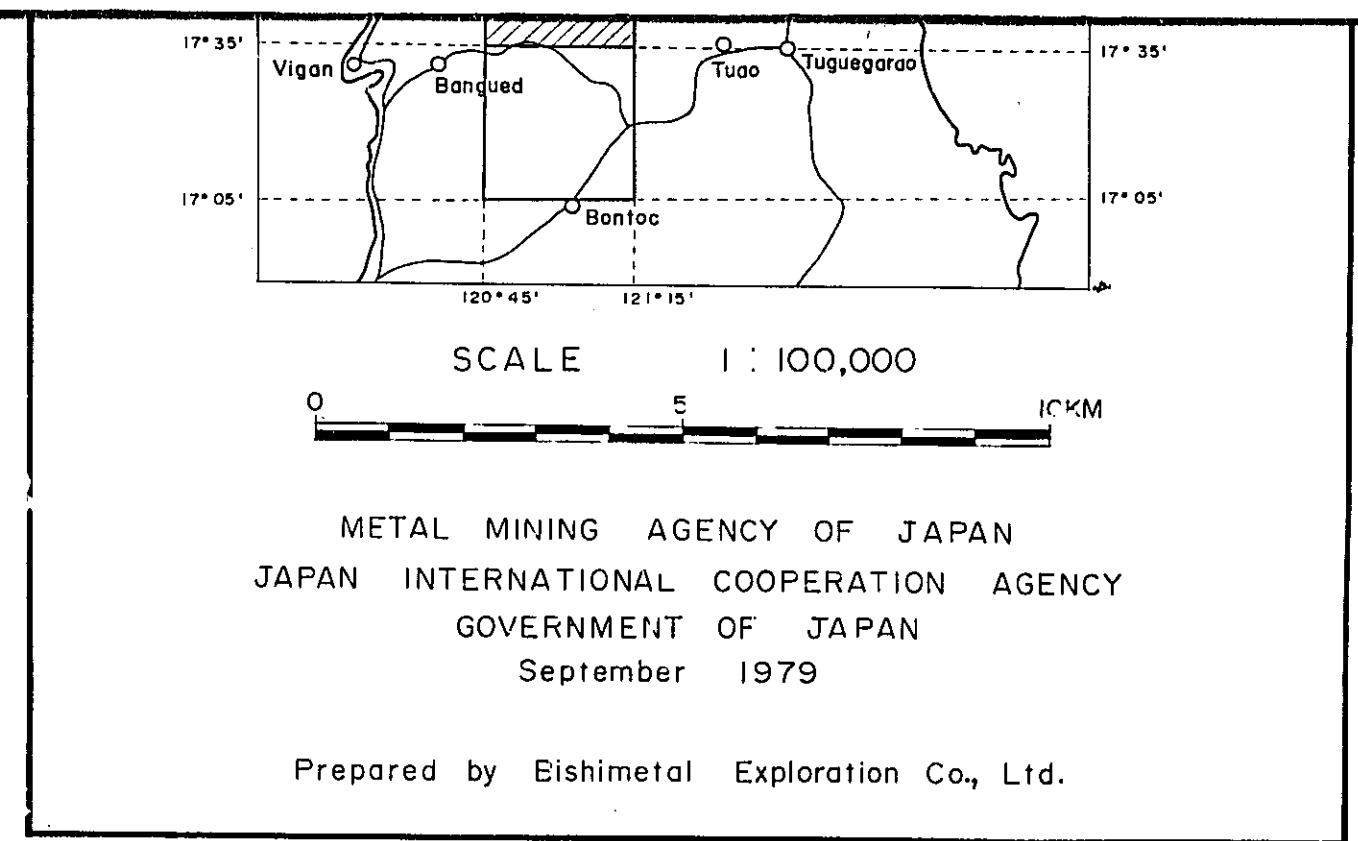
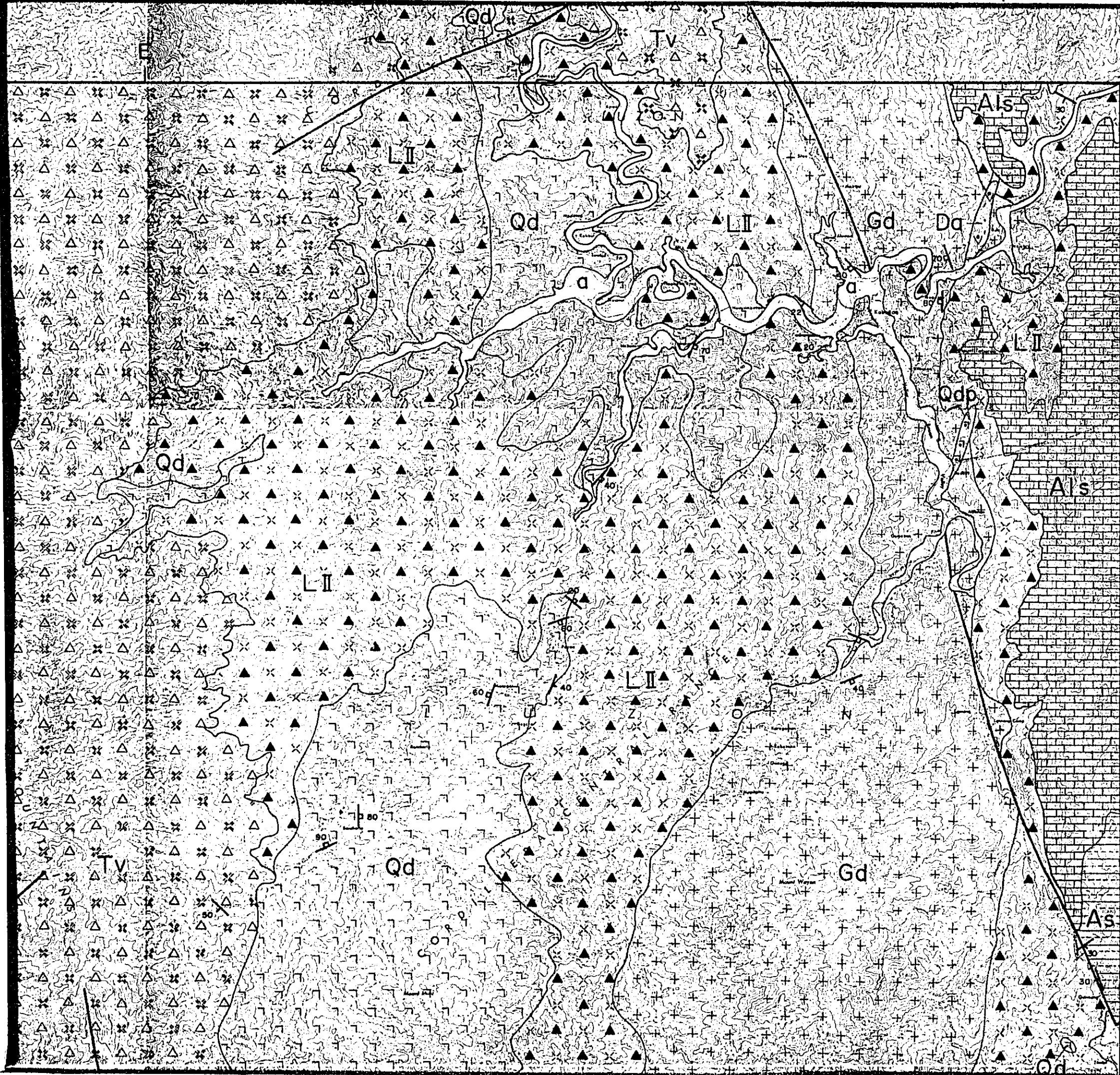
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Scapeco R.

CENTRAL MOUNTAINS



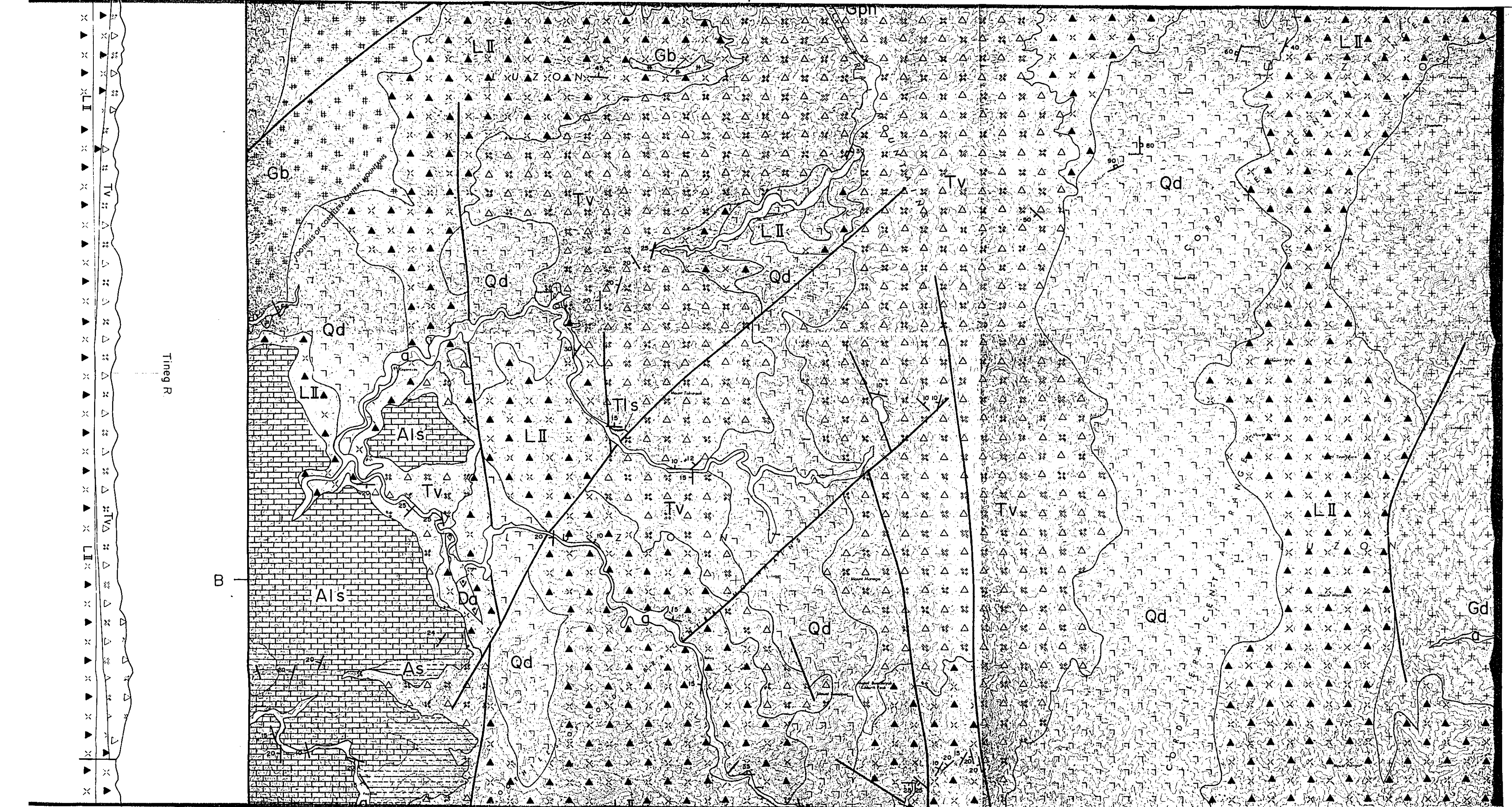


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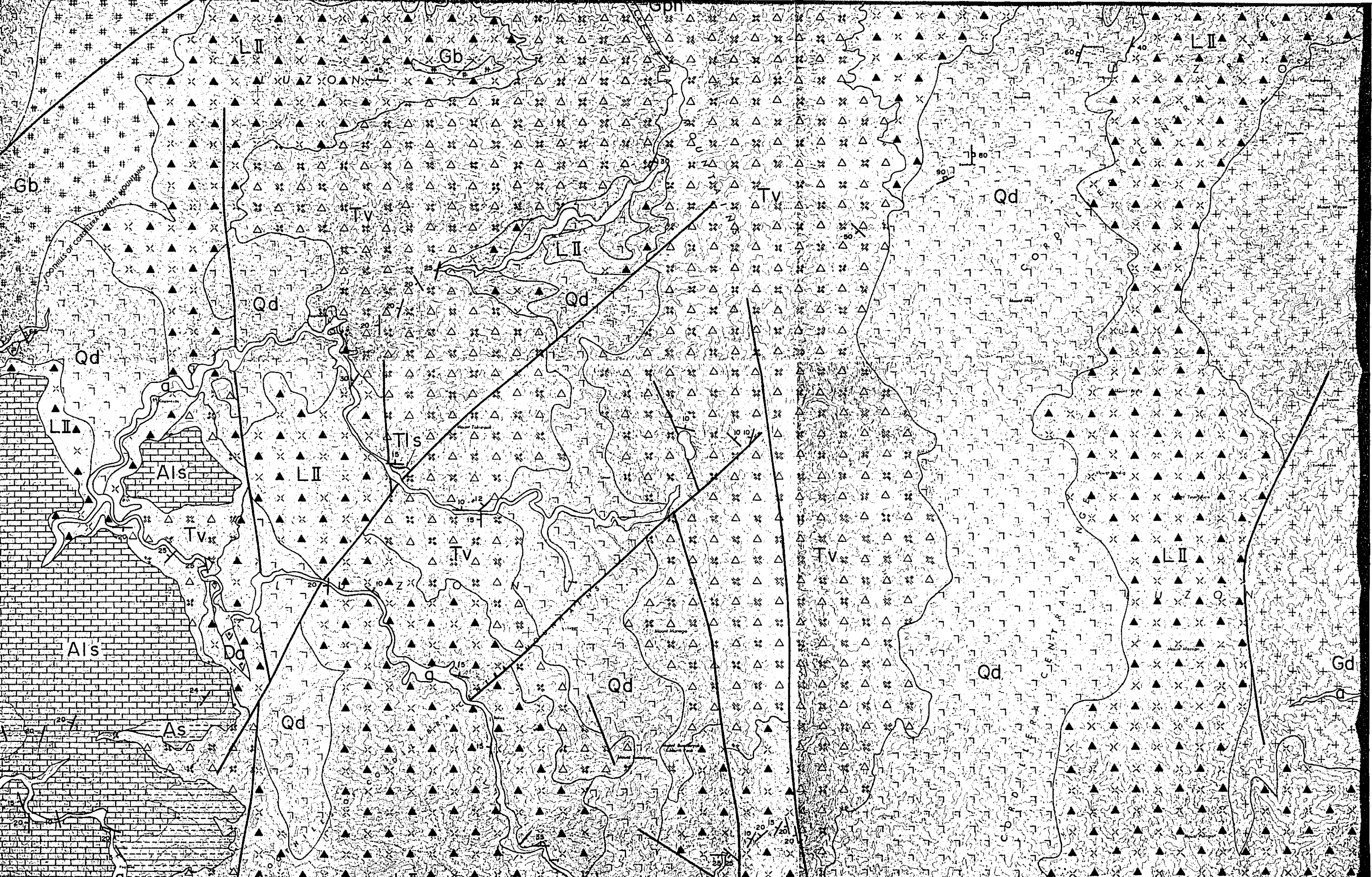
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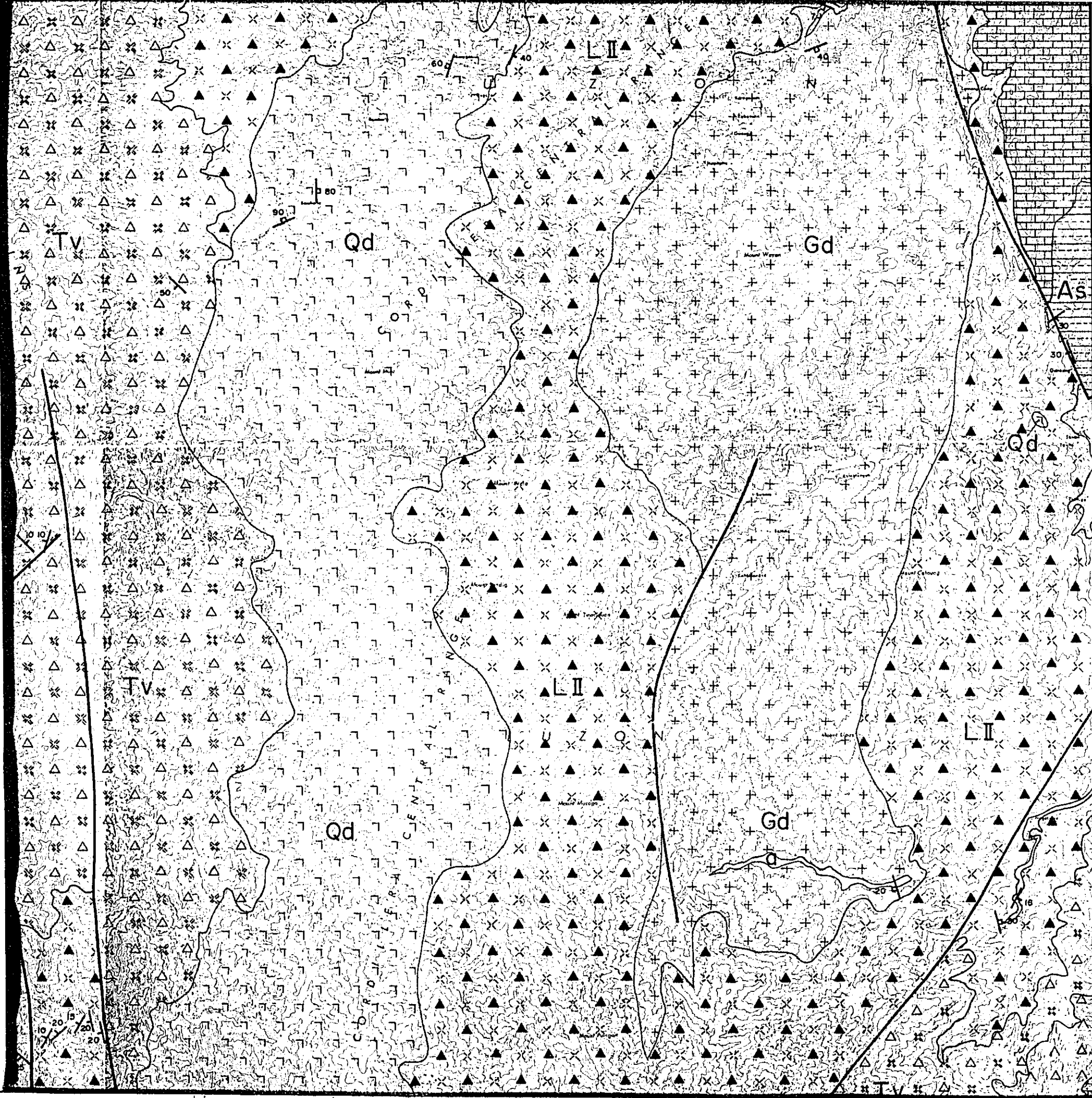
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	Quaternary volcanics	Qv	dacitic to andesitic pyroclastics & lava
Neogene	Alava Formation	As	sandstone & mudstone with conglomerate
		Als	limestone
	Mabaca Formation	M	andesitic pyroclastics with andesite lava, volcanic congl & tuffaceous sandstone
Tertiary	Tineg Formation	Tv	dacitic pyroclastics & dacite lava
		Tls	limestone
Paleogene	Formation II	LII	andesite lava & its pyroclastics



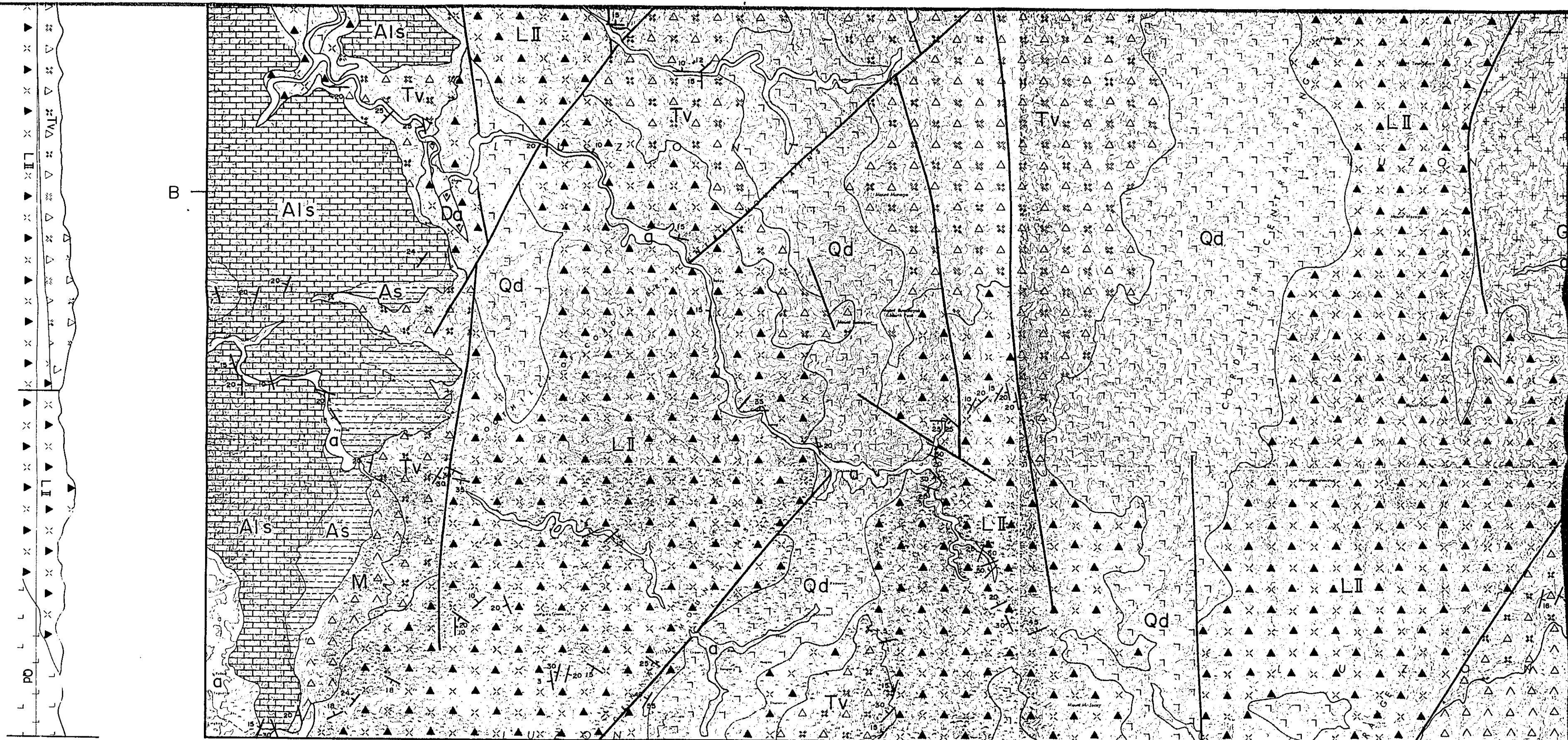
Tineg R

B



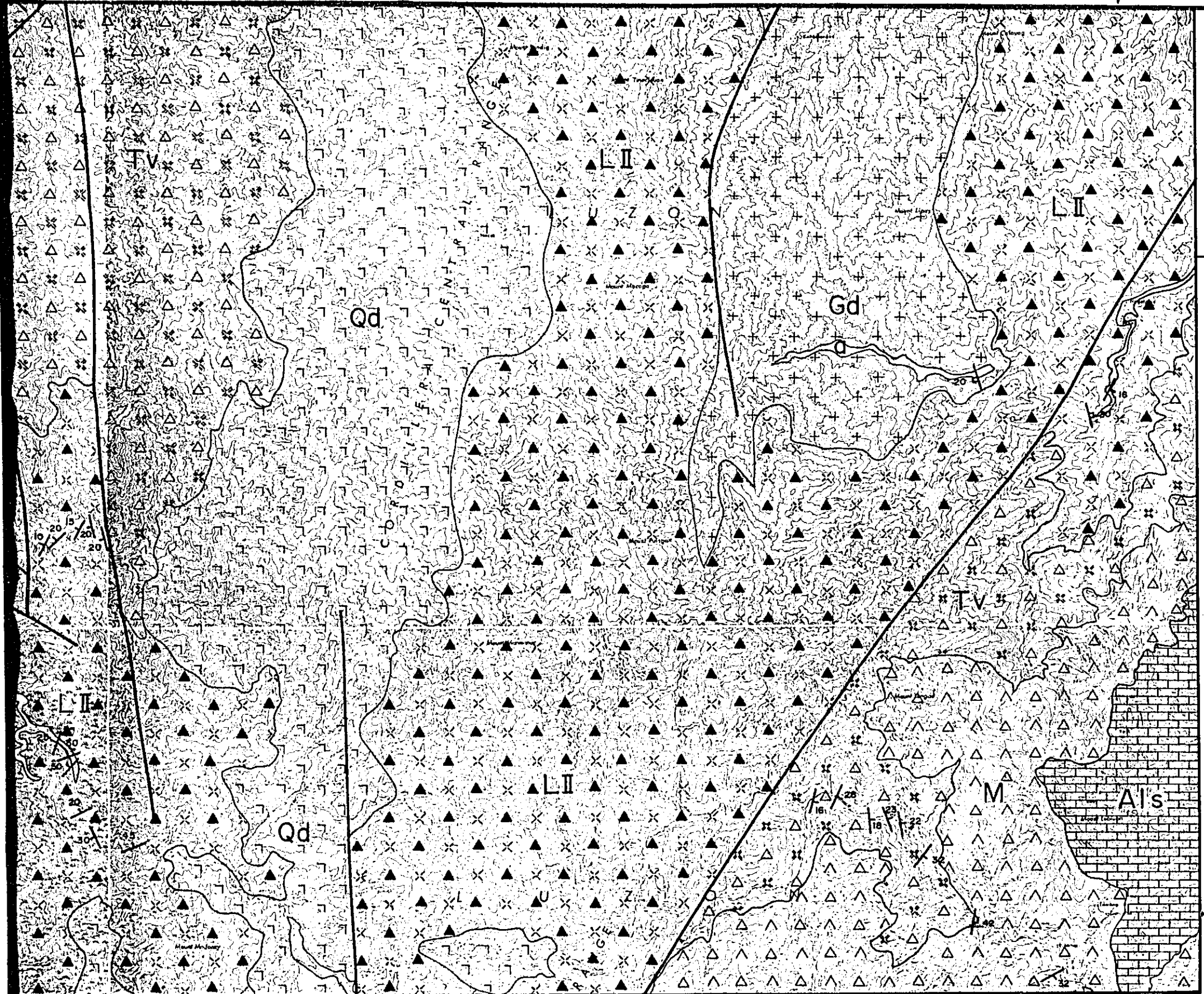


Quaternary	Quaternary volcanics	Qv		dactic to andesitic pyroclastics & lava
	Alava Formation	As		sandstone & mudstone with conglomerate
Neogene		Als		limestone
	Mabaca Formation	M		andesitic pyroclastics with andesite lava, volcanic congl & tuffaceous sandstone
Tertiary		Tv		dactic pyroclastics & dacite lava
	Tineg Formation	Tls		limestone
Paleogene	Licuan Group	Formation II		andesite lava & its pyroclastics
		Formation I		basalt lava and pyroclastics
		L IIs		thin bedded limestone
Dikes				
		Da		dacite
		Gph		granophyre
		Qdp		quartz diorite porphyry
		Dp		diorite porphyry
Plutonic rocks				
		Gd		granodiorite
		Qd		quartz diorite
		Gb		gabbro
Others				

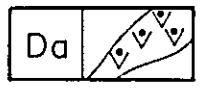
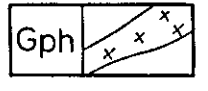
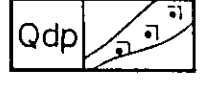
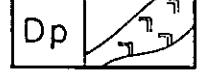


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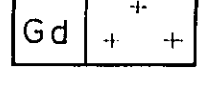
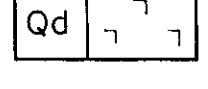
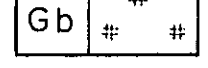
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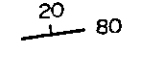
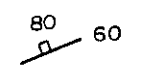
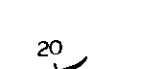


Dikes

- Da  dacite
- Gph  granophyre
- Qdp  quartz diorite porphyry
- Dp  diorite porphyry

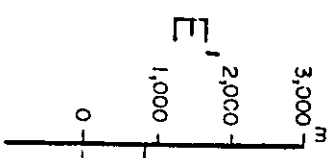
Plutonic rocks

- Gd  granodiorite
- Qd  quartz diorite
- Gb  gabbro

Others

-  bedding plane
-  joint
-  vein
-  fault
-  mine

E'



Malibcong

Mt. Madimlong

Mt. Balait

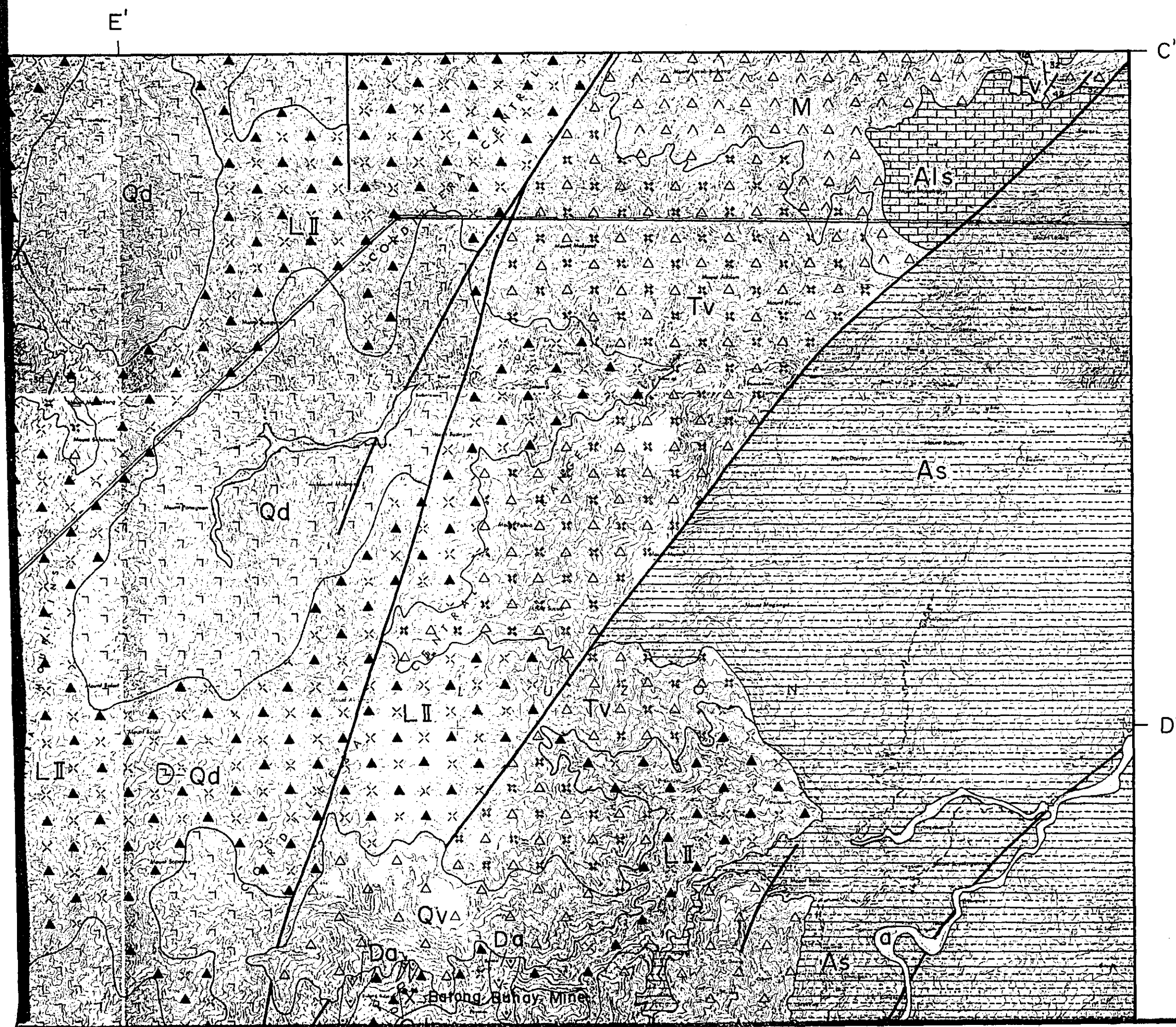
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E'

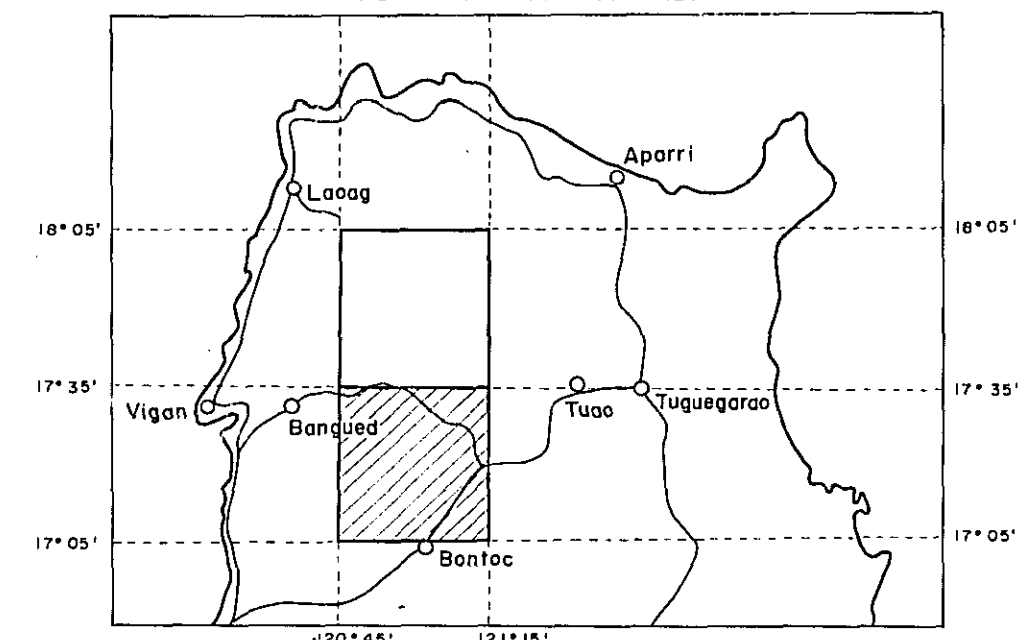


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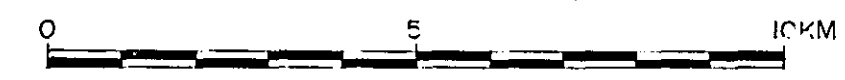
Geological Map &
Geological Profiles



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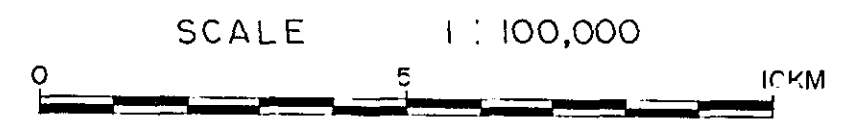
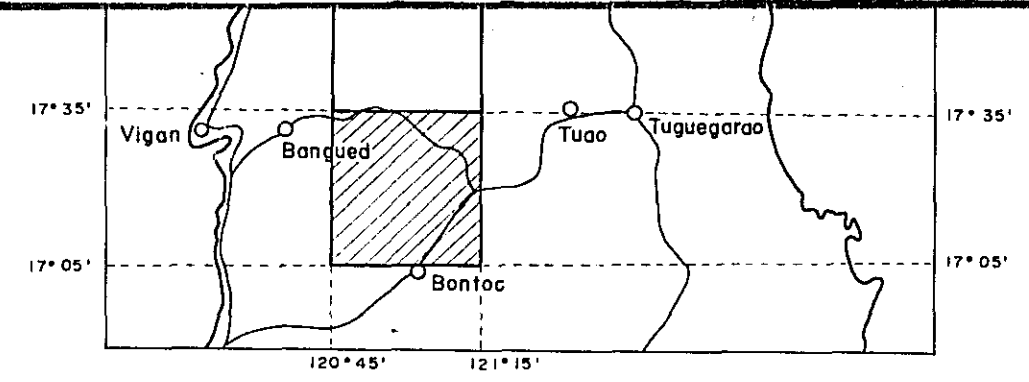
SCALE 1 : 100,000



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JAPAN INTERNATIONAL COOPERATION AGENCY
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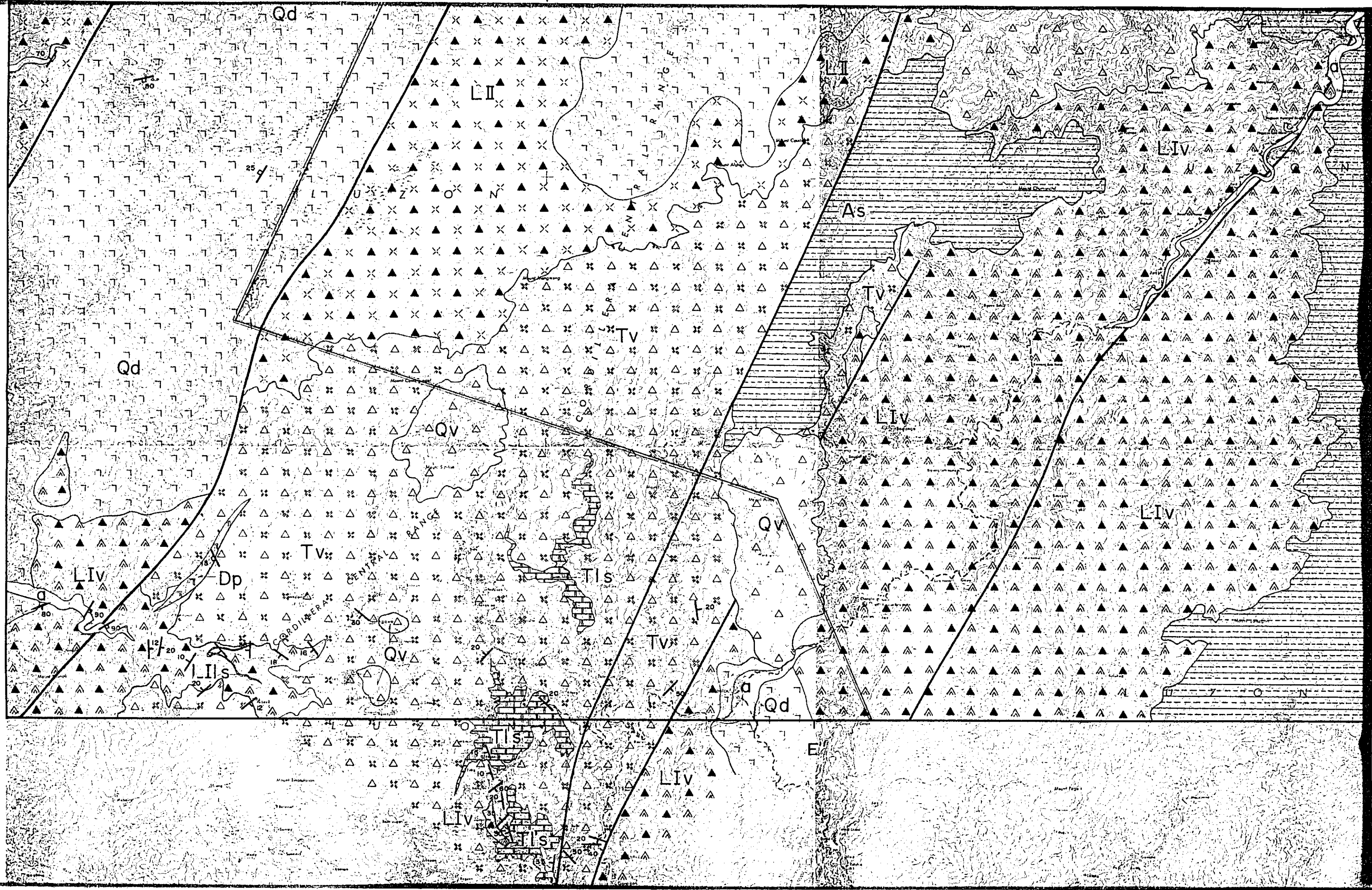
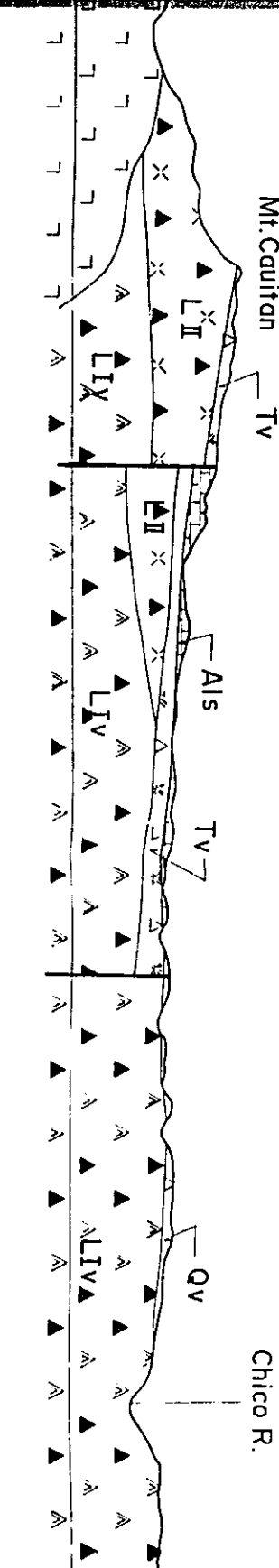


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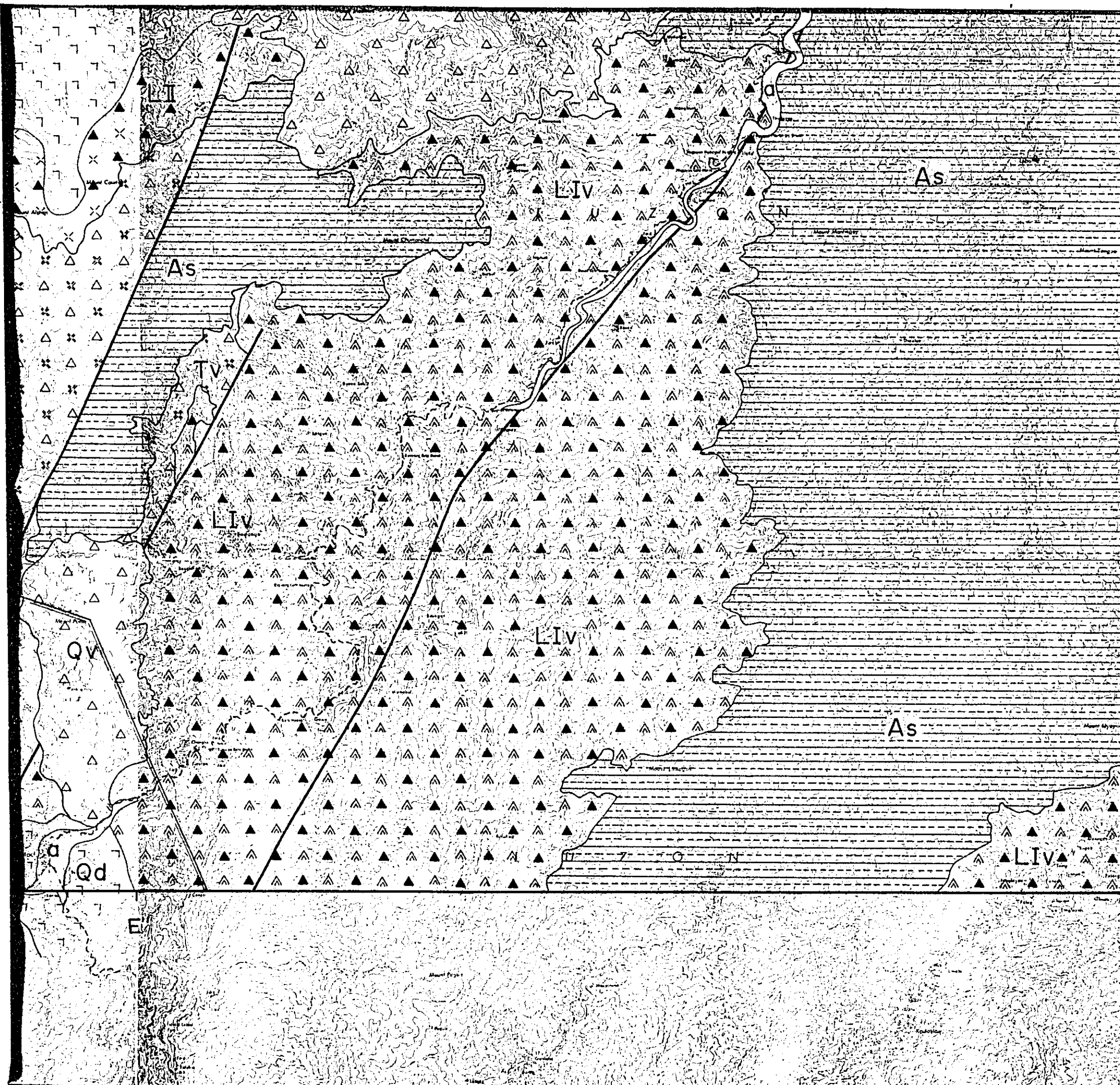
LEGEND

Quaternary	Quaternary	Qd	gravel & sand
	Quaternary volcanics	Qv	dacitic to andesitic pyroclastics & lava
Neogene	Alava Formation	As	sandstone & mudstone with conglomerate
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Tertiary	Tineg Formation	Tv	dacitic pyroclastics & dacite lava
		TIs	limestone

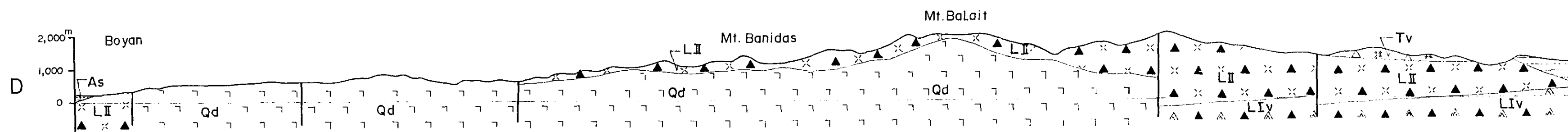
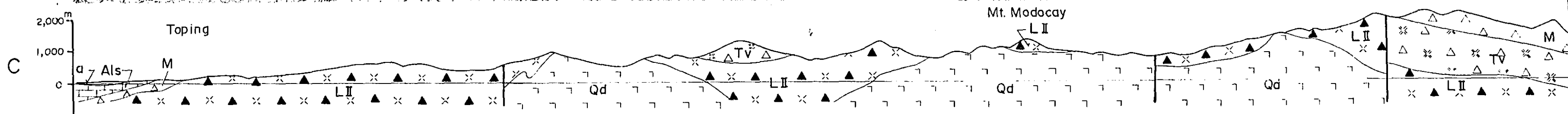
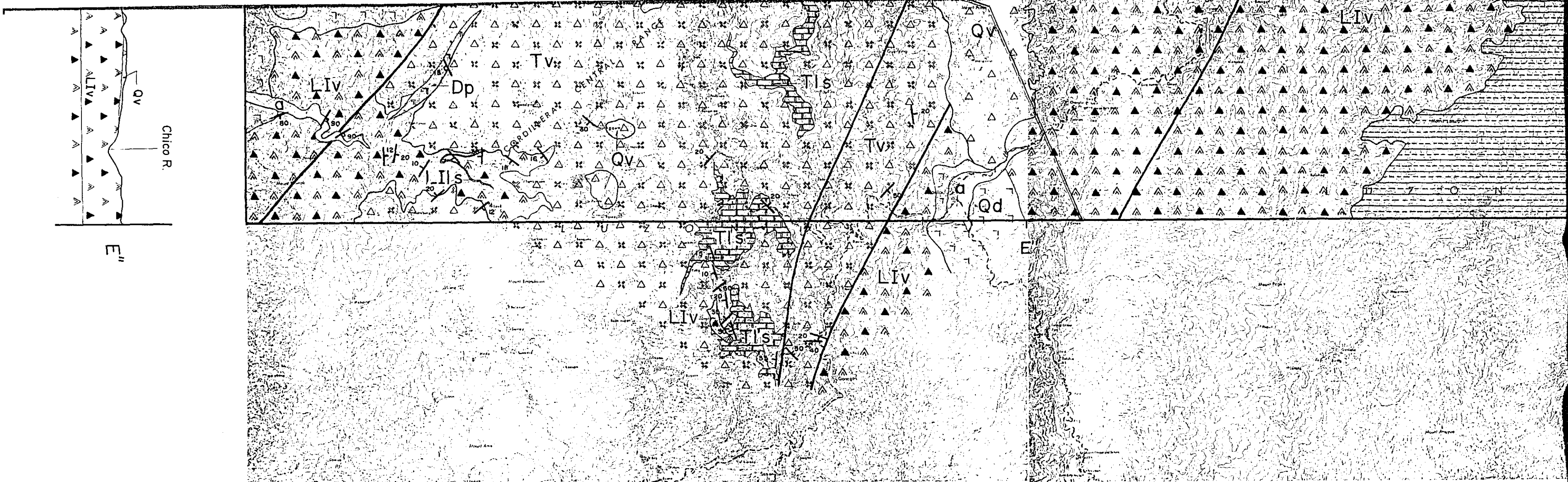


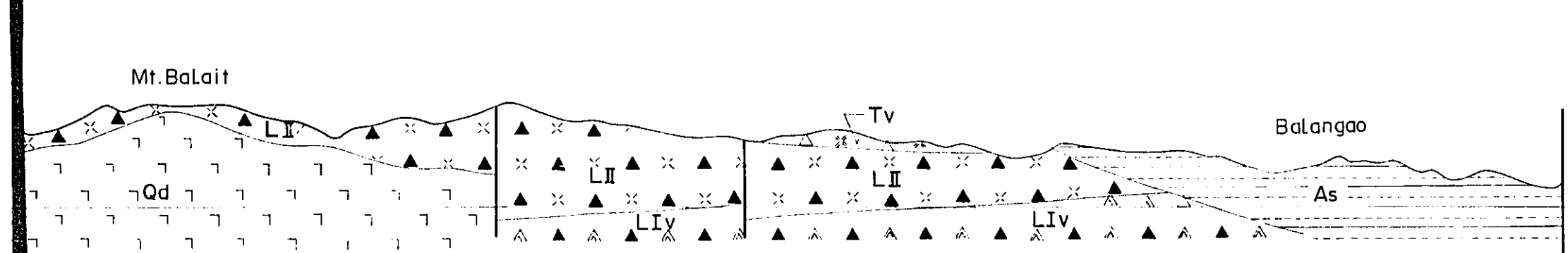
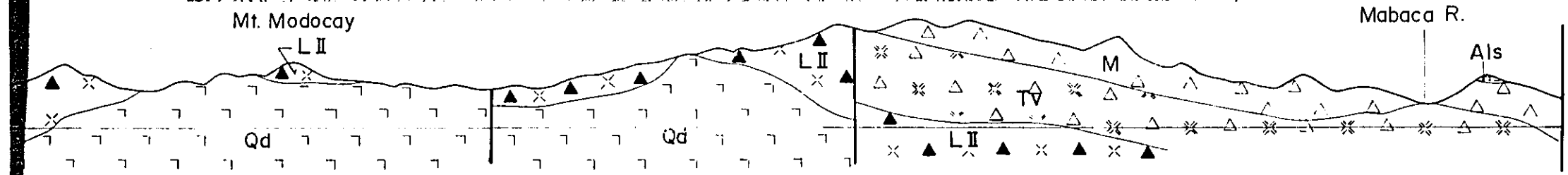
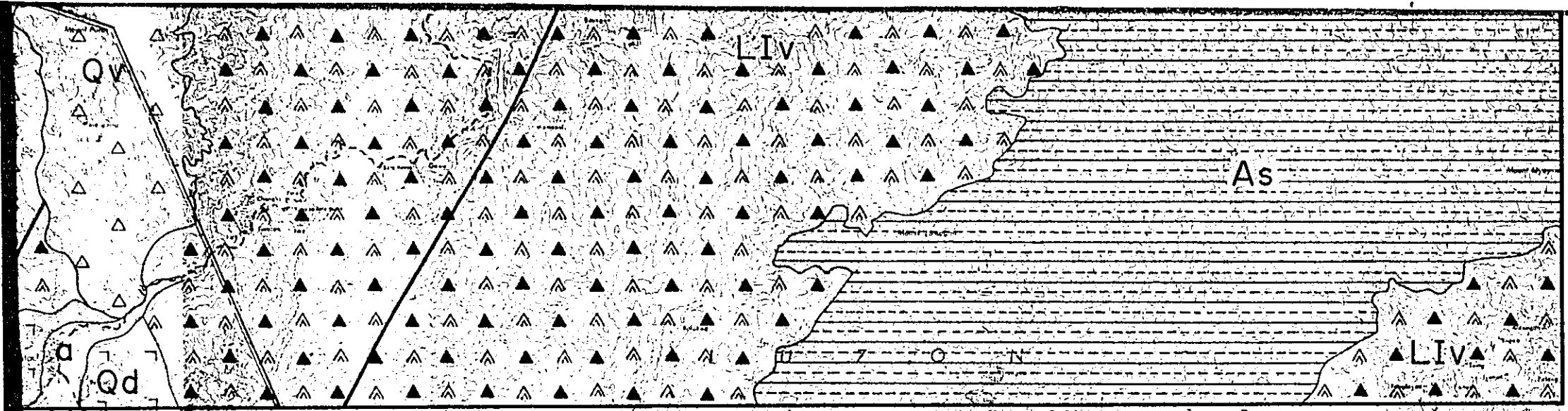
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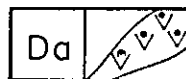
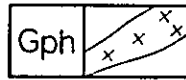
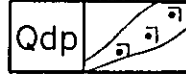
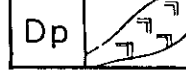
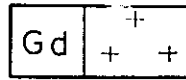
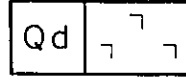
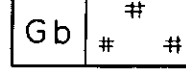
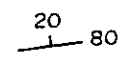
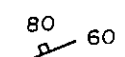




E'



Quaternary	Alluvium	a	gravel & sand	
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Paleogene	Licuan Group	Formation II	LII	andesite lava & its pyroclastics
		Formation I	LIv	basalt lava and pyroclastics
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Dikes				
		Da	dacite	
		Gph	granophyre	
		Qdp	quartz diorite porphyry	
		Dp	diorite porphyry	
Plutonic rocks				
		Gd	granodiorite	
		Qd	quartz diorite	

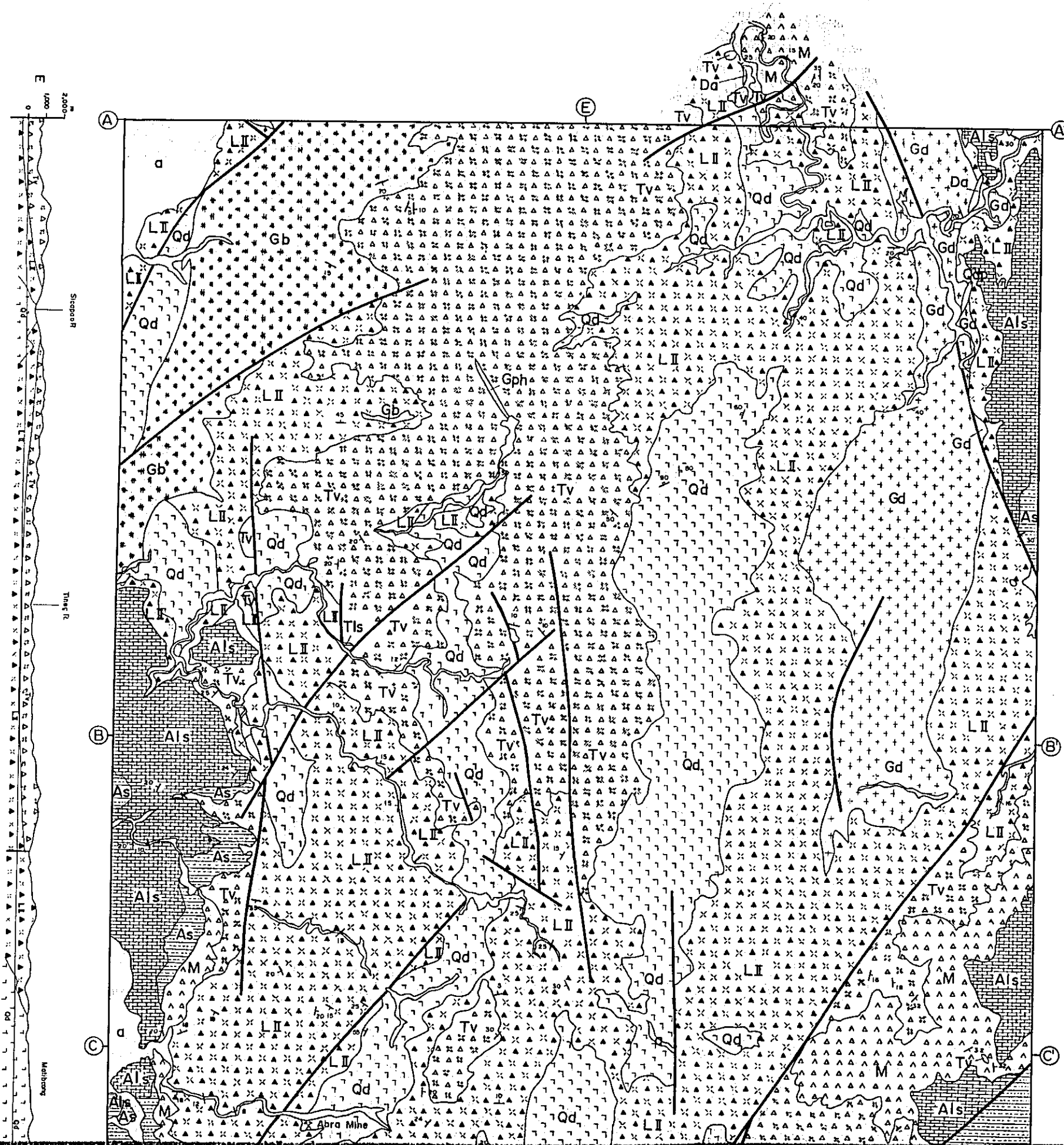




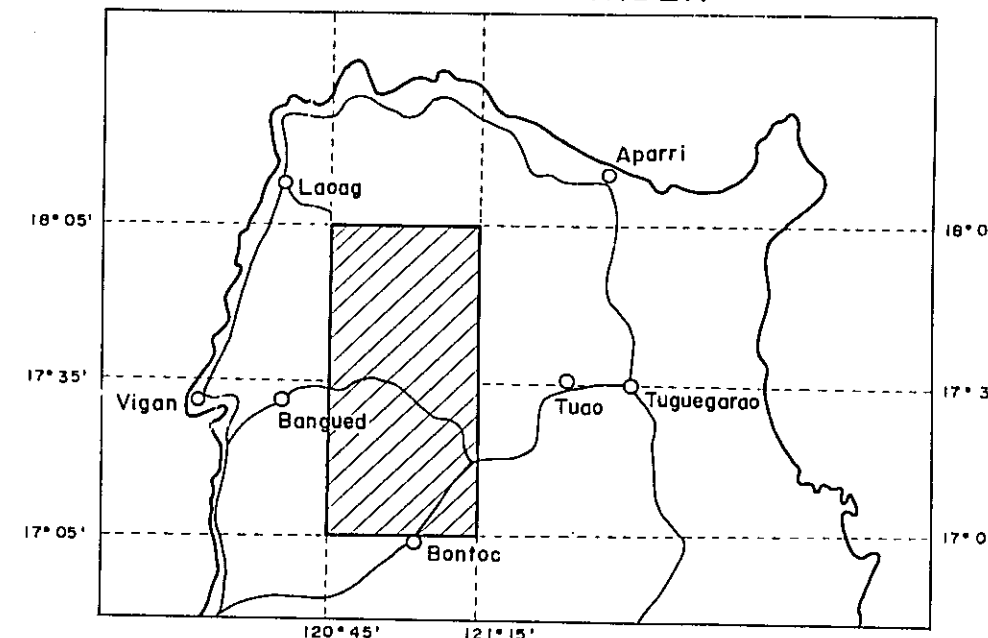
-  thin bedded limestone
- Dikes**
-  dacite
-  granophyre
-  quartz diorite porphyry
-  diorite porphyry
- Plutonic rocks**
-  granodiorite
-  quartz diorite
-  gabbro
- Others**
-  bedding plane
-  joint
-  vein
-  fault
-  mine
-  boundary of unfeasible area for field survey

GEOLOGICAL SURVEY
OF
NORTHWESTERN LUZON
PHILIPPINES
(PHASE I)

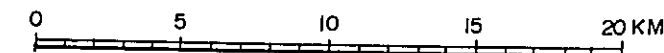
Geological Map &
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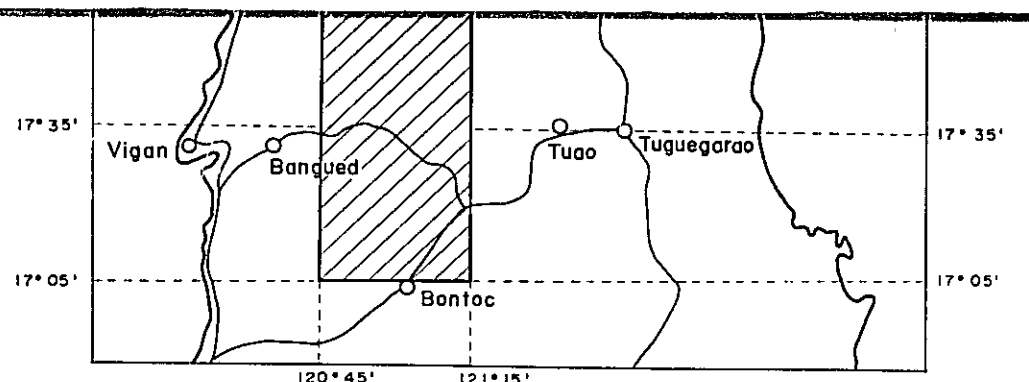
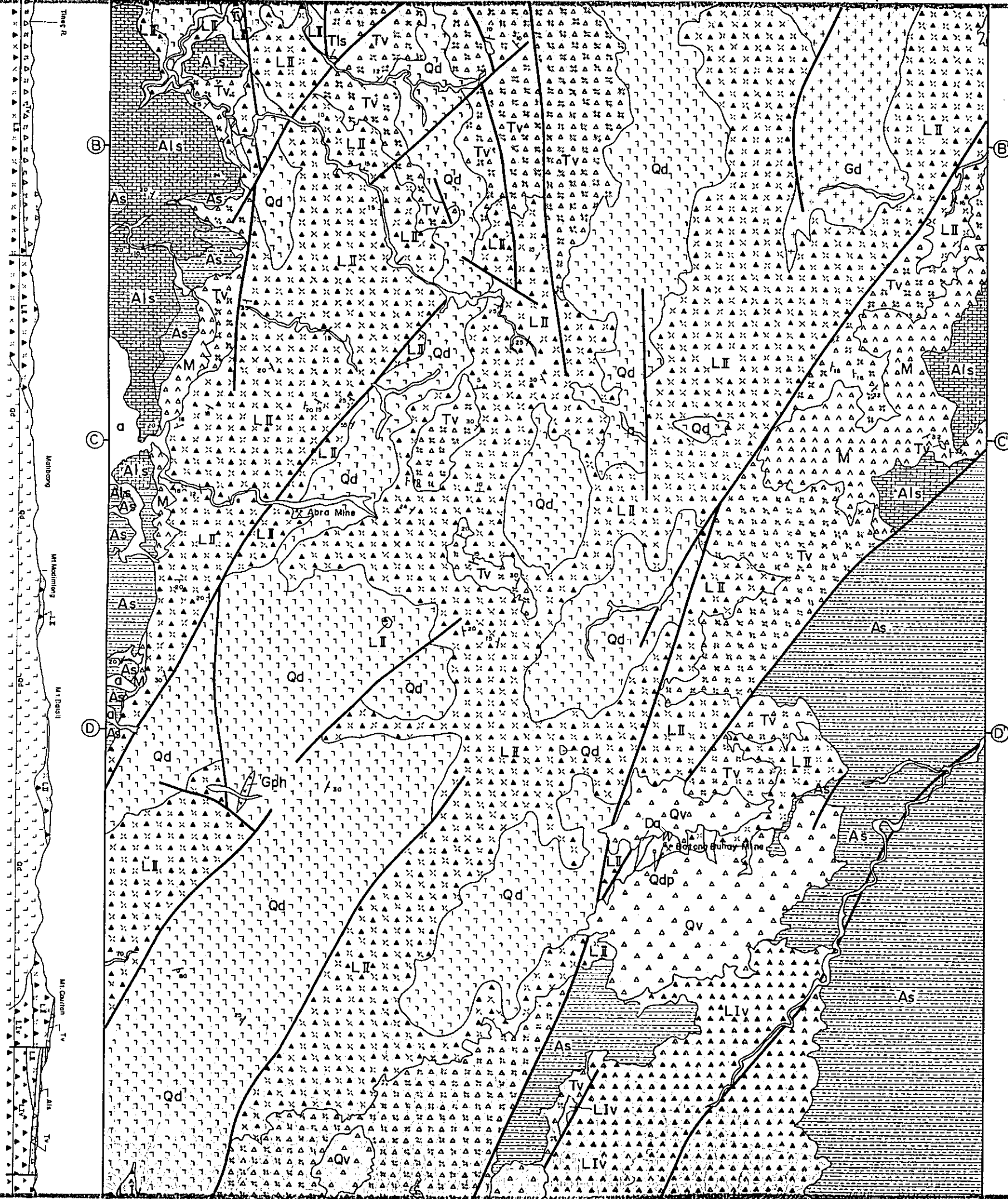


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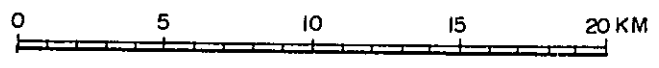


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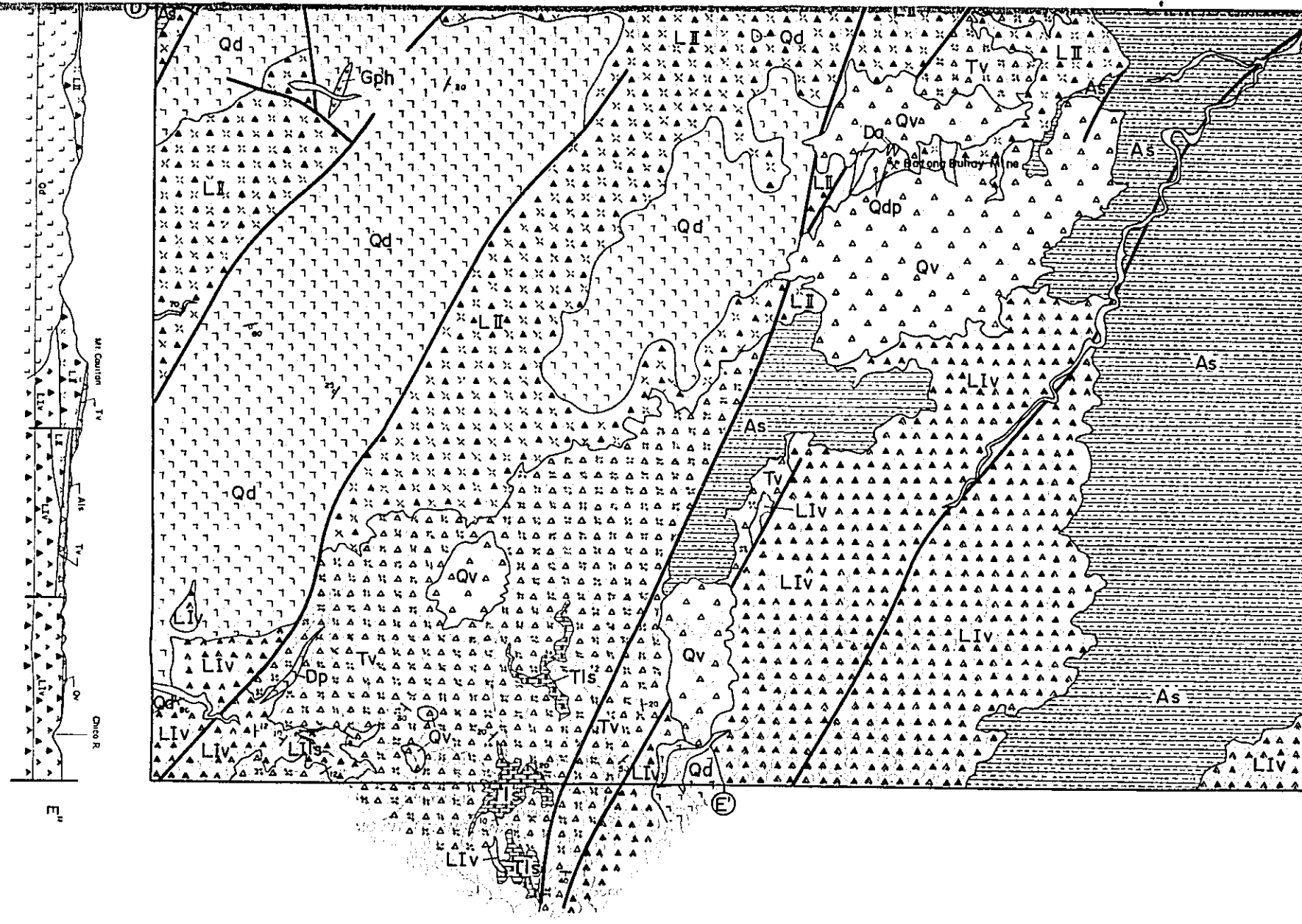


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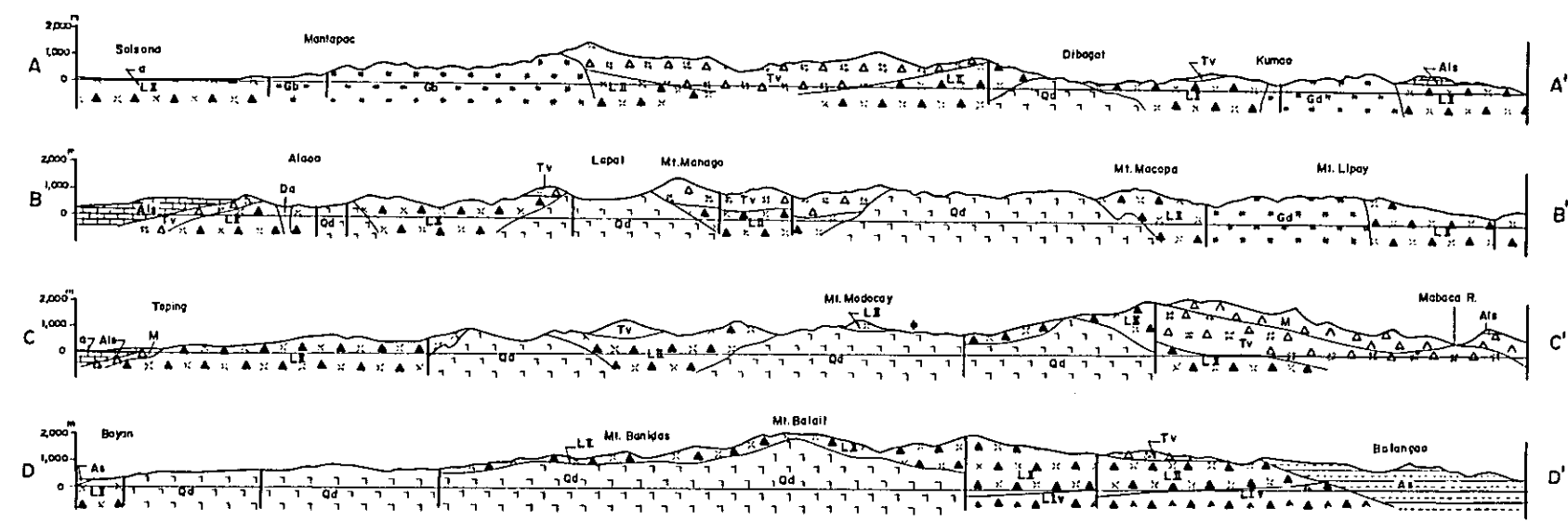
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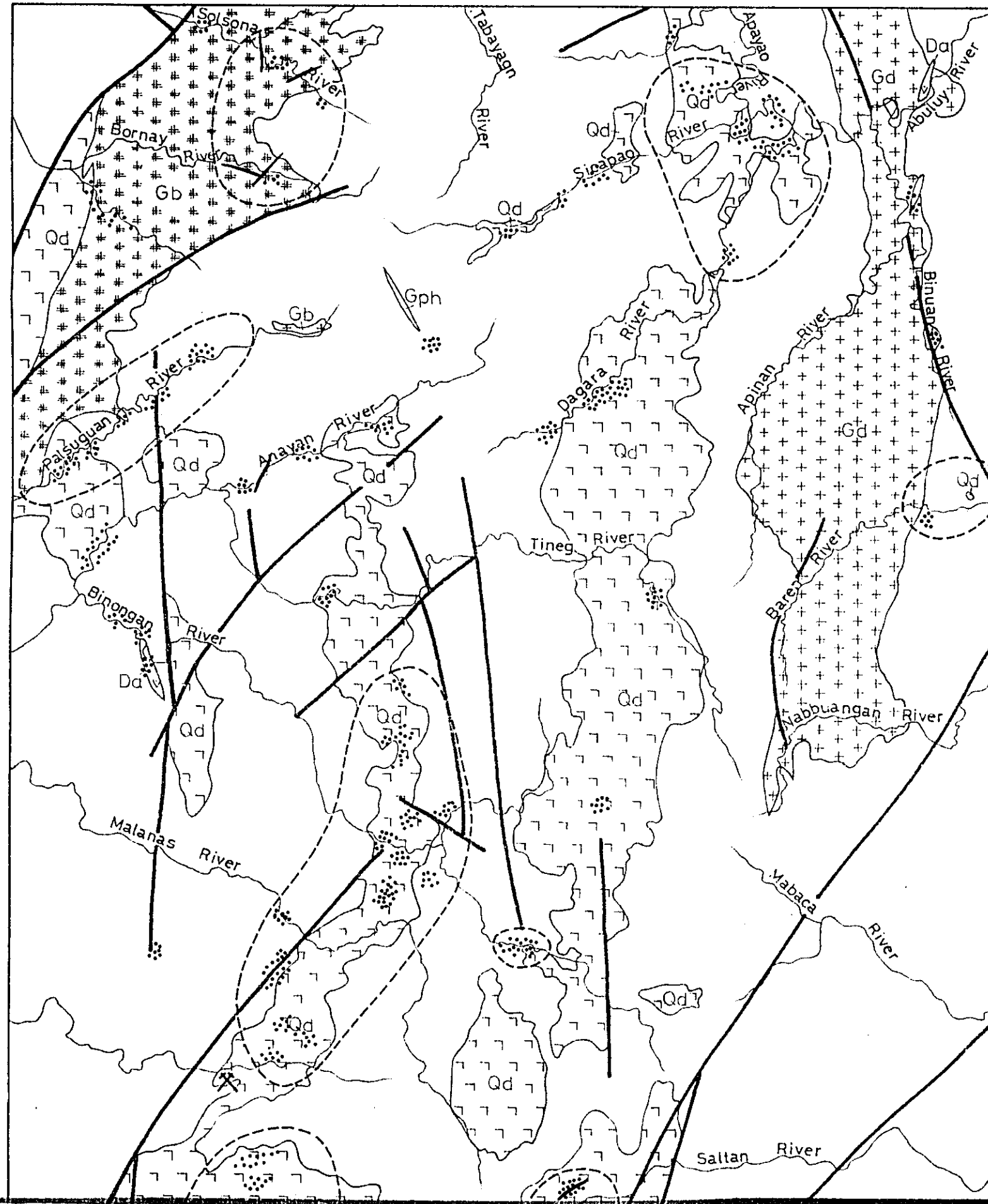
LEGEND

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Dikes		Da	dacite	
		Gph	granophyre	
		Qdp	quartz diorite porphyry	
		Dp	diorite porphyry	
Plutonic rocks		Ga	granodiorite	
		Qd	quartz diorite	
		Gb	gabbro	
Others				



Tertiary	Neogene	Alava Formation	As	sandstone & mudstone with conglomerate
			Als	limestone
		Mabaca Formation	M	andesitic pyroclastics with andesite lava, volcanic congo & tuffaceous sandstone
	Paleogene	Tineg Formation	TV	dacitic pyroclastics & dacite lava
			TIs	limestone
		Licuan Group	Formation I	LI
		Formation II	LIV	basalt lava and pyroclastics
		Formation III	LII	thin bedded limestone
	Dikes		Da	dacite
			Gph	granophyre
		Qdp	quartz diorite porphyry	
		Dp	diorite porphyry	
Plutonic rocks		Gd	granodiorite	
		Qd	quartz diorite	
		Gb	gabbro	
Others		20	bedding plane	
		80	joint	
		20	vein	
		—	fault	
		x	mine	



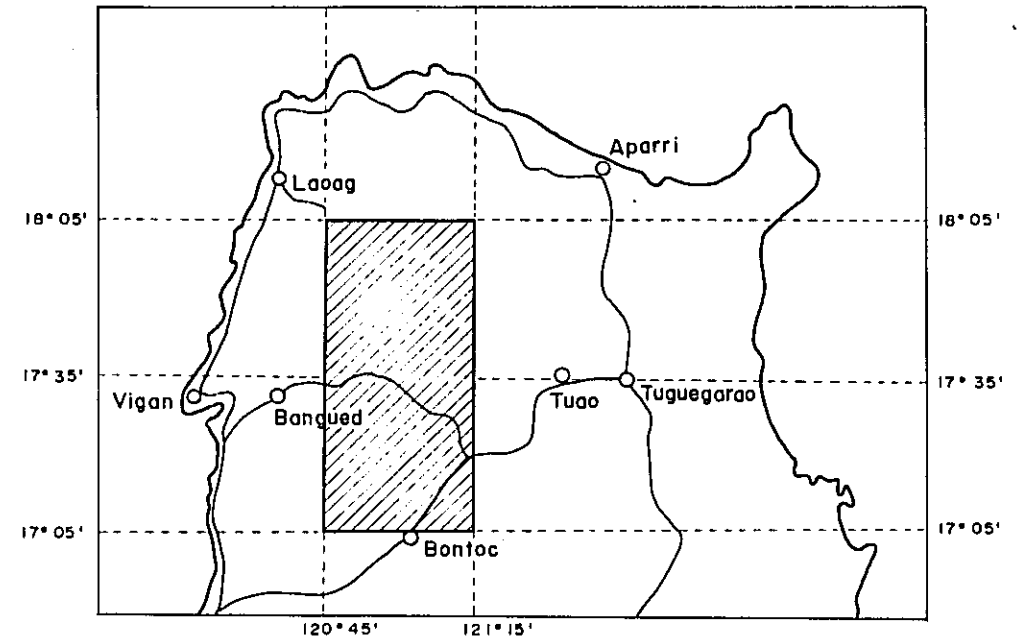


PL. I -3

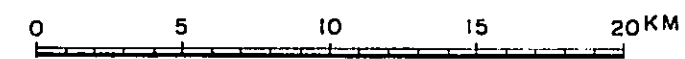
GEOLOGICAL SURVEY
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PHILIPPINES
(PHASE I)

Relation Map Between Mineralized Zones
and
Geological Structures

LOCATION INDEX

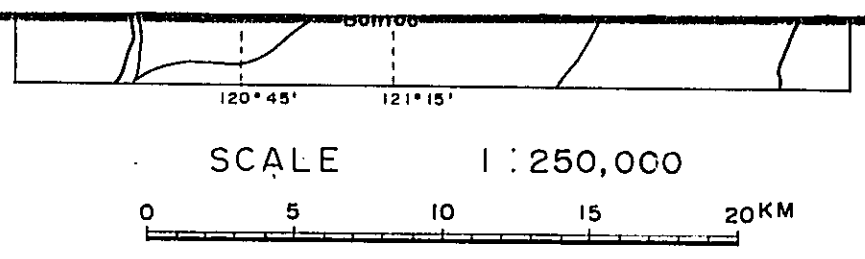
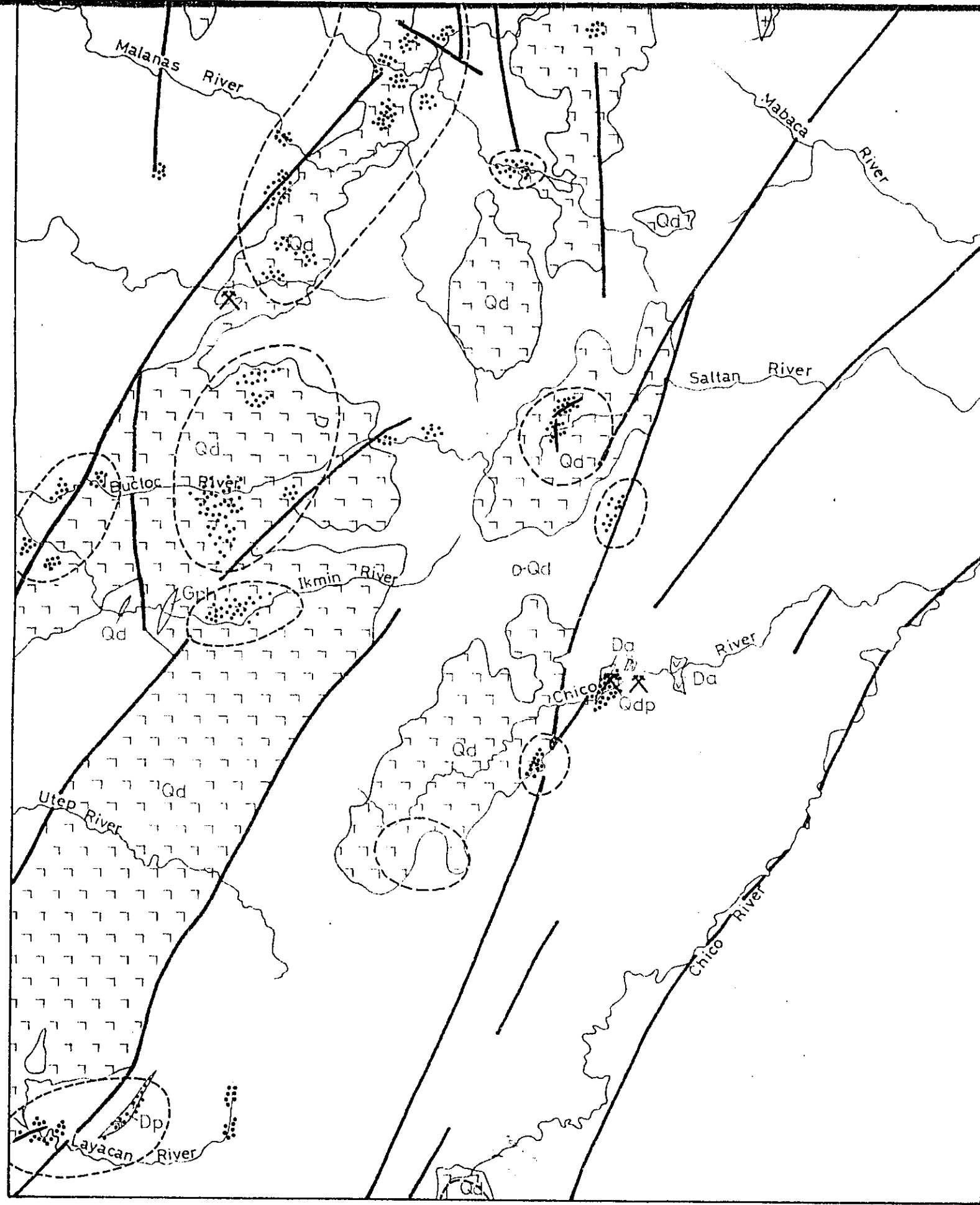


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GOVERNMENT OF JAPAN
September 1979



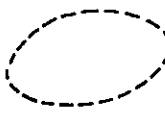


Prepared by Bishimetal Exploration Co., Ltd.

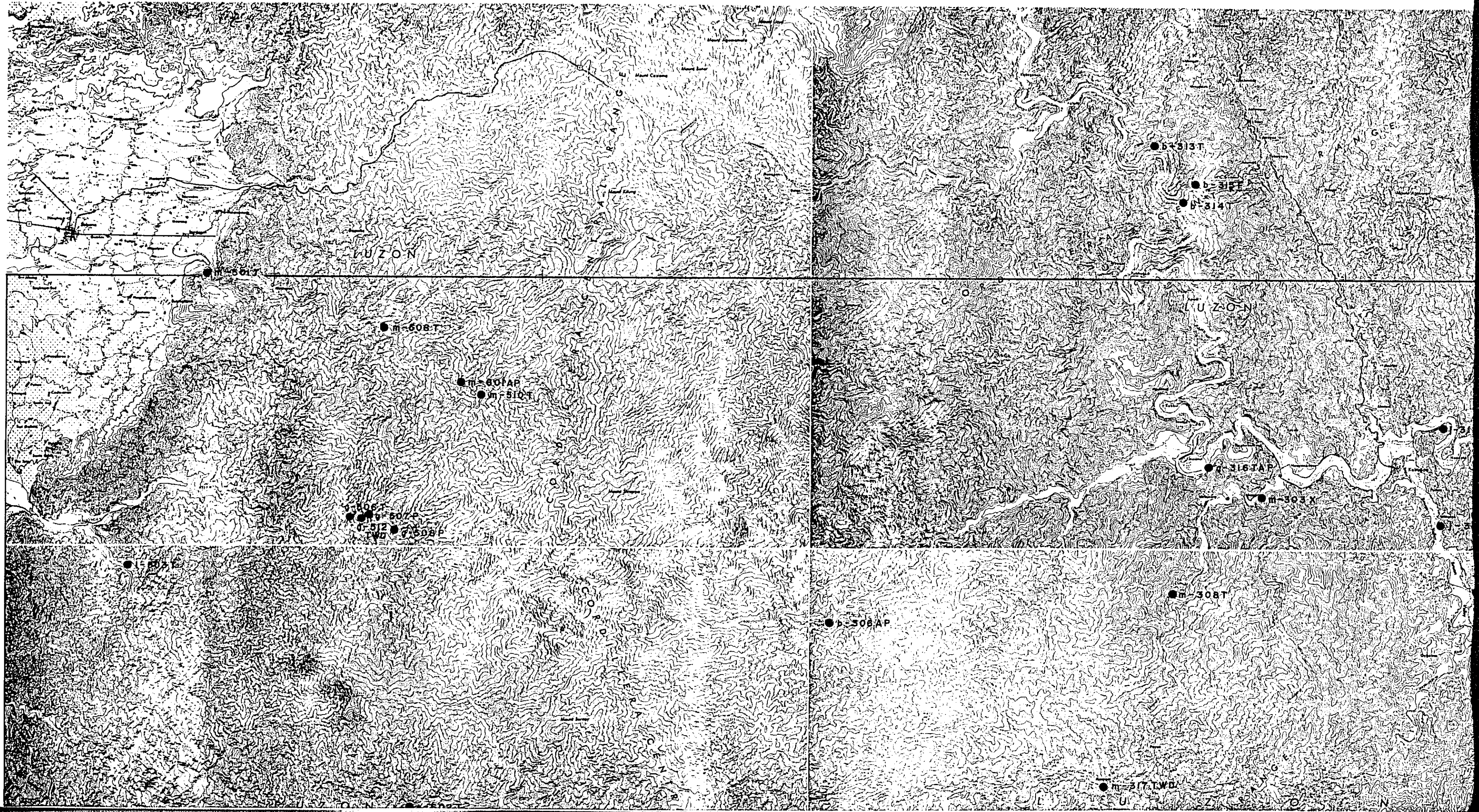


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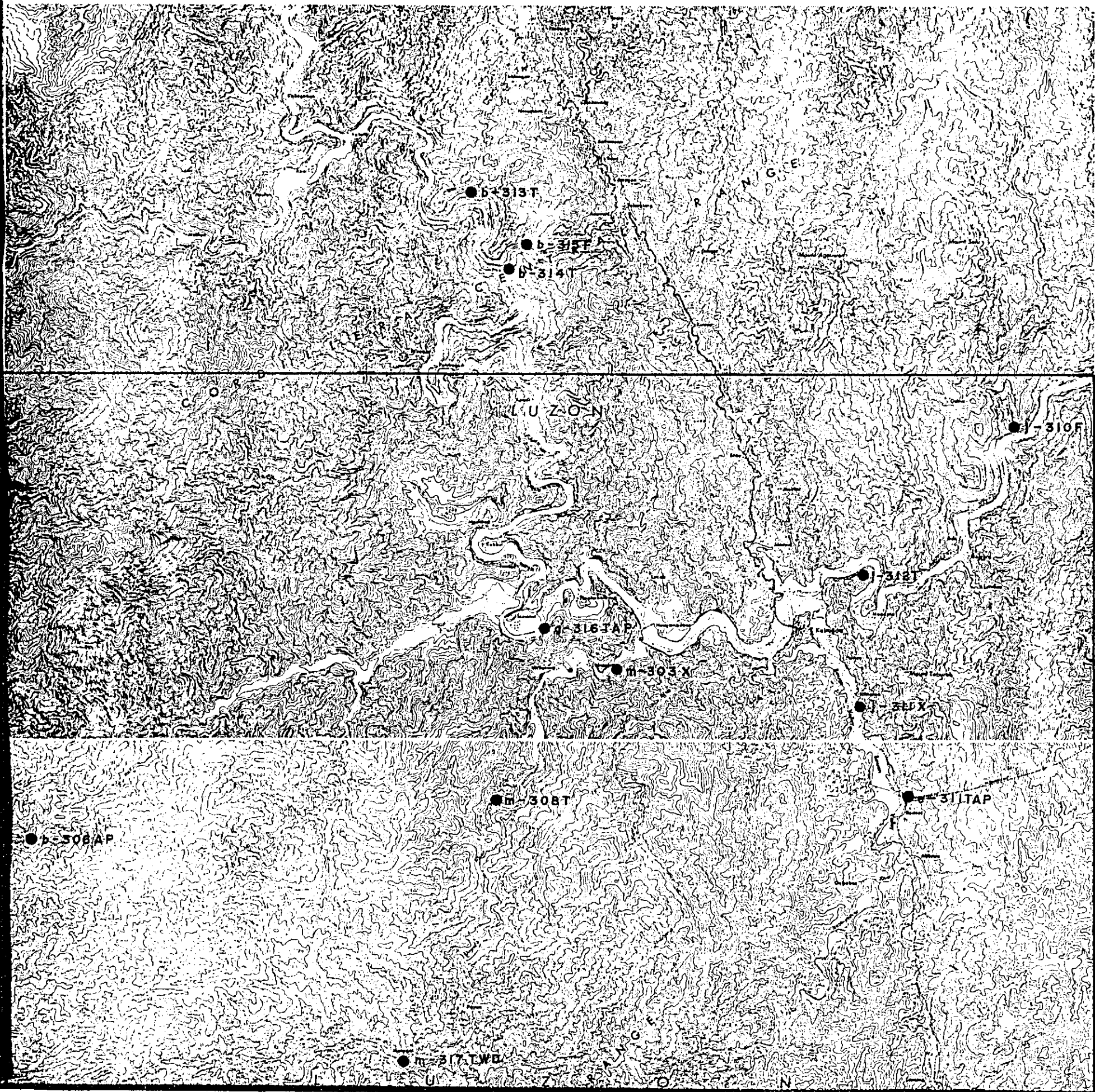
LEGEND

-  Dissemination
-  Vein
-  Mineralized Zone
-  Mine
-  Fault

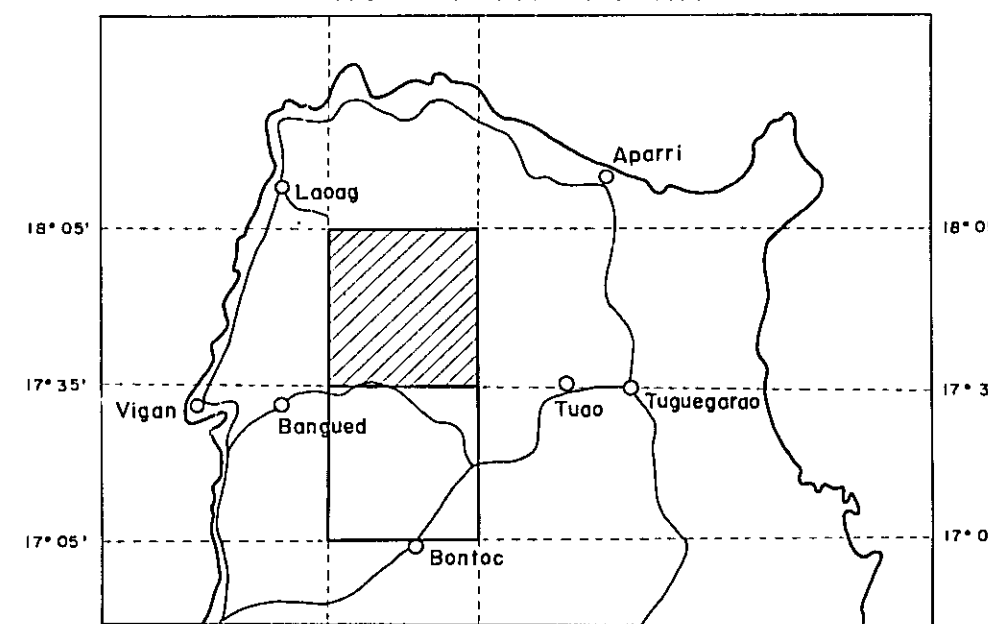


GEOLOGICAL SURVEY
OF
NORTHWESTERN LUZON
PHILIPPINES
(PHASE I)

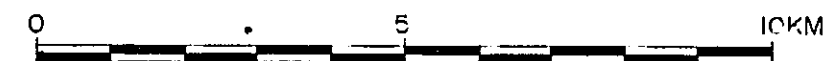
Location Map of
Tested Rock Samples



LOCATION INDEX

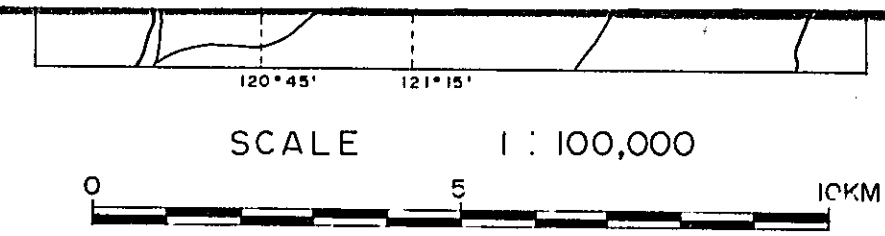


SCALE 1 : 100,000



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LEGEND

- a-501 Sampling Site
- T Thin Section
- P Polished Section
- A Chemical Analysis of Ore
- W Chemical Analysis of Whole Rock
- D K-Ar Dating
- F Fossil
- X X-ray

