

+90

+100

+110

+120

+130

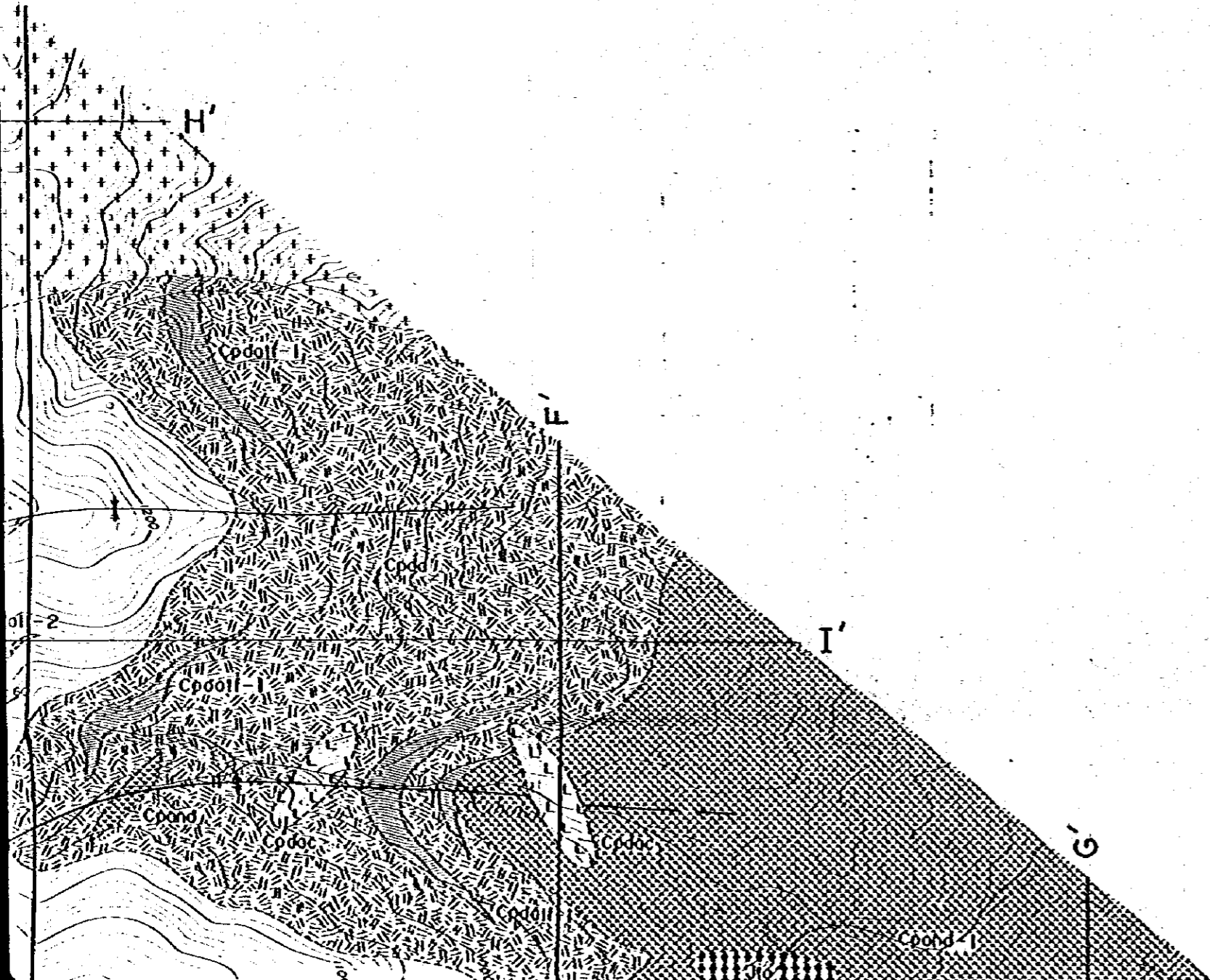
E

H'

F

I'

G'



+120

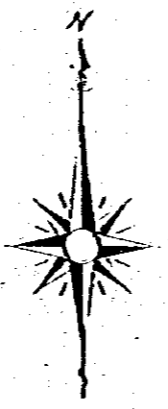
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PL.II-3-1

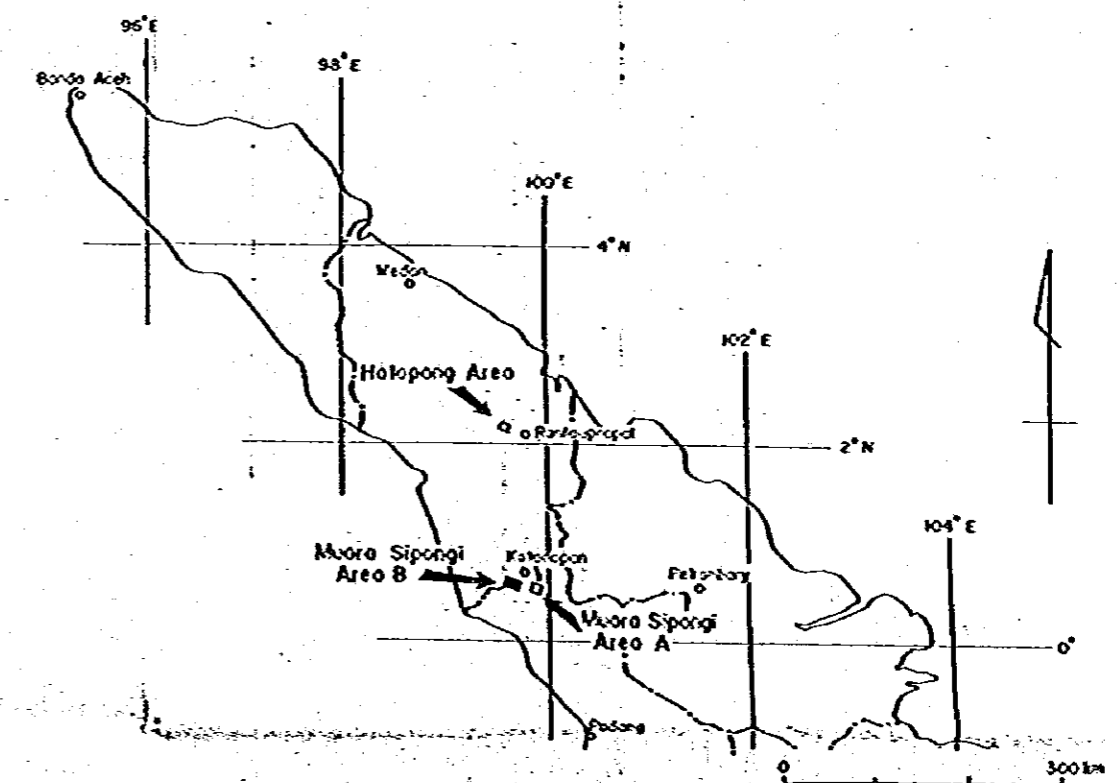
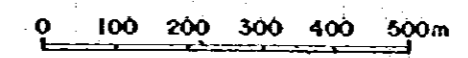
METAL MINING AGENCY OF JAPAN
 JAPAN INTERNATIONAL
 COOPERATION AGENCY

DIRECTORATE OF MINERAL
 RESOURCES
 DIRECTORATE GENERAL
 OF MINES
 MINISTRY OF MINES
 AND ENERGY
 REPUBLIC OF INDONESIA

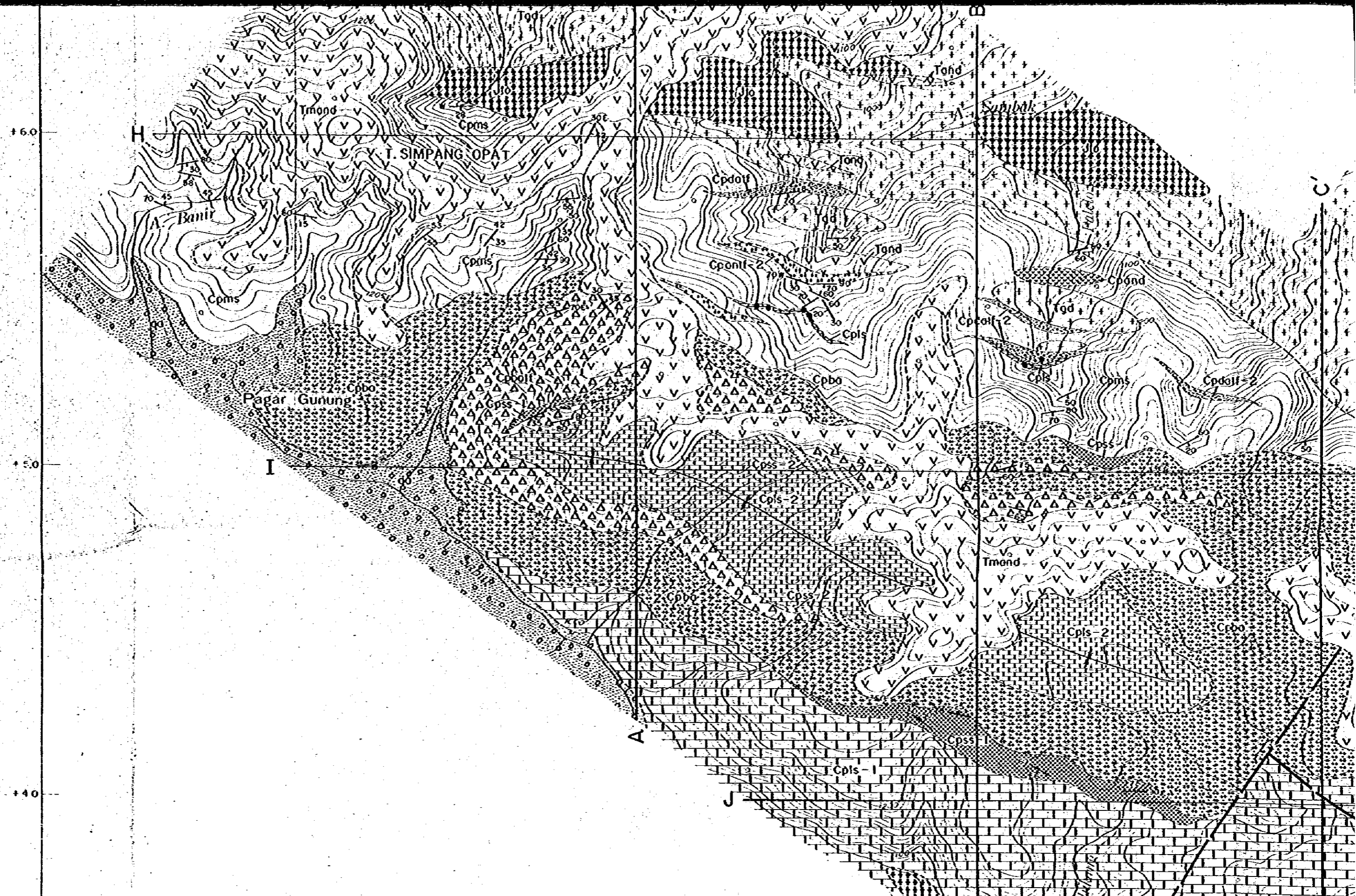
MINERAL EXPLORATION IN NORTHERN SUMATRA
 REPUBLIC OF INDONESIA

GEOLOGICAL MAP
 OF MUARA SIPONGI AREA B

Scale 1:10,000

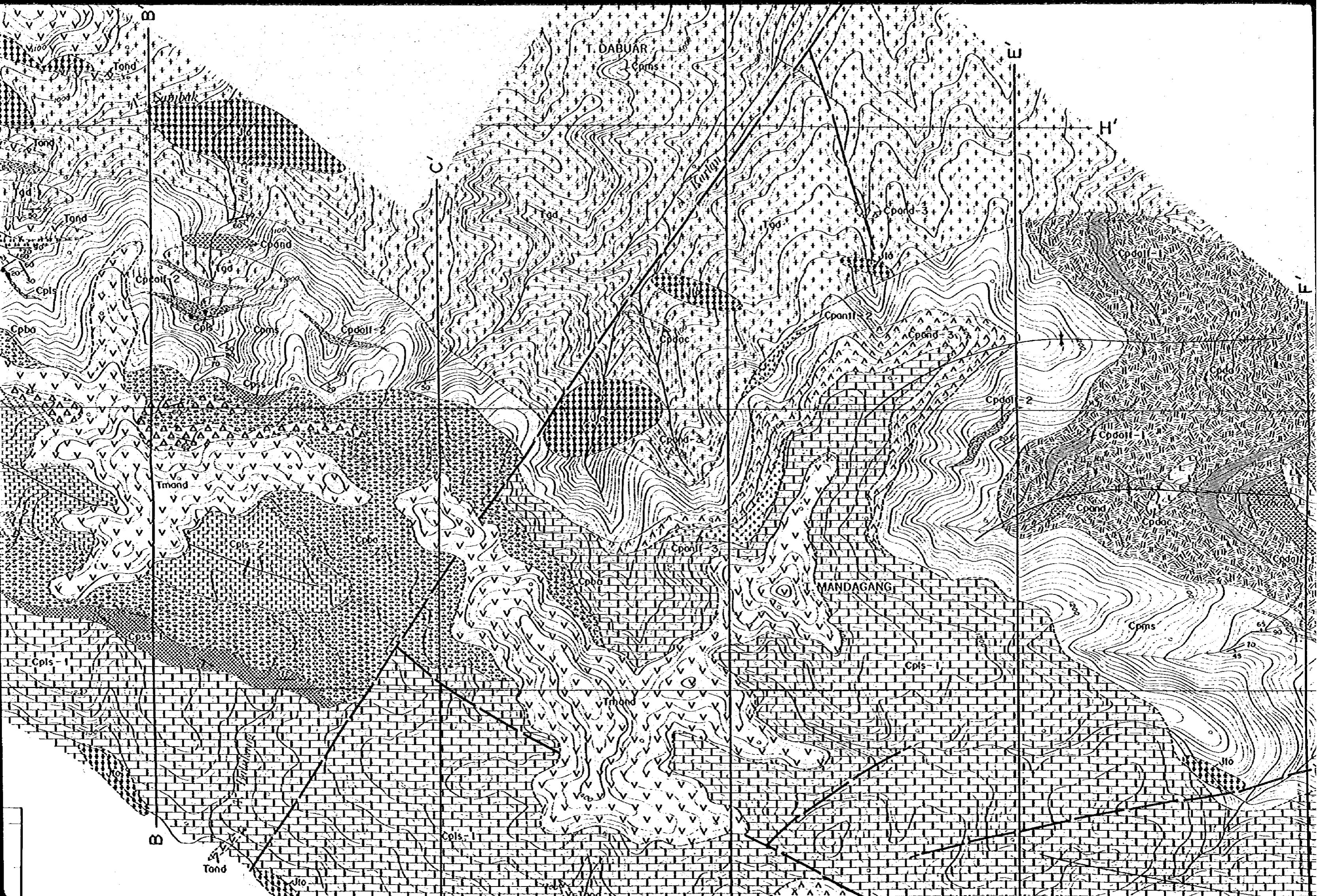


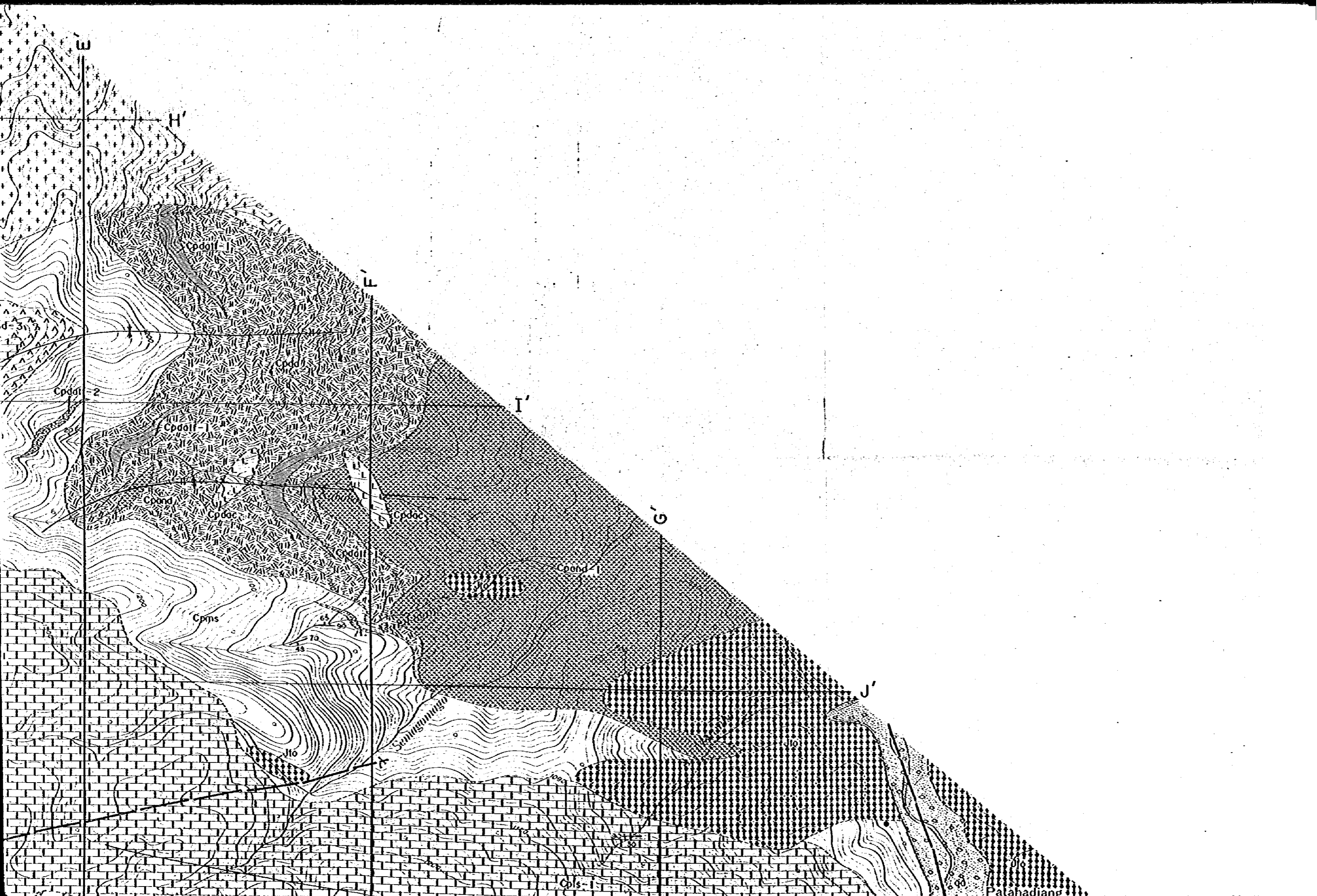
February 1984



LEGEND

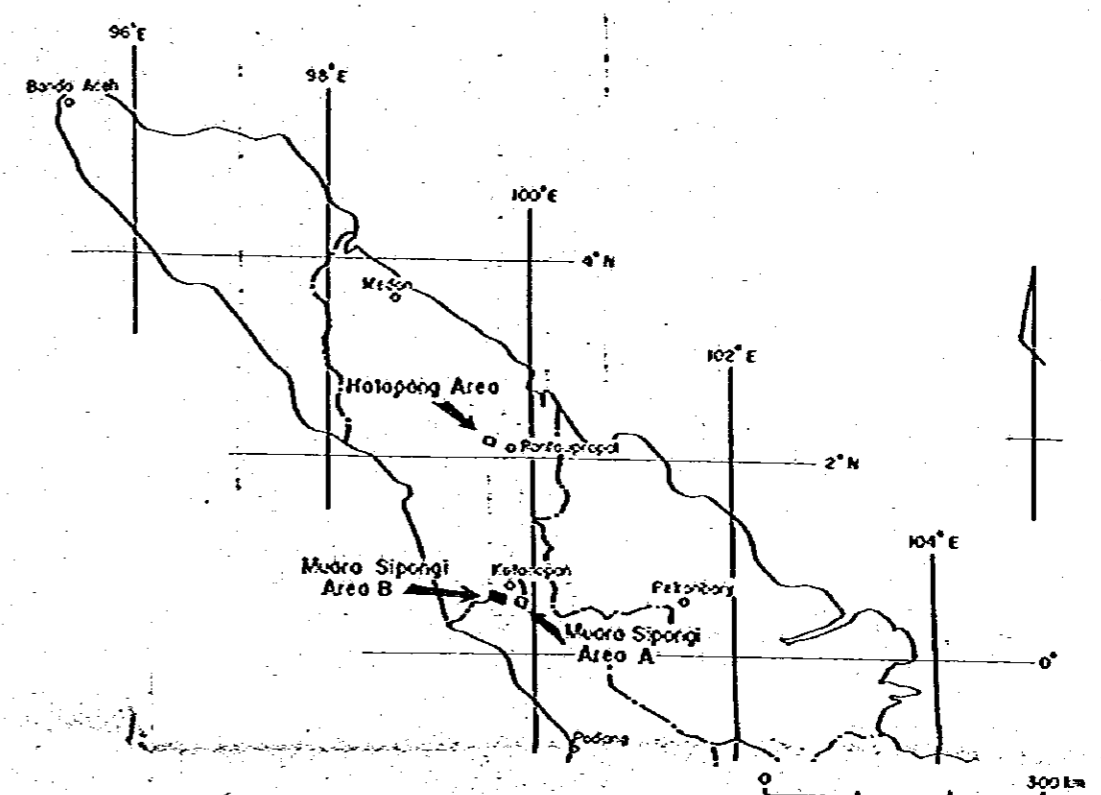
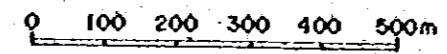
Geological Age		Geological unit	Sedimentary and volcanic rocks	Intrusive rocks
CE NOZIC	QUATER-NARY		Alluvium	
	TERTIARY		Pycnite andesite	Andesite





GEOLOGICAL MAP OF MUARA SIPONGI AREA B

Scale 1:10,000



February - 1984

+60

+50

+40

+40

+30

+20

LEGEND

Geological Age		Geological unit		Sedimentary and volcanic rocks		Intrusive rocks	
CENOZOIC	QUATERNARY			Aa Alluvium			
	TERTIARY			Tpa Pyroxene andesite		Taa Andesite	
MESOZOIC	TRIASSIC ~ JURASSIC					Tqd Tonole-Quartz Diorite (Muro Spongi Granitoid Rocks)	
						Tgd Granodiorite (mylonite)	
PALEOZOIC	CARBONIFEROUS ~ PERMIAN	Potohajong Formation	Upper Limestone Member	Cps-2 Limestone			
				Cas-2 Sandstone			
				Cpat Basic pyroclastic rock			
				Cpv Basic volcanic rock			
				Cps-1 Sandstone			
				Cps-1 Limestone			Cpa-1 Andesite
				Cpa-3 Andesite			
				Cpat-3 Andesitic tuff			
				Cpat-2 Docitic tuff			Cpd Docite
				Cpat-2 Andesitic tuff			
	Cpa-2 Andesite						
	Cps Limestone						
	Cas Mudstone & Sandstone						
	Cpd Docite						
	Cpat-1 Docitic tuff						
	Muro Botung Formation	Andesite Member	Cpa-1 Andesite				

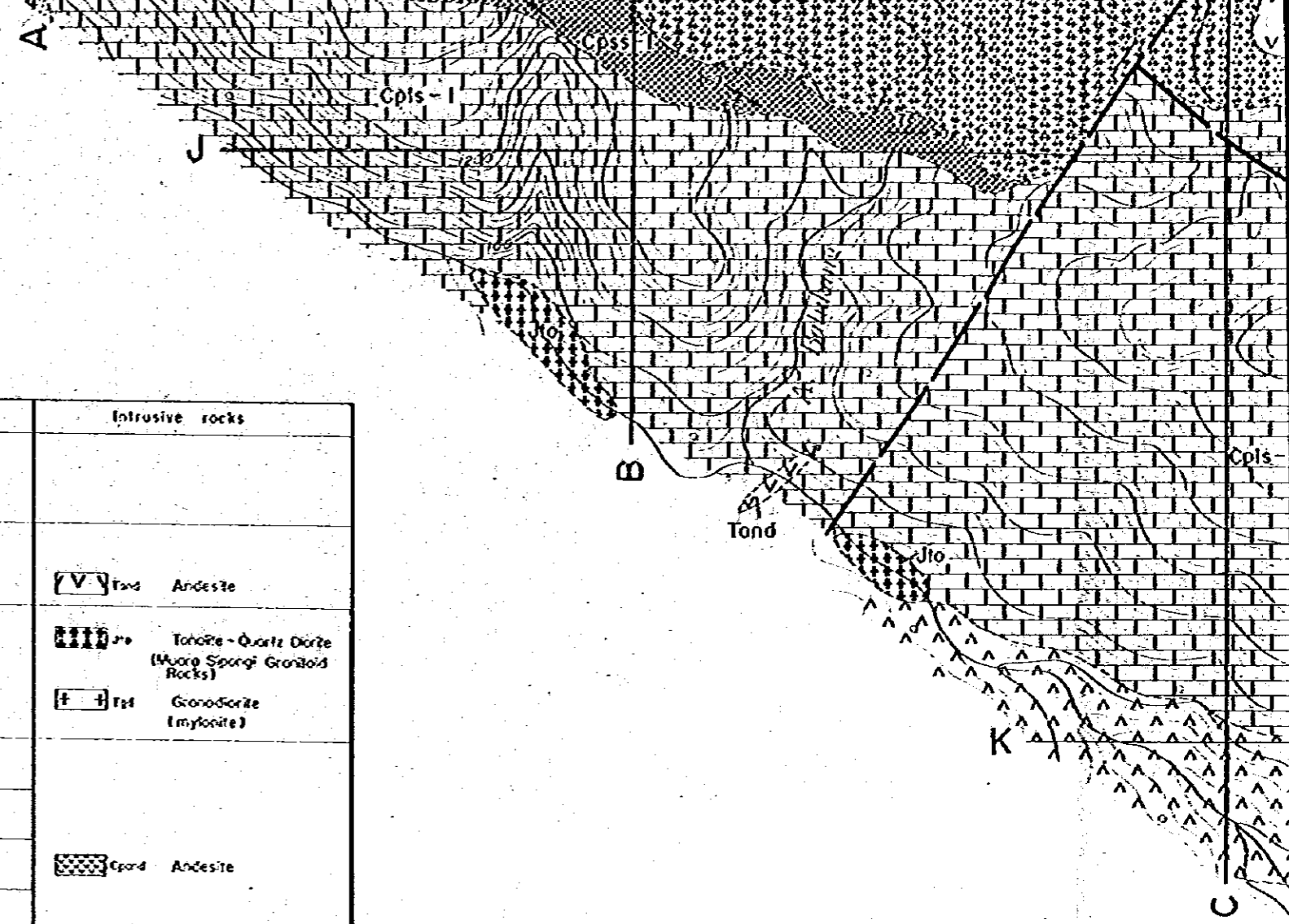
- Dip and strike
- Fault confirmed
- Fault inferred
- Antiformal axis
- Synclinal axis
- Outcrop of ore

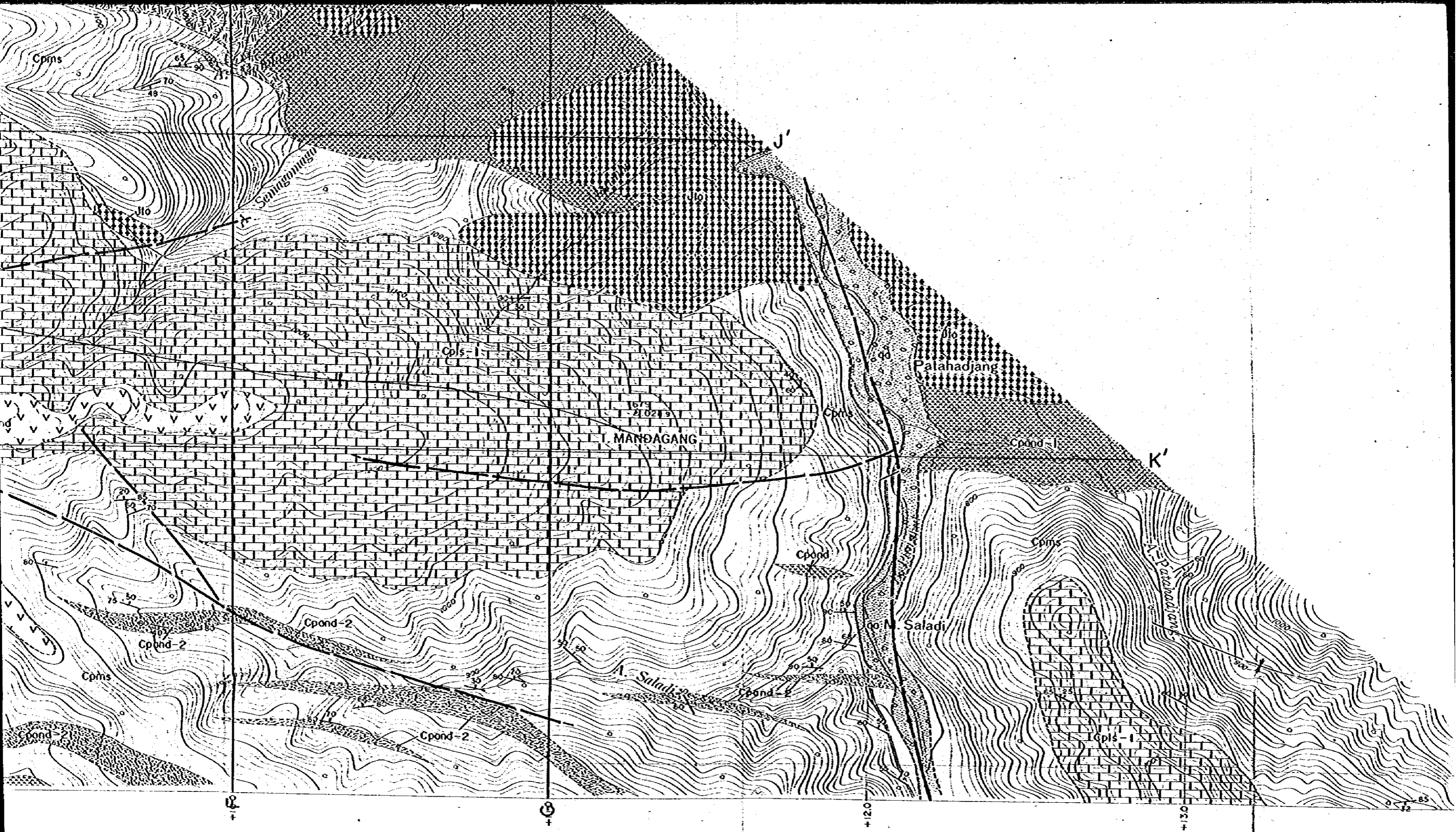
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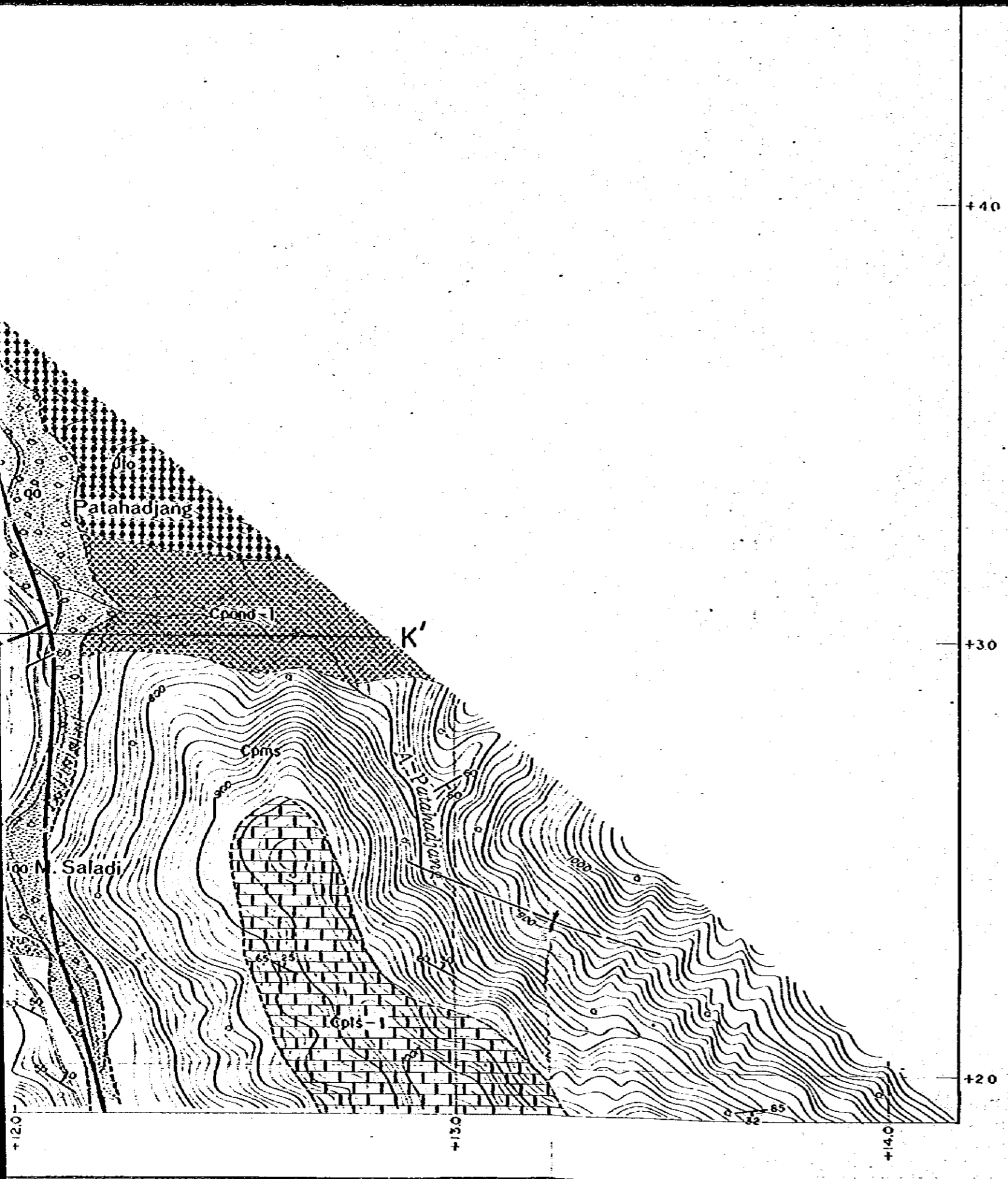
+50

+60

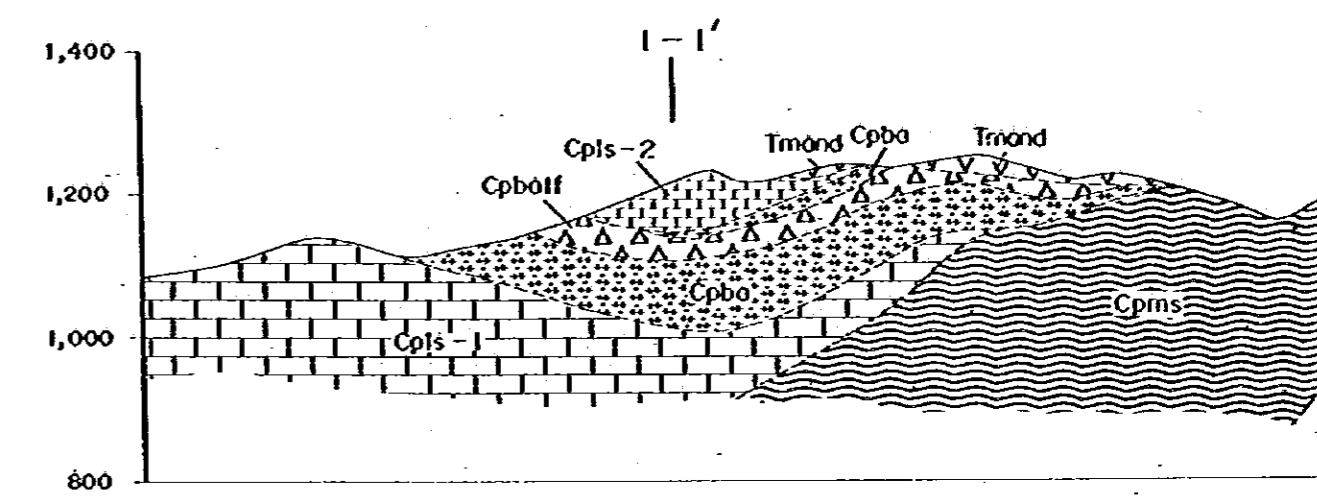
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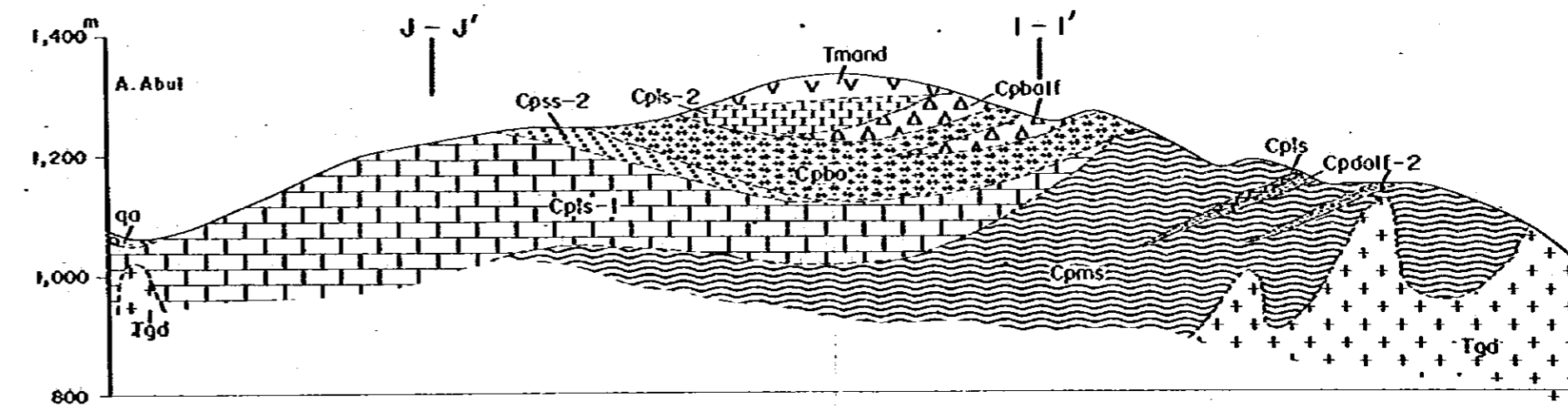




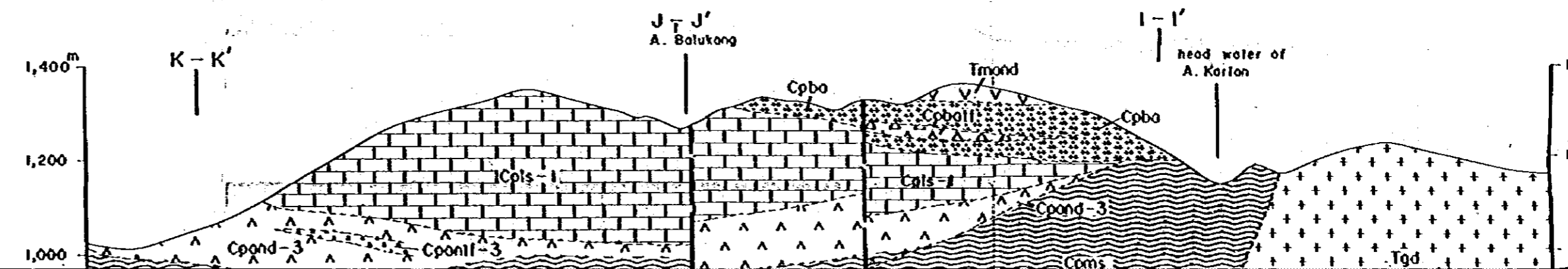
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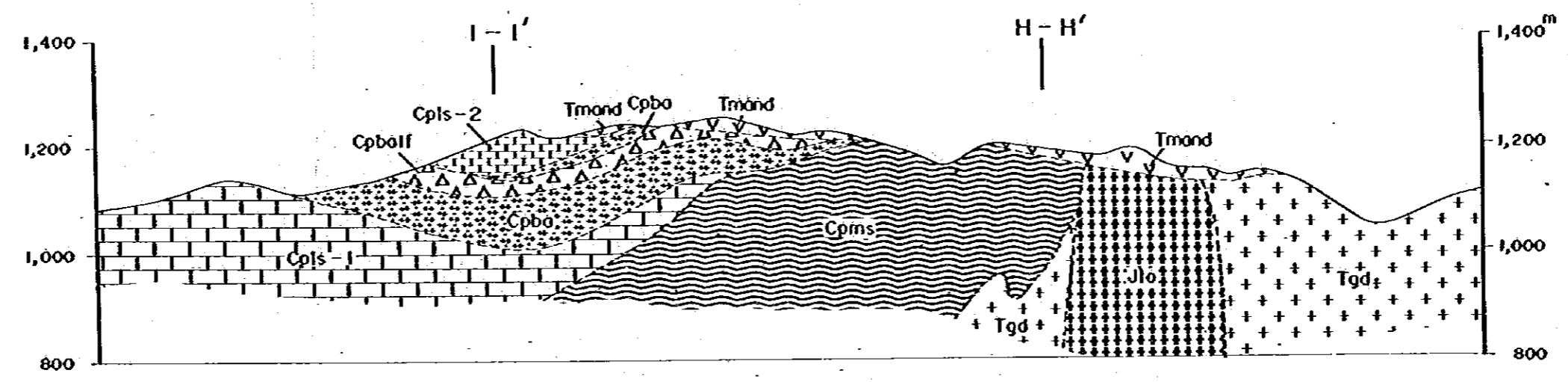
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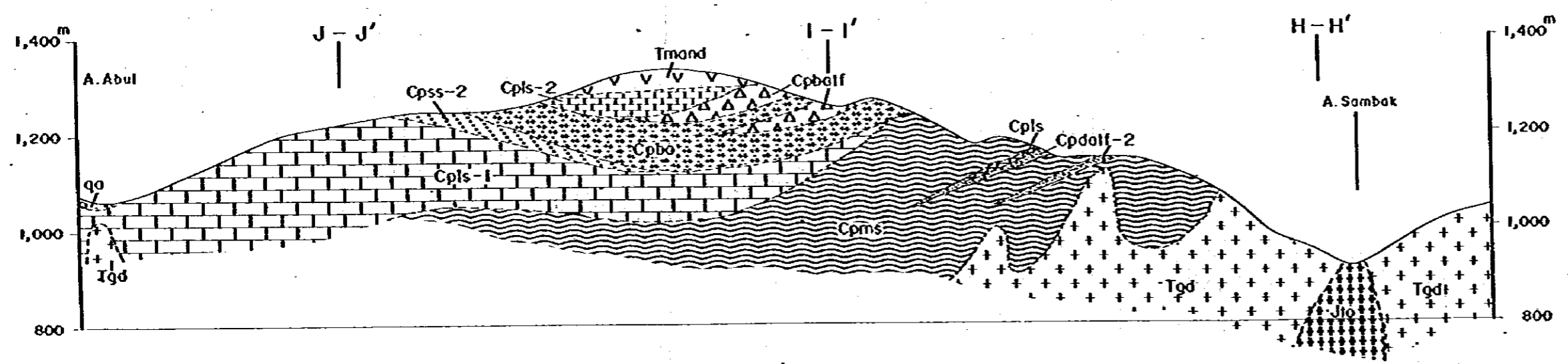
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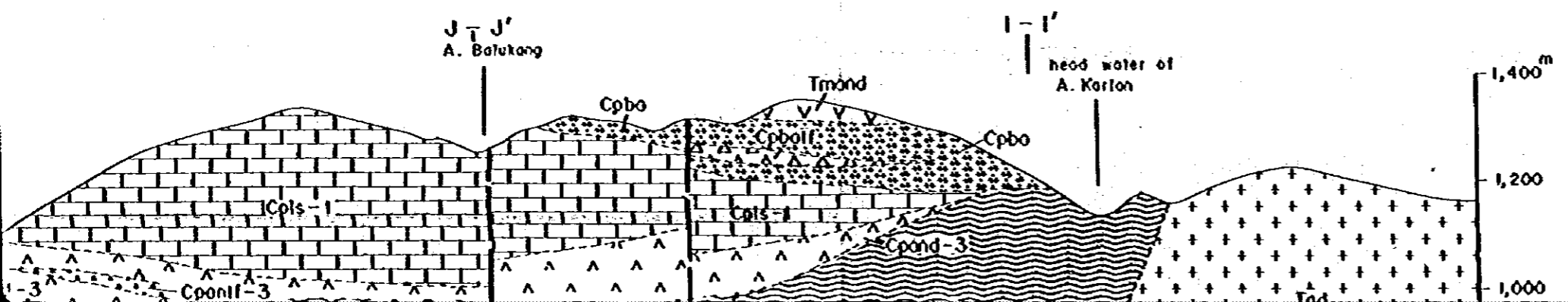
A - A'



B - B'



C - C'



METAL MINING AGENCY OF JAPAN

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JAPAN INTERNATIONAL

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COOPERATION AGENCY

MINISTRY OF MINES AND ENERGY

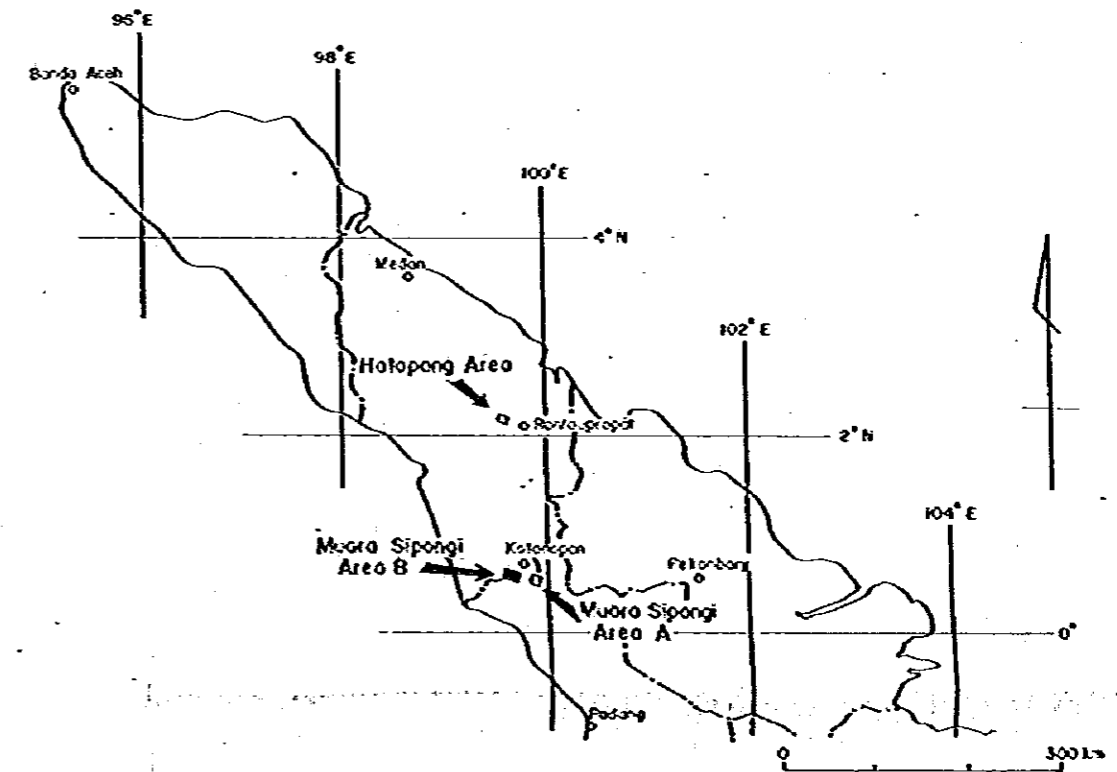
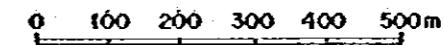
REPUBLIC OF INDONESIA

MINERAL EXPLORATION IN NORTHERN SUMATRA

REPUBLIC OF INDONESIA

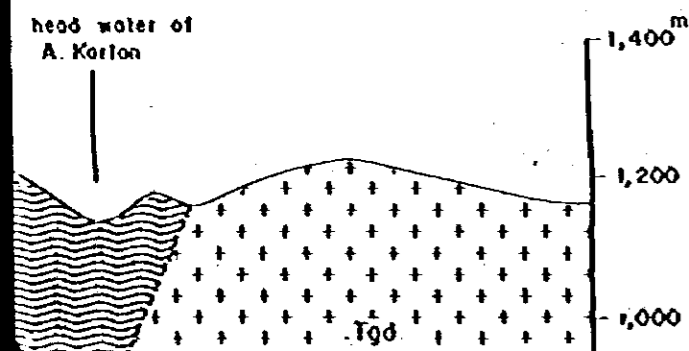
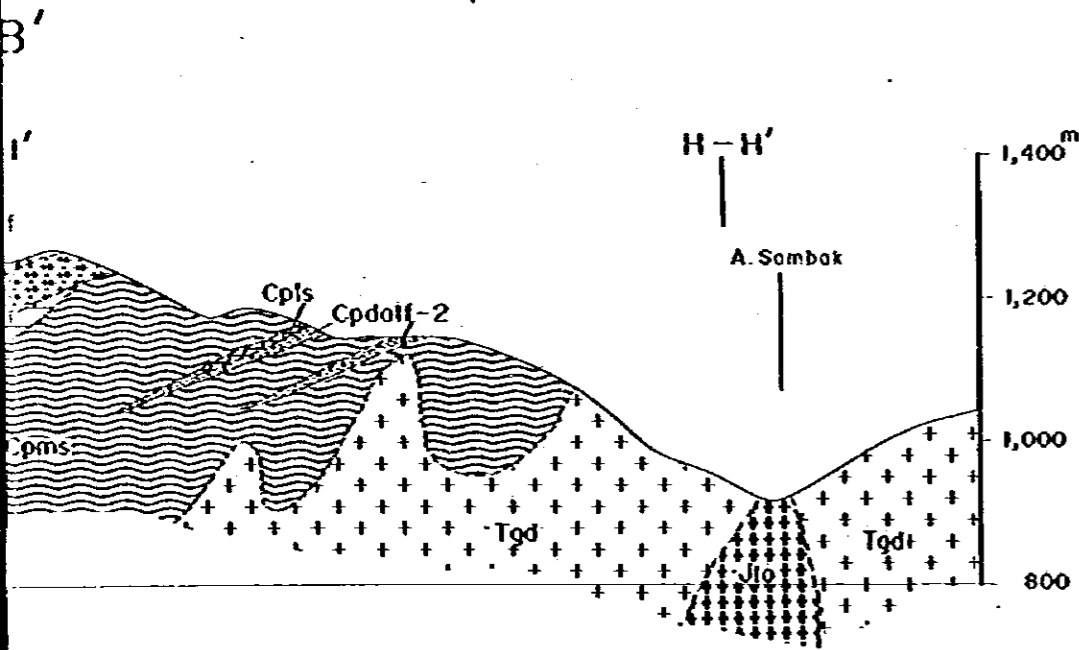
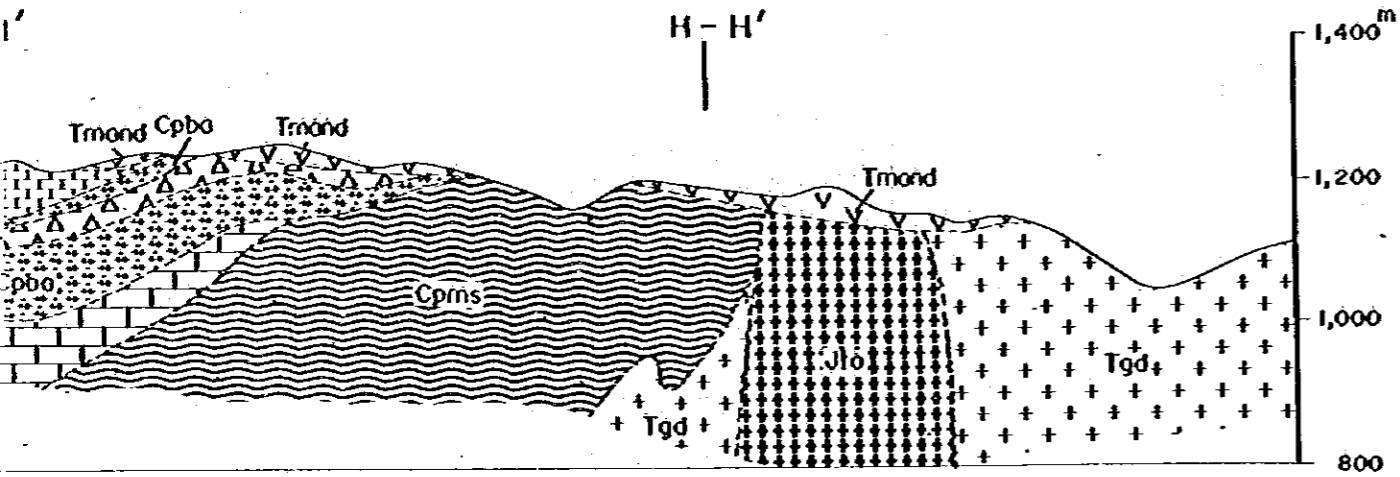
GEOLOGICAL PROFILE OF MUARA SIPONGI AREA B (N-S SECTION)

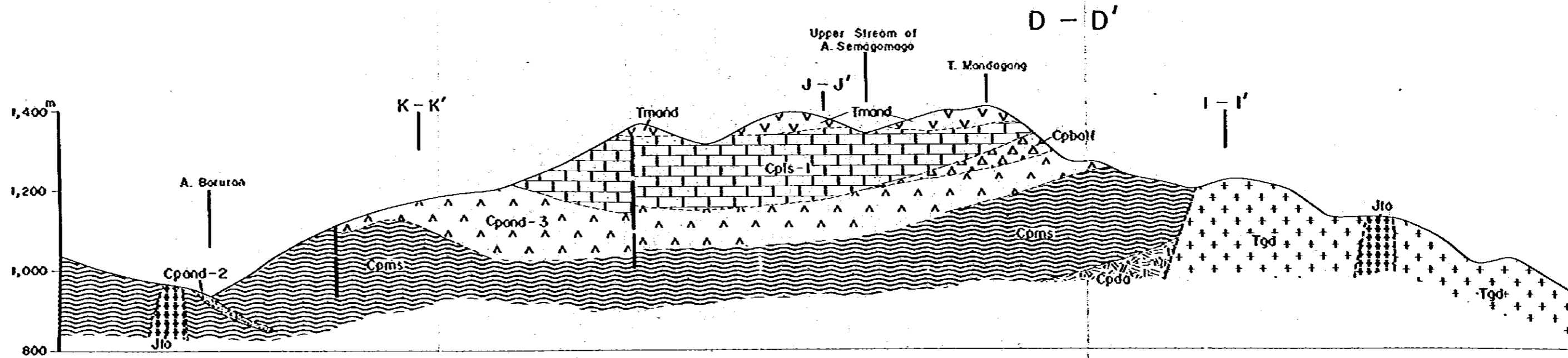
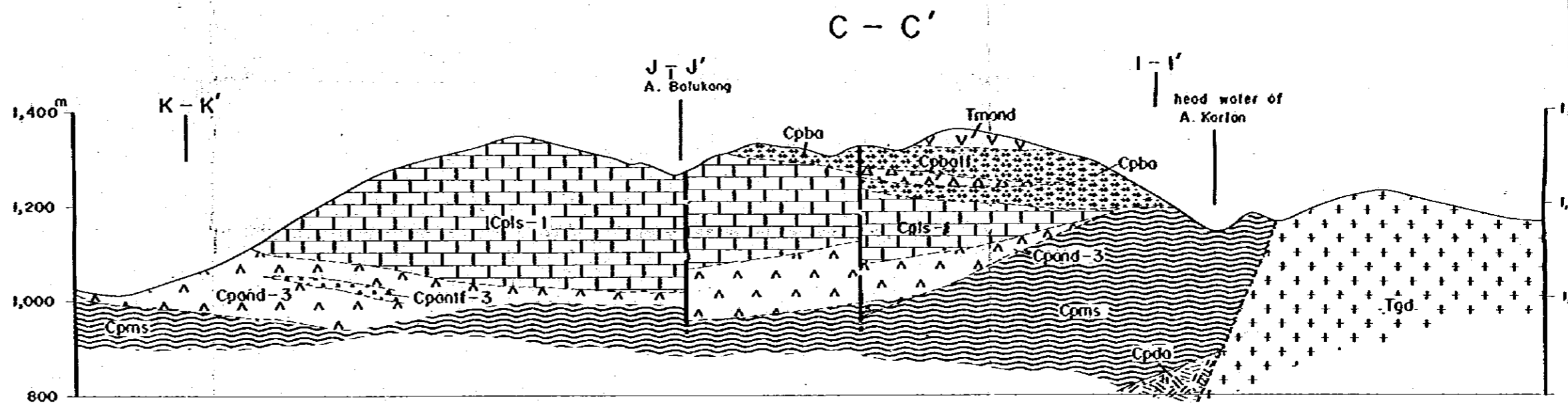
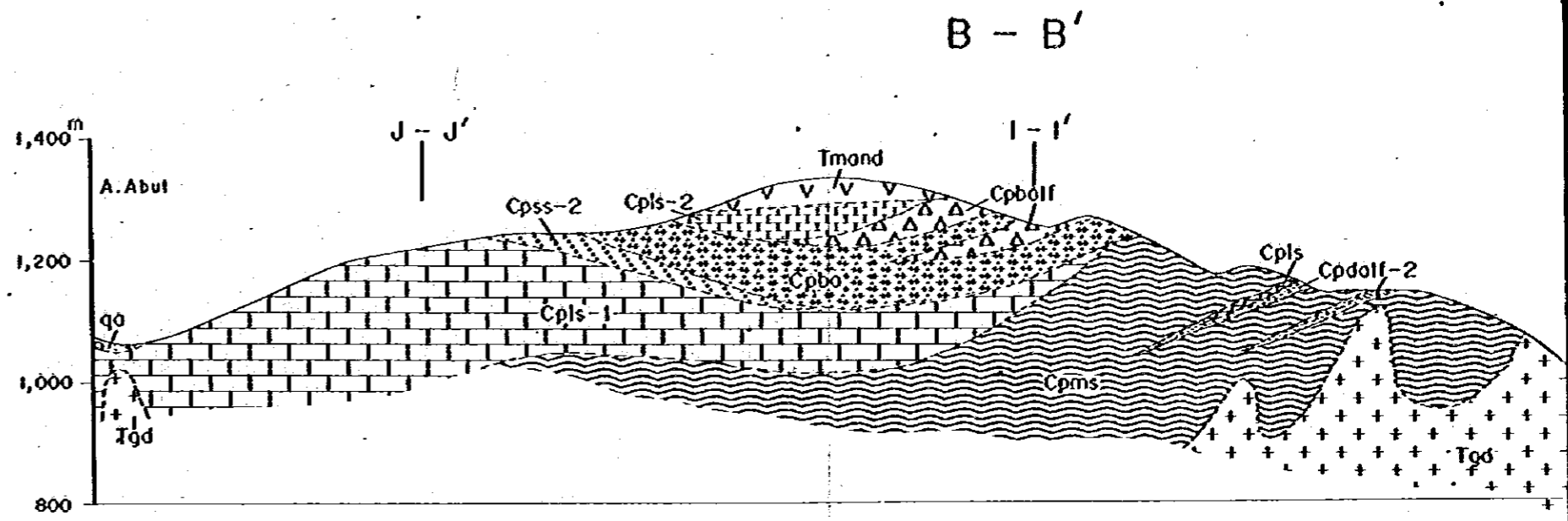
Scale 1:10,000



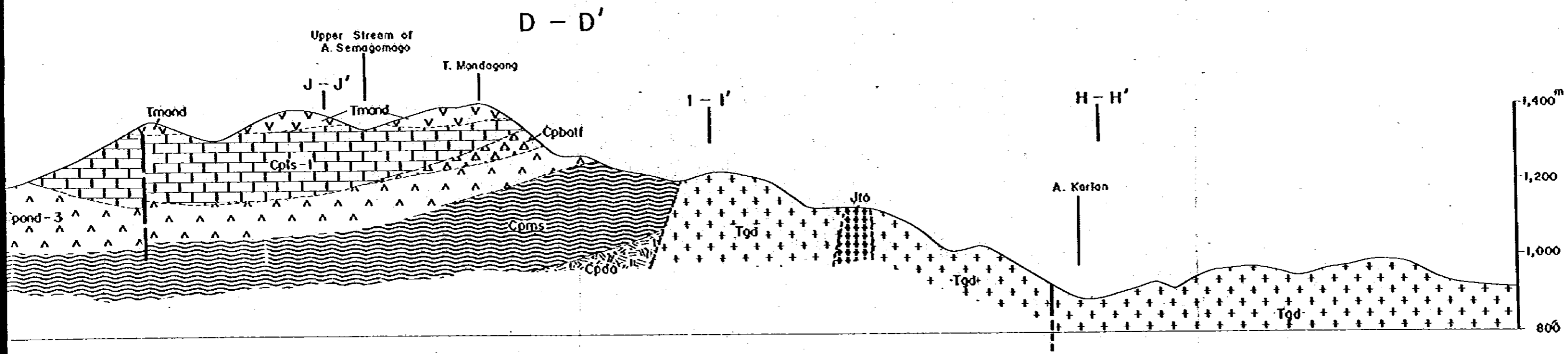
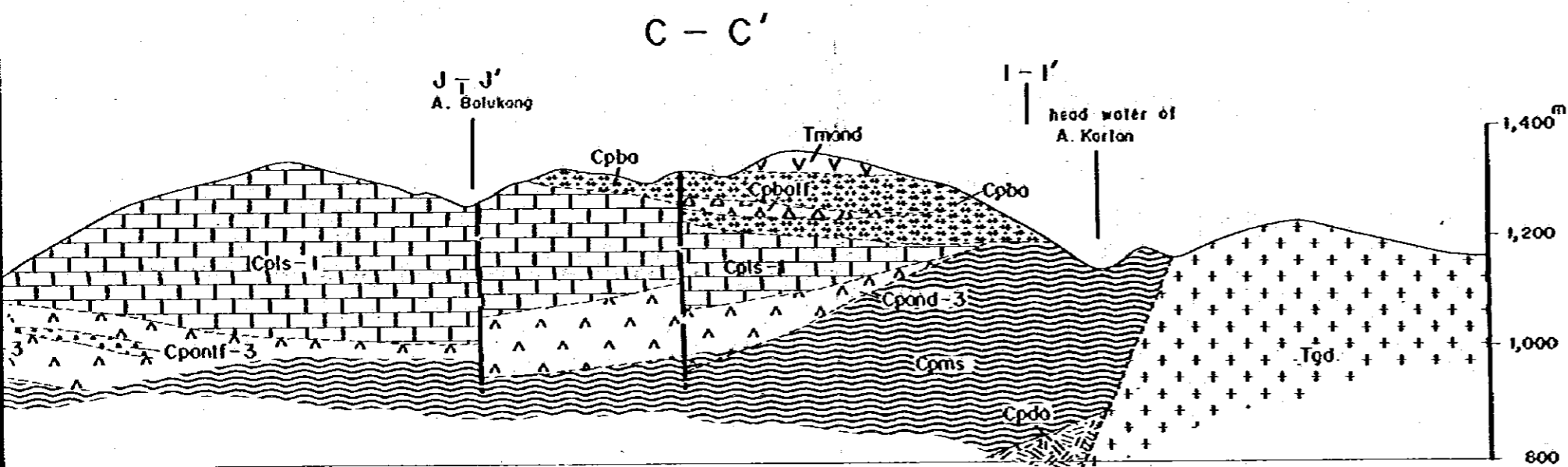
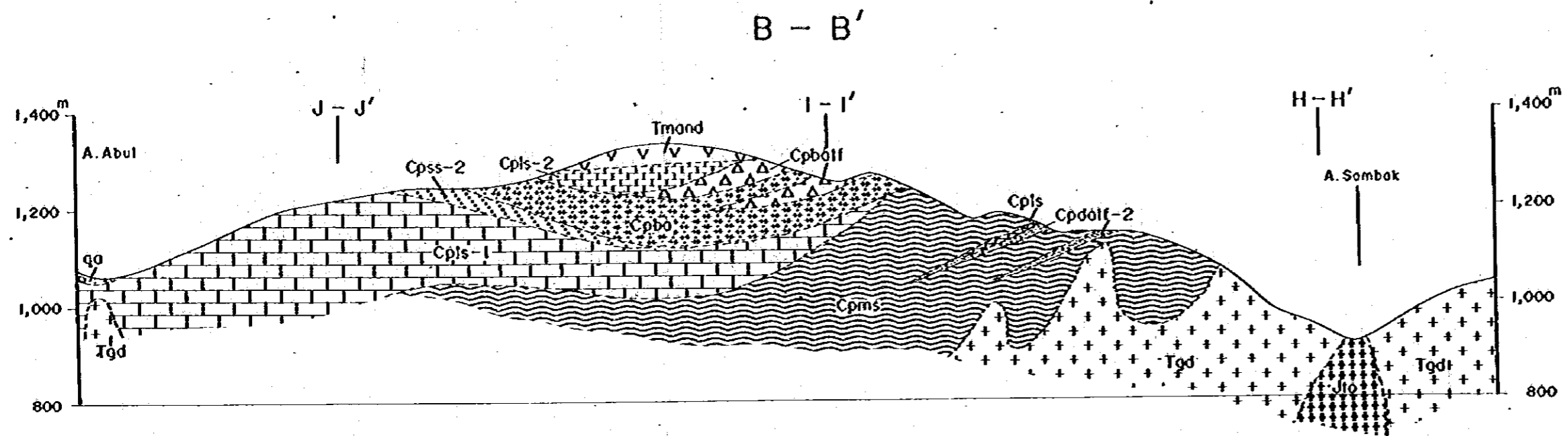
February 1984

A - A'

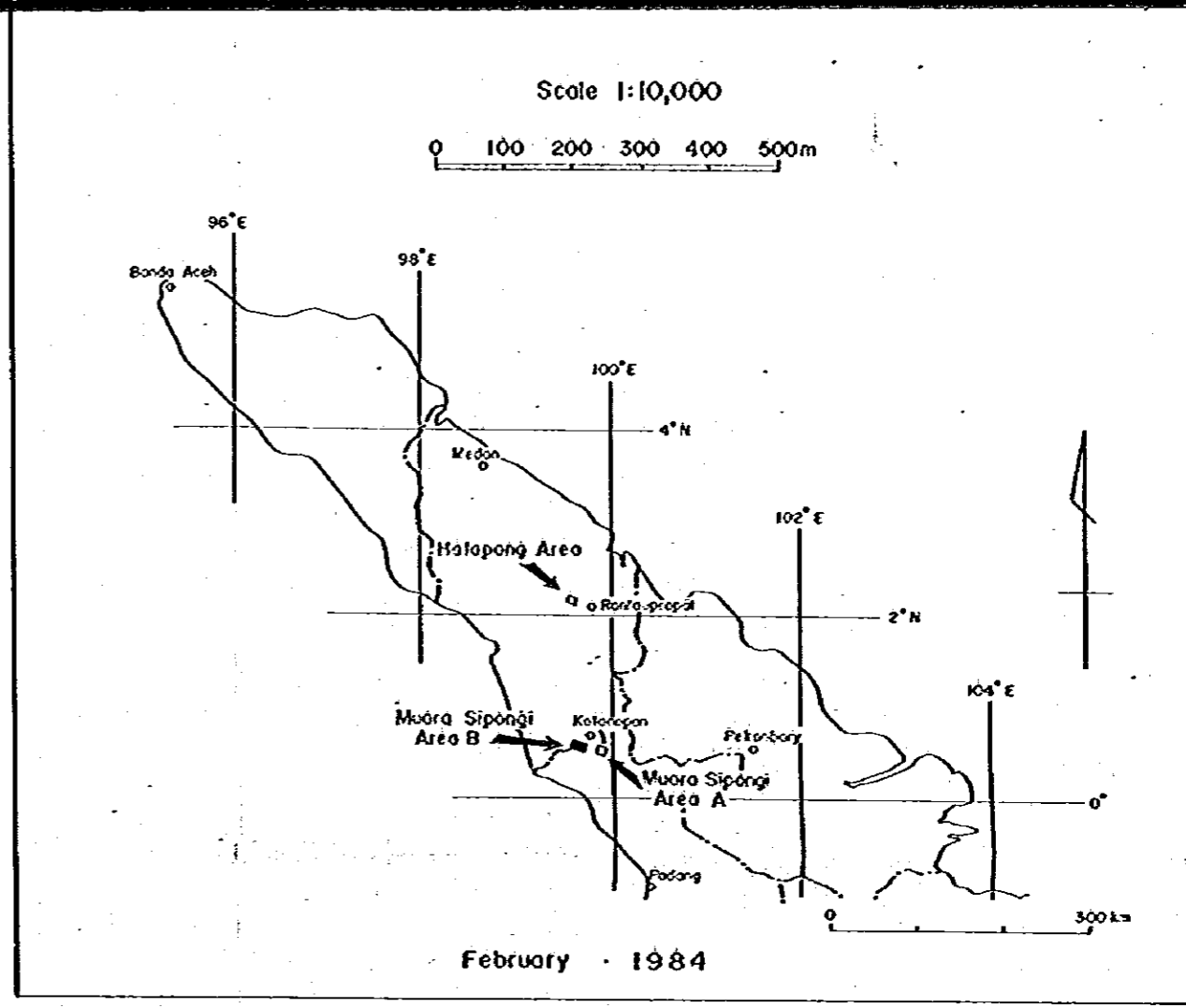
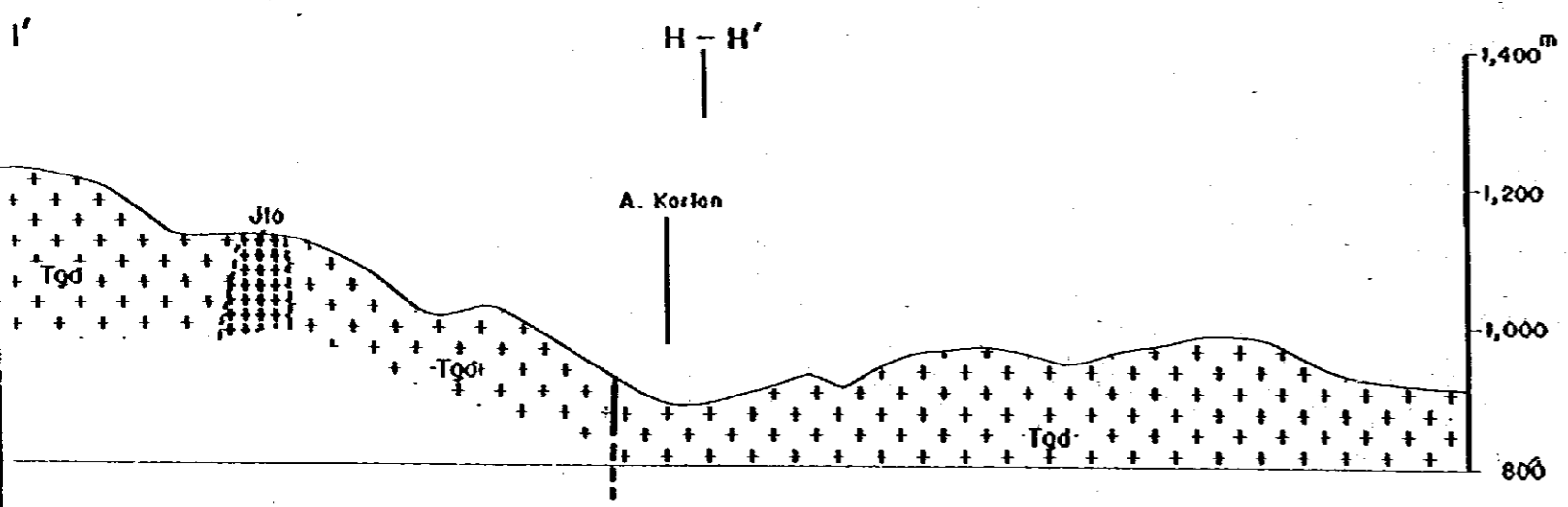
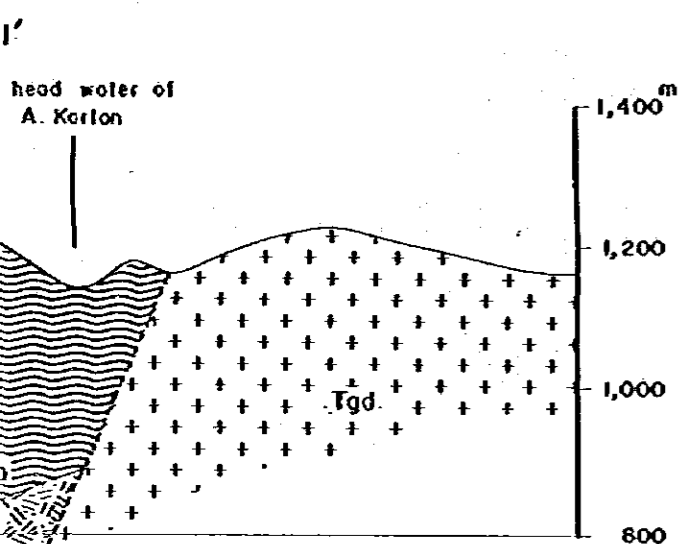
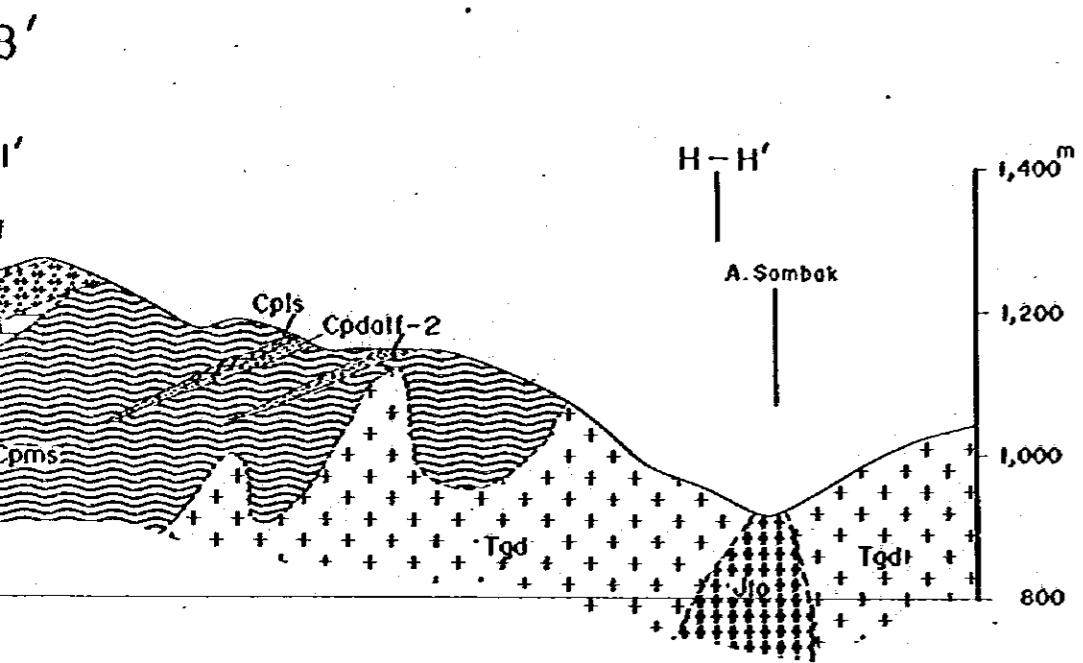


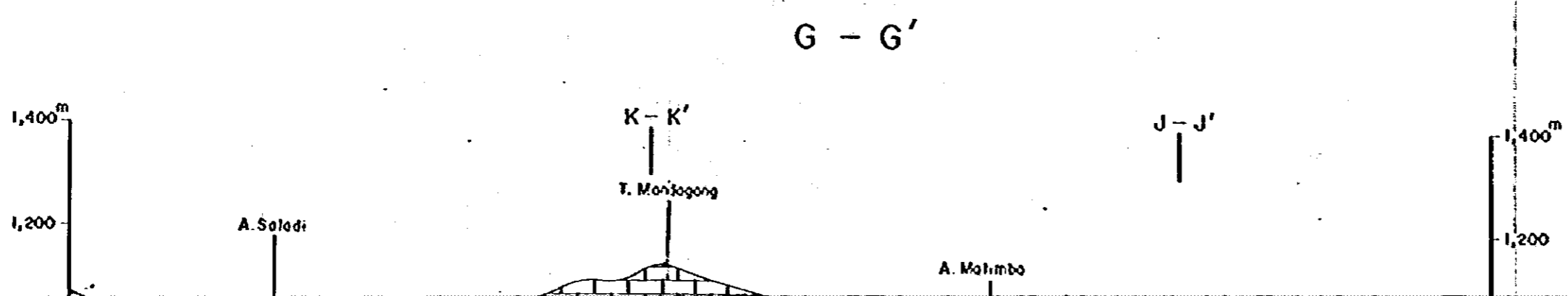
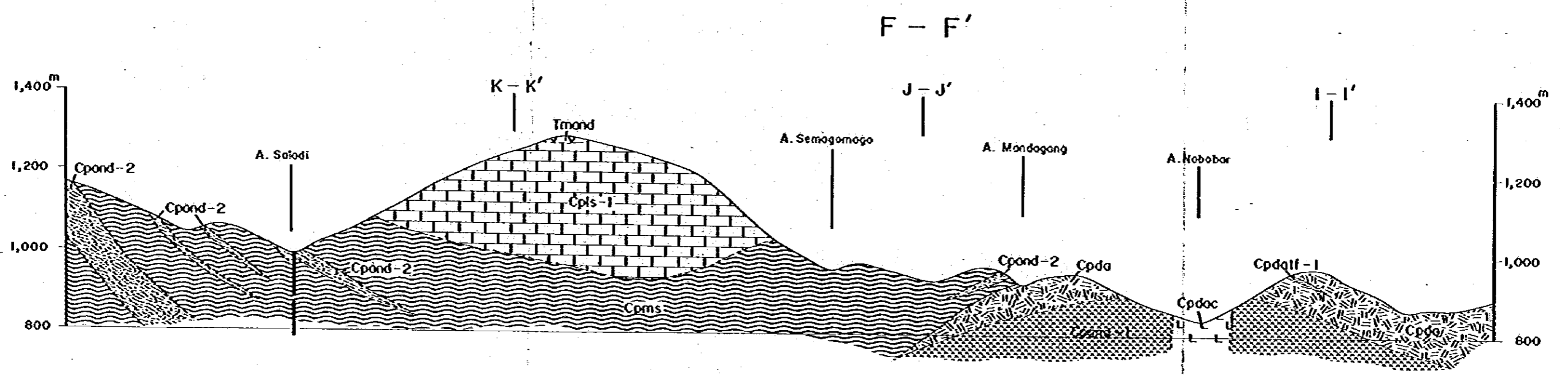
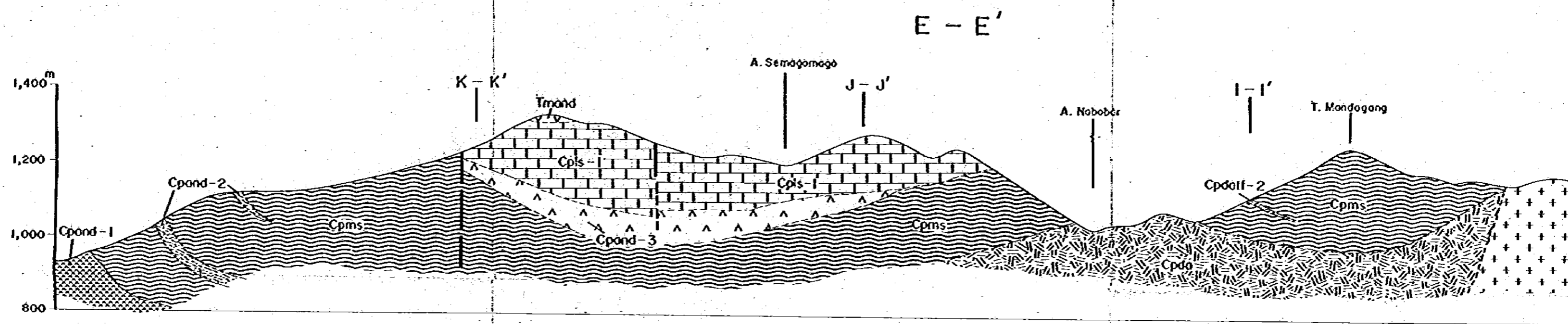
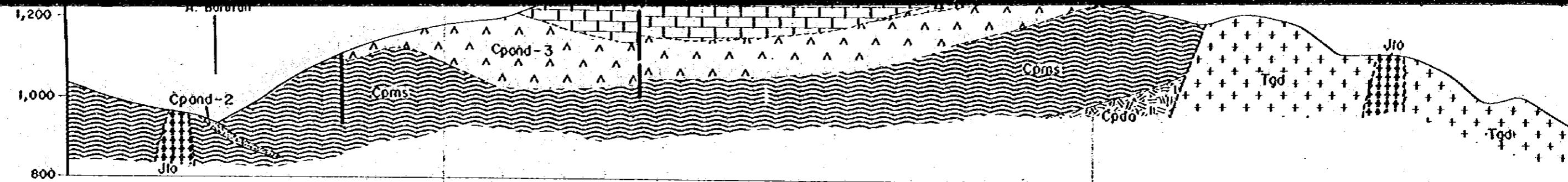


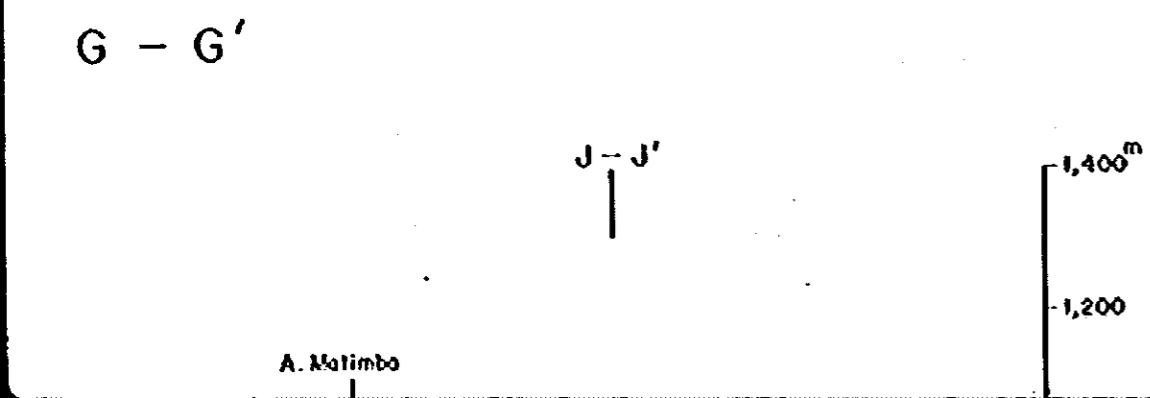
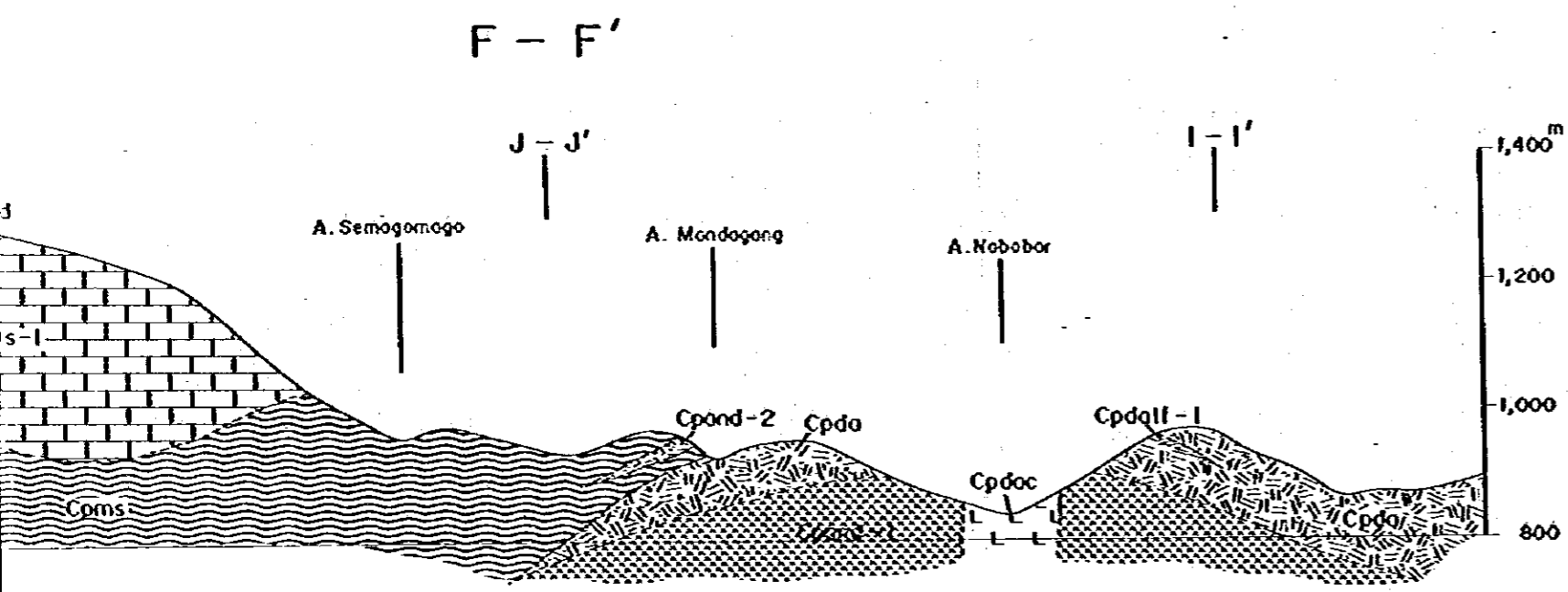
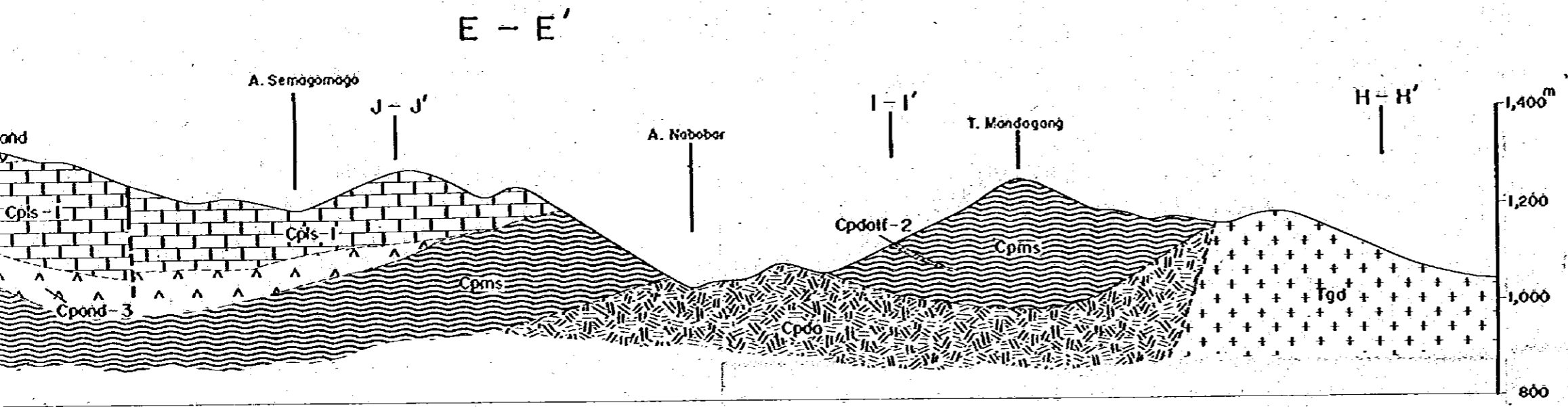
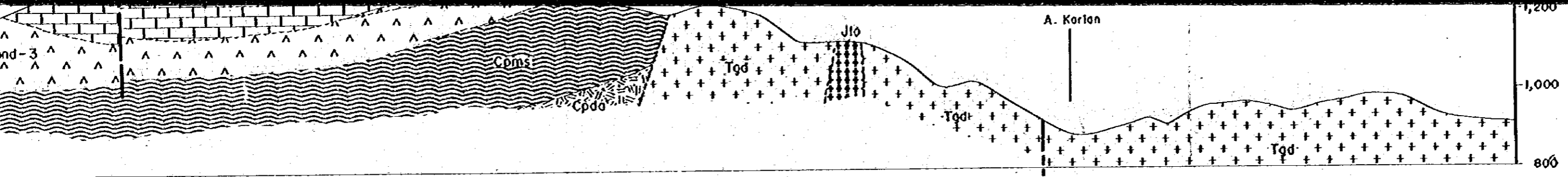
E - E'



E - E'

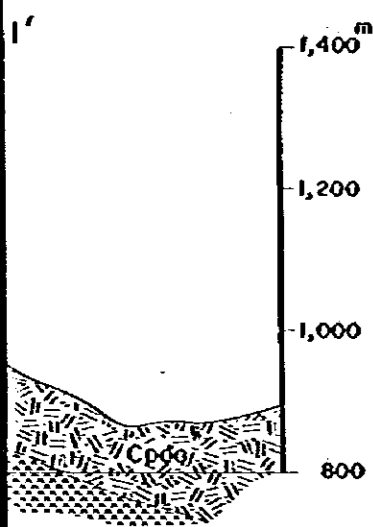
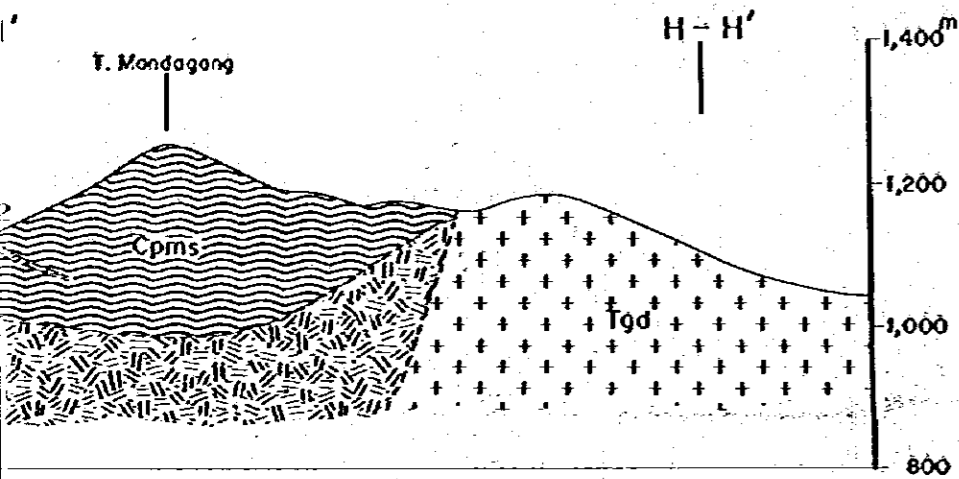
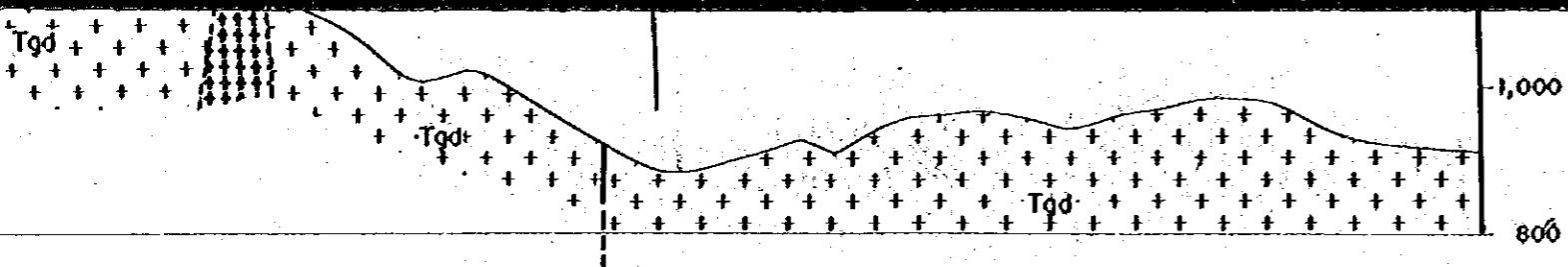






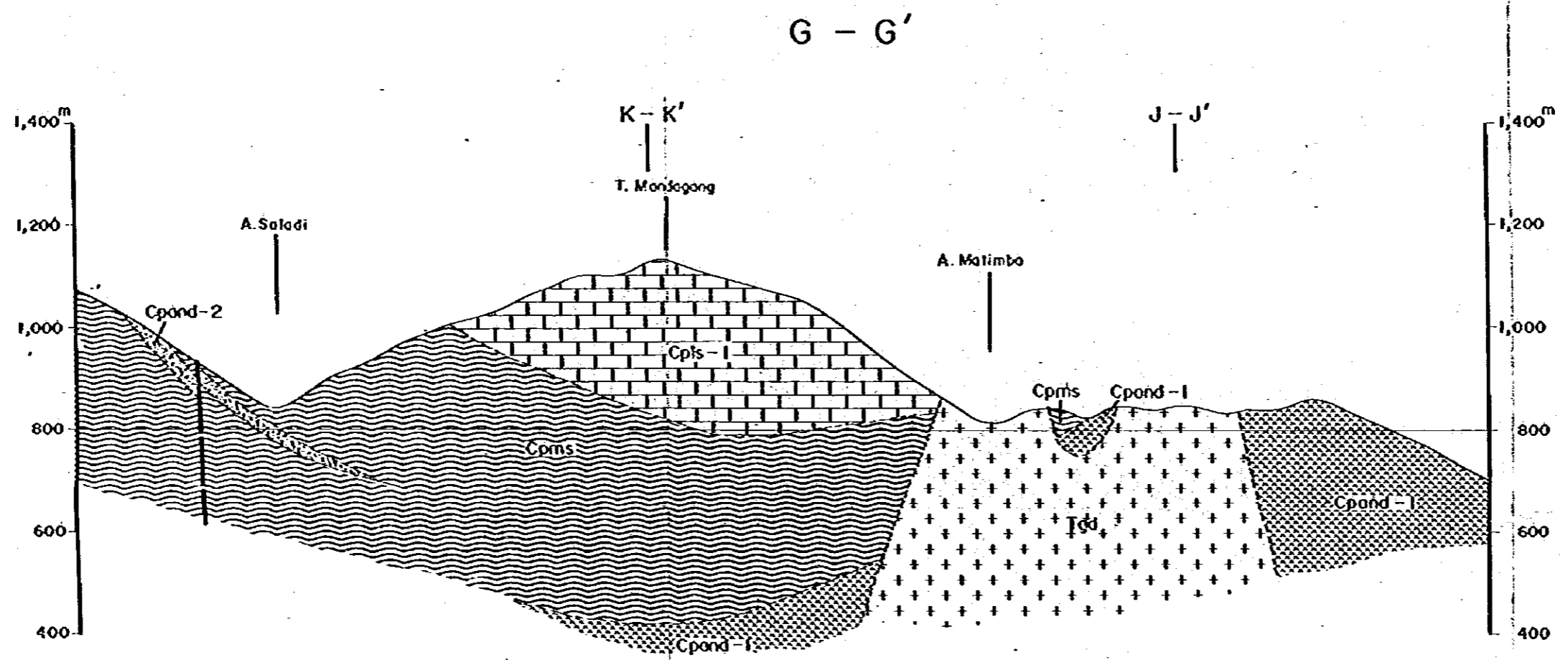
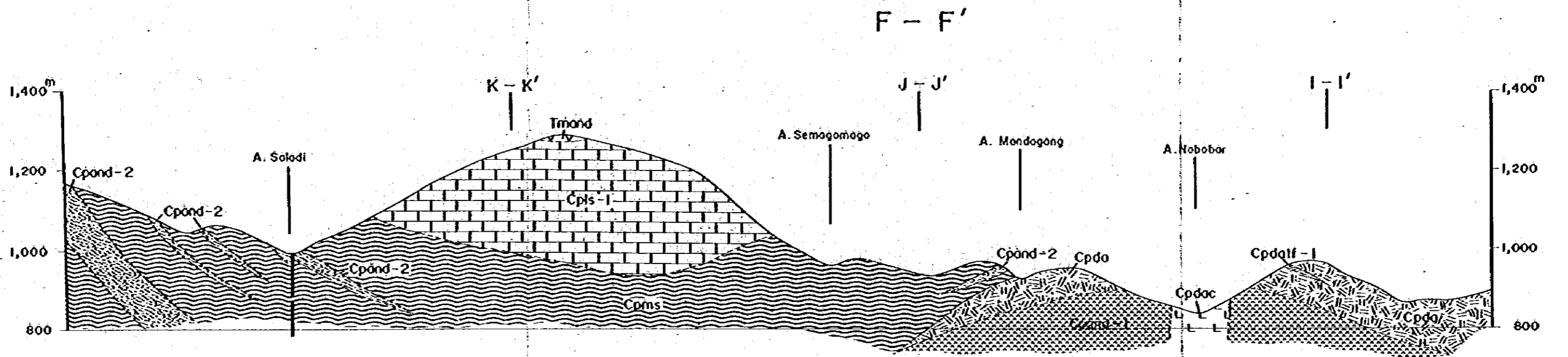
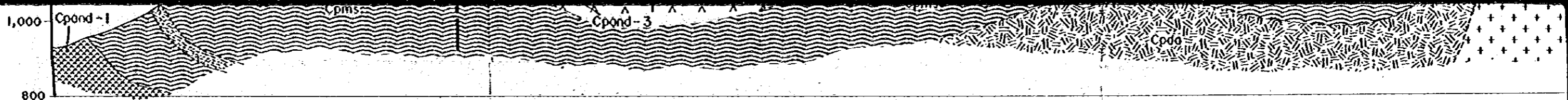
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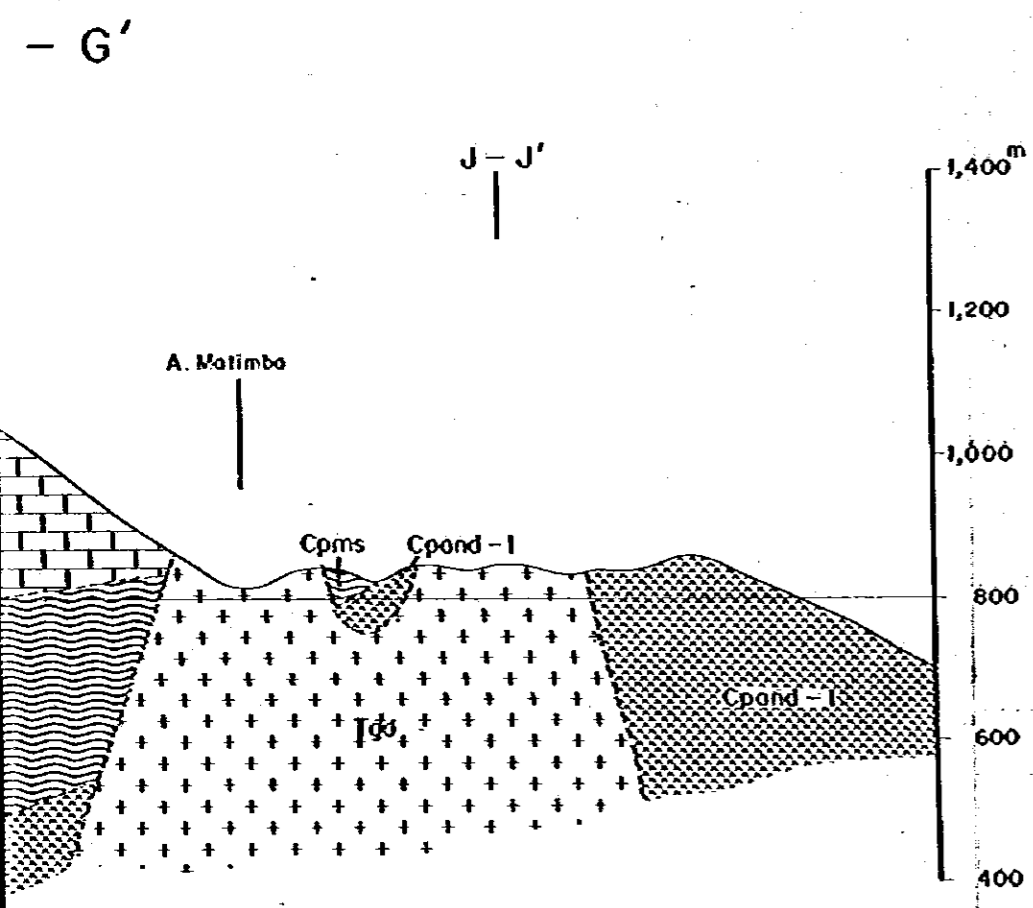
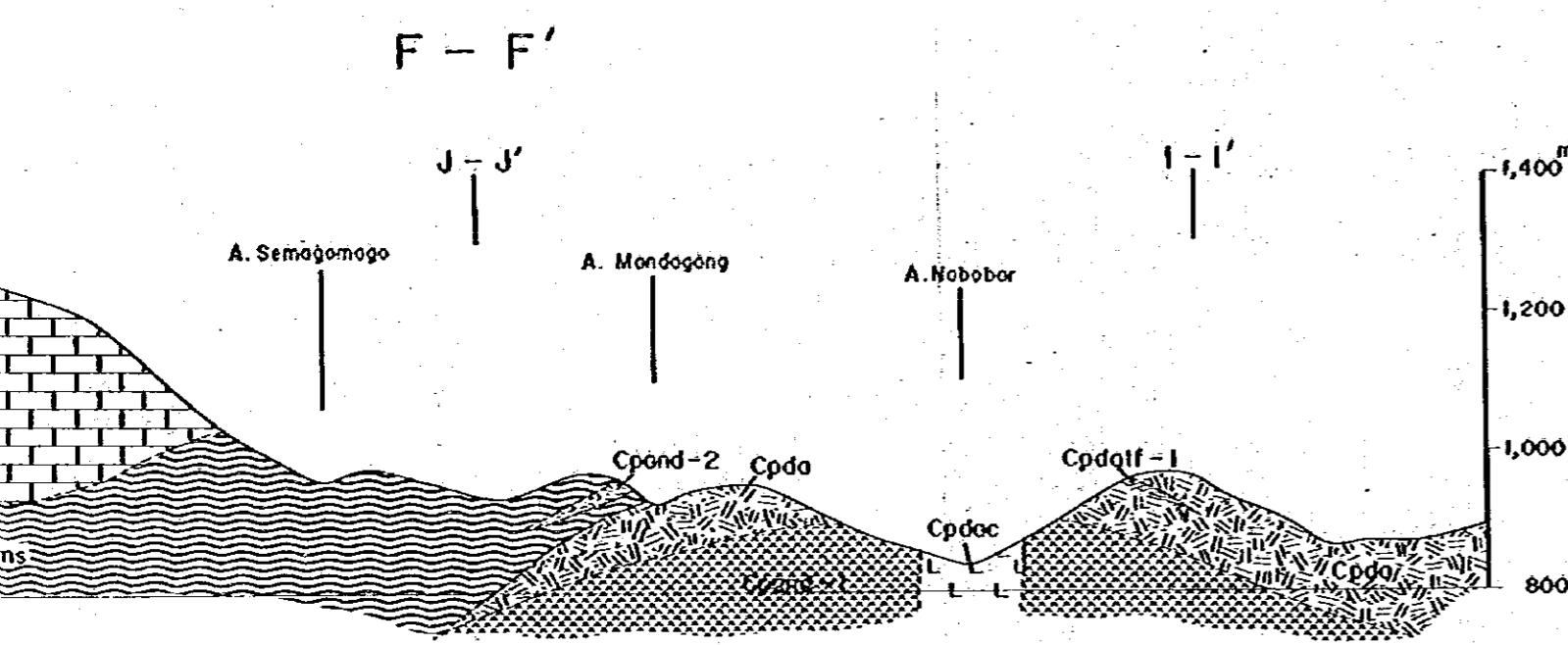
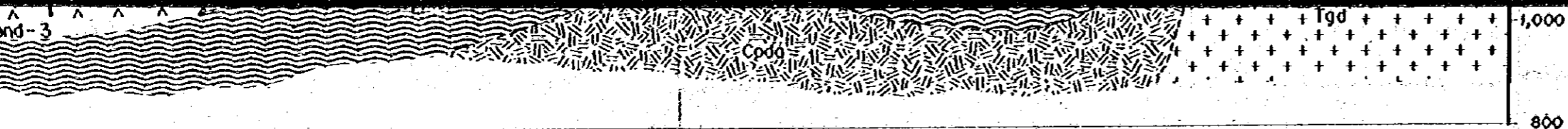
Geological Age		Geological unit	Sedimentary and volcanic rocks	Intrusive rocks	
CENOZOIC	QUATERNARY		Aluvium		
	TERTIARY		And. Pyroclastic andesite	Andesite	
MESOZOIC	TRIASSIC ~ JURASSIC			Tonalite-D. (Mura Spon. Rocks)	
PALEOZOIC	CARBONIFEROUS ~ PERMIAN	Patahojong Formation	Upper Limestone Member	Cps-2 Limestone	
			Basic Volcanic rock Member	Cps-2 Sandstone	
				Cps-2f Basic pyroclastic rock	
				Cps-2 Basic volcanic rock	
			Lower Limestone Member	Cps-1 Sandstone	
				Cps-1 Limestone	Andesite
			Andesite Member	Cps-3 Andesite	
				Cps-3f Andesitic tuff	
	Alternated Member of Clastic rock and Volcanic rock	Cps-2f-2 Dacitic tuff	Dacite		
		Cps-2f-2 Andesitic tuff			
		Cps-2 Andesite			
		Cps Limestone			
		Cps Mudstone & Sandstone			
		Cps Dacite			



LEGEND

Geological Age	Geological unit	Sedimentary and volcanic rocks		Intrusive rocks		
		Symbol	Description	Symbol	Description	
CENOZOIC			Alluvium			
			Tand Pyroxene andesite		Tand Andesite	
MESOZOIC					Tona Tonalite-Quartz Diore (Micro Syenite Granitoid Rocks)	
			Tm Granite (mylonite)			
PALEOZOIC	Patahojong Formation		Cps-2 Limestone			
			Cps-2 Sandstone			
			Cps-1 Basic pyroclastic rock			
			Cps-1 Basic volcanic rock			
			Cps-1 Sandstone			
			Cps-1 Limestone			
			Cps-1 Andesite			Cps-1 Andesite
			Cps-1 Andesitic tuff			
			Cps-1 Dacitic tuff			
			Cps-1 Andesitic tuff			
	Alternated Member of Clastic rock and Volcanic rock		Cps Limestone			
			Cps Mudstone & Sandstone			
	Dacite Member		Cps Dacite		Cps Dacite	
			Cps-1 Dacitic tuff			

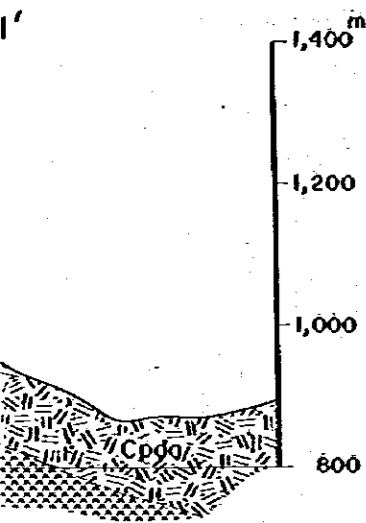
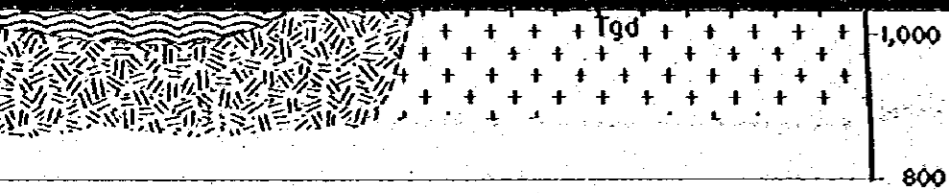






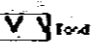
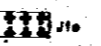

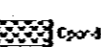
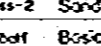

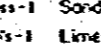
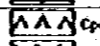
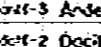

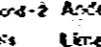


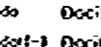
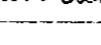
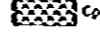
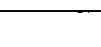

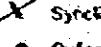

LEGEND







Geological Age	Geological unit	Sedimentary and volcanic rocks		Intrusive rocks		
		Symbol	Description	Symbol	Description	
CENOZOIC			Alluvium			
			Tertiary pyroclastic andesite		Tertiary Andesite	
MESOZOIC	TRIASSIC ~ JURASSIC		Tertiary Quartz Diorite (Mura Siringi Granitoid Rocks)		Tertiary Granodiorite (mylonite)	
PALEOZOIC	CARBONIFEROUS ~ PERMIAN	Potohojong Formation				
		Upper Limestone Member		Gps-2 Limestone		
				Gps-2 Sandstone		
		Basic Volcanic rock Member		Basic pyroclastic rock		
				Basic volcanic rock		
		Lower Limestone Member		Sandstone		
				Limestone		
		Andesite Member		Andesite		Andesite
				Andesitic tuff		
		Alternated Member of Clastic rock and Volcanic rock		Docitic tuff		
		Andesitic tuff				
		Andesite				
		Limestone				
		Mudstone & Sandstone				
Docite Member		Docite		Docite		
		Docitic tuff				
	Mura Botung Formation	Andesite Member		Andesite		

- Dip and strike
- Fault confirmed
- Fault inferred
- Anticlinal axis
- Synclinal axis
- Outcrop of ore

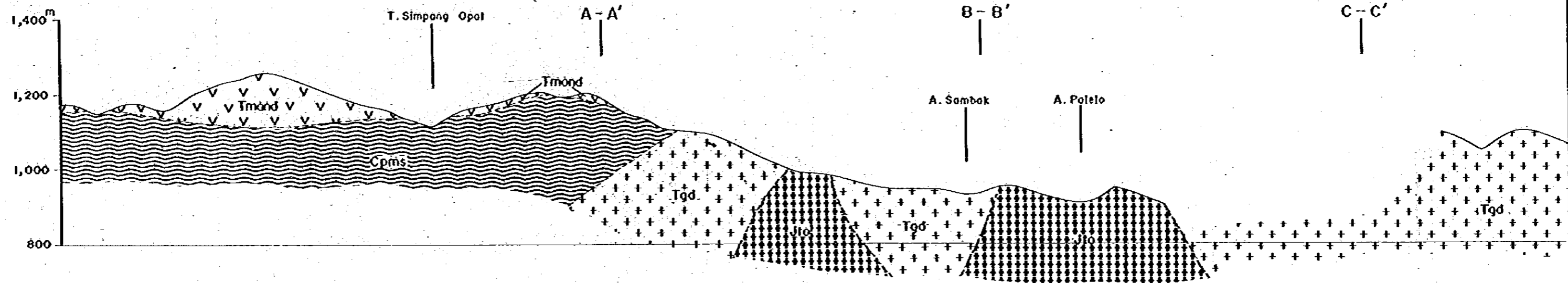


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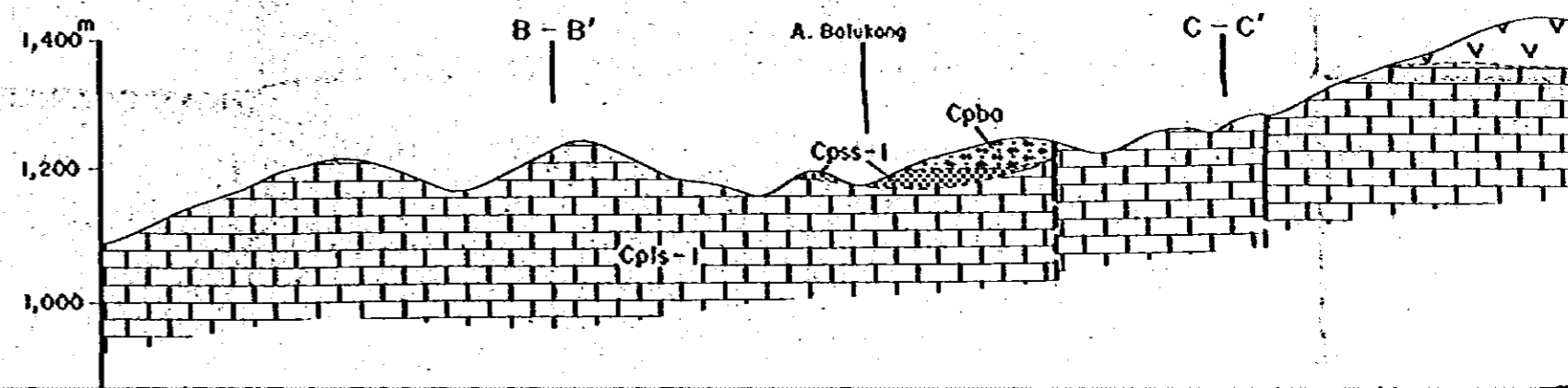
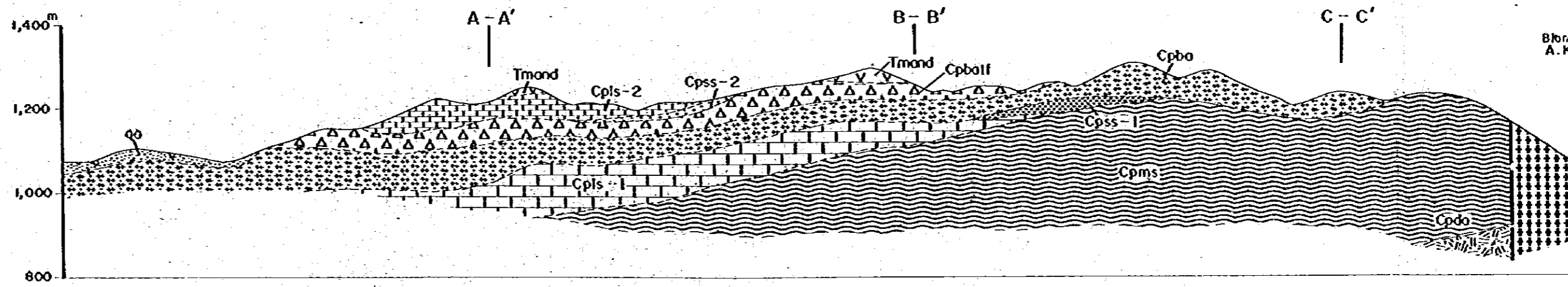
Geological Age		Geological unit	Sedimentary and volcanic rocks		Intrusive rocks				
Geological Age	Geological unit		Symbol	Description	Symbol	Description			
CENOZOIC	QUATERNARY			Alluvium					
	TERTIARY			Pyroxene andesite		Andesite			
MESOZOIC	TRIASSIC - JURASSIC					Tonalite-Quartz Diorite (Muara Siong Granite Rocks)			
PALEOZOIC	CARBONIFEROUS - PERMIAN	Potokajong Formation	Upper Limestone Member		Cps-2 Limestone		Andesite		
					Cps-2 Sandstone				
			Basic Volcanic rock Member		Cpbat Basic pyroclastic rock				
					Cpba Basic volcanic rock				
			Lower Limestone Member		Cps-1 Sandstone				
					Cps-1 Limestone				
			Andesite Member		Cpand-3 Andesite				
					Cpand-3 Andesite tuff				
			Alternated Member of Clastic rock and Volcanic rock		Cpdet-2 Dacitic tuff				Dacite
					Cpdet-2 Andesitic tuff				
	Cpd-2 Andesite								
Dacite Member		Cps Limestone							
		Cps Mudstone & Sandstone							
		Cpda Dacite							
		Cpdet-1 Dacitic tuff							
	Muara Bitung Formation	Andesite Member		Cpand-1 Andesite					

-  Dip and strike
-  Fault confirmed
-  Fault inferred
-  Anticlinal axis
-  Synclinal axis
-  Outcrop of ore

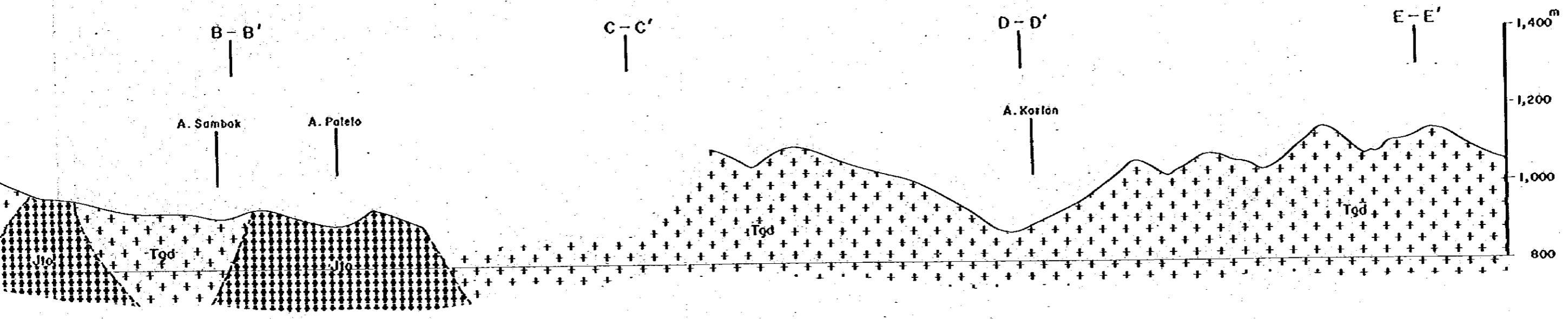
H - H'



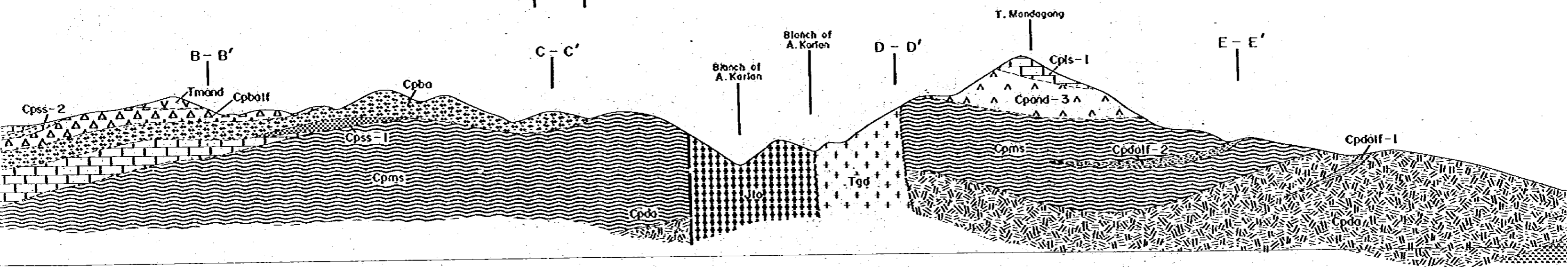
I - I'



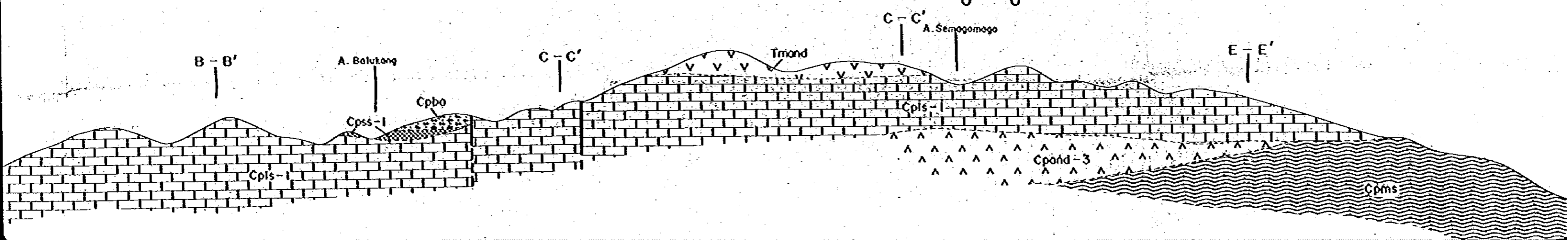
II - II

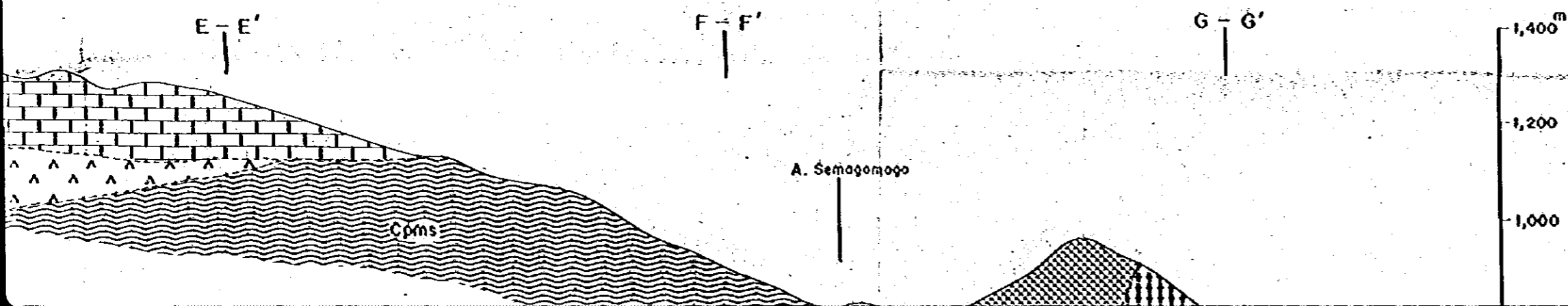
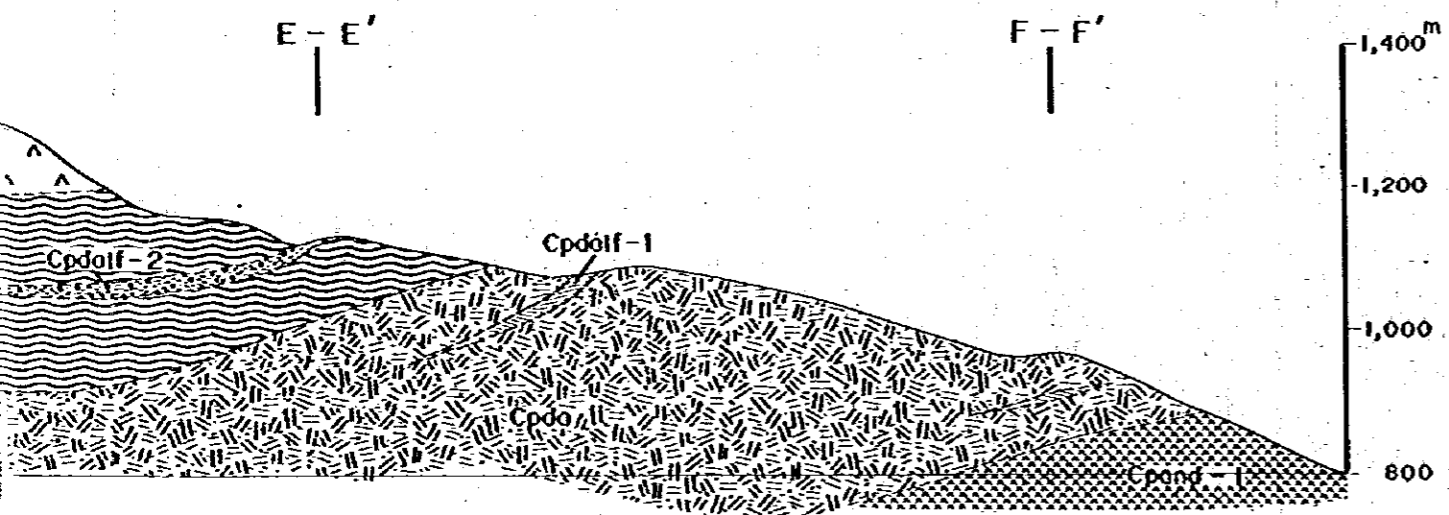
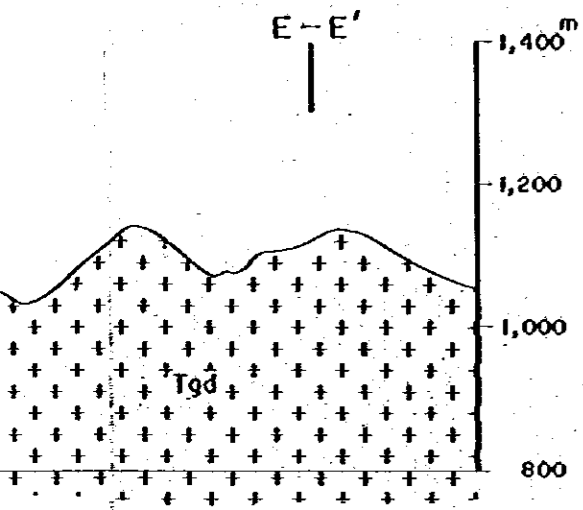


I - I'



J - J'





MÉTAL MINING AGENCY OF JAPAN

DIRECTORATE OF MINERAL
REȘOURCES

JAPAN INTERNATIONAL

DIRECTORATE GENERAL
OF MINES

COOPERATION AGENCY

MINISTRY OF MINES
AND ENERGY

REPUBLIC OF INDONESIA

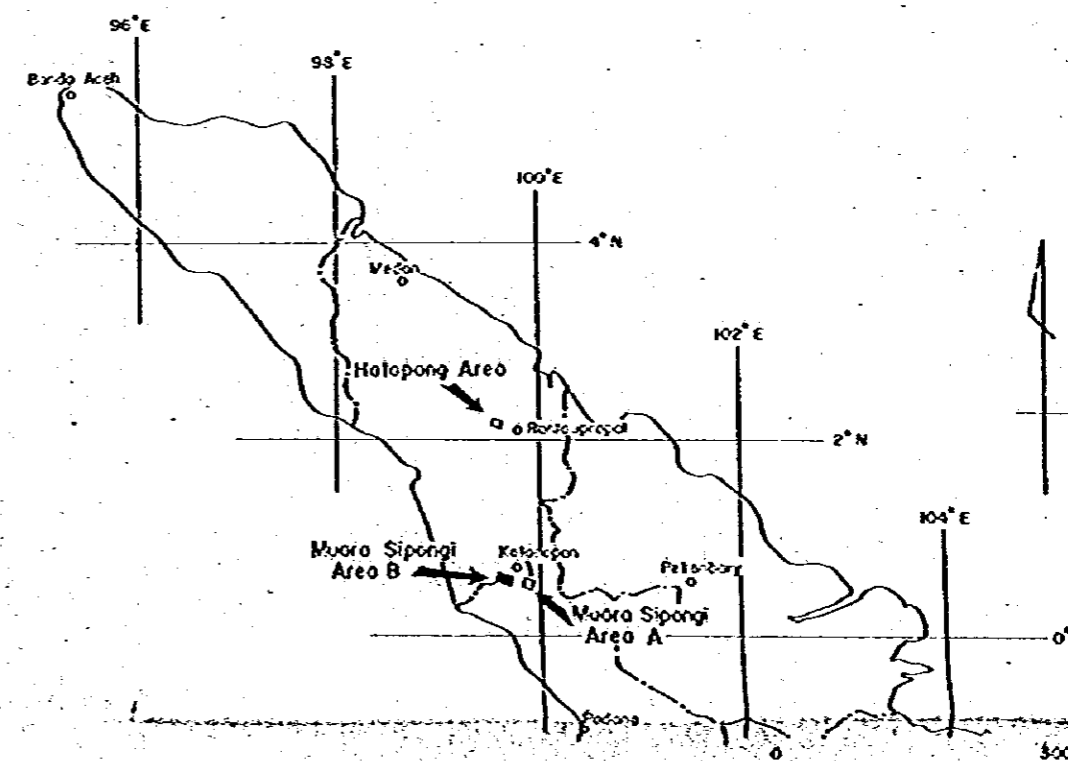
MINERAL EXPLORATION IN NORTHERN SUMATRA

REPUBLIC OF INDONESIA

GEOLOGICAL PROFILE OF MUARA SIPONGI AREA B (E - W SECTION)

Scale 1:10,000

0 100 200 300 400 500m



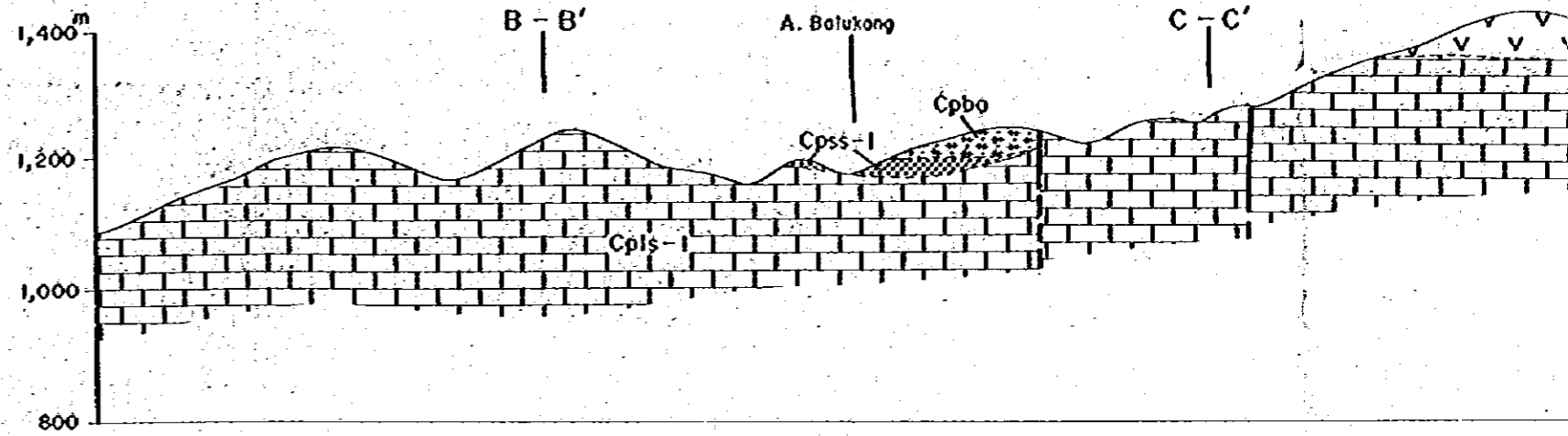
February 1984

G - G'

1,400^m

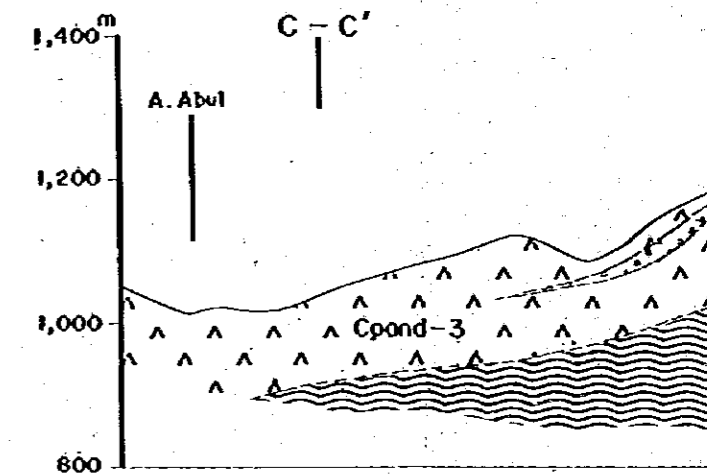
1,200

1,000

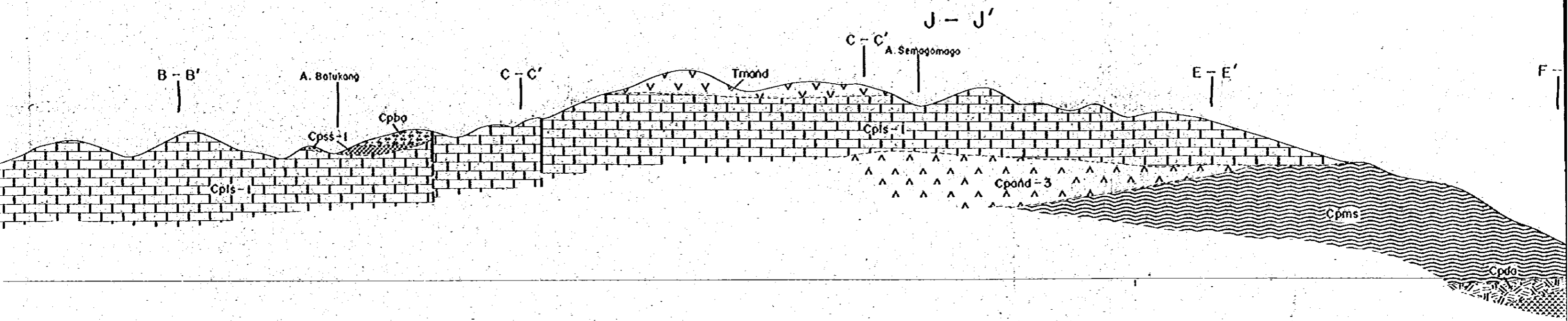


LEGEND

Geological Age		Geological unit	Sedimentary and volcanic rocks	Intrusive rocks	
CENOZOIC	QUATERNARY		ca Alluvium		
	TERTIARY		VV and Pyroxene andesite	VV and Andesite	
MESOZOIC	TRIASSIC ~ JURASSIC			TQd Tonalite-Quartz Diorite (Muscovite Granite Rocks) Tm Granodiorite (mylonite)	
PALEOZOIC	CARBONIFEROUS ~ PERMIAN	Potohajang Formation	Upper Limestone Member	Cps-2 Limestone	
			Basic Volcanic rock Member	Cps-2 Sandstone	
				Cps-2a Basic pyroclastic rock	
				Cps-2a Basic volcanic rock	
			Lower Limestone Member	Cps-1 Sandstone	Cps-2 Andesite
				Cps-1 Limestone	
			Andesite Member	Cps-3 Andesite	
				Cps-3 Andesitic tuff	
				Cps-2 Docite tuff	Cps-2 Docite
				Alternated Member of Clastic rock and Volcanic rock	Cps-2 Andesitic tuff
		Cps-2 Andesite			
		Cps Limestone			
		Cps-4 Mudstone & Sandstone			
	Docite Member	Cps-4 Docite			
		Cps-1 Docite tuff			
	Muara Botung Formation	Andesite Member	Cps-1 Andesite		



- ↘ Dip and strike
- ↗ Fault confirmed
- ↘ Fault inferred
- ✕ Anticlinal axis
- ✕ Synclinal axis
- Outcrop of ore



Intrusive rocks	
	Tond Andesite
	Tonoze-Quartz Diorite (Mura Spongi Granitoid Rocks)
	Grand-grite (mylonite)
	Cpda Andesite
	Cpdc Diorite

