

PL. AB-6(1)

GEOLOGICAL SURVEY
OF
CENTRAL PERU REPUBLIC OF PERU
(PHASE II)

GEOCHEMICAL MAP OF THE SURVEYED AREA
(Zn)

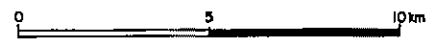
国際協力事業団
 貸入
 月日
 登録No.

METAL MINING AGENCY OF JAPAN
 JAPAN INTERNATIONAL COOPERATION AGENCY
 GOVERNMENT OF JAPAN

MARCH 1976

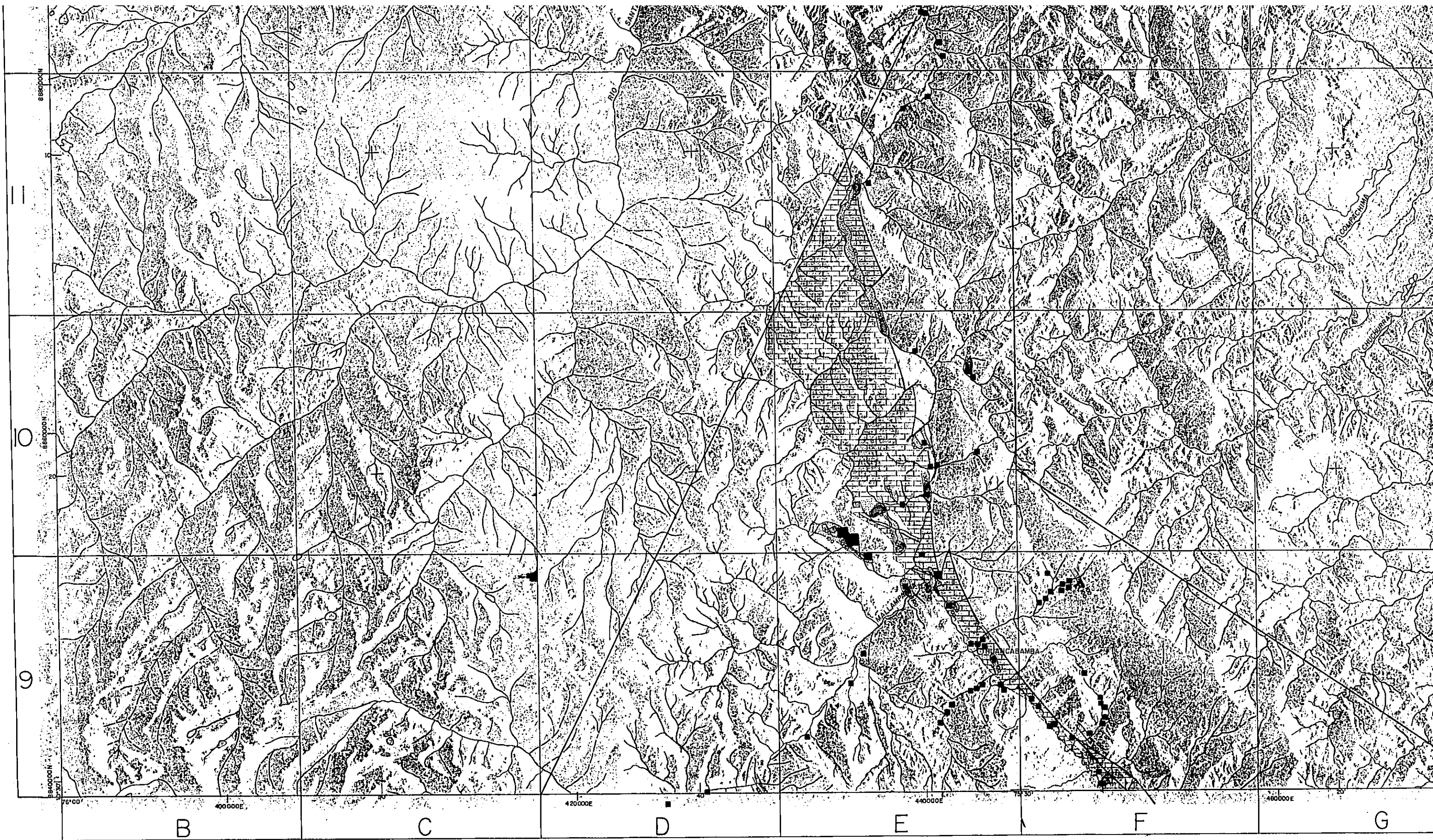
prepared by MITSUI KAWAZOKU ENGINEERING SERVICE CO., LTD

Scale 1 : 100,000



LEGEND

- | <u>SOILS</u> | <u>STREAM SEDIMENTS</u> |
|--------------|-------------------------|
| 600 PPM | 300PPM ≤ n |
| 300 PPM | 200PPM ≤ n < 300PPM |
| 100 PPM | 60PPM ≤ n < 200PPM |
| Pucara Group | n < 60PPM |



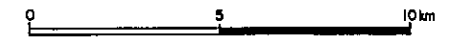
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 JAPAN INTERNATIONAL COOPERATION AGENCY
 GOVERNMENT OF JAPAN

MARCH 1976

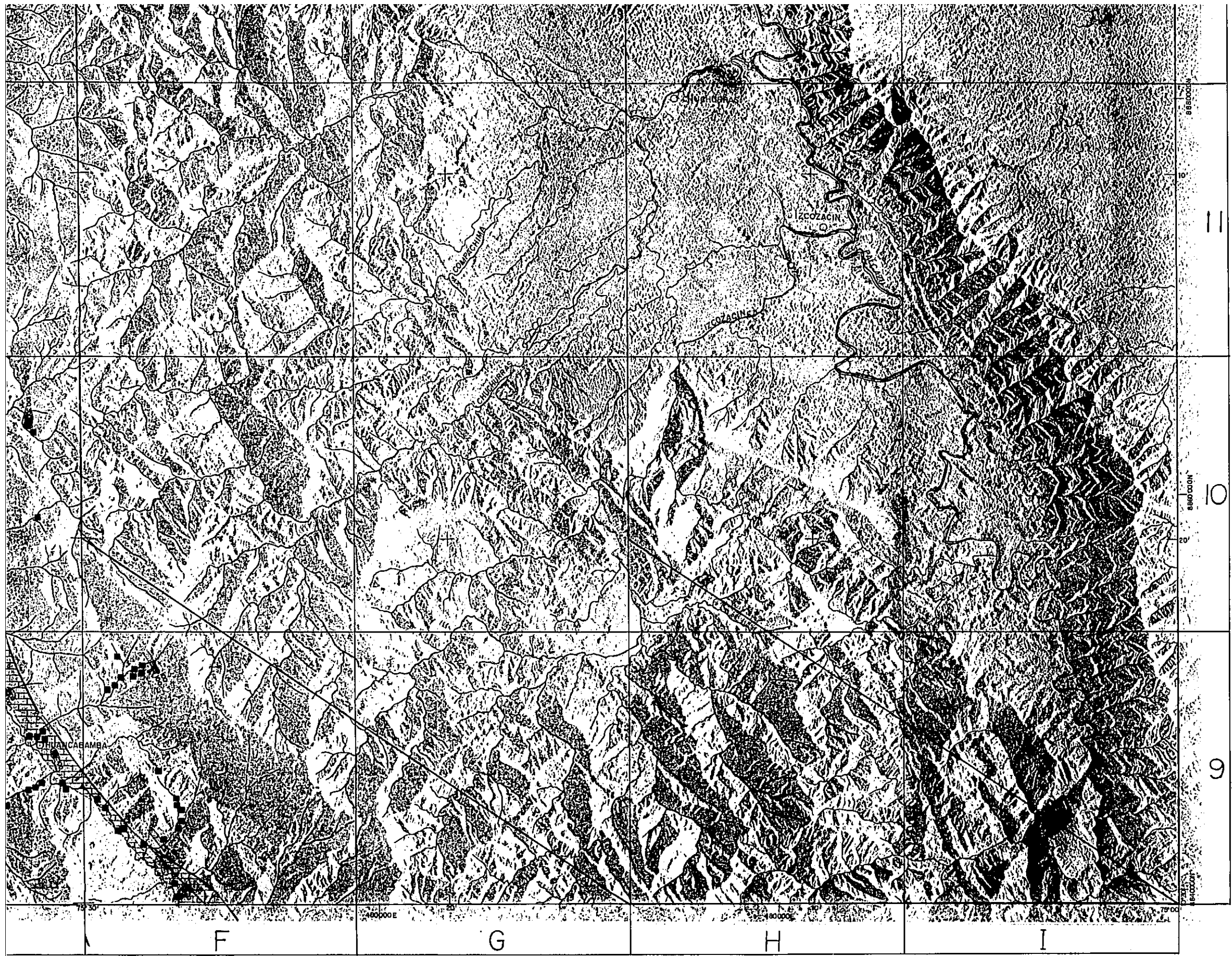
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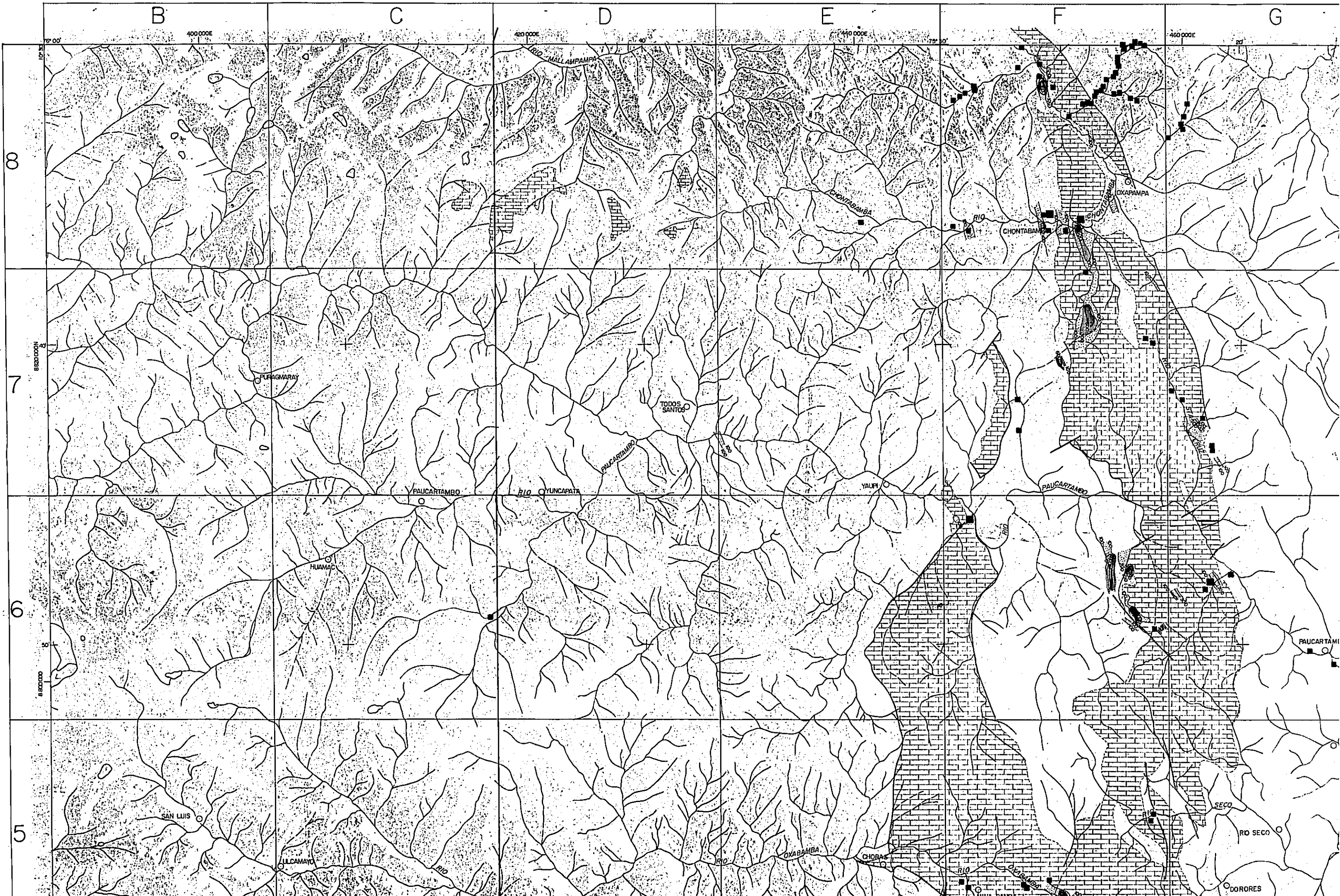
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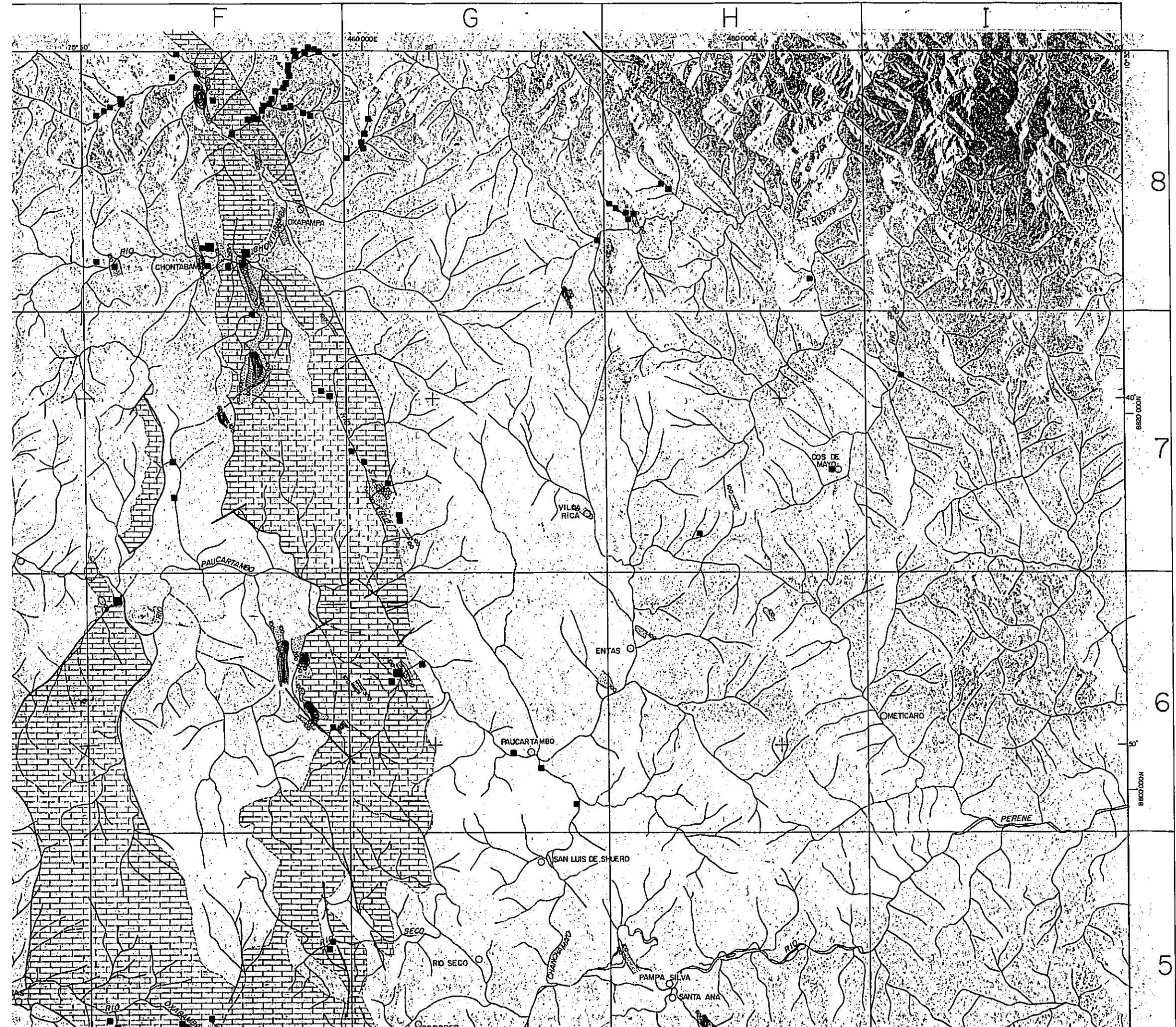


LEGEND

- | SOILS | STREAM SEDIMENTS |
|--------------|-----------------------|
| 600 PPM | 300 PPM ≤ n |
| 300 PPM | 200 PPM ≤ n < 300 PPM |
| 100 PPM | 60 PPM ≤ n < 200 PPM |
| Pucara Group | n < 60 PPM |



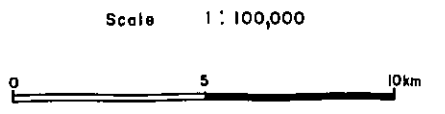




PL. AB-6(2)

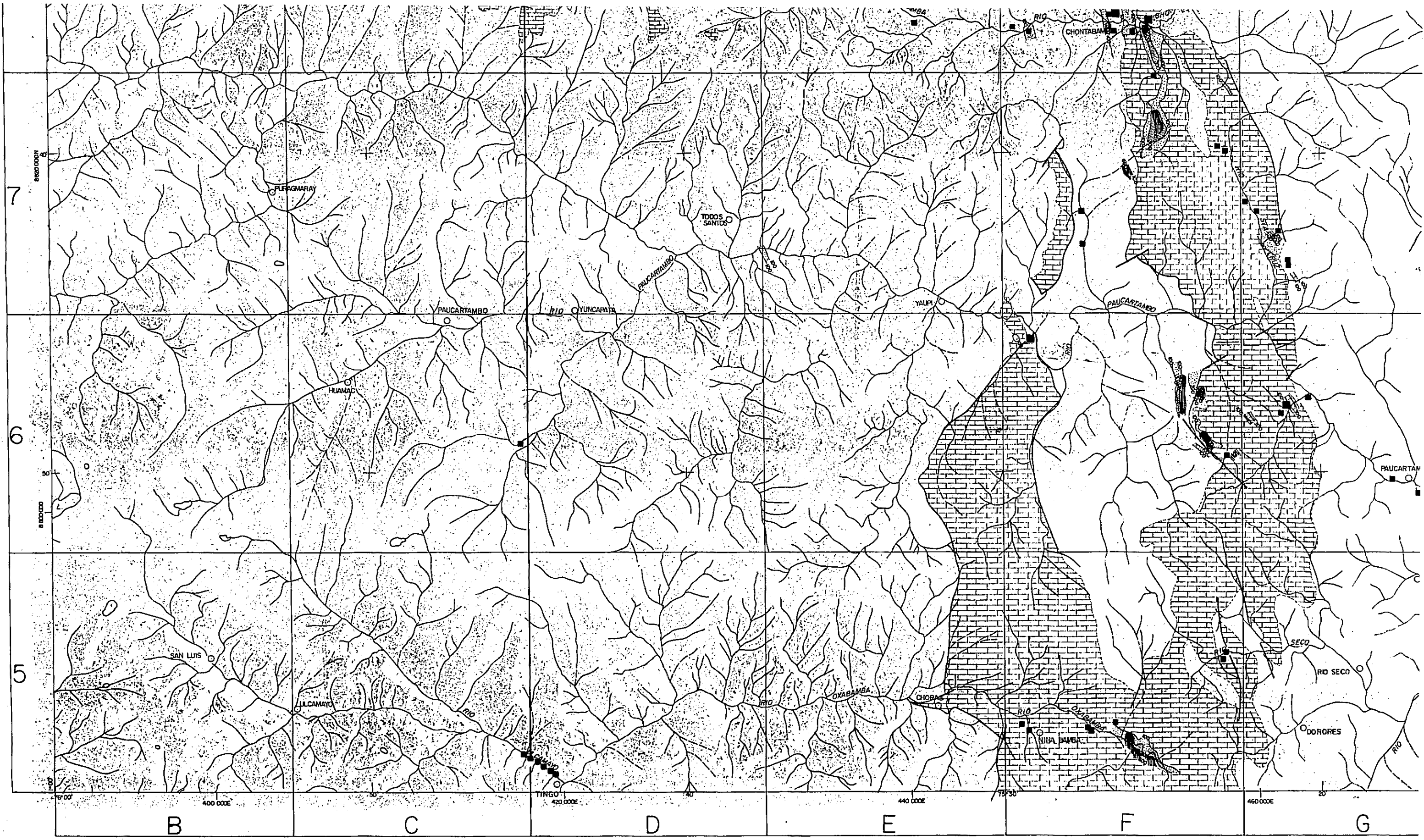
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OF
CENTRAL PERU REPUBLIC OF PERU
(PHASE I)
GEOCHEMICAL MAP OF THE SURVEYED AREA
(Zn)

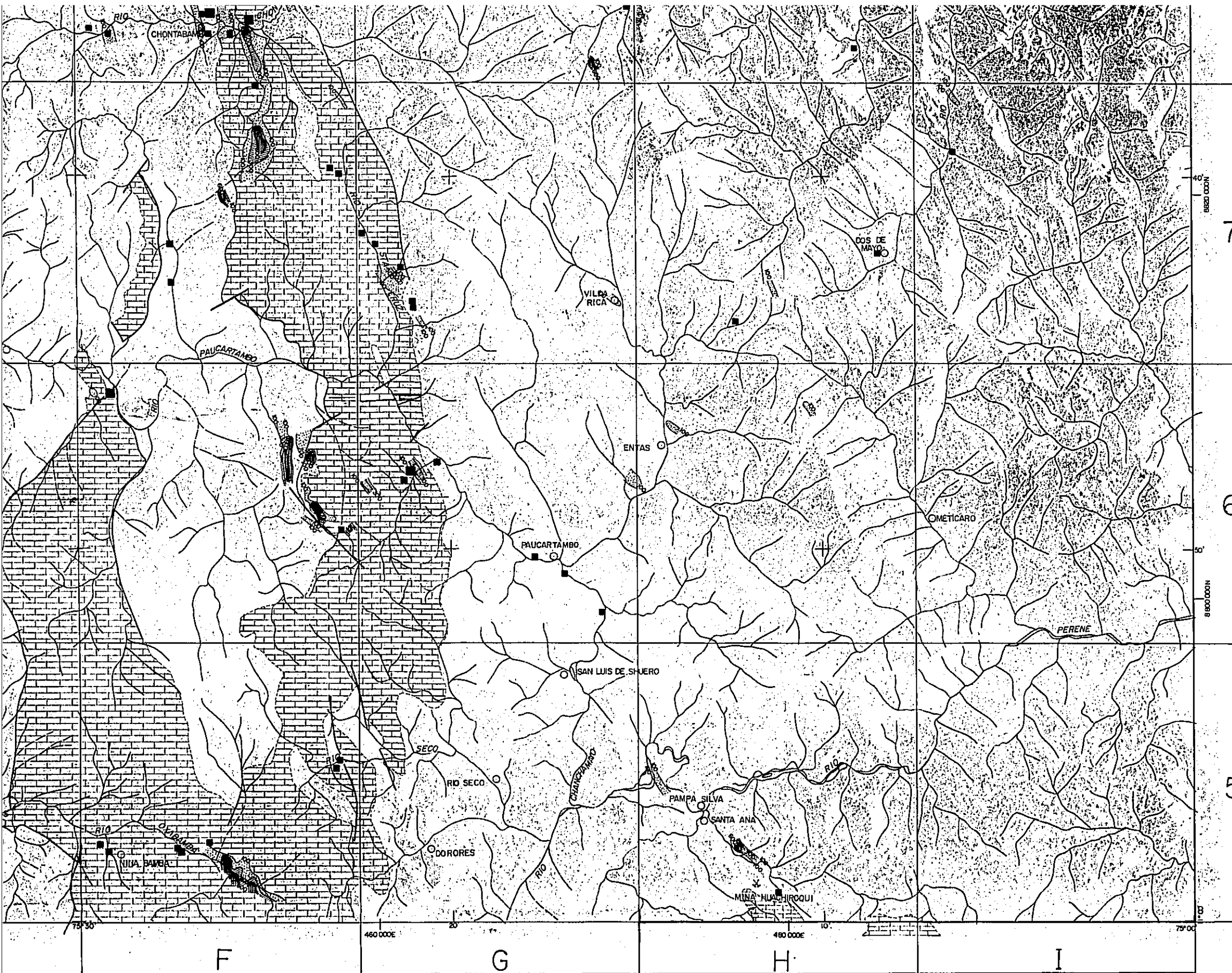
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MARCH 1976
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<u>SOILS</u>	<u>STREAM SEDIMENTS</u>
600 PPM	300 PPM ≤ n
300 PPM	200 PPM ≤ n < 300 PPM
100 PPM	60 PPM ≤ n < 200 PPM
Pucara Group	n < 60 PPM





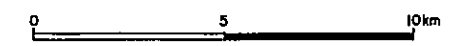
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LEGEND

- | SOILS | STREAM SEDIMENTS |
|--------------|--------------------------|
| 600 PPM | 300PPM \leq n |
| 300 PPM | 200PPM \leq n < 300PPM |
| 100 PPM | 60PPM \leq n < 200PPM |
| Pucara Group | n < 60PPM |

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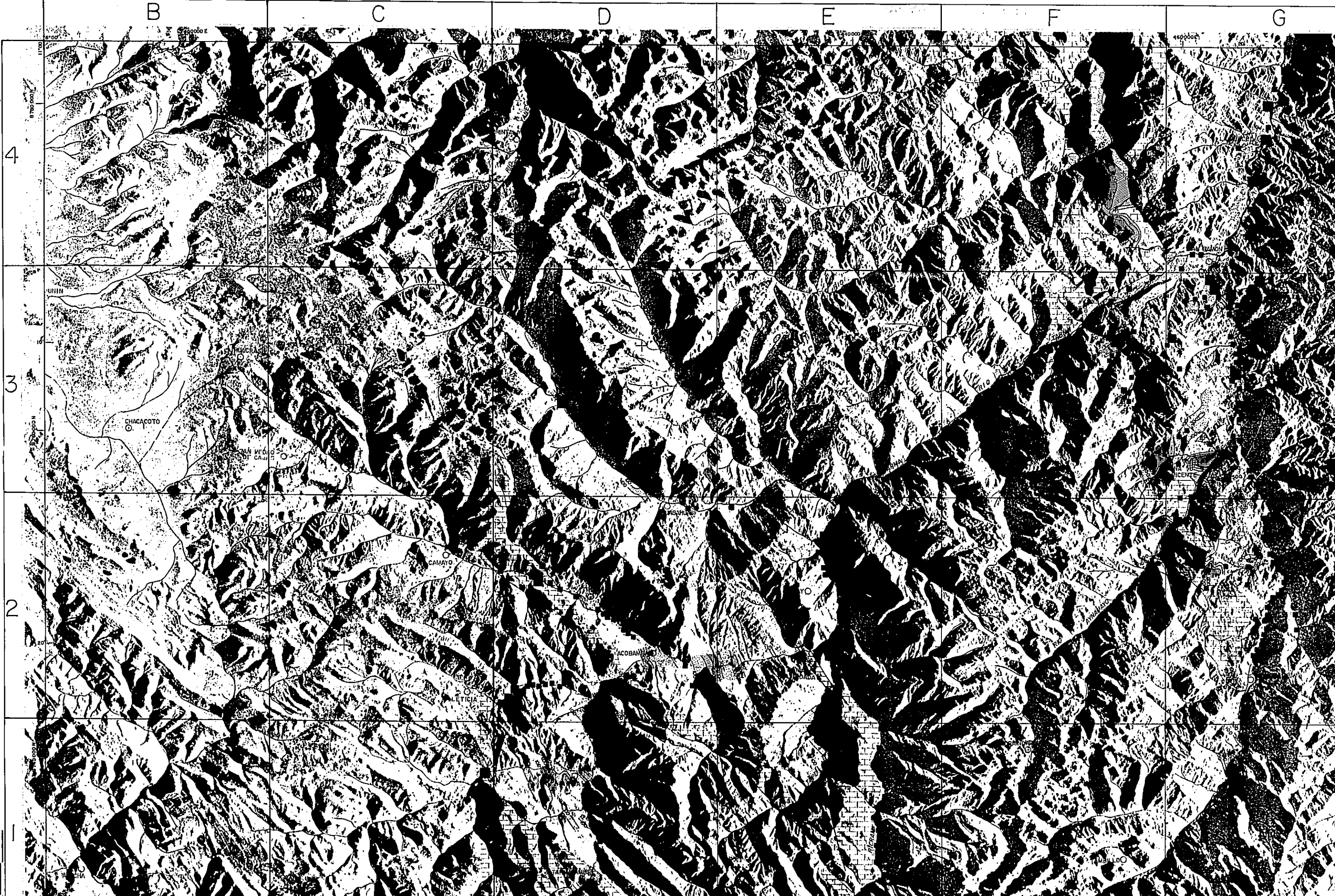
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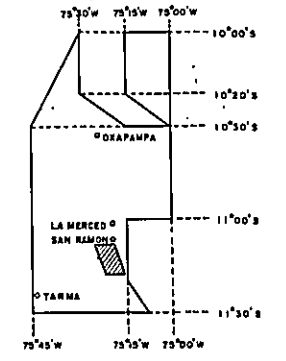
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PL. AB-6(3)

GEOLOGICAL SURVEY
OF
CENTRAL PERU - REPUBLIC OF PERU
(PHASE I)
GEOCHEMICAL MAP OF THE SURVEYED AREA
(Zn)



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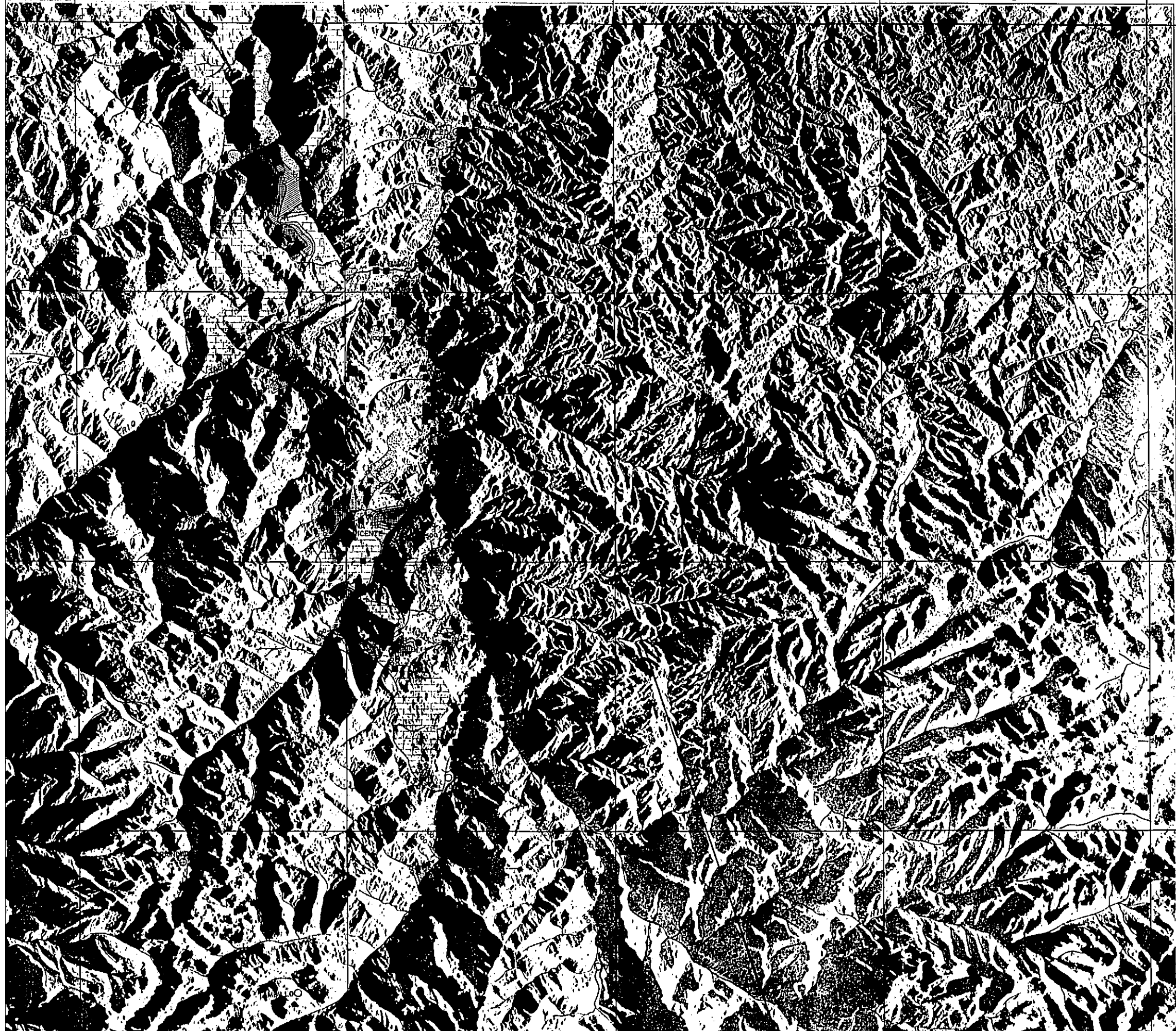
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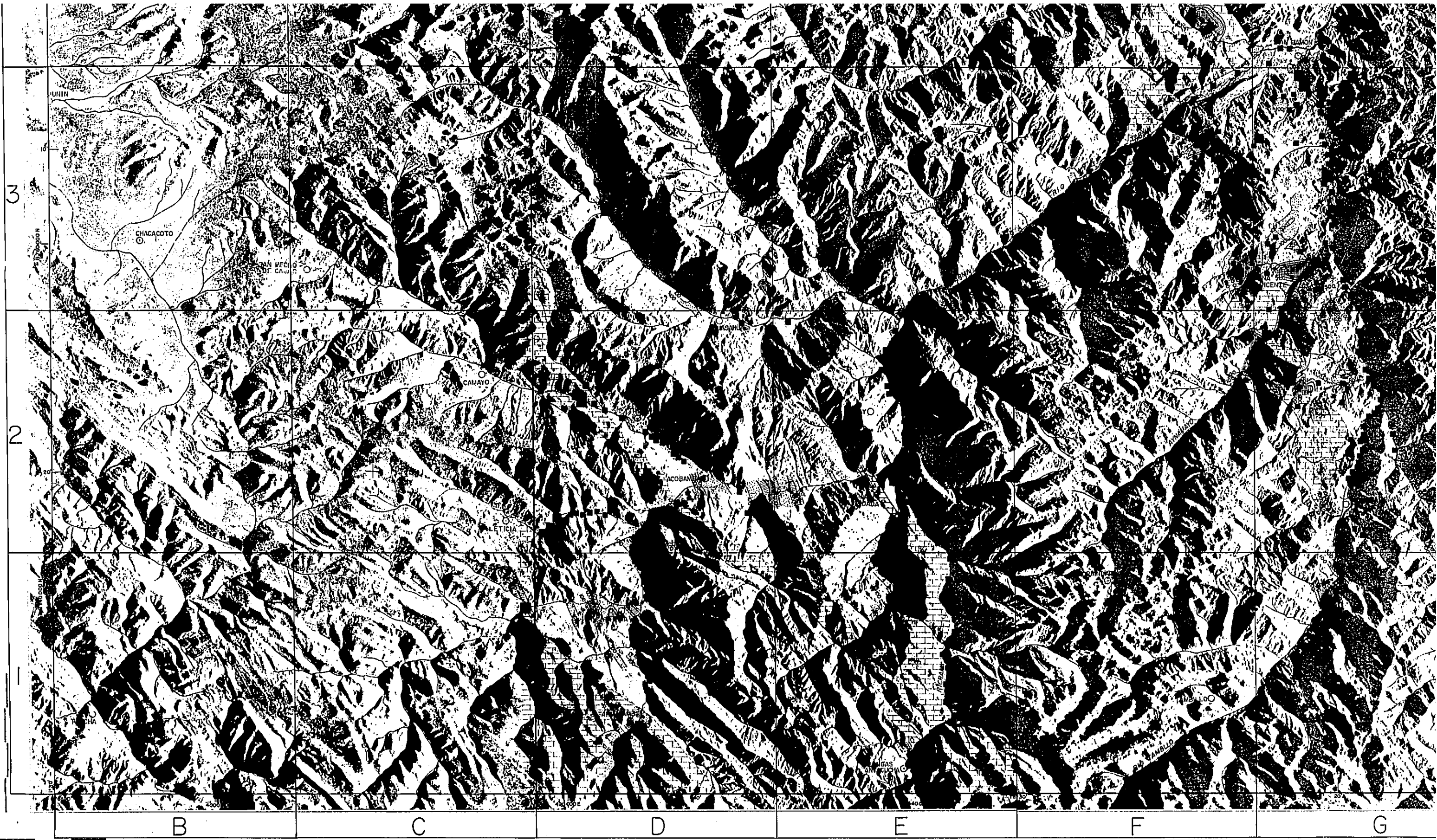
SOILS		STREAM SEDIMENTS	
	600 PPM		300 PPM ≤ n
	300 PPM		200 PPM ≤ n < 300 PPM
	100 PPM		60 PPM ≤ n < 200 PPM
			n < 60 PPM
	Pucara Group		

4


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GOODYEAR

 APCO SERVICE

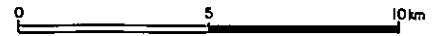
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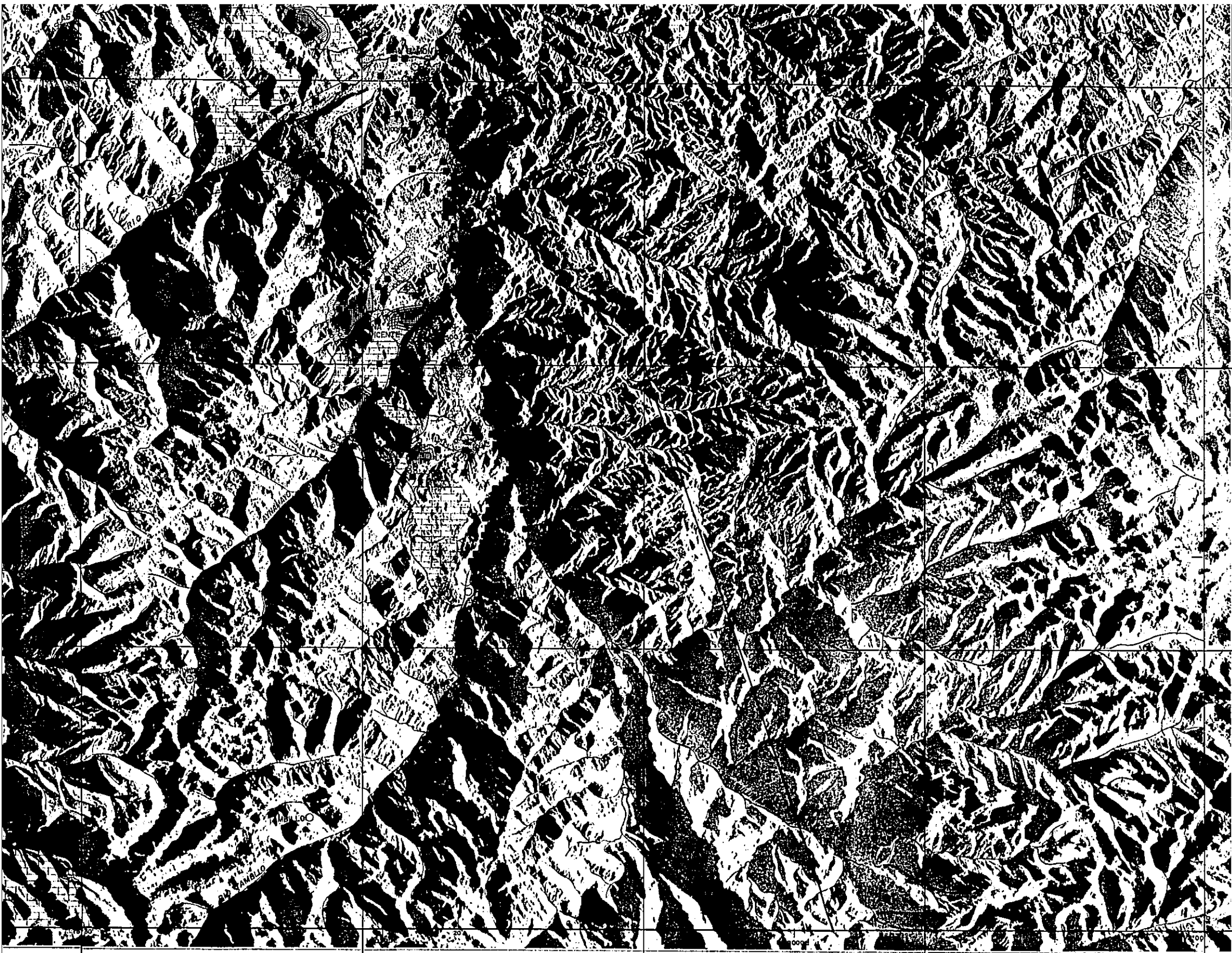
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Scale 1 : 100,000



LEGEND

- | <u>SOILS</u> | <u>STREAM SEDIMENTS</u> |
|--------------|---------------------------|
| 600 PPM | 300PPM \leq n |
| 300 PPM | 200 PPM \leq n < 300PPM |
| 100 PPM | 60PPM \leq n < 200PPM |
| Pucara Group | n < 60PPM |



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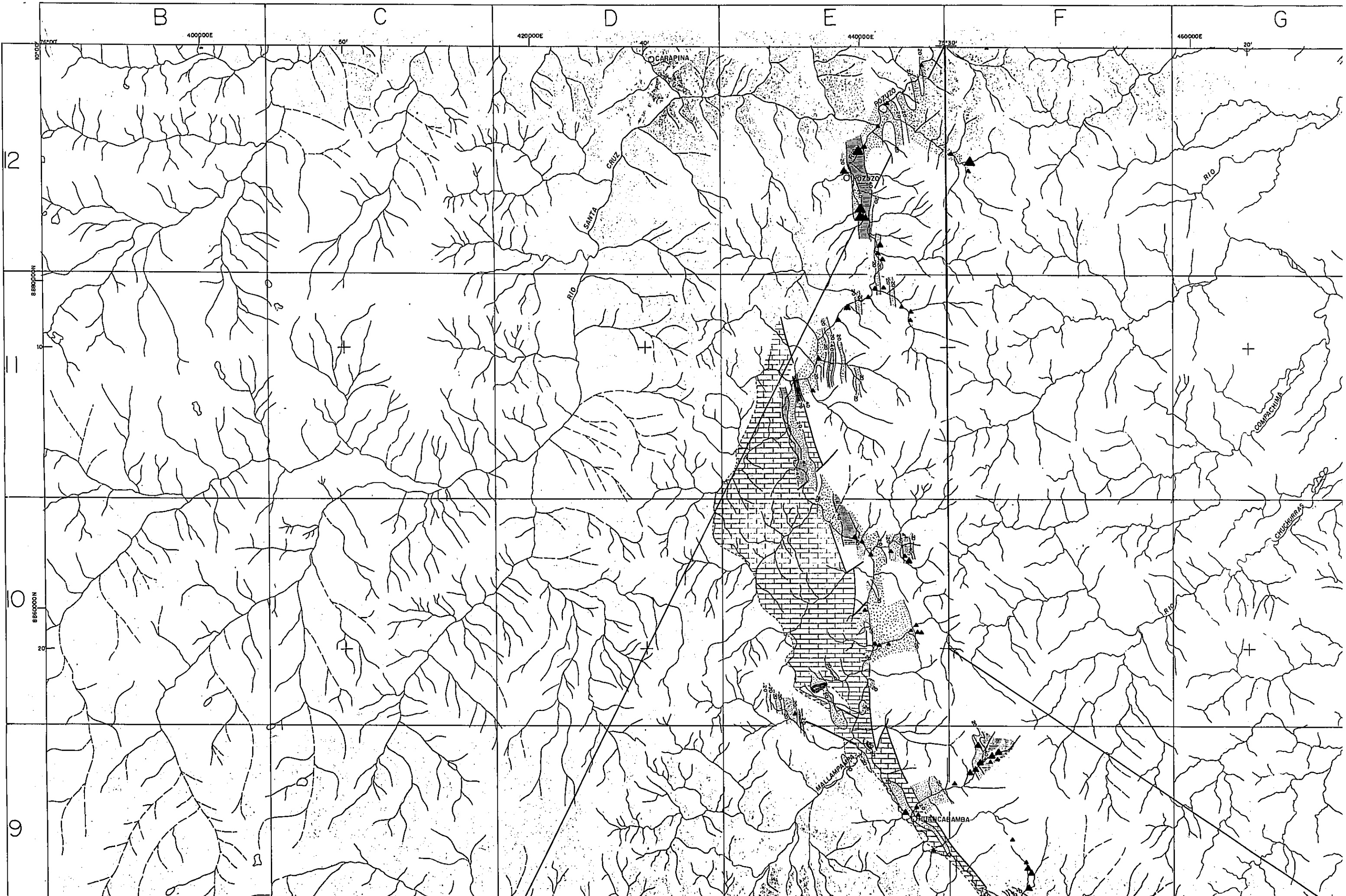
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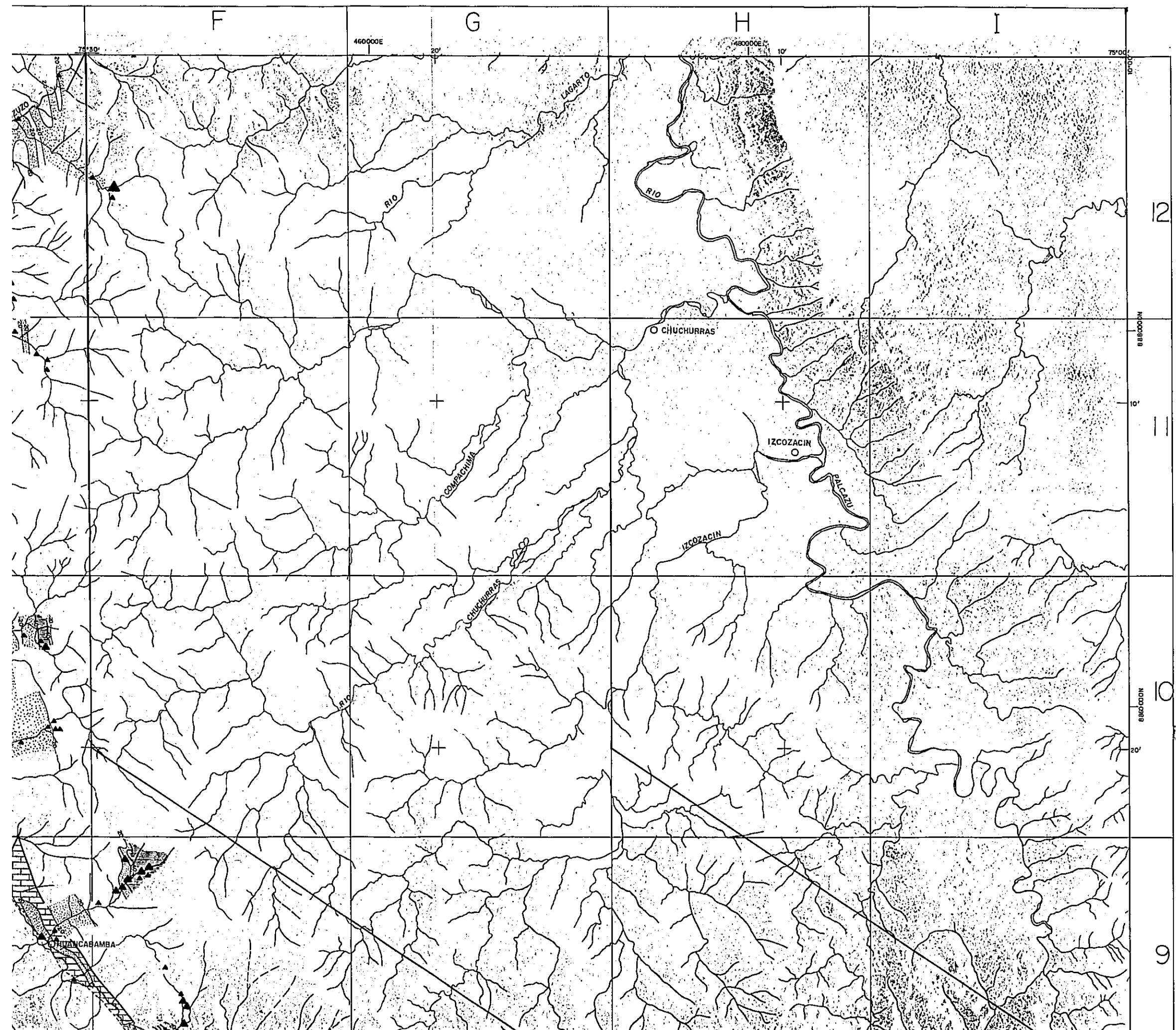
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PL. AB-7(1)

GEOLOGICAL SURVEY
OF
CENTRAL PERU REPUBLIC OF PERU
(PHASE II)

GEOCHEMICAL MAP OF THE SURVEYED AREA
(Ni)

国際協力事業団

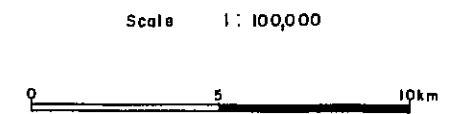
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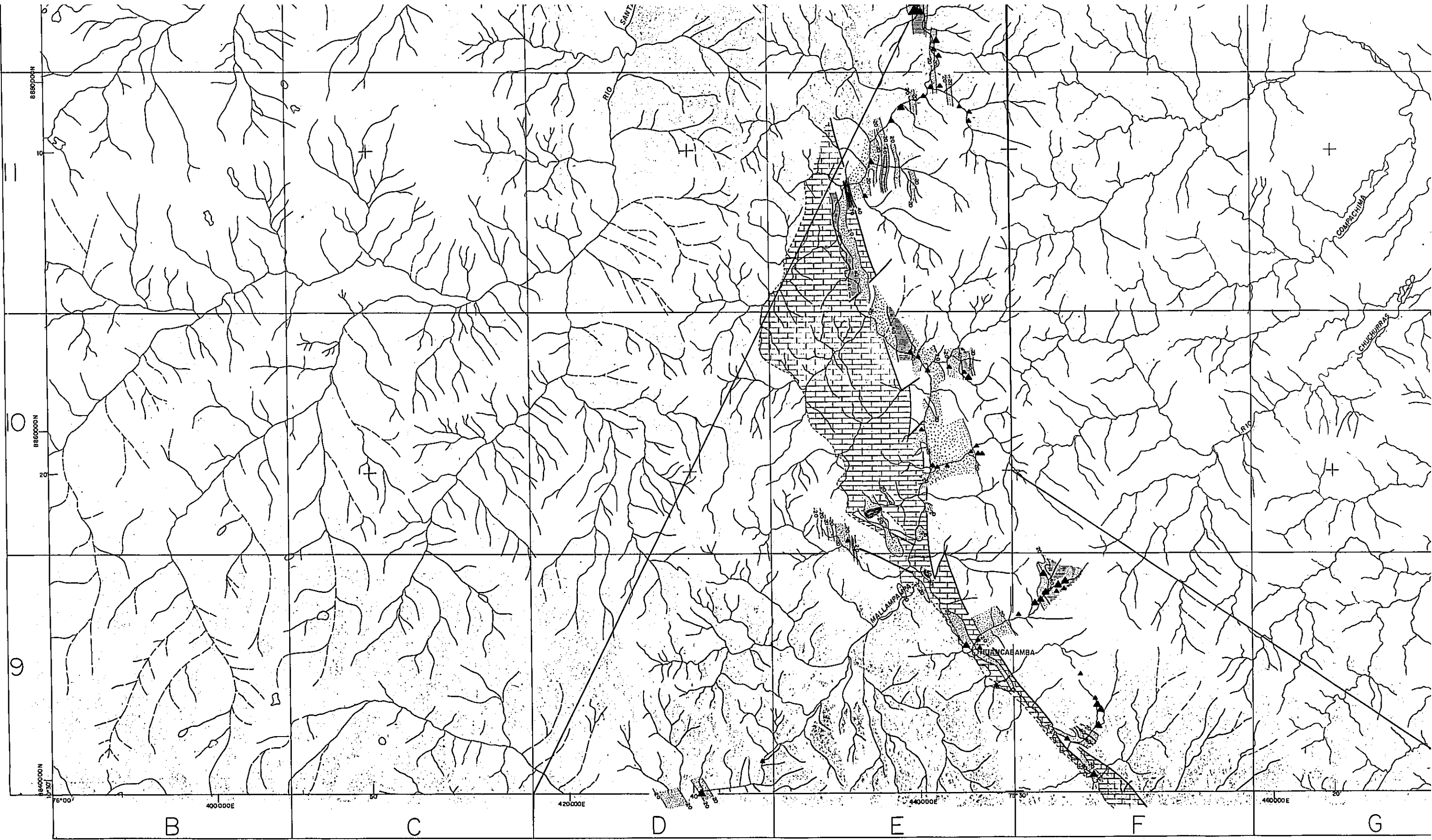
MARCH 1976

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LEGEND

- | <u>SOILS</u> | <u>STREAM SEDIMENTS</u> |
|--------------|-------------------------|
| 70 PPM | 40 PPM ≤ n |
| 40 PPM | 30 PPM ≤ n < 40 PPM |
| 20 PPM | 20 PPM ≤ n < 30 PPM |
| | n < 20 PPM |
| Pucara Group | |



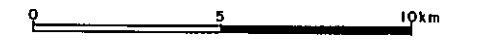
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 月日
 登録No.

METAL MINING AGENCY OF JAPAN
 JAPAN INTERNATIONAL COOPERATION AGENCY
 GOVERNMENT OF JAPAN

MARCH 1976

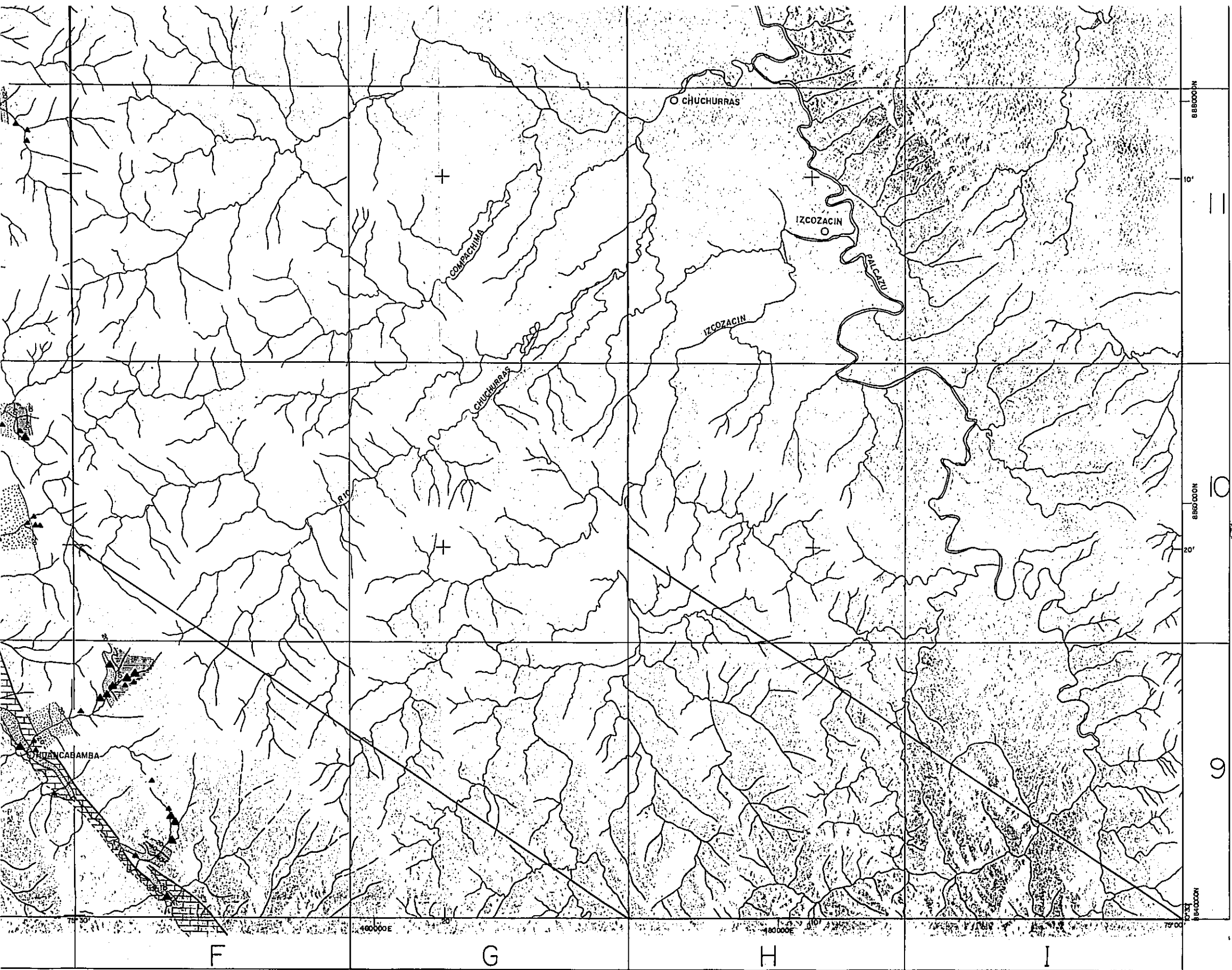
prepared by MITSUI KINZOKU ENGINEERING SERVICE CO., LTD

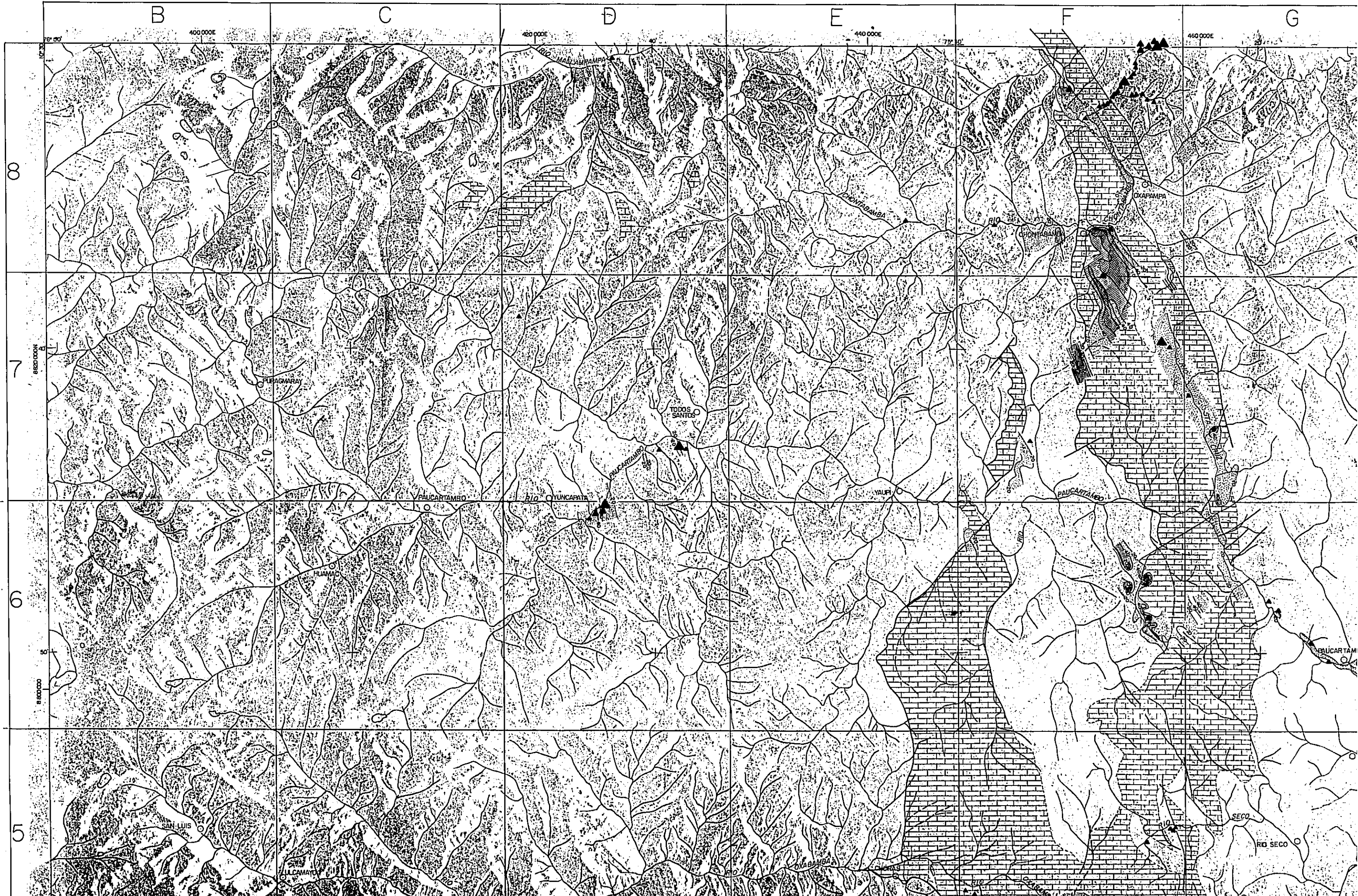
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LEGEND

- | SOILS | | STREAM SEDIMENTS | |
|-------|--------------|------------------|---------------------|
| | 70 PPM | | 40 PPM ≤ n |
| | 40 PPM | | 30 PPM ≤ n < 40 PPM |
| | 20 PPM | | 20 PPM ≤ n < 30 PPM |
| | | | n < 20 PPM |
| | Pucara Group | | |

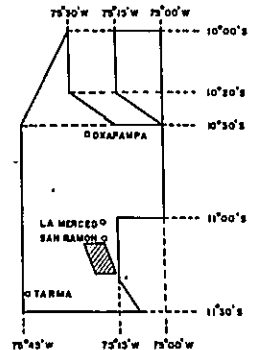




PL. AB-7(2)

GEOLOGICAL SURVEY
OF
CENTRAL PERU REPUBLIC OF PERU
(PHASE II)

GEOCHEMICAL MAP OF THE SURVEYED AREA
(Ni)



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 日本
 登録No.

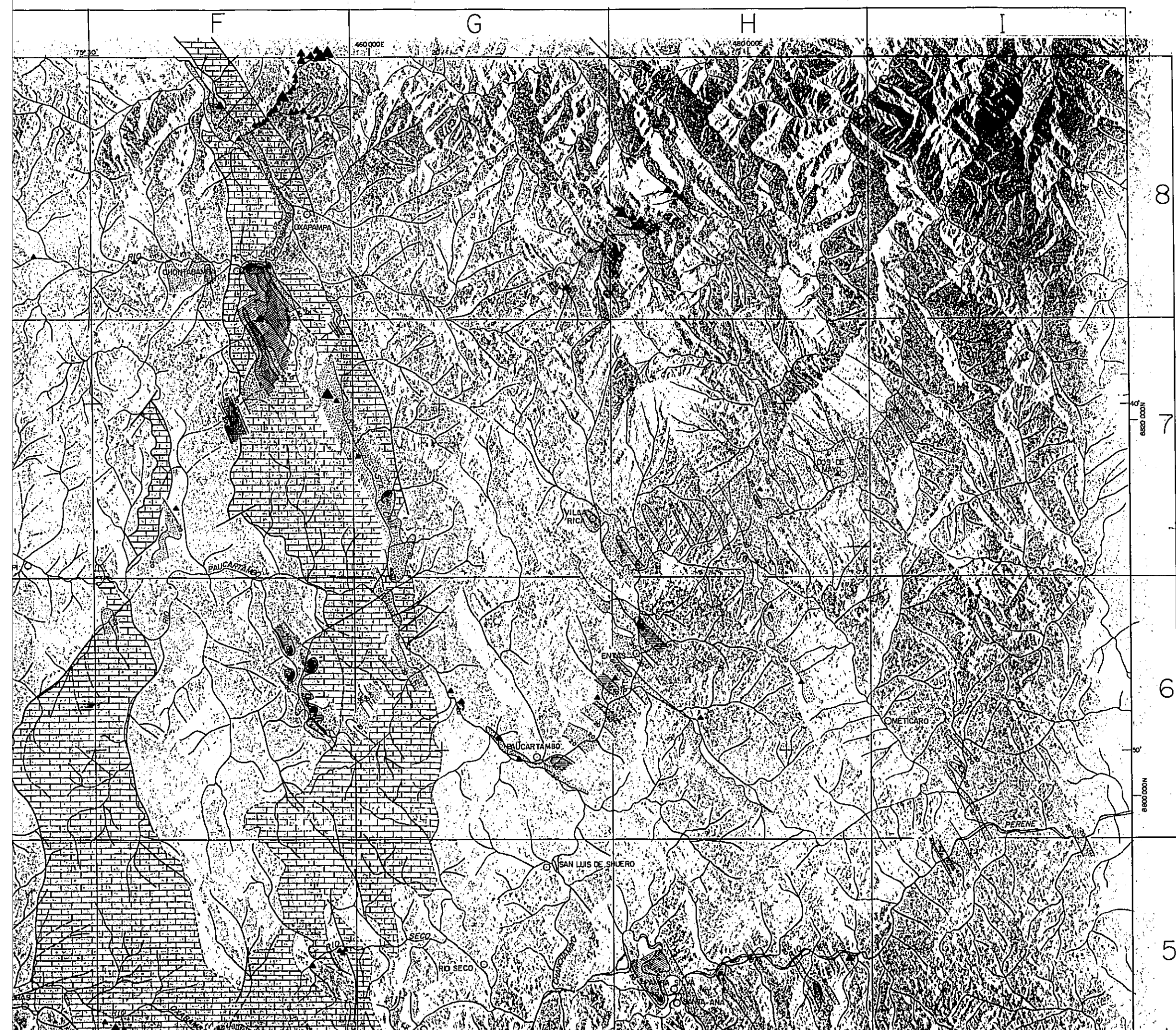
METAL MINING AGENCY OF JAPAN
 JAPAN INTERNATIONAL COOPERATION AGENCY
 GOVERNMENT OF JAPAN
 MARCH 1976
 prepared by MITSUI KINZOKU ENGINEERING SERVICE CO., LTD

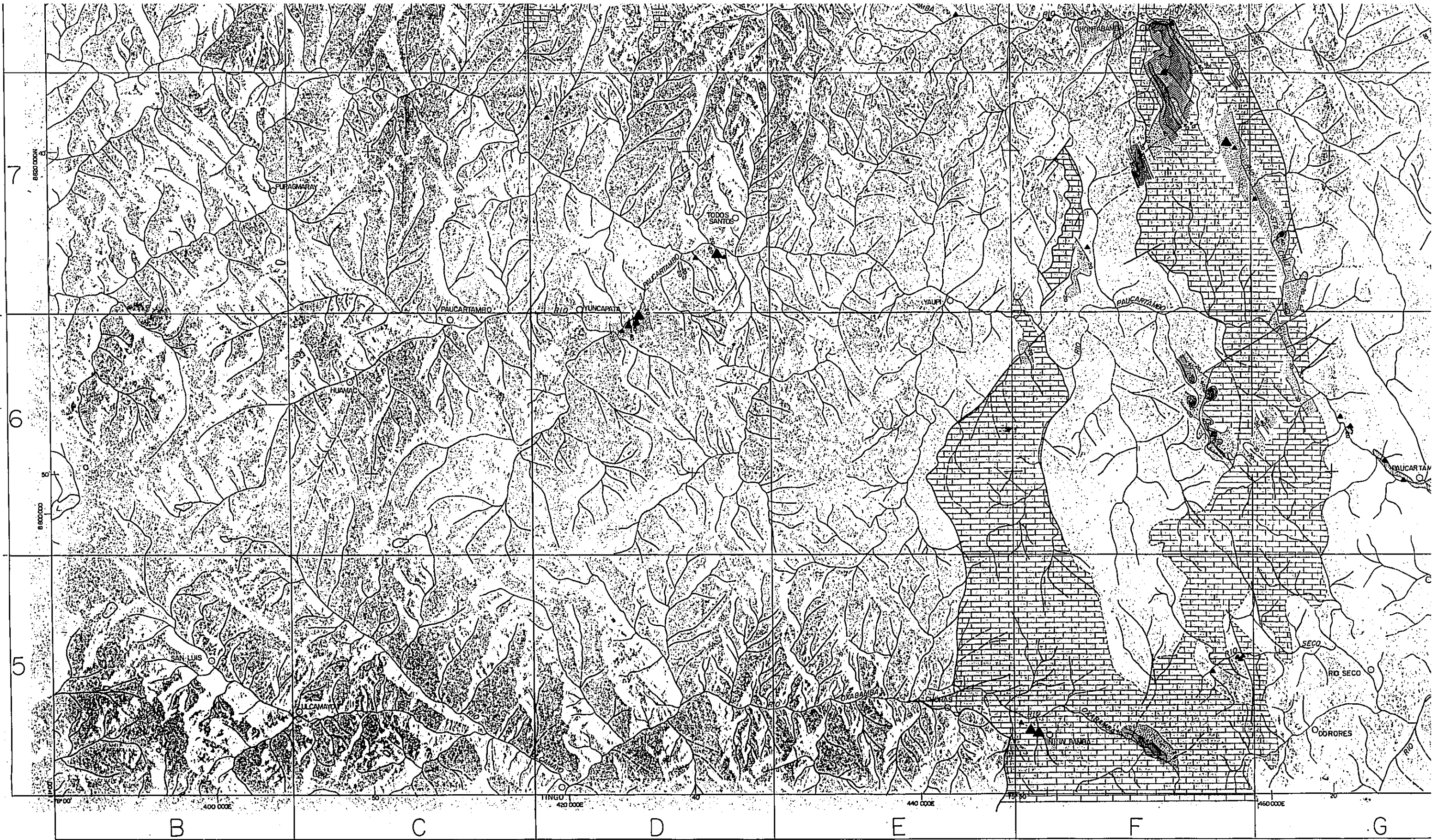
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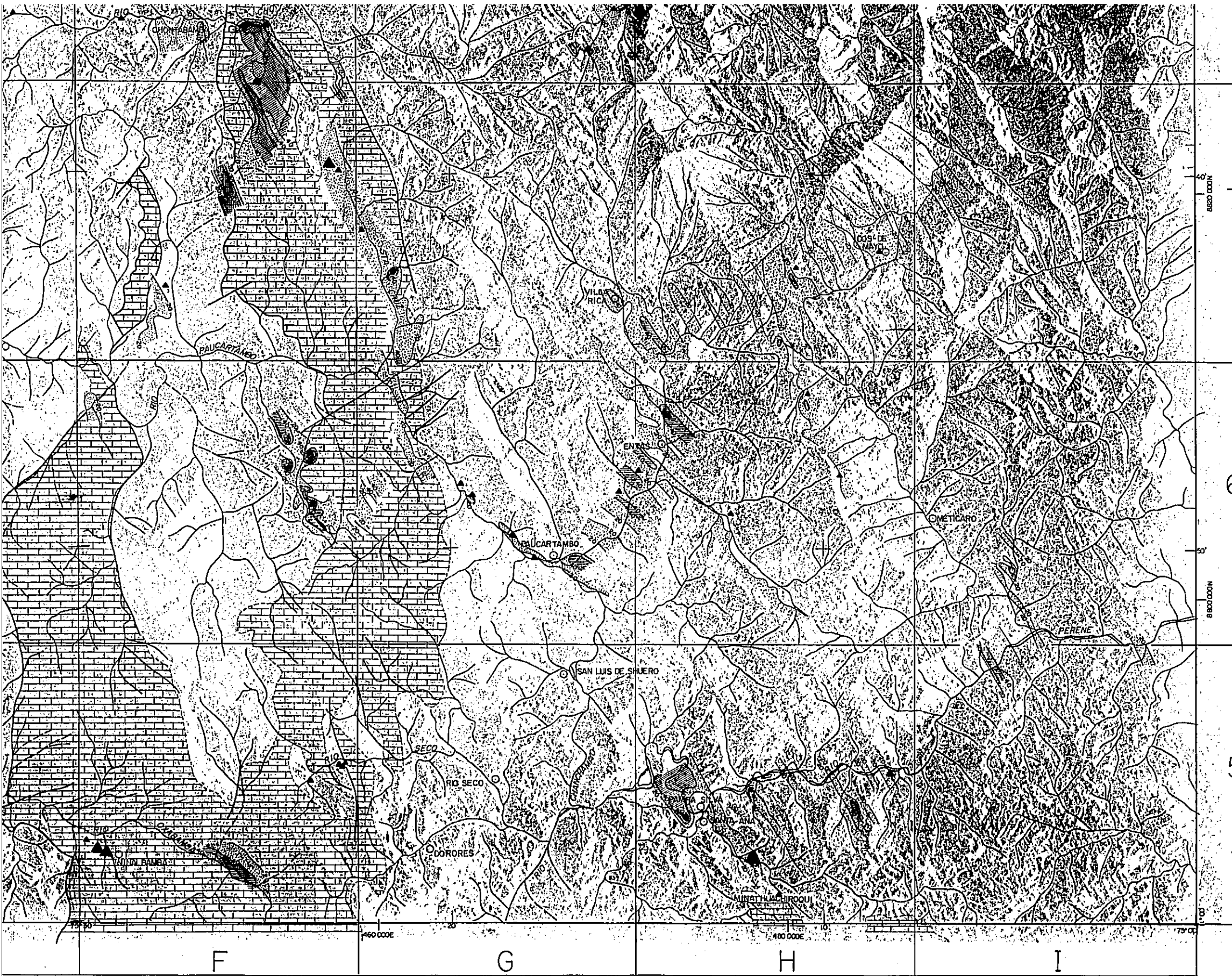


LEGEND

- | SOILS | STREAM SEDIMENTS |
|--------------|---------------------|
| 70 PPM | 40 PPM ≤ n |
| 40 PPM | 30 PPM ≤ n < 40 PPM |
| 20 PPM | 20 PPM ≤ n < 30 PPM |
| Pucora Group | n < 20 PPM |







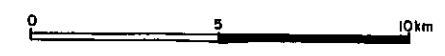
国際協力事業団
 採集
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 JAPAN INTERNATIONAL COOPERATION AGENCY
 GOVERNMENT OF JAPAN

MARCH 1976

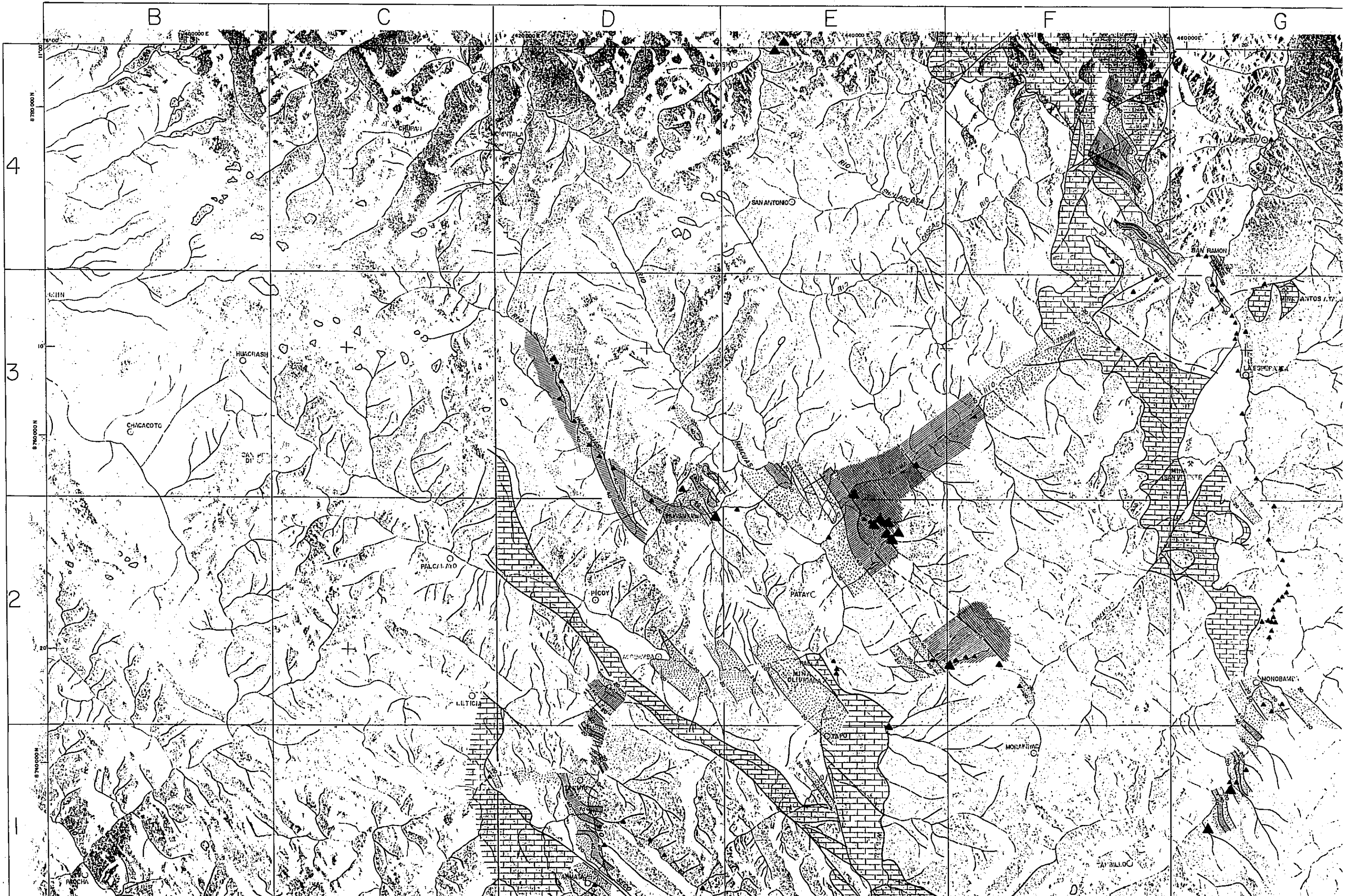
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LEGEND

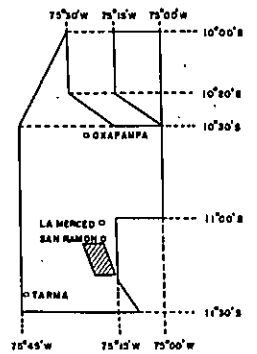
- | SOILS | STREAM SEDIMENTS |
|--------------|--------------------------|
| 70 PPM | 40 PPM $\leq n$ |
| 40 PPM | 30 PPM $\leq n < 40$ PPM |
| 20 PPM | 20 PPM $\leq n < 30$ PPM |
| Pucara Group | n < 20 PPM |



PL. AB-7(3)

GEOLOGICAL SURVEY
OF
CENTRAL PERU - REPUBLIC OF PERU
(PHASE II)

GEOCHEMICAL MAP OF THE SURVEYED AREA
(NI)



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METAL MINING AGENCY OF JAPAN
JAPAN INTERNATIONAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

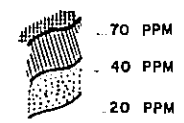
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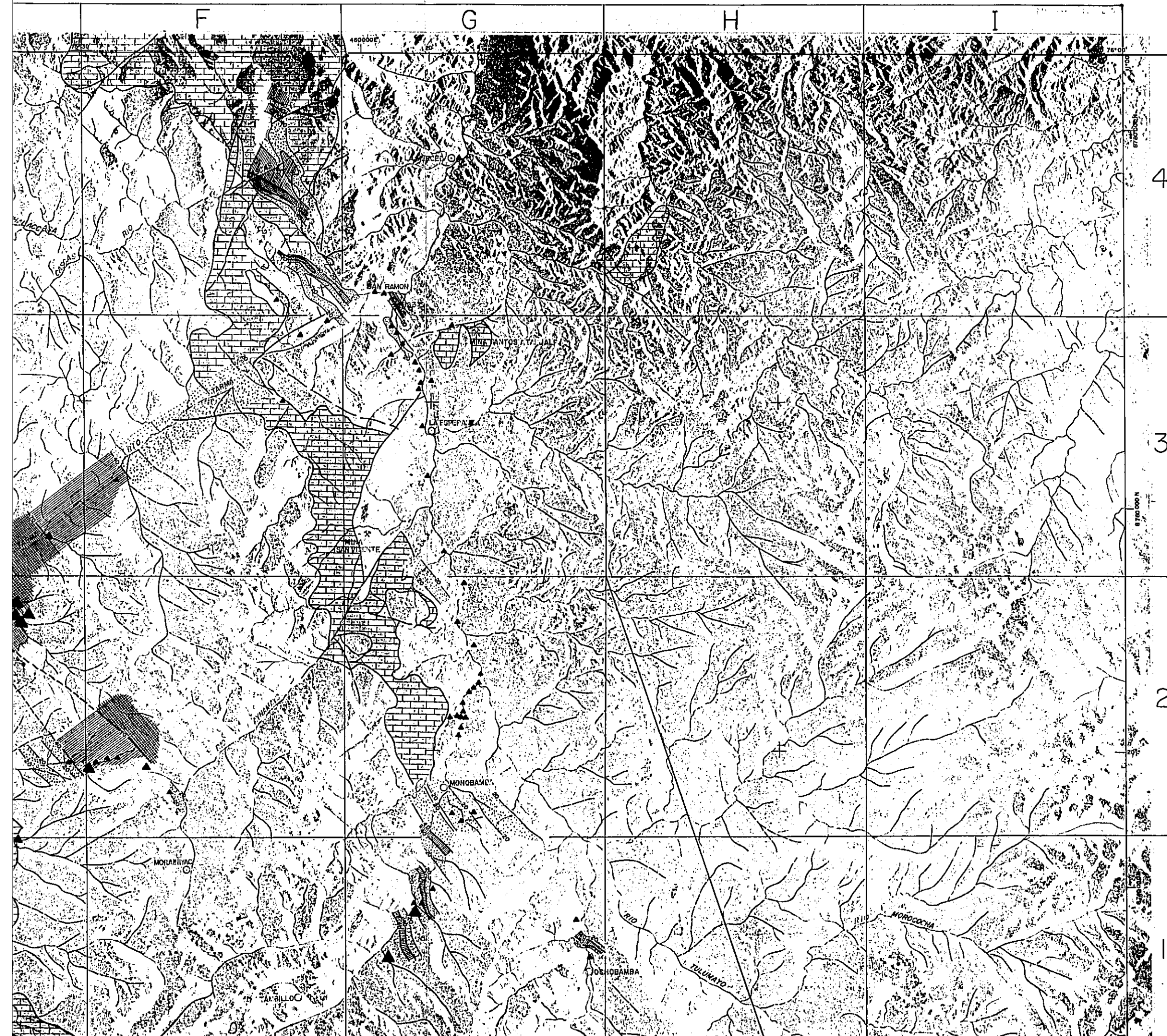
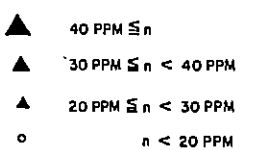
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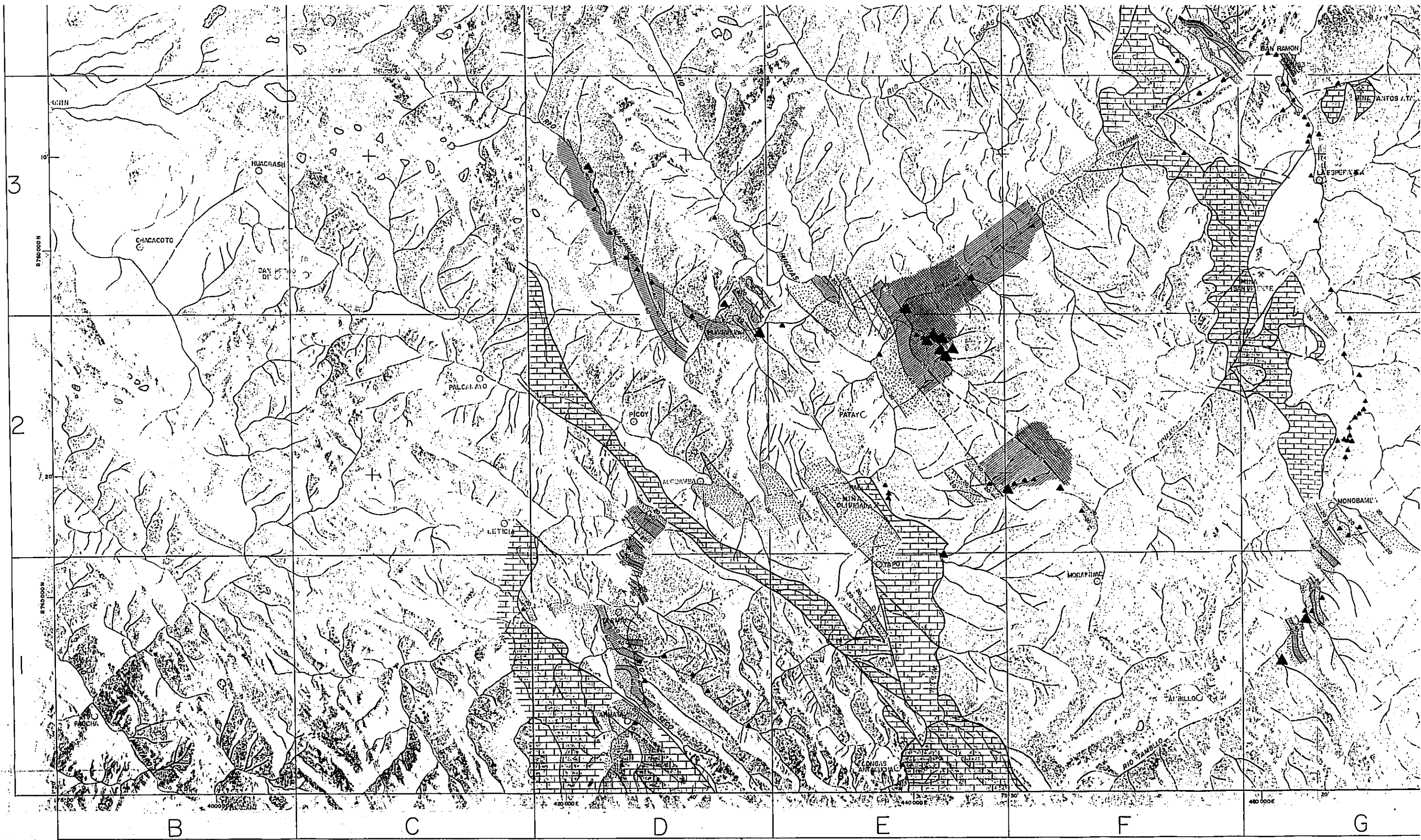
SOILS



Pucara Group

STREAM SEDIMENTS

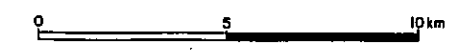




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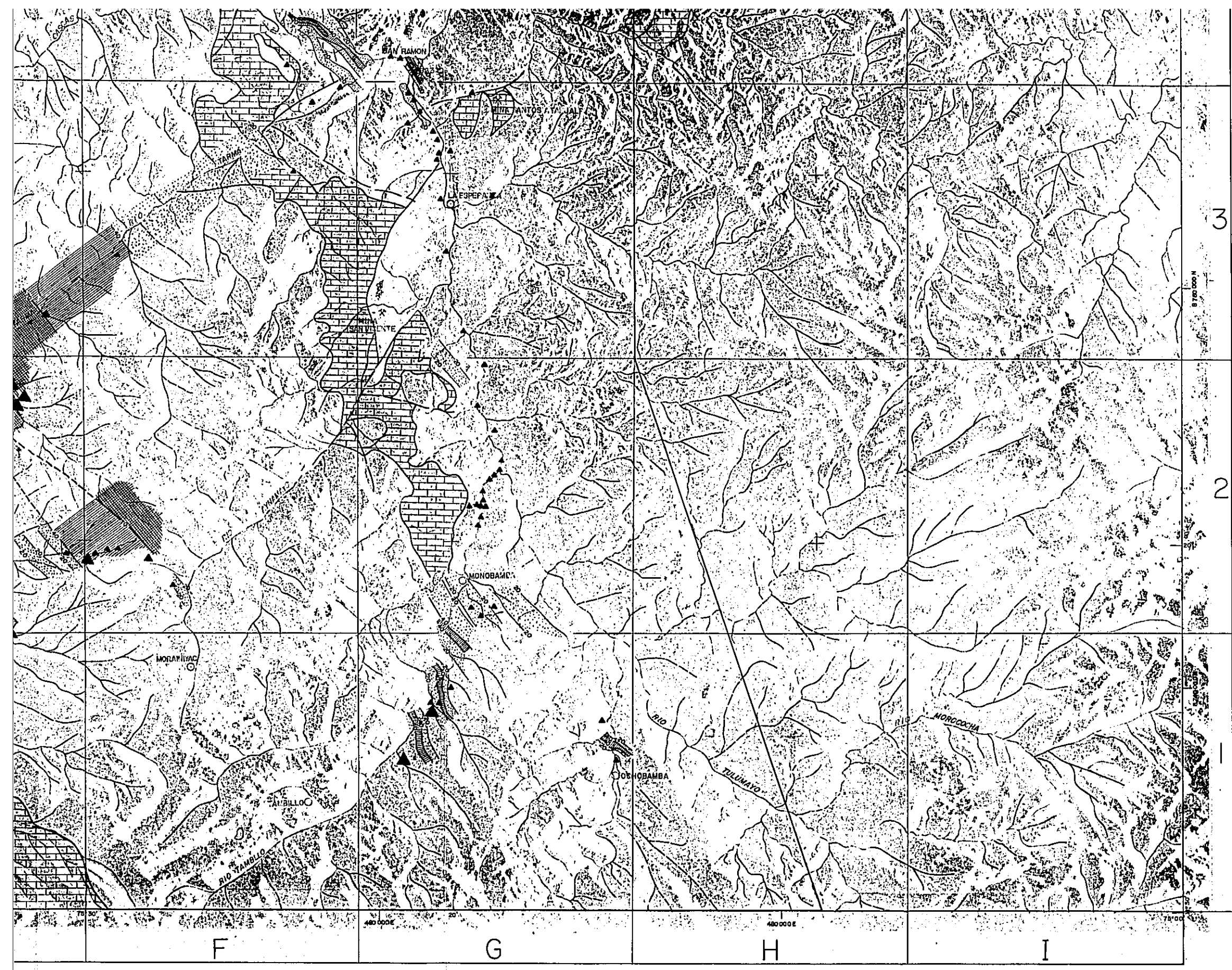
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JAPAN INTERNATIONAL COOPERATION AGENCY
GOVERNMENT OF JAPAN
MARCH 1976
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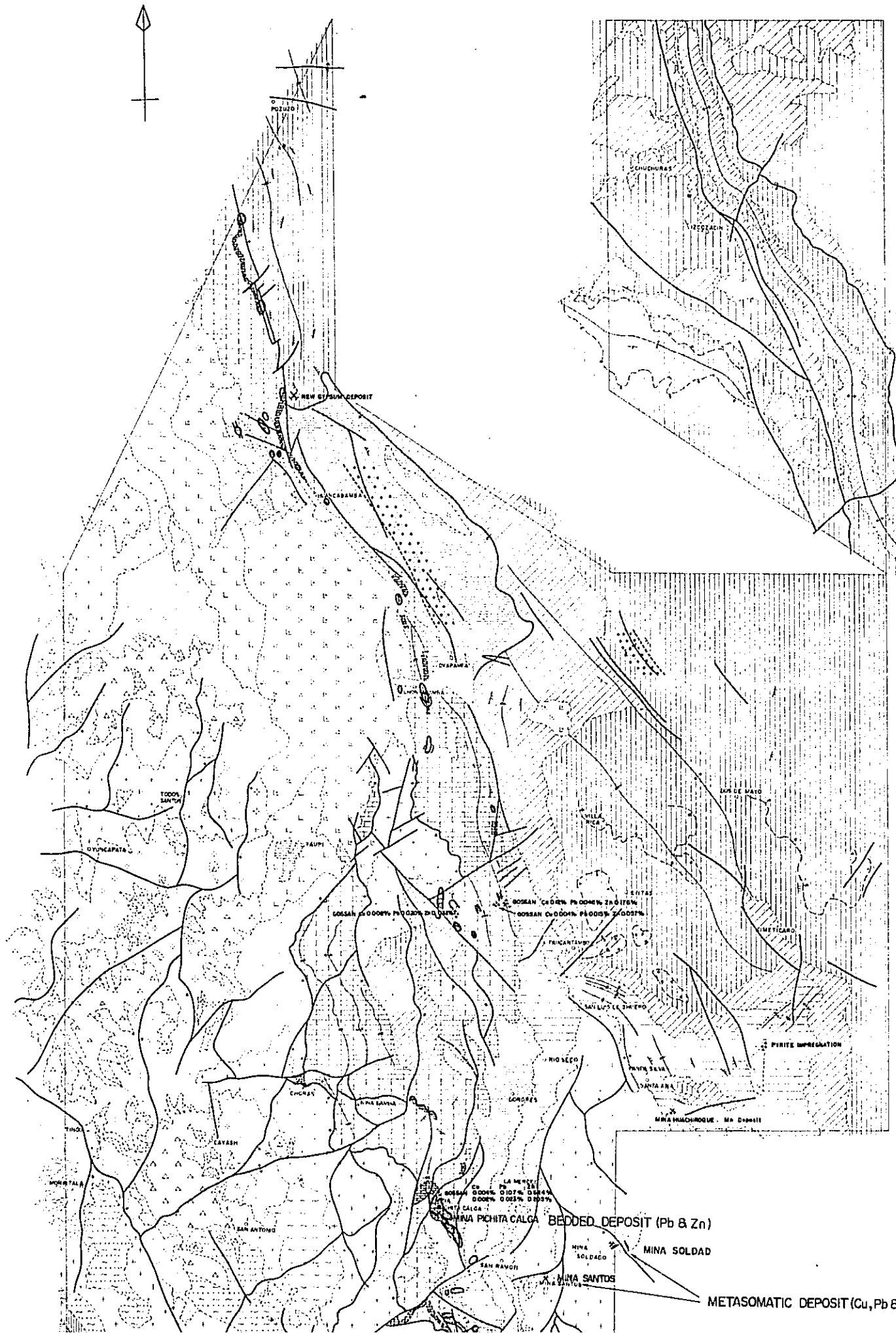
Scale 1:100,000



LEGEND

- | SOILS | STREAM SEDIMENTS |
|--------------|---------------------|
| 70 PPM | 40 PPM ≤ n |
| 40 PPM | 30 PPM ≤ n < 40 PPM |
| 20 PPM | 20 PPM ≤ n < 30 PPM |
| Pucara Group | n < 20 PPM |





PL. AB-8

GEOLOGICAL SURVEY
OF
CENTRAL PERU REPUBLIC OF PERU
(PHASE I)

RELATIVE MAP BETWEEN MINERALIZED ZONE &
GEOLOGICAL STRUCTURE

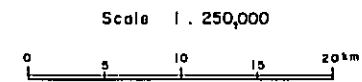
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GOVERNMENT OF JAPAN

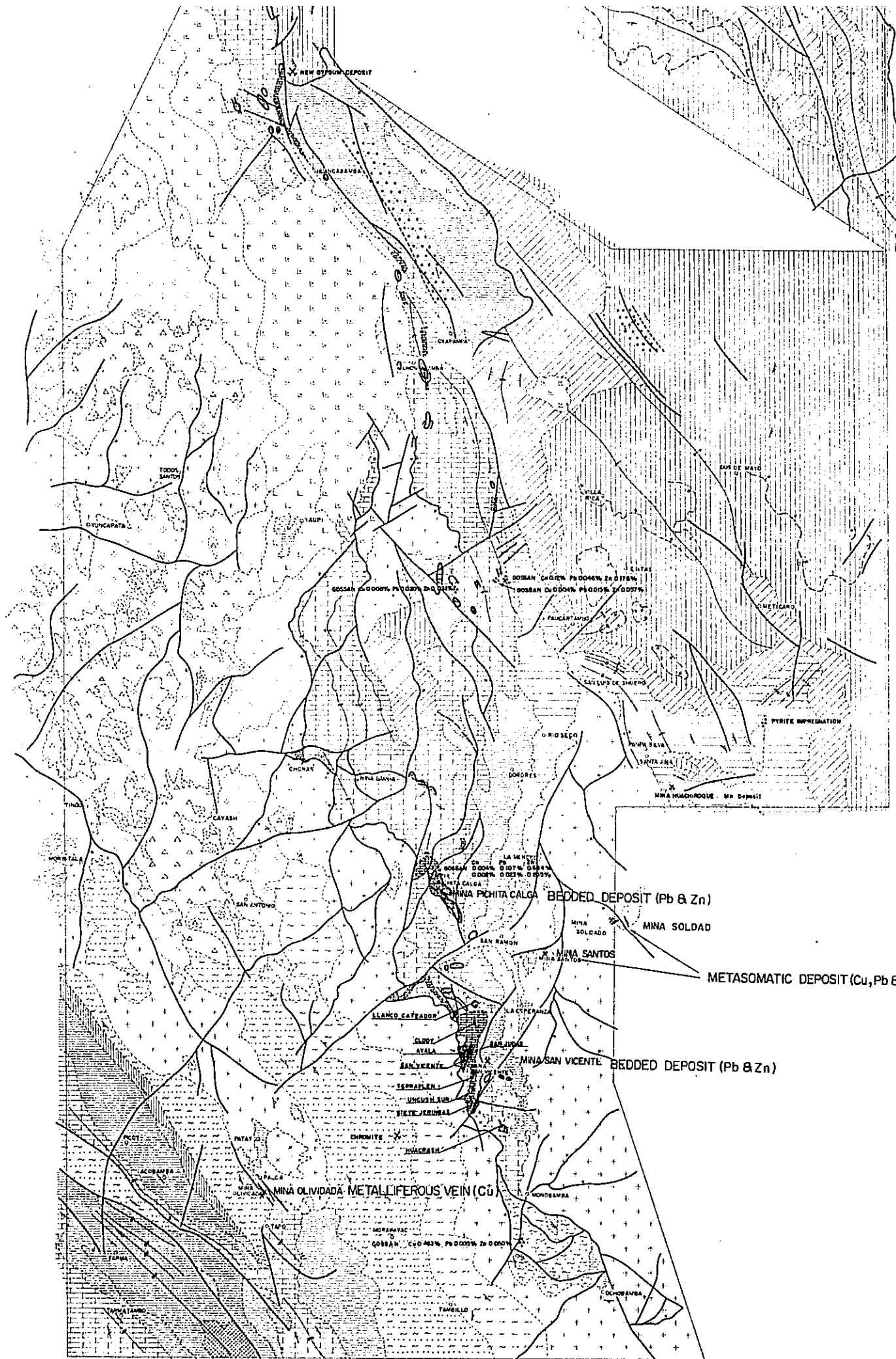
MAY 1976

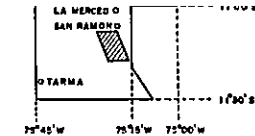
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LEGEND

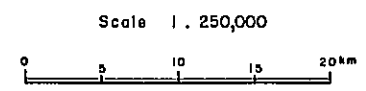
SEDIMENTARY		IGNEOUS	
	Quaternary		Volcanic braccia
	Tertiary		Andesite, Rhyolite & Dacite
			Diorite-porphyrite, Quartz-porphyr & Granite-porphyr
	Cretaceous		Aplite
			Diorite & Granodiorite complex
	Jurassic		Granite B
			Granodiorite complex (altered)
	Triassic		suave dip & strike 0-30°
	Permian		moderate dip & strike 31°-60°
	Carboniferous		steep dip & strike 61°-89°
			vertical dip & strike
	Devonian		geological boundary
METAMORPHIC			normal fault
	Precambrian		thrust fault
			anticlinal (folding axis)
			synclinal
			basin structure
			dome structure
	Ore Deposit		
	Gossan & Pyrite impregnation		
	Dolomite ~ Dolomitic Limestone		
	Zn Anomaly (Soil)		
	Cu Anomaly (Soil)		
	Cu Anomaly (Stream Sediment)		





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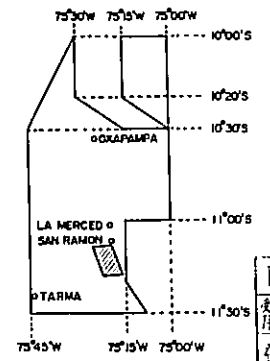
LEGEND

SEDIMENTARY		IGNEOUS		
	Gravel & sand	Quaternary		Volcanic breccia
	Cantamara G. (UPPER)	Tertiary		Andesite, Rhyolite & Dacite
	Cantamara G. (LOWER)			Diorite-porphyrity, Quartz-porphyrity & Granite-porphyrity
	Laurdes F.	Cretaceous		Aplite
	Chonta G.			Diorite & Granodiorite complex
	Oriente G.	Jurassic		Granite & Granodiorite
	Sarayaquillo F.			Granodiorite complex (altered)
	Pucara G.	Triassic		steep dip & strike 0~30°
	Mitu G.	PPermian		moderate dip & strike 31~60°
	Copacabana & Tarma G.	Carboniferous		steep dip & strike 61~89°
	Ambo G.			vertical dip & strike
	Excelcior G.	Devonian		geological boundary
METAMORPHIC				normal fault
	Schist/Gneiss	Precambrian		thrust fault
				anticlinal folding axis
				synclinal
				basin structure
				dome structure
	Ore Deposit			
	Gossan & Pyrite impregnation			
	Dolomite ~ Dolomitic Limestone			
	Zn Anomaly (Soil)			
	Cu Anomaly (Soil)			
	Cu Anomaly (Stream Sediment)			



PL. C-1

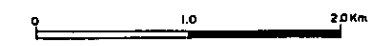
GEOLOGICAL SURVEY
OF
THE CORDILLERA ORIENTAL CENTRAL PERU
(PHASE II)
ROUTE MAP OF
THE PRECISELY SURVEYED AREA



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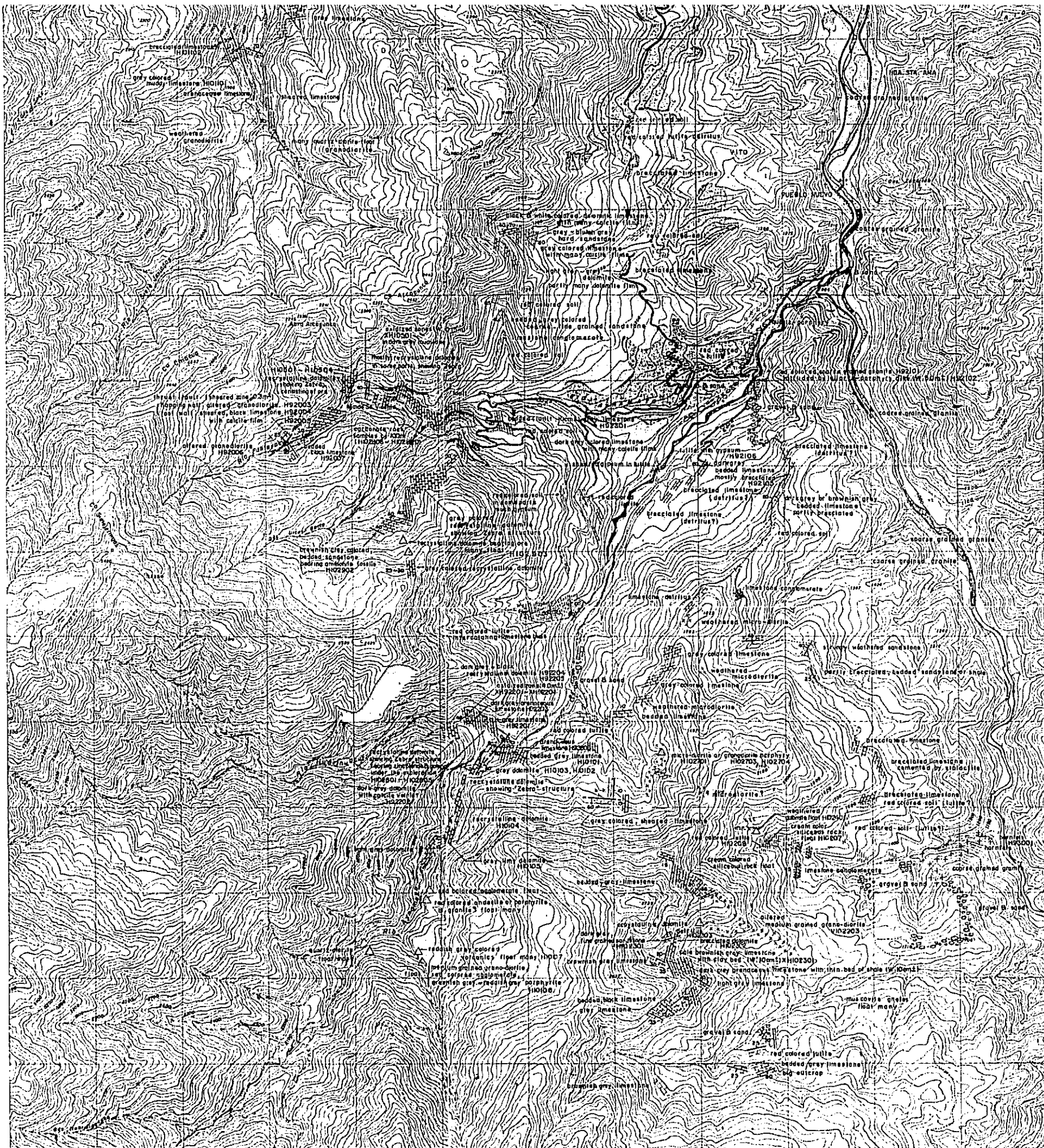
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FEBRUARY 1976
prepared by MITSUI KINZOKU ENGINEERING SERVICE CO., LTD

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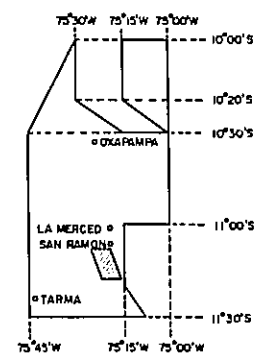
LEGEND

SEDIMENTARY ROCKS		IGNEOUS ROCKS	
	gravel & sand		lapilli tuff
	lutite & shale		andesite
	sandstone		granodiorite porphyry
	conglomerate		micro-diorite
	limestone		granite
	dolomite		granodiorite
	dip & strike		animal fossil locality
	normal fault		float
	thrust fault		number of sample for study
	anticlinal folding axis		
	synclinal folding axis		



SEDIMENTARY ROCKS		IGNEOUS ROCKS	
	gravel & sand		lapilli tuff
	lutite & shale		andesite
	sandstone		granodiorite porphyry
	conglomerate		micro-diorite
	limestone		granite
	dolomite		granodiorite
	dip & strike		animal fossil locality
	normal fault		float
	thrust fault		H10250i number of sample for study
	anticlinal folding axis		
	synclinal folding axis		

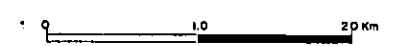
GEOLOGICAL SURVEY
OF
THE CORDILLERA ORIENTAL CENTRAL PERU
(PHASE II)
GEOLOGICAL MAP OF
THE PRECISELY SURVEYED AREA



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LEGEND

SEDIMENTS

- gravel & sand
- limestone
- dolomite
- limestone conglomerate
- lutite & sandstone including limestone

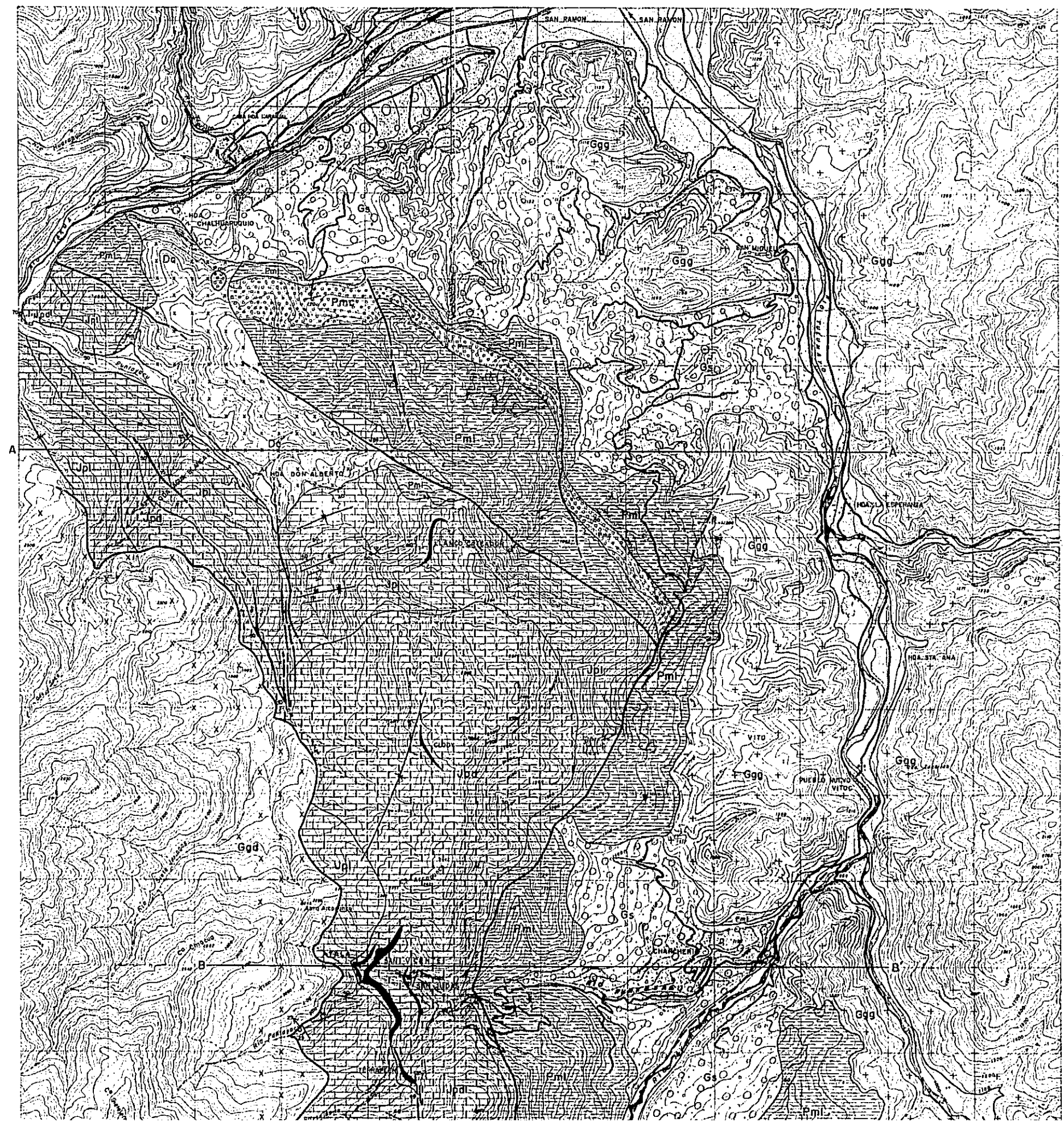
- Quaternary
- Pucara G.
- Mitu G.

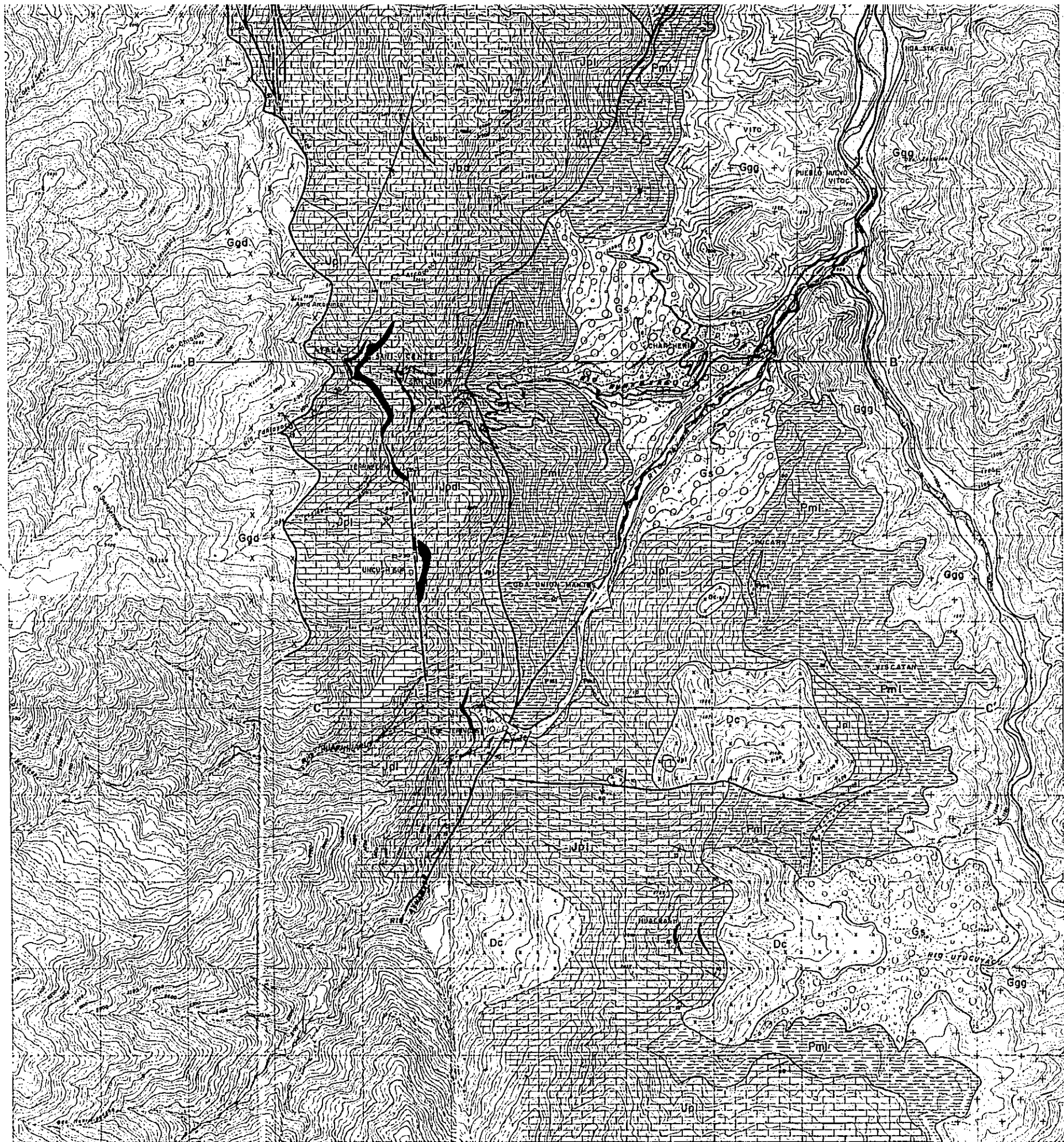
INTRUSIVES

- diorite complex
- granite
- granodiorite

- Younger Intrusives
- Older Intrusives

- strike & dip
- boundary
- fault
- thrust fault
- anticlinal folding axis
- synclinal folding axis
- ore body
- animal fossil locality

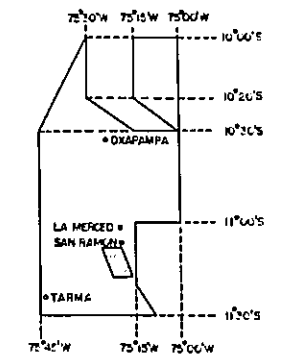




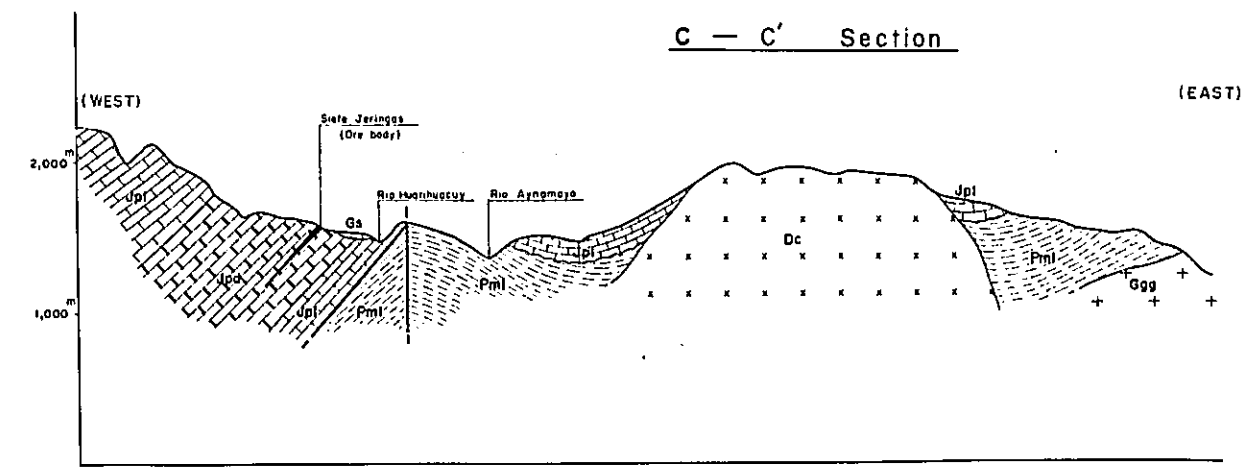
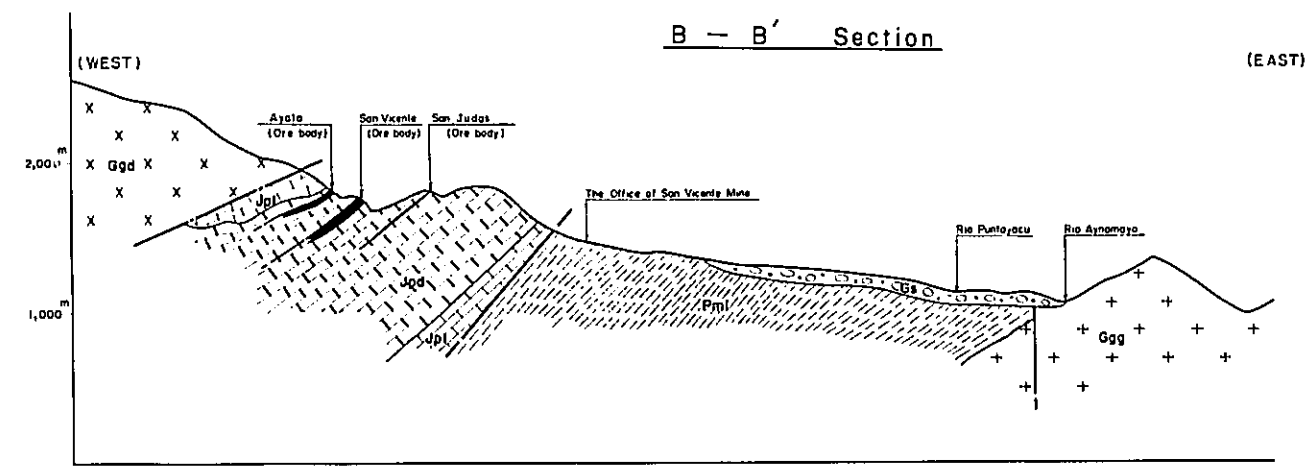
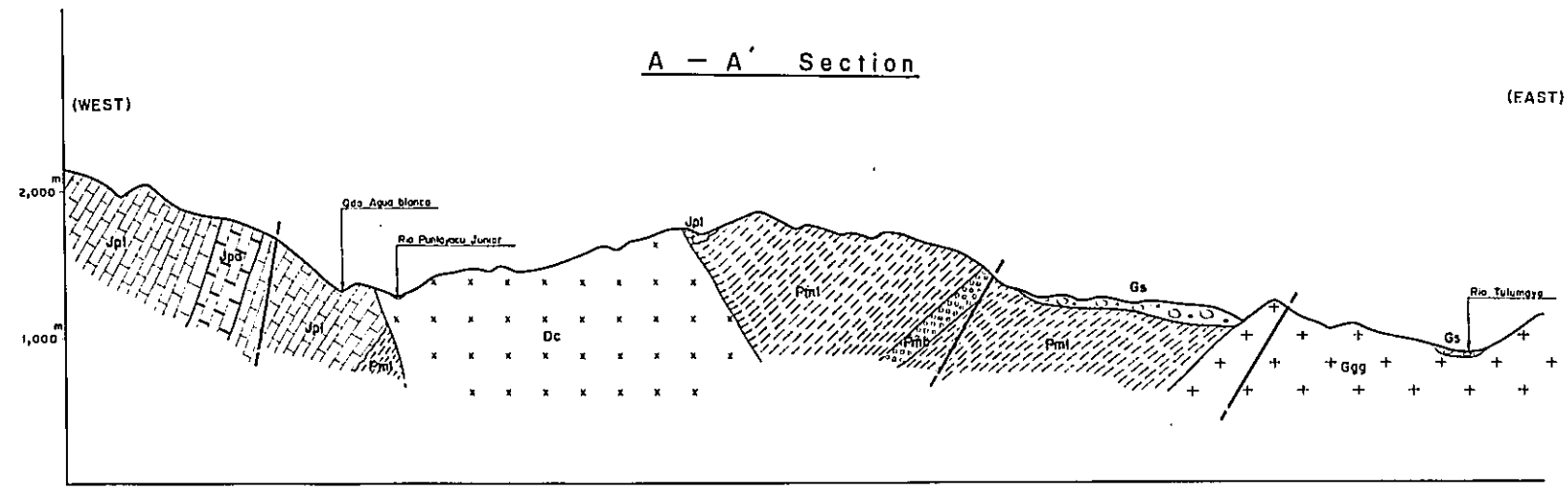
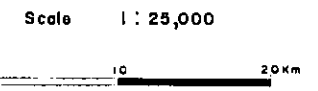
	limestone	Pucara G.		boundary
	dolomite			fault
	limestone conglomerate	Mitu G.		thrust fault
	siltite & sandstone including limestone			anticlinal folding axis
INTRUSIVES				
	diorite complex	Younger Intrusives		synclinal folding axis
	granite			ore body
	granodiorite	Older Intrusives		animal fossil locality

GEOLOGICAL SURVEY
OF
THE CORDILLERA ORIENTAL PERU
(PHASE II)
GEOLOGICAL PROFILE OF
THE PRECISELY SURVEYED AREA

国際協力事業団
METAL MINING AGENCY OF JAPAN
JAPAN INTERNATIONAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

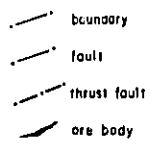


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FEBRUARY 1976
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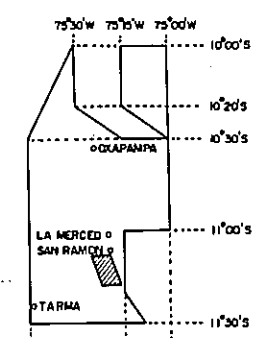
LEGEND

SEDIMENTS		
[Symbol]	gravel & sand	Quaternary
[Symbol]	limestone	Pucara G.
[Symbol]	dolomite	
[Symbol]	limestone conglomerate	Mitu G.
[Symbol]	white & sandstone including limestone	
INTRUSIVES		
[Symbol]	diorite complex	Younger Intrusives
[Symbol]	granite	Older Intrusives
[Symbol]	granodiorite	



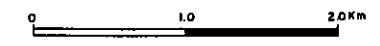
GEOLOGICAL SURVEY
OF
CENTRAL PERÚ REPUBLIC OF PERÚ
(PHASE I)
LOCALITY MAP OF GEOCHEMICAL SAMPLE

自 漆 協 力 事 業 団
登録No.



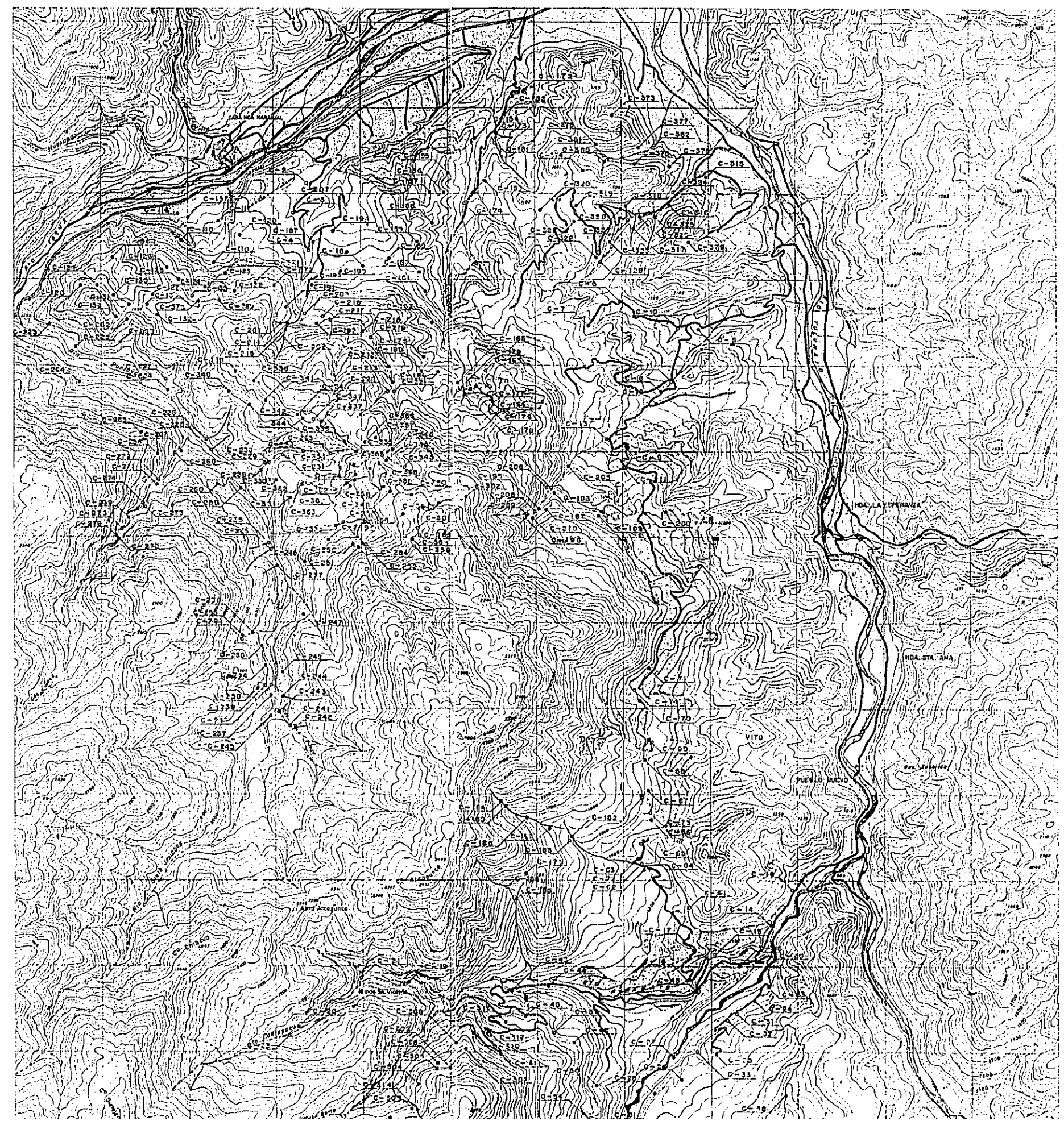
METAL MINING AGENCY OF JAPAN
JAPAN INTERNATIONAL COOPERATION AGENCY
GOVERNMENT OF JAPAN
MARCH 1975
prepared by MITSUI KINZOKU ENGINEERING SERVICE CO., LTD

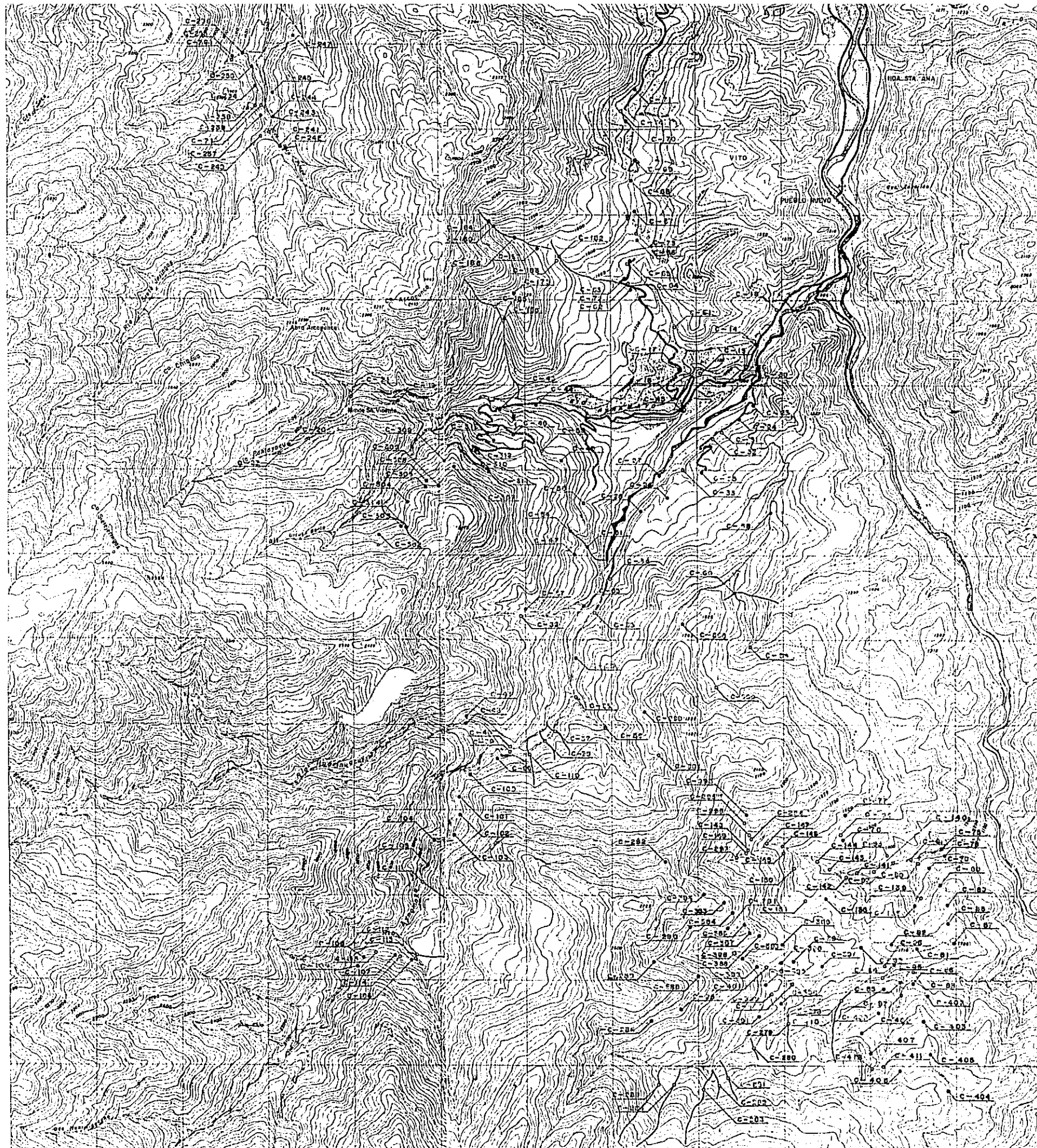
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LEGEND

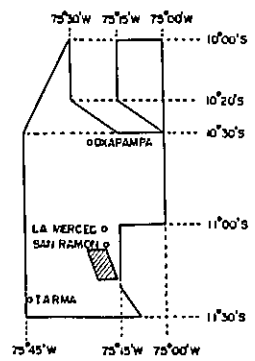
- soil sample
- stream sediment sample





- soil sample
- stream sediment sample

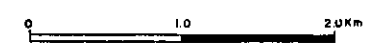
GEOLOGICAL SURVEY OF THE CORDILLERA ORIENTAL CENTRAL PERU (PHASE II) GEOCHEMICAL MAP OF THE PRECISELY SURVEYED AREA (Cu)



国際協力事業団 採坑No.

METAL MINING AGENCY OF JAPAN JAPAN INTERNATIONAL COOPERATION AGENCY GOVERNMENT OF JAPAN FEBRUARY 1976 prepared by MITSUI KINZOKU ENGINEERING SERVICE CO., LTD

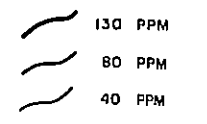
Scale 1:25,000



LEGEND

- soil sample stream sediment sample

SOILS



locality & sample No (value PPM)

STREAM SEDIMENTS

- 100PPM ≤ n 60PPM ≤ n < 100PPM 30PPM ≤ n < 60PPM n < 30PPM

locality & sample No





- soil sample
- stream sediment sample

SOILS

- 130 PPM
- 80 PPM
- 40 PPM

locality & sample No
(value PPM)

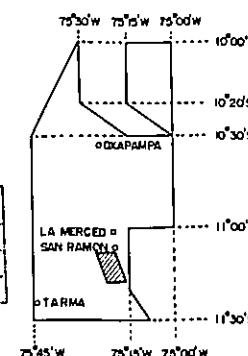
STREAM SEDIMENTS

- 100PPM ≤ n
- 60PPM ≤ n < 100PPM
- 30PPM ≤ n < 60PPM
- n < 30PPM

locality & sample No

GEOLOGICAL SURVEY
OF
THE CORDILLERA ORIENTAL CENTRAL PERU
(PHASE II)
GEOCHEMICAL MAP OF THE PRECISELY
SURVEYED AREA (Zn)

国際協力事業団
地球No.



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JAPAN INTERNATIONAL COOPERATION AGENCY
GOVERNMENT OF JAPAN

FEBRUARY 1976

prepared by MITSUI KINZOKU ENGINEERING SERVICE CO., LTD

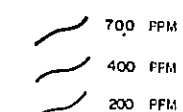
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LEGEND

- soil sample
- stream sediment sample

SOILS

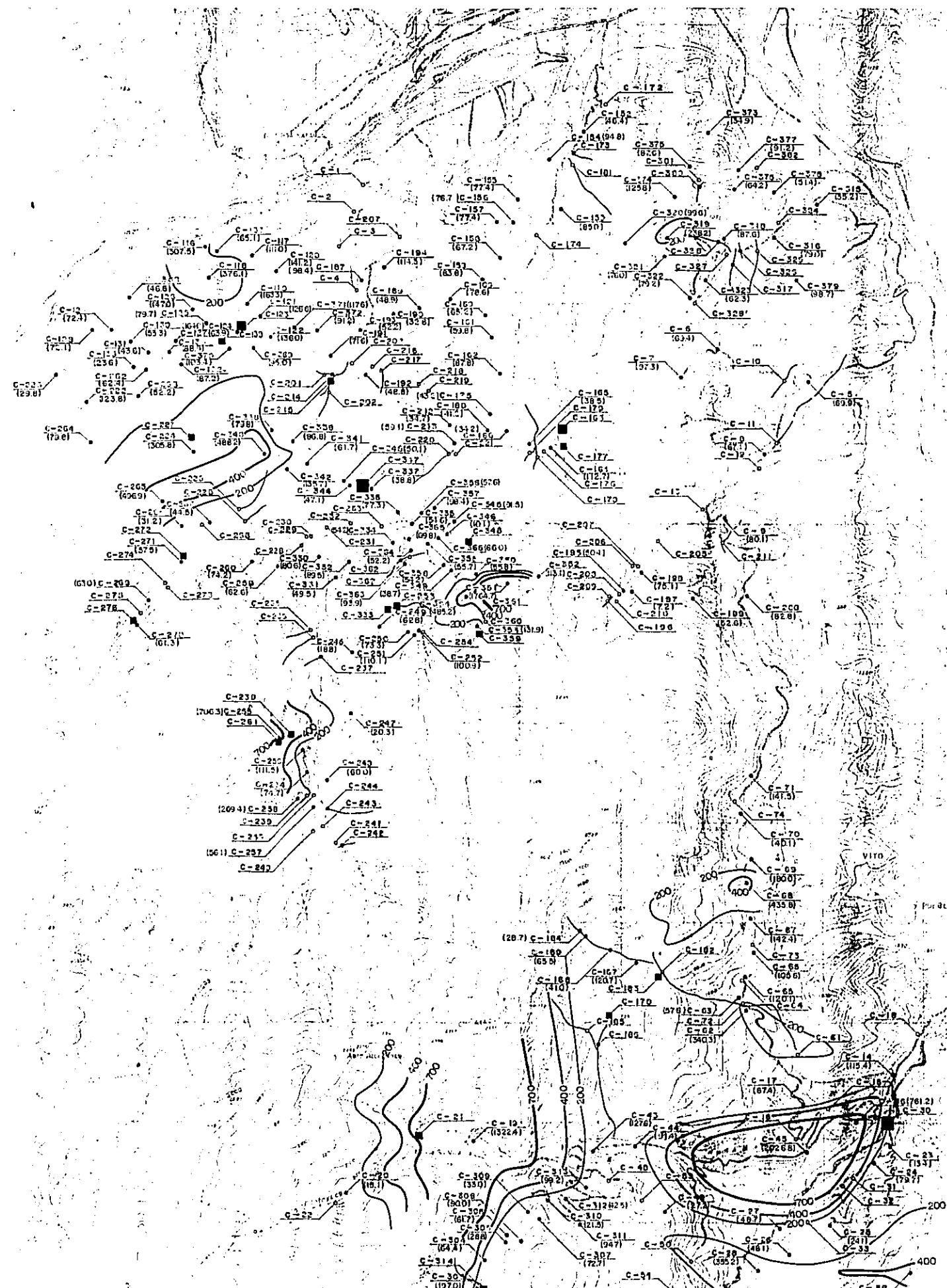


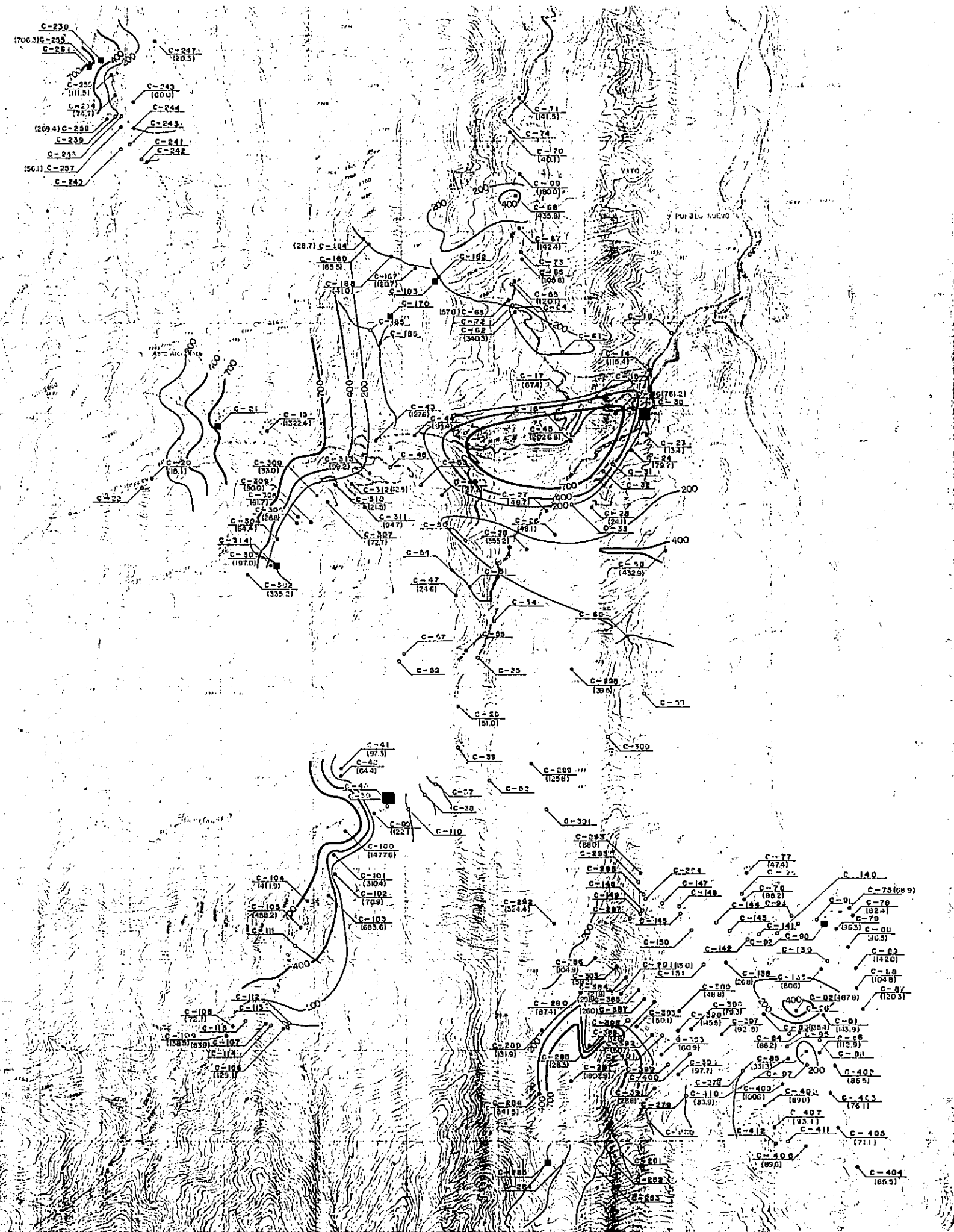
locality B sample #2
(value PPM)

STREAM SEDIMENTS

- 500 PPM ≤ n
- 300 PPM ≤ n < 500 PPM
- 100 PPM ≤ n < 300 PPM
- n < 30 PPM

locality B sample #1





- soil sample
- stream sediment sample

SOILS

- 700 PPM
- 400 PPM
- 200 PPM

locality B sample (value PPM)

STREAM SEDIMENTS

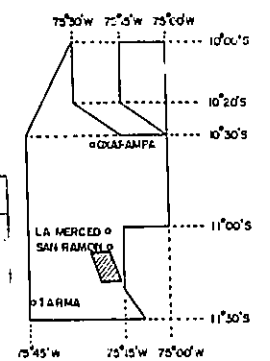
- 500 PPM ≤ n
 - 300 PPM ≤ n < 500 PPM
 - 100 PPM ≤ n < 300 PPM
 - n < 30 PPM
- locality B sample (value PPM)



PL.C-5(3)

GEOLOGICAL SURVEY
OF
THE CORDILLERA ORIENTAL CENTRAL PERU
(PHASE II)
GEOCHEMICAL MAP OF THE PRECISELY
SURVEYED AREA (Pb)

国際協力事業団
No.



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JAPAN INTERNATIONAL COOPERATION AGENCY
GOVERNMENT OF JAPAN
FEBRUARY 1976
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Scale 1:25,000



LEGEND

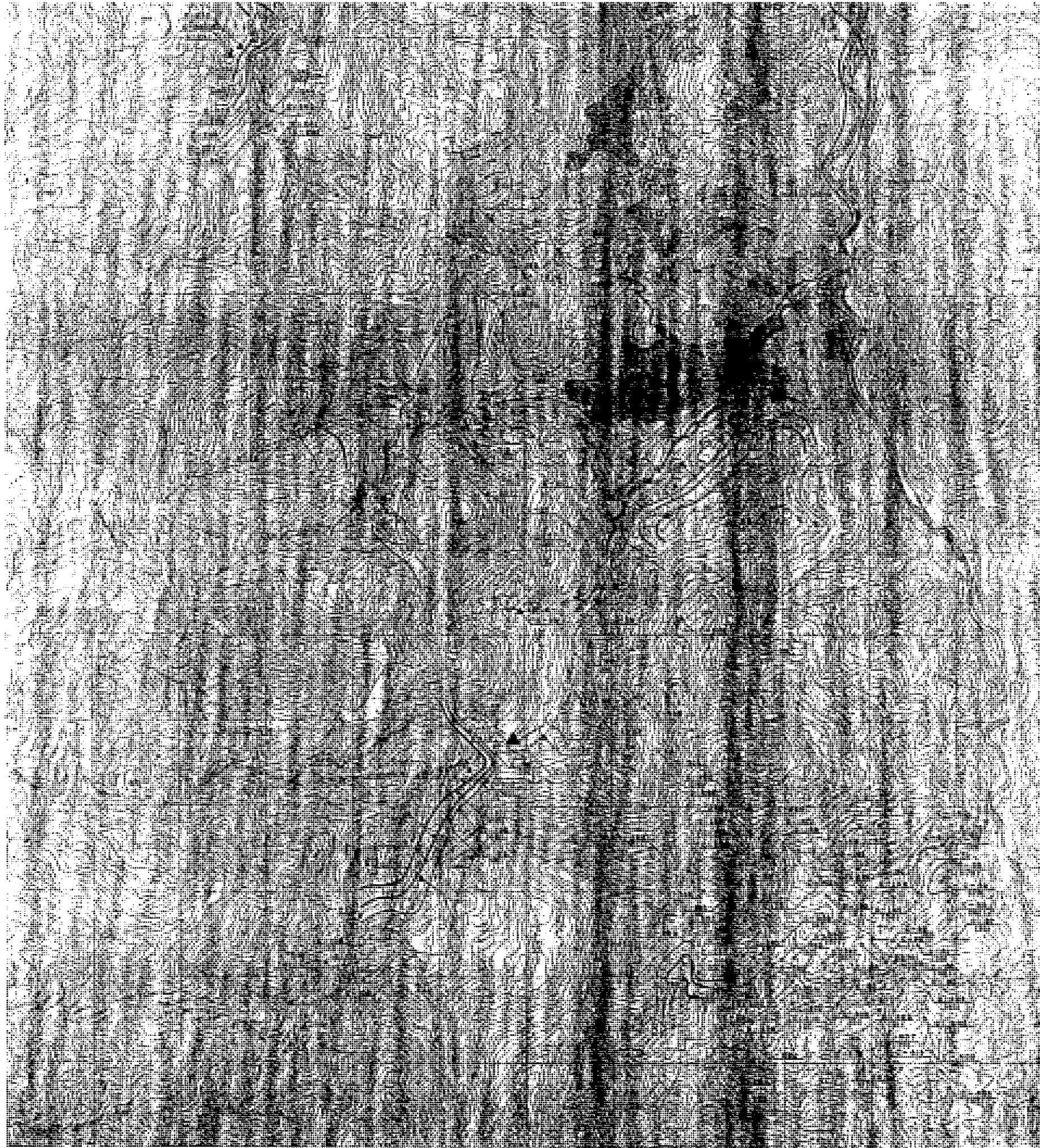
- soil sample
- stream sediment sample

SOILS

- 400 PPM
- 200 PPM
- 100 PPM
- locality B sample NR
(value ppm)

STREAM SEDIMENTS

- ▲ 400 PPM ≤ n
- ▲ 200 PPM ≤ n < 400 PPM
- ▲ 50 PPM ≤ n < 200 PPM
- n < 50 PPM
- locality B sample NR



- soil sample
- stream sediment sample

SOILS

- 400 PPM
- 200 PPM
- 100 PPM

locality & sample No.
(value PPM)

STREAM SEDIMENTS

- ▲ 400 PPM \leq n
- ▲ 200 PPM \leq n < 400 PPM
- ▲ 50 PPM \leq n < 200 PPM
- n < 50 PPM

locality & sample No.