

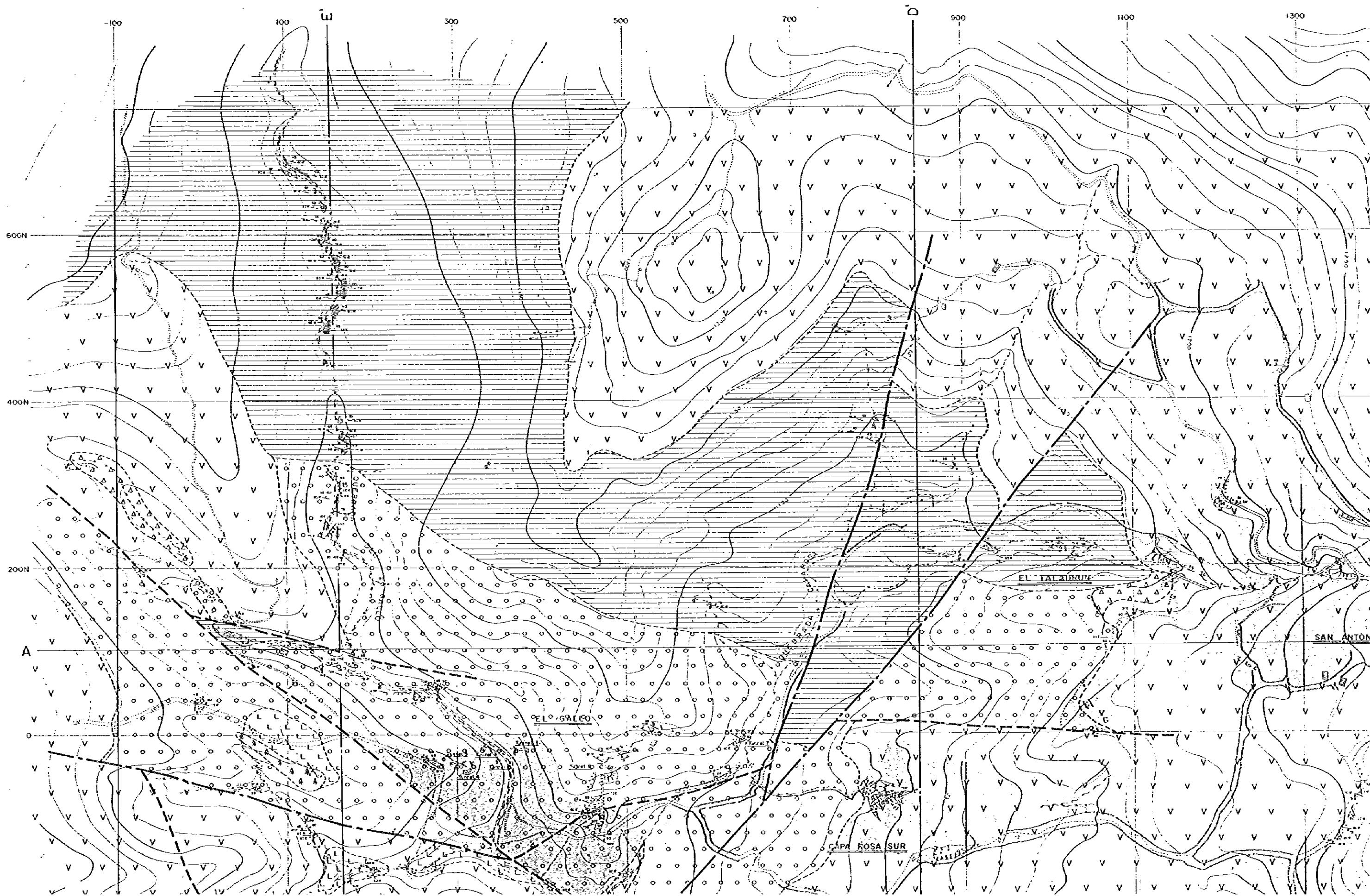
AP. 4-5 Resultados de difracción por rayos X

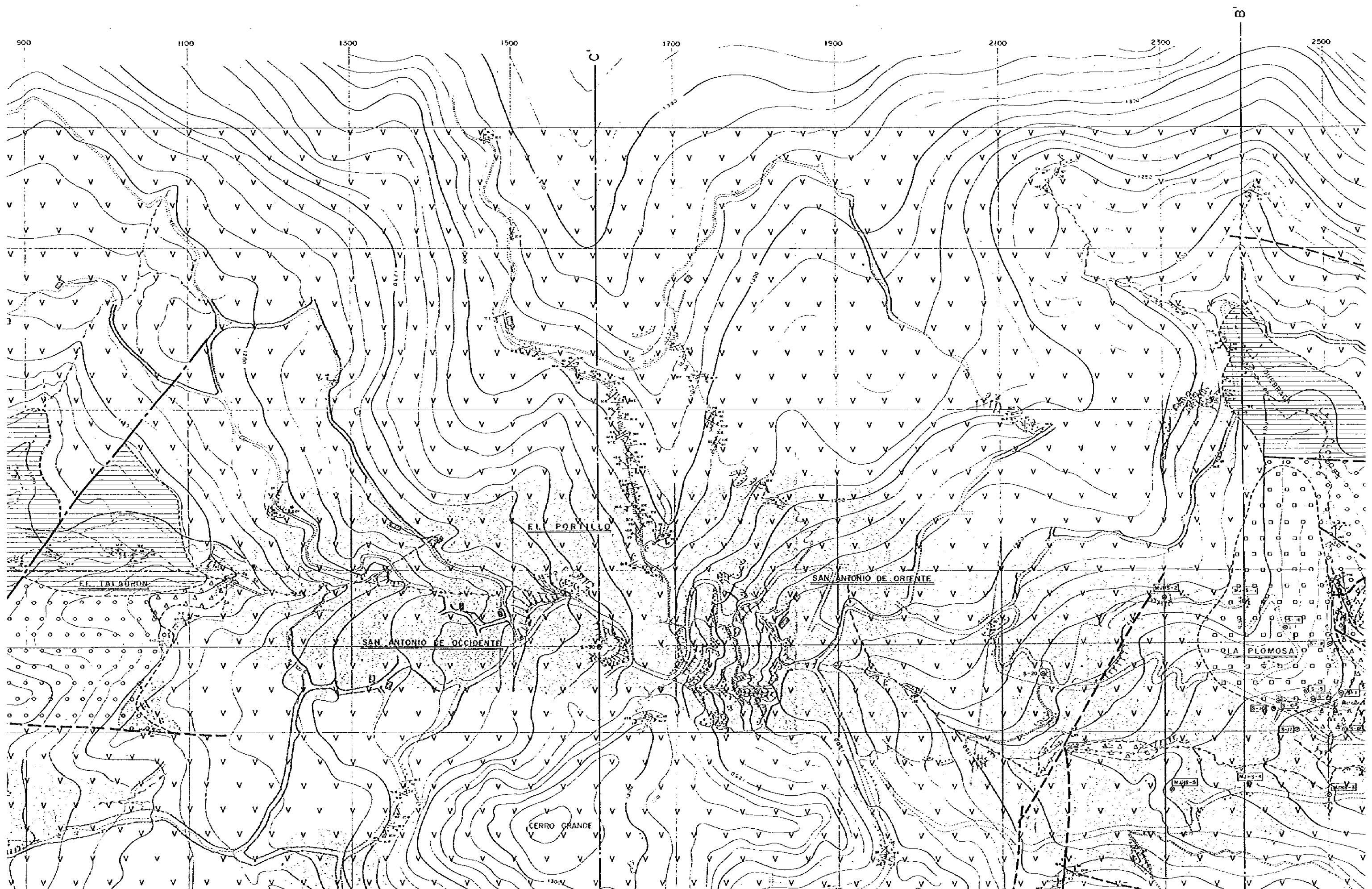


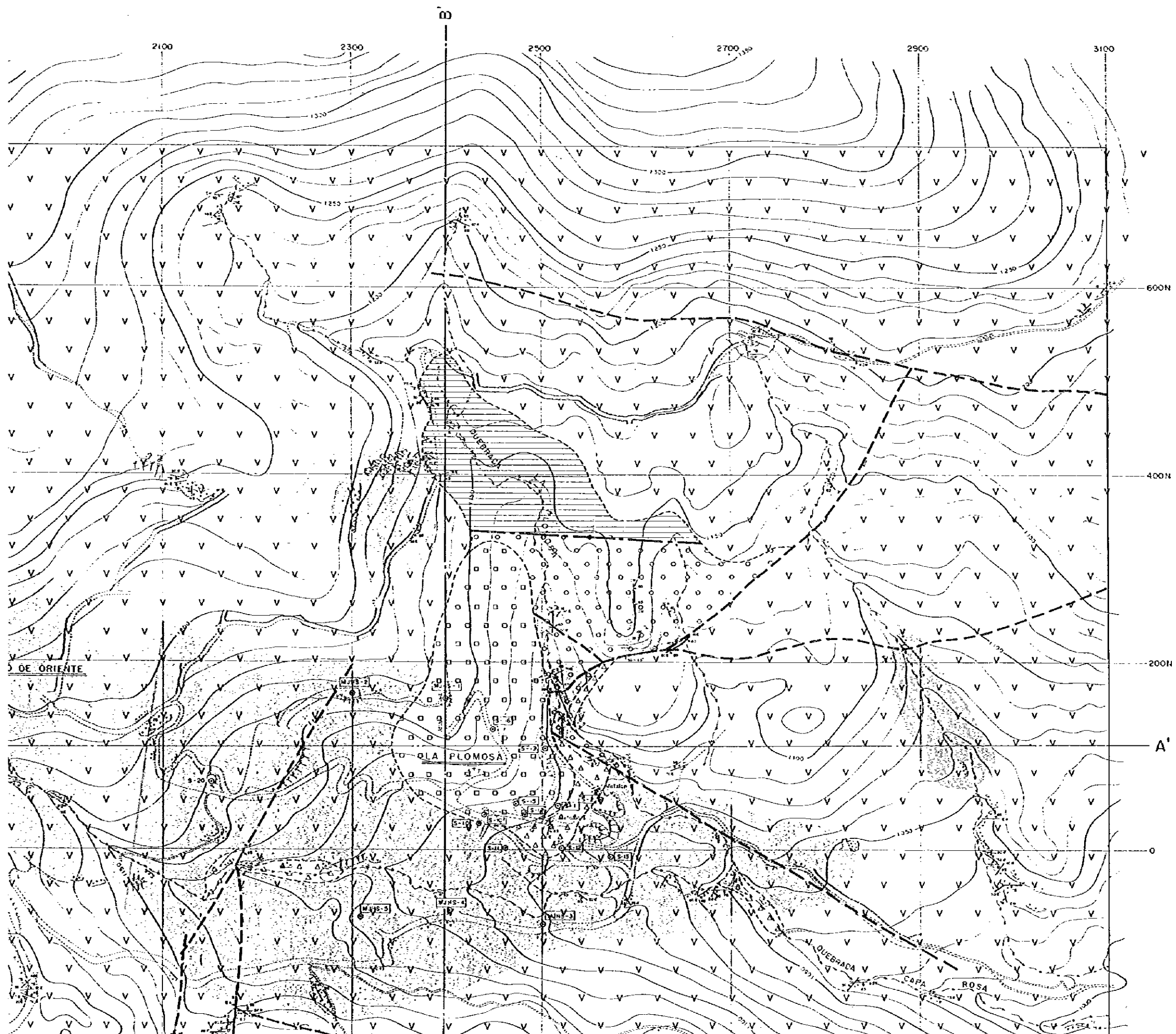
AP. 4-5 RESULTADOS DE DIFRACCION POR RAYOS X

No.	Nombre de pozo	Prof. de muestra	Mineral Tipo de roca																
				cuarzo	smectita	kaolinita	sericita	clorita	*mixid leyend* de sericita y smectita	plagioclasa	feldespato potasico	calcita	dolomita	rodocrosita	siderita	pirita	marcasita	hematita	
1	MJHS-1	34.60	Toba	⊙															
2	MJHS-1	54.30	Toba	⊙			Δ	·?											
3	MJHS-1	75.15	Arenisca	⊙			Δ	·?	Δ		Δ								
4	MJHS-1	94.90	Conglomerado	⊙			Δ											Δ	
5	MJHS-1	123.00	Arenisca	⊙			Δ											Δ	
6	MJHS-1	148.70	Lutita	⊙			Δ											Δ	
7	MJHS-1	175.00	Conglomerado	⊙			Δ											Δ	
8	MJHS-1	200.50	Arenisca	⊙			Δ												
9	MJHS-1	226.15	Lutita	⊙			Δ												
10	MJHS-1	248.40	Caliza	Δ			Δ	·?			⊙								
11	MJHS-1	267.80	Lutita	⊙			Δ	·?			⊙								
12	MJHS-1	300.00	Arenisca	⊙			Δ												
13	MJHS-2	36.10	Toba	⊙					Δ										
14	MJHS-2	48.20	Toba	⊙					Δ										
15	MJHS-2	73.20	Arenisca	⊙			Δ	Δ		Δ									Δ
16	MJHS-2	99.80	Arenisca	⊙			Δ	Δ		Δ	○								Δ
17	MJHS-2	125.00	Arenisca	⊙			Δ	Δ		Δ	○								Δ
18	MJHS-2	150.00	Arenisca	⊙			Δ												
19	MJHS-2	175.20	Conglomerado	⊙			Δ	Δ?											
20	MJHS-2	200.00	Conglomerado	⊙			Δ				Δ								
21	MJHS-2	225.00	Conglomerado	⊙			Δ				Δ								
22	MJHS-2	247.10	Arenisca	⊙			Δ												
23	MJHS-2	273.00	Arenisca	⊙			Δ												
24	MJHS-2	294.20	Arenisca	⊙			Δ												Δ
25	MJHS-3	21.40	Lutita	Δ			Δ				⊙								
26	MJHS-3	48.50	Lutita	⊙			Δ	Δ			⊙								
27	MJHS-3	71.30	Arenisca	⊙			Δ												
28	MJHS-3	89.00	Conglomerado	⊙			Δ												
29	MJHS-3	104.00	Arenisca	⊙			Δ	Δ			Δ								
30	MJHS-3	125.20	Lutita	⊙			Δ	Δ			Δ								
31	MJHS-3	148.80	Caliza	○			Δ				⊙								
32	MJHS-3	175.00	Caliza	○			Δ				⊙								
33	MJHS-3	200.00	Caliza	○			Δ				⊙								
34	MJHS-3	224.90	Caliza	○			Δ	Δ?			⊙								
35	MJHS-3	249.00	Caliza	Δ			·?				⊙								
36	MJHS-3	270.20	Lutita	⊙			Δ				⊙								
37	MJHS-3	300.00	Arenisca	⊙			Δ				○								
38	MJHS-4	24.90	Lutita	○			Δ	Δ			○								
39	MJHS-4	50.80	Lutita	⊙			Δ	Δ			○								
40	MJHS-4	76.10	Caliza	○			Δ	Δ			⊙								
41	MJHS-4	101.00	Lutita	Δ			Δ				⊙								
42	MJHS-4	125.30	Caliza	Δ			Δ				⊙								
43	MJHS-4	150.20	Lutita	Δ			Δ				⊙								
44	MJHS-4	175.00	Lutita	○			Δ	Δ			⊙								
45	MJHS-4	202.90	Caliza	○			Δ				⊙								
46	MJHS-4	225.00	Lutita	Δ			Δ				⊙								
47	MJHS-4	249.00	Lutita	Δ			Δ				⊙								
48	MJHS-4	275.00	Lutita	⊙			Δ	Δ			Δ								
49	MJHS-4	281.00	Arenisca	⊙			Δ				○								
50	MJHS-4	298.90	Arenisca	⊙	Δ	Δ			·?										Δ
51	MJHS-5	22.40	Lutita	○			Δ	Δ			⊙								
52	MJHS-5	51.00	Caliza	Δ			Δ	Δ?			⊙								
53	MJHS-5	74.60	Lutita	Δ			Δ				⊙								
54	MJHS-5	93.20	Brecha de caliza	○			Δ				⊙								
55	MJHS-5	125.00	Caliza	Δ			Δ				⊙								
56	MJHS-5	150.00	Caliza	Δ			Δ				⊙								
57	MJHS-5	175.00	Caliza	Δ			Δ				⊙								
58	MJHS-5	201.50	Brecha de caliza	Δ			Δ				⊙							Δ	
59	MJHS-5	224.50	Lutita	○			Δ	Δ			⊙								
60	MJHS-5	242.20	Lutita	⊙			Δ	Δ			Δ								

⊙ : Abundante ○ : Medio Δ : Poco · : Escaso







PL. 1

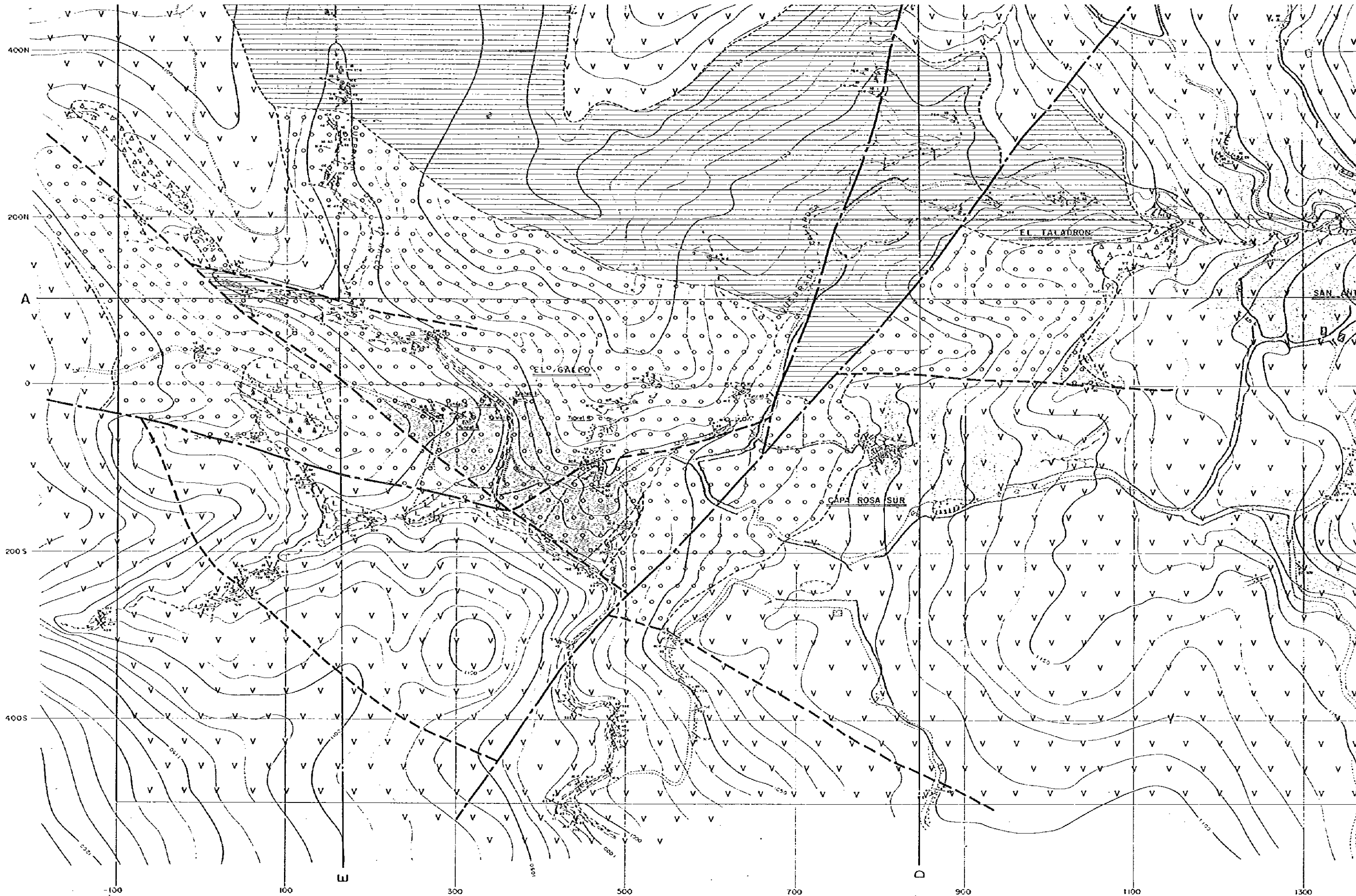
**LA EXPLORACION MINERA
EN
EL AREA DE SAN ANTONIO
LA REPUBLICA DE HONDURAS**

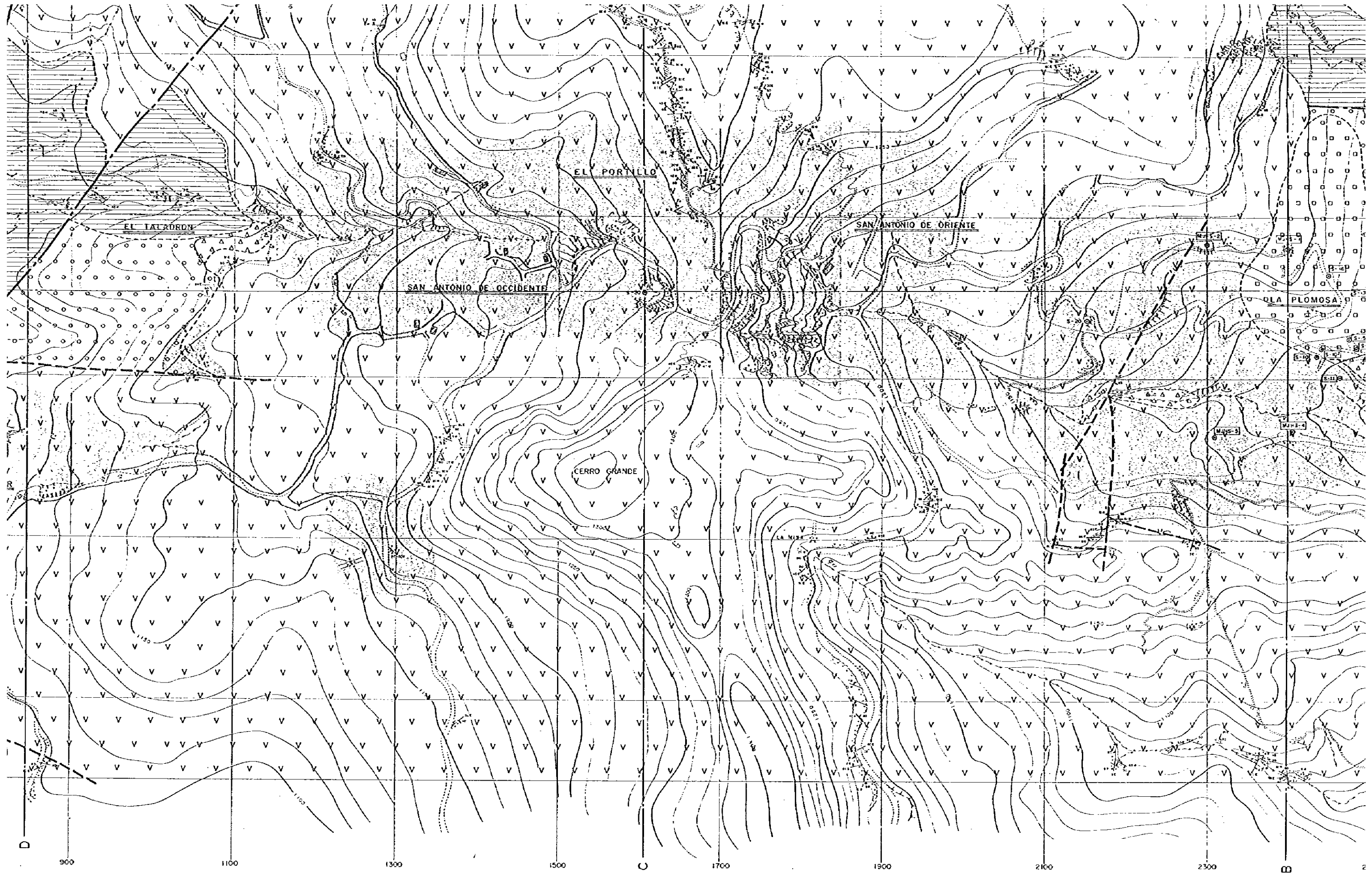
Mapa geológico superficial (Escala 1:2,000)

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRERO 1967

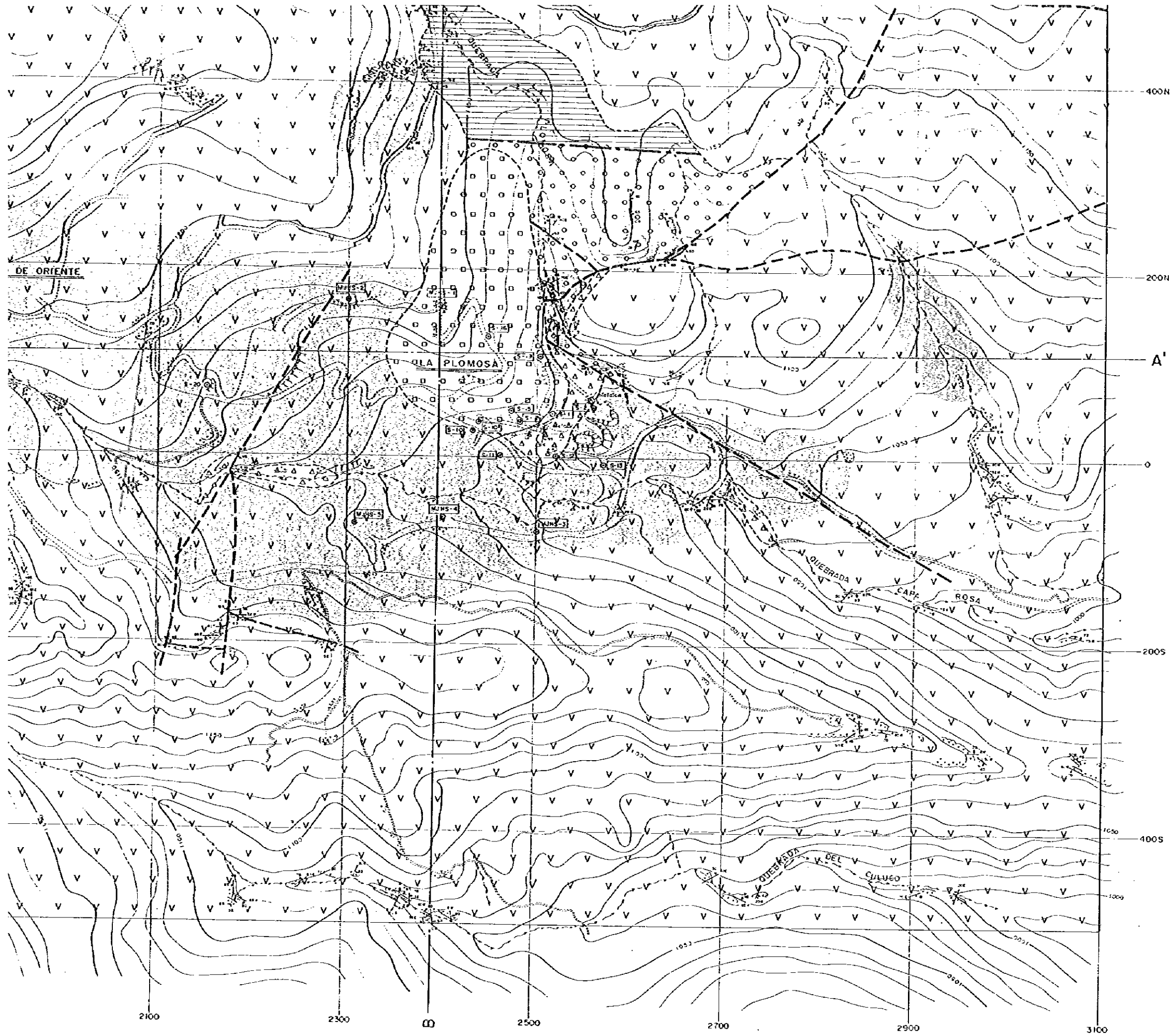
LEYENDA

	ALUVIONES		CUATERNARIO
	BASALTOS		
	IGNIBRITAS, TOBAS		
	BRECHA TOBACEA, DEPOSITOS FLUVIALES DERRUMBES	G. PABLO MIGUEL	TERTIARIO
	ANDESITA	F. MATAGALPA	
	DISCORDANCIA		
	LUTITAS Y MARGAS	G. VALLE DE ANGELES	





D 900 1100 1300 1500 1700 1900 2100 2300 M 2



LEYENDA

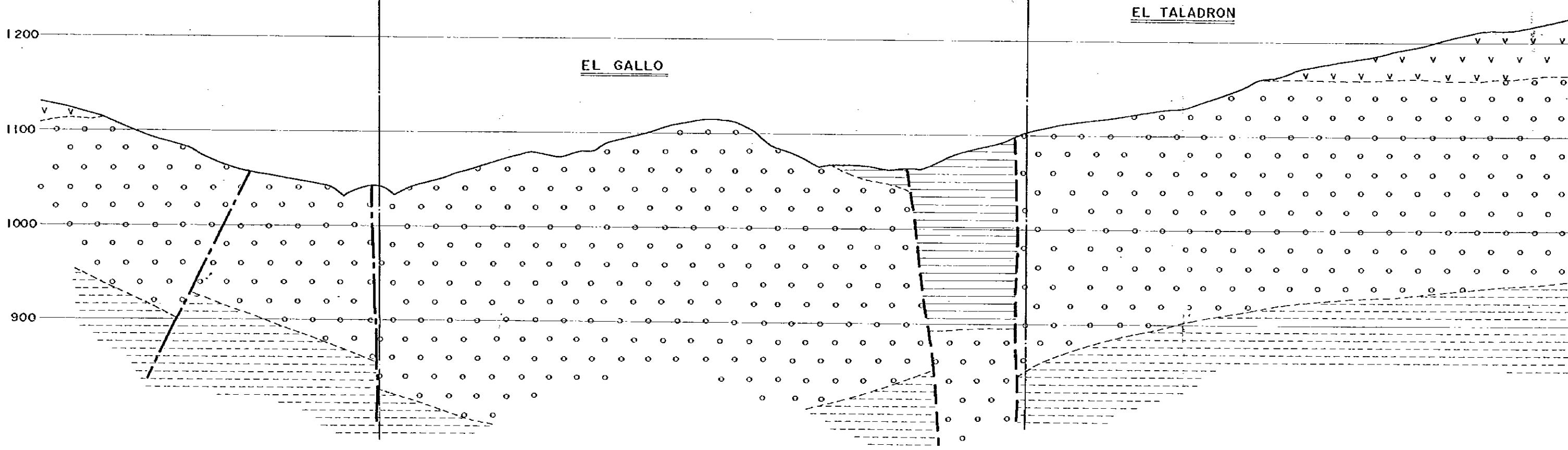
- | | | | |
|--|---|---------------------|-------------|
| | ALUVIONES | | |
| | BASALTOS | | CUATERNARIO |
| | IGNIMBRITAS, TOBAS | | |
| | BRECHA TOBACEA, DEPOSITOS FLUVIALES DERRUMBES | G. PADRE MIGUEL | TERTIARIO |
| | ANDESITA | F. MAFACALPA | |
| | DISCORDANCIA | | |
| | LUTITAS Y MARGAS | G. VALLE DE ANGELES | CRETACICO |
| | CONGLOMERADOS Y MARGAS | | |
| | LUTITAS CALCAREAS | | |
| | CALIZAS | F. ATIMA | |
| | ALTERACION HIDROTHERMAL | | |
| | ZONA MINERALIZADA | | |
| | FALLA | | |
| | FALLA PROBABLE | | |

A — A'

E — E'

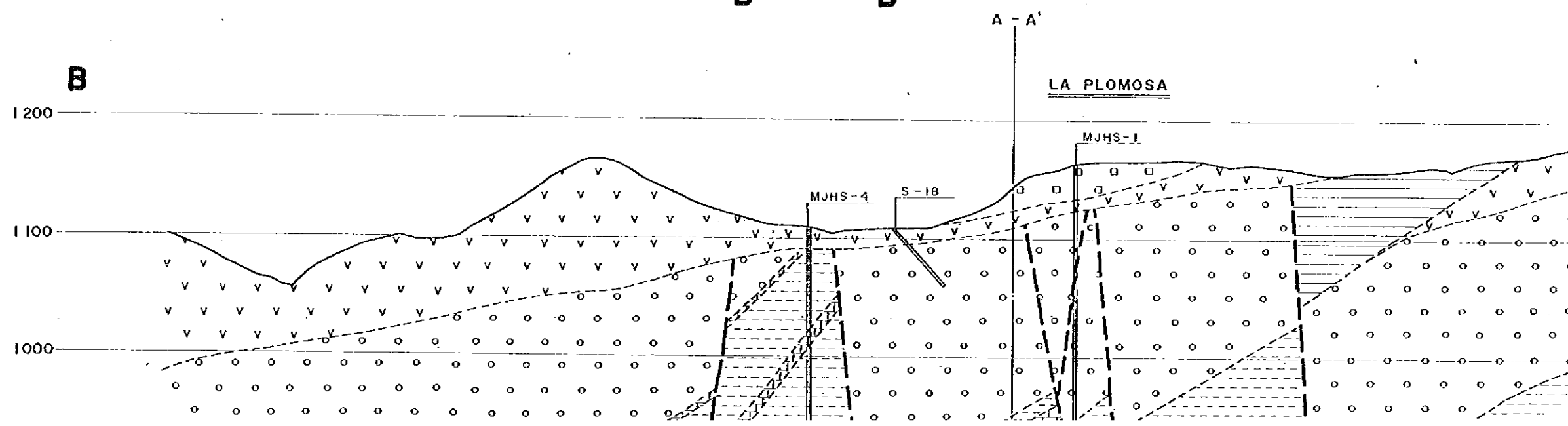
D — D'

A

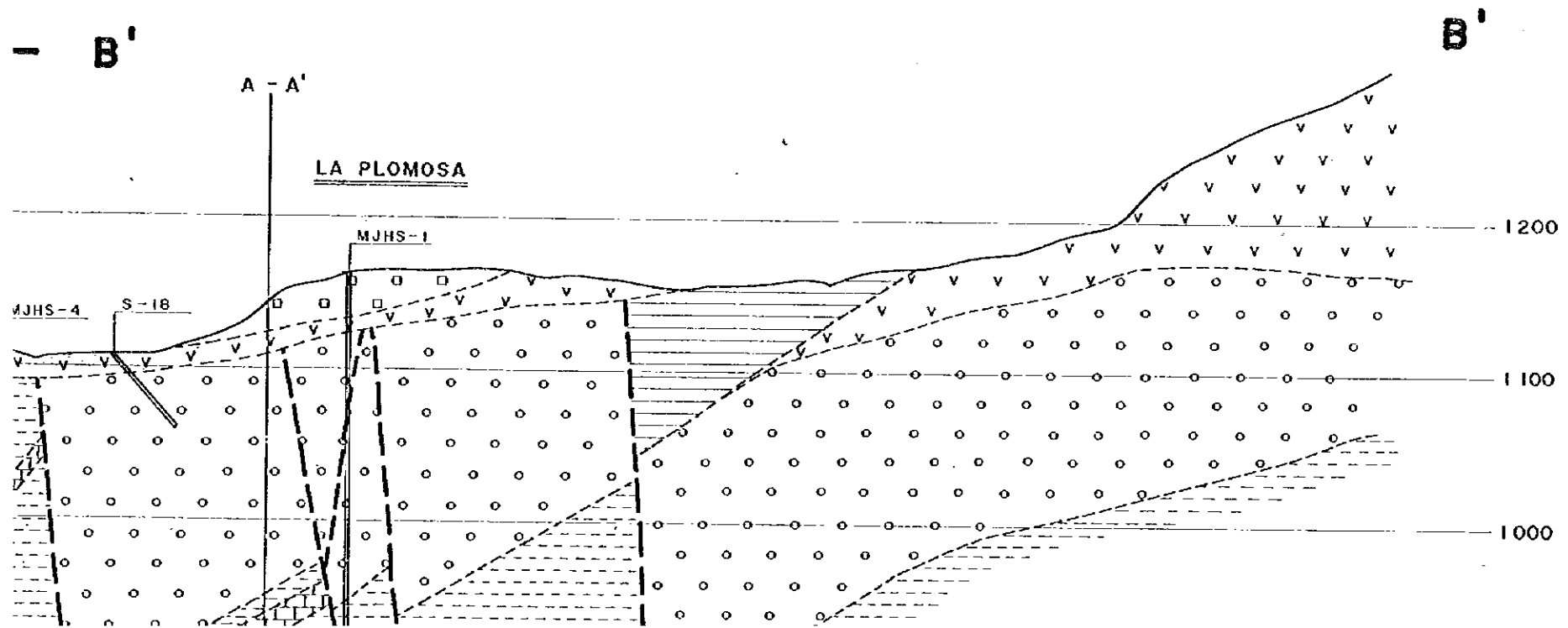
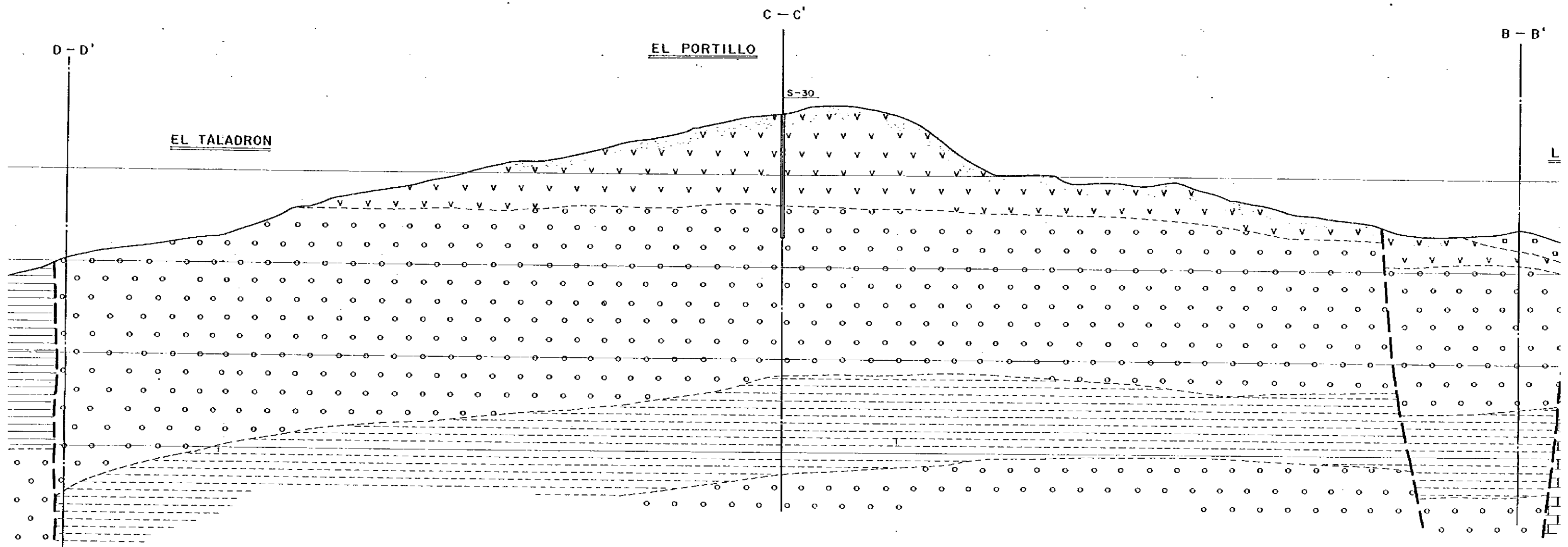


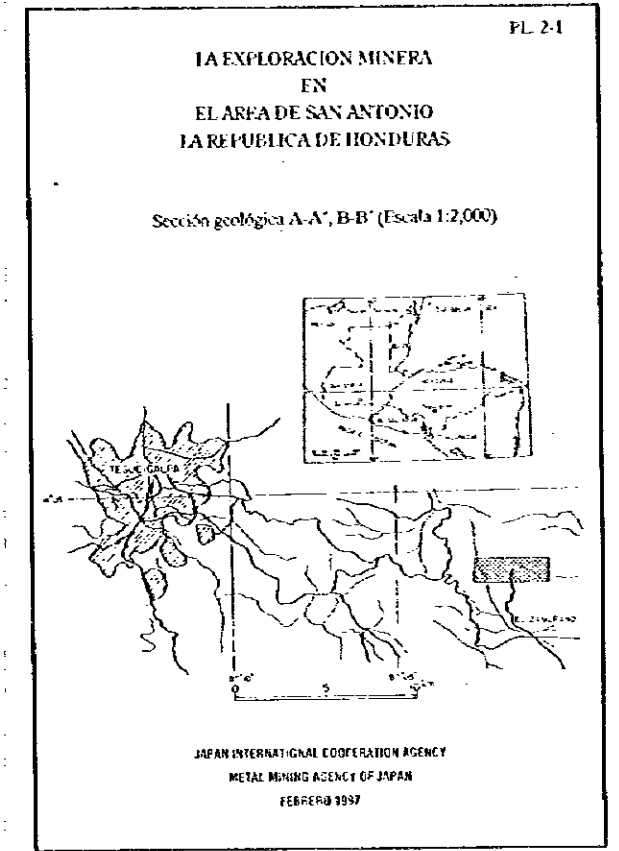
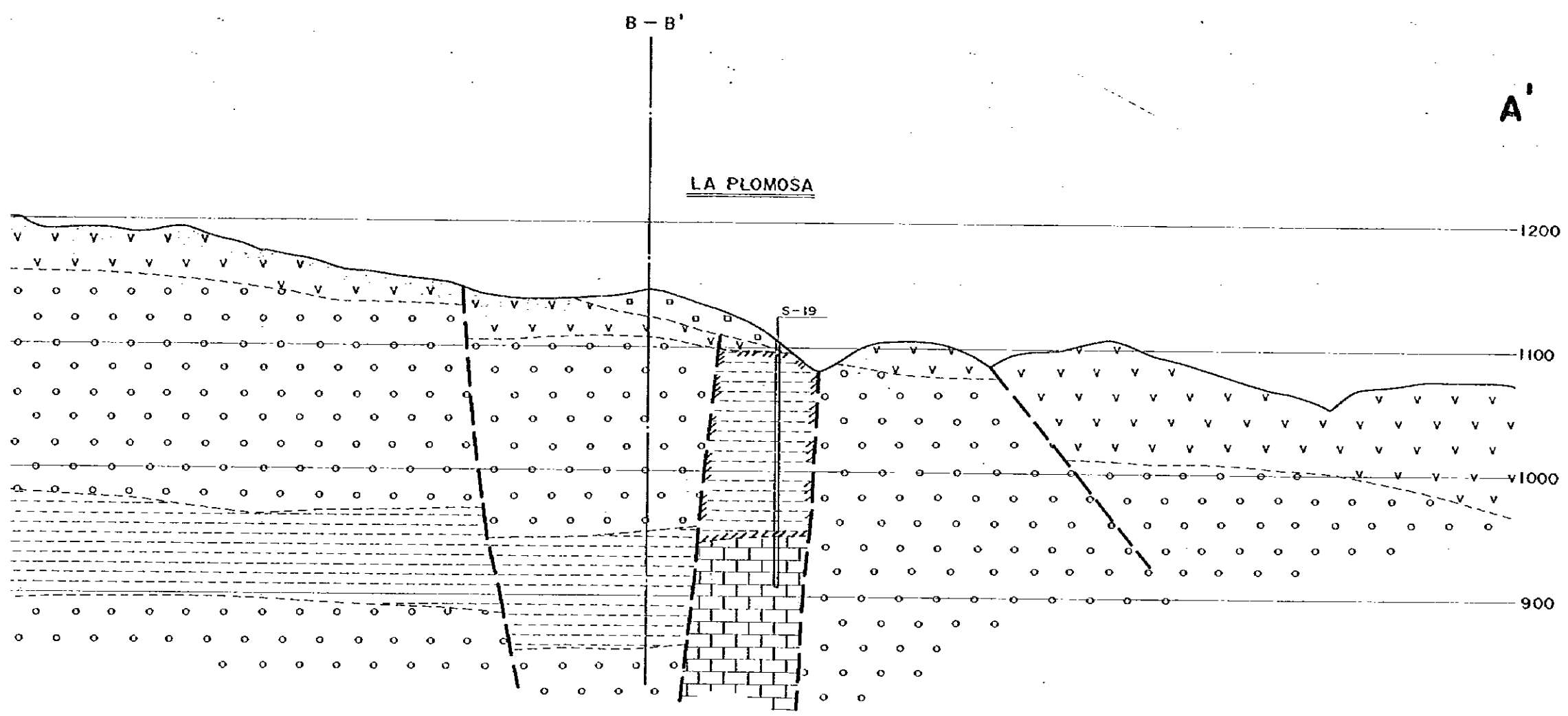
B — B'

B



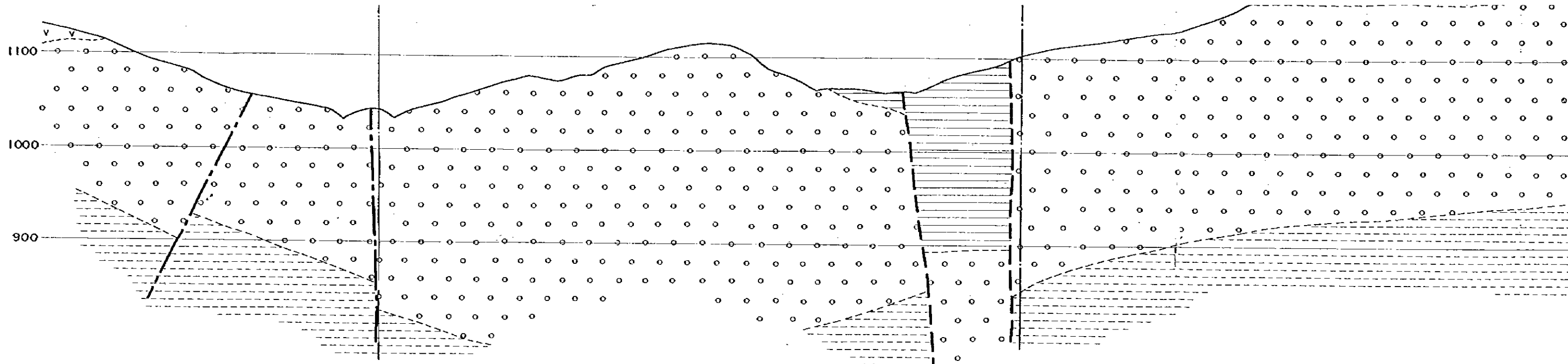
A — A'



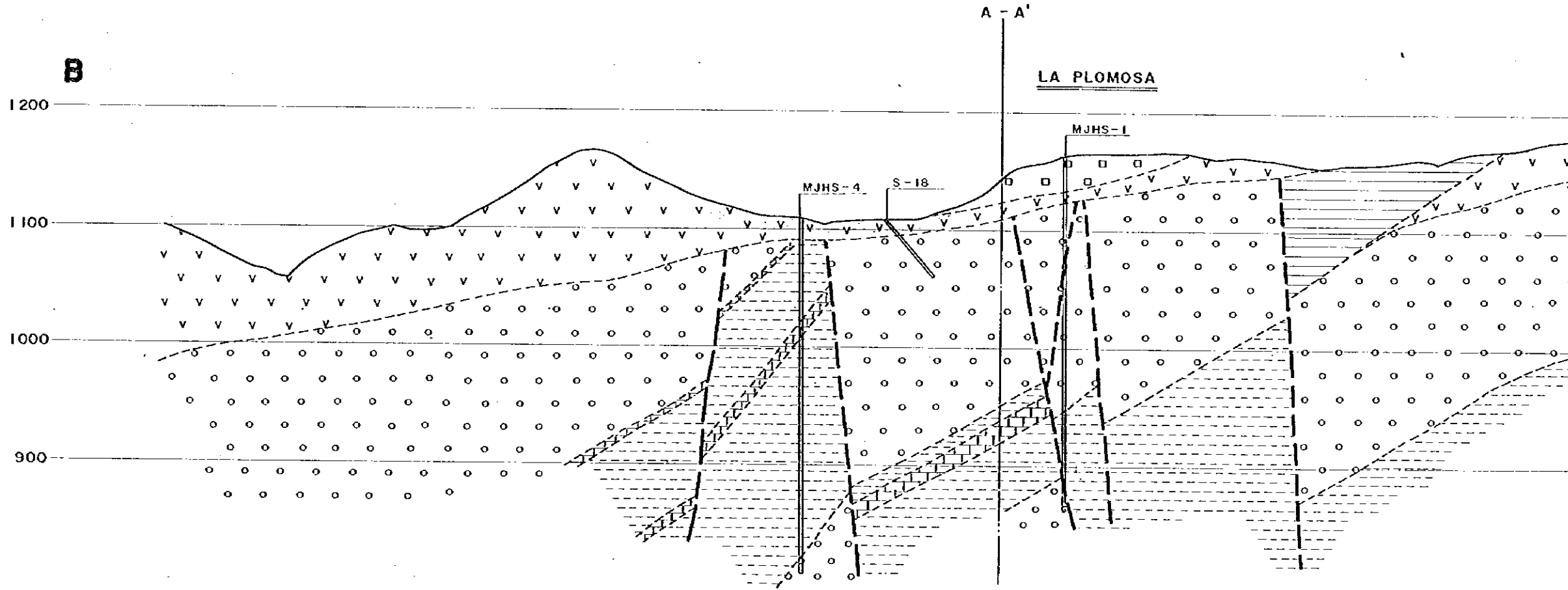


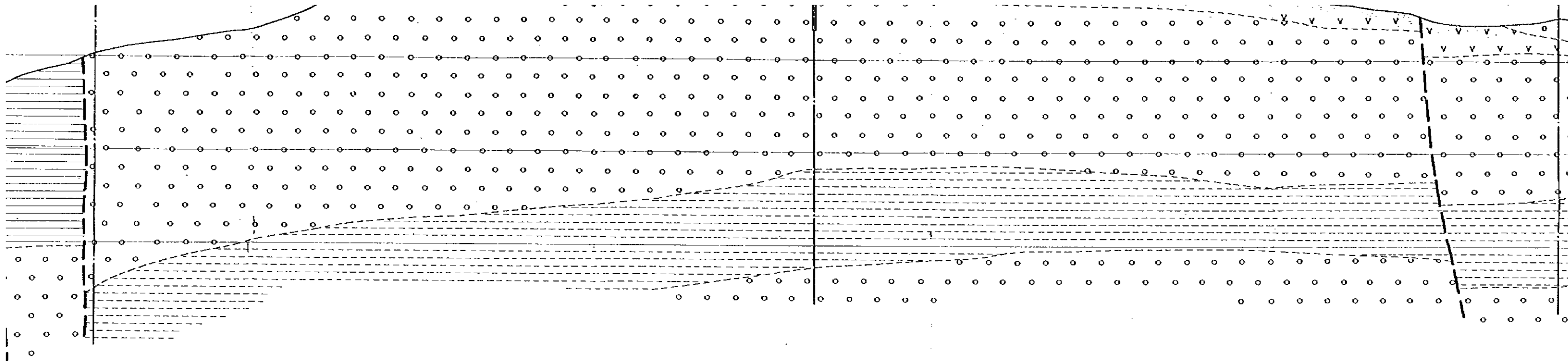
LEYENDA

□ □	ALUVIONES		
A A	BASALTOS		
V V	IGNIMBRITAS, TOBAS		
G G	BRECHA IGNEA, DEPOSITOS FLUVIALES DERRUMBES	G PADRE MIGUEL	} TERCARIO
L L	ANDESITA	F MATACALPA	
~ ~	DISCORDANCIA		
S S	LUTITAS Y MARGAS	G VALLE DE ANGELES	} CRETACICO
O O	CONGLOMERADOS Y MARGAS		
C C	LUTITAS CALCAREAS	F ATIMA	
E E	CALIZAS		



B — B'



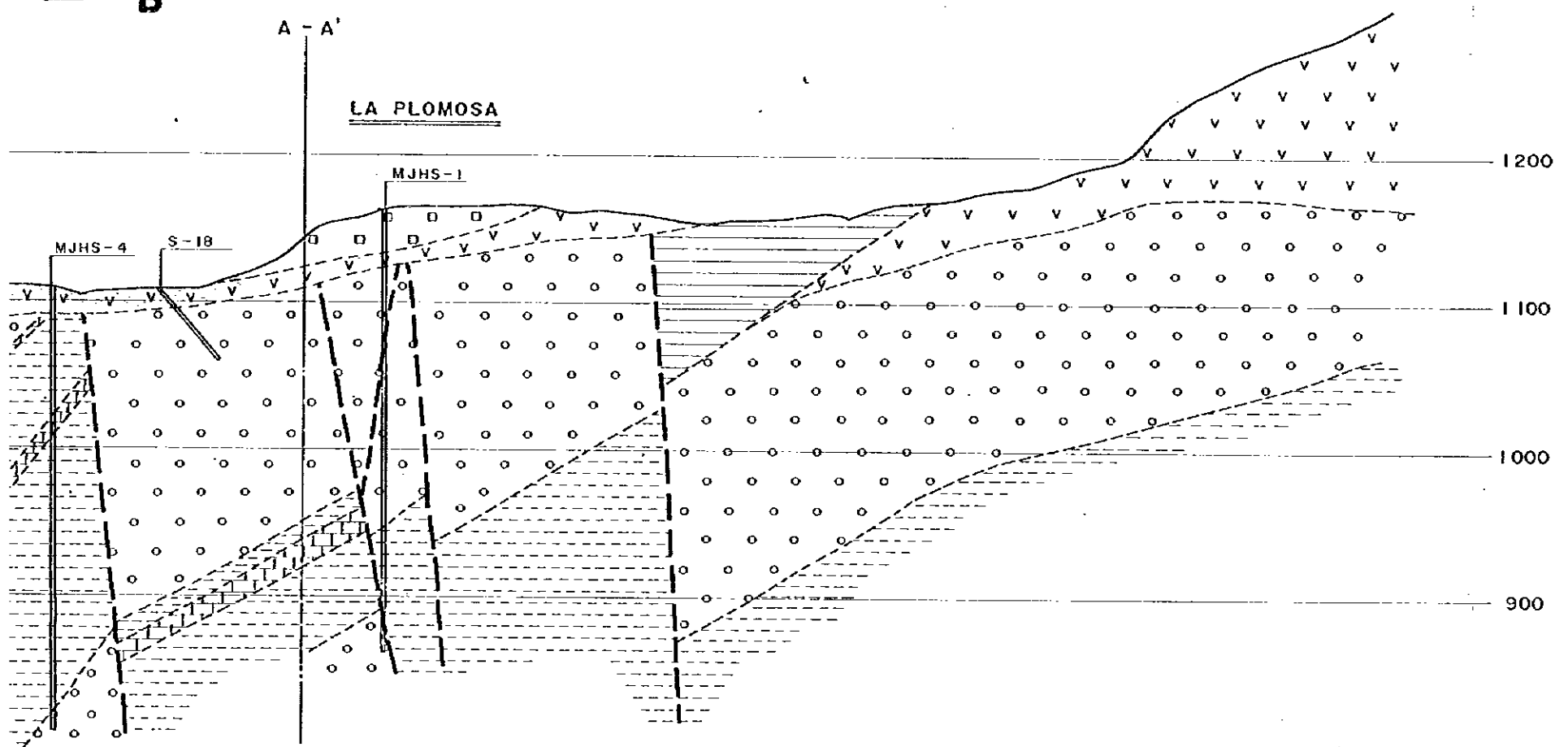


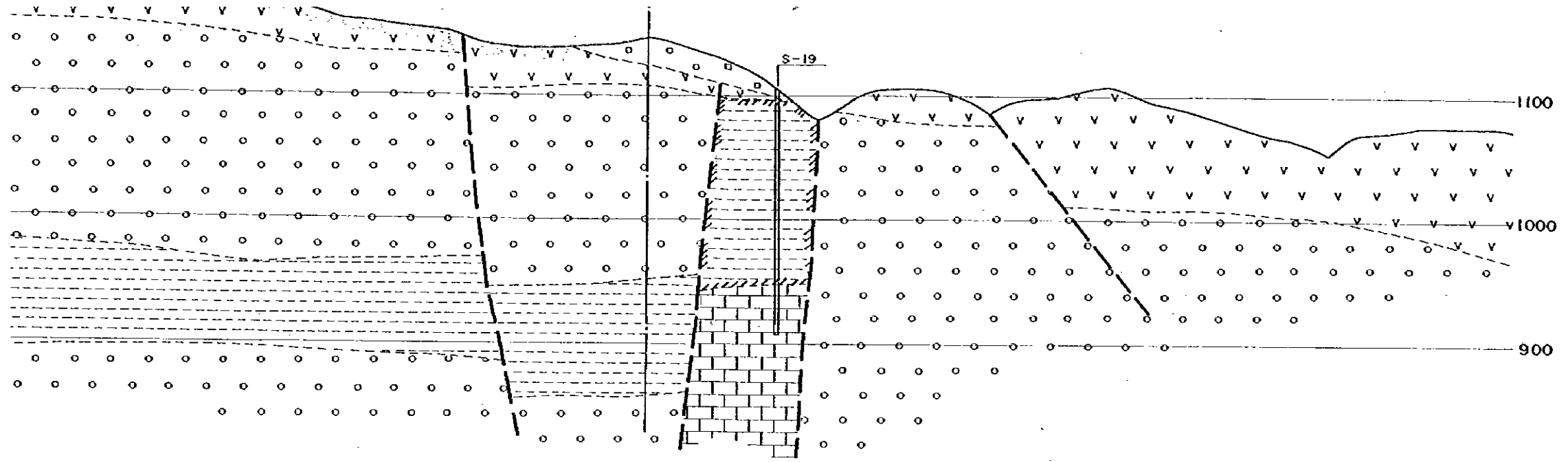
B'

B'















A - A'

LA PLOMOSA



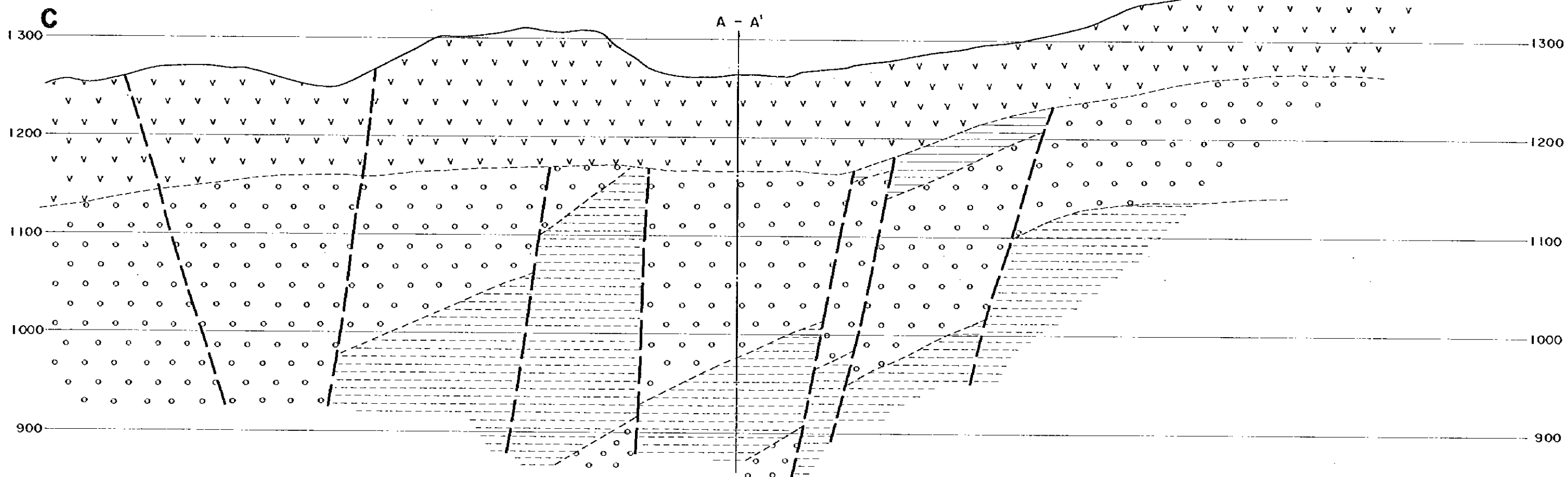


LEYENDA

-  ALUVIONES
 -  BASALTES
 -  IGNIPIRITAS, TOBAS
 -  BRECHA TOZACEA, DEPOSITOS FLUVIALES DERRUMBES
 -  ANDESITA
 -  DISCORDANCIA
 -  LUTITAS Y MARGAS
 -  CONGLOMERADOS Y MARGAS
 -  LUTITAS CALCAREAS
 -  CALIZAS
 -  ALTERACION HIDROTERMAL
 -  ZONA MINERALIZADA
 -  FALLA
 -  FALLA PROBABLE
- CUATERNARIO
 TERCARIO
 G. PADRE MIGUEL
 F. MATACALPA
 CRETACICO
 G. VALLE DE ANGELES
 F. ATIMA

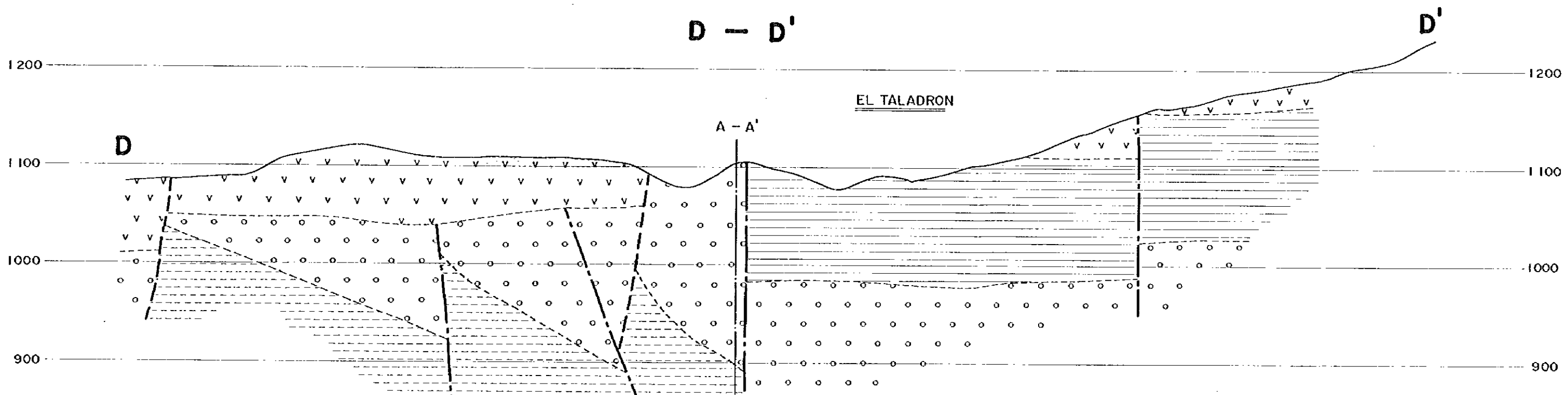
C - C'

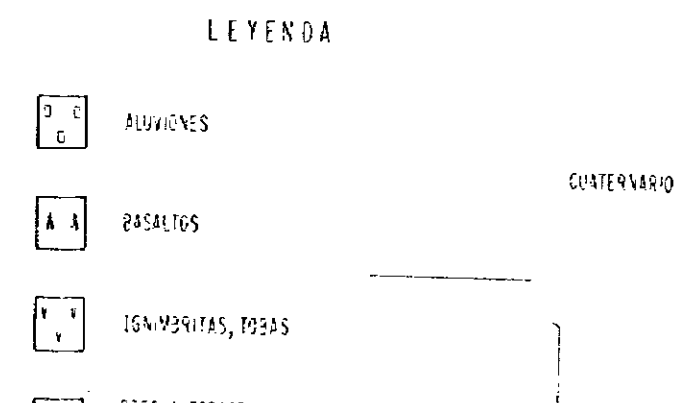
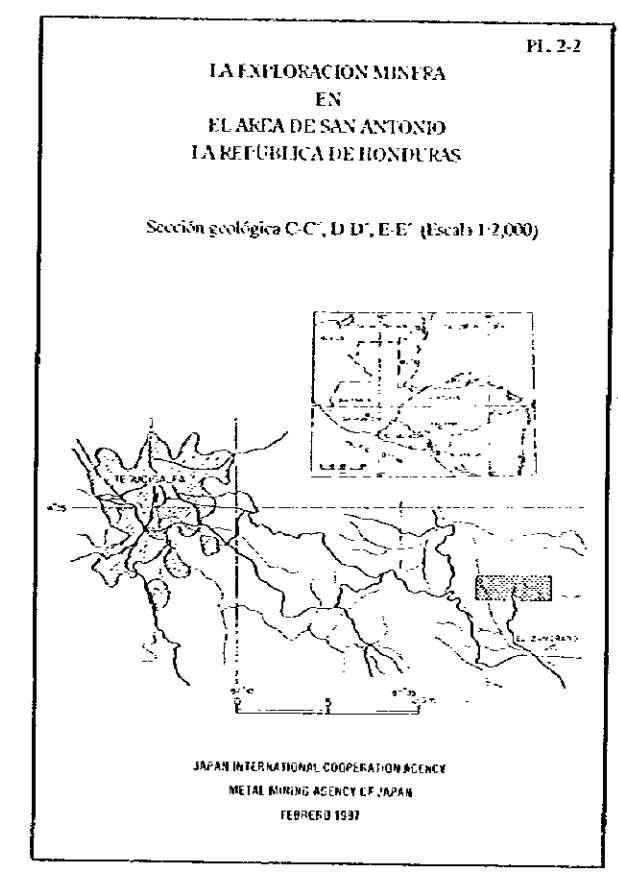
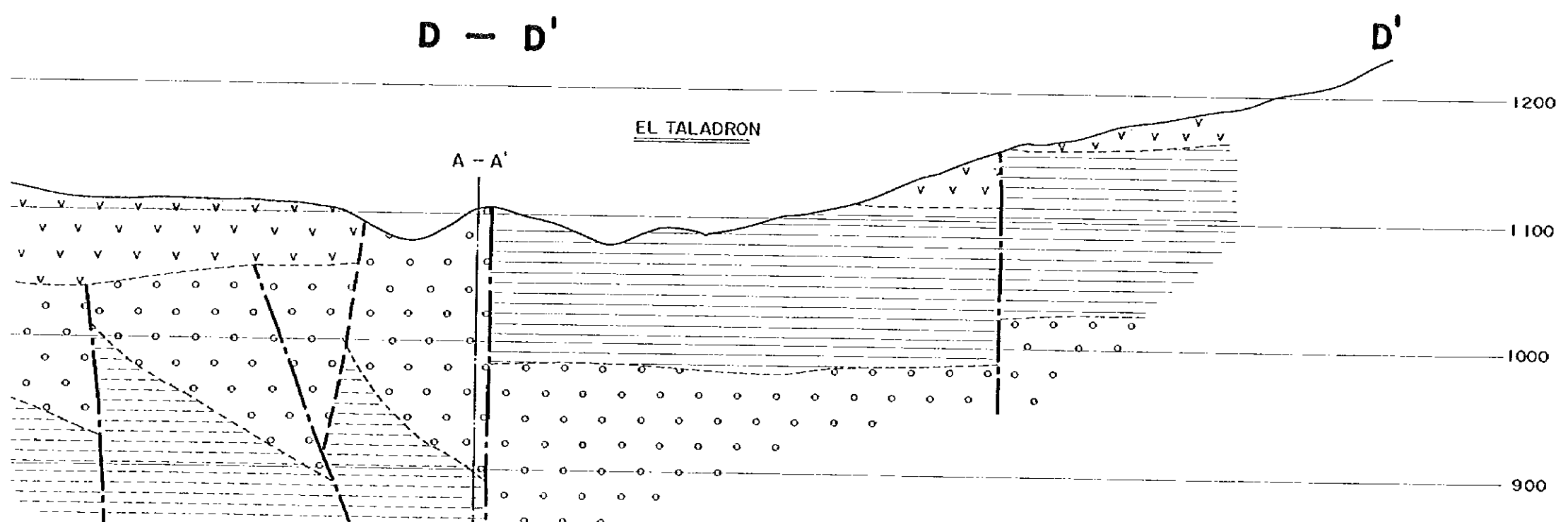
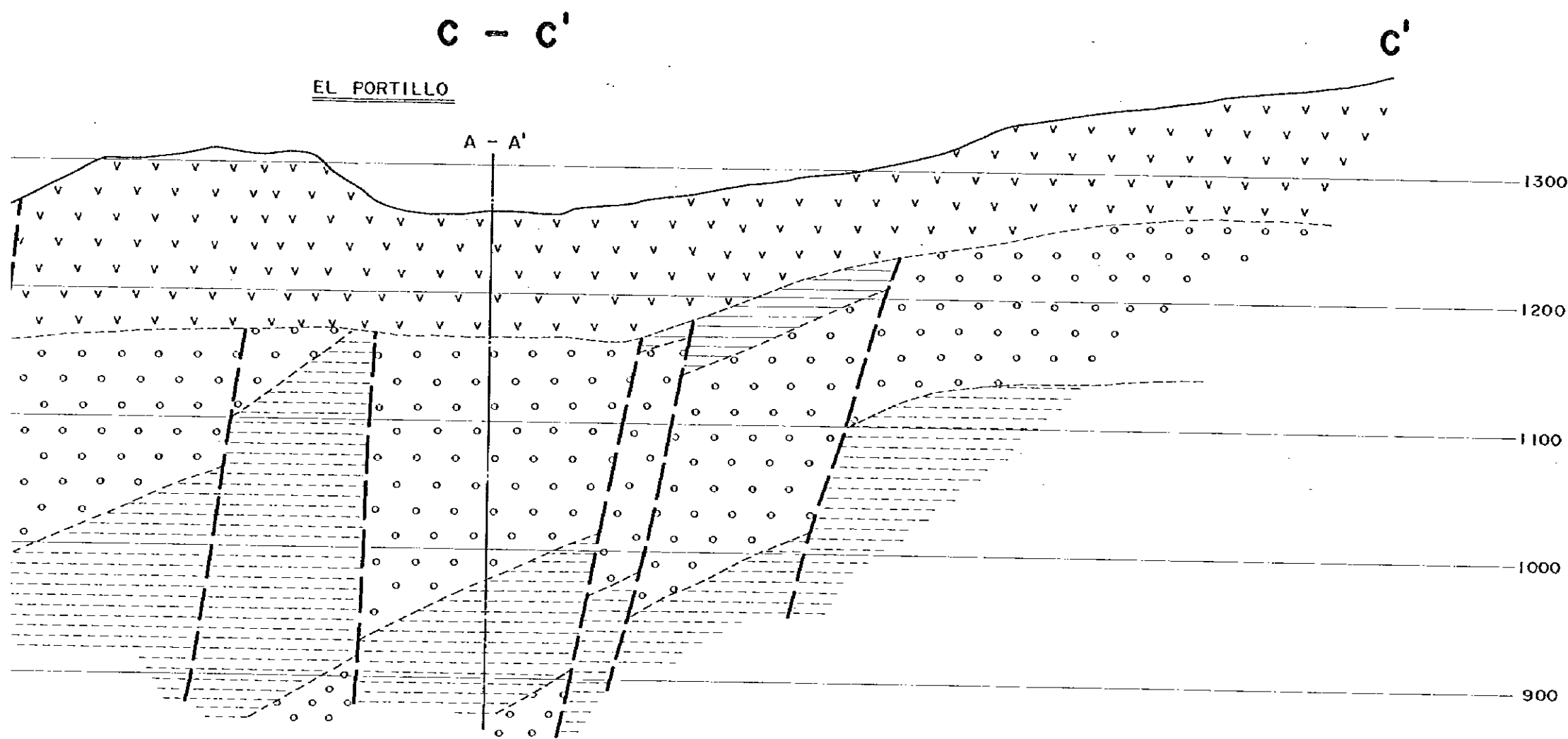
EL PORTILLO



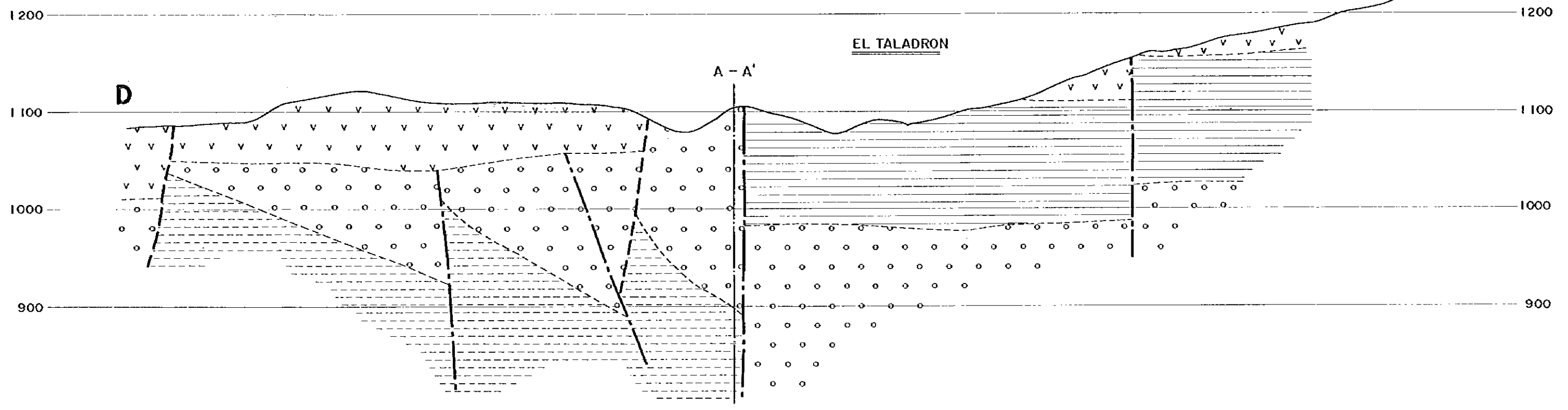
D - D'

EL TALADRON

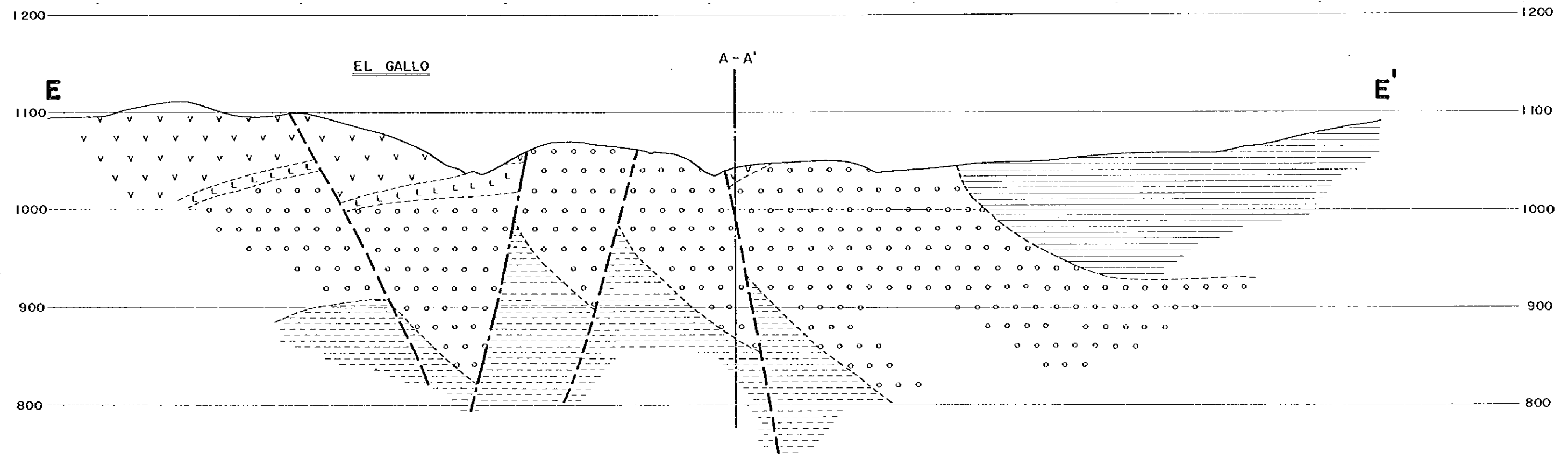


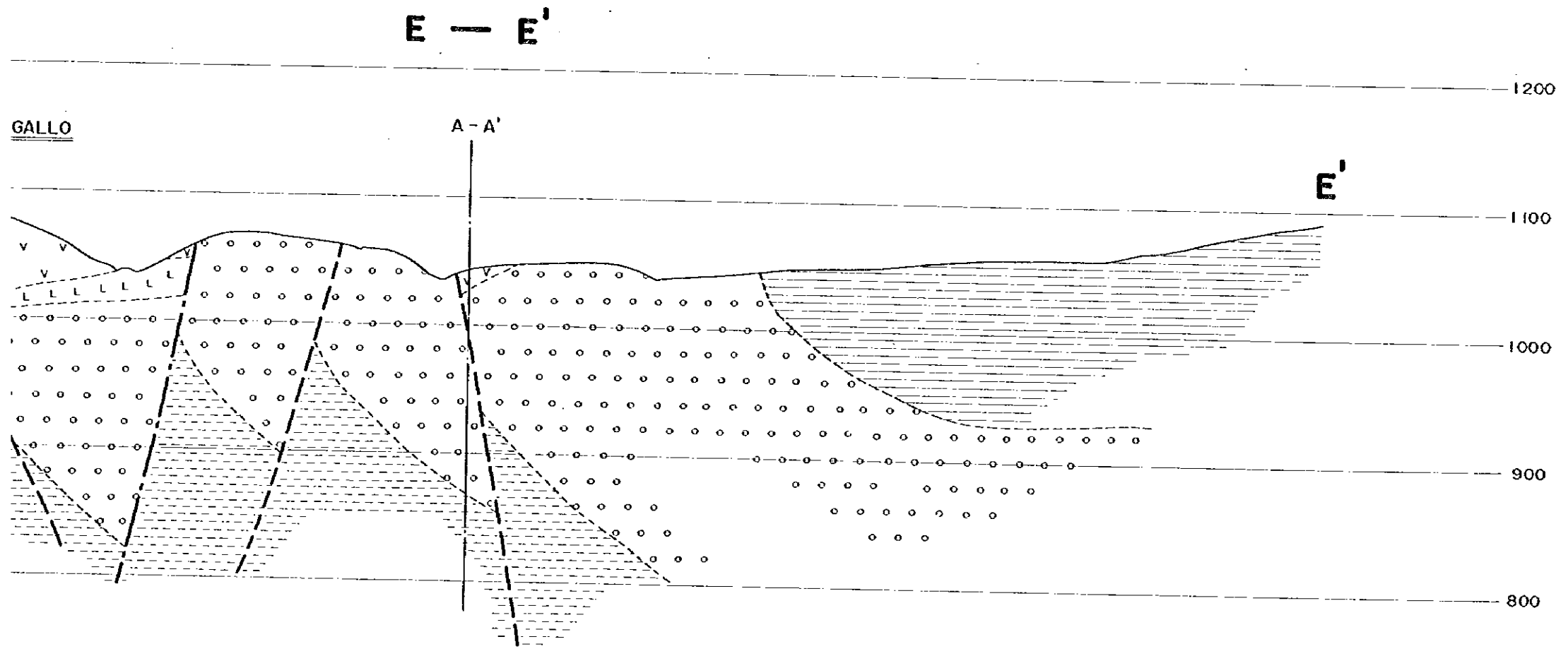
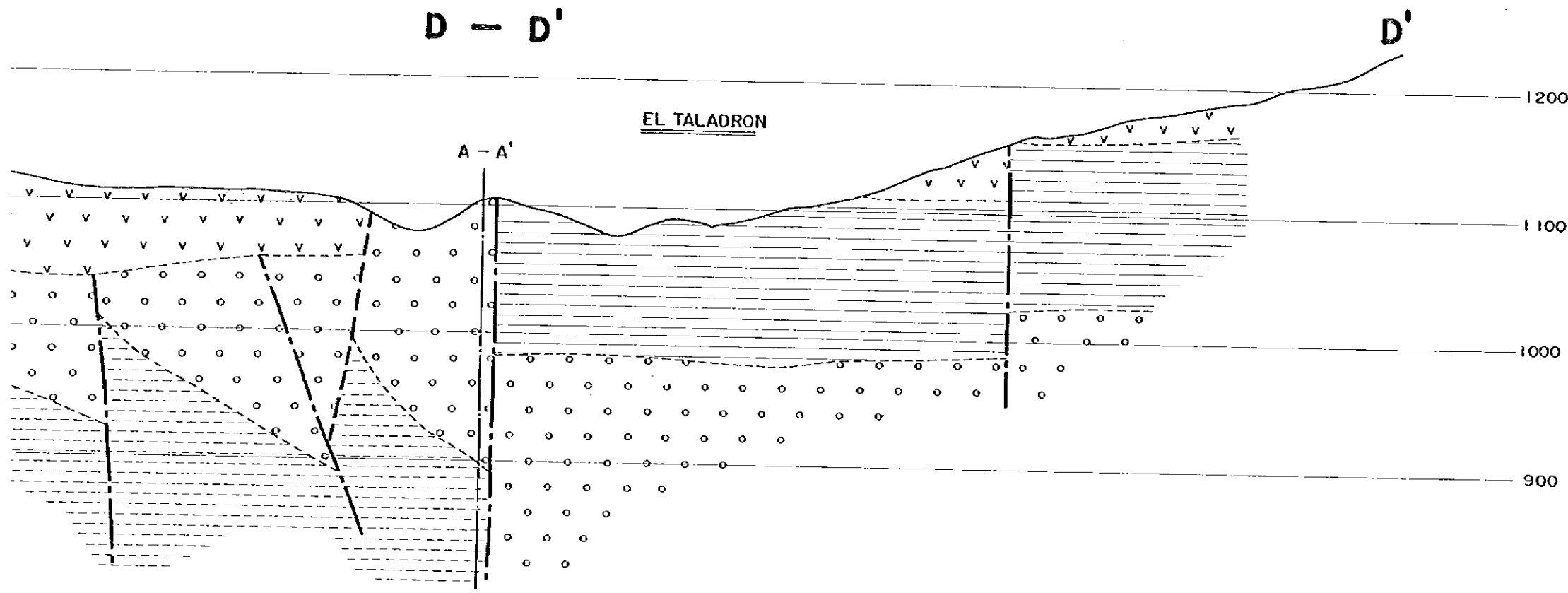


D - D'

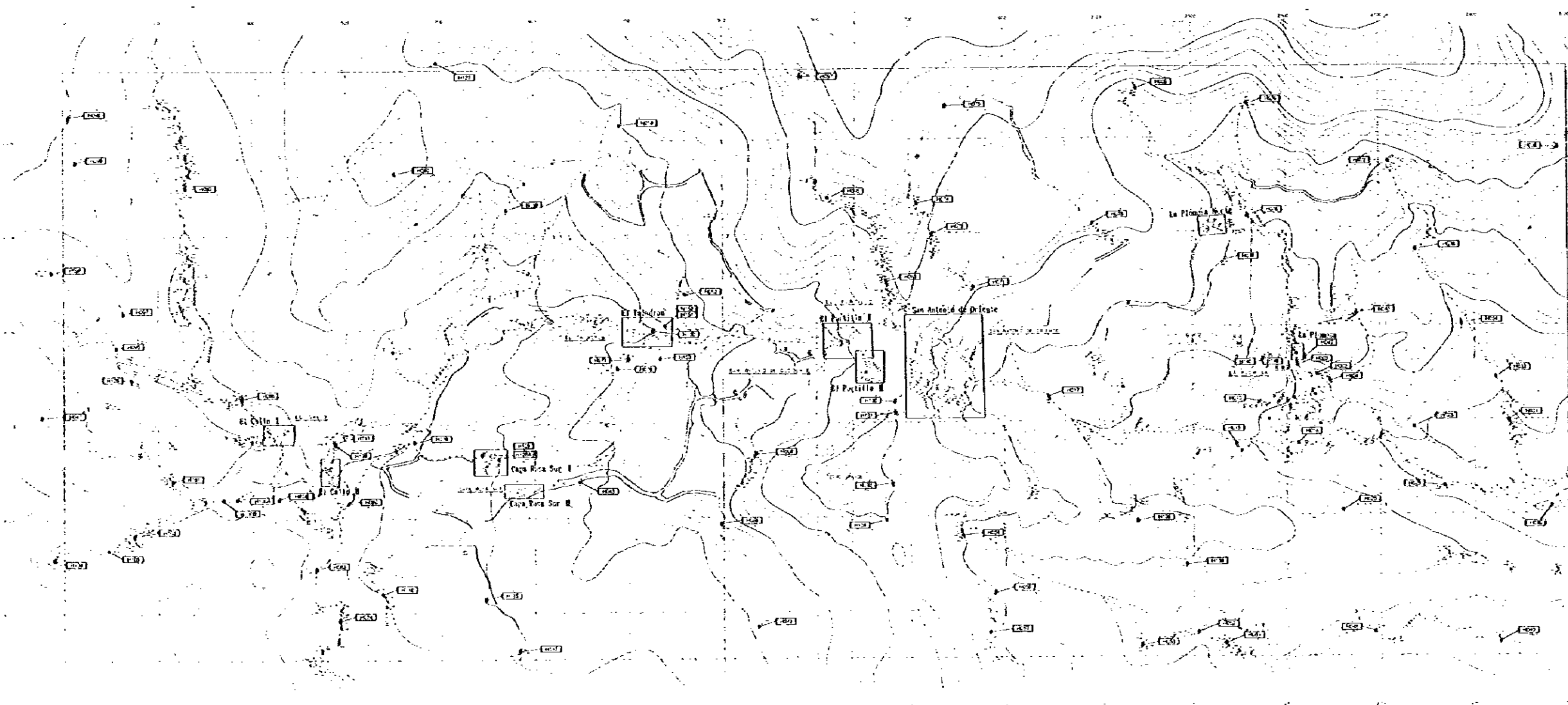


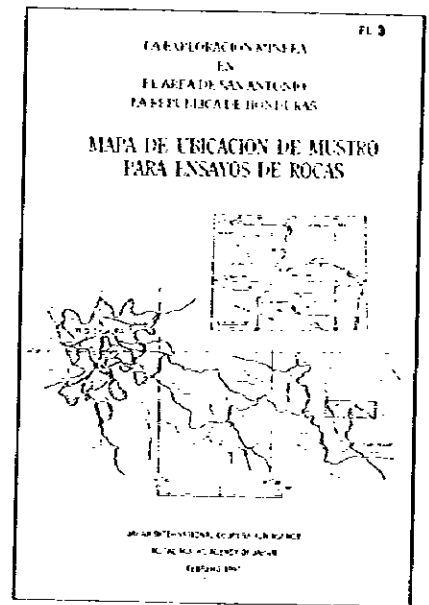
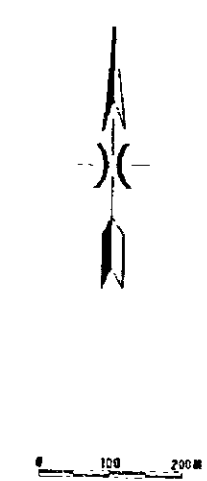
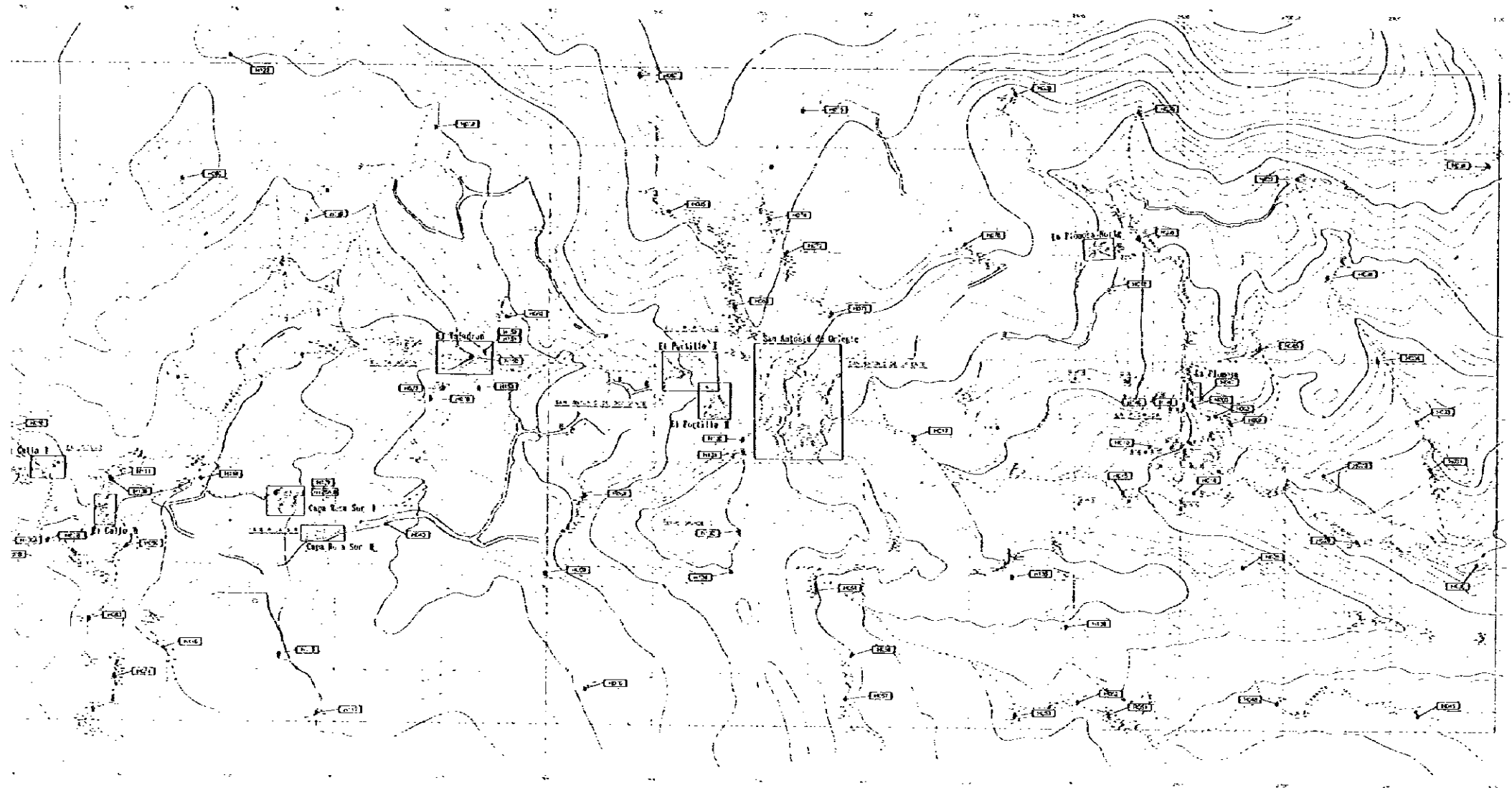
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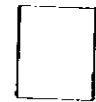


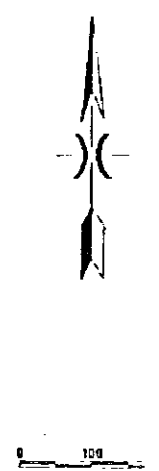
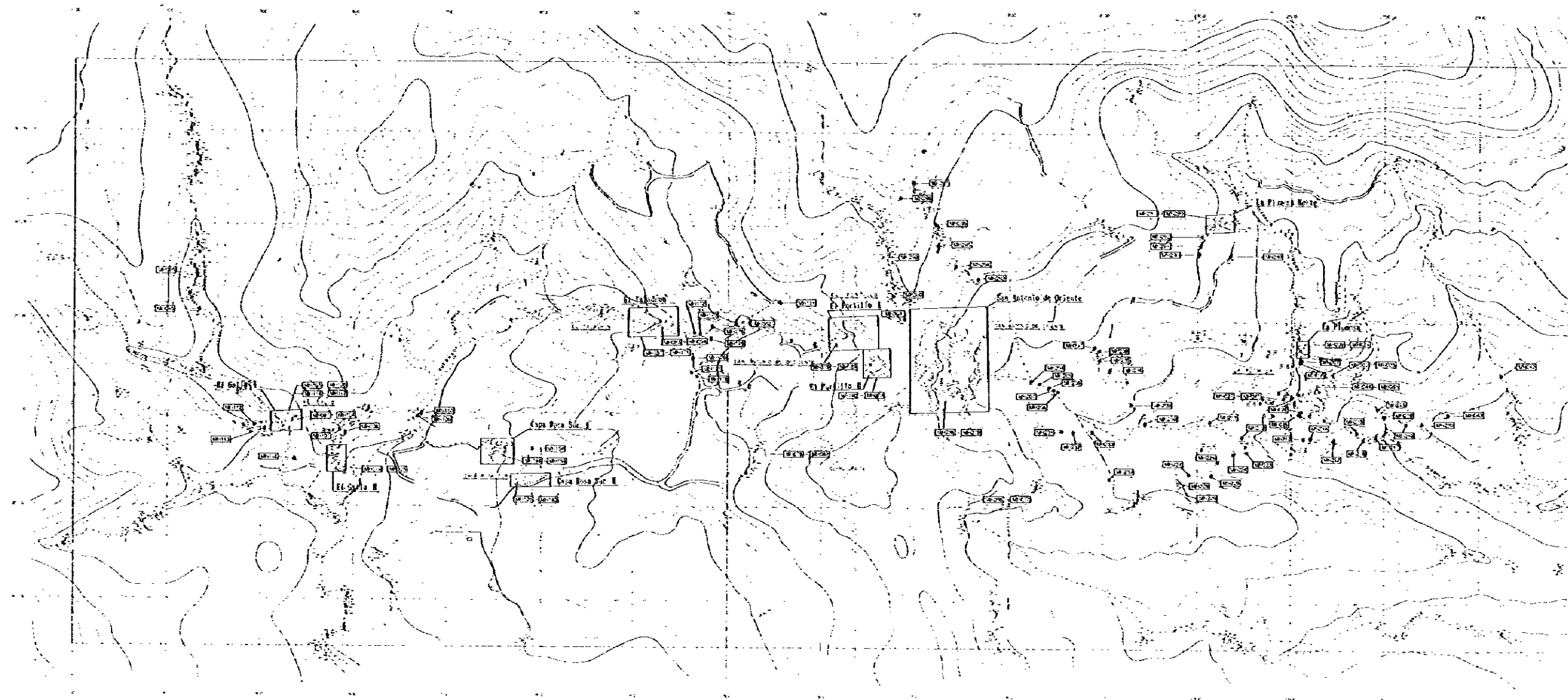
- LEYENDA**
- | | | | |
|--|---|---------------------|-------------|
| | ALUVIONES | | |
| | BASALTOS | | CUATERNARIO |
| | IGNIMBRITAS, TOBAS | | } TERCIARIO |
| | BRECHA TOBACEA, DEPOSITOS FLUVIALES DERRUMSES | G. PADRE MIGUEL | |
| | ANDESITA | F. MATASALPA | |
| | DISCORDANCIA | | |
| | LUTITAS Y MARGAS | G. VALLE DE ANGELES | } CRETACICO |
| | CONGLOMERADOS Y MARGAS | | |
| | LUTITAS CALCAREAS | F. ATIMA | |
| | CALIZAS | | |
| | ALTERACION HIDROTHERMAL | | |
| | ZONA MINERALIZADA | | |
| | FALLA | | |
| | FALLA PEGNABLE | | |

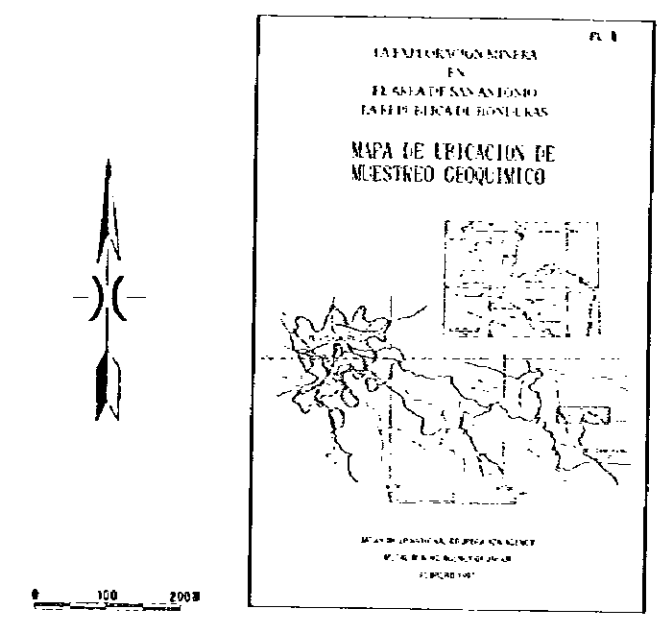
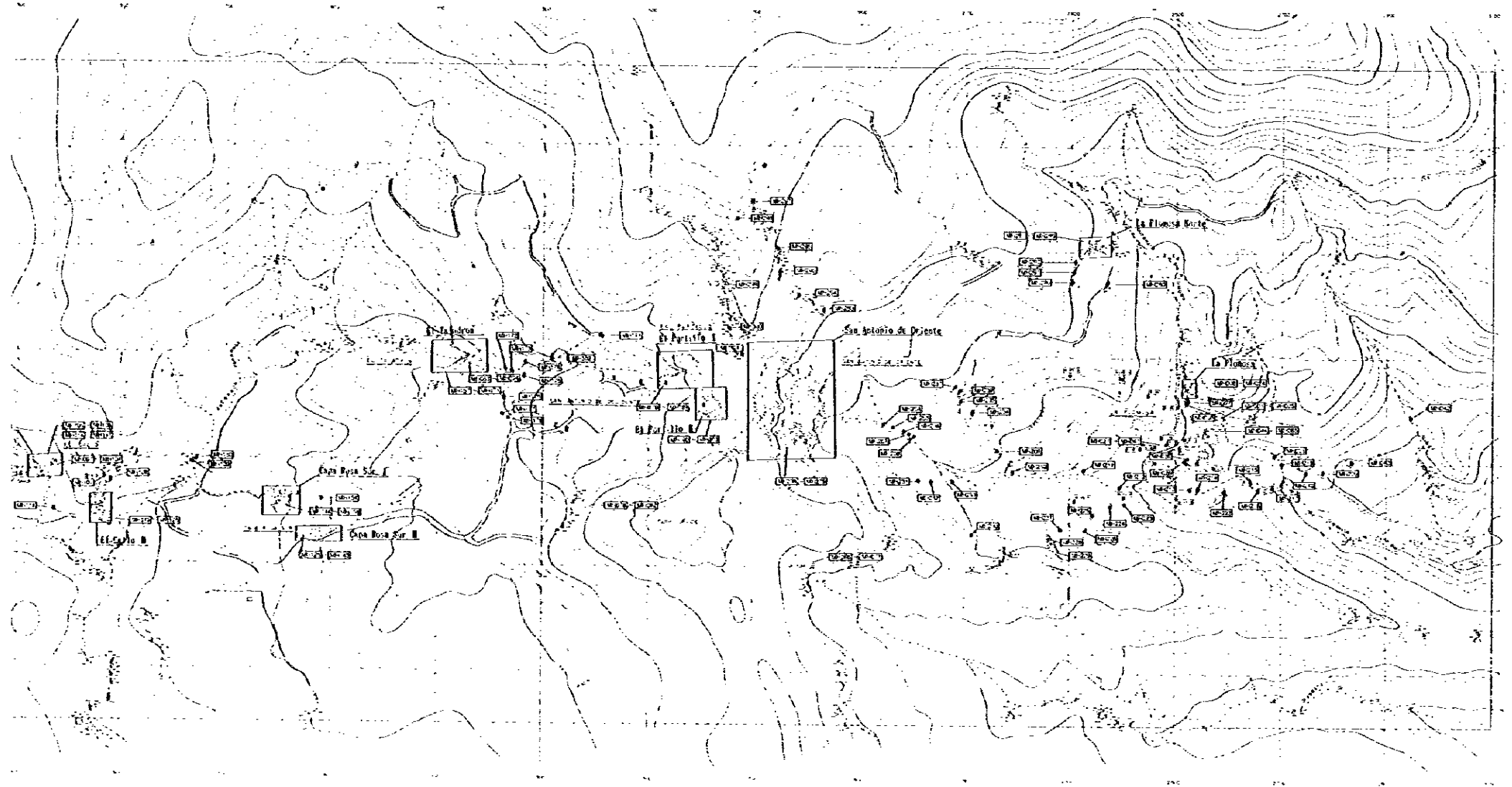




REFERENCIAS

-  Punto de muestro
-  Area de estudio detallado





PL. 1

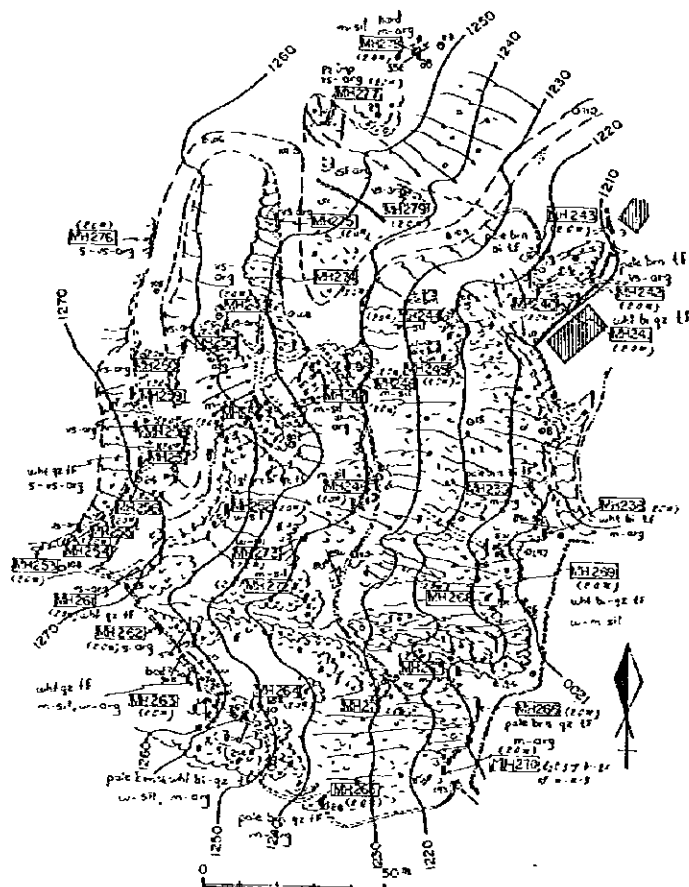
LA MINERÍA EN
EL ESTADO DE SAN ANTONIO
LA FEDERACIÓN DE ESTADOS UNIDOS MEXICANOS

**MAPA DE UBICACION DE
MUESTREO GEOQUIMICO**

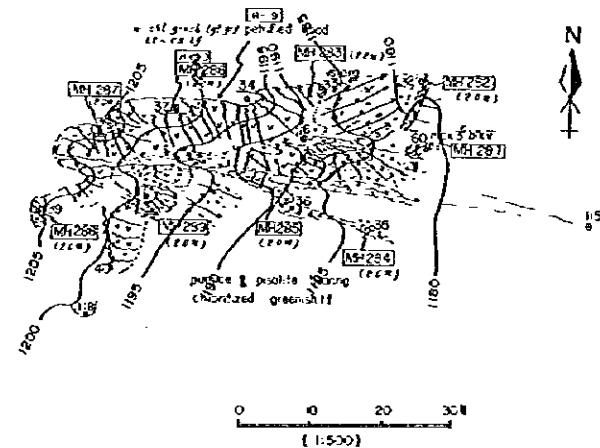
MEXICO: INSTITUTO GEOGRAFICO NACIONAL
ESTADO DE SAN ANTONIO: SECRETARIA DE ECONOMIA
1980

REFERENCIAS

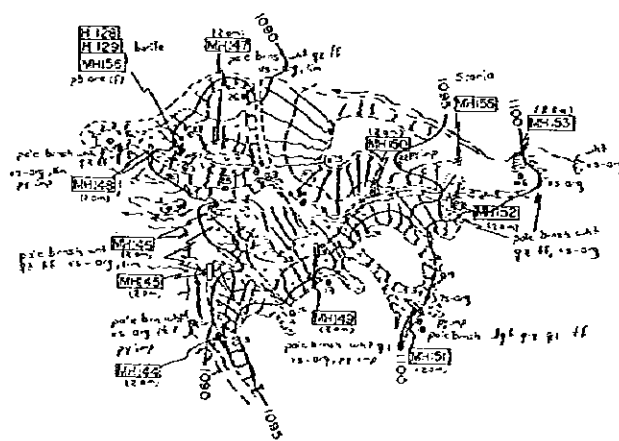
- MS 200 Punto de muestreo
- Area de mapas detallados



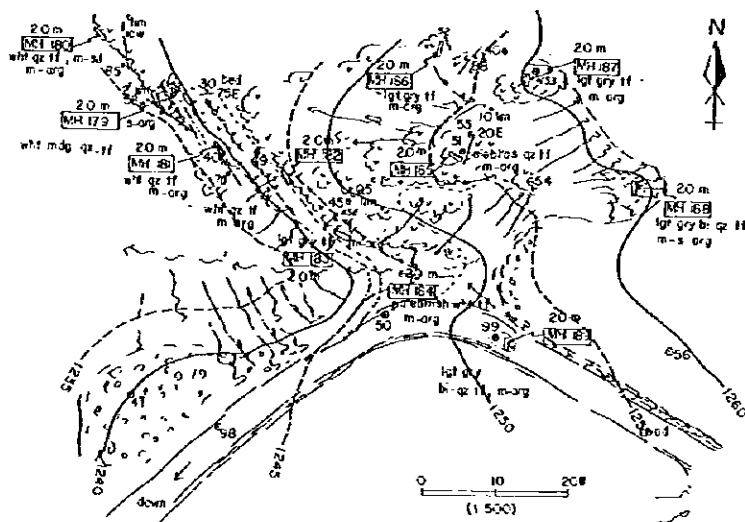
SAN ANTONIO DE ORIENTE



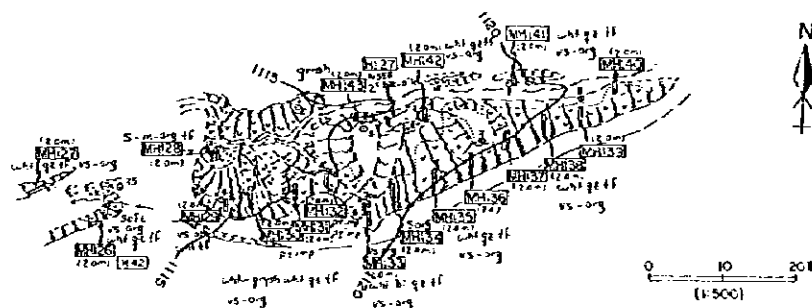
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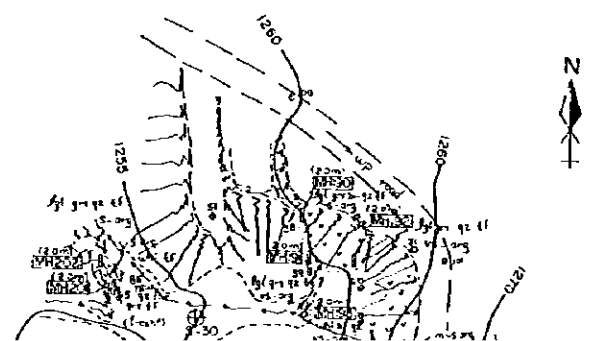
CAPA ROSA SUR I



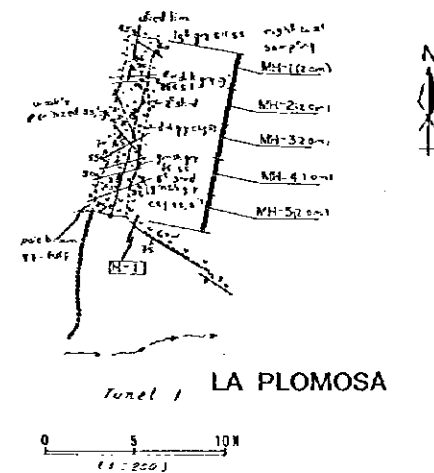
EL PORTILLO I



CAPA ROSA SUR II



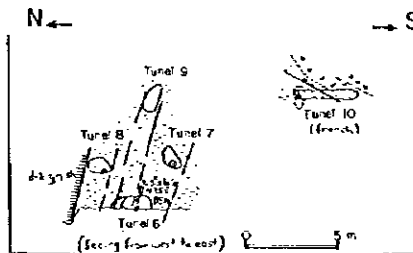
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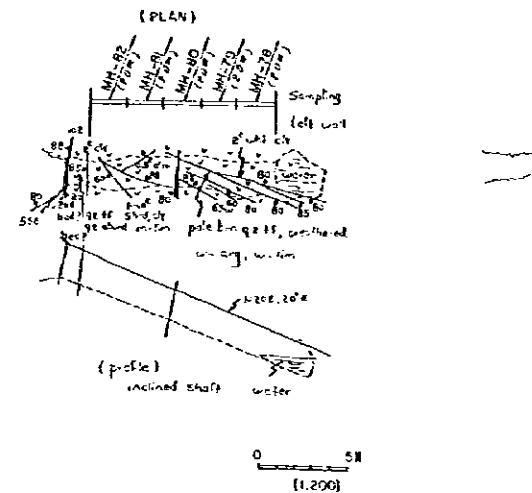
Tunnel 1 LA PLOMOSA



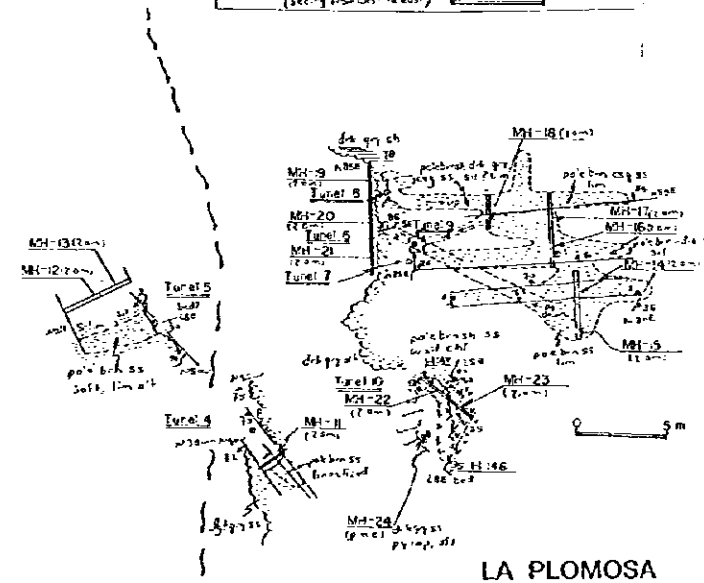
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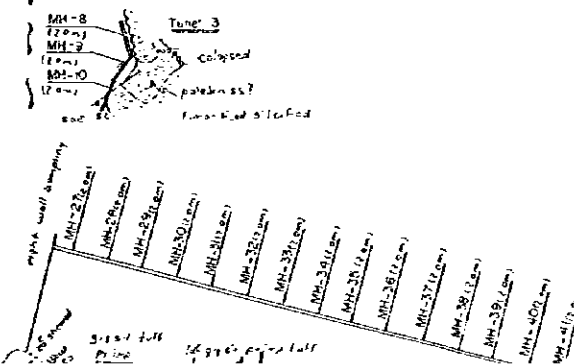
Tunnel 7, 8, 9, 10 LA PLOMOSA



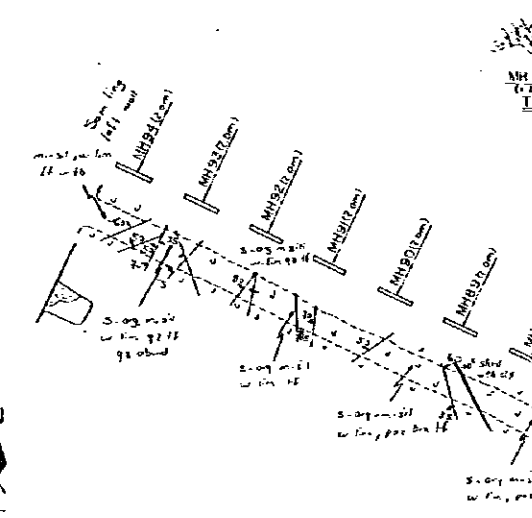
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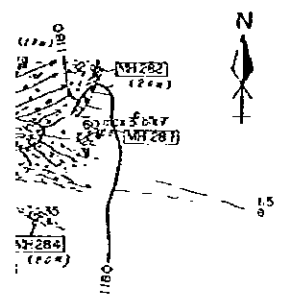
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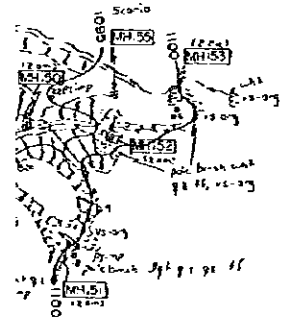
Tunnel 3 LA PLOMOSA



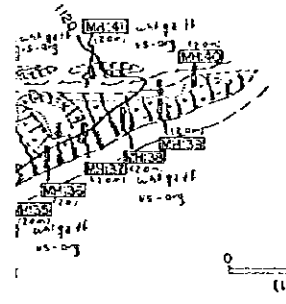
EL TALADRON



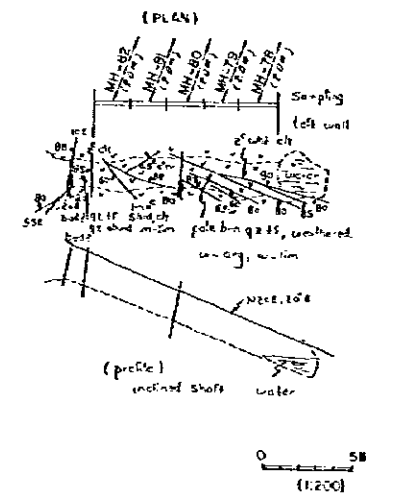
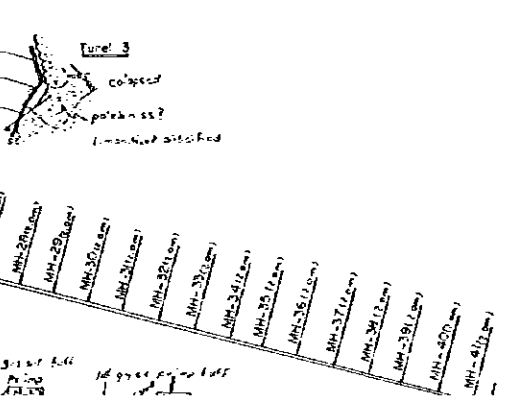
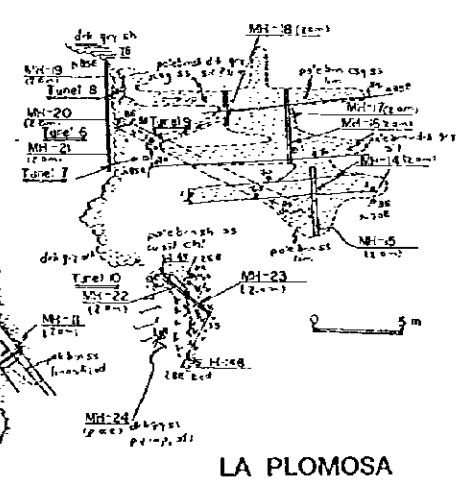
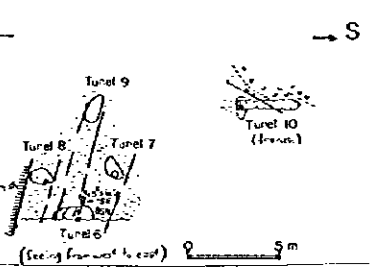
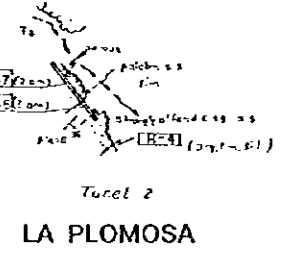
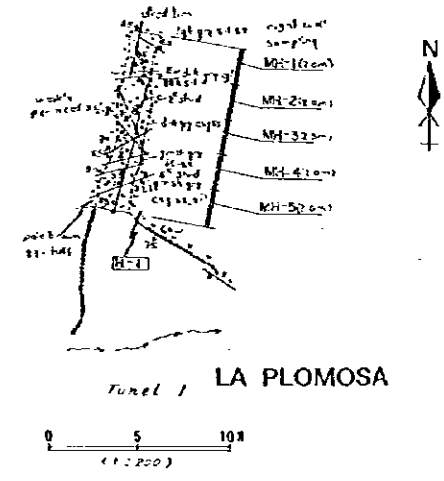
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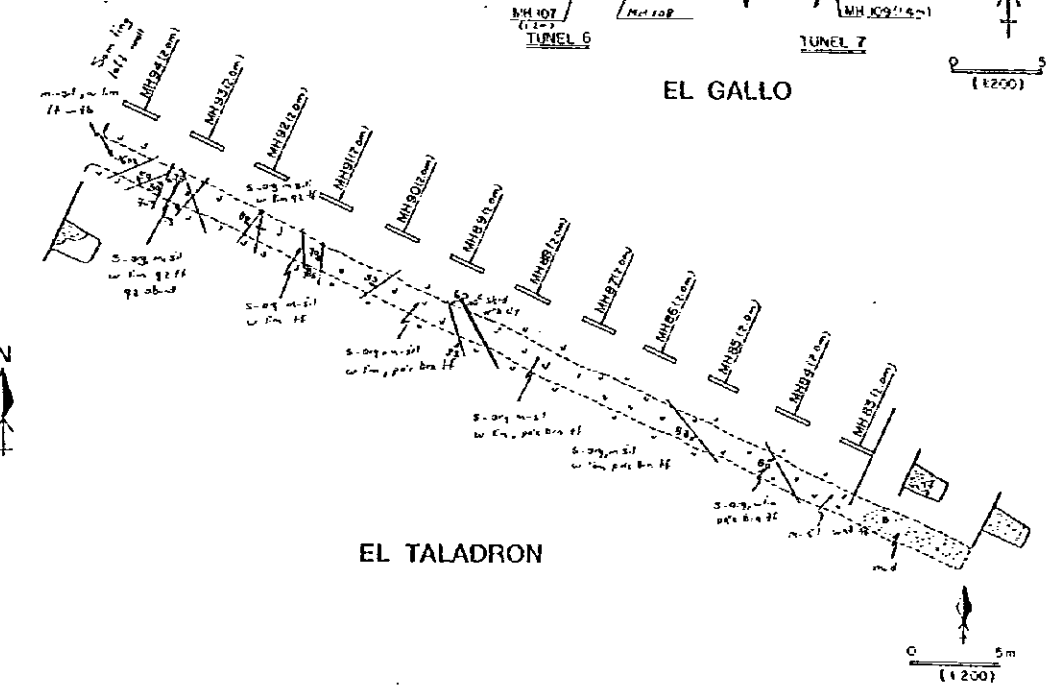
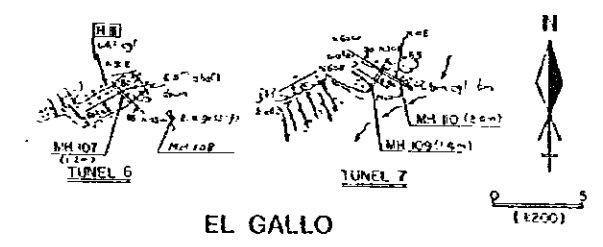
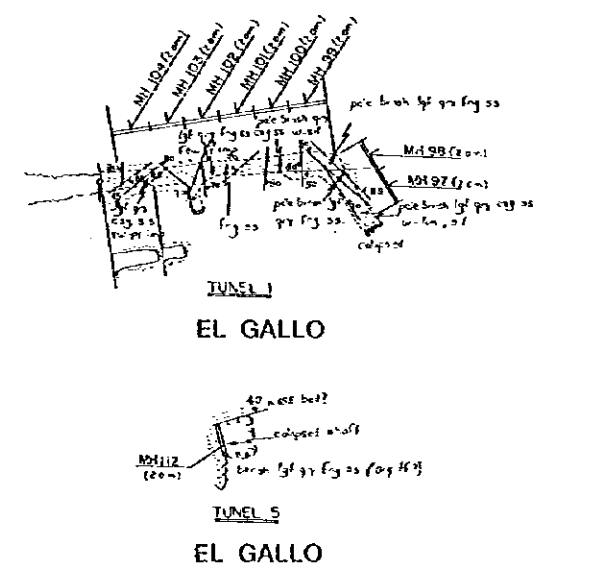
SUR I



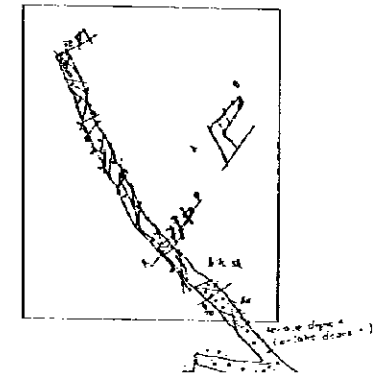
SUR II



SAN ANTONIO DE OCCIDENTE

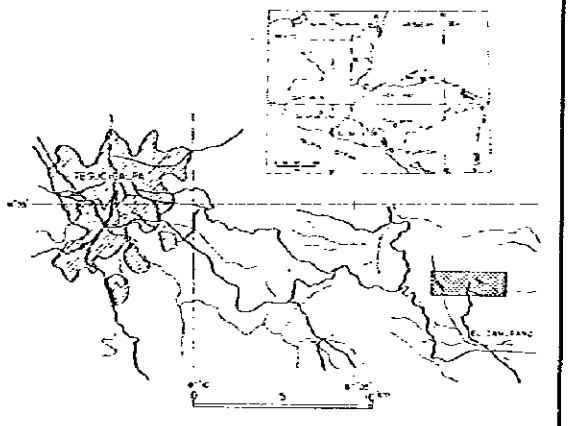


EL TALADRON



LA EXPLORACION MINERA EN EL AREA DE SAN ANTONIO LA REPUBLICA DE HONDURAS

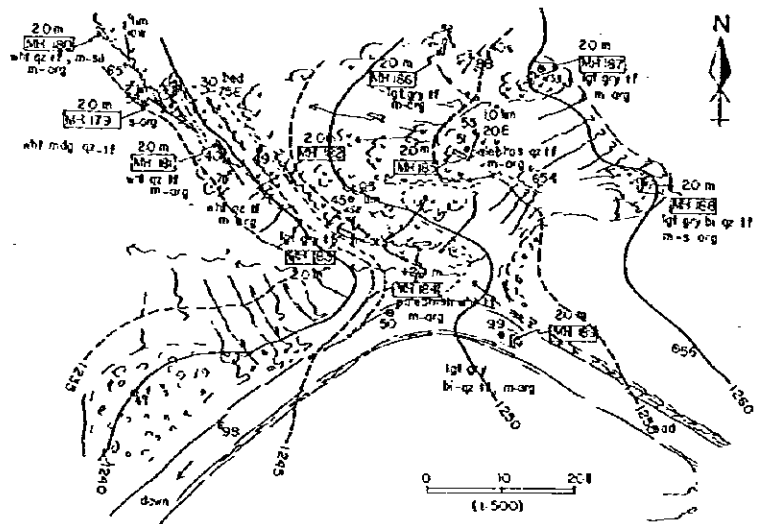
Esquemas superficiales y de tucelos (Escala 1:200 a 1:1,000)



JAPAN INTERNATIONAL COOPERATION AGENCY METAL MINING AGENCY OF JAPAN FEBRUARY 1987

LEYENDA

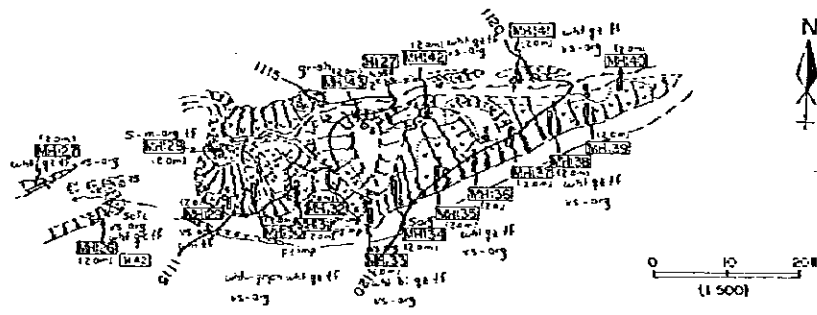
- MN 1 } punto de muestreo
- H 1 } punto de muestreo
- ∇ ∇ } IGNIMBRITAS, TOBAS
- △ △ } BRECHAS
- } LUTITAS
- ▨ } ARENISCAS
- ○ } CONGLOMERADOS



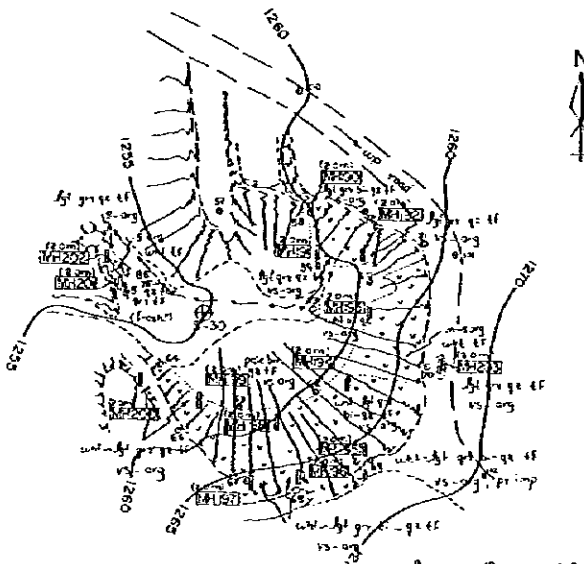
EL PORTILLO I



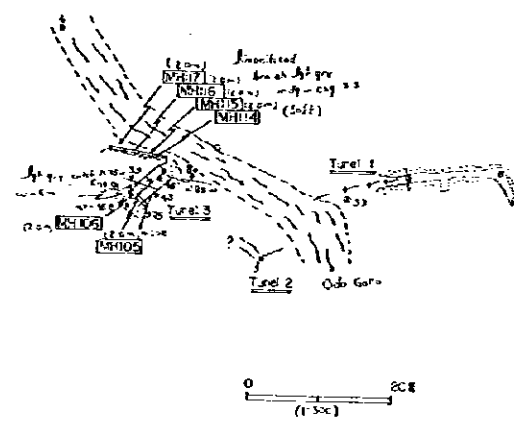
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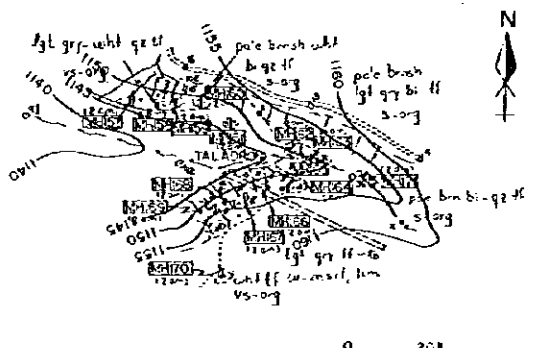
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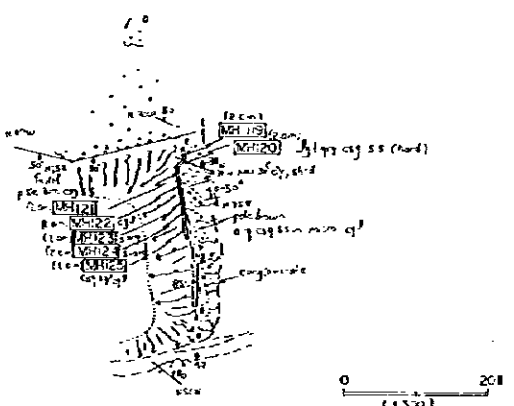
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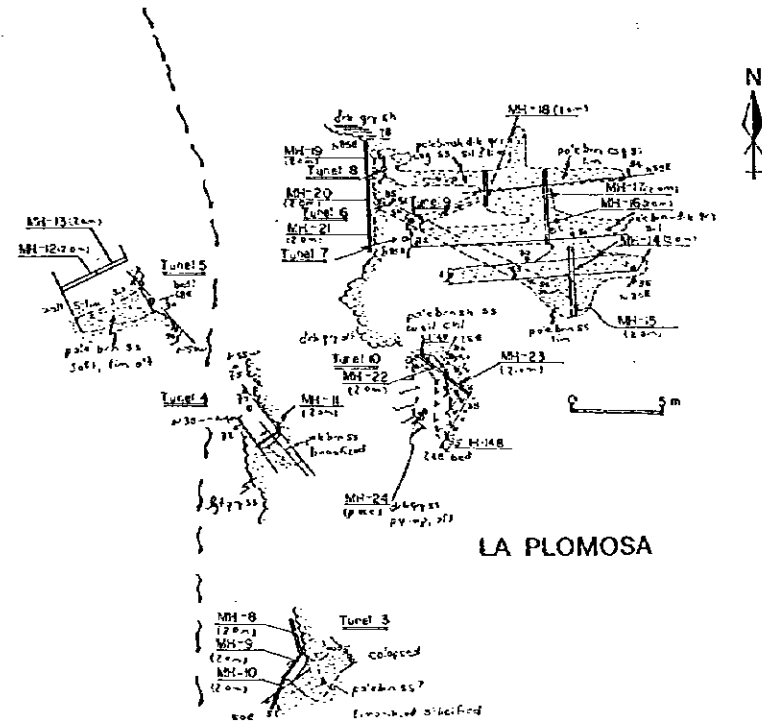
EL GALLO I



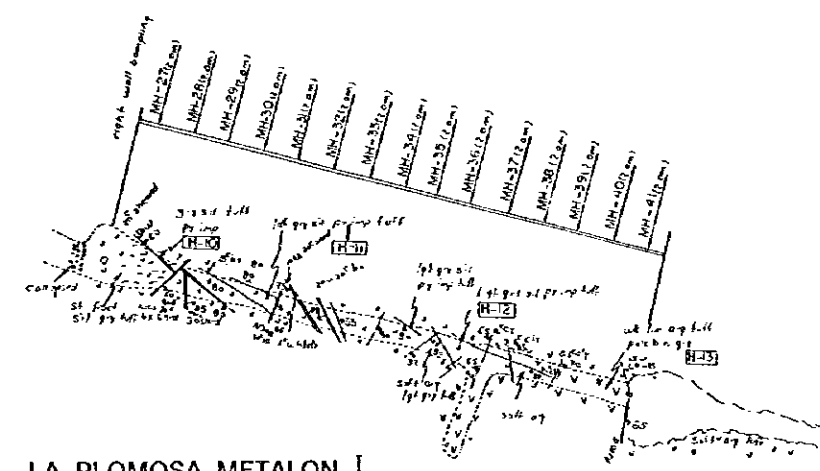
EL TALADRON



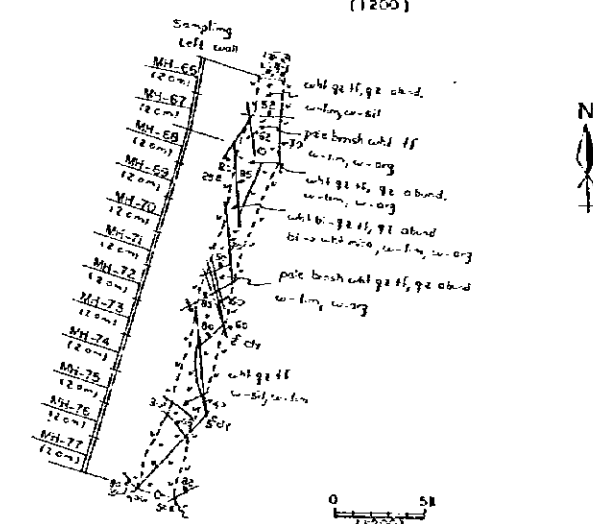
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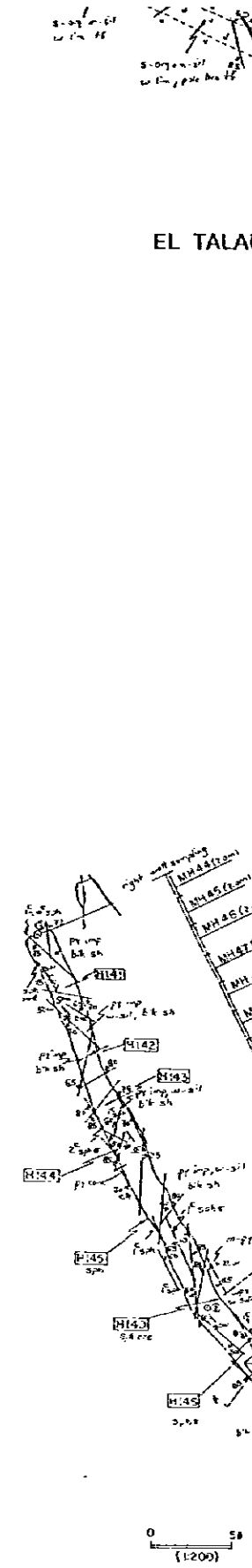
LA PLOMOSA



LA PLOMOSA METALON I

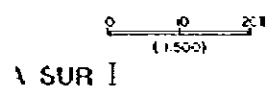


LA MINA

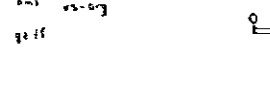
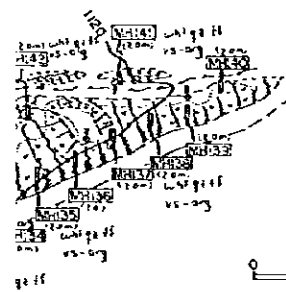


EL TALAI

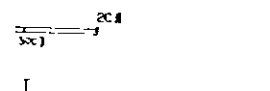
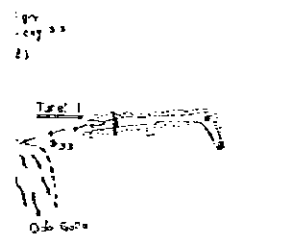
MH-15 (12m)



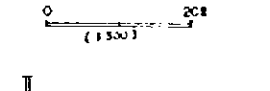
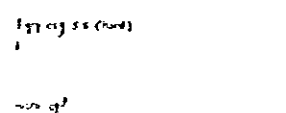
A SUR I



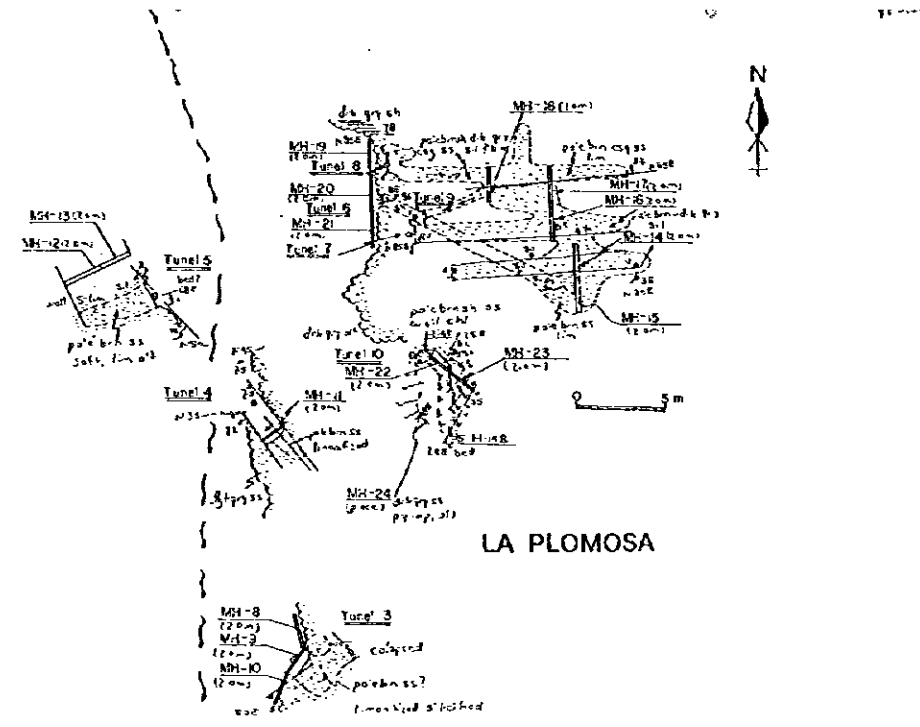
SUR I



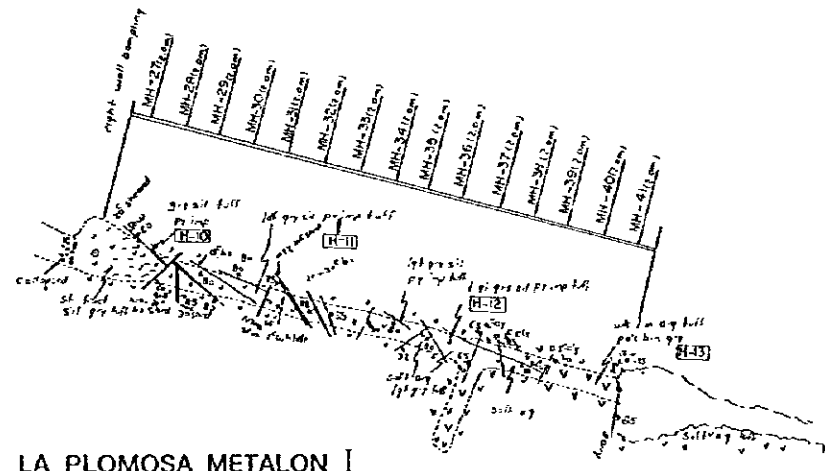
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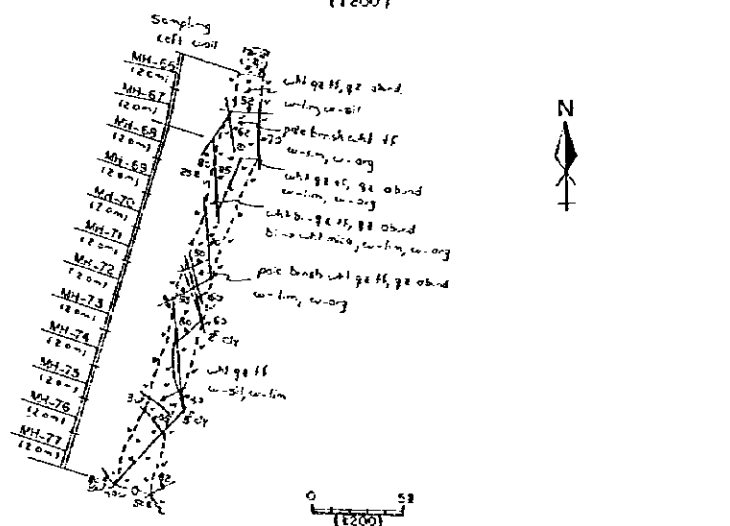
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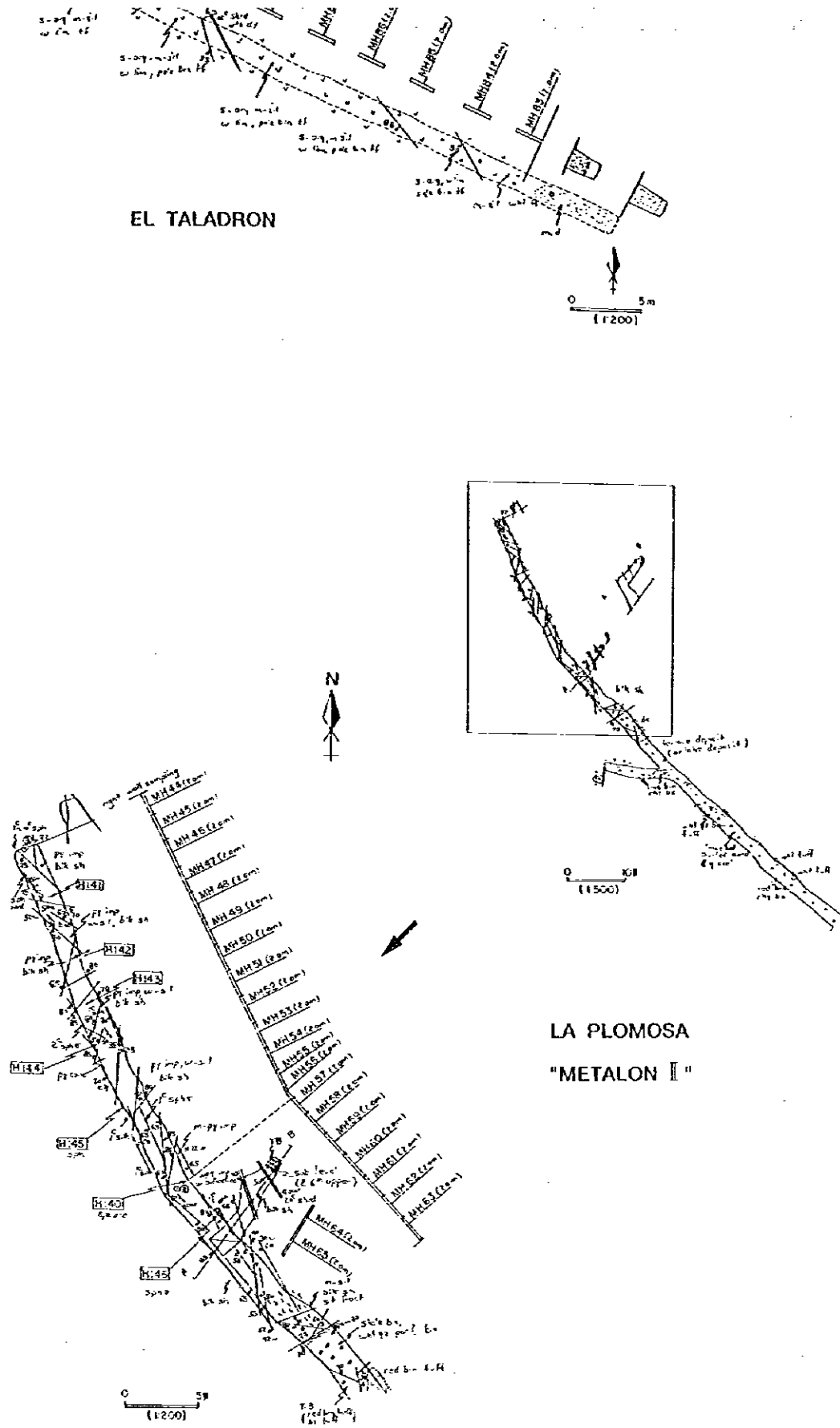
LA PLOMOSA



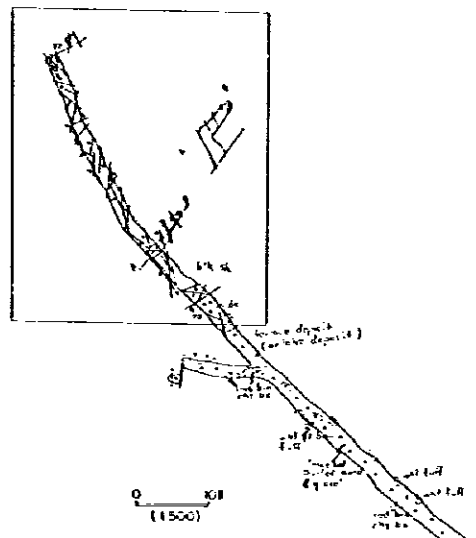
LA PLOMOSA METALON I



LA MINA



EL TALADRON



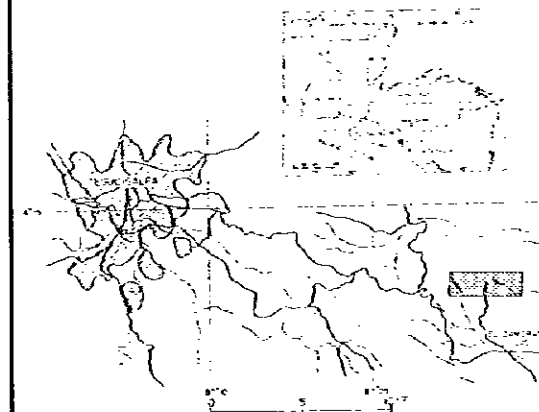
LA PLOMOSA "METALON II"

LEYENDA

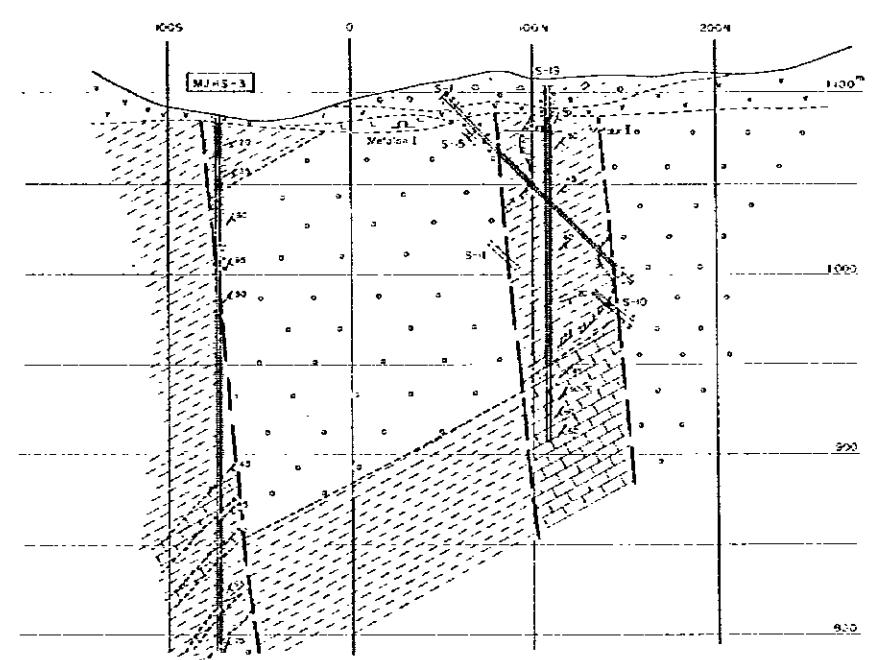
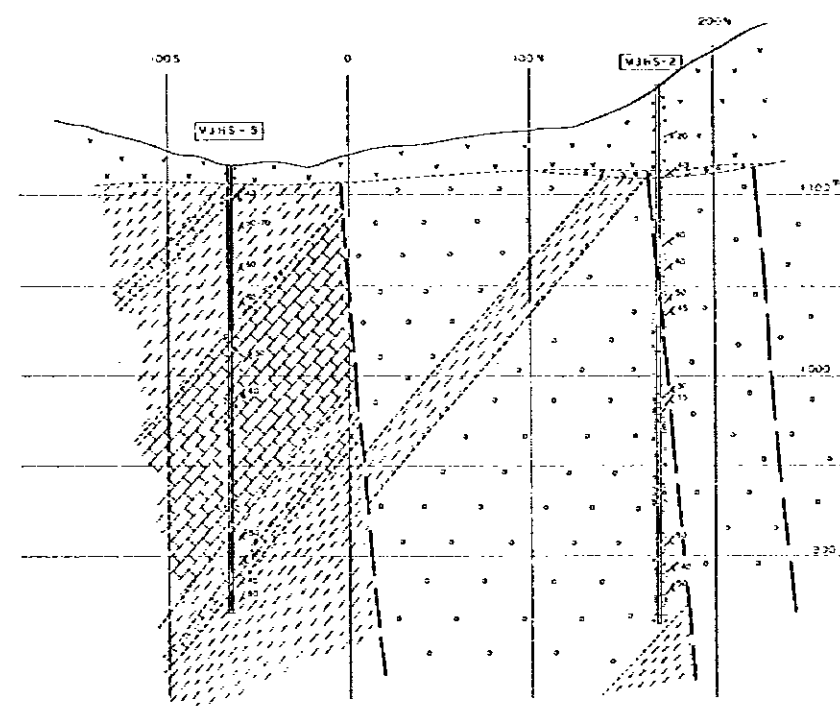
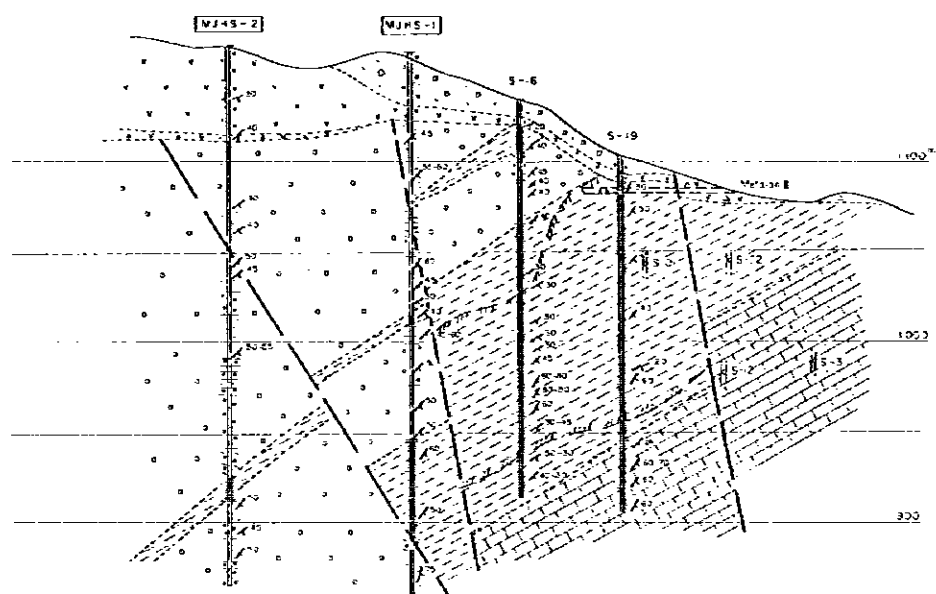
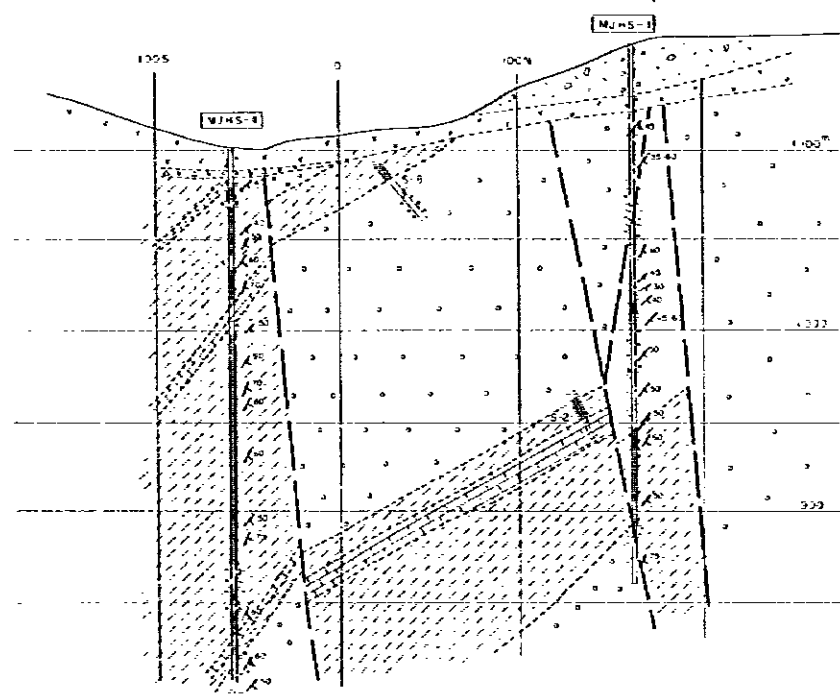
- MN 1 punto de muestreo
- H 1 punto de muestreo
- v v IGNIMBRITAS, TOBAS
- △ △ BRECHAS
- LUTITAS
- . . . ARENISCAS
- o o CONGLOMERADOS

LA EXPLORACION MINERA
EN
EL AREA DE SAN ANTONIO
LA REPUBLICA DE HONDURAS

Secciones de las perforaciones



JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
FEBRERO 1987



LEYENDA

- DERRUMBES
- TOBAS, IGNIERITAS
- BRECHAS DE BASE
- LUTITAS, MARGAS
- ARENISCAS, CONGLOMERADOS
- CALIZAS
- TUNEL
- CUERPO INCONSOLIDADO
- FALLA
- ANGULO DE ESTRATIFICACION
- ANGULO DE FALLA

0 100m

