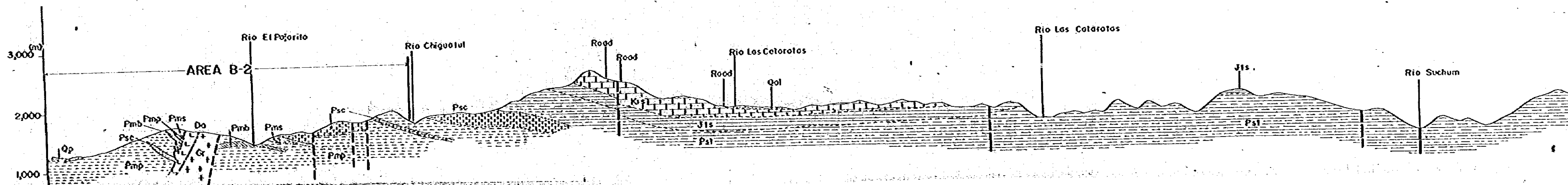
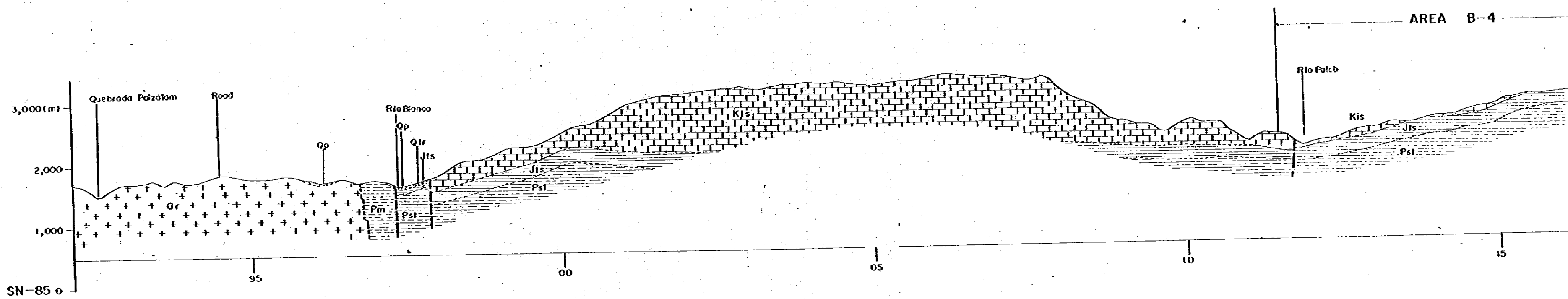
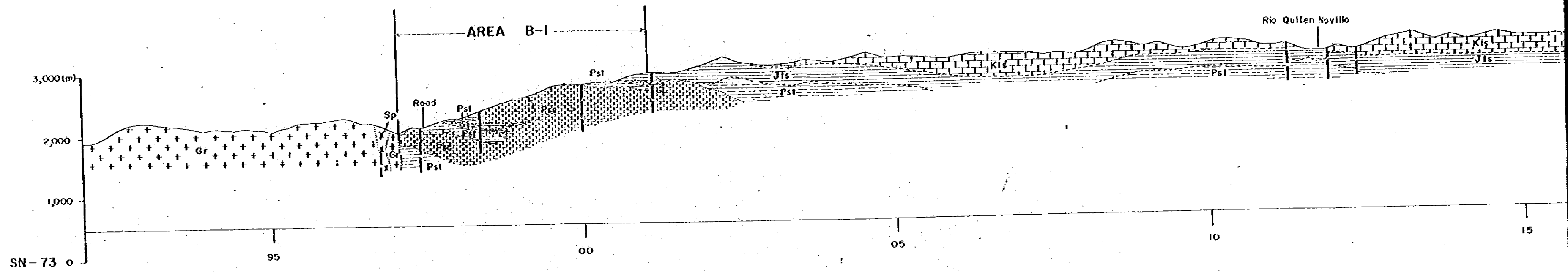
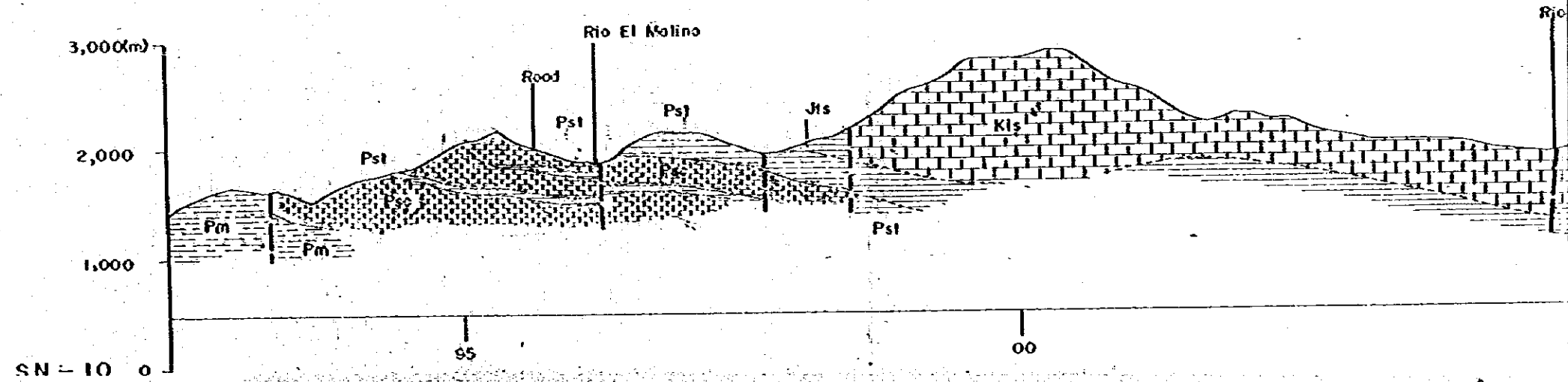
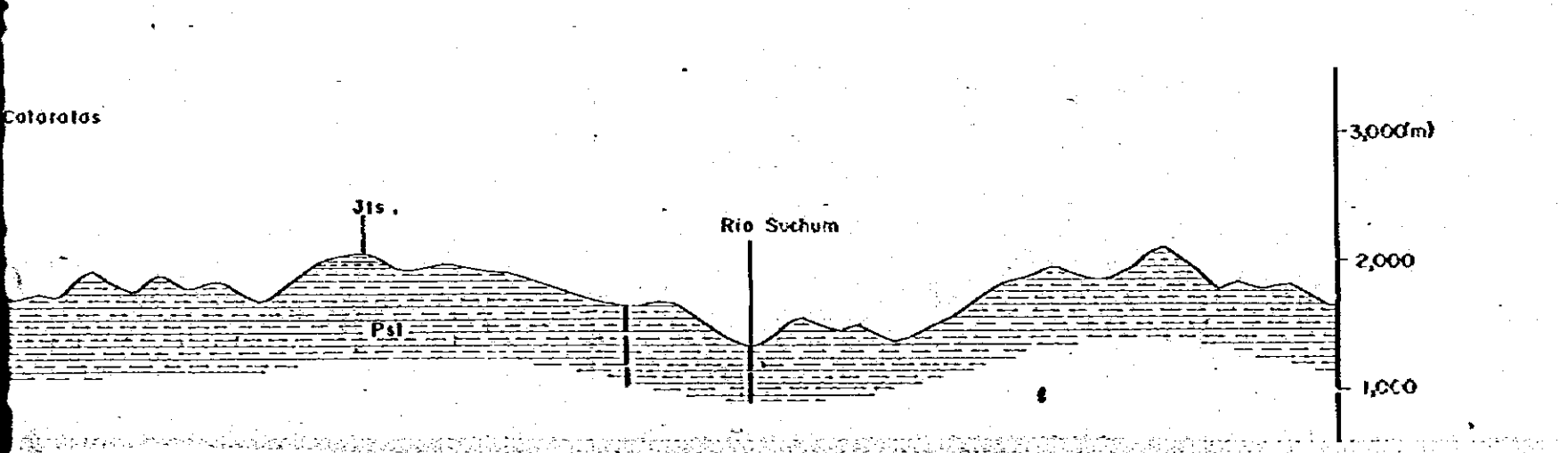
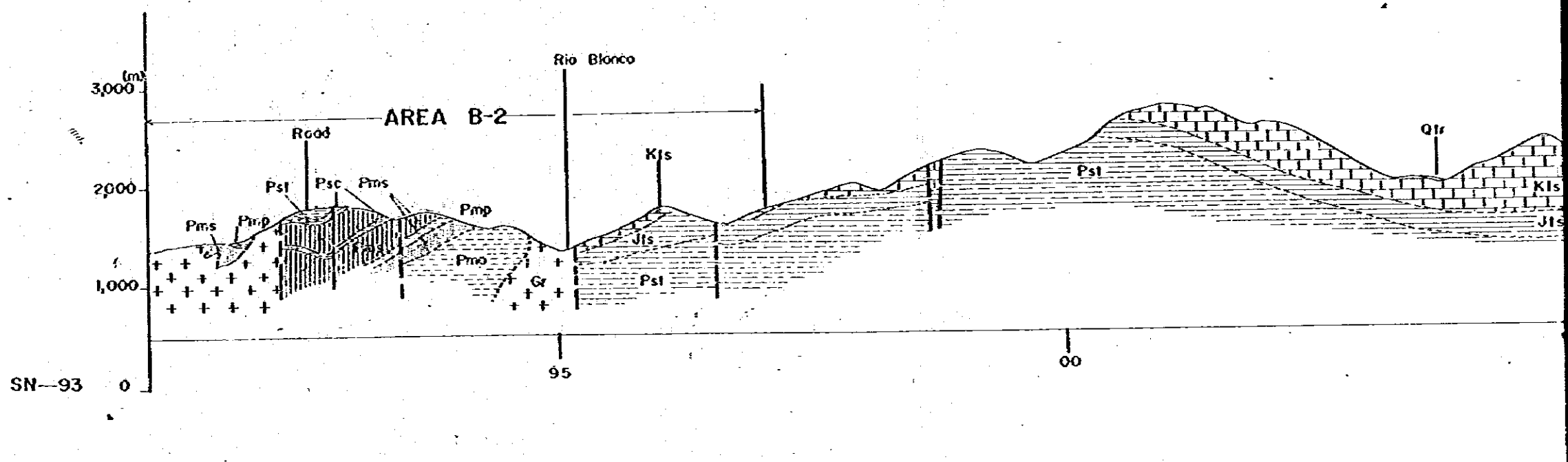
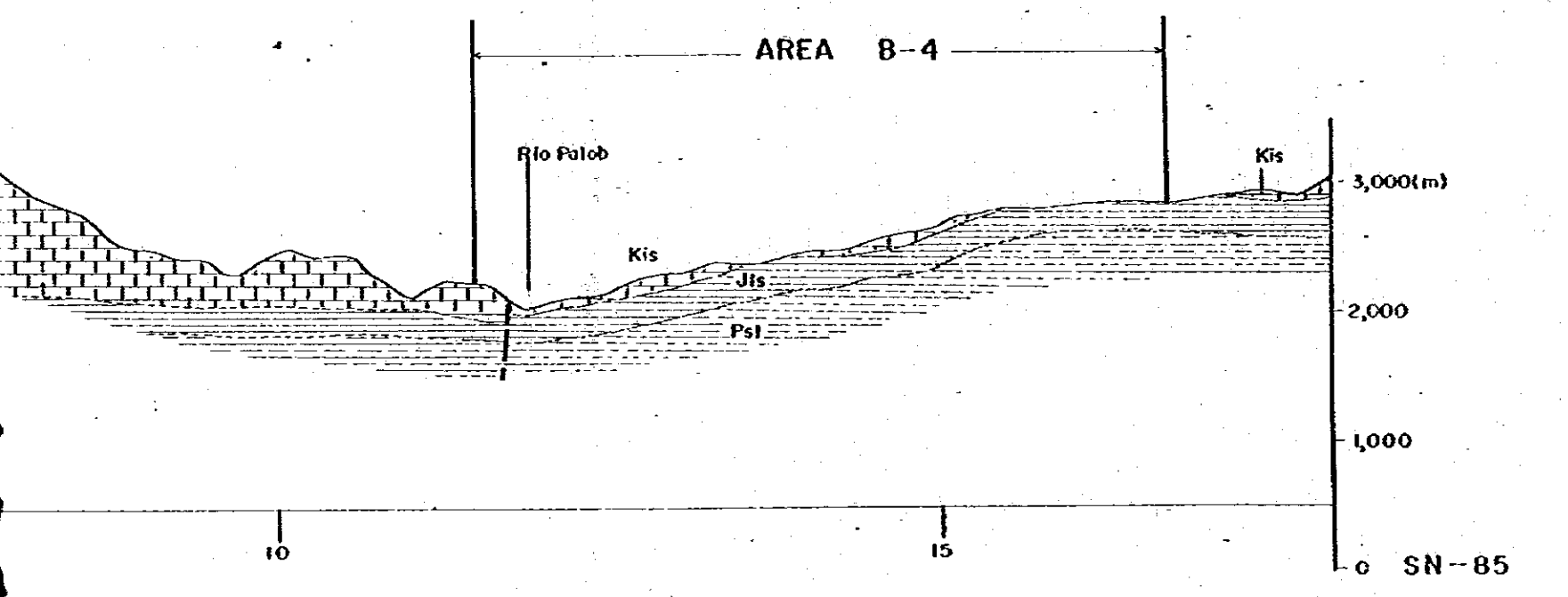
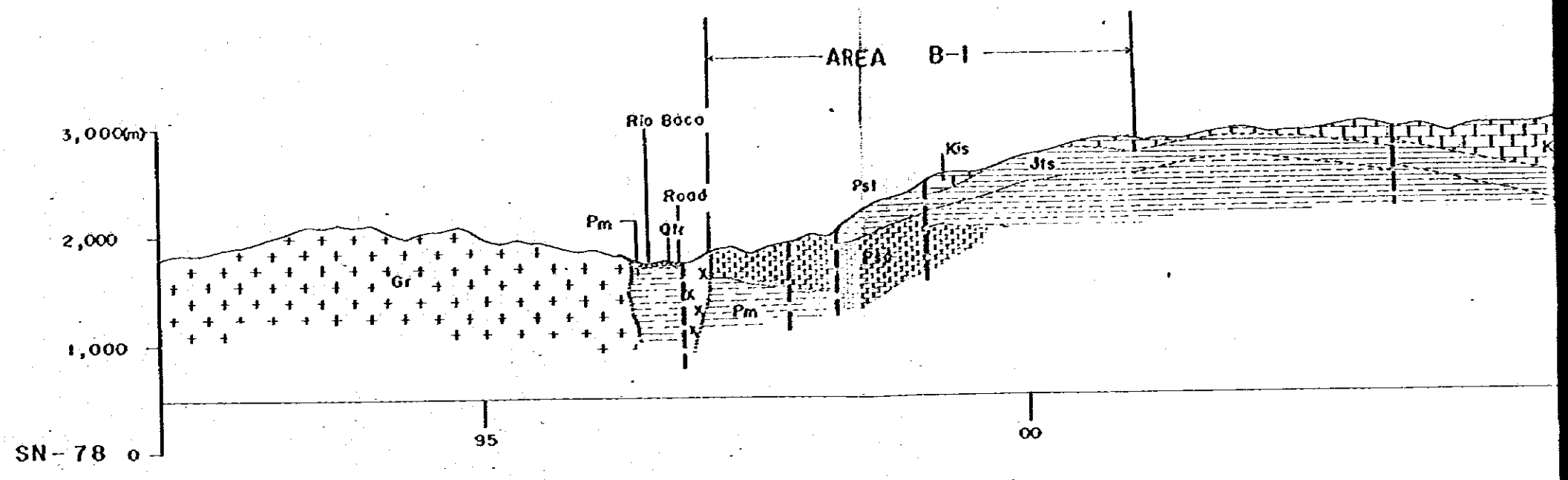
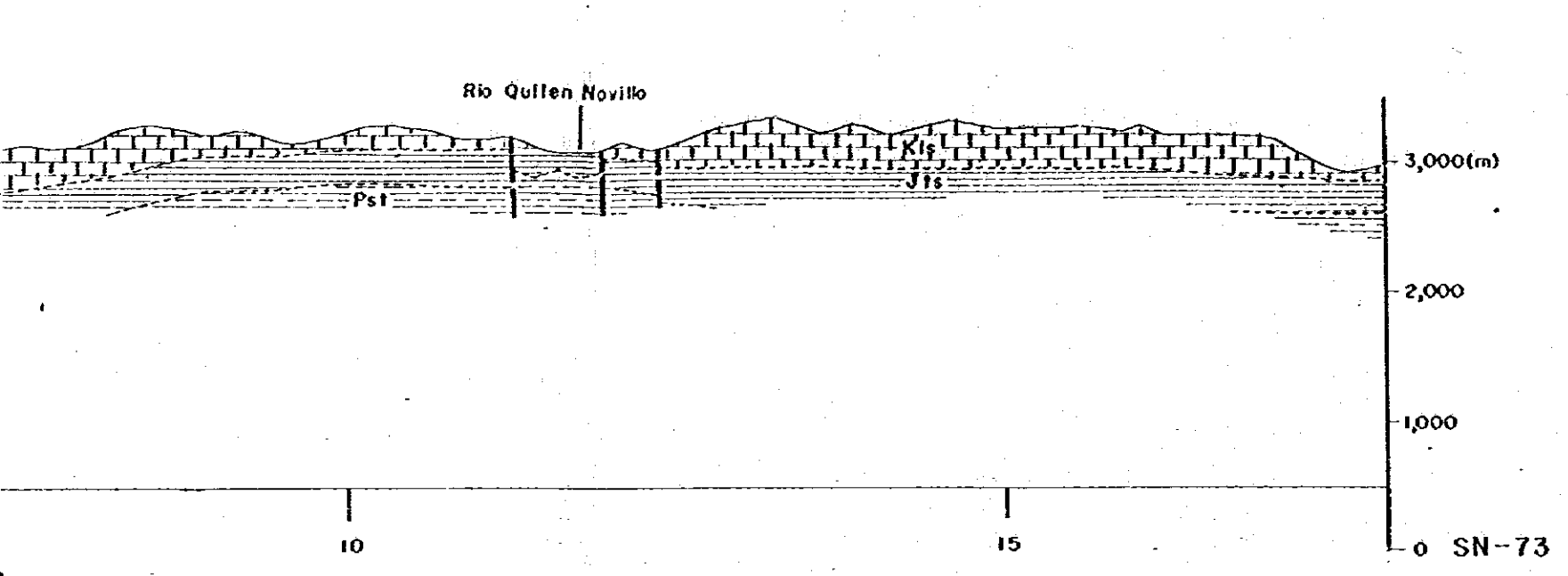


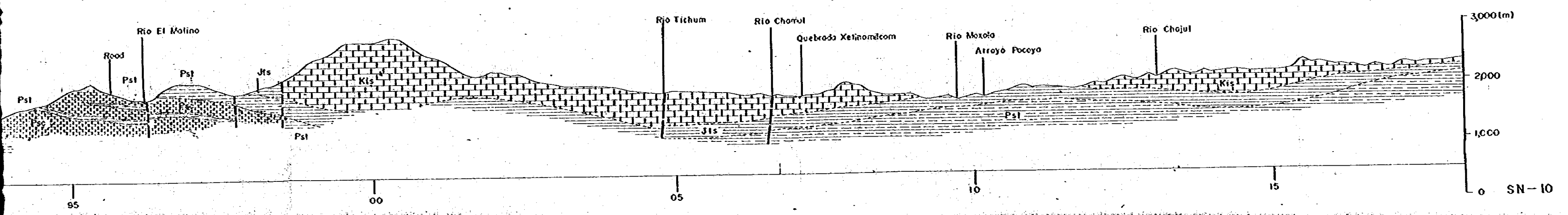
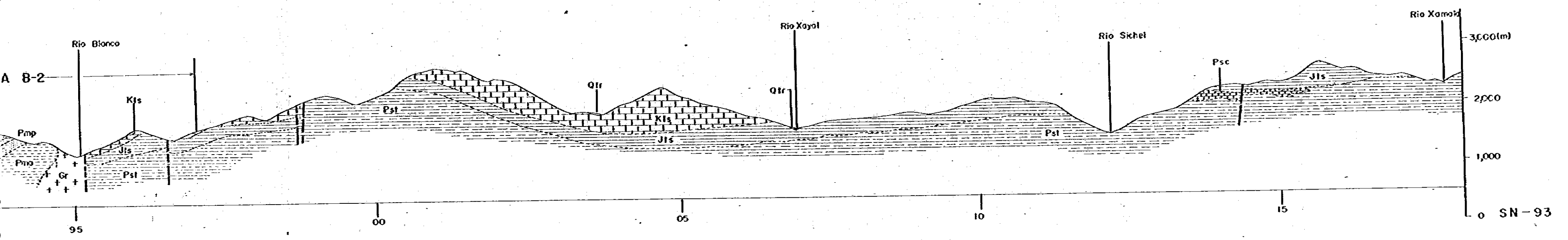
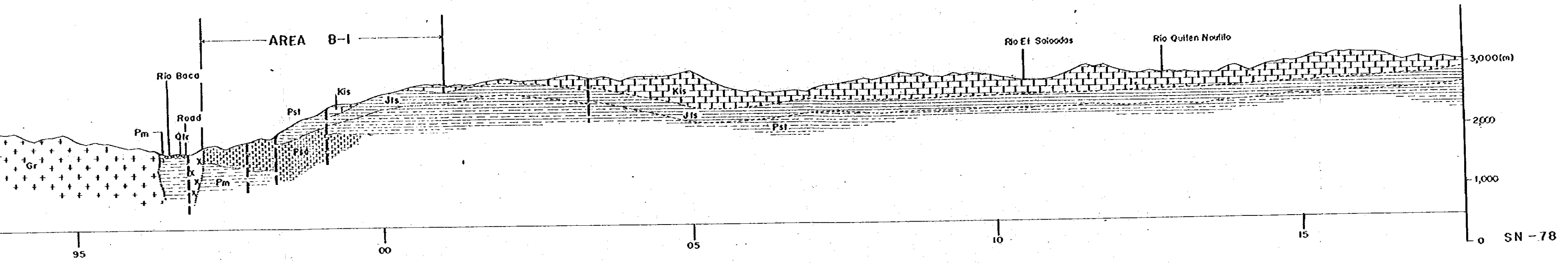
LEGEND

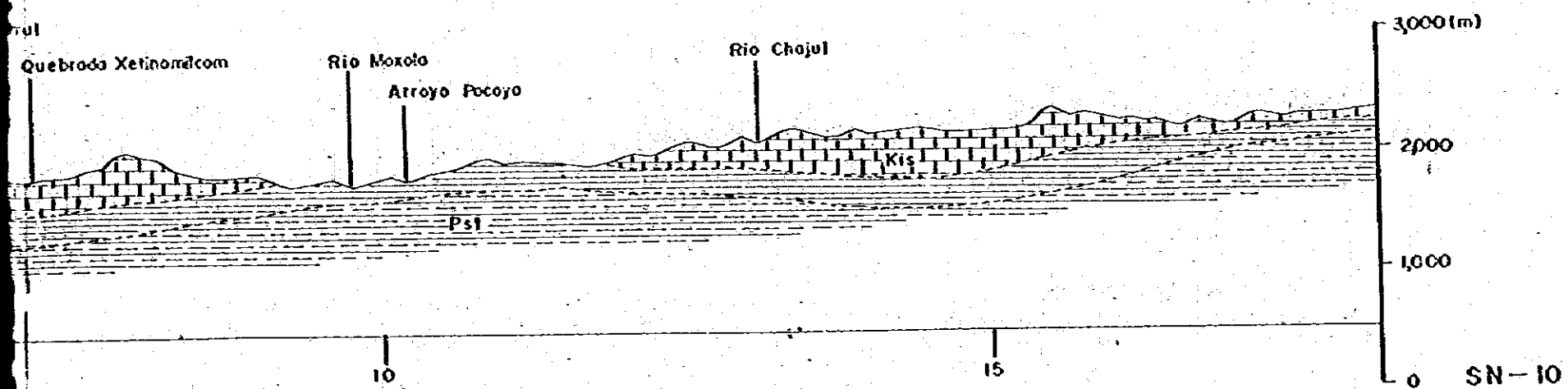
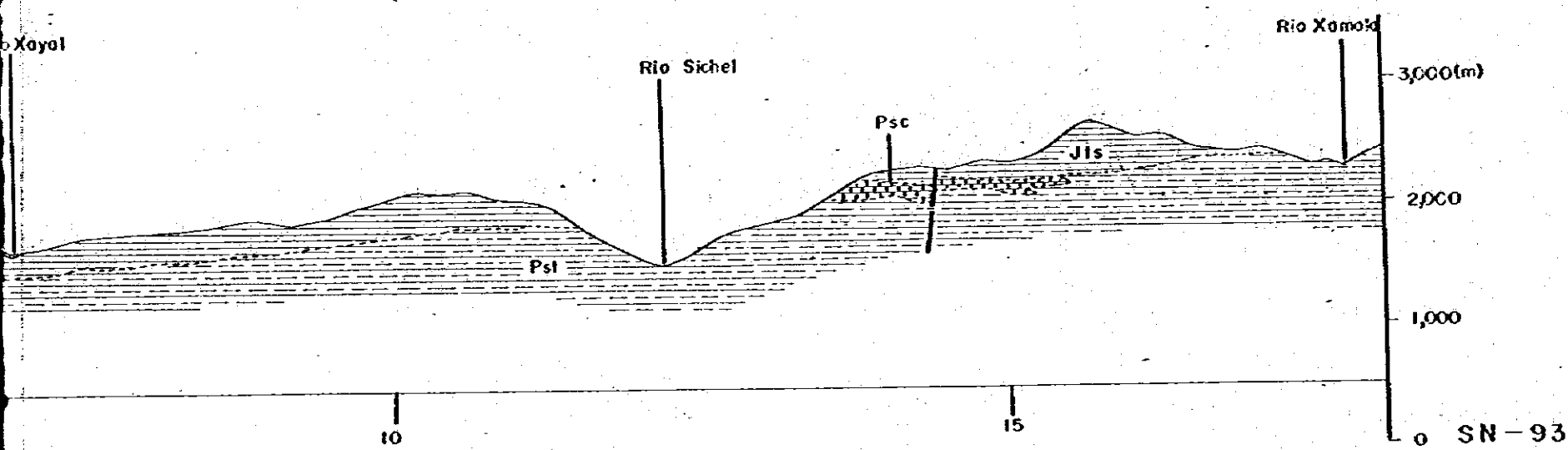
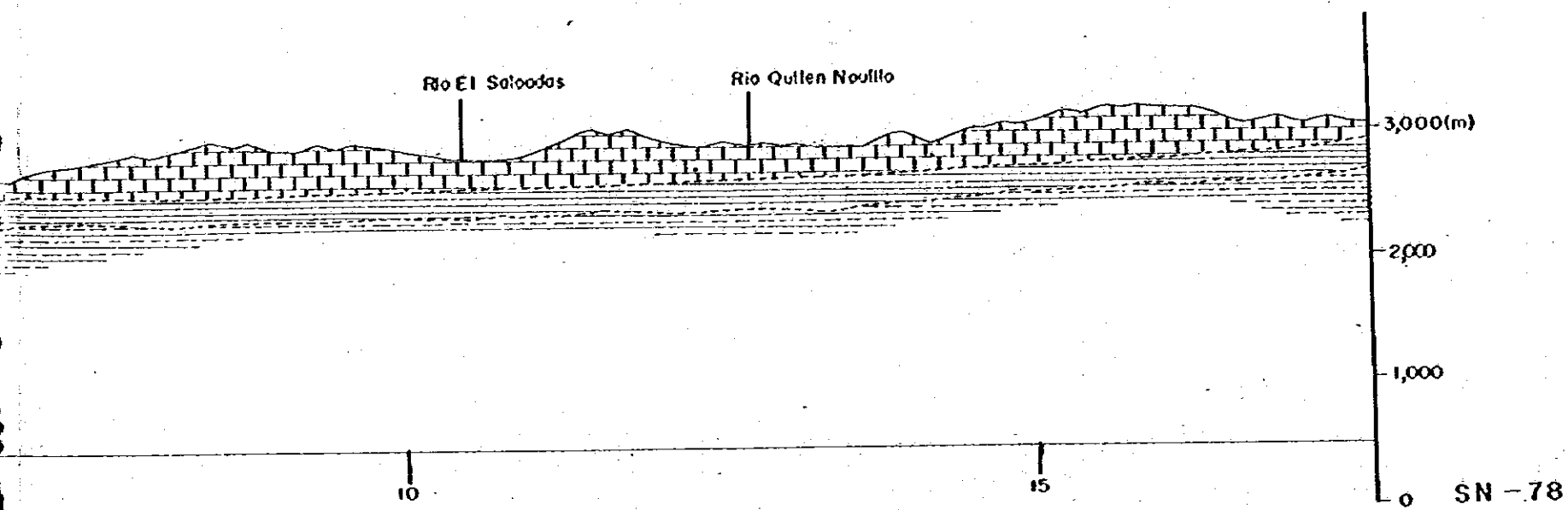
- | | | |
|-----------|-----------------------|---|
| CENOZOIC | QUATERNARY | Alluvium
Volcanic ash, pumice & welded tuff
Travertine or calcareous sinter |
| | MESOZOIC | CRETACEOUS
IXCOY FORMATION
Limestone with a minor amount of dolomite
LOWER CRETACEOUS ~ UPPER TRIASSIC(?)
TODOS SANTOS FORMATION
Terrestrial red beds; shale, sandstone, conglomerate & minor interlayer of limestone (Jts) |
| PALEOZOIC | PERMIAN & PRE-PERMIAN | SANTA ROSA GROUP
Slate, sandstone, dolomite & conglomerate locally including a minor amount of schists
Limestone with local intercolation of dolomite
Diabase including basic volcanics
Schist with a minor amount of volcanics |
| | INTRUSIVE ROCKS | Granitic rocks & their hypabyssol equivalents
Serpentinized peridotite & serpentinite
Dykes |

- | | | | |
|--|--------------------------------|--|---------------------------------|
| | Geological boundary | | Fossil locality |
| | Bedding (horizontal, inclined) | | Sample site for age date |
| | Bedding (vertical, estimated) | | Drill site |
| | Fault (observed or positive) | | Showings, prospects & old works |
| | Fault (inferred or probable) | | Geological section line |
| | Anticline | | Areas mapped in 2nd phase |
| | Syncline | | |







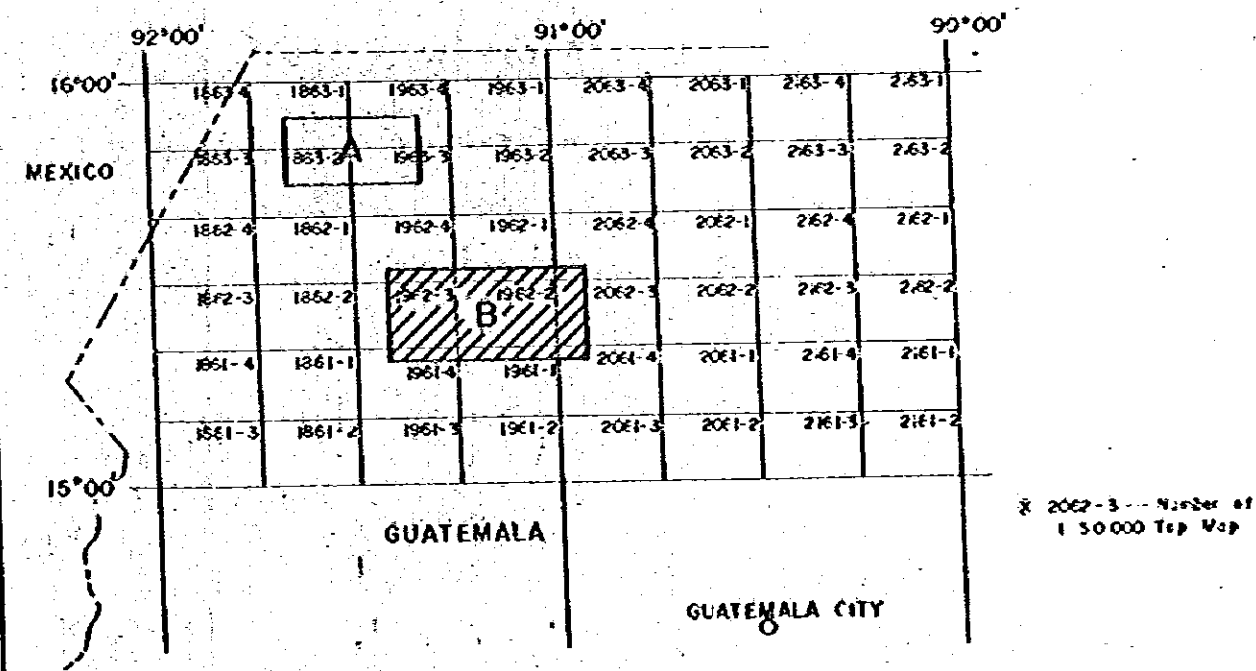


PL-4

GEOLOGICAL SURVEY
OF CUCHUMATANES AREA
WESTERN GUATEMALA
PHASE I-III
GEOLOGICAL SECTION MAP

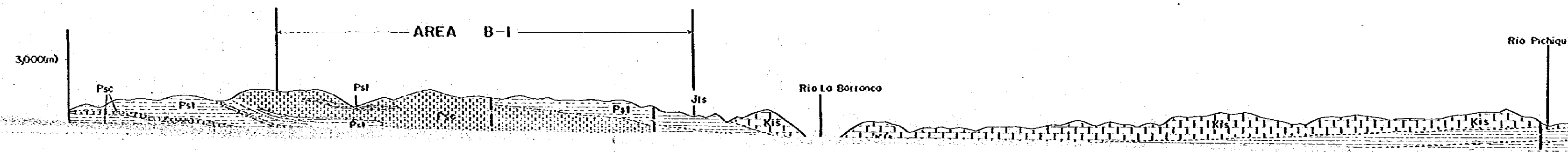
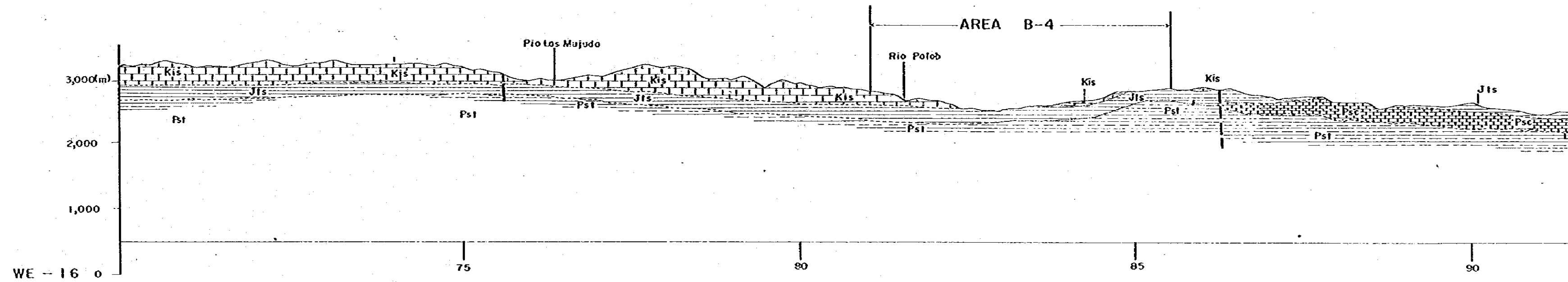
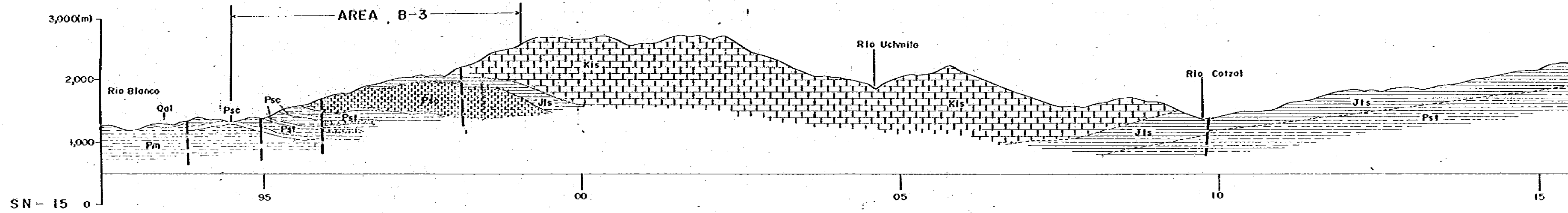
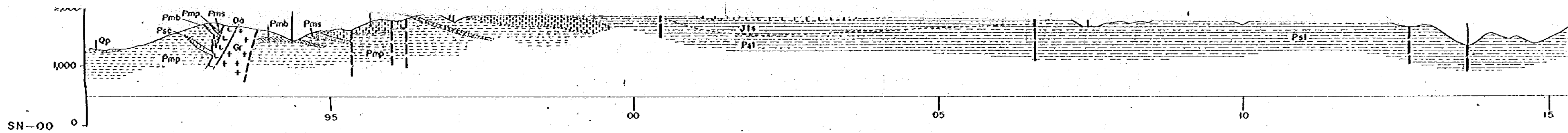
AREA - B

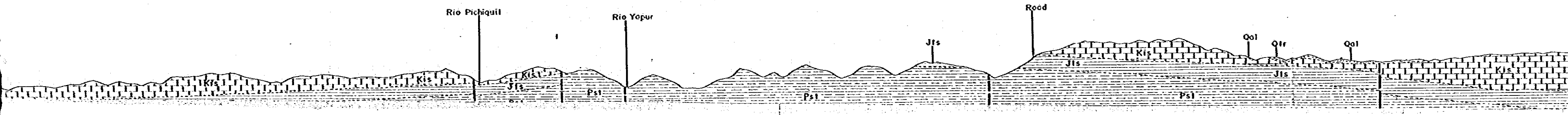
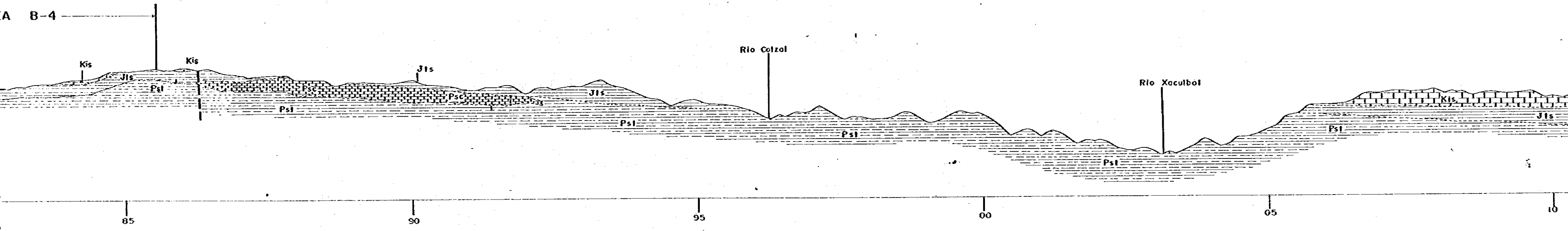
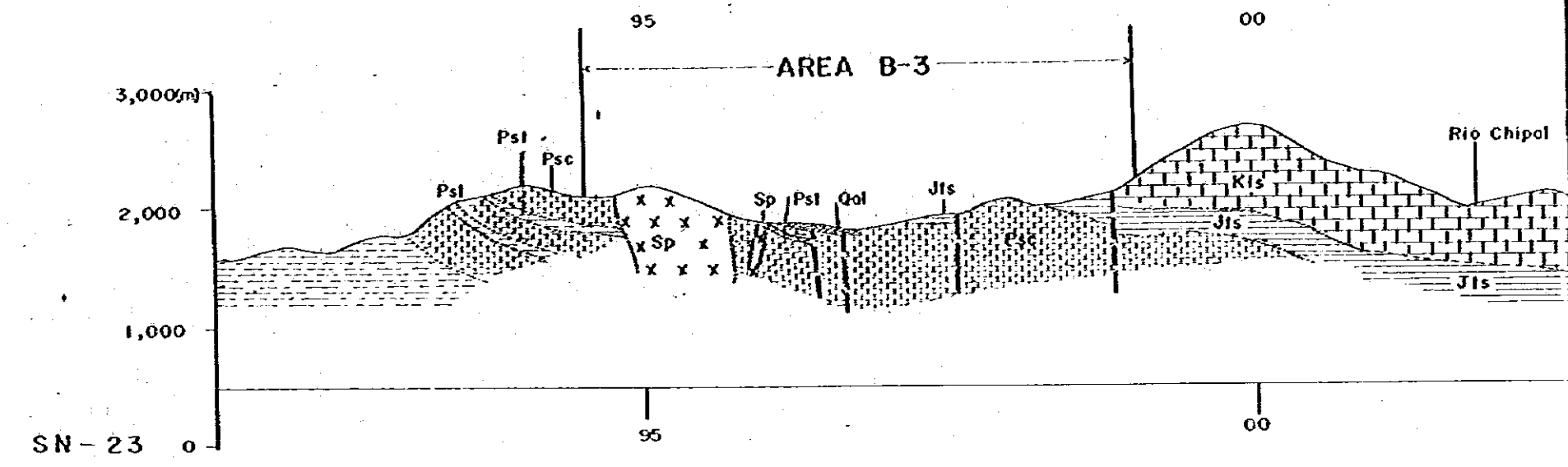
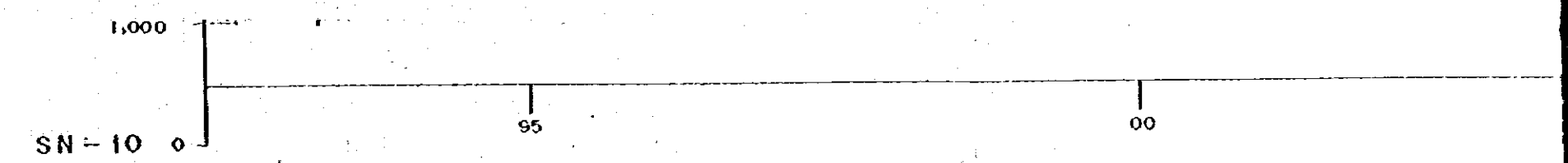
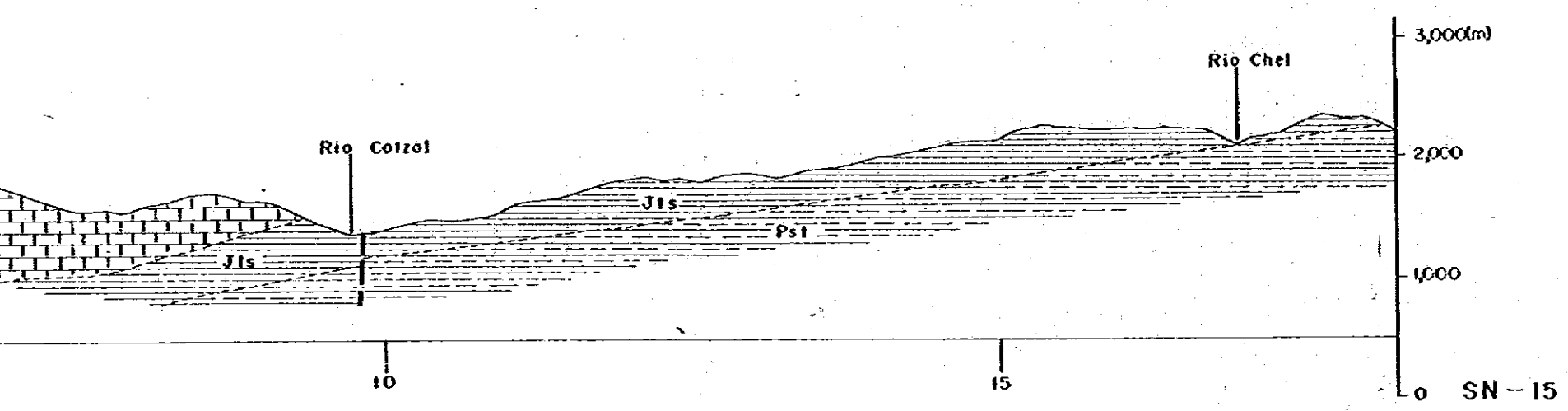
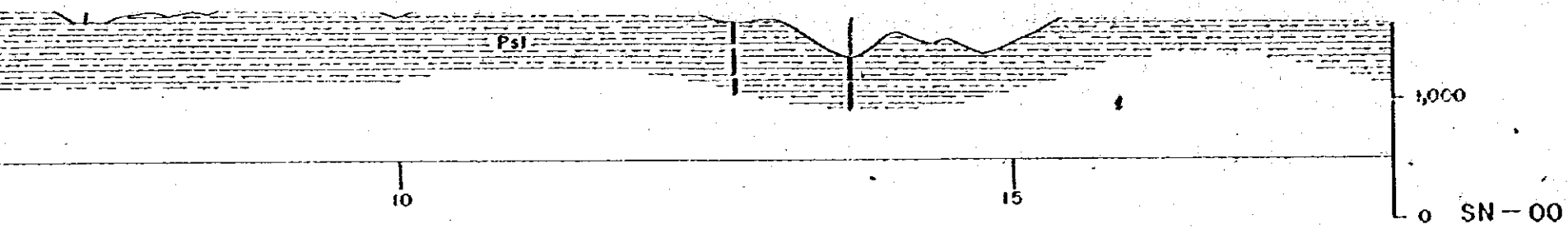
SCALE 1:50,000

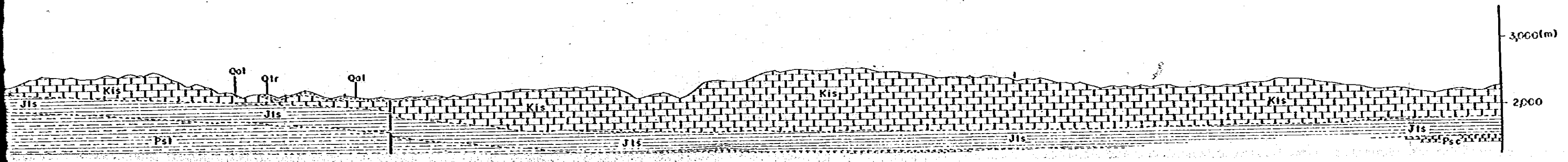
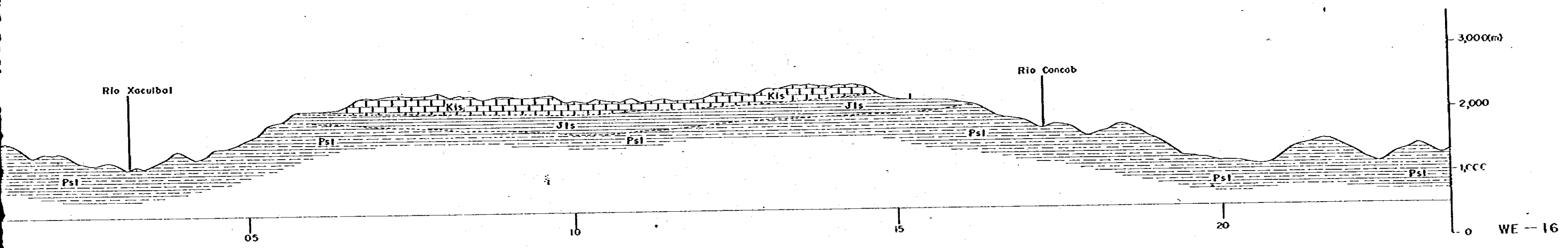
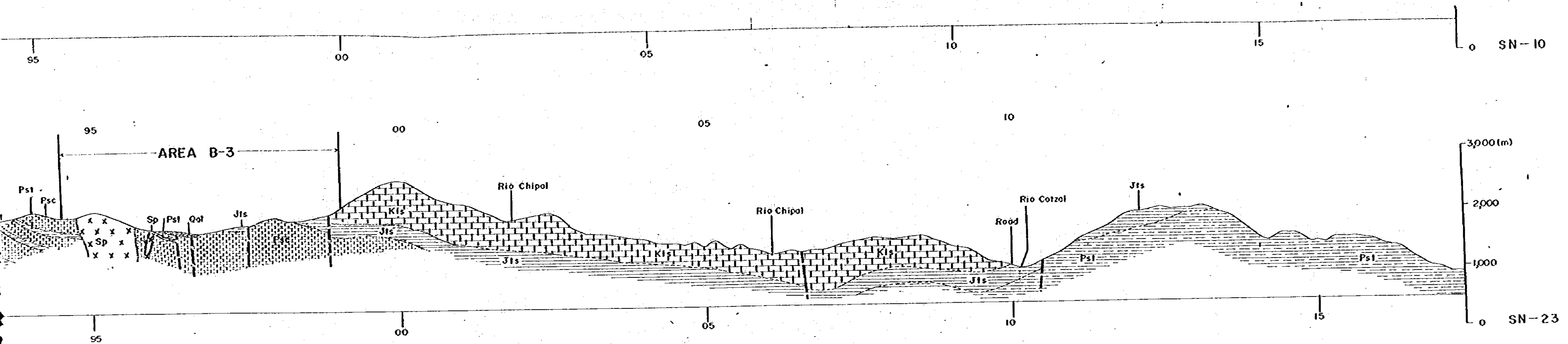


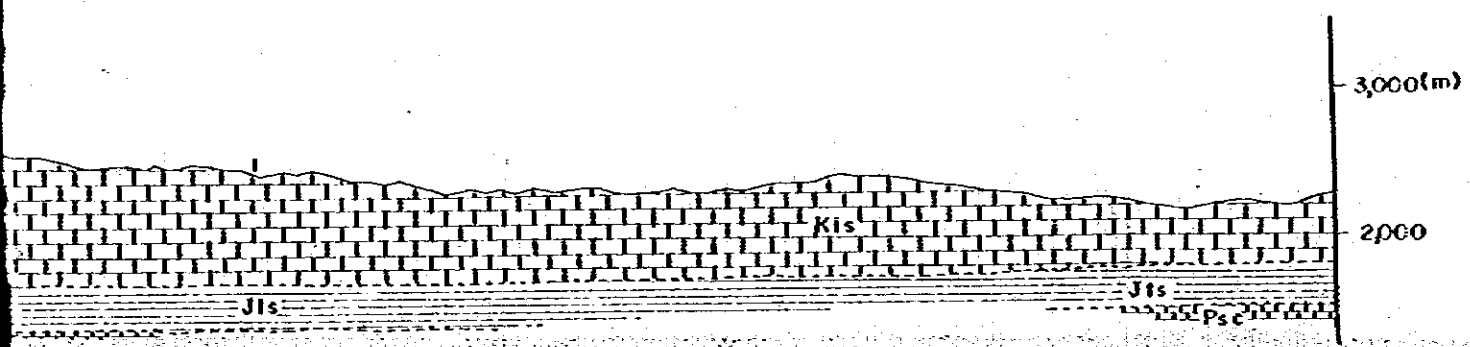
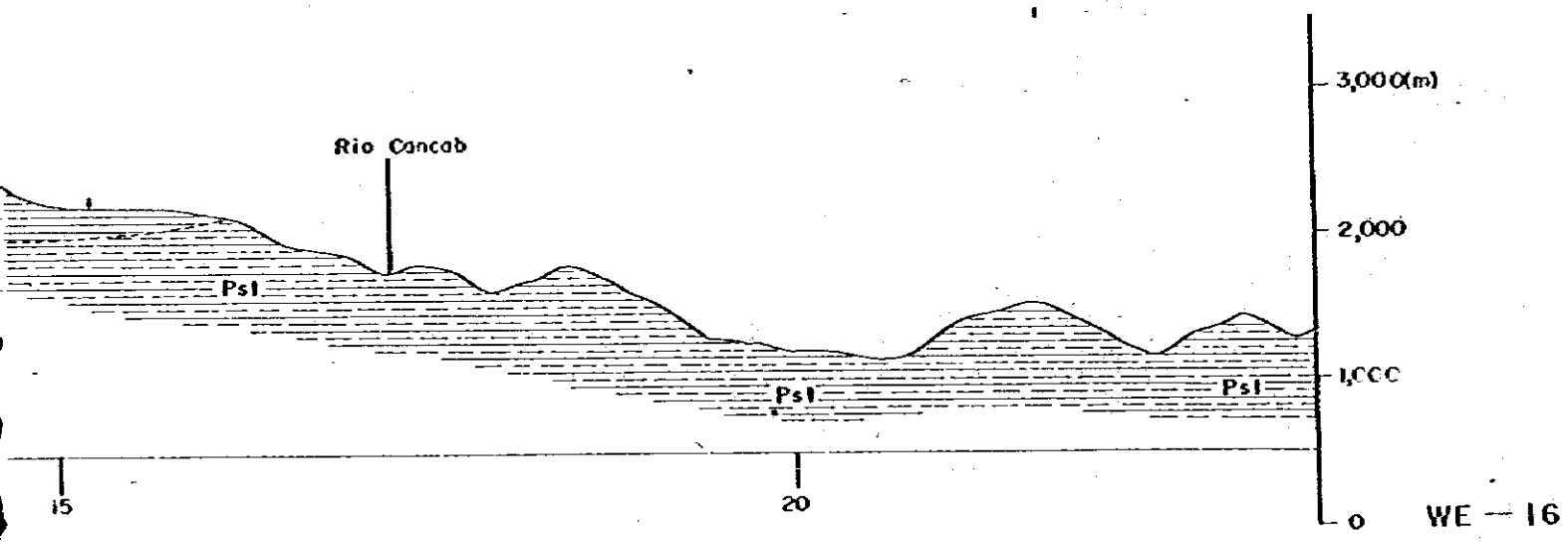
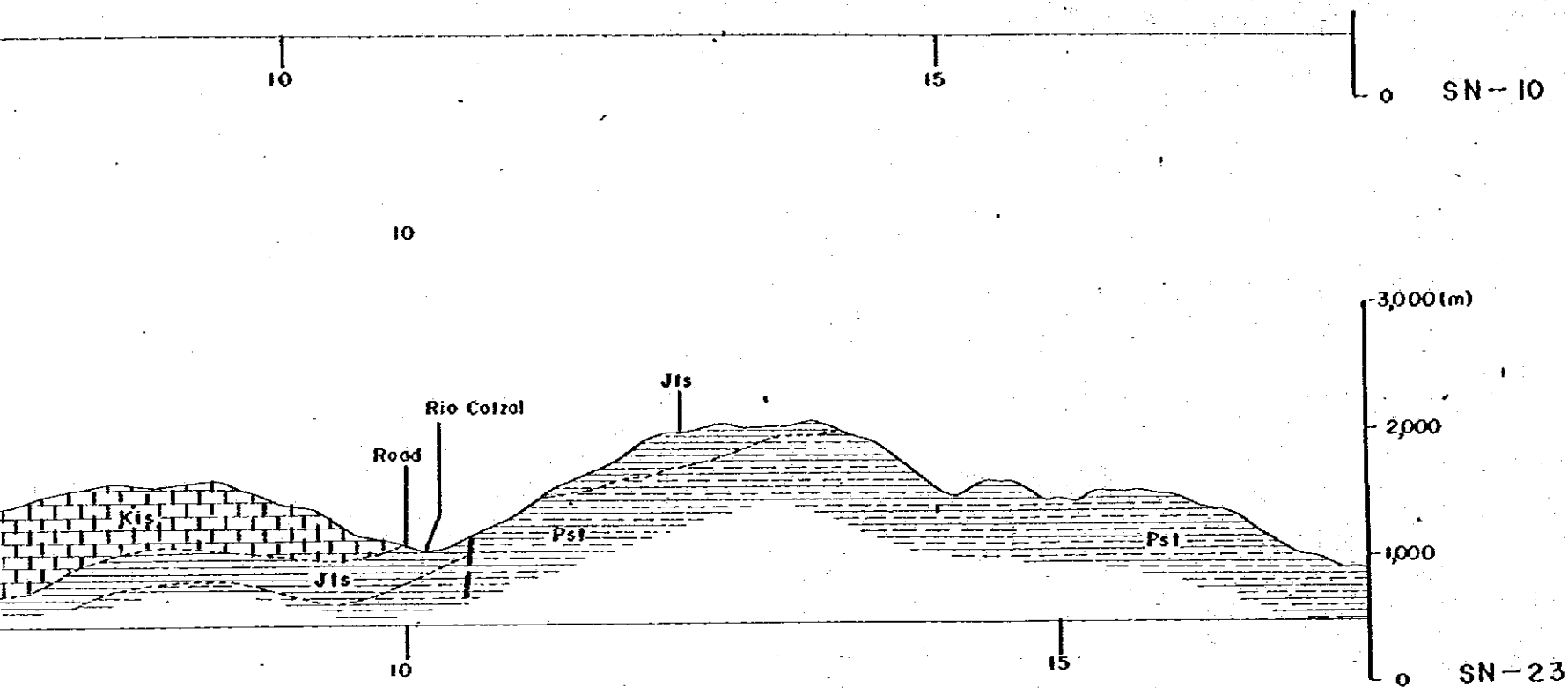
METAL MINING AGENCY OF JAPAN
JAPAN INTERNATIONAL CO-OPERATION AGENCY
GOVERNMENT OF JAPAN
COLLABORATION WITH
DIRECCION GENERAL DE MINERIA
E HIDROCARBUROS DE GUATEMALA

February 1979



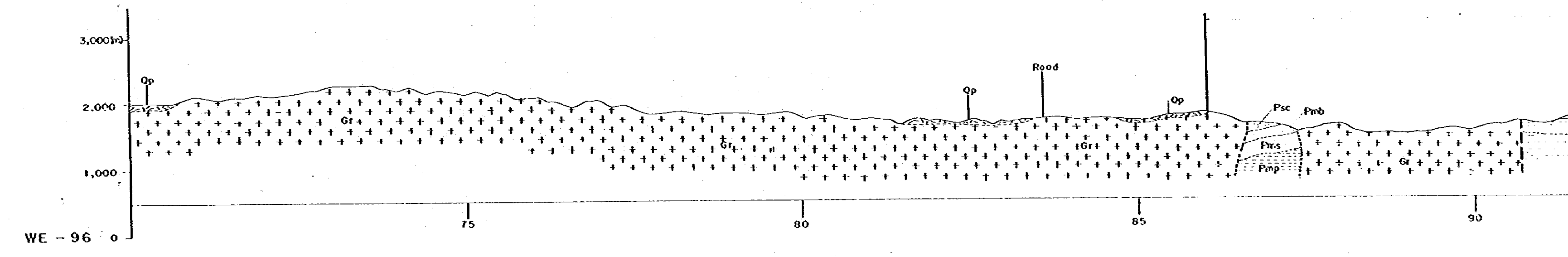
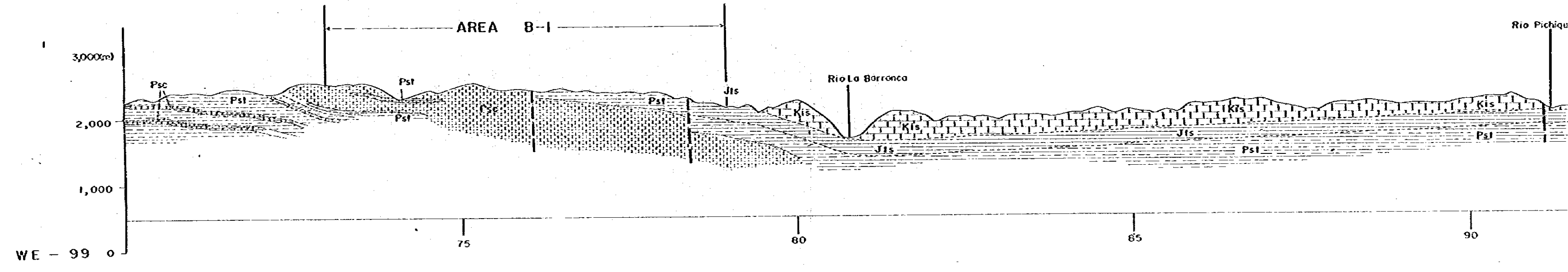
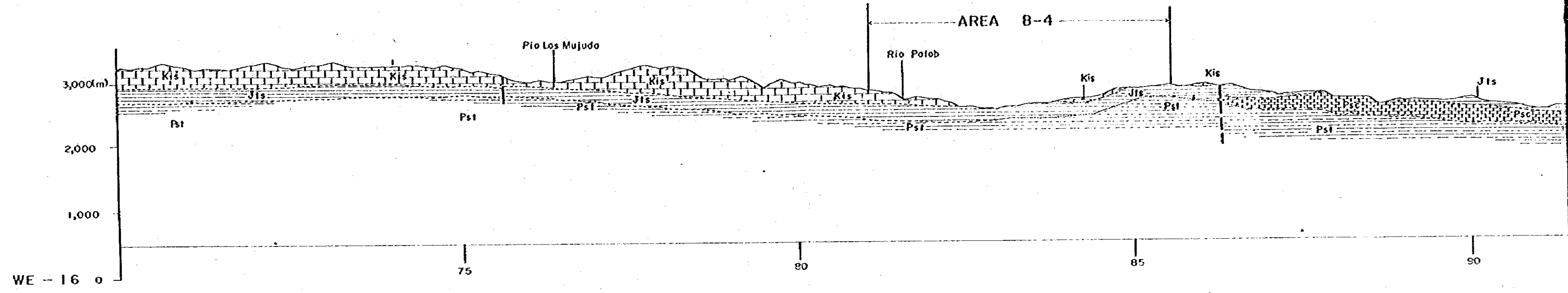


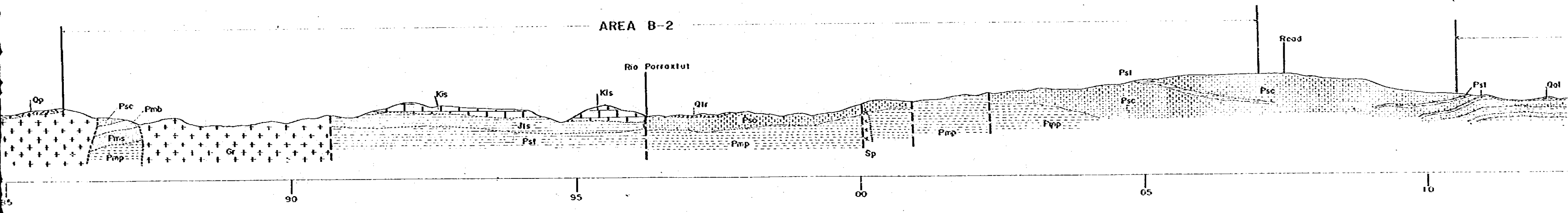
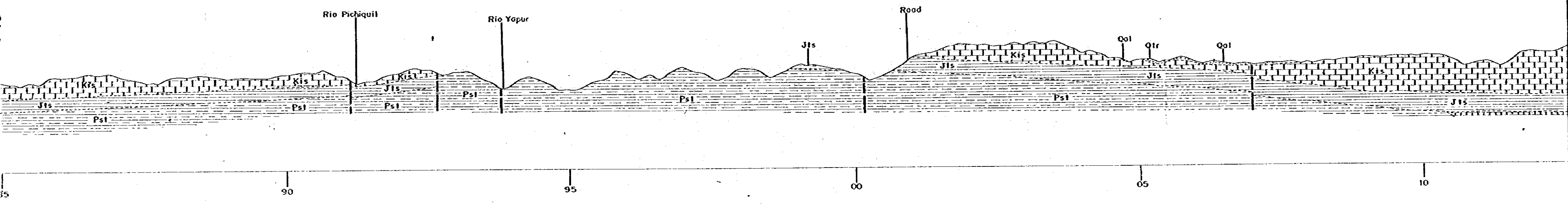
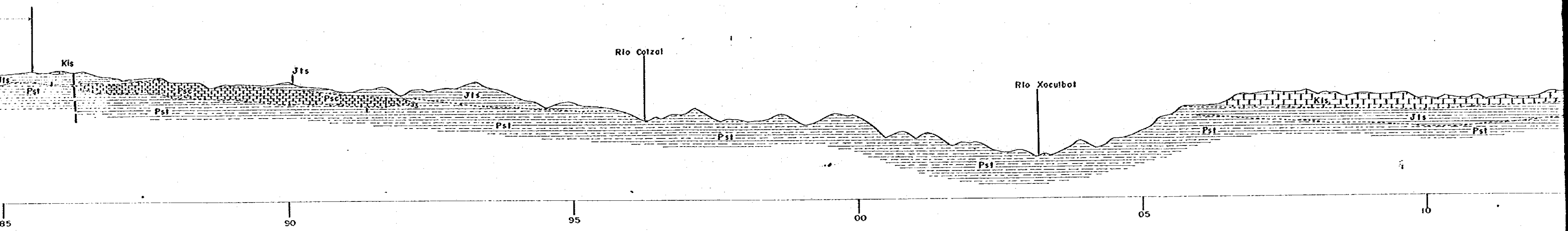


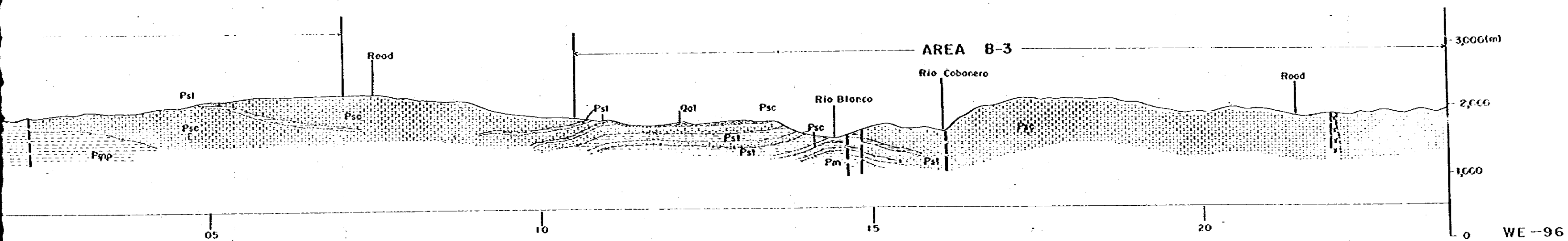
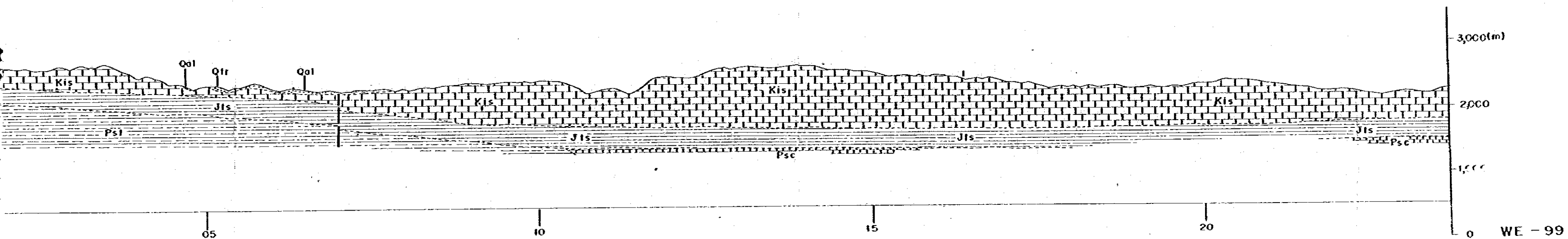
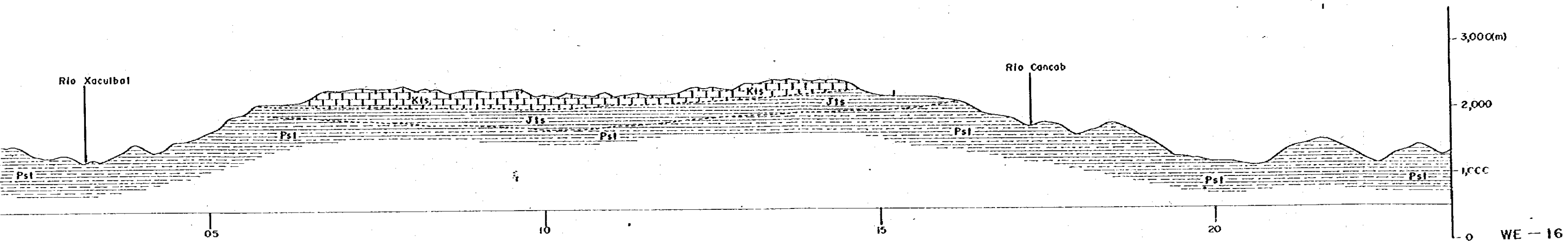


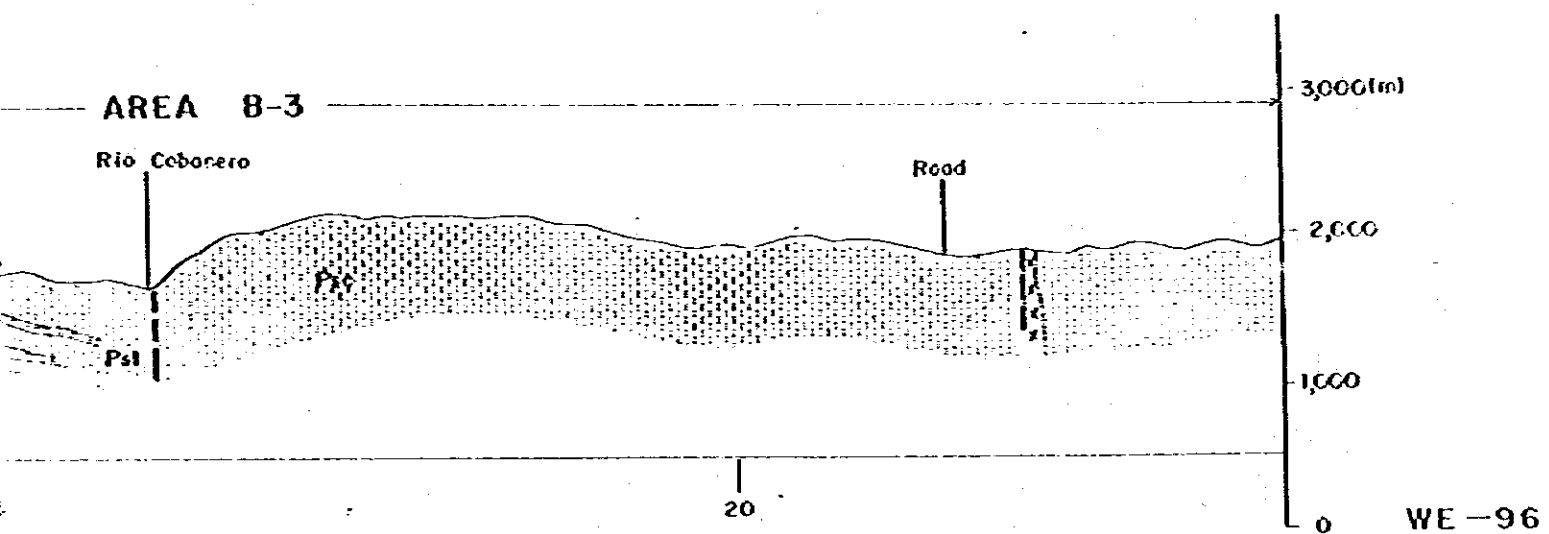
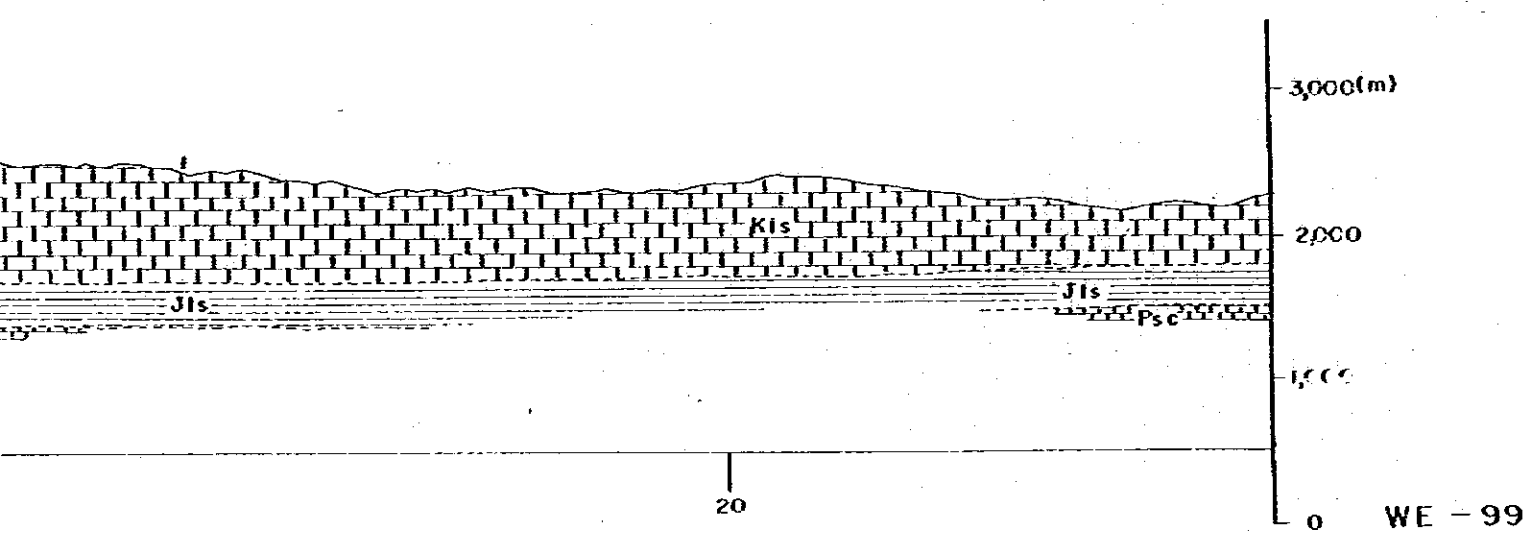
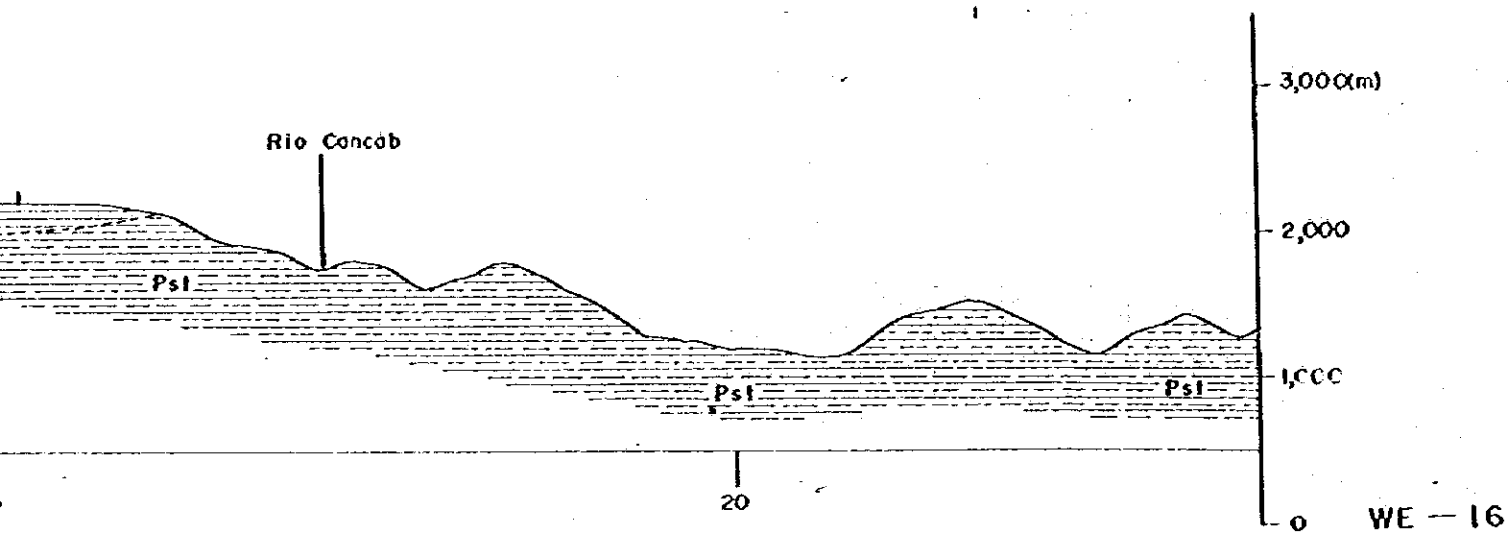
LEGEND

- CENOZOIC**
 - QUATERNARY**
 - Alluvium
 - Volcanic ash, pumice & welded tuff
 - Travertine or calcareous sinter
- MESOZOIC**
 - CRETACEOUS**
 - IXCOY FORMATION**
 - Limestone with a minor amount of dolomite
 - LOWER CRETACEOUS - UPPER TRIASSIC(?)**
 - TODOS SANTOS FORMATION**
 - Terrestrial red beds; shale, sandstone, conglomerate & minor interlayer of limestone (Jtsc)
 - PALEOZOIC**
 - PERMIAN & PRE-PERMIAN**
 - SANTA ROSA GROUP**
 - Slate, sandstone, dolomite & conglomerate locally including a minor amount of basic & acidic volcanics
 - Limestone with local intercalation of dolomite
 - Diabase including basic volcanics
 - Schist with a minor amount of volcanics
(only for areas mapped in 2nd phase)
 - Basic schist
 - Pelitic schist
 - Siliceous schist; sericite quartz schist, siliceous conglomerate schist, recrystallized chert, etc. locally including a minor amount of acidic volcanics
 - INTRUSIVE ROCKS**
 - Granitic rock & their hypabyssal equivalents
 - Serpetinized peridotite & serpentinite
 - Dykes & sheets
(only for areas mapped in 2nd phase)
 - Acidic rocks; quartz porphyry, rhyolite, etc.
 - Intermediate basic rocks; andesit, porphyrite, etc.

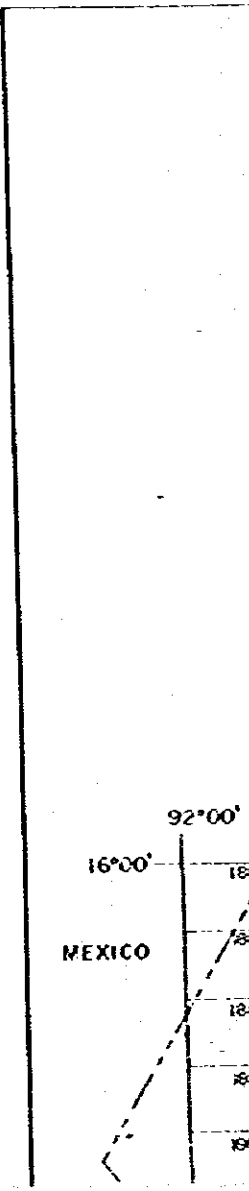
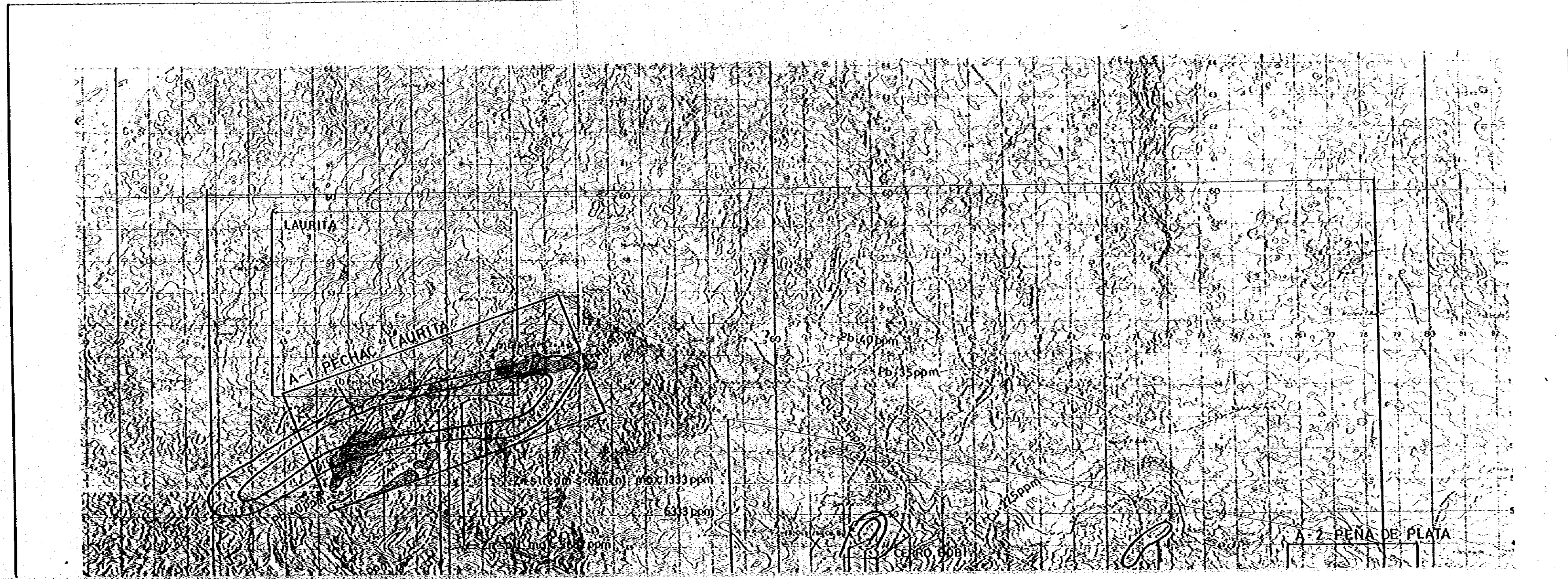


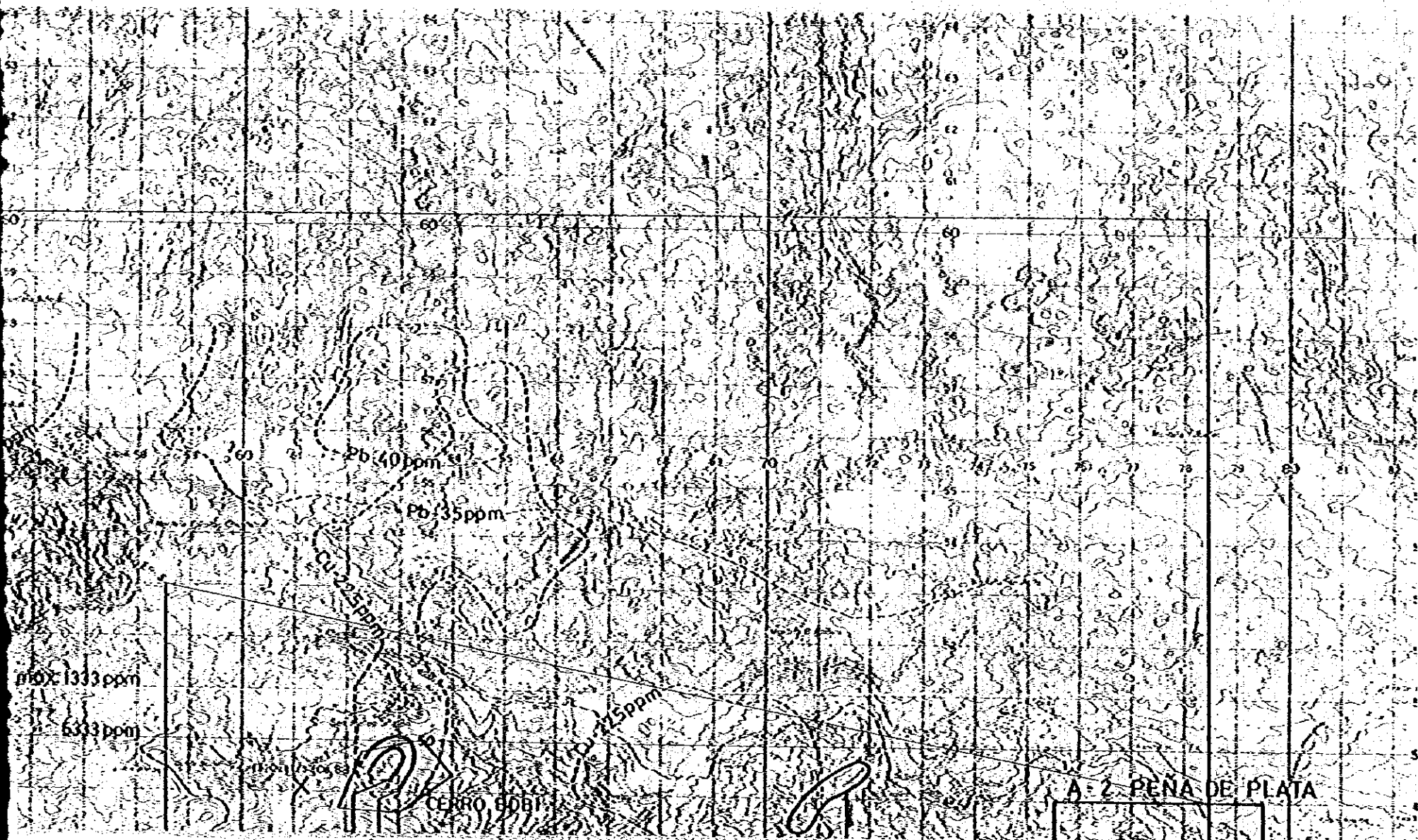




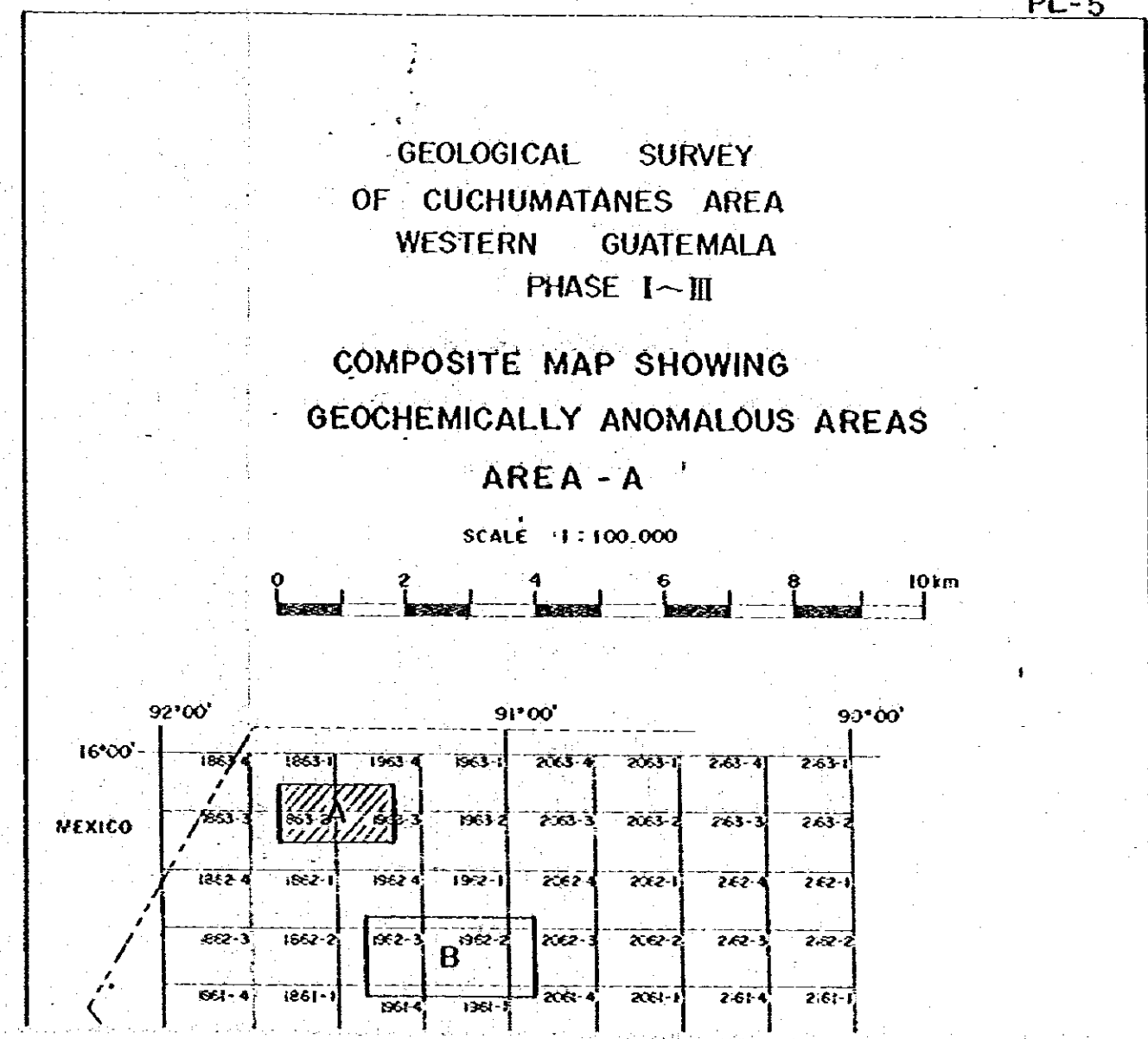


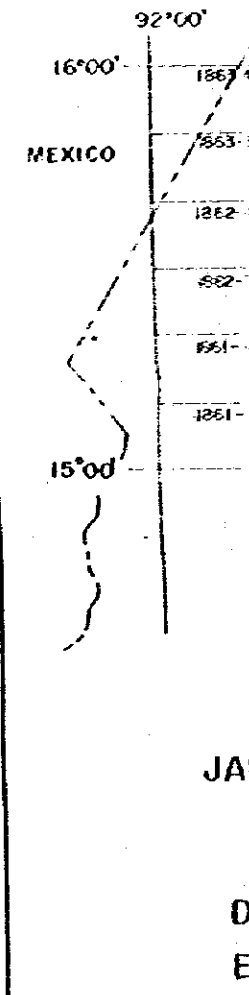
- CRETACEOUS**
- IXCOY FORMATION**
 Limestone with a minor amount of dolomite
- LOWER CRETACEOUS - UPPER TRIASSIC(?)**
- TODOS SANTOS FORMATION**
 Terrestrial red beds; shale, sandstone, conglomerate & minor interlayer of limestone (Jlsc)
- PERMIAN & PRE-PERMIAN**
- SANTA ROSA GROUP**
- Slate, sandstone, dolomite & conglomerate locally including a minor amount of basic & acidic volcanics
- Limestone with local intercalation of dolomite
- Diabase including basic volcanics
- Schist with a minor amount of volcanics
(only for areas mapped in 2nd phase)
- Basic schist
- Pelitic schist
- Siliceous schist; sericite quartz schist, siliceous conglomerate schist, recrystallized chert, etc. locally including a minor amount of acidic volcanics
- INTRUSIVE ROCKS**
- Granitic rock & their hypabyssal equivalents
- Serpentinized peridotite & serpentinite
- Dykes & sheets
(only for areas mapped in 2nd phase)
- Acidic rocks; quartz porphyry, rhyolite e t c.
- Intermediate basic rocks; andesit, porphyrite e t c.
- Gossan & skarn
- Legend:**
- Geological boundary
 - Bedding (horizontal, inclined)
 - Bedding (vertical, estimated)
 - Fault (observed or positive)
 - Fault (inferred or probable)
 - Anticline
 - Syncline
 - Fossil locality
 - Sample site for age date
 - Drill site
 - Showings, prospects & old works
 - Geological section line
 - Areas mapped in 2nd phase





PL-5





LEGEND

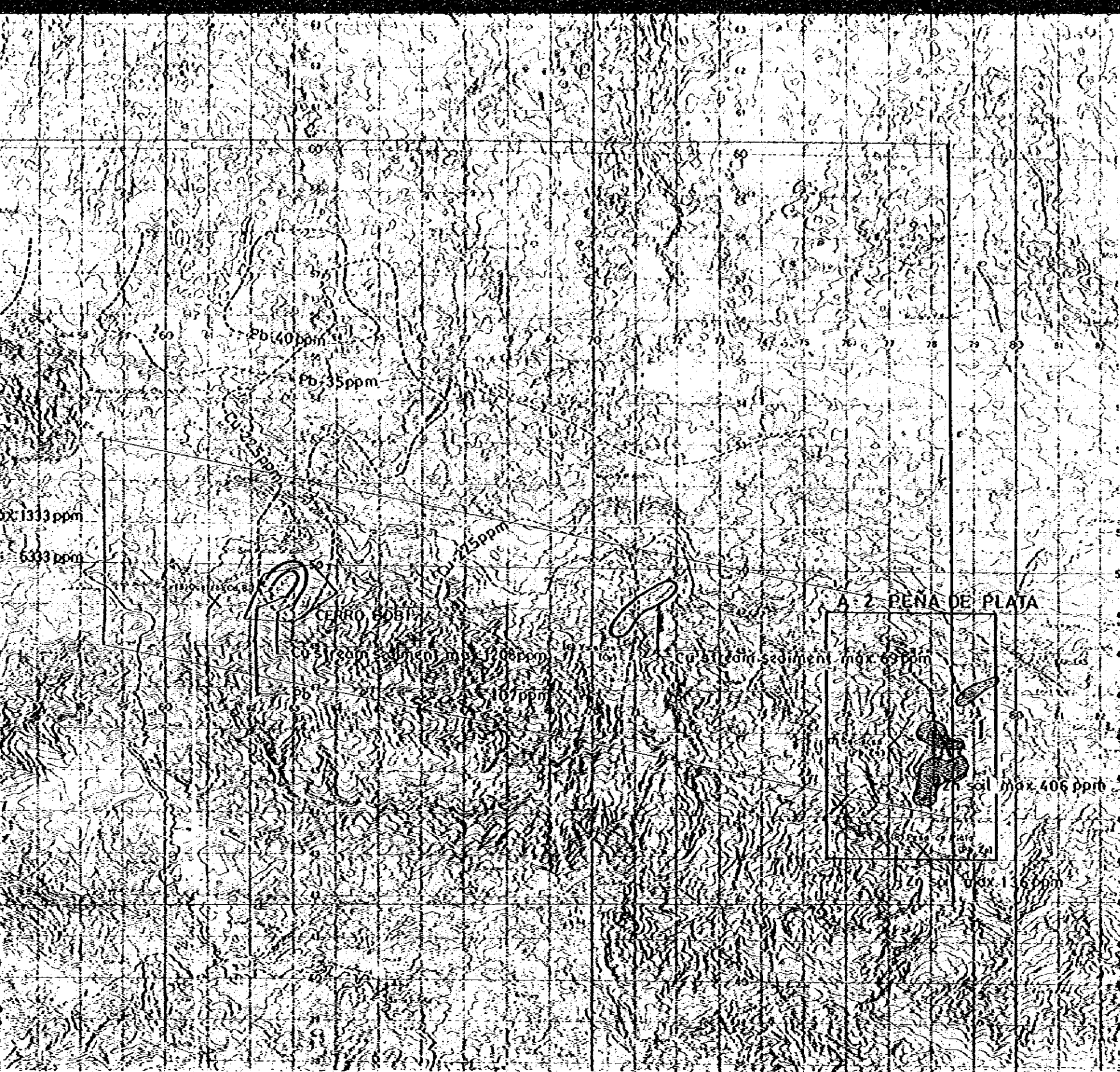
GEOCHEMICALLY ANOMALOUS AREAS IN 1976

- AREA OF HIGH ASSAY VALUES ; STREAM SEDIMENT
- " " ; SOIL
- AREA OF HIGH ROLLING MEAN VALUES ; SOIL
- AREA OF HIGH STANDARD DEVIATION IN ROLLING MEAN ANALYSIS

GEOCHEMICALLY ANOMALOUS AREAS IN 1977 ; SOIL

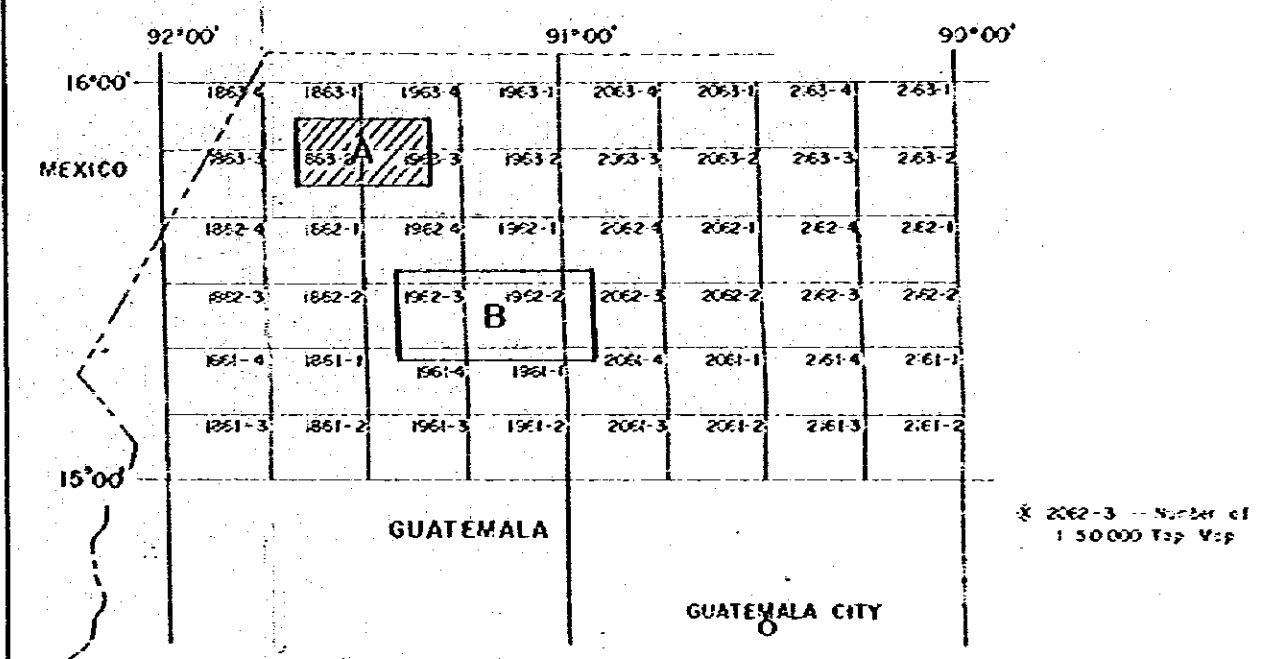
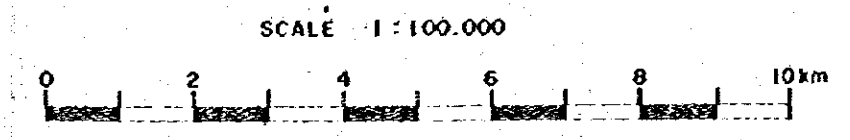
- Cu \geq 83.9 ppm(MEAN + 2 STANDARD DEVIATION)
- Pb \geq 104.5ppm(MEAN + 2 STANDARD DEVIATION)
- Zn \geq 262.5ppm(MEAN + 2 STANDARD DEVIATION)

- TARGET AREAS FOR FOLLOW-UP WORK IN 1977
- ANOMALIES &/or FOLLOW-UP AREAS BY U.N.
- SHOWINGS, PROSPECTS & OLD WORKS



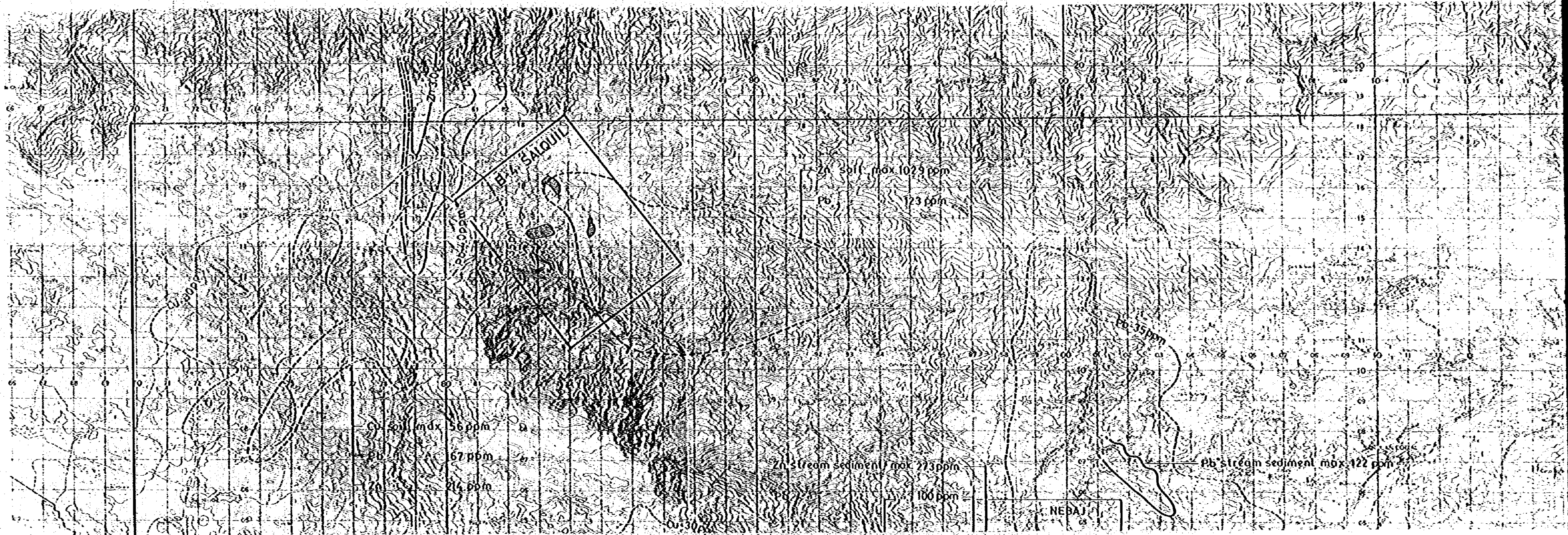
GEOLOGICAL SURVEY
OF CUCHUMATANES AREA
WESTERN GUATEMALA
PHASE I~III

COMPOSITE MAP SHOWING
GEOCHEMICALLY ANOMALOUS AREAS
AREA - A



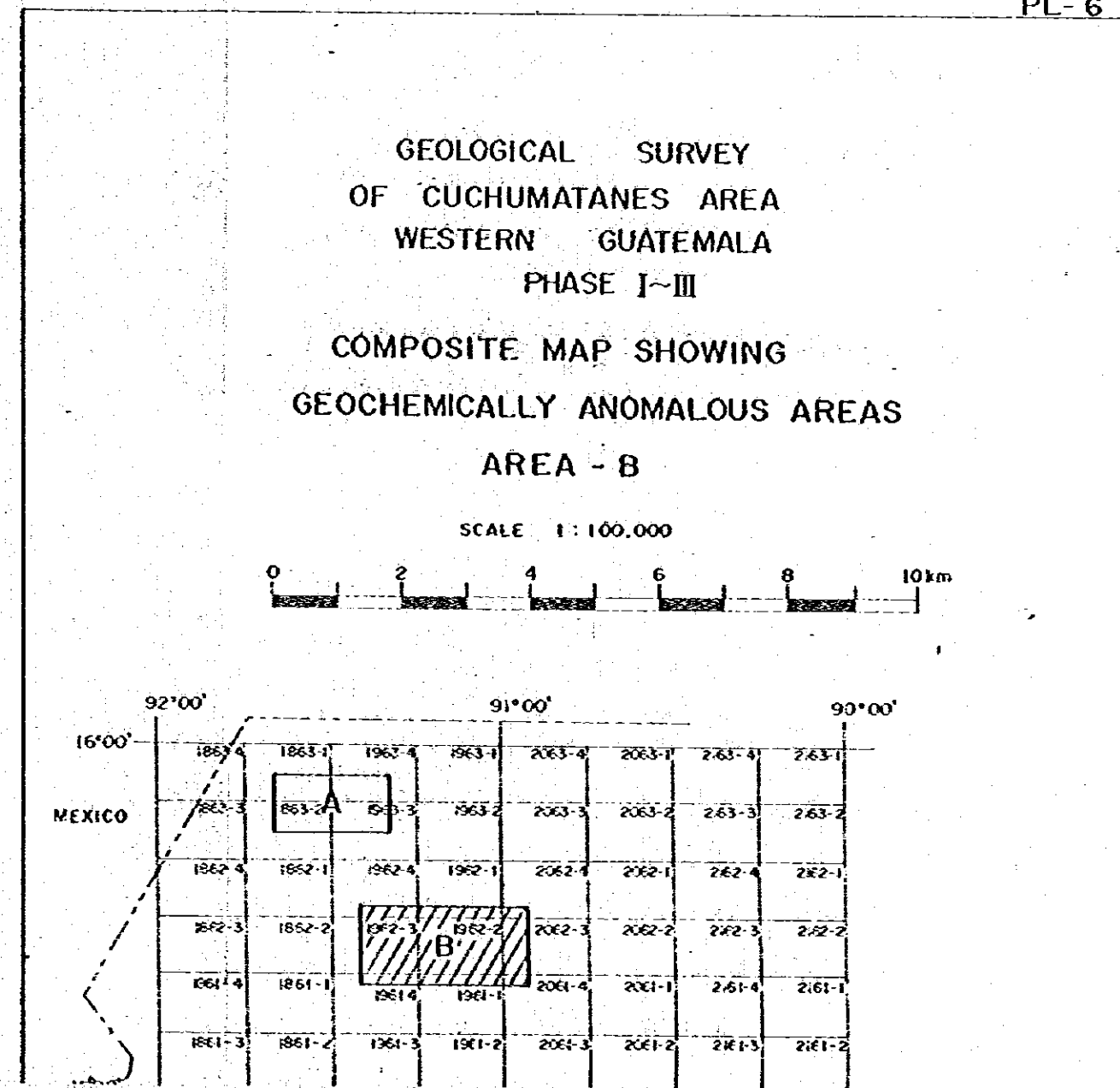
METAL MINING AGENCY OF JAPAN
JAPAN INTERNATIONAL CO-OPERATION AGENCY
GOVERNMENT OF JAPAN
COLABORATION WITH
DIRECCION GENERAL DE MINERIA
E HIDROCARBUROS DE GUATEMALA

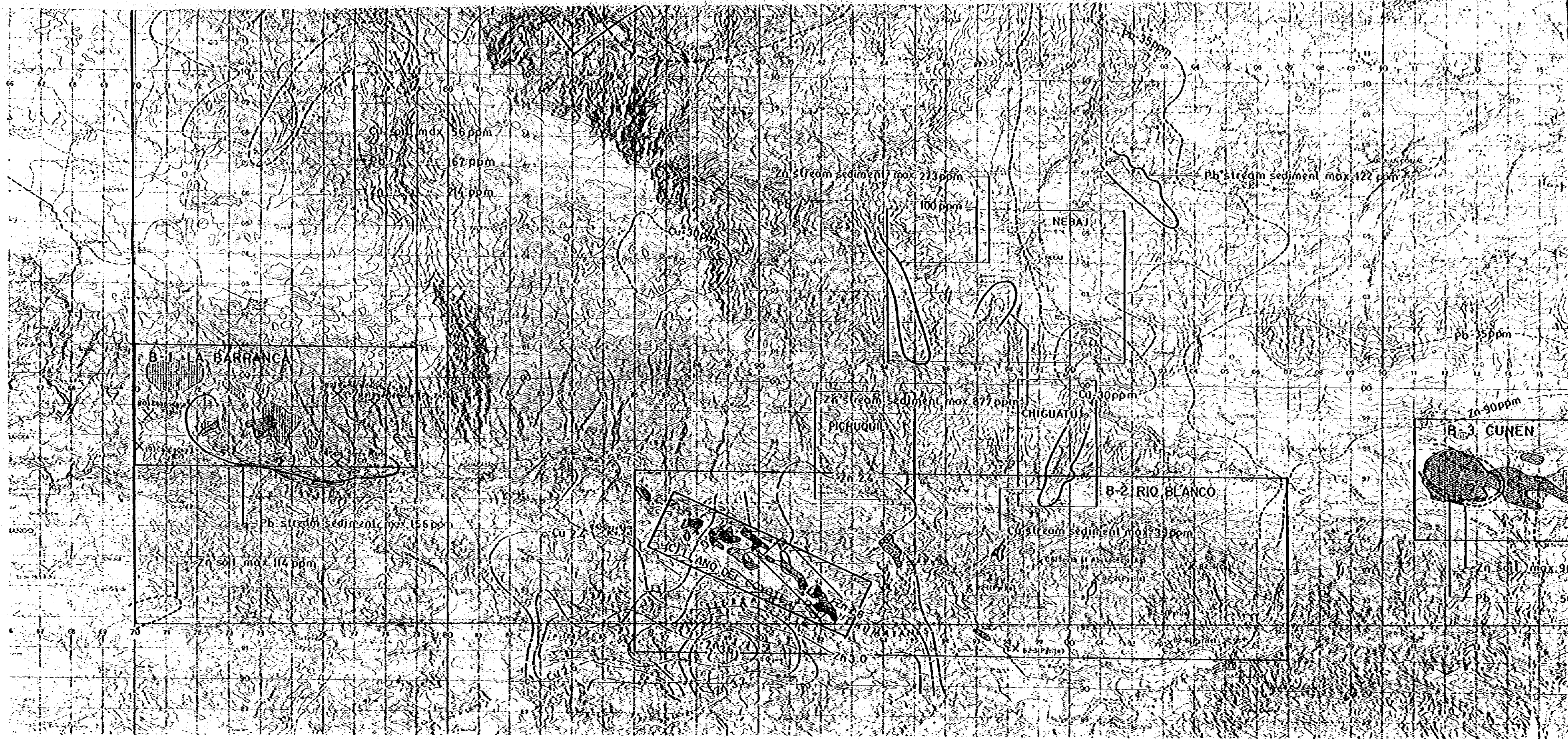
Februory 1979

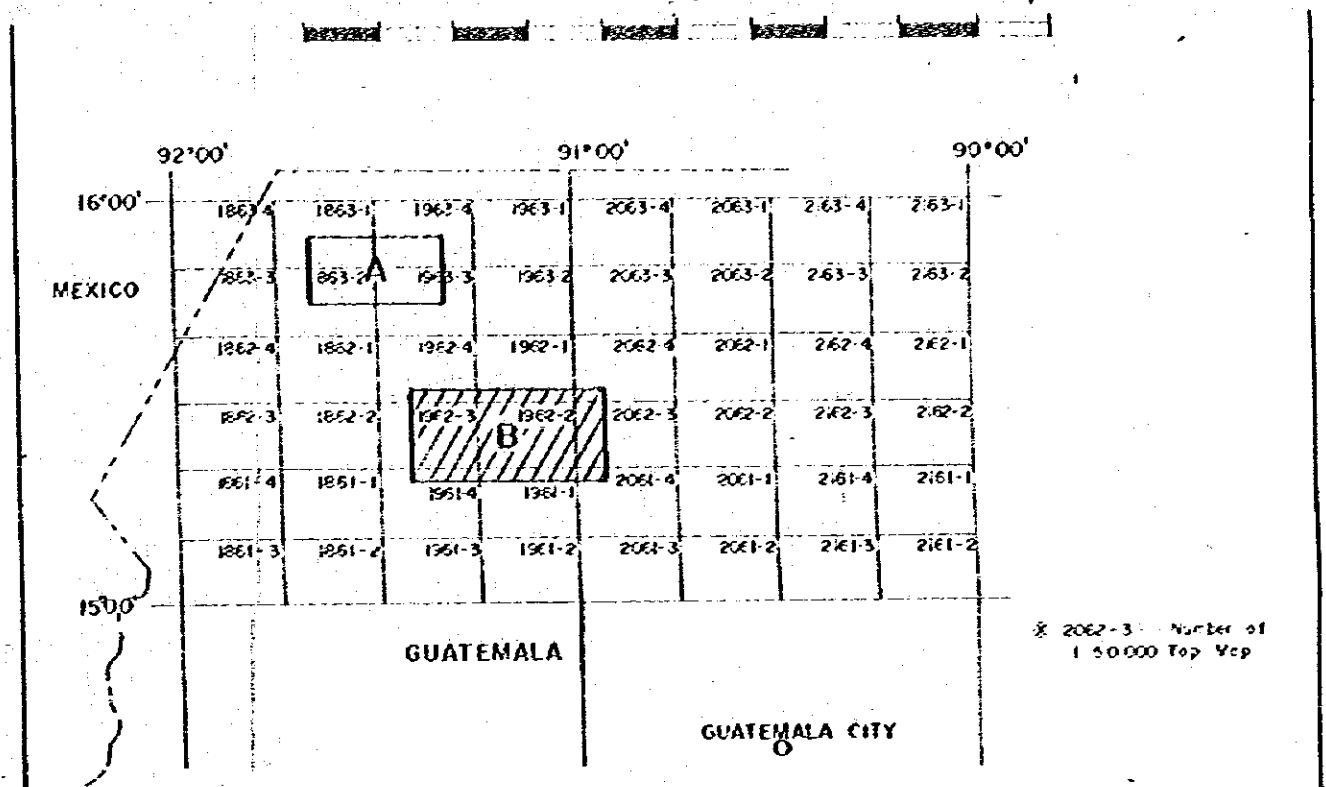
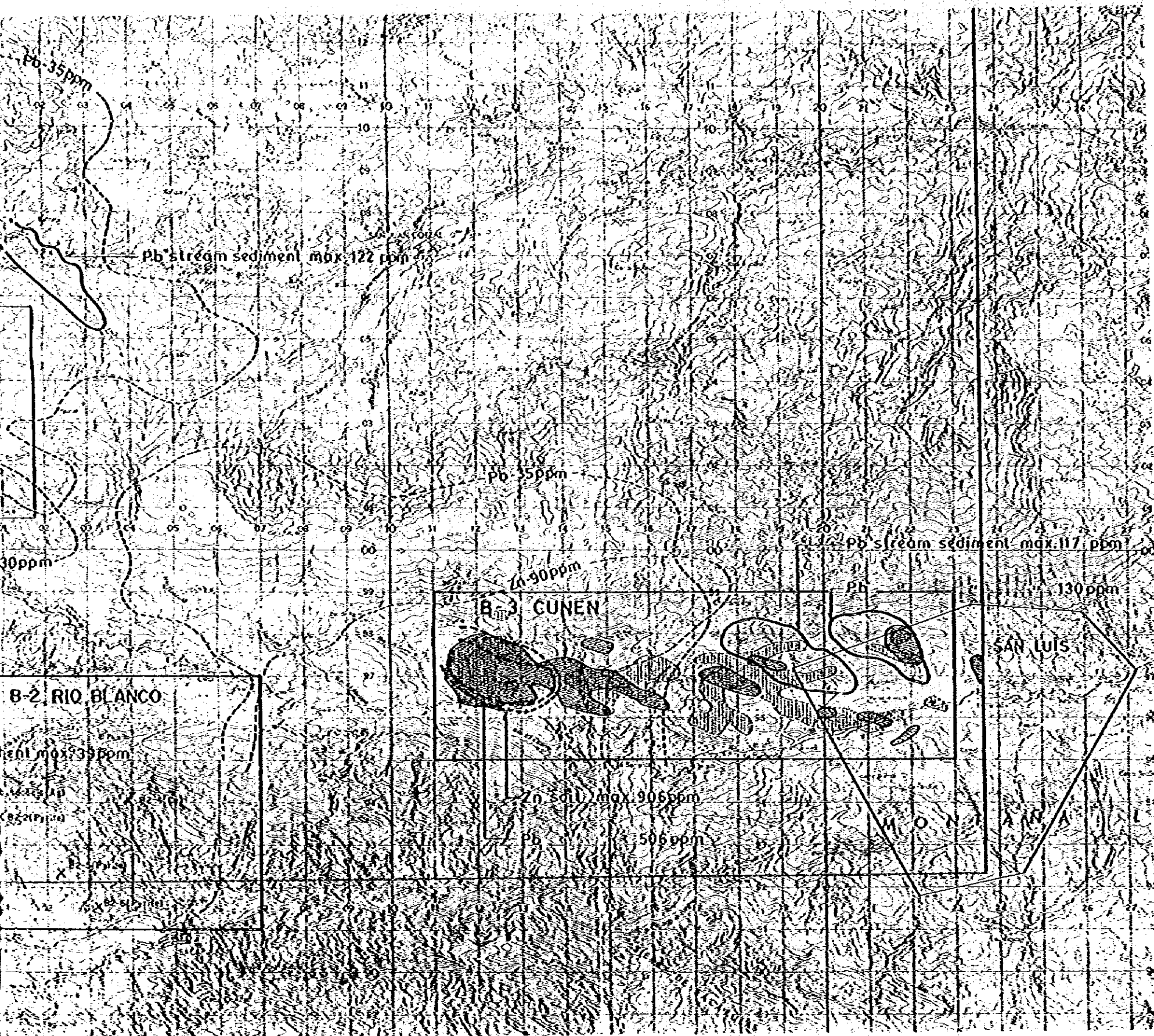




PL-6







METAL MINING AGENCY OF JAPAN
 JAPAN INTERNATIONAL CO-OPERATION AGENCY
 GOVERNMENT OF JAPAN
 COLABORATION WITH
 DIRECCION GENERAL DE MINERIA
 E HIDROCARBUROS DE GUATEMALA
 February 1979

- LEGEND**
- GEOCHEMICALLY ANOMALOUS AREAS IN 1976**
- AREA OF HIGH ASSAY VALUES ; STREAM SEDIMENT
 - " " ; SOIL
 - AREA OF HIGH ROLLING MEAN VALUES ; SOIL
 - AREA OF HIGH STANDARD DEVIATION IN ROLLING MEAN ANALYSIS ; SOIL
- GEOCHEMICALLY ANOMALOUS AREAS IN 1977 ; SOIL**
- Cu ≥ 73.5 ppm (MEAN + 2 STANDARD DEVIATION)
 - Pb ≥ 77.0 ppm (MEAN + 2 STANDARD DEVIATION)
 - Zn ≥ 225.5 ppm (MEAN + 2 STANDARD DEVIATION)
 - * Ag ≥ 2.37 ppm (MEAN + 1 STANDARD DEVIATION) * (only for AREA B-1)
- TARGET AREAS FOR FOLLOW-UP WORK IN 1977
- ANOMALIES &/or FOLLOW-UP AREAS BY UN SHOWINGS, PROSPECTS & OLD WORKS
- (LLAN DEL COYOTE PROSPECT)

