Part Ⅲ Conclusions and Recommendation

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Chapter 1 Conclusions

The regional geological survey, total survey line 500 kilometers and geological description for the existing drilling cores, total logging length 4,000 meters, have been performed in this year's program.

The geological succession of the area is the Tejupilco Schist, Villa Ayala Formation, Acapetlahuaya Formation and calcareous sedimentary rocks of the Teloloapan and Pachivia Formations in the Guerrero terrene and the Morelos Formation of the Mixteco terrene and overlain Cenozoic Balsas and Tilzapotla Rhyolite Formations and intrusive rocks.

The Tejupilco Schist is mainly composed of weakly metamorphosed muddy to sandy rocks accompanied with a small amount of green schist. The Villa Ayala Formation consists mainly of basaltic to andesitic volcanic and pyroclastic rocks such as massive lava, pillow lava, autobrecciated lava to pillow-breccia and hyaloclastite and its upper part contains alternation beds of a little salic andesite to dacite lava, tuff, slate, calcareous sedimentary rocks. The Acapetlahuaya Formation is composed of mainly alternation beds of well-bedded slate and sandstone and a small amount of calcareous sedimentary rocks. The calcareous sedimentary rocks are mainly composed of black phyllite and foliated slate, accompanied with sandy tuff or conglomerate and dark grayish muddy limestone, which ranges from thin beds or lenses, several centimeters in thickness, to some large rock bodies, 1 to 2 kilometers in width in some places. The Morelos Formation consists mainly of grayish black to grayish white massive limestone. It is stratified with thin beds of slate to shale, or accompanied with thin beds and lenses of chert, 1 to 20 centimeters in thickness, in some places. The Balsas Formation is mainly composed of reddish brown conglomerate. The Tilzapotla Rhyolite Formation mainly consists of rhyolitic to dacitic pyroclastic rocks. The intrusive rocks bodies are distribute in various sizes and the rocks are of rhyolite to dacite and andesite.

The rocks of Guerrero terrene consisting of Tejupilco Schist, Villa Ayala and Acapetlahuaya Formations and calcareous sedimentary rocks, has undergone the

strong deformation of folding and thrust faulting due to the Laramide orogeny. This kind of deformation has not occurred in the Morelos Formation of the Mixteco terrene and Cenozoic formations.

The mineralization in the area is of the massive sulfide ore and Tertiary vein-type ore.

The massive sulfide deposits and mineral occurrences in the area are distributed in the Aurora and Mamatla districts. That of the Mamatla district is in the footwall bed of the ore horizon, seemingly in the pathway of rising hydrothermal solution. The ore horizon is situated at the uppermost part of the green volcanic rocks of the Villa Ayala Formation. It has been accordingly clarified that the ore horizon is of simultaneous deposition with the alternation beds of a little acidic volcanic rocks and muddy to calcareous sedimentary rocks.

Some vein-type ore deposits have been mined around Zacualpan, however only two mines are in small-scale operation at present. Some vein-type mineral occurrences have been seen in the existing drilling cores, however it is judged that the potential for high grade and large-scale deposits is low in the area.

Chapter 2 Recommendation for the Second Year's Program

The distribution of the ore horizon and the geological environment of the massive sulfide ore deposits have been revealed by the first year's program. It is geologic structurally assumed that the rocks of the ore horizon deposited in a specific environment, however the details of these still remain unknown due to several times of strong deformations by folding and thrust faulting. It is possible to assume that some kinds of chemical elements have been abnormally concentrated in as geochemical halos in the simultaneously deposited sedimentary rocks. Accordingly, it is possible to select high-potential zones by more detailed geological and rock-geochemical surveys for the alternation zones of the hanging wall volcanic and sedimentary rocks near the mineralization centers.

Also it is possible to reveal the detailed geology by a drilling program of a few hundred meters long within the hanging wall horizon and it will clarify especially the details of the depth of the ore horizon, the state of the mineralization and alteration of the foot wall rocks. Furthermore, it will be able to perform a more reliable potential appraisal for the area by an integrated analysis combined with results of the proposed surface survey programs.

A geophysical (e.g. IP) survey program is useful to presume the sizes of the potential targets afterward.

The following surveys are recommended in order of high priority.

3. Detailed geological and geochemical surveys in the hanging wall area.
4. Survey of structural drill holes in the hanging wall area (e.g. the Aurora district).

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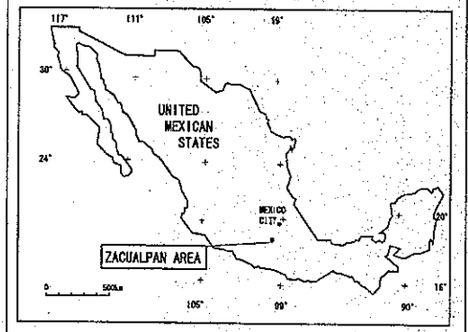
Appendixes

REPORT
ON
THE MINERAL EXPLORATION
IN
THE ZACUALPAN AREA,
UNITED MEXICAN STATES

PHASE I

GEOLOGICAL SECTION
(SCALE 1:100,000)



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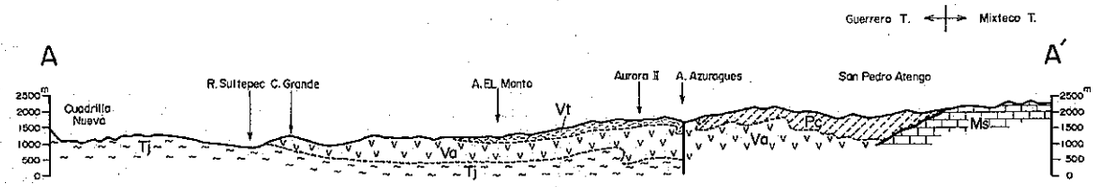
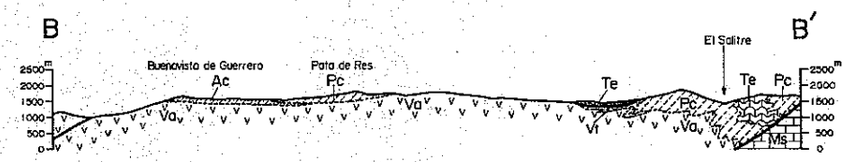
MARCH 2002





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1:100,000

Legend

Quaternary
- Alluvium
  - A — Conglomerate, sand and mud

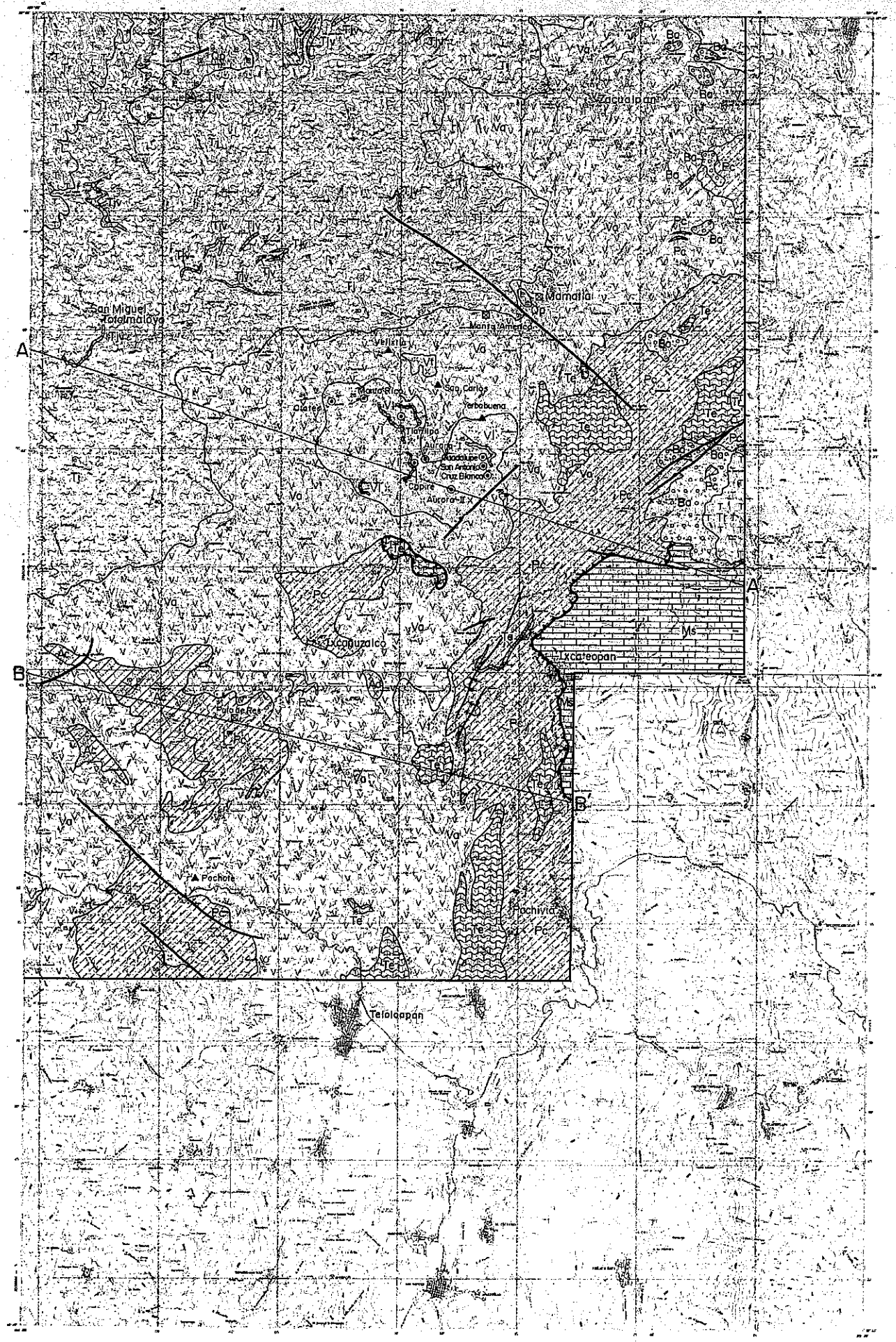
Paleogene
- Tilzapotla Rhyolite Formation
  - Tr — Dacite~Rhyolite tuff
- Balsas Formation
  - Ba — Conglomerate~sandstone and minor andesite

Jurassic~Cretaceous
- Morelos Formation
  - Ms — Limestone
- Calcareous rocks
  - Pc — Slate, limestone and sandstone alternation
  - Te — Limestone
- Acapetlahuaya Formation
  - Ac — Sandstone and slate alternation
- Villa Ayala Formation
  - Vl — Calcareous slate~limestone
  - Vt — Dacite, tuff and slate alternation
  - Va — Basalt~Andesite (lava~hyaloclastite)
- Tejupilco schist
  - Tjv — Green schist~Green rock
  - Tj — Pelitic~Psammitic schist

Intrusive rocks
- Ad — Andesite
- Qp — Quartz Porphyry

Fault

Thrust



REPORT
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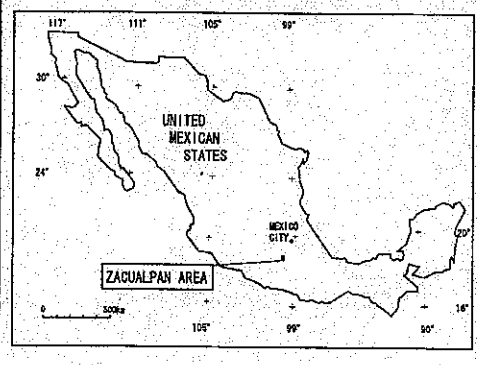
THE ZACUALPAN AREA,
UNITED MEXICAN STATES

PHASE I

GEOLOGICAL MAP
(SCALE 1:100,000)



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METAL MINING AGENCY OF JAPAN
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Legend

Quaternary

Alluvium
- A — Conglomerate, sand and mud

Paleogene

Tilzapotla Rhyolite Formation
- Tr — Dacite~Rhyolite tuff

Balsas Formation
- Ba — Conglomerate~sandstone and minor andesite

Jurassic~Cretaceous

Morelos Formation
- Ms — Limestone

Calcareous rocks
- Po — Slate, limestone and sandstone alternation
- Te — Limestone

Acapetlahuaya Formation
- Ac — Sandstone and slate alternation

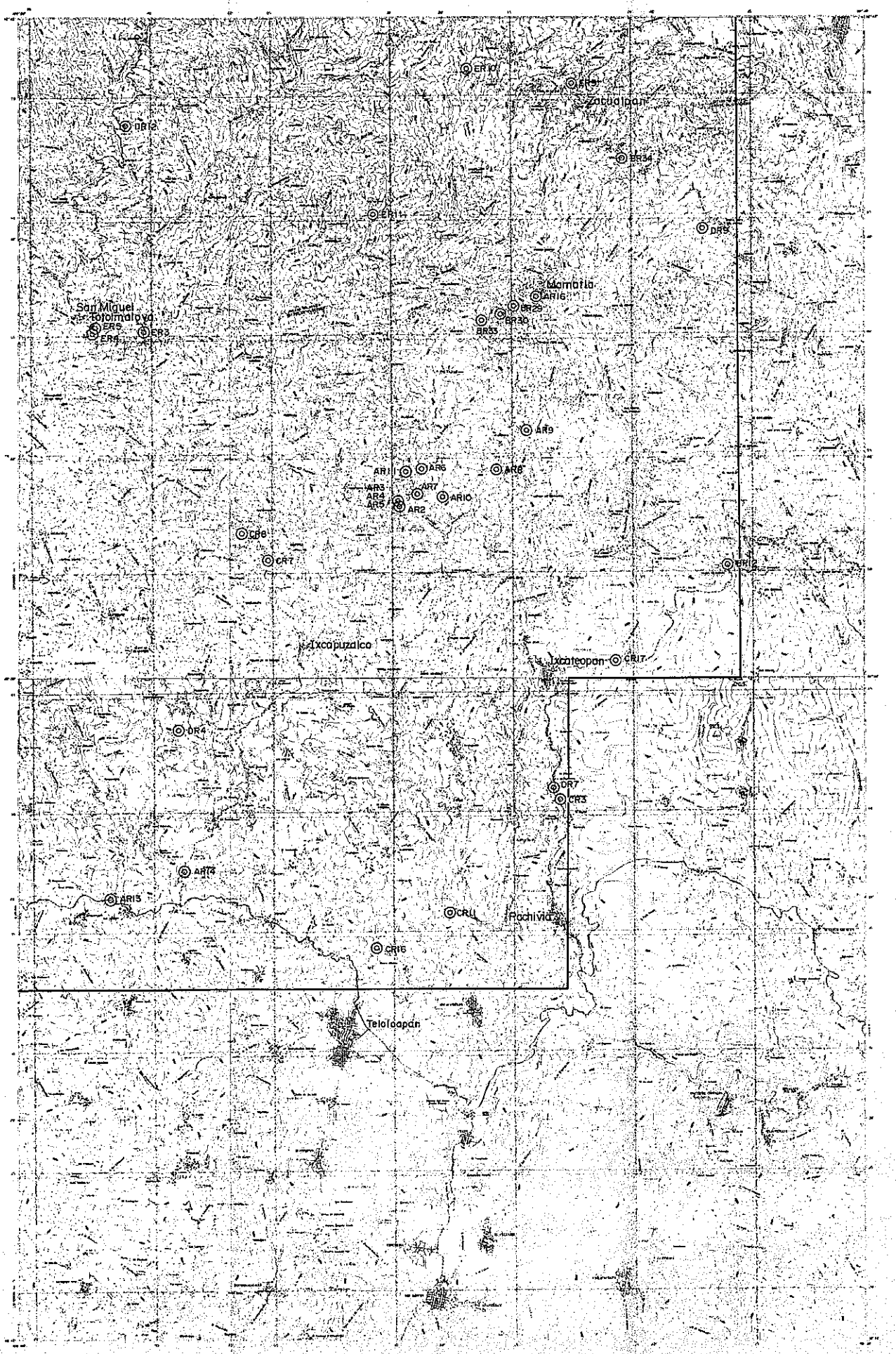
Villa Ayala Formation
- Vl — Calcareous slate~limestone
- Vt — Dacite, tuff and slate alternation
- Va — Basalt~Andesite (lava~hyaloclastite)

Tejupilco schist
- Tjv — Green schist~Green rock
- Tj — Pelitic~Psammitic schist

Intrusive rocks
- Ad — Andesite
- Qp — Quartz Porphyry

Symbols
- Fault
- Thrust
- Overturned Syncline
- Overturned anticline
- Strike, dip
- Cleavage
- Schistosity
- A—A' Geological section

Ore showings
- Massive sulfide
- Massive sulfide (network) type
- Vein type



REPORT
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THE MINERAL EXPLORATION
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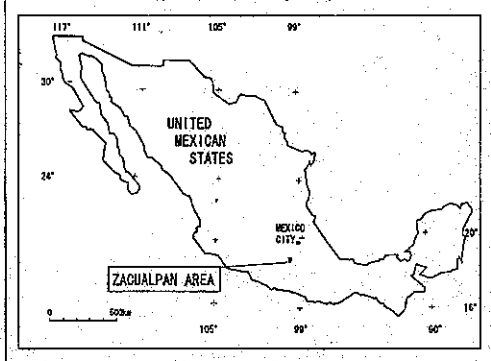
PHASE I

LOCATION MAP OF THE ROCK AND ORE SAMPLES
(SCALE 1:100,000)



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Legend

◎ Location of Rock and Ore sample

Zacualpan Area

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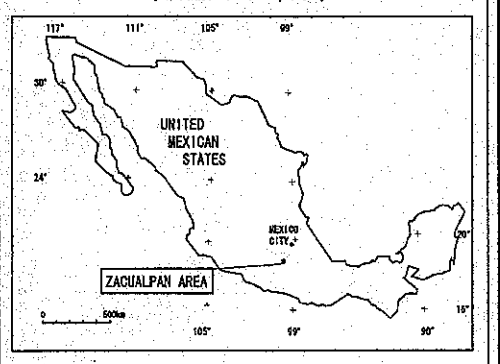
PHASE I

LOCATION MAP OF THE ORE SHOWINGS
(SCALE 1:100,000)



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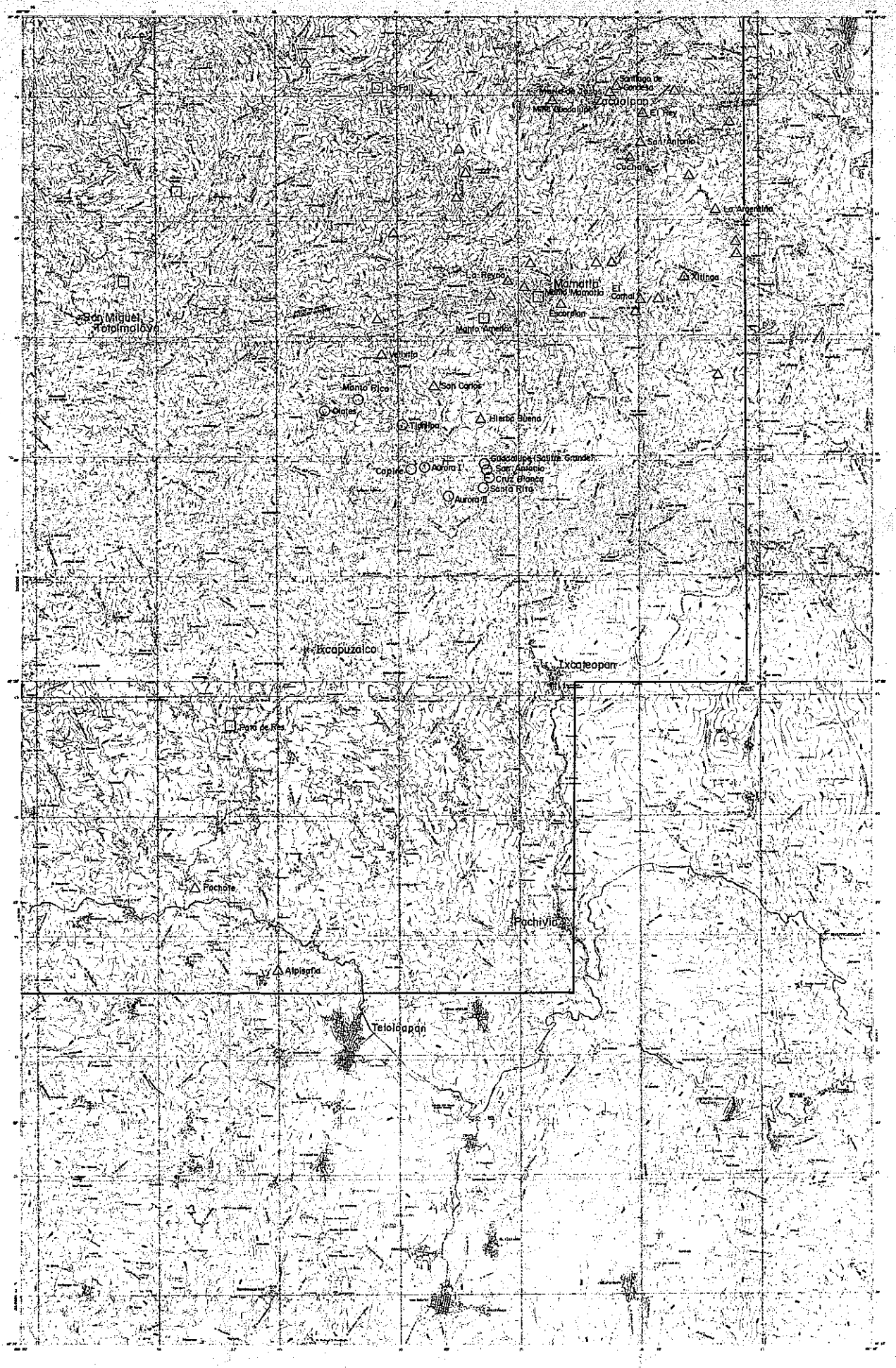

Legend

- ○ Massive Sulfide Mineralization
- □ Massive Sulfide Type Mineralization (Network)
- △ Vein Type Mineralization
- Zacualpan Area