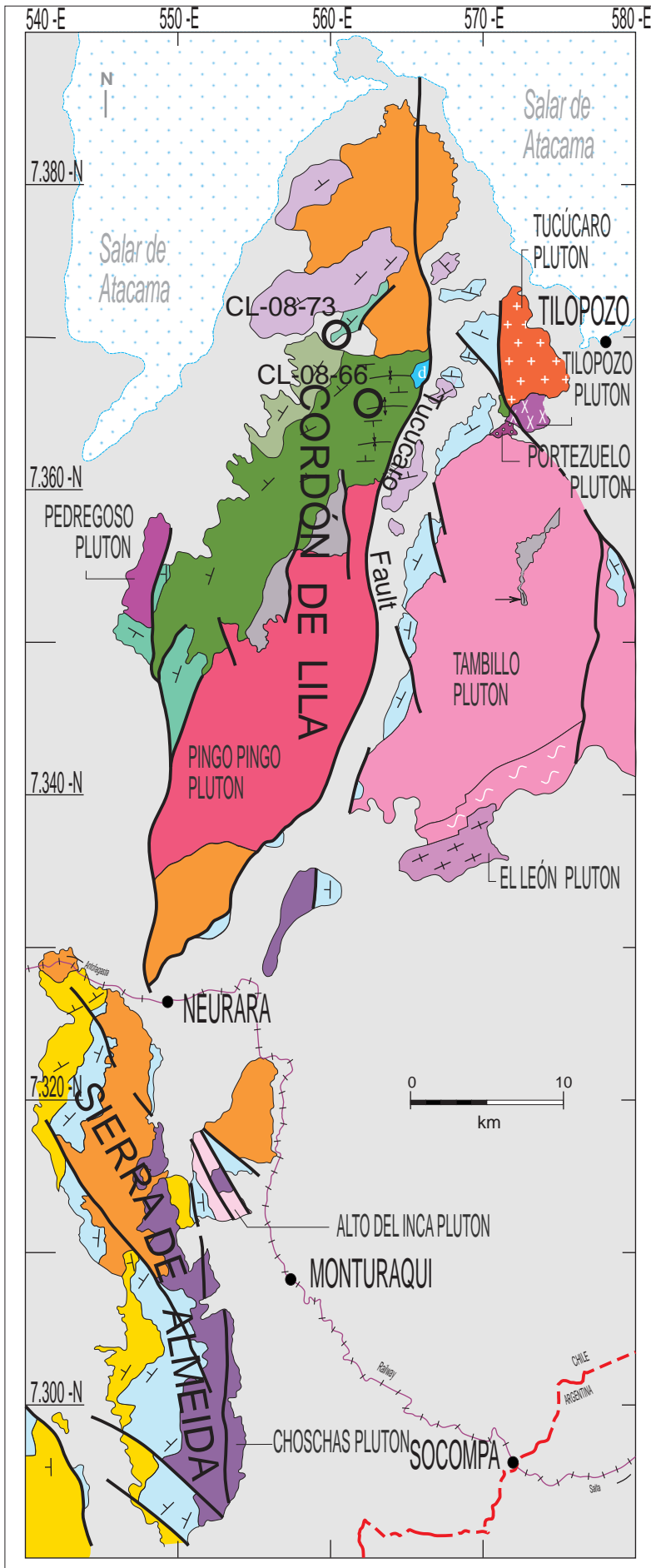


**Supplement 3.** Detailed geological maps of sampling areas. **(A)** Cordón de Lila, **(B)** Zorritas Formation, **(C)** Salar de Navidad, **(D)** Los Colorados, **(E)** Sierra de Argomedo, **(F)** Sierra de Zapla. **(G)** Figure 1 with the map areas are marked with red squares.

References in Appendix 3:

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# (A) Cordón de Lila (samples CL-08-66, CL-08-73)



## GEOLOGY OF THE WESTERN BLOCK

### Extrusive igneous and sedimentary rocks

- Cordón de Lila Complex (CISL): basalt with pillow structures, dacitic breccia and turbidite (Upper Tremadocian - Middle Arenigian).
- Quebrada Grande Formation: marine conglomerate, sandstone and siltstone (Upper Arenigian - Lower Llanvirnian).
- Quebrada Ancha Formation: marine sandstone (Llandoveryan).
- La Tabla Formation: continental andesitic, dacitic and rhyolitic lavas and dacitic breccias (Carboniferous - Permian).

### Granitic plutonic rocks

- Fine-grained dark diorites in stocks and sills (Ordovician).
- Cerro Lila Diorite: dark gray medium-grained hornblende diorite with equigranular texture (Ordovician?).
- Pedregoso Pluton: light gray medium to coarse-grained biotite-hornblende granodiorite with equigranular texture (Ordovician).
- Pingo-Pingo Pluton: light gray medium-grained hornblende-biotite granodiorite with equigranular texture (Ordovician).
- Alto del Inca Pluton: dark red coarse-grained biotite monzogranite with equigranular texture (Ordovician).
- Choschas Pluton: dark gray medium-grained hornblende diorite with equigranular texture (Ordovician).

## GEOLOGY OF THE EASTERN BLOCK

### Sedimentary rocks

- Thin bed of non-turbiditic sedimentites within a black and coarse-grained sill of amphibole gabbro (Ordovician).

### Granitic plutonic rocks

- Cerro Tambillo Gabbro: sill of black coarse-grained gabbro (Ordovician).
- Tucucaro Pluton: light gray to pale pink medium to coarse-grained biotite monzogranite with equigranular texture (Ordovician).
- Tilopozo Pluton: white medium to coarse-grained garnet-muscovite monzogranite to syenogranite with equigranular texture (Ordovician).
- Portezuelo Pluton: dark pink fine to medium-grained granite with granophyric texture (Ordovician).
- Tambillo Pluton: Gray to light pink to coarse-grained biotite-hornblende monzogranite (Ordovician).
- Chululo fringe: light to dark gray fine to medium-grained biotite diorite. (Ordovician). It contains xenoliths of metamorphic rocks: schist and calcisilicate metasediment with scarce amphibolite (Proterozoic to Cambrian?).
- El León Pluton: light green coarse-grained foliated biotite tonalite with strongly inequigranular texture (Ordovician).

## GEOLOGY OF BOTH BLOCKS

### Extrusive sedimentary and igneous rocks

- Lila and Quebrada Zorritas Formations: marine quartzarenite (Devonian - Lower Carboniferous).
- Cerro Negro Formation: continental dark to pale violet dacite and andesite (Kungurian).

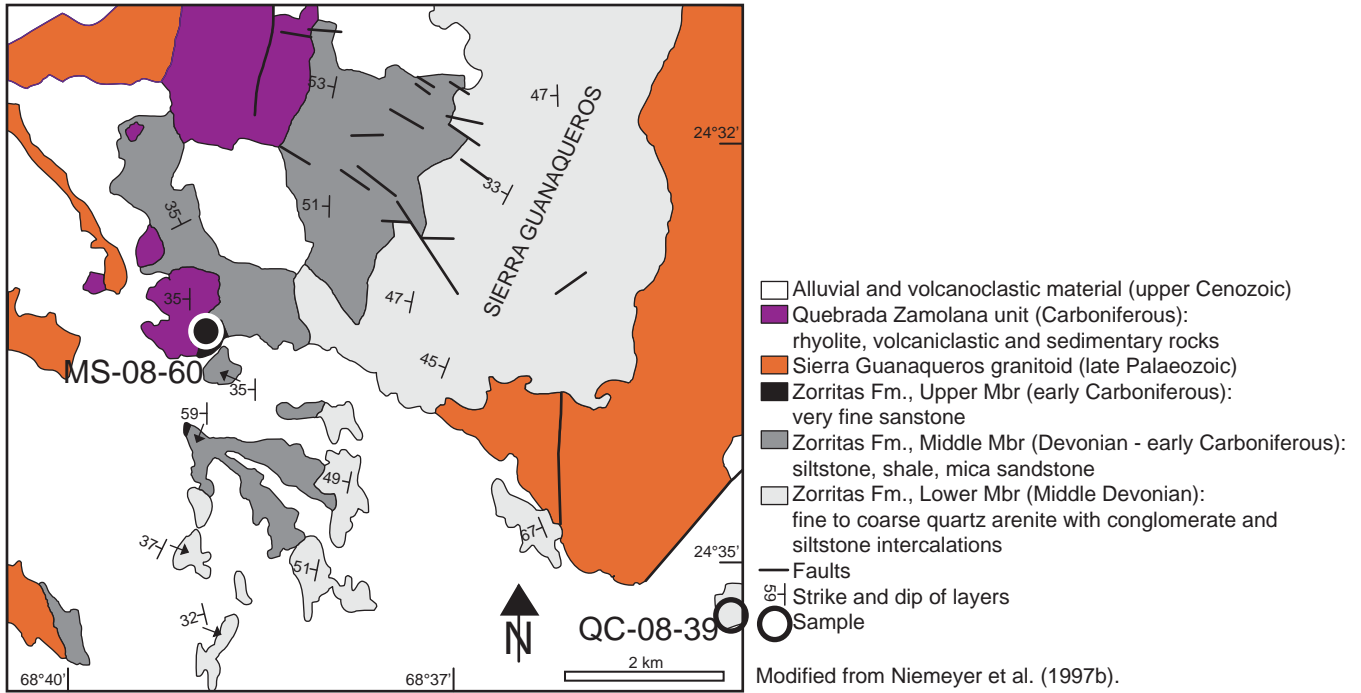
### Intrusive igneous rocks

- Undifferentiated granitoids (Upper Paleozoic).

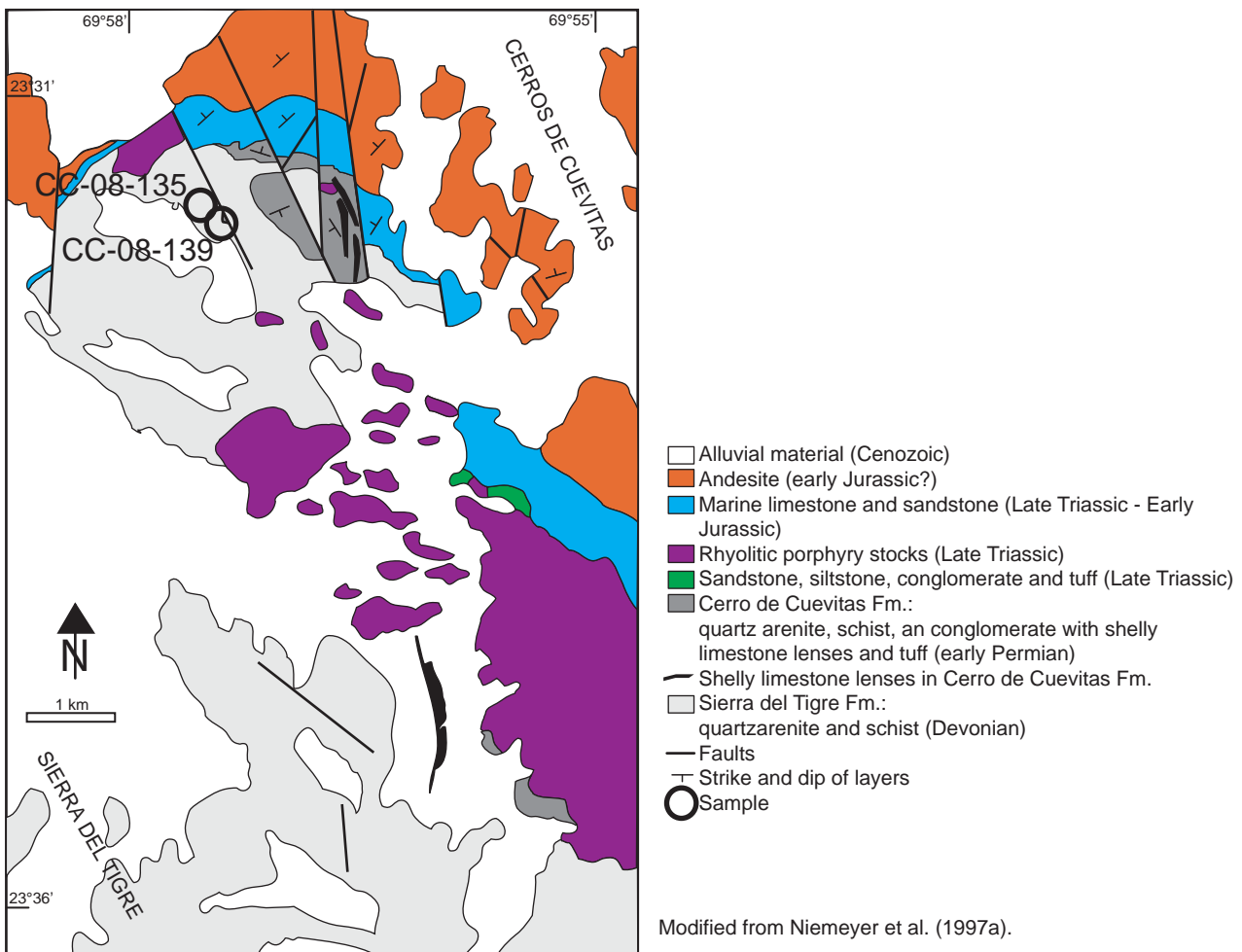
## SYMBOLS

- Fault.
  - Strike and dip of beds in extrusive igneous and sedimentary rocks.
  - Anticline.
  - Syncline.
  - Sample
- } Folds.

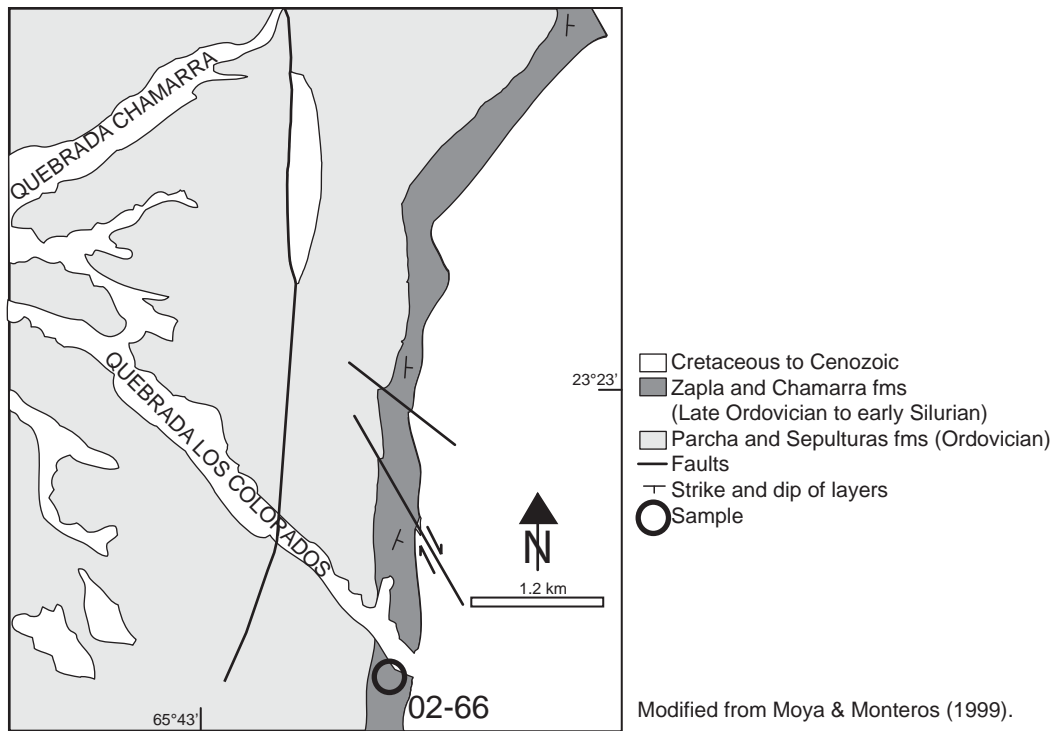
## (B) Zorritas Formation (samples QC-08-39, MS-08-60)



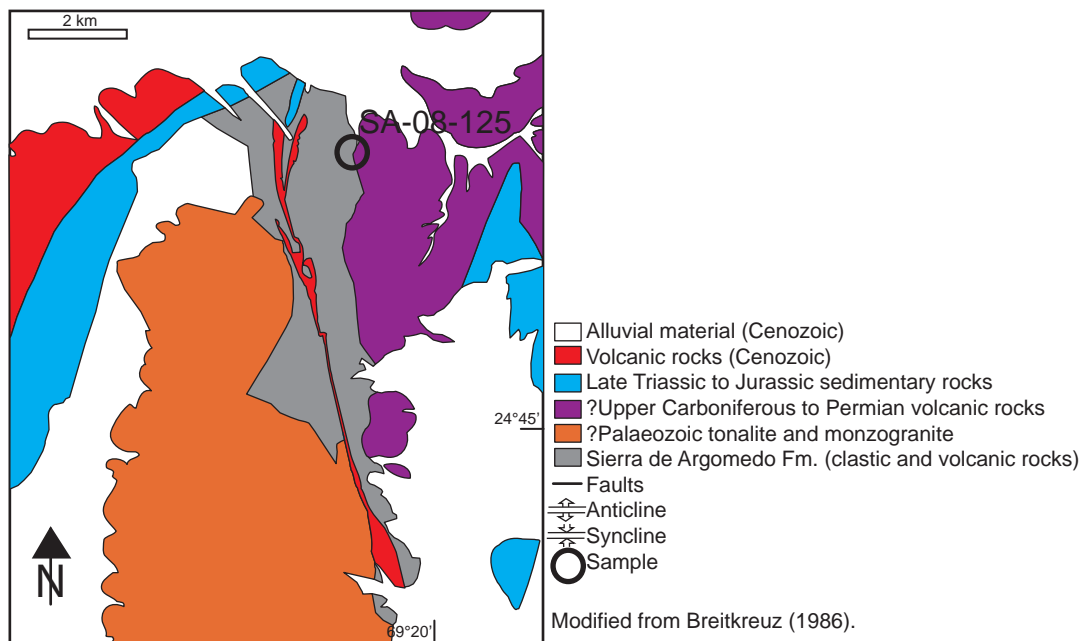
## (C) Salar de Navidad (samples CC-08-135, CC-08-139)



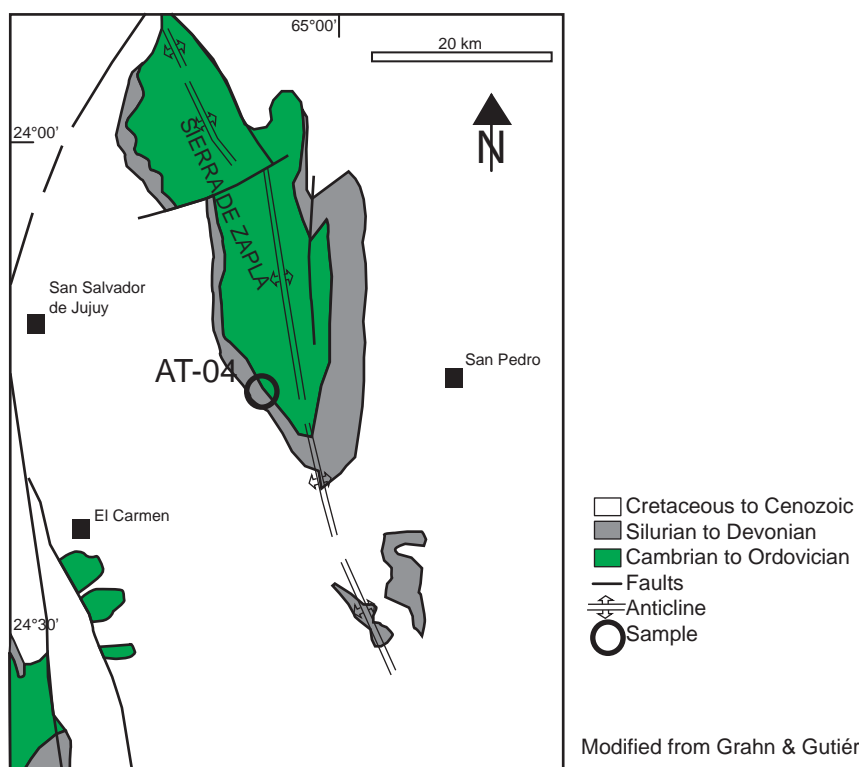
## (D) Los Colorados (sample 02-66)



## (E) Sierra de Argomedo (sample SA-08-125)



## (F) Sierra de Zapla (sample AT-04)



# (G) Figure 1

