**Geologic Map of the Tierras Blancas Area, Estado de Mexico**

*Isabela de Alcántara, Universidad Michoacana de San Nicolás de Hidalgo*

**Description of Map Units**

**Quaternary**

- **Qa**: Alluvium, unconsolidated sand and gravel in drainages and main gully valley.
- **Qc**: Colluvium, unconsolidated sand and gravel on slopes.
- **Qva**: Andesite lava flows, high-K 0.4-0.5 Ma. Dark grey to black groundmass with 5-10% plagioclase phenocrysts and sparse phenocrysts, abundant xenocrysts of quartz and partially disaggregated lenses of plagioclase, quartz, and feldspar. Fissure carbonate at medium-grained and partly jointed 0.1 m sections.
  - **Qvb**: Basaltic andesite lava flows and cinder cones, high-K (0.4-0.5 Ma). Light grey to black groundmass with 5-10% plagioclase and pyroxene phenocrysts.

**Tertiary**

- **T**: Andesite lava and pyroclastic units, medium-K, pegmatoid, up to 0.5 m. Light grey to white groundmass with phenocrysts of plagioclase, pyroxene, quartz, and feldspar. Adjacent andesite lavas.
- **Tv**: Rhodochrosite and andesite lavas of Cerro Sakura, medium-K, probably late Pliocene to Early Pleistocene, light grey groundmass with phenocrysts of plagioclase, pyroxene, and feldspar.
  - **Tlb**: Tierras Blancas beds, external faults indicative of an age of late Pliocene to Early Pleistocene, dated are four faults: 1) sandstone beds; 2) diatomaceous mudstone; 3) fine-grained sandstone; 4) volcaniclastic sandstone.
  - **Tll**: Lapilli tuff - light gray to white, thin (3 m) ash flow tuff.

**Volcanic Vent**

- **Tv**
- **Ta**: Continental lava flows, high-K, medium-K, pegmatoid, up to 0.5 m. Light grey to white groundmass with phenocrysts of plagioclase, pyroxene, and feldspar.
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- **Tv**: Tuff - white, distal pyroclastic fall deposit, volcanic ash bed sample AG-2002-12.

**Sedimentary Units**

- **Nh**: Sandstone - tan, massive sandstone, samples AG-01-01, AG-03-01, AG-04-03, AG-05-01.
- **Nh**: Mudstone - brown, massive marginal lacustrine deposits, samples AG-01-01, AG-03-01, AG-04-03, AG-05-01.
- **Nh**: Diatomaceous mudstone - white, laminated lacustrine sediments, samples AG-01-01, AG-03-01, AG-04-03, AG-05-01.
- **Nh**: Tuff - white, distal pyroclastic fall deposit, volcanic ash bed sample AG-2002-14.
- **Nh**: Tuff - brown, distal pyroclastic fall deposit, volcanic ash bed sample AG-2002-12.

**Collector**

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**Quaternary Units**

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**Figure Legend**

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**Map Symbols**

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**References**


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