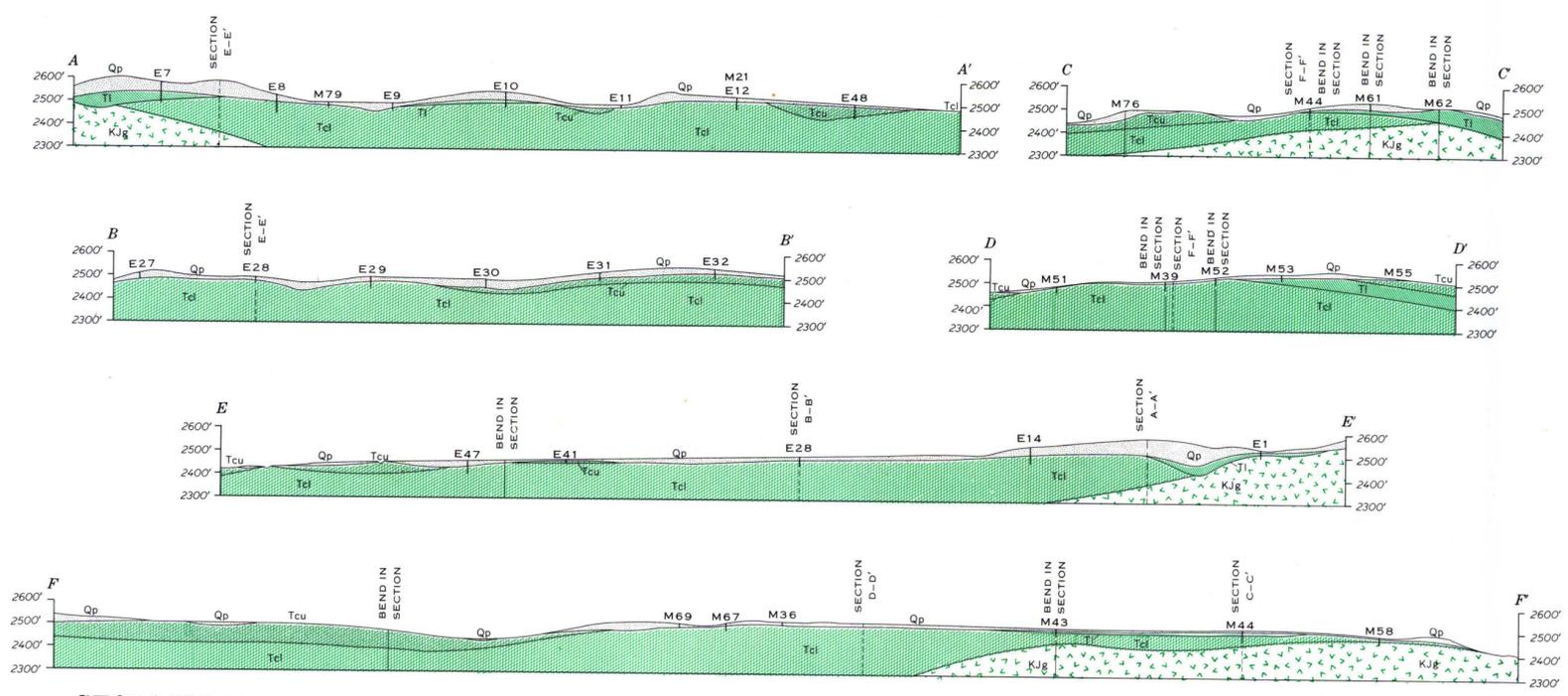


EXPLANATION

- Qp
Palouse formation
Massive brown and reddish-brown loess; stratified in some places
- Tc, Tcu, Tl
Columbia River basalt and Latah formation
Columbia River basalt, massive flows, vesicular lava, volcanic breccia, and pillow lava. Well-defined columnar structure in many places. Upper flows, Tcu; lower flows, Tc; Clay derived from the weathering of basalt is found in the upper part of the lower flows. Latah formation, Tl, chiefly clay with some beds of sand and gravel
- KJg, K4a
Granodiorite and related intrusive rocks
Light-gray, medium-grained granodiorite predominates over small amounts of quartz monzonite, tonalite, granite, and syenite. Considered to be part of the Idaho batholith
- Contact
Dashed where approximately located
- (KJg), (Tc)
Concealed contact
Contact is beneath the Palouse and/or Latah formation
- - - -
Outline of high-alumina clay blocks
- ⊕
Excelsior drill hole, drilled by machine. Indicated in section as E48
- ⊕
Mica drill hole, drilled by hand auger. Indicated in section as M39
- Overburden, in feet | Mining section, in feet, %
Available Fe₂O₃ | Available Al₂O₃
- Drill hole
Drill-hole number, in circle refers to logs and assay data. Mining section shows thickness of clay, in feet, having 20 percent or more Al₂O₃ and 5 percent or less Fe₂O₃. No figures given where section is less than 5 feet thick or contains less than 20 percent Al₂O₃ or more than 5 percent Fe₂O₃. A, transported clay; B, clay derived from upper basalt. Figure without letter indicates clay derived from lower basalt. When two lines of figures are given, the upper line is for transported clay and the lower line is for clay derived from basalt. Available Fe₂O₃ and Al₂O₃ shown in percent and are average for mining section

QUATERNARY
TERTIARY
JURASSIC OR CRETACEOUS

Geology by Vernon E. Scheid



GEOLOGIC MAP OF THE EXCELSIOR HIGH-ALUMINA CLAY DEPOSIT, SPOKANE COUNTY, WASHINGTON

Scale 1:12 000

