



Key to Interpreted Features

- Precambrian Basement**
 - Contours of generalized depth to magnetic Precambrian basement, in feet. Depths > 2000' elsewhere.
- Oligocene Volcanic Rocks**
 - Magnetically defined lateral limits of Oligocene volcanic rocks where they can be distinguished from other magnetic igneous rocks.
 - Contours of generalized depths in feet to Oligocene volcanic rocks, equivalent to thickness of overlying Santa Fe Group, dashed where poorly constrained.
 - General area where irregular surface of Oligocene volcanic rocks is inferred to be shallow (<250' deep).
 - Magnetic units within the Galisteo Formation, underlying the Oligocene volcanic rocks.
 - Southern limit of Oligocene basaltic flows that overlie dominantly volcanoclastic rocks.
 - Strikes and dips of Espinazo Formation from Lisenbee (1999).
- Tertiary Intrusive Rocks and Volcanic Vents**
 - Region in the Cerros del Rio volcanic field where vents and intrusions are too numerous to outline individually.
 - Lateral limits of interpreted intrusions and/or volcanic vents likely associated with the Cerros del Rio field, with estimated range of depths (ft) to the tops.
 - Lateral limits of interpreted intrusions and/or volcanic vents of likely Oligocene age, with estimated range of depths (ft) to the tops.
- Pliocene-Quaternary Volcanic Rocks**
 - Magnetically defined, lateral limits of Cerros del Rio volcanic field.
 - Area of thin basalt.
- Miscellaneous**
 - Magnetically interpreted, near-surface fault. Labeled faults with inferred upthrown (U) and down-thrown (D) sides are discussed in text of report. Seton Village fault from interpretation of Spiegel and Baldwin (1963).
 - Area where Espinazo Formation is absent and Ancha Formation rests directly on older sedimentary unit. Labels are referenced in the text of the report.
 - Area of magnetic (coarse-grained) Puye Formation inferred from aeromagnetic patterns.
 - Area of magnetic (coarse-grained) Santa Fe Group inferred from aeromagnetic patterns.
- Geographic Features**
 - Oil exploration well.
 - Major road.
 - Rivers and streams.
 - City center.

map scale 1:100,000
NAD27 datum

Plate 2. Composite of interpretations at 1:100,000 scale, with depths to various interpreted features in feet. See text and individual Figures 4-8 for explanation. Note that depth contours are nonlinear, representing 250 ft, 500 ft, 1000 ft, and 2000 ft. Representative strikes and dips of the Espinazo Formation are from Lisenbee (1999).

AEROMAGNETIC INTERPRETATIONS FOR UNDERSTANDING THE HYDROGEOLOGIC FRAMEWORK OF THE SOUTHERN ESPAÑOLA BASIN, NEW MEXICO

By
V.J.S. Grauch and Viki Bankey
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