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**EXPLANATION OF IDENTIFIED RESOURCES AND MINERAL RESOURCE POTENTIAL**

**B** Areas having identified resources of volcanic cinder—Numbers correspond to sample numbers in table 1

**L/B** Geologic terrane having low mineral and energy resource potential for volcanic cinder, near-surface base (copper, lead, zinc, tin) and precious (gold, silver, platinum) metals, oil and gas, uranium, and geothermal energy, with certainty level B—Applies to entire study areas, except that low potential for volcanic cinder does not apply to areas having identified resources of volcanic cinder

**U/A** Geologic terrane having unknown mineral resource potential for subsurface metals, with certainty level A—Applies to entire study areas

**CORRELATION OF MAP UNITS**

Qa	Qb	Qc	Qd	Qe	Qf	Qg	Qh	Qi	Qj	Qk	Ql	Qm	Qn	Qo	Qp	Qq	Qr	Qs	Qt	Qu	Qv	Qw	Qx	Qy	Qz	Tr	Tv	Tu	Ts	Kp
POTRILLO VOLCANICS															QUATERNARY															
TERTIARY(?)															CRETACEOUS/ OR PERMIAN															

- LIST OF MAP UNITS**
- Qa Stream sediment (Quaternary)—Inconsolidated sand, silt, and gravel found in stream channels, flood plains, and outwash surfaces. Also locally includes some colluvium, clays, and eolian sediments.
  - Qb Eolian deposits (Quaternary)—Dunes and irregular deposits of windblown quartz-rich sand.
  - Qc Eolian deposits and stream sediment, undifferentiated (Quaternary)—Consists of patches of eolian deposits (Qb) overlying unconsolidated stream sediments (Qa).
  - Qd Playa deposits (Quaternary)—Silt, clay, and loam.
  - Qe Colthousen, talus, and alluvial fan deposits (Quaternary)—Associated with Mount Riley, chiefly unconsolidated to poorly consolidated cobble to boulder sediments.
  - Qf Potrillo Volcanics (Quaternary)
  - Qg Aden Basalt
  - Qh Basaltic spatter and flows of Aden Basalt—Associated with Aden Crater.
  - Qi Kibboune maar ejecta—Chiefly ejecta derived from Santa Fe Group sediment and Alton Basalt debris.
  - Qj Basalt dike
  - Qk Basaltic cinders and spatter—Mainly associated with cinder cones and small vents.
  - Ql Alton Basalt
  - Qm West Potrillo Basalt
  - Qn Basalt—Well-exposed flow basalt (approximately 50-100 percent exposed).
  - Qo Basalt—Moderately exposed flow basalt (approximately 10-50 percent exposed).
  - Qp Basalt—Largely concealed flow basalt (less than 10 percent exposed).
  - Qq Palaeozoic tuff
  - Qr Camp Rice Formation (Pleistocene to Pliocene)—Weakly to moderately cemented sand, silt, loam, and clay deposits. Grades into cobble to boulder fan deposits near the West Potrillo Mountains.
  - Tr Magmatic rocks of Mount Riley (Tertiary?)—Intrusive hornblende ± biotite latite, rhyolitic dike, and andesite.
  - Tv Rhyolite (Tertiary?)
  - Tu Porphyritic andesite (Tertiary?)
  - Ts Tuff breccia (Tertiary?)
  - Ts Volcaniclastic sediments (Tertiary?)—Includes sandstone, siltstone, conglomerate, and sandstone with tuff.
  - Kp Cherty limestone (Cretaceous? or Permian)

- Contact—Distinguishes between geologic units and between individual flows and vent deposits of a geologic unit.
- - - Fault—Dashed where approximately located. D, downthrown side; U, upthrown side.
- Strike and dip of bedding.
- Unpatented mining claims.
- ◇ Oil and gas well.
- ★ Quarry.

LEVEL OF RESOURCE POTENTIAL	U/A	H/B	H/C	H/D
	LOW POTENTIAL	MODERATE POTENTIAL	HIGH POTENTIAL	HIGH POTENTIAL
	UNKNOWN POTENTIAL	MODERATE POTENTIAL	MODERATE POTENTIAL	MODERATE POTENTIAL
	LOW POTENTIAL	LOW POTENTIAL	LOW POTENTIAL	NO POTENTIAL
	A	B	C	D
	LEVEL OF CERTAINTY →			

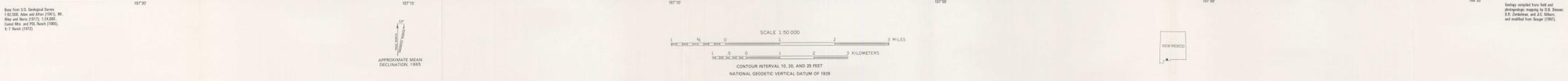
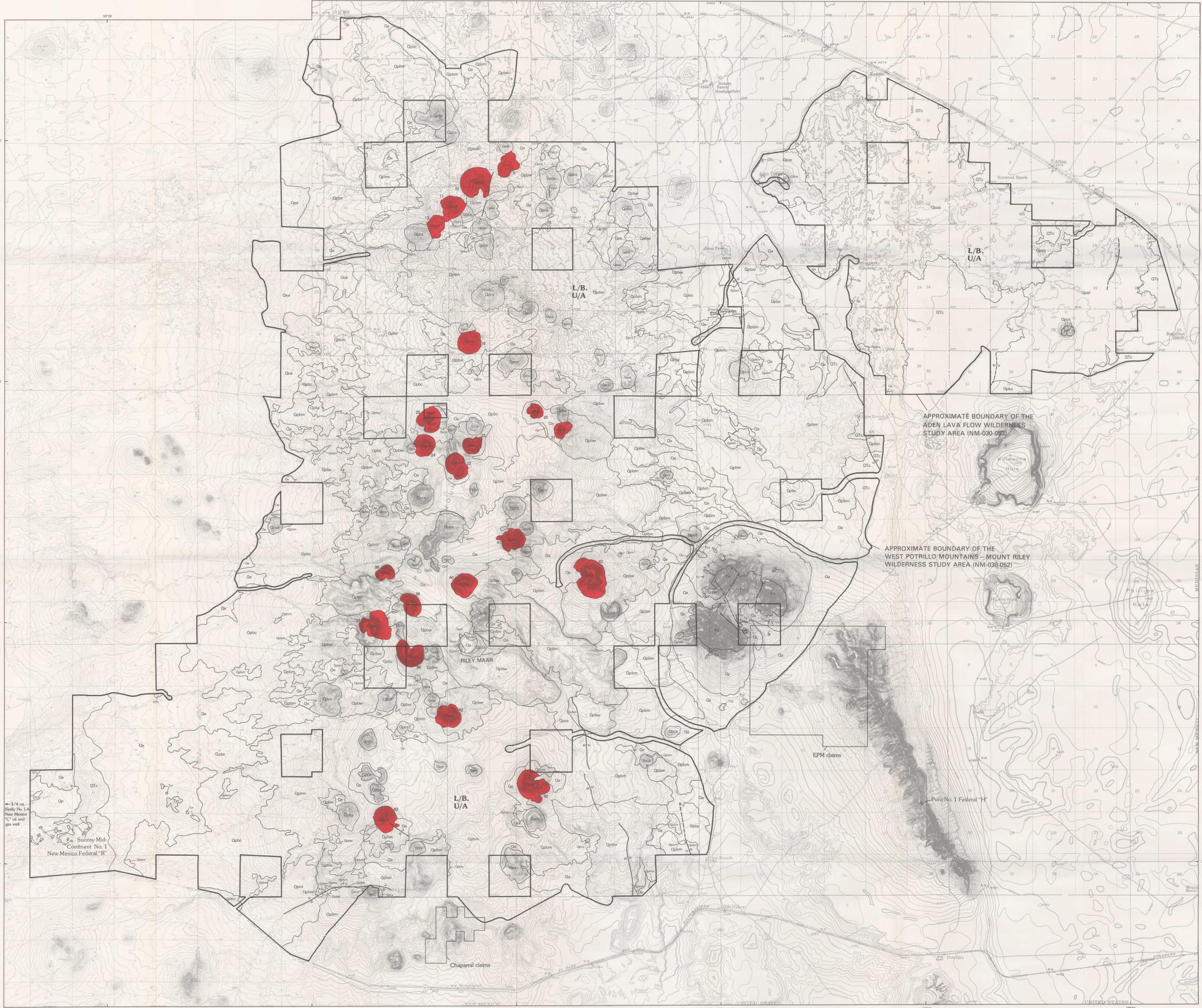
**LEVELS OF RESOURCE POTENTIAL**

- H High mineral resource potential
- M Moderate mineral resource potential
- L Low mineral resource potential
- U Unknown mineral resource potential
- N No known mineral resource potential

**LEVELS OF CERTAINTY**

- A Available data not adequate
- B Data indicate geologic environment and suggest level of resource potential
- C Data indicate geologic environment, give good indication of level of resource potential, but do not establish activity of resource-forming processes
- D Data clearly define geologic environment and level of resource potential and indicate activity of resource-forming processes in all or part of the area

Diagram showing relationships between levels of mineral resource potential and levels of certainty. Shading shows levels that apply to this study area.



MAP SHOWING IDENTIFIED RESOURCES, MINERAL RESOURCE POTENTIAL, AND SIMPLIFIED GEOLOGY OF THE WEST POTRILLO MOUNTAINS— MOUNT RILEY AND THE ADEN LAVA FLOW WILDERNESS STUDY AREAS, DONA ANA AND LUNA COUNTIES, NEW MEXICO

Map from U.S. Geological Survey, 1:50,000 scale sheet (1985), New Mexico "C" oil and gas well. Sunray Mid-Continent No. 1 New Mexico Federal "H".

Shading compiled from field and photographic study by D.S. Brown and modified from Sager (1981).