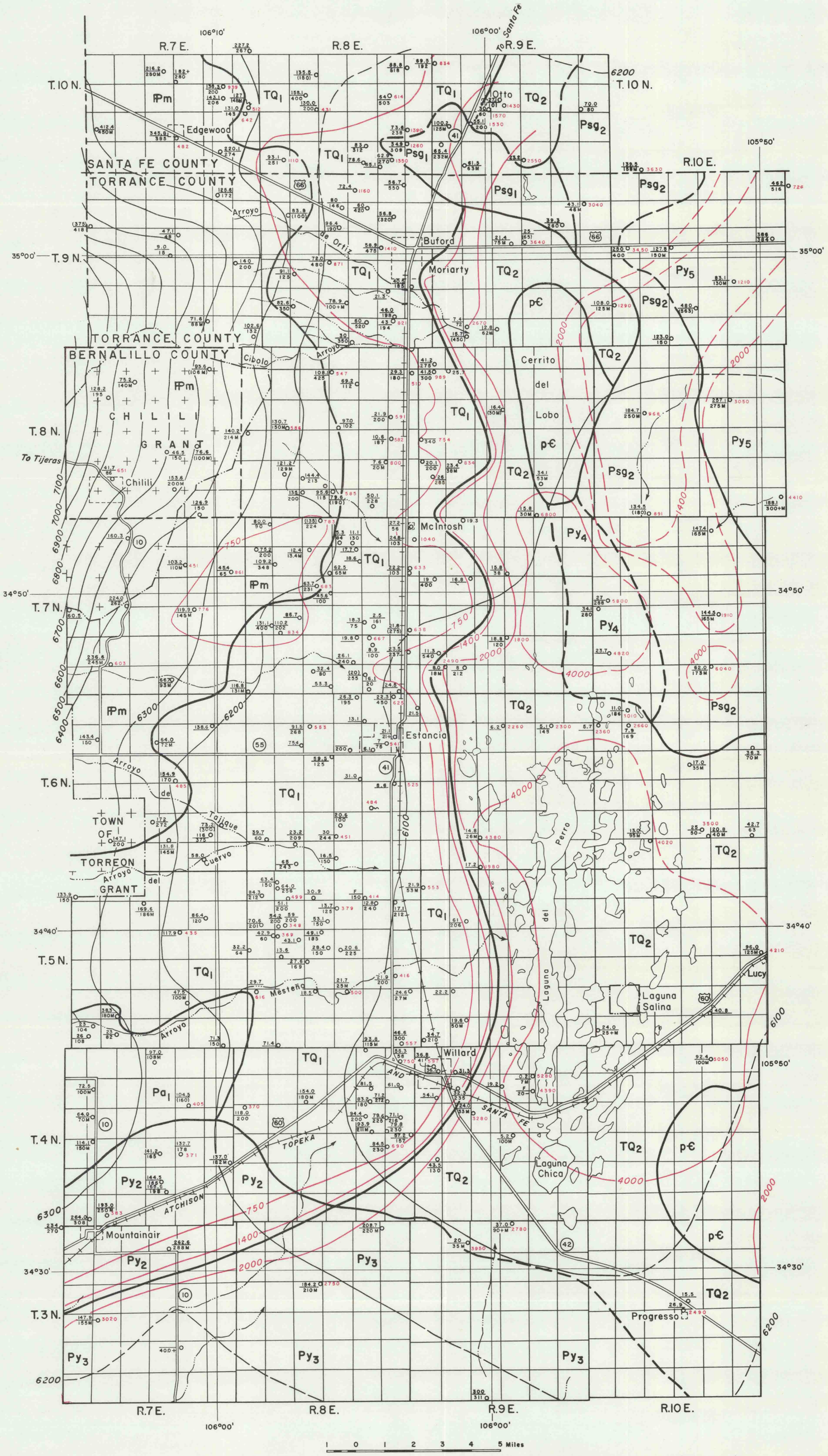

AVAILABILITY AND CHEMICAL QUALITY OF GROUND WATER AND ALTITUDE OF WATER IN WELLS IN ESTANCIA VALLEY, N. MEX.

EXPLANATION

AREAS IN WHICH THE QUATERNARY AND TERTIARY(?) VALLEY FILL IS THE PRINCIPAL AQUIFER

TQ1
Depth to water: 0 to 250 feet.
Quantity: Most of area furnishes water to irrigation wells. Average good well yields about 1,200 gpm. Maximum yield measured, 2,380 gpm.
Chemical quality: Satisfactory for domestic use, irrigation, and stock.

TQ2
Depth to water: 0 to 120 feet.
Quantity: Part of area furnishes water to irrigation wells. Yields as high as 1,500 gpm reported. Adequate water for stock can be expected anywhere in area.
Chemical quality: Undesirable to unsatisfactory for domestic use and irrigation. Generally unsatisfactory for stock.

AREAS IN WHICH THE GLORIETA SANDSTONE MEMBER OF THE SAN ANDRES FORMATION IS THE PRINCIPAL AQUIFER

Psg1
Depth to water: 25 to 100 feet.
Quantity: Furnishes water to irrigation wells; yield 1,200 to 3,000 gpm. Adequate water for stock can be expected anywhere in area.
Chemical quality: Satisfactory to unsatisfactory for domestic use, irrigation, and stock.

Psg2
Depth to water: 30 to 200 feet.
Quantity: Adequate for windmills.
Chemical quality: Generally unsatisfactory for domestic use and irrigation. Satisfactory to undesirable for stock.

AREAS IN WHICH THE YESO FORMATION IS THE PRINCIPAL AQUIFER

Py2
Depth to water: 25 to 300 feet.
Quantity: Adequate for windmills in most of area. Northeast of Mountainair two wells pumped for municipal supply at 133 and 240 gpm derive water from limestone.
Chemical quality: Generally satisfactory for domestic use, irrigation, and stock.

Py3
Depth to water: 175 to 750 feet.
Quantity: Adequate for windmills.
Chemical quality: Generally unsatisfactory for domestic use and irrigation. Satisfactory for stock.

Py4
Depth to water: 20 to 50 feet.
Quantity: Furnishes water to irrigation wells; yield of 2,250 to 3,000 gpm reported. Adequate water for stock can be expected anywhere in area.
Chemical quality: Unsatisfactory for domestic use. Unsatisfactory, but used, for irrigation. Undesirable for stock.

Py5
Depth to water: 40 to 625 feet.
Quantity: Generally adequate for windmills.
Chemical quality: Satisfactory to unsatisfactory for domestic use and irrigation. Generally satisfactory for stock.

AREAS IN WHICH THE ABO FORMATION IS THE PRINCIPAL AQUIFER

Pa1
Depth to water: 5 to 260 feet.
Quantity: Adequate to inadequate for windmills.
Chemical quality: Satisfactory for domestic use, irrigation, and stock.

AREAS IN WHICH THE ARKOSIC LIMESTONE MEMBER OF THE MADERA LIMESTONE IS THE PRINCIPAL AQUIFER

Pm
Depth to water: 5 to 360 feet. Most shallow wells are in western part of area.
Quantity: Usually adequate for windmills. Irrigation wells are present along western margin of Estancia Valley, but supply is likely to become inadequate after a few years of use.
Chemical quality: Satisfactory for domestic use, irrigation, and stock.

184.2 / 210 M ○ 895 — Well. Figure above line, depth to water in feet; measured water levels in tenths of a foot. Figure below line, depth of well in feet; "M" means measured depth. Parentheses mean that the figure is approximate. "F" means flowing. Figure in red, specific conductance of water sample from well.

Spring.

Approximate boundary of different aquifers; dashed where information is limited.

Contour line of water level, feet above sea level; dashed where information is limited. Contour interval, 100 feet.

Line of equal specific conductance, micromhos; dashed where information is limited. Values shown, 750, 1,400, 2,000, and 4,000. Lines are generally representative of water at shallow depth where information is available on vertical variation of specific conductance.

Base map adapted from County Highway Planning Map, 1951.

Water-level and chemical-quality information based on data collected between 1941 and 1953.