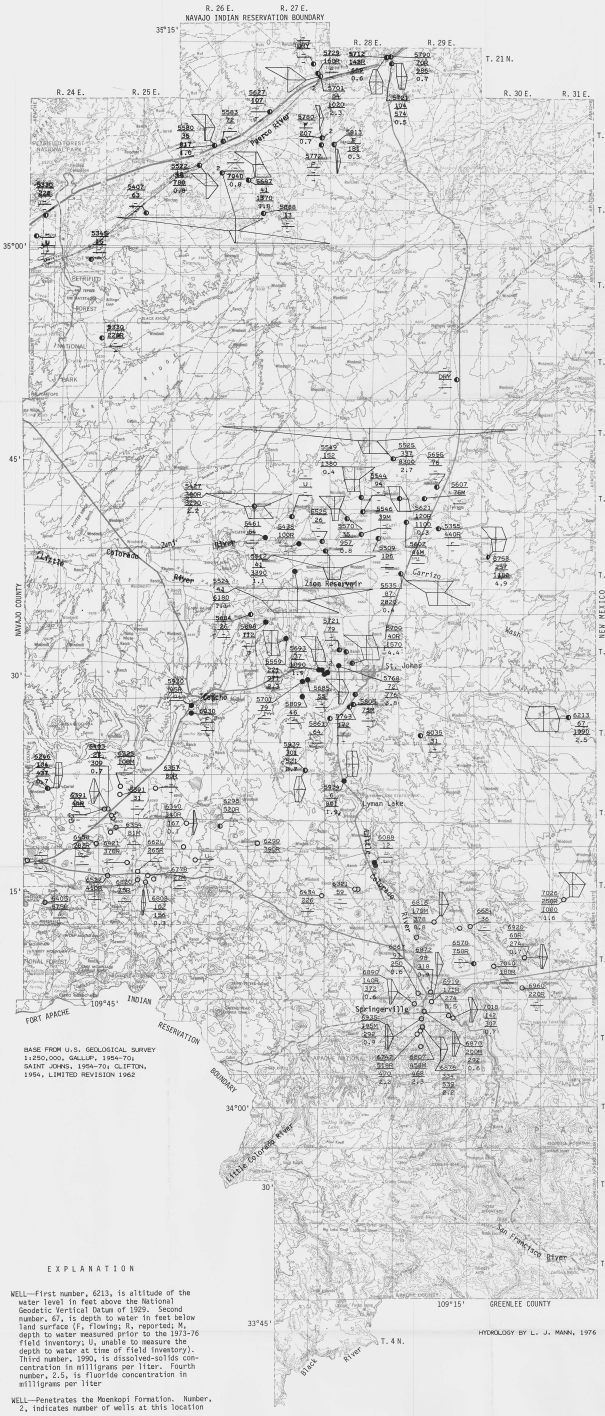
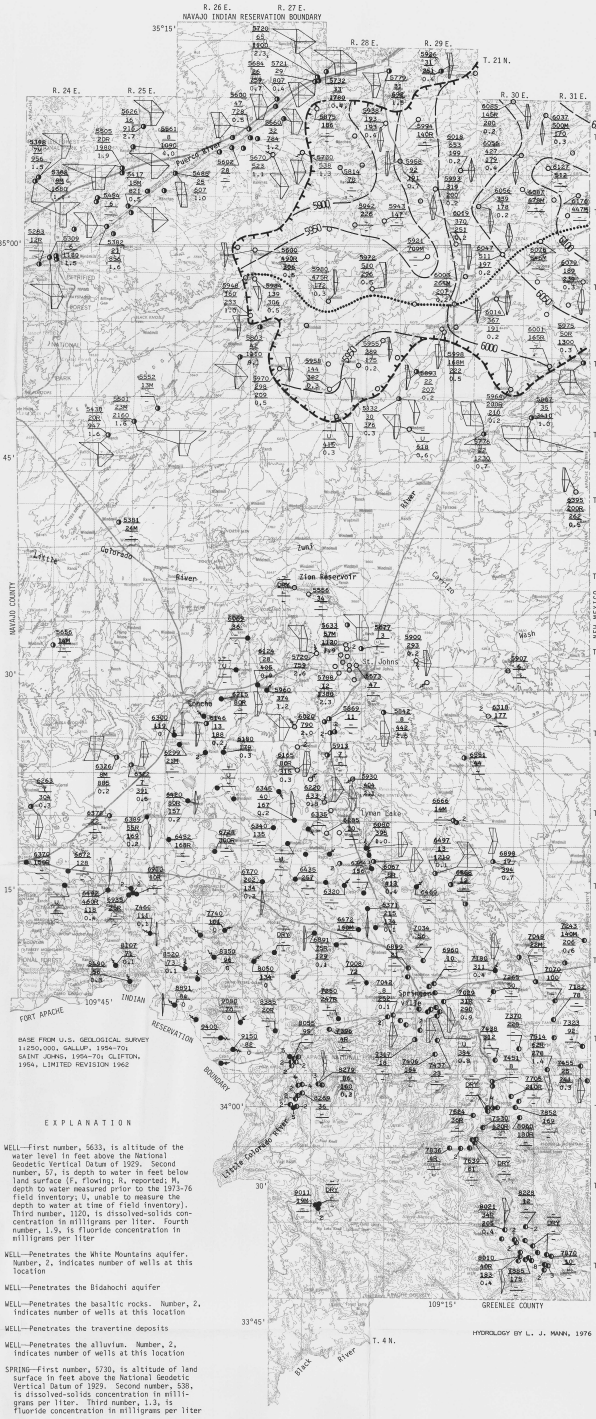


BASE FROM U.S. GEOLOGICAL SURVEY
1:250,000, GALLUP, 1954-70;
SAINT JOHNS, 1954-70; CLIFTON,
1954, LIMITED REVISION 1962

HYDROLOGY BY L. J. MANN, 1976



BASE FROM U.S. GEOLOGICAL SURVEY
1:250,000, GALLUP, 1954-70;
SAINT JOHNS, 1954-70; CLIFTON,
1954, LIMITED REVISION 1962

HYDROLOGY BY L. J. MANN, 1976

EXPLANATION

6213 / 67 / 1990 / 2.5 — WELL—First number, 6213, is altitude of the water level in feet above the National Geodetic Vertical Datum of 1929. Second number, 67, is depth to water in feet below land surface (F, flowing; R, reported; M, depth to water measured prior to the 1973-76 field inventory; U, unable to measure the depth to water at time of field inventory). Third number, 1990, is dissolved-solids concentration in milligrams per liter. Fourth number, 2.5, is fluoride concentration in milligrams per liter

WELL—Penetrates the Moenkopi Formation. Number, 2, indicates number of wells at this location

WELL—Penetrates the Chinle Formation. Number, 2, indicates number of wells at this location

WELL—Penetrates the Springerville aquifer

SPRING—Derives water from the Springerville aquifer

CHEMICAL-QUALITY DIAGRAM—Shows major chemical constituents in milliequivalents per liter. The diagrams are in a variety of shapes and sizes, which provides a means of comparing, correlating, and characterizing types of water

Milliequivalents per liter

Cations: Sodium, Calcium, Magnesium — Anions: Chloride, Bicarbonate, Sulfate

40 20 0 0 20 40

A. GROUND-WATER CONDITIONS IN THE MOENKOPI AND CHINLE FORMATIONS AND THE SPRINGERVILLE AQUIFER

EXPLANATION

5633 / 57 / 1120 / 1.9 — WELL—First number, 5633, is altitude of the water level in feet above the National Geodetic Vertical Datum of 1929. Second number, 57, is depth to water in feet below land surface (F, flowing; R, reported; M, depth to water measured prior to the 1973-76 field inventory; U, unable to measure the depth to water at time of field inventory). Third number, 1120, is dissolved-solids concentration in milligrams per liter. Fourth number, 1.9, is fluoride concentration in milligrams per liter

WELL—Penetrates the White Mountains aquifer. Number, 2, indicates number of wells at this location

WELL—Penetrates the Bidahochi aquifer

WELL—Penetrates the basaltic rocks. Number, 2, indicates number of wells at this location

WELL—Penetrates the travertine deposits

WELL—Penetrates the alluvium. Number, 2, indicates number of wells at this location

5730 / 538 / 1.3 — SPRING—First number, 5730, is altitude of land surface in feet above the National Geodetic Vertical Datum of 1929. Second number, 538, is dissolved-solids concentration in milligrams per liter. Third number, 1.3, is fluoride concentration in milligrams per liter

SPRING—Derives water from the Bidahochi aquifer

SPRING—Derives water from the basaltic rocks

SPRING—Derives water from the travertine deposits

APPROXIMATE LIMIT OF AREA WHERE WATER CAN BE OBTAINED FROM WELLS THAT PENETRATE THE BIDAHOCHI AQUIFER—Excludes several small isolated areas

6000 — POTENTIOMETRIC CONTOUR—Shows approximate altitude at which water would have stood in a tightly cased well that penetrates the Bidahochi aquifer in the northeastern part of the area. Contour interval 50 feet. National Geodetic Vertical Datum of 1929

APPROXIMATE LOCATION OF GROUND-WATER DIVIDE IN THE BIDAHOCHI AQUIFER

CHEMICAL-QUALITY DIAGRAM—Shows major chemical constituents in milliequivalents per liter. The diagrams are in a variety of shapes and sizes, which provides a means of comparing, correlating, and characterizing types of water

Milliequivalents per liter

Cations: Sodium, Calcium, Magnesium — Anions: Chloride, Bicarbonate, Sulfate

40 20 0 20 40

B. GROUND-WATER CONDITIONS IN THE WHITE MOUNTAINS AND BIDAHOCHI AQUIFERS, THE BASALTIC ROCKS, THE TRAVERTINE DEPOSITS, AND THE ALLUVIUM

5 0 5 10 15 20 MILES
5 0 5 10 15 20 25 30 KILOMETERS

CONTOUR INTERVAL 200 FEET
WITH SUPPLEMENTARY CONTOURS AT 100-FOOT INTERVALS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

GROUND-WATER CONDITIONS IN THE MOENKOPI AND CHINLE FORMATIONS, THE SPRINGERVILLE AQUIFER, THE WHITE MOUNTAINS AND BIDAHOCHI AQUIFERS, THE BASALTIC ROCKS, THE TRAVERTINE DEPOSITS, AND THE ALLUVIUM, 1975, IN SOUTHERN APACHE COUNTY, ARIZONA