

Table 2.--Estimates of transmissivity and hydraulic conductivity at wells for which specific capacity can be calculated. (See table 6 for well records.)

Well number: See text for description of data-site numbering systems. D, well deepened, or S, well plugged back from original depth of hole.

Aquifer: See table 1 for formation name and description of lithology.

Occurrence of water: C, confined; U, unconfined.

Discharge: EA, estimated while drilling with air; B, bailed yield reported by driller; E, estimated; O, pipe orifice; V, measurement by unspecified method, but generally with bucket or barrel and stopwatch.

Storage coefficient: Estimated from the occurrence of water and known lithologic characteristics.

Transmissivity (T): Estimated by method of Theis, Brown, and Meyer (in Bentall, 1963), except as noted for (D-27-11)34ddb-1D.

Saturated thickness: See remarks for some restrictions on thickness used.

Hydraulic conductivity (K): Calculated by dividing T by saturated thickness.

NOTE: The reader is reminded that individual values of transmissivity that were estimated from values for specific capacity are, at best, approximations. Because individual values for hydraulic conductivity are calculated from the estimates for T, those individual values for K also are approximations. The principal value of T and K values listed in this table lies in their indication of relative permeability; they should be used with discretion.

Well number	Aquifer	Occurrence of water	Discharge (gal/min)		Specific capacity [(gal/min)/ft]	Estimated storage coefficient ¹	Estimated transmissivity units ² (ft ² /d)	Saturated thickness (ft)	Estimated hydraulic conductivity (ft/d)	Remarks
(D-30-11)5adb-1	110PTOD	U	25	EA	1.3	0.2	200	20	10	Estimated value may be slightly high because consolidated rocks may contribute some of the water.
(D-25-5)14dda-1	112ALVM	U	30	B	6	.2	1,100	10	110	
(D-28-9)29bdb-1	do.	C	50	B	16.7	.2	3,300	38	90	
30dad-1	do.	C	60	V	15.0	.2	3,300	28	120	
(D-28-10)22abc-1	do.	U	600	O	31.6	.2	6,700	62	110	
(D-29-5)34ddb-1	112GLCL	C	6	B	<.1	.01	<14	14	<1	Perforated zone is gravel packed. Well bailed down to bottom in 2 hours.
(D-30-5)10abb-1	do.	C	35	B	1.8	.01	400	12	30	
(D-28-11)15bdc-1	221ENRD	C	60	V	1.3	.0001	400	25	16	
16cba-1	do.	C	16	V	.1	.0001	30	5	6	Thickness shown is amount of open hole.
16dad-1	do.	C	32	B	.2	.0001	50	19	3	Thickness shown is amount of perforated interval.
21abd-1	do.	C	19	V	.15	.0001	40	10	4	Do.
28bdd-2	do.	C	15	B	.4	.0001	120	69	2	Thickness shown is amount of sandstone in open hole.
(D-29-11)1bbc-1	do.	C	15	B	1.5	.0001	530	180	3	Do.
36daa-1D	do.	C	15	B	1.3	.0001	470	188	2	Thickness shown is amount of perforated pipe and open hole.
(D-27-7)7bcc-1	221CRML	U	4	EA	.6	.0001	200	7	30	Yield probably from cavernous zones in gypsum.
(D-27-14)5acc-1S	do.	U	10	V	.4	.0001	11	57	.2	Thickness shown is amount of perforated interval and of open hole.
(D-26-8)6aab-1	220NVJO	U	11	B	.3	.05	27	81	.3	Thickness shown is amount of saturated sandstone.
								57	.5	Thickness shown is amount of perforated interval.
(D-27-11)34ddb-1D	do.	C	74	E	-	.007	1,700	600	2.8	Data from 84-minute recovery test of USGS test hole 2, for zone 605-750 ft (upper 24 percent of formation). Discharge given is weighted average for estimated natural flow and air-lift discharge while drilling. Estimated T is obtained by straight-line method, after corrections for partial penetration. Thickness of formation is estimated from data for adjacent wells. Test hole is near inferred fault.
(D-27-15)21aad-1	do.	U	12	B	.2	.05	270	86	3	Thickness shown is amount of saturated sandstone.
(D-29-4)25dcb-1	do.	U	60	B	6	.05	1,300	115	11	Thickness shown is amount of saturated sandstone. Well is in area of severe structural distortions.
26dac-1	do.	U	50	B	50	.05	10,000	180	60	Thickness shown is amount of saturated sandstone. Estimate of specific capacity is minimum based on indefinite reported pumping level. However, well is in area of severe structural distortion and it probably produces from strongly fractured rock.
(D-31-7)36dad-1S	do.	C	161	O	1.4	.006	400	560	.7	Thickness shown is zone of cemented casing perforated by oil-field type of gun perforations.
(D-29-5)32bad-1	237SNBD	C	35	B	1	.0001	270	25	10	Thickness shown is that of both the limestone and the perforated zone. Water probably is from cavernous zones or fractures.
(D-29-16)28cbc-1	310CTLR	U	5	B	.02	.0001	<14	200	<.07	Thickness shown is amount of perforated interval. Water may have been from fractured zone, 2,740 to 2,750 ft, where driller reported lost circulation when drilling.

¹The storage coefficient (S) of an aquifer is the volume of water it releases from or takes into storage per unit surface area of the aquifer per unit is a dimensionless number. Under confined conditions, S is typically small, generally between 0.00001 and 0.001. Under unconfined conditions, S is much larger, typically from 0.05 to 0.30.

²Transmissivity (T) is the rate at which water is transmitted through a unit width of the aquifer under a unit hydraulic gradient. The units for T are cubic feet per day per foot (ft³/d/ft), which reduces to ft²/d. The term transmissivity replaces the term coefficient of transmissibility, which was formerly used by the U.S. Geological Survey and which was reported in units of gallons per day per foot. To convert a value for coefficient of transmissibility to the equivalent value of transmissivity, divide by 7.48; to convert from transmissivity to coefficient of transmissibility, multiply by 7.48.