
1-Explanation

General Information

This file is part of a report titled *Hydrology and Water Resources of Spring, Cave, Dry Lake, and Delamar Valleys, Nevada and Vicinity* prepared in 2011 by Burns and Drici for the Southern Nevada Water Authority (SNWA), in support of water-right hearings related to SNWA applications 54003 through 54021, inclusive, in Spring Valley; and applications 53987 through 53992, inclusive, in Cave, Dry Lake, and Delamar valleys.

This file contains the Project Basin aquifer-property data set and the aquifer-property data used to derive a regional estimate of hydraulic conductivity for the carbonate-rock aquifer and an estimate of local transmissivity for basin-fill sediments in the southern portion of the White River Flow System. Brief descriptions of the purpose, approach, and contents of this file are provided here. The details may be found in the report listed above.

Purpose

Whereas the Project Basin aquifer-property data set is provided for documentation purposes, the estimates of hydraulic conductivity for the carbonate aquifer and estimates of transmissivity for basin-fill sediments in the southern portion of the White River Flow System were used in interbasin flow calculations.

Approach

The approach to derive an updated, regional hydraulic conductivity estimate for the carbonate-rock aquifer and a transmissivity estimate for the basin-fill aquifer in the southern portion of the White River Flow system was to add new or updated aquifer property data to an existing aquifer property database that was documented in SNWA (2009) and reanalyze the data. SNWA (2009) documented the compilation of available existing aquifer-property information for the region into an aquifer-property database. The compiled aquifer-property data were then reduced to a data set appropriate for analysis. The reduction consisted of the standardization of site names and the creation of a site-location table. In addition, duplicate records were identified, flagged, and removed from the data set. Hydraulic conductivity was calculated when test interval thicknesses were available for transmissivity values. The original analysis of the aquifer-property data consisted of grouping data by test type (i.e., constant-rate, step-drawdown, bailer, etc.) and quantity of available information. SNWA (2009) stated that while duplicate records were removed, it was still possible to have multiple unique results for the same well interval. To keep these instances from creating a statistical bias, either a preferred value was accepted or the geometric mean of the values for a given interval was calculated and applied. The data from Belcher et al. (2001) were considered to be of high reliability and, therefore, were considered preferred values. The data set was reduced to a set of records, each representing a single tested interval in a given well. Hydraulic conductivity or transmissivity values were transformed to Log_{10} values based on the assumption of a log-normal distribution for these aquifer properties. Descriptive statistics, including geometric means, standard deviations, minimum, and maximum were derived for the carbonate-rock and basin-fill aquifers.

The aquifer-property data for the Project Basins and the data used to derive the regional hydraulic conductivity estimate for the carbonate-rock aquifer and the transmissivity estimate for the basin-fill materials in the southern portion of the White River Flow system are contained in this file.

Content Description

This PDF file contains eight parts:

"1-Explanation"

This part of the file contains this explanation.

"2-Project Basin Aquifer Tests"

This part of the file contains the aquifer properties data set for the Project Basins. The fields of the table are defined in "7-Data Dictionary".

"3-Regional Carbonate Tests"

This part of the file contains the hydraulic conductivity data used to derive the regional estimate of hydraulic conductivity for the carbonate-rock aquifer. The fields of the table are defined in "7-Data Dictionary".

"4-Regional Carbonate Statistics"

This part of the file contains the summary statistics of the Log_{10} hydraulic conductivity derived from the constant-rate aquifer tests for the carbonate-rock aquifer. The corresponding geometric means are also presented.

"5-So. WRFS Basin Fill Tests"

This part of the file contains the transmissivity data used to derive the local estimate of transmissivity for the basin-fill materials in the southern portion of the White River Flow system. The fields of the table are defined in "7-Data Dictionary".

"6-So. WRFS Basin Fill Stats"

This part of the file contains the summary statistics of the Log_{10} transmissivity derived from the constant-rate aquifer tests for the basin-fill materials in the southern portion of the White River Flow system. The corresponding geometric means are also presented.

"7-Data Dictionary"

This part of the file contains the list of columns found in the data tables described above, along with their respective definitions.

"8-References"

This part of the file contains a list of the references that were cited in the data tables described above.

2-Project Basin Aquifer Tests

Test Well ID	Observation Well Station Name	Reference Station Name	UTM Northing (m)	UTM Easting (m)	Test Type	Date Test Started	Date Test Ended	Avg Pumping or Injection Rate (gpm)	Radius of Interwell Distance (ft)	Pumped or Injection Well	Transmissive Interval Top (ft)	Transmissive Interval Bottom (ft)	Transmissive Thickness (ft)	Stratigraphic Unit	Lithologic Description	Analytical Method	Analyzed Record (minutes)	Analyzed Data	Horizontal Hyd Conductivity (ft/d)	Transmissivity (ft ² /d)	Storativity	Specific Yield	Reference	
1	180 N07 E63 14BAD1 USGS-MX (Cave Valley)	CV-1-T-1	4,259,963	685,738	Constant-rate withdrawal test			225		CV-1-T-1	210	435	225		Valley Fill-Confining	Neuman	9,600	Drawdown		8,800			Ertec (1981b)	
2	180 N07 E63 14AB 1 USGS-MX	CV-1-O-1-S	4,260,043	685,674	Constant-rate withdrawal test				500	CV-1-T-1	200	263	63		Valley Fill-Confining	Neuman	9,600	Drawdown		2,400			Ertec (1981b)	
3	182 S06 E63 12ADB02 USGS-MX	DM-OW-2-D	4,146,273	688,422	Constant-rate pumping test				500	DM-TW-2	816	971	155		Valley Fill-Unconfining	Jacob	4,980	Drawdown		1,100			Ertec (1981b)	
	182 S06 E63 12ADB02 USGS-MX	DM-OW-2-D	4,146,273	688,422	Recovery Test				500	DM-TW-2	816	971	155		Valley Fill-Unconfining	Recovery	1,596	Recovery		1,300			Ertec (1981b)	
4	181 S03 E64 12AC 1 USGS-MX(S, Dry Lake Well)	DL-TW-2	4,175,157	697,621	Constant-rate aquifer test	4/10/1980	4/26/1980	500		DL-TW-2	600	970	370		Valley Fill-Unconfining	Jacob	14,340	Drawdown		2,700			Ertec (1981a)	
5	181 S03 E64 12AC 3 USGS-MX	DL-OW-2-S	4,175,351	697,515	Constant-rate aquifer test	4/10/1980	4/26/1980		475	DL-TW-2	765	785	20		Valley Fill-Unconfining	Modified Neuman (1976)				3,400	0.00053		Ertec (1981a)	
	181 S03 E64 12AC 3 USGS-MX	DL-OW-2-S	4,175,351	697,515	Recovery Test	4/10/1980	4/26/1980		475	DL-TW-2	765	785	20		Valley Fill-Unconfining	Recovery	9,300	Recovery		5,200			Ertec (1981a)	
6	181 S03 E64 12AC 2 USGS-MX	DL-OW-2-D	4,175,224	697,493	Constant-rate aquifer test	4/10/1980	4/26/1980		475	DL-TW-2	1,270	1,290	20		Valley Fill-Unconfining	Modified Neuman (1976)				3,700	0.0039		Ertec (1981a)	
	181 S03 E64 12AC 2 USGS-MX	DL-OW-2-D	4,175,224	697,493	Recovery Test	4/10/1980	4/26/1980		475	DL-TW-2	1,270	1,290	20		Valley Fill-Unconfining	Recovery	9,300	Recovery		6,500			Ertec (1981a)	
7	181 N04 E64 07DC 1 USGS-MX (Muleshoe Valley)	MS-VFT-1	4,232,042	689,542	Constant-rate pumping test			50		MS-VFT-1	1,050	1,150	100		Valley Fill-Unconfining	Jacob	8,640	Drawdown		15			Ertec (1981b)	
	181 N04 E64 07DC 1 USGS-MX (Muleshoe Valley)	MS-VFT-1	4,232,042	689,542	Recovery Test			50		MS-VFT-1	1,050	1,150	100		Valley Fill-Unconfining	Recovery	2,880	Recovery		44			Ertec (1981b)	
8	181 N04 E64 07DC 3 USGS-MX	MS-VFO-1D	4,232,282	689,526	Constant-rate pumping test			350		MS-VFT-1	1,071	1,134	63		Valley Fill-Unconfining	Neuman	8,640	Drawdown		39	0.0001		Ertec (1981b)	
	181 N04 E64 07DC 3 USGS-MX	MS-VFO-1D	4,232,282	689,526	Recovery Test			350		MS-VFT-1	1,071	1,134	63		Valley Fill-Unconfining	Recovery	2,880	Recovery		126			Ertec (1981b)	
9	184 N12 E67 24DCD 1	T12N/R67E-24	4,307,012	725,718	Recovery test	7/1/1981	7/1/1981	500		T12N/R67E-24					Valley fill-interbedded fine sands and clays	Cooper-Jacob		Recovery		909			Leeds, Hill and Jewett, Inc. (1981)	
10	184 N13 E67 15CDA2	T13N/R67E-15	4,318,502	721,778	Constant rate discharge test	7/1/1981	7/1/1981	400	22	T13N/R67E-15					Valley fill-interbedded silts and clays	This		Drawdown		1,310	0.0047		Leeds, Hill and Jewett, Inc. (1981)	
	184 N13 E67 15CDA2	T13N/R67E-15*	4,318,502	721,778	Constant rate discharge test	7/1/1981	7/1/1981	400	22	T13N/R67E-15					Valley fill-interbedded silts and clays	Cooper-Jacob		Drawdown		1,484	0.0036		Leeds, Hill and Jewett, Inc. (1981)	
	184 N13 E67 15CDA2	T13N/R67E-15	4,318,502	721,778	Recovery test	7/1/1981	7/1/1981	400	22	T13N/R67E-15					Valley fill-interbedded silts and clays	This		Recovery		2,059	0.0003		Leeds, Hill and Jewett, Inc. (1981)	
	184 N13 E67 15CDA2	T13N/R67E-15*	4,318,502	721,778	Recovery test	7/1/1981	7/1/1981	400	22	T13N/R67E-15					Valley fill-interbedded silts and clays	Cooper-Jacob		Recovery		2,259	0.0003		Leeds, Hill and Jewett, Inc. (1981)	
11	184 N15 E66 25DADC1 White Pine Power Project	Spring Valley Well 2B	4,334,583	715,292	Constant-Rate Test	9/15/1982	10/8/1982	1,300	913	Spring Valley Well 2A	290	465			Valley Fill	Leaky confined aquifer with full penetration (recovery test)		Recovery		2,032			Leeds, Hill and Jewett, Inc. (1983)	
	184 N15 E66 25DADC1 White Pine Power Project	Spring Valley Well 2B	4,334,583	715,292	Constant-Rate Test	9/15/1982	10/8/1982	1,300	913	Spring Valley Well 2A	290	465			Valley Fill	Leaky confined aquifer with full penetration and impermeable boundary (drawdown)		Drawdown		1,885	0.00019		Leeds, Hill and Jewett, Inc. (1983)	
	184 N15 E66 25DADC1 White Pine Power Project	Spring Valley Well 2B	4,334,583	715,292	Constant-Rate Test	9/15/1982	10/8/1982	1,300	913	Spring Valley Well 2A	290	465			Valley Fill	Leaky confined aquifer with full penetration and no boundary (drawdown)		Drawdown		1,925	0.00017		Leeds, Hill and Jewett, Inc. (1983)	
	184 N15 E66 25DADC1 White Pine Power Project	Spring Valley Well 2B	4,334,583	715,292	Constant-Rate Test	9/15/1982	10/8/1982	1,300	913	Spring Valley Well 2A	290	465			Valley Fill	Confined aquifer with full penetration and recharge boundary (drawdown)		Drawdown		1,965	0.00019		Leeds, Hill and Jewett, Inc. (1983)	
	184 N15 E66 25DADC1 White Pine Power Project	Spring Valley Well 2B	4,334,583	715,292	Constant-Rate Test	9/15/1982	10/8/1982	1,300	913	Spring Valley Well 2A	290	465			Valley Fill	Confined aquifer with full penetration and no boundary (drawdown)		Drawdown		2,674	0.00012		Leeds, Hill and Jewett, Inc. (1983)	
12	184 N15 E66 25DBC1 White Pine Power Project	Spring Valley Well 2C	4,334,730	715,024	Constant-Rate Test	9/15/1982	10/8/1982	1,300	303	Spring Valley Well 2A	58	178			Valley Fill	Unconfined aquifer with full penetration (drawdown)		Drawdown		5,080	0.069		Leeds, Hill and Jewett, Inc. (1983)	
13	184 N15 E66 25DBC1 White Pine Power Project	Spring Valley Well 2A	4,334,577	715,076	Constant-Rate Test	9/15/1982	10/8/1982	1,300	1	Spring Valley Well 2A	170	570			Valley Fill	Leaky confined aquifer with full penetration (recovery test)		Recovery		3,302			Leeds, Hill and Jewett, Inc. (1983)	
14	184 N15 E67 19 1	T15N/R67E-19	4,336,675	716,504	Constant rate discharge test	7/1/1981	7/1/1981	525		T15N/R67E-19					Valley fill-interbedded gravels and clays	Cooper-Jacob		Drawdown		742			Leeds, Hill and Jewett, Inc. (1981)	
15	184W101	184W101	4,282,062	733,298	Constant-Rate Test	4/9/2007	4/12/2007	2,520	1.08	184W101			1,280	Devonian Guilmette Fm, Simonson dolomite, Sevy dolomite	Limestone and dolomite	Barker	4,320	Drawdown	8	10,200	0.0058		Prieur et al. (2010a)	
	184W101	184W101	4,282,062	733,298	Constant-Rate Test	4/9/2007	4/12/2007	2,520	1.08	184W101			1,280	Devonian Guilmette Fm, Simonson dolomite, Sevy dolomite	Limestone and dolomite	Barker	4,320	Drawdown	7.6	9,700	0.005		Prieur et al. (2010a)	
16	184W103	184W103	4,293,693	713,698	Constant-Rate Test	3/23/2007	3/26/2007	550	1.08	184W103			943	Permian Arcturus Fm	Limestone	Barker	4,320	Drawdown	12	11,000	0.069		Prieur et al. (2010b)	
	184W103	184W103	4,293,693	713,698	Constant-Rate Test	3/23/2007	3/26/2007	550	1.08	184W103			943	Permian Arcturus Fm	Limestone	Barker	4,320	Drawdown	12	11,000	0.035		Prieur et al. (2010b)	
17	184W105	184W105	4,306,176	713,991	Constant-Rate Test	3/7/2007	3/10/2007	3,000	1.08	184W105			946	Pennsylvanian-Permian Ely limestone	Limestone	Barker	4,320	Drawdown	64	60,544			Prieur et al. (2009)	
	184W105	184W105	4,306,176	713,991	Constant-Rate Test	3/7/2007	3/10/2007	3,000	1.08	184W105			946	Pennsylvanian-Permian Ely limestone	Limestone	Barker	4,320	Drawdown	61	57,233	0.0095		Prieur et al. (2009)	
18	SPR7005X	SPR7005X	4,330,507	710,357	Constant-Rate Test	7/7/2008	7/12/2008	3,000	1.17	SPR7005X			875	Cambrian Middle Part	Limestone	Cooper-Jacob	7,200	Drawdown	48	41,520			Prieur et al. (2011b)	
	SPR7005X	SPR7005X	4,330,507	710,357	Constant-Rate Test	7/7/2008	7/12/2008	3,000	1.17	SPR7005X			875	Cambrian Middle Part	Limestone	Cooper-Jacob	7,200	Drawdown	35	30,600			Prieur et al. (2011b)	
19	SPR7007X	SPR7007X	4,303,152	727,946	Constant-Rate Test	2/12/2008	2/17/2008	3,000	1.17	SPR7007X			883	Quaternary-Tertiary Alluvium	Well-graded gravel and well graded gravel with clay	Moench (1997)	7,200	Drawdown	40	35,600		0.22		Prieur et al. (2010c)
20	SPR7008X	SPR7008X	4,334,728	722,848	Constant-Rate Test	1/30/2008	2/2/2008	2,000	1.17	SPR7008X			800	Quaternary-Tertiary Alluvium	Silty gravel	Moench (1985)	4,320	Drawdown	4.2	3,319	0.0003		Prieur et al. (2011c)	
	SPR7008X	SPR7008X	4,334,728	722,848	Constant-Rate Test	1/30/2008	2/2/2008	2,000	1.17	SPR7008X			800	Quaternary-Tertiary Alluvium	Silty gravel	Moench (1985)	4,320	Drawdown	4.4	3,539	0.0003		Prieur et al. (2011c)	
	SPR7008X	SPR7008X	4,334,728	722,848	Constant-Rate Test	1/30/2008	2/2/2008	2,000	1.5	SPR7008X			800	Quaternary-Tertiary Alluvium	Silty gravel	Moench (1985)	4,320	Drawdown	5.9	4,729	0.0003		Prieur et al. (2011c)	
21	180W902M*	180W902M	4,248,356	689,816	Constant-Rate Test	11/30/2007	12/3/2007	1,217	157	CAV6002X			776	Quaternary-Tertiary Alluvium, Devonian Guilmette Fm, Devonian Simonson & Sevy dolomite	Poorly graded gravel, clayey gravel, limestone, and dolomite	Neuman unconfined	4,320	Drawdown	30	23,600	0.00041	0.001		Prieur et al. (2011a)
	CAV6002M2*	CAV6002M2	4,248,356	689,783	Constant-Rate Test	11/30/2007	12/3/2007	1,217	225	CAV6002X			776	Quaternary-Tertiary Alluvium, Devonian Guilmette Fm, Devonian Simonson & Sevy dolomite	Poorly graded gravel, clayey gravel, limestone, and dolomite	Neuman unconfined	4,320	Drawdown	15	12,000	0.0003824	0.03		Prieur et al. (2011a)
	CAV6002X*	CAV6002X	4,248,308	689,819	Constant-Rate Test	1/3/2008	1/6/2008	1,112	157	180W902M			776	Quaternary-Tertiary Alluvium, Devonian Guilmette Fm, Devonian Simonson dolomite	Alluvium, limestone and dolomite, and dolomite	Neuman unconfined	4,320	Drawdown	30	23,600	0.0001353	0.001		Prieur et al. (2011a)
	CAV6002M2*	CAV6002M2	4,248,356	689,783	Constant-Rate Test	1/3/2008	1/6/2008	1,112	114	180W902M			776	Quaternary-Tertiary Alluvium, Devonian Guilmette Fm, Devonian Simonson dolomite	Alluvium, limestone and dolomite, and dolomite	Neuman unconfined	4,320	Drawdown	12	9,100	0.0004445	0.12		Prieur et al. (2011a)

Note: Units that were originally in the metric system were converted to those units shown in the table.

*Well not included as part of the Regional Carbonate Tests compilation due to the composite nature of the well completion. See reference for additional details.

3-Regional Carbonate Tests

Observation Well Station Name	Reference Station Name	Test Type	Date Test Started	Date Test Ended	Avg Pumping or Injection Rate (gpm)	Radius or Interwell Distance (ft)	Pumped or Injection Well	Transmissive Interval Top (ft)	Transmissive Interval Bottom (ft)	Transmissive Thickness (ft)	Stratigraphic Unit	Lithologic Description	Analytical Method	Analyzed Record (minutes)	Analyzed Data	Horizontal Hyd Conductivity (l/d)	Transmissivity (ft ² /d)	Reference
210 S13 E63 26AAA1 USGS-MX CE-DT-5	CE-DT-5	Constant Discharge # 8	8/28/1981	9/27/1981	3,400			350	628	278		Monte Cristo Limestone	Jacob			898	250,000	Ertec (1981)
210 S13 E63 26AAA1 USGS-MX CE-DT-5	MX-CE-DT-5	Constant-rate withdrawal test	8/28/1981	9/27/1981	3,400	0.7		350	628	278	Monte Cristo Limestone	Cooper and Jacob (1946)	19,581	Drawdown	1,045	290,520	Belcher et al. (2001)	
210 S13 E63 26AAA1 USGS-MX CE-DT-5	MX-5 (CE-DT-5)	Constant-Rate Test	2/7/1998	2/10/1998	3,925	1.5				300		Fracture flow - Moench			560	168,000	Johnson et al., 1998	
160 S12 E54 22 7 ER- 5-3-2	ER-5-3#2	Constant-Rate Test	4/24/2001	5/2/2001			ER-5-3#2	4,678	5,275	597		Carbonate rock	Theis			1.6	980	SNJV (2004)
159 S10 E54 18 11 ER- 7-1	ER-7-1	Constant-rate pumping test			524		ER-6-1#2	1,775	3,090	1,315			nSIGHTS		4			SNJV (2005)
159 S11 E54 18 4 ER- 6-1-1	ER-6-1#1	Constant-rate pumping test			524		ER-6-1#2	1,835	2,085	250			nSIGHTS		157			SNJV (2005)
159 S11 E54 18 09 ER- 6-1-2 (3200 ft)	ER-6-1#2	Constant-rate pumping test			524		ER-6-1#2	1,775	3,090	1,315			Cooper and Jacob (1946)		36	47,041		SNJV (2005)
159 S11 E54 18 3 ER- 6-1 main (3206 ft)	ER-6-1 Lower	Constant-rate pumping test			524		ER-6-1#2	1,775	3,090	1,315			nSIGHTS		249			SNJV (2005)
159 S11 E54 18 3 ER- 6-1 main (3206 ft)	ER-6-1 Upper	Constant-rate pumping test	4/24/2004	7/23/2004	524		ER-6-1#2	1,775	3,090	1,315			nSIGHTS		234			SNJV (2005)
218 S16 E64 02ABCD1 TH-2	Well TH-2	Constant-Rate Test	7/23/2000	7/30/2000	1,005	11,362	Well ECP-1	526	1,198	672		Paleozoic carbonates				80	53,820	Johnson et al. (2001)
218 S16 E64 15AADD1 ECP-2	Well ECP-2	Constant-Rate Test	7/23/2000	7/30/2000	1,005	499	Well ECP-1	417	1,100	683		Paleozoic carbonates				160	109,500	Johnson et al. (2001)
GV-DUKE-WS2	DEM LLC Well WS-2	Constant-Rate Test	5/28/2002	5/28/2002	1,000	1.1	DEM LLC Well WS-2	858	1,965	1,107	Bird Springs Formation	Limestone	Cooper-Jacob			8	8,865	Johnson (2002)
GV-DUKE-WS2	DEM LLC Well WS-2	Constant-Rate Test	5/28/2002	5/28/2002	1,000	1.1	DEM LLC Well WS-2	858	1,965	1,107	Bird Springs Formation	Limestone				1.2		Johnson (2002)
159 S09 E52 04 4 ER-12-1	ER-12-1	Constant-rate withdrawal test	1/4/1993	1/5/1993	50	0.7		1,693	1,821	128	Simonsen Dol and Guilmette Fm	Very fractured, brecciated, finely to coarsely crystalline dolomite between thrust faults	Cooper and Jacob (1946)	1,683	Drawdown	2.9	377	Belcher et al. (2001)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Constant-rate withdrawal test						2,701	3,413	712			Cooper and Jacob (1946)			0.037	26	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Constant-rate withdrawal test						2,701	3,413	712			Cooper and Jacob (1946)			0.238	169	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Constant-rate withdrawal test						2,701	3,413	712			Cooper and Jacob (1946)			0.073	52	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Constant-rate withdrawal test						2,701	3,413	712			Theis (1935)			0.232	166	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Constant-rate withdrawal test						2,701	3,413	712			Theis (1935)			0.029	20	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Recovery						2,701	3,413	712			Cooper and Jacob (1946)			0.019	14	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Recovery						2,701	3,413	712			Cooper and Jacob (1946)			0.293	209	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Constant-rate withdrawal test						2,551	3,423	872			Cooper and Jacob (1946)			0.199	174	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Water Well 2	Recovery						2,551	3,423	872			Cooper and Jacob (1946)			0.814	708	IT Corporation (1996)
159 S09 E53 08 1 WW- 2 (2045 ft)	Test Well 2	Constant-rate withdrawal test	3/16/1962	3/20/1962	60	0.3		2,940	3,422	482	Pogonip Group	Fractured, brecciated, fine-grained to coarsely crystalline dolomite with ls & shale in a graben	Cooper and Jacob (1946)	5,130	Drawdown	0.109	53	Belcher et al. (2001)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						82	2,119	2,037						1.1	2,152	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						2,118	3,001	883			Theis (1935)			2.1	1,861	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						2,118	3,001	883			Cooper and Jacob (1946)			2.2	1,948	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						2,118	3,001	883			Cooper and Jacob (1946)			4.0	3,562	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						2,118	3,001	883			Theis (1935)			4.1	3,594	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						2,118	3,001	883			Cooper and Jacob (1946)			5.8	5,133	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Constant-rate withdrawal test						2,118	3,001	883			Theis (1935)			6.2	5,445	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Recovery						2,118	3,001	883			Cooper and Jacob (1946)			1.6	1,442	IT Corporation (1996)
159 S10 E52 15 2 UE-16d WW (830 ft)	UE-16d	Recovery						2,118	3,001	883			Cooper and Jacob (1946)			4.8	4,196	IT Corporation (1996)
159 S11 E54 18 3 ER- 6-1 (big)	ER-6-1	Constant-rate withdrawal test	11/1/1992	11/1/1992		0.5		1,820	2,130	310	Sevy Dolomite	Homoclinally dipping, slightly argillaceous dolomite	Theis (1935)		Drawdown	45	13,988	Belcher et al. (2001)
159 S11 E54 18 3 ER- 6-1 (big)	ER-6-1	Recovery						1,819	2,130	310			Cooper and Jacob (1946)			14	4,347	IT Corporation (1996)
159 S11 E54 18 3 ER- 6-1 (big)	ER-6-1	Recovery						1,819	2,130	310			Cooper and Jacob (1946)			179	56,629	IT Corporation (1996)
159 S11 E54 18 3 ER- 6-1 (big)	ER-6-1	Recovery						1,819	2,130	310			Cooper and Jacob (1946)			10.0	3,088	IT Corporation (1996)
159 S12 E53 01 1 WW- C-1	Water Well C-1	Constant-rate withdrawal test						1,536	1,650	114			Cooper and Jacob (1946)			1.8	203	IT Corporation (1996)
159 S12 E53 01 1 WW- C-1	Water Well C-1	Constant-rate withdrawal test						1,536	1,650	114			O/S			12	1,367	IT Corporation (1996)
159 S12 E53 01 1 WW- C-1	Water Well C-1	Constant-rate withdrawal test						1,540	1,650	110						7.3	803	IT Corporation (1996)
159 S12 E53 01 1 WW- C-1	Water Well C-1	Constant-rate withdrawal test						1,540	1,650	110						7.3	803	IT Corporation (1996)
159 S12 E53 01 1 WW- C-1	Water Well C-1	Constant-rate withdrawal test						1,540	1,650	110						7.3	803	IT Corporation (1996)
159 S12 E54 06 2 WW- C (qw site)	USGS Water Well C	Constant-rate withdrawal test						1,543	1,701	158						85	13,342	IT Corporation (1996)
159 S12 E54 06 2 WW- C (qw site)	USGS Water Well C	Constant-rate withdrawal test						1,540	1,701	161						748	120,512	IT Corporation (1996)
160 S13 E55 19 1 TW- 3	USGS HTH #3	Constant-rate withdrawal test						1,103	1,853	750			Cooper and Jacob (1946)			0.676	508	IT Corporation (1996)
160 S13 E55 19 1 TW- 3	TEST WELL 3	Constant-rate withdrawal test						1,103	1,853	750			Theis (1935)			0.030	23	IT Corporation (1996)
160 S13 E55 19 1 TW- 3	TEST WELL 3	Constant-rate withdrawal test						1,103	1,853	750			Theis (1935)			0.663	496	IT Corporation (1996)
160 S13 E55 19 1 TW- 3	TEST WELL 3	Constant-rate withdrawal test						1,103	1,853	750			Cooper and Jacob (1946)			0.037	28	IT Corporation (1996)
160 S13 E55 19 1 TW- 3	TEST WELL 3	Constant-rate withdrawal test						1,103	1,853	750			Cooper and Jacob (1946)			0.673	504	IT Corporation (1996)
160 S14 E52 03 1 TW- F	USGS HTH 1F**	Constant-rate withdrawal test						3,138	3,401	263			Theis (1935)			8.4	2,195	IT Corporation (1996)
160 S14 E52 03 1 TW- F	USGS HTH 1F**	Constant-rate withdrawal test						3,138	3,401	263			Theis (1935)			5.7	1,496	IT Corporation (1996)
160 S14 E52 03 1 TW- F	USGS HTH 1F**	Constant-rate withdrawal test						3,138	3,401	263			Cooper and Jacob (1946)			9.1	2,399	IT Corporation (1996)
160 S14 E52 03 1 TW- F	USGS HTH 1F**	Constant-rate withdrawal test						3,138	3,401	263			Cooper and Jacob (1946)			5.7	1,496	IT Corporation (1996)
160 S14 E52 03 1 TW- F	USGS HTH 1F**	Constant-rate withdrawal test						3,138	3,401	263			Theis (1935)			31	8,016	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Constant-rate withdrawal test						995	1,301	306			Theis (1935)			9.9	3,034	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Constant-rate withdrawal test						995	1,301	306			Cooper and Jacob (1946)			0.797	244	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Constant-rate withdrawal test						995	1,301	306			Cooper and Jacob (1946)			14	4,390	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Constant-rate withdrawal test						995	1,301	306			Cooper and Jacob (1946)			11	3,389	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Constant-rate withdrawal test						995	1,301	306			Cooper and Jacob (1946)			8.1	2,475	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Recovery						995	1,301	306			Cooper and Jacob (1946)			21	6,488	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Constant-rate withdrawal test						1,020	1,301	281			Cooper and Jacob (1946)			9.5	2,668	IT Corporation (1996)
161 S16 E54 01 2 TW-10	USGS HTH #10	Recovery						1,020	1,301	281			Cooper and Jacob (1946)			25	7,080	IT Corporation (1996)
210 S12 E63 29DABC1 USGS-MX CE-VF-2	MX-CE-VF-2	Constant-rate withdrawal test	2/6/1986	2/6/1986	77	0.4		850	1,221	371	Bird Spring Formation	Fine-grained dolomitic limestone and calcareous shale	Cooper and Jacob (1946)	830	Drawdown	7.8	2,905	Belcher et al. (2001)
210 S12 E63 29DABC1 USGS-MX CE-VF-2	CE-VF-2	Constant-rate withdrawal test						604	1,221	617			Theis (1935)			4.9	3,002	IT Corporation (1996)
210 S12 E63 29DABC1 USGS-MX CE-VF-2	CE-VF-2	Constant-rate withdrawal test						604	1,221	617			Theis (1935)			0.486	300	IT Corporation (1996)
210 S12 E63 29DABC1 USGS-MX CE-VF-2	CE-VF-2	Constant-rate withdrawal test																

Observation Well Station Name	Reference Station Name	Test Type	Date Test Started	Date Test Ended	Avg Pumping or Injection Rate (gpm)	Radius or Interwell Distance (ft)	Pumped or Injection Well	Transmissive Interval Top (ft)	Transmissive Interval Bottom (ft)	Transmissive Thickness (ft)	Stratigraphic Unit	Lithologic Description	Analytical Method	Analyzed Record (minutes)	Analyzed Data	Horizontal Hyd Conductivity (ft/d)	Transmissivity (ft ² /d)	Reference	
219 S13 E64 35ACAA1 USGS-MX CE-DT-6	MX-CE-DT-6	Constant-rate withdrawal test	12/9/1986	12/12/1986	472	0.4		457	937	480	Monte Cristo Limestone	Fractured, shaly, cherty, and siliceous limestone in a zone of normal and thrust faults	Cooper and Jacob (1946)	3,963	Drawdown	17	7,962	Belcher et al. (2001)	
219 S13 E65 28BDA1 USGS CSV-2	NCAP-CSV-2	Constant-rate withdrawal test	6/7/1986	6/8/1986	100	0.4		391	478	87	Bird Spring Formation	Fine-grained, shaly limestone	Cooper and Jacob (1946)	1,290	Drawdown	17	1,506	Belcher et al. (2001)	
219 S14 E65 07AD 1 ARROW CANYON	Arrow Canyon well	Constant-rate withdrawal test	12/9/1993	4/9/1994	2,901	0.7		205	565	360	Bird Spring Formation	Karstic, fractured dolomite and partly cherty limestone	Cooper and Jacob (1946)	174,240	Drawdown	867	312,040	Belcher et al. (2001)	
219 S14 E65 21AC 1 EH-4	EH-4	Constant-rate withdrawal test	12/9/1993	4/9/1994	2,901	13,396	Arrow Canyon	115	285	170	Bird Spring Formation	Karstic, fractured dolomite and partly cherty limestone	Cooper and Jacob (1946)	174,240	Drawdown	2,153	365,840	Belcher et al. (2001)	
230 S16 E51 27BA 3 USDOE - Amargosa Tracer 1	ATS TH-1	Constant-rate withdrawal test	10/6/1967	10/7/1967	949	403	ATS TH-2	618	830	212	Bonanza King and Carrara Fms	Thrust-faulted, brecciated, vuggy dolomite and limestone	Cooper and Jacob (1946)	1,140	Drawdown	610	129,120	Belcher et al. (2001)	
230 S16 E51 27BA 2 USGS	ATS SH-1	Constant-rate withdrawal test	10/6/1967	10/7/1967	949	320	ATS TH-2	610	664	54	Bonanza King Fm	Thrust-faulted, brecciated, vuggy dolomite and limestone	Cooper and Jacob (1946)	1,140	Drawdown	2,704	146,336	Belcher et al. (2001)	
230 S16 E51 27BA 3 Tracer Well 3	ATS TH-3	Constant-rate withdrawal test	10/6/1967	10/7/1967	949	227	ATS TH-2	610	807	197	Bonanza King and Carrara Fms	Thrust-faulted, brecciated, vuggy dolomite and limestone	Cooper and Jacob (1946)	1,140	Drawdown	742	146,336	Belcher et al. (2001)	
230 S17 E50 23BBA2 Five Springs Shallow Well	Five Springs shallow well	Constant-rate withdrawal test	2/17/1971	2/18/1971	537	10	Five Springs deep	1	90	89	Bonanza King Fm	Fractured dolomite cut by intersecting normal faults	Boulton (1963)	1,350	Drawdown	40	3,551	Belcher et al. (2001)	
230 S17 E50 23BB 2	17S/50-23bb2	Constant-rate withdrawal test						0	140	140					Recovery	25	3,497	IT Corporation (1996)	
230 S17 E50 23BB 2	17S/50-23bb2	Constant-rate withdrawal test						0	140	140							26	3,701	IT Corporation (1996)
042 N37 E63 06BA 1	37N/63-06BA	Constant-rate withdrawal test						555	595	40							1.0	40	IT Corporation (1996)
136 S15 E67 09DD 1	15S/67-09dd	Constant-rate withdrawal test						360	420	60							6.7	399	IT Corporation (1996)
137A N08 E43 24AA 1	08N/43-24aa	Constant-rate withdrawal test						160	340	180							15	2,701	IT Corporation (1996)
153 N19 E53 22A 1 Pad Shaft	Pad Shaft	Constant-rate withdrawal test						1,025	2,465	1,440									
153 N19 E53 22A 1 Pad Shaft	Pad Shaft	Constant-rate withdrawal test						1,025	2,465	1,440									
153 N19 E53 22A 1 Pad Shaft	Pad Shaft	Constant-rate withdrawal test						1,025	2,465	1,440									
153 N19 E53 22A 1 Pad Shaft	Pad Shaft	Constant-rate withdrawal test						1,025	2,465	1,440									
161 S16 E56 08BAAA1 USAF Well 2	16S/56-08 (#2)	Constant-rate withdrawal test						54	575	521							4.0	2098	IT Corporation (1996)
172 N03 E59 10BD 1 USGS-MX (Coal Valley Well)	Garden Valley CV-DT-1	Constant-rate withdrawal test						803	1,837	1,034							0.387	400	IT Corporation (1996)
172 N03 E59 10BD 1 USGS-MX (Coal Valley Well)	CV-DT-1	Constant-rate withdrawal test						803	1,837	1,034							0.338	350	IT Corporation (1996)
175 N22 E57 25CD 1	22N/57-25cd	Constant-rate withdrawal test						480	583	103							1.8	189	IT Corporation (1996)
177 N36 E62 18 1	36N/62-18	Constant-rate withdrawal test						140	220	80							1.0	80	IT Corporation (1996)
181 N03 E63 27CAA 1 USGS-MX (N. Dry Lake)	DL-DT-3	Constant-rate withdrawal test						853	2,395	1,542							11	17,001	IT Corporation (1996)
212 S23 E60 24BB 1	23S/60-24bb	Constant-rate withdrawal test						540	700	160							0.200	32	IT Corporation (1996)
212 S23 E61 09BC 1	23S/61-09bc	Constant-rate withdrawal test						400	520	120							2.3	270	IT Corporation (1996)
216 S18 E63 34CA 1	18S/63-34ca	Constant-rate withdrawal test						754	1,205	451							0.117	53	IT Corporation (1996)
179 N12 E63 12AB 1 USGS - S Steeple MX Well	SV-DT-2	Constant-rate withdrawal test						500	2,447	1,947									
179 N12 E63 12AB 1 USGS - S Steeple MX Well	SV-DT-2	Constant-rate withdrawal test						500	2,447	1,947									
179 N12 E63 12AB 1 USGS - S Steeple MX Well	SV-DT-2	Constant-rate withdrawal test						500	2,447	1,947									
161 S16 E55 04 1 TW-4	USGS HTH #4	Recovery						751	1,490	739			Cooper and Jacob (1946)				0.319	236	IT Corporation (1996)
161 S16 E55 04 1 TW-4	USGS HTH #4	Recovery						751	1,490	739			Cooper and Jacob (1946)				4.1	3,024	IT Corporation (1996)
161 S16 E55 04 1 TW-4	USGS HTH #4	Constant-rate withdrawal test						751	1,490	739			Cooper and Jacob (1946)				0.466	345	IT Corporation (1996)
161 S16 E55 04 1 TW-4	USGS HTH #4	Constant-rate withdrawal test						751	1,490	739			This (1935)				2.0	1,506	IT Corporation (1996)
161 S16 E55 04 1 TW-4	USGS HTH #4	Constant-rate withdrawal test						751	1,490	739			Cooper and Jacob (1946)				2.1	1,549	IT Corporation (1996)
161 S16 E55 04 1 TW-4	USGS HTH #4	Constant-rate withdrawal test						737	1,490	753			Cooper and Jacob (1946)				2.0	1,474	IT Corporation (1996)
161 S16 E55 04 1 TW-4	USGS HTH #4	Recovery						737	1,490	753			Cooper and Jacob (1946)				4.8	3,505	IT Corporation (1996)
159 S10 E53 15 1 UE-1q (2437 ft)	UE-1q	Recovery						2,460	2,601	141			Cooper and Jacob (1946)				60	8,425	IT Corporation (1996)
159 S10 E53 15 1 UE-1q (2437 ft)	UE-1q	Recovery						2,460	2,601	141			Cooper and Jacob (1946)				60	8,447	IT Corporation (1996)
159 S10 E53 15 1 UE-1q (2437 ft)	UE-1q	Recovery						2,460	2,601	141			Cooper and Jacob (1946)				65	9,221	IT Corporation (1996)
159 S10 E53 15 1 UE-1q (2437 ft)	UE-1q	Constant-rate withdrawal test				0.3		2,459	2,600	141	Nopah Formation	Folded, fractured, shaly, finely crystalline limestone and dolomite	This (1935)		Drawdown	51	7,209	Belcher et al. (2001)	
159 S09 E53 04 1 UE-10J (2380 ft)	UE-10J	Constant-rate withdrawal test	3/1/1993	3/1/1993		0.5		2,198	2,611	412	Bonanza King Fm	Drag-folded, fractured, dolomite and limestone	This (1935)		Drawdown	60	24,748	Belcher et al. (2001)	
159 S09 E53 04 1 UE-10J (2380 ft)	UE-10J	Recovery						2,199	2,611	412			Cooper and Jacob (1946)				48	19,691	IT Corporation (1996)
159 S09 E53 04 1 UE-10J (2380 ft)	UE-10J	Recovery						2,199	2,611	412			Cooper and Jacob (1946)				48	19,691	IT Corporation (1996)
159 S09 E53 04 1 UE-10J (2380 ft)	UE-10J	Recovery						2,199	2,611	412			Cooper and Jacob (1946)				64	26,470	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Constant-rate withdrawal test						3,701	4,199	498							0.268	133	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Recovery						3,701	4,199	498			Cooper and Jacob (1946)				0.938	468	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Recovery						3,712	4,207	495			Cooper and Jacob (1946)				1.3	654	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Constant-rate withdrawal test						3,712	4,207	495			This (1935)				0.062	31	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Constant-rate withdrawal test						3,712	4,207	495			Cooper and Jacob (1946)				0.078	39	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Constant-rate withdrawal test						3,712	4,207	495			This (1935)				1.3	663	IT Corporation (1996)
227B S09 E52 18 10 TW-1 (4206 ft)	USGS HTH #1	Constant-rate withdrawal test						3,712	4,207	495			Cooper and Jacob (1946)				1.7	845	IT Corporation (1996)
156 N09 E51 22DAAA1 HTH- 1	HTH-1	Constant-rate withdrawal test						553	1,150	597							1.8	1,098	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						1,360	1,946	585			Cooper and Jacob (1946)				0.922	540	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						1,360	1,946	585			Cooper and Jacob (1946)				1.6	953	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						1,360	1,946	585			This (1935)				3.9	2,260	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						1,360	1,946	585			This (1935)				3.9	2,281	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						1,360	1,946	585			Cooper and Jacob (1946)				3.9	2,303	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						1,360	1,946	585			Cooper and Jacob (1946)				8.9	5,176	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Recovery						1,360	1,946	585			Cooper and Jacob (1946)				7.6	4,476	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Recovery						785	1,168	383			Cooper and Jacob (1946)				30	11,513	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 Water Well	Constant-rate withdrawal test						785	1,168	383			Cooper and Jacob (1946)				14	5,219	IT Corporation (1996)
225 S16 E53 05ADB 1 Army 1 WW	Army #1 WW	Constant-rate withdrawal test	9/11/1962	9/13/1962	453	0.4		787	1,946	1,159	Bonanza King Fm	Thrust faulted, brecciated, vuggy dolomite with limestone and shale	Jacob (1950)	2,880	Drawdown	4.5	5,208	Belcher et al. (2001)	
225 S16 E53 05ADB 1 Army 1 WW	Army #1 WW	Constant-rate withdrawal test	9/13/1962	9/14/1962	453	0.4		787	1,946	1,159	Bonanza King Fm	Thrust faulted, brecciated, vuggy dolomite with limestone and shale	Jacob (1950)	2,185	Recovery	9.9	11,492	Belcher et al. (2001)	
159 S10 E54 06 1 UE-7nS	UE-7nS	Constant-rate withdrawal test	4/2/1984	4/25/1984	1.4	0.4		1,971	2,205	234	Antelope Valley Limestone	Faulted, very fractured, brecciated, locally vuggy, finely to coarsely crystalline limestone	This (1935)	33,415	Drawdown	0.041	9.6	Belcher et al. (2001)	
159 S10 E54 06 1 UE-7nS	UE-7nS	Constant-rate withdrawal test						1,996	2,200	204			This (1935)						

Observation Well Station Name	Reference Station Name	Test Type	Date Test Started	Date Test Ended	Avg Pumping or Injection Rate (gpm)	Radius or Interwell Distance (ft)	Pumped or Injection Well	Transmissive Interval Top (ft)	Transmissive Interval Bottom (ft)	Transmissive Thickness (ft)	Stratigraphic Unit	Lithologic Description	Analytical Method	Analyzed Record (minutes)	Analyzed Data	Horizontal Hyd Conductivity (ft/d)	Transmissivity (ft ² /d)	Reference
159 S10 E54 06 1 UE-7nS	UE-7nS	Constant-rate withdrawal test			1,996			1,996	2,200	204			Theis (1935)			0.038	5.7	IT Corporation (1996)
159 S10 E54 06 1 UE-7nS	UE-7nS	Constant-rate withdrawal test			1,996			1,996	2,200	204			Cooper and Jacob (1946)			0.047	9.6	IT Corporation (1996)
159 S10 E54 06 1 UE-7nS	UE-7nS	Recovery						1,996	2,200	204			Cooper and Jacob (1946)			0.037	7.6	IT Corporation (1996)
159 S10 E53 24 1 U - 3cn 5	U-3cn #5	Constant-rate withdrawal test			2,822			2,822	3,027	205			Cooper and Jacob (1946)			1.6	321	IT Corporation (1996)
159 S10 E53 24 1 U - 3cn 5	U-3cn #5	Constant-rate withdrawal test			2,822			2,822	3,027	205			Cooper and Jacob (1946)			0.456	94	IT Corporation (1996)
159 S10 E53 24 1 U - 3cn 5	U-3cn #5	Recovery			2,833			2,833	3,029	196			Cooper and Jacob (1946)			0.073	14	IT Corporation (1996)
159 S10 E53 24 1 U - 3cn 5	U-3cn #5	Constant-rate withdrawal test			2,833			2,833	3,029	196			Cooper and Jacob (1946)			0.117	23	IT Corporation (1996)
159 S10 E53 24 1 U - 3cn 5	U-3cn #5	Constant-rate withdrawal test			2,833			2,833	3,029	196			Cooper and Jacob (1946)			1.6	321	IT Corporation (1996)
227A S13 E49 14A 1 UE-25p 1 (Entire Well)	UE-25p #1	Recovery						1,253	4,268	3,015			Cooper and Jacob (1946)			0.064	194	IT Corporation (1996)
227A S13 E49 14A 1 UE-25p 1 (Entire Well)	UE-25p #1	Constant-rate withdrawal test						1,253	4,268	3,015			Theis (1935)			0.086	258	IT Corporation (1996)
227A S13 E49 14A 1 UE-25p 1 (Entire Well)	UE-25p #1	Constant-rate withdrawal test						1,253	4,268	3,015			Cooper and Jacob (1946)			0.093	280	IT Corporation (1996)
227A S13 E49 14A 1 UE-25p 1 (Entire Well)	UE-25 p#1	Constant-rate withdrawal test	5/8/1983	5/12/1983	499	0.3		4,255	5,922	1,667	Laketown and Simonson Dolomites	Faulted, fractured, variably brecciated, vuggy, and finely to medium-crystalline dolomite	Theis (1935)	6,080	Drawdown	0.710	1,184	Belcher et al. (2001)
227A S13 E49 14A 1 UE-25p 1 (Entire Well)	UE-25p #1	Constant-rate withdrawal test						4,255	5,922	1,667			Cooper and Jacob (1946)			0.719	1,194	IT Corporation (1996)
227A S13 E49 14A 1 UE-25p 1 (Entire Well)	UE-25p #1	Constant-rate withdrawal test						4,255	5,922	1,667			Cooper and Jacob (1946)			0.846	1,410	IT Corporation (1996)
184W101	184W101	Constant-Rate Test	4/9/2007	4/12/2007	2,520	1.08	184W101			1,280	Devonian Guilmette Fm, Simonson dolomite, Sevy dolomite	Limestone and dolomite	Barker	4,320	Drawdown	8.0	10,200	Prieur et al. (2010a)
184W101	184W101	Constant-Rate Test	4/9/2007	4/12/2007	2,520	1.08	184W101			1,280	Devonian Guilmette Fm, Simonson dolomite, Sevy dolomite	Limestone and dolomite	Barker	4,320	Drawdown	7.6	9,700	Prieur et al. (2010a)
184W103	184W103	Constant-Rate Test	3/23/2007	3/26/2007	550	1.08	184W103			943	Permian Arcturus Fm	Limestone	Barker	4,320	Drawdown	12	11,000	Prieur et al. (2010b)
184W103	184W103	Constant-Rate Test	3/23/2007	3/26/2007	550	1.08	184W103			943	Permian Arcturus Fm	Limestone	Barker	4,320	Drawdown	12	11,000	Prieur et al. (2010b)
184W105	184W105	Constant-Rate Test	3/7/2007	3/10/2007	3,000	1.08	184W105			946	Pennsylvanian-Permian Ely limestone	Limestone	Barker	4,320	Drawdown	64	60,544	Prieur et al. (2009)
184W105	184W105	Constant-Rate Test	3/7/2007	3/10/2007	3,000	1.08	184W105			946	Pennsylvanian-Permian Ely limestone	Limestone	Barker	4,320	Drawdown	61	57,233	Prieur et al. (2009)
384112114091101	195 N09HE70 32BBA 1 BIG SPRINGS SW	Constant-Rate Test	11/2/2010	11/4/2010	170		195 N09HE70 32BBA 1 BIG SPRINGS SW	500	700	200			Cooper and Jacob (1946)	2,880	Drawdown	20	4,000	USGS (2011)
SPR7005X	SPR7005X	Constant-Rate Test	7/7/2008	7/12/2008	3,000	1.17				914	Cambrian Middle Part	Limestone	Cooper and Jacob (1946)	7,200	Drawdown	48	41,520	Prieur et al. (2011)
SPR7005X	SPR7005X	Constant-Rate Test	7/7/2008	7/12/2008	3,000	1.17				914	Cambrian Middle Part	Limestone	Cooper and Jacob (1946)	7,200	Drawdown	35	30,600	Prieur et al. (2011)
CSI-2	CSI-2	Constant-Rate Test	9/30/2005	10/1/2005	4,260	0.8	CSI-2			643		Dark gray limestone	Cooper and Jacob (1946)	1,440	Drawdown	28	18,000	Johnson (2005b)
CSI-1	CSI-1	Constant-Rate Test	5/30/2005	5/31/2005	1,760	0.6	CSI-1			470		Limestone	Cooper and Jacob (1946)	2,160	Drawdown	34	16,000	Johnson (2005a)

Note: Units that were originally in the metric system were converted to those units shown in the table.

4-Regional Carbonate Statistics

Horizontal Hydraulic Conductivity for the Carbonate-Rock Aquifer				
	Log₁₀ Hydraulic Conductivity			Hydraulic Conductivity
	(ft/day)			(ft/day)
Mean	0.79		Geometric Mean	6.16
Standard Deviation	1.21		Standard Deviation	16.30
Minimum	-1.56		Minimum	0.03
Maximum	3.50		Maximum	3,157.56
Number of Analyses	96		Number of Analyses	96
Transmissivity for the Carbonate-Rock Aquifer				
	Log₁₀ Transmissivity			Transmissivity
	(ft²/day)			(ft²/day)
Mean	3.35		Geometric Mean	2,213.38
Standard Deviation	1.18		Standard Deviation	15.14
Minimum	0.75		Minimum	5.59
Maximum	6		Maximum	1,000,000
Number of Analyses	93		Number of Analyses	93

5-So. WRFS Basin-Fill Tests

Observation Well Station Name	Reference Station Name	Test Type	Date Test Started	Date Test Ended	Avg Pumping or Injection Rate (gpm)	Radius or Interwell Distance (ft)	Pumped or Injection Well	Transmissive Interval Top (ft)	Transmissive Interval Bottom (ft)	Transmissive Thickness (ft)	Stratigraphic Unit	Lithologic Description	Analytical Method	Analyzed Record (minutes)	Analyzed Data	Horizontal Hyd Conductivity (ft/d)	Transmissivity (ft ² /d)	Reference
Well 3	Well 3	Constant-rate aquifer test	8/20/2001	8/27/2001	600	0.583	Well 3			180		Older alluvium	Jacob	10,080	Drawdown	131	23,528	URS (2001)
Well 3	Well 3	Constant-rate aquifer test	8/20/2001	8/27/2001	600	0.583	Well 3			180		Older alluvium	Theis	10,080	Recovery	82	14,680	
MW-1 (Casing A)	MW-1 (Casing A)	Constant-rate aquifer test	8/20/2001	8/27/2001	600	87	Well 3			180		Older alluvium	Hantush-Jacob	10,080	Drawdown	40	7,188	URS (2001)
MW-1 (Casing A)	MW-1 (Casing A)	Constant-rate aquifer test	8/20/2001	8/27/2001	600	87	Well 3			180		Older alluvium	Newman-Witherspoon	10,080	Drawdown	38	6,814	
WX-31	WX-31	Constant-rate aquifer test	5/28/2003	7/29/2003	2996	0.833	WX-31				Muddy Creek Formation		Theis	89,280	Drawdown		7,751	Burbey et al. (2006)
WX-31	WX-31	Constant-rate aquifer test	5/28/2003	7/29/2003	2996	0.833	WX-31				Muddy Creek Formation		Hantush	89,280	Drawdown		4,844	
WX-31	WX-31	Constant-rate aquifer test	5/28/2003	7/29/2003	2996	0.833	WX-31				Muddy Creek Formation		Cooper-Jacob	89,280	Drawdown		15,071	
WX-31	WX-31	Constant-rate aquifer test	5/28/2003	7/29/2003	2996	0.833	WX-31				Muddy Creek Formation		Cooper-Jacob	89,280	Drawdown		7,320	
WX-31	WX-31	Constant-rate aquifer test	5/28/2003	7/29/2003	2996	0.833	WX-31				Muddy Creek Formation		Burbey (2003)	89,280	Drawdown		7,751	
Unnamed well near WX-31	Unnamed well near WX-31	Constant-rate aquifer test									Muddy Creek Formation						19,915	
BVSMW1	BVSMW1	Constant-rate aquifer test	11/16/2006	11/19/2006	150	20	BVSWD			75		sandy loam with gravel	Cooper-Jacob	4,320	Recovery	79	5,939	Pompeo (2008)
BVSMW2	BVSMW2	Constant-rate aquifer test	11/16/2006	11/19/2006	150	26	BVSWD			75		sandy loam with gravel	Cooper-Jacob	4,320	Recovery	79	5,919	
BVSMW3	BVSMW3	Constant-rate aquifer test	11/16/2006	11/19/2006	150	14	BVSWD			75		sandy loam with gravel	Cooper-Jacob	4,320	Recovery	75	5,635	Pompeo (2008)
HWSMW1	HWSMW1	Constant-rate aquifer test	12/14/2006	12/17/2006	222	20	HWTW-1			83		sandy loam with fine to medium grained sand	Cooper-Jacob	4,320	Recovery	235	19,465	
HWSMW2	HWSMW2	Constant-rate aquifer test	12/14/2006	12/17/2006	222	50	HWTW-1			85		sandy loam with fine to medium grained sand	Cooper-Jacob	4,320	Recovery	241	20,462	
HWMW-1	HWMW-1	Constant-rate aquifer test	12/14/2006	12/17/2006	222	123	HWTW-1			81		sand with gravel and cobbles	Cooper-Jacob	4,320	Recovery	113	9,130	
HWMW-2	HWMW-2	Constant-rate aquifer test	12/14/2006	12/17/2006	222	83	HWTW-1			83		sand with gravel and cobbles	Cooper-Jacob	4,320	Recovery	102	8,464	Pompeo (2008)
HWMW-3	HWMW-3	Constant-rate aquifer test	12/14/2006	12/17/2006	222	22	HWTW-1			96		sand with gravel and cobbles	Cooper-Jacob	4,320	Recovery	49	4,735	
HWMW-4	HWMW-4	Constant-rate aquifer test	12/14/2006	12/17/2006	222	24	HWTW-1			91		sand with gravel and cobbles	Cooper-Jacob	4,320	Recovery	47	4,260	Johnson (1995)
Well 26	Well 26	Constant-rate aquifer test					Well 26				Muddy Creek Formation			2,880			20,000	
Well 26	Well 26	Constant-rate aquifer test					Well 26				Muddy Creek Formation			2,880			25,000	

Note: Units that were originally in the metric system were converted to those units shown in the table.

6-So. WRFS Basin-Fill Stats

Transmissivity for the Basin-Fill Sediments					
	Log ₁₀ Transmissivity			Transmissivity	
	(ft ² /day)			(ft ² /day)	
Mean	4.04		Geometric Mean	11,019.46	
Standard Deviation	0.26		Standard Deviation	1.80	
Minimum	3.77		Minimum	5,829.00	
Maximum	4.35		Maximum	22,360.68	
Number of Analyses	7		Number of Analyses	7	

7-Data Dictionary

2-Project Basin Aquifer Tests	
Column Name	Description
Test Well ID	A unique identifier used to associate aquifer test well locations depicted on the figures of the report to this aquifer test data set.
Observation Well Station Name	Observation well name.
Reference Station Name	Name of the site as listed in the reference for the data.
UTM Northing (m)	The Universal Transverse Mercator projection, North American Datum of 1983, Zone 11 meters northing coordinate of the well.
UTM Easting (m)	The Universal Transverse Mercator projection, North American Datum of 1983, Zone 11 meters easting coordinate of the well.
Test Type	Type of test performed to estimate the hydraulic properties.
Date Test Started	Date the testing began.
Date Test Ended	Date the testing ended.
Avg Pumping or Injection Rate (gpm)	Average pumping or injection rate for the record, in gpm.
Radius or Interwell Distance (ft)	Radius of a well in a single well test or the distance between wells for a multiple well test, in ft.
Pumped or Injection Well	Reference name for the well being pumped or injected during a multi-well aquifer test.
Transmissive Interval Top (ft)	Top of the transmissive interval, in ft bgs.
Transmissive Interval Bottom (ft)	Bottom of the transmissive interval, in ft bgs.
Transmissive Thickness (ft)	The thickness of the transmissive interval calculated by subtracting the Transmissive Interval Top from the Transmissive Interval Bottom, in ft.
Stratigraphic Unit	Stratigraphic unit or units found within the transmissive interval, as reported in the data source.
Lithologic Description	Description of the lithology or lithologies found within the transmissive interval, as reported in the data source.
Analytical Method	Method used to analyze the test data.
Analyzed Record (minutes)	Time duration of test data that was analyzed, in minutes.
Analyzed Data	Description of what data was analyzed for the test results.
Horizontal Hyd Conductivity (ft/d)	The horizontal hydraulic conductivity, in ft/d.
Transmissivity (ft ² /d)	Transmissivity, in ft ² /d.
Storativity	Storativity of the aquifer, dimensionless.
Specific Yield	Specific yield of a formation, dimensionless.
Reference	Contains the primary reference information where the record data was obtained.
3-Regional Carbonate Tests	
Column Name	Description
Observation Well Station Name	Observation well name.
Reference Station Name	Name of the site as listed in the reference for the data.
Test Type	Type of test performed to estimate the hydraulic properties.
Date Test Started	Date the testing began.
Date Test Ended	Date the testing ended.
Avg Pumping or Injection Rate (gpm)	Average pumping or injection rate for the record, in gpm.
Radius or Interwell Distance (ft)	Radius of a well in a single well test or the distance between wells for a multiple well test, in ft.
Pumped or Injection Well	Reference name for the well being pumped or injected during a multi-well aquifer test.
Transmissive Interval Top (ft)	Top of the transmissive interval, in ft bgs.
Transmissive Interval Bottom (ft)	Bottom of the transmissive interval, in ft bgs.
Transmissive Thickness (ft)	The thickness of the transmissive interval calculated by subtracting the Transmissive Interval Top from the Transmissive Interval Bottom, in ft.
Stratigraphic Unit	Stratigraphic unit or units found within the transmissive interval, as reported in the data source.
Lithologic Description	Description of the lithology or lithologies found within the transmissive interval, as reported in the data source.
Analytical Method	Method used to analyze the test data.
Analyzed Record (minutes)	Time duration of test data that was analyzed, in minutes.
Analyzed Data	Description of what data was analyzed for the test results.
Horizontal Hyd Conductivity (ft/d)	The horizontal hydraulic conductivity, in ft/d.

Transmissivity (ft ² /d)	Transmissivity, in ft ² /d.
Reference	Contains the primary reference information where the record data was obtained.
5-So. WRFS Basin Fill Tests	
Column Name	Description
Observation Well Station Name	Observation well name.
Reference Station Name	Name of the site as listed in the reference for the data.
Test Type	Type of test performed to estimate the hydraulic properties.
Date Test Started	Date the testing began.
Date Test Ended	Date the testing ended.
Avg Pumping or Injection Rate (gpm)	Average pumping or injection rate for the record, in gpm.
Radius or Interwell Distance (ft)	Radius of a well in a single well test or the distance between wells for a multiple well test, in ft.
Pumped or Injection Well	Reference name for the well being pumped or injected during a multi-well aquifer test.
Transmissive Interval Top (ft)	Top of the transmissive interval, in ft bgs.
Transmissive Interval Bottom (ft)	Bottom of the transmissive interval, in ft bgs.
Transmissive Thickness (ft)	The thickness of the transmissive interval calculated by subtracting the Transmissive Interval Top from the Transmissive Interval Bottom, in ft.
Stratigraphic Unit	Stratigraphic unit or units found within the transmissive interval, as reported in the data source.
Lithologic Description	Description of the lithology or lithologies found within the transmissive interval, as reported in the data source.
Analytical Method	Method used to analyze the test data.
Analyzed Record (minutes)	Time duration of test data that was analyzed, in minutes.
Analyzed Data	Description of what data was analyzed for the test results.
Horizontal Hyd Conductivity (ft/d)	Horizontal hydraulic conductivity, in ft/d.
Transmissivity (ft ² /d)	Transmissivity, in ft ² /d.
Reference	Contains the primary reference information where the record data was obtained.

8-References

1-Explanation	
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