

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

HYDROLOGIC DATA FOR WATER-TABLE AQUIFERS

IN THE COLORADO SPRINGS--CASTLE ROCK AREA,

FRONT RANGE URBAN CORRIDOR, COLORADO

By E. Carter Hutchinson and Donald E. Hillier

Open-File Report 78-948

Lakewood, Colorado

December 1978

For sale by:

Open-File Services Section
Branch of Distribution
U.S. Geological Survey, MS 306
Box 25425, Denver Federal Center
Denver, CO 80225

CONTENTS

	Page
Metric conversion table.	IV
Abstract	1
Introduction	1
Method of data presentation.	2
Selected references.	4

ILLUSTRATIONS

Plate 1. Map showing locations of wells and springs where hydrologic data were collected, Colorado Springs--Castle Rock area, Front Range Urban Corridor, Colorado.	In pocket
Figure 1. Index map showing location of study area in the Front Range Urban Corridor.	2
2. Diagram showing system of numbering wells and springs using township, range, and section.	3

TABLES

Table 1. Records of wells.	5
2. Chemical analyses of water from wells	14
3. Records of springs.	31
4. Chemical analyses of water from springs	35

METRIC CONVERSION TABLE

<i>Multiply inch-pound unit</i>	<i>By</i>	<i>To obtain metric unit</i>
inch	25.40	millimeter
foot (ft)	.3048	meter
mile	1.609	kilometer
gallon per minute (gal/min)	.06309	liter per second

HYDROLOGIC DATA FOR WATER-TABLE AQUIFERS
IN THE COLORADO SPRINGS--CASTLE ROCK AREA,
FRONT RANGE URBAN CORRIDOR, COLORADO

By E. Carter Hutchinson and Donald E. Hillier

ABSTRACT

As part of the U.S. Geological Survey's investigations of the hydrology and geology in the Front Range Urban Corridor of Colorado, hydrologic data for water-table aquifers in the Colorado Springs--Castle Rock area were collected and compiled during 1976-77. These data, consisting of records for 157 wells and 47 springs and chemical analyses of water for 135 of the wells and all 47 springs, are presented in tabular form in this report. The tables contain data that were collected during the investigation, data compiled from reports published by the Colorado Water Conservation Board, and unpublished data from the files of the U.S. Geological Survey. State and local officials in the Colorado Springs--Castle Rock area may find these data useful in planning for residential, commercial, and industrial development.

INTRODUCTION

As part of the U.S. Geological Survey's investigations of the hydrology and geology in the Front Range Urban Corridor of Colorado (fig. 1), hydrologic data for water-table aquifers in the Colorado Springs--Castle Rock area were collected and compiled during 1976-77. The data contained in this report consist of data collected during the investigation, data compiled from reports published by the Colorado Water Conservation Board (see SELECTED REFERENCES), and unpublished data from the files of the U.S. Geological Survey. State and local officials in the Colorado Springs--Castle Rock area may find these data useful in planning for residential, commercial, and industrial development.

Appreciation is extended to the many land owners in the study area for permitting access to and collection of water data from their wells or springs.

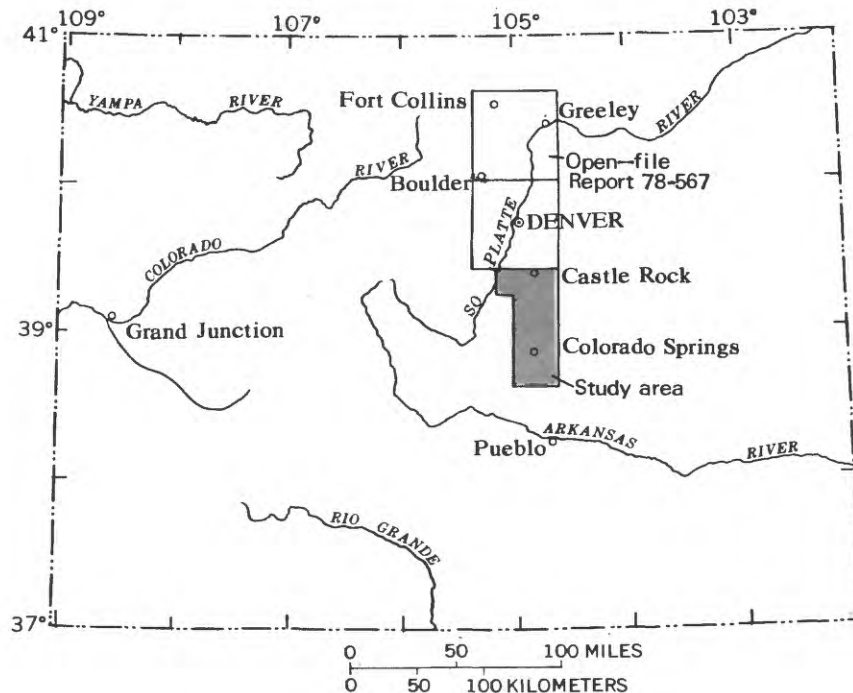


Figure 1.--Location of study area in the Front Range Urban Corridor.

METHOD OF DATA PRESENTATION

Hydrologic data are presented in tables 1-4 at the back of this report. Records of wells are included in table 1; chemical analyses of water from wells are included in table 2. Records of springs are included in table 3; chemical analyses of water from springs are included in table 4. The locations of the wells and springs are shown on plate 1. The wells and springs in the tables are cross indexed with locations shown on plate 1 using numbers found in the first column of the tables and adjacent to the well or spring symbol on plate 1.

Each well and spring in the tables also is located by township, range, and section (local well number) as explained on figure 2 and by latitude and longitude (site identification number). The first six digits of the site identification number are the latitude, in degrees, minutes, and seconds. The next seven digits are the longitude, in degrees, minutes, and seconds. The last two digits are the sequential number assigned to the well or spring.

Records of wells for which historical (1975 or older) chemical-quality data are available and records of wells for which depth-to-water and chemical-quality data were collected during 1976-77 are included in table 1. Depth-to-water measurements are shown only for wells where the depth to water was measured during 1976-77. Land-surface altitudes were determined from topographic maps published by the U.S. Geological Survey.

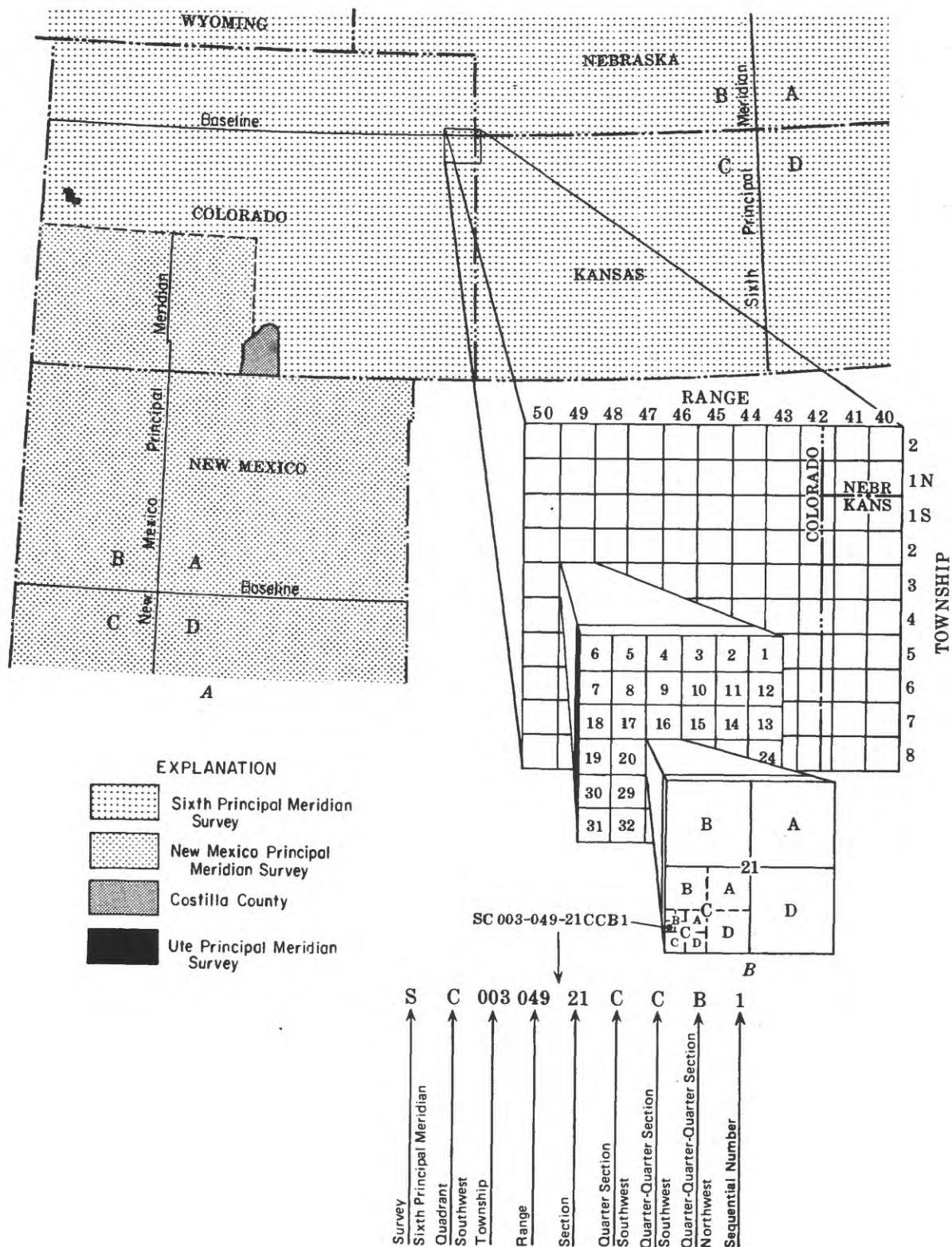


Figure 2.--System of numbering wells and springs using township, range, and section.

All chemical analyses presented in table 2 were determined in laboratories of the U.S. Geological Survey with the exception of those analyses for wells 110 and 123. The analysis for well 110 was provided by the City of Colorado Springs; the analysis for well 123 was provided by the Colorado Department of Health.

Records of springs for which historical (1975 or older) chemical-quality data are available and records of springs for which chemical-quality data were collected during 1976-77 are included in table 3. Land-surface altitudes were determined from topographic maps published by the U.S. Geological Survey. All chemical analyses presented in table 4 were determined in laboratories of the U.S. Geological Survey.

SELECTED REFERENCES

- Jenkins, E. D., 1961, Records, logs, and water-level measurements of selected wells and test holes, and chemical analyses of ground water in Fountain, Jimmy Camp, and Black Squirrel Valleys, El Paso County, Colorado: Colorado Water Conservation Board Basic-Data Report 3, 25 p.
- McConaghy, J. A., Chase, G. H., Boettcher, A. J., and Major, T. J., 1964, Hydrogeologic data of the Denver Basin, Colorado: Colorado Water Conservation Board Basic-Data Report 15, 224 p.
- Schneider, Paul A., Jr., and Hillier, Donald E., 1978, Hydrologic data for water-table aquifers in the Boulder--Fort Collins--Greeley area, Front Range Urban Corridor, Colorado: U.S. Geological Survey Open-File Report 78-567, 55 p.

Table 1.--*Records of wells*

EXPLANATION OF DATA

COUNTY:

035 = Douglas County
041 = El Paso County

AQUIFER:

Holocene and Pleistocene
111ALFP--Alluvium, flood plain
111AVMT--Alluvium, terrace
111VLFL--Valley-fill deposits
Eocene
124DWSN--Dawson Arkose
Cretaceous
210DKOT--Dakota Group
Upper Cretaceous
211CRLL--Carlile Shale
211FXHL--Fox Hills Sandstone
211PIRR--Pierre Shale
Precambrian
400PCMB--Precambrian Erathem

CASING MATERIAL:

C = Concrete	R = Rock
G = Galvanized iron	S = Steel
P = Plastic	T = Tile

PUMP TYPE:

C = Centrifugal	S = Submergible
J = Jet	T = Turbine
P = Piston	N = None

PUMP POWER:

D = Diesel	H = Hand
E = Electricity	W = Wind
G = Gasoline	N = None

USE OF WATER:

C = Commercial	N = Industrial
H = Domestic	P = Public supply
I = Irrigation	S = Stock watering

U = Unused

Table 1.--Records of wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Elevation of land surface (feet)	Chemical analysis in table 2
1	SC00806518C8C1	392107104430400	035	MIALFP	45	42	C	T	G	I	13.6	11-4-76	6320	Yes
2	SC00806612C8B1	392210104440801	035	MIAMVT	71	18	G	T	G	I	—	—	6225	Yes
3	SC00806614DAD1	392107104441400	035	MIHFL	5	24	C	N	N	U	3.3	11-23-76	6385	Yes
4	SC00806711BAB1	392230104513900	035	MIAMVT	80	7	P	S	E	P	32.3	7-22-76	6278	Yes
5	SC00806711DBD1	392157104511301	035	MIAMVT	90	48	—	T	E	P	—	—	6248	Yes
6	SC00806711DBD2	392202104511900	035	MIAMVT	80	7	P	T	E	P	—	—	6237	Yes
7	SC00806713B8D1	392134104504400	035	MIALFP	70	6	S	S	E	H	10.6	8-26-76	6280	Yes
8	SC00806713CAA1	392115104502400	035	MIALFP	60	6	S	S	E	H	21.3	7-2-76	6320	Yes
9	SC00806713D2C1	392054104495700	035	MIALFP	62	4	S	S	E	H	19.8	7-22-76	6360	Yes
10	SC00806717ADB1	392131104543000	035	MIHFL	21	72	R	N	N	U	16.7	7-28-76	6465	Yes
11	SC00806722DAC1	392016104521400	035	MIALFP	17	36	C	C	E	H	12.4	6-18-76	6300	Yes
12	SC00806724DBB1	392020104502200	035	IBNDWN	68	4	S	N	N	U	12.8	7-9-76	6470	Yes
13	SC00806726ACD1	391934104511700	035	IBNDWN	77	4	S	P	W	S	14.1	9-1-76	6545	Yes
14	SC00806727ABC1	391950104523000	035	MIALFP	53	4	P	S	E	H	14.4	7-22-76	6320	Yes
15	SC00806727ACD1	391936104522500	035	MIALFP	52	4	P	J	E	H	13.8	6-3-76	6346	Yes
16	SC00806734BCA1	391848104525600	035	MIALFP	76	18	S	T	E	I	10.1	7-16-76	6380	Yes
17	SC00806809CAD1	392200105002700	035	MIALFP	33	4	S	P	E	U	8.2	8-2-76	6190	No
18	SC00806809DBC1	392159105001900	035	MIALFP	52	7	S	S	E	H	—	—	6186	Yes
19	SC00806816CCB1	392059105005900	035	MIHFL	41	6	S	P	W	H	—	—	6470	Yes
20	SC00806826CAC1	391926104582600	035	MIAMVT	50	48	R	P	H	H	29.4	7-29-76	6118	Yes

Table 1.--Records of wells--Continued

Site number on plate	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
21	SC00906528BBB1	39144104403600	035	111ALFP	27	5	S	J	E	H	—	—	6860	Yes
22	SC00906529BBB1	391440104415200	035	111ALFP	25	4B	R	C	E	H	18.0	2-10-77	6875	Yes
23	SC00906617DBB1	391556104480200	035	111ALFP	20	36	R	P	W	S	—	—	6725	Yes
24	SC00906623DAD1	391501104441300	035	111ALFP	19	4B	R	P	W	H	12.5	11-23-76	6820	Yes
25	SC00906635BCB1	391339104451800	035	111ALFP	19	30	R	P	E	H	14.3	11-22-76	6870	Yes
26	SC00906635DD1	391303104441300	035	111ALFP	41	4B	R	S	E	H	31.8	2-17-77	6960	Yes
27	SC00906707BAA1	391721104555800	035	1240NSN	103	4	S	P	W	S	—	—	6640	Yes
28	SC00906716DCD1	391542104453200	035	111ALFP	10	36	S	J	E	H	3.9	6-3-76	6560	Yes
29	SC00906727CB1	391412104525500	035	1240NSN	102	6	S	S	E	H	43.7	8-20-76	6682	Yes
30	SC00906733DD1	391304104531300	035	111ALFP	10	18	S	J	E	H	9.0	5-25-76	6715	Yes
31	SC00906734BCB1	391337104530200	035	111ALFP	11	36	C	S	E	H	5.6	5-5-76	6675	Yes
32	SC00906802BAA1	391809104581600	035	111ALFP	74	6	P	S	E	H	40.8	6-10-76	6203	Yes
33	SC00906804DBB1	391745105002000	035	111ALFP	48	12	T	S	E	H	21.6	8-4-76	6330	No
34	SC00906809CDD1	391636105002500	035	111ALFP	55	4	S	S	E	H	16.6	8-3-76	6540	Yes
35	SC00906813BBB1	391619104572500	035	111ALFP	69	4	P	S	E	H	15.5	5-27-76	6305	Yes
36	SC00906813BCA1	391614104572500	035	111ALFP	65	4	S	S	E	S	14.6	6-2-76	6302	Yes
37	SC00906815DAA1	391604104584600	035	111ALFP	50	18	S	T	E	I	4.1	5-27-76	6315	Yes
38	SC00906825BDC1	391424104571600	035	111ALFP	72	7	P	J	E	H	25.7	5-26-76	6445	Yes
39	SC00906835AAB1	391351104575300	035	111ALFP	41	12	S	S	E	H	7.5	5-12-76	6475	Yes
40	SC00906836CBA1	391327104572000	035	111ALFP	23	7	S	P	W	S	9.9	5-26-76	6515	Yes

Table 1.--Records of wells--Continued

Site number on plat 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
41	SC01006506BBC1	391253104430000	035	IIAVMT	12	48	R	P	H	H	9.3	2-9-77	6882	Yes
42	SC010065218CA1	391006104404201	035	IIALFP	17	36	R	N	N	U	10.4	5-5-77	7070	Yes
43	SC01006528BAB1	390926104403200	035	IIAVMT	30	6	S	J	E	H	—	—	7125	Yes
44	SC01006530CCL1	390854104430501	035	IIIVFL	16	36	R	N	N	U	14.0	5-6-77	7295	No
45	SC01006533BDA1	3908231044082501	035	IIIVFL	27	6	G	P	H	U	10.9	5-3-77	7175	No
46	SC01006613CCL1	391031104441200	035	IIIVFL	19	48	R	N	N	U	13.4	11-24-76	7082	Yes
47	SC01006622DBA1	390956104454300	035	IIIVFL	8	48	S	P	E	H	.8	11-19-76	7070	Yes
48	SC01006628DD1	390846104463001	035	IIAVMT	16	60	R	P	W	U	9.5	4-22-77	7160	Yes
49	SC01006704ACD1	3912411044533200	035	IIALFP	20	72	S	C	E	H	7.5	8-18-76	6755	Yes
50	SC01006708BAC1	3912011044545900	035	IIALFP	41	6	S	J	E	H	—	—	6835	Yes
51	SC01006716ACD1	3910571044533100	035	IIALFP	17	5	S	P	H	S	6.9	6-18-76	6935	Yes
52	SC01006720ACA1	3910071044543700	035	IIALFP	65	5	P	S	E	H	16.2	5-25-76	7070	Yes
53	SC01006729BAA1	3909311044545500	035	IIAVMT	50	5	P	S	E	H	17.4	5-25-76	7160	Yes
54	SC01006516DCL1	390512104400901	041	1240VSN	—	6	S	S	E	H	21.1	4-24-77	7430	Yes
55	SC01006517CCA1	390521104414301	041	IIIVFL	24	6	G	P	W	S	12.3	5-4-77	7360	Yes
56	SC01006520CDD1	390418104412501	041	IIIVFL	50	6	G	P	W	S	15.6	4-24-77	7425	Yes
57	SC01006529DBC1	390339104412401	041	IIALFP	16	6	G	P	W	S	1.2	5-4-77	7456	No
58	SC01006603CCA1	3907011044462000	041	IIAVMT	60	5	P	P	E	H	—	—	7239	Yes
59	SC01006615CDB1	3905141044460901	041	1240VSN	50	—	—	P	W	S	33.5	4-28-77	7390	Yes
60	SC01006733CAB1	3902521044535700	041	IIIVFL	—	—	—	—	—	—	—	—	—	Yes

Table 1.--Records of wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
61	5C012066078BB1	390138104494200	041	HNFL	25	—	—	—	—	—	—	—	6680	Yes
62	5C01206620BCB1	385937104484000	041	HNFL	50	—	—	—	—	H	—	—	6635	Yes
63	5C01206634BBB1	385808104462300	041	HNFL	122	8	G	P	N	S	—	—	6845	Yes
64	5C01306505BCC1	385656104420001	041	HNFL	70	—	—	N	N	U	21.4	6-24-77	6945	No
65	5C01306506DAB1	385651104421001	041	HNFL	33	—	—	—	—	H	—	—	6958	Yes
66	5C01306508ADB1	385618104411400	041	HNFL	100	—	—	—	—	—	—	—	—	Yes
67	5C01306508DBA1	385601104411701	041	HNFL	92	8	S	S	E	H	20.5	7-1-77	6822	Yes
68	5C01306516CADI	385456104402301	041	HNFL	73	—	—	J	E	H	14.7	7-15-77	6732	Yes
69	5C01306527AAN1	3853451044384800	041	HNFL	62	5	P	S	E	H	15.0	10-21-76	6205	Yes
70	5C01306608CAB1	385556104482401	041	HNFL	50	8	S	N	N	U	23.3	7-12-77	6341	No
71	5C01306609CAL1	385551104471701	041	HNFL	30	6	P	S	E	H	6.0	7-2-77	6422	Yes
72	5C01306610ACD1	385603104454200	041	HNFL	60	—	—	P	W	H	—	—	6630	Yes
73	5C01306632AAC1	385244104474601	041	HNFL	46	8	P	S	E	I	21.4	7-8-77	6210	Yes
74	5C01306714BAC1	3855191044513800	041	HNFL	30	—	—	—	—	—	—	—	6545	Yes
75	5C01306734DBD1	3852211044522501	041	HNFL	36	28	S	C	E	U	28.5	7-8-77	6295	No
76	5C01306822AAC1	3854341015083000	041	HNFL	33	—	—	—	—	—	—	—	—	Yes
77	5C01406504CLB1	385123104405000	041	HNFL	60	6	S	J	E	H	—	—	6382	Yes
78	5C01406505ADA1	385147104405800	041	HNFL	57	5	P	S	E	H	35.6	10-21-76	6415	Yes
79	5C01406507CCB1	385033104431000	041	HNFL	78	5	P	S	E	I	53.8	10-19-76	6225	Yes
80	5C01406508CCD1	385021104414900	041	HNFL	46	6	S	S	E	C	40.7	10-19-76	6286	Yes

Table 1.--Records of wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
81	SC01406527ACB1	384822104391101	041	MALFP	110	10	G	P	N	S	30.5	7-6-77	5978	Yes
82	SC01406527DDB4	384755104385201	041	MALFP	80	20	S	T	E	I	23.4	7-6-77	5945	Yes
83	SC01406534AAC1	384753104385401	041	MVFL	82	20	S	T	E	I	24.4	2-22-77	5920	No
84	SC01406601ADB1	385151104432400	041	MVFL	92	5	P	S	E	N	42.0	10-22-76	6358	Yes
85	SC01406606ADA1	385152104485401	041	MVMT	-	6	S	S	E	I	21.6	7-28-77	6110	Yes
86	SC01406612CDD1	385025104434700	041	MALFP	61	6	S	N	N	L	32.2	10-22-76	6190	Yes
87	SC01406613CCA1	384942104440800	041	MALFP	24	48	C	P	H	S	12.6	10-21-76	6105	Yes
88	SC01406613CCAR	384942104440900	041	MALFP	56	6	S	J	E	H	-	-	6105	Yes
89	SC01406614DDC1	384933104443300	041	MALFP	14	60	C	C	E	H	8.1	10-20-76	6082	Yes
90	SC01406620CDC1	384840104482201	041	MALFP	17	72	S	T	E	I	8.5	7-7-77	5875	Yes
91	SC01406622BBC1	3849211044463001	041	RIPIER	40	16	S	T	E	I	9.8	7-7-77	5985	Yes
92	SC01406632AAD1	3847381044713801	041	MVMT	67	12	S	T	E	I	44.6	7-8-77	5865	Yes
93	SC01406633DAA1	384718104463700	041	MVMT	72	6	S	J	E	H	-	-	5832	Yes
94	SC01406703DBB1	385138104523100	041	2HCRLL	73	6	G	J	E	S	-	-	6190	Yes
95	SC01406725DDD1	384750104500700	041	MALFP	67	6	G	S	E	I	-	-	6090	Yes
96	SC01406736BBB1	384742104504500	041	MALFP	52	6	G	J	E	I	-	-	6185	Yes
97	SC01406736BDC1	384721104503700	041	MALFP	18	60	R	T	E	I	-	-	6118	Yes
98	SC01506503AAB2	384652104382401	041	MALFP	50	20	G	T	E	I	18.1	2-22-77	5870	Yes
99	SC01506503ABA1	384648104390400	041	MVFL	59	18	S	T	E	I	-	-	5870	Yes
100	SC01506510ABB2	384552104391301	041	MALFP	51	24	S	T	E	I	21.4	2-22-77	5815	Yes

Table 1.--Records of wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
101	SC01506515DAA1	384440104384601	041	MWFL	31	24	S	N	N	U	13.0	2-22-77	5727	No
102	SC01506518DBA1	384437104422601	041	MWFL	36	24	S	T	E	I	—	—	5740	Yes
103	SC01506522DBA1	384349104381300	041	MWFL	78	16	S	T	E	I	—	—	5686	Yes
104	SC01506522DBB1	384347104390901	041	MWFL	78	16	S	T	E	I	16.1	2-22-77	5686	Yes
105	SC01506527ADA1	384304104384800	041	MWFL	—	—	—	—	—	—	—	—	—	Yes
106	SC01506527CCB1	384247104393500	041	MWFL	—	—	—	—	—	—	—	—	—	Yes
107	SC01506528DCD1	384231104400601	041	MWFL	59	16	S	T	E	I	21.1	2-22-77	5626	Yes
108	SC01506531BDB1	384216104424501	041	MWFL	48	16	S	T	E	I	—	—	—	Yes
109	SC01506533BDD1	384210104402601	041	MWFL	70	8	S	S	E	I	17.8	7-15-77	5600	Yes
110	SC01506533CBD1	384158104404401	041	MWFL	39	6	S	C	E	I	—	—	5580	Yes
111	SC01506601DDB1	384610104432400	041	MWFL	83	16	G	T	E	P	—	—	5900	Yes
112	SC01506603BAC1	384639104461401	041	MWFL	85	6	S	S	E	H	63.7	7-29-77	5822	Yes
113	SC01506603BCA2	384632104462201	041	MWFL	32	24	S	T	E	N	28.9	2-22-77	5750	No
114	SC01506603CAB1	384622104460901	041	MWFL	49	—	—	T	E	P	22.6	7-11-77	5770	Yes
115	SC01506603CAD2	384618104460600	041	MWFL	39	—	—	T	E	I	—	—	5760	Yes
116	SC01506603DCA1	3846111044554600	041	MWFL	72	36	G	T	E	C	—	—	5780	Yes
117	SC01506603DDB1	384610104453501	041	MWFL	80	24	G	T	E	P	42.6	2-23-77	5780	No
118	SC01506610AAB1	384554104453600	041	MWFL	53	24	S	T	E	I	—	—	5735	Yes
119	SC01506610AAD1	384548104452801	041	MWFL	45	24	S	T	E	P	—	—	5730	Yes
120	SC01506611BCA1	384548104451001	041	MWFL	62	1	S	N	N	U	34.3	2-23-77	5760	No

Table 1.--Records of wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
121	SC01506611BDC1	384534104450701	041	MWFL	80	24	S	T	E	I	40.4	3-1-77	5750	No
122	SC01506611CBB1	384533104452000	041	MWFL	50	24	S	T	E	P	—	—	5720	Yes
123	SC01506611CDA1	384517104445501	041	MWFL	70	24	G	T	E	P	—	—	5730	Yes
124	SC01506611CDB1	384518104450501	041	MWFL	41	24	S	T	E	I	—	—	5720	Yes
125	SC01506612ABA1	384553104432901	041	MWFL	77	24	S	T	E	P	33.8	7-7-77	5875	No
126	SC01506613BCC2	3844421044441201	041	MWFL	75	1	S	N	N	U	40.3	2-23-77	5705	Yes
127	SC01506614AAC1	384459104443401	041	MWFL	76	24	S	T	E	P	35.8	2-23-77	5720	Yes
128	SC01506614ABB1	384507104444501	041	MWFL	76	16	S	T	D	I	26.0	2-23-77	5716	No
129	SC01506614ADD1	3844431044441801	041	MWFL	74	16	G	T	E	I	36.7	2-23-77	5708	No
130	SC01506614DAD1	3844281044442101	041	MWFL	14	30	S	J	E	H	11.4	8-4-77	5683	No
131	SC01506624BAA1	3844131044434601	041	MWFL	74	24	S	T	E	P	—	—	5687	Yes
132	SC01506624BAD2	3844021044434800	041	MWFL	73	16	G	T	E	P	—	—	5670	Yes
133	SC01506624DBA1	3843461044433300	041	MWFL	60	16	S	T	E	P	—	—	5660	Yes
134	SC01506624DCA1	3843331044433201	041	MWFL	28	48	R	J	E	I	17.6	7-15-77	5642	Yes
135	SC01506714BDA1	3844501044513200	041	MWFL	—	—	—	—	—	—	—	—	—	Yes
136	SC01506736ACC1	384208104501600	041	MWFL	85	7	G	S	E	H	—	—	6290	Yes
137	SC01506736BAC1	384218104503400	041	MWFL	24	5	G	—	E	H	—	—	6360	Yes
138	SC0160502AAD1	3837591044373800	041	ZUPIER	40	—	—	—	—	—	—	—	—	Yes
139	SC01606504BBB1	384132104405100	041	MWFL	45	—	—	T	E	I	—	—	5560	Yes
140	SC01606505ADD1	384117104410401	041	MWFL	32	—	—	T	E	I	13.2	2-22-77	5550	No

Table 1.--Records of wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Depth of well (feet)	Casing diameter (inches)	Casing material	Pump type	Pump power	Use of water	Depth to water (feet)	Date of water-level measurement	Altitude of land surface (feet)	Chemical analysis in table 2
141	5C01606505CCB1	384056104415601	041	UNSAT	50	24	G	T	E	P	—	—	5455	Yes
142	5C01606505DDB1	384054104410601	041	UNSAT	—	—	—	—	—	—	—	—	—	Yes
143	5C01606506ACC1	3841131044423101	041	UNSAT	44	24	S	S	E	I	25.7	7-8-77	5550	Yes
144	5C01606508DBA1	384018104411501	041	UNSAT	57	16	S	T	E	I	31.5	7-12-77	5523	Yes
145	5C01606508DCC1	383955104412601	041	UNSAT	37	6	S	N	N	U	16.5	2-22-77	5449	No
146	5C01606516BBA1	3839521044104001	041	UNSAT	60	12	G	T	E	I	37.2	7-12-77	5510	Yes
147	5C01606517AAA1	3839521044105601	041	UNSAT	60	24	S	T	E	I	31.1	2-22-77	5505	No
148	5C01606517AAA2	3839521044105600	041	UNSAT	47	6	S	N	N	U	25.7	2-22-77	5504	No
149	5C01606520AAA1	383859104410201	041	UNSAT	53	24	G	T	E	I	28.1	7-13-77	5465	Yes
150	5C01606520DCA1	383820104411400	041	UNSAT	43	16	G	T	E	P	—	—	5410	Yes
151	5C01606521BBA1	3838571044104501	041	UNSAT	56	24	S	T	E	I	—	—	5471	Yes
152	5C01606528BCD1	3837471044104501	041	UNSAT	26	24	G	T	E	S	17.7	7-13-77	5424	Yes
153	5C01606615DBA1	3839211044154301	041	UNSAT	39	8	S	T	E	I	4.5	7-14-77	5645	Yes
154	5C01606615DBB1	3839241044155200	041	UNSAT	60	—	—	T	E	I	—	—	5660	Yes
155	5C01606702DDB1	384049104410800	041	UNSAT	17	—	—	—	—	P	—	—	—	Yes
156	5C01606703ADD1	38412210441520700	041	UNSAT	145	5	S	U	E	H	—	—	6660	Yes
157	5C01606729BDC1	38374610441550300	041	UNSAT	36	4	G	—	—	H	—	—	6890	Yes

Table 2.--*Chemical analyses of water from wells*

EXPLANATION OF DATA

COUNTY:

035 = Douglas County

041 = El Paso County

AQUIFER:

Holocene and Pleistocene

111ALFP--Alluvium, flood plain

111AVMT--Alluvium, terrace

111VLFL--Valley-fill deposits

Eocene

124DWSN--Dawson Arkose

Cretaceous

210DKOT--Dakota Group

Upper Cretaceous

211CRLL--Carlile Shale

211FXHL--Fox Hills Sandstone

211PIRR--Pierre Shale

Precambrian

400PCMB--Precambrian Erathem

UNITS:

micromhos = micromhos per centimeter at 25°C

°C = degree Celsius

mg/L = milligram per liter

µg/L = microgram per liter

1 milligram per liter = 1,000 micrograms per liter

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft.)	Depth to water below land surface (ft.)	Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
1	5C00806518C0C1	392107104430400	035	111ALFP	76-11-04	45	13.6	205	6.9	10.0	76	0	25	3.3
2	5C00806612C8B1	392210104440801	035	111AVMT	77-08-04	71	—	325	6.8	10.0	130	7	43	5.6
3	5C00806614DAD1	392107104441400	035	111LFL	76-11-23	5	3.3	105	6.1	8.0	39	10	12	2.2
4	5C00806711BAB1	392230104513900	035	111AVMT	58-02-04	80	—	446	6.9	12.0	175	86	58	7.3
4	5C00806711BAB1	392230104513900	035	111AVMT	76-06-16	80	—	410	7.0	12.0	170	71	56	7.4
5	5C00806711DBD1	392157104511301	035	111AVMT	58-02-27	90	—	256	6.9	11.0	101	30	34	3.9
6	5C00806711DBD2	392202104511900	035	111AVMT	76-06-09	80	—	285	6.1	11.5	110	32	35	5.3
7	5C00806713BBD1	392134104504400	035	111ALFP	76-08-26	70	10.6	265	6.8	15.5	110	20	39	4.2
8	5C00806713CAR1	392115104502400	035	111ALFP	76-07-02	60	21.3	240	6.6	11.0	99	22	31	5.3
9	5C00806713DDC1	392054104495700	035	111ALFP	76-07-22	62	19.8	330	6.6	14.0	150	45	48	6.5
10	5C00806717ADB1	392131104543000	035	111LFL	76-07-28	21	16.7	430	6.7	11.0	180	75	65	5.0
11	5C00806722DAC1	392016104521400	035	111ALFP	76-06-18	17	12.4	490	6.6	15.0	200	99	66	8.1
12	5C00806724DBB1	392020104502200	035	1240WSN	76-07-09	68	12.8	820	7.0	13.0	360	220	130	9.5
13	5C00806726ACD1	391934104511700	035	1240WSN	76-09-01	77	14.1	555	6.6	11.0	250	200	90	5.5
14	5C00806727ABC1	391950104523000	035	111LFL	76-07-22	53	14.4	245	6.6	12.0	78	24	25	3.7
15	5C00806727ACD1	391936104522500	035	111ALFP	76-06-03	52	13.8	205	5.7	11.5	70	0	23	3.0
16	5C00806734BCA1	391848104525600	035	111ALFP	76-07-16	76	10.1	255	6.7	13.5	76	0	24	4.0
18	5C00806809DBC1	392159105001900	035	111ALFP	76-08-06	52	—	200	6.5	12.0	75	12	24	3.6
19	5C00806816CCB1	392059105005900	035	111LFL	76-07-27	41	—	285	6.6	12.0	130	24	41	6.7
20	5C00806826LAC1	391924104582600	035	111AVMT	76-07-29	50	22.4	1515	6.9	11.0	690	460	220	34

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Carbonate (CO ₃) (mg/L)	Alkalinity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved orthophosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
1	10	.5	3.2	110	0	90	9.3	3.9	0.4	39	150	—	0.20	0.09	3	40	60	60	1
2	15	.6	2.5	150	0	120	27	6.6	.5	33	214	—	1.5	.16	6	40	80	40	2
3	2.1	.1	1.4	36	0	30	12	1.9	.1	26	77	—	.01	.15	0	20	1100	110	0
4	19	.6	3.6	108	0	89	85	22	.3	36	296	12	—	—	—	—	570	0	—
4	15	.5	3.4	121	0	99	75	17	.3	32	279	—	2.9	.18	0	40	20	10	5
5	10	.4	3.0	86	0	71	34	5.0	.3	38	184	14	—	—	—	—	0	0	—
6	11	.5	3.8	94	0	77	37	9.5	.3	31	195	—	3.3	.25	3	—	30	0	4
7	10	.4	2.1	115	0	94	34	6.1	.4	29	183	—	.06	.01	0	30	1300	90	0
8	10	.4	3.5	94	0	77	38	6.7	.2	31	182	—	2.0	.28	1	10	0	0	4
9	13	.5	4.0	124	0	102	40	8.9	.4	34	237	—	4.4	.38	3	20	20	0	4
10	17	.5	1.3	132	0	108	47	4.0	.3	34	279	—	1.0	.06	1	20	10	0	1
11	20	.6	6.1	121	0	99	100	24	.7	28	318	—	1.2	.01	0	60	420	60	6
12	29	.7	5.9	170	0	139	250	19	.6	70	613	—	3.3	.15	5	40	90	40	100
13	17	.5	3.4	53	0	43	220	7.1	.3	44	417	—	.36	.03	0	20	1500	220	0
14	9.0	.4	3.4	66	0	54	32	10	1.5	26	156	—	.10	.00	3	30	1100	1200	0
15	7.2	.4	1.8	103	0	84	5.5	3.1	1.5	31	135	—	.00	.22	1	—	6700	570	0
16	11	.5	1.5	93	0	76	20	14	1.7	21	159	—	.15	.01	1	40	1200	310	0
18	11	.6	2.4	77	0	63	20	6.4	2.0	18	127	—	.42	.02	0	20	20	0	0
19	7.7	.3	1.5	127	0	104	24	7.6	1.7	21	176	—	.41	.02	1	20	20	10	1
20	7.9	1.3	7.2	277	0	227	200	95	.6	42	1160	—	77	.19	1	50	10	20	17

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft.)	Depth to water below land surface (ft.)	Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
21	5C00906528BBA1	39144104403600	035	111ALFP	77-02-11	27	—	230	6.6	10.0	86	19	27	4.6
22	5C00906529BBB1	391440104415200	035	111ALFP	77-02-10	25	18.0	180	6.9	13.0	69	10	21	3.9
23	5C00906617DBCI	3915561044480200	035	111ALFP	76-09-10	20	—	305	7.0	14.0	120	40	36	6.7
24	5C00906623DADI	391501104441300	035	111VFL	76-11-23	19	12.5	290	6.7	10.0	120	34	35	7.6
25	5C00906635BCB1	3913391044451800	035	111ALFP	76-11-22	19	14.3	225	6.8	9.0	110	30	34	5.2
26	5C009066352DD1	3913031044441300	035	111AVMT	77-02-17	41	31.8	575	6.8	8.0	250	100	75	14
27	5C00906707BAA1	391721104555800	035	124VNSN	76-06-03	103	—	120	5.3	10.0	43	19	13	2.5
28	5C00906716DCD1	3915421044533200	035	111ALFP	76-06-03	10	3.9	455	5.7	13.0	160	110	46	10
29	5C00906727CBI	391412104525500	035	124VNSN	76-08-20	102	43.7	285	6.5	10.5	110	72	35	6.0
30	5C00906733DD1	391304104531300	035	111ALFP	76-05-25	10	9.0	720	5.6	12.0	240	210	70	15
31	5C00906734BCB1	391337104530200	035	111ALFP	76-05-05	11	5.6	175	5.2	9.0	59	16	19	2.9
32	5C00906802BAD1	3918091045581600	035	111AVMT	76-06-19	74	40.8	370	6.1	13.0	150	31	47	7.8
34	5C00906809CDD1	391636105002500	035	111ALFP	76-08-03	55	16.6	158	6.6	10.0	60	6	19	3.1
35	5C00906813BBB1	391619104572500	035	111ALFP	76-05-27	69	15.5	310	6.6	13.0	120	19	36	6.8
36	5C00906813BCA1	391614104572500	035	111ALFP	76-06-02	65	14.6	350	6.5	11.5	150	38	45	9.3
37	5C00906815DAA1	391604104584600	035	111ALFP	76-05-27	50	4.1	340	6.9	16.0	140	30	47	6.1
38	5C00906825BDC1	391424104571600	035	111ALFP	76-06-02	72	—	150	6.1	10.5	56	6	15	4.4
39	5C00906835AAB1	391357104575300	035	111ALFP	76-05-12	41	7.5	118	7.4	10.0	42	7	13	2.3
40	5C00906836CBA1	391327104577200	035	111ALFP	76-05-26	23	9.9	195	6.2	14.0	72	9	22	4.1
41	5C01006506BBC1	391253104430000	035	111AVMT	77-02-09	12	9.3	265	6.9	7.0	96	0	31	4.6

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Carbonate (CO ₃) (mg/L)	Alkalinity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved ortho-phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
21	8.8	0.4	1.5	82	0	67	17	9.1	0.3	37	158	—	2.5	0.35	1	20	40	0	2
22	6.9	.4	2.0	71	0	58	8.3	3.5	.3	34	129	—	3.1	.18	2	20	40	10	2
23	11	.4	3.7	94	0	77	31	10	.4	35	208	—	6.1	.25	7	20	90	10	1
24	9.1	.4	3.1	103	0	84	17	8.2	.3	28	194	—	7.7	.30	4	30	10	0	1
25	12	.5	1.9	93	0	76	16	8.8	.3	33	172	—	3.1	.33	2	20	20	0	1
26	16	.4	1.6	172	0	141	32	35	.3	31	361	—	16	.29	6	30	0	0	3
27	2.5	.2	3.1	29	0	24	20	2.8	.2	26	93	—	1.9	.07	1	—	80	0	1
28	21	.7	4.9	62	0	51	33	76	.2	19	270	—	6.5	.03	0	—	40	0	1
29	9.5	.4	3.3	49	0	40	44	13	.4	25	196	—	8.0	.01	0	30	10	10	2
30	25	.7	4.1	32	0	26	100	44	.4	30	528	—	42	.32	1	—	70	0	16
31	8.2	.5	4.5	53	0	43	18	6.4	1.2	22	122	—	.81	.04	0	—	60	10	1
32	16	.6	2.7	145	0	119	62	7.6	1.7	20	239	—	.46	.10	0	—	30	0	7
34	7.0	.4	1.8	66	0	54	11	1.8	2.1	16	98	—	.70	.02	1	10	30	10	1
35	18	.7	2.6	120	0	98	46	5.8	1.3	17	199	—	1.3	.05	0	—	30	10	11
36	16	.6	2.8	137	0	112	60	5.9	2.0	15	225	—	.00	.01	1	—	1100	110	1
37	12	.4	3.5	137	0	112	46	11	1.7	15	212	—	.47	.07	0	—	30	100	3
38	6.1	.4	2.2	61	0	50	16	2.7	1.3	17	96	—	.23	.03	0	—	130	20	1
39	7.3	.5	1.1	43	0	35	17	4.2	2.0	11	80	—	.18	.00	0	—	20	0	1
40	8.4	.4	3.1	76	0	62	28	2.4	2.0	16	125	—	.28	.02	0	—	60	0	1
41	19	.8	1.4	127	0	104	16	8.9	.4	34	185	—	.52	1.3	12	110	260	30	1

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft.)	Depth to water below land surface (ft.)	Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
42	SC010065218CA1	391006104404201	035	111ALFP	77-05-05	17	10.4	335	6.9	6.0	110	15	32	6.1
43	SC010065288BA1	390926104403200	035	111AVMT	77-02-17	30	—	200	6.5	7.0	79	3	23	5.2
46	SC010066132CL1	391031104444200	035	111VFL	76-11-24	19	13.4	255	7.0	9.0	69	0	21	3.9
47	SC010066222DBA1	3909561044454300	035	111VFL	76-11-19	8	.8	195	6.7	8.0	64	0	22	2.3
48	SC010066280DD1	3908461044463001	035	111AVMT	77-04-22	16	9.5	155	7.0	7.0	59	17	18	3.3
49	SC01006704ACD1	3912411044533200	035	111ALFP	76-08-18	20	7.5	130	6.4	17.0	45	0	15	1.9
50	SC01006708BAC1	3912011044545900	035	111ALFP	76-05-13	41	—	205	6.8	15.0	71	34	21	4.5
51	SC01006716ACD1	3910571044533100	035	111ALFP	76-06-18	17	6.9	165	6.7	8.5	54	11	17	2.9
52	SC01006720AC1	3910071044543700	035	111ALFP	76-05-25	65	16.2	165	6.0	15.0	64	17	19	3.9
53	SC01006729BAR1	3909311044545500	035	111AVMT	76-05-25	50	17.4	95	6.2	8.0	32	3	10	1.7
54	SC01106516DCL1	3905121044400901	041	1240NSH	77-04-29	—	21.1	200	6.2	8.0	68	30	22	3.2
54	SC01106516DCL1	3905121044400901	041	1240NSH	73-03-06	—	—	323	6.2	6.0	120	72	38	5.7
55	SC01106517CC1	3905211044414301	041	111VFL	77-05-04	24	12.3	160	6.4	7.5	50	8	16	2.5
56	SC01106520CDD1	3904181044412501	041	111VFL	77-04-29	50	15.6	470	6.8	7.5	100	77	56	8.6
58	SC01106603CC1	3907011044462000	041	111AVMT	77-02-18	60	—	135	6.2	9.0	47	6	14	2.8
59	SC01106615CDB1	3905141044460901	041	1240NSH	77-07-28	50	—	590	6.5	8.5	240	170	74	14
60	SC01106733CAB1	3902521044535700	041	111VFL	73-01-23	—	—	459	6.5	8.5	170	0	50	10
61	SC012066078BB1	3901381044494200	041	111VFL	73-03-01	25	—	293	6.2	8.0	110	23	33	5.6
62	SC01206620BCL1	3859371044484000	041	111VFL	73-02-15	50	—	211	7.2	9.0	73	38	23	3.8
63	SC01206634BBB1	3858081044462300	041	111ALFP	73-01-17	12.2	—	252	7.1	9.5	89	37	30	3.5

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Car-bonate (CO ₃) (mg/L)	Alka-linity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved ortho-phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
42	27	1.1	1.9	110	0	90	37	16	0.5	29	209	—	0.88	0.49	2	40	80	40	0
43	84	.4	3.6	92	0	75	7.1	6.7	.1	27	134	—	1.5	.24	1	20	0	0	0
46	26	1.4	.9	86	0	71	37	10	.3	36	181	—	.02	.72	3	140	430	210	1
47	11	.6	3.1	83	0	68	47	5.3	.2	32	139	—	2.8	.01	0	40	0	0	2
48	5.6	.3	2.9	51	0	42	18	3.8	.2	29	111	—	.99	.20	1	44	60	0	1
49	5.4	.4	4.5	58	0	48	83	1.8	1.7	20	88	—	.10	.01	0	20	330	330	0
50	8.0	.4	5.6	45	0	37	19	7.7	1.0	18	109	—	3.4	.04	1	—	90	10	1
51	6.0	.4	5.9	53	0	43	26	3.1	.3	21	114	—	1.3	.03	0	20	120	120	2
52	5.1	.3	1.6	57	0	47	14	3.0	2.0	17	109	—	3.4	.04	0	—	90	10	1
53	4.2	.3	5.0	35	0	29	11	2.1	1.7	16	71	—	.34	.06	0	—	170	0	0
54	8.4	.4	2.4	47	0	39	13	15	.2	37	152	—	6.1	.11	0	20	50	0	1
54	9.8	.4	2.6	56	0	46	17	29	.1	36	219	—	12	.02	—	—	30	0	—
55	9.1	.6	2.2	52	0	43	12	3.6	.2	25	113	—	3.6	.13	0	10	40	20	1
56	23	.8	1.7	120	0	98	35	28	.2	25	308	—	16	.08	0	20	90	0	2
58	6.8	.4	1.9	49	0	40	15	2.9	.2	30	104	—	1.4	.08	0	20	60	10	1
59	16	.4	4.0	83	0	68	59	4.6	.1	27	387	—	24	.03	1	20	40	4	1
60	27	.9	3.0	209	0	171	26	13	1.8	25	283	—	5.4	.01	—	—	30	0	—
61	15	.6	3.7	101	0	83	53	.4	.4	30	200	—	.04	.04	—	—	8200	350	—
62	8.0	.4	3.0	43	0	35	47	4.4	.1	28	159	—	4.5	.01	—	—	100	0	—
63	13	.6	2.2	64	0	53	60	4.4	.6	30	181	—	1.2	.00	—	—	130	0	—

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft)	Depth to water below land surface (ft)	Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
65	SC01306506DAB1	385651104421001	041	124WNSN	77-07-01	33	—	140	5.6	17.0	29	28	10	0.9
66	SC01306508ADB1	385618104411400	041	111VFL	73-03-06	100	—	200	6.9	10.0	68	20	24	1.9
67	SC01306508DBA1	385601104411701	041	111AVMT	77-07-01	92	20.5	260	7.2	15.0	110	27	37	3.6
68	SC01306516CADI	385456104402301	041	111AVMT	77-07-15	73	14.7	480	7.2	15.0	170	62	58	5.7
69	SC01306527AAI	385345104384800	041	111ALFP	76-10-21	62	15.0	855	7.6	10.0	270	28	100	4.2
71	SC01306609CAC1	385551104471701	041	111AVMT	77-07-14	30	—	960	7.1	16.0	470	200	160	16
72	SC01306610ACD1	385603104454200	041	111VFL	73-04-12	60	—	155	7.2	6.0	52	13	17	2.3
73	SC01306632AAC1	385244104474601	041	211FXHL	77-07-12	46	—	690	6.7	22.0	440	210	140	21
74	SC01306714BAC1	3855191044513000	041	111VFL	73-02-07	30	—	783	7.3	9.0	350	66	100	25
76	SC01306822AAC1	3854341044583000	041	111VFL	73-04-09	33	—	282	7.0	6.0	110	9	34	6.1
77	SC01406504CCB1	3851231044405000	041	111ALFP	76-10-20	60	—	230	7.0	10.5	80	39	27	3.0
78	SC01406505ADA1	3851471044405800	041	111AVMT	76-10-21	57	35.6	480	7.1	11.0	160	67	57	4.2
79	SC01406507CCB1	3850331044431000	041	111AVMT	76-10-19	78	53.8	485	7.0	12.0	180	78	66	4.7
80	SC01406508CCD1	385021104414900	041	111AVMT	76-10-19	46	40.7	240	7.1	12.5	96	74	33	3.3
81	SC01406527ACB1	3848221044391101	041	111ALFP	77-07-06	110	30.5	850	7.5	14.5	260	60	92	6.7
82	SC01406527DBH4	3847551044385201	041	111ALFP	77-07-06	80	23.4	780	7.8	14.0	230	22	79	7.2
84	SC01406601ADB1	3851511044432400	041	124WNSN	76-10-22	92	42.0	1140	7.3	13.0	450	370	170	6.7
85	SC01406606ADA1	3851521044485401	041	111AVMT	77-07-28	—	21.6	890	7.2	16.0	780	410	260	31
86	SC01406612CDD1	3850251044434700	041	111ALFP	76-10-22	61	32.2	1600	6.6	14.0	360	140	120	15
87	SC01406613CCA1	384942104440800	041	111ALFP	76-10-21	24	12.6	445	7.4	13.0	180	30	60	7.6

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Carbonate (CO ₃) (mg/L)	Alkalinity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved orthophosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
65	5.5	0.4	4.2	1	0	1	40	2.3	0.0	19	83	—	—	—	0	10	800	180	0
66	9.9	.5	2.9	58	0	48	39	3.4	.2	36	152	—	1.1	0.05	—	—	620	120	—
67	25	1.1	3.6	98	0	80	66	8.0	.4	22	214	—	—	—	0	30	30	20	0
68	38	1.3	2.8	130	0	107	130	9.2	.5	15	324	—	.02	.02	0	20	190	130	0
69	99	2.6	1.1	242	0	240	220	17	.5	15	604	—	.67	.01	1	50	0	190	0
71	53	1.1	1.0	320	0	260	200	32	.7	33	681	—	6.3	.03	0	30	50	0	6
72	9.2	.6	.7	47	0	39	21	1.5	.4	31	115	—	1.9	.08	—	—	40	0	—
73	55	1.1	2.0	280	0	230	290	18	.3	19	684	—	.05	.01	0	50	300	340	0
74	29	.7	4.5	349	0	286	98	18	5.8	23	498	—	5.1	.01	—	—	40	10	—
76	14	.6	1.9	123	0	101	19	6.0	2.7	19	170	—	1.6	.01	—	—	30	0	—
77	11	.5	2.4	50	0	41	21	5.6	.3	24	160	—	9.2	.15	1	20	70	10	1
78	33	1.1	1.7	113	0	93	81	7.9	.4	18	312	—	12	.02	0	30	40	0	3
79	32	1.0	1.9	130	0	107	100	24	.3	21	322	—	1.7	.02	1	20	40	10	2
80	9.7	.4	1.8	27	0	22	21	15	.2	25	184	—	14	.05	1	7	20	0	1
81	97	2.6	1.0	240	0	200	220	13	.7	16	572	—	1.7	.02	0	20	80	10	5
82	96	2.8	1.3	250	0	210	200	12	.7	14	535	—	.33	.02	0	20	60	120	4
84	84	1.7	4.1	101	0	83	460	31	.6	9.8	832	—	3.7	.02	0	30	0	10	11
85	100	1.6	1.9	450	0	370	580	25	.7	24	1260	—	4.3	.02	0	100	90	10	2
86	210	4.8	7.9	272	0	223	35	320	.2	45	1040	—	33	1.7	2	380	30	10	1
87	14	.5	8.6	184	0	151	21	24	.2	23	263	—	2.7	.19	3	150	610	1000	1

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft.)	Depth to water below land surface (ft.)	Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
88	SC01406613CCAZ	384942104440800	041	HAALFP	76-10-21	56	—	225	7.1	16.0	84	46	27	40
89	SC01406614DDCI	384933104443300	041	HAALFP	76-10-20	14	8.1	900	7.5	12.0	450	210	130	30
90	SC01406620CDCI	3848401044402201	041	HAALFP	77-07-07	17	8.5	1425	6.7	12.0	590	310	180	34
91	SC01406622BDCI	3849211044463001	041	HAALFP	77-07-07	40	9.8	785	7.2	13.0	280	49	87	15
92	SC01406632AAD1	3847381044473801	041	HAALFP	77-07-07	67	—	545	7.1	13.0	170	72	50	11
93	SC01406633DAAI	3847181044463700	041	HAALFP	76-10-22	72	—	1275	7.1	12.5	590	300	160	47
94	SC01406703DBBI	3851381044523100	041	HAALFP	74-03-29	73	—	4700	7.7	10.0	1600	1400	390	160
95	SC01406725DDCI	3847501044500700	041	HAALFP	74-03-27	67	—	692	7.5	13.5	200	0	60	13
96	SC01406736BBAI	3847421044504500	041	HAALFP	74-03-27	52	—	426	7.2	14.0	140	21	41	9.4
97	SC01406736BDCI	3847211044503700	041	HAALFP	74-03-28	18	—	361	6.7	8.0	130	41	38	8.0
98	SC01506503AAB2	384652104382401	041	HAALFP	77-07-07	50	—	910	7.2	12.0	300	55	99	13
99	SC01506503ABAI	384648104390400	041	HAALFP	72-07-26	57	—	901	7.3	12.5	260	20	87	11
100	SC01506503ABBI	384552104391301	041	HAALFP	77-07-06	51	—	1200	7.4	13.0	430	190	140	20
102	SC01506518DBAI	384437104422600	041	HAALFP	77-07-07	36	—	910	7.4	16.0	340	110	100	23
103	SC01506522DBAI	384349104381300	041	HAALFP	72-08-10	78	—	1850	7.4	14.0	530	190	150	37
104	SC01506522DBBI	384347104390901	041	HAALFP	77-07-07	78	—	1700	—	14.0	490	170	140	35
105	SC01506527ADAI	384304104384800	041	HAALFP	72-08-10	—	—	3190	7.6	15.5	1300	1100	340	110
106	SC01506527CCBI	384247104393500	041	HAALFP	72-08-10	—	—	1590	7.7	19.0	400	160	120	25
107	SC01506528DCI	384231104400601	041	HAALFP	55-05-06	59	—	1600	7.7	12.0	470	216	144	27
107	SC01506528DCI	384231104400601	041	HAALFP	77-07-07	59	—	1450	7.3	12.0	480	220	150	25

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Car-bonate (CO ₃) (mg/L)	Alka-linity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved ortho-phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
88	10	0.5	4.2	46	0	38	28	16	0.2	19	153	—	4.7	0.23	1	40	50	10	1
89	26	.5	2.0	286	0	235	230	17	.4	31	641	—	7.6	.08	1	50	40	10	7
90	110	2.0	9.1	340	0	280	410	63	3.3	15	1000	—	2.0	.01	0	490	700	1145	5
91	63	1.6	4.4	280	0	230	100	18	1.0	19	494	—	11	.01	0	100	50	8	8
92	42	1.4	4.0	120	0	98	120	17	3.0	19	340	—	3.3	.03	0	70	60	4	2
93	80	1.4	4.1	354	0	290	330	42	1.1	23	937	—	17	.01	0	170	0	0	6
94	640	6.9	8.0	320	0	262	2600	50	1.2	14	4080	—	14	.02	—	—	40	0	—
95	71	2.2	2.9	302	0	248	55	25	1.8	18	423	—	6.2	.02	—	—	10	0	—
96	27	1.0	2.8	146	0	120	23	19	1.7	20	256	—	9.0	.01	—	—	20	0	—
97	18	.7	2.7	106	0	87	26	23	1.7	15	209	—	5.5	.00	—	—	10	0	0
98	110	2.8	1.4	300	0	250	260	13	—	—	—	—	—	—	1	40	110	280	1
99	95	2.6	1.2	296	0	243	220	11	.6	16	590	—	.55	.00	—	—	70	210	—
100	130	2.7	1.3	290	0	240	430	18	.7	13	897	—	.07	.03	0	40	350	260	0
102	34	.8	4.4	280	0	230	180	34	—	—	—	—	—	—	1	250	40	4	3
103	230	4.4	2.3	410	0	336	630	41	.6	14	1320	—	3.9	.02	—	—	140	60	—
104	230	4.5	1.9	390	—	320	580	43	.6	14	1260	—	5.0	.02	0	260	160	40	4
105	340	4.1	4.8	304	0	249	1700	37	.5	13	2720	—	6.6	.02	—	—	140	40	—
106	210	4.6	2.2	299	0	245	570	31	.7	13	1120	—	.14	.01	—	—	210	70	—
107	—	—	—	310	0	254	—	23	—	—	—	—	—	—	—	—	—	—	—
107	220	4.4	2.1	310	0	250	590	31	.4	15	1210	—	4.2	.03	0	90	30	0	6

Table 2.--Chemical analyses of water from wells--Continued

Site number on label	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft.)	Depth to water below land surface (ft.)	Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
108	SC015065318DB1	384216104424501	041	IIA VMT	71-08-04	48	—	950	7.3	9.0	430	150	120	32
109	SC015065338DD1	384210104403601	041	IIA LFP	71-07-15	70	17.8	2050	7.4	12.0	600	330	180	37
110	SC015065338BD1	384158104404401	041	IIA LFP	55-05-04	39	—	—	7.6	11.5	318	12	102	15
111	SC01506601DDBI	384610104432400	041	IIIV LFL	72-08-10	83	—	471	7.5	15.0	160	19	52	7.0
112	SC015066038AC1	3846391044461401	041	IIA VMT	71-07-29	85	63.7	875	6.9	17.5	300	110	82	24
114	SC01506603CAB1	3846221044460901	041	IIA VMT	71-07-14	49	—	915	6.9	15.0	400	140	110	30
115	SC01506603CAD2	3846181044460600	041	IIIV LFL	72-05-04	39	—	782	6.9	10.5	230	17	63	17
116	SC01506603DCA1	3846111044454600	041	IIIV LFL	72-05-04	72	—	741	7.0	12.0	280	67	82	18
118	SC01506610AAB1	3845541044453600	041	IIIV LFL	72-05-04	53	—	753	6.6	11.0	260	70	71	19
119	SC01506610AAD1	3845481044452801	041	IIA LFP	71-07-29	45	—	760	7.0	15.0	260	110	74	19
122	SC01506611CBB1	3845331044452000	041	IIIV LFL	72-05-04	50	—	793	6.7	11.0	240	79	69	17
123	SC01506611CDA1	3845171044445501	041	IIA LFP	54-11-23	70	—	610	7.1	11.5	237	72	82	3.9
124	SC01506611CDB1	3845181044450501	041	IIA LFP	71-07-08	41	—	850	6.8	11.0	280	120	79	19
126	SC01506613BCC2	3844421044441201	041	IIA VMT	71-07-08	75	—	800	6.8	13.0	260	91	79	14
127	SC01506614AAC1	3844591044443401	041	IIIV LFL	55-05-07	76	—	620	7.7	13.0	204	60	64	11
131	SC01506624BAH1	3844131044434601	041	IIIV LFL	72-08-10	74	—	916	7.2	15.0	410	190	120	26
131	SC01506624BAH1	3844131044434601	041	IIIV LFL	71-07-15	74	—	885	7.1	16.0	350	130	100	25
132	SC01506624BAD2	3844021044434800	041	IIIV LFL	72-08-10	73	—	797	7.3	14.5	280	110	85	17
133	SC01506624DBA1	3843461044433300	041	IIIV LFL	72-08-10	60	—	759	7.4	15.0	290	100	87	18
134	SC01506624DCA1	3843331044433201	041	IIA LFP	71-07-15	28	17.6	860	7.0	14.0	300	110	78	26

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Carbonate (CO ₃) (mg/L)	Alkalinity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved ortho phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
108	89	1.9	2.5	340	0	280	210	45	1.6	15	722	—	8.7	0.07	0	300	10	4	7
109	270	4.8	3.0	330	0	270	800	48	.5	14	1520	—	1.9	.01	0	170	40	0	2
110	188	4.6	2.9	—	0	—	430	25	.2	—	1075	0.8	—	—	—	—	—	—	—
111	32	1.1	2.3	170	0	139	76	3.6	.4	22	302	—	5.1	.05	—	—	30	10	—
112	79	2.0	4.9	240	0	200	190	36	1.3	22	595	—	8.4	.06	1	230	20	8	4
114	75	1.6	3.7	310	0	250	210	41	.8	24	689	—	9.3	.07	0	190	20	0	4
115	66	1.9	7.4	257	0	211	130	38	2.4	18	477	—	.71	1.0	—	—	30	2700	—
116	49	1.3	3.6	258	0	212	130	28	1.0	23	481	—	4.4	.01	—	—	10	0	—
118	59	1.6	5.8	226	0	185	150	34	1.7	23	492	—	3.8	.22	—	—	20	8	—
119	62	1.7	5.2	190	0	160	170	36	1.5	21	508	—	5.4	.40	1	270	10	4	1
122	68	1.9	5.5	199	0	163	170	37	2.0	23	506	—	3.7	.05	—	—	20	88	—
123	—	.2	—	183	0	—	50	18	.8	—	500	5.2	—	—	—	—	—	—	—
124	77	—	7.7	190	0	160	200	39	2.3	21	545	—	5.6	.04	0	230	10	0	0
126	56	1.5	3.3	200	0	160	140	31	.9	25	475	—	6.2	.05	0	140	20	4	1
127	56	1.7	2.2	177	0	145	141	13	.5	21	409	13	—	—	—	—	20	—	—
131	41	.9	2.9	261	0	214	190	33	.8	21	598	—	7.8	.03	—	—	20	0	—
131	53	1.2	3.1	270	0	220	180	36	.8	20	588	—	8.1	.26	0	80	50	0	2
132	54	1.4	3.9	215	0	176	160	34	1.2	21	509	—	6.2	.03	—	—	30	20	—
133	48	1.2	2.9	230	0	189	150	22	.9	22	493	—	6.6	.02	—	—	100	60	—
134	73	1.8	4.7	240	0	200	180	33	1.0	15	557	—	6.3	.01	0	180	70	8	0

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate	Local well number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Depth of well (ft)	Depth to water below land surface (ft)	Specific conductance (micro-mhos)	pH	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
135	SC01606714BDAI	384450104513200	041	400PCHB	74-01-25	—	—	223	8.0	13.5	98	24	35	2.6
136	SC01606736ACCI	384208104501600	041	111ALFP	73-12-04	85	—	279	7.2	11.0	110	6	30	9.1
137	SC01606736BACI	384218104503400	041	111ALFP	73-12-06	24	—	156	7.4	8.0	59	8	17	4.1
138	SC01606502AAD1	383759104373800	041	211PFR	74-10-17	40	—	9560	—	16.0	4100	3700	940	420
139	SC01606504BBBI	384132104405100	041	111VFL	72-08-10	45	—	4140	7.7	12.0	1600	1300	450	120
141	SC01606505C6BI	384056104415601	041	111VFL	77-07-11	50	—	1165	7.2	14.0	420	140	110	35
142	SC01606505DDBI	384054104410601	041	111VMT	72-07-26	—	—	2840	7.3	13.5	950	630	250	80
142	SC01606505DDBI	384054104410601	041	111VMT	77-08-04	—	—	2200	7.1	12.0	900	580	240	72
143	SC01606506ACCI	384113104423101	041	111VMT	77-07-08	44	25.7	1040	7.4	13.0	330	150	94	24
144	SC01606508DBAI	384018104411501	041	111VMT	77-07-12	57	31.5	1775	7.3	12.0	620	380	170	48
146	SC01606516BBBI	383952104404001	041	111ALFP	72-07-26	60	—	2060	7.2	14.5	750	490	210	55
146	SC01606516BBBI	383952104404001	041	111ALFP	77-07-13	60	37.2	1875	7.2	12.5	670	400	190	47
149	SC01606520AAAI	383859104410201	041	111VMT	77-07-13	53	28.1	1790	7.2	13.0	620	360	190	47
150	SC01606520DCAI	383821104411400	041	111VFL	72-07-19	43	—	1240	7.1	11.5	400	170	110	30
151	SC01606521BBBI	383857104404501	041	111VFL	77-07-13	56	—	1790	7.0	12.0	610	330	170	44
152	SC01606528BCDI	383747104404501	041	111VMT	77-07-13	26	17.7	3250	7.2	12.0	1100	770	270	110
153	SC01606515DBAI	383921104454301	041	111ALFP	77-07-14	39	4.5	925	7.2	11.5	350	150	86	33
154	SC01606615DBBI	383924104455200	041	111VFL	74-03-25	60	—	987	7.3	11.0	380	160	96	33
155	SC01606702DDBI	384049104510800	041	210DKOT	73-11-29	17	—	278	7.5	7.0	120	21	38	7.1
156	SC01606703ADDI	384122104520700	041	400PCHB	73-12-05	145	—	649	7.8	6.0	220	0	44	26

Table 2.--Chemical analyses of water from wells--Continued

Site number on plate 1	Dis-solved sodium (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Car-bonate (CO ₃) (mg/L)	Alka-linity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved ortho-phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
135	8.7	0.4	1.3	90	0	74	29	1.0	2.1	13	138	—	0.08	0.01	—	—	10	20	0
136	13	.5	1.6	130	0	107	23	4.5	.7	17	173	—	2.1	.08	—	—	20	0	—
137	7.4	.4	1.9	63	0	52	18	2.0	1.3	13	96	—	.11	.02	—	—	80	20	—
138	760	5.2	12	413	0	339	2000	400	.5	23	7490	—	730	.05	—	—	20	200	—
139	480	5.2	4.7	342	0	281	2300	64	.5	16	3690	—	19	.01	—	—	90	40	—
141	110	2.3	4.8	340	0	280	270	52	1.8	17	788	—	4.3	.03	0	260	60	20	3
142	340	4.8	4.1	395	0	324	1300	69	.9	18	2280	—	5.3	.00	—	—	40	40	—
142	290	4.2	3.6	340	0	320	1100	62	.8	15	2010	—	6.7	.06	0	320	40	40	9
143	96	2.3	6.9	220	0	180	250	58	2.0	17	666	—	1.5	.16	1	230	60	1080	0
144	210	3.7	3.1	290	0	240	710	51	1.4	14	1380	—	6.7	.01	0	260	20	4	5
146	210	3.3	3.2	318	0	261	870	52	.8	18	1600	—	4.8	.01	—	—	40	20	—
146	200	3.4	3.0	330	0	270	680	57	1.0	16	1390	—	6.6	.01	0	230	40	0	9
149	200	3.5	4.5	310	0	250	640	58	2.2	16	1320	—	6.3	.01	0	220	60	4	2
150	120	2.6	6.4	277	0	227	350	54	2.4	19	841	—	2.7	.24	—	—	20	40	—
151	200	3.5	3.3	340	0	280	620	59	1.7	16	1310	—	6.0	.02	0	220	50	0	10
152	410	5.3	4.2	430	0	350	1400	94	1.6	16	2530	—	2.2	.01	0	460	1300	30	5
153	69	1.6	2.0	250	0	210	290	9.1	1.8	12	628	—	.35	.01	0	80	670	20	1
154	79	1.8	2.4	261	0	214	300	8.4	2.1	13	664	—	.26	.00	—	—	150	0	—
155	6.9	.3	1.4	126	0	103	29	1.9	2.2	13	162	—	.14	.03	—	—	20	0	—
156	62	1.8	1.9	291	0	239	100	6.3	2.5	12	398	—	.03	.02	—	—	10	0	—

Table 2.--Chemical analyses of water from wells--Continued

[illegible]

Table 3.--*Records of springs*

EXPLANATION OF DATA

COUNTY:

035 = Douglas County

041 = El Paso County

AQUIFER:

Holocene and Pleistocene

111ALFP--Alluvium, flood plain

111AVMT--Alluvium, terrace

111VLFL--Valley-fill deposits

Oligocene

123CRCK--Castle Rock Conglomerate

Eocene

124DWSN--Dawson Arkose

Paleozoic

300PLZC--Paleozoic Erathem

USE OF WATER:

H = Domestic

I = Irrigation

S = Stock watering

U = Unused

Table 3.--Records of springs--Continued

Site number on plate 1	Local spring number	Site identification number	County	Aquifer	Discharge (gal/min)		Date discharge determined	Use of water	Altitude of land surface (ft)	Chemical analysis in table 4
					Meas-ured	Estim-ated or reported				
S1	5C00806520BBAI	392050104415000	035	124DMSN	—	1.0	11-2-76	S	6480	Yes
S2	5C00806626CDAI	391920104445400	035	124DMSN	—	6.0	9-24-76	H	6500	Yes
S3	5C00806725ADCI	391934104500100	035	111VFL	18.0	—	6-24-76	S	6490	Yes
S4	5C00806735ABCI	3918541045712100	035	111VFL	—	5	9-1-76	H	6640	Yes
S5	5C00806817CAAI	392118105013400	035	111ALFP	—	.75	8-11-76	H	6360	Yes
S6	5C00806823ABAI	392044104575500	035	111ALFP	—	.1	8-11-76	S	6100	Yes
S7	5C00806823DBBI	392021104580400	035	111VFL	—	.1	7-29-76	S	6120	Yes
S8	5C00806823DCBI	392008104580700	035	111VFL	—	.1	7-29-76	U	6175	Yes
S9	5C00806826DBAI	391929104575700	035	111VFL	—	.1	7-29-76	U	6175	Yes
S10	5C00906521CCDI	391449104404000	035	123CRCK	2.0	—	2-11-77	S	6870	Yes
S11	5C00906608BCCI	391654104484300	035	123CRCK	—	3.0	9-17-76	H	6990	Yes
S12	5C00906610BDBI	391709104461100	035	111VFL	—	1.5	9-10-76	U	6610	Yes
S13	5C00906610BDCI	391658104460500	035	111VFL	—	.25	9-16-76	S	6620	Yes
S14	5C00906617DBCI	391556104470900	035	111VFL	—	.1	9-10-76	S	6725	Yes
S15	5C00906630BDAI	391431104493800	035	111VFL	—	.5	11-19-76	S	6925	Yes
S16	5C00906635BAAI	3913521044445300	035	111VFL	—	3.0	11-23-76	S	6835	Yes
S17	5C00906701DBBI	3917421044501500	035	111VFL	—	.5	7-9-76	S	6655	Yes
S18	5C00906706DADI	3917401044552700	035	111AVMT	—	.1	6-2-76	S	6760	Yes
S19	5C00906713BDCI	3916221044505500	035	123CRCK	—	4.0	6-24-76	S	6920	Yes
S20	5C00906722CDBI	3914551044524700	035	111ALFP	1.8	—	7-3-76	S	6638	Yes

Table 3.--Records of springs--Continued

Site number on plate 1	Local spring number	Site identification number	County	Aquifer	Discharge (gal/min)		Date discharge determined	Use of water	Altitude of land surface (ft)	Chemical analysis in table 4
					Meas-ured	Estim-ated or reported				
S21	5C00906724AAB1	391531104500200	035	124DWSN	1.3	—	6-25-76	S	6915	Yes
S22	5C00906727ABD1	391434104522600	035	124DWSN	—	2.0	6-25-76	H	6685	Yes
S23	5C00906730CDD1	391356104555B00	035	124DWSN	—	2.0	5-26-76	H	6690	Yes
S24	5C00906734BBC1	391341104530700	035	111AVMT	—	1.0	5-5-76	H	6480	Yes
S25	5C00906803ADD1	391752104584900	035	111AVMT	2.5	—	6-10-76	S	6250	Yes
S26	5C00906809DDB1	391640105002100	035	111ALFP	—	.5	8-3-76	H	6515	Yes
S27	5C010065078BB1	3912041044430000	035	124DWSN	2.0	—	2-10-77	S	6970	Yes
S28	5C01006519ABD1	3910121044421600	035	111VFL	—	5.0	11-24-76	S	7085	Yes
S29	5C01006519ACA1	3910081044421800	035	111VFL	—	.5	11-24-76	S	7095	Yes
S30	5C01006531CDD1	3907471044424101	035	111ALFP	—	.5	5-6-77	S	7320	Yes
S31	5C01006533BDB1	3908211044402901	035	111ALFP	.4	—	5-3-77	S	7160	Yes
S32	5C01006601DBA1	3912321044432500	035	111VFL	—	S	11-24-76	S	6955	Yes
S33	5C01006618ABB1	3911141044491300	035	111VFL	—	.1	11-18-76	S	7040	Yes
S34	5C01006625DAC1	3908541044431501	035	111VFL	.7	—	5-6-77	S	7260	Yes
S35	5C01006706ADA1	391248104553100	035	111AVMT	—	2.0	5-13-76	H	6765	Yes
S36	5C01006723CDD1	390947104515300	035	111VFL	—	2.0	11-18-76	S	7020	Yes
S37	5C01006728DBA1	390901104533300	035	111VFL	—	2.0	6-16-76	S	7120	Yes
S38	5C01006732AAA1	390839104542300	035	111AVMT	—	2.0	5-4-76	S	7220	Yes
S39	5C01006735CAA1	390808104513100	035	111VFL	—	3.0	11-18-76	S	7215	Yes
S40	5C01006509BAB1	390651104403001	041	111ALFP	—	3.0	5-4-77	S	7260	Yes

Table 4.--*Chemical analyses of water from springs*

EXPLANATION OF DATA

COUNTY:

035 = Douglas County

041 = El Paso County

AQUIFER:

Holocene and Pleistocene

111ALFP--Alluvium, flood plain

111AVMT--Alluvium, terrace

111VLFL--Valley-fill deposits

Oligocene

123CRCK--Castle Rock Conglomerate

Eocene

124DWSN--Dawson Arkose

Paleozoic

300PLZC--Paleozoic Erathem

UNITS:

micromhos = micromhos per centimeter at 25°C

°C = degree Celsius

mg/L = milligram per liter

µg/L = microgram per liter

1 milligram per liter = 1,000 micrograms per liter

Table 4.--Chemical analyses of water from springs--Continued

Site number on plate	Local spring number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Discharge (gal/min)		Specific conductance (micro-mhos)	pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
						Measured	Estimated or reported							
S1	5C00806520BBA1	392050104415000	035	124DWSN	76-11-02	—	1.0	185	6.9	9.0	73	0	24	3.2
S2	5C00806626CDA1	391920104445400	035	124DWSN	76-07-24	—	6.0	170	6.8	11.0	67	0	21	3.6
S3	5C00806725ADL1	39193410445001000	035	111VFL	76-06-24	18.0	—	425	7.3	12.5	180	57	63	6.4
S4	5C00806735ABCL1	3918541044512100	035	111VFL	76-09-01	—	5	195	6.7	19.0	71	17	24	2.7
S5	5C00806817CAA1	392118105013400	035	111ALFP	76-08-11	—	.75	235	6.5	10.0	85	5	28	3.7
S6	5C00806823ABAI	3920441044575500	035	111ALFP	76-08-11	—	.1	135	6.4	15.0	58	4	19	2.5
S7	5C00806823DBBI	3920211044580400	035	111VFL	76-07-29	—	.1	140	6.5	15.0	56	15	18	2.6
S8	5C00806823DCBI	3920081044580700	035	111VFL	76-07-29	—	.1	190	6.7	15.0	79	10	26	3.5
S9	5C00806826DBAI	3919291044575700	035	111VFL	76-07-29	—	.1	165	6.5	10.0	70	12	22	3.7
S10	5C00906521CCD1	3914491044404000	035	123CRCK	77-02-11	2.0	—	175	6.5	7.0	68	14	21	3.8
S11	5C00906608BCCI	3916541044484300	035	123CRCK	76-09-17	—	3.0	165	6.7	20.0	65	21	20	3.6
S12	5C00906610BDBI	3917091044461100	035	111VFL	76-09-10	—	1.5	320	6.7	11.0	130	16	42	6.8
S13	5C00906610BDCI	3916581044460500	035	111VFL	76-09-16	—	.25	265	7.1	17.0	110	0	36	5.3
S14	5C00906617DBCI	3915561044470900	035	111VFL	76-09-10	—	.1	540	7.4	13.0	240	0	76	12
S15	5C00906630BCAI	3914311044493800	035	111VFL	76-11-19	—	.5	225	6.9	5.0	88	31	27	5.1
S16	5C00906635BAA1	3913521044445300	035	111VFL	76-11-23	—	3.0	540	7.0	6.0	240	0	74	13
S17	5C00906701DBBI	3917421044501500	035	111VFL	76-07-09	—	.5	118	6.4	17.5	42	5	13	2.3
S18	5C00906706DADI	3917401044552700	035	111VMT	76-06-02	—	.1	90	5.3	12.0	34	14	10	2.1
S19	5C00906713BBCI	3916221044505500	035	123CRCK	76-06-24	—	4.0	175	6.9	18.0	71	0	21	4.5
S20	5C00906722CDBI	3914551044524700	035	111ALFP	76-07-03	1.8	—	185	6.6	11.0	71	28	22	3.8

Table 4.--Chemical analyses of water from springs--Continued

Site number on plate 1	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Car-bonate (CO ₃) (mg/L)	Alka-linity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved nitrite plus nitrate (N) (mg/L)	Dissolved ortho-phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
S1	8.3	0.4	2.4	99	0	81	10	2.8	0.4	39	140	—	0.20	0.17	5	30	50	0	1
S2	8.0	.4	1.5	93	0	76	7.0	1.7	.4	35	127	—	.49	.09	5	20	60	0	1
S3	18	.6	2.7	155	0	127	50	8.9	.8	44	307	—	8.1	.26	4	30	20	0	5
S4	11	.6	.2	66	0	54	24	3.6	.5	44	161	—	4.2	.02	0	4	30	10	3
S5	14	.7	2.2	98	0	80	15	9.8	2.3	20	144	—	.09	.03	0	20	0	0	0
S6	3.1	.2	1.5	66	0	54	9.8	2.1	.7	31	103	—	.15	.03	0	30	80	130	1
S7	3.9	.2	1.7	50	0	41	14	2.2	.3	28	106	—	2.4	.03	0	20	0	0	1
S8	6.7	.3	1.8	85	0	70	14	6.3	.3	28	131	—	.54	.04	1	20	10	0	4
S9	2.6	.1	2.1	71	0	58	11	1.5	.3	25	115	—	2.5	.07	1	20	40	10	3
S10	5.5	.3	1.9	66	0	54	10	5.7	.3	40	132	—	2.4	.24	1	10	20	0	2
S11	5.4	.3	1.6	53	0	43	23	2.9	.2	34	124	—	1.5	.05	1	20	210	30	1
S12	14	.5	3.1	143	0	117	20	9.6	.5	32	211	—	2.6	.30	1	30	20	0	1
S13	12	.5	3.7	149	0	122	8.1	4.9	.6	40	185	—	.15	.10	0	50	120	160	0
S14	35	1.0	.6	309	0	253	23	17	1.2	42	361	—	.13	.20	50	50	20	50	0
S15	8.8	.4	1.5	70	0	57	34	7.2	.3	30	150	—	.27	.16	0	20	40	10	1
S16	27	.8	1.7	308	0	253	18	20	.6	37	345	—	.00	.19	2	60	180	790	0
S17	5.6	.4	4.2	45	0	37	14	5.4	.1	32	99	—	.02	.09	1	50	170	20	1
S18	2.5	.2	1.4	24	0	20	19	2.3	.3	28	81	—	.82	.02	0	—	140	0	1
S19	5.7	.3	2.0	86	0	71	9.9	3.3	.3	39	130	—	.26	.20	4	30	230	330	0
S20	6.6	.3	3.5	52	0	43	27	7.4	.2	27	138	—	3.2	.09	0	10	20	10	1

Table 4.--Chemical analyses of water from springs--Continued

Site number on plate I	Local spring number	Site identification number	County	Aquifer	Date of sample (Y-M-D)	Discharge (gal/min.)		pH (units)	Temperature (°C)	Hardness (Ca, Mg) (mg/L)	Non-carbonate hardness (mg/L)	Dissolved calcium (Ca) (mg/L)	Dissolved magnesium (Mg) (mg/L)
						Measured	Estimated or reported						
S21	SC00906724AAB1	391531104500200	035	124DWSN	76-06-25	1.3	—	6.5	9.0	56	8	17	3.2
S22	SC00906727ABD1	391434104522600	035	124DWSN	76-06-25	—	2.0	6.6	9.0	35	16	11	1.9
S23	SC00906730CDD1	391356104555800	035	124DWSN	76-05-26	—	2.0	5.6	10.0	80	29	23	5.4
S24	SC00906734BBC1	391341104530700	035	111AVMT	76-05-05	—	1.0	6.7	12.0	88	65	27	5.1
S25	SC00906803ADD1	391752104584900	035	111AVMT	76-06-10	2.5	—	7.5	15.0	150	0	42	11
S26	SC00906809DCB1	391640105002100	035	111ALFP	76-08-03	—	.5	6.6	11.0	64	4	20	3.3
S27	SC01006507BBB1	391204104430000	035	124DWSN	77-02-10	2.0	—	6.1	5.0	26	10	84	1.3
S28	SC01006519ABD1	391012104421600	035	111VFL	76-11-24	—	5.0	6.0	9.0	83	1	25	5.1
S29	SC01006519ACA1	391008104421800	035	111VFL	76-11-24	—	.5	6.6	5.0	120	7	34	7.8
S30	SC01006531CDC1	390747104424101	035	111ALFP	77-05-06	—	.5	6.4	7.0	45	5	13	3.0
S31	SC01006533BDB1	390821104402901	035	111ALFP	77-05-03	.4	—	6.5	7.0	120	56	37	5.4
S32	SC01006601DBA1	391232104432500	035	111VFL	76-11-24	—	5	7.4	5.5	30	14	90	1.9
S33	SC01006618ABB1	3911141044491300	035	111VFL	76-11-18	—	.1	6.2	5.5	32	0	10	1.8
S34	SC01006625DAC1	390854104431501	035	111VFL	77-05-06	.7	—	7.6	18.5	78	18	24	4.5
S35	SC01006706ADA1	391248104453100	035	111AVMT	76-05-13	—	2.0	6.8	6.5	62	25	19	3.6
S36	SC01006723CBB1	3909471044515300	035	111VFL	76-11-18	—	2.0	7.2	9.0	43	4	14	2.0
S37	SC01006728DBA1	390901104453300	035	111VFL	76-06-16	—	2.0	5.9	13.0	30	17	94	1.7
S38	SC01006732AAA1	3908391044542300	035	111AVMT	76-05-04	—	2.0	5.9	10.0	56	36	17	3.3
S39	SC01006735CAA1	3908081044513100	035	111VFL	76-11-18	—	3.0	7.1	5.0	.66	1	20	3.8
S40	SC01006509BAB1	3906511044403001	041	111ALFP	77-05-04	—	3.0	6.7	9.0	46	15	14	2.8

Table 4.--Chemical analyses of water from springs--Continued

Site number on plate	Dis-solved sodium (Na) (mg/L)	Sodium adsorption ratio	Dis-solved potassium (K) (mg/L)	Bicarbonate (HCO ₃) (mg/L)	Carbonate (CO ₃) (mg/L)	Alkalinity as CaCO ₃ (mg/L)	Dis-solved sulfate (SO ₄) (mg/L)	Dis-solved chloride (Cl) (mg/L)	Dis-solved fluoride (F) (mg/L)	Dis-solved silica (SiO ₂) (mg/L)	Dissolved solids (sum of constituents) (mg/L)	Dis-solved nitrate (NO ₃) (mg/L)	Dissolved plus nitrate (N) (mg/L)	Dissolved ortho phosphorus (P) (mg/L)	Dis-solved arsenic (As) (μg/L)	Dis-solved boron (B) (μg/L)	Dis-solved iron (Fe) (μg/L)	Dis-solved manganese (Mn) (μg/L)	Dis-solved selenium (Se) (μg/L)
S21	6.5	0.4	0.9	58	0	48	17	3.8	0.2	36	120	—	1.5	0.18	4	10	0	0	2
S22	3.3	.2	2.6	24	0	20	14	5.0	.1	28	87	—	1.9	.16	1	10	80	0	0
S23	5.9	.3	3.1	62	0	51	32	8.0	.3	24	133	—	.00	.06	1	—	30	20	0
S24	16	.7	3.5	29	0	24	55	17	.3	25	196	—	7.4	.01	0	—	90	10	2
S25	51	1.8	1.9	226	0	185	60	5.8	1.4	17	311	—	2.2	.02	1	—	0	0	5
S26	6.0	.3	1.8	72	0	59	9.9	1.8	2.0	17	100	—	.54	.02	1	8	150	10	1
S27	4.7	.4	.8	20	0	16	11	1.4	.1	27	75	—	2.4	.07	1	20	20	0	2
S28	8.9	.4	3.2	100	0	82	19	4.7	.2	26	145	—	.01	.20	1	40	2000	260	0
S29	13	.5	12	134	0	110	22	13	.2	22	191	—	.08	.05	2	100	400	330	0
S30	6.4	.4	3.3	48	0	39	18	3.1	.1	24	98	—	.06	.10	1	60	2600	250	0
S31	14	.6	11	71	0	58	25	16	.2	30	233	—	13	.53	1	30	30	0	3
S32	4.8	.4	1.3	20	0	16	19	3.0	.1	23	76	—	.76	.02	1	30	270	20	1
S33	10	.8	2.1	45	0	37	12	2.2	.2	24	92	—	1.4	.23	1	40	110	20	2
S34	11	.5	5.2	74	0	61	39	3.0	.2	22	146	—	.07	.00	1	40	70	10	0
S35	4.6	.3	3.9	46	0	38	26	6.1	.2	25	116	—	1.2	.00	1	—	30	0	2
S36	8.0	.5	7.7	48	0	39	24	5.2	.3	15	100	—	.00	.04	0	60	180	20	1
S37	1.8	.1	1.4	16	0	13	17	2.1	.2	29	76	—	1.1	.05	0	5	20	0	1
S38	5.2	.7	2.7	24	0	20	37	1.8	2.7	19	102	—	.31	.01	0	—	30	110	0
S39	5.1	.3	3.7	79	0	65	5.6	3.5	.2	24	107	—	.29	.13	0	30	130	80	0
S40	6.7	.4	3.8	39	0	32	23	6.2	.1	19	100	—	1.0	.06	0	20	90	80	1

Table 4.--Chemical analyses of water from springs--Continued

Site number on plate I	Dissolved sodium adsorption ratio (Na)	Dissolved potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Alkalinity as CaCO_3	Dissolved sulfate (SO_4)	Dissolved chloride (Cl)	Dissolved fluoride (F)	Dissolved silica (SiO_2)	Dissolved solids (sum of constituents)	Dissolved nitrate (NO_3)	Dissolved orthophosphorus (P)	Dissolved arsenic (As)	Dissolved boron (B)	Dissolved iron (Fe)	Dissolved manganese (Mn)	Dissolved selenium (Se)
	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)	($\mu\text{g/L}$)

S41	6.2	0.4	3.8	55	0	45	14	4.6	0.1	26	108	—	1.5	0.17	0	20	20	0	1
S42	7.7	.5	1.5	41	0	34	15	4.9	.2	23	106	—	3.1	.08	0	10	60	10	1
S43	9.2	.4	3.2	62	0	51	19	13	.7	19	157	—	7.0	.00	0	—	10	0	1
S44	6.3	.3	2.3	59	0	48	21	6.9	.4	32	138	—	3.1	.01	1	30	50	10	1
S45	450	5.2	73	2440	0	2000	190	210	3.1	38	2680	—	.31	.09	—	—	230	1800	—

[illegible][illegible][illegible]