

0.

94-35029

**Best
Available
Copy**

84338R02
2nd Copy

Colorado

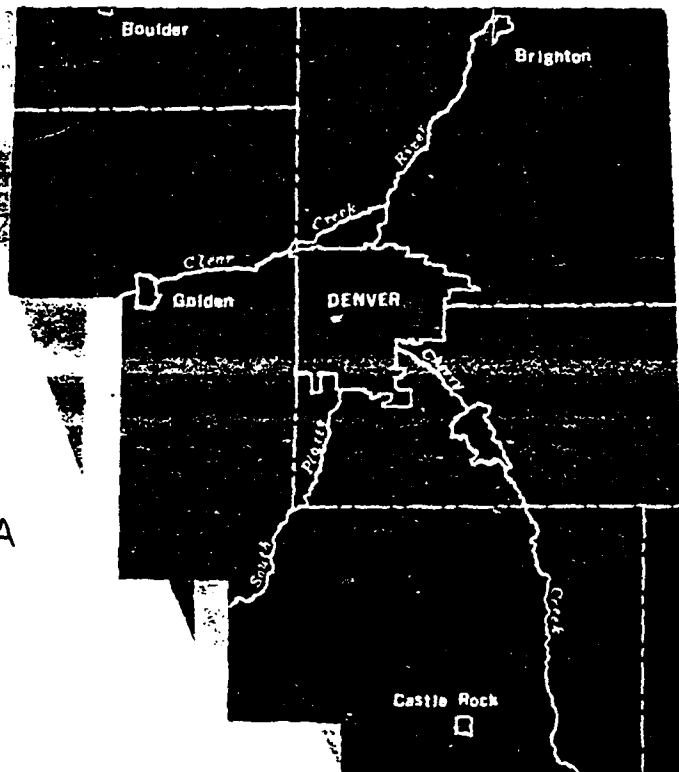
GROUND WATER

BASIC DATA REPORT NO. 15

FILE COPY

Rocky Mountain Arsenal
Information Center
Commerce City, Colorado

HYDROGEOLOGIC DATA
OF THE DENVER
BASIN, COLORADO



1964

7
63

NAME	DATE	BY
1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	33
34	35	36
37	38	39
40	41	42
43	44	45
46	47	48
49	50	51
52	53	54
55	56	57
58	59	60
61	62	63
64	65	66
67	68	69
70	71	72
73	74	75
76	77	78
79	80	81
82	83	84
85	86	87
88	89	90
91	92	93
94	95	96
97	98	99
100	101	102
103	104	105
106	107	108
109	110	111
112	113	114
115	116	117
118	119	120
121	122	123
124	125	126
127	128	129
130	131	132
133	134	135
136	137	138
139	140	141
142	143	144
145	146	147
148	149	150
151	152	153
154	155	156
157	158	159
160	161	162
163	164	165
166	167	168
169	170	171
172	173	174
175	176	177
178	179	180
181	182	183
184	185	186
187	188	189
190	191	192
193	194	195
196	197	198
199	200	201
202	203	204
205	206	207
208	209	210
211	212	213
214	215	216
217	218	219
220	221	222
223	224	225
226	227	228
229	230	231
232	233	234
235	236	237
238	239	240
241	242	243
244	245	246
247	248	249
250	251	252
253	254	255
256	257	258
259	260	261
262	263	264
265	266	267
268	269	270
271	272	273
274	275	276
277	278	279
280	281	282
283	284	285
286	287	288
289	290	291
292	293	294
295	296	297
298	299	300
301	302	303
304	305	306
307	308	309
310	311	312
313	314	315
316	317	318
319	320	321
322	323	324
325	326	327
328	329	330
331	332	333
334	335	336
337	338	339
340	341	342
343	344	345
346	347	348
349	350	351
352	353	354
355	356	357
358	359	360
361	362	363
364	365	366
367	368	

Colorado Water Conservation Board
Felix L. Sparks
Director

A-1

F. M. Peterson, Delta
David J. Miller, Greeley
Clarence E. Burr, Walden
Benjamin F. Stapleton, Jr.,
Vice Chairman, Denver

Duke W. Dunbar,
Attorney General
Gov. John A. Love,
Chairman

W. M. Williams, Director,
State Planning Commission
J. E. Whitten, State Engineer
Felix L. Sparks, Director

Will F. Nicholson, Jr.
President

William G. Temple
1st Vice President

Joseph G. Hodges,
Vice President

Gerald L. Stapp,
Vice President

R. S. Shannon,
Vice President

Robert S. Millar,
Vice President

R. B. McRae
Chief Engineer

Robert E. Wiedemann,
Business Manager

Glen G. Saunders,
Chief Council

Leonard A. Wood
District Geologist
Ground Water Branch
Water Resources Division
U.S. Geological Survey

In charge of cooperative ground-water investigations in Colorado

COLORADO WATER CONSERVATION BOARD
BASIC-DATA REPORT NO. 15

HYDROGEOLOGIC DATA OF THE DENVER BASIN, COLORADO

BY

JAMES A. McCONAGHY, GEORGE H. CHASE,
ARNOLD J. BOETTCHER, AND THOMAS J. MAJOR
U.S. GEOLOGICAL SURVEY

PREPARED BY
THE UNITED STATES GEOLOGICAL SURVEY
IN COOPERATION WITH
THE DENVER BOARD OF WATER COMMISSIONERS
AND
THE COLORADO WATER CONSERVATION BOARD
DENVER, COLORADO

1964

Table of Contents

	Page
Introduction	1
Illustrations	
Plate 1. Location of selected wells tapping unconsolidated materials and location of test holes in the Denver Basin, Colorado.	In pocket
2. Location of selected wells tapping consolidated materials in the Denver Basin, Colorado.	In pocket
Figure 1. System of numbering wells and test holes in Colorado	3
Tables	
Table 1. Generalized section of the geologic units	4
2. Records of selected wells and springs . .	8
3. Logs of wells and test holes.	83
4. Measurements of the water level in wells	182
5. Chemical analyses of water from wells and springs	204
6. Field determination of chemical quality of water from wells and springs	213
7. Specific conductance of and chloride concentrations in water from wells and springs	218
8. Radiochemical analyses of water from wells and springs	220
9. Physical properties of selected samples of water-bearing materials.	221

Introduction

This report is intended to serve two purposes: (1) To make available basic ground-water data useful in planning and studying water-resources development and (2) to supplement an interpretive report that will be published later.

The records were collected during the investigation of the geology and ground-water resources of the Denver Basin, Colo., made by the U.S. Geological Survey, 1956-63, in cooperation with the Denver Board of Water Commissioners and the Colorado Water Conservation Board. The interpretive report written by George H. Chase, James A. McConaghy, Edward D. Jenkins, and Robert Brennan, will be published later.

The well and test-hole numbers in the tables indicate their locations, as shown on plates 1 or 2. The numbering system is based on the U.S. Bureau of Land Management's system of land subdivision. The number shows the location of the well or test hole by quadrant, township, range, section, and position within the section. A graphic illustration of this method of well location is given in figure 1. The capital letter at the beginning of the location number indicates the quadrant in which the well is located. Four quadrants are formed by the intersection of the base line and the principal meridian--A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. The first numeral indicates the township, the second the range, and the third the section in which the well is located. Lowercase letters following the section number locate the well within the section. The first letter denotes the quarter section, the second the quarter-quarter section, the third the quarter-quarter-quarter section, and the fourth the quarter-quarter-quarter-quarter section. The letters are assigned within the section in a counterclockwise direction, beginning with (a) in the northeast quarter of the section. Letters are assigned within each quarter section, quarter-quarter section, and quarter-quarter-quarter section in the same manner. Where two or more locations are within the smallest subdivision, consecutive numbers beginning with 2 are added to the letters in the order in which the wells or test holes were inventoried. For example, C4-68-15daaa2 indicates a well in the northeast quarter of the northeast quarter of the northeast quarter of the southeast quarter of sec. 15, T. 4 S., R. 68 W., and shows that this is the second well inventoried in the quarter-quarter-quarter-quarter section. The capital letter C indicates the township is south of the base line and that the range is west of the principal meridian.

This report should be most useful in predicting conditions likely to be encountered when drilling a new well. The proposed drilling site can be located on plates 1 or 2, and the records of nearby wells can be examined. Other significant factors can be determined from tables 1 through 9 as follows: whether it is practical to drill deeper in search of water; the success or failure of nearby wells; type of materials likely to be penetrated by the proposed well; physical properties of formation materials; fluctuations and trends of the water table; and quality of water in relation to the intended use. These and other uses of the report will be facilitated upon release of the interpretive report.

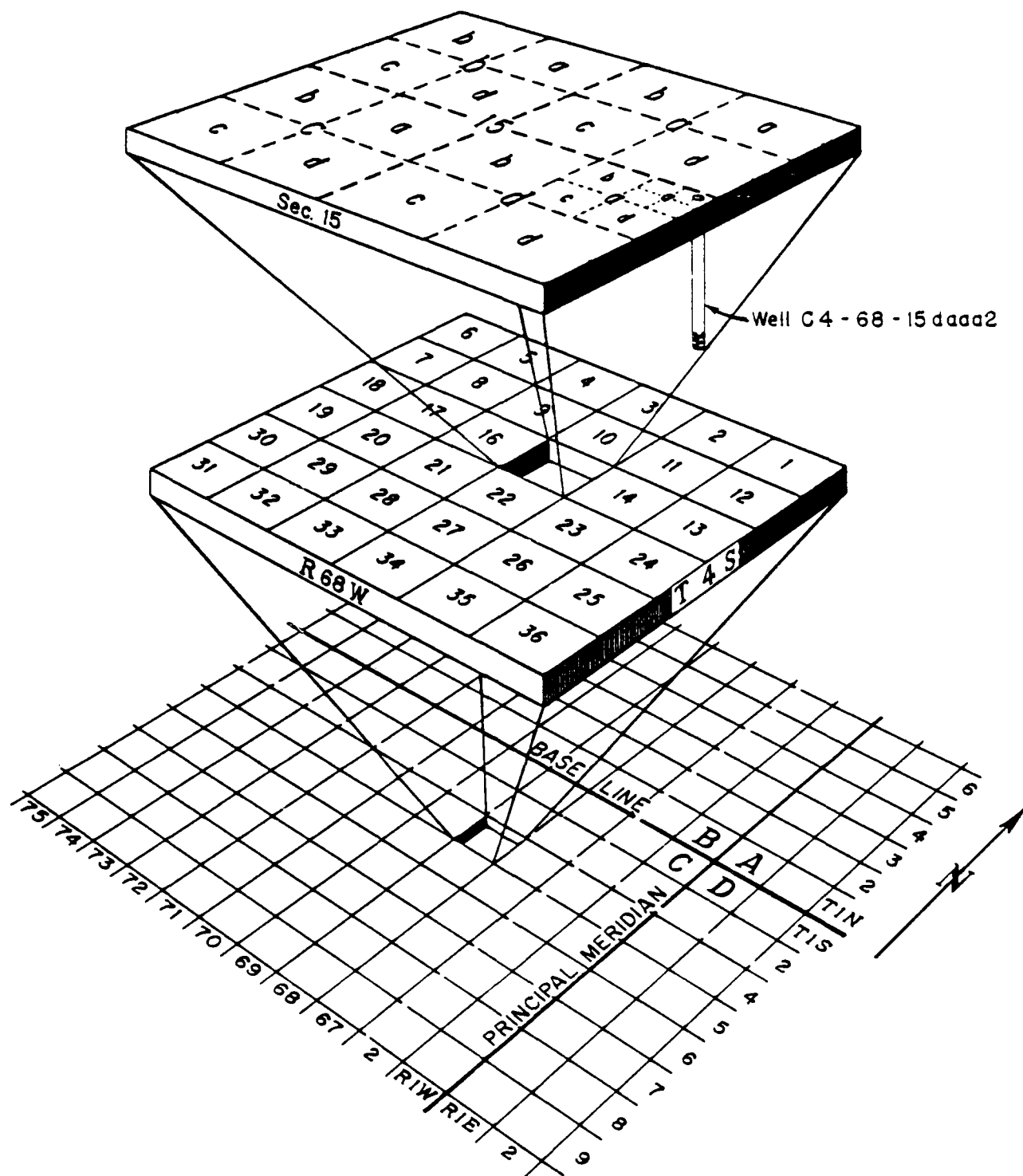


Figure 1.— System of numbering wells and test holes in Colorado.

Table 1.--Generalized section of the geologic units

Era	System or Period	Series	Geologic unit		Representative thickness (feet)	Physical character	Water supply
Cenozoic	Quaternary	Recent	Post-Piney Creek alluvium		0-10	Mostly reworked fairly clean sand and gravel in modern flood plains. Overlain in places by a few feet of dark humus-rich sandy silt	Yields small to moderate quantities of water in the principal valleys. Partly drained in upland valleys. Provides catchment for recharge to underlying gravel.
			Colluvium		0-5	Mixed sand, silt, pebbles, and cobbles. Forms veneer on most slopes. Includes fan deposits thicker than 5 feet in places along the west side of the basin	Thin deposit generally above water table. Locally yields small quantities of water.
			Piney Creek Alluvium		0-20	Well-stratified clay, silt, and sand; contains thin lenses of sand and fine gravel. Forms low terraces about 10 to 25 feet above present stream beds and fills shallow upland valleys. Locally very calcareous	Yields very small to moderate quantities of water. Quality differs, depending upon the sources of recharge. Generally rather mineralized.
			Eolian sand		0-40	Very fine to coarse poorly sorted sand and silt; forms extensive sand hills, which are generally stabilized.	Generally lies above water table; locally yields small quantities of water. Important as catchment and infiltration medium for recharge to underlying aquifers.
			Pre-Piney Creek alluvium		0-10	Silty to cobbly stratified alluvium lying unconformably on older terrace deposits	Mostly above the water table; yields little water.
			Broadway Alluvium		0-20	Pebbly well-bedded well-sorted granitic gravel. Forms terraces about 25 to 40 feet above stream beds. Pebbles mostly less than 1 inch in diameter	Yields large quantities of water where enough of it is saturated. Quality controlled principally by sources of recharge.
		Pleistocene	Younger loess		0-20	Windblown massive, compact silt with some sand vertical cut banks	Yields little or no water; hinders recharge to underlying sediments.
			Louviere Alluvium		0-60	Granitic coarse gravel; contains abundant cobbles, which form thick beds along the principal valleys. Pebbly alluvium with cobble layers near base and deformed silt layers in upper part. In many places stained with iron and manganese	Yields large quantities of water, where saturated thickness is sufficient, and small to moderate quantities from dissected remnants, especially where these overlie bedrock. Quality controlled principally by sources of recharge.
			Slocum Alluvium		0-30	Generally moderate reddish-brown silty clay and silty sand with lenticular beds of pebbles and silt. Contains much caliche, reworked loess, and reworked materials from older formations	Yields only very small quantities of water. Quality is generally poor.
			Older loess		0-5	Clayey silt, which forms vertical cut banks. Reddish-brown soil of Sangamon(?) age developed in upper part	Yields little or no water. Hinders recharge to underlying sediments.
			Verdos Alluvium		0-20	Coarse gravel and sand underlying high terrace remnants. Contains cobbles in sandy matrix, caliche, and volcanic ash	Yields moderate to large quantities of water in Beebe Draw, elsewhere, generally partly drained. Water may contain excessive fluoride. Volcanic ash and silt below water table locally reduce yields.

Table 1.--Generalized section of the geologic units--Continued

Era	System or period	Series	Geologic unit	Relative thickness (feet)	Physical character	Water supply
Cenozoic	Quaternary	Pleistocene	Rocky Flats Alluvium	0-50	Very coarse gravel, cobbles and boulders; covers Rocky Flats northwest of Denver and highest terrace remnants elsewhere. Many cobbles and boulders deeply weathered; even quartz has weathered "rinds." Locally has reddish-brown clay matrix and sand lenses. Many particles are lime-coated.	In most places partly or wholly drained. Locally yields small quantities of water.
			Castle Rock Conglomerate	30-50	Firily cemented coarse-grained conglomerate and sandstone. Maximum thickness about 300 feet.	Generally well drained and poorly permeable but may yield very small quantities of water.
Cenozoic and Mesozoic	Tertiary and Cretaceous	Paleocene			Gray, brown, dusky-yellow, and greenish-gray shale, clay, silt, shale, and siltstone; contains many lenticular beds of light-colored conglomerate, sand, gravel, and sandstone in most of the Denver basin. In many places a conglomerate zone lies from 200 to 400 feet above the base of this part; this zone is called the upper conglomerate in this report. The upper conglomeratic zone contains much andesitic material west of Denver but contains predominantly arkose or quartzose sediments elsewhere in the basin. Lenticular beds of coarse arkose gravel also lie from 200 to 400 feet above the upper conglomerate, especially south of T. 58. Beds of coarse materials in a similar stratigraphic position on Green Mountain are largely drained. Andesitic material is common in the vicinity of Green Mountain and the Table Mountains, southwest of Denver. Beds of very sandy limestone, lignite, coal, carbonaceous clay, carbonaceous silt, and carbonaceous shale are common. Toward the top of this unit south of Denver are beds of rhyolitic tuff and lava. In the Green Mountain Table Mountains area, it contains beds of more basic lava and tuff.	Yields very small to moderate quantities of water. Locally water is moderately high in iron and radioactive constituents. Upland beds drained in places. Locally moderately high concentrations of dissolved solids and objectionable odors from carbonaceous beds. Few test quality of water from the andesitic and lignitic beds. The permeability of the upper conglomerate is greatest south of T. 58, but also is considerable locally east of R. 614. The upper conglomerate generally yields the greatest quantities obtained from this part of the formation, but the lenticular gravel beds from 200 to 400 feet above the upper conglomerate zone locally yield moderate amounts of water.
			Dawson Formation	Upper part 300-1,100 Lower part 400-1,400	White to yellow arkose sand, gravel, and conglomerate interbedded with gray and green and red shale and clay. Sand, gravel, and conglomerate beds are thicker, more numerous, and more persistent than in the upper part. The thickest and most extensive zones of coarse sediments are in the upper 700 feet of this part of the formation. The beds of coarse sediments become progressively thicker and more numerous toward the southeast part of the basin. In the Denver area two persistent zones of coarse materials are recognized. In this report these are referred to as the middle conglomerate and the lower conglomerate. Each of these conglomerate zones ranges in average thickness from 50 to 200 feet. The two conglomerate zones are separated by 50 to 200 feet of shale, siltstone, and silty sandstone.	Yields moderate quantities of water except near outcrops or where affected by local faulting or folding. Water is generally of good quality, is fairly soft, and has fairly low concentrations of dissolved solids.

Table 1.--Generalized section of the geologic units--Continued

Era	System or Period	Series	Geologic unit	Representative thickness (feet)	Physical character	Water supply
Mesozoic	Cretaceous	Upper Cretaceous		400-600	Blue-gray silty shale, contains thin silty sandstone, limestone, and lignite beds. Sandstone beds generally reticular except near bottom of the unit. Coal beds scattered throughout the formation, but the thickest and most persistent coal beds are in the lower half.	Yields very small quantities of water of poor quality. Contains much hydrogen sulfide, iron, and methane.
			Laramie Formation	60-80	Salt and pepper sandstone, mostly medium grained, massive, very extensive. Well cemented along the west side of the basin, weakly cemented to marly compacted elsewhere. Coalesces with A sandstone and Milliken Sandstone Member locally, especially in the Louisville-Niobrara area.	Yields moderate quantities of water, usually of good quality except in areas of local geologic structure, where it may have troublesome amounts of methane, hydrogen sulfide, iron, or fluoride.
			A sandstone	10-100	Sandstone beds similar to those of the B sandstone but generally finer grained. Yellowish on weathered surfaces. In most places consists of thin sandstone beds interbedded with siltstone and shale but locally massive. Locally contains a little coal, especially on the west side of the basin.	Yields very small to moderate quantities of water, depending upon whether the unit consists chiefly of shale and silt or of sandstone. May have troublesome amounts of methane, hydrogen sulfide, iron or fluoride, especially in areas of local geologic structure.
			Fox Hills Sandstone Member	60-120	Fine-grained quartzose, locally silty sandstone, siltstone, and shale; contains biotite and muscovite and a large calcareous sandstone concretions. Weathered exposures characteristically yellow to yellowish green. Locally contains a little coal. Generally soft, friable. Lower part locally interbedded with silt and shale.	Yields very small to moderate quantities of water, depending upon whether the unit consists chiefly of sandstone or of shale, silt, and silty sandstone. Iron and fluoride locally troublesome.
			Transition zone	900-1,100	Interbedded very silty fine-grained sandstone and soft fine-grained sandstone and shale, becoming more shaly toward the bottom of the interval.	Not developed as a separate aquifer. Yields very small quantities of water of poor to unpotable quality.
			Pierre Shale	5,000-7,500	Gray, blue, and black shale, sandy shale, and locally silty sandstone, with thin limestone lenses and bentonitic seams.	Generally yields no water except for very small quantities of highly mineralized water near outcrops. In some places potable water obtained from fractured or weathered zones or from sandstone lenses near their outcrops.
			Niobrara Formation	100	Black to gray calcareous shale, gray to greenish-white limestone and white chalky marl.	Fractured limestone locally will yield very small quantities of rather highly mineralized water.
			Bentley Shale	500	Black brittle shale, persistent bentonite seams, chalky limestone, and thin sandstone near top.	Fractured shale near outcrop yields very small to small quantities of highly mineralized water.

See footnote at end of table.

Table 1.--Generalized section of the geologic units--Continued

Era	System or Period	Series	Geologic unit	Representative thickness (feet)	Physical character	Water supply
Mesozoic	Cretaceous	Lower Cretaceous	Dakota Group	South Platte Formation	Gray-white fine- to medium-grained friable to firm sandstone; thin bedded to massive, ripple marked; foras hogbacks	Yields small to moderate quantities of water near outcrop areas. Water locally contains excessive iron.
					Dark-gray silty carbonaceous shale; locally fossiliferous; contains fine clay	Yields no water.
					Gray coarse-grained sandstone; locally conglomeratic and crossbedded	Yields small to moderate quantities of water in and near outcrop.
	Jurassic	Upper Jurassic	Morrison Formation	60	Vaticolored silty sandstone, marlstone, limestone, red silty mudstone, and local gypsum beds. Purple, red, gray, greenish gray, green, and yellow colors common	Not developed as an aquifer. Sandstone beds might yield small quantities of rather highly mineralized water close to outcrops.
			Salston Creek Formation	300	Principally varicolored claystone, limestone, and calcareous siltstone, commonly gray, grayish red, or grayish orange. At the base is a 5-foot bed of fine- to medium-grained calcareous sandstone	Not developed as an aquifer. Basal sandstone bed might yield small quantities of water close to outcrops.
Paleozoic	Triassic(?) and Permian(?)		Lykins Formation	400	Interbedded soft sandstone and sandy shale with thin limestone beds	Not developed as an aquifer.
			Lyons Sandstone	200	Friable crossbedded quartzose sandstone	Yields small to moderate quantities of water near outcrop.
	Carboniferous	Pennsylvanian	Fountain Formation	1,100	Crossbedded very arkosic conglomeratic sandstone, interbedded with mudstone and siltstone. Foras Red Rocks Park and amphitheater and Foxborough Park	Yields small quantities of water near outcrop. Water may contain excessive iron and fluorides; may be excessively mineralized in faulted areas and may be contaminated with dead oil, especially near the base.
					Granite, gneiss, schist, quartzite, pegmatites, quartz veins, and intrusive igneous rocks	Yields very small to small quantities of water from fractured and weathered zones. Water generally of fair to good quality; locally, however, may contain excessive amounts of iron and be somewhat hard.
	Precambrian		Crystalline rocks			

J. Emmons, S. F. Cross, Whitman, and Eldridge, G. H., 1896, p. 73.

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
CL-55-															
1	11d5a	2,580	D. Patton	1942	63R	18	Ql	T.E	Irr	..	..	17.9	5,105	8-1-57	A160, Dr; F
1	11d5c	1,780	.. do. ..	1943	40.9	18	Ql	T.E	Irr	..	..	17.3	5,093.0	8-1-57	A40, Dr; F; F20
1	11d5d	1,360	.. do. ..	1955	62.5	18	Ql	T.E	Irr	1,095M	18.6	1/4	5,115.0	8-1-57	A100, B56; Dr; F; T50
1	11d5b	1,310	.. do. ..	1948	62.4	18	Ql	T.E	Irr	755M	16.0	10	5,115	7-10-57	A160, Dr; F; T54
1	14b5d	4,000	.. do. ..	1943	43R	30	Ql	N	Irr	345M	10.7Ry	1/4	5,118.0	8-1-57	D; F20; U(1951)
1	14b5c	1,150	.. do. ..	1955	62.2	18	Ql	T.E	Irr	..	..	34	5,120	8-1-57	A40, Dr; F
1	14b5e	2,750	.. do. ..	1940	43R	24	Ql	N	Irr	..	..	20.5	5,123.0	8-1-57	Dr; F20; U(1957)
1	14b5d	1,450	E. Madigan	1950	70.0	18	Ql	T.E	Irr	745M	13.4	3/4	5,142.0	7-11-57	A120, Dr; F; T54
2	15baab	5,140	P. Wagner, Sr.	1960	248R	4	Tkdu	S.E	D	12R	24	..	5,219	11-10-60	Dr; L; Tch164-228
1	21caaa	2,420	R. Uyehara	1950	57R	6	Qv	..	D	810R	2	1-1/2	5,148	3-22-56	B54; Dr; L; F239-57
1	21cdaa	1,070	.. do. ..	1956	58.5	18	Qv	T.E	Irr	..	..	28.3	5,157	7-29-57	A80, Dr; L; F239-57
1	21cdad	10	.. do. ..	1955	58.8	18	Qv	T.E	Irr	835M	22.5Ry	1/4	5,162.9	11-4-57	A80, B80; DL; Dr; F; Tch10-60; T54
1	26b5d	4,100	J. Martin	1954	63.2	18	Qv	T.E	Irr	650M	11.9	1/4	5,172.0	7-29-57	A110, Dr; T55
1	26b5a	3,650	J. Sutton	1949	63.9	18	Qv	T.E	Irr	365M	27.0Ry	1/4	5,168	7-30-57	A160, Dr; F; T54
1	26b5d	2,820	.. do. ..	1955	68R	6	Qv	..	D	820R	2	1-1/2	5,172	8-24-55	B67, Dr; L; F248-68
1	26c5a	2,650	.. do. ..	1955	62.9	18	Qv	N	Irr	..	..	33.5	5,175.0	7-30-57	Dr; U(1953-57)
1	26c5d	1,450	.. do. ..	1955	66R	18	Qv	T.E	Irr	600R	12	1/4	5,180	9-26-56	A160, B63; DL; Dr; GE; Tch10-60
1	26b5d	1,320	J. Martin	1951	64.8	18	Qv	T.E	Irr	389M	10.1	1/4	5,186.0	7-29-57	A110, Dr; T55
1	26c5c	30	.. do. ..	1950	63.9	18	Qv	T.E	Irr	1,045M	15.6	5	5,188.5	7-29-57	A110, B66; Dr; F; Tch11-4-57; T5.5
2	27d5d	75	Box Elder Farms	1950	166R	6 to 4	Tkdu	..	D	815R	45	3	5,184	12-11-56	Dr; L; F2123-166
2	31b5a	5,200	.. do. ..	1953	380R	6 to 4	Tkdu, Kdmc	..	D	..	..	..	..	..	DL; Dr; F242
CL-66-															
1	1ba5c	4,650	F. Diamond	1944	70R	18	Qv	T.E	Irr	..	17.8	1/4	4,960	12-5-57	A135; Dr; Su; WS
1	1cb5c	2,220	D. and J. Kilker	1953	65R	18	Qv	T.E	Irr	1,520M	..	..	5,042	4-11-62	A160 (with lcccb); Dr; GE; Lcc45-65; Su; WL(12-11-57); T2.7
1	1cb5c	710	F. Dryer	1956	56.9	18	Qv	T.E	Irr	..	..	..	5,035.0	4-11-62	A60; Dr; WL(11-7-57); T1.9
1	1cc5b	400	D. and J. Kilker	1956	65R	16	Qv	T.E	Irr	..	..	..	5,042	..	A160; Dr; F249-65; Su
2	4cd5d	120	J. Devanthal, Jr.	1955	160R	6 to 4	Kd1c	S.E	D	820R	85	3	5,075	10-9-59	B15; Dr; L; Tch120-160; WL(8-55); T00
2	4d5c	900	Papas Rexall Drug	1955	188R	6 to 4	Kdmc	..	D	815R	10	1	5,110	6-20-55	B42; Dr; L; Tch148-188
2	4d5c	300	E. Shidlar	1958	720R	6 to 4	Kdmc, Kd1c	S.E	D	15R	..	..	5,105	9-10-58	B30; Dr; F20; L; F2160-180, 360-390. Well plugged back to 420 feet
2	5ab5a	5,200	M. Gettle	1954	257R	6 to 4	Kdmc	..	D	5R	..	..	5,005	3-8-54	Dr; L; Tch216-256
1	5bb5c	4,700	R. Mayeda	1954	33.2	48	Ob, Ql	T.E	Irr	800R	15	1	4,972	10-12-55	A60; B35; D; F; GE; L; F217-35
1	5cd5d	30	J. Thimling	1954	11R	48	Ob	C.E	Irr	..	..	..	4,982.7	10-10-57	A10; Su
1	6a5b	4,800	J. Correntino	1940	30.3	48	Ob, Ql	T.E	Irr	485M	..	..	4,972	9-22-57	A50; D; F; F218-10
1	6ab5c	4,700	Great Western Sugar Co.	1956	47R	40	Ob, Ql	T.E Ind, C, Pr	500R	12	24	20.0P	4,969	10-6-60	AT; B36; D; L; F220-15
2	6ac5c	3,350	L. Scepceak	1954	79R	6 to 4	Kd1c	S.E	D	820R	73	4	4,975	9-24-56	B38; Dr; L; F2168-719
1	6acd	2,700	G. Van Houten	1953	41.3	48	Ql	T.E	Irr	480M	7.5	1/6	4,976	10-12-55	A40; D; F; F228-40; T57
1	6ad5c	2,700	.. do. ..	1955	38.5	48	Ql	N	Irr	200R	..	..	4,975.8	4-11-62	U(1955-57); WL(10-12-55); T0.3
1	6bad	4,680	Great Western Sugar Co.	1948	35R	60	Ob, Ql	T.E Ind, C, Pr	300R	15	..	..	4,971	10-6-60	Dr; F210
1	6b5a	4,500	.. do. ..	1948	34R	12	Ob, Ql	T.E	D	100R	2	..	4,971	1-23-61	Dr; F210
1	6b5a	2,500	Kuner-Empson Co.	1940	16.7	180	Ob, Ql	C.E	C, Pr	100E	..	..	4,971	1-23-61	D; Su
1	6b5a	2,600	.. do. ..	1940	21.1	18	Ob, Ql	C.E	C, Pr	100E	..	..	10.9	1-23-61	B2; Dr; Su
1	6b5a	2,630	.. do. ..	1940	17.0	96	Ob, Ql	C.E	C, Pr	200E	..	..	4,960	1-23-61	B2; Dr; Su
1	6b5c	1,450	J. Wells	1950	25R	30 to 14	Ob, Ql	J.E	Irr	50E	..	..	4,953.1	11-4-57	A3; D; F; WL(9-27-56); T1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	Cl-66-														
1	6cbdd	1,360	City of Brighton.	1955	35A	18	Ob.-Q1	T.E	P8	600R	17	2	4,961	12-59	B28; Dr; L; Lot16-31
1	6dabd	1,160	do.	1947	18	18	Q1	T.E	P8	500R	3	17	4,977	12-59	Dr; Q1
1	6dbbc	2,040	do.	1956	42R	18	Q1	T.E	P8	400R	14	23	4,976	12-59	B41; Dr; Q1; L; Lot37-42; M8
1	6dabc	850	L. Lindsey.	1956	40R	6	Ob.-Q1	C.E	D	10R	1	25	4,977	6-19-56	B19; Dr; L; P22-40
1	7abac	4,830	City of Brighton.	1958	40R	144	Ob.-Q1	C.E	P8	1,000R	6	21	4,984	12-59	B21; Dr; M8; Pumped in battery with 7abbd and 7abdd2
1	7abac2	4,950	do.	1933	33A	48	Ob.-Q1	C.E	P8	600R	6	21	4,984	12-59	Dr; M8; P20-60
1	7abba	5,175	Gaylor's Store.	1959	60R	5	Ob.-Q1	T.E	AC	15R	17	18	4,982	4-20-59	Dr; L; P20-60
1	7abba2	4,800	City of Brighton.	1910	50R	144	Ob.-Q1	C.E	P8	1,000R	6	21	4,984	12-59	Dr; M8
1	7abba2	4,960	do.	1918	40R	144	Ob.-Q1	C.E	P8	1,000R	6	21	4,984	12-59	D
1	7abbc	3,480	do.	1950	62R	48	Ob.-Q1	M	P8	350R	42	20	4,985	12-9-60	B31; D; P215-31; U(1960). Pumped dry in 15 minutes
1	7abbd	3,450	do.	1950	65R	18	Ob.-Q1	M	P8	..	..	18.8	4,985	12-9-60	Dr. Pumped dry in 15 minutes
1	7abbd	3,480	do.	1959	65R	18	Ob.-Q1	M	P8, B	1,300R	..	18	4,972	12-9-60	Dr; U(1960)
1	7abbd	2,170	do.	1956	65.6	18	Ob.-Q1	T.E	P8	1,600R	..	23.3	4,988	8-11-56	Dr; WL(12-59)24
1	7abba	2,600	J. Sanders.	1955	60R	6	Ob.-Q1	T.E	D	810R	20	20	4,983	10-12-55	B57; Dr; L
1	7abba	1,150	C. Hase.	1910	30R	72	Ob.-Q1	T.E	Irr	175M	2.8	22.9	4,990	9-18-56	Al; D; T55
1	7acdd	50	M. Stewart.	..	24.7	96	Ob.-Q1	T.E	Irr	500R	3.5	21.1	4,994	10-14-55	Al; D; T
1	7adcc	1,400	R. Sakata.	..	31.3	96	Ob.-Q1	T.E	Irr	295M	..	20.1	4,989.6	4-15-62	M40; D; P151; WL(10-19-55)18.5
1	7adcd	1,320	do.	1951	32.4	48	Ob.-Q1	T.E	Irr	430M	10.2	336	4,988	10-19-55	M40; D; P1201; T55
1	7abba	2,570	Sakata Bros.	1955	32R	6	Ob.-Q1	T.E	D	B25R	5	20	4,987	2-17-55	B30; Dr; L; P213-12
1	7abeb	1,950	City of Brighton.	1951	55.9	18	Ob.-Q1	T.E	P8	680M	2.3	6	4,988	8-11-56	AT; WL(12-59)16; M8
1	7acbb	520	do.	1957	61R	18	Ob.-Q1	T.E	P8	1,400R	10	6	4,992	2-16-57	B61; Dr; L; Q1; P42-62; T5; M8
1	7adcc	30	R. Mayeda	1951	34.1	48	Ob.-Q1	T.E	Irr	480M	4.9	1/4	4,992	10-12-55	A23; P; P119; T54
2	8dccc	50	J. Mattive.	1955	280R	6	Kdmc	S.E	D	10R	..	..	5,031	..	..
2	9cccc	75	E. Tepe	1955	167R	6 to 4	Kdmc	..	D	810M	50	1	5,050	7-25-55	B26; L; Tchl15-167
1	11cdcc	75	L. Baker	1955	64R	6	Qv, TKdu	..	D	810R	20	2	5,080	3-24-55	M40; Dr; L; P43-63
1	11dcaa	1,150	J. Ball	1923	55R	72 to 36	Qv	T.E	Irr	650R	..	25.2	5,011	12-9-57	A50; D; T
1	11dbbd	750	K. Furuta	1947	55.5	16	Qv	T.E	Irr	460M	3.7	10	5,051	9-28-57	A37; AT; P; T52
1	12abdc	4,280	L. Tracy	1955	160R	6 to 4	Kdmc	S.E	D	B20R	40	2	5,020	3-22-55	M44; Dr; L; P2130-160
1	12bbcb	4,520	J. McMorrow	1924	28.1	60	Qv	M	Irr	..	..	19.9	5,042	10-12-55	D
2	12bbcb2	4,500	do.	1938	137R	5 to 3	Kdmc	J.E	D	..	..	..	5,035	..	B65; Dr; L; P60
1	12bbcb3	4,550	do.	1954	62.8	18	Qv	T.E	Irr	985M	5.7	1/4	5,042.0	4-11-62	AT; B63; Dr; L; Lot33-63; T561; WL(10-12-55)20.3
1	12cbba	2,800	Mile High Duck Club	1954	70R	18	Qv	T.E	Irr	1,200R	..	27.3	5,041	12-9-57	A120; B63; Dr; P; L; Lot41-71; B61
1	12dbdb	1,800	K. Green.	1954	40R	18	Qv	T.E	Irr	800R	..	4.7	5,035	4-11-62	A75; B40; DL; Dr; Lot43-49.3; WL(12-5-57)14.9
1	12dccc	20	J. Green.	1956	57R	18	Qv	T.E	Irr	1,500R	..	4.7	5,038.0	12-9-57	A350; Dr; P
1	12dada	150	K. Green.	1954	52R	18	Qv	M	Irr	120R	34	2	5,052	6-14-54	B50; Dr; Q1; L; Lot39-54; U(1954-57)
1	13bbcd	4,100	S. Milliken	1954	64R	18	Qv	T.E	Irr	1,300R	21	2	5,041.5	4-11-62	A200; B62; Dr; P; L; Lot39-69; WL(10-28-57)3.9
1	14abbl	5,100	N. Flitner.	1946	63R	18	Qv	T.E	Irr	1,200R	..	23.5	5,059	12-10-57	A80; Dr; P; P40
1	14dccc	40	A. Green.	1956	74R	18	Qv	T.E	Irr	..	..	16.0	5,058.0	4-11-62	A130(with 2 wells); M71; B2; Dr; P; L; Lot41-71; B61; WL(10-28-57)17.0
1	14ddcd	40	do.	1950	55R	18	Qv	T.E	Irr	..	..	15.8	5,062	12-9-57	Dr; P; B6

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	166-15dcb	1,270	Hood-Shaw Estate	1954	105R	6	Kdmc	T.E	D	10R	12	1	5,090	12-1-54	Dr. L. P185-105
2	17aabb	5,150	J. Case	1958	100R	6 to 4	Kdmc, Kdlc	T.E	D	15R	135	115	5,035	11-22-58	B42; Dr. L. P1244-290
1	17cbcc	1,620	L. Derrae	1955	27.7	36	Q1	T.E	D	5R	16	2	5,028	3-8-55	B39; Dr. L. P123-43
1	17cbdc	1,450	do.	1947	27.7	36	Q1	T.E	Irr	5R	16	2	5,026.7	4-15-62	A110; Bv1; D; F; P18; ML(10-19-55)23.6
1	17cbdd	1,350	do.	1956	34R	18	Q1	T.E	Irr	60M	7	24	5,029.0	7-23-56	DL; Dr. F
1	17cccd	90	do.	1945	34.5	48	Q1	T.E	Irr	60M	23	1	5,027.7	10-19-55	Bv1; D; F; P18
1	17dcd	330	K. Muter	1954	38R	5	Q1	T.E	D	85R	23	1	5,035	8-11-54	B12; DL; Dr. P122-18
1	18aacc	4,900	A. Mildow	1955	42R	18	Qb, Q1	T.E	Irr	350R	1	1	4,993.4	10-14-55	A40; B10; Dr. GE; L; P120; Su
1	18accc	2,650	T. Palizzi	1936	42.1	48	Qb, Q1	T.E	Irr	1,460M	1	1-1/2	4,984.0	10-14-55	D; F; P15; T55
1	18abbb	5,100	C. Montandon	1956	43R	6	Qb, Q1	T.E	D	820R	9.1	1/4	4,934	3-5-56	B41; DL; Dr. P125-43
1	18cbab	3,950	do.	1955	63.2	48	Qb, Q1	T.E	Irr	1,400M	9.1	1/4	4,997.8	10-18-55	B62; D; DL; F; GE; P140-62; T55
1	18cccd	2,650	do.	1955	39.3	48	Qb, Q1	T.E	Irr	640M	8	1	5,000.0	10-17-55	A67; D; F; P120; Su
1	18ccdd	2,680	A. Hattendorf	1923	35.0	96	Qb, Q1	C.E	Irr	770M	4.2	1/4	5,000	10-7-55	B35; D; P19
1	18dbbb	3,950	R. Sakata	1955	41.9	48	Qb, Q1	T.E	Irr	770M	4.2	1/4	4,997.1	4-15-62	D; F; P120; T55; ML(10-18-55)21.3
1	18cacc	1,350	A. Hattendorf	1921	32.6	96	Qb, Q1	T.E	Irr	645R	1	1	5,002.0	10-7-55	D; FD; MSP
1	18ccccc	50	do.	1920	46.0	96	Qb, Q1	T.E	Irr	365M	1	1	5,006	10-7-55	A160; D; T55
1	18ccdd	50	do.	1954	35.3	48	Qb, Q1	T.E	Irr	662M	1	1	5,005	10-7-55	D; P14; T55
1	18cdcc	50	do.	1949	39.3	48	Qb, Q1	Cyl, H	D, Ot	775R	15	2	5,008.8	4-15-62	B41; D; WS
1	18dbcc	1,320	J. Schloo	1955	45R	18	Qb, Q1	N	Irr	775R	15	2	5,005	8-4-55	B45; GE; L; Lo20-45
1	18dbcc2	1,350	do.	1940	34.5	48	Qb, Q1	T.E	Irr	600R	15	1/4	5,002	9-29-55	A100(with 2 walls); D; F; P15
1	18dccc	50	do.	1918	27.7	48	Qb, Q1	C, Tr	Irr	550R	19.2	1	5,006	9-29-55	B28; D; F; P15
1	19bbcc	3,980	G. Morimiau	1955	51.9	48	Qb, Q1	T.E	Irr	830M	10.0	1/4	5,011.0	10-17-55	D; DL; P16
1	19bcaa	3,950	do.	1934	36.9	48	Qb, Q1	T.E	Irr	480M	9.2	1/4	5,017.0	10-7-55	A35; D; F; P16; T55
1	19bccc	2,650	C. Burnett	1954	37.4	48	Qb, Q1	T.E	Irr	480M	9.2	1/4	5,017.0	12-11-57	D; F; Su
1	19cbcb	3,000	do.	1948	37.4	18	Qb, Q1	T.E	Irr	480M	9.2	1/4	5,014.0	12-11-57	A80(with 2 walls); D; F; Su
1	19cccb	550	H. Wellenhotter	1955	35.1	48	Qb, Q1	T.E	Irr	250R	4.8	1/4	5,028	10-20-55	A40; D; F; P15; T54
1	19cccd	550	do.	1934	37.0	48	Qb, Q1	T.E	Irr	455M	4.8	1/4	5,028.4	10-19-55	A40; D; F; P18; T55
1	19cdca	400	do.	1948	43.8	48	Q1	T.E	Irr	34.1	7.4	1/4	5,031	10-18-55	A25; D; F
1	19cdcc	150	M. Davis	1948	43.2	48	Q1	T.E	Irr	230E	1	1	5,049.0	10-23-55	Bv3; D
1	20bbbc	4,900	J. Robbins	1946	35.0	18	Q1	T.G	Irr	1	1	1	5,031	10-20-55	D; P19; Pumps dry in 15 minutes
1	20bcaa	3,950	Layton	1949	36R	60	Q1	T.E	Irr	1,000R	26	2	5,101.0	12-11-57	A225; B80; Dr. L; Lo30-80
1	20bcab	3,930	G. Kirby	1950	36R	to 20	Q1	T.E	Irr	1	1	1	5,032	10-20-55	A20; D; P120; Su
1	20bcd	2,650	M. Davis	1949	27.0	72	Q1	T.E	Irr	1	1	1	5,035.0	10-19-55	A5; Bv3; D; F
1	20bdcc	2,650	do.	1950	32.0	48	Q1	T.E	Irr	1	1	1	5,042	10-20-55	D; U(1957)
1	20ccdd	50	do.	1948	34.4	48	Q1	T.E	Irr	175M	1	1	5,053.1	4-15-62	Bv3; D; F; ML(10-20-55)28.7; ML(11-5-57)18.1
2	20cddd	280	G. Bailey	1946	181R	1	Kdmc	do	D	8R	34	1	5,050	1-18-46	B24; Dr. L
2	21caaa	2,450	P. Schweder	1959	219R	6	Kdmc	S.E	D-S	12R	1	1	5,090	10-9-59	B11; Dr. L; P1179-210
2	21cdca	250	Bart Lake School	1946	230R	1	Kdmc	do	S	8R	19	1	5,098	12-16-46	B15; Dr. L
2	21dcbb	1,050	D. Bartle	1946	170R	1	Kdmc	do	D	1	1	1	5,088	12-16-46	DL; Dr
2	21abba	5,050	R. Bergman	1954	66R	18	Qv	T.E	Irr	1	1	1	5,068.0	12-9-57	A200; Dr
1	21cabc	1,700	C. Lambert	1954	86R	18	Qv	T.E	Irr	1,000R	26	2	5,101.0	12-11-57	A225; B80; Dr. L; Lo30-80
1	29caac	50	Not known	1957	45R	1	Q1	Irr, S	Irr, S	1	1	1	5,092.4	10-28-57	A60; Dr
1	29ddda	100	E. Power	1948	30R	1	Qv	T.E	Irr	430M	5.6	1/2	5,052	10-24-55	A80; Bv3; D; F; P110
1	30aacc	4,260	B. Hillyar	1948	43.6	36	Q1	T.E	Irr	1	1	1	5,059.4	10-23-55	A31; D; F; P115; Su. Pumps dry in 25 minutes
1	30addd	2,700	B. Broyles	1955	38.8	48	Q1	T.E	Irr	1	1	1	5,059.4	10-23-55	A31; D; F; P115; Su. Pumps dry in 25 minutes
1	40cdcd	300	L. Amend	1935	30.6	to 20	Q1	N	Irr, Ot	60R	1	1	5,068.1	4-15-52	D; P115; U(1955-57)

Table 2.-- Records of selected well, and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	CI-66-30cdde	200	L. Amend.	1945	40R	24	Ql	T, E	Irr	350R	..	5,068	9-25-55	A70 (with 2 wells); Dr; P; P230-40
1	30cdde	20	do.	1954	48.8	16	Ql	T, E	Irr	45M	1/4	5,055	9-29-55	852; Dr; L; P; GE; P219-49
1	30dec	1,800	J. Knowlton	1946	41.3	48	Ql	T, E	Irr	270M	16.7	5,056.0	10-25-55	A180; Dr; P; P210; T56. Surgeon
1	30bed	1,500	do.	1954	35.2	48	Ql	T, E	Irr	140M	12.3	5,053	8-10-56	AT; 842; Dr; DL; Lo21-36; T54
1	32cdde	4,250	M. Dahlinger.	1954	16.0	7	Qv	M	S	..	..	5,090	10-8-62	WS
1	32cdde	1,170	G. Reasoner	1954	19.2	12	Qv	M	M	..	..	5,100.1	4-11-62	Dr; WL(10-11-55)16.3; WL(11-5-57)13.5
1	32cdde	1,000	do.	1955	30.0	18	Qv	M	Irr	..	..	5,099.0	10-11-55	Dr; P225-46
1	32cdde	500	Arden Bros.	1955	45.6	18	Qv	T, E	M	800R	..	5,100	10-10-55	845; Dr; L; P225-46
1	32cdde	80	do.	1924	42.9	94	Qv	M	M	..	..	5,110	10-10-55	D
1	32cdde	3,680	E. Dahlinger.	1913	25.0	48 to 6	Qv	J, E	S	..	..	5,095	10-6-55	D
1	32cdde	2,550	do.	1913	31.5	120	Qv	T, E	Irr	635M	..	5,102.5	11-5-57	Dr; T53; WL(10-6-55)23.6
1	32cdde	2,525	M. Dahlinger.	1941	36.2	43	Qv	T, E	Irr	380M	..	5,102	4-11-62	A40; Dr; P; T53; WL(10-11-55)22.8
1	CI-67-1ccde	1,250	Carlson Estate and Selzer.	1956	30R	18	Qpp, Ql	M	Irr	400R	24	4,960	6-11-61	B25; Dr; GE; L; WL(7-16-56)6
1	1cdde	280	O. Haake.	1938	28R	36	Qpp, Ql	C, E	Irr	600R	..	4,963	6-11-61	D
2	1cdde	300	do.	1961	693R	6 to 4	Klu	S, P	D, Dy, S	18R	..	4,960	1961	B31; Dr; FD; H9-5; L; TCh625-693
1	1cdde	300	do.	..	25R	2	Qpp, Ql	C, E	Dy	25R	..	4,960	6-11-61	On; FD
1	1cdde	1,100	Not known	..	823R	18	Qpp, Ql	T, E	Irr	..	..	4,960	7-9-54	Dr; FD; WSP
2	3cdde	100	A. Ehrlich.	1954	823R	6 to 4	Klb	..	D	810R	25	5,175	7-9-54	Dr; L; P278-823; WS
2	4ccde	350	Mountain View Water	1961	1,054R	8 to 6	Klb, K1a, K2a	S, E	P	115R	304	5,225	6-3-61	Dr; L; P278-823; WS
2	5cdde	20	W. Degenhart.	1956	126R	6	Kdec	..	S	88R	35	5,170	10-11-56	Dr; L; P266-126
2	6ccde	1,030	G. Brown.	1954	765R	6 to 4	Klb	..	D	B10R	120	5,100	5-26-54	B15; Dr; L; P266-126
2	7ccde	750	C. Miller	1955	37R	6	Kdec	..	D	B10R	1	5,165	8-25-55	B14; Dr; L; P217-17
2	8bdde	2,750	E. Edstrom.	1956	112R	6	Kdec	..	D, S	85R	78	4,955	10-31-56	Dr; L; P240-52, 64-112
2	8bdde	1,600	Papenhelm and Zickler	1958	1,005R	6 to 4	Klb, K1a, K2a	S, E	D, S	16R	..	5,162	6-3-61	B22; Dr; H9-6; L; WL(1960)202. Yielded 12 gpm at depth of 400 feet
2	9abab	5,000	H. Ehler.	1955	86R	6	TKdu	..	D	86R	35	5,148	6-28-55	Dr; L; P266-86
2	10abab	4,440	do.	1935	70R	6	TKdu	..	D	84R	28	5,100	6-29-55	DL; Dr; P250-70
2	11bab	5,100	O. Heake.	1938	127R	6	Kdec	J, E	D, S	20R	40	5,062	..	Dr; GE; L; P237-79, 97-127
1	12cdde	2,660	J. Delventhal	1926	26.2	72	Ql	T, E	Irr	640M	9.3	4,973.5	4-15-62	Dr; P; T58; WL(9-19-56)14.2; WL(11-5-57)12.5
2	12cdde	2,700	C. Miller	1956	156R	6 to 4	Kdec	S, E	D	B15R	67	4,977	10-31-56	B40; Dr; H9-5; L; P246
1	12cdde	1,350	do.	1933	24.6	48	Ql	C, E	Irr, S	..	..	4,980	9-15-56	A200; Dr; U(1956)
1	12cdde	600	A. Krogh.	1955	30R	18	Qb, Ql	T, E	Irr	700M	7.6	4,969.0	4-15-62	Dr; GE; L; P215-30; WL(11-5-57)3.6
1	12cdde	30	do.	1918	12.9	120	Qpp, Qb	T, E	Irr	450R	2.5	4,980	9-19-56	Dr; Surgeon
1	12cdde	1,160	C. Miller	1910	40R	120	Qb, Ql	T, E	Irr, S	375E	3.0Ry	4,980	9-17-56	A200; Dr; P; 80; T58
1	12cdde	100	F. Cline.	..	29.0	90	Qb, Ql	T, E	Irr	..	..	4,990	9-26-56	A5-5; D
1	12cdde	180	C. Miller	1941	48R	48 to 6	Qb, Ql	T, E	Irr	..	5.2Ry	4,990	9-17-56	Dr; P; P211-41; T56
1	13aaa	5,100	D. Holston.	..	28.9	72	Qb, Ql	T, E	Irr	..	..	4,990	10-28-55	Dr; P; Pump day in 30 minutes
2	13aad	4,880	Phillips Petroleum Co.	1956	156R	6 to 4	Kdec	..	SS	B15R	67	4,992	10-4-56	B40; Dr; Dr; P210-156
1	13aaa	4,450	O. Rose	1932	35.6	48	Qb, Ql	T, E	Irr	330M	5.8	4,992	9-19-56	A23; Dr; P; P27.5; T55
1	13aad	4,030	L. Neff	1923	27.8	60	Qb, Ql	C, G	Irr, D	350R	..	4,993	10-28-55	A3; Dr; P; P46
1	13aad	2,900	G. Quick	..	35R	48	Qb, Ql	..	D	..	..	5,000	8-5-62	Dr; WS
1	13aad	3,125	O. Rose	1930	31.2	60	Qb, Ql	T, E	Irr	330M	10.3	4,999	9-26-56	Dr; P; P215; T53

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance--north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	11badc	4,070	A. Krough.	1956	248	48	Qb, Q1	T, E	Irr	56R	4	3.0	4,970	9-10-56	D; F
1	11badc2	4,220	H. Krough.	1956	258	6	Qp, Q1	..	S	56R	4	14	4,970	2-6-56	B21; Dr; I; P213-25
1	11caaa	2,600	S. Correntino	..	31.7	120	..	..	..	..	..	..	..	..	..
1	11caca	1,800	.. do. ..	1950	30.6	60	Qb, Q1	T, E	Irr	290M	..	31.2P	4,996	9-27-56	D; F; P21; WSP
1	11cdcc	3,900	R. Copple	1950	298	60	Qb, Q1	T, E	Irr	850M	8.0	21.8	5,000.0	9-27-56	A60; B36; F; P212; T55
1	11dada	2,180	City of Brighton Cemetery	..	..	..	Qb, Q1	..	D	620R	1	15	4,995	5-11-56	B26; DL
1	11daca	1,660	E. Schnute	1955	31.6	48	Qb, Q1	T, E	Irr	425M	.88Y	25.1P	5,003	10-9-56	A7; D
1	11dbdb	1,670	.. do. ..	..	40.1	48	Qb, Q1	T, E	Irr	325M	5.38Y	28.6P	5,003.0	10-3-56	A30(with 2 wells); D; F; P212; T57
1	11dccc	2,620	F. Aichelman	1954	37.5	96	Qb, Q1	C, E	Irr	255M	6.8	26.4	5,003	10-4-56	D; F; P213; T55
2	20baed	4,200	B. Ginther	..	36.1	36	Qb, Q1	T, E	Irr	460M	8.2	20.3	5,000	9-17-56	A40; D; P216
2	20bdcb	3,000	High Plains Water Users Assoc.	1960	780R	..	Kmc, Kalc, Klu	Cyl, E	N	..	..	200	5,278	11-19-60	U(1930-60)
2	22badd	4,080	F. Carter	1960	1,200	8 to 6	Klb, Klc	S, E	PS	58R	315	295	5,321	5-27-60	Dr; EL; H16-11; L; Sa; Su; Tchl, 032-1, 200
1	23beab	3,820	T. Moir	1960	200R	..	Kalc	Cyl, W	S	10R	70	38	5,060	6-11-61	Dr; H8-6; L; P230-200
1	23ddda	4,000	Tashiro	1951	17.0	18	Qb	..	..	..	..	9.3	4,995.6	4-15-62	Dr; WL(10-10-55)8.9; WL(11-7-57)8.9
1	24adcc	3,990	S. Brand	1951	49R	18	Qb, Q1	T, E	Irr	..	..	21.2	5,018	12-11-57	A80; Dr; F; P230
1	24adcc2	2,620	S. Brand	1951	39.0	72	Qb, Q1	T, E	Irr	490M	7.6	21.9	5,008.8	11-6-55	A30; B2; D; F; P20; P210
1	24adcc2	2,650	J. Warner	1951	34.8	36	Qb, Q1	T, E	Irr	430M	8.4	21.9	5,008	9-17-56	A40; D; F
1	24adcc	3,900	S. Brand	1951	41.5	18	Qb, Q1	T, E	Irr	..	..	20.5	5,017.0	12-11-57	A40; D; F; Su
1	24adcc	1,340	J. Harding	1954	39R	48	Qb, Q1	T, E	Irr	670M	7.8	22.8	5,008.4	4-15-62	D; WL(9-7-56)21.1; WL(11-5-57)19.9
1	24adcc	80	E. Sharp	1957	38R	5	Qb, Q1	..	D	812R	1	23	5,018	2-7-57	B36; Dr; L; P220-40
1	24adcc2	20	.. do. ..	1950	41.9	24	Qb, Q1	T, E	Irr	..	..	22.9	5,019.0	10-5-55	Dr
1	24adcc2	30	.. do. ..	1955	29.5	1.0	Qb, Q1	N	N	..	..	22.7	5,019	10-5-55	D
1	24adcc	3,700	.. do. ..	1955	41.5	18	Qb, Q1	T, E	Irr	655M	12	21.4	5,020	10-5-55	B42; DL; Dr; Lo20.5-41.5; T55
1	24adcc	1,340	J. Harding	1954	39R	48	Qb, Q1	T, E	Irr	635M	13.4	20.1	5,022	12-10-57	A40; D; F; P233-39; Su
1	24adcc	50	E. Schaefer	1954	46.0	..	Qb, Q1	T, E	Irr	..	..	17.8	5,024.7	11-5-57	A50; D; F; P216; Su
1	24adcc	40	Whitebread and Johnson	1957	44R	48	Qb, Q1	T, E	Irr	..	..	19.2	5,024.0	12-10-57	T55; WL(10-20-55)24.7
1	25abbb	5,050	L. Ehlen	1956	46R	6	Qb, Q1	..	S	B20R	2	26	5,022	2-7-56	A32; D; P229.5-44; Su
1	25adcc	2,900	M. Tashiro	..	37.2	48	Qb, Q1	T, E	Irr	280M	..	23.5	5,031	10-4-55	B45; Dr; L; P226-46
1	25adcc2	2,900	.. do. ..	..	36.7	48	Qb, Q1	N	..	..	..	24.5	5,031	10-4-55	A100; B2; D; Siphone from 25adcc2
1	25adcc	2,950	E. Ehlen	1950	47.9	48	Qb, Q1	T, E	Irr	..	..	24.5	5,046.0	10-25-55	D; F; T54
1	25adcc	2,900	.. do. ..	1950	36.6	48	Qb, Q1	T, E	Irr	..	..	29.9	5,029	10-25-55	A90(with 2 wells); D; F
1	25adcc	3,980	C. Wall	1954	36.6	48	Qb, Q1	T, E	Irr	370M	..	25.7	5,022	10-4-55	A40; D; T55
1	25bdad	3,520	L. Ehlen	1942	29.8	6 to 5	Qb, Q1	Cyl, W	S	..	..	24.2	5,030	10-10-55	Dr
1	25bdad2	3,450	.. do. ..	1944	54.1	48	Qb, Q1	T, E	Irr	675M	..	29.4	5,030	10-10-55	A88; D; P212; T56
1	25bdad2	3,000	K. Sakaguchi	1954	35.2	48	Qb, Q1	T, E	Irr	375R	13	26.7	5,030	10-5-55	A25; D; DL; P21 OG; P220
1	25bccc	1,350	.. do. ..	1955	56.3	48	Qb, Q1	T, E	Irr	600R	..	25.6	5,034.4	10-5-55	A60; D; DL; G2; P219
1	25cbcd	1,600	L. Smith	1911	33.0	72	Qb, Q1	T, M	Irr	75R	..	24.7	5,030	10-12-55	A40; D; F; P26; U(1955)
1	25cdad	20	.. do. ..	1910	38.8	72	Qb, Q1	T, E	Irr	75R	16	31.6	5,043.0	10-5-55	A40; D; F; P220
1	25cdad2	100	.. do. ..	1948	40.6	48	Qb, Q1	T, E	Irr	..	..	34.8	5,043	10-12-55	A40; D; F; P220
1	25dabc	2,200	E. Ehlen	1955	39R	6	Q1	..	D	B10R	5	33	5,039	8-6-55	B38; DL; P219-39
1	25dca	700	O. Bapat	..	53R	12	Q1	T, E	Irr	..	..	..	5,051	..	Dr; P220
1	25ddcb	400	.. do. ..	..	52.2	36	Q1	T, E	Irr	..	4.8	44.4	5,059	10-26-55	A60; B2; D; F; P220; T54
1	25ddcc	60	E. Ehlen	1940	47.3	48	Q1	T, E	Irr	..	..	41.0	5,059	10-24-55	A20; B2; D; F; P215; T54

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use Yield of water	Drawdown (feet)(hour)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	Cl-67-26adda	4,000	L. Haldt.	1935	41.1	48	Qb, Ql	T, E	Irr	607M	23.2	5,022.5	10-4-55	D, F, D, Wap
1	26adda	2,820	M. Yashiro	1935	36.5	96	Qb, Ql	T, E	Irr	900M	24.1	5,025	10-4-55	A80, D
1	26addb	3,700	J. Worthing	1956	25R	6	Qb, Ql	C, E	D	20R	14	5,010	3-24-56	B20, D, L, P65-21
1	26addc	2,100	C. Ritchie	1945	27.2	48	Qb, Ql	C, E	Irr	..	16.2	5,019.4	11-5-57	D, W(8-1-55)19.3
2	26addb	2,540	B. Rice	1952	660R	..	Kmc, Kalc	..	D	..	..	5,011	..	B28, L
1	26addb	850	L. Smith	1954	56.2	48	Ql	T, E	Irr	450M	24.8	5,030	10-5-55	A40, F, P20, T56
2	32dbca	4,330	E. Cunningham	1960	435R	..	Kmc, Kalc	E, E	D, S	815R	150	5,172	9-1-60	H7-S, L, Tch359-305, 391-415
2	33cbca	1,880	A. Stepping	1960	230R	5 to 4	Kmc	..	D, Irr, L	18R	52	5,104	2-9-60	H7-41, L, Tch185-230
1	34addc	2,980	J. Masunaga	..	26.0	48	Qb, Ql	T, E	Irr	..	7.6	5,010	8-9-56	D
2	34addc	2,770	J. Johnson	..	13.3	72	Qb, Ql	C, E	Ot	..	11.5	5,020.3	4-10-62	D, U(1955-62)
2	34addb	1,970	L. Cain	..	280R	..	Kmc	..	D	..	..	5,021	..	Dr, Wap
1	34addc	30	A. Adams	1938	9.6	62	..	..	..	..	..	..	..	..
1	34addb	450	R. Hilliard	..	17.2	90	Qb	C, G	Irr, Ot	..	3.6	5,021.2	4-10-62	A6, D, F, P27
1	35acea	3,050	M. Sandlin	1955	29.4	44	Qb	C, E	Irr	..	11.5	5,022	10-13-55	A21, D
1	35acea2	3,220	.. do.	1955	33.6	46	Qb, Ql	C, E	Irr	435M	23.4	5,034	10-12-55	D, P27-30, W(8-22-55)24.6; W(11-5-57)17.5
1	35aced	2,700	E. Winfrey	..	28.0	48	Qb, Ql	C, E	Irr	185M	22.1	5,038	10-12-55	D, P29, T57
1	35aced	2,800	M. Sandlin	1937	34.5	46	Qb, Ql	C, E	Irr	485M	23.3	5,035	10-12-55	D, P29
1	35acda	2,900	Royal Chemical Co.	1955	40R	18	Qb, Ql	C, E	Ind, Irr	80R	20	5,036	10-12-55	B27, D, L, P215-27
1	35addb	3,120	J. Imatani	1955	38.9	48	Qb, Ql	T, E	Irr	..	22.2	5,034.5	10-6-55	A40, D, P210
1	35addb2	1,100	.. do.	..	38.7	48	Qb, Ql	T, E	Irr	360M	11	5,034	10-6-55	AT, D, T55
1	35abac	4,700	R. Haselbush	1924	25.7	28	Qb, Ql	T, E	Irr	320M	15.1	5,030	10-9-56	A10, B28, D, F, P216
1	35abcc	4,180	S. Karpinski	1929	23.9	48	Qb, Ql	C, E	Irr	235M	15.8	5,031	10-9-56	A7, D, F, P215, T57
1	35abcc	2,900	J. Stewart	1949	36.5	36	Qb, Ql	T, E	Irr	535M	24.1	5,035	10-12-55	D, P29
1	35abcc	1,350	E. Rucker	1935	24.9	36	Qb, Ql	T, E	Irr	..	17.2	5,030	10-13-55	A50, D, P212, Su
1	35cbdd	1,260	.. do.	1925	28.7	72	Qb, Ql	C, E	Irr	..	17.8	5,039	10-13-55	D, P212
2	35daaa	2,600	Henderson School	..	750R	..	Kmc	..	..	..	..	5,042	..	QM
1	35dbbb	2,620	W. Pagan	1933	27.9	48	Qb, Ql	C, E	Irr	..	..	..	..	..
1	35dcad	840	L. Morris	1940	40.0	36	Qb, Ql	J, E	Irr	..	24.3	5,035	10-13-55	A, F, D
1	35dcbb	1,150	Carlson	1933	32.3	46	Qb, Ql	T, E	Irr	80M	30.8	5,051	11-15-55	A35, D, F, P212
1	35dcde	20	L. Morris	1936	39.9	72	Qb, Ql	C, E	Irr	115M	25.8	5,038	11-7-55	D, P21, P29
1	35ddeb	1,260	.. do.	1935	35R	48	Qb, Ql	T, E	Irr	240M	30.0	5,051	11-15-55	D, F, P215
1	35ddec	30	A. Stadler	1945	41.8	30	Qb, Ql	T, E	Irr, D, S	..	..	5,049	..	D, P212
1	35adec	2,680	H. Chapman	1954	42R	5	Ql	T, E	Irr, D	150M	37.6	5,058.6	8-19-55	A7, S, D
1	35dbbc	3,390	F. Dyer	1954	65.8	18	Ql	T, E	Irr, D	150M	24	5,060	3-23-54	B30, D, L, D, P27-42
2	35dbcb	3,100	.. do.	1954	165R	6 to 4	Kmc	T, E	Irr, Ot	150M	53.4	5,068.6	11-4-57	MC, D, R
1	36cbda	1,750	F. Madden	1937	50R	72	Ql	..	D	815R	46	5,062	2-34	B56, D, L, Tch129-165
2	4bcac	3,600	S. Osher	1951	5,630R	..	Ql	C, E	Irr	..	41.8	5,056.0	4-11-62	A20, U(1952-55)
2	5dcdd	200	P. Nordstrom	1958	855R	4	Klb	S, E	Ql	..	325	5,268	11-20-58	EL, H6, L, P625-750. Hole plugged at 780 feet
2	9ubaa	5,100	G. Nordstrom	1958	832R	8 to 6	Klb, K1a	S, E	D	15R	260	5,488	10-6-58	Dr, F, D, H10-8, L; Tch700-832
2	10cbbc	2,280	C. Nordstrom	1959	809R	4	Klb	S, E	D	12R	235	5,268	2-17-59	Dr, EL, F, D, H6-5, L; P695-780, WS
1	10cbcb2	2,100	.. do.	..	48R	5	Qp	J, E	D	..	12.6	5,181	2-11-59	Dr, F, D, WS
2	10ddda	400	M. Washington Water Users Assn.	1958	1,006R	8 to 6	Klb, K1a, K2a	S, E	P8	40R	300	5,170	8-13-58	Dr, EL, L; Tch728-997

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) above M.S.L.	Date of measurement	Remarks
2	Cl-68-12abaa	5,180 1,500	P. Elms.	1958	875R	6 to 4	Klb	.	D	10R	225	100	5,071.6	6-17-58	Dr, EL; MS-5; L; P6600-656, 666-742. Plugged at 742 feet
1	12abaa2	5,220 1,500	do	1955	15.0	16	Op	M	M	2R	30	6.5	5,072	4-10-62	Dr, EL; MS-5; L; P6600-656, 666-742. Plugged at 742 feet
2	18ddad	700 50	W. Vogler.	1955	410R	8 to 6	Klb, Klu	S, E	D	830R	145	220	5,320	5-12-55	Dr, L; Tchl50-410
2	19abaa	5,230 1,600	Ivy Bros.	1958	865R	6 to 4	Klb	S, E	D, Dy, S	10R	145	220	5,363	1-6-58	Dr, FD; L; P6730-865; MS
2	22cbcb	1,900 5,170	C. Foster.	1912	24.4	60	Kmac	T, E	Irr	400R	..	8.6	5,186	4-22-61	Dy, S; D; F; Su
2	22ccaa	1,000 4,150	do	1956	22.34R	to 12	Kmac	T, E	Irr	350R	..	8.3	5,176	4-22-61	D; F; Su
2	22ccbb	1,280 5,160	do	1950	35.5	48	Kmac	T, E	Irr	250R	..	10.3	5,183	4-22-61	D; F; Su
2	22cccb	400 5,100	do	1916	510R	5 to 4	Klb	Cyl, E	D	75R	..	..	5,181	4-22-61	Dr
2	25bbab	5,050 4,600	K. Nelson.	1959	530R	6 to 4	Qs, Kalc, Klu	S, E	D	..	..	45	5,225	12- -59	Dr; MS
2	30aaad	4,730 320	Sunny Slopes Estates Mutual Water Corp.	1956	280R	6	Kalc	S, E	PS	11R	65	125	5,289	6-27-60	Dr; FD; P6100-240; MS
2	30aaad2	4,750 320	do	1959	1,045	8 to 6	Klb, Klc, Kfm	S, E	PS	120R	336	125	5,290	4-21-59	Dr; EL; FD; H11-7; L; P663-1,045
2	30bbdd	4,250 4,100	E. Miller.	..	710R	5	Kl	M	M	..	..	113.9	5,345	4-4-57	Core; U(1957)
2	30bbdd2	4,250 4,200	do	..	820R	6 to 4	Klb	S, E	D	8R	120	335	5,345	10-4-54	Dr; Tchl20-820
2	31ccdd	280 4,000	R. Barber.	1958	1,099R	7	Klb, Klc, Kfm	S, E	Pr	75R	305	140	5,278	3-21-58	Dr; Tchl32-1,093
2	31ccdd	900 3,880	do	1956	1,100R	6 to 4	Klb, Klc, Kfm	S, E	Pr	820R	161	154	5,282	7-16-58	B22; Dr; L
2	31ccdd	550 3,880	do	1954	900R	6	Klb, Klc	S, E	Pr	23R	120	330	5,278	10-6-60	Dr; P6700-900
2	34acca	3,100 2,200	W. Koch.	1954	9,96R	6 to 3	Kmac, Kalc	Cyl, E	Oil	10R	..	208	5,303	9-19-60	Dr
2	35adac	3,570 460	T. Branson.	1900	486R	10 to 6	Kmac, Kalc	Cyl, E	PS	10M	..	200	5,262	9-21-60	Dr; FD; MS
2	35adac2	3,540 380	do	1946	525R	10 to 6	Kmac, Kalc	Cyl, E	PS	10M	..	200	5,262	9-21-60	Dr; FD; MS
2	Cl-69-5aac	2,150 3,000	Borra	1939	9,309R	9	Kp	..	Oil	..	..	..	..	..	..
2	7ccbd	970 4,920	Paclamar Farms	1960	..	6 to 4	Klb	M	D, Dy, S	825R	..	94.5	5,510	9-22-60	Dr
2	7ccca	500 4,860	do	1960	709R	8 to 4	Klb, Klc, Kfm	M	D, Dy, S	825R	200	108.9	5,545	9-22-60	Dr; L; P6371-709; Sa
2	10dabb	2,430 1,100	E. Swinburg.	1958	469R	..	Klb, Klc, Kfm	S, E	D	9R	100	160	5,191	6-5-58	B15; Dr; FD; L
1	10dccc	50 2,400	E. Dingreau.	1959	31R	6	Op	..	D	10R	..	14	5,245	6-20-59	Dr; FD; P614-30;
2	11bbcd	3,150 4,900	G. Waneke.	1954	1,525R	8 to 6	Klb, Klc, Kfm,	..	Irr, L	..	..	80	5,191	11- -54	B14; Dr; MS. Well dry
1	11bbca	3,220 4,900	do	..	14R	..	Op	..	..	..	..	..	5,190	..	D; FD; MS. Well dry
2	11bbcb	3,250 5,050	do	1952	480R	8	Klb	J, E	D	..	..	..	5,191	..	1954 to 1956
2	22daba	2,620 880	B. Swan	1956	650R	..	Klb, Klc, Kfm	S, E	D, S	20R	175	150	5,240	9-19-58	Dr; L; P6400-650
2	26cccd	100 4,800	A. Mitchum	1957	1,011	6	Klb, Klc, Kfm	M	Irr	..	..	259.0	5,425	3-5-57	Dr; GRL; L
2	26cccd	200 4,300	do	1957	1,201	6	Klb, Klc, Kfm	M	D, Irr	..	..	220.4	5,422	3-6-57	Dr; GRL; H7
2	35bba	5,200 4,350	Broomfield Heights Mutual Water District	1958	1,022R	6	Klb, Klc, Kfm	S, E	PS	91M	244	380.5	5,416	10-1-60	AT; FD; Tchl25-965; MS
2	35ddda	450 100	do	1955	1,053	8 to 6	Klb, Klc, Kfm	S, E	PS	75R	325	168	5,348	3-12-55	Dr; EL; FD; L; MS
2	Cl-70-16bbca	4,550 4,650	T. Shanahan.	1924	1,000R	..	Kt, Kp	M	M	<1	..	3.6	5,438	3-7-57	GRL
2	21bdac	3,600 3,100	J. Kane.	1957	150	5	Klb, Klc	..	D	..	..	79.8	5,560	4-19-57	B10; Dr; EL; FD; GRL; L; OM(67-150); MSP
2	28cbaa	2,350 4,150	F. Quintana.	1957	260	6	Klu	S, E	D	82R	..	97.7	5,953	4-18-57	B24; Dr; EL; FD; GRL; L
1	Cl-65-2bddd	2,650 2,950	Box Elder Farms.	1912	33.7	24	Ob, Ol	N	Irr	..	..	23.3	5,220.7	11-4-57	Dr; U(1957); WL(17-19-33)
1	14ddcd	30 900	do	1918	54.7	24	Ob, Ol	M	Irr	..	..	36.5	5,265	7-25-57	Dr; U(1957)
2	14ddcd	150 3,180	do	1956	166R	6 to 4	Tklu	..	D	815R	26	36	5,282	1-28-56	B26; Dr; L; Tchl20-166
1	14dbab	2,420 1,950	do	1910	33.8	48	Ob, Ol	T, E	Irr	75R	7.5 1/4	24.7	5,271.0	7-25-57	AL5; Dr; T52
1	14dcd	780 1,380	do	1910	60.7	18	Ob, Ol	T, E	Irr	185M	11.0 1/4	57.3P	5,290	7-23-57	AJ5; Dr; F; T54
1	14dcd	50 1,850	do	1910	60R	18	..	T, E	Irr	200M	..	..	5,291	..	AJ0; Dr; F; T53
2	16ccca	550 4,650	Anderson-State	1957	8,377	..	..	..	Oil	..	..	..	5,381	..	EL
2	17dddb	550 550	Union Pacific Rail-road-Austin	1957	9,477	..	..	..	Oil	..	..	..	5,381	..	EL

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth of water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C2-45-21d0db	350	J. and M. Monaghan	1953	900	6 to 4	TKdu, Kdmc, Kd1c	T, E	D, S	816R	50	250	5,419	7-2-53	FD; L; P6660-880
1	21abac	4,650	Box Elder Farms	1930	45.7	18	Ob, Q1	T, E	Irr	134M	10.3Ry	1/4	5,285.0	11-4-57	A25; Dr; F; T54
1	21accd	2,660	"	1930	57.6	18	Ob, Q1	T, E	Irr	243M	15.1	1/4	5,285.0	7-18-57	A40; Dr; F; T54
1	21accd	2,660	"	1930	52.4	18	Ob, Q1	T, E	Irr	136M	7.5Ry	1/4	5,285	7-22-57	A40; Dr; F; T54
1	21dcb4	750	"	1946	64.6	18	Ob, Q1	T, E	Irr	150M	14.9Ry	1/2	5,314.0	7-15-57	A30; Dr; F; T54
1	21dcd4	50	"	1955	62.3	18	Ob, Q1	T, E	Irr	380M	11.9Ry	1/4	5,310	7-15-57	A60; B61; Dr; F; L032-62; T53
1	21dcd42	60	"	1930	47.7	24	Ob, Q1	N	Irr	250M	15.5Ry	1/4	5,205	7-25-57	Dr; U(1957)
1	21dcd4b	680	"	1946	87.6	18	Ob, Q1	T, E	Irr	250M	15.5Ry	1/4	5,205	7-16-57	A80; Dr; F; T53
1	26acab	3,900	"	1952	65.9	18	Ob, Q1	T, E	Irr	200M	"	"	5,210	"	Dr; T54
1	26acdc	2,650	"	1951	55.3	18	Ob, Q1	T, E	Irr	200M	"	"	5,328.0	"	A180(with 26accd and 26acdc); Dr; T55
1	26acdd	2,650	"	1952	59.6	18	Ob, Q1	T, E	Irr	270M	"	"	5,328	"	Dr; T55
1	26adcc	2,650	"	1932	68.3	18	Ob, Q1	T, E	Irr	215M	"	"	5,324	"	Dr; F; T55
1	35abaa	5,200	"	1932	62.8	18	Ob, Q1	T, E	Irr	160M	"	"	5,341.0	11-4-57	A225; Dr; F; T55
1	35abaa2	5,200	"	1931	58.0	30 to 18	Ob, Q1	T, E	Irr	100R	9.0Ry	1/4	55.0R	8-16-56	Dr; F; T55
1	35abdd	4,100	"	1930	63.6	18	Ob, Q1	T, E	Irr	220M	"	"	56.2P	8-16-56	Dr; F
1	35acdc	2,900	"	1953	49.1	18	Ob, Q1	T, E	Irr	120M	4.5Ry	1/4	5,348	8-15-56	Dr; F
2	35cdcb	140	"	1953	248R	6 to 4	TKdu	"	D	820R	12	2	5,356	11-24-53	B16; Dr; L; Tch214-240; WS
1	35dabb	2,520	"	1952	62.2	18	Ob, Q1	T, E	Irr	490M	12.2Ry	1/4	5,350	8-10-56	Dr; T55
1	35dabb	2,640	"	1933	61.1	48	Ob, Q1	T, E	Irr	490R	"	"	18.8	10-12-33	D
1	35dcd4	650	"	1953	61.1	18	Ob, Q1	T, E	Irr	"	16.3Ry	1/4	5,362	8-10-56	Dr; T55
1	35dcd42	470	"	1930	50R	18	Ob, Q1	T, E	Irr	"	"	"	5,365	"	Dr; T55
1	35dcdc	50	"	1930	42.5	36	Ob, Q1	T, E	Irr	"	"	"	5,360.6	11-4-57	D; F; P833
1	35dcdc2	120	"	1955	47.3	18	Ob, Q1	T, E	Irr	450R	15	2	5,362	8-7-56	B45; Dr; F; GE; L; L033-48; T54
1	C2-66-3ebbb	2,500	E. Dahlinger	"	21.9	36 to 5	Qp	N	"	"	"	"	5,127.1	4-11-62	D; U(1955-57); WL(10-11-55)11.7; WL(11-5-57)12.6
1	5bdca	3,100	E. Kallien	1940	51.0	18	Qp, Qv	T, E	Irr	660M	"	"	5,119.8	4-11-62	A50; Dr; T56; WL(10-10-55)35.5; WL(11-5-57)33.7; WL(10-11-55)30.1
1	6bbcd	4,250	C. Cotton	"	42.2	48 to 24	Q1	T, E	Irr	"	"	"	5,099.5	4-11-62	D; T55; WL(10-11-55)51.1
2	6cccb	530	H. Mumford	1915	500R	6 to 4	Kdmc, Kd1c	Cyl, W	"	"	"	"	5,130	8-18-55	Dr
1	6dccc	80	M. Rhodus	1945	59.4	36	Qv	T, E	Irr	245M	2.5	1/4	5,138.7	4-11-62	D; T55; WL(10-11-55)50.1
2	7cccd	100	A. Land	"	865R	4	Kdmc, Kd1c	T, E	D	20R	"	"	5,160	8-17-55	Dr
1	7dcdc	1,800	B. Hendrix	1950	55R	6	Qp	J, E	"	"	"	"	5,155.4	8-17-55	Dr
2	8bbbd	4,850	Box Elder Farms	1956	248R	6 to 4	Kdmc	"	D	B20R 113	"	2	5,145	1-4-56	B66; Dr; L; P8208-248
2	10acab	3,950	J. Martin	1953	288R	6 to 4	Kdmc	"	D	B20R 56	"	2	5,190	9-6-53	B25; Dr; L; Tch247-288
2	17dccc	150	L. Crawford	1918	455R	5	TKdu, Kdmc	Cyl, W	D, S	"	"	"	5,170	8-16-55	Dr; WS
2	18adad	3,400	G. Routzan	"	300R	6	TKdu	Cyl, E	D	"	"	"	5,185	8-17-55	Dr; WS
2	18ddbc	950	C. Brandenberg	1955	760R	"	Kdmc, Kd1c, Klu	N	TW	25R	"	"	5,193	"	B40; Dr; L; Plugged
1	19ccdc	120	Rocky Mountain Arsenal	"	14.5	6	Qp	N	D	"	"	"	5,179.1	11-6-57	Dr; U(1955-60); WL(9-2-55)13.5; WL(4-3-56)12.2; WS
2	20aabb	5,130	"	1918	350R	4	Kdmc	N	D	"	"	"	5,170	9-2-55	Dr; U(1955-60); WL(4-3-56)12.2; WS
1	20adaa	3,900	"	1957	22.0	4	Qss	N	TW	"	"	"	5,166	"	B17; Core; L; S4
1	20adad	3,620	"	1958	22.3	4	Qss	N	TW	<1	"	"	5,166.7	4-14-62	B18; Core; L; S4; Scl0.4-18.6; WL(3-6-58)7.5
2	20bbbc	4,850	"	"	173	3	TKdu	N	D	"	"	"	5,200	9-2-55	Dr; U(1955-60); WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-66-															
2	21ccca	350	Walverson Bros.	1960	700R	5	Kdmc, Kalc	Cyl. M	D, B	..	..	18.2	5,272.1	9-14-55	Dr; MS
2	21cccb	100	Fullenwider	1960	48.0	4	Qp	M	O	..	..	8.5	5,179.2	4-14-62	Dr; MS
1	30bbac	4,810	Rocky Mountain Arsenal	1960	20.0	4	Qp	M	O	..	..	9.0	5,179.7	4-14-62	Dr; MS
1	30bbac2	4,800	.. do ..	1960	43.0	4	Qp, TKdu	M	TV, O	..	..	4.8	5,190.1	4-14-62	Dr; MS
1	30cbbc	2,100	.. do ..	1957	12.1	6	Qp	M	M	..	..	10.1	5,199.5	9-2-55	Dr; MS
1	30cbcb	1,200	.. do ..	1957	28.7	12	Qas	M	M, O	..	..	21.7	5,223.6	11-6-57	Dr; MS
1	31bbac	4,800	.. do ..	1957	28.0	4	Qas	M	TV, O	4R	..	2.5	5,232	10-17-57	Dr; MS
1	31bbac2	3,900	.. do ..	1957	41.2	30	Qp	M	M	..	..	16.5	5,252.8	9-1-55	Dr; MS
1	31dbac	1,640	.. do ..	1957	30.0	4	Qas	M	TV, O	..	..	29.1	5,278	4-14-62	Dr; MS
1	32dbac	3,370	.. do ..	1957	49.2	24	Qp	M	M, O	..	..	32.7	5,295.1	4-14-62	Dr; MS
1	32dbcd	50	.. do ..	1957	..	..	..	..	..	..	..	..	5,334	..	EL
2	35dddb	600	J. Rouse	1940	28.4	48	Ol	T, E	Ir	235M	10 1/4	11.5	5,084.0	11-5-57	Dr; MS
C2-67-															
1	1aada	4,440	F. Makata	1940	30.7	36	Ol	T, E	Ir	..	..	18.0	5,084	9-29-55	Dr; MS
1	1aada2	4,400	.. do ..	1940	370R	6 to 4	TKdu, Kdmc	T, E	Ir	83M	13.1 1/4	9.5	5,075	6-24-54	Dr; MS
2	1abab	5,180	O. Foley	1954	29.0	18	Ol	T, E	Ir	..	..	16.9	5,087.0	9-29-55	Dr; MS
1	1abab2	3,900	.. do ..	1954	31.7	36	Ol	T, E	Ir	..	..	17.6	5,087	9-29-55	Dr; MS
1	1abab3	3,650	.. do ..	1954	26.5	36	Ol	T, E	Ir	..	..	17.3	5,087	9-29-55	Dr; MS
1	1abab4	3,650	.. do ..	1954	29.9	36	Ol	T, E	Ir	..	..	30.9	5,080	9-29-55	Dr; MS
1	1abab5	3,920	G. Squires	1944	33.9	32	Ol	T, E	Ir	..	..	20	5,058	3-31-54	Dr; MS
2	1baba	5,200	J. Erger	1954	372R	6 to 4	TKdu, Kdmc	T, E	Ir	..	..	30	5,060	2-14-57	Dr; MS
1	1baba2	4,200	.. do ..	1954	43R	6	Ol	T, E	Ir	..	..	30.7	5,061	9-27-55	Dr; MS
1	1baba3	4,200	.. do ..	1954	41.4	56 to 48	Ol	T, E	Ir	..	..	30.7	5,063.0	9-29-55	Dr; MS
1	1baba4	4,200	L. Cammack	1954	39.9	18	Ol	T, E	Ir	..	..	33.7	5,066.8	4-11-62	Dr; MS
1	1baba5	3,920	G. Squires	1954	40.0	18	Ol	T, E	Ir	..	..	..	..	..	..
1	1baba6	3,920	C. and J. Erger	1954	42.5	18	Ol	T, E	Ir	..	..	..	..	..	..
1	1baba7	5,250	M. Rucker	1954	42.5	18	Ol	T, E	Ir	..	..	..	..	..	..
1	1baba8	5,060	.. do ..	1954	42.8	72	Ol	T, E	Ir	..	..	36.1	5,092	9-27-55	Dr; MS
1	1baba9	20	.. do ..	1954	42.8	48	Ol	T, E	Ir	..	..	35.8	5,092	9-27-55	Dr; MS
1	1baba10	20	.. do ..	1954	42.1	60 to 48	Ol	T, E	Ir	..	..	35.2	5,092	9-27-55	Dr; MS
1	1baba11	4,950	F. Sweeney	1910	44.7	36	Ol	T, E	Ir	150M	..	37.4	5,060	9-28-55	Dr; MS
1	1baba12	5,000	.. do ..	1910	44.7	36	Ol	T, E	Ir	150M	..	37.4	5,060	9-28-55	Dr; MS
1	1baba13	1,350	M. Daniels	1937	40.9	48	Ol	T, E	Ir	165M	..	34.2	5,061	1-28-55	Dr; MS
1	1baba14	3,900	.. do ..	1937	40.9	48	Ol	T, E	Ir	..	..	..	..	..	..
1	1baba15	3,920	F. Sweeney	1955	40.0	48	Ol	T, E	Ir	..	..	31.1	5,059.0	9-29-55	Dr; MS
1	1baba16	3,950	.. do ..	1955	42.5	36	Ol	T, E	Ir	150M	..	33.6	5,060	9-28-55	Dr; MS
1	1baba17	4,020	J. Miura	1955	41.0	48	Ol	T, E	Ir	300M	3.4 1/2	22.5	5,045.0	10-13-55	Dr; MS
1	1baba18	3,920	.. do ..	1955	35.6	48	Ol	T, E	Ir	800R	..	27.5	5,050	8-23-55	Dr; MS
1	1baba19	4,380	R. Fisher	1919	43.2	48	Ol	T, E	Ir	115M	..	35.0	5,061	9-16-55	Dr; MS
1	1baba20	1,480	L. Hopkins	1919	43.2	48	Ol	T, E	Ir	..	..	..	..	..	..
1	1baba21	3,280	.. do ..	1919	48.6	48	Ol	T, E	Ir	205M	4.8 1/4	31.3	5,076.7	11-4-57	Dr; MS
1	1baba22	50	B. Murray	1954	48.6	48	Ol	T, E	Ir	..	..	..	..	..	..
1	1baba23	2,800	.. do ..	1954	83R	48 to 5	Ol	T, E	Ir	..	..	44.6	5,080	9-28-55	Dr; MS
1	1baba24	1,220	P. Erger	1947	555R	..	Kdmc, Kalc	T, E	Ir	..	..	..	5,080	..	..
1	1baba25	1,300	.. do ..	1947	42.9	18	Ol	T, E	Ir	250R	75	32.6	5,078	9-26-55	Dr; MS
1	1baba26	350	.. do ..	1945	38.4	48	Ol	T, E	Ir	..	..	34.1	5,090	9-26-55	Dr; MS
1	1baba27	450	.. do ..	1945	38.4	48	Ol	T, E	Ir	..	..	34.1	5,090	9-26-55	Dr; MS
1	1baba28	330	.. do ..	1944	42.0	36	Ol	T, E	Ir	..	..	35.1	5,090	9-26-55	Dr; MS
1	1baba29	50	.. do ..	1941	39.1	48	Ol	T, E	Ir	155M	..	34.0	5,093	9-26-55	Dr; MS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C2-67-3aabb	5,100	O. Sherwood	1958	284R	6 to 4	Tkdu	J.E	P8	10E	50	10	5,020	11-16-58	B45; Dr; L; P475-95, 140-160, 240-283, D; U(1955)
1	3adcb	3,200	Mann and Gartleson	1953	25.1	48	Ob, Ql	T.M	Irr	30R	1	15.2	5,026.8	8-19-55	D; U(1955)
1	3bdc	3,980	J. Himes	1943	36	36	Qpp, Ql	Port, G	Irr	30R	8	6.8	5,021	11-21-55	A35
1	3bdc	2,700	L. Wolpert	1943	19.3	34	Qpp, Ql	C, Tr	Irr	28R	6	5.5	5,025	11-21-55	A35, D; P
1	3bdc	3,320	J. Himes	1952	31.0	36	Qpp, Ql	Port, G	Irr	30R	4	4.9	5,022	11-22-55	A60 (with 3bdc); D; P410
1	3bdc	3,280	do	1952	20.5	36	Qpp, Ql	Port, G	Irr	30R	6	8.5	5,025.5	11-22-55	D; P410
1	3bdc	2,330	H. Ayers	1944	12R	36	Qpp	C, Tr	Irr	30R	1	4.9	5,027	11-10-55	D; W8
1	3bdc	50	G. Ferguson	1944	18R	36	Qpp, Ql	C, Tr	Irr	30R	1	4.9	5,032.6	11-10-55	D; W8
1	3bdc	100	do	1944	10.8	48	Qpp, Ql	C, Tr	Irr	30R	1	5.6	5,034	11-10-55	D; W8
1	3bdc	530	do	1944	46R	48	Qpp, Ql	C, Tr	Irr	30R	1	22.2	5,084	8-8-56	W8
1	3bdc	1,840	M and G Feed Lot	1955	60R	8	Ob, Ql	..	8	860R	10	40	5,060	10-25-55	B60; Dr; L; P448-60
1	4adbc	3,380	L. Wolpert	1955	18.9	34	Qpp, Ql	M	Irr	275R	7.8	4.7	5,033.6	4-10-62	A30; Ar; D; W(11-23-55) 4.9; W(11-5-57) 4.1
1	7dabc	2,030	J. Fukaya	1954	41.5	48	Qpp, Ql	T.E	Irr	250R	1	32.0	5,092	8-8-56	D; W8
1	7dabc	970	do	1944	34.0	36	Qpp, Ql	T.E	Irr	250R	1	28.3	5,095	8-8-56	D; W8
1	8bcca	3,290	M. Eppinger	1954	33R	48	Qpp, Ql	T.E	Irr	370R	3.0	1/4	5,081	8-8-56	W8
1	8cccc	300	J. Fukaya	1954	30.9	48	Qpp, Ql	T.E	Irr	370R	3.0	1/4	5,084	8-8-56	W8
1	9adbb	3,100	D. Howe	1947	13.1	36	Qpp	C, Tr	Irr	..	..	5.0	5,062.7	4-10-62	W8
2	9addd	2,850	E. Aden	1956	340R	6 to 4	Tkdu, Kama	..	D	..	..	14	5,050	8-17-56	B40; Dr; L; P4294-340
1	9bdba	3,790	Rocky Mountain Arsenal	1960	30.0	4	Qpp, Ql	..	O	20R	3	2.4	5,035.0	4-10-62	B27.4; Core; L; S4.0-13.0, 22.0-26.0
1	9caab	2,630	D. Howe	1945	23R	36	Qpp, Ql	M	Irr	..	..	2.3	5,037.0	11-7-57	D; P410-15; W(11-21-55) 2.4
1	9dcda	600	P. Latorza	1930	12R	24	Qpp	..	Irr, B	194R	3.8	1-1/2	5,040	9-3-60	D; W8
1	9dada	2,380	E. Aden	1945	24.1	48	Qpp, Ql	T.E	Irr	194R	3.8	1-1/2	5,055	9-3-60	AT
1	9daac	2,280	H. Miller	1955	23R	48	Qpp, Ql	C, Tr	Irr	500R	5	13	5,055	1-16-56	B23; D; DL; W8
1	9daac2	2,200	do	1945	50R	..	Qpp, Ql	..	D	..	..	13.5	5,050	11-21-55	W8
1	9daba	850	G. Elledge	1945	17.5	..	Qpp, Ql	C, Tr	Irr, B	..	..	13.5	5,050	11-21-55	Al; D; P45
1	9daba	1,770	W. Weare	1948	45R	8	Qpp, Ql	J.E	D	..	..	32.1	5,080	10-26-55	Dr; U(1955); W8
1	9dadc	1,340	H. Miller	1940	50R	48	Qpp, Ql	T.E	Irr	555R	6.0	1/2	5,077.0	10-26-55	DO; P; W8
1	9dadc	680	C. Moller	1959	54R	..	Qpp, Ql	J.E	M	..	..	..	5,070	..	D; W8
1	9dcdb	520	E. Richardson	1954	53R	5	Qpp, Ql	..	D	820R	2	30	5,080	1-3-54	B47; Dr; L; P438-53
1	9dcdb	650	J. Lambert	1953	68R	4	Qpp, Ql	J.E	D	..	..	36	5,081	10-1-55	Dr; W8; W8
1	9dcdb	300	A. Ling Jr.	1955	49R	6	Qpp, Ql	..	D	820R	1	..	5,081	10-1-55	B44; Dr; L; P428-48
2	9dcdb2	150	Hazeltine Heights Water District	1959	732R	8 to 7	Kamc, Kalc	S.E	P8	100R	226	36	5,081	3-14-59	B43; Dr; L; P41; L; P424-727; W8
1	9dcdb3	60	R. Wintjen	1954	50R	6	Ql	..	D	820R	37	1-1/2	..	10-1-55	Dr; W8; W8
1	9dcdb	50	Fargo Oil Co.	1955	49R	6	Qpp, Ql	..	D	820R	1	1-1/2	..	10-1-55	Dr; W8; W8
1	9ddab	1,220	W. Weare	1950	40R	..	Qpp, Ql	M	D	..	..	..	..	..	U(1959)
1	9ddab	1,000	C. Dobbs	1943	46.3	96	Qpp, Ql	C, Tr	Irr	..	..	33.9	5,074.6	12-1-55	Ar; D; W8
1	9ddab	1,150	R. Tipeword	1954	49R	5	Qpp, Ql	..	D	810R	10	30	5,070	2-22-54	B37; Dr; P433-49
1	10aach	4,350	G. and W. Myere	1955	41.9	48	Ql	C, Tr	Irr	..	..	34.4	5,070	10-25-55	A12 (with 10aach); B42; D; L; P432-42; W8
1	10abaa	5,100	R. Roop	1946	47R	18	Qpp, Ql	T.E	Irr	..	..	37.3	5,071.2	4-11-62	Dr; P; P415; W(11-17-55) 37.7; W(11-5-57) 38.4
1	10abdb	4,500	do	1953	38.7	18	Qpp, Ql	T.E	Irr	..	7.8	1/4	5,063.0	11-17-55	W(11-5-57) 38.4
1	10acab	3,700	G. and W. Myere	1955	44.1	48	Qpp, Ql	T.E	Irr	..	..	37.0	5,073.4	10-25-55	W(11-5-57) 38.4

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance North West (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-67-														
1	10adda	2,650	J. Jacobucci	1955	49.4	60 to 18	Qb-Ql	T.E	Irr	..	47.5	5,082	9-17-55	By: D; WS
1	10adda2	2,650	do	1955	25R	48 to 12	Qb-Ql	T.E	Irr	..	47.2	5,082	9-16-55	By: D
1	10abcc	4,050	R. Tanabe	1955	25R	48	Qb-Ql	C.E	Irr	3.5 1/2	..	5,055.0	..	A40; B25; D; DL; F; F11-25
2	10bbac	4,680	Brighton Public Schools	1910	200R	..	Tkdu	M	..	..	..	..	..	Dr. Hazeltine school
1	10bbac2	4,680	do	1944	40R	..	Qb-Ql	T.E	Irr	..	25.5	5,058.0	11-21-55	AM; B32; B4; D; F; F6; WS
1	10bbcc	3,600	R. Tanabe	1915	12.8	..	Qb-Ql	T.E	Irr	..	..	..	..	A40; B32; D; F; F6; WS
1	10dbcc2	3,440	do	1951	13.5	..	Qb-Ql	T.E	Irr	..	26.7	5,070	11-21-55	A40; B32; D; F; F6; WS
1	10dbcc	2,650	G. Meyers	..	41.1	48	Qb-Ql	T.E	Irr	..	36.9	5,070	8-22-55	A40; B32; D; F; F6; WS
1	10dbcc2	2,650	do	..	39.7	48	Qb-Ql	T.E	Irr	..	38.0	5,070	9-9-55	AT; D
1	10ccca	350	M. Nelson	..	59R	..	Qb-Ql	..	D	..	..	..	..	FD; WS
1	10ccda	100	Latter Day Saints Church	..	34.4	60 to 24	Qb-Ql	C.Tr	Irr, Oc	..	24.5	5,076.4	4-11-62	D; U(1955-62); WS
1	10ccda	50	J. MacNage	1955	39.8	18	Qb-Ql	T.E	Irr	..	25.8	5,079.5	11-30-55	B41; D; L; Lo26-41; WS
1	10dccc	50	do	1954	41R	48	Qb-Ql	T.E	Irr	..	30.5	5,082	9-8-55	A60; D; F; WSP
1	10dccc	40	do	1912	39.5	48	Qb-Ql	T.E	Irr	6M	10.2	5,084	11-18-55	A60; AT; BY; D; F; WS
1	10dccc	40	G. Wall	1915	41.0	48	Qb-Ql	C.Tr	Irr	8 1/4	29.6	5,084	4-30-37	L
1	10dccb	1,300	A. Letterly	1955	44.8	18	Qb-Ql	T.E	Irr	2	29.6	5,081.5	8-19-55	B43; D; GE; L
1	10dccb2	1,270	do	1950	55R	60	Qb-Ql	T.E	Irr	..	..	5,082	..	A80; D; WS
1	11aaba	5,080	J. Fry, Sr.	1940	45R	6	Ql	J.E	D	..	35	5,091	3-9-54	B39; L; F124-44
1	11aaba2	4,340	do	1940	42.9	48 to 16	Ql	T.E	Irr	35M	38.8	5,102	9-23-55	D; F18; WSP
1	11adad	70	do	1957	53R	48	Ql	T.E	Irr	..	..	5,100	9-26-55	A100; B53; Su
1	11adad2	3,350	do	1914	41.1	48 to 16	Ql	T.E	Irr	..	25.2	5,093.0	9-26-55	D; F18; WSP
1	11baca	4,450	B. Murkay	1935	51.9	66 to 36	Ql	T.E	Irr	150R	45.2	5,084.0	9-15-55	D; F18; WSP
1	11baca2	4,520	do	1937	51.9	48	Ql	T.E	Irr	150R	48.2	5,084.0	9-15-55	D; F18; T54
1	11bbcd	2,680	do	1914	41.1	48	Ql	M	Irr	..	36.7	5,082.7	4-3-56	D; U(1955); WL(8-23-55)
1	11bbcd	2,680	do	1912	40.9	60	Ql	T.E	Irr	..	37.0	5,083	8-23-55	D; U(1955)
1	11bbad	3,300	do	1917	56.3	48	Ql	T.E	Irr	25M	49.8	5,087.0	9-16-56	D; WS
1	11bbda	3,280	do	1917	54.0	24	Ql	T.E	Irr	25M	48.1	5,087.0	9-16-55	D; F18; WSP
1	11ccdb	1,820	J. Fry, Jr.	1947	54.0	48	Ql	M	Irr, O	100R	48.9	5,095	9-27-55	D; F9
1	11ccdb	1,820	do	1955	44.9	18	Ql	M	Irr, Oc	50R	37.4	5,097.0	4-11-62	B38; D; GE; L; Lo28-43
1	11dbac	2,040	P. Eger	1958	43R	6	Ql	J.E	M	..	32.7	5,115.0	8-19-55	D; S1(to dbdd2)
1	11dbad	1,400	do	1950	49.3	34	Ql	J.E	Irr	..	45.3	5,115.0	9-26-55	By: D; F9; WS
1	11dbad2	1,470	do	1950	50.0	48	Ql	T.E	Irr	..	46.3	5,115.3	9-26-53	D; WS
1	11dbda	4,280	Box Elder Farm	1916	30.8	48	Qv	M	Irr	..	18.7	5,123.9	8-10-55	D; WS
1	11dbca	3,350	D. M. H. Cattle Co.	1960	53R	12	Qv	T.E	S	200R	35	5,110	6-15-60	B49; D; L; F140-52
1	12bdad	2,720	do	1958	43R	12	Qv	T.E	S	40R	26.7	5,123	10-7-60	B35; D; L; Lo20-43
1	12bca	2,000	do	1955	46R	12	Qv	T.E	S	100R	29.3	5,118	9-31-55	B46; DL; D; F132.5-47.5
1	12bba	2,600	do	..	44.6	12	Qv	T.E	S	..	44.3	5,112	9-30-55	B46; DL; D
1	12bca	1,680	do	..	42.9	12	Qv	T.E	S	..	..	5,112	..	Dr
1	13bdca	2,650	Rucky Mountain Arsenal	1960	40.0	4	Qv	M	O	2M	24.1	5,135.5	4-14-62	B33.4; Core; GE; S28.0-28.0
1	13cadd	1,650	J. Stohr	1915	40.5	24	Qv	M	N	..	26.9	5,147.8	4-11-62	Dr; F6; U(1936-57); WL(8-16-55) 30.0; WL(11-5-57) 28.3; WS
1	14aaaa	5,040	T. Gage	1950	26.0	..	Qv	Cyl.H	Irr	..	22.9	5,127	8-18-55	D; L; WS
1	14bbab	5,100	J. Fry, Jr.	1950	51.1	24	Ql	T.E	Irr	1.7 1/3	38.0	5,102.0	9-9-55	D; WS
1	14bba	5,250	do	1947	52.4	48	Ql	T.E	Irr	1.8 1/4	47.6	5,102	9-9-55	D
1	14bba2	5,240	do	1948	..	..	Ql	T.E	Irr	3.6 1/4	48.3	5,102	9-9-55	A30; D; WS
2	14ccdb	660	E. Tiedeman	..	450R	..	Kdnc	..	D	..	..	5,125	..	D; L; WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	14daa	2,500	O. Maul	1949	843R		Kdmc, Kdic		O	7M			5,139	...	Dri, WS
2	14daab	1,150	do		2,024R		Kib, Klc, Kcm		Oil				5,122	...	Plugged, flowed at land surface at depth of 1,100 feet
1	15abca	4,500	Rocky Mountain Arsenal	1960	58.0	4	Ql	M	O	7M		30.6	5,082.0	4-12-62	843.6; Core; GE; 820.0-50.0; SL; WL(9-30-60)28.5
1	15abcb	3,450	W. Murphy	1939	46.6	60	Ql	T, E	Irr	255M	2.8	43.0	5,100	9-12-55	D, 7L; WS
1	15abcc	4,150	Rocky Mountain Arsenal	1960	40.0	4	Qb, Ql	M	O	7M	.8	19.6	5,071.5	4-12-62	833.7; Core; GE; 820.1-33.0
1	15abdd	4,250	J. Munson	1950	50R	48	Qb, Ql	T, E	Irr	270M	7	37.3	5,088	9-8-55	D, WS
1	15abdd2	4,000	Rocky Mountain Arsenal	1960	43.0	4	Qb, Ql	M	O	7M		23.4	5,075.3	4-12-62	836.5; Core; GE; 826.0-36.5; SL; WL(9-29-60)21.0
1	15abbe	3,850	do	1960	35.0	4	Qb, Ql	M	O	14M	.6	15.4	5,074.1	3-15-62	828.5; Core; GE; 819.0-30.0; SL; WL(9-28-60)13.9
1	15bdae	3,950	J. Munson	1930	50R	48	Qb, Ql	T, E	Irr	512M	7.3	36.4	5,089	9-8-55	AL37 (with 3 wells); WS
1	15bdeb	3,920	W. Murphy	1955	47.8	48	Qb, Ql	T, E	Irr	473M	3.4	38.7	5,078	9-12-55	A40; D; WS
1	15bdec	2,650	J. Munson	1955	34.5	18	Qb	T, E	Irr	208R		32.0	5,084	9-8-55	830; Dri; GE; L; WS
1	15bdcd	1,460	J. Powers	1950	29.6	36	Qb, Ql	T, E	Irr			23.3	5,086	9-12-55	A35; D; U(1955); WS
1	15bdcd2	50	do	1945	38.8	48	Qb, Ql	T, E	Irr	264M	3.5	10.7	5,100	9-19-60	AT; BY2; D; WS
1	15cdcd2	50	do	1945	38.8	36	Qb, Ql	Cyl, H	Irr			30.8	5,100	8-17-55	D; SL
1	15cdcc	40	do	1950	40R	24	Qb, Ql	J, E	B			19.3	5,102	9-12-55	Dri; WS
2	15cdcb	320	do		535R		Romc		D, S				5,100	...	Dri; WS
1	15dcdb	660	D. Heinz	1954	40R	48	Qb, Ql	T, E	Irr	330M	6.8	34.4	5,100.0	8-19-55	A54; B40; D; DL; P(10); WS
1	16acbb	3,870	M. Tashiro		22.1	24	Qb, Ql	Cyl, H	D			21.0	5,075	8-22-55	D; U(1955)
1	16acbd	3,600	do		40.3	24	Qb, Ql	T, E	Irr	173M	3.0	33.5	5,080	11-10-55	A100; WS
1	16acda	3,200	Rocky Mountain Arsenal	1960	40.0	4	Qb, Ql	M	O	7M	.5	18.6	5,074.7	3-15-62	833.5; Core; GE; 816.6-32.5; SL; WL(9-60)19
1	16adac	3,500	do	1960	32.0	4	Qb, Ql	M	O	13M	.8	19.4	5,073.4	3-15-62	826.3; Core; GE; 820.0-37.0; SL; WL(10-3-60)18.1
1	16bada	3,220	M. Tashiro	1951	43R	18	Qb, Ql	T, E	Irr	235M	7	28.3	5,082.2	4-10-62	Dri; WL(11-10-55)29.7; WL(11-5-57)21.0; WS
1	16bdac	2,670	J. Sanger	1956	42.5	36	Qb, Ql	T, E	Irr	300M	11	29.1	5,090	11-21-55	A60; BY2; D; P(1-5); WS
1	16bdad	2,750	M. Tashiro		39.0	48	Qb, Ql	T, E	Irr	560M	8.6	28.9	5,085	11-10-55	A100; BY1; D
1	16bdad2	2,720	do	1956	44R	48	Qb, Ql	T, E	Irr			30.0	5,085	11-10-55	BY1; D
1	16ccac	1,360	J. Priola	1944	47.4	36	Qb, Ql	T, E	Irr	255M	6.8	38.4	5,093	12-16-57	A55; D; P(16); Su
1	16ccca	480	W. Starbuck		47.4	36	Qb, Ql	T, E	Irr	255M	6.8	38.4	5,097	9-28-55	A7; D
1	16ccdb	580	J. Priola	1953	48.6	48	Qb, Ql	T, E	Irr	405M		45.3P	5,095	9-14-55	D
1	16ccdb2	450	do		47.6	48	Qb, Ql		Irr			44.5P	5,095	9-14-55	B48; D
1	16ccdc	30	do		49.3	60 to 36	Qb, Ql	T, E	Irr			37.0	5,097	4-3-56	BY2; D; WL(9-13-55)44.6; WSP
1	16ccdc2	50	do	1940	44.2	60	Qb, Ql		Irr			36	5,097	9-14-55	D; SL; WS
1	16cdcd	3,500	do	1940	44.2	48	Qb, Ql	T, E	Irr			40.2P	5,095	9-13-55	D; T55
2	16daab	350	Midwest Refining Co.	1902	887R		Kdmc, Kdic	M	Oil				5,077	1950	Dri; Plugged 1950
2	16dabc	2,650	Gardner-Denver Co.	1957	716	10 to 8	Kdmc, Kdic	T, E	Ind, B	BLTOR	60	15	5,078	12-31-57	Dri; L; S; T(16); 512, 580-713; WS
1	16dbcc	1,360	J. Priola	1956	42R	48	Qb, Ql	T, E	Irr			25.6	5,086	12-16-57	A55; D; DL; P(16); Su
1	16ddcc	40	J. Matsumoto	1956	35R	48	Qb, Ql		Irr	384M	4.8	24	5,091	6-21-56	AT; B15; D; DL
1	16dddc	40	do		36.6	48	Qb, Ql	T, E	Irr	336M	6.9	22.8	5,094.3	4-11-62	A4; AT; D; WL(11-5-57)
1	16dddd	40	do	1954	38.8	48	Qb, Ql	T, E	Irr	380M		12.9P	5,098	9-14-55	A43; D; WS

Table 2 -- Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm) water	Drawdown (feet)(hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-67-														
1	17abdd	4,820	H. Jeffry	1954	9.5	96	Qp	C.O.	Irr	1/4	2.7	5,047	8-8-56	8
1	17bcb	4,510	A. Ford	1937	14.5	36	Qp, Ql	C.E. & Irr	175R	1/4	11.1	5,067.5	1-10-62	D, DL; P4
1	17cbcd	1,340	Z. Honnen	1956	28R	48	Qp, Ql	T.E. Irr			3.9	5,059	12-19-57	A80; D, DL; P49-28
1	20aab	5,040	E. Paterson	1951	7.8		Qp	C.E.	P		6.8	5,091	11-23-55	D
2	20abab	4,950	do	1955	184R	6 to 3	Kmc		10R		5	5,073	9-16-55	B20; D, L; Tch185-205, 324-384. Flowing July 1955
1	20abdd	4,850	do	1940	17R	48	Qp, Ql	T.E.	P	0.4	3.3	5,060	9-16-55	D
1	20abda	4,600	do		10.6	36	Qp	C.E.	P	1/4	4.6	5,065	11-23-55	D
1	20acab	3,680	A. Brantner	1954	35R	24	Qp, Ql		Irr		20	5,090	8-15-54	D, DL
1	20abcb	3,450	do		43.8	48	Qp, Ql		Irr		30.6P	5,100	8-17-55	A15; D, P412; Su
1	20adca	3,220	Hastie		41.6	72	Qp, Ql	C.O.	Irr		33.0	5,101	9-20-55	A4; D, P
1	20adcc	2,820	R. Leasing	1951	42.7	48	Qp, Ql	T.E.	Irr	6.1	39.3P	5,103	9-7-55	D
1	20add	2,650	G. Dunning	1952	46.8	48	Qp, Ql	T.E.	Irr		33.9	5,105	9-19-55	A10; D, P; P418; T56
1	20bbcb	4,520	Z. Honnen	1954	29.3	48	Qp, Ql	T.E.	Irr		4.6	5,080	9-23-55	A50; B31; D, DL; P
1	20bcb	3,750	do	1932	26.1	48 to 36	Qp, Ql	T.E.	Irr	15	5.1	5,061.2	4-10-62	P415-31; T62
1	20bccc	2,900	do	1932	27R	48 to 36	Qp, Ql	C.E.	Irr	13	3.6	5,065	9-23-55	A62; D, P; P415; T56
1	20bdad	3,600	F. Rizer	1955	21.6	48	Qp, Ql	C.E.	Irr		4.6	5,069	8-19-55	B21; D, DL; P46-21; U(1955)
1	20bdad2	3,300	do	1950	21.1	48	Qp, Ql	C.E.	P	1/6	5.8P	5,062	8-19-55	D
1	20cbdc	3,400	Z. Honnen	1932	26.9	48 to 36	Qp, Ql	T.E.	Irr	15	5.5	5,060	9-23-55	A29; D, P; P415
1	20cbdd	1,400	do		20.5	48	Qp, Ql	C.E.	P		5.1P	5,108	11-21-55	D; P417; T56
1	20ccaa	1,020	do		14R	72	Qp, Ql	T.E.	P		9.0	5,107	11-21-55	D; WS
2	20cdda	400	Colo. State Hwy. Dept.	1900	60R	4	Kmc, Kdlu	Cyl. M.			1.6	5,068	8-16-55	D; U(1955). Water unfit for trout
1	20cddc	100	L. West	1949	18.5	36	Qp, Ql	Cyl. E	Ot			5,113	1930	Dr; U(1960). Ceased flowing about 1930
2	20cddd	100	K. Paden	1925	550R		Kmc, Kdlu				26.8	5,105.8	4-10-62	D; P414-40; T59; U(1950)
1	20dadd	2,300	D. Ledvetter	1944	46.1	36	Qp, Ql	T.E.	Irr		30.9	5,116	9-20-55	Dr
1	20dabb	2,400	B. Moore	1905	39R	10 to 8	Qp, Ql	J.E.	D			5,106		A20; D; P418; WSP
1	20dabb2	2,400	Amidon Cash Nursery		18.2	60 to 20	Qp, Ql		Irr		12.4	5,103	9-15-55	Dr; QM
1	20dadd	1,620	T. Sonoda	1948	50R	60	Qp, Ql	J.E.	Irr		33.6	5,105	9-19-55	A23; D; P; P410; T55
1	20dbda	1,700	do	1949	50R	48	Qp, Ql	J.E.	D			5,109	9-15-55	D; WSP
1	20dbcb	950	M. Wylie	1949	41.2	48	Qp, Ql	T.E.	Irr	6.2	30.6	5,109	9-15-55	A25; B43; D; P; WSP
1	20dddc	40	K. Paden		37.9	120	Qp, Ql	T.E.	Irr		28.8	5,110	8-5-55	D; WSP
2	21aada	4,500	A. Marty	1955	535R	6 to 4	Kmc	S.E.	D, S	80	40	5,103	12-1-55	B47; D, L; WS
1	21adde	3,050	do	1928	52.7	60 to 48	Ql	T.E.	Irr	10.9	31.5	5,114.2	4-11-62	A130(bath 21adad2 and 21bdccl); AT; WL(9-12-55)33.8; WL(4-3-56)31.7; WS
2	21bbdd	4,750	R. Green		500R	5	Kmc	J.E.	D					Dr; QM; WSP
1	21bccc	2,650	do		47.1	48	Qp, Ql	T.E.	Irr		35.7	5,105	9-19-55	B42; D; WSP
1	21bccc2	2,650	do		45.1	60	Qp, Ql	N	Irr		35.7	5,105	9-19-55	D; S
1	21bdc	3,100	M. Priola	1944	50R	48 to 18	Qp, Ql	T.E.	Irr	36	32.7	5,108.1	4-11-62	A80(with 21bdc and 21bdccl2); D; P416; WL(8-17-55)34.1; WL(11-5-57)31.2; WSP
1	21bdccl	2,900	do	1954	49.4	48	Qp, Ql	T.E.	Irr	12	4	5,109	8-17-55	D; P416; WSP
1	21bdccl2	2,900	do	1954	93R	18	Qp, Ql	T.E.	Irr	37	2	5,109	9-1-55	B95; DL; Dr; P448-9; WSP
1	21bdccl	2,690	A. Marty	1954	97.0	48	Qp, Ql	T.E.	Irr	1,640M	34.2	5,107.4	9-12-55	B97; D, L; P479-97; WS
2	22aabb	5,070	D. Wolpert		400R		Kmc		D		65	5,129	5-12-56	Dr; WS
2	22aabb	5,150	J. Haas	1956	10R	6 to 4	Tkd	S.E.	D	85	1	5,125		DL; Dr; P414-170
2	22acac	3,450	H. Neom				Tkd		D, S					WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	22acbd	3,410	Harks and Anderson	1958	350R	8 to 4	Kdmc	S.E.	D.S.	25R	100	130	5,141	6-10-58	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
2	22acbd2	3,370	do	1958	660R	8 to 4	Kdmc, Kdmc	S.E.	D.S.	100R	100	130	5,141	6-10-58	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
2	22acdc	2,750	Rocky Mountain Arsenal	1958	178	8 to 6	Tkdu	Port, M	O	0	0	73.2	5,140.2	2-22-58	B40, Corel GZ, L1, S1, Sc24, 5-76.7, 138.4-147.0, Map
2	22acdd	2,640	do	1958	500R	4	Kdmc	M	O	0	0	46.3	5,146	8-11-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abba	3,100	W. Munson	1916	43R	4	Ql	T.E.	D.S.	690M	8.4	1/2	5,102	9-13-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abbb	3,900	do	1924	47.1	48	Ql	T.E.	D.S.	690M	8.4	1/2	5,102	9-13-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abbb2	3,890	do	1924	37.7	68	Ql	T.E.	D.S.	690M	8.4	1/2	5,102	9-13-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abcc	2,910	H. Nesom	1953	38.3	18	Ql	T.E.	D.S.	690M	8.4	1/2	5,110	9-13-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abcc2	2,950	do	1952	45.7	18	Ql	T.E.	D.S.	690M	8.4	1/2	5,110	11-7-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abcc3	2,670	do	1950	47.6	18	Ql	T.E.	D.S.	690M	8.4	1/2	5,109	9-13-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22abdb	3,650	Rocky Mountain Arsenal	1960	45.0	4	Qes, Ql	Port, M	O	13M	13.6	1/4	5,108.8	9-21-60	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22caad	2,250	H. Yamamoto	1957	50.7	36	Qes, Qv	T.E.	D.S.	294M	13.6	1/4	5,132.6	11-23-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22cad	1,350	Rocky Mountain Arsenal	1960	48.0	4	Qes, Qv	M	O	13M	13.6	1/4	5,131.3	4-3-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22cbcc	1,350	Not known	1957	36.5	10	Qes, Qv	Cyl, M	O	0	0	33.4	5,117	8-18-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22ccaa	1,200	Mrs Reynolds	1957	42.1	30	Qes, Qv	Cyl, M	O	0	0	31.0	5,123.9	4-11-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22cdcc	200	Rocky Mountain Arsenal	1960	65.0	4	Qes, Qv	M	O	6M	6.4	1/2	5,127.6	4-14-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22dhab	2,400	do	1957	40.0	4	Qes, Qv	Port, M	O	0	0	37.3	5,146.3	9-4-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22dhbc	2,200	do	1960	49.0	4	Qes, Qv	M	O	2M	2.4	1/2	5,139.1	4-14-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22ddad	800	do	1957	32.3	36	Qes, Qv	M	O	0	0	26.2	5,176.1	11-6-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	22ddba	1,250	do	1957	49.0	4	Qes, Qv	Port, M	O	2R	2.4	1/2	5,152.7	8-29-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23abdb	4,550	do	1957	20.0	4	Qes, Qv	Port, M	O	15R	3	1/2	5,150.1	10-8-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23addd	2,850	do	1957	30.6	42	Qes, Qv	M	O	0	0	21.5	5,166.1	9-4-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23addd2	2,900	do	1960	37.0	4	Qes, Qv	M	O	6M	6.4	1/2	5,161.0	4-12-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
2	23adde	4,000	do	1957	520R	5	Kdmc	Cyl, M	O	0	0	38.5	5,155	4-12-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23adde2	2,690	do	1957	47.0	48	Qes, Qv	M	O	0	0	38.5	5,186.4	11-6-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23ccaa	1,250	do	1960	56.0	4	Qes, Qv	M	O	15M	2.6	1/2	5,191.5	4-3-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23cdhb	1,000	do	1957	63.0	24	Qes, Qv	Cyl, M	O	0	0	43.6	5,196.3	9-6-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23cdhc	250	do	1960	61.0	4	Qes, Qv	M	O	2M	2.4	1/2	5,190.4	4-12-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	23ddac	750	do	1960	40.0	4	Qes, Qv	M	O	15M	2.0	1/2	5,173.2	4-14-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24abba	5,050	do	1960	33.0	4	Qes, Qv	M	O	7M	4.3	1/2	5,140.5	4-14-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24abcc	2,930	do	1942	22R	8	Qes, Qv	Cyl, M	O	0	0	13	5,160	12-4-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24baac	4,750	do	1958	20.0	4	Qes, Qv	M	O	10M	5.4	1/2	5,140.4	3-4-58	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24bcde	2,650	do	1958	48.5	48	Qes, Qv	M	Err, O	0	0	25.3	5,167	9-22-55	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24bdde	2,690	do	1960	33.3	4	Qes, Qv	M	O	0	0	19.5	5,165.8	7-6-57	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24cecc	150	do	1960	25.0	4	Qes, Qv	M	O	6M	6.4	1/2	5,198.3	4-14-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150
1	24dadb	1,700	do	1960	40.0	4	Qes, Qv	M	O	12M	5.3	1/2	5,167.1	4-14-62	Dr B75, Dr H8-6-41, L1, 22440-480, 528-550, 572-616, WL(5-62)150

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)	Drawdown (feet)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-67-																
1	28bddd	2,900	T. Palazzi	1944	50.0	48	Qb-Ql	T, E	Irr	320M	..	..	36.7	5,133.8	4-11-62	A20, D, WL(8-6-55) 36.4, WL(11-5-57) 37.1, WSP
1	28cbac	1,900	F. Palombo	1937	60R	48	Qb-Ql	C, E	Irr, D	350R	12	1/2	46.5	5,139	8-8-55	A20, D, F, P445-60
1	28cbac	4,620	C. Sharpless	1956	95R	5	Qb-Ql	..	D	815R	40	..	10	5,128	5-25-56	870, DL, D, P410-70
1	28cbdd	2,060	A. O'Kelly	1954	60R	5	Qb-Ql	..	D	815R	4	..	53	5,128	1-6-54	858, DL, D, P445-60
1	28ccda	420	J. Vade	1944	67.6	48	Qsa-Ql	T, E	Irr	350R	..	..	51.7P	5,160	8-8-55	A5, D, F, P412, 757
1	28cdcb	1,100	M. Auman	1938	50.2	40 to 10	Qsa-Ql	T, E	Irr, D	..	..	..	40.4	5,160	8-17-55	D
1	28dbbc	2,260	S. Ullaberr	1952	30R	46 to 6	Qsa-Ql	T, E	Irr	..	..	..	..	5,135	..	A5, D, W5
1	28dbac	4,640	S. Donovan	1935	37.6	48	Qb-Ql	T, E	Irr	..	..	..	27.7	5,115	9-7-55	D
1	28dbcc	4,250	J. Kramer	1935	43.0	120 to 10	Qb-Ql	T, E	Irr	..	..	..	28.6	5,110	9-7-55	A40, D, F
1	28bddd	2,650	.. do ..	1935	49R	48	Qb-Ql	T, E	Irr	..	..	..	31.0	5,118.5	4-11-62	WL(9-7-55) 33.5, WL(11-5-57) 29.3
1	28bdaa	1,850	.. do ..	..	46.1	60	Qb-Ql	T, O	Irr	..	..	..	30.6	5,112	8-16-55	D
2	28ccda	100	South Adams Water and Sanitation District	1953	790R	10 to 8	Kmac, Kdlc	T, E	PS	200R	219	11	58	5,123.5	6-24-53	B25, EL, L, SL, Tch298-324, 348-362, 385-400, 426-444, 468-480, 488-500, 540-565, 656-668, 680-697, 760-790
1	29dcdb	600	2,550 Sterling Tank and Steel Co.	1959	37R	5	Qb-Ql	J, E	D	10R	..	..	28	5,125	1-59	B37, DL, D, P434-37
1	29dcdd	180	F. Mikalido	1950	36.5	48	Qb-Ql	T, E	Irr	366M	..	..	..	5,131	..	A5, P418, T55
1	29dcdd	30	F. Palombo	1955	63.3	48	Qb-Ql	T, E	Irr	..	..	..	37.0	5,135	4-11-62	A10, B62, D, DL, P43-62, WL(7-11-56) 40.8, M50
1	29ddaa	1,250	B. Aragon	1960	61.0	18	Qsa-Ql	T, E	Irr	200R	3	..	41.2	5,143	10-13-60	A57, B61, DL, D, P463-61.5
2	30abaa	5,150	H. Priola	1953	420R	6 to 4	Kdlc	..	D	830R	60	4	20	5,071	11-13-53	B30, D, L, P4345-362, 390-410
1	30cbcb	1,050	Northfield Co.	1955	30R	48	Qpp-Ql	..	PS	1,018M	12.1	4	1.8	5,083.8	10-10-55	AT, D
1	30cadb	1,700	E. Lambuth	1953	27.5	48	Qpp-Ql	C, G	Irr	1,300R	25	..	6.4	5,080	8-23-56	D
1	30cadb	1,550	Dewett	1953	30R	36	Qpp-Ql	T, E	Irr	400M	11.1	1/4	6.8	5,181	8-23-56	B30, D, P410, Su
1	30cdca	350	B. Sato	..	30.0	36	Qpp-Ql	T, E	Irr	550M	6.8	1/2	6.7	5,085.7	4-10-62	AL20, Su, T57, WL(10-10-55) 6.5, WL(11-5-57) 7.1
1	31aadc	4,020	G. Melchior	1956	66R	6	Qpp-Ql	..	Irr	..	..	..	27	5,022	..	..
2	31bbdc	4,150	B. Sato	..	26.7	48	Qpp-Ql	C, E	Irr	..	..	..	3.0	5,088	10-10-55	D
2	31cbcb	1,750	Adams City Greenhouses	1957	773R	8 to 4	Kdlc	8, E	Irr, B	25R	..	..	..	5,130	..	B48, DL, D, P4238-308, 391-529, 619-754
1	31ccdc	1,380	.. do ..	1952	52R	48	Qb-Ql	C, E	AC	220R	14	1-1/2	38	5,132	6-26-56	B52, D, DL, P442-52
1	31cbcb	2,300	A. Tani	1950	21.5	36	Qpp-Ql	T, E	Irr	..	..	..	5.7	5,095	8-22-56	D, F
1	31cdca	1,010	Not known	..	31R	6	Qb-Ql	Cyl, H	D	..	..	..	27.0	5,131.8	4-10-62	D, WL(11-6-57) 27.1
2	31dced	150	Skelly Oil Co.	1954	751R	8 to 6	Kdlc, Kdlc	S, E	Ind	60R	..	..	287.3	5,155	7-11-57	B47, DL, L
2	31ddcb	600	Rainbo	1955	808R	8	Kdlc, Kdlc	T, E	Ind	B40R	35	..	221.2	5,130	11-4-59	B60, DL, D, EL, Tch300-425, 490-535, 600-760
1	32aac	4,700	F. Polombo	..	64R	..	Ql	..	D, B	..	..	..	..	..	..	WS
2	32aadd	4,000	South Adams Water and Sanitation District	1959	782	10	Kdlc, Kdlc	T, E	PS	178M	130	..	205.0	5,150.0	3-25-58	B100, D, EL, DL, H22, L, S, Tch270-420, 520-782
1	32aedd	4,000	.. do ..	1958	100R	16	Qb-Ql	T, E	PS	1,000R	12	..	38.0	5,150	3-25-58	B100, DL, D, EL, H10, Tch50-100
1	32bdc	1,450	T. Hunt	..	71.2	48 to 14	Qb-Ql	J, E	Irr, L	..	..	..	62.6	5,155	7-11-56	DO
2	32bdc2	1,400	.. do ..	1889	900R	6 to 4	Kdlc, Kdlc	Cyl, L	D	..	..	..	255.8	5,160	7-11-56	D, T42
1	32ddda	60	Bay Petroleum Co.	..	64.1	12	Ql	T, O	M	300R	..	..	49.4	5,170	7-11-56	D
1	31aadc	2,650	Rocky Mountain Arsenal	1958	82.0	4	Ql	Port, M	O	15R	..	..	52.1	5,170.3	2-7-58	B81.2, Core, L, S, S60, 3-68.7, 70.2-78.6
1	33bcb	3,630	.. do ..	..	47.6	6	Qb-Ql	M	N	..	..	..	41.7	5,150.5	11-6-57	D, WL(9-6-55) 44.5, WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
	C2-67-31ccca	600	4,650	Rocky Mountain Arsenal	1958	114	4	Qb,Q	M	O	10R	..	5,164.0	3-10-50	B112.1; Core; Ss; Scl03.9-111.5; SL
1	14ddad	900	150	..	31.6	10	Qes,Q1	M	Ind	..	..	26.5	5,109	9-0-55	Dr; P22-31; W8
1	15abaa	5,150	1,500	..	55.0	4	Qes,Q1	M	O	..	..	5.8	5,209.5	9-12-57	B52.2; Core; Scl40.3-42.3; SL
1	15adac	3,600	150	..	42.0	4	Qes,Q1	M	O	..	..	12.2	5,236.4	9-13-57	B39.3; Core; L; Scl24.0-26.0
1	15bbda	4,300	3,900	..	40.3	30 to 8	Qes,Qv	M	O	..	..	35.3	5,215.5	9-6-55	D
1	15bbdd	4,250	4,150	..	45.0	4	Qes,Qv	M	O	..	..	31.4	5,210.0	9-10-57	B11.4; Core; L; Scl34.2-36.2, 37.0-39.0
2	15bbdd	3,450	3,600	..	126	3	Tkdu	M	M	..	..	88.4	5,220	9-6-55	Dr; W8
1	15cddb	1,200	3,850	..	48.0	4	Qes,Qv	M	O	..	..	40.8	5,232.3	10-3-57	B41.2; Core; Ss; Scl39.2-41.2; SL
1	16bbda	4,420	4,250	..	30.0	4	Qes	M	O	..	..	20.0	5,238.9	9-26-57	B22.9; Core; L; Ss; Scl13.2-15.2, 16.6-20.6
1	16bdcd	2,600	3,600	..	42.0	4	Qes	M	O	2R	..	3.9	5,234.5	2-21-50	B38.0; Core; Scl15.2-23.8; SL
1	16cbdd	1,420	4,200	..	36.0	4	Qes	M	O	<1/4R	..	7.0	5,243.9	2-10-58	B27; Core; Scl16.0-24.6; SL
1	16cccd	100	4,700	..	31.0	4	Qes	M	O	4M	12	12.3	5,263.9	3-6-62	B23.1; Core; GE; Scl12.0-15.0, 18.0-27.0; SL
2	C2-68-4aaba	5,000	850	E. Whytal.	1948	4,600R	..	..	Oil	..	..	..	..	..	Thick coal at 400 feet; reported water under high pressure at about 400 feet
2	4badc	4,050	3,150	W. Vogler	1948	1,330R	5 Kib,Kla,Kfm	T,E	D,S,Sw	10R	..	260	5,403	4-23-57	Dr; P2; GH(1,185-1,330) WSP
2	4bdad	3,750	3,100	..	1,300R	6 Kib,Kla,Kfm	T,E	M	..	21R	235	..	5,400	4-23-57	Dr; U(1957)
2	4bdba	3,750	3,300	..	1,800R	6 Kib,Kla,Kfm	Cyl,E	D,S,Sw,E	..	..	250	..	5,400	4-23-57	Dr; P21,300-1,750
2	4caad	2,030	2,750	P. Marion	1959	600R	6 to 4 Kmac,Kdic,Klu	Cyl,E	D,S	8R	50	..	5,360	6-26-59	Dr; L; P2380-393, 416-462, 484-508
2	10bba	5,180	4,050	T. Wolfkill	1957	700R	6 to 4 Kmac,Kdic,Klu	S,E	D	20R	100	..	5,450	..	Dr; L; P1500-700; T54; WSP
2	14adcc	2,750	1,050	A Hill	1954	560R	6 to 4 Kmac	Cyl,E	D	3R	75	16	5,315	10-14-54	DL; Dr; Tch440-460, 480-500, 520-540
2	15abab	5,220	1,850	Highland Memory Gardens	1954	825R	8 to 6 Kmac,Kdic	S,E	Irr	16R	35	12	5,383	10-21-59	Dr; L; P2355-615
2	16daaa	2,480	320	Deza Estates	1956	800R	6 to 5 Kmac,Kdic	T,E	PS	..	..	441.6	5,483	3-15-57	Dr; EL; GR; P2340-380, 448-470, 513-517, 558-580, 600-620, 692-714, 715-756, 778-800; Ss; SL
2	17acbc	3,500	2,420	Ruston Heights Airport	1946	1,023R	6 Kmac,Kdic,Klu	Cyl,E	Ind	10R	..	..	5,550	..	Dr; L
2	19ccbb	1,250	5,150	Northwest Water Corp.	1955	1,591R	8 to 6 Kib,Kla,Kfm	..	PS	50R	235	..	5,500	6-30-55	DL; Dr; EL; Tch1,240-1,330, 1,380-1,580
2	19ccbb2	1,250	5,150	..	716R	10 to 8 Kmac,Kdic	S,E	PS	PS	85R	160	24	5,500	8-30-55	DL; Dr; EL
2	19ddbd	700	750	..	740R	10 to 8 Kmac,Kdic	S,E	PS	PS	100R	61	24	5,528	3-6-56	DL; Dr; EL; Tch460-740
2	19ddca	650	750	..	1,630R	8 to 6 Kib,Kla,Kfm	S,E	PS	PS	41M	..	..	5,528	5-6-57	Dr; EL; L; Tch1,300-1,630
2	20accd	2,870	2,070	Federal Heights	1954	750R	8 Kmac,Kdic	T,E	PS	40R	..	..	5,525	8-60	Dr; W(1954)385
2	20cdad	30	2,900	Northwest Water Corp.	1955	750R	10 to 8 Kmac,Kdic	..	PS	100R	170	..	5,515	6-9-55	DL; Dr; EL; Tch185-385, 495-725
2	20cdad2	30	2,900	..	1,656R	8 to 6 Kib,Kla,Kfm	S,E	PS	PS	100R	198	24	5,515	6-12-55	DL; Dr; EL; Tch1,325-1,640

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C2-68-20dbcc	1,450	Federal Heights	1959	780R	8 to 6	Kdmc, Kalc	T, E	PS	40R	..	505	5,514	5-8-58 DL; Dr; PD; Tch510-714, 716-758; WS	
2	20dbcc2	1,400	.. do ..	1940	2,200R	8 to 4	Klb, Kla, Kfm	T, E	PS, Ot	50R	..	482.4	5,514	11-10-60 Dr; Gal. Plugged back to 1,760 feet	
2	20dcda	600	.. do ..	1959	792R	7	Kdmc, Kalc	M	PS	40R	..	494.5	5,475	11-10-60 Dr; L; Tch506-660, 682-704, 770-792, Wt(7-55)510	
2	21dcdb	650	E. Camenisch	1910	640R	6	Kdmc, Kalc	Cyl, E	D	3R	..	190	5,440	1954 DL; Dr	
2	23cbdb	2,820	Northwest Utilities Co.	1953	710R	8 to 6	Kdmc, Kalc	T, E	PS	94M	75.2	48	5,283.2	1-10-58 AT; Dr; DL; Dr; PD; Wt(9-13-53)238.8; WS; WSr	
2	23cbdb2	2,600	.. do ..	1954	1,446R	8 to 6	Klb, Kla	S, E	PS	44M	262.9	48	5,284.5	1-10-58 AT; Dr; PD; L; Wt(3-25-54)83.2; WS; WSr	
2	25aada	4,300	.. do ..	1954	750R	12 to 6	Kdmc, Kalc	S, E	PS	74M	150.6	48	5,097	1-10-58 AT; Dr; DL; Dr; EL; F2316-415, 472-486, 620-630, 678-688, 726-736, Wt(8-7-54)62.4	
1	25aadc	3,980	Dickers	..	45R	48	Ol	M	Err	500R	..	23	5,097.6	1-19-55 WS(3) D; DL	
1	25aada	4,050	Northwest Utilities Co.	..	..	..	Op, Ol	M	PS, E	..	..	..	5,096	.. U(1958)	
1	25aada2	4,100	.. do ..	..	35.7	..	Op, Ol	T, E	PS	..	..	21.7	5,095	4-10-62 D; Wt(11-6-57)21.0; Wt(1-10-58)21.7	
1	25addda	3,100	.. do ..	1954	30R	48	Opp, Ol	M	PS	750M	21	5	5,080	.. D	
1	25addd	2,950	.. do ..	..	26R	48	Opp, Ol	M	PS	1,040M	17.5	7.0	5,080	4-1-58 AT; Dr; Wt(8-30-54)4.2	
1	25addd2	2,800	.. do ..	1954	30R	48	Opp, Ol	T, E	PS	650M	4	6	5,080	.. D; PD; WS; WSr	
1	25addd3	2,650	.. do ..	..	30R	48	Opp, Ol	M	PS	750R	..	7.2	5,085	4-1-58 D	
2	25bdac	2,950	Western Concrete Pipe	1956	240R	4	Tkdu	S, E	Ind	10E	..	..	..	.. Dr	
1	25daac	2,500	Northwest Utilities Co.	1954	26R	48	Opp, Ol	T, E	PS	500R	..	7.3	5,085	4-1-58 D	
1	25daac	2,100	A. Vantorno	..	24.0	24	Op, Op, Ol	C, M	Err	..	..	13.5	5,094.4	4-30-58 A20; D; F218; Su	
2	25dccc	3,300	B. Yamashita	..	250R	4	Tkdu	D	G	..	..	..	..	.. Dr	
2	27daaa	3,750	E. Rabinowitz	1953	105R	5	Tkdu	..	D	85R	25	75	5,270	10-14-57 DL, Dr	
2	27dbbb	1,250	W. Weingarten	1959	605R	6 to 4	Kdmc, Kalc	Cyl, E	D, S	50R	..	315	5,240	2-5-59 DL; Dr; Tch421-444, 467-490, 536-582	
2	28bccc	3,080	Baker Metropolitan Water and Sanitation District	1959	770R	9	Kdmc, Kalc	S, E	PS	80M	30	..	5,503	7-20-59 B11; Dr; EL; L; Tch497-770	
2	29cbcc	2,050	Belleview College	1961	735R	8	Kdmc, Kalc	S, E	Sch	825R	15	..	5,540	1-14-61 DL; Dr; H12; F4522-692, 706-715	
2	29cbdd	2,150	.. do ..	1930	1,626R	20 to 8	Klb, Kla, Kfm	T, E	Sch	100R	..	250	5,541	11-14-56 B10; Dr; L; OH(1, 372-1, 626); U(1961)	
2	30caac	2,120	Northwest Water Corp.	1955	660R	10 to 8	Kdmc, Kalc	S, E	PS	120R	138	..	5,410	4-23-55 DL; Dr; EL; GE; Tch 120-300, 355-500, 555-575, 605-640	
2	30caac2	2,120	.. do ..	1955	1,601R	8 to 6	Klb, Kla, Kfm	S, E	PS	100R	310	..	5,410	4-20-55 DL; Dr; EL; F21, 160-1,490	
2	31acab	3,900	City of Westminster	1947	703R	12 to 10	Kdmc, Kalc	..	PS	212R	68	24	5,350	.. Dr; EL; L; SL; WS; Well destroyed, 1960	
2	31caab	2,550	.. do ..	1953	700R	10 to 8	Kdmc, Kalc	T, E	PS	130M	50	24	5,333	8-53 DL; Dr; EL; PD; WS; WSr	
2	31caab2	2,500	.. do ..	1954	1,546R	8 to 6	Klb, Kla, Kfm	T, E	PS	150M	..	20	5,333	1960 Dr; EL; PD; L; WS; WSr	
2	31dcda	500	.. do ..	1936	542R	..	Kdmc, Kalc	T, E	PS	90R	28	8	5,304	10-36 DL; Dr; WS; Well deepened from 369 feet to 474 feet	
2	31ddcb	350	.. do ..	1929	495R	12 to 8	Kdmc, Kalc	M	PS	75R	..	150	5,300	1929 DL; Dr; OH(474-495). Destroyed	
2	32abbb	5,250	Fairview Construction Co.	1954	..	..	Kdmc, Kalc	..	PS	75R	45	48	5,414	6-21-54 AT; Dr	
2	32acdb	3,250	City of Westminster	1952	606R	10 to 8	Kdmc, Kalc	T, E	PS	120M	..	300	5,370	2-52 DL; Dr; WS	
2	32bddd	2,800	W. Walden	1957	508R	6 to 4	Kdmc, Kalc	T, E	PS	10R	..	223.5	5,365	10-21-59 DL; Dr; F410-508	
2	32ccdd	1,600	City of Westminster	1955	1,548	..	Klb, Kla, Kfm	T, E	PS, E	145R	..	42	5,328	11-14-56 DL; Dr; EL; U(1960); WS	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Length to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	33ccc2	1,580	City of Westminster	1954	624R	10 to 8	Kdnc,Kdlic	T,E	P8	160R	300	24	5,328	10-12-60	DL; Dr
2	33ccb	1,180	do	1953	620R	10 to 8	Kdnc,Kdlic	T,E	P8	150M	..	..	5,333	12--53	DL; Dr
2	33abdb	4,480	General Water Works	1954	693R	10 to 8	Kdnc,Kdlic	T,E	P8	65M	114	24	5,305	9-19-60	AT; DL; Dr; EL; FD; P3340-358, 427-452, 464-476, 494-530, 566-623; WL(10-54) 317, WS
2	33abdb2	4,610	do	1957	1,560	8 to 6	Klb,Kla,Kfm	T,E	P8	99M	436	24	5,370	4-27-57	DL; Dr; EL; FD; P3320; WS
2	33decc	60	Baker Water District	1950	651	9	Kdlic	T,E	P8	75M	300	..	5,250	7-11-50	DL; Dr; EL; Tsch396-650
2	34adda	1,100	Zeefer Food Products Co.	1954	445R	6 to 4	Kdnc	S,E	E	10R	..	..	5,192	1954	D; DL; Dr; P3385-445; Su
1	34add	1,625	J. Saccomano	1930	35.5	18	Op,Ol	T,E	Irr	..	..	..	5,149.8	4-1-58	Dr
1	34dda	1,880	M. Larson	1936	30.7	18	Op,Ol	T,E	Irr	..	..	..	5,155.2	4-10-58	Dr
1	34ddc	280	J. Saccomano	1946	31.5	48 to 24	Op,Ol	T,E	Irr	..	..	..	5,149.7	4-1-58	AL4; D; Su
2	35aca	4,420	A. Croce	1933	413R	6 to 4	Kdnc	S,E	Irr	150R	..	..	5,150	..	Dr
1	35aac	4,680	L. Marchese	1926	22.2	14	Op	C,G	Irr	..	..	..	5,134.9	8-7-56	A5; D; Su
2	35cab	3,860	South Adams Water and Sanitation District	1950	500R	8 to 6	Kdnc	S,E	Sch	12R	100	18	5,188	8-25-56	DL; Dr; P430-480
1	35cab	2,350	C. Larusso	1920	14.5	12	Op	C,E	Irr,Pr	..	..	..	5,134.3	3-25-58	Dr
2	35cac	2,200	do	1920	500R	6	Kdnc	Cyl,E	D	..	..	..	5,135	1957	Dr
1	35cac2	2,050	do	1954	32.0	18	Ol	T,E	Irr	200E	4	3/4	5,133.3	3-25-58	AL0(with 2 walls); D; P315; Su
1	35cad	1,340	M. Pedotto	..	42.1	24	Op,Ol	T,E	Irr	260M	6.2	1/6	5,140.5	4-30-58	A4.5; D; Su
2	35cbcb	1,900	F. Adducci	..	26.0	16	Op,Ol	T,E	Irr	150R	..	..	5,149	3-25-58	A5; Dr; Su
2	35cbcb2	1,900	do	1920	500R	3	Kdnc	Cyl,E	D	..	..	..	5,148	3-25-58	Dr
1	35cea	1,300	A. Marrone	1954	27R	12	Op,Ol	T,E	Irr	..	..	..	5,138	8-7-56	A5; D; Su
1	35cead	670	F. Gaccetta	1955	40R	18	Op,Ol	T,E	Irr	150M	..	..	5,140.5	4-28-58	A5; D; P315; Su
2	35cebd	4,850	V. Pedotto	..	500R	6	Kdnc	J,E	D	..	..	..	5,145	..	Dr
1	35cebd2	700	do	..	17.0	48	Op,Ol	J,E	Irr	185M	..	..	5,144.5	3-25-58	D; T53
2	35cecc	250	V. Albanese	..	27R	6 to 4	Tdau	Cyl,E	D	..	..	..	5,145	..	Dr
1	35cecc2	15	do	1925	15R	18 to 18	Op,Ol	T,E	Irr	..	..	..	5,140.8	4-1-58	D
2	35cecc3	..	A. Ventorno	1959	61R	6 to 4	Kdnc,Kdlic	..	D,G	824R	60	..	5,140	8-12-59	B39; Dr; L; Tsch416-616
1	35cdcc	20	D. Albanese	1933	26.7	18	Op,Ol	T,E	Irr	..	..	..	5,141	8-7-56	A5; D; F; Su
1	35cdcc	700	V. Pedotto	..	31.5	18	Op,Ol	C,E	Irr	..	..	..	5,141.5	3-25-58	Dr
1	35cdad	680	J. Pedotto	..	40R	18	Op,Ol	T,E	Irr	..	..	..	5,132	3-31-58	B40; D; GE; P315
1	35cdbe	680	do	..	40R	18	Op,Ol	T,E	Irr,Pr	175M	11	..	5,141.7	4-28-58	D; GE; P315; Su
1	35cded	10	A. Yantorno	1948	43.0	24	Op,Ol	T,E	Irr	..	..	..	5,145.7	3-25-58	AL0; WL(8-6-56) 17.4
1	35cdde	400	do	..	45.0	24	Op,Ol	J,E	D	..	..	..	5,140.5	3-25-58	DO
1	35cded	2,000	J. Motella	1956	35R	6	Op,Ol	J,E	D	10R	..	..	5,120.7	9-1-56	B30; Dr; L
1	35daba	2,600	G. Rende	1954	38R	18	Op,Ol	Port,Irr	Irr	500R	..	..	5,129	4-30-58	Dr; u(1958)
1	35dabb	2,610	L. Motello	1940	38R	16	Op,Ol	T,E	Irr	..	..	..	5,128.0	4-30-58	A22; B38; Dr; F
1	35dab	1,950	A. Marzone	1936	30.0	..	Op,Ol	T,E	Irr	..	..	..	5,125	8-6-56	AL5; D; Su
1	35dbaa	2,630	E. Graves	1940	34R	16	Op,Ol	T,M	Irr	..	..	..	5,125.5	4-28-58	AL5; D; F; Su
1	35dbbc	2,220	J. Mazzotti	1942	31.6	21 to 18	Op,Ol	T,E	Irr	230M	..	..	5,131.5	7-30-56	WL(8-1-56) 11.9
1	35dbdb	1,950	R. Molinaro	..	40R	16	Op,Ol	T,E	Irr	180M	4.7	1/6	5,133.0	4-30-58	AL0; D; F; GE; P320; Su; T53
1	35decc	910	T. Milano	1930	30.1	12	Op,Ol	C,E	Irr	..	..	..	5,129.3	4-30-58	AL0; D; F; Su
1	35debc	800	J. Mazzotti	1940	26.8	37 to 16	Op,Ol	T,E	Irr	250R	6.6	1/4	5,135.3	4-30-58	AL0; D; F; GE; P325; Su
1	35decb	560	J. Perry	1935	40R	24	Op,Ol	T,E	Irr	..	..	..	5,134.3	4-30-58	AL0; D; F; GE; P325; Su
1	35decb	300	J. Mazzotti	1926	32R	39 to 10	Op,Ol	T,M	Irr	..	..	..	5,123	7-30-56	AL0; D; F; GE; P315; Su
1	35decb	4,800	B. Yamashita	..	15.4	36	Opp,Ol	C,G	Irr	..	..	..	5,099	8-1-56	A20; B21; D; Su
1	35eada	3,240	Inland Sand and Gravel Co.	1957	29R	48	Opp,Ol	T,E	Ind	..	..	..	5,095	3-27-57	D; DL; P36
1	35eada2	3,220	do	..	25R	36	Opp,Ol	T,E	Ind	..	..	..	5,095	..	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north (feet)	Map distance west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm)	Drawdown (feet) (hours)	Depth of water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-68-															
1	36badd	4,010	2,860	T. Cosal	1951	21.7	48	Op. Ol	M	Irr	400R	11.3	5,099.2	8-1-56	D
1	36bacc	2,490	5,050	G. Lorenzo	1954	32.5	16	Op. Ol	C.E	Irr, Ot	125R	21.8	5,126	4-10-62	A10; D
1	36bdaa	3,820	2,820	North Washington Water and Sanitation District	1956	18R	24	Op. Ol	T.E	PS	450R	7.0	5,100.1	6-15-56	A7; B18; D; QY125; L
1	36bdaa2	3,670	2,650	do	1959	25R	24	Op. Ol	T.E	PS	1,000M	13.0	5,093	9--60	A7; D; DL; FD; QY225; MS
1	36bcah	1,660	3,930	A. Garaca	1945	29.7	18	Op. Ol	T.E	Irr		13.7	5,110	4-10-62	A17; D; WL(1954)16; WL(8-7-56)11.4
1	36cbba	2,600	4,730	G. Wazueca	1921	31.9	38 to 18	Op. Ol	T.O	Irr, Ot		18.7	5,120.5	11-5-57	A7; B18; D
1	36baca	1,850	4,250	Forward	1949	32.4	48	Op. Ol	T.E	Irr	730M	5.6	5,097	8-21-56	D; P115; T56
1	36bada	1,310	4,870	do	1956	34.0	36	Op. Ol	T.E	Irr		8.8	5,097	8-21-56	D; P115
1	36bdac	10	1,800	B. Bromley	1956	32.1	24	Op. Ol	T.E	Irr		7.0	5,100	4-6-56	B38; DL; Dr
1	36bdab	600	500	do	1956	46R	6	Op. Ol		D	820R	11	5,100	4-6-56	B38; DL; Dr
1	36ddda	140	20	do	1936	20R	36	Op. Ol	T.E	Irr		7.7	5,099	8-22-56	A9; D
C2-69-															
2	1cbbch	1,750	5,150	Broomfield Water and Sanitation District	1959	1,007R	8 to 6	Klb, Klb, Kfm	S.E	PS, E	20R	236.0	5,325	10-8-59	Dr; EL; L; P2777-1,007; WL(10-3-60)251.9
2	2bbab	5,150	4,400	do	1952	1,140R	8 to 6	Klb, Klb, Kfm	S.E	PS	35R	235	5,435	1-52	Dr; L; P2120; WS
2	5ccda	600	4,250	T. Miles	1949	2,919R	6 to 4	Klb, Klb, Kfm	S.E	Oil		200	5,533	11-24-56	Dr; EL; L; S; TCH303
2	14bccc	4,230	5,720	Wallace School	1956	1,022R	6 to 4	Klb, Klb, Kfm	S.E	Sch	32R	130	5,379	5-2-57	DL; Dr; EL; L; S; TCH303
2	18ccccc	150	5,000	K. Church	1957	1,030R	6 to 4	Klb, Klb, Kfm	S.E	D	820R	202	5,600	9-12-60	Dr; EL; L; S; TCH303-1,030
1	19cbba	4,020	2,150	A. Ludwig	1960	42R	6	Ol, Kdl	J.E	D	10R	5	5,552	10-20-59	B39; Dr; EL; L; TCH295-375; U(1960)
2	25adca	2,480	250	B. Parr	1958	596R	6	Kdlc	T.E	PS	832R	20	5,390	11-5-58	DL; Dr; EL; L; TCH295-375; U(1960)
2	25acda	120	1,600	do	1958	575R	6	Kdl	M	PS	832R	18	5,368	10-28-58	B14; Dr; L; P215-61; U(1960)
1	26baab	5,190	3,100	A. Craig	1956	61R	6	Qe	J.E	D	4R	43	5,473.4	5-22-57	DL; Dr; EL; L; TCH295-375; U(1960)
2	26baab2	5,220	3,050	C. Taylor	1957	603	4	Kdlc	S.E	PS	817R	35	5,470	4-9-62	Dr; L; TCH40-50; 267-403; 540-585
1	26baab3	5,200	3,240	B. Adams	1957	55R	5	Qe	J.E	D	7R	9.8	5,473.6	10-7-58	Dr; EL; L; TCH120-400
2	22aeaa	5,180	70	R. Parr	1958	400R	6	Kdlc, Kdlc	M	PS	843R	70	5,500	11-56	DL; Dr; EL; L; P214-167; 214-239
2	29baaa	5,100	2,670	R. Jackson	1956	375R	6 to 4	Kdlc	S.E	D, S, Pr	5R	110	5,588	8-22-58	DL; Dr; EL; L; WS
2	10dbcc	1,390	2,400	J. Ferch	1956	196R	6	Kdlu	Cyl, E	D, Irr, L	10R	46	5,650	4-9-62	Dr; GE; L; TCH17-32; WL(10-15-58)13.5
2	30dbcc	1,800	1,600	do	1956	193	5	Kdlu	M	D		116.8	5,650	8-21-58	DL; Dr; EL; L; P215-55
1	31cbcd	1,350	4,830	Malston Presbyterian Church	1956	32R	6	Qe	J.E	D	40R	2	5,566.7	8-21-58	DL; Dr; EL; L; P215-55
2	31ccdb	470	4,300	F. Luckey	1940	300R	6	Kdlc, Kdlc	Cyl, E	D, Irr, L	18R	19	5,564	8-21-58	DL; Dr; EL; L; P215-55
1	31ccdd	220	4,060	L. Nelson	1956	55R	7 to 5	Op. Ol	J.E	D, Irr, L	89R	26.4	5,559.3	8-21-58	DL; Dr; EL; L; P215-55
2	32adcc	2,880	1,150	M. Krupicka	1957	125R	6 to 5	Kdlc	J.E	D	830R	63	5,545	8-21-58	DL; Dr; EL; L; P215-55
2	32bccc	3,410	5,100	R. Jensen	1958	90R	6 to 5	Kdlc	J.E	D		4.6	5,480	8-21-58	DL; Dr; EL; L; P215-55
1	32bccc	2,900	5,100	M. Finley	1960	23R	18	Op. Ol	J.E	Irr, G	28	20	5,498	4-9-62	DL; Dr; EL; L; P215-55
2	32bdab	3,940	3,000	E. Jensen	1958	100R	6 to 5	Kdlc	J.E	M	7M	45.1	5,560	8-21-58	DL; Dr; EL; L; P215-55
2	32daad	2,080	140	C. Strohmayr	1957	117R	6	Kdlc	S.E	D, Irr, L	8R	86.0	5,500	8-21-58	DL; Dr; EL; L; P215-55
2	32adab	1,850	1,100	E. Bohling	1956	100R	4	Kdlc	J.E	D, Irr, L	7R	29	5,490	8-21-58	DL; Dr; EL; L; P215-55
2	32adad	200	80	City of Alameda	1956	500R	6	Kdlc, Kdlc	S.E	PS	97M	178	5,546	10-14-58	B6; Dr; EL; L; P215-55
2	34bbab	5,280	4,450	Oberon Acres	1955	760R	8	Kdlc, Kdlc	S.E	PS	50R	282.9	5,555	11-5-59	DL; Dr; EL; L; T60
2	35bbab	2,400	2,500	D. Schneider	1958	545R	8 to 6	Kdlc, Kdlc	S.E	D	12R	372	5,475	11-58	B30; Dr; EL; L; T60
2	36ddda	500	300	Shoenberg Farms	1949	520R	8 to 6	Kdlc, Kdlc	S.E	D, Ind	75R	274	5,331	6-12-61	Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth of water	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C2-70-	1	180	Church Ranch	1959	5.7	36	Qp	N	M	15R	240	3.5	5,600	4-9-62	D; T47; WL(4-9-60)3.6
	2	5,150	M. Church	1959	430R	5 to 4	Klb, Klb	S, E	D			90	6,183	4-22-59	B30; Dr; EL; L; P1207-248; 262-412
	1	22acda	120 Not known			48	Qp	J, E	N			.0	5,920	4-2-60	D
	2	22acdb	3,650 Public Service Co. of Colo.		1,073		Klb, Klb	T, E	Ind			398	6,059	1959	DL; EL; Sa
	2	22acda	2,000 Leyden Core Hole		919R								5,873.4	4-29-61	DL
C2-71-	1	3,550	E. Stringer	1961	1,220R	8	Klb, Klb		D	30R	535	365	5,760	4-29-61	DL; Dr; OH(1,051-1,220)
	2	25acda	Public Service Co. of Colo.	1961	812R	9 to 7	Klb, Klb	S, E	O	20R	500	230	5,680	3-21-61	B28; Dr; EL; GE; H9-7; L; P1253-795; Sa. Originally drilled to 1,252 feet
	2	26cdac	do	1961	715R	18 to 10	Klb, Klb	T, E	Dr	550R	400	260	5,715	2-11-61	Dr; H24-17-12; L; P1253-795
	1	26cdcc	Leyden Water District	1928	Spring		Or		PS	F6E			6,128.3	12-15-58	FD; WS
	2	27dbdc	Patridge	1957	791	6	Klb, Klb	J, E	N	10R	20	10.3	5,633.2	10-17-58	B14; Dr; FD; L; WS
C2-71-	1	1,650	Public Service Co. of Colo.	1961	784R	18 to 13	Klb, Klb	S, E	Dr	600R	400	300	5,765	2-20-61	DL; Dr
	2	28cdad	G. Lindsey	1945	180		Kl	N	N			34.7	5,906.4	10-14-58	Mine shaft
	1	28cdad	do	1945	24.0		Qp, Qb	J, E	D, S			7.7	5,814.4	4-9-62	WL(10-14-58)7.9
	2	29acbb	S. Strang		Spring		PC		D	F			7,725	12-7-60	FD; F2; SG
	1	29acbb	do		Spring		PC		D	F			7,725	12-7-60	FD; F2; SG
C3-65-	1	30	J. Drohan	1952	70R	18	Qb, Ql	N	Irr, Ot			20.1	5,388.6	11-4-57	Dr; U(1956)
	2	7acbd	Union Pacific Railroad Co.	1956	8,375R				Oil				5,375		Dr; EL
	2	8bbbd	Monaghan	1956	8,438R				Oil				5,389		Dr; EL; Sa
	2	10bbca	Box Elder	1956	8,400R				Oil				5,436		Dr; EL
	1	11acdd	J. Drohan	1956	65.0	18	Qb, Ql	N	Irr			19.0	5,392	7-19-57	Dr; U(1957)
C3-65-	1	11acdd	do	1956	64.6	18	Qb, Ql	N	Irr			21.0	5,392	7-19-57	Dr; U(1957)
	1	11adcd	do	1947	71.0	18	Qb, Ql	T, E	Irr	642M	18.9	1/4	5,395	7-19-57	A80; B71; F; T54
	1	14abdd	do	1950	42R	18	Qb, Ql	T, E	Irr	345M	20.1Ry	1/4	5,420	7-12-57	A60; B42; Dr; F; T53
	1	14bbaa	J. Stewart	1951	55.3	18	Qb, Ql	T, E	Irr	345M	20.1Ry	1/4	5,418	7-12-57	A60; B50; Dr; F; T54
	1	14bbaa	C. Vick	1951	60R	6	Qb, Ql		D				5,418		B55; Dr; L
C3-65-	1	14cdca	do	1956	60R	18	Qb, Ql	T, E	Irr	147M	12.7Ry	1/4	5,435	7-16-57	A36; B60; Dr; F; T54
	1	14ddcc	do	1952	50R	18	Qb, Ql	T, E	Irr	120M	11.8Ry	1/2	5,439.7	11-4-57	A36; F
	2	21dcda	D. King	1916	900R	6	Tkdu, Kdmcc	Cyl, E	D	10E		170	5,658	1-22-59	Dr; FDI WS
	2	22dcda	H. Grimm	1917	897R	6	Tkdu, Kdmcc		D, S	25R		190	5,291	9-11-59	Dr
	1	36daca	E. Epperson	1955	785R	6 to 3	Tkdu, Kdmcc	S, E	D	20R	170	150	5,524	5-7-55	DL; Dr; FD; WSp
C3-66-	1	1800	L. Stuart	1959	690R	6	Tkdu, Tkdc	S, E	PS	25E		134.8	5,525.9	9-16-60	B16; Dr; EL; FD; L; P1365-400; 430-470, 500-530, 575-600, 620-670; WS
	2	1dddb	J. Rouse	1957	8,640				Oil				5,401		EL
	2	2caac	C. Baxter	1939	4,704R				Oil				5,425		Dr; SL
	2	2cddb	do	1946	2,171R				Oil				5,430		Dr; SL
	1	4bcbb	H. Hendler	1946	39.0	6	Qes, Qb	J, E	D, S			33.6	5,305.0	12-1-55	Dr; P120
C3-66-	1	4bcbb	do	1955	42.6	18	Qes, Qb	T, E	Irr	400R		30.1	5,305.0	4-15-62	Dr; GE; L; P118-42; WL(12-1-55)33.6; WS
	1	4cdad	J. Reither	1954	53R	6	Qes, Qb		D	B20R		32	5,330	9-29-54	B51; DL; Dr; P133-53
	2	5acac	Rocky Mountain Arsenal	1957	36.0	4	Tkdu	N	O			22.5	5,297.0	10-23-57	B4.7; Core; L; SC22.8-28.8
	1	5cccd	do		19.0	36	Qp	N	O			18.2	5,284.8	9-2-55	Dr; WS
	2	5ddad	do		700R	3	Kdmcc	N	N			129.3	5,303	9-2-55	Dr
C3-66-	1	6adad	do		15.9	7	Qp	N	O			5.9	5,253.7	9-2-55	Dr
	2	6adad	do		140R	6	Tkdu	J, E	Ind, O	15R		17.3	5,259	9-9-55	B18; Dr; L; WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, of power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet measure above and m.s.l.)	Date of measurement	Remarks
1	C3-66-6badd	4,920	Rocky Mountain Arsenal.	1957	30.0	4	Qes	N	O	..	..	9.0	5,247.5	10-18-57	B24.3; Core; L; Sc16.3-21.3
1	6cccb	500	.. do ..	..	45.5	..	Op.Qes	..	N	..	..	..	5,282	..	WS
2	7dbcb	1,750	.. do ..	1957	30.0	4	Tkdu	N	O	<1R	..	16.4	5,296.7	10-28-57	B23.9; Core; L; Sc16.8-21.8
1	8bbad	4,630	.. do ..	1957	30.0	4	Qes	N	O	8R	10	12.2	5,284.1	10-24-57	B24.4; Core; L; Sc14.9-20.4, 22.4-24.4
1	8daaa	2,400	.. do ..	..	14.5	30	Op	Cyl,N	O	..	..	11.2	5,302	9-2-55	D; WS
1	8dbba	1,000	.. do ..	1957	35.0	4	Qes	N	O	<1R	..	23.4	5,320.4	3-19-58	B28.7; Core; Sc21.9-28.2; SL
1	9bbcc	3,980	Jeremiasen and Moffitt.	1953	32R	18	Qes,Qb	T,E	Irr,S	250R	..	14.1	5,304.1	4-15-62	A40; B29; L; WL(12-1-55)16.2; WL(4-3-56)15.8 WL(11-6-57)15.5; WS
1	10badd	4,720	E. Matechke.	1954	70.7	16	Qes	T,E	Irr	..	..	41.1	5,359.2	11-6-57	A40; Dr; S
2	10bbab	5,150	.. do ..	1955	320R	6 to 4	Tkdu	S,E	D	14R	130	20	5,350	9-31-55	B53; Dr; L; Pf200-320; WSP
1	10bbdd	4,020	.. do ..	1961	56R	18	Qes	T,E	Irr	200R	17	29.4	5,340	4-15-62	A60(with 3 wells); B54; Dr; L; WL(3-19-61)37
1	10bdaa	3,700	.. do ..	1953	60R	18	Qes	T,E	Irr	75R	18	40	5,358	1953	A20; Dr; Su
1	10bdab	3,900	.. do ..	1954	60R	18	Qes	T,E	Irr	75R	18	37.2	5,355	6-5-57	A60; Dr; Su
1	16caac	1,330	S. Custy	1956	54R	18	Qes,Qb,Ql	T,E	Irr	525R	19	28.2	5,351	4-15-62	A33; B50; Dr; L; Lo22.5-52.5; WL(4-56)24; WL(4-30-58)26.4
2	17aaad	4,900	B. Bollers	1955	269R	6 to 4	Tkdu	..	D	B10R	2	1-1/2	5,380	6-17-55	B34; Dr; L; Tch229-269; WS
1	17bdcd	2,960	.. do ..	1954	70R	18	Qes,Qb,Ql	T,E	Irr	800R	27	29.7	5,325.9	4-15-62	A80; B48; Dr; L; Pf22-52; WL(12-1-55)18.6; WL(11-6-57)17.4; WS
1	18cbca	3,830	Miller and Co.	1955	76R	6	Qes	Cyl,W	S	..	..	13.1	5,290.6	4-15-62	Dr; WC912-1-55)12.3; WL(11-6-57)13.0
2	19dbbb	2,400	J. Miller.	1948	5,702R	8 to 6	Tkdu	..	Oil	..	..	..	5,358	..	EL; L
2	22abbc	4,800	O. Inman	1955	150R	6 to 4	Kdmc,Kdlc	S,E	D,S,IrrL	15R	..	45	5,398	10-5-55	Dr; PD; WSP
2	22cccc	150	W. Horkanz	1952	965R	6 to 4	Kdmc,Kdlc	S,E	D,IrrL	25M	40	240	5,440	8-29-56	A2; Dr; PD; WS
1	23adda	3,160	E. Hoyt.	..	17.3	48 to 8	Op.Qes	C,E	D	10E	..	11.5	5,419	2-11-61	DO
2	25cccc	200	37th School District	1954	723R	6 to 4	Kdmc	S,E	Sch,IrrL	12E	..	..	5,477	..	First Creek School
2	26ccad	680	L. W. Mack	1944	1,450R	..	Kdmc,Kdlc	T,E	PS,Fire	125R	..	250	5,500	7-61	Sky Ranch Airport
1	28cdca	350	W. Hopkins	..	44.5	24	Qb,Ql	T,E	Irr	250E	..	22.0	5,411.0	3-28-60	A50; Dr; Su; WL(5-13-58)19.8
1	28cdca2	450	.. do ..	..	45.6	18	Qb,Ql	T,E	Irr	..	..	21.4	5,409.0	3-28-60	Dr; U(1957-60)19.6; WL(5-13-58)19.6
1	29cdad	730	Well Completions Inc.	1957	60R	7	Qb,Ql	..	D	B30R	..	18	5,383	11-24-57	B48; Dr; HB-6; L; Interference with cdda
2	30dadc	1,640	Colo. Interstate Gas Co.	1956	410R	6 to 5	Tkdu	S,E	D,IrrL	15R	65	3	5,363	10-15-56	A1; B21; Dr; EL; PD; L; Pf33-48
2	31abca	4,600	C. Daessler, Jr.	1957	170R	6 to 4	Tkdu	Cyl,E	D,IrrL	3E	..	55.3	5,385	6-13-57	B45; Dr; PD; L; Pf382-410; WSP
2	31cbdb	1,850	E. Chavers	1957	605R	5	Tkdu	S,E	PS	8R	..	321.8	5,350	11-3-59	B22; Dr; EL; Pf306-309, 373-384, 432-443, 565-574
2	31cbdb2	1,800	.. do ..	1957	1,069R	5	Kdmc,Kdlc	S,E	PS	B25R	80	4	5,350	11-3-59	Dr; EL; L; Pf735-835, 990-1,069

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-66--															
1	31ccca	500	D. Harvey.	1951	11.0	48	Qp,Qb	C,E	D,IrrL	15R	..	8.0	5,365.0	4-30-58	D
2	31cccd	50	B. Fowler.	1957	900R	6 to 4	Kmc	S,E	PS	20R	335	30	5,381	8-5-57	DL; Dr: P6558-680, 790-856
1	31ccdb	450	D. Harvey.	1957	JOR	6	Qp,Qb	J,E	D,IrrL	15R	20	10	5,369.0	8-6-57	BL9; DL; Dr: FD; Pfl7-25; WSP
2	31cdba	1,100	Green Acres Trailer Court.	1959	1,110R	6	Kmc,Kdlc	S,E	PS	40R	..	300	5,355	6-8-59	DL; Dr: P6740-850, 982-1,055
2	31cdcb	600	do	1957	1,160R	6 to 5	Kmc,Kdlc	S,E	PS	30R	245	8	5,365	12-9-57	B26; Dr: EL; Li: Pfl89-316, 658-688, 718-768, 805-870, 1,018-1,035, 1,084-1,110
1	31cdcc	250	H. Traubert.	1952	21.3	30 to 16	Qp,Qb	C,E	PS,E	..	..	12.4	5,385	4-27-62	B21; D; WL(8-5-57)11.1
1	31cdcd	280	do	1945	26.6	48	Qp,Qb	C,E	PS,E	350R	13	11.0	5,385	8-5-57	B18; D; DL; Pfl8
1	31cdce	250	do	1945	160R	6	Tkdu	J,E	PS	BR	..	19.9	5,385	4-22-62	Dr: WL(8-5-57)80
1	31cdcf	200	do	1930	17.3	5	Qp,Qb	J,E	D	..	..	12.3	5,390	8-5-57	Dr
1	31cdg	3,320	V. Stark	1941	28.9	40	Qb,Ql	T,E	Irr	162M	5.9	1/4	5,398	9-20-60	A75(with 3 wells); D; F; FD
1	32acdd	1,330	do	1941	28.4	42	Qb,Ql	T,E	Irr	236M	8.0	1/4	5,397	4-15-62	D; F; FD; WL(9-20-60) 14.4; WS
1	32acda	3,030	do	1941	27.7	58	Qb,Ql	T,E	Irr	228M	7.5	1/4	5,397	9-20-60	D; F; FD
2	32bccc	3,000	Baker.	1954	913R	6 to 4	Kmc	S,E	D	18E	..	370	5,424	7-26-56	DL; Dr: Pfl894-914, 936-979; WSP
2	32ccca	600	M. Jones	1956	1,003R	6 to 5	Kmc	S,E	D	B15R	10	6	5,422	12-24-57	DL; Dr: EL; Pfl84-919, 1,045-1,073
2	32ccdd	100	B. Glenn	1957	1,085R	4	Kmc,Kdlu	Cyl,E	Ind	25R	80	..	5,425	9-15-60	A20; Sump: in winter water rises to near land surface
1	32dadc	1,470	E. Perrott	1954	..	..	Qb	C,E	Irr	100M	1	..	5,398	9-15-60	Dr: FD; WS
2	32dbdd	950	do	1941	500R	6	Tkdu	Cyl,E	D	..	..	184.1	5,445	9-15-60	A20(with 5 wells); D; WL(5-13-58)3.6
1	33aadb	4,960	C. Headrick.	..	6.5	48	Qb	C,G	Irr	..	..	3.6	5,432.0	5-13-58	D; Su
1	33abdd	4,800	do	1942	45.1	48	Qb,Ql	T,E	D,S,Irr	450E	5	20.0	5,420.1	5-13-58	D; Su
1	33abdb	1,300	do	1944	42.0	48	Qb,Ql	T,E	Irr	450E	..	20.5	5,422.2	5-13-58	D; Su
1	33adda	3,070	do	1942	44.5	24	Qb,Ql	T,E	Irr	250E	..	23.1	5,435.2	5-13-58	D; Su
1	33addb	280	do	1942	44.5	24	Qb,Ql	T,E	Irr	250E	..	24.7	5,437.3	5-13-58	D; Su
1	33bccc	3,580	E. Perrott	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123M	10.1	..	5,419	9-18-60	Al60(with 2 wells); B41; D; FD; GE; Pfl8; WSP
1	33bccc	3,580	do	1939	41.5	24	Qb,Ql	T,E	Irr	123					

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-66-															
1	34cbdd	1,450	H. Crisman	1956	60R	6	Qb, Ql	..	Irr/L	810R	..	1	5,441	5-12-56	Dr; L; P445-60
2	34accc	2,650	W. Jamison Co.	1915	1,010R	..	..	..	Oil	..	..	..	..	..	Dr; SL
2	35bbab	5,000	E. Dyer	1959	1,230	7	Kdmc, Kdlc	S, E	D, Irr, E, PS	75R	100	..	5,492	12-10-59	A20; DL; EL; P4798-987, 1,127-1,197
2	35bccb	2,980	Eastlawn Memorial Gardens	1959	1,222	7 to 6	Kdmc, Kdlc	S, E	Irr	835R	80	8	5,512	5-20-59	B2; EL; L; P4846-862, 888-996, 1,099-1,204
C3-67-															
1	36acac	3,450	Rocky Mountain Arsenal	1957	22.0	4	Qaa	N	O	..	..	..	5,261.5	9-19-57	B18.6; Core; PP; Sa; Scl0.5-12.5; SL
1	36abab	5,150	.. do ..	1957	35.0	4	Qaa	N	O	..	..	..	5,264.9	11-28-57	B29.4; Core; Sa; SL
1	36bbac	2,050	.. do ..	1957	20.0	4	Qaa	N	O	<1R	..	..	5,262.2	..	B8.9; Core; Sa; Scl3.7-15.7; SL
1	36ddad	200	.. do ..	1957	77.0	4	Qaa	N	O	..	..	..	5,276.2	9-25-57	B75.2; Core; L; PP; Sa; Scl69.3-71.3, 72.1-74.1
1	36ebcc	3,500	.. do ..	1957	30.0	4	Qaa	N	O	<1R	..	..	5,254.0	10-18-57	B25.3; Core; Sa; Scl19.9-22.9; SL
1	36bab	2,350	.. do ..	1957	110	4	Qv	N	O	..	..	..	5,209	11-7-57	B109.7; Core; Scl76.1-78.3, 79.8-89.5, 90.0-98.1; SL
1	36bac	2,300	.. do ..	1958	112	4	Qv	N	O	14R	12	..	5,209.0	2-5-58	B110.1; Core; L; Scl101.8-110.2
1	36dbb	1,060	.. do ..	..	48.0	6	Qv	Cyl, H	N	..	..	..	5,221.1	11-6-57	Dr; ML(9-1-55)37.8
1	36bbc	4,220	.. do ..	1954	85R	16	Qv	T, E	Ind	650R	12.4	1/4	46.5	8-20-54	Dr
1	36bbb	4,950	.. do ..	..	62.3	16	Qv	N	Ot	..	..	..	5,169.3	4-11-62	Dr
1	36caa	3,650	.. do ..	1918	97R	24	Qv	T, E	Ind	500M	8	64	50.5	7-16-53	Dr; L
1	36cad	3,450	.. do ..	..	61.8	2	Qv	N	N	..	..	..	5,180	9-1-55	Dr; B96; Dr; L
1	36cab	2,620	.. do ..	1955	108R	16	Qv	T, E	Ind	650R	..	..	5,219	9-26-55	Dr; T58
1	36ccb	350	.. do ..	..	72.5	6	Qv	N	N	..	..	..	5,200	9-1-55	Dr; T58
2	36bbb	5,000	Derby School District	1949	510R	6 to 4	Kdmc	S, E	Sch	50R	122	49	5,168	7- -49	Dr; DL; Dr; P4164-504, U(1960)
2	36bcd	4,020	South Adams County Water and Sanitation District	1953	800R	10 to 8	Kdmc, Kdlc	T, E	PS	200R	..	..	5,167	11-28-56	DL; Dr; EL; FD; P4315-350, 380-410, 570-630, 670-675, 760-800; WS
1	36bcd2	4,000	.. do ..	1955	61R	48	Ql	T, E	PS	400R	..	..	5,165	6-25-55	B61; D; PD; GE; L; P448-61; WS
2	36bcd3	4,100	.. do ..	1953	1,525R	8 to 6	Klb, Klb, Kfm	S, E	PS, E	F10R	..	..	5,167.3	4-5-53	Dr; EL; L; P41,280-1,380, 1,458-1,482, 1,510-1,525. Bailed 70 gpm with 230 feet drawdown
2	36ccb	3,100	A. Seimer	1955	420R	6 to 4	Kdmc	..	D	B12R	30	6	5,147	4-19-55	DL; Dr; Tch365-485
1	36dada	70	South Adams County Water and Sanitation District	1955	80R	48	Ql	T, E	PS	500M	..	..	5,191	6-23-55	B80; Dr; GE; L; P467-80
2	36dad2	70	.. do ..	1953	800R	10 to 8	Kdmc, Kdlc	T, E	PS	174M	157	18	5,189.0	5-18-53	B82; Dr; EL; SL; Tch320-345, 415-450, 630-650; 670-790
1	36adb	4,330	D. Reams	..	25R	48 to 24	Qb, Ql	C, E	Irr	100R	8	2	5,135	6-17-56	AS; D; DL
1	36bcc	4,070	C. Jeffers	1956	40R	12 to 6	Qpa, Qb, Ql	J, E	D	B2R	..	..	5,129	10-7-56	DL; Dr; P427-40
1	36cdb	600	South Adams County Water and Sanitation District	1955	45R	48	Qpa, Qb, Ql	T, E	PS	500M	7.4	24	5,147	9-22-60	D; DL; P422-35; ML(6-55)28
1	36cdc	220	.. do ..	1956	44R	48	Qpa, Qb, Ql	T, E	PS	500M	7	4	5,144	6-29-56	B44; D; DL; GE; P434-44
2	36cdc2	250	.. do ..	1955	754R	8	Kdmc, Kdlc	T, E	PS	103M	..	..	5,147	10- -55	AT; DL; Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet measured above m.s.l.)	Date of measurement	Remarks
2	C3-67-6cdab	1,070	Denver Flour Mills	1937	550R	..	Kdmc	T.E	B, Ind, Fire, Pr.	50R	..	..	5,145	4-10-58	DL; Dr; GE; PE10-16
1	6ddac	900	H. Wilson.	1957	16.0	6	Qb, Q1	C.E	Irr, L	10R	6	11	5,151	6-20-49	B36; DL; Dr; PE12-37
1	7aadd	4,200	100 Mile High Kennel Club	1949	37R	18	Qes, Q1	T.E	Sani	1,300M	22	..	5,165	6-23-49	Dr; L
2	7abce	4,500	.. do ..	1949	705R	8 to 6	Kdmc, Kd1c	T.E	D	15	24	12	5,153	1959	B20; D; Dr; L; PE8-20; WS
1	7acae	3,920	Town and Country Mutual Water Co.	1959	22R	48	Qp, Q1	T.E	PS	265R	..	..	5,158	1956	O; Dr
1	7acda	2,980	Commerce Town.	1956	32R	80	Qp, Q1	T.E	Irr, Sw	185R	..	..	5,164	9-21-60	D
1	7add	2,700	Town and Country Mutual Water Co.	1947	43R	48	Qes, Q1	T.E	PS	300R	..	..	5,169	4-10-62	DO; WL(11-6-57)21.2
1	7abab	2,480	Lundgren	1910	31.5	48 to 6	Qes, Q1	Cyl, E	S	..	..	22.0	5,169.6	7- -59	B50; Dr; L; PE44-50; U(1960)
1	8bbab	5,200	A. Thompson.	1959	50R	5	Q1	J.E	D	10R	..	..	5,169	4-10-62	B47; DL; Dr; WL(7-10-56)20.3
1	8bbbd	4,900	M. Goltl	1955	60R	5	Q1	J.E	Irr, L	..	..	..	5,160	9-10-52	DL; Dr; PE422-463, 587-690
2	8dbbb	3,800	Kearney Junior High School	1952	690R	8 to 6	Kdmc, Kd1c	S.E	Sch	B20R	154	..	5,175	7-10-56	DL; Dr. Deepened. Yield 10 gpm at 607 feet
2	8cccc	100	C. Conter.	1950	870R	6 to 4	Kdmc, Kd1c	S.E	D	..	..	..	5,185	11- 6-57	Dr; WL(9-11-55)165.6
1	9baab	5,180	Rocky Mountain Arsenal.	1958	72.0	5	Qv	N	N	..	..	..	5,200.1	3-12-58	B61.1; Core; Sc55 0-61.6; SL
1	9bbcd	4,100	.. do ..	..	64.0	4	Qv	N	O	10R	8.4	..	5,194.0	11- 6-57	Dr; WL(9-11-55)56.8
1	9cbca	1,910	.. do ..	..	60.3	6	Qv	..	..	..	..	..	5,210.3	3-10-58	B70.4; Core; L; Sc55 4-63.3; 64.7-70.6
1	9ccad	950	.. do ..	1958	75.0	4	Qv	N	O	16R	..	..	5,212.3	8-30-55	Dr; WS
2	10abba	5,030	.. do ..	1957	580R	5	Kdmc	N	O	..	..	..	5,220	11- 5-57	B56.3; Core; L; Sc31.3-31.4, 34.6-39.3, 55.2-57.3
1	10addc	2,800	.. do ..	..	62.2	4	Qes, Qv	M	O	5R	25	..	5,241	11- 4-57	B81.3; Core; L; Sc30.9-32.9, 51.3-57.8, 60.2-62.4, 74.9-77.0
1	11odda	400	.. do ..	1957	85.5	4	Qes, Qv	N	O	20R	5.5	..	5,279	9- 9-55	D; WSP
1	12bbab	4,980	.. do ..	1957	23.0	42	Qp, Qv	N	N	..	..	..	5,248	9-30-57	B53.9; Core; L; Sc18.6-27.7, 29.1-37.8, 39.2-48.2, 49.6-53.2
1	12dcda	450	.. do ..	..	60.0	4	Qes, Qv	N	O	20R	..	..	5,283	..	Dr; WS
1	13bbbb	5,050	F. Bostic.	1952	75R	6	Qes, Qv	..	D	..	..	..	5,280	11- 6-57	A100; B45; Dr; L; WL(12-1-55)26.3; WS
1	14acae	3,730	B. Bollers	1952	51R	18	Qp, Qes, Qb, Q1	T.E	Irr	450R	21	..	5,270.5	8-10-56	B32; Dr; L; PE430-730
2	17abba	5,170	South Adams County Water and Sanitation District	1956	730R	32 to 16	Kdmc, Kd1c	T.E	PS	550R	290	32	5,204	7-16-56	DL; Dr
1	17abbc	4,700	D. Chaffin	1953	58.8	6	Q1	J.E	D	..	..	..	5,205	9- -54	DL; Dr; PE60-72
1	17adaa	3,750	R. Vivena.	1954	72R	5	Q1	..	D	18R	2	2	5,221	7-13-56	B52; Dr; L; WL(9-54)11
1	17bdab	3,650	L. Barbere	1954	50.5	5	Q1	J.E	D	..	..	..	5,210	4-10-62	A4(1959); D
1	17cdab	1,050	Blanding Investment Co.	..	38.5	36	Qpp, Qb, Q1	T.E	Irr, Cons	500E	..	..	5,207	10-23-56	D
1	17ddba	1,300	Mack Sand Co.	..	16.0	48	Opp	N	Qt	..	..	..	5,212	7-10-56	DL; Dr. Adjacent 645-foot well flowed in 1947
1	18abba	5,000	Colo. Interstate Gas Co.	1948	38R	8	Q1	..	Irr	90R	1.5	3/4	5,175	3-17-58	AT; B28; DD; DL; GE; T61
1	18abcc	4,150	Jones Sand and Gravel Co.	1956	28R	12	Opp, Qb, Q1	T.E	Ind	27M	13.9	24	5,173	..	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-47-															
1	18abed	4,100	2,220 Jones Sand and Gravel Co.	1950	31.5	12	Opp, Ob, Ql	M	Qt	..	..	7.1	5,176	4-10-62	DL, GE
1	18acac	3,440	1,750 H. and H. Nelson	1937	38.0	30 to 10	Ob, Ql	J, E	S, Irr, L	..	..	16.2	5,180	2-19-58	DO
2	18acac	3,180	1,600 .. do ..	1956	600R	8 to 3	Kdmc	M	Qt	..	..	311.5	5,180	8-11-59	Dr
2	18acac	3,440	1,600 .. do ..	1956	670R	8 to 4	Kdmc, Kdic	S, E	B, D, Ind.	..	..	..	..	..	..
2	18dedd	2,900	3,600 Oriental Refining Co.	1961	916R	8 to 6	Kdmc, Kdic	S, E	B, Ind	30M	370	300	5,180	4-18-56	B54; Dr; FD; L; WS
1	18bdad	3,150	2,700 .. do ..	1955	42R	18	Ob, Ql	T, E	Ind, C	600R	21	2	5,180	11-15-61	AT; DL; Dr; GRU; Gun 652-662, 676-704, 728-736; HIO-8; NL; OH(750-916); QM; Sa
2	18bdad	3,180	2,900 .. do ..	1947	45R	..	Ob, Ql	T, E	Ind, C	250R	..	..	5,185	9-2-55	B37; Dr; L; P127-42
2	18bdcd	2,720	3,220 .. do ..	1940	726R	6	Kdmc, Kdic	S, E	Ind, B, C	45R	..	300	5,221	12-57	Dr; P110-317, 368-386, 426-438; OH(685-710); WS. Yield 85 gpm 1940; 60 gpm 1962
1	19cdad	1,160	2,920 Park Hill Golf Club	1957	80R	..	Ob, Ql	T, E	Irr	150M	..	37.0	5,260.0	4-23-62	B90; Dr; GE; WL(4-29-58)
1	19cdad	800	2,700 .. do ..	1957	95R	18	Ob, Ql	T, E	Irr	850M	..	40.9	5,265.7	7-9-57	B92; Dr; FD; GE; L; P155-85; Su
1	19dhaa	2,500	1,500 J. Canton	1959	82R	6	Ob, Ql	S, E	D	20R	34	35.5	5,258	7-30-59	B60; DL; Dr; GE; P138-80; WL(10-25-60)
1	23cbcb	1,900	5,080 Miller Enterprises	..	30.8	36	Oss	Cyl, M	S, Qt	6M	.3By 1/6	21.6	5,279.0	4-15-62	D
2	24bdad	3,200	2,700 Mid-Colo. Oil	..	3,790R	..	..	..	Oil	..	..	..	5,330	..	Dr, L
2	29caaa	2,450	2,750 E. Hildebrand and A. Austin	1956	95R	6	Ql	S, E	Irr, L	35R	0	10	49.5	4-25-62	B80; Dr; FD; L; P110-95; WL(5-5-58)62.5; WSp
1	34dbba	2,500	2,200 T. Murphy	1956	77.9	6 to 5	Ob, Ql	M	N	B10R	42	3	5,324	7-17-56	B54; Dr; L; P110-80
1	34dbba	2,200	2,200 .. do ..	1956	78.0	6 to 5	Ob, Ql	M	N	B10R	35	4	5,323	7-17-56	DL; Dr; P112-80
2	35adde	3,290	100 Aurora Public Schools	1959	1,100R	6 to 4	Kdmc, Kdic	S, E	Irr	40R	55	320	5,363	1-19-59	A10; B18; Dr; EL; L; TCH25-833; 880-944; 1,012-1,059
2	36acdb	3,000	1,850 Fitzsimons Hospital	1919	927R	12 to 5	Kdmc	A	B, Ind	26M	96.8	18	280.2	7-6-57	AT; B40; Dr; FD; L; WS
2	18aad	4,850	160 B. Fernald	1956	525R	6 to 4	Kdmc	..	D	B25R	90	2	5,103	1-12-57	B13; Dr; L; P1360-380, 460-525
1	18bdd	4,040	1,400 .. do ..	1941	34R	48	Opp, Ql	T, E	Irr	1,200M	6.1	1/4	5,104.0	4-10-62	A30; Dr; WL(8-21-56)6.7
1	18bbc	4,890	5,230 T. Fukui	..	17.3	36	Opp, Ql	C, E	Irr	..	..	7.1	5,110.8	8-7-56	B17.5; D; Su
1	18add	1,760	420 A. Brink	1929	35.7	..	Ql	T, E	Irr	400M	4.1	1/4	5,138.6	8-21-56	A10
1	18add	1,360	30 C. Juhl	1930	38.0	24	Ql	T, E	Irr	..	..	22.4	5,139.0	4-10-62	M; B32; D; GE; WL(8-16-56)28.9
1	18dcb	1,920	2,370 C. Miller	1944	32R	36	Ql	T, E	Irr	620M	12.0	1/6	5,107.0	..	A53; Dr; P110; Su
1	18caa	1,000	1,400 C. Juhl	..	20.1	72	Opp, Ob, Ql	T, E	Irr	250M	4.9	1/6	5,125.1	8-16-56	A2.5; D
1	18cdc	40	1,980 A. Pompey	1924	13.2	72 x 72	Opp, Ql	C, E	Irr	100E	..	..	5,135	9-28-59	A1; B14; D
1	18cdc	20	1,400 P. Tito	1940	14R	48	Opp	T, E	Irr	..	..	..	5,130	..	A9; U(1959)
1	18dcd	30	1,000 H. Krough	..	34R	36	Opp, Opp, Ql	..	S	..	..	..	5,142	..	D
1	18ded	30	700 .. do ..	1934	38R	48	Opp, Ql	C, E	S	..	..	..	5,140	..	D
1	18ded	20	700 .. do ..	1934	39.8	48	Opp, Ql	T, E	Irr	600R	..	..	5,143.4	1-5-57	A35; Dr; WL(8-21-56)31.2
1	28acc	2,670	2,610 L. Flicco	..	48R	48	Opp, Ql	M	Irr	..	..	..	5,160.8	11-6-57	D
1	28abb	5,230	3,930 J. DeCarlo	1952	37.0	18	Opp, Ob, Ql	T, E	Irr	175M	12.3	1/4	5,140	8-6-56	A9; DL; P125; Su
1	28bab	4,940	4,620 E. Marrone	1954	36.4	18	Opp, Ob, Ql	T, E	Irr	..	..	..	5,144.7	4-10-62	A10; Dr; P118-21; Su; WL(8-6-56)15.0
1	28bbc	4,850	5,000 A. Gaccetta	1955	26.8	16	Opp, Ob, Ql	C, E	Irr	..	..	..	5,142	8-6-56	A11; Dr; Su
1	28bca	4,580	4,730 J. Gaccetta	1953	38R	18	Opp, Ob, Ql	..	Irr	..	..	..	5,131.8	..	A5; B38; D; Su
1	28bcd	4,510	5,230 D. Albenaz	1925	33R	..	..	..	Irr	..	..	..	5,139.5	..	A5; Dr; Su
1	38aca	4,610	760 T. Giuliano	..	21.0	38 to 18	Opp, Ob, Ql	C, G	Irr	..	..	..	5,145	4-10-62	Dr; U(1956); WL(8-10-56) 5.8
1	38acb	4,520	1,300 F. Serratore	1952	33.4	18	Opp, Ob, Ql	T, G	Irr	..	..	..	5,148	8-10-56	D; Su

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	CJ-68-3bccc	2,730	5,040	Baker Metropolitan Water and Sanitation District	1959	610R	9	Kdic	T,E	PS	151M	..	..	9- 9-59	B19; Dr; EL; L; Tch310-610
1	3cadc	1,400	3,180	D. Padotto	..	..	18	Op,Ob	T,E	Irr	..	..	..	5- 6-58	Dr
1	3cadd	1,400	2,800	.. do ..	1956	33R	6	Opp,Ob,Ol	T,E	Irr	30R	10	5,155	11-10-58	DL; Dr
1	3cdcc	1,300	3,550	P. Filippone	..	32R	24	Opp,Ob,Ol	T,E	Irr	..	..	5,165	1938	A6; B3; Dr
1	3cdcc	250	3,150	.. do ..	1956	33R	6	Opp,Ob,Ol	T,E	Irr	20R	14	5,165	1-25-58	B3; Dr; L
1	3bccc	1,380	2,630	D. Padotto	..	30R	20 to 6	Ob,Ol	J,E	Irr	20R	..	5,155	1-27-58	B3; DL; Dr
1	3bdcc	1,400	1,950	.. do ..	..	32R	18	Ob,Ol	C,G	Irr	..	..	5,155	4-10-62	B28; DL; Dr; WL(5-6-58)18.4
1	3bdcc	350	900	Mapleton School	1954	615R	8 to 6	Kdl	..	Sch	35R	..	5,180	..	DL; Dr; P4512-615
1	4acbb	3,320	H. Kelenovic	..	52R	..	48	Ob,Ol	T,E	Irr	50M	2.0	5,244.1	9- 8-59	AT; D; U(1959)
1	4acbd	3,520	D. Gomez	..	60R	6 to 5	Qy,Ol	Cyl,E	D	30R	2	..	5,239	5-15-58	B7; DL; Dr; P442-60
1	4acdb	3,000	V. Sadowski	..	70R	6 to 4	Qy,Ol	J,E	D	15R	..	..	5,232.6	12- 1-58	B5; DL; Dr; P40-70
1	4bccc	2,750	5,230	P. Davis	..	44.0	8	Cy,Ol	S,E	D	30R	..	5,246.0	4-10-62	B30; Dr; L; P418-28; WL(5-56)15;
1	4bdca	3,050	2,750	R. Abbott	..	48R	24	Qy,Ol	S,E	Irr	90R	3	5,239.3	9- 8-59	WL(12-1-58)31.4
1	4cdca	350	3,600	F. Nordon	..	25R	6	Ob,Ol	J,E	Irr	30R	2	5,187.5	3-30-59	A10; B48; D; DL; P436-48
2	4dcbb	950	2,560	Fairview Construction	1959	10.7	48	Ob	..	PS	147M	6.7	5,180	4-22-55	B18; DL; Dr; P410-21
2	5addd	2,700	50	Sunstrand Aviation	1956	1,513R	8 to 6	Kld,Kla	..	..	..	..	..	..	AT; B5
1	5ccbb	1,220	5,150	J. Garrañates	..	50R	6	Qe	T,E	Ind	165R	..	5,245	10-26-60	DL; Dr; EL; WL(1955)15
1	5ccbb	1,220	5,150	J. Garrañates	..	50R	6	Qe	J,E	D	12R	..	5,275.5	4-10-62	B49; Dr; L; P427-50; WL(2-57)20;
2	5daca	2,580	50	Sunstrand Aviation	1959	640R	9	Kdic	S,E	Ind	B66R	22	5,245	10-26-60	WL(12-1-58)33.3
2	5dcab	1,060	1,700	F. Stephens	..	125R	6 to 4	Tkdu	S,E	D,Irr	15R	..	5,254	12- 9-58	B43; Dr; EL; L; Tch340-640;
2	5dadd	150	230	Baker Metropolitan Water and Sanitation District	1956	601R	9	Kdic,Kdic	T,E	PS	160M	..	..	..	WL(8-59)345
2	6cadd	1,350	2,940	City of Arvada	..	614R	9	Kdic	T,E	PS	91M	..	5,198	7- 8-58	B35; Dr; L
2	6dcbb	600	2,550	J. Luttrell	..	105R	6 to 5	Kdic	J,E	D	30R	54	5,297.9	11- 7-58	DL; Dr; EL; FD; Tch300-600; WS
1	7abaa	5,180	1,450	O. Cain	..	33R	6	Op,Ol	J,E	D,Irr	10R	1	5,212.0	11- 7-58	B17; Dr; EL; L; Tch340-600
2	7cabb	2,480	3,880	City of Arvada	..	616R	9	Kdic	T,E	PS	154M	..	5,271	10- 6-60	B30; DL; Dr; P421-33; WL(3-57)20
1	7cbdc	1,550	4,300	Animal Foods Co.	1957	27.5	8	Opp,Ob,Ol	N	Ind	58M	3.3	5,233.6	11-10-58	B14; Dr; EL; L; Tch310-557;
2	7dcbb	550	2,600	P. Kiklaa	..	250R	4	Kdic	N	Ot	..	..	..	..	WL(6-13-58)25;
1	7dcbb2	450	2,550	.. do ..	1956	20.2	6	Opp,Ob,Ol	D,Ot	..	..	..	5,238	4-10-62	AT; DL; Dr; P413-28; U(1958); WL(6-57)6
1	8dcbb	1,009	2,500	Whitten	..	25.2	8	Opp,Ob,Ol	N	N	28M	15.7	5,210	4-10-62	Dr
2	9bada	4,600	2,900	Gordon Construction Co.	..	284R	4	Kdic	..	D	60R	..	5,184	..	AT; Dr; U(1959); WL(8-20-59)4.5
1	9caaa	2,350	2,950	Vibrated Concrete Co.	1959	60R	48	Ob,Ol	..	Ind	60R	..	5,223	..	DL; Dr
1	9cad	1,580	2,980	.. do ..	1956	20R	48	Ob,Ol	..	Ind	60R	10	5,228	1- 4-56	DL; Dr; P411-20
2	9cadd	1,620	2,900	.. do ..	1952	280R	6	Kdic	Cyl,E	Ind	60R	..	5,228	..	Dr
2	9cadd2	1,320	2,800	Brickrete Inc.	..	708R	6	Kdic,Kdic	S,E	B,Ind	820R	151	5,232	5-28-58	B12; Dr; GRL; L; Tch150-708
1	9cbla	2,500	4,630	J. Diemer	..	31R	48	Ob,Ol	..	Irr	300R	..	5,199.3	3- 5-57	B31; DL; Dr; P418-31
1	9dcbb	2,530	2,530	Smallbone Sheet Metal Works	..	40R	5	Ol	J,E	Ind	B15R	26	5,239.2	4-10-62	DL; Dr; S421-27; WL(2-57)14;
					1957							4	..	..	WL(11-14-58)11.6

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	CJ-98-10acc	2,950	2,420	Lumber Dealers Inc.	1956	715R	8 to 7 Kdmc, Kdmc	S, E	D, B, Fire	F75R	..	..	5,200	7- -56	EL; FO; WS. Flowed after lower conglomerate was capped
2	10ccdb	600	4,550	Koppers.	1928	603R	12 to 6 Kdmc, Kdmc	S, E	N	125R	..	..	5,220	10-26-60	B16; L; U1948-60
2	10ccdc	300	4,550	do.	1948	600R	8 Kdmc, Kdmc	T, E	Ind, B	30R	10	4	5,225	10-10-59	DL; Dr; Pfl12-25
1	10ccdc	200	3,800	S. Lucy.	1958	25R	6 Qes, Q1	J, E	D	30R	10	..	5,221	10-10-59	DL; Dr; Pfl12-25
2	10dddc	1,420	400	Broderick Wood Products	1959	765R	8 to 6 Kdmc, K1	S, E	Ind	60R	..	..	5,220	10-29-60	B18; Dr; L; Pfl480-610, 655-677, 721-743
2	11aacd	4,100	920	Public Service Co. of Colo.	1958	630R	10 Kdmc, Kdmc	T, E	Ind	150R	102	27	422.9	4-10-62	DL; Dr; EL; Sc265-285, 440-620; WL(2-58)315, WL(8-59)38.5; WS
1	11aad	4,290	210	do.	1955	29R	26 Ob, Q1	T, E	Ind, E	600R	..	..	9.4	4-10-62	B10; Dr
2	11aad2	3,180	1,440	do.	1955	933R	10 Kdmc, Kdmc	T, E	Ind	120M	87	48	248.2	12-15-60	AT; B74; Dr; EL; L; Sc74-94, 122-172, 196-266, 380-580; WL(6-12-55)269.0
1	11adb	3,780	1,240	do.	1947	109R	5 Ob, Q1	S, E	D	3R	..	..	5,130.5	..	DL; Dr
1	11ad2	3,290	220	do.	1955	285R	5 Kdmc	S, E	Ind	13R	..	..	5,121.0	..	Dr
2	11adb2	3,100	5,000	Thompson Pipe and Steel Co.	1958	804R	8 to 6 Kdmc	S, E	D	150R	362	8	255	3-27-58	B12; Dr; EL; L; Pfl450-620, 710-800
2	11adb3	1,180	3,650	Daffin Corp.	1957	505R	6 to 4 Kdmc, Kdmc	S, E	D	20R	..	..	295	3-7-57	DL; Dr; Pfl300-320, 460-505
1	11adb4	200	3,600	F. Trujillo.	1958	30R	6 Ob, Q1	J, E	D	25R	4	..	12	9-3-59	B28; DL; Dr; Pfl25-30
1	11dbac	1,980	390	Public Service Co. of Colo.	1955	29R	26 Ob, Q1	T, E	E, Ind	..	..	..	5,121.7	..	B29; DL; Dr
1	11dbda	1,950	200	F. Miller.	1957	29R	48 Ob, Q1	C, Tr	Irr, S	..	..	..	5,125	5-19-57	DL; Dr; Pfl6
2	11dbba	2,500	2,280	Public Service Co. of Colo.	1959	681R	10 Kdmc	T, E	Ind	140R	130	..	375	3-24-59	DL; Dr; Sc481-681
2	11dbab	1,250	450	National Food Stores	1950	640R	8 to 5 Kdmc	T, E	Ind	50R	36	..	315	6-11-57	DL; Dr; Pfl416-620, Destroyed in 1960
2	11dbab2	1,050	480	do.	..	..	..	Kdmc	T, E	Ind	35R	..	315	6-11-57	Dr; CW. Destroyed in 1960
2	11dbab3	1,150	350	do.	1957	580R	10 Tkdu, Kdmc	Kdmc	T, E	Ind	137	8	311	2-27-57	DL; Dr; GE; Pfl12-580; WS
1	11dbab4	1,080	350	do.	1959	38R	21 Qpp, Q1	T, E	Ind	125R	..	..	..	..	B34; DL; Dr; GE; Pfl10-38
1	11dbdb	680	680	Capitol Rendering Co.	1946	20R	48 Qpp, Q1	C, E	Ind	30R	..	..	5,128.2	..	D
1	11dbca	580	750	do.	1946	32R	48 Qpp, Q1	T, E	Ind	100R	..	..	18.0P	10-27-60	B32; D
1	11dbcb	600	1,300	Miller Bros.	1936	31R	48 Qpp, Q1	C, G	S, Dy, Irr	..	..	..	8	11- -59	ALL-5; D; WL(5-58)10
2	11dbdb	600	600	Capitol Rendering Co.	1957	590R	8 Kdmc, Kdmc	S, E	B, Ind	168R	112	24	410.0	12-20-60	DL; Dr; GE; Tchl115-134, 239-309, 385-422, 457-495, 519-560; WL(10-57)312
1	12aaca	4,580	990	L. Jorgensen	1945	43R	48 Qpa, Ob, Q1	T, E	Irr	80M	10.9Ry	1/4	17.4	4-10-62	AJ; D; Pfl12
1	12aadb	4,300	650	A. Krough.	..	40R	48 Qpa, Ob, Q1	T, E	Irr	..	..	..	..	..	..
1	12abaa	5,250	1,480	C. Jorgensen	1948	20R	12 Qpp, Ob	C, E	D, S	..	..	..	5,139.7	..	..
1	12abaa2	4,980	1,520	do.	1951	17R	12 Qpp, Ob	C, E	S	..	..	..	5,133	..	..
1	12acda	3,020	1,550	Continental Oil Co.	1951	42R	60 Ob, Q1	T, E	Ind	300R	..	..	16.0	10-25-60	D
1	12adba	3,950	750	C. Power	1956	27R	48 Ob, Q1	C, E	S	250E	..	..	20	6-12-56	B27; D; DL; Pfl17-27
1	12bacd	4,020	3,620	G. Anato	1940	36.5	48 Ob, Q1	T, E	Irr, Pr	..	..	..	16.7	10- -59	D
1	12bbab	5,150	5,240	Public Service Co. of Colo.	1955	31R	26 Qpp, Ob, Q1	T, E	Ind, E, Fire	500M	7.5	120	11	10- -55	AT; Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface above (m.s.l.)	Date of measurement	Remarks
CJ-68-															
1	12cbcb	3,000	Litvak Packing Co.	1959	804R	8	Kdmc, Kalc	T, E	Ind, Pr	150R	270	248.2	5,134	11-14-60	Dr; EL; P231-321, 472-672; WS
1	12bdab	3,950	G. Anato	1950	26.2	48	Ob, Ql	T, E	Irr	250R	..	17.4	5,125	4-10-62	A4; WL(10-5-60)17.0
1	12bdad	3,350	A. Elliot	1950	15.5	48	Qpp, Ob	T, E	Irr, D	250R	..	5.0	5,129	10-5-59	A1; D
1	12bdad	3,620	do	1949	25R	48	Ob, Ob	C, E	Irr, G, AC	250R	..	..	5,125	4-10-62	A3; B24; D; WL(10-5-59)10.5
1	12bdad	2,660	J. and J. Spano	1943	21.0	48	Ob, Ob	C, E	Irr	..	..	12.7	5,135	12-23-59	B32; D; DL; GE; H70; P213-32; WS
1	12cbab	2,500	Packaging Corp. of America	1957	32R	48	Qpp, Ql	T, E	Ind	925R	23	10.0	5,119	1-29-58	B34.5; D; GE; L; P19-34
1	12cbac	2,200	do	1958	32.0	48	Qpp, Ql	T, E	Ind	565R	17	11	5,120	3-16-58	Dr; GE; H20-16; P2284-441, 447-507, 570-592; WS
2	12cbbc	2,180	Litvak Packing Co.	1958	592R	8	Kdmc, Kalc	T, E	D, Ind, B, Pr	150R	320	220	5,125	1954	B33; DL; Dr; FD; OW; TCh569-600, 620-640, 660-680, 700-720, 740-780, 800-820; U(1960); WSP
2	12cbbc2	2,200	do	..	850R	..	Kdmc, Kalc, Kl	T, E	Ind	25R	350	22	5,135	10-13-60	D; WS
1	12cbbc3	2,200	do	1945	32R	48	Qpp, Ql	C, E	Ind	100R	..	13.3	5,121.0	10-13-60	D; WS
1	12cbcb	1,880	Dorffler Horse Packing Co.	1943	14R	24	Qpp	C, E	Ind	..	..	..	5,123.3	..	..
1	12ccaa	1,200	Packaging Corp. of America	1954	32R	36	Ob, Ql	T, E	Ind	600R	..	..	5,136.2	..	..
1	12cccb	500	F. Rossi	1942	60R	48	Ob, Ql	T, E	Irr	..	..	..	5,132	..	..
1	12ccce	100	do	1959	30.0	48	Ob, Ql	T, E	Irr	..	..	10.3	5,135	4-10-62	Dr; WL(10-5-59)12.2
2	12cdba	1,250	Packaging Corp. of America	1952	975R	8 to 6	Kalc, Kl	T, E	Ind, Pr	100R	20	350	5,145	12-10-52	B30; Dr; L; P2570-750, 790-830; WS
1	12cdbb	1,200	do	1940	19.3	48	Ob, Ql	T, E	Ind, Pr	200R	..	9.6	5,134.7	10-13-60	D; WS
2	12cdbd	900	do	1947	870R	8 to 5	Kalc	S, E	Ind, B, D	100R	135	415	5,145	10-13-60	Dr; WS
1	12cdca	650	do	1945	20.5	48	Ob, Ql	T, E	Ind, Pr	1,100R	..	11.7	5,145	10-13-60	Dr; WS
1	12daac	2,300	Bay Petroleum Co.	1951	40R	48	Ob, Ql	T, E	Fire	300R	..	22.1	5,159.1	10-13-60	Dr; WS
1	12dabc	2,120	Continental Oil Co.	1956	45R	48	Ob, Ql	T, E	Ind	500R	..	32	5,162.5	10-11-56	Dr; DL; P232-45
2	12dbad	2,000	Bay Petroleum Co.	1941	688	6 to 3	Kdmc, Kalc	S, E	Ind	20R	..	535	5,153	11- -62	Dr; GRU; WL(10-60)325; WL(1-29-57)332.2
2	12dadc	1,600	do	1951	800R	8	Kdmc, Kalc	T, E	Ind, C	80R	..	275	5,157	1951	DL; Dr; WS
1	12dada	1,750	Empire Petroleum Co.	1949	47R	18	Ob, Ql	T, E	Ind, C	1,200R	..	17.7	5,150	10-25-60	Dr; U(1960)
1	12dada2	1,980	do	1955	47R	..	Ob, Ql	T, E	Ind, C	475R	16	27	5,150	2-23-55	B44; DL; Dr; P215
1	12dadb	1,750	do	1956	47R	18	Ob, Ql	T, E	Ind, C, B	150R	14	2	5,150	4-11-56	B43; Dr; GE; L; Lo30-45
1	12dadd	1,600	do	1948	48R	18	Ob, Ql	T, E	Ind, C	1,200R	..	30	5,150	7- 2-56	Dr; P215; WS
1	12dbad	2,220	Continental Oil Co.	1956	42R	60	Ob, Ql	T, E	Ind	500R	8	32	5,161.8	10-12-56	Dr; DL; P229-42
1	12dbbc	2,640	do	1956	31R	60	Ob	T, E	Ind	82R	..	9.8	5,140.4	10-25-60	D; P27
1	12dbcb	1,980	do	1956	23R	48	Ob	T, E	Ind	100R	..	18	5,144.1	7-26-56	D; DL; P216-23
2	12dbdb	1,980	do	1937	695R	8 to 6	Kdmc, Kalc	T, E	Ind, B	5R	..	365	5,159.6	10-25-60	Dr
2	12dcaa	1,050	Bay Petroleum Co.	1956	1,626R	8 to 6	Klb, Kila, Kfm	T, E	Ind	875R	110	..	5,158	5- -56	B44; Dr; EL; L; TCh450; WS
2	12dcab	1,000	do	1958	800R	8	Kdmc, Kalc	T, E	Ind	94R	..	..	5,160	2-11-58	DL; Dr; TCh476-739; WS
2	12dcba	1,050	Continental Oil Co.	1958	633R	..	Kdmc, Kalc	..	B, Ind, D, Irr	..	..	150	5,158	8-11-58	DL; Dr; TCh489-633
1	12dcdb	400	Bay Petroleum Co.	..	46R	24	Ob, Ql	T, E	Ind	130R	..	..	5,163	..	Dr; WS
1	13aaaa	5,230	J. Jacobson	..	27.5	48	Ob, Ql	C, E	S, C, IrrL	12R	..	21.9	5,167.9	4-10-62	B28.5; WL(10-5-59)19.5
1	13aaba	4,980	P. Jacobson	..	14R	24	Ob, Ob	C, E	S, IrrL	..	..	..	5,163.0	..	..
1	13abbb	4,980	Mountain States Mixed Feed Co.	1958	37R	8	Ob, Ql	T, E	S, B	10R	1	..	5,165	..	845; Dr; L; P233-47
1	13abcb	3,450	J. Shockley	1946	30.5	8	Ob, Ql	J, E	Irr	12R	..	26.9	5,175	8-24-56	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
	CJ-68-														
1	13adac	3,650	Denver Dairy Co.	1951	388	72 to 10	Qb, Q1	J, E	N	130R	..	15.2	5,174.0	10-5-59	D; U(1958)
1	13adac	3,520	J. Stone	..	40R	48 to 36	Qb, Q1	C, E	Irr	100R	..	..	5,170	10-5-59	D; U(1959)
1	13baaa	5,120	Mountain States	..	37R	9	Qb	J, E	B	35E	..	..	5,164.1	..	Dr
1	13bdad	2,700	Mixed Feed Co.	1951	31R	60 to 48	Qb, Q1	C, E	Irr, Ot	62M	1	24.3	5,171.2	4-10-62	A2; PD; MSP
1	13bdad	1,100	J. Perry	1936	31.8	48	Qb, Q1	C, E	Irr	..	..	26.4	5,171.7	8-24-56	AS; D; Destroyed in 1959
1	14abca	4,550	Denver Live Stock Feeding Co.	..	18R	48	Qb	C, E	B	..	..	13	5,134	6-28-59	D; WS
2	14abca	3,500	United Fryer and Stillman	1958	616R	9	Kdmc, Kd1c	T, E	Ind	200R	..	416.0P	5,135	1-16-60	B33; Dr; EL; L; Tch256-616
1	14abca2	3,400	.. do ..	1959	34R	48	Qb, Q1	T, E	Ind, C	750R	16	14	5,135	3-13-59	D; DL; P13-34
1	14abca2	3,200	.. do ..	1949	32R	48	Qb, Q1	T, E	Ind, C	..	..	19.7	5,141.2	1-16-60	D; U(1960)
2	14abca2	3,350	Riverside Cemetery	1885	525R	4	Kdmc, Kd1c	N	M	P350R	..	+81	5,155	1885	Dr. Stopped flowing in Dec. 1890
1	14baec	4,620	Denver Live Stock Feeding Co.	..	18R	48	Qb	C, E	B	..	..	13	5,135	9-15-59	D; WS
1	14bada	4,520	.. do ..	1956	16.8	48	Qb	C, E	S, D	300R	3	13.7	5,135	9-28-59	D; P12-22; WS
1	14bada	4,125	P. Montour	1958	40R	6	Qb, Q1	C, E	D	30R	10	15	5,136	1-6-58	B38; DL; Dr; P420-32
2	14bada	3,050	Balco Corp.	1946	700R	6 to 5	Kdmc, Kd1c	S, E	D, Ind	17R	..	500	5,138	6-59	Dr
1	14bada2	3,000	.. do ..	1955	33R	16	Qb, Q1	T, E	Ind, C	200R	..	..	5,138	..	Dr
1	14bada2	2,800	Western Paving and Construction Co.	1957	33R	48	Q1	T, E	Ind	150R	0	2	5,138	11-16-60	D; GE; L; P16-33; WL(2-57)14
1	14bdad	3,350	V. Talarico	1946	32R	48	Qb, Q1	C, E	Irr	455R	..	..	5,138	..	AL2; B32; D; P40-32
1	14bdad	2,720	City and County of Denver	..	19.0	48	Qb, Q1	C, E	Irr	700R	..	11.3	5,139.8	10-6-59	AL5; D; P40-19
1	14cbcl	1,600	Imperial Meat Co.	1957	26R	48	Qb, Q1	T, E	Ind, C	..	..	16.8	5,138	11-16-60	B26; D; DL; P11-26
1	14cbcl	1,700	J. Hoffman Packing Co.	..	31R	6	Qb, Q1	..	Ind, C	10R	..	..	5,137	..	D
1	14ccab	1,200	Capitol Packing Co.	1959	29R	48	Qb, Q1	N	Ind	175R	..	13.3	5,140	11-14-60	DL; P17-29
1	14ccba	1,250	.. do ..	1948	28R	48	Qb, Q1	T, E	Ind, C	250R	..	..	5,141.9	..	D
1	14ccba2	1,250	.. do ..	1956	32R	48	Qb, Q1	T, E	Ind, C	300R	..	14	5,140	6-30-56	DL; Dr; GE; P16-32
2	14ccba3	1,200	.. do ..	1958	616R	9	Kdmc, Kd1c	S, E	Ind	200R	..	397.5P	5,140	11-16-60	DL; Dr; EL; Tch294-616; WL(9-58)272. Pilot hole to 750 feet
1	14ccbc	880	Wilson Packing Co.	1947	21.0	48	Qb, Q1	C, E	Ind, C, B	200R	6	9.3	5,142.2	11-16-60	D; P16
1	14ccbc2	950	Plat Packing Co.	1951	24.5	48	Qb, Q1	C, E	Ind, C	80R	..	15.1	5,138.0	11-16-60	D
1	14ccbc3	700	Adams Packing Co.	1951	30.8	48	Qb, Q1	C, E	Ind	105R	..	22	5,142.2	11-16-60	D
2	14ccda	300	Swift & Co.	1930	1,470R	20 to 10	K1B, K1a	T, E	Ind, B, Pr	150R	..	..	5,149	1930	DL; Dr; SL. Well flowed 30 gpm at 1,310 feet and 60 gpm at 1,470 feet in 1930
1	14ccdd2	30	.. do ..	..	36R	18	Qb, Q1	T, E	Ind, C	100R	..	..	5,149	..	Dr
1	14cdab	1,270	K. & B. Packing Co.	..	30.0	16	Qb, Q1	N	Ind, Ot	200R	..	11.5	5,147	1-4-62	Dr; GE; U(1960)
2	14cdab	1,000	.. do ..	1916	567	16 to 8	Kdmc, Kd1c	T, E	Ind, Ot	175R	..	510.0	5,146	1-4-62	Dr; U(1960)
1	14cdab2	1,100	.. do ..	..	28R	60	Qb, Q1	T, E	Ind	100R	..	..	5,145	..	B34; D; DL
2	14daba	2,370	Riverside Cemetery	1936	608R	6	Kdmc, Kd1c	Cyl, E	D, B, G	10R	..	252	5,159	4-1-53	Dr; P1300; WL(9-36)200
1	15cdcd	150	Yorker Mfg. Co.	1955	52R	7 to 5	Qb, Q1	J, E	Ind	..	..	11	5,145	3-1-55	Dr
1	15cdcd2	80	P. Christenson	1957	30R	6	Qb, Q1	N	Irr, L	..	..	17	5,145	4-20-57	DL; P10
2	16dcac	950	Bowman Biscuit Co.	1959	659R	10	Kd1c	T, E	Irr, Ind, C	100R	71	24	5,242.0	11-15-59	Dr; EL; GE; M20; L; P4668-653; WS
1	17acaa	1,950	D. Showalter	1960	15.6	54	Qa	N	Irr, L	2E	..	12.9	5,335	5-16-60	D
2	17acda	1,120	Sisters of St. Francis	1956	810R	8 to 6	Kdml, Kd1c	S, E	Inst, Irr, L	80R	..	360	5,355	9-25-56	B40; Dr; L; P4370-393, 540-3; S
2	17acdc	2,750	.. do ..	1956	820R	8 to 6	Kdml, Kd1c	S, E	Irr	80R	..	..	5,365	..	DL; Dr; P180-400, 520-710

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth well (feet)	Diameter casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C3-68-															
2	17adba	3,700	C. McCheaney	1957	750	8	TKdu	J.E	D	20R	2	1	5,341	12- 2-58	B15; Dr; L; P#18-100; WL(2-57)28
1	17adcc	2,750	T. McMillan	1957	75R	6	Os,TKdu	J.E	D	15R	1	2	5,358.0	4-10-62	B35; Dr; L; P#27-75; WL(12-1-56)13.0
1	18abcc	4,200	F. Coppel	1958	12.2	15	Qp, Qb	C.E	D				5,240.9	12- 2-58	Dr; U(1958)
1	22aba	5,120	M. Soroco	1955	27R	6	Ob, Ql	J.E	D, IrrL				5,150		Dr; P#14-27
1	22abbb	5,150	E. Hamilton	1955	25.8	6	Ob, Ql	J.E	IrrL				5,144.8	4-10-62	Dr; P#14-27
2	23bbad	4,650	Swift & Co.	1945	1,538R	10	Kib, Kib, Kfm	T.E	Ind, B, Pr	100R	166	18	5,155	7-25-56	Dr; P#14-27; P#40-27; WL(8-16-56)12.4; WSP
2	23bbba	5,050	K. & B. Packing Co.	1936	650R	12 to 6	Kmc, Kalc	E.E	Ind, B	65R			5,144	1-26-36	Dr; P#14-27; P#40-27; WL(8-16-56)12.4; WSP
1	23bbba2	5,020	do	1952	30R	24	Ob, Ql	T.E	Ind, C	300R			5,143.8	9-12-55	Dr; P#16-31
1	23bbbb	5,100	do	1955	31R	18	Ob, Ql	T.E	Ind, B	150R			5,142		D
1	23bbcd	4,980	Pepper Packing Co.	1955	30R	48	Ob, Ql	T.E	S				5,179.0	4-10-62	Dr
1	23bbcd	3,700	City and County of Denver		43.6		Ob, Ql	T.E	C, AC, Ot				5,179.0	9-17-57	Dr
1	23bbcd	3,750	do		64R		Ob, Ql	T.E	C, AC	640R			5,165.5	9-17-57	Dr; WL(9-17-57)15.8
1	23bbcd	3,750	do		64R		Ob, Ql	T.E	C, AC	640R			5,165.7	9-17-57	Dr; WL(9-17-57)15.8
1	23bbdd	3,450	do		64R		Ob, Ql	T.E	C, AC	640R			5,165.7	9-17-57	Dr; WL(9-17-57)15.8
1	23bbdd	2,850	National Food Stores Inc.	1949	38R	36	Ob, Ql	T.E	C	150R			5,186.8		Dr
1	23caaa	2,450	Miller's Super Markets Inc.	1947	39R	36	Ob, Ql	T.E	C	225R			5,186.4		Dr
1	23caca	1,900	do	1957	68R	36	Ob, Ql	T.E	C	400R			5,188		Dr
2	23caca	4,250	Pepsi-Cola Co.	1955	747R	10 to 8	Kmc, Kalc	T.E	Ind, Pr	125R	265	150	5,183	1- -55	Dr; P#170
1	23cacc	850	Denver Flour Mills	1935	50R	12	Ob, Ql	T.E	Ind, Pr	60R		20	5,187	11-18-60	Dr
1	23cbba	2,620	Miller's Super Markets Inc.	1950	43.0	36	Ob, Ql	T.E	C	150R			5,186.7	11-14-60	Dr
1	24bbdd	4,220	S. Trolano	1955	47R	47	Ob, Ql	T.E	IrrL	150R		30	5,189	4-20-55	Dr; L; P#25-47
2	27bcdb	3,050	Chicago Burlington & Quincy Railroad	1917	700R		Kmc, Kalc	T.E	Ind	250R		400	5,170	6-16-57	Dr; PD
2	27cadd	1,440	Silver State Laundry	1907	771R	10 to 3	Kmc, Kalc	T.E	Ind	120R		393	5,190	1956	Dr; PD; WSP
2	27cbba	2,600	Chicago Burlington & Quincy Railroad		700R	20	Kmc, Kalc	T.E	Ind	160R		400	5,173	6-14-55	Dr; PD; WSP
2	27dcdd	120	Ideal Laundry	1976	800R	12 to 6	Kmc, Kalc	T.E	Ind	100R		400	5,205	6-12-57	B52; Dr; L; P#115; T55; WL(1926)23; WL(8-55)345
2	27dccb	550	do	1910	400R		Kmc	Cyl, E	N	10R			5,203		Original depth 735 feet; saved in 1940
1	28dcba	1,000	C. Wright	1955	42.9	8	Ob, Ql	C.E	Sani			18.8	5,178.2	8-17-56	Dr
1	28dcbb	450	Denver Water Board	1955	45.0	6	Ob, Ql	T.G	TM	40M	7.1	18.5	5,182.1	1-15-55	AT; DL
1	31acaa	3,850	J. Garrazone	1957	58R	6 to 4	Os,TKdu	J.E	D, IrrL	5R		7.4	5,324.5	4- 9-62	B40; Dr; L; P#40-58; WL(3-57)20; WL(12-3-58)7.4
1	33aad	3,970	Monarch Foods	1955	35R	24	Ob, Ql	T.E	Ind	100R	3	140	5,185	12-14-60	D
1	33aad	4,050	Oxford Hotel		31.0	12	Ob, Ql	C.E	AC	50R		21.5	5,188	4-20-62	Dr; WL(12-14-60)22.3
1	33aad	4,060	do	1940	35R	12 to 10	Ob, Ql	C.E	AC, C	40R		24.5	5,189	12-14-60	Dr
1	33adba	3,860	Monarch Foods	1955	40.0	36	Ob, Ql	T.E	C			21.0	5,185	12-14-60	Dr; U(1960)
1	33adbb	3,920	do	1955	36.0	24	Ob, Ql	T.E	Pr	75E		20.2	5,185	4-19-62	Dr; WL(12-14-60)20.8
2	33bcc	2,800	Colorado & Southern Railroad	1931	702R	10 to 8	Kmc, Kalc	T.E	Ind	450R		500	5,185	6-19-57	B15; Dr; L
2	33caca	1,950	Denver Flour Mills	1883	387R	5	Kmc		Ind, B			12	5,188	12- 1890	Flowed in 1883; destroyed in 1952
1	33cadb	1,850	do	1953	40R	48	Ob, Ql	T.E	Ind, C	550R		15	5,189	1957	Dr; L
1	33cadb2	1,880	do	1952	730R	8 to 6	Kmc, Kalc	T.E	Ind, B	25R	50	300	5,189	1- 8-52	Dr; WS
1	33cadb3	1,700	do	1958	40R	30	Ob, Ql	T.E	Ind, B	600R	15	17.0	5,189	11- 3-58	Dr; WL(12-14-60)20.8
2	33dcb	1,960	Tivoli Brewing Co.	1942	1,400R	8 to 6	Kib, Kib, Kib	T.E	B	40E		210	5,191	9- 1883	Dr; WL(1889)+3; WL(1896)16; Destroyed in 1940
2	33dcb2	1,840	do	1883	354R	8 to 6	Kmc	H	Ind	750R		427	5,191	9- 1883	Dr; WL(1889)+3; WL(1896)16; Destroyed in 1940
1	33dcb3	1,850	do	1900	22.2	96	Ob, Ql	C.E	Ind, C	100E		20.3	5,191	4-20-62	Dr; Re; WL(12-14-60)20.3

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Drawdown (feet) (hours)	Depth of water (feet)	Altitude of land to surface (in feet) (above m.s.l.)	Date of measurement	Remarks
2	C1-68-34aaa	5,230	Deep Rock Water Co.	1935	801R	8 to 3	Kdmc, Kdlic	T, E	Com	50R	250	5,226	1935	DL, Dr; WS
2	34aaa2	5,280	do	1895	750R		Kdmc, Kdlic	N	M	31R		5,226		Dr; WS. Destroyed in 1935
1	34bccd	2,860	Federal Reserve Bank of Kansas	1940	39.9	24	Qb, Ql	T, E	AC	150R	2	5,211	10-23-59	B39.9; Dr; P415.1-25.5; Rg
2	34bccd2	2,930	Tower Merchandise Mart	1884	669R	6	Kdmc, Kdlic	T, E	Ind, B	28R		5,210	11-17-60	Dr; WL(1884)+84; WL(1896)-50
1	34bccd3	2,960	Federal Reserve Bank of Kansas	1955	47R	24	Qb, Ql	T, E	AC, E	750R	10	5,212	4-19-62	B44; Dr; GE; H60; L; Lo32-47; WL(10-23-60) 26.5. Log from adjacent core hole
2	34bdada	3,100	New Customs House	1928	700R		Kdmc, Kdlic	N	N	60R		5,221		Flowed until 1929
2	34cabab	2,350	Albany Hotel	1885	720R	6	Kdmc, Kdlic	T, E	AC, D, B	250R	150	5,222	1904	Dr; OH(700-720); OW; WL(1885)+50; WL(1893) 90; WL(1899) 120
2	34cbba	2,500	Tabor Bldg.	1883	390R	4	Kdmc	A	N	F50R		5,214	1883	Flowed 35 gpm in 1885, stopped flowing in 1887
2	34cbba2	2,500	do	1902	734R		Kdmc	Cyl, E	N		150	5,215	1902	Dr; WS. Used until July 1946
2	34cbcb	1,930	Public Service Co. of Colo.	1910	749	10 to 4	Kdmc, Kdlic	A	AC, D	38R		5,216	12-4-59	B38; Dr; L; WL(1910) 210; WL(1947) 315
2	34cbda	1,700	Denver Dry Goods Co.	1906	723R	8 to 4	Kdmc, Kdlic	A	N	100R		5,222	11-16-60	DL; Dr; P4380-723; U(1949-60); WL(1933) 285
1	34cdad	700	Webb and Knapp	1956	62.5	24	Qb, Ql	T, E	Dr	75R		5,234	8-28-56	B61; L; Dr
2	34cdada	400	Petroleum Club	1955	1,615R	12 to 6	Klb, Klc, Kfm	N	M, Ot	155R	234	5,237	4-2-62	Dr; EL; L; P41,472-1,582
1	34cdada2	430	do	1955	73R	24	Qb, Ql	N	N, Ot			5,237	4-2-62	Dr; GE
1	34cdad	1,350	Denver National Bank	1960	35R		Qb, Ql		TW	40R	16	5,250	9-30-60	Dr; U(1959-60); WL(1933) 297. Yielded 65 gpm when drilled
2	34cdcb	880	Shirley Savoy Hotel	1911	700R	4	Kdmc, Kdlic	A	D, B	40R		5,238	11-15-60	Dr; U(1959-60); WL(1933) 297. Yielded 65 gpm when drilled
2	35acbb	3,700	F. Harrie	1956	816R	8 to 6	Kdmc, Kdlic	N	D	B20R	10	5,270	10-20-56	B69; Dr; EL; L
2	35acdc	2,800	Presbyterian Hospital	1926	800R	12 to 5	Kdmc, Kdlic	S, E	Hosp	92R		5,285	5-31-57	Dr; FD; L; P4398-410, 532-544, 579-728; WSp
2	35bccc	2,700	Buehler Transfer Co.	1929	765R	10 to 4	Kdmc, Kdlic	N	N			5,257	1929	L; P4450-755. Plugged
2	35bccc2	2,700	do	1936	765R	6 to 5	Kdmc, Kdlic	N	N			5,250	1937	B48; DL; P4120. Plugged
2	C1-69-1aaa	5,025	Shoenberg Farms	1959	520R	9	Kdlic	S, E	D	B65R	47	5,331	2-2-59	DL; Dr; EL; Tch280-520; WL(6-61) 274. Pilot hole to 599 feet
2	1adbd	3,350	R. Westcott	1956	610R		Kdlic	Cyl, E D, S, IrrL	4R		264	5,304	11-28-56	Dr; EL
2	1dad	850	City of Arvada	1959	896R	9	Kdlic	T, E	PS	68M	156.0	5,418	10-6-60	Dr; EL; H16; L; Tch396-696; WL(2-19-59) 394
2	2bcd	3,440	J. Smith	1956	543R	6	Kdlic	T, E	Irr	75R		5,534	1956	Dr; U(1959-62)
2	2bdad	2,810	do	1956	1,100R	8	Klu, Klb	T, E	D, B			5,480		Dr; U(1959-62)
1	2bdad2	2,750	do	1954	21.5	36	Qb			7E		5,479	3-16-62	D
1	2bdad3	2,670	do	1954	28.0	60	Qb					5,480	3-16-62	D; U(1959-62)

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)	Drainage (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C3-69-2dab	1,230	City of Arvada	1960	676R	9	Kalc	T,E	P8	136M	203	..	553.0P	5,409	10-6-60	DL; Dr; Tch300-675; WL(6-28-60)150
2	3adcb	1,220	.. do ..	1953	800R	8 to 6	Kalc, Klu	S,E	P8	60M	103	48	496.5	5,631	6-6-57	DL; Dr; EL; PD; P4375-180; 825-525, 545-655, 675-680, 745-765, 785-793; WL(7-53)300
2	3adcb2	1,250	.. do ..	1955	1,740R	10 to 6	Klb, Klc, Kfm	S,E	P8	45R	550	..	330.9	5,631	1-24-57	DL; Dr; EL; PD; GRL; WL(9-55)100; WS; MSR
1	3bbbb	5,200	R. Malara	1958	52R	6	Qs	J,E	D	30R	22	..	6.4	5,536.4	4-10-62	B20; Dr; L; P210-52; WL(10-29-58)4.6
2	3cbdd	850	City of Arvada	1957	647R	6	Kdl	S,E	P8	69M	..	..	370	5,486	2-2-57	DL; Dr; EL; Tch296-647
1	4acbb	3,750	G. Johnson	1956	32R	6	Opp, Qb	J,E	D, G	40R	9	1	3	5,421.3	2-23-56	DL; Dr; L; P210-52; WL(10-29-58)4.6
2	5cbba	4,800	A. Buerger	1955	285R	6	Kdmc	S,E	D	15R	..	..	185.1	5,535	8-12-58	DL; Dr; P210-52
2	6cbab	2,550	E. Kistler	1935	1,220R	10 to 6	Klb, Klc, Kfm	S,E	D	50R	..	..	57	5,545	8-4-35	DL; Dr; L; WS
2	6cbbc	2,200	G. Herring	1957	431	8 to 4	Kdmc, Kalc	S,E	..	810R	20	..	27.8	5,550	6-7-57	DL; Dr; EL; P210-52
2	7bad	4,870	E. Lewis	1957	95.6	6	Kdl	J,E	D, S	6R	51	..	24.0	5,565	8-25-58	B51; Dr; PD; L; P234-95
2	7bddd	2,900	Farmer's Highline Canal	..	9,446R	..	..	M	..	..	..	..	1.8	5,544	11-23-56	DL; Dr; EL; L
2	7cbdd	1,550	Car-O-Mor Heights	1957	497	..	Kdl	M	PS	..	..	..	149.1	5,595	11-21-60	DL; Dr; EL; U(1960)
2	7dbcb	1,690	C. Weber	1957	430R	6 to 4	Kdl	Cyl,E	D, IrrL	8R	22	2	265	5,575	2-26-57	DL; Dr; PD; P210-52
2	8bbbb	5,120	L. Newman	1955	260R	6	Kdl	J,E	D	8R	..	..	31	5,549	8-12-58	DL; Dr; PD; L
2	8caaa	2,430	P. Schiemann	1955	352R	6 to 4	Kdl	S,E	D, IrrL	30R	..	..	221.8	5,490	8-15-58	DL; Dr; PD; P210-52
1	8cdcd	100	J. Price	..	26.5	24	Qp	T, G	Irr	100R	18	2	7.1	5,445.5	8-27-59	A3, 5; B22; Dr; L; P29-21
2	8dbbb	2,380	T. Roberts	1954	350R	6 to 4	Kdl	S,E	D, IrrL	15R	70	4	32.4	5,485	8-12-58	DL; Dr; P210-52
2	8dbdd	1,480	A. Streffe	1956	375R	6 to 4	Kdl	S,E	D, IrrL	18R	..	..	235	5,448	3-22-56	DL; Dr; P210-52
1	8dcbb	1,100	H. Taylor	1958	80R	5	Qs, Kdl	J,E	D	30R	0	1-1/2	24	5,459.7	10-9-58	B24; Dr; L; P210-52
1	10dab	1,750	W. Gaddes	1956	50R	6 to 5	Qs, Kdl	J,E	D	20R	24	..	17.4	5,552.4	4-9-62	DL; Dr; L; P210-52; WL(11-14-58)17.1
1	10dbbc	2,030	City of Arvada	..	25R	96	Qp	T,E	Irr	250R	..	..	15	5,340	12-15-60	A8; Dr; GE; GY300+
2	11bbad	4,830	.. do ..	1956	822R	8	Kdmc, Kalc	Klu	..	..	..	..	490.0P	5,442	10-6-60	Dr. Inclination survey
2	11bbcd	3,400	.. do ..	1956	484R	6	Kalc	S,E	PS	127M	80	..	362.0P	5,348	10-6-60	Dr; WL(10-60)282
1	11bca	2,030	K. Goetz	1956	25R	6	Opp	J,E	D, IrrL	5R	2	1	7.9	5,320	11-12-58	DL; Dr; Tch15-25
1	11ccaa	1,050	C. Roten	1956	32R	6	Qs, Kdmc	J,E	D, IrrL	40R	6	2	11.9	5,344.4	11-10-58	B12; DL; Dr; P210-52
1	11ccad	750	M. Skinner	1954	32R	6	Qs, Tkd	J,E	D, IrrL	20R	3	..	16	5,344.9	4-5-58	B51; Dr; L; P210-52
1	11cdba	1,200	M. Masters	1956	32R	6	Qs, Kdmc	M	D, IrrL	50R	4	2	15.7	5,338.9	4-9-62	B10; DL; Dr; P210-52; WL(12-22-58)14.4
2	11cddd	50	City of Arvada	1923	425R	8 to 6	Kalc	T,E	PS	66M	..	..	203	5,340	1933	Dr; WL(1947)204; WS
2	11ddad	760	.. do ..	1948	615R	6	Kalc	T,E	PS	204M	46	12	245	5,300	11-48	DL; Dr; EL; P210-52; 375-438, 484-525; WS
1	12dabb	2,440	M. Snee	1955	60R	6	Qs	J,E	IrrL	7R	..	..	12	5,394	1959	OW
2	12dbda	1,940	City of Arvada	1958	616R	9	Kalc	T,E	PS	200M	..	..	275	5,290	5-28-58	B28; Dr; EL; L; Tch275-616
1	12dcbb	1,150	J. Pachello	1956	11.0	..	Opp, Qb	Pch, H	D	..	..	..	7.2	5,274.4	11-29-57	Dr; P210-52
1	12dbcc	1,900	Shields and Pauley	1956	21R	6	Opp, Qb	J,E	D, Com	50R	6	2	6.3	5,265.8	10-21-58	B20; Dr; L; P212-21
1	12abcc	4,100	R. Does	1957	22R	8	Opp, Qb, Ql	J,E	PS, IrrL	22R	13	2	4.4	5,267.2	11-3-58	B21; DL; Dr; P214-22
2	12adbc	2,580	Simmons and Brooks	1956	596	8 to 6	Kalc	S,E	PS	83R	45	..	308.0	5,265	11-8-59	B21; DL; EL; L; Tch190
2	13adcc	600	.. do ..	1958	577R	8	Kalc	T,E	PS	830R	12	..	309.8	5,268	11-8-59	DL; Dr; H9-7; Tch402-527
1	13babb	5,100	J. Joseph	..	20R	..	Opp, Qb, Ql	J,E	G	50R	12	..	4.3	5,274.4	9-8-59	DL; Dr
1	13bbcc	4,180	T. Jefferys	..	21R	6	Opp, Qb, Ql	J,E	IrrL	45R	6	1-1/2	6	5,285	4-21-56	B21; DL; Dr
2	13bdac	3,600	Sigman Meat Co.	..	..	..	Kdl	T,E	Ind, Pr, S	85R	..	..	..	5,272	..	Dr
2	13bdad	3,400	.. do ..	1958	655R	6	Kdl	S,E	Ind, Pr	85R	165	..	285	5,270	9-15-58	DL; Dr; P210-52
2	13bdad	3,600	.. do ..	1960	..	..	Kdl	..	Ind, Pr	85R	..	..	..	5,280	..	Dr
1	13cbaa	2,500	S. Spano	..	7.4	24 to 12	Opp	..	D, Ot	..	..	..	5.3	5,283.0	4-9-62	D
2	13dbbb	2,430	City of Arvada	1955	645R	10 to 8	Kalc	T,E	PS	145M	65	..	270	5,275	2-25-59	Dr
1	14aad	4,200	A. Warner	1956	21R	8	Opp, Ql	J,E	IrrL, Ot	45R	6	2	5.2	5,284.8	4-9-62	B21; DL; Dr; P211-19
1	14abdb	4,320	E. Jones	1956	8.0	48	Opp	C, M	IrrL	12R	..	..	4.8	5,297.0	10-27-58	DL; Dr; P214-8

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	14cccb	3,150	A. Swannstrom	1958	18R	6	Qpp-Ql	J,E	D,Com	11R	10	6	5,304.6	3-31-58	Dr; L; P; F12-18
1	14cccb2	2,470	A. Spallone	1958	34R	7	Qpp-Ql	J,E	D	30R	1	9.3	5,305	7-25-56	B29; DL; Dr; F17-27
1	14cccb	2,700	M. Lee	1956	23R	6	Qpp-Ql	J,E	D,Com	20	1	2	5,305	7-25-56	B22; DL; Dr; GE; F14-23
1	14baad	4,630	H. Warner	1956	21R	6	Qp-Ql	J,E	Ind	50R	6	2	5,301.8	10-22-58	B20; DL; Dr; F11-20; WL(6-56)4
2	14baba	4,980	City of Arvada	1943	399R	5	Kdmc	PS	PS	PS	PS	255	5,340	3-6-54	Destroyed in 1960. Inadequate
2	14bab2	5,000	do	1943	360R	6 to 5	Kdmc	T,E	PS	124M	PS	270	5,334	10-6-60	U(1960). Inadequate
2	14bab2	4,950	do	1959	616	9	Kdmc, K1	T,E	PS	PS	PS	570.0P	5,331	10-6-60	B26; Dr; EL; L; TCh301-608; WL(5-29)250; WL(10-60)280
1	14bbcb	4,480	R. Bailey	1957	22.6	36 to 18	Qs	J,E	G	15R	PS	14.0	5,353.5	10-24-58	B24; DL; Dr; F17
1	14bbcb	3,050	D. Tournay	1955	13.3	36	Qpp	C,E	Irr	20M	PS	11.9P	5,321.8	8-27-59	Al; D
1	14bbcd	2,740	A. Burd	1956	28R	6	Qpp-Ql	J,E	D	10R	4	1	5,310.0	10-22-58	B28; DL; Dr; GE; F14-23
1	14ccab	2,550	T. Sovia	1956	20R	5	Qpp-Ql	J,E	D	50R	10	2	5,307.8	9-1-56	B19; DL; Dr; F12-19
1	14ccdc	1,580	P. Terry	1956	21R	6	Qpp-Ql	J,E	D	30R	10	2	5,309.3	8-28-56	B18; DL; Dr; F12-21
1	14ccdd	2,720	Standard Oil Co.	1958	22R	6	Qpp-Ql	J,E	D,Com	30R	7	5	5,309.0	7-10-58	B19; DL; Dr; F12-22
1	14cbba	2,500	A. Peterson	1958	22R	6	Qpp-Ql	J,E	D	30R	7	6	5,319	4-15-58	B21; DL; Dr; F11-22
1	14cbca	1,900	A. Stout	1957	19R	6	Qpp-Ql	J,E	D	12R	3	2	5,319.4	5-2-57	DL; Dr; F13-19
1	14cbdb	1,730	L. Cramer	1956	22R	48 to 6	Qpp-Ql	J,E	D,IrrL	36R	12	8	5,316.4	10-23-58	DL; Dr; F12-22
1	14cdcc	1,150	J. Miller	1957	9.5	18 to 24	Qpp-Ql	C,E	D,IrrL, Ot	PS	PS	6.3	5,312.2	4-9-62	DL; Dr
1	14dabc	2,000	S. Spano	1957	25R	6	Qpp-Ql	N	D	30R	6	2	5,296.4	2-23-57	B22; DL; Dr; F10-25
2	14dacc	1,390	City of Arvada	1955	633	10 to 8	Kdmc	T,E	PS	143M	PS	250	5,300	10-5-60	EL
1	15aaab	5,060	J. Smith	1956	30R	6	Qp-Qs	J,E	D,IrrL	20R	7	2	5,362.6	10-24-58	B30; DL; Dr; F18-30
1	15abed	4,150	J. Bazne	1956	25R	6	Qp-Qs	J,E	D,IrrL	PS	PS	17.3	5,371.6	11-5-58	DL; Dr
1	15abdb	1,760	F. Naugle	1957	29R	6	Qp-Qs	J,E	D	20R	PS	8.3	5,370.5	11-3-58	B29; DL; Dr; TCh10-20
1	15adad	2,780	R. Goetz	1956	16.5	6	Qp-Qs	P,E	Irr	45R	12	2	5,323.0	8-27-59	Al; 25; B21; DL; Dr; GE; Su; WL(7-24-56)5.7
2	15addd	2,900	City of Arvada	1942	550R	8	Kdmc	T,E	PS	134M	165	250	5,324	1942	Dr; WL(1949)150; WS; WSC
2	15addd2	2,900	do	1951	1,558R	10	Klu, K1b, K1a, K1m	N	PS, Ot	125M	PS	142.7	5,324	4-9-62	Dr; EL; L; PP; U(1958-62); WS
2	15addd3	2,900	do	1946	150R	10	Kdmc, Kdmc	T,E	PS	80M	PS	245	5,324	8-4-47	Dr
2	15addd4	2,900	do	1947	600R	10	Kdmc, Kdmc	N	PS	190R	110	24	5,290	8-4-47	Dr; EL; F1210-415; OH(415-600); U(1960)
2	15bbaa	5,080	do	1946	618R	10	Kdmc	T,E	PS	90M	PS	PS	5,430	PS	Dr; L; WS; Pilot hole to 835 feet
2	15ccaa	1,040	do	1955	608R	10 to 8	Kdmc	T,E	PS	64M	300	300	5,352	10-6-60	DL; Dr; EL
1	15dabb	2,450	M. Santarano	1956	24R	6	Qpp-Ql	J,E	D	40R	PS	5.0	5,330	7-24-56	DL; Dr; GE; F16-14
1	15daca	1,820	J. Piper	1956	14R	6	Qpp-Ql	C,E	D	20R	6	2	5,329	10-23-58	B27; DL; Dr; F15-28; WL(7-25-56)606
1	15dada	1,700	O. Cody	1955	25.6	6	Qpp	J,E	PS	30R	PS	6.6	5,322.2	10-23-58	DL; Dr; F15-28; WL(7-25-56)606
1	15dbbc	2,050	M. Blumel	1959	10.4	48	Qpp	N	Irr, Ot	35M	1.7 h-1/2	7.8	5,338.3	4-9-62	AT; D
1	15dbcd	1,350	G. Burghardt	1959	25R	6	Qpp-Ql	J,E	IrrL	50R	4	6.4	5,339.1	8-28-59	Dr; L; F14-24
1	16caab	1,800	P. Rose	1956	24R	6	Qpp-Qb, Ql	J,E	D	20R	6	9.6	5,427.1	11-12-58	B20; DL; Dr; F10-24; WL(8-56)9
1	16ccca	500	A. Young	1956	26.0	6	Qpp-Ql	N	Irr, Ot	43M	10.3 h-1/2	6.6	5,393.8	4-9-62	AT; Dr
2	16daad	2,300	Ridge Home and Training School	1917	1,403R	8	K1b, K1a, K1m	T,E	Irr, B, E	65E	PS	420	5,390	10-23-61	A3; T72. Flowed in 1937
1	16dada	1,970	do	1956	25R	6 to 5	Qpp-Ql	C,E	Irr	PS00E	PS	3.4	5,370	10-23-61	A12
1	16ddaa	1,100	C. Willard	1956	25R	6 to 5	Qpp-Ql	J,E	D	12R	7	4	5,362.6	10-31-58	B17; Dr; L
1	16ddcb	1,300	J. James	1956	9.0	14	Qpp	C,E	IrrL, Ot	PS	PS	6.1	5,371.2	4-9-62	Dr
1	17adcc	2,740	G. Reiss	1958	53R	6	Qs, Kdmc	J,E	D,IrrL	20R	25	19.1	5,425	8-20-58	B8; Dr; FO; L; F123-53
1	17bccc	2,830	R. Young	1957	80R	6	Qp, Kdmc	J,E	D	10R	40	13.3	5,225.3	4-9-62	B15; DL; Dr; FO; GE; F15-20, 68-73; WL(4-29-58)12.5; WSP
1	17cbaa	2,500	M. Brocklund	1956	72R	6	Qs	C,E	D, IrrL	84R	27	3.4	5,513.2	8-23-58	B21; DL; Dr; FO; F12-50

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface above (feet) m.s.l.	Date of measurement	Remarks
C3-69-															
1	18acdc	2,670	1,770 Collier and Mountain Realty Co.	1956	45R	24	Qc	C,E	D, IrrL	20R	0	14.1	5,543.8	8-25-58	B22; Dr; FD; L; P10-29
2	18baca	4,600	3,420 W. Williams	1955	100R	5	Kdmc	S,E	D, IrrL	13R	..	27.4	5,545	4-9-62	Dr; WL(8-15-58)27.6
2	18bacc	4,280	3,800 B. Blair	1957	125R	6	Kdmc	J,E	D	10E	..	46.4	5,555	8-15-58	DL; Dr; P14-125
2	18badd	4,100	2,900 P. Koopman	1952	130R	4	Kdmc	J,E	D	1E	..	75.5	5,585	10-30-56	Dr; MS
2	18bcaa	3,700	4,050 H. Maddox	1956	45R	4	Kdmc	S,E	D	7R	..	284.1	5,570	10-8-59	Dr; EL; Tch254-277, 301-380
1	18bcca	3,100	4,700 G. Clark	1957	46R	6	Qc, Ql	J,E	D, IrrL	24R	4	4	5,562	5-28-57	B18; DL; Dr; P136-46
1	18ccad	1,550	3,400 S. Thompson	1959	14R	24	Qc, Ql	M	D, IrrL	..	..	5.5	5,541	8-18-59	B14; Dr; DL
1	18cccd	180	5,000 E. Johann	1956	32R	6	Qc, Ql	J,E	D, IrrL	80R	5	8	5,560	1-2-56	B17; Dr; L; P15-30
2	18ccdb	500	3,280 H. Poertner	1957	520R	6 to 4	Kdmc	S,E	D	..	..	271.6	5,535	8-20-58	B25; Dr; FD; L; P1360-450
1	18dcaa	2,350	1,350 G. Conzett	1956	35R	24	Qc, Ql	J,E	D, IrrL	4R	..	12.3	5,535	8-18-59	B18; Dr; FD; L; P114-31
1	18daab	5,100	3,050 L. Hutchins	1955	31R	6	Ql	J,E	D, IrrL	25R	4	14	5,524	4-18-55	B28; DL; Dr; P14-31
1	18dbab	2,350	3,800 D. Trexler	1956	32R	6	Ql	J,E	D, IrrL	50R	5	6	5,528	9-18-56	B28; DL; Dr; P15-30
2	18daca	2,400	2,850 Mobile Concrete Inc.	1960	466R	9 to 6	Kdmc	S,E	Ind	30R	20	169.0	5,515	11-21-60	B28; DL; Dr; P1280-466
2	19dcdb	600	1,300 K. Knowles	..	3,000R	..	..	..	Oil	..	..	..	5,520	..	DL; L
1	20daab	5,150	550 L. Pantano	..	8.5	48	Qc, Ql	C,G	Irr	100E	..	4.9	5,404	8-20-59	AA.5; D
1	20daad	4,650	100 Valley Water District	1957	36R	18	Qc, Ql	T,E	PS	210R	28	4	5,401.6	8-21-57	B36.5; DL; Dr; GE; P10-36; WS
1	20daab	4,580	420 .. do.	1957	34.5	18	Qc, Ql	T,E	PS	160R	25	4	5,403.7	11-5-57	B34.5; DL; Dr; GE; P10-34; WS
1	20dac	3,450	1,800 C. Melan	..	10.8	48	Qc, Ql	C,G	Irr	..	..	3.9	5,418.7	8-27-59	D; Su
1	20daca	3,080	2,050 G. Jensen	1955	32R	6	Qc, Ql	J,E	D, G	30R	14	8	5,421.6	1-29-55	B30; Dr; L; P124-32
2	20adcd	2,780	2,280 C. Fleharty	1956	37.2	6	Qc, Ql	C,E	D	20R	11	6.2	5,425	7-24-56	B30; DL; Dr; P130-34
1	20adca	3,100	1,400 G. Winslow	1959	25R	6	Qc, Ql	J,E	D	40R	16	..	5,415	3-6-59	B24; DL; Dr; P115-25
2	20badc	4,280	1,240 E. Purnell	1953	130R	6 to 4	Kdmc	Cyl,E	D	2R	..	40	5,440	6-14-53	DL; Dr
1	20cbad	2,180	4,180 Jefferson County	..	17.5	36	Qc, Ql	N	Irr	..	..	12.0	5,440.0	4-9-62	DL; WL(8-26-59)18.0
1	20ccab	1,020	4,400 .. do.	1959	50R	6	Qc, Ql	J,E	8	30R	24	9	5,443.1	3-18-59	B40; DL; Dr; P140-50
1	20ccbb	1,100	5,050 Asphalt Paving Co.	1957	32R	6	Qc, Ql	J,E	Ind, B	20R	0	16	5,450	2-18-57	B31; DL; Dr; P122-32
1	20cdba	1,220	3,550 Jefferson County	..	40R	6	Qc, Ql	..	Ind	30R	4	24	5,436.9	3-21-55	B38; DL; Dr; P130-40
1	21abbd	4,700	2,120 R. Byer	1955	21R	6	Qc, Ql	J,E	D	B15R	8	9	5,379	2-27-56	DL; Dr; P115-24
1	21abcc	4,250	2,360 R. Sorensen	1956	32R	6	Qc, Ql	J,E	D	20R	6	6	5,380.5	5-29-56	B30; Dr; L; P120-32
1	21abcc2	4,080	2,580 M. Clime	1958	28R	6	Qc, Ql	J,E	D	25R	14	8	5,382.7	6-30-58	B26; DL; Dr; P117-27
1	21abda	4,400	1,450 K. Rehfeld	1957	29R	6	Qc, Ql	J,E	D	15R	..	20	5,380.0	11-5-57	B28; DL; Dr; P119-28; WL(9-57)20
2	21accc	2,650	2,450 Valley Water District	1957	596R	20 to 6	Kdmc, K1	S,E	PS	65R	259	282	5,381	8-13-57	B10; Dr; GE; H20-13; L; Tch271-596; WS
1	21ccca	550	4,920 L. Fletcher	1958	120R	6 to 4	Qc, Ql	J,E	D	88R	14	8.5	5,435	8-20-58	B38; DL; Dr; FD; P120-21, 25-26, 30-31, 70-80, 105-120
2	21cccd	250	4,900 H. Whitlock	1956	75R	6 to 5	Kdmc	J,E	D	86R	15	55	5,425	3-30-56	B25; DL; Dr
1	21cdad	900	2,960 Empire Development Co.	1956	42R	..	Qc, Ql	J,E	D	6R	20	10	5,400.9	6-26-56	B35; DL; Dr; P113-29
1	21cdad	150	2,700 R. Shepard	1956	40R	6 to 5	Qc, Ql	J,E	D	14R	..	8.4	5,396.6	10-27-58	B35; DL; Dr; P124-35
1	21daac	2,000	400 J. McMillan	..	7.3	4	Qc, Ql	C,E	S, Ot	..	..	4.9	5,363.5	5-20-58	Rust-colored water
1	21dbca	1,750	2,020 Wheatridge Mutual Water Co.	1957	8.9	48	Qc, Ql	C,P	PS, Ot	..	..	5.4	5,384.7	11-10-58	B10; By4; D; L; P14-10; T48
1	21ddcb	450	1,220 L. Morton	1958	18.8	36	Qc, Ql	C,E	IrrL	80R	10	..	5,381.9	4-9-62	D; DL; P114-20; WL(8-28-59)1.6
1	22aaab	4,960	150 G. Calvert	1956	21R	6	Qc, Ql	J,E	D, IrrL	30R	11	6.7	5,326.7	10-27-58	B18; DL; Dr; P112-21; WL(9-56)5
1	22aabb	5,000	1,100 O. Becktel	1958	25R	6	Qc, Ql	J,E	IrrL	25R	4	6	5,330	9-23-58	B18; DL; Dr; P112-25
1	22aabc	4,820	1,300 J. Redmond	1958	25R	6	Qc, Ql	J,E	IrrL	25R	4	2.9	5,331.2	8-28-59	B18; DL; Dr; P112-25
2	22aacc	4,230	1,100 J. Lindsay	1957	24.8	5	Qc, Ql	N	D	20R	10	5.0	5,330.8	10-28-58	B14; DL; Dr; P112-26
2	22aadd	4,270	80 City of Arvada	1955	626R	10 to 8	Kdmc	T,E	PS	104M	300	300	5,323	10-6-60	Dr; EL
1	22ccab	1,100	4,350 Not known	..	Spring	..	Qc	N	N	<1E	..	..	5,410	..	WSP. Contact spring
2	22cdad	700	2,950 L. Wothoff	1957	59J	4	Kdmc	S,E	IrrL	820R	20	12	345.7	11-6-59	Dr; EL; L; P1320-380, 400-450, 460-525, 555-575

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Map distance east-west (feet)	Owner or user	Year completed	Depth of well casing (feet)	Diameter of casing (inches)	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	22acc	1,650	1,050	Not known	1956	Spring	6.1	24 Qp, Qp, Tkdu	N	IrreL	50R	2.6	5,394.5	11-3-58	WSP 88; DL; Dr; P45-10; U(1958)
1	22bdc	1,360	1,900	G. Hallenbeck	1957	575	4	Kdl	S, E D, IrreL	50R	23	367	5,421	3-1-57	DL; Dr; EL; Tch370-574
2	22bdc	1,330	1,350	W. Jung	1957	551	6	Kdl	S, E D	15R	..	350	5,420	12-8-56	DL; Dr; EL; Tch380-530
2	22cca	500	2,200	J. Meredith	1956	633	6	Kdl	S, E D, IrreL	35R	..	..	5,450	..	DL; EL
1	22bdc	750	1,100	F. Linneman	1956	18R	6	Qp, Ql	J, E D, IrreL	5R	4	6.7	5,377.8	11-10-58	DL; Dr; P49-18; W(2-57)10
2	22aca	4,350	860	H. Platt	1957	28R	6	Qp	J, E D	12R	..	13.4	5,390.6	11-19-58	DL; Dr; P48-28; W(1-57)16
1	23aca	3,200	1,420	M. Hajak	1957	13.9	6	Qes	J, E D	..	..	9.0	5,386.1	12-3-58	DL; Dr
1	23dba	3,920	720	C. Comillo	1955	33R	6	Qes, Qe	J, E D	50R	5	1-1/2	5,372.0	11-19-58	DL; Dr; P423-33; W(7-56)24
1	23bad	4,680	2,900	W. Mumford	1956	42R	5	Qes, Qe	J, E D	50R	5	2	5,392.4	11-24-58	836; DL; Dr; P418-42
1	23bdc	2,950	4,360	B. Ogden	1956	43R	6	Qes, Qe, Tkdu	J, E D	50R	30	3	5,402.4	11-19-58	DL; Dr; L; P412-43; W(7-56)8
1	23bcd	2,850	3,400	C. Morhouse	1956	17.0	22	Qes, Qe	C, E IrreL, Ot	4M	1	1/2	5,436.5	4-9-62	DL; Dr; P415-54
1	23bdd	1,450	4,150	W. Vaudrey	1957	54R	6	Qes, Qe	J, E D	30R	6	3	5,453.1	11-21-58	DL; Dr; P418-67; W(7-56)18
1	23ccd	880	4,140	J. Minshall	1956	67R	6	Qes, Qe	J, E D	10R	..	15.3	5,453.8	11-24-58	DL; Dr; P418-67; W(7-56)18
1	23ceda	450	4,200	A. Laseano	1957	25R	6	Qes, Qe	J, E D	10R	6	5	5,394.8	11-21-58	DL; Dr; P418-25; W(1-57)10
1	23daab	2,440	420	C. Ingersoll	1957	37R	6	Qes, Qe	J, E D	50R	3	1-1/2	5,415.6	11-19-58	DL; Dr; P418-37; W(4-57)14
1	23dad	1,500	730	B. Sullivan	1956	36R	6	Qes, Qe	J, E D	50R	2	2-1/4	5,426.7	12-3-58	DL; Dr; P418-37; W(9-56)15
1	23dad	800	250	H. Head	1956	26R	10	Qes, Qe	..	..	..	..	5,400.6	..	WS
1	24cab	1,650	3,150	G. Vonash	1955	21.7	6	Qes, Qe	..	..	..	..	5,393.0	4-9-62	DL; Dr; P418-50; W(6-57)12
1	24cbcb	2,200	4,950	B. Eichenhuth	1957	31.1	48	Qes, Qe	J, E D, IrreL	14M	9	1/2	5,412.7	10-19-56	DL; Tch580-718
1	24cbca	1,250	3,450	R. Bowen	1953	20R	8	Qes, Qe	J, E D, IrreL	60R	..	10.1	5,434.3	4-9-62	DL; Dr; P414-21; W(12-22-58)10.9
1	24cbdb	960	3,620	G. Wilson	1955	40R	6 to 5	Qes, Qe	J, E D	8R	..	..	5,412	..	DL; Dr; P418-31; W(2-57)14
1	24cdcc	250	3,280	J. Mahoney	1957	54R	6	Qes, Qe	J, E D, IrreL	10R	12	2	5,429.7	11-10-58	DL; Dr; L; P412-54; W(8-56)8
1	25bbdb	4,780	4,850	K. Gray	1956	50R	6	Qes, Qy, Qe	J, E D	10R	35	..	5,441.7	12-22-58	DL; Dr; P418-50; W(6-57)12
1	25bcb	3,320	5,030	M. Greenwald	1957	718R	6 to 4	Kdlc	S, E IrreL	18R	..	400	5,455	10-19-56	DL; Tch580-718
2	25bdad	3,350	2,800	G. Schlaepfer	1956	23R	8	Qes, Qe	J, E D, IrreL	60R	..	..	5,434.3	4-9-62	DL; Dr; P414-21; W(12-22-58)10.9
1	26aad	4,630	180	C. Rohler	1958	31R	6	Qp, Qe	J, E D	5R	16	1	5,449.2	11-20-58	DL; Dr; L; P418-31; W(2-57)14
1	26aca	3,850	1,620	M. Preston	1957	25R	5	Qp, Qe	J, E D	5R	6	..	5,456.1	11-20-58	DL; Dr; P412-25; W(6-57)20
1	26acba	3,860	2,130	L. Reid	1957	40R	8	Qy, Qe	..	15R	..	26	5,483.2	4-23-56	DL; Dr; P412-25; W(6-57)20
1	26acce	3,080	2,280	J. Price	1955	27.0	24	Qy, Qe, Qo(?)	J, E IrreL	30R	13	2	5,444.2	9-8-59	A.5; B30; DL; Dr; P412-25; W(6-57)20
1	26adae	3,650	250	R. Rees	..	32R	6	Qes, Qe	J, E D	7R	4	2	5,480.7	11-20-58	DL; Dr; P412-32; W(8-56)18
1	26dbbd	2,050	2,260	H. Williams	1956	46.6	6	Qy, Qe	N	20M	8	..	5,464.0	11-20-58	DL; Dr; L; P410-50
1	26dbdd	1,380	1,580	L. Brown	1958	43R	6	Qy, Qe	J, E D	4R	28	1	5,437.0	4-9-62	B39; DL; Dr; P410-43; W(11-21-58)13.6
1	26ddcb	380	1,020	J. Feely	1957	82R	8	Qy, Qe, Tkdu	J, E D, IrreL	846R	3	5	5,530.1	12-9-58	DL; Dr; L; P427-82
1	27adcb	3,230	1,100	J. Colasanti	1956	43R	8	Qy, Qe	J, E D, IrreL	22R	7	3	5,530.3	10-31-58	DL; Dr; P410-23
1	27adcd	2,840	720	J. Gold	1956	698R	9 to 7	Kdlc, Kdlc	S, E D	..	..	..	5,560	..	DL; GR
2	28adcd	2,850	150	H. Eastman	1957	571R	..	Kdlc, Kdlc	N	PS	..	..	5,510	..	DL; Destroyed
2	29bbdc	4,150	4,300	Consolidated Mutual Water Co.	1929	62R	6	Ql	J, E G	50R	10	4	5,528.0	8-21-58	B62; DL; Dr; Tch56-62
1	29cba	2,440	4,190	S. Schumann	1954	100R	6	TKdu	J, E D	5R	..	..	5,472.3	..	DL
2	30abab	5,220	1,810	Rolling Hills Country Club	1928	18R	60	Qp, Qb, Ql	..	..	..	..	5,477	8-3-57	DL; Dr; P418-50
1	30abcb	4,400	2,350	.. do.	1957	28R	48	Ql	Cyl, H	..	..	..	5,511.0	..	DL; Dr; P418-50
1	30ada	3,750	260	F. Miller	1940	40.2	..	..	J, E IrreL	..	..	36.0	5,519.0	4-9-62	DL; W(8-5-58)32.7
1	30dad	3,390	20	F. Johnson	1956	52R	6	Ql	J, E IrreL	..	..	..	5,516.6	..	DL
1	30adcb	2,980	1,230	R. DeVoe	1956	485R	5 to 4	TKdu, Kdlc, Kdlc	S, E D, IrreL	10R	50	..	5,510	4-1-61	B22; DL; Dr; P418-50; L; Tch335-485
2	30adcb2	3,100	1,150	F. Spillane	1961	..	..	..	..	..	..	..	..	..	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) above m.s.l.	Date of measurement	Remarks
C3-69-															
1	30add2	2,950	G. Newton	1954	95R	6 to 4	Q1	J.E. IrrL	D. IrrL	20R	2	11	5,507.8	7- -54	DL; Dr; OW
1	30addb	3,040	T. Muckle	1955	45R	6 to 4	Q1	J.E. IrrL	D. IrrL	15R	2	54	5,519.1	5- -8-55	B42; Dr; FD; L; WS
1	30addc	2,980	do.	1955	74R	6 to 4	Q1	J.E. IrrL	D. IrrL	15R	2	54	5,519.1	5- -8-55	B54; DL; Dr; P338-40
1	30addc2	2,720	do.	1950	50R	6	Q1	J.E. IrrL	D. IrrL	15R	2	29	5,521.1	1- -58	Dr; WL(9-58)15
1	30addd	2,820	P. Johnson	1940	50R	24	Q1	J.E. IrrL	D. IrrL	15R	2	29	5,526	1- -58	D. Dry during the spring
1	30addd2	2,780	P. Miller	1956	54R	6	Q1	J.E. IrrL	D. IrrL	15R	2	44	5,525.7	1- -58	DL; Dr
1	30addc	2,800	E. Ehlers	1955	57R	6	Q1	J.E. IrrL	D. IrrL	15R	2	44	5,527.3	6-18-58	DL; Dr
2	30adda	3,000	Rolling Hills Country Club	1928	3,000R	15 to 8	..	M Oil, Ot	..	..	..	95.1	5,519	11-23-56	B18; Dr; L; SL. During drilling in 1928, depth to water was 200 feet when hole was 820 feet deep; the water level was above land surface when the hole was 1,225 feet deep
2	30bddd2	3,050	do.	1959	600R	6	Kdmc, Kd1c	..	SW	30R	200	300	5,480	5-30-59	B25; DL; Dr
2	30bddd	2,750	do.	1956	256R	6 to 4	Kdmc	J.E. IrrL	D. IrrL	10R	20	..	5,523	..	GRU
2	30caaa	2,460	D. Braden	1953	630R	6 to 4	Kd1c	J.E. IrrL	D. IrrL	10R	20	..	5,523	..	B24; DL; Dr; P360-610
2	30caaa2	2,360	G. Wardle	1951	250R	6 to 4	TKdu	P.E. D	..	3E	..	..	5,526	..	Dr. Pumps dry in 30 minutes
1	30caab	2,450	R. Schwartz	1955	28R	36	Q1	..	D	..	..	15	5,522.4	8- -58	D
1	30caab2	2,450	E. Deatherage	1958	90R	..	Q1	..	D	..	..	..	5,524.1	..	Dr. Pumps dry in 15 minutes
2	30caad	2,080	M. Stovall	1952	325R	6	Kdmc	Cyl, E	..	..	..	..	5,531	..	Dr
1	30caba	2,400	M. Dupman	1900	45R	36	Q1	..	D, S	60R	..	43	5,524.8	8- -58	DL; WL(4-58)11
1	30cabab	2,540	A. Potter	1950	..	6	Q1	T.E	D	..	..	..	5,538.7	..	Dr
1	30cbbc	2,150	Applewood Utilities Co.	1955	71R	30 to 6	Q1	J.E	PS	35R	..	37.6	5,554.8	8-26-58	B42; DL; DL; OH(49-73)
1	30cbca	1,810	A. Hayden	1948	71R	8 to 4	Q1	J.E	D	8E	..	44	5,558.2	8-1-58	Dr
1	30cabcb	1,710	L. Kalle	1954	90R	6	Q1	..	D, IrrL	..	..	45	5,540.2	6-1-58	Dr
1	30dacc	1,600	C. Hollenbaugh	1953	90R	6	Q1	..	D, IrrL	..	..	35	5,540.7	8-5-58	Dr
1	30dacc2	1,410	C. Darrigand	1953	88R	6	Q1	J.E	D	..	..	40	5,544.5	9-5-58	Dr
2	30dcca	600	B. Stenzel	1959	380R	4	Kdmc	S.E	..	20E	..	226.2	5,566	7-22-60	Dr
1	30ddbc	960	H. Vayo	1952	68R	5	Q1	J.E	D, IrrL	8E	..	48.2	5,545.2	8-6-58	Dr
1	30ddbd	830	R. Elfline	1955	42.0	5	Q1	J.E	IrrL	5E	..	15.3	5,559.9	8-6-58	Dr
1	30ddbd2	820	E. Kunz	1958	94R	6	Q1	S.E	IrrL	20E	7.5	20.6	5,557.0	8-12-58	Dr
2	30ddca	580	H. Thompson	1957	149	5	TKdu	M	N	..	..	54.5	5,568	6-27-57	Dr; GRU; P375-149; U(1958)
2	30ddcc	250	Applewood Utilities Co.	1955	637R	8 to 6	TKdu, Kd1c	T.E	PS	47R	186	400	5,577	3-8-55	B20; Dr; EL; FD; L; TCh320-399, 450-637; WS
1	30ddcc2	230	do.	1955	42R	24	Q1	J.E	PS	30R	23	16.1	5,572.4	7-6-60	B29; DL; DL; P310-35
1	30ddcc3	100	do.	1955	202R	6	Q1, TKdu	N	M	B9R	12	12.9	5,580	8-26-58	B30; Dr; TCh16-115; WL(11-55)28
1	30dddc	100	M. Johnson	1955	45.1	6	Q1	N	N	..	..	14.1	5,567.1	8-12-58	Dr
2	30dddd	100	do.	1960	650R	6 to 4	Kd1c	S.E	D, IrrL	15R	30	438.0	5,574	7-22-60	A.75; DL; Dr; TCh30-650
1	31aaaa	4,960	H. Dutton	..	30R	36	Q1	C.E	D	20E	..	4	5,574.3	8-6-58	D
1	31aaa2	5,060	do.	..	17.3	24	Q1	D	D	..	..	9.7	5,574.0	8-6-58	D
2	31abdc	3,980	J. Creighton	1953	584R	6 to 4	Kdmc, Kd1c	Cyl, E	D	10R	..	490F	5,611	6-27-53	DL; Dr; P364-368, 500-522, 542-584
1	32baa	5,040	H. Dutton	1908	25R	36	Q1	..	D	..	..	..	5,557.7	..	D
2	32caad	2,150	G. Turre	1957	80R	5	TKdu	..	D	12R	48	27	5,555	3-27-57	B17; DL; Dr
1	32coba	1,300	M. Bunker	1954	40R	24	Op, Q1	J.E	IrrL	30R	..	..	5,579.3	7-16-56	Dr; WS
2	32dccc	1,100	Horton	1956	701R	..	Kd1c	..	..	B12R	22	550	5,626	7-16-56	B16; EL; L
1	33aabb	5,160	G. Robertson	1957	27R	6	Op, Qs	J.E	D, S	10E	..	11.0	5,577.7	10-31-58	DL; Dr; P316-27; WL(2-57)16
1	33abdd	4,000	H. Lienert	1956	70R	6 to 5	Op, Qs	N	D	B10R	26	9.8	5,587.6	4-9-62	B22; DL; Dr; P315-70; WL(5-56)14; WL(11-7-58)10.0

Table 2.--Records of selected wells and springs--Continued

Plate number	Location	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C1-69--															
1	33cda	1,720	W. Rosensohn	1956	30R	5	Qp, Qm	J, E	D	81R	4	1	5,589.6	10-31-58	B20; DL; Dr; P112-30
1	33dab	3,900	D. Giddings	1954	80R	5	Qy, Tdcl	J, E	IrrL	81R	35	1-1/2	5,585.4	4-9-62	B15; Dr; GE; L; P115-80; WL(1954)25; WS
2	33dac	980	Wickstrand and Madley	1951	594R	6	Kdlic	J, E	PS	820R	35	..	5,600	11-28-51	B3; Dr; FD; L; WS
2	33ddc	150	Consolidated Mutual Water Co.	1947	680R	..	Kdlic	T, E	PS, E	70R	..	..	5,558	3-20-56	Dr; WL(13-47)390; WL(4-54)495
2	33ddcd2	80	..	1947	1,635R	13 to 8	Klb, K1a, Kfm	T, E	PS, E	88R	..	..	5,556	2-12-56	Dr; EL; L; WL(1-47)85
2	34caa	2,350	..	1927	650R	..	Kdlic	J, E	PS, E	..	..	..	5,545	..	DL; U(1960)
2	34dbc	2,300	..	1955	1,745R	10	Klb, K1a, Kfm	T, E	PS	100M	159	24	5,555	2-12-57	AT; Dr; EL; WL(13-27-55) 385.0; WS
2	35acd	4,150	E. Young	..	760R	6 to 2	Kdlic	J, E	D	..	..	..	5,412	..	Dr; WS
1	35ddc	300	D. Runyon	..	25R	24	Qp	J, E	IrrL	20R	..	..	5,400	5-17-55	Dr
1	36aad	4,000	L. Kurth	1955	65R	6 to 5	Qp	J, E	D	10R	..	..	5,313	11-24-55	B21; Dr; L; P129-62
2	36cbd	1,400	Jewish Consumptive Relief Society	..	704R	..	Kdmc, Kdlic	J, E	N	..	..	..	5,410	..	DL; Dr; U(1961)
2	36ccaa	1,250	..	1939	820R	16 to 8	Kdmc, Kdlic	T, E	PS, B, Irr	..	..	..	5,410	7-5-39	B20; Dr; Dr; P1425-448; 319-610; 675-699, 742-788; WS
C3-70--															
2	1abbb	5,000	M. Forbes	1957	120R	6	Kdmc	J, E	G	12R	..	..	5,580	8-11-58	Dr; PD
2	1abab	5,010	R. Dunwoody	1956	122R	6	Tdcl, Kd1	J, E	D	20R	20	3	5,590	4-9-62	B43; Dr; PD; L; P150-74, 98-122; WL(8-11-58) 21.7; WL(9-8-60)20.6 WSP
2	1bbad	4,810	R. Newman	1957	1,035R	4	Klb, K1a, Kfm	S, E	D, S	81R	150	..	5,625	10-1-57	DL; Dr; EL; OH(876-1,015)
2	1bcdb	2,980	G. Brayfield	1943	100R	6	Kd1u	S, E	D, IrrL	25R	..	..	5,602	8-25-56	Dr; PD
1	1cbbb	2,620	Jury Estate	1953	12.5	..	Qb	C, E	D	..	..	..	5,601.1	4-9-62	D; PD; WL(8-26-58)16.0
1	1cbdb2	1,420	..	1940	14R	48	Qb	T, E	IrrL	15R	..	..	5,623.6	8-26-58	D; PD
1	1adbc	2,810	P. Pattridge	..	13.2	60	Qs	J, E	D, S, E	5R	..	..	5,873.7	4-9-62	D; U(1958); WL(10-29-58) 8.4
1	4daaa	2,480	..	..	12.5	60	Qs	J, E	D, S	..	..	..	5,884.6	10-29-58	D; U(1958)
2	8daca	1,680	E. Ramstetter	..	Spring	..	Ke	..	S	F25R	..	..	6,015	4-59	FD; WS
1	9cadb	1,950	R. Churches	1955	25R	24	Op, Ql	C, E	S	25R	..	..	5,864.8	8-22-58	DL; Dr; PD
1	10dcbb	2,220	R. Sears	1940	17.3	36	Qb	J, E	D	..	..	..	5,803.4	4-9-62	D; PD; WL(11-20-58)10.6; WS
1	11bccc	2,940	Denver Water Board	..	14.3	42x54	Qb	J, E	S	5R	..	..	5,738.9	4-9-62	D; WL(11-13-58)8.6
2	11dbbb	2,560	A. Baker	1946	243R	6 to 4	Kdlic, K1u	Cyl, E	D, Dy	3R	..	..	5,695	1946	Dr; PD
1	11dbcc	2,180	..	..	16.2	48	Op, Qb	T, E	S	..	..	..	5,574.4	4-9-62	D; WL(8-26-58)6.6
2	12bdcc	2,920	C. Ryan and Sons	1957	536	6	Kdlic, K1u	S, E	D, Ind, IrrL	5R	..	..	5,688.5	11-7-58	EL; PD; P120-285; 495-536; WS
2	12bcdcd2	2,780	..	1960	1,260R	6	Klb, K1a	S, E	D, IrrL	..	..	..	5,670	..	..
2	12dbbc	2,100	Karr-McGee	1957	497	8 to 6	Kdlic, K1u	S, E	Fire	15R	215	..	5,690	4-23-60	B28; Dr; EL; L; Sa
2	13acbc	3,600	W. Scott	1958	450R	6 to 4	Kdmc, Kdlic	S, E	D, IrrL	10R	300	..	5,653	2-16-57	DL; Dr; EL; PD; P180-300; 350-380; 440-495; WS
1	13aded	2,900	Newton Bros. Construc- tion Co.	1956	46R	6 to 4	Qs	J, E	D	85R	21	1	5,573.3	8-25-58	B16; Dr; PD; L; P115-46
1	13aded2	2,890	..	..	12R	48	Qs	..	S	..	..	..	5,574.4	8-25-58	D
1	13aded3	2,800	..	..	25R	6	Qs	N	..	..	..	..	5,576.0	4-9-62	Dr; WL(8-25-58)6.4
2	13bacc	4,180	W. Everitt	1956	475R	6 to 4	Kdlic	S, E	D	7R	65	3	5,620	9-4-56	DL; Dr; P114-360; 406-429; Sa; SL
2	13bbab	5,130	D. McClelland	1956	85R	6 to 5	Kdmc	J, E	D, IrrL	82R	55	1-1/2	5,635	8-29-56	DL; Dr; PD; P110-85
2	13bdac	3,110	F. Rees	1956	400R	6 to 4	Kdmc, Kdlic	S, E	D	15R	40	1	5,605	3-27-56	B20; DL; Dr; PD; WS
2	13bdad	3,380	C. Robinson	..	130R	4	Kdmc	Cyl, E	D, IrrL	5R	40	3/4	5,606.6	Dr; PD; WSP	..
1	13bdad2	3,400	..	..	33R	48	Qs	C, E	D, IrrL	5R	..	..	5,601.0	4-9-62	B30; Dr; WL(5-13-58)9.2; WS

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of water (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet measure above m.s.l.)	Date of measurement	Remarks	
2	C3-70-13bdeb	3,110	H. Dahl, Jr.	1956	490R	6 to 4	Kalc	S,E D,S,IrrL	10R	45	2	261.1	5,605	8-12-58 B25; DL; Dr; PD; P#330-420; WSP	
2	13cade	1,580	Jefferson County School Dist. R-1.	1960	555	6 to 4	Kalc	S,E	Sch	24M	75	3	252	5,588 11- -60 B13; Dr; EL; H7-5; L; Sa; SL; Tch300-409, Fairmont Elementary School	
2	13cadd	1,360	W. Grandjean.	1904	425R	..	Kdl	Cyl,E	D	5E	..	..	1940	Dr; PD	
1	13dcde	150	F. Taylor	1958	23.4	56	Qa	J,E	D,IrrL	10R	..	..	8-20-58	840; DL; Dr	
2	13ddcd	300	S. Oakes.	1962	398	6	Tkdc,Kalc	..	D,S	B10R	22	..	7-21-62	DL; Bailed 1 gpm at 100 feet, 6 gpm at 300 feet	
2	14abbb	5,220	M. Keener	1957	93R	6	Kalc	J,E	D,IrrL	5E	..	..	8-20-58	B57; Dr; PD; P#43-93	
1	14bdca	1,800	G. Hammer	1958	59R	6	Qc	J,E	N	1R	..	..	4-9-62	B30; Dr; L; P#30-59; WL(8-20-58)28.9	
1	14bdca2	1,930	H. Hays	1958	100R	6 to 5	Qc,Tkdc	J,E	N	2R	..	..	8-20-58	B36; DL; Dr; P#30-100	
1	15bbbc	5,240	E. Rasmussen	1953	94.1	6	Qc,Qa	N	D	10M	16 2-1/4	..	11-24-58	B32; DL; Dr; PD; WSP	
2	17dddc	750	J. Walker	1956	158R	5	Api	S,E	D,S,IrrL	20R	..	..	7-31-61	DL	
2	17dddb	550	.. do.	..	90R	..	..	N	..	..	..	..	..	Dry hole, 300 foot well nearby also dry	
2	23cdcb	610	L. Vogel.	1956	100R	6	Tkdc	J,E	D	B10R	61	2	51.0	8-23-58 B35; DL; Dr; PD; Tch35-97	
2	23dcba	1,080	Richardson Railroad Museum and Motel.	1958	595R	6 to 4	Kalc,Kalc	S,E	D	B15R	102	..	360	5,630 11- 3-58 B43; Dr; EL; L; Sa; SL; Tch364-564	
1	24aabb	5,000	T. New.	1956	30R	6	Qa	..	D,IrrL	40R	12	2	8	5,568 6-20-56 B27; Dr; L; P#18-27	
1	24aaba	4,950	Rocky Mountain Bible Institute	1959	24R	6	Qa	J,E	D	10R	2	..	14.8	5,575 4- 9-62 B23; DL; Dr; P#10-24; WL(4-59)12; WL(11-21-60)11.1	
2	24bdad	3,560	Boise Cascade Container Corp.	1960	500R	12 to 8	Kalc,Kalc	S,E	D,Ind,B,C	24M	..	..	281	5,590 8-18-60 B40; Dr; H16-10; L; P#250-500	
1	25aadb	4,400	K. Mauz.	1955	50R	6	Qpp,Qb,Ql	..	D	..	..	..	5,511	..	
1	25adb	3,820	R. Inman.	1960	637R	6	Ql	..	D,IrrL	..	..	..	5,517	..	
2	25adcd	2,680	Applewood Greenhouses	1960	637R	6	Kalc,Kalc	S,E	G	25R	45	..	5,510	4-14-60 B22; DL; Dr; EL; H8; P#182-542, 574-606	
2	25adde	2,840	I. Flores.	1955	260R	6 to 4	Tkdc	..	D	4R	..	..	5,550	B33; DL; Dr	
1	25bdc	4,100	G. Leslie	1894	10.5	36	Ql	Cyl,H	D	..	..	..	5,584.9	8-15-58 D, Dry in 1962	
1	25bbcc	4,280	Wade Estate	1948	35R	48	Ql	..	D	..	..	..	5,600	7-24-58	
1	25bcd	3,350	L. Pyle	..	Spring	..	Qc,Tkdc(?)	D,S	F	..	..	..	5,620	7-24-58	
1	25bcd	2,810	J. Greenfield	1918	33R	30	Qc,Ql	D	..	..	..	..	5,620	8- 1-58	
1	25bcd2	2,760	.. do.	1953	44R	..	Qc,Ql,Tkdc	..	Irr	20R	21	4	19	5,620 8- 1-58 B42; D; DL	
1	25bcd3	2,780	M. Branning.	1948	25.3	36	Qc,Ql,Tkdc	..	D	..	..	..	5,625.5	7-25-58 D	
1	25bcd4	2,750	L. Pyle	..	Spring	..	Qc,Ql,Tkdc	..	D,IrrL	..	..	..	5,630	7-24-58	
1	25bcd	2,700	C. McCauley	..	98R	6	Qc,Ql,Tkdc	J,E	D,IrrL,S	3R	..	..	5,580	4-10-62 PD	
1	25bcd2	2,650	Not known	..	14.1	..	Qc,Ql	N	N	..	..	..	5,607.9	7-29-58 D	
1	25bdb	3,250	M. Vaughn	1955	65R	6	Qc,Ql	..	D,S	20R	..	..	5,560	1955 Dr	
1	25cab	2,570	Not known	..	7.0	36	Qc,Ql	N	N	..	..	..	5,612	7-29-58 D	
1	25cab	2,460	R. Walton	..	31.3	..	Qc,Ql	..	D	..	..	..	5,641.5	8-15-58 D	
1	25daa	2,350	L. Warner	1949	76.2	6	Qc	..	D	5R	..	..	5,556.4	8- 1-58 Dr	
2	25daab	2,460	G. Roberts.	1951	99R	6	Tkdc	J,E	D	3E	..	..	47.9	5,565 7-30-58 Dr; P#69-99	
1	25daab2	2,420	V. Carr	1954	63R	8	Ql	..	D	30R	..	..	..	..	DL, Drilled 2 dry holes nearby to 103 and 105 feet
1	25daed	2,050	H. Schmidt.	1955	50R	6	Qc,Ql	..	D,IrrL	..	..	..	5,562	..	
2	25daba	2,520	J. Taylor	..	82R	6	Tkdc	..	D	..	..	..	37.1	8- 1-58 Dr	
2	25dbb	2,170	E. Wilcox	1951	14R	..	Qc,Ql	..	D	..	..	..	6	5,568 1958 Dr	
2	25dbb	1,150	A. Izlett	1951	110R	6	Tkdc	J,E	D	1R	90	..	4.2	5,605 8-21-58 B3; DL; Dr; PD	
1	26bacd	4,050	Coors and Claar Development Co.	1959	26R	48	Qc	T,E	PS,Ind	163R	22	7	4	5,605 7-13-59 DL; P#14-26; W5	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of (gpm) and water	Drawdown (feet)(hours)	Depth to water	Altitude of land to surface above (m.s.l.)	Date of measurement	Remarks
C3-70-														
1	26bad	4,030	G. Hockett	1916	27.7	48	Qc,Ol	..	D	..	21.5	5,598.6	8-15-58	D. Dry in 1962
1	26bcd	4,200	H. Blatter	1948	13R	36	Ol	..	D	..	3	5,600	6--58	D; FD
1	26bda	4,480	W. Mateer	1948	8R	48	Qp,Ol	M	N	..	.2	5,582.1	7-24-58	D; DL; U(1958). Dry in 1962
1	26bdc	4,120	V. Blatter	1861	28R	..	Ol	..	D	..	16	5,602	7--58	D; T50; WL(4-58)7
1	26bcd2	4,130	C. Kinnam	1956	34R	6	Ol	..	D	..	15	5,605.6	9-17-56	DL
1	26bdd	4,270	W. Mateer	1952	30R	48 to 30	Qc,Ol	..	D	50E	16.5	5,601.2	8-15-58	D; WL(4-58)20. Dry in 1962
2	26bdc	3,430	H. Mick	1955	56R	6	Tkdc	..	D	..	36.8	5,632.0	8-15-58	Dr
1	26bdb	3,860	G. Claar	1956	56R	6	Ol	..	D	810R	41	5,625.7	8-1-58	L
1	27ada	4,000	J. Githens	1958	48R	6	Ol	J.E	D	20R	25	5,611.0	2-10-58	DL
1	27acbb	3,200	A. Coora	1958	110R	48	Qc,Os	..	Ind,Pr	30R	40.6	5,643.6	7-21-59	B60; D; DL; PFO-110
2	27ada	3,500	A. Frauenfelder	1954	100R	6	Tkdc	T.E	D, IrrL	..	..	5,640	..	Dr
1	27adbb	3,950	A. Coora	1959	46R	60	Qc,Ol	N	Ind,Pr	80R	41	5,608	6--59	B46; D; DL; Gy256. Collector perforated 6-46 feet
1	27bdd	2,810	.. do.	1911	12R	120x240	Ol	T.E	Ind,Pr	70R	11.2	5,635.3	7-28-58	D; WS
1	27cac	2,240	.. do.	1917	12R	120x120	Qc,Ol	C.E	Ind,Pr	70R	8.2	5,631.2	7-28-58	D; W7
1	27cab	2,210	.. do.	1917	12R	144x144	Ol	C.E	Ind,Pr	70R	11.2	5,636.5	7-28-58	D; OW
1	27cab2	2,150	.. do.	1936	23R	48	Qc,Ol	C.E	Ind,Pr	70R	12.6	5,635.2	7-28-58	D; QM
1	27cab3	1,850	R-1 School Dist.	1938	12R	..	Qc	C.E	IrrL	90R	6.2	5,654.8	4--9-62	D; WL(7-22-58)6.5
1	28ada	1,820	Coors Porcelain Co.	1957	69R	64	Qc	S.E	Ind,C	12R	20	5,690	10-15-57	B57; D; DL; Re
1	28add	300	C. Schoech	1942	32R	36	Ql,Os	C.E	C	10E	27.0P	5,675	7-22-58	D. Static water level near land surface
1	28add2	90	F. Bonnell	1920	34.9	24	Ql,Os	Cyl,E	IrrL	5E	11.3	5,689.1	4--9-62	D; WL(7-21-58)29.4
1	31aab	5,080	C. McWatt	1934	41R	..	Ql,Os	N	M	..	27	5,695	1955	D
2	31aac	4,710	F. Robinson	1930	108	6	Kmc	T.E	IrrL	..	95.0	5,720	8-21-58	DL; FD
1	31abc	4,570	L. Holland	1920	15.8	..	Qc,Op,Ol	N	N	..	14.3	5,680.6	8-21-58	D; U(1958)
1	31bba	5,260	L. Campbell	..	20R	..	Qc,Op,Ol	..	IrrL	..	15	..	8-21-58	D
1	31bab	3,810	R. Knealmeyer	1954	8R	..	Qc,Op,Ol	..	IrrL	..	2	..	1958	D
C3-71-														
-	7bbac	4,800	B. Marvis	..	Spring	36	PC	N	D	P5R	..	8,365	12--7-60	FD; SG. Ten other springs on ranch used for stock
2	11cabb	2,400	V. Nelson	1956	150R	6	PC	S.E	D	2R	40	7,140	10--56	Dr; EZ; L; OH(20-150); SG
2	14cccd	4,780	Guy Hill School	..	18.5	..	PC	Pch,H	..	10E	..	7,325	12--2-60	Dr; FD; SG
2	19cbbb	2,400	W. Mays	1960	597	6	Tkdu	S.E	D,IrrL	15R	215	5,600	8-28-60	B50; Dr; L; P1385-450, 475-510, 525-585
2	31bba	4,500	H. McCluskey	1958	850R	6 to 4	Tkdu,Kdmc	S.E	PS	15R	110	5,655	11-21-58	Dr; L; P1390-413, 597-620, 643-666, 712-735, 781-827
2	34abbc	4,900	Degen Bros.	1938	925R	2	Kdmc	N	D	..	..	5,715	..	L
C4-66-														
1	3aacb	4,420	Air National Guard	1944	33.7	48	Qb,Ol	T.E	Inat,E	300R	..	5,456.0	4-15-62	By2; D; GE; P123.5-J6.5; TH; WL(1942)11; WL(7-13-56)21.3; WS
1	3aacb2	4,450	.. do.	1942	23R	48	Qb,Ol	T.E	Inat,E	..	..	5,457	4-15-62	D; GE; P13.5-23.5; 81; TH; WL(1942)6; WL(2-20-61)20.1
1	3aadb	4,600	.. do.	1942	35.0	48	Qb,Ol	T.E	Inat,E	62R	..	5,458	4-15-62	D; GE; TH; WL(7-13-56)21.7; WL(2-20-61)20.6
1	3aadd	3,970	.. do.	1942	36.7	48	Qb,Ol	T.E	Inat,E	62R	..	5,470	4-15-62	D; GE; TH; WL(7-13-56)25.0; WL(2-20-61)23.7
1	3abda	4,480	Ackard Land Co.	1945	43.9	40	Qb,Ol	T.E	Irr	400E	..	5,450	9-20-60	A70(With 3bada and 3badd); D
1	3adea	3,740	Air National Guard	1942	35.5	48	Qb,Ol	T.E	Inat,E	52R	..	5,468	4-15-62	D; GE; TH; WL(7-13-56)25.0; WL(1-20-61)10.6
1	3bada	4,350	Ackard Land Co.	1945	31.2	40	Qb,Ol	T.E	Irr	365R	16	5,447	9-20-60	B29; P14; Dr; L
1	3babb	3,020	.. do.	1945	32.1	24	Qb,Ol	C.E	Irr,S	50E	..	5,447	9-20-60	B29; P14; Dr; L
1	3bcbb	3,730	L. Jones	1955	37R	24	Qb,Ol	T.E	Ind	325R	11	5,438	1-23-61	B29; Dr; GE; L; P14-J2
1	3daab	2,560	Air National Guard	1942	23.3	48	Qb,Ol	T.E	PS,E	52R	..	5,458	4-15-62	GE; WL(7-13-56)11.8; WL(2-20-61)23.1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C4-66															
1	1dabc	2,080	Air National Guard	1942	24R	36	Ob.Ol	T.E	PS, E.O	175R	..	14.4	5,457.0	4-19-62	AT; Dr; GE; P616-24; TH; WL(2-20-61)13.6; WS. Yield dropped to 15 gpm in 1945
1	1ddbb	1,250	.. do.	1942	23.8	48	Ob.Ol	..	PS.E	150R	..	13.7	5,460	4-15-62	Dr; GE; P614-24; TH; WL(7-42)8; WL(2-20-61)14.5; WS. Yield dropped to 15 gpm in 1945
2	1ddcb	640	.. do.	1942	2,186R	10 to 7	Kdmc, Kdlic, Klb, Klf, Kfm	T.E	PS	220R	..	242.7	5,478	2-22-61	DL; Dr; P6890-930; 975-1,015, 1,138-1,153, 1,594-1624, 1,689-1,737, 1,908-1923, 2,027-2,155, WL(4-42)263; WS
2	4bbcc	4,250	E. Peterson	1950	545R	6	TKdu	S.E	D	20R	..	233.1	5,460	11-9-59	C; Dr; EL
1	4bdae	3,950	L. Holland	1950	32R	..	Op	N	D	..	..	15	5,443	1956	B14; D; L. Destroyed in 1959; inadequate
2	4bdae2	3,930	.. do.	1951	444R	6 to 4	TKdu	..	D	9R	120	150	5,443	1958	B10; C; Dr; L
2	5acda	3,050	A. Kirkegaard	1951	560	6	TKdu	S.E	D	20R	..	245.8	5,455	11-9-59	C; Dr; EL
2	5acdb	3,050	Rock	1956	543	..	TKdu	..	..	..	..	..	5,455	..	..
2	5bbba	5,050	Altura Drugs	1959	1,175R	..	Kdmc, Kdlic	S.E	Com	25E	..	320	5,425	4-4-59	Dr; EL. Yielded 13 gpm at 930 feet
1	5bcab	3,750	C. Dickinson	1950	72R	18	Oy.Oe	T.E	D, S, Irr	35R	6	53.2	5,444.0	4-28-58	A14; B72; Dr; PD; GE; H40; L; P640-72; Su; WL(6-56)161; WSP
2	5bcb	3,920	.. do.	1952	961R	5 to 4	Kdmc	..	D	15R	100	260	5,438	9-2-52	Dr; L; P6780-800, 840-920
2	5bdb	3,880	A. Kemas	1956	602	6	TKdu	S.E	D	13R	..	295.3	5,440	11-10-59	Dr; EL
2	5cbcb	2,120	L. Morse	1956	250R	6 to 4	TKdu	..	D	2R	..	55.3	5,445	7-17-56	B16; Dr; L; WL(3-56)50
2	5cccc	200	J. Callaway	1955	1,060	..	Kdmc	..	D	..	..	..	5,452	..	B36; Dr; EL; L
2	7bbcb	4,500	A. Allison	1956	686	5 to 4	TKdu	S.E	D	7R	25	202.0	5,425	11-10-59	Dr; EL; P6284-521, 546-570
2	7ddda	450	C. Bresnahan	1931	6,050	..	Kdmc, Kdlic, Klb, Klf, Kfm	S.E	D	P10R	..	..	5,450	7-6-61	Dr; L. Oil test; plugged back to 2,860
2	8cccc	50	.. do.	1951	1,399	8 to 6	Kdmc, Kdlic	N	Com	88R	57	51.8	5,450	12-9-57	B16; Dr; EL; H9-7; L; P6860-1,390; WL(9-57)64
2	10abca	4,400	Air National Guard	1942	2,038	10 to 7	Kdlic, Klb, Klf, Kfm	T.E	Inst	157M	..	306.7	5,533.6	8-12-57	B13; Dr; GEL; L; P61,311-1,368, 1,783-1910, 2,034-2,161; WS. Yielded 300 gpm in 1942
2	10cabd	2,200	.. do.	1942	2,100R	10 to 7	Kdlic, Klb, Klf, Kfm	T.E	Inst	112M	..	305.5	5,560.4	2-20-61	AT; Dr; WS
2	10ddba	1,100	.. do.	1942	2,196R	10 to 7	Kdlic, Klb, Klf, Kfm	N	N	P187R	..	..	5,570.3	1942	Dr; U(1953); WS. Reported ca/l'd in 1957
1	11bbad	4,630	.. do.	1942	42.6	48	Ob.Ol	..	..	150R	19.4	15.3	5,481.7	1942	AT; DL; GE
2	14bda	3,200	.. do.	1942	2,100R	10 to 7	Kdlic, Klb, Klf, Kfm	T.E	Inst	220R	..	290.8	5,592.0	2-15-61	D
2	18cbcb	1,840	M. Barr	1960	1,063R	6	Kdmc	Cyl.E	D	20R	163	320	5,568	6-10-60	Dr; L; P6923-1,029
2	20cbdb	3,800	O. Corbin	1958	960R	4	TKdu, Kdmc	..	D	15R	60	200	5,569	5-20-58	Dr; EL; H6-5; L; P6519-578, 848-906, 926-943
2	24edac	3,600	P. Setchell	1956	424R	5	TKdu	J.E	D	B12R	86	64	5,600	9-6-56	B21; Dr; L; Tch250-271, 380-424; U(1961)
C4-67-															
2	1abbd	4,850	J. Debbert	1956	920R	6 to 4	Kdmc	S.E	D	20R	100	370	5,391	5-12-56	B56; Dr; L; P6780-890
2	1abdb	4,550	Trailer Haven Inc.	1948	900R	..	Kdmc	S.E	PS	30E	..	..	5,390	..	Dr
2	1abdc	4,100	.. do.	1959	962R	..	TKdu, Kdmc	S.E	PS	30R	40	120	5,394	5-4-55	B32; Dr; H9-8; L; P6695-910
1	1adca	3,250	E. Burke	1956	29.0	8 to 6	Op.Oy	N	Irr	..	..	19.4	5,395	6-4-57	Dr; P620
2	1caab	2,600	R. Bolt	1956	102R	5	TKdu	..	IrrL	1R	..	30	5,415	1-13-56	B56; DL; Dr; P612-53
2	2ccaa	1,200	K. Burke	1956	86R	6	TKdu	..	IrrL	1BR	0	17	5,402	9-15-56	B45; DL; Dr; GE; P610-80
2	2daaa	2,380	Aurora Public Schools	1955	990R	6 to 4	TKdu, Kdmc	S.E	Irr	B23R	60	260	5,427	1-1-56	B15; Dr; L; Tch690-990

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude to surface (in feet above mean)	Date of measurement	Remarks
CA-67-															
2	3bdbb	3,800	R. Henderson.	1956	250R	6 to 5	TKdu	J.E	Irr	5R	133	6	5,362	6-5-57	B3B; Dr; L; P#132-250
2	3cadd	2,000	U.S. Air Force	1955	2,023R	8 to 6	Kd1c, K1b K1a, K6m	T.E	Irr, Sch	112M	360	..	5,370	6-55	B2B; Dr; EL; L; P#1,215-1,240, 1,400-1,440, 1,580-1,670, 1,740-1,810, 1860-1,940; SL
2	6bdec	2,900	V. A. Hospital.	1955	1,840R	10 to 8	Kd1c, K1b K1a, K6m	T.E	Irr	133M	445	24	5,309	4-26-57	AT; Dr; EL; H9; L; P#1,116-1,146, 1,367-1,740, 1,780-1,800; WL(7-1955)+42; WS
2	6cbdd	1,550	Colo. General Hospital.	1936	1,116R	12 to 8	Kdmc, Kd1c	T.E	Irr	130R	300	..	5,335	3-56	B10; DL; Dr; P#640-660, 664-670, 908-920, 990-1,016; WL(12-1936) 170; WS
2	6ddec	120	G. Martin	1955	825R	6 to 4	Kdmc	..	D	6R	..	..	5,355	1955	B14; DL; Dr; P#719-825
1	7cdec	300	Denver Water Board.	1954	53R	6	Qp, Q1	..	TM	55R	23	2	5,345	12-22-54	AT; B45; Dr; L
1	8dcbb	1,200	Monaco Sports Center.	1960	100R	5	Qe	J.E	D, Irr, L	20R	8	..	5,390	4-11-62	A2; B84; Dr; L; P#55-91; WL(6-60)45; WL(11-25-60) 40.7
2	9aadb	4,500	U.S. Air Force.	1956	1,984R	8 to 6	K1b, K1a, K6m	T.E	Irr, Sch	118M	377	23	5,369	10-4-56	B53; DL; Dr; EL; Ss; SL; Tchl, 570-1,926
2	10adab	3,880	Eastland Shopping Center.	1961	1,240R	8 to 6	Kdmc, Kd1c	S.E	AC, C, D, Com	75R	269	16	5,423	6-21-61	Dr; EL; H7-11; L; Ss; SL; Tchl 30-900; 1,024-1,075, 1,130-1,180
2	14caba	2,350	A. Christensen.	1956	1,055	4	TKdu, Kdmc	S.E	D	..	..	..	5,471	..	Dr; EL
2	14caba2	2,450	.. do. ..	1956	1,075	4	TKdu, Kdmc	S.E	D	812R	432	10	5,471	4-7-56	DL; Dr; EL; GE; P#833-992
1	14cdd	250	W. Davis.	1956	45.7	6	Qp, Qy, Qe	J.E	Irr, L	15R	7	3	5,486	7-23-56	B48; Dr; GE; L; Tchl 4-50
1	15cdd	550	W. Brame.	1956	43R	6	Qp, Qy, Qe	J.E	D	7	17	3	5,473	3-27-56	B39; Dr; L; Tchl 2-43
2	16cbb	1,000	Wishing Well Corp.	1959	1,005R	4	Kdmc	S.E	PS	25R	173	..	5,424	7-1-59	B42; DL; Dr; H8-5; P#798-1,005
2	16cbbd	800	Fairmount Cemetery, Aaan.	1956	1,150R	6 to ..	TKdu, Kdmc, Kd1u	T.E	PS	23R	125	..	5,471	10-12-56	B60; Dr; EL; L; Tchl 64-1,150
2	16cdca	500	R. Udesen	1956	945R	6 to 4	TKdu, Kdmc	S.E	D	11R	220	8	5,468	8-15-56	B52; DL; Dr; P#733-945
1	17cdd	250	O. Johnson.	1954	46R	8	Qb, Q1	J.E	AC, Irr, B, G	..	..	..	5,384	..	Dr
1	17cdd2	200	.. do. ..	1938	46R	8	Qb, Q1	J.E	G	..	..	..	5,384	4-21-62	Dr; WL(3-29-60) 19.1
1	17dbac	2,300	B. Teets.	1948	75R	48	Qb, Q1	N	Irr	225R	..	..	5,425	1958	A20; B75
2	17dbbc	2,280	C. Thurmon.	1957	748	6 to 4	Kdmc	S.E	SS	12R	5	..	5,400	9-6-57	B15; Dr; EL; H7-5; P#643-748; QW
2	17dbdc	1,600	Johnny's Monaco Lanes	1959	1,030R	6 to 4	Kdmc	S.E	Com	42R	200	..	5,400	6-20-59	B30; DL; Dr; H6-4; P#740-854, 946-1,020
1	17dcd	50	F. Johnson.	1955	41.3	6	Qp, Qb, Q1	J.E	D	20R	10	2	5,396.7	10-26-59	DL; Dr; WL(7-23-56) 25.9
1	17dcd2	900	Bradford Nursery.	1954	34R	12	Qp, Qb, Q1	C.E	Irr, Ot	21M	4.5	1/2	9.3	4-11-62	Dr; PD; WS
1	17ddbc2	750	.. do. ..	1959	49R	48	Qp, Qb, Q1	T.E	Irr	421R	34	..	5,389.8	4-23-59	B49; Dr; DL; GE; P#14-49
2	17ddbd	850	Twilight Golf Club.	1959	1,020R	8 to 4	Kdmc	T.E	Irr, D, Com	100R	..	..	5,389.0	4-1-60	B33; Dr; H10-7.5; L; Tchl 667-1,000
1	17ddbd2	730	Bradford Nursery.	1959	32.9	48	Qp, Qb, Q1	T.E	Irr	421R	..	..	5,390.3	3-23-59	B49; Dr; DL; GE; P#34-49
1	17ddca	530	Fairmount Cemetery, Aaan.	1940	31R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,391.6	9-9-54	D
1	17ddca2	330	.. do. ..	1940	29R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,391.7	9-9-54	D
1	17ddca3	400	.. do. ..	1940	26R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,391.6	9-9-54	D
1	17ddca4	460	.. do. ..	1940	28R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,390.7	9-9-54	D
1	17ddcc	270	.. do. ..	1940	36R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,392.4	9-9-54	D
1	17ddcc2	170	.. do. ..	1940	40R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,392.7	9-9-54	D
1	17ddcc3	140	.. do. ..	1940	39R	48	Qp, Qb, Q1	..	Irr, E	..	..	..	5,392.8	9-9-54	D
1	18abcc	4,000	C. Felton	1955	36R	8	Qp, Qb, Q1	J.E	D	150R	5	1	5,353	3-3-55	DL; P#16
1	18abcd	2,280	L. Thiel.	1944	32R	60 to 14	Qb, Q1	T.E	Irr	100R	3	..	5,352.5	4-11-62	AL.5; Dr; WL(1944) 6; WL(2-12-59) 20.4

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well casing (feet)	Diameter of casing (inches)	Geologic source	Method of lift, of power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
	C4-67-														
1	18acaa	3,690	L. Ruehle	1955	40.0	60 to 14	Qb-Q1	C,E	Irr,G	22R		18.8	5,356.5	2-12-59	D; L; WL(6-53)13; WL(4-56)14; WL(5-57)14; WL(5-58)10
1	18acac	3,350	P. and M. Leonard	1900	60R	60 to 14	Qb-Q1	T,E	Irr,G	250M	1.6	1	5,347.4	2-13-59	DD; PD; WS
1	18acbb	3,700	J. Singleton	1923	23.5	56 to 8	Qb-Q1	C,E	Irr	200E		17.6	5,353.1	4-11-62	DD; U(1932-59); WL(1923)9; WL(2-12-59)21.7; Deepened in 1930
1	18acbc	3,430	C. Felton	1947	50R	60 to 10	Qb-Q1	T,E	Irr	170E		22.3	5,353.5	2-12-59	AI.5; B50; Dr; U(1956-59)
1	18accd	3,170	M. Glanville		23.9	72 to 10	Qb-Q1	C,E	Irr, Ot	25E		18.2	5,354.4	4-11-62	DD
1	18accd2	3,250	O. Wedow		29.9	48	Qb-Q1	C,G	Irr			24.6	5,355.5	4-11-62	AI.5; D; U(1959); WL(2-12-59)21.9
1	18accd2	2,980	E. Sinnamon	1958	49R	6	Qb-Q1	S,E	D	30R	20	20	5,351	12-17-58	B41; DL; Dr; P28-49
1	18accd2	2,830	Town of Glendale	1959	42.5	24	Qb-Q1	T,E	PS, O	760M	14.2	48	5,352.0	1-29-59	AT; B43; Dr; PD; GE; H40; L; L012-42; PP; Sa, Su, Th; WS
1	18accd3	2,330	do.	1959	46R	24	Qb-Q1	T,E	PS	800R	25		5,355.1	6-24-59	B46; DL; Dr; GE; L022-46
1	18accd4	2,950	do.		26.0	72 to 12	Qb-Q1	C,E	Irr, Ot	200M	3.4	1	5,351.1	1-28-59	AI; DD; WSP
1	18adac	2,900	Bogue Realty Co.	1950	32.4	24	Qb-Q1	N	Irr, PS	250R		16.3	5,361.1	2-13-59	D; P40-32
1	18adac	4,450	Stearns Dairy	1944	22R	48	Qb-Q1	C,E	D, Irr, L						
1	18adac	4,140	G. Garson	1935	43R	48	Qb-Q1	J,E	PS	400E		20	5,348	3- 7-55	D; WS
1	18adbc	3,470	Denver Mortar and Materials Co.	1952	38R	10	Qpp, Qb-Q1	C,E	Ind	250R		11.5	5,339.5	4-21-62	Dr; WL(1952-53)5; WL(2-13-59)14.3
1	18adbb	2,400	F. Kirchner	1957	51R	48	Qb-Q1	T,E	AC	596R	30		5,349.5	2-26-59	B37; D; L; P430-51
1	18adbb	2,450	do.		55R		Qb-Q1	S,E	G, B	50R		20	5,349.5	12-16-60	Dr
1	18adbb	2,450	do.		55R		Qb-Q1	S,E	G, B	50R		20	5,349.5	12-16-60	Dr
2	18adcd	1,450	Aqua-Bowl-Motel	1960	950R	12 to 8	Kdmc	S,E		B55R	230		5,370	9- 2-60	B28; Dr; EL; L; Tch700-875
1	18daac	2,050	Bogue Realty Co.	1956	49R	48	Qb-Q1	C,E	Irr, Cons, PS	550R	1.5		5,367.9	2-13-59	D; WL(1950)15; WL(1951)17; WL(1952)19; WL(1950)21; WL(2-12-59)20.9
1	18dbaa	2,320	G. Boulton	1956	43R	12	Qb-Q1	T,E	Irr, D, G	150E		13.3	5,362.1	4-21-62	A9; Dr; GE; WL(1950)21; WL(2-12-59)20.9
1	18dbbb	2,300	Blue Bird Plumbing Co.	1960	60R	6 to 4	Qb-Q1	J,E	D	20R	7		5,351	5-20-60	B59; Dr; L; P28-60
2	18dbab	3,790	Colo. State Hwy. Dept.	1956	1,063R	14 to 8	Kdmc	T,E	Irr	85M	120	24	5,457.8	11-16-59	AT; Dr; EL; P4710-1,025; WL(8-1956)250
2	18dbab	3,750	W. Berry	1956	1,005R	6 to 4	Kdmc	S,E	D	B25R	50	4	5,415	1- 1-56	B30; Dr; L; Tch700-1,005
1	20aabb	5,150	Fairmount Cemetery	1954	48R	48	Qb-Q1	T,E	Irr	1,050R	5	2	5,394.9	4-14-54	B47; D; L; P410-40; TH
1	20aabb2	5,160	do.	1954	49R	48	Qb-Q1	T,E	Irr, E			20	5,393.5	9- 9-54	D; TH
1	20aabb3	5,250	do.	1935	50R	48	Qb-Q1	T,E	Irr, E			21	5,393.3	9- 9-54	D; TH
1	20aabb4	4,950	do.	1954	47R	48	Qb-Q1	T,E	Irr	375R	10		5,393.9	4-14-54	B45; D; DL; P412-40
1	20aabb5	5,000	do.	1935	46R	48	Qb-Q1	T,E	Irr, E			21	5,394	9- 9-54	D
1	20aabc	4,630	do.	1954	44R	48	Qb-Q1	T,E	Irr	1,040R	6	2	5,395.5	4-20-54	B44; D; DL; P414-44
1	20aabc	4,450	do.	1954	48R	18	Qb-Q1	T,E	Irr	1,350R	29		5,395.7	9- 8-54	B47; DL; Dr; GE; P418-48
1	20aabc	4,100	do.	1954	71R	18	Qb-Q1	T,E	Irr	1,250R	49		5,399.3	9- 9-59	B71; DL; Dr; GE; L019-71
1	20aacd	4,150	do.	1954	57R	18	Qb-Q1	T,E	Irr	1,250R	33.6	4	5,398.7	9-11-54	B54; DL; Dr; GE; L; P424-54; TH
2	20cddd	200	Skyline Acres	1956	1,116R	8 to 6	Kdmc, Kdlu	S,E	SW	100R	388	19	5,415	8- 2-56	AT; B13; Dr; EL; L; T73; Tch300
1	20ddab	1,050	M. Jordan	1960	46R	18	Qp, Qb-Q1	T,E	Irr	500R	12.5		5,411	4-11-62	A24; B45; Dr; GE; L; P433-45; WL(11-3-60)24.3
1	20ddad	930	do.	1956	50R	48 to 6	Qp, Qb-Q1	J,E	D	12R	14	3	5,411	4-21-56	B50; DL; Dr; P425-50
2	21abbb	5,150	R. Mardock	1957	945R	6 to 4	TKdu, Kdmc	S,E	D	B24R	30		5,460	2-26-57	B11; Dr; EL; L; Tch601-945
1	21bcba	3,950	Fairmount Cemetery		30.4	48	Qp, Qb-Q1	T,E	N				5,404	4-11-62	Dr; U(1960); WL(3-29-60)21.3
1	21bcda	3,200	Denver Water Board	1955	56.1	18	Qp, Qb-Q1	T,E	PS	452M	16.8	5	5,408.9	4-11-62	B45; Dr; PD; GE; H46; L; P430-45; WL(2-1953)21; WS; WSP
2	21bdab	3,750	G. Newberry	1959	1,025R	6 to 4	TKdu, Kdmc	S,E	G	30R		220	5,425	9- 5-59	B32; DL; Dr; H8-5; Tch749-1,025
1	21bdcc	2,700	M. Latimer		38.1	48	Qp, Qb-Q1	T,E	Irr	370M	6	24	5,411.2	4-11-62	A25; B42; D; PD; WL(3-23-60)24.0; WSP

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	21ccad	820	E. Casey	1954	40R	48	Qp, Qb, Ql	T, E	Irr	526M	8	24	5,418.1	3-23-60	Al30(with 3 wells); D; PD
1	21ccdd	40	do.	1954	45.8	48	Qp, Qb, Ql	T, E	Irr	899M	15	24	5,428.5	4-11-62	D; PD; WL(3-23-60)25.3; WSp
2	21dabc	1,650	D. McCoy	1955	1,020R	6 to 4	Kdmc, Kdlu	S, E	D	20R	40	4	5,502	11-1-55	B28; DL; Dr; Tch840-1.020
1	21dcdd	30	E. Casey	1954	46.9	48	Qp, Qb, Ql	T, E	Irr	300E	..	..	5,431.2	4-11-62	D; WL(3-23-60)24.7
2	22bada	4,150	B. Parker, Jr.	1953	90R	..	TKdu	J, E	D	6R	..	..	5,485	..	B32; Dr; L
2	22cbda	1,780	W. Zimmerman	1957	950R	6 to 4	Kdmc	..	D	15R	150	8	5,505	3-30-57	Dr; GE; L
2	27accc	2,720	E. Miles	1950	1,004R	6 to 4	Kdmc, Kdlu	J, E	D	F3R	..	..	5,540	1950	B13; DL; Dr
2	27adad	3,550	P. Nigal	1958	1,093R	..	Kdmc, Kdlu	..	D, S	B15R	10	..	5,568	9-22-58	B5; DL; Dr; EL; W7-5; P6983-1.03
2	27becd	2,840	J. Huntington	1950	992R	6 to 4	Kdmc	T, E D, S, Irr	P100R	..	..	+19.0	5,450	1959	A10; B32; DL; Dr; P73; WL(1950)40; WL(1958)18.5
1	27cbac	2,200	G. Lindsay	1954	52.4	18	Qp, Qb, Ql	T, E	8, Irr	385M	10.1	1/4	5,452	4-11-62	A32; Dr; PD; Su; WSp
1	27cbac2	2,300	..	1956	44R	6	Qp, Qb, Ql	J, E	D	B15R	19	2	5,454	6-19-56	B42; Dr; L; P130-44
1	27cdcb	340	..	1954	36.8	36	Qp, Qb, Ql	T, E	S, Irr	..	..	..	5,460.0	4-11-62	D; WL(4-1-60)23.1
2	27dbaa	2,320	..	..	285R	6	TKdu	Cy, L, W	..	..	..	..	5,562.4	4-26-60	Dr
1	28aacd	4,000	R. Graves	..	50R	18	Qp, Qb, Ql	T, E	Irr	635M	2	..	5,440.7	4-11-62	A80; Dr; WL(10-27-59)31.6
1	28acba	3,800	R. Brown	1952	45.1	26 to 10	Qp, Qb, Ql	C, E D, Ind, Ot	146M	..	3.9	1-3/4	5,415.3	5-15-58	B43; DD; FD; GE
1	28acda	3,200	Twin Lakes Tropical Aquarium	..	48R	8	Qp, Qb, Ql	J, E	F	B33R	2	..	5,441	12-15-58	B48; DL; Dr; P138-48
1	28acdc	2,730	Layne-Weatern Co.	1958	47R	6	Qp, Qb, Ql	S, E	D	50R	..	..	5,439	7-58	B46; DL; Dr; GE; P118
1	28adaa	3,850	R. Alaum	1958	61R	4	Qp, Qb, Ql	J, E	D	27R	..	..	5,453	..	B61; DL; Dr; H8-6; P10-61
1	28baab	5,250	Denver Water Board	1890	16R	30	Qp, Qb, Ql	N	PS	..	..	..	5,427	4-11-62	Gy(2)188; WL(7-21-59)11.7
															First collector installed 1886; Yielded 4 million gpd in 1890
1	28baab2	5,010	..	1955	49R	24	Qp, Qb, Ql	T, E	PS, Ot	1,000R	10.3	5	5,426.7	4-11-62	AT; B49; DL; Dr; GE; P11-40
1	28baab3	5,050	..	1955	36.0	6	Qp, Qb, Ql	N	Ot	..	..	..	5,427.3	4-11-62	Dr
1	28baad	4,750	..	1955	45R	24	Qp, Qb, Ql	T, E	PS, Ot	1,200R	10.8	6	5,424.5	4-11-62	AT; B45; DL; Dr; GE; P410-36
1	28baba	5,250	..	1955	39R	24	Qp, Qb, Ql	T, E	PS, Ot	365M	10.6	4	5,421.6	4-11-62	AT; B39; DL; Dr; GE
1	28baba2	5,240	U.S. Geological Survey	1959	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,421.2	4-11-62	B44; Dr; GE; L; P1; Sa; SL
1	28baba3	5,240	..	1959	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,420.9	4-11-62	B43; DL; Dr; GE; Sa; SL
1	28baba4	5,260	..	1959	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,421.5	7-29-59	B45; Dr; GE; L; Sa; SL
1	28baba5	5,210	..	1959	48.5	10	Qp, Qb, Ql	N	Ot	..	..	..	5,421.9	10-27-59	B45.5; DL; Dr; GE; Sa; SL
1	28baba6	5,210	Denver Water Board	1959	39.6	6	Qp, Qb, Ql	N	Ot	..	..	..	5,421.3	10-27-59	Dr; WL(1955)20
1	28bada	4,300	U.S. Geological Survey	1955	44R	24	Qp, Qb, Ql	T, E	PS, Ot	900R	9.4	5	5,426.6	4-11-62	AT; Dr; GE; L; P10-36
1	28bada2	4,290	..	1955	37.8	6	Qp, Qb, Ql	N	Ot	..	..	..	5,429.5	4-11-62	Dr
1	28bdca	3,080	Peter Kiewit and Sons	1955	63R	6	Qp, Qb, Ql	N	..	20R	..	..	5,428	..	B53; Dr; L
1	28bdca2	3,080	..	1960	30R	16	Qp, Qb	S, E	D	100R	5	..	5,428	6-24-60	DL; Dr; PD; GE; H24; P412-18; 24-30; WS
2	28cbab	2,360	L. Hudson	..	1,008R	..	TKdu, Kdmc	..	D	F	..	..	5,436	1930	Dr
1	28cabc	2,200	..	1955	70R	6	Qp, Ql	J, E	D	30R	8	1/2	5,449	6-20-61	B65; DL; Dr; P130-50; WL(4-55)20
2	28cbad	2,200	G. Jacobs	1956	1,010	5	TKdu, Kdmc	S, E	D, Irr, L	20E	35	..	5,463	6-20-61	Dr; EL; L; Tch872-712; 858-898; WL(9-56)25
1	28dabc	1,650	Sullivan School	1945	32.2	6	Qp, Qb, Ql	J, E	Sch, E, Ot	..	..	..	5,447.2	4-12-62	Dr
2	28dacc	1,600	..	1954	990R	6 to 4	Kdmc	J, E	Sch	F50R	..	..	5,445	8-54	B71; DL; Dr
1	28ddac	970	H. Perrin	1954	35R	18	Qp, Qb, Ql	T, E	Ind	100E	..	..	5,442	4-12-62	Dr; TH
1	28ddac2	800	..	..	35R	..	Qp, Qb, Ql	C, E	Ind	250E	..	..	5,435	..	..
2	29abab	4,980	Panorama Park Water System	1951	1,060R	6 to 4	Kdmc, Kdlu	S, E	PS, E	40R	..	..	5,443	7-7-60	B27; Dr; PD; L; WS
2	30caab	2,120	P. Hay	1954	900R	6 to 4	Kdmc	S, E	..	20R	48	..	5,442	9-27-54	B16; Dr; L; P1752-900
2	31bbcb	4,430	C. Ensign	1956	220R	..	TKdu	N	N	..	..	..	5,425	..	B16; Dr; L; Dry
1	31bbcb2	4,440	..	1956	59R	..	Qy	N	..	..	..	..	5,425	8-13-56	B16; DL; Dr. Inadequate

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C4-67-															
2	32babb	5,100	Greethaven Country Club	1931	1,270R	4	Kdmc, Kdlc	S, E	D	770R	..	+21	5,502	1951	810; Dr: L. Flowed 48 gpm in 1931
2	33baki	5,100	Public Service Co. of Colo.	1958	915R	3	Tkdu, Kdmc	S, E	D	25R	50	150	5,310	6-5-58	Dr: L; P717-915. Old well deepened from 600 feet
1	34aacc	4,150	Lindsay, Holland, and Marcus	1954	27.9	48	Qb, Ql	Cyl, G	S	5R	..	19.1	5,478.0	4-26-60	D. Formerly used for irrigation
2	34adab	4,450	C. L. Hubner Co.	1957	1,044R	6 to 4	Tkdu, Kdmc	J, E	D	870R	60	+10	5,507	12-4-57	839; Dr: L; Tch792-1,024
1	34ddcb	400	W. Canary	1955	97R	18	Ql	T, E	Irr	770M	..	25	5,433.8	7-15-59	896; Dr: FD; GE; B12; L; P728-96; WS
1	34dddb	550	do.	1953	95R	18	Ql	T, E	Irr	1,050M	7.1	72	5,494.9	4-12-62	Dr: WL(10-12-59)29.6; WS
1	34dddd	250	City and County of Denver	1942	72.9	24	Ql	N	Irr	700M	43.8	8	5,499.8	9-27-49	AT; B83; DL; Dr: GE; P444-74
1	34dddd2	240	do.	1942	37.5	3	Ql	M	Ot	..	..	29.0	5,500.0	7-15-59	DL
1	35bceb	3,060	H. Wislander	1938	20R	60	Qes	C, E	G	45R	3.8	..	5,476.6	3-29-60	M.3; B22; D; WL(1938)5; WL(7-48)5; WL(3-55)7 with 5 wells
1	35bceb2	2,980	do.	1948	24R	60	Qes	C, E	G	45R	4.3	..	5,485.4	5-30-59	B26; D; WL(7-48)13; WL(7-51)15; WL(3-55)16
1	35bceb3	3,000	do.	1938	22R	60	Qes	N	I, Dr, E	125R	4.9	..	5,483.1	4-12-62	B26; D; WL(1938)5; WL(7-48)12; WL(7-51)13; WL(3-55)13; WL(5-55)12; WL(4-1-60)12.9
2	35bceb4	3,080	do.	1952	1,044R	6 to 4	Kdmc	T, E	D, AC, G, B	50R	16.0	1/4	5,483.1	3-29-60	B19; Dr: L; WL(10-56)0. Flowed 60 gpm in 1952
1	35bceb5	2,900	do.	1938	25R	60	Qes	C, E	G	45R	5.9	..	5,481.2	3-29-60	B25; D; WL(1938)5; WL(7-48)9; WL(7-51)10; WL(3-55)11; WL(5-59)10
1	35bceb2	2,960	do.	1948	23R	60	Qes	C, E	G	45R	3.8	..	5,482.1	4-12-62	B25; D; WL(7-48)10; WL(7-51)12; WL(3-55)13; WL(5-59)13
2	36caed	1,460	U.S. Corps of Engineers	1950	970R	6	Kdmc	M	Ot	2R	150	..	5,612.4	4-6-62	Dr: GR; WL
2	36caed2	1,460	do.	1954	1,198	8 to 6	Kdmc	S, E	D, Irr	32M	139	8	5,609.2	9-19-57	AT; B48; Dr: FD; WS
C4-68-															
2	3abac	4,850	State of Colorado	1907	782R	10 to 4	Kdmc, Kdlc	N	N	35R	..	..	5,273	..	B98; Dr: L; WS
1	3abcb	3,300	Continental Baking Co.	1954	46R	6	Qb, Ql	S, E	C	30R	4.5	4	5,225	6-10-60	DL; Dr: P43-46; WL(3-54)18
1	3cbdc	1,650	Hod Carriers Bldg. and Construction and Laborer's Union	1957	55.7	18	Qb, Ql	T, E	AC, Irr, L	120R	..	..	5,236	4-12-62	B51; Dr: GE; H36; L; P22-54; WL(10-23-59)24.3
2	4abac	4,750	Carb-Ice Corp.	1944	1,820	..	Klb, Klb, Kfm	T, E	C, Com	100E	..	..	5,195	11-13-57	B46; Dr: L
1	4abbd	4,580	do.	1925	50R	..	Qpp, Qb, Ql	T, E	C	500R	..	..	5,195	..	D
1	4ccaa	1,080	J. O'Keefe	1925	6.4	48	Qpp	C, G	Irr	100E	..	..	5,215	8-28-56	A1; D
1	5aacc	4,460	Public Service Co. of Colo.	1941	38R	48 to 18	Qpp, Qb, Ql	T, E	C	250R	6.2	..	5,196	1-5-61	Dr: P421.8
1	5aaccb	4,450	do.	1941	29.0	48 to 18	Qpp, Qb, Ql	T, E	C	250R	..	..	5,196	1-5-61	DL; Dr
1	5aacc	4,250	do.	1956	40R	48 to 18	Qpp, Qb, Ql	N	N	300R	..	..	5,195	1956	U(1960). Formation becoming clogged, no production in 1960
1	5aaccd	3,930	do.	1948	35R	48 to 18	Qpp, Qb, Ql	T, E	C	250R	..	..	5,196	1-5-61	DL; T54
1	5adab	3,700	do.	1952	42R	18 to 16	Qpp, Qb, Ql	T, E	C, E	287R	18	24	5,193.9	1-19-53	B42; DL; Dr: WS
1	5adab	3,540	do.	1953	40.1	18	Qpp, Qb, Ql	T, E	C, E	750R	21	6	5,196.7	7-10-56	AT; DL; Dr: GE; Lo17-37; WS. Clogged
1	5adac	3,420	do.	1953	36R	18	Qpp, Qb, Ql	T, E	C, E	425R	20	30	5,197.1	..	DL; Dr: GE; Lo-21-36. Clogged
1	5adad	3,270	do.	1953	36R	36 to 14	Qpp, Qb, Ql	N	N	190R	15.5	24	5,193.9	8-21-53	B34; D; L; P413-35; WS. Clogged

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	C4-48-3adbd	3,620	Public Service Co. of Colo.	1961	40R	18	Qpp, Qb, Ql	T, E	C	37R	22	16	5,198	3-1-61	B37; Dr; L; Lo25-40
1	3adbd2	3,160	do.	1961	43R	18	Qpp, Qb, Ql	T, E	C	60R	23	21	5,198	2-23-61	B41; DL; Dr; Lo28-43
1	3adca	2,960	do.	1953	36R	18	Qpp, Qb, Ql	T, E	C, B, E	60R	23	6	5,197.6	8-28-53	A1; B34; DL; Dr; GE; Lo21-36; WS
1	3addb	3,080	do.	1953	39.6	18	Qpp, Qb, Ql	T, E	C, B, E	310R	27	24	5,197.6	7-30-56	B,6; DL; Dr; GE; Lo25-40; WS. Clogged
1	3adcb	620	T. Garramone.	1952	38R	36	Qpp, Qb, Ql	T, E	Irr	..	..	20	5,207.6	1954	A2.5; D; F
1	3adcc	825	Maddox Ice Co.	1952	25.2	48	Qpp, Qb, Ql	M	M	..	..	13.3	5,200	4-9-62	U(1960); WL(12-14-60)14.8
1	3adcd	720	do.	1952	26R	48	Qpp, Qb, Ql	C, E	M	..	..	..	5,200	..	..
1	3adde	720	do.	1952	26R	48	Qpp, Qb, Ql	C, E	C	50R	..	..	5,200	..	D
1	3addd	700	do.	1948	36R	48	Qpp, Qb, Ql	C, E	C	50R	..	..	5,200	..	..
1	3addd2	700	do.	1952	18R	48	Qpp, Qb, Ql	C, E	C	250R	..	..	5,200	..	D; U(1960)
1	3addd3	700	do.	1952	14R	36	Qpp, Qb, Ql	C, E	Irr	..	..	..	5,204.1	..	..
1	3addd4	150	F. Bryant	1947	22.5	..	Qpp, Qb, Ql	C, E	Ind	200R	..	..	5,215	..	Dr; Re
1	3addd5	240	United Dairies, Inc.	..	25.4	48	Qpp, Qb, Ql	C, E	Ind	200R	..	..	5,215	8-28-56	Dr; Re
2	7aasc	4,880	B. Plummer.	1957	491	4	Tkdu, Kdmc	S, E	IrrL	8R	50	342.8	5,342	7-18-61	B20; Dr; EL; GE; H7-6; L; Tch491
1	8abad	4,750	D. Margatello	1953	36R	36	Qpp, Qb, Ql	T, E	Irr	..	..	20	5,209.4	..	All; D
1	8abad2	3,600	J. Garramone.	..	12.1	36	Qpp, Qb, Ql	T, E	Irr	..	..	9.4	5,215	8-24-56	D
1	8abad3	3,400	J. Garramone.	..	29.0	36	Qpp, Qb, Ql	T, E	Irr, Ot	50R	..	11.0	5,215	4-9-62	D
1	8adad	2,880	T. Capra.	1952	29.0	36	Qpp, Qb, Ql	C, E	Irr	200R	..	9.9	5,215	8-24-56	D
1	8addd	2,850	J. Marchese	..	28.4	42	Qpp, Qb, Ql	T, E	Irr	50R	..	11.3	5,210	7-26-62	A9; D; WL(8-23-56)11.8
1	8addd2	2,580	do.	..	31.5	42	Qpp, Qb, Ql	M	Irr	..	..	14.7	5,210	4-9-62	D; U(1961-62)
1	8addd3	4,130	Dixon and Co.	1960	31R	8	Qpp, Qb, Ql	..	I	5R	..	7	5,210	3-26-60	B25; DL; Dr. Return water from air conditioning
1	9badb	4,400	do.	1960	40R	8	Qpp, Qb, Ql	S, E	AC, IrrL	7R	..	7	5,210	3-26-60	B24; Dr; L; Re
2	9badc	4,250	Colo. State Hwy. Dept.	..	77R	48 to 1 1/2	Qpp, Qb, Ql	M	..	..	..	9.9	5,198	11-2-59	Dr; GE
1	9badcb	3,950	Palmer Construction Co.	..	19.4	..	Kdmc, Kdlc	Cyl, E	..	..	..	250	5,210	1948	B26; Dr; L
1	9bcbe	3,480	H. Covello.	..	28.5	24	Qpp, Qb, Ql	M	..	..	..	11.7	5,205	10-14-58	B28; DL; Dr
1	9bcdd	2,800	L. Cortaco	1950	28.9	48	Qpp, Qb, Ql	C, E	Irr	..	..	9.1	5,210	8-19-59	Destroyed in 1960
1	9bdcc	700	Denver Water Board.	..	30.5	36	Qpp, Qb, Ql	T, E	PS, E, O	840R	..	8.5	5,205	8-28-56	D
1	9dca	700	do.	1954	32.2	6	Qpp, Qb, Ql	M	..	100R	..	8.9	5,215.7	4-9-62	B30; Dr; FD; L; WS; WSR
1	9dca2	700	do.	1954	25R	48	Qpp, Qb, Ql	T, E	PS, E	840R	..	..	5,215.9	..	AT; Dr; U(1960)
1	11acaa	3,720	University of Denver.	1956	..	8	Qb, Qb	S, E	Irr	860R	..	14.8	5,287	4-12-62	DL; Dr; P14-25; WL(4-1-61)15.2
1	11acac	1,400	D. Chalmers	1955	40R	5	Qb, Qb, Ql	S, E	Irr	50R	..	..	5,290.0	..	B40; DL; Dr; P11-40
1	11addd	2,930	E. McComb	1955	47.4	12 to 6	Qpp, Qb, Ql	S, E	Irr	50R	5	23.5	5,303.4	10-26-59	B49; Dr; L; P136-48
1	11bdcb	3,050	Denver Water Board.	1954	35.4	6	Qpp, Qb, Ql	M	TM, O	54M	7.9	20.9	5,272.8	1-1-55	B39; Dr; L
1	11bdcd	2,770	M. Young	..	36R	6	Qpp, Qb, Ql	S, E	Irr	90R	8.7	13.6	5,275.7	4-12-62	B36; DL; Dr; P120-35; WL(10-26-59)12.6
1	11caaa	2,500	Denver Country Club	..	32.0	48	Qpp, Qb, Ql	T, E	Irr	350R	..	11.1	5,278.9	10-20-59	AL06(with 9 wells); B35; D; L; WL(1-1957)13
1	11daab	2,470	do.	1932	49.2	48	Qpp, Qb, Ql	T, E	Irr	500R	..	24.3	5,305.4	10-20-59	D
1	11daad	2,220	do.	1932	36.0	48	Qpp, Qb, Ql	C, E	Irr, O	390R	6	15.2	5,296.9	10-20-59	By3; D; P112-36
1	11daad2	2,140	do.	1955	37.6	48	Qpp, Qb, Ql	C, E	Irr, Ot	600	19	11.3	5,294.4	4-12-62	By3; D; P123-38
1	11daad3	2,050	do.	1932	32.8	48	Qpp, Qb, Ql	C, E	Irr, O	390R	..	13.1	5,295.1	10-20-59	By3; D; P124
1	11daad4	1,900	do.	1932	31.8	48	Qpp, Qb, Ql	C, E	Irr, Ot	390R	..	12.7	5,294.7	10-20-59	By3; D; P127
1	11dcaa	2,450	do.	1948	32.7	48	Qpp, Qb, Ql	C, E	Irr, O	350R	..	11.2	5,285.1	10-20-59	B52; D; L; P13-33
1	11dbbb	2,480	do.	1955	40.1	48	Qpp, Qb, Ql	T, E	Irr, Ice	750M	12	11.0	5,279.4	10-20-59	B41; D; DL; P123-41; WL(8-10-56)8.6
2	11dcbb	1,350	E. Mackbaugh.	1933	1,828R	8 to 6	K1b, K1a, Kfm	T, E	Sw	P136R	..	..	5,290	1933	Dr
1	11dcbb2	1,300	do.	1955	825R	8 to 6	Kdmc, Kdlc	T, E	D, Irr	B30R	60	+169	5,310	7-11-55	DL; Dr; Tch663-686, 732-825
1	11ddaa	1,050	Denver Country Club	1957	35.0	48	Qb, Qb, Ql	T, E	Irr	50R	12	13.0	5,301.6	10-21-59	B46.5; D; L
1	12acca	3,220	W. Richmond	1955	61R	6	Qb, Ql	S, E	IrrL	24R	..	32.8	5,327.0	10-26-59	B60; DL; Dr; P140-60; WL(8-10-56)37.2; WSP
1	12acab	3,050	D. Richmond	1955	70R	6	Qb, Ql	S, E	IrrL, AC	35R	15	41.2	5,327.9	4-12-62	B60; Dr; L; P146-69; WL(8-13-56)38.3; WL(10-26-59)28.3

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C4-68-															
1	12cab	2,460 3,250	T. Buell.	1957	35.6	21	Qp, Ob, Ql	N	Irr, Ot	175R	4	23.8	5,313.8	4-12-62	DL, Dr; GE; P19-39
1	12cab	2,460 3,820	.. do.	1957	35.4	21	Qp, Ob, Ql	J.E	Irr	175R	6	22.4	5,309.6	10-15-59	DL, Dr; GE; P20-40; WL(2-57)24
1	12cab	1,830 3,800	.. do.	1957	29.7 30 to 21	21	Qp, Ob, Ql	N	Irr	150R	10	18.1	5,306.7	10-15-59	DL, Dr; GE; P11-30; WL(2-57)18
1	12cab	1,930 2,460	.. do.	1957	40R	21	Qp, Ob, Ql	N	Irr	120R	14	2-1/2	5,314.6	2-27-57	DL, Dr; GE; P20-40; WL(2-57)24
1	12cab	1,550 3,250	.. do.	1957	28.5	21	Qp, Ob, Ql	N	Irr	160R	8	17.5	5,305.9	4-12-62	DL, Dr; GE; P11-30; WL(10-15-59)17.3
1	12cab	2,500 4,500	.. do.	1955	42.8	18	Qp, Ob, Ql	T.E	Irr	580R	9	22.3	5,306.4	10-15-69	DL, Dr; GE; P14-44; WL(4-55)21
1	12cab	1,900 4,420	.. do.	1955	42R	18	Qp, Ob, Ql	T.E	Irr	390R	13	18.8	5,303.6	10-15-59	DL, Dr; GE; P20-42; WL(4-55)24
1	12cab	1,050 4,670	.. do.	1957	49R 36 to 18	18	Qp, Ob, Ql	C.E	Irr	50R	..	16.2	5,301.5	10-16-59	B4R; Dr; GE; L; P10-49
1	12cab	620 4,900	Hughes Bros.	1929	46.1	48	Qp, Ob, Ql	N	Irr	..	..	24.3	5,311.1	4-12-62	Dr; U(1955); WL(10-19-59)21.5
1	12cab	600 5,120	Calvary Temple.	1956	50R	21	Qp, Ob, Ql	T.E	Irr	100R	5.3	22.9	5,308.3	10-16-59	Al.8; Dr; FD; GE; L; P15-35; W6
1	12cab	200 4,900	.. do.	1956	28R	21	Qp, Ob	N	N	8R	14	2	5,309.7	7-9-56	B15; Dr; GE; L; P19-19; U(1959)
1	12cab	550 2,660	M. Denton	1958	55.8	18	Qp, Ob, Ql	N	N	800R	18	17.8	5,318.6	10-20-59	B56; Dr; GE; L; P130; R4
1	12cab	560 2,710	.. do.	1958	20.6	2	Qp, Ob, Ql	N	O	..	..	17.4	5,317.8	10-20-59	Dr
1	12cab	500 2,930	.. do.	1958	48.5	18	Qp, Ob, Ql	N	AC	450R	28	16.0	5,313.6	10-20-59	B49; DL; Dr; GE; P130; R4
1	12cab	340 2,580	.. do.	1958	56.0	18	Qp, Ob, Ql	N	AC	410	40	14.4	5,316.7	10-20-59	DL; Dr; GE; P130; R4
1	12cab	480 2,670	.. do.	1958	20.5	2	Qp, Ob, Ql	N	O	..	..	16.8	5,317.6	10-20-59	Dr
1	12cab	550 2,580	Hughes Bros.	1947	43.7 60 to 48	48	Qp, Ob, Ql	T.E	Irr	500R	..	16.2	5,316.8	10-19-59	A64; Bv16
1	12cab	500 2,580	.. do.	1947	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	16.8	5,318.6	10-19-59	Bv
1	12cab	4,800 1,600	.. do.	1954	38R	48	Qp, Ob, Ql	N	Irr	..	..	16.9	5,319.7	10-19-59	Bv
1	12cab	4,320 1,720	.. do.	1954	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	16.4	5,318.6	10-19-59	Bv
1	12cab	4,490 1,750	.. do.	1954	45.6	48	Qp, Ob, Ql	T.E	Irr	500R	19	16.4	5,317.4	10-19-59	Bv
1	12cab	300 2,350	.. do.	1954	42R	48	Qp, Ob, Ql	T.E	Irr	500R	13	14.3	5,318.0	10-19-59	Bv
1	12cab	250 2,580	.. do.	1954	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	15.2	5,317.2	10-20-59	Bv
1	12cab	180 2,580	.. do.	1954	42R 60 to 8	8	Qp, Ob, Ql	N	Irr	..	..	15.2	5,318.1	10-20-59	Bv
1	12cab	4,800 1,600	.. do.	1954	38R	48	Qp, Ob, Ql	N	Irr	..	..	15.6	5,322.7	10-19-59	U(1959)
1	12cab	4,320 1,720	.. do.	1954	48R	48	Qp, Ob, Ql	T.E	Irr	500R	..	15.6	5,325.9	10-19-59	By10
1	12cab	4,490 1,750	.. do.	1954	58R	48 to 8	Qp, Ob, Ql	..	Irr	..	..	15.6	5,326.8	10-19-59	By
1	12cab	4,550 1,770	.. do.	1954	43.9	48	Qp, Ob, Ql	..	Irr	..	..	16.3	5,326.4	10-19-59	By
1	12cab	4,370 1,750	.. do.	1929	45R	48	Qp, Ob, Ql	C.E	Irr	..	..	16.1	5,325.3	10-19-59	By
1	12cab	4,340 1,950	.. do.	1929	44.1	48	Qp, Ob, Ql	T.E	Irr	500R	20	18.1	5,326.8	4-12-62	D; WL(10-19-59)16.8
1	12cab	4,610 1,800	.. do.	1929	45R	48	Qp, Ob, Ql	C.E	Irr	..	..	16.4	5,326.1	10-19-59	D
1	12cab	4,590 1,970	.. do.	1929	45R	48	Qp, Ob, Ql	C.E	Irr	..	..	16.4	5,326.3	10-19-59	D
2	12cab	3,550 1,780	G. Gaer	1955	80R	5	Tkdu	N	Irr, Ot	B2R	..	13.9	5,335.3	10-9-59	B12; Dr; L; P160-80
1	12cab	3,600 1,400	F. Beeson	1955	80R	6 to 4	Ql	S.E	Irr, Ot	B25R	55	18.0	5,334.7	4-12-62	B80; Dr; L; P150-80; WSP
1	12cab	2,980 1,400	R. Williams	1955	32.5	6	Ql	C.E	Irr, L	40R	..	23.4	5,352.4	4-21-62	B33; Dr; L; P10; WL(8-13-56)22.9; WL(10-22-59)15.6; WSP
1	12cab	2,800	C. Wilmore.	1958	70R	8 to 6	Qp, Ql	S.E	Irr	60R	..	30	5,345	3-13-58	B47; Dr; B12-7; L; P15-70
1	12cab	4,000 4,780	Denver Tramway Corp.	1955	23.6 48 to 24	24	Qp	C.E	Com, E	20R	..	20.0	5,335	4-9-62	D; L; WL(11-18-60)18.2
1	12cab	4,000 4,900	.. do.	1955	26.5	48	Qp, Ql	C.E	Com	150M	1.4	10.6	5,330	11-18-60	B20; DL; Dr; GE; P18-13
1	12cab	4,000 4,850	Robinson Brick and Tile Co.	1955	32.6	16	Qp, Ql	C.E	Ind, C	100R	12	16	5,320	6-13-55	B25; Dr; L; P18-28; T40
1	12cab	3,850 3,260	Montgomery Ward & Co.	1956	45R 7 to 6	6	Qp, Ql	N	Com	8R	5B	25	5,234	4-12-56	B45; Dr; GE; L; P15-45
1	12cab	1,550 3,310	Gates Rubber Co.	1960	83R	..	Qp(7), Tkdu	..	..	..	..	30	5,250	..	B30; Dr; L
1	12cab	1,850 4,200	Denver Water Board.	1955	35.8	24	Qp, Ob, Ql	T.E	PS, E, D	1,100R	..	18.1	5,233.6	6-27-59	AT; DL; GE; P12-28
1	12cab	1,855 4,210	.. do.	1954	42.8	6	Qp, Ob, Ql	N	O, TW	43R	14	1-1/2	5,233.6	4-9-62	B36.5; DL; Dr
1	12cab	1,600 4,080	.. do.	1955	36.1	24	Qp, Ob, Ql	T.E	PS, E, O	1,150M	6	15.3	5,234.8	10-26-55	AT; DL; GE; P12-28
1	12cab	1,600 4,070	.. do.	1954	34.0	6	Qp, Ob, Ql	N	O, TW	51R	12	14.4	5,234.8	4-9-62	B34; O; DL; Dr

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks			
C4-68-																		
1	15ccab	1,270	4,420	Gates Rubber Co.	..	32R	48	Qpp,Ob,Ol	..	Ind,C, Pr	200R	8	..	20	5,230	2- 2-53	B12; B18; U(1960)	
1	15ccab2	1,140	4,340	..	..	31R	48	Qpp,Ob,Ol	..	Ind,C, Pr	400R	8	..	19	5,230	2- 2-53	B18; D; S1	
1	15ccac	870	4,370	..	..	..	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	20	5,230	2- 2-53	B18; D	
1	15ccac2	830	4,420	..	..	32R	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	20	5,230	2- 2-53	B12; B18; D; S1	
1	15ccac3	680	4,430	..	..	31R	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	..	5,230	..	B18; D	
1	15ccad	970	4,030	..	..	32R	48	Qpp,Ob,Ol	..	Ind,C, Pr	100R	8	..	..	5,230	2- 2-53	B12; B18; D; S1	
1	15ccad2	850	4,230	..	..	35R	48	Qpp,Ob,Ol	..	Ind,C, Pr	400R	8	..	23	5,230	2- 2-53	B15; B18; D. Reported yield of 100 gpm in 1960	
1	15ccad3	680	4,200	..	..	31R	48	Qpp,Ob,Ol	..	Ind,C, Pr	400R	8	..	19	5,230	2- 2-53	B18; U(1960)	
1	15cdab	1,300	3,200	..	..	..	..	Qpp,Ob,Ol	..	N	250R	..	..	..	..	..	Dry, abandoned in 1940	
1	15cdab2	1,100	2,330	..	..	52R	6	Ob,Ol	..	N	96M	15	..	21	5,268	9-25-61	B47; D; S1; S1	
1	15cdab3	840	2,370	..	..	60R	4	Ob,Ol	..	N	O	..	..	21	5,264	10- -60	B42; L	
1	15cdab2	700	2,360	..	..	42.0	18	Ob,Ol	..	T, S	Ind,C, Pr, O	..	..	..	..	..	..	
1	15cdab3	660	2,310	..	..	67R	6	Ob,Ol	..	Pr, O	412M	..	..	24	5,264	10- -60	AT; B47; DL; Dr	
1	15cdab4	700	2,050	..	..	67R	36	Ob,Ol	..	T, S	C, O	750M	12.6	122	22.5	10- -60	DL	
1	15cdab5	430	1,850	..	..	46R	4	Ob,Ol	..	T, S	O	..	..	..	24.3	6- 5-61	AT; B47; DL; Dr; Lo31-46	
1	15cdab2	400	1,920	Shwayder Bros., Inc.	1955	50R	18	Ob,Ol	..	T, S	AC, C, Pr, O	..	..	..	32.3	4- 9-62	B46; DL; Dr	
1	16dabb	2,550	1,100	M. Holberg	..	18R	48	Qpp,Ob,Ol	..	Ind, O	850M	9.6	1/6	26.1	5,266	12-16-60	B49; Dr; GE; L	
1	16dabb2	2,350	1,000	P. Kirschner	..	33.5	48	Qpp,Ob,Ol	..	C, S	Ir, G	..	..	13	5,227.8	1954	D	
1	16dadc	1,600	400	H. Peterson	..	19.2	24	Ob,Ol	..	C, S	G	100R	..	..	14.3	5,230	4- 9-62	D; M(10-22-56) 15.0
1	16dad2	1,620	400	..	..	35R	..	Ob,Ol	..	C, S	G	100R	..	..	9.5	5,235	8-22-56	D; U(1959)
1	16dad3	1,500	300	A. Stinnett	..	39R	6	Ob,Ol	..	C, S	Ir	30R	..	..	15	5,235	10- -59	B33; Dr; GE; L; P19-35
1	19cdad	150	2,700	E. Stone	..	54R	6	Ob,Ol	..	C, S	Ir, L, O	20R	..	..	22	5,235	4-11-56	B36; DL; Dr
1	20aaba	5,050	670	A. Horton, Jr.	1955	79.0	6 to 5	Qp,TKdu	..	J, S	Ir, L	15R	..	18.0	5,345	8-16-56	B38; Dr; L; P160-79	
1	21bada	3,350	750	Moether-Cox	..	35R	35R	Ob,Ol	..	S, S	D	20R	5	15	5,241	8-13-60	DL; Dr; P120-35	
1	21bada2	4,180	4,250	J. Harlett	..	310	6 to 3	TKdu, Kdmc	..	N	O	..	..	132.9	5,320	4-16-62	Dr; GRL; Flowed in 1890	
1	21bada3	4,180	4,250	..	..	25.1	..	Ob,Ol	..	N	..	..	..	20.6	5,320	8-13-56	Destroyed in 1957	
1	21cdab	3,370	3,000	Radio Station KDEM	1948	890R	6 to 4	Kdmc, Kdlic	..	S, S	AC, D, Ir, L	30R	..	375	5,390.5	1958	Dr; L; M(7-48) 310	
1	21cdab2	4,830	4,330	GO-LO	1957	50R	6	Ob,Ol	..	N	Ir	B25R	12	2	15	5,232	2-27-57	B44; Dr; GE; L
1	22bbad	4,900	4,900	Gates Rubber Co.	..	..	48	Ob,Ol	..	Ind, O	748R	13.6	49	22	5,262.8	12-16-52	Tch15-50; U(1959)	
1	22bbad2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	B36; D. Abandoned for new construction	
1	22bbad3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	B36; Dn	
1	22bbad4	3,050	4,300	Ready Mix Concrete Co.	..	15.3	48	Ob	..	C, S	Ind	50R	..	22	5,262.8	12-16-52	B36; Dn	
1	22bbad5	3,600	3,850	Wright Engineering Co.	1955	466R	6	Kdmc	..	S, S	Ind	B20R	40	6	5,242.2	8-22-56	D	
1	22ccab	1,150	4,380	Overland Golf Course	1947	27.8	48	Qpp,Ob,Ol	..	C, S	Ir	50R	13	9.7	5,250	4-28-55	Dr; EL; L; Tch28-350. 372-394, 416-460	
1	24adac	3,500	370	Good Shepard Home	1912	879R	..	Kdmc, Kdlic	..	T, S	Ind	61R	230	369	5,435	4- 9-62	Dr; M(18-23-56) 9.9	
1	24adac2	3,500	520	..	..	1,010R	..	Kdmc, Kdlic	..	T, S	Ind	39R	..	369	5,435	1945	Dr; L; M(1912) 12	
1	26cbda	1,920	4,200	E. See	..	28R	..	Ob	..	J, S	D	5R	0	18	5,325	9- 1-55	Dr; WS	
1	26ccac	720	4,420	Porter Sanitarium	..	1,000R	..	Kdmc, Kdlic	..	T, S	Hosp	30R	75	200	5,338	6-20-57	Dr	
1	26ccad	700	4,100	..	..	1,020R	..	Kdmc, Kdlic	..	T, S	Hosp	41M	..	200	5,339	6-20-57	Dr	
1	26ccad2	750	4,650	..	..	1,020R	..	Kdmc, Kdlic	..	T, S	Hosp	40	..	200	5,339	6-20-57	Dr	
1	26ccad3	430	4,650	..	..	1,747R	8 to 6	Klb, Klb, Kfm	..	T, S	Hosp	F300R	..	..	5,329	5- -56	B35; DL; Dr	
1	27acba	3,350	2,420	M. McKinney	..	43R	6	Ob,Ol	..	J, S	Ir, L	2	2	10	5,272	5- -55	DL; Dr; Tch10-43	
1	27cdca	350	3,500	S. W. Shattuck	..	..	..	..	..	..	..	..	..	..	..	..	..	
1	27cdca2	1,220	2,450	M. Dowdle	..	410R	6	Kdmc	..	S, S	N	..	..	37.3	5,263	10- 5-59	EL; Tch125-410	
1	27cdca3	..	..	..	..	96.2	6	Ob,Ol	..	N	..	..	..	25.6	5,305	7-27-56	B34; Dr; L	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C4-68-															
1	28acbb	4,450	J. Scheffer	1954	128	48	Opp	..	Irr	..	..	9	5,247.3	..	D
1	28acc	4,230	do.	1954	178	48	Opp	..	Irr	..	..	8	5,229.1	..	D
1	28add	4,050	Denver Water Board	1954	138	5	Opp, Ob, Ol	..	TM, O	81M	11-1	2-1/4	5,248.9	1955	AT; B32; Dri; L
1	28add	4,000	F. Dardano	1934	18.0	48	Opp, Ob, Ol	C, E	Irr, Ot	72M	..	..	5,250	4-9-62	AS; D; WS
1	28add	2,650	do.	1900	30.7	..	Opp, Ob, Ol	C, E	Irr, Ot	88M	..	..	5,254	4-9-62	D; WSP
1	28add	3,340	O. Smith	1937	36.8	48	Opp, Ob, Ol	C, E	Irr	30E	..	..	5,251	8-21-56	Al; 25; D
1	28add	2,850	J. Buck, Sr.	1937	16.0	48	Opp, Ob	C, E	Irr, O	30E	..	..	5,254	8-21-56	Al (with dabc and dabd); D
2	28bad	4,050	Gulf Petroleum Co.	1957	509R	6 to 4	Kmc	S, E	Ind	12R	146	150	5,320	10-5-57	DL; Dri; EL; P446-509
2	28bda	3,800	Jones Precast Co.	1957	512	4	TKdu, Kmc	S, E	Ind	..	..	..	5,318	..	DL; Dri; EL; P4372-432, 452-512
2	28cbb	1,080	C. Moxton	1954	102	6	TKdu	J, E	D	8R	5	1/2	5,358	8-28-56	Dri; WSP
1	28dab	2,000	J. Buck	1921	15.8	48	Opp, Ob	C, E	Irr, Ot	..	..	..	5,259	4-9-62	D
1	28dab	2,200	do.	1922	17.1	66 to 48	Opp, Ob	C, E	Irr, Ot	309M	1.4	1/6	5,259	4-9-62	D; PD; WSP
1	28dad	1,520	Public Service Co. of Colo.	1953	35R	24	Opp, Ob, Ol	T, E	Ind, C	1,220M	7.8	1/4	5,257.5	5-2-58	DL; Dri; FD; WS
1	28dab	2,000	J. Buck	1930	26.2	48	Opp, Ob	C, E	Irr, Ot	..	..	..	5,259	4-9-62	D
1	28dad	2,000	F. Durando	1935	21.7	48	Opp, Ob	C, E	Irr, Ot	..	..	..	5,260	4-9-62	AS; 5; D
2	28dad	720	Public Service Co. of Colo.	1948	680R	12	TKdu, Kmc	N	OT	83R	140	7	5,258.9	4-3-62	DL; Dri; EL; GE; P4140-155, 180-208, 225-270, 300-330, 335-350, 395-460, 470-505, 520-660; WS
2	28dad2	700	do.	1948	1,720R	10 to 6	Klu, Kib, Kia, Kca	N	OT	P50M	142.8	3	5,258.2	4-3-62	AT; B47; D; EL; L; P4900-915, 975-990, 1,031-1,046, 1,087-1,097, 1,177-1,201, 1,246-1,412, 1,422-1,701; WS. Original static water level +145.5
1	28dcd	100	do.	1950	32R	48	Ob, Ol	T, E	C	225R	..	..	5,262	5-50	D
1	28dcd	950	do.	1947	44R	16	Ob, Ol	T, E	C, E	770M	4.7	1/4	5,257.5	5-2-58	B35.5; DL; Dri; WS
1	28dcd	460	do.	1947	45R	16	Ob, Ol	T, E	C, E	506M	9.9	1/2	5,256.9	5-2-58	B36.8; Dri; L; WS
1	28dcd	100	do.	1950	32R	48	Ob, Ol	T, E	C	225R	..	..	5,262	..	D
1	29dad	3,400	J. Garlick	1955	37.8	24	Qp	J, E	IrrL	2R	..	..	5,380	8-20-56	B12; DL; Dri; GE; P412-28
1	29dab	1,100	E. Martin	1955	31.9	24	Qv, Tkdu	J, E	IrrL	3R	..	..	5,422	8-17-56	B8; Dri; GE; L; P46-29
1	29dad	1,500	All Saints Church	1955	45.7	5	Qp, Qv	J, E	IrrL	B10R	4	1-1/2	5,410	8-17-56	B21; DL; Dri; P436-51
1	29dad	1,500	do.	1955	43.4	5	Qp, Qv	J, E	IrrL	B10R	7	1-1/2	5,405	4-9-62	DL; Dri; P439-50; WS (8-17-56) 13.2
2	29daa	2,500	L. McGuffin	1957	551	5 to 4	Kmc	Cyl, E	D, IrrL	7R	370	120	5,400	7-57	B18; Dri; EL; L; Sai; SL
2	29dab	2,450	W. Boswell	1957	557R	4	Kmc	S, E	IrrL	10R	11	13	5,415	10-1-57	A; 3; Dri; P437-557
1	29dcb	350	Arapahoe Bldg. Co.	1959	60R	6 to 5	Qp	S, E	Com	15R	20	..	5,415	11-23-59	B40; Dri; Dri; P419-60
2	30dca	470	H. Carter	1945	600R	6 to 3	Kmc	T, E	D	..	..	..	5,520	1955	Dri; U (1957)
2	30dda	350	N. Isenhardt	1953	955R	8 to 6	Kmc, Kalc	S, E	D, IrrL	15R	100	..	5,515	7-53	B33; Dri; L
2	30ddb	540	F. Meyer	1957	652R	8	Kmc	..	..	75R	151	73	5,515	2-9-57	Dri
1	31dcb	350	Denver Water Board	1957	41.7	6	Qp, Qv	N	TW	40M	3.7	1-1/2	5,335.6	1-14-55	AT; B36.5; Dri; L
2	32adc	2,940	C. Shiver	1961	585R	5	Kmc	S, E	D	B10R	150	1-1/2	5,415	8-10-61	DL; Dri; Bailed 5 gpm at 305 feet
2	32bcd	2,880	Loretto Heights College	1922	781R	..	Kmc, Kalc	S, E	Inat, Sw	20R	56	..	5,470	12-14-60	B37; DL; Su
2	32bcd2	2,750	do.	1907	798R	10 to 6	Kmc, Kalc	S, E	Inat, Sw	15R	..	..	5,470	1957	L; P4584-798; Su; ML (1905) 341; ML (7-1934) 320
2	33cbc	800	University of Denver	1959	100R	6 to 4	TKdu	S, E	C, Ind	10R	30	..	5,298	5-30-59	B5; L; P460-100. Oil-shale pilot plant
1	33cdc	180	I. Hiler	1954	25R	5	Qp, Ol	J, E	D	..	..	..	5,280	8-19-56	DL
1	33cdc	180	R. Lakin	1954	26R	5	Qp, Ol	J, E	D	..	..	..	5,275	8-20-56	DL
1	33dca	500	F. Hornbuckle	1942	19.5	1-1/4	Qp, Ob	N	OT	..	..	..	5,272.1	4-9-62	Dri

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet) (m.s.l.)	Date of measurement	Remarks
C4-68-														
1	33cdca2	500	F. Hornbuckle	1960	45.0	1-1/4	Qp, Qb, Ql	M	15M	..	14.1	5,272.1	4-9-62	B43; Dr; SL; Tsch10-34
1	33cdcb	540	do.	1959	40R	6	Qp, Qb, Ql	J, E	D	8	15	5,273	7-2-59	DL; Dr; P23-36
1	33cdcc	20	C. Kealiner	1954	65R	5	Qp, Qb, Ql	J, E	D	10	17.0	5,275	8-14-56	Dr
1	33cdcc2	20	Herbertson Sand and Gravel Co.	1957	25R	6	Qp, Qb, Ql	J, E	Ind B25R	17	3	5,274	2-13-57	DL; Dr; P24-25
1	33cdcb	500	R. Roberts	1958	50R	6	Qp, Qb, Ql	Cyl, E	D	30R	18	5,325	9-9-58	B38; DL; Dr; P23-50
1	33cdcb	800	R. Roy	1956	49.3	6	Qp, Qb, Ql	M	OT	..	19.6	5,269	4-9-62	DL; Dr; GRL; WSP
2	33cdcb2	820	do.	1940	501R	6	Kmc	..	PS, SW B30R	77	1/2	5,269	7-25-56	DL; Dr; SL; Tsch250
1	34cdcb	600	City of Englewood	..	16.7	18	Qp, Qb	T, E	Irr, SW 100R	..	18.9	5,312	11-8-59	A5 (with cdbb); Dr
1	34cdcb	1,000	do.	..	1,900R	6 to 3	Klb, Klb, Kfm	T, E	Irr 200R	..	13.9	5,305	11-8-59	Dr
2	35cdcd	200	Radio Station KJZ	1935	1,900R	6 to 3	Klb, Klb, Kfm	T, E	D	225R	+92	5,405	1935	DL; Dr; P21, 500-1,900; WL(1956)+16
2	36cdcb	320	Wellshire Golf Course	1956	2,012	10 to 8	Klb, Klb, Kfm	T, E	Irr, OT 260M	170	17	5,480	4-3-62	AT; B19; Dr; EL; FD; L; SL; Tsch1,680-2,012; WS
C4-69-														
1	1bdad	3,500	A. Wolfe	1956	95R	6	Qp, TKdu	S, E	Ind B8R	55	1-1/2	5,360	10-24-56	B20; Dr; L; P230-95; WSP
2	2babc	4,630	H. Camp	1922	640R	6 to 5	Kmc, Kdu	M	OT 15R	..	441.5	5,451	4-2-62	Dr
2	2bacc	4,060	Consolidated Mutual Water Co.	1947	685R	6 to 4	Kmc, Kdu	M	D	5R	..	5,451	5-17-60	B23; Dr; L; P255-642
2	2bacc	4,060	Consolidated Mutual Water Co.	1955	700R	9	Kmc, Kdu	T, E	PS, E 125R	..	244	5,440	12-4-55	Dr; GE; P2385-425, 505-620, 660-700
2	2bacc2	4,050	do.	1955	1,635R	9 to 7	Klb, Klb, Kfm	T, E	PS, E 80R	500	..	5,440	11-18-55	Dr; EL; P2385
1	2bacc	2,800	W. Cress	1935	30R	..	Qp	P, E	D	4R	..	5,462	2-2-57	W8
1	3bdad	2,820	S. Rose	..	57R	6	Qp	..	D, IrrL 4R	..	46	5,510	7-54	B55; Dr
1	3bdad2	2,800	do.	..	137R	6	Qp, TKdu(?)	S, E	D, IrrL B14R	60	..	5,510	4-27-55	Dr; P227-117
2	3dbcc	1,350	Consolidated Mutual Water Co.	1957	650R	9	Kmc, Kdu	T, E	PS, E 96M	156.0	24	5,470	4-1-57	AT; B19; Dr; EL; GRL; L; P2300-640
2	3dcb	1,310	do.	1952	1,700R	8 to 6	Klb, Klb, Kfm	T, E	PS, E 90R	..	345	5,465	3-30-57	EL; P2302
2	4bcb	3,720	C. Miller	1960	100R	4	TKdc	J, E	Com 7R	67	..	5,600	4-27-60	B18; Dr; L; P266-87
2	5dbd	2,200	R. Morrow	1957	200R	6	TKdc	Cyl, E	D	..	8	5,645	8-20-58	B11; DL; Dr; FD; OM(13-200); WSP
1	6adad	3,800	C. Rose	1957	30R	..	Qp	..	TV	..	..	5,720	..	Dr; WS. Inadequate for lawn irrigation
2	6dad	1,450	W. Denton	1961	713	..	Kmc	S, E	D	10R	..	5,760	3-6-63	B20; DL; Dr; EL; H1-5; P2486-713; WL(5-6)550
2	9acab	3,950	U.S. Government	1959	91.4	3	TKdc	M	OT 7M	20.3	3	5,595	4-13-62	B11; Dr; EL; GRL; L; P20-91.4
1	10cdad	1,350	H. Scheid	1958	64R	6	Qp	J, E	IrrL 2E	..	8	5,541	1958	Dr; WS
1	10daa	2,620	K. Jackson	1955	60R	5	Qp	J, E	IrrL 12R	..	25	5,490	1959	Dr; WS
1	10daa	2,450	J. Bondurant	..	55R	5	Qp	J, E	IrrL 10E	..	20	5,493	1955	Dr; WL(5-2-62)20.8; WS
2	10dcab	1,050	H. Reynolds	1953	1,660R	6 to 4	Klu, Klb, Klb	S, E	D, IrrL B26R	120	..	5,532	9-53	B11; Dr; FD; L; Tsch966-1,660; WS
2	10dcdb	950	L. Smith	..	400R	6	TKdu, Kdu	M	..	..	276.4	5,542	5-8-57	Dr. Inadequate for domestic use
2	10dcdb2	950	do.	1950	500R	6 to 4	Kmc	Cyl, E	D	7R	..	5,541	10-50	B7; DL; Dr; FD; WS
2	10dcdb	300	do.	1946	168R	6	TKdu	Cyl, E	D	2R	..	5,538	1957	B12; Dr; L; P270-74, 133-151
1	10dcdb2	150	do.	..	59R	6	Qp	Cyl, E	IrrL 2R	22	1/2	5,540	1954	Dr; Su
1	11bdac	4,220	T. McLaughlin	..	71R	6	Qp, TKdu(?)	M	N	2M	53.3	5,474	5-3-52	AT; Dr
1	11bdac2	4,200	G. Menninger	..	94R	..	Qp, TKdu(?)	..	IrrL	..	12.1	5,476	6-4-55	Dr
2	11bdac	3,800	C. Overgard	1954	435R	6 to 4	Kmc	..	D	8R	30	5,443	1954	B43; DL; Dr; P2385-426
1	12cdad	1,250	C. Brown	1957	100R	6	Qp, TKdu	J, E	IrrL 11M	32.6	3/4	5,419	4-30-62	Dr; FD; WL(8-60)11.4; WS
1	12cdad2	1,080	L. Hopkins	..	65.7	5	Qp, TKdu	J, E	IrrL	..	12.9	5,421	8-8-60	Dr; FD; WS
1	12dcb	1,750	M. Rose	1955	60R	6	Qp	J, E	IrrL 6R	..	11.0	5,405	5-1-62	WL(2-2-57)12; WS
1	12dca	450	R. Stine	1951	115R	..	Qp, TKdu	J, E	IrrL 3E	..	40	5,416	1958	Dr
2	14dcb	1,440	Sanicraft Water and Sanitation District	1956	200R	6	TKdu	T, E	PS 20R	..	..	5,460	..	Dr
1	14dcb2	1,300	do.	1956	30R	36	Qp	..	PS 35R	..	..	5,460	..	DL; Dr; EL; GRL; H16; SL; Tsch100-635. Pilot hole drilled to 754 feet
2	14dcb	1,320	do.	1955	635R	8	Kmc, Kdu	T, E	PS 62R	170	24	5,473	7-9-60	..

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
C4-69--																
2	14dcbb2	1,320	2,470	Bancroft Water and Sanitation District	1956	1,801	8 to 6	Klb, Klb, Kfm	T, E	PS	65R	197	24	565.0	7- 9-60 Dr; EL; GE; L; Tch1, 380-1,450, 1,480-1,700, 1,780-1,800	
1	15dbdd	1,500	1,600	G. Brewton.	1952	105R	6	Qs, TKdu	J, E	IrrL	15R	..	..	20	5,550	2- 2-57 Dr; WS
2	15dddb	350	380	N. King	1957	298R	5	TKdu, TKdc	S, E	D	812R	65	4	220	5,555	2-23-57 DL; Dr; PD; Tch282-297; WS. Well deepened; see addb2
2	15dddb2	350	380	.. do.	1957	384R	5	Kdmu	S, E	D	8M	130	1	200	5,555	12- -57 GRL; L; Tch306-330, 345-360; WS
2	16bbba	5,100	4,700	Glennon Heights Inc.	1947	400R	4	TKdu, TKdc	N	N	..	..	..	..	5,680	 Dr; Dr. Bailed dry
2	16bddd	2,700	2,700	.. do.	1947	610R	10 to 7	Kdmu	N	N	6R	200	..	..	5,690	 Dr; SL. Inadequate for public supply
2	17daadd	1,500	200	Westcraft-Alameda	1954	1,997R	8 to 6	Klb, Klb, Kfm	N	Ot	35R	355	2	309.1	5,785	4- 6-62 Dr; EL; GRL; L
2	22abcb	3,400	2,580	L. Smith.	1950	480R	60 to 4	Kdmu	Cyl, E	D	10R	..	..	107	5,545	10- -50 DL; Dr
2	23abbd	4,870	2,300	J. Richters	1950	1,900R	10	Kld, Klb, Klb	N	Oil, Ot	..	..	..	..	5,530	4-21-62 Dr; EL; GRL. Drilled to 6,064 feet. Plugged at 1,900 feet.
2	23ccac	980	4,410	R. Pershing	1956	217R	5	TKdu	S, E	D	5R	160	1/4	40	5,561	12-14-60 B17; Dr; FD
2	23ccac2	920	4,480	.. do.	1955	580R	4 to 3	TKdu, Kdmu, Kdc	N	D	2R	..	..	380	5,560	1956 Dr; EL; L; P6352-370, 390-580; WS
2	23ccac3	980	4,460	.. do.	1956	180R	6	TKdu	J, E	IrrL	..	..	..	40	5,561	12-14-60 Dr
1	23ccccc	200	5,200	J. Beer	1959	83R	6	Qs, TKdu	J, E	D	80R	65	..	10.6	5,550	5-17-62 DL; Dr; FD; P630-40; 50-83. Well deepened from 38 feet
2	23ccdc	300	4,430	G. Buehler.	..	445R	4	TKdu, Kdmu	S, E	D	20R	220	..	160	5,540	1956 DL; Dr; Tch284-307, 345-376, 384-407
2	24addc	2,800	540	Braden.	1941	4,814R	20 to 6	..	..	Oil	F	..	..	..	5,445	1934 B21; Dr; L
2	24dddc	100	150	Bit'O Sea Park Inc.	1959	490R	6 to 4	Kdmu	S, N	D	10R	20	..	350	5,436	9- 3-59 Dr; L; Tch300-450
2	25aana	5,150	150	Central Tire and Oil Co.	1957	125R	6 to 4	TKdu	..	SS	15R	60	..	20	5,438	12-11-57 Dr; L; Tch58-70, 80-103, 110-125
2	25aada	4,450	150	Carter Oil Co.	1959	506R	4	Kdmu	S, E	SS	10R	30	..	300	5,458	8-14-59 B38; DL; Dr; EL; Tch453-506; WS
2	25aadd	4,200	150	Socony Mobile Oil Co.	1957	500R	6 to 4	TKdu, Kdmu	S, E	SS, AC	5R	75	..	150	5,485	12-20-57 B42; DL; Dr; Tch265-285, 450-478
2	25adda	3,200	200	M. Fredricks.	1957	335R	6 to 4	Kdmu	S, E	Com	8R	15	..	260	5,485	12-20-57 DL; Dr; EL; Tch287-323
1	25bbbc	4,780	5,270	Green Gables Country Club.	1960	13.5	1-1/2	Qp	N	O	..	..	..	3.2	5,462.4	11-21-60 B6.5; DL; Dr
1	25bbbc2	4,760	5,270	.. do.	1960	18.5	1-1/2	Qp	N	O	..	..	..	3.2	5,461.7	11- 8-60 B12.5; Dr; L
1	25bbbc3	4,740	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	1.9	5,461.6	11-21-60 B9.5; DL; Dr
1	25bbbc4	4,730	5,270	.. do.	1960	18.5	1-1/2	Qp	N	O	..	..	..	2.7	5,461.6	11- 8-60 B13.0; DL; Dr
1	25bbbc5	4,700	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.2	5,461.8	11- 8-60 B11.0; DL; Dr
1	25bbbc6	4,690	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.3	5,461.9	11- 8-60 B9.5; DL; Dr
1	25bbbc7	4,680	5,270	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.8	5,461.7	11- 8-60 B8.0; DL; Dr
1	25bbbc8	4,740	5,230	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	2.5	5,459.1	11- 8-60 B6.5; DL; Dr
2	25bbcb	3,380	5,060	.. do.	1951	700R	8 to 4	Kdmu, Kdc	S, E	D	25R	..	..	370	5,470	4- -51 B5; Dr; L
2	25cbba	1,120	4,770	H. Swan	1935	1,962R	6	Kdmu, Kdc	S, E	D, IrrL	20E	..	..	296	5,550	1957 B2; Dr; Gun552, 555, 636, 656, 825; L; SL; WS. Plugged at 985 feet
1	26aand	4,750	280	Green Gables Country Club.	..	27.0	18	Qp	T, E	Sani	45M	5.6	24	..	5,463.6	11- 2-60 AT; DD; FD; GE
1	26aadd	4,670	290	.. do.	1960	13.5	1-1/2	Qp	N	O	..	..	..	1.6	5,464.3	11- 8-60 B10.0; DL; Dr
1	26badd	300	4,220	Hiawan Ranch.	..	7.9	1-1/4	Opp	N	Ot	..	..	..	1.0	5,400	4-17-59 Dr
1	27bccd	2,850	4,630	Olson and Marica.	..	73R	..	Qs	..	..	2R	39	1/4	30	5,649	9-21-56 Dr
2	27bccd2	2,740	4,710	.. do.	..	284	6	TKdu	N	Ot	..	..	..	187.8	5,647	1- 2-57 Dr; GRL
2	27cbab	2,360	4,480	H. Parsons.	..	275R	6	TKdu	N	D	<1R	..	..	138.6	5,596	5- 7-57 Dr; GRL; U(1957)
2	27cbab2	2,360	4,460	.. do.	1956	157	..	TKdu	..	D	<1R	..	..	49.0	5,596	5- 7-57 Dr; EL. Drilled to 300 feet; hole caved at 157 feet

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C4-69-27cbba	2,620	4,710 A. Olson.	1957	694R	..	Kdmc, Kdlc	..	D	17R	68	300	5,680	9-24-57	DL; Dr; EL; GE; H8; Tch398-500, 632-694
2	27cbbb	2,460	5,220 L. Strohman	1958	668R	6	Kdmc, Kdlu	S, E	D	B12R	40	290	5,600	3- 7-58	Dr; EL; L; Pf557-579, 643-666
2	28accc	2,800	2,400 C. Morree.	1956	645R	..	Kdmc, Kdlu	S, E	D	..	..	..	5,620	..	DL; Dr
2	28adcd	2,750	2,880 E. Exier.	1956	655R	6 to 4	Kdlc	..	..	B7R	50	460	5,650	8- -56	Dr; DL; Sa; Tch561-631
1	31cdcc	20	3,440 Freedman and Wilson	1958	55R	7 to 6	Qe	J, E	..	20R	..	18	5,610	3-17-59	Dr; FD
1	31cdcc	50	1,850 .. do.	1961	13R	48	Qe	S, W, PS	..	17R	8	5	5,580	6- 7-61	B13; Qy130; L
1	31cdcd	150	1,500 .. do.	1960	46.7	6 to 5	Qe	J, E	PS	6R	..	9.3	5,580	11-15-60	B20; Dr; L; Pf20-50
1	31cdcd2	150	1,400 .. do.	1960	36.6	6	Qe	S, E	PS	50R	..	10.3	5,580	11-15-60	B20; DL; Dr; Pf20-38; WSP
1	34abcc	4,750	1,000 D. Buchanan	..	25.0	24	Qpp, Ol	N	Irr, Ot	54M	15.3	3	5,405	4-12-62	AT; B25; Dr
1	34abaa	4,960	1,550 A. Lago	1955	15.1	16	Qpp, Ol	N	Irr, Ot	1,000R	4	2	5,405	4-12-62	A80; Dr; L; Pf7-16. Adjacent to sump
1	35babbb	4,970	3,900 D. Buchanan	..	5.9	48	Qpp, Ol	N	Irr, Ot	..	..	4.5	5,393	4-12-62	B13; D. Collector and sump
1	35babbb2	5,000	3,900 .. do.	..	5.6	6	Qpp, Ol	N	TW, Ot	..	..	3.0	5,390	4-17-59	Dr
2	35ddcc	750	500 E. Cavalier	1957	685R	6	Kdmc, Kdlc	S, E	D, IrrL	50R	..	58.6	5,430	6-28-57	DL; Dr; EL; GRL
1	36cbba	2,500	4,900 Bear Creek Swim and Country Club.	1959	58R	6	Qpp, Ol	..	SW	30R	4	..	5,365	4-28-59	B39; Dr; L; Pf23-58
1	36cbdb	2,300	4,900 .. do.	1959	40R	8	Qpp, Ol	J, E	SW	50R	7	..	5,360	6-20-59	DL; Dr; Pf10-25
2	36cdcd	740	1,500 A. Mielan.	1957	719R	8	Kdmc, Kdlc	N	PS	B60R	128	40	5,340	1-18-57	B24; Dr; EL; L; Tch200-630
2	C4-70-1adac	3,450	470 Colo. National Guard.	1932	1,786R	15 to 3	Kdmc, Kdlc, Klb, Kla, Kfm	S, E	Inst, Irr	45M	..	120	5,733	1953	B25; Dr; FZ; GRL; Gun1, 421-1,424, 1,443-1,445; L; Pf498-517, 524-580, 742-800; WS. Pumping level below 475 feet in 1957
2	4cbbc	2,100	5,000 City and County of Denver.	1928	90R	6	PC	J, E	Inst	..	..	50	7,310	12- 1-60	B12; DL; Dr; FD; SG. Buffalo Bill Museum
2	4daab	2,400	450 H. Shelton.	1956	98R	8 to 6	PC	J, E	D	15R	..	60	6,075	5- 1-61	B21; Dr; FD; FZ; L; Pf75-95; SG; WS. Water from fractures between 89 and 91 feet
1	8bbcd	4,050	4,900 R. Van Horn	..	18.0	24	PC	P, E	D	6M	4.7	2	7,370	7-10-61	AT; D; SG; WS
1	10adad	3,320	120 East Tin Cup, Inc.	1959	90R	5	Qp, Kl	S, E	Com	30R	..	25	6,040	12-23-59	B25; Dr; L; Pf48-60, 70-90, ML(1961)15
2	10dbac	2,180	1,970 Magic Mountain.	1957	622R	8 to 6	WPI	S, E	Com	63M	214	8	6,160	8-21-57	AT; B9; Dr; EL; L; OH(50-622). Yields maximum of 177 gpm; flows when not pumped
2	11aacd	4,200	750 Williams-Woodward Engineering Co.	1955	1,968R	9 to 6	Kdlc, Klb, Kla, Kfm	S, E	Com, Coms	50R	..	8	6,009	7-26-60	B2; Dr; EL; L; Pf946-1,077, 1,679-1,700, 1,742-1,851; WS
1	11bbcc	3,400	5,200 East Tin Cup, Inc.	1957	42.5	6	Qp	S, E	Com	..	..	5.3	6,030	6-27-60	Dr; FD
2	15adbb	..	.. J. Bumpus	..	485	6	Pf	..	D	B1R	..	46	6,300	8- 6-57	DL; Dr; EL; OH(23-483). Water-entry log
2	16bdca	3,080	2,870 Mother Cabrini Shrine	..	Spring	..	PC	..	Inst	P2E	..	..	7,095	7-26-57	PD; SG. Flow from fractures
2	21dbbc	3,000	2,540 A. Rooney	1954	275R	4	Ka	N	D	P2M	..	+11.7	5,985	5-11-55	AT; Dr; FD; H8; L; Pf207-225; WS; WSR
2	21dcba	1,180	2,220 .. do.	..	48.5	6	Kb	C, E	D	9M	1	1/4	5,950	7-22-60	Dr; WSP; WS. Flows in winter
2	23dcba2	1,070	2,210 B. Glotch	1953	52R	6	Kb, Ka	J, E	D, IrrL	25R	..	2.5	5,950	7-22-60	A, 75; B5; Dr; FD; L; Pf35-52; WS. Flows in winter
1	26dbcc	3,350	3,670 E. Nelson	..	Spring	..	Qc	..	D, Pond	P3R	..	..	6,052	7-18-56	PD

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude to surface (in feet above m.s.l.)	Date of measurement	Remarks
C4-70--															
1	26cdac	1,180	Denver Water Board.	1957	32R	10	Qp, Q1	T, E	PS, E	10R	10	10.8	6,011	5- 6-58	Dr; GS; L; P21-31
2	26cdcb	1,300	City and County of Denver.		Spring		Pt		M	PSR			5,900	7-10-56	FD
2	27dbaa	2,410	do.		Spring		Pt		Inst	15R			6,840	5-13-59	FD; WS
2	27dcdd	840	do.		Spring		Pt		M	6M			6,560	5-12-59	FD; WS
2	27dcdd	850	do.		Spring		Pt		M	<1R		9.3	5,995	7-21-56	EL; FD; GRL
1	29abd	4,000	Idledale Water and Sanitation District	1940	Spring		Qpp, PC	M	PS				6,860	5- 5-61	WS
1	29acca	3,730	do.	1940	Spring		Qp	C, E	PS			1.0	6,820	5- 5-61	D
2	29accb	3,400	V. Mine.	1953	20R	30	PC	Cyl, E	D	<1R		5	6,890	6- 6-61	D; 80. Dry 1955 to 1957
2	29acda	3,100	K. Dyest.	1957	48R	6	PC	D	D	3	37	18	6,840	2-25-57	B15; Dr; L; SG
2	29adcb	3,050	E. Marley	1959	88R	6	PC	E, E	D	<1R		23.0	6,790	1-17-61	B12; Dr; FD; L; SG
1	32abac	4,700	Idledale Water and Sanitation District	1949	30R	48	Qpp, Q1	Cyl, E	PS	20R		2	6,440	5- 5-61	Dr; QY
1	33bcab	3,650	W. Ballard.	1957	29R	5	Q1, PC	J, E	D	4R		10	6,395	9- 3-57	B38; Dr; L; P217-29; SG
2	34baaa	5,230	City and County of Denver.		Spring		PC	M	M	PS, E			6,485	5-12-59	FD; SG; WS
-	C4-71-12cada	1,820	Mount Vernon Country Club.		92R		Q1, PC		PS	21			7,640		Dr; SG; WS Thirteen wells and 1 spring supply a total of about 68 gpm
-	13cadc	1,450	Girl Scouts of Denver	1957	202R	6	PC		D	<1R		34	7,960	6-17-57	DL; QH(47-202); P20-47; SG
-	24aac	4,050	Hastings.		200R		PC		D	<1R			7,300		DL; Dr; SG
C5-65--															
2	3bdaab	3,690	U.S. Air Force.	1959	1,574R	16 to 12	Kdmc, Kalc	M	D	150R	86	16	5,812	10-28-60	AT; EL; Sa; SL
2	5bdaab	3,690	do.	1959	2,102R		Kalc, Kib, Kib, Kfm	S, E	D	200R	70	30	5,812	4-20-59	AT; EL; L; P21, 126-1, 274, 1, 348-1, 408, 1, 470-1, 570; Sa; SL Well drilled to 2,102 feet, later plugged at 1,570 feet
2	18bdac	3,530	H. Cooper	1959	790R	6 to 4	TKdu	Cyl, M	S	12R	10		5,992	6-12-59	Dr; L; P250-590, 660-690, 760-790
2	19cbbc	2,270	J. Assey.	1960	449R	6 to 4	TKdu	S, E	D	12M	210		6,075	4-25-60	B1; Dr; FD; H7 5; L; TCH214-449
2	29babab	5,000	Federal Aviation Agency	1957	600R	6 to 4	TKdu	Cyl, E	D	4E	300	48	6,160	2- -58	C; Dr; EL; L; TCH193-439, 531-600; WS, WS
2	30aaab	5,050	C. Quick.	1960	550R	6	TKdu	St, E	D, E	11R			6,135	11-25-60	C; Dr; H6-4; L; P2160-550
2	31ccccc	50	U.S. Air Force.	1950	677R	6 to 4	TKdu	T, E	D	25R	59	8	6,168	12-26-50	Dr; FD; L; P2485-677; WS; WS
C5-66--															
2	6bada	4,290	Meadow Hills Country Club.	1956	2,187R	8 to 6	Kib, Kib, Kfm	S, E	1R	873R	84	3	5,719	8-31-56	B26; Dr; EL; L; Sa; SL; TCH297
2	6badab	4,300	do.	1956	1,278R	12 to 8	Kdmc, Kalc	S, E	1R	873R	25		5,720	9-15-56	DL; Dr; FD; TCH264; WS
2	6dbbd	2,160	Meadow Hills Land Co.	1957	2,182R	8 to 6	Kib, Kib, Kfm	M	PS	B166R	196		5,723	7- 7-60	DL; Dr; EL; H11-7; Sa; TCH162
2	6dbbd2	2,120	do.	1957	1,291R	10 to 8	Kdmc, Kalc	S, E	PS	177R	136		5,723	9- 3-57	DL; Dr; EL; H13-9; TCH308
2	12dacc	1,550	E. Rippe.	1962	990R	6	TKdu	S, E	D	5R			5,900	2- 6-62	C; Dr; L; Sa; SL
1	18cadb	1,660	City of Aurora.	1958	95R		Qp, Qb, Q1	T, E	TM, O	1,450M	16.1	48	5,601.7	7-12-58	AT; B103; Dr
1	18cadb	1,150	Corps of Engineers.		60R		Qp, Qb, Q1	T, E	1R, OC	1,084M	12.9		5,626.7	4-12-62	Dr
1	18dadd	20	do.		61.2		Qp, Qb, Q1	M	1R, OC	300R			5,644.5	4-12-62	Dr
1	19aaaa	5,250	J. and T. Mea	1958	64R	18	Qp, Qb, Q1	T, E	D, O	300R	13		5,644.5	7- 3-58	A, S; 860; Dr; GE; H21; L
1	19aada	4,300	F. Schlegel.	1951	51R	18	Qp, Qb, Q1	T, E	D, O, B, 1R	900R	12	8	5,635.8	9- 1-59	A, 25(1959); A25(1956)Dr

Table 2.---Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield of (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	13adac	4,050	Denver Wholesale Florists.	1960	58R	48	Qp, Qb, Ql	T, E	AC, G, B	900R	12	8	5,630	2-60	A-7; B57; D
1	13adcd	2,800	Corps of Engineers.	1940	39.2	7	Qp, Qb, Ql	Cyl, M	8, Ot			23	5,630.6	4-12-62	Dr
1	13addd	2,700	P. Weiss.	1940	53.6	24	Qp, Qb, Ql	T, E	Irr, Ot	1,400R	8	12.2	5,628.9	4-12-62	A50; Dr; U(1959)
1	13baaa	4,940	City of Aurora.	1958	112R		Qp, Qb, Ql	T, E	SW	1,570M	26.4	48	5,613.3	Dr; A112; Dr; TH	Dr; Qb; U(1959);
1	13bdad	3,310	Corps of Engineers.		35.2	24	Qp, Qb, Ql	T, E	Irr, O			4.2	5,620.8	4-12-62	Dr; Qb; U(1959);
1	13bdde	2,980			32.2	48	Qp, Qb, Ql	M	Irr	300R			5,622.5	9-1-59	Dr; Qb; U(1959);
2	13cdca	600	E. Talley	1959	1,350R	8 to 6	Kmc, Kdlc	S, E	PS	30R	136	30	5,670	4-18-59	B38; Dr; EL; FU; H11-7; Tch20-1,300; WS
2	13cdca2	590		1959	245R	6	TKdu	S, E	PS	30	200	30	5,670	5-12-59	Dr; Dr; H11-7; Tch115-135; 175-225
1	13deed	2,000	Valley Country Club	1955	48R		Qp, Qb, Ql	T, E	Irr, Ot	955M	10.2	24	5,633.1	4-12-62	A65; AT; B47; Dr; L
1	13deed2	2,070			29.3	1-1/2	Qp, Qb, Ql	M	Ot			7.0	5,630.4	4-12-62	Dr
1	13deed3	2,040			35.0	1-1/2	Qp, Qb, Ql	M	Ot			4.9	5,633.2	4-12-62	Dr
1	13deed4	2,110			30.3	1-1/2	Qp, Qb, Ql	M	Ot			8.1	5,632	6-6-59	Dr
2	13dbaa	2,360		1956	1,199R	8 to 6	TKdu, Kdlc	T, E	SW, Com	8100R	64	4	5,664.5	11-6-56	B18; Dr; EL; L; Tch1,056-1,176
1	13ddcd	190	City of Aurora.	1955	25.8	4	Qp, Qb, Ql	M	Ot			2.2	5,637.7	4-12-62	Dr
1	13ddcd2	160		1955	109R	18	Qp, Qb, Ql	T, E	PS	1,200R	41	48	5,638.2	4-12-62	Dr
1	13ddcd3	170		1955			Qp, Qb, Ql	T, E	PS			8.2	5,640.6	6-19-57	B109; Dr; G8; L; Lo20-109
1	13ddcd4	120		1955	43.2	4	Qp, Qb, Ql	M	Ot			2.0	5,640.3	4-12-62	Dr
1	13ddcd5	20		1955	58R	18	Qp, Qb, Ql	T, E	PS, Ot	1,300R	38	52	5,642.3	4-12-62	B56; Dr; G8; L; Lo20-58
1	13ddcd6	120		1955	26.0		Qp, Qb, Ql	M	Ot			16.9	5,640.0	10-28-59	Dr
1	13ddcd7	20		1955			Qp, Qb, Ql	M	O			3.1	5,640.0	4-12-62	Dr; WL(6-19-57)5.7;
1	13ddcd8	160		1955			Qp, Qb, Ql	M	O						Dr; WL(10-28-59)16.1;
2	20adda	3,000	J. Cava	1962	1,377R	6 to 4	Kdlc	S, E	D	24R		184.0	5,785	7-14-62	Dr; L; P5; 188-1,377; WL(5-62)160
1	20cdcd	950	Valley Country Club	1955	48R	18	Qp, Qb, Ql	T, E	Irr, Ot	955R	13	11.4	5,638.7	4-12-62	A65; B47; Dr; L
1	20cdcd2	150	O. Gillen	1957	52.1	24	Qp, Qb, Ql	T, O	Irr, Ot	1,000R	14	9.6	5,647.8	4-12-62	A42; Dr
2	28aaac	4,940	J. Winters.	1957	450R	4	TKdc	M	D	2R	222	36	5,860	3-25-57	B5; C; Dr; EL; FU; GE; L; P5276-450
2	29baab	5,150	D. Wardock.	1957	160R	4	TKdu	J, E	D	10E		6	5,672.4	1959	B3; Dr; FU; L; WL(5-55)40; WS. Flows in winter
1	29bbdc	4,100		1950	55R	24	Qp, Qb, Ql	T, E	Irr, Ot	873M	12.0	9	5,654.0	4-12-62	A40(with bcha); Dr; FU; WSP
1	29bbcb	3,850			42.3	60	Qp, Qb, Ql	T, E	Irr, Ot	400R	9	8.1	5,655.9	4-12-62	D
1	29ddcc	50	O. Smith.		64R	24	Qp, Qb, Ql	T, E	Irr, Ot	650M		4.8	5,678.4	4-12-62	A120; Dr; FU; WS
1	29ddcc2	50			49.6	24	Qp, Qb, Ql	M	Ot	500R		4.5	5,679.3	4-12-62	Dr
2	30aaaa	5,200	D. Wardock.	1916	400R	6	TKdu	J, E	D	6M	20.0	1/2	5,642.2	9-27-57	Dr; FU; WS. Flowed in 1916
1	30aaea2	5,150	City of Aurora.	1956	106R	24	Qp, Qb, Ql	T, E	PS	2,060R	31	26	5,643.6	6-18-57	B75; Dr; G8; L; Lo20-106
1	30aaea3	5,190		1956		3	Qp, Qb, Ql	M	Ot			10.6	5,644.2	4-12-62	Dr
1	30aaea4	5,040		1956		3	Qp, Qb, Ql	M	Ot			4.7	5,645.4	4-12-62	Dr
1	30aaea5	4,970		1956	38.1	24	Qp, Qb, Ql	M	Ot			5.5	5,645.4	4-12-62	Dr
1	30adaa	4,500		1956	98R	24	Qp, Qb, Ql	T, E	PS	1,370M	13.6	26	5,647.8	6-15-57	AT; B85; Dr; FU; GE; L; Lo20-98; WS
1	30adaa2	4,550		1956	36.6	3	Qp, Qb, Ql	M	Ot			6.7	5,647.9	4-12-62	Dr
1	30adaa3	4,400		1956	39.1	3	Qp, Qb, Ql	M	Ot			8.4	5,649.4	4-12-62	Dr
1	30adaa4	4,320		1956	37.4	3	Qp, Qb, Ql	M	Ot			7.4	5,648.5	4-12-62	Dr
1	30adaa5	4,000		1961	98R	24	Qp, Qb, Ql	T, E	PS	1,070R		10.8	5,650	6-24-61	B98; Dr; G8; L; Lo33-98
1	30adaa6	2,750		1961	80R	24	Qp, Qb, Ql	T, E	PS	1,440R		10.2	5,660	6-24-61	B80; Dr; G8; L; Lo35-80
1	32adcc	50	J. Race		31.5	24	Qp, Qb, Ql	T, E	Irr, Ot	1,300M	19.5	336	5,707.2	4-13-62	Dr; FU; WSP
1	32adcd	250			49.4	24	Qp, Qb, Ql	T, E	Irr, Ot	1,189M	27.5	336	5,706.2	4-13-62	Dr; FU; WS. Irrigating 60 acres with 2 wells
1	33cbcc	1,400	J. Kragelund.	1945	44.8	24	Qp, Qb, Ql	T, E	Irr, Ot	350M	16.2	336	5,711.2	4-13-62	A127; Dr; FU; QW

Table 2.---Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	C5-66-33cbb	800	J. Race	1955	44.8	18	Qp, Qb, Ql	T.E	Irr, Ot	315M	..	0.2	5,701.4	4-13-62	M20(1956); A35(1957); M45; Dr; L; P221-46; M8
2	33cbbd	950	do.	1958	230R	4	Tkdu	..	D, S	74M	..	..	5,744	4-27-59	Dr; PD
2	33cbbd	600	R. Race	1958	263R	7 to 4	Tkdu	..	D	30R	30R	17	5,770	2-4-58	R36; DL; Dr; P2233-263
1	C5-67-2abca	4,600	Corps of Engineers	1943	118R	..	Qp, Qb, Tkd	..	TM	..	..	3	5,510	10- -43	B102; Dr; L; P21for adjacent test holes)
1	2baec	4,650	do.	1943	58.0	..	Qb, Ql	..	O	..	..	23.9	5,524.2	4-13-62	Dr; ML(10-14-59)23.8
1	2bbdd	4,630	City and County of Denver	1961	105R	..	Qb, Ql	T.E	Irr	1,220M	19.4	..	5,511	3-3-61	B103; Dr; G2; L; P250-103; S2; SL
1	2baec	4,450	Corps of Engineers	1943	48.2	..	Qb, Ql	..	O	..	..	29.4	5,528.7	4-13-62	Dr; ML(10-14-59)30.6
1	2baec	4,250	do.	1943	102	..	Qb, Ql	..	O	..	..	28.6	5,528.6	4-13-62	Dr; ML(10-14-59)29.6
1	2bbaa	5,150	City and County of Denver	1961	102R	18	Qb, Ql	..	Irr	1,050M	13.6	..	5,502	6-24-61	B90; Dr; G2; L; P247-102; G2; SL
1	2bbdd	4,000	Corps of Engineers	1943	70.0	..	Qb, Ql	..	O	..	..	30.5	5,525.2	4-13-62	Dr; ML(10-14-59)31.4
1	2bbcb	3,830	do.	1943	52.5	..	Qb, Ql	..	O	..	..	18.2	5,511.3	4-13-62	Dr; ML(10-14-59)19.0
1	2bbcb	3,550	do.	1943	52.5	..	Qb, Ql	..	O	..	..	19.0	5,511.4	4-13-62	Dr; ML(10-14-59)19.8
1	2bbcb2	3,400	do.	1943	77.3	..	Qb, Ql	..	O	..	..	19.6	5,511.4	4-13-62	Dr; ML(10-14-59)20.6
1	2bbcb	3,180	do.	1943	44.0	..	Qb, Ql	..	O	..	..	19.9	5,511.4	4-13-62	Dr; ML(10-14-59)20.9
2	3bbdd	4,150	Cherry Creek School District	1958	1,005R	6	Kdmc	S.E	D, S	830R	50	..	5,548	9-8-58	B35; Dr; EL; H7; L; P900-1,005
1	3dcb	1,750	Corps of Engineers	1943	55R	..	..	N	TM	..	..	..	5,555	10- -43	Dr; L; P21for adjacent test holes). Dry
2	5bda	3,900	W. Johnson	1957	2,092R	8 to 6	Kib, Kls, Kls	N	P8	883R	100	..	5,560	4-12-57	L43; Dr; EL; L
2	5ccda	550	R. Braun	1951	1,096R	7 to 4	Kdmc	T.E	D, S	74R	..	70	5,615	11-26-51	DL
2	6abab	5,100	Continental Oil Co.	1957	1,100R	4	Kdmc	S.E	88	813R	20	..	5,548	6-13-57	B44; DL; Dr; ML(4-1957)100
2	6abbb	5,150	Standard Oil Co.	1958	1,104R	5	Kdmc	S.E	88	825R	86	..	5,554	6-17-58	B26; DL; Dr; H7-6; Tcb842-1,104; WSp
2	6abdb	4,900	Saleway Stores, Inc.	1957	1,100R	4	Kdmc	S.E	Com, C	14R	20	..	5,555	1-14-57	DL; Dr; Tcb300
2	6babb	4,400	S. Klepart	1956	1,064R	6 to 4	Kdmc	..	Ot	825R	CO	..	5,560	4-3-62	Dr; EL; L
2	6ccdd	20	E. Gliman	1940	822R	..	Tkd, Kdmc	T.E	D, S	710R	..	440	5,465	7- -40	DL; Dr
2	7babb	4,540	E. Honnen	1898	79R	7 to 3	Kdmc	..	D	84R	..	..	5,480	1898	Dr; P213-797. Flowed 36 gpm in 1923, 19 gpm in 1951, 9 gpm in 1957
2	7ccdd	250	T. Hodge	1959	1,062R	4	Kdmc	S.E	D	33M	30	..	5,540	10-7-59	B42; DL; Dr; EL; P2805-865, 915-990
2	7dbac	2,000	J. Tyler	1955	1,269R	6 to 4	Kdmc, Kdlic	J.E	D	730R	..	..	5,520	6-13-57	B28; Dr; L
2	8bbaa	5,000	T. Carlile	1955	1,992R	6 to 4	Kib, Kls	S.E	D	B40R	59	..	5,600	5- -55	B15; Dr; EL; L
2	8bbad	4,160	J. Marrone	1953	1,346R	6 to 4	Kdmc, Kdlic	..	D	750R	50	..	5,600	9- -53	DL; Dr
2	9ccbb	500	Paradise Valley Country Club	1961	1,473R	8 to 6	Kdmc, Kdlic	T.E	Com, Irr, S	150R	..	135	5,672	5-10-61	M43; DL; Dr; M11-7; P21, 009-1,028, 1,111-1,292, 1,349-1,440; Su
2	9ccdc	200	Prospector Motel	1957	1,199R	4	Kdmc	..	Com	826R	20	..	5,665	5-11-57	B18; DL; Dr; Tcb310
2	10bcb	3,920	Cherry Creek Village	1960	1,400R	6 to 4	Kdmc, Kdlic	T.E	P8	225R	121	24	5,640	5-11-60	B49; Dr; EL; L; SL; P78; Tcb990-1,440
2	10cabb	2,490	Cherry Creek School District No. 5	1957	1,150R	8 to 6	Kdmc	S.E	Sch	100R	390	..	5,670	3- -53	DL; Dr; P2176; MS
2	10cbab	1,930	do.	1957	1,200R	4	Kdmc	T.E	Irr	860R	100	..	5,622	9-19-57	A21; DL; Dr; Tcb822-1,200
1	13aadd	4,050	Corps of Engineers	..	43.8	48	Qp, Qb, Ql	T.E	Irr, Ot	1,000R	7	..	5,584.0	4-13-62	D
1	13abdc	4,100	do.	1940	45.1	60	Qp, Qb, Ql	T.G	Irr, Ot	800R	..	..	5,579.6	4-13-62	A35; Dr; U(1957-59)
1	13baca	4,550	do.	..	7.0	36 to 24	Qp, Qb, Ql	N	Irr, S, O	..	..	2.0	5,569.7	7-14-59	Dr; U(1957)
1	13bad	4,050	do.	1914	28R	48 x 60	Qp, Qb, Ql	M	Irr	900R	10	..	5,576.5	7-13-59	A50; R29; U(1957-59)
1	14aabb	5,150	do.	1937	55.2	8	Qp, Qb, Ql	Cyl, M	D, S, Ot	..	..	44.3	5,593.9	10-28-59	DD; U(1957)

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C5-67-															
2	16bcd	3,350	4,300 Petroleum Research Corp.	1957	1,498R	6 to 4	Kdmc, Kalc	S, E	Com	155R	43	70	5,696	3 -9-57	AS2; Dr; EL; L; P21,000-1,498; WS
2	16bdc	1,660	2,350 E. Baker	1955	1,078R	4	Kdmc	S, E	D	B20R	46	92	5,695	5 -55	DL; Dr
2	16dcb	530	2,580 Castlewood Fire Dept.	1958	1,196R	6 to 4	Kdmc		D	B60R	35	80	5,710	6 -5-58	B2; DL; Dr; H7-5; Tch845-869, 925-961, 988-1,196
2	16dc	100	1,900 Castlewood School	1951	980R	6 to 4	Kdmc	S, E	Sch	B30R	48	82	5,717	1951	DL; Dr; U(1960)
2	17abc	4,650	2,480 E. Lambert	1956	900R	6 to 4	Kdmc	S, E	D	B32R	71	6	48.0	6-11-57	B12; DL; Dr
2	17abd	4,100	1,530 L. Anderson	1956	1,165R	6 to 4	Kdmc, Kdlu	S, E	D	B25R	101	84	5,630	10-3-56	B70; DL; Dr; EL
2	17add	3,200	50 E. Croft	1956	1,034R	5 to 4	Thdu	Cyl, E	D	4R	95	145	5,693	1-10-56	DL; Dr; P665-865
2	17add2	3,200	60	1958	1,030R	4	Kdmc	S, E	D	14R	12	128	5,693	5-22-58	B12; DL; Dr; P6850-1,020
2	17bcb	3,100	5,150 S. Clark	1956	1,058R	4	Kdmc	J, E	D, IrrL	B30R	8	2	5,551	5-22-56	B3; DL; Dr; Tch276
2	17bdd	2,720	2,800 Greenwood Hills Mutual Water Co.	1959	1,406R	6 to 4	Kdmc, Kalc	T, E	P8	B64R	25	87.2	5,602	9-16-60	B1; DL; Dr; EL; PDI; Tch787-803, 824-1,118, 1,195-1,406, W8
1	17cbb	2,320	5,200 Cherry Creek School District No. 5	1957	27.5	36	Cy	Cyl, H	M	B60R	20	23.9	5,554.9	6-26-57	Dr; U(1957)
2	17cbb2	2,450	5,000	1957	1,400R	6	Kdmc, Kalc		Sch	B60R	20	3.7	5,572.5	6-26-57	B2; DL; Dr; EL; GEL; Tch903-1,009, 1,196-1,381; W8; slight odor
2	17cd	100	3,400 Greenwood Mills Mutual Water Co.	1960	1,375R	6 to 4	Kdmc, Kalc	T, E	P8	B20R	115	23	5,543	5-24-60	AT; B19; Dr; H7-5; L; P6713-145; B11-1,039; 1,123-1,207, 1,249-1,291
2	17dca	1,750	2,250 D. Miller	1956	1,060R	5 to 3	Kdmc	S, E	D	16M	190	5	64.4	6-11-57	DL; Dr; T76. Abandoned in 1961
2	17dca2	1,730	2,240	1957	1,155R	4	Kdmc	S, E	D, IrrL, P8	40R		84	5,642	1961	AT; B1; DL; Dr; EL; H6-5; P6865-1,152
2	18baad	4,920	2,750 M. Markheip	1954	972R	6 to 4	Kdmc	J, E	D	F100R			5,523	6-11-57	DL; Dr
2	18bba	4,950	4,050 M. Taylor	1954	1,165R	6 to 4	Kdmc	S, E	D, IrrL	50R	40	20	5,580	5-19-54	B4; DL; Dr; P665-865, 705-725, 765-785, 835-845, 885-905
2	19aacc	4,100	1,050 L. Lord	1954	945R	6 to 4	Kdmc								
2	19bbb	5,180	5,080 Denver Water Board	1958	886	6 to 4	Kdmc		D, IrrL, Oc	F11M		443.0	5,494.3	4 -2-62	AT; B22; Dr; EL; PDI; H6-5; L; Tch692-876; W8; flowed 90 gpm when drilled
2	21acbb	3,650	2,320 M. Jones	1959	1,206R	6 to 4	Kdmc		D	B60R	31	97.7	5,700	10 -7-59	B12; Dr; L; Tch898-1,206
2	34bdd	3,000	2,960 Larrick Farms, Inc.	1957	1,619	8 to 6	Kdmc, Kalc	T, E	D, S, Irr	B33R	47	259.4	5,865	6-20-61	A40; B2; Dr; EL; B11-7; L; Tch389
C5-68-															
1	1ecdd	50	4,200 J. Myer	1957	29R	21	Op		M	B0R	7	7.3	5,410	4-10-62	B15; GEL; L; P69-29; U(1961-62); WL(3-26-57) 8.6; WL(2-19-62) 6.9
2	1eddb	350	1,120	1956	1,104R	6 to 4	Kdmc, Kdlu		IrrL	F100R			5,423	1-26-57	Dr
2	1dbad	2,240	1,620 E. Edwards	1956	1,014R	6 to 4	Kdmc	S, E	IrrL	B55R	106	100	5,480	6-16-56	DL; Dr; EL; Tch300
2	1dbbb	2,550	2,500 L. Shulman	1959	1,191R	6 to 4	Kdmc, Kdlu		IrrL	50R		141.6	5,475	10 -8-59	B40; DL; EL; H7-5; L; Tch699-915, 1,084-1,191
2	1dbbd	2,060	2,030 C. Glascock, Jr.	1956	856R	8 to 5	Kdmc		IrrL	10R			5,480		DL; Dr; Tch694-856
2	1dced	320	2,280 F. Manning, Jr.	1956	1,150R	6	Kdmc, Kdlu	S, E	D, IrrL	40R			5,430		DL; Dr; EL; Tch1,096-1,120
1	1ddca	650	900 C. Sommer	1958	28R	18	Op		S, E	IrrL	30R	3.3	5,435	4-10-62	B10; DL; Dr; GEL; B36; P610-24; WL(11-8-59) 5.2
2	2aabc	4,640	1,200 R. Manning	1946	1,026		Kdmc	T, E	D, Irr				5,435		Dr; EL; P6766-770, 780-785, 790-795, 820-825
2	2aadd	4,180	250 I. Krick	1955	1,051R	6 to 4	Kdmc	T, E	D	B20R	79	86	5,440	3 -55	DL; Dr

Table 2.--Records of selected wells and springs--Continued

Place number	Location	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C5-58-2abab	5,140	Country Homes Land Co.	1923	1,231R	10 to 3	Kmac, Kalc	T.E	PS	F108R	..	..	5,420	1923	DL, Dc
2	2acab	3,100	A. Rydstrom	1940	1,797R	..	Kmac, Kalc	T.E	D, IrrL	P50R	..	..	5,405	1940	AS, B20; Dr, L. Flowed 20 gpm at 970 feet
2	2acab2	3,050	.. do. ..	..	800	..	Tkdu, Kmac	Cyl, E	D, IrrL	..	..	..	5,403	..	Dr, Wg
2	2adad	3,370	J. Maitland	1953	1,395R	6 to 4	Kmac, Kalc	T.E	D	..	..	120P	5,435	6-3-57	DL, Dc
2	2adad3	2,790	Chiam	..	1,125R	..	Kmac, Kalc	T.E	D	30R	..	..	5,425	..	DL, Dc
2	2adad4	4,050	J. Stone	..	1,300R	..	Kmac, Kalc	T.E	M	35R	..	..	5,413	6-10-56	DL, Dc, U(1961)
2	2bbab	5,230	Omnes Dairy	1951	860R	6 to 4	Kmac	T.E	B, Dy	B16R	50	..	5,368	1951	DL, Dc, Wg
1	2bdeb	3,200	Cherry Hills Country Club	1955	39R	48	Qp, Qb	T.E	Irr	250R	..	..	5,342	2-7-62	A165 (with 6 wells); B39; B3; D; Su
1	2bdec	2,900	.. do. ..	1955	41R	48	Qp, Qb	T.E	Irr	250R	..	..	5,345	2-7-62	B41; D; S; Su
1	2cad	2,100	.. do. ..	1954	30R	48	Qp, Qb	C.E	Irr	197M	9	..	5,357	9-4-54	B30; D; DL; Su
2	2cbdc	1,470	W. Robinson	1951	429R	..	Tkdu	T.E	D	15R	..	..	5,375	..	Dr
2	2ccac	870	R. Martin	1932	1,030R	10 to 4	Kmac, Kalc	..	TW	..	..	..	..	..	DL, Dc; SL; WS. Later deepened to 1,720 feet; see ccac2
2	2ccac2	870	.. do. ..	1932	1,728R	10 to 4	Klb, Klc, Kfm	S.E	Irr	150R	..	..	5,390	1955	A10; B35; Dr, L; OH(1,512-1,720); SL. Flowed 250 gpm in 1932
2	2dadc	1,450	Cherry Hills Country Club	1940	1,622R	10 to 6	Klb, Klc, Kfm	S.E	D, SW	90R	..	..	5,411	..	DL, Dc
1	2dbca	1,820	.. do. ..	1934	27R	48	Qp, Qb	C.E	Irr	..	..	7.9	5,352	4-10-62	B27; B3; D; L; Su; ML(2-7-62); 2. Battery of 3 wells pumps 300 gpm
1	2dbca2	1,850	.. do. ..	1934	27R	48	Qp, Qb	C.E	Irr	..	..	..	5,352	1956	D; Su
1	2dcdb	5,120	.. do. ..	1955	26R	48	Qp, Qb	T.E	Irr	278R	..	..	5,368	2-7-62	B26; L; Su; ML(1956) 26
1	3aba	4,530	F. Pearson	1955	36R	4	Ob, Ol	J.E	IrrL, Ot	..	..	27.3	5,315	4-9-62	Dr, L; P35-56
1	4adb	4,530	O. Beam	1955	36R	6	Ob, Ol	J.E	IrrL, Ot	25R	10	1/2	5,305	8-25-58	Dr
1	4adb2	4,450	F. Beam	..	30R	5	Ob, Ol	J.E	D, Ot	..	..	..	..	4-9-62	Dr
1	4adb2	4,420	H. Gomer	..	45R	5	Ob, Ol	J.E	D	..	..	..	5,285	8-15-56	Dr
2	4acda	4,350	Grace Assembly Church Club	1940	70R	10	Klu, Klb, Klc, Kfm	J.E	D	<1R	14	1/2	5,285	2-23-55	B37; D; L
2	4abbb	5,100	H. Turk	1955	57R	5	Tkdu	N	M	P6M	..	..	5,309	7-9-58	Dr, D; WS; WS1
2	4abbb	5,100	Herbertson Sand and Gravel Co.	1955	57R	5	Tkdu	N	M	P6M	..	..	5,305	8-29-56	B40; D; DL; GE, P420-54
1	4bbbc	4,850	C. Kealiner	1955	85R	..	Qpp, Qb	C.E	Ind, Pr	400R	..	..	5,272	12-15-60	Re. Sump
1	4bdec	2,700	E. Hartner	1953	37.6	18	Qp, Qb	J.E	D	..	..	..	5,285	8-14-56	Dr
1	4cbdd	1,320	.. do. ..	1953	38R	18	Ob, Ol	T.E	Irr, Ot	800R	..	8	5,282	4-10-62	A35 (with 2 wells); B39; Dr, L; P418-39
1	4ccab	1,100	Hall Sand and Gravel Co.	1954	57.6	12 x 12	Ob, Ol	T.E	Irr, Ot	204M	10.1	4	5,290	4-10-62	Dr
1	4cccd	100	Denver Water Board	1955	22R	24	Ob, Ol	C.E	Ind, Pr	2,000R	..	..	5,285	11-8-59	..
1	4ccdc	100	.. do. ..	1955	39R	24	Ob, Ol	T.E	PS, E	828M	..	..	5,289.1	4-29-55	B45; DL; Dr, GE; U(1960)
1	4ccdc2	100	.. do. ..	1955	47R	6	Ob, Ol	T.E	TW	74M	6.8	2 1/2	5,290.0	4-29-55	AT; B45; Dr, L
1	4dbdc	1,620	D. Dhority	1955	33R	24	Ob, Ol	T.E	PS, E	692M	..	..	5,290.0	4-29-55	B42; DL; Dr, GE; U(1960)
1	4dbcc	2,280	Ajax Storage Co.	1954	57.6	5	Ob, Ol	J.E	D	5R	..	..	5,320	..	DL; Dr, P426-33
2	4ddad	900	F. Ankenman	1954	233R	6 to 4	Kdnu	J.E	D, IrrL	8R	111	..	5,315	8-21-56	B30; DL; Dr
2	5aab	5,200	A. Radliff	1957	210R	6 to 4	Kdnu	S.E	Com	B15R	50	..	5,290	7-25-57	Dr
2	5aac	4,650	.. do. ..	1959	227R	6	Kdnu	S.E	PS	15R	175	..	5,290	9-12-59	B21; DL; Dr, P4190-205
1	5aac	4,340	Colo. Central Power Co.	1954	33.3	18	Ob, Ol	T.E	Irr	628R	15	..	5,285	10-9-59	B14; DL; Dr, GE; H28; P415
1	5aac	4,020	.. do. ..	1957	29.0	18	Ob, Ol	T.E	Irr, PS	450R	17	..	5,290	10-9-59	A56 (with 5 wells); B14; DL; Dr, GE; P415
1	5aada	4,320	.. do. ..	1955	34.0	18	Ob, Ol	T.E	Irr, PS	275R	18	..	5,282	10-9-59	B33; DL; Dr, GE; H28; P415

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of (gpm) water	Drainage (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
1	CS-68-5abed	4,150	2,020 C. Dunn	1958	29.5	24	Qb,Ol	T,E	P8 100R	..	9.8	5,292	4- 9-62	A1; B2; D1 GE; H36; L; P10-32; WL(11-8-59)8.6
2	5abbb	5,230	2,350 Continental Oil Co.	1957	312R	6 to 4	Kdm	S,E	88 820R	14	52	5,305	3-21-57	B25; D1; D1 Tch132
1	5abba	3,950	2,050 C. Dunn	1959	27R	12	Qb,Ol	C,E	8W 100R	2	8	5,293	3-15-59	B27; D1; D1 P12-27
1	5adaa	3,940	270 Colo. Central Power Co.	1955	35R	18	Qb,Ol	T,E	Irr,P8 450R	19	11	5,281	3-15-55	B34; D1; D1 GE; H28; P15
1	5adba	3,940	720 .. do.	1955	35R	18	Qb,Ol	T,E	Irr,P8 450R	25	8.2	5,285	10- 9-59	B34; D1; D1 GE; H28
1	5adca	3,290	900 .. do.	1954	32.5	18	Qb,Ol	T,E	Irr,P8 400R	..	15.0	5,289	10- 9-59	B34; D1; D1
1	5edcc	320	1,850 Sheridan Union High School	..	7R	8	Qp,Ol	T,E	Irr 40R	..	..	5,390	..	A3; D1
1	5eddd	150	2,700 .. do.	1957	45R	18	Qp,Ol,Tkdu	T,E	Irr 40R	..	36	5,369	2-18-57	A3; B18; D1; GE; L; P136-45; 8
2	5dbad	2,050	1,550 Rocky Mountain Prestress Concrete Co.	1958	577R	4	Kdmc	..	Ind,B B15R	42	88	5,340	10- 8-58	B27; D1; D1 H7-51; Tch439-577; MSP
1	5dcbb	1,250	2,500 Mackstaff Bros., Inc.	1960	100R	6 to 5	Qs	J,E	88 15R	1	56	5,381	1- 9-60	B58; D1; L; P152-91; 56-51
2	6dcbb	550	2,500 Colo. Dept. of Institutions	1903	698R	10 to 6	Kdmc,Kdlu	A	M	..	132.2	5,439	1- 6-60	D1; P1470-698; U(1942-60); WL(10-03)157
2	7ccad	780	4,020 F. Holmes	1956	768	8 to 6	Tkdu,Kdmc,Kdlu	S,E	D,IrrL, Ot	88.7	172.5	5,530	4-25-61	AT; H20; D1; D1; L; P1284-316; 340-500; 590-666; 715-750; 84; 81; WS
2	7ccbb	1,180	5,200 Ambrose-Williams	1951	1,080R	8 to 6	Kdmc,Kdlc	N	Ot B15R	105	182.1	5,540	4- 2-62	B30; D1; D1; L; QM
2	7cccb	580	5,100 W. Holthaus	1956	578R	6	Kdmc	S,E	IrrL B24R	80	174	5,545	5- 2-56	A1; D1; D1; D1; Tch155-375; 418-426; 454-474; 486-521; 528-548
2	7cccc	200	5,230 E. Ambrose	1947	1,670R	10 to 6	Klb,Kla	T,E	Irr 75R	..	160	5,543	7- -57	A12; B50; D1; L; WL(6-21-62)230.3; WS
2	7ccdd	100	4,040 A. Gillis	1956	550R	6 to 4	Kdmc	S,E	IrrL 13R	180	90	5,518	6-10-56	D1; D1; P1279-340; 365-550; 54; WS
1	8abad	4,750	1,500 Arepaw County	..	38.0	42	Qp,Ob,Ol	N	M 1,000R	16	4	5,289	11- 8-59	B42; D1; D1; L; P10-42
1	8abca	3,120	2,300 G. Adams	..	41.5	18	Qp,Ob,Ol	T,E	Irr 500R	..	6	5,302	11- 8-59	A40; B42; D1; D1; GE; P10-42; 8
2	8bcbb	3,470	5,200 J. Jackson	1953	494R	6 to 4	Kdmc	S,E	D,IrrL B12R	55	70	5,404.7	4- -53	B9; D1; L
1	8cada	1,660	2,810 M. McLaughlin	1958	43.5	5	Ol	M	IrrL 15R	..	24.3	5,333.0	4-10-62	D1; L; P18-43; WL(5-2-58)23.3
1	8dacc	2,300	340 E. Ausfahl	1952	16.1	48	Qp,Ob	C,E	Irr, Ot 50R	..	3.6	5,302	4-10-62	D
1	8dcba	850	1,400 A. Williams	1955	22.6	15	Qp,Ob	C,E	Irr, Ot 160M	..	4.0	5,311	4-10-62	A15; AT; D1; GE
1	8dcba	1,200	2,050 City of Englewood	1955	53R	24	Qb,Ol	T,E	P8, Ot 90R	..	13.7	5,314	4-20-59	B52; D1; D1
1	8dcba2	990	2,100 Bellevue Bowl	1958	37R	8	Ob,Ol	S,E	AC 50R	15	12	5,314	6-30-58	D1; D1; P15-37; Me
1	8dcbb	750	2,130 City of Englewood	1955	50R	24	Qp,Ob,Ol	T,E	P8, Ot 750R	5	9.8	5,314	7- 8-57	B50; D1; D1; P10-50
1	8dcbb	400	2,530 .. do.	1955	50R	24	Qp,Ob,Ol	T,E	P8, Ot 750R	5	8.6	5,316	5-26-59	B49; D1; D1; P10-50
1	8dcba	580	1,180 A. Williams	1955	25R	16	Qp,Ob	T,E	Irr, Ot 300R	7	5.0	5,310	4-10-62	D1; D1; MSP
1	9abba	5,180	2,180 J. Morris	1953	43R	6	Qb,Ol	J,E	IrrL B12R	13	2	5,320	8- 4-53	B38; D1; GE; L; P12-43
1	9acbb	3,120	2,380 R. Cummings	1955	52R	6	Ob,Ol	M	Irr, Ot 8R	4	30.6	5,338	4-10-62	B49; D1; D1; Tch12-48; U(1956)
1	9bbba	5,080	4,250 Western Paving Construction Co.	1954	40.0	18	Ob,Ol	T,E	Irr 600R	..	12.4	5,294.8	11- 8-59	A15; B39; D1; D1; P1; U(958)
1	9caac	2,020	3,000 D. Roemer	1955	23.8	24	Ob,Ol	M	Irr 500R	3	5	5,315	10- 9-59	D1; P10-25; U(1959)
1	9cadc	1,520	3,300 J. Hazlett	..	25R	48	Qs,Ol	C,E	Ind 100R	..	..	5,310	..	D
1	9cbba	2,520	3,980 R. Belzer	1958	40R	6	Ob,Ol	J,E	IrrL 75R	10	6	5,310	6-10-59	B16; D1; D1
1	9cbca	1,680	4,840 D. Raa	..	9.0	24	Qp,Ol	C,E	D 313R	..	3.8	5,305	10- 9-59	B11; D1; D1; GE
1	9ccbd	820	4,860 .. do.	1957	18.1	21	Qp,Ol	M	Irr 70R	14	4	5,310	10- 9-59	B18; D1; L; P13-20; U(1959)

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C5-68-9cddb	500	Ready Mix Concrete Co.	1957	410R	6	Kdmc		Ind	840R	75	62	5,347	10-12-57	858; DL; Dr; Tch246-390
2	11ccad	2,200	R. Monte	1949	754R	6 to 4	Kdmc	J, E	D	12R		20	5,434	1949	838; DL; Dr; T70
2	11dbcd	1,640	Goodstein	1949	1,014R	8 to 4	Kdmc, Kdlu	S, E, D, Irr	D, Irr	30R	75	200	5,440	1956	848; DL; Dr; WL(3-1949)5
2	11ddad	700	W. Lorton	1930	1,000R	6 to 3	Kdmc, Kdlu		D	75R			5,455	1930	DL; Dr
2	12adad	4,750	R. Polichio	1956	800R	6 to 4	Kdlu		D	75R		423	5,415	5-24-56	816; DL; Dr; Tch685-800
2	12abdd	4,800	C. Tucker	1956	1,000R	6 to 4	Kdmc, Kdlu		D	850R	42	65	5,420	6-29-56	DL; Dr; Tch230
1	12abda	4,350	D. Thornton	1957	28R	24	Qp	C, E	Irr	60R		1.7	5,409	4-10-62	A2; B27; Dr; GE; 835; L; 848-28; WL(11-8-59)2.4
1	12bbbb	5,220	Cherry Creek School District	1957	40R	6	Qp, Qb	T, E	Irr	840R	22	1.7	5,384	4-10-62	Dr; GE; L; P215-40; WL(12-14-60)3.6
1	12bbcb	4,530	G. Stemler	1956	24.7	24	Oy, Qb	C, E	Irr	120R	10	1.0	5,385	1-17-61	820; Dr; GE; L; P25-20
2	12bdab	3,950	Carlisle-Moelbel	1954	1,136R	8 to 6	Kdmc, Kdlc		PS	50R			5,420	2- -54	82; Dr; L. Flowing well
2	12bdab2	3,850	do.	1956	1,867R	6 to 4	Klb, Kila, Kfm	T, E	PS	865R	36	34	5,420	1- -56	DL; Dr; EL
2	12ddad	980	J. Shafroth	1953	891R	6 to 4	Kdmc		D, Irr	740R			5,450	1961	89; DL; Dr; Tch716-891. Flowed 75 gpm in 1953
2	13aabd	4,940	J. Coaden	1956	953R	2	Kdmc	T, E	D	25R	25		5,480	4-30-56	DL; EL. Original flow 2 gpm; flows when not pumped
2	13abac	4,850	R. Flair	1956	800R	6	Kdlu	J, E	D	3E		76.0	5,490	9-4-59	Dr
2	13abdd	3,600	Anderson-Bieber	1956	1,192R	6 to 4	Kdmc, Kdlc		PS	72M		4.8	5,521	2-1-60	DL; Dr; EL; FD
2	13baaa	5,080	J. Elfstrom	1956	950R	6 to 4	Kdlc		D	840R	35	45	5,490	10-27-56	DL; Dr; EL; Tch696-927
2	13bdcd	2,800	R. Niedrack	1897	960R		Kdmc						5,430	6-6-57	Dr
2	13cbdb	1,950	J. Lindway	1960	879R		Kdlc	S, E		50R	35	40	5,485	7-16-60	DL; Dr; P2668-859
2	13dced	1,600	W. Stanley	1957	1,147R	6 to 4	Kdmc, Kdlc		D, Irr	F59M		461.6	5,490	6-5-57	AT; B25; Dr; EL; FD; L; Tch318; MSP
2	14bddd	3,900	T. Savage	1954	1,128R	8 to 6	Kdmc, Kdlc	M	D	160R	200	8	5,485	10- -54	811; DL; Dr
2	15bdcc	2,750	Morgren-Stemac, Inc.	1958	778R	8 to 6	Kdlu	T, E	Ind, D, C, Irr	850R	40	50	5,420	1-30-58	852; DL; Dr; H11-7; Tch476-778; MSP
1	16baba	5,200	Colo. Central Power Co.	1955	45R	18	Ob, Ql	T, E	Irr	350R	5	35	5,345	7-14-55	844; Dr; GE; L; Lo30-45
1	17adbc	3,380	Centennial Turf Club	1955	44R	18	Qpp, Ql	C, E	Irr	400R	8	7.9	5,316.9	7-27-56	843; DL; Dr; GE; P224-44
2	17bubb	5,150	Safeway Stores, Inc.	1959	744R	6	Kdmc, Kdlc	S, E	Com	40R	48	27	5,378	6-20-59	DL; Dr; MSP
1	17caaa	2,580	Town of Littleton	1955	41.9	24	Qpp, Ql	T, E	PS	900M	18	8.3	5,316	7-27-56	842; Dr; GE; H40; L; P223-42; MS
1	17caab	2,580	do.	1955	43.6	40 to 24	Qpp, Ql	T, E	PS	1,000M	6	7.9	5,315	7-27-56	DL; Dr; GE; P215-43; WL(2-1955)6
1	17caac	2,150	do.	1955	42.0	40 to 24	Qpp, Ql	T, E	PS	1,200M	28		5,317	7-27-56	843; DL; Dr; GE; H40; P223-41
1	17cdaa	1,160	do.	1952	42.0	24	Qpp, Ql	T, E	PS	750M	30		5,316.7	7-27-56	843; DL; Dr; FD; GE; P223-41; MS; WSR
1	17cdad	880	E. Watson	1951	28.7	48 to 6	Qpp, Ql	N	Irr, Ot			2.8	5,320.7	4-10-62	Dr; U(1957)
1	17cdad2	850	Town of Littleton	1951	43.6	18	Qpp, Ql	T, E	PS	800M	28		5,317	7-27-56	833; Dr; GE; L; P230; MS
1	17cdbe	1,280	T. Koldewey	1942	22.7	48	Qpp, Ql	T, E	Irr, Ot			3.3	5,322	4-20-59	Dr; U(1957)
1	17cdcb	550	E. Watson	1942	20.7	6	Qpp, Ql	N	Ot			5.4	5,323.6	4-10-62	D
1	17dbba	2,630	Town of Littleton	1955	37.9	24	Qpp, Ql	T, E	PS	700M	18	3	5,315	7-27-56	843; Dr; GE; H40; L; P215-43; MS
1	17dbcd	1,380	do.	1942	30R	48	Qpp, Ql	T, E	PS, E	500R		11	5,318	10-11-60	D
1	17dbcd2	1,400	do.	1942	30R	48	Qpp, Ql	T, E	PS, E	1,000	17	11	5,318	10-11-60	D
2	17dcda	500	do.	1895	712R	6	Kdmc, Kdlu	J, E	PS, Ind	30R		48P	5,332	10-11-60	Dr; L

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C1-58-															
2	18acda	2,810	R. Buchanan	1956	713R	6 to 4	Kdmc, Kdlu	S, E	D, Irr, L	812R	120	115	5,486	4-21-56	Dr, EL; FDI, L
2	18baba	5,150	F. Rogers	1956	580R	6 to 4	Kdmc	S, E	Irr, L	88R	80	70	5,510	4-18-56	A, S; B14; DL; Dr; F2200-580
2	18cbca	2,300	L. King	1957	593	6	Kdmc	N	D	835R	44	88	5,470	1-22-57	DL; Dr, EL; Tchn240
2	19cdca	520	Town of Littleton	1956	511R	10 to 7	Kdmc, Kdlc	T, E	PS	120R	212	30.2	5,418	6-21-57	B12; Dr, EL; L; Tchn161, WS
1	20abcc	4,060	Champion Nursery		9.5	36	Qpp	C, E	Irr	100R		2.9	5,324.1	4-10-62	A2; Dr, EL(3-24-59)3.5
1	20baca	4,550	J. Buckner		8.8	36	Qpp	C, E	S	200R		5.8	5,226.1	4-30-59	D
1	20bacc	4,200	A. Tolan	1956	10.8	24	Qpp	C, E	Irr	88R		8.5P	5,327.3	4-30-59	D
1	20badc	4,580	Town of Littleton	1952	30R	48	Qpp, Ql	T, E	PS	1,000R	20	7	5,321	10-11-60	D
1	20bcda	3,230	Columbine Country Club	1955	48R	24	Qpp, Ql	T, E	Irr	1,460	15	3	5,332.0	3-22-55	DL; Dr, GE; H40; P66-4W
1	20cbad	2,300	do.	1955	54R	24	Qpp, Ql	T, E	Irr, Ot	1,960R	18	3	5,339.2	4-18-57	A121(With 5 wells); B52; DL; Dr; GE; H40; P66-58
1	20cbbb	2,320	do.	1955	60R	24	Qpp, Ql	T, E	Irr	1,375R	14	3	5,347.0	8-22-56	860; DL; Dr; GE; H40; P69-60
1	20cbdd	1,580	do.	1955	60R	24	Qpp, Ql	T, E	Irr, Ot	1,292	26	3	5,336.8	4-10-62	847; DL; Dr; GE; H40; P66-60; U(1956-62)
1	20ccab	1,080	do.	1955	52R	24	Qpp, Ql	N	Irr, O	1,375	14	3	5,344.0	10-26-59	DL; Dr; GE; H40; P69-52; WL(8-22-56)
1	20cecc	220	do.	1955	64R	24	Qp, Ql	T, E	Irr, D	1,225R	17	3	5,351.5	8-29-56	DL; Dr; GE; H40; P66-4W
1	20dcab	1,150	A. Heineman	1955	5R		Qb	T, E	Irr, D	269R		16	5,451	2- -55	D
2	21bad	4,670	Town of Littleton	1955	1,826R	8 to 6	Klb, K1a, Kfm	S, E	PS	100R	36	66	5,451	2- -55	DL; Dr; GE; Gun456; Li; WS
2	21adca	3,200	Carmelite Monastery		810R	6 to 4	Kdmc	Cyl, R	D	15R		20.1	5,451	2- -61	Dr
1	21dcba	1,340	Highline Canal Co.		29.7	6	Qs								
2	24ddab	1,050	Chapel Hill Cemetery	1959	1,450R	12	Kdmc, Kdlc	T, E	Irr	812R	35	25	5,630	3-30-59	A44; Dr; L. Tchn918-1,418
2	24ddac	980	do.		2,100R	8	Klb, K1a, Kfm	T, E	Irr	200R		223.2	5,630	3-17-59	A44; Dr
2	27acda	200	Ohio Oil Co.	1955	99R		Kdmc, Kdlu	S, E	Ind, C	250R	328	103.0	5,610	10- -59	B13; Dr; WS
2	27dcda	170	do.	1955	1,910R	8 to 6	Klb, K1a, Kfm	S, E	Ind, P, Irr, L	159R	266	20	5,610	10- -59	A20; AT; B13; Dr; EL; Li; P61, 560-1,860; WL(5-2-55)+15.9; WS
2	28acab	4,470	Town of Littleton	1952	1,940R	8 to 6	Klb, K1a, Kfm	S, E	PS	400R	344	48	5,515	1956	DL; Dr; FDI; P61, 370-1,464, 1,495-1,612, 1,680-1,715, 1,797-1,808; WS; Wsr. Flowing 1952
2	28bccc	2,900	W. Deems		693R	6	Tkdu	S, E	D	40R			5,470		DL; Dr
2	29abbc	4,700	Crowley Bros.	1952	400R	6 to 4	Tkdu	T, E	D, G, B	10R			5,345.0		DL
1	29abbc2	4,700	do.	1953	12.6	48	Qpp	C, E	G, AC	100R		7.8	5,345.0	4-12-59	D
1	29abdc	4,050	R. Miller	1954	8R		Ql	C, E	Irr			3.8	5,353.2	4-13-59	M, S; D. Sump
1	29baad	4,800	A. Waller		6.0		Qpp	C, E	Irr			4.4	5,341.6	7-17-59	D. Sump
1	29bada	4,500	do.		11.0	48	Qpp	C, E	Irr	150R		1.7	5,337.9	7-17-59	Dr
2	29bcdb	3,100	L. Olsen		251R		Tkdu, Kdlu		D	P, 5R		+3.4	5,341	8-29-56	AT; Dr; T53
1	29cdca	500	K. Enser		12R		Qp		Irr				5,350		Spring-fed sump
1	30abca	4,780	L. Morris		68.2	18	Qp, Ql	T, E	Irr, Ot	700R		30.3	5,367.5	4-12-62	A60; Dr; Su
1	30adad	3,520	R. Olsen	1955	11.8	48	Qpp	T, G	Irr, Ot	200R		1.8	5,342.7	4-12-62	A4; D
1	31aabb	5,130	Town of Littleton	1959	56R	24	Ql	T, E	PS	1,025R	22	13	5,358	8-22-59	B56; Dr; GE; H40; L; P626-50
1	31abaa	5,250	do.	1959	55R	24	Ql	T, E	PS	1,020R	28	14.2	5,360	4-12-62	B55; DL; Dr; GE; H40; P625-55; WL(8-16-59)
1	31abaa2	5,010	do.	1959	54R	24	Ql	T, E	PS	1,051R	27	14	5,359	8- -2-60	B54; DL; Dr; GE; H40; P624-54

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C5-68-															
2	31abba	5,240	C.R.T., Inc.	1959	452R	6	Kdmc, Kd1c	T, E	PS	855R	150	..	5,378	4-13-59	848; Dr; H16; L; Tchl 152-452
1	31adad	3,580	K. Enser.	1955	39R	24	Qpp, Q1	M	Irr, Ot	950R	11	3	5,360.9	4-12-62	837; Dr; L; P21-39
1	31adca	3,100	do.	1955	39R	24	Qpp, Q1	M	Irr	538R	6	3	5,364.0	4-12-62	837; Dr; L; P21-39
1	31adbb	3,050	do.	1955	36R	24	Qpp, Q1	M	Irr	1,680R	19	3	5,364.9	4-12-62	836; Dr; L; P18-36; WL(3-23-59) 4.0
1	31caad	1,400	So. Side Gravel Co.	1955	14R	12	Qpp, Q1	..	Ind, Cons	10R	..	7	5,405	5-28-55	810; Dr; GE; P25-10; Destroyed in 1959
1	31daab	2,630	K. Enser.	1955	34R	24	Qpp, Q1	T, E	Irr, Ot	1,290R	21	3	5,367.4	4-12-62	830; Dr; L; P216-34
1	31daac	2,120	do.	1955	34R	24	Qpp, Q1	T, E	Irr, Ot	1,350R	26	3	5,370.8	4-12-62	834; Dr; L; GE; P216-34
1	31daba	2,630	do.	1955	40R	24	Qpp, Q1	M	Irr	1,980R	16	3	5,366.0	3-23-59	840; Dr; L; GE; P216-34
1	31dadb	1,580	do.	1955	27R	24	Qpp, Q1	M	Irr	485R	..	2	5,370.0	4-20-55	827; Dr; L; P29-27
1	31dadd	180	P. Kiewit & Sons Co.	1956	42.5	24	Qpp, Q1	M	Ind	1,200R	7	6	5,369.2	4-13-59	837; Dr; L; P21-39
1	32ccba	1,300	Mann Construction Co.	1956	21.5	24	Qp, Qb, Q1	C, E	Irr	120R	2	2	5,372.2	4-12-62	P210-45; U(1958) P210-45; Dr; GE; L; P210-20; WL(4-15-59) 5.0
1	32cccd	20	E. Jordan	1870	70R	40 x 40	Qb, Q1	T, E	Com, Sw Irr, D	300R	..	..	5,385	..	A3.5; DO
C5-69-															
2	31abcc	4,100	R. Bober.	1955	280R	6	Kdmc	S, E	..	810R	215	2	5,430	6-10-55	819; Dr; L; Tchl 125-260
2	32abcc	4,050	J. Wiebenson.	1954	915R	6 to 4	Kdmc, Kd1c	S, E	D, AC, G	820R	30	8	5,500	10-8-54	A.3; 856; Dr; L; P2528-633; 680-700, 830-850
2	32cdcd	2,850	State of Colorado	1915	735R	8	Kdmc, Kd1c	T, E	D, Irr	55R	..	..	5,555	8-1-61	85; Dr; L; U(1961); Mountain View Girls' School
2	31addd	2,740	Federal Correctional Institution	1893	1,400R	..	K1b, K1c, K1d	Cyl, E	Irr	40R	300	..	5,525	1950	Dr. Flowed 176 gpm in 1893
1	32adcd	4,140	Denver Water Board	..	11.1	..	Qp	C, E	D	..	..	..	5,550	4-12-62	D; Dr; WL(2-11-59) 6.2MS
1	32addd	4,740	L. Shipley	..	90R	..	Qp, Q1, Ks	J, E	Com	10R	..	..	5,560	1-17-59	814; Dr; L; P21-39
1	32bdc	2,940	G. Pallaro	..	10.5	..	Qp, Q1, Ks	M	..	..	..	..	5,675	4-12-62	D
1	32bab	2,400	A. Bevane	1949	79R	..	Qp, Q1, Ks	J, E	D	..	..	..	5,605	3-16-59	D
2	32dcca	550	Pallaro	1935	9,585R	..	Ks	..	Oil	..	..	..	5,660.2	..	EL. Brackish water
2	32ccdd	2,750	Panuco Oil and Transportation Co.	1923	2,700R	..	Kp, Kd	..	Oil, S	F	..	..	5,750	..	Dr. Dr. Penetrated sandstone unit of Pierre Shale at 1,565 feet
2	32baca	4,450	Lillie Pallaro	..	9,649R	..	..	..	Oil	..	..	..	5,822	..	Dr; Dr; SL. Produced oil. Penetrated faults and overturned section of Cretaceous rocks. South Platte formation at 9,440 contains saline water; higher sand beds contain brackish to saline water
C5-70-															
2	32bdc	3,970	Mt. Morrison Asphalt Oil and Gas Co.	1913	1,470R	..	Ks	..	Oil, S	..	..	..	5,790	..	Dr. Dr. Flowed at 1,345 feet
2	32bdb	3,100	L. Mann	1955	109R	..	Ks	..	S	..	..	..	5,830	4-20-62	Dr; EL
2	32cab	1,900	A. Coote	..	566	..	Ks	..	..	..	..	..	5,807	4-20-62	Dr; Dr; WL
1	32abd	4,930	A. Wesselman	1905	28R	..	Op, Kt	Cyl, E	D	..	..	..	5,635	..	D
1	32bcd	4,010	J. Noble	1954	23R	48	Op	J, E	D, S	..	..	..	5,650	4-12-62	D; WL(4-57) 12. Dry in summer, 1955

Table 2.--Records of selected wells and borings--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
	C5-69-													
1	8abed2	4,000	J. Noble	1955	100R	6 to 5	Op, Qe, Kp	J, E	D, S	50	2	5,650	4-12-62	B23; Dr; L; Pfl15-100; Tr; WL(3-16-59)10.3
2	8addd	2,700	Not known	1955	20R		Kc		D			5,655	3-16-59	Dr; WS
1	8bcaa	3,980	R. Savana	1950	50R	5	Op, Ql	J, E			11	5,615	2-7-59	B34; Dr; FD; WS
1	8bbba	4,740	C. Anderson	1943	24R		Op, Qe	Cyl, E	D		12	5,615	4-12-57	B40; Dr; L; Tch60-80,
2	9bbbb	5,060	do.	1955	160R	6 to 4	Klb	J, E	D, S	90	3	5,640	3-7-57	B25; Dr; L; Pfl179-246; WSp
2	9adcc	200	C. Stohlman	1957	246R	6	Kalc	S, E	IrrL	50	2	5,680	6-25-59	A, 75; Dr; FD; H7-5; L; Tch255-415
2	11abbb	5,000	K. Steinberg	1959	485R	6 to 4	Kdmc, Kalc	S, E	D, IrrL	10R	25	5,564	4-12-62	B12; Dr; GE; H12; L; Pfl1-43; WL(6-14-61) 1.0
1	11acbc	3,620	W. Spuhler	1958	43R	5	Op, Qe	C, E	IrrL		.9	5,532	10-23-59	B33; Dr; FD; GE; H14; L; Pfl54-257; WL(4-58)114
2	16aaaa	5,200	L. Overmeyer	1958	257R	6 to 5	Kdmc	S, E	D, IrrL	20R	54	5,665	12-24-60	Dr; EL; WL(1955)87
2	16aaab	5,160	L. Bonen	1955	202R	6	Kdmc	S, E	D	2R	50	5,670	7-5-56	B23; Dr; L; D
2	16aada	4,380	E. Clubb	1956	370R	6	Kdmc, Kallu		D	15R	20	5,650	6-30-54	Dr; WS
2	16acaa	3,950	J. Schjeldrup	1954	180R		Kalc	S, E	D	15R		5,735	1-5-61	D
2	17abba	5,250	C. Allen	1945	36R	84	Kp	C, E	D, S	6R		5,835	12-14-60	D, Dry 1954-56
2	17cbbb	2,600	G. Hancock	1922	16R	48	Kp	Cyl, R	S	1E				
2	18aaaa	5,180	A. Coors III	1954	598R	6	Ka	S, E	D, S, Irr	30R		5,798	2-58	A30; B8; Dr; L; Su
2	18bbcc	4,260	do.	1956	900	8 to 6	P1	C, E	D, Ot	60R		5,865.0	7-31-57	At; B18; Dr; EL; GR; L; OH(446-900); Sai
2	18dccb	500	D. Mabster	1957	354	7	Ka	S, E	D, S, IrrL	6M	44	5,934.8	6-27-57	DJ; Dr; EL; FD; GR; L; S; Sa; WS; W8r. Well deepened from 302 feet
2	19adbc	3,450	K. Axom	1958	906	6 to 4	Ka, Kly	J, E	D, S	30R	22	5,928.0	6-30-58	Dr; EL; H7-5; Tch640-730, 860-905
2	21abaa	5,220	K. Murphy	1961	315R		Klu	M				5,715		B9; Dr; L; Dry
2	21ddac	980	R. Spykstra	1950	100R	6	Tkd, Kl	J, E	D	8R	35	5,690	7-31-61	Dr; FD
2	21ddba	1,050	do.		100R	6	Tkd, Kl	Cyl, E	S	5R	35	5,691	7-31-61	Dr
2	22abba	4,860	R. Straum, Jr.	1954	405R	8 to 6	Kdmc, Kalc	S, E	D, IrrL	20R		5,580	1954	B22; Dr; L; WS
2	22aabc	4,880	T. Francis		125R		Tkd, Kl					5,570		Inadequate for domestic supply
2	22abaa	5,030	B. Lockhart	1951	460R	6 to 4	Kdmc, Kalc, Kl	S, E	D	10R	55	5,592	1951	B14; Dr; F2; L
2	22abab	5,100	M. Van Der Heul	1955	405R	5	Kdmc, Kalc, Kl	J, E	D, IrrL	B10R	40	5,602	10-1-55	B30; DL; Dr; Tch205-405
2	22abba	5,000	J. Champion	1952	402R	6 to 4	Kdmc, Kalc, Kl	S, E	D, IrrL	30R	40	5,603	10-23-59	Dr; F2; L; WL(6-1955)90
2	22baaa	5,230	D. Blackburn	1955	410R	5	Kdmc, Kalc, Kl	S, E	D, IrrL	B10R	45	5,620	10-1-55	B5; Dr; L; Tch210-410
2	22ccac	800	R. Spykstra	1955	108R		Klu	M	D	5R	2	5,670	1-31-55	B11; Dr; L; Pfl24-30, 59-67; U(1961)
2	24aabc	4,820	J. Kelao	1959	388R	6 to 4	Kdmc, Kalc	S, E	D	15R	17	5,495	10-23-59	Dr; Dr; Pfl302-388
2	24abab	5,080	R. Barkdale	1957	473	4	Kdmc, Kalc		D	B15R	18	5,490	2-8-57	B22; Dr; EL; L; Tch184
2	25aabc	4,750	B. Duboc	1955	1,580R	8 to 6	Klb	N	Ot	130R	410	5,450	4-20-62	B10; Dr; EL; FD; F2; L; WSp. Flowed 10 gpm saline water and yielded gas to flare at 1,130 feet. Plugged at 1,190 feet. Water rust-colored in winter
2	26bbbb	5,200	F. Brock	1955	160R	6 to 4	Kdmc	Cyl, E	D, IrrL	7R	50	5,540	4-9-55	B10; Dr; L; Tch100-160. Water rust-colored in winter
2	26ddad	950	S. Stene	1950	1,705R	8 to 6	Klb, Klb, Kfm	M	N		111.6	5,556	6-29-61	Dr; F2. Flowed; yielded gas to flare in 1950. Salty water kills vegetation

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of water	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
2	C5-69-27baaa	5,160	J. Wasselman	1956	390R	6 to 4	Kmc, Klu	S, E	D, IrrL	810R	72	10	104	5,615	820; Dr; FD; FZ; L; Schl 67-390. Water rusts pipes and has a bad odor
2	3aaabb	5,250	B. Koran	1957	320R	4	Kmc	T, E	Irr	45R	.	.	61	5,450	11-30-57 EL; GRL
1	C5-70-1aabc	4,910	D. Taylor	.	6R	.	Qpp	J, E	D	.	.	.	3	5,642	3-19-59 D
1	1abba	4,970	W. DeMoss	.	15R	.	Qpp, Ql	P, E	D	.	.	.	6	5,660	3-17-59 Dr
2	1cacc	1,420	W. Pallaozo	.	100R	.	Ka	.	S	Flom	.	.	.	5,850	3-30-59 Dr; FD; WS
-	6ccab	1,280	F. Bruah	1959	202R	6	PC	S, E	D	2R	.	.	75	7,595	9-5-59 L; OH(16-202); SG. Water from fractures 126-130 feet and 194-200 feet
-	7acab	4,480	Indian Hills Water District	1957	20R	48	Qpp, PC	J, E	P, S, E	21R	.	.	10	7,255	5-5-61 Gr; Gy. Three gravel-filled trenches extend radially up-slope
-	7acab2	4,500	do.	1957	83R	6	PC	J, E	P, S	8R	.	.	12	7,270	5-5-61 Dr; GH; WS
-	7acab3	4,550	do.	1957	30R	48	Qpp, PC	J, E	P, S	30R	.	.	.0	7,260	5-5-61 Gr. Spring converted to well
-	7abba	4,600	do.	1957	143R	5	PC	M	N	<1	.	.	16.8	7,275	5-5-61 Gr; U(1961)
-	7abba2	4,500	do.	1957	50R	6	PC	J, E	P, S	6R	.	.	12	7,270	5-5-61 Gr; Dr
-	7baad	4,830	Indian Hills Fire Dept.	1958	50R	.	PC	J, E	D, Fire	20R	.	1 1/2	27.0	7,340	DL; Gr; H7-5; F35-50
-	7bbbd	4,900	C. Jones	1959	109R	6 to 5	PC	S, E	D, IrrL	5R	<91	.	27.0	7,450	5-11-59 Dr; GH; H7-5; L; WL(spring, 1960) 22. Water from fractures at 18 feet
2	11dbcb	1,080	R. Starmer	1960	703R	7	Ff	.	Com	F13M	.	.	+95.2	6,190	9-23-60 Dr; FD; L; OH(55-703); S; SL; WS
2	14baba	5,150	O. Sanger	1951	Sprng	.	PC	.	D, S	FCLR	.	.	.	6,260	9-23-60 FD; WS
2	15cbcb	3,920	Dodaon and Stark	.	10R	36	PC	C, E	D, IrrL	5R	9	8	.5	6,560	1-18-61 D; FD; SG. Water from fractures at 7 feet
2	16acbb	3,270	D. Hauptman	1959	313R	5	PC	S, E	D	3E	.	.	74	7,010	3-22-59 M6; Dr; FD; L; OH(11-313); SG. Water from fractures at 86-89 feet and 268-313 feet
2	16bdcc	2,750	Indian Hills Water District	1942	20R	120x144 to 96x96	PC	.	C, E	20R	8	15	3	6,820	5-5-61 Dr; SG
2	17adbd	3,370	M. Madrie	1957	62R	.	Qp, PC	J, E	D	20R	.	.	.	6,960	B10; Dr; L; OH(42-62); SG
2	21acda	3,300	J. Fields	1959	308R	6	PC	S, E	D	<1R	20	.	260	6,930	8-29-59 B10; Dr; FD; L; OH(13-108); SG. Water from fractured quartz veins at 155, 245, 285, and 285 feet
2	21adba	3,290	E. Clark	1935	12R	48	Qpp, PC	P, E	D, S, Com	10R	1	72	3.4	6,810	4-12-62 D; FD; SG; WL(5-6-61) 3.2
2	21adbb	3,230	do.	1955	87R	8 to 6	PC	S, E	Com	2E	.	.	4.6	6,815	5-6-61 Dr; FD; SG
2	21daac	2,150	P. Hoffower	1960	52R	8	PC	.	D	10R	.	.	42	6,840	7-12-60 B15; Dr; FZ; L; F50-52; SG. Water from decomposed rock at 50 feet
2	22cbbc	2,250	A. Sedgley	1958	210R	5	PC	S, E	D	<1R	.	.	23	6,860	10-4-58 B30; Dr; L; SG
1	22ccca	600	L. Granzeilla	1960	50R	6 to 4	Qp, Ql, PC	J, E	D	100R	.	.	20	6,870	9-1-60 B20; DL; Dr; FD; FZ; F32-50; SG

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
C5-70-																
2	24bda	2,980	L. Max.	1957	772	8	Pf	..	Oil, B	80.5M	..	..	6,122.0	2-12-57	Dr; EL; GR; MS	
2	29dbba	2,600	G. Garrett.	1957	468	6	PC	..	D, IrrL	8R	..	15	7,240	11-14-57	Dr; EL; GR; L; OH(13-46)	
2	33dadb	1,700	H. Jeffere.	1957	518	6 to 5	PC	J, E	D	8JR	27	3	7,210	4-23-57	Dr; EL; GR; L; Pf15-24, 30-50	
1	34bbad	4,630	Muchabee Estate	1957	338	6	Qp, PC	P, E	D	8M	8	1/6	2.5	6,990	4-12-62	Dr; EL; GR; L; OH(10-33), Pf10-10, 5G; ML(5-2-61)2.5
2	34cbdc	1,540	C. Mill	..	728	4	PC	J, E	D	<1R	..	..	7,120	..	Dr; EL; GR; Water from fracture at 50 feet	
2	34cbdc2	1,570	.. do. ..	1959	438	6	PC	M	D	..	..	17.0	7,135	5- 6-61	Dr; EL; GR; L; OH(22-433); 5G	
2	34cbdc3	1,540	.. do. ..	1959	138	6 to 5	PC	S, E	D	<1R	..	13	7,130	6- 9-59	Dr; EL; GR; L; OH(44-133); 5G. Water from fracture at 124 feet	
C5-71-																
-	11ccdb	650	C. Angelo	1923	1308	72 to 6	PC	..	D	<1	..	..	7,480	6-21-60	F2; 80; MS	
-	16bada	4,350	Propat.	1959	838	6	PC	..	D	3R	..	..	7,355.2	9-22-59	DL; GR; Pf28-65	
-	16bada2	4,420	C. Savage	1957	838	5	PC	..	D	4R	55	14	7,486.4	9-22-59	DL; GR; Pf70-85	
-	16badb	4,500	C. Young	..	1908	..	PC	Cyl, E	D	..	..	..	7,411.0	9-22-59	DL; GR	
-	16badb2	4,350	E. Porter	..	..	..	PC	..	D	..	..	..	7,400.0	9-22-59	DL; GR	
-	16badc	4,120	Goins	..	2618	..	PC	..	D	..	..	+35	7,349.2	9-22-59	Gr	
-	17acbb	3,000	R. Lewis	1958	Spring	7	PC	..	D	8R	..	..	7,920	..	DL; FDI Gr	
-	17acbb2	3,050	.. do. ..	..	..	..	PC	..	..	..	..	..	7,920	..	DL; Gr	
C5-65-																
2	4cdcb	150	C. Gartrell	1957	3178	4	Tkdu	J, E	D	12R	100	..	6,240	6- -61	Dr; EL; L; Pf160-180, 277-317	
2	64ddd	120	K. Edwards.	1957	152	6 to 4	Tkdu	S, E	D, IrrL	815R	10	..	6,100	6-25-61	B5; Dr; L; Tch90-100, 125-140; ML(2-7-1957) 70	
2	9bacb	4,530	C. Gartrell	1956	3328	4	Tkdu	J, E	D, B	815R	56	..	6,215	6-25-61	B2; Dr; L; Tch184; ML(9-16-56)110	
2	16bcda	2,980	.. do. ..	1960	3268	4	Tkdu	Cyl, M	S	9R	..	..	6,350	6-25-61	B2; Dr; L; Tch236-326	
2	18adaa	3,820	L. Barron	1958	409	5	Tkdu	S, E	D	20R	60	..	6,295	6-25-61	B2; Dr; EL; H7; L; Pf323-391; S; SL	
2	18cdcc	300	R. Baker.	1961	2508	6 to 4	Tkdu	S, E	D, B	830R	32	..	6,145	3- 3-61	DL; Dr; H7-5; Tch88-248	
2	18cddd	150	.. do. ..	1958	2008	6	Tkdu	S, E	D, IrrL	12R	40	..	6,140	5- 6-58	Dr; H7; L; Tch73-100, 140-190	
2	32dabd	2,220	P. Calahan.	1960	3238	6 to 4	Tkdu	S, E	D	12R	10	14	6,418	4-28-60	B1; Dr; FDI; H7-5; L; Tch200-323	
2	32dccb	500	R. Hampton.	1960	3118	6 to 4	Tkdu	S, E	D	810R	13	..	6,415	6- 1-60	B4; Dr; H8-5; L; Pf200-311	
C5-66-																
1	4bcab	1,850	J. Archer	1952	598	24	Ql	T, E	Irr	600M	12	..	5,224.0	..	A50; Dr	
1	4bcda	3,150	L. Dixon.	..	..	18	Ql	T, E	Irr	600M	12	..	5,221.7	4-11-62	A65; Dr; ML(10-28-59) 14.6	
1	4bdc	2,750	.. do. ..	..	34.9	18	Ql	N	Irr, Ot	..	..	..	5,233.7	4-11-62	Dr; U(1959)	
1	4cada	1,900	.. do. ..	..	48.4	24	Ql	T, E	Irr, Ot	250M	2.4	..	5,232.4	4-11-62	A35; Dr; P	
1	4ccaa	1,200	.. do. ..	1952	598	24	Qb, Ql	T, E	Irr	1,075M	..	..	5,238.8	4-11-62	A65; Dr; FDI; ML(10-28-59)24.6; MS	
2	4dbac	2,140	.. do. ..	1909	2208	5	Tkdu	..	D, B, IrrL	..	..	..	..	..	..	
2	4ddac	870	J. Loyd	1945	3508	6	Tkdu	J, E	D	..	..	..	5,748.3	3-23-59	Dr; FDI; MS	
1	5adac	3,500	L. Dixon.	1956	69.6	24	Qb, Ql	T, E	Irr, Ot	850M	14.5	6	5,720.3	4-11-62	A40; Dr; FDI; MSP	
2	5adcc	2,810	.. do. ..	1953	2208	5 to 4	Tkdu	J, E	D	..	..	..	5,767.3	3-23-59	Dr; FDI. Flowed in 1953	
2	7dcaa	1,150	W. Schumann	1959	2248	8 to 6 to 4	Tkdu	S, E	D, IrrL	9M	..	..	5,900	3-21-59	B45; Dr; FDI; MS	

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	CG-66-9aabb	3,050	J. Loyd	1953	43.5		Op, Ob, Ql	T, E	Irr	500R		12.6	5,754.6	4-13-62	A20(1956); A60(1959- with 2 wells); B41; Dr; L; WL(7-16-56) 19-9; WL(9-2-59) 17.1
1	9abbb	3,300	do.	1956	43R	5	Opp, Ql	Cyl, M	S	10R		9	5,737.8	5-11-56	Dr; L; Tchl 30-43
1	9abcc	2,700	do.	1953	57R	18	Ob, Ql	T, E	Irr	970M	20.3	17.4	5,764.5	4-13-62	A50(1956-59); Dr; FD; WL(10-28-59) 21.3
1	9adde	2,700	do.	1943	41.9	24	Ob, Ql	T, E	Irr, Ot	700E	17.9	14.7	5,769.1	4-13-62	A91(1951); A40(1956); A60(1959- with 2 wells); Dr
1	9adde2	2,690	do.		31.4	24	Ob, Ql	M	Irr, Ot			1.3	5,758.4	4-13-62	Dr; U(1956-62)
1	9bdc	2,670	L. Dixon	1954	71.0	18	Ql	T, E	Irr, Ot	180M	39.7	24.6	5,773.7	4-13-62	A50(1956-62); Dr; L; WSP
1	9bdcc	2,670	do.	1954	70.0	18	Ql	T, E	Irr, Ot	241M	33.3	23.2	5,770.8	4-13-62	FD; L; WS
1	9bdcc	1,500	D. Weaver	1958	71.0	8	Ql	T, E	D, Irr	52R		15	5,776.3	10-16-58	B60; Dr; FD; GE; L; WS
1	9dbcb	1,700	L. Rose	1953	86R	18	Ob, Ql	T, E	Irr	1,000R	25	26.2	5,776.2	4-13-62	A45(1956); A115(1959); B84; L050; WL(8-9-56) 34.7; WL(9-1-59) 35.4
1	9dddc	50	D. Weaver	1953	85R	18	Ob, Ql	T, E	Irr	1,000R	9	21.5	5,791.3	4-13-62	A45(1956); A47(1959); B79; Dr; GE; L; WL(9-2-59) 24.3
2	13ddab	1,150	D. Pope	1958	203R	6	Tkdu	S, E	D, S	812R	20	108.0	6,140	10-1-59	Dr; H7; L; Tchl 45-190; WL(6-21-58) 140
2	14abda	4,400	F. Pearson	1960	350R	6 to 4	Tkdu		D	815		185	6,000	10-27-60	B3; Dr; L; H8-5
2	15baab	5,250	R. Daughenbaugh	1961	400R	10	Tkdu	T, E	Ind	84R	154	30	5,834	4-22-61	B65; Dr; B15; L; P220-400
2	15babb	2,880	L. Thiel	1954	175R	6	Tkdu	J, E	D	5R			5,864.4	4-13-62	Cf; Dr; FD; WS
1	15cccd	100	G. Clarke	1950	60R	18	Ob, Ql	T, E	Irr	418M	20	20.9	5,814.6	4-13-62	A80(1956); A70(1959); Dr
1	16adcd	2,700	F. Dransfeldt	1946	47.8	24	Ql	T, E	Irr	874M	16.6	13.5	5,793.4	4-13-62	A129(1956); A110(1959) H
1	21abaa	5,150	G. Clarke	1950	34.4	48	Opp, Ob, Ql	M	Irr	650R	22	5.6	5,802.3	4-13-62	Dr; FD; WL(8-9-56) 19.0; WL(7-13-59) 14.7; WS
1	22abdd	4,050	Parker Fire Dept.	1959	75R	6	Ql, Tkdu	J, E	D, Fire	25R		31.5	5,869	4-13-62	WL(9-1-59) 6.1 B30; Dr; H7; L; Tchl 60-75; WL(4-1-60) 27.8
1	22baed	4,050	G. Clarke	1955	58.2	18	Ql	T, E	Fire, Irr, Ot			30.1	5,846.9	4-13-62	A50; B39; Dr; L
1	22bcab	3,950	do.	1946	63.4	24	Ob, Ql	T, E	Irr, Ot	565M		24.6	5,836.8	4-13-62	A75; AT; B85; Dr; FD; T8; WS
1	22bcab2	3,940	U.S. Geological Survey	1959	90.0	10	Ob, Ql	M	Ot			27.9	5,839.4	10-28-59	B45; Dr; GE; L; PP; S4; SL
1	22bcab3	3,940	do.	1959	92.5	10	Ob, Ql	M	Ot			28.1	5,838.6	10-28-59	B46; Dr; GE; L; PP; S4; SL
1	22bcbc	3,450	I. Gregg	1959	63.7	18	Ql	T, E	Irr	600R		23.8	5,834.3	4-13-62	A45; M61; Dr; L; S; WL(9-2-59) 18.3
2	22bdbb	3,730	do.	1959	222R	6 to 4	Tkdu	S, E	D	20R		40	5,843	11- -59	B40; Dr; H8-6; L; Tchl 40-222
1	22cbbc	2,250	R. Mardock		56.4	18	Ql	T, E	Irr	1,000R		15.4	5,833.9	4-13-62	A45; B62; Dr; GE; H40; L; WL(9-2-59) 25.8
1	22ccdd	50	R. Williamson		54.8	24	Ql	T, E	Irr, Ot	630M	11.7	12.4	5,840.2	4-13-62	A51; Dr; F; FD; WS
2	24ccdd	20	L. Birch		Spring		Tkdu		S	820R			6,088	6-25-61	
1	27badd	4,230	R. Williamson	1950	51R	18	Ob, Ql	T, E	Irr	850M			5,843.1		A45; Dr
1	27bcdd	2,800	L. Motzenbocker	1950	58R	24	Ob, Ql	T, E	Irr	1,200R		17.1	5,857.4	4-13-62	A100; B58; Dr; F228-58
1	27cccc	70	F. Poliochio	1953	58.9	18	Ql	T, E	Irr	220R	36	2	5,878.6	4-13-62	WL(8-10-56) 33.6; WL(9-3-59) 24.7
															A30; B60; Dr; L; WL(8-10-56) 35.1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above M.S.L.)	Date of measurement	Remarks
1	27cdd	50	4,000 F. Poliochio.	1954	48.3	24	Qp, Ob, O1	T, E	Irr	850R	39	3	5.4	4-13-62	A30; M51; DL; Dr; P19-51; WL(2-26-54)6; WL(8-10-56)18.0; WL(9-3-59)15.2
1	27cdd32	50	3,980	1960	57R	18	Qp, Ob, O1	T, E	Irr	1,000R	25	9	5,866.8	7- -60	B55; Dr; L; P122-58; Replacement for Cdd
1	27cdd33	20	2,700	1954	48.9	18	Qp, Ob, O1	T, E	Irr	600R	17.0	1/2	5,868.1	4-13-62	A45; Dr; WL(7-26-56)26.9; WL(9-3-59)15.2
1	27dbee	1,140	2,630 J. Forkner.	1954	44R	18	Qp, O1	T, E	Irr	300M	17.0	1/2	5,861.7	4-13-62	A65; B42; Dr; FO; GE; L; WL(7-26-56)23.4; WSP
1	30aeed	4,030	700 V. Parker.	1954	34.6	18	Ob	T, G	Irr	400R	12	6	5,960	4-13-62	A16; B26; DL; Dr; P; P121-36; TH; WL(6-28-54)12
1	33adab	3,900	600 H. Stroh.	1950	..	..	Qp	..	Irr	..	..	..	5,920.9	..	U(1952-59) Inadequate
1	34bacb	4,300	3,700 F. Egger.	1948	60.9	24	Ob, O1	T, E	Irr	798M	19.7	1/2	5,875	4-13-62	A72; B62; Dr; FO; GE; H52; L; P128-62; WL(8-10-56)24.2; WL(9-3-59)19.6; WSP
1	34bcab	3,900	4,550 D. Stroh.	1953	57.0	24	Ob, O1	T, E	Irr	430M	9.2	3	5,883.7	4-13-62	A40; Dr; WL(1953)45; WL(9-3-59)23.9
1	34cdab	1,250	3,200	1951	66R	18	Ob, O1	T, E	Irr	640M	19.2	24	5,899.3	4-13-62	A140; Dr; WL(8-10-56)23.7
1	34cdcc	50	3,000	1946	53.3	24	Ob, O1	T, E	Irr	800R	25	..	5,913.8	4-13-62	A180(1951); Adu(1956); Dr; U(1959); WL(8-10-56)24.3; WL(9-3-59)23.6
1	34cdcb	1,230	2,520 E. Rudine.	1952	71R	24	Ob, O1	T, E	Irr	450M	19.8	5	5,915.7	8-10-56	A180; Dr; P115-71
1	34cdce	900	2,500	1958	73.1	18	Ob, O1	N	Irr	..	..	..	5,917.8	4-13-62	B73; DL; Dr; WL(9-3-59)39.2
2	6abaa	5,400	1,460 Western Concrete, Inc.	1960	318R	6 to 4	TKdu	S, E	Ind, Pr	F13R	..	..	5,705	6-30-60	B1; L; H7-5; L; Tcn234-318
2	8bcb	3,700	4,820 L. Phillips, Jr.	1948	121R	6 to 4	TKdu	Cyl, M	D, Or	5R	..	..	5,820.0	4-21-62	B37; Dr; L
2	18baab	5,260	3,100	1948	334R	4	TKdu	Cyl, M	S	4R	8	..	5,947	7-17-57	Dr; FO; L; WSP
2	20adbb	1,300	1,260 H. Webster.	1960	235R	6 to 4	TKdu	S, E	D	B20R	10	..	6,260	7-8-60	DL; Dr; FO; HB-6; P190-220; 205.5
2	27cdde	350	2,750 V. Ramer.	1959	120R	6	TKdu	J, E	D	102	..	..	6,210	12-18-59	Dr; L; Tcn66-111; WSP
2	27ddeb	350	1,250 A. Cerena.	1960	92.4	6	TKdu	J, E	S	20R	..	..	6,220	9-15-60	DL; Dr; Tcn70-92; WSP
2	3caaa	2,400	2,880 L. Phillips, Jr.	1955	332R	4	TKdu	Cyl, M	S	6R	10	..	5,828	..	B4; DL; FO; L
2	3dbec	2,200	1,970	1955	533R	12 to 10	Kdmc	..	S	F1.5M	..	..	5,570	7-17-57	Dr; FO; WSP
2	4aad	4,800	170 M. Fisher.	1955	250R	..	TKdu	..	S	F1M	..	..	5,470	4-26-55	Dr
2	4aaba	5,200	900	1955	810R	6 to 4	Kdmc, Kdlic	..	D, IrrL	F111M	..	..	5,340	4-26-55	AT; B09; Dr; EL; FO; GKE; L; P167-810
2	4aadb	4,550	400	1916	258R	5 to 4	TKdu, Kdmc	J, E	D	F0.7M	..	..	5,490	4-25-55	B27; DL; Dr; T56; Flowed 45 gpm in 1916
2	4abaa	3,350	1,450	1956	322R	6 to 4	Kdmc	J, E	S	B27R	22	..	5,500	5-31-56	B21; DL; Dr
2	4abaa2	5,500	1,430	1957	760R	6	Kdmc, Kdlic	..	D	F300R	..	..	5,515	7-25-61	DL; Dr
2	4abed	4,700	1,550	1953	595R	6 to 4	Kdlic	..	Pond	F5M	..	..	5,498	4-25-55	DL; Dr; T63; Tcn416-595; Bailed 60 gpm
2	4abdc	4,130	1,730	1958	605R	6 to 4	Kdmc, Kdlic	..	Pond	F50R	..	..	5,520	12-8-58	B14; DL; Dr; P148-170; 412-605
2	6adcb	350	1,800 Cuppeco, Inc.	1957	699	8	Kdlic, Klic	S, E	Ind, B	89R	517	23	5,498.0	12-18-57	B72; Dr; EL; L; Tcn526-680; WSP; Flowe 5 gpm

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well casing (feet)	Diameter of casing (inches)	Geologic source	Method of lift, power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
1	C6-68-7bbba	5,190	4,720	Colo. Central Power Co.	1957	41.5	18 Qp,Qb,Ql	T,E	Irr	800R	25	2	5.8	5,406.5	4-11-62	A28-4; B43; Dr; GE; H34; L; P415; WL(7-15-59)5.2
1	7bbbb	5,260	5,020	do	1957	43.0	18 Qp,Qb,Ql	T,E	Irr	1,200R	26	3	5.5	5,405.0	7-15-59	A28; B43; DL; Dr; GE; H43; P415
1	7bbba	4,600	4,200	do	1957	52.5	18 Qb,Ql	T,E	Irr	1,050R	..	..	17.1	5,421.6	4-11-62	A28-4; B50; DL; Dr; GE; H42; P437; WL(7-15-59)14.9
1	7bcd	2,680	4,120	L. Phipps, Jr.	..	14.0	48 Qpp,Qb	N	Irr	..	..	..	5.3	5,422.1	4-11-62	Dr; U(1959); WL(7-15-59)16.6
1	7cacc	1,620	3,680	do	..	38R	24 Qpp,Qb	T,E	Irr	620M	..	..	5	5,426.2	..	A40; Dr
1	7cacc2	1,620	3,780	do	..	23.3	48 Qpp,Qb	C,E Irr, Ot	..	50E	3	..	1.9	5,426.9	4-11-62	Dr; Gy100
1	7cacc3	1,520	3,800	do	..	23R	48 Qpp,Qb	N	Irr	..	..	..	..	5,427.0	..	Dr; Gy100
2	8abbd	4,700	2,130	do	1954	214R	6 to 4 Kdmc	Cyl, G	..	B22R	30	..	60	5,547	2-54	B19; Dr; L
2	8bbbc	4,620	5,300	do	..	373	4 Kdmc	Cyl, H	Ot	..	..	..	8.6	5,563.8	4-5-62	Dr
2	10acab	3,750	1,650	do	..	302R	4 to 3 Tkdu	..	S	PJM	..	..	45.8	5,569	7-17-57	DL; Dr; FD; WSP
2	13acbc	3,320	2,400	do	..	326R	4 Tkdu	Cyl, W	S	8R	5	..	100	5,944.0	1957	B3; Dr; L
2	14bada	3,050	2,670	do	..	800R	10 to 5 Kdmc, Kdlu	Cyl, W	S, D	..	..	..	..	5,996.0	..	..
2	14bada2	3,000	2,670	do	..	1,012	12 to 5 Tkdu, Kdmc, Kdlu	Cyl, W	S, D	..	..	..	..	5,996.0	..	..
2	14dbbc	2,050	2,350	do	1930	800R	10 to 6 Tkdu, Kdmc	T, E	D	150M	..	..	..	5,996	7-16-57	Dr; FD; L; WS
2	16abaa	5,120	1,580	do	1950	465R	12 to 8 Tkdu	Cyl, G	..	2M	..	..	115.8	5,684	7-19-57	B40; Dr; FD; L; WSP
2	17bdad	3,530	2,770	do	1947	354R	4 Tkdu	Cyl, W	S	7R	39	..	130	5,688.0	10-47	B47; Dr; FD; L; P4120; WSP
1	17cbcc	1,380	5,000	do	1960	46R	18 Qpp,Qb,Ql	C, E	Irr	800R	..	..	4.8	5,468	1-3-62	A35; Dr; H42; L; P424-46; WL(5-60)5
1	17ccad	700	4,050	do	..	18.7	216 Qp,Qb	C, G	Irr	..	..	..	11.4	5,492.8	7-29-57	D
1	18abcb	4,460	2,520	do	..	19.6	48 Qpp,Qb	C, E	Irr, Ot	410M	..	..	5.9	5,444.0	4-11-62	A112; B42; Dr; S1
1	18abcb2	4,450	2,530	do	..	48R	18 Qpp,Qb,Ql	T, E	Irr	410M	34.1	1-1/2	9.5	5,443.4	8-12-59	AT; B38; B42; L; TH
1	18dabb	2,400	1,050	do	..	28.2	96 Qp,Qb,Ql	T, E	Irr, Ot	..	..	..	8.1	5,461.2	4-11-62	Dr; U(1957)
1	18dabb2	2,400	1,010	do	..	41.5	18 Qp,Qb,Ql	N	Irr, Ot	..	..	..	7.0	5,460.6	1-2-57	Dr; U(1957)
2	18dabb	1,200	1,180	do	..	350R	6 Kdmc, Kdlu	..	S, Ot	P4.4M	..	..	..	5,477.8	4-21-62	AT; Dr; FD; WSP
1	18dadd	300	220	do	..	31.3	40 Qpp,Qb	C, E	Irr, Ot	280M	9.6	..	..	5,473.3	4-11-62	A70(with 2 wells); Dr; FD; WSP
2	19abba	5,150	2,250	J. Brasley	1950	220R	4 Kdmc	J, E	D, S	10E	9.8	1/6	10.6	5,574	7-19-57	Dr
1	20abba	3,500	4,920	L. Phipps, Jr.	..	31.9	48 Qpp,Qb,Ql	N	Irr	57M	5.3	1-1/2	7.4	5,472.2	5-6-59	AT; D
2	20abbd	3,420	3,300	E. Wilkinson	1911	222R	.. Tkdu, Kdmc	J, E	D, S	F10E	..	..	..	5,514	5-6-59	Dr; FD; P411
1	20baca	3,080	3,380	do	..	7.5	48 x 48 Qp	Cyl, H	N	..	..	..	..	5,503.0	4-11-62	Flow greater in 1911
1	20dcdb	420	1,850	H. Axtel	..	..	36 Qp,Ql(?)	C, M	Irr	..	..	..	..	5,524.3	..	Dr; U(1959)
1	20dcdb2	380	1,790	do	..	13.6	48 Qp,Ql(?)	J, E	D	..	..	..	..	5,529.0	4-11-62	Dr; U(1959)
1	20dcdb3	460	1,750	do	..	11.6	6 Qp,Ql(?)	N	..	..	..	..	9.2	5,526.9	7-15-59	Dr; WL(7-16-59)9.9
2	21addd	2,960	..	L. Phipps, Jr.	..	454R	.. Tkdu	Cyl, W	S	..	..	..	285	6,128	..	Dr; L
2	24bccc	2,930	5,250	do	..	400R	4 Tkdu	Cyl, W	S	2M	14	..	286	6,128	..	Dr; FD; L; WSP
2	27ccac	750	4,300	do	1961	600R	8 to 6 Kdmc	T, E	Irr	60E	73	8	62	5,700	6-5-61	A14; Dr; H11-7; L; Tch280-600
1	31dbbb	2,550	2,380	E. I. DuPont de Nemours & Co.	..	34R	24 Qpp,Ql	T, E	Ind, B, C	153M	8	1	10	5,595	9-16-60	Dr; FD; P425
2	31dbcc	1,500	2,350	do	1900	715R	12 to 8 Kdmc, Kdlc	T, E	Ind, PS	374M	..	..	..	5,600	4-7-60	B42; Dr; FD; L; WS; WSP. Flowed 178 gpm in 1906
1	C6-69-1aadb	4,400	350	Four Corners Uranium Co.	1957	20.3	48 Qpp,Qb	N	Irr	..	..	..	3.2	5,303.9	4-12-62	Dr; U(1959); WL(4-11-59)4.0
2	1acac	3,620	1,700	R. Flood	1960	152R	4 Kdlc	..	D	B15R	22	..	2	5,410	3-8-60	B44; Dr; L; ON(60-152); P448-60
2	1bbbc	4,800	5,050	W. Petty	1959	264R	4 Kdlc	S, E	PS	14R	96	..	108.6	5,538	10-26-59	B12; Dr; GE; H8-6; L; Tch218-264

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, of water	Use of (gpm)	Drawdown (feet/hour)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	Co-69-1	1,930	2,500	1. Becker.	18.0	6	Qpp, Ql(?)	C, E	Irr, L, Sw	50R	1.3	5,407.3	4-12-62	Dr; WL(5-11-59) 4.6
2	2abbb	5,420	2,620	National Development Co.	469R	8 to 6	Kd, Kalc	T, E	PS	830R	130	5,585	10-29-55	B15, Dr; EL, L
1	2bcb	2,650	4,000	do	23R	48	Qp, Qc	T, E	PS	30R	10	5,550	8- -60	B23, Dr; L
1	2abab	1,020	460	J. Janowitz.	32.9		Qp, Qv	N	OK		10.4	5,422.3	4-11-62	Dr; U(1956-62)
1	2bcb	600	180	do	48.2	36	Ql, Qc, Qv	C, E	Irr, Ot	272W	13.2	5,413.7	4-11-62	B15, Dr; WSP
1	3ccca	460	4,900	M. Hildebrand.	23.1	84	Qp	J, E	Irr, S		10.8	5,438.7	7-14-59	A40, D
2	8abca	4,360	2,120	Mannon Associates.	937R	8	Pf	..	PS	P2M	49.6	5,750	7-18-62	B39, Dr; PU; H11-7; L; Q(97-957)
1	8abcb	4,350	2,550	do	22R	24	Qp	N	PS	14R	5.4	5,760	4-11-62	Dr; Q(80x70); WL(3-15-62) 2.0
1	8badb	4,250	2,700	do	28R	24	Qp	J, E	PS	13R	8.8	5,770	4-11-62	B28, Dr; H16, L; WL(8-3-60) 8; WL(3-15-62) 8.4
1	10adaa	3,750	100	E. Green	51R	8	Qp, Ql	S, E	PS	20R	8	5,470.2	4-13-59	B41, Dr; L; Tchl8-41
1	10adda	3,480	50	do	42R	12	Qp, Ql	T, E	Irr	240W	10	5,467.5	..	Dr; U(1959)
1	11aada	4,450	70	J. Janowitz.	48.3	24	Qp, Ql	N	Irr	939R	11.8	5,407.2	4-11-62	B48, Dr; GE; H48; L; Pf(3-48); WL(5-11-59) 11.8
1	11bedc	2,800	4,500	D. Hugans.	56.0	18	Qp, Ql	N	Irr	..	10.9	5,452.6	4-11-62	Dr; U(1959); WL(5-11-59) 7.3
1	11cbab	2,550	4,600	do	50.8	18	Qp, Ql	N	Irr	58W	12.1	5,452.0	4-11-62	AT; Dr; U(1959); WL(7-16-59) 3.1
1	12aaac	4,850	500	J. Stryker	23R	48	Qp, Ql	C, E	Irr	100R	6	5,400	4-20-61	A16, Dr; L; Pf(11-23); WL(7-27-61) 10
2	12acdb	3,100	1,700	J. Filbert	235R	4	Kd11, Klu	T, E	D	..	..	5,430	1953	Dr; FDI; Pf(211-219)
1	12bacc	4,120	3,900	L. Skinner	50R	51R	Qpp, Ql	C, E	D	30R	15	5,398.3	8-30-58	B47, Dr; L
2	12cbdb	900	2,000	R. Moser	512R	6 to 4	Kd11, Klu	Cyl, E	D	B13R	10	5,485	5-25-56	B26; Dr; EL, L
1	14aaac	4,880	400	Gardner Construction Co.	22R	6	Qpp, Ql	S, E	D	15W	9	5,421.4	4-8-58	DL; Dr; Pf(7-22)
2	15ccac	750	1,900	City of Englewood.	9,235	..	..	M	Oll	..	..	5,638	..	Dr; EL; Bottom-hole temperature 162°F
2	21adaa	1,700	100	H. Hines	215R	..	..	..	TW	..	..	5,510	..	Dr; Dry
2	21adab	1,900	450	do	59R	6	Klu	N	TW	..	26.2	5,470	4-1-58	Dr; EL; PU; OH(26-598)
1	21adad	1,560	120	do	39R	7	Ql, Qa	..	D, S	10R	..	5,479.5	..	OD; FDI; L; WS
1	21abbb	2,430	2,440	Denver Water Board	25R	48	Qpp, Ql	T, E	PS, E	924W	21.7	5,446.5	12-3-5	AT; Dr; L; Pf(11-15)
1	23abbb2	2,470	2,400	do	41.4	6	Qpp, Ql	N	TW, Ot	..	5.8	5,446.6	4-11-62	B38, DL; Dr
1	23abbc	2,200	2,630	do	31R	48	Qpp, Ql	T, E	PS, E	713W	18.6	5,446.8	11-19-54	AT; B31, OL; Dr; Pf(12.8-31)
1	23abbc2	2,150	2,500	do	36.8	6	Qpp, Ql	N	TW, Ot	..	..	5,448.1	4-11-62	B40.5; DL; Dr
1	23abbc3	2,350	2,620	do	38.3	6	Qpp, Ql	N	TW, Ot	..	..	5,446.8	4-11-62	B38; DL; Dr; PU; WS; WSR
1	23bcb	1,550	2,620	do	37.8	24	Qpp, Ql	T, E	PS, E	750W	8.0	5,449.5	6-28-55	B33; Dr; L
1	23bcb2	1,450	2,400	do	37.3	24	Qpp, Ql	T, E	PS, E	750W	6.6	5,449.1	6-29-55	B32; DL; Dr
1	23cbab	1,850	1,800	do	27.8	6	Qpp, Ql	N	TW, Ot	..	5.1	5,446.1	4-11-62	B33.5; DL; Dr
1	23cbcd	100	2,000	A. Myrick.	833R	6 to 4	Kd1c, Klu	C, G	Irr	1,100R	..	5,450.5	..	A35, Sump
2	24acab	4,370	1,160	B. Clark	210R	6	Kd1	J, E	D	5R	24	5,555	..	DL; Dr
2	24abdd	4,150	1,470	C. Ramsdell.	850R	4	K1	S, E	D	B10R	29	5,550	8-15-60	B54; Dr; L; Pf(148-210)
2	24acab	3,830	1,700	R. Evans	..	..	..	N	TW	..	..	5,550	..	B54; DL; Dr; EL; Sa
2	24acab2	3,830	1,950	do	900	7 to 4	K1B	S, E	D	13R	70	5,499	3-21-61	B29; Dr; EL; L; H8 5; Sa; EL; Tchl85-900
2	24acba	2,680	2,550	J. Johnson	600	4	K1B, K1a	J, E	D	20E	20	5,539	1956	Dr; WL(1900)+10; WS
2	24acda	3,300	1,560	Hier and Price	1,029R	7 to 4	K1B, K1a	N	PS	B42R	59.4	5,565	8-11-62	B29; DL; Dr; H1-5; Pf(839-1,029); WL(6-62) 60
2	24cccd	130	4,670	M. Rosendale	1,340R	12	K1B, K1a, K1a, K1	N	Oll	F1E	..	5,524.9	7- -2-57	FD; GNL; WSP
1	26acbd	3,500	2,000	Shore	8R	..	Qpp	C, N	Irr	670R	..	5,459	..	A35
1	26bcb	3,100	5,070	Air Products Corp.	26R	..	Qp, Ql	T, E	Ind, Pr	150R	7.4	5,462.0	7-20-57	Dr; Sa; SL
1	26bdba	3,700	3,550	G. Martin	24.8	24	Qp, Ql	T, E	Cons, Ot	360W	1.9	5,457.6	4-12-62	Dr

Table 2.--Records of sealed wells and springs--Continued

Plate number	Location number	Map distance north west (feet) (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drigdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks
C6-69-34adb	1	3,150	Associated Realty	1950	29.5	48	Qp, Ql	N	PS	190.1	4.5	3/4	5.5	5,493.0	7-14-59 AT, B31; D; L; T56; U(1959)
C6-70-2adb	2	1,000	A. Schmitt	1950	102R	6	PC		D	1R		76	7,200	6-23-59 M8; D; G; H7-5; L; OH(26-102)	
4btdb	2	4,500	Mountain High Chapel Church	1959	64R	7 to 6	PC	J, E	D	6R		31.0	7,540	5-2-61 D; F2; G; L; OH(10-64)	
4deab	2	2,500	G. Anderson	1953	47A	8 to 7	PC	Cyl, H	D	83R	21	3	7,230	5-2-61 B9; D; F2; G; L; OH(10-64) WL(5-22-57)19. Water from fracture at 34 feet	
4dada	4	1,650	J. Shelley	1950	112R	7	PC	S, E	D, S	4R	60	12	7,280	5-2-61 D; F2; G; L; OH(12-201); SG P58-106	
4jadb	1	1,900	B. Braconier	1953	50R	8 to 6	Qp, PC	S, E	D	15R		14	7,220	9-12-59 B40; D; G; L	
5dbdb	2	2,200	E. Hobbs	1950	38R	5	PC	S, E	D	1R	30		7,630	5-2-61 B8; D; F2; G; L; OH(20-28); SG	
11abdd	2	4,200	R. Downate	1950	143R	4	PC	S, E	D	4R		228	7,040	11-16-58 D; F2; G; L	
13cbcd	2	1,460	W. Rees	1950	201R	6	PC		D	<1R		10	6,680	11-24-59 B9; D; F2; L; OH(12-201); SG	
24bcb	1	4,230	S. Zahn		16.5	48	Qp	C, E	D, IrrL	5R		4.8	6,765	4-11-62 D; F2; G; L; OH(12-201); SG	
24bcb2	2	4,260	" do "		16R	42	PC	C, E	D, IrrL	2E		8.2	6,760	4-11-62 D; F2; G; L; OH(12-201); SG	
25bdc	2	2,850	M. Olson	1959	91R	6	PC	J, E	D	3R		21	7,300	9-59 T447-92. Water rust-colored after standing; water yielding fractures at intervals 52 to 83 feet	
C6-71-12adb	-	2,700	H. Johnson	1951	100	6 to 5	PC	J, E	D, IrrL	5E	80	3/4	7,980	2-11-59 B6; D; F2; G; L; OH(10-64) WL(5-22-57)19. Water from fracture at 34 feet	
15bcdc	-	2,650	W. Gellan	1950	183	6	PC		D	4R			8,330	Dr; G; H7-5; L; OH(26-102)	
C7-65-1daad	-	2,200	B. McBreen	1950	25R		TKdu	Cyl, W	D, S	3R		175	6,405	1960 Dr	
8cdab	2	400	K. Rosenthal	1960	232R	6 to 4	TKdu	S, E	D, IrrL	B1R	4		6,540	Dr; H8-5; L; Vt186-232	
9bccc	2	2,650	P. Britton	1950	307R	6 to 4	TKdu	S, E	D, S	10R		265	6,595	Dr; H7-5; L; Vt244-307	
9cbcb	2	1,900	A. Reno	1950	320R	6 to 4	TKdu		D, S, IrrL	B1R	20		6,600	Dr; H7-5; L; Vt250-320	
9scdb	2	400	W. Maxwell	1962	315R	6 to 4	TKdu	S, E	D	12R	52		6,600	Dr; H8-5; L; Vt263-315; Sal SL	
14ccce	2	200	G. Bentley		298R	6 to 4	TKdu	S, E	D, IrrL	B1R	14		6,550	Dr; H7-5; L; Vt270-310	
15daa	2	1,200	R. Bentley	1955	300R		TKdu	S, E	D	10R		250	6,580	Dr; H7-5; L; Vt270-310	
16acbc	2	3,500	R. Birney, Jr.	1950	310R	6	TKdu	S, E	D	10R	30		6,610	Dr; H7-5; L; Vt270-310	
16bacc	4	4,150	L. Walliden	1950	298R	6 to 4	TKdu		D	B1R	22		6,600	Dr; H7-5; L; Vt270-310	
29acab	2	4,500	G. McCown	1961	184R	4	TKdu	S, E	S	B1R	20		6,445	Dr; H9-5; L; Vt266-182	
29adaa	2	3,900	" do "	1959	182R	6	TKdu	S, E	D	18R		69	6,435	Dr; H7-5; L; Vt270-310	
29adaa2	1	3,920	" do "		35R	24	Qp	S, E	D	150E	10		6,435	Dr; H7-5; L; Vt270-310	
29cbcc	1	1,500	A. Mothachopf		28R	48	Qp, Ql	C, E	Irr	300E	16	6	6,305	Dr; H7-5; L; Vt270-310	
29cbcd	1	1,500	" do "	1952	42R	18	Qp, Ql	T, E	Irr	300E	16	6	6,309	Dr; H7-5; L; Vt270-310	
29cdca	1	350	E. Walliden	1954	50R	18	Qp, Ql	T, E	Irr	110E	24	1/4	6,332	Dr; H7-5; L; Vt270-310	
29cdcb	1	350	E. Walliden	1950	30R	48	Qp, Ql	T, E	Irr	220W	4	1/4	6,330	Dr; H7-5; L; Vt270-310	
30bab	2	5,120	E. Obroslineki	1950	120R	5	TKdu	J, E	D, IrrL	12R	15		6,250	Dr; H7-5; L; Vt270-310	

Table 2. --Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
1	10465-10466	2,000	J. Rothachopf	1954	70R	48 to 18	Qp, Ob, Ol, TKdu	C, E	Irr	100E	12	7	6,300	6-30-61	A23 (with 2 wells); B56; D01; L1; TH; WL(1-61)5
1	10467	1,800	do	1953	54R	18	Qp, Ob, Ol, TKdu	T, E	Irr	200E	25	7	5,285	6-30-61	B56; D1; GE; TH
1	10468	2,600	E. Boules	1954	66R	16	Qp, Ob, Ol, TKdu	T, E	Irr	150R	21	6	6,260	4-13-62	A40; B44; D1; GE; L1; P111-58; B01; WL(9-10-55)15; WL(7-1-61)7.6
2	10469	1,000	C. Verdas	1956	185R	16	TKdu	T, E	Irr	150E	56	71.9	6,440	7-31-62	A20; B8; D1; GE; H38; P184-164; WL(12-17-56)163; Drilled to 345 feet; plugged back to 185 feet
2	10470-10471	5,000	L. Record	1959	160R	5	TKdu	S, E	D	B15R	60	60	5,976.6	1- -59	D1; PD; MSP
1	10472	4,200	M. O'Brien	1946	38R	24	Qp, Ob, Ol	T, M	Irr, Or	250R	16	21.5	5,957.6	4-13-62	B38; D1; TH; U(1956-59)
1	10473	4,400	do	1955	75R	18	Qp, Ob, Ol	T, E	Irr	780M	16	25.5	5,925.6	4-13-62	A70; B74; D1; GE; L1; WL(7-26-56)11.6
1	10474	5,150	J. Willis	1958	80R	4	Qp, Ob, Ol	J, E	D	20R	2	21	5,915.8	7-17-58	B76; D1; GE; L1; P150-80
2	10475	4,050	M. Swinney	1956	80R	6	TKdu	Cyl, H	S	420M	14	4.2	5,919.2	9-15-59	D1
1	10476	2,800	do	1956	61R	18	Qp, Ol	T, E	Irr	420M	14	11.8	5,919.8	4-13-62	A100; B61; D1; GE; L1; P127-61; WL(8-10-56)19.7
1	10477	1,550	M. Christensen	1955	57R	24	Qp, Ob, Ol	C, M	Irr	662M	6.9	1/4	5,921.6	9-15-59	A94 (with 2 wells); B57; D1; GE; P130; WL(8-13-56)13.0
1	10478	800	do	1947	50R	24	Qp, Ob, Ol	T, E	Irr	160M	25	10.9	5,928.7	8-13-56	D1; GE; L030
1	10479	50	D. Vestal	1954	48R	24	Qp, Ob, Ol	T, E	Irr	250R	20	11.8	5,932.3	9-18-59	A450 (with 6 wells); D1
1	10480	2,550	M. Christensen	1946	40R	18	Qp, Ob, Ol	T, E	Irr	250R	20	11.8	5,921.8	9-15-59	A25; B40; D1; GE; L030
2	10481	1,330	D. Vestal	1946	Spring	18	TKdu	TKdu	S	71E	1	1	5,921.5	9-15-59	
1	10482	4,400	M. Swinney	1956	Spring	18	Qp, Ob, Ol	Qp, TKdu	S	71E	1	1	6,002.9	9-15-59	
1	10483	2,900	do	1956	Spring	18	Qp, Ob, Ol	Qp, TKdu	D, S	71E	1	1	6,016.6	9-15-59	B36; D1; L
1	10484	2,000	do	1956	60R	4	Ol, TKdu	Cyl, G	S	500M	18	20	5,957.2	1956	B65; D1; GE; H49; L1
1	10485	3,100	D. Vestal	1956	65R	24	Ob, Ol	T, E	Irr	560M	18	24.3	5,946.4	4-13-62	L020; WL(8-13-56)24.4
1	10486	4,100	do	1946	64R	24	Ob, Ol	T, E	Irr	1,200R	18	24.7	5,948.1	9-18-59	D1; D1; GE; WL(1946)11.1
1	10487	1,750	S. Millard	1953	64R	4	Ob, Ol	J, E	D	31R	1	29	5,951.7	10- -53	B64; D1; D1
1	10488	70	P. Losey	1947	41.6	20	Qp, Ob	N	Irr	150E	1	25.8	5,981.5	4-13-62	D1; GE; H42; U(1959); WL(9-21-59)26.3
1	10489	70	do	1956	58R	18	Qp, Ob, Ol	T, E	Irr	306M	11.8	6.1	5,961.9	4-13-62	A60; B56; D1; F; GE; H42; L1; P110-56; WL(8-13-56)18.5; WL(9-21-59)9.4
1	10490	2,500	S. Millard	1949	52R	18	Ob, Ol	N	N	1	1	37	5,965.7	1949	B48; D1; Yield insufficient for large scale irrigation
1	10491	2,600	do	1956	59R	18	Ob, Ol	T, E	Irr	252M	7.2	33	5,952.5	4-13-62	A55; B58; D1; GE; H42; L1; P115-60; TH; WL(7-25-56)28.4; WL(9-18-59)28.6
2	10492	90	do	1953	273R	18	TKdu	J, E	D, Irr, L	5R	30	60	6,013.3	4-12-53	D1

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use Yield of water (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
C7-66-														
1	15abcc	4,200	F. Szymanski	1951	Spring	300	Qpp	C, E	D, PSE	..	..	6,016.6	9-21-59	C
2	15adbb	3,900	..	..	Spring	..	TKdu	..	..	..	..	6,007.3	9-22-59	C
1	15adbb2	3,900	..	1949	90R	..	Qs(?) TKdu	J, E	..	..	27	6,000.8	1959	..
2	15adbb3	3,700	..	..	Spring	..	TKdu	..	..	..	..	6,021.2	9-21-59	..
1	15adbc	3,500	..	..	69.1	40 x 40	Qs, TKdu	M	..	..	43.8	6,021.7	9-21-59	D, U(1959)
1	15adcb	3,250	..	1959	120R	6	Qs, TKdu	J, E	D	35	..	6,018.9	1959	Dr
1	15badb	4,500	..	1956	62.3	18	Qp, Ql	C, E	Irr 800R	8	10.7	5,967.2	4-13-62	A100; B58; Dr; L; P15-60; TH; WL(8-13-56) 6.6; WL(9-22-59) 7.2
1	15bdcc	2,950	..	1951	..	300	Qpp	C, E	8, P, Irr, E	..	..	5,982.1	9-22-59	A30; D
1	15cdcc	280	D. Vestal	1957	68R	18	Qp, Ql	T, E	Irr, E 400R	..	..	5,999.0	9-22-59	B68; DL; Dr
1	15cdcb	200	..	1949	62.8	18	Qp, Ql	T, E	Irr 1,200R	23	..	6,004.7	4-13-62	Dr; WL(9-22-59) 16.7
2	19aacc	4,850	E. Scott	1959	271R	4	TKdu	Cyl, M	..	..	160	6,275	10-5-59	B3; Dr; L; WSP
2	19bdab	3,150	E. Driver	1931	225R	5	TKdu	Cyl, M	D, S	..	..	6,440	7-5-59	Dr; FD; CH(60-225); WSP
1	22baac	4,900	D. Vestal	1956	58R	24	Qp, Qb, Ql	T, E	Irr 480M	15	..	6,007.8	4-13-62	B57; Dr; GE; H40; L; Ss40; WL(5-25-56) 13
1	22cccd	800	M. Bechtold	1946	69R	18	Qp, Qb, Ql	T, E	Irr 1,300M	18	72	6,028.9	4-21-62	A135; B69; DL; Dr; FD; GE; WL(8-26-59) 20; WS
1	22cdcc	250	R. Clark	..	70R	18	Qb, Ql	T, E	Irr 1,108M	13.5	30	6,030.3	9-22-59	A35; B67; Dr; FD; L; WSP
1	25aead	4,800	E. Bowles	1954	10R	..	Qp, Qb, Ql	T, E	Irr, E 600R	4	24	6,195	7-1-61	A70; D
1	27bcd	2,700	C. Converse	..	65R	16	Qb, Ql	T, E	Irr 570M	..	..	6,044.2	4-13-62	A75; B65; WL(9-22-59) 16.0
1	27bdad	2,700	..	1950	70R	..	Qb, Ql	T, E	Irr 700R	57	..	6,043.4	4-13-62	A70; Dr; GE
1	27cdad	970	C. Everitt	..	75R	18	Qp, Qb, Ql	T, E	Irr 850R	47	..	6,054.1	4-13-62	H32; L; P130; WL(8-14-56) 9.7; WL(9-25-59) 9.7
1	27daba	2,550	J. Habinck	1959	270R	4	TKdu	J, E	D	42	..	6,122.2	9-22-59	B1; Dr; L; Tch170-270; WSP
2	32ddbc	800	J. Arends	1956	220R	6	TKdu	J, E	D	..	..	6,120	7-5-56	Dr; L; P1106-220
1	34acda	3,200	R. Walker	1952	45R	18	Qp, Qb, Ql	J, E	D	..	..	6,069.1	8-14-56	A57; GE; H40
1	34acdb	3,000	..	1952	50.9	24	Qp, Qb, Ql	T, E	Irr 271M	38.3	1/2	6,069.7	4-13-62	A81; Dr; FD; WL(9-23-59) 16.0; WS
1	34bdac	1,700	..	1954	15R	..	Qp, Qb, Ql	C, G	Irr 750R	..	..	6,064.8	9-24-59	A20; D; Sump
1	34bdad	1,450	H. Kelly	1950	66R	18	Qp, Qb, Ql	T, E	Irr, S 1,000R	20	..	6,077.6	4-13-62	A24; B63; Dr; L
1	34cdad	700	M. Hewins	1956	55R	24	Qp, Qb, Ql	T, E	Irr 460R	24	..	6,084.5	4-13-62	A60; B52; Dr; L; WL(8-14-56) 13.0; WL(9-23-59) 11.2
2	34dadd	100	E. Larreau	1956	465R	4	TKdu	S, E	D	5	73.4	6,100	9-30-59	B15; Dr; L; P1160-200, 290-465
2	35ebcc	1,500	R. Walker	..	Spring	..	TKdu	..	S	..	..	6,110	9-23-59	..
C7-67-														
2	3abed	4,200	H. Haggins	1957	1,795R	8 to 6	Kdmc, Kd1c	S, E	PS, Ot	63M	103	6,430	1-12-60	AT; B2; Dr; EL; FD; GR; L; Tch860-960, 1,260-1,600, 1,680-1,792; WS; WSP
2	3abed2	4,200	..	..	801R	8 to 6	TKdu	S, E	PS, Ot	B18R	20	..	7-5-61	DL; Dr; EL; FD; GR; Tch494-800; WS; WSP
2	15abcc	4,250	B. Williamson	1958	174R	4	TKdu	S, E	D, Irr, L	15R	106	6,401.6	9-25-59	B1; DL; Dr; Tch109-174; WL(2-18-1958) 32; WSP
2	15badc	4,450	J. Lagan	1957	208R	4	TKdu	S, E	D, Irr, L	12R	..	6,160	9-15-59	B1; Dr; L; Tch81; WSP
2	17accc	3,100	T. Walker	1956	369R	6 to 5	TKdu	Cyl, E	S	88R	43	6,104.5	9-1-56	B4; Dr; P109-369, 4
1	19bbbc	4,800	..	1956	80.5	24	Qp, Qb, Ql	T, E	Irr	550R	40	5,880	4-11-62	Allu(With 2 wells); B93; Dr; L; P133-60; WL(5-7-56) 12
1	19bbcd	4,000	..	..	55.0	24	Qp, Qb, Ql	T, E	Irr	550R	..	5,855	4-11-62	Dr; WL(7-9-59) 16.7

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
2	C7-67-25bda	3,150	2,850 M. Murphy	1958	100R	6	TKdu	S,E	D	12R	50	200	6,500	7-18-58	Dr; L; Pt245-260, 290-300
2	26bcb	3,850	4,630 H. Springer	1958	800R	6	TKdu, Kdu	S,E	Inst	840R	26	221.3	6,198.9	10-6-59	B2; Dr; H11-7; L; Tch342-797; WL(4-23-58)200
2	27bad	4,900	1,550	1958	450R	4	TKdu	N	Ol	822R	34	169.3	6,169.8	4-5-62	B2; Dr; H7-5; L; Tch309-450
2	27bdeb	3,200	3,950 J. Cramer	1956	100R	4	TKdu	J,E	D	882R	70	60	6,041.1	11-1-56	B1; Dr; Tch207-300
2	C7-68-1bda	3,080	4,050 L. Phipps, Jr.		230R	4	TKdu	Cyl, W	S	7M	12	62.1	6,000	8-27-57	M4; Dr; L
1	2dcb	1,950	1,300		100R	12 to 5	Op, TKdu	Cyl, W	S			3.0	5,865	8-27-57	MD; PD; WSP
2	4abba	5,100	2,300 Louviers Mutual Water Co.	1960	800R	12 to 8	Kdmc, Kdlc	T,E	PS	273M	74	58.9	5,670	8-15-60	B107; Dr; PD; L; Tch194-232, 288-800; MS
2	4bdbc	3,600	3,900 E. J. DuPont de Nemours & Co.	1954	850	12 to 8	Kdmc, Kdlc	T,E	PS, Ind	310M		143.7	5,791.6	4-4-59	B32; Dr; L; Pt149-375, 474-490, 517-532, 552-586, 623-741, 790-822
2	5dabb	2,520	1,010 Eldorado, Inc.	1958	861R	8	Kdmc, Kdlc	N	Ol	870R	100	176.0	5,760	4-5-62	B39; Dr; EL; L; Tch350-861
2	11cbac	2,000	4,600 F. Navratil	1958	229R	4	TKdu	Cyl, E	D, IrrL	811R		100	5,780	5-23-58	B2; Dr; L; Tch160-229
2	11dbad	2,000	1,550 Sedalia Land Co.	1957	2,087R	9 to 6	TKdu, Kdmc, Kdlc	N	Ol	73B	156	197.8	5,942.8	4-5-62	B1; Core; Dr; EL; GRL; PP; Sa; SL; Tch50-1,040. Plugged back to 1,354 feet
2	13abca	4,480	2,050 T. Walker		450R	4	TKdu	Cyl, E	S	3M		250	6,079.4	9-25-59	Dr; WSP
1	13cdcd	200	3,550 Sedalia Water Co.	1900	45.8	276	QB, Q1	T,E	PS	500E	3.3	25.8	5,840	7-9-59	Dr; PD; WL(9-16-60) 29.1; WS
2	14daca	1,700	950 Santa Fe Railway Co.	1899	643R	8 to 4	Kdlc	N	N				5,840.1		B10; Dr; L; Plugged in 1959
2	27bbaa	5,000	3,970 Jesuit Retreat Home	1956	995R	8 to 6	Kdmc, Kdlc	S,E	D, S	830R	41	212.5	6,067.8	9-25-59	B12; Dr; EL; L; Tch723; WL(9-24-56) 200
1	3bcdad	800	2,900 Williams		45.4	18	QPP, Q1	N	Irr			5.7	5,865	4-11-62	Dr; U(1959); WL(7-6-59)7.7
1	C7-69-2abaa	5,000	1,550 Helmer Bros.	1930	30R	48 x 48	Qp	J,E	D, S	7E		3	5,630	7-6-61	D. Ury 1955-56
2	2accc	2,660	2,400 T. Helmer	1956	490R	4	Ks, Kly	J,E	D, IrrL, E	13R	22	85	5,800	1-6-61	Dr; EL; L; Tch259-352, 398-490; WL(11-16-56)108. Water contains iron
1	2daba	2,550	950 A. Kominsky		27R		Qp	J,E	D, S	7E		3	5,650	7-6-61	D contains iron
2	21acbc	3,660	2,450 U.S. Government		Spring		PC						5,980		F2; SG; WSI
2	21acbc	1,470	2,330		Spring		PC			F			6,000		SG; WSI
2	C8-65-6cabd	2,000	3,600 M. Larsen	1957	270R	4	TKdu	S,E	D, IrrL	13R	28	192	6,430	4-23-57	B1; Dr; L; Tch68
2	6caba	1,100	4,900 D. Ranen	1959	223R	6 to 4	TKdu	N	D	812R	53	85	6,400	7-7-59	Dr; H8-5; L; Pt109-132, 188-223; U(1961)
2	8cabb	1,000	5,000 F. Arnold	1958	135R	6	TKdu	J,E	D, S	820R	30	60	6,500	4-11-58	Dr; PD; H7; L; Pt194-135
2	9dccc	200	2,600 G. Mathias	1958	176R		TKdu	J,E	D	10R	40	54	6,685	11-1-58	Dr; H6; L; Pt54-57, 160-170, 175-176
2	16dacc	1,500	1,000 P. Davis	1958	182R	6	TKdu	L,E	D, S, IrrL	20R		118	6,775	7-9-58	Dr; PD; H8; L; Pt118-182
-	32dacc	700	1,900 C. Konkel	1957	145R	6	TKdu	S,E	IrrL, D	12R		97.4	6,762	7-3-61	B2; Dr; PD; L; Pt100-145

Table 2.---Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-south (feet)	Map distance east-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield of (gpm)	Drawdown (feet) (hours)	Depth to water (feet)	Altitude of land surface (in feet above m.s.l.)	Date of measurement	Remarks
CB-46-																
2	1bbbc	4,800	5,150	G. Vandervelt.	1960	229R	6 to 4	Tkdu	S,E	D,S	818R	25	115	6,340	5- 3-60	B1; Dr; FD; L; Tch199-429
1	2ccdc	300	4,550	C. McLain.	1950	64R	18	Qp,Qb,Ql	T,E	Irr	400R		7.3	6,126.7	9-24-59	A20; B63; Dr; GR; L; U(1959); WL(8-13-56)7.8
1	3abba	5,000	2,000	T. Halm	1950	70R	18	Qb,Ql	T,E	Irr,E	550R	28	25.1	6,108.3	4-13-62	A55; B59; Dr; GR; H36; L; WL(1956)32; WL(9-24-59)31.2
1	1abba	4,500	1,500	do	1956	66R	18	Qp,Qb,Ql	T,E	Irr	1,050R		9.9	6,091.8	9-24-59	A50; Dr; GR; H36
1	1acaa	3,900	1,600	do	1956	54.4	18	Qp,Qb	C,E	S,Irr, Ot	800R		.3	6,097.8	4-13-62	Dr; GR; TH; Inauf- ficient yield for large-scale irrigation
1	1adca	600	700	C. McLain	1956	54R	18	Qp,Qb,Ql	T,E	Irr	1,000R		5.7	6,116.4	4-13-62	A60; B52; Dr; L; WL(8-13-56)6.9
1	10abab	5,150	1,660	Cherry Creek Bird Farm	1957	52R	6	Ql	J,E	D,S	7M		27.1	6,145.4	2- 4-58	Dr; FD; WS; MSR
1	11bbac	4,900	4,350	C. McLain.	1935	72R	24	Qp,Ql	T,E	Irr	400R	50	8.3	6,143.4	4-13-62	A20; Dr; GR; L; U(1959); WL(9-24-59)14.8
2	12bbcc	4,700	4,550	F. Green	1958	195R	4	Tkdu	T,E	D,Irr,L	818R	66	74	6,300	1-13-58	B1; Dr; L; Tch85-195
1	12bbcc	2,800	5,100	F. Newton.		12R		Qp,Qb	Port,G	Irr				6,225		Sump (with chad they hold 45 acre-feet)
1	12bbad	2,100	4,200	do		12R		Qp,Qb	Port,G	Irr				6,220		Sump
2	17bbada	4,400	2,900	A. Michelson	1958	326R	4	Tkdu	Cyl,G	S	810R	128	112	6,605	9-18-58	B1; Dr; H5; L; Tch221-308
2	17ddad	900	100	do		Spring		Tkdu		S	P5R			6,500	7- 3-61	
CB-67-																
2	1dced	200	2,250	C. Christensen	1959	628R	6 to 4	Tkdu	S,E	D	812R	55	420	6,490	5-15-59	Dr; H9-5; L; Tch336-628
2	3cccd	1,450	3,350	G. Schweiger	1957	352R	4	Tkdu	S,E	Irr,L	12R	45	219.6	6,290	10-22-59	Dr; H5; L; Tch252-352
2	7ccaa	2,650	2,900	C. Blevins	1958	224R	4	Tkdu	Cyl,E	D	813R	85	85	6,282.9	7-11-58	WL(11-57)223
2	8ccdb	600	4,300	F. Moyer	1959	286R	4	Tkdu	S,E	D	10R		251.5	6,412.8	9-28-59	Dr; H8-5; L; Tch134-224
1	11baab	5,000	3,200	Town of Castle Rock.	1948	43.2	12	Qp,Qb,Ql	N	Ol			10.5	6,165	4-11-62	WL(11-59)150; WS
2	11baab2	5,020	3,210	do	1962	800R	7 to 4	Kdmc	T,E	PS	250R		94.5	6,165	10- 1-62	Dr; O(1958-62) B75; DL; Dr; P(290-474)
1	11baca	4,600	3,400	do	1948	90R	16	Qb,Ql	T,E	PS	150R		41.4	6,185	2-27-58	WL(8-62)44
2	11bbcb	3,500	5,050	V. Perez	1956	352R	4	Tkdu	Cyl,E		812R	47	100	6,248.1	10-18-56	B34; Dr; L
2	11bbcb	1,700	1,300	Town of Castle Rock.	1954	1,608R	6 to 5	Kdmc,Kdlc	T,E	PS	175R		110P	6,240.1	3- -54	B62; Dr; FD; L; WS; MSR
1	11bbac	2,100	1,700	do	1932	55.5	48	Ql	N	PS			32.4	6,230	4-11-62	U(1953-58); WL(2-27-58)36.0
1	11dbbb	1,700	1,700	Douglas County Fairgrounds												
1	11dbdd	1,600	1,400	Town of Castle Rock.	1932	90R	48	Ql	T,E	S,Irr	75R		35	6,247	2-27-58	Dr
2	16cbdd	2,240	4,940	J. Abercrombie	1953	9,926R			N	Oil				6,569		Dr; FD; WL(2-58)33; WS; MSR
2	28aaad	4,900	300	Continental Divide Racetrack.	1959	506R	8 to 6	Tkdu	S,E	Com	838R		110	6,494.3	6-10-59	Dr; H11-7; L; Tch278-506

Table 2.--Records of selected wells and springs--Continued

Plate number	Location number	Map distance north-west (feet)	Owner or user	Year completed	Depth of well (feet)	Diameter of casing (inches)	Geologic source	Method of lift, and power	Use of water	Yield (gpm)	Drawdown (feet)(hours)	Depth to water (feet)	Altitude of land to surface (in feet above m.s.l.)	Date of measurement	Remarks	
1	08-68-labcc	4,200	2,450	Curtis Bros.	1936	48R	36 to 18	Qpp,Qb,Ql	T,G	irr	570M	14.1	1/4	2.9	5,880.4	4-11-62 B46; Dr; GE; L; P18-40; ML(7-6-59)5.4
2	5bcb4	3,500	4,820	J. Williams	1945	25R	60	PC	P,E IrrL	2R	.	.	3.2	6,850	7-8-61 D; FD; Gr. Converted spring	
2	6cadd	1,650	2,800	Conservative Baptist Camping Assn.	1935	35R	4	PC	J,E	Inst.S	10E	.	.	2	7,025	7-8-61 Dr; Gr; L
2	09-69-1cbb6	2,540	5,130	L. Anderson	1945	14.1	48	PC	J,E	D	3E	.	.	8.9	7,305	7-3-61 D; Gr
2	1cbbb2	2,450	5,000	do	1954	18R	36	PC	J,E	D	5E	.	.	11.0	7,315	7-3-61 Dr; Gr; P12-1B
2	jdcaa	1,260	1,640	U.S. Government.	.	Spring	.	PC	Cyl,E	D	7E	.	.	.	7,530	7-3-61 FD; Gr

Altitudes shown are for land surface at the well or test-hole site. Formational names have been added to the logs by the authors, and drillers' terms have been retained where possible. Information shown in brackets, [], was taken from electric or other logs of the same well. Thickness is in feet. Depth is in feet below land surface. Yield is in gpm (gallons per minute).

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CI-65-7cbb. Alt. 5,052 ft.					
Eolian sand:					
Sand	6	6	CI-66-4cdcd. --Continued		
Verdos Alluvium:			Clay and shale	69	279
Clay	5	11	Lower conglomerate:	5	284
Clay, sandy	4	15	Sand	45	329
Sand	18	33	Clay	15	344
Clay	11	44	Clay	16	360
Dawson Formation (upper part):			CI-66-4dcad. Alt. 5,110 ft.		
Shale	46	90	Eolian sand:		
Shale, sandy	10	100	Sand	25	25
Shale, soft, gray	63	163	Clay	2	27
Dawson Formation (lower part):			Sand	7	34
Middle conglomerate:			Clay	6	40
Sand	19	182	Sand	2	42
Shale	4	186	Dawson Formation (upper part):		
CI-65-15baab. Alt. 5,219 ft.					
Eolian sand:					
Sand	16	16	Clay, hard	11	53
Clay	7	23	Shale	47	100
Sand	51	74	Dawson Formation (lower part):		
Dawson Formation (upper part):			Middle conglomerate:		
Clay	6	80	Sandstone	8	108
Shale	13	93	Shale	2	110
Sandstone, soft	17	110	Sandstone	14	124
Shale	14	124	Shale	38	162
Sand	6	130	Sand	24	186
Shale	4	134	Shale	2	188
Sand	4	138	CI-66-4dcgd. Alt. 5,105 ft.		
Shale	16	154	Eolian sand:		
Rock	1	155	Sand, fine	30	30
Sand, dirty	7	162	Dawson Formation (upper part):		
Rock	5	167	Clay, yellow	15	45
Shale	9	176	Clay, gray	8	53
Dawson Formation (lower part):					
Middle conglomerate:			Rock	2	55
Sand	48	224	Clay, gray and yellow	22	77
Shale	4	228	Rock	1	78
CI-65-23cag. Alt. 5,148 ft.					
Piney Creek Alluvium:					
Clay, sandy	6	6	Clay, brown and gray	17	95
Verdos Alluvium:			Rock	2	97
Gravel	2	8	Dawson Formation (lower part):		
Clay	3	11	Clay, sandy, gray and		
Gravel	43	54	brown [Middle conglomerate, 97 to 170 feet]	25	122
Dawson Formation:			Shale, blue	18	160
Clay	2	56	Sandstone	10	170
Shale	1	57	Shale, blue	190	360
CI-65-26bdd. Alt. 5,172 ft.					
Piney Creek Alluvium:					
Soil	7	7	Lower conglomerate:		
Verdos Alluvium:			Sandstone	4	364
Gravel	23	30	Shale, blue	16	380
Clay	5	35	Sandstone	3	383
Gravel	9	44	Laramie Formation:		
Clay	1	47	Shale, blue	36	419
Gravel	17	64	Shale	301	720
Clay	2	66	[Well plugged back to 420 feet.]		
Rocks	1	67	CI-66-5abba. Alt. 5,005 ft.		
Dawson Formation:			No record		
Shale	1	68	Dawson Formation (upper part):		
CI-65-27ddd. Alt. 5,188.5 ft.					
Piney Creek Alluvium:					
Clay, sandy	9	9	Shale	10	60
Verdos Alluvium:			Sand	7	67
Gravel	17	26	Shale	5	72
Clay	6	32	Shale, light-blue	8	80
Gravel	9	41	Shale, hard, black	16	96
Rock	1	42	Dawson Formation (lower part):		
Clay	4	46	Sandstone, silty, clayey,		
Rock	2	48	white [Middle conglomerate, 96 to 101 feet]	7	103
Clay, sandy	18	66	Sandstone	4	107
Dawson Formation (upper part):			Shale	19	122
Shale and sand	18	84	Sandstone	19	131
Rock	2	86	Shale	4	174
Dawson Formation (lower part):					
Middle conglomerate:			Shale	4	178
Sand	36	122	Rock, hard	1	179
Shale	2	124	Shale, hard	48	227
Sand	22	146	Shale, sandy, sticky	8	235
Rock	1	147	Lower conglomerate:		
Sand	5	152	Sand	15	250
Shale	14	166	Shale	7	257
CI-66-4cdcd. Alt. 5,075 ft.					
Eolian sand:					
Sand	15	15	CI-66-5bbbc. Alt. 4,972 ft.		
Dawson Formation (upper part):			Piney Creek Alluvium:		
Clay	10	25	Soil and clay	8	8
Sandstone	6	31	Broadway and Louviers Alluvium,		
Clay, brown and yellow,			undifferentiated:		
and shale	14	45	Sand and gravel	27	35
Dawson Formation (lower part):			CI-66-5abbc. Alt. 4,969 ft.		
Sandstone [Middle conglomerate, 45 to 210 feet]	52	97	Broadway Alluvium:		
Clay, blue, and sandstone	85	182	Soil	4	4
Shale, sandy, contains streaks of sandstone	28	210	Gravel	5	9
CI-66-6acac. Alt. 4,975 ft.					
Piney Creek Alluvium:					
Clay	5	5	Louviers Alluvium:		
Broadway Alluvium:			Clay	2	11
Gravel	12	17	Gravel	25	36
CI-66-6acac. Alt. 4,977 ft.					
Broadway Alluvium:					
Clay	3	3	Rock, sandy	3	19
Gravel	4	7	Dawson Formation:		
Sand	12	19	Shale	8	47
Dawson Formation:			CI-66-6dbbc. Alt. 4,976 ft.		
Clay	4	23	Broadway Alluvium:		
Shale	17	40	Soil	2	2
CI-66-6dcgc. Alt. 4,961 ft.					
Broadway and Louviers Alluvium,					
undifferentiated:			Gravel	8	10
Gravel	28	28	Sand	9	19
Clay	1	29	Louviers Alluvium:		
Sand, blue	1	30	Clay	3	22
Dawson Formation:			Gravel	16	38
Sandstone, gray	1	31	Clay, sandy	3	41
Clay, gray	3	34	Dawson Formation:		
Shale	1	35	Shale	1	42

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CI-66-7abba. Alt. 4.982 ft.		CI-66-12bbcb2. --Continued		CI-66-17aapb. --Continued	
Piney Creek Alluvium:		Dawson Formation (lower part):		Lower conglomerate:	
Surface	5 6	Middle conglomerate:		Sandstone	5 243
Clay, gray	16 22	Rock: contains some gravel		Clay	12 255
Louviers Alluvium:			17 137	Sand	5 260
Sand	5 27	CI-66-12bbcb1. Alt. 5.042.0 ft.		Clay	15 275
Clay, gray	11 38	Eolian sand:		Shale, sandy	5 280
Sand and clay	22 50	Sand		Clay	20 300
CI-66-7bcab. Alt. 4.978 ft.		Verdos Alluvium:		CI-66-17cbcc. Alt. 5.028 ft.	
Piney Creek Alluvium:		Clay		Eolian sand:	
Topsoil, silty, gray	4 4	Sand		Sand, fine	5 5
Broadway and Louviers Alluvium, undifferentiated:		Clay		Louviers Alluvium:	
Sand, medium, to fine gravel	5 10	Sand		Clay, sandy	11 16
Sand, coarse, and fine gravel	5 15	Clay		Gravel	10 26
Gravel, fine, very clean	15 30	Gravel		Clay	11 37
Sand, coarse, and fine gravel	5 35	Gravel		Sand, fine	2 39
Sand, coarse, gravelly, and fine gravel	19 54	Dawson Formation:		Dawson Formation:	
Dawson Formation:		Shale		Clay	1 40
Sandstone, hard, cemented, shaly	.6 54.6	CI-66-12cbba. Alt. 5.041 ft.		Shale	3 43
CI-66-7cbba. Alt. 4.983 ft.		Eolian sand:		CI-66-18aac. Alt. 4.993.4 ft.	
Piney Creek Alluvium:		Sand		Broadway and Louviers Alluvium, undifferentiated:	
Soil	4 4	Verdos Alluvium:		Clay	3 3
Clay, hard	14 18	Clay		Gravel	27 30
Broadway Alluvium:		Sand		Dawson Formation:	
Sand, fine	14 32	Clay		Clay	9 38
Louviers Alluvium:		Gravel		Shale	4 42
Quicksand	6 38	Clay		CI-66-18dbcc. Alt. 5.005 ft.	
Gravel, coarse	19 57	Gravel		Broadway Alluvium:	
Dawson Formation:		Shale		Clay	3 3
Shale, blue	3 60	CI-66-12dccc. Alt. 5.052 ft.		Gravel	11 14
CI-66-7dbba. Alt. 4.987 ft.		Eolian sand:		Louviers Alluvium:	
Broadway Alluvium:		Clay		Clay	4 18
Gravel	11 11	Sand, fine		Gravel	27 45
Louviers Alluvium:		Verdos Alluvium:		CI-66-20cddd. Alt. 5.050 ft.	
Clay	2 13	Clay		Eolian sand:	
Gravel	17 30	Sand, fine		Soil, sandy	8 8
Dawson Formation:		Clay		Sand	4 12
Shale	2 32	Sand, fine		Louviers Alluvium:	
CI-66-7dccb. Alt. 4.992 ft.		Clay		Clay	2 14
Broadway and Louviers Alluvium, undifferentiated:		Sand, hard		Sand	10 24
Topsoil	4 4	Dawson Formation:		Dawson Formation (upper part):	
Gravel	57 61	Shale		Shale	16 40
CI-66-9cccc. Alt. 5.050 ft.		CI-66-13bbcd. Alt. 5.041.5 ft.		Sandstone	5 45
Eolian sand:		Eolian sand:		Shale	100 145
Sand	10 10	Clay		Dawson Formation (lower part):	
Clay	4 14	Sand, fine		Middle conglomerate:	
Sand	12 26	Verdos Alluvium:		Sand	15 160
Dawson Formation (upper part):		Clay		Shale	10 170
Clay	22 48	Gravel		Sand	5 176
Shale	88 136	Clay		Shale	7 183
Dawson Formation (lower part):		Gravel		CI-66-21caaa. Alt. 5.090 ft.	
Middle conglomerate:		Clay		Eolian sand:	
Sand	19 155	Gravel		Sand	11 11
Shale	12 167	Dawson Formation:		Dawson Formation (upper part):	
CI-66-11cddc. Alt. 5.080 ft.		Clay		Clay, hard	41 52
Eolian sand:		Shale		Shale	6 58
Sand, fine	11 11	CI-66-14dccc. Alt. 5.068.0 ft.		Shale, brown	5 63
Verdos Alluvium:		Eolian sand:		Sand	7 70
Clay	34 15	Sand		Shale, sandy, brown	6 76
Gravel and rock	5 40	Verdos Alluvium:		Shale, blue	56 142
Dawson Formation (upper part):		Clay		Shale, sandy, brown	4 146
Clay	9 48	Clay		Dawson Formation (lower part):	
Sandstone, hard	14 62	Gravel		Middle conglomerate:	
Clay, hard	2 64	Gravel		Sand	14 160
CI-66-12abdc. Alt. 5.020 ft.		Dawson Formation (upper part):		Shale	6 166
Eolian sand:		Rock		Shale, soft, gray	14 180
Sand	16 16	Sandstone		Sand	10 210
Verdos Alluvium:		CI-66-15dcba. Alt. 5.090 ft.		Shale, gray	9 219
Clay	6 22	Eolian sand:		CI-66-21cddc. Alt. 5.098 ft.	
Sand	18 40	Sand, fine		Eolian sand:	
Gravel	4 44	Verdos Alluvium:		Sand	11 11
Dawson Formation (upper part):		Clay		Dawson Formation (upper part):	
Shale, sandy	16 60	Sand and gravel		Clay	19 34
Shale, hard	52 112	Clay		Sand	2 36
Dawson Formation (lower part):		Sand		Sandstone	14 50
Middle conglomerate:		Dawson Formation (upper part):		Sandstone, hard	20 70
Sand	41 153	Sand and gravel, clayey, soft, white		Shale	15 85
Shale	7 160	CI-66-17aabb. Alt. 5.035 ft.		Sandstone, blue	20 105
CI-66-12bbcb2. Alt. 5.035 ft.		Eolian sand and Louviers Alluvium, undifferentiated:		Shale, hard	55 160
No sample		Overburden		Dawson Formation (lower part):	
Verdos Alluvium:		Dawson Formation (upper part):		Middle conglomerate:	
Gravel	1 30	Clay, blue and shale		Sandstone, soft	10 170
Clay	5 35	Dawson Formation (lower part):		Shale, blue	20 190
Gravel	10 65	Sandstone (Middle conglomerate, 72 to 106 feet)		Sandstone, soft	10 220
Dawson Formation (upper part):		Clay		Shale	10 230
Rock	30 95	Shale, sandy		CI-66-21cacb. Alt. 5.101.0 ft.	
Shale	25 120	Clay		Eolian sand:	
CI-66-12bbcb2. Alt. 5.035 ft.		Clay, sandy		Sand, fine	19 19
No sample		Clay and shale		Verdos Alluvium:	
Verdos Alluvium:		CI-66-17aabb. Alt. 5.035 ft.		Clay	2 21
Gravel	1 30	Eolian sand and Louviers Alluvium, undifferentiated:		Sand, fine	17 38
Clay	5 35	Overburden		Clay	15 53
Gravel	10 65	Dawson Formation (upper part):		Clay and gravel layers	10 63
Dawson Formation (upper part):		Clay, blue and shale		Clay	5 68
Rock	30 95	Dawson Formation (lower part):			
Shale	25 120	Sandstone (Middle conglomerate, 72 to 106 feet)			
		Clay			
		Shale, sandy			
		Clay			
		Clay, sandy			
		Clay and shale			

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
CI-66-11gash.--Continued			CI-66-11agdd.--Continued			CI-67-1agdd.--Continued		
Clay, rocky	6	74	Sand, very fine, clayey, wet	5	55	Shale, hard, blue	20	606
Clay, sandy	4	78	Dawson Formation (upper part):			Rock	1	507
Gravel	2	80	Shale, finely silty, gray, noncalcareous	3	58	Shale	9	616
Dawson Formation:						Coal	3	619
Shale, blue	4	84				Shale	10	629
Shale	2	86				Rock	1	630
CI-66-10cddd. Alt. 5,055 ft.			CI-66-13cbbb. Alt. 5,089 ft.			Shale, sandy	9	638
Eolian sand:			Eolian sand:			Shale, soft, gray	17	655
Sand, fine	7	7	Silt, finely sandy, slightly clayey, noncalcareous, friable even when wet	8	8	Rock	1	656
Louviers Alluvium:			Verdos Alluvium:			Shale, hard	16	672
Clay	21	28	Silt, fine	12	20	Coal	9	681
Gravel	9	37	Sand, medium to coarse, loose, angular to subangular; contains very fine gravel and cobbles	13	33	Shale	13	694
Sand, fine	13	50	Dawson Formation (upper part):			Rock	1	695
Rock	2	52	Rock, hard (water under artesian pressure)	3	36	Shale, black	17	712
Dawson Formation:			Shale, dark-gray, non- calcareous, and cal- careous yellowish-gray clay	6	42	Rock	2	714
Shale	1	53				Sandrock	5	720
CI-66-11cdaa. Alt. 5,081 ft.			CI-67-1ccaa. Alt. 4,960 ft.			Shale, gray	18	758
Eolian sand:			Finney Creek Alluvium:			Coal	4	762
Sand, fine, loose	4	4	Topsoil	5	5	3 sandstone:		
Louviers Alluvium:			Louviers Alluvium:			Sand	25	787
Sand, very fine to fine, angular to subangular, loose	9	13	Gravel	20	25	Shale	4	791
Sand, very fine to fine, silty, friable, cal- careous	7	20	Dawson Formation:			Sand	10	801
Silt, sandy, brown	4	24	Clay	2	27	Shale, sandy	4	101
CI-66-11dcd. Alt. 5,081 ft.			Shale	3	30	Shale, blue	17	118
Eolian sand:			CI-67-1cddc. Alt. 4,960 ft.			Dawson Formation (lower part):		
Sand, medium, dark-green to brown	5	5	Post-Finney Creek alluvium and Louviers Alluvium, undifferentiated:			Sandstone, hard, white (Middle conglomerate, 118 to 162 feet.)	9	127
Sand, medium, brown	5	10	Gravel	18	18	Shale, blue	14	161
Verdos Alluvium:			Clay	2	20	Rock	1	162
Sand, fine to medium, slightly clayey, sub- angular, yellowish- gray	3	13	Gravel	11	31	Shale, blue	100	262
Clay, slightly sandy, pinkish-gray; contains slightly weathered volcanic ash	3	16	Dawson Formation:			Shale, sandy	8	270
Sand, very fine, clayey; contains slightly weathered volcanic ash	3	19	Shale	52	83	Shale, hard	7	277
CI-66-12acda. Alt. 5,100 ft.			Shale, sandy	3	86	Shale, sandy	6	283
Eolian sand:			Shale, gray	23	109	Lower conglomerate:		
Soil, sandy	8	8	Sand	4	113	Sand	4	287
Verdos Alluvium:			Laramie Formation:			Shale, sandy	3	290
Clay, white	12	20	Shale	142	255	Rock	1	291
Gravel	22	42	Rock	2	257	Sand	7	298
Rock	1	43	Shale	39	296	Shale	8	306
Gravel	2	45	Shale, sandy	6	302	Sandstone	3	309
Dawson Formation:			Rock	3	303			
Shale	1	46	Shale	71	376	Laramie Formation:		
CI-66-11agac. Alt. 5,099 ft.			Coal	4	380	Shale	19	328
Eolian sand:			Shale	24	404	Shale, soft, brown	9	337
Sand, very fine, slightly clayey, dark-brown	3	1	Rock	2	406	Shale, blue	23	360
Silt, sandy	4	7	Shale, sandy	12	418	Shale, brown	23	383
Verdos Alluvium:			Rock	3	421	Rock	2	385
Sand, medium to coarse, slightly clayey	5	12	Sandstone	5	426	Shale, soft, gray	20	405
Sand, fine, uniform, subangular, slightly clayey, yellowish-gray	5	12.5	Shale, soft, gray	44	470	Shale, hard	3	408
Sand, medium to very coarse, clayey (water) poorly-sorted, clayey and silty; contains volcanic ash	7.5	20	Coal	1	471	Shale, soft, gray	19	427
Dawson Formation (upper part):			Shale, gray	16	507	Coal, soft	2	429
Conglomerate, limy, hard at 45 feet	25	45	Rock	3	510	Shale, soft, gray	12	441
CI-66-11addd. Alt. 5,120 ft.			Shale, sandy	7	517	Shale, hard	2	443
Eolian sand:			Shale, gray	3	520	Shale, gray	15	458
Sand, fine, fairly uniform, angular to subangular, slightly clayey, brown brown	7	7	Coal	1	521	Rock, hard	1	459
Verdos Alluvium:			Shale, gray	46	567	Sand	6	465
Clay, silty and sandy, limy, plastic, yellow- ish gray	5	15	Rock	1	568	Shale, brown	2	467
Clay, very limy, plastic, yellowish-gray; contains streaks of caliche	5	20	Shale, gray	22	590	Shale, hard, blue	3	476
Clay, silty and slightly sandy, semiplastic, limy, yellowish-gray	5	25	Sand	5	595	Sandstone	4	480
Clay, silty and slightly sandy; contains very little limy material	10	35	Shale, gray	4	599	Shale, gray	9	499
Clay, silty to finely sandy, very limy, yellowish-gray	15	50	Rock	1	600	Rock	1	490
			Coal	2	602	Sand	14	504
			Shale, gray	16	618	Shale, gray	3	507
			Rock	2	620	Rock	3	510
			Shale, gray	41	661	Sand	6	516
			Sand	11	672	Shale, gray	4	520
			Shale, gray	17	689	Rock	7	527
			Coal	4	693	Shale	7	534
			CI-67-1agdd. Alt. 5,175 ft.			Shale, soft, brown	13	547
			Dawson Formation:			Shale, hard	25	572
			No record	272	272	Rock	1	573
			Laramie Formation:			Shale, gray	14	587
			Shale	57	129	Shale, sandy	3	590
			Rock	1	130	Sand	6	596
			Shale	9	139	Clay, gray	10	606
			Shale, hard	57	196	Rock	2	608
			Rock	2	198	Sand	6	614
			Shale	10	408	Shale	3	617
			Coal	2	410	Rock	2	619
			Shale	21	431	Sandstone	4	623
			Shale, sandy	5	436	Shale, gray	5	628
			Shale, hard, gray	64	500	Shale, soft, brown	4	632
			Shale, sandy	11	511	Shale, soft, gray	9	641
			Rock	2	513	Rock	1	642
			Shale, gray	25	538	Shale, gray	28	670
			Shale, soft, black	2	540	Coal, soft	3	673
			Shale, gray	5	545	Shale, gray	4	677
			Rock	1	546	Rock	1	678
			Shale, gray	18	584	Coal	1	679
			Rock	2	586	Shale	15	694
						Coal	4	698

Table 1.--Logs of wells and test holes --Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
Cl-67-4ccca. --Continued		Cl-67-8dbcc. --Continued		Cl-67-20bdc. Alt. 5,321 ft.	
Shale, gray	5 704	Shale, weathered, rusty- yellow and brown	2 70	Overburden	60 60
Coal	5 709	Shale, gray	7 77	Dawson Formation (upper part):	
Coal, rock, hard	2 711	Sand, clean, gray	3 95	Clay, blue, and shale	33 33
Shale, soft, brown	4 715	Shale, gray	7 92	Sand, coarse, interbedded with sandy shale	
Coal, hard	2 717	Coal	5 92.5	Upper conglomerate	
Shale, soft, gray	15 732	Sand, gray	8.5 101	33 to 197 feet	104 197
Rock	3 735	Shale	14 115	Shale	119 316
Shale, hard	40 775	Sand, dirty, gray, and thin beds of shale	75 190	Dawson Formation (lower part):	
Sand	3 778	Shale, sandy, gray	31 221	Sandstone and sand	
Shale	41 819	Shale, sandy, and thin beds of fine sand	19 240	interbedded with sandy shale (Middle conglom- erulate, 316 to 461 feet.)	145 461
Shale, black	3 822	Shale, soft, gray	80 320	Shale and siltstone	114 575
B sandstone:		Lower conglomerate:		Lower conglomerate:	
Sand	16 838	Sand, gray	5 325	Sandstone and sand	
Shale, hard	4 842	Shale, sandy, gray	15 340	interbedded with sandy shale	55 640
Sand	28 870	Sand, gray	5 345	Laramie Formation:	
Rock	2 872	Shale, sandy, gray, and thin beds of dirty sand	35 380	Clay, shale, and thin streaks of coal	98 738
B and A sandstones of the Laramie Formation and Milliken Sandstone Member of the Fox Hills Sandstone, undifferentiated:		Laramie Formation:		Sandrock	4 742
Sand	154 1,026	Shale, gray	20 400	Shale	188 930
Shale, sandy	28 1,054	Shale, dry, crumbly	115 515	Shale, sandy, and sandrock	15 945
Cl-67-5dccc. Alt. 5,170 ft.		Rock	2 517	Shale	20 965
Dawson Formation (upper part):		Shale, dry, crumbly	83 600	Shale, sandy	50 1,015
Topsoil and clay	17 37	Sandstone	3 603	Shale and streaks of coal	15 1,030
Shale, blue	6 43	Shale, carbonaceous, dark-colored	195 798	B sandstone:	
Shale, gray	42 85	B and A sandstones of the Laramie Formation and Milliken Sandstone Member of the Fox Hills Sandstone, undifferentiated:		Sand and sandy clay	15 1,065
Dawson Formation (lower part):		Sandstone	2 800	Sandrock	5 1,070
Middle conglomerate:		Clay, soft, sandy, light- colored	50 850	B and A sandstones, undifferentiated:	
Sand, white, and gray shale	32 117	Clay, soft, sandy, light- colored, and thin beds of gray shale	120 970	Sand and sandy clay	115 1,185
Shale, gray	9 126	Shale, gray	25 995	Shale	17 1,202
Cl-67-6ccba. Alt. 5,100 ft.		Sandstone, hard, gray	1 996	Cl-67-22bad. Alt. 5,060 ft.	
Piney Creek Alluvium:		Shale, soft, gray	9 1,005	Dawson Formation (lower part):	
Overburden	35 35	Cl-67-9abab. Alt. 5,148 ft.		Surface	4 4
Dawson Formation (upper and lower parts, undifferen- tiated):		Dawson Formation (upper part):		Clay, brown	38 42
Sand	30 65	Clay	18 18	Clay, yellow	140 182
Clay, blue	65 130	Clay, sandy	9 27	Lower conglomerate:	
Clay and shale	94 224	Clay, chalky, hard	18 45	Sand, white	18 200
Coal blossom, and clay	105 329	Clay, sandy	4 54	Cl-67-24cccc. Alt. 5,018 ft.	
Clay and shale; con- tains streaks of coal	113 442	Sandstone	26 80	Broadway Alluvium:	
Rock	3 445	Clay, hard	6 86	Clay	1 1
Clay and shale	47 492	Shale	6 86	Gravel	9 12
No sample	5 497	Cl-67-11bbab. Alt. 5,062 ft.		Louviers Alluvium:	
Sandstone	44 541	Dawson Formation (upper part):		Clay	6 18
Laramie Formation:		Topsoil and clay	12 12	Gravel	18 36
Clay and shale	4 545	Sand, fine	6 18	Clay	2 38
Coal	13 558	Mud, black	28 46	Cl-67-25abbb. Alt. 5,022 ft.	
Clay and shale	6 564	Shale, gray	26 72	Broadway and Louviers Alluvium, undifferentiated:	
Coal	7 571	Hardpan	31 103	Clay	7 7
Clay and shale	3 574	Dawson Formation (lower part):		Gravel	27 34
Coal	42 616	Middle conglomerate:		Clay	2 36
Clay and shale	6 622	Sand, white, and gray shale	19 122	Gravel	9 45
Shale, sandy	13 635	Shale, gray	5 127	Clay	1 46
Clay	13 648	Cl-67-123ddd. Alt. 4,977 ft.		Cl-67-26dbbb. Alt. 5,011 ft.	
Sand and shale; sandy Clay	12 660 38 698	Piney Creek Alluvium:		Post-Piney Creek alluvium and Louviers Alluvium, undiffer- entiated:	
B sandstone:		Clay, sandy	2 2	Gravel	28 28
Sand and sandstone	9 707	Louviers Alluvium:		Dawson Formation (upper and lower parts, undifferentiated):	
Clay	11 718	Gravel	38 40	Clay	4 12
Sand and shale; sandy Clay	47 765	Dawson Formation (lower part):		Shale	15 67
Cl-67-7ccac. Alt. 5,165 ft.		Clay	3 43	Sandstone	5 72
Dawson Formation (upper part):		Shale	10 73	Shale	25 97
Clay	2 2	Shale, soft, gray	27 100	Chalk, sandy	9 106
Dawson Formation (lower part):		Sand, dirty	12 112	Shale, brown	9 115
Middle conglomerate:		Shale, brown	20 132	Shale, gray	57 172
Gravel	31 33	Lower conglomerate:		Shale, sandy	12 184
Clay	1 34	Sand	16 148	Dawson Formation (lower part):	
Shale	3 37	Shale	8 156	Lower conglomerate:	
Cl-67-8bddd. Alt. 4,955 ft.		Cl-67-12ccdb. Alt. 4,969.0 ft.		Sand	8 192
Dawson Formation (lower part):		Post-Piney Creek alluvium:		Shale	71 263
Clay and topsoil	27 27	Clay, sandy	5 5	Rock	1 264
Mud, heavy	19 46	Louviers Alluvium:		Shale	3 267
Sand, fine	2 48	Gravel	24 29	Rock	1 268
Shale, gray	18 86	Clay	1 30	Shale	182 450
Lower conglomerate:		Cl-67-13badc2. Alt. 4,970 ft.		Rock	3 453
Sand, white, and gray shale	23 109	Piney Creek Alluvium:		Shale, soft, white	4 457
Shale, gray	3 112	Clay	2 2	Sand	3 460
Cl-67-8dbcc. Alt. 5,162 ft.		Louviers Alluvium:		Laramie Formation:	
Dawson Formation (upper part):		Gravel	19 21	Shale	94 554
Topsoil	2 2	Dawson Formation:		Rock	2 556
Sand and clay	20 22	Sandstone	1 22	Shale	26 582
Gravel, small	5 22.5	Shale	3 25	Rock	2 584
Shale, weathered, green	27.5 50	Cl-67-13badc2. Alt. 4,970 ft.		Shale	9 593
Dawson Formation (lower part):		Piney Creek Alluvium:		Rock	2 595
Sand, coarse, soft, yellow (Middle conglom- erate, 50 to 190 feet.)	18 68	Clay	2 2	Shale, hard	16 611

Table 1.--Logs of wells and test holes --Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
Cl-67-12bbca. Alt. 5,172 ft.		Cl-68-9bbba. —Continued		Cl-68-12abaa. —Continued	
Overburden. 68	68	Iron rock. 1	427	Sand. 10	616
Dawson Formation (upper part):		Slate, gray. 147	574	Shale. 10	626
Clay, blue. 2	70	Iron rock. 2	576	Sand. 10	556
Sand. 5	75	Slate, gray. 14	590	Shale. 10	566
Clay, blue, and shale. 71	146	Iron rock. 1	591		
Clay, sandy. 6	152	Slate, gray. 63	654	Sand [B sandstone, 666	
Clay and shale. 114	266	Coal. 6	660	to 740 feet.]. 74	740
Dawson Formation (lower part):		Slate, gray. 15	695	Shale [A sandstone,	
Sand and sandstone		Coal, smut. 2	697	748 to 875 feet.]. 135	875
[Middle conglomerate,					
266 to 104 feet.]. 15	281	B and A sandstones, undiffer-			
Shale. 9	290	entiated:			
Sand and sandstone. 14	304	Sand slate, gray. 28	725	Cl-68-18ddad. Alt. 5,320 ft.	
Clay. 91	395	Iron rock. 1	726	Dawson Formation (lower part):	
Lower conglomerate:		Sandstone. 17	743	Clay. 25	25
Sandrock. 2	397	Iron rock. 1	744	Sandstone. 15	40
Clay. 5	402	Sandstone. 16	760	Shale, gray. 15	75
Sandstone. 8	410	Iron rock. 1	761	Sand, blue, and shale. 55	130
Clay. 3	413	Sandstone. 71	832		
Sand and sandstone. 5	418			Laramie Formation:	
Clay. 17	435			Shale, blue. 12	142
Cl-67-13bbca. Alt. 5,104 ft.		Cl-68-10cbbc. Alt. 5,268 ft.		Iron rock. 3	144
Dawson Formation (upper part):		Dawson and Laramie Formations,		Shale, sandy. 20	165
Clay. 8	8	undifferentiated:		Sandstone. 10	175
Shale. 55	63	Topsoil. 2	2	Shale, sandy, blue. 15	210
Sand. 3	66	Clay, brown to yellow. 12	14	Shale, sandy, gray. 25	235
Shale. 92	158	Clay, sandy, brown. 34	38	Sandstone, "split". 9	244
Dawson Formation (lower part):		Clay, brown to yellow. 8	46	Coal. 1	245
Middle conglomerate:		Shale, medium hard, gray		Shale, brown. 45	290
Sand. 5	163	to bluer contains		Shale, gray. 50	340
Shale. 23	186	occasional sandy		Shale, blue. 10	370
Sand. 8	194	streaks. 464	510	Shale, sandy, gray. 20	390
Shale. 9	203	Laramie Formation:		Shale, gray. 20	410
Sand. 10	213	Coal layers interbedded			
Shale. 7	220	with shale. 190	700	Cl-68-19baba. Alt. 5,363 ft.	
Shale, sandy. 8	228	B sandstone:		Dawson Formation:	
Shale. 2	230	Sand, fine, interbedded		Clay. 10	10
		with thin shale breaks		Soapstone. 50	60
		in lower section. 109	809	Shale, gray. 38	98
Cl-67-13acdd. Alt. 5,036 ft.				Iron rock. 1	99
Broadway and Louviers Alluvium,		Cl-68-10ddda. Alt. 5,170 ft.		Shale, brown. 28	127
undifferentiated:		Dawson Formation (lower part):		Shale, gray. 13	160
Clay, sandy. 10	10	Soil. 2	2	Sandstone. 23	183
Sand and gravel. 17	27	Clay, yellow and gray. 47	49	Laramie Formation:	
Dawson Formation:		Shale, gray. 8	57	Shale, black. 20	203
Clay, brown. 1	28	Sandstone, soft, brown. 4	61	Coal. 2	205
Shale, blue. 12	40	Shale, gray. 41	102	Shale, gray. 40	245
		Sandstone, gray. 2	104	Sandstone. 11	256
Cl-67-16bbcb. Alt. 5,062 ft.		Shale, gray. 61	165	Shale, gray. 244	500
Eolian sand:		Shale, gray, fine sand,		Iron rock. 1	501
Sand. 18	18	and coal. 15	180	Shale, gray. 34	535
Louviers Alluvium:		Laramie Formation:		Coal. 1	536
Clay. 7	25	Shale, gray. 147	327	Shale, gray. 9	545
Gravel. 31	56	Lime, sandy. 1	328	Iron rock. 1	546
Dawson Formation (upper part):		Shale, gray. 28	356	Shale, brown. 10	556
Shale. 14	70	Shale, brown. 5	361	Shale, gray. 39	595
Shale, hard, black. 26	96	Shale, gray. 183	544	Iron rock. 2	597
Shale, soft, blue. 16	112	Mudstone. 2	546	Shale, gray. 8	605
Dawson Formation (lower part):		Shale, gray. 12	558	Coal. 4	609
Middle conglomerate:		Shale, gray, and coal. 11	569	Shale, gray. 61	670
Sand. 15	127	Coal. 4	573	Coal. 2	672
Shale. 16	143	Mudstone. 1	574	Shale, gray. 2	674
Sand. 6	149	Shale, gray. 16	590	Coal. 4	678

Table 1.--Logs of wells and test holes --Continued

Thickness Depth			Thickness Depth			Thickness Depth		
Cl-68-11cdbs. Alt. 5,282 ft.			Cl-69-10dabb.--Continued			Cl-69-26ccgd.--Continued		
Rocky Flats Alluvium:			Coal 7 147			Shale. 8 580		
Clay and boulders . . . 22 22			9 sandstone: 5 152			Sandstone B sandstone. 70 750		
Dawson Formation:			Sandstone, gray. 38 240			Shale, 580 to 750 (feet). 115 385		
Sandstone, firmly cemented. 2 24			A sandstone of the Laramie Formation and Milliken Sandstone Member of the Fox Hills Sandstone, undifferentiated: 1 241			A sandstone: 15 900		
Sand and gray shale . . . 80 104			Iron rock. 204 445			Shale, gray. 50 360		
Shale, blue 80 184			Iron rock. 2 447			Fox Hills Sandstone: 45 1,005		
Iron rock 2 186			Sandstone, white 22 469			Shale, gray. 20 1,025		
Laramie Formation:			Cl-69-17bcdb. Alt. 5,191 ft.			Cl-69-35ddda. Alt. 5,148 ft.		
Shale, gray 89 275			Piney Creek Alluvium: 8 8			No sample. 116 116		
Sand and gray shale . . . 75 350			Clay 8 8			Dawson Formation (lower part): 116 116		
Shale, blue 50 400			Broadway Alluvium: 6 14			Lower conglomerate: 10 185		
Shale, gray 150 550			Gravel 6 14			Sand, fine, and shale, sandy, gray: interbedded 19 155		
Shale, blue 40 590			Laramie Formation: 10 44			Sand, fine, silty, and sandy shale. 9 164		
Sand and blue shale . . . 40 630			Soapstone. 1 45			Shale, gray. 11 175		
Shale, gray 57 687			Coal 63 108			Sand, silty, and shale 10 185		
Coal. 9 695			Shale, gray. 20 128			Laramie Formation: 10 185		
Shale, gray 10 725			Iron rock. 1 129			Shale, gray: contains thin breaks of fine sand and lignitic coal. 10 215		
Coal. 2 727			Shale, gray. 29 158			Sand, fine, and gray sandy shale, interbedded 20 235		
Sand and gray shale . . . 8 735			Soapstone. 17 175			Shale, gray: contains thin sandy streaks 40 275		
B and A sandstones, undifferentiated: 165 900			Shale, black 7 182			Sand, fine, and silty shale. 10 285		
Fox Hills Sandstone: 17 917			Crevices (old mine shaft) 5 187			Shale, gray: contains thin streaks of sand and thin layers of coal 40 325		
Milliken Sandstone Member: 27 944			Shale, gray. 33 220			Shale, gray: contains thin streaks of sand and thin layers of coal 90 415		
Lime. 1 945			Shale, black 4 224			Shale, gray: contains occasional thin beds of coal and thin hard cemented streaks of fine-grained sandstone. 80 495		
Sand, fine. 29 974			Coal 6 230			Shale interbedded with silty fine sand. 20 515		
Lime. 2 976			Shale, black 10 240			Shale, gray, interbedded with fine sand and coal 210 725		
Sand, fine, and gray shale 14 990			Coal 4 244			B sandstone: 63 788		
Transition zone: 10 1,020			Shale, gray. 20 264			Sand, fine, shaly: contains a trace of coal 22 810		
Shale, gray, sandy. . . 30 1,020			Coal 1 265			A sandstone: 10 840		
Sand, fine, and gray shale 10 1,030			Sand and shale 10 275			Sand, sandy 30 970		
Coal and gray shale . . . 18 1,048			B and A sandstones of the Laramie Formation and Milliken Sandstone Member of the Fox Hills Sandstone, undifferentiated: 255 530			Fox Hills Sandstone 10 300		
Lime. 2 1,050			Transition zone: 40 570			Milliken Sandstone Member: 5 405		
Sand, fine, and gray shale 40 1,090			Shale, blue. 30 600			Sand: occasionally cemented in hard streaks: contains thin layers of gray shale. 15 940		
Shale, gray 5 1,095			Sandstone. 150 750			Sand, fine: contains a trace of shale 25 970		
Lime. 2 1,097			Shale, gray. 150 900			Transition zone: 93 1,053		
Shale, gray 3 1,100			Shale, blue. 150 1,050			Cl-70-21bdac. Alt. 5,560 ft.		
Cl-69-7ccgs. Alt. 5,545 ft.			Sand shale 70 1,120			Rocky Flats Alluvium: 10 10		
Laramie Formation: 1 1			Sand, gray, and shale 60 1,180			Boulders, gravel, and clay 10 10		
Soil. 17 18			Limestone, very sandy, very hard. 1 1,181			Laramie Formation: 47.5 57.5		
Shale, clayey, yellow, weathered 15 53			Shale, gray. 169 1,350			B sandstone (faulted): 2.5 60		
Shale, firm, gray . . . 74 127			Limestone, very sandy, very hard. 1 1,351			Sandstone. 5 65		
Coal. 5 132			Shale, blue-gray 174 1,525			Coal, earthy, and streaks of coal. 8 73		
Shale, gray, and coal, interbedded 65 197			Cl-69-22daba. Alt. 5,240 ft.			Sandstone. 19 92		
Sand, fine, soft, gray (water-yielding). . . 16 213			Laramie Formation and Fox Hills Sandstone, undifferentiated: 15 15			A sandstone: 6 98		
Shale 16 229			Clay 15 15			Sandstone, very hard: contains thin streaks of coal. 6 104		
Coal. 6 235			Shale, blue. 15 10			Shale. 4 108		
Shale, gray, and coal . . 29 264			Sand and gray shale 40 70			Sandstone, gray		

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C1-70-28baa. Alt. 5,953 ft.		C2-65-15cdcd. --Continued		C2-66-6aaaa. --Continued	
Rocky Flats Alluvium:		Dawson Formation (upper part):		Gravel, fine to medium, subrounded 5 19	
Shoulders and gravel 24 24		Clay 2 18		Dawson Formation (upper part):	
Laramie Formation:		Shale, gray 6 24		Clay, plastic, slightly sandy, calcareous, gray, contains black minerals (no water) 5 24	
Sandstone and clay 5 29		Shale 16 40		C2-66-7abab. Alt. 5,100 ft.	
Soapstone, gray 2 31		Rock 2 42		Eolian sand:	
Sandstone: contains thin streaks of coal 15 46		Shale 33 125		Sand, fine to medium, loose, angular 5 5	
Soapstone, gray and bentonite: contains thin streaks of coal 7 53		Shale, sandy 14 139		Verdos Alluvium:	
Bentonite 12 65		Shale 27 166		Sand, fine, clayey, friable, very calcareous; occasional particles of tan very fine gravel (water at 20 feet) 19 24	
Soapstone, gray, and bentonite: contains streaks of earthy coal 10 75		Upper conglomerate:		No sample 3 17	
Shale, gray 12 87		Sand 8 174		Sand, as above, but with less fine gravel 2 29	
Sandrock, brown and gray, hard 1 88		Shale 16 190		Sand, fine to medium, clayey; slight increase to about 5 percent very fine gravel 2 31	
Bentonite 2 90		Sand 47 237		C2-66-7abbb. Alt. 5,103.5 ft.	
Shale and streaks of sandstone 10 100		Shale 11 248		Eolian sand:	
Shale and earthy coal 5 105		C2-65-15dcdc2. Alt. 5,362 ft.		Silt, sandy, clayey, friable, brown, dry; 10 percent sand 6.8 6.8	
Shale 9 114		Piney Creek Alluvium:		Sand, clayey, soft, saturated, brown; 20 percent fines 1.4 8.2	
Coal, very soft, streaks of bentonite, and brown sandstone 14 128		Clay 6 6		Clay, sandy, stiff, brown, moist, slightly calcareous 1.8 10	
Sandstone, white 22 150		Broadway and Louviers Alluvium, undifferentiated:		Clay, as above; 10 percent fine sand and a lens of fine to medium sand 0.1 foot thick 2.1 12.1	
Sandstone, gray 20 170		Sand 24 30		Sand, medium to fine, silty, saturated, tan-brown; 60 percent fine sand; 20 percent medium sand; and 20 percent fines; contains lenses of clayey sands at about 15 feet 7.5 19.6	
Coal 11 181		Gravel 10 40		Verdos Alluvium:	
Shale 4 185		Clay 2 42		Sand, gravelly, clayey 4 20	
Shale and sandstone 5 190		Gravel 3 45		Sand, gravelly, moist, white-tan; slightly cemented (may be a flat boulder) 2.1 22.1	
Shale 40 230		Clay 3 48		Dawson Formation (upper part):	
Shale and coal 13 243		C2-66-4abbb.		Clay, sandy, stiff, moist, moderately weathered, gray-brown, slightly iron-stained; contains fragments of lignite; noncalcareous 2.9 25	
Shale 1 244		Piney Creek Alluvium:		C2-66-7abbb. Alt. 5,143 ft.	
Coal 13 257		Sand, very fine to fine, subangular, fairly loose, dark-brown 4 4		Eolian sand:	
Shale 3 260		Clay, silty and sandy, friable, noncalcareous, dark-brown 8 12		Sand, fine to medium, subangular, poorly sorted, loose 2 2	
Shale, sandy, and some sandstone 15 275		Sand, very fine, silty 12 24		Verdos Alluvium:	
Shale 10 285		Sand, medium to coarse, loose, angular to subangular, tan 5 29		Sand, fine, very clayey, very calcareous, slightly bentonitic 15 24	
C2-65-14cdcd. Alt. 5,282 ft.		Dawson Formation (upper part):		Sand, fine, calcareous very bentonitic, yellowish-tan 2 26	
Broadway and Louviers Alluvium, undifferentiated:		Shale, clay, very dark-gray 5 34		C2-66-7baaa. Alt. 5,100 ft.	
Gravel 26 26		C2-66-3bcbh. Alt. 5,125 ft.		Eolian sand:	
Dawson Formation (upper part):		Eolian sand:		Clay, silty and sandy, plastic, very calcareous, medium-brown 6 6	
Clay 9 35		Sand, medium, uniform, loose, angular, brown 2 2		Sand, very fine 4 10	
Rock 2 37		Sand, very fine, and tan clay 9 11		Sand, very fine, clayey, very calcareous 7 17	
Clay 1 38		Sand, very fine to fine, and tan clay 6 17		Sand, medium to coarse, clayey, very calcareous; contains streaks of caliche 1 18	
Shale 12 50		Verdos Alluvium:		Dawson Formation (upper part):	
Rock 1 51		Sand, very fine to fine, clay, friable; contains some pebbles 4 21		Clay, sandy, stiff, moist, moderately weathered, gray-brown, slightly iron-stained; contains fragments of lignite; noncalcareous 2.9 25	
Shale, blue 34 85		Gravel, very fine to fine; contains subrounded to rounded pebbles 3 24		C2-66-7abbb. Alt. 5,110 ft.	
Coal 4 89		Clay 1.5 25.5		Eolian sand:	
Shale 6 95		Sand, coarse to very coarse, and subangular very fine to fine gravel 8.5 34		Clay, silty and sandy, plastic, very calcareous, medium-brown 6 6	
Shale, sandy 5 100		Sand, fine to coarse, silty 5 34.5		Sand, very fine 4 10	
Upper conglomerate:		C2-66-3cgbh. Alt. 5,120 ft.		Sand, very fine, clayey, very calcareous 7 17	
Sand 50 150		Eolian sand:		Sand, medium to coarse, clayey, very calcareous; contains streaks of caliche 1 18	
Shale 16 166		Sand, fine, angular to subangular, loose, light-brown 8 9		Dawson Formation (upper part):	
C2-65-21ddd. Alt. 5,419 ft.		Sand, fine to medium, subangular, loose, light-brown 10 18		Shale, slightly silty, noncalcareous, dark-brown; hackly partings 11 29	
Eolian sand and Dawson Formation, undifferentiated:		Verdos Alluvium:		C2-66-7abbb. Alt. 5,110 ft.	
Surface 97 97		Gravel, medium, well-sorted, subangular, subrounded; much broken material 1 19		Eolian sand:	
Dawson Formation (upper part):		Sand, fine, clayey, and 10 percent or less very fine gravel 1 20		Clay, silty and sandy, plastic, very calcareous, medium-brown 6 6	
Clay, blue; contains streaks of coal 23 120		Gravel, very fine to medium, subrounded, and silty sand; large rock 15 35		Sand, very fine 4 10	
Clay, blue 30 150		Sand, medium to very coarse, loose, angular to subangular 8 43		Sand, very fine, clayey, very calcareous 7 17	
Sandstone 45 195		Dawson Formation (upper part):		Sand, medium to coarse, clayey, very calcareous; contains streaks of caliche 1 18	
Clay, blue 105 107		Shale, noncalcareous, gray, very hard when dry 2 45		Dawson Formation (upper part):	
Shale, blue, and streaks of sandstone 250 550		C2-66-6aaaa. Alt. 5,110 ft.		Shale, slightly silty, noncalcareous, dark-brown; hackly partings 11 29	
Dawson Formation (lower part):		Eolian sand:		C2-66-7abbb. Alt. 5,110 ft.	
Shale, sandy [Middle conglomerate, 550 to 780 feet.] (some water) 125 675		Sand, medium, uniform, subangular to angular 3 3		Eolian sand:	
Shale, blue, and streaks of sandstone 65 740		Verdos Alluvium:		Clay, sandy, plastic, very calcareous, tan 12 12	
Shale, hard 30 770		Silt, sandy, cream-white coatings; very bentonitic 11 14		Sand, medium to coarse, loose, angular to subangular 7.5 19.5	
Sandstone (water) 10 780		C2-65-15cdcd. Alt. 5,358 ft.		Dawson Formation (upper part):	
Shale, blue 75 855		Piney Creek Alluvium:		Shale, silty, noncalcareous, light-gray 3.5 29	
Lower conglomerate:		Clay 4 4			
Sand (water) 10 865		Clay 14 18			
Shale 15 900		Broadway and Louviers Alluvium, undifferentiated:			
C2-65-21ddd. Alt. 5,310 ft.		Gravel, dirty 7 25			
Piney Creek Alluvium:		Gravel 27 52			
Clay, sandy 4 4		Clay 2 54			
Clay 14 18		Gravel 7 61			
Broadway and Louviers Alluvium, undifferentiated:		Clay 3 64			
Gravel, dirty 7 25		Dawson Formation:			
Gravel 27 52		Shale 11 75			
Clay 2 54		C2-65-15cdcd. Alt. 5,358 ft.			
Gravel 7 61		Piney Creek Alluvium:			
Clay 3 64		Clay 10 10			
Dawson Formation:		Sand 6 16			
Shale 11 75					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-66-70sub. Alt. 5,140 ft.					
Eolian sand:					
Silt, sandy, noncalcareous, clayey, dark-reddish-brown	5				
Sand, fine to medium, poorly-sorted, loose, subangular to subrounded, light-tan	2				
Sand, fine to coarse, very poorly-sorted, subangular to angular, very calcareous	11				
Verdos Alluvium:					
Gravel, very fine to coarse, subangular, and clayey sand	8				
Gravel, coarse, well-sorted, clean, subrounded to rounded	4				
Gravel, as above, and 50 percent medium to very coarse sand	5				
Gravel, fine to coarse, poorly-sorted, subrounded to subangular	3				
Gravel, fine to medium, poorly-sorted, and 50 percent clayey sand	3				
Dawson Formation (upper part):					
Sand, medium to very coarse, dry calcareous cemented poorly-sorted very fine angular gravel, silt, clay, and clayey shale	3				
C2-66-70cgg. Alt. 5,159 ft.					
Eolian sand:					
Sand, fine, loose, subangular, slightly clayey, tan	12				
Sand, very fine, clayey, very calcareous; contains small bits of calcareous material	3				
Verdos Alluvium:					
Gravel, very fine to fine, subangular, and clayey medium sand	8				
Silt and very fine sand	7				
Sand, angular to subangular, medium to coarse and very fine to medium angular clayey gravel	13				
Sand, medium to coarse; contains some scattered subangular to subrounded coarse gravel (no water)	10				
Dawson Formation (upper part):					
Sandstone, caliche, and bentonitic clay at 13 feet					
C2-66-71ada. Alt. 5,120 ft.					
Eolian sand:					
Sand, fine, and brown clay	11				
Sand, coarse, calcareous, compact, light-tan	4				
Verdos Alluvium:					
Sand, medium to coarse, subangular, loose, tan	6				
Sand, fine to medium, and silt	9				
Clay, silty, sandy, calcareous, bentonitic	4				
C2-66-70ddd. Alt. 5,143 ft.					
Eolian sand:					
Sand, fine, angular to subangular, loose, light-brown	3				
Verdos Alluvium:					
Sand, fine to medium, subangular, tan, and very fine gravel	5				
Sand, fine to medium, very calcareous	5				
Sand, silty, calcareous, and very fine angular gravel	5				
Sand, silty, very calcareous, light-brown	12				
Sand, fine to coarse, silty, very calcareous, yellow	5				
C2-66-70ddd. --Continued					
Dawson Formation (upper part):					
Shale, gray, and yellow clay, noncalcareous	9	43			
Shale, yellow and gray, noncalcareous	1	44			
C2-66-80bba. Alt. 5,145 ft.					
Eolian sand:					
Sand	18	18			
Clay	10	28			
Verdos Alluvium:					
Gravel	2	30			
Clay	9	39			
Sand	4	43			
Clay	7	50			
Clay and layers of gravel	5	55			
Gravel	11	66			
Dawson Formation (upper part):					
Clay	6	72			
Shale	124	196			
Dawson Formation (lower part):					
Middle conglomerate:					
Sand	5	201			
Shale	7	208			
Rock	1	209			
Sand	25	234			
Shale	14	248			
C2-66-100cab. Alt. 5,190 ft.					
Eolian sand:					
Sand	13	18			
Clay	3	21			
Sand	4	25			
Dawson Formation (upper part):					
Clay, blue	7	12			
Sand, fine (Upper conglomerate, 12 to 154 feet)	8	40			
Coal	3	43			
Shale	7	50			
Sand	11	61			
Shale, hard	3	64			
Sand, hard	15	79			
Shale	45	124			
Shale, soft, gray	5	129			
Sand	25	154			
Shale	8	162			
Shale, hard, black	12	174			
Rock	1	175			
Shale, soft gray	70	245			
Rock	1	246			
Shale	14	260			
Dawson Formation (lower part):					
Middle conglomerate:					
Sand	13	273			
Shale	15	288			
C2-66-180db. Alt. 5,193 ft.					
Eolian sand:					
Soil, sandy	1	1			
Silt, fine, clay	5	6			
Clay, silty, tan	9	15			
Verdos Alluvium:					
Sand, coarse, buff, and fine gravel	5	20			
Clay, sticky	4	24			
Gravel and coarse sand	3	33			
Clay, silty	5	38			
Sand, medium to coarse	2	40			
Dawson Formation (upper part):					
Clay, yellow to gray	1	41			
Shale, gray	5	46			
Sandstone, fine, hard, cemented	1	47			
Shale, gray, silty	5	52			
Coal, soft, lignitic	1	53			
Shale, gray, silty to clayey	27	80			
Coal, soft, lignitic	2	82			
Shale, gray, clay	9	91			
Coal, soft, lignitic	1	94			
Shale, gray, and clay	34	128			
Sand, very fine, silty to clayey (Upper conglomerate, 128 to 146 feet)	6	134			
Coal, soft, lignitic	6	140			
Shale, gray, silty to clayey	17	177			
Sand, fine, soft, silty to clayey	5	182			
Shale, gray, clayey, of variable hardness	20	202			
Sand, very fine, silty, sticky, and shale	40	242			
Sand, very fine, gray, soft	4	246			
Shale, gray to brown, silty to clayey	102	348			
Sand, very fine, soft, silty	9	357			
C2-66-180db. --Continued					
Shale, gray, clay					
Coal, soft, lignitic	2	361			
Shale, gray, clayey; contains few fine sand lenses	70	431			
Dawson Formation (lower part):					
Sand, very fine, soft					
Middle conglomerate:					
431 to 488 feet	9	440			
Shale, gray, and clay	43	483			
Sand, very fine, gray, silty	5	488			
Shale, gray, and clay	57	545			
Sandstone, gray, hard, cemented	2	547			
Shale, gray, and clay	42	589			
Lower conglomerate:					
Sand, fine to medium, clean, well-rounded best water-bearing sand in well	6	595			
Laramie Formation:					
Shale, gray, and clay	50	645			
Sandstone, cemented; contains a trace of coal	1	646			
Shale, gray, clayey to silty	22	668			
Shale, gray, silty to clayey; contains very thin sandy streaks	92	760			
C2-66-190dab. Alt. 5,198 ft.					
Eolian sand:					
Topsoil	9	9			
Silt, sandy, dark-brown	2	2.9			
Silt, clayey, semiplastic, calcareous	1.1	4			
Silt, as above; contains some fine sand and clay	1	5			
Verdos Alluvium:					
Silt, as above; contains volcanic ash having calcareous streaks	2	7			
Silt, clayey, semiplastic, calcareous	8.4	15.4			
Dawson Formation (upper part):					
Shale, weathered, subfirm, grayish-green	1.6	17			
Shale, as above, slightly calcareous, iron oxide stains	1	18			
Shale, weathered, subfirm, grayish-green; contains streaks of dark-gray shale	3	21			
Siltstone, weathered, soft, friable, laminated, light-gray	1.3	22.3			
Shale, weathered, medium-gray, iron oxide stains	1.9	24.2			
Siltstone, weathered, soft, friable, laminated, medium-gray	1	25.2			
Shale, weathered, dark-gray and medium-gray	3.8	29			
Sand, weathered, highly carbonaceous, soft, moist, maroonish-gray	1.6	30.6			
Claystone, weathered, medium-gray, iron oxide stains	1.4	32			
C2-66-200ada. Alt. 5,166 ft.					
Eolian sand:					
Silt, sandy, compact, friable, calcareous, medium-brown; calcium carbonate streaks	3.4	3.4			
Sand, silty, fine, loose, calcareous, medium-brown	9	4.3			
Silt, friable to compact, calcareous, medium-brown; contains some clay and sand	1.8	9.1			
Sand, fine, loose, silty, calcareous, medium-brown; contains pebbles	2.1	10.2			
Sand, fine, loose, calcareous, greenish-gray	2.6	12.8			
Sand, fine, loose, friable, rusty-brown; contains some layers of silt	2.8	15.6			
Sand, silty, fine, loose, moist, yellowish-green; light-brown zone from 17.3 to 17.4 feet	1.3	17.4			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-66-20adaa.---Continued		C2-66-10cbhg.---Continued		C2-67-1abab.---Continued	
Dawson Formation (upper part):		7.5 to 10 feet, some		Shale, black	
Shale, weathered, medium-		clay; contains streaks		Rock, soft	
gray		of very coarse sand		Shale, soft	
Siltstone, weathered,		at 11 feet; contains		Rock	
light- to medium-gray;		medium gravel		Shale	
contains pieces of		Sand, fine, loose		Shale, brown	
gypsum		yellow		Shale, blue	
Shale, weathered,		Dawson Formation (upper part):		Sand, dirty	
medium-gray; contains		Sand, fine, yellow with		Rock, hard	
carbonaceous flecks		greenish tinge, some		Shale	
and streaks		silt; contains uniformly		Sand, hard, dirty	
		disseminated dark		Shale	
		grains		Rock	
C2-66-20adaa. Alt. 5,166.7 ft.		Sand, as above; a little		Shale	
Eolian sand:		coarser; contains		Rock	
Topsoil		less clay		Dawson Formation (lower part):	
Silt, sandy, clayey,		Shale, weathered, car-		Middle conglomerate:	
dark-brown; 60 percent		bonaceous material,		Sand	
silt, 20 percent clay,		dark-gray; iron		Shale	
and 20 percent fine		oxide stains			
sand				C2-67-1baba. Alt. 5,058 ft.	
Silt, as above; calcar-		C2-66-11bdad. Alt. 5,232 ft.		Eolian sand:	
eous		Eolian sand:		Clay, sandy	
Silt, soft, semiplastic,		Topsoil		Louviere Alluvium:	
medium-brown		Silt, clayey, calcareous,		Gravel	
Silt, clayey, soft,		soft, grayish-brown,		Dawson Formation (upper part):	
brownish-gray; 60 per-		Silt, as above		Clay	
cent silt, 40 percent		Silt, as above; very		Shale	
clay (water at 7.5		soft, muck at 4.5		Shale, sandy	
feet)		Silt, as above; soft,		Shale, blue	
Sand, fine, silty, soft,		semiplastic		Sandstone, dirty	
saturated, grayish-		Silt, as above; medium-		Shale	
brown; 60 percent sand,		brown		Shale, sandy	
30 percent silt, and		Silt, as above; contains		Shale, blue	
10 percent clay		minor amount of fine		Shale, sandy	
Dawson Formation (upper part):		sand		Shale, brown	
Sand, fine, laminated,		Sand, fine, loose,		Rock	
brownish-gray		medium-brown, some		Shale, sandy	
Sand, as above; green		silt and clay		Rock	
tinge		Sand, medium, loose,		Shale	
Sand, as above; contains		medium-brown		Dawson Formation (lower part):	
limestone concretions		Dawson Formation (upper part):		Middle conglomerate:	
from 21.3 to 21.6 feet		Siltstone, weathered,		Sand	
		compact, sandy,		Shale	
		medium-brown		C2-67-1ccccc. Alt. 5,092.3 ft.	
C2-66-29acgg. Alt. 5,230 ft.		Siltstone, as above;		Eolian sand:	
Eolian sand:		contains joints and		Sand	
Topsoil		iron stains		Louviere Alluvium:	
Silt, sandy, compact,		Siltstone, as above;		Clay	
calcareous, medium-		contains subrounded		Sand, fine	
to light-brown		medium gravel		Clay	
Silt, as above; contains		C2-66-32adbc. Alt. 5,278 ft.		Gravel	
more sand		Eolian sand:		Clay	
Sand, silty, fine, loose,		Topsoil		C2-67-2cddd. Alt. 5,080 ft.	
calcareous, light-		Silt, sandy, compact,		Eolian sand:	
brown		calcareous, medium-		Soil	
Silt, sandy, compact,		brown; contains		Louviere Alluvium:	
calcareous, medium-		calcium carbonate		Clay	
brown		streaks		Gravel	
Dawson Formation (upper part):		Silt, as above, loose		Clay	
Silt, as above; contains		Silt, sandy, loose,		Gravel and boulders	
small pieces of		calcareous, medium-		Dawson Formation (upper part):	
gypsum		brown; contains		Rock, cemented	
Silt, as above; con-		minor amount of clay		Clay, sandy, and	
tains no gypsum		Sand, silty, fine		boulders	
Sand, silty, fine, loose,		loose, calcareous		Shale	
slightly calcareous,		medium-brown		C2-67-3aabb. Alt. 5,020 ft.	
grayish-brown		Sand, as above; contains		Post-Piney Creek alluvium:	
Siltstone, weathered,		some clay		Topsoil	
yellowish-green; brown		Sand, medium, loose,		Louviere Alluvium:	
iron stains		brownish-gray; wet		Sand and gravel	
Siltstone, as above;		zone between 21.0		Dawson Formation (upper part):	
contains some streaks		and 22.1 feet		Shale, blue	
of clay		Dawson Formation (upper part):		Sandstone	
Shale, weathered,		Shale, weathered, car-		Shale, blue	
greenish-gray		bonaceous, very		Shale, blue; contains	
Shale, very fissile,		fissile, slightly		layers of sand	
medium-dark-brown;		calcareous, reddish-		Shale, blue	
white flecks		brown		Shale, sandy, and layers	
		Shale, weathered, light-		of sandstone	
		gray		Shale, sandy	
		Shale, silty, weathered,		C2-67-3dbda. Alt. 5,060 ft.	
		gray-brown		Broadway and Louviere Alluvium,	
		Siltstone, clayey,		undifferentiated:	
		weathered, greenish		Soil	
		to light-gray; iron		Sand and gravel	
		oxide stains, very		Louviere Alluvium:	
		grainy; resembles		Clay	
		weathered sandstone		Gravel, coarse, and	
		in texture		boulders	
		C2-67-1abab. Alt. 5,075 ft.			
		Eolian sand:			
		Sand, fine			
		Louviere Alluvium:			
		Clay			
		Sand			
		Dawson Formation (upper part):			
		Clay			
		Shale			
		Shale, soft, gray			

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-1dbdc. Alt. 5,025.0 ft.					
Post-Piney Creek alluvium:					
Sand, fine, uncemented, tan	1.6	1.6			
Silt, clayey, soft, brown-gray; 5 to 10 percent fine sand; much organic material, moderately iron stained	5.8	7.4			
Sand, gravelly, loose, saturated, uncemented, gray	3	10.4			
Louviere Alluvium:					
Gravel, sandy, loose, gray-white; 60 percent fine gravel, 10 percent coarse sand, and 10 percent fine sand; some very coarse gravel subrounded to well-rounded	7.7	18.1			
Gravel, clayey, sandy, tan and gray	5.1	23.2			
Sand, gravelly, tan	4.3	27.5			
Sand, clayey, gravelly, brown and tan	1.8	29.3			
Dawson Formation (upper part):					
Clay, silty, and lignite	.7	30			
C2-67-9addd. Alt. 5,050 ft.					
Piney Creek Alluvium:					
Clay, sandy	5	5			
Louviere Alluvium:					
Sand	4	9			
Gravel	8	17			
Dawson Formation (upper part):					
Clay	13	30			
Rocks	10	40			
Clay	1	41			
Shale	117	158			
Sand [Upper conglomerate, 158 to 180 feet.]:					
Shale	11	169			
Sand	7	176			
Sand	4	180			
Shale, hard, brown	32	212			
Shale, sandy	4	216			
Shale, hard, black	12	228			
Shale, sandy	21	249			
Shale, brown	7	256			
Shale, blue	36	292			
Rock	3	295			
Dawson Formation (lower part):					
Middle conglomerate:					
Sand	15	310			
Shale, hard, blue	16	326			
Shale, brown	14	340			
C2-67-9bdba. Alt. 5,035.0 ft.					
Post-Piney Creek alluvium:					
Silt, sandy, clayey, brown-gray; moderately iron stained	3.9	3.9			
Louviere Alluvium:					
Sand, fine, gravelly, brown-gray; 20 percent gravel, 10 percent fines	4.3	8.2			
Sand, gravelly, tan-gray; 10 percent gravel, 10 percent fines	1.8	10			
Sand, as above, brown-tan	2.3	12.3			
Sand, clayey, gravelly, tan-gray; 20 percent fine gravel, 15 percent fines; may be slightly indurated at about 18 feet	7.7	20			
Sand, as above; clay content decreasing; material is considerably more porous	7.4	27.4			
Silt, clayey, sandy, stiff, gray; top 0.3 foot weathered to brown	2.6	30			
C2-67-9dcdb. Alt. 5,081 ft.					
Broadway Alluvium:					
Clay	15	15			
Sand	13	28			
Louviere Alluvium:					
Clay	3	31			
Gravel, coarse	16	47			
Dawson Formation:					
Shale	6	53			
C2-67-9dcdb. Alt. 5,081 ft.					
Broadway Alluvium:					
Clay	6	6			
Sand	28	34			
Louviere Alluvium:					
Gravel	10	44			
Clay	3	47			
Dawson Formation:					
Shale	2	49			
C2-67-9dcdb. Alt. 5,081 ft.					
Broadway Alluvium:					
Topsoil	3	3			
Sand	21	24			
Louviere Alluvium:					
Gravel	6	30			
Rocks	13	43			
Dawson Formation (upper part):					
Clay	3	46			
Shale, blue	22	68			
Sand and shale	11	79			
Shale, blue	10	89			
Sandrock	12	101			
Shale, blue	190	291			
Sandrock	15	306			
Dawson Formation (lower part):					
Shale; contains streaks of sandrock (Middle conglomerate, 360 to 522 feet.):					
Sandrock	78	384			
Sand and shale	14	398			
Sandrock	8	406			
Sandrock	8	414			
Shale; contains streaks of sandrock:					
Rock, hard	1	523			
Sandrock	4	527			
Shale, blue; contains streaks of sandrock:					
Rock, hard	3	624			
Shale, blue	45	669			
Lower conglomerate:					
Sandrock	11	680			
Shale, blue	13	693			
Sandrock	31	724			
Shale, blue	8	732			
C2-67-10acdb. Alt. 5,070 ft.					
Broadway and Louviere Alluvium, undifferentiated:					
Clay, sandy	30	30			
Gravel	12	42			
C2-67-10cddd. Alt. 5,079.5 ft.					
Broadway Alluvium:					
Clay	11	11			
Gravel	2	13			
Louviere Alluvium:					
Clay, sandy	10	23			
Gravel	18	41			
Dawson Formation (upper part):					
Sandstone	11	52			
Shale	2	54			
C2-67-10dcdb. Alt. 5,073.2 ft.					
Broadway Alluvium:					
Sand, fine, clayey, noncalcareous, light-brown; 10 percent fines	5.2	5.2			
Sand, clayey, gravelly, highly calcareous, brown-white; 30 percent fines, 15 percent gravel, no gravel 6.5 to 8.0 feet	4.8	10			
Sand, as above; 50 percent sand; 30 percent fines, 20 to 30 percent gravel; moderately to highly calcareous; fines decreasing	8.3	18.3			
Gravel, sandy, cemented, brown; 15 percent sand, 30 percent fine gravel, 20 percent cobbles, 15 percent fines	1.7	20			
Gravel, as above, non-cemented, slightly iron stained	1.6	21.6			
Louviere Alluvium:					
Silt, fine, sandy, tan-gray, slightly iron stained	2.4	24			
Sand, gravelly, brown-tan; 20 percent fine gravel, 15 percent fines	1.8	25.8			
Sand, fine, silty, tan-gray, slightly iron stained	1.7	27.5			
Gravel, sandy, brown-gray; 40 percent fine gravel					
C2-67-10dcdb. Alt. 5,091.5 ft.					
Broadway Alluvium:					
Clay	4	4			
Sand, fine	2	6			
Clay, sandy	4	10			
Louviere Alluvium:					
Clay	2	12			
Sand	3	15			
Gravel	6	21			
Clay	3	24			
Gravel	2	26			
Clay	2	28			
Gravel	15	43			
Clay	2	45			
C2-67-11aaba. Alt. 5,091 ft.					
Eolian sand:					
Clay, sandy	8	8			
Louviere Alluvium:					
Clay	23	31			
Sand, fine	3	34			
Gravel	5	39			
Dawson Formation:					
Cement rock	4	43			
Clay	2	45			
C2-67-11cdeb. Alt. 5,097.0 ft.					
Eolian sand:					
Clay	7	7			
Clay, sandy	5	12			
Clay, hard	14	26			
Louviere Alluvium:					
Gravel	12	38			
Dawson Formation (upper part):					
Conglomerate	6	44			
Clay	2	46			
Shale	2	48			
C2-67-11daga. Alt. 5,110 ft.					
Eolian sand:					
Sand, fine, clayey, loose, brown; 55 percent fines	3.7	3.7			
Sand, fine, silty, moderately calcareous, tan; 25 percent fines		12.7			
Sand, fine, clayey, slightly calcareous, brown; 25 percent fines which decrease with depth	4.4	17.1			
Sand, fine, silty; 30 percent fines	2.9	20			
Sand, fine, silty, tan; 20 percent fines	2.5	22.5			
Louviere Alluvium:					
Sand, gravelly, clayey, light-brown; 65 percent medium to fine sand, 25 percent coarse sand and fine gravels, 10 percent fines	3.9	26.4			
Silt, sandy, clayey, slightly calcareous, brown; 30 percent fine sand	4.4	30.8			
Sand, medium to fine, light-brown; 10 percent fines; saturated at about 13.5 feet	5.8	36.6			
Dawson Formation (upper part):					
Sand, clayey, moderately cemented, gray-tan-white; 20 percent fines; small disc-shaped concretions with a white noncalcareous cementing agent	3	39.6			
Sand, fine, moderately iron stained	4	40			
Sand, fine, silty, tan-gray; 20 percent fines					

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
C2-67-11daga. --Continued			C2-67-12cagb. Alt. 5,120 ft.			C2-67-13apcb. --Continued		
a few small cobbles			Eolian sand:			grains of coarse sand;		
46.0 feet	7.9	47.9	Silt, sandy, brown:			finer decrease with	5.5	35.5
Silt, sandy, clayey,			contains 65 percent			depth.		
light-gray-tan:			silt, 15 percent			Sand, medium to fine,		
25 percent very fine			sand.	2.8	2.8	tan: 55 percent medium		
sand; slightly iron			Sand, silty, calcareous,			sand, 40 percent fine		
stained	4.1	52	tan: contains 60			sand, 5 percent fines	1.9	37.4
Sand, fine, clayey,			percent sand, 40 per-			Sand, clayey, gravelly,		
silty, light-brown;			cent silt	4.4	7.2	light-brown: 75 percent		
30 percent fines;			Sand, fine, loose, cal-			medium and fine sand,		
moderately iron			careous, tan: contains			15 percent fines, 10		
stained	2	54	90 percent fine sand,			percent fine gravel;		
			10 percent silt	5.4	12.6	slightly iron stained	3.9	41.3
C2-67-11dccc. Alt. 5,115 ft.			Silt, sandy, calcareous;			Sand, fine, silty,		
Eolian sand:			contains 65 percent			slightly cemented,		
Sand, fine to medium,			silt, 15 percent			light-gray: 25 percent		
loose, angular to sub-			sand.	4.1	16.7	fines; moderately		
angular, slightly silty,			Clay, fine, sandy, cal-			calcareous, highly		
tan	10	10	careous, red-tan; con-			iron stained in frac-		
Sand, fine to medium,			tains 55 percent clay,			tures: iron stained at		
slightly calcareous,			15 percent sand, 10			about 43.0 feet; not		
silty, slightly clayey,			percent silt; mottled			cemented below 44.0		
tan	4	14	with calcium carbon-			feet: slight amount of		
Sand, fine to medium,			ate	2.7	19.4	clay, 1 to 4 percent.	4.7	46
cemented.	2	16	Sand, fine, tan: con-			C2-67-13accc. Alt. 5,140 ft.		
Louviere Alluvium:			tains 90 percent sand,			Eolian sand:		
Silt, sandy, calcareous,			10 percent silt	.6	20	Sand, fine, clayey, brown:		
slightly bentonitic,			Sand, fine, loose,			30 percent fines;		
salmon-tan.	9	25	mildly calcareous,			moderately calcareous		
Silt, calcareous, sandy,			tan: contains a trace			at 3.0 feet.	10	10
compact, very bentoni-			of silt	6.3	26.3	Sand, clayey, brown:		
tic	4	29	Silt, sandy, highly			20 percent fines, 20		
Dawson Formation (upper part):			calcareous, tan: con-			percent medium and		
Shale, variegated	5	34	tains 70 percent silt,			coarse sand; slightly		
Silt, sandy, very bento-			30 percent fine sand,			calcareous; moisture		
nitic, calcareous,			and a trace of clay	2	28.3	increasing about 13.0		
micaceous, at 34			Sand, fine, loose, wet,			feet, clay content de-		
feet			tan: contains a trace			creasing at about 15.5		
C2-67-11ddcc. Alt. 5,123 ft.			of silt; saturated			feet	8.1	18.1
Eolian sand:			at 29.5 feet.	11.7	40	Sand, fine, loose, light-		
Sand, very fine to medium,			Sand, fine, tan-brown;			brown: 10 percent		
clayey, poorly sorted,			contains 5 to 7 per-			fines.	1.9	20
slightly bentonitic	3	3	cent silt and clay.	5.5	45.5	Dawson Formation (upper part):		
Louviere Alluvium:			Sand, as above, be-			Sand, as above: 5 to		
Silt, sandy, calcareous,			coming coarse; contains			10 percent fines; wet,		
slightly bentonitic	3	6	75 percent medium			slightly iron stained,		
Sand, very fine, silty,			sand, 15 percent fine			increase in silt at		
very calcareous, ben-			sand, 10 percent coarse			about 22.5 feet: sat-		
tonitic	4	10	sand, pebbles to			urated at about 24.5		
Clay and silt, slightly			diameter of 1.0			feet	7.3	27.3
sandy, tan, micaceous,			inches.	.9	46.4	Sand, fine, clayey,		
calcareous, bentoni-			Dawson Formation (upper part):			light-brown: 15 per-		
tic	10	20	Clay, nonplastic, gray-			cent fines; some gravel;		
Clay and silt, sandy,			brown: contains iron			contains many gypsefer-		
tan, very bentonitic	9	29	stains, carbonaceous			ous growths.	2.7	30
			matter, color changing			Sand, clayey, gravelly,		
C2-67-12abbb. Alt. 5,115 ft.			to gray-green at 48.5			slightly calcareous,		
Eolian sand:			feet.	3.6	50	light-brown: 50 per-		
Sand, very fine to medium,			C2-67-13abcb. Alt. 5,130 ft.			sand, 30 percent		
subangular to angular,			Eolian sand:			fine gravels, 20 per-		
loose, tan.	15	15	Sand, fine, clayey,			cent fines	3.4	33.4
Louviere Alluvium:			silty, brown: 30			Silt, sandy, clayey,		
Sand, fine, clayey, very			percent fines	3.8	3.8	slightly weathered,		
calcareous.	10	25	Sand, fine, silty,			medium-gray; moderately		
Sand, medium to coarse,			loose, moderately			iron stained: 15 per-		
fairly well-sorted,			calcareous, brown:			cent very fine sand,		
very loose, suban-			20 percent fines.	3.5	7.3	very micaceous	1.3	36.7
gular to subrounded	10	35	Sand, clayey, moderately			Clay, silty, dark-gray:		
Sand, coarse to very			calcareous, brown:			5 percent fine sand:		
coarse, well-sorted,			60 percent fine sand,			color changes to tan-		
subangular, loose	11	46	25 to 30 percent fines,			gray, slightly iron		
Sand, fine clayey, very			10 percent medium and			stained at about 38.5		
slightly calcareous;			coarse sand	2.7	10	feet	3.3	40
plastic when wet:			Sand, clayey, slightly			C2-67-13babb. Alt. 5,125 ft.		
at 46 feet			calcareous, brown:			Eolian sand:		
C2-67-12bcba. Alt. 5,110 ft.			40 percent fines, fines			Sand, poorly sorted, fine		
Eolian sand:			decreasing with			to coarse, angular to		
Sand.	18	18	depth	7.7	17.7	subangular, loose		
Clay.	5	23	Dawson Formation (upper part):			light-brown.	5	5
Louviere Alluvium:			Sand, fine, silty, loose,			Silt, finely sandy and		
Sand, fine.	17	40	slightly calcareous,			clayey, very calcareous,		
Gravel.	9	49	light-brown: 20 per-			yellowish-tan.	5	10
Dawson Formation:			cent fines, slightly			Sand, medium to very		
Clay.	3	52	iron-stained.	2.3	20	coarse, angular to		
Shale	1	53	Sand, fine, silty, loose,			subangular, loose,		
C2-67-12bdad. Alt. 5,123 ft.			light-brown	2.1	22.1	tan.	10	20
Eolian sand:			Sand, fine, light-brown:			Dawson (?) Formation (upper part):		
Clay, sandy	19	19	5 to 10 percent fines,			Sand, coarse, subangular		
Sand.	4	23	slightly iron stained;			to subrounded, and		
Louviere Alluvium:			saturated at approxi-			very fine gravel	15	35
Gravel.	12	35	mately 25.0 feet.	4.8	26.9	Sand, medium, clayey,		
Dawson Formation (upper part):			Sand, fine, clayey,			calcareous	4	39
Sandstone, soft	3	38	light-brown: 15 to			Sand, medium to coarse,		
Clay, hard, yellow.	2	40	20 percent medium			loose: contains silt;		
Shale	3	43	and coarse sand, 15			at 39 feet		
			percent fines; slightly					
			calcareous.	3.1	30			
			Sand, fine, clayey, tan-					
			brown: 20 percent					
			fines, 20 percent					
			medium sand; occasional					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-13bccc. Alt. 5.140 ft.					
Eolian sand:					
Clay, sandy, slightly bentonitic, pale-gray to pink	5	5			
Clay, silty, calcareous, yellowish-gray	5	10			
Clay, silty, calcareous, yellowish-gray, more compact and firm . . .	1	11			
Clay, as above; contains calcareous materials .	4	15			
Dawson(?) Formation (upper part):					
Clay, very plastic, sticky, mostly silt free, tan to buff . .	10	25			
C2-67-14aaaa. Alt. 5.125 ft.					
Eolian sand:					
Clay, silty, sandy, calcareous, bentonitic, tan	3	3			
Verdos Alluvium:					
Clay, sandy, calcareous, bentonitic, cream-white to grayish-orange . .	5	8			
Sand, fine to medium, silty, calcareous, bentonitic	5	13			
Clay, silty, sandy, calcareous, bentonitic, grayish-orange .	7	20			
Dawson Formation (upper part):					
Shale, weathered, yellow to brown	4	24			
Silt, coarse, and very fine sand, calcareous, slightly bentonitic, dark-tan	1	25			
Clay, very bentonitic, tan	4	29			
C2-67-14babb. Alt. 5.100 ft.					
Eolian sand:					
Sand, fine to very fine, silty	7	7			
Sand, medium to coarse, silty, calcareous, coarse grains, sub-rounded	3	10			
Sand, fine to medium, angular to subangular, clayey	2	12			
Sand, very fine, angular, finely micaceous; contains some medium gravel	3	15			
Sand, very fine, angular; contains some fine gravel, subrounded to rounded	2	17			
Dawson Formation (upper part):					
Silt, clayey, sandy, calcareous, cemented, pale-tan	8	25			
Sand, coarse to very coarse, subangular to subrounded, coated, calcareous	1	26			
Gravel, fine to coarse, poorly sorted, sub-angular, arkosic	1	27			
Gravel, very fine to fine, subangular to subrounded, calcareous .	7	34			
Silt, sandy	5	39			
C2-67-14bddd. Alt. 5.120 ft.					
Piney Creek Alluvium:					
Sand, fine, silty, dark-brown; 80 percent fine sand, 20 percent clay and silt	3.8	3.8			
Clay, fine, sandy, wet, light-brown; 70 percent clay, 30 percent fine sand; very calcareous	2.5	6.3			
Sand, fine, silty, loose, wet, slightly calcareous, dark and light-brown; 80 percent fine sand, 15 percent silt . . .	1.9	8.2			
Sand, fine, clayey, loose, wet, very calcareous, tan; 45 percent clay, 35 percent fine sand .	1.3	9.5			
Sand, fine, silty, loose, saturated, very calcareous, tan; 60 percent fine sand, 40 percent silt and clay . . .	5.5	15			
C2-67-14bddd. Alt. 5.071.5 ft.					
Piney Creek Alluvium:					
Sand, fine, clayey, gray-tan; 40 percent fines; highly calcareous below 0.5 feet	4.5	4.5			
Silt, sandy, clayey, tan to medium-gray; 20 percent fine sand, moderately iron stained; slightly iron stained at about 7 feet; moderately calcareous at 9 feet .	5.8	10.3			
Sand, fine, silty, brown; 25 to 30 percent fines; slightly clayey, slightly calcareous; clay content increasing at about 13 feet; saturated at 14 feet . .	5.1	15.4			
Broadway and Louviers Alluvium, undifferentiated:					
Sand, fine, clayey, brown; 35 percent fines, 10 percent lime nodules; highly calcareous at 17.3 feet, moderately iron stained about 18.0 feet; some gravel . .	4.7	20.1			
Gravel, clayey, sandy, loose, brown-gray; 35 percent sand, 15 to 20 percent fines; moderately iron stained	8.1	28.2			
Sand, gravelly, loose, tan; contains a trace of clay, 55 percent fine sand, 25 percent medium sand, 20 percent fine gravel, 10 percent coarse gravel . .	1.8	30			
Sand, gravelly, loose, red-tan; 40 percent medium sand, 30 percent fine gravel, 15 percent coarse sand, 15 percent fine sand, trace of clay-silt . .	3.7	33.7			
Dawson Formation (upper part):					
Clay, fine, sandy, blue-gray; 85 percent clay, 15 percent very fine sand, trace of silt; trace iron oxide, moderately iron stained .	6.3	40			
C2-67-15bccc. Alt. 5.084 ft.					
Piney Creek Alluvium:					
Clay	17	17			
Broadway Alluvium:					
Gravel	13	30			
Dawson Formation:					
Clay	3	33			
Shale	10	43			
C2-67-15cddd. Alt. 5.100 ft.					
Younger loess:					
Clay, silty, micaceous, bentonitic	8	8			
No sample	2	10			
Verdos Alluvium:					
Clay, silty to finely sandy, calcareous, bentonitic, pale-orange	5	16			
Clay, silty, sandy, bentonitic, noncalcareous, pale-orange	5	21			
Clay, silty, sandy, bentonitic, very calcareous, pale-orange	3	24			
Gravel, very fine, brown clay, and coarse sand .	6	30			
Gravel, coarse, rounded to subrounded	2	32			
Gravel, medium, and sandy clay	2	34			
Dawson formation (upper part):					
Silt, gravelly, sandy, very bentonitic, calcareous	4.5	38.5			
Shale, gray, at 38.5 feet					
C2-67-15cddd. Alt. 5.120 ft.					
Eolian sand:					
Silt and clay, calcareous, bentonitic	4	4			
Dawson Formation (upper part):					
Clay; contains gravel	2	6			
Silt and clay, sandy, bentonitic, tan	1.5	7.5			
Clay, silty, bentonitic, very calcareous, tan .	4.5	12			
Clay, bentonitic, yellowish-tan	6	18			
Clay, slightly silty, calcareous, bentonitic, yellowish-tan	12	30			
Clay, bentonitic, non-calcareous	5	35			
No sample	4	39			
Silt, very fine; clay, very bentonitic, slightly calcareous, slightly sandy	8	47			
Silt, sandy, calcareous, very bentonitic	2	49			
C2-67-16cddd. Alt. 5.097 ft.					
Broadway Alluvium:					
Silt and clay, sandy, calcareous, salmon-tan; contains montmorillonite	5	5			
Clay, silty, medium-brown	5	10			
Louviers Alluvium:					
Clay, less sandy, silty, calcareous, bentonitic, salmon-tan	5	15			
Clay, sandy; contains silt, as above	4	19			
Clay, more sandy; contains silt as above and coarse sand, very fine gravel, and scattered cobbles .	2	21			
Silt, sandy, bentonitic .	3	24			
Dawson Formation (upper part):					
Rock	1	25			
C2-67-16dabc. Alt. 5.078 ft.					
Broadway Alluvium:					
Soil	1	1			
Clay, yellow	17	18			
Louviers Alluvium:					
Sand	16	34			
Dawson Formation (upper part):					
Clay, yellow	2	36			
Shale, gray	168	204			
Sand, fine	12	216			
Shale, gray	25	241			
Sandstone, blue	17	258			
Shale, gray	16	274			
Sandstone, gray	4	278			
Shale, gray	22	300			
Shale, brown	4	304			
Shale, gray	44	348			
Dawson Formation (lower part):					
Lime, sandy (middle conglomerate, 348 to 533 feet)	4	352			
Sand, fine	3	355			
Shale, gray	15	370			
Sand, fine	11	381			
Shale, gray	14	395			
Sand, fine	5	400			
Shale, gray	9	409			
Sand, fine	8	417			
Shale, gray	17	434			

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-16dabc. --Continued		C2-67-21aada. --Continued		C2-67-22acdc. --Continued	
Sand, fine and gray		Dawson Formation (lower part):		Shale, as above, but	
Shale	15 489	Sandrock, hard, Middle		brownish-gray with	
Shale, gray	31 520	conglomerate, 182 to		greenish tinge	4 47.5
Sand, fine, and gray		415 feet	1 183	Shale, as above,	
Shale	13 533	Clay, blue-gray	10 191	medium-gray	2.5 50
Shale, gray	46 599	Sandrock, hard	1 194	Shale, as above, greenish-	
Lower conglomerate:		Sandstone	7 401	gray: contains iron	
Sand, fine, and gray		Sandrock, hard	1 402	and manganese stains	4 54
Shale	31 630	Sandstone, fine to		Shale, as above, medium-	
Shale, gray, and sand	82 712	medium	13 415	gray: contains car-	
Lime, sandy	1 713	Clay, gray, shaly	44 459	bonaceous streaks and	
C2-67-16dccc. Alt. 5,092 ft.		Lower conglomerate:		flacks	3 57
Broadway Alluvium:		Sandstone, medium	14 473	Shale, light-gray	2 59
Topsoil	1 1	Sand and streaks of		Shale, greenish-gray	2.6 61.6
Clay, silty, light-		clay	7 480	Shale, greenish-gray:	
gray	3 4	Clay, gray	5 485	iron stains	3.5 65.1
Clay, silty, reddish	1 5	Sandstone and streaks of		Silt, fine, sandy,	
Clay, plastic, tan:		clay	5 490	friable, rusty-dark-	
contains isolated		Shale, gray, and clay	45 535	brown: 70 percent silt,	
grains of sand and				30 percent fine sand:	
gravel	15 20			contains minor amount	
Louviers Alluvium:		C2-67-21bdcc. Alt. 5,107.4 ft.		of clay	2.1 67.2
Clay: contains large		Piney Creek Alluvium:		Claystone, grayish-blue:	
pebbles	2 22	Clay	30 30	20 to 30 percent silt:	
Gravel, moist	3 25	Broadway and Louviers Alluvium,		some silt and very fine	
Clay interbedded with		undifferentiated:		sand at 70 feet: micaceous	
gravel	10 35	Gravel	17 47	at 71 feet	5.9 73.1
Dawson Formation (upper part):		Clay	9 56	Sand, silty, very fine,	
Shale, weathered		Sand, fine and gravel	16 72	micaceous	1.1 74.2
(hard drilling)	3 38	Clay	3 75	Shale, dark-gray with	
Shale, hard, gray	8 46	Gravel, coarse	22 97	bluish tinge	4.3 78.5
Shale, soft, gray	2 48			Shale, as above, medium-	
Shale, silty, hard,		C2-67-22acbd2. Alt. 5,141 ft.		gray	11.5 90
gray	15 83	Eolian sand and Verdos(?) Alluvium,		Shale, as above, medium-	
C2-67-20abab. Alt. 5,073 ft.		undifferentiated:		greenish-gray: contains	
Post-Piney Creek alluvium and		Overburden	75 75	some very fine sand	4.7 94.7
Louviers Alluvium, undifferentiated:		Dawson Formation (upper part):		Sandstone, fine-grained,	
Topsoil	2 2	Clay, blue, and shale	155 230	friable, highly micaceous,	
Gravel	10 12	Rock	2 232	medium-gray with bluish	
Dawson Formation (upper part):		Clay and shale	63 295	tinge	2.8 97.5
Clay, blue	8 20	Clay, sandy	13 308	Shale, friable, dark- to	
Soapstone	115 135	Clay	17 325	medium-gray: greenish	
Shale, brown	5 140	Dawson Formation (lower part):		tinge at about 101 feet:	
Soapstone	22 162	Clay, sandy, and coarse		some fine sand at 102	
Sand and shale	4 166	sand [Middle conglom-		feet	6.8 104.3
Soapstone	14 180	erate, 325 to 487		Sandstone, fine-grained,	
Sand and shale, gray	5 185	feet.]	31 356	friable, micaceous,	
Sandstone	17 202	Clay	49 405	grayish-green: contains	
Shale, streaky, and		Shale, sandy, and sand-		some silt and clay with	
sandstone	28 230	rock	7 412	hard layers	2.7 107
Sand and shale	7 237	Clay	38 450	Sandstone, friable, hard,	
Shale, hard	3 240	Clay, sandy	10 460	grayish-green	5.5 112.5
Soapstone	8 248	Clay	18 478	Shale, medium- to dark-	
Sandstone	12 260	Sand, fine	9 487	gray: contains carbon-	
Soapstone	10 270	Clay	48 535	aceous flecks: greenish	
Sandstone	40 310	Lower conglomerate:		tinge at about 116	
Sand and shale	5 315	Sand and sandstone	15 550	feet	6.7 119.2
Soapstone	7 322	Clay	35 585	Sandstone, fine-grained	4 119.6
Sand and shale	15 357	Sandstone	5 590	Shale	8 120.4
Shale	3 360	Clay	4 594	Claystone, subfirm,	
Dawson Formation (lower part):		Sand and sandstone	20 614	micaceous, grayish-	
Middle conglomerate:		Clay	46 660	green	9.6 130
Sandstone	10 370	C2-67-22acdc. Alt. 5,148.2 ft.		Sandstone, fine-grained,	
Soapstone	14 384	Eolian sand:		friable, grayish-green:	
C2-67-21aada. Alt. 5,103 ft.		Topsoil	7 7	light-gray at about	
Younger loess:		Sand, fine, silty, cal-		145 feet	16.5 146.5
Topsoil and clay	19 19	careous, medium-brown:		Shale, subfirm, grayish-	
Louviers Alluvium:		15 to 25 percent silt	5.5 6.2	green: light-gray at	
Clay, sandy	2 21	Sand, fine, loose, cal-		about 158 feet	13 159.5
Clay, gray	5 26	careous, medium-brown:		Sand, fine	1.2 160.7
Sand and gravel	21 47	silt, 5 percent	7.4 13.6	Shale, subfirm, dark-	
Dawson Formation (upper part):		Silt, fine, sandy, clayey,		gray	9.9 170.6
Clay, brown	2 49	compact, calcareous,		Sandstone	8 171.4
Clay, blue, and shale	77 126	medium-brown: 50 per-		Shale	6.6 178
Shale, sandy	12 138	cent silt, 30 percent			
Clay, blue, and shale	13 151	sand, and 15 to 20		C2-67-22bbba. Alt. 5,098 ft.	
Shale, sandy	11 162	percent clay: contains		Younger loess:	
Clay, blue, and shale	28 190	calcium carbonate		Silt, finely sandy, tan	4 4
Sandstone	3 193	streaks	3.9 17.5	Silt, very finely sandy,	
Sandstone and clay	3 196	Louviers Alluvium:		calcareous	2 6
Clay, gray	52 248	Silt, calcareous,		Clay, silty, micaceous,	
Clay, sandy	14 262	compact, buff	1.8 19.3	brown	4 10
Clay, blue-gray, and		Silt, fine, sandy, clayey,		Sand, fine to medium,	
shale	20 282	compact, calcareous,		subangular, loose,	
Shale, dark-blue:		medium-brown: 50 per-		micaceous, tan	3 13
contains some coal	4 286	cent silt, 25 percent		Silt, very calcareous,	
Shale, hard, gray	12 298	clay, and 25 percent		sandy, compact, tan	
Clay, blue, and shale	14 332	sand	7.4 26.7	to salmon-tan	3 16
Sandstone, very fine-		Sand, coarse, gravelly,		Verdos(?) Alluvium:	
grained: contains		loose, light-brown:		Silt, very sandy, ben-	
some ash	2 334	contains subrounded		tonitic, calcareous,	
Clay, blue-gray	13 347	pebbles	8.9 35.6	tan to salmon-tan	6 22
Shale, fine, sandy:		Gravel, fine, sandy,		Gravel, fine to medium,	
contains some ash	5 352	loose, light-brown:		subangular, arkosic,	
Sandrock, hard	1 353	contains subangular		and silt	7 29
Shale, blue-gray, and		cobbles	2.4 38	Gravel, very fine to	
clay	3 358	Gravel, as above: con-		fine, subangular,	
Sandstone, hard	4 362	tains streaks of sand	2 40	clean, loose	5 29.5
Clay, gray, and shale	20 382	Shale, weathered, friable,		Gravel, coarse	9.5 29
		dark-gray: iron oxide		Silt, fine to very fine,	
		stains	3.5 43.5	calcareous, clayey,	
				compact, very bento-	
				nitic	5 44

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-22bdbb. Alt. 5,108.8 ft.		C2-67-22dbab.--Continued		C2-67-24aada.--Continued	
Eolian sand:		cobbles up to 2		Sand, medium to coarse.	
Sand, fine, silty,		inches in diameter. 2.7 11.5		loose, calcareous.	
moderately calcareous.		Silt, sandy, calcareous.		dry, medium-brown;	
light-brown; 10 percent		medium-brown; iron		contains very fine	
fines; slightly clayey		stains. 5 12.1		gravel 1.9 21.2	
upper part; moisture		Gravel, sandy, loose.		Silt, clayey, compact,	
content increasing at		light-gray; contains		medium-brown; contains	
about 4 feet. 8.7 8.7		small cobbles, 50		calcareous streaks;	
Silt, clayey, sandy,		percent fines 5.6 17.7		sandy at about 23 feet 5.2 26.4	
gray-brown; 20 per-		Dawson Formation (upper part):		Sand, silty, fine.	
cent fine sand. 3.1 11.8		Claystone, weathered,		medium-gray. 1.7 28.1	
Clay, sandy, moderately		bentonitic, medium-		Clay, sandy, calcareous,	
calcareous, light-		gray; contains iron		greenish-gray; contains	
brown; slightly iron		oxide stains. 2.3 40		gravel 9 29	
stained; 25 percent		C2-67-22diba. Alt. 5,152.7 ft.		Dawson Formation (upper part):	
fine sand 4.6 16.4		Eolian sand:		Shale, weathered, slightly	
Silt, clayey, tan-gray;		Topsoil 1 1		calcareous, medium-gray;	
10 percent fine sand;		Silt, sandy, compact.		contains iron oxide	
slightly calcareous		calcareous, light-		streaks. 5 34	
with exception of		brown 1.8 2.8		Siltstone, weathered,	
highly calcareous		Sand, silty, fine,		laminated, brownish-	
nodules 3.1 19.5		loose, calcareous,		gray 1.4 35.4	
Sand, fine, silty, tan;		medium-brown. 3.5 6.3		Shale, weathered,	
20 percent fines;		Verdoo Alluvium:		maroonish-gray; con-	
slightly iron stained,		Silt, light-gray and		tains leaf impressions	
moderately calcar-		grayish-yellow. 2 8.3		and carbonaceous	
eous. 1.7 21.2		Sand, fine, calcareous,		streaks and flecks 2.6 38	
Silt, sandy, clayey,		medium-brown; contains		C2-67-24dbcd. Alt. 5,169.3 ft.	
tan-gray; moderately		calcium carbonate		Eolian sand:	
iron stained; moder-		streaks and mont-		Silt, fine, sandy, com-	
ately calcareous;		morillonite clay. 4.5 12.8		pact, dark-brown;	
occasional large		Silt, calcareous, com-		contains 15 to 20	
hard lime nodules;		pact, buff to light-		percent sand 2.7 2.7	
color changes to light-		brown; contains mont-		Sand, fine, silty, com-	
gray at about 26		morillonite clay. 5.6 18.4		pact, calcareous,	
feet. 6.2 27.4		Sand, medium, compact,		light- to medium-brown;	
Sand, clayey, brown;		moderately calcareous,		10 to 20 percent silt 7.3 10	
35 percent fines;		medium-brown, and silt		Sand, as above, but 15	
occasional pebbles,		Sand, silty, fine, cal-		to 25 percent silt 3.2 13.2	
slightly calcareous,		careous, medium-brown		Sand, fine to medium,	
slight iron stains,		Silt, clayey, compact,		loose, wet, light-	
occasional small		calcareous, light-		brown. 4.1 17.3	
lime nodules. 2.4 29.8		gray. 2.9 27.3		Sand, fine, silty; sat-	
Sand, brown; 15 to 40		Sand, coarse, gravelly,		urated at 18.5 feet. 2.9 20.2	
percent fines, 2 to		loose, medium-gray;		Sand, fine to medium,	
4 percent carbonaceous		contains coarse		loose, light-brown 3.2 23.4	
material. 3.9 33.7		gravel. 5.2 32.6		Dawson Formation (upper part):	
Verdoo (?) Alluvium:		Gravel, sandy, loose,		Shale, weathered, medium-	
Sand, gravelly, saturated,		light-gray; contains		gray; contains iron	
brown-gray; 10 percent		small pebbles; sat-		stains; carbonaceous	
gravel (maximum diameter		urated at 39 feet 7.4 40		flecks and a blue	
3 inches), 25 percent		Gravel, sandy, loose,		tinge at about 29	
medium sand, 20 percent		medium-brown; contains		feet 6.1 29.5	
coarse sand, 20 percent		5 percent clay and		C2-67-25bdad. Alt. 5,224.0 ft.	
fine sand, 5 percent		plastic fines 6.1 46.1		Eolian sand:	
fines, occasional		Gravel, clayey. 1.5 47.6		Topsoil. 4 4	
cobbles; rounded to		Dawson Formation (upper part):		Silt, sandy, light-	
well-rounded, grains		Claystone, weathered,		medium-brown; contains	
have sphericity 6 39.7		subfirm, medium-gray		some gravel. 3.7 4.1	
Sand, clayey, iron		C2-67-23abdb. Alt. 5,150.1 ft.		Silt, compact, calcareous,	
stained, partly ce-		Eolian sand:		buff; contains very	
mented with iron.		Topsoil 9 9		coarse gravel. 8 4.9	
brown-gray. 2.6 42.3		Verdoo Alluvium:		Verdoo Alluvium:	
Sand, silty, fine,		Silt, clayey, light-		Gravel, clayey, compact,	
slightly iron stained,		brown; medium-brown		calcareous, grayish-	
light-gray. 1.9 44.2		from 1 to 5 feet:		brown; contains small	
Sand, clayey, dark-gray		wet at about 7 feet:		cobbles. 9.9 14.3	
.8 45		contains volcanic		Silt, sandy, clayey,	
C2-67-22opad. Alt. 5,146.3 ft.		ash 6.9 7.8		brownish-gray; contains	
Eolian sand:		Sand, coarse, loose,		medium gravel. 2.4 17.2	
Topsoil 1.2 1.2		saturated, light-		Sand, silty, clayey,	
Silt, sandy, compact,		brown 4.1 11.9		brownish-gray, calcareous;	
medium-brown. 1 2.2		Dawson Formation (upper part):		contains very fine	
Sand, silty, fine,		Claystone, weathered,		gravel 1.2 20.4	
loose, calcareous,		dark-gray 4.4 16.3		Gravel, clayey, calcareous,	
light-brown 5.4 7.6		Silt, sandy, loose,		brownish-gray. 2.2 22.6	
Silt, sandy, loose,		yellowish-brown 1.8 18.1		Sand, silty, clayey,	
medium-brown; contains		Shale, weathered, sub-		brownish-gray; contains	
calcium carbonate		firm, slightly cal-		some medium gravel 3.3 25.9	
streaks 2.4 10		careous, medium-gray;		Sand, fine, loose,	
Verdoo Alluvium:		iron stained. 1.9 20		brownish-gray, yellow-	
Silt, as above, with		C2-67-24aada. Alt. 5,193 ft.		ish-green, and light-	
pebbles 6.1 16.1		Eolian sand:		brown. 8.8 34.7	
Silt, compact, light-		Topsoil 8 8		Dawson Formation (upper part):	
gray; contains small		Sand, silty, fine, loose,		Shale, weathered, medium-	
amount of montmorillo-		calcareous, medium-		gray; contains iron	
nite at about 19 feet		brown 7.5 8.1		oxide stains 4.3 19	
Sand, silty, fine,		Silt, loose, damp, cal-			
compact, medium-brown,		careous, medium-brown			
moderately calcareous;		2.9 11.2			
contains a few small		Verdoo Alluvium:			
pebbles at about 22		Silt, calcareous, com-			
feet. 1.5 23.7		pact, buff; contains			
Sand, fine to medium,		montmorillonite clay			
clayey, calcareous,		Silt, sandy, clayey,			
brown 1 24		compact, medium-brown;			
Sand, coarse, loose,		contains calcareous			
light-brown; pebbles		streaks 4.2 16.7			
as large as 1 inch		Sand, silty, fine, com-			
in diameter 4.8 28.8		pact, calcareous.			
Gravel, sandy, loose,		medium-brown. 2.6 19.3			
light-brown to gray;					

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-25bdad. Alt. 5,224.0 ft.		C2-67-26apac.--Continued		C2-67-26abac.--Continued	
Eolian sand:		Shale, silty, gray: contains		quartzitic, gray to	
Topsoil 4		a trace of siltstone 10		green. 10	
Silt, sandy, light-		Siltstone to very fine-		Shale, silty, gray to	
medium-brown; contains		grained sandstone, gray		gray-green 10	
some gravel 3.7		to black, salt and pepper.		Shale, dark-gray 50	
Silt, compact, calcareous,		shaly; contains carbon-		Siltstone, shaly, light-	
buff; contains very		aceous inclusions 10		gray; contains some	
coarse gravel 8		Shale, silty, light-		glauconite 40	
Verdos Alluvium:		gray. 10		Shale, dark-gray 10	
Gravel, clayey, compact,		Gravel, medium to very		Siltstone, hard, gray. 10	
calcareous, grayish-		coarse, clear to buff 10		Shale, gray to dark-	
brown; contains small		Shale, gray 10		gray, in part silt,	
cobbles 9.9		Shale, gray, in part		Siltstone, grading to	
Silt, sandy, clayey,		silty 40		very fine-grained	
calcareous, brownish-		Dawson Formation (lower part):		sandstone, gray; very	
gray; contains medium		Gravel to sand, clear		glauconitic. 10	
gravel. 2.4		to white to brown		Shale and siltstone. 15	
Sand, silty, clayey,		[Middle conglomerate,		Shale, gray to dark-	
brownish-gray, calcar-		370 to 480 feet.] 10		gray 5	
eous; contains very		Sand, medium to coarse,		Siltstone, medium hard,	
fine gravel 3.2		clear to buff 10		white to gray. 10	
Gravel, clayey, calcar-		Shale, gray 20		Sandstone, silty 10	
eous, brownish-gray 2.2		Sand, coarse to very		Siltstone, medium hard,	
Sand, silty, clayey,		coarse, clear to buff 20		white to gray. 10	
brownish-gray; contains		Sand, coarse to very		Shale, dark-gray 40	
some medium gravel. 3.3		coarse, clear to buff,		Coal 30	
Sand, fine, loose,		and gray shale. 10		Sandstone, fine- to	
brownish-gray, yellow-		Shale, silty gray. 10		medium-grained, loosely	
ish-green, and light-		Sand, coarse, grading		consolidated, clear	
brown 8.8		to gravel, clear to		to white; contains	
Dawson Formation (upper part):		buff. 20		subangular grains (B	
Shale, weathered, medium-		Sandstone, medium-grained,		sandstone, 1,250 to	
gray; contains iron		quartz, shaly, soft,		1,325 feet.) 40	
oxide stains. 4.3		gray to black; con-		Shale, silty, gray to	
C2-67-25dcca. Alt. 5,229.6 ft.		tains carbonaceous		dark-gray. 10	
Eolian sand and Dawson Formation		inclusions. 10		Sandstone, fine- to	
(upper part), undifferentiated:		Shale, gray to gray-		medium-grained 23	
Topsoil 6		green 40		Shale, silty gray. 4	
Silt, sandy, medium-brown;		Shale, gray to gray-		Sandstone, fine- to	
calcareous at about		green, siltstone, and		medium-grained, shaly,	
2 feet; more sandy		very fine-grained gray		loosely consolidated,	
with minor amount of		to white sandstone;		clear to white; contains	
clay at about 8 feet 18.2		contains some mica		traces of glauconite,	
Dawson Formation (upper part):		and trace of glau-		pyrite, and carbonaceous	
Silt, sandy, clayey,		conite. 40		inclusions; sand grains	
compact, calcareous,		Shale, gray 20		are subangular (A sand-	
medium-brown; contains		Shale, gray, and gray		stone, 1,327 to 1,380	
some fine gravel. 5.8		medium hard silt-		feet.) 53	
Clay, silty, semiplastic,		stone 10		Shale, dark-gray, and	
calcareous, medium-		Shale, gray 15		silty sandstone. 10	
brown 10.6		Siltstone, gray, hard,		Fox Hills Sandstone:	
Silt, sandy, loose,		shaly, and fine-grained		Milliken Sandstone Member:	
micaceous, calcareous,		sandstone (lower con-		Sandstone, very fine- to	
light-gray. 9		glomerate, 605 to 700		fine-grained, shaly,	
Sand, fine, loose, light-		feet.) 15		loosely consolidated,	
gray. 1.9		Shale, silty, gray. 20		gray to white; contains	
Silt, sandy, semiplastic,		Siltstone, gray, to very		trace of glauconite;	
calcareous, grayish-		fine-grained sand-		sand grains are sub-	
brown; contains some		stone 10		angular. 20	
clay; streaks of sat-		Siltstone to medium-		Sandstone, fine- to	
urated sand at about		grained sandstone 10		medium-grained, shaly,	
45 feet 12		Shale, gray 20		loosely consolidated,	
Sand, fine to medium,		Sand, coarse, clear to		gray to white; contains	
loose, brownish-gray 1.2		buff. 20		trace of glauconite;	
Shale, weathered, rusty-		Laramie Formation:		sand grains are sub-	
brown; contains car-		Shale, gray 10		angular. 25	
bonaceous matter and		medium-grained, shaly,		Transition zone:	
plant impressions:		soft, white to gray;		Shale, silty, gray, dark-	
slightly calcareous 2		contains carbonaceous		gray, and gray-brown 65	
Coal (lignite), weathered;		inclusions. 20		Shale, gray and gray-	
contains small pieces		Shale, silty, gray. 10		green, in part silty 40	
of amber, very hard		Shale, silty, gray,		Shale, gray to dark-	
from 54.0 to 56.0		and gray shaly silt-		gray 30	
feet. 2.8		stone 10		Shale, gray to dark-	
C2-67-26abac. Alt. 5,197.3 ft.		Shale, silty, gray. 25		gray, and white to	
Verdos Alluvium and Dawson(?)		Sandstone, fine- to		gray siltstone 20	
Formation, undifferentiated:		medium-grained, shaly,		Shale, gray to dark-	
Conglomerate, quartz,		gray. 11		gray, in part silty. 50	
angular, unconso-		Shaly, silty gray; con-		Siltstone, white to	
lided 90		tains carbonaceous		gray 20	
Dawson Formation (upper part):		inclusions. 14		Siltstone, white to	
Shale, dark-gray. 60		Shale, silty, gray;		gray, and gray to	
Sand, medium, rounded,		contains carbonaceous		dark-gray shale. 50	
unconsolidated, white,		inclusions and some		Siltstone, shaly, gray 10	
[Upper conglomerate,		siltstone grading to		Shale, gray to dark-	
150 to 190 feet.] 6		shaly gray fine-		gray, in part silty. 30	
Gravel, very coarse,		grained sandstone 40		Shale, gray to dark-	
clear to buff; con-		Shale, silty, gray,		gray, siltstone grading	
tains light-gray shale		siltstone and shaly		to fine-grained white	
from 160 to 170 feet 14		gray fine-grained		to gray salt and	
Shale, gray to light-		sandstone; contains		pepper medium hard	
gray. 10		a trace of coal 40		sandstone; contains	
Shale, gray to light-		Shale, silty, gray. 10		some glauconite. 70	
gray; contains gravel 10		Shale, silty, gray and		Pierre Shale:	
Shale, gray 60		gray-green. 70		Shale, gray to dark-	
Shale, silty. 20		Shale, silty, gray;		gray, in part silty. 210	
Siltstone, compact, gray		contains a trace of		No record. 20	
to gray-green, and		coal. 10		Siltstone, gray, hard,	
gray silty shale 10		Siltstone, glauconitic,		and silty light-gray	
		hard, grading to		shale. 50	

Table 1.--Log of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-26abac --Continued		C2-67-26adda . Alt. 5,220.0 ft. Eolian sand:		C2-67-29ccdd --Continued	
Siltstone, shaly, medium hard, gray; contains trace of pyrite from 2,130 to 2,140 feet	60 2,160	Topsoil	.6 .6	Shale, sandy, gray	22 184
Shale, silty, gray, and gray shaly medium hard siltstone	40 2,200	Silt, sandy, compact, dark-brown	2.1 2.7	Sandstone, calcareous, cemented, blue-gray	16 400
Siltstone, shaly, hard, gray	230 2,430	Sand, fine, silty, calcareous, medium-brown	3.1 5.8	Shale, gray, interbedded with sand	15 415
Shale, very silty, gray	10 2,440	Verdors Alluvium:		Sandstone, fine, well-cemented, gray	6 421
Siltstone, shaly, hard, gray	10 2,470	Silt, clayey, loose semiplastic, calcareous, medium-brown; contains calcium carbonate streaks and sand	9.2 15	Shale, gray	4 425
Shale, very silty, gray	10 2,480	Silt, as above; contains more sand	8.4 23.4	Dawson Formation (lower part): Sandstone, gray; contains streaks of shale	
Shale, very silty, gray, and gray shaly hard siltstone	50 2,530	Silt, clayey, semiplastic, calcareous, medium-brown; contains very coarse gravel	6.6 30	Middle conglomerate, 425 to 570 feet	13 438
Siltstone, white to gray, soft to friable, grading to fine-grained sandstone; contains gray silty shale between 2,540 and 2,550 feet	20 2,550	Sand, coarse, loose, calcareous, medium-brown; contains small cobbles	2.1 32.1	Sand, fine	5 443
Shale, silty, gray	10 2,560	Sand, fine to medium, loose, calcareous, medium-brown contains very coarse gravel	8.3 40.6	Shale, sandy	11 454
Sandstone, fine to very fine-grained, white to gray, soft	10 2,570	Gravel, coarse, loose, brownish-gray, sand, and small cobbles	1.3 41.9	Sand, fine, cemented	10 464
Shale, silty, gray; contains trace of gypsum between 2,600 and 2,610 feet	40 2,610	Sand, fine, loose, saturated, greenish-gray	4.3 46.2	No sample	9 472
Shale, silty, gray, and clear to buff, coarse to very coarse sand	20 2,630	No sample	5.8 52	Sand, fine, soft, gray	2 481
Shale, silty, gray, and gray medium hard siltstone	10 2,640	Dawson Formation (upper part): Sand, fine, loose, greenish-gray; contains layers of clay and silt	2 54	Shale	6 487
Siltstone, medium hard, gray	10 2,650	Siltstone, sandy, compact, laminated, light-brown	2 56	Sand, fine, soft, clean, well-rounded, gray	13 500
Siltstone, hard, quartzitic, gray to gray-green, shaly from 2,660 to 2,670 feet	20 2,670	C2-67-27baab . Alt. 5,134.0 ft. Eolian sand:		Shale and interbedded thin layers of shaly sand	37 537
Siltstone, white, grading to very fine-grained soft glauconitic sandstone	30 2,700	Topsoil	.8 .8	Sand, fine, soft, clean	15 552
Shale, silty, gray	10 2,710	Sand, silty, fine	3.5 4.3	Shale, sandy	4 556
Siltstone, soft, gray	20 2,730	Silt, clayey, sandy, fine	23.3 27.6	Sand, fine, soft, clean	14 570
Sandstone, fine-grained, soft, gray to white	20 2,750	Clay, silty	10.2 37.8	Shale, gray and brown	42 612
Siltstone, shaly, hard, brown	10 2,760	Louviers Alluvium:		Sand, fine, shaly	18 630
Shale, silty, gray	10 2,770	Sand, silty, fine	3.9 41.7	Shale, gray and brown	20 650
Siltstone, gray to white, grading to fine-grained medium hard sandstone	10 2,780	Sand, fine to medium	2.8 44.5	Lower conglomerate:	
Shale, silty, gray	120 2,900	Sand, coarse	6 50.5	Sand, fine	20 670
Siltstone, hard, white to gray	10 2,910	Clay, silty	6.7 57.2	Shale, gray	15 685
Shale, silty, gray	20 2,930	Gravel, coarse, sandy	6 63.2	Sandstone, gray; contains thin shale layers throughout	23 708
Siltstone, medium hard, gray	10 2,940	Dawson Formation:		Shale, very sandy in thin layers	27 735
Shale, silty, gray	70 3,010	Shale	1.8 65	Sand, fine	10 745
Siltstone, hard, white to gray	10 3,020	C2-67-28aabd . Alt. 5,120 ft. Eolian sand:		Shale, sandy	5 750
Shale, silty, gray	10 3,030	Topsoil	5 5	Sand, fine, becomes shaly	25 775
Siltstone, shaly, medium soft, gray; contains trace of gypsum between 3,050 and 3,060 feet	30 3,060	Sand	8 13	Shale, gray	7 782
Shale, silty, gray	10 3,070	Louviers Alluvium:		Sand, shaly, and shale	8 790
Siltstone, hard, gray	60 3,130	Clay	14 27	C2-67-30abaa . Alt. 5,071 ft. Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, silty, gray	30 3,160	Sand and gravel	23 50	Overburden	30 30
Siltstone, medium hard, gray to white	20 3,180	Clay	21 71	Dawson Formation (upper part):	
Shale, gray, in part silty	340 3,520	Sand, gravel, and rock	6 77	Clay, blue	132 162
Niobrara Formation:	-	Dawson Formation:		Sandstone	3 165
Benton Shale:	- 8,076	Shale	5 82	Clay, blue	75 240
Dakota Group:	- 8,485	C2-67-29ccdd . Alt. 5,123.5 ft. Piney Creek Alluvium:		Shale	12 252
South Platte Formation:	- 8,485	Soil	2 2	Clay, blue	33 285
Lytle Formation:	- 8,633	Clay, sticky, yellow to gray	23 25	Shale	10 295
Morrison Formation:	- 8,786	Dawson Formation (upper part):		Clay, blue	51 346
Lykins Formation:	- 8,972	Shale, blue and gray	13 38	Dawson Formation (lower part):	
Lyons Sandstone:	- 9,582	Sandstone, fine, cemented	22 60	Middle conglomerate:	
Pountain Formation:	- 9,772	Shale, sticky, blue and gray	33 93	Sandstone and sand	14 360
Ordovician (?)	- 11,895	Sandstone, fine, gray	3 96	Clay, blue	35 395
Precambrian:	- 11,974	Shale, gray	4 100	Sand and sandstone	13 408
Total depth of well (Formation tops only given in this log, beginning with Niobrara Formation.)	- 12,045	Sandstone, fine, gray	5 105	Clay, blue	12 420
		Sand, lime cemented	5 110	C2-67-31ddcd . Alt. 5,155 ft. Broadway and Louviers Alluvium, undifferentiated:	
		Sandstone, fine, well-cemented, gray	15 125	Sand and gravel	47 47
		Shale, blue-gray	23 148	Dawson Formation (upper part):	
		Sand, fine; contains coal (lignite)	7 155	Clay, yellow	1 48
		Shale, gray	67 222	Shale, gray	11 59
		Coal (lignite)	10 232	Sandstone, gray	5 64
		Shale, gray; becomes sandy	36 268	Shale, gray	206 270
		Sand, fine, soft, clean	12 280	Sand, fine	8 278
		Shale, sandy	22 302	Shale, gray	65 343
		Sand, fine, soft, clean	16 318	Sandstone, gray	17 360
		Shale, gray	28 346	Shale, gray	31 391
		Sandstone, hard, cemented	16 362	Sand	6 397
				Shale, gray	52 449
				Lime, sandy	5 454
				Shale, sandy	7 461
				Dawson Formation (lower part):	
				Sand, medium fine, and gray shale (Middle conglomerate, 461 to 535 feet)	54 515
				Shale, gray	11 526
				Sand	9 535
				Shale, gray	72 607
				Lower conglomerate:	
				Sand, fine	12 619
				Shale, gray	46 665
				Sand, fine	13 678
				Shale, gray	30 708
				Sand, fine	14 722
				Sand and shale	12 734
				Shale, gray	17 751

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-67-13add. Alt. 5,150.0 ft.					
Eolian sand:					
Topsoil and sand . . .	10	10			
Louviers Alluvium:					
Sand, coarse . . .	10	20			
Gravel, coarse, and clay . . .	10	30			
Gravel, coarse . . .	20	50			
Clay, sandy . . .	10	60			
Gravel, coarse . . .	40	100			
Dawson Formation (upper part):					
Shale . . .	30	130			
Shale, hard . . .	40	170			
Shale . . .	10	180			
Shale, hard . . .	10	190			
Shale . . .	90	280			
Sand [Upper conglomerate, 280 to 420 feet.] . .	140	420			
Shale . . .	120	540			
Dawson Formation (lower part):					
Sand [Middle conglomerate, 540 to 660 feet.] . .	120	660			
Shale . . .	80	740			
Lower conglomerate:					
Sand . . .	20	760			
Shale . . .	22	782			
C2-67-13addc. Alt. 5,170.3 ft.					
Eolian sand:					
Topsoil . . .	.9	.9			
Sand, silty, fine . . .	1.8	2.7			
Sand, fine . . .	4.5	7.2			
Silt, sandy, clayey . .	5.6	12.8			
Sand, fine . . .	3.9	16.7			
Louviers Alluvium:					
Sand, medium . . .	15	31.7			
Silt, sandy, clayey . .	3.1	34.8			
Sand, fine . . .	11.4	46.2			
Sand, silty, fine . . .	2.9	49.1			
Sand, coarse, gravelly .	17.8	66.9			
Gravel, coarse, sandy .	4.6	71.5			
Sand, coarse, gravelly .	5.8	77.3			
Sand, fine, clayey, silty . . .	3.9	81.2			
Dawson Formation:					
Shale, weathered . . .	.8	82			
C2-67-15adag. Alt. 5,236.4 ft.					
Eolian sand:					
Topsoil . . .	.9	.9			
Silt, sandy . . .	1.4	2.3			
Verdos(?) Alluvium:					
Sand, fine, silty . . .	19.3	21.6			
Silt, clayey . . .	3.1	24.7			
Sand, fine, silty . . .	4.5	29.2			
Silt, clayey . . .	10.1	39.3			
Dawson Formation (upper part):					
Siltstone, weathered . .	2.7	42			
C2-67-15bbdd. Alt. 5,210.0 ft.					
Eolian sand:					
Topsoil . . .	.9	.9			
Silt, sandy . . .	1.5	2.4			
Sand, fine, silty . . .	2.1	4.5			
Silt, sandy . . .	4.8	9.3			
Verdos Alluvium:					
Silt, calcareous; con- tains montmorillonite . .	2	11.3			
Sand, fine, silty . . .	1.4	12.7			
Silt, clayey . . .	5.4	18.1			
Silt, sandy, clayey . .	8.4	26.5			
Gravel, sandy . . .	4.9	31.4			
Dawson Formation (upper part):					
Sand, fine, partially cemented; contains uniformly disseminated black grains . . .	9.8	41.2			
Graywacke, weathered . .	.9	42.1			
Sand, fine . . .	1.1	43.2			
No sample . . .	1.8	45			
C2-67-16bbda. Alt. 5,238.9 ft.					
Eolian sand:					
Topsoil . . .	.7	.7			
Silt, sand . . .	1.9	2.6			
Silt, clayey . . .	3.7	6.3			
Sand, fine, silty . . .	3.1	9.4			
Silt, clayey, sandy . . .	3.3	12.7			
Sand, fine, silty . . .	2.7	15.4			
Silt, clayey . . .	1.1	16.5			
Silt, sandy, soft, calcareous . . .	.7	17.2			
Silt, clayey . . .	1.1	18.3			
Sand, fine, silty, loose; wet at 20 feet . .	2.5	20.8			
Silt, sandy . . .	2.1	22.9			
Dawson Formation (upper part):					
Shale, weathered . . .	5.2	28.1			
Silt, clayey, and laminated silty clay . .	1.9	30			
C2-68-4cagad. Alt. 5,360 ft.					
Overburden . . .					
Dawson Formation (lower part):					
Clay, blue . . .	4	64			
Middle conglomerate:					
Sand and sandstone . .	6	70			
Clay, blue, and shale . .	190	260			
Lower conglomerate:					
Sand and sandstone . .	22	282			
Clay . . .	6	288			
Sand and sandstone . .	19	307			
Clay and shale . . .	23	330			
Sand and sandstone . .	14	344			
Clay and shale . . .	43	387			
Shale and hard rock . .	3	390			
Sand, coarse . . .	5	395			
Laramie Formation:					
Shale . . .	4	399			
Coal . . .	1	400			
Shale . . .	20	420			
Sandstone and two streaks of sand . . .	13	433			
Coal . . .	1	434			
Shale . . .	66	500			
Sandstone . . .	6	506			
Clay and shale . . .	94	600			
C2-68-10bbaa. Alt. 5,450 ft.					
Dawson Formation (upper part):					
Clay . . .	5	5			
Sandstone . . .	17	22			
Soapstone . . .	15	37			
Sandstone . . .	33	70			
Soapstone . . .	15	85			
Shale, gray . . .	55	140			
Shale, brown . . .	3	143			
Shale, gray . . .	82	225			
Dawson Formation (lower part):					
Sandstone [Middle con- glomerate, 225 to 445 feet.] . . .	15	240			
Shale, gray . . .	59	299			
Sandstone . . .	26	325			
Shale, gray . . .	77	402			
Iron rock . . .	2	404			
Shale, gray . . .	11	415			
Sandstone . . .	10	425			
Shale, blue . . .	15	440			
Sandstone . . .	5	445			
Shale, brown . . .	35	480			
Sandstone . . .	15	495			
Shale, gray . . .	20	515			
Lower conglomerate:					
Sand (water) . . .	20	535			
Sand and shale . . .	30	565			
Shale, gray . . .	25	590			
Sandstone (water) . . .	42	632			
Shale, gray . . .	33	665			
Sandstone . . .	5	670			
Sand and shale . . .	30	700			
C2-68-15abab. Alt. 5,383 ft.					
Overburden . . .					
Dawson Formation (upper part):					
Clay, blue . . .	60	120			
Sandstone . . .	10	130			
Clay, blue, and shale . .	40	170			
Sandstone . . .	8	178			
Clay and shale . . .	32	210			
Sandstone . . .	6	216			
Clay and shale . . .	64	300			
Dawson Formation (lower part):					
Sand, coarse, cemented [Middle conglomerate, 300 to 450 feet.] . .	11	311			
Clay and shale . . .	17	328			
Sand, tight . . .	9	337			
Clay and shale . . .	63	400			
Sandstone, hard . . .	10	410			
Shale . . .	27	437			
Sandstone . . .	13	450			
Shale, hard . . .	55	505			
Lower conglomerate:					
Sand and sandstone . .	15	520			
Shale . . .	45	565			
Sand and sandstone . .	5	570			
Shale . . .	25	595			
Sand and sandstone . .	7	602			
Laramie Formation:					
Clay and shale . . .	723	825			
C2-68-17acbc. Alt. 5,550 ft.					
Dawson Formation (upper part):					
Surface material . . .	8	8			
Clay, sandy . . .	34	42			
Sandrock . . .	8	50			
Shale, sandy . . .	20	70			
Shale . . .	15	85			
Shale, sandy . . .	5	90			
Sand, hard . . .	15	105			
Shale, blue . . .	45	150			
Shale . . .	30	180			
Shale, sandy . . .	53	233			
C2-68-17acbc. --Continued					
Sand and sandy shale . .					
Shale, hard, blue . . .	4	241			
Dawson Formation (lower part):					
Sand [Middle conglomer- ate, 245 to 478 feet.] . .	45	290			
Shale, sandy . . .	10	300			
Shale . . .	125	425			
Clay, sandy . . .	5	430			
Sand, hard; pyrite . . .	2	432			
Sand . . .	28	460			
Sandstone, hard . . .	15	475			
Sand . . .	3	478			
Shale . . .	4	482			
Shale, sandy . . .	48	530			
Shale . . .	46	576			
Lower conglomerate:					
Sand . . .	14	590			
Shale, hard . . .	90	680			
Sandrock, hard . . .	2	682			
Sandstone soft . . .	5	688			
Sandstone, hard . . .	3	697			
Gravel, hard . . .	2	699			
Clay and shale . . .	3	702			
Sand, hard . . .	3	705			
Clay and shale . . .	27	732			
Shale, soft . . .	22	754			
Rock . . .	1	755			
Shale . . .	100	855			
Sandstone, hard . . .	5	860			
Shale and soft clay . .	10	890			
Sandstone, hard . . .	2	892			
Clay and shale . . .	2	894			
Rock . . .	1	895			
Sand or gravel . . .	15	910			
Clay and shale . . .	19	929			
Gravel . . .	2	931			
Laramie Formation:					
Shale, soft . . .	14	945			
Clay and shale . . .	28	973			
Sandstone, hard . . .	3	976			
Shale and clay . . .	29	1,005			
Sandstone . . .	5	1,005.5			
Sand and clay; trace of sulfur . . .	14.5	1,020			
Rock . . .	3	1,023			
C2-68-19ddca. Alt. 5,528 ft.					
Dawson Formation (upper part):					
Soil . . .	2	2			
Clay, sandy, yellow . .	15	17			
Clay, yellow . . .	34	51			
Shale, light-gray . . .	25	76			
Shale, blue . . .	3	79			
Shale, gray . . .	4	83			
Shale, blue . . .	4	87			
Shale, gray . . .	17	104			
Shale, blue . . .	7	111			
Shale, gray . . .	6	117			
Sandstone, blue . . .	3	120			
Shale, gray . . .	31	151			
Sandstone, gray . . .	4	155			
Shale, gray . . .	27	182			
Dawson Formation (lower part):					
Sand [Middle conglomerate, 182 to 408 feet.] . .	4	186			
Sandstone, hard, white .	5	191			
Sand . . .	30	221			
Sand, gray and sand . .	28	249			
Sand, gray . . .	2	257			
Shale, gray, and sand .	12	269			
Shale, gray . . .	40	309			
Shale, gray and sand . .	49	358			
Shale, gray . . .	3	366			
Sandstone, blue . . .	6	372			
Shale, gray, and layers of sandstone . . .	21	393			
Sand, fine, and gray . .	15	408			
Shale, gray . . .	53	461			
Lower conglomerate:					
Sand, fine . . .	5	466			
Sandstone, white . . .	4	470			
Sand . . .	13	483			
Shale, gray . . .	13	496			
Sand, fine . . .	9	505			
Shale, gray . . .	9	514			
Sand, fine to medium . .	38	552			
Shale, gray . . .	5	557			
Sand, fine, and gray . .	12	569			
Shale, gray . . .	50	619	</		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-48-19ddca.--Continued		C2-68-21cbbb 2.--Continued		C2-68-29cbbd.--Continued	
Shale, gray	15 911	Lower conglomerate:		Gravel, quartz, sand	12 482
Shale, brown, and coal	9 920	Sand, fine	20 528	and white clay	13 495
Shale, gray	102 1,022	Shale, gray	19 547	Shale, tough, green	15 510
Mudstone	2 1,024	Shale, gray; contains		Shale, sandy, soft	75 585
Shale, gray	46 1,070	fine sand	50 597	Shale, dark-gray	
Coal	1 1,073	Shale, gray	24 621	Lower conglomerate:	
Shale, gray	46 1,119	Shale, gray; contains		Sand, quartz, fine to	
Mudstone	3 1,122	fine sand	19 640	coarse, and gravel:	
Shale, gray	25 1,147	Shale, gray	5 645	contains some white	
Shale, gray, and coal	31 1,178	Mudstone	1 646	clay	23 608
Shale, gray	7 1,185	Shale, gray; contains		Shale, gray	33 641
Mudstone	3 1,188	mudstone	74 720	Sandstone, fine-	
Shale, gray	10 1,198	Shale, brown	5 725	grained	4 685
Shale, gray, and coal	13 1,211	Laramie Formation:		Shale	12 657
Mudstone	3 1,214	Shale, gray; contains		Sandstone	5 662
Shale, gray	7 1,221	mudstone	98 823	Shale, blackish	75 717
Shale, gray, and coal	11 1,232	Coal	5 828	Sandstone	20 757
Shale, gray	22 1,254	Shale, gray; contains		Laramie Formation:	
Shale, gray, and coal	51 1,305	mudstone and coal	358 1,186	Shale, sticky, black	31 838
Shale, sandy, gray		Coal	9 1,195	Shale, very sticky,	
and pyrite	26 1,331	Sand, fine	2 1,197	black	152 990
		Coal	3 1,200	Shale, dark, crumbles:	
Sand, fine [B sandstone,				10-inch coal seam	
1,331 to 1,401 feet]	70 1,401	Sand, fine [B sandstone,		at 1,085 feet	95 1,085
Shale, gray	6 1,407	1,200 to 1,283 feet.]	83 1,283	Shale, crumbling, car-	
		Shale, gray	10 1,313	bonaceous, black	55 1,140
Sand, fine, and gray		A sandstone:		Coal	1 1,141
shale [A sandstone,		Shale, gray; contains		Shale, black, crumbling,	
1,407 to 1,561 feet]	19 1,426	fine sand	19 1,332	carbonaceous; 10-inch	
Shale, gray	54 1,480	Shale, gray	20 1,352	coal seam at 1,212	
Sand, fine, and gray		Lime	3 1,355	feet	71 1,212
shale	81 1,561	Sand, fine	35 1,390	Shale, crumbling, car-	
Shale, gray	37 1,598	Shale, gray	56 1,446	bonaceous, black;	
Fox Hills Sandstone:				8-inch coal seam at	
Milliken Sandstone Member:		C2-68-28cbbcb. Alt. 5,503 ft.		1,280 feet	68 1,280
Sand, fine, hard	32 1,630	Slocum Alluvium:		Shale, crumbling, car-	
		Clay, yellow	3 3	bonaceous, black	18 1,298
		Gravel	8 11	Shale, sandy, hard	2 1,300
C2-68-20dcda. Alt. 5,475 ft.		Dawson Formation (upper part):		Shale, black; 8-inch	
Overburden	62 62	Clay, sandy, yellow	47 58	coal seam at 1,320	
Dawson Formation (upper part):		Shale, blue	2 60	feet	20 1,320
Clay, blue, and shale	226 288	Clay, yellow	19 79	Shale, carbonaceous,	
Sandstone	6 294	Sandstone, gray	19 98	black	20 1,340
Shale, and streaks of		Shale, blue	6 104	Coal	1 1,341
sandstone	14 308	Shale, gray	146 250	Shale, sandy, gray	31 1,372
Dawson Formation (lower part):		Dawson Formation (lower part):		B sandstone:	
Sand and sandstone	16 324	Sand and gray shale		Sandstone, fine-grained	50 1,422
Clay and shale	13 337	[Middle conglomerate,		Shale, sandy, gray	38 1,460
Sand and sandstone	25 362	309 to 455 feet.]	149 399	Shale, sticky, gray	66 1,526
Clay and shale	136 498	Sand	6 405	A sandstone:	
Clay, sandy	7 505	Shale, gray	24 429	Shale, gray, slate-like	
Lower conglomerate:		Lime, sandy	4 433	shells; and sand	18 1,544
Sand and sandstone	27 532	Shale, gray	13 446	Sandrock	29 1,573
Clay and shale	10 542	Sandstone, gray	6 452	Shale, sandy, gray	23 1,596
Sand and sandstone	18 560	Sand, fine	3 455	Shale, black; contains	
Clay	28 588	Shale, gray	50 505	white chalk-like	
Sandstone	2 590	Lime, sandy	3 508	impregnations	10 1,626
Clay	20 610	Shale, gray	17 525		
Sand and sandstone	30 640	Lower conglomerate:		C2-68-31acab. Alt. 5,350 ft.	
Clay	3 643	Sand, fine	4 520	No sample	105 105
Sand and sandstone	21 664	Lime, sandy	3 532	Dawson Formation (lower part):	
Clay and shale	22 686	Sand, medium to fine	108 640	Clay, blue-gray, and fine	
Sandstone and sand	18 704	Shale, gray	23 663	white sand [Middle con-	
Clay and shale	76 780	Sand, fine	11 674	glomerate, 105 to	
Sandstone	5 785	Shale, gray	9 683	280 feet.]	10 115
Clay	7 792	Sand, fine, and gray		Ash, white	10 125
		shale	87 770	Clay, blue	15 140
C2-68-21cbbb2. Alt. 5,284.5 ft.				Clay, blue, and light-	
Fill	2 2	C2-68-29cbbd. Alt. 5,541 ft.		gray clay	5 145
Dawson Formation (upper part):		Slocum Alluvium:		Clay, blue, white ash,	
Soil	3 5	Surface	10 10	and some white fine	
Clay, yellow	3 8	Dawson Formation (upper part):		sand	4 150
Sandstone yellow	6 14	Shale, yellow	60 70	Clay, dark-gray	15 165
Clay, gray	3 17	Shale, blue	57 127	Gumbo, blue-gray	15 180
Clay, yellow	12 29	Shale, hard, black	5 132	Gumbo, blue-gray, and	
Clay, gray	17 46	Shale, green	4 136	some white fine sand	10 190
Sandstone, gray	4 50	Shale, hard, black,		Gumbo, blue-gray	5 195
Shale, gray	15 65	and sand	6 142	Sand, medium-gray, and	
Shale and gray sand-		Shale, green, and		gumbo	5 200
stone	9 74	some sand	45 187	Clay, ashy, light-gray	15 215
Sandstone, gray	8 82	Sandrock, clayey, gray	6 193	Clay, light-gray and	
Shale, gray	4 86	Shale, gritty, green	54 247	tan, and sandy shale	5 220
Sandstone, gray	4 90	Shale, sandy, gray	15 262	Shale, ashy, light-gray,	
Shale, gray	27 117	Shale, green (caving)	47 309	and clay	5 225
Sand	7 124	Shale, sandy, gray and		Sand, ashy, fine, white	
Shale, gray	12 136	green	25 334	Sand, ashy, very fine	5 230
Shale, blue	5 141	Dawson Formation (lower part):		gray	5 235
Shale, gray	17 158	Sandrock [Middle con-		Sand, medium to coarse,	
Shale, sandy, gray	18 176	glomerate, 334 to		gray	5 240
Shale, gray	202 178	482 feet.]	4 138	Sand, fine, white, and	
Shale, sandy, gray	6 184	Shale, dark-gray	6 144	some gray sandy clay	5 245
Dawson Formation (lower part):		Shale, blue-gray	12 156	Clay, sandy, gray, and	
Sand [Middle conglomerate,		Sandstone and gray-		conglomerate	5 250
384 to 425 feet.]	6 390	white shale	16 172	Conglomerate and gray	
Lime	1 391	Shale, sticky, black		clayey sand	5 255
Sandstone, gray	4 395	(caving)	20 392	Sand, fine, white; con-	
Shale, gray	20 415	Shale, jointy, black	19 411	tains some dark-gray	
Sand, fine	10 425	Sandstone	10 421	clay	5 260
Shale, gray	5 430	Shale, crumbling,		Sand, medium, angular,	
Shale, sandy, brown	6 436	greenish-gray and		white	5 265
Shale, gray; contains		black	49 470	Sand, shaly, gray; con-	
fine sand	19 455			tains shale and some	
Shale, gray	53 508			conglomerate	15 280

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-68-11caab1.--Continued		C2-68-11caab2.--Continued		C2-68-15ccccc1.--Continued	
Clay, gray.	15	295	Shale, blue.	18	561
Clay, gray, and some			Shale, gray.	12	297
gray sandy clay.	5	300	Shale, sandy, gray.	15	312
Clay, gray; contains			Stone, gray.	20	332
gray sand and con-			Shale, gray.	19	351
glomerate.	5	305	Lower conglomerate:		
Clay, gray.	15	320	Sand.	5	356
Clay, gray, and gray			Lime, sandy.	2	358
sandy shale.	10	330	Sandstone, gray.	4	362
Clay, gray and tan,			Shale, gray.	4	366
and conglomerate.	10	340	Sand, fine.	8	374
Clay, gray.	10	370	Lime, sandy.	2	376
Shale, gray.	10	380	Sand, medium to fine.	43	419
Lower conglomerate:			Sand, medium to fine,		
Sand, fine, gray, and			and gray shale.	15	434
gray shale.	5	385	Shale, gray.	21	455
Sand, medium, quartz,			Shale, gray, and fine		
well-rounded, white	15	400	sand.	12	467
Sand, as above; contains			Shale, gray.	41	506
some green-gray shale	10	410	Sand, fine.	11	519
Shale, green-gray, and			Shale, gray.	11	530
medium white sand.	5	415	Sand, fine.	12	542
Sand, fine, white.	5	420	Sand, fine, and gray		
Sand, medium, white,			shale.	9	551
and conglomerate.	5	425	Shale, gray.	60	611
Sand, medium and coarse,			Shale, brown.	2	613
white.	10	435	Shale, gray.	102	715
Sand, quartz, coarse,			Sand, fine.	3	718
white.	10	445	Shale, gray.	27	745
Shale, gray; contains			Shale, brown.	11	756
white sand and			Shale, gray.	24	780
conglomerate.	5	450	Sand, fine.	3	783
Sand, medium.	5	455	Laramie Formation:		
Shale, sandy, gray,			Shale, gray.	57	840
and white fine sand	5	460	Shale, brown.	10	850
Sand, fine, white, and			Shale, gray.	16	866
gray sandy shale.	5	465	Shale, brown.	6	872
Shale, sandy, gray.	15	480	Shale, gray.	134	1,006
Sand, fine, white.	10	490	Shale, gray, and coal	13	1,019
Clay, gray.	10	500	Shale, gray.	66	1,085
Sand, fine to medium,			Coal.	4	1,089
white.	5	505	Shale, gray.	7	1,096
Sand, shaly, fine,			Coal.	5	1,101
gray.	5	510	Shale, gray.	8	1,109
Shale, gray, and white			Coal.	3	1,112
ash.	10	520	Sand, fine, and layers		
Sand, shaly, fine.			of gray shale.	31	1,143
gray.	5	525	Shale, gray.	17	1,160
Sand, medium, gray.	5	530	Coal.	3	1,163
Shale, sandy, gray.	5	535	Shale, gray.	7	1,170
Clay, gray, and medium			Coal and layers of		
gray sand.	5	540	gray shale.	20	1,190
Clay, gray.	25	565	Shale, gray.	20	1,210
Sand, clayey, gray.	15	580	B sandstone:		
Clay, sandy, gray.	20	600	Sand.	88	1,298
Sand, clayey, gray.	5	605	A sandstone:		
Clay, sandy, gray.	10	615	Shale, gray, and fine		
Clay, gray.	15	630	sand.	61	1,359
Shale, sandy, gray.	15	645	Sand, fine.	9	1,368
Sand, shaly, gray.	5	650	Lime, sandy.	1	1,369
Clay, gray.	5	655	Sand, fine.	11	1,380
Clay, gray, and con-			Lime, sandy.	4	1,384
glomerate.	5	660	Shale, gray.	73	1,457
Clay, gray; contains			Sand, fine.	24	1,481
rare specks of liq-			Shale, gray.	6	1,487
nite.	10	670	Fox Hills Sandstone:		
Clay, gray, and some			Milliken Sandstone Member:		
gray sand.	5	675	Sand, fine.	16	1,523
Clay, gray, and some			Transition zone:		
white sand.	5	680	Shale, gray, and fine		
Clay, gray, and some			sand.	10	1,533
conglomerate.	5	685	Shale, gray.	13	1,546
Sand, clayey, gray.	5	690	C2-68-15ccccc2. Alt. 5,140 ft.		
Conglomerate, medium			Piney Creek Alluvium:		
sand, and clay.	5	695	Soil.	2	2
Sand, medium, white,			Clay, yellow.	5	7
and some conglom-			Broadway and Louviers Alluvium.		
erate.	5	700	undifferentiated:		
Clay, gray.	3	703	Sand and gravel.	32	39
C2-68-11caab2. Alt. 5,333 ft.			Dawson Formation (upper part):		
Younger loess:			Shale, blue.	6	45
Soil.	2	2	Shale, gray.	163	208
Dawson Formation (upper part):			Dawson Formation (lower part):		
Clay, brown.	4	6	Sand (Middle conglomer-		
Sandstone, brown.	13	19	ate, 208 to 297		
Clay, yellow.	25	44	feet.)	13	221
Shale, gray.	61	105	Shale, sandy, gray.	11	232
Dawson Formation (lower part):			Sandstone, gray.	21	253
Sand (Middle conglomer-			Shale, gray.	7	260
ate, 105 to 256 feet.)	15	120	Sandstone, blue.	18	278
Sandstone, gray.	7	127	Shale, blue.	8	286
Shale, gray.	17	144	Sandstone, blue.	11	297
Sandstone, soft, gray	9	153	Shale, gray.	99	396
Shale, gray.	12	165	Lower conglomerate:		
Shale, sandy, gray.	9	174	Sand.	6	402
Shale, gray.	16	210	Shale, gray.	9	411
Shale, sandy, gray.	24	214	Sand, fine.	27	438
Sand.	6	240	Shale, gray.	24	462
Shale, gray.	10	250	Sand, fine, and gray		
Sand.	6	256	shale.	43	505
Shale, brown.	5	259	Sand, fine.	38	543
C2-68-15ccccc3. Alt. 5,120.7 ft.			C2-68-15ccccc4. Alt. 5,100.1 ft.		
Piney Creek Alluvium:			Piney Creek Alluvium:		
Soil.	5	5	Clay.	5	5
Broadway and Louviers Alluvium.			Louviers Alluvium:		
undifferentiated:			Gravel.	2	18
Sand and boulders.	25	30	C2-69-1ccccc1. Alt. 5,125 ft.		
Dawson Formation:			Dawson Formation (lower part):		
Shale.	5	35	Clay and rocks.	18	18
C2-68-15ccccc5. Alt. 5,100.1 ft.			Clay, blue.	15	33
Piney Creek Alluvium:			Clay, hard, brown.	9	42
Clay.	5	5	Lower conglomerate:		
Louviers Alluvium:			Sandstone.	10	52
Gravel.	2	18	Shale.	29	91
C2-69-1ccccc2. Alt. 5,125 ft.			Rock.	1	82
Dawson Formation (lower part):			Sand.	16	98
Clay and rocks.	18	18	Shale.	9	107
Clay, blue.	15	33	Coal.	3	110
Clay, hard, brown.	9	42	Shale.	45	155
Lower conglomerate:			Sand.	10	165
Sandstone.	10	52	Shale.	5	170
Shale.	29	91	Sandstone.	3	173
Rock.	1	82	Laramie Formation:		
Sand.	16	98	Shale.	126	299
Shale.	9	107	Rock.	2	301
Coal.	3	110	Shale.	13	314
Shale.	45	155	Rock.	1	315
Sand.	10	165	Shale, gray.	31	346
Shale.	5	170	Rock.	2	348
Sandstone.	3	173	Shale, gray.	7	355
Laramie Formation:			Rock.	1	356
Shale.	126	299	Shale, gray.	54	410
Rock.	2	301	Rock.	1	411
Shale.	13	314	Shale, blue.	51	462
Rock.	1	315	Coal.	2	464
Shale, gray.	31	346	Shale, blue.	118	582
Rock.	2	348	Sandstone, rocky.	2	584
Shale, gray.	7	355	Shale, sandy.	5	589
Rock.	1	356	Shale, brown.	11	600
Shale, gray.	54	410	Shale, hard, gray.	12	612
Rock.	1	411	Sand.	5	617
Shale, blue.	51	462	Shale, gray.	17	634
Coal.	2	464	Coal.	3	637
Shale, blue.	118	582	Shale, gray.	30	667
Sandstone, rocky.	2	584	Sandstone.	3	670
Shale, sandy.	5	589	Shale, blue.	26	696
Shale, brown.	11	600	Shale, hard, black.	21	717
Shale, hard, gray.	12	612	Rock.	1	718
Sand.	5	617	Shale, hard, and coal.	17	735
Shale, gray.	17	634	Rock.	1	736
Coal.	3	637	Shale, gray.	20	756
Shale, gray.	30	667	Sandstone, soft.	4	760
Sandstone.	3	670	Shale, gray.	12	772
Shale, blue.	26	696	Coal.	4	776
Shale, hard, black.	21	717	Shale, gray.	9	781
Rock.	1	718	Coal.	9	790
Shale, hard, and coal.	17	735	Sand (B sandstone, 790		
Rock.	1	736	to 852 feet.)	62	852
Shale, gray.	20	756	Shale.	2	854
Sandstone, soft.	4	760	A sandstone of the Laramie		
Shale, gray.	12	772	Formation and Milliken		
Coal.	4	776	Sandstone Member of the		
Shale, gray.	9	781	Fox Hills Sandstone.		
Coal.	9	790	undifferentiated:		
Sand (B sandstone, 790			Sand.	28	882
to 852 feet.)	62	852	Shale, sandy.	8	890
Shale.	2	854	Sand.	107	997
A sandstone of the Laramie			Shale.	10	1,007
Formation and Milliken			C2-69-2bbab. Alt. 5,435 ft.		
Sandstone Member of the			Dawson Formation (lower part):		
Fox Hills Sandstone.			Soil.	3	3
undifferentiated:			Clay, sandy, yellow.	15	18
Sand.	28	882	Clay, sandy, gray.	11	29
Shale, sandy.	8	890	Clay, sandy, yellow.	17	46
Sand.	107	997	Shale, gray.	65	111
Shale.	10	1,007	Sandstone, gray.	3	114
C2-69-2bbab. Alt. 5,435 ft.			Shale, gray.	205	319
Dawson Formation (lower part):			Sandstone, gray.	2	321
Soil.	3	3	Laramie Formation:		
Clay, sandy, yellow.	15	18	Shale, gray.	171	492
Clay, sandy, gray.	11	29	Lime, sandy, gray.	2	494
Clay, sandy, yellow.	17	46	Sandstone, gray.	22	516
Shale, gray.	65	111	Shale, gray.	103	619
Sandstone, gray.	3	114	Coal.	5	624
Shale, gray.	205	319	Shale, gray.	24	648
Sandstone, gray.	2	321	Coal.	5	653
Laramie Formation:			Shale, gray, and coal.	8	661
Shale, gray.	171	492			
Lime, sandy, gray.	2	494			
Sandstone, gray.	22	516			
Shale, gray.	103	619			
Coal.	5	624			
Shale, gray.	24	648			
Coal.	5	653			
Shale, gray, and coal.	8	661			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-69-2bbab. --Continued		C2-69-18cccg. --Continued		C2-69-25daaa. --Continued	
Shale, gray	18 479	Shale, gray	14 37	Shale, gray	52 154
Coal blossom	2 481	Shale, sandy, gray	21 118	Sand, fine, and gray	12 176
Shale, gray	2 481	Shale, gray	47 165	Shale	33 209
Sand, fine, nice	12 495	Sandstone, hard, white	4 169	Shale, sandy	1 211
Sandstone, gray	1 498	Shale, sandy, gray	11 180	Sandstone, gray	10 221
Shale, gray	3 706	Shale, gray	15 215	Shale, gray	20 241
Sand, fine	5 712	Shale, sandy, gray	5 220	Sandstone, gray	1 244
Shale, gray	4 716	Sand, fine, gray	4 224	Shale, gray	40 284
Shale, brown	5 721	Laramie Formation:		Sandstone, gray	15 299
Shale, gray	4 726	Shale, gray	10 234	Shale, gray	13 312
Shale, sandy, gray	13 739	Coal and gray shale	8 242	Shale, sandy	1 314
Coal	5 744	Shale, sandy, gray	12 274	Lower conglomerate:	
Shale, gray	13 757	Sandstone, gray	2 276	Sand	73 387
Coal	7 764	Shale, sandy, gray	8 284	Shale, gray	30 417
Shale, gray	3 767	Shale, gray	6 290	Sand, fine, and gray	130 547
Coal	2 769	Shale, sandy, gray	28 318	Shale	49 596
3 sandstone:		Sandstone, hard, gray	1 321		
Sand, fine, white	71 840	Shale, gray	15 336		
4 sandstone:		Coal and gray shale	14 350		
Sand, fine, and gray	79 919	Shale, gray	11 361		
Shale	4 923	Shale, sandy, gray	9 369		
Sand, fine	27 950	Sandstone, gray, and			
Shale, gray	42 992	layers of hard gray			
Coal	4 996	Shale	21 390		
Shale, gray	21 1,017	Coal and gray shale	3 398		
Sandstone, gray	2 1,019	Shale, gray	20 418		
Fox Hills Sandstone:		Shale, sandy, gray	19 437		
Milliken Sandstone Member:		Coal and gray shale	13 450		
Lime	2 1,021	Shale, sandy, gray	20 470		
Shale, sandy, gray	33 1,054	Shale, gray, and fine			
Shale, gray	86 1,140	sand	20 490		
		Coal and gray shale	12 502		
		Mudstone	2 504		
		Shale, gray, and coal	11 515		
		Shale, gray	16 531		
		Sand, fine, and gray			
		Shale	9 540		
		Shale, gray	12 552		
		Coal and gray shale	23 575		
		Shale, sandy, gray	8 583		
		Mudstone	2 585		
		Shale, gray, and fine			
		sand	8 593		
		Shale, gray, and coal	67 660		
		Shale, sandy, gray	9 669		
		Shale, gray	5 674		
		Coal and gray shale	7 681		
		Lime, sandy	4 685		
		Shale, gray	2 687		
		Sandstone, hard [B			
		sandstone, 687 to			
		761 feet.]	4 691		
		Sand, fine, and gray			
		Shale	68 759		
		Lime, sandy	2 761		
		Shale, gray, and coal	9 770		
		Lime, sandy	2 772		
		Coal, gray shale, and			
		layers of fine sand	28 800		
		Lime	4 804		
		Shale, gray, and coal	17 821		
		Laramie Formation and Fox Hills			
		Sandstone, undifferentiated:			
		A sandstone of the Laramie			
		Formation and Milliken			
		Sandstone Member of the			
		Fox Hills Sandstone			
		undifferentiated:			
		Sand, fine, and gray	164 885		
		Shale, gray	30 895		
		Sand, fine, and gray			
		Shale	11 926		
		Shale, gray	4 930		
		C2-69-19acba. Alt. 5,552 ft.			
		Piney Creek Alluvium:			
		Clay	10 90		
		Sand and clay	8 18		
		Louviers Alluvium:			
		Sand	12 30		
		Dawson Formation (lower part):			
		Shale, blue	7 12		
		Gravel, coarse, black	9 41		
		Shale	1 42		
		C2-69-25daaa. Alt. 5,390 ft.			
		Piney Creek Alluvium:			
		Soil	1 1		
		Younger loess and Dawson Formation.			
		undifferentiated:			
		Clay, yellow	25 26		
		Clay, sandy, yellow	13 39		
		Dawson Formation (lower part):			
		Sand [Middle conglomerate,			
		39 to 176 feet.]	16 55		
		Shale, blue	6 51		
		Shale, gray	1 54		
		Sandstone, gray	1 57		
		Sand, fine, and gray			
		Shale	35 102		
		C2-69-26baab. Alt. 5,473.4 ft.			
		Slocum Alluvium:			
		Clay, sandy, brown	14 14		
		Dawson Formation (lower part):			
		Gravel and brown clay	11 25		
		Clay, brown	30 55		
		Shale, blue	5 61		
		C2-69-26baab2. Alt. 5,470 ft.			
		Slocum Alluvium:			
		Topsoil	7 2		
		Dawson Formation (upper part):			
		Clay, yellow	13 15		
		Dawson Formation (lower part):			
		Sand, coarse (water-			
		bearing) Middle			
		conglomerate, 15 to			
		25 feet.]	10 15		
		Clay, sticky, gray	20 45		
		Shale, hard, brown	7 52		
		Shale, gray to blue,			
		hard	128 180		
		Lower conglomerate:			
		Sand (water)	10 210		
		Shale, blue	10 220		
		Sand (water)	20 240		
		Shale, gray to blue	30 270		
		Sand (water)	70 340		
		Shale	30 370		
		Sand (water)	25 395		
		Shale, hard, dark-gray	125 520		
		Shale: contains inter-			
		bedded layers of water-			
		bearing sand	70 590		
		Shale	13 503		
		C2-69-26baab3. Alt. 5,473.6 ft.			
		Slocum Alluvium:			
		Topsoil	2 2		
		Dawson Formation (upper part):			
		Clay, sandy, brown	48 50		
		Sand, brown	2 52		
		Shale, blue	3 55		
		C2-69-27aaaa. Alt. 5,500 ft.			
		Dawson Formation (upper part):			
		Soil	2 2		
		Clay, sandy, yellow	21 23		
		Clay, yellow	12 25		
		Clay, sandy, gray			
		Clay, sandy, yellow	5 26		
		Shale, brown	2 28		
		Sandstone, brown	2 29		
		Sandstone, blue	1 31		
		Sandstone, brown	1 33		
		Shale, blue	8 36		
		Dawson Formation (lower part):			
		Sandstone, gray [Middle			
		conglomerate, 36 to			
		171 feet.]	21 107		
		Shale, gray	23 130		
		Sandstone, hard, gray	1 131		
		Sandstone, gray	18 149		
		Sand	6 153		
		Shale, gray	4 159		
		Sand	12 171		
		Shale, gray	34 205		
		Sand, fine	11 216		
		Shale, gray	15 231		
		Lower conglomerate:			
		Sand, fine, and shale	17 248		
		Sandstone	6 254		
		Sand, coal, and gray			
		Shale	13 267		
		Shale, gray	13 280		
		Sand, medium to fine	8 288		
		Shale, gray	19 307		
		Sand, fine	6 313		
		Shale, gray	25 338		
		Sand and gray shale	13 351		
		Laramie Formation:			
		Shale, gray	49 400		
		C2-69-18cccg. Alt. 5,600 ft.			
		Louviers Alluvium:			
		Soil	2 2		
		Clay, sandy, brown	5 7		
		Dawson Formation (upper part):			
		Sandstone, brown	3 10		
		Clay, brown	9 19		
		Clay, gray	11 30		
		Clay, sandy, brown	4 34		
		Clay, gray	11 45		
		Dawson Formation (lower part):			
		Lower conglomerate:			
		Sandstone, gray	6 51		
		Shale, sandy, gray	12 53		
		C2-69-19acba. Alt. 5,552 ft.			
		Piney Creek Alluvium:			
		Clay	10 90		
		Sand and clay	8 18		
		Louviers Alluvium:			
		Sand	12 30		
		Dawson Formation (lower part):			
		Shale, blue	7 12		
		Gravel, coarse, black	9 41		
		Shale	1 42		
		C2-69-25daaa. Alt. 5,390 ft.			
		Piney Creek Alluvium:			
		Soil	1 1		
		Younger loess and Dawson Formation.			
		undifferentiated:			
		Clay, yellow	25 26		
		Clay, sandy, yellow	13 39		
		Dawson Formation (lower part):			
		Sand [Middle conglomerate,			
		39 to 176 feet.]	16 55		
		Shale, blue	6 51		
		Shale, gray	1 54		
		Sandstone, gray	1 57		
		Sand, fine, and gray			
		Shale	35 102		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-69-19bbaa. Alt. 5,588 ft.		C2-69-19ddda.--Continued		C2-70-21abbb.--Continued	
Colluvium:		Shale, sandy, gray.	12 142	Shale.	5 325
Topsoil, and clay.	5 5	Sandstone, gray.	9 151	Sand.	55 380
Dawson Formation (upper and lower parts, undifferentiated):		Shale, gray.	5 157	Shale.	187
Sandstone, cemented.	18 23	Sandstone, gray.	24 181	A sandstone:	
Clay, gray.	8 31	Sand, coarse, and sandstone.	14 195	Sand.	25 412
Shale, sandy, and gray-brown rock.	19 50	Shale, gray, and sandstone.	14 209	Shale.	18 430
Clay, brownish-gray; contains a little coal.	55 105	Shale, gray.	17 226	C2-70-25cddb. Alt. 5,680 ft.	
Shale, blue, and clay.	35 140	Shale, sandy, gray.	16 242	Rocky Flats Alluvium:	
Rock, very hard, brown.	5 145	Sandstone, gray.	4 246	Clay, brown, and rock.	28 28
Dawson Formation (lower part):		Sand, shaly, gray.	10 256	Dawson Formation (lower part):	
Lower conglomerate:		Shale, gray.	14 270	Clay, brown.	10 38
Sandstone, fine-grained.	19 164	Sandstone, gray.	2 275	Shale, gray.	65 103
Clay, blue-gray, and shale.	33 197	Lime, sandy.	3 278	Shale, gray; contains streaks of sandstone.	2 105
Sandstone.	4 201	Shale, sandy, gray.	3 278	Shale, gray.	9 114
Shale, gray.	11 212	Lower conglomerate:		Sandstone.	1 117
Shale, fine, sandy.	8 220	Sand, fine, white.	7 285	Shale, gray.	14 131
Sandstone, fine-grained, hard.	15 235	Sand, coarse, and gray.	18 303	Shale, sandy, gray.	5 137
Shale, gray, and clay.	24 259	Shale.	11 314	Laramie Formation:	
Sandstone, fine-grained.	4 263	Lime, sandy.	2 316	Shale, gray.	351 488
Clay, blue, and shale.	4 267	Sandstone, gray.	8 324	Coal and gray shale.	12 510
Shale, gray, and clay.	27 294	Sand, coarse, and gray.	9 333	Shale, gray.	28 538
Sandstone, fine-grained.	2 296	Shale, gray.	8 341	Coal and gray shale.	116 554
Laramie Formation:		Sandstone, gray.	2 343	Shale, gray; contains sandstone stringers.	16 670
Shale, brown; contains a little coal.	3 299	Sand, fine, and gray.	19 382	Coal and bentonitic clay.	15 685
Shale, gray, and clay.	13 312	Sand, coarse, and gray.	21 403	Clay, gray; contains sandstone lenses.	40 725
Sand, very fine, and streaks of shale.	4 316	Shale, fine, and gray.	12 415	Coal and gray clay.	25 750
Sandrock, hard.	1 317	Shale, sandy, gray.	6 421	Sandstone lenses, bentonitic clay, and coal [B sandstone, 750 to 842 feet.]	
Shale, gray.	20 337	Sand, fine, and gray.	7 428		50 800
Shale, brown.	2 339	Shale.	11 439	Shale, gray, and sandstone.	25 825
Clay, blue-gray, and shale.	19 358	Lime, sandy.	7 447	Shale, gray, sandstone lenses, and coal.	17 842
Clay, brown-gray, and some coal.	4 362	Sand, coarse.	7 447	Coal and gray shale.	40 882
Shale, gray.	13 375	Sand, fine, and sandy.	17 464	Coal, gray shale, and white sandy clay.	22 904
C2-69-19dbcc. Alt. 5,650 ft.		Shale, sandy, gray.	20 500	A sandstone:	
Colluvium:		C2-69-19dbbb. Alt. 5,475 ft.		Coal, white sandy clay, and sandstone.	20 924
Topsoil.	2 2	Slocum Alluvium:		Shale, gray.	21 945
Dawson Formation (lower part):		Clay, blue.	30 30	Coal, white sandy clay, and streaks of sandstone.	10 975
Clay.	45 47	Dawson Formation (upper part):		Clay, white, sandy, and some coal.	79 1,054
Shale, blue.	95 142	Shale, blue; contains streaks of sandstone.	20 50	Fox Hills Sandstone:	
Lower conglomerate:		Shale, blue.	19 69	Milliken Sandstone Member:	
Sand and blue shale.	8 150	Dawson Formation (lower part):		Shale, gray.	61 1,115
Shale, blue.	15 185	Sandstone [Middle conglomerate, 69 to 171 feet.]	2 71	Clay, dark-gray, and shale.	25 1,140
Sand.	10 195	Shale, blue; brown streaks.	91 162	Clay, dark-gray, and shale; contains streaks of coal and fine sand.	35 1,175
Shale, blue.	1 196	Sand, coarse.	9 171	Clay, dark-gray, and shale.	25 1,200
C2-69-19cbdd. Alt. 5,566.7 ft.		Shale, blue; contains streaks of sandstone.	149 320	Clay, dark-gray, and shale; contains thin streaks of coal and fine sand.	52 1,252
Slocum Alluvium:		Lower conglomerate:		C2-70-26ccda. Alt. 5,715 ft.	
Topsoil and clay.	14 14	Sand, coarse; contains streaks of shale.	35 355	Colluvium and Dawson Formation, undifferentiated:	
Sand and small rock.	16 30	Shale.	20 375	Boulders, clay, and shale.	100 100
Clay.	2 32	Shale; contains thin layers of sand.	137 512	Dawson and Laramie Formations undifferentiated:	
C2-69-19adcc. Alt. 5,545 ft.		Sand, fine.	7 519	Shale.	585 685
Colluvium:		Shale.	7 525	Laramie Formation:	
Clay, wet, brown.	15 15	Sand, fine.	6 531	Coal and shale.	30 715
Dawson Formation (upper part):		Shale; contains sandy streaks.	7 538	C2-70-26ddad. Alt. 5,633.2 ft.	
Clay, sandy.	11 26	Shale.	7 545	Piney Creek Alluvium:	
Dawson Formation (lower part):		C2-70-21abbb. Alt. 6,183 ft.		Topsoil and silt.	9 9
Middle conglomerate:		Rocky Flats Alluvium:		Broadway Alluvium:	
Sand and gravel.	6 32	Gravel, boulders, and layers of clay.	30 30	Gravel, coarse.	5 14
Sandstone, brown.	44 76	Laramie Formation:		Dawson Formation (lower part):	
Sandstone and interbedded shale.	49 125	Shale, weathered.	10 60	Shale, blue.	2 16
C2-69-19bacc. Alt. 5,498 ft.		Coal and shale.	10 70	Gravel and rock.	13 29
Piney Creek Alluvium:		Shale.	10 100	Shale, gray.	6 35
Clay.	14 14	Sandstone; contains layers of clay.	30 130	C2-70-27dbdc. Alt. 5,764.7 ft.	
Louviere Alluvium:		Sandstone.	5 135	No sample.	66 66
Gravel and boulders.	2 16	Shale, blue.	13 148	Dawson Formation (lower part):	
Dawson Formation:		Sandstone.	9 157	Lower conglomerate:	
Shale.	7 23	Shale and coal.	4 161	Sand.	12 78
C2-69-19ddda. Alt. 5,546 ft.		Sandstone.	3 164	Shale.	29 107
Fill.	1 1	Shale.	24 188	Sand.	19 126
Piney Creek Alluvium:		Shale.	2 190	Sand and gravel.	3 129
Topsoil.	2 3	Sandstone.	10 200	Sand.	10 139
Clay, sandy, brown.	3 6	Coal.	7 207	Shale.	27 166
Dawson Formation (upper part):		Shale.	10 217	Sand.	44 210
Clay, gray.	12 18	Sandstone.	33 250	Shale.	13 223
Clay, sandy, brown.	20 38	Shale.	4 254	Sand.	16 239
Dawson Formation (lower part):		Coal.	9 263	Laramie Formation:	
Sandstone, brown [Middle conglomerate, 38 to 195 feet.]	4 42	Sandstone [B sandstone, 263 to 380 feet.]	26 289	Shale.	57.5 296.5
Clay, gray.	3 45	Coal.	1 290		
Clay, sandy, brown.	4 49	Shale.	14 304		
Sandstone, hard, brown.	1 50	Sandstone.	16 320		
Clay, sandy, brown.	3 53				
Shale, gray.	21 74				
Sand, medium to fine.	5 79				
Shale, gray.	11 90				
Shale, sandy, gray.	8 98				
Shale, gray.	12 130				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C2-70-27dbdc. --Continued					
Coal	1.5	298			
Shale	12	330			
Sandstone	25	355			
Shale	13.5	388.5			
Coal	1.5	390			
Shale	22	412			
Sandstone	5	417			
Iron rock	1	418			
Sandstone	8	426			
Shale	49	475			
Sandstone	17	492			
Shale	10	502			
Sandstone	28	530			
Shale	2.5	532.5			
Coal	1.5	534			
Shale	23	557			
Coal, bone	2	559			
Sandstone	21	580			
Shale	11.5	591.5			
Coal	2.5	594			
Shale	15.3	609.3			
Coal	.7	610			
Sandstone	24	634			
Coal	5.5	639.5			
Shale	24.5	664			
Coal	3.5	667.5			
Shale	10.5	678			
Sandstone (8 sandstone, 678 to 732 feet.)	54	732			
Shale	1.3	733.3			
Coal	5.2	738.5			
Shale	20.6	759.1			
Coal	2.1	761.2			
Shale	11.8	773			
Coal	1	774			
Shale	9	783			
Coal	8.4	791.4			
C3-65-1dddd. Alt. 5,396 ft.					
Eolian sand:					
Topsoil and sandy clay	11	11			
Younger loess:					
Clay, plastic	16	27			
Dawson Formation:					
Shale, weathered, medium hard	4	31			
Shale, very hard, buff	6	37			
C3-65-9bbbb. Alt. 5,408 ft.					
Eolian sand:					
Topsoil and tan sandy clay	4	4			
Younger loess:					
Clay, plastic, buff	7	11			
Dawson Formation:					
Shale, weathered, tough	3	14			
Shale, hard, buff	8	22			
C3-65-14dbaa2. Alt. 5,418 ft.					
Post-Piney Creek alluvium and Broadway Alluvium, undifferentiated: Sand	24	24			
Louviers Alluvium:					
Clay	4	28			
Gravel	2	30			
Clay	6	36			
Gravel	14	50			
Dawson Formation:					
Clay	5	55			
Shale	5	60			
C3-65-16dada. Alt. 5,525.9 ft.					
Eolian sand:					
Topsoil	2	2			
Younger loess:					
Clay, brown	14	16			
Dawson Formation (upper part):					
Sand, coarse (water- bearing)	16	32			
Shale, gray to blue; contains interbedded coal seams	133	365			
Upper conglomerates:					
Sand interbedded with stringers of shale	35	400			
Shale, gray	30	430			
Sand layers interbedded with stringers of shale	40	470			
Shale, gray	10	500			
Sand	10	530			
Shale, gray	45	575			
Sand	25	600			
Shale, gray	20	620			
Sand interbedded with stringers of shale	50	670			
Shale	20	690			
C3-66-1ddddd. Alt. 5,387 ft.					
Topsoil and road-bed	2	2			
Dawson Formation (upper part):					
Shale, weathered, lim- onitic stains, tan	6.5	8.5			
Shale, sandy, hard, platy-structure, tan- orange	3.5	12			
C3-66-2cagc. Alt. 5,425 ft.					
Eolian sand:					
Sand, light-brown	40	40			
Dawson Formation (upper part):					
Shale, gray, and gravel	55	95			
Coal, black, and gray shale	5	100			
Shale, light-gray	250	350			
Shale, gray	40	390			
Sand, light-gray	20	410			
Shale, gray, and gray sand	70	480			
Shale, gray	30	510			
Sand, shaly, gray	10	520			
Shale, gray	50	570			
Shale, gray, and gray sand	60	630			
Shale, sandy, gray	85	715			
Shale, light- to medium-gray	95	810			
Dawson Formation (lower part):					
Sand, gray, and gray shale [Middle con- glomerates, 810 to 880 feet.]	10	20			
Shale, sandy, gray	10	830			
Shale, gray	10	840			
Sand, gray, and gray shale	30	870			
Shale, sandy, gray	10	880			
Shale, gray	124	1,004			
Lower conglomerates:					
Sand, light-gray	30	1,034			
Shale, gray	66	1,100			
Shale, sandy, gray	70	1,170			
Shale, gray	20	1,190			
Shale, gray, and gray sand	10	1,200			
Laramie Formation:					
Shale, light- and medium-gray	10	1,210			
Shale, light-gray and gray	110	1,320			
Shale, light- and medium-gray	170	1,490			
Shale, gray and light- gray	110	1,600			
8 sandstones:					
Sand and sandstone; contains a few beds of light-gray sandy shale	60	1,660			
A sandstones:					
Shale, sandy, light- and medium-gray	40	1,700			
Shale, sandy, gray	55	1,755			
Shale, sandy, gray, and gray sand	10	1,765			
Shale, gray	10	1,775			
Shale, gray, and car- bonaceous shale	20	1,795			
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Shale, sandy, gray	10	1,805			
Shale, gray	30	1,835			
Shale, gray and light- gray	10	1,845			
Shale, gray	150	1,995			
C3-66-4bcb. Alt. 5,305.0 ft.					
Eolian sand:					
Clay	4	4			
Sand	2	6			
Clay	8	14			
Clay, sandy	10	24			
Broadway Alluvium:					
Gravel	19.5	43.5			
C3-66-4cdad. Alt. 5,330 ft.					
Eolian sand:					
Clay	2	2			
Sand, fine	6	8			
Clay	11	19			
Broadway Alluvium:					
Gravel	32	51			
Dawson Formation (upper part):					
Clay	1	52			
Coal	1	53			
C3-66-5acac. Alt. 5,297.0 ft.					
Eolian sand:					
Topsoil	.6	.6			
Silt	4.1	4.7			
Dawson Formation (upper part):					
Silt, clayey	1.7	6.4			
Siltstone, weathered	5.5	11.9			
Sand, silty, fine, friable, salt and pepper texture; con- tains iron manganese concretions to a maximum diameter of 1 inch	16.1	28			
Aragonite, purplish	.2	28.2			
Claystone, weathered	3.4	31.6			
Shale, weathered, sub- firm to very fissile, purplish	4.4	36			
C3-66-6adad. Alt. 5,259 ft.					
Pinay Creek Alluvium:					
Topsoil, mucky, black	8	8			
Broadway Alluvium:					
Sand	10	18			
Dawson Formation (upper part):					
Clay	72	90			
Gravel and clay	10	100			
Sand	24	124			
Sand and gravel (water) 16	16	140			
C3-66-6babb. Alt. 5,247.5 ft.					
Eolian sand:					
Topsoil	.5	.5			
Silt, sandy	1.8	2.3			
Sand, fine, silty	4.1	6.4			
Silt, clayey	1.1	7.5			
Sand, fine, silty, clayey	1.2	8.7			
Silt, clayey	6.7	15.4			
Sand, fine, loose	5.8	21.2			
Sand, fine, silty, clayey	3.1	24.3			
Dawson Formation (upper part):					
Claystone, silty, weathered	3.1	27.4			
Siltstone, weathered	.6	28			
Claystone, weathered	1.5	29.5			
Siltstone, friable	.5	30			
C3-66-7dbcb. Alt. 5,296.7 ft.					
Eolian sand:					
Topsoil	.8	.8			
Silt, sandy	2.4	3.2			
Sand, fine, silty, loose, friable	7.4	10.6			
Silt, clayey	5.8	16.4			
Sand, fine, silty, loose, soft	4.9	21.3			
Clay, silty	2.6	23.9			
Dawson Formation (upper part):					
Siltstone, weathered, friable	2.2	6.1			
Shale, weathered	2.7	28.8			
Siltstone, weathered	1.2	30			
C3-66-8bbad. Alt. 5,284.1 ft.					
Eolian sand:					
Topsoil	3	9			
Silt, sandy	4.4	5.3			
Sand, fine, silty	6.2	11.5			
Sand, fine	4.3	15.8			
Sand, medium	6.9	22.7			
Sand, fine, silty, loose, friable	1.7	24.4			
Dawson Formation (upper part):					
Shale, weathered; contains carbonaceous flecks and stains	5.6	30			
C3-66-9bbcc. Alt. 5,304.3 ft.					
Eolian sand:					
Sand	3	3			
Clay	6	9			
Broadway Alluvium:					
Sand and gravel	20	29			
Dawson Formation (upper part):					
Sandstone	2	31			
Shale	1	32			
C3-66-10bbab. Alt. 5,350 ft.					
Eolian sand:					
Topsoil	5	5			
Sand	17	22			
Clay	21	43			
Clay, sandy	10	53			
Dawson Formation (upper part):					
Shale	41	94			
Coal	3	97			
Shale	81	178			
Coal	6	184			
Shale	63	247			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-66-10bbag.---Continued		CJ-66-10dadc.---Continued		CJ-66-12bbca.---Continued	
Upper conglomerate:		Shale, sandy.	12 230	Coal	1 110
Sand, gravel, and rock	3 250	Shale, hard.	18 248	Shale, gray.	9 119
Shale	10 280	Shale, sandy, soft,		Shale, blue.	38 157
Sand, gray.	25 305	white	6 254	Shale, sandy, gray	5 162
Shale	15 320	Coal.	4 258	Shale, gray.	7 169
CJ-66-10bbdd. Alt. 5,340 ft.		Shale, hard, blue	14 272	Coal blossom	1 170
Eolian sand:		Rock.	1 273	Shale, blue.	10 180
Clay.	10 10	Shale, sandy.	11 284	Coal blossom	1 181
Clay, sandy	5 15	Coal.	2 286	Shale, blue.	4 185
Sand.	7 22	Shale, blue	14 300	Coal blossom	3 188
Clay.	8 30	Shale, soft, gray	29 329	Coal and layers of	
Sand, fair.	10 40	Shale, hard	36 365	gray shale.	9 197
Sand, fine.	4 44	Upper conglomerate:		Sandstone, gray.	15 212
Sand, fair.	6 50	Sand, dirty	25 390	Shale, sandy, gray	6 218
Dawson Formation (upper part):		Shale	20 410	Sandstone, hard, gray.	2 220
Sand and layers of		CJ-66-11abca. Alt. 5,385 ft.		Shale, gray.	6 226
clay.	4 54	Fill.	6 6	Sandstone, hard, gray.	2 228
Clay.	1 55	Piney Creek Alluvium:		Shale, gray.	15 243
Shale	1 56	Clay, sandy	29 35	Shale, sandy, gray	11 254
CJ-66-16gacc. Alt. 5,355 ft.		Broadway Alluvium:		Sand, fine, gray, and	
Eolian sand:		Sand.	10 45	layers of sandstone.	13 267
Sand.	8 8	Dawson Formation (upper part):		Sandstone, gray.	2 269
Clay.	8 16	Clay, yellow.	5 50	Coal	4 273
Clay, sandy	12 28	Clay, blue.	25 75	Shale, gray.	3 276
Broadway and Louviers Alluvium,		Shale, brown.	35 110	Coal and layers of	
undifferentiated:		Shale, gray.	18 128	gray shale.	3 279
Sand, fine.	8 16	Sand, gray.	4 132	Shale, gray.	8 287
Clay.	4 40	Shale, caving, green.	8 140	Shale, sandy, gray	4 291
Sand.	10 50	Clay, blue.	25 165	Shale, gray.	6 297
Clay.	4 54	Clay, gray.	5 170	Shale, sandy, blue	11 308
CJ-66-17asad. Alt. 5,380 ft.		CJ-66-11cbdb2. Alt. 5,350 ft.		Shale, sandy, gray	5 313
Eolian sand:		Piney Creek Alluvium:		Sandstone, gray, and	
Sand.	10 10	Topsoil	2 2	sandy shale.	4 317
Clay.	16 26	Clay, yellow to brown	12 14	Shale, brown	10 327
Broadway Alluvium:		Broadway Alluvium:		Shale, gray.	19 346
Sand.	8 34	Sand, fine (water-bear-		Coal blossom	2 348
Dawson Formation (upper part):		ing).	8 22	Coal	3 351
Clay.	10 44	Dawson Formation (upper part):		Shale, gray.	10 361
Shale	38 82	Shale, medium hard, gray		Sandstone, gray, and	
Coal.	3 85	to blue	68 90	shale.	8 369
Shale	11 96	Sandstone (water-bear-		Shale, gray.	4 373
Shale, sandy.	7 103	ing).	20 110	Shale, sandy, gray	7 380
Shale	93 196	Shale, gray	180 290	Sandstone, gray, and	
Rock.	1 197	Sand [Upper conglomer-		gray shale	9 389
Shale	18 215	ate, 290 to 445		Shale, gray.	68 437
Upper conglomerate:		feet.]	30 320	Shale, blue.	4 461
Sand.	39 254	Shale, gray	90 410	Shale, sandy, gray	5 466
Shale	15 269	Shale, and layers of		Shale, gray.	9 475
CJ-66-17bdcd. Alt. 5,325.9 ft.		sand.	35 445	Coal blossom	1 476
Eolian sand:		Shale, medium hard,		Shale, gray.	31 507
Sand, fine.	7 7	gray to blue; con-		Shale, sandy, gray	5 512
Clay.	20 27	tains layers of sand	265 710	Shale, gray.	18 530
Broadway and Louviers Alluvium,		Dawson Formation (lower part):		Shale, blue.	8 538
undifferentiated:		Sand [Middle conglomer-		Shale, gray.	3 541
Gravel, fine and some		ate, 710 to 835		Sand, fine, gray	7 548
sand.	21 48	feet.)	125 835	Shale, gray.	16 564
Dawson Formation:		Shale, dark-gray.	155 990	Limestone, sandy	1 565
Clay.	19 67	Sand [Lower conglomer-		Shale, gray.	8 573
Shale	3 70	ate, 990 to 1,069		Sand, fine, gray	3 576
CJ-66-29cdad. Alt. 5,383 ft.		feet.)	79 1,069	Shale, gray.	42 618
Piney Creek Alluvium:		CJ-66-11cdcb. Alt. 5,365 ft.		Shale, blue.	13 631
Clay, sandy	20 20	Clay, fill.	5 5	Shale, gray.	27 658
Broadway and Louviers Alluvium,		Piney Creek Alluvium:		Shale, sandy, gray	5 663
undifferentiated:		Topsoil	3 8	Sand, fine, gray	7 670
Sand mixed with clay	22 42	Clay, sandy, brown.	12 20	Shale, gray.	7 677
Sand and gravel	6 48	Broadway Alluvium:		Shale, sandy, gray	26 703
Dawson Formation:		Sand and gravel (water-		Shale, blue.	20 723
Shale	12 60	bearing).	6 26	Sand, fine, gray	2 725
CJ-66-10dadc. Alt. 5,363 ft.		Dawson Formation (upper part):		Shale, gray.	29 754
Piney Creek Alluvium:		Shale, gray to blue;		Sand, fine, gray, and	
Clay, sandy	9 9	occasional layers of		layers of shale.	7 761
Broadway Alluvium:		coal.	266 292	Shale, gray.	79 840
Sand, fine.	8 17	Shale; contains layers		Shale, sandy, gray	7 847
Gravel.	4 21	of sand [Upper congl-		Shale, gray.	4 851
Dawson Formation (upper part):		omerate, 292 to		Dawson Formation (lower part):	
Clay.	3 24	368 feet.)	76 368	Middle conglomerate:	
Shale	1 27	Shale, gray to blue;		Sand, fine, gray	9 860
Coal.	2 36	occasional sand		Sand, fine, gray, and	
Rock.	1 42	breaks.	358 726	layers of shale.	7 867
Sandstone, hard	8 50	Dawson Formation (lower part):		Shale, gray.	3 870
Coal.	2 52	Sand; occasional shale		Sand, fine, gray	2 872
Shale	6 58	breaks [Middle congl-		Shale, sandy, gray	8 880
Coal.	2 60	omerate, 743 to		Sand, fine, gray	10 890
Shale	20 80	870 feet.)	144 870	Shale, gray.	2 892
Shale, soft, blue	12 92	Shale, gray	146 1,016	Sand, fine, gray	7 899
Shale, soft, gray	10 102	Lower conglomerate:		Limestone.	1 900
Rock.	1 103	Sand.	18 1,034	Sand	9 909
Shale	14 117	Shale, gray	50 1,084	Shale.	4 913
Coal.	2 119	Sand.	26 1,110	CJ-66-14asdb. Alt. 5,487.0 ft.	
Shale, gray	17 136	Shale	50 1,160	Eolian sand:	
Coal.	3 139	CJ-66-12bbca. Alt. 5,554 ft.		Sand, very fine, and	
Shale	25 164	Dawson Formation (upper part):		brown loose silt	2.5 2.5
Shale, soft, gray	54 218	Clay, sandy	56 56	Silt, very sandy, very	
		Clay, gray.	10 66	calcareous, yellowish-	
		Shale, dark-gray.	13 79	brown.	3.5 6
		Sandstone, gray, and		Dawson Formation (upper part):	
		layers of gray shale	24 103	Shale, very silty, soft,	
		Shale, blue	6 109	noncalcareous,	
				micaceous, moderate-	
				yellowish-brown and	
				pale-yellowish-orange	1 7

Table J.--Logs of wells and test holes--Continued

Thickness	Depth	Thickness	Depth	Thickness	Depth
Cl-66-14cbab. Alt. 5,440 ft.		Cl-67-14cbag. Alt. 5,209.0 ft.		Cl-67-5abed1. ---Continued	
Dawson Formation (upper part):		Topsoil 7		3 sandstones:	
Shale, black. 190	190	Sand, fine, silty 2.6	3.3	Sand, fine, clean. 105	1,185
Shale, gray 10	200	Verdos(?) Alluvium:		white.	
Shale, black. 33	233	Silt, calcareous; contains		A sandstone:	
Shale, gray 4	237	montmorillonite 1.7	5	Sand and shale inter-	
Shale, black. 63	300	Silt, sandy, clayey 6.2	11.2	bedded 10	1,415
Coal. 60	360	Sand, fine, silty 2.9	14	Shale; contains streaks	
Shale, gray 20	380	Sand, fine, loose 17.6	31.6	of sand. 45	1,460
Sand [Upper conglomerate,		Sand, fine to medium. 5.6	17.2	Fox Hills Sandstone:	
180 to 410 feet.] 10	410	Sand, fine. 39.4	76.6	Milliken Sandstone Member:	
Shale, gray 50	460	Sand, fine to medium. 7.7	84.3	Sand, fine, silty.	
Shale, black and gray		loose 4.1	88.4	dirty. 35	1,495
mixed 20	480	Sand, coarse, loose 7.2	95.6	Shale, sandy 15	1,510
Limestone, white, and		Sand, coarse, gravelly.		Sand, silty. 10	1,520
gray shale mixed. 20	500	loose 7.2	95.6	Shale, clayey. 5	1,525
Shale, greenish 10	510	Gravel, fine, sandy;			
Shale, black. 5	515	contains pebbles as		Cl-67-5dddd. Alt. 5,191 ft.	
Rock, gray. 5	520	large as 2 inches in		Eolian sand:	
Shale, black. 10	530	diameter. 7	102.6	Clay, sandy. 45	45
Shale, blue, and some		Sand, medium to coarse.		Louviers Alluvium:	
sand. 15	545	loose 1.6	106.2	Clay 10	55
Shale, black; contains		Sand, coarse, loose 1.9	110.1	Gravel 10	65
some white sandstone		Dawson Formation:		Clay 10	75
Shale, blue 27	590	Shale, weathered. 2.1	112.2	Gravel 5	80
Shale, blue, and some					
white sandstone 5	595	Cl-67-4bcaa. Alt. 5,180 ft.		Cl-67-5dddd2. Alt. 5,189.0 ft.	
Shale, blue, mixed with		Eolian sand:		Eolian sand:	
gray and white rock 5	600	Soil. 6	6	Soil, sandy. 4	4
Shale, crumbly, gray. 55	655	Sand. 11	17	Clay, yellow, soft 8	12
Shale, sticky, gray 75	730	Verdos Alluvium:		Louviers Alluvium:	
Shale, black. 5	735	Soil, sandy 9	26	Sand, loose. 33	45
Shale, sandy. 61	796	Sand. 9	35	Clay, yellow 10	55
Dawson Formation (lower part):		Clay. 11	66	Sand, loose, coarse. 7	62
Middle conglomerate:		Gravel. 14	80	Clay, yellow 3	65
Sand. 116	912	Sand, dirty 8	88	Sand 17	82
Shale, sandy. 8	920	Clay. 3	91	Dawson Formation (upper part):	
Sand. 21	941	Gravel. 5	96	Shale, gray. 16	98
Shale, sandy. 5	946	Dawson Formation:		Shale, gray, and sand-	
		Shale 1	97	stone. 7	105
Cl-66-14cbdd. Alt. 5,441 ft.		Cl-67-5abed2. Alt. 5,165 ft.		Shale, gray. 17	122
Piney Creek Alluvium:		Eolian sand:		Sandstone, gray. 6	128
Soil, surface 6	6	Clay. 6	6	Shale, blue and gray 44	172
Loam, finely sandy. 11	17	Louviers Alluvium:		Shale, sandy, gray 2	174
Broadway and Louviers Alluvium.		Clay, sandy 40	46	Shale, gray and blue 23	197
undifferentiated:		Gravel. 15	61	Shale, sandy, gray 6	203
Sand and gravel (water-				Shale, blue and gray 29	232
bearing) 43	60	Cl-67-5abed1. Alt. 5,167.3 ft.		Coal, soft, lignitic 5	237
Cl-66-15bcb2. Alt. 5,512 ft.		Eolian sand and Louviers Alluvium,		Shale, blue and gray 40	277
Eolian sand:		undifferentiated:		Shale, gray, interbedded	
Topsoil; sandy loam 2	2	Sand, fine, silty 60	60	with layers of thin	
Dawson Formation (upper part):		Dawson Formation (upper part):		sand 21	298
Clay, yellow to gray. 63	65	Shale, silty, clayey;		Shale, gray. 22	

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
CJ-67-7abca.--Continued			CJ-67-11ddda. Alt. 5,279 ft.			CJ-67-14bcbb.--Continued		
Sandstone, gray	5	154	Eolian sand:			Sand, very fine to		
Shale, gray	15	169	Topsoil	.4	.4	medium, silty, sub-		
Shale, blue	6	175	Sand, fine, silty	10.4	10.8	angular to subrounded,		
Shale, sandy, blue	9	184	Silt, sandy, compact	4.5	15.3	micaceous, very cal-		
Shale, gray	136	120	Silt, sandy, clayey	1.5	16.8	careous, moderate-		
Shale, light-brown	6	126	Sand, fine, silty	3.6	20.4	yellow; contains		
Shale, gray	11	137	Silt, sandy, soft			montmorillonite	5	52.5
Sandstone, gray	8	145	loose	7.1	27.5	Silt, very sandy, very		
Shale, light-brown	2	147	Sand, fine, silty			calcareous, dusky-		
Sandstone, gray	2	149	loose	3.8	31.3	yellow; contains		
Shale, gray	26	175	Verdos Alluvium:			montmorillonite	5.5	58
Sandstone, fine, white	1	178	Sand, medium, loose	1.9	33.2	Dawson Formation (upper part):		
Shale, gray	14	192	Silt, clayey	3.5	36.7	Sandstone	2	60
Lime	1	193	Sand, fine, silty	2.2	38.9	Shale, silty, noncal-		
Sandstone, gray	8	401	Sand, fine, loose	18.4	57.3	careous, dusky-yellow;		
Shale, gray	14	415	Silt, sandy, clayey			contains much mont-		
Sandstone, gray	6	421	compact	2.7	60	morillonite, at 60		
Shale, gray	31	452	Sand, fine to medium	1.8	61.8	feet		
Shale, blue	4	456	Silt, sandy	3.4	65.2			
Shale, gray	65	521	Clay, silty	5.5	70.7			
Dawson Formation (lower part):			Sand, fine, silty	1.7	72.4			
Middle conglomerate:			Sand, fine to medium	8.9	81.3	CJ-67-14cccb. Alt. 5,280 ft.		
Sandstone, gray	22	543	Dawson Formation (upper part):			Eolian sand:		
Shale, gray	20	563	Siltstone, weathered:			Sand, very fine to		
Sand	1.5	564.5	2-inch concretions:			medium, subangular,		
Shale, gray	49.5	614	Iron stains	4.7	86	micaceous, arkosic,		
Lime, sandy, white	9	623				loose	6.5	6.5
Shale, gray	15	638				Silt, very sandy, com-		
Shale, brown	2	640				pact, very calcareous,		
Shale, gray	8	648				moderate-yellowish-		
Lower conglomerate:						brown; contains very		
Sand, fine, white	11	659				fine sand and some		
Shale, sandy, gray	11	670				montmorillonite	3.5	10
Sand, white	11	681				Sand, very fine to		
Shale	9	690				medium, very silty,		
Sand, white	10	700				very calcareous,		
Shale	5	705				arkosic, dark-yellowish-		
						orange; contains about		
						50 percent silt	2.5	12.5
						Silt, very sandy, very		
						calcareous, moderate-		
						yellowish-brown	10	22.5
						Silt, very calcareous,		
						moderate-yellowish-		
						brown, and about 50		
						percent fine to medium		
						arkosic sand	2.5	23
						Dawson Formation (upper part):		
						Shale at 25 feet		
CJ-67-7acaa. Alt. 5,158 ft.			CJ-67-12dcda. Alt. 5,283 ft.					
Piney Creek Alluvium:			Eolian sand:					
Topsoil	8	8	Topsoil	.7	.7			
Broadway Alluvium:			Silt, sandy	3.7	4.4			
Gravel, fine, dirty	2	10	Sand, fine, silty					
Gravel	5	15	loose	1.7	6.1			
Louviers Alluvium:			Silt, clayey	6.6	12.7			
Clay	1	16	Sand, fine, silty	5.1	17.8			
Gravel, coarse	4	20	Verdos Alluvium:					
Shale	2	22	Sand, medium, loose	18	35.8			
			Sand, fine	.3	36.1			
			Sand, medium, loose	8.2	44.3			
			Sand, fine, loose	2.8	47.1			
			Sand, medium, loose;					
			contains coarse					
			gravel	2.9	50			
			Sand, medium, loose;					
			pieces of shale float	3.9	53.9			
			Dawson Formation (upper part):					
			Siltstone, clayey,					
			weathered	6.1	60			
CJ-67-8bbab. Alt. 5,169 ft.			CJ-67-14acaa. Alt. 5,270.5 ft.			CJ-67-17abba. Alt. 5,204 ft.		
Eolian sand and Louviers Alluvium,			Piney Creek Alluvium and eolian sand,			Overburden	12	12
undifferentiated:			undifferentiated:			Dawson Formation (upper part):		
Sand and clay	35	35	Clay	2	2	Clay, blue, and shale	328	360
Louviers Alluvium:			Clay	4	6	Sand	10	370
Gravel, rock; contains			Broadway Alluvium:			Clay and shale	59	429
small layer of clay	15	50	Sand	18	24	Dawson Formation (lower part):		
			Louviers Alluvium:			Sand [Middle conglomerate,		
			Gravel	8	32	429 to 510 feet.]	16	445
			Clay	6	38	Clay	5	450
			Gravel	1	41	Sand	7	457
			Clay	1	42	Clay	11	468
			Gravel, coarse	3	45	Sand and sandstone; two		
			Clay	6	51	small streaks of clay	42	510
						Clay and shale	135	645
						Lower conglomerate:		
						Sand and sandstone	20	665
						Shale	10	675
						Sand, tight	10	685
						Sand	10	695
						Shale	4	699
						Sand	11	710
						Shale	17	727
						Shale, sandy	3	730

Table J.--Goods of wells and test holes--Continued

Thickness		Depth	Thickness		Depth	Thickness		Depth
C1-67-18accd2. --Continued Clay and shale. 147 500 Lower conglomerates: Clay, and streaks of packed sand. 15 635 Sandstone and sand. 20 655 Shale. 15 670			C1-67-24bddd. Alt. 5,130 ft. Eolian sand, Broadway and Louviers Alluvium, and Dawson Formation, undifferentiated: Surface sand and gravel near top. 100 100 Dawson Formation (upper and lower parts, undifferentiated): Sand and gravel (water) 78 178 Coal and shale. 4 182 No sample. 23 205 Gravel (water). 11 216 Soapstone and clay. 284 500 No sample. 22 522 Coal, shale, Scranton coal (water). 7 529 No sample. 271 800 "Shale to the iron deposit". 10 810 Gravel (water). 10 820 Shale. 10 830 No sample. 264 1,094 Laramie Formation: Shale, lime (water). 14 1,108 No sample. 120 1,228 Shale and sand. 17 1,245 No sample. 55 1,300 Shale, light-colored (gas flow). 140 1,440 Shales, black. 30 1,470 Shales, black; contains shells (show of oil) 5 1,475 Shale, brown. 65 1,540 Coal. 10 1,550 S and A sandstones, undifferentiated: Sand, solid. 130 1,680 Shale. 10 1,690 Fox Hill Sandstone: Milliken Sandstone Member: Sand (show of oil). 20 1,710 Transition zone: Shale and limestone; shells. 140 1,850 Shale and shells (show of oil). 100 1,950 Shale and shells. 60 2,010 Shale and shells (oil sand). 55 2,065 Total depth 3,790 feet			C1-67-33adda. --Continued Sand; occasional thin shale breaks (water) Middle conglomerate, 750 to 940 feet. 90 840 Shale, sandy. 15 875 Sand; occasional shale breaks (water). 65 940 Shale, hard, dark-gray bearing). 75 1,015 Lower conglomerates: Sandstone (water- bearing). 40 1,055 Shale, sandy, hard, dark-gray. 45 1,100		
C1-67-18bddd. Alt. 5,180 ft. Post-Piney Creek alluvium: Sand. 6 6 Broadway Alluvium: Gravel. 9 15 Louviers Alluvium: Clay. 11 26 Gravel. 11 37 Clay. 3 40 Dawson Formation (upper part): Sandstone, hard. 2 42			C1-67-19ccdd. Alt. 5,265.7 ft. Piney Creek Alluvium: Clay. 9 9 Broadway Alluvium: Gravel. 18 27 Louviers Alluvium: Clay. 4 31 Gravel. 7 38 Clay. 12 50 Gravel. 12 62 Clay. 12 74 Gravel, fine. 6 80 Dawson Formation: Clay. 12 92 Shale. 3 95			C1-67-16acddb. Alt. 5,170 ft. Younger loess: Loam. 15 15 Broadway Alluvium: Gravel, sandy. 21 36 Louviers Alluvium: Clay and gravel. 4 40 Dawson Formation (upper part): Shale, brown. 10 50 Shale, blue. 5 55 Coal. 1.5 56.5 Shale, brown. 7.5 64 Sandrock. 5 69 Shale, sandy, hard. 15 84 Clay. 5 89 Shale. 78 167 Rock. 2 169 Shale and clay. 114 283 Sandrock [Upper con- glomerate, 284 to 291 feet.]. 2 285 Clay. 2 287 Sand, white. 4 291 Clay and shale. 134 425 Rock. 5 430 Clay. 22 452 Sandrock, soft. 8 460 Clay and shale. 115 575 Rock. 2 577 Sandrock, soft. 28 605 Clay. 20 625 Shale, caved. 65 690 Dawson Formation (lower part): Middle conglomerate: Sandrock (water). 40 730 Clay and shale. 60 790 Sandrock, hard. 15 805 Sandrock (water). 98 903 Shale, black. 24 927		
C1-67-21dddd. Alt. 5,250 ft. Post-Piney Creek alluvium: Sand, silty, coarse. 2.5 2.5 Louviers Alluvium: Sand, very fine, very silty, arkosic, sub- angular, only slightly calcareous; 40 to 50 percent silt. 3.5 6 Sand, medium to very coarse, subangular, arkosic, and about 20 percent very fine gravel; contains dark-yellowish-orange silt from 10.0 feet to 14.0 feet and cobbles from 11.0 feet to 12.0 feet. 8 14 Dawson Formation (upper part): Shale, clay, noncalcareous, dusky-yellow; contains limonite and montmorillo- nite and has sandy streaks. 6 20			C1-67-29aaaa. Alt. 5,283.5 ft. Eolian sand: Sand, very fine, very silty, micaceous, sub- angular, pale-yellowish- brown; dusky yellow 4 to 5 feet. 5 5 Louviers Alluvium: Silt, very calcareous, light-olive-gray; contains a little coarse sand, some white calcareous particles, and much montmorillonite. 12.5 17.5			C1-68-1aaaad. Alt. 5,103 ft. Overburden. 33 33 Dawson Formation (upper part): Clay, blue, and shale. 17 70 Sandstone. 15 85 Clay and shale. 80 165 Sand. 5 170 Sandrock. 3 173 Clay and shale. 104 277 Sand and sandstone. 21 298 Clay and shale. 67 365 Sand, tight, and sand- stone. 25 390 Clay and shale. 57 447 Dawson Formation (lower part): Middle conglomerate: Sand and sandstone. 41 488 Clay. 8 496 Sand and sandstone. 22 518 Clay. 7 525		
C1-67-22ccdd. Alt. 5,265 ft. Piney Creek Alluvium: Clay, silty, dark-brown 2.5 2.5 Sand, very fine to medium, very silty, calcareous, dark- yellowish-brown. 2.5 5 Clay, silty, dark- brown. 5 10 Louviers Alluvium: Silt, sandy and clayey, very calcareous, very micaceous. 2 12 Sand, fine to coarse, subangular to sub- rounded, arkosic, silty, pale-yellow- ish-brown. 5 12.5 Sand, very fine to very coarse, mostly sub- angular to subrounded; contains a little very fine gravel, well- rounded sand, and pale- yellowish-brown silt 7.5 20 Gravel, very fine to fine, angular to sub- rounded, silty, and poorly sorted sand. 7.5 27.5 Sand, very fine to very coarse, poorly sorted, arkosic, subangular to subrounded, and about 10 percent very fine gravel. 2.5 30 Gravel, very fine to fine, angular to sub- rounded, fairly clean, and poorly sorted sand. 3 33 Dawson Formation (upper part): Shale, silty and sandy, calcareous, micaceous, moderate-yellowish-brown; contains montmorillo- nite. 4.5 37.5			C1-67-29caaa. Alt. 5,316.2 ft. Eolian sand: Clay. 3 3 Sand, fine. 4 7 Louviers Alluvium: Clay. 17 24 Sand and gravel. 56 80 Dawson Formation: Clay, tan. 15 95			C1-68-1abccc. Alt. 5,180 ft. Piney Creek Alluvium: Soil. 2 2 Clay, sandy, yellow. 17 19 Dawson Formation (upper part): Sandstone, blue. 10 29 Shale, gray. 165 194 Dawson Formation (lower part): Sand [Middle conglom- erate, 76 to		

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C1-68-1cddc. Alt. 5.165 ft. Post-Piney Creek alluvium: Topsoil 5 5 Broadway and Louviers Alluvium, undifferentiated: Gravel 28 33					
C1-68-4acdb. Alt. 5.232.6 ft. Younger loess: Soil, surface 5 5 Clay, yellow 30 15 Louviers Alluvium: Sand and gravel (water) 20 55 Dawson Formation: Clay, blue 15 70					
C1-68-4bccc. Alt. 5.246.0 ft. Younger loess and Louviers Alluvium, undifferentiated: Sand and shale 20 20 Louviers Alluvium: Boulders and gravel 10 30 Dawson Formation: Shale, gray 5 35					
C1-68-5ccbb. Alt. 5.275.5 ft. Piney Creek Alluvium: Topsoil 18 18 Slocum Alluvium: Clay 9 27 Gravel 22 49 Dawson Formation: Shale 1 50					
C1-68-5ccdc. Alt. 5.252.8 ft. Younger loess: Topsoil, and pale-yellowish- brown sandy very cal- careous finely micaceous silt 2.5 2.5 Silt, compact, micaceous, very calcareous, pale- yellowish-brown 5.5 8 Dawson Formation (upper part): Shale, very silty, hard, very calcareous, grayish-orange 4.5 12.5					
C1-68-5dasa. Alt. 5.245 ft. Fill 1 1 Younger loess: Clay, yellow 18 19 Sand 3 22 Slocum Alluvium: Clay, yellow 10 32 Sand and gravel 11 43 Dawson Formation (upper part): Shale, blue 8 51 Shale, gray 139 190 Dawson Formation (lower part): Sand [Middle conglomer- ate, 180 to 235 feet.] 12 202 Shale, gray 7 209 Sand 21 230 Shale, gray 61 291 Shale, blue 6 297 Shale, gray 19 316 Shale, gray, and fine sand 19 335 Lower conglomerate: Sand and gray shale 128 463 Shale, gray 19 482 Sand 19 521 Shale, gray 52 573 Sand 21 594 Shale, gray, and fine sand 46 640					
C1-68-5dcab. Alt. 5.254 ft. Younger loess: Topsoil 15 15 Louviers Alluvium: Gravel (water, shut out) 20 35 Dawson Formation (upper part): Shale 73 108 Dawson Formation (lower part): Middle conglomerate: Sandstone, blue 15 123 Shale 2 125					
C1-68-6cadd. Alt. 5.303 ft. Younger loess: Soil 2 2 Clay, yellow 15 17 Dawson Formation (upper part): Clay, yellow and gray 14 51 Dawson Formation (lower part): Shale, gray, and sand- stone [Middle con- glomerate, 51 to 219 feet.] 69 120 Lime, sandy 5 125					
C1-68-6cadd. --Continued Sand, fine 13 138 Shale, gray 19 157 Sand, fine, and gray shale 23 180 Shale, gray, and fine sand 36 216 Sand, fine, and gray shale 20 236 Sandstone, gray 7 243 Shale, gray 21 264 Sandstone, gray 4 268 Shale, gray 6 274 Sandstone, gray 15 289 Shale, gray 19 328 Sandstone, gray 11 339 Shale, gray 5 344 Lime, sandy 1 345 Lower conglomerate: Sand, medium to fine 19 384 Sand, fine, and gray shale 81 463 Shale, gray 11 476 Sand, fine, and gray shale 106 582 Shale, gray 25 607 Shale, brown 4 611 Shale, gray 3 614					
C1-68-6dccb. Alt. 5.297.9 ft. Younger loess: Clay 30 30 Dawson Formation (lower part): Middle conglomerate: Silt and caliche stringers, very hard 2 32 Gravel, packed, very hard 18 50 Gravel, loose 10 60 Shale 45 105					
C1-68-7cabb. Alt. 5.271 ft. Piney Creek Alluvium: Soil 1 1 Clay, yellow 6 7 Louviers Alluvium: Boulders 7 14 Dawson Formation (upper part): Clay, yellow 12 26 Shale, gray 56 82 Dawson Formation (lower part): Sand, fine [Middle con- glomerate, 82 to 157 feet.] 4 86 Shale, gray 13 99 Sand, fine 6 105 Shale, gray 44 149 Sandstone, gray, and gray shale 8 157 Lime, sandy 3 160 Shale, gray 23 183 Sandstone, gray, and shale 36 219 Shale, gray 26 245 Sandstone, gray 19 264 Shale, gray 17 281 Sandstone, gray 14 295 Shale, gray 19 314 Lower conglomerate: Sand, fine 5 319 Lime, sandy 4 323 Sand 52 375 Sand and gray shale 36 411 Shale, gray 7 418 Sand and gray shale 121 539 Shale, gray 77 616					
C1-68-8bbda. Alt. 5.222.7 ft. Post-Piney Creek alluvium: Soil, loam, clayey, sandy, damp, brown 5 5 Silt, sandy, clayey, noncalcareous, pale- brown; contains montmorillonite 2 2.5 Silt, sandy, very micaceous, very cal- careous, grayish- orange; contains very fine to fine sand at 8 feet 5.5 8 Silt, sandy, compact, very calcareous, moderate-yellowish- brown; contains montmorillonite 3 11 Broadway Alluvium: Gravel, sand, and clay 5 11.5 Clay, sandy, light-tan Gravel, very fine, and very fine to fine sand 1 13 Clay, silty and sandy, plastic, gray 1 14					
C1-68-8bbda. --Continued Gravel, very fine to medium, subangular to rounded, arkosic, and very fine to coarse sand 21 Louviers Alluvium: Sand and silt; contains some fine angular to subrounded gravel and cobbles 9 29 Dawson Formation (upper part): Shale, noncalcareous, medium-light-gray; contains montmorillo- nite 3.5 32.5					
C1-68-8bddd. Alt. 5.205.3 ft. Post-Piney Creek alluvium: Cobbles, very fine to very coarse gravel, and medium to coarse sand; grains are angular to well- rounded 5 5 Broadway Alluvium: Gravel, very fine to medium, subrounded to well-rounded, arkosic, and fine to very coarse sand 1.4 1.3 Louviers Alluvium: Clay, very sandy, very micaceous, noncalcareous, brown, and some gravel 1.7 3.6 Gravel, very fine to very coarse, subrounded to well-rounded, arkosic; iron stained Cobbles, very fine to coarse gravel, and sand 1.5 6.3 Sand, medium to coarse, angular to subangular, arkosic 1.1 7.4 Cobbles, coarse gravel, and sand, subrounded to well-rounded 5 12.4 Sand, medium to very coarse, angular to subrounded 8 13.2 Cobbles and coarse gravel, well-rounded 3.6 16.8 Dawson Formation: Shale at 16.8 feet					
C1-68-8dbbc. Alt. 5.209.2 ft. Post-Piney Creek alluvium: Sand and loam, loose, tan 6 6 Silt, noncalcareous, pale-yellowish-brown; contains some very fine sand 2.5 9.5 Broadway Alluvium: Gravel, medium to coarse, subrounded to well- rounded, arkosic, and angular to subangular fine to medium sand 1.5 10 Louviers Alluvium: Gravel and cobbles, well-rounded 3 13 Sand, very fine to medium, silty, noncal- careous, finely micaceous, pale-yellowish-brown 1 14 Gravel, coarse, and cobbles 3.5 17.5 Sand, very fine to medium, silty, slightly calcareous, pale- yellowish-brown 2 19.5 Dawson Formation (upper part): Shale, slightly silty, noncalcareous, light- olive-gray and olive- gray; contains mont- morillonite 3 22.5					
C1-68-8dcab. Alt. 5.204.2 ft. Post-Piney Creek alluvium: Silt, very sandy, micaceous, noncalcareous, plastic, dark-yellowish-brown 4 4 Louviers Alluvium: Sand, very fine to very coarse, subangular to subrounded, arkosic, micaceous, noncalcar- eous, in part silty, pale-yellowish-brown; contains some gravel, clay, and cobbles 6.5 10.5					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-68-8dcab.---Continued		CJ-68-10dadc.---Continued		CJ-68-11bcb.---Continued	
Dawson Formation (upper part):		Clay and shale.		Laramie Formation:	
Shale, silty, noncalcareous,		Sand and sandstone.		Shale, hard.	
mucaceous, dark-gray;		Clay and shale.		Rock.	
contains montmorillonite.		Sand and sandstone.		Shale.	
2	12.5	Clay and shale.		Shale, gray.	
CJ-68-9cadd2. Alt. 5,232 ft.		Sand and sandstone.		Rock.	
Eolian sand:		Clay, sand, and sand-		Shale, brown.	
Clay.		stone.		Shale, gray.	
6	6	Clay and shale.		Shale, hard.	
Louviere Alluvium:		Sandstone.		CJ-68-12cbag. Alt. 5,120 ft.	
Sand and gravel.		Shale.		Post-Piney Creek alluvium:	
6	12	Lower conglomerate:		Topsoil.	
Dawson Formation (upper part):		Sand and sandstone.		Gravel.	
Slate, yellow.		Clay and shale.		Louviere Alluvium:	
Shale, blue.		Sandstone.		Clay.	
Shale, gray.		Shale.		Gravel.	
Sand and blue shale.		Sand and sandstone.		CJ-68-12caba. Alt. 5,145 ft.	
Sandstone.		Clay and shale.		Overburden.	
Shale, blue.		Sand.		Dawson Formation (upper part):	
Sandstone.		Shale.		Clay, blue, and shale.	
Shale, gray.		Rock.		Dawson Formation (lower part):	
50	135	Clay and shale.		Sand and sandstone	
Dawson Formation (lower part):		Sandstone.		(Middle conglomerate,	
Sandstone [Middle con-		Laramie Formation:		140 to 341 feet.)	
glomerate, 135 to		Shale.		Clay, gray.	
351 feet.]		Rock.		Sand and sandstone.	
Sandslate, gray.		Clay.		Clay, gray, and streaks	
Sandstone.		CJ-68-11acda. Alt. 5,131.0 ft.		of sandstone.	
Sandslate, gray.		Piney Creek Alluvium:		Sand.	
Rock, hard, brown.		Clay, sandy, brown.		Clay, gray.	
Slate, gray.		Louviere Alluvium:		Sandstone and sand.	
Sandstone.		Sand, coarse, gravel,		Shale, gray.	
Sandslate, gray.		and boulders.		Sandstone and sand.	
Slate, gray.		Dawson Formation (upper part):		Shale, gray.	
Sandstone.		Shale, blue.		Sandstone and sand.	
Sandslate, gray.		Dawson Formation (lower part):		Shale, gray.	
Lower conglomerate:		Middle conglomerate:		Sandstone, hard.	
Sandstone.		Sand, fine, gray.		Shale.	
Slate, gray.		Shale, gray.		Lower conglomerate:	
Sandstone.		Sand, very soft, gray.		Sandstone.	
Rock, hard.		Shale, gray.		Shale.	
Sandstone.		Sandstone, very hard,		Sandstone.	
Sandslate, blue.		gray.		Shale.	
Sandstone.		Shale, soft, gray.		Sandstone.	
Sandstone, gray.		Lower conglomerate:		Shale, broken.	
Sandstone.		Sandstone, gray.		Sandstone.	
Laramie(?) Formation:		Sandstone; contains		Shale.	
Shale, hard, blue-gray		streaks of shale.		Sandrock.	
71	708	Laramie Formation:		Shale, gray.	
CJ-68-10ccdb. Alt. 5,220 ft.		Shale, gray; contains		Sandstone.	
Eolian sand:		streaks of coal.		Shale, gray.	
Sand, fine, and clay.		CJ-68-11adada2. Alt. 5,118.5 ft.		Sandstone.	
Louviere Alluvium:		Post-Piney Creek alluvium:		Shale.	
Sand, gravel, and bould-		Sand and silt.		Sandstone.	
ers.		Gravel.		Shale.	
Dawson Formation (upper part):		Louviere Alluvium:		Sandstone.	
Shale, sandy, grayish		Clay.		Shale.	
Shales, green, blue,		Gravel to cobbles.		Sandstone.	
and black, in alter-		Dawson Formation:		Shale.	
nating layers.		Sh is at 30.0 feet		Sand.	
Dawson Formation (lower part):		CJ-68-11bcb. Alt. 5,182 ft.		Laramie Formation:	
Quartz sand, white clay,		Eolian sand:		Shale.	
and gravel [Middle		Clay.		Shale and streaks of	
conglomerate, 92 to		Louviere Alluvium:		sandstone.	
128 feet.]		Gravel, dirty.		Shale.	
Shale, tough, grayish		Dawson Formation (upper part):		CJ-68-12dadb. Alt. 5,150 ft.	
Sandslate, green, blue,		Clay.		Piney Creek Alluvium:	
and black; green		Shale.		Clay, sandy.	
shale disintegrates		Rock, hard.		Broadway Alluvium:	
and caves.		Shale, brown.		Gravel.	
Quartz sand, white clay,		Shale, blue.		Louviere Alluvium:	
and gravel.		Dawson Formation (lower part):		Clay.	
Shale, sandy, grayish		Sand, dirty [Middle		Gravel and rocks.	
Shale, hard, siliceous,		conglomerate, 74 to		Clay.	
black.		106 feet.]		Gravel.	
Shale, hard, white.		Shale, gray.		Dawson Formation:	
Lower conglomerate:		Sandstone.		Clay.	
Clay, whitish; contains		Shale, soft, gray.		Shale.	
coarse gravel.		Sandstone.		CJ-68-12dgaa. Alt. 5,158 ft.	
Clay, white, gravel,		Shale, sandy.		Broadway and Louviere Alluvium,	
and hard alternating		Sand.		undifferentiated:	
layers of fine sand-		Shale, gray.		Topsoil, sandy.	
stone.		Sand.		Sand and gravel.	
Shale, viscous, white		Shale, brown.		Dawson Formation (upper part):	
Sandstone, coarse.		Shale, hard, brown.		Clay, yellow.	
Sandstone, fine, sugar-		Shale, blue.		Shale, blue.	
like.		Coal.		Shale, gray.	
Shale, white, and		Shale.		Sandstone, gray.	
alternating layers		Rock.		Shale, gray.	
of fine sandstone.		Lower conglomerate:		Sandstone, gray, and	
Sandstone, fine, white		Sand.		gray shale.	
CJ-68-10dadc. Alt. 5,220 ft.		Shale.		Shale, gray.	
Overburden.		Sand.		Shale, sandy, gray.	
Dawson Formation (upper part):		Shale.		Shale.	
Clay, blue, and shale		Shale.		Dawson Formation (lower part):	
Sandstone.		Shale.		Sand, coal, and gray	
Clay and shale.		Shale.		shale [Middle conglom-	
Dawson Formation (lower part):		Shale.		erate, 245 to 408	
Sand and sandstone		Shale.		feet.]	
[Middle conglomerate,		Shale.		13	
150 to 264 feet.]		Shale.		258	

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C1-68-12dcas.--Continued		C1-68-14acbc.--Continued		C1-68-17acda.--Continued	
Shale, gray	7 265	Shale, gray	128 429	Shale, sandy	7 107
Sand, fine	17 282	Lower conglomerate:		Clay	3 110
Shale, gray	16 318	Sand, medium to fine	24 453	Dawson Formation (lower part):	
Sand, fine, and gray		Shale, gray	10 463	Sand, coarse (Middle	
Shale	17 335	Sand	33 496	conglomerate, 310 to	
Shale, gray	19 354	Sand, fine, and gray		194 feet	6 316
Sand, fine	14 368	Shale	79 575	Shale, sandy	6 322
Shale, gray	32 400	Shale, gray	41 616	Sand, coarse, and sand-	
Sandstone, gray	8 408			stone	16 338
Shale, gray, and sand-		C1-68-14bccd. Alt. 5,138 ft.		Shale, sandy	32 370
stone	38 446	Post-Piney Creek alluvium:		Sandstone	11 381
Shale, gray	24 470	Overburden	2 2	Flintrock	4 385
Sandstone, gray	6 476	Sand and gravel	11 13	Clay	5 390
Shale, gray	11 487	Louviers Alluvium:		Sand, coarse	4 394
Shale, blue	9 496	Clay	1.5 14.5	Shale	128 522
Shale, gray	17 513	Sand and gravel	18.5 33	Lower conglomerate:	
Lower conglomerate:		C1-68-15dbcb. Alt. 5,201.0 ft.		Sandrock	2 524
Sand, medium	10 523	Eolian sand:		Clay, sandy, and coarse	
Shale, gray	13 536	Sand, very fine to fine,		sand	71 595
Sand	22 558	loose, tan	2.5 2.5	Sand	25 620
Shale, gray, and sand	12 570	Sand, very fine to		Shale	15 635
Sand	27 597	medium, silty, calcar-		Sand and sandstone	15 650
Shale, gray	18 615	eous, dark-yellowish-		Shale	15 685
Sand, medium	12 627	orange	1.5 4	Sand and sandstone	25 710
Sand, fine, and gray		Caliche, silty, pale-		Shale	22 732
Shale	23 650	yellowish-brown, white-		Shale, sandy	5 738
Shale, gray	50 700	spotted and streaked		Laramie Formation:	
Lime, sandy	1 701	Dawson Formation (upper part):		Shale	72 810
Shale, sandy, gray	13 714	Shale, silty, sandy,			
Sand, medium	12 726	weathered calcareous,		C1-68-17adba. Alt. 5,341 ft.	
Laramie Formation:		grayish-yellow and		Younger loess:	
Shale, gray	115 841	dark-yellow; contains		Topsoil	5 5
Shale, brown	4 845	montmorillonite; less		Clay, sandy	10 15
Shale, gray	25 870	sand below 12.5 feet	10.5 17.5	Dawson Formation (upper part):	
Shale, brown, and coal		Shale, clay, noncal-		Clay and shale	30 45
blossom	13 883	careous, pale-olive	2.5 20	Shale; contains streaks	
Shale, gray	47 930	Shale, silty, dusky-		of sandstone	55 100
Lime, sandy	2 932	yellow, noncalcareous;			
Shale, gray	218 1,150	contains montmorillo-		C1-68-17adcc. Alt. 5,350.0 ft.	
Coal and gray shale	37 1,187	nite	2.5 22.5	Younger loess:	
Sand, fine	10 1,197	C1-68-15ddbc. Alt. 5,146.5 ft.		Soil	5 5
Coal and gray shale	21 1,218	Fill	6 6	Slocum Alluvium:	
Sand, fine, and gray		Post-Piney Creek alluvium:		Sand	30 35
Shale	21 1,239	Gravelly, medium to coarse,		Dawson Formation (upper part):	
Coal and gray shale	12 1,251	arkosic, subrounded to		Shale	10 45
Sand, fine [8 sandstone,		rounded, dirty, dry	4 10	Sand	5 50
1,251 to 1,325 feet.]	74 1,325	Louviers Alluvium:		Shale	25 75
Shale, sandy, gray	57 1,382	Gravel, fine to coarse,			
A sandstone:		arkosic, subangular to		C1-68-23acca. Alt. 5,186.0 ft.	
Sand, fine, coal, and		subrounded, loose,		Broadway Alluvium:	
gray shale	12 1,394	clean; contains		Topsoil, sandy, black,	
Shale, gray	34 1,428	cobbles	2.5 12.5	and fill	3.5 3.5
Sand, fine, and gray		Gravel, medium to very		Gravel, very fine to	
Shale	14 1,442	coarse, arkosic, sub-		coarse, about 30 per-	
Shale, gray	14 1,456	rounded to well-		cent coarse, sub-	
Sand, fine, and gray		rounded, loose, clean;		angular to subrounded,	
Shale	22 1,478	contains cobbles	1.5 14	arkosic, loose, poorly	
Shale, sandy, gray	19 1,497	Gravel, very fine to		sorted; contains	
Fox Hills Sandstone:		medium, and very coarse		scattered cobbles	6.5 10
Milliken Sandstone Member:		sand, fairly well-		Gravel, very fine to	
Sandstone, hard, white	3 1,500	sorted	3.5 17.5	fine, subangular, ar-	
Sand, fine, and gray		Gravel, very fine to		kosic, loose, and	
Shale	102 1,602	medium, arkosic, sub-		about 50 percent	
Shale, gray	11 1,613	angular to subrounded;		medium to very coarse	
Sand, fine	5 1,618	contains cobbles	7.5 25	sand	2.5 12.5
Shale, gray	8 1,626	Gravel, fine, well-sorted,		Louviers Alluvium:	
C1-68-13abbb. Alt. 5,165 ft.		subangular, arkosic	5 30	Sand, very fine to fine,	
Broadway and Louviers Alluvium,		Gravel, medium to		silty, calcareous,	
undifferentiated:		coarse, subangular to		arkosic, dusky-	
Gravel	28 28	subrounded, arkosic,		yellow	3.5 16
Louviers Alluvium:		loose	2.5 12.5	Gravel, very fine to	
Shale	7 35	Dawson Formation (upper part):		fine, arkosic, sub-	
Sand; contains streak		Shale, clay, noncalcar-		angular, and very fine	
of clay	5 40	eous, light-olive-gray;		to very coarse sand;	
Clay; contains rock	2 42	contains montmorillo-		contains cobbles	11.5 27.5
Gravel	3 45	nite	5 17.5	Sand, very coarse, sub-	
Dawson Formation:		C1-68-16dcac. Alt. 5,242.0 ft.		angular to subrounded,	
Shale, brown	2 47	Piney Creek Alluvium:		arkosic, and about 5	
Shale, blue, at 47 feet		Topsoil	2 2	percent very fine to	
C1-68-14acbc. Alt. 5,135 ft.		Dawson Formation (upper part):		medium subangular to	
Post-Piney Creek alluvium:		Shale and clay	250 260	well-rounded gravel	2.5 30
Soil	2 2	Dawson Formation (lower part):		Gravel, very fine to	
Clay, sandy, yellow	5 7	Sand and sandstone:		fine, dirty, subangular,	
Louviers Alluvium:		contains streaks of		arkosic, and very fine	
Sand and gravel	26 33	shale (Middle conglom-		to very coarse sand;	
Dawson Formation (upper part):		erate, 260 to 348		contains cobbles	7.5 37.5
Shale, blue	8 41	feet.)	98 148	Gravel, very fine to	
Shale, gray	25 66	Shale and clay	42 190	fine, subangular to	
Sandstone, gray	5 71	Shale; contains streaks		subrounded, arkosic,	
Sand, fine	5 76	of sandstone	98 488	and about 30 percent	
Shale, gray	51 127	Lower conglomerate:		very fine to very	
Dawson Formation (lower part):		Sandstone; contains		coarse sand	6.5 44
Sand, fine, and gray		streaks of shale	144 632	Dawson Formation (upper part):	
Shale (Middle conglom-		Shale	27 659	Shale, silty, olive-gray,	
erate, 127 to 301				noncalcareous; contains	
feet.)	72 199	C1-68-17acda. Alt. 5,355 ft.		montmorillonite	1.5 47.5
Shale, gray	10 229	Overburden	40 40		
Sand, fine	8 237	Dawson Formation (upper part):			
Shale, gray	41 278	Clay, blue, and shale	260 300		
Sand, medium to fine	23 301				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-68-23bbba. Alt. 5,144 ft.					
Fill	9				
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated: Sand, gravel (water)	22				
Dawson Formation (upper part): Shale, hard, blue, and green sandy shale	68				
Sandrock, hard, gray	6				
Shales, bluish, hard and soft strata	74				
Shale, green, caves	11				
Dawson Formation (lower part): Sandrock (Middle conglomerate, 190 to 180 feet)	6				
Shale, green, caving	5				
Shale, gray, sandy	64				
Sandrock, gray (water)	20				
Shale, sticky, bluish	34				
Sandrock (water)	5				
Shale, greenish and gray	11				
Sandrock (water)	5				
Shale, sticky, bluish and gray	10				
Sandrock (water)	10				
Shale, sticky, greenish	20				
Shale, alternating hard and soft layers, caves	12				
Lower conglomerate: Sand and clay (water)	8				
Shale, sticky, greenish	40				
Sand and white clay, alternating layers	23				
Shale, caves, bluish-brown and green	67				
Sandrock; contains intervening layer of black shale (water)	19				
Shale, black and brown; contains intervening layer of sandstone	17				
Laramie Formation: Shale, caves, greenish and black	49				
CJ-68-23dabb. Alt. 5,193.0 ft.					
Piney Creek Alluvium: Sand and loam, brown	3				
Broadway Alluvium: Sand, very fine to very coarse, subangular, arkosic, loose, and about 20 percent arkosic subangular to subrounded very fine to fine gravel	4.5				
Gravel, coarse to very coarse, arkosic, subangular to subrounded, and about 20 percent very coarse sand	2.5				
Gravel, very fine to fine, and medium to very coarse sand	1				
Louviers Alluvium: Gravel, coarse, subrounded to rounded, arkosic, and about 10 percent very fine to very coarse sand; contains cobbles from 13.0 to 15.5 feet	4.5				
Gravel, very fine to medium, subangular to subrounded, loose, clean; contains some cobbles	4.5				
Sand, very fine to very coarse, subangular to subrounded, slightly silty, and about 50 percent very fine to fine gravel	2.5				
Gravel, very fine to fine, subangular to subrounded, arkosic, and coarse to very coarse sand	4.5				
Cobbles, well-rounded, and loose arkosic subrounded to rounded very fine to coarse gravel	7				
Gravel, fine, fairly well-sorted, arkosic, subrounded to rounded cobbles and fine to coarse sand	4.5				
CJ-68-23dabb--Continued					
Dawson Formation (upper part): Shale, silty, noncalcareous, pale-olive; contains montmorillonite	5.5				
CJ-68-24bbdd. Alt. 5,189 ft.					
Younger loess: Overburden	3				
Silt, sandy, dry	10				
Broadway Alluvium: Sand, fine to medium	10				
Louviers Alluvium: Clay, sandy	2				
Gravel and cobbles	3				
Clay, sandy	4				
Clay, tight	4				
Gravel	11				
CJ-68-27dccc. Alt. 5,205 ft.					
Broadway Alluvium: Soil, sandy	4				
Sand, fine	19				
Louviers Alluvium: Sand, coarse, and fine gravel	29				
Dawson Formation (upper part): Clay and shale	82				
Sandstone, gray	6				
Clay and shale	18				
Dawson Formation (lower part): Sand (Middle conglomerate, 178 to 430 feet)	4				
Clay	18				
Sandstone, gray	13				
Clay	85				
Clay and hard shale	15				
Clay	54				
Sandstone, hard	15				
Sandstone	2				
Sandstone, hard	41				
Sandstone	5				
Clay and rock, alternating	100				
Lower conglomerate: Sandstone	4				
Quicksand	207				
Shale	20				
Clay, sandy	24				
Clay	15				
CJ-68-31acaa. Alt. 5,324.5 ft.					
Younger loess: Topsoil	8				
Clay, yellow	10				
Slocum Alluvium: Sand (water-bearing)	7				
Clay, sandy (no water)	15				
Dawson Formation (upper part): Clay, blue, and sand	10				
Sandstone, black	5				
Shale	3				
CJ-68-33bccc. Alt. 5,185 ft.					
Post-Piney Creek alluvium: Soil, surface	6				
Louviers Alluvium: Sand and gravel	9				
Dawson Formation (upper part): Shale, brown	10				
Shale, blue	12				
Sand, black	5				
Shale, blue	12				
Dawson Formation (lower part): Sandstone (water) [Middle conglomerate, 94 to 276 feet]	11				
Shale	54				
Sandstone (water)	10				
Shale	14				
Limestone	7				
Shale, blue	26				
Sandstone	12				
Shale	18				
Sandstone (water)	21				
Shale	10				
Limestone, sandy	10				
Sandstone	9				
Limestone	14				
Shale	15				
Sandstone	10				
Slate, blue, and clay	70				
Sandstone	35				
Shale, sandy	11				
Sandstone	15				
Shale, gray	57				
Lower conglomerate: Sand, gray (water)	21				
Shale, gray	27				
Sand, gray (water)	10				
Sand and shale, alternating	11				
CJ-68-33bccc--Continued					
Shale, muddy, gray	25				
Sand and shale, hard, gray	10				
Sand, hard, gray	5				
Sand, medium-gray (water)	8				
Shale, muddy, gray	16				
Shale, blue	25				
CJ-68-33cadb. Alt. 5,189 ft.					
Fill	3.5				
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated: Sand and gravel	14.5				
Louviers Alluvium: Gravel and boulders	2				
Sand, gravel, and boulders	18				
Boulders	2				
CJ-68-34cabc. Alt. 5,222 ft.					
Broadway and Louviers Alluvium, undifferentiated: Boulders and gravel	14				
Dawson Formation (upper part): Clay, blue	56				
Sandrock	6				
Clay, blue	14				
Sandrock	5				
Shale	11				
Clay, tough	2				
Shale	8				
Clay, blue	12				
Sandrock	8				
Clay, blue	61				
Sandrock, hard	2				
Clay, tough	31				
Dawson Formation (lower part): Rock (water) [Middle conglomerate, 250 to 428 feet]	4				
Clay, blue	12				
Sandrock	2				
Rock (water)	15				
Sandrock	8				
Clay, blue	51				
Sandrock	6				
Clay, blue	22				
Sandrock	3				
Clay	1				
Sandstone	1				
Clay and rock, alternating (water)	53				
Clay, blue	50				
Shale	12				
Lower conglomerate: Sandstone	1				
Shale	21				
Sandstone, hard	9				
Shale	19				
Sandstone	12				
Rock (water)	16				
Clay, blue	17				
Sandstone	4				
Rock (water)	5				
Shale	16				
CJ-68-34bccc. Alt. 5,212 ft.					
Roadway	1				
Broadway Alluvium: Sand, medium to coarse, and gravel as large as 3/4-inch in diameter, slightly moist	3				
Silt, sandy, slightly moist	4.5				
Clay, silty, plastic, slightly moist	1.5				
Clay, as above, and fine to medium sand	1				
Sand, fine to medium, slightly moist	2				
Sand, medium to coarse, and gravel as large as 3/4-inch in diameter, slightly moist	3.5				
Sand, medium to coarse, gravel, and cobbles, slightly moist	5				
Louviers Alluvium: Sand, very clayey, coarse, and gravel as large as 3/4-inch in diameter, slightly moist	3				
Sand, coarse, and gravel as large as 1-inch in diameter, wet	11				
Clay, very sandy, moist	2				
Sand, coarse, gravel, cobbles, and boulders as large as 16-inches in diameter	6.5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-68-14bccc ---Continued		CJ-68-14cddd ---Continued		CJ-68-14cddd ---Continued	
Dawson Formation (upper part):		Clay, gray, and some		Shale, sandy, gray	10 1.420
Shale, carbonaceous, very		gravel	10 230	Shale, sandy, gray:	
slightly moist, blue to		Clay, gray	50 280	contains specks of	
gray	10 54	Dawson Formation (lower part):		lignite	10 1.430
CJ-68-14cbcb Alt. 5,216 ft.		Sand, fine to medium, and		A sandstone:	
Overburden	38 38	gray clay [Middle con-		Sand, hard, white, sandy	
Dawson Formation (upper part):		glomerate, 258 to 440		shale, and coal	10 1.440
Clay and shale	53 101	feet.]	10 290	Clay, gray	20 1.460
Sandrock	19 120	Sand, fine to medium,		Sand, salt and pepper,	
Clay and shale	4 124	gray clay, and some		and some clay	40 1.500
Sandrock	17 141	gravel	10 300	Clay, gray, and some	
Clay and shale	11 152	Clay, gray, and some		sand	20 1.520
Shale	41 193	gravel	10 310	Fox Hills Sandstone:	
Clay and shale	26 219	Clay, gray, and some		Milliken Sandstone Member:	
Dawson Formation (lower part):		fine sand	20 330	Sand, salt and pepper	60 1.580
Sand (water) [Middle		Clay, gray	50 380	Clay, gray	10 1.590
conglomerate, 219 to		Sand, fine, white, and		Transition zone:	
441 feet.]	12 231	gray clay	20 400	Shale, sandy, gray	10 1.600
Clay and shale	39 270	Sand, medium to coarse	10 410	Shale, sandy, gray, and	
Shale	40 310	Sand, coarse, and		gray clay	15 1.615
Sand (water)	20 330	gravel	30 440	CJ-68-14cddb Alt. 5,221.9 ft.	
Sandrock, hard	4 334	Clay, gray	10 450	Broadway Alluvium:	
Clay and shale	22 356	Sand, fine, some gravel,		Clay, silty, brown, and	
Sand (water)	30 386	and gray clay	10 460	sand	7.5 7.5
Clay and shale	5 391	Sand, fine, white	40 500	Sand, fine to coarse,	
Sandrock	4 395	Sand, fine, and gray		brown, and some gravel	6 13.5
Sand (water)	46 441	clay	10 510	Louviers Alluvium:	
Shale and clay	88 529	Clay, gray	10 520	Clay, silty, brown, and	
Lower conglomerate:		Sand, coarse, silty	20 540	silty fine sand	9.5 23
Sandrock	4 533	Clay, gray, and some		Sand, fine to coarse,	
Clay and shale	4 537	gravel	20 560	brown, and gravel	16 39
Sand (water)	3 540	Lower conglomerate:		Dawson Formation (upper part):	
Clay and shale	43 583	Sand, coarse	50 610	Clay, shaly, brown	3 42
Sand (water)	37 620	Sand, coarse, and some		Shale, weathered	4 46
Shale	28 648	gravel	20 630	CJ-68-15acbb Alt. 5,270 ft.	
Sand (water)	61 709	Clay, gray, and coarse		Eolian sand:	
Clay and shale	6 715	sand	10 660	Fill	2 2
Sand (water)	13 728	gravel	10 670	Topsoil	2 4
Shale	21.5 749.5	Clay, gray, and sand	50 720	Louviers Alluvium:	
CJ-68-14cdab Alt. 5,231.4 ft.		Sand, medium, and tan		Clay, sandy, brown	28 32
Broadway Alluvium:		clay	10 730	Gravel	4 36
Clay, silty, brown, and		Sand, medium to coarse	10 740	Sand	15 51
sand	5.5 5.5	Sand, medium to coarse,		Gravel	18 69
Sand, fine to coarse,		and tan clay	10 750	Dawson Formation (upper part):	
and some gravel	7.5 13	Clay, gray	10 760	Sandstone	6 75
Louviers Alluvium:		Clay, gray, and sand	10 770	Clay, brown	16 91
Clay, silty, brown,		Clay, gray	10 780	Shale, blue	7 98
mixed with fine sand	10 23	Sand, medium	40 820	Sandstone, gray	11 109
Sand, fine to coarse,		Sand, medium, and gray		Shale, brown	5 114
and gravel	16 39	clay	10 830	Sandstone, gray, and	
Dawson Formation (upper part):		Sand, fine, and tan		gray shale	106 220
Shale, weathered	1.5 40.5	and gray clay	20 850	Shale, gray	25 245
CJ-68-14cdad Alt. 5,234 ft.		Laramie Formation:		Sandstone, gray, and	
Broadway Alluvium:		Clay, gray, and fine		gray shale	15 260
Sand, gravel, and cinder		sand	30 880	Shale, gray	92 352
fill	3 3	Clay, gray, and some		Sand, fine, and gray	
Sand, fine to coarse,		gravel	10 890	shale	17 169
and some gravel	10.5 13.5	Clay, gray	10 900	Sandstone, gray	12 181
Louviers Alluvium:		Clay, gray, and some		Shale, green	7 188
Sand, fine, brown,		sand	20 920	Shale, sandy, gray	14 402
contains trace of		Clay, gray, contains		Shale, gray	42 444
clay	2 13.7	specks of lignite	10 930	Shale, sandy, gray	13 457
Sand, fine to coarse,		Sand, gray, and gray		Dawson Formation (lower part):	
and gravel	25.8 39.5	clay	40 1,020	Sand and gray shale	
Clay, silty, brown:		Concretion, gray clay,		[Middle conglomerate,	
contains thin beds		and some sand	10 1,030	457 to 599 feet.]	28 485
of silty fine sand	7 46.5	Clay, gray, and carbon-		Shale, gray	24 502
Sand, fine, silty,		aceous shale	10 1,040	Sand, fine, and gray	
brown: contains trace		Clay, gray	40 1,080	shale	57 566
of silty clay	5.5 52	Shale, sandy, gray	10 1,090	Sand, coarse, and gray	
Sand, medium to coarse,		Clay, gray	40 1,130	shale	33 599
and gravel	9 61	Clay, gray, and coal	10 1,140	Shale, gray, and sand-	
Dawson Formation (upper part):		Shale, sandy, dark-		stone	22 621
Shale, weathered	1.5 62.5	gray	70 1,210	Shale, gray	24 645
Shale and sandstone, at		Clay, gray: contains		Shale, sandy, gray	9 654
62.5 feet		specks of lignite	30 1,240	Shale, brown	17 671
CJ-68-14cddd Alt. 5,237 ft.		Clay, gray: contains		Shale, gray	14 685
No sample	67 67	carbonaceous shale	10 1,250	Lower conglomerate:	
Dawson Formation (upper part):		Clay, gray, and gray		Sandstone, gray, and	
Clay, gray-green	13 90	sandy shale; some		shale	12 697
Clay, gray-green, and		lignite	10 1,260	Shale, gray	15 712
some gravel	10 90	Sand, fine, salt and		Sand, fine, and gray	
Sand, coarse, and some		pepper, and gray	10 1,270	shale	54 766
gray-green clay	10 100	clay		Sand, coarse, and gray	
Clay, gray-green, and		Sand, fine, salt and		shale	22 788
some coarse sand	10 110	pepper, and some	10 1,280	Shale, gray	28 816
Clay, gray-green and		coal		CJ-68-15acdc Alt. 5,285 ft.	
brown	20 130	Sand, fine, salt and		Eolian sand:	
Clay, gray-green, and		pepper [B sandstone,		Clay, yellow	56 56
some gravel	10 140	1,280 to 1,379 feet.]	40 1,320	Dawson Formation (upper part):	
Clay, sticky, gray-		Sand, fine, salt and		Shale, blue	153 209
green	10 150	pepper, and some coal	10 1,330	Shale, gray	21 230
Shale, sandy, gray-		Sand, fine, salt and		Shale, blue	45 275
green	50 200	pepper	10 1,350	Shale, sandy, gray	5 280
Clay, gray, and some		Sand, fine, salt and		Shale, blue	18 298
fine sand	10 210	pepper, and some gray		Shale, greenish	42 340
Clay, gray, and some		clay	10 1,360	Shale, black	16 356
coarse sand	10 220	Clay, gray	40 1,400	Shale, greenish	42 398
		Shale, carbonaceous	10 1,410		

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CI-68-15agdc.--Continued					
Dawson Formation (lower part):					
Sand, gray (middle conglom- erate, 198 to 544 feet.)	12	410			
Shale, siliceous.	69	479			
Shale, hard, sandy, light-gray.	31	510			
Shale, arenaceous, black.	22	532			
Sandstone, white.	12	544			
Shale, soft, disinte- grating, blue.	26	570			
Shale, hard, jointed, dark-gray.	70	640			
Shale, hard, slate-like, black; contains streaks of light-gray sand and beds of soft blue shale.	28	668			
Lower conglomerate:					
Sandstone, soft, gray	4	672			
Shale, hard, black.	28	700			
Shale, arenaceous, dark-gray.	28	728			
Conglomerate, coarse gravel, sand, and clay.	14	742			
Clay, soft, whitish.	12	754			
Shale, hard, arenaceous, bluish.	46	800			
CI-68-15bccc. Alt. 5,257 ft.					
Eolian sand:					
Soil.	6	6			
Loam, sandy.	20	26			
Louviers Alluvium:					
Gravel and boulders.	22	48			
Dawson Formation (upper part):					
Clay, yellow.	5	53			
Sand and blue sandrock	9	62			
Clay and shale.	80	142			
Coal smut.	2	144			
Clay and shale.	47	191			
Shale, blue.	12	203			
Clay and shale.	100	303			
Sandrock.	2	305			
Clay and shale.	8	313			
Sand and rock.	4	317			
Clay and shale.	5	322			
Dawson Formation (lower part):					
Sand (water) (middle conglom- erate, 322 to 447 feet.)	7	329			
Clay and shale.	4	333			
Sand (water).	7	340			
Sandrock.	23	363			
Sand (water).	42	405			
Clay and shale.	16	421			
Sandrock.	5	426			
Clay and shale.	4	430			
Sandrock and clay.	5	435			
Sandrock.	12	447			
Clay and shale.	106	553			
Lower conglomerate:					
Sand (water).	3	556			
Clay and shale.	9	565			
Sandrock.	6	571			
Sand (water).	9	580			
Sandrock.	5	585			
Clay and shale.	23	608			
Sand (water).	14	652			
Clay and shale.	48	700			
Sand (water).	41	741			
Clay and shale.	24	765			
CI-68-16abba. Alt. 5,288.0 ft.					
Younger loess:					
Silt, sandy, clayey, micaceous, calcareous, grayish-orange; becomes pale-yellowish-brown at 7.0 feet.	9	9			
Dawson Formation (upper part):					
Shale, very hard, very sandy, calcareous, pale-yellowish-brown; contains medium to coarse sand grains.	1.5	12.5			
CI-68-16bbbb. Alt. 5,241.0 ft.					
Piney Creek Alluvium:					
Topsoil, clayey.	2	2			
Silt, very calcareous, pale-yellowish-brown	8	10			
Silt, sandy, very cal- careous, grayish- orange.	16	26			
Dawson Formation (upper and lower parts, undifferentiated):					
Shale, silty, dark- yellowish-brown; con- tains montmorillonite	4	30			
CI-68-16dbdd. Alt. 5,271.0 ft.					
Piney Creek Alluvium:					
Clay, sandy, damp, plastic, light-brown	2.5	2.5			
Silt, slightly sandy, micaceous.	7.5	10			
Silt, very sandy, very calcareous, dark- yellowish-orange; con- tains abundant white grains of calcareous material.	4	14			
Dawson Formation (upper part):					
Shale, silty, very finely micaceous, dark- yellowish-orange; con- tains montmorillonite	3.5	17.5			
CI-68-16dccc. Alt. 5,418 ft.					
Dawson Formation (upper part):					
Soil.	1	1			
Clay, sandy, yellow.	76	77			
Shale, blue.	4	81			
Shale, gray.	22	103			
Dawson Formation (lower part):					
Sand (middle conglomerate, 123 to 260 feet.)	25	128			
Shale, gray.	18	146			
Coal.	2	148			
Shale, sandy, gray.	9	157			
Shale, gray.	51	208			
Sand and gray shale.	18	226			
Shale, gray.	4	230			
Lime, sandy.	1	231			
Shale, gray.	18	249			
Sand and gray shale.	11	260			
Shale, gray.	49	309			
Sandstone, gray.	19	328			
Shale, gray.	7	335			
Shale, gray, and sand- stone.	28	363			
Lime, sandy.	2	365			
Shale, sandy, gray.	13	380			
Lime, sandy.	4	384			
Lower conglomerate:					
Sand.	51	435			
Shale, gray.	35	470			
Sand, fine.	15	485			
Shale, gray.	13	498			
Sand, fine.	15	511			
Shale, gray.	45	558			
Sand, fine.	57	615			
Sand, fine; contains gray shale.	70	685			
Shale, gray.	11	696			
CI-69-16bbbb. Alt. 5,536.4 ft.					
Sioux Alluvium:					
Topsoil.	3	3			
Clay.	12	15			
Sand.	5	20			
Dawson Formation (upper and lower parts, undifferentiated):					
Hardpan.	8	28			
Clay and streaks of gravel.	21	49			
Shale, blue.	3	52			
CI-69-16cbab. Alt. 5,545 ft.					
Broadway Alluvium:					
Soil.	3	3			
Gravel, coarse, water- bearing; contains quartz, basalt, gneiss, and schist.	7	10			
Dawson Formation (upper part):					
Shale, clayey, yellow	5	15			
Dawson Formation (lower part):					
Sand, very fine to very coarse, water-bearing, and a little fine gravel (middle conglom- erate, 15 to 124 feet.).	5	20			
Shale, clayey, yellow	5	25			
Sand, very fine to very coarse, chiefly quartz, water-bearing, sub- rounded to rounded, and a little angular to subangular fine gravel.	5	30			
Gravel, very fine to fine, mostly angular, and coarse sand; con- tains quartz, ortho- cline, schist, gneiss, quartzite, and basalt	20	50			
Shale, clayey, light- greenish-gray; contains a little rounded medium sand.	25	75			
CI-69-16cbab.--Continued					
Sand, fine to coarse, angular to subrounded; contains a little gray shale.					
Shale, clayey, gray.	25	105			
Sand, very fine to very coarse, and very fine gravel; cemented at top.	19	124			
Shale, gray and brownish, and a thin bed of hard shaly sandstone.	6	130			
Shale, clayey, gray, and a little sand and sand- stone.	10	160			
Sand, fine to coarse, water-bearing, angular; about 50 percent feldspar and 50 per- cent quartz; contains gray shale.	15	175			
Shale, gray and brownish- gray; contains a few particles of coal and brown quartzite from 190 to 195 feet	20	195			
Shale, gray and brownish- gray, slightly sandy; contains partings of carbonaceous material, a little coal, and very fine to coarse sand.	15	210			
Lower conglomerate:					
Sand, very fine, silty, subangular to rounded, gray, and about 20 percent gray carbon- aceous clayey shale	10	220			
Sand, very fine to medium, water-bearing, brownish-gray; contains magnetite and a little coal.	20	240			
Shale, clayey, sandy, brownish-gray.	10	250			
Shale, slightly sandy, light-gray and brownish-gray.	20	270			
Shale, clayey, light- gray and gray.	10	280			
Shale, slightly sandy, light-gray to gray; contains fragments of coal between 280 and 290 feet.	20	300			
Shale, very clayey, light-gray.	10	310			
Sand, very fine to fine, angular to subrounded, brownish-gray and gray; contains a little carbonaceous shale.	10	320			
Shale, sandy, carbonaceous, brownish-gray light- gray and gray; con- tains very fine to coarse arkosic sand, very thin coal seams between 338 and 340 feet, and limonite between 340 and 345 feet.	15	355			
Sand, very fine, silty, angular to subrounded, brownish-gray.	5	360			
Shale, slightly sandy, carbonaceous and lim- onitic, gray to dark- gray; contains very fine angular sand.	20	380			
Sand, very micaceous, very fine to coarse, gray to dark-gray and brownish-gray; contains much pyrite from 390 to 400 feet	20	400			
Laramie Formation:					
Shale, clayey, sandy, gray.	10	410			
Sand, very fine to medium, angular to subangular, and gray clayey shale.	10	420			
Shale, carbonaceous, sandy, clayey, dark- gray light-gray and brownish-gray; contains coal between 510 and 520 feet and very fine to medium sand.	115	535			

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-69-17dbda. --Continued		CJ-69-14bada. --Continued		CJ-69-15addd2. --Continued	
Shale, gray	19 120	Shale, gray	9 177	Clay, gray	25 770
Sandstone, gray	2 122	Sandstone, gray	5 182	Shale, sandy, tan; con- tains dark-gray clay	20 790
Shale, gray	46 168	Shale, gray	77 259	Clay, gray	10 820
Sandstone, hard	1 169	Lime, sandy	4 263	Clay, gray and tan	10 830
Shale, gray	19 188	Lower conglomerate:		Clay, gray	75 905
Sandstone, gray	12 200	Sand and gray shale	69 332	Clay, gray and tan	15 920
Shale, gray	29 229	Shale, gray	5 338	Clay, gray	5 925
Sandstone, gray	13 242	Sand	31 419	Clay, gray; contains carbonaceous shale	15 940
Shale, sandy, gray	15 257	Shale, gray	8 427	Shale, sandy, gray; contains gray and tan clay	10 950
Sandstone, gray	4 261	Sand and gray shale	55 482	Clay, gray	25 975
Lower conglomerate:		Shale, gray	10 492	Clay, gray, and carbon- aceous shale	5 980
Sand, fine	4 265	Sand	9 501	Clay, gray	15 995
Shale, gray	12 277	Laramie Formation:		Shale, carbonaceous	10 1,005
Shale, gray; contains sandstone	8 285	Lime, sandy	2 503	Shale, sandy, gray	5 1,010
Sand	34 319	Shale, gray; contains sand	77 580	Shale, gray	5 1,015
Shale, gray	15 334	Shale, gray	36 616	Clay, gray and tan	10 1,025
Sand and gray shale	5 369	CJ-69-15addd2. Alt. 5,124 ft.		Shale, sandy, gray	15 1,040
Sand, gray	5 374	No sample	30 10	Clay, dark-gray	5 1,045
Sand	14 388	Dawson Formation (upper part):		Shale, sandy, gray	15 1,060
Shale, gray	5 393	Sand, fine, gray, ashy	5 35	Shale, sandy, gray; contains white fine sand	5 1,065
Sand; contains gray shale	58 451	Clay, gray	15 50	Clay, sticky, gray	10 1,075
Shale, gray	12 463	Clay, slightly sandy, gray	10 60	Shale, sandy, gray; con- tains white fine sand	5 1,080
Sand and gray shale	27 490	Clay, gray	5 65	Clay, gray	5 1,085
Shale, gray	12 502	Dawson Formation (lower part):		Shale, sandy; contains carbonaceous shale	15 1,100
Sand and gray shale	6 508	Sand, white, and thin beds of gray shale (Middle conglomerate, 65 to 195 feet.)	25 90	Clay, gray	25 1,125
Shale, gray	68 516	Sand, fine, gray	5 95	Clay, gray; contains sandy shale	15 1,140
Shale, gray; contains fine sand	22 598	Sand, coarse; contains dark-gray clay	50 145	Clay, gray; contains carbonaceous shale	5 1,145
Shale, gray	18 616	Gravel	30 175	Clay, gray	5 1,150
CJ-69-12dcde. Alt. 5,265.8 ft.		Sand, coarse; contains gray clay	10 185	Sand, fine, tan (B sand- stone, 1,150 to 1,210 feet.)	5 1,155
Post-Piney Creek alluvium: Topsoil	4 4	Gravel	10 195	Sand, salt and pepper	35 1,190
Louviers Alluvium: Rocks, large, and fine sand	16 20	Clay, gray; contains some gravel	5 200	Shale, sandy, gray	10 1,200
Dawson Formation: Shale, blue	1 21	Clay, gray	20 220	Sand, salt and pepper	10 1,210
CJ-69-11adab. Alt. 5,265 ft.		Clay, gray; contains medium-white sand	30 250	Shale, sandy, gray	15 1,225
Fill	2 2	Ash, somewhat sandy, white	10 260	Shale, sandy, gray; contains coal	5 1,230
Post-Piney Creek alluvium: Clay, sandy	3 5	Lower conglomerate: Sand, ashy, white	5 265	Shale, sandy, gray	5 1,235
Broadway and Louviers Alluvium, undifferentiated: Sand and gravel	16 21	Sand, coarse; contains dry shale	5 270	Clay, gray	5 1,240
Dawson Formation (upper part): Shale, blue	6 27	Sand, medium	5 275	Shale, sandy, gray; con- tains gray clay	5 1,245
Shale, gray	113 140	Sand, ashy, white	10 285	Shale, sandy, gray; contains coal	10 1,255
Dawson Formation (lower part): Sandstone, gray (Middle conglomerate, 140 to 208 feet.)	4 144	Sand, medium, white	10 295	Shale, gray; contains carbonaceous shale	10 1,265
Sand, fine, white	21 165	Sand, medium and coarse	35 330	Shale, sandy, gray	5 1,270
Shale, gray	4 169	Sand, fine, white	35 365	A sandstone: Sand, fine, brown	5 1,275
Sand and gray shale	39 208	Sand, medium to coarse, white	10 375	Sand, salt and pepper	40 1,315
Lime, sandy	2 210	Sand, medium to coarse, white; contains gray clay	10 385	Shale, sandy, gray	15 1,330
Shale, gray	4 214	Sand, medium to coarse, white	5 390	Shale, gray; contains some carbonaceous shale	10 1,340
Shale, blue	3 217	Sand, fine, white	15 405	Sand, fine, salt and pepper	35 1,375
Sandstone, blue	23 240	Sand, medium to coarse; contains gray clay	10 415	Sand, salt and pepper	5 1,380
Shale, gray	9 249	Sand, medium to coarse clay, gray; contains some gravel	5 420	Sand, fine	5 1,385
Sandstone, blue	9 258	Clay, gray; contains sand, and some ash	10 435	Sand, salt and pepper	4 1,395
Shale, gray	4 262	Clay, gray; contains gravel	10 445	Sand, salt and pepper; contains carbonaceous shale	5 1,400
Sandstone, blue	24 286	Gumbo, gray	5 450	Shale, gray; contains salt and pepper sand	10 1,410
Shale, gray	26 312	Gumbo, gray; contains gravel	5 455	Sand, salt and pepper; contains slightly car- bonaceous gray shale	5 1,415
Lower conglomerate: Sand, fine	4 315	Sand, fine, white; contains gray clay	20 475	Shale, slightly carbon- aceous, gray; contains tight fine sand	10 1,425
Lime, sandy	4 320	Clay, gray, and gravel	10 485	Shale, carbonaceous, gray	5 1,430
Sand, fine; contains medium sand	12 352	Gravel	45 530	Sand, tight, fine, gray; contains coal	5 1,435
Shale, gray	9 361	Clay, gray; contains sand, and some ash	10 435	Shale, carbonaceous con- cretion, gray; contains hard white sand	5 1,440
Sand	9 370	Clay, gray; contains gravel	10 445	Shale, gray; contains sandy shale con- cretion	10 1,450
Shale, gray	10 400	Gumbo, gray	5 450	Shale, carbonaceous, gray	10 1,480
Sand, fine and medium	15 433	Gumbo, gray; contains gravel	5 455	Fox Hills Sandstone: Milliken Sandstone Member: Sand, fine, white	55 1,535
Shale, gray	18 461	Sand, fine, white; contains gray clay	20 475	Shale, sandy, hard, light-gray; con- cretion	10 1,545
Sand, fine and medium	28 487	Clay, gray, and gravel	10 485	Shale, light-gray, and concretion	13 1,558
Shale, gray	26 487	Gravel	45 530		
Sand	17 504	Clay, gray, and gravel	5 535		
Shale, gray	9 513	Gravel	5 540		
Sand, fine	6 519	Clay, sticky, gray, and gravel	5 545		
Laramie Formation: Shale, gray	77 596	Laramie Formation: Shale, gray, sandy	5 550		
CJ-69-14acch. Alt. 5,104.6 ft.		Shale, gray	10 560		
Fill	4 4	Gumbo, gray	5 565		
Post-Piney Creek alluvium: Topsoil	2 6	Clay, sticky, gray	30 595		
Louviers Alluvium: Rock and sand	12 18	Clay, dark-gray	45 640		
CJ-69-14bada. Alt. 5,331 ft.		Gumbo, light-gray	50 690		
Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated: Sand, gravel, and boulders	26 26	Sand, ashy, light-gray	10 700		
Dawson Formation (lower part): Middle conglomerate: Sand, sandstone, and gray shale	103 129	Clay, dark-gray; con- tains lignite	10 710		
Shale, blue	19 168	Shale, sandy, light- gray	5 715		
		Shale, sandy, gray, and carbonaceous shale	5 720		
		Shale, sandy, gray	5 725		
		Clay, gray	5 730		
		Clay, gray, and carbon- aceous shale	15 745		

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-69-15bbaa. Alt. 5,430 ft.					
No sample	107				
Dawson Formation (upper part):					
Clay	20				
Clay, sandy	10				
Dawson Formation (lower part):					
Sand, fine. Middle con- glomerate, 137 to 290 feet	10				
Sand	11				
Clay	12				
Sand, fine	10				
Sand, fine, and clay	10				
Sand, fine	10				
Sand, fine, and clay or shale	10				
Shale	10				
Sand	70				
Sand and clay	10				
Sand and shale	10				
Sand	10				
Shale and sand	100				
Lower conglomerate:					
Sand and clay	10				
Sand	50				
Shale	20				
Sand	10				
Sand and clay	10				
Sand and shale	10				
Sand	10				
Sand and shale or clay	30				
Sand and clay	10				
Sand	10				
Shale	30				
Shale and sand	6				
Shale	10				
Shale and sand	10				
Shale or clay	19				
Shale and sand	10				
Shale	13				
Shale and sand	7				
Sand and shale	10				
Shale	30				
Shale and sand	10				
Shale	20				
Shale and sand	40				
Shale	10				
Shale and sand	20				
CJ-69-15dbbc2. Alt. 5,337.4 ft.					
Post-Piney Creek alluvium:					
Cobbles	3				
Louviers Alluvium:					
Gravel, very fine to coarse, subangular to well-rounded, arkosic, about 50 percent medium to very coarse sand, and scattered cobbles	4.5				
Gravel, very fine to coarse, very fine to fine sand, and grayish- orange silt; contains scattered cobbles	5				
Gravel, very fine to coarse, angular to well-rounded, arkosic, and very fine to very coarse sand; contains scattered cobbles to 14 feet	5				
Gravel, very fine, fairly well-sorted, and very coarse subangular to subrounded sand	5				
Sand, very coarse, fairly well-sorted, arkosic, angular to subrounded, and some very-pale-orange silt	5				
Dawson Formation (upper part):					
Shale, silty, noncalcar- eous, pale-olive; con- tains montmorillonite; at 27.5 feet	27.5				
CJ-69-15dbcd. Alt. 5,339.1 ft.					
Post-Piney Creek alluvium:					
Clay	1				
Clay, sandy	4				
Louviers Alluvium:					
Boulders, gravel, and sand	14				
Clay	4				
Boulders	2				
CJ-69-15dcab. Alt. 5,331.6 ft.					
Post-Piney Creek alluvium:					
Silt, sandy, very cal- careous, micaceous, moderate-yellowish- brown; contains some montmorillonite	2.5				
CJ-69-15dca. Alt. 5,330.4 ft.					
Post-Piney Creek alluvium:					
Silt, sandy, noncal- careous, micaceous, moderate-yellowish- brown	1				
Louviers Alluvium:					
Cobbles and boulders	4				
Silt, very sandy and gravelly, calcareous, grayish-orange; con- tains cobbles	2.5				
Gravel, very fine to very coarse, arkosic, subangular to well- rounded, numerous cobbles, and about 20 percent medium to very coarse sand	5				
Sand, very fine to very coarse, poorly sorted, subangular to sub- rounded, a little very fine to fine arkosic gravel, and grayish- orange noncalcareous silt (drills hard)	5				
Gravel, angular, well- cemented, and sand	7.5				
Dawson Formation (upper part):					
Shale, slightly silty and sandy, noncalcar- eous, light-olive- gray	10				
CJ-69-15ddcd. Alt. 5,328.5 ft.					
Fill	5				
Louviers Alluvium:					
Cobbles, coarse gravel, and sand	5.5				
Sand, poorly sorted, arkosic, subangular to rounded, silty, micaceous, poorly sorted very fine to medium gravel, and grayish-yellow very calcareous silt	1.5				
Gravel, very fine to coarse, subangular to well-rounded, arkosic, and about 40 percent medium to very coarse angular to subrounded sand; contains cobbles	5				
Cobbles, coarse gravel, and sand	5				
Sand, medium to very coarse, arkosic, sub- angular to subrounded, about 10 percent very fine to fine gravel, and some yellowish-gray micaceous silt	2.5				
Dawson Formation (upper part):					
Shale, slightly sandy, micaceous, noncalcareous, light-olive-gray; con- tains montmorillonite	2.5				
CJ-69-16ddaa. Alt. 5,362.6 ft.					
Post-Piney Creek alluvium:					
Topsoil	2				
Louviers Alluvium:					
Rock, sand, and gravel	15				
Dawson Formation:					
Shale, blue	3				
CJ-69-17addd. Alt. 5,475 ft.					
Slocum Alluvium:					
Topsoil	3				
Dawson Formation (upper part):					
Limestone	8				
Sand and rock	11				
Clay	8				
Shale	6				
Limestone	2				
Sand	7				
Shale, gray	1				
CJ-69-18acdc. Alt. 5,543.3 ft.					
Slocum Alluvium:					
Clay, calcareous	6				
Sand and cobbles	12				
Sand and gravel	4				
Dawson Formation:					
Shale, brown	15				
Shale, blue	8				
CJ-69-18ccccc. Alt. 5,560 ft.					
Slocum Alluvium:					
Topsoil	4				
Sand and rock	6				
Sand and gravel	7				
Dawson Formation (upper part):					
Clay, yellow	11				
Clay, gray	2				
Clay and blue shale	2				
CJ-69-18cddb. Alt. 5,535 ft.					
Slocum Alluvium:					
Overburden	25				
Dawson Formation (upper and lower parts, undifferentiated):					
Clay and blue shale	65				
Sandstone and sandy shale	20				
Clay and shale	18				
Shale, sandy, and sand- stone	16				
Clay and shale	26				
Shale, sandy	12				
Clay and shale	13				
Dawson Formation (lower part):					
Lower conglomerate:					
Sandstone and sandy shale	27				
Shale	7				
Sandrock and sandstone	66				
Clay, blue	10				
Sandstone	14				
Clay and shale	20				
Sandrock and sand	10				
Clay	4				
Sandrock	4				
Shale	21				
Sand	9				
Shale and clay	10				
Sand and sandstone	11				
Shale	12				
Sand and sandstone	12				
Shale	4				
Sand and sandstone	4				
Sandrock	3				
Shale and clay	10				
CJ-69-18dbaa. Alt. 5,535 ft.					
Colluvium:					
Topsoil	1				
Clay	4				
Broadway and Louviers Alluvium, undifferentiated:					
Sand	9				
Sand and cobbles	7				
Dawson Formation:					
Shale	14				
CJ-69-20acca. Alt. 5,421.6 ft.					
Post-Piney Creek alluvium, and Broadway and Louviers Alluvium, undifferentiated:					
Rock and gravel	22				
Boulders, large, and fine sand	8				
Dawson Formation:					
Shale, blue	2.6				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-69-21abcc. Alt. 5,380.5 ft. Post-Piney Creek alluvium and Broadway and Louviers Alluvium, undifferentiated:					
Topsoil	5	5			
Gravel and sand (water- bearing)	25	30			
Dawson Formation:					
Shale	2	32			
CJ-69-21accc. Alt. 5,381 ft. Post-Piney Creek alluvium and Broadway and Louviers Alluvium, undifferentiated:					
Sand and gravel	10	10			
Dawson Formation (upper and lower parts, undifferentiated):					
Shale, gray	116	126			
Shale, gray, and sand	18	144			
Sandstone, brown	2	146			
Sandstone, gray	38	184			
No sample	65	249			
Dawson Formation (lower part):					
Lower conglomerate:					
Sand, white	6	235			
Lime	4	259			
Sand and gray shale	83	342			
Sandstone, gray, hard	10	352			
No sample	2	354			
Sandstone, gray	6	360			
Sandstone, gray, hard	1	361			
Sandstone, gray	6	367			
Shale, gray, and fine sand	1	369			
No sample	74	443			
Shale, gray, and sand	17	460			
No sample	7	467			
Sandstone, gray, hard, and gray shale	8	475			
Laramie Formation:					
Shale, gray	17	492			
Shale	104	596			
CJ-69-21ccdd. Alt. 5,196.6 ft. Piney Creek Alluvium:					
Clay	25	25			
Slocum Alluvium:					
Sand and gravel	10	35			
Dawson Formation:					
Clay, blue	5	40			
CJ-69-21dbcc. Alt. 5,384.7 ft. Post-Piney Creek alluvium:					
Topsoil	5	5			
Louviers Alluvium:					
Gravel, coarse	5	10			
Dawson Formation:					
Shale at 10 feet					
CJ-69-22cded. Alt. 5,405 ft. Dawson Formation (upper part):					
Topsoil	2	2			
Clay, sandy, yellow	18	20			
Clay, yellow	10	30			
Dawson Formation (lower part):					
Sand (middle conglomerate, 10 to 185 feet)	40	70			
Shale, gray, and sand	46	116			
Sand	5	121			
Shale	39	160			
Sand, interbedded with shale	25	185			
Shale	115	300			
Lower conglomerate:					
Sand, water-bearing, interbedded with shale	225	525			
Shale	25	550			
Sand, water-bearing	35	585			
Shale	10	595			
CJ-69-21bbcc. Alt. 5,323.5 ft. Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:					
Sand, very fine to medium, poorly sorted, arkosic, silty, sub- angular to subrounded, silty, moderate-yellow- ish-brown, and about 10 percent very fine to medium gravel; contains cobbles at 0.5 and 1.5 feet	5	5			
Sand, very fine to medium, very fine gravel, scattered cobbles, and very sandy silty clay	2.5	7.5			
Dawson Formation (upper part):					
Silt, sandy, noncalcareous, grayish-orange	5	8			
Shale, silty, slightly sandy, noncalcareous, light-olive-gray; con- tains montmorillonite	2	10			
CJ-69-23bdcd. Alt. 5,402.4 ft. Eolian sand and Slocum Alluvium, undifferentiated:					
Soil	2	2			
Clay, sandy	8	10			
Gravel and sand	2	12			
Dawson Formation (upper part):					
Gravel, clay, and shale	15	27			
Clay, gravel, and sand, mixed	16	43			
CJ-69-23cbda. Alt. 5,436 ft. Eolian sand:					
Soil, sandy, micaceous, brown	4	4			
Silt, sandy, noncalcar- eous, very micaceous, moderate-yellowish- brown; contains fine sand	4.5	8.5			
Silt, sandy and gravelly, very calcareous, grayish-orange	6	14.5			
Slocum Alluvium:					
Silt, very calcareous, very sandy, micaceous; contains cobbles and coarse gravel	4	18.5			
Dawson Formation (upper part):					
Sandstone, very sandy siltstone, and very sandy very calcareous moderate-yellowish- brown shale; contains montmorillonite	1.5	20			
CJ-69-24cdcc. Alt. 5,413.0 ft. Eolian sand and Slocum Alluvium, undifferentiated:					
Clay and streaks of sand	19	19			
Clay	11	30			
Dawson Formation:					
Shale, soft	10	40			
CJ-69-25bbbd. Alt. 5,429.7 ft. Eolian sand:					
Soil	2	2			
Sand	12	14			
Sand and clay	5	19			
Clay	9	28			
Slocum Alluvium:					
Gravel and clay	14	42			
Dawson Formation:					
Clay	6	48			
Shale and clay	6	54			
CJ-69-26accc. Alt. 5,449.2 ft. Piney Creek Alluvium:					
Soil	1	3			
Sand	10	13			
Slocum Alluvium:					
Sand, coarse	6	19			
Gravel and shale	8	27			
Dawson Formation:					
Clay and shale	4	31			
CJ-69-26dbdd. Alt. 5,464.0 ft. Younger loess:					
Soil	2	2			
Slocum Alluvium:					
Sand and clay	17	19			
Sand and gravel	8	27			
Gravel and streaks of clay	1	41			
Dawson Formation:					
Clay	9	50			
CJ-69-27adcb. Alt. 5,530.1 ft. Younger loess:					
Soil	4	4			
Sand, fine	18	22			
Slocum Alluvium:					
Sand, medium	10	32			
Sand, coarse	4	36			
Clay and sand	6	42			
Sand and gravel	20	62			
Clay and coarse sand	7	69			
Rock, loose	5	74			
Dawson Formation (upper part):					
Clay, blue, and gravel	8	82			
CJ-69-30adcb. Alt. 5,510 ft. Louviers Alluvium:					
Topsoil	1	1			
Clay	9	10			
Sand and gravel	12	22			
Dawson Formation (upper part):					
Shale, brown	14	36			
Shale, blue	7	43			
Shale, blue, and sand	11	54			
Shale, blue	2	56			
Shale	12	68			
CJ-69-30adcb. --Continued Dawson Formation (lower part):					
Sand (middle conglomerate, 88 to 113 feet)	5	93			
Shale, blue	17	110			
Sand and shale	3	113			
Shale, gray	190	303			
Lower conglomerate:					
Sand and shale	3	306			
Sandrock	28	334			
Sand	131	465			
Shale	1	466			
Sand	9	475			
Shale	2	477			
Sand	8	485			
CJ-69-30adcb. Alt. 5,519.1 ft. Colluvium:					
Topsoil	5	5			
Louviers Alluvium:					
Sand and rocks	10	35			
Clay	5	40			
Sand	2	42			
Dawson Formation:					
Shale, blue	3	45			
CJ-69-30bdca. Alt. 5,519 ft. Louviers Alluvium:					
Gravel	18	18			
Dawson Formation (upper part):					
Clay, blue	17	35			
Shale, blue	29	64			
Dawson Formation (lower part):					
Sand, gray (middle conglomerate, 64 to 290 feet)	5	69			
Shale, blue	23	92			
Sand, gray	16	108			
Sand, blue, and shale	31	139			
Shale, pink	1	140			
Sand and thin beds of shale	74	214			
Sand, gray	46	260			
Shale, blue	7	267			
Sand, gray	23	290			
Shale, sandy, gray	24	314			
Shale, gray, and sand	76	390			
Shale, blue	5	395			
Lower conglomerate:					
Sand, gray	131	526			
Slate, gray	4	530			
Sand, gray	15	565			
Shale, pink	10	575			
Sand, gray	85	660			
Laramie Formation:					
Shale, gray	155	815			
Sand, gray	5	820			
Shale, gray	60	880			
Shell, hard	2	882			
Shale, gray	16	898			
Sand, red	6	904			
Shale, gray	1	910			
Shale, sandy, gray	6	916			
Shale, gray	7	933			
Sand, gray	14	947			
Shale, gray	33	980			
Sand, gray	23	1,003			
Shale, gray	82	1,085			
Sand, gray	27	1,112			
Shale, sandy, gray	3	1,115			
Shale, gray	1	1,123			
Coal	2	1,125			
Shale, gray	10	1,135			
B and A sandstones, undifferentiated:					
Sand, gray	160	1,295			
Sand, broken, gray	10	1,305			
Coal	2	1,307			
A sandstone:					
Sand, gray	10	1,337			
Shell, hard	4	1,341			
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Sand, gray	124	1,465			
Shale, gray	14	1,479			
Sand, gray	6	1,485			
Shale, gray	105	1,590			
Lime shell, gray	8	1,598			
Shale, gray	1,402	3,000			
CJ-69-30ddcc. Alt. 5,577 ft. Colluvium:					
Sand, clay, and over- burden	20	20			
Dawson Formation (upper and lower parts, undifferentiated):					
Shale, blue and gray, and fine sand	232	252			
Shale, gray; contains a trace of sand	178	430			
Dawson Formation (lower part):					
Lower conglomerate:					
Sand, shaly	22	452			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C1-69-10ddcc. --Continued		C1-69-11cdag. --Continued		C1-69-11dddc. --Continued	
Sand, good.	26 478	Sand and gray shale	33 453	Clay, light- and dark- gray; contains some fine sand.	5 470
Shale, gray.	4 482	Lime.	2 455	Sand, coarse, gray clay, and ash.	5 475
Sand, good.	50 532	Shale, gray.	10 465	Conglomerate, gray, and tan clay.	5 480
Shale, blue.	10 542	Sand, fine.	12 477	Conglomerate and gray clay.	5 485
Sand, good.	24 566	Shale, gray.	11 488	Conglomerate, coarse, and andesitic clay.	5 495
Shale, blue.	5 571	Sand, fine.	5 493	Clay, gray, buff, and black, andesitic clay and some conglomer- ate.	5 500
Sand, fair.	25 596	Shale, gray.	13 526	Clay, gray, and benton- ite.	5 505
Shale, blue.	10 606	Shale, blue.	8 534	Conglomerate, and tan clay.	5 510
Sand, cemented.	12 618	Shale, gray.	7 541	Clay, gray; some con- glomerate.	10 520
Shale, blue.	18 636	Lower conglomerate: Sand, fine, and gray shale.	19 580	Clay, gray.	5 525
Sand, cemented.	1 637	Shale, gray.	14 594	Sand, black, andesite, and tan clay.	10 535
C1-69-12ddcc. Alt. 5,626 ft.		C1-69-11dddc. Alt. 5,556 ft.		Lower conglomerate: Conglomerate, black, andesitic sand, and gray clay.	
Piney Creek Alluvium: Topsoil.	2 2	No record.	100 100	Conglomerate, black, andesitic sand, and tan clay.	5 540
Clay, sandy, yellow.	5 7	Dawson Formation (upper part):		Clay, buff, and con- glomerate.	5 550
Louviers Alluvium: Gravel.	9 16	Sand, white ash, and light-gray clay [Upper conglomerate, 105 to 235 feet.].	40 140	Sand, fine and coarse, and gray clay.	10 560
Dawson Formation (upper part): Clay, sandy, brown.	23 39	Clay, silty, light-gray.	20 160	Bentonite; some con- glomerate.	5 565
Sandstone, gray.	7 46	Clay, silty, light-gray, ashy.	2 162	Conglomerate, tan, and gray clay.	20 585
Shale, gray.	4 50	Conglomerate, coarse, varicolored.	13 175	Clay, gray and tan; some conglomerate.	5 590
Sandstone, gray.	18 64	Conglomerate, coarse, varicolored; contains gray clay.	5 180	Conglomerate and gray clay.	15 605
Shale, gray.	4 72	Clay, light- and dark- gray.	10 190	Bentonite and conglom- erate.	5 610
Sandstone, gray.	62 134	Clay, gray.	5 195	Clay, gray, bentonitic Clay, gray, and some white sand.	10 620
Shale, brown, and gray shale.	4 138	Clay, gray; contains white ash and white sand.	5 200	Clay, gray, and fine white sand.	5 625
Shale, gray, and sand- stone.	18 156	Clay, gray; contains white ash, white sand, and specks of lignite Clay, gray, and white ash.	5 205	Clay, gray, slightly sandy.	5 650
Shale, brown.	5 161	Clay, gray and buff.	10 220	Clay, gray and buff.	15 665
Shale, gray, and sand- stone.	39 200	Clay, gray and buff, and some coarse sand Sand, coarse, and gray shale.	5 225	Conglomerate, gray and buff clay, and bentonite.	10 675
Shale, gray.	202 402	Sand, coarse, angular, and gray clay.	5 230	Conglomerate, gray, and buff clay; contains specks of lignite.	5 680
Dawson Formation (lower part): Sand, fine, and gray shale [Middle conglom- erate, 402 to 508 feet.].	26 428	Clay, gray.	10 245	Clay, light-gray, and some coarse sand.	15 705
Sandstone.	10 438	Clay, light-gray, some ash.	15 260	Shale, dark-gray, and coal.	5 710
Shale, sandy, gray.	11 449	Clay and conglomerate, buff and gray.	5 265	Clay, gray.	30 740
Shale, gray.	7 456	Clay, sandy, gray, and some conglomerate.	5 270	Clay, gray, and fine white sand.	15 755
Shale, sandy, gray.	5 461	Shale, gray and tan; some conglomerate.	5 275	Clay, gray, and rare conglomerate.	5 760
Sand, fine, and gray shale.	16 477	Clay, gray, and coarse sand.	5 280	Clay, gray.	30 790
Shale, sandy gray.	6 483	Clay, yellowish-gray.	5 285	Clay, gray and buff.	5 795
Sand and gray shale.	25 508	Dawson Formation (lower part):		Clay, gray.	20 815
Shale, gray.	101 609	Clay, gray, and coarse sand [Middle conglom- erate, 285 to 435 feet.].	5 290	Gumbo, gray; contains specks of lignite.	5 820
Lower conglomerate: Sand, fine to coarse, and gray shale.	6 615	Clay, light-gray.	5 295	Gumbo, gray specks; contains some con- glomerate.	15 835
Lime.	3 618	Clay, light-gray; con- tains specks of lig- nite.	10 305	Laramie Formation:	
Sand, coarse, and gray shale.	52 670	Clay, light-gray.	20 325	Clay, gray; contains specks of lignite.	5 840
Shale, gray.	10 680	Shale, sandy, light- gray.	10 335	Clay, silty, gray.	5 845
Sand, medium to coarse Shale, gray.	10 690	Clay, light-gray; con- tains bentonite.	5 340	Clay, silty, gray.	10 860
Shale, gray.	11 701	Clay, gray, and sandy ash.	5 355	Clay, silty, gray; con- tains rare specks of lignite.	10 870
C1-69-11ddag. Alt. 5,585.4 ft.		Sand, medium, and gray clay.	5 360	Clay, gray; contains rare specks of lignite and some sand.	5 920
Younger loess: Topsoil.	8 8	Clay, buff and tan, and sand.	5 365	Clay, gray.	10 930
Clay, sandy.	7 15	Clay, buff and gray.	10 375	Clay, gray; contains specks of lignite.	5 935
Dawson Formation (upper part): Upper conglomerate: Shale, brown, water- bearing (yields 2 gpm).	22 17	Clay, gray; contains some bentonite.	10 385	Clay, gray.	5 940
Clay, sandy.	2 19	Clay, gray, and some conglomerate.	5 390	Clay, gray; contains specks of lignite.	10 950
Shale, brown.	6 45	Clay, dark-gray and buff, and some con- glomerate.	5 395	Clay, gray; contains hard, white sand.	10 960
Clay, sandy, yellow.	11 56	Sand, coarse, white, and gray clay.	5 400		
Shale, blue.	17 73	Shale, gray, and some white sand.	5 405		
Sand, water-bearing (yields 8 gpm).	5 78	Sand, coarse, quartz, white.	20 425		
Shale, blue.	2 80	Sand, very coarse, white, quartz; some clay.	10 435		
C1-69-11cdag. Alt. 5,600 ft.		Clay, light- and dark- gray; contains con- glomerate.	20 455		
Stocum Alluvium: Soil.	3 3	Clay, gray and buff.	5 460		
Dawson Formation (upper part): Sandstone, soft, brown.	14 17	Clay, light- and dark-gray.	5 465		
Clay, yellow.	1 18				
Shale, brown.	3 21				
Sandstone, blue [Upper conglomerate, 21 to 131 feet.].	5 26				
Sandstone, gray.	68 94				
Shale, gray.	26 120				
Sandstone, gray.	11 131				
Shale, gray.	9 140				
Shale, blue.	13 173				
Shale, gray.	22 195				
Shale, blue.	8 203				
Shale, gray.	57 260				
Sandstone, gray.	4 264				
Shale, gray.	13 277				
Sandstone, gray.	12 289				
Shale, gray.	68 357				
Dawson Formation (lower part): Sand, fine [Middle con- glomerate, 357 to 493 feet.].	6 363				
Shale, gray.	17 380				
Sand, fine.	10 410				
Shale, gray.	10 420				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-69-11dddc.--Continued		CJ-69-11dddc.--Continued		CJ-70-12bdcg2.--Continued	
Clay, gray; contains rare specks of lignite.	20 980	Sand, gray and white; contains some loose sand.	5 1,375	sorted, subangular; contains about 10 percent medium-dark gray shale, lignite, and gray carbonaceous siltstone; feldspar particles are well-weathered.	20 136
Clay, gray.	15 995	Shale, sandy, gray and tan, and some white sand.	5 1,380	Silt, slightly sandy to clayey, compact, slightly carbonaceous and calcareous, light-olive-gray and light-bluish-gray; cemented with pyrite at 172 feet.	36 172
Clay, gray; contains fragments of coal.	5 1,000	Shale, sandy, gray; contains coal.	5 1,385	Dawson Formation (lower part): Lower conglomerate; Sand, very fine to very coarse, rounded to well-rounded, iron stained, slightly micaceous; feldspar particles are well-weathered.	22 194
Clay, gray; contains fragments of coal and some white fine sand.	5 1,005	Sand, white; contains coal.	5 1,390	Silt.	10 204
Clay, gray; fragments of coal.	10 1,015	Sand, medium, white, and carbonaceous shale.	5 1,395	Sand, very fine to very coarse, silty, sub-angular to well-rounded.	10 214
Clay, gray.	10 1,025	Sand, medium, gray and white.	5 1,400	Silt, compact to loose, light-olive-gray; contains fine sand.	16 230
Clay, silty, gray.	25 1,030	Sand, medium, gray and white, and some coal.	10 1,410	Sand, very fine to medium, rounded, frosted, cemented; contains a little coarse sand, some very fine gravel, and about 10 percent light-olive-gray silty shale.	14 318
contains fragments of lignite.	45 1,095	Sand, fine, dirty, gray.	5 1,415	Siltstone, medium-light-gray to greenish-gray.	10 328
Clay, silty, gray; contains medium sand.	5 1,100	Sand, fine, tan.	5 1,420	Sand, very fine to medium, cemented, slightly calcareous; feldspar grains are deeply weathered.	37 365
Shale, fine, gray.	5 1,105	Sand, medium, white and gray.	15 1,435	Silt and siltstone, sandy, moderately calcareous, medium-light-gray.	29 394
Shale, fine, gray, medium sand, and fragments of lignite.	15 1,120	Sand, medium, white.	5 1,440	Sandstone very fine- to fine-grained, silty, compact, friable, iron stained; feldspar grains are white coated.	20 414
Shale, fine, tan and gray.	15 1,135	Shale, sandy, gray, and some white sand.	5 1,445	Laramie Formation: Siltstone, noncalcareous, greenish-gray; contains fine sand.	29 443
Sand, medium; contains gray shale.	5 1,140	Shale, sandy, gray.	5 1,450	Sandstone, very fine-grained, hard, silty, calcareous; iron stained in part; contains thin sandy limestone.	19 462
Shale, tan, medium sand and some coal.	15 1,155	Shale, carbonaceous, and gray sandy shale; contains pyrite.	5 1,455	Shale, silty, slightly calcareous, carbonaceous, light-olive-gray and light-gray, noncalcareous to slightly calcareous; contains some fragments of coal and a little swelling clay.	166 628
Clay, gray; contains specks of lignite.	5 1,160	Shale, carbonaceous.	5 1,460	Limestone, very sandy, grayish-yellow, and white very calcareous very fine-grained sandstone.	1 629
Clay, silty, gray, and fragments of coal.	10 1,170	Shale, sandy, tight sand.	5 1,465	Silt, noncalcareous, very sandy, medium-light-gray.	85 714
Clay, gray.	10 1,180	Shale, sandy, and some white, tight sand; contains coal and pyrite.	5 1,470	Coal.	2 716
Clay, silty, gray; contains specks of lignite.	10 1,190	Shale, dark-gray, and some white medium sand.	5 1,475	Siltstone, noncalcareous, medium-light-gray.	12 748
Clay, gray; contains concretions.	5 1,195	A sandstone: Sand, medium, white, gray sandy shale, and coal.	5 1,480	Coal.	1 749
Shale, sandy, gray; contains concretions and gray clay.	5 1,200	Shale, sandy, gray; white and tan tight shaly sand.	5 1,485		
Shale, sandy, gray, and carbonaceous shale.	10 1,210	Shale, sandy, gray.	5 1,490		
Shale, sandy, gray.	5 1,215	Sand, medium, white.	15 1,505		
Shale, sandy, gray; contains fragments of coal.	15 1,230	Shale, sandy, gray, and sand.	10 1,515		
Shale, sandy, gray-green; contains fragments of coal and some sand grains.	10 1,240	Sand, medium and fine sand.	10 1,525		
Sand, fine, gray; contains tan and gray sandy shale.	5 1,245	Sand, medium, gray and white.	5 1,530		
Sand, fine, gray.	10 1,255	Shale, dark-gray, and fine sand.	10 1,540		
Sand, fine, gray and white.	5 1,260	Sand, medium, white.	5 1,545		
Sand, fine, gray.	5 1,265	Sand, medium and fine, gray and white.	10 1,575		
Sand, fine, gray; contains concretion.	10 1,275	Sand, medium, variegated; gray shale.	5 1,580		
Sand, fine, gray; contains sandy shale, and concretions.	5 1,280	Sand, medium to fine, gray.	10 1,590		
Sand, hard, fine, gray; contains coal fragments.	5 1,285	Fox Hills Sandstone: Milliken Sandstone Member: Sand, medium, salt and pepper.	35 1,625		
Sand, hard, white; contains pyrite.	5 1,290	Sand, medium, salt and pepper; some gray shale.	5 1,630		
Sand, hard, fine, gray and white; contains sandy shale.	5 1,295	Sand, medium, salt and pepper.	5 1,635		
Sand, medium to fine, gray and white.	5 1,300	CJ-69-16aadd. Alt. 5,313 ft. Piney Creek Alluvium: Topsoil.	2 2		
Sand, medium to fine, gray and white; contains sandy shale and gray shale.	5 1,305	Clay, slippery, gray.	15 17		
Shale, sandy, gray; contains coal.	5 1,310	Clay, light-gray.	4 21		
Shale, carbonaceous; contains concretions and coal.	5 1,315	Dawson Formation: Clay, yellow and brown.	21 42		
Shale, sandy, gray.	5 1,320	Clay, gray.	2 44		
Shale, carbonaceous; contains concretion, and tan and gray sandy shale.	10 1,330	Clay, blue, and shale.	4 48		
Shale, carbonaceous; contains concretion and tan and gray shale.	10 1,340	Shale, blue.	2 50		
Shale, sandy, gray; contains coal.	10 1,350	Clay, blue.	11 61		
Sand, fine, salt and pepper texture [B sandstone, 1,350 to 1,440 feet.]	10 1,360	Clay, gray.	4 65		
Sand, hard, fine, shaly; contains white sand.	5 1,365	CJ-70-1abab. Alt. 5,590 ft. Slocum Alluvium: Clay.	43 43		
Sand, hard, white, and fine gray sand.	5 1,370	Dawson Formation (upper and lower parts, undifferentiated): Shale, blue.	28 71		
		Sand, fine.	1 72		
		Shale, gray.	43 115		
		Sand, white.	5 120		
		Shale, gray.	2 122		
		CJ-70-12bdcg2. Alt. 5,690 ft. Colluvium: Sand, silty.	28 28		
		Dawson Formation (upper part): Siltstone and shale.	88 116		
		Sand, very fine to very coarse, silty, poorly			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CJ-70-12bdc2. --Continued		CJ-70-13cad2. --Continued		CJ-70-26bdba. Alt. 5,625.7 ft.	
Siltstone, noncalcareous.		Shale, gray	5 107	Colluvium:	
light-olive-gray, and		Sandstone, gray	16 123	Sand and clay, mixed	33 33
thin coal beds; con-		Shale, gray	6 129	Rock	8 41
tains some fine sand	101	Sandstone, gray	2 131	Sand and gravel	14.5 55.5
Sandstone, very fine-		Shale, gray	3 134		
grained, soft	13 863	Sandstone, gray, and			
Siltstone, light-gray		shale	44 178	CJ-71-11cabb. Alt. 7,140 ft.	
and light-bluish-gray,		Shale, gray	37 215	Precambrian:	
carbonaceous, noncal-		Sand, fine to medium	3 218	Clay	33 33
careous, and silty		Sandstone, gray	2 220	Granite, red	72 105
shale	39 902	Sand	5 225	Shale, red	1 106
Coal	2 904	Shale, gray	74 299	Granite, red	44 150
Siltstone, light-gray	14 918	Lower conglomerate:			
Coal	4 922	Sandstone, hard, gray	1 100	C4-65-19cbbb. Alt. 5,600 ft.	
Silt, slightly sandy,		Sand	4 304	Broadway Alluvium:	
noncalcareous, light-		Shale, gray	4 308	Gravel, fill	2 2
gray, siltstone, and		Sand, fine, white	12 120	Louviers Alluvium:	
coal	46 968	Shale, gray	7 327	Clay, sandy, brown	33 35
Sand, medium to very		Sand, medium to fine,		Sand and gravel, water-	
coarse, subrounded to		and gray shale	5 332	bearing	15 50
rounded, iron stained	15 983	Shale, gray	36 368	Dawson Formation (upper part):	
Silt, very sandy, medium-		Sandstone, gray	1 369	Shale	12 62
light-gray, and carbona-		Sand, gray	27 396	Sandstone, fine-grained,	
ceous pyritic noncal-		Laramie Formation:		tight; contains thin	
careous siltstone	103 1,086	Shale	159 555	shale breaks	36 98
Coal	5 1,091			Shale, medium hard, blue	
Siltstone and silty		CJ-70-14bdba2. Alt. 5,688 ft.		to gray	22 120
shale	8 1,099	Colluvium and Dawson Formation,		Sandstone, fine-grained,	
Coal	7 1,106	undifferentiated:		tight, water-bearing	10 130
Siltstone, carbonaceous,		Clay	33 33	Shale, gray to blue;	
noncalcareous	10 1,116	Sand	3 36	contains hard sandy	
pyritic		Dawson Formation (upper part):		shale breaks from	92 222
B and A sandstones,		Clay	24 60	175 to 185 feet	13 235
undifferentiated:		Shale, sandy	40 100	Sandstone, hard, tight	
Sand, very fine to fine,				Shale, gray; contains	
subangular to rounded;		CJ-70-14bdba. Alt. 5,671.5 ft.		occasional sandstone	
has salt and pepper		Colluvium:		breaks	89 324
texture	10 1,126	Boulders and clay	30 30	Coal	2 326
Sand, very fine to coarse,		Dawson Formation (upper part):		Shale, gray	64 390
subrounded to very		Clay	22 52	Upper conglomerate:	
well-rounded; contains		Sand	5 57	Sandstone, water-bearing;	
some very fine gravel		Shale	2 59	contains thin shale	
between 1.160 and				breaks	58 448
1.170 feet	46 1,172	CJ-70-23dcba. Alt. 5,630 ft.		Shale, gray	30 478
Sandstone, fine-grained	38 1,210	Louviers Alluvium:		Sandstone layers, thin,	
Sand, very fine to very		Soil, sandy	2 2	interbedded with shale	
coarse, subrounded to		Clay, sandy, yellow	20 22	breaks	32 510
rounded, noncalcareous,		Boulders	21 43	Shale, gray	16 526
silty, medium-gray	48 1,258	Dawson Formation (upper part):		Sandstone, thin layers,	
Shale, gray; contains		Clay, sandy, yellow	3 46	interbedded with shale	
pyrite and coal	2 1,260	Shale, gray	68 114	breaks	59 585
		Shale, blue	5 119	Shale, gray	10 595
		Shale, gray	62 181		
		Shale, brown	3 184	C4-65-31bbda. Alt. 5,655 ft.	
		Shale, gray	126 310	Overburden	52 52
CJ-70-13acba. Alt. 5,603 ft.		Dawson Formation (lower part):		Dawson Formation (upper part):	
Overburden	22 22	Sandstone, blue [Middle		Coal and blue clay	17 69
Dawson Formation (upper part):		conglomerate, 310 to		Coal	8 77
Clay, blue, and shale	45 67	451 feet.]	11 321	Clay and shale	69 146
Dawson Formation (lower part):		Shale, blue	3 324	Coal	11 157
Sandrock and shale		Shale, gray	13 337	Clay and	
[Middle conglomerate,		Sandstone, gray	20 357	Clay, sandy, and streaks	
67 to 100 feet.]	5 72	Shale, gray	19 376	of sand [Upper conglom-	
Clay	8 80	Sandstone, gray, and		erate, 257 to 420	
Clay, sand, and shale	20 100	shale	33 409	feet.]	25 282
Clay and shale	145 245	Shale, gray	16 425	Clay and shale	27 309
Clay, sandy and shale	5 250	Sandstone, hard, gray	4 429	Coal	7 316
Lower conglomerate:		Shale, gray	5 434	Clay	66 382
Sandstone	6 256	Sandstone, gray	12 446	Clay, sandy	9 390
Clay	2 258	Shale, sandy, gray	5 451	Clay	17 407
Sandstone	2 260	Shale, gray	56 507	Clay, sandy, and sand	13 420
Clay	2 262	Lower conglomerate:		Clay	16 436
Sandstone and sand	12 274	Sandstone, hard, gray	1 508	Coal	5 441
Shale and clay	41 315	Sand	24 532	Clay	22 463
Shale, sandy	24 339	Shale, gray	4 536	Rock	1 464
Sand and sandstone	7 346	Sandstone, hard, gray	3 539	Clay	6 470
Laramie(?) Formation:		Sand and gray shale	7 546	Shale, sandy	5 475
Clay and shale	104 450	Shale, gray	49 595	Clay	28 503
				Coal	2 505
CJ-70-13adcd. Alt. 5,573.3 ft.		CJ-70-24aabb. Alt. 5,568 ft.		Clay	15 540
Broadway Alluvium:		Slocum Alluvium:		Coal	3 543
Soil	2 2	Rock and limestone	10 10	Clay, sandy	7 550
Clay, sandy	6 8	Rock and sand	17 27	Clay	33 583
Louviers Alluvium:		Dawson Formation:		Clay, sandy, and sand	29 612
Boulders	8 16	Shale, blue	3 30	Coal	1 613
Dawson Formation:				Clay	32 645
Sand, tight	26 42	CJ-70-24bbad. Alt. 5,590 ft.		Clay, sandy	7 652
Clay, blue	4 46	Overburden	40 40	Clay	130 782
		Dawson Formation (upper part):		Dawson Formation (lower part):	
CJ-70-13cad2. Alt. 5,588 ft.		Clay, blue	60 100	Middle conglomerate:	
Slocum Alluvium:		Dawson Formation (lower part):		Sand and two clay	
Fill	1 1	Middle and lower conglomerate,		streaks	11 793
Soil	1 2	undifferentiated:		Clay	57 850
Clay, yellow	6 8	Sand and sandstone	285 185		
Gravel	5 13	Conglomerate	115 500	C4-65-34abbc. Alt. 5,715 ft.	
Dawson Formation (upper part):		CJ-70-26bagg. Alt. 5,605 ft.		Dawson Formation (upper part):	
Shale, blue	1 14	Colluvium:		Soil	20 20
Shale, gray	8 22	Topsoil	4.5 4.5	Shale	63 83
Clay, yellow	20 42	Gravel, loose, and		Clay	60 143
Shale, gray	46 88	boulders	9.5 14	Coal	12 155
Dawson Formation (lower part):		Gravel, silty, tight,		Clay	42 197
Sandstone, blue [Middle		and boulders	12.5 26.5	Clay and shale	132 329
conglomerate, 88 to				Sandstone [Upper conglom-	
125 feet.]	8 96			erite, 129 to	
Shale, blue	6 102			591 feet.]	28 357

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-65-14abbc. --Continued		C4-66-4abdc. Alt. 5,431.0 ft.		C4-66-5bcbh. Alt. 5,444.0 ft.	
Sandstone, hard	2	Piney Creek Alluvium:		Younger loess and Slocum(?) Alluvium.	
Clay and shale	101	Sand, very fine, and		undifferentiated:	
Sandstone, hard	4	loose micaceous	2.5	63	63
Clay	67	light-brown silt.	2.5	9	72
Sandstone (water)	58	Sand, fine to medium,			
Sandstone, hard	2	subangular to sub-		Dawson Formation:	
Clay and shale	240	rounded, silty.	3.5	Shale at 72 feet	
Dawson Formation (lower part):			6		
Middle conglomerate:		Broadway Alluvium:		C4-66-5bcbh. Alt. 5,438 ft.	
Sandstone (water)	94	Gravel, very fine, to		Surface	66
Clay	10	sand, very coarse,		Dawson Formation (upper part):	
		angular to subrounded,		Shale, brown and yellow	4
C4-66-2cbdc. Alt. 5,475.6 ft.		clean; contains tan	1.5	Coal	1
Piney Creek Alluvium:		clay lenses and coal	7.5	Clay, blue	65
Sand, fine, yellow.	11	fragments		Coal	1
Broadway Alluvium:		Sand, very coarse,		Clay, blue	115
Sand, coarse, yellow.	2	fairly well-sorted,		Coal	3
Louviers Alluvium:		arkosic, subangular,		Clay, gray	46
Clay, red	1	and about 10 percent		Sandstone.	15
Sand, fine, and muck.	2	very fine gravel.	8	Clay, blue	32
Sand, coarse.	2	Louviers Alluvium:	15.5	Coal, soft	6
Dawson Formation (upper part):		Sand, medium to coarse,		Clay, blue	174
Clay, yellow.	16	angular to subangular,		Sandstone.	8
Clay, blue.	5.5	arkosic, finely		Shale, blue.	219
Shale, blue	11.5	micaceous; contains	2	Sandstone, hard.	5
Clay, gray, and shale	14	a little silt	17.5	Shale, blue.	15
Shale, soft, gray	35	Gravel, fine to medium,		Dawson Formation (lower part):	
		subangular, arkosic,		Middle conglomerate:	
C4-66-2cccb. Alt. 5,475.1 ft.		clean, and about 20	2.5	Sand (water)	15
Post-Piney Creek alluvium:		percent fine to very	20	Clay, blue	70
Sand, fine.	4	coarse sand		Sand streaks (water).	40
Louviers Alluvium:		Sand, very coarse, well-		Shale.	20
Clay, sandy, brown.	24	sorted, arkosic, sub-	2.5	Shale and clay	41
Gravel.	2	angular	22.5		
Dawson Formation (upper part):		Sand, fine to very		C4-66-5cab. Alt. 5,445 ft.	
Clay, sandy, gray	4	coarse, arkosic, sub-	5	Younger loess:	
Clay, gray and blue	1	angular to subrounded	27.5	Clay, yellow	16
		Gravel, very fine, to		Dawson Formation (upper part):	
C4-66-2cccc. Alt. 5,467.7 ft.		sand, very coarse,		Sandstone.	5
Post-Piney Creek alluvium:		angular to subrounded		Clay, sandy.	12
Sand, white	3.5	clean; contains tan	2.5	Sand	16
Louviers Alluvium:		clay lenses and coal	30	Clay, yellow	22
Sand, fine, silty	3.5	fragments		Clay, blue	32
Sand, coarse.	3	Dawson Formation (upper part):		Shale, gray.	5
Sand, fine.	7.5	Shale, clay, noncalcar-	2.5	Sand (water)	2
Sand, coarse.	1	eous, grayish-orange	32.5	Clay, blue	26
Dawson Formation (upper part):				Shale, brown	7
Shale, yellow	6.5	C4-66-4bdac. Alt. 5,443 ft.		Clay, gray	18
Shale, black and blue	11	Piney Creek Alluvium:		Shale, brown	12
Shale, sandy, black	1	Clay, heavy; contains		Clay, green.	8
Shale, sandy, dark-		sandy streaks	14	Shale, light-brown	5
black	50	Dawson Formation (upper part):		Shale, gray.	45
Shale, sandy, black	31	Sandstone (water-		Shale, light-brown	19
Sandrock.	2	bearing)	7	Clay, green.	1
Shale, dark-blue.	30	Shale, blue	17.3		
			32	C4-66-5cccc. Alt. 5,452 ft.	
C4-66-1badc. Alt. 5,447 ft.		C4-66-4bdac. Alt. 5,443 ft.		Younger loess:	
Post-Piney Creek alluvium:		Piney Creek Alluvium:		Clay, brown.	27
Soil.	4	Soil.	6	Broadway Alluvium:	
Broadway and Louviers Alluvium.		Soil, sandy	4	Gravel	9
undifferentiated:		Dawson Formation (upper part):		Dawson Formation (upper part):	
Sand, fine.	14	Clay, yellow.	20	Shale, blue and light-	
Gravel.	11	Clay and shale.	10	blue	234
Dawson Formation:		Clay and gravel	5	Coal	12
Shale, blue	3	Clay.	20	Clay, brown.	78
		Coal.	5	Shale, blue.	44
C4-66-1bcbh. Alt. 5,438 ft.		Shale, rotten	4	Sand [Upper conglomerate.	
Post-Piney Creek alluvium:		Clay, gray.	16	404 to 573 feet.].	5
Soil, sandy	5	Shale and clay.	20	Clay, sandy.	5
Broadway Alluvium:		Shale	4	Shale, blue; contains	
Sand.	3	Clay.	6	coal	146
Louviers Alluvium:		Rock.	12	Sand streaks.	12
Clay.	1	Shale	12	Shale, blue.	135
Gravel.	20	Shale and coal.	11	Shale, sandy	2
Dawson Formation (upper part):		Shale	16	Clay, sandy.	12
Shale	8	Rock.	3	Sand, firm	10
		Clay and streaks of		Shale, blue.	33
C4-66-1dabc. Alt. 5,460 ft.		coal.	12	Sand, firm	8
Piney Creek Alluvium:		Rock.	1	Shale, blue.	144
Sand, fine.	4	Clay and shale.	78	Dawson Formation (lower part):	
Sand; contains clay	6	Shale, clay, and a		Middle conglomerate:	
Broadway Alluvium:		streak of coal.	47	Sand	15
Gravel, sandy.	3	Rock.	8	Shale, blue.	29
Louviers Alluvium:		Shale and a streak of		Sand; contains blue	
Clay and gravel	5	coal.	14	shale.	73
Sand and gravel; contains		Rock.	2	Shale, blue.	26
a few boulders.	4	Clay and a streak of			
Dawson Formation (upper part):		shale	31	C4-66-7dddc. Alt. 5,450 ft.	
Clay, brown	2	Sand.	47	No sample.	232
		Shale and clay.	10	Dawson Formation (upper part):	
C4-66-1dabd. Alt. 5,455.3 ft.			444	Coal	110
Piney Creek Alluvium:		C4-66-4cccc. Alt. 5,480.0 ft.		Sand (water) [Upper	
Topsoil	.5	Younger loess:		conglomerate, 342 to	
Broadway Alluvium:		Sand, very fine to		545 feet.].	203
Sand.	3.5	medium, and loose	2.5	Shale, sandy, gray	29
Louviers Alluvium:		tan silt.	2.5	Coal	1
Clay, brown	7	Silt, sandy, very cal-		Shell, hard.	65
Sand and gravel	6	careous, moderate-	2.5	Sand (water)	9
Dawson Formation (upper part):		yellowish-brown and	5	Shale, sandy	165
Clay, yellow-gray	10	very-pale-orange.		Dawson Formation (lower part):	
Clay, blue.	2	Dawson Formation (upper part):		Sand, gray [Middle con-	
		Shale, silty, very cal-		glomerate, 814 to	
		careous, grayish-		950 feet.].	136
		orange; contains much	7.5		950
		sand at 8.0 feet.	12.5		

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
C4-66-7ddda.--Continued			C4-66-8cccg.--Continued			C4-66-18ccpb.--Continued		
Shale, hard	10	380	Sand, fine	4	936	Shale, gray; contains		
Shale, sandy	95	1,075	Sand, fine, hard	5	941	thin coal seams	100	690
Shale, dark-green	5	1,080	Shale, gray	18	959	Sandstone, shaly;		
Lower conglomerate:			Shale, sandy, gray	29	988	interbedded shale	30	780
Sand (artesian water)	25	1,105	Sand, fine, hard	8	996	Shale, gray	145	925
Shale, sandy	133	1,238	Shale, gray	12	1,008	Dawson Formation (lower part):		
Sand (heavy artesian			Sand, fine	4	1,012	Middle conglomerate:		
flow)	57	1,295	Shale, gray	16	1,028	Sandstone; contains		
Laramie Formation:			Sand, fine, and gray	13	1,041	occasional thin shale		
Shale, black	10	1,325	Shale	32	1,073	breaks	105	1,030
Sand, yellow	90	1,415	Lower conglomerate:			Shale	33	1,063
Coal	29	1,444	Sand, fine, and gray	21	1,094			
Shale, sandy, dark, and			Shale, gray	18	1,112			
some coal	158	1,602	Sand, fine, and gray	12	1,124			
Shale, brown	23	1,625	Shale, gray	36	1,160			
Coal	10	1,635	Sand, fine, and gray	12	1,172			
B sandstone:			Shale, gray	13	1,185			
Sand; show of gas	50	1,685	Sand, fine	5	1,190			
(water)			Shale, gray	23	1,213			
B and A sandstones,			Sand, fine, and gray	15	1,228			
undifferentiated:			Shale, gray	21	1,249			
Sand, dark	118	1,803	Sand, fine, and gray	32	1,281			
Shale, dark	21	1,824	Shale, gray	79	1,360			
Shale, sandy	41	1,865	Sand, fine, and gray	13	1,373			
Shale	20	1,885	Shale, gray	27	1,400			
Fox Hills Sandstone:								
Milliken Sandstone Member:								
Sand, dark	3	1,888						
Sand, hard, dark	28	1,916						
Sand	22	1,938						
Sand, hard	66	2,004						
Transition zone:								
Shale, sandy	47	2,051						
Sand, hard	109	2,160						
Shale, gray	30	2,190						
Sand, hard	80	2,270						
Shale, hard	72	2,342						
Shale, hard	118	2,460						
No sample	3	2,463						
Sand, hard	9	2,472						
Shale, sandy, light-								
colored	28	2,500						
Conglomerate, hard	15	2,515						
Shale, gray, and sand-								
stone	145	2,860						
C4-66-8cccg. Alt. 5,450 ft.			C4-66-10sadb. Alt. 5,517.9 ft.			C4-66-20bcb. Alt. 5,569 ft.		
Piney Creek Alluvium:			Older (?) loess:			Dawson Formation (upper part):		
Fill	3	3	Topsoil	2	2	Topsoil	2	2
Topsoil	2	5	Loam, red	4	6	Clay, brown to yellow	24	26
Clay, sandy, brown	7	12	Dawson Formation (upper part):			Clay, gray	31	57
Broadway Alluvium:			Clay, yellow	29	35	Shale, gray to blue;		
Sand	4	16	Clay, sandy, yellow	4	39	contains occasional		
Dawson Formation (upper part):			Clay, as above; more			interbedded coal		
Clay, gray	4	20	sand	2	41	seams	453	510
Clay, yellow	19	39	Clay, sandy, yellow	6	47	Sandstone (Upper con-		
Shale, blue	4	43	Clay, sandy, and broken			glomerate, 510 to		
Shale, gray	10	53	shale	3	50	585 feet.)	75	585
Shale, sandy, gray	7	60	Shale, broken, yellow			Shale	275	860
Shale, gray, and sand-			and blue	22	72	Dawson Formation (lower part):		
stone	42	102	Shale, blue	2	74	Middle conglomerate:		
Shale, gray	19	121	Sandrock	5	79	Sandstone	45	905
Sandstone, gray	21	142	Shale, blue	1	80	Shale	20	925
Shale, gray, and sand-			Sandrock	1	81	Sandstone	15	940
stone	97	239	Shale, sandy, hard	19	100	Shale	20	960
Coal	4	243						
Shale, gray	9	252						
Coal and gray shale	32	284						
Shale, gray	46	330						
Coal and gray shale	10	360						
Shale, sandy, gray	22	382						
Shale, gray	9	391						
Shale, sandy, gray	14	405						
Sand and gray shale								
[Upper conglomerate,								
405 to 583 feet.]	34	439						
Shale, gray	27	466						
Coal and gray shale	12	478						
Shale, gray, and sand-								
stone	21	499						
Shale, gray	8	507						
Sand and gray shale	31	538						
Sandstone	4	542						
Sand, medium to coarse,								
and gray shale	41	583						
Shale, gray	47	630						
Shale, sandy, gray	8	638						
Sand, fine	19	657						
Shale, gray	50	707						
Sand, fine, and gray								
shale	17	724						
Shale, gray	64	788						
Sand, fine	4	792						
Shale, gray	16	808						
Sand, fine	4	812						
Shale, gray	47	859						
Dawson Formation (lower part):								
Sand, fine, and gray								
shale [Middle con-								
glomerate, 859 to								
1,012 feet.]	41	900						
Shale, gray	12	932						

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-1daaa. Alt. 5,422 ft.		C4-67-1daaa.--Continued		C4-67-1caad.--Continued	
Younger loess:		Rock.		Lime, sandy (8 sandstone,	
Soil.	8	Shale, blue.	1	1,604 to 1,665 feet.)	1 1,607
Sand.	7	Sand.	5	Sand and gray shale.	
Dawson Formation (upper part):		Shale, blue.	8	Interbedded.	58 1,665
Clay.	5	Shale, gray.	5	Shale, sandy, gray.	24 1,689
Clay, sandy.	10	Sand.	2	Shale, gray, and coal.	94 1,783
Clay.	20	Shale, gray.	23	A sandstone:	
Clay, sandy.	20	Shale, blue.	5	Sand.	59 1,842
Sandstone.	2	Sand.	10	Coal.	4 1,846
Shale, blue.	18	Shale, blue.	10	Shale, gray.	7 1,853
Shale, grayish.	10	Sand and shale.	10	Sand.	6 1,859
Shale, blue.	8	Shale, hard, blue.	15	Shale.	21 1,880
Sandstone.	2			Coal.	2 1,882
Shale, blue.	5	C4-67-1caad. Alt. 5,370 ft.		Fox Hills Sandstone:	
Shale, sandy, gray.	5	Younger loess:		Milliken Sandstone member:	
Shale, blue.	5	Soil.	2	Sandstone, hard.	1 1,885
Sandstone.	4	Clay, sandy, brown.	24	Sand, fine.	20 1,905
Coal.	1	Dawson Formation (upper part):		Transition zone:	
Shale, gray.	5	Clay, yellow and gray.	34	Shale, sandy, fine.	13 1,918
Shale, brown.	5	Shale, blue.	8	Sand and gray shale.	19 1,937
Shale, gray.	5	Shale, gray.	13	Shale, gray.	86 2,023
Shale, brown.	4	Shale, sandy, gray.	4		
Coal.	9	Shale, gray.	5		
Shale, brown.	7	Shale, brown, contains	5		
Shale, gray.	4	coal.	4		
Coal.	1	Shale, blue.	26		
Shale, blue.	5	Shale, gray.	7		
Shale, gray.	15	Shale, brown.	4		
Shale, blue.	5	Shale, blue.	6		
Shale, brown.	5	Shale, gray, and sand-	6		
Coal.	5	stone.	6		
Shale, blue.	5	Shale, gray.	13		
Shale, gray.	10	Sandstone, gray.	2		
Shale, blue.	5	Shale, blue.	8		
Shale, sandy, gray.	5	Sandstone, gray.	3		
Shale, blue.	15	Shale, gray.	8		
Shale, brown.	8	Shale, blue.	3		
Shale, gray.	7	Sandstone, gray.	5		
Shale, blue.	10	Shale, gray.	5		
Sandstone.	3	Shale, blue.	4		
Shale, brown.	10	Shale, brown.	3		
Shale, blue.	7	Shale, gray.	18		
Shale, gray.	10	Sandstone, gray.	3		
Coal.	10	Shale, blue.	8		
Shale, gray.	8	Shale, brown.	5		
Coal.	4	Shale, gray.	108		
Shale, blue.	3	Coal blossom.	2		
Coal.	5	Shale, sandy, gray.	6		
Shale, gray.	10	Shale, gray.	4		
Coal.	5	Shale, blue.	7		
Shale, gray.	5	Shale, sandy, gray.	13		
Shale, blue.	10	Shale, gray.	6		
Shale, gray.	19	Sandstone, gray.	4		
Sandstone.	4	Shale, brown.	5		
Shale, gray.	7	Sandstone, gray.	20		
Shale, blue.	10	Shale, blue.	8		
Shale, gray.	10	Shale, brown.	5		
Shale, blue.	30	Shale, gray.	70		
Coal.	5	Sand, fine.	6		
Shale, brown.	5	Shale, gray.	101		
Shale, blue.	30	Lime, sandy.	1		
Shale, gray.	30	Shale, gray.	100		
Shale, blue.	40	Sand, fine.	3		
Shale, gray.	15	Lime, sandy.	1		
Sand, fine (Upper con-		Dawson Formation (lower part):			
glomerate, 565 to		Sand (Middle conglomerate,			
644 feet.)	15	701 to 824 feet.)	7		
Shale, blue.	20	Shale, gray.	18		
Shale, gray.	10	Sand.	4		
Shale, blue.	10	Shale, gray.	5		
Sand.	2	Sand, fine.	10		
Shale, blue.	8	Shale, gray.	31		
Sand.	14	Sand, fine.	10		
Shale, blue.	6	Shale, gray.	31		
Shale, gray.	20	Sand, fine.	61		
Shale, blue.	20	Shale, gray.	8		
Shale, sandy, gray.	10	Shale, gray.	59		
Sand and shale.	10	Lower conglomerate:			
Shale, sandy, gray.	10	Sand, fine.	4		
Shale, blue.	10	Lime, sandy.	3		
Sand and shale.	14	Sand, fine.	7		
Shale, gray.	16	Shale, gray.	21		
Shale, sandy, gray.	10	Sand, fine.	17		
Shale and sand.	10	Shale, gray.	51		
Shale, blue.	10	Sand, fine, and gray	19		
Shale, gray.	10	shale.	41		
Coal.	5	Shale, gray.	27		
Shale, blue.	15	Sand, medium.	7		
Shale, gray.	10	Sand and gray shale.	11		
Dawson Formation (lower part):		Sand, medium.	12		
Middle conglomerate:		Shale, gray.	14		
Sandstone.	5	Sand, fine.	3		
Shale, sandy, gray.	5	Laramie Formation:			
Sand.	10	Shale, gray.	17		
Sandstone.	4	Coal.	8		
Sand, coarse.	5	Sand, fine, and gray	31		
Shale, blue.	2	shale.	100		
Sand.	9	Shale, gray.	59		
Rock.	1				
Sand.	5				
Shale, blue.	2				
Sand.	2				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-6bdcg.--Continued		C4-67-6bdcg.--Continued		C4-67-6bdcg.--Continued	
Middle conglomerate, 503 to 635 feet.	10	Sand, moderately cemented, slightly calcareous; 5 percent very coarse, 10 percent coarse, 50 percent medium, 25 percent fine, 10 percent very fine; contains pyrite	10	Shale, calcareous, light-gray	43
Shale, gray; contains ash and coal frag- ments	18	Shale, sandy, light- olive-gray	10	Fox Hills Sandstone: Milliken Sandstone Member: Sandstone, very fine- to medium-grained; contains iron-cemented nodules and fragments of fossils	1,727
Sand, very arkosic, angular to subrounded; 5 percent coarse, 10 percent medium, 50 percent fine, 15 percent very fine	9	Sand, 5 percent very coarse, 5 percent coarse, 45 percent medium, 10 percent fine, 15 percent very fine	885	Sand, 15 percent medium, 60 percent fine, 25 percent very fine; con- tains medium-sized pyritic nodules	1,747
Shale, sandy, gray	10	Shale, sandy, light- olive-gray	10	Shale, highly calcareous	1,764
Sand, 5 percent very coarse, 5 percent coarse, 10 percent medium, 10 percent fine, 10 percent very fine	563	Sand, 5 percent very coarse, 5 percent coarse, 15 percent medium, 10 percent fine, 20 percent very fine; con- tains coarse frag- ments of red and black basalt	905	Sandstone, very fine- to coarse-grained, iron- cemented; contains pyritic nodules	1,781
Shale, light-gray	5	Shale, silty, light- olive-gray	15	Transition zone: Silt, silty sand, and shale; progressive decrease in sand toward bottom	1,795
Sand, arkosic, slightly frosted; 5 percent very coarse, 10 per- cent coarse, 15 per- cent medium, 35 per- cent fine, 15 per- cent very fine; sam- ple contains 10 per- cent mica, pyrite and other minerals	585	Sandstone, calcareous	925		1,840
Shale, light-gray	5	Shale, silty	48	C4-67-7cddc. Alt. 5,345 ft.	
Sand, very arkosic; 5 percent coarse, 25 percent medium, 50 percent fine, 20 percent very fine, sample contains 10 percent mica, schist, and hornblende	590	Sand, silty	7	Eolian sand:	
Shale, silty, light- olive-gray	23	Sand and gravel	6	Clay	7
Shale, sandy; contains coal and basalt fragments	57	Shale, silty	13	Louviers Alluvium:	
Sand, 5 percent coarse, 20 percent medium, 50 percent fine, 25 percent very fine	715	Sand, silty	7	Gravel	17
Shale, silty, light- olive-gray	20	Shale, silty	6	Sand, dirty	11
Sand, very arkosic, an- gular to well-rounded; 5 percent very coarse, 10 percent medium, 40 percent fine, 20 per- cent very fine; sample contains 20 percent dark mineral and 10 percent mica	730	Sandstone, calcareous	4	Clay	40
Shale, silty, light- olive-gray	20	Sand, silty	15	Gravel and rocks	5
Sand, 5 percent very fine; gravel; sample contains 10 percent mica and 10 percent dark minerals	755	Shale, medium-gray	25	Dawson Formation (upper part):	
Shale, sandy, light- olive-gray	42	Sand and shale, medium- gray	15	Sandstone, hard	5
Lower conglomerate:		Laramie Formation:		Shale	3
Sand, very arkosic; 5 percent very coarse, 10 percent coarse, 20 percent medium, 40 percent fine, 20 percent very fine, and 5 percent very fine; gravel; sample contains 10 percent mica and 10 percent dark minerals	810	Shale, silty, medium- gray	43	C4-67-8dcbh. Alt. 5,390 ft.	
Shale, sandy, light- olive-gray	12	Coal	3	Younger loess:	
Sand, 5 percent very coarse, 10 percent coarse, 10 percent medium, 40 percent fine, 15 percent very fine	822	Shale, sandy	4	Clay	6
Shale, sandy, light- olive-gray	5	Sand, shaly	10	Siocum Alluvium:	
Sand, part well-cemented, highly calcareous; 5 percent very coarse, 10 percent coarse, 30 percent medium, 40 percent fine, 15 per- cent very fine; part cemented with pyrite	827	Coal	3	Sand and gravel	66
Shale, sandy, light- olive-gray	12	Shale, medium-gray	45	Clay	4
Sand, 10 percent very coarse, 25 percent coarse, 10 percent medium, 20 percent fine, 10 percent very fine, and 5 percent very fine gravel	832	Sandstone, very fine- grained	6	Gravel and boulders	3
Shale, sandy, light- olive-gray	15	Shale, sandy	13	Sand	5
		Coal	2	Dawson Formation (upper part):	
		Shale, sandy	4	Rock, hard	2
		Coal	3	Shale	11
		Shale, sandy	9	Rock, hard	3
		Coal	3		100
		Shale, silty, medium- gray, and coal	16	C4-67-10adab. Alt. 5,423 ft.	
		B sandstone:		Younger loess and Dawson Formation (upper part) undifferentiated:	
		Sandstone, very fine- to medium-grained	35	Clay, brown and yellow	83
		Sandstone, very fine- to fine-grained; contains about 10 percent medium sand; has salt and pepper texture	55	Dawson Formation (upper part):	
		A sandstone:		Shale, gray	38
		Sand, very fine, silty, iron stained; contains layers of shale	75	Coal	3
		Sand, very arkosic, iron stained, 60 per- cent fine, 40 percent very fine	45	Shale, gray	100
		Shale, light-gray	5	Sandstone, gray [Upper conglomerate, 224 to 329 feet.]	14
		Sand, arkosic, iron stained, 60 percent fine; 40 percent very fine	14	Shale, gray	238
				Sandstone, gray	48
				Shale, gray	286
				Sandstone, gray	4
				Shale, gray	25
				Sandstone, gray	2
				Shale, brown	6
				Sandstone, gray	6
				Shale, gray	136
				Shale, gray, and sand- stone	11
				Shale, gray	216
				Dawson Formation (lower part):	692
				Sand, fine Middle con- glomerate, 692 to 897 feet.	8
				Shale, gray	10
				Sand, fine	7
				Shale, gray	29
				Shale, gray, and fine sand	14
				Sand, gray	36
				Sand, fine	7
				Shale, gray	36
				Sand, medium to fine	38
				Shale, gray	71
				Sand	13
				Shale, gray	44
				Lower conglomerate:	
				Sand, medium	22
				Shale, gray	33
				Lime	2
				Shale, gray	55
				Sand, fine	8
				Laramie Formation:	
				Shale, gray	95

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-14cdd. Alt. 5.486 ft.					
Younger loess:					
Soil.	1				
Clay, sandy	22				
Slocum Alluvium:					
Sand, fine.	11				
Sand, coarse.	12				
Clay.	2				
C4-67-15dddb. Alt. 5.473 ft.					
Younger loess:					
Soil.	1				
Clay, sandy	18				
Slocum Alluvium:					
Sand, fine.	13				
Sand, coarse.	5				
Clay.	4				
C4-67-16cddb. Alt. 5.471 ft.					
Eolian sand:					
Sand, fine.	21				
Younger(?) loess:					
Clay, sandy, brown.	28				
Clay, sandy, yellow.	11				
Dawson Formation (upper part):					
Clay, yellow.	12				
Sandstone, gray.	15				
Shale, blue.	9				
Sandstone, gray.	6				
Shale, gray, and sand- stone.	40				
Shale, sandy, gray.	4				
Shale, gray, and sand- stone.	14				
Shale, brown.	6				
Shale, gray.	25				
Shale, sandy, gray.	12				
Sandstone, gray, and shale.	187				
Shale, gray.	52				
Sandstone, gray and shale.	52				
Shale, brown.	11				
Sandstone, gray.	23				
Shale, brown.	8				
Shale, gray.	117				
Sand.	6				
Shale, gray.	59				
Shale, sandy, gray.	20				
Shale.	48				
Dawson Formation:					
Sand, fine, and gray shale (Middle conglom- erate, 786 to 882 feet).	18				
Shale, sandy, gray.	14				
Sand, fine.	10				
Shale, sandy, gray.	37				
Sand, coarse, and gray shale.	17				
Shale, sandy, gray.	11				
Sand, fine, and gray shale.	62				
Shale, gray.	19				
Sand, fine, and gray shale.	76				
Shale, gray.	21				
Sand, fine, and gray shale.	16				
Shale, sand, gray.	22				
Lower conglomerate:					
Sand, fine, and gray shale.	14				
Lime.	2				
Shale, gray.	5				
C4-67-17dbbc. Alt. 5.400 ft.					
Louviere Alluvium:					
Sand and gravel.	14.5				
Dawson Formation (upper part):					
Shale, brown.	2.5				
Shale, blue.	195				
Sand.	13				
Shale, blue.	401				
Shale and layers of sand.	71				
Shale, blue.	23				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand.	28				
C4-67-17ddbd. Alt. 5.389.0 ft.					
Overburden.					
Dawson Formation (upper part):					
Clay, blue, and shale.	212				
Coal.	1				
Clay and shale.	414				
Sand and sandy clay.	11				
Clay.	6				
Sand.	5				
Clay.	5				
Rock.	2				
Clay, sandy.	8				
Clay.	25				
C4-67-17ddbd. --Continued					
Dawson Formation (lower part):					
Middle conglomerate:					
Sand, coarse.	9				
Rock.	1				
Clay and shale.	12				
Sand.	1				
Clay and shale.	28				
Sand and sandstone.	22				
Clay and shale.	33				
Sand and sandstone.	15				
Shale.	25				
Sand and sandstone.	6				
Shale.	10				
Sand and sandstone.	21				
Clay and shale.	33				
Sand and sandstone.	28				
Clay and shale.	16				
Sandrock.	3				
Sand.	4				
Clay.	29				
C4-67-17ddbd2. Alt. 5.390.3 ft.					
Piney Creek Alluvium:					
Soil.	8				
Broadway Alluvium:					
Sand, dirty.	22				
Gravel, fine.	4				
Louviere Alluvium:					
Clay.	1				
Gravel, fine.	8				
Gravel, coarse, and clay.	4				
C4-67-18accc. Alt. 5.367.1 ft.					
Piney Creek Alluvium:					
Sand, silt, and very fine to medium gravel, loose.	2.5				
Gravel, very fine to fine, arkosic, subrounded, coarse sand, and pale- yellowish-brown silt.	1				
Clay, very sandy and gravelly, brown; com- pact from 6.0 to 7.0 feet.	3.5				
Broadway Alluvium:					
Gravel, fine, arkosic, subrounded to rounded, coarse sand, and pale- yellowish-brown cal- careous silt.	5.5				
Gravel, very fine to medium, arkosic, sub- rounded, and about 20 percent coarse sand; contains fragments of welded tuff.	5				
Louviere Alluvium:					
Gravel, fine, arkosic, coarse sand, and cal- careous silt.	2.5				
Sand, medium to very coarse, subrounded, arkosic, and about 10 percent very fine arkosic subrounded to rounded gravel.	2.5				
Dawson Formation (upper part):					
Shale, silty, noncal- careous, grayish- orange, and a little very fine gravel, at 22.5 feet.	5				
C4-67-18accc. Alt. 5.356.5 ft.					
Piney Creek Alluvium:					
Silt, micaceous, cal- careous, dark-greenish- gray; contains mont- morillonite.	5				
Silt, very sandy and gravelly, calcareous, greenish-gray; contains montmorillonite.	2.5				
Gravel, very fine to fine, subrounded to rounded, arkosic, coarse sand, and light olive-gray noncalcareous silt.	7.5				
Louviere Alluvium:					
Cobbles, gravel, and sand.	.5				
Gravel, very fine to medium, arkosic, sub- rounded to rounded, very coarse sand, and light-olive-gray silt.	7				
Sand, very coarse, arkosic, subangular, and about 40 percent arkosic subangular very fine to fine gravel.	5				
C4-67-18accc2. Alt. 5.352.0 ft.					
Broadway Alluvium:					
Soil, sandy.	10				
Louviere Alluvium:					
Clay.	5				
Gravel.	20				
Gravel and large rocks.	8				
Dawson Formation:					
Shale at 43 feet.					
C4-67-18acdb. Alt. 5.356.1 ft.					
Broadway Alluvium:					
Topsoil.	2.5				
Silt, calcareous, light- olive-gray, very fine arkosic subangular to subrounded gravel, and poorly sorted sand; contains montmoril- lonite.	10				
Sand, medium to very coarse, arkosic, sub- angular to subrounded, and about 20 percent very fine subrounded to rounded gravel.	10				
Louviere Alluvium:					
Gravel, very fine to fine, arkosic, subangular to well-rounded, and about 20 percent poorly sorted sand.	10				
Gravel, very fine to fine, subangular to rounded; contains cobbles and poorly sorted sand.	5				
Gravel, very fine.	2.5				
Gravel, very fine to fine, subangular to rounded, and about 20 percent poorly sorted sand; contains cobbles.	5				
Gravel, very fine to fine, subangular to rounded, and about 20 percent poorly sorted sand; sand increases to about 40 percent from 47 to 50 feet.	5				
Gravel, very fine, sub- angular to rounded, 40 percent poorly sorted sand, and some grayish- orange silt.	5				
Sand, fine to very coarse, subangular to rounded, arkosic, about 40 per- cent very fine to fine gravel, and some grayish- orange silt.	5				
Gravel, very fine, sub- angular to rounded.	4				
Dawson Formation:					
Shale, blue.	5.5				
C4-67-18cabb. Alt. 5.349.5 ft.					
Piney Creek, Broadway, and Louviere Alluvium, undifferentiated:					
Sand, fine.	17				
Dawson Formation (upper part):					
Clay.	3				
Sand, dirty, silty.	10				
Sandrock.	1				
C4-67-18cadc. Alt. 5.378.1 ft.					
Eolian sand:					
Topsoil, sandy, brown.	1				
Silt, sandy and gravelly, calcareous, dusky- yellow and pale- yellowish-brown.	9.5				
Broadway Alluvium:					
Sand, medium to very coarse, subangular to rounded.					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-18cadg.---Continued		C4-67-18dbbb2.---Continued		C4-67-19bdab.---Continued	
arkosic, and about 40 percent very fine to medium gravel.		Cobbles, very fine arkosic subrounded gravel, and very coarse sand		Dawson Formation (lower part): Middle conglomerate:	
Louviers Alluvium:	5 17.5	Gravel, very fine, arkosic, subrounded to well-rounded, and very coarse sand.		Sandstone.	1 726
Silt, sandy and gravelly, grayish-orange.	5 22.5	Clay, silty, very sandy, grayish-orange.		Shale, sandy, gray.	4 730
Sand, medium to very coarse, arkosic, subrounded to rounded, and a little very fine to fine gravel.	5 27.5	Gravel, very fine, angular to subrounded, poorly sorted sand, and grayish-orange silt.		Sandstone.	1 731
Dawson Formation (upper part):		Sand, very coarse, arkosic, angular to subrounded, clean, and about 40 percent very fine to fine arkosic subangular to subrounded gravel.		Shale, gray.	13 744
Silt, very sandy, calcareous, moderate-yellowish-brown and dusky-yellow; contains montmorillonite.	20 47.5	Cobbles, very coarse sand, and very fine to fine gravel.		Rock.	2 746
Silt, very sandy, very calcareous, micaceous, grayish-orange; contains montmorillonite.	12.5 50	Dawson Formation (upper part):		Shale, gray.	19 765
Shale, silty, sandy, noncalcareous; contains montmorillonite.	2.5 62.5	Shale, very silty, sandy, noncalcareous, dusky-yellow; contains montmorillonite.		Shale, sandy, gray.	1 766
C4-67-18cbcd. Alt. 5,170 ft.		C4-67-19bdab. Alt. 5,415 ft.		Shale, gray.	9 775
Fill.	4 4	Soil.		Shale, sandy, gray.	11 786
Eolian sand:		Clay.		Shale, gray.	18 804
Sand.	11 15	Dawson Formation (upper part):		Sand.	1 805
Younger loess:		Shale, brown.		Shale, gray.	4 809
Clay, yellow.	11 26	Clay.		Sand.	1 810
Slocum Alluvium:		Shale, brown.		Shale, sandy, gray.	12 822
Gravel.	2 28	Shale, blue.		Sand and shale.	22 844
Dawson Formation (upper part):		Sandstone.		Sand.	1 845
Clay, brown, and sandstone.	6 14	Shale, hard, gray.		Sand and shale.	13 858
Sandstone, blue.	23 57	Shale, gray.		Sand.	3 861
Shale.	41 98	Shale, blue.		Sand and shale.	24 885
Sandstone, blue.	108 108	Sandstone.		Shale, gray.	5 890
Shale, blue.	127 127	Shale, hard, gray.		Shale, sandy.	20 910
Shale, gray.	81 208	Shale, gray.		Shale, hard.	15 925
Sandstone, gray.	12 220	Shale, blue.		Sand and shale.	10 935
Shale, blue and brown.	26 246	Sandstone.		Sand.	4 939
Shale, gray.	58 304	Shale, hard, gray.		Shale, sandy, gray.	4 943
Sandstone, gray.	19 323	Shale, sandy, gray.		Sand.	6 949
Shale, gray.	155 478	Shale, hard, gray.		Sand and shale.	56 1,005
Upper (?) conglomerate:		Shale, blue.		C4-67-20aabb. Alt. 5,394.9 ft.	
Sand.	14 492	Shale, brown.		Piney Creek Alluvium:	
Shale, gray.	28 520	Shale, gray.		Topsoil.	3 3
Sand, medium to coarse.	9 529	Shale, blue.		Broadway Alluvium:	
Shale, gray.	31 560	Shale, brown.		Gravel.	16 19
Sandstone, gray.	18 578	Shale, gray.		Louviers Alluvium:	
Shale, gray.	34 612	Shale, blue.		Sand.	7 26
Dawson Formation (lower part):		Shale, brown.		Gravel and sand.	5 31
Sand, fine, and gray shale [Middle conglomerate, 658 to 778 feet.].	75 687	Shale, gray.		Gravel.	7 38
Shale, gray.	13 700	Sandstone.		Clay.	2 40
Sand, fine.	33 733	Shale, blue.		Gravel and rock.	7 47
Shale, gray.	13 746	Shale, brown.		Dawson Formation:	
Sand, medium to coarse.	15 761	Shale, gray.		Shale.	1 48
Shale.	6 767	Shale, blue.		C4-67-20accd. Alt. 5,398.7 ft.	
Sand, medium to coarse.	11 778	Shale, brown.		Piney Creek Alluvium:	
Shale, gray.	65 843	Shale, gray.		Topsoil.	4 4
Lower conglomerate:		Shale, blue.		Clay.	3 7
Shale, gray, and fine to medium sand.	107 950	Shale, brown.		Broadway Alluvium:	
C4-67-18dbbb. Alt. 5,351 ft.		Shale, gray.		Gravel and sand.	7 14
No sample.	6 6	Shale, blue.		Louviers Alluvium:	
Broadway Alluvium:		Shale, brown.		Clay.	2 16
Sand and gravel.	18 24	Shale, gray.		Gravel.	33 49
Louviers Alluvium:		Shale, sandy, gray.		Gravel, rocks, and some clay.	5 54
Clay, soft, brown.	7 31	Shale, blue.		Dawson Formation (upper part):	
Sand and gravel.	13 44	Shale, brown.		Sandstone.	2 56
Clay, blue.	9 53	Shale, gray.		Shale.	1 57
Gravel.	6 59	Shale, blue.		C4-67-20cddd. Alt. 5,415 ft.	
Dawson Formation:		Shale, brown.		Piney Creek Alluvium:	
Shale, blue.	1 60	Shale, gray.		Fill.	2 2
C4-67-18dbbb2. Alt. 5,356.7 ft		Shale, sandy, gray.		Topsoil.	2 4
Post-Piney Creek alluvium:		Shale, blue.		Younger loess:	
Fill, sand, and gravel.	3 3	Sandstone.		Clay, yellow.	6 10
Louviers Alluvium:		Shale, gray.		Clay, sandy, yellow.	3 13
Gravel, fine to medium, arkosic, subrounded to rounded, and pale-yellowish-brown silt.	4.5 7.5	Shale, blue.		Dawson Formation (upper part):	
Sand, coarse to very coarse, arkosic, subrounded, 10 percent very fine to fine gravel, and pale-yellowish-brown silt.	5 12.5	Shale, brown.		Sandstone, brown.	5 18
Silt, noncalcareous, micaceous, pale-yellowish-brown; contains fine sand.	1.5 14	Shale, gray.		Clay, yellow.	10 28
Sand, medium to coarse, fairly well-sorted, arkosic, loose.	3.5 17.5	Shale, sandy, gray.		Shale, gray.	7 35
		Shale, blue.		Shale, blue.	6 41
		Sandstone.		Sandstone, gray.	4 45
		Shale, gray.		Shale, gray.	9 54
		Shale, sandy, gray.		Sandstone, gray.	12 66
		Shale, blue.		Shale, brown.	5 71
		Shale, brown.		Sandstone, gray.	4 75
		Shale, gray.		Shale, gray.	9 84
		Shale, blue.		Shale, brown.	6 90
		Shale, sandy, gray.		Shale, gray.	12 102
		Shale, blue.		Shale, brown.	5 107
		Sandstone.		Shale, blue.	6 113
		Shale, gray.		Shale, brown.	4 117
		Shale, sandy, gray.		Shale, gray.	3 120
		Shale, blue.		Sandstone, gray.	5 125
		Shale, brown.		Shale, gray.	5 130
		Shale, gray.		Sandstone, gray, and gray shale.	30 160
		Shale, sandy, gray.		Shale, brown.	3 163
		Shale, blue.		Shale, gray, and sandstone.	23 186
		Shale, brown.		Shale, brown.	4 190
		Shale, gray.		Shale, gray, and sandstone.	21 211
		Shale, sandy, gray.		Shale, brown.	6 217
		Shale, blue.		Shale, gray.	23 240
		Shale, brown.		Sandstone, gray, and shale.	55 295
		Shale, gray.		Sand and gray shale.	29 324
		Shale, sandy, gray.		Shale, gray, and sandstone.	22 346
		Shale, blue.		Shale, brown.	4 350
		Shale, brown.		Shale, gray.	48 398

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-20cddd.--Continued		C4-67-21cbda.--Continued		C4-67-28adcc.--Continued	
Shale, brown.	7	Broadway and Louviers Alluvium, undifferentiated:	45	Broadway Alluvium:	
Shale, gray, and sandstone.	60	Gravel to large cobbles	45	Gravel, very fine to fine, subangular to subrounded, arkosic, and about 10 percent very coarse sand	3 19
Shale, brown.	4	Dawson Formation (upper part):	48	Louviers Alluvium:	
Sandstone, gray.	11	Sandstone	5	Clay, sandy and gravelly, brown.	3.5 22.5
Shale, gray.	4	Shale	53	Gravel, very fine to medium, arkosic, subangular to rounded, and about 30 percent medium to very coarse sand	5 27.5
Shale, brown.	4			Sand, coarse to very coarse, slightly silty, angular to subangular, and about 10 percent very fine to medium gravel	5 32.5
Shale, gray.	125	C4-67-22bada. Alt. 5,485 ft.		Gravel, very fine to medium, arkosic, subangular to rounded, and about 10 percent medium to very coarse sand	15 47.5
Sand, fine.	6	Younger loess:	32	Gravel, very fine, arkosic, subangular to subrounded; contains cobbles.	5 52.5
Shale, gray.	97	Loam, sandy	32	Gravel, very fine to fine, arkosic, subangular to rounded; contains coarse to very coarse angular to subangular sand and interbedded cobbles.	16.5 69
Sand, fine.	9	Dawson Formation (upper part):	38	Clay, sticky, tan.	1 70
Shale, gray.	88	Shale, gray	6	Gravel and sand; contains cobbles from 90.0 to 94.0 feet.	24 94
Dawson Formation (lower part):		Clay, brown	40	Dawson Formation (upper part):	
Sand, fine [Middle conglomerate, 813 to 969 feet].	12	Sand (water).	7	Shale, sandy, gravelly, noncalcareous, light-olive-gray; limonite stained.	3.5 97.5
Sand, coarse, and gray shale	15	Clay, blue.	5		
Shale, gray	17			C4-67-22cbda. Alt. 5,501 ft.	
Sand, fine, and gray shale	21	Eolian sand and Dawson Formation (upper part), undifferentiated:	70	Soil and sandy clay	70
Shale, gray	78	Soil and sandy clay	70	Dawson Formation (upper part):	
Sand, fine.	13	Shale, blue-gray.	230	Shale, blue-gray.	100
Shale, gray	32	Shale, gray	100	Shale, gray	600
Sand, fine, and gray shale	18	Shale, brown.	25	Shale, brown.	625
Shale, gray	37	Shale, blue-gray.	75	Coal and brown shale	700
Lower conglomerate:		Coal	10	Shale, gray	710
of gray shale	21	Shale, gray	80	Sand, fine, gray.	790
Shale, gray	13	Sand, fine, gray.	35	Shale, gray	825
Sand, fine, and gray shale	19	Shale, gray	75	Dawson Formation (lower part):	900
Shale, gray	7	Sand, white	50		
				C4-67-27cbac2. Alt. 5,454 ft.	
C4-67-20ddab. Alt. 5,411 ft.				Piney Creek Alluvium:	
Piney Creek Alluvium:				Sand, fine.	6
Clay	3			Clay, brown	16
Broadway Alluvium:				Louviers Alluvium:	22
Sand and gravel	21			Sand and gravel	42
Louviers Alluvium:				Dawson Formation:	44
Clay	11			Shale	2
Sand and gravel	10			C4-67-28adaa2. Alt. 5,455.1 ft.	
Dawson Formation:				Eolian sand:	
Shale	1			Sand, fine to coarse, silty, loose.	2.5 2.5
C4-67-21babb. Alt. 5,460 ft.				Silt, very sandy, noncalcareous; contains fine to medium arkosic sand.	6.5 9
Piney Creek Alluvium:				Louviers Alluvium:	
Topsoil, sandy.	3			Sand, fine to medium, subangular to rounded, silty, arkosic, noncalcareous, very pale-orange, moderate-yellow, and grayish-yellow.	11 20
Broadway Alluvium:				Dawson Formation (upper part):	
Sand.	8			Shale, silty, noncalcareous, olive-gray; contains montmorillonite.	2.5 22.5
Dawson Formation (upper part):				C4-67-28mdca. Alt. 5,442.7 ft.	
Clay, sandy, brown.	5			Piney Creek Alluvium:	
Clay, yellow.	8			Topsoil, sandy, buff.	5
Sandstone, brown.	8			Silty, clayey and sandy, calcareous, pale-brown	14.5 15
Clay, sandy, yellow.	11			Broadway Alluvium:	
Sandstone, brown.	6			Gravel, very fine to fine, arkosic, subangular, and fine to very coarse sand.	2.5 17.5
Sandstone, gray.	5			Louviers Alluvium:	
Shale, blue.	7			Sand, medium to very coarse, gravelly, subangular, arkosic; contains cobbles from 19.0 to 19.5 feet	5 22.5
Sandstone, gray.	16			Gravel, very fine, subangular to subrounded, arkosic, and about 20 percent sand.	15 37.5
Shale, gray, and sandstone.	55			Gravel, very fine to fine, arkosic, angular to subrounded; contains cobbles at 46.0 feet; becomes more rounded and well sorted between 47.5 to 50.0 feet.	12.5 50
Shale, brown.	8			Dawson Formation (upper part):	
Shale, gray, and sandstone.	56			Shale, very silty and sandy, light-olive-brown; contains montmorillonite	2.5 52.5
Shale, brown.	4			C4-67-28adcc. Alt. 5,438.2 ft.	
Sandstone, gray.	33			Piney Creek Alluvium:	
Sandstone, soft.	9			Topsoil, loose, brown	2.5
Shale, gray, and sandstone.	12			Silt, clayey, very sandy, calcareous, light-olive-gray; contains very coarse sand	13.5 16
Shale, sandy, gray.	13				
Shale, gray, and sandstone.	24				
Shale, sandy, brown.	6				
Shale, gray.	19				
Sand.	5				
Shale, sandy, gray.	11				
Shale, gray.	12				
Sandstone, gray.	12				
Shale, gray.	89				
Sandstone, gray.	6				
Shale, gray.	128				
Lime.	4				
Sand.	1				
Shale, sandy, gray.	27				
Shale, gray.	29				
Shale, sandy, gray.	9				
Shale, gray.	19				
Sand, fine, and gray shale	92				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand, coarse, and gray shale	10				
Sand, fine, and gray shale	12				
Sand, coarse, and gray shale	86				
Shale, gray.	15				
C4-67-21cbda. Alt. 5,408.9 ft.					
Piney Creek Alluvium:					
Clay.	5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-28bada. --Continued		C4-67-28cacc. --Continued		C4-67-29abab. --Continued	
Sand, very fine to very coarse, poorly sorted, subangular to sub-rounded, arkosic, wet	5 33.5	Dawson Formation (upper part): Shale, silty, calcareous, dusky-yellow; contains montmorillonite and some gravel	1.5 17.5	Shale, blue	6 281
Sand, very coarse, fairly well-sorted, arkosic, subangular to sub-rounded	5 38.5	C4-67-28cbad. Alt. 5.463 ft. No sample	100 100	Shale, gray	4 285
Gravel, very fine, arkosic, subangular to rounded, and 20 percent very coarse sand	4 42.5	Dawson Formation (upper part): Shale, medium hard, blue to gray; interbedded stringers of sandstone	120 220	Shale, blue	13 365
Sand, medium to coarse, cemented; contains medium gravel and streaks of clay	1 45.5	Shale, medium hard, blue to gray	452 672	Shale, gray	19 384
Dawson Formation (upper part): Shale and clay, blue	3 48.5	Sand, fine-grained, medium hard (water) [Upper conglomerate, 672 to 706 feet.]	14 706	Lime	1 385
C4-67-28bada. Alt. 5.426.6 ft. Piney Creek Alluvium: Topsoil	3 3	Shale, dark-gray; occasional thin streaks of sand	192 898	Sandstone, gray	7 392
Broadway Alluvium: Sand	5 8	Dawson Formation (lower part): Sand, coarse-grained (water) [Middle conglomerate, 898 to 965 feet.]	67 965	Shale, blue	9 401
Sand and fine gravel	25 33	Shale, hard, gray to black	45 1,010	Shale, gray	17 418
Louviers Alluvium: Sand and silt, rust-colored	6 39	C4-67-28ccab. Alt. 5.494.0 ft. Younger loess: Topsoil	2 2	Shale, blue	4 422
Boulders and cobbles, bedded	5 44	Dawson Formation (upper part): Shale, silty, noncalcareous, compact, micaceous, pale-yellowish-brown; contains very fine sand	5.5 7.5	Shale, gray	4 426
C4-67-28bdca. Alt. 5.428 ft. Piney Creek Alluvium: Topsoil	2 2	C4-67-28cdag. Alt. 5.443.4 ft. Younger loess: Topsoil	2.5 2.5	Shale, brown	3 434
Broadway Alluvium: Sand, fine	14 16	Silt, clayey, slightly sandy, calcareous, compact, pale-yellowish-brown, increase in sand between 22.5 and 27.5 feet	25 27.5	Shale, gray	7 528
Sand, coarse	23 39	Louviers Alluvium: Silt, sandy and gravelly, pale-yellowish-brown; contains about 30 percent sand	5 12.5	Shale, blue	17 545
Louviers Alluvium: Clay, sandy, light-brown	3 42	Sand, arkosic, to very fine gravel; contains about 50 percent pale-yellowish-brown calcareous silt	2.5 15	Shale, gray	11 556
Sand and layers of gray sandy clay	9 51	Dawson Formation (upper part): Shale, clay, pale-olive; contains montmorillonite	2.5 37.5	Shale, blue	7 563
Boulders	2 53	C4-67-29abab. Alt. 5.443 ft. Younger loess: Topsoil	2 2	Shale, gray	16 570
Dawson Formation: Shale, gray and brown	7 60	Clay, brown	7 9	Shale, blue	5 586
Shale, blue	3 63	Louviers Alluvium: Sand	18 27	Shale, gray	5 591
C4-67-28bdad. Alt. 5.432.7 ft. Post-Piney Creek alluvium: Fill	6 6	Dawson Formation (upper part): Clay, sandy, brown	9 36	Shale, blue	12 603
Broadway Alluvium: Gravel, very fine to fine, arkosic, sub-rounded, very silty, and very coarse sand	4 10	Shale, blue	4 40	Shale, brown	11 614
Sand, medium to very coarse, and very fine to fine gravel	2.5 12.5	Shale, brown	5 45	Shale, blue	22 636
Louviers Alluvium: Gravel, very fine to fine, subangular to sub-rounded, and about 30 percent medium to very coarse sand; contains cobbles at 17.0 feet	10 22.5	Shale, blue	17 62	Shale, gray	52 688
Gravel, fine, well-sorted, subangular to sub-rounded	5 27.5	Shale, gray	8 70	Lime	1 689
Gravel, very fine to fine, arkosic, subangular to rounded, and about 30 percent fine to very coarse sand	15 42.5	Sandstone, gray	2 72	Shale, blue	9 698
Gravel, fine, arkosic, subangular to sub-rounded, fairly well-sorted	6.5 49	Shale, gray	2 74	Shale, gray	38 736
Gravel, coarse	1 50	Sandstone, gray	15 89	Sandstone, gray	2 738
Dawson Formation (upper part): Shale, silty and sandy, weathered, noncalcareous, soft, pale-olive-gray and yellow	12.5 62.5	Shale, gray	4 93	Dawson Formation (lower part): Sand [Middle conglomerate, 738 to 784 feet.]	3 741
Shale and clay; contains montmorillonite; at 62.5 feet		Shale, brown	2 95	Shale, gray	9 750
C4-67-28cacc. Alt. 5.462.4 ft. Younger loess: Topsoil	2.5 2.5	Sandstone, gray	2 97	Shale, blue	5 755
Silt, sandy, pale-yellowish-brown	5 7.5	Shale, gray	11 108	Shale, gray	17 772
Louviers Alluvium: Sand, very fine to very coarse, subrounded, silty, arkosic, calcareous, pale-yellowish-brown, and about 10 percent very fine gravel	8.5 16	Shale, blue	25 133	Sand, fine, white	12 784
		Shale, brown	9 142	Shale, gray	20 804
		Shale, blue	6 146	Shale, gray	88 892
		Shale, brown	6 154	Sand	23 915
		Shale, gray	3 157	Shale, gray	6 921
		Shale, blue	23 180	Sand	7 928
		Shale, brown	5 185	Shale, gray	17 965
		Shale, blue	9 194	Sand	10 975
		Shale, brown	9 196	Shale, blue	5 980
		Sandstone, gray	2 198	Shale, gray	26 1,006
		Shale, brown	12 208	Shale	31 1,037
		Sandstone, gray	1 209	Lower conglomerate: Sand and gray layers of shale	17 1,054
		Shale, blue	4 213	Shale	6 1,060
		Sandstone, gray	11 224	C4-67-30caab. Alt. 5.442 ft. Younger loess: Soil and clay	16 16
		Shale, blue	3 227	Dawson Formation (upper part): Clay, sandy, hard	17 33
		Sandstone, gray	2 229	Clay, brown, hard	12 45
		Shale, sandy, gray	4 233	Shale, blue	37 82
		Shale, brown	3 236	Sandstone, hard	2 84
		Shale, gray	7 243	Shale, blue	26 110
		Shale, blue	4 247	Sandstone, hard	4 114
		Shale, brown	2 249	Shale, blue	166 280
		Shale, gray	26 275	Shale, hard, brittle, gray	84 364
				Shale, blue	186 550
				Shale, hard, brittle, gray	222 772
				Shale, blue	24 796
				Dawson Formation (lower part): Middle conglomerate: Sandstone and fine sand	34 830
				Sand (water)	41 871
				Sand, fine	19 890
				Shale, blue	10 900
				C4-67-31bbcb. Alt. 5.425 ft. Younger loess: Topsoil	5 5
				Louviers Alluvium: Sand	11 16
				Dawson Formation (upper part): Clay	38 54
				Shale	5 59
				Sandstone	4 63
				Shale, sandy	27 90
				Shale, gray	12 102
				Shale, blue	108 210
				Sandstone	10 220

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-67-12babb. Alt. 5,502 ft.		C4-67-14aadb. --Continued		C4-67-15bgcb. --Continued	
Younger loess:		Shale, gray, and sand-		Shale, gray and brown.	68 486
Soil, surface	4	stone	46 438	Sand, fine	9 495
Slocum Alluvium:		Shale, gray	53 491	Shale, gray	18 513
Sand, dry	14 18	Sandstone, hard, gray	2 493	Sand, fine	5 518
Dawson Formation (upper part):		Shale, gray	217 730	Coal	2 520
Sandrock	3 21	Sand, fine	6 736	Shale, gray	6 526
Shale	53 74	Shale, gray	78 814	Sand, fine	8 534
Shale, blue	46 120	Sand, fine	9 823	Shale, gray and brown	12 546
Sandrock, brown	4 124	Lime, sandy	1 826	Sand, fine	6 552
Clay and shale	40 164	Sandstone, blue	7 833	Shale, gray and brown	36 588
Sandrock	2 166	Shale, gray	55 898	Sandstone, gray	24 612
Clay and shale	57 223	Dawson Formation (lower part):		Shale, gray and brown	144 756
Sandrock, hard	1 224	Middle conglomerate:		Sand	5 761
Clay and shale	117 341	Sand	7 935	Shale, gray	24 785
Sandrock, brown (upper		Shale, gray	39 944	Sand, fine	10 795
conglomerate, 341 to		Sand	3 947	Shale, gray	69 864
561 feet.)	1 142	Shale, gray	15 962	Dawson Formation (lower part):	
Sand (water)	3 145	Sand and shale	49 1,011	Middle conglomerate:	
Clay and shale	12 157	Shale, gray	13 1,024	Sand	17 881
Sandrock, brown	5 162			Shale, gray	12 893
Clay and shale	55 417	C4-67-14ddcb. Alt. 5,493.8 ft.		Sand	4 897
Sandrock, hard	11 428	Piney Creek Alluvium:		Shale, gray	55 952
Clay and shale	71 499	Top	4 4	Sand	9 961
Sand, hard, and shale	11 510	Sand and clay	3 7	Shale, gray	4 965
Clay and shale	48 558	Broadway Alluvium:		Sand	20 985
Sandrock, brown	3 561	Gravel, rusty, and sand	7 14	Sand and gray shale	17 1,022
Clay and shale	16 577	Louviers Alluvium:		Shale, gray	22 1,044
Shale, loose	12 589	Gravel, fairly coarse,			
Clay and shale	131 720	and clean sand	62 76	C4-67-15cgcd2. Alt. 5,609.2 ft.	
Shale, hard	2 722	Gravel, fine sand, and		Eolian sand:	
Clay and shale	12 734	clay	9 85	Sand, medium, slightly	25 25
Clay, blue, and sand	25 759	Gravel, some fine sand,		cemented, brown	25 25
Clay and shale	55 814	and clay	7 92	Dawson Formation (upper part):	
Dawson Formation (lower part):		Gravel, sand, and rocks	4 96	Clay, sandy, soft, brown	23 48
Sand (water) [Middle		Dawson Formation:		Clay, clean, soft, gray	47 95
conglomerate, 814 to		Shale	1 97	Shale, subfirm, gray	19 114
1,047 feet.)	5 819	C4-67-14dddb. Alt. 5,494.9 ft.		Sand, medium, loose	
Clay and shale	12 831	Piney Creek Alluvium:		gray (some water loss)	1 115
Sand (water)	7 838	Soil, clayey, hard	4 4	Shale, subfirm, gray	61 176
Clay and shale	19 857	Broadway Alluvium:		Shale, blue and gray	46 222
Sand (water)	3 860	Sand, coarse; contains		Shale, sandy, gray	8 230
Clay and shale	15 875	fine gravel	4.5 8.5	Shale, blue	7 237
Sand (water)	83 888	Louviers Alluvium:		Shale, sandy, gray	11 248
Clay and shale	11 971	Clay, brown	5.5 14	Shale, blue and gray	107 355
Sand (water)	11 982	Sand, fine, and silt	2 16	Lime	1 356
Sand, hard	3 985	Gravel, fine to medium,		Sandstone, gray	3 359
Sand (water)	12 997	and coarse sand	7 23	Shale, gray	5 364
Clay and shale	8 1,003	Clay	2 23.2	Sandstone, gray	15 379
Sand (water)	3 1,008	Gravel, fine to medium	16.8 40	Shale, sandy, gray	11 390
Clay and shale	28 1,036	Sand, coarse; contains		Shale, gray	13 403
Sand and shale		fine gravel	20 60	Shale, sandy, gray	21 424
(water)	6 1,042	Clay, brown	.5 60.5	Lime, sandy	1 425
Sand (water)	5 1,047	Gravel, coarse and		Sandstone, brown	6 431
Clay and shale	178 1,225	medium; contains		Shale, gray, and sand-	
Lower conglomerate:		pebbles; thin lens		stone	31 462
Sand, fair (water came		of clay at 64 feet.	3.5 64	Shale, brown and gray	11 473
to surface)	5 1,230	Gravel, medium to fine	10 74	Coal	3 476
Clay and shale	16 1,246	Gravel, fine, and coarse	8.6 82.6	Shale, brown, and coal	
Sand and shale (water		sand		blossom	7 483
started to flow at		Dawson Formation:		Shale, gray	4 487
48 gpm from a depth		Shale, soft, weathered,		Coal	4 491
of 1,246 feet.)	9 1,255	greenish	1 83.6	Shale, gray	23 514
Clay and shale	2 1,257	Shale, blue, hard	1 84.6	Coal	3 517
Sand (water)	8 1,265	C4-67-15bgcb4. Alt. 5,483.1 ft.		Shale,	3 520
Clay, white	5 1,270	Eolian sand:		Shale, sandy, gray	11 531
		Fil.	3 3	Coal blossom	5 536
		Soil.	2 3	Shale, sandy, brown	6 542
		Sand.	14 19	Sandstone, gray	5 547
C4-67-12babb. Alt. 5,510 ft.		Dawson Formation (upper part):		Shale, brown and gray	55 552
Younger loess:		Clay, yellow	9 28	Shale, sandy, gray	19 558
Dawson Formation (upper part):		Sandstone, blue	6 34	Shale, gray	4 625
Clay and shale	120 732	Shale, gray	20 54	Sand	12 637
Sand, fine	12 737	Lime	1 55	Shale, gray and brown	136 773
Sandrock	5 748	Sandstone, gray	7 62	Shale, sandy, gray	7 780
Sand, fine	11 748	Shale, blue and gray	41 103	Shale, gray	24 804
Clay and shale	22 770	Sandstone, gray	11 114	Shale, sandy, gray	26 830
Sand, fine	10 780	Shale, gray	13 127	Shale, gray	104 934
Clay and shale	70 850	Sandstone, gray	8 135	Dawson Formation (lower part):	
Dawson Formation (lower part):		Shale, blue gray and		Middle conglomerate:	
Middle conglomerate:		brown	78 213	Sand, fine and medium	11 945
Sand	12 862	Shale, sandy, gray	12 225	Shale, gray	9 954
Clay and shale	33 895	Shale, gray	7 232	Sand, fine and medium	12 966
Sand, coarse	12 907	Sandstone, gray	6 238	Shale, gray	35 1,001
Clay	8 915	Lime	2 240	Sand, fine	8 1,009
C4-67-14aadb. Alt. 5,507 ft.		Shale, gray and brown	14 254	Shale, gray	60 1,069
Eolian sand:		Coal	2 256	Sand, fine	11 1,080
Sand	14 14	Shale, gray and brown	17 293	Shale, gray	10 1,090
Younger loess:		Coal	2 295	Sand	15 1,105
Clay, sandy, yellow	20 34	Shale, gray and brown	9 304	Shale, gray	11 1,116
Slocum Alluvium:		Shale, sandy, gray	11 315	Sand	9 1,125
Sand	5 39	Shale, blue gray and		Shale, gray	21 1,146
Dawson Formation (upper part):		brown	19 334	Sand	20 1,166
Clay, yellow	5 44	Sandstone, gray	3 337	Shale, gray, and sand	7 1,173
Shale, gray	17 61	Shale, brown	3 340	Sand	18 1,191
Sandstone, gray	4 65	Sandstone, gray	33 373	Shale, gray, and sand	7 1,198
Shale, gray	4 109	Shale, gray and brown	15 388		
Sandstone, gray	15 124	Shale, sandy, gray	14 402		
Shale, gray	216 340	Shale, brown	6 408		
Sandstone, gray	7 347	Sandstone, gray [Upper			
Shale, gray	8 355	conglomerate, 408 to			
Shale, brown	6 361	552 feet.)	10 418		
Shale, gray	27 388				
Shale, brown	4 392				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth				
C4-68-2dbcc. Alt. 5,321.0 ft.									
Eolian sand:									
Sand, loose, brown.	2	2	C4-68-1ccbb. --Continued						
Dawson Formation (upper part):		Sand, medium to very							
Silt, sandy, very cal-		coarse, arkosic,							
careous, grayish-		subangular to angular,							
orange; contains mont-		silty, grayish-orange							
morillonite	12	14	Cobbles						
Shale, silty, very		Dawson Formation (upper part):							
sandy, very calcareous,		Shale, silty, light-olive-							
micaceous	6	20	gray, noncalcareous;						
Shale, silty and sandy,		contains montmoril-							
micaceous, very cal-		lonite.							
careous, moderate-		6.5							
yellowish-brown; con-		67.5							
tains montmorillonite	7.5	27.5	C4-68-1cddb. Alt. 5,238.0 ft.						
C4-68-1abac. Alt. 5,273 ft.		Piney Creek Alluvium:							
Eolian sand and Louviers Alluvium,		Loam, sandy, dark-							
undifferentiated:		brown							
Sand and gravel	98	98	Broadway Alluvium:						
Dawson Formation (upper part):		Gravel, very fine to							
Clay and shale	208	306	medium, angular to						
Sandrock, hard.	2	308	subrounded; contains						
Clay.	20	328	some sand and silt.						
Sandrock.	24	352	Gravel, very fine, sub-						
Clay.	8	360	angular to subrounded,						
Dawson Formation (lower part):		arkosic, and very fine							
Sand (water-bearing)		to very coarse sand							
[Middle conglomerate,		Gravel, very fine to							
360 to 445 feet.]		fine, subangular to							
Clay.	22	382	subrounded, arkosic,						
Clay.	10	392	and very fine to very						
Sandrock.	41	433	coarse sand						
Clay.	4	437	7.5						
Rock (water-bearing)	8	445	13.5						
Sandrock, hard.	37	482	Louviers Alluvium:						
Clay.	50	532	Gravel; contains silt						
Clay and shale	117	649				Gravel, very fine to			
Lower conglomerates:		fine, and very fine							
Sand (water-bearing)		to very coarse sand							
Clay.		Sand, very silty, pale-							
Sand (water-bearing)		yellowish-brown							
Shale		2.5							
Clay.		20							
20		Sand, very fine to							
40		very coarse, angular							
8		to subangular, arkosic,							
42		and about 40 percent							
31		clean very fine to							
12		medium arkosic gravel							
689		6							
697		Dawson Formation (upper part):							
739		Shale, silty, noncal-							
770		careous, light-olive-							
782		gray; contains mont-							
4		morillonite							
54		4							
C4-68-1cdbc. Alt. 5,236 ft.		C4-68-1ddab. Alt. 5,307.0 ft.							
Piney Creek Alluvium:		Eolian sand:							
Fill		Loam, sandy, brown. . . .							
10		2.5							
Broadway Alluvium:		2.5							
Sand and gravel		Slocum Alluvium:							
4		Sand, well-sorted,							
Louviers Alluvium:		medium to coarse,							
Clay, silty		arkosic, subrounded							
6		3.5							
Sand and gravel (water-		Sand, very fine, silty,							
bearing)		noncalcareous, pale-							
31		yellowish-brown							
Dawson Formation:		2							
Shale, brown.		8							
Shale, blue		Sand, very fine to							
2		coarse, silty, sub-							
C4-68-1cgbh. Alt. 5,247.0 ft.		rounded; contains							
Broadway Alluvium:		about 10 percent coarse							
Soil, sandy and clayey,		sand.							
dark-brown.		4.5							
2.5		12.5							
Sand, fine to medium,		Sand, medium to very							
arkosic, slightly		coarse, loose, and							
silty, and about 5		very fine gravel; con-							
percent very fine		tains a thin bed of							
gravel.		clay.							
5.5		9.5							
Gravel, very fine to		12							
fine, subangular,		Sand, very coarse, and							
arkosic, and fine to		very fine arkosic							
very coarse sand.		subrounded to rounded							
3		1							
Gravel, very fine to		23							
medium, arkosic, sub-		Clay, hard.							
angular to subrounded,		3							
and about 20 percent		26							
fine to very coarse		Sand, very fine to							
sand.		coarse, arkosic, sub-							
1.5		rounded to rounded.							
12.5		3							
Louviers Alluvium:		29							
Gravel, very fine to		Dawson Formation (upper part):							
very coarse, poorly		Sandstone, medium- to							
sorted, subangular		very coarse-grained,							
to well-rounded,		arkosic, soft; grains							
arkosic		are subrounded to							
7		rounded							
19.5		3.5							
Silt, very sandy, non-		12.5							
calcareous, clayey,		Sandstone, fine-grained,							
grayish-orange; con-		very soft, arkosic,							
tains montmorillonite		at 12.5 feet							
3		C4-68-4babc. Alt. 5,195 ft.							
Gravel, very fine to		Post-Piney Creek alluvium:							
very coarse, and medium		Fill							
to very coarse sand:		5							
contains beds of tan		Louviers Alluvium:							
sandy clay between		Clay, sandy							
28.0 and 33.0 feet.		11							
10.5		16							
Cobbles		Sand and gravel (water-							
2		bearing)							
35		30							
Gravel, very fine to		46							
fine, and about 50		Dawson Formation (upper and							
percent medium to very		lower parts, undifferentiated):							
coarse sand		Shale, soft, blue; con-							
9		tains some sand							
44		streaks							
Silt, sandy, noncalcareous,		775							
pale-yellowish-orange;		821							
contains very fine		Shale and sand							
sand.		streaks							
3.5		35							
47.5		Laramie Formation:							
Gravel and cobbles.		Shale, soft, blue							
8.5		115							
971		C4-68-4babc. --Continued							
C4-68-4babc. --Continued		Shale, black							
24		995							
Shale, hard, and lime. . . .		110							
1.105		Coal							
17		1.122							
Shale, hard, blue.		113							
1.235		Sand; contains streaks							
of hard blue shale		[B sandstone, 1.235							
to 1.342 feet.]		107							
1.347		Shale, hard, black							
41		1.383							
Shale, blue.		17							
1.420		Limestone, hard.							
45		1.465							
Sandstone (A sandstone,		1.465 to 1.508 feet.)							
43		1.508							
Shale, hard, black		47							
1.555		Fox Hills Sandstone:							
Milliken Sandstone Member:		Sandstone							
13		1.568							
Shale, very hard		127							
1.695		Limestone, hard.							
17		1.712							
Sandstone; contains		streaks of hard shale							
84		1.796							
Limestone, hard.		24							
1.820		C4-68-4ccbb. Alt. 5,199 ft.							
C4-68-4ccbb. Alt. 5,199 ft.		Post-Piney Creek alluvium:							
Post-Piney Creek alluvium:		Topsoil.							
Topsoil.		3							
Louviers Alluvium:		3							
Sand		7							
Sand, clean.		10							
11		21							
Dawson Formation:		Shale at 21 feet							
C4-68-4dcab. Alt. 5,238.0 ft.		C4-68-4dcab. Alt. 5,238.0 ft.							
C4-68-4dcab. Alt. 5,238.0 ft.		Piney Creek Alluvium:							
Piney Creek Alluvium:		Soil and fill.							
Soil and fill.		5							
5		Silt, slightly sandy.							
Silt, slightly sandy.		micaceous, calcareous,							
micaceous, calcareous,		pale-yellowish-brown;							
pale-yellowish-brown;		contains montmoril-							
contains montmoril-		lonite							
lonite		4							
4		9							
Broadway Alluvium:		Broadway Alluvium:							
Gravel, very fine to		Gravel, very fine to							
medium, arkosic, sub-		medium, arkosic, sub-							
rounded to rounded,		rounded to rounded,							
and about 10 percent		and about 10 percent							
poorly sorted sand		poorly sorted sand							
3.5		12.5							
Gravel, medium to coarse,		Gravel, medium to coarse,							
subrounded to well-		subrounded to well-							
rounded, arkosic, and		rounded, arkosic, and							
about 10 percent sand		about 10 percent sand							
2		14.5							
Louviers Alluvium:		Louviers Alluvium:							
Silt, sandy, very cal-		Silt, sandy, very cal-							
careous, olive-gray;		careous, olive-gray;							
contains montmoril-		contains montmoril-							
lonite		lonite							
16.5		31							
Gravel, very fine to		Gravel, very fine to							
medium, subangular,		medium, subangular,							
arkosic, loose		arkosic, loose							
2.5		33.5							
Gravel, subangular to		Gravel, subangular to							
angular, arkosic,		angular, arkosic,							
loose, 40 percent very		loose, 40 percent very							
fine, 20 percent fine,		fine, 20 percent fine,							
and medium to very		and medium to very							
coarse sand.		coarse sand.							
18		51.5							
Dawson Formation (upper part):		Dawson Formation (upper part):							
Shale, silty, noncalcareous,		Shale, silty, noncalcareous,							
pale-olive; contains		pale-olive; contains							
montmorillonite		montmorillonite							
5		57.5							
C4-68-4dccc. Alt. 5,225 ft.		C4-68-4dccc. Alt. 5,225 ft.							
C4-68-4dccc. Alt. 5,225 ft.		Piney Creek Alluvium:							
Piney Creek Alluvium:		Fill							
Fill		4							
4		6							
Loam		2							
Loam and rock		1							
Broadway Alluvium:		Broadway Alluvium:							
Sand and gravel.		Sand and gravel.							
5		12							
Louviers Alluvium:		Louviers Alluvium:							
Gravel and rock.		Gravel and rock.							
2		14							
Dawson Formation (upper part):		Dawson Formation (upper part):							
Sandrock, brown.		Sandrock, brown.							
1		15							
Clay, brown.		Clay, brown.							
1		16							
Sandrock, brown.		Sandrock, brown.							
4		20							
C4-68-5adad. Alt. 5,193.9 ft.		C4-68-5adad. Alt. 5,193.9 ft.							
C4-68-5adad. Alt. 5,193.9 ft.		Post-Piney Creek alluvium:							
Post-Piney Creek alluvium:		Fill							
Fill		3							
3		6							
Sand		3							
Broadway and Louviers Alluvium,		Broadway and Louviers Alluvium,							
undifferentiated:		undifferentiated:							
Gravel, dirty.		Gravel, dirty.							
3		9							
Sand		Sand							
4		13							
Clay, yellow		Clay, yellow							
1		14							
Clay, blue		Clay, blue							
11		25							
Sand		Sand							
1		26							
Clay, yellow		Clay, yellow							
1		27							
Sand and gravel.		Sand and gravel.							
7		34							
Dawson Formation:		Dawson Formation:							
Clay, yellow		Clay, yellow							
1		35							
Shale, blue.		Shale, blue.							
1		36							

Table J.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-68-1adbd. Alt. 5,198 ft.		C4-68-7aac. --Continued		C4-68-11dbba. Alt. 5,279 ft.	
Piney Creek Alluvium:		Sand, firm.	6 414	Piney Creek Alluvium:	
Fill.	6 6	Shale.	14 428	Soil.	1.5 1.5
Broadway Alluvium:		Sand; contains streaks	47 475	Sand, fine, dry.	1.5 6
Gravel.	13 21	of shale.	17 492	Flood clay.	6.5
Louviers Alluvium:				Broadway Alluvium:	
Clay.	3 24			Sand, dry.	1.1 7.6
Gravel.	7 31			Sand, fine (water-	
Gravel and boulders.	6 37			bearing).	1.9 9.5
Dawson Formation:				Flood clay.	5 10
Clay.	1 38	C4-68-9badb. Alt. 5,210 ft.		Sand, fine (water-	
Shale.	2 40	Post-Piney Creek alluvium:		bearing).	2.4 12.4
		Clay, black "doble".	7 7	Flood clay.	6 13
		Broadway and Louviers Alluvium.		Sand, fine (water-	
		undifferentiated:		bearing).	8 21
		Sand and boulders.	18 25	Louviers Alluvium:	
		Dawson Formation:		Sand, coarse (water-	
		Shale, blue.	15 40	bearing).	4 25
				Flood clay.	5 25.5
C4-68-5cdab. Alt. 5,249.0 ft.		C4-68-9bcad. Alt. 5,210 ft.		Sand, coarse (water-	
Piney Creek Alluvium:		Post-Piney Creek alluvium and		bearing).	11 36.5
Silt, sandy, and clayey,		Louviers Alluvium, undifferentiated:		Flood clay.	5 17
very calcareous, pale-		Gravel and boulders.	28 28	Gravel.	4.3 41.3
yellowish-brown; con-		Dawson Formation (upper part):		Dawson Formation:	
tains montmoril-		Shale, clay, and blue		Shale at 41.3 feet	
lonite.	7.5 7.5	sand, in alternate			
Dawson Formation (upper part):		streaks.	72 100		
Silt, very calcareous,		Sandstone, hard.	91 191		
moderate-yellowish-		Clay.	13 204		
brown; contains mont-				C4-68-11dda. Alt. 5,301.6 ft.	
morillonite.	5 12.5	Dawson Formation (lower part):		Piney Creek and Broadway Alluvium.	
Silt, very calcareous,		Middle conglomerate:		undifferentiated:	
pale-yellowish-brown;		Sandstone, soft, and		Sand.	25 25
contains montmoril-		clay.	49 253	Louviers Alluvium:	
lonite.	10 22.5	Sandstone, medium.	42 295	Clay, hard.	2.5 27.5
Shale, very calcareous,		Clay.	10 305	Sand.	2.5 30
dark-yellowish-brown;		Rock, hard.	45 350	Clay.	1 31
contains montmoril-		Clay.	9 359	Sand, coarse.	15.5 46.5
lonite; at 22.5 feet		Sandstone.	49 408	Dawson Formation:	
		Clay.	14 422	Shale.	2.5 49
		Sandstone, hard.	46 468		
C4-68-5cdcb. Alt. 5,289.0 ft.		Clay.	32 500		
Dawson Formation (upper part):		Lower conglomerate:		C4-68-12acbb. Alt. 5,327.9 ft.	
Topsoil, loam, sandy,		Clay and sand (water-		Younger loess:	
dark-brown.	5 .5	bearing).	59 559	Topsoil.	4
Shale, sandy and silty,		Sandstone.	14 573	Broadway Alluvium:	
very calcareous, pale-		Sand (water-bearing).	90 663	Sand, fine, dry.	31 35
yellowish-brown and		Sandstone.	10 673	Louviers Alluvium:	
moderate-yellowish-		Sand (water-bearing).	72 745	Sand, fine, and gravel	
brown; contains mont-		Clay and sandstone.	14 779	(water-bearing).	25 60
morillonite.	12 12.5			Dawson Formation:	
				Clay, blue.	10 70
C4-68-5dbda. Alt. 5,211.0 ft.		C4-68-9dcad. Alt. 5,215.7 ft.			
Piney Creek Alluvium:		Post-Piney Creek alluvium:		C4-68-12ccbba. Alt. 5,301.5 ft.	
Silt, sandy, very cal-		Soil.	2 2	Piney Creek and Broadway Alluvium.	
careous, dark-yellowish-		Broadway and Louviers Alluvium.		undifferentiated:	
brown; contains		undifferentiated:		Clay.	1 1
coal fragments and		Gravel, coarse.	28 30	Sand.	11 12
small fragments of		Dawson Formation:		Louviers Alluvium:	
brick (probably		Shale, blue.	2 32	Clay.	4 16
fill).	13 13			Sand and gravel.	32 48
Louviers Alluvium:				Dawson Formation:	
Gravel, very fine to				Shale.	1 49
coarse, subrounded					
to well-rounded,				C4-68-12cccb. Alt. 5,308.3 ft.	
arkosic, loose.	6 19			Piney Creek Alluvium:	
Clay.	1 20			Clay, sandy.	12 12
Sand, very fine to				Broadway Alluvium:	
coarse, angular to				Sand and gravel.	3 15
well-rounded, and				Louviers Alluvium:	
gravel.	8 28			Clay.	29 44
Gravel, very fine to				Gravel.	6 50
medium, well-sorted,					
arkosic, subangular				C4-68-12ccdb. Alt. 5,308.7 ft.	
to rounded, loose.	9.5 37.5			Piney Creek Alluvium:	
Gravel, very fine to				Fill.	7
fine, well-sorted,				Broadway Alluvium:	
arkosic, subangular				Sand.	3 15
to rounded.	13.5 51			Dawson Formation (upper part):	
Dawson Formation (upper part):				Shale, brown.	10 25
Sandstone, very fine-				Sandstone, hard, blue.	3 28
grained, silty, soft,					
arkosic, noncalcareous,				C4-68-12cddb. Alt. 5,318.6 ft.	
yellowish-gray, and				Piney Creek Alluvium:	
very sandy shale;				No sample.	1 1
contains montmoril-				Clay.	3 4
lonite.	6.5 57.5			Broadway Alluvium:	
				Sand, fine.	2 6
C4-68-7aac. Alt. 5,342 ft.				Louviers Alluvium:	
Slocum Alluvium:				Clay.	3 9
Topsoil.	8 8			Sand, gravel, and rock	30 39
Gravel, coarse.	12 20			Clay.	4 43
Dawson Formation (upper part):				Sand.	2 45
Clay, brown.	40 60			Clay.	2 47
Shale, blue.	6 66			Gravel.	9 56
Clay, sandy, blue.	12 78			Rock, hard.	1 57
Shale, blue.	38 116				
Sandstone, blue.	10 126			C4-68-11agaa. Alt. 5,285.1 ft.	
Shale, blue.	10 136			Piney Creek Alluvium:	
Sand, firm.	5 141			Topsoil.	8 8
Shale, blue.	7 155			Broadway and Louviers Alluvium.	
Sand, firm.	7 155			undifferentiated:	
Shale, blue.	102 237			Gravel, fine.	40 48
Sand, firm.	3 260			Louviers Alluvium:	
Shale, blue.	44 304			Gravel, coarse.	4 52
Rock.	1 305			Dawson Formation:	
Shale, blue.	92 397			Shale at 52 feet	
Coal.	2 399				
Shale, blue.	9 408				
Dawson Formation (lower part):					
Middle conglomerate:					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-68-11acdd. Alt. 5,134.7 ft.					
Post-Piney Creek alluvium and					
Broadway Alluvium, undifferentiated:					
Sand	25	25			
Younger loess:					
Clay	25	50			
Louviere Alluvium:					
Gravel	30	80			
Shale at 80 feet					
C4-68-11acdd. Alt. 5,152.4 ft.					
Younger loess:					
Topsoil	30	30			
Louviere Alluvium:					
Gravel (water-bearing)	3	33			
Dawson Formation:					
Shale at 33 feet					
C4-68-11acdd. Alt. 5,145 ft.					
Piney Creek Alluvium:					
Topsoil	3	3			
Broadway Alluvium:					
Sand	26	29			
Louviere Alluvium:					
Clay	1	30			
Sand (water-bearing)	17	47			
Dawson Formation (upper part):					
Sandstone, blue	21	68			
Shale	2	70			
C4-68-14baba. Alt. 5,105.0 ft.					
Eolian sand:					
Sand, medium, very silty,					
noncalcareous, arkosic,					
subangular, dark-					
yellowish-brown					
2.5	2.5				
Slocum(?) Alluvium:					
Silt, very sandy, non-					
calcareous, dark-					
yellowish-brown					
5	7.5				
Sand, very fine to					
coarse, silty, pale-					
yellowish-brown					
6.5	14				
Dawson Formation (upper part):					
Silt, sandy, very cal-					
careous, pale-yellowish-					
brown; contains mont-					
morillonite					
4	18				
Shale, clay, very cal-					
careous, yellowish-gray;					
contains montmorillo-					
nite					
9.5	27.5				
C4-68-15abda. Alt. 5,260.0 ft.					
Fill					
0.5	0.5				
Silt, slightly sandy,					
calcareous, dark-					
yellowish-brown					
3	3.5				
Broadway and Louviere Alluvium,					
undifferentiated:					
Gravel, very fine to					
medium, arkosic, an-					
gular to well-rounded,					
mostly subrounded,					
and medium to very					
coarse sand; contains					
about 10 percent coarse					
gravel from 7.5 to 10.0					
feet and 15.0 to 17.5					
feet; cobbles 13.5 to					
16.0 feet and 26.0 to					
27.5 feet					
27.5	31				
Sand and fine gravel					
18	49				
Dawson Formation (upper part):					
Sandstone, and pale-					
yellowish-brown silty					
shale; contains					
montmorillonite					
3.5	52.5				
C4-68-15bbcd. Alt. 5,230 ft.					
Piney Creek Alluvium:					
Fill	12	12			
Broadway Alluvium:					
Sand and gravel	13	25			
Dawson Formation (upper part):					
Clay, stiff	2	27			
Clay, brown	1	28			
Shale, blue	12	40			
C4-68-15bdab. Alt. 5,234 ft.					
Broadway Alluvium:					
Clay, brown	4	4			
Gravel	18	22			
Louviere Alluvium:					
Clay	5	27			
Gravel	12	39			
Clay, blue	6	45			
C4-68-15cadd. Alt. 5,250 ft.					
Piney Creek Alluvium:					
Fill	14	14			
Slocum(?) Alluvium:					
Clay and rock; mixed					
16	30				
Dawson Formation (upper part):					
Clay, and blue sand					
50	80				
Shale	3	93			
C4-68-15dcdb. Alt. 5,264 ft.					
Road fill					
4	4				
Broadway Alluvium:					
Sand, fine	8	12			
Sand and gravel	3	15			
Louviere Alluvium:					
Boulders, sand, and					
gravel					
9	24				
Sand, coarse, and					
small boulders					
4	28				
Clay, white					
5	33				
Sand, coarse, and					
small boulders					
5	38				
Sand and gravel					
4	42				
Dawson Formation (upper part):					
Sandrock					
4	46				
Shale, hard, blue					
14	50				
C4-68-15dcdb2. Alt. 5,266 ft.					
Piney Creek Alluvium:					
Topsoil	4	4			
Broadway Alluvium:					
Gravel, dry	20	24			
Gravel, wet	2	26			
Louviere Alluvium:					
Clay	2	28			
Gravel and boulders	7	35			
Clay, blue	3	38			
Gravel and boulders	11	49			
Dawson Formation:					
Shale	1	50			
C4-68-16acdd. Alt. 5,229.0 ft.					
Colluvium:					
Fill	4	4			
Dawson Formation (upper part):					
Silt, sandy, noncalcareous,					
carbonaceous, dark-					
yellowish-brown; rust-					
colored limonite					
streaks and spots, and					
montmorillonite					
9	13				
Shale, silty, noncalcar-					
eous, pale-yellowish-					
brown; contains					
montmorillonite					
2	15				
Sandstone, silty, fine-					
grained, pale-yellow-					
ish brown and moderate-					
reddish-orange; contains					
montmorillonite					
1.5	16.5				
Shale, sandy, very hard,					
platy, brown					
1	17.5				
C4-68-16daba. Alt. 5,227.0 ft.					
Piney Creek Alluvium:					
Loam, sandy, silty,					
noncalcareous, pale-					
yellowish-brown;					
contains very fine					
sand					
4	4				
Louviere Alluvium:					
Gravel, very fine to					
cobbles, subrounded					
to well-rounded,					
arkosic, and about					
20 percent fine to					
coarse sand					
11	15				
Gravel, very fine to					
fine, arkosic, sub-					
rounded to rounded;					
contains scattered					
cobbles					
2.5	17.5				
Gravel, very fine to					
very coarse, arkosic,					
subangular to rounded					
7.5	25				
Gravel, very fine to					
very coarse, arkosic,					
subangular to well-					
rounded, about 40					
percent very coarse,					
and medium to very					
coarse sand					
1.5	26.5				
Clay					
1.5	28				
Gravel, very fine to					
medium; contains					
cobbles and boulders					
at 14.0 feet					
7	35				
Dawson Formation (upper part):					
Sandstone, fine-grained,					
noncalcareous, poorly					
cemented					
3.5	38.5				
Shale, silty, sandy,					
noncalcareous; con-					
tains montmorillonite					
4	42.5				
C4-68-16dadc2. Alt. 5,235 ft.					
Piney Creek Alluvium:					
Topsoil	3	3			
Louviere Alluvium:					
Sand and gravel	22	25			
Clay, brown	4	29			
Sand and gravel	4	33			
Dawson Formation:					
Clay, brown and blue					
2	35				
Shale at 35 feet					
C4-68-20aaba. Alt. 5,145 ft.					
Piney Creek Alluvium:					
Clay, brown	36	36			
Clay, sandy	2	38			
Dawson Formation (upper part):					
Shale, brown					
17	55				
Sandstone (water-bearing) 21					
76					
Shale, blue, at 76 feet					
C4-68-21cddb. Alt. 5,190.5 ft.					
Verdos Alluvium:					
Soil	2	2			
Clay, sandy	12	14			
Gravel	5	19			
Dawson Formation (upper part):					
Clay, yellow					
29	48				
Sandstone, sandy, blue					
9	57				
Shale, blue					
13	70				
Sandstone, blue					
11	81				
Shale, gray, and sand-					
stone					
72	153				
Shale, brown					
5	158				
Shale, gray					
93	251				
Sand					
3	254				
Lime					
2	256				
Shale, gray					
23	279				
Shale, blue					
28	307				
Shale, sandy, gray					
1	310				
Shale, gray					
31	341				
Shale, brown					
7	348				
Shale, gray					
79	427				
Sandstone, white					
8	435				
Shale, blue					
6	441				
Shale, gray					
15	456				
Dawson Formation (lower part):					
Sand (Middle conglomerate,					
456 to 634 feet)					
90	459				
Shale, gray					
3	549				
Lime					
1	550				
Shale, sandy, gray					
20	570				
Shale, gray					
22	592				
Sandstone, white					
2	594				
Sand					
3	597				
Shale, gray					
5	602				
Sand, white					
3	605				
Shale, brown					
5	610				
Lime					
9	619				
Shale, gray, and lime					
12	631				
Sand, white					
3	634				
Shale, gray					
31	665				
Shale, sandy, gray					
30	695				
Shale, gray					
53	748				
Lower conglomerate:					
Sand, white					
3	751				
Shale, gray					
37	788				
Lime					
1	789				
Shale, gray					
16	825				
Sand					
2	827				
Shale, gray					
50	877				
Sand					
3	880				
Lime					
6	886				
Shale, gray					
4	890				
C4-68-22bbac. Alt. 5,232 ft.					
Pre-Piney Creek alluvium:					
Soil, sandy, black	6	6			
Boulder gravel	6	12			
Broadway and Louviere Alluvium,					
undifferentiated:					
Sand, coarse, and gravel 32					
44					
Dawson Formation:					
Shale					
6	50				
C4-68-22bdbc. Alt. 5,258 ft.					
Broadway Alluvium:					
Sand and gravel	10	10			
Dawson Formation (upper part):					
Clay, brown					
7	17				
Sandrock and clay					
16	33				
Shale, blue					
297	330				
Dawson Formation (lower part):					
Middle conglomerate:					
Sand					
10	340				
Shale, blue					
10	350				
Shale					
15	365				
Shale, blue					
28	393				
Sand					
2	395				
Shale, blue					
30	425				
Sand					
10	455				
Shale and sand					
11	466				
C4-68-24adac. Alt. 5,435 ft.					
No sample					
18	18				
Dawson Formation (upper part):					
Clay and shale					
56	74				
Sandstone					
2	76				
Shale					
148	224				
Clay					
2	226				
Clay, blue					
42	268				
Clay and shale					
52	320				
Sand, hard					
2	322				
Shale					
15	337				
Clay, blue					
33	370				
Sandstone					
3	373				
Shale					
3	376				
Sand					
3	379				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-68-24dag. --Continued		C4-68-26ccca. --Continued		C4-68-28dcd. --Continued	
Clay.	11	410	Sand, fine, white.	7	1,118
Sand, blue.	2	412	Shale, gray.	21	1,139
Shale.	7	419	Shale, gray, and fine	8	1,147
Sandstone.	2	421	sand.	3	1,150
Shale.	9	430	Sand, fine.	8	1,158
Sandstone.	2	432	Sand, fine, and gray	5	1,163
Clay.	63	495	shale.	3	1,166
Shale.	14	509	Shale, gray.	130	1,296
Sandstone [Upper conglomer-			Sand, fine, and gray	2	1,298
ate, 509 to 528 feet.]	3	512	shale.	8	1,306
Sand (water-bearing).	4	516	Shale, gray.	3	1,309
Sandstone.	3	519	Coal.	3	1,312
Clay.	2	521	Shale, gray.	2	1,314
Sand (water-bearing).	7	528	Shale, gray.	27	1,341
Clay.	42	570	Coal and gray shale.	19	1,360
Sand (water-bearing).	4	574	Sand, fine.	3	1,363
Clay and shale.	9	583	Shale, sandy, gray.	13	1,376
Sandstone.	3	586	Sand.	3	1,379
Clay and shale.	32	618	Coal and gray shale.	14	1,393
Sand (water-bearing).	10	628	Sand and gray shale.	11	1,404
Sandstone.	4	632	Shale, gray.	21	1,425
Shale, clay.	97	729	Coal.	4	1,429
Sandstone.	6	735	B sandstone:		
Clay and shale.	21	756	Sand.	91	1,520
Dawson Formation (lower part):			Shale, gray, and sand		
Middle conglomerate:			[A sandstone, 1,520 to		
Sand (water-bearing).	7	763	1,620 feet.]	47	1,567
Clay and shale.	6	769	Sand.	53	1,620
Sand (water-bearing).	4	773	Shale.	3	1,623
Clay and shale.	19	792	Fox Hills Sandstone:		
Sandstone.	8	800	Milliken Sandstone Member:		
Sand (water-bearing).	12	812	Sand.	47	1,670
Clay.	4	816	Sand and gray shale.	26	1,696
Sandstone.	17	833	Shale, gray.	51	1,747
Sand (water-bearing).	3	836	C4-68-27cbcc. Alt. 5,270 ft.		
Clay.	25	861	Dawson Formation (upper part):		
Sand (water-bearing).	9	870	Clay, yellow.	13	13
Clay.	3	873	Shale, blue.	10	23
Sand (water-bearing).	4	877	C4-68-27dccb. Alt. 5,305 ft.		
Clay.	2	879	Broadway Alluvium:		
C4-68-26ccca. Alt. 5,329 ft.			Soil.	2	2
Eolian sand:			Sand.	19	21
Topsoil.	3	3	Louviers Alluvium:		
Younger loess:			Sand and boulders.	4	25
Clay, brown.	9	12	Gravel and clay streaks.	9	34
Slocum Alluvium:			Dawson Formation (upper part):		
Sand.	16	28	Clay, blue.	29	63
Dawson Formation (upper part):			Clay, brown, and shale.	10	73
Clay, sandy, brown.	4	32	Clay, blue, and gravel.	7	80
Sandstone, brown.	4	36	Sand and clay streaks.	18	98
Sandstone, gray.	3	39	C4-68-28sadd. Alt. 5,248.9 ft.		
Shale, gray.	30	69	Topsoil and fill.		
Sandstone, gray.	5	74	Louviers Alluvium:		
Shale, gray.	17	91	Sand.	16	30
Shale, brown.	2	93	Gravel.	2	32
Sandstone, gray.	2	95	Dawson Formation:		
Shale, brown.	18	113	Shale, blue.	1	33
Sandstone, gray.	16	129	C4-68-28dcd. Alt. 5,258.2 ft.		
Shale, brown.	7	136	Broadway Alluvium:		
Shale, gray.	6	142	Gravel, very fine.	7	7
Sandstone, gray.	53	195	Gravel, fine.	3	10
Shale, gray.	4	199	Gravel, very fine.	10	20
Shale, brown.	5	204	Louviers Alluvium:		
Shale, gray.	58	262	Gravel, coarse.	10	30
Shale, sandy, gray.	3	265	Gravel, very fine.	17	47
Sandstone, gray.	6	271	Dawson Formation (upper part):		
Sand.	21	292	Clay, tan and gray, and		
Shale, gray.	35	327	fine sand.	38	85
Sandstone, gray.	11	338	Sand, very fine; contains		
Shale, gray.	40	378	tan and green clay.	5	90
Shale, sandy, gray.	7	385	Clay, gray and green.	11	101
Sand, fine, white.	6	391	Sand, very fine.	4	105
Shale, gray.	69	460	Clay, light-gray.	21	126
Sand, fine, white.	13	473	Clay, gravelly, light-		
Shale, sandy, gray.	6	479	gray.	15	141
Shale, gray.	18	497	Gravel and gray clay.	20	161
Shale, sandy, gray.	25	522	Clay, gray.	34	195
Shale, gray.	40	562	Gravel.	6	201
Dawson Formation (lower part):			Clay, gray.	9	210
Sand [Middle conglomerate,			Sand, fine, white.	5	215
562 to 746 feet.]			Shale, gray, in part		
Shale, gray.	23	593	sandy.	21	236
Sand.	5	598	Dawson Formation (lower part):		
Shale, gray.	8	606	Sand, medium to coarse.		
Sand and gray shale,			white [Middle conglom-		
in layers.	15	621	erate, 236 to 365		
Shale, sandy, gray.	10	631	feet.]	30	266
Shale, gray.	90	721	Clay, gray.	11	277
Sand, fine, gray, and			Gravel.	4	281
shale, in layers.	7	728	Clay, gray.	29	310
Shale, gray.	9	737	Sand and white coarse		
Sand.	2	739	sand.	15	345
Shale, blue.	7	746	Gravel and gray clay.	20	365
Shale, gray.	53	799	Clay, gray.	10	395
Lower conglomerate:			Clay, gray, and gravel.	15	410
Sand and gray shale, in			Clay, gray.	15	425
layers.	155	954	C4-68-28dcd. Alt. 5,256.9 ft.		
Laramie Formation:			Broadway Alluvium:		
Shale, gray.	32	986	Topsoil.	4.4	4.4
Coal.	4	990	Sand and gravel.	5	9.4
Sand.	6	996	Broadway and Louviers Alluvium.		
Shale, gray.	115	1,111	undifferentiated:		
			Sand, coarse, and gravel.	27.4	36.8
			Dawson Formation:		
			Clay.	8.2	45
			C4-68-29dcb. Alt. 5,422 ft.		
			Younger loess:		
			Topsoil.	2	2
			Clay, silty, calcareous.	6	8
			Dawson Formation (upper part):		
			Clay, damp.	4	12
			Clay, soft, and shale.	8	20
			Clay, hard, and shale.	12	32

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-68-29daga. Alt. 5.400 ft.		C4-68-10cdda. --Continued		C4-68-11adda. Alt. 5.286.2 ft.	
Piney Creek Alluvium:		Dawson Formation (lower part):		Post-Piney Creek alluvium:	
Topsoil		Sand, fine [Middle con-		Fill	
Clay		glomerate, 476 to 626		Louviers Alluvium:	
Dawson Formation (upper part):		feet.]		Sand, fine to medium,	
Shale, brown		Shale, gray		loose, subangular to	
Sand and shale		Sand, fine		subrounded, micaceous,	
Shale, sandy, blue and		Shale, blue		grayish-orange	
brown, and, fine sand-		Shale, gray		Silt, sandy, noncal-	
stone		Shale, brown		careous, micaceous,	
Sand, fine to medium		Sand, fine		grayish-orange	
Shale, blue		Shale, gray		Silt, sandy, very	
Sandstone, fine to		Sand, fine, and gray		calcareous, moderate-	
medium, very micaceous,		shale		yellowish-brown:	
moderately consolidated;		Shale, gray		contains montmoril-	
grains are subangular		Sand		lonite	
to subrounded		Shale, gray		Sand and very fine to	
Shale, blue		Lime		fine gravel: arkosic,	
Sandstone, fine to		Shale, gray		silty	
medium, arkosic, and		Shale, sandy, gray		Dawson Formation (upper part):	
fine sand		Lower conglomerate:		Shale, silty, noncal-	
Shale, silty and slightly		Sand		careous, limonite,	
sandy, gray		Shale, sandy, gray		light-olive-gray:	
Shale, and very fine		Sand		contains montmoril-	
sandstone		Sand, and gray shale		lonite	
Shale, silty, sandy, gray		Shale, gray			
Shale, silty, sandy, gray,		Sand, fine			
and some light colored		Laramie Formation:			
clay		Shale, gray, and mud-			
Shale, silty, sandy, gray:		stone			
contains some very fine		Shale, gray			
sandstone		Shale, sandy, gray			
Dawson Formation (lower part):		Shale, gray			
Middle conglomerate:		Limestone			
Sandstone, very micaceous,		Shale, gray			
gray, thin limestone					
beds, and gray shale					
Shale, silty and sandy,					
light-gray to pink					
Sand, coarse, subangular,					
very micaceous; contains					
much biotite and gray					
clay and shale					
Sand, fine to medium					
Shale, gray, and thin					
arkosic sandstone beds					
Shale, gray					
Shale, gray, and sand					
Shale, gray					
Sand, fine, subangular					
to subrounded, slightly					
indurated sandstone, and					
gray shale					
Shale, blue, hard					
C4-68-10cdda. Alt. 5.515 ft.		C4-68-11cddb. Alt. 5.335.6 ft.		C4-68-11bddd. Alt. 5.268.2 ft.	
Younger loess:		Post-Piney Creek Alluvium:		Piney Creek Alluvium:	
Soil		Sand and clay		Silt, slightly sandy,	
Clay, sandy, brown		Broadway Alluvium:		calcareous, dusky-	
Dawson Formation (upper part):		Sand, coarse		yellow: contains	
Clay, yellow		Louviers Alluvium:		montmorillonite be-	
Shale, brown		Clay, blue		tween 7.5 and 10 feet 14	
Sandstone, brown, and		Sand, coarse, and gravel		Louviers Alluvium:	
brown shale		Dawson Formation:		Gravel, very fine to fine,	
Sandstone, blue		Shale, blue		arkosic, subrounded	
Shale, brown				to well-rounded, and	
Shale, gray				coarse to very coarse	
Shale, brown				sand	
Sandstone, gray				Sand, medium to very	
Sandstone, blue				coarse, arkosic, sub-	
Shale, gray				angular to subrounded,	
Shale, blue				and about 10 percent	
Shale, gray				very fine to fine	
Sandstone, gray				gravel	
Shale, brown				Dawson Formation (upper part):	
Shale, blue				Shale, silty, noncal-	
Shale, gray				careous, pale-olive;	
Sandstone, blue				contains montmoril-	
Shale, gray				lonite	
Sand, fine, subangular					
to subrounded, slightly					
indurated sandstone, and					
gray shale					
Shale, blue, hard					
C4-68-10cdda. Alt. 5.515 ft.		C4-68-11bddd. Alt. 5.470 ft.		C4-68-11cddc. Alt. 5.264.8 ft.	
Younger loess:		Younger loess and Verdos		Piney Creek Alluvium:	
Soil		Alluvium, undifferentiated:		Loam, silty, brown	
Clay, sandy, brown		Surface, sand, and		Sand, very fine, silty,	
Dawson Formation (upper part):		gravel		noncalcareous, moderate-	
Clay, yellow		Dawson Formation (upper part):		yellowish-brown and	
Shale, brown		Clay and shale		dark-yellowish-brown	
Sandstone, brown, and		Sandrock, hard		Dawson Formation (upper part):	
brown shale		Clay and shale		Shale, silty, noncal-	
Sandstone, blue		Sand and rock		careous, dark-yellowish-	
Shale, brown		Sandrock, hard		brown and light-olive-	
Shale, gray		Clay and shale		brown; contains mont-	
Shale, brown		Sandrock, hard		morillonite	
Sandstone, gray		Shale			
Sandstone, blue		Clay, tough			
Shale, gray		Shale			
Shale, blue		Clay and shale			
Shale, gray		Sandrock, hard			
Sandstone, gray		Clay and shale			
Shale, brown		Shale and rock			
Shale, blue		Shale			
Shale, gray		Shale and rock			
Sandstone, blue		Shale			
Shale, gray		Clay and shale			
Sandstone, gray		Dawson Formation (lower part):			
Shale, brown		Sandrock [Middle conglom-			
Shale, blue		erate, 469 to 512			
Shale, gray		feet.]			
Sandstone, blue		Shale			
Shale, gray		Sandrock			
Sandstone, gray		Shale			
Shale, brown		Sand (water-bearing)			
Shale, blue		Shale			
Shale, gray		Clay and shale			
Sandstone, blue		Sandrock			
Shale, gray		Clay			
Sandstone, gray		Shale			
Shale, brown		Lower conglomerate:			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray		Sand (water-bearing)			
Shale, brown		Shale			
Shale, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, blue		Sand (water-bearing)			
Shale, gray		Shale			
Sandstone, gray					

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-68-13dbba. Alt. 5,269.2 ft.					
Fill	8				
Broadway and Louviers Alluvium, undifferentiated:					
Gravel, very fine to medium, arkosic, sub-rounded to rounded, and medium to very coarse sand; contains cobbles	17				
Gravel, very fine to coarse, subangular to well-rounded, arkosic, loose, clean, and about 30 percent fine to very coarse sand; contains cobbles	7.5				
Gravel, very fine to fine, well-sorted, arkosic, subangular to subrounded	6				
Cobbles	1				
Dawson Formation (upper part):					
Shale, very silty and sandy, noncalcareous, pale-yellowish-brown; contains montmorillonite	3				
C4-68-14acqd. Alt. 5,306.4 ft.					
Eolian sand:					
Soil and fill	1				
Broadway Alluvium:					
Sand and gravel	2				
Broadway and Louviers Alluvium, undifferentiated:					
Gravel, fine, sand, and cobbles	13				
Louviers Alluvium:					
Gravel, very fine to medium, arkosic, sub-rounded to rounded	5				
Cobbles	5				
Dawson Formation (upper part):					
Shale, yellowish-green	1.5				
C4-68-14cbag. Alt. 5,302.8 ft.					
Piney Creek Alluvium:					
Silt, dark-yellowish-brown; contains montmorillonite	7				
Broadway Alluvium:					
Gravel, very fine to medium, silty, arkosic, subangular to rounded	10				
Louviers Alluvium:					
Sand, medium to very coarse, subangular to rounded, arkosic, cobbles, boulders, and clay	9				
Dawson Formation (upper part):					
Sand, poorly sorted, and grayish-orange non-calcareous silt	6.5				
Silt, slightly sandy, calcareous, dusky-yellow	23.5				
Shale, silty and sandy, hard calcareous, light-olive; contains montmorillonite, at 56 feet.					
C4-68-14daab. Alt. 5,371.3 ft.					
Eolian sand:					
Soil and fill	2				
Sand, clayey	5.5				
Slocum Alluvium:					
Clay, sandy, compact	4.5				
Gravel, fine, arkosic, subangular to sub-rounded, and coarse sand; decrease in sand 17.5 to 22.5 feet; very clean fine gravel 22.5 to 27.5 feet	15.5				
Dawson Formation:					
Sandstone, very silty, arkosic, pale-yellowish-brown	5.5				
C4-68-16dddb. Alt. 5,480 ft.					
Younger loess:					
Soil	1				
Clay, sandy, yellow	13				
Clay, sandy, gray	5				
Dawson Formation (upper part):					
Clay, yellow	22				
Sandstone, gray	34				
Shale, brown	6				
Shale, gray	14				
Shale, blue	4				
Shale, gray	5				
Shale, blue	2				
C4-68-16dddb.--Continued					
Shale, brown	3	109			
Sandstone, gray	5	114			
Sandstone, blue	6	120			
Shale, brown	7	127			
Sandstone, gray	19	146			
Sandstone, brown	3	149			
Shale, blue	1	152			
Shale, gray	4	156			
Shale, brown	8	164			
Shale, gray	4	168			
Sandstone, brown, and shale	14	182			
Sandstone, blue	4	186			
Sandstone, gray	9	195			
Sandstone, brown	1	198			
Sandstone, blue	7	205			
Shale, brown	6	211			
Shale, gray and brown	63	274			
Shale, sandy, gray	4	278			
Shale, blue and brown, and sandstone	57	335			
Shale, gray	35	370			
Sandstone, gray	11	381			
Shale, gray	22	403			
Shale, brown	4	407			
Shale, gray	41	448			
Shale, sandy, gray	4	452			
Shale, brown	8	460			
Shale, gray	8	468			
Sandstone, gray	14	482			
Shale, brown	3	485			
Sandstone, gray	14	499			
Shale, gray	76	575			
Sand	6	581			
Shale, gray	94	675			
Sand	10	685			
Lime	1	686			
Shale, gray	133	819			
Shale, gray, and fine sand, in layers	8	827			
Shale, gray	9	836			
Sand, fine and gray	7	843			
Shale	19	862			
Dawson Formation (lower part):					
Sand, coarse [Middle conglomerate, 860 to 960 feet]	6	868			
Shale, gray	24	892			
Sand, fine to medium	35	927			
Shale, gray	23	950			
Sand, fine	10	960			
Shale, gray	16	996			
Shale, gray, and fine sand, in layers	42	1,038			
Shale, gray	74	1,112			
Lower conglomerate:					
Sand, silty	6	1,118			
Shale	58	1,176			
Shale, sandy, gray	52	1,228			
Sand, fine, and sandstone	42	1,270			
Shale, gray, and silty sandstone	39	1,309			
Sand, fine, and gray shale	18	1,327			
Shale, gray	38	1,365			
Sand, fine, silty, and gray shale, interbedded	31	1,396			
Laramie Formation:					
Shale, gray	162	1,558			
Coal blossom	4	1,562			
Shale, gray	36	1,598			
Coal	9	1,607			
Shale, gray and brown	49	1,656			
Shale, gray	22	1,678			
Shale, gray, and coal	20	1,698			
Sand, fine, and gray shale [8 sandstone, 1,698 to 1,756 feet]	58	1,756			
Shale, gray, and coal	23	1,779			
Shale, gray	34	1,813			
A sandstone:					
Sand, fine, and gray shale	58	1,871			
Shale, gray	4	1,875			
Shale, gray, and fine sand	21	1,896			
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Sand, fine, and gray shale	46	1,942			
Shale, gray	46	1,988			
Transition zone:					
Sand, fine	16	2,004			
Shale, gray	8	2,012			
Sand, fine	2	2,014			
Shale, gray	13	2,027			
C4-69-1bda. Alt. 5,360 ft.					
Piney Creek Alluvium:					
Topsoil	10	10			
C4-69-1bda.--Continued					
Slocum Alluvium:					
Surface soil	4	4			
Sand, medium to coarse (water-bearing)	19	23			
Dawson Formation (upper part):					
Shale, hard, gray	12	15			
Sand, medium (water-bearing)	8	43			
Shale, hard, blue	22	65			
Shale, gray	25	90			
Shale, hard, gray	55	145			
Shale, brown	8	153			
Sand, hard	2	155			
Shale, sandy, light-gray	10	165			
Shale, hard, blue	45	210			
Sand, fine, hard	5	215			
Shale, hard, blue	15	230			
Shale, sandy, blue	25	255			
Shale, blue	60	315			
Dawson Formation (lower part):					
Shale; contains streaks of sand [Middle conglomerate, 315 to 401 feet]	10	325			
Shale, hard, blue	30	355			
Sand, coarse, vari-colored (water-bearing)	10	365			
Shale, blue	5	370			
Sand, fine (water-bearing)	15	385			
Shale, sandy, hard	8	393			
Sand, medium, shaly, very hard	14	407			
Shale, hard, blue	48	455			
Shale, sandy, gray; contains thin streaks of sand	90	545			
Shale, hard, blue	10	555			
Lower conglomerate:					
Sand, fine to medium (water-bearing)	15	590			
Shale, blue	7	597			
Sand, fine to medium; contains streaks of shale	46	643			
Shale, hard, blue	42	685			
C4-69-1dbcc. Alt. 5,470 ft.					
Piney Creek Alluvium:					
Fill	1	1			
Soil	2	3			
Younger loess:					
Clay, yellow	11	14			
Slocum Alluvium:					
Gravel and sand	5	19			
Dawson Formation (upper part):					
Clay, yellow	17	36			
Shale, gray	14	50			
Shale, blue	4	54			
Shale, gray	98	152			
Sandstone, gray	15	167			
Shale, gray	2	169			
Sandstone, gray	18	187			
Shale, gray	9	196			
Sandstone, gray	4	200			
Shale, gray	12	212			
Shale, blue	5	217			
Shale, gray	14	231			
Sandstone, gray	9	240			
Shale, gray	30	270			
Dawson Formation (lower part):					
Shale, gray, and sandstone [Middle conglomerate, 270 to 392 feet]	65	335			
Sand, fine, and gray shale	11	346			
Sand, and gray shale	46	392			
Limestone, gray, and shale	132	524			
Lime, sandy	1	525			
Lower conglomerates:					
Sand, fine to medium	40	565			
Shale, gray	38	603			
Sand, fine to medium	17	640			
Shale, gray	10	650			
C4-69-1bcbh. Alt. 5,600 ft.					
Slocum Alluvium:					
Clay	18	18			
Dawson Formation (upper part):					
Shale, sandy, hard	18	36			
Shale	20	56			
Shale, sandy	28	84			
Shale	16	100			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-69-9acab. Alt. 5,595 ft.					
Slocum Alluvium:					
Topsoil, silty.	11	11			
Dawson Formation (upper part):					
Shale, sandy, weathered	13	24			
Shale, moderately hard,					
very micaceous; con-					
tains thin layers of					
dirty sandstone	12	36			
Shale, hard, brown					
and buff; contains					
a few thin sandstone					
layers.	24	60			
Sandstone, very fine,					
dirty; contains some					
shale (water-bearing)	16	76			
Shale, slightly sandy,					
gray, brown, and					
buff.	16	92			
C4-69-10dca2. Alt. 5,532 ft.					
Slocum Alluvium:					
Soil.	2	2			
Clay, sandy, yellow	9	11			
Dawson Formation (upper part):					
Sandstone, brown.	11	22			
Shale, sandy, brown	10	12			
Shale, brown.	7	39			
Shale, gray.	8	47			
Sandstone, gray.	43	90			
Shale, gray.	14	104			
Shale, blue.	4	108			
Shale, gray.	28	136			
Shale, brown.	3	139			
Sandstone, gray.	18	157			
Shale, gray, and sand-					
stone.	14	171			
Sandstone, gray.	27	198			
Shale, gray.	22	220			
Sandstone, gray.	7	227			
Shale, gray.	63	290			
Sandstone, gray.	20	310			
Shale, gray.	11	321			
Sandstone, gray, and					
shale.	36	357			
Shale, gray.	8	365			
Dawson Formation (lower part):					
Sand (Middle conglomerate,					
290 to 496 feet.)	11	376			
Shale, gray.	9	385			
Sand, and gray shale	16	401			
Shale, gray.	33	434			
Sand.	29	463			
Shale, gray.	5	468			
Sand.	7	475			
Shale, gray.	9	484			
Sand, and gray shale	12	496			
Lime.	2	498			
Shale, gray.	72	570			
Lower conglomerate:					
Sand.	11	581			
Lime, sandy.	5	586			
Shale, sandy, gray.	47	633			
Lime.	1	634			
Sand.	16	650			
Laramie Formation:					
Shale, gray.	53	703			
Shale, gray, and					
mudstone.	32	735			
Shale, gray, mudstone					
and coal blossom.	7	742			
Shale, gray, and mud-					
stone.	40	782			
Shale, brown.	8	790			
Shale, gray.	122	912			
Shale, brown.	4	916			
Shale, gray.	31	947			
Lime.	1	948			
Shale, gray.	18	966			
Sand.	12	978			
Lime, sandy.	4	982			
Shale, gray.	208	1,190			
Shale, sandy, gray					
and brown.	110	1,300			
Shale, gray.	31	1,331			
Lime.	1	1,332			
Coal, and gray shale	33	1,365			
Lime.	3	1,368			
Shale, gray, and mud-					
stone.	28	1,396			
Sand, fine (B sandstone,					
1,396 to 1,471 feet.)	75	1,471			
Coal, gray shale, and					
mudstone.	41	1,512			
A sandstone:					
Shale, sandy, gray.	46	1,558			
Pox Hills Sandstone:					
Sand, shaly (Milliken					
sandstone Member,					
1,558 to 1,620					
feet.)	62	1,620			
Shale, gray, and					
sand.	40	1,660			
C4-69-10ddcd. Alt. 5,538 ft.					
Slocum Alluvium:					
Topsoil, gumbo, and	12	12			
clay.					
Dawson Formation (upper part):					
Clay.	12	24			
Shale, brown.	11	35			
Shale, blue.	5	40			
Coal, and shale.	5	45			
Shale, blue; contains					
streaks of sandstone					
(Water in sandstone					
insufficient for					
drilling.)	29	74			
Shale, blue.	11	85			
Shale, black and blue;					
contains sandstone					
streaks.	48	133			
Upper conglomerate:					
Sand, coarse (water-					
bearing).	18	151			
Shale, black, very					
hard.	17	168			
C4-69-12ddca2. Alt. 5,416 ft.					
Slocum Alluvium:					
Clay.	4	4			
Clay and alkali.	3	7			
Loam and fine sand.	6	13			
Gravel, coarse, heavy	4	17			
C4-69-14dcbb2. Alt. 5,473 ft.					
Colluvium and Dawson Formation,					
undifferentiated:					
Shale, hard.	40	40			
Dawson Formation (upper part):					
Sand, fine to coarse,					
gravelly, and shale					
(Upper conglomerate,					
40 to 130 feet.)	30	70			
Shale and sand.	45	115			
Sandstone, fine to					
medium, white.	5	120			
Sand, coarse, gravelly	10	130			
Shale, sandy.	50	180			
Sand and thin shale					
beds.	60	240			
Shale, gray, coarse					
sand, and traces of					
coal.	10	250			
Shale.	16	266			
Dawson Formation (lower part):					
Sandstone, sand, and					
shale (Middle conglom-					
erate, 260 to 550					
feet.)	78	338			
Sand, medium to coarse	4	342			
Shale.	23	365			
Sand, fine to medium	5	370			
Sandstone; contains					
shale streaks.	70	440			
Sand, coarse, and small					
gravel.	75	515			
Shale, sandy.	25	540			
Sand, coarse, and					
gravel.	10	550			
Shale, sandy.	70	620			
Lower conglomerate:					
Sand, coarse, and gravel	20	640			
Shale, sandy.	32	712			
Sand, fine, shaly.	16	748			
Laramie Formation:					
Shale, gray.	142	890			
Clay, brown.	10	900			
Shale, gray; contains					
streaks of dirty					
sand, sandstone,					
and coal.	348	1,248			
Sandstone, fine.	4	1,252			
Coal and sandstone.	8	1,260			
Shale, gray; contains					
streaks of coal.	30	1,290			
Sandstone, hard, white;					
contains streaks of					
coal.	86	1,376			
Sandstone, fine (B					
sandstone, 1,376 to					
1,452 feet.)	76	1,452			
Shale.	4	1,456			
Coal.	2	1,458			
A sandstone:					
Shale and silty sand-					
stone.	22	1,480			
Sandstone, fine;					
contains streaks of					
coal.	104	1,584			
Shale, gray; contains					
streaks of sand.	12	1,596			
Pox Hills Sandstone:					
Milliken Sandstone Member:					
Sandstone, fine, soft;					
contains streaks of					
gray shale and a thin					
hard limestone layer	104	1,700			
C4-69-14dcbb2.--Continued					
Transition zone:					
Shale, silty.	36	1,786			
Sand, silty; contains					
a thin, hard lime-					
stone layer.	15	1,801			
C4-69-15dddb2. Alt. 5,555 ft.					
Colluvium:					
Topsoil.	4	4			
Dawson Formation (upper part):					
Shale, brown.	9	13			
Sandstone, brown.	8	21			
Shale, gray, hard.	3	24			
Shale, blue.	28	52			
Sandstone, gray, hard	28	80			
Shale, gray.	56	136			
Shale, blue.	43	179			
Sandstone, very hard,					
conglomeratic; contains					
basalt fragments coated					
with purplish black					
manganese oxide (Upper					
conglomerate, 179 to					
183 feet.)	4	183			
Shale, blue.	14	217			
Shale, gray.	55	272			
Sandstone.	4	276			
Shale, sandy, gray.	9	285			
Sandstone, hard.	4	289			
Dawson Formation (lower part):					
Middle conglomerate:					
Sand.	8	297			
Shale, blue.	9	306			
Sandstone.	24	330			
Shale.	15	345			
Sandstone.	15	360			
Shale.	24	384			
C4-69-17dadd. Alt. 5,5785 ft.					
Dawson Formation (upper part):					
Soil.	2	2			
Clay, sandy, brown.	3	5			
Clay, brown.	14	19			
Clay, gray.	2	21			
Clay, yellow.	11	32			
Shale, gray, and sand-					
stone.	4	36			
Sandstone, gray.	11	47			
Shale, blue.	3	50			
Shale, sandy, gray.	4	54			
Sandstone, gray.	15	69			
Shale, gray.	9	78			
Sandstone, gray.	8	86			
Shale, gray.	5	91			
Shale, brown.	3	94			
Shale, blue.	4	98			
Shale, gray.	6	104			
Shale, brown.	4	108			
Shale, blue.	4	112			
Shale, brown.	3	115			
Sandstone.	9	124			
Shale, brown.	3	127			
Sandstone, gray.	6	133			
Shale, gray.	5	138			
Shale, brown.	3	141			
Sandstone, gray.	13	154			
Shale, blue.	2	156			
Sandstone, blue.	13	169			
Sandstone, gray.	15	184			
Shale, gray.	3	187			
Shale, brown.	4	191			
Shale, gray.	14	205			
Sandstone, gray.	3	208			
Shale, gray.	16	224			
Sandstone, blue.	15	239			
Sandstone, gray.	11	250			
Shale, brown.	6	256			
Shale, gray.	52	308			
Shale, gray, and sand-					
stone.	27	335			
Shale, gray.	21	356			
Shale, blue.	7	363			
Shale, gray.	8	371			
Sandstone, gray.	6	377			

Table 1.--Logs of wells and test holes--Continued

Thickness	Depth	Thickness	Depth	Thickness	Depth
C4-69-17dadd. ---Continued		C4-69-24dadd. ---Continued		C4-69-25dadd. ---Continued	
Shale, sandy, gray	668	Sand (water-bearing)	805	Lower conglomerate:	
and sandstone.	27	Laramie Formation:		Sand.	18 408
Shale, gray.	15 683	Lime, shell.	10 815	Clay.	18 446
Lime, sandy.	1 684	Shale, gray.	280 1,095	Sand.	26 472
Sand, fine, and gray		Coal.	1 1,096	Clay.	14 486
shale.	14 698	Shale, brown.	49 1,145	Sand.	20 506
Sand and gray shale.	25 723	Shale, gray.	55 1,200		
Sandstone, gray, and		Shale, brown.	102 1,302		
shale.	113 836	Lime, shell.	5 1,307		
Shale, blue.	6 842	Shale, gray.	38 1,345		
Shale, gray.	20 862	Shale, brown.	15 1,360		
Shale, brown.	11 873	Sand [B sandstone,			
Lime.	1 874	1,360 to 1,473			
Lower conglomerate:		feet.] (water rose			
Sand, fine, and gray		to within 200 feet			
shale.	21 995	of surface).	113 1,473		
Shale, gray.	41 936	Sand [A sandstone,	137 1,610		
Lime.	1 937	1,610 to 1,685			
Shale, gray.	41 978	feet.] (water-			
Mudstone.	1 979	bearing, well			
Laramie Formation:		flowed at surface).	75 1,685		
Shale, gray, and		Shale, gray.	36 1,721		
mudstone.	323 1,302				
Sand, fine.	12 1,314				
Mudstone.	1 1,315				
Shale, light-brown.	14 1,329				
Shale, gray.	185 1,514				
Sand, fine, and gray					
shale.	68 1,582				
Shale, gray.	65 1,647				
Coal.	9 1,656				
Shale, gray, and coal.	14 1,670				
Coal and fine sand.	5 1,675				
Sand, fine [B and A					
sandstones, undif-					
ferentiated, 1,690					
to 1,870 feet.]	94 1,869				
Fox Hills Sandstone:					
Shale, gray [Milliken					
Sandstone Member,					
1,903 to 1,979					
feet.]	85 1,954				
Sand, fine.	25 1,979				
Shale, gray.	18 1,997				
C4-69-23ccgg. Alt. 5,560 ft.					
Slocum Alluvium:					
Clay, brown.	17 17				
Dawson Formation (upper					
part):					
Sandrock, blue.	29 46				
Shale, blue.	119 165				
Sandstone.	8 173				
Shale, blue.	27 200				
Sand, blue.	20 220				
Shale, blue.	47 287				
Dawson Formation (lower					
part):					
Sand, blue, and thin					
beds of shale [Middle					
conglomerate, 267 to					
193 feet.]	57 324				
Shale, blue.	27 351				
Sand and sandstone.	42 393				
Shale and silt.	55 448				
Lower conglomerate:					
Sand, blue, and shale.	27 475				
Shale, blue.	9 484				
Sand and streaks of					
shale.	19 503				
Shale, blue.	5 508				
Sand and streaks of					
shale.	34 542				
C4-69-24dadd. Alt. 5,445 ft.					
Younger loess:					
Clay.	16 16				
Slocum Alluvium:					
Gravel.	5 21				
Dawson Formation (upper					
part):					
Shale, brown.	35 56				
Sand, gray.	4 60				
Shale, brown.	13 75				
Shale, gray.	115 190				
Shale, brown.	28 218				
Shale, sandy.	72 290				
Dawson Formation (lower					
part):					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-69-25cchb.--Continued		C4-69-25cchb.--Continued		C4-69-17ddcg.--Continued	
Shale, and arkosic		Shale, sandy, gray,		Shale, silty, sandy,	
gray sand	10	and coal	40	micaceous, pale-	
Shale, sandy, gray.	10	Sand, 75 percent; 10	1,360	yellowish-brown;	
Shale, clay; greenish-		percent red shale;		contains mont-	
gray.	30	15 percent green		morillonite, small	
Shale, clayey; contains		shale.	10	limonite concretions,	
35 percent sand	10	Shale, sandy, gray;	1,370	and thin seams of	
Shale, clayey, sandy,		and coal	1,380	carbonaceous	
gray.	10	Shale, sandy, gray	1,390	material.	2
Shale; contains 50		Shale, sandy, gray,			
percent sand.	10	and coal	1,420		
Dawson Formation (lower part):		Sand, fine, gray;		C4-69-28adcd. Alt. 5,650 ft.	
Sand [Middle conglom-		contains 35 percent		Dawson Formation (upper	
erate, 270 to 380		shale.	1,438	part):	
feet.]	20	Lime, shells	1,439	Conglomerate [Upper	
Clay, sandy, light-		Shale, light-gray; 15		conglomerate,	
gray.	10	percent sand; 5		surface to 211	
Shale, clayey, gray	10	percent coal	51	feet.]	20
Sand and conglomerate	20	Shale, gray to black,	1,490	Sandstone, blue	28
Clay, sandy, gray and		and coal	1,525	Shale, green.	8
dark-gray	20	Sand, dark-gray.	1,557	Sandstone, blue	9
Sand.	20	Sand, and 50 percent		Clay, sandy, gray	20
Sand; contains 50		shale.	1,572	Sandstone	13
percent gray shale.	10	Sand, contains a little		Shale, sandy, brown	7
Shale, clayey, sandy.	70	shale, and coal.	1,635	Shale, blue	5
Shale, sandy, dark-		Shale, and 50 percent		Clay, sandy, brown.	10
gray.	20	sand	1,660	Shale and clay; blue.	16
Shale, clayey, dark-		B sandstone:		Shale, sandy, blue.	4
gray.	20	Sand, 90 percent; 10		Shale and clay; blue	
Shale, sandy, dark-		percent shale.	1,720	and gray.	10
gray.	10	A sandstone:		Shale, blue	3
Shale, clayey, greenish-		Sand and 50 percent		Shale and clay;	
gray.	40	shale.	1,735	brownish-blue	7
Shale, sandy, gray.	10	Shale, 85 percent; 15		Shale, sandy.	8
Lower conglomerate:		percent sand, and		Sandrock.	9
Sand, gray.	10	coal	1,817	Shale, brown and gray	3
Sand, shaly, gray	10	Fox Hills Sandstone:		Sandrock.	11
Shale, clayey, gray	10	Milliken Sandstone Member:		Shale, hard, brownish-	
Shale, clayey, sandy,		Sand, brownish-gray,		blue.	4
dark-gray	10	95 percent, limonite,		Shale and clay; blue-	
Shale, sandy, gray		and mica	1,885	gray.	45
and brown	40	Transition zone:		Shale, blue	8
Conglomerate; contains		Shale, gray.	1,940	Shale and clay; brown	
35 percent shale.	10	Sand, 90 percent; 10		and gray.	22
Shale, brown and gray	10	percent shale.	1,962	Shale, brown; contains	
Conglomerate; contains		C4-69-27cchbb. Alt. 5,600 ft.		fine sand	11
10 percent brown and		Dawson Formation (upper		Sandstone, silty, hard.	11
gray shale.	10	part):		Shale and clay; blue.	8
Shale, sandy, gray;		Topsoil.	2	Shale, brown and gray	3
contains limonite	100	Clay, brown to		Shale, blue, and clay	30
Shale, slightly sandy,		yellow	18	Sandstone	3
gray, and limonite.	20	Shale, medium hard,		Shale and clay; blue.	63
Laramie Formation:		gray to blue	330		
Shale, sandy, hard,		Dawson Formation (lower		Dawson Formation (lower	
gray.	10	part):		part):	
Shale, sandy, limy,		Sandstone, interbedded		Sandstone, very fine-	
gray.	10	with thin shale		grained [Middle	
Shale, limy, hard,		stringers (Middle		conglomerate, 419	
gray.	20	conglomerate, 350		to 496 feet.]	2
Sand, shaly, gray		to 500 feet.]	150	Shale, gray	5
(water-bearing)	10	Shale.	535	Sandstone, fine-	
Shale, sandy, gray.	10	Sandstone.	568	grained	15
Shale, limy, gray	10	Shale.	590	Shale and clay; gray.	26
Shale, sandy, gray.	20	Lower conglomerate:		Sandstone	5
Shale, sandy, gray;		Sandstone; contains		Shale and clay; gray.	8
contains coal	10	thin shale layers.	70	Sandstone, fine-	
Shale, sandy, gray to		Shale.	666	grained	16
dark-gray	40			Clay and shale; blue.	4
Shale, sandy, gray,		C4-69-27ddbb. Alt. 5,481.8 ft.		Shale, hard, gray	7
carbonaceous, and		Colluvium:		Shale, sandy, gray.	9
limonite.	10	Silt, gravelly, non-		Sandstone	3
Shale, sandy, gray,		calcareous, dark-		Shale, gray	17
and limonite.	10	yellowish-brown.	10	Shale, very sandy, hard;	
Shale, sandy, light-		Dawson Formation (upper		contains fine sand.	17
gray.	10	part):		Rock, very hard, blue	1
Shale, sandy, light-		Silt, sandy, non-		Clay, blue, and shale	9
to dark-gray.	70	calcareous, pale-		Lower conglomerate:	
Shale, sandy, gray		yellowish-orange;		Sand and shale, in	
and yellow.	10	contains mont-		streaks	7
Shale, green to reddish-		morillonite.	2	Sandstone, hard	6
gray.	20	Shale, silty and	12	Clay and shale; blue-	
Shale, gray, and a		slightly sandy,		gray.	11
little sand	10	calcareous, mica-		Sandstone	9
Shale, carbonaceous,		ceous, hard, platy,		Shale, gray; contains	
gray to dark-gray	10	dark-yellowish-		streaks of hard	
Shale, sandy, gray.	80	brown; contains		sandstone	21
Shale, sandy, gray;		montmorillonite.	10.5	Sandstone	10
contains 5 percent		Shale, silty, cal-	22.5	Shale and clay; gray.	28
coal.	10	careous, micaceous,			
Shale, sandy, gray.	10	moderate-yellowish-		C4-69-31ddcd. Alt. 5,580 ft.	
Shale, greenish-gray,		brown.	10	Piney Creek Alluvium:	
and coal.	10			Topsoil	5
Shale, sandy, gray.	40	C4-69-27ddcg. Alt. 5,422.8 ft.		Slocum Alluvium:	
Shale, sandy, gray,		Colluvium:		Gravel and boulders	8
coal, and limy		Silt, sandy, micaceous,		Pierre Shale:	
concretions	10	pale-yellowish-		Shale at 13 feet	
Shale, sandy, gray.	30	brown; contains		C4-69-31ddcd. Alt. 5,580 ft.	
Shale, sandy, gray, and		fine sand.	5	Slocum Alluvium:	
coal.	10	Dawson Formation (upper		Boulders and clay	20
Shale, sandy, gray.	30	part):		Slocum Alluvium and Pierre	
Shale, sandy, gray;		Silt, less sandy than		Shale, undifferentiated:	
contains about 30		above, micaceous,		Shale, dark, and	
percent sand.	20	pale-yellowish-		gravel.	10
		brown; contains			
		montmorillonite.	10.5		

Table J.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-69-14aabb. Alt. 5,401.4 ft.					
Post-Piney Creek alluvium:					
silt, micaceous, non-					
calcareous, sandy,					
light-olive-gray;					
contains					
montmorillonite	2.5				
Louviers Alluvium:					
silt, finely micaceous,					
dark-yellowish-					
brown, noncalcareous.	3				
sand, very coarse, well-					
sorted, arkosic,					
subangular to sub-					
rounded, about 10					
percent very fine to					
fine gravel, and a					
little pale-					
brownish-yellow					
non-calcareous					
silt.	3.5				
Gravel, very fine to					
coarse, arkosic,					
subangular to well-					
rounded, and about					
20 percent sand	11.5				
Dawson Formation (upper					
part):					
Shale, silty, non-					
calcareous, hard,					
platy; contains					
montmorillonite	2				
C4-69-14aach. Alt. 5,400.8 ft.					
Post-Piney Creek alluvium:					
silt, sandy, non-					
calcareous, mica-					
ceous, dark-					
yellowish-brown;					
contains very fine					
sand and mont-					
morillonite	2.5				
Broadway Alluvium:					
Gravel, fine, and					
sand.	2				
Sand, medium to very					
coarse, subangular					
to subrounded,					
arkosic, about 10					
percent very fine to					
fine gravel; contains					
some gravel	3				
Louviers Alluvium:					
Gravel, very fine to					
coarse, arkosic,					
subangular to					
subrounded, and					
about 50 percent					
medium to very					
coarse sand	10.5				
Dawson Formation (upper					
part):					
Shale, silty, non-					
calcareous, light-					
olive-gray; contains					
montmorillonite and					
limonite.	4.5				
C4-69-14aac. Alt. 5,400.8 ft.					
Post-Piney Creek alluvium:					
silt, sandy, micaceous,					
noncalcareous,					
dark-yellowish-					
brown; contains					
montmorillonite	3.5				
Louviers Alluvium:					
Gravel, very fine to					
coarse, poorly					
sorted, subrounded					
to rounded, arkosic,					
loose, and coarse					
to very coarse sand	10.5				
Gravel, fine, and sand.	1.5				
Dawson Formation (upper					
part):					
Shale, silty, non-					
calcareous, pale-					
olive; contains					
montmorillonite	2				
C4-69-14abaa. Alt. 5,405 ft.					
Post-Piney Creek alluvium:					
topsoil	4				
Louviers Alluvium:					
sand, coarse, gravel					
and boulders.	11				
Dawson Formation (upper					
part):					
sand, cemented, dirty,					
and clay.	4				
Shale at 19 feet					
C4-69-14acdd. Alt. 5,453.4 ft.					
Slocum Alluvium:					
C4-69-14acdd. --Continued					
Silt, sandy, cal-					
careous, dark-					
yellowish-brown;					
contains fine					
sand.	3				
Gravel, very fine to					
coarse, arkosic,					
loose, subangular					
to rounded.	3.5				
Dawson Formation (upper					
part):					
Shale, silty, soft,					
moderate-yellowish-					
brown; becomes					
slightly calcareous					
below 17.5 feet					
Shale, silty, sandy,					
hard, noncalcareous,					
moderate-yellowish-					
brown; contains					
limonitic material,					
at 20 feet					
C4-69-14adbb. Alt. 5,396.6 ft.					
Post-Piney Creek alluvium:					
silt, sandy, very					
calcareous, dark-					
yellowish-brown	6				
Broadway Alluvium:					
Sand, medium to					
coarse, very					
micaceous, silty,					
subangular to					
rounded, arkosic,					
moderate yellowish-					
brown	3				
Sand, very coarse,					
arkosic, sub-					
rounded to rounded,					
and arkosic					
rounded very fine					
to fine gravel.	5				
Louviers Alluvium:					
Cobbles	1				
Sand, loose	2.5				
Dawson Formation (upper					
part):					
Shale, silty, sandy,					
grayish-olive;					
contains mont-					
morillonite, coal,					
and limonitic					
material.	5				
C4-69-14adbc. Alt. 5,406.0 ft.					
Post-Piney Creek alluvium:					
silt, slightly					
sandy, calcareous,					
micaceous, pale-					
yellowish-brown;					
contains fine					
sand.	8.5				
Louviers Alluvium:					
Cobbles and gravel.	2				
Dawson Formation (upper					
part):					
Shale, silty, sandy,					
and gravelly, non-					
calcareous,					
moderate-yellow;					
contains mont-					
morillonite	2				
C4-69-16cbba. Alt. 5,365 ft.					
Post-Piney Creek alluvium:					
Clay.	12				
Piney Creek Alluvium:					
Clay, sandy	11				
Louviers Alluvium:					
Boulders, gravel, and					
sand.	16				
Dawson Formation:					
Clay.	6				
Shale	13				
C4-69-16dcad. Alt. 5,340 ft.					
Post-Piney Creek alluvium:					
Soil.	2				
Louviers Alluvium:					
Gravel.	22				
Dawson Formation (upper					
part):					
Shale, blue	12				
Shale, gray	18				
Sandstone, gray	11				
Shale, gray	81				
Dawson Formation (lower					
part):					
Sand [Middle					
conglomerate, 146					
to 409 feet].	3				
Shale, gray	80				
Sand.	7				
C4-69-16dcad. --Continued					
Shale, gray.	58				
Sand	6				
Shale, gray.	14				
Sand, fine	4				
Shale, sandy, gray	9				
Sand, fine	9				
Shale, gray.	29				
Sandstone, gray, and					
gray shale	19				
Sand	5				
Shale, gray.	11				
Lime, sandy.	1				
Sand and gray shale.	12				
Shale, gray.	21				
Sandstone, gray.	12				
Shale, gray.	22				
Sand, fine [Lower					
conglomerate, top					
at 479 feet].	10				
Pyrite and sand.	1				
Shale, gray.	28				
Sand, fine	3				
Shale, gray.	9				
Sand, fine	3				
Shale, gray.	47				
Sandstone, hard, gray.	2				
Shale, gray.	20				
Sand, fine	30				
Laramie Formations:					
Shale, gray.	79				
C4-70-1adac. Alt. 5,733 ft.					
Verdugo Alluvium:					
Hardpan.	10				
Rock, red.	15				
Dawson Formation (upper					
part):					
Shale, sandy	5				
Sand, (water-bearing).	7				
Shale, blue.	20				
Lime, sandy.	8				
Shale, blue.	10				
Lime, blue	5				
Shale, blue.	19				
Shale, sandy	11				
Shale, brown	70				
Shale, blue.	15				
Shale, brown	10				
Shale, white	20				
Shale, sandy	5				
Shale, blue.	40				
Shale, green	5				
Shale, blue.	7				
Lime, white.	3				
Shale, blue.	65				
Shale, brown	10				
Shale, blue.	45				
Shale, brown	10				
Shale, blue.	60				
Shale, white	3				
Dawson Formation (lower					
part):					
Sand, white [Middle					
conglomerate, 498					
to 580 feet.] (water-					
bearing, 4 gpm).	19				
Shale, blue.	3				
Lime, sandy.	4				
Sand (water-bearing).	56				
Shale, black	3				
Lime, light-colored.	10				
Shale, dark.	12				
Lime, sandy.	10				
Shale, brown	25				
Lime, white.	15				
Shale, brown	20				
Lower conglomerate:					
Sand (water-bearing,					
yields 20 gpm at					
700 feet.)	67				
Shale, brown	2				
Sand (water-bearing).	6				
Sandstone, gray.	50				
Shale, gray.	10				
Sand, coarse	20				
Sandrock, calcareous	35				
Laramie Formations:					
Shale, brown	17				
Shale, sandy, brown.	13				
Shale, sticky, brown	15				
Shale, brown and gray.	25				
Shale, sticky, white;					
has characteristics					
of bentonite; closes					
hole and squeezes					
tools and casing	3				
Shale, sticky, brown,					
caving	12				
Shale, soft, brown;					
contains hard					
shells	28				
Shale, blue and white.	22				
Shale, white	5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth	
C4-70-10dsg. --Continued		C4-70-10dsg. Alt. 6,040 ft.		C4-70-11dsg. --Continued		
Sand, brown.	5	1,010	Piney Creek and Rocky	Sand and gray shale:		
Shale, brown.	5	1,015	Plats Alluvium:	in layers.	27	945
Shale, brown, caving. . .	83	1,098	undifferentiated:	Shale, gray.	80	925
Sand, shale, and coal.			Clay and gravel.	Lower conglomerate:		
in thin strata.	7	1,105		Sand.	10	935
Shale, sandy, brown. . .	19	1,124	Laramie Formation:	Sandstone, blue.	5	941
Shale, blue.	21	1,145	Shale, dark.	Sand.	17	958
Sand, shale, and coal. .	13	1,158	Shale, sandy, gray. . .	Shale, gray.	4	962
Shale, gray.	7	1,165		Shale, blue.	24	986
Sand, hard, gray			C4-70-10dsg. Alt. 6,160 ft.	Sandstone, hard.	56	1,042
(dry).	10	1,175	Piney Creek Alluvium:	Shale, gray.	16	1,058
Shale, gray.	2	1,177	Clay, sandy, red. . . .	Sand, fine, and gray		
Sand, gray (water			Lykins Formation:	shale.	20	1,078
rose 647 feet.). . . .	3	1,180	Shale, red.	Laramie Formation (faulted):		
Shale, gray.	35	1,215	Sand, fine.	Shale, gray: contains		
Shale, carbonaceous,			Shale, red.	thin layers of fine		
dark.	37	1,252	Shale, gray, and	sand.	111	1,189
Sand, brown.	2	1,255	sand.	Shale, gray.	21	1,210
Shale, gray: hard at			Sand, fine.	Shale, gray: contains		
top, becomes softer			Sand, yellow.	layers of fine sand.	18	1,228
toward bottom.	23	1,283	Sand.	Shale, gray.	31	1,259
Shale, carbonaceous,			Lime, sandy, hard. . .	Shale, hard, blue. . .	9	1,268
black.	4	1,287	Sandstone, red. . . .	Shale, gray.	14	1,282
Shale, sticky, gray. . .	30	1,317	Sand, fine, and red	Shale, hard, blue. . .	9	1,291
Shale, carbonaceous,			Shale.	Shale, gray.	99	1,390
black.	3	1,320	Lime, sandy.	Sand, fine.	15	1,405
Shale, hard, gray. . .	17	1,333	Shale, red, and fine	Sand, fine, and gray		
Shale, sticky, green. .	4	1,341	sand.	shale.	17	1,422
Shale, brown and gray,			Shale, red, and	Shale, gray.	18	1,440
sandstone, and			streaks of sandy	Mudstone.	2	1,442
coal.	23	1,364	lime.	Shale, gray.	12	1,454
Shale, hard, gray. . .	10	1,374		Shale, gray, and coal.	32	1,486
Sandstone, very hard. .	1	1,375	C4-70-11dsg. Alt. 6,009 ft.	Sand, fine, and gray		
Shale, some hard,			Colluvium and Rocky	shale.	47	1,533
some soft, gray			Plats	Coal.	12	1,545
and black: caves			Alluvium, undifferent-	Shale, gray.	26	1,571
badly.	11	1,386	iated:	Shale, brown.	3	1,574
Shale.	7	1,393	Topsoil.	Shale, gray.	24	1,598
Shale, hard, black. . .	4	1,397		Sand, fine, and gray		
Sandstone, fine-			Dawson Formation (upper	shale [B and A		
grained, gray (water-			part):	sandstones, undif-		
bearing).	8	1,405	Sandstone, brown. . .	ferentiated, 1,598		
Shale, hard, black. . .	5	1,410	Shale, blue.	to 1,689 feet.)		
Sandstone, hard, gray			Sandstone, blue. . .	(faulted).	18	1,616
[B sandstone, 1,410			Shale, brown.	Shale, gray.	32	1,648
to 1,471 feet.). . . .	4	1,414	Sandstone, brown. . .	Sand, fine, white. . .	11	1,659
Sandrock, soft, gray			Shale, brown.	Shale, gray.	6	1,665
(water rose 970			Sandstone, gray. . .	Coal, and gray shale. .	6	1,671
feet.).	6	1,420	Shale, brown.	Shale, gray.	4	1,675
Shale, gray.	4	1,424	Sandstone, gray. . .	Sand, fine, white. . .	3	1,678
Shale, sandy, hard,			Shale, brown.	Shale, red.	4	1,682
gray.	13	1,437	Shale, gray.	Sand, fine, white. . .	7	1,689
Sandrock: hard at top,			Shale, green.	Shale, gray.	61	1,750
becomes softer toward			Shale, sandy, blue. .	Fox Hills Sandstone:		
bottom (water-			Sandstone, gray, and	Milliken Sandstone Member:		
bearing).	10	1,447	shale.	Sand, fine.	87	1,837
Shale, soft, sticky,			Sandstone, blue. . .	Sand, fine, and gray		
gray.	7	1,454	Sandstone, gray, and	shale.	22	1,859
Sandstone, hard (water			shale.	Transition zone:		
rose 1,251 feet to			Sandstone, blue. . .	Shale, gray.	6	1,865
within 120 feet of			Shale.	Sand, fine.	11	1,876
ground surface). . .	17	1,471	Shale, sandy, blue. .	Shale, gray.	1	1,877
Shale, soft, gray. . .	15	1,486	Sandstone, gray. . .	Sand, fine.	7	1,884
Shale, sticky, black. .	48	1,534	Shale, sandy, brown. .	Sand, fine, and gray		
Sand, dark-brown [A			Sandstone, gray, and	shale.	3	1,887
sandstone, 1,534			shale.	Shale, gray.	31	1,968
(water-bearing). . . .	18	1,552	Sandstone, blue, and	C4-70-23dsg. Alt. 5,985 ft.		
Shale, sandy, gray. . .	20	1,572	blue sandy shale. . .	Denton Shale:		
Sand, fine, gray:			Shale, sandy, gray. .	Shale, laminated,		
contains lime shells			Sandstone, blue, and	fissile, pyritic,		
and fossils (water			Shale, brown.	gray and black.		
rose to within 153			Sandstone, blue, and	and a little non-		
feet of ground			shale.	calcareous sand-		
surface).	28	1,600	Sandstone, blue. . .	stone.	148	148
Sand, dark shale,			Sandstone, blue, and	Shale, fissile:		
shells, and coal,			sandy shale.	contains bentonite		
in alternate layers. .	36	1,636	Shale, brown, and	seams and manganese		
Shale, light-gray. . .	7	1,643	sandy shale.	dendrites common. .	4	152
Fox Hills Sandstone:			Sand, fine, and	Shale, fissile, non-		
Milliken Sandstone Member:			sandy shale; in	calcareous, iron-		
Sand, gray, (water-			layers.	stained.	6	158
bearing).	85	1,728	Sandstone, brown,	Shale, fissile, gray		
Transition zone:			and brown shale;	to dark-gray. . . .	17	175
Shale, light-gray; has			in layers.	Dakota Group:		
white spots.	20	1,748	Sandstone, gray, and	South Platte Formation:		
Lime, hard.	5	1,753	shale.	Sandstone, very fine-		
Sand, gray (water rose			Sand, fine, and	to fine-grained,		
to within 120 feet			shale.	noncalcareous, in		
of ground surface). .	20	1,773	Shale, gray.	part pyrite-cemented:		
Shale, gray.	13	1,786	Sandstone, gray. . .	sand grains are		
			Shale, gray.	frosted and well-		
C4-70-4dsg. Alt. 6,075 ft.			Dawson Formation (lower	rounded.	15	190
Dirt.	12	12	part):	Sandstone, fine-grained,		
Clay, red.	9	21	Sand, fine, and gray	quartzose; sand		
Precambrian:			shale; in layers	grains are frosted;		
Granite, red.	14	35	[Middle conglomerate,	contains pyrite. . .	17	207
Granite, red and gray,			753 to 845 feet.). .	Sandstone, fine-		
mixed.	54	89	Shale, gray.	grained: contains		
Fracture, broken			Sand, fine.	less pyrite.	68	275
granite (water-			Sand and gray shale,			
bearing).	2	91	in layers.			
Granite, red and gray.	7	98	Shale, gray.			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C4-70-21dcba2. Alt. 5,950 ft.					
Colluvium:					
Soil and clay.	5				
Benton Shale:					
Clay, blue.	10				
Shale, gray.	20				
Rock, blue.	2				
Shale, sandy, black. . .	15				
C4-70-26cdag. Alt. 6,011 ft.					
Post-Piney Creek alluvium:					
Sand, fine, and gravel.	2				
Piney Creek Alluvium:					
Topsoil, and silt. . . .	4				
Broadway Alluvium:					
Sand and gravel.	12				
Louviere Alluvium:					
Sand, silty.	7				
Gravel and boulders. . .	7				
C4-70-29acda. Alt. 6,840 ft.					
Louviere(?) Alluvium:					
Boulders and sand. . . .	15				
Precambrian:					
Granite, blue.	20				
Quartz, white.	13				
C4-70-29adcb. Alt. 6,790 ft.					
Piney Creek Alluvium:					
Clay, black.	6				
Louviere Alluvium:					
Gravel and boulders. . .	6				
Precambrian:					
Granite, decomposed. . .	4				
Granite, rose, and quartz.	15				
Granite, rose (water at 61, 68, and 82 feet).	57				
C4-70-31bcab. Alt. 6,395 ft.					
Piney Creek Alluvium:					
No sample.	1				
Clay, sandy.	5				
Louviere Alluvium:					
Rock, decomposed. . . .	12				
Clay, blue.	4				
Sand and gravel.	6				
Precambrian:					
Granite.	1				
C5-65-2cccg. Alt. 5,751 ft.					
Broadway and Louviere Alluvium, undifferentiated:					
Sand and gravel.	10				
Dawson Formation (upper part):					
Shale, blue.	70				
Coal, soft.	5				
Shale, gray.	45				
C5-65-2cdcg. Alt. 5,827 ft.					
Dawson Formation (upper part):					
Sand.	27				
Boulders.	5				
Shale, sandy.	8				
Shale, blue and gray. . .	110				
C5-65-2cddd. Alt. 5,772 ft.					
Dawson Formation (upper part):					
Sand and gravel.	40				
Shale.	110				
C5-65-2ddcg. Alt. 5,749 ft.					
Post-Piney Creek alluvium and Broadway and Louviere Alluvium, undifferentiated:					
Sand, gravel, and sandy shale.	42				
Dawson Formation (upper part):					
Sandstone.	11				
Shale.	72				
Sandstone.	3				
Shale.	22				
C5-65-1bdab2. Alt. 5,812 ft.					
Dawson Formation (upper part):					
Topsoil, silty.	5				
Claystone, silty, buff, and fine silty clayey sand.	45				
Shale, silty to sandy, greenish-gray, and very fine to fine silty sand; contains a little coarse sand.	180				
C5-65-1bdab2. --Continued					
Sand, fine to coarse, arkosic, clean, pinkish-gray; contains streaks of shale [Upper conglomerate, 230 to 415 feet.]. . . .					
Shale, silty, gray; contains streaks of fine, silty, gray sand.	125				
Lignite.	25				
Shale, clayey, silty, and sandy, interbedded with gray fine silty sand and fine-grained sandstone; contains numerous beds of lignite.	560				
Dawson Formation (lower part):					
Shale, silty to sandy, interlayered with very fine to fine, silty to clean sand and very fine- to fine-grained sandstone [Middle conglomerate, 975 to 1,273 feet.]. . .	155				
Sand, medium to coarse, clean, arkosic, light-gray; contains layers of gray silty shale.	143				
Shale, clayey to silty, gray.	87				
Lower conglomerate:					
Sand, very fine to fine, clean, gray; contains layers of gray, silty to clayey shale. . . .	50				
Shale, clayey to silty, gray.	60				
Sand, very fine to fine, clean, gray; contains streaks and layers of gray silty to clayey shale. . .	100				
Laramie Formation:					
Shale, silty to clayey, gray; contains a few layers of very fine silty light-gray sand.	140				
Sand, very fine, silty to clean, light-gray; contains streaks of gray silty shale.	40				
Shale, silty to clayey, light-gray; contains a few thin lignite beds and thin streaks of light-gray very fine silty sand. . . .	155				
Lignite, underlain by a few feet of gray, silty shale. . .	15				
B sandstone:					
Sand, very fine to fine, clean, light-gray.	75				
A sandstone:					
Shale, silty, light-gray, and light-gray very fine silty sand.	67				
Fox Hills Sandstone:					
Milliken Sandstone Member:					
Sand, very fine, clean, light-gray; grades downward to light-gray silt. .	40				
C5-65-18bdag. Alt. 5,992 ft.					
Dawson Formation (upper part):					
Sandstone.	75				
Shale.	155				
Sand (dry).	10				
Shale.	190				
Upper conglomerate:					
Sand (dry).	60				
Shale.	38				
Sand (yields some water).	17				
C5-65-18bdag. --Continued					
Shale.					
Sand.	10				
Shale and some layers of coal.	70				
Sand, fine, hard.	10				
C5-65-19cbbg. Alt. 6,075 ft.					
Dawson Formation (upper part):					
Topsoil.	1				
Clay, sandy, brown. . . .	3				
Clay, yellow.	3				
Clay, sandy, gray.	10				
Sandstone.	16				
Shale, green.	8				
Shale, gray.	12				
Sandstone, white.	14				
Clay, sandy, yellow. . . .	5				
Sand.	6				
Shale, sandy, gray.	28				
Shale, gray.	11				
Shale, brown.	3				
Sandstone and gray shale.					
Shale.	5				
Shale, brown.	7				
Shale, sandy, gray. . . .	7				
Shale, brown.	4				
Shale, gray.	12				
Shale, brown.	16				
Shale, gray, and sandstone.	28				
Sand and sandstone. . . .	17				
Shale, green.	3				
Shale, gray.	22				
Shale, brown.	3				
Shale, gray.	37				
Sand and gray shale. . . .	10				
Shale, gray.	48				
Sand, fine, and gray shale.	27				
Limestone.	4				
Sand and shale.	11				
Shale, gray.	3				
Lime.	2				
Sand.	8				
Shale, gray.	4				
Lime.	3				
Shale, brown.	8				
C5-65-29babb. Alt. 6,160 ft.					
Dawson Formation (upper part):					
Topsoil.	2				
Clay, sandy, yellow. . . .	4				
Clay, yellow.	8				
Clay, blue.	2				
Clay, yellow.	5				
Sand and white sandy clay.	17				
Clay, yellow.	7				
Clay, white.	58				
Clay, sandy, gray.	15				
Sand and white sandy clay.	17				
Clay, sandy, gray.	7				
Shale, blue.	28				
Sand, medium.	10				
Shale, gray.	6				
Shale, sandy, gray.	79				
Shale, blue and gray. . . .	16				
Shale, sandy, gray.	14				
Sand and sandy shale: in layers.	26				
Coal.	1				
Sandstone, limy.	1				
Shale, sandy.	2				
Shale, blue-gray.	38				
Shale, sandy, gray.	6				
Shale, sandy, gray, and gray sandstone. .	9				
Coal.	1				
Conglomerate, quartzite.					
Shale, gray.	13				
Shale, sandy, gray.	7				
Shale, sandy, brown. . . .	1				
Shale, sandy, gray.	2				
Sand and gray sandy shale: in layers. . . .	79				
Shale, sandy, gray, and gray shale.	30				
Shale, sandy, brown, and sand.	25				
Shale, gray.	6				
Shale, sandy, gray, and gray shale. . . .	23				
Coal.	2				
Shale, gray, and gray sandy shale.	26				
Coal.	1				
Shale, gray.	6				
Sand.	7				
Shale, gray.	34				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-65-10aabb. Alt. 6.135 ft.		CS-66-6bada.--Continued		CS-66-6bada.--Continued	
Dawson Formation (upper part):		Sand, subangular to angular, very arkosic, 50 percent coarse, 20 percent medium, 20 percent fine, 10 percent very fine, very micaceous, slightly silty, dusky-yellow, about 40 percent light-colored feldspar; contains carbonaceous streaks in lower part		Siltstone and shale, sandy, carbonaceous, yellowish-gray, and lignite.	
Topsoil, heavy	3	Silt, dusky-yellow.	7	Siltstone, sandy, carbonaceous, yellowish-gray, lignite, and very fine-grained sandstone.	53
Clay, brown.	55	Sand, subangular to angular, very arkosic, very micaceous, 30 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine; contains pyrite and coal.	12	Limestone, sandy, greenish-gray.	1
Shale, blue.	102	Silt, noncalcareous, sandy, micaceous; contains very fine sand.	29	Siltstone, calcareous, firm.	1
Coal and sand (yields about 1 gpm)	7	Sand, very fine, subangular, silty	2	Limestone, sandy, greenish-gray.	1
Shale, blue.	151	Silt, noncalcareous, sandy, micaceous; contains very fine sand.	10	Siltstone, calcareous, light-gray.	1
Sand, fine, and coal	4	Sand and gravel, sub-rounded, very arkosic, 20 percent very fine gravel, 60 percent very coarse sand, 15 percent coarse sand, 5 percent very fine to medium sand; contains a little mica and pyrite.	13	Sandstone, fine-grained, calcareous, grayish-yellow-green.	3
Shale, blue.	64	Sand, fairly well-sorted, 40 percent very coarse, 30 percent coarse, 20 percent medium; includes many iron-stained quartz grains.	7	Siltstone, sandy, calcareous, greenish-gray.	9
Sand, fine, black.	4	Silt, light-olive-gray; contains much pyrite	10	Limestone, dense, crystalline, greenish-gray	1
Shale, blue.	80	Sand and gravel, sub-angular to sub-rounded, 10 percent very fine gravel, 30 percent very coarse sand, 30 percent coarse sand, 20 percent medium sand, 10 percent very fine to fine sand; contains abundant pyrite and coal.	12	Shale, silty, greenish-gray	6
Rock, layer.	4	Silt and shale, sandy, carbonaceous, light-olive-gray.	25	Silt, siltstone, silty shale, thin bedded sandy limestone and greenish-gray calcareous carbonaceous silty medium-grained sandstone.	47
Shale, blue.	9	Sandstone, coarse-grained, light-olive-gray.	4	Sand, arkosic, silty, carbonaceous, sub-angular to well-rounded, micaceous, dusky-yellow, 30 percent very coarse to coarse, 70 percent medium to very fine; contains shale [Upper conglomerate, 564 to 621 feet].	23
Shale, sandy (dry)	22	Silt and shale, sandy, carbonaceous, light-olive-gray.	20	Shale, yellowish-gray	5
Shale, blue.	10	Siltstone, micaceous, carbonaceous, yellowish-gray.	6	Coal, shiny, black	2
Upper conglomerate:		Shale, silty, micaceous, carbonaceous, light-olive-gray.	17	Sand, silty, noncalcareous, 10 percent coarse, 20 percent medium, 50 percent fine, 20 percent very fine; contains coal and iron-stained siltstone.	8
Sand, fine to coarse, (water-bearing)	30	Sand, very arkosic, sub-rounded to rounded, silty, 10 percent very coarse, 40 percent coarse, 30 percent medium, 10 percent fine, 10 percent very fine; contains numerous iron-stained grains; yellowish-gray.	7	Sand, 10 percent coarse, 20 percent medium, 50 percent fine, 20 percent very fine, and medium-grained hard calcareous sandstone.	5
Shale, blue.	5			Shale, silty, greenish-gray.	4
CS-65-11ccgc. Alt. 6.168 ft.					
Dawson Formation (upper part):					
Conglomerate and fine sand (water-bearing)					
Sandstone, cemented.	40				
Shale, blue.	5				
Sandstone, fine-grained.	15				
Shale, brown, blue, and red; contains coal seams	66				
Shale, clay; contains coal seams	114				
Rock, hard	4				
Shale.	26				
Rock, hard; has no fractures.	3				
Shale; contains many coal seams	112				
Shale; contains thin layers of dry sand	23				
Rock, hard	2				
Rock; harder than above.	30				
Rock, hard; contains breaks of sandstone.	30				
Shale; contains layers of sandstone.	45				
Shale.	8				
Upper conglomerate:					
Sand; contains thin breaks of shale.	84				
CS-66-6bada. Alt. 5.719 ft.					
Solian sands					
Sand, windblown.	2				
Topsoil.	1				
Sand, fine	23				
Dawson Formation (upper part):					
Clay, sandy, brown	17				
Sandstone, yellow.	5				
Clay, yellow	5				
Sandstone, brown	5				
Sandstone, gray.	2				
Silt, sandy, compact, very micaceous, noncalcareous; contains some light-olive-gray and light-brownish-gray gypsum, and 5 percent very fine sand	33				
Sandstone, very fine-grained, friable, micaceous, noncalcareous, light-olive-gray; rounded grains	7				
Silt and shale, noncalcareous, light-olive-gray	12				
Sandstone, very fine to fine-grained, silty, light-olive-gray	2				
Sand, very fine, silty, and silt; micaceous, arkosic, light-olive-gray; contains some coal.	62				
Sandstone, very fine-grained, carbonaceous	4				
Silt, clayey, carbonaceous	4				

Table 3.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-66-6bada.--Continued		CS-66-6bada.--Continued		CS-66-6bada.--Continued	
Silt, siltstone and coal	12 665	Sand, very clayey, silty, 10 percent coarse, 10 percent medium, 40 percent fine, 20 percent very fine	8 1,021	Sand, very coarse, and very fine gravel	4 1,219
Limestone, sandy, white to light gray	2 667	Shale, silty, carbonaceous, light-olive-gray and greenish-gray	46 1,067	Shale, clay, pale-olive, and carbonaceous siltstone	5 1,224
Siltstone, carbonaceous, light-gray	6 673	Siltstone, greenish-gray	4 1,071	Sand and gravel: subrounded, arkosic, 5 percent very fine gravel, 50 percent very coarse sand, 15 percent coarse sand, 15 percent medium sand, 10 percent fine sand, 5 percent very fine sand	9 1,231
Siltstone, limonite-stained, dusky-yellow; contains about 5 percent carbonaceous materials	16 689	Shale and siltstone, greenish-gray; contains some lignite	10 1,081	Silt, soft, sandy, light-olive-gray and yellowish-gray clay shale	6 1,239
Sandstone, medium-grained, siltstone, and light-gray carbonaceous material	8 697	Shale, silty, carbonaceous, pale-olive and yellowish-gray, lignite: contains small amounts of silty coarse sand and coal	14 1,095	Sand, silty, poorly sorted, arkosic, and shale	16 1,255
Siltstone, light-gray, silty sandstone and lignite: contains much mica	40 737	Sandstone, silty, very fine-grained to very coarse-grained, carbonaceous, yellowish-gray, and grayish-green clay shale	15 1,110	Shale and siltstone: light-olive-gray and yellowish-gray	5 1,260
Siltstone, gravelly, carbonaceous, light-olive-gray	9 746	Shale, clay, dusky-yellow, and silty, coarse, rounded to well-rounded, arkosic sand	12 1,122	Sand, fine, arkosic	5 1,265
Shale, carbonaceous, light-olive-gray	5 751	Dawson Formation (lower part):		Siltstone, calcareous, light-olive-gray, and clay shale	5 1,270
Silt, grayish-blue, and medium-grained sandstone	6 757		Sand, silty, arkosic, subangular to subrounded, 10 percent medium, 40 percent fine, 50 percent very fine; contains some very fine gravel, and grayish-olive to light-olive, carbonaceous, clay shale [Middle conglomerate, 1,122 to 1,276 feet.]	10 1,132	Sand, fine, arkosic . . . . .	6 1,276
Silt, carbonaceous, grayish-blue, and lignite	6 763	Shale, silt, and siltstone: carbonaceous, grayish-olive and light-olive	15 1,167	Shale, light-olive-gray, and calcareous siltstone	6 1,282
Siltstone, grayish-blue	3 766	Sand, subangular, arkosic, micaceous, 60 percent very coarse, 10 percent coarse, 10 percent medium, 10 percent fine, 10 percent very fine	7 1,174	Sand and gray shale	11 1,293
Siltstone, carbonaceous, noncalcareous, light-gray, lignite, and pale-purple clay	18 784	Shale, clay, pale-olive	4 1,178	Shale, clay, pale-olive, and sandy siltstone	48 1,341
Sandstone, fine-grained, silty, calcareous	7 791	Sand, arkosic, micaceous, fairly well-sorted, subangular, 50 percent very coarse, 10 percent coarse, 30 percent medium, 10 percent fine	2 1,180	Shale, greenish-gray, noncalcareous, and micaceous, carbonaceous siltstone	9 1,361
Siltstone, noncalcareous, light-gray, silty sandstone, thin sandy limestone, and lignite	58 849	Shale, clay, light-olive-gray	8 1,188	Shale, silty, noncalcareous, micaceous, carbonaceous, dusky-yellow	15 1,376
Sandstone, very coarse-grained, very arkosic, calcareous, and light-gray dense sandy limestone	7 856	Sand, arkosic, very pyritic, subrounded to rounded, silty, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine	8 1,196	Lower conglomerate: Sand, very pyritic, arkosic, loose, subangular to subrounded, micaceous, 50 percent very coarse, 20 percent coarse, 20 percent medium, 5 percent fine, 5 percent very fine; contains some grains cemented with pyrite	18 1,394
Siltstone, light-gray, dark-greenish-gray clay shale, and lignite	33 889	Sand, arkosic, slightly micaceous, 20 percent very fine gravel, 40 percent very coarse sand, 10 percent coarse sand, 10 percent medium sand, 10 percent fine sand, 10 percent very fine sand	13 1,209	Shale, very pyritic, micaceous, light-gray and dusky-yellow	8 1,402
Sandstone, coarse-grained, very arkosic, greenish-gray pale-purple; contains very clay streaked with carbonaceous material and lignite	14 903	Shale, clay, pale-olive	6 1,215	Shale, as above, and siltstone	10 1,412
Siltstone, sandy, carbonaceous, medium-blue-gray	20 923			Shale, noncalcareous, carbonaceous, medium-light-gray	5 1,417
Shale, clay, carbonaceous, medium-bluish-gray and dusky-yellow	13 936			Sand, 10 percent very coarse, 20 percent coarse, 30 percent medium, 30 percent fine, 10 percent very fine, and medium-light-gray very calcareous very micaceous siltstone	15 1,432
Siltstone, micaceous, carbonaceous, light-gray, lignite, and grayish-olive waxy clay shale	12 968			Siltstone and shale: calcareous, micaceous, light-olive-gray and medium-light-gray	9 1,441
Sand, coarse, silty, carbonaceous, and coal	9 977			Sand, silty, calcareous, medium-light-gray, 10 percent very coarse, 10 percent coarse, 30 percent medium, 30 percent fine, 20 percent very fine calcareous silt, carbonaceous shale, and recrystallized calcareous material; contains abundant pyrite from 1,472 to 1,482 feet	16 1,477
Shale, clay, iron-stained, grayish-olive	4 981				
Sandstone, medium-grained, and lignite	3 984				
Shale, silty, grayish-olive, clay shale, lignite, and silty sand	19 1,003				
Sand, very silty and clayey, subrounded to rounded, 40 percent very coarse, 30 percent coarse, 20 percent medium, 5 percent fine, 5 percent very fine; clay is grayish-green; silt is light-gray	10 1,013				

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-66-6bada. --Continued		CS-66-6bada. --Continued		CS-66-19aaaa. Alt. 5,644.5 ft.	
Sand, subangular, arkosic, silty in part, 5 percent very coarse, 10 percent coarse, 20 percent medium, 50 percent fine, 15 percent very fine.	11	Shale, carbonaceous, noncalcareous, medium-gray.	18	Piney Creek Alluvium:	
Shale and silt: non-calcareous, medium-light-gray and dusky-yellow, micaceous, pyritic, sandy; and about 10 percent dense, white- and black-speckled limestone.	14	Coal.	2	Clay.	6
Sand, fine, and gray shale.	13	Shale, medium-gray; contains 5 percent arkosic subangular fine to medium sand.	10	Clay, sandy.	4
Silt, sandy, non-calcareous, sandy, medium-light-gray, and medium-gray shale; contains abundant pyrite and mica.	7	Coal.	1	Clay.	1
Shale, noncalcareous, light-olive-gray, and dusky-yellow, micaceous, sandy silt; pyrite rare.	11	Siltstone and shale.	1	Clay, sandy.	1
Shale, gray.	19	Coal.	1	Sand and coarse gravel.	27
Sand, clean, loose, subrounded to well-rounded, very arkosic, 10 percent very coarse, 20 percent coarse, 20 percent medium, 20 percent fine, 10 percent very fine.	16	Silt.	1	Dawson Formation:	
Laramie Formation:		Shale, medium-gray, and coal.	41	Clay, yellow.	4
Silt, sandy, dusky-yellow, medium-gray shale, and about 10 percent black and white-speckled soft limestone.	12	Coal, shiny, black.	6	CS-66-19daad. Alt. 5,633.1 ft.	
Shale, medium-light-gray, silt, soft, black and white speckled limestone, abundant pyrite, dusky-yellow and medium-light-gray sandy silt, and coal.	49	Shale, medium-gray, and siltstone.	3	Piney Creek Alluvium:	
Sand, subrounded, arkosic, silty, lignitic, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent and soft limestone.	6	Coal, shiny, black.	4	Soil.	3
Shale, medium-gray.	28	Shale, medium-gray.	4	Broadway Alluvium:	
Sand, subrounded to rounded, arkosic, moderately cemented, 10 percent very coarse, 20 percent coarse, 40 percent medium, 20 percent fine, 10 percent very fine.	10	B sandstone:		Sand and gravel (dry).	3
Shale, sandy, non-calcareous, medium-gray, silt, sand, and coal.	34	Sandstone, very fine- to medium-grained, quartz, salt and pepper texture, noncalcareous.	94	Broadway and Louviers Alluvium, undifferentiated:	
Shale, noncalcareous, medium-gray, and sandy speckled yellowish-gray silt.	20	A sandstone:		Gravel, (water-bearing).	16
Sand, subrounded, loose, very arkosic, 10 percent very coarse, 10 percent coarse, 40 percent medium, 10 percent fine.	15	Sandstone, silty, salt and pepper texture, quartz.	3	Dawson Formation:	
Shale, noncalcareous, medium-gray, silt, calcareous silt sandstone, and coal.	60	Silt and fine sand, medium-light-gray.	6	Shale.	1
Sand, silty, shaly, arkosic.	11	Sandstone, fine-grained, quartz, salt and pepper texture, silty and pyrite.	9	CS-66-19dbaa. Alt. 5,664.5 ft.	
Shale, carbonaceous, noncalcareous, medium-gray.	12	Shale, silty, medium-light-gray, sandy siltstone, silty sandstone, and coal; abundant pyrite.	73	Younger loess:	
Coal.	2	Fox Hills Sandstone:		Clay, brown; contains fill.	7
		Milliken Sandstone Member:		Clay, brown.	8
		Sandstone, very fine-grained, in part calcareous, quartz, salt and pepper texture, and some white calcareous crystals.	10	Louviers Alluvium:	
		Shale, medium-light-gray.	10	Sand and gravel (dry).	3
		CS-66-12dacc. Alt. 5,900 ft.		Dawson Formation (upper part):	
		Dawson Formation (upper part):		Clay, brown and yellow.	17
		Topsoil.	1	Clay, blue.	15
		Soil, sandy.	11	Shale, carbonaceous, silty, and sandy.	33
		Sand.	7	Sand, fairly hard.	13
		Clay, brown, blue and yellow.	64	Shale, silty, lignite, limestone, and silty sand and sandstone, interbedded.	803
		Shale, blue.	39	Dawson Formation (lower part):	
		Sand.	19	Middle conglomerate:	
		Shale, blue.	47	Sand (yields a little water).	12
		Sand.	4	Shale, silt, limestone, and silty sand and sandstone, interbedded.	136
		Shale, blue.	56	Sand, coarse, and gravel; contains breaks of silty shale.	152
		Sandstone, soft.	12	CS-66-19dbab. Alt. 5,669 ft.	
		Clay, soft, brown.	3	Younger loess:	
		Sand, Upper conglomerate, 365 to 607 feet.	4	Clay, brown.	3
		Coal.	7	Clay, sandy, brown.	3
		Shale, blue.	137	Louviers Alluvium:	
		Sand.	9	Sand, clean (dry).	11
		Rock.	1	Dawson Formation (upper part):	
		Sand, fine, white.	6	Clay, brown.	13
		Clay, soft, white.	26	Clay, yellow.	3
		Coal, good quality.	23	Clay, brown.	45
		Clay, soft, blue.	6	Shale at 45 feet.	
		Sand, fine.	8	CS-66-19ddcd3. Alt. 5,640.6 ft.	
		Rock.	1	Piney Creek, Broadway, and Louviers Alluvium, undifferentiated:	
		Sand, fine.	14	Sand and gravel, clean.	70
		Shale.	56	Sand and gravel, blue.	39
		Clay, white.	6	Dawson Formation:	
		Coal.	15	Shale at 109 feet.	
		Shale, blue.	6	CS-66-19dddd2. Alt. 5,642.3 ft.	
		Sandstone, very hard, very calcareous.	2	Piney Creek Alluvium:	
		Shale; contains very hard, thin limestone seams at 822, 845, and 870 feet.	211	Overburden.	6
		Sand.	8	Broadway and Louviers Alluvium, undifferentiated:	
		Shale; contains very hard, thin limestone seams at 913 feet.	26	Sand and gravel.	32
		No sample.	53	Louviers Alluvium:	
				Sand, gravel, and blue clay.	8
				Sand and gravel.	10
				Dawson Formation:	
				Shale, loose.	2
				Shale at 58 feet.	
				CS-66-20ada. Alt. 5,785 ft.	
				Eolian sand:	
				Blow sand.	1
				Dawson Formation (upper part):	
				Clay, sandy.	4
				Sand, fine.	16

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-66-20adda.---Continued		CS-66-20ccgc.---Continued		CS-66-20ccgc2.---Continued		CS-66-20ccgc2.---Continued	
Clay	2	Gravel, very fine to		Louviers Alluvium:		Louviers Alluvium:	
Sand	5	fine, clean.		Clay	2	Clay	28
Clay	1	angular, arkosic,		Sand, fine to very		Sand, fine to very	
Clay, sandy	4	and medium to		coarse, angular		coarse, angular	
Sand, rusty	1	coarse sand	4	to subrounded,		to subrounded,	
Shale, blue	4	Dawson Formation (upper		arkosic, clean,		arkosic, clean,	
Clay	5	part):		and about 10		and about 10	
Sandstone	5	Shale, slightly		percent very		percent very	
Shale, gray	10	sandy, very		fine gravel	24	fine gravel	52
Coal	1	hard, blue	4.5	Boulders and cobbles	1	Boulders and cobbles	53
Sandstone	8		57.5	Dawson Formation (upper		Dawson Formation (upper	
Shale, gray	17	CS-66-20ccgc. Alt. 5,643.2 ft.		part):		part):	
Sandstone	14	Piney Creek Alluvium:		Shale, silty,		Shale, silty,	
Shale, gray	4	Loam, sandy,		micaceous, non-		micaceous, non-	
Sandstone	13	brownish-black	2.5	calcareous, dark-		calcareous, dark-	
Shale, gray	32	Clay, silty and		yellowish-brown;		yellowish-brown;	
Shale, brown	9	sandy, light-brown	10.5	contains mont-		contains mont-	
Sand	10	Broadway Alluvium:		morillonite	4.5	morillonite	57.5
Shale, brown	3	Sand, very fine to		CS-66-20ccgc1. Alt. 5,652.9 ft.		CS-66-20ccgc1. Alt. 5,652.9 ft.	
Sand	6	very coarse, angular;		Piney Creek Alluvium:		Piney Creek Alluvium:	
Shale, gray	7	compact and fine-		Loam, sandy, dark-		Loam, sandy, dark-	
Shale, brown	7	grained below		brown	2	brown	2
Sandstone, gray	22	17.0 feet	17	Sand, medium to very		Sand, medium to very	
Shale, gray and brown	245	Gravel, very fine,		coarse, subangular		coarse, subangular	
Lime, sandy	3	and sand	13	to subrounded, damp,		to subrounded, damp,	
Shale, gray	27	Louviers Alluvium:		loose	2.5	loose	4.5
Coal	10	Gravel, very fine to		Dawson Formation (upper		Dawson Formation (upper	
Shale, gray	513	coarse, cobbles,		part):		part):	
Dawson Formation (lower		and sand	7	Silt, very calcareous,		Silt, very calcareous,	
part):		Cobbles	1.5	grayish-orange;		grayish-orange;	
Sand [Middle conglom-		Dawson Formation (upper		contains mont-		contains mont-	
erate, 1.011 to		part):		morillonite	3	morillonite	7.5
1,215 feet.]	9	Shale, hard, blue-		Silt, very sandy,		Silt, very sandy,	
Shale, gray	25	gray	3.5	calcareous, compact,		calcareous, compact,	
Sand	8		55	micaceous, dark-		micaceous, dark-	
Shale, gray	47	CS-66-20ccgc. Alt. 5,645.6 ft.		yellowish-brown	8.5	yellowish-brown	16
Sand	15	Piney Creek Alluvium:		Sand, coarse to very		Sand, coarse to very	
Shale, gray	4	Loam, sandy, clayey,		coarse, slightly		coarse, slightly	
Lime, sandy	2	dark-brown	2	silty, angular to		silty, angular to	
Sand, silty	10	Clay, slightly sandy,		subangular	1	subangular	17
Shale, gray	16	plastic, tan;		Clay, silty, very		Clay, silty, very	
Lime sandy	2	becomes very sandy		sandy, brown	.5	sandy, brown	17.5
Sand, silty	11	at 6.5 feet	8	Sand, very coarse,		Sand, very coarse,	
Shale, gray	10	Broadway and Louviers		subangular to sub-		subangular to sub-	
Lower conglomerate:		Alluvium, undifferentiated:		rounded, arkosic,		rounded, arkosic,	
Sand and gray shale	66	Gravel, very fine,		and very fine		and very fine	
Shale, gray	21	and fine to very		gravel	6.5	gravel	24
Sand, fine	11	coarse angular		Shale, silty, calcareous,		Shale, silty, calcareous,	
Shale, gray	9	sand; contains		grayish-orange;		grayish-orange;	
CS-66-20ccgc. Alt. 5,638.7 ft.		rare cobbles and		contains mont-		contains mont-	
Piney Creek Alluvium:		thin beds of		morillonite	3.5	morillonite	27.5
Soil	8	clay	32	CS-66-20ccgc. Alt. 5,655.5 ft.		CS-66-20ccgc. Alt. 5,655.5 ft.	
Broadway Alluvium:		Cobbles, sand, and		Piney Creek Alluvium:		Piney Creek Alluvium:	
Gravel (dry)	3	gravel	10	Topsoil, sandy, dark-		Topsoil, sandy, dark-	
Gravel (water-bearing)	7	Dawson Formation (upper		brown	1.5	brown	1.5
Louviers Alluvium:		part):		Dawson Formation (upper		Dawson Formation (upper	
Clay	1	Shale, sandy, hard,		part):		part):	
Gravel	12	dark-gray and		Sandstone, very fine-		Sandstone, very fine-	
Clay	1	brown	5.5	to medium-grained,		to medium-grained,	
Gravel and boulders	15		57.5	silty, arkosic,		silty, arkosic,	
Dawson Formation:		CS-66-20ccgc. Alt. 5,671.6 ft.		very calcareous,		very calcareous,	
Shale	1	Dawson Formation (upper		pale-yellowish-		pale-yellowish-	
CS-66-20ccgc. Alt. 5,644.5 ft.		part):		brown; contains		brown; contains	
Piney Creek Alluvium:		Sandstone, very fine-		montmorillonite	6	montmorillonite	7.5
Loam, sandy, clayey,	3	grained, very		CS-66-28aac. Alt. 5,860 ft.		CS-66-28aac. Alt. 5,860 ft.	
dark-brown	3	micaceous, arkosic,		Dawson Formation (upper		Dawson Formation (upper	
Broadway Alluvium:		friable, thin-		part):		part):	
Sand, very fine to		bedded, black-		Topsoil, sandy	5	Topsoil, sandy	5
very coarse,		speckled, dark-		Clay, gray	20	Clay, gray	25
angular to sub-		yellowish-orange;		Clay, yellow	42	Clay, yellow	67
angular, arkosic,		has limonite-		Sand	1	Sand	68
and very fine		stained streaks	3	Clay, blue	4	Clay, blue	72
gravel	17	sand and dark-		Clay, mixed, yellow		Clay, mixed, yellow	
Sand, medium to very		yellowish-orange		and gray	2	and gray	74
coarse, arkosic		soft micaceous		Clay, sandy, yellow	5	Clay, sandy, yellow	79
angular to sub-		fine- to medium-		Clay, sandy, blue	22	Clay, sandy, blue	101
angular	2.5	grained sandstone	4	Sand	2	Sand	101
Sand, fine to very		CS-66-20ccgc2. Alt. 5,650.1 ft.		Shale, blue	1	Shale, blue	106
coarse, angular		Piney Creek Alluvium:		Rock	1	Rock	107
to subangular, arkosic,		Loam, sandy, dark-		Shale, blue	3	Shale, blue	110
and about 40 percent		brown	2.5	Sandstone, blue	11	Sandstone, blue	121
subangular to		Sand, medium to coarse,		Sand	5	Sand	126
rounded very fine		subrounded to		Clay and sand, mixed	4	Clay and sand, mixed	130
gravel	10.5	rounded, arkosic,		Clay, light-blue	8	Clay, light-blue	138
Louviers Alluvium:		pale-yellowish-		Clay, brown, yellow,		Clay, brown, yellow,	
Gravel, very fine,		brown	.5	and light-blue	9	and light-blue	147
subangular, to sub-		Silt, sandy, micaceous,		Shale, blue	4	Shale, blue	151
rounded, cobbles,		calcareous; contains		Shale, brown	4	Shale, brown	155
and very coarse		montmorillonite	7	Shale, blue	5	Shale, blue	160
poorly sorted		Broadway Alluvium:		Clay, light-blue	16	Clay, light-blue	176
angular to sub-		Sand, fine to very		Clay, mixed brown and		Clay, mixed brown and	
angular arkosic		coarse, angular		gray	5	gray	181
sand	4.5	to subrounded,		Shale, light-blue	2	Shale, light-blue	183
Gravel, very fine to		arkosic, slightly		Sand	1	Sand	184
fine, and fine to		micaceous, and		Shale	12	Shale	196
very coarse sand	6.5	about 10 percent		Clay, blue	5	Clay, blue	201
Cobbles, boulders, and		very fine gravel	7	Shale	9	Shale	210
very fine to fine		Sand, medium to		Clay, blue	5	Clay, blue	215
arkosic angular to		coarse, arkosic,		Sand, silty, and		Sand, silty, and	
rounded, mostly		micaceous, and		shale	14	shale	249
subangular, arkosic		about 10 percent					
gravel; contains some		very fine gravel	6				
poorly sorted sand	5		26				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-66-18aagc.--Continued		CS-66-11ccbc.--Continued		CS-67-2babd.--Continued	
Clay, sandy.	5	Louviers Alluvium:		Silt, micaceous,	
Sand, silty, and		Clay.	5	yellowish-gray;	
shale.	26	Gravel.	10	stained with	
Upper conglomerate:		Clay.	11	iron oxide.	5 30
Sand.	3	Gravel.	7	Sand, very coarse,	
Clay.	6	Dawson Formation:		arkosic, very fine	
Sand and thin lignite		Shale.	1	gravel, and light-	
seam.	7		46	olive-gray silt.	15 35
Clay.	19	CS-66-11ccdb. Alt. 5,735 ft.		Silt, light-olive-	
Sand.	6	Piney Creek Alluvium:		gray, fine to very	
Shale, carbonaceous.	14	Clay, sandy, brown.	36	coarse sand, and	
Sand and thin lignite		Dawson Formation (upper		very fine gravel.	5 100
seam.	6	part):		Louviers Alluvium and Dawson	
Shale, lignite, and		Shale, blue.	9	Formation, undifferentiated:	
limy sandstone.	22	Sandstone, gray.	18	Gravel, very fine to	
Sand.	6	Shale, blue.	97	medium, loose,	
Rock.	1	Sand.	2	arkosic, subangular	
Shale.	10	Shale, blue.	78	to subrounded, and a	
Sand.	3	Sandstone.	23	little silty and	
Shale.	20	CS-67-2abca. Alt. 5,510 ft.		gravely micaceous	
Sand.	7	Piney Creek Alluvium:		sandstone.	3 103
Shale.	17	Loam, sandy, clayey.	5	Dawson Formation (upper	
Rock.	1	Broadway Alluvium:		part):	
Shale.	6	Sand.	25	Shale, noncalcareous,	
Sand.	1	Dawson Formation (upper		light-gray; contains	
Shale.	20	part):		montmorillonite.	2 105
CS-66-29baab. Alt. 5,672.4 ft.		Clay, lean, and sandy		CS-67-2bbba. Alt. 5,502 ft.	
Piney Creek Alluvium:		loam, in alternate		Post-Piney Creek alluvium:	
Topsoil.	3	layers.	35	Silt, dark-yellowish-	
Dawson Formation (upper		Sand.	10	brown, and very	
part):		Loam.	3	fine sand.	5 5
Sandrock, red.	15	Sand.	4	Sand, very coarse, sub-	
Shale.	47	Loam.	4	angular, arkosic,	
Sand (water-bearing).	20	Sand.	4	loose, clean, and	
Shale.	50	Clay, lean.	10	very fine gravel.	5 10
Rock, blue.	2	Sand and gravel.	2	Broadway Alluvium:	
Sand (water-bearing).	18	Claystone.	16	Gravel, very fine,	
Shale.	5	CS-67-2babd. Alt. 5,511 ft.		subangular to sub-	
CS-66-10aaga2. Alt. 5,643.6 ft.		Piney Creek Alluvium:		rounded, fairly	
Piney Creek Alluvium:		No sample.	15	uniform, arkosic,	
Top, clay.	20	Broadway Alluvium:		loose, clean, and	
Alluvium, undifferentiated:		Gravel, very fine to		a little very	
Gravel, clean.	55	fine, arkosic,		coarse sand.	5 15
Dawson Formation (upper		loose, subangular,		Sand, very coarse,	
part):		and very coarse,		fairly well-sorted,	
Sandstone, weakly-		clean sand.	10	subangular to sub-	
cemented.	25	Gravel, very fine to		rounded, loose,	
Shale.	6	fine, arkosic,		clean, arkosic, and	
CS-66-10adaa. Alt. 5,647.8 ft.		fairly well-sorted,		a little very fine	
Piney Creek Alluvium:		subangular to sub-		gravel.	5 20
Topsoil.	10	rounded, loose,		Gravel, very fine to	
Broadway Alluvium:		clean, and a little		fine, subangular to	
Sand.	10	medium to coarse		subrounded, very	
Louviers Alluvium:		sand.	5	arkosic, loose,	
Gravel, and 15 feet of		Louviers Alluvium:		clean, and coarse	
cobble gravel at		Sand, medium to		to very coarse	
the bottom.	65	very coarse,		sand.	10 30
Dawson Formation (upper		arkosic, angular		Louviers Alluvium:	
part):		to subangular,		Sand, coarse to very	
Sandstone, hard.	13	loose, clean.	10	coarse, subangular	
Shale at 98 feet		Gravel, very fine,		to subrounded, very	
CS-66-10adad. Alt. 5,650 ft.		angular to sub-		arkosic, loose, and	
Piney Creek Alluvium:		angular, arkosic,		very fine gravel.	5 15
Clay.	13	and about 40		Gravel, very fine to	
Clay, sandy.	6	percent medium to		fine, subangular to	
Broadway and Louviers		coarse sand.	5	subrounded, loose,	
Alluvium, undifferentiated:		Gravel, very fine to		very arkosic, and	
Gravel.	26	very coarse, arkosic,		very coarse sand	
Rock.	7	clean, subangular to		Gravel, and cobbles,	
Louviers Alluvium:		well-rounded;		subangular to very	
Clay.	2	contains many		well-rounded; con-	
Gravel.	9	cobbles and small		tains many small	
Clay, blue.	19	boulders.	5	boulders.	10 50
Gravel.	16	Gravel, cobbles,		Sand, coarse to very	
Rock at 98 feet		loose, arkosic,		coarse, loose, sub-	
CS-66-10addd. Alt. 5,660 ft.		subangular to		angular to angular,	
Piney Creek Alluvium:		well-rounded, and		arkosic, very fine	
Topsoil.	13	a little pale-		gravel, and	
Broadway Alluvium:		yellowish-brown		cobbles.	
Sand.	7	clayey silt.	5	Gravel, very fine,	
Gravel.	16	Sand, medium to very		loose, subangular to	
Louviers Alluvium:		coarse, arkosic,		subrounded, very	
Clay.	4	angular to sub-		arkosic, and very	
Gravel.	13	angular, loose,		coarse sand.	10 75
Clay.	3	and about 30		Gravel, very fine, and	
Gravel.	9	percent very fine		very coarse sand;	
Clay, blue.	7	to fine gravel.	10	contains a little	
Sand, dirty.	8	Gravel, very fine,		light-olive-gray	
Rock at 80 feet		angular to sub-		and dark-yellowish-	
CS-66-11ccbc. Alt. 5,701.4 ft.		angular, clean,		orange iron-stained	
Piney Creek Alluvium:		loose, arkosic, and		silt.	5 30
Soil.	6	about 40 percent		Silt, sandy, micaceous,	
Broadway Alluvium:		medium to very		light-olive-gray.	5 35
Gravel, (water-		coarse sand.	5	Sand, medium to very	
bearing).	6	Gravel, fine to medium,		coarse, moderately	
		loose, arkosic,		arkosic, subrounded	
		clean, subangular		to rounded, silty,	
		to subrounded;		light-olive-gray.	5 90
		many particles		Dawson Formation (upper	
		iron-stained.	5	part):	
				Silt, micaceous,	
				chloritic, light-	
				olive-gray.	5 95

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-67-2bbag. --Continued		CS-67-3bbad. Alt. 5,560 ft.		CS-67-6badb. --Continued	
Silt, very sandy, macaceous, chloritic, light-olive-gray.	5 100	Sand, coarse, and gray shale.	72 1,005	Shale, gray.	115 750
Rocks	2 102	Shale, gray.	5 1,010	Shale, sandy, gray.	30 780
CS-67-3bbad. Alt. 5,548 ft.		Shale, gray, and coarse sand.	23 1,033	Sand, fine.	3 783
Piney Creek Alluvium:		Sand, coarse.	13 1,046	Shale, sandy, gray.	45 828
Topsoil.	3 3	Shale, gray, and sand.	8 1,054	Sand and gray shale.	23 851
Younger loess:		Shale, gray.	11 1,065	Shale, gray.	47 896
Clay, brown.	15 18	Shale, gray, and sand.	15 1,080	Lime.	1 899
Louviers Alluvium:		Shale, gray.	72 1,152	Shale, sandy.	15 914
Clay, sandy, and gravel	17 35	Shale, gray, and fine sand.	29 1,181	Dawson Formation (lower part):	
Dawson Formation (upper part):		Shale, gray.	28 1,209	Sand and gray shale [Middle conglomerate, 908 to 1,055 feet.].	38 952
Clay, brown.	11 46	Lower conglomerate:		Lime.	1 953
Shale, blue.	579 625	Sand, fine and gray shale.	14 1,221	Sand and gray shale.	102 1,055
Sand.	13 638	Shale, gray.	28 1,251	Shale, gray.	9 1,064
Shale, blue.	299 937	Sand, fine.	6 1,257	CS-67-7dbac. Alt. 5,520 ft.	
Dawson Formation (lower part):		Shale, gray, and fine sand.	20 1,277	Colluvium:	
Middle conglomerate:		Sand, coarse.	17 1,294	Topsoil.	4 4
Sand.	30 967	Shale, gray.	5 1,299	Younger loess:	
Shale, blue.	11 978	Sand, coarse.	5 1,304	Clay, yellow.	24 28
Sand.	18 996	Shale, gray.	39 1,343	Dawson Formation (upper part):	
Shale, blue.	9 1,005	Shale, gray, and sand.	23 1,366	Clay, sandy, brown.	4 32
CS-67-3dscb. Alt. 5,555 ft.		Laramie Formation:		Sandstone, brown.	19 51
Younger loess:		Shale, gray.	49 1,415	Shale, blue.	4 55
Topsoil.	4 4	Coal and gray shale.	8 1,421	Shale, gray.	7 62
Clay, sandy, stiff.	11 15	Shale, brown.	5 1,428	Sandstone, gray.	4 66
Louviers Alluvium:		Shale, gray.	46 1,474	Shale, brown.	3 69
Sand and gravel.	21 36	Sand, fine, white, and gray shale.	12 1,486	Shale, gray.	9 79
Dawson Formation (upper part):		Shale, gray.	22 1,508	Sandstone, gray.	20 96
Clay.	19 55	Sand, fine, white, and gray shale.	9 1,517	Shale, gray.	11 109
CS-67-5bda. Alt. 5,560 ft.		Shale, gray.	117 1,634	Sandstone, brown.	12 115
Piney Creek Alluvium:		Sand, fine, white, and gray shale.	20 1,654	Shale, gray.	36 131
Topsoil.	2 2	Shale, gray, and coal.	25 1,679	Shale, brown.	17 188
Clay, sandy, yellow.	5 7	Shale, gray.	21 1,700	Shale, gray.	11 199
Younger loess:		Shale, gray, and coal.	41 1,741	Sandstone, brown.	12 211
Clay, brown.	4 11	Shale, gray.	34 1,775	Shale, gray.	19 230
Clay, yellow.	16 27	Coal and gray shale.	35 1,810	Shale, brown.	18 248
Clay, brown.	11 38	A sandstone:		Sandstone, brown.	8 256
Clay, yellow.	5 43	Sand, fine.	85 1,895	Shale, gray.	9 265
Dawson Formation (upper part):		Shale, gray, and fine sand [A sandstone, 1,895 to 2,012 ft.-c.].	40 1,935	Sandstone, gray.	8 273
Clay, sandy, yellow.	7 50	Shale, gray.	19 1,954	Shale, brown.	4 277
Shale, gray.	4 54	Sand, fine, and gray shale.	58 2,012	Sandstone, gray.	32 309
Shale, blue.	5 59	Shale, gray.	21 2,033	Shale, gray.	47 356
Shale, sandy, brown.	4 63	Fox Hills Sandstone:		Shale, brown.	4 360
Shale, gray.	16 99	Milliken Sandstone Member:		Sandstone, gray.	17 377
Sandstone, gray.	27 126	Sand, fine, and gray shale.	47 2,080	Shale, sandy, gray.	15 392
Shale, gray.	47 173	Shale, gray.	12 2,092	Shale, gray.	140 532
Sandstone, gray.	11 184	CS-67-6badb. Alt. 5,560 ft.		Shale, brown.	4 536
Shale, gray, and sandstone.	21 205	Younger loess:		Sandstone, gray.	6 542
Shale, gray.	46 251	Topsoil.	2 2	Shale, gray.	67 609
Sand.	4 255	Dawson Formation (upper part):		Sandstone and gray shale: in layers.	19 628
Shale, gray, and sandstone.	15 270	Clay, sandy, yellow.	4 6	Shale, gray.	9 637
Shale, brown.	5 275	Sandstone, brown.	10 16	Sandstone and gray shale: in layers.	12 649
Sandstone, gray.	18 293	Clay, sandy, yellow.	1 19	Shale, gray.	125 774
Shale, brown.	6 299	Sandstone.	2 21	Dawson Formation (lower part):	
Shale, gray.	8 307	Gravel.	3 24	Sand [Middle conglomerate, 774 to 959 feet.].	6 780
Shale, brown.	7 314	Sandstone, brown.	11 35	Shale, gray.	12 812
Sandstone, gray, and shale.	23 337	Clay, yellow.	23 58	Sandstone.	3 815
Shale, brown.	4 341	Clay, sandy, yellow.	11 69	Shale, sandy, gray.	26 841
Shale, gray, and sandstone.	21 362	Sandstone, gray.	6 75	Sand.	16 857
Shale, brown.	3 365	Shale, blue.	3 78	Shale, gray.	8 865
Shale, gray, and sandstone.	49 414	Sandstone, gray.	49 127	Sandstone.	7 872
Shale, brown.	6 420	Shale, blue.	5 132	Sand and gray shale.	4 876
Shale, gray, and sandstone.	30 450	Sandstone, gray.	17 149	Shale, gray.	16 912
Shale, gray.	15 465	Shale, brown.	6 155	Sand.	6 918
Shale, brown.	5 470	Shale, gray.	25 180	Shale, sandy, gray.	10 948
Shale, gray.	10 480	Shale, brown.	8 188	Sand.	11 959
Shale, sandy, gray.	22 502	Sandstone, gray.	7 195	Shale, gray.	6 965
Sandstone, gray.	9 511	Shale, gray.	18 213	Sand and gray shale.	28 993
Shale, gray.	11 522	Shale, brown.	3 216	Shale, sandy, gray.	30 1,023
Shale, sandy, gray.	55 577	Sandstone, gray, and shale.	70 286	Sand and gray shale: in layers.	28 1,051
Sandstone, gray.	13 590	Shale, brown, and sandstone.	22 308	Shale, gray.	11 1,062
Shale, gray.	13 603	Sandstone, gray.	17 345	Sand, fine, and gray shale: in layers.	31 1,093
Sandstone, gray, and shale.	25 628	Shale, brown.	6 351	Shale, gray.	28 1,121
Shale, brown.	6 634	Shale, gray, and sandstone.	87 438	Lower conglomerate:	
Shale, gray.	127 761	Shale, gray.	114 552	Sand.	13 1,134
Sand, fine, and gray shale.	17 778	Sandstone, gray.	15 567	Shale, gray.	13 1,147
Shale, gray.	58 836	Shale, gray.	19 606	Sand and gray shale: in layers.	37 1,184
Sand, fine, and gray shale.	24 860	Sandstone, gray.	3 609	Shale, gray.	13 1,197
Shale, gray.	30 890	Shale, brown.	4 613	Sand.	6 1,203
Dawson Formation (lower part):		Shale, gray, and sandstone.	22 635	Shale, gray.	66 1,269
Sand, coarse, and gray shale [Middle conglomerate, 890 to 1,080 feet.].	12 922			CS-67-8bbag. Alt. 5,600 ft.	
Shale, gray.	11 933			Younger loess:	
				Topsoil.	3 1
				Clay, yellow.	12 15
				Dawson Formation (upper part):	
				Shale, sandy, brown.	6 21
				Sandstone, brown.	26 47
				Shale, gray.	3 50
				Sandstone, gray.	12 62

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-67-8bbas.--Continued		CS-67-8bbas.--Continued		CS-67-16bcdh.--Continued	
Shale, sandy, gray	5 67	Coal	4 1,751	Shale, brown	4 529
Shale, gray	7 74	Shale, gray	15 1,766	Sandstone, gray	2 531
Shale, sandy, blue	8 82	Coal and gray shale	17 1,783	Shale, gray	16 547
Shale, brown	5 87	Sand, coal, and gray	23 1,806	Shale, brown	21 568
Shale, gray	15 102	shale	23 1,806	Shale, gray	34 602
Sandstone, gray	13 115	Sand, fine, white [8	41 1,847	Shale, brown	6 608
Sandstone, blue	2 117	sandstone, 1,806 to		Shale, gray	21 629
Sandstone, gray	10 127	1,978 feet.]		Shale, brown	5 634
Sandstone, brown	2 129	Sand, fine, white,	31 1,878	Shale, gray	30 724
Sandstone, gray	11 140	and gray shale	15 1,893	Shale, brown	4 728
Sandstone, blue	3 143	Shale, gray	38 1,931	Shale, gray	102 1,030
Sandstone, gray	17 160	Coal and gray shale		Dawson Formation (lower	
Sandstone, blue	5 165	Sand and gray shale		part):	
Shale, sandy, gray	5 170	[A sandstone, 1,931		Sand [Middle conglom-	
Sandstone, gray	7 177	to 1,989 feet.]	58 1,989	erate, 1,030 to	
Sandstone, brown	4 181	Shale, gray	3 1,992	1,200 feet.]	6 1,036
Shale, sandy, green	4 185	CS-67-10aada. Alt. 5,620 ft.		Shale, gray	10 1,046
Shale, sandy, gray	2 187	Younger loess:		Sand	9 1,055
Shale, brown	3 190	Clay	12 12	Shale, gray	9 1,064
Shale, sandy, gray	60 258	Dawson Formation (upper		Sand	7 1,071
Shale, sandy, blue	9 267	part):		Lime, sandy	1 1,072
Shale, sandy, brown	8 275	Claystone	18 30	Shale, gray	8 1,080
Shale, sandy, gray	135 410	Sandstone or compact	15 45	Sand	7 1,087
Shale, gray	6 416	sand	22 67	Shale, gray	18 1,105
Shale, sandy, gray	116 532	CS-67-10bcba. Alt. 5,640 ft.		Sand	7 1,112
Sandstone, gray	11 543	Younger loess:		Shale, gray	20 1,132
Shale, sandy, gray	19 562	Soil	1 1	Sand	9 1,141
Sandstone, gray	5 567	Clay, yellow and	48 49	Shale, gray	10 1,151
Shale, brown	5 572	brown		Sand	3 1,154
Shale, gray	53 625	Dawson Formation (upper		Shale, gray	4 1,158
Shale, brown	9 634	part):		Sand	12 1,170
Shale, gray	49 683	Shale, blue, gray,	71 120	Shale, gray	22 1,192
Shale, sandy, gray	11 694	and brown	4 124	Sand	8 1,200
Shale, gray	59 753	Sandstone, gray	125 249	Shale, gray	10 1,210
Sand	9 762	Sand	6 255	Sand, and gray shale	21 1,231
Shale, gray	10 772	Shale, blue and gray	39 294	Shale, gray	22 1,253
Sand	9 781	Sandstone, gray	1 295	Sand, and gray shale	14 1,267
Shale, gray	42 823	Shale, brown, gray,	300 595	Lime, sandy	2 1,269
Sand	10 833	and blue	7 602	Shale, gray	7 1,276
Shale, gray	37 870	Shale, gray and	299 901	Sand	7 1,283
Sand	1 871	brown		Shale, gray, lime, and	
Shale, gray	18 889	Shale, gray and brown;		sand	9 1,292
Sand	11 900	contains streaks		Shale, gray	29 1,321
Shale, gray	5 905	of medium sand	1 902	Lower conglomerate:	
Sand	7 912	sand, medium, light-	8 910	Sand	15 1,336
Shale, gray	1 913	gray	115 1,025	Shale, gray	20 1,356
Sand	4 917	Dawson Formation (lower		Sand	16 1,372
Shale, gray	32 949	part):		Shale, gray	4 1,376
Shale, gray, and sand;		Sand, medium to		Sand	9 1,385
in layers	8 957	coarse, clean,		Shale, gray	16 1,421
Dawson Formation (lower		light-gray; contains		Sand	3 1,424
part):		layers of shale		Shale, gray	11 1,455
Sand [Middle conglom-		[Middle conglom-		Sand, fine	19 1,474
erate, 957 to 1,045		erate, 1,025 to		Shale, gray	24 1,498
feet.]	5 962	1,265 feet.]	50 1,075	CS-67-17cded. Alt. 5,543 ft.	
Sand and gray shale;		Shale, gray; contains		Younger loess:	
in layers	3 965	streaks of sand	70 1,145	Soil	1 1
Shale, gray	17 982	Sand, fine to coarse,		Clay, yellow	18 19
Sand	3 985	interlayered with		Dawson Formation (upper	
Shale, gray	10 995	gray shale	120 1,265	part):	
Sand	5 1,000	Shale, gray; contains		Shale, brown, blue,	
Shale, gray	4 1,004	streaks of gray		and gray	121 140
Sand	14 1,018	fine sand	95 1,350	Sandstone, gray	23 163
Shale, gray	23 1,041	Lower conglomerate:		Shale, blue, brown,	
Sand	4 1,045	Sand, fine, clean,	20 1,370	and gray	169 332
Shale, gray	30 1,075	gray		Sandstone, gray, and	
Sand and gray shale;		Sand, fine, gray,		shale	24 356
in layers	23 1,098	interbedded with		Shale, brown and gray	174 730
Shale, gray	17 1,115	gray shale	25 1,395	Sand, medium to coarse,	
Sand and gray shale;		Shale, gray	5 1,400	clean, gray	30 760
in layers	6 1,121	CS-67-16bcdh. Alt. 5,696 ft.		Shale, blue and gray	120 880
Shale, gray	12 1,133	Younger loess:		Dawson Formation (lower	
Lower conglomerate:		Soil	1 1	part):	
Sand	11 1,144	Clay, yellow	51 52	Sand, medium to	
Shale, gray	11 1,155	Dawson Formation (upper		coarse, clean,	
Sand and gray shale;		part):		light-gray [Middle	
in layers	34 1,189	Sandstone, brown	4 56	conglomerate, 880	
Sand and gray shale	125 1,314	Clay, yellow	4 60	to 1,083 feet.]	14 894
Shale, gray	7 1,321	Shale, blue	5 65	Shale, silty, gray,	
Sand	6 1,327	Shale, gray	13 78	and clay	36 930
Shale, gray	13 1,340	Sandstone, gray	3 81	Sand, fine to coarse,	
Sand and gray shale	15 1,355	Shale, gray	23 104	predominantly clean,	
Laramie Formation:		Shale, blue	4 108	gray; contains	
Shale, gray	33 1,388	Shale, gray	28 136	layers of gray,	
Sand and gray shale	9 1,397	Shale, blue	11 147	silty shale and	
Shale, gray	27 1,424	Shale, gray	29 176	clay	130 1,060
Coal and gray shale	12 1,436	Shale, blue	3 179	Shale, silty, gray;	
Shale, gray	26 1,462	Shale, gray	170 349	contains layers of	
Shale, gray, and fine		Sandstone, gray	12 361	gray fine to medium	
sand	6 1,468	Shale, gray	66 427	silty sand	8 1,068
Shale, gray	93 1,561	Shale, brown	4 431	Sand, medium to coarse,	
Shale, sandy, gray	25 1,586	Shale, gray	37 468	clean, gray; contains	
Shale, gray	16 1,602	Shale, brown	4 472	layers of silty	
Coal, sand, and gray		Shale, gray	4 476	shale	15 1,083
shale	38 1,640	Shale, gray	14 490	Shale, silty, gray	119 1,202
Coal and gray shale	5 1,645	Shale, gray	35 525	Lower conglomerate:	
Shale, gray	35 1,680	CS-67-16bcdh. Alt. 5,696 ft.		Sand, medium to	
Sand	6 1,686	Younger loess:		coarse, clean,	
Shale, gray	3 1,689	Soil	1 1	light-gray; contains	
Sand and gray shale	6 1,695	Clay, yellow	51 52	thin beds of sandy	
Shale, gray	3 1,698	Dawson Formation (upper		and silty shale	
Sand	4 1,702	part):		Shale, silty to clayey,	
Shale, gray	45 1,747	Sandstone, brown	4 56	gray; contains layers	

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-67-19bbbbb. Alt. 5,494.3 ft. Piney Creek Alluvium: Topsoil. 5 5 Broadway Alluvium: Sand. 17 22 Dawson Formation (upper part): Clay, red, yellow, blue, and green. 106 128 Shale, blue, and streaks of sand- stone. 53 181 Shale, blue, and silty streaks. 132 313 Shale, blue. 14 327 Sand, silty. 17 344 Shale, blue. 44 388 Shale, sandy. 51 439 Shale, blue. 70 509 Sand, silty, hard. 25 534 Shale, blue. 56 590 Sand, silty, hard. 15 605 Shale, blue. 17 622 Sand, silty, hard. 20 642 Shale, blue. 55 697 Sand, silty, tight, and streaks of shale. 31 728 Shale, blue. 13 741 Sand, silty, tight, and blue streaks of shale. 47 788 Shale, blue. 14 802 Dawson Formation (lower part): Middle conglomerate: Sand. 68 870 Shale, blue. 16 886		CS-67-21acbb. --Continued Shale, gray. 10 890 Dawson Formation (lower part): Middle conglomerate: Sand, coarse, and gray shale. 43 933 Limestone. 3 936 Sand, coarse, and gray shale. 7 943 Shale, gray. 24 967 Sand, coarse, and gray shale. 103 1,070 Shale, gray. 27 1,097 Sand, coarse, and gray shale. 47 1,144 Limestone. 3 1,147 Sand, coarse, and gray shale. 20 1,167 Limestone. 1 1,168 Sand, coarse, and gray shale. 29 1,197 Shale, gray. 9 1,206 CS-67-14bddd. Alt. 5,865 ft. Younger loess: Topsoil. 2 2 Dawson Formation (upper part): Sandstone, yellow. 10 12 Sand. 5 17 Sandstone, brown. 7 24 Sand. 6 30 Gravel. 10 40 Clay, sandy, gray. 3 43 Sandstone, yellow. 7 50 Clay, sandy, gray. 6 56 Shale, gray. 25 81 Shale, sandy, gray. 12 93 Shale, gray. 23 116 Sandstone, gray. 36 152 Shale, gray. 9 161 Shale, brown. 7 168 Shale, sandy, gray. 11 179 Sand, coarse. 6 185 Shale, gray. 55 240 Shale, sandy, gray, and sandstone. 12 252 Sand, coarse [Upper conglomerate, 252 to 420 feet.]. 42 294 Shale, gray, and coarse sand. 11 305 Shale, sandy, gray. 14 319 Sand, coarse, and gray shale. 9 328 Shale, green. 4 332 Sandstone, gray, and coal. 8 340 Shale, brown. 7 347 Shale, sandy, gray. 14 361 Sand, coarse. 6 367 Sandstone, gray and coal. 5 372 Sand, coarse. 6 378 Shale, gray, and coal. 8 386 Shale, gray. 19 405 Sand, coarse, and gray shale. 15 420 Shale, gray. 11 431 Shale, sandy, gray. 28 459 Shale, gray. 12 491 Sandstone, gray, and shale. 15 506 Shale, gray. 18 524 Sandstone, gray. 6 530 Shale, sandy, gray. 19 549 Sandstone, gray. 2 551 Shale, sandy, gray. 15 566 Shale, gray. 12 578 Shale, sandy, gray. 20 598 Sand, coarse, and gray shale. 12 610 Shale, gray. 19 629 Sand, coarse, and gray shale. 14 643 Shale, sandy, gray. 15 658 Shale, gray. 11 669 Sandstone, gray. 7 676 Shale, sandy, gray, and sandstone. 15 691 Shale, gray. 7 698 Shale, sandy, brown. 10 708 Shale, sandy, gray. 12 720 Shale, sandy, brown. 8 728 Sand, medium to coarse, and gray shale. 21 749 Shale, sandy, gray. 6 755 Shale, gray, and sandstone. 13 768 Sand, coarse, and gray shale. 34 802 Sand, fine, and gray shale. 26 828		CS-67-14bddd. --Continued Shale, brown. 7 835 Shale, gray. 35 870 Sand, fine to medium. 5 876 Shale, gray. 121 997 Sand, coarse, and gray shale. 20 1,017 Shale, gray. 50 1,067 Sand, medium to coarse shale, gray. 16 1,105 Shale, gray. 16 1,121 Sand, coarse. 12 1,133 Shale, gray. 44 1,177 Dawson Formation (lower part): Sand, coarse, and gray shale [Middle conglomerate, 1,182 to 1,400 feet]. 54 1,231 Shale, gray. 17 1,248 Sand, coarse, and gray shale. 102 1,350 Sand, fine to medium, and gray shale. 48 1,398 Shale, gray. 22 1,420 Sand, fine to coarse, and gray shale. 60 1,480 Shale, gray. 12 1,492 Lower conglomerate: Sand, fine, and gray shale. 54 1,546 Shale, gray. 11 1,557 Sand, fine to coarse, and gray shale. 53 1,610 Shale, gray. 9 1,619 CS-68-1ccddd. Alt. 5,410 ft. Piney Creek Alluvium: Clay, dark-brown. 15 15 Dawson Formation: Shale, brown. 14 29 CS-68-1dbbb. Alt. 5,475 ft. Younger loess: Topsoil. 2 2 Clay, sandy, brown. 26 28 Clay, yellow. 12 40 Dawson Formation (upper part): Sandstone, brown. 3 43 Clay, sandy, brown. 28 71 Shale, blue. 6 77 Shale, sandy, gray, and sandstone. 6 83 Shale, green. 3 86 Sandstone, gray, and shale. 106 192 Shale, brown and gray. 27 219 Sandstone, gray, and shale. 66 285 Shale, gray. 56 341 Sandstone, gray. 110 451 Shale, gray. 71 522 Shale, sandy, gray. 15 537 Shale, gray. 120 657 Dawson Formation (lower part): Sand, coarse, and gray shale [Middle conglomerate, 676 to 915 feet.]. 34 991 Shale, gray. 17 708 Sand, fine, and gray sandy shale. 32 740 Lime. 1 741 Sand, coarse, and gray shale. 10 751 Shale, gray. 9 760 Shale, sandy, gray. 12 772 Sand, coarse, and gray shale. 10 782 Shale, gray. 43 825 Sand, fine to coarse, and gray shale. 18 843 Shale, gray. 17 860 Shale, sandy, gray. 22 882 Sand, coarse, and gray shale. 18 900 Sand, fine, and sandy shale. 15 915 Lime. 1 916 Sand, fine to coarse, and gray shale. 79 995 Shale, gray. 89 1,084 Lime [Lower conglom- erate, top at 1,082 feet.]. 1 1,085 Shale, gray. 91 1,176 Sand, fine, and gray shale. 11 1,187 Shale, gray. 4 1,191 CS-68-2acbb. Alt. 5,405 ft. Colluvium and Younger loess, undifferentiated: Soil, surface. 20 20	

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
CS-68-2acch. --Continued			CS-68-2ccag2. --Continued			CS-68-2ccag2. --Continued		
Dawson Formation (upper part):			Shale, gray 5 595			Sand, slightly shaly, fine to coarse, angular to sub-angular, white to glassy; contains 4 percent dark minerals (yielded large flow of water at 1,627 feet). 59 1,684		
Sandrock, blue 20 40			Sand (water-bearing, flows 6 gpm at surface). 3 598			Fox Hills Sandstone:		
Shale, blue 7 47			Shale, gray 79 677			Milliken Sandstone Member:		
Sandrock, blue 14 81			Sand and shale (water-bearing, yields 6 gpm). 30 707			Sand, fine to coarse, angular to sub-angular, white to glassy; contains 4 percent dark minerals (increase in flow of water began at 1,686 and continued to 1,728 feet). 44 1,728		
Shale 9 90			Shale, gray 49 756			CS-68-2dbca. Alt. 5,352 ft.		
Sandrock, gray 28 118			Sand (yields no water) 7 763			Piney Creek Alluvium:		
Shale, blue 8 126			Shale, gray 77 840			Topsoil. 10 10		
Sandrock, blue 13 139			Lower conglomerate:			Broadway Alluvium:		
Clay and shale, blue 41 180			Sand, gray (water-bearing). 3 843			Sand 2 12		
Sandrock, blue 12 192			Shale, gray and brown 186 1,029			Louviers Alluvium:		
Shale, sandy 88 280			Sand, gray (yields 3 gpm). 8 1,037			Clay 4 16		
Sandrock, hard, gray 13 293			Sand and shale. 28 1,065			Sand, heavy, and light gravel 11 27		
Shale, blue 82 375			Laramie Formation:			Dawson Formation (upper part):		
Sandrock, blue 20 395			Shale, gray 80 1,145			Sandstone at 27 feet		
Clay, gray 145 540			Coal, thin strata 5 1,150			CS-68-3baba. Alt. 5,315 ft.		
Dawson Formation (lower part):			Shale, sticky, gray. 15 1,165			Broadway Alluvium:		
Sand [Middle conglomerate, 540 to 788 feet.] (water-bearing). 6 546			Sand (water-bearing). 1 1,166			Topsoil. 4.5 4.5		
Clay and shale 124 670			Shale, gray 3 1,169			Sand, fine 7.5 12		
Sand (water-bearing). 8 678			Sand (water-bearing, heavy flow at surface). 16 1,185			Louviers Alluvium:		
Clay and shale 52 730			Sand and shale (increase in flow at 1,209 feet). 41 1,226			Clay, brown. 16 28		
Sand (water-bearing). 15 745			Shale, gray 12 1,238			Sand and gravel. 16 44		
Clay and shale 25 770			Coal. 10 1,248			Clay, brown. 7 51		
Sand (water-bearing). 18 788			Shale, gray, brown, or black. 77 1,325			Gravel and boulders. 5 56		
Clay and shale, gray 162 950			Coal. 6 1,331			CS-68-4abdb1. Alt. 5,285 ft.		
Lower conglomerate:			Shale, gray, and sand. 39 1,370			Broadway and Louviers Alluvium, undifferentiated:		
Sand (water-bearing, well flowed 20 gpm at surface). 20 970			Shale, brown. 35 1,405			Sand and gravel. 37 37		
Clay and shale 115 1,085			Coal. 3 1,408			Dawson Formation:		
Sand (water-bearing). 17 1,102			Shale, brown. 1 1,409			Shale, gray. 33 70		
Laramie Formation:			Coal. 2 1,411			CS-68-4bdec. Alt. 5,282 ft.		
Shale, blue. 48 1,150			Shale and shells; contains coal. 29 1,440			Post-Piney Creek Alluvium:		
Limestone. 5 1,155			Shale, gray. 8 1,448			Topsoil. 5.5 5.5		
Shale, brown. 95 1,250			Shale, brown, and coal. 8 1,456			Broadway and Louviers Alluvium, undifferentiated:		
Coal. 10 1,260			Sand (water-bearing, flowed at surface). 1 1,457			Boulders and sand. 11.5 17		
Shale, brown. 70 1,330			Shale, hard, gray-brown. 4 1,461			Clay 2 19		
Limestone. 5 1,335			Shale, brown, hard, mixed with coal. 7 1,468			Gravel 7 26		
Shale, gray. 15 1,350			Coal and brown shale. 5 1,473			Clay, blue 5 31		
Coal. 5 1,355			Shale, brown. 11 1,484			Gravel 8 39		
Limestone. 10 1,365			Sand, medium to very coarse, soft, gray to white; 95 percent of quartz grains subangular to rounded; contains coal; (water-bearing, water rose 350 feet in 2 hours). 5 1,489			Dawson Formation:		
Shale, chocolate. 15 1,380			Sand, medium to coarse, gray, white, and colorless, subangular to rounded. 7 1,496			Shale at 39.0 feet		
Coal. 5 1,385			Coal, hard. 6 1,502			CS-68-4ccdc. Alt. 5,290.1 ft.		
Shale, gray. 45 1,430			Shale, hard, impervious. 5 1,507			Post-Piney Creek alluvium:		
Sandrock, dark-gray. 5 1,435			Coal. 3 1,510			Earth. 5 5		
Shale, chocolate. 15 1,450			Sand, medium to coarse, subangular to rounded, white to glassy; 3 to 4 percent dark minerals give a salt and pepper appearance [8 sandstone, 1,510 to 1,597 feet]. 89 1,599			Broadway Alluvium:		
Coal. 5 1,455			Shale, sandy, clayey, gray and brown. 20 1,619			Sand, fine 15 20		
Limestone, shell, black. 5 1,460			A sandstone:			Louviers Alluvium:		
Shale, chocolate. 20 1,480			Sand, medium to coarse, angular to subangular brown to glassy, and light-grayish-brown and dark-gray sandy to clayey shale; contains 5 percent dark minerals, limonite particles, and light-gray splintery shale 6 1,625			Silt and clay. 5 20		
Coal. 5 1,485						Sand 5 25		
Shale, chocolate. 29 1,514						Clay 3 28		
Sandrock, hard. 3 1,517						Sand 4 32		
Shale, gray, and coal. 13 1,530						Shale at 12 feet		
Limestone, shell. 8 1,538						CS-68-5baba. Alt. 5,309.8 ft.		
Sand [B sandstone, 1,538 to 1,627 feet.] (water-bearing). 89 1,627						Post-Piney Creek alluvium:		
Shale, chocolate. 18 1,645						Silt, slightly sandy, calcareous, dark-yellowish-brown; contains montmorillonite. 5 5		
A sandstone:						Louviers Alluvium:		
Sandrock, dark-gray, hard. 8 1,653						Gravel, very fine to coarse, angular to subrounded. 8 13		
Shale, sandy, gray. 12 1,665								
Sand (water-bearing). 45 1,710								
Shale, chocolate. 7 1,717								
Shale, sandy, gray. 4 1,721								
Fox Hills Sandstone:								
Sand [Milliken Sandstone Member, 1,721 to 1,785 feet.] (water-bearing). 64 1,785								
Shale, gray. 12 1,797								
CS-68-2ccag2. Alt. 5,390 ft.								
Younger loess:								
Soil, sandy, caves. 35 35								
Dawson Formation (upper part):								
Shale, blue (yields a little water at 67, 80, and 100 feet). 65 100								
Shale, blue, gray, brown, and green. 220 320								
Shale, gray. 110 430								
Sand (water-bearing). 15 445								
Shale, sticky, gray. 45 490								
Sand, caves. 10 500								
Shale, sandy. 55 555								
Sand and shale. 12 567								
Dawson Formation (lower part):								
Sand [Middle conglomerate, 507 to 707 feet.] (water-bearing). 10 577								
Shale, gray. 10 587								
Sand (water-bearing, water rose 550 feet). 3 590								

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-68-5bada. Alt. 5,109.8 ft.					
Silt, sandy and gravelly, dark-yellowish-brown.	5.5	18.5	CS-68-5bada. --Continued		
Dawson Formation (upper part):			Silt, slightly sandy, micaceous, dark-yellowish-brown; contains montmorillonite; pale-yellowish-brown from 7.5 to 10.0 feet.	5	10
Shale, clay, non-calcareous, dusky-yellow; contains montmorillonite.	4	22.5	Broadway Alluvium:		
			Sand and very fine to coarse gravel, poorly sorted, silty, arkosic.	5	15
CS-68-5bada. Alt. 5,101.6 ft.			Louviers Alluvium:		
Post-Piney Creek alluvium:			Cobbles, coarse gravel, and light-tan clay, mixed.	2	17
Silt, carbonaceous, micaceous, very calcareous, dark-yellowish-brown; smells like swamp mud between 5 and 7 feet.	7	7	Sand, poorly-sorted, arkosic, and very silty, arkosic.	3	20
Broadway Alluvium:			very fine gravel.	3	20
Sand, fine to very coarse, angular to subangular, arkosic, slightly micaceous, and about 10 percent very fine to fine gravel; contains medium gravel between 15.0 and 16.0 feet.	10.5	17.5	Sand, very coarse, arkosic, subangular, clean, and very fine to fine gravel; contains cobbles and coarse gravel at intervals from 29 to 39 feet.	20	40
Louviers Alluvium:			Sand, poorly sorted, silty, arkosic, subangular.	2.5	42.5
Silt, sandy, non-calcareous, moderate-yellowish-brown.	5	22.5	Dawson Formation (upper part):		
Sand, very coarse, fairly well-sorted, angular to sub-angular, arkosic, and some very fine gravel.	3.5	26	Shale, silty, dusky-yellow; contains montmorillonite and small, hard, concretions.	5	47.5
Gravel, coarse, and cobbles.	6.5	32.5	CS-68-5cddd. Alt. 5,169 ft.		
Dawson Formation (upper part):			Fill dirt.	18	18
Shale, clay, dark-yellowish-brown, noncalcareous; contains montmorillonite.	5	17.5	Dawson Formation (upper part):		
			Clay, brown.	16	34
CS-68-5bdad. Alt. 5,107.3 ft.			Gravel.	9	43
Piney Creek Alluvium:			Shale, brown.	2	45
Silt, slightly sandy, micaceous, calcareous, dark-yellowish-brown.	3	3	CS-68-5dbbb. Alt. 5,149.7 ft.		
Silt, compact, very calcareous, pale-yellowish-brown; contains montmorillonite.	7	10	Slocum Alluvium:		
Broadway Alluvium:			Clay, tough, sandy, brown.	2.5	2.5
Gravel, very fine to coarse, arkosic, subangular to subrounded; subrounded to rounded between 13.5 and 15 feet.	15	15	Silt, sandy, micaceous, calcareous, pale-yellowish-brown.	2.5	5
Louviers Alluvium:			Silt, very sandy, very calcareous, pale-yellowish-brown.	5	10
Clay, very sandy, brown, mixed with very fine to medium gravel.	3.5	19.5	Gravel, very fine to very coarse, arkosic, subangular to subrounded, and cobbles.	3	13
Gravel, very fine to medium, arkosic, subangular to subrounded, loose, clean.	4	22.5	Gravel, very fine to fine, fairly well-sorted, subangular to subrounded; contains cobbles.	2	15
Gravel, very fine to coarse, arkosic, subangular to well-rounded, and about 10 percent medium to coarse, angular to subangular sand.	3.5	26	Gravel, very fine to coarse, arkosic, subangular to angular, very coarse sand, and cobbles.	4	19
Cobbles, boulders, clean, and very fine to very coarse arkosic, subangular to well-rounded gravel.	11	37	Dawson Formation (upper part):		
Dawson Formation (upper part):			Shale, silty, sandy, micaceous, weathered, pale-yellowish-brown.	3.5	22.5
Shale, silty, non-calcareous, moderate-greenish-yellow.	5.5	42.5	Shale, silty, moderate-yellowish-brown, noncalcareous; contains montmorillonite.	2.5	25
CS-68-5bdad. Alt. 5,111.2 ft.			CS-68-5dcbh. Alt. 5,181 ft.		
Fill, sand, and gravel.	5	5	Slocum Alluvium:		
Piney Creek Alluvium:			Clay.	15	15
			Sand, gravel, and boulders.	43	58
			Dawson Formation (upper part):		
			Clay.	2	60
			Shale.	16	96
			Shale, hard.	1	97
			Shale.	3	100
			CS-68-7ccad. Alt. 5,530 ft.		
			Younger loess:		
			Topsoil, dark clay.	4	4
			Clay, yellow.	16	20
			CS-68-7ccad. --Continued		
			Dawson Formation (upper part):		
			Shale, sandy, hard yellow.	7	27
			Shale, brown and yellow.	10	57
			Shale, hard, blue.	14	71
			Shale, hard, brown; contains soft streaks.	11	92
			Shale, gray and blue; contains some sand.	163	245
			Sandrock, coarse-grained; contains streaks of shale.	13	258
			Shale, gray.	26	284
			Rock, hard.	2	286
			Sand and some blue clay.	5	291
			Shale, gray, and blue clay.	19	310
			Sand.	1	313
			Shale, gray and blue.	9	322
			Sand.	2	324
			Shale, gray and brown, soft, in part sandy.	36	360
			Shale; contains streaks of sand.	10	370
			Shale, gray.	30	400
			Shale; contains streaks of sand.	11	411
			Sand.	3	414
			Shale; contains streaks of sand.	16	430
			Shale, firm, gray; contains streaks of sand.	21	451
			Dawson Formation (lower part):		
			Sand [Middle conglomerate, 451 to 499 feet.]	14	465
			Shale, sandy.	4	469
			Sand.	5	474
			Shale and silt.	7	481
			Sand.	5	486
			Shale, sandy.	2	488
			Sand.	11	499
			Shale, sandy, clay-stone, siltstone, and silty sand.	96	595
			Lower conglomerate:		
			Sand, coarse.	11	606
			Shale.	10	616
			Sand, coarse; contains streaks of shale.	47	663
			Shale, sandy, interbedded with sandstone.	57	720
			Sand.	10	730
			Shale.	8	738
			Sand; contains pyrite.	6	744
			Shale, hard, gray, and blue soft clay.	26	770
			CS-68-7ccbb. Alt. 5,540 ft.		
			Younger loess:		
			Soil.	2	2
			Clay, yellow.	28	10
			Dawson Formation (upper part):		
			Shale, brown.	8	38
			Sandstone, gray.	11	49
			Clay, yellow.	7	56
			Shale, gray.	5	61
			Sandstone, gray.	16	77
			Shale, brown.	6	83
			Shale, gray.	7	90
			Sandstone, gray.	6	96
			Shale, brown.	2	98
			Shale, gray.	4	102
			Sandstone, gray.	3	105
			Shale, gray.	10	115
			Shale, blue.	6	121
			Shale, gray.	19	140
			Sandstone, gray.	3	143
			Shale, gray.	15	158
			Sandstone, gray.	10	168
			Shale, gray.	18	186
			Sandstone, gray.	4	190
			Shale, gray.	37	227
			Sandstone, gray.	6	233
			Shale, gray.	5	238
			Sandstone, gray.	4	242
			Shale, gray.	6	248
			Sandstone, gray.	12	260
			Shale, gray.	27	287
			Shale, sandy, gray.	4	291
			Sand.	7	298
			Shale, gray.	39	337
			Shale, blue.	7	344
			Shale, gray.	26	370
			Sandstone, gray.	8	378

Table 1.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
CS-68-7ccbb. --Continued			CS-68-8accc. Alt. 5,320.5 ft.			CS-68-8bcbg. --Continued		
Shale, gray.	47	425	Piney Creek Alluvium:			Shale, gray.	35	177
Dawson Formation (lower			Clay, silty, dark-			Shale, soft, brown. . . .	10	187
part):			brown; contains			Sandstone, fine-		
Sand (Middle conglomer-			coarse sand and			grained, white.	21	408
erate, 425 to 541			very fine gravel.	6	6	Shale, blue.	3	411
feet.)	1	428	Broadway Alluvium:			Sandstone, fine-		
Shale, gray.	15	443	Gravel, very fine to			grained, white.	3	414
Sand.	7	450	coarse, angular to			Shale, gray.	17	451
Shale, gray.	8	458	subrounded, and			Sandstone, fine-		
Sand.	4	462	clay.	.5	6.5	grained, white.	11	462
Shale, gray.	22	484	Gravel, fine to coarse,			Shale, gray.	9	471
Sand.	8	492	angular to well-			Limestone.	1	472
Shale, gray.	32	524	rounded.	5.5	12	Shale, gray.	3	475
Sand.	9	533	Sand, medium to very			Sandstone, fine-		
Sand and gray shale;			coarse, and very			grained, white.	3	478
in alternate layers. . .	8	541	fine, angular to			Shale and white fine		
Sandstone, gray.	4	545	subrounded gravel. . .	4.5	16.5	sand; in alternate		
Shale, gray.	19	564	Louviers Alluvium:			layers.	16	494
Shale, sandy, gray. . .	10	574	Clay, very sandy,					
Shale, gray.	32	606	tan; contains			CS-68-8bcda. Alt. 5,356.1 ft.		
Sandstone, gray.	11	617	streaks of sand. . . .	11	27.5	Slocum Alluvium:		
Shale, gray.	21	638	Sand, fine, loose. . . .	5.5	33	Silt, sandy, very		
Lower conglomerate:			Clay, hard.	2	35	calcareous, clayey,		
Sand, fine, white. . . .	9	647	Gravel, very fine,			pale-yellowish-		
Shale, gray.	4	651	angular to sub-			brown; contains		
Sand, fine, white. . . .	6	657	rounded, and very			montmorillonite. . . .	1	1
Shale, gray.	76	733	coarse arkosic			Dawson Formation (upper		
Shale, sandy, gray. . .	4	737	sand.	16	51	part):		
Shale, gray.	6	743	Gravel, very fine to			Shale, silty,		
Shale, sandy, gray. . .	8	751	very coarse, angular			slightly sandy,		
Shale, gray.	12	763	to well-rounded;			clayey, very		
Sand, fine, white. . . .	4	767	contains cobbles			calcareous, pale-		
Shale, gray.	4	771	and very-coarse			yellowish-brown;		
Sand, fine, white. . . .	5	776	sand.	6	57	contains mont-		
Shale, gray.	11	787	Dawson Formation (upper			morillonite.	4	5
Sand, fine, white. . . .	6	793	part):					
Laramie Formation:			Shale, hard, blue;			CS-68-8cada. Alt. 5,333.0 ft.		
Shale, gray.	129	922	contains small			Piney Creek Alluvium:		
Lime.	2	924	concretions.	3	60	Surface.	6	6
Sand, fine, white. . . .	1	927	CS-68-8acdc. Alt. 5,316.6 ft.			Broadway and Louviers		
Shale, gray.	94	1,021	Piney Creek Alluvium:			Alluvium, undiffer-		
Sand, fine, white. . . .	16	1,037	Clay, sandy, brown;			entiated:		
Shale, gray.	25	1,062	contains fine			Gravel and boulders. . .	32	38
Coal.	3	1,065	gravel.	3.5	3.5	Clay.	4	42
Shale, gray.	15	1,080	Broadway Alluvium:			Gravel.	14	56
CS-68-7cccg. Alt. 5,343 ft.			Gravel, very fine to			CS-68-9abba. Alt. 5,320 ft.		
Younger loess, Slocum Alluvium,			coarse, angular to			Broadway Alluvium:		
and Dawson Formation,			subrounded, clean,			Topsoil.	3	3
undifferentiated:			loose; contains			Gravel.	15	18
Surface soil, clay,			fine to very			Louviers Alluvium:		
boulders, and			coarse sand.	6.5	10	Clay.	2	20
sandstone.	50	50	Louviers Alluvium:			Gravel.	8	28
Dawson Formation (upper			Clay, very sandy, tan;			Gravel, hard.	10	38
and lower parts, undiffer-			contains medium to			Dawson Formation (upper		
entiated):			coarse sand and			part):		
Shale, sandy, broken. .	15	85	very fine gravel. . . .	5	13	Clay, brown.	2	40
Shale, hard, black. . .	25	110	Clay, sandy, gray,			Shale.	3	43
Shale.	20	130	and medium sand. . . .	11	26	CS-68-9bdcg. Alt. 5,320.6 ft.		
Shale, sandy shale,			Gravel, very fine,			Fill.	4	4
and clay.	100	230	angular, and			Piney Creek Alluvium:		
Clay.	170	400	medium to coarse			Silt, sandy, dark-		
Shale, sandy.	20	420	sand.	23	49	yellowish-brown;		
Clay.	62	482	Dawson Formation (upper			contains coal.	8.5	12.5
Shale and coal.	3	485	part):			Silt, very sandy and		
Clay.	15	500	Shale, hard, sandy,			gravelly, slightly		
Sand.	20	520	platy, gray.	3.5	52.5	calcareous, pale-		
Clay and sandy shale. .	30	550	CS-68-8bcbg. Alt. 5,404.7 ft.			yellowish-brown;		
Shale, sandy, and			Slocum Alluvium:			contains mont-		
clay.	120	670	Clay, sandy.	9	9	morillonite.	2.5	15
Shale.	60	730	Dawson Formation (upper			Louviers Alluvium:		
Clay.	90	820	part):			Gravel, fine to very		
Laramie Formation:			Shale, brown.	19	28	coarse, well-		
Shale.	110	930	Sandstone, blue. . . .	15	43	rounded, arkosic,		
Clay.	10	940	Shale, brown and blue	17	60	loose, and cobbles. . .	8.5	23.5
Shale.	280	1,220	Sandstone, gray. . . .	3	63	Gravel, very fine to		
Clay, blue.	110	1,330	Shale, brown.	9	72	very coarse, arkosic,		
Shale, blue.	60	1,390	Sandstone.	4	76	subangular to well-		
Clay, gray, shale,			Shale, blue.	26	102	rounded; contains		
and gray sand.	100	1,490	Shale, sandy, brown. .	3	105	some silt and clay		
Shale, gray and coal. .	10	1,500	Sandstone, gray. . . .	4	109	beds.	6.5	30
Shale and sandy shale. .	20	1,520	Shale, gray.	16	125	Dawson Formation (upper		
Shale, coal, and sand. .	30	1,550	Shale, sandy, gray. . .	3	128	part):		
Sand and shale.	14	1,564	Shale, gray.	13	141	Shale, very silty,		
Shale and coal.	6	1,570	Sandstone, gray. . . .	2	143	micaceous, light-		
Shale, some coal. . . .	30	1,600	Shale, gray.	7	150	olive-gray and		
Sandstone.	70	1,670	Shale, sandy, brown. .	2	152	dusky-yellow;		
Shale at 1,670 feet			Shale, gray and brown	81	233	contains mont-		
CS-68-8ahad. Alt. 5,289 ft.			Shale, sandy, brown. .	3	236	morillonite.	5	35
Piney Creek Alluvium:			Sandstone, fine-			CS-68-9cccg. Alt. 5,312.2 ft.		
Surface soil.	3	3	grained, white.	5	241	Piney Creek Alluvium:		
Broadway Alluvium:			Shale, gray and			Silt, pale-yellowish-		
Sand and gravel.	13	16	brown.	62	303	brown, and medium		
Louviers Alluvium:			Sandstone, fine-			to coarse, arkosic		
Clay and streaks of			grained, white.	16	319	sand.	12.5	12.5
sand, flood wash. . . .	7	23	Shale, blue.	19	338	Louviers Alluvium:		
Sand and gravel.	7	30	Coal.	1	339	Silt, sandy and		
Gravel, coarse, and			Dawson Formation (lower			gravelly, very		
rocks.	12	42	part):			calcareous, pale-		
Dawson Formation:			Middle conglomerate:			yellowish-brown;		
Shale, blue, at 42			Sandstone, fine-			contains mont-		
feet			grained, white.	3	342	morillonite.	.5	13

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-68-9caga. --Continued		CS-68-12abga. --Continued		CS-68-11daga. --Continued	
Gravel, fine to medium, arkosic, subrounded to rounded.	5	Topsoil.	6	Sandstone, gray.	49
Clay, sandy, grayish- tan; contains very fine gravel.	1.5	Silt, sandy.	11	Shale, gray.	17
Gravel, very fine to medium, arkosic, subangular to rounded, about 10 percent coarse sand, and pale-yellowish- brown, very cal- careous, mont- morillonitic silt; contains cobbles at 20 feet.	1.5	Younger loess: Clay, brown.	10	Sandstone, gray.	30
		Dawson Formation: Sandstone.	1	Shale, blue.	3
			28	Sandstone, gray.	2
		CS-68-12bbba. Alt. 5,384 ft.		Shale, gray.	82
		Piney Creek Alluvium: Soil and clay.	5	Sand.	7
		Soil and clay (water).	20	Shale, gray.	26
		Broadway Alluvium: Gravel and sand (water).	15	Shale, brown.	4
			40	Shale, gray.	25
		CS-68-12bbcb. Alt. 5,385 ft.		Sandstone, gray.	178
		Younger loess: Topsoil.	5	Sand [Upper conglom- erate, 588 to 658 feet.].	2
		Younger loess and Broadway Alluvium, undifferentiated: Mud, sand, and gravel.	15	Lime, sandy.	2
		Dawson Formation: Shale.	5	Sand.	6
			25	Shale, gray.	26
Dawson Formation (upper part): Shale, silty, non- calcareous, pale- yellowish-brown; contains mont- morillonite.	3.5	CS-68-12bdab. Alt. 5,420 ft.		Sand, fine.	12
	12.5	Younger loess: Soil.	2	Shale, gray.	15
		Clay, sandy, yellow.	10	Sand.	7
		Dawson Formation (upper part): Sandstone, brown.	2	Shale, gray.	70
		Shale, brown.	20	Sand [Middle conglom- erate, 714 to 904 feet.].	18
		Sandstone, blue and gray.	44	Shale, gray.	14
		Shale, gray.	2	Lime, sandy.	1
		Sandstone, gray.	28	Sand.	8
		Shale, brown.	6	Shale, gray.	6
		Shale, sandy, gray.	9	Sand.	10
		Sandstone, gray.	7	Shale, gray.	6
		Shale, brown.	5	Sand.	6
		Shale, sandy, gray.	10	Shale, gray.	17
		Shale, brown.	3	Sand.	16
		Shale, sandy, gray.	8	Shale, gray.	19
		Shale, blue and gray.	14	Sand.	13
		Sandstone, gray.	16	Shale, gray.	219
		Shale, gray, brown, and blue.	177	Lower conglomerate: Sand, fine, gray.	55
		Sandstone, blue and brown.	32		1,147
		Shale, blue.	15	CS-68-16baba. Alt. 5,345 ft.	
		Sandstone, gray.	7	Broadway Alluvium: Sand, dirty.	9
		Shale, gray.	95	Louviere Alluvium: Gravel.	24
		Shale, sandy, gray.	8	Gravel and sand.	11
		Shale, gray.	101	Dawson Formation (upper part): Sandstone.	1
		Sandstone, gray.	21		45
		Shale, gray.	5	CS-68-17caga. Alt. 5,316 ft.	
		Shale, sandy, gray.	14	Post-Piney Creek alluvium: Soil.	1
		Shale, gray.	28	Louviere Alluvium: Gravel and rocks.	9
		Dawson Formation (lower part): Sand [Middle conglom- erate, 689 to 866 feet.].	6	Clay.	1
			695	Gravel.	21
		Shale, gray.	11	Rocks.	1
		Sand.	6	Gravel and rocks.	5
		Shale, gray.	16	Dawson Formation: Shale at 42 feet	
		Sand.	4	CS-68-17cdad2. Alt. 5,317 ft.	
		Shale, gray.	26	Post-Piney Creek alluvium: Soil.	4
		Sand.	17	Louviere Alluvium: Gravel.	22
		Shale, gray.	38	Silt.	2
		Sand.	7	Gravel and rocks.	5
		Shale, gray.	12	Dawson Formation: Shale at 33 feet	
		Sand.	14	CS-68-17dbba. Alt. 5,315 ft.	
		Shale, gray.	8	Piney Creek Alluvium: Soil.	1
		Shale, gray, and sand	54	Louviere Alluvium: Gravel and rocks.	10
		Shale, gray.	17	Silt.	5
		Mudstone.	2	Gravel.	7
		Shale, gray.	21	Silt.	2
		Shale, gray, and mudstone.	46	Gravel.	1
		Lower conglomerate: Sand, fine.	12	Silt, hard.	5
		Shale, gray.	44	Gravel and rocks.	8
		Sand.	28	Dawson Formation: Shale at 43 feet	
		Shale, brown and gray	38	CS-68-17dcda. Alt. 5,332 ft.	
			1,136	Surface.	6
		CS-68-11daga. Alt. 5,490 ft.		Dawson Formation (upper part): Shale, brown.	2
		Younger loess: Soil.	2	Sandstone, gray.	26
		Dawson Formation (upper part): Clay, sandy, yellow.	34	Clay, blue.	47
		Shale, brown, blue, and gray.	51	Shale.	2
		Sandstone, brown and gray.	13	Clay, blue.	23
		Shale, blue.	4	Rock (water-bearing).	2
		Sandstone, gray.	2	Clay, blue.	55
		Shale, gray.	6	Shale.	12
		Sandstone, gray, blue, and brown.	33	Clay and shale.	16
		Shale, brown.	6		193
CS-68-9ccba. Alt. 5,310 ft.		CS-68-9ccba. Alt. 5,310 ft.			
Piney Creek Alluvium: Topsoil.	5				
Silt, sandy, caves (wet).	4				
Louviere Alluvium: Boulders.	1				
Sand, gravel, boulders	8				
Dawson Formation: Clay, brown.	1				
Shale.	1				
CS-68-9dada. Alt. 5,351.1 ft.					
Eolian sand: Silt, slightly sandy, moderately cal- careous, dark- yellowish-orange; contains mont- morillonite.	3.5				
Silt, sandy, non- calcareous, moderate- yellowish-brown; contains montmoril- lonite.	4				
Broadway Alluvium: Sand, medium to coarse, subangular, arkosic, and about 10 percent very fine to fine gravel; contains a little silt to 10.0 feet and about 20 percent very fine to medium gravel from 10.0 to 13.5 feet.	6				
Louviere Alluvium: Gravel, coarse, and cobbles.	1				
Sand, medium to very coarse, subrounded to well-rounded, arkosic, and about 20 percent very fine to medium gravel.	8.5				
Dawson Formation (upper part): Shale, silty, slightly sandy, about 50 percent arkosic sand; pale-yellowish- brown; contains montmorillonite.	4.5				
CS-68-10bda. Alt. 5,402.0 ft.					
Eolian sand and silt Alluvium, undifferentiated: Sand, very fine to very coarse, arkosic, subangular to sub- rounded, and about 20 percent very fine gravel.	3				
Dawson Formation (upper part): Shale, silty, slightly sandy, micaceous, dark-yellowish- brown.	4.5				
Shale, very sandy and gravelly, grayish- orange to dark- yellowish-brown.	2.5				
CS-68-11abda. Alt. 5,409 ft.					
Piney Creek Alluvium:					

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-68-17dcdg. --Continued		CS-68-19cdca. --Continued		CS-68-21abed. --Continued	
Sand [Upper conglomerate, 193 to 240 feet.] (water-bearing)	3	Sand [Middle conglomerate, 77 to 236 feet.]	5	Sand; contains layers of gray shale	19
Clay, tough	4	Shale, sandy, gray	11	Sand	17
Clay and sand	15	Shale, gray	23	Shale, gray	29
Sand (water-bearing)	5	Shale, sandy, gray	5	Sand; contains layers of gray shale	12
Clay, blue	10	Sand, coal, and gray shale	14	Shale, gray	8
Sandstone	40	Shale, sandy, gray	18	Shale, sandy, gray	4
Clay and shale	30	Shale, gray	75	Laramie Formation:	
Sandstone	6	Sand, fine, and gray shale	8	Shale, gray	90
Clay, blue	16	Shale, sandy, gray	8	Sand	6
Sandstone	5	Shale, gray	7	Shale, gray	152
Clay, blue	2	Shale, sandy, brown and gray	14	Lime	2
Sandstone, hard	2	Lower conglomerate:		Shale, gray, and mudstone	117
Sandstone	7	Sand, fine, and gray shale	27	Coal; contains layers of gray shale	17
Clay, tough	9	Shale, gray	14	Shale, gray	26
Dawson Formation (lower part):		Sand, fine, and gray shale	36	Coal; contains layers of gray shale	56
Sand [Middle conglomerate, 367 to 472 feet.] (water-bearing)	5	Shale, gray	32	Shale, gray	93
Clay, blue	54	Shale, brown and gray	14	Sand, fine [B sandstone, 1,170 to 1,464 feet.]	94
Sand (water-bearing)	4	Sand, fine, and gray shale	22	Coal and gray shale	31
Clay, blue	2	Sand, fine to medium, and gray shale	15	Sand, fine [A sandstone, 1,495 to 1,612 feet.]	117
Sandstone	4	Sand, fine, and gray shale	5	Coal and gray shale	21
Clay	4	Lime	1	Shale, gray	47
Sand (water-bearing)	2	Sand, fine, and gray shale	14	Fox Hills Sandstone:	
Clay, blue	12	Shale, gray	5	Milliken Sandstone Member:	
Sandstone	13	Sand, fine	3	Sand; contains layers of shale	35
Sand (water-bearing)	5	Laramie (?) Formation:		Transition zone:	
Clay	46	Shale, gray	38	Shale, gray	82
Lower conglomerate:		CS-68-20cdhd. Alt. 5,335.3 ft.		Sand, fine, and gray shale	11
Sand (water-bearing)	20	Post-Piney Creek alluvium:		Shale, gray	18
Clay, blue	34	Soil	3	CS-68-24ddab. Alt. 5,630 ft.	
Sand (water-bearing)	5	Louviers Alluvium:		Younger loess and Dawson Formation, undifferentiated:	
Clay	40	Clay, light-brown	3	Clay, andesitic, brown, tan	85
Sandstone, hard	2	Sand and gravel	5	Dawson Formation (upper part):	
Sand (water-bearing)	2	Clay, gray	1	Sand, coarse, and gray and tan clay	10
Sandstone, hard	2	Sand and gravel	9	Clay, gray and tan; contains some coarse sand	10
Sandstone, hard	29	Sand and clay lenses	9	Clay, gray with brownish cast	40
Laramie Formation:		Sand	4	Clay, greenish-gray and tan	90
Clay and shale	82	Sand, gravel, and clay lenses	9	Clay, gray-green and tan; contains some gravel	10
CS-68-18dcd. Alt. 5,486 ft.		Gravel and boulders	4	Clay, gray-green; contains some sand	45
Younger loess:		Dawson (?) Formation:		Clay, gray-green; contains some gravel	10
Clay, brown	10	Shale (?) at 47 feet		Sand, fairly hard, gray, and some gray clay	40
Dawson Formation (upper part):		CS-68-21abed. Alt. 5,451 ft.		Clay, brown	30
Shale, blue	96	Eolian sand:		Gravel	10
Sandstone, gray	27	Soil	2	Clay, gray	110
Shale	17	Clay, yellow	20	Clay, green and gray, and some gravel	10
Sand, silty	5	Dawson Formation (upper part):		Clay, brown	10
Shale, silty	25	Sandstone, brown	3	Sand, white, and gravel	10
Sand, fine, and sandstone	6	Clay, brown and yellow	15	Clay, brown	10
Shale; contains fine sand and thin sandy streaks	58	Shale, blue, gray, and brown	92	Gravel	10
Sand, fine, shaly	20	Sandstone, gray	19	Clay, gray	110
Shale, silty	10	Shale, gray and brown	23	Clay, green and gray, and some gravel	10
Sand, fine, and sandstone	4	Shale, gray	29	Clay, brown	10
Shale, silty	19	Shale, gray, and sandstone	6	Sand, white, and gravel	10
Sand, fine, white, interbedded with shale	27	Shale, gray	56	Clay, brown	10
Shale, silty, gray	98	Sand; contains layers of gray shale [Upper conglomerate, 299 to 396 feet.]	19	Sand and clay	10
Dawson Formation (lower part):		Shale, gray	69	Clay, gray	50
Sand, fine; contains thin streaks of shale [Middle conglomerate, 452 to 561 feet.]	109	Coal	3	Sand and clay	20
Shale, sandy; contains fine sand	63	Shale, gray	58	Sand, coarse	10
Lower conglomerate:		Shale, gray, and fine sand	16	Gravel	10
Sand, medium	10	Shale, gray	4	Clay, gray, and some gravel	110
Shale, clay	4	Lime	1	Dawson Formation (lower part):	
Sand, medium, clean, and sandstone	8	Sand	8	Sand [Middle conglomerate, 740 to 997 feet.]	10
Shale, sandy, gray	38	Shale, gray	23	Sand, coarse	6
Sand, fine	8	Lime, sandy	1	Clay, gray, and some sand and gravel	34
Shale, sandy, gray	4	Dawson Formation (lower part):		Gravel, fine	20
Sand, fine, shaly	14	Shale, gray [Middle conglomerate, 546 to 610 feet.]	63	Gravel, coarse	15
Shale, gray	3	Shale, sandy, gray	31	Gravel and clay	10
CS-68-19cdca. Alt. 5,418 ft.		Sand, fine	12	Sand, coarse, and clay	10
Slocum Alluvium:		Shale, gray	13	Gravel	60
Topsoil	2	Sand; contains layers of gray shale	15	Sand, medium, and some gray clay	30
Clay, sandy, brown	13	Shale, gray	14	Gravel	12
Sand	6	Sand	15	Sand, coarse, and some gray clay	30
Clay, red	3	Shale, gray	18	Clay, gray	10
Clay, sandy, yellow	4	Sand; contains layers of gray shale	16	Clay, gray, and some gravel	10
Gravel	4	Shale, gray	14	CS-68-24ddab. Alt. 5,630 ft.	
Dawson Formation (upper part):		CS-68-20cdhd. Alt. 5,335.3 ft.		Younger loess and Dawson Formation, undifferentiated:	
Clay, sandy, yellow	13	Post-Piney Creek alluvium:		Clay, andesitic, brown, tan	85
Shale, gray and blue	29	Soil	3	Dawson Formation (upper part):	
Shale, sandy, gray	3	Louviers Alluvium:		Sand, coarse, and gray and tan clay	10
Dawson Formation (lower part):		Clay, light-brown	3	Clay, gray and tan; contains some coarse sand	10
Shale, gray [Middle conglomerate, 546 to 610 feet.]	63	Sand and gravel	5	Clay, gray with brownish cast	40
Shale, sandy, gray	31	Clay, gray	1	Clay, greenish-gray and tan	90
Sand, fine	12	Sand and gravel	9	Clay, gray-green and tan; contains some gravel	10
Shale, gray	13	Sand and clay lenses	9	Clay, gray-green; contains some sand	45
Sand; contains layers of gray shale	15	Sand	4	Clay, gray-green; contains some gravel	10
Shale, gray	14	Sand, gravel, and clay lenses	9	Sand, fairly hard, gray, and some gray clay	40
Sand	15	Gravel and boulders	4	Clay, brown	30
Shale, gray	18	Dawson (?) Formation:		Gravel	10
Sand; contains layers of gray shale	16	Shale (?) at 47 feet		Clay, gray	110
Shale, gray	14	CS-68-21abed. Alt. 5,451 ft.		Clay, green and gray, and some gravel	10

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-68-24ddab.--Continued		CS-68-27dggd.--Continued		CS-69-2bbag.--Continued	
Clay, sticky, gray . . .	52	1,069	Shale, sandy, fine . . .	2	1,332
Clay, sticky, gray; contains some sand . . .	31	1,100	Shale, gray . . .	151	1,483
Clay, sticky, ashy, gray . . .	40	1,140	Coal . . .	7	1,490
Clay, gray, and fine sand . . .	10	1,150	Shale, gray . . .	41	1,531
Lower conglomerate: sand, coarse . . .	10	1,160	Coal . . .	12	1,543
Clay, gray; contains some fine sand . . .	32	1,192	Shale, gray . . .	23	1,566
Clay, gray . . .	28	1,220	Sand [B sandstone, 1,566 to 1,647 feet.] . . .	14	1,580
Clay, gray; contains fine sand . . .	10	1,230	Shale, gray . . .	2	1,582
Gravel . . .	23	1,253	Sand . . .	3	1,585
Clay, gray, sand, and gravel . . .	20	1,273	Shale, gray . . .	1	1,586
Clay, gray . . .	21	1,294	Sand . . .	23	1,609
Sand, coarse . . .	39	1,333	Shale, gray . . .	6	1,615
Shale, gray, and coarse sand . . .	22	1,355	Sand . . .	31	1,646
Clay, gray, and coarse clean sand . . .	18	1,373	Shale, hard, gray . . .	2	1,648
Shale, gray . . .	47	1,420	Sand [A sandstone, 1,650 to 1,703 feet.] . . .	76	1,724
Sand, fine . . .	18	1,438	Fox Hills Sandstone: Sand [Milliken Sandstone Member, 1,709 to 1,776 feet.] . . .	8	1,732
Shale, gray . . .	12	1,450	Sand; contains layers of gray shale . . .	10	1,742
CS-68-27dggd. Alt. 5,610 ft.			Sand . . .	14	1,776
Youngest lowest soil . . .	2	2	Transition zone: Shale, gray; contains layers of sand . . .	7	1,783
Clay, sandy, yellow . . .	11	13	Shale, gray . . .	6	1,789
Dawson Formation (upper part):			Shale, gray; contains layers of sand . . .	2	1,791
Clay, yellow and brown . . .	45	58	Shale, gray . . .	13	1,804
Sandstone, blue . . .	2	60	Shale, gray; contains layers of sand . . .	4	1,808
Sandstone, gray . . .	18	78	Shale, gray . . .	21	1,829
Shale, gray . . .	18	94	Shale, gray; contains layers of fine sand . . .	11	1,840
Sandstone, gray . . .	8	102	Sand, fine . . .	24	1,864
Shale, gray . . .	56	158	Shale, gray . . .	46	1,910
Shale, brown . . .	6	164	CS-68-31abbb. Alt. 5,358 ft.		
Sandstone, gray . . .	7	171	Post-Piney Creek alluvium: Soil . . .	4	4
Shale, blue . . .	7	178	Louviers Alluvium: Sand and gravel; contains streaks of clay . . .	52	56
Shale, brown . . .	4	182	Dawson Formation: Shale at 56 feet		
Sandstone, gray . . .	6	188	CS-68-31abba. Alt. 5,378 ft.		
Shale, gray . . .	9	197	No sample . . .	48	48
Shale, blue . . .	4	201	Dawson Formation (upper part):		
Sandstone, blue . . .	6	207	Clay, yellow . . .	14	62
Shale, sandy, gray . . .	5	212	Sandstone, blue . . .	3	65
Shale, gray . . .	4	217	Shale, blue and gray . . .	117	182
Shale, blue . . .	4	221	Dawson Formation (lower part):		
Shale, gray . . .	29	250	Sand, fine [Middle conglomerate, 182 to 206 feet.] . . .	24	206
Sandstone, gray . . .	5	255	Shale, gray . . .	107	313
Shale, gray . . .	41	296	Lower conglomerate: Sand, fine . . .	8	321
Sand . . .	9	305	Shale, gray . . .	6	327
Shale, gray . . .	36	341	Shale, gray, and fine sand . . .	8	335
Shale, blue . . .	5	346	Shale, gray . . .	24	359
Shale, gray . . .	56	402	Lime, sandy . . .	1	360
Sandstone, gray, and gray shale . . .	8	410	Shale, gray, and fine sand . . .	92	452
Dawson Formation (lower part):			CS-68-31adad. Alt. 5,360.9 ft.		
Shale, gray [Middle conglomerate, 482 to 628 feet.] . . .	84	494	Post-Piney Creek alluvium: Soil . . .	4	4
Sand . . .	13	507	Louviers Alluvium: Silt . . .	17	21
Shale, gray . . .	71	578	Gravel and rocks . . .	14	35
Sand . . .	8	586	Boulders . . .	2	37
Shale, gray . . .	12	598	Dawson Formation (upper part):		
Sand . . .	14	612	Shale . . .	2	39
Shale, gray . . .	3	615	CS-68-32acba. Alt. 5,372.2 ft.		
Sand . . .	13	628	Piney Creek Alluvium: Topsoil . . .	4	4
Shale, gray . . .	37	665	Broadway Alluvium: Sand and gravel . . .	7	11
Sand . . .	5	670	Louviers Alluvium: Clay, blue . . .	4	15
Shale, gray . . .	18	688	Sand and gravel . . .	8	23
Lower conglomerate:			Dawson Formation: Shale at 23 feet		
Sand . . .	13	701	CS-69-2bbag. Alt. 5,500 ft.		
Shale, gray . . .	16	717	Overburden . . .	54	54
Sand . . .	12	729	Dawson Formation (upper part):		
Shale, gray . . .	12	741	Clay, blue . . .	81	135
Sand . . .	15	756	Coal . . .	2	137
Shale, gray . . .	4	760	Clay and shale . . .	24	161
Sand and gray shale . . .	31	791	CS-69-2bbag. Alt. 5,503.7 ft.		
Shale, gray . . .	32	823	Piney Creek Alluvium: Sand, very fine, silty; contains about 50 percent fine to very coarse, arkosic, subrounded to well rounded gravel and small cobbles . . .	5	5
Sand . . .	8	831	Louviers Alluvium: Silt, sandy, calcareous, plastic, olive-gray; contains fine sand . . .	3	8
Shale, gray . . .	3	834	Silt, sandy and gravelly, calcareous, olive-gray . . .	2	10
Sand . . .	8	842	Gravel, medium to coarse, arkosic, subrounded to well-rounded; contains cobbles and boulders . . .	4	14
Sand and gray shale . . .	18	860	Silt, sandy, very calcareous, moderate-yellowish-brown; contains some montmorillonite . . .	3.5	17.5
Shale, gray . . .	26	886	Sand, medium to very coarse, arkosic, subrounded to sub-angular, and about 20 percent very fine gravel . . .	4.5	22
Sand, fine . . .	18	904	Laramie Formation:		
Shale, gray . . .	4	908	Shale, silty, sandy, pale-greenish-yellow, noncalcareous; contains small ironstones and montmorillonite . . .	.5	22.5
Sand, fine . . .	6	914	CS-69-2bbag. Alt. 5,504.8 ft.		
Shale, gray . . .	76	990	Piney Creek Alluvium: Silt, sandy and clayey, finely micaceous, pale-yellowish-brown . . .	7.5	7.5
Sand, fine . . .	26	1,016	Louviers Alluvium: Gravel, medium to coarse, angular to well-rounded, arkosic, cobbles, and boulders; contains lenses of sand and clay . . .	6.5	14
Laramie Formation [top at 1,046 feet.]:			Silt, sandy, slightly calcareous, grayish-orange; contains some medium to coarse gravel . . .	4	18
Shale, gray . . .	207	1,223	Silt, slightly sandy, noncalcareous, pale-olive and dusky-yellow . . .	2	20
Shale, gray, and fine sand . . .	10	1,233	Silt, sandy and gravelly, very calcareous, dark-greenish-gray; contains montmorillonite . . .	2.5	22.5
Shale, gray . . .	6	1,239	Transition zone:		
Shale, hard, gray . . .	2	1,241	Shale, silty, sandy, dark-yellowish-brown, at 22.5 feet		
Shale, gray . . .	67	1,328			
Limestone . . .	2	1,330			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-69-5bbag2. Alt. 5,506.5 ft. Piney Creek Alluvium: Clay, plastic, sandy, tan; contains gravel 2.5		CS-69-5bbdc. ---Continued Shale, silty, grav- elly, light-olive- gray; contains some montmoril- lonite 5		CS-69-8aaaa. ---Continued Laramie Formation: Shale, silty, sandy, very micaceous, dark-yellowish- brown 2	
Louviers Alluvium: Sand, poorly sorted, micaceous, silty, calcareous, and well rounded very coarse gravel 1.5	2.5	CS-69-5bdbb. Alt. 5,502.1 ft. Piney Creek Alluvium: Silt, sandy, micaceous, dark-yellowish- brown 1	42.5	CS-69-8aaab. Alt. 5,630.3 ft. Piney Creek Alluvium: Silt, dark-yellowish- brown; contains arkosic very fine sand and a little gravel 4	5
Silt, gravelly, cal- careous, micaceous, dark-yellowish- brown; contains cobbles 9.5	4	Silt, sandy, very micaceous, moderate- brown to dark- yellowish-brown; becomes slightly calcareous between 4.0 to 7.0 feet . . . 6	1	Slocum Alluvium: Silt, sandy, very micaceous, very calcareous, grayish- orange 4.5	13.5
Cobbles and boulders, mixed with fine to coarse gravel; contains layer of sandy, pale- yellowish-brown, noncalcareous silt between 14.0 and 15.0 feet 3	16.5	Louviers Alluvium: Sand, very fine to fine, micaceous, very silty, dark- yellowish-orange and dark-yellowish- brown; contains cobbles from 10 to 18 feet 11	7	Sand, very fine to fine, silty, grayish- orange-pink, and scattered angular gravel 2.5	8.5
Clay, silty; contains fine to medium gravel 1	17.5	Transition zone: Shale, clay, slightly calcareous, mica- ceous; contains limonite-stained silt 4.5	18	Sand, fine to very coarse, arkosic, poorly sorted, sub- rounded to rounded, and about 40 percent medium to coarse gravel 1.5	11
Sand, coarse to very coarse, arkosic, subangular to sub- rounded, fairly well-sorted 5	22.5	CS-69-5dddc. Alt. 5,670.3 ft. Piney Creek Alluvium: Silt, sandy, micaceous, calcareous, pale- yellowish-brown . . . 3	22.5	Gravel, very fine to medium, subrounded to rounded, arkosic, and about 20 per- cent coarse sand . . . 2.5	12.5
CS-69-5bbdb. Alt. 5,508.1 ft. Piney Creek Alluvium: Silt, sandy and gravelly, very calcareous, micaceous, grayish-orange . . . 1	30	Shale, silty, mica- ceous, compact, placy, dusky- yellow 9.5	15	Gravel, very fine to coarse, angular to subrounded, arkosic, and about 30 per- cent very coarse sand; contains grayish-orange- pink silt 2.5	17.5
Louviers Alluvium: Cobbles 2	5	Transition zone: Shale, silty, very calcareous, dusky- yellow; contains montmorillonite; at 12.5 feet	12.5	Fox Hills Sandstone: Milliken Sandstone Member: Sandstone and very fine silty sand in alternately hard and soft layers . . . 24.5	42
Silt, sandy and gravelly, micaceous, calcareous, dark-yellowish- brown 11	16	CS-69-6aaad2. Alt. 5,560 ft. Piney Creek Alluvium: Silt, sandy, micaceous, dark-yellowish- brown and dusky- yellow 7.5	52.5	Sand, very coarse, very well-sorted, subangular to sub- rounded, moderately cemented 10.5	42
Cobbles and boulders . . . 1.5	17.5	Louviers Alluvium: Gravel, very fine to medium, mostly medium, subrounded to well-rounded, arkosic; contains small cobbles sand, and some dusky-yellow silt . . . 5	7.5	Shale, silty, micaceous, slightly sandy, non- calcareous, medium- light-gray; contains montmorillonite at 52.5 feet	52.5
Silt, sandy, dark- yellowish-brown and pale-yellowish- brown; contains cobbles and medium to coarse sand . . . 7.5	25	Sand, medium to very coarse, arkosic, subangular to sub- rounded, very fine gravel, and about 20 percent pale- olive, very micaceous silt . . . 5	12.5	CS-69-8aaba. Alt. 5,636.0 ft. Piney Creek Alluvium: Silt, clayey and sandy, slightly calcareous, dark- yellowish-brown . . . 4	4
Gravel, fine, arkosic. 10	35	Silt, sandy, very micaceous, pale- olive; contains montmorillonite . . . 10	17.5	Slocum Alluvium: Sand, fine to medium, arkosic, angular to subrounded, silty, micaceous, grayish- orange-pink and about 10 percent very fine gravel . . . 5.5	9.5
Sand, fine to coarse, bluish; contains clay 4	39	Gravel, very fine, compacted and weakly cemented, subangular to well- rounded, arkosic, and about 40 per- cent pale-green slightly calcare- ous very micaceous silt 5	27.5	Gravel, fine to medium, angular to sub- rounded, and medium to very coarse red sand 1.5	11
Transition zone: Shale, calcareous, light-olive-gray; contains mont- morillonite 1	40	Transition zone: Shale, silty, greenish-gray and pale-yellowish- brown to 58.5 feet, light-olive- gray from 58.5 to 73.0 feet; contains montmorillonite . . . 40.5	12.5	Silt, very sandy and clayey, grayish- orange-pink 2	13
CS-69-5bbdc. Alt. 5,510.5 ft. Piney Creek Alluvium: Loam, very sandy, loose, red-brown . . . 2.5	2.5	CS-69-8aaaa. Alt. 5,617.5 ft. Piney Creek Alluvium: Silt, clayey, very sandy, very calcareous, dusky- yellow; contains montmorillonite . . . 1	73	Gravel, very fine to medium, hard, sub- angular to well- rounded, arkosic; contains about 10 percent very coarse sand and numerous gray-white and very-pale-orange fragments of limestone 10	23
Silt, sandy, micaceous, moderate-yellowish- brown 5	7.5			Transition zone: Shale, silty, finely micaceous, sandy; contains much limonite 4.5	27.5
Louviers Alluvium: Gravel, medium to coarse, rounded . . . 2.5	10			CS-69-8abaa. Alt. 5,646.9 ft. Louviers Alluvium: Silt, very calcareous, grayish-yellow . . . 7.5	7.5
Silt, very sandy, micaceous, moderate- yellowish-brown . . . 4	14				
Gravel, coarse to very coarse, well-rounded, arkosic 1	15				
Sand, coarse to very coarse, arkosic, subangular to sub- rounded, and some grayish-orange silt; contains some fine gravel 4	19				
Cobbles 2	21				
Gravel, fine, and coarse to very coarse sand; contains some grayish-orange silt. 11.5	32.5				
Transition zone: Silt, very calcareous, micaceous, pale- yellowish-brown, and fine to medium sand 5	37.5				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-69-9abab. ---Continued		CS-69-9ddcc. Alt. 5,680 ft.		CS-69-18bbcc. ---Continued	
Gravel, medium, arkosic, subrounded to well-rounded.	4.5	Slocum Alluvium:	6	Sand	38
	12	Soil.	19	Sand, fine	119
Slocum Alluvium:		Clay, yellow.	25	Lime	5
Sand, medium to very coarse, subangular to rounded, and very fine to fine gravel; has overall reddish hue.	1.5	Dawson Formation (lower part):		Sand	27
Gravel, cemented, very hard, at 13.5 feet	13.5	Clay, sandy, brown [Middle conglomerate, 25 to 53 feet.].	14	Lime, sandy.	3
		Limestone	1	Sand	211
		Conglomerate.	13		900
		Shale, gray and blue.	70		
CS-69-9abab. Alt. 5,658.0 ft.		Lower conglomerate:			
Piney Creek Alluvium:		Sandstone	3		
Sand, very fine to medium, arkosic, angular to subangular, silty, very calcareous, pale-yellowish-brown.	2.5	Shale, gray	4		
	2.5	Sandstone	12		
Silt, sandy, very calcareous, dusky-yellow	15.5	Shale, blue	17		
	18	Conglomerate.	20		
Slocum Alluvium:		Sand, contains layers of shale.	67		
Gravel, very fine to medium, subangular to subrounded, cemented, moderate-yellowish-brown, very calcareous, arkosic; contains iron-oxide concretions; some particles are weathered and break rather easily.	10		246		
	28	CS-69-11abbb. Alt. 5,564 ft.			
		No sample	185		
		Dawson Formation (upper part):			
		Shale, gray	40		
		Dawson Formation (lower part):			
		Sand, fine, dirty [Middle conglomerate, 225 to 350 feet.].	25		
		Shale, gray	5		
		Sandstone, dirty.	10		
		Shale, gray	40		
		Sand, fine.	20		
		Shale, gray	20		
		Sand.	5		
		Shale, blue	5		
		Sandstone	45		
		Shale, blue	30		
		Lower conglomerate:			
		Sand, coarse.	55		
			485		
		CS-69-11acbc. Alt. 5,532 ft.			
		Piney Creek Alluvium:			
		Clay, sandy, brown.	12		
		Slocum Alluvium:			
		Gravel, fine, and sand.	31		
			43		
		CS-69-16aaaa. Alt. 5,665 ft.			
		Slocum Alluvium:			
		Clay.	33		
		Dawson Formation (lower part):			
		Sandstone and clay.	129		
		Lower conglomerate:			
		Gravel.	10		
		Clay and shale.	28		
		Sandrock and clay.	57		
			257		
		CS-69-18baaa. Alt. 5,798 ft.			
		Benton Shale:			
		Soil.	2		
		Clay, sandy, red.	4		
		Sand, red	2		
		Bentonite	8		
		Shale, gray	55		
		Bentonite	1		
		Shale, gray	60		
		Bentonite	1		
		Shale, gray	36		
		Bentonite	1		
		Shale, gray	102		
		Bentonite	1		
		Shale, gray	197		
		Dakota Group:			
		South Platte Formation:			
		Sand.	27		
		Shale, gray	18		
		Sand.	83		
			598		
		CS-69-18bbcc. Alt. 5,865.0 ft.			
		Piney Creek Alluvium:			
		Soil.	2		
		Clay, sandy, red.	7		
		Lykins Formation:			
		Sand, red	9		
		Shale, red.	117		
		Shale, red, and bentonite.	157		
		Lime.	21		
		Shale, red.	12		
		Lime.	5		
		Shale, red.	50		
		Lime.	2		
		Shale, red, and lime.	19		
		Lyons Sandstones:			
		Sandstone, hard	17		
		Sand, fine, yellow.	14		
		Sand, fine, pink.	28		
		Lime, pink.	12		
			492		
		CS-69-21abaa. Alt. 5,715 ft.			
		Laramie Formation:			
		Topsoil and clay	9		
		Shale.	256		
		Sand, very fine, silty	50		
			315		
		CS-69-22aabb. Alt. 5,580 ft.			
		Piney Creek Alluvium:			
		Topsoil and clay	22		
		Dawson Formation (upper part):			
		Clay, blue; has brown streaks.	32		
		Shale, blue, and clay.	24		
		Sandrock, hard	9		
		Clay and shale; blue-gray	17		
		Shale, blue.	4		
		Clay and shale; blue-gray	7		
		Shale, blue.	7		
		Clay and shale; blue.	42		
		Dawson Formation (lower part):			
		Sandstone, fine-grained [Middle conglomerate, 184 to 260 feet.].	9		
		Clay, blue-gray.	41		
		Rock, hard, brown.	1		
		Shale and clay, blue-gray	16		
		Shale, sandy, blue, and sandrock	9		
		Clay, gray	14		
		Rock, hard, blue	1		
		Clay and shale; blue-gray	41		
		Rock, hard, brown.	1		
		Clay and shale; blue-gray	3		
		Limestone.	1		
		Shale and clay; sandy.	16		
		Rock, hard, brown.	1		
		Shale, sandy	3		
		Lower conglomerate:			
		Sandstone, fine-grained.	18		
		Clay and shale; gray	37		
			405		
		CS-69-22abaa. Alt. 5,592 ft.			
		Younger loess:			
		Clay, yellow	14		
		Dawson Formation (upper part):			
		Clay, gray	5		
		Clay, yellow and gray.	7		
		Clay, gray	4		
		Clay, yellow and gray.	33		
		Clay, blue	17		
		Sandstone.	6		
		Shale, blue.	6		
		Clay, blue	6		
		Shale, dark-blue	5		
		Clay, light-blue	26		
		Shale, gray.	16		
		Shale, dark-blue	3		
		Pyrite, iron	1		
		Shale, blue.	6		
		Clay, blue-gray.	19		
		Dawson Formation (lower part):			
		Sandrock [Middle conglomerate, 174 to 271 feet.](faulted).	2		
		Sand, fine	11		
		Shale, blue.	5		
		Limestone, soft	4		
			196		

Table 1.—Logs of wells and test holes—Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-69-22abaa. --Continued		CS-69-22baaa. --Continued		CS-69-24abab. --Continued	
Clay, blue.	9	205	Shale, gray.	6	210
Shale, blue.	11	216	Shale, gray, and		
Sandrock.	2	218	rocks.	3	213
Sand.	2	220	Shale, hard, gray.	8	221
Shale, rough, blue.	14	234	Shale, sandy, gray.	4	225
Clay, dark-gray.	5	239	Rock.	1	226
Coal.	1	240	Shale, sandy, and		
Shale, blue.	2	242	rock.	4	230
Clay, dark-gray.	4	246	Dawson Formation (lower		
Shale, blue.	4	250	part):		
Sand, fine.	21	271	Sand, shale, and		
Shale, hard, gray.	13	284	rock (Middle conglom-		
Clay, blue-gray.	14	298	erate, 230 to		
Shale, blue.	9	307	289 feet.).	12	242
Clay, blue-gray.	15	322	Sand.	1	243
Clay, brownish-blue.	8	330	Sand, shale, and		
Shale, sandy, dark-blue.	8	338	rock.	7	250
Sandrock, light-blue.	6	344	Sand and shale.	11	261
Limestone, soft, brown.	3	347	Sand, shale, and		
Lower conglomerate (faulted):			rock.	11	265
Sand (water-bearing).	19	366	Shale, gray.	2	267
Shale, blue.	5	371	Sand, shale, and		
Clay, blue-gray.	4	375	rock.	3	270
Shale, blue.	21	396	Shale, hard, gray.	10	280
Sand.	2	398	Shale, sandy, gray,		
Laramie Formation:			and rock.	4	284
Shale, blue, and clay.	62	460	Sand.	1	285
CS-69-23abba. Alt. 5,603 ft.			Shale, sandy.	3	288
No sample.	187	187	Sand.	1	289
Dawson Formation and Laramie			Shale, sandy, hard.	21	310
Formation (upper part),			Shale, blue.	5	315
undifferentiated (faulted):			Sand, crustal.	4	319
Shale, sandy.	19	206	Shale, crustal.	5	324
Rock.	4	210	Sand.	2	326
Shale, blue.	16	226	Shale, sandy.	14	340
Sandstone.	2	228	Shale, sandy, hard.	3	343
Shale, blue.	12	240	Shale, blue.	1	344
Sandstone.	5	245	Sand, crustal.	2	346
Shale, green.	5	250	Shale, sandy, and		
Limestone.	3	253	crustal sand.	4	350
Shale, blue.	7	260	Shale, blue.	4	354
Coal.	2	262	Lower conglomerate:		
Shale, brown.	11	273	Sand.	6	360
Sand, "sugar".	2	275	Shale, blue.	5	365
Shale, green.	5	280	Sand.	5	370
Sandstone.	5	285	Shale, gray.	8	378
Shale.	19	304	Sand.	2	380
Sandstone.	1	305	Shale, gray.	3	383
Shale.	15	340	Sand.	4	387
Sandstone.	2	342	Shale, gray.	4	391
Shale, blue.	6	348	Sand.	1	392
Sandstone.	2	350	Laramie Formation (upper		
Shale, sandy.	18	368	part):		
Coal.	2	370	Shale, gray and blue.	16	408
Sand, "sugar".	3	373	Rock.	2	410
Coal.	5	378	CS-69-23ccac. Alt. 5,670 ft.		
Shale, gray.	5	383	Slocum Alluvium:		
Sand, "sugar".	3	396	Clay, yellow.	6	6
Shale, sandy.	14	400	Sand.	5	11
Rock.	2	402	Dawson Formation (lower		
CS-69-22baaa. Alt. 5,620 ft.			part):		
Younger loess:			Clay, yellow.	13	24
Soil.	5	5	Sand, fine.	6	30
Dawson Formation (upper			"Bentonite".	9	39
part):			Shale, gray and blue.	20	59
Clay.	25	10	Sand (water-bearing).	8	67
Shale, gray.	1	33	Clay, yellow.	2	69
Sand.	2	35	Laramie Formation (upper		
Shale, gray and brown.	20	55	part):		
Clay, sandy.	8	63	Shale, blue.	19	108
Sand.	1	66	CS-69-24abab. Alt. 5,490 ft.		
Shale.	7	73	Slocum Alluvium:		
Rock.	2	75	Topsoil.	3	3
Shale, sandy, gray.	10	85	Clay, gray.	16	19
Shale, gray.	3	88	Clay, sandy, yellow.	3	22
Coal.	1	89	Dawson Formation (upper		
Shale, gray.	3	92	part):		
Shale, gray, and coal.	5	97	Clay, gray.	17	39
Shale, sandy, gray.	1	98	Shale, gray.	58	97
Sandstone.	1	99	Dawson Formation (lower		
Coal.	1	100	part):		
Shale, gray.	10	110	Sand (Middle conglom-		
Shale, gray, and coal.	5	115	erate, 97 to 204		
Shale, gray.	4	119	feet.).	10	107
Rock.	1	120	Shale, gray.	22	129
Shale, sandy, gray.	5	125	Shale, sandy, gray,		
Shale, gray.	5	130	and thin beds of		
Shale, gray, and sand.	6	136	sand.	7	136
Shale, gray.	1	142	Shale, blue and gray,		
Rock.	1	143	and thin beds of		
Coal and rock.	3	146	sand.	7	143
Shale, gray.	5	151	Sandstone, gray.	11	154
Rock, sandy.	2	153	Shale, gray.	3	157
Shale, hard, gray.	5	158	Sand, coarse, and gray		
Shale, gray, and coal.	2	160	shale.	11	168
Shale, gray.	3	163	Shale, gray.	6	174
Shale, gray, and sand.	1	164	Shale, sandy, gray.	3	177
Shale, gray.	16	180	Sand and gray shale.	11	186
Shale, gray, hard.	20	200	Sandstone, gray, and		
Shale, gray.	3	203	sand.	16	204
Shale, sandy, brown.	1	204	Shale, gray.	14	218
			Lower conglomerate:		
			Sand, coarse, and		
			gray shale.	9	272
			Shale, sandy, gray.	6	278
			Coal and gray sandy		
			shale.	5	283
			Shale, sandy, brown.	3	286
			Sand and gray shale.	9	295
			Sand, fine, gray.	16	311
			Shale, sandy, brown.	6	317
			Sand and gray sandy		
			shale.	58	175
			Lime, sandy.	4	179
			Shale, sandy, brown		
			and gray.	21	400
			Sand and gray shale.	10	410
			Shale, gray.	21	431
			Sand, fine, and gray		
			sandy shale.	19	450
			Shale, gray.	23	473
			CS-69-25aaac. Alt. 5,450 ft.		
			Slocum Alluvium:		
			Soil.	6	6
			Sand.	4	10
			Dawson (?) Formation (upper		
			part):		
			Clay.	5	15
			Dawson Formation (lower		
			part):		
			Sand (Middle conglom-		
			erate, 16 to 156		
			feet.).	30	45
			Clay.	10	55
			Shale, blue.	5	60
			Shale, green.	10	70
			Shale, blue.	10	80
			Shale, gray.	10	90
			Shale, blue.	20	110
			Shale, gray.	9	119
			Rock.	1	120
			Shale, blue.	10	130
			Coal.	3	133
			Rock.	2	135
			Shale, gray.	14	149
			Sand, fine.	1	150
			Shale, gray.	20	170
			Shale, blue.	10	180
			Shale, sandy, gray.	10	190
			Sandstone.	2	192
			Shale, gray.	3	195
			Shale, blue.	5	200
			Shale, sandy, gray.	10	210
			Shale, gray.	5	215
			Lower conglomerate:		
			Sand.	2	217
			Shale, gray.	10	227
			Sand.	1	230
			Rock.	2	232
			Shale, gray.	2	234
			Sand.	1	235
			Shale, brown.	5	240
			Shale, blue.	10	250
			Shale, gray.	15	265
			Sand, fine.	5	270
			Shale, gray.	10	290
			Rock.	2	292
			Shale, gray.	3	295
			Shale, blue.	5	300
			Shale, blue.	80	380
			Sandstone.	12	392
			Shale, blue.	2	394
			Coal.	6	400
			Shale, sandy, gray.	10	410
			Shale, blue.	10	420
			Shale, gray.	10	430
			Shale, brown.	4	434
			Sand.	5	439
			Shale, blue.	1	440
			Shale, sandy.	5	445
			Shale, blue.	5	450
			Sand.	8	458
			Shale, gray.	2	460
			Sandstone.	5	465
			Shale, sandy, gray.	5	470
			Sand, cemented.	1	471
			Shale, gray.	4	475
			Shale, sandy.	1	476
			Shale, blue.	8	484
			Sand, fine.	16	500
			Laramie Formation:		
			Shale, gray.	10	510
			Shale, blue.	10	520
			Shale, gray.	10	530
			Coal.	2	532
			Shale, blue.	8	540
			Rock.	1	541

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C5-69-25aagc. --Continued		C5-69-27baaa. --Continued		C5-70-16acgp. --Continued	
Shale, sandy	25	566	Shale, blue	5	245
Sand	2	568	Sand	5	250
Shale, gray	4	572	Rock	5	255
Coal	1	573	Shale, gray and blue	10	265
Shale, brown	2	575	Shale, sandy, gray	5	270
Coal	1	576	Sand	5	273
Shale, blue	2	578	Shale, blue	6	279
Sand	1	579	Sand and shale	14	293
Shale, gray	3	582	Coal	2	295
Sand	3	585	Sand and shale	5	300
Shale, blue	15	600	Coal	5	305
Shale, gray	6	606	Sand	5	310
Shale, blue	10	616	Shale, blue	10	320
Sandstone	4	620	Sand	2	322
Shale, blue	10	630	Coal	3	325
Sandstone, porous	5	635	Shale, gray	5	330
Shale, blue	3	637	Rock	5	335
Sandstone	3	640	Sand and shale	5	340
Shale, blue	8	648	Shale, gray and blue	10	350
Coal	2	650	Shale, sandy, grav.	15	365
Shale, gray	10	660	Shale, blue	10	375
Shale, sandy	15	675	Sand	2	377
Sandstone	5	680	Rock	5	382
Shale, blue	20	700	Shale and rock	8	390
Coal	3	703			
Shale, gray	162	865	C5-70-6ccab. Alt. 7,595 ft.		
Limestone	2	867	Precambrian:		
Shale, gray	21	888	Granite, decomposed	14	14
Sand, fine, and gray			Granite, rose	12	26
shale	10	898	Granite, soft, de-		
Shale, gray	26	924	composed	2	28
Coal and gray shale	38	962	Granite, rose	8	36
Limestone	4	966	Granite, decomposed,		
Coal and gray shale	112	1,078	rose	1	17
and A sandstones,			Granite, broken,		
undifferentiated;			rose	31	68
Sand, fine, and gray			Quartz	17	85
shale	134	1,212	Granite, gray	6	91
Coal and gray shale	126	1,338	Granite, broken,		
Fox Hills Sandstone:			decomposed	4	95
Miliken Sandstone Member			Granite, gray	3	98
(repeated by faulting):			moist	2	100
Sand, fine, and gray			Granite, gray	10	110
shale	31	1,369	Granite, rose	6	116
Shale, gray	97	1,466	Granite, gray	4	120
Sand, fine, and gray			Sandstone, red	6	126
shale	73	1,539	Sand, red, broken,		
Shale, gray	31	1,570	and quartz (water-		
C5-69-26bbhb. Alt. 5,540 ft.			bearing)	4	130
Slocum Alluvium:			Sandstone, red	4	134
Topsoil	6	6	Granite, rose, and		
Sand	24	30	quartz	7	141
Dawson Formation (upper			Sandstone, red	4	145
part):			Granite, broken, rose,		
Clay	10	40	and quartz	10	155
Shale, brown and blue	60	100	Quartz, broken	7	162
Rock	2	102	Granite, gray, and		
Shale, brown, gray,			quartz	3	165
and blue	28	130	Quartz	12	177
Dawson Formation (lower part):			Conglomerate, quartz,		
Middle conglomerate:			and granite	10	187
Sand	3	133	Granite, rose	7	194
Shale, brown and blue	7	140	Quartz (water-bearing)	6	200
Sand	10	150	Granite	2	202
Shale, blue	5	155			
Sand	5	160			
Rock at 160 feet			C5-70-7bbbd. Alt. 7,450 ft.		
C5-69-27baaa. Alt. 5,615 ft.			Precambrian (granite):		
Slocum Alluvium:			Granite, decomposed,		
Soil	6	6	rose	6	6
Clay	14	20	Granite, rose	16	22
Dawson Formation (upper and			Schist and streaks of		
lower parts, undifferentiated):			granite	10	32
Clay, brown and yellow			Granite, rose	42	74
low	45	65	Granite, gray, and		
Shale, blue	20	85	quartz	17	91
Sand, cemented	19	104	Granite, rose	12	103
Shale, blue and gray	36	140	Granite, gray	6	109
Coal	2	142			
Shale, gray and blue	12	154	C5-70-11dbdb. Alt. 6,190 ft.		
Sand	8	162	Fountain Formation:		
Rock	2	164	Silt, sandy, red,		
Shale, hard, blue	6	170	and overburden	20	20
Shale, gray, and rock	20	190	Sandstone, fine-		
Shale, gray	5	195	to coarse-grained,		
Dawson Formation (lower part)			firm to hard,		
Laramie Formation (upper			tight; contains		
part) undifferentiated			layers of red,		
(faulted):			stiltly shale	630	650
Sand, hard	2	197	Sandstone, medium-		
Sand, coarse	3	200	grained, reddish-		
Rock	2	202	gray; contains		
Sand	6	208	streaks of red,		
Shale, blue	8	216	stiltly shale (water-		
Limestone	1	217	bearing)	25	675
Shale, blue	1	218	Precambrian:		
Sand	3	221	Granite, reddish-gray,		
Shale, blue	7	228	and schist	28	703
Sand	2	230	C5-70-16acgp. Alt. 7,010 ft.		
Shale, gray	5	235	Colluvium:		
Shale and sand	5	240	Topsoil and		
			boulders	6	6
	</				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C5-70-14bbad.--Continued		C6-65-9bbch.--Continued		C6-65-18adaa.--Continued	
Precambrian (granite):		Shale, sandy, and		Sand, fine to coarse.	
Granite, gray 25		layers of sand. 5		silty, subrounded,	
C5-70-14cbdc2. Alt. 7,135 ft.		Shale, gray 1		arkosic, light-	
Precambrian:		Sand. 5		gray 20	
Granite, decomposed,		Shale, gray 8		Sand, fine, silty,	
and schist. 6		Shale, sandy, gray. 4		micaceous, arkosic,	
Granite, gray 14		Shale, gray 13		light-olive-gray;	
Schist. 2		Shale, sandy, blue. 12		contains a little	
Granite, rose 5		Coal. 1		medium sand between	
Granite, gray; has soft		Shale, gray 6		200 and 210 feet	
streaks 12		Shale, blue 27		and a little clay	
Granite, rose 7		Shale, sandy, gray		between 230 and	
Granite, gray; has soft		and layers of sand. 12		240 feet 40	
streaks 12		Shale, gray and blue. 13		Sand, fine to coarse.	
Granite, rose 28		Shale, sandy, blue		arkosic, subangular	
Granite, gray 6		and layers of sand. 10		to subrounded, silty;	
Granite, rose 37		Shale, blue 18		grains coated with	
Granite, gray 17		Shale, sandy, blue		white kaolinitic	
Granite, rose 4		and layers of sand. 6		clay binder. 20	
Granite, gray 11		Shale, dark-gray. 5		Sand, fine to medium,	
Granite, rose 47		Shale, gray and blue. 10		arkosic, micaceous,	
Granite, gray 87		C6-65-16bcda. Alt. 6,350 ft.		silty, firm, light-	
Granite, soft, gray 88		Dawson Formation (upper		gray; grains coated	
Granite, brittle, black		part):		with white clay	
and rose; has soft		Topsoil 2		binder 30	
streaks; sloughs in		Clay, sandy, brown. 3		Clay, red, and about	
(water-bearing) 10		Sandstone, gray 7		40 percent fine sand	
C5-70-14cbdc1. Alt. 7,130 ft.		Sand. 5		Sand, silty. 10	
Precambrian:		Sandstone, gray 12		Sand, medium to very	
Granite, decomposed 10		Sand. 28		coarse; subrounded	
Granite, black and		Gravel. 3		arkosic very fine	
rose 16		Sand. 17		gravel; and red and	
Schist, moist 5		Clay, sandy, yellow 15		orange clay. 10	
Granite, gray; has		Sandstone, gray 4		Sand, fine to medium,	
soft streaks. 13		Sand. 2		mostly fine, arkosic,	
Granite, rose and		Sandstone, gray 2		subrounded, and a	
gray 8		Shale, blue and gray. 19		little light-olive-	
Granite, gray, and		Sand. 16		gray clay. 20	
quartz. 24		Shale, gray 27		Sand, fine to medium,	
Granite, black; has		Sand. 10		and red and pale-	
soft streaks. 14		Clay, sandy, yellow 6		orange clay. 10	
Granite, gray 22		Sand. 14		Sand, fine to very	
Granite, rose (yields		Clay, sandy, yellow 18		coarse, subrounded to	
water at 124 feet). 21		Shale, brown. 3		rounded, arkosic, a	
C6-65-4cdbh. Alt. 6,246 ft.		Shale, sandy, gray. 10		little silty and	
Dawson Formation (upper		Sand. 10		rounded very fine	
part):		Shale, sandy, gray. 30		gravel; grains are	
Sandstone 56		Sand. 4		coated with kaolini-	
Shale 108		Shale, gray 37		tic clay 30	
Sandrock. 9		Sand. 22		Sand, fine to very	
Shale 144		C6-65-18adaa. Alt. 6,295 ft.		coarse, and rounded	
Sandrock. 44		Dawson Formation (upper		very fine gravel,	
Shale 52		part):		very silty; grains	
Sandstone 21		Sand, very fine,		heavily coated 10	
Shale 47		silty, light-gray 10		Sand, fine to coarse,	
Sandstone 9		Sand, very fine to		rounded, silty,	
C6-65-6ddda. Alt. 6,100 ft.		coarse, arkosic,		light-gray 10	
Dawson Formation (upper		subrounded, silty,		Sand, fine to medium,	
part):		light-gray. 10		rounded, silty and	
Topsoil 5		Sand, medium to		shaly, light-gray. 10	
Sandstone, yellow 23		coarse, arkosic and		C6-65-18cddd. Alt. 6,140 ft.	
Shale, blue 12		rounded very fine		Dawson Formation (upper	
Sand, blue 77		gravel. 10		part):	
Gravel, sandy, white. 3		Gravel, very fine to		Clay and shale 53	
Sand. 10		fine, coated,		Sandstone 87	
Gravel (water). 10		rounded, arkosic,		Sand (water) 50	
Clay. 25		and coarse to very		Shale 10	
Sand (water). 15		coarse sand 10		C6-65-22cccc. Alt. 6,351 ft.	
Shale, blue 10		Sand, fine to coarse,		Dawson Formation (upper part):	
C6-65-9bbch. Alt. 6,215 ft.		silty, coated, sub-		Sand and sandy shale 27	
Dawson Formation (upper		rounded, a little		Shale 26	
part):		clay, and light-		Sand and gravel. 32	
Topsoil 2		gray very fine		Shale 20	
Clay, sandy, light-		gravel. 10		Shale, blue. 5	
gray. 4		Sand, very fine to		Shale, sandy 25	
Clay, sandy, grayish-		coarse, subrounded,		Shale 15	
green 6		arkosic, silty,		C6-65-27abcc. Alt. 6,324 ft.	
Clay, sandy, fine,		yellowish-gray. 40		Dawson Formation (upper part):	
gray. 14		Sand, very fine to		Sand 10	
Sand and gray fine		fine, silt, and		Shale 25	
sandy clay. 33		silty clay; brown-		Sand and gravel. 40	
Ironrock, hard. 1		ish-gray. 10		Shale 30	
Shale, yellowish-		Sand, medium to		Sand 5	
gray. 13		coarse, rounded,		Shale 15	
Sand, fine and layers		coated, arkosic. 10		Shale, blue. 25	
of sandy shale. 7		Sand, very fine to		C6-65-27bbcb. Alt. 6,322 ft.	
Ironrock. 1		medium, silty,		Dawson Formation (upper part):	
Shale, light-gray 3		micaceous, subround-		Sand and gravel. 20	
Shale, gray 9		ed, greenish-gray 40		Shale 9	
Shale, sandy, light-		Sand, coarse, rounded,		Sand and gravel. 46	
gray and sand 6		arkosic; coated		Shale, sandy, gray 80	
Shale, gray 8		with clay binder. 10		Shale, sandy, blue 25	
Shale, sandy, gray. 13		Sand, fine to medium		C6-65-27cbcb. Alt. 6,271 ft.	
Shale, light-gray 13		arkosic, subrounded,		Dawson Formation (upper part):	
Shale, sandy, gray. 18		slightly micaceous,		Sand 6	
Shale, gray 7		brownish-gray, and		Shale, sandy 24	
Shale, sandy, gray. 11		a little coarse sand;		Sand and gravel. 16	
Shale, gray 7		grains coated with		Shale, sandy, blue 96	
Shale, gray 176		noncalcareous clay			
		binder. 20			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-65-27qcbp. ---Continued		C6-65-32dccb. ---Continued		C6-66-9dacc. Alt. 5,776.3 ft.	
Sand and gravel.	27	Sand, coarse.	13	Piney Creek Alluvium:	
Shale, blue.	57	Shale, blue.	3	Topsoil.	2.5
	123		311	Clay, sandy, brown	
	180			and sand.	2.5
				Clay.	5
C6-65-28aapb. Alt. 6,317 ft.		C6-65-33aaa. Alt. 6,353 ft.		Louviers Alluvium:	
Dawson Formation (upper part):		Dawson Formation (upper part):		Clay, sand, and some	
Sand, gravel, and		Sand and gravel.	75	gravel.	10
boulders.	25	Shale.	37	Gravel, sand, and	
Shale.	10	Sand and gravel.	33	some clay.	10
Sand, gravel, and		Shale, sandy, gray.	20	Gravel, coarse, and	
sandy shale.	40			sand.	30
Sand and gravel.	50	C6-65-33addd. Alt. 6,387 ft.		Dawson Formation (upper part):	
Shale.	25	Dawson Formation (upper part):		Clay, brown.	2
		Shale.	15	Clay, blue.	9
		Sand and gravel.	92		
		Shale.	23	C6-66-9dddc. Alt. 5,791.3 ft.	
		Shale, sandy.	5	Piney Creek Alluvium:	
C6-65-28abba. Alt. 6,399 ft.		C6-65-33dddd. Alt. 6,415 ft.		Topsoil.	4
Dawson Formation (upper part):		Dawson Formation (upper part):		Clay.	2
Sand and sandy shale.	25	Shale.	15	Broadway Alluvium:	
Shale.	10	Sand and gravel.	107	Sand and gravel.	5
Sand, gravel, and		Shale.	130	Louviers Alluvium:	
sandy shale.	70	Shale, sandy.	135	Gravel, dirty, sand,	
Shale.	10			rocks and clay.	10
Sandy shale.	17	C6-65-34abcc. Alt. 6,276 ft.		Gravel, dirty, sand,	
Shale.	15	Piney Creek Alluvium:		rocks, and quite a	
Shale, sandy.	3	Sand.	5	lot of clay.	13
		Dawson Formation (upper part):		Gravel and sand (not	
C6-65-28bbba. Alt. 6,333 ft.		Shale.	15	too good).	5
Piney Creek Alluvium:		Shale, sandy, gray.	40	Gravel and sand.	5
Sand.	7	Sand and gravel.	12	Gravel, dirty, sand,	
Dawson Formation (upper part):		Shale, sandy, gray.	33	and clay.	6
Shale, sandy.	7	Sand and gravel.	30	Gravel.	21
Sand and gravel.	71	Shale, sandy, gray.	10	Clay.	3
Shale, blue.	44	Shale, blue.	12	Gravel.	1
Shale, gray.	6	Sand and gravel.	3	Clay and fine sand.	4
				Dawson Formation:	
C6-65-29abab. Alt. 6,309 ft.		C6-66-7dcaa. Alt. 5,900 ft.		Shale.	6
Dawson Formation (upper part):		Topsoil.	2	C6-66-10cdcc. Alt. 5,834 ft.	
Sand.	5	Louviers Alluvium:		Broadway Alluvium:	
Shale.	24	Clay, sandy, brown.	6	Sand and gravel.	20
Sand and gravel.	31	Sand.	16	Dawson Formation (upper part):	
Shale.	35	Clay, sandy, brown.	4	Shale, yellow.	55
Shale, sandy.	60	Sand and gravel.	17	Shale, gray.	15
Shale.	10	Dawson Formation (upper part):		Sand and gravel.	55
Shale, sandy.	7	Sandstone, brown.	4	Shale, gray.	150
Shale.	8	Sand.	6		
		Clay, sandy, brown.	9	C6-66-10ddcc. Alt. 5,870 ft.	
C6-65-29bbba. Alt. 6,286 ft.		Shale, sandy, gray.	6	Dawson Formation (upper part):	
Piney Creek and Broadway(?)		Clay, sandy, brown.	3	Sand.	12
Alluvium, undifferentiated:		Sand.	44	Shale.	93
Sand and gravel.	30	Clay, yellow.	3	C6-66-11ccac. Alt. 5,941 ft.	
Dawson Formation (upper part):		Sand (water-bearing).	27	Dawson Formation (upper part):	
Shale, gray.	30	Shale, gray.	29	Shale, red.	60
Shale, blue.	25	Sand.	6	Shale, blue.	120
Shale, gray.	15	Shale, brown.	1	Shale, gray.	130

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth								
C6-66-16aada. --Continued Louviere Alluvium: Clay and streaks of sand 15 35 Sand and gravel 55 90 Dawson Formation (upper part): Sand, gravel, and sandy shale 45 135		C6-66-21aadc. Alt. 5,823.7 ft. Piney Creek Alluvium: Loam, sandy, dark- brown 3 3 Broadway Alluvium: Sand, very fine to very coarse, sub- angular to well- rounded, arkosic, poorly sorted 6 9 Louviere Alluvium: Sand, very fine to fine, calcareous, silty, subangular to subrounded, dark-yellowish- brown 1 10 Clay, silty, sandy, crumbly, dark-brown Sand, medium to coarse, angular, loose, and fine gravel . . . 1.5 14 Sand, very fine to fine, silty, micaceous, sub- angular to sub- rounded, arkosic, pale-yellowish- brown 1 15 Silt, sandy, mica- ceous, pale- yellowish-brown and very sandy tan clay, contains montmorillonite . . 23.5 38.5 Gravel, very fine to fine, well-sorted, arkosic, sub- angular to rounded. 29 67.5 Sand, very coarse, arkosic, subangular to rounded, and very fine gravel . . 1.5 69 Dawson Formation (upper part): Sandstone, fine- to coarse-grained, pale-red and very pale-orange, non- calcareous; has overall pinkish- purple hue; sand is arkosic and angular to sub- angular, inter- layered with silty and sandy shale . . 8.5 77.5	C6-66-21adad. Alt. 5,823.7 ft. Louviere Alluvium: Silt, very sandy, calcareous, dusky- yellow; contains montmorillonite. . . 5 17.5 Silt, slightly sandy, very calcareous, pale-yellowish- brown; contains very fine sand . . . 12.5 30 Sand, very coarse, well-sorted, sub- angular to sub- rounded, arkosic . . 2.5 32.5 Sand, fine to very coarse, arkosic, subangular to rounded, poorly sorted, and some pale-yellowish- brown silt 5 37.5 Sand, coarse to very coarse, subangular to subrounded, well- sorted, arkosic. . . 6.5 44 Gravel, very fine to fine, arkosic, sub- angular to rounded, and about 50 per- cent coarse to very coarse sand. 3.5 47.5 Sand, medium to very coarse, arkosic, subangular to rounded, and about 20 percent very fine gravel; contains cobblestones. 5 52.5 Gravel, very fine to fine, arkosic, sub- angular to well- rounded, and about 30 percent very coarse sand; contains cobblestones. 5 57.5 Sand, medium to very coarse, arkosic, sub- angular to rounded, and about 30 per- cent very fine gravel 5 62.5 Gravel, very fine to fine, arkosic, sub- angular to sub- rounded, about 20 percent sand, and 10 percent silt; contains cobblestones from 65.5 to 71.5 feet 13 75.5 Cobblestones. 2 77.5 Dawson Formation (upper part): Shale, silty and sandy, micaceous, dark-yellowish- brown and fine- grained sandstone; contains some fine gravel, montmoril- lonite, and much lignite. 20 97.5										
C6-66-16bbba. Alt. 5,769 ft. Post-Piney Creek Alluvium: Sand and gravel 10 10 Louviere Alluvium: Clay and streaks of sand 10 20 Sand and gravel 7 27 Shale 45 72 Louviere Alluvium and Dawson Formation, undifferentiated: Sand, gravel, and sandstone 10 82 Dawson Formation: Shale 23 105		C6-66-16bbba. Alt. 5,806 ft. Piney Creek Alluvium: Shale (probably clay). 5 5 Louviere Alluvium: Sand and gravel 12 17 Rock, broken 2 19 Sand and gravel 36 55 Dawson Formation: Shale 50 105		C6-66-17aabb. Alt. 5,826 ft. Dawson Formation (upper part): Shale, sandy 75 75 Shale, blue 17 92 Shale, brown 13 105 Shale, gray 12 117 Shale, blue 25 142 Sand 8 150		C6-66-18aabb. Alt. 5,913 ft. Broadway and Louviere Alluvium, undifferentiated: Sand and gravel 47 47 Dawson Formation (upper part): Shale, sandy, gray . . 20 67 Shale, blue 6 73 Upper conglomerates: Sand and gravel 42 115 Shale, blue 35 150		C6-66-21aadb. Alt. 5,809.5 ft. Post-Piney Creek Alluvium: Soil, loamy, sandy, plastic 4 4 Louviere Alluvium: Sand, coarse to very coarse, subangular to rounded, arkosic; about 20 percent very fine to fine gravel; and a little yellowish-gray micaceous silt; silt increases to about 40 percent between 8.0 and 10 feet. 11 15 Sand, fine to very coarse, well-sorted, arkosic, subangular to subrounded, and about 15 percent very fine to fine gravel 7.5 22.5 Gravel, very fine to fine, subangular to rounded, well-sorted, arkosic and about 10 percent very coarse sand 10 32.5 Sand, coarse to very coarse, subangular to subrounded, arkosic and about 10 percent very fine to fine gravel 10 42.5 Gravel, very fine to fine, arkosic, sub- angular to subrounded, and about 30 percent coarse to very coarse sand; contains cobblestones at 44 feet and between 47.5 and 52.5 feet. 11 53.5 Dawson Formation (upper part): Sandstone, silty, non- calcareous very-pale- orange and moderate- orange-pink; contains about 10 percent silt 4 57.5		C6-66-21abda. Alt. 5,803.5 ft. Post-Piney Creek Alluvium: Sand, very fine to medium, clean, loose, angular to subangular, arkosic, yellowish- gray 3 3 Louviere Alluvium: Sand, medium to coarse, arkosic, angular to sub- rounded, very micaceous; contains about 10 percent very fine gravel. . 14.5 17.5 Sand, coarse to very coarse, angular to subrounded, arkosic, well-sorted, and about 15 percent very fine to fine gravel 1.5 19 Dawson Formation (upper part): Shale, silty, very sandy, arkosic, noncalcareous, pale-olive; contains montmoril- lonite 8.5 27.5	C6-66-22abdd. Alt. 5,869 ft. Piney Creek Alluvium: Topsoil 3 3 Louviere Alluvium: Clay and sand. . . . 35 38 Dawson Formation (upper part): Sand, fine, and silt. 12 50 Sand, gravel, and clay 25 75	C6-66-22bacc. Alt. 5,843.6 ft. Piney Creek Alluvium: Topsoil 5 5 Clay, sandy. 4 9 Broadway Alluvium: Gravel, very fine, and coarse sand. 17 26 Louviere Alluvium: Sand, coarse, very fine gravel, and some clay. 2 28 Gravel, very fine, wet. 42 70 Dawson Formation (upper part): Shale 7.5 77.5	C6-66-22bacc. Alt. 5,846.9 ft. Piney Creek Alluvium: Topsoil, sandy 3 3 Louviere Alluvium: Clay, yellow 18 21

Table 3.—Loss of wells and test holes—Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-66-22bqcd.---Continued		C6-66-22bcab2.---Continued		C6-66-22bcba.---Continued	
Clay and gravel.	9	Gravel, coarse, and fine sand.	11	Silt, pale-yellow- ish-brown.	2.5
Gravel.	29		85	Silt, sandy, calcare- ous, yellowish- gray.	6.5
C6-66-22badc. Alt. 5,856.1 ft.		Dawson Formation (upper part):		Broadway Alluvium:	
Piney Creek Alluvium:		Sandstone, shaly, arkosic, and very sandy shale; contains poorly sorted fine to very coarse sand and very fine gravel; shale and sandstone crumble easily.	5	Sand, very fine to coarse, arkosic, silty, micaceous, calcareous, grayish-yellow.	3.5
Topsoil.	6		90	Sand, very coarse, fairly well-sorted arkosic, subangular to subrounded, and very fine gravel.	1.5
Broadway Alluvium:		C6-66-22bcab3. Alt. 5,838.6 ft.		Gravel, very fine.	1.5
Sand.	4	Piney Creek Alluvium:		Louviers Alluvium:	
Louviers Alluvium:		Topsoil, sandy, crumbly.	1	Sand, very coarse, well-sorted arkosic, subangular to sub- rounded, and very fine gravel; contains a little moderate yellow silt.	5
Clay.	1	Silt, sandy, calcare- ous, dusky-yellow; contains fine sand.	9	Sand, coarse to very coarse, angular to subangular, arkosic, and very fine sub- rounded to well- rounded gravel.	5
Clay, blue, and very fine gravel.	6.5	Silt, very sandy, micaceous, very calcareous, dusky- yellow.	9	Sand, coarse, and clay.	5
Clay, sandy, brown.	5		19	Gravel, very fine.	11
Clay, brown.	2.5	Broadway Alluvium:		Cobbles.	4.5
Clay, sandy.	2.5	Sand, coarse to very coarse, angular to subangular, arkosic, and very fine sub- rounded to well- rounded gravel.	5	Gravel, very fine.	54
Gravel, very fine.	20.5	Sand, medium to very coarse, arkosic, subangular, silty, and about 10 per- cent very fine gravel.	3.5	Gravel, very fine, very hard from 64.0 to 65.0 feet.	14
Cobbles.	4		24	Cobbles.	3
Dawson Formation:		Louviers Alluvium:		Dawson Formation (upper part):	
Shale.	3	Gravel, very fine, and medium to coarse, angular sand; contains thin beds of silt.	7.5	Shale, soft, blue.	6.5
C6-66-22bcac. Alt. 5,839.8 ft.			35		
Piney Creek Alluvium:		Sand, medium to very coarse, arkosic, angular to sub- angular, and about 10 percent very fine gravel.	5	C6-66-22bcbc. Alt. 5,834.3 ft.	
Clay.	2	Gravel, very fine, and medium to coarse, angular sand; contains thin beds of silt.	15	Piney Creek Alluvium:	
Sand.	4		55	Topsoil.	4
Clay, sandy.	2.5	Sand, medium to very coarse, arkosic, angular to sub- angular, and 10 percent very fine gravel.	2.5	Louviers Alluvium:	
Clay, soft.	1.5		57.5	Clay, sandy.	18
Broadway Alluvium:		Gravel, very fine, and medium to coarse, angular sand; contains thin beds of silt.	6.5	Sand and medium to coarse gravel.	39
Sand, coarse, and very fine gravel.	8	Cobbles.	1	Dawson Formation:	
Gravel, very fine.	8		65	Shale, blue.	3
Louviers Alluvium:		Sand, medium to very coarse, arkosic, angular to subangu- lar, and about 20 percent very fine gravel.	5	C6-66-22bdhb. Alt. 5,843 ft.	
Clay, blue.	10		70	Piney Creek Alluvium:	
Gravel, very fine.	3.5	Sand, very fine to very coarse, arkosic, subangular to round- ed, poorly sorted, and about 20 percent very fine to fine gravel; contains cobbles.	2.5	Topsoil.	5
Cobbles and gravel.	10.5		72.5	Broadway Alluvium:	
Gravel, very fine.	12	C6-66-22bbcd. Alt. 5,833.9 ft.		Sand, fine.	15
Cobbles.	1	Piney Creek Alluvium:		Louviers Alluvium:	
Gravel, very fine.	7	Topsoil.	5	Clay, sandy.	30
Cobbles.	3.5		5	Sand and medium to coarse gravel.	30
Gravel.	1.5	Louviers Alluvium:		Dawson Formation (upper part):	
Cobbles.	3.5	Silt, very sandy, light-olive-gray.	6.5	Shale.	20
Dawson Formation:		Sand, very fine to medium, subangular, very silty, arkosic, noncalcareous, yellowish-gray.	7.5	Shale, sandy.	60
Shale, brown.	4	Sand, very fine to medium, silty, slightly calcareous. Silt, very sandy, light-olive-gray.	7.5	Upper conglomerate: Sandstone, white.	55
C6-66-22bcab2. Alt. 5,839.4 ft.			45	Shale.	222
Piney Creek Alluvium:		Sand, fine to very coarse, arkosic, angular to sub- angular, about 40 percent coarse, and a little very fine gravel; contains scattered cobbles from 51.5 to 52 feet.	17.5	C6-66-22cbbc. Alt. 5,833.9 ft.	
Loam, sandy, dark- brown.	1		62.5	Piney Creek Alluvium:	
Silt, very sandy, micaceous, non- calcareous, dark- yellowish-brown.	5	Dawson Formation (upper part):		Topsoil.	5
Silt, very sandy, very calcareous, light-olive-gray.	7	Shale, very silty, very micaceous, noncalcareous; contains montmoril- lonite, fine sand, and very fine gravel.	6.5	Louviers Alluvium:	
Broadway Alluvium:			86	Clay, sandy.	19
Sand, medium to very coarse, subangular, very silty, arkosic, about 50 percent silt, and very fine to fine gravel.	4.5		92.5	Sand and medium to coarse gravel.	37
Sand, very fine to very coarse, sub- angular, very silty, arkosic, light- olive-gray.	1.5	C6-66-22bcba. Alt. 5,834.3 ft.		Dawson Formation:	
Louviers Alluvium:		Piney Creek Alluvium:		Shale, blue.	3
Silt, very sandy, light-olive-gray.	6.5	Topsoil.	2	C6-66-23baad. Alt. 5,956 ft.	
Sand, very fine to medium, subangular, very silty, arkosic, noncalcareous, yellowish-gray.	7.5	Sand, very fine to medium, micaceous.	3	Dawson Formation (upper part):	
Sand, very fine to medium, silty, slightly calcareous. Silt, very sandy, light-olive-gray.	2.5		5	Sand.	7
Sand, fine to very coarse, arkosic, angular to sub- angular, about 40 percent coarse, and a little very fine gravel; contains scattered cobbles. Silt, very sandy, light-olive-gray.	7.5		74	Shale.	15
Sand, fine to coarse, very micaceous, angular to subangu- lar and 20 percent very fine gravel; contains scattered cobbles.	7.5		70	Shale, sandy.	3
Sand, medium to coarse arkosic, angular to subangular, about 40 percent coarse, and about 10 percent very fine gravel.	4		74	Shale.	20
				Shale, blue.	60

Table 1.--Loss of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-66-23cbag. --Continued		C6-66-23cbagb. --Continued		C6-67-13bbba. --Continued	
Louviers Alluvium:		Sand, gravel, and		Shale, blue	22
Clay	11	boulders	25	Sand and gravel	33
Sand and gravel	4	Sandstone	71		130
Dawson Formation (upper		Shale, blue	24		
part):		Sandstone	21	C6-67-18baab. Alt. 5,347 ft.	
Shale	100	Shale, blue	24	Dawson Formation (upper part):	
Shale, sandy	12		165	Topsoil	4
Sand and gravel	3			Clay, gray	41
C6-66-23dcd. Alt. 6,045 ft.		C6-66-33cbcc. Alt. 6,069 ft.		Sandstone, soft	15
Dawson Formation (upper		Dawson Formation (upper part):		Clay, gray and bluish-	
part):		Shale, sandy	15	gray	70
Sand and gravel	57	Sand and gravel	45	Clay, sandy	35
Shale, sandy, gray	20	Shale	105	Ironrock, hard layer	1
Shale, red	13		150	Clay, sandy	10
Shale, gray	20			Ironrock, hard layer	2
C6-66-24cccg. Alt. 6,049 ft.		C6-66-34abgd. Alt. 5,888 ft.		Clay, sandy	23
Dawson Formation (upper part):		Broadway and Louviers Alluvium		Ironrock	1
Sand	5	and Dawson Formation,		Clay, bluish-gray,	
Shale	22	undifferentiated:		and shale	76
Sand and gravel	38	Sand, gravel, and	50	Upper conglomerate:	
Shale, sandy, and		sandy shale	50	Shale, dark-gray, and	
gravel	30	Dawson Formation (upper part):		alternate layers of	
Shale, red	25	Shale	25	water-bearing sand-	
		Sand, gravel, and	115	stone	56
C6-66-24dddd. Alt. 6,067 ft.		Shale	145		334
Dawson Formation (upper part):		Sand, gravel, and	170	C6-67-22cdcc. Alt. 6,312 ft.	
Sand	7	shale	25	Castle Rock Conglomerate:	
Shale, sandy, gray	13	Shale	10	Sand and gravel	20
Sand and gravel	25	C6-66-34bagb. Alt. 5,875 ft.		Dawson Formation (upper part):	
No sample	30	Piney Creek Alluvium:		Sandstone	5
Shale, blue	25	Soil and clay	17	Shale	10
Shale, gray	14	Broadway Alluvium:		Sand, gravel, and	
Shale, blue	31	Sand	11	sandy shale	125
		Louviers Alluvium:		Shale, sandy	6
C6-66-27cccg. Alt. 5,878.6 ft.		Clay	10	Shale	14
Piney Creek Alluvium:		Gravel (water-bearing)	24		160
Soil	7	Dawson Formation:		C6-67-27cdca. Alt. 6,210 ft.	
Louviers Alluvium:		Shale, blue, at 62		Dawson Formation (upper part):	
Clay, white	10	feet		Sand and white clay	70
Gravel	1	C6-66-34bbag. Alt. 5,881 ft.		Gravel, coarse	10
Clay	4	Broadway and Louviers Alluvium,		Clay and sand	20
Gravel	3	undifferentiated:		Rock, hard, brown	1
Clay	10	Sand, gravel, and		Clay, brown	11
Gravel	11	boulders	34	Shale, blue	8
Clay	6	Dawson Formation (upper part):			120
Gravel, coarse	8	Shale, sandy	26	C6-67-33dbca. Alt. 6,404 ft.	
Dawson Formation (upper part):		Sand and sandy shale	76	Dawson Formation (upper part):	
Shale, sandy, blue	6	Shale, blue	9	Sand and gravel	40
		Shale, sandy	95	Shale	50
C6-66-27cdcd2. Alt. 5,866.8 ft.		C6-67-34abca. Alt. 5,705 ft.		Sand, gravel, and sandy	
Piney Creek Alluvium:		Dawson Formation (upper part):		shale	50
Soil	3	Topsoil	1	Shale	25
Broadway Alluvium:		Shale, brown	13	C6-68-1cga. Alt. 5,828 ft.	
Gravel	16	Gravel	14	Dawson Formation (upper part):	
Louviers Alluvium:		Clay, yellow	7	Topsoil	4
Clay	4	Shale, brown and gray	24	Clay, sandy	7
Gravel	6	Sandstone, gray and		Sandstone, soft	46
Clay	2	shale	4	Clay, blue	31
Gravel	5	Shale, brown and gray	62	Clay, gray	16
Boulders or soft rock	1	Shale, sandy, gray	5	Clay and blue shale	54
Gravel	10	Shale, brown and gray	79	Clay, brown	15
Boulders	4	Shale, sandy, brown	5	Clay and blue shale	54
Dawson Formation:		Sand and gray shale	4	Sandstone, conglom-	
Shale	6	Shale, gray	77	erate, hard	2
C6-66-27dbcc. Alt. 5,861.7 ft.		Sand, coarse and gray		Clay, blue	13
Piney Creek Alluvium:		shale	9	Clay, brownish-gray	7
Soil	6	Limestone	2	Clay, blue, occasional	
Louviers Alluvium:		Sand	2	sandy streaks	38
Clay, blue	16	Limestone and sand	8	Clay, dirty, black	11
Gravel	7	Shale, brown	8	Shale, black, and	
Clay	1	Sand and gray shale	6	alternating layers	</

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-68-1aaba. --Continued		C6-68-6dadb. --Continued		C6-68-11abcb. --Continued	
Sand	4	295	Shale, sandy, gray.	22	611
Shale, gray.	17	312	Shale, gray, and fine sand.	11	622
Shale, sandy, gray	7	319	Coal and gray shale	10	632
Shale, gray.	8	347	Shale, gray.	14	646
Sand	21	368	Sand, fine, and gray shale	34	680
Shale, gray and blue	14	402	Shale, gray	20	700
Shale, sandy, gray, and layers of shale.	15	417	C6-68-7bada. Alt. 5,486.4 ft.		
Shale, gray and blue	22	439	Slocum Alluvium:		
Sand	2	441	Sand, fine.	14	14
Sandstone, hard.	1	442	Sand and brown clay.	1	15
Coal	1	443	Clay, sandy, brown.	8	23
Shale, gray.	16	459	Dawson Formation:		
Lower conglomerate:			Shale, brown.	2	25
Sand	6	465	C6-68-7bbba. Alt. 5,406.5 ft.		
Sandstone.	10	475	Piney Creek Alluvium:		
Shale, gray.	9	484	Clay, sandy.	4	4
Sand	7	491	Broadway and Louviers Alluvium, undifferentiated:		
Shale, gray.	3	494	Gravel.	36	40
Sand	3	497	Louviers Alluvium:		
Shale, blue and gray	20	517	Rock.	2	42
Sand and layers of gray shale	5	522	Gravel.	1	43
Sand	9	531	Dawson Formation:		
Shale, gray.	5	536	Shale	9	52
Sand	4	540	C6-68-7dada. Alt. 5,548.4 ft.		
Shale, gray.	4	544	Eolian sand:		
Sand, fine, gray	3	547	Sand, very fine to very coarse, sub- rounded, poorly sorted, arkosic, and dark-yellowish-brown silt.	2.5	2.5
Shale, gray.	28	575	Slocum Alluvium:		
Limestone.	1	576	Sand, poorly sorted, arkosic; a little very fine gravel; and grayish-orange noncalcareous silt.	5	7.5
Sand	8	584	Sand, medium to very coarse; subrounded to well-rounded, very fine gravel, and a little pale-yellowish-brown silt.	24	31.5
Shale, gray.	2	586	Dawson Formation (upper part):		
Sandstone.	2	588	Shale, silty, sandy, micaceous, noncalcareous, pale-yellowish-brown; contains very fine sand.	1	12.5
Shale, gray.	10	598	Shale, silty; noncalcareous yellowish-gray; contains montmorillonite	5	17.5
Sand	23	621	C6-68-8abdb. Alt. 5,547 ft.		
Shale, gray.	4	625	Eolian sand:		
Sand	8	631	Soil.	2	2
Shale, gray.	3	636	Sand and yellow clay.	17	19
Sand	4	640	Dawson Formation (upper part):		
Shale, gray.	22	662	Clay, sandy, yellow.	2	21
Sand, fine, white.	21	683	Sandstone, brown.	1	22
Shale, gray.	35	718	Clay, yellow.	9	31
Sand, fine, gray	2	720	Shale, blue	3	34
Shale, gray.	14	734	Shale, blue and gray.	27	61
Sand, fine, gray	8	742	Dawson Formation (lower part):		
Shale, gray.	12	774	Middle conglomerate:		
Sand	21	795	Sand.	2	63
Sandstone.	1	796	Shale, gray.	62	125
Sand	1	797	Sand.	1	128
Shale, gray.	13	810	Shale, gray.	7	135
C6-68-6dadb. Alt. 5,498.0 ft.			Sand.	3	138
Eolian sand:			Shale, gray.	4	142
Topsoil.	2	2	Sand.	1	143
Sand, yellow.	8	10	Shale, gray.	56	199
Dawson Formation (upper part):			Sand.	10	209
Clay, sandy, yellow.	11	21	Shale, gray.	5	214
Dawson Formation (lower part):			C6-68-11abcb. Alt. 5,944.0 ft.		
Middle conglomerate:			Dawson Formation (upper part):		
Sand and brown clay.	14	35	Topsoil.	1	1
Gravel.	5	40	Sandstone, coarse, soft.	69	72
Clay, brown.	4	44	Clay, gray.	3	75
Gravel.	16	60	Sandstone, coarse.	17	92
Sand, coarse.	12	72	Clay, gray; contains layer of coal.	7	99
Shale, blue and gray.	20	92	Clay, red.	7	106
Sand, coarse.	9	101	Clay, blue-gray.	14	120
Shale, gray.	9	110	Clay, sandy and shale	2	132
Sand, coarse.	5	116	Ironrock, hard.	2	134
Shale, sandy, gray	15	111	Clay, blue.	43	177
Sandstone, gray.	7	138	Clay, gray and coarse sandstone in alternate layers.	16	193
Shale, gray.	33	171			
Shale, sandy, gray	18	189			
Shale, gray.	16	205			
Lower conglomerate:					
Sand, fine, and gray shale.	15	220			
Sand, coarse.	3	223			
Shale, gray.	27	250			
Shale, sandy, gray	24	274			
Shale, gray.	10	284			
Sand, fine.	5	289			
Shale, sandy, gray	6	295			
Sand, fine, and gray shale.	13	308			
Shale, gray.	22	330			
Sand, fine, and gray shale.	12	342			
Shale, gray.	15	357			
Sand, fine, and gray shale.	16	373			
Shale, gray.	15	388			
Shale, sandy, gray	16	404			
Sand, fine, and gray shale.	16	420			
Shale, gray.	22	442			
Shale, sandy, brown.	8	450			
Laramie Formations:					
Shale, gray.	62	512			
Shale, sandy, gray	23	535			
Shale, gray.	19	554			
Shale, sandy, gray	29	583			
Lime	1	586			
Sand, coarse.	3	589			
C6-68-14bada. Alt. 5,996.0 ft.					
Dawson Formation (upper part):					
Sand, surface.	50	50			
Sandrock.	43	93			
Clay.	36	129			
Sandrock, hard.	11	140			
Sand (small amount of water).	50	190			
Clay and shale.	50	240			
Sandrock.	40	280			
Clay and shale.	45	325			
Sandrock [Upper conglomerate, 325 to 592 feet.] (small amount of water).	35	360			
Clay and shale.	70	430			
Sandrock.	15	445			
Clay and shale.	30	475			
Sandrock.	15	510			
Clay and shale.	15	525			
Sandrock (fair amount of water).	67	592			
Clay and shale.	43	635			
Sandrock, hard, some iron.	5	640			
Sandrock.	60	700			
Clay and shale.	80	780			
Dawson Formation (lower part):					
Sandrock and sand [Middle conglomerate, 780 to 847 feet.] (water).	6	786			
Sandrock, hard.	34	820			
Sand (water).	27	847			
Clay and shale.	53	900			
Lower conglomerate:					
Sandrock (good water)	112	1,012			
C6-68-14bbba. Alt. 5,996 ft.					
Dawson Formation (upper part):					
Sand, yellow.	85	85			
Clay, blue.	55	140			
Sand, coarse, reddish (water at 190 feet)	75	215			
Shale, blue.	85	300			
Sand, light-colored [Upper conglomerate, 300 to 690 feet.]	50	350			
Shale, blue.	180	530			
Sand, reddish.	105	635			
Shale, blue.	35	670			
Sand, gray (water).	20	690			
Shale, blue.	20	710			
Sand (very little water).	25	735			
Shale, blue.	20	755			
Dawson Formation (lower part):					
Middle conglomerate:					
Sand (water).	25	780			
Shale, sandy.	20	800			
C6-68-16abaa. Alt. 5,684 ft.					
Eolian sand:					
Topsoil.	40	40			
Dawson Formation (upper part):					
Sand (a little water).	20	60			
Clay, greenish.	30	90			
Sand, soft (a little water).	25	115			
Shale, blue.	40	155			
Sand, very soft [Upper conglomerate, 155 to 200 feet.] (good water).	45	200			
Shale, soft, blue.	75	275			
Dawson Formation (lower part):					
Sand, red [Middle conglomerate, 275 to 315 feet.] (water-bearing).	40	315			
Shale, clayey, blue.	93	408			
Lower conglomerate:					
Sand, soft (water-bearing).	37	445			
Sand, gray (water-bearing).	5	450			
Sand (water-bearing).	15	465			
C6-68-17bada. Alt. 5,688.0 ft.					
Eolian sand:					

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-68-17bdad. --Continued		C6-68-18abab. --Continued		C6-68-18badg. --Continued	
Soil	2	Gravel, very fine to		Dawson Formation (upper part):	
Sand	23	fine, arkosic,		Shale, silty, non-	
Dawson Formation (upper part):		well-sorted, sub-		calcareous, pale-	
Clay, sandy.	22	angular to sub-		olive; contains	
Shale, blue and gray .	150	rounded	1.5 44	montmorillonite . .	1.5 27.5
Dawson Formation (lower part):		Dawson Formation (upper part):		C6-68-18bdab. Alt. 5,471.9 ft.	
Middle conglomerate:		Shale, silty, noncal-		Louviers Alluvium:	
Sand	28	careous, pale-olive;		Gravel, very fine to	
Shale, gray.	18	contains montmoril-		fine, subangular to	
Shale, sandy, gray . .	8	lonite.	3.5 47.5	subrounded, arkosic,	
Shale, gray.	16			very silty (about	
Sand	10	C6-68-18abcb2. Alt. 5,443.4 ft.		50 percent silt),	
Shale, gray.	4	Piney Creek Alluvium:		moderate-yellowish-	
Sand	5	Silt, slightly sandy,		brown	2.5 2.5
Sand and shale in		noncalcareous,		Gravel, very fine to	
alternating layers .	64	olive-gray.	5 5	medium (about 10	
Lime	1	Broadway Alluvium:		percent medium),	
Shale, gray.	3	Sand, coarse to very		fairly well-sorted,	
		coarse, arkosic,		arkosic, sub-	
		subangular to		angular to rounded. 11.5	14
		rounded, and about		Silt, very sandy,	
		20 percent very		noncalcareous, pale-	
		fine to fine		yellowish-orange. .	1 15
		arkosic gravel. . .	7.5 12.5	Gravel, very fine to	
		Louviers Alluvium:		medium, subangular	
		Gravel, well-sorted,		to subrounded.	
		about 50 percent		arkosic, about 20	
		very fine gravel,		percent medium	
		10 percent fine		and pale-yellowish-	
		gravel, and very		orange silt	2.5 17.5
		fine to fine		Sand, poorly sorted,	
		arkosic gravel;		arkosic, subangular	
		contains a bed of		to subrounded,	
		gray sticky clay		about 20 percent	
		from 18.0 to		very fine to medium	
		18.5 feet	25.5 38	gravel, and pale-	
		Dawson Formation (upper part):		orange silt	5 22.5
		Shale, silty, non-		Gravel, very fine to	
		calcareous, medium-		fine, fairly well-	
		light-gray; contains		sorted, arkosic,	
		montmorillonite . .	2 40	subangular to sub-	
		C6-68-18abcb3. Alt. 5,443.7 ft.		rounded, and about	
		Piney Creek Alluvium:		20 percent very	
		Silt, sandy, noncal-		coarse sand	2.5 25
		careous, dark-		Gravel, very fine,	
		yellowish-brown;		subangular to well-	
		contains fine		rounded, sand, and	
		sand.	3 3	grayish-orange	
		Silt, very sandy and		silt.	1 26
		gravelly, noncal-		Gravel, very fine to	
		careous, dusky-		fine, well-sorted,	
		yellowish-brown . .	3 6	subangular to well-	
		Broadway Alluvium:		rounded, arkosic,	
		Gravel, very fine to		loose, about 60	
		medium, mostly very		percent very fine .	8 34
		fine, arkosic,		Silt, grayish-orange.	1 35
		fairly well-sorted,		Gravel, very fine,	
		subangular to sub-		well-sorted sub-	
		rounded	4 10	angular to well-	
		Louviers Alluvium:		rounded, arkosic,	
		Gravel, very fine to		and about 40 per-	
		medium, and about		cent very coarse	
		30 percent dark-		sand.	2.5 37.5
		yellowish-brown		Sand, medium to very	
		noncalcareous		coarse, arkosic,	
		silt.	7 17	angular to sub-	
		Gravel, fine, very well-		angular, and poorly	
		sorted, arkosic,		sorted very fine	
		subangular to		to medium gravel. .	1.5 39
		rounded, clean;		Dawson Formation (upper part):	
		becomes coarser		Shale, sandy, silty,	
		at 29 feet.	20.5 37.5	noncalcareous, gray-	
		Dawson Formation (upper part):		ish-orange, and	
		Sandstone, very fine-		arkosic sandstone .	8.5 47.5
		grained, very silty,			
		noncalcareous, very		C6-68-23addg. Alt. 6,128 ft.	
		micaceous; medium-		Dawson Formation (upper part):	
		gray; grains are		Topsoil	2 2
		very well rounded		Clay, gray.	2 4
		and frosted; contains		Shale, gray, green	
		scattered angular		and yellow.	53 57
		coarse sand		Sandstone, gray, and	
		grains.	2.5 40	layers of shale . .	5 62
		C6-68-18badc. Alt. 5,463.0 ft.		Sandstone, yellow . .	2 64
		Piney Creek Alluvium:		Shale, gray	11 75
		Silt, sandy and		Sandstone, yellow . .	4 79
		gravelly, dusky-		Sand.	1 80
		yellowish-brown . .	2.5 2.5	Shale, gray	2 82
		Louviers Alluvium:		Sand.	13 95
		Gravel, very fine to		Shale, light-gray . .	4 99
		medium, mostly very		Sand.	5 104
		fine, arkosic,		Shale, gray	9 113
		subangular to		Shale, sandy, light-	
		rounded, and coarse		gray.	5 118
		to very coarse		Sandstone	8 126
		sand; coarser		Shale, sandy, light-	
		gravel between 15		gray.	14 140
		and 17.5 feet . . .	17.5 20	Sand and sandstone. .	9 149
		Gravel, very fine to		Shale, light-gray . .	4 153
		medium, better		Sand.	6 159
		sorted than above,		Shale, light-gray . .	12 171
		arkosic, subangular		Sand and sandstone. .	9 180
		to well-rounded . .	6 26		
					</

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-68-23addd. --Continued		C6-68-27ccag. --Continued		C6-69-2abbb. --Continued	
Shale, light-gray.	8	Shale, gray.	10	Shale, blue.	7
Shale, sandy, light-gray.	6	Sand.	6	Shale, gray.	17
Sand.	9	C6-68-31dbcc. Alt. 5,600 ft.		Coal and sand.	6
Shale, light-gray.	6	Post-Piney Creek alluvium:	10	Shale, gray.	3
Shale, sandy, light-gray.	8	Soil, surface.	10	Dawson Formation (lower part):	
Sand and layers of gray shale.	7	Louviers Alluvium:	42	Sand (Middle conglomerate, 96 to 212 feet.)	2
Shale, gray.	4	Sand and gravel.	104	Shale, gray.	20
Sand.	7	Dawson Formation (upper part):	110	Sand.	18
Shale, gray, brown and yellow.	62	Clay, sandy, gray.	62	Shale, gray.	11
Upper conglomerate:		Sandrock, brown.	188	Sand, fine.	6
Sand.	4	Clay, brown.	198	Coal and gray shale.	16
Shale, light-gray.	10	Shale, sandy, brown.	216	Sand and gray shale.	48
Sand.	4	Sand (water-bearing).	17	Shale, gray.	29
Shale, light-gray.	2	Clay, sticky, blue, and shale.	253	Shale, sandy, brown.	8
Sand and layers of gray shale.	10	Dawson Formation (lower part):		Lower conglomerate:	
Shale, light-gray.	3	Sand, blue (Middle conglomerate, 253 to 149 feet.) (water-bearing).	3	Sand, fine, and gray shale.	25
Sand and layers of sandstone.	16	Clay, blue.	256	Shale, gray.	129
Shale, yellow to gray.	17	Clay, brown.	280	Sand, fine, and gray shale.	10
Shale, sandy, yellow, and sand.	14	Sand (water-bearing).	290	Laramie Formation:	
Limestone.	1	Clay, blue.	300	Shale, gray.	11
Shale, gray.	23	Clay, blue.	310	C6-69-2bbda. Alt. 5,550 ft.	
Sand, yellow and sandstone.	6	Sand (water-bearing).	320	Piney Creek and Stocum Alluvium, undifferentiated:	
Coal.	1	Sand, fine (water-bearing).	330	Sand and gravel.	23
Shale, sandy, gray.	5	Clay, blue.	340	C6-69-8abcc. Alt. 5,750 ft.	
Shale, gray.	21	Sand (water-bearing).	349	Piney Creek Alluvium:	
C6-68-24bccc. Alt. 6,128 ft.		Sandstone and clay.	403	Soil, sandy.	5
Dawson Formation (upper part):		Lower conglomerate:		Sand and red clay.	24
Clay, gray and shale.	51	Sand (water-bearing).	433	Fountain Formation:	
Sandstone.	4	Sandstone, gray, and clay.	448	Sandstone, red.	928
Clay, bluish-gray; contains a layer of ironrock at 66 feet.	11	Clay.	458	C6-69-8badd. Alt. 5,770 ft.	
Clay, sandy; contains a layer of ironrock at 75 feet.	9	Sand (water-bearing).	458	Piney Creek Alluvium:	
Clay, white.	6	Clay, blue.	567	Silt, clayey, dry.	12
Sandstone, coarse.	16	Clay, tough, blue.	580	Sand, fine, silty, moist to wet.	16
Clay, gray.	5	Sandstone, hard.	590	Fountain Formation:	
Clay and coarse white sand.	56	Sand (water-bearing).	607	Sandstone at 28 feet.	
Clay, white.	13	Clay, tough, blue.	677	C6-69-10adaa. Alt. 5,470.2 ft.	
Clay, sandy.	41	Sand (water-bearing).	685	Piney Creek Alluvium:	
Sandstone, soft.	3	Clay, blue and shale.	705	Loam, sandy.	5
Clay, sandy.	14	C6-69-lacac. Alt. 5,410 ft.		Clay, reddish-brown.	8
Sandstone, hard.	7	Piney Creek Alluvium:		Louviers Alluvium:	
Clay, white.	3	Topsoil.	2	Gravel, coarse sand, boulders, and streaks of clay.	28
Clay, yellow, red, blue, and blue-gray.	17	Louviers Alluvium:	14	Pierre Shale:	
Shale, hard, brown.	3	Gravel and boulders.	14	Shale, blue.	10
Clay, reddish-brown.	23	Dawson Formation (lower part):	40	C6-69-11aada. Alt. 5,407.2 ft.	
Upper conglomerate:		Shale, soft, blue.	78	Piney Creek Alluvium:	
Shale, grayish-black and alternate layers of water-bearing sandstone.	13	Shale, hard, brittle, blue.	124	Topsoil.	7
Shale, brown.	6	Shale, blue.	148	Louviers Alluvium:	
Shale and alternate layers of water-bearing sandstone.	13	Lower conglomerate:	152	Gravel.	41
Sand, soft, white.	34	Sand.		Dawson Formation:	
Shale, gray.	2	Shale, blue.		Shale at 48 feet.	
Sand, fine, yellow.	50	C6-69-1bbbc. Alt. 5,538 ft.		C6-69-12aaac. Alt. 5,400 ft.	
C6-68-27ccag. Alt. 5,700 ft.		Eolian sand:		Post-Piney Creek alluvium:	
Piney Creek Alluvium and Dawson Formation, undifferentiated:		Topsoil.	5	Topsoil.	2
Sand and yellow clay.	57	Verdos Alluvium:	12	Louviers Alluvium:	
Dawson Formation (upper part):		Gravel.	56	Gravel, fine, dirty.	3
Shale, gray.	55	Dawson Formation (upper part):	36	Clay.	2
Sand [Upper conglomerate, 112 to 221 feet.]	13	Clay, brown and yellow.	56	Gravel, fine.	5
Shale, gray.	24	Coal shale, greenish.	79	Clay.	2
Sand.	11	Rock.	61	Gravel, fine, clean.	6
Shale, gray.	14	Shale, blue, and streaks of sand.	84	C6-69-12adad. Alt. 5,412.4 ft.	
Shale, red and yellow.	6	Shale.	138	Pill.	1
Sand, red.	13	Shale.	138.5	Post-Piney Creek alluvium:	
Shale, yellow and gray.	3	Sand.	140	Topsoil.	2
Shale, pink.	5	Shale.	145	Sand, coarse, and fine gravel.	1.5
Sand, red.	11	Sand.	149	Louviers Alluvium:	
Shale, gray.	4	Shale.	153	Sand, fine, to fine gravel, and clay (water-bearing).	5.5
Sand, red.	5	Shale.	191	Sand, fine, and clay (water-bearing).	17
Shale, gray and brown.	59	Shale, contains streaks of sand.	209	Clay.	2
Sand.	15	Sand and rock.	216	Gravel, fine to coarse, clean (water-bearing).	18
Shale, gray and brown.	44	Shale.	233	Clay.	8
Shale, gray, and sand.	11	Lower conglomerate:		Dawson Formation:	
Dawson Formation (lower part):		Sand.	237	Shale, blue.	7
Middle conglomerate:		Shale.	243	C6-69-12bacc. Alt. 5,398.3 ft.	
Sand and alternate layers of gray shale.	198	Sand and streaks of shale.	254	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Lime.	2	Shale.	264	Sand, and gravel (water).	47
Sand.	14	C6-69-2abbb. Alt. 5,585 ft.		Dawson Formation:	
C6-68-27ccag. Alt. 5,700 ft.		Younger loess:		Shale.	3
Piney Creek Alluvium and Dawson Formation, undifferentiated:		Topsoil.	2	C6-69-12bacc. Alt. 5,398.3 ft.	
Sand and yellow clay.	57	Dawson Formation (upper part):		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray.	55	Clay, sandy, brown.	13	Sand, and gravel (water).	47
Sand [Upper conglomerate, 112 to 221 feet.]	13	Sandstone.	18	Dawson Formation:	
Shale, gray.	24	Clay, gray.	49	Shale.	3
Sand.	11	Sand.	53	C6-69-12bacc. Alt. 5,398.3 ft.	
Shale, gray.	14	Clay, gray.	58	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, red and yellow.	6	C6-69-2abbb. Alt. 5,585 ft.		Sand, and gravel (water).	47
Sand, red.	13	Younger loess:		Dawson Formation:	
Shale, yellow and gray.	3	Topsoil.	2	Shale.	3
Shale, pink.	5	Dawson Formation (upper part):		C6-69-12bacc. Alt. 5,398.3 ft.	
Sand, red.	11	Clay, sandy, brown.	13	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray.	4	Sandstone.	18	Sand, and gravel (water).	47
Sand, red.	5	Clay, gray.	49	Dawson Formation:	
Shale, gray and brown.	59	Sand.	53	Shale.	3
Sand.	15	Clay, gray.	58	C6-69-12bacc. Alt. 5,398.3 ft.	
Shale, gray and brown.	44	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray, and sand.	11	Younger loess:		Sand, and gravel (water).	47
Dawson Formation (lower part):		Topsoil.	2	Dawson Formation:	
Middle conglomerate:		Dawson Formation (upper part):		Shale.	3
Sand and alternate layers of gray shale.	198	Clay, sandy, brown.	13	C6-69-12bacc. Alt. 5,398.3 ft.	
Lime.	2	Sandstone.	18	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand.	14	Clay, gray.	49	Sand, and gravel (water).	47
C6-68-27ccag. Alt. 5,700 ft.		Sand.	53	Dawson Formation:	
Piney Creek Alluvium and Dawson Formation, undifferentiated:		Clay, gray.	58	Shale.	3
Sand and yellow clay.	57	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray.	55	Younger loess:		Sand, and gravel (water).	47
Sand [Upper conglomerate, 112 to 221 feet.]	13	Topsoil.	2	Dawson Formation:	
Shale, gray.	24	Dawson Formation (upper part):		Shale.	3
Sand.	11	Clay, sandy, brown.	13	C6-69-12bacc. Alt. 5,398.3 ft.	
Shale, gray.	14	Sandstone.	18	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, red and yellow.	6	Clay, gray.	49	Sand, and gravel (water).	47
Sand, red.	13	Sand.	53	Dawson Formation:	
Shale, yellow and gray.	3	Clay, gray.	58	Shale.	3
Shale, pink.	5	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand, red.	11	Younger loess:		Sand, and gravel (water).	47
Shale, gray.	4	Topsoil.	2	Dawson Formation:	
Sand, red.	5	Dawson Formation (upper part):		Shale.	3
Shale, gray and brown.	59	Clay, sandy, brown.	13	C6-69-12bacc. Alt. 5,398.3 ft.	
Sand.	15	Sandstone.	18	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray and brown.	44	Clay, gray.	49	Sand, and gravel (water).	47
Shale, gray, and sand.	11	Sand.	53	Dawson Formation:	
Dawson Formation (lower part):		Clay, gray.	58	Shale.	3
Middle conglomerate:		C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand and alternate layers of gray shale.	198	Younger loess:		Sand, and gravel (water).	47
Lime.	2	Topsoil.	2	Dawson Formation:	
Sand.	14	Dawson Formation (upper part):		Shale.	3
C6-68-27ccag. Alt. 5,700 ft.		Clay, sandy, brown.	13	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Piney Creek Alluvium and Dawson Formation, undifferentiated:		Sandstone.	18	Sand, and gravel (water).	47
Sand and yellow clay.	57	Clay, gray.	49	Dawson Formation:	
Shale, gray.	55	Sand.	53	Shale.	3
Sand [Upper conglomerate, 112 to 221 feet.]	13	Clay, gray.	58	C6-69-12bacc. Alt. 5,398.3 ft.	
Shale, gray.	24	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand.	11	Younger loess:		Sand, and gravel (water).	47
Shale, gray.	14	Topsoil.	2	Dawson Formation:	
Shale, red and yellow.	6	Dawson Formation (upper part):		Shale.	3
Sand, red.	13	Clay, sandy, brown.	13	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, yellow and gray.	3	Sandstone.	18	Sand, and gravel (water).	47
Shale, pink.	5	Clay, gray.	49	Dawson Formation:	
Sand, red.	11	Sand.	53	Shale.	3
Shale, gray.	4	Clay, gray.	58	C6-69-12bacc. Alt. 5,398.3 ft.	
Sand, red.	5	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray and brown.	59	Younger loess:		Sand, and gravel (water).	47
Sand.	15	Topsoil.	2	Dawson Formation:	
Shale, gray and brown.	44	Dawson Formation (upper part):		Shale.	3
Shale, gray, and sand.	11	Clay, sandy, brown.	13	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Dawson Formation (lower part):		Sandstone.	18	Sand, and gravel (water).	47
Middle conglomerate:		Clay, gray.	49	Dawson Formation:	
Sand and alternate layers of gray shale.	198	Sand.	53	Shale.	3
Lime.	2	Clay, gray.	58	C6-69-12bacc. Alt. 5,398.3 ft.	
Sand.	14	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
C6-68-27ccag. Alt. 5,700 ft.		Younger loess:		Sand, and gravel (water).	47
Piney Creek Alluvium and Dawson Formation, undifferentiated:		Topsoil.	2	Dawson Formation:	
Sand and yellow clay.	57	Dawson Formation (upper part):		Shale.	3
Shale, gray.	55	Clay, sandy, brown.	13	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand [Upper conglomerate, 112 to 221 feet.]	13	Sandstone.	18	Sand, and gravel (water).	47
Shale, gray.	24	Clay, gray.	49	Dawson Formation:	
Sand.	11	Sand.	53	Shale.	3
Shale, gray.	14	Clay, gray.	58	C6-69-12bacc. Alt. 5,398.3 ft.	
Shale, red and yellow.	6	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Sand, red.	13	Younger loess:		Sand, and gravel (water).	47
Shale, yellow and gray.	3	Topsoil.	2	Dawson Formation:	
Shale, pink.	5	Dawson Formation (upper part):		Shale.	3
Sand, red.	11	Clay, sandy, brown.	13	Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	
Shale, gray.	4	Sandstone.	18	Sand, and gravel (water).	47
Sand, red.	5	Clay, gray.	49	Dawson Formation:	
Shale, gray and brown.	59	Sand.	53	Shale.	3
Sand.	15	Clay, gray.	58	C6-69-12bacc. Alt. 5,398.3 ft.	
Shale, gray and brown.	44	C6-69-2abbb. Alt. 5,585 ft.		Post-Piney Creek alluvium and Louviers Alluvium, undifferentiated:	

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CS-69-12dcd. Alt. 5,485 ft.					
Slocum Alluvium:					
Topsoil.	1				
Clay, sandy, brown	21				
Sand and gravel.	4				
Dawson Formation (lower part):					
Clay, sandy, brown	3				
Clay, brown.	5				
Clay, sandy, brown, and layers of sand	6				
Lower conglomerate:					
Boulders, sand, and gravel	24				
Shale, brown	7				
Shale, gray, and small layers of sand	11				
Boulders	3				
Shale, sandy, brown.	3				
Shale, gray.	14				
Coal	1				
Shale, gray.	53				
Shale, sandy, gray	6				
Shale, gray.	4				
Shale, brown	4				
Sandstone, fine-grained, gray; contains layers of shale.					
Limestone and iron pyrite; contains layers of gray shale	4				
Laramie Formation:					
Shale, blue.	12				
Shale, gray.	6				
Shale, blue.	11				
Shale, gray.	23				
Shale, brown.	5				
Shale, gray.	122				
Shale, blue.	23				
Shale, gray.	9				
Shale, brown.	5				
Shale, gray.	9				
Limestone, sandy; contains layers of gray shale					
Shale, dark-gray	28				
Sand, fine, gray	3				
Shale, dark-gray	13				
Shale, sandy, gray	11				
Shale, dark-gray	30				
Shale, sandy, gray	5				
Shale, gray.	15				
CS-69-13dadd. Alt. 5,535.3 ft.					
Slocum Alluvium:					
Topsoil, sandy	4				
Gravel, fine to coarse	6				
Gravel, coarse	5				
Clay	2				
Gravel, very fine to medium, arkosic, angular to rounded, poorly sorted, and angular to sub-angular sand					
Gravel, fine to coarse	5				
Gravel and clay.	5				
Sand and very fine gravel: poorly sorted, angular to subangular, arkosic					
Gravel and clay.	2				
Gravel, fine to medium	4				
Sand, coarse, and fine gravel.	3				
Gravel, fine to very coarse	3				
Gravel, medium, and clay	12				
Dawson Formation:					
Shale, weathered	2				
Shale.	5				
CS-69-21ccgc. Alt. 5,498.6 ft.					
Pierre Shale:					
Topsoil.	.5				
Shale.	14.5				
CS-69-21ccdd. Alt. 5,470.3 ft.					
Piney Creek Alluvium:					
Topsoil.	3.5				
Louviers Alluvium:					
Soil and coarse gravel	3.5				
Sand, fine, and clay	4				
Gravel, coarse	6				
Sand and clay.	3				
Gravel	4				
Sand	3				
Pierre Shale:					
Shale, weathered	7				
Shale, blue.	3				
CS-69-23cdcd. Alt. 5,455.9 ft.					
Fill, cinders					
	4				
CS-69-23cdcd.--Continued					
Louviers Alluvium:					
Gravel, very fine to coarse, poorly sorted, subangular to well-rounded, arkosic, sandy, silty.	7				
Sand, medium to very coarse, fairly well-sorted, arkosic; contains about 20 percent poorly sorted gravel.					
Gravel, coarse	10				
Boulders and cobbles	2				
Pierre Shale:					
Shale, weathered	5				
Shale, blue.	3				
CS-69-23cdcd. Alt. 5,450.5 ft.					
Post-Piney Creek alluvium:					
Topsoil, sandy	4				
Sand and gravel.	3				
Louviers Alluvium:					
Gravel, coarse, and sand	6				
Cobbles and boulders	1				
Sand and fine gravel; contains some cobbles.					
Cobbles and boulders	7				
Gravel and sand; contains some cobbles.	1				
Boulders	4				
Gravel, fine to medium	1				
Boulders	.5				
Gravel, fine to medium	1				
Pierre Shale:					
Shale, weathered	2.5				
Shale.	3				
CS-69-23dadd. Alt. 5,479.5 ft.					
Louviers and Slocum Alluvium, undifferentiated:					
Cobbles, boulders, and gravel	39				
CS-69-23dbbb. Alt. 5,446.5 ft.					
Piney Creek Alluvium:					
Topsoil.	3.5				
Louviers Alluvium:					
Sand	.5				
Sand and gravel.	16				
Sand, fine	5				
Sand, gravel, and large cobbles.	10				
CS-69-23dbcc. Alt. 5,449.5 ft.					
Piney Creek Alluvium:					
Topsoil.	2				
Louviers Alluvium:					
Sand, fine, and gravel	8				
Gravel, coarse, and cobbles.	6				
Sand, fine and gravel.	12				
Sand, gravel, and cobbles.	5				
Pierre Shale:					
Shale.	4.8				
CS-69-23dcdc. Alt. 5,448.0 ft.					
Post-Piney Creek alluvium:					
Boulders	2				
Broadway Alluvium:					
Sand and fine gravel	3				
Gravel, fine to medium	18				
Gravel, coarse, and boulders	8				
Pierre Shale:					
Shale, blue.	9				
CS-69-24abdd. Alt. 5,550 ft.					
Eolian sand:					
Topsoil, sandy, and clay	12				
Slocum Alluvium:					
Sand and gravel.	26				
Older loess:					
Clay, brown.	16				
Dawson Formation (lower part):					
Shale, blue.	122				
Sand, coarse	6				
Shale, blue.	28				
CS-69-24acab2. Alt. 5,499 ft.					
Eolian sand:					
Soil, sandy, brown	2				
Slocum Alluvium:					
Clay, sandy and gravelly, soft	10				
CS-69-24acab2.--Continued					
Sand, coarse, and very fine gravel: very calcareous, silty, very pale-orange					
Gravel, medium to very coarse, and cobbles; loose, arkosic, sub-rounded to well-rounded.	14				
Dawson Formation (lower part):					
Lower conglomerate:					
Sand, very fine to very coarse, sub-angular to sub-rounded, silty, very micaceous, compact, moderately calcareous, grayish-orange, loose.					
Laramie Formation:					
Shale, micaceous, soft, noncalcareous, greenish-gray, and some fine sand					
Shale, silty, non-calcareous, medium-gray	15				
Shale, silty, micaceous, soft, light-greenish-gray, and about 50 percent very fine to fine, well rounded sand.	15				
Limestone, very sandy, very hard, light-olive and pinkish-gray	1				
Shale, silty, slightly calcareous, light-gray and grayish-blue, small amount of coal and about 5 percent fine to medium sand.	29				
Shale, silty, slightly calcareous, medium-light-gray, and fine, well rounded sand	15				
Shale, silty, soft, micaceous, noncalcareous, medium-gray and light-olive gray	10				
Shale, soft, light-olive-gray, and fragments of coal.	15				
Shale, silty and slightly sandy, non-calcareous, light-gray	15				
Shale, silty, soft, light-olive-gray, and brittle, shiny, black coal	15				
Shale, silty, soft, greenish-gray, coal, and about 10 percent very fine to medium, arkosic sand	16				
Limestone, very sandy, very hard, dark-gray	2				
Shale, silty, sandy, soft, light-olive-gray, in part calcareous.	27				
Shale, silty, sandy, slightly calcareous, medium-light-gray, and coal	15				
Shale, silty, soft, noncalcareous, medium-gray, greenish-gray and light-olive-gray	45				
Shale, silty, noncalcareous, soft, medium-light-gray, and sand	15				
Shale, silty, soft, micaceous, medium-light-gray and light-olive-gray	60				
Shale, carbonaceous, soft, medium-dark-gray, and lustrous black coal	15				
Shale, silty, soft, light-olive-gray	15				
Sand, fine to medium, subangular to sub-rounded, and about 10 percent medium-light-gray noncalcareous shale.	6				

Table J.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C6-69-24acab2. --Continued		C6-69-24dabd. Alt. 5,588.0 ft.		C6-71-12adcd. Alt. 7,980 ft.	
Limestone, very sandy		Eolian sand:		Precambrian (granite):	
very hard, white. 1	442	Sand 7	7	Overburden 6	6
Sand, fine to medium,		Dawson Formation:		Granite, decomposed. 12	18
well-rounded. 2	444	Shale. 10	17	Granite, red and gray. 82	100
Limestone, very sandy,		C6-69-25babb. Alt. 5,535.0 ft.		C7-65-4ddad. Alt. 6,532 ft.	
hard, medium-light-		Slocum Alluvium:		Dawson Formation (upper part):	
gray. 6	450	Sand, silty, and fine		Sand and gravel. 39	39
sand, very fine to		gravel. 6	6	Shale, sandy, gray. 51	90
fine, and about 40		Gravel, fine to medium,		Sand and gravel. 30	120
percent medium-light-		some silt and clay. 11	17	Shale, sandy. 10	130
gray silty and		Sand and fine gravel:		Sand and gravel. 5	135
clayey shale. 15	465	fairly clean. 8	25	Shale, sandy, gray. 55	190
Shale, silty, slightly		Sand, fine to coarse:		C7-65-8cdddb. Alt. 6,540 ft.	
calcareous, slightly		contains a small		Dawson Formation (upper part):	
sandy, medium-light-		amount of gravel. 7	32	Topsoil. 3	3
gray. 15	480	Laramie Formation:		Sand and clay binders. 31	34
Shale, clay, soft,		Shale, weathered:		Clay, gray. 101	135
moderately calcareous,		becomes hard at 37		Sand. 22	157
greenish-gray. 15	495	feet. 10	42	Clay, gray. 15	172
Shale, noncalcareous,		C6-69-34addd. Alt. 5,493.0 ft.		Sand. 4	176
50 percent silty, 50		Post-Piney Creek alluvium:		Clay, gray. 14	190
percent clayey,		Topsoil, fine, sandy. 9	9	Sand. 33	223
medium-light-gray. 15	510	Louviers Alluvium:		Shale, blue. 9	232
Sandstone, very fine,		Gravel, very coarse. 22	31	C7-65-9bccc. Alt. 6,595 ft.	
hard, fine sand, and		Lykins Formation:		Dawson Formation (upper part):	
50 percent medium-		Shale at 31 feet		Topsoil. 3	3
light-gray very		C6-70-4bbdb. Alt. 7,540 ft.		Sand, hard, layers. 1	4
calcareous silty		Precambrian (granite):		Clay, sandy. 10	14
shale. 15	525	Quartz and decomposed		Clay. 34	48
Sandstone, very fine to		granite. 64	64	Sand, hard, and layers	
fine sand, and		C6-70-4dadb. Alt. 7,220 ft.		of clay. 116	264
about 20 percent silty		Piney Creek Alluvium:		Sand. 141	305
and clayey shale. 18	543	Sand and gravel. 40	40	Clay. 2	307
Limestone, very sandy,		Precambrian:		C7-65-9cbdb. Alt. 6,600 ft.	
hard, white. 3	546	Sandstone (weathered		Dawson Formation (upper part):	
Sandstone, very fine to		crystalline). 10	50	Topsoil, sandy. 3	3
very coarse, and sub-		C6-70-3dddb. Alt. 7,200 ft.		Sand, hard packed. 15	18
rounded to rounded		Precambrian (schist and		Sand. 11	29
sand; contains		granite):		Clay, occasional	
pyrite and has much		Clay, black and red. 8	8	layer of sand. 253	282
iron-staining; about		Schist. 16	24	Sand. 34	316
20 percent is cal-		Granite, gray, quartz,		Clay. 4	320
careous clay shale. 9	555	and soft streaks. 52	76	C7-65-14cccc. Alt. 6,550 ft.	
Shale, silty, calcareous,		Granite, black. 26	102	Dawson Formation (upper part):	
medium-gray. 15	570	C6-70-8dbbd. Alt. 7,630 ft.		Topsoil, sandy. 3	3
Sandstone, very fine,		Piney Creek Alluvium:		Clay, sandy. 10	13
silty, calcareous,		Overburden. 8	8	Sandy. 17	30
medium-light-gray. 15	585	Precambrian:		Clay. 15	45
Shale, silty, medium-		Sand and decomposed		Sand and gravel. 21	66
light-gray, noncal-		boulders. 20	28	Clay, gray. 44	110
careous, and about		granite. 10	38	Sand. 18	128
30 percent very		C6-70-11abdd. Alt. 7,040 ft.		Clay. 89	217
fine sand. 10	615	Precambrian (granite):		Sand. 15	252
Shale, silty, soft,		Granite, decomposed. 56	56	Clay, green. 8	260
noncalcareous, medium-		Granite, gray. 15	71	Sand. 12	292
light-gray and medium-		Granite, decomposed. 7	78	Clay, green. 6	298
gray, and some clay		Granite, gray. 19	97	C7-65-15dccc. Alt. 6,600 ft.	
shale. 60	675	Granite, decomposed. 4	101	Dawson Formation (upper part):	
Shale, clay, noncalcar-		Granite, gray. 27	128	Shale. 15	15
eous, dark-greenish-		Granite, decomposed. 40	168	Sand and gravel. 20	35
gray and medium-light-		Granite, gray; contains		Shale. 20	55
gray. 45	720	soft streaks. 20	188	Sand, gravel and	
Shale, silty, noncal-		Granite, rose. 13	201	sandy shale. 20	75
careous, soft, medium-		Granite, gray. 59	260	Shale. 5	80
light-gray and dark-		Granite, rose and		Sand and gravel. 20	100
greenish-gray. 10	750	quartz. 11	177	Shale. 10	110
Sandstone, very fine,		Granite, gray. 24	201	Sand, gravel, and sandy	
quartzose, salt and		C6-70-11cbdd. Alt. 6,680 ft.		shale. 25	135
pepper texture, silty		Piney Creek Alluvium:		Shale. 10	145
and noncalcareous,		Boulders and black		Shale, sandy. 8	153
olive-gray, and		dirt. 9	9	Shale. 12	165
light-olive-gray,		Precambrian:		C7-65-16bacc. Alt. 6,600 ft.	
silty and clayey		Granite, blue. 95	104	Dawson Formation (upper part):	
shale. 15	765	Granite, gray. 30	134	Clay. 12	12
Shale, silty, light-		Granite, black. 32	166	Sand, hard. 12	24
olive-gray, and some		Granite, rose and		Clay, green. 14	38
very fine sand. 15	780	quartz. 11	177	Sand and gravel. 7	45
Shale, silty, greenish-		Granite, gray. 24	201	Clay and layers of	
gray, noncalcareous,		C6-70-25bdcd. Alt. 7,300 ft.		sand. 195	240
and about 50 percent		Dirt. 6	6	Sand. 42	282
shiny to sooty brittle		Clay and loose rock. 8	14	Clay. 16	298
black coal. 15	795	Precambrian:		C7-65-16daad. Alt. 6,599 ft.	
Coal, shiny, brittle,		Granite, decomposed. 6	20	Dawson Formation (upper part):	
black, and some silty		Granite, firm. 12	32	Shale, sandy. 15	15
fine quartz sand. 15	810	Granite, intermediate		Sand and gravel. 10	25
B sandstone:		layers of firm and		Shale. 34	59
Sandstone, very fine to		brittle (yields		Sand, gravel, and	
medium, moderately		water at 52 feet). 20	52	sandy shale. 41	100
silty, quartz, sub-		Granite, hard, red to		Shale. 10	110
rounded to subangu-		gray. 8	60	Sand, gravel, sandy	
lar, very-light-		Granite, intermediate		shale, and shale. 55	165
gray, pyrite, and a		layers of hard and		Shale. 15	180
little silty shale;		brittle (water). 14	74	C7-65-22dadd. Alt. 6,586 ft.	
sandstone has salt		Granite, hard, gray. 6	80	Dawson Formation (upper part):	
and pepper texture. 10	840	Granite, brittle,		Sand and gravel. 24	24
Shale, silty, light-		(water-bearing). 3	83		
gray, and very fine-		Granite, gray, reddish			
grained sandstone. 10	870				
Sandstone, fine to medium,					
noncalcareous, light-					
gray and very-light-					
gray, quartzose, and					
medium-gray shale;					
sandstone has salt and					
pepper appearance. 45	915				

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-65-22dadd. --Continued		C7-65-10dbbb. --Continued		C7-66-10cdcc. Alt. 5,961.9 ft.	
Shale	6	Clay, blue	1	Piney Creek Alluvium:	
Sand, gravel, and		Sand and gravel, blue-		Topsoil	8
sandy shale	65	marbled, impervious		Broadway Alluvium:	
shale	15	(low water yield) . . .	17	Sand and fine to	
Sand, gravel, and		Sand, coarse, and		medium gravel	17
sandy shale	5	gravel, iron stained		Louviers Alluvium:	
shale	20	(water-bearing)	16	Gravel and medium to	
		Dawson Formation (upper part):		coarse sand	31
C7-65-27daga. Alt. 6,632 ft.		Clay, weathered, blue .	2	Dawson Formation:	
Dawson Formation (upper part):		Shale, hard, at 66 feet		Shale	2
Sand and gravel	17				
Shale	20	C7-65-14addd. Alt. 6,642 ft.		C7-66-10dbbb. Alt. 5,952.5 ft.	
Sand, gravel, sandy		Dawson Formation (upper part):		Piney Creek Alluvium:	
shale, and streaks of		Sand and gravel	20	Topsoil	4
sandstone	56	Shale	9	Broadway and Louviers Alluvium,	
Shale	27	Sand and gravel	16	undifferentiated:	
		Shale	16	Clay and sand	14
C7-65-29agcb. Alt. 6,445 ft.		Sand, gravel, sandy		Gravel, medium to	
Dawson Formation (upper part):		shale, and streaks		coarse	40
Topsoil	1	of sandstone	19	Dawson Formation:	
Sand	22	Shale	15	Shale	1
Clay	5	Sand, gravel, and sandy			
Sand and layers of clay	26	shale	18	C7-66-15badb. Alt. 5,957.2 ft.	
Clay, gray	6	Shale	17	Piney Creek Alluvium:	
Clay, sandy	16			Topsoil	8
Sand	18	C7-66-3abcb. Alt. 5,925.6 ft.		Broadway and Louviers Alluvium,	
Clay, gray	16	Piney Creek Alluvium:		undifferentiated:	
Sand	16	Sand and clay	22	Gravel and sand	22
Clay, yellow	9	Broadway Alluvium:		Louviers Alluvium:	
Sand	20	Sand and gravel	23	Gravel, medium to	
Shale, gray	9	Louviers Alluvium:		coarse	28
		Clay, sandy, blue	5	Dawson Formation:	
C7-65-29bhd2. Alt. 6,315 ft.		Gravel, coarse	10	Shale, blue	3
Dawson Formation (upper part):		Clay	4		
Topsoil	6	Gravel, coarse	10	C7-66-17aaga. Alt. 6,179 ft.	
Clay	2	Dawson Formation:		Dawson Formation (upper part):	
Sand, fine	2	Shale	1	Sand and gravel	10
Sand	5			Shale	60
Gravel	1	C7-66-3baaa. Alt. 5,915.8 ft.		Sand, gravel, and sandy	
Clay	2	Piney Creek Alluvium:		shale	27
Gravel	5	Topsoil, dark	12	Shale	18
Clay	22	Sand and clay	10		
Clay and gravel	8	Broadway Alluvium:		C7-66-19aagc. Alt. 6,275 ft.	
Clay and gravel, tight.	5	Sand and fine gravel . .	23	Dawson Formation (upper part):	
Shale at 60 feet		Louviers Alluvium:		Topsoil, light-textured,	
C7-65-10babb. Alt. 6,250 ft.		Gravel, medium to		light-colored	3
Piney Creek Alluvium:		coarse	31	Clay, sandy, white	67
Topsoil	2	Dawson Formation:		Shale, blue and gray . . .	100
Dawson Formation (upper part):		Shale, blue	4	Clay, gray and white . . .	40
Clay and sandstone . . .	66			Sandstone, white	61
Gravel (water-bearing) . .	2	C7-66-1bddd. Alt. 5,923.3 ft.			
Clay	20	Piney Creek Alluvium:		C7-66-20bacd. Alt. 6,223 ft.	
Gravel and sand (water-		Clay	48	Dawson Formation (upper part):	
bearing)	20	Louviers Alluvium:		Shale, sandy	10
Shale	10	Gravel	17	Sand and gravel	20
		Dawson Formation:		Shale	45
C7-65-10daga. Alt. 6,300 ft.		Shale	5	Sand, gravel, and	
Piney Creek Alluvium:				sandy shale	20
Topsoil	1	C7-66-1bdcc. Alt. 5,919.8 ft.		sandstone, blue	20
Clay	4	Piney Creek Alluvium:		Shale, sandy	10
Broadway Alluvium:		Clay	38	Shale, blue	15
Sand	15	Louviers Alluvium:		Shale, sandy	10
Sand and gravel	5	Gravel, coarse	23	Sandstone, blue	10
Gravel	3	Dawson Formation:		Shale, sandy	22
Louviers Alluvium:		Shale at 61 feet		Shale	172
Clay	1			Shale	180
Sand	7	C7-66-4dabd. Alt. 5,957.2 ft.			
Sand and gravel	9	Piney Creek Alluvium:		C7-66-22baag. Alt. 6,007.8 ft.	
Gravel	12	Soil	6	Piney Creek Alluvium:	
Dawson Formation (upper part):		Louviers Alluvium:		Soil, sandy, loose	3
Gravel, cemented	10	Sand and gravel	18	Clay, sandy	2
Shale	4	Sand and clay	12	Clay, sandy, black	6
		Dawson Formation (upper part):		Broadway Alluvium:	
C7-65-10daca. Alt. 6,288 ft.		Sandstone	24	Sand, fine	7
Piney Creek Alluvium:				Sand, medium: contains	
Topsoil and clay	4	C7-66-5daab. Alt. 6,073 ft.		a trace of gravel	13
Clay and sand	4	Dawson Formation (upper part):		Louviers Alluvium:	
Broadway and Louviers Alluvium,		Sand, gravel, and		Sand, medium, coarse	
undifferentiated:		sandstone	34	gravel, and a few	
Gravel and sand	2	Shale	68	boulders	12
Gravel	2	Sand, gravel, and		Clay, gray	6
Gravel, coarse	3	shale	43	Sand, coarse, gravel,	
Sand	15	Shale	20	and a few boulders . . .	7.5
Gravel	13			Clay, brown	1.5
Gravel and clay	5	C7-66-8dada. Alt. 6,143 ft.			
Dawson Formation (upper part):		Dawson Formation (upper part):		C7-66-22cdcc. Alt. 6,030.3 ft.	
Clay	2	Shale, sandy, and		Post-Piney Creek alluvium:	
Shale	20	gravel	45	Topsoil	4
		Shale, sandy, sand, and		Broadway Alluvium:	
C7-65-10dbbb. Alt. 5,260 ft.		gravel	40	Gravel and sand	7
Piney Creek Alluvium:		Shale	65	Louviers Alluvium:	
Loss, heavy, black	4			Clay	4
Broadway Alluvium:		C7-66-10agca. Alt. 5,946.4 ft.		Gravel, dirty, and sand .	5
Sand, fine (water-		Piney Creek Alluvium:		Gravel and sand	21
bearing)	8	Clay	7	Gravel, sand, and thin	
Louviers Alluvium:		Broadway and Louviers Alluvium,		clay	6
Clay, blue	1.5	undifferentiated:		Clay	8
Sand and clay (water-		Gravel, sandy	43	Gravel and some rocks . .	12
bearing)	8.5	Louviers Alluvium:		Dawson Formation:	
Clay, blue	1	Gravel, sandy, and		Shale	3
Gravel, coarse (water-		some clay	15		
bearing)	7	Dawson Formation:		C7-66-27cdad. Alt. 6,054.1 ft.	
		Shale at 65 feet		Piney Creek Alluvium:	
				Top	3

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-66-27cdad. --Continued		C7-66-32ddbc. Alt. 6,320 ft.		C7-66-34ddcc. --Continued	
Broadway Alluvium:		Dawson Formation (upper part):		Gravel, fine to	
Gravel and sand 11	14	Sand and clay 115	115	very coarse,	
Louviers Alluvium:		Sandrock, white 105	220	arkosic, subangular	
Clay. 4	18			to subrounded, and	
Clay, dirty sand, and		C7-66-33dbbb. Alt. 6,189 ft.		fine to very coarse	
gravel. 3	21	Dawson Formation (upper part):		sand. 11.5	14
Clay. 16	37	Gravel, sand, boulders,		Louviers Alluvium:	
Gravel and sand 14	51	and sandy shale 25	25	Sand, medium to very	
Clay and gravel 5	56	Shale, sandy. 10	35	coarse, arkosic,	
Gravel and clean sand . 10	66	Shale, blue 65	100	subangular to sub-	
Dawson Formation (upper part):		Shale 25	125	rounded, silty, very	
Shale and sand. 4	70	Gravel, sand, and		micaceous, and some	
Shale 5	75	shale 28	153	medium-light-gray	
		Gravel, hard, and sand. 7	160	silt; contains	
		Shale, blue 40	200	biotite 3.5	17.5
C7-66-27daba. Alt. 6,122.2 ft.		C7-66-34dbcd. Alt. 6,077.6 ft.		Gravel, very fine, sub-	
Dawson Formation (upper part):		Piney Creek Alluvium:		angular to subrounded,	
Topsoil 1	1	Topsoil 3	3	arkosic, coarse to	
Sandstone 9	10	Clay. 10	13	very coarse sand;	
Shale, gray 2	12	Broadway Alluvium:		and dark-yellowish-	
Sandstone, soft 2	14	Gravel. 14	27	brown noncalcareous	
Shale, gray, and		Louviers Alluvium:		silt. 13.5	11
sandstone 10	24	Gravel and brown sand . 5	32	Silt, sandy, very mica-	
Shale, sandy, gray. . . 5	29	Gravel. 8	40	ceous, noncalcareous,	
Shale, gray 21	50	Gravel, fine sand, and		light-olive-gray;	
Shale, brown and gray . 11	61	clay. 10	50	contains fine sand	
Sand. 6	67	Gravel. 9	59	and a bed of coarse	
Shale, blue 3	70	Gravel and rocks. . . . 4	63	gravel at 36 feet . . 11.5	42.5
Shale, sandy, gray, and		Dawson Formation (upper part):		Sand, very fine to very	
sandstone 2	72	Sandstone 3	66	coarse, in part silty,	
Sand and coal 4	76			very micaceous, non-	
Shale, gray 2	78			calcareous, light-	
Sandstone, coarse . . . 6	84			olive-gray, and a	
Coal. 1	85			little arkosic very	
Sandstone 5	90			fine gravel 11.5	54
Sandstone and sandy				Cobbles 2	56
shale 5	95			Dawson Formation (upper part):	
Sand and sandstone,				Sandstone, medium-	
coarse. 17	112			to very coarse-grained,	
Shale, sandy, gray. . . 4	116			arkosic, and moderate-	
Sandstone, coarse . . . 4	120			yellow noncalcareous	
Shale, sandy, and soft				silt; sand and very	
sandstone 14	134			fine gravel grains	
Shale, green and gray . 27	161			are angular to sub-	
Sandstone 6	167			angular; contains	
Shale, brown. 2	169			montmorillonite . . . 2	58
Sandstone, soft 8	177				
Shale, gray, and sand-				C7-66-34ddcd. Alt. 6,081.2 ft.	
stone 17	194			Piney Creek Alluvium:	
Sandstone 26	220			Silt, very sandy, non-	
Sand, fine, and gray				calcareous, dark-	
shale 10	230			yellowish-brown and	
Sand. 15	245			pale-yellowish-	
Sand, fine, and brown				brown; contains	
shale 4	249			poorly sorted sand	
Shale, brown. 1	252			and a little very	
Sand. 16	268			fine gravel 2.5	2.5
Shale, gray 2	270			Silt, clayey, slightly	
				sandy, very micaceous,	
C7-66-30bbbb. Alt. 6,496 ft.				noncalcareous, coal-	
Dawson Formation (upper part):				black when wet, dark-	
Shale, sandy. 8	8			yellowish-brown . . . 4.5	7
Shale 47	55			Broadway Alluvium:	
Sand, gravel, sandy				Sand, fine to medium,	
shale, and streaks of				arkosic, angular to	
shale 75	130			subangular, loose,	
Shale 11	141			micaceous, silty,	
Sand, gravel, sandy				pale-yellowish-brown. 4.5	11.5
shale, and streaks				Gravel, very fine, sub-	
of shale. 39	180			angular to rounded,	
Shale, sandy, blue. . . 20	200			fairly well-sorted,	
Sand and gravel 10	210			arkosic, and about	
Shale, sandy, blue, and				20 percent coarse	
clay. 10	240			sand. 21	32.5
				Louviers Alluvium:	
C7-66-30cbhh. Alt. 6,477 ft.				Sand, medium, subangular	
Dawson Formation (upper part):				to subrounded, arkosic,	
Sand and gravel 25	25			micaceous, very silty,	
Shale, gray 65	90			pale-yellowish-brown. 5	37.5
Sandstone 5	95			Sand, very fine to very	
Shale, gray 35	130			coarse, angular to	
Sand and gravel 53	183			subangular, beds of	
Shale, sandy, blue. . . 42	225			pale-yellowish-brown	
				silt, and very fine	
C7-66-31cccc. Alt. 6,496 ft.				to fine subangular	
Dawson Formation (upper part):				to rounded gravel;	
Shale, sandy. 75	75			contains coarse	
Sand and gravel 25	100			angular gravel at	
Shale, sandy, gray. . . 35	135			38, 40, and 41 feet . 15	52.5
Shale, blue 20	155			Dawson Formation (upper part):	
				Sandstone, coarse-	
C7-66-32dbdd. Alt. 6,317 ft.				grained, noncalcareous,	
Dawson Formation (upper part):				arkosic; grains are	
Sand and gravel 12	12			angular to subrounded;	
Shale 23	35			contains montmoril-	
Sand, gravel, sandy				lonite and abundant	
shale, and streaks				dark mica 3	66
of shale. 48	83				
Sand and gravel 12	95			C7-66-34ddcc. Alt. 6,079.6 ft.	
Shale, sandy, blue. . . 15	110			Piney Creek Alluvium:	
Sand, gravel, and blue				Clay, sandy 15	15
sandy shale 20	130			Broadway and Louviers Alluvium,	
Shale 10	140			undifferentiated:	
Shale, sandy. 27	167			Sand and medium gravel. 25	40
Shale 13	180			Dawson Formation:	
				Shale, blue 2	42

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-66-14dddd. Alt. 6,100 ft.		C7-67-14bcd. --Continued		C7-67-19bbbc. --Continued	
Piney Creek Alluvium:		Shale, gray.	4 1,761	Soil.	4
Topsoil.	4	Sand and gray shale.	14 1,795	Piney Creek and Broadway Alluvium, undifferentiated:	
Broadway and Louviers Alluvium, undifferentiated:		C7-67-4baad. Alt. 6,351 ft.		Clay and gravel.	14
Sand, gravel, and clay.	11	Dawson Formation (upper part):		Louviers Alluvium:	
Dawson Formation (upper part):		Sand and gravel.	10	Clay, white.	20
Shale, blue.	195	Shale.	25	Gravel; contains streaks of clay.	10
Upper conglomerate:		Sand, gravel, and sandy shale.	70 125	Gravel, coarse.	22
Sandrock, white (water- bearing).	30	Shale.	17	Clay.	8
Shale, blue.	5	Shale, sandy.	7	Gravel, coarse, hard, and boulders.	15
		Shale, blue.	16	Dawson Formation (upper part):	
C7-67-14bcd. Alt. 6,430 ft.				Shale, sandy, blue.	14
Dawson Formation (upper part):		C7-67-9bddd. Alt. 6,569 ft.			
Topsoil.	2	Dawson Formation (upper part):		C7-67-23adda. Alt. 6,478 ft.	
Sandstone.	16	Sand and gravel.	13	Dawson Formation (upper part):	
Clay, yellow and brown.	23	Sandstone.	7	Sand, gravel, and sandy shale.	30
Sand, coarse.	16	Sand, gravel, sandy shale, and shale.	60	Sandstone.	7
Sandstone.	17	Shale.	10	Shale.	13
Clay, sandy, yellow.	15	Sand, gravel, and sandy shale.	15	Sand, gravel, sandy shale, and streaks of shale.	150
Sand.	20	Shale.	25	Shale.	30
Sandstone.	10			Sandstone.	10
Clay, sandy, yellow.	7	C7-67-14cbbb. Alt. 6,575 ft.			
Shale, sandy, gray.	16	Dawson Formation (upper part):		C7-67-24ccbc. Alt. 6,456 ft.	
Sand.	21	Sandstone.	22	Dawson Formation (upper part):	
Shale, gray.	25	Shale.	8	Sand and gravel.	75
Clay, red.	11	Sand and gravel.	16	Sand, sandy.	65
Sand.	31	Shale, sandy, gray.	24	Sand and gravel.	10
Shale, sandy, brown.	6	Sand and gravel.	25	Shale, sandy.	10
Sand.	8	Shale, sandy, gray.	30	Clay and gravel.	50
Shale, sandy, brown.	11	Sand and gravel.	55	Shale, sandy.	20
Shale, brown.	7	Shale, gray.	7	Shale, blue.	10
Shale, sandy, gray.	11	Sand and gravel.	8		
Sandstone, gray.	48			C7-67-25bdda. Alt. 6,500 ft.	
Shale, brown.	9	C7-67-15bada. Alt. 6,360 ft.		Dawson Formation (upper part):	
Sandstone, gray.	27	Dawson Formation (upper part):		Sandstone.	190
Shale, gray.	80	Topsoil.	1	Shale.	10
Sandstone, gray.	28	Sandstone, light-brown.	11	Sand (water).	60
Shale, gray.	15	Shale, gray.	8	Shale.	40
Shale, sandy, gray.	8	Ironrock.	1		
Sand and gray shale.	11	Shale, gray.	2	C7-67-26bcba. Alt. 6,199.9 ft.	
(Upper conglomerate, 499 to 796 feet.).	27	Sandstone, fine, gray.	1	Dawson Formation (upper part):	
Shale, gray.	16	Shale, gray.	11	Topsoil.	2
Sand and gray shale.	11	Shale, sandy, gray.	4	Sand and gravel.	10
Shale, gray.	45	Sand.	7	Sand and brown sandy clay.	15
Shale, sandy, gray.	11	Shale, gray.	2	Shale, blue and brown.	15
Sand and gray shale.	10	Sand.	9	Shale, sandy, green.	10
Sandstone.	11	Sandstone, gray.	16	Sandstone, gray.	36
Clay, sandy.	22	Sand.	1	Shale, gray.	22
Sand and gray shale.	16	Shale, gray.	2	Shale, sandy, gray.	4
Sandstone.	19	Sand and yellow sandy shale.	15	Sand, coarse.	19
Shale, gray.	24	Shale, grayish-brown.	8	Sandstone and gray sandy shale.	12
Sand and gray shale.	16	Shale, gray.	18	Shale, gray.	35
Shale, gray.	26	Sand.	10	Shale, sandy, gray.	7
Sand and gray shale.	23	Shale, gray.	6	Shale, gray.	39
Shale, gray.	30	Shale, sandy, gray, and layers of sand.	6	Shale, sandy, gray.	6
Shale, sandy, gray.	9	Shale, blue and gray.	15	Shale, sandy, brown.	6
Sand and gray shale.	11	Shale, sandy, blue.	5	Sand, coarse, and brown sandy shale (Upper conglomerate, 258 to 485 feet.).	13
Shale, gray.	6	Sand and small layers of blue sandy shale.	8	Shale, gray, and coarse sand.	9
Sand and gray shale.	67	Sand and sandstone.	13	Shale, sandy, gray.	13
Shale, gray.	49	Sandstone, hard.	6	Sand, coarse, and gray shale.	15
Sand and gray shale.	8			Sand, coarse, and layers of gray sandy shale.	12
Shale, gray.	13	C7-67-17acca. Alt. 6,104.5 ft.		Shale, gray.	9
Sand.	4	Dawson Formation (upper part):		Shale, coarse, and thin layers of coarse sand.	9
Shale, sandy, gray.	26	Soil.	4	Shale, gray and brown.	14
Sand and sandy gray shale.	11	Gravel, hard.	15	Shale, sandy, brown.	11
Shale, gray.	9	Clay.	5	Sand, gray, and shale.	11
Shale, sandy, gray, and sand.	74	Gravel, hard.	5	Shale, gray.	7
Shale, gray.	29	Clay, brown.	21	Sand, medium and gray sandy shale.	11
Dawson Formation (lower part):		Gravel, hard.	13	Shale, gray.	7
Sand and gray shale		Conglomerate, hard.	2	Shale, gray, and thin layers of sand.	13
(Middle conglomerate, 1,188 to 1,392 feet.).	24	Shale, sandy, brown.	3	Sand, coarse.	39
Shale, gray.	26	Silt, hard, blue.	28	Shale, sandy, gray.	11
Sand and gray shale.	77	Shale, blue.	4	Shale, coarse, and sandy sand.	2
Shale, gray.	28	Conglomerate, hard.	9	Shale, sandy, gray.	10
Sand and gray shale.	67	Shale, blue.	15	Sand, coarse.	3
Sand.	16	Shale, sandy, yellow.	15	Shale, sandy, gray.	18
Shale, gray.	6	Conglomerate, hard.	16	Sand, coarse.	28
Shale, gray, and sand.	13	Silt, hard, white.	15	Shale, sandy, gray.	12
Sand, fine.	9	Conglomerate, hard.	17	Shale, coarse.	14
Shale, gray.	12	Silt, hard, white.	6	Shale, sandy, gray.	20
Sand, fine.	21	Conglomerate.	1	Sandstone, gray.	20
Shale, gray, and fine sand.	13	Silt, white.	13	Shale, sandy, gray.	16
Shale, gray.	12	Conglomerate.	4		
Sand, fine and coarse, and gray shale.	70	Silt, white and yellow conglomerate.	2		
Shale, sandy, gray.	25	Shale, yellow and blue silt, blue.	11		
Shale, gray.	73	Conglomerate.	13		
Shale, gray, and sand (Lower conglomerate, top at 1,692 feet.).	18	Silt, blue.	7		
Shale, gray.	9	Conglomerate.	44		
Sand and gray shale.	10	Silt, blue.	6		
		C7-67-19bbbc. Alt. 5,880 ft.			
		Piney Creek Alluvium			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-67-16bcb. --Continued		C7-68-4abba. --Continued		C7-68-4bdbc. --Continued	
Shale, sandy, gray . . .	13	Sand and yellow clay . . .	97	Sand and red clay . . .	6
Dawson Formation (lower part):		Dawson Formation (upper part):		Lower conglomerate:	
Middle conglomerate:		Shale, gray . . .	22	Sand, coarse, red	
Sand, coarse . . .	6	Sand, red [Upper con-		(water-bearing) . . .	58
Sand, coarse, and thin		glomerate, 129 to		Clay, blue . . .	4
layers of gray shale	36	246 feet . . .	15	Sand, coarse (water-	
Sand, coarse . . .	16	Sand . . .	56	bearing) . . .	23
Shale, gray . . .	32	Shale, gray . . .	6	Clay, blue, and shale . . .	9
		Sand . . .	19	Quartz and sandstone	
		Shale, gray . . .	12	(water) . . .	19
		Sand . . .	9	Clay, gray and red . . .	4
		Shale, gray . . .	44	Quartz and hard sand-	
			290	stone (water) . . .	3
C7-67-27abd. Alt. 5,169.8 ft.		Dawson Formation (lower part):		Clay, brown and gray . . .	12
Dawson Formation (upper part):		Sand [Middle conglom-		Sand (water) . . .	4
Topsoil . . .	2	erate, 290 to 432		Clay, gray, and silica	15
Clay, yellow . . .	4	feet.] . . .	11	Sand and layers of	
Clay, sandy, yellow . . .	6	Shale, gray . . .	21	brown clay (water) . . .	17
Shale, green, and sand . . .	10	Sand . . .	20	Shale and layers of	
Sand and gravel . . .	22	Shale, gray . . .	9	clay . . .	28
Shale, blue and gray . . .	11	Sand . . .	24		
Shale, reddish-brown . . .	2	Shale, gray . . .	13		
Shale, gray . . .	4	Sand . . .	25		
Sandstone, blue, and		Lime, sandy . . .	1		
sand . . .	14	Shale, gray, and sand . . .	164		
Sandstone, hard . . .	6	Lime, sandy . . .	1		
Shale, green, and		Lower conglomerate:			
sandstone . . .	5	Sand and gray shale . . .	159		
Sandstone, fine, gray . . .	5	Lime, sandy . . .	2		
Shale, gray . . .	5	Sand and gray shale . . .	19		
Sandstone, fine, gray,					
and shale . . .	11				
Sand . . .	2				
Shale, blue . . .	4				
Sand, blue shale, and					
sandstone . . .	9				
Shale, green gray					
and brown . . .	54				
Sandstone, blue . . .	7				
Shale, gray, and					
sandstone . . .	8				
Shale, brown . . .	4				
Sandstone, gray . . .	14				
Shale, sandy, gray . . .	9				
Shale, gray . . .	3				
Upper conglomerate:					
Sand, coarse, and					
shale . . .	75				
Shale, gray . . .	18				
Sand, coarse . . .	4				
Shale, gray and brown . . .	17				
Sand, coarse, and gray					
shale . . .	51				
Shale, gray . . .	4				
Sand, coarse . . .	53				
Shale, gray . . .	7				
C7-67-36cab. Alt. 5,335 ft.					
Dawson Formation (upper part):					
Sand, gravel, and					
sandy shale . . .	13				
Shale . . .	36				
Shale, sand, gravel					
streaks, and sandy					
shale . . .	11				
Shale . . .	17				
Sand, gravel, and					
streaks of shale . . .	29				
Shale . . .	10				
Shale, sandy . . .	6				
Shale . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Topsoil, sandy, black . . .	4				
Dawson Formation (upper part):					
Sand . . .	10				
Clay, white . . .	6				
Sandstone, soft, white					
Clay, white, and coarse	12				
sandstone, alternat-					
ing . . .	15				
Clay, white . . .	13				
Sandstone, coarse:					
occasional thin					
layers of clay . . .	39				
Clay, white, contains					
a hard layer iron-					
rock at 105 feet . . .	12				
Clay, gray . . .	22				
Sandstone and conglom-					
erate, coarse, hard . . .	7				
Clay, white . . .	12				
Clay, sandy . . .	8				
Clay, dirty, dark-					
gray . . .	19				
Sandstone, coarse . . .	14				
Shale, hard, black;					
contains thin layers					
of water-bearing					
sandstone . . .	14				
Clay, red . . .	23				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium:					
Soil . . .	2				
Clay, yellow . . .	8				
C7-68-4abba. Alt. 5,670 ft.					
Lower Alluvium					

Table 3.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
C7-68-11cbbq.--Continued			C7-68-11dabd.--Continued			C7-68-11dabd.--Continued		
Shale, gray.	9	190	Sand, angular, arkosic,			Sand, rounded, very		
Sand	8	198	40 percent medium,			arkosic, 40 per-		
Shale, gray.	15	211	60 percent fine.			cent coarse, 50		
Sand	12	225	light-olive-gray . . .	14	311	percent medium,		
Shale, gray.	4	229	Shale, black	10	321	light-olive-gray . . .	12	578
C7-68-11dabd. Alt. 5,942.8 ft.			Sandstone, medium,			Sandstone, medium to		
Dawson Formation (upper part):			angular to rounded,			coarse, well-cemented,		
Sandstone, medium, well-			poorly cemented,			greenish-gray. . . .		
cemented, calcareous,			greenish-gray. . . .	9	330	grains are angular		
very arkosic,			Shale, blackish-gray .	27	357	to rounded	19	597
yellowish-brown;			Sand, medium, well-			Sand, coarse, angular		
grains are angular to			rounded, micaceous,			to rounded, slightly		
well-rounded	10	10	moderately arkosic,			arkosic, light-olive-		
Sand, angular to			light-brownish-gray.	13	370	gray; contains		
rounded, arkosic, 30			Sand, angular,			trace of mica. . . .	11	628
percent coarse, 40			moderately arkosic,			Sandstone, medium to		
percent medium,			50 percent coarse,			coarse, quartz,		
yellowish-gray;			50 percent medium,			well-cemented,		
contains a trace			light-olive-gray . .	7	377	yellowish-brown;		
of shale	8	18	Shale, grayish-black .	4	381	grains are angular to		
Sandstone, medium to			Sandstone, fine to			rounded and		
coarse, firmly			medium, angular,			frosted.	17	645
cemented, moderately			well-cemented,			Shale, black	10	655
arkosic, grayish-			moderately arkosic,			Sandstone, fine, well-		
orange; contains			pale-yellowish-			cemented, calcareous,		
iron oxide; grains			brown.	19	400	medium-light-gray;		
are angular.	24	42	Sand, rounded, arkosic,			grains are angular .	8	663
Shale, silty, grayish-			40 percent coarse,			Shale, black	20	683
black.	9	51	60 percent medium,			Sandstone, medium to		
Sand, medium, angular			light-olive-gray . .	10	410	coarse, slightly		
to rounded, very			Sand, medium, angular,			arkosic, well-		
arkosic, pale-			very arkosic, mica-			cemented, light-		
yellowish-orange;			ceous, pale-yellow-			gray; grains are		
contains a trace of			brown; contains			well-rounded	12	695
pyrite	6	57	a trace of coal. . .	11	421	Shale, silty, grayish-		
Sand, fine, angular,			Shale, black	5	426	black.	26	721
moderately arkosic,			Sand, angular to well-			Sand, angular, moderately		
light-olive-gray . .	10	67	rounded, moderately			arkosic, 50 percent		
Shale, sandy, black. .	1	70	arkosic, 60 percent			coarse, 50 percent		
Shale, black	2	72	medium, 40 percent			medium, light-olive-		
Sandstone, fine to			fine, light-olive-			gray; contains a		
medium, firmly			gray	6	432	trace of mica. . . .	6	727
cemented, moderately			Sand, angular, 60 per-			Shale, silty, black. .	11	738
arkosic, greenish-			cent coarse, 40 per-			Sandstone, fine to		
gray; grains are			cent medium, light-			medium, light-olive-		
angular.	4	76	olive-gray	4	436	gray; grains are		
Shale, black	12	88	Shale, black	6	442	well-rounded	9	747
Sand, angular, moder-			Sand, rounded, moderate-			Shale, silty, black. .	12	759
ately arkosic, 30			ly arkosic, 40 percent			Sandstone, medium to		
percent fine,			medium, 60 percent			coarse, well-cemented,		
greenish-gray. . . .	12	100	fine, light-olive-			light-olive-gray;		
Sand, fine, well-			gray	5	447	grains are rounded .	11	770
rounded, light-olive-			Shale, black	5	452	Sand, angular, frosted,		
gray	7	107	Sand, rounded, 40			quartz, 30 percent		
Sand, medium, well-			percent medium, 60			coarse, 70 percent		
rounded, light-olive-			percent fine, light-			medium, light-olive-		
gray	4	111	olive-gray	4	456	gray	7	777
Shale, black	3	114	Shale, black	1	459	Shale, black to		
Sandstone, fine-grained,			Sand, medium, angular			grayish-black . . .	23	800
well-cemented,			to rounded, arkosic,			Sand, medium, angular,		
moderately arkosic,			light-olive-gray . .	11	470	light-olive-gray . .	11	811
greenish-gray. . . .	4	118	Shale, black	8	478	Sandstone, medium,		
Shale, black	47	165	Sand, coarse, angular			quartz, well-cemented,		
Sandstone, fine,			to well-rounded,			greenish-gray;		
angular, well-cemented,			moderately arkosic,			grains are angular and		
moderately arkosic,			light-brownish-			frosted; contains		
light-olive-gray . .	10	175	gray	5	483	trace of coal. . . .	9	820
Sandstone, medium,			Shale, grayish-black:			Sand, angular, 40		
angular,			contains 20 percent			percent coarse, 60		
well-cemented,			fine sand.	4	487	percent medium,		
light-olive-gray . .	7	182	Sandstone, medium,			greenish-gray. . . .	19	839
Shale, grayish-black .	21	203	angular, well-cemented,			Shale, black	15	854
Sandstone, fine,			iron cement,			Sandstone, medium,		
rounded, well-			slightly arkosic,			well-cemented, light-		
cemented, arkosic,			light-olive-gray . .	8	495	brownish-gray. . . .	5	859
light-olive-gray . .	5	208	Shale, grayish-black .	5	500	Shale, sandy, grayish-		
Shale, black, sandy. .	3	211	Shale, sandy, slightly			black	3	862
Sandstone, fine to			arkosic, black . . .	3	503	Sandstone, medium,		
medium, angular,			Shale, grayish-black .	12	515	angular, well-cemented,		
well-cemented,			Dawson Formation (lower part):			light-brownish-		
moderately arkosic,			Sand, angular, moderate-			gray; contains		
light-olive-gray . .	7	218	ly arkosic, 40 per-			trace of mica. . . .	7	869
Shale, black	17	253	cent coarse, 60 per-			Shale, sandy, black. .	5	874
Sand, medium, angular,			cent medium, light-			Sandstone, coarse,		
moderately arkosic,			olive-gray (Middle			angular to rounded,		
light-olive-gray			conglomerate, 515			poorly cemented,		
[Upper conglomerate,			to 839 feet.]. . . .	25	540	moderately arkosic,		
255 to 438 feet.]. .	4	259	Sandstone, medium,			yellowish-gray . . .	5	879
Shale, black.	14	273	angular, poorly			Shale, sandy, black. .	3	882
Sandstone, fine,			cemented with iron			Lower conglomerate:		
angular, well-			oxide, light-			Sand, angular to well-		
cemented, arkosic,			brownish-gray. . .	3	543	rounded, frosted,		
light-olive-gray . .	8	281	Shale, black	3	546	quartz, 70 percent		
Shale, grayish-black;			Sandstone, medium,			coarse, 30 percent		
contains 30 percent			poorly cemented with			medium, light-		
fine sand	3	284	iron oxide, light-			gray	9	991
Sandstone, fine,			brownish-gray;			Sandstone, coarse,		
angular, well-			grains are			rounded, well-		
cemented, greenish-			angular.	4	550	cemented, light-		
gray.	13	297	Shale, black	4	554	gray	6	997
			Sand, medium, angular			Shale, silty, grayish-		
			to rounded, arkosic,			black.	8	905
			light-brownish-gray.	12	566			

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-68-11dbed.--Continued		C7-68-11dbed.--Continued		C7-68-11dbed.--Continued	
Sand, medium, angular, frosted, quartz, rounded, arkosic, light-gray	11 916	Sand, angular to rounded, slightly arkosic, 30 percent coarse, 70 percent medium, yellowish-gray	10 1,131	Coal	3 1,704
Shale, black	4 920	Shale, silty, black	7 1,140	Shale, black	9 1,713
Sandstone, coarse, well-cemented with iron oxide, light-olive-gray; grains are rounded	14 934	Sand, coarse, rounded, slightly arkosic, medium-light-gray; contains a trace of mica	8 1,148	Coal	2 1,715
Shale, grayish-black	4 938	Sand, medium, angular, frosted, quartz, slightly arkosic, light-olive-gray; feldspar grains are rounded	10 1,158	Shale, silty, grayish-black	1 1,718
Sand, coarse, rounded, moderately arkosic, light-olive-gray	6 944	Shale, grayish-black; contains medium sand	5 1,163	Coal, fractured	3 1,721
Sand, medium, angular, frosted, moderately arkosic, light-gray; contains trace of silty black shale, and feldspar grains are rounded	8 952	Sand, fine, angular to rounded, slightly arkosic, light-olive-gray; contains a trace of mica	27 1,190	Shale, silty, grayish-black	7 1,728
Sand, medium, angular, moderately arkosic, light-olive-gray	7 959	Sand, medium, angular, frosted, quartz, rounded feldspar, moderately arkosic, pinkish-gray	10 1,200	Coal, fractured	5 1,732
Shale, black to grayish-black; contains medium sand	4 963	Shale, sandy, black	6 1,206	Shale, black	2 1,734
Sand, medium, rounded, yellowish-gray; contains trace of sandy shale	5 968	Sandstone, fine to medium, rounded, well-cemented, slightly arkosic, light-olive-gray	11 1,217	Sandstone, fine-grained, light-olive-gray; grains are rounded; contains 10 percent black shale	4 1,738
Shale, silty, black	4 972	Shale, sandy, black	18 1,235	Shale, black	7 1,745
Sand, medium, angular to rounded, moderately arkosic, well-cemented, greenish-gray	6 978	Sandstone, fine, rounded well-cemented, moderately arkosic, light-olive-gray	10 1,245	Coal, fractured	5 1,750
Shale, black	9 987	Shale, sandy, grayish-black	4 1,249	Shale, silty, black	8 1,758
Sand, medium, rounded, moderately arkosic, light-olive-gray	5 992	Sand, medium, angular, frosted, quartz, light-olive-gray	15 1,264	Coal	3 1,761
Sandstone, fine to medium, slightly arkosic, light-olive-gray; grains are angular to rounded	7 999	Shale, sandy, grayish-black	4 1,268	Shale, black	3 1,764
Shale, slightly sandy, black	5 1,004	Sandstone, fine to medium, well-cemented, moderately arkosic, light-olive-gray	20 1,288	Coal	1 1,765
Sand, medium, angular to rounded, light-olive-gray	4 1,008	Shale, silty, black	30 1,318	Shale, slightly sandy, black	2 1,767
Sand, rounded, moderately arkosic, 40 percent medium, 60 percent fine, light-olive-gray	10 1,018	Sand, fine, angular, frosted, quartz, arkosic, light-olive-gray; feldspar grains are rounded	15 1,333	Sand, fine, rounded, light-gray; contains 10 percent shale	2 1,769
Limestone, sandy, light-olive-gray	5 1,023	Shale, silty, black to grayish-black	16 1,349	Shale, slightly sandy, black	4 1,773
Sand, medium, angular to rounded, light-olive-gray	5 1,028	Sand, fine, angular to rounded, arkosic, light-olive-gray	6 1,355	Coal, fractured	6 1,779
Sandstone, fine to medium, slightly arkosic, light-olive-gray; grains are angular to rounded	5 1,033	Laramie Formation: Shale, black	25 1,380	Shale, grayish-black	14 1,793
Shale, silty, grayish-black	1,040	Shale, sandy, grayish-black	5 1,385	Coal, highly fractured	7 1,800
Sand, angular to well-rounded, moderately arkosic, 40 percent coarse, 60 percent medium, light-gray	25 1,065	Shale, black	4 1,389	Shale, grayish-black	3 1,803
Shale, black	5 1,070	Sand, medium, angular, frosted, quartz, light-olive-gray	3 1,392	Sandstone, fine to medium, light-gray; grains are rounded	67 1,870
Sand, fine, well-rounded, arkosic, light-gray	4 1,074	Shale, black; contains a trace of coal	68 1,360	Shale, grayish-black; contains fine sand	55 1,925
Sand, angular, arkosic, 70 percent coarse, 10 percent medium, light-gray	6 1,080	Sandstone, fine, angular, light-olive-gray	7 1,467	A Sandstone: Sandstone, fine, quartz, medium-light-gray; grains are rounded and frosted	12 1,957
Shale, slightly sandy, grayish-black	5 1,085	Coal	1 1,468	Shale, grayish-black	4 1,961
Sand, fine, rounded, arkosic, yellowish-gray	15 1,100	Sand, fine, angular, frosted, quartz, rounded feldspar, moderately arkosic, light-gray; feldspar grains are rounded	14 1,502	Sand, fine, rounded, medium-light-gray	5 1,966
Sandstone, medium to coarse, angular, well-cemented, light-gray; grains are angular	12 1,112	Shale, silty, black	50 1,552	Shale, grayish-black	4 1,970
Sandstone, medium, rounded, poorly cemented, light-gray	11 1,123	Coal	2 1,554	Sand, fine, rounded, light-gray	2 1,972
		Shale, black	8 1,562	Shale, silty black	5 1,977
		Shale, sandy, grayish-black	3 1,565	Sand, rounded, 30 percent medium, 70 percent fine, light-gray	6 1,983
		Shale, black	44 1,609	Shale, silty, grayish-black	45 2,028
		Coal, fractured	2 1,611	Fox Hills Sandstone: Millikan Sandstone Member: Sandstone, fine to medium, light-gray; grains are rounded	5 2,033
		Shale, sandy, grayish-black	11 1,622	Shale, sandy, grayish-black	2 2,035
		Coal	3 1,625	Shale, black	2 2,037
		Sandstone, fine, well-cemented, calcareous, light-gray; contains 5 percent grayish-black shale; grains are angular	10 1,635	Shale, sandy, grayish-black	2 2,039
		Shale, silty, grayish-black	29 1,664	Shale, silty, black	2 2,041
		Shale, sandy, grayish-black	20 1,684	Sandstone, fine, rounded, light-gray; contains 20 percent black shale	4 2,045
		Coal	4 1,688	Sandstone, fine to medium, light-gray; grains are rounded	25 2,070
		Shale, silty, black	13 1,701	Shale, silty, black	17 2,087

Table 3.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
C7-68-14daca.--Continued		C7-68-27bbaa.--Continued		C8-65-9baab.--Continued	
Clay, blue.	19	Lower conglomerate:		Sand, gravel, and	
Shale.	11	Sand and thin beds		streaks of hard	
Sandrock, gray.	7	of gray shale.	50	shale.	20
Sandrock (water-bearing).	6	Sand, coarse.	8	Shale.	55
Sandrock.	4	Shale, gray, and sand.	9	Shale, sandy.	19
Coal.	1			Sand, streaks of hard	
Sandrock.	10			gravel, and sandy	
Clay.	7	C7-69-2accc. Alt. 5,800 ft.		shale.	76
Shale.	7	Dakota Group:		Shale.	20
Clay.	10	South Platte Formation:		Shale, blue.	10
Sandrock.	4	Clay, brown.	3		
Clay.	4	Conglomerate.	122		
Sandrock, gray.	6	Sand.	19	C8-65-8ccbb. Alt. 5,500 ft.	
Shale.	5	Conglomerate.	4	Dawson Formation (upper	
Dawson Formation (lower part):		Sandstone.	198	part):	
Middle conglomerate:		Clay, fine.	8	Clay, sandy.	18
Sandrock, iron.	6	Lytle Formation:		Clay, green.	42
Sandrock, hard, gray.	14	Sandstone.	136	Sand (very little	
Sandrock (water-bearing).	12			water).	12
Clay, blue.	9	C8-65-ladad. Alt. 6,598 ft.		Clay, green.	24
Shale.	10	Louviere Alluvium:		Sand and layers of	
Sandrock.	9	Sand and gravel.	20	clay.	35
Clay, blue.	5	Dawson Formation (upper		Shale.	4
Shale.	8	part):			
Sandrock.	17	Shale.	15	C8-65-9cdac. Alt. 5,715 ft.	
Shale, blue.	29	Sand, gravel, and		Dawson Formation (upper	
Sandrock.	5	sandy shale.	54	part):	
Shale.	35	Shale.	14	Gravel and boulders.	35
Sandrock.	7	Sand, gravel, and	12	Shale, sandy, gray.	55
Sandrock (dry).	9	sandy shale.	115	Sand and gravel.	30
Shale.	13	Shale.	135	Shale, sandy, gray.	30
Sandrock, white.	42				
Shale.	8	C8-65-6cabd. Alt. 6,430 ft.		C8-65-9dccc. Alt. 6,685 ft.	
		Dawson Formation (upper		Dawson Formation (upper	
C7-68-27bbaa. Alt. 6,067.8 ft.		part):		part):	
Dawson Formation (upper part):		Topsoil.	1	No sample.	54
Topsoil.	2	Clay, sandy, yellow	16	Clay, hard, yellow.	7
Clay, sandy, brown.	10	and brown.	17	Sand.	43
Sandstone, white.	23	Clay, yellow.	12	Clay.	16
Clay, sandy, gray.	3	Clay, sandy, yellow.	10	Sand (a little water).	12
Clay, red.	4	Clay, yellow.	5	Clay.	8
Sandstone, red [Upper		Clay, sandy, yellow.	3	Sand (water-bearing).	20
conglomerate, 42 to 194		Sandstone.	4	Sand and clay, mixed.	11
feet].	4	Sand, light-gray, shale,	30	Clay, hard.	5
Sandstone, white.	11	and sandstone.	81		
Gravel.	4	Shale, yellowish-gray.	5	C8-65-10aadd. Alt. 6,682 ft.	
Sandstone, white.	11	Shale, sandy, yellow.	6	Dawson Formation (upper	
Shale, sandy, gray.	6	Sandstone, soft, and		part):	
Gravel.	3	gray sandy shale.	24	Shale.	17
Shale, sandy, gray, and		Sand.	17	Sand and gravel.	13
coarse sand.	20	Shale, grayish-brown.	9	Shale.	20
Shale, sandy, brown.	12	Shale, light-gray.	3	Sand, gravel, and	
Sand and layers of brown		Shale, sandy, gray.	6	sandy shale.	45
shale.	5	Shale, yellow.	6	Shale.	22
Shale, sandy, gray.	3	Shale, light-gray.	14	Shale, sandy.	3
Sand.	5	Shale, sandy, yellow.	11		
Shale, gray, and layers		Sand and layers of gray		C8-65-11ldcbb. Alt. 6,548 ft.	
of sandstone.	56	sandy shale.	8	Dawson Formation (upper	
Shale, green.	5	Shale, yellow.	2	part):	
Shale, sandy, brown.	4	Sand, fine, white, and		Sand.	15
Sand.	3	sandy shale.	5	Shale, sandy, blue.	45
Shale, gray.	5	Shale, yellow.	4	Sand and gravel.	5
Shale, sandy, brown.	9	Shale, sandy, grayish-		Shale, sandy, gray.	40
Shale, gray.	12	brown.	9	Sand and gravel.	27
Sandstone, gray.	14	Shale, brown.	1	Shale, sandy.	6
Shale, gray.	16	Sand and layers of		Shale, blue.	12
Shale, sandy, brown.	4	gray fine sandy shale.	5	Shale, sandy, blue.	35
Shale, sandy, gray.	16	Shale, brownish-gray.	4	Sand and clay.	8
Sandstone.	23	Shale, sandy, brownish-		Shale, sandy, blue.	27
Shale, sandy, gray.	26	gray.	127	Shale, sandy, gray.	25
Sandstone.	19	Shale, brown and gray.	6	Sand and gravel.	25
Shale, sandy, gray.	25	Shale, sandy, yellowish-		Shale, sandy, gray.	10
Sandstone.	29	gray.	11	Shale, blue.	12
Shale, gray.	11	Sand.	6	Shale, sandy, blue.	33
Sandstone.	5	Shale, sandy, yellowish-			
Shale, gray, and layers		gray.	2	C8-65-11aabb. Alt. 6,519 ft.	
of sand.	19	Sand.	2	Dawson Formation (upper	
Shale, gray.	35	Sand and light-gray		part):	
		layers of sandy shale.	14	Sand, hard.	12
Dawson Formation (lower part):		Shale, gray.	2	Shale.	8
Sand, coarse [Middle				Sand, hard gravel, and	
conglomerate, 502 to		C8-65-6ccba. Alt. 6,400 ft.		shale.	23
779 feet.].	13	Dawson Formation (upper		Shale.	17
Shale, sandy, gray.	19	part):		Sand, hard gravel, and	
Sand, coarse.	35	Topsoil and gravel.	5	streaks of shale.	35
Shale, gray.	8	Clay, green.	37	Shale.	55
Sand, coarse.	22	Sand.	6		
Shale, gray.	14	Clay.	6	C8-65-15acda. Alt. 6,689 ft.	
Sand, coarse.	17	Sand and layers of		Dawson Formation (upper	
Shale, gray.	28	clay.	66	part):	
Shale, sandy, brown.	9	Clay.	28	Shale.	15
Shale, sandy, gray.	5	Sand.	2	Sand and gravel.	20
Sand, coarse, and gray		Clay.	24	Gravel.	5
shale.	71	Mud, soft, blue.	14	Sand and gravel.	35
Sandstone.	18	Clay.	9	Shale.	30
Shale, sandy, gray.	5	Sand and gravel.	13	Shale, sandy.	32
Sandstone, gray, sand,		Clay.	13	Shale.	13
and thin beds of gray					
shale.	13	C8-65-9baab. Alt. 6,544 ft.		C8-65-15dadd. Alt. 6,714 ft.	
Shale, gray, and coarse		Dawson Formation (upper		Dawson Formation (upper	
sand.	69	part):		part):	
Shale, hard, sandy, gray.	70	Sand and gravel.	10	Sandstone.	65
		Shale.	45	Shale, gray.	30

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth
CG-64-15dadd. --Continued		CG-66-1aaab. --Continued		CG-66-1abba. --Continued	
Sand and sandy shale	65	Broadway Alluvium:		Dawson Formation (upper	
Sand	40	Sand, very fine to		part):	
Shale, blue	20	very coarse, poorly		Sandrock, cemented	67
Shale, sandy	5	sorted, subangular,		gravel, and clay	70
	225	arkosic, and about		Shale	
CG-65-16dacc. Alt. 6,775 ft.		20 percent very		CG-66-1ddca. Alt. 6,116.4 ft.	
Dawson Formation (upper		fine gravel; con-		Piney Creek Alluvium:	
part):		tains yellowish-		Topsoil	8
Clay, yellow and brown	20	brown clay at 22	20.5	Broadway and Louviers	
Limestone	40	feet	32.5	Alluvium, undifferentiated:	
Clay, yellow	7	Louviers Alluvium:		Gravel, medium to	
Sandstone and clay	68	Sand, very fine to		coarse	42
Sand and gravel	115	fine, arkosic,		Louviers Alluvium:	50
medium to fine	145	noncalcareous, silty,		Gravel and clay	52
Sand and clay	182	medium-light-gray	37.5	Dawson Formation	
CG-65-23cdbe. Alt. 6,621 ft.		Gravel, very fine,		Shale	54
Dawson Formation (upper		sand, medium to		CG-66-5bdaa. Alt. 6,568 ft.	
part):		coarse, and tan		Dawson Formation (upper	
Shale, sandy	5	sticky clay	47.5	part):	
Gravel	15	Silt, sandy, noncal-		Sandstone, hard	145
Boulders, broken rock,		careous, greenish-		Shale, yellow	156
sand, and gravel	25	gray	52.5	Shale, gray	165
Shale	100	Gravel, very fine to		CG-66-6cadd. Alt. 6,501 ft.	
sand, gravel, and		fine, arkosic,		Dawson Formation (upper	
sandy shale	115	angular to subangular,		part):	
Shale, sandy	125	and 20 percent very		Sand and gravel	45
Shale	135	coarse sand	57	Shale, sandy	75
CG-65-12dcac. Alt. 6,762 ft.		Dawson Formation (upper		Shale and gravel	120
Dawson Formation (upper		part):		Shale, blue	129
part):		Shale, clay, noncal-		Sand and gravel	140
Topsoil	2	careous, brownish-		Shale, blue	146
Clay, light-brown	13	gray, and light-olive-		Shale, sandy	160
Clay and sand	35	gray soft very cal-		Shale, sandy, blue	190
Rock	45	careous siltstone;		CG-66-6ddaa. Alt. 6,509 ft.	
Clay, yellow, and		contains montmoril-		Dawson Formation (upper	
rock	90	lonite	57.5	part):	
Sand and medium		CG-66-1aabb. Alt. 6,080.4 ft.		Shale	16
gravel	110	Piney Creek Alluvium:		Sand, gravel, and	29
Sand and clay rock	145	Loam, sandy, plastic,		sandstone	40
CG-66-1bbbc. Alt. 6,340 ft.		brown and tan	5	Sand and gravel	55
Dawson Formation (upper		Clay, silty and		Shale	90
part):		sandy, plastic	5	Sand, gravel, and	105
Topsoil, sandy	1	Broadway Alluvium:		Shale, sandy	110
Sand	14	Sand, fine to coarse,		Shale	120
Clay, yellow	17	angular to subrounded,		CG-66-9cbcc. Alt. 6,595 ft.	
Sand	26	arkosic, a little very		Dawson Formation (upper	
Clay, sandy, yellow	21	fine gravel, and		part):	
Sand and yellow sandy		some light-olive-gray		Shale	5
clay	83	noncalcareous silt	12.5	Sand, gravel, and	37
Shale, gray	105	Sand, very fine to	17.5	sandstone	45
Clay, sandy, yellow	121	fine, angular to		Shale	70
Sand and yellow sandy		subangular, arkosic,		Sand, gravel, and	85
clay	161	very silty, noncal-		sandstone	140
Clay, sandy, yellow	176	careous, pale-		Sandstone, hard	160
Shale, gray	181	yellowish-brown	22.5	Shale	167
Clay, sandy, yellow,		Louviers Alluvium:		Shale, sandy	172
and sand	43	Clay, tough	25	Shale	180
Shale, gray	229	Sand, very fine to		CG-66-3dcdg. Alt. 6,531 ft.	
CG-66-1aaad. Alt. 6,270 ft.		very coarse, poorly		Dawson Formation (upper	
Dawson Formation (upper		sorted, arkosic,		part):	
part):		noncalcareous, pale-		Sand gravel	12
Shale	7	yellowish-brown;		Shale	15
Sand, hard gravel,		contains thin beds		Sand and gravel	40
streaks of shale, and		of silt and a thin		Shale	52
yellow shale	45	lens of coarse		Sand, gravel, sandy	97
Shale, yellow	55	gravel at 11 feet	42.5	shale, and shale	110
Shale, blue	70	Sand, very fine to		Sand, gravel, sandy	145
Shale, sandy	90	medium, silty, non-		Shale, sandy	163
Sand and hard gravel	97	calcareous,		Shale	177
Shale	120	pale-yellowish-brown	5	Shale, sandy	180
Gravel and hard sand	135	Cobbles, fine to		CG-66-11bbac. Alt. 6,143.4 ft.	
Shale	215	coarse gravel, and		Piney Creek, Broadway, and	
Gravel, hard, and		sandy clay	51	Louviers Alluvium, undif-	
streaks of shale	13	Sand, fine gravel, and		ferentiated:	
Shale	145	sandy clay	57	Gravel and some clay	50
CG-66-1cddc. Alt. 6,126.7 ft.		Dawson Formation (upper		Louviers Alluvium:	
Piney Creek Alluvium:		part):		Gravel (water-bearing)	72
Soil	15	Sandstone, fine- to		Boulders at 72 feet	
Broadway Alluvium:		very coarse-grained,		CG-66-12bbac. Alt. 6,300 ft.	
Sand (water-bearing)	30	arkosic, noncalcareous,		Dawson Formation (upper	
Louviers Alluvium:		very calcareous, soft,		part):	
Clay	45	greenish-gray; in part		Topsoil	1
Gravel, coarse	63	limonite stained;		Clay, sandy, brown	4
Dawson Formation (upper		contains montmoril-		Clay, yellow, and	
part):		lonite	57.5	sand	6
Shale	1.5	CG-66-1abba. Alt. 6,108.3 ft.		Clay, yellow	9
CG-66-1aaab. Alt. 6,088.1 ft.		Piney Creek Alluvium:		Shale, grayish-green	20
Piney Creek Alluvium:		Topsoil	3		
Sand and silt, loose,		Clay	6		
tan	5	Sand	8		
Silt, micaceous, cal-		Clay and some sand	25		
careous, olive-gray;		Broadway Alluvium:			
contains montmoril-		Gravel, fine, dirty,			
lonite	7	sand, and some clay	16		
Silt, sandy, calcareous,		Louviers Alluvium:			
light-olive-gray	4.5	Clay	41		
	12	Clay and thin strips			
		of sand	55		
		Gravel, sand, and			
		rocks	59		

Table 3.--Logs of wells and test holes--Continued

Thick- ness		Depth	Thick- ness		Depth	Thick- ness		Depth
CG-66-12bbag.---Continued			CG-67-1dcdg.---Continued			CG-67-2cdah.---Continued		
Shale, yellow	3	23	Sand	10	191	Louviers Alluvium:		
Sandstone, soft, and gray shale	9	12	Shale, gray	17	208	Sand, fine to medium, very silty, noncalcareous, pale-yellowish-brown	5	8
Sandstone, coarse, soft	4	16	Sand and gray shale	9	217	Gravel, very fine to medium, angular to subangular, poorly sorted sand, and cobbles	2	10
Shale, gray	2	18	Shale, gray	15	232	Sand, fine to medium, very silty	2	12
Sand, yellow, and iron-rock	13	51	Sand and gray sandy shale	27	259	Sand, very fine to very coarse, noncalcareous, subangular to subrounded, arkosic, medium-gray, and thin beds of medium gray silt	5.5	17.5
Sand, coarse	8	59	Shale, gray, and sandstone	16	275	Sand, very fine to fine, micaceous, and thin beds of medium-light-gray micaceous noncalcareous silt; contains montmorillonite	10	27.5
Ironrock	1	60	Sand	4	279	Dawson Formation (upper part):		
Shale, sandy, gray	3	63	Shale, brown and gray	21	300	Silt, sandy, micaceous, noncalcareous, medium-light-gray; contains montmorillonite	5.5	33
Shale, gray	3	66	Sand	12	312	Shale, silty, noncalcareous, light-olive-gray; contains montmorillonite	2	35
Shale, sandy, gray, and sand	5	71	Clay, yellow brown and gray	22	334			
Sand, fine, white	4	75	Sand	29	363			
Sand	8	83	Clay, gray	6	369			
Sand, fine, white	3	86	Clay, sandy	8	377			
Sand, coarse	3	89	Clay, gray	15	392			
Shale, gray	5	94	Sandstone, gray	24	416			
Shale, grayish-green	11	105	Shale, brown	4	420			
Shale, blue and gray	12	117	Shale, sandy, green	5	425			
Shale, sandy, blue	7	124	Shale, gray	12	437			
Shale, blue	4	128	Shale, sandy, gray	24	461			
Shale, gray and yellow	2	130	Shale, brown and gray	23	484			
Sand	7	137	Shale, sandy, gray	17	501			
Shale, gray	5	142	Shale, gray	30	531			
Sand and gray sandy shale	3	145	Shale, sandy, gray	9	540			
Shale, gray	13	158	Upper conglomerate:					
Sand and gray sandy shale	5	163	Sand, fine, and sandy shale	11	551			
Sand, coarse	13	176	Sand, fine and coarse, and gray shale	73	624			
Shale, gray	4	180	Shale, sandy, gray	4	628			
Sand and gray sandy shale	15	195						
CG-66-17badg. Alt. 6,605 ft.			CG-67-2cdcd. Alt. 6,150.9 ft.			CG-67-2cdhh. Alt. 6,158.6 ft.		
Dawson Formation (upper part):			Fill			Fill		
Topsoil	1	1	Louviers Alluvium:			Broadway and Louviers Alluvium, undifferentiated:		
Sandstone, hard	5	6	Silt, noncalcareous sand, and arkosic very fine to fine gravel	1.5	2.5	Sand, medium to very coarse, subangular to subrounded, and about 40 percent very fine gravel; contains grayish-orange noncalcareous silt and some gravel	5	7.5
Shale, grayish-green	1	7	Silt, slightly sandy, noncalcareous, pale-yellowish-brown	10	12.5	Gravel, very fine to fine, arkosic, subangular to rounded, loose, and coarse to very coarse sand	15	22.5
Sandstone, brown and gray	4	11	Silt, slightly sandy and gravelly, noncalcareous, olive-brown; contains montmorillonite	10.5	23	Gravel, very fine, fairly well-sorted, subrounded to well-rounded, arkosic; mixed with clay and silt from 25.0 to 45 feet	25	47.5
Sandstone, hard	5	16	Gravel, very fine to fine, subangular to subrounded, arkosic, and silt	24.5	47.5	Dawson Formation (upper part):		
Sandstone, grayish-green	2	18	Gravel, very fine to medium, fairly well-sorted, arkosic, subangular to subrounded; about 20 percent sand and 20 percent grayish-orange noncalcareous micaceous silt	9	56.5	Clay, silty, very sandy, tough, semiplastic	5	52.5
Sandstone, hard	2	22	Dawson Formation (upper part):			Sandstone, soft, very fine to very coarse, very silty, very calcareous, arkosic, dusky-yellow, at 52.5 feet		
Sandstone, brown	5	27	Sandstone, very fine to very coarse, silty, arkosic; contains montmorillonite	2	58.5			
Sandstone, hard	6	33						
Shale, grayish-green	6	39						
Sandstone, hard	17	50						
Shale, grayish-green	5	51						
Shale, light-gray	13	104						
Sandstone, hard	5	109						
Sandstone, firm	11	120						
Shale, gray	3	123						
Shale, sandy, gray, and sand	11	134						
Shale, gray	5	139						
Shale, sandy, gray, and sandstone	11	150						
Sand and sandstone	11	161						
Sandstone	5	166						
Shale, gray	7	173						
Shale, yellowish-gray	12	185						
Sand	17	202						
Shale, yellowish-gray	7	209						
Shale, brown	9	218						
Shale, brown and gray	7	225						
Shale, yellow	4	229						
Sand and yellow shale	7	236						
Sand	7	257						
Shale, sandy, light-gray, and sand	9	266						
Shale, yellow and gray	7	273						
Sand	5	278						
Shale, gray, and sand	5	283						
Sand	6	289						
Shale, blue	7	296						
Sand	3	299						
Shale, light-brown	6	305						
Shale, light-blue	21	326						
CG-67-1dcdg. Alt. 6,490 ft.			CG-67-1cdcd. Alt. 6,144.1 ft.			CG-67-1cdcd. Alt. 6,290 ft.		
Dawson Formation (upper part):			Broadway Alluvium:			Dawson Formation (upper part):		
Topsoil, sandy	2	2	Sand, very fine to very coarse, silty, subangular to subrounded, noncalcareous, arkosic, grayish, and a little very fine gravel	2.5	2.5	Clay, sandy	10	10
Clay, sandy, brown and yellow	19	21	Louviers Alluvium:			Clay, sandy, brown, and layers of sand	6	16
Gravel	3	24	Silt, very sandy, noncalcareous, medium gray, and scattered very fine to fine arkosic gravel	6.5	9	Clay, yellow and gray	5	21
Sandstone	4	28	Silt, sandy, and very fine gravel, noncalcareous, mixed; contains montmorillonite	5	14	Shale, gray	9	30
Clay, sandy, yellow sandstone	7	35	Dawson Formation (upper part):			Shale, sandy, gray	6	36
Clay, sandy, gray	6	46	Silt, micaceous, noncalcareous, dusky-yellow and dark-yellowish-brown; contains montmorillonite	7.5	21.5	Shale, gray	32	68
Shale, green	4	50	Shale, silty, noncalcareous, light-olive-gray; contains montmorillonite and some gravel	6	27.5	Sandstone, blue	1	69
Clay, sandy, yellow sand and yellow sandy clay	58	123				Shale, gray	3	72
Shale, gray	21	144				Sandstone, blue	6	78
Sand and gray sandy shale	19	163				Sandstone, gray, and gray shale	14	92
Shale, gray	18	181				Shale, brown gray and blue	63	155
						Sandstone, blue	1	156
						Shale, blue and gray	9	164
						Coal	1	165
						Shale, gray and blue	23	188
						Shale, sandy, blue	3	191
						Shale, brown gray blue and yellow	33	224
						Sand and sandy shale	6	230
						Shale, gray	2	232
						Sand	1	233
						Coal	1	234
						Shale, sandy, gray	2	236

Table 1.--Logs of wells and test holes--Continued

Thick- ness	Depth	Thick- ness	Depth	Thick- ness	Depth				
CG-67-10cdd. --Continued		CG-67-8cddh. --Continued		CG-67-11dagh. --Continued					
Sand and sandy shale.	4	240	Coal and sand.	2	104	Shale, gray.	1	193	
Coal.	1	241	Shale, gray.	16	120	Sand.	18	211	
Shale, sandy, gray.	2	243	Shale, gray.	23	143	Shale, gray.	24	235	
Shale, gray.	3	246	Sand.	15	158	Sand and gray shale.	12	247	
Coal.	1	247	Shale, gray.	9	167	Shale, gray.	6	253	
Shale, sandy, gray.	3	250	Sand.	2	169	Sand.	10	263	
Shale, gray and brown.	11	261	Shale, gray red and yellow.	2	186	Shale, blue and gray.	20	283	
Shale, sandy, light-blue.	4	265	Shale, gray and blue.	17	187	Sand.	4	287	
Shale, gray.	2	267	Coal.	1	190	Shale, gray.	5	292	
Sand.	2	269	Shale, sandy, gray, and sand.	3	192	Sand.	10	302	
Coal.	1	270	Shale, blue.	2	194	Shale, gray.	4	306	
Shale, gray.	8	278	Sand.	2	199	Sand.	5	311	
Upper conglomerate:						Shale, gray.	7	318	
Sand, coarse, and fine gravel.	4	282	Sand.	5	203	Sand.	13	331	
Shale, sandy, gray.	2	284	Shale, gray.	4	207	Sand.	5	336	
Sand, sandy shale, and coal.	6	290	Shale, blue.	4	213	Shale, gray.	9	345	
Shale, gray and blue.	18	308	Sand and coal.	6	215	Sand.	38	383	
Sand, coarse, and fine gravel.	5	313	Shale, gray.	2	215	Sand.	18	401	
Shale, gray.	39	352	Sand.	10	225	Shale, gray, and sand.	76	477	
			Shale, gray.	5	230	Sand.	23	500	
			Sand.	8	238	Shale, gray.	10	510	
			Shale, gray.	11	249	Sand.	3	513	
			Sand, fine, gray, and gray shale.	7	256	Shale, gray.	5	518	
			Shale, gray.	4	260	Sand.	4	522	
			Sand.	8	268	Shale, gray.	8	530	
			Shale, gray.	5	271	Sand.	5	535	
			Sand.	4	277	Shale, gray.	8	543	
			Shale, gray.	9	286	Sand.	13	556	
						Sand.	14	570	
						Shale, gray.	31	621	
						Shale, gray, and sand.	9	630	
						Sand.	11	641	
						Shale, gray.	6	647	
						Sand.	10	657	
						Shale, gray.	5	662	
						Sand.	17	679	
						Shale, gray, and sand.	18	697	
						Sand.	9	706	
						Shale, gray.	37	743	
						Sand.	17	760	
						Shale, brown.	5	765	
						Shale, brown and gray, and sand.	60	825	
						Coal.	5	830	
						Shale, gray.	41	871	
						Sand.	7	878	
						Shale, gray and brown.	33	911	
						Coal.	4	915	
						Shale, gray.	5	920	
						Dawson Formation (lower part):			
						Sand (Middle conglomerate, 920 to 1,150 feet.)			
						Shale, gray.	6	926	
						Sand.	11	937	
						Shale, gray.	6	943	
						Sand.	9	952	
						Shale, gray.	6	958	
						Sand.	14	972	
						Shale, gray.	17	989	
						Sand.	25	1,014	
						Shale, gray, and sand.	12	1,026	
						Sand.	30	1,076	
						Shale, gray.	32	1,108	
						Sand.	15	1,123	
						Shale, gray.	14	1,137	
						Sand.	13	1,150	
						Sand and gray shale.	50	1,200	
						Shale, gray.			
						Lower conglomerate:			
						Sand.	16	1,216	
						Shale, gray.	7	1,222	
						Sand.	9	1,232	
						Shale, gray.	19	1,251	
						Lime, sandy.	7	1,258	
						Shale, gray.	5	1,263	
						Sand.	3	1,266	
						Shale, gray, and sandy lime.	14	1,280	
						Sand.	9	1,289	
						Shale, gray.	29	1,318	
						Sand.	18	1,336	
						Shale, gray, and sand.	26	1,362	
						Sand.	9	1,371	
						Shale, gray.	42	1,413	
						Sand.	16	1,429	
						Shale, gray.	30	1,459	
						Sand.	6	1,465	
						Shale, gray.	16	1,481	
						Lime, sandy.	2	1,483	
						Shale, gray.	13	1,496	
						Sand.	19	1,515	
						Shale, gray.	18	1,533	
						Sand.	27	1,560	
						Shale, gray, and sand.	42	1,602	
						Shale, gray.	6	1,608	
						CG-67-28aad. Alt. 6,494.3 ft.			
						Dawson Formation (upper part):			
						Sand and yellow clay.	23	23	
						Sandstone, blue.	18	41	
						Sand, brown.	5	46	
						Shale, blue.	2	48	
						Sandstone, blue and brown.	48	96	

Table 3.--Logs of wells and test holes--Continued

	Thick- ness	Depth		Thick- ness	Depth		Thick- ness	Depth
CS-67-1899ad. --Continued								
Shale, gray and brown .	64	160						
Sand.	21	181						
Shale, gray	13	194						
Sand.	8	202						
Shale, gray and brown .	17	219						
Sand.	9	228						
Shale, gray	7	235						
Sand.	4	239						
Shale, gray	16	255						
Sand.	4	259						
Shale, gray	12	271						
Sand.	97	368						
Shale, brown gray and yellow.	10	378						
Sand.	15	393						
Shale, gray and brown .	10	403						
Sand.	21	424						
Shale, yellow and brown	8	432						
Sand.	34	466						
Shale, gray	4	470						
Sand.	36	506						
CS-68-1abcc. Alt. 5,880.4 ft.								
Post-Piney Creek alluvium and Broadway Alluvium, undiffer- entiated:								
Sand and clay	3	3						
Sand and gravel	3	6						
Louviere Alluvium:								
Clay, gray.	12	18						
Sand and gravel	28	44						
Dawson Formation (upper part):								
Sandstone	2	46						
CS-68-1cadd. Alt. 7,025 ft.								
Precambrian (granite):								
Granite, decomposed . .	35	35						
Granite, hard, at 35 feet								

Table 4.--Measurements of the water level in wells
(Water levels are given in feet below, or (+) above land-surface datum)

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CI-66-11cddd.</u>			<u>CI-66-18cddc.</u> --Continued			<u>CI-67-14dcdc.</u> --Continued		
Oct. 5, 1955	22.54		Jan. 5, 1960	20.62		Oct. 3, 1955	5.14	
Nov. 4	23.11		Feb. 11	20.24		Nov. 4	5.41	
Nov. 30	23.14		Jan. 12, 1961	20.99		Dec. 1	5.57	
Jan. 4, 1956	23.33		Apr. 27	21.65		Jan. 4, 1956	5.32	
Feb. 3	21.64		Jul. 7	21.13		Feb. 3	5.14	
Mar. 2	22.52		Jan. 5, 1962	20.69		Mar. 2	5.04	
Apr. 2	22.69		Apr. 15	21.53		Apr. 2	5.00	
May 1	22.94		Oct. 1	19.03		June 8	1.52	
July 10	23.32		Jan. 23, 1963	20.39		July 6	1.91	
Oct. 2	23.66					July 30	5.10	
Nov. 6	24.55		<u>CI-66-10cddc.</u>			Sept. 4	5.12	
Dec. 4	24.72		Sept. 29, 1955	27.69		Oct. 2	5.67	
Jan. 8, 1957	24.97		Nov. 11	28.99		Nov. 6	5.85	
Feb. 5	23.25		Nov. 30	24.29		Dec. 4	5.65	
Mar. 5	22.90		Jan. 4, 1956	22.95		Jan. 8, 1957	5.35	
May 6	23.41		Feb. 3	27.17		Feb. 5	5.17	
June 4	21.00		Mar. 2	23.29		Mar. 5	4.92	
July 15	20.76		Apr. 2	23.46		May 6	4.56	
Aug. 6	20.59		May 1	24.26		June 4	1.02	
Oct. 2	21.48		June 8	27.04		July 15	2.69	
Nov. 4	22.66		July 6	28.04		Aug. 6	2.32	
Dec. 5	23.29		July 10	28.73		Sept. 3	2.38	
Jan. 13, 1958	21.93		Sept. 4	27.35		Oct. 2	2.42	
Feb. 10	22.44		Oct. 2	26.60		Nov. 5	4.31	
Mar. 3	22.59		Nov. 6	27.60		Dec. 5	2.49	
Apr. 11	22.21		Dec. 4	23.96		Jan. 13, 1958	2.84	
May 5	22.55		Jan. 8, 1957	22.96		Feb. 10	1.01	
May 20	21.97		Feb. 5	23.10		Mar. 3	3.16	
Nov. 5	23.11		Mar. 5	23.20		Apr. 11	3.26	
Dec. 11	23.95		May 6	21.74		May 5	3.19	
Jan. 21, 1959	23.11		June 4	19.78		May 20	2.59	
Mar. 18	22.26		July 15	18.54		June 24	2.90	
Apr. 24	22.42		Aug. 6	19.85		July 14	2.98	
June 1	22.01		Sept. 2	21.53		Aug. 19	4.13	
Aug. 13	23.12		Oct. 2	19.15		Mar. 18, 1959	4.10	
Sept. 18	22.90		Nov. 5	19.54		June 23	3.29	
Nov. 26	23.18		Dec. 5	19.92		Dec. 9	5.00	
Dec. 4	23.61		Jan. 13, 1958	20.78		Jan. 5, 1960	5.13	
Jan. 5, 1960	23.87		Feb. 10	21.38		Feb. 11	5.17	
Feb. 11	22.59		Mar. 3	21.83		Apr. 10, 1962	3.58	
Mar. 23	22.29		Apr. 11	22.34		Oct. 19	3.73	
Apr. 30	22.53		May 5	22.67		Jan. 23, 1963	4.14	
May 25	21.12		<u>CI-67-14dcdc.</u>			<u>CI-67-16dbdc.</u>		
June 24	21.52		Aug. 23, 1955	11.70		Aug. 23, 1955	54.64	
Sept. 30	22.65		July 12, 1957	9.75		Sept. 1	54.60	
Jan. 12, 1961	24.38		Aug. 16	9.95		Oct. 3	55.22	
Apr. 27	22.75		Sept. 16	10.24		Nov. 4	53.64	
Sept. 21	21.25		Nov. 12	10.38		Nov. 30	51.94	
Jan. 5, 1962	23.48		Dec. 11	10.68		Jan. 4, 1956	50.82	
Apr. 11	22.00		Jan. 16, 1958	10.63		Feb. 3	51.16	
Oct. 3	22.74		Feb. 19	11.00		Mar. 2	51.57	
Jan. 23, 1963	23.73		Mar. 12	10.97		Apr. 2	52.03	
<u>CI-66-18cddc.</u>			Apr. 22	10.52		Apr. 1	52.40	
Sept. 29, 1955	21.08		May 20	9.20		May 1	52.75	
Nov. 4	21.07		June 24	10.00		June 8	52.83	
Nov. 30	21.63		July 14	10.31		July 6	53.34	
Jan. 4, 1956	22.29		Aug. 19	11.33		July 30	53.34	
Feb. 3	22.79		Sept. 24	11.14		Sept. 4	52.88	
Mar. 2	23.20		Nov. 5	11.86		Oct. 2	53.52	
Apr. 2	23.62		Nov. 20	11.93		Nov. 6	53.74	
May 1	23.15		Dec. 11	11.84		Dec. 4	53.28	
June 8	21.37		Jan. 21, 1959	11.85		Jan. 8, 1957	59.25	
July 6	20.34		Mar. 18	11.78		Feb. 5	52.57	
July 30	16.72		Apr. 24	11.30		Mar. 5	52.76	
Sept. 4	20.08		June 1	10.77		May 6	53.12	
Oct. 2	21.46		June 23	10.43		June 4	52.17	
Nov. 5	21.39		July 19	10.04		July 15	50.27	
Dec. 4	22.29		Aug. 13	10.08		Aug. 6	54.21	
Jan. 8, 1957	22.76		Sept. 18	11.96		Sept. 3	46.39	
Feb. 5	23.16		Oct. 26	12.28		Oct. 2	46.49	
Mar. 5	23.50		Dec. 4	12.24		Nov. 5	53.36	
May 6	23.98		Jan. 5, 1960	12.18		Dec. 5	47.19	
June 4	22.79		Feb. 11	12.53		Jan. 13, 1958	48.49	
July 15	20.24		Mar. 23	11.74		Feb. 10	49.31	
Aug. 6	17.70		Apr. 30	11.26		Mar. 3	49.82	
Sept. 2	17.03		May 25	10.85		Apr. 11	50.73	
Oct. 2	16.06		Aug. 29	12.13		May 5	51.29	
Nov. 4	14.64		Sept. 30	12.26		May 20	51.42	
Dec. 5	16.97		Nov. 10	12.39		June 24	53.38	
Jan. 13, 1958	18.06		Dec. 9	12.43		Nov. 5	52.31	
Feb. 10	18.75		Jan. 12, 1961	12.50		Dec. 11	51.66	
Mar. 3	19.19		Feb. 24	12.61		Jan. 21, 1959	51.89	
Apr. 11	19.88		Mar. 3	12.60		Mar. 18	52.42	
May 5	19.96		Mar. 5	12.45		Apr. 24	52.75	
May 20	19.50		Mar. 14	12.41		June 1	53.08	
June 24	17.76		Mar. 19	12.25		June 23	51.15	
July 14	17.20		Apr. 27	12.21		Aug. 13	51.55	
Aug. 19	16.70		July 7	11.39		Sept. 18	51.75	
Sept. 24	16.93		July 21	11.81		Oct. 26	51.34	
Nov. 5	17.95		July 30	12.05		Dec. 9	52.03	
Dec. 11	19.00		Aug. 8	11.60		Jan. 5, 1960	52.61	
Jan. 20, 1959	19.06		Sept. 21	11.06		Feb. 11	52.92	
Mar. 18	21.09		Jan. 5, 1962	11.55		Apr. 30	53.85	
Apr. 24	21.44		Apr. 10	11.26		May 25	53.96	
June 1	20.65		Oct. 3	12.06		June 24	51.20	
June 23	19.43		Jan. 23, 1963	11.67		Sept. 30	52.75	
Aug. 13	17.76		<u>CI-67-14dcdc.</u>			Jan. 12, 1961	52.98	
Sept. 18	18.04		Aug. 23, 1955	5.13		Apr. 27	54.08	
Oct. 26	18.97		Sept. 1	5.25		July 7	51.64	
Dec. 9	20.03					Sept. 23	51.04	

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C2-67-10cddd.</u>			<u>C2-67-11cddb.</u> --Continued			<u>C2-67-20cddc.</u> --Continued		
Aug. 19, 1955	25.63		Apr. 11, 1962	17.16		July 14, 1958	26.27	
Sept. 1	25.75		Oct. 2	14.41		Aug. 19	27.04	
Oct. 3	25.64		Jan. 23, 1963	14.79		Sept. 24	27.50	
Nov. 4	25.54					Nov. 5	27.48	
Nov. 10	25.46		<u>C2-67-17bacb.</u>			Dec. 11	27.11	
Jan. 4, 1956	25.10		Oct. 10, 1955	8.58		Jan. 21, 1959	27.15	
Feb. 3	24.98		Nov. 14	8.73		Mar. 18	27.17	
Mar. 2	25.15		Dec. 1	9.94		Apr. 24	27.30	
May 2	25.22		Jan. 4, 1956	9.14		June 1	26.85	
July 6	25.19		Feb. 3	9.35		June 23	27.34	
July 30	25.57		Mar. 2	9.52		Aug. 13	28.00	
Sept. 4	25.08		Apr. 3	9.78		Sept. 18	28.50	
Oct. 2	25.33		May 2	10.03		Oct. 26	27.63	
Nov. 6	25.19		June 5	9.66		Dec. 4	27.14	
Dec. 4	25.11		July 6	8.59		Jan. 5, 1960	27.18	
Jan. 8, 1957	25.18		July 10	8.37		Feb. 11	27.29	
Feb. 5	25.23		Sept. 4	8.65		Apr. 10	27.21	
Mar. 5	25.37		Oct. 2	9.22		May 25	26.81	
May 6	25.52		Nov. 6	9.35		June 24	26.67	
June 4	24.02		Dec. 4	9.30		Sept. 10	28.34	
July 15	23.18		Jan. 8, 1957	9.55		Jan. 12, 1961	28.13	
Aug. 6	23.00		Feb. 5	9.73		Apr. 24	27.50	
Sept. 3	21.32		Mar. 5	9.93		July 7	27.25	
Oct. 2	21.01		May 6	9.49		Sept. 23	27.24	
Nov. 5	20.24		June 4	9.54		Jan. 5, 1962	26.87	
Dec. 5	21.42		July 15	8.49		Apr. 10	26.82	
Jan. 13, 1958	21.95		Aug. 6	8.01		Oct. 2	28.11	
Feb. 10	22.14		Sept. 3	8.54		Jan. 23, 1963	27.69	
Mar. 3	22.27		Oct. 2	8.82				
Apr. 11	23.13		Nov. 5	9.13		<u>C2-68-20dbcb.</u>		
May 5	23.28		Dec. 5	9.37		Mar. 4, 1957	432.05	
May 20	23.30		Jan. 13, 1958	9.64		Apr. 16	436.55	
June 24	23.08		Feb. 10	9.82		June 3	387.80	
July 14	23.34		Mar. 3	9.87		Nov. 10, 1960	482.50	
Aug. 19	23.49		Apr. 11	10.22				
Dec. 11	23.19		May 5	10.40		<u>C2-68-16bccc.</u>		
Jan. 21, 1959	23.54		May 20	11.36		June 1, 1959	19.43	
Mar. 18	23.86		June 24	10.96		June 23	19.79	
Apr. 24	24.03		July 14	10.75		Aug. 13	20.19	
June 1	23.72		Aug. 19	10.55		Sept. 18	18.25	
June 23	23.12		Sept. 24	10.82		Oct. 27	18.77	
Aug. 13	23.40		Dec. 11	9.92		Dec. 9	20.27	
Sept. 18	23.25		Jan. 21, 1959	10.40		Jan. 5, 1960	20.70	
Oct. 26	23.36		Mar. 18	10.95		Feb. 11	20.96	
Dec. 9	23.39		Apr. 24	11.19		Jan. 10, 1961	20.44	
Jan. 5, 1960	23.83		June 1	11.00		Jan. 5, 1962	20.36	
Feb. 11	23.99		June 23	10.40		Apr. 9	21.76	
Mar. 28	24.34		Aug. 13	9.89		Oct. 3	18.32	
Apr. 30	23.84		Sept. 18	10.07		Jan. 23, 1963	20.50	
May 25	23.32		Oct. 27	10.28				
June 24	22.37		Dec. 9	10.61		<u>C2-68-36cbb.</u>		
Sept. 30	23.26		Jan. 5, 1960	10.85		Oct. 10, 1955	17.13	
Jan. 12, 1961	23.75		Feb. 11	10.85		Nov. 4	17.63	
Apr. 27	24.60		Apr. 30	11.34		Dec. 1	18.28	
July 7	23.66		May 25	11.36		Jan. 4, 1956	19.12	
Jan. 5, 1962	23.40		June 24	10.82		Feb. 3	19.44	
Apr. 11	24.53		Sept. 30	10.23		Mar. 2	19.67	
Oct. 2	23.41		Jan. 12, 1961	10.59		Apr. 3	19.88	
Jan. 23, 1963	23.14		Apr. 27	11.40		May 2	20.41	
			July 10	11.30		June 5	19.61	
			Sept. 23	9.60		July 6	18.35	
			Jan. 5, 1962	10.00		July 30	17.45	
			Apr. 10	11.07		Sept. 4	18.06	
			Oct. 2	9.68		Oct. 2	18.64	
			Jan. 23, 1963	10.17		Nov. 5	19.43	
						Dec. 4	19.68	
<u>C2-67-11cddb.</u>			<u>C2-67-20cddc.</u>			Jan. 8, 1957	19.66	
Apr. 1, 1956	37.65		Aug. 9, 1955	29.43		Feb. 5	20.32	
June 5	36.94		Aug. 11	29.27		Mar. 5	19.48	
July 6	37.28		Oct. 3	28.71		June 4	19.30	
July 30	37.38		Nov. 4	28.34		July 15	18.42	
Sept. 4	36.13		Dec. 1	27.94		Aug. 6	18.36	
Oct. 2	36.34		Jan. 4, 1956	27.94		Sept. 3	18.04	
Nov. 6	37.97		Feb. 3	28.02		Oct. 2	18.11	
Dec. 4	37.40		Mar. 2	28.10		Nov. 5	18.70	
Jan. 7, 1957	37.11		Apr. 2	28.21		Dec. 5	18.94	
Feb. 5	37.28		May 2	28.34		Jan. 13, 1958	19.56	
Mar. 5	37.73		June 4	28.57		Feb. 10	19.81	
May 4	38.08		July 6	29.45		Mar. 3	19.79	
June 4	36.90		July 30	29.70		May 5	20.28	
July 15	33.75		Sept. 4	29.10		May 20	20.35	
Aug. 6	31.32		Oct. 2	29.57		June 24	18.57	
Sept. 2	28.76		Nov. 6	29.69		July 14	18.12	
Oct. 2	28.94		Dec. 4	29.10		Aug. 19	17.95	
Nov. 5	29.59		Jan. 8, 1957	28.73		Sept. 24	18.22	
Dec. 5	30.78		Feb. 5	28.78		Dec. 11	18.75	
Jan. 13, 1958	32.62		Mar. 5	28.78		Jan. 21, 1959	19.16	
Feb. 10	33.69		May 6	28.48		Mar. 18	19.78	
Mar. 3	34.37		June 4	26.50		Apr. 24	19.88	
Apr. 11	35.52		July 15	26.04				
May 5	35.86		Aug. 6	25.89		<u>C2-65-2dcdd.</u>		
May 20	35.78		Sept. 3	25.79		Nov. 5, 1956	21.95	
May 24	34.64		Oct. 2	26.19		Dec. 4	22.24	
June 14	34.13		Nov. 5	26.39		Jan. 7, 1957	22.57	
July 14	33.27		Dec. 5	26.15		Feb. 5	22.75	
Aug. 19	34.31		Jan. 13, 1958	26.47		Mar. 5	22.94	
Dec. 11	35.54		Feb. 10	26.69		May 4	22.88	
Jan. 21, 1959	36.84		Mar. 3	26.82		June 4	17.52	
Mar. 18	37.29		Apr. 11	27.00		July 15	19.71	
Apr. 24	37.25		May 5	27.15		Aug. 1	16.40	
June 1	36.51		May 20	26.90				
June 23	36.51		June 24	26.20				
Sept. 18	34.93							
Oct. 26	34.53							
Dec. 9	35.59							
Jan. 5, 1960	36.35							
Feb. 11	37.12							
Jan. 12, 1961	36.29							
Apr. 27	38.17							

Table 4. --Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Water level
<u>CJ-65-7dcdg.</u> --Continued			<u>CJ-67-17ddb.</u> --Continued			<u>CJ-68-7dccb.</u>	
Aug. 30, 1957	18.60		Feb. 12, 1960	9.34		Dec. 4, 1956	160.78
Oct. 2	19.56		Jan. 12, 1961	5.63		Jan. 3, 1957	158.81
Nov. 4	19.99		Apr. 27	5.58		Feb. 5	161.69
Dec. 5	20.37					Mar. 4	161.20
Jan. 13, 1958	20.74		<u>CJ-67-18abcd.</u>			Aug. 6	161.91
Mar. 3	21.14		Feb. 19, 1958	6.22		Sept. 3	161.79
Apr. 11	21.36		Mar. 12	6.35		Oct. 15	161.37
<u>CJ-67-4bbbb.</u>			Apr. 22	6.59		Nov. 15	161.49
Sept. 12, 1955	51.61		May 20	5.52		Dec. 13	162.10
Oct. 3	51.73		June 24	5.65		Jan. 18, 1958	161.90
Nov. 4	51.91		July 14	5.69		Feb. 19	162.07
Nov. 30	52.04		Aug. 19	6.09		Mar. 12	161.40
Jan. 4, 1956	52.21		Nov. 5	6.64		Apr. 22	161.35
Feb. 3	52.08		Dec. 11	6.67		May 20	161.88
Mar. 2	51.42		Feb. 3, 1959	6.50		June 24	162.48
Apr. 2	51.22		Mar. 18	6.25		July 14	161.61
May 1	51.32		Apr. 24	6.21		Aug. 28	162.36
June 4	50.42		June 1	6.05		Nov. 10	162.53
July 6	49.58		June 23	6.06		Dec. 10	163.00
July 10	49.25		Aug. 13	6.66		Jan. 21, 1959	164.35
Sept. 4	48.62		Sept. 18	6.95		Mar. 18	163.24
Oct. 2	49.28		Oct. 27	6.64		Apr. 24	161.64
Nov. 5	50.20		Dec. 9	6.65		June 1	161.85
Dec. 4	50.52		Feb. 12, 1960	7.19		June 23	162.69
Jan. 7, 1957	50.26		Mar. 28	6.64		Aug. 13	163.60
Feb. 5	49.80		Apr. 30	6.69		Sept. 18	161.20
Mar. 5	48.59		May 25	6.84		Oct. 26	161.12
May 4	48.91		June 24	7.01		Dec. 9	152.27
June 4	49.04		Oct. 4	7.68		Jan. 5, 1960	161.41
July 15	48.00		Jan. 13, 1961	7.67		Mar. 28	161.95
Aug. 6	47.72		Apr. 27	8.32		Apr. 20	162.90
Sept. 2	47.21		July 10	7.19		May 25	161.48
Oct. 2	46.79		Sept. 23	6.68		June 24	162.35
Nov. 6	46.30		Jan. 5, 1962	7.05		Sept. 30	161.93
Dec. 5	45.99		Apr. 10	7.11		Jan. 13, 1961	162.30
Jan. 13, 1958	45.68		Oct. 3	8.45		Apr. 24	160.88
Feb. 10	45.53		Jan. 23, 1963	8.45		July 11	163.01
Mar. 3	45.43		<u>CJ-67-18acd.</u>			Sept. 23	160.69
May 5	45.03		Mar. 12, 1958	299.25		Jan. 5, 1962	160.51
May 20	45.00		Apr. 22	299.53		Apr. 10	161.34
June 24	44.86		Apr. 22	299.70		Oct. 2	160.50
July 14	44.90		May 20	301.20		Jan. 23, 1963	159.60
Aug. 19	45.05		June 24	303.0		<u>CJ-68-7dccb2.</u>	
Sept. 24	44.69		July 17	305.1		July 26, 1956	2.05
Nov. 5	44.60		Aug. 19	309.5		Aug. 31	.65
Dec. 11	44.45		Mar. 18, 1959	261.3		Sept. 14	1.60
Jan. 21, 1959	44.00		Apr. 24	271.4		Oct. 1	1.28
Mar. 18	43.88		June 1	289.80		Oct. 31	1.17
Apr. 24	43.74		June 23	309.0		Apr. 10, 1962	1.49
June 1	44.75		Aug. 13	311.5		<u>CJ-68-13bddg.</u>	
June 23	45.56		<u>CJ-67-23cbcb.</u>			Oct. 31, 1956	25.31
Aug. 23	47.59		Oct. 23, 1956	21.22		Dec. 4	25.61
Sept. 18	48.80		Oct. 31	21.24		Jan. 3, 1957	25.79
Oct. 26	49.14		Dec. 4	21.36		Feb. 5	25.88
Dec. 4	46.89		Jan. 3, 1957	21.46		Mar. 4	25.89
Jan. 5, 1960	45.81		Feb. 5	21.52		Apr. 16	25.88
Feb. 12	46.48		Mar. 4	21.59		June 3	24.88
Mar. 28	46.58		June 3	22.20		July 15	25.79
Apr. 30	46.09		July 15	21.36		Aug. 6	24.20
May 23	45.68		Aug. 7	21.27		Sept. 9	23.84
June 24	44.70		Sept. 9	21.16		Oct. 4	24.01
Sept. 30	45.56		Oct. 11	21.03		Nov. 15	24.14
Jan. 12, 1961	44.52		Nov. 15	20.96		Dec. 12	24.31
Apr. 21	46.47		Dec. 12	20.80		Jan. 18, 1958	26.65
July 10	45.67		Jan. 16, 1958	20.83		Feb. 19	24.75
Sept. 23	45.49		Feb. 18	20.79		Mar. 12	24.66
Jan. 5, 1962	44.72		Mar. 12	20.73		Apr. 22	24.31
Apr. 11	44.74		Apr. 25	20.81		May 20	24.40
Oct. 2	46.07		May 20	20.73		Aug. 19	24.34
Jan. 23, 1963	48.59		June 24	23.00		Nov. 5	23.97
<u>CJ-67-17ddb.</u>			July 14	20.72		Jan. 20, 1959	24.50
Oct. 23, 1956	12.47		Aug. 19	20.93		Mar. 18	24.64
Dec. 4	12.43		Sept. 24	21.57		Apr. 24	24.37
Jan. 3	12.61		Dec. 11	21.41		June 1	23.95
Mar. 4, 1957	12.52		Jan. 20, 1959	20.92		Aug. 13	24.08
June 3	8.01		Mar. 18	21.02		Sept. 18	23.68
July 15	8.08		June 1	21.30		Oct. 26	23.72
Aug. 6	7.98		June 23	21.32		Dec. 9	23.84
Sept. 9	8.20		Aug. 13	21.11		Jan. 5, 1960	24.39
Oct. 15	8.36		Sept. 18	21.15		Feb. 12	24.31
Nov. 15	8.43		Oct. 27	21.19		Mar. 28	24.25
Dec. 12	8.43		Dec. 9	21.21		Apr. 30	24.35
Jan. 18, 1958	8.40		Jan. 6, 1960	21.29		May 25	24.13
Feb. 18	8.34		Feb. 12	21.33		Sept. 10	23.54
Mar. 12	8.52		Mar. 28	21.92		Jan. 13, 1961	23.97
Apr. 22	8.75		Apr. 30	21.44		Apr. 27	24.28
May 20	8.42		May 25	21.90		July 11	23.98
June 24	8.33		May 25	21.69		Sept. 23	23.37
July 14	8.50		June 24	21.70		Jan. 5, 1962	23.91
Aug. 19	8.58		Oct. 4	21.69		Apr. 10	24.33
Mar. 18, 1959	9.35		Jan. 13, 1961	21.63		Oct. 2	23.92
Apr. 24	9.35		Apr. 27	22.54		Jan. 23, 1963	24.61
June 23	9.44		July 10	24.36		<u>CJ-68-14cdab.</u>	
Aug. 13	10.06		Sept. 23	21.55		May 25, 1960	14.05
Sept. 18	10.54		Jan. 5, 1962	21.40		June 24	14.01
Oct. 27	10.42		Apr. 15	21.62		Sept. 30	11.94
Dec. 9	10.17		Oct. 2	21.83		Jan. 23, 1961	13.75
Jan. 5, 1960	6.77		Jan. 23, 1963	22.03		Apr. 27	12.81
Jan. 6	9.98						

Table 4. --Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CJ-68-14cdab. --Continued</u>			<u>CJ-68-14cdad2. --Continued</u>			<u>CJ-69-15add42. --Continued</u>		
Sept. 23, 1961	9.41		July 11, 1961	33.99		Jan. 18, 1958	100.75	
Jan. 5, 1962	10.61		Sept. 22	33.54		Feb. 14	101.41	
Apr. 4	11.50		Jan. 9, 1962	33.55		Mar. 12	102.14	
Oct. 2	10.67		Apr. 2	33.80		Apr. 22	102.71	
Jan. 23, 1963	12.54		Oct. 1	35.11		May 20	103.59	
			Jan. 21, 1963	35.80		June 18	104.86	
<u>CJ-68-14cdba.</u>			<u>CJ-69-13cbaa.</u>					
May 26, 1960	517.9		Dec. 13, 1957	5.14		July 17	106.98	
June 24	511.4		Jan. 18, 1958	4.90		Aug. 26	110.25	
Sept. 30	515.2		Feb. 1	5.83		Nov. 10	114.25	
Jan. 23, 1961	510.6		Mar. 12	5.60		Dec. 10	113.89	
Apr. 27	504.2		Apr. 22	5.24		Jan. 21, 1959	113.43	
July 11	510.1		May 20	4.25		Mar. 18	113.37	
Sept. 23	453.7		June 18	4.15		Apr. 24	113.79	
Jan. 5, 1962	508.0		July 17	3.98		June 1	114.90	
Apr. 4	510.0		Aug. 26	3.90		June 23	116.30	
Oct. 2	508.4		Nov. 10	4.70		Aug. 13	120.17	
Jan. 23, 1963	510.1		Mar. 18, 1959	5.66		Sept. 18	122.46	
			June 23	4.09		Oct. 26	122.94	
<u>CJ-68-23bdac.</u>						Dec. 4	122.70	
Sept. 7, 1956	10.4		Oct. 26	4.68		Jan. 5, 1960	122.73	
Oct. 1	10.81		Dec. 4	5.14		Feb. 11	123.09	
Oct. 31	10.55		Jan. 5, 1960	5.55		Mar. 28	123.50	
Dec. 4	10.98		Feb. 11	5.83		Apr. 30	124.59	
Jan. 3, 1957	10.63					May 25	125.60	
Feb. 5	10.45		<u>CJ-69-14aadd.</u>			June 24	127.65	
Mar. 4	31.00		Aug. 11, 1956	5.06		Sept. 10	133.77	
Apr. 16	10.57		Sept. 14	5.23		Jan. 13, 1961	133.55	
June 3	29.48		Oct. 1	5.38		May 5	134.60	
July 15	31.62		Oct. 31	5.21		July 10	137.12	
Aug. 6	31.06		Dec. 4	4.95		Sept. 23	140.56	
Sept. 17	30.76		Jan. 3, 1957	5.03		Jan. 5, 1962	141.54	
Oct. 15	30.82		Feb. 5	5.22		Apr. 9	142.74	
Nov. 15	30.46		Mar. 4	4.95		Oct. 2	152.03	
Dec. 12	31.03		Apr. 16	3.65		Jan. 23, 1963	152.87	
Jan. 18, 1958	30.11		June 3	4.02				
Feb. 19	30.18		July 10	4.16		<u>CJ-69-15dbbc.</u>		
Mar. 12	30.26		Aug. 6	4.44		Dec. 13, 1957	6.01	
Apr. 22	30.77		Sept. 9	4.23		Jan. 18, 1958	6.60	
May 20	30.08		Oct. 15	4.85		Feb. 14	6.74	
June 24	29.89		Nov. 15	4.74		Mar. 12	6.89	
July 14	29.79		Dec. 13	5.05		Apr. 22	6.30	
Aug. 19	30.43		Jan. 18, 1958	5.22		May 20	5.00	
Nov. 6	30.03		Feb. 19	5.05		July 17	4.41	
Dec. 11	30.00		Mar. 12	4.80		Aug. 26	5.08	
Jan. 20, 1959	29.90		Apr. 22	4.83		Dec. 10	7.08	
Mar. 18	29.89		May 20	3.92		Jan. 21, 1959	8.94	
Apr. 24	30.38		June 18	4.42		Mar. 18	6.45	
June 1	29.35		July 17	4.70		Apr. 24	5.56	
June 23	29.26		Aug. 28	5.05		June 1	3.50	
Aug. 13	30.51		Sept. 25	5.25		June 23	3.75	
Sept. 18	29.72		Dec. 10	5.29		Aug. 13	4.46	
Oct. 26	29.70		Mar. 18, 1959	4.94		Sept. 18	6.13	
Dec. 4	28.97		Apr. 24	4.53		Oct. 26	6.27	
Jan. 6, 1960	28.78		June 1	4.22		Dec. 4	6.28	
Feb. 12	29.09		June 23	4.69		Jan. 5, 1960	7.19	
Feb. 23	29.10		Aug. 13	4.90		Feb. 11	7.93	
Apr. 30	29.44		Sept. 18	4.77		Mar. 28	6.94	
May 25	27.94		Oct. 26	4.87		Apr. 30	7.12	
June 24	28.91		Dec. 4	5.03		May 25	6.36	
Sept. 30	29.42		Jan. 5, 1960	5.24		June 24	5.83	
Jan. 13, 1961	28.35		Mar. 28	4.62		Sept. 10	6.57	
Apr. 22	29.18		Apr. 30	4.40		Jan. 12, 1961	7.44	
July 11	28.95		May 25	4.56		Apr. 24	5.68	
Sept. 23	28.54		June 24	4.55		July 10	4.29	
Jan. 5, 1962	28.44		Sept. 30	5.15		Jan. 5, 1962	7.55	
Apr. 10	28.69		Jan. 13, 1961	5.42		Apr. 9	7.79	
Oct. 3	28.57		Apr. 24	5.22		Oct. 19	5.62	
Jan. 23, 1963	28.43		July 10	4.72		Jan 27, 1963	8.22	
			Sept. 23	4.67				
<u>CJ-68-14cdad2.</u>						<u>CJ-69-16cccd.</u>		
Oct. 23, 1959	183.09		Jan. 5, 1962	5.46		Dec. 13, 1957	4.97	
Dec. 9	182.76		Apr. 9	5.20		Jan. 18, 1958	5.33	
Jan. 6, 1960	182.51		Oct. 2	5.32		Feb. 14	5.38	
Feb. 12	182.79		Jan. 23, 1963	5.78		Mar. 12	5.34	
Mar. 28	194.60					Apr. 22	5.15	
May 10	204.94		<u>CJ-69-14cdcc.</u>			May 20	4.30	
May 25	215.65		Dec. 13, 1957	5.91		June 18	4.88	
June 27	209.15		Jan. 18, 1958	6.49		July 17	4.97	
Sept. 30	211.00		Feb. 14	6.65		Aug. 26	5.09	
Jan. 23, 1961	206.25		Mar. 12	6.60		Jan. 18, 1959	5.80	
May 1	187.30		Apr. 22	6.35		Mar. 18	5.49	
Jul, 11	193.11		May 20	4.19		Apr. 24	4.50	
Sept. 22	198.88		June 18	4.70		June 1	4.49	
Jan. 9, 1962	207.25		July 17	4.35		June 23	3.89	
Apr. 2	212.21		Aug. 26	4.10		Aug. 13	3.25	
Oct. 1	211.37		Mar. 18, 1959	6.60		Sept. 18	5.50	
Jan. 21, 1963	208.80		June 23	4.64		Oct. 26	5.38	
			Oct. 26	5.69		Dec. 4	5.41	
<u>CJ-68-14cdad2.</u>						Jan. 5, 1960	5.63	
Oct. 23, 1959	13.30		<u>CJ-69-15addd2.</u>			Feb. 11	5.86	
Dec. 19	13.14		Jan. 28, 1957	85.71				
Jan. 6, 1960	13.22		Feb. 5	86.12		<u>CJ-69-16ddcb.</u>		
Feb. 12	13.51		Mar. 4	86.24		Dec. 13, 1957	5.48	
Mar. 28	13.48		Apr. 16	87.45		Jan. 18, 1958	5.82	
May 10	35.09		June 3	88.45		Feb. 14	5.87	
May 25	33.77		July 10	91.25		Mar. 12	5.80	
June 27	33.68		Aug. 6	93.95		Apr. 22	5.79	
Sept. 10	33.32		Sept. 9	96.16		May 20	4.70	
Jan. 23, 1961	33.14		Oct. 15	98.44		June 18	5.87	
May 1	33.83		Nov. 15	99.05		July 17	4.58	
			Dec. 13	99.85		Aug. 26	5.24	

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C1-69-16ddcb</u> --Continued			<u>C1-69-24cbbc</u> --Continued			<u>C4-67-28acba</u> --Continued		
Mar. 18, 1959	6.07		Jan. 5, 1960	5.83		June 6, 1959	15.80	
June 23	4.88		Feb. 11	5.81		June 24	17.04	
Aug. 13	4.74		Mar. 28	5.08		July 31	19.07	
Sept. 18	6.53		Apr. 30	5.17		Aug. 21	18.61	
Oct. 26	5.93		May 25	4.90		Dec. 9	18.80	
Dec. 4	5.82		June 24	5.54		Jan. 6, 1960	18.25	
Jan. 5, 1960	6.19		Sept. 30	6.73		Feb. 8	18.87	
Feb. 11	6.19		Jan. 12, 1961	6.18		<u>C4-67-28baab2</u>		
Mar. 28	5.15		Apr. 24	5.55		Oct. 27, 1959	25.69	
Apr. 30	5.26		July 10	6.03		Dec. 14	25.24	
May 25	5.81		Sept. 23	5.23		Jan. 6, 1960	25.50	
June 24	5.51		Jan. 5, 1962	5.40		Jan. 16, 1961	16.50	
Sept. 30	7.00		Apr. 9	4.94		Apr. 11, 1962	13.40	
Jan. 12, 1961	6.52		Oct. 19	7.68		<u>C4-67-28baab3</u>		
Apr. 24	6.15		Jan. 23, 1963	7.35		Oct. 27, 1959	23.58	
July 10	5.52		<u>C1-69-10bda</u>			Dec. 14	23.16	
Sept. 23	5.65		Nov. 23, 1956	95.12		Jan. 4, 1960	23.22	
Jan. 5, 1962	6.30		Dec. 4	103.67		Feb. 8	23.30	
Apr. 9	6.14		Jan. 3, 1957	114.09		Apr. 11, 1962	11.70	
Oct. 2	5.95		Feb. 5	122.23		<u>C4-67-28baad</u>		
Jan. 23, 1963	6.59		<u>C4-67-17ddbc</u>			Apr. 15, 1955	22.10	
<u>C3-69-21daac</u>			Oct. 12, 1956	21.56		Oct. 4, 1960	17.27	
Dec. 13, 1957	5.99		Dec. 4	21.04		Jan. 16, 1961	15.48	
Mar. 12, 1958	6.69		Jan. 3, 1957	21.02		Apr. 11, 1962	13.00	
Apr. 22	6.33		Feb. 5	21.25		<u>C4-67-28baba</u>		
May 20	4.91		Apr. 16	21.32		Oct. 27, 1959	22.12	
<u>C3-69-21dbca</u>			June 1	20.58		Dec. 14	22.31	
Dec. 13, 1957	5.47		July 15	25.88		Jan. 6, 1960	22.06	
Jan. 18, 1958	6.67		Aug. 7	19.46		Mar. 23	21.91	
Feb. 14	7.50		Oct. 15	17.19		Apr. 11, 1962	10.30	
Mar. 12	5.84		Nov. 15	16.75		<u>C4-67-28baba2</u>		
May 20	5.42		Dec. 12	16.32		Oct. 9, 1959	22.21	
June 18	9.32		Jan. 16, 1958	16.24		Oct. 27	21.65	
July 17	6.93		Feb. 18	16.06		Dec. 14	21.19	
Aug. 26	3.82		Mar. 13	16.00		Jan. 6, 1960	21.34	
Nov. 10	5.44		Apr. 25	16.00		Feb. 8	21.36	
<u>C3-69-23cbda</u>			June 20	15.32		Mar. 23	21.13	
Sept. 30, 1957	13.78		Mar. 17, 1959	14.55		Apr. 27	20.29	
Oct. 15	13.47		Apr. 27	14.70		May 25	18.34	
Nov. 15	13.18		June 6	16.09		June 24	20.70	
Dec. 13	13.18		July 31	15.16		Oct. 4	14.48	
Jan. 18, 1958	13.27		Oct. 9	16.59		Jan. 16, 1961	13.09	
Feb. 19	13.31		Oct. 27	15.82		Apr. 28	12.18	
Mar. 12	13.01		Dec. 9	15.94		July 10	10.50	
Apr. 22	13.38		Jan. 6, 1960	16.33		Jan. 6, 1962	10.48	
May 20	12.57		Feb. 8	16.42		Apr. 11	6.90	
May 19	13.11		Mar. 23	16.10		<u>C4-67-28baba3</u>		
June 17	13.06		Apr. 27	16.54		July 29, 1959	22.89	
July 17	13.58		May 25	16.07		Oct. 9	21.63	
Aug. 26	13.58		Jan. 16, 1961	13.68		Oct. 27	20.95	
Nov. 10	13.61		Jan. 18, 1962	9.14		Dec. 14	20.64	
Dec. 10	10.50		Apr. 11	9.30		Jan. 6, 1960	20.66	
Jan. 21, 1959	13.68		Oct. 2	9.70		Feb. 8	20.73	
Mar. 18	13.63		Jan. 22, 1963	9.88		Mar. 23	20.59	
Apr. 24	12.97		<u>C4-67-18acca</u>			Apr. 27	19.25	
June 1	12.65		Jan. 28, 1959	21.09		May 25	17.19	
June 23	12.89		Mar. 17	21.22		June 24	19.05	
Aug. 13	14.42		Apr. 27	20.92		Apr. 28, 1961	11.70	
Sept. 18	13.74		June 6	20.64		June 10	10.07	
Oct. 26	12.89		June 23	20.53		Apr. 11, 1962	5.45	
Dec. 8	12.72		July 31	21.16		<u>C4-67-28baba4</u>		
Jan. 5, 1960	12.89		Aug. 21	21.09		July 29, 1959	24.27	
Feb. 11	12.96		Dec. 9	20.39		Oct. 9	22.75	
Mar. 28	12.61		Jan. 6, 1960	20.64		Oct. 27	22.09	
Apr. 30	12.72		July 12	20.99		Dec. 14	21.17	
May 25	12.63		Jan. 22, 1963	18.69		Apr. 27, 1960	21.35	
June 24	13.10		<u>C4-67-18accda</u>			May 25	19.67	
Sept. 30	13.31		Mar. 17, 1959	17.25		June 24	22.70	
Jan. 12, 1961	12.81		Apr. 27	16.98		Apr. 28, 1961	12.60	
Apr. 24	12.70		June 6	16.65		July 10	10.99	
July 10	12.84		June 24	16.99		Apr. 11, 1962	7.35	
Jan. 5, 1962	12.23		July 31	17.19		<u>C4-67-28baba5</u>		
Apr. 9	12.46		Aug. 21	17.10		Oct. 9, 1959	22.62	
Oct. 19	13.67		Oct. 9	16.90		Oct. 27	22.35	
Jan. 23, 1963	13.71		Oct. 27	16.82		Dec. 14	21.61	
<u>C3-69-24cbbc</u>			Dec. 9	16.80		Mar. 23, 1960	21.54	
Sept. 30, 1957	7.09		Jan. 6, 1960	16.85		Apr. 27	20.31	
Oct. 15	6.86		Feb. 12	16.99		May 25	17.91	
Nov. 15	6.42		Mar. 23	16.95		June 24	19.82	
Dec. 13	6.53		Apr. 27	14.51		Apr. 28, 1961	12.61	
Jan. 18, 1958	6.70		May 25	14.74		July 10	10.99	
Feb. 19	6.67		June 24	15.23		Apr. 11, 1962	5.65	
Mar. 12	6.53		Oct. 4	15.59		<u>C4-67-28baba6</u>		
Apr. 22	6.31		Jan. 16, 1961	15.12		Oct. 9, 1959	22.61	
May 20	4.65		Apr. 28	15.28		Oct. 27	22.10	
June 19	5.61		July 10	14.67		Dec. 14	19.68	
Aug. 26	6.66		Oct. 21	13.53		Jan. 6, 1960	21.62	
Dec. 10	6.99		Jan. 18, 1962	14.05		Feb. 8	21.71	
Jan. 21, 1959	6.89		<u>C4-67-28acba</u>			Mar. 23	21.58	
Mar. 18	6.18		June 24, 1958	12.27		Apr. 27	21.94	
Apr. 24	4.02		July 15	12.88		May 25	20.54	
June 1	4.79		Aug. 27	15.29		June 24	24.55	
June 23	5.24		Nov. 7	15.70				
Aug. 13	6.55		Dec. 10	15.96				
Aug. 21	6.33		Mar. 23, 1959	16.66				
Sept. 18	6.85		Apr. 27	16.77				
Oct. 26	6.09							
Dec. 8	5.79							

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-67-28babag.</u> --Continued			<u>C4-67-16cagd.</u> --Continued			<u>C4-68-9bbdd.</u> --Continued		
	Apr. 11, 1962	10.80		Oct. 12, 1959	112.24		Sept. 21, 1959	10.47
	Oct. 2	12.16		Dec. 10	107.75		Nov. 2	9.92
	Jan. 22, 1963	12.31		Jan. 6, 1960	106.56		Dec. 3	10.92
				Feb. 8	105.23		Jan. 3, 1960	10.34
<u>C4-67-28bada.</u>				Mar. 22	104.26		Feb. 11	10.24
	Oct. 27, 1959	22.95		Apr. 27	108.69		Mar. 22	9.82
	Dec. 14	23.21		May 24	107.92		Apr. 26	9.62
	Jan. 6, 1960	22.86		June 24	112.10			
	Apr. 11, 1962	12.00		July 25	114.10	<u>C4-68-9bcb.</u>	Sept. 4, 1956	11.60
<u>C4-67-28badad.</u>				Sept. 2	116.02		Sept. 14	11.84
	Oct. 9, 1959	23.44		Oct. 4	115.88		Sept. 28	11.89
	Oct. 27	23.00		Nov. 1	113.87		Oct. 30	12.49
	Dec. 14	22.79		Dec. 1	111.72		Dec. 4	13.00
	Jan. 6, 1960	22.88		Jan. 4, 1961	110.00		Jan. 3, 1957	13.53
	Feb. 8	22.91		Feb. 9	108.75		Feb. 5	13.64
	Mar. 23	22.54		Apr. 7	107.17		Mar. 4	13.76
	Apr. 27	24.56		May 15	107.89		Apr. 16	13.02
	May 25	22.78		July 7	110.38		June 3	10.18
	June 24	23.01		Sept. 21	112.08		July 10	10.49
	Oct. 4	16.31		Jan. 4, 1962	109.53		Aug. 5	10.85
	Jan. 16, 1961	14.89		Apr. 6	108.91		Sept. 9	11.12
	Apr. 28	14.02		Sept. 18	117.61		Oct. 14	11.69
	July 10	12.72		Jan. 22, 1963	115.22		Nov. 16	12.17
	Sept. 21	12.53	<u>C4-68-8adad.</u>				Dec. 11	12.63
	Jan. 6, 1962	12.68		Aug. 24, 1956	9.10	<u>C4-68-9bcbb.</u>	Aug. 31, 1956	8.74
	Apr. 11	12.70		Aug. 31	9.28		Sept. 14	9.15
	Oct. 2	13.91		Sept. 14	9.59		Sept. 28	10.30
	Jan. 22, 1963	13.94		Sept. 28	9.69		Oct. 30	9.93
<u>C4-67-28dab.</u>				Oct. 30	10.38		Dec. 4	10.74
	June 10, 1957	19.79		Dec. 4	11.41		Jan. 3, 1957	11.04
	July 10	19.09		Jan. 3, 1957	11.81		Feb. 5	11.45
	Aug. 7	17.26		Feb. 5	12.14		Mar. 4	11.56
	Nov. 15	17.16		Mar. 4	12.28		Apr. 16	10.73
	Dec. 11	17.89		Apr. 16	11.43		June 3	7.67
	Jan. 16, 1958	18.75		June 3	8.27		July 10	7.77
	Feb. 18	19.27		July 10	8.09		Aug. 6	8.04
	Apr. 23	19.67		Aug. 6	8.68		Sept. 9	8.36
<u>C4-67-34ddad.</u>				Sept. 9	8.80		Oct. 14	9.17
	Oct. 12, 1959	24.95		Oct. 14	9.68		Nov. 16	9.82
	Oct. 27	24.87		Nov. 16	10.51		Dec. 11	10.31
	Dec. 14	24.87		Dec. 11	10.95		Jan. 17, 1958	10.72
	Jan. 6, 1960	24.96		Jan. 17, 1958	11.40		Feb. 17	10.95
	Feb. 8	24.95		Feb. 17	11.66		Mar. 12	11.00
	Mar. 22	24.73		Mar. 12	11.73		Apr. 25	9.85
	Apr. 27	23.57		Apr. 25	10.47		May 21	8.50
	May 24	23.34		May 21	9.31		June 23	8.00
	June 24	24.18		June 23	8.37		July 17	8.57
	Oct. 4	24.85		July 17	8.83		Aug. 19	9.08
<u>C4-67-36cagd.</u>				Aug. 19	9.49	<u>C4-68-9dcad.</u>	Jan. 13, 1958	9.45
	Feb. 4, 1957	105.62		Mar. 19, 1959	11.86		Feb. 14	9.38
	Feb. 14	105.34		Apr. 17	10.96		Mar. 12	9.19
	Feb. 22	105.24		Apr. 27	10.80		Apr. 25	8.65
	Feb. 26	105.90		May 26	10.06		May 21	7.35
	Mar. 1	105.21		June 22	9.70		June 23	8.34
	Mar. 25	104.80		July 31	9.86		July 17	8.65
	Apr. 22	104.28		Aug. 21	9.69		Aug. 19	8.90
	Apr. 26	104.42		Oct. 26	10.52		Dec. 10	9.41
	Apr. 30	104.35		Dec. 8	10.97		Apr. 17, 1959	8.85
	May 6	104.73		Jan. 8, 1960	11.35		Apr. 27	9.13
	May 13	104.18		Mar. 22	11.38		May 26	8.42
	May 20	103.61		May 10	10.33		June 22	9.34
	May 28	104.04		May 25	10.10		June 25	8.20
	June 3	103.76		June 27	9.54		July 30	8.50
	June 10	104.15		Oct. 4	9.09		July 31	8.57
	June 17	104.52		Feb. 9, 1961	11.56		Aug. 21	8.69
	June 24	104.49		Apr. 28	10.74		Sept. 21	8.86
	July 2	105.21		Jan. 17, 1962	10.90		Oct. 26	8.80
	July 10	106.09		Apr. 9	11.04		Dec. 15	9.12
	July 18	105.83		Sept. 28	10.03		Jan. 8, 1960	9.39
	July 25	104.72		Jan. 18, 1963	11.39		Feb. 11	9.46
	Aug. 2	105.88	<u>C4-68-9bbdd.</u>				Mar. 22	8.91
	Aug. 9	105.91		Sept. 4, 1956	8.84		Apr. 30	8.62
	Aug. 17	105.68		Sept. 14	8.91		May 25	8.27
	Aug. 26	106.19		Sept. 28	9.01		June 27	8.50
	Sept. 9	106.74		Oct. 30	8.89		Oct. 4	9.11
	Sept. 19	106.45		Dec. 4	9.00		Jan. 17, 1961	9.55
	Sept. 23	105.98		Jan. 3, 1957	9.07		Apr. 28	9.00
	Sept. 30	108.41		Feb. 5	10.00		Jan. 17, 1962	8.81
	Oct. 15	108.29		Mar. 4	9.82		Apr. 9	8.88
	Oct. 12	103.69		Apr. 16	9.53		Sept. 28	9.12
	Jan. 16, 1958	104.13		June 3	7.68		Jan. 18, 1963	9.42
	Feb. 18	102.84		July 10	8.64	<u>C4-68-11daad.</u>		
	Mar. 13	102.77		Aug. 6	8.83		Aug. 31, 1956	19.55
	Mar. 19	102.48		Sept. 9	9.50		Sept. 14	20.35
	May 20	105.37		Oct. 12	9.87		Oct. 1	18.14
	June 15	108.92		Nov. 16	9.78		Oct. 25	19.10
	July 15	108.90		Dec. 11	10.10		Dec. 4	15.58
	Aug. 24	109.12		Feb. 14, 1958	10.61		Jan. 3, 1957	15.27
	Sept. 24	109.46		Mar. 12	10.68		Feb. 5	15.17
	Nov. 7	106.87		Apr. 25	9.80		Mar. 4	15.03
	Dec. 10	105.87		May 21	8.62		Apr. 16	14.84
	Jan. 30, 1959	102.97		June 23	9.66		June 3	14.70
	Mar. 19	101.97		July 17	10.07		July 15	17.77
	Apr. 27	101.50		Aug. 28	10.62		Aug. 7	16.72
	June 6	105.42		Mar. 19, 1959	10.28		Sept. 9	16.73
	June 24	107.57		Apr. 17	10.25			
	July 31	111.67		May 26	9.85			
	Aug. 21	113.53		June 25	9.85			
				July 30	10.20			

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-68-11dada2.</u> --Continued			<u>C4-68-11jacac.</u> --Continued			<u>C4-68-15cbdd2.</u> --Continued		
Oct. 15, 1957	15.36		Aug. 7, 1957	15.39		Jan. 20, 1959	19.80	
Nov. 15	14.47		Sept. 9	14.76		Mar. 18	18.98	
Dec. 13	14.29		Oct. 15	15.14		Apr. 17	17.76	
Jan. 18, 1958	14.57		Nov. 15	15.28		May 26	17.35	
Feb. 20	14.51		Dec. 18	15.60		June 25	17.44	
Mar. 12	14.59		Jan. 17, 1958	15.50		July 10	18.57	
Apr. 22	15.40		Feb. 19	15.71		Sept. 21	19.30	
May 22	14.47		Mar. 12	15.91		Oct. 26	18.19	
June 20	17.74		Apr. 22	16.64		Dec. 8	18.50	
July 15	15.46		May 22	15.53		Jan. 8, 1960	18.92	
Aug. 20	15.84		June 19	15.42		Feb. 11	19.27	
Nov. 7	14.39		July 17	15.52		Oct. 4	18.88	
Dec. 10	14.33		Aug. 20	14.60		Jan. 17, 1961	19.02	
Jan. 20, 1959	14.27		Nov. 7	14.35		Apr. 28	20.56	
Mar. 17	14.32		Dec. 10	14.70		July 11	17.62	
Apr. 27	14.32		Jan. 20, 1959	15.17		Sept. 22	13.25	
June 6	16.24		Mar. 17	15.57		Jan. 17, 1962	15.35	
June 22	16.28		Apr. 27	15.36		Apr. 9	14.40	
July 11	15.78		June 6	15.50		Sept. 28	15.43	
Aug. 21	18.18		June 22	14.74		Jan. 18, 1963	15.72	
Oct. 9	13.98		July 11	14.83				
Oct. 26	22.51		Aug. 21	15.87		<u>C4-68-15dcdb2.2/</u>		
Dec. 9	13.60		Oct. 9	13.89		June 1, 1955	18.2	
Feb. 12, 1960	13.95					Oct. 28	24.2	
Mar. 23	13.87		<u>C4-68-11jacac.</u>			Apr. 21, 1956	25.1	
Apr. 27	14.85		Sept. 14, 1956	20.14		June 29	26.2	
May 25	16.36		Sept. 28	21.39		Nov. 3	25.7	
June 24	15.90		Oct. 25	18.88		Mar. 22, 1957	25.2	
Oct. 4	14.82		Dec. 4	18.80		May 1	25.1	
Jan. 16, 1961	13.98		Jan. 3, 1957	19.41		June 4	24.1	
Apr. 28	14.56		Feb. 5	18.51		Aug. 3	23.5	
July 10	15.15		Mar. 4	18.37		July 11, 1958	27.0	
Sept. 21	13.79		Apr. 16	18.93		Nov. 2, 1960	27.0	
Jan. 20, 1962	13.77		June 3	17.85		Dec. 16	26.1	
Apr. 12	11.30		July 15	19.00		<u>C4-68-19cddd.</u>		
Oct. 2	14.97		Sept. 9	18.56		Aug. 11, 1956	18.42	
Jan. 22, 1963	14.22		Oct. 15	16.83		Sept. 14	19.54	
<u>C4-68-11dada.1/</u>			Nov. 15	18.39		Sept. 28	19.38	
Sept. 14, 1932	10.5		Dec. 18	18.22		Oct. 30	20.64	
Oct. 24, 1934	9.1		Jan. 17, 1958	18.59		Dec. 3	22.00	
May 28, 1936	11.0		Feb. 20	19.99		Jan. 2, 1957	22.83	
July 10	12.0		Mar. 12	18.54		Feb. 4	23.68	
Aug. 28, 1937	11.0		Apr. 22	20.60		Mar. 5	24.23	
July 5, 1938	10.7		May 22	19.78		Apr. 18	18.60	
July 20, 1939	11.3		June 19	21.47		June 4	17.62	
Oct. 20	8.8		July 15	21.70		July 9	16.12	
June 20, 1940	12.3		Aug. 20	19.53		Aug. 5	17.33	
Oct. 12, 1944	13.7		Mar. 17, 1959	18.70		Sept. 5	17.94	
June 14, 1946	13.3		Apr. 27	18.63		Oct. 8	18.50	
May 5, 1947	13.4		June 22	19.37		Nov. 14	19.67	
July 9	14.5		July 11	21.22		Dec. 11	21.08	
Aug. 5	14.8		Aug. 21	21.46		Jan. 17, 1958	22.25	
Sept. 18	14.7		Oct. 9	17.65		Feb. 19	24.12	
Sept. 25	15.0		Oct. 26	17.52		Mar. 17	22.99	
July 20, 1948	15.8		Dec. 9	17.70		Apr. 25	20.89	
Oct. 25	14.3		Jan. 6, 1960	18.13		May 22	15.86	
July 20, 1949	15.9		Feb. 12	18.37		June 19	16.03	
Sept. 13	14.1		Mar. 23	17.85		July 16	16.84	
June 28, 1950	14.8		Apr. 27	18.70		Aug. 28	16.93	
Sept. 6	15.1		May 25	17.79		Sept. 25	17.75	
July 30, 1951	15.8		Oct. 4	19.72		Dec. 12	21.58	
Sept. 6	15.3		Jan. 16, 1961	18.14		Feb. 6, 1959	22.74	
Aug. 6, 1954	15.7		Apr. 28	20.71		Mar. 19	21.53	
Apr. 21, 1955	14.3		July 10	21.05		Apr. 17	17.47	
July 16, 1956	18.5		Sept. 21	18.74		June 2	17.16	
Aug. 10	17.3		Jan. 18, 1962	16.52		June 26	16.55	
Oct. 3	18.1		Apr. 12	18.00		July 30	16.13	
Oct. 20, 1959	12.7		Oct. 2	18.71		Oct. 8	17.20	
<u>C4-68-12caab.</u>			Jan. 22, 1963	18.06		Dec. 3	20.39	
Oct. 26, 1959	23.93		<u>C4-68-15cbda2.</u>			Jan. 8, 1960	21.76	
Dec. 9	23.70		Jan. 13, 1958	16.64		Feb. 11	22.47	
Jan. 8, 1960	24.36		Feb. 14	17.17		Mar. 30	19.45	
Feb. 12	23.96		Mar. 12	16.94		May 10	17.54	
Mar. 23	24.06		Apr. 25	16.05		May 23	17.57	
Apr. 27	24.18		May 21	13.92		June 27	17.34	
May 25	24.17		June 23	16.13		Sept. 27	18.77	
June 24	24.28		July 17	17.20		Jan. 17, 1961	21.64	
Oct. 4	24.13		Aug. 28	18.10		Apr. 28	19.63	
Jan. 16, 1961	23.83		Apr. 17, 1959	17.13		July 11	17.23	
Apr. 28	24.29		Dec. 8	17.74		Sept. 22	18.04	
July 10	24.42		Jan. 8, 1960	16.46		Jan. 3, 1962	22.03	
Sept. 21	23.91		Feb. 11	18.48		Apr. 9	21.55	
Jan. 20, 1962	23.90		Mar. 22	17.44		Sept. 28	18.69	
Apr. 12	23.80		Apr. 30	17.43		Jan. 18, 1963	22.01	
Oct. 2	24.39		May 25	16.64		<u>C4-68-21bbdd.</u>		
Jan. 22, 1963	24.16		June 27	17.45		Aug. 29, 1956	118.08	
<u>C4-68-11jacac.</u>			Sept. 22, 1961	14.29		Sept. 14	121.86	
Aug. 31, 1956	16.27		Apr. 9, 1962	15.25		Sept. 28	122.27	
Sept. 14	15.29		<u>C4-68-15cbdd2.</u>			Oct. 30	125.48	
Sept. 28	15.44		Jan. 13, 1958	17.47		Dec. 7	125.93	
Oct. 25	15.32		Feb. 14	18.18		Jan. 3, 1957	127.07	
Dec. 4	15.25		Mar. 12	17.89		Feb. 5	127.59	
Jan. 3, 1957	15.48		Apr. 25	16.92		Sept. 18	134.55	
Feb. 5	15.65		May 21	14.62		Oct. 8	133.27	
Mar. 4	16.64		June 23	16.75		Nov. 15	132.51	
Apr. 16	16.37		July 17	17.94		Dec. 11	132.59	
June 3	15.88		Aug. 28	17.90		Jan. 17, 1958	132.82	
July 15	15.99		Nov. 5	19.75		Feb. 18	132.89	
			Dec. 9	19.65		Mar. 12	132.83	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-68-21bbdd.</u> --Continued			<u>C4-68-28dabc.</u>			<u>C4-68-28dbac.</u> --Continued		
Apr. 25, 1958	132.82		Aug. 31, 1956	13.16		May 23, 1958	9.48	
May 22	132.66		Sept. 14	13.17		June 19	10.08	
June 19	132.18		Sept. 28	14.19		July 17	11.17	
July 16	131.04		Sept. 29	13.74		Aug. 25	11.92	
Aug. 19	131.46		Dec. 3	13.76		Apr. 18, 1959	11.34	
Dec. 9	130.65		Jan. 2, 1957	13.71		Dec. 3	12.08	
Feb. 6, 1959	131.08		Feb. 4	13.90		Jan. 8, 1960	11.99	
Mar. 19	132.28		Mar. 5	13.76		Feb. 11	12.08	
Apr. 17	131.62		Apr. 18	13.32				
May 26	132.57		June 4	10.64		<u>C4-68-28dbad.</u>		
June 25	131.57		July 9	11.28		Aug. 31, 1956	14.02	
July 30	131.37		Aug. 5	11.49		Sept. 14	14.42	
Sept. 21	129.68		Sept. 5	11.76		Sept. 28	14.96	
Oct. 26	130.50		Oct. 14	12.44		Oct. 29	14.41	
Dec. 16	130.76		Nov. 14	12.08		Dec. 3	14.19	
Jan. 8, 1960	130.67		Dec. 11	11.09		Jan. 2, 1957	14.32	
Feb. 11	131.31		Jan. 17, 1958	11.00		Feb. 4	14.45	
Mar. 10	131.75		Feb. 19	12.25		Mar. 5	14.27	
Apr. 30	131.80		Mar. 12	12.35		Apr. 18	14.42	
May 23	130.36		Apr. 22	11.82		June 4	11.20	
June 27	131.70		May 23	10.47		July 9	11.37	
Sept. 27	131.21		June 19	11.17		Aug. 5	12.16	
Jan. 17, 1961	131.44		July 17	12.16		Sept. 5	12.39	
Apr. 28	132.91		Aug. 25	12.49		Oct. 14	13.09	
July 11	133.27		Sept. 24	9.90		Nov. 14	12.74	
Sept. 22	132.23		Nov. 5	13.10		Dec. 11	11.79	
Jan. 3, 1962	132.40		Dec. 9	13.12		Jan. 17, 1958	12.22	
Apr. 16	132.88		Jan. 30, 1959	13.29		Feb. 19	12.89	
Sept. 28	131.32		Mar. 19	13.43		Mar. 12	13.03	
Jan. 23, 1963	131.97		Apr. 18	12.84		Apr. 22	12.55	
			May 26	12.15		May 23	11.09	
<u>C4-68-28abdd.</u>			June 25	12.58		June 19	11.58	
Aug. 31, 1956	7.98		July 30	13.10		July 17	12.65	
Sept. 14	8.50		Sept. 21	17.45		Aug. 25	13.54	
Sept. 28	8.78		Oct. 26	12.83		Apr. 18, 1959	13.44	
Oct. 29	8.67		Dec. 3	12.10		Dec. 3	13.69	
Dec. 3	8.59		Jan. 8, 1960	13.14		Jan. 8, 1960	13.70	
Jan. 2, 1957	8.66		Feb. 11	12.94		Feb. 11	13.63	
Feb. 4	8.68		Mar. 22	12.50				
Mar. 5	8.52		Apr. 30	11.80		<u>C4-68-28dcad.</u>		
Apr. 18	8.10		May 23	10.68		Apr. 14, 1958	60.82	
June 4	5.77		June 27	13.31		June 19	60.45	
July 9	6.63		Sept. 27	13.09		July 17	61.93	
Aug. 5	6.75		Jan. 17, 1961	12.97		Aug. 25	63.21	
Sept. 5	6.89		Apr. 28	12.94		Sept. 24	63.62	
Oct. 14	7.04		July 11	12.94		Nov. 5	64.31	
Nov. 14	8.66		Jan. 15, 1962	12.10		Dec. 1	64.77	
Dec. 11	7.71		Apr. 9	12.26		Dec. 9	64.99	
Jan. 17, 1958	7.90		Sept. 28	13.00		Dec. 11	65.05	
Feb. 19	7.76		Jan. 18, 1963	13.02		Feb. 6, 1959	64.68	
Mar. 12	8.23					Mar. 17	65.17	
Apr. 22	7.16		<u>C4-68-28dabc.</u>			Mar. 24	65.10	
May 23	5.61		Aug. 31, 1956	12.50		Apr. 18	64.66	
June 19	6.72		Sept. 14	12.97		June 12	64.70	
July 17	8.65		Sept. 28	13.16		July 3	65.67	
Aug. 25	8.20		Oct. 29	12.87		July 31	69.64	
Apr. 18, 1959	7.61		Dec. 3	12.91		Aug. 21	67.94	
Dec. 3	8.02		Jan. 2, 1957	12.88		Sept. 4	68.65	
Jan. 8, 1960	8.37		Feb. 4	13.05		Oct. 8	69.04	
Feb. 11	8.10		Mar. 5	12.89		Oct. 26	68.73	
Mar. 22	7.69		Apr. 18	12.86		Nov. 2	68.64	
Apr. 30	7.20		June 4	9.80		Dec. 2	68.98	
May 23	6.58		July 3	9.73		Jan. 9, 1960	68.91	
June 27	7.41		Sept. 5	10.97		Jan. 26	68.58	
Sept. 27	8.32		Oct. 14	11.61		Feb. 8	68.50	
Jan. 17, 1961	8.29		Nov. 14	11.32		Mar. 22	68.52	
Apr. 28	7.78		Dec. 11	11.11		Mar. 29	68.75	
July 11	9.52		Jan. 17, 1958	11.01		Apr. 26	68.04	
Jan. 15, 1962	7.85		Feb. 19	11.60		May 23	68.22	
Apr. 9	7.52		Mar. 12	11.71		June 18	69.22	
Sept. 28	8.32		Apr. 22	11.67		Sept. 27	75.07	
Jan. 18, 1963	8.17		May 23	9.60		Oct. 3	74.67	
			June 19	6.41		Nov. 14	74.58	
<u>C4-68-28acdd.</u>			July 17	11.44		Jan. 3, 1961	74.75	
Sept. 28, 1956	11.90		Aug. 25	12.04		Jan. 17	74.67	
Oct. 29	11.52		Apr. 18, 1959	11.93		Feb. 7	76.08	
Dec. 3	11.51		Dec. 3	12.04		Mar. 22	74.76	
Jan. 2, 1957	11.43		Jan. 8, 1960	12.55		Apr. 7	74.48	
Feb. 4	11.57		Feb. 11	11.99		Apr. 28	74.51	
Mar. 5	11.37					May 10	74.12	
Apr. 18	11.26		<u>C4-68-28dbac.</u>			July 6	75.56	
June 4	8.39		Aug. 31, 1956	12.35		Sept. 20	75.54	
Sept. 5	14.07		Sept. 14	12.78		Jan. 15, 1962	75.53	
Oct. 14	10.38		Sept. 28	13.32		Feb. 1	75.34	
Nov. 14	10.02		Oct. 29	12.82		Feb. 14	75.07	
Dec. 11	9.55		Dec. 3	12.81		Mar. 10	74.21	
Jan. 17, 1958	9.97		Jan. 2, 1957	12.81		Apr. 3	73.89	
Feb. 19	10.20		Feb. 4	12.98		July 2	72.99	
Mar. 12	10.48		Mar. 5	12.88		Sept. 28	77.15	
Apr. 22	10.28		Apr. 18	12.80		Jan. 18, 1963	76.29	
May 23	8.18		June 21	9.61				
June 19	8.83		July 9	10.26		<u>C4-68-28dcad2.</u>		
July 17	8.87		Aug. 5	10.47		July 29, 1948	+145.56	
Aug. 25	10.70		Sept. 5	10.84		Dec. 6, 1957	+54.10	
Apr. 18, 1959	10.54		Oct. 14	11.53		Dec. 13	+54.50	
Dec. 3	10.62		Nov. 14	11.16		Dec. 18	+54.40	
Jan. 8, 1960	10.49		Dec. 11	10.26		Dec. 24	+54.20	
Feb. 11	10.59		Jan. 17, 1958	10.68		Jan. 4, 1958	+53.70	
			Feb. 19	11.39		Jan. 12	+53.90	
			Mar. 12	11.51		Jan. 20	+53.60	
			Apr. 22	10.92		Feb. 1	+53.50	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>33-68-28dcad2.</u> ---Continued			<u>34-68-33dcda.</u> ---Continued			<u>34-68-33dcda.</u> ---Continued		
Feb. 17, 1958		+53.10	July 31, 1946		6.58	Dec. 31, 1952		8.54
Mar. 18		+53.20	Sept. 17		7.60	Jan. 26, 1953		7.88
Apr. 3		+53.10	Oct. 1		7.26	Feb. 19		12.37
Apr. 14		+52.90	Oct. 31		8.21	Mar. 17		12.33
May 5		+51.90	Nov. 13		8.20	Apr. 30		11.50
May 15		+51.80	Dec. 18		8.38	May 19		10.78
June 19		+50.3	Jan. 21, 1947		8.65	June 23		9.43
July 17		+48.8	Feb. 17		8.79	July 29		9.75
Nov. 19		+41.1	Mar. 13		8.60	Aug. 18		10.16
Dec. 1		+41.1	Mar. 26		8.22	Sept. 15		10.64
Dec. 11		+40.9	Apr. 17		8.55	Oct. 20		11.38
Jan. 12, 1959		+41.5	May 1		7.86	Dec. 4		12.29
Feb. 6		+42.1	May 13		6.61	Dec. 17		11.95
Mar. 17		+41.3	May 26		6.29	Jan. 26, 1954		12.19
Mar. 24		+41.1	June 12		6.13	Feb. 18		12.47
Apr. 18		+41.6	June 27		4.60	Mar. 14		12.54
June 22		+39.9	Aug. 1		5.29	Apr. 21		12.48
July 3		+39.5	Aug. 19		6.29	May 14		12.15
July 31		+37.2	Sept. 8		6.65	June 14		11.43
Aug. 21		+36.6	Oct. 3		7.60	July 27		11.11
Sept. 4		+35.5	Oct. 19		7.96	Aug. 20		11.32
Oct. 8		+34.3	Nov. 18		8.71	Sept. 21		12.57
Oct. 26		+33.5	Dec. 18		9.12	Oct. 13		12.91
Nov. 2		+34.3	Jan. 5, 1948		9.05	Nov. 28		12.75
Dec. 2		+33.7	Feb. 3		8.66	Dec. 23		13.16
Jan. 26, 1960		+32.1	Mar. 16		8.84	Jan. 14, 1955		13.31
Feb. 8		+34.3	Mar. 26		8.64	Feb. 23		13.36
Mar. 5		+33.5	Apr. 7		8.46	Mar. 26		13.40
Mar. 22		+34.3	Apr. 23		6.73	Apr. 25		12.71
Mar. 29		+34.3	May 5		5.87	May 23		11.01
Apr. 26		+34.1	May 20		6.11	June 24		12.51
May 23		+33.3	June 23		6.50	Aug. 1		11.88
June 18		+31.8	July 9		6.66	Sept. 8		12.24
Sept. 27		+24.6	July 24		7.32	Oct. 1		12.73
Jan. 3, 1961		+24.1	Aug. 10		7.05	Oct. 24		12.72
Jan. 17		+24.5	Aug. 24		7.1	Nov. 25		13.53
Feb. 7		+24.4	Sept. 9		7.37	Jan. 1, 1956		13.93
Mar. 22		+24.4	Sept. 21		7.50	Jan. 25		14.53
Apr. 7		+24.7	Oct. 11		8.03	Feb. 28		14.55
Apr. 28		+24.0	Dec. 14		9.52	Apr. 4		14.89
May 10		+25.7	Dec. 23		9.46	May 1		12.59
May 10		+24.0	Jan. 6, 1949		9.52	May 25		12.21
July 6		+21.8	Jan. 25		9.77	June 28		12.48
Sept. 20		+20.3	Feb. 8		9.77	July 23		12.64
Jan. 15, 1962		+21.2	Feb. 17		9.76	Aug. 29		11.57
Feb. 1		+21.3	Mar. 23		9.85	Oct. 3		14.47
Feb. 14		+21.4	Apr. 13		9.69	Oct. 25		14.16
Mar. 10		+21.2	Apr. 29		8.79	Nov. 30		14.39
Apr. 3		+20.9	May 24		8.21	Dec. 26		14.34
July 2		+19.1	June 24		6.75	Jan. 28, 1957		14.65
Sept. 28		+16.3	June 28		7.09	Feb. 26		15.22
Dec. 10		+11.5	July 29		8.30	Mar. 25		15.01
Jan. 18, 1963		+14.6	Aug. 15		7.71	Apr. 25		14.29
<u>34-68-33dcda.</u>			Sept. 26		10.35	May 28		11.15
Sept. 21, 1942		6.43	Oct. 12		9.97	June 27		12.70
Oct. 20		6.28	Oct. 28		10.02	Aug. 1		13.03
Nov. 27		7.35	Nov. 22		10.43	Aug. 31		13.37
Dec. 30		7.47	Dec. 8		10.71	Sept. 28		14.59
Jan. 26, 1943		7.63	Dec. 28		10.72	Oct. 31		14.08
Feb. 25		7.85	Jan. 23, 1950		10.68	Nov. 27		14.03
Mar. 25		7.91	Feb. 6		10.68	Dec. 30		14.72
Apr. 28		6.89	Feb. 20		10.56	Jan. 27, 1958		14.96
May 20		7.00	Mar. 21		10.80	Feb. 28		14.66
June 22		6.56	Apr. 17		9.85	Mar. 24		14.60
July 27		6.29	May 18		9.55	Apr. 28		13.95
Aug. 26		5.83	June 14		9.05	May 26		12.25
Sept. 28		6.14	July 20		9.21	June 27		13.95
Oct. 28		7.76	Aug. 16		9.98	Aug. 1		14.80
Nov. 26		8.48	Sept. 26		10.82	Sept. 1		14.60
Dec. 29		8.69	Oct. 27		9.98	Sept. 24		14.89
Jan. 25, 1944		8.75	Nov. 20		10.92	Oct. 28		14.99
Feb. 24		8.73	Dec. 21		11.32	Nov. 26		14.95
Mar. 31		8.51	Jan. 4, 1951		11.16	Dec. 29		15.10
Apr. 27		7.61	Jan. 16		11.20	Jan. 30, 1959		15.15
May 31		4.85	Feb. 6		11.23	Feb. 25		15.09
July 29		5.85	Feb. 21		11.12	Mar. 24		15.02
Aug. 31		7.57	Mar. 26		11.51	Apr. 28		14.50
Sept. 22		7.67	Apr. 24		11.25	May 26		14.19
Nov. 4		8.00	May 22		10.35	June 25		14.47
Dec. 1		7.74	June 27		9.62	July 30		14.63
Dec. 29		8.87	July 17		9.92	Sept. 21		15.26
Jan. 31, 1945		8.94	July 31		9.29	Oct. 26		14.74
Feb. 24		8.83	Aug. 21		9.92	Dec. 3		14.77
Mar. 10		9.19	Sept. 13		10.33	Jan. 8, 1960		14.80
Apr. 28		7.24	Oct. 31		11.06	Feb. 10		15.03
June 10		7.03	Dec. 3		11.45	Mar. 22		14.26
Aug. 1		6.54	Jan. 3, 1952		11.51	Apr. 30		14.18
Oct. 1		7.38	Jan. 18		11.50	May 23		12.99
Oct. 30		7.52	Feb. 4		11.67	June 27		14.15
Nov. 18		7.92	Feb. 18		11.72	July 29		14.55
Dec. 4		8.12	Mar. 3		11.44	Aug. 31		15.38
Dec. 20		8.28	Mar. 20		11.70	Sept. 27		15.38
Jan. 16, 1946		8.37	Apr. 23		11.26	Jan. 17, 1961		14.69
Feb. 19		8.43	May 6		10.15	Jan. 30		14.39
Mar. 19		8.50	July 2		9.58	Feb. 24		14.62
Apr. 16		7.10	July 27		10.04	Mar. 30		14.78
May 15		6.88	Aug. 5		9.30	Apr. 27		14.55
June 24		6.14	Aug. 27		9.30	May 29		13.45
July 3		6.43	Oct. 1		9.27	June 30		15.10
July 17		5.60	Oct. 20		11.15	July 26		14.55
			Nov. 24		8.82	Sept. 21		13.97

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C4-68-13cdga</u> ---Continued			<u>C4-68-16dddb</u> ---Continued			<u>C4-69-23abbd</u>		
July 26, 1961	14.55		May 24, 1960	153.22		Mar. 26, 1957	294.10	
Sept. 21	13.97		June 27	150.85		Apr. 1	294.12	
Sept. 28	13.57		Jan. 17, 1961	167.82		June 2	286.00	
Oct. 14	14.14		July 11	171.13		July 9	278.50	
Nov. 10	13.94		Sept. 22	166.21		Aug. 5	292.88	
Dec. 28	13.17		Jan. 6, 1962	161.79		Sept. 5	293.77	
Jan. 31, 1962	13.97		Apr. 1	148.88		Sept. 30	294.02	
Feb. 26	13.70		Oct. 1	169.46		Nov. 14	294.12	
Mar. 26	14.56		Jan. 23, 1963	189.47		Dec. 11	293.93	
Apr. 5	14.19					Jan. 13, 1958	293.64	
May 29	14.36		<u>C4-69-2babc</u>			Feb. 18	294.02	
June 28	14.17		May 17, 1960	439.65		Mar. 17	294.31	
July 26	14.28		May 25	439.30		Apr. 22	294.52	
Aug. 29	14.86		June 27	444.00		May 21	294.74	
Sept. 23	15.00		Sept. 27	448.31		June 26	295.10	
Oct. 22	15.36		Jan. 23, 1961	443.68		July 16	295.56	
Nov. 28	15.18		May 1	441.25		Aug. 21	296.85	
Dec. 26	14.93		June 29	445.73		Sept. 25	297.37	
Jan. 21, 1963	14.82		Oct. 14	445.80		Nov. 5	298.10	
			Jan. 5, 1962	444.10		Dec. 3	298.45	
<u>C4-68-13cdca2</u>			Apr. 2	441.53		Feb. 2, 1959	298.85	
May 23, 1960	12.81		Oct. 2	449.33		Mar. 18	299.45	
June 27	14.17		Jan. 21, 1963	449.50		Apr. 17	299.78	
July 29	14.62					May 26	294.95	
Aug. 31	15.43		<u>C4-69-9acab</u>			June 25	294.12	
Sept. 27	15.41		Nov. 12, 1958	2.50		July 30	294.55	
Jan. 17, 1961	14.72		Feb. 16, 1959	+ .15		Sept. 24	295.95	
Jan. 30	14.37		Mar. 14, 1962	1.40		Oct. 26	296.69	
Feb. 24	14.69		Mar. 21	1.28		Dec. 3	296.37	
Mar. 30	14.76		Apr. 20	1.23		Jan. 8, 1960	296.15	
Apr. 27	14.62		May 2	1.48		Feb. 11	296.17	
May 29	13.42		May 13	1.12		Mar. 21	296.20	
June 30	15.19		Sept. 28	+3.26		Apr. 10	295.90	
July 26	14.70		Jan. 18, 1963	+2.03		May 24	295.96	
Aug. 29	13.85					June 23	296.40	
Sept. 28	13.64		<u>C4-69-17dadd</u>			Jan. 13, 1961	299.76	
Oct. 24	14.18		Dec. 10, 1956	141.46		Apr. 28	300.84	
Nov. 30	14.03		Jan. 3, 1957	141.28		June 29	302.14	
Dec. 28	13.30		Feb. 6	139.63		Jan. 3, 1962	304.18	
Jan. 31, 1962	14.11		Feb. 14	139.79		Apr. 21	303.55	
Feb. 26	13.87		Feb. 22	139.81		Sept. 28	302.36	
Mar. 26	14.52		Feb. 28	137.15		Jan. 18, 1963	302.08	
Apr. 9	14.07		Mar. 25	139.49				
May 29	14.45		Apr. 30	139.10		<u>C4-69-26ccdd</u>		
June 28	14.22		May 21	138.52		Oct. 10, 1956	5.26	
July 26	14.34		June 4	138.11		Oct. 30	5.00	
Aug. 29	14.97		July 15	136.82		Dec. 4	4.87	
Sept. 23	14.99		Aug. 16	133.95		Jan. 3, 1957	4.79	
Oct. 22	15.32		Sept. 16	132.88		Feb. 4	4.59	
Oct. 26	14.89		Sept. 23	132.72		Mar. 3	4.45	
Oct. 21, 1963	14.82		Sept. 30	133.86		Apr. 1	4.34	
			Oct. 8	133.96		June 2	3.32	
<u>C4-68-13cdcb2</u>			Oct. 16	133.98		July 10	1.95	
Aug. 30, 1956	18.70		Oct. 24	129.60		Aug. 5	1.92	
Sept. 14	19.21		Nov. 12	132.47		Dec. 12	2.50	
Sept. 28	18.28		Dec. 11	131.47		Jan. 13, 1958	2.43	
Oct. 29	17.61		Jan. 13, 1958	129.72		Feb. 18	2.23	
Dec. 3	19.74		Feb. 19	131.62		Mar. 17	2.10	
Jan. 2, 1957	18.27		Mar. 17	129.94		Apr. 22	1.97	
Feb. 4	19.20		Apr. 25	129.25		May 21	1.45	
Mar. 5	18.58		May 23	127.18		July 16	1.35	
Apr. 18	16.79		June 26	125.83		Aug. 21	2.09	
July 9	16.41		July 17	125.30		Apr. 17, 1959	.99	
Aug. 5	18.01		Aug. 29	124.02				
Sept. 5	18.48		Sept. 24	123.00		<u>C4-69-27bcd2</u>		
Oct. 14	18.92		Oct. 7	116.55		Sept. 10, 1956	180.21	
Nov. 15	19.01		Nov. 6	118.13		Sept. 20	181.98	
Dec. 11	19.95		Dec. 9	119.20		Oct. 1	183.62	
Jan. 14, 1958	21.90		Dec. 27	119.90		Oct. 10	195.33	
Feb. 18	20.33		Feb. 3, 1959	114.00		Dec. 3	187.48	
Mar. 12	18.48		Mar. 18	113.16		Jan. 2, 1957	187.84	
Apr. 22	17.94		Apr. 24	113.19				
May 22	15.75		June 5	111.84		<u>C4-69-14aabc</u>		
June 19	17.10		June 22	110.29		Oct. 9, 1956	1.43	
July 16	17.67		Aug. 13	110.64		Oct. 30	1.36	
Aug. 25	19.12		Sept. 14	110.66		Dec. 4	1.39	
Apr. 18, 1959	17.24		Nov. 2	109.66		Jan. 3, 1957	1.58	
Dec. 3	20.44		Dec. 3	107.84		Feb. 4	1.62	
Jan. 8, 1960	22.70		Dec. 13	108.50		Mar. 3	1.64	
Feb. 10	20.41		Jan. 4, 1960	106.98		Apr. 1	1.70	
			Feb. 10	106.81		June 2	3.69	
<u>C4-68-16dddb</u>			Mar. 31	107.63		July 10	3.59	
Sept. 9, 1957	129.48		Apr. 30	107.91		Aug. 5	3.41	
Feb. 17, 1958	118.93		May 10	107.98		Sept. 5	3.31	
Mar. 18	115.60		June 27	107.66		Oct. 14	3.10	
May 22	115.55		Aug. 31	106.32		Nov. 17	3.12	
June 19	118.10		Sept. 27	106.57		Dec. 12	3.12	
Nov. 7	82.54		Nov. 14	105.91		Feb. 17, 1958	3.28	
Dec. 10	93.79		Dec. 6	105.19		Mar. 17	3.26	
Jan. 20, 1959	135.62		Dec. 26	105.82		Apr. 22	3.37	
Mar. 17	122.44		Jan. 15, 1961	105.35		May 21	2.82	
Apr. 27	127.82		Feb. 7	105.80		June 23	3.20	
June 2	141.05		Mar. 7	105.70		July 16	3.31	
June 22	151.04		Apr. 10	106.19		Aug. 21	2.98	
Aug. 21	170.16		May 17	105.31		Sept. 25	2.79	
Oct. 12	191.13		June 23	104.94		Nov. 5	2.78	
Nov. 2	192.85		Sept. 5	104.35		Dec. 9	2.85	
Dec. 14	185.61		Jan. 25, 1962	102.56		Feb. 2, 1960	3.17	
Jan. 8, 1960	194.55		Apr. 6	108.64		Mar. 18	3.24	
Feb. 10	139.99		Sept. 29	269.74		Apr. 21	3.11	
Mar. 22	132.05		Jan. 18, 1963	255.77		May 26	3.33	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>34-69-14aabc</u> ---Continued			<u>35-66-18dcdc</u> ---Continued			<u>35-66-19accd</u> ---Continued		
June 25, 1959		1.30	Oct. 15, 1957		28.13	Dec. 10, 1958		21.97
July 30		1.01	Nov. 16		27.23	Jan. 30, 1959		22.35
Sept. 24		2.86	Dec. 11		28.36	Mar. 19		16.29
Oct. 26		2.84	Jan. 16, 1958		28.77	Apr. 27		14.40
Dec. 3		2.86	Feb. 18		27.45	June 6		14.59
Jan. 9, 1960		2.93	Apr. 28		22.82	June 24		16.35
Feb. 11		5.13	May 19		22.46	Aug. 24		19.26
Mar. 21		5.30	June 20		22.36	Oct. 12		21.46
Apr. 30		5.14	July 15		23.41	Oct. 28		21.90
June 23		5.38	Mar. 19, 1959		25.44	Dec. 10		22.43
Jan. 3, 1962		4.85	Mar. 23		25.04	Jan. 7, 1960		22.84
Apr. 12		5.10	Apr. 27		21.92	Feb. 8		23.12
			June 24		22.97	Mar. 22		17.15
			Aug. 24		25.77	May 24		13.33
<u>34-69-14abaa</u>			Oct. 12		27.52	Oct. 3		21.49
Oct. 11, 1956		2.34	Oct. 28		27.73	Jan. 16, 1961		23.46
Oct. 30		2.15	Dec. 10		27.62	Apr. 25		13.84
Dec. 4		2.18	Jan. 6, 1960		28.16	June 30		15.29
Jan. 3, 1957		2.43	Feb. 8		28.57	Sept. 21		17.40
Feb. 4		2.55	Mar. 23		26.62	Jan. 4, 1962		13.62
Mar. 3		2.59	Apr. 27		23.35	Apr. 12		12.20
Apr. 1		2.37	May 24		22.36	Oct. 1		19.74
June 2		2.32	June 24		23.24	Jan. 22, 1963		23.03
July 10		2.15	Oct. 4		30.67			
Aug. 5		2.27	Jan. 16, 1961		28.78	<u>35-66-19addd</u>		
Sept. 5		2.17	Apr. 28		22.81	Sept. 12, 1956		19.96
Oct. 14		1.99	June 30		22.87	Sept. 27		20.22
Nov. 17		2.17	Jan. 4, 1962		21.63	Oct. 25		20.79
Dec. 12		1.94	Apr. 12		21.10	Dec. 4		19.69
Jan. 13, 1958		2.12	Oct. 1		28.64	Jan. 4, 1957		19.44
Feb. 17		2.34	Jan. 22, 1963		26.97	Feb. 6		19.32
Mar. 17		2.46				Mar. 7		19.50
Apr. 22		2.59	<u>35-66-18dddd</u>			Apr. 19		19.18
May 21		2.20	Sept. 12, 1956		42.16	June 5		13.87
June 23		1.77	Sept. 27		43.28	Sept. 10		11.56
July 16		1.92	Oct. 25		42.54	Oct. 15		12.14
Aug. 21		2.06	Dec. 4		42.55	Nov. 16		11.44
Apr. 21, 1959		2.47	Jan. 4, 1957		42.60	Dec. 11		10.88
Dec. 3		2.13	Feb. 6		42.52	Jan. 16, 1958		10.19
Jan. 9, 1960		2.37	Mar. 7		42.61	Feb. 18		9.06
Feb. 11		2.31	Apr. 19		42.77	Mar. 13		7.72
May 24		2.68	June 5		41.56	Apr. 25		6.88
June 23		2.18	Aug. 7		39.13	May 19		6.68
Sept. 28		2.00	Sept. 10		37.99	June 20		7.06
Jan. 13, 1961		1.99	Oct. 15		37.36	July 15		7.74
Apr. 25		2.27	Nov. 16		37.26	Aug. 27		9.51
June 30		2.15	Dec. 11		37.10	Mar. 19, 1959		8.41
Jan. 3, 1962		2.50	Jan. 16, 1958		36.89	Apr. 27		7.08
Apr. 12		2.70	Feb. 18		36.65	June 6		6.81
Sept. 28		1.83	Mar. 13		36.02	June 24		8.29
Jan. 21, 1963		1.95	Apr. 25		35.27	Aug. 24		10.64
<u>34-69-15babb</u>			Sept. 24		34.18	Oct. 12		12.74
Nov. 17, 1957		1.65	Nov. 7		35.07	Oct. 28		13.84
Dec. 12		4.65	Dec. 10		35.58	Dec. 10		12.74
Jan. 13, 1958		5.00	Jan. 30, 1959		36.09	Jan. 6, 1960		13.06
Feb. 18		4.94	Mar. 19		35.44	Feb. 8		13.28
Mar. 17		3.68	Apr. 27		31.71	Mar. 22		10.78
Apr. 22		5.41	June 6		32.39	Apr. 27		8.41
May 21		4.61	June 24		32.30	May 24		6.90
June 19		3.49	Aug. 24		33.84	June 24		8.53
July 16		4.63	Oct. 12		35.37	Oct. 4		13.89
Aug. 21		3.89	Oct. 28		35.60	Jan. 16, 1961		14.39
Apr. 17		5.42	Dec. 10		36.03	Apr. 28		7.16
Aug. 17		4.86	Jan. 6, 1960		36.28	June 30		7.30
<u>34-69-15babb2</u>			Feb. 8		36.51	Jan. 4, 1962		6.06
Oct. 10, 1956		2.14	Mar. 22		36.69	Apr. 12		3.70
Oct. 30		3.09	Apr. 27		35.97	Oct. 1		13.70
Dec. 4		3.42	May 14		33.16	Jan. 22, 1963		16.05
Jan. 3, 1957		3.24	June 24		33.09			
Feb. 4		3.29	Oct. 4		35.68	<u>35-66-19daad</u>		
Mar. 3		2.53	Jan. 16, 1961		36.87	June 19, 1957		15.87
Apr. 1		3.37	Apr. 28		33.98	Aug. 7		14.21
June 2		2.13	June 30		32.35	Sept. 10		13.49
July 10		2.24	Jan. 4, 1962		31.16	Oct. 15		14.50
Aug. 5		2.50	Apr. 12		30.34	Nov. 16		13.49
Sept. 5		2.16	Oct. 1		33.53	Dec. 11		12.72
Oct. 14		2.22	Jan. 22, 1963		35.99	Jan. 16, 1958		11.94
Dec. 12		2.40				Feb. 18		10.68
Jan. 13, 1958		2.69	<u>35-66-19accd</u>			Mar. 13		9.65
Mar. 17		1.81	Sept. 12, 1956		32.23	Apr. 25		8.71
Apr. 22		2.57	Sept. 27		32.45	June 20		9.39
May 21		2.18	Oct. 26		31.01	July 15		6.01
June 19		1.25	Dec. 4		30.84	Aug. 27		12.11
July 16		2.77	Jan. 4, 1957		30.75	Mar. 19, 1959		11.06
Aug. 21		2.38	Feb. 6		30.70	June 6		10.00
Apr. 17, 1959		2.98	Mar. 7		30.77	Oct. 28		15.38
<u>35-66-18dcdc</u>			June 5		18.35	Dec. 10		14.90
Sept. 12, 1956		16.66	Aug. 7		17.62	Feb. 8, 1960		17.04
Sept. 27		40.71	Sept. 10		20.15	Oct. 4		25.73
Oct. 25		17.00	Oct. 15		22.22	Jan. 16, 1961		17.12
Dec. 4		35.65	Nov. 16		21.98	Apr. 12, 1962		7.00
Jan. 4, 1957		35.60	Dec. 11		21.88			
Feb. 6		35.49	Jan. 16, 1958		21.95	<u>35-66-19daad2</u>		
Mar. 7		35.54	Feb. 18		19.95	June 19, 1957		13.84
Apr. 19		35.32	Apr. 25		14.18	Aug. 7		14.74
June 5		30.33	May 19		13.75	Sept. 10		14.33
July 15		31.96	June 20		14.59	Oct. 15		13.92
Aug. 7		27.94	July 15		16.07	Nov. 16		12.96
Sept. 10		27.55	Aug. 20		17.91	Dec. 11		12.24
			Sept. 24		20.64	Jan. 16, 1958		11.42
			Nov. 7		41.26	Feb. 18		10.16

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-66-19daad2.</u> ---Continued			<u>CS-66-19ddcd2.</u>			<u>CS-66-19ddddd2.</u> ---Continued		
Mar. 13, 1958		9.07	Oct. 2, 1956		16.12	Apr. 28, 1958		7.28
Apr. 25		9.50	Oct. 25		17.41	May 19		7.19
May 19		10.10	Dec. 4		17.29	June 20		8.89
June 20		9.22	Jan. 4, 1957		16.92	July 15		9.19
July 15		9.99	Feb. 6		17.16	Aug. 20		11.25
Aug. 27		11.94	Mar. 7		17.29	Mar. 19, 1959		8.65
Mar. 19, 1959		9.89	Apr. 25		15.50	Apr. 27		7.83
Apr. 27		11.55	June 5		6.32	June 6		9.08
June 6		9.97	Sept. 10		9.66	June 29		12.80
June 24		11.52	Nov. 16		9.33	Aug. 24		14.15
Aug. 24		14.52	Dec. 11		7.32	Oct. 12		15.94
Oct. 12		16.88	Jan. 16, 1958		5.88	Oct. 28		16.93
Oct. 28		15.11	Oct. 12, 1959		12.19	Dec. 10		16.02
Dec. 10		15.99	Oct. 28		12.95	Jan. 7, 1960		17.29
Jan. 7, 1960		16.19	Dec. 10		12.19	Feb. 8		16.74
Feb. 8		15.17	Jan. 7, 1960		13.15	Mar. 22		10.65
Mar. 22		12.16	Feb. 8		12.91	Apr. 27		3.82
Apr. 27		12.47	Mar. 22		5.84	May 24		7.50
May 24		10.58	Apr. 27		4.84	June 24		10.84
June 24		11.10	May 24		3.89	Oct. 1		19.52
Oct. 4		16.83	June 24		6.75	Jan. 4, 1962		7.66
Jan. 16, 1961		17.79	Oct. 1		17.78	Apr. 12		5.50
Apr. 28		8.81	Jan. 16, 1961		15.13	Oct. 1		22.96
June 30		9.73	Apr. 25		2.89			
Jan. 4, 1962		7.26	June 30		4.39			
Apr. 12		6.70	Jan. 4, 1962		3.58			
Oct. 1		18.70	Apr. 12		.50			
Jan. 22, 1963		17.84	Oct. 1		18.42			
			Jan. 22, 1963		18.87			
<u>CS-66-19daad3.</u>			<u>CS-66-19ddddd4.</u>			<u>CS-66-19ddddd3.</u>		
June 19, 1957		13.95	Oct. 2, 1956		16.41	Oct. 2, 1956		19.70
Aug. 7		13.84	Oct. 25		17.73	Oct. 25		20.92
Sept. 10		13.54	Dec. 4		17.67	Dec. 4		20.78
Oct. 15		14.14	Jan. 4, 1957		17.27	Jan. 4, 1957		20.48
Nov. 16		13.14	Feb. 6		17.88	Feb. 6		22.00
Dec. 11		13.08	Mar. 7		17.69	Mar. 7		20.66
Jan. 16, 1958		12.64	Apr. 25		15.90	Apr. 25		19.09
Feb. 18		10.34	June 5		5.93	June 5		10.25
Mar. 13		9.30	Sept. 10		9.95	Aug. 7		9.11
Apr. 25		8.70	Nov. 16		9.39	Sept. 10		12.64
May 19		11.04	Jan. 16, 1958		6.18	Nov. 16		11.55
June 20		9.44	Oct. 12, 1959		12.56	Dec. 11		10.54
July 15		10.24	Oct. 28		13.69	Jan. 16, 1958		9.31
Aug. 27		12.24	Dec. 10		12.59	Feb. 18		7.52
Mar. 19, 1959		10.12	Jan. 7, 1960		13.90	Mar. 13		7.45
Apr. 27		12.60	Feb. 8		13.32	Apr. 25		7.06
June 6		9.04	Mar. 22		5.25	May 19		6.91
June 24		12.17	Apr. 27		4.90	June 20		8.20
Aug. 24		15.64	May 24		4.09	July 15		8.64
Oct. 12		18.42	June 24		7.40	Aug. 20		12.24
Oct. 28		15.12	Oct. 1		18.37	Mar. 19, 1959		8.23
Dec. 10		13.79	Jan. 16, 1961		15.71	Apr. 27		7.39
Jan. 7, 1960		13.93	Apr. 25		4.92	June 6		8.50
Feb. 8		15.42	June 30		4.75	June 29		11.04
Oct. 3		17.07	Jan. 4, 1962		3.82	Aug. 24		13.43
Jan. 16, 1961		15.53	Apr. 12		2.00	Oct. 12		15.41
Apr. 28		9.01	Oct. 1		19.16	Oct. 28		16.07
June 30		9.87	Jan. 22, 1963		22.21	Dec. 10		15.46
Jan. 4, 1962		7.51				Jan. 7, 1960		15.80
Apr. 12		4.90				Feb. 8		16.19
Jan. 22, 1963		18.13				Mar. 22		9.69
						Apr. 27		8.10
						May 24		7.16
						June 24		9.94
						Oct. 3		18.84
						Jan. 16, 1961		18.27
						Apr. 25		7.58
						June 30		7.85
						Jan. 4, 1962		6.84
						Apr. 12		3.80
						Oct. 1		21.27
						Jan. 22, 1963		21.42
<u>CS-66-19daad4.</u>			<u>CS-66-19ddddd.</u>			<u>CS-66-20ccdd.</u>		
June 19, 1957		13.55	Oct. 2, 1956		20.00	Sept. 12, 1956		23.48
Aug. 7		13.53	Oct. 25		21.00	Sept. 27		24.08
Sept. 10		13.07	Dec. 4		20.92	Oct. 25		24.67
Oct. 15		13.63	Jan. 4, 1957		20.57	Dec. 4		25.00
Nov. 16		12.68	Feb. 6		21.63	Jan. 4, 1957		24.98
Dec. 11		11.94	Mar. 7		20.89	Feb. 6		25.08
Jan. 16, 1958		11.08	Apr. 25		19.13	Mar. 7		25.19
Feb. 18		9.63	June 5		9.30	Apr. 25		24.50
Mar. 13		9.75	Aug. 7		8.77	June 5		18.65
Apr. 25		7.90	Sept. 10		12.95	Aug. 7		16.61
May 19		9.35	Nov. 16		11.51	Sept. 10		16.07
June 20		8.54	Dec. 11		10.50	Nov. 16		16.59
July 15		9.35	Jan. 1, 1958		11.19	Dec. 11		15.39
Aug. 26		11.22	Feb. 13		7.41	Jan. 16, 1958		14.04
Nov. 7		12.80	Mar. 13		7.42	Feb. 18		12.69
Dec. 10		12.93	Apr. 28		7.11			
Jan. 30, 1959		12.62	May 19		7.00			
Mar. 19		9.29	June 20		8.20			
Apr. 27		10.36	July 15		8.83			
June 6		8.09	Aug. 20		12.47			
			Nov. 7		13.33			
			Dec. 10		13.77			
			Jan. 30, 1959		12.16			
<u>CS-66-19ddcd.</u>			<u>CS-66-19ddddd2.</u>			<u>CS-66-20ccdd.</u>		
Oct. 12, 1959		11.85	Oct. 2, 1956		20.70	Sept. 12, 1956		23.48
Oct. 28		12.27	Oct. 25		20.27	Sept. 27		24.08
Dec. 10		11.88	Dec. 4		21.19	Oct. 25		24.67
Jan. 7, 1960		12.45	Jan. 4, 1957		20.88	Dec. 4		25.00
Feb. 8		12.51	Feb. 6		22.08	Jan. 4, 1957		24.98
Mar. 22		5.87	Mar. 7		21.13	Feb. 6		25.08
Apr. 27		4.56	Apr. 25		19.55	Mar. 7		25.19
May 24		3.61	June 5		11.07	Apr. 25		24.50
June 24		6.32	Aug. 7		10.17	June 5		18.65
Oct. 3		16.38	Sept. 10		13.11	Aug. 7		16.61
Jan. 16, 1961		14.52	Nov. 16		11.95	Sept. 10		16.07
Apr. 25		3.54	Dec. 11		10.90	Nov. 16		16.59
June 30		3.93	Jan. 16, 1958		9.77	Dec. 11		15.39
Jan. 4, 1962		3.27	Feb. 18		7.91	Jan. 16, 1958		14.04
Apr. 12		2.20	Mar. 13		7.78	Feb. 18		12.69
Oct. 1		17.53						
Jan. 22, 1963		17.76						

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Water level	Location number	Water level
<u>CS-66-20ccdd</u> ---Continued			<u>CS-66-29ddcc</u> ---Continued		<u>CS-66-30aaaa3</u> ---Continued	
Mar. 13, 1958	11.87		June 5, 1957	3.01	Oct. 1, 1960	19.88
Apr. 28	10.82		July 15	3.78	Jan. 16, 1961	21.17
May 19	10.30		Aug. 7	3.14	Apr. 25	7.45
June 20	10.30		Oct. 17	3.33	Jan. 4, 1962	6.58
July 15	11.82		Nov. 16	7.60	Apr. 12	4.70
Aug. 20	13.30		Dec. 11	7.50	Oct. 1	24.34
Sept. 24	15.90		Jan. 16, 1958	7.22	Jan. 22, 1963	21.91
Mar. 19, 1959	13.42		Feb. 18	6.66		
Apr. 27	11.53		Mar. 13	6.41		
June 6	10.30		Apr. 25	6.20	<u>CS-66-30aaaa4</u>	
June 29	13.16		May 19	5.96	Oct. 2, 1956	20.26
Aug. 24	15.66		June 20	6.03	Oct. 25	21.60
Oct. 12	18.87		July 15	6.65	Dec. 4	21.64
Oct. 28	18.99		Aug. 20	7.23	Jan. 4, 1957	21.27
Dec. 10	19.40		Mar. 19, 1959	6.64	Feb. 6	21.84
Jan. 7, 1960	19.68		Apr. 27	6.00	Mar. 7	21.63
Feb. 8	20.09		June 6	6.05	Apr. 25	19.31
Mar. 22	18.23		June 29	6.78	June 5	10.58
Apr. 27	13.37		Oct. 12	8.99	Aug. 7	10.00
May 24	11.23		Oct. 28	9.01	Sept. 10	13.54
June 24	12.43		Dec. 10	9.73	Nov. 16	11.91
July 3	21.19		Jan. 7, 1960	9.65	Dec. 11	10.88
Jan. 16, 1961	21.86		Feb. 8	9.73	Jan. 16, 1958	9.32
Apr. 27	12.30		Apr. 27, 1961	6.20	Feb. 18	7.85
June 10	11.06		June 10	6.63	Mar. 13	7.93
Sept. 21	12.35		Apr. 12, 1962	4.80	Apr. 25	7.22
Jan. 4, 1962	10.09				May 19	7.20
Apr. 12	9.60				June 20	8.95
Oct. 1	20.82				July 15	9.84
Jan. 22, 1963	24.15				Aug. 20	14.09
<u>CS-66-29bbdc</u>			<u>CS-66-29ddcc2</u>			
Sept. 12, 1956	26.26		Sept. 12, 1956	11.80		
Sept. 27	26.72		Sept. 27	11.00		
Oct. 25	27.83		Oct. 25	11.24		
Dec. 4	27.33		Dec. 5	11.49		
Jan. 4, 1957	27.39		Jan. 4, 1957	11.68		
Feb. 6	27.68		Feb. 6	11.93		
Mar. 7	27.70		Mar. 11	12.09		
July 15	24.56		Apr. 25	10.25		
Nov. 16	17.73		June 5	7.97		
Dec. 11	19.50		July 15	8.60		
Jan. 16, 1958	11.32		Aug. 7	9.17		
Feb. 18	13.23		Sept. 10	13.52		
Mar. 13	12.28		Oct. 17	8.93		
Apr. 28	10.99		Nov. 16	7.49		
May 19	10.34		Dec. 11	7.02		
July 15	13.75		Jan. 16, 1958	6.77		
Aug. 20	17.83		Feb. 18	6.54		
Mar. 19, 1959	13.68		Mar. 13	6.35		
Apr. 27	11.67		Apr. 25	6.10		
June 29	15.50		May 19	5.85		
Oct. 12	21.42		June 20	5.92		
Oct. 28	21.49		July 15	6.51		
Dec. 10	21.87		Aug. 20	7.08		
Jan. 7, 1960	21.75		Nov. 7	8.00		
Apr. 27	12.20		Jan. 30, 1959	6.98		
Apr. 12, 1962	10.20		Mar. 19	6.48		
Jan. 22, 1963	25.37		Apr. 27	5.90		
<u>CS-66-29cbca</u>			June 6	5.95		
Sept. 12, 1956	27.16		June 29	6.65		
Sept. 27	27.02		Aug. 24	9.41		
Oct. 25	27.16		Oct. 12	8.84		
Dec. 4	27.65		Oct. 28	8.92		
Jan. 4, 1957	27.59		Dec. 10	9.53		
Feb. 6	27.77		Jan. 7, 1960	9.32		
Mar. 7	28.08		Feb. 8	9.67		
Apr. 25	26.32		Apr. 27, 1961	6.28		
June 5	18.66		June 10	6.49		
July 15	21.04		Apr. 12, 1962	4.50		
Sept. 10	20.04					
Nov. 16	17.94		<u>CS-66-30aaaa1</u>			
Dec. 11	16.28		Oct. 1, 1956	20.50		
Jan. 16, 1958	15.12		Oct. 25	20.95		
Feb. 18	13.24		Dec. 4	20.88		
Mar. 13	12.45		Jan. 4, 1957	20.56		
Apr. 28	10.99		Feb. 6	21.25		
May 19	9.68		Mar. 7	20.90		
June 20	11.88		Apr. 25	19.10		
July 15	13.91		June 5	9.85		
Mar. 19, 1959	13.21		Aug. 7	9.06		
Apr. 21	11.28		Sept. 10	12.87		
June 29	15.75		Nov. 16	11.31		
Aug. 24	20.03		Dec. 11	10.28		
Oct. 12	21.29		Jan. 16, 1958	9.10		
Oct. 28	21.37		Feb. 18	7.23		
Dec. 10	21.69		Mar. 13	7.24		
Jan. 7, 1960	21.87		Apr. 28	6.80		
Apr. 12, 1962	8.10		May 19	6.70		
Jan. 22, 1963	26.63		June 20	8.30		
<u>CS-66-29ddcc</u>			July 15	8.98		
Sept. 12, 1956	11.87		Aug. 20	13.49		
Sept. 27	11.24		Mar. 19, 1959	7.22		
Oct. 25	11.69		Apr. 27	7.25		
Dec. 5	11.57		June 6	9.57		
Jan. 4, 1957	11.82		Aug. 24	14.27		
Feb. 6	12.00		Oct. 12	15.60		
Mar. 11	12.15		Oct. 28	19.15		
Apr. 25	10.25		Dec. 10	15.73		
			Jan. 7, 1960	20.00		
			Feb. 8	17.99		
			Mar. 22	9.12		
			Apr. 27	8.02		
			May 24	6.99		
			June 24	10.68		
			<u>CS-66-30aaaa5</u>			
			Oct. 2, 1956	20.43		
			Oct. 26	21.70		
			Dec. 4	21.79		
			Jan. 4, 1957	21.47		
			Feb. 6	22.00		
			Mar. 7	21.80		
			Apr. 25	20.03		
			June 5	11.00		
			Aug. 7	10.38		
			Sept. 10	13.64		
			Nov. 16	12.08		
			Dec. 11	7.00		
			Jan. 16, 1958	10.10		
			Feb. 18	9.35		
			Mar. 13	9.02		
			Apr. 28	7.41		
			May 19	7.31		
			June 20	9.36		
			July 15	10.12		
			Aug. 20	14.16		
			Mar. 19, 1959	9.64		
			Apr. 27	8.10		
			June 6	9.92		
			June 29	12.99		
			Aug. 24	15.58		
			Oct. 12	16.54		
			Oct. 28	18.59		
			Dec. 10	16.62		
			Jan. 7, 1960	19.09		
			Feb. 8	18.14		
			Mar. 22	10.74		
			Apr. 27	9.03		
			May 24	7.64		
			June 24	11.56		
			Oct. 3	20.68		
			Jan. 16, 1961	20.30		
			Apr. 25	9.28		
			Jan. 4, 1962	7.17		
			Apr. 13	5.40		
			Jan. 22, 1963	22.75		
			<u>CS-66-30aaaa2</u>			
			Oct. 2, 1956	21.79		
			Oct. 26	22.91		
			Dec. 4	23.10		
			Jan. 4, 1957	22.83		
			Feb. 6	24.55		
			Mar. 7	24.72		
			Apr. 25	23.39		
			June 5	12.54		

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-66-10aada2</u> ---Continued			<u>CS-66-10aada2</u> ---Continued			<u>CS-66-13cbcg</u> ---Continued		
	Aug. 7, 1957	13.23		Jan. 7, 1960	19.80		Dec. 11, 1959	19.98
	Sept. 10	14.52		Feb. 8	19.37		Jan. 7, 1960	18.05
	Nov. 16	13.34		Mar. 22	15.05		Feb. 9	18.23
	Dec. 11	12.10		Apr. 27	11.29		Mar. 21	16.19
	Jan. 16, 1958	13.92		May 24	9.11		Apr. 27	16.60
	Feb. 18	11.51		June 24	13.01		May 24	16.36
	Mar. 13	10.10		Oct. 3	24.19		Oct. 3	21.02
	Apr. 28	10.72		Jan. 16, 1961	21.84		Jan. 16, 1961	18.49
	May 19	10.32		Apr. 25	11.34		Apr. 27	16.79
	June 20	9.32		Jan. 4, 1962	9.15		Jan. 4, 1962	17.27
	July 15	14.56		Apr. 13	7.40		Apr. 13	15.80
	Aug. 20	14.26		Jan. 22, 1963	22.77		Oct. 19	21.28
	Mar. 19, 1959	10.62					Jan. 22, 1963	18.80
	Apr. 27	9.46	<u>CS-66-12dcdc</u>			<u>CS-66-13ccbc</u>		
	June 6	9.29		Sept. 12, 1956	20.40		Sept. 27, 1956	10.20
	June 29	13.88		Oct. 25	12.03		Oct. 25	10.33
	Aug. 24	20.36		Dec. 5	9.88		Dec. 5	9.40
	Oct. 12	17.73		Jan. 4, 1957	9.09		Jan. 4, 1957	7.78
	Oct. 28	18.24		Feb. 6	8.50		Feb. 6	7.05
	Dec. 10	17.87		Mar. 11	3.02		Mar. 11	6.43
	Feb. 8, 1960	18.66		Apr. 25	6.38		Apr. 25	5.38
	Mar. 22	13.14		June 5	5.43		June 5	4.12
	Apr. 27	10.04		July 15	10.19		Aug. 7	6.64
	May 24	8.11		Sept. 16	9.27		Sept. 16	6.31
	June 24	11.96		Nov. 16	5.84		Oct. 17	5.53
	Oct. 3	23.74		Dec. 12	5.75		Nov. 16	4.31
	Jan. 16, 1961	20.62		Jan. 16, 1958	5.50		Dec. 12	1.92
	Apr. 25	10.25		Feb. 18	5.33		Jan. 16, 1958	3.70
	Jan. 4, 1962	8.10		Mar. 13	5.29		Feb. 18	1.47
	Apr. 13	6.70		Apr. 25	5.15		Mar. 13	3.32
	Jan. 22, 1963	21.79		May 19	4.97		Apr. 25	3.31
<u>CS-66-10aada1</u>				July 15	7.96		May 19	3.20
	Oct. 2, 1956	22.88		Mar. 19, 1959	5.22		June 20	3.36
	Oct. 25	23.79		Apr. 27	4.89		July 15	5.10
	Dec. 4	24.14		July 16	15.62		Aug. 20	6.25
	Jan. 4, 1957	23.86		Oct. 28	8.96		Nov. 7	5.13
	Feb. 6	25.51		Dec. 11	8.73		Dec. 10	4.75
	Mar. 7	25.67		Jan. 7, 1960	8.12		Jan. 30, 1959	4.28
	Apr. 25	24.21		Feb. 9	6.02		Mar. 19	3.76
	June 5	13.74		Mar. 22	4.17		Apr. 27	3.47
	Aug. 7	14.39		Apr. 13, 1962	4.90		June 29	5.10
	Sept. 10	15.51	<u>CS-66-12dcdc</u>				Oct. 12	8.64
	Nov. 16	14.41		Sept. 27, 1956	17.39		Oct. 28	7.84
	Dec. 11	13.13		Oct. 25	12.09		Dec. 11	6.20
	Jan. 16, 1958	14.22		Dec. 5	9.58		Jan. 7, 1960	8.04
	Feb. 18	12.96		Jan. 4, 1957	8.87		Feb. 9	4.39
	Mar. 13	11.05		Feb. 6	8.19		June 30, 1961	5.74
	Apr. 28	11.05		Mar. 11	7.67		Apr. 13, 1962	.20
	May 19	10.50		Apr. 25	6.15	<u>CS-67-6badh</u>		
	June 20	9.90		June 5	5.20		June 13, 1957	127.15
	July 15	15.11		July 15	10.00		July 9	158.18
	Aug. 20	15.00		Sept. 16	9.19		Aug. 7	164.13
	Mar. 19, 1959	10.65		Nov. 16	5.58		Nov. 15	139.23
	Apr. 27	10.19		Dec. 12	5.35		Dec. 18	129.59
	June 6	9.82		Jan. 16, 1958	5.60		Jan. 16, 1958	125.17
	Aug. 24	20.76		Feb. 18	5.18		Feb. 19	119.33
	Oct. 12	18.48		Mar. 13	5.20		Mar. 13	116.21
	Oct. 28	15.01		Apr. 25	5.30		Apr. 25	115.47
	Dec. 10	19.84		May 19	4.84		May 19	114.43
	Jan. 7, 1960	19.51		June 20	9.43		June 19	147.18
	Feb. 8	19.56		July 15	7.85		July 15	165.97
	Mar. 22	14.48		Aug. 20	11.95		Aug. 20	178.89
	Apr. 27	10.86		Sept. 14	8.97		Sept. 24	185.40
	May 24	8.78		Nov. 7	6.64		Nov. 7	167.55
	June 24	12.67		Jan. 30, 1959	5.90		Dec. 10	148.04
	Oct. 3	24.47		Mar. 19	5.46		Jan. 20, 1959	135.30
	Jan. 16, 1961	21.48		Apr. 27	5.22		Mar. 17	124.44
	Apr. 25	9.78		Oct. 28	8.37		Apr. 27	119.23
	Jan. 4, 1962	8.99		Dec. 11	8.09		June 2	145.33
	Apr. 13	8.40		Jan. 7, 1960	8.28		June 24	167.44
	Oct. 1	25.90		Feb. 9	6.38		Oct. 9	190.02
	Jan. 22, 1963	23.73		Mar. 22	4.05		Oct. 26	177.29
<u>CS-66-10aada1</u>				Apr. 13, 1962	4.70		Dec. 14	151.47
	Oct. 2, 1956	23.41	<u>CS-66-13cbcg</u>				Jan. 8, 1960	143.37
	Oct. 25	24.17		Sept. 12, 1956	23.78		Feb. 10	136.58
	Dec. 4	24.45		Sept. 27	23.28		Mar. 22	130.42
	Jan. 4, 1957	24.26		Oct. 25	22.28		Apr. 26	134.82
	Feb. 6	25.49		Dec. 5	20.47		May 24	139.56
	Mar. 7	25.65		Jan. 4, 1957	20.61		June 27	179.22
	Apr. 25	24.13		Feb. 6	20.04		Oct. 3	227.12
	June 5	14.18		Mar. 11	19.57		Jan. 17, 1961	159.77
	Aug. 7	14.77		Apr. 25	18.20		Apr. 25	138.99
	Sept. 10	15.85		June 5	17.20		June 30	177.90
	Jan. 16, 1958	13.99		Sept. 16	19.27		Sept. 22	202.59
	Feb. 18	11.78		Oct. 17	17.84		Jan. 6, 1962	153.45
	Mar. 13	11.18		Nov. 16	16.56		Apr. 3	136.68
	Apr. 28	10.80		Dec. 12	15.26		Oct. 1	239.98
	May 19	10.29		Jan. 16, 1958	16.00	<u>CS-67-13aadd</u>		
	June 20	10.16		Feb. 18	15.71		Sept. 27, 1956	14.86
	July 15	14.81		Mar. 13	15.62		Oct. 25	14.09
	Aug. 20	15.28		Apr. 25	15.46		Dec. 4	14.31
	Mar. 19, 1959	11.01		May 19	15.32		Jan. 4, 1957	8.39
	Apr. 27	10.44		June 20	15.40		Feb. 6	14.61
	June 6	10.10		Mar. 19, 1959	16.44		Mar. 7	14.69
	June 29	14.87		Apr. 27	16.75		Apr. 19	14.04
	Aug. 24	20.44		June 6	17.61		June 5	10.38
	Oct. 12	19.02		June 29	17.89		July 15	10.65
	Oct. 28	19.35		Oct. 12	21.58		Aug. 7	9.69
	Dec. 10	19.19		Oct. 28	20.88			

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-67-13aadd.</u> --Continued			<u>CS-67-14aabb.</u> --Continued			<u>CS-68-4aadb.</u> --Continued		
Sept. 9, 1957	10.09		Mar. 22, 1960	43.70		Dec. 11, 1957	17.50	
Oct. 15	10.10		Apr. 26	42.64		Jan. 14, 1958	17.58	
Nov. 16	10.11		May 24	42.23		Feb. 18	18.01	
Dec. 11	10.99					Mar. 18	18.17	
Jan. 16, 1958	10.15		<u>CS-67-19bbbbb.</u>			Apr. 22	18.54	
Feb. 18	9.50		July 25, 1958	+41.4		May 22	18.10	
Mar. 13	9.23		Aug. 27	+31.5		June 19	18.36	
Apr. 25	9.06		Sept. 25	+29.4		July 16	18.42	
May 19	9.00		Nov. 7	+42.5		Aug. 25	18.40	
June 20	9.25		Dec. 10	+47.5				
July 15	9.43		Feb. 2, 1959	+50.0		<u>CS-68-4abdb.</u>		
Aug. 27	9.89		Mar. 23	+56.15		Aug. 2, 1956	24.89	
Nov. 7	10.63		Apr. 27	+54.0		Sept. 14	24.88	
Dec. 10	10.43		June 2	+50.5		Sept. 28	24.83	
Jan. 30, 1959	10.44		July 3	+37.6		Oct. 29	24.70	
Mar. 19	9.51		Aug. 26	+18.96		Dec. 3	25.01	
Apr. 27	8.83		Sept. 24	+14.75		Jan. 2, 1957	25.62	
June 24	9.21		Oct. 26	+33.17		Feb. 4	25.40	
July 14	9.59		Dec. 15	+42.5		Mar. 5	25.32	
Aug. 24	9.77		Jan. 8, 1960	+44.5		Apr. 18	25.26	
Oct. 12	9.75		Feb. 10	+47.0		June 4	23.70	
Oct. 28	9.75		Mar. 28	+49.1		July 9	24.42	
Dec. 10	9.82		Apr. 26	+43.0		Aug. 5	24.37	
Jan. 6, 1960	9.90		May 24	+40.6		Oct. 14	24.31	
Feb. 8	9.76		June 27	+22.75		Nov. 15	24.25	
Apr. 13, 1962	10.20		Oct. 3	+7.90		Dec. 11	24.18	
			Jan. 17, 1961	+38.3		Feb. 18, 1958	24.94	
<u>CS-67-13abdc.</u>			Apr. 29	+42.2		Mar. 18	24.88	
Sept. 12, 1956	13.16		July 6	+23.5				
Sept. 27	13.26		Sept. 22	+21.7		<u>CS-68-4bdcc.</u>		
Oct. 25	14.53		Jan. 6, 1962	+38.1		Sept. 24, 1956	15.14	
Dec. 4	14.70		Apr. 2	+43.0		Sept. 28	15.44	
Jan. 4, 1957	14.82		Oct. 20	6.2		Oct. 29	15.19	
Feb. 6	14.94		Feb. 5, 1963	+25.1		Dec. 3	15.20	
Mar. 7	15.07					Jan. 2, 1957	15.51	
Apr. 19	14.33		<u>CS-68-19abab.</u>			Feb. 4	15.80	
June 5	11.46		Aug. 30, 1956	27.27		Mar. 5	15.90	
July 15	11.59		Sept. 14	27.10		Apr. 18	15.24	
Aug. 7	10.75		Sept. 28	27.24		June 4	12.90	
Sept. 9	10.92		Oct. 29	27.30		July 9	13.79	
Oct. 15	11.11		Dec. 3	27.53		Aug. 5	13.88	
Nov. 16	10.93		Jan. 2, 1957	28.03		Sept. 5	14.37	
Dec. 11	10.90		Feb. 4	28.50		Oct. 8	15.32	
Jan. 16, 1958	10.98		Mar. 5	28.65		Nov. 14	15.00	
Feb. 18	10.57		Apr. 18	28.18		Dec. 12	15.26	
Mar. 13	10.06		June 4	25.55		Jan. 14, 1958	15.74	
Apr. 25	9.87		July 9	25.12		Feb. 18	16.00	
May 19	9.80		Aug. 5	24.97		Mar. 18	15.89	
June 20	10.22		Sept. 5	24.99		Apr. 22	15.21	
July 15	10.40		Oct. 14	24.94		May 22	13.80	
Aug. 27	10.87		Nov. 15	25.14		June 19	14.56	
Mar. 19, 1959	10.41		Dec. 11	25.57		July 16	15.95	
Apr. 27	9.80		Jan. 14, 1958	25.97		Aug. 28	16.17	
June 24	10.24		Feb. 18	26.45		Apr. 18, 1959	16.05	
July 14	10.53		Mar. 10	26.72		May 26	15.80	
Aug. 24	10.67		Apr. 22	27.17		June 25	16.08	
Oct. 12	10.56		June 19	26.75		July 3	16.32	
Oct. 28	10.52		July 16	26.61		Dec. 15	16.44	
Dec. 10	10.49		Aug. 25	26.51		Jan. 8, 1960	16.83	
Jan. 6, 1960	10.20		Nov. 5	26.39		Feb. 10	16.72	
Feb. 8	10.79		Dec. 9	25.74		June 27	15.65	
Mar. 22	9.71		Jan. 20, 1959	27.10		Sept. 28	16.26	
Apr. 27	9.44		Mar. 18	27.76		Apr. 10, 1962	15.95	
May 24	9.17		Apr. 18	21.35		Sept. 28	17.25	
June 24	9.57		May 26	28.47				
Oct. 3	9.95		June 25	27.23		<u>CS-68-4cbdd.</u>		
Jan. 16, 1961	9.78		July 30	26.99		Sept. 24, 1956	15.39	
Apr. 25	9.20		Sept. 21	26.11		Oct. 1	17.49	
July 6	9.82		Oct. 26	25.60		Oct. 29	15.71	
Jan. 4, 1962	9.28		Dec. 15	25.88		Dec. 3	15.55	
Apr. 13	11.40		Jan. 8, 1960	26.22		Jan. 2, 1957	17.77	
Oct. 1	9.82		Feb. 10	25.36		Feb. 4	16.88	
Jan. 22, 1963	9.87		Mar. 21	26.42		Mar. 5	16.45	
			Apr. 10	26.94		Apr. 18	15.10	
<u>CS-67-14aabb.</u>			May 24	26.94		June 4	12.95	
Oct. 17, 1957	49.33		June 27	26.45		Aug. 5	14.00	
Nov. 16	48.88		Sept. 28	25.11		Sept. 5	14.27	
Dec. 11	48.50		Jan. 13, 1961	25.10		Oct. 8	16.07	
Jan. 16, 1958	48.15		Apr. 25	24.95		Nov. 14	15.90	
Feb. 18	47.90		July 6	26.63		Dec. 12	16.17	
Mar. 13	47.52		Sept. 22	25.81		Jan. 14, 1958	16.26	
Apr. 25	46.92		Feb. 6, 1962	26.73		Mar. 18	16.15	
May 19	46.40		Apr. 9	27.25		June 19	15.65	
June 20	45.68		Oct. 20	26.05		July 16	17.39	
July 15	45.39					Nov. 5	17.12	
Aug. 20	45.16		<u>CS-68-4aadb.</u>			Dec. 9	15.70	
Sept. 24	45.07		Aug. 30, 1956	18.34		Feb. 2, 1959	16.28	
Nov. 7	45.00		Sept. 14	18.21		Mar. 18	16.41	
Dec. 10	45.15		Sept. 28	18.36		Apr. 18	15.88	
Jan. 30, 1959	44.99		Oct. 29	18.39		July 30	17.10	
Mar. 19	44.75		Dec. 1	18.53		Sept. 21	17.38	
Apr. 27	43.48		Jan. 2, 1957	18.90		Oct. 26	16.95	
June 6	44.21		Feb. 4	19.29		Dec. 15	16.55	
June 24	44.15		Mar. 5	19.53		Jan. 8, 1960	16.71	
July 14	44.15		Apr. 18	19.17		Mar. 22	15.76	
Aug. 24	44.26		June 4	16.70		Apr. 30	15.80	
Oct. 12	44.39		July 9	16.88		May 23	16.03	
Oct. 28	44.30		Aug. 5	17.01		Jan. 13, 1961	17.30	
Dec. 10	44.19		Sept. 5	16.98		Apr. 25	16.74	
Jan. 6, 1960	44.44		Oct. 14	16.94		Jan. 23, 1962	17.20	
Feb. 8	44.34		Nov. 15	17.02		Apr. 10	15.98	
						Jan. 21, 1963	18.06	

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-68-7ccag.</u>			<u>CS-68-7ccbb.</u> --Continued			<u>CS-68-8dcba.</u> --Continued		
May 18, 1956		155.80	July 13, 1960		187.64	Oct. 8, 1957		11.86
Dec. 12, 1957		167.91	July 28		190.90	Nov. 16		12.00
Jan. 13, 1958		167.68	Aug. 25		193.62	Dec. 12		12.43
Mar. 25		162.61	Sept. 6		195.00	Jan. 14, 1958		12.92
Mar. 17, 1959		166.32	Sept. 19		195.12	Feb. 18		13.20
Dec. 14		172.62	Sept. 28		195.38	Mar. 17		12.59
Sept. 28, 1960		198.38	Oct. 10		195.88	Apr. 22		12.47
Apr. 25, 1961		172.54	Oct. 20		195.10	May 22		11.15
<u>CS-68-7ccbb.</u>			Oct. 29		194.16	June 19		9.63
Feb. 20, 1957		173.49	Nov. 14		192.63	July 16		12.24
Mar. 19		172.64	Nov. 30		191.80	Aug. 28		12.45
Apr. 18		171.95	Dec. 10		191.03	Apr. 20, 1959		13.70
June 4		171.97	Dec. 19		190.38	<u>CS-68-8dcdb.</u>		
July 9		177.99	Jan. 1, 1961		189.00	Sept. 26, 1956		10.28
July 11		178.32	Jan. 13		188.33	Sept. 28		10.44
July 18		180.34	Feb. 10		186.51	Oct. 31		14.04
July 25		179.46	Feb. 26		187.78	Dec. 3		12.12
Aug. 2		179.92	Mar. 14		185.24	Jan. 2, 1957		13.72
Aug. 9		180.49	Apr. 7		183.08	Feb. 4		14.05
Aug. 17		180.60	Apr. 23		182.30	Mar. 5		14.26
Aug. 26		180.30	May 9		182.59	Apr. 18		13.89
Sept. 2		181.08	May 25		182.30	June 4		11.41
Sept. 10		181.85	July 6		185.87	July 8		9.77
Sept. 23		181.46	July 10		182.35	<u>CS-68-8dcdb.</u>		
Sept. 30		182.73	Aug. 7		186.82	Sept. 26, 1956		5.56
Oct. 8		183.02	Sept. 20		187.36	Sept. 28		5.59
Oct. 16		181.79	Jan. 3, 1962		186.37	Oct. 31		9.33
Oct. 24		180.93	Apr. 2		182.08	Dec. 3		8.11
Nov. 3		180.24	Sept. 28		194.60	Jan. 2, 1957		8.41
Nov. 12		179.70	Jan. 23, 1963		189.44	Feb. 4		9.01
Nov. 20		179.39	<u>CS-68-8daac.</u>			Mar. 5		9.20
Dec. 3		178.80	Sept. 26, 1956		4.55	June 6		6.80
Dec. 12		178.28	Sept. 28		4.67	July 8		5.91
Dec. 23		178.07	Oct. 29		4.43	Aug. 5		5.18
Jan. 4, 1958		177.63	Dec. 3		4.69	Sept. 5		5.12
Jan. 13		177.18	Jan. 2, 1957		4.70	Oct. 8		5.73
Jan. 30		177.75	Feb. 4		4.72	Nov. 16		6.05
Jan. 34		176.69	Mar. 5		4.85	Dec. 12		6.13
Feb. 10		175.02	Apr. 18		4.27	Mar. 17, 1958		6.72
Mar. 17		174.69	June 4		2.90	Apr. 22		6.48
Mar. 25		174.51	July 9		1.74	May 22		5.19
Apr. 3		174.52	Aug. 5		2.98	June 19		3.50
Apr. 14		174.16	Sept. 5		3.45	July 16		5.19
Apr. 28		174.26	Oct. 8		4.28	Aug. 28		7.33
May 10		174.22	Nov. 16		3.62	Nov. 5		7.62
May 22		173.87	Dec. 12		4.06	Feb. 2, 1959		7.60
June 3		174.88	Jan. 14, 1958		4.40	Mar. 18		8.02
June 19		177.85	Feb. 18		4.37	Apr. 18		7.35
July 2		179.44	Mar. 17		3.77	May 26		8.59
July 9		179.43	Apr. 22		3.45	<u>CS-68-8dcda.</u>		
July 16		180.54	May 22		2.75	Aug. 30, 1956		4.88
Aug. 1		180.15	June 19		3.36	Sept. 4		5.40
Aug. 8		182.27	July 16		3.47	Sept. 23		6.05
Aug. 15		183.93	Aug. 28		3.73	Oct. 29		8.64
Aug. 22		185.33	Apr. 20, 1959		3.68	Dec. 3		7.70
Aug. 29		184.79	Dec. 15		5.68	Jan. 2, 1957		8.08
Sept. 12		185.51	Jan. 8, 1960		4.51	Feb. 4		8.39
Sept. 25		184.92	Feb. 10		4.40	Mar. 5		8.55
Oct. 6		184.79	<u>CS-68-8dcad.</u>			Apr. 18		7.86
Oct. 17		185.29	Sept. 5, 1957		3.77	June 4		5.10
Nov. 5		183.64	Oct. 8		4.69	July 8		4.80
Nov. 19		182.71	Nov. 16		4.63	Aug. 5		4.74
Nov. 26		182.25	Dec. 12		5.07	Oct. 8		4.76
Dec. 1		181.02	Jan. 14, 1958		5.58	Nov. 16		4.64
Dec. 8		181.47	Mar. 18		5.36	Dec. 12		4.79
Dec. 19		181.07	Apr. 20		5.43	Jan. 14, 1958		5.54
Feb. 6, 1959		179.11	June 26		4.31	Feb. 18		5.80
Feb. 17		178.95	July 30		4.98	Mar. 18		5.48
Mar. 17		178.27	Sept. 21		7.84	Apr. 22		4.87
Mar. 24		177.97	Oct. 26		5.98	May 22		3.16
Apr. 1		177.76	Dec. 14		6.09	July 16		3.96
Apr. 10		177.15	Jan. 8, 1960		6.09	Aug. 28		5.77
Apr. 21		176.81	Feb. 10		6.03	Dec. 9		5.63
May 5		177.48	Mar. 22		7.40	Apr. 20, 1959		5.65
May 13		177.26	Apr. 30		4.87	May 26		5.26
June 22		183.44	May 23		4.37	Dec. 14		6.40
June 29		184.09	Sept. 28		8.85	Jan. 8, 1960		6.45
July 14		186.77	Jan. 17, 1961		5.32	Feb. 10		6.20
July 31		189.96	Apr. 25		5.45	Apr. 10, 1962		5.02
Aug. 21		190.59	July 6		5.40	<u>CS-68-9accb.</u>		
Sept. 2		190.98	Sept. 22		3.87	Aug. 30, 1956		27.41
Sept. 22		190.57	Jan. 29, 1962		4.85	Sept. 14		27.35
Oct. 8		188.06	Apr. 10		4.67	Sept. 28		27.37
Oct. 26		186.04	Sept. 28		8.83	Oct. 29		26.94
Nov. 11		184.60	Jan. 21, 1963		5.55	Dec. 3		29.27
Nov. 24		183.78	<u>CS-68-9dcba.</u>			Jan. 2, 1957		30.64
Dec. 3		183.14	Sept. 26, 1956		11.59	Feb. 4		31.30
Dec. 19		182.50	Sept. 28		11.88	Mar. 5		31.75
Dec. 31		181.71	Oct. 31		15.01	Apr. 18		32.00
Jan. 7, 1960		182.45	Dec. 3		14.79	June 4		30.67
Jan. 27		182.00	Jan. 2, 1957		15.43	July 9		28.79
Feb. 10		180.54	Feb. 4		15.77	Aug. 5		27.76
Feb. 24		180.04	Mar. 5		16.00	Oct. 14		27.53
Mar. 12		179.70	Apr. 18		15.58	Nov. 16		28.54
Mar. 23		179.25	June 4		12.98	Dec. 11		29.55
Apr. 4		179.16	July 9		10.48	Jan. 14, 1958		30.60
Apr. 16		178.62	Aug. 5		11.02	Feb. 18		31.34
Apr. 23		179.20	Sept. 5		10.95			
May 8		181.60						
June 27		185.52						

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>CS-68-9acdb</u> --Continued			<u>CS-68-17cdba</u> --Continued			<u>CS-68-20cbdd</u> --Continued		
Mar. 18, 1958	11.54		Nov. 17, 1957	2.69		July 5, 1961	9.48	
Apr. 22	12.01		Dec. 12	3.24		Sept. 22	9.31	
May 22	11.25		Jan. 14, 1958	3.77		Jan. 3, 1962	8.94	
June 23	28.40		Feb. 17	3.33		Apr. 10	9.29	
July 16	27.59		Mar. 18	3.34		Sept. 28	7.35	
Aug. 28	27.30		Apr. 25	3.31		Jan. 21, 1963	9.22	
Nov. 5	27.43		May 22	2.48				
Dec. 9	29.81		June 19	2.70				
Feb. 2, 1959	10.98		July 16	1.30				
Mar. 18	12.05		Apr. 20, 1959	3.26				
Apr. 20	11.91					<u>CS-68-10aabd</u>		
May 26	11.13					Oct. 1, 1956	29.36	
June 23	29.47		<u>CS-68-17cdcb</u>			Oct. 29	29.26	
July 30	29.09		Sept. 21, 1956	5.68		Dec. 3	29.42	
Sept. 21	26.15		Sept. 28	6.27		Jan. 2, 1957	29.95	
Oct. 26	27.49		Oct. 24	5.88		Feb. 4	30.14	
Dec. 15	10.02		Dec. 3	6.27		Mar. 5	30.45	
Jan. 8, 1960	29.48		Jan. 2, 1957	6.79		Apr. 18	30.49	
Feb. 10	10.24		Feb. 4	7.16		June 4	29.05	
Mar. 22	10.69		Mar. 5	7.17		July 8	27.30	
Apr. 10	29.47		Apr. 18	6.77		Aug. 5	27.80	
May 24	29.56		June 4	4.79		Sept. 4	27.75	
June 27	27.72		July 8	3.30		Nov. 17	28.18	
Sept. 28	26.09		Aug. 5	3.20		Dec. 13	28.84	
Jan. 13, 1961	28.67		Sept. 2	3.56		Jan. 14, 1958	29.42	
Apr. 29	29.99		Oct. 8	4.28		Feb. 18	30.40	
July 6	28.39		Nov. 17	4.55		Mar. 18	30.11	
Jan. 29, 1962	29.79		Dec. 12	5.07		Apr. 22	30.49	
Apr. 10	30.63		Feb. 17, 1958	5.83		May 21	29.36	
Oct. 1	26.63		Mar. 18	5.74		June 23	27.98	
			Apr. 25	5.46		July 16	27.48	
			May 22	4.25		Apr. 21, 1959	30.22	
			June 19	3.84		Dec. 15	29.15	
			July 16	2.34		Jan. 8, 1960	29.50	
			Aug. 28	7.00		Feb. 10	29.88	
			Mar. 24, 1959	5.70		Sept. 28	27.51	
			Apr. 20	5.07		Apr. 12	30.26	
			Dec. 15	5.50		Sept. 28	28.11	
			Jan. 7, 1960	5.82		Feb. 5, 1963	30.10	
			Feb. 10	5.82				
<u>CS-68-17cdad</u>			<u>CS-68-20cbad</u>			<u>CS-68-30adad</u>		
Feb. 7, 1957	5.77		Aug. 30, 1956	13.54		Aug. 29, 1956	0.59	
Feb. 14	5.67		Sept. 14	13.80		Sept. 21	1.66	
Feb. 22	6.01		Sept. 28	14.25		Sept. 28	1.60	
Mar. 1	5.82		Oct. 29	13.61		Oct. 19	1.01	
Mar. 8	5.86		Dec. 3	13.69		Dec. 3	1.28	
Mar. 15	6.17		Jan. 2, 1957	13.99		Jan. 2, 1957	1.64	
Mar. 21	6.55		Feb. 4	14.39		Feb. 4	2.30	
Mar. 28	6.39		Mar. 5	14.40		Mar. 5	2.00	
Apr. 4	7.83		Apr. 18	14.31		Apr. 18	1.94	
Apr. 11	5.31		Sept. 4	12.65		June 4	1.24	
Apr. 19	4.39		Oct. 14	12.93		July 8	1.25	
Apr. 28	4.60		Nov. 16	12.65		Aug. 5	1.49	
May 6	3.95		Dec. 13	13.25		Sept. 4	1.61	
May 13	3.19		Jan. 14, 1958	12.75		Oct. 14	1.64	
May 20	2.29					Nov. 17	1.49	
May 28	3.68					Dec. 13	1.94	
June 3	1.05		<u>CS-68-20cbdd</u>			Jan. 14, 1958	1.40	
July 17	2.51		Aug. 30, 1956	9.18		Feb. 18	1.89	
Sept. 2	4.83		Sept. 14	9.43		Mar. 18	1.77	
Oct. 8	4.07		Sept. 28	9.88		Apr. 22	2.12	
Nov. 17	3.36		Oct. 29	9.12		May 21	1.22	
Dec. 12	3.96		Dec. 3	8.96		June 23	1.39	
Feb. 17, 1958	4.42		Jan. 2, 1957	9.33		July 16	1.62	
Mar. 18	4.13		Feb. 4	9.74		Aug. 28	1.03	
Apr. 25	4.44		Mar. 5	9.71		Nov. 5	1.11	
May 22	3.83		Apr. 18	9.65		Dec. 9	2.0	
June 19	4.85		June 2	8.09		Feb. 2, 1959	1.92	
July 16	3.52		July 8	7.79		Mar. 18	2.20	
Aug. 28	5.17		Aug. 5	7.63		Apr. 18	1.78	
Sept. 25	3.60		Sept. 4	8.02		May 26	1.72	
Nov. 5	3.57		Oct. 14	8.27		June 23	1.08	
Dec. 9	3.79		Nov. 16	7.96		July 30	1.65	
Feb. 2, 1959	3.14		Dec. 12	8.50		Sept. 24	1.43	
Mar. 18	3.92		Jan. 4, 1958	9.07		Oct. 26	1.42	
Apr. 20	3.21		Feb. 18	9.30		Dec. 15	1.64	
May 26	2.26		Mar. 18	9.31		Jan. 9, 1960	1.47	
June 26	2.82		Apr. 22	9.74		Feb. 10	1.25	
July 30	4.66		May 22	9.04		Mar. 21	1.66	
Sept. 21	5.07		June 23	8.94		Apr. 30	1.10	
Oct. 26	3.70		July 16	7.50		May 24	1.17	
Dec. 15	4.31		Aug. 28	8.43		June 23	1.46	
Jan. 7, 1960	5.97		Sept. 25	7.84		Sept. 28	1.70	
Feb. 10	6.89		Nov. 5	7.79		Jan. 13, 1961	1.77	
Mar. 21	3.20		Dec. 9	8.79		Apr. 29	2.05	
Apr. 30	2.95		Feb. 2, 1959	9.44		July 5	1.77	
May 23	3.85		Mar. 18	8.61		Jan. 3, 1962	1.58	
June 27	4.80		Apr. 20	8.83		Apr. 12	1.82	
Sept. 28	6.59		June 26	8.64		Sept. 28	1.08	
Jan. 13, 1961	3.81		July 30	7.07		Feb. 5, 1963	1.64	
Apr. 27	5.15		Sept. 24	7.79				
July 5	5.30		Oct. 26	7.44		<u>CS-68-31adad</u>		
Jan. 6, 1962	6.32		Dec. 14	8.48		Sept. 17, 1956	2.92	
Feb. 2	2.89		Jan. 8, 1960	8.77		Sept. 27	2.40	
Apr. 10	2.80		Feb. 10	8.87		Oct. 29	2.68	
Oct. 1	3.92		Mar. 21	8.84		Dec. 3	1.89	
Jan. 21, 1963	4.91		Apr. 30	9.02		Jan. 2, 1957	2.84	
			May 24	8.49		Feb. 4	2.97	
<u>CS-68-17cdba</u>			June 23	8.69		Mar. 5	2.92	
Oct. 29, 1956	2.90		Sept. 28	8.24		Apr. 18	1.88	
Dec. 3	4.09		Jan. 13, 1961	8.91		July 3	1.87	
Jan. 2, 1957	5.38		Apr. 29	9.41		July 31	1.73	
Feb. 4	5.72					Sept. 4	2.22	
Mar. 5	5.78					Oct. 16	2.22	
Apr. 15	5.41							
June 4	3.30							
July 8	1.80							
Aug. 5	1.98							
Sept. 5	2.20							
Oct. 8	2.78							

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C5-68-31adab.</u> --Continued			<u>C5-69-6bdcg.</u> --Continued			<u>C6-66-4bdcg.</u>		
Nov. 14, 1957		2.00	Sept. 24, 1959		5.73	July 15, 1959		21.50
Dec. 12		2.25	Oct. 20		2.69	Dec. 10		21.64
Jan. 13, 1958		2.54	Dec. 15		1.32	Jan. 7		21.34
Feb. 18		2.95	Jan. 9, 1960		2.27	Mar. 21		18.21
Mar. 18		3.60	Feb. 11		2.88	Apr. 27		17.44
Apr. 22		2.96	Mar. 21		2.32	May 24		16.67
May 21		1.24	Apr. 10		1.95	June 23		17.42
June 23		1.37	May 24		2.17	Oct. 3		22.51
July 16		2.53	June 23		1.75	Jan. 16, 1961		21.11
Sept. 25		2.33	July 26		3.22	July 1		16.08
Dec. 9		2.89	Sept. 28		5.93	Jan. 4, 1962		16.09
Feb. 2, 1959		2.97	Jan. 13, 1961		2.28	<u>C6-66-4cada.</u>		
Mar. 17		2.97	Apr. 25		3.44	Sept. 12, 1956		22.64
Apr. 18		2.16	July 5		2.39	Sept. 27		20.15
June 25		1.99	Jan. 1, 1962		4.11	Oct. 26		21.90
July 23		2.55	Apr. 12		2.50	Dec. 5		9.86
Sept. 21		3.14	Oct. 19		6.02	Jan. 4, 1957		9.53
Oct. 26		2.75	Jan. 21, 1963		2.15	Feb. 5		19.17
Dec. 14		2.70	<u>C5-69-7cacb.</u>			Mar. 11		13.93
Jan. 3, 1960		2.76	June 11, 1957		46.43	Apr. 25		17.18
Feb. 9		2.48	July 9		44.37	June 5		15.15
Mar. 22		1.96	July 31		43.52	July 15		17.39
May 4		1.88	Sept. 5		44.11	Aug. 7		15.41
May 23		1.49	Oct. 14		42.26	Sept. 16		15.93
June 27		2.12	Nov. 16		41.71	Nov. 16		14.36
Sept. 28		2.91	Dec. 13		41.63	Dec. 12		13.82
Jan. 13, 1961		2.55	Jan. 13, 1958		41.97	Jan. 16, 1958		13.69
Apr. 29		2.16	Feb. 18		40.52	Feb. 18		13.59
July 5		2.23	Mar. 17		40.08	Mar. 13		13.27
Jan. 6, 1962		2.36	Apr. 22		39.68	Apr. 25		13.42
Apr. 12		1.60	May 21		39.49	May 19		13.27
Oct. 1		2.72	June 23		41.54	Mar. 19, 1959		13.78
Jan. 22, 1963		1.64	July 16		41.56	Apr. 27		13.27
<u>C5-68-31daab.</u>			Aug. 21		41.65	June 6		13.19
Sept. 17, 1956		2.70	Sept. 25		40.76	July 16		34.69
Sept. 27		2.96	Nov. 5		39.07	Aug. 24		18.38
Oct. 29		2.45	Dec. 9		37.43	Oct. 12		17.39
Dec. 3		2.85	Feb. 2, 1959		38.95	Oct. 28		17.16
Jan. 2, 1957		2.94	Mar. 18		38.58	Dec. 10		16.76
Feb. 4		2.95	Apr. 21		38.62	Jan. 7, 1960		16.52
Mar. 5		2.89	May 26		38.20	Feb. 9		15.56
July 3		1.98	June 25		38.59	Mar. 21		14.06
July 31		2.12	July 23		39.50	Jan. 4, 1962		12.50
Sept. 4		3.02	Sept. 24		39.66	Apr. 13		12.50
Oct. 16		2.89	Oct. 26		38.52	Oct. 19		16.95
Nov. 14		2.64	Dec. 13		38.25	Jan. 22, 1961		17.07
Dec. 12		3.03	Jan. 9, 1960		37.99	<u>C6-66-5adac.</u>		
Jan. 13, 1958		3.33	Feb. 11		37.93	Sept. 12, 1956		21.34
Mar. 18		3.67	Mar. 21		37.99	Sept. 27		20.57
<u>C5-68-31daac.</u>			Apr. 30		37.68	Oct. 26		19.38
Sept. 17, 1956		3.52	May 24		37.36	Dec. 5		17.50
Sept. 27		3.85	June 23		37.74	Jan. 4, 1957		16.76
Oct. 29		3.32	July 26		37.77	Feb. 6		16.05
Dec. 3		3.64	Sept. 28		37.75	Mar. 11		15.60
Jan. 2, 1957		3.69	Jan. 13, 1961		36.80	Apr. 25		13.25
Feb. 4		3.76	Apr. 25		35.01	June 5		12.22
Mar. 5		3.74	July 5		35.51	July 15		15.71
July 1		2.95	Jan. 3, 1962		35.32	Aug. 7		13.81
July 31		2.99	Apr. 20		35.91	Sept. 16		14.70
Sept. 4		3.77	Sept. 28		36.19	Oct. 17		13.45
Oct. 16		3.58	Jan. 21, 1963		34.55	Nov. 16		12.24
Nov. 14		2.80	<u>C5-69-18bbcc.</u>			Dec. 12		12.02
Dec. 12		3.66	Dec. 5, 1956		43.5	Jan. 16, 1958		12.00
Jan. 13, 1958		4.08	Jan. 1, 1957		43.75	Feb. 18		11.95
Mar. 18		4.67	Feb. 4		43.50	Mar. 13		11.87
Mar. 22, 1959		7.00	Mar. 3		43.75	Apr. 25		17.89
<u>C5-69-6bdcg.</u>			Apr. 1		43.75	May 19		11.79
Oct. 11, 1956		5.80	June 3		46.00	June 20		12.47
Oct. 30		5.97	July 5		47.00	Nov. 7		13.40
Dec. 1		2.67	July 31		48.00	Dec. 10		12.87
Jan. 3, 1957		2.16	<u>C5-69-25aacc.</u>			Jan. 30, 1959		12.40
Feb. 4		2.09	Apr. 18, 1957		14.70	Mar. 19		12.06
Mar. 3		2.11	June 4		14.45	Apr. 27		11.80
Apr. 1		2.06	July 3		15.46	June 6		13.65
June 2		1.90	Aug. 5		16.91	June 26		13.62
July 9		1.70	Sept. 5		18.16	July 15		30.10
Aug. 5		1.91	Oct. 14		18.56	Oct. 13		17.52
Sept. 5		2.09	Nov. 17		18.45	Oct. 28		16.43
Oct. 14		2.40	Dec. 13		18.58	Dec. 10		14.65
Nov. 17		2.82	Jan. 14, 1958		18.46	Jan. 7, 1960		15.37
Dec. 13		2.90	Feb. 18		17.32	Feb. 9		13.56
Jan. 2, 1958		2.79	Mar. 18		17.31	Mar. 22		10.33
Feb. 11		2.52	Apr. 22		17.12	Apr. 27		11.35
Mar. 17		2.44	May 21		17.40	May 24		11.30
Apr. 22		2.44	June 23		19.32	Sept. 29		11.33
May 21		2.48	July 16		21.17	Jan. 16, 1961		13.74
June 23		1.97	Aug. 21		23.45	Apr. 27		11.29
July 16		2.74	Nov. 5		23.73	July 1		15.20
Aug. 21		4.72	Dec. 9		23.03	Sept. 21		15.05
Sept. 25		6.33	Feb. 2, 1959		21.42	Jan. 4, 1962		11.16
Nov. 5		5.19	Oct. 11, 1960		16.39	Apr. 13		10.40
Dec. 9		2.30	Jan. 13, 1961		36.33	Oct. 1		18.45
Feb. 2, 1959		2.17	Apr. 29		37.02	Jan. 22, 1963		13.96
Mar. 18		2.37	July 6		16.73	<u>C6-66-9adac.</u>		
Apr. 21		2.18	Sept. 22		16.74	Sept. 27, 1956		20.79
May 26		2.00	Jan. 3, 1962		39.57	Oct. 26		21.47
June 25		2.02	Apr. 20		40.08	Dec. 5		20.45
July 23		3.20	Sept. 28		45.01	Jan. 4, 1957		19.90
			Jan. 21, 1963		45.05			

See footnotes at end of table.

Table 1.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C6-66-9addc</u> ---Continued			<u>C6-66-9bcdg</u> ---Continued			<u>C6-66-22bcab</u> ---Continued		
Feb. 6, 1957	19.44		Dec. 10, 1956	28.78		Jan. 4, 1957	12.15	
Mar. 11	19.39		Jan. 10, 1959	28.31		Feb. 6	11.30	
Apr. 25	16.45		Mar. 19	28.49		Mar. 11	11.53	
June 5	15.33		Apr. 27	27.48		Apr. 25	10.34	
Aug. 7	14.47		June 6	27.30		June 5	19.07	
Sept. 16	17.40		Oct. 13	11.98		July 15	11.11	
Oct. 16	16.31		Oct. 28	11.56		Aug. 7	19.16	
Nov. 16	15.37		Dec. 10	10.31		Sept. 16	10.98	
Dec. 12	15.20		Jan. 7, 1960	10.77		Oct. 16	18.98	
Jan. 16, 1958	15.09		Feb. 9	28.98		Nov. 16	28.07	
Feb. 18	14.30		Mar. 22	27.79		Dec. 12	27.18	
Mar. 13	14.98		Apr. 27	27.23		Jan. 16, 1958	27.50	
Apr. 25	14.97		May 24	27.65		Feb. 18	27.38	
May 19	14.85		Sept. 29	11.83		Mar. 13	27.30	
June 20	15.02		Jan. 16, 1961	28.97		Apr. 25	27.11	
Sept. 24	17.01		Apr. 27	27.83		May 19	27.12	
Mar. 19, 1959	15.24		Apr. 13, 1962	24.60		June 20	26.81	
Apr. 27	15.04					July 15	28.05	
June 6	15.06		<u>C6-66-9bdcc</u>			Mar. 19	25.88	
June 26	15.33		Sept. 12, 1956	12.90		Apr. 27	25.66	
Aug. 24	20.36		Sept. 27	11.89		May 11	25.19	
Oct. 13	18.11		Oct. 26	13.10		June 6	25.30	
Oct. 28	18.04		Dec. 5	11.63		June 26	26.63	
Dec. 10	15.31		Jan. 4, 1957	11.22		July 13	51.60	
Jan. 7, 1960	15.52		Feb. 6	10.73		Aug. 24	28.09	
Feb. 9	15.22		Mar. 11	10.42		Oct. 13	26.39	
Mar. 21	14.34		Apr. 25	29.28		Oct. 28	26.56	
Apr. 27	15.20		June 5	27.63		Dec. 10	25.32	
May 24	15.11		July 15	14.34		Jan. 7, 1960	25.77	
Sept. 29	20.35		Aug. 7	28.68		Feb. 8	25.53	
Jan. 16, 1961	15.53		Sept. 16	28.97		Mar. 21	25.06	
Apr. 27	15.25		Nov. 16	29.49		Sept. 29	27.36	
July 1	15.48		Dec. 12	27.00		Apr. 13	24.60	
Jan. 4, 1962	15.35		Jan. 16, 1958	26.78		Oct. 19	28.66	
Apr. 13	14.70		Feb. 18	26.55		Jan. 22, 1963	27.59	
Oct. 19	18.65		Mar. 13	26.41				
Jan. 22, 1963	16.42		Apr. 25	26.24		<u>C6-66-22bcab2</u>		
			May 19	25.98		June 6, 1959	26.67	
<u>C6-66-9addc2</u>			June 20	26.08		June 26	27.97	
Sept. 12, 1956	13.35		Mar. 19, 1959	26.24		Aug. 24	29.42	
Sept. 27	8.75		Apr. 27	25.89		Oct. 13	28.34	
Oct. 26	10.40		June 6	25.73		Oct. 28	27.89	
Dec. 5	9.33		Oct. 28	29.35		Dec. 10	27.16	
Jan. 4, 1957	8.88		Dec. 10	28.07		Jan. 7, 1960	27.03	
Feb. 6	8.31		Jan. 7, 1960	28.43		Feb. 8	26.59	
Mar. 11	7.95		Feb. 9	26.70				
Apr. 25	5.27		Apr. 13, 1962	23.20		<u>C6-66-22bcab3</u>		
June 5	4.18					June 6, 1959	26.47	
July 15	9.95		<u>C6-66-22bcd</u>			June 26	28.23	
Aug. 7	4.08		Sept. 12, 1956	41.85		Aug. 24	29.50	
Sept. 16	6.33		Oct. 26	42.66		Oct. 13	28.53	
Oct. 16	5.70		Dec. 5	41.46		Oct. 28	28.07	
Nov. 16	4.23		Jan. 4, 1957	39.73		Dec. 10	27.40	
Dec. 12	4.05		Feb. 6	39.35		Jan. 7, 1960	27.07	
Jan. 16, 1958	3.94		Mar. 11	39.06		Feb. 8	26.99	
Feb. 18	3.76		Apr. 25	38.44				
Mar. 13	3.85		June 5	37.20		<u>C6-66-22ccdd</u>		
Apr. 25	3.82		July 15	38.58		Sept. 12, 1956	25.38	
May 19	3.70		Aug. 7	37.04		Sept. 27	25.11	
June 20	3.91		Sept. 16	38.31		Dec. 5	25.30	
July 15	7.81		Oct. 16	35.73		Jan. 4, 1957	25.01	
Aug. 20	8.60		Nov. 16	38.91		Feb. 6	24.84	
Nov. 7	4.70		Dec. 12	34.47		Mar. 11	24.51	
Dec. 10	4.50		Jan. 16, 1958	34.05		June 5	23.42	
Jan. 30, 1959	4.30		Feb. 18	33.87		July 15	19.05	
Mar. 19	4.12		Mar. 13	33.67		Sept. 16	13.87	
Apr. 27	3.90		Apr. 25	33.46		Oct. 16	14.86	
June 6	3.93		May 19	32.62		Nov. 16	12.99	
June 26	4.26		June 20	32.86		Dec. 12	12.77	
Aug. 24	3.54		July 15	34.53		Jan. 16, 1958	12.73	
Oct. 13	3.41		Oct. 26	33.31		Feb. 18	12.42	
Oct. 28	6.35		Nov. 16	32.30		Mar. 13	12.69	
Dec. 10	4.73		Dec. 10	32.04		Apr. 25	12.60	
Jan. 7, 1960	4.28		Jan. 30, 1959	31.52		May 19	12.41	
Feb. 9	4.09		Mar. 19	31.09		June 20	13.36	
June 23	8.82		Apr. 27	30.61		July 15	14.50	
Apr. 13, 1962	7.30		May 11	30.54		Aug. 20	16.10	
			June 6	30.19		Nov. 7	16.46	
<u>C6-66-9bcdg</u>			June 26	31.44		Dec. 10	16.25	
Sept. 12, 1956	35.10		Aug. 24	32.23		Jan. 3, 1959	13.62	
Sept. 27	34.28		Oct. 13	31.78		Mar. 19	12.82	
Oct. 26	35.38		Oct. 28	31.31		Apr. 27	12.62	
Dec. 5	33.89		Dec. 10	30.55		May 11	12.44	
Jan. 4, 1957	33.41		Jan. 7, 1960	30.51		June 6	12.52	
Feb. 6	32.95		Feb. 8	30.17		June 26	13.28	
Mar. 11	32.73		Apr. 27	31.29		July 27	15.67	
Apr. 25	31.55		May 24	30.22		Aug. 24	27.40	
June 5	30.06		June 23	31.82		Oct. 13	17.49	
July 15	16.02		Sept. 29	31.94		Oct. 28	17.38	
Aug. 7	10.99		Jan. 16, 1961	30.21		Dec. 10	17.47	
Sept. 16	11.30		Apr. 27	30.10		Jan. 7, 1960	17.82	
Nov. 16	29.77		Sept. 21	27.24		Feb. 9	15.59	
Dec. 12	28.70		Jan. 4, 1962	26.19		Apr. 13, 1962	12.40	
Jan. 16, 1958	28.49		Apr. 13	30.10				
Feb. 18	28.82		Oct. 19	34.16		<u>C6-67-8bcba</u>		
Mar. 13	28.06		Jan. 22, 1963	33.04		July 17, 1957	6.12	
Apr. 25	28.45					Oct. 16	6.33	
May 19	28.24					Nov. 16	6.20	
June 2	27.70					Dec. 12	6.15	
Sept. 24	29.96					Jan. 16, 1958	6.55	
Nov. 7	29.10					Feb. 19	6.31	
			<u>C6-66-22bcab</u>					
			Sept. 12, 1956	34.12				
			Oct. 26	35.14				
			Dec. 5	32.73				

See footnotes at end of table.

Table 4.--Measurements of the water level in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C6-67-9bcb</u> --Continued			<u>C6-68-8bbb</u> --Continued			<u>C6-68-18ddb</u> --Continued		
Mar. 14, 1958		6.62	May 26, 1959		2.55	Oct. 16, 1957		+35.60
Apr. 28		6.36	June 25		2.37	Nov. 14		+32.40
May 19		6.32	July 10		2.72	Dec. 12		+31.00
June 23		6.00	Sept. 24		3.18	Jan. 13, 1958		+32.50
July 15		9.16	Oct. 26		3.55	Feb. 18		+31.00
Aug. 21		6.20	Dec. 11		3.39	Mar. 18		+33.00
Sept. 25		6.10	Jan. 7, 1960		4.08	Apr. 22		+32.80
Nov. 7		6.92	Feb. 9		4.09	May 21		+33.00
Dec. 10		14.73	Mar. 22		4.15	June 22		+31.75
Feb. 2, 1959		7.38	Apr. 26		4.20	July 16		+32.50
Mar. 17		6.93	May 23		3.83	Aug. 21		+32.50
Apr. 18		6.08	June 23		4.55	Sept. 25		+25.50
June 2		9.79	Sept. 29		6.54	Nov. 5		+30.20
June 26		14.25	Jan. 13, 1961		7.04	Dec. 9		+31.80
July 23		20.71	Apr. 27		6.35	Feb. 2, 1959		+32.10
Sept. 24		15.80	July 5		5.41	Mar. 18		+30.70
Oct. 26		26.10	Sept. 22		8.04	Apr. 18		+31.00
Dec. 11		12.04	Jan. 1, 1962		8.65	May 26		+31.20
Jan. 8, 1960		29.67	Apr. 5		9.59	June 25		+30.70
Feb. 9		52.68	Sept. 28		11.69	Sept. 24		+29.10
Mar. 30		29.47	Jan. 21, 1963		14.42	Oct. 26		+30.20
Apr. 26		15.50				Dec. 15		+30.70
May 24		18.27	<u>C6-68-18abcb</u>			Jan. 3, 1960		+29.75
June 27		12.81	Sept. 12, 1956		7.76	Feb. 9		+29.45
Sept. 29		21.43	Oct. 29		7.24	Mar. 28		+29.60
Jan. 13, 1961		10.89	Dec. 1		7.76	Apr. 26		+29.90
Apr. 27		35.40	Jan. 2, 1957		7.62	May 23		+29.40
July 5		11.45	Feb. 4		7.48	June 23		+30.70
Apr. 21, 1962		21.78	Mar. 5		7.38	Sept. 28		+28.70
Oct. 1		8.24	June 7		5.80	Jan. 13, 1961		+29.00
<u>C6-68-7ccc2</u>			July 3		7.79	Apr. 29		+32.00
Sept. 17, 1956		4.70	July 31		7.89	July 5		+29.30
Sept. 27		4.87	Sept. 4		8.33	Jan. 3, 1962		+29.40
Dec. 3		4.95	Oct. 16		7.45	Apr. 21		+28.80
Jan. 2, 1957		4.44	Nov. 14		7.14	Oct. 1		+27.20
Feb. 4		3.90	Dec. 12		6.88	Feb. 5, 1963		+26.70
Mar. 5		3.53	Jan. 13, 1958		6.86	<u>C6-68-18ddd</u>		
Apr. 18		2.15	Feb. 18		6.87	Sept. 17, 1956		1.55
June 4		1.34	Mar. 18		6.94	Oct. 29		1.53
July 3		2.83	Apr. 22		7.05	Dec. 3		.82
July 31		3.16	May 21		7.57	Jan. 2, 1957		.60
Sept. 14		3.74	June 23		8.32	Feb. 4		.29
Oct. 16		5.64	July 16		10.43	Mar. 5		.13
Nov. 14		2.86	Aug. 21		10.54	Apr. 18		.52
Dec. 12		2.85	Apr. 18, 1959		7.14	June 7		.65
Jan. 13, 1958		2.80	May 26		7.27	July 31		.47
Feb. 18		2.64	June 25		8.31	Sept. 4		.22
Mar. 18		2.48	Sept. 24		8.98	Oct. 16		.19
Apr. 22		2.70	Oct. 26		8.17	Nov. 14		.28
May 21		4.70	Dec. 15		7.17	Dec. 12		.58
June 23		3.24	Jan. 8, 1960		7.25	Oct. 1, 1962		.22
July 16		6.17	Feb. 9		7.09	<u>C6-69-2ddab</u>		
Aug. 21		4.64	Sept. 28		8.72	Sept. 13, 1956		28.15
Sept. 25		7.09	Oct. 1		8.18	Sept. 28		29.36
Nov. 5		5.73	<u>C6-68-18dabb</u>			Oct. 24		30.47
Dec. 9		3.90	Sept. 17, 1956		7.08	Dec. 3		29.82
Feb. 2, 1959		3.16	Sept. 27		7.02	Jan. 2, 1957		31.51
Mar. 18		2.90	Oct. 29		6.97	Feb. 4		30.61
Apr. 18		2.42	Dec. 3		6.92	Mar. 5		30.60
May 26		2.67	Jan. 2, 1957		6.99	Apr. 18		30.63
June 26		5.25	Feb. 4		6.64	June 4		26.79
Sept. 24		5.54	Mar. 5		6.76	July 8		23.57
Oct. 26		4.80	June 7		5.27	Aug. 5		23.44
Dec. 15		3.38	July 3		5.68	Sept. 9		24.10
Jan. 8, 1960		3.20	July 11		5.99	Oct. 14		24.61
Feb. 9		2.57	Sept. 4		6.10	Nov. 16		27.31
Mar. 22		1.56	Oct. 16		6.17	Dec. 12		28.60
Apr. 26		2.33	Nov. 14		6.10	Jan. 14, 1958		30.30
May 23		1.97	Dec. 12		6.58	Feb. 18		29.53
June 23		5.50	Jan. 13, 1958		6.40	Mar. 18		29.62
Sept. 28		7.04	Feb. 18		6.81	Apr. 22		28.92
Jan. 13, 1961		2.78	Mar. 18		6.86	May 21		27.17
Apr. 29		2.41	Apr. 22		6.90	June 23		24.52
July 5		4.47	May 21		6.60	July 16		25.05
Sept. 22		2.79	June 23		6.62	Aug. 21		25.98
Jan. 3, 1962		2.23	July 16		6.70	Sept. 25		27.84
Apr. 11		1.86	Aug. 21		6.55	Nov. 5		30.00
Oct. 1		6.12	Nov. 5		7.20	Dec. 9		29.70
Jan. 21, 1963		3.03	Dec. 9		6.79	Mar. 18		30.33
<u>C6-68-8bbb</u>			Feb. 2, 1959		6.62	Apr. 18		30.09
Aug. 7, 1957		0.67	Mar. 18		6.52	May 26		24.72
Sept. 4		.97	Apr. 18		6.27	June 25		25.02
Oct. 16		1.23	May 26		11.00	July 30		24.49
Nov. 16		1.41	June 25		17.97	Sept. 24		27.75
Dec. 12		1.53	Oct. 26		5.45	Oct. 26		28.22
Jan. 13, 1958		1.60	Dec. 15		4.70	Dec. 11		29.78
Feb. 17		1.61	Jan. 8, 1960		4.78	Jan. 3, 1960		29.98
Mar. 18		1.57	Apr. 11, 1962		8.11	Feb. 10		30.16
Apr. 22		1.57	<u>C6-68-18ddbb</u>			Mar. 21		29.85
May 21		1.44	Dec. 5, 1956		+32.75	Apr. 26		28.47
June 23		1.20	Jan. 2, 1957		+32.25	May 24		27.05
July 16		1.45	Feb. 4		+32.75	June 23		25.40
Aug. 28		1.75	Mar. 5		+34.00	Sept. 28		28.53
Sept. 25		2.13	Apr. 18		+35.25	Jan. 13, 1961		30.27
Nov. 5		2.45	June 7		+34.00	Apr. 29		30.62
Dec. 9		2.72	July 3		+34.75	July 5		25.09
Feb. 2, 1959		2.72	July 11		+34.00	Sept. 22		27.31
Mar. 18		2.82	Sept. 4		+34.60	Jan. 3, 1962		30.17
Apr. 18		2.58				Apr. 11		30.44
<u>C6-68-8bbb</u>						Sept. 28		29.50
Aug. 7, 1957		0.67				Jan. 21, 1963		31.29

See footnotes at end of table.

Table 4.--Measurements of the water levels in wells--Continued

Location number	Date	Water level	Location number	Date	Water level	Location number	Date	Water level
<u>C6-69-24dda.</u>			<u>C6-69-23dbb2.</u>			<u>C7-66-3aacd.</u>		
Sept. 13, 1956		15.17	Sept. 13, 1956		10.90	Jan. 16, 1961		20.26
Oct. 1		15.90	Sept. 28		11.13	Apr. 27		18.57
Oct. 29		15.79	Oct. 29		11.84	July 1		21.34
Dec. 3		16.11	Dec. 3		12.12	Sept. 21		21.55
Jan. 2, 1957		16.02	Jan. 2, 1957		12.42	Jan. 4, 1962		22.31
Feb. 4		16.05	Feb. 4		12.18	Apr. 13		21.50
Mar. 5		16.00	Mar. 5		12.30	Oct. 1		22.72
Apr. 18		15.63	Apr. 18		9.07	Jan. 22, 1963		22.94
June 4		13.19	June 4		7.58	<u>C7-67-3abcd.</u>		
July 8		10.65	July 7		8.82	Jan. 11, 1957		536.25
Aug. 5		10.47	July 3		4.83	Feb. 17, 1958		631.4
Sept. 4		12.20	Sept. 4		5.03	Mar. 18		607.9
Oct. 14		12.63	Oct. 14		5.68	Apr. 28		615.97
Nov. 16		13.99	Nov. 16		5.23	May 19		615.10
Dec. 12		14.84	Dec. 12		5.68	June 23		617.25
Jan. 14, 1958		15.55	Jan. 14, 1958		6.10	Aug. 21		615.8
Feb. 18		16.10	Jan. 18		6.18	Sept. 25		618.5
Mar. 18		15.69	Mar. 18		5.92	Nov. 7		617.3
Apr. 22		14.57	Apr. 22		4.96	Dec. 10		618.7
May 21		11.74	May 21		4.24	Feb. 6, 1959		619.1
June 23		12.89	June 23		4.90	Mar. 17		620.3
Aug. 21		14.18	July 16		5.34	Apr. 21		623.6
Apr. 18, 1959		15.88	Aug. 21		5.74	June 2		615.8
Dec. 11		16.44	Apr. 18, 1959		5.89	June 26		618.3
Jan. 8, 1960		16.76	July 30		5.44	July 10		610.0
Feb. 10		16.42	Dec. 11		6.26	Oct. 8		625.6
Sept. 28		15.88	Jan. 8, 1960		6.41	Oct. 28		613.7
Jan. 3, 1962		16.97	Feb. 10		6.33	Dec. 11		615.4
Apr. 11		16.69	<u>C6-69-26bdba.</u>			Jan. 12, 1960		609.2
Sept. 28		17.54	Sept. 18, 1956		6.18	Jan. 24, 1961		606.4
<u>C6-69-23dbb2.</u>			Sept. 28		6.38	<u>C7-67-3abcd2.</u>		
Sept. 4, 1957		5.84	Jan. 2, 1957		6.82	Jan. 12, 1960		519.0
Oct. 14		6.46	Feb. 4		6.84	Feb. 8		511.3
Nov. 16		6.02	Mar. 5		6.70	Mar. 22		511.4
Dec. 12		6.32	Apr. 18		6.10	Apr. 26		507.3
Jan. 14, 1958		6.72	June 4		3.82	May 23		515.4
Mar. 18		6.32	July 8		3.87	June 27		505.5
May 21		5.34	July 31		4.15	Jan. 24, 1961		500.9
July 16		6.17	Sept. 4		4.89	Apr. 29		494.0
Apr. 18, 1959		6.60	Oct. 14		5.14	July 5		495.1
July 30		6.34	Nov. 16		4.77	<u>C7-67-27abad.</u>		
Dec. 11		6.87	Dec. 12		5.27	Sept. 24, 1959		166.88
Jan. 8, 1960		6.95	Feb. 18, 1958		5.91	Dec. 11		166.55
Feb. 10		6.81	Mar. 18		5.57	Jan. 7, 1960		166.60
Mar. 21		5.93	Apr. 22		4.17	Feb. 8		165.49
Apr. 11, 1962		5.82	May 21		3.30	Mar. 22		166.15
<u>C6-69-23dbb2.</u>			June 23		4.70	Apr. 26		163.96
Sept. 13, 1956		13.94	July 16		4.66	May 23		165.52
Sept. 28		13.51	Aug. 21		5.10	June 23		166.23
Oct. 29		15.15	Sept. 25		5.47	Sept. 29		167.88
Dec. 3		15.67	Nov. 5		5.80	Jan. 13, 1961		168.81
Jan. 2, 1957		15.84	Dec. 9		6.30	Apr. 27		169.48
Feb. 4		15.67	Feb. 2, 1959		6.80	July 3		170.22
Mar. 5		15.77	Mar. 18		7.35	Jan. 4, 1962		169.89
Apr. 18		12.57	Apr. 18		6.02	Apr. 5		169.30
June 4		12.41	May 26		4.97	Apr. 5		178.34
July 8		11.81	June 25		4.14	Jan. 21, 1963		179.75
July 31		6.46	July 10		4.90	<u>C7-68-5dabb.</u>		
Jan. 14, 1958		7.15	Oct. 26		5.33	Oct. 20, 1959		180.93
Feb. 18		7.07	Dec. 11		7.47	Oct. 26		181.73
Mar. 18		6.92	Jan. 8, 1960		6.09	Jan. 7, 1960		180.58
Apr. 22		6.19	Feb. 9		6.03	Feb. 9		177.74
May 21		5.58	Mar. 21		5.55	Mar. 21		177.90
June 23		5.97	Apr. 26		4.65	Apr. 26		174.60
July 16		6.18	May 24		4.26	May 23		177.64
Aug. 21		5.90	June 23		4.57	June 23		180.27
Apr. 18, 1959		6.99	Jan. 13, 1961		7.33	Sept. 29		183.24
Sept. 24		7.11	July 5		6.98	Jan. 13, 1961		178.55
Oct. 26		6.99	Jan. 3, 1962		7.00	Apr. 27		176.10
Dec. 11		7.31	Apr. 11		6.24	July 3		181.17
Jan. 8, 1960		7.39	Oct. 1		7.22	Jan. 4, 1962		176.43
Feb. 10		7.26	Jan. 21, 1963		7.64	Apr. 5		175.99
Apr. 26		6.40	<u>C6-69-23dbb2.</u>			Oct. 1		178.34
May 24		6.19	Sept. 13, 1956		15.50	Jan. 21, 1963		179.75
June 23		6.35	Sept. 28		16.07	<u>C7-68-11dbad.</u>		
Jan. 13, 1961		7.33	Oct. 29		16.82	Sept. 25, 1959		214.00
July 5		6.98	Dec. 3		17.60	Dec. 11		202.30
Jan. 3, 1962		7.00	Jan. 2, 1957		17.68	Jan. 7, 1960		190.90
Apr. 11		6.24	Feb. 4		17.51	Feb. 9		191.92
Oct. 1		7.22	Mar. 5		17.67	Mar. 30		197.45
Jan. 21, 1963		7.64	Apr. 18		12.27	Apr. 26		197.85
<u>C6-69-23dbb2.</u>			June 4		14.74	May 23		207.25
Sept. 13, 1956		15.50	July 8		14.45	June 23		206.95
Sept. 28		16.07	July 31		6.26	Sept. 29		205.75
Oct. 29		16.82	Oct. 14		6.47	Jan. 13, 1961		205.05
Dec. 3		17.60	Nov. 16		6.04	Apr. 27		201.55
Jan. 2, 1957		17.68	Dec. 12		6.34	July 3		200.95
Feb. 4		17.51	Jan. 14, 1958		6.81	Sept. 20		199.15
Mar. 5		17.67	Feb. 18		6.70	Jan. 4, 1962		198.65
Apr. 18		12.27	<u>C7-66-3aacd.</u>			Apr. 5		197.75
June 4		14.74	Oct. 13, 1959		21.14	Oct. 1		197.95
July 8		14.45	Oct. 28		20.92	Jan. 21, 1963		191.80
July 31		6.26	Dec. 11		20.19	<u>C6-66-3adas.</u>		
Oct. 14		6.47	Jan. 7, 1960		20.49	Oct. 13, 1959		4.53
Nov. 16		6.04	Feb. 9		19.74	Oct. 28		4.50
Dec. 12		6.34	Mar. 21		17.13	Dec. 11		4.42
Jan. 14, 1958		6.81	Apr. 27		17.96			
Feb. 18		6.70	May 24		17.56			
			June 23		18.86			
			Sept. 29		22.02			

See footnotes at end of table.

Table 4.--Measurements of the water levels in wells--Continued

Location number	Date	Water level		
<u>CG-66-Jadaa.</u> --Continued				
	Jan. 7, 1960	4.41		
	Feb. 9	4.46		
	Apr. 27	2.19		
	May 24	1.84		
	June 23	2.90		
	Sept. 29	4.11		
	Jan. 16, 1961	4.15		
	Apr. 27	2.42		
	July 1	3.11		
	Sept. 20	2.70		
	Jan. 4, 1962	3.31		
	Apr. 13	.30		
	Oct. 1	4.14		
	Jan. 22, 1963	4.39		
<u>CG-67-11baab.</u>				
	Feb. 4, 1958	9.26		
	Mar. 13	10.39		
	Apr. 28	9.88		
	May 19	10.17		
	June 23	12.59		
	July 15	13.31		
	Aug. 21	13.22		
	Sept. 25	12.18		
	Nov. 7	10.65		
	Dec. 10	12.10		
	Feb. 6, 1959	11.76		
	Mar. 17	12.03		
	Apr. 21	11.88		
	June 2	12.47		
	June 26	14.84		
	July 23	16.48		
	Sept. 24	17.58		
	Oct. 26	14.22		
	Dec. 11	13.38		
	Jan. 7, 1960	10.84		
	Feb. 8	10.98		
	Mar. 22	9.83		
	Apr. 26	12.50		
	May 23	11.42		
	June 23	13.63		
	Sept. 29	14.91		
	Jan. 13, 1961	9.67		
	Jan. 16	10.01		
	Apr. 27	9.45		
	July 3	15.12		
	Sept. 20	12.10		
	Sept. 4, 1962	9.65		
	Jan. 11	10.45		
	Apr. 1	18.75		
	Oct. 1	18.75		
	Jan. 22, 1963	12.82		

1/ Measured by the Denver Country Club.
2/ Measured by Shwayder Bros. Inc.

Table 5.--Chemical analyses of water from wells and springs
analytical results in parts per million except as indicated)

Geologic sources: pC, Precambrian; PF, Fountain Formation; FI, Lyons Sandstone; Ka, South Platte Formation of the Dakota Group; Rb, Benton Shale; St, transition zone; Kfs, Milliken Sandstone Member of the Fox Hills Sandstone; Kf, Fox Hills Sandstone; Kls, a Milliken of the Laramie Formation; Klb, b sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; Kalc, lower conglomerate of the Laramie Formation; Klam, upper part of the middle conglomerate of the Devonian Formation; Kkac, middle conglomerate of the Devonian Formation; Tldc, upper conglomerate of the Devonian Formation; Tldu, upper part of the Devonian Formation; Td, Devonian Formation; Qr, Rocky Flats Alluvium; Qv, Verdes Alluvium; Qs, floodplain Alluvium; Ql, Loup River Alluvium; Qy, younger loess; Qb, Broadway Alluvium; Qps, pre-Piney Creek alluvium; Qsa, colluvial sand; Qp, Piney Creek Alluvium; Qc, colluvium; Qpp, post-Piney Creek alluvium.

Depth of well: Measured depths of wells less than 100 feet are given in feet and tenths below land-surface datum. R, reported depth.

Source of data: a, U. S. Geological Survey; b, Colorado State Public Health Department; c, Colorado State University; d, commercial or private laboratory.

Remarks: Al, aluminum; As, arsenic; Cu, copper; Fe, iron; I, iodine; OH, hydroxide; PO₄, phosphate; Sr, strontium; Zn, zinc.

[illegible]

See footnotes at end of table.

Table 5.--Chemical analyses of water from wells and springs--Continued

Location number	Biologic source	Depth of well (feet)	Date of collection	Time of day	Iron (ppm)	Manganese (ppm)	Calcium (Ca) (mg)	Magnesium (Mg) (mg)	Sodium (Na) (mg)	Potassium (K) (mg)	Bicarbonate (HCO ₃) (mg/l)	Fluoride (F) (ppm)	Chloride (Cl) (ppm)	Disolved solids (calculated) (mg/l)	Hardness as CaCO ₃ (mg/l)	Monocarbonate hardness as CaCO ₃ (mg/l)	Percent adsorption at pH 2.5	Specific conductance (microhm/cm at 25°C)	Source of data	Remarks
CD-67-																				
10000	Q	42.5	3-9-56	..	..	..	..	..	..	..	..	..	149	400	..	..	..	..	1,820	..
10001	Q	128	10-8-55	..	..	..	134	31	111	6.0	325	246	106	325	246	..	..	..	1,340	..
10002	Q	10.8	10-8-55	..	..	..	136	33	108	..	296	220	144	296	220	..	..	..	1,370	..
10003	Q	338	10-8-55	..	..	..	114	53	108	..	359	101	10	359	101	..	..	..	1,370	..
10004	Q	13.1	9-15-55	57	25	..	213	68	141	3.2	308	305	356	308	305	..	..	..	1,820	..
10005	Q	128	10-8-55	..	..	..	61	17	110	6.7	248	107	87	248	107	..	..	..	1,820	..
10006	Q	458	9-15-55	54	..	..	269	76	158	3.3	302	338	506	302	338	..	..	..	1,820	..
10007	Q	508	11-15-55	..	..	..	242	60	177	3	307	468	326	307	468	..	..	..	1,820	..
10008	Q	688	..	..	..	..	228	65	158	3.9	313	373	371	313	373	..	..	..	1,820	..
10009	Q	..	..	..	..	..	161	47	76	2.3	300	300	136	300	300	..	..	..	1,820	..
10010	Q	7328	9-13-60	62	9.8	0.13	2.4	..	99	..	241	12	3.5	241	12	..	..	..	1,820	..
10011	Q	46.3	9-15-55	54	..	..	188	47	110	2.4	331	283	236	331	283	..	..	..	1,820	..
10012	Q	41.9	..	..	..	..	147	42	114	2.7	380	303	112	380	303	..	..	..	1,820	..
10013	Q	42.4	9-15-55	54	..	..	121	36	100	3.0	379	183	105	379	183	..	..	..	1,820	..
10014	Q	32.8	9-20-55	55	..	..	181	52	134	2.8	348	305	238	348	305	..	..	..	1,820	..
10015	Q	528	9-20-55	..	..	..	250	75	152	3.4	384	228	465	384	228	..	..	..	1,820	..
10016	Q	528	9-11-57	..	..	..	475	116	254	5.0	310	315	1,100	310	315	..	..	..	1,820	..
10017	Q	34.4	5-16-56	..	..	..	496	126	260	6.4	304	262	1,200	304	262	..	..	..	1,820	..
10018	Q	39.8	11-25-55	56	..	..	170	43	121	2.4	392	256	172	392	256	..	..	..	1,820	..
10019	Q	39.5	11-17-54	54	..	..	136	35	161	3.4	426	256	106	426	256	..	..	..	1,820	..
10020	Q	558	9-12-55	54	..	..	133	37	107	3.2	406	195	124	406	195	..	..	..	1,820	..
10021	Q	26.3	3-10-56	53	..	..	128	37	116	..	460	134	130	460	134	..	..	..	1,820	..
10022	Q	30.8	9-12-55	55	..	..	128	37	116	..	460	134	130	460	134	..	..	..	1,820	..
10023	Q	40.5	9-15-55	..	..	..	122	75	498	40	1,710	15	194	40	1,710	..	..	..	1,820	..
10024	Q	26.0	10-5-55	57	15	..	114	24	428	5.0	230	840	184	230	840	..	..	..	1,820	..
10025	Q	51.1	9-9-55	53	26	..	208	61	244	3.7	406	525	290	406	525	..	..	..	1,820	..
10026	Q	558	9-9-55	53	28	..	183	58	195	3.1	458	530	130	458	530	..	..	..	1,820	..
10027	Q	4508	3-8-56	..	..	..	..	..	..	..	..	..	385	..	..	..	..	..	1,820	..
10028	Q	8438	1949	..	..	..	..	..	..	..	340	4.5	11	..	..	..	..	..	1,820	..
10029	Q	8438	3-12-56	..	..	..	..	..	178	..	469	5.0	4.0	..	..	..	..	..	1,820	..
10030	Q	46.6	9-17-55	57	22	..	161	40	144	3.0	414	340	114	414	340	..	..	..	1,820	..
10031	Q	40.0	11-13-55	54	..	..	..	..	143	3.1	384	343	285	384	343	..	..	..	1,820	..
10032	Q	40.7	9-12-55	54	22	..	320	82	210	4.1	386	405	640	386	405	..	..	..	1,820	..
10033	Q	47.8	9-17-55	58	23	..	142	35	160	2.7	438	290	137	438	290	..	..	..	1,820	..
10034	Q	34.5	5-9-56	54	..	..	536	131	360	5.2	296	399	1,400	296	399	..	..	..	1,820	..
10035	Q	34.5	9-11-57	53	28	..	505	112	381	9.0	370	339	1,300	370	339	..	..	..	1,820	..
10036	Q	29.6	9-17-55	..	..	..	313	59	210	4.9	288	193	660	288	193	..	..	..	1,820	..
10037	Q	38.8	9-17-55	54	22	..	285	72	183	5.1	297	228	666	297	228	..	..	..	1,820	..
10038	Q	408	9-17-55	55	21	..	230	61	233	4.7	282	183	640	282	183	..	..	..	1,820	..
10039	Q	15000	3-8-56	..	..	..	1.9	..	100	..	260	5.0	3.0	..	..	..	..	..	1,820	..
10040	Q	38.8	9-17-55	55	20	..	118	23	96	3.3	386	148	82	386	148	..	..	..	1,820	..
10041	Q	40.3	9-21-55	54	24	..	140	33	73	3.2	288	148	140	288	148	..	..	..	1,820	..
10042	Q	438	9-21-55	56	24	..	143	30	73	3.1	284	236	136	284	236	..	..	..	1,820	..
10043	Q	438	9-21-55	54	..	..	..	..	98	3.4	314	173	..	..	..	..	..	..	1,820	..
10044	Q	438	9-21-55	54	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,820	..
10045	Q	42.5	9-21-55	..	..	..	131	28	73	3.4	280	200	114	280	200	..	..	..	1,820	..
10046	Q	44.2	9-17-55	..	..	..	132	29	71	3.1	340	188	94	340	188	..	..	..	1,820	..
10047	Q	44.2	8-12-58	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1,820	..
10048	Q	38.8	9-17-55	55	25	..	203	49	105	4.0	292	140	380	292	140	..	..	..	1,820	..
10049	Q	148	11-21-55	55	..	..	174	26	89	5.3	289	338	89	289	338	..	..	..	1,820	..

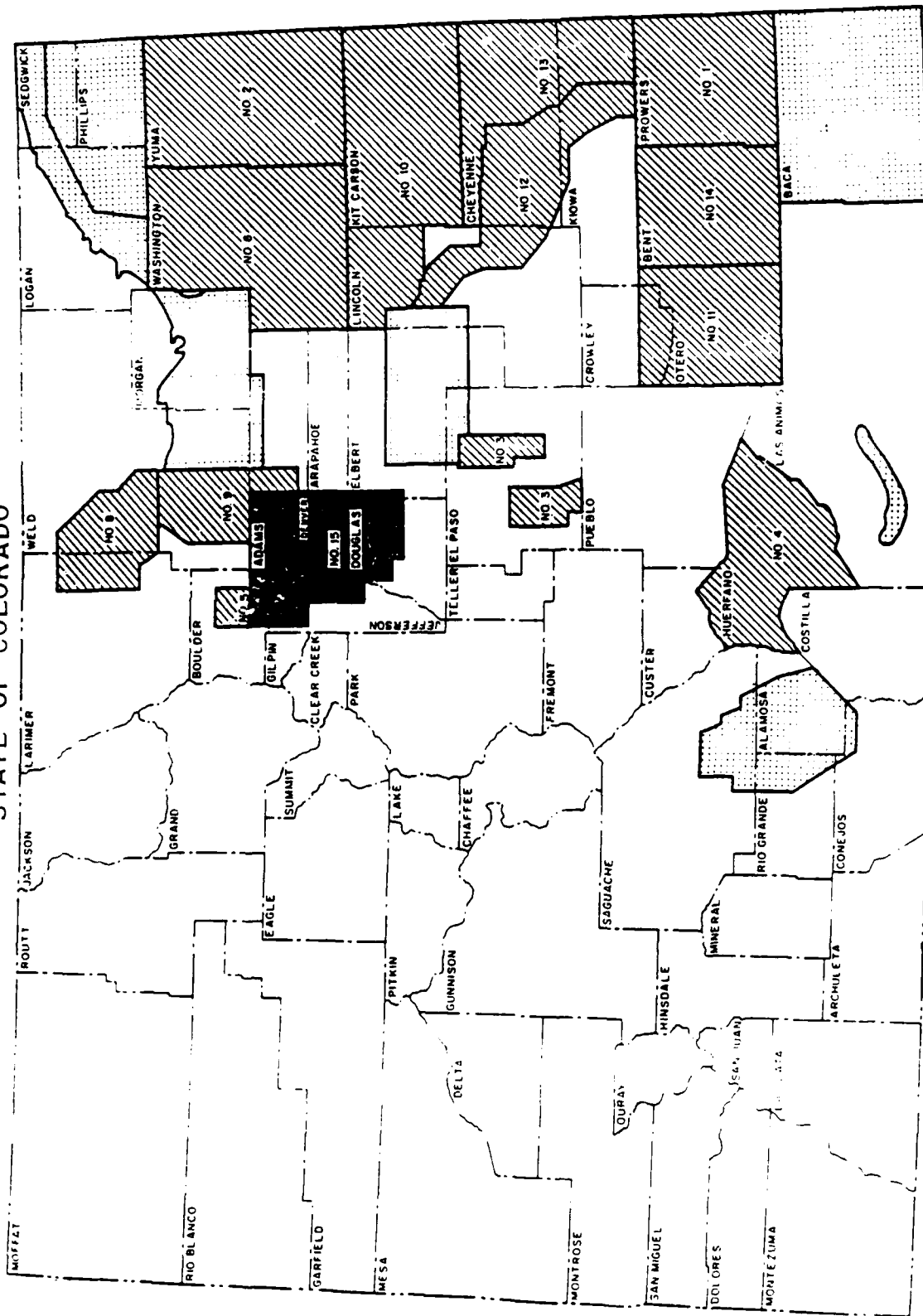
See footnotes at end of table.

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

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Silica (SiO ₂)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Fluoride (F)	Boron (B)	Dissolved solids (calculated)	Hardness as CaCO ₃	Non-carbonate hardness as CaCO ₃	Per cent sodium	pH	Source of data		
C2-57-204bda	Qp, Ql	148	9-11-57	56	..	..	..	1.9	0.1	92	4.5	296	..	92	..	..	508	265	28	1.8	1,300 8.1	
214bda	Kmc	5158	3-10-56	..	10	..	..	109	30	79	3.2	199	..	2.5	..	202	5	0	15	350 9.0		
214bda	Qp, Ql	52.7	9-17-55	..	22	..	..	109	20	61	3.2	252	..	175	..	605	189	26	1.4	1,100 7.7		
224bda	Qp, Ql	97.0	9-17-55	55	..	..	..	117	20	58	3.5	248	..	52	..	626	376	25	1.3	964 7.9		
224bda	Kmc	400	11-17-54	..	..	..	..	5.4	3.5	123	2.4	214	..	30	..	..	28	0	90	610 8.8		
224bda	Qp, Ql	..	3-10-56	..	..	..	..	..	..	82	..	197	..	3	..	..	3	0	21	344 9.0		
224bda	Ql	438	11-12-55	..	..	..	..	..	..	232	4.6	228	..	600	..	2,140	1,600	991	30	3.0	3,160 7.3	
224bda	Ql	47.1	9-17-55	55	..	..	..	196	48	96	4.2	261	..	400	..	1,030	472	23	1.6	1,040 7.5		
224bda	Ql	45.7	9-20-55	..	22	..	..	318	100	135	5.1	220	..	944	..	1,830	1,200	16	1.8	3,440 7.8		
224bda	Ql	47.6	9-20-55	54	21	..	..	225	62	107	4.4	200	..	586	..	1,250	712	21	1.6	2,360 7.7		
224bda	Qp, Ql	50.7	9-20-55	54	21	..	..	982	355	1,300	11	182	..	4,290	..	7,600	3,910	42	6.6	12,800 7.2		
224bda	Qp, Ql	36.5	11-9-55	..	..	..	..	..	..	..	..	..	..	178	..	..	..	..	..	1,080		
224bda	Kmc	52.08	10-2-55	..	11	..	..	1.5	..	87	..	207	..	3.0	..	222	4	0	97	379 8.7		
224bda	Qp, Ql	288	10-2-55	..	26	..	..	185	60	198	2.6	302	..	148	..	1,430	462	38	3.2	2,040 7.4		
224bda	Qp, Ql	33.3	10-2-55	..	26	..	..	119	38	160	2.6	287	..	63	..	993	453	218	43	1,510 7.4		
224bda	Qp, Ql	12.045	1-27-62	260	83	0.36	..	4,420	165	13,700	918	188	..	30,200	..	50,500	12,700	70	..	01,700 6.7		
224bda	Qp, Ql	35.7	11-9-55	..	..	..	..	79	18	78	4.7	112	..	195	..	520	271	179	31	1.5	875 7.0	
224bda	Qp, Ql	57.8	10-1-55	..	1.7	..	..	8.5	2.7	78	16	154	..	73	..	333	32	0	76	576 8.7		
224bda	Qp, Ql	53.2	10-4-55	..	18	..	..	89	17	50	9.4	243	..	36	..	481	293	94	26	1.3	824 7.4	
224bda	Qp, Ql	308	9-20-55	..	24	..	..	91	13	53	3.3	272	..	36	..	488	282	59	29	1.4	771 8.0	
224bda	Ql	648	11-17-54	..	..	..	..	187	22	79	6.6	250	..	70	..	..	557	352	23	1.5	1,300 7.7	
224bda	Qp, Ql	47.6	10-4-55	..	9.7	..	..	5	3.4	60	4.2	43	..	64	..	381	156	121	45	2.1	641 6.8	
224bda	Qp, Ql	31.6	11-11-55	..	9.7	..	..	..	..	26	..	6	..	19	..	..	..	..	..	837 6.8		
224bda	Qp, Ql	126	..	..	5.1	..	..	27	7.4	280	1.8	175	..	69	..	952	98	0	86	12	1,560 7.7	
C2-58-204bda	Kmc, Kalc	7808	9-23-50	68	10	..	..	..	..	164	..	307	..	7.4	..	467	23	0	91	15	763 7.8	
214bda	Kmc, Kalc	7108	1-10-58	62	10	..	..	1.6	..	82	..	203	..	2.0	..	210	4	0	98	18	346 8.7	
214bda	Klb, Klc	1,4468	1-10-58	77	11	..	..	1.6	1.0	294	1.0	681	..	64	..	714	8	0	99	45	1,210 8.2	
214bda	Qp, Ql	308	1-10-58	54	..	..	..	..	..	51	6.1	29	..	28	..	987	432	177	44	3.3	1,370 7.0	
214bda	Kmc, Kalc	7038	..	..	27	6.0	..	..	3.1	..	..	..	..	..	..	233	..	..	..	..	..	
214bda	Kmc, Kalc	7038	1-9-58	61	8.0	..	..	..	1.0	149	..	318	..	98	..	295	20	0	94	15	637 8.7	
214bda	Klb, Klc	1,5168	1-9-58	75	10	..	..	..	1.0	278	2.8	571	..	..	..	685	18	0	97	29	1,180 8.1	
214bda	Kmc, Kalc	3698	11-6-36	..	5.6	..	..	..	3.4	298	..	200	..	32	..	1,180	162	0	90	10	..	7.6
214bda	Kmc, Kalc	5428	11-23-36	..	3.2	..	..	..	5.4	35	..	231	..	1.0	..	384	39	0	66	2.4	..	8.1
214bda	Kmc, Kalc	6068	2-12-52	..	9	..	..	..	1.9	133	..	295	..	12	..	311	18	0	94	14	..	8.2
214bda	Kmc, Kalc	6068	1-9-58	61	8.0	..	..	..	1.0	149	..	318	..	..	..	395	20	0	94	14	637 8.7	
214bda	Klb, Klc	1,5168	..	..	..	..	..	..	2.8	..	..	621	..	..	..	..	..	..	..	..	..	..
214bda	Kmc, Kalc	6928	9-19-60	66	10	..	..	..	..	84	..	209	..	3.7	..	215	5	0	95	16	361 7.9	
214bda	Klb, Klc	1,560	9-19-60	81	14	..	..	..	..	260	..	544	..	90	..	640	6	0	97	46	1,100 8.2	
214bda	Qp, Ql	258	9-23-60	58	19	..	..	..	7.7	186	..	324	..	33	..	1,050	381	115	49	4.2	1,550 7.1	
C2-59-204bda	Klb, Klc	1,1408	10-3-60	67	12	..	..	..	..	200	..	472	..	27	..	482	3	0	99	50	795 7.8	
204bda	Klb, Klc	1,1408	..	..	..	..	..	..	..	217	..	..	..	36	..	482	12	..	97	33	..	8.2
204bda	Klb, Klc	1,1408	..	..	..	..	..	..	..	266	4.2	462	..	46	..	1,200	378	0	60	5.9	1,750 7.3	
204bda	Klb, Klc	3008	5-27-59	54	..	..	..	..	15	..	..	350	..	10	..	..	..	..	..	..	697 7.8	
C2-70-204bda	Qp, Ql	358	10-20-60	56	..	..	..	..	..	13	..	116	..	3.0	..	142	104	9	21	..	257 7.7	
204bda	Qp, Ql	358	10-20-60	56	..	..	..	..	..	68	..	432	..	40	..	..	..	..	..	..	1,730 8.0	
C2-71-204bda	Klb, Klc	6908	9-16-60	..	12	..	..	..	..	95	..	262	..	14	..	263	29	0	87	7.7	442 7.5	

See footnote at end of table.

STATE OF COLORADO



REPORTS NOT SHOWN THAT CONTAIN BASIC DATA

BASIC DATA REPORT NO. 15 IS STATE-WIDE AND SHOWS RADIOCHEMICAL ANALYSES OF GROUND AND SURFACE WATER IN COLORADO, 1954-1961

WATER SUPPLIES IN COLORADO, 1959-1960

NO 15

THIS REPORT

NO 1

PREVIOUS BASIC-DATA
REPORTS

OTHER PUBLISHED REPORTS
CONTAINING BASIC DATA

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

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Silica (SiO ₂)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Chloride (Cl)	Fluoride (F)	Mil. Boron (B)	Hardness as CaCO ₃	Nucur-Per- bonate hardness as CaCO ₃	Specific conductance (microhm-cm at 25°C)	pH	Source of data				
CH-66-																								
3466a	Qp, Ql	33.7	6-16-42	..	67	..	..	111	16	55	..	..	275	206	32	..	..	343	118	22	1.3	..	7-6	d
3466b	Qp, Ql	248	10-2-42	..	38	..	..	112	4	17	..	..	207	42	8	..	..	171	1	18	..	..	7-8	d
3466c	Qp, Ql	23.8	8-8-42	..	109	..	..	114	16	59	..	..	290	229	18	..	..	350	102	27	1.4	..	8.2	d
3466d	Kalc, Kib, Kib, Kfm	2,180	8-21-42	..	20	..	..	6.0	..	210	..	..	484	4.2	34	..	..	21	0	96	20	..	8.3	d
1066a	Kalc, Kib, Kib, Kfm	2,038	8-31-42	..	17	..	0.00	4.3	..	142	..	..	323	4.4	18	..	..	13	0	96	17	..	8.3	d
1066b	Kalc, Kib, Kib, Kfm	2,100	9-14-42	..	17	..	..	4.0	..	129	..	..	281	6.3	23	..	..	15	0	95	14	..	8.3	d
1066c	Kib, Kib, Kib, Kfm	2,196	10-21-42	..	38	..	..	6.8	..	104	..	..	232	19	16	..	..	19	0	93	11	..	8.4	d
CH-67-																								
666c	Kalc, Kib, Kib, Kfm	1,840	10-17-55	89	13	..	..	3.8	1.6	269	..	..	585	2.3	84	3.5	2.4	16	0	98	29	..	8.4	d
666d	Kalc, Kib, Kib, Kfm	1,116	1937	..	..	..	..	..	..	..	..	..	171	..	4.2	..	..	..	..	..	..	..	..	b
1766c	Qp, Ql	348	8-28-57	55	..	..	..	..	..	..	..	..	240	130	34	..	..	314	118	23	..	..	..	b
1866c	Qp, Ql	608	2-16-59	54	36	0.00	..	106	12	43	..	..	214	88	24	..	..	240	64	25	..	..	..	b
1866d	Qp, Ql	42.5	3-4-59	54	28	..	..	60	9.7	37	..	..	214	88	24	..	..	398	64	25	..	..	..	b
1866e	Qp, Ql	228	..	..	..	..	..	..	..	..	..	..	270	145	45	..	..	442	220	28	..	..	..	b
2166a	Qp, Ql	56.1	1-31-58	56	20	..	..	..	..	..	..	..	180	80	22	..	..	332	64	27	..	..	..	b
2866a	Qp, Ql	308	6-24-60	..	..	..	..	..	..	..	..	..	180	80	22	..	..	212	64	27	..	..	..	b
2966a	Kalc, Kib, Kib, Kfm	1,060	7-7-60	70	14	..	..	7.6	1.5	53	..	..	139	19	4	..	..	326	0	82	..	..	..	b
3466b	Ql	978	7-15-59	53	..	..	..	..	..	..	..	..	270	145	45	..	..	442	220	28	..	..	..	b
3466c	Ql	978	7-25-59	52	..	..	..	..	..	..	..	..	270	145	45	..	..	442	220	28	..	..	..	b
3666c	Kalc, Kib, Kib, Kfm	1,188	2-4-57	65	13	..	..	..	..	..	..	..	125	12	4	..	..	372	0	60	..	..	..	b
3666d	Kalc, Kib, Kib, Kfm	1,188	11-15-57	74	..	..	..	..	..	..	..	..	132	16	1.2	..	..	47	0	60	..	..	..	b
3666e	Kalc, Kib, Kib, Kfm	1,198	12-16-57	78	..	..	..	..	..	..	..	..	133	16	1	..	..	52	0	..	..	..	..	b
3666f	Kalc, Kib, Kib, Kfm	1,198	12-17-57	79	15	..	..	..	..	..	..	..	131	16	2	..	..	60	0	..	..	..	..	b
CH-68-																								
3466c	Kalc, Kib, Kib, Kfm	780	6-20-14	..	16	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b
3466d	Qp, Ql	428	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b
3466e	Qp, Ql	40.1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b
3466f	Qp, Ql	368	8-29-60	..	17	..	..	..	..	..	..	..	264	335	105	..	..	283	..	..	..	..	..	b
3466g	Qp, Ql	39.6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b
3466h	Qp, Ql	32.2	1-16-58	54	17	..	..	..	..	..	..	..	145	56	31	..	..	290	..	..	..	..	..	b
3466i	Qp, Ql	508	10-16-56	55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	b
3466j	Qp, Ql	288	7-17-56	..	..	..	..	..	..	..	..	..	547	405	86	..	..	920	82	46	..	..	..	b
3466k	Qp, Ql	18.0	8-22-56	60	..	..	..	..	..	..	..	..	..	..	..	..	..	530	..	..	..	..	..	b
3466l	Qp, Ql	358	11-19-53	..	..	..	..	..	..	..	..	..	173	..	206	..	..	..	..	..	..	..	..	b
3466m	Qp, Ql	358	5-2-58	51	..	..	..	..	..	..	..	..	202	45	44	..	..	572	..	..	..	..	..	b
3466n	Qp, Ql	680	5-10-48	60	10	..	..	..	..	..	..	..	..	..	..	..	..	55	0	..	..	..	..	b
3466o	Qp, Ql	448	6-2-48	81	15	..	..	..	..	..	..	..	427	8.1	84	..	..	..	..	..	..	..	..	b
3466p	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	296	79	..	..	..	..	b
3466q	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466r	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466s	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466t	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466u	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466v	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466w	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466x	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466y	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
3466z	Qp, Ql	448	8-1-55	..	17	..	..	..	..	..	..	..	264	135	63	..	..	..	..	..	..	..	..	b
CH-69-																								
266d	Qp, Ql	108	8-26-55	..	..	..	..	..	..	..	..	..	518	..	0	..	..	260	0	..	..	..	..	b
666a	Qp, Ql	308	9-15-55	..	..	..	..	..	..	..	..	..	453	287	22	..	..	192	15	45	..	..	..	b
666b	Qp, Ql	608	..	..	..	..	..	..	..	..	..	..	418	..	0	..	..	386	15	45	..	..	..	b
1066a	Qp, Ql	608	6-30-55	..	..	..	..	..	..	..	..	..	418	..	0	..	..	332	40	..	..	..	..	b
1066b	Qp, Ql	558	5-31-55	..	..	..	..	..	..	..	..	..	392	..	0	..	..	332	40	..	..	..	..	b

See footnotes at end of table.

Table 5.--Chemical analyses of water from wells and springs--Continued

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Total silica (SiO ₂) (°F)	Iron (Fe) (ppm)	Manganese (Mn) (ppm)	Calcium (Ca) (ppm)	Magnesium (Mg) (ppm)	Sodium (Na) (ppm)	Potassium (K) (ppm)	Bicarbonate (HCO ₃) (ppm)	Chloride (Cl) (ppm)	Fluoride (F) (ppm)	Mil. boron (B) (ppm)	Disolved solids (calculated) (ppm)	Hardness as CaCO ₃ (ppm)	Barium as BaCO ₃ (ppm)	Strontium as SrCO ₃ (ppm)	Specific conductance (micro-mhos at 25°C)	pH	Source of data	Reserve
C3-68-																							
3455a	Kmc, Kile	2014	10-11-60	51	14	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455b	Kmc, Kile	752R	5-9-60	51	14	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455c	Kmc, Kile	752R	8-17-57	51	14	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455d	Kmc, Kile	752R	4-9-63	51	10	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
C3-69-																							
3455e	Kib, Kib	1,740R	9-9-55	51	14	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455f	Kib, Kib	1,740R	9-14-56	51	14	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455g	Kib, Kib	1,740R	7-13-55	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455h	Kib, Kib	1,740R	10-23-48	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455i	Kib, Kib	1,740R	10-23-48	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455j	Kib, Kib	1,740R	5-26-52	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455k	Kib, Kib	1,740R	6-10-54	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455l	Kib, Kib	1,740R	5-26-52	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455m	Kib, Kib	1,740R	1948	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455n	Kib, Kib	1,740R	2-1-57	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455o	Kib, Kib	1,740R	9-18-55	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455p	Kib, Kib	1,740R	9-18-55	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455q	Kib, Kib	1,740R	10-17-55	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455r	Kib, Kib	1,740R	10-17-55	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455s	Kib, Kib	1,740R	9-30-57	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455t	Kib, Kib	1,740R	4-5-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455u	Kib, Kib	1,740R	9-30-57	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455v	Kib, Kib	1,740R	11-1-58	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455w	Kib, Kib	1,740R	4-20-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455x	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455y	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455z	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455aa	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ab	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ac	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ad	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ae	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455af	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ag	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ah	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ai	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455aj	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ak	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455al	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455am	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455an	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ao	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ap	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455aq	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ar	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455as	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455at	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455au	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455av	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455aw	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ax	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ay	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455az	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455ba	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bb	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bc	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bd	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455be	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bf	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bg	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bh	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bi	Kib, Kib	1,740R	4-23-56	51	13	1.0	1.1	4.5	1.1	60	145	21	4.8	1.0	0.7	144	16	0	0	6.5	7.5	6	
3455bj																							

Table 3.-Chemical analyses of water from wells and springs--Continued

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Total silica (SiO ₂)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO ₃)	Chloride (Cl)	Fluoride (F)	Boron (B)	Dissolved solids (calculated)	Hardness as CaCO ₃	Municipal hardness as CaCO ₃	Per cent adsorption ratio at 25°C	Specific conductance (microhm-cm at 25°C)	pH	Source of data	Remarks	
C5-68-22022	TKG, KMc	800R	1-16-40	..	9.1	..	..	18	1.8	..	63	132	68	7.0	..	..	52	0 73	3.8	..	7.8	d	Fe-Al 2.0	
22022	KMc, KMc	1,010R	11-23-32	..	15	0.5	..	8.1	1.5	..	36	134	14	6.0	..	245	26	0 75	3.1	..	7.8	d		
22022	KMc, KMc	1,120R	9-2-33	75	16	..	..	2.5	1.0	226	..	446	..	95	..	784	10	0 98	31	..	7.8	d		
22022	KMc	1,700R	7-9-58	76	19	..	0.00	4.0	..	308	1.8	451	..	224	3.0	782	11	0 98	40	..	7.8	d		
72022	TKG, KMc	768	5-19-56	62	..	..	..	41	1.0	148	1.8	156	244	32	1.6	547	106	0 75	6.2	..	8.4	a		
72022	KMc, KMc	1,670R	7-11-57	79	..	..	..	1.6	..	267	2.0	456	..	145	3.2	665	6	0 99	47	..	7.9	a		
72022	KMc	550R	2-2-56	..	..	..	..	8.0	1.0	85	1.2	152	73	5.0	1.6	251	24	0 88	7.5	..	8.1	a		
17022	QPP, QI	41.9	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	157	..	..	..	..	b		
17022	QPP, QI	42.0	1-13-58	53	17	..	..	78	19	50	2.8	234	114	40	9	442	272	80	28	..	7.0	a		
17022	QPP, QI	43.6	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	152	..	..	..	..	b		
17022	QPP, QI	37.9	1948	..	..	..	..	..	..	..	..	..	..	..	..	..	135	..	..	..	..	b	Al 0.05	
19022	KMc, KMc	511R	..	59	12	..	..	48	14	86	..	297	70	34	9	2.9	178	0 51	2.8	..	7.8	d	PO ₄ 0.1	
21022	KMc, KMc	1,826R	1-28-57	82	..	..	..	1.7	..	183	..	403	..	54	1.0	..	7	0 98	31	..	..	d	PO ₄ 0.3	
27022	KMc, KMc	996R	8-25-56	..	13	..	..	23	2.1	..	37	143	22	3.5	1.0	..	66	0 55	2.1	..	8.4	d		
27022	KMc, KMc	11-23-60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a		
27022	KMc, KMc	1,910R	8-25-56	..	11	..	..	7.0	1.1	..	58	189	18	10	1.4	289	22	0 85	5.4	..	8.3	d	Al 0.05	
28022	KMc, KMc	1,940R	1-13-58	83	16	..	..	1.6	..	180	1.0	388	1.9	54	2.0	448	4	0 99	39	..	8.7	a	PO ₄ 0.3	
C5-69-53022	QPP, QI	11.1	2-11-59	52	..	..	..	96	45	..	..	156	10	..	..	..	424	296	..	..	..	7.7	a	
53022	QPP, QI	90R	3-17-59	45	..	..	..	99	22	..	..	260	..	7	..	..	338	124	..	..	..	8.0	a	
53022	QPP, QI	1,660	11-22-57	62	..	..	..	..	..	..	..	..	..	6.0	..	..	..	..	..	..	..	a		
53022	QPP, QI	220R	4-1-59	..	..	..	..	305	287	..	..	284	132	..	..	..	1,940	1,710	..	..	..	7.8	a	
53022	QPP, QI	50R	3-16-59	42	..	..	..	117	49	..	..	324	11	..	..	..	494	..	..	..	..	8.1	a	
16022	KMc	100R	6-30-54	..	..	..	..	..	..	..	..	328	13	..	..	..	403	194	..	..	..	7.7	a	
16022	KMc	900	12-6-56	51	9.6	..	..	22	9.2	108	4.6	339	36	9.0	..	366	93	0 70	4.9	..	7.9	a		
16022	KMc	302	6-4-57	..	..	..	..	53	4.9	6.0	1.8	154	29	5.5	..	177	152	26	8	..	6.4	a		
16022	KMc	354	7-22-60	53	21	1.1	..	44	4.4	5.6	..	144	20	2.0	..	170	128	10	9	..	6.7	a	Al 0.2, PO ₄ 0.02	
22022	KMc, KMc	405R	9-21-56	..	..	..	..	..	..	..	..	..	..	..	..	497	120	..	..	..	7.6	a		
22022	KMc	1,500R	5-3-57	..	..	..	..	112	60	2,040	..	150	200	3,060	..	..	320	94	49	39	..	8.0	c	
22022	KMc	1,500R	5-3-57	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a	
C5-70-16022	KMc	100R	3-16-59	55	..	..	..	41	5.8	..	..	86	..	2.0	..	197	146	..	..	..	7.9	a		
16022	KMc	83R	1960	..	18	..	..	40	11	7.2	..	138	21	7.4	..	2,110	236	33	9	..	8.2	a	Al 0.1, PO ₄ 0.4	
16022	KMc	703R	9-23-60	57	11	..	..	24	48	637	6.8	262	886	355	5.5	..	..	41	49	22	..	..	a	
16022	KMc	Spring	9-23-60	65	..	..	..	..	..	..	..	..	..	..	..	..	210	0	79	7.2	..	8.2	a	
16022	KMc	772	1-11-57	51	14	..	..	18	11	159	2.4	311	133	3.0	..	521	93	..	..	..	..	..	a	
C5-71-11022	KMc	130R	6-21-60	..	24	31	..	30	4.9	15	1.4	134	11	3.0	..	159	97	0 25	..	..	7.1	a	Al 1.1	
C6-66-16022	KMc	59R	7-16-59	52	..	..	..	75	8.8	26	3.8	212	86	13	..	320	223	50	20	..	7.1	a		
16022	KMc	220R	3-23-59	56	..	..	..	18	1.0	53	3.0	176	11	4.0	2.0	..	49	0 69	3.3	..	8.1	a		
16022	KMc	224R	9-15-60	57	30	..	..	70	8.3	23	3.1	237	51	10	..	324	208	14	19	..	7.7	a	PO ₄ 0.4	
16022	KMc	57R	9-1-59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a	
16022	KMc	70.0	..	53	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	a	

See footnotes at end of table.

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

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Silica (SiO ₂)	Iron (Fe)	Manganese (Mn)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Potassium-Bicarbonate (K) (HCO ₃)	Sulfate (SO ₄)	Chloride (Cl)	Fluoride (F)	Mil. Boron (B)	Dissolved solids (calculated)	Hardness as CaCO ₃	Moner. Per cent adsorption as CaCO ₃	Specific conductance (microhm-cm at 25°C)	pH	Source of data	Remarks		
C4-69-104cab	Klu, Klb, Klc, Kld	1,660R	2-18-57	68	14	0.10	0.1	4.8	0.0	191	1.6	442	2.8	37	2.2	0.0	470	12	0	97	24	785	7.7	PO ₄ 0.1	
104cab2	Klu, Klb, Klc, Kld	500R	2-18-57	61	..	..	..	18	..	148	..	36	289	16	3.1	..	..	45	16	88	9.6	794	8.1	..	
12-4aa	Qp, Tldu	100R	9-8-50	..	..	..	..	..	..	..	..	..	..	134	..	..	..	848	..	..	..	3,910	..	..	
12-4ab	Qp, Tldu	65.7	9-8-50	..	..	..	..	..	..	..	..	..	..	30	..	..	..	284	..	..	..	1,710	..	..	
12-4ab	Qp	60R	5-26-55	..	..	..	..	110	8.5	..	..	364	893	34	1.6	..	..	310	11	..	..	2,450	7.5	..	
15-4ab	Qp, Tldu	105R	4-1-54	..	..	10	..	..	..	156	..	..	..	20	..	..	..	380	..	..	..	1,920	..	..	
15-4ab	Tldu, Tldc	298R	12-15-57	59	..	1.2	..	4.8	3.4	148	1.0	33	266	28	2.4	0	..	48	0	93	13	776	6.4	..	
15-4ab	Klu	394R	12-15-57	..	..	..	..	16	1.9	148	..	..	264	28	1.8	0	..	48	0	87	9.3	649	7.5	..	
25-4ab	Tldu, Kldc	500R	12-4-56	..	..	..	..	22	9.7	..	..	315	..	15	..	..	..	95	0	..	..	1,350	8.4	..	
25-4ab	Kldc, Kldc	1,962R	1-4-55	..	9.7	..	..	14	2.5	145	..	198	163	22	..	..	556	46	0	87	9.3	..	..	..	
C4-70-104cab	Kldc, Kldc, Kldc	1,786R	4-11-55	..	13	..	..	50	13	110	..	239	140	56	..	..	502	176	0	57	3.6	..	8.2	PO ₄ 0.1	
104cab	Kldc, Kldc	90R	7-10-61	50	..	..	..	25	6.3	..	..	113	..	4	2.4	..	..	88	0	..	..	228	6.9	..	
11-4ab	Kldc, Kldc	1,968	6-2-55	..	11	..	..	53	14	71	7	303	81	10	..	..	545	191	0	45	2.2	..	..	..	
25-4ab	Klu, Kldc	275R	7-22-60	57	9	5.6	..	20	7.3	6.0	1.0	81	22	2	..	..	108	80	14	14	..	13	197	6.2	..
25-4ab	Kldc	40.5	7-28-60	..	..	16.8	..	42	..	..	..	77	..	1.0	..	..	..	126	0	..	..	462	7.1	..	
25-4ab	Kldc	28	5-13-59	47	..	..	..	4.8	1.0	..	..	142	..	8.0	..	..	..	125	9	..	..	..	6.5	..	
25-4ab	Pr	Spring	5-13-59	..	..	..	..	6.4	..	..	..	..	..	1.5	..	..	..	20	9	..	..	..	64	6.6	..
25-4ab	Pr	Spring	5-12-59	51	..	..	..	11	2.9	..	..	40	..	..	..	..	..	40	7	..	..	..	104	7.0	..
25-4ab	app, pc	Spring	5-24-60	64	18	..	..	24	9.0	7.9	..	111	18	1.7	..	..	140	97	6	15	..	..	224	6.9	..
34-4ab	pc	Spring	5-12-59	46	..	..	..	6.4	2.9	..	..	20	..	1.5	..	..	..	28	12	..	..	..	78	6.8	..
C4-71-12-4aa	Qp, pc	428R	9-8-50	52	23	..	..	18	2.9	7.6	..	48	18	3.7	..	..	111	57	18	22	..	..	158	6.7	..
C5-65-25-4ab	Tldu	600R	2-5-58	..	11	..	..	1	14	66	19	276	149	19	..	..	488	240	14	35	1.9	..	742	7.1	Al 0.1, Si 1.0
33-4ab	Tldu	677R	9-26-57	62	15	..	..	25	3.9	50	4.4	194	16	8.0	..	..	219	78	0	56	2.5	..	367	8.1	..
33-4ab	Tldu	677R	2-5-58	62	12	..	..	26	2.9	52	4.2	195	17	11	..	..	222	77	0	58	2.6	..	366	8.2	..
C5-66-68-4ab	Kldc, Kldc	1,278R	7-7-60	73	15	..	..	10	1.7	52	3.2	145	19	2	1.6	..	175	32	0	78	4.0	..	281	7.2	Al 0.1
19-4ab	Kldc, Kldc	1,350R	10-3-60	67	13	..	..	19	1.6	35	..	140	19	1.8	..	..	160	34	0	54	2.1	..	283	7.6	..
25-4ab	Tldu	160R	9-27-57	58	11	..	..	19	3.9	56	3.2	213	4.4	3.0	..	..	208	63	0	64	3.1	..	345	8.0	..
25-4ab	Qp, Qp	64R	9-10-57	52	..	..	..	..	..	..	..	..	..	14	..	..	..	..	..	..	..	..	540	..	..
30-4ab	Tldu	400R	9-27-57	56	10	..	..	16	1.5	50	1.8	182	1.7	4.0	..	..	175	46	0	69	3.2	..	232	8.2	..
30-4ab	Qp, Qp	54R	6-17-57	57	27	..	..	62	9.7	21	1.8	218	48	9.0	..	..	293	195	16	19	..	..	480	7.3	PO ₄ 0.8
32-4ab	Qp, Qp	49.9	7-16-59	52	..	..	..	..	..	..	..	..	..	14	..	..	..	..	..	..	..	..	..	..	..
33-4ab	Qp, Qp	44.8	9-27-57	52	28	2.6	..	77	9.2	35	3.6	2.0	99	13	..	..	379	230	4.2	24	1.0	..	584	7.7	Al 0.1, PO ₄ 0.2
C5-67-16-4ab	Kldc, Kldc	1,498R	..	..	..	..	..	18	..	41	..	139	14	6.7	..	..	..	49	0	65	2.5	..	..	7.9	..
17-4ab	Kldc, Kldc	1,406R	9-16-60	73	12	..	..	14	..	45	..	144	17	1.9	..	..	163	38	0	69	3.2	..	274	7.2	..
19-4ab	Kldc	896	7-25-58	70	12	..	..	21	1.9	25	3.6	134	23	1.0	..	..	162	80	0	39	3.2	..	264	7.7	..

See footnotes at end of table.

Table 6.--Field determination of chemical quality of water from wells and springs

Location number	Depth of well (feet) 1/	Geologic source 2/	Date of collection	Temperature (°F)	pH	Specific conductance 3/	Iron (Fe) 4/	Hardness as CaCO ₃ 5/	Hydrogen sulfide (H ₂ S) 6/	Chloride (Cl) 7/
B1-66-31cddd	31.8	Qb, Q1	6-23-59	55	7.1	1,700	...	453	...	...
B1-67-19dadd	697R	K1b	4-11-57	59	8.7	1,050	...	...	10	...
B1-68-25bebc	720R	K1b	4-15-58	62	8.8	1,980	...	...	< .1	...
C1-66-4dced	480R	Kdmc, Kd1c	6-11-61	59	7.3	720	0.3	222	...	38
-18cacc	32.6	Qb, Q1	10- 7-55	56	...	1,480	...	...	...	...
-30macc	43.6	Q1	10-24-55	55	...	1,470	...	...	...	...
C1-67-1cddc	693R	K1u	6-11-61	61	8.4	1,000	1.2	< 17	...	63
-1cddc2	25R	Qpp, Q1	6-11-61	50	...	...	...	308	...	...
-1dcb	...	Qpp, Q1	...	63	...	1,230	...	...	...	...
-13cma	31.7	Qb, Q1	9-27-56	55	...	1,510	...	...	...	...
-23dadd	...	Qb	...	55	...	1,230	...	...	...	...
-2kabec	39.0	Qb, Q1	11- 6-55	55	...	1,390	...	...	...	...
-25badd	35.2	Qb, Q1	10- 5-55	55	...	1,500	...	...	...	...
-26madd	41.1	Qb, Q1	10- 4-55	54	...	1,920	...	...	...	...
-35dcb	32.3	Qb, Q1	11- 7-55	56	...	1,320	...	...	...	...
C1-68-9bba	832R	K1b, K1a	...	...	...	1,410	...	< 17	...	...
-10cbbc	809R	K1b	2-17-59	63	8.4	1,850	...	145	...	...
-10cbbc2	48R	Qp	2-11-59	54	7.7	2,500	...	615	...	...
-19bba	869R	K1b	1-23-59	64	8.8	1,050	...	17	< .1	...
-30madd2	1,045R	Kd1c, K1b, K1a, K1u	9-12-60	72	8.7	1,420	.4	43	< .1	...
-35madd2	525R	Kdmc, Kd1c	9-21-60	62	8.6	540	.8	< 17	< .1	...
C1-69-10dabb	469R	K1b, K1a, K1u	7-28-59	...	...	1,120	...	...	...	...
-10dacc	31R	Qp	7-28-59	...	...	1,200	...	...	...	...
-11bcca	14R	Qp	1-29-59	59	7.7	1,500	...	...	...	...
-11bceb	480R	K1b	1-27-59	...	8.9	790	...	17	...	...
-22daba	650R	K1b, K1a, K1u	9-19-58	...	...	750	...	...	...	...
-35babb	1,022R	K1b, K1a, K1u	9-19-60	71	8.9	920	.4	< 17	.2	...
-35dada	1,053	K1b, K1a, K1u	10- -60	74	9.1	880	.2	17	.2	38
C1-70-21bdac	150	K1b, K1a	4-19-57	56	7.8	405	...	136	...	38
-26cbba	260	K1u	4-18-57	55	7.6	320	...	136	< .1	...
C2-65-21dadd	900R	TKdu, Kdmc, Kd1c	7- 2-53	59	7.9	700	1.3	94	...	22
C2-67-9dcdc2	732R	Kdmc, Kd1c	9-13-60	62	8.6	410	.2	17	...	...
-10ccca	59R	Qb, Q1	9-20-55	...	...	2,890	...	...	...	...
-22cadd	50.7	Qas, Qv	11-23-55	54	...	8,000	...	...	...	...
-26cbca	56.5	Qb, Q1	11-23-55	59	...	875	...	...	...	...
-26becc	55.5	Qb, Q1	8- 8-55	57	...	1,350	...	...	...	...
-26cecb	60R	Qb, Q1	8- 8-55	58	...	900	...	...	...	...
C2-68-4bade	1,330R	K1b, K1a, K1u	4-23-57	69	8.7	1,380	...	17	< .1	...
-20dbee	780R	Kdmc, Kd1c	9-23-60	68	8.5	700	.5	60	...	...
-23cbbb	710R	Kdmc, Kd1c	1-10-58	62	8.6	345	...	17	...	...
-23cbbb2	1,446R	K1b, K1a	1-10-58	77	8.6	1,090	...	17	.8	...
-25madd2	30R	Qpp, Q1	1-10-58	54	6.9	1,380	...	376	...	...
-31cabb	700R	Kdmc, Kd1c	10-11-59	61	8.3	...	...	...	...	...
-31cabb2	1,546R	K1b, K1a, K1u	10-11-59	75	8.4	1,110	...	...	< .1	...
-33abdb	692R	Kdmc, Kd1c	9-19-60	66	8.7	375	...	.1	< 17	< .1
-33abdb2	1,560	K1b, K1a, K1u	4-27-57	81	8.7	1,720	...	.3	< 17	.1
-36dada2	25R	Qpp, Q1	9-23-59	58	7.1	1,500	...	...	...	...
C2-69-40dbee	196	Kd1u	8-30-56	55	7.1	1,950	...	...	...	...
-31cadd	55R	Qp, Q1	8-23-58	59	7.2	380	...	370	...	25
-32becc	23R	Qp, Q1	12-15-60	...	8.4	950	< .1	410	...	18
-32bdab	100R	Kdmc	4-21-49	56	7.2	1,500	...	172	...	100
-32dadd	117R	Kdmc	9-21-58	50	7.2	2,300	...	372	...	...
-32dab-b	100R	Kdmc	8-21-58	57	7.5	950	...	348	...	38
C2-70-26ddec	Spring	Qr	12-15-58	56	...	260	...	...	...	...
-26dada	35R	Qp, Qb	10-17-58	56	7.1	1,700	.4	68	...	...
C2-71-25aceb	Spring	pc	12- 7-60	42	...	...	...	51	...	25
C3-65-21daca	900R	TKdu, Kdmc	1-22-55	61	7.7	515	...	34	< .1	...
-36daca	785R	TKdu, Kdmc	2-12-57	61	6.2	300	...	43	...	12
-36dada	690R	TKdu, TKdc	9-16-60	66	8.4	450	.4	26	< .1	...
C3-66-10dbab	320R	TKdu	9-31-55	60	7.7	660	...	34	< .1	...
-22abbe	150R	TKdu	7- 8-57	59	7.7	425	7.7	154	...	...
-22cecc	965R	Kdmc, Kd1c	1-27-58	70	8.6	315	...	< 17	...	< 12
-30dadc	410R	TKdu	10-15-56	64	8.7	350	8.7	< 17	< .1	...
-31abca	170R	TKdu	6-13-57	68	8.7	1,800	...	393	< .1	...
-31cedb	30R	Qp, Qb	8- 6-57	51	7.2	1,200	...	256	...	...
-38madd	28.9	Qb, Q1	9-20-60	54	7.3	860	.1	205	...	...
-32madd2	28.4	Qb, Q1	9-20-60	55	7.5	310	.2	243	...	...
-32madd	27.7	Qb, Q1	9-20-60	56	7.2	880	< .1	256	...	...
-32ccca	1,003R	Kdmc	7-26-56	79	8.2	275	...	17	...	...
-32dada	500R	TKdu	9-15-60	63	8.4	420	.2	25	...	...

See footnotes at end of table.

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

Location number	Geologic source	Depth of well (feet)	Date of collection	Temp. (°F)	Silica (SiO ₂) (mg/l)	Iron (Fe) (mg/l)	Manganese (Mn) (mg/l)	Calcium (Ca) (mg/l)	Magnesium (Mg) (mg/l)	Sodium (Na) (mg/l)	Total dissolved solids (TDS) (mg/l)	Sulfate (SO ₄) (mg/l)	Chloride (Cl) (mg/l)	Fluoride (F) (mg/l)	Hardness (calc.) (mg/l as CaCO ₃)	Hardness (meq/l as CaCO ₃)	Moner. count (per ml)	Specific conductance (microhm/cm at 25°C)	Source of data	Remarks
06-60-																				
34acc	Ql	71.0	9-2-59	..	..	0.06	..	..	..	..	..	..	..	..	..	..	..	415	..	..
15badd	Tkdu	175R	9-17-59	..	..	..	..	..	..	..	..	..	..	..	..	..	..	835	7.7	..
15badd	Ql	47.8	9-17-59	51	..	..	..	..	..	..	..	..	..	..	..	..	..	435	..	..
22bacc	Ql	63.4	7-14-59	53	35	..	..	62	5.8	..	2.6	202	31	..	278	179	13	18	432	7.5
22cadd	Ql	54.8	8-24-59	47	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
34bacc	Ql	60.9	9-2-59	51	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
06-67-																				
27cadd	Tkdu	120R	12-10-59	..	34	5.5	..	34	4.9	..	6.2	1.4	92	20	..	105	30	11	..	..
06-68-																				
14badd	Tkdu, Kmc, Kdu	1,012	7-16-57	60	..	..	..	64	5.8	..	6.4	108	58	..	..	184	30	23	..	..
14bacc	Tkdu, Kmc	200R	7-16-57	64	13	..	..	20	1.5	..	4.2	152	13	..	169	56	0	57	2.2	..
33bacc	Kmc, Kdu	715R	2-26-58	59	11	..	..	42	2.9	..	5.0	160	58	..	237	117	0	36	1.3	..
06-69-																				
23badd	Ql, Qp	30R	11-5-58	..	..	..	..	55	12	..	3.6	206	57	..	..	186	18	32	1.3	..
23bacc	Qp, Ql	30.3	1-17-58	49	11	..	..	30	9.2	..	1.6	87	65	..	203	113	41	30	..	..
24bacc	Kdu, Kdu	600R	6-25-56	..	..	..	..	6.4	1.9	..	2.2	219	53	..	..	24	0	89	18	..
06-71-																				
12cadd	pc	100R	7-6-60	48	22	..	..	27	6.6	..	1.4	122	6.2	..	134	90	0	20	..	..
15cadd	pc	183R	7-19-60	..	20	..	..	28	8.5	..	..	128	16	..	149	105	0	16	..	..
07-72-																				
22cadd	Qp, Ql	69R	8-26-56	50	40	..	..	50	6.8	..	2.4	183	29	..	..	153	3	20	..	..
34cadd	Qp, Ql	50.9	..	52	..	..	..	..	..	..	..	..	..	..	..	216	..	..	..	..
07-67-																				
34bacc	Kmc, Kdu	1,795R	1-18-57	69	12	..	..	24	1.9	..	3.8	137	17	..	..	68	0	47	1.5	..
34bacc	Kmc, Kdu	1,795R	10-13-59	..	7.0	..	..	26	2.9	..	4.0	144	21	..	159	69	0	50	1.8	..
34bacc	Tkdu	801R	2-4-58	49	34	..	..	39	2.9	..	4.2	156	14	..	167	109	0	22	..	..
34bacc	Tkdu	801R	10-5-59	59	..	..	..	38	1.9	..	4.8	150	16	..	..	103	0	25	..	..
07-68-																				
14bacc	Kmc, Kdu	800R	9-16-60	60	11	..	..	43	2.8	..	..	159	57	..	220	119	0	37	1.3	..
13cadd	Qp, Ql	45.8	9-16-60	57	30	..	..	57	5.8	..	..	128	53	..	275	166	61	16	..	..
08-66-																				
10bacc	Ql	52R	2-4-58	46	36	..	..	26	4.4	..	2.4	101	16	..	149	83	0	20	..	..
08-67-																				
14bacc	Tkdu	202R	..	54	..	..	..	58	..	..	..	..	..	..	..	..	..	..	..	..
14bacc	Qp, Ql	50R	2-4-58	54	36	..	..	..	7.3	..	3.6	108	85	..	..	175	66	19	..	..
14bacc	Kmc, Kdu	1,608R	..	53	25	..	..	34	12	..	2.2	128	46	..	198	134	29	16	..	..
14bacc	Ql	50R	2-27-58	52	38	..	..	34	3.9	..	3.0	86	34	..	184	101	30	17	..	..

1/ Includes CO₂ as HCO₃ when present.

2/ Residue on evaporation at 180°C.

3/ Total iron or manganese.

4/ In solution at time of sampling.

5/ As oxides.

Table 2.--Field determination of chemical quality of water from wells and springs--Continued

Location number	Depth of well (feet)	Geologic source	Date of collection	Temperature (°F)	pH	Specific conductance	Iron (Fe) $\frac{\mu}{\text{g}}$	Hardness as CaCO_3 $\frac{\text{mg}}{\text{L}}$	Hydrogen sulfide (H_2S) $\frac{\text{mg}}{\text{L}}$	Chloride (Cl) $\frac{\text{mg}}{\text{L}}$
CJ-70-25dabb	110R	TKdc	8-21-58	58	8.3	850	...	38	...	50
-26bbcd	13R	Q1	7-24-58	62	6.6	300	...	142	...	25
-33aaac	108R	Kdmc	8-21-58	62	7.1	690	...	301	...	38
CJ-71-7bbac	Spring	pc	12- 7-60	49	7.0	...	...	35	...	50
-14cccd	18.5	pc	12- 2-60	58	7.6	...	...	...	...	...
Ch-66-5bcah	72R	Qy, Qs (1)	4-28-58	54	7.7	1,850	...	462	...	...
Ch-67-17dabc	34R	Qp, Qb, Q1	7-15-57	55	7.1	760	...	222	...	...
-18aacac	60R	Qb, Q1	2-13-59	55	7.2	810	...	205	...	...
-18aacd2	42.5	Qb, Q1	2-25-59	54	...	650	...	...	...	...
-21bcdac2	56.1	Qp, Qb, Q1	1-31-58	56	7.1	570	...	225	...	...
-21bdcc	38.1	Qp, Qb, Q1	7-27-59	53	7.0	770	...	200	...	...
-21cccd	40R	Qp, Qb, Q1	7-25-59	53	7.0	705	...	153	...	...
-21ccdd	45.8	Qp, Qb, Q1	7-25-59	53	7.1	705	...	200	...	...
-27cbac	52.4	Qp, Qb, Q1	3-30-60	55	7.0	710	...	222	...	...
-28aacd	50R	Qp, Qb, Q1	9-27-59	53	7.0	695	...	171	...	...
-28acba	45.1	Qp, Qb, Q1	5-15-58	52	7.1	620	...	188	...	...
-28bdca2	30R	Qp, Qb	9-14-60	...	7.0	900	0.2	171	...	...
-29abab	1,060R	Kdmc, Kdlu	7- 7-60	...	8.1	250	...	...	...	...
-34ddcb	97R	Qp, Qb, Q1	7-15-59	53	7.0	720	...	153	...	...
-34dddb	95R	Q1	7-25-59	52	6.9	730	...	145	...	...
-36aacd2	1,198	Kdmc	2-25-57	78	7.9	260	...	51	0.5	...
Ch-68-9dcd	32.2	Qpp, Qb, Q1	3-27-58	54	7.1	475	...	120	...	...
-12cccb	50R	Qp, Qb, Q1	2- 9-60	55	7.1	...	.2	872	...	...
-28dabd	17.1	Qpp, Qb	7- 3-57	52	6.8	1,550	...	...	...	...
-28dadb	35R	Qpp, Qb, Q1	5- 2-58	51	7.7	1,650	...	530	...	...
-36dddb	2,012	Klb, KLa, Kfm	8-13-58	88	8.5	930	...	< 17	< .1	...
Ch-69-7dabd	200R	TKdc	8-20-58	54	8.7	1,400	...	136	...	...
-10dcah	1,660R	Klu, Klb, KLa, Kfm	3-27-57	68	8.8	750	...	...	1.0	...
-10dcbd2	500R	Kdmc	3-27-57	61	8.7	760	...	...	< .1	...
-12cdac	100R	Qp, TKdu	8- 8-60	55	7.2	4,000	.4	616	...	...
-12cdac2	65.7	Qp, TKdu	8- 8-60	60	7.5	1,750	.5	206	...	...
-15dddb	298R	TKdu, TKdc	12-15-57	59	6.7	770	...	...	...	...
-23ccac	217R	TKdu	12-14-60	...	7.7	890	< .1	94	...	50
-23cccd	83R	Qs, TKdc	5-17-62	...	7.2	1,900	.3	325	...	...
-26cccd	27.0	Qp	11-22-60	...	8.0	880	< .1	171	...	30
-31cdac	59R	Qs	3-17-59	47	7.3	1,120	...	...	...	...
Ch-70-4ebbc	90R	pc	12- 7-60	...	6.4	225	.5	50	...	12
-4daab	98R	pc	5- 1-60	50	7.9	820	.4	199	...	...
-8bbcd	18.0	pc	7-10-61	50	6.5	255	.5	94	...	...
-11bbbc	42.5	Qp	6-30-60	...	7.3	750	.6	307	...	...
-16bdca	Spring	pc	7-26-57	58	6.7	380	...	171	...	18
-23dbbc	275R	Ks	7-22-60	57	6.4	225	7.5	85	.1	...
-23dcbh	48.5	Kb	7-22-60	56	6.5	500	>7.5	241	.1	...
-23dcbz2	52R	Kb, Ks	7-22-60	56	6.3	500	>7.5	241	.1	...
-26dbbc	Spring	Qs	7-18-56	56	...	600	...	...	...	...
-26dcbh	Spring	Pr	7-18-56	60	...	405	...	...	...	...
-27dbaa	Spring	Pr	5-13-59	47	5.9	71	...	< 17	...	...
-27dcd	Spring	Pr	5-12-59	51	6.8	98	...	25	...	...
-27ddbc	91.1	Pr	5-13-59	61	...	405	...	...	...	...
-29dcbh	88R	pc	1-17-61	57	7.1	345	.1	120	...	10
-32abac	30R	Qpp, Q1	5- 5-61	64	...	240	...	...	...	...
-34abac	Spring	pc	5-12-59	46	6.1	31	...	< 17	...	...
CJ-65-19cbcc	444R	TKdu	1-14-61	57	7.0	440	.4	105	...	15
-33cccd	677R	TKdu	9-26-57	62	7.7	370	...	...	...	...
CJ-66-6bada2	1,278R	Kdmc, Kdlc	7- 7-60	73	8.1	...	...	...	...	38
-18dcdc	60R	Qp, Qb, Q1	6- 5-57	52	6.7	705	...	256	...	...
-19dcda	1,350R	Kdmc, Kdlc	10- 3-60	67	9.3	290	.4	43	...	40
-28aac	450R	TKdc	3-25-57	59	...	630	...	154	...	...
-29baab	160R	TKdu	1-27-58	58	7.9	365	...	68	...	...
-29bbdc	55R	Qp, Qb, Q1	10-14-57	52	6.8	400	...	153	...	< 12
-29ddcc	64R	Qp, Qb, Q1	9-10-57	52	6.8	370	...	188	...	20
-30aaaa	400R	TKdu	1-27-58	56	7.9	300	...	51	...	...
-30aaaa	98R	Qp, Qb, Q1	6-17-57	53	6.9	505	...	188	.1	20
-32dcdc	31.5	Qp, Qb, Q1	7-15-57	52	7.0	460	...	170	...	...
-32dcd	49.4	Qp, Qb, Q1	6-30-59	52	7.0	580	...	196	...	...
-33cbec	44.8	Qp, Qb, Q1	2- 2-59	52	6.9	610	...	...	...	...
-33cdhd	230R	TKdu	7-14-62	58	7.7	310	.4	43	...	12
CJ-67-17bdad	1,406R	Kdmc, Kdlc	9-16-60	73	8.3	285	.4	42	< .1	...
-18baad	772R	Kdlu	5-15-59	70	7.7	255	...	68	...	...
-19bbbb	986	Kdmc	7-25-58	70	7.7	260	...	50	< .1	< 12
CJ-68-4acda	1,700R	Klu, Klb, KLa, Kfm	7- 9-58	76	8.8	...	...	< 17	...	...
-7cccd	768	TKdu, Kdmc, Kdlu	5-18-56	62	...	850	...	...	...	...

See footnotes at end of table.

Table 6.--Field determination of chemical quality of water from wells and springs--Continued

Location number	Depth of well (feet) 1/	Geologic source 2/	Date of collection	Temperature (°F)	pH	Specific conductance 3/	Iron (Fe) 4/	Hardness as CaCO ₃ 5/	Hydrogen sulfide (H ₂ S) 6/	Chloride (Cl) 7/
CJ-66-33bec	41.5	Qb, Ql	9-18-60	56	7.1	740	<0.1	280	...	...
-33becb	45.3	Qb, Ql	9-18-60	55	7.3	355	.1	128	...	...
-33dded	36.1	Qb, Ql	9-18-60	55	7.3	930	.2	280	...	...
-34bbcd	525R	TKdu	3-11-57	54	8.7	295	...	17	0.1	...
CJ-67-5abed	800R	Kdmc, Kdlc	9-22-60	64	7.9	730	...	60	...	...
-5abed2	61R	Ql	9-22-60	56	7.3	1,410	.2	350	...	...
-6ddac	16.0	Qb, Ql	4-3-58	52	7.4	1,750	...	...	...	...
-7aadd	37R	Qes, Ql	4-30-58	61	7.2	1,230	...	325	...	...
-7acaa	22R	Qp, Ql	9-21-60	60	7.7	1,750	.2	437	...	...
-7acda	32R	Qp, Ql	9-22-60	59	7.7	1,520	.2	437	...	...
-18accd2	670R	Kdmc, Kdlc	4-30-58	...	8.6	305	...	17	...	114
-19cdad	95R	Qb, Ql	4-29-58	56	7.5	1,600	...	113	...	...
-29cama	75R	Ql	4-30-58	56	7.5	2,100	.3	732	...	...
-36acdb	127R	Kdmc	7-6-57	63	8.7	335	...	47	...	...
CJ-68-5dddd	501R	Kdmc, Kdlc	9-23-60	60	8.6	345	.2	3	...	...
-10accc	715R	Kdmc, Kdlc	9-13-60	66	8.6	355	.1	17	...	...
-11ddab	640R	Kdlc	6-11-57	64	8.0	325	2.5	43	...	...
-12cbbe2	850R	Kdmc, Kdlc, Kl	6-6-57	64	...	310	...	...	...	...
-13bddd	33R	Qb, Ql	8-28-57	56	7.6	1,800	...	675	...	...
-22aabb	25.8	Qb, Ql	8-16-56	58	...	1,250	...	...	...	...
-23bbdb	64R	Qb, Ql	1-27-58	59	6.9	1,590	...	...	...	...
-27bcbd	700R	Kdmc, Kdlc	6-16-57	62	...	350	...	...	...	...
-27cadd	771R	Kdmc, Kdlc	6-4-57	64	...	325	...	...	...	...
-27cbba	700R	Kdmc, Kdlc	6-14-57	62	...	340	...	...	...	...
-35acdc	800R	Kdmc, Kdlc	7-8-57	67	...	290	...	...	...	...
CJ-69-3adcb	800R	Kdlc, Klu	6-6-57	65	...	745	...	...	...	...
-3adcb2	1,740R	Klb, Kls, Kfs	9-14-56	82	7.6	...	...	...	...	...
-5cbba	285R	Kdmc	8-12-58	60	8.5	950	...	35	...	<25
-7bmad	95.6	Kdmc	8-25-58	61	7.1	1,170	...	319	...	63
-7dbcb	430R	Kdl	2-26-57	64	8.1	670	...	35	...	25
-8babb	260R	Kdl	8-12-58	61	7.5	3,000	...	430	...	73
-8cama	352R	Kdl	8-15-58	61	8.5	830	...	35	...	73
-12acbb	11.0	Qpp, Qb	11-29-57	50	7.7	1,550	...	428	...	66
-14cdcc	8.5	Qpp, Ql	11-29-57	41	7.5	1,200	...	342	...	73
-17adcc	53R	Qs, TKdu	8-20-58	57	7.2	950	...	425	...	30
-17becr	80R	Qs, Kdmc	4-29-58	50	7.5	2,100	...	282	...	18
-17cbaa	72R	Qs	8-23-58	61	7.2	775	...	407	...	38
-18acdc	45R	Qs	8-25-58	63	7.4	950	...	478	...	63
-18cddb	520R	Kdlc	8-20-58	64	8.3	990	...	53	...	38
-18dbaa	35R	Qb, Ql	8-18-59	60	7.5	925	...	513	...	...
-21ccca	120R	Qp, Qs, Kdmc	8-20-58	64	6.8	960	...	336	...	25
-23cbdd	17.0	Qes, Qs	10-30-57	57	7.6	990	...	171	...	...
-24cbbe	21.7	Qes, Qs	10-30-57	57	7.6	...	...	249	...	...
-24cbba	31.1	Qes, Qs	4-29-58	55	7.5	1,700	...	291	...	...
-26adaa	27.0	Qp, Qs, Qo(1)	9-8-59	61	7.5	1,100	...	376	...	75
-30abeb	18R	Qpp, Qb, Ql	9-24-57	...	7.3	570	...	...	...	...
-30adcb2	489R	TKdu, Kdmc, Kdlc	4-1-62	53	7.7	510	2.8	120	...	...
-30adbb	45R	Ql	8-8-58	56	7.2	650	...	...	...	...
-30adcc	637R	TKdu, Kdlc	7-6-60	64	7.7	620	...	...	...	...
-30adcc2	42R	Ql	7-6-60	54	7.5	950	...	159	...	25
-33cdac	594R	Kdlc	11-28-59	53	7.9	352	...	...	...	...
-36ccaa	820R	Kdmc, Kdlc	2-10-59	64	...	750	...	...	...	...
CJ-70-1aabb	120R	Kdmc	8-11-58	...	8.4	1,540	...	...	...	...
-1abac	122R	TKdu, Kdl	8-4-60	...	7.5	1,402	...	...	...	...
-1abeb	100R	Kdlu	8-25-58	58	8.2	840	...	35	...	23
-1abbb	12.7	Qb	6-26-58	70	7.2	740	...	154	...	23
-1abbb2	14	Qb	6-26-58	61	7.0	400	...	475	...	25
-8daca	Spring	Qs	11-17-59	51	7.4	285	...	...	...	...
-9adab	25R	Qp, Ql	5-22-58	59	7.0	600	...	212	...	...
-10cbbb	17.3	Qb	11-20-58	56	7.5	500	...	...	...	...
-11dbbb	243R	Kdlc, Klu	8-26-58	69	8.0	860	...	35	...	...
-12bbde	536	Kdlc, Klu	9-29-59	59	8.8	1,400	...	...	...	...
-12dbbe	497	Kdlc, Klu	3-22-57	65	8.2	740	...	...	...	...
-13acbe	450R	Kdmc, Kdlc	6-15-58	62	8.4	300	...	71	...	38
-13aded	46R	Qs	8-25-58	57	7.6	590	...	283	...	50
-13bbab	85R	Kdmc	8-23-58	57	7.9	700	...	71	...	...
-13bdac	400R	Kdmc, Kdlc	3-27-56	59	8.5	775	...	17	...	...
-13bdad	130R	Kdmc	5-13-58	54	8.4	770	...	17	...	...
-13bdad2	33R	Qs	5-13-58	49	7.7	940	...	323	...	...
-13bddd	490R	Kdlc	8-12-58	62	8.5	200	...	74	<.1	28
-13cadd	425R	Kdlc	8-18-58	...	8.3	580	...	17	<.1	38
-14aabb	93R	Kdmc	8-20-58	68	8.0	630	...	106	...	25
-15bbbb	34.1	Qc, Qs	9-29-59	55	9.0	890	...	147	...	...
-23cddb	100R	TKdc	8-23-58	57	8.2	410	...	35	...	25
-25bddd	58R	Qc, Ql, TKdc(1)	7-25-58	59	8.3	800	...	71	...	25

See footnotes at end of table.

Table 2.--Field determination of chemical quality of water from wells and springs--Continued

Location number	Depth of well (feet) 1/	Geologic source 2/	Date of collection	Temperature (°F)	pH	Specific conductance 3/	Iron (Fe) 4/	Hardness as CaCO ₃ 5/	Hydrogen sulfide (H ₂ S) 6/	Chloride (Cl) 7/
C6-70-kdaab	40R	pC	3-22-57	48	7.3	560	0.4	256	...	262
-3dbbd	38R	pC	5- 2-61	49	6.7	195	.4	51	...	4
-11abdd	343R	pC	5- 2-61	50	7.1	445	.4	171	...	7
-24bbcb	16.5	Qpp	5- 6-61	46	6.6	130	.8	51	...	10
-24bbcc	16R	pC	5- 2-61	47	7.0	295	.3	103	...	12
-25bdde	91R	pC	5- 2-61	43	7.2	295	.5	103	...	8
C6-71-12dcd	100R	pC	7- 6-60	48	7.9	230	.1	72	...	...
C7-65-14ccce	298R	TKdu	6-30-61	57	6.8	185	.4	77	...	6
-30babbb	120R	TKdu	3-31-58	55	6.8	235	.2	77	...	10
C7-66-3aaaa	160R	TKdu	9-21-59	...	...	330	.4	94	...	...
-19dbdb	225R	TKdu	7-17-62	58	7.7	620	.4	275	...	26
-22ccad	59R	Qp,Qb,Ql	9-26-59	50	6.7	390	.3	137	...	...
-22ccdc	70R	Qb,Ql	9-22-59	51	6.9	330	.1	120	...	...
-34acdb	50.9	Qp,Qb,Ql	7-23-59	52	6.9	565	.4	171	...	...
C7-67-3abed	1,795R	Kdmc,Kalc	1-18-57	69	8.5	260	...	68	...	...
-3abed2	801R	TKdu	10- 5-59	60	6.9	290	...	103	...	< 12
C7-68-2dadb	100R	Qb,TKdu	8-27-57	69	7.2	620	...	188	...	63
-4abba	800R	Kdmc,Kalc	9-16-60	60	7.7	395	.4	111	< 0.1	...
-13dcd	49.8	Qb,Ql	7- 9-59	57	6.9	420	.1	111	...	...
C8-69-3ccbb	135R	TKdu	4-11-58	61	6.8	610	.4	292	...	...
-16dacc	182R	TKdu	7- 1-61	57	6.9	165	.4	60	...	10
-32dcac	145R	TKdu	7- 3-61	54	7.1	350	.4	137	...	...
C8-66-1bbbc	229R	TKdu	7- 1-61	57	6.4	190	.4	43	...	10
-10abab	52R	Ql	2- 4-58	46	...	225	...	86	...	...
C8-67-11baca	90R	Qb,Ql	2-27-58	54	6.6	450	...	154	...	...
-11dadb	1,608R	Kdmc,Kalc	2-27-58	53	7.3	290	...	103	< .1	...
-11dbdd	90R	Ql	2-27-58	52	6.5	265	...	86	...	...
C8-68-5bcbd	25R	pC	7- 8-61	66	6.6	230	.3	94	...	9
C8-69-3dcna	Spring	pC	7- 3-61	60	7.0	135	.4	60	...	...

1/ Depth of well: Measured depth of wells less than 100 feet are given in feet and tenths below land surface datum. R, reported depths.

2/ pC, Precambrian; PF, Fountain Formation; Ks, South Platte Formation of the Dakota Group; Kb, Benton Shale; Kt, transition zone; Kfm, Milliken Member of the Fox Hills Sandstone; Kls, a sandstone of the Laramie Formation; Klb, b sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; Kl, Laramie Formation; Kll, lower part of the lower conglomerate of the Dawson Formation; Kllu, upper part of the lower conglomerate of the Dawson Formation; Kllc, lower conglomerate of the Dawson Formation; Kdmu, upper part of the middle conglomerate of the Dawson Formation; Kdmc, middle conglomerate of the Dawson Formation; Kdl, lower part of the Dawson Formation; TKdu, upper conglomerate of the Dawson Formation; TKdu, upper part of the Dawson Formation; TKa, Dawson Formation; Qr, Rocky Flats Alluvium; Qv, Verdos Alluvium; Qs, Slocum Alluvium; Qo, older loess; Ql, Loup River Alluvium; Qy, younger loess; Qb, Broadway Alluvium; Qes, eolian sand; Qp, Piney Creek Alluvium; Qc, colluvium; Qpp, post-Piney Creek alluvium.

3/ Specific conductance in micromhos at 25°C.

4/ Quantities given in parts per million.

5/ Sampled at 10 feet.

6/ Sampled at 200 feet.

< Less than. > Greater than.

Table 7.--Specific conductance of and chloride concentrations in water from wells and springs

Location number	Depth (feet) 1/	Geologic source 2/	Date of collection	Tempera- ture (°F)	Chloride (Cl) 3/	Specific conductance 4/
B1-67-19add	697	Klb	4-11-57	59	50	1,140
B1-68-27bec	720	Klb	4-15-57	62	90	1,270
C1-66-18ece	32.6	Qb, Ql	7-28-56	56	113	1,500
C1-67-1dcbb		Qpp, Ql	9-28-56	63	120	1,290
-13cama	31.7	Qb, Ql	9-28-56	54	113	1,480
-26madd	41.1	Qb, Ql	9-28-56	54	99	1,330
-3bdmab	280	Kdmc	9-10-55		8	659
C1-70-21bdc	150.0	Klb, Klc	4-19-57	56	3	584
C2-67-1eada	28.4	Ql	9-11-55	56	87	1,000
-2bacc	41.0	Qb, Ql	9-10-55	55	55	1,390
-2cdac	48.6	Ql	3-10-56	55	102	1,390
-2ddac2	39.1	Ql	3-9-56		119	1,520
-3cdab	46	Qb, Ql	9-15-55		112	1,470
-9dacc2	50	Qb, Ql			446	2,380
-9dacc 2/	54	Qb, Ql	10- -59		390	2,120
-9dadb2	68	Qb, Ql			130	1,670
-9dadc3	50	Ql	10- -59		133	1,030
-10decc	41	Qb, Ql	11-13-55	53	148	1,740
-11ada	42.9	Ql	9-11-55		125	1,840
-11adb	41.1	Ql			121	1,820
-11beca	51.9	Ql	9-12-55	54	129	1,460
-11bdb	63	Ql	9-12-55		140	1,500
-16ccdc	49.3	Qb, Ql	9-10-55	55	64	1,030
-16dddc	36.6	Qb, Ql	6-2-56	55	260	1,460
-20dand	46.1	Qb, Ql	9-20-55		85	1,160
-20dbda	50	Qb, Ql	11-23-55		86	1,270
-20dcbc	41.2	Qb, Ql	9-21-55	56	86	1,340
-20dddc	37.9	Qb, Ql	9-21-55		70	1,220
-21bbbd	500	Kdmc	7-20-55		71	1,040
-21becc	47.1	Qb, Ql	9-19-55		59	884
-21bdeb	50	Qb, Ql	8-17-55	56	47	864
-21bdcd	49.4	Qb, Ql	9-17-55		41	825
-21bdcd2	93	Qb, Ql	8-17-55		42	824
-22acdc	178.0	TKdu	10-2-55			3,700
-22ccaa	42.1	Qss, Qv	6-2-56		1,120	3,970
-22ccaa	51	Qss, Ql	11-12-55		204	1,190
-22ccaa	51	Qss, Ql	1959		264	1,220
-22abcc 2/	50	Qss, Ql	11-12-55		42	826
-22qbab	70	Qb, Ql	10- -59		40	771
-22bbca	44.1	Qb, Ql			47	805
-22bdba	745	Kdmc, Kalc	1959		0	497
-22bddd 2/	50.0	Qb, Ql	10- -59		46	
-29dcdd	63.3	Qb, Ql	9-21-55	55	68	1,180
C2-68-1bade	1,330	Klb, Klc, Kfu	4-23-57	69	131	1,460
-10bbaa	700	Kdmc, Kalc, Klu	10-21-59	54	4.0	209
C3-65-21dca	900	TKdu, Kdmc		61	16	484
-36daca	785	TKdu, Kdmc		61	8.0	328
C3-66-10bbab	320	TKdu	6-5-57	60	75	701
-22abbc	150	TKdu	6-12-57	59	10	414
-30dabc	410	TKdu	6-13-57	64	7.0	341
-31abca	170	TKdu	6-13-57	68	270	2,010
-31ccdb	30	Qp, Qb	4-30-58	51	48	1,170
-32ccca	1,003	Kdmc	6-13-57	56	3.0	271
-33bcac	41.5	Qb, Ql	9-14-60	54	37	737
-34bbcd	525	TKdu	3-11-57	54	3.0	324
C3-67-12bbab	23.0	Qp, Qv	9-9-55		121	2,550
-29ccaa	95	Ql	7-16-58	56	116	2,190
C3-68-12bbcd2	850	Kdmc, Kalc, Kl	6-6-57	64	3.0	313
-13bddd	33	Qb, Ql	9-26-56	57	112	1,750
-13bddd	33	Qb, Ql	6-15-57	56	66	1,800
-22mabb	25.8	Qb, Ql	4-16-56	58	80	1,280
-27ccdd	771	Kdmc, Kalc	6-4-57	64	7.0	326
-27ccba	700	Kdmc, Kalc	6-14-57	62	4.0	341
-35acda	800	Kdmc, Kalc	6-11-57	67	3.0	279
C3-69-17becc	80	Qs, Kdmc	4-29-58		11	2,110
-22ccab	Spring	Qss	6-12-57	57	27	1,530
-22dacc	Spring	Qs, Qp	6-13-57	55	49	1,500
C3-70-1abab	122	TKdu, Kdl	9-8-60	57	60	1,860
-13bddd	490	Kalc	8-12-58	62		874
-15babb	94.1	Qs, Qs	11-20-58	55	36	856
C4-66-7abab	72	Qv, Qs (f)	4-28-58	54	49	1,850
C4-67-18accdh	26.0	Qb, Ql	2-25-59	53	26	606

See footnotes at end of table.

Table 7.--Specific conductance of and chloride concentrations in water from wells and springs--Continued

Location number	Depth (feet) 1/	Geologic source 2/	Date of collection	Tempera- ture (°F)	Chloride (Cl) 3/	Specific conductance 4/
Ck-67-21bdec	38.1	Qp, Qb, Ql	7-27-59	53	42	738
-21cddd	45.8	Qp, Qb, Ql	7-25-59	53	28	648
-27cdec	52.4	Qp, Qb, Ql	3-30-60	54	39	718
-28aadc2	50	Qp, Qb, Ql	7-27-59	53	34	661
Ck-68-12acca	61	Qb, Ql	8-10-56	58	100	1,500
-13acsd	80	Ql	8-15-56	56	28	571
-13acda	32.5	Ql	8-13-56	57	148	1,880
-19cddd	54	Qp	8-17-56	56	24	1,410
-28acdd	30.7	Qpp, Qb, Ql	8-29-56	56	75	1,300
-28ccbb	101.9	TKdu	8-28-56	55	48	1,600
-28dabd	17.1	Qpp, Qb	...	52	144	1,850
-33dcbb	49.3	Qpp, Qb, Ql	5-13-57	54	84	1,100
Ck-69-1bdad	95	Qs(?), TKdu	11-15-60	...	46	1,590
-5dbbd	200	TKdc	8-20-57	54	24	1,450
-25aada	506	Kdmc	11-15-60	...	22	574
-31dcdd	36.6	Qs	11-15-60	55	8.0	1,140
Ck-70-23deba	48.5	Kb	7-22-60	56	3	417
C5-66-29bbdc	55	Qp, Qb, Ql	8-10-57	52	5.0	376
-32dcde	31.5	Qp, Qb, Ql	6-24-59	52	9.0	428
C5-67-6abbb	1,104	Kdmc	11- 3-60	...	4.0	278
-10cabb	1,150	Kdmc	11-23-60	...	2.0	272
-17ebbb2	1,400	Kdmc, Kalc	11-23-60	...	14	585
C5-68-29bbb	860	Kdmc	11-17-60	...	24	302
-5dbbd	577	Kdmc	11-16-60	...	4.0	327
-8dcda	25	Qpp, Qb	8-30-56	55	67	934
-13daad	1,147	Kdmc, Kalc	6- 6-57	75	7.0	279
-15bdec	778	Kdmc	11-21-60	...	4.0	276
-17bbbb	744	Kdmc, Kalc	11-16-60	...	8.0	488
C5-69-9ddcc	246	Kalc	10-27-59	54	18	606
-29aac	1,580	Klb	5- 3-57	...	670	2,460
-29aac	1,580	Klb	5- 3-57	...	1,350	4,600
C6-66-5adac	69.6	Qb, Ql	9- 1-59	52	9.5	436
-9bdc	71.0	Ql	10- 2-56	53	5.0	378
-9bdc	71.0	Ql	6-26-59	53	9.5	365
-27dbcc	44	Qb, Ql	...	52	16	543
C6-67-18baab	334	TKdu	...	56	4.0	281
C6-68-3dbac	533	Kdmc	7-17-57	60	4.0	283
-6dcdb	699.0	Kalc, Klu	11-25-60	...	10	447
-10acab	302	TKdu	7-17-57	56	3.0	288
-16abaa	465	TKdu	7-18-57	61	4.0	346
-17bdad	354	TKdu	7-19-57	59	5.0	370
-18dabb	350	Kdmc, Kdlu	...	56	1.0	309
-18dadd	31.3	Qpp, Qb	7- 3-57	57	20	613
-24bccc	400	TKdu	7-16-57	58	48	264
C6-69-24dda	48.2	Ql, Qs, Qv	10- 1-56	54	44	708
-24cccd	1,340	Klb, Klc, Kfm, Kt	7-20-57	66	1,290	4,490
C7-66-3aana	160	TKdu	9-21-59	...	8.0	316
-19aac	271	TKdu	10-17-59	54	...	410
-22odcc	70	Qpp, Qb, Ql	9-28-59	51	6.0	316
C7-68-24acb	100	Qp, TKdu	8-27-57	69	77	678
-13abca	450	TKdu	9-25-59	54	...	270

1/ Measured depths are given in feet and tenths below land surface; reported depths are given in feet.

2/ Kb, Benton Shale; Kt, transition zone; Kfm, Milliken Sandstone Member of the Fox Hills Sandstone; Klc, a sandstone of the Laramie Formation; Klb, b sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; Kdlu, upper part of the lower conglomerate of the Dawson Formation; Kalc, lower conglomerate of the Dawson Formation; Kdmc, middle conglomerate of the Dawson Formation; Kdl, lower part of the Dawson Formation; TKdc, upper conglomerate of the Dawson Formation; TKdu, upper part of the Dawson Formation; Qv, Verdeos Alluvium; Qs, Slocum Alluvium; Ql, Louviers Alluvium; Qy, Younger loess; Qb, Broadway Alluvium; Qes, Eolian sand; Qp, Piney Creek Alluvium; Qc, Colluvium; Qpp, post-Piney Creek alluvium.

3/ Concentration of chloride, in parts per million.

4/ Specific conductance, in micromhos at 25°C.

2/ Analysis furnished by the Colorado State Public Health Department.

Table 8.--Radiochemical analyses of water from wells and springs

(pc/l, picocuries per liter; $\mu\text{e/l}$, micrograms per liter; ppm, parts per million)

Location number	Depth of well (feet)	Geologic source	Date of collection	Temperature (°F)	Beta-gamma activity (pc/l)	Radium 226 (Ra 226) (pc/l)	Uranium (U) ($\mu\text{g/l}$)	Radium 228 (Ra 228) (pc/l)	Radon (Rn 222) (pc/l)	Thorium (Th 232) (pc/l)	Gross alpha activity (pc/l)	Gross beta activity (pc/l)	Alpha activity (pc/l)	Beta activity (pc/l)	Strontium (Sr) (ppm)
C2-68-23cbb2	710	KMac, KMc	1-10-58	62	<11	<0.1	<0.1	...	...	...	...	...	...	...	...
C2-68-23cbb2	1,446	Klb, Klb	1-10-58	77	<11	<0.1	<0.1	...	...	...	...	...	...	...	...
C2-68-25cbb2	300	Qpp, Ql	1-10-58	54	<8	1	34	...	...	...	...	...	...	...	...
C2-68-31cabb	1,700	KMac, KMc	1-9-58	61	<17	2	2	...	...	...	...	...	...	...	...
C2-68-31cabb	1,546	Klb, Klb, Kfm	1-9-58	75	<8	2	1	...	...	...	...	...	...	...	...
C3-69-34cbb2	1,740	Klb, Klb, Kfm	9-9-57	60	<68	5	2	...	...	...	...	...	...	...	...
C3-69-34cbb2	550	KMc	6-10-54	60	9	7	1	...	...	...	...	...	...	...	...
C3-69-34cbb2	1,745	Klb, Klb, Kfm	11-19-56	56	<27	1	1	...	...	...	...	...	...	...	...
C4-67-21bada	56.1	Qp, Ql	1-31-58	56	<19	2	4.2	...	...	...	...	...	...	...	...
C4-68-54cad	32.2	Qpp, Ql	1-16-58	54	<19	2	7.4	...	...	...	...	...	...	...	...
C4-70-23babc	275	Ks	7-22-60	57	9,181.4	2,040.4	1	...	...	...	...	...	...	...	...
C5-69-19babb	600	KMc	2-5-58	60	<25	4,040.2	1,040.1	...	...	...	...	...	...	...	...
C5-69-19babb	677	KMc	2-5-58	76	<8	1,180.1	1,180.1	...	...	...	...	...	...	...	...
C5-68-17caba	42.0	Klb, Klb, Klb, Kfm	1-13-58	53	<23	3	12	...	...	...	...	...	...	...	...
C5-68-28babc	1,948	Klb, Klb, Kfm	1-13-58	83	<25	<1	<1	...	...	...	...	...	...	...	...
C5-69-18cbb2	174	Ks	7-26-60	58	...	1,540.3	1,540.3	...	...	...	...	...	...	...	...
C6-57-27cbb2	120	KMc	12-10-59	59	<13	1,740.2	2.3	...	...	...	...	...	...	...	...
C6-58-13babc	715	KMac, KMc	2-26-58	49	22	2	2.4	...	...	...	...	...	...	...	...
C6-69-23babc	38.3	Qpp, Ql	1-17-58	...	...	...	...	...	...	...	...	...	...	...	...
C6-71-15cbb2	183	Ks	7-10-60	...	...	2,040.1	5825	...	...	...	...	...	...	...	...
C7-66-19babb	225	KMc	12-30-59	58	...	...	...	...	...	...	...	...	...	...	...
C7-66-21bada	270	KMc	7-5-60	69	142	1,340.3	280.1	...	...	...	...	...	...	...	...
C7-67-34cbb2	1,755	KMac, KMc	10-13-59	49	21	1,942	1,150.1	...	...	...	...	...	...	...	...
C7-67-34cbb2	801	KMc	2-4-58	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	10-5-59	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	at 11:40 am	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	12-18-59	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	at 12:00 pm	...	...	...	...	...	...	...	...	...	...	...	...
Do	...	...	17-18-57	...	...	...	...	...	...	...	...	...	...	...	...
C7-67-15bacc	174	KMc	12-30-59	...	...	...	...	...	...	...	...	...	...	...	...
C7-67-15bada	205	KMc	12-30-59	...	...	...	...	...	...	...	...	...	...	...	...
C7-69-21bada	Spring	Ks	6-15-59	...	...	...	...	...	...	...	...	...	...	...	...
C7-69-21bada	Spring	Ks	6-15-59	...	...	...	...	...	...	...	...	...	...	...	...
C8-66-10abab	52	Ql	2-4-58	46	<8	1,110.1	540.1	...	...	...	...	...	...	...	...
C8-67-11baca	90	Qb, Ql	2-4-58	54	<11	4	8	...	...	...	...	...	...	...	...
C8-67-11dabc	1,608	KMac, KMc	3-30-59	53	10	340.1	4	...	...	...	...	...	...	...	...
C8-67-11dbdd	90	Ql	2-27-58	52	14	6	5	...	...	...	...	...	...	...	...

1/ Depth of well: Measured depths are given in feet below land surface; reported depths are given in feet below land surface.

2/ Geologic source: Ks, South Platte Formation of the Dakota Group; Kfm, Milliken Sandstone Member of the Fox Hills Sandstone; Klb, B sandstone of the Laramie Formation; Klu, upper part of the Laramie Formation; KMc, lower conglomerate of the Laramie Formation; KMac, middle conglomerate of the Laramie Formation; Kfm, upper part of the Laramie Formation; Ql, Loup River Alluvium; Qp, Piney Creek Alluvium; Qb, Broadway Alluvium; Qpp, post-Piney Creek alluvium.

< Less than.

Table 9.--Physical properties of selected samples of water-bearing materials
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

Location number	Formation symbol	Method of sampling	Depth (feet)	Dry unit weight (gm/cc)	Speci- fic reten- osity 5/ (calcu- lated) 6/ (percent)	Average coefficient of permeability (gpd/ft ²) 7/	Particle-size distribution, in percent by weight													
							Clay and silt sizes (millimeters)		Sand sizes (millimeters)					Gravel sizes (millimeters)						
							less than 0.004	0.004 to 0.0625	Very fine 0.0625 to 0.125	Fine 0.125 to 0.25	Medium 0.25 to 0.5	Coarse 0.5 to 1.0	Very coarse 1.0 to 2.0	Very fine 2.0 to 4.0	Fine 4.0 to 8.0	Medium 8.0 to 16.0	Coarse 16.0 to 32.0	Very coarse 32.0 to 64.0	Very coarse 64.0 to 128.0	
C2-67-																				
23abc	Ob	C	10.0	11.9	6.5	34.7	28.2	1,800	5.6	1.7	4.7	9.6	18.8	13.9	24.1	13.1	4.7	3.8	..	..
27bcd	Q1	C	48	50	8.4	31.7	23.3	9	10.2	6.2	17.5	30.2	12.9	6.2	6.9	4.8	2.0	2.1	1.0	..
27bcd	Q1	C	57	58	4.5	29.1	24.6	100	3.9	1.3	4.3	9.2	11.8	12.5	14.4	15.0	10.6	11.0	6.0	..
31cac	Q1	D	39	40	..	32.8	..	3,100	..	..	..	..	..	..	..	..	..	..	..	..
31cac	Q1	D	41	42	..	37.0	..	1,900	..	..	..	..	..	..	..	..	..	..	..	..
31cac	Q1	D	43	44	..	29.1	..	1,500	..	..	..	..	..	..	..	..	..	..	..	..
31cac	Q1	D	44	45	..	35.1	..	1,700	..	..	..	..	..	..	..	..	..	..	..	..
31cac	Q1	D	45	46	..	33.2	..	2,600	..	..	..	..	..	..	..	..	..	..	..	..
31cac	Q1	D	47	48	..	36.6	..	1,400	..	..	..	..	..	..	..	..	..	..	..	..
31cac	Q1	D	50	51	..	29.0	..	4,400	..	..	..	..	..	..	..	..	..	..	..	..
C2-69-																				
10adaa	Kdmc	CH	outcrop	..	19.0	45.9	26.9	37	8.5	9.0	4.0	10.5	18.2	21.5	24.8	9.6	1.9	1.0	..	..
10adaa	Kdmc	CH	outcrop	..	22.4	25.7	3.3	.04	..	..	4.8	20.4	45.2	9.6	1.2	..	..	..	..	..
C2-70-																				
25dabc	Kdmc	C	outcrop	..	4.1	28.7	24.6	9	8.2	16.0	15.7	61.6	14.0	..	..	..	..	..	..	..
28dcaa	Kfm	C	outcrop	..	17.2	24.2	7.0	.003	..	..	15.4	37.4	7.7	2.3	..	..	..	..	..	..
28dccb	Kfb	C	outcrop	..	..	..	..	.02	..	..	26.0	35.2	10.8	2.0	..	..	..	..	..	..
28dceb2	Kfb	C	outcrop	..	1.9	23.1	21.2	.02	6.3	13.0	11.2	52.5	30.0	..	..	..	..	..	..	..
C3-67																				
1acac	Qv	C	10.5	12.5	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..
1abab	Qss	C	11.5	23.3	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..
1addd	Qv	C	73	75	..	..	..	100	6.3	..	1.9	6.3	15.5	34.1	26.5	6.4	1.8	1.2	..	..
22ccdc	Ob	D	17.5	20.0	1.81	31.2	..	..	2.4	..	..	4.0	12.0	21.4	33.7	22.3	3.3	..	..	..
22ccdc	Ob	D	27.5	30.0	1.88	12.2	28.8	16.6	5.1	..	2.0	6.1	16.4	20.7	19.7	20.0	6.7	3.3	..	..
C3-68-																				
8bbdac	Ob	D	14.0	16.0	1.87	..	..	..	4.0	..	2.9	3.5	4.8	8.9	19.3	18.0	18.1	20.5	..	..
8bddd	Opp	D	6.3	7.4	..	..	..	..	3.0	..	2.1	13.0	38.2	30.7	9.2	2.1	1.7	..	..	..
23acca	Q1	D	27.5	30.0	1.79	17.6	32.2	14.6	8.8	..	1.9	2.1	5.3	18.4	36.5	11.8	10.7	4.5	..	..
23acca	Q1	D	37.5	44.0	1.97	12.5	25.1	12.6	3.8	..	1.8	3.6	6.0	9.8	20.7	30.5	23.4	..	..	..
C3-69-																				
16daaa	Q1	D	outcrop	..	6.1	23.8	17.7	670	.3	..	.3	.6	1.2	1.4	1.0	4.7	5.0	9.1	19.3	29.3
C4-65-																				
18bcb	TKdu	CH	outcrop	..	10.5	48.5	38.0	17	10.8	..	3.8	8.4	31.7	35.6	9.1	..	..	..	..	..
18bdc	TKdu	CH	outcrop	..	32.8	39.1	6.3	.0007	35.0	18.2	13.6	9.4	1.6	..	..	..	..	..	..	..
18bdc	TKdu	CH	outcrop	..	30.8	37.1	6.3	.03	34.0	19.0	6.2	21.8	18.2	..	..	..	..	..	..	..
18bdc	TKdu	Cyl	outcrop	..	..	..	..	.09	25.2	12.8	10.2	17.4	26.4	7.4	..	..	..	..	..	..
C4-67-																				
18accd2	Q1	D	20.0	20.5	1.68	2.9	35.9	33.0	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	22.5	23.0	1.75	2.6	33.5	30.9	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	24.5	25.0	1.70	3.7	35.4	31.7	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	26.5	27.0	1.69	2.9	36.0	33.1	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	28.5	29.0	1.71	3.0	34.7	31.7	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	30.5	31.0	1.71	3.8	34.5	30.7	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	31.5	34.0	1.67	2.9	36.0	33.1	..	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	38.5	39.0	1.69	4.8	35.5	30.7	2.8	..	..	..	..	..	..	..	..	..	..	..
18accd2	Q1	D	41.5	42.0	1.72	19.6	34.4	14.8	2.7	..	2.0	2.6	2.7	1.4	21.5	35.4	26.2	5.5	..	..

See footnotes at end of table.

Table 9.--Physical properties of selected samples of water-bearing materials.--Continued
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

Location number	Forma- tion sam- pled	Method of sam- pling	Depth (feet) From To	Dry unit weight (gm/cc)	Speci- fic Por- tion 5/ 3/ (percent)	Average coefficient of permeability ($\frac{gpd}{ft^2}$) Z	Particle-size distribution, in percent by weight																	
							Clay and silt sizes (millimeters)		Sand sizes (millimeters)					Gravel sizes (millimeters)										
							less than 0.004	0.004 to 0.0625	Very fine 0.0625 to 0.125	Fine 0.125 to 0.25	Medium 0.25 to 0.5	Coarse 0.5 to 1.0	Very coarse 1.0 to 2.0	Very fine 2.0 to 4.0	Fine 4.0 to 8.0	Medium 8.0 to 16.0	Coarse 16.0 to 32.0	Very coarse 32.0 to 64.0	Cobbles 64.0 to 128.0					
C4-57-	28adcc	Q1	D	25.5	27.5	1.65	1.4	37.0	33.6	1,700	2.3	0.4	0.4	1.9	10.3	38.6	29.0	13.8	3.3					
	28adcc	Q1	D	27.5	32.5	1.66	2.5	36.9	34.4	590	3.9	.3	.4	3.1	5.1	46.1	29.3	10.6	1.2					
	28adcc	Q1	D	32.5	37.5	1.61	1.1	38.5	35.4	22,000	1.4	.4	.6	1.7	4.4	13.3	38.9	39.0	.3					
	28adcc	Q1	D	42.5	47.5	1.67	1.5	36.0	32.5	3,300	1.6	.5	1.4	2.9	6.1	18.2	30.5	34.0	4.8					
	28adcc	Q1	D	47.5	52.5	1.62	6.6	37.9	31.3	4,100	2.4	.7	.4	.6	1.1	15.1	61.9	17.2	.6					
	28adcc	Q1	D	57.5	62.5	1.65	5.8	36.8	31.0	4,200	2.7	.5	.8	2.6	10.6	27.8	36.5	18.1	.4					
	28aba2	Op	D	.0	3.5	1.41	29.5	46.8	17.3		23.0	35.8	14.4	12.0	10.4	4.0	.4							
	28aba2	Op,Ob	D	3.5	8.5	1.62	17.9	31.6	13.7	8	6.2	7.6	3.3	8.9	20.3	13.9	12.0	11.0	10.3	4.5				
	28aba2	Ob	D	8.5	13.5	1.83	14.9	31.7	16.8	8	5.8	3.4	1.9	5.0	14.6	17.8	18.5	20.0	10.3	2.7				
	28aba2	Ob	D	13.5	18.5	1.84	14.4	29.8	15.4	33	5.1	3.4	3.4	5.5	14.2	20.7	21.1	18.1	7.4	3.2				
C4-58-	28aba2	Ob	D	18.5	23.5	1.86	12.3	29.0	16.7	17	9.2	3.0	5.6	11.9	17.1	22.6	21.2	7.9	1.5					
	28aba2	Ob,Ol	D	23.5	28.5	1.77	8.8	31.0	24.2	22	5.8	2.2	1.9	4.5	8.8	15.0	18.3	32.7	6.2	2.7	4.1			
	28aba2	Ol	D	28.5	33.5	1.80	10.0	31.8	24.5	19	6.0	2.2	4.7	11.9	20.4	24.0	22.1	8.1	.6					
	28aba2	Ol	D	33.5	38.5	1.73	10.0	34.5	24.5	91	4.2	1.4	3.3	9.2	19.9	27.9	24.3	9.8	.6					
	28aba2	Ol	D	38.5	42.5	1.75	5.6	33.2	27.6	130	3.2	1.1	3.0	9.0	18.3	28.5	28.5	8.2	.2					
	5dbda	Ol	D	22.5	27.5	1.78	5.2	31.8	26.6	9,000	5.6	2.4	2.8	2.3	1.8	6.1	16.9	14.9	28.9	18.3				
	5dbda	Ol	D	30.0	37.5	1.76	11.0	35.2	24.2	2,000	7.0	1.1	1.6	2.5	3.8	13.6	28.2	30.3	15.9					
	5dbda	Ol	D	37.5	42.5	1.70	9.4	34.0	24.6	540	6.0	2.0	3.0	4.7	6.1	27.1	32.9	4.8	2.4					
	5dbda	Ol	D	42.5	47.5	1.73	9.4	34.0	24.6	540	6.0	1.9	3.1	7.0	12.2	33.8	26.0	9.1	.9					
	C4-59-	TKdc	C	outcrop	outcrop	1.87	13.7	51.5	37.8	73	10.1	6.7	14.0	30.1	28.2	9.2	1.6	1.1			11.2	5.4	16.5	
19dbab	TKdc	C	outcrop	outcrop	1.87	18.9	28.9	10.0	1,000	9.2	7.9	12.2	22.6	27.1	18.9	2.1								
19dbab	TKdc	C	outcrop	outcrop	1.87	5.7	29.2	23.5	1,000	19.2	8.1	31.5	27.4	.7										
C4-70-	Kfm	C,D	outcrop	outcrop	1.87	12.9	31.6	18.7	.3	9.2	7.6	40.6	34.5	6.8	1.2	.1								
24dcbb	Kdc	C	outcrop	outcrop	1.87	15.1	30.3	15.2	170	5.3	5.3	4.3	12.3	35.3	31.9	8.3	1.4	.7	.5					
24dcbb	Kdl	Cyl	outcrop	outcrop	1.87	14.6	24.9	10.3	.3	10.4	10.4	16.0	42.6	28.1	2.8	.1								
24dcbb	Kdl	CH	outcrop	outcrop	1.87	16.0	23.9	7.9	.008	11.1	11.1	25.9	47.4	15.1	.5									
24dcbb	Kdl	D	outcrop	outcrop	1.87	12.7	36.1	23.4	6,000	2.7	2.7	1.7	4.0	6.4	10.2	12.2	15.0	17.2	17.6	10.2	2.8			
24dcbb	Kdl	D	outcrop	outcrop	1.87	10.0	37.7	27.7	320	2.1	2.1	1.8	2.6	6.9	10.3	12.7	13.8	16.1	17.7	12.9	3.1			
24dcbb	Kdl	D	outcrop	outcrop	1.87	12.0	36.5	24.5	7,400	2.6	2.6	1.9	5.1	9.7	10.0	8.6	11.3	10.1	8.1	8.2	15.6	8.8		
24dcbb	Kdl	C	outcrop	outcrop	1.87	14.5	21.8	7.3	.1	1.3	1.3	5.1	28.4	34.9	26.1	2.0								
24dcbb	Kdl	Cyl	outcrop	outcrop	1.87	19.2	31.1	11.9	.05	16.6	16.6	5.4	11.1	26.9	25.7	14.3								
24dcbb	Kdl	Cyl	outcrop	outcrop	1.87	3.1	49.2	46.1	110	8.0	8.0	6.4	25.8	48.8	10.4	.6								
25ab	TKdc	C	outcrop	outcrop	1.87	21.1	50.9	29.6	83	8.6	8.6	5.5	12.6	19.1	15.5	11.1	5.9	8.7	5.8	3.2				
26acba	Kly	C	outcrop	outcrop	1.87				.3	5.8	5.8	33.9	54.1	5.8	.4									
26acba	Ka	C	outcrop	outcrop	1.87				.05	23.6	23.6	48.3	26.0	2.1										
35dcba	P1	C	outcrop	outcrop	1.87					5.9	5.9	29.4	53.4	10.9	.4									
35dcba	P1	C	outcrop	outcrop	1.87				.0007	23.2	23.2	53.3	17.4	6.1										
C5-56-	20cccc	Qb	D	15.0	17.5	1.78	4.6	32.6	28.0	840	1.3	.3	2.2	16.4	41.2	30.2	6.4	1.8	.2					
20cccc	Qb	D	20.0	22.5	1.71	6.2	35.0	28.8	550	1.7	1.7	.7	3.5	28.4	24.3	34.9	6.1	.4						
20cccc	Qb	D	27.5	30.0	1.77	5.8	32.4	26.6	940	2.1	2.1	2.3	7.6	20.7	23.4	28.7	12.7	2.5						
20cccc	Ql	D	35.0	37.5	1.69	3.7	35.7	32.0	3,100	.6	.6	3.1	2.7	19.7	21.4	49.9	1.4	4.0						
20cccc	Ql	D	40.0	42.5	1.78	7.4	32.3	24.9	550	4.7	4.7	2.1	5.9	22.2	16.9	27.1	12.0	8.5	.2					

Table 9.--Physical properties of selected samples of water-bearing materials.--Continued
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

Location number	Formation and sampling method	Depth (feet) From To	Dry unit weight (gm/cc) $\frac{W}{V}$	Specific porosity $\frac{V_v}{V}$ (calculated)	Average coefficient of permeability (gpd/ft ²) $\frac{L}{T}$	Particle-size distribution, in percent by weight													
						Clay and silt sizes (millimeters)		Sand sizes (millimeters)					Gravel sizes (millimeters)						
						less than 0.004	0.004 to 0.0625	Very fine 0.0625 to 0.125	Fine 0.125 to 0.25	Medium 0.25 to 0.5	Coarse 0.5 to 1.0	Very coarse 1.0 to 2.0	Very fine 2.0 to 4.0	Fine 4.0 to 8.0	Medium 8.0 to 16.0	Coarse 16.0 to 32.0	Very coarse 32.0 to 64.0	Cobbles 64.0 to 128.0	
C5-66- 20ccc 23cdd	Q1 Op	47.5 outcrop	1.82 ..	7.2 23.3	31.1 41.1	23.9 17.8	2.8 6.2	2.1 2.4	7.5 8.3	28.1 24.0	22.2 35.8	17.1 14.8	12.7 5.0	7.5 3.5	..	..	..	..	
C5-68- 5bdaa 5bdaa 5bdaa 5bdaa 5bdaa	Q1 Q1 Q1 Q1 Q1	18.0 22.5 27.5 32.5 37.5	1.68 1.71 1.68 1.63 1.83	13.0 2.4 3.2 6.9 10.8	36.1 35.0 32.6 32.3 38.0	23.1 22.6 22.9 21.1 14.9	8.2 31.0 13.4	3.6 4.2	3.6 8.8	3.8 13.7	1.6 26.2	12.3 19.7	17.3 10.5	22.2 3.0	7.4	..	..	..	
8accc 9cdc	Q1 Qb	51.0 outcrop	1.63 ..	2.2 ..	38.3 28.7	26.5 ..	1.3 ..	1.0 ..	4.4 ..	9.0 ..	10.5 ..	16.6 ..	66.2 ..	13.1 ..	7.6 ..	13.9 ..	14.0 ..	..	
C5-69- 27cdc	K1b	outcrop	..	1.4	24.3	22.9	12.3	8.4	57.4	20.9	1.0	..	..	..	..	..	..	..	
C6-66- 22bca2 22bca2 22bca2 22bca2 22bca3	Q1 Q1 Q1 Q1 Q1	45.0 62.5 70.0 35.0 37.5	1.60 1.83 1.71 1.75 1.81	2.8 11.5 5.0 5.1 6.1	39.4 29.9 35.0 33.2 31.2	36.6 18.4 30.0 28.1 25.1	1.6 7.7 3.0	1.2 2.1 1.2	4.9 6.5 5.8 3.0 2.5	13.0 18.6 21.5 15.5 33.3	22.2 26.6 33.5 29.7 27.5	31.4 29.7 30.0 32.8 23.0	24.8 8.0 6.7 16.0 8.4	..	..	..	..	..	
22bca3 22bca3 24bad 24bad	Q1 Q1 TKdu TKdu	55.0 65.0 outcrop outcrop	1.76 1.76	5.8 5.0 12.0 11.7	31.8 32.8 36.5 45.9	26.0 27.8 24.5 34.2	1.4 3.1 4.1 8.8	.. 2.8 2.0 6.2	3.2 4.6 4.7 15.7	13.4 14.2 10.4 33.1	31.5 32.5 18.0 25.8	39.7 34.8 15.4 6.3	9.6 6.4 18.0 2.6	 1.1	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	
C6-68 18abab 18abab 18abab 18abab 18abab	Qb Q1 Q1 Q1 Q1	7.5 12.5 22.5 35.0 42.5	1.71 1.72 1.72 1.62 1.66	3.0 3.8 3.6 5.5 4.6	34.2 34.8 34.4 38.4 36.6	31.2 31.0 30.8 32.9 32.0			1.0 1.1 1.7	2.3 2.3 4.4	3.9 3.9 4.4	5.0 6.6 7.2 2.3 1.8	27.5 22.0 11.5 2.8 7.1	36.3 37.1 25.9 24.1 43.9	15.8 27.1 31.6 57.8 36.5	3.3 2.8 5.7 10.1 5.5	..	..	..
C6-69- 12adaa 13add 13add 23ced 23ced	Q1 Qs Qs Qp Qb	35.0 17.0 32.0 4.0 11.0	1.80 1.87 1.85 1.93 1.79	15.6 19.0 16.4 13.3 6.7	31.6 28.6 29.7 27.7 32.7	16.0 9.6 13.3 14.4 26.0	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	.. .. .. .. ..	
36adc 36adc 36adc 36bdc	Kdl Kdl Kdl K1b	outcrop outcrop outcrop outcrop	.. .. .. ..	9.6 7.3 7.9 13.3	49.2 33.8 33.1 26.1	39.6 33.1 33.1 12.8	8.2 11.1 12.7 19.2	22.9 5.4 6.4 13.1	40.1 10.4 11.3 8.1	24.3 17.1 20.2 31.5	3.8 24.6 32.6 27.4	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	
C7-68- 6bbbc 6bbbc 11bba 11bba	Kdl Kdl C K1b	outcrop outcrop 1,825.0 1,826.4	.. .. .. ..	6.9 9.4 1.9 ..	21.7 20.8 23.1 ..	14.8 11.4 21.2 ..	19.6 3.4 10.5 ..	12.2 1.4 40.2 ..	19.6 3.0 43.3 ..	10.5 10.4 6.0 ..	9.9 29.0	5.7 52.8	2.5 .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	.. .. .. ..	
C8-67- 2accd	Q1	47.5	1.70	16.7	35.6	18.9	8.6	1.5	2.5	4.1	4.8	10.3	25.7	39.4	3.1	..	..	..	

See footnotes at end of table.

Table 9.--Physical properties of selected samples of water-bearing materials.--Continued
(Analyses by the Hydrologic Laboratory of the U.S. Geological Survey, Denver, Colo.)

- 1/ Pl. Lyons Sandstone; Kly, Lytle Formation of the Dakota Group; Ks, South Platte Formation of the Dakota Group; Kfm, Milliken Sandstone Member of the Fox Hills Sandstone; Klb, b sandstone of the Laramie Formation; Kdmc, middle conglomerate of the Dawson Formation; Kdl, lower part of the Dawson Formation; Tkdc, upper conglomerate of the Dawson Formation; Tkdu, upper part of the Dawson Formation; Qv, Verdos Alluvium; Ql, Louviers Alluvium; Qy, Younger loess; Qb, Broadway Alluvium; Qes, eolian sand; Qp, Piney Creek Alluvium; Qpp, post-Piney Creek alluvium.
- 2/ C, core; Ck, large block or chunk of consolidated or moderately consolidated material collected; Cyl, sampling cylinder; D, unconsolidated material collected from drill cuttings or outcrop.
- 3/ Dry unit weight given in grams per cubic centimeter.
- 4/ Specific retention is the ratio of the volume of water retained after a saturated rock has been drained by gravity to the bulk volume of the rock.
- 5/ Porosity is the ratio of the aggregate volume of the voids in a rock or soil to its bulk volume.
- 6/ Specific yield is the ratio of the volume of water in a saturated rock that will drain by gravity to the bulk volume of the rock. Porosity minus specific retention equals specific yield.
- 7/ Coefficient of permeability is the amount of water that will flow through a unit cross section of material in a unit of time under a unit hydraulic gradient at a given temperature. The tabulated values are for a temperature of 60°F. (gpd/ft²), gallons per day per square foot.