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GEOLOGICAL SURVEY

GROUND-WATER DATA FROM SELECTED WELLS IN
ALLUVIAL AQUIFERS, POWDER RIVER BASIN,
NORTHEASTERN WYOMING

By Deborah K. Wells

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METRIC UNITS AND CONVERSIONS

The following factors may be used to convert inch-pound units to metric units:

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
gallon per minute (gal/min)	0.06309	liter per second
foot squared per day (ft ² /d)	0.0929	meter squared per day

Temperatures originally reported in degrees Fahrenheit (°F) were converted to degrees Celsius (°C) using the formula: $^{\circ}\text{C} = 5/9(^{\circ}\text{F} - 32^{\circ})$. A conversion table is given below.

Temperatures of °F are rounded to nearest degree; underscored equivalent temperatures are exact equivalents.

<u>°C</u>	<u>°F</u>	<u>°C</u>	<u>°F</u>	<u>°C</u>	<u>°F</u>	<u>°C</u>	<u>°F</u>
0.0	32	5.0	41	10.0	50	15.0	59
0.5	33	5.5	42	10.5	51	15.5	60
1.0	34	6.0	43	11.0	52	16.0	61
1.5	35	6.5	44	11.5	53	16.5	62
2.0	36	7.0	45	12.0	54	17.0	63
2.5	36	7.5	45	12.5	54	17.5	63
3.0	37	8.0	46	13.0	55	18.0	64
3.5	38	8.5	47	13.5	56	18.5	65
4.0	39	9.0	48	14.0	57	19.0	66
4.5	40	9.5	49	14.5	58	19.5	67

GROUND-WATER DATA FROM SELECTED WELLS
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ABSTRACT

Data on selected wells completed in alluvial aquifers in the Powder River structural basin in northeastern Wyoming are presented without interpretation. Records of 300 wells, chemical analyses of water from 43 wells, and logs of 113 wells are listed in three tables. A map showing locations of the wells is included.

INTRODUCTION

Due to increasing energy development in the Powder River basin, information on the water resources of the area is of particular importance to water planners and managers. This report is intended to supply information on wells completed in alluvial aquifers and on chemical analyses of water derived from the alluvium in the Powder River structural basin. Records of 300 wells completed in alluvial aquifers are shown in table 1. Chemical analyses of water from 43 wells are shown in table 2, and drillers' logs of 113 wells are shown in table 3. Data were obtained mainly from U.S. Geological Survey files, from records of the Wyoming State Engineer, and from drillers and well owners. Locations of the wells are shown in figure 1.

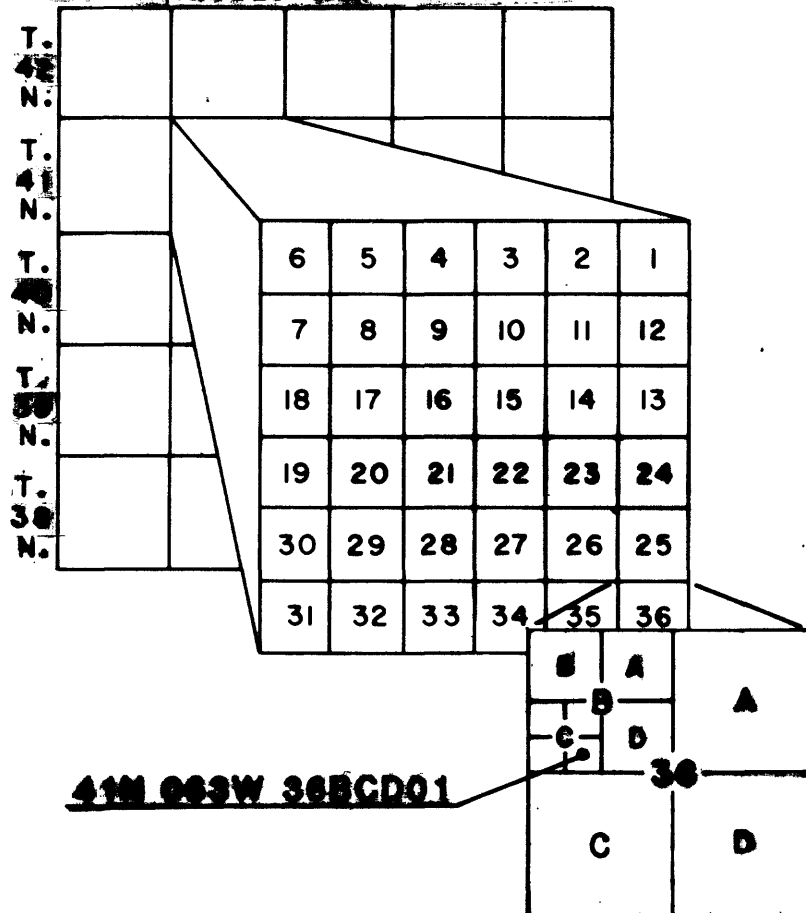
The study area consists of approximately 25,000 square miles in the northeastern part of Wyoming generally north and east of Casper. It includes Campbell, Crook, Johnson, Sheridan, and Weston Counties, and parts of Converse, Natrona, and Niobrara Counties. The northern boundary is the Montana State line, and the southern boundary is the base of Township 32 North. It is bounded on the west by the Bighorn Mountains and on the east by the South Dakota and Nebraska State lines.

The locations of wells in this report are designated by numbers based on the Federal system of land subdivision. The first number designates the township and direction from the 40th parallel, the second number designates the range and direction from the Sixth Principal Meridian and the third number designates the section. A section is divided into quarters of 160 acres each and lettered A, B, C, and D in a counterclockwise direction, beginning in the northeast quarter. Each quarter may in turn be divided into quarters of 40 acres each and again into quarters of 10 acres each and lettered as before. The letters are followed by a consecutive sequence number starting with 01 to distinguish wells within a particular subdivision. Locations may or may not have sequence numbers that begin with 01 in this report, depending on the number of wells recorded and sampled at the site.

Figure 1.--Location of wells.

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R. 64 W. R. 63 W. R. 62 W. R. 61 W. R. 60 W.



WELL RECORDS

The well records (table 1) give a brief description of each well such as its depth, diameter, type of casing, and use of the water. Depth-to-water measurements indicate the static level at which the water stands in the well. Where available, the yield and transmissivity are included. Transmissivity is defined as the rate at which water of the prevailing kinematic viscosity is transmitted through a unit width of the aquifer under a unit hydraulic gradient.

CHEMICAL ANALYSES OF WATER

The chemical quality of water is indicated by the types and amounts of chemical constituents present (table 2). In the Powder River basin the chemical quality of the alluvial water is highly variable as shown by the dissolved-solids concentration which ranges from 467 to 8,950 mg/L (milligrams per liter).

Chemical Constituents

Samples were analyzed for types and concentrations of chemical constituents present in the water. The principal inorganic anions dissolved in water are sulfate, bicarbonate, and chloride; the principal cations are calcium, magnesium, sodium, and potassium. Dissolved solids, which consist of inorganic salts and dissolved materials, are reported as the sum of the constituents analyzed. A recommended limit for dissolved solids was not established for domestic use because of the wide range of possible constituents and concentrations found in natural water. Instead, specific recommendations are reported for individual substances such as sulfate and chloride that present special problems in water supplies. The chemical constituents analyzed and recommended limits for various uses are presented in the following table. The limits are those in effect at the time of this report and are subject to change.

Constituent	Use	Recommended limits
Calcium	Domestic	Permissible..... ¹ 75 mg/L
		Excessive..... ¹ 200 mg/L
	Irrigation	No limits established.
	Stock	 ¹ 10,000 mg/L
	Industry	Brewing..... ¹ 200 mg/L
Carbonate/Bicarbonate	Domestic	No limits established.
	Irrigation	Do
	Stock	Do
	Industry	Brewing..... ¹ 50-68 mg/L
Chloride	Domestic	 ² 250 mg/L (if sources of lower levels are available)
	Irrigation	Limits vary upon type of crop ³
	Stock	 ¹ 4000 mg/L
	Industrial	Textiles..... ³ 100 mg/L
Dissolved Solids	Domestic	Specific recommendations are made for individual substances
	Industry	Textiles.... ³ 100-200 mg/L
Iron	Domestic	 ⁴ 0.3 mg/L
	Irrigation	Alakaline soils.. ³ 20 mg/L
		All other soils.. ³ 5 mg/L
	Stock	No limits established.
	Industry	Textile..... ³ 0.3 mg/L

See footnotes at end of table.

Constituent	Use	Recommended limits
Magnesium	Domestic	Permissible..... ¹ 50 mg/L
		Excessive..... ¹ 150 mg/L
	Irrigation	No limits established.
	Stock	 ¹ 500 mg/L
	Industry	Sugar..... ¹ 10 mg/L
		Textiles..... ¹ 5 mg/L
		Brewing..... ¹ 30 mg/L
Potassium	Domestic	Permissible..... ¹ 1,000 mg/L
		Excessive..... ¹ 2,000 mg/L
	Irrigation	No limits established.
	Stock	No limits established.
Sodium	Industry	Boiler..... ¹ 50 mg/l
	Domestic	No limit recommended ⁴ .
	Irrigation	Limits developed by the U.S. Department of Agriculture vary widely from crop to crop ³ .
Sulfate	Stock	 ¹ 2,000 mg/L
	Industry	Boiler..... ¹ 50 mg/L
	Domestic	 ⁴ 250 mg/L (where sources with lower sulfate concentrations are or can be made available)
	Irrigation	 ¹ 500 mg/L
	Stock	 ¹ 1,000 mg/L
	Industry	Sugar..... ¹ 20 mg/L
		Textiles..... ³ 100 mg/L

¹ McKee and Wolf (1963, p. 151-276).

² U.S. Environmental Protection Agency (1977, p. 17144).

³ National Academy of Science, National Academy of Engineering (1972, p. 61-381).

⁴ U.S. Environmental Protection Agency (1976, p. 152-401).

Physical Properties

Water quality is also affected by the physical properties of pH, temperature, and specific conductance. The pH of a water is the measure of the hydrogen-ion activity in solution

$$\text{pH} = -\log_{10}(\text{H}^+) \quad (1)$$

where

H^+ = concentration of hydrogen ions, in moles.

Water having a pH value greater than 7 is said to be basic or alkaline; water having a pH value less than 7 is considered acidic. The pH of water in the natural environment is commonly between 6 and 9, but values as low as 2 have been found in hot springs and as high as 12 in the trona waters of western Wyoming. Waters having very low or very high pH values are corrosive and are not suitable for the uses cited in this report. In the Powder River basin the pH of ground water analyzed is between 7.1 and 8.7.

The temperature of water determines its aggressiveness toward dissolution of rock material. The temperature in the shallow alluvial wells in the Powder River basin is relatively cool and is less than about 14°C. Cooler water temperatures measured during the winter months reflect the cooler air temperatures.

The specific conductance of a solution is a measure of the ability of water to conduct an electrical current and is related to the dissolved-solids concentration. Specific conductance ranged from 174 to 8,280 micromhos per centimeter at 25°C in the water samples analyzed.

DRILLERS' LOGS

Logs of wells give a brief description of the rock materials that a well penetrates (table 3). The terminology used by drillers varies considerably because most drillers rely more on the drilling characteristics of the rocks than on small variations in composition. Many of the alluvial wells, particularly those deeper than 30 feet, may penetrate a short distance into the underlying consolidated sedimentary rocks that form the bedrock beneath the alluvial deposits, and some of the wells derive water from both the alluvium and bedrock. The contact between the base of the alluvial deposits and the consolidated sedimentary rocks is not identified in any of the logs listed in table 3.

REFERENCES CITED

- McKee, J. E., and Wolf, H. W., eds., 1963, Water quality criteria: California Water Quality Control Board Publication 3A, 548 p.
- National Academy of Sciences, National Academy of Engineering, 1972 [1974], Water quality criteria 1972: U.S. Government Printing Office, 594 p.
- U.S. Environmental Protection Agency, 1976 [1977], Quality criteria for water: U.S. Government Printing Office, 256 p.
- 1977, National secondary drinking water regulations: Federal Register, v. 42, no. 62, p. 17143-17147.

DATA

Table 1.--Records of alluvial aquifers in the Powder River basin, northeastern Wyoming

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Campbell County										
43N 071W 02DA 01			-	61	7	S	S	--		
43N 071W 02DB 01			-	36	6	S	S	--		
45N 076W 01AD 01			D	16	-	-	S	8		
45N 076W 28DA 01			D	14	6	S	S	8		
46N 072W 25ADA01	U.S. Geological Survey--		B	12.5	2	P	O	11.4	08-07-75	L
46N 075W 32CD 01			H	30	4	-	S	10		Y, 8
48N 069W 15CD 01			R	28	6	S	U	--	06-26-56	
48N 069W 15CD 03			R	--	6	S	U	26.8	06-26-56	
48N 069W 28DCG01	Bob Dillinger--		-	40	7	S	S	15.9	07-02-68	CA, L
48N 073W 23AB 01			-	23	6	S	S	--		
49N 072W 03BAA01	Chas Hill--		-	--	6	S	I	26	06-13-49	
50N 071W 25BD 01	Edwin Moran--		H	40	6	S	S	8		L; Y, 4
50N 071W 27AAC01			-	18	4	P	-	6	06-26-74	CA, L
50N 071W 27BAD01			-	19	4	P	-	10.6	06-26-74	CA, L
50N 071W 33BAC03			-	25.5	4	P	O	7	06-11-74	CA
50N 071W 35CA 01	Oscar Tholsen--		-	56	7	S	S	--		L
50N 074W 13CB 01			B	18	7	S	S	5		
51N 072W 22CBD01	R.E. Kelley--		D	12	-	N	S	4.6	05-20-49	
51N 072W 33BCG01	Cliff Davis--		-	32	6	S	S	10.3	05-20-49	
52N 072W 13BB 01	Paul Rourke--		C	96	8	S	S	15		L; Y, 10
53N 071W 23AC 01	Joe Norfolk--		H	60	4	S	S	25		L
53N 073W 12AB 01			-	108	-	-	-	--		
54N 071W 01GD 02	Lynn D. Smith--		-	37	6	S	I	9.8	06-26-68	CA
55N 072W 32CDD01	Paul Norfolk--		H	60	4	S	S	6.7	07-31-68	
56N 071W 30 01	Jim McManamen--		-	45	-	-	S	16	09-24-63	L; Y, 10
56N 071W 30DBB01	U.S. Geological Survey--	3,670	B	23	2	P	O	13.4	08-27-75	L
56N 071W 30DBB02	U.S. Geological Survey--	3,670	B	30	2	P	O	14	10-18-75	L
57N 071W 13CCB01	U.S. Geological Survey--		B	14	2	P	O	--		L
58N 071W 25DC 01			B	18	-	N	U	9.2	09-24-68	CA, L
58N 075W 29CC 02	W.C. Ford--		H	36	6	-	I	13	09-24-59	L; Y, 18
Converse County										
32N 071W 07DDC01	Town of Douglas--	4,830	-	51.4	12	-	U	12.2	08-03-50	
32N 071W 08ACB01	U.S. Geological Survey--	4,800	V	7.8	2	S	O	5.9	08-24-50	
32N 071W 16CAC01	R.E. Smith--	4,822	-	40	6	-	D	30.6	07-26-50	
32N 071W 17CDA01	Homer Hart--	4,785	-	--	6	-	D	8.4	07-10-50	

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Converse County--Continued										
32N 071W 17DBB01	L.J. Gillespie	4,805	D	40	84	C	D	33.5	07-10-50	CA
32N 071W 29ACC01	C.D. Anderson	4,810	-	25	6	-	D	1	07-26-50	
32N 073W 01BDD01	W.E. Bigelow	5,085	-	22	48	C	D	15.5	07-13-50	CA
33N 072W 07DBC01			-	12		-	-			
33N 073W 27ABC01	U.S. Geological Survey	5,065	B	14.1	.8	S	O	10.2	08-24-50	
33N 074W 18BA 01	Pacific Power & Light		-	25	12	S	C	2.8	10-07-63	L; Y, 100
40N 068W 20ACD01	U.S. Geological Survey		B	21	2	P	O	12.8	09-12-75	L
40N 068W 20DBA01	U.S. Geological Survey		B	12	2	P	O	9.3	09-12-75	L
Crook County										
50N 067W 04CC 01			-	39		-	-			
50N 067W 09BBD01	U.S. Geological Survey	4,090	B	20	0.5	S	O	10.0	11-27-58	
50N 068W 36BAB01	U.S. Geological Survey	4,150	B	20	.5	S	O	9.4	11-21-58	
53N 067W 03CC 01			-	60		-	-			CA
53N 067W 08CC 01	E. Wesley		-	60	8	-	D	20		
54N 065W 12ADD01	Charles Martin	3,780	D	19	.8	C	O	15.4	07-16-56	
54N 065W 13BA 01			-	38		-	-			CA; T, 2,800
55N 064W 32CB 01			-	32		-	-			CA; T, 28
57N 065W 22CA 02			-	80		-	-			CA
Johnson County										
43N 078W 07DC 01	Mr. Patrick		D	11.2	24	P	S	8.2	07-18-50	
43N 079W 01DA 01	Reynolds & Decourcy		D	20.8	48	P	S	11.2	07-17-50	
43N 079W 07CC 01	Andrew Joy		-	65	6	-	-			L; Y, 5
43N 079W 11CB 01	Bob Taylor		D	17.9	48	P	S	4.4	07-17-50	
43N 079W 11DD 01	Bob Taylor	4,430	B	12	6	S	S	5.4	07-18-50	CA
43N 079W 12DC 02	Pete Mieke		D	16	36	W	S	9.8	07-18-50	
43N 079W 13AC 01	Alvin Lohse		D	11	24	W	O	9.0	07-18-50	
43N 080W 20CC 02	Joe Kos	4,498	D	16	24	S	S	11.9	09-12-50	CA
43N 081W 07DC 01	Oscar Rissler		B	14	6	P	N		-----50	
43N 082W 11DA 01	Howard Thompson		D	15.7	60	C	D	13.2	07-12-50	
43N 082W 12A 01			-	20		-	-			CA
43N 082W 12AA 01	Joe Barber	4,467	D	24	36	S	-	23.1	07-10-69	CA
43N 082W 12AC 01	G.F. Skiles		D	12.5	36	C	D	10.5	07-13-50	
43N 082W 12AD 01	J. Colosimo		D	18.2	16	C	D	8.2	07-11-50	
43N 082W 12AD 02	Rolley Gosney		D	13.1	60	N	D	11.0	07-11-50	
43N 082W 12AD 03	Gordon Christenson		D	11.3	24	W	D	7.7	07-13-50	
43N 082W 12AD 04	H.J. Bunning		D	18.6	48	P	D	5.9	07-12-50	
43N 082W 12AD 05	City of Kaycee	4,647	D	17	60	C	P	9.0	08-07-50	CA
43N 082W 12B 01			-	12		-	-			CA
43N 082W 12DA 01	Joe Rissler		D	15	36	C	N		-----50	
43N 082W 29AC 01	E.F. Keith	4,778	D	18	54	C	S	15.5	07-12-50	CA
43N 082W 29DB 01	E.F. Keith		D	9.5	2	C	S	8.0	07-12-50	

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Johnson County--Continued										
43N 082W 31AB 01	E.F. Keith-----	----	D	13	48	C	O	8.1	07-11-50	
43N 083W 33BC 01	Cliff Hansen-----	----	B	30	4	P	O	5.7	07-10-50	
43N 083W 33DB 01	Cliff Hansen-----	----	B	28	3	P	N	4.6	08-07-50	
44N 078W 08AC 01	D.F. Skiles-----	----	D	22.6	60	N	O	17.6	07-17-50	
44N 081W 20BDC01	Harold Melke-----	----	-	27	4	-	S	9	03-17-51	
44N 082W 17DD 01	J.T. Spratt-----	----	D	12	60	C	D	8.1	08-12-69	CA
45N 078W 33AD 01	Homer Paysano-----	4,275	D	22	48	C	S	18.7	07-13-50	CA
49N 077W 15CDD01	U.S. Geological Survey--	----	B	24	2	P	O	12.7	09-12-75	L
49N 077W 15CDD02	U.S. Geological Survey--	----	B	26	2	P	O	12.9	09-12-75	L
49N 077W 20BA 01	Industrial Pipeline-----	3,935	-	31	16	-	N	7.2	04-12-61	CA; L; Y, 60
49N 077W 20BC 01	Industrial Pipeline-----	3,932	R	34	16	-	N	7	07-24-60	L
50N 082W 06AD 01	City of Buffalo-----	----	D	26	--	-	P	7	01-----58	CA, L
50N 082W 06AD 02	City of Buffalo-----	----	D	18	16	-	P	11	09-30-47	L; Y, 20
52N 082W 23AB 01	A.S. Silva-----	----	R	40	6	-	S	--	-----	
Natrona County										
33N 077W 03BCC01	G.E. Grady-----	5,030	-	45	6	-	D	8	-----	
33N 077W 03BCC02	G.E. Grady-----	5,030	-	22	12	S	I	9	04-27-66	
33N 077W 03BDC01	J.E. Pierce-----	5,025	C	20	27	C	I	6.3	08-17-66	CA; Y, 252
33N 077W 03BDD01	J.E. Pierce-----	5,030	V	18	2	-	D	10	08-17-66	
33N 077W 04DAB01	R.L. Launsbach-----	5,030	D	24	--	C	D	8	04-15-60	L; Y, 325
33N 078W 05CAA01	R.L. Launsbach-----	5,110	D	42	--	C	D	32	06-26-62	L; Y, 250
33N 078W 06B8B01	The Texas Co.-----	5,080	D	20	28	C	N	10	05-09-47	Y, 600
33N 079W 01AAA01	The Texas Co.-----	5,080	D	31	--	S	N	8.8	05-08-48	L; Y, 1,000
33N 079W 01AAA02	The Texas Co.-----	5,080	D	42.1	--	S	N	7	04-10-48	
33N 079W 01AAA03	The Texas Co.-----	5,080	D	20	28	C	N	10	05-09-47	Y, 600
33N 079W 01AAA04	The Texas Co.-----	5,080	D	20	28	C	N	10	05-09-47	Y, 600
33N 079W 01AAA05	The Texas Co.-----	5,080	D	20	28	C	N	10	05-09-47	Y, 600
33N 079W 01AAA06	The Texas Co.-----	5,080	D	20	28	C	N	10	05-09-47	Y, 600
33N 079W 03AB 01	City of Casper-----	----	D	13.8	60	C	I	7.2	-----	L
33N 079W 03AB 02	City of Casper-----	5,095	D	13.9	48	C	I	7.4	-----	L
33N 079W 03ABB01	City of Casper-----	5,100	D	29	48	C	P	8	06-04-62	L; Y, 700
33N 079W 04B01	No. Platte Water Dist.--	5,125	-	54	6	S	P	20	12-27-56	L; Y, 50
33N 079W 04BCC01	No. Platte Water Dist.--	5,125	-	55	48	S	P	20	-----	L; Y, 60
33N 079W 04BDA01	No. Platte Water Dist.--	5,100	D	28	48	S	P	12	05-15-64	L; Y, 600
33N 079W 04BDD01	No. Platte Water Dist.--	5,100	D	28	48	C	P	12	05-15-64	L; Y, 300
33N 079W 07ADC01	American Oil Co.-----	5,110	D	30	48	C	N	9.2	05-09-65	L; Y, 450
33N 079W 07CBD01	City of Casper-----	5,115	D	30	48	C	P	8.5	03-23-56	L; Y, 600
33N 079W 07CBD02	City of Mills-----	5,120	D	29	60	C	P	5.5	07-20-53	L; Y, 600
33N 079W 07CBD03	City of Mills-----	5,115	-	--	--	C	P	--	-----	Y, 500
33N 079W 07CBD04	City of Mills-----	5,115	D	30	48	C	P	7.5	11-05-65	Y, 500
33N 079W 07CCB01	City of Casper-----	5,115	D	33.5	48	C	P	8.0	02-22-56	L; Y, 800
33N 079W 07CCC01	City of Casper-----	5,120	-	19	2	S	T	15.3	03-20-63	
33N 079W 07CCC02	W. Humborg-----	5,120	-	16	36	C	U	11	-----59	

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Natrona County--Continued										
33N 079W 07GCC03	W. Humborg-----	5,120	-	24.5	32	C	I	18.0	03-20-63	
33N 079W 07CDA01	City of Casper-----	5,120	D	31	--	C	P	12	06-09-64	L; Y, 600
33N 079W 07DA 01	American Oil Co.-----	5,110	D	27	48	C	N	8.7	04-06-64	L; Y, 214
33N 079W 07DCA01	City of Casper-----	5,120	D	34	48	C	P	12	06-09-64	L; Y, 1,000
33N 079W 07DCD01	City of Casper-----	5,120	D	31	48	C	P	12	06-09-64	L; Y, 500
33N 079W 18BAB01	City of Casper-----	5,120	-	38	26	S	P	14.1	05-13-53	CA; L; Y, 200
33N 079W 18BAB02	City of Casper-----	5,120	D	30	44	C	P	15	01-16-57	Y, 500
33N 079W 18BAB03	City of Casper-----	5,120	D	31	44	C	P	13.5	01-16-57	Y, 500
33N 079W 18BAB04	City of Casper-----	5,120	D	30	44	C	P	16	01-16-57	Y, 500
33N 079W 18BBB01	City of Casper-----	5,120	D	25.4	56	C	P	5	03-03-58	L; Y, 1,550
33N 079W 18BBB01	City of Casper-----	5,120	D	25.5	56	C	P	5	-----	L; Y, 1,450
33N 079W 18BD02	City of Casper-----	5,120	D	24.3	56	C	P	5	-----	L; Y, 1,550
33N 079W 18BCC01	City of Casper-----	5,130	B	37	4	S	O	8.7	07-17-68	L
33N 079W 18CAB01	City of Casper-----	-----	-	32.8	48	S	P	8	07-23-66	L; Y, 700
33N 079W 18CCB01	City of Casper-----	5,120	-	39	7	S	U	14.7	08-17-66	L; Y, 500
33N 079W 36AB 01	City of Evansville-----	5,109	D	37	48	C	P	9	07-14-61	
33N 080W 03BAA03	J.J. Nichols-----	5,285	-	35	8	S	P	8.2	08-29-68	
33N 080W 03BCB01	H.D. Moore-----	5,275	-	30	12	S	D	7.9	08-29-68	
33N 080W 03CAD01	L.A. Middaugh-----	5,265	H	37	6	S	S	18.1	08-28-68	
33N 080W 03CBR01	F. Beard-----	5,272	H	31	7	S	S	7	06-13-67	
33N 080W 12DAA01	City of Casper-----	5,120	D	29.8	48	C	P	6.7	03-20-56	L; Y, 750
33N 080W 12DA01	City of Casper-----	5,120	-	30	26	S	P	8	08-20-53	Y, 750
33N 080W 12DDA01	City of Casper-----	5,120	-	32	26	S	P	8.5	06-06-53	L; Y, 600
33N 080W 12DDA02	City of Casper-----	5,120	-	34	26	S	P	7.2	06-17-53	L; Y, 200
33N 080W 12DDB01	City of Casper-----	5,120	-	30	26	S	P	4.8	05-30-53	L; Y, 200
33N 080W 12DDB02	City of Casper-----	5,120	-	28	26	S	P	7.9	05-18-53	L; Y, 600
33N 080W 12DD01	City of Casper-----	5,120	-	36	26	S	P	9.8	05-26-53	L; Y, 700
33N 080W 12DD02	City of Casper-----	5,120	-	34	26	S	P	8.6	06-12-53	L; Y, 700
33N 080W 13ACD01	Whitlock-----	5,140	C	32	7.8	S	D	18	-----	
33N 080W 13BDA01	J.E. Rager-----	5,155	-	40	2	S	I	30	-----	
33N 080W 13BDA02	J.E. Rager-----	5,155	-	40	2	S	D	30	-----	
33N 080W 13DBB01	R.A. Galley-----	5,140	-	40	--	S	D	19	-----	Y, 690
33N 080W 14DAA01	Paradise Valley Util.-----	5,140	H	43.5	16	S	P	15	-----	
33N 080W 14DAB01	Paradise Valley Util.-----	5,140	H	47	16	S	P	--	-----	
33N 080W 14DAD01	Paradise Valley Util.-----	5,140	H	45.5	16	S	P	--	-----	Y, 530
33N 080W 22DAD01	Closs Wyoming Co.-----	5,155	D	27	48	C	P	22	07-18-60	L; Y, 36
33N 080W 22DB 01	R. Clairborne-----	-----	D	15	22	S	D	12	06-01-64	Y, 16
33N 080W 22DC 01	Closs Wyoming Co.-----	5,155	D	27	--	-	P	21	07-15-60	Y, 40
33N 080W 25CDD01	R. Stoner-----	5,470	D	6	48	C	D	4	-----	
33N 080W 30DBB01	L.C. Bradshaw-----	5,170	H	30	7.8	S	D	10	-----	CA
33N 081W 07CAA01	-----	-----	-	16	--	-	-	--	-----	
33N 081W 16BCB01	-----	5,356	B	87	1.5	P	O	13.3	06-09-68	
33N 081W 16CB02	-----	5,358	B	18	1.5	P	O	15.2	06-09-68	
33N 081W 16CB03	-----	5,356	C	29	6.7	S	S	15	-----	L
33N 081W 16C 01	M. Speas-----	5,331	H	13	--	-	O	--	-----	

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Natrona County--Continued										
33N 081W 20DAC01	D. Allen	5,360	-	20	24	-	D	3.7	08-27-68	
33N 081W 20DD01		5,384	B	22	1.5	P	O	5.9		L
33N 081W 27DD 01	E. Sutton		C	83	8.7	S	S	--		L
33N 081W 27DD01		5,323	H	60	--	-	U	--		A
33N 081W 28DA01	L.D. Robnett	5,250	D	9	42	S	D	2.3	08-27-68	
33N 081W 33DA01	T. Rennard	5,278	H	42	6	S	D	18.2	07-11-50	CA
34N 079W 34DCD01	City of Casper	5,100	D	33	48	C	P	8	07-24-63	L; Y, 1,030
34N 079W 34DCD02	City of Casper	5,100	D	28	48	C	P	8	07-19-61	L; Y, 920
34N 079W 34DD01	City of Casper	5,100	D	32	48	C	P	7	07-06-62	L; Y, 850
34N 079W 36DBB01	City of Evansville	5,100	D	37	48	C	P	10	07-14-61	CA; Y, 500
34N 079W 36DD01	The Texas Co.	5,080	D	38	--	S	N	3.8	06-09-49	Y, 1,000
34N 080W 05ABA01		5,302	B	17	1.5	P	O	5.5	06-09-68	L
34N 080W 05ACA01	D.R. Hood		B	16	27	C	S	11		L; Y, 8
34N 080W 07DAA01		5,360	-	23	18	S	S	13.0	04-24-67	
34N 080W 08CAD01	H.E. Stuckenhoff	5,345	B	19	1.5	P	O	9.1	06-11-68	L
34N 080W 08CAD02	H.E. Stuckenhoff	5,345	B	13	1.5	P	O	9.6	06-11-68	
34N 080W 08CCC01	U.S. Geological Survey	5,353	B	26	1	S	O	16.0	04-07-67	L
34N 080W 19ABB01		5,330	B	22	1.5	P	O	8.9	08-21-68	L
34N 080W 21CCD01	Casper Air Terminal	5,305	B	55	4	S	O	26.0	05-27-68	L
34N 080W 21CCD02	Casper Air Terminal	5,305	B	50	1.5	P	O	25.6	06-07-68	
34N 080W 25AAA01		5,302	B	69	1.5	P	O	34.8	08-27-68	L
34N 080W 27CCC01		5,291	-	47	1.5	-	T	5.7	09-14-50	
34N 080W 28ADD01		5,298	H	33.5	1.5	S	T	27.0		
34N 080W 28BAC01	W. Barnard	5,230	-	50	--	-	D	7.5	07-12-50	
34N 080W 29BAC01	R.W. Noland	5,310	H	13	--	-	U	11.3	10-01-65	
34N 080W 29CDA01	F.A. Crouch	5,250	D	50	--	-	S	6.2		
34N 080W 30ADD01	R.W. Noland	5,305	B	11	48	C	D	6.6	06-13-67	CA
34N 080W 30BCC01		5,269	-	32	1.5	P	O	3.1	08-22-68	L
34N 080W 32AAA01	R. Bressler	5,296	H	68	5	S	U	60.8	07-14-50	
34N 080W 32CBC01	Lee Townsend	5,259	B	50	--	-	S	19.9		
34N 080W 33AAA01	W. Barnard	5,292	B	57	4	S	O	7.9	06-07-68	L
34N 080W 33AAA02	W. Barnard	5,292	H	25	1.5	P	O	5.8	06-07-68	
34N 080W 33CCC01		5,282	B	37	1.5	P	O	7.2	07-29-68	
34N 080W 33DD01		5,276	-	43	1.2	S	T	26.5	09-14-50	
34N 080W 34DCD01	J.D. Myers	5,275	D	12	36	S	D	5.2	11-01-68	
34N 080W 36CCC01	Boatright	5,183	B	53	1.5	P	O	23.7	08-14-68	L
34N 081W 13CCB01		5,315	B	47	1.5	P	O	7.3	07-18-68	L
34N 081W 23DD03	Walter Schlager	5,295	-	48	6	S	S	6	05-24-67	CA
34N 081W 25BBB01		5,290	B	44	1.5	P	O	5.2	06-12-68	L
34N 081W 26ADA01	Walter Schlager	5,290	-	16	27	C	U	3.7	08-30-68	
35N 080W 30BCC01		5,311	B	34	1.5	P	O	12.2	08-22-68	L
35N 080W 30CCC01	Harold Bressler	5,350	-	66	6	S	U	16.0	08-30-68	
35N 080W 31CAC01	Harold Bressler	5,360	D	30	--	-	U	27.7	07-14-50	
35N 080W 31CBB01		5,350	-	57	1.2	S	T	5.6	10-18-65	
35N 080W 31DD01	U.S. Geological Survey	5,338	B	45	1	S	O	15.3	04-18-67	L

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Natrona County--Continued										
35N 080W 32CAA01	W.C. Brewer	5,325	-	30	12	S	U	16.5	05-02-68	
35N 080W 32CCG01	Don Hood	5,335	-	65	6	S	U	13.0	04-24-67	
35N 080W 32DBD01	W.C. Brewer	5,315	-	21	24	S	D	5.8	05-02-68	
35N 081W 07BBB01			B	49	1.5	P	O	10.5	06-09-68	L
35N 081W 13DDD01		5,370	B	17	1.5	S	O	1.5	06-09-68	L
35N 081W 29DDA01	Austin Barker	5,402	D	30	--	-	U	16.1	08-03-50	
35N 081W 30CCC01		5,419	B	28	1.5	P	O	4.6	06-09-68	L
36N 081W 20ACA01			B	25	1.5	P	O	7.1	06-09-68	L
38N 081W 14RAC01			-	18	42	C	U	17.8	02-02-68	
40N 083W 15DBB01	W.H. Holman		-	65	3	S	D	20	----	
Niobrara County										
35N 065W 03CC 01	Lance Creek Village		D	11	44	W	P	6.4	11-59	CA; Y, 16
35N 066W 12DC 01	J. Lamb		D	13	36	-	S	11.4	10-25-59	
36N 062W 05CB 01	G. L. Story		D	15	--	-	D	7	----	
36N 062W 13CB 01	A.H. Clark		R	33	5	-	S	1.3	----	
36N 067W 11AA 01	A. Joss		R	30	6	-	S	1.6	10-25-59	
37N 062W 03BB 01	Glenn Langley		-	22	6	-	S	17	----	
37N 062W 10AC 01	Glenn Langley		-	40	6	-	D	25	----	
37N 065W 03AD 01			-	15	60	C	D	13.1	----	
37N 067W 26DD 02	R. Thompson		R	24.1	5	-	O	11.0	----	L
38N 063W 22AB 01	Ted Jones		R	39	30	-	I	10	11-27-59	Y, 300
38N 063W 30CD 01	Johnson Sisters		R	58.2	16	-	-	6.7	03-60	L; Y, 295
38N 063W 30CD 02	Johnson Sisters		-	46	30	P	I	7.6	03-60	CA; L; Y, 250
38N 063W 30CD 03	Johnson Sisters		R	68	14	-	-	7.4	03-60	Y, 280
38N 064W 22AA 01	Johnson Sisters		R	39	16	-	-	19.2	06-59	L; Y, 170
38N 064W 22AD 01	Johnson Sisters		R	30	6	-	D	--	----	Y, 100
38N 064W 22B 01	Harleigh		R	50	--	-	-	16	05-59	L
38N 064W 24DC 01	Aveley Johnson		R	20	6	S	S	--	----	L
39N 060W 21CB 01	Sherman		D	15	--	R	S	9.6	10-25-59	
39N 061W 06BC 01	M.J. Rennard		R	30	6	-	S	19.2	10-25-59	
39N 062W 01CC 01	J. Kane		R	100	20	-	S	9.2	10-26-59	
39N 062W 02D 01	H. Hummel		D	--	--	-	S	--	----	
39N 062W 07BA 01	E.C. Reed		R	20	6	-	S	14	10-29-59	
39N 062W 08BD 01	C.M. Hanson		D	12	--	R	-	--	----	
39N 062W 09CC 01	M.J. Rennard		-	40	5.5	-	S	--	----	
39N 062W 11DB 01	O. Spencer		-	30	5	-	S	12	10-26-59	
39N 062W 11DC 01	O. Spencer		-	41	5	-	D	12	----	
39N 062W 17AA 01	C.M. Hanson		D	14	--	R	D	12	----	
39N 062W 22BD 01	J. Rumney		D	--	6	-	S	12.0	10-26-59	
39N 063W 13AD 01	L. Ketchum		R	80	6	-	S	15.2	10-24-59	Y, 15
39N 064W 01AB 01	E.C. Reed		R	60	6.7	S	S	--	----	L; Y, 14
39N 066W 34A 01	E. A. Slagle		-	5	--	-	-	2	----	
40N 060W 21CA 01			D	--	--	-	S	8.4	10-22-59	

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below surface (ft)	Date of measurement	Remarks
Niobrara County--Continued										
40N 061W 17DB 01	-----	----	-	34	--	-	S	--	-----	
40N 061W 19DA 01	-----	----	R	40	--	-	S	34	-----	
40N 061W 20AB 01	-----	----	R	25	7	S	S	14	09-----58	L; Y, 2
40N 061W 21AD 01	-----	----	D	20	5.5	-	D	12	-----59	
40N 061W 21BA 01	L. Sedgewick	----	-	28	12	-	S	21	-----59	
40N 061W 21BA 02	L. Sedewick	----	-	37	6	S	D	11.6	10-13-64	
40N 061W 21BAB01	Cheyenne River School	----	B	18	1.5	P	O	10.0	05-26-70	L
40N 061W 22AB 01	U.S. Geological Survey	----	D	14	36	-	D	12.0	10-22-59	
40N 061W 22AB 01	F.B. Campbell	----	D	18	6	-	S	--	-----	
40N 061W 29DC 01	H. McGee	----	-	50	5	-	S	42	10-27-59	Y, 8
40N 061W 30CD 01	A. Glasby	----	-	35	--	-	S	--	-----	
40N 061W 30DC 01	C. Cooksey	----	R	21	28	S	I	8.1	09-----59	CA; Y, 250
40N 064W 01DC 01	G. Hansen	----	D	46	6	-	D	40	10-28-59	Y, 10
40N 064W 13CB 01	P.R. Gaskill	----	R	100	6	-	S	--	10-28-59	Y, 20
40N 064W 14BC 01	P.R. Gaskill	----	R	35	6	S	D	18	09-----59	
40N 064W 25CC 01	L. Gibbs	----	R	28	--	-	D	18	09-----59	
40N 064W 29CC 01	J. Gibbs	----	D	14	6	S	S	8	10-----59	
41N 063W 26DD 01	Whitney Bros.	----	R	45	6	S	D	28.3	10-----59	
41N 064W 26CB 01	Mahnke	----	D	100	10	-	-	30	-----	Y, 20
41N 067U 35DC 01	-----	----	-							
Sheridan County										
53N 080W 18CA 01	J. Fowler	----	C	23	6	S	D	9.4	05-02-61	CA; L; Y, 30
53N 081W 08CA 01	C. Fowler	----	C	26	6	-	S	11.4	04-28-61	L; Y, 30
53N 083W 01BC 01	S. Bohnsack	----	-	8.8	24	T	U	5.9	03-12-61	
55N 082W 02CD 01	P. Dodd	----	-	61	6	-	-	10.0	06-15-61	Y, 72
56N 082W 34DC 01	-----	----	-	56	6	-	I	1.2	-----	CA; T, 1,300
57N 085W 19AB 01	Town of Ranchester	----	-	30	6	-	P	3.5	-----59	Y, 108
57N 085W 29A 01	-----	----	-	18	--	-	-	--	-----	CA; L; T, 2,700
58N 084W 36AAD01	R.P. Lewis	----	D	23.9	36	-	S	22.6	09-27-42	CA
58N 087W 35CA 01	-----	----	-	34	96	-	O	9.2	04-18-60	
Weston County										
41N 066W 15AB 01	Elmore Dixon	----	H	42	16	-	-	12.4	11-14-74	L; Y, 500
41N 066W 15AB 02	Elmore Dixon	----	H	40	16	-	-	--	-----	L; Y, 500
41N 066W 17AD 01	Elmore Dixon	----	H	32	16	-	-	8.0	11-14-74	L; Y, 250
41N 066W 17AD 02	Elmore Dixon	----	H	30	16	-	-	8	-----	L; Y, 200
41N 067W 25AAC01	4-W Ranch	----	H	45	16	-	-	12	-----	L; Y, 650
41N 067W 26AA 01	-----	----	-	26	6.6	-	S	7	09-----66	CA
41N 067W 26BBC01	4-W Ranch	----	H	30	20	-	-	10	-----	L; Y, 225
41N 067W 26BBC02	4-W Ranch	----	H	30	20	-	-	--	-----	L; Y, 250
41N 067W 26BD 01	4-W Ranch	----	H	35	16	-	-	10.9	11-14-74	L; Y, 900
41N 067W 27AAB01	4-W Ranch	----	H	25	16	-	-	10	-----	L; Y, 650

Table 1.--Records of selected wells--Continued

Well number	Owner or tenant	Altitude of land surface (ft)	Type of well	Depth of well (ft)	Dia- meter of well (in.)	Type of casing	Well use	Depth to water below land surface (ft)	Date of measurement	Remarks
Weston County--Continued										
41N 067W 27BD 01	4-W Ranch-----	----	-	35	18	-	-	8	-----	L; Y, 250
41N 067W 27BD 02	4-W Ranch-----	----	C	35	18	-	-	8	-----	L; Y, 200
41N 067W 27BD 03	4-W Ranch-----	----	H	35	16	-	-	10	-----	L; Y, 350
42N 067W 27 01	Paul Sherwin-----	----	-	27	30	S	I	6.4	04-26-56	L; Y, 350
45N 062W 09BA 01	J.W. Lissols-----	----	C	73	6	S	S	8	-----	A, L
45N 062W 09DA 01	Engle Ranch-----	----	C	50	6	-	S	30	-----	L
45N 062W 18AA 01	Engle Ranch-----	----	-	24	---	-	-	--	-----	-
45N 062W 22BC01	Mrs. P. Smith-----	----	-	42	24	S	I	8	10----74	A, L
45N 063W 20DB 01	Engle Ranch-----	----	C	20	6	S	S	10	-----	L
46N 060W 19AC 01	Corbin Nicolls-----	----	-	35	6	S	S	23	-----	A, L
46N 060W 30DB 01	-----	----	C	75	6	S	S	40	-----	A
46N 062W 12BA 01	W. Lissolo-----	----	-	55	---	-	S	--	09-17-74	CA
47N 060W 04AA 01	-----	----	-	18	36	-	D	15	-----	A, L
47N 060W 04AD 01	-----	----	D	18	30	-	D	15	-----	A, L
48N 067W 05DB 01	Leslie Watt-----	----	-	40	6	-	S	--	-----	CA

Table 2.--Chemical analyses of water from selected wells completed in alluvial aquifers in the Powder River basin, northeastern Wyoming

(Analytical results in milligrams per liter, except as indicated.)

Well number: See description of numbering system in text.

Specific conductance: Expressed as micromhos per centimeter at 25°C (μmho).

Well number	Date of sample	Specific conductance (μmho)	pH (units)	Temperature (°C)	Hardness (Ca, Mg)	Calcium dissolved (Ca)	Magnesium dissolved (Mg)	Sodium, dissolved (Na)	Potassium dissolved (K)	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate, dissolved (SO ₄)	Chloride, dissolved (Cl)	Sum of constituents	Dissolved solids calculated, sum of constituents
Campbell County															
48N 069W 28DCC01	07-02-68	753	8.5	--	303	84	23	58	4.7	394	14	74	1.4	467	
50N 071W 27AAC01	10-22-74	3,020	7.7	10.5	1,200	260	130	290	14	443	0	1,100	160	2,180	
50N 071W 27BAD01	03-05-75	4,790	7.6	5.0	1,900	390	220	480	17	770	0	1,800	240	3,540	
50N 071W 33BAC03	03-05-75	7,270	7.5	9.5	3,100	370	520	980	18	746	0	4,300	38	6,610	
	10-23-74	--	--	--	--	--	--	--	--	--	--	--	--	--	
53N 073W 12AB 01	03-06-75	4,230	7.4	8.0	2,000	370	250	280	16	846	0	1,400	200	2,950	
54N 071W 01CD 02	05-14-68	935	7.8	13.0	86	19	9.1	205	6.1	604	0	7.4	11	566	
55N 072W 32CDD01	06-26-68	1,190	8.7	14.0	112	25	12	241	3.5	465	24	204	6.8	757	
58N 071W 25DC 01	07-31-68	1,520	8.4	9.0	252	35	40	262	18	679	15	258	13	992	
	09-24-68	4,190	7.9	--	1,090	225	129	712	21	688	0	1,980	25	3,460	
Converse County															
32N 071W 17DDR01	08-16-50	726	8.2	--	130	39	7.3	115	8.9	258	4	124	17	505	
33N 072W 07DBC01	08-17-50	2,120	7.6	12.5	480	139	33	332	8.6	510	0	700	31	1,520	
Crook County															
50N 067W 04CC 01	10-02-56	1,640	7.8	9.5	210	52	19	281	7.1	648	0	295	9.0	1,000	
53N 067W 03CC 01	11-05-56	1,890	7.7	--	330	70	37	332	5.6	733	0	450	7.5	1,280	
54N 065W 13BA 01	10-18-56	1,940	7.2	9.0	1,210	365	73	27	6.8	305	0	970	3.5	1,620	
55N 064W 32CB 01	08-16-56	1,720	7.6	9.5	900	260	60	69	6.2	256	0	815	4.5	1,360	
57N 065W 22CA 02	06-06-67	1,920	7.5	12.0	1,060	317	66	101	6.7	251	0	994	12	1,640	
	10-03-56	4,450	8.2	11.0	200	34	28	970	17	367	6	1,950	6.0	3,200	
Johnson County															
43N 079W 11DD 01	09-22-50	3,780	7.4	12.0	1,790	395	197	355	13	385	0	1,820	207	3,320	
43N 080W 20CC 02	08-19-50	1,880	7.4	10.0	627	137	69	218	7.5	330	0	668	119	1,400	
43N 082W 12A 01	11-18-46	3,270	7.4	14.0	1,220	324	101	365	--	455	0	1,250	242	2,530	
43N 082W 12AA 01	08-19-50	4,500	7.1	--	1,790	395	197	610	6.8	565	0	2,280	215	4,000	
43N 082W 12AD 05	09-22-50	1,670	7.4	14.0	667	171	58	149	6.4	274	0	608	106	1,250	
43N 082W 12B 01	11-21-46	1,090	7.8	4.0	454	116	40	--	--	212	0	326	62	729	
43N 082W 29AC 01	08-19-50	4,970	7.5	8.0	1,360	305	146	895	4.0	693	0	2,540	70	4,320	
44N 082W 17DD 01	08-12-69	2,330	8.1	--	1,090	280	95	200	3.8	373	0	712	58	1,550	
45N 078W 33AD 01	09-22-50	3,920	7.4	13.0	1,570	403	137	495	8.8	418	0	1,890	177	3,380	
49N 077W 20BA 01	10-27-60	2,860	7.4	12.0	1,110	302	87	287	8.5	271	0	1,220	194	2,240	
50N 082W 06AD 01	10-30-62	174	7.3	10.0	77	22	5.2	5.7	--	96	0	10	0.0	--	

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

Well number	Date of sample	Specific conductance (μmho)	pH (units)	Temperature (°C)	Hardness (Ca, Mg)	Calcium dissolved (Ca)	Magnesium dissolved (Mg)	Sodium, Potassium, dissolved (Na)	Potassium dissolved (K)	Bicarbonate (HCO ₃)	Carbonate (CO ₃)	Sulfate, dissolved (SO ₄)	Chloride, dissolved (Cl)	Dissolved solids calculated, sum of constituents
Natrona County														
33N 077W 03BDC01	08-25-67	1,900	7.7	11.5	530	140	44	250	3.7	328	0	738	32	1,380
33N 079W 18BAR01	08-10-67	786	7.6	11.5	290	82	21	57	4.6	210	0	206	16	814
33N 081W 07CAA01	12-06-66	1,670	8.1	--	450	137	27	229	4.1	276	0	663	16	1,230
33N 081W 33DDA01	06-14-66	8,280	7.8	14.5	4,100	412	735	1,140	13	563	0	5,320	119	8,950
34N 079W 36DBB01	07-18-61	--	7.5	--	362	97	29	77	--	244	--	273	32	628
34N 080W 30ADD01	06-13-67	1,740	7.6	11.5	690	139	82	151	11	426	0	596	44	1,400
34N 081W 23DDD03	05-24-67	7,180	7.4	11.0	1,980	469	197	1,330	20	597	0	4,050	200	6,610
Niobrara County														
35N 065W 03CC 01	11-11-59	1,610	7.1	--	382	102	31	230	15	419	0	495	19	1,120
38N 063W 30CD 02	12-01-59	1,680	7.6	--	253	60	25	306	7.7	533	0	454	11	1,150
40N 064W 01DC 01	12-01-59	2,670	7.5	5.0	264	37	42	527	10	340	0	1,080	21	1,900
Sheridan County														
53N 080W 18CA 01	08-30-61	2,250	7.6	13.0	1,010	201	124	181	13	541	0	883	8.7	1,700
56N 082W 34DC 01	07-21-61	2,440	7.8	9.0	1,240	273	136	168	15	613	0	1,020	6.1	1,960
57N 085W 19AB 01	08-28-61	1,220	7.7	12.0	497	103	58	100	2.3	441	0	329	4.8	828
57N 085W 29A 01	08-03-46	1,160	7.7	11.0	572	73	95	60	--	639	0	150	12	725
Weston County														
41N 067W 26AA 01	09-18-74	4,020	7.1	11.0	1,100	240	120	610	24	767	--	1,700	32	3,130
46N 062W 12BA 01	09-17-74	1,740	--	9.0	790	150	100	87	14	280	--	730	15	1,240
48N 067W 05DB 01	05-22-74	1,600	7.9	8.1	170	40	17	310	3.6	532	0	420	4.9	1,070

Table 3.--Modified drillers' logs of selected wells in alluvial aquifers
in the Powder River Basin, northeastern Wyoming

Location: See numbering system in text.

Driller and date: Gives driller who supplied log and month and year that the well was drilled.

Depth to water: Gives depth to water in the well in feet below land surface and month and year of measurement. Log interval given in feet below land surface.

When yield and drawdown are given at bottom of log, time of test is in hours, yield is in gallons per minute, and drawdown is in feet.

CAMPBELL COUNTY

Location: 46N 072W 25ADA01

Driller and date: U.S.G.S.; Unknown

Depth to water and date: 11.4 ft; 8-75

Use of water: Observation

0- 3 silt
3- 8 clay
8- 10 sand, red, with
streaks of gravel
10- 12.5 mudstone, gray
12.5 sandstone

Location: 48N 069W 28DCC01

Driller and date: Edward Moore; 7-54

Depth to water and date: 15.9 ft; 7-68

Use of water: Stock

0- 20 silt
20- 40 gravel (water)

Location: 50N 071W 25BD 01

Driller and date: Williams Drlg. Co.;
12-69

Depth to water and date: 8 ft; Unknown

Use of water: Stock

0- 12 brown---?
12- 20 sand
20- 30 gravel
30- 40 shale

Location: 50N 071W 27AAC01

Driller and date: Wyo. Hwy. Dept.; 6-74

Depth to water and date: 6 ft; 6-74

Use of water: Unknown

50N 071W 27AAC01--continued

0- 18 poorly sorted tan silt
and clay with sand and
gravel stringers; large
grains consist of clinker,
coal, sandstone and rounded
selenite crystals
18 black carbonaceous shale

Location: 50N 071W 27BAD01

Driller and date: Wyo. Hwy. Dept.; 6-74

Depth to water and date: 10.6 ft; 6-74

Use of water: Unknown

surface -- fly ash

0- 18 silty clay, tan with
some sand, no gravel
18- 19 clay, blue

fly ash was dumped in this area
from about 1922-69

Table 3.--Logs of selected wells--Continued

CAMPBELL COUNTY--Continued

Location: 50N 071W 35CA 01
Driller and date: R.E. Williams; 11-54
Depth to water and date: Unknown
Use of water: Stock

0- 40 brown sand
40- 56 gravel

Location: 52N 072W 13BB 01
Driller and date: W.J. Williams; 12-58
Depth to water and date: 15 ft; Unknown
Use of water: Stock

0- 70 sand and gravel
70- 80 blue shale
80- 85 sand (water)
85- 96 blue shale
bailed while drilling @ 10 gal/min
with 15 ft of drawdown

Location: 53N 071W 23AC 01
Driller and date: Paul Norfolk; 12-58
Depth to water and date: 25 ft; Unknown
Use of water: Stock

0- 40 gumbo and silt
40- 60 gravel and shale

Location: 56N 071W 30 01
Driller and date: Douglas Powell; 9-63
Depth to water and date: 16 ft; 9-63
Use of water: Stock

0- 15 surface
15- 36 sand, gravel

56N 071W 30 01-continued

36- 39 clay
39- 41 sand
41- 45 clay
bailed $\frac{1}{2}$ hour at 10 gal/min
with 3 ft of drawdown

Location: 56N 071W 30DBB01
Driller and date: U.S.G.S.; 8-75
Depth to water and date: 13.4 ft; 8-75
Use of water: Observation

0- .5 top soil
.5- 12.5 medium to fine gravel
with streaks of finer
material
11.5- 23 sand and gravel
with streaks of silt
23 blue clay

Location: 56N 071W 30DBB02
Driller and date: U.S.G.S.; 8-75
Depth to water and date: 14.0 ft; 10-75
Use of water: Observation

0- 2.5 sand and silt
2.5- 9 silty sand with streaks
of gravel
9 - 30 medium gravel
with sand streaks
30 blue clay

Location: 57N 071W 13CCB01
Driller and date: U.S.G.S.; 8-65
Depth to water and date: Unknown
Use of water: Observation

0- 14 sand, very fine, and silt
10- 14 sand, fine to very fine
with streaks of gravel
14 either sandstone bedrock, or
large sandstone boulder

Table 3.--Logs of selected wells--Continued

CAMPBELL COUNTY--Concluded

Location: 58N 071W 25DC 01
 Driller and date: U.S.G.S.; 9-68
 Depth to water and date: 9.2 ft; 9-68
 Use of water: Unused

0- 3 silt
 3- 5 gravel
 5- 16 fine sand and gravel
 16- 18 gray sandstone, hard

Location: 58N 075W 29CC 02
 Driller and date: Ritola; Unknown
 Depth to water and date: 13 ft; 9-59
 Use of water: Irrigation

0- 14 sand
 14- 20 gravel and red shale (water)
 20- 36 blue shale

CONVERSE COUNTY

Location: 33N 074W 18BA 01
 Driller and date: Evitt Drlg. Co.; 10-63
 Depth to water and date: 2.8 ft; 10-63
 Use of water: Commercial

0- 15.5 sand and gravel
 15.5- 25 light-gray clay

Location: 40N 068W 20ACD01
 Driller and date: U.S.G.S.; 8-75
 Depth to water and date: 12.8 ft; 9-75
 Use of water: Observation

0- 3 sand, very fine
 3- 20 streaks of sand and gravel;
 gravel composed of clinker,
 sandstone, and coal; gravel
 becomes coarser with depth
 20- 21 blue shale

Location: 40N 068W 20DBA01
 Driller and date: U.S.G.S.; 9-75
 Depth to water and date: 9.3 ft; 9-75
 Use of water: Observation

0- 2.5 silt, tan
 2.5- 12 sand, fine grained, red,
 changing to a darker color
 with depth, some coarse
 sand and gravel in upper
 few feet
 12 blue clay

Table 3.--Logs of selected wells--Continued

JOHNSON COUNTY

Location 43N 079W 07CC 01
Driller and date: A.R. Page; 12-45
Depth to water and date: Unknown
Use of water: Unknown

0- 20 topsoil and yellow clay
20- 22 gravel
22- 42 sand
42- 48 gravel (water)
48- 65 blue shale

Location 49N 077W 15CDD01
Driller and date: U.S.G.S.; 8-75
Depth to water and date: 12.7 ft; 9-75
Use of water: Observation

0- 18 silt, tan streaks of gravel
at 14 ft
18- 20 gravel
20- 24 blue shale

Location: 49N 077W 15CDD02
Driller and date: U.S.G.S.; 8-75
Depth to water and date: 12.9 ft; 9-75
Use of water: Observation

0- 13 silt
13- 23 sandy silt
23- 26 blue clay

Location: 49N 077W 20BA 01
Driller and date: J.H. Holwell; ?-60
Depth to water and date: 7.2 ft; 4-61
Use of water: Industrial

0- 8 sand
8- 26 gravel
26- 31 blue clay

Location: 49N 077W 20BC 01
Driller and date: J.H. Holwell; 7-60
Depth to water and date: 7 ft; 7-60
Use of water: Industrial

0- 10 topsoil and sand
10- 20 sand and gravel
20- 27 gravel
27- 31 blue shale

Location: 50N 082W 06AD 01
Driller and date: Unknown: ?-58
Depth to water and date: 7 ft; 1-58
Use of water: Public Supply

0- 2.5 soil and boulders
2.5- 26 coarse sand and boulders

Location: 52N 082W 23AB 01
Driller and date: Ray P. Graham; 9-40
Depth to water and date: Unknown
Use of water: Stock

0- 8 soil and clay
8- 28 gravel (water-bearing)
28- 38 sandstone
38- 40 shale

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY

Location: 33N 077W 04DAB01

Driller and date: R.L. Launspach; 3-60

Depth to water and date: 8 ft; 4-60

Use of water: Domestic

0 - 3 topsoil
 3 - 14.5 sand
 14.5- 24 river gravel

Location: 33N 078W 05CAA01

Driller and date: R.L. Launspach; 6-62

Depth to water and date: 32 ft; 6-62

Use of water: Domestic

0- 3 surface soil, silt
 3- 20 sand
 20- 42 gravel
 claystone at 42 ft

Location: 33N 079W 01AAA01

Driller and date: Unknown; 3-49

Depth to water and date: 8.8 ft; 5-48

Use of water: Industrial

0- 4 silty sand
 4- 31 sand, coarse gravel and rock
 (water-bearing zone)
 hard, brown shale at 31 ft

Location: 33N 079W 03AB 01

Driller and date: R.L. Launspach; 7-64

Depth to water and date: 7.2 ft; Unknown

Use of water: Irrigation

0- 1 sandy loam overburden
 1- 5 fine sand
 5- 13.8 river sand and coarse gravel

Location: 33N 079W 03AB 02

Driller and date: R.L. Launspach; 7-64

Depth to water and date: 7.4 ft; Unknown

Use of water: Irrigation

0- 1 sandy loam overburden
 1- 5 fine sand
 5- 13.9 river sand and coarse gravel

Location: 33N 079W 03ABB01

Driller and date: City of Casper; 6-62

Depth to water and date: 8 ft; 6-62

Use of water: Public Supply

0- 5 clay and silt
 5- 27 sand and small gravel
 27- 29 sand and large gravel

Location: 33N 079W 04BCB01

Driller and date: Unknown; 12-56

Depth to water and date: 20 ft; 12-56

Use of water: Public Supply

0- 10 surface soil
 10- 12 sand and gravel
 12- 49 gravel and rock
 (water source)
 49- 54 blue shale

Location: 33N 079W 04BCC01

Driller and date: Unknown; 4-47

Depth to water and date: 20 ft; Unknown

Use of water: Public Supply

0- 1 surface soil
 1- 50 sand and gravel
 50- 55 blue shale

Location: 33N 079W 04BDA01

Driller and date: Don Galles; 6-64

Depth to water and date: 12 ft; 5-64

Use of water: Public Supply

0- 4 sand, sandy loam
 4- 10 sand and gravel
 10- 28 sand and gravel,
 mostly gravel

Location: 33N 079W 04BDD01

Driller and date: J. Munsinger; 8-64

Depth to water and date: 12 ft; 5-64

Use of water: Public Supply

0- 4 sandy loam
 4- 28 sand and gravel,
 mostly sand

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY--Continued

Location: 33N 079W 07ADC01
 Driller and date: R.L. Launspach; 8-64
 Depth to water and date: 9.2 ft; 5-65
 Use of water: Industrial

0- 30 sand and gravel

Location: 33N 079W 07CBD01
 Driller and date: Unknown 3-56
 Depth to water and date: 8.5 ft; 3-56
 Use of water: Public Supply

0- 30 sand and gravel

Location: 33N 079W 07CBD02
 Driller and date: Unknown
 Depth to water and date: 5.5 ft; 7-53
 Use of water: Public Supply

0- 15 topsoil and sand
 15- 30 gravel grading to fine sand
 bottomed in fine sand

Location: 33N 079W 07CCB01
 Driller and date: Unknown; 2-56
 Depth to water and date: 8 ft; 2-56
 Use of water: Public Supply

0- 33.5 sand and gravel

Location: 33N 079W 07CDA01
 Driller and date: City of Casper; 6-64
 Depth to water and date: 12 ft; 6-64
 Use of water: Public Supply

0- 4 silt and very fine sand
 4- 16 fine sand
 16- 24 medium sand
 24- 27 coarse sand
 27- 31 coarse sand and gravel

Location: 33N 079W 07DA 01
 Driller and date: R.L. Launspach; 4-64
 Depth to water and date: 8.7 ft; 4-64
 Use of water: Industrial

0- 27 sand and gravel

Location: 33N 079W 07DCA01
 Driller and date: City of Casper; 6-64
 Depth to water and date: 12 ft; 6-64
 Use of water: Public Supply

0- 5 silt and very fine sand
 5- 14 fine sand
 14- 23 medium sand
 23- 29 coarse sand
 29- 31 coarse sand and gravel

Location: 33N 079W 07DCD01
 Driller and date: City of Casper; 6-64
 Depth to water and date: 12 ft; 6-64
 Use of water: Public Supply

0- 6 silt and very fine sand
 6- 18 medium sand
 18- 26 coarse sand and small gravel
 26- 31 coarse sand and large gravel

Location: 33N 079W 18BAB01
 Driller and date: Unknown; 5-53
 Depth to water and date: 14.1 ft; 5-53
 Use of water: Public Supply

0- 6 fine sand
 6- 13 sand and gravel
 13- 32 sand, gravel, boulders
 32- 38 fine to coarse sand

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY--Continued

Location: 33N 079W 18BBB01
Driller and date: Ranney Water Supplies,
Inc.; 3-58
Depth to water and date: 5 ft; 3-58
Use of water: Public Supply

0- 25.4 river sand and gravel

Location: 33N 079W 18BBD01
Driller and date: Ranney Water Supplies,
Inc.; 10-58
Depth to water and date: 5 ft; Unknown
Use of water: Public Supply

0- 25.5 river sand and gravel

Location: 33N 079W 18BBD02
Driller and date: Ranney Water Supplies,
Inc.; 10-58
Depth to water and date: 5 ft; Unknown
Use of water: Public Supply

0- 24 river sand and gravel

Location: 33N 079W 18BCC01
Driller and date: U.S.G.S.; 7-68
Depth to water and date: 8.7 ft; 7-68
Use of water: Observation

0- 12 sand, medium to coarse
with gravel lenses
12- 30 sand with intermittent
gravel lenses
30- 35 gravel
35- 37 shale, dark-gray

Location: 33N 079W 18CAB01
Driller and date: Board of Public
Utls; 7-66
Depth to water and date: 8 ft; 7-66
Use of water: Public Supply

0- 3 sand and silt
3- 21 sand and gravel
21- 32.8 sand and coarse gravel

Location: 33N 079W 36AB 01
Driller and date: R.G. Launspach; 8-61
Depth to water and date: 9 ft; 7-61
Use of water: Public Supply

0- 5 silt and unconsolidated sand
5- 37 gravel, water saturated
9-37 ft; Cody Shale at 37 ft.

Location: 33N 080W 12DAA01
Driller and date: Unknown; 8-58
Depth to water and date: 6.7 ft 3-56
Use of water: Public Supply

0- 24 river sand and gravel

Location: 33N 080W 12DDA01
Driller and date: Unknown; 6-53
Depth to water and date: 8.5 ft; 6-53
Use of water: Public Supply

0- 10 sand and gravel
10- 25 sand, gravel and boulders
25- 30 fine sand and small gravel
30- 32 sand, gravel and boulders

Location: 33N 080W 12DDA02
Driller and date: Unknown; 6-53
Depth to water and date: 7.2 ft; 6-53
Use of water: Public Supply

0- 7 fine to coarse sand
7- 16 sand and gravel
16- 23 fine sand and small gravel
23- 32 sand, gravel and small gravel
32- 34 sand, gravel and boulders

Location: 33N 080W 12DDB01
Driller and date: Unknown; 7-53
Depth to water and date: 4.8 ft; 5-53
Use of water: Public Supply

0- 8 sand and gravel
8- 14 sand, gravel and boulders
14- 18 fine to coarse sand
18- 23 sand, gravel and boulders
23- 28 fine to coarse sand and gravel
28- 30 sand, gravel and boulders

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY--Continued

Location: 33N 080W 12DDB02
 Driller and date: Unknown; ?-53
 Depth to water and date: 7.9 ft; 5-53
 Use of water: Public Supply

0- 1.5 fine sand
 1.5- 6 sand and gravel
 6- 16 sand, gravel and boulders
 16- 25 sand and gravel
 25- 28 sand with lots of fine to
 small gravel and boulders

Location: 33N 080W 12DDD01
 Driller and date: Unknown; ?-53
 Depth to water and date: 9.8 ft; 5-53
 Use of water: Public Supply

0- 4 fine sand
 4- 11 sand, gravel, small rocks
 11- 27 sand, gravel, boulders
 27- 36 sand, gravel, few
 large boulders

Location: 33N 080W 12DDD02
 Driller and date: Unknown; ?-53
 Depth to water and date: 8.6 ft; 6-53
 Use of water: Public Supply

0- 10 sand and gravel
 10- 15 sand, gravel and boulders
 15- 19 fine sand, small gravel
 19- 25 sand, gravel, boulders
 25- 29 fine sand, small gravel
 29- 34 sand, gravel and boulders

Location: 33N 080W 22DAD01
 Driller and date: R. Launspach; 7-60
 Depth to water and date: 22 ft; 7-60
 Use of water: Public Supply

0- 10 clay, loam, hard, gray
 10- 12 silt, fine sand, gray
 12- 17 sandy gravel, red, gray

Location: 33N 081W 16BCB03
 Driller and date: R.L. Mills; 4-66
 Depth to water and date: 15 ft; Unknown
 Use of water: Stock

Location: 33N 081W 16BCB03--continued

0- 2 top soil
 2- 29 sand and gravel

Location: 33N 081W 20DDD01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 5.9 ft; Unknown
 Use of water: Observation

0- 5 silt, slightly sandy
 5- 7 sand, silty
 7- 20 sand, fine, green, silty
 20- 22 shale, dark-gray

Location: 33N 081W 27DD 01
 Driller and date: C.J. Galusha; ?-58
 Depth to water and date: Unknown
 Use of water: Stock

0- 10 soil
 10- 30 sand, silty
 30- 50 light-yellow sand
 50- 70 coarse sand
 70- 80 fine sand
 80- 83 blue shale

Location: 34N 079W 34DCD01
 Driller and date: Unknown; 7-61
 Depth to water and date: 8 ft; 7-63
 Use of water: Public Supply

0- 6 clay and silt
 6- 29 sand and small gravel
 29- 33 sand and large gravel

Location: 34N 079W 34DCD02
 Driller and date: Unknown; 7-61
 Depth to water and date: 8 ft; 7-61
 Use of water: Public Supply

0- 5 clay and silt
 5- 25 sand and small gravel
 25- 28 sand and large gravel

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY--Continued

Location: 34N 079W 34DDD01
 Driller and date: City of Casper; 7-62
 Depth to water and date: 7 ft; 7-62
 Use of water: Public Supply

0- 6 clay and silt
 6- 16 sand and small gravel
 16- 32 sand and large gravel

Location: 34N 080W 05ABA01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 5.5 ft; 6-68
 Use of water: Observation

0- 3 soil, clay-like
 3- 5 clay
 5- 7 sand and gravel
 7- 13 sand and gravel
 with clay streaks
 13- 17 shale, gray

Location: 34N 080W 05ACA01
 Driller and date: Earl L. Tackett; 3-64
 Depth to water and date: 11 ft; Unknown
 Use of water: Stock

0- 4 sandy loam
 4- 11 dry sand
 11- 14 very coarse sand,
 producing water
 14- 16 heavy clay turning
 to shale

Location: 34N 080W 08CAD01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 9.1 ft; 6-68
 Use of water: Observation

0- 2 clay-like loam, sandy
 2- 7 clay, sandy
 7- 12 sand and fine gravel
 12- 17 clay (tight) brown
 17- 19 shale, dark-brown, hard

Location: 34N 080W 08CCC01
 Driller and date: U.S.G.S.; 4-67
 Depth to water and date: 16.0 ft; 4-67
 Use of water: Observation

0- 7 clay
 7- 8 sand, fine to medium
 8- 12 gravel, medium
 12- 26 sandy, clay

Location: 34N 080W 19ABB01
 Driller and date: U.S.G.S.; 6-68
 Depth to water and date: 8.9 ft; 8-68
 Use of water: Observation

0- 2 sand, medium to coarse, clayey
 2- 11 sand and gravel, cleaner
 below 5 ft
 11- 12 light-tan clay
 12- 15 sand and gravel, wet
 15- 19 clay, easier drilling
 at 17-19 ft
 19- 22 shale, gray, harder
 drilling

Location: 34N 080W 21CCD01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 26.0 ft; 5-68
 Use of water: Observation

0- 12 sand, medium to coarse,
 poorly sorted, clayey
 12- 17 clay, brown, sandy
 17- 22 gravel, fine to medium
 22- 27 clay, brown, sandy
 27- 32 clay
 32- 50 gravel, fine to coarse
 with sand and some clay,
 best gravel 44-50 ft
 50- 55 shale, dark-gray, hard
 drilling

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY--Continued

Location: 34N 080W 25AAA01
 Driller and date: U.S.G.S.; 7-68
 Depth to water and date: 34.8; 8-68
 Use of water: Observation

0- 6 sand, fine to medium
 6- 20 sand and very fine gravel
 20- 28 sand, fine to medium,
 clayey, small amount of
 gravel
 28- 29 clay, tan, sandy
 29- 69 shale(?), dark-gray,
 sandy 49-69 ft

Location: 34N 080W 30BCC01
 Driller and date: U.S.G.S.; 7-68
 Depth to water and date: 3.1 ft; 8-68
 Use of water: Observation

0- 7 silt, tan to dark-gray
 7- 15 sand, fine to medium, clayey
 15- 17 clay lense(?), harder drilling
 17- 25 clay, sandy
 25- 32 shale, dark-gray,
 hard drilling

Location: 34N 080W 33AAA01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 7.9 ft; 6-68
 Use of water: Observation

0- 6 sand, clayey, fine sand
 6- 19 more sandy than above and wet
 19- 25 sand and clayey lenses
 25- 27 hard clay lense
 27- 30 sand, easy drilling
 30- 37 sand, silty, tight,
 easier drilling 32-37 ft
 37- 44 probably clayey sand
 (no returns)
 44- 46 tight lense (no returns)
 46- 47 more sandy, easier drilling
 47- 55 clayey sand
 55- 57 shale, dark-gray

Location: 34N 080W 36CCC01
 Driller and date: U.S.G.S.; 7-68
 Depth to water and date: 23.7 ft; 8-68
 Use of water: Observation

0- 6 clay, tight
 6- 13 sand, fine to coarse,
 clayey
 13- 52 sand and gravel, slightly
 clayey 43-52 ft
 52- 53 shale

Location: 34N 081W 13CCB01
 Driller and date: U.S.G.S.; 7-68
 Depth to water and date: 7.3 ft; 7-68
 Use of water: Observation

0- 15 silt, slightly sandy
 15- 17 silt, slightly harder
 drilling, sandy at 17 ft
 17- 41 sand, silty
 41- 47 shale, dark-gray

Location: 34N 081W 25BBB01
 Driller and date: U.S.G.S.; 6-68
 Depth to water and date: 5.2 ft; 6-68
 Use of water: Observation

0- 7 silt, slightly sandy
 (or weathered shale)
 7- 44 sandy silt with sand
 streaks (guessing from
 drilling action), no
 returns

Location: 35N 080W 30BCC01
 Driller and date: U.S.G.S.; 6-68
 Depth to water and date: 12.2 ft; 8-68
 Use of water: Observation

0- 12 clay, silty, hard,
 wet at 10 ft
 12- 22 sand, easier drilling
 22- 34 clayey, sandy, silt,
 poor returns

Table 3.--Logs of selected wells--Continued

NATRONA COUNTY--Concluded

Location: 35N 080W 31DDD01
 Driller and date: U.S.G.S.; 4-67
 Depth to water and date: 15.3 ft; 4-67
 Use of water: Observation

0-	3.5	clay
3.5-	18	sandy clay
18	- 21	sandy clay
21	- 26	sand, fine to medium
26	- 28	hard (no returns)
28	- 31	sand
31	- 36	hard clay (no returns)
36	- 39	sandy clay (no returns)
39	- 40	hard clay
40	- 42	sandy clay
42	- 45	black shale (hard, slow drilling)

Location: 35N 081W 07BBB01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 10.5 ft; 6-68
 Use of water: Observation

0-	5	sand, fine
5	- 10	clay
10	- 13	sand, fine
13	- 13.5	clay
13.5-	17	sand, fine
17	- 22	sand, fine to coarse
22	- 32	sand, coarse

Location: 35N 081W 13DDD01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 1.5 ft; 6-68
 Use of water: Observation

0-	3	clay, sandy
3-	6	sand, coarse
6-	9	clay
9-	17	shale, dark-brown to gray, hard

Location: 35N 081W 30CCC01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 4.6 ft; 6-68
 Use of water: Observation

0-	12	clayey silt
12-	23	clayey sand
23-	27	sand, coarse
27-	28	black shale

Location: 36N 081W 20ACA01
 Driller and date: U.S.G.S.; 5-68
 Depth to water and date: 7.1 ft; 6-68
 Use of water: Observation

0-	25	silt, gradually getting tighter toward bottom
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Table 3.--Logs of selected wells--Continued

NIOBRARA COUNTY

Location: 37N 067W 26DD 02
 Driller and date: Unknown
 Depth to water and date: 11.0 ft; Unknown
 Use of water: Observation

0- 4 topsoil
 4- 12 sand, fine, and silt
 12- 25 sand, coarse, and gravel

Location: 38N 063W 30CD 01
 Driller and date: Unknown
 Depth to water and date: 6.7 ft; 3-60
 Use of water: Unknown

0- 5 topsoil
 5- 45 clay, sand, gravel
 45- 55 shale, blue, sandy
 55- 58 sandstone, blue, soft
 58- 67 black shale

Location: 38N 063W 30CD 02
 Driller and date: Freimuth Drlg.; 4-59
 Depth to water and date: 7.6 ft; 3-60
 Use of water: Irrigation

0- 5 surface
 5- 30 sand and gravel in 0.5 ft
 layers, hard shale at 13 ft
 30- 42 blue sandstone, soft
 42- 46 black shale

Location: 38N 064W 22AA 01
 Driller and date: Unknown
 Depth to water and date: 19.2 ft; 6-59
 Use of water: Unknown

0- 5 topsoil
 5- 14 black clay
 14- 37 sand, gravel, clay, silt
 37- 39 blue shale

Location: 38N 064W 22B 01
 Driller and date: Marvin Jones; 5-59
 Depth to water and date: 16 ft; 5-59
 Use of water: Unknown

0- 8 soil
 8- 14 clay
 14- 34 good gravel
 34- 50 shale

Location: 38N 064W 24DC 01
 Driller and date: Cecil Chubb; 11-55
 Depth to water and date: Unknown
 Use of water: Stock

0- 10 sand
 10- 20 sand and gravel

Location: 39N 064W 01AB 01
 Driller and date: Gene Francis; 12-57
 Depth to water and date: Unknown
 Use of water: Stock

0- 40 sand
 40- 60 quicksand

Location: 40N 061W 20AB 01
 Driller and date: Christianson; 9-58
 Depth to water and date: 14 ft; 9-58
 Use of water: Stock

0- 15 sandy overburden
 15- 25 water sand

Location: 40N 061W 21BAB01
 Driller and date: U.S.G.S.; 5-70
 Depth to water and date: 10.0 ft; 5-70
 Use of water: Observation

0- 13 silt and sand
 13- 18 shale, dark-gray

Table 3.--Logs of selected wells--Continued

SHERIDAN COUNTY

Location: 53N 080W 18CA 01
Driller and date: Carl Ritola; 9-60
Depth to water and date: 9.4 ft; 5-61
Use of water: Domestic

0- 9 clay
9- 20 gravel
20- 23 blue shale

Location: 53N 081W 08CA 01
Driller and date: Carl Ritola; 7-54
Depth to water and date: 11.4 ft; 4-61
Use of water: Stock

0- 5 clay
5- 13 gravel
13- 26 gravel, water

Location: 57N 085W 19AB 01
Driller and date: C.T. Reid; 11-59
Depth to water and date: 3.5 ft; ?-59
Use of water: Public Supply

0- 4 topsoil
4- 12 sand and gravel
12- 14 blue shale
14- 24 sand and large gravel
24- 30 gray shale

Table 3.--Logs of selected wells--Continued

WESTON COUNTY

Location: 41N 066W 15AB 01
Driller and date: Nelson Irrigation; 6-70
Depth to water and date: 12.4 ft; 11-74
Use of water: Unknown

0- 8 topsoil with clay
8- 17 sand and gravel
17- 18 clay
18- 35 sand to coarse gravel
35- 42 coarse gravel

Location: 41N 066W 15AB 02
Driller and date: Nelson Irrigation; 6-70
Depth to water and date: Unknown
Use of water: Unknown

0- 10 topsoil, sandy clay
10- 18 sand and gravel
18- 19 clay
19- 35 sand and gravel
35- 40 clay

Location: 41N 066W 17AD 01
Driller and date: Nelson Irrigation; 5-70
Depth to water and date: 8.0 ft; 11-74
Use of water: Unknown

0- 6 topsoil, sand
6- 10 sand and gravel
10- 12 clay
12- 21 sand, gravel, rocks
23- 28 sand and rocks
28- 32 clay

Location: 41N 066W 17AD 02
Driller and date: Nelson Irrigation: 6-70
Depth to water and date: 8 ft; Unknown
Use of water: Unknown

0- 6 topsoil, sand
6- 15 sand, gravel, clay
15- 23 sand and gravel
23- 30 clay

Location: 41N 067W 25AAC01
Driller and date: Nelson Irrigation; 6-70
Depth to water and date: 12 ft; Unknown
Use of water: Unknown

0- 12 fine brown sand
12- 42 sand, gravel, chert
and pyrite, brown
42- 45 brown shale

Location: 41N 067W 26BBC01
Driller and date: Nelson Irrigation; 5-70
Depth to water and date: 10 ft; Unknown
Use of water: Unknown

0- 10 fine sand
10- 30 sand and gravel

Location: 41N 067W 26BBC02
Driller and date: Nelson Irrigation; 5-70
Depth to water and date: Unknown
Use of water: Unknown

0- 10 brown-gray sand
20- 30 sand and gravel

Location: 41N 067W 26BD 01
Driller and date: Nelson Irrigation: 6-70
Depth to water and date: 10.9 ft; 11-74
Use of water: Unknown

0- 8 fine, gray-brown sand
8- 35 sand and gravel, brown-red

Location: 41N 067W 27AAB01
Driller and date: Nelson Irrigation; 6-70
Depth to water and date: 10 ft; Unknown
Use of water: Unknown

0- 10 fine brown sand
10- 25 sand and gravel, brown-gray

Table 3.--Logs of selected wells--Continued

WESTON COUNTY--Continued

Location: 41N 067W 27BD 01
Driller and date: Griffin Drilling Co.; 6-70
Depth to water and date: 8 ft; Unknown
Use of water: Unknown

0- 8 fine gray-brown sand
8- 30 sand and gravel, brown
and blue
30- 35 gray shale

Location: 41N 067W 27BD 02
Driller and date: Griffin Drilling Co.; 6-70
Depth of water and date: 8 ft; Unknown
Use of water: Unknown

0- 8 fine brown sand
8- 31 brown-blue sand and gravel
31- 35 brown shale

Location: 41N 067W 27BD 03
Driller and date: Nelson Irrigation:
6-70
Depth to water and date: 10 ft; Unknown
Use of water: Unknown

0- 8 fine gray sand
8- 30 gray-brown sand and gravel
30- 35 shale

Location: 42N 067W 27 01
Driller and date: Walt Dunlap; ?-46
Depth to water and date: 6.4 ft; 4-56
Use of water: Irrigation

0- 27 sand and gravel

Location: 45N 062W 09BA 01
Driller and date: H. L. Hammons; 1-64
Depth to water and date: 8 ft; Unknown
Use of water: Stock

0- 10 surface
10- 55 red shale and gravel
55- 73 blue shale

Location: 45N 062W 09DA 01
Driller and date: L. Griffin; 12-60
Depth to water and date: 30 ft; Unknown
Use of water: Stock

0- 20 surface
20- 40 sand and gravel
40- 50 shale

Location: 45N 062W 22BCC01
Driller and date: Unknown
Depth to water and date: 8 ft; 10-74
Use of water: Irrigation

0- 6 sandy loam
6- 42 gravel (water)

Location: 45N 063W 20DB01
Driller and date: J. Griffin; 12-65
Depth to water and date: 10 ft; Unknown
Use of water: Stock

0- 10 surface
10- 20 gravel and sand

Location: 46N 060W 19AC 01
Driller and date: Gene Holwell; 8-65
Depth to water and date: 23 ft; Unknown
Use of water: Stock

0- 10 surface wash
10- 34 gravel
34- 35 red shale

Location: 47N 060W 04AA 01
Driller and date: Weston County; 7-65
Depth to water and date: 15 ft; Unknown
Use of water: Domestic

0- 15 overburden
15- 18 gravel

Table 3.--Logs of selected wells--Continued

WESTON COUNTY--Concluded

Location: 47N 060W 04AD 01

Driller and date: Weston County; 7-65

Depth to water and date: 15 ft; Unknown

Use of water: Domestic

0- 15 overburden

15- 18 gravel
