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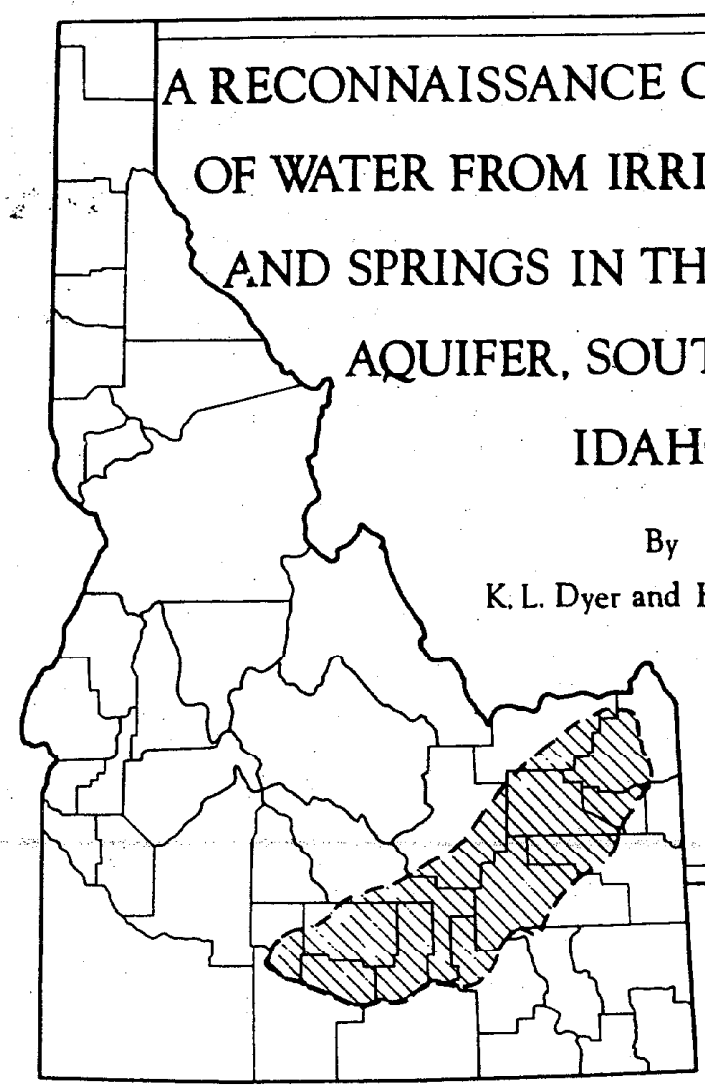
A RECONNAISSANCE OF THE QUALITY OF WATER FROM IRRIGATION WELLS AND SPRINGS IN THE SNAKE PLAIN AQUIFER, SOUTHEASTERN IDAHO

By
K. L. Dyer and H.W. Young



OPEN-FILE REPORT

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES DIVISION

Prepared in cooperation with the

IDAHO DEPARTMENT OF WATER ADMINISTRATION

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A RECONNAISSANCE OF THE QUALITY OF WATER FROM IRRIGATION WELLS AND SPRINGS IN THE SNAKE PLAIN AQUIFER, SOUTHEASTERN IDAHO

By K. L. Dyer and H. W. Young

ABSTRACT

This report describes the quality of the water in part of the Snake Plain aquifer based on analyses of water samples collected in 1970. Chloride, nitrate, and orthophosphate concentrations, specific conductance, and temperature were measured for samples collected from 194 irrigation wells and 29 springs yielding water from the Snake Plain aquifer. In addition, standard complete analyses were made of water samples from 55 of the irrigation wells and 13 of the springs. As an additional part of the complete analyses, 46 of the irrigation wells were tested for the presence of fecal coliform bacteria. All samples analyzed were collected during the period March to October 1970. Many wells and springs were sampled at least twice during this period. Although minor fluctuations in some constituents were noted, no well-defined seasonal trends were identified.

Wells along the eastern and southern margins of the Plain generally yield water having a specific conductance greater than 300 micromhos per centimeter. The specific conductance of water in five irrigated areas exceeded 1,000 micromhos per centimeter. The data collected indicate that the specific conductance is lower in the central part of the Plain where it probably is less than 300 micromhos per centimeter.

Chloride concentrations in the samples collected ranged from 7 mg/l (milligrams per liter) to 325 mg/l, although in the heavily irrigated areas most concentrations ranged from 10 mg/l to 160 mg/l. Nitrate concentrations ranged from 2 mg/l to 32 mg/l and have an areal distribution very similar to that of specific conductance and chloride. Concentrations

of orthophosphate ranged from 0 to 0.23 mg/l, although generally they were below 0.1 mg/l. Ground-water temperatures in June and July ranged from 10.0° C (degrees Celsius) to 20.0° C and averaged 12.4° C. No fecal coliform were found in the water from 46 irrigation wells tested for these bacteria.

INTRODUCTION

The purpose of this report is to present the basic data collected in 1970 on the quality of the ground water in the Snake Plain aquifer. The bulk of the data presented in this report was collected in conjunction with a ground-water-pumpage inventory of the Snake Plain aquifer made by the U.S. Geological Survey in cooperation with the Idaho Department of Water Administration. Additional data were collected by the U.S. Geological Survey in cooperation with the U.S. Bureau of Reclamation.

The Snake Plain aquifer underlies approximately 9,600 square miles of the Snake River Plain in southeastern Idaho (fig. 1). The boundary of the aquifer, as defined by Norvitch, Thomas, and Madison (1969, p. 2) encompasses the area covered by this report and is shown in figure 3. As shown, this boundary was arbitrarily drawn along the foot of the mountains surrounding the Plain and across the mouths of the tributary valleys. Generally, the boundary marks the contact of the more permeable Snake Plain aquifer with the less permeable materials bounding the Plain.

Centers of population, agricultural development, and water use are mostly near the Snake River, which flows along the eastern and southern margins of the Snake River Plain. The Snake River is the primary source of irrigation water for croplands lying near the river. Ground water is used almost exclusively on the more recently developed irrigated lands extending onto the Plain away from the areas irrigated with surface water (fig. 3). Although most of the ground water withdrawn from the Snake Plain aquifer is used for irrigation, the aquifer also serves as the chief regional source of water for municipal, industrial, and rural-domestic supplies.

This report was prepared from information compiled as a part of a cooperative program of investigation of the Snake Plain aquifer made by the U.S. Geological Survey in cooperation with the Idaho Department of Water Administration and the U.S. Bureau of Reclamation.

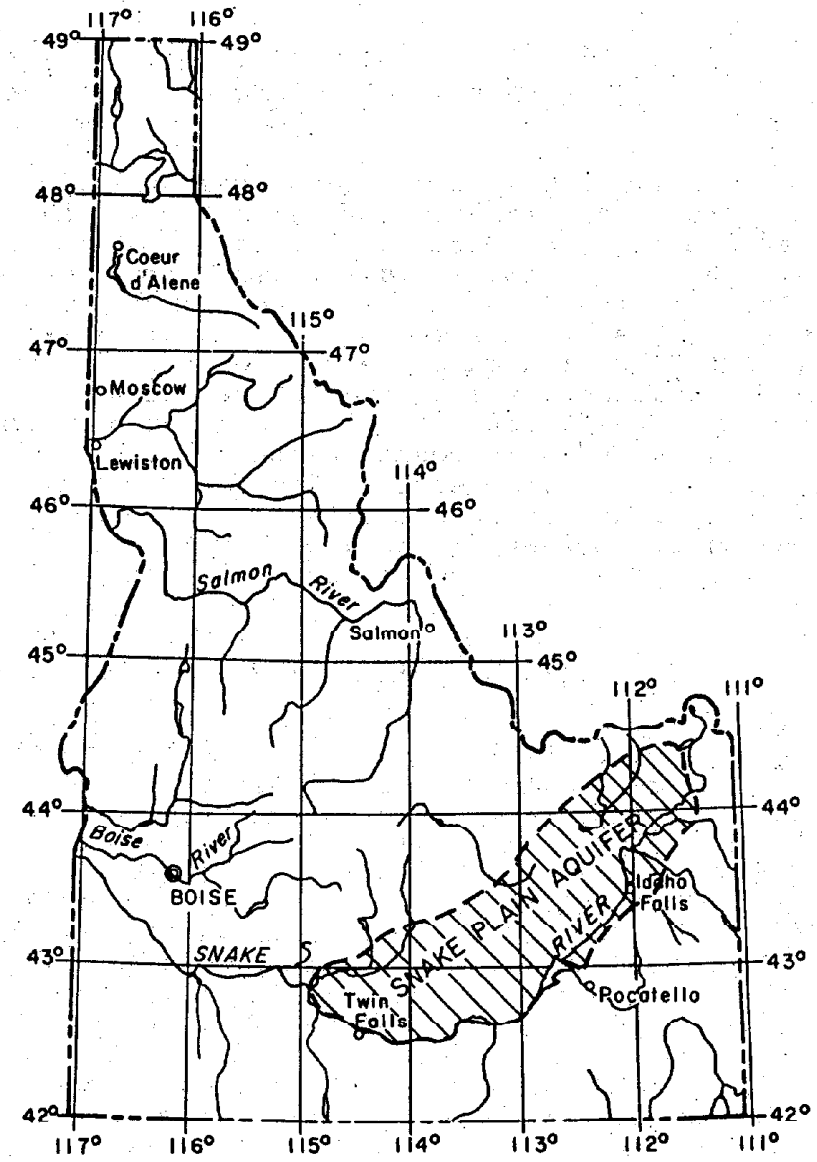

FIGURE 1.-- Index map showing area covered by this report.

Well-Numbering System

The well-numbering system used by the Geological Survey in Idaho indicates the location of wells within the official rectangular subdivision of the public lands, with reference to the Boise base line and meridian. The first two segments of the number designate the township and range. The third segment gives the section number, followed by three letters and a numeral, which indicate the quarter section, the 40-acre tract, the 10-acre tract, and the serial number of the well within the tract, respectively. Quarter sections are lettered a, b, c, and d in counterclockwise order from the northeast quarter of each section (fig. 2). Within the quarter sections, 40-acre and 10-acre tracts are lettered in the same manner. Well 2S-35E-2dabl is in the NW¼NE¼SE¼ sec. 2, T. 2 S., R. 35 E. and is the first well visited in that tract.

Use of Metric Units

In this report, metric units are used to report concentrations of water-quality parameters determined by chemical analyses and the temperature of air and water. This change from reporting in "English units" has been made as a part of a gradual change to the metric system that is underway within the scientific community and is intended to promote greater uniformity in reporting of data. Chemical data for concentrations are reported in milligrams per liter (mg/l) rather than in parts per million (ppm), the units used in earlier reports of the U.S. Geological Survey. However, numerical values for the chemical concentrations given in this report would be essentially the same whether reported in terms of mg/l or ppm. Air and water temperatures are reported in degrees Celsius (° C). Table 1 will help to clarify the relation between degrees Fahrenheit and degrees Celsius.

CHEMICAL QUALITY OF GROUND WATER FROM IRRIGATION WELLS AND SPRINGS

A complete listing of all chemical data acquired for this report by the U.S. Geological Survey and cooperating agencies in 1970 is given in table 2. Chloride, nitrate, and orthophosphate concentrations, specific conductance and temperature were measured for samples collected from 194 irrigation wells

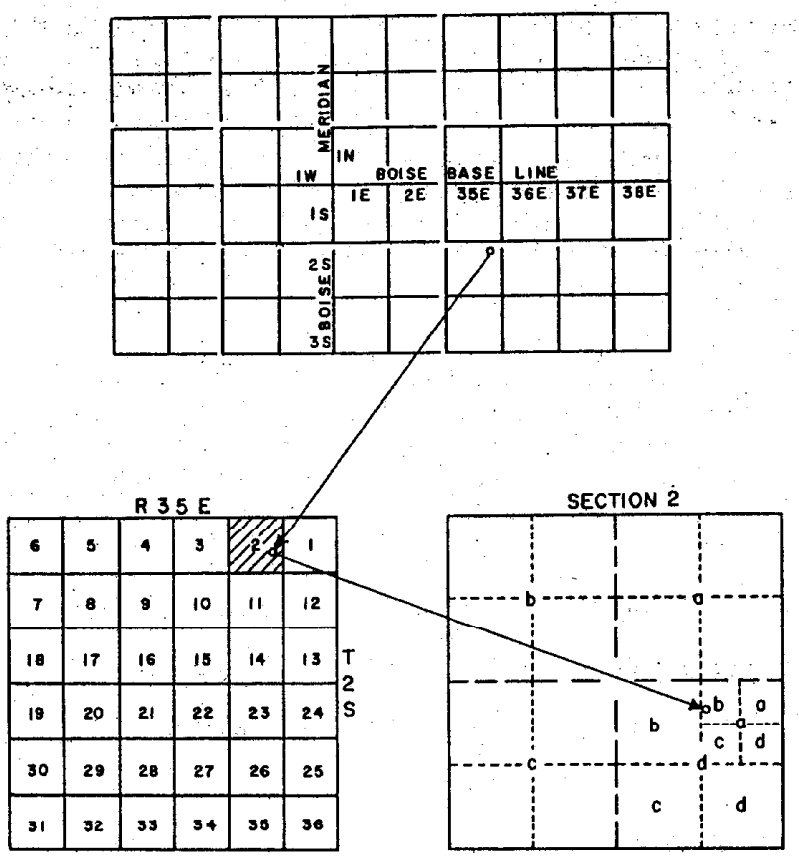

FIGURE 2.--Diagram showing well-numbering system.
(Using well 2S-35E-2dab1)

Table 1. Temperature-conversion table.

Conversion of degrees Celsius (° C) to degrees Fahrenheit (° F) is based on the equation, ° F = (1.8)(° C + 32). Temperatures in ° F are rounded to the nearest degree. Underscored equivalent temperatures are exact equivalents.

° C	° F	° C	° F	° C	° F
0	32	10	50	20	68
+1	34	11	52	21	70
2	36	12	54	22	72
3	37	13	55	23	73
4	39	14	57	24	75
5	41	15	59	25	77
6	43	16	61	26	79
7	45	17	63	27	81
8	46	18	64	28	82
9	48	19	66	29	84

and 29 springs yielding water from the Snake Plain aquifer. In addition, standard complete analyses were made of water samples from 55 of the irrigation wells and 13 of the springs. Most of the wells and springs were sampled at least twice between March and October.

As an aid to readers, some of the terms used in this report are defined as follows:

Dissolved solids is the weight, in milligrams, of constituents dissolved per liter of water; and was calculated as the sum of the weights per liter of the determined constituents that would exist in an anhydrous residue.

Milligrams per liter is a unit expressing the number of milligrams of a constituent per liter of water.

pH is a measure of the degree of acidity or alkalinity. A pH of 7.0 indicates that the water is neutral. As the pH value decreases below 7.0, the acidity increases; and as the pH value increases above 7.0, the alkalinity increases.

Sodium-adsorption-ratio (SAR) is an expression of the relative activity of sodium ions in exchange reactions with soil and is an index of sodium (or alkali) hazard to the soil (U.S. Salinity Laboratory Staff, 1954, pp. 72-75).

Specific conductance is a measure of the ability of water to conduct an electrical current and is expressed in micromhos per centimeter at 25° C (degrees Celsius). Because the specific conductance is related to the concentration of dissolved ions, it can be used for approximating the salinity of the water. In the Snake Plain aquifer, the dissolved-solids concentration in milligrams per liter is approximately equal to 0.6 x specific conductance in micromhos per centimeter.

Specific Conductance

Figure 3 is a map depicting the pattern of specific conductance values measured in part of the Snake Plain aquifer in 1970. Values measured ranged from 260 to 1,560 micromhos per centimeter (table 2); however, most values were below 1,100 micromhos per centimeter.

Virtually all the irrigated areas sampled are underlain by waters having a specific conductance greater than 300 micromhos per centimeter and in five of these areas it exceeded 1,000 micromhos per centimeter. The highest specific conductance values measured were in water samples from three wells northwest of Mud Lake. These high values probably result, at least in part, from salts concentrated in ancient buried alluvium or lakebeds in this locality.

Chloride

As shown in figure 4, the distribution of chloride concentrations follows much the same overall pattern as does specific conductance. Chloride concentrations ranged from 7 mg/l to 325 mg/l, although most concentrations were between 10 mg/l and 160 mg/l in the irrigated areas. The high of 325 mg/l in a water sample from a well northwest of Mud Lake is probably, like specific conductance, closely related to the geological conditions of the area.

Nitrate

The general distribution of nitrate (fig. 5) in the aquifer is very similar to that of specific conductance and chloride. Concentrations ranged from less than 2 mg/l along the margins of irrigated areas to 32 mg/l in an area west of Blackfoot. In water samples from wells northwest of Mud Lake and north of Burley, nitrate concentrations of 16 and 18 mg/l were measured.

Orthophosphate

Concentrations of orthophosphate ranged from 0.00 to 0.23 mg/l with the higher concentrations representing samples collected from irrigation wells in Gooding, Lincoln, and Bingham Counties. However, all these concentrations are so low that no particular significance should be attributed to the pattern of their distribution or to seasonal changes occurring in individual wells. As shown in table 2, most orthophosphate concentrations were either zero or very near zero. The phosphomolybdate method used in the determination of orthophosphate is accurate and reproducible to a lower limit of ± 0.02 mg/l. Very low concentrations of orthophosphate are normally to be expected in ground water because of the tenacity with which phosphates may

be held to aquifer materials by either exchange processes or chemical reactions.

TEMPERATURE

Ground-water temperatures in the Snake Plain aquifer generally increase from the northeast to the southwest which is the principal direction of ground-water flow and the direction of increasing air temperatures at surface stations. Water temperatures ranged from 10.0° C to 20.0° C and averaged 12.4° C. Mean annual air temperatures reported by the U.S. Weather Bureau (1964) ranged from 5.9° C at St. Anthony on the upper end of the Plain to 10.1° C at Bliss at the lower extremity. Ground-water temperatures average about 4.4° C warmer than air temperatures at surface stations. The warmer temperature of ground water than mean surface air temperature can be largely attributed to (1) heat flow from the interior of the earth, (2) the warmer temperature of much of the recharge water, and (3) the frictional and mechanical heat gained when water flows through an aquifer. The heat flow from the interior of the earth probably accounts for the temperature near 20° C observed near the margin of the study area east of Idaho Falls.

FECAL COLIFORM BACTERIA

Ground-water samples collected from 46 irrigation wells were tested for the presence of fecal coliform bacteria (see table 2). In all tests, the results were negative, indicating the absence of these bacteria in the ground water sampled.

CONCLUSIONS

From the sampling program described in this report, the following conclusions and observations can be made.

1. The water in that part of the Snake Plain aquifer sampled in 1970 is generally of good chemical quality and is suitable for most purposes. In one sample from well 8N-33E-15dcb1 (north of Monteview), the measured chloride-ion concentration of 325 mg/l exceeded the 250 mg/l upper limit recommended in the drinking water standards of the U.S. Public Health Service (1962). According to the U.S. Salinity Laboratory Staff (1954), a specific conductance value in excess of 750 micromhos per centimeter indicates a water with a high salinity hazard and the water should

be used only on soils having good permeability and drainage. Water from 35 of the sampled wells and one spring (table 2) had specific-conductance values exceeding 750 micromhos per centimeter.

2. Levels of chloride, nitrate, and dissolved solids greater than those generally found in the region occur in five distinct areas--northwest of Rupert, north of Lake Walcott, north of American Falls Reservoir, west of American Falls Reservoir, and near Monteview northwest of Mud Lake. The cause of the higher concentrations in these areas is not known. Each is an area of intensive irrigation and may be underlain by a high proportion of sediments in contrast to the predominance of basalt occurring in surrounding parts of the Plain. Expansion of the sampling program into the surface-water irrigated areas and into the nonirrigated areas underlain by a larger proportion of basalt would provide data that might serve to show whether irrigation agriculture or subsurface geology is exerting the dominant control on water quality.

3. In evaluating the data presented in this report, it should be realized that most of the wells sampled were located within that part of the Snake River Plain irrigated by ground water. Few samples were collected from wells located in areas irrigated primarily by surface water. The samples collected probably do not, therefore, adequately reflect the effects of the large quantity of water that is recharged to the aquifer in surface-water irrigated areas by drain wells, unlined ditches, and irrigation water percolating below the root zone. It is also possible that the quality of the water discharged by some of the springs sampled either has not been affected by irrigation or that the effects are, as yet, too small to be recognized.

4. In several parts of the Snake Plain aquifer, the distribution of the various dissolved constituents is rather complex in that concentrations of these constituents may vary quite abruptly both laterally and with depth (F. N. Olmsted, written commun., 1962). It is for this reason that when a well is pumped for a season, the concentrations of dissolved constituents present may vary as water is drawn in varying proportions from different parts of the aquifer. In addition, wells near the centers of large ground-water irrigated areas may become slightly more saline toward the end of the irrigation season as some of the applied water, concentrated by evapotranspiration, seeps downward to the water table and is recycled. Although minor changes in concentrations of some constituents were noted at many locations, no well-defined seasonal trend for the sampled area as a whole could be established. A small part of the observed fluctuations in levels of specific conductance,

chloride, nitrate, orthophosphate, and temperature may be due to a certain amount of error inherent in the analytical procedures used. This is especially true for the orthophosphate values reported as most were at or near the lower detectable limit for the analytical procedure used.

5. Although no fecal coliform bacteria were found in any of the samples collected, this should not be construed as evidence proving that these bacteria do not exist anywhere in the ground water underlying the Plain. This is true because (1) in the ground-water irrigated area, sample coverage for this parameter is sparse and (2) only a very few samples were collected in areas irrigated by surface water and in areas where drain wells are abundant. A much larger number of samples should be collected to provide definitive information regarding the absence or presence of these bacteria.

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U.S. Weather Bureau, 1964, Decennial census of United States climate--climatic summary of the United States--supplement for 1951 through 1960, Idaho: Climatography of the U.S. no. 86-8, 65 p.

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho.
(Chemical constituents in milligrams per liter)
Analyses by: G, U.S. Geological Survey; B, U.S. Bureau of Reclamation (except fecal coliform by U.S. Geological Survey)

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
9N-43E-30cca1	Fremont	130	3-24-70	22.65			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-23-70		-	269	490	-	-	-	-	-	-	-	-	-	-	8.7	-	12	0.03	-	-	-	-	-	G
8N-33E-15dcb1	Jefferson	200	3-27-70	57.75			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-24-70		-	-	1,560	-	11.5	-	-	-	-	-	-	-	-	325	-	16	0	-	-	-	-	-	G
16acb1	Jefferson	-	5-25-70	132.60			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-24-70		221.20	1,740	478	-	14.0	-	-	-	-	-	-	-	-	48	-	6.0	0	-	-	-	-	-	G
			9- 9-70		219.70	1,760	-	-	13.5	-	-	-	-	-	-	-	-	52	-	5.6	.02	-	-	-	-	-	G
			9-10-70		-	-	488	7.8	-	33	55	15	14	5.0	160	0	24	47	0.4	7.1	.01	0	a280	200	0.4	0	B
19dac1	Jefferson	-	4-23-70	235.43			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-24-70		-	1,600	439	-	13.5	-	-	-	-	-	-	-	-	21	-	4.7	0	-	-	-	-	-	G
			9- 9-70		-	1,760	-	-	13.0	-	-	-	-	-	-	-	-	20	-	5.6	.04	-	-	-	-	-	G
			9-10-70		-	-	447	7.8	-	31	48	16	17	4.0	198	0	26	20	.3	5.7	.01	0	a266	185	.6	0	B
20cbc1	Jefferson	350	7-25-70		-	2,560	474	-	12.0	-	-	-	-	-	-	-	-	39	-	5.9	0	-	-	-	-	-	G
21bcd1	Jefferson	-	7-24-70		-	1,480	317	-	13.5	-	-	-	-	-	-	-	-	14	-	2.2	0	-	-	-	-	-	G
28dbd1	Jefferson	232	3-19-58	84.98			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-22-70		-	2,760	1,140	-	-	-	-	-	-	-	-	-	-	177	-	16	0	-	-	-	-	-	G
			9-15-70		-	3,120	-	-	10.5	-	-	-	-	-	-	-	-	161	-	14	.04	-	-	-	-	-	G
			9-15-70		-	3,120	1,120	7.9	-	36	118	35	45	5.0	226	0	112	161	.2	15	0	.04	a638	440	.9	-	B
8N-35E-27dac1	Jefferson	150	3-25-70	39.95			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-27-70		45.05	4,040	285	-	13.0	-	-	-	-	-	-	-	-	12	-	7.7	.03	-	-	-	-	-	G
8N-37E-29cbd1	Fremont	200	3-25-70	122.77			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-27-70		125.17	2,770	260	-	15.0	-	-	-	-	-	-	-	-	6.5	-	4.5	0	-	-	-	-	-	G
7N-33E- 2dbd1	Jefferson	335	3-23-70	57.10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-26-70		-	2,190	435	-	11.0	-	-	-	-	-	-	-	-	27	-	.2	0	-	-	-	-	-	G
13dbd1	Jefferson	285	4- 7-70	35.13			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-22-70		103.80	1,100	290	-	-	-	-	-	-	-	-	-	-	8.0	-	0	.02	-	-	-	-	-	G
15cdc1	Jefferson	600	7-22-70		-	2,240	338	-	14.0	-	-	-	-	-	-	-	-	14	-	1.1	.01	-	-	-	-	-	G
7N-34E- 9abd1	Jefferson	-	4-23-70	3.74			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-26-70		21.69	-	330	-	12.0	-	-	-	-	-	-	-	-	17	-	3.0	.03	-	-	-	-	-	G
			9-15-70		20.75	6,820	-	-	11.0	-	-	-	-	-	-	-	-	14	-	2.5	.05	-	-	-	-	-	G
10cdd1	Jefferson	75	7-26-70		-	3,540	605	-	12.5	-	-	-	-	-	-	-	-	60	-	7.8	.05	-	-	-	-	-	G
			9- 9-70		-	3,280	-	-	11.5	-	-	-	-	-	-	-	-	43	-	6.1	.09	-	-	-	-	-	G
			9-10-70		-	-	523	7.7	-	32	47	16	32	4.0	193	0	26	43	.4	5.5	.03	.01	a301	183	1.0	0	B
7N-36E-10aab1	Jefferson	-	3-26-70	96.19			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-27-70		97.74	-	279	-	12.5	-	-	-	-	-	-	-	-	12	-	4.2	.01	-	-	-	-	-	G

7N-36E-13aaa1	Jefferson	153	5-26-70	65.17			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-26-70		67.80	1,100	287	-	13.5	-	-	-	-	-	-	-	-	10	-	4.1	0	-	-	-	-	-	-	G
			9-10-70		66.05	785	-	-	13.0	-	-	-	-	-	-	-	-	22	-	6.4	.02	-	-	-	-	-	-	G
			9-10-70		66.05	785	353	7.9	-	33	34	10	20	4.0	150	0	13	21	1.0	7.1	.01	0.03	a217	127	0.8	0	B
7N-37E-18cbd1	Jefferson	-	4- 7-70	30.13			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-26-70		34.68	1,150	283	-	13.5	-	-	-	-	-	-	-	-	8.3	-	3.6	0	-	-	-	-	-	-	G
			9-10-70		34.35	987	-	-	13.0	-	-	-	-	-	-	-	-	11	-	4.6	.02	-	-	-	-	-	-	G
6N-35E-32cdd1	Jefferson	-	5-26-70	241.79			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-28-70		-	1,720	474	-	12.0	-	-	-	-	-	-	-	-	37	-	6.1	.03	-	-	-	-	-	-	G
			9- 9-70		-	1,900	-	-	12.0	-	-	-	-	-	-	-	-	32	-	5.1	.04	-	-	-	-	-	-	G
33cda1	Jefferson	400	7-22-70		-	1,150	318	-	13.0	-	-	-	-	-	-	-	-	12	-	3.6	.02	-	-	-	-	-	-	G
			9- 9-70		-	-	-	-	12.0	-	-	-	-	-	-	-	-	13	-	4.3	.06	-	-	-	-	-	-	G
			9-10-70		-	-	333	7.7	-	32	36	10	16	4.0	163	0	9.0	13	.7	4.4	.04	.02	a205	129	.6	0	B
6N-40E-29ccd1	Madison	363	4-21-70	288.65			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-28-70		289.40	1,700	347	-	15.0	-	-	-	-	-	-	-	-	8.8	-	2.3	0	-	-	-	-	-	-	G
			9-15-70		288.40	1,680	-	-	14.5	-	-	-	-	-	-	-	-	9.5	-	2.8	.03	-	-	-	-	-	-	G
31bdb1	Madison	136	4-22-70	103.03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-28-70		101.30	923	345	-	15.5	-	-	-	-	-	-	-	-	10	-	3.0	.02	-	-	-	-	-	-	G
5N-38E- 9dda1	Jefferson	-	7-28-70		-	1,650	516	-	-	-	-	-	-	-	-	-	-	21	-	6.5	.06	-	-	-	-	-	-	G
16ada1	Jefferson	-	4- 8-70	29.48			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-22-70		36.30	957	590	-	-	-	-	-	-	-	-	-	-	39	-	5.1	.03	-	-	-	-	-	-	G
4N-35E-14dbc1	Jefferson	505	3-29-70	439.61			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-20-70		-	1,860	428	-	11.5	-	-	-	-	-	-	-	-	9.4	-	2.4	.02	-	-	-	-	-	-	G
15dba1	Jefferson	495	5-12-70	449.92			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-22-70		-	1,900	274	-	-	-	-	-	-	-	-	-	-	6.8	-	2.3	0	-	-	-	-	-	-	G
			9- 9-70		-	-	276	7.9	-	34	30	8.0	13	4.0	146	0	7.0	6.4	1.0	2.6	.02	.02	a172	109	.6	0	B
4N-36E-14aca1	Jefferson	388	3-29-70	294.40			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-23-70		316.70	1,160	529	-	11.5	-	-	-	-	-	-	-	-	12	-	5.1	.03	-	-	-	-	-	-	G
25dab1	Jefferson	430	7-21-70		-	1,710	486	-	11.5	-	-	-	-	-	-	-	-	12	-	3.4	0	-	-	-	-	-	-	G
27cab1	Jefferson	-	7-23-70		-	1,870	507	-	11.0	-	-	-	-	-	-	-	-	14	-	3.8	.01	-	-	-	-	-	-	G
32cda1	Jefferson	412	5-25-70	340.14			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-23-70		344.20	1,970	507	-	11.0	-	-	-	-	-	-	-	-	14	-	4.8	0	-	-	-	-	-	-	G
34dac1	Jefferson	580	7-23-70		-	2,980	517	-	10.5	-	-	-	-	-	-	-	-	14	-	4.0	0	-	-	-	-	-	-	G
4N-37E-31bbd1	Jefferson	454	7-21-70		-	1,240	494	-	11.5	-	-	-	-	-	-	-	-	12	-	3.5	0	-	-	-	-	-	-	G
35cbd1	Jefferson	220	5-12-70	178.89			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-21-70		166.70	611	480	-	-	-	-	-	-	-	-	-	-	11	-	2.7	0	-	-	-	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
3N-35E- 2bcb1	Bonneville	690	7-17-70		-	4,650	518	-	10.5	-	-	-	-	-	-	-	-	21	-	3.9	.01	-	-	-	-	-	G
14ddc1	Bonneville	-	7-20-70		-	2,950	517	-	10.5	-	-	-	-	-	-	-	-	14	-	4.0	0	-	-	-	-	-	G
3N-36E- 8bad1	Bonneville	470	5-25-70	378.03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-16-70		383.50	1,570	504	-	10.5	-	-	-	-	-	-	-	-	14	-	4.5	0	-	-	-	-	-	G
12bda1	Bonneville	470	3-31-70	429.00			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-16-70		-	2,740	512	-	10.5	-	-	-	-	-	-	-	-	14	-	5.1	.04	-	-	-	-	-	G
14aca1	Bonneville	-	7-16-70		-	2,000	505	-	10.0	-	-	-	-	-	-	-	-	14	-	4.0	0	-	-	-	-	-	G
			9-10-70		-	1,800	-	-	9.5	-	-	-	-	-	-	-	-	12	-	3.8	.04	-	-	-	-	-	G
			9-10-70		-	1,800	512	7.8	-	20	62	17	17	4.0	235	0	47	13	0.4	4.1	.01	0.06	a300	226	0.5	0	B
17adc1	Bonneville	493	4-25-70	369.24			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-14-70		375.70	2,450	500	-	10.5	-	-	-	-	-	-	-	-	15	-	3.3	.01	-	-	-	-	-	G
18bab1	Bonneville	500	4- 1-70	412.48			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-14-70		418.11	2,160	518	-	11.0	-	-	-	-	-	-	-	-	16	-	3.4	0	-	-	-	-	-	G
			9-23-70		-	-	-	-	10.0	-	-	-	-	-	-	-	-	14	-	4.1	.04	-	-	-	-	-	G
19ada1	Bonneville	556	7-17-70		-	1,780	505	-	10.5	-	-	-	-	-	-	-	-	15	-	3.7	.01	-	-	-	-	-	G
			9-10-70		-	1,640	-	-	10.0	-	-	-	-	-	-	-	-	14	-	2.8	.03	-	-	-	-	-	G
			9-10-70		-	1,640	516	7.8	-	20	62	17	17	4.0	234	0	48	13	.4	3.3	.01	.07	a300	225	.5	0	B
20cdb1	Bonneville	-	5-12-70	386.38			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-14-70		396.15	3,460	501	-	10.5	-	-	-	-	-	-	-	-	14	-	3.1	.01	-	-	-	-	-	G
			9-23-70		389.85	3,410	-	-	10.0	-	-	-	-	-	-	-	-	14	-	2.8	.04	-	-	-	-	-	G
3N-37E-18bba1	Bonneville	-	4- 1-70	415.91			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-16-70		-	2,940	500	-	11.0	-	-	-	-	-	-	-	-	13	-	4.5	.02	-	-	-	-	-	G
31dbc1	Bonneville	360	4-25-70	247.42			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-16-70		246.65	2,000	539	-	10.5	-	-	-	-	-	-	-	-	16	-	5.2	0	-	-	-	-	-	G
			9-10-70		233.95	2,040	-	-	10.0	-	-	-	-	-	-	-	-	14	-	4.8	.03	-	-	-	-	-	G
			9-10-70		233.95	2,040	556	7.7	-	20	62	21	21	4.0	259	0	49	15	.4	5.8	.01	.04	a326	239	.6	0	B
2N-36E-13cda1	Bonneville	476	7-14-70		-	1,860	509	-	10.0	-	-	-	-	-	-	-	-	18	-	3.3	0	-	-	-	-	-	G
23daa1	Bonneville	-	4-21-70	209.80			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-14-70		-	1,530	544	-	11.0	-	-	-	-	-	-	-	-	15	-	5.7	0	-	-	-	-	-	G
			9-11-70		-	1,260	-	-	10.0	-	-	-	-	-	-	-	-	13	-	5.7	.02	-	-	-	-	-	G
			9-11-70		-	1,260	563	7.8	-	20	67	20	20	4.0	276	0	44	13	.4	7.0	.02	.03	a331	249	.6	0	B
24bda1	Bonneville	335	4- 2-70	214.80			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-13-70		218.60	731	539	-	11.0	-	-	-	-	-	-	-	-	16	-	5.0	0	-	-	-	-	-	G
			9-16-70		211.30	701	-	-	10.0	-	-	-	-	-	-	-	-	12	-	6.7	.03	-	-	-	-	-	G
2N-39E-30ada1	Bonneville	-	7-16-70		-	939	586	-	20.0	-	-	-	-	-	-	-	-	57	-	2.8	.02	-	-	-	-	-	G
			9- 8-70	204.80			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

1N-31E- 8cdd1	Bingham	720	7-29-70		-	2,980	339	-	12.0	-	-	-	-	-	-	-	-	17	-	3.5	0	-	-	-	-	-	G
1N-33E-26dbc1	Bingham	-	7- 9-70		-	2,440	500	-	10.5	-	-	-	-	-	-	-	-	19	-	3.6	0	-	-	-	-	-	G
1N-35E-16cda1	Bingham	420	4- 9-70	373.34			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-13-70		-	1,440	531	-	11.0	-	-	-	-	-	-	-	-	16	-	5.7	.01	-	-	-	-	-	G
			9- 2-70		-	1,140	-	-	10.0	-	-	-	-	-	-	-	-	15	-	5.2	.02	-	-	-	-	-	G
29cac1	Bingham	413	4- 9-70	312.33			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 8-70		313.65	1,990	575	-	11.0	-	-	-	-	-	-	-	-	16	-	7.0	0	-	-	-	-	-	G
1N-36E-27bad1	Bingham	378	5-27-70	198.41			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-13-70		-	2,090	604	-	-	-	-	-	-	-	-	-	-	20	-	9.5	0	-	-	-	-	-	G
1S-32E-22bbd1	Bingham	410	4-25-70	315.80			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 1-70		318.10	1,230	294	-	13.5	-	-	-	-	-	-	-	-	10	-	2.2	0	-	-	-	-	-	G
			9- 3-70		317.90	1,160	-	-	13.0	-	-	-	-	-	-	-	-	9.1	-	3.1	.02	-	-	-	-	-	G
			9- 8-70		-	-	299	7.8	-	33	29	10	16	4.0	144	0	16	8.5	0.9	2.3	.01	0	a190	113	0.6	0	B
25cdb1	Bingham	338	5-13-70	249.14			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 9-70		-	1,100	501	-	-	-	-	-	-	-	-	-	-	22	-	3.3	.01	-	-	-	-	-	G
1S-33E-11aad1	Bingham	-	7-29-70		-	2,780	511	-	10.5	-	-	-	-	-	-	-	-	19	-	3.2	.01	-	-	-	-	-	G
11bcc1	Bingham	380	7- 1-70		284.75	975	512	-	10.5	-	-	-	-	-	-	-	-	19	-	3.5	0	-	-	-	-	-	G
1S-34E-36ccb1	Bingham	-	5- 2-70	95.15			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 2-70		104.40	1,450	589	-	10.5	-	-	-	-	-	-	-	-	28	-	5.8	.01	-	-	-	-	-	G
			8-28-70		103.56	1,420	-	-	10.0	-	-	-	-	-	-	-	-	34	-	6.8	.04	-	-	-	-	-	G
			9- 9-70		-	-	650	7.7	-	24	72	20	30	6.0	265	0	55	36	.6	5.8	.02	.04	a379	261	.8	0	B
1S-35E- 1cbb1	Bingham	-	5-13-70	214.98			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 8-70		-	1,460	587	-	12.5	-	-	-	-	-	-	-	-	15	-	10	.02	-	-	-	-	-	G
			9- 2-70		-	1,050	-	-	11.0	-	-	-	-	-	-	-	-	15	-	9.6	.04	-	-	-	-	-	G
11aaa1	Bingham	235	4- 9-70	183.57			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 8-70		185.30	590	586	-	12.0	-	-	-	-	-	-	-	-	16	-	7.9	.01	-	-	-	-	-	G
12dcb1	Bingham	292	5-27-70	164.51			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 8-70		165.30	1,850	566	-	-	-	-	-	-	-	-	-	-	18	-	7.0	0	-	-	-	-	-	G
14dda1	Bingham	297	4- 9-70	130.01			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 8-70		143.70	2,300	560	-	11.0	-	-	-	-	-	-	-	-	24	-	5.6	0	-	-	-	-	-	G
			9- 2-70		137.55	1,450	-	-	10.0	-	-	-	-	-	-	-	-	20	-	5.7	.02	-	-	-	-	-	G
22ada1	Bingham	199	4-25-70	63.20			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 8-70		68.40	1,410	572	-	11.0	-	-	-	-	-	-	-	-	24	-	5.7	0	-	-	-	-	-	G
			9- 2-70		66.75	1,170	-	-	10.0	-	-	-	-	-	-	-	-	26	-	6.3	.04	-	-	-	-	-	G
			9- 9-70		-	-	563	7.8	-	23	69	18	24	5.0	264	0	47	25	.7	6.5	.01	0	a348	248	.7	0	B
2S-32E-24dcb1	Bingham	235	7- 9-70		-	2,160	571	-	10.5	-	-	-	-	-	-	-	-	28	-	5.7	.02	-	-	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
2S-32E-35abc1	Bingham	-	4-22-70	146.65			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-25-70		150.00	914	566	-	10.5	-	-	-	-	-	-	-	-	28	-	5.1	0	-	-	-	-	-	G
			9- 1-70		148.65	730	-	-	9.5	-	-	-	-	-	-	-	-	30	-	5.3	0	-	-	-	-	-	G
			9- 8-70		-	-	588	7.8	-	24	65	20	22	6.0	234	0	57	28	0.4	4.8	.01	0.03	a342	245	0.6	0	B
36cab1	Bingham	-	6-25-70		-	1,670	623	-	10.5	-	-	-	-	-	-	-	-	36	-	5.4	.01	-	-	-	-	-	G
2S-33E- 2aba1	Bingham	265	5-13-70	169.98			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-26-70		175.00	1,470	644	-	10.5	-	-	-	-	-	-	-	-	35	-	7.6	0	-	-	-	-	-	G
			9-17-70		176.20	1,440	-	-	9.5	-	-	-	-	-	-	-	-	45	-	7.5	.02	-	-	-	-	-	G
8abc1	Bingham	250	9-17-57	171.43			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 2-70		-	1,880	597	-	10.5	-	-	-	-	-	-	-	-	32	-	5.5	0	-	-	-	-	-	G
			9-22-70		-	2,040	-	-	9.5	-	-	-	-	-	-	-	-	30	-	5.2	.01	-	-	-	-	-	G
8dab1	Bingham	181	4- 7-70	155.44			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-24-70		155.60	1,310	747	-	10.5	-	-	-	-	-	-	-	-	68	-	6.9	0	-	-	-	-	-	G
10bcd1	Bingham	250	4-25-70	154.18			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 9-70		-	832	654	-	10.5	-	-	-	-	-	-	-	-	40	-	8.2	0	-	-	-	-	-	G
10dcb1	Bingham	-	4-25-70	141.05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-25-70		-	910	606	-	-	-	-	-	-	-	-	-	-	26	-	6.4	0	-	-	-	-	-	G
19abc1	Bingham	269	4- 9-70	163.84			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-25-70		-	797	566	-	11.0	-	-	-	-	-	-	-	-	26	-	5.5	0	-	-	-	-	-	G
			9- 3-70		-	976	-	-	10.0	-	-	-	-	-	-	-	-	24	-	5.7	.03	-	-	-	-	-	G
			9- 9-70		-	-	572	7.8	-	25	64	20	22	5.0	243	0	55	24	.4	5.3	.01	.05	a341	244	.6	0	B
27baa1	Bingham	196	4- 8-70	96.98			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-24-70		104.05	1,620	647	-	11.0	-	-	-	-	-	-	-	-	42	-	6.8	0	-	-	-	-	-	G
			8-27-70		106.97	1,610	-	-	10.0	-	-	-	-	-	-	-	-	47	-	8.2	.09	-	-	-	-	-	G
29aca1	Bingham	-	6-25-70		-	1,100	877	-	10.5	-	-	-	-	-	-	-	-	88	-	8.8	0	-	-	-	-	-	G
34bda1	Bingham	200	6-24-70		-	1,700	811	-	11.0	-	-	-	-	-	-	-	-	81	-	7.9	.01	-	-	-	-	-	G
35ccb1	Bingham	150	6-24-70		-	950	1,070	-	11.0	-	-	-	-	-	-	-	-	122	-	11	.01	-	-	-	-	-	G
			8-27-70		-	950	-	-	9.5	-	-	-	-	-	-	-	-	117	-	12	.03	-	-	-	-	-	G
2S-34E- 3acc1	Bingham	100	5-27-70	58.37			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-28-70		-	1,640	602	-	11.0	-	-	-	-	-	-	-	-	29	-	6.1	0	-	-	-	-	-	G
			8-28-70		-	-	-	-	10.0	-	-	-	-	-	-	-	-	33	-	7.0	.04	-	-	-	-	-	G
			9-17-70		70.00	1,510	-	-	10.0	-	-	-	-	-	-	-	-	31	-	7.0	.07	-	-	-	-	-	G
3baa1	Bingham	140	6-23-70		66.75	960	586	-	11.0	-	-	-	-	-	-	-	-	28	-	6.2	0	-	-	-	-	-	G
			9- 2-70		65.80	950	-	-	10.5	-	-	-	-	-	-	-	-	28	-	8.9	.05	-	-	-	-	-	G
			9- 9-70		-	-	614	7.7	-	24	68	19	28	6.0	268	0	48	27	.6	7.6	.01	.05	a360	250	.8	0	B
5ccd1	Bingham	234	4- 7-70	116.62			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-23-70		118.65	1,660	677	-	11.5	-	-	-	-	-	-	-	-	46	-	8.0	.01	-	-	-	-	-	G

2S-34E- 8ccb1	Bingham	150	4- 7-70	67.40			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 9-70		68.95	1,060	763	-	11.0	-	-	-	-	-	-	-	-	68	-	7.9	0	-	-	-	-	-	G
9dbb1	Bingham	160	4-28-70	88.43			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-23-70		94.00	1,510	675	-	11.5	-	-	-	-	-	-	-	-	48	-	6.9	0	-	-	-	-	-	G
			9-17-70		94.00	1,290	-	-	10.5	-	-	-	-	-	-	-	-	51	-	7.0	.07	-	-	-	-	-	G
10cab1	Bingham	125	4-23-70	59.03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-23-70		61.85	1,390	640	-	11.0	-	-	-	-	-	-	-	-	38	-	7.6	0	-	-	-	-	-	G
			9- 2-70		60.70	1,510	-	-	10.0	-	-	-	-	-	-	-	-	48	-	8.4	.08	-	-	-	-	-	G
15bcb1	Bingham	126	5-27-70	51.50			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-24-70		53.20	1,250	701	-	11.0	-	-	-	-	-	-	-	-	44	-	7.3	.01	-	-	-	-	-	G
			9-14-70		52.50	1,300	-	-	10.0	-	-	-	-	-	-	-	-	36	-	3.1	.05	-	-	-	-	-	G
16abc1	Bingham	197	6-23-70		-	2,340	666	-	11.0	-	-	-	-	-	-	-	-	44	-	7.0	0	-	-	-	-	-	G
16ccc1	Bingham	136	6-23-70		-	1,420	596	-	11.0	-	-	-	-	-	-	-	-	31	-	6.8	.01	-	-	-	-	-	G
			9-24-70		-	1,450	-	-	10.5	-	-	-	-	-	-	-	-	30	-	6.2	.07	-	-	-	-	-	G
17dba1		228	4- 7-70	51.22	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-23-70		-	1,480	607	-	11.0	-	-	-	-	-	-	-	-	33	-	6.3	0	-	-	-	-	-	G
			9- 2-70		-	1,620	-	-	10.0	-	-	-	-	-	-	-	-	34	-	6.0	.03	-	-	-	-	-	G
			9- 9-70		-	-	607	7.7	-	24	69	19	29	6.0	266	0	52	33	0.6	7.1	.02	0.06	a371	252	0.8	0	B
17bbd1	Bingham	235	4- 7-70	64.30			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-23-70		63.60	1,130	671	-	11.0	-	-	-	-	-	-	-	-	48	-	6.4	0	-	-	-	-	-	G
20ccd1	Bingham	74	4-22-70	45.05			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-24-70		52.10	459	965	-	11.0	-	-	-	-	-	-	-	-	88	-	11	0	-	-	-	-	-	G
			9- 1-70		52.30	525	-	-	-	-	-	-	-	-	-	-	-	76	-	13	.08	-	-	-	-	-	G
30cbb1	Bingham	161	4- 8-70	59.62			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-24-70		60.50	1,370	734	-	11.0	-	-	-	-	-	-	-	-	58	-	5.9	0	-	-	-	-	-	G
			9- 3-70		59.50	1,320	-	-	10.0	-	-	-	-	-	-	-	-	66	-	8.1	.07	-	-	-	-	-	G
2S-35E- 2dab1	Bingham	292	4- 9-70	85.43			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-15-70		84.75	947	537	-	11.0	-	-	-	-	-	-	-	-	29	-	4.8	.02	-	-	-	-	-	G
			9- 2-70		85.00	822	-	-	10.0	-	-	-	-	-	-	-	-	22	-	4.2	.03	-	-	-	-	-	G
3S-31E-28dab1	Bingham	193	5- 2-70	156.50			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-16-70		154.80	1,400	444	-	11.5	-	-	-	-	-	-	-	-	18	-	2.2	.01	-	-	-	-	-	G
			8-26-70		156.35	1,790	-	-	10.5	-	-	-	-	-	-	-	-	21	-	2.9	.04	-	-	-	-	-	G
3S-32E- 4ddb1	Bingham	211	6-24-70		-	847	536	-	10.5	-	-	-	-	-	-	-	-	24	-	4.3	0	-	-	-	-	-	G
			9- 1-70		-	984	-	-	-	-	-	-	-	-	-	-	-	24	-	4.8	.05	-	-	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
3S-32E- 6dbc1	Bingham	-	7- 1-70		-	1,140	556	-	10.5	-	-	-	-	-	-	-	-	34	-	3.7	0	-	-	-	-	-	G
			9-14-70		-	952	-	-	10.0	-	-	-	-	-	-	-	-	43	-	4.5	.02	-	-	-	-	-	G
8aac1	Bingham	190	4-22-70	128.78			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-25-70		-	1,070	667	-	10.5	-	-	-	-	-	-	-	-	42	-	32	0	-	-	-	-	-	G
9dca1	Bingham	135	6-24-70		-	2,080	780	-	11.0	-	-	-	-	-	-	-	-	80	-	5.6	0	-	-	-	-	-	G
			8-27-70		-	1,980	-	-	9.5	-	-	-	-	-	-	-	-	69	-	6.2	.05	-	-	-	-	-	G
11dac1	Bingham	-	4-22-70	76.31			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 1-70		76.70	1,550	752	-	10.5	-	-	-	-	-	-	-	-	66	-	6.5	0	-	-	-	-	-	G
13aba1	Bingham	135	5- 2-70	78.47			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-24-70		80.75	992	852	-	10.5	-	-	-	-	-	-	-	-	93	-	7.2	0	-	-	-	-	-	G
			8-27-70		80.80	921	-	-	9.5	-	-	-	-	-	-	-	-	126	-	9.2	.07	-	-	-	-	-	G
			9- 4-70		-	-	1,090	7.7	-	24	87	37	75	7.0	264	0	119	127	0.4	10	.02	0.12	a617	369	1.7	0	B
19bda1	Bingham	150	7- 9-70		-	1,160	620	-	-	-	-	-	-	-	-	-	-	46	-	4.7	.01	-	-	-	-	-	G
3S-33E- 6ddb1	Bingham	195	4-22-70	94.70			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 1-70		95.85	932	1,020	-	10.5	-	-	-	-	-	-	-	-	122	-	11	.04	-	-	-	-	-	G
29bba1	Bingham	120	4-21-70	62.71			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 1-70		62.82	649	1,100	-	10.5	-	-	-	-	-	-	-	-	147	-	8.6	.02	-	-	-	-	-	G
			9- 8-70		-	-	1,210	7.8	-	26	96	38	87	8.0	298	0	122	143	.5	12	.03	.15	a679	396	1.9	0	B
3S-34E-30cab1	Bingham	150	5- 2-70	39.40			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 1-70		42.55	636	544	-	12.0	-	-	-	-	-	-	-	-	18	-	5.4	0	-	-	-	-	-	G
			8-27-70		43.50	873	-	-	10.0	-	-	-	-	-	-	-	-	16	-	5.3	.04	-	-	-	-	-	G
			9- 4-70		-	-	562	7.7	-	25	64	18	22	4.0	263	0	40	17	.6	4.4	.01	.05	a325	237	.6	0	B
4S-31E- 5cbc1	Bingham	-	5-26-70	183.83			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-16-70		188.60	1,990	419	-	11.5	-	-	-	-	-	-	-	-	18	-	2.4	0	-	-	-	-	-	G
			8-26-70		189.12	1,810	-	-	10.5	-	-	-	-	-	-	-	-	19	-	2.6	.03	-	-	-	-	-	G
			9- 8-70		-	-	468	7.8	-	30	46	16	23	4.0	185	0	43	23	.7	2.4	.01	.03	a279	178	.8	0	B
11adb1	Bingham	207	6-22-70		-	1,300	587	-	11.0	-	-	-	-	-	-	-	-	31	-	4.4	0	-	-	-	-	-	G
			9- 8-70		-	1,320	-	-	9.5	-	-	-	-	-	-	-	-	32	-	5.7	.05	-	-	-	-	-	G
22ddb1	Bingham	48	6-18-70		-	893	555	-	13.0	-	-	-	-	-	-	-	-	32	-	4.5	0	-	-	-	-	-	G
			8-26-70		-	819	-	-	12.0	-	-	-	-	-	-	-	-	32	-	5.2	.06	-	-	-	-	-	G
			9- 2-70		-	-	586	7.7	-	26	53	22	33	5.0	234	0	54	32	.5	4.2	.03	.07	a345	221	1.0	0	B
4S-33E- 4cdd1	Bingham	102	5-27-70	51.99			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-30-70		55.40	543	733	-	11.0	-	-	-	-	-	-	-	-	58	-	4.8	.01	-	-	-	-	-	G
			8-27-70		54.30	541	-	-	11.0	-	-	-	-	-	-	-	-	48	-	6.8	.11	-	-	-	-	-	G
			9- 4-70		-	-	817	7.6	-	31	65	31	57	7.0	332	0	66	48	.7	6.2	.04	.14	a476	289	1.5	0	B
20dbd1	Bingham	56	4- 8-70	36.39			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 7-70		-	1,080	827	-	12.5	-	-	-	-	-	-	-	-	78	-	7.1	.02	-	-	-	-	-	G

Danielson Creek-	Bingham		4- 2-70			b51.4	696	7.9	-	31	67	24	40	5.6	258	0	74	49	0.6	6.9	-	-	425	-	-	-	G
13069540 cd			9- 5-70			b66.4	631	7.8	12.5	11	59	23	38	6.4	272	0	55	35	.7	3.5	-	-	355	-	-	-	G
Spring Creek-	Bingham		3-20-70			b310	493	7.9	11.0	25	58	16	21	3.9	238	0	38	18	.7	4.2	-	-	302	-	-	-	G
13075980 cd			10- 6-70			b291	494	8.0	11.5	28	60	16	21	3.9	239	0	50	17	.3	1.3	-	-	311	216	-	-	G
4S-34E-11dbd1	Bingham	270	4-21-70	36.72			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 1-70		50.00	2,200	525	-	13.0	-	-	-	-	-	-	-	-	13	-	4.7	0	-	-	-	-	-	G
5S-30E- 8cdc1	Bingham	-	6-16-70		-	2,850	316	-	14.0	-	-	-	-	-	-	-	-	11	-	2.1	0	-	-	-	-	-	G
			8-26-70		-	2,630	-	-	13.0	-	-	-	-	-	-	-	-	13	-	2.3	.03	-	-	-	-	-	G
			9- 2-70		-	-	357	7.9	-	32	32	12	16	3.0	149	0	23	14	.7	2.8	.01	0.05	a208	130	0.6	0	B
10cdb1	Bingham	-	6-16-70		-	2,250	328	-	13.0	-	-	-	-	-	-	-	-	15	-	2.0	0	-	-	-	-	-	G
			8-26-70		-	2,000	-	-	13.0	-	-	-	-	-	-	-	-	19	-	2.7	0	-	-	-	-	-	G
14bbd1	Bingham	180	5- 1-70	134.40			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-18-70		135.45	806	361	-	13.0	-	-	-	-	-	-	-	-	15	-	1.5	.01	-	-	-	-	-	G
			8-26-70		135.60	1,130	-	-	12.0	-	-	-	-	-	-	-	-	14	-	2.1	.02	-	-	-	-	-	G
			9- 2-70		-	-	357	7.8	-	30	37	13	17	4.0	163	0	30	13	.8	2.6	.01	.06	a227	145	.6	0	B
15bac1	Bingham	368	6-23-70		-	898	327	-	13.0	-	-	-	-	-	-	-	-	12	-	1.9	0	-	-	-	-	-	G
			8-26-70		-	903	-	-	12.5	-	-	-	-	-	-	-	-	14	-	2.6	.02	-	-	-	-	-	G
			9- 2-70		-	-	324	7.9	-	30	33	12	17	4.0	155	0	25	13	.8	2.6	.01	.08	a213	133	.6	0	B
15cca1	Bingham	322	5- 1-70	189.70			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 7-70		191.10	1,080	334	-	13.5	-	-	-	-	-	-	-	-	14	-	2.2	0	-	-	-	-	-	G
17ddc1	Bingham	-	5- 2-70	308.65			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 7-70		309.20	1,340	321	-	15.0	-	-	-	-	-	-	-	-	15	-	2.2	0	-	-	-	-	-	G
			8-26-70		310.60	1,210	-	-	14.0	-	-	-	-	-	-	-	-	17	-	3.0	.01	-	-	-	-	-	G
			9- 2-70		-	-	333	7.8	-	32	32	13	18	4.0	150	0	23	16	.7	3.3	.01	.04	a216	134	.7	0	B
22aac1	Bingham	-	5- 1-70	161.62			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-17-70		164.00	1,070	352	-	12.5	-	-	-	-	-	-	-	-	15	-	2.1	.01	-	-	-	-	-	G
			8-20-70		164.20	924	-	-	12.0	-	-	-	-	-	-	-	-	15	-	2.0	0	-	-	-	-	-	G
			9- 2-70		-	-	362	7.7	-	30	36	12	17	3.0	159	0	27	14	.8	2.5	.01	.03	a220	140	.6	0	B
5S-31E- 9acc1	Bingham	200	5- 1-70	61.44			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-16-70		64.70	1,320	826	-	11.5	-	-	-	-	-	-	-	-	60	-	7.4	0	-	-	-	-	-	G
			9- 4-70		64.20	1,300	-	-	11.0	-	-	-	-	-	-	-	-	64	-	8.5	.07	-	-	-	-	-	G
			9- 4-70		64.20	1,300	860	7.7	-	26	64	27	83	6.0	331	0	85	63	.5	7.7	.04	.15	a525	272	2.2	-	B
35dba1	Bingham	200	6-18-70		-	1,070	1,060	-	-	-	-	-	-	-	-	-	-	55	-	11	.22	-	-	-	-	-	G
			9- 2-70		-	-	969	7.7	12.5	32	67	43	79	10	394	0	130	44	.6	10	.08	.15	a610	345	1.8	0	B
Kinney Creek -	Bannock		4-14-70			b20.0	534	8.1	10.0	26	59	18	23	3.6	238	0	45	23	.8	4.3	-	-	320	-	-	-	G
13075970 cd			9- 5-70			b28.5	512	8.0	10.0	13	59	17	22	3.9	236	0	38	24	.8	4.6	-	-	298	-	-	-	G
Wide Creek -	Bannock		4- 2-70			b78.2	493	8.5	10.5	27	50	17	25	4.2	186	6.0	51	27	.7	2.9	-	-	303	-	-	-	G
13075920 cd			9- 5-70			b54.7	477	8.0	11.0	16	56	16	19	3.6	231	0	31	18	.8	4.0	-	-	278	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
6S-13E-12aaa1	Gooding	160	4-20-70	83.04			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 1-70		89.13	1,450	805	-	15.0	-	-	-	-	-	-	-	-	34	-	12	0.16	-	-	-	-	-	G
			8-17-70		85.10	1,500	-	-	13.5	-	-	-	-	-	-	-	-	32	-	11	.23	-	-	-	-	-	G
			8-31-70		-	-	760	7.5	-	37	66	30	55	5.0	342	0	84	29	0.5	11	.08	.12	a485	290	1.4	0	B
Short Creek-13153713[cd]	Gooding		3-18-70			b12.0	718	7.8	14.0	36	70	26	44	4.7	320	0	69	30	.2	9.8	-	-	447	-	-	-	G
			9-21-70			b13.3	692	8.0	14.0	26	70	25	44	5.0	323	0	65	29	.4	10	-	-	433	-	-	-	G
Cove Creek-13152900[cd]	Gooding		4-10-70			b60.0	433	8.0	15.0	33	40	18	24	3.6	209	0	34	14	.4	6.8	-	-	277	-	-	-	G
			9-21-70			b71.5	430	8.0	15.0	23	41	18	22	4.1	215	0	31	14	.4	4.9	-	-	264	-	-	-	G
Birch Creek-13135100[cd]	Gooding		3-29-70			b8.5	364	-	13.0	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	G
6S-14E-18aaa1	Gooding	115	4-12-70	79.44			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 1-70		-	1,740	743	-	15.0	-	-	-	-	-	-	-	-	34	-	10	.12	-	-	-	-	-	G
			8- 4-70		77.93	1,800	-	-	13.5	-	-	-	-	-	-	-	-	30	-	10	.15	-	-	-	-	-	G
			8-31-70		-	-	752	7.6	-	36	72	29	44	5.0	329	0	82	30	.4	11	.05	.05	a471	298	1.1	0	B
6S-15E-30abc1	Gooding	-	4-27-70	253.02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 2-70		254.00	455	366	-	14.0	-	-	-	-	-	-	-	-	10	-	4.7	.03	-	-	-	-	-	G
			8- 4-70		247.29	511	-	-	14.0	-	-	-	-	-	-	-	-	6.5	-	3.1	0	-	-	-	-	-	G
6S-18E-21dca1	Lincoln	235	5-11-70	148.43			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 2-70		151.70	2,080	452	-	15.5	-	-	-	-	-	-	-	-	15	-	5.4	.18	-	-	-	-	-	G
			9- 1-70		-	-	521	7.7	-	32	54	21	22	4.0	245	0	43	16	.6	5.1	.13	.06	a319	218	.6	0	B
6S-24E-31cda1	Minidoka	350	6-10-70		-	1,380	357	-	13.5	-	-	-	-	-	-	-	-	18	-	1.9	0	-	-	-	-	-	G
33ccd1	Minidoka	350	10-29-53	254.97			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 9-70		-	1,370	339	-	13.0	-	-	-	-	-	-	-	-	15	-	1.3	0	-	-	-	-	-	G
			8-18-70		-	853	-	-	13.5	-	-	-	-	-	-	-	-	14	-	1.3	0	-	-	-	-	-	G
33ddb1	Minidoka	318	4-11-70	239.66			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-30-70		241.10	953	349	-	13.5	-	-	-	-	-	-	-	-	14	-	1.4	0	-	-	-	-	-	G
			8-18-70		243.25	967	-	-	12.5	-	-	-	-	-	-	-	-	14	-	1.0	0	-	-	-	-	-	G
6S-30E-11bda1	Bingham	252	6-17-70		-	994	490	-	11.5	-	-	-	-	-	-	-	-	28	-	2.5	.01	-	-	-	-	-	G
			8-25-70		-	1,090	-	-	10.5	-	-	-	-	-	-	-	-	26	-	3.2	.03	-	-	-	-	-	G
			9- 2-70		-	-	495	7.8	-	28	51	18	21	4.0	193	0	53	25	.5	3.1	.01	.05	a299	199	.6	0	B
13aca1	Bingham	127	5- 1-70	96.40			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-17-70		-	1,420	650	-	11.5	-	-	-	-	-	-	-	-	46	-	5.0	0	-	-	-	-	-	G
			8-20-70		109.50	1,420	-	-	-	-	-	-	-	-	-	-	-	44	-	5.8	0	-	-	-	-	-	G
21cac1	Bingham	345	6-17-70		-	789	408	-	12.0	-	-	-	-	-	-	-	-	20	-	2.1	0	-	-	-	-	-	G
			8-25-70		-	886	-	-	11.5	-	-	-	-	-	-	-	-	19		2.3	.01	-	-	-	-	-	G
			9- 3-70		-	-	412	7.7	-	28	42	15	18	4.0	170	0	35	19	.7	2.1	0	.06	a248	166	.6	0	B

6S-30E-23dca1	Bingham	195	6-17-70		-	1,060	628	-	11.0	-	-	-	-	-	-	-	-	45	-	4.9	0	-	-	-	-	-	G
			9- 3-70		-	-	646	7.9	-	26	64	22	33	6.0	231	0	63	43	0.4	4.2	.02	0.10	a376	248	0.9	8	B
			9- 4-70		-	1,060	-	-	10.0	-	-	-	-	-	-	-	-	45	-	4.8	.06	-	-	-	-	-	G
24aba1	Bingham	134	5- 1-70	90.54			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-22-70		-	554	679	-	11.5	-	-	-	-	-	-	-	-	44	-	6.4	0	-	-	-	-	-	G
			8-20-70		-	553	-	-	11.0	-	-	-	-	-	-	-	-	43	-	8.1	.02	-	-	-	-	-	G
33bab1	Power	242	6-17-70		-	1,100	529	-	11.5	-	-	-	-	-	-	-	-	32	-	2.8	0	-	-	-	-	-	G
			8-25-70		-	1,450	-	-	10.5	-	-	-	-	-	-	-	-	33	-	3.2	.02	-	-	-	-	-	G
			9- 3-70		-	-	521	7.6	-	26	56	19	22	4.0	199	0	52	30	.5	2.4	.01	.08	a310	216	.7	0	B
34dbd1	Power	225	6-22-70		-	1,060	636	-	11.0	-	-	-	-	-	-	-	-	45	-	4.8	0	-	-	-	-	-	G
			8-20-70		-	1,010	-	-	10.5	-	-	-	-	-	-	-	-	45	-	5.9	.05	-	-	-	-	-	G
			9- 3-70		-	-	680	7.7	-	25	64	22	35	6.0	237	0	65	43	.4	5.1	.02	.11	a383	250	1.0	0	B
35adb1	Power	-	6-22-70		-	859	712	-	-	-	-	-	-	-	-	-	-	44	-	7.7	0	-	-	-	-	-	G
			8-20-70		-	883	-	-	11.0	-	-	-	-	-	-	-	-	50	-	9.1	.11	-	-	-	-	-	G
			9- 3-70		-	-	756	7.7	-	26	69	24	53	5.0	281	0	79	48	.4	8.2	.02	.13	a451	270	1.6	-	B
6S-31E-18cdb1	Bingham	-	5- 1-70	95.52			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-18-70		102.90	725	705	0	11.5	-	-	-	-	-	-	-	-	36	-	8.3	0	-	-	-	-	-	G
			8-25-70		103.80	725	-	-	10.5	-	-	-	-	-	-	-	-	29	-	8.7	.03	-	-	-	-	-	G
Batise Springs - 13075810[c]	Bannock		6-10-70			b45.9	969	7.2	14.5	42	98	34	61	12	302	0	172	60	.5	15	-	-	644	-	-	-	G
			10- 6-70			b32.3	791	7.5	14.0	45	76	27	52	10	264	0	114	50	.5	3.3	-	-	512	300	-	-	G
7S-14E-34baa2	Gooding	176	6- 2-70		114.72	426	362	-	15.0	-	-	-	-	-	-	-	-	12	-	2.6	0	-	-	-	-	-	G
			8- 4-70		111.43	413	-	-	15.0	-	-	-	-	-	-	-	-	12	-	2.7	.02	-	-	-	-	-	G
			8-31-70		-	-	384	7.8	-	32	34	17	19	5.0	182	0	28	11	.4	2.2	.01	.08	a239	156	.7	0	B
Billingsley Creek - 13134600[cd]	Gooding		3-29-70			b45.4	451	-	13.5	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	G
7S-14E-34cad1	Gooding	180	6- 1-70		-	700	368	-	16.0	-	-	-	-	-	-	-	-	14	-	3.2	.04	-	-	-	-	-	G
			8- 4-70		-	760	-	-	-	-	-	-	-	-	-	-	-	14	-	3.1	.04	-	-	-	-	-	G
			8-31-70		-	-	421	7.7	-	32	37	18	21	4.0	197	0	30	12	.4	2.6	.02	.06	a254	166	.7	0	B
7S-17E- 4cab1	Jerome	439	6- 2-70		-	1,230	315	-	15.5	-	-	-	-	-	-	-	-	10	-	2.2	.02	-	-	-	-	-	G
			8- 3-70		-	1,356	-	-	15.0	-	-	-	-	-	-	-	-	8.7	-	1.4	.04	-	-	-	-	-	G
5ccd1	Jerome	409	5-20-70		344.00	-	-	-	15.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 2-70		344.55	1,920	315	-	15.5	-	-	-	-	-	-	-	-	11	-	2.1	.01	-	-	-	-	-	G
			8- 5-70		344.00	1,940	-	-	-	-	-	-	-	-	-	-	-	10	-	1.6	0	-	-	-	-	-	G
7S-22E-17dcd1	Lincoln	-	4-11-70	236.14			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-11-70		239.50	750	543	-	13.0	-	-	-	-	-	-	-	-	52	-	4.0	0	-	-	-	-	-	G
			8-18-70		242.30	731	-	-	12.5	-	-	-	-	-	-	-	-	41	-	2.4	.01	-	-	-	-	-	G
20cdd1	Lincoln	-	4-11-70	245.93			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-11-70		251.10	2,020	653	-	13.0	-	-	-	-	-	-	-	-	72	-	4.7	.03	-	-	-	-	-	G
			8-18-70		-	1,840	-	-	11.5	-	-	-	-	-	-	-	-	65	-	3.7	.10	-	-	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
7S-23E-21bca1	Lincoln	-	6- 8-70		267.70	2,360	616	-	13.0	-	-	-	-	-	-	-	-	64	-	4.4	0.01	-	-	-	-	-	G
			8-31-70		265.70	2,390	-	-	11.5	-	-	-	-	-	-	-	-	56	-	4.4	.02	-	-	-	-	-	G
21ddc1	Lincoln	-	4-11-70	243.65			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 8-70		-	2,300	599	-	13.0	-	-	-	-	-	-	-	-	62	-	4.0	0	-	-	-	-	-	G
			8-18-70		-	2,360	-	-	11.5	-	-	-	-	-	-	-	-	57	-	4.2	.06	-	-	-	-	-	G
23dac1	Minidoka	510	4-26-70	301.23			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 9-70		-	4,110	534	-	13.0	-	-	-	-	-	-	-	-	49	-	3.1	0	-	-	-	-	-	G
			8-21-70		-	4,440	-	-	12.0	-	-	-	-	-	-	-	-	47	-	3.1	0	-	-	-	-	-	G
26cdb1	Minidoka	450	6- 8-70		-	4,600	811	-	13.0	-	-	-	-	-	-	-	-	100	-	5.6	0	-	-	-	-	-	G
			8-17-70		-	4,500	-	-	12.5	-	-	-	-	-	-	-	-	74	-	4.3	.03	-	-	-	-	-	G
7S-24E- 1ddb1	Minidoka	332	4-27-70	218.10			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G
			6-10-70		220.55	652	340	-	13.5	-	-	-	-	-	-	-	-	16	-	1.3	0	-	-	-	-	-	G
5dda1	Minidoka	411	4-26-70	323.48			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-11-70		-	1,670	381	-	-	-	-	-	-	-	-	-	-	25	-	2.0	0	-	-	-	-	-	G
			8-18-70		-	1,690	-	-	-	-	-	-	-	-	-	-	-	24	-	.7	.01	-	-	-	-	-	G
13adc1	Minidoka	260	4-16-70	193.28			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-11-70		197.30	3,210	423	-	13.0	-	-	-	-	-	-	-	-	34	-	2.4	0	-	-	-	-	-	G
			9-21-70		197.70	3,020	-	-	12.5	-	-	-	-	-	-	-	-	32	-	2.4	0	-	-	-	-	-	G
18dac1	Minidoka	390	4-11-70	275.00			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-10-70		282.85	950	441	-	13.5	-	-	-	-	-	-	-	-	36	-	2.9	0	-	-	-	-	-	G
22bca1	Minidoka	329	4-11-70	210.02			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-30-70		212.20	925	442	-	13.5	-	-	-	-	-	-	-	-	34	-	2.6	0	-	-	-	-	-	G
			8-18-70		214.75	920	-	-	13.5	-	-	-	-	-	-	-	-	33	-	2.6	0	-	-	-	-	-	G
22db1	Minidoka	257	8-19-70		-	-	-	-	12.5	-	-	-	-	-	-	-	-	44	-	3.8	.02	-	-	-	-	-	G
26cb1	Minidoka	290	8-19-70		-	-	-	-	12.0	-	-	-	-	-	-	-	-	92	-	5.7	.03	-	-	-	-	-	G
31ac1	Minidoka	366	8-19-70		-	-	-	-	12.0	-	-	-	-	-	-	-	-	86	-	5.4	0	-	-	-	-	-	G
7S-25E-16cda1	Minidoka	340	5- 3-70	250.18			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-18-70		-	1,500	333	-	13.0	-	-	-	-	-	-	-	-	14	-	1.5	0	-	-	-	-	-	G
			8-18-70		-	1,400	-	-	13.5	-	-	-	-	-	-	-	-	13	-	1.8	.01	-	-	-	-	-	G
18cda1	Minidoka	-	5-26-70	261.96			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-10-70		264.70	1,910	402	-	13.0	-	-	-	-	-	-	-	-	29	-	2.3	0	-	-	-	-	-	G
			8-17-70		266.20	1,840	-	-	12.5	-	-	-	-	-	-	-	-	24	-	2.8	.03	-	-	-	-	-	G
19aad1	Minidoka	350	6-10-70		-	1,420	430	-	13.5	-	-	-	-	-	-	-	-	34	-	2.9	0	-	-	-	-	-	G
			8-24-70		-	1,260	-	-	12.5	-	-	-	-	-	-	-	-	28	-	3.0	.02	-	-	-	-	-	G
21bbc1	Minidoka	357	6- 9-70		272.20	1,030	366	-	13.0	-	-	-	-	-	-	-	-	22	-	2.0	0	-	-	-	-	-	G
			8-17-70		273.05	1,240	-	-	12.5	-	-	-	-	-	-	-	-	20	-	2.6	0	-	-	-	-	-	G
26bac1	Minidoka	280	6-30-70		-	1,860	346	-	12.5	-	-	-	-	-	-	-	-	16	-	2.2	0	-	-	-	-	-	G
			9-18-70		-	1,700	-	-	12.5	-	-	-	-	-	-	-	-	16	-	2.0	.03	-	-	-	-	-	G
27dc1	Minidoka	350	8-19-70		-	-	-	-	13.5	-	-	-	-	-	-	-	-	22	-	2.5	.08	-	-	-	-	-	G

7S-25E-30abb1	Minidoka	284	4-11-70	220.56			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-29-70		-	1,000	395	-	13.5	-	-	-	-	-	-	-	-	25	-	2.1	0	-	-	-	-	-	G
			8-24-70		-	1,050	-	-	12.5	-	-	-	-	-	-	-	-	28	-	2.8	.01	-	-	-	-	-	G
7S-29E-16cad1	Power	251	4-29-70	226.48			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7-15-70		229.60	1,580	443	-	11.5	-	-	-	-	-	-	-	-	22	-	2.3	0	-	-	-	-	-	G
			8-25-70		229.35	1,130	-	-	11.0	-	-	-	-	-	-	-	-	22	-	2.4	.02	-	-	-	-	-	G
7S-30E- 5bda1	Power	251	6-22-70		-	1,910	525	-	11.5	-	-	-	-	-	-	-	-	32	-	2.3	0	-	-	-	-	-	G
			8-20-70		-	2,120	-	-	10.0	-	-	-	-	-	-	-	-	30	-	3.1	.03	-	-	-	-	-	G
			9- 3-70		-	-	537	7.7	-	27	55	19	22	5.0	201	0	56	30	0.5	2.2	.01	0.08	a316	216	0.7	0	B
6dcd1	Power	232	4-30-70	162.74			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-18-70		-	1,000	511	-	11.5	-	-	-	-	-	-	-	-	30	-	2.9	0	-	-	-	-	-	G
			9- 3-70		-	-	518	7.9	-	26	53	18	21	4.0	193	0	52	28	.5	2.2	.01	.06	a300	205	.6	-	B
			9- 4-70		-	-	-	-	10.5	-	-	-	-	-	-	-	-	30	-	2.8	.03	-	-	-	-	-	G
10bdb1	Power	-	7-15-70		-	1,080	737	-	11.0	-	-	-	-	-	-	-	-	65	-	6.8	0	-	-	-	-	-	G
			8-25-70		-	842	-	-	10.5	-	-	-	-	-	-	-	-	63	-	6.8	.04	-	-	-	-	-	G
			9- 3-70		-	-	724	7.7	-	26	69	24	43	6.0	246	0	73	60	.4	6.2	.01	.11	a429	270	1.1	-	B
20acd1	Power	350	4-30-70	232.44			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-16-70		242.40	686	637	-	11.5	-	-	-	-	-	-	-	-	44	-	4.5	0	-	-	-	-	-	G
			8-25-70		243.75	429	-	-	11.0	-	-	-	-	-	-	-	-	55	-	4.8	.05	-	-	-	-	-	G
Reuger Springs- 13076600[c]	Power		4- 1-70			b20.0	747	7.8	12.5	36	74	25	43	5.9	238	0	85	67	.4	4.6	-	-	458	-	-	-	G
			9- 4-70			b20.5	735	7.4	14.0	10	70	25	42	6.6	241	0	78	66	.4	8.8	-	-	426	-	-	-	G
7S-30E-25dad1	Power	200	4-28-70	71.25			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-26-70		79.50	1,070	897	-	13.0	-	-	-	-	-	-	-	-	91	-	2.4	0	-	-	-	-	-	G
			8-20-70		80.50	1,060	-	-	12.0	-	-	-	-	-	-	-	-	88	-	1.4	.02	-	-	-	-	-	G
			9- 3-70		-	-	898	7.5	-	34	92	31	41	7.0	231	0	134	86	.4	3.2	.02	.07	a543	357	.9	0	B
Riley Creek- 13134300[cd]	Gooding		3-30-70			b60.7	337	-	14.5	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	G
Bickle Springs- 13132790[c]	Gooding		3-30-70			b20.0	339	8.0	15.0	33	29	15	17	3.6	162	0	24	12	.4	2.9	-	-	217	-	-	-	G
			9-21-70			b18.0	358	8.0	15.0	24	32	15	18	3.9	177	0	23	10	.4	3.1	-	-	217	-	-	-	G
Thousand Springs- 13132800[c]	Gooding		3-25-70			b1,200	412	-	13.0	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	G
8S-14E-16acc1	Gooding	127	5-19-70		64.30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70		63.80	1,360	399	-	16.0	-	-	-	-	-	-	-	-	17	-	3.1	0	-	-	-	-	-	G
Sand Spring- 13132600[c]	Gooding		3-26-70			b85.6	402	-	14.0	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	G
8S-14E-26dcc1	Gooding	-	7- 6-70		64.30	1,200	400	-	15.0	-	-	-	-	-	-	-	-	18	-	2.2	0	-	-	-	-	-	G
			8- 4-70		62.98	1,180	-	-	14.0	-	-	-	-	-	-	-	-	18	-	2.0	.04	-	-	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
Box Canyon Springs-13095500[c]	Gooding		4-15-70			b431	405	8.0	16.0	33	35	16	22	3.7	172	0	36	18	0.6	3.3	-	-	253	-	-	-	G
			9-17-70			b416	408	8.1	14.0	23	36	17	22	4.0	187	0	32	18	.6	3.7	-	-	248	-	-	-	G
Box Canyon Springs-13095600[c]	Gooding		3-25-70			-	399	-	13.5	-	-	-	-	-	-	-	-	18	-	-	-	-	-	-	-	-	G
Blind Canyon Spring-13095400[c]	Gooding		3-24-70			b11.7	410	-	13.5	-	-	-	-	-	-	-	-	18	-	1.9	-	-	-	-	-	-	G
Unnamed Spring-1309535[c]	Gooding		3-24-70			b4.2	412	-	13.5	-	-	-	-	-	-	-	-	19	-	2.6	-	-	-	-	-	-	G
Banbury Spring-13095300[c]	Gooding		3-24-70			b120	412	-	13.0	-	-	-	-	-	-	-	-	19	-	2.5	-	-	-	-	-	-	G
8S-18E-35aaa1	Jerome	325	5-20-70		229.39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 4-70		228.90	1,110	567	-	-	-	-	-	-	-	-	-	-	46	-	3.9	0	-	-	-	-	-	G
			8- 5-70		224.25	1,160	-	-	-	-	-	-	-	-	-	-	-	46	-	3.5	.01	-	-	-	-	-	G
			9- 1-70		-	-	602	7.9	-	32	57	21	30	5.0	204	0	62	43	.5	3.1	.01	0.05	a354	226	0.9	0	B
8S-21E-36dad1	Jerome	389	4-10-70	296.41			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 9-70		304.70	2,700	981	-	14.0	-	-	-	-	-	-	-	-	116	-	12	0	-	-	-	-	-	G
			8-25-70		309.70	2,860	-	-	13.5	-	-	-	-	-	-	-	-	112	-	13	.06	-	-	-	-	-	G
8S-22E- 1cbb1	Minidoka	375	6- 8-70		-	1,900	918	-	13.5	-	-	-	-	-	-	-	-	118	-	6.8	0	-	-	-	-	-	G
			8-19-70		-	1,850	-	-	13.0	-	-	-	-	-	-	-	-	113	-	7.0	.09	-	-	-	-	-	G
13dbc1	Minidoka	402	4-16-70	292.15			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-19-70		-	2,980	984	-	14.0	-	-	-	-	-	-	-	-	114	-	11	0	-	-	-	-	-	G
			8-31-70		-	2,950	-	-	14.0	-	-	-	-	-	-	-	-	118	-	13	.02	-	-	-	-	-	G
14dbd1	Minidoka	490	4-10-70	354.65			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			7- 6-70		358.23	1,760	923	-	-	-	-	-	-	-	-	-	-	104	-	10	0	-	-	-	-	-	G
			9-21-70		360.73	1,830	-	-	13.0	-	-	-	-	-	-	-	-	100	-	9.6	0	-	-	-	-	-	G
-30cb1	Minidoka	516	8-19-70		-	-	-	-	13.0	-	-	-	-	-	-	-	-	107	-	8.5	.01	-	-	-	-	-	G
36baa1	Minidoka	278	6- 5-70		142.72	2,560	1,040	-	14.5	-	-	-	-	-	-	-	-	126	-	18	0	-	-	-	-	-	G
			8- 7-70		138.79	2,490	-	-	14.0	-	-	-	-	-	-	-	-	126	-	17	.01	-	-	-	-	-	G
8S-23E-17ba1	Minidoka	302	8-19-70		-	-	-	-	13.0	-	-	-	-	-	-	-	-	134	-	9.8	.01	-	-	-	-	-	G
17ccc1	Minidoka	289	6-18-70		-	1,030	1,110	-	14.0	-	-	-	-	-	-	-	-	140	-	11	.01	-	-	-	-	-	G
			9-21-70		-	1,060	-	-	13.5	-	-	-	-	-	-	-	-	134	-	14	.04	-	-	-	-	-	G
18dcb1	Minidoka	330	5-25-70	268.19			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 5-70		-	1,830	1,030	-	14.5	-	-	-	-	-	-	-	-	128	-	12	.01	-	-	-	-	-	G
			8-19-70		261.75	2,020	-	-	13.5	-	-	-	-	-	-	-	-	126	-	14	.10	-	-	-	-	-	G

8S-23E-27cd1	Minidoka	229	8-19-70		-	-	-	-	14.0	-	-	-	-	-	-	-	-	75	-	18	0.10	-	-	-	-	-	G
35cc1	Minidoka	298	8-19-70		-	-	-	-	14.0	-	-	-	-	-	-	-	-	35	-	14	.04	-	-	-	-	-	G
8S-24E-30bd1	Minidoka	207	8-19-70		-	-	-	-	14.5	-	-	-	-	-	-	-	-	39	-	12	.04	-	-	-	-	-	G
8S-25E- 3abb1	Minidoka	290	4-27-70	217.80			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-10-70		220.30	580	680	-	12.5	-	-	-	-	-	-	-	-	88	-	4.2	0	-	-	-	-	-	G
			8-17-70		221.00	580	-	-	12.0	-	-	-	-	-	-	-	-	80	-	4.5	.05	-	-	-	-	-	G
3da1	Minidoka	304	8-19-70		-	-	-	-	12.0	-	-	-	-	-	-	-	-	22	-	2.1	.03	-	-	-	-	-	G
14ca1	Minidoka	258	8-19-70		-	-	-	-	13.5	-	-	-	-	-	-	-	-	43	-	1.2	.02	-	-	-	-	-	G
8S-26E-12bcb1	Blaine	497	10-11-54	221.54			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-11-70		-	1,960	1,020	-	12.0	-	-	-	-	-	-	-	-	162	-	9.0	0	-	-	-	-	-	G
			8-18-70		-	1,970	863	-	11.5	-	-	-	-	-	-	-	-	129	-	6.4	0	-	-	-	-	-	G
Clear Lakes Spring-13094480[c]	Gooding		3-13-70			-	540	-	13.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G
Clear Lakes Spring-13094300[c]	Gooding		3-26-70			-	424	-	13.5	-	-	-	-	-	-	-	-	21	-	2.8	-	-	-	-	-	-	G
Briggs Springs-13095175[c]	Gooding		3-26-70			b108	429	7.8	14.0	34	38	18	22	3.9	182	0	39	20	0.5	3.4	-	-	269	-	-	-	G
			9-21-70			b138	473	8.0	14.0	26	44	20	24	4.3	216	0	37	21	.7	4.3	-	-	287	-	-	-	G
Niagara Springs-13093689[c]	Gooding		3-13-70			-	526	-	13.5	-	-	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	G
Crystal Springs-13093398[c]	Gooding		3-27-70			b17.3	594	8.2	14.5	36	21	24	34	4.8	236	0	55	37	.5	6.7	-	-	365	-	-	-	G
			9-21-70			b25.4	609	8.1	13.5	26	55	23	34	5.2	253	0	47	39	.6	7.0	-	-	363	-	-	-	G
Crystal Springs-13093396[c]	Gooding		3-13-70			-	630	-	13.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G
Crystal Springs-13093391[c]	Gooding		3-13-70			-	705	-	14.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	G
9S-16E- 9cca1	Jerome	300	8- 4-70		-	900	-	-	15.0	-	-	-	-	-	-	-	-	38	-	7.3	.02	-	-	-	-	-	G
Ellisons Springs-13093300[c]	Jerome		3-28-70			b2.1	656	-	13.5	-	-	-	-	-	-	-	-	38	-	8.4	-	-	-	-	-	-	G
Blue Lakes Spring-13091000[c]	Jerome		5- 6-70			b204	612	8.0	15.5	38	56	20	38	6.3	234	0	56	42	.4	7.5	-	-	379	-	-	-	G
			9-16-70			b217	604	7.9	14.5	27	57	21	36	7.0	238	0	53	44	.4	7.7	-	-	370	-	-	-	G
Warm Creek-13091700[cd]	Jerome		3-28-70			b16.7	594	-	14.5	-	-	-	-	-	-	-	-	44	-	4.7	-	-	-	-	-	-	G
Unnamed Spring No. 2-13090350[c]	Jerome		3-23-70			b4.3	612	-	17.0	-	-	-	-	-	-	-	-	43	-	6.6	-	-	-	-	-	-	G

Table 2. Chemical analyses of ground water from selected irrigation wells and springs, Snake Plain aquifer, southeastern Idaho--Continued.

Well or spring identification number	County	Reported well depth below land surface (feet)	Date of collection	Static water level below land surface (feet)	Pumping water level below land surface (feet)	Discharge (gpm)	Specific conductance (micromhos at 25° C)	pH	Temperature (° C)	Silica (SiO_2)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Bicarbonate (HCO_3)	Carbonate (CO_3)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Nitrate (NO_3)	Orthophosphate (PO_4)	Boron (B)	Dissolved solids (calculated)	Total hardness as $CaCO_3$	Sodium-adsorption-ratio (SAR)	Fecal coliform	Analysis by
Unnamed Spring No. 1-13090300[c]	Jerome		3-23-70			b1.8	608	-	15.5	-	-	-	-	-	-	-	-	41	-	6.3	-	-	-	-	-	-	G
Devils Corral Springs-13090099[c]	Jerome		3-23-70			b7.4	613	-	14.5	-	-	-	-	-	-	-	-	42	-	7.7	-	-	-	-	-	-	G
Devils Corral Springs-13090098[c]	Jerome		3-23-70			b44.3	647	-	15.5	-	-	-	-	-	-	-	-	42	-	7.5	-	-	-	-	-	-	G
9S-21E-18dba1	Jerome	340	5-18-70	302.44			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 4-70		305.25	1,390	878	-	14.5	-	-	-	-	-	-	-	-	96	-	18	0.02	-	-	-	-	-	G
			8- 6-70		301.86	1,380	-	-	13.5	-	-	-	-	-	-	-	-	91	-	14	.03	-	-	-	-	-	G
9S-22E- 4cca1	Minidoka	330	4-15-70	252.51			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 9-70		255.10	623	842	-	14.0	-	-	-	-	-	-	-	-	62	-	18	0	-	-	-	-	-	G
			8-24-70		258.10	670	-	-	13.5	-	-	-	-	-	-	-	-	55	-	18	.04	-	-	-	-	-	G
6add1	Minidoka	400	6- 5-70		307.20	2,330	843	-	14.5	-	-	-	-	-	-	-	-	75	-	17	0	-	-	-	-	-	G
			8- 7-70		313.45	2,140	-	-	-	-	-	-	-	-	-	-	-	86	-	15	.04	-	-	-	-	-	G
Devils Washbowl Spring-13089500[c]	Jerome		3-28-70			b15.7	682	8.1	14.0	43	56	24	43	7.3	262	0	69	44	0.3	9.1	-	-	430	-	-	-	G
			9-22-70			b17.5	678	8.2	14.0	26	58	24	50	7.5	282	0	63	42	.4	12	-	-	422	-	-	-	G
10S-20E- 9dab1	Jerome	-	6- 3-70		-	1,300	652	-	16.0	-	-	-	-	-	-	-	-	42	-	7.9	.01	-	-	-	-	-	G
			9- 1-70		-	-	639	7.7	-	42	48	24	51	8.0	246	0	66	36	.4	6.2	.01	0.14	a396	218	1.5	0	B
10adc1	Jerome	427	5-13-70	368.08			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70		-	1,390	630	-	16.0	-	-	-	-	-	-	-	-	38	-	7.4	.01	-	-	-	-	-	G
			8- 6-70		-	1,580	-	-	-	-	-	-	-	-	-	-	-	38	-	6.2	.05	-	-	-	-	-	G
			9- 1-70		-	-	546	7.9	-	42	49	23	51	7.0	248	0	63	36	.4	6.6	.02	.11	a400	217	1.5	-	B
13bcc2	Jerome	390	5-20-70	353.52			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70		355.50	876	519	-	16.5	-	-	-	-	-	-	-	-	31	-	2.2	0	-	-	-	-	-	G
			8- 6-70		351.17	893	-	-	15.5	-	-	-	-	-	-	-	-	27	-	1.0	.03	-	-	-	-	-	G
			9- 1-70		-	-	505	7.7	-	38	40	21	31	6.0	206	0	49	25	.6	1.8	.01	.07	a313	188	1.0	0	B
14bdd1	Jerome	420	10- 6-53	371.03			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6-19-70		-	520	578	-	15.5	-	-	-	-	-	-	-	-	40	-	3.0	0	-	-	-	-	-	G
			8- 5-70		-	540	-	-	-	-	-	-	-	-	-	-	-	33	-	2.4	.04	-	-	-	-	-	G
			9- 1-70		-	-	548	7.8	-	38	41	22	35	7.0	212	0	56	30	.6	2.9	.01	.08	a337	196	1.1	-	B
17cdd1	Jerome	535	5-20-70	377.27			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70		-	1,240	656	-	17.0	-	-	-	-	-	-	-	-	51	-	7.4	.01	-	-	-	-	-	G
			8- 6-70		-	1,230	-	-	16.0	-	-	-	-	-	-	-	-	46	-	5.7	.03	-	-	-	-	-	G
			9- 1-70		-	-	631	7.7	-	41	55	21	45	8.0	226	0	72	44	.3	6.2	.03	.10	a403	224	1.3	-	B

10S-20E-22baa1	Jerome	510	5-20-70	376.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70	371.60	1,830	767	-	15.5	-	-	-	-	-	-	-	-	63	-	7.7	0.01	-	-	-	-	-	-	G
			8- 6-70	372.83	1,770	-	-	15.0	-	-	-	-	-	-	-	-	58	-	5.0	.01	-	-	-	-	-	-	G
			9- 1-70	-	-	715	7.8	-	34	53	25	53	8.0	235	0	79	54	0.4	6.0	.02	0.10	a428	236	1.5	0	-	B
23cbb	Jerome	405	9-13-52	337.08			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70		1,670	748	-	15.5	-	-	-	-	-	-	-	-	59	-	6.2	.01	-	-	-	-	-	-	G
			8-21-70	-	1,710	-	-	14.5	-	-	-	-	-	-	-	-	54	-	6.3	.02	-	-	-	-	-	-	G
23ccb1	Jerome	397	10-23-53	305.38			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 4-70	-	2,270	815	-	-	-	-	-	-	-	-	-	-	82	-	9.2	0	-	-	-	-	-	-	G
			8- 6-70	-	2,050	-	-	-	-	-	-	-	-	-	-	-	60	-	6.8	.01	-	-	-	-	-	-	G
			9- 1-70	-	-	769	8.0	-	34	56	29	60	8.0	263	0	82	57	.4	6.8	.02	.08	a463	259	1.6	-	-	B
29dda1	Jerome	395	9-15-53	331.98			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6- 3-70	-	1,360	926	-	18.0	-	-	-	-	-	-	-	-	88	-	16	.01	-	-	-	-	-	-	G
			8- 6-70	-	1,280	-	-	17.0	-	-	-	-	-	-	-	-	95	-	17	.02	-	-	-	-	-	-	G
			9- 1-70	-	-	986	7.7	-	42	94	37	60	9.0	229	0	171	96	.2	18	.01	0	a640	385	1.3	0	-	B

a Dissolved solids calculated by U.S. Geological Survey using U.S. Bureau of Reclamation chemical data.
b Discharge reported in cubic feet per second.
c Station number; see table 3 for location.
d Although this spring is called a "Creek", the water sampled issues from the Snake Plain aquifer.

Table 3. Locations of sampled springs, Snake River Plain, southeastern Idaho.

Station number	Station name	Location
13069540	Danielson Creek near Springfield[a]	Lat 43°03'32", long 112°41'23", NW¼NW¼SW¼ sec.23, T.4 S., R.32 E.
13075810	Batise Springs near Pocatello	Lat 42°54'55", long 112°31'18", SW¼NE¼ sec.7, T.6 S., R.34 E.
13075920	Wide Creek near Pocatello[a]	Lat 42°57'28", long 112°34'11", SE¼SW¼NW¼ sec.26, T.5 S., R.33 E.
13075970	Kinney Creek near Fort Hall[a]	Lat 43°00'16", long 112°34'50", SE¼NW¼NE¼ sec.10, T.5 S., R.33 E.
13075980	Spring Creek near Blackfoot[a]	Lat 43°05'45", long 112°30'15", NE¼NW¼ sec.8, T.4 S., R.34 E.
13076600	Reugar Springs near American Falls	Lat 42°46'05", long 112°52'54", NW¼SE¼SW¼ sec.31, T.7 S., R.31 E.
13089500	Devils Washbowl Spring near Kimberly	Lat 42°35'22", long 114°20'46", NE¼NE¼ sec.4, T.10 S., R.18 E.
13090098	Devils Corral Springs (upper outlet) near Kimberly	Lat 42°35'38", long 114°21'55", SE¼SE¼ sec.32, T.9 S., R.18 E.
13090099	Devils Corral Springs (lower outlet) near Kimberly	Lat 42°36'01", long 114°22'30", SE¼NW¼ sec.32, T.9 S., R.18 E.
13090300	Unnamed Spring No. 1 above Shoshone powerplant	Lat 42°36'03", long 114°23'36", SW¼NE¼ sec.31, T.9 S., R.18 E.
13090350	Unnamed Spring No. 2 above Shoshone powerplant	Lat 42°35'52", long 114°23'55", NW¼SW¼ sec.31, T.9 S., R.18 E.
13091000	Blue Lakes Springs near Twin Falls	Lat 42°36'30", long 114°28'34", NE¼NW¼SE¼ sec.28, T.9 S., R.17 E.
13091700	Warm Creek near Twin Falls[a]	Lat 42°37'15", long 114°29'55", NW¼NW¼ sec.29, T.9 S., R.17 E.
13093300	Ellisons Springs (upper outlet) near Jerome	Lat 42°38'13", long 114°33'40", NE¼ sec.22, T.9 S., R.16 E.
13093391	Crystal Springs tributary No. 3 near Filer	Lat 42°39'31", long 114°38'19", NW¼NE¼SE¼ sec.12, T.9 S., R.15 E.
13093396	Crystal Springs main lake outlet near Filer	Lat 42°39'39", long 114°38'50", SW¼SE¼NW¼ sec.12, T.9 S., R.15 E.
13093398	Crystal Springs tributary No. 8 near Buhl	Lat 42°39'36", long 114°38'32", NE¼SW¼NW¼ sec.12, T.9 S., R.15 E.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

PREPARED IN COOPERATION WITH THE IDAHO
DEPARTMENT OF WATER ADMINISTRATION

EXPLANATION

——2——
Line of equal nitrate concentration, in milligrams per liter (mg/l) March-October 1970
Dashed where doubtful
Intervals 2.5, 3, and 5 (mg/l)

Lands irrigated by surface water

Lands irrigated by, or supplemented by, ground water pumped from wells

Approximate boundary of Snake Plain aquifer

Water Quality Sampling Sites

o Irrigation well

• Spring

Irrigated land boundaries taken from U.S. Bureau of Reclamation and U.S. Soil Conservation Service preliminary field compilation data, 1966. Land classifications were not field checked for this report.

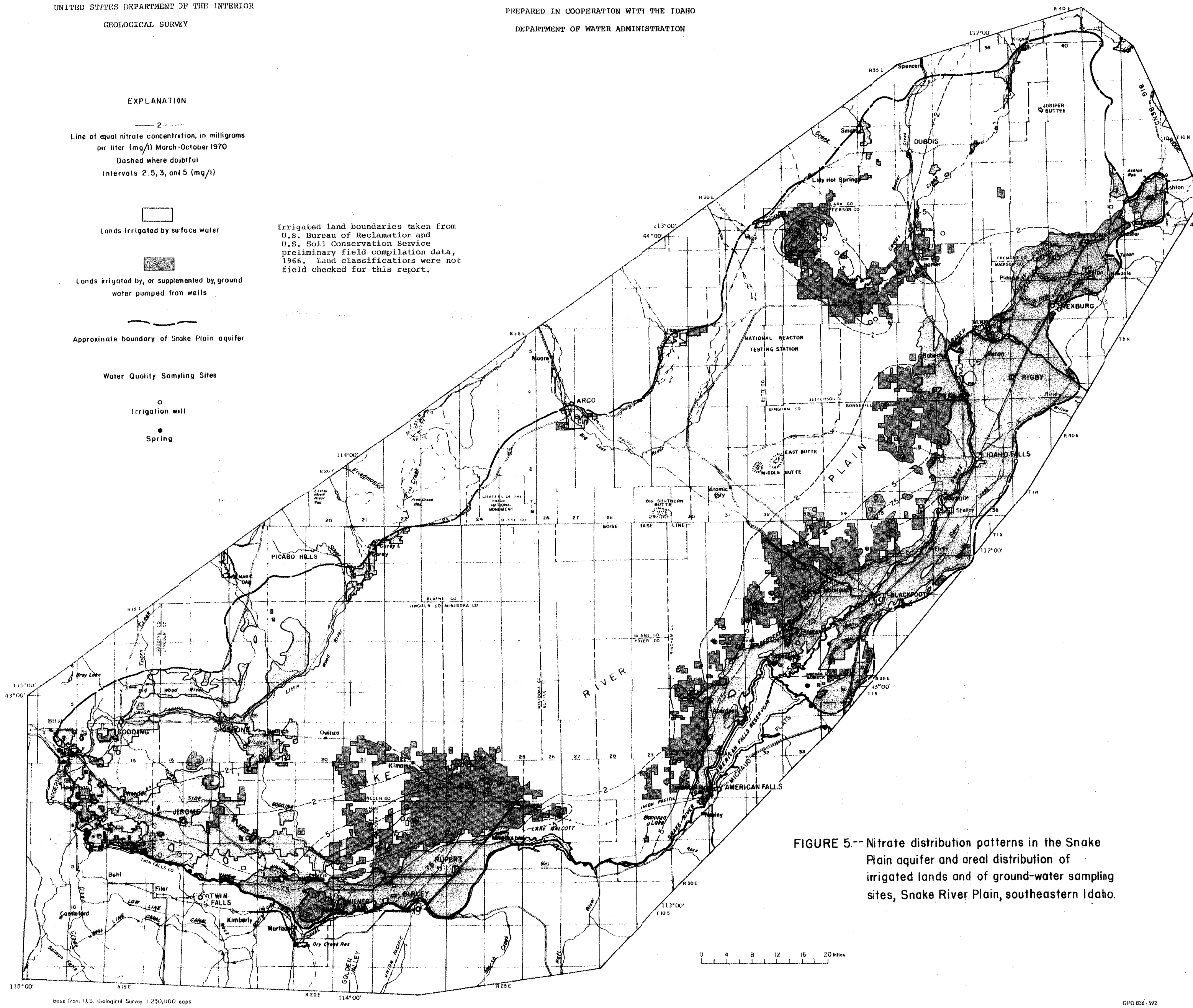

FIGURE 5.--Nitrate distribution patterns in the Snake Plain aquifer and areal distribution of irrigated lands and of ground-water sampling sites, Snake River Plain, southeastern Idaho.

Base from U.S. Geological Survey 1:250,000 maps

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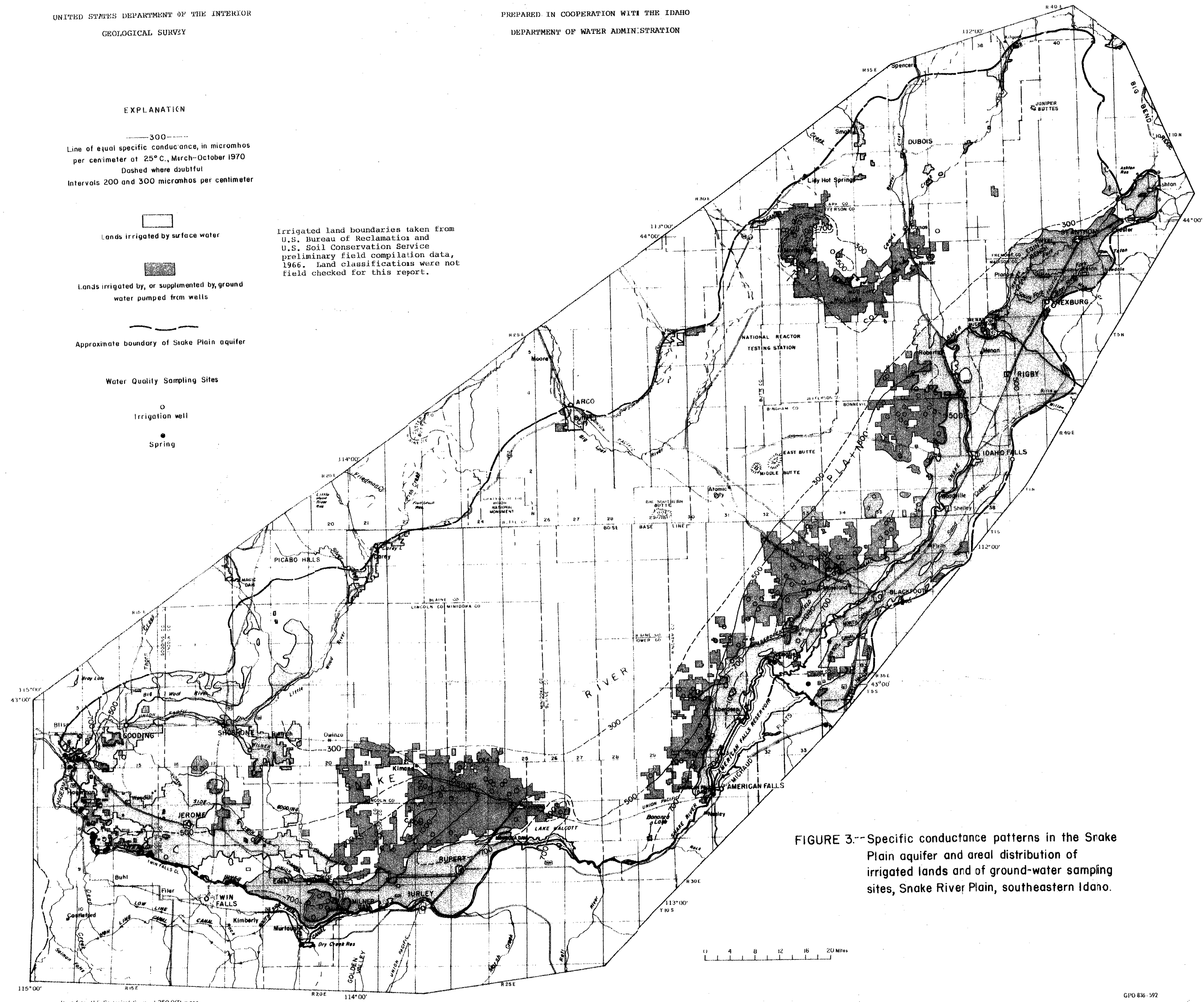

FIGURE 3.--Specific conductance patterns in the Snake Plain aquifer and areal distribution of irrigated lands and of ground-water sampling sites, Snake River Plain, southeastern Idaho.

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EXPLANATION

——10——

Line of equal chloride concentration, in milligrams per liter (mg/l) March–October 1970

Dashed where doubtful

Intervals 10, 30, and 50 (mg/l)

Lands irrigated by surface water

Lands irrigated by, or supplemented by, ground water pumped from wells

Approximate boundary of Snake Plain aquifer

Water Quality Sampling Sites

○ Irrigation well

● Spring

Irrigated land boundaries taken from U.S. Bureau of Reclamation and U.S. Soil Conservation Service preliminary field compilation data, 1966. Land classifications were not field checked for this report.

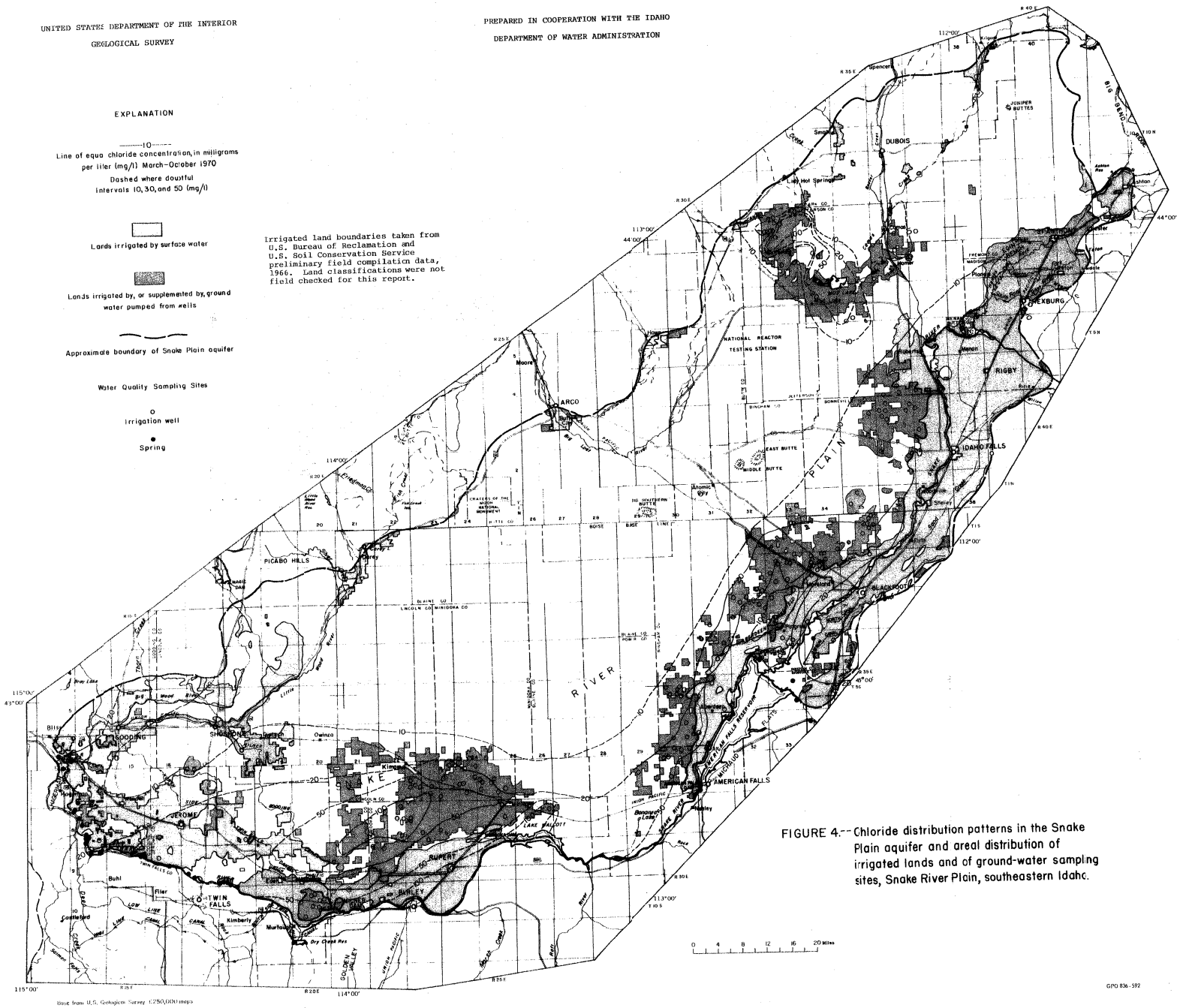

FIGURE 4.--Chloride distribution patterns in the Snake Plain aquifer and areal distribution of irrigated lands and of ground-water sampling sites, Snake River Plain, southeastern Idaho.

Base from U.S. Geological Survey 1:250,000 maps

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Table 3. Locations of sampled springs, Snake River Plain, southeastern Idaho--Continued.

Station number	Station name	Location
13093689	Niagara Springs at diversion No. 3 near Buhl	Lat 42°39'53", long 114°40'26", NE¼NE¼NE¼ sec.10, T.9 S., R.15 E.
13094300	Clear Lakes Springs east group at head, near Buhl	Lat 42°40'29", long 114°46'17", SW¼SW¼NW¼ sec.1, T.9 S., R.14 E.
13094480	Clear Lakes Springs west outlet at head, near Buhl	Lat 42°40'28", long 114°46'48", SW¼SW¼SE¼ sec.2, T.9 S., R.14 E.
13095175	Briggs Springs at head, near Buhl	Lat 42°40'20", long 114°49'00", NW¼NW¼SW¼ sec.3, T.9 S., R.14 E.
13095300	Banbury Springs near Buhl	Lat 42°41'31", long 114°49'21", SE¼NW¼ sec.33, T.8 S., R.14 E.
13095350	Unnamed spring between Banbury Spring and Blind Canyon Spring near Buhl	Lat 42°41'51", long 114°49'21", SE¼SW¼ sec.28, T.8 S., R.14 E.
13095400	Blind Canyon Spring near Buhl	Lat 42°42'12", long 114°49'20", SE¼SE¼NW¼ sec.28, T.8 S., R.14 E.
13095500	Box Canyon Springs near Wendell	Lat 42°42'30", long 114°48'40", SE¼NE¼NE¼ sec.28, T.8 S., R.14 E.
13095600	Box Canyon Springs at mouth, near Wendell	Lat 42°42'25", long 114°49'22", NW¼SE¼NW¼ sec.28, T.8 S., R.14 E.
13132600	Sand Springs Creek above ponds, near Hagerman[a]	Lat 42°43'36", long 114°50'00", SW¼SE¼SE¼ sec.17, T.8 S., R.14 E.
13132790	Bickle Springs near Hagerman	Lat 42°45'29", long 114°51'19", SE¼NW¼SE¼ sec.6, T.8 S., R.14 E.
13132800	Thousand Springs at mouth, near Hagerman	Lat 42°44'23", long 114°50'27", NE¼NE¼SW¼ sec.8, T.8 S., R.14 E.
13134300	Riley Creek at mouth, near Hagerman[a]	Lat 42°45'46", long 114°51'31", SW¼NE¼ sec.6, T.8 S., R.14 E.
13134600	Billingsley Creek near Hagerman[a]	Lat 42°46'35", long 114°50'55", SW¼SW¼NW¼ sec.32, T.7 S., R.14 E.
13135100	Birch Creek near Hagerman[a]	Lat 42°51'10", long 114°53'30", SE¼SE¼ sec.34, T.6 S., R.13 E.
13152900	Cove Creek near Hagerman[a]	Lat 42°52'01", long 114°52'06", SW¼SW¼SW¼ sec.25, T.6 S., R.13 E.
13153713	Short Creek near Bliss[a]	Lat 42°52'46", long 114°54'26", NW¼NW¼NW¼ sec.27, T.6 S., R.13 E.

a Although this spring is called a "Creek", the water sampled issues from the Snake Plain aquifer.