

SELECTED WATER-QUALITY DATA FOR RAPID CREEK BASIN, SOUTHWESTERN SOUTH DAKOTA, 1946-90

U.S. GEOLOGICAL SURVEY

Open-File Report 91-249

Prepared in cooperation with the

WEST DAKOTA WATER DEVELOPMENT DISTRICT



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By Joyce E. Freeman and Stephen C. Komor

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Huron, South Dakota
1991

U.S. DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

U.S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
Rm. 408, Federal Bldg.
200 4th St. SW
Huron, SD 57350

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CONVERSION FACTORS

<u>Multiply</u>	<u>By</u>	<u>To obtain</u>
acre-foot	1,233	cubic meter
cubic foot per second	0.0283	cubic meter per second
foot per mile	0.1894	meter per kilometer
mile	1.609	kilometer

Temperature can be converted to degrees Fahrenheit (°F) or degrees Celsius (°C) by the following equations:

$$^{\circ}\text{F} = 9/5 (^{\circ}\text{C}) + 32$$

$$^{\circ}\text{C} = 5/9 (^{\circ}\text{F}-32)$$

SELECTED WATER-QUALITY DATA FOR RAPID CREEK BASIN,
SOUTHWESTERN SOUTH DAKOTA, 1946-90

By Joyce E. Freeman and Stephen C. Komor

ABSTRACT

This report presents water-quality data for 42 sites within the Rapid Creek basin, southwestern South Dakota. Selected water-quality data collected by the U.S. Geological Survey since 1946 and by the South Dakota Department of Environment and Natural Resources since 1967 are presented in tabular form. Boxplots display monthly data for five parameters (discharge, specific conductance, dissolved nitrite plus nitrate, total ammonia plus organic nitrogen, and total phosphorous) at three sites on Rapid Creek. Scatter plots display the same parameters for a synoptic survey accomplished during water year 1989 at 17 sites on or adjacent to Rapid Creek.

INTRODUCTION

Background

Rapid Creek is the primary source of drinking water for Rapid City, Ellsworth Air Force Base, an unincorporated area in Rapid Valley, and for irrigation water in Rapid Valley. Water-quality data have been collected within the Rapid Creek basin by Federal, State, and municipal agencies since 1946.

Local water officials are concerned that water quality in Rapid Creek degrades as it flows through the City. In the spring of 1987, the City experienced taste and odor problems in its finished drinking water supply during the peak demand season. Although the cause was never thoroughly understood, the taste and odor problems were associated with Rapid Creek and Canyon Lake.

In a letter dated June 9, 1989, the State of South Dakota identified Rapid Creek as a high priority stream for nonpoint water-quality investigation and remediation. This report was funded by the State of South Dakota and the West Dakota Water Development District in order to examine existing water quality data for evidence of nonpoint pollution.

Nonpoint-source pollution is from sources that cannot be identified as isolated points. Examples of potential nonpoint-source pollution within the Rapid Creek basin include defective residential septic systems, urban runoff in Rapid City, biochemical by-products of lake entrophication, and agricultural chemicals and animal wastes from farms and ranches in the watershed downstream of Rapid City.

A systematic compilation of existing water-quality data may aid in identifying types, locations, and sources of pollutants in Rapid Creek. The water-quality compilation also may be useful for siting and designing pollution abatement measures.

Purpose and Scope

The purpose of this data report is to collate and present selected water-quality data for field measurements of selected properties, major ions, nutrients, selected trace elements, organic compounds, bacteria, and sediment for selected sites within the Rapid Creek basin downstream of Pactola Reservoir. This report presents selected water-quality data collected by the U.S. Geological Survey (USGS) since 1946, and by the South Dakota Department of Environment and Natural Resources (DENR) since 1967. Boxplots and scatter plots display changes in contaminant concentrations with respect to stream location, season, and stream discharge. All data tabulated in this report were analyzed according to U.S. Geological Survey (Friedman and Fishman, 1989) and U.S. Environmental Protection Agency (1979) laboratory standards.

Additional water-quality data for storm-runoff events within the Rapid Creek basin are presented in Goddard and others (1989). Stewart and others (1989) provide a general assessment of water-quality and potential pollution sources for Rapid Creek and Canyon Lake. Sources of additional water-quality information for Rapid Creek are summarized in Zogorski and others (1990).

DESCRIPTION OF RAPID CREEK BASIN

Rapid Creek is a perennial stream, which originates west of Rapid City in the Black Hills of South Dakota (fig. 1). The upstream reach of Rapid Creek, from the origination near Crooks Tower to the city limits of Rapid City, has an average gradient of about 48 feet per mile, and is comparatively narrow and fast-running. The bed of the creek consists of sand, gravel, and cobbles derived from surrounding surface exposures of crystalline rock, sandstone, and limestone. In Rapid City, Rapid Creek turns to the southeast and the downstream reach flows for about 70 miles to its mouth at the Cheyenne River near Creston, South Dakota. Within this reach, the gradient is about 13 feet per mile, and stream velocities are considerably less than for the upstream reach. The creek meanders through a broad alluvial valley that is floored by easily erodible shales and has a muddy bottom (Goddard and others, 1990).

Deerfield Reservoir and Pactola Reservoir are the two largest reservoirs in the Rapid Creek basin. Deerfield Reservoir is located about 53 miles upstream of Rapid City on Castle Creek, a major tributary of Rapid Creek and has an active capacity of 15,504 acre-feet (U.S. Bureau of Reclamation, written commun., 1985). Pactola Reservoir is located on Rapid Creek about 21 miles upstream of Rapid City and has an active capacity of 54,955 acre-feet (U.S. Bureau of Reclamation, written commun., 1988). Canyon Lake is a 27-acre impoundment located on the western edge of Rapid City (Stewart and others, 1989).

Additional information on basin characteristics, including geology and hydrogeology, physiography and climate, land use and vegetation, reservoirs, and water use are included in a report by Driscoll and Zogorski (1990).

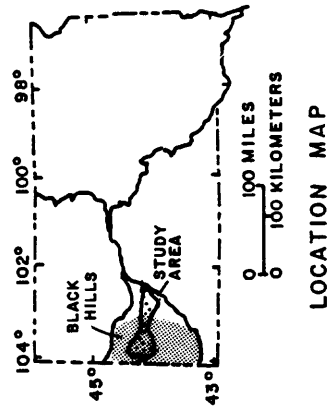
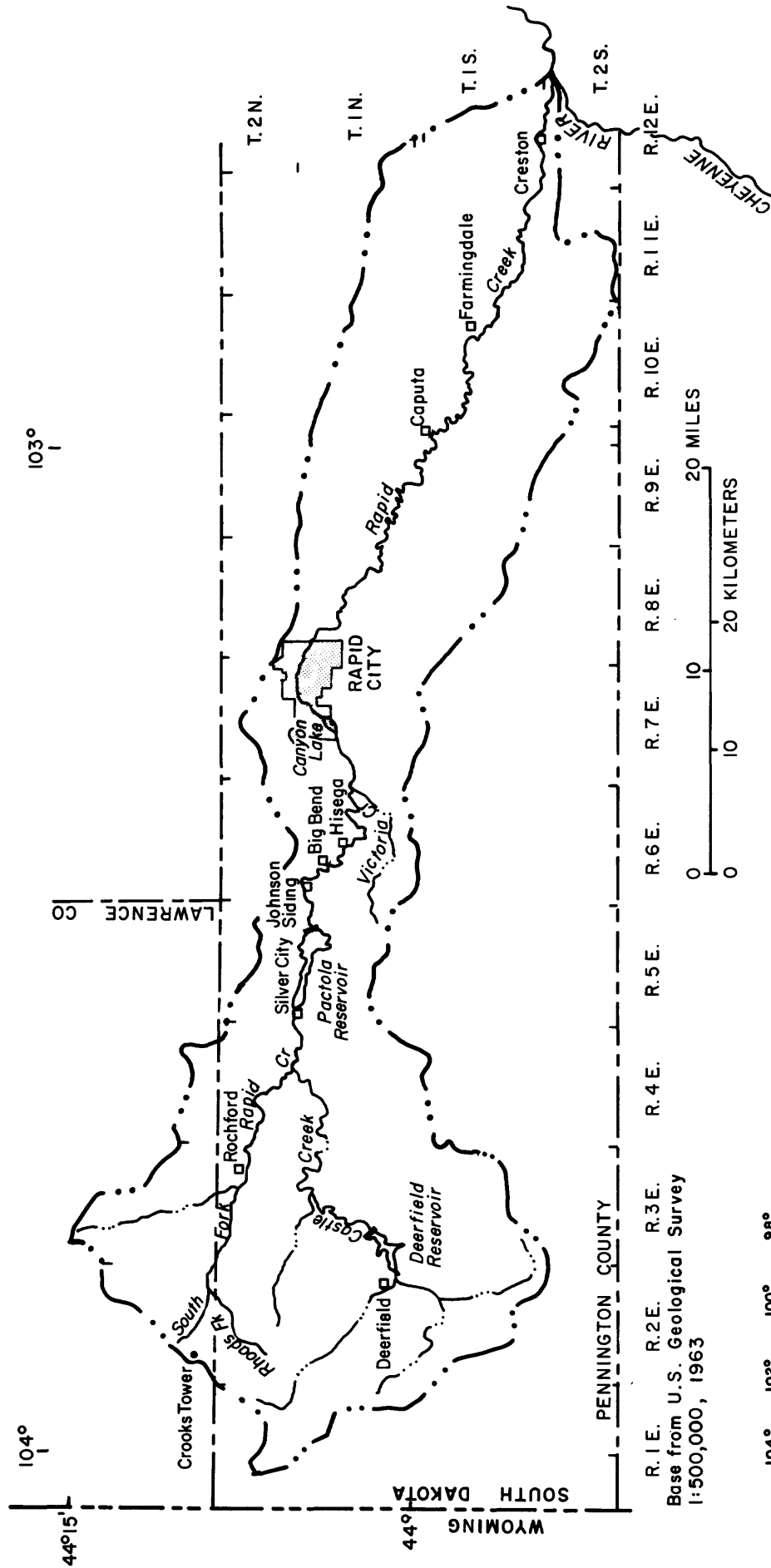


Figure 1.--Location of Rapid Creek basin.

DESCRIPTION OF WATER-QUALITY DATA

Data from 42 water-quality sampling sites within the Rapid Creek basin (table 1) are included in this report. Water-quality data for these sites were collected by the USGS and by the DENR. Most sampling sites are located on Rapid Creek, but some are located on springs, streams, or drainage ditches that are tributaries to Rapid Creek. The sites are concentrated near to and within Rapid City (fig. 2). Water-quality data collected by the USGS are archived in the National Water Data Storage and Retrieval System (WATSTORE), a computerized data-storage and retrieval system. Water-quality data collected by the DENR are archived in STORET, a computerized data system maintained by the U.S. Environmental Protection Agency. Because of the varying periods of record for the sample sites, caution should be exercised in the interpretation of the data presented in this report.

Water-quality data collected by the USGS for 38 of the stations provide most of the information summarized in this report (table 2 in the Supplemental Information section at the back of this report). Water-quality data collected and analyzed by the USGS for the National Urban Runoff Project (Goddard and others, 1989) are not included in table 2. The majority of the USGS data were collected at two sites: Rapid Creek below Pactola Dam (site 1, table 1) and Rapid Creek near Farmingdale (site 43, table 1).

Water-quality data were collected at Rapid Creek below Pactola Dam during the 1969-80 water years. Grab samples were collected approximately once per month for the period of record, and composite samples were obtained for physical and chemical properties including major ions, nutrients, and trace elements. A grab sample involves obtaining a single volume of water from the stream in a single effort. A composite sample generally involves taking incremental samples across the width of the stream and keeping the samples mixed homogeneously for lab analysis to ensure that each section of the stream is represented in the water sample. Concentrations of boron were measured during the 1969-79 water years, and iron and manganese concentrations were measured during the 1969-71 water years. Temperature and specific conductance were measured daily during the entire period of record (Zogorski, 1990).

Water-quality data were collected at Rapid Creek near Farmingdale for water years 1950, 1953, 1956-58, and 1969-80. All samples collected prior to 1969 were composited in proportion to discharge. Grab samples were collected during 1969-80, and additional composite samples were collected during 1969-73. Analyses were completed for physical and chemical properties, including major ions, nutrients, and trace elements. Concentrations of boron, iron, and manganese also were determined for many samples. Temperature and specific conductance were measured daily during the period of record (Zogorski, 1990).

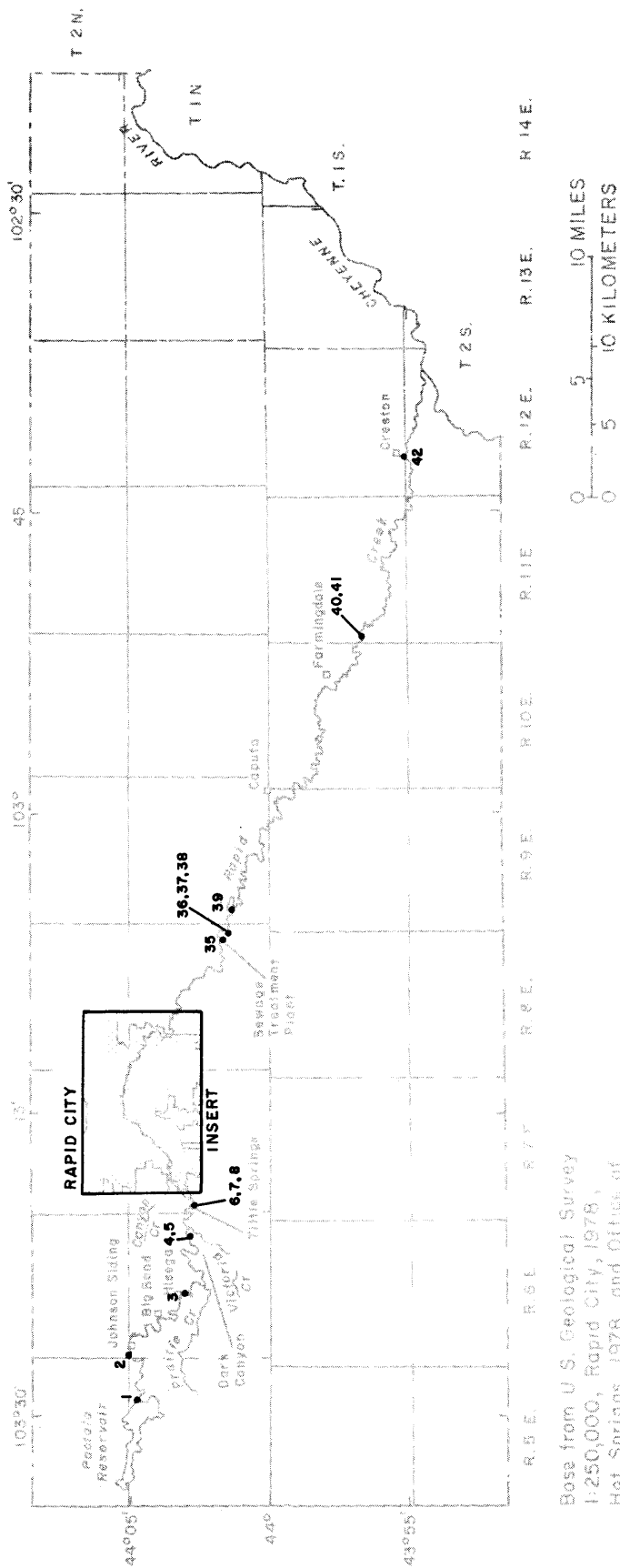
The other USGS sites have variable periods of record that begin in 1949. Water-quality data at most of these stations include physical properties (water temperature, specific conductance, pH, and dissolved oxygen), and many analyses include concentrations of major ions, nutrients, and selected trace elements.

Table 1.--Locations, collecting agency, and period of record for water-quality sampling sites within the Rapid Creek basin downstream of Pactola Reservoir

[COLLECTING AGENCY: USGS, U.S. Geological Survey; DENR, South Dakota Department of Environment and Natural Resources]

SITE NO. (FIG 2)	RIVER MILE	STATION OR SITE IDENTIFICATION NUMBER	SITE NAME	LATITUDE	LONGITUDE	COLLECTING AGENCY	PERIOD OF WATER-QUALITY RECORD
1	107.9	06411500	RAPID CR BELOW PACTOLA DAM SD	440436	1032854	USGS	11/53-9/90
2	102.8	440457103263301	RAPID CREEK AT JOHNSON SIDING, SD	440457	1032633	USGS	10/88-8/89
3	95.0	440259103235301	RAPID CREEK BELOW HISEGA, SD	440259	1032353	USGS	10/88-8/89
4	87.5	06412200	RAPID CREEK AB VICTORIA CR NR RAPID CITY, SD	440248	1032106	USGS	6/88-9/90
5	87.4	440245103210501	RAPID CREEK NEAR DARK CANYON 1	440245	1032105	USGS	6/89
6	85.2	440241103193701	TITTLE SPRINGS AT MOUTH AT RAPID CITY, SD	440241	1031937	USGS	10/88-8/89
7	85.0	440239103193001	RAPID CREEK BELOW TITTLE SPRINGS, SD	440239	1031930	USGS	10/88-8/89
8	84.6	00460669	RAPID CREEK WEST OF RAPID CITY	440242	1031934	DENR	8/75-8/90
9	84.4	06412500	RAPID CREEK ABOVE CANYON LAKE NEAR RAPID CITY, SD	440304	1031847	USGS	7/46-9/90
10	83.9	440322103181301	RAPID CREEK ABOVE JACKSON SPRINGS PUMP HOUSE	440320	1031812	USGS	7/87
11	83.8	440321103181101	RAPID CR AT BRAEBURN ADDITION AT RAPID CITY, SD	440321	1031811	USGS	10/88-8/89
12	83.5	440326103180701	RAPID CREEK JUST ABOVE JACKSON SPRINGS	440326	1031807	USGS	11/88
13	83.46	440327103180501	JACKSON SPRINGS PUMPHOUSE	440327	1031805	USGS	10/88-8/89
14	83.44	440327103180401	RAPID CREEK JUST BELOW JACKSON SPRINGS	440326	1031803	USGS	10/87-11/88
15	83.42	440330103175101	RAPID CR AB CONF WITH CLEGHORN SPRING AT RC,SD	440330	1031751	USGS	10/88-8/89
16	83.41	440333103174902	RAPID CREEK JUST ABOVE CLEGHORN SPRINGS	440330	1031750	USGS	10/87-11/88
17	83.4	440331103175001	CLEGHORN SPRING AT MOUTH AT RAPID CITY, SD	440331	1031750	USGS	10/88-8/89
18	83.4	06412600	CLEGHORN SPGS MAIN CH AT FISH HATCH AT RC, SD	440332	1031750	USGS	7/87-3/90
19	83.4	440327103180503	CLEGHORN SPRINGS AT NORTH RACEWAY	440332	1031757	USGS	5/86-8/87
20	83.4	440327103180504	CLEGHORN SPRINGS IN HATCHERY BLDG	440332	1031752	USGS	7/87-8/89
21	83.4	440327103180505	CLEGHORN SPRINGS ABOVE BIKE PATH	440327	1031805	USGS	7/87
22	83.38	06412900	RAPID CREEK BELOW CLEGHORN SPRGS, AT RC, SD	440333	1031749	USGS	7/87-9/90
23	82.3	06413200	RAPID CREEK BELOW PARK DRIVE AT RAPID CITY SD	440333	1031702	USGS	10/87-11/89
24	81.7	440343103163003	RAPID CREEK AT MEADOWBROOK PUMPHOUSE	440350	1031634	USGS	7/88-12/88
25	81.5	06413570	RAPID CREEK ABOVE JACKSON BLVD AT RAPID CITY SD	440355	1031621	USGS	7/87-11/89
26	81.0	440407103160902	RAPID CREEK AT GIRL SCOUT GALLERY	440408	1031609	USGS	9/79-12/88
27	80.5	440428103154901	RAPID CR AB CONF WITH LIME CR AT RC, SD	440428	1031549	USGS	10/88-8/89
28	80.4	06413650	LIME CREEK AT MOUTH AT RAPID CITY, SD	440427	1031553	USGS	4/81-7/82, 10/88-9/90
29	80.1	06413700	RAPID CR AB WATER TREAT PLANT AT RAPID CITY SD	440429	1031534	USGS	5/80-7/82, 9/87-2/90
30	79.5	440455103151901	RAPID CR AB CONF WITH DEADWOOD AVE DRAIN AT RC,SD	440455	1031519	USGS	10/88-8/89
31	79.4	06413800	DEADWOOD AVE DRAIN AT MOUTH AT RAPID CITY SD	440458	1031522	USGS	4/81-7/82, 10/88-9/90
32	78.5	06414000	RAPID CR AT RAPID CITY SD	440509	1031431	USGS	10/76-9/90
33	74.1	06416000	RAPID CR BELOW HAWTHORN DITCH AT RAPID CITY SD	440402	1031049	USGS	8/46-10/53, 5/80-7/82
34	73.0	440336103105801	RAPID CR BL CONF WITH MEADE ST DRAIN AT RC, SD	440336	1031058	USGS	10/88-8/89
35	62.5	00460110	RAPID CREEK IMMEDIATELY ABOVE WWTP DISCHARGE	440126	1030608	DENR	11/82-8/90
36	61.6	440126103054701	RAPID CR AB SEWAGE TREATMENT PLANT NR RC, SD	440126	1030547	USGS	10/88-8/89
37	60.5	440124103054601	SEWAGE TREATMENT PLANT EFFLUENT NR RAPID CITY, SD	440124	1030546	USGS	10/88-8/89
38	60.4	06418900	RAPID CR BELOW SEWAGE PLANT NR RAPID CITY SD	440124	1030543	USGS	10/81-9/90
39	58.6	00460692	RAPID CREEK BELOW WWTP DISCHARGE	440120	1030440	DENR	5/79-9/90
40	23.8	00460910	RAPID CREEK NEAR FARMINGDALE	435632	1025113	DENR	6/67-8/90
41	23.7	06421500	RAPID CR NEAR FARMINGDALE SD	435631	1025112	USGS	7/46-12/89 ¹
42	6.9	06422000	RAPID CR AT CRESTON SD	435447	1024222	USGS	12/89-9/90 ¹

¹Gaging station discontinued during calendar year 1990.

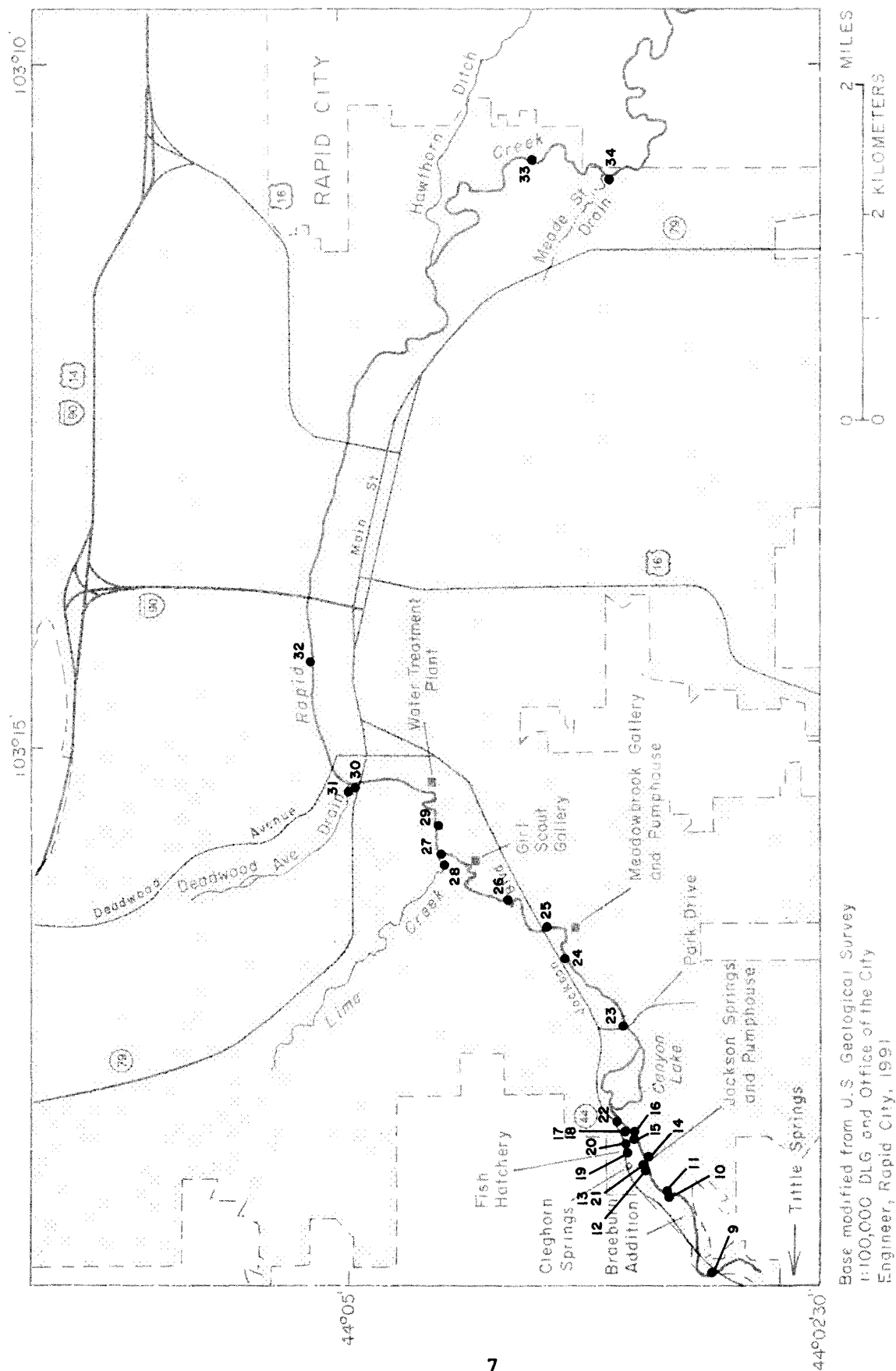


Bose from U.S. Geological Survey
1:250,000, Rapid City, 1978,
Hot Springs, 1978, and Office of
the City Engineer, Rapid City, 1994

EXPLANATION

- ² DATA-COLLECTION SITE--Number refers to site number listed in table 1

Figure 2.--Locations of water-quality sampling sites within the Rapid Creek basin downstream of Pactola Reservoir.



Base modified from U.S. Geological Survey
1:100,000 DLG and Office of the City
Engineer, Rapid City, 1991

Figure 2.--Locations of water-quality sampling sites within the Rapid Creek basin downstream of Pactola Reservoir--Continued.

The DENR collected water-quality data at four sites on Rapid Creek between Pactola Reservoir and the mouth. The data (Mark McCarty, South Dakota Department of Environment and Natural Resources, written commun., 1990) are presented in table 3 in the Supplemental Information section. Monthly water samples were collected at most of these sites, beginning in 1967. Water-quality parameters measured at these sites generally include physical properties (water temperature, specific conductance, dissolved oxygen, bacteria, pH, and fecal coliform) and chemical properties including concentrations of alkalinity, calcium, magnesium, and sodium, and various species of nitrogen and phosphorous. All major cations and major anions, iron, manganese, and fecal streptococcus bacteria were determined for some samples (Zogorski, 1990).

The USGS conducted a synoptic survey, primarily for nutrient concentrations, within the Rapid Creek basin during the 1989 water year (table 4 in the Supplemental Information section). At four times during the water year when discharge was less than 100 cubic feet per second, water samples were collected within 1- or 2-day periods at 17 sites along an 84-mile reach of Rapid Creek between Pactola Dam and Farmingdale. Sampling was conducted to provide information on seasonal, as well as spatial, variations of nutrient concentrations. Discharge at each station also was measured during the sampling periods.

The USGS also collected samples during a 14-hour period at Cleghorn Springs Main Channel at the Fish Hatchery (table 5 in the Supplemental Information section). These data were collected during the cleaning of the fish hatchery raceway.

Surface-water-quality data in the Rapid Creek basin also are available from the U.S. Forest Service (five stations on the Rapid Creek main stem upstream of Rapid City), the City of Rapid City, the West Dakota Water Development District, and the South Dakota Department of Game, Fish and Parks (Zogorski and others, 1990). Because of different laboratory standards and the short duration of some of these data-collection efforts, the data are not included in this report. U.S. Forest Service data are available at the U.S. Forest Service office in Custer, South Dakota.

PRESENTATION OF WATER-QUALITY DATA

Boxplots for five parameters (discharge, specific conductance, dissolved nitrite plus nitrate, total ammonia plus organic nitrogen, and total phosphorous) are presented for three USGS sites on Rapid Creek (figs. 3-7 in the Supplemental Information section). Data collected for the National Urban Runoff Project (Goddard and others, 1989) are included in the boxplots.

When sites have less than five values per month for a particular water-quality parameter, the individual values are plotted as open circles. When more than four measurements are available, box and whisker symbols are used. In these symbols, the dot at the lowest point on the vertical line (whisker) indicates the minimum value, the bottom edge of the box represents the 25-percentile value, the horizontal line within the box represents the median value, the top edge of the box represents the 75-percentile value, and the dot at the top of the vertical line (whisker) represents the maximum value.

A horizontal line across the entire figure represents the laboratory reporting limit. Single data values at or below the laboratory reporting limit are plotted on the horizontal line. For total phosphorus at Rapid Creek above Canyon Lake (fig. 7), many of the data values were less than the laboratory reporting limit, and distributional parameters were estimated using a log-probability regression procedure (Helsel and Gilliom, 1985). The estimated part of the box and whisker symbol below the reporting limit is indicated with a dashed line.

For dissolved nitrite plus nitrate (fig. 5), presentation of the data was complicated by multiple detection limits. At Rapid Creek above Canyon Lake, many detected concentrations were less than 0.1 mg/L (milligrams per liter), so samples reported as "<0.100" provided little useful information. For this reason, four "<0.100" values were discarded from the data set. Also, one value reported as "0.00" was discarded. At Rapid Creek near Farmingdale, a much larger number of dissolved nitrite plus nitrate values were greater than 0.100 mg/L. At this site, the reporting limit is displayed as 0.100 for all months but August when a more sensitive laboratory procedure was used and the reporting limit is displayed as 0.010. A value reported to be "0.00" for August was discarded from the data set.

For the USGS synoptic sampling, scatter plots are presented for five parameters (discharge, specific conductance, dissolved nitrite plus nitrate, total ammonia plus organic nitrogen, and total phosphorous) for 12 main stem sites and 5 tributary sites (figures 8-12 in the Supplemental Information section). Each sampling is represented by a separate symbol.

For discharge in figure 3, WATSTORE program W4422, "Daily Values Monthly and Annual Statistics" (Price and Meeks, 1977), was used. For all other parameters except phosphorus, percentile rankings were generated using the percentiles option of P-STAT¹ software. For total phosphorous at Rapid Creek above Canyon Lake (fig. 7), percentiles were generated using program AUTOMDL.F77 (Helsel and Gilliom, 1985). All plots were generated using TELL-A-GRAF software.

SUMMARY

This report presents water-quality data for 42 sites within the Rapid Creek basin. Selected water-quality data collected by the USGS since 1946 and by the DENR since 1967 are presented in tabular form.

Boxplots present monthly data for five parameters (discharge, specific conductance, dissolved nitrite plus nitrate, total ammonia plus organic nitrogen, and total phosphorous) at three sites on Rapid Creek. Scatter plots display the same parameters for a synoptic survey accomplished during water year 1989 at 17 sites on or adjacent to Rapid Creek.

The plots attempt to display changes in concentrations with respect to stream location, season, and stream discharge. However, caution should be exercised in the interpretation of the boxplots because of the varying periods of record for the sites.

¹Use of trade names in this report is for identification purposes only and does not constitute endorsement by the U.S. Geological Survey.

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SUPPLEMENTAL INFORMATION

PLOTS OF DISCHARGE AND WATER-QUALITY DATA

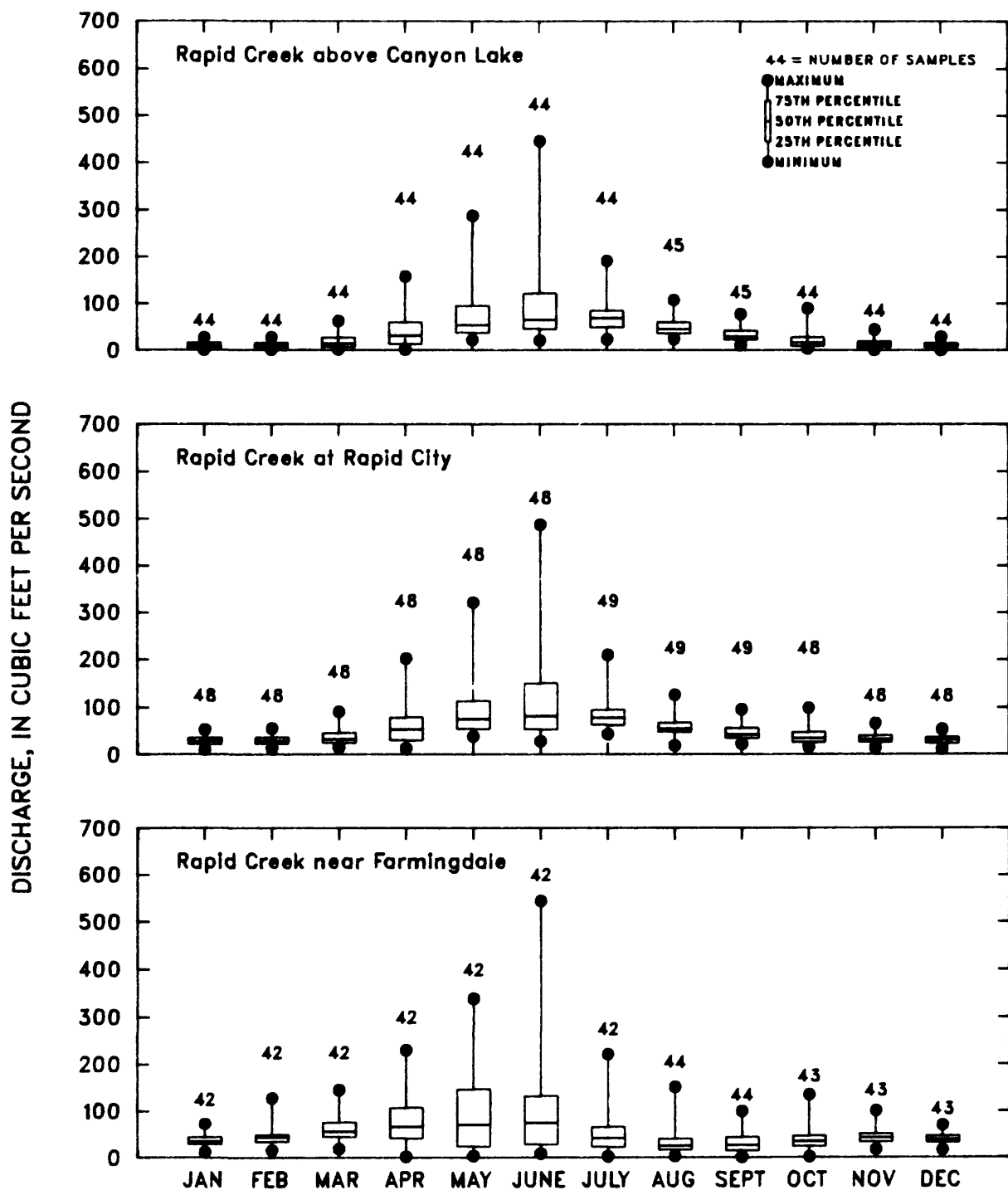


Figure 3.--Distribution of mean monthly discharge for three sites on Rapid Creek .

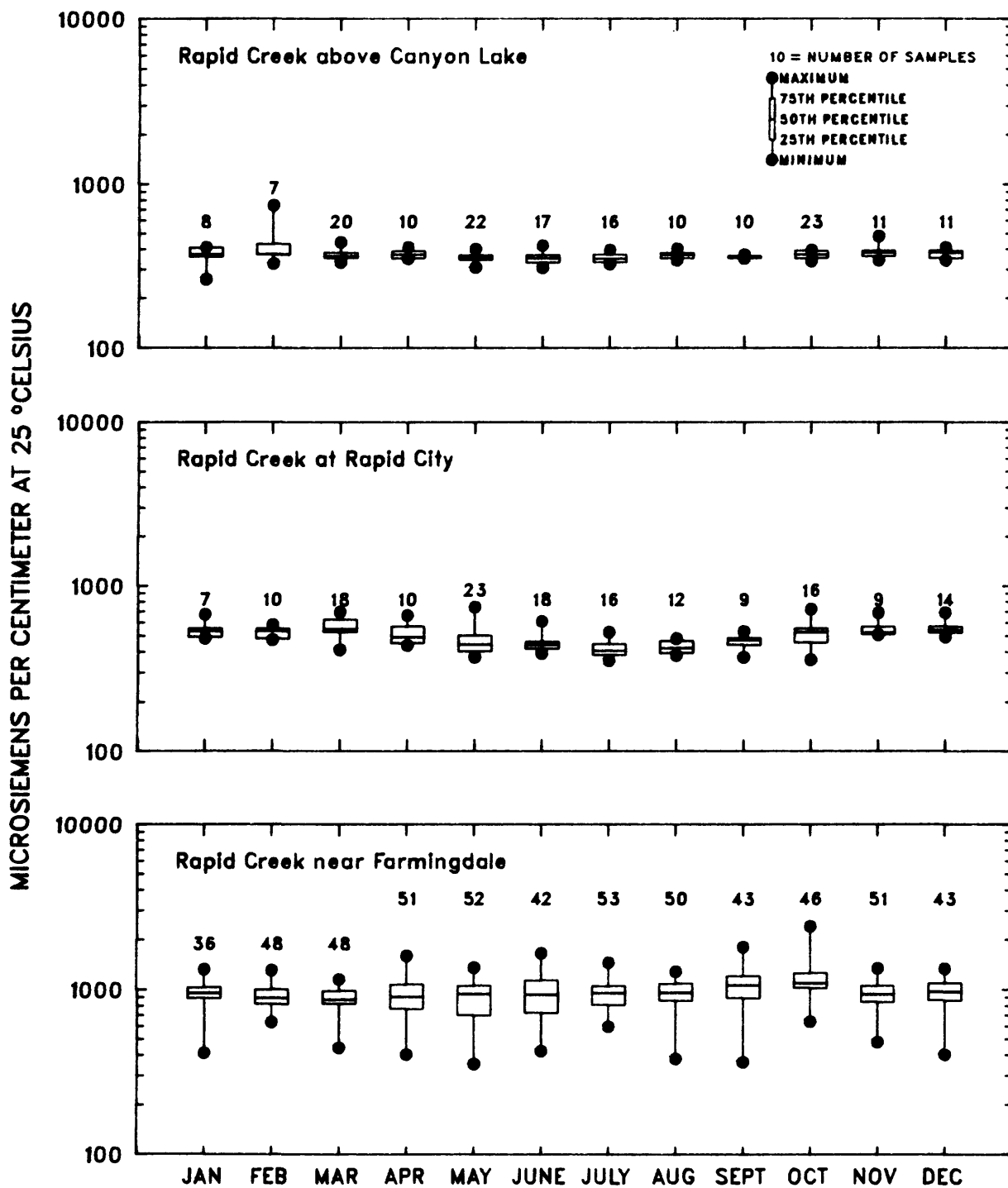


Figure 4.--Monthly distribution of specific conductance for three sites on Rapid Creek.

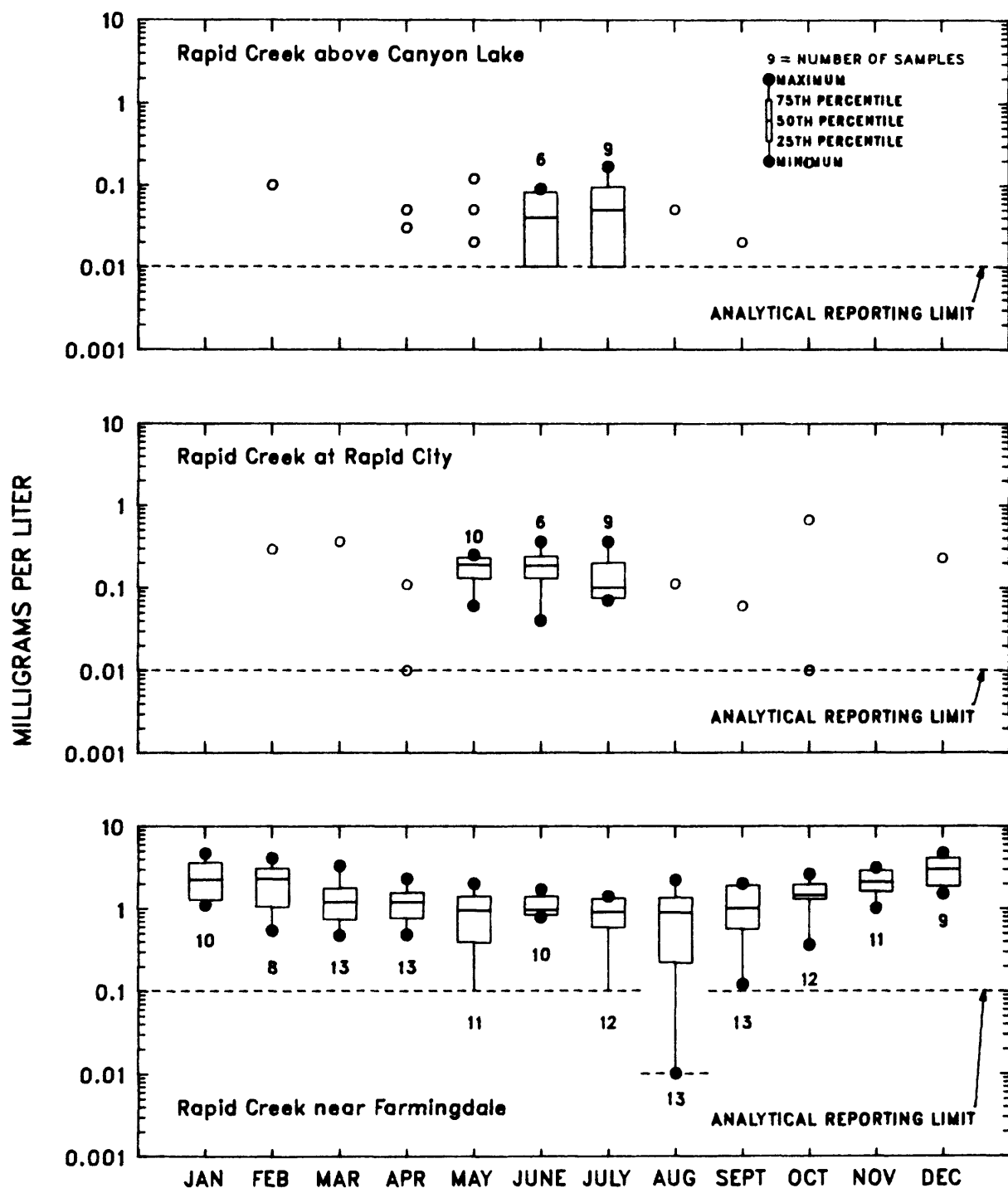


Figure 5.--Monthly distribution of dissolved nitrite plus nitrate (as nitrogen) for three sites on Rapid Creek.

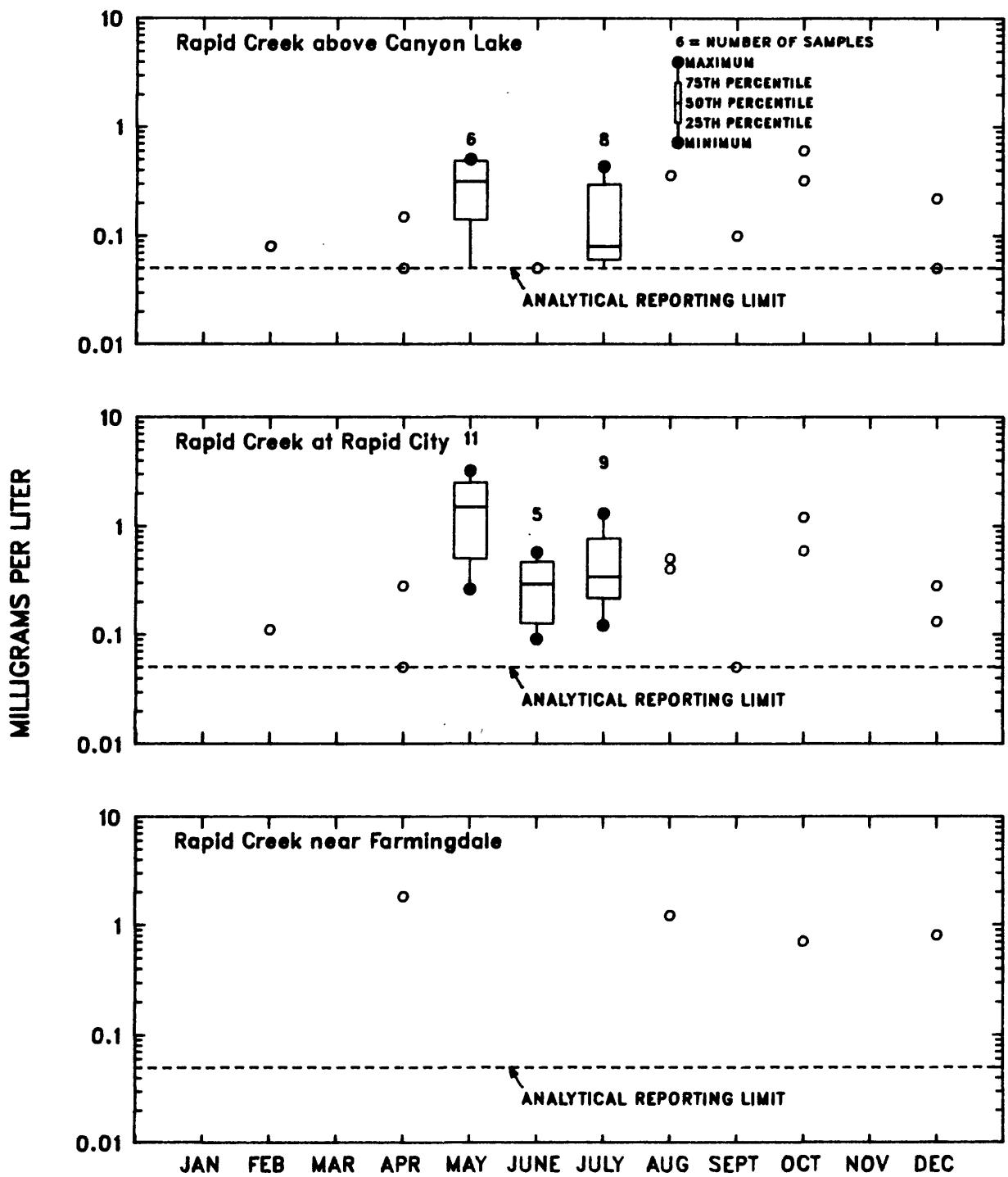


Figure 6.--Monthly distribution of total ammonia plus organic nitrogen for three sites on Rapid Creek.

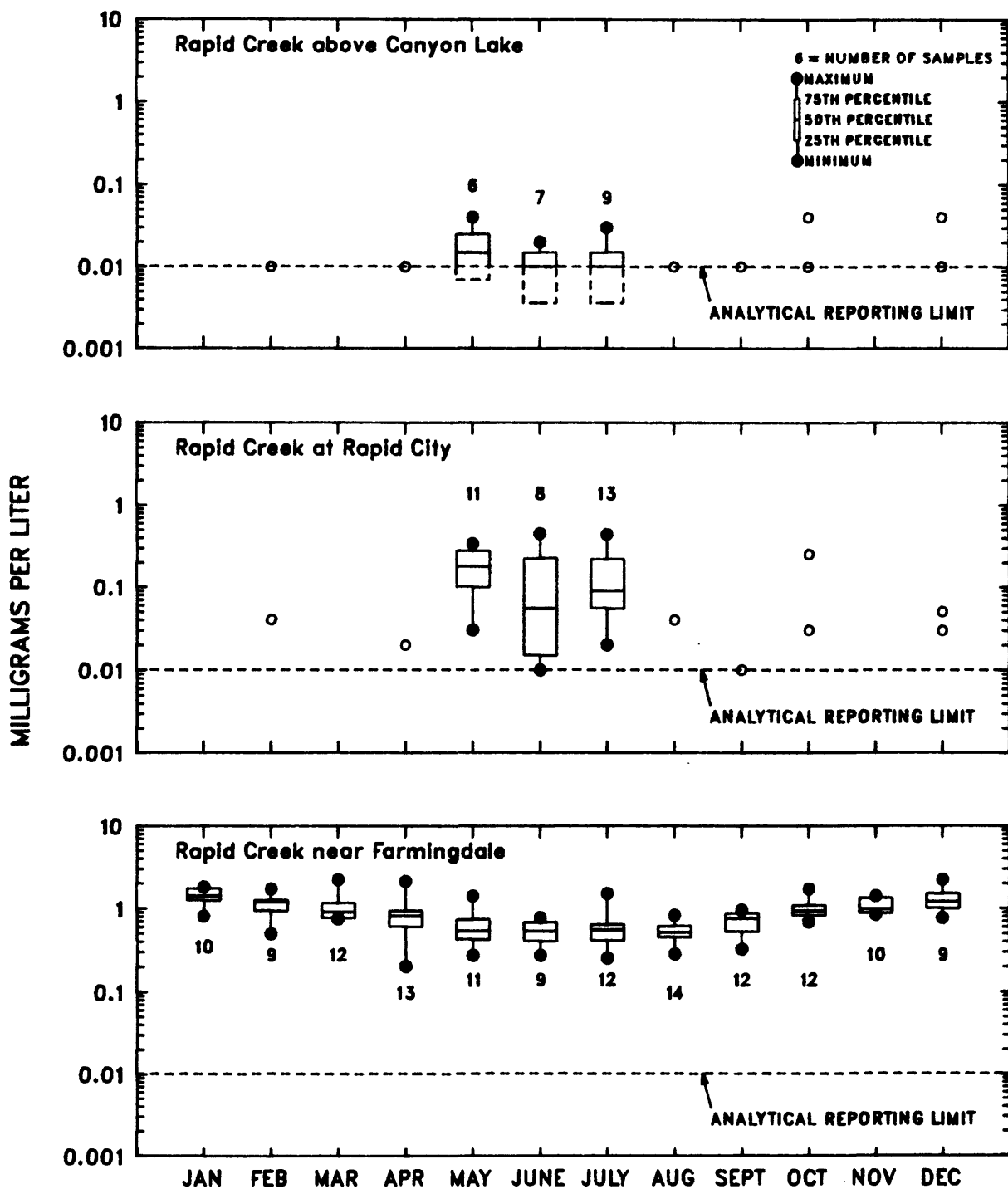


Figure 7.—Monthly distribution of total phosphorous for three sites on Rapid Creek.

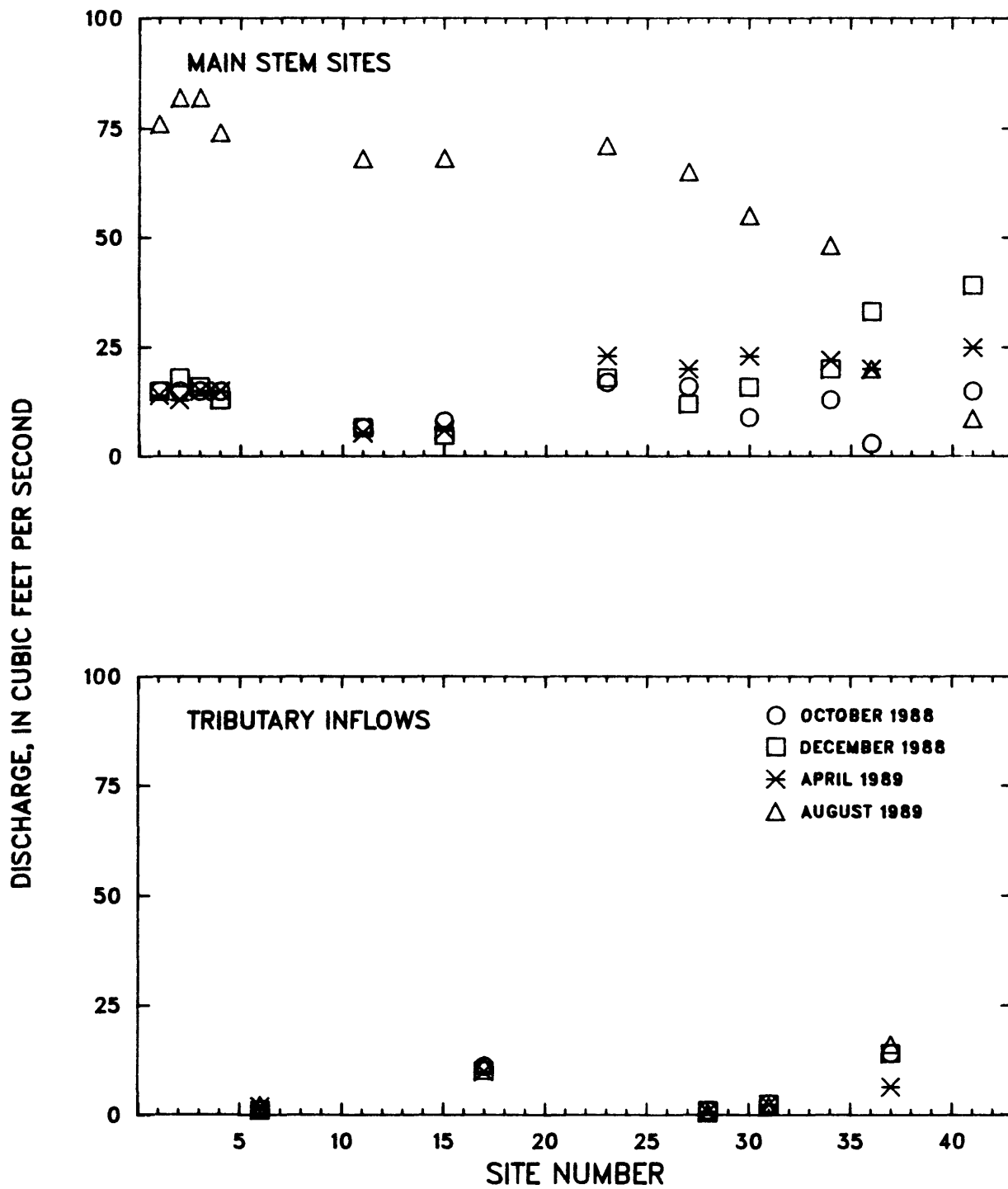


Figure 8.--Instantaneous discharge at synoptic sampling sites on and adjacent to Rapid Creek.

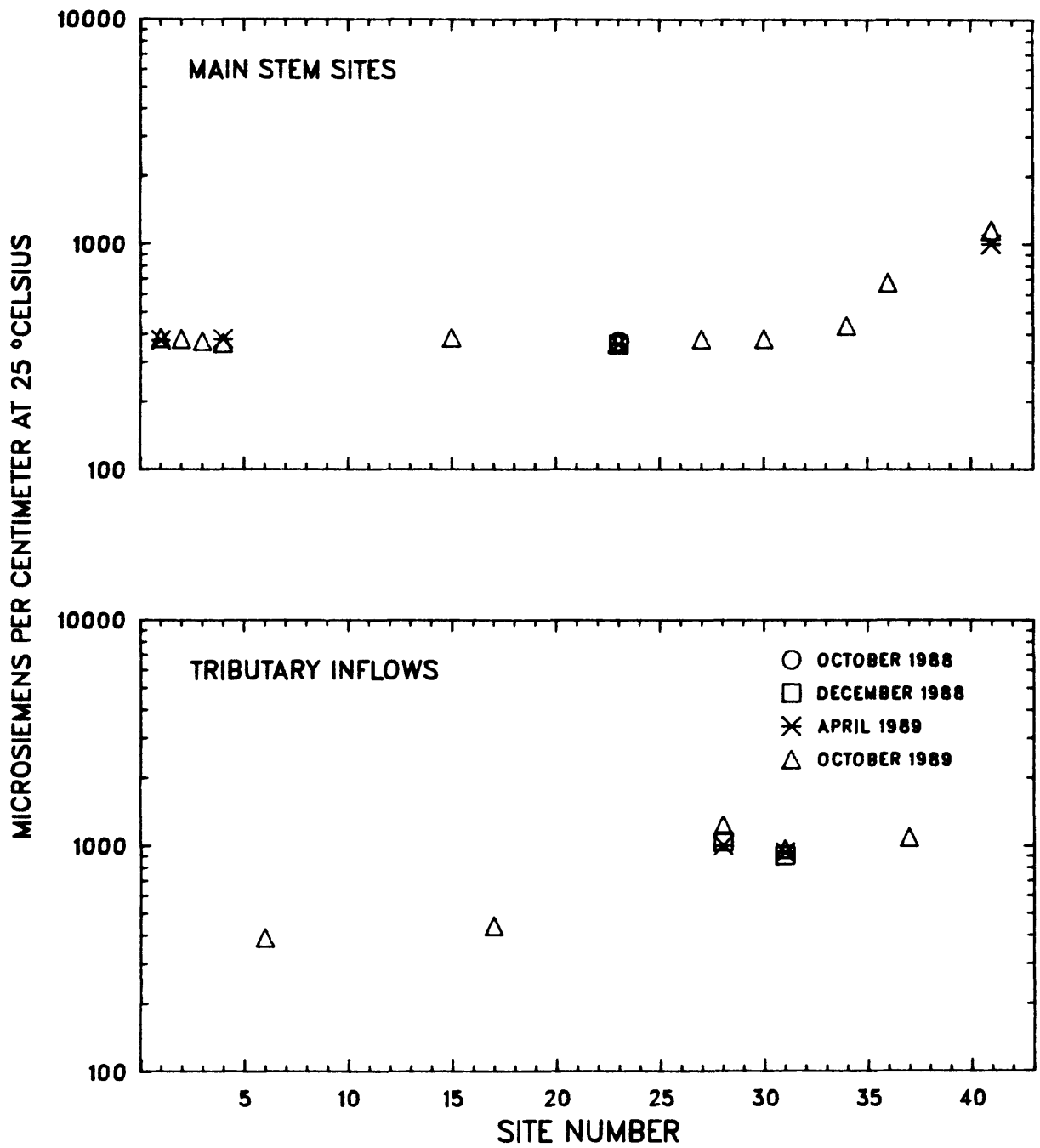


Figure 9.--Specific conductance for synoptic sampling of sites on and adjacent to Rapid Creek.

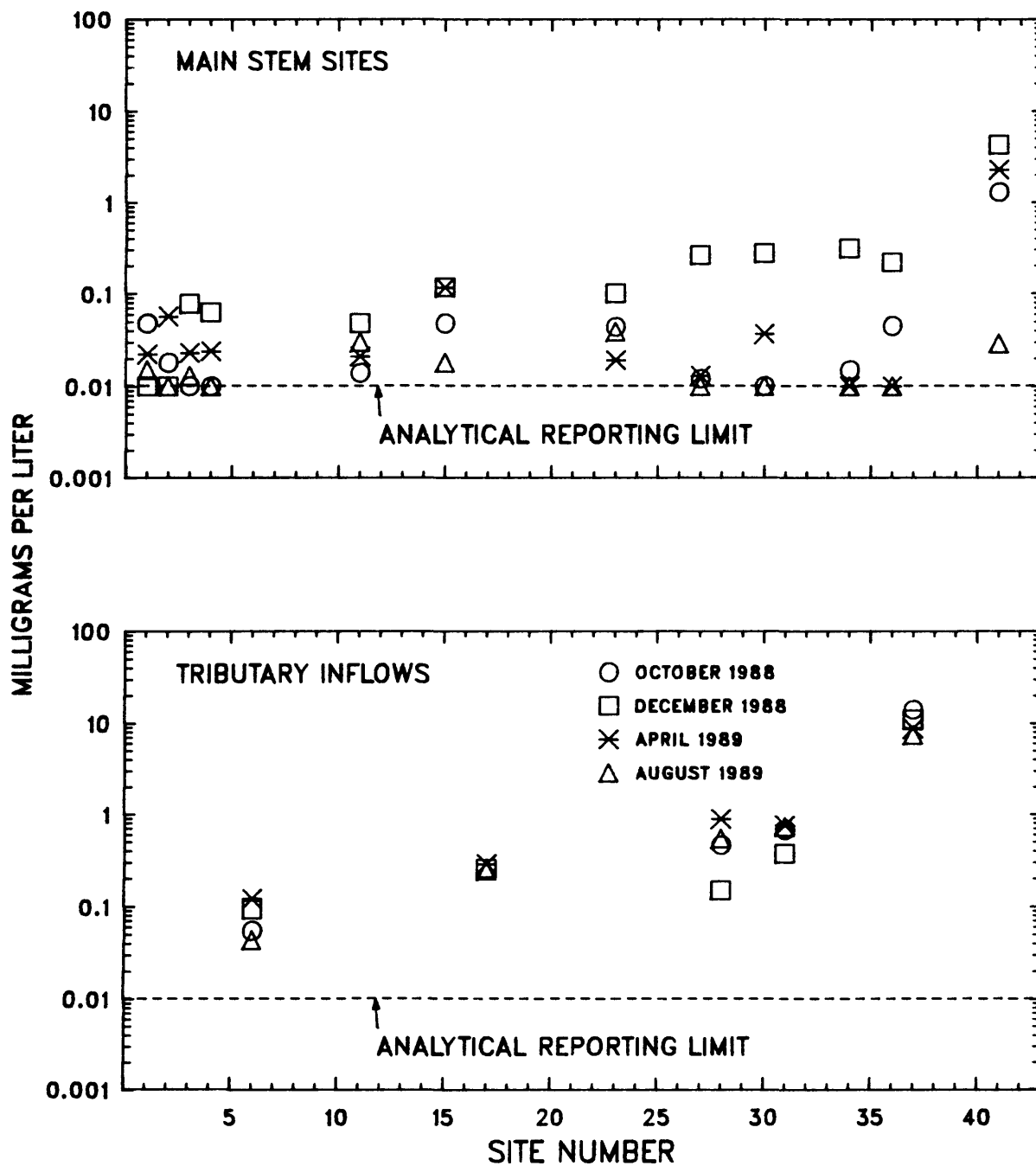


Figure 10.--Dissolved nitrite plus nitrate (as nitrogen) for synoptic sampling of sites on and adjacent to Rapid Creek.

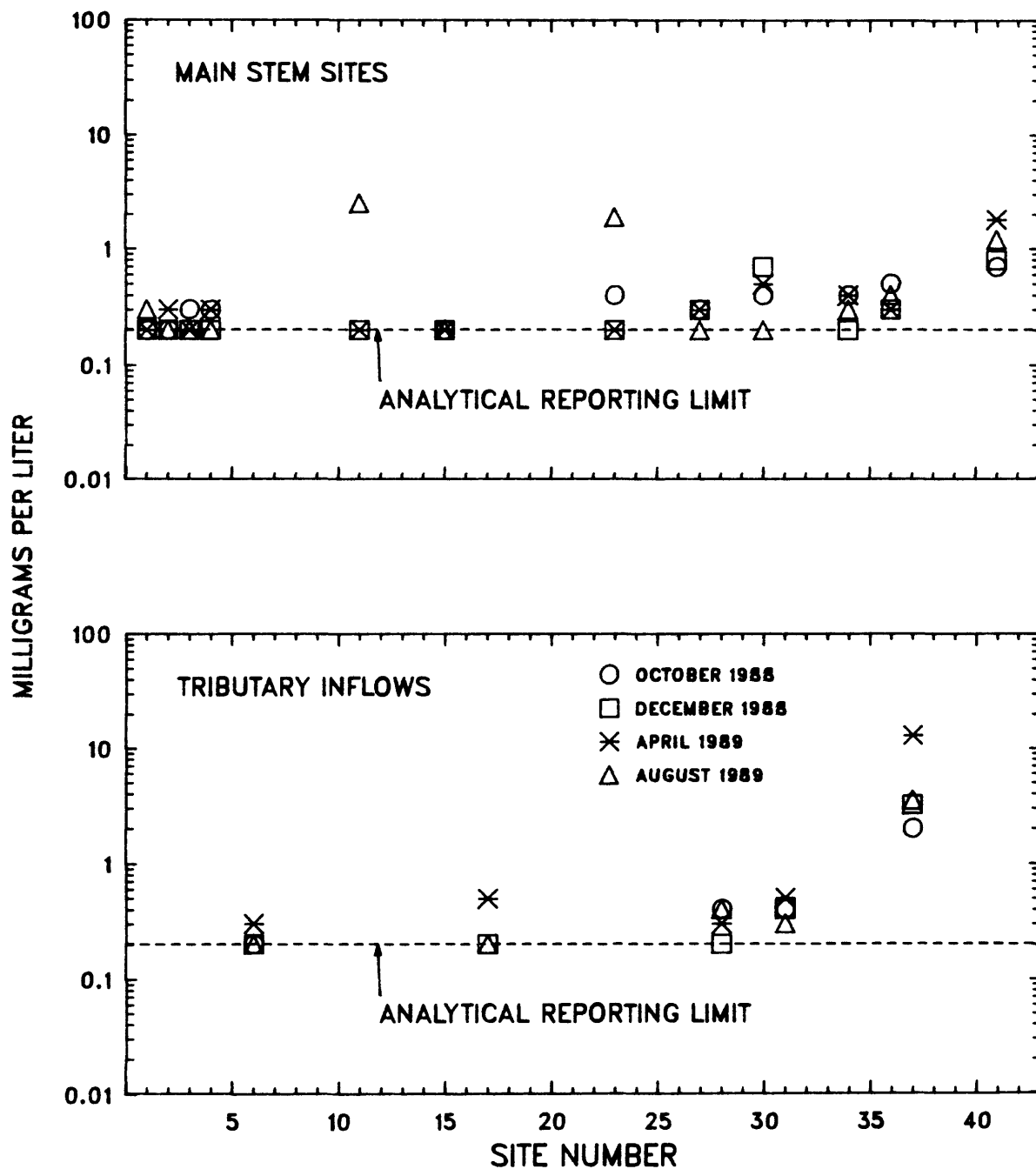


Figure 11.--Total ammonia plus organic nitrogen for synoptic sampling of sites on and adjacent to Rapid Creek.

TABLES OF DISCHARGE AND WATER-QUALITY DATA

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir

[--, no data; -, questionable data deleted; <, less than; >, greater than]

DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
Site 06411500, Rapid Creek below Pactola Dam, SD										
02-01-68	395	--	--	190	--	217	--	5.5	--	--
10-01-68	394	--	--	190	--	216	--	5.5	--	--
10-07-68	375	7.8	--	180	214	222	40	20	5.5	6
11-19-68	418	7.8	--	190	207	216	40	21	3.8	4
12-09-68	367	8.3	--	180	207	220	41	20	3.3	4
01-01-69	407	8.1	--	210	--	237	--	--	5.7	6
01-20-69	429	8.0	2.0	200	216	225	44	22	3.7	4
02-11-69	393	8.1	3.0	210	225	242	45	23	3.4	3
03-25-69	394	7.6	5.0	210	221	246	46	22	3.3	3
04-01-69	394	7.7	--	200	229	252	45	22	3.6	4
04-16-69	392	7.7	4.0	200	226	246	44	22	3.4	3
05-01-69	378	7.8	--	190	--	215	--	--	3.7	4
05-26-69	377	8.0	6.0	200	220	223	46	21	3.4	3
06-20-69	375	8.0	5.0	200	221	244	42	23	3.4	4
07-01-69	389	8.1	--	190	--	260	--	--	3.8	4
07-08-69	386	8.0	7.0	180	208	237	41	20	4.2	5
07-29-69	392	8.1	13.0	190	211	223	42	21	3.6	4
08-20-69	387	8.0	5.0	190	209	221	41	21	4.9	5
09-10-69	375	8.0	8.0	190	211	225	41	21	3.4	4
10-02-69	403	7.9	8.0	200	218	232	44	22	3.6	4
10-22-69	396	7.7	7.0	200	223	232	42	23	4.2	4
11-13-69	378	7.9	5.0	190	224	225	43	21	7.5	8
12-23-69	409	8.2	3.0	200	221	230	42	22	5.9	6
01-16-70	421	7.8	0.0	200	229	235	49	20	4.0	4
02-04-70	396	8.0	4.0	190	227	243	43	21	4.0	4
02-26-70	358	8.3	5.0	190	206	240	38	23	3.7	4
03-17-70	394	8.2	4.0	210	235	244	45	24	4.8	5
04-01-70	397	7.4	--	210	231	228	44	24	3.8	4
04-06-70	402	8.3	5.0	200	228	242	41	23	4.1	4
04-29-70	385	8.3	5.0	200	225	242	42	24	4.0	4
05-01-70	377	7.8	--	200	231	239	42	23	3.9	4
05-09-70	374	8.0	5.0	190	219	246	40	22	3.5	4
05-20-70	385	8.3	5.0	200	220	234	43	22	4.0	4
06-01-70	375	8.0	--	190	206	216	40	21	4.0	4
06-15-70	370	7.9	7.0	200	217	227	42	22	3.5	4
07-01-70	368	7.9	--	190	206	218	40	21	3.8	4
08-01-70	386	8.1	--	180	224	233	41	20	4.6	5
08-11-70	379	8.0	9.0	190	217	232	44	20	2.3	2
09-01-70	371	7.9	--	180	217	224	40	20	4.2	5
10-01-70	377	7.8	--	180	206	222	39	20	3.7	4
10-12-70	391	7.9	8.5	190	219	235	41	21	3.8	4
11-01-70	365	7.8	--	190	208	216	43	19	4.0	4
12-01-70	365	8.3	--	200	212	210	45	21	5.3	5
12-14-70	378	8.3	3.5	190	209	213	40	21	3.7	4
01-01-71	371	8.3	--	190	218	220	43	21	3.8	4
02-01-71	385	7.9	--	200	221	240	44	21	5.6	6
02-23-71	370	8.0	--	200	230	240	44	22	3.6	4
03-01-71	389	8.2	--	190	229	220	43	21	4.1	4
04-01-71	393	7.9	--	200	219	248	43	23	7.6	7
04-22-71	370	7.9	5.0	210	219	--	48	22	3.4	3
05-01-71	365	8.0	--	190	211	220	42	21	7.0	7
06-01-71	334	7.7	--	170	200	232	36	20	5.0	6
06-03-71	361	8.0	6.0	180	204	--	41	20	3.3	4
07-01-71	353	7.8	--	180	203	208	41	20	4.5	5
07-12-71	341	7.9	8.0	180	205	--	40	19	3.1	4

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued											
02-01-68	--	--	42	--	--	--	--	--	--	--	--
10-01-68	--	--	42	--	--	--	--	--	--	--	--
10-07-68	0.2	2.8	43	1.4	0.20	9.7	--	--	--	30	--
11-19-68	0.1	2.8	44	1.2	--	--	--	--	--	--	--
12-09-68	0.1	3.0	44	0.80	--	--	--	--	--	--	--
01-01-69	0.2	--	48	--	--	--	--	--	--	--	--
01-20-69	0.1	3.0	46	1.4	--	--	--	--	--	--	--
02-11-69	0.1	3.8	48	1.1	--	--	--	--	--	--	--
03-25-69	0.1	3.2	48	0.80	--	--	--	--	--	--	--
04-01-69	0.1	3.0	45	2.0	--	--	--	--	--	--	--
04-16-69	0.1	3.2	46	1.0	0.30	8.5	--	--	--	50	90
05-01-69	0.1	--	44	--	--	--	--	--	--	--	--
05-26-69	0.1	3.2	44	1.8	0.40	7.4	--	--	--	10	30
06-20-69	0.1	2.7	43	1.6	0.30	7.2	--	--	--	50	310
07-01-69	0.1	--	45	--	--	--	--	--	--	--	--
07-08-69	0.1	2.9	43	2.6	--	--	--	--	--	--	--
07-29-69	0.1	3.2	45	4.2	--	--	--	--	--	--	--
08-20-69	0.2	2.8	44	1.1	--	--	--	--	--	--	--
09-10-69	0.1	3.1	45	2.6	--	--	--	--	--	--	--
10-02-69	0.1	3.2	45	3.8	--	--	--	--	--	--	--
10-22-69	0.1	2.8	46	1.4	0.30	9.5	--	--	--	--	--
11-13-69	0.2	2.8	49	1.2	0.30	7.8	--	--	--	41	25
12-23-69	0.2	3.7	45	1.6	0.20	6.2	--	--	--	37	31
01-16-70	0.1	3.3	46	1.2	0.10	7.6	--	--	--	15	330
02-04-70	0.1	3.4	47	1.6	0.20	8.4	--	--	--	11	590
02-26-70	0.1	3.5	48	1.0	0.30	--	--	--	--	--	--
03-17-70	0.1	3.5	48	1.8	0.30	8.8	--	--	--	110	310
04-01-70	0.1	3.1	47	0.0	0.30	8.1	--	--	--	--	--
04-06-70	0.1	3.5	48	1.5	0.30	8.1	--	--	--	2	180
04-29-70	0.1	3.2	45	1.8	0.20	6.6	--	--	--	950	12
05-01-70	0.1	3.2	45	6.4	0.10	6.9	--	--	--	--	--
05-09-70	0.1	3.2	47	1.0	0.40	7.2	--	--	--	51	0
05-20-70	0.1	3.2	46	1.4	0.20	6.6	--	--	--	97	1
06-01-70	0.1	3.7	46	1.5	--	--	--	--	--	--	--
06-15-70	0.1	3.3	44	1.8	0.20	6.1	--	--	--	32	24
07-01-70	0.1	3.6	44	1.4	--	--	--	--	--	--	--
08-01-70	0.1	3.4	49	2.4	0.30	8.3	--	--	--	--	--
08-11-70	0.1	3.3	46	1.6	0.20	7.5	--	--	0.120	140	16
09-01-70	0.1	3.4	47	1.8	0.30	8.9	--	--	--	--	--
10-01-70	0.1	3.9	47	1.0	--	--	--	--	0.00	--	--
10-12-70	0.1	3.2	50	2.2	0.30	7.6	--	--	0.020	0	30
11-01-70	0.1	3.8	45	2.2	--	--	--	--	0.010	--	--
12-01-70	0.2	4.1	46	2.7	--	--	0.300	0.030	--	--	--
12-14-70	0.1	3.5	43	1.5	0.0	7.9	--	--	0.00	0	32
01-01-71	0.1	4.0	44	1.8	--	--	0.200	0.030	--	--	--
02-01-71	0.2	3.2	49	2.1	--	--	0.510	0.050	--	--	--
02-23-71	0.1	3.5	47	1.4	0.30	9.3	--	0.00	--	50	420
03-01-71	0.1	4.0	44	11	--	--	1.00	0.100	--	--	--
04-01-71	0.2	3.4	44	3.4	--	--	0.200	0.020	--	--	--
04-22-71	0.1	2.8	42	2.9	0.20	7.4	0.00	0.050	--	--	--
05-01-71	0.2	2.8	45	1.8	--	--	0.070	0.010	--	--	--
06-01-71	0.2	2.9	44	1.4	--	--	0.090	0.030	--	--	--
06-03-71	0.1	2.4	41	1.3	0.30	8.0	0.080	0.030	--	--	--
07-01-71	0.1	2.8	40	1.7	--	--	0.160	0.040	--	--	--
07-12-71	0.1	2.8	42	1.0	0.20	8.3	0.060	0.050	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued								
08-01-71	--	340	8.2	--	170	198	38	3.6
08-03-71	--	340	8.0	9.0	170	206	38	3.3
09-01-71	--	339	8.0	--	170	203	36	3.2
09-14-71	--	338	7.4	8.0	170	208	36	7.8
10-01-71	--	344	8.0	--	180	206	40	3.3
11-01-71	--	339	7.9	--	180	201	39	3.1
12-01-71	--	335	8.1	--	170	208	38	3.1
01-01-72	--	364	8.1	3.5	190	229	42	3.1
02-01-72	--	372	8.4	--	190	225	44	2.2
03-01-72	--	346	7.9	--	180	207	38	3.2
04-01-72	--	346	7.9	--	180	205	39	3.3
04-11-72	--	340	8.1	6.5	190	215	43	4.2
05-01-72	--	341	8.0	--	170	202	38	3.2
06-01-72	--	385	7.8	--	190	230	45	3.4
07-01-72	--	340	8.1	--	180	207	39	2.9
08-01-72	--	352	8.0	--	180	215	39	3.0
08-14-72	--	348	7.8	12.0	170	205	38	2.8
09-01-72	--	347	8.0	--	180	211	39	3.0
10-01-72	--	351	8.2	--	180	207	41	2.9
10-17-72	--	349	8.1	8.0	180	214	40	3.3
11-01-72	--	328	8.0	--	170	200	36	3.0
11-27-72	--	332	8.0	5.0	180	198	41	3.2
12-01-72	--	348	8.2	--	180	216	40	3.2
01-01-73	--	367	8.2	--	190	216	44	3.5
02-01-73	--	369	8.1	--	190	215	42	3.6
02-12-73	--	366	8.2	4.5	190	225	42	3.1
03-01-73	--	368	8.0	--	190	217	43	3.4
03-21-73	--	370	7.8	5.0	180	220	41	3.1
04-01-73	--	359	8.1	--	180	204	40	3.4
04-09-73	--	361	8.0	5.0	180	215	40	3.5
05-01-73	--	348	8.1	--	170	205	38	3.3
05-07-73	--	341	7.8	4.0	180	211	39	3.3
06-05-73	--	351	8.0	5.5	180	200	40	3.1
07-30-73	--	345	7.9	6.0	180	208	39	4.0
08-01-73	--	344	8.1	--	170	207	38	3.3
08-29-73	--	345	8.1	8.5	170	204	39	3.4
09-01-73	--	347	8.1	--	170	206	38	3.9
09-26-73	--	345	8.1	8.0	170	203	38	3.9
10-24-73	20	346	8.2	8.0	170	205	38	3.5
11-19-73	19	350	8.4	6.0	180	203	38	4.6
01-16-74	15	370	8.2	2.0	180	213	41	3.5
03-20-74	15	377	8.1	4.5	200	224	43	3.9
04-18-74	15	354	8.3	8.0	180	209	41	4.0
05-14-74	63	352	8.2	10.0	180	203	40	4.5
06-20-74	38	356	8.2	9.5	180	209	40	5.1
07-17-74	108	362	8.1	7.5	190	216	45	4.5
08-12-74	72	353	8.0	8.5	180	210	40	3.2
09-13-74	31	361	8.0	8.0	190	213	42	3.8
10-10-74	17	367	--	8.0	190	211	42	3.3
11-25-74	11	350	--	7.0	190	217	42	4.1
01-21-75	15	400	--	3.0	200	221	44	3.7
03-17-75	15	295	8.5	5.5	220	245	45	4.6
04-15-75	16	390	8.7	3.5	220	239	47	4.3
05-12-75	16	390	8.8	6.0	200	221	43	5.4
06-10-75	85	395	8.7	5.5	190	223	42	4.2

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued										
08-01-71	4	0.1	2.7	40	2.3	0.20	8.9	0.200	0.050	--
08-03-71	4	0.1	2.4	44	1.7	0.30	8.9	0.110	0.070	--
09-01-71	4	0.1	2.8	49	1.8	0.30	8.5	0.200	0.030	--
09-14-71	9	0.3	2.8	48	1.2	0.10	9.2	0.270	0.080	--
10-01-71	4	0.1	2.7	44	3.2	0.20	10	0.250	0.030	--
11-01-71	4	0.1	3.7	40	2.9	0.30	9.6	0.050	--	--
12-01-71	4	0.1	2.6	51	1.3	0.20	10	0.050	0.100	0.020
01-01-72	3	0.1	2.5	56	1.4	0.10	10	0.110	0.040	0.010
02-01-72	2	0.1	2.5	50	1.3	0.10	10	0.220	0.060	0.030
03-01-72	4	0.1	2.6	46	1.5	0.40	9.4	0.040	0.020	0.020
04-01-72	4	0.1	2.7	44	1.8	0.30	8.6	0.020	0.020	0.020
04-11-72	4	0.1	2.6	49	1.9	0.30	8.6	0.020	0.020	0.010
05-01-72	4	0.1	2.6	45	1.7	0.40	8.1	0.010	0.020	0.020
06-01-72	4	0.1	2.8	65	2.1	0.40	9.6	0.020	0.020	0.020
07-01-72	3	0.1	2.4	48	1.8	0.20	8.4	0.020	0.030	0.020
08-01-72	4	0.1	2.4	55	2.0	0.20	8.6	0.040	0.020	0.010
08-14-72	3	0.1	2.5	44	1.6	0.30	8.1	0.040	0.030	1.20
09-01-72	4	0.1	2.7	46	2.9	0.30	8.8	0.050	0.060	0.020
10-01-72	3	0.1	2.6	39	3.0	0.60	9.2	0.100	0.030	0.030
10-17-72	4	0.1	2.6	53	1.1	0.30	8.8	0.100	0.040	0.020
11-01-72	4	0.1	2.6	42	1.8	0.40	9.5	0.030	0.040	0.040
11-27-72	4	0.1	2.5	35	1.3	0.30	9.5	0.070	0.010	0.010
12-01-72	4	0.1	2.7	44	2.0	0.60	10	0.130	0.050	0.020
01-01-73	4	0.1	2.6	41	1.4	0.30	11	0.050	0.020	0.010
02-01-73	4	0.1	2.7	41	1.5	0.30	11	0.150	0.020	0.010
02-12-73	3	0.1	2.6	49	1.5	0.30	10	0.070	0.020	0.030
03-01-73	4	0.1	2.5	43	1.4	0.30	11	0.200	0.030	0.020
03-21-73	3	0.1	2.6	48	1.3	0.30	9.7	0.040	<0.010	<0.010
04-01-73	4	0.1	2.5	41	1.5	0.30	10	0.040	0.010	<0.010
04-09-73	4	0.1	2.2	49	0.60	0.30	9.4	0.040	0.020	0.010
05-01-73	4	0.1	2.5	44	2.1	0.30	9.4	0.050	<0.010	<0.010
05-07-73	4	0.1	2.7	46	1.9	0.20	9.3	0.010	0.120	0.120
06-05-73	4	0.1	2.4	39	1.2	0.20	9.4	0.020	0.030	0.010
07-30-73	5	0.1	2.4	46	2.4	0.10	9.6	0.030	0.030	0.020
08-01-73	4	0.1	2.5	47	1.9	0.30	10	0.030	0.030	0.020
08-29-73	4	0.1	2.6	42	2.1	0.30	11	0.040	0.030	0.020
09-01-73	5	0.1	2.6	45	1.5	0.10	10	0.060	0.040	0.040
09-26-73	5	0.1	2.2	45	1.1	<0.10	10	0.040	0.050	0.040
10-24-73	4	0.1	2.5	42	2.1	0.30	11	0.110	0.050	0.050
11-19-73	5	0.2	2.6	41	1.3	0.10	9.0	0.020	<0.010	0.010
01-16-74	4	0.1	2.7	43	1.6	0.20	9.7	0.060	0.080	0.040
03-20-74	4	0.1	2.5	48	0.60	0.40	9.6	0.080	0.040	0.020
04-18-74	4	0.1	2.7	41	1.5	0.40	9.2	0.070	0.030	0.010
05-14-74	5	0.1	2.7	38	0.90	0.30	8.7	0.010	0.010	<0.010
06-20-74	6	0.2	2.7	42	1.5	0.20	8.8	<0.100	0.020	0.010
07-17-74	5	0.1	2.7	45	1.6	0.20	8.8	0.020	<0.010	2.00
08-12-74	4	0.1	2.5	44	1.5	0.20	9.2	0.040	0.030	0.030
09-13-74	4	0.1	2.5	43	1.5	0.20	9.3	0.040	0.010	0.030
10-10-74	4	0.1	2.6	40	0.90	0.20	9.6	0.080	0.040	0.040
11-25-74	4	0.1	2.4	41	1.3	0.20	7.5	<0.100	0.010	0.010
01-21-75	4	0.1	2.9	44	0.90	0.20	8.1	0.050	0.020	0.030
03-17-75	4	0.1	3.8	55	2.0	0.10	8.4	0.080	0.050	<0.010
04-15-75	4	0.1	3.1	54	1.8	0.20	7.5	0.060	0.030	0.010
05-12-75	5	0.2	2.7	46	0.80	0.20	7.0	0.080	<0.010	0.030
06-10-75	4	0.1	3.5	50	1.9	0.20	7.2	0.040	<0.010	<0.010

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (000095)	PH (STAND- ARD UNITS) (000400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (000900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (000915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (000925)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued									
07-07-75	74	480	8.6	6.5	190	213	--	43	20
08-11-75	57	370	8.2	7.5	180	208	--	37	21
09-08-75	68	425	8.6	7.5	190	214	--	43	21
10-14-75	15	430	8.1	7.0	190	233	--	43	21
11-13-75	15	375	8.4	6.0	190	217	--	41	21
12-10-75	15	400	8.8	4.5	190	225	--	43	21
01-27-76	15	350	--	3.5	190	216	--	43	20
02-24-76	16	385	--	4.0	200	222	--	44	22
03-08-76	23	410	7.8	4.5	190	230	--	42	21
03-25-76	19	390	8.7	5.5	200	215	--	42	22
04-21-76	21	350	8.5	8.5	190	219	--	40	22
05-18-76	39	--	--	7.0	190	214	--	40	21
06-21-76	221	445	--	7.0	190	212	--	43	20
07-21-76	63	410	8.1	9.0	200	224	--	44	22
08-17-76	36	425	8.1	10.5	200	217	--	45	21
09-16-76	40	410	8.3	10.0	190	220	--	42	21
10-19-76	16	370	8.4	8.0	190	218	--	42	21
11-16-76	15	352	7.0	6.0	180	194	--	39	20
12-14-76	16	330	8.6	4.0	180	200	--	39	20
01-13-77	15	360	8.3	2.5	180	212	--	40	20
02-11-77	14	400	8.3	4.0	190	220	--	43	21
04-12-77	93	325	8.1	4.5	180	210	--	40	20
05-10-77	121	400	7.9	6.5	180	205	--	40	20
06-08-77	70	405	--	6.5	180	206	--	40	20
07-04-77	--	--	--	--	--	--	--	--	--
07-12-77	84	395	8.2	6.5	180	200	--	39	20
08-17-77	36	400	8.3	7.5	180	209	--	40	19
09-26-77	27	400	8.2	8.5	180	201	--	39	20
10-18-77	9.7	370	8.4	9.0	190	212	--	38	22
11-09-77	17	370	8.0	4.0	200	221	--	42	22
12-07-77	14	385	8.2	4.0	180	199	--	39	21
02-06-78	14	395	8.1	2.0	290	260	--	78	24
03-08-78	15	360	8.1	7.0	200	219	--	43	23
04-10-78	15	365	7.8	6.0	200	213	--	42	22
05-09-78	34	385	8.0	4.5	190	214	--	44	20
06-15-78	79	385	8.3	9.0	190	204	--	42	20
07-17-78	62	375	8.1	8.5	180	198	--	39	20
08-02-78	60	370	7.1	9.0	180	197	--	39	20
09-12-78	38	362	7.7	9.0	170	202	--	39	18
10-11-78	39	418	7.8	8.5	170	198	--	38	19
10-11-78	39	418	--	8.5	--	--	--	--	--
11-08-78	24	360	8.5	10.0	170	191	--	38	19
12-07-78	22	330	--	3.5	--	--	--	--	--
12-07-78	22	330	8.1	3.5	170	192	--	37	19
01-04-79	24	375	7.9	3.0	170	214	--	37	19
02-06-79	36	400	7.3	2.0	180	201	--	38	20
03-12-79	38	414	8.5	4.5	180	207	--	42	19
04-16-79	37	405	8.0	6.0	180	210	--	39	20
05-14-79	42	380	8.2	7.0	190	203	--	40	21
06-14-79	97	338	8.2	6.0	180	204	--	40	20
07-10-79	64	461	7.2	8.0	170	205	--	36	20
08-14-79	34	370	8.1	7.0	180	214	--	41	19
09-10-79	34	378	8.7	8.0	180	212	--	40	20
10-03-79	24	353	8.4	8.0	190	212	--	42	20
11-16-79	29	361	8.2	6.0	200	222	222	44	23

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued											
07-07-75	3.0	3	0.1	2.5	44	1.0	0.30	7.7	0.050	0.010	<0.010
08-11-75	3.4	4	0.1	2.8	44	1.6	0.20	7.7	0.050	<0.010	<0.010
09-08-75	3.3	4	0.1	2.8	42	1.6	0.20	7.4	0.080	0.010	0.010
10-14-75	6.7	7	0.2	2.8	53	3.2	0.30	7.2	0.060	0.030	0.010
11-13-75	3.3	4	0.1	2.8	48	1.5	0.30	6.7	0.040	0.040	<0.010
12-10-75	3.8	4	0.1	2.8	47	5.8	0.30	7.1	0.110	<0.010	<0.010
01-27-76	3.0	3	0.1	2.8	41	1.5	0.20	7.5	0.120	<0.010	<0.010
02-24-76	3.5	4	0.1	2.6	45	0.70	0.20	7.3	0.080	0.010	<0.010
03-08-76	5.2	5	0.2	2.8	57	1.6	0.20	8.4	0.110	<0.010	0.010
03-25-76	3.8	4	0.1	2.7	39	1.3	0.20	7.4	0.090	0.010	0.010
04-21-76	3.4	4	0.1	2.9	49	0.60	0.30	6.4	0.030	<0.010	<0.010
05-18-76	3.0	3	0.1	2.8	44	4.0	0.20	7.5	0.030	0.020	0.020
06-21-76	3.2	3	0.1	2.6	44	0.80	0.20	7.6	0.040	0.040	0.010
07-21-76	2.9	3	0.1	2.5	51	1.3	0.20	7.3	0.020	<0.010	<0.010
08-17-76	3.0	3	0.1	2.6	46	1.1	0.20	7.8	0.040	<0.010	<0.010
09-16-76	3.2	3	0.1	2.6	56	1.3	0.30	7.8	0.040	<0.010	0.010
10-19-76	3.7	4	0.1	2.6	44	1.6	0.20	8.3	0.140	0.020	0.010
11-16-76	4.4	5	0.1	2.8	32	0.10	0.20	8.5	0.020	0.010	0.010
12-14-76	3.2	4	0.1	2.6	43	1.2	0.20	7.9	0.010	0.010	<0.010
01-13-77	3.1	4	0.1	2.5	46	1.2	0.30	8.2	0.120	<0.010	0.010
02-11-77	3.2	3	0.1	2.6	45	1.2	0.20	9.0	0.100	0.010	0.010
04-12-77	3.2	4	0.1	2.6	45	1.5	0.30	8.6	0.030	<0.010	0.020
05-10-77	2.9	3	0.1	2.4	41	1.1	0.20	8.5	0.040	<0.010	<0.010
06-08-77	3.3	4	0.1	2.8	46	1.2	0.20	8.5	0.030	0.010	0.010
07-04-77	--	--	--	--	--	--	--	--	--	--	--
07-12-77	3.5	4	0.1	2.6	41	1.1	0.30	8.8	0.050	<0.010	<0.010
08-17-77	4.8	5	0.2	2.8	43	1.0	0.20	9.2	0.090	0.020	<0.010
09-26-77	3.0	3	0.1	2.5	42	1.3	0.20	9.3	0.070	0.010	0.010
10-18-77	2.7	3	0.1	2.6	46	1.1	0.20	9.6	0.010	0.010	<0.010
11-09-77	3.8	4	0.1	2.7	50	1.3	0.20	9.9	0.100	0.010	<0.010
12-07-77	3.2	4	0.1	2.8	40	1.2	0.20	8.1	0.010	0.010	0.010
02-06-78	3.7	3	0.1	2.9	44	1.1	0.40	11	0.430	0.030	0.030
03-08-78	2.8	3	0.1	2.6	43	1.1	0.20	9.0	0.140	0.020	0.020
04-10-78	3.7	4	0.1	2.6	44	1.4	0.20	8.3	0.030	<0.010	<0.010
05-09-78	4.2	4	0.1	2.7	44	1.4	0.20	8.5	0.020	0.020	<0.010
06-15-78	3.1	3	0.1	2.5	42	1.2	0.30	9.0	0.040	<0.010	0.010
07-17-78	3.1	4	0.1	2.5	39	1.2	0.20	9.4	0.050	<0.010	<0.010
08-02-78	3.2	4	0.1	2.5	38	1.2	0.20	9.0	0.070	0.010	0.010
09-12-78	4.7	6	0.2	2.6	42	1.5	0.20	9.9	0.100	<0.010	<0.010
10-11-78	2.9	3	0.1	2.6	40	1.2	0.20	9.6	0.110	0.010	0.010
10-11-78	--	--	--	--	--	--	--	--	--	--	--
11-08-78	3.3	4	0.1	2.5	37	1.3	0.20	10	0.110	<0.010	<0.010
12-07-78	--	--	--	--	--	--	--	--	--	--	--
12-07-78	3.0	4	0.1	2.8	36	1.4	0.20	9.0	<0.100	0.020	0.010
01-04-79	3.1	4	0.1	2.8	41	1.2	0.20	9.0	0.110	<0.010	<0.010
02-06-79	3.0	3	0.1	2.6	38	1.2	0.20	8.9	0.070	0.010	0.010
03-12-79	3.5	4	0.1	2.3	39	1.7	0.30	9.6	0.050	<0.010	<0.010
04-16-79	3.1	4	0.1	2.5	40	1.2	0.30	9.4	0.110	0.020	0.010
05-14-79	3.4	4	0.1	2.7	43	1.4	0.20	8.0	<0.100	0.180	0.010
06-14-79	3.0	3	0.1	2.7	40	1.2	0.20	7.9	0.010	0.010	<0.010
07-10-79	3.4	4	0.1	2.9	43	1.5	0.30	9.2	0.010	0.020	0.010
08-14-79	3.7	4	0.1	2.8	47	1.4	0.20	9.4	0.110	0.080	0.040
09-10-79	4.6	5	0.1	2.2	44	1.1	0.30	9.3	0.030	0.010	<0.010
10-03-79	4.3	5	0.1	2.5	43	1.2	0.20	9.1	0.030	0.00	0.010
11-16-79	7.6	7	0.2	3.2	42	1.5	0.20	9.9	0.080	0.020	0.020

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued									
12-12-79	27	361	8.3	4.0	190	205	205	40	21
01-16-80	26	380	8.4	3.5	180	203	--	38	20
02-12-80	19	377	8.5	4.0	200	219	220	43	22
03-19-80	19	380	8.2	4.5	200	209	209	42	22
04-16-80	20	390	8.4	6.5	200	212	212	42	22
05-15-80	52	385	8.5	5.5	180	200	201	39	20
06-10-80	54	422	8.4	5.0	180	202	202	39	21
07-15-80	122	343	8.3	6.0	190	203	--	40	21
08-06-80	105	411	7.6	6.0	170	207	--	37	20
09-02-80	46	365	8.3	7.0	180	207	--	39	20
10-08-80	12	357	--	8.5	--	--	--	--	--
11-10-80	13	358	--	6.5	--	--	--	--	--
01-08-81	14	273	--	2.5	--	--	--	--	--
03-06-81	14	365	--	4.5	--	--	--	--	--
04-01-81	14	362	--	6.5	--	--	--	--	--
05-01-81	150	363	--	6.0	--	--	--	--	--
06-05-81	29	357	--	8.0	--	--	--	--	--
07-10-81	146	370	--	6.5	--	--	--	--	--
08-07-81	33	370	--	8.0	--	--	--	--	--
09-02-81	77	363	--	8.0	--	--	--	--	--
10-14-81	9.5	372	--	8.0	--	--	--	--	--
12-03-81	11	367	--	5.5	--	--	--	--	--
02-11-82	14	375	--	3.0	--	--	--	--	--
03-22-82	13	380	--	4.5	--	--	--	--	--
04-20-82	13	377	--	6.5	--	--	--	--	--
05-19-82	21	371	--	7.0	--	--	--	--	--
06-24-82	22	372	--	7.5	--	--	--	--	--
07-15-82	139	373	--	7.0	--	--	--	--	--
08-06-82	104	365	--	7.5	--	--	--	--	--
09-08-82	86	372	--	8.0	--	--	--	--	--
10-14-82	27	376	--	8.0	--	--	--	--	--
11-05-82	37	358	--	9.0	--	--	--	--	--
12-13-82	38	360	--	4.0	--	--	--	--	--
01-27-83	22	357	--	2.5	--	--	--	--	--
03-21-83	48	374	--	4.0	--	--	--	--	--
04-20-83	68	369	--	4.5	--	--	--	--	--
05-17-83	178	358	--	5.5	--	--	--	--	--
06-22-83	112	362	--	6.5	--	--	--	--	--
07-19-83	85	357	--	7.0	--	--	--	--	--
09-14-83	27	350	--	8.0	--	--	--	--	--
10-07-83	14	360	--	6.5	--	--	--	--	--
11-04-83	15	353	--	7.5	--	--	--	--	--
12-01-83	15	345	--	4.5	--	--	--	--	--
01-17-84	22	371	--	2.5	--	--	--	--	--
02-01-84	22	365	--	4.0	--	--	--	--	--
03-01-84	15	390	--	4.5	--	--	--	--	--
04-09-84	44	363	--	4.5	--	--	--	--	--
05-14-84	219	360	--	5.5	--	--	--	--	--
06-18-84	182	435	--	6.5	--	--	--	--	--
07-02-84	74	352	--	6.5	--	--	--	--	--
08-13-84	103	360	--	8.0	--	--	--	--	--
09-13-84	52	350	--	7.5	--	--	--	--	--
10-16-84	19	340	--	8.0	--	--	--	--	--
11-19-84	26	340	--	2.5	--	--	--	--	--
12-19-84	25	320	--	3.5	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued											
12-12-79	4.3	5	0.1	2.6	37	1.1	0.20	8.3	0.030	0.010	0.00
01-16-80	3.5	4	0.1	2.7	39	1.1	0.30	8.4	0.040	0.020	0.040
02-12-80	4.0	4	0.1	2.7	41	1.1	0.20	8.8	0.110	0.010	0.010
03-19-80	3.2	3	0.1	2.4	39	1.1	0.20	8.6	0.030	0.00	0.020
04-16-80	3.4	4	0.1	2.6	42	1.2	0.30	8.6	0.020	0.010	0.010
05-15-80	2.8	3	0.1	2.5	37	0.80	0.30	7.8	0.050	0.010	0.010
06-10-80	3.0	3	0.1	2.8	37	0.90	0.10	7.9	0.060	0.00	0.00
07-15-80	2.8	3	0.1	2.7	37	1.0	0.40	8.3	0.00	0.020	0.010
08-06-80	5.1	6	0.2	2.6	36	1.5	0.20	8.2	0.00	0.030	0.030
09-02-80	3.0	3	0.1	2.5	37	1.4	0.20	8.2	0.00	0.070	0.010
10-08-80	--	--	--	--	--	--	--	--	--	--	--
11-10-80	--	--	--	--	--	--	--	--	--	--	--
01-08-81	--	--	--	--	--	--	--	--	--	--	--
03-06-81	--	--	--	--	--	--	--	--	--	--	--
04-01-81	--	--	--	--	--	--	--	--	--	--	--
05-01-81	--	--	--	--	--	--	--	--	--	--	--
06-05-81	--	--	--	--	--	--	--	--	--	--	--
07-10-81	--	--	--	--	--	--	--	--	--	--	--
08-07-81	--	--	--	--	--	--	--	--	--	--	--
09-02-81	--	--	--	--	--	--	--	--	--	--	--
10-14-81	--	--	--	--	--	--	--	--	--	--	--
12-03-81	--	--	--	--	--	--	--	--	--	--	--
02-11-82	--	--	--	--	--	--	--	--	--	--	--
03-22-82	--	--	--	--	--	--	--	--	--	--	--
04-20-82	--	--	--	--	--	--	--	--	--	--	--
05-19-82	--	--	--	--	--	--	--	--	--	--	--
06-24-82	--	--	--	--	--	--	--	--	--	--	--
07-15-82	--	--	--	--	--	--	--	--	--	--	--
08-06-82	--	--	--	--	--	--	--	--	--	--	--
09-08-82	--	--	--	--	--	--	--	--	--	--	--
10-14-82	--	--	--	--	--	--	--	--	--	--	--
11-05-82	--	--	--	--	--	--	--	--	--	--	--
12-13-82	--	--	--	--	--	--	--	--	--	--	--
01-27-83	--	--	--	--	--	--	--	--	--	--	--
03-21-83	--	--	--	--	--	--	--	--	--	--	--
04-20-83	--	--	--	--	--	--	--	--	--	--	--
05-17-83	--	--	--	--	--	--	--	--	--	--	--
06-22-83	--	--	--	--	--	--	--	--	--	--	--
07-19-83	--	--	--	--	--	--	--	--	--	--	--
09-14-83	--	--	--	--	--	--	--	--	--	--	--
10-07-83	--	--	--	--	--	--	--	--	--	--	--
11-04-83	--	--	--	--	--	--	--	--	--	--	--
12-01-83	--	--	--	--	--	--	--	--	--	--	--
01-17-84	--	--	--	--	--	--	--	--	--	--	--
02-01-84	--	--	--	--	--	--	--	--	--	--	--
03-01-84	--	--	--	--	--	--	--	--	--	--	--
04-09-84	--	--	--	--	--	--	--	--	--	--	--
05-14-84	--	--	--	--	--	--	--	--	--	--	--
06-18-84	--	--	--	--	--	--	--	--	--	--	--
07-02-84	--	--	--	--	--	--	--	--	--	--	--
08-13-84	--	--	--	--	--	--	--	--	--	--	--
09-13-84	--	--	--	--	--	--	--	--	--	--	--
10-16-84	--	--	--	--	--	--	--	--	--	--	--
11-19-84	--	--	--	--	--	--	--	--	--	--	--
12-19-84	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued				
01-24-85	23	360	3.0	--
02-21-85	24	360	5.0	--
03-27-85	67	360	3.5	--
04-18-85	42	--	6.5	--
05-20-85	130	350	7.0	--
06-19-85	49	362	6.0	--
06-24-85	--	--	--	--
07-17-85	97	350	6.0	--
08-20-85	51	335	8.5	--
09-24-85	22	350	7.0	--
10-16-85	6.1	360	9.0	--
11-30-85	16	380	4.0	--
12-13-85	15	380	3.0	--
01-22-86	14	370	--	--
02-18-86	15	380	3.5	--
03-25-86	14	350	5.5	--
04-22-86	20	360	7.0	--
05-27-86	18	370	8.5	--
06-23-86	27	370	8.0	--
07-30-86	51	360	8.0	--
09-16-86	29	360	8.5	--
10-21-86	40	360	9.0	--
11-19-86	35	360	5.5	--
12-05-86	--	--	--	--
12-16-86	20	360	4.0	--
01-21-87	14	360	0.0	--
02-09-87	--	--	--	--
03-16-87	--	--	--	<0.100
03-23-87	56	370	4.0	--
04-14-87	--	--	--	--
04-15-87	80	370	4.5	--
05-21-87	51	370	5.5	--
06-12-87	--	--	--	--
06-25-87	66	370	6.0	--
07-06-87	--	--	--	--
07-21-87	86	365	5.0	--
08-24-87	--	--	--	--
08-27-87	33	380	7.0	--
10-05-87	21	365	8.0	--
11-23-87	14	390	5.5	--
01-05-88	15	350	0.0	--
02-09-88	15	410	0.0	--
03-22-88	14	385	4.5	--
04-20-88	44	375	5.5	--
05-16-88	81	365	8.5	--
06-13-88	--	--	--	--
06-17-88	92	365	9.0	--
07-14-88	--	--	--	--
07-19-88	95	375	8.0	--
08-09-88	--	--	--	--
09-01-88	70	370	10.0	--
10-12-88	17	375	8.0	--
10-14-88	--	--	--	--
10-15-88	--	--	--	--
11-23-88	13	360	7.0	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
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Site 06411500, Rapid Creek below Pactola Dam, SD - Continued

12-21-88	15	320	--	3.0	--	--	--	--
02-09-89	13	384	--	2.5	--	--	--	--
03-15-89	13	395	--	3.0	--	--	--	--
05-11-89	51	385	--	8.0	--	--	--	--
06-01-89	69	390	--	7.5	--	--	--	--
07-05-89	98	385	--	8.0	--	--	--	--
08-16-89	94	410	--	8.0	--	--	--	--
10-02-89	15	405	--	6.0	--	--	--	--
11-06-89	17	398	--	5.0	--	--	--	--
12-28-89	15	403	--	4.5	--	--	--	--
02-27-90	14	435	--	2.0	--	--	--	--
04-09-90	12	--	--	5.0	--	--	--	--
04-30-90	20	375	--	5.0	--	--	--	--
06-13-90	14	393	--	9.0	--	--	--	--
07-13-90	76	390	--	8.0	--	--	--	--
08-20-90	58	395	--	11.0	--	--	--	--

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
------	--	---	---	---	---	---	---	--	--	--	---

Site 06411500, Rapid Creek below Pactola Dam, SD - Continued

12-21-88	--	--	--	--	--	--	--	--	--	--	--
02-09-89	--	--	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--	--	--
05-11-89	--	--	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--	--	--
07-05-89	--	--	--	--	--	--	--	--	--	--	--
08-16-89	--	--	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--	--	--
11-06-89	--	--	--	--	--	--	--	--	--	--	--
12-28-89	--	--	--	--	--	--	--	--	--	--	--
02-27-90	--	--	--	--	--	--	--	--	--	--	--
04-09-90	--	--	--	--	--	--	--	--	--	--	--
04-30-90	--	--	--	--	--	--	--	--	--	--	--
06-13-90	--	--	--	--	--	--	--	--	--	--	--
07-13-90	--	--	--	--	--	--	--	--	--	--	--
08-20-90	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG AS ZN) (01090)
Site 06411500, Rapid Creek below Pactola Dam, SD - Continued												
12-21-88	--	--	--	--	--	--	--	--	--	--	--	--
02-09-89	--	--	--	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--	--	--	--
05-11-89	--	--	--	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--	--	--	--
07-05-89	--	--	--	--	--	--	--	--	--	--	--	--
08-16-89	--	--	--	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--	--	--	--
11-06-89	--	--	--	--	--	--	--	--	--	--	--	--
12-28-89	--	--	--	--	--	--	--	--	--	--	--	--
02-27-90	--	--	--	--	--	--	--	--	--	--	--	--
04-09-90	--	--	--	--	--	--	--	--	--	--	--	--
04-30-90	--	--	--	--	--	--	--	--	--	--	--	--
06-13-90	--	--	--	--	--	--	--	--	--	--	--	--
07-13-90	--	--	--	--	--	--	--	--	--	--	--	--
08-20-90	--	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)
Site 06412200, Rapid Creek above Victoria Creek near Rapid City, SD								
10-14-88	14	380	--	9.0	--	--	--	--
11-21-88	11	395	--	0.0	--	--	--	--
12-21-88	13	360	--	0.5	--	--	--	--
02-15-89	8.0	450	--	0.0	--	--	--	--
03-15-89	14	390	--	0.5	--	--	--	--
03-21-89	38	367	8.5	0.5	670	12.6	100	200
06-01-89	55	--	--	14.5	--	--	--	--
06-01-89	55	370	8.9	10.5	675	9.2	93	200
06-06-89	107	392	--	9.5	--	--	--	--
07-06-89	92	385	--	14.0	--	--	--	--
08-15-89	102	395	--	12.0	--	--	--	--
09-13-89	21	380	8.5	9.5	675	10.5	104	210
10-02-89	15	390	--	7.0	--	--	--	--
10-17-89	17	395	--	2.0	--	--	--	--
11-06-89	18	395	--	4.5	--	--	--	--
12-01-89	13	400	8.5	0.0	676	12.7	98	220
12-18-89	15	450	--	0.0	--	--	--	--
01-19-90	--	--	--	--	--	--	--	--
02-01-90	8.8	425	--	0.0	--	--	--	--
03-13-90	13	380	--	0.5	--	--	--	--
04-19-90	10	420	--	13.0	--	--	--	--
05-16-90	60	410	--	10.5	--	--	--	--
06-01-90	19	357	8.8	17.0	660	7.6	91	190
06-12-90	15	355	--	17.0	--	--	--	--
07-12-90	79	380	--	14.5	--	--	--	--
08-17-90	44	378	--	17.0	--	--	--	--
09-27-90	22	375	--	12.0	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINIT LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
Site 06412200, Rapid Creek above Victoria Creek near Rapid City, SD - Continued												
10-14-88	--	--	--	--	--	--	--	--	--	--	--	--
11-21-88	--	--	--	--	--	--	--	--	--	--	--	--
12-21-88	--	--	--	--	--	--	--	--	--	--	--	--
02-15-89	--	--	--	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--	--	--	--
03-21-89	163	219	217	43	22	3.8	4	0.1	2.6	38	2.5	0.30
06-01-89	--	--	--	--	--	--	--	--	--	--	--	--
06-01-89	161	218	213	42	24	3.4	3	0.1	2.6	39	1.7	0.20
06-06-89	--	--	--	--	--	--	--	--	--	--	--	--
07-06-89	--	--	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--	--	--
09-13-89	166	224	212	43	24	3.7	4	0.1	2.6	41	2.2	0.20
10-02-89	--	--	--	--	--	--	--	--	--	--	--	--
10-17-89	--	--	--	--	--	--	--	--	--	--	--	--
11-06-89	--	--	--	--	--	--	--	--	--	--	--	--
12-01-89	178	242	241	47	25	4.2	4	0.1	2.7	45	2.9	0.20
12-18-89	--	--	--	--	--	--	--	--	--	--	--	--
01-19-90	--	--	--	--	--	--	--	--	--	--	--	--
02-01-90	--	--	--	--	--	--	--	--	--	--	--	--
03-13-90	--	--	--	--	--	--	--	--	--	--	--	--
04-19-90	--	--	--	--	--	--	--	--	--	--	--	--
05-16-90	--	--	--	--	--	--	--	--	--	--	--	--
06-01-90	148	208	204	40	23	3.7	4	0.1	2.6	40	1.9	<0.10
06-12-90	--	--	--	--	--	--	--	--	--	--	--	--
07-12-90	--	--	--	--	--	--	--	--	--	--	--	--
08-17-90	--	--	--	--	--	--	--	--	--	--	--	--
09-27-90	--	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG AS ZN) (01090)
Site 06412200, Rapid Creek above Victoria Creek near Rapid City, SD - Continued												
10-14-88	--	--	--	--	--	--	--	--	--	--	--	--
11-21-88	--	--	--	--	--	--	--	--	--	--	--	--
12-21-88	--	--	--	--	--	--	--	--	--	--	--	--
02-15-89	--	--	--	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--	--	--	--
03-21-89	8.3	0.100	<0.20	<0.010	<1	1	<1.0	<1	7	2	<0.1	5
06-01-89	--	--	--	--	--	--	--	--	--	--	--	--
06-01-89	8.5	<0.100	0.20	<0.010	<1	1	<1.0	1	7	2	<0.1	<3
06-06-89	--	--	--	--	--	--	--	--	--	--	--	--
07-06-89	--	--	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--	--	--
09-13-89	7.8	<0.100	<0.20	<0.010	<1	<1	<1.0	1	8	<1	<0.1	13
10-02-89	--	--	--	--	--	--	--	--	--	--	--	--
10-17-89	--	--	--	--	--	--	--	--	--	--	--	--
11-06-89	--	--	--	--	--	--	--	--	--	--	--	--
12-01-89	8.3	<0.100	<0.20	<0.010	<1	1	<1.0	1	<3	<1	0.1	5
12-18-89	--	--	--	--	--	--	--	--	--	--	--	--
01-19-90	--	--	--	--	--	--	--	--	--	--	--	--
02-01-90	--	--	--	--	--	--	--	--	--	--	--	--
03-13-90	--	--	--	--	--	--	--	--	--	--	--	--
04-19-90	--	--	--	--	--	--	--	--	--	--	--	--
05-16-90	--	--	--	--	--	--	--	--	--	--	--	--
06-01-90	8.0	<0.100	0.20	0.010	<1	2	<10	1	8	25	<0.1	4
06-12-90	--	--	--	--	--	--	--	--	--	--	--	--
07-12-90	--	--	--	--	--	--	--	--	--	--	--	--
08-17-90	--	--	--	--	--	--	--	--	--	--	--	--
09-27-90	--	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
Site 06412500, Rapid Creek above Canyon Lake near Rapid City, SD								
10-10-75	7.8	--	--	12.5	--	--	--	--
11-04-75	5.9	--	--	4.0	--	--	--	--
11-26-75	3.9	--	--	3.0	--	--	--	--
12-26-75	6.4	--	--	1.0	--	--	--	--
01-22-76	9.5	--	--	0.0	--	--	--	--
02-20-76	12	--	--	0.0	--	--	--	--
03-17-76	12	--	--	3.0	--	--	--	--
04-14-76	15	--	--	7.0	--	--	--	--
05-15-76	17	--	--	17.0	--	--	--	--
06-13-76	65	--	--	10.0	--	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG AS F) (00950)
Site 06412500, Rapid Creek above Canyon Lake near Rapid City, SD - Continued											
10-10-75	--	--	--	--	--	--	--	--	--	--	--
11-04-75	--	--	--	--	--	--	--	--	--	--	--
11-26-75	--	--	--	--	--	--	--	--	--	--	--
12-26-75	--	--	--	--	--	--	--	--	--	--	--
01-22-76	--	--	--	--	--	--	--	--	--	--	--
02-20-76	--	--	--	--	--	--	--	--	--	--	--
03-17-76	--	--	--	--	--	--	--	--	--	--	--
04-14-76	--	--	--	--	--	--	--	--	--	--	--
05-15-76	--	--	--	--	--	--	--	--	--	--	--
06-13-76	--	--	--	--	--	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, AMONIA + DIS. (MG/L AS N) (00631)	NITRO-GEN, AMONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ANTI-MONY, DIS-SOLVED (UG/L AS SB) (01095)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG AS ZN) (01090)
Site 06412500, Rapid Creek above Canyon Lake near Rapid City, SD - Continued												
10-10-75	--	--	--	--	--	--	--	--	--	--	--	--
11-04-75	--	--	--	--	--	--	--	--	--	--	--	--
11-26-75	--	--	--	--	--	--	--	--	--	--	--	--
12-26-75	--	--	--	--	--	--	--	--	--	--	--	--
01-22-76	--	--	--	--	--	--	--	--	--	--	--	--
02-20-76	--	--	--	--	--	--	--	--	--	--	--	--
03-17-76	--	--	--	--	--	--	--	--	--	--	--	--
04-14-76	--	--	--	--	--	--	--	--	--	--	--	--
05-15-76	--	--	--	--	--	--	--	--	--	--	--	--
06-13-76	--	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
Site 06412500, Rapid Creek above Canyon Lake near Rapid City, SD - Continued			
07-11-76	62	--	16.5
08-13-76	56	--	15.5
09-10-76	56	--	12.5
10-14-76	11	--	--
11-17-76	15	--	3.5
12-15-76	9.8	--	0.5
01-11-77	6.9	--	0.0
02-10-77	11	--	1.0
03-10-77	18	--	1.5
04-08-77	43	--	8.0
05-12-77	101	--	13.0
06-09-77	68	--	19.0
07-13-77	77	--	17.0
08-17-77	29	--	13.5
09-29-77	15	--	14.5
10-17-77	4.3	--	8.5
11-07-77	3.5	480	6.0
12-08-77	4.4	400	0.5
01-11-78	8.1	410	0.0
03-17-78	18	440	8.5
04-03-78	9.6	400	9.5
05-09-78	89	350	12.5
06-05-78	299	420	10.5
08-01-78	58	377	19.5
09-11-78	36	360	16.0
10-12-78	32	350	9.5
11-06-78	18	380	5.5
12-04-78	21	380	1.5
01-02-79	11	410	0.0
02-05-79	27	430	9.0
03-12-79	39	400	4.5
04-19-79	39	358	14.0
05-15-79	34	375	15.0
06-14-79	121	395	14.0
07-03-79	57	372	20.0
08-15-79	33	366	16.5
09-11-79	31	368	15.0
08-30-82	103	402	13.0
10-04-82	24	395	10.5
11-10-82	14	381	3.5
12-16-82	15	375	1.0
01-06-83	19	372	1.0
03-17-83	28	389	2.0
04-15-83	67	368	6.0
05-26-83	174	365	8.0
06-24-83	120	361	15.0
07-12-83	62	390	13.5
09-06-83	42	350	13.0
10-03-83	11	360	12.0
11-04-83	11	360	8.0
12-02-83	8.8	390	1.0
01-09-84	20	360	1.5
02-01-84	20	370	1.5
03-01-84	17	350	3.0
04-02-84	45	348	0.0

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DIS-
CHARGE,
INST.
CUBIC
FEET
PER
SECOND
(00061)

SPE-
CIFIC
CON-
DUCT-
ANCE
(US/CM)
(00095)

TEMPER-
ATURE
WATER
(DEG C)
(00010)

DATE

Site 06412500, Rapid Creek above Canyon Lake near Rapid City, SD - Continued

05-15-84	235	350	8.0
06-08-84	79	350	11.5
07-10-84	162	360	12.5
08-23-84	55	360	18.0
09-06-84	39	361	14.5
10-17-84	14	360	6.0
11-20-84	35	340	5.0
12-11-84	26	340	1.0
01-14-85	25	260	1.5
03-19-85	45	340	3.0
04-19-85	36	350	14.0
05-15-85	116	340	8.5
06-03-85	41	350	10.5
07-17-85	74	325	15.5
08-07-85	53	350	15.0
09-10-85	22	350	13.5
10-08-85	6.8	350	6.5
11-07-85	8.2	350	5.0
12-09-85	8.7	350	0.5
01-09-86	8.4	360	1.0
02-10-86	4.0	740	0.0
03-20-86	8.9	360	5.5
04-09-86	14	370	7.0
05-06-86	18	350	12.0
07-01-86	32	350	20.0
08-07-86	49	340	20.0
09-09-86	19	350	15.5
10-29-86	69	370	8.0
11-26-86	34	370	4.0
12-05-86	--	--	--
12-15-86	15	380	1.0
01-12-87	21	370	1.0
02-06-87	--	--	--
03-10-87	21	370	1.5
03-26-87	29	360	2.0
03-27-87	24	360	4.0
05-11-87	51	350	14.0
06-05-87	45	360	13.0
07-02-87	79	350	17.0
09-30-87	15	360	13.5
10-23-87	7.7	380	5.0
12-07-87	7.1	370	3.5
01-13-88	6.6	400	0.5
02-16-88	9.6	380	0.0
03-28-88	6.8	330	5.0
05-24-88	51	370	17.0
06-24-88	109	372	14.0
08-04-88	96	350	14.0
09-13-88	41	360	11.0
10-14-88	5.0	370	13.0
10-25-88	4.0	370	5.0
11-02-88	3.6	370	7.5
11-21-88	3.9	385	0.0
12-21-88	5.8	380	2.0
12-27-88	0.72	410	0.0

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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Site 06412500, Rapid Creek above Canyon Lake near Rapid City, SD - Continued

02-08-89	5.3	410	0.0
03-13-89	7.6	360	2.0
04-12-89	5.8	385	2.0
06-06-89	96	390	12.0
07-06-89	77	395	15.0
08-14-89	80	380	16.0
08-23-89	15	370	20.5
10-17-89	5.3	390	6.0
11-06-89	7.6	390	6.5
11-28-89	0.09	420	0.5
12-19-89	3.5	430	0.0
02-01-90	2.8	430	0.0
03-12-90	5.2	370	6.5
04-19-90	2.1	410	14.5
05-16-90	49	400	11.5
06-12-90	5.2	360	17.0
07-13-90	70	385	13.0
08-17-90	31	372	19.5
09-27-90	10	370	12.0
10-29-90	0.80	390	8.5
10-29-90	0.80	390	8.5
10-29-90	0.80	390	8.5
10-29-90	0.80	390	8.5
10-29-90	0.80	390	8.5
10-29-90	0.80	390	8.5

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
Site 06412600, Cleghorn Springs Main Channel at Fish Hatchery, at Rapid City, SD			
01-14-88	9.1	360	11.0
02-17-88	10	370	9.0
03-28-88	11	325	11.0
04-28-88	9.4	380	12.0
08-05-88	13	360	13.5
09-13-88	11	380	--
11-22-88	11	370	1.0
12-28-88	9.8	360	11.0
02-15-89	8.5	400	9.0
02-15-89	8.2	--	9.0
04-12-89	9.9	430	12.0
05-08-89	11	368	11.0
05-08-89	8.9	369	11.0
06-14-89	--	371	14.0
07-05-89	7.3	380	14.5
08-15-89	--	374	13.0
08-28-89	9.6	374	13.0
10-16-89	10	370	12.0
11-06-89	11	--	--
11-28-89	12	385	12.0
12-29-89	10	383	10.5
03-08-90	7.1	378	10.0

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
Site 06412900, Rapid Creek below Cleghorn Springs, at Rapid City, SD			
10-23-87	18	380	10.0
10-26-87	20	370	10.5
10-27-87	30	370	9.5
12-07-87	22	360	9.5
01-13-88	22	380	7.0

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)
Site 06412900, Rapid Creek below Cleghorn Springs, at Rapid City, SD - Continued						
02-17-88	28	372	--	5.0	--	--
03-29-88	24	365	--	6.0	--	--
04-26-88	53	450	--	6.5	--	--
05-25-88	72	370	--	15.5	--	--
06-30-88	111	370	--	13.0	--	--
08-02-88	140	360	--	15.0	--	--
09-14-88	57	360	--	12.0	--	--
10-13-88	19	370	--	13.0	--	--
10-25-88	18	240	--	9.0	--	--
11-02-88	25	370	8.3	11.5	668	10.6
11-22-88	18	380	--	6.0	--	--
12-28-88	14	365	--	10.0	--	--
02-15-89	16	410	--	0.0	--	--
03-13-89	19	370	--	9.5	--	--
04-12-89	22	385	--	8.0	--	--
05-04-89	24	385	--	12.0	--	--
06-06-89	115	390	--	13.0	--	--
07-06-89	95	385	--	17.0	--	--
08-15-89	106	390	--	15.0	--	--
09-27-89	20	390	--	12.0	--	--
10-18-89	20	395	--	7.0	--	--
11-09-89	18	380	--	10.5	--	--
11-28-89	14	395	--	11.0	--	--
12-20-89	19	400	--	4.5	--	--
02-01-90	16	385	--	6.0	--	--
03-13-90	17	395	--	7.0	--	--
04-19-90	13	410	--	12.5	--	--
05-17-90	56	390	--	--	--	--
06-12-90	20	355	--	14.0	--	--
07-13-90	84	390	--	13.0	--	--
08-17-90	46	368	--	20.5	--	--
09-27-90	25	385	--	12.0	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO SODIUM PERCENT (00932)	(00931)
Site 06412900, Rapid Creek below Cleghorn Springs, at Rapid City, SD - Continued										
02-17-88	--	--	--	--	--	--	--	--	--	--
03-29-88	--	--	--	--	--	--	--	--	--	--
04-26-88	--	--	--	--	--	--	--	--	--	--
05-25-88	--	--	--	--	--	--	--	--	--	--
06-30-88	--	--	--	--	--	--	--	--	--	--
08-02-88	--	--	--	--	--	--	--	--	--	--
09-14-88	--	--	--	--	--	--	--	--	--	--
10-13-88	--	--	--	--	--	--	--	--	--	--
10-25-88	--	--	--	--	--	--	--	--	--	--
11-02-88	111	--	--	--	--	--	--	--	--	--
11-22-88	--	--	--	--	--	--	--	--	--	--
12-28-88	--	--	--	--	--	--	--	--	--	--
02-15-89	--	--	--	--	--	--	--	--	--	--
03-13-89	--	--	--	--	--	--	--	--	--	--
04-12-89	--	--	--	--	--	--	--	--	--	--
05-04-89	--	--	--	--	--	--	--	--	--	--
06-06-89	--	--	--	--	--	--	--	--	--	--
07-06-89	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--
09-27-89	--	--	--	--	--	--	--	--	--	--
10-18-89	--	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--	--
11-28-89	--	--	--	--	--	--	--	--	--	--
12-20-89	--	--	--	--	--	--	--	--	--	--
02-01-90	--	--	--	--	--	--	--	--	--	--
03-13-90	--	--	--	--	--	--	--	--	--	--
04-19-90	--	--	--	--	--	--	--	--	--	--
05-17-90	--	--	--	--	--	--	--	--	--	--
06-12-90	--	--	--	--	--	--	--	--	--	--
07-13-90	--	--	--	--	--	--	--	--	--	--
08-17-90	--	--	--	--	--	--	--	--	--	--
09-27-90	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 06412900, Rapid Creek below Cleghorn Springs, at Rapid City, SD - Continued										
02-17-88	--	--	--	--	--	--	--	--	--	--
03-29-88	--	--	--	--	--	--	--	--	--	--
04-26-88	--	--	--	--	--	--	--	--	--	--
05-25-88	--	--	--	--	--	--	--	--	--	--
06-30-88	--	--	--	--	--	--	--	--	--	--
08-02-88	--	--	--	--	--	--	--	--	--	--
09-14-88	--	--	--	--	--	--	--	--	--	--
10-13-88	--	--	--	--	--	--	--	--	--	--
10-25-88	--	--	--	--	--	--	--	--	--	--
11-02-88	--	--	--	--	--	--	--	--	--	--
11-22-88	--	--	--	--	--	--	--	--	--	--
12-28-88	--	--	--	--	--	--	--	--	--	--
02-15-89	--	--	--	--	--	--	--	--	--	--
03-13-89	--	--	--	--	--	--	--	--	--	--
04-12-89	--	--	--	--	--	--	--	--	--	--
05-04-89	--	--	--	--	--	--	--	--	--	--
06-06-89	--	--	--	--	--	--	--	--	--	--
07-06-89	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--
09-27-89	--	--	--	--	--	--	--	--	--	--
10-18-89	--	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--	--
11-28-89	--	--	--	--	--	--	--	--	--	--
12-20-89	--	--	--	--	--	--	--	--	--	--
02-01-90	--	--	--	--	--	--	--	--	--	--
03-13-90	--	--	--	--	--	--	--	--	--	--
04-19-90	--	--	--	--	--	--	--	--	--	--
05-17-90	--	--	--	--	--	--	--	--	--	--
06-12-90	--	--	--	--	--	--	--	--	--	--
07-13-90	--	--	--	--	--	--	--	--	--	--
08-17-90	--	--	--	--	--	--	--	--	--	--
09-27-90	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)
Site 06413200, Rapid Creek below Park Drive, at Rapid City, SD						
10-23-87	23	360	--	8.0	--	--
12-07-87	20	380	--	6.5	--	--
01-13-88	21	380	--	3.0	--	--
02-18-88	24	330	--	5.0	--	--
03-30-88	22	450	--	8.0	--	--
04-22-88	51	380	--	6.0	--	--
05-24-88	62	360	--	15.0	--	--
06-28-88	121	375	--	19.0	--	--
07-29-88	117	360	--	17.0	--	--
09-15-88	59	375	--	13.5	--	--
10-25-88	18	370	--	10.0	--	--
11-08-88	--	366	8.1	8.5	672	10.6
11-23-88	22	370	--	5.0	--	--
02-14-89	23	400	--	3.0	--	--
03-13-89	20	370	--	9.5	--	--
06-06-89	99	380	--	15.0	--	--
07-06-89	79	380	--	18.0	--	--
08-15-89	100	380	--	16.0	--	--
09-27-89	16	415	--	15.0	--	--
10-18-89	20	385	--	7.0	--	--

DATE	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	ALKA-LINITY LAB (MG/L AS CaCO3) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)	SODIUM, DIS-SOLVED (MG/L AS Na) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)
Site 06413200, Rapid Creek below Park Drive, at Rapid City, SD - Continued										
10-23-87	--	--	--	--	--	--	--	--	--	--
12-07-87	--	--	--	--	--	--	--	--	--	--
01-13-88	--	--	--	--	--	--	--	--	--	--
02-18-88	--	--	--	--	--	--	--	--	--	--
03-30-88	--	--	--	--	--	--	--	--	--	--
04-22-88	--	--	--	--	--	--	--	--	--	--
05-24-88	--	--	--	--	--	--	--	--	--	--
06-28-88	--	--	--	--	--	--	--	--	--	--
07-29-88	--	--	--	--	--	--	--	--	--	--
09-15-88	--	--	--	--	--	--	--	--	--	--
10-25-88	--	--	--	--	--	--	--	--	--	--
11-08-88	103	190	173	212	215	43	21	4.5	5	0.1
11-23-88	--	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--	--
03-13-89	--	--	--	--	--	--	--	--	--	--
06-06-89	--	--	--	--	--	--	--	--	--	--
07-06-89	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--
09-27-89	--	--	--	--	--	--	--	--	--	--
10-18-89	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	
Site 06413200, Rapid Creek below Park Drive, at Rapid City, SD - Continued											
10-23-87	--	--	--	--	--	--	--	--	--	--	
12-07-87	--	--	--	--	--	--	--	--	--	--	
01-13-88	--	--	--	--	--	--	--	--	--	--	
02-18-88	--	--	--	--	--	--	--	--	--	--	
03-30-88	--	--	--	--	--	--	--	--	--	--	
04-22-88	--	--	--	--	--	--	--	--	--	--	
05-24-88	--	--	--	--	--	--	--	--	--	--	
06-28-88	--	--	--	--	--	--	--	--	--	--	
07-29-88	--	--	--	--	--	--	--	--	--	--	
09-15-88	--	--	--	--	--	--	--	--	--	--	
10-25-88	--	--	--	--	--	--	--	--	--	--	
11-08-88	2.6	33	2.9	0.20	0.200	0.50	0.010	12	6	0.8	
11-23-88	--	--	--	--	--	--	--	--	--	--	
02-14-89	--	--	--	--	--	--	--	--	--	--	
03-13-89	--	--	--	--	--	--	--	--	--	--	
06-06-89	--	--	--	--	--	--	--	--	--	--	
07-06-89	--	--	--	--	--	--	--	--	--	--	
08-15-89	--	--	--	--	--	--	--	--	--	--	
09-27-89	--	--	--	--	--	--	--	--	--	--	
10-18-89	--	--	--	--	--	--	--	--	--	--	
DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)			
Site 06413200, Rapid Creek below Park Drive, at Rapid City, SD - Continued											
11-09-89	15	390	--	7.5	--	--	--	--			
11-28-89	16	390	--	4.5	--	--	--	--			
DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
Site 06413200, Rapid Creek below Park Drive, at Rapid City, SD - Continued											
11-09-89	--	--	--	--	--	--	--	--	--	--	
11-28-89	--	--	--	--	--	--	--	--	--	--	
DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 06413200, Rapid Creek below Park Drive, at Rapid City, SD - Continued											
11-09-89	--	--	--	--	--	--	--	--	--	--	
11-28-89	--	--	--	--	--	--	--	--	--	--	

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 06413570, Rapid Creek above Jackson Blvd., at Rapid City, SD								
07-15-87	61	370	--	18.5	--	--	--	--
07-21-87	--	--	--	--	--	--	--	--
09-22-87	30	355	--	14.0	--	--	--	--
10-23-87	21	370	--	9.0	--	--	--	--
12-07-87	21	380	--	6.5	--	--	--	--
01-13-88	19	370	--	3.0	--	--	--	--
02-18-88	22	360	--	6.0	--	--	--	--
04-22-88	47	365	--	6.0	--	--	--	--
05-25-88	68	360	--	17.0	--	--	--	--
06-28-88	121	370	--	19.0	--	--	--	--
07-29-88	127	360	--	19.0	--	--	--	--
09-15-88	56	365	--	14.0	--	--	--	--
10-13-88	16	370	--	12.0	--	--	--	--
10-25-88	16	372	--	10.5	--	--	--	--
11-07-88	--	360	8.6	9.5	677	10.4	103	190
11-23-88	19	375	--	6.0	--	--	--	--
12-28-88	13	400	--	2.0	--	--	--	--
02-14-89	19	410	--	0.0	--	--	--	--
03-13-89	19	370	--	10.0	--	--	--	--
04-14-89	20	360	--	15.0	--	--	--	--
05-10-89	34	933	--	14.0	--	--	--	--
06-13-89	93	385	--	11.5	--	--	--	--
07-05-89	86	380	--	21.0	--	--	--	--
08-15-89	99	377	--	16.0	--	--	--	--
09-28-89	13	387	--	17.0	--	--	--	--
10-16-89	15	380	--	11.5	--	--	--	--
11-07-89	21	370	--	6.0	--	--	--	--
11-28-89	13	415	--	4.5	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 06413570, Rapid Creek above Jackson Blvd., at Rapid City, SD - Continued											
07-15-87	--	--	--	--	--	--	--	--	--	--	--
07-21-87	--	--	--	--	--	--	--	--	--	--	--
09-22-87	--	--	--	--	--	--	--	--	--	--	--
10-23-87	--	--	--	--	--	--	--	--	--	--	--
12-07-87	--	--	--	--	--	--	--	--	--	--	--
01-13-88	--	--	--	--	--	--	--	--	--	--	--
02-18-88	--	--	--	--	--	--	--	--	--	--	--
04-22-88	--	--	--	--	--	--	--	--	--	--	--
05-25-88	--	--	--	--	--	--	--	--	--	--	--
06-28-88	--	--	--	--	--	--	--	--	--	--	--
07-29-88	--	--	--	--	--	--	--	--	--	--	--
09-15-88	--	--	--	--	--	--	--	--	--	--	--
10-13-88	--	--	--	--	--	--	--	--	--	--	--
10-25-88	--	--	--	--	--	--	--	--	--	--	--
11-07-88	173	214	212	43	21	4.5	5	0.1	2.8	35	3.0
11-23-88	--	--	--	--	--	--	--	--	--	--	--
12-28-88	--	--	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--	--	--
03-13-89	--	--	--	--	--	--	--	--	--	--	--
04-14-89	--	--	--	--	--	--	--	--	--	--	--
05-10-89	--	--	--	--	--	--	--	--	--	--	--
06-13-89	--	--	--	--	--	--	--	--	--	--	--
07-05-89	--	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--	--
09-28-89	--	--	--	--	--	--	--	--	--	--	--
10-16-89	--	--	--	--	--	--	--	--	--	--	--
11-07-89	--	--	--	--	--	--	--	--	--	--	--
11-28-89	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 06413570, Rapid Creek above Jackson Blvd., at Rapid City, SD - Continued											
07-15-87	--	--	--	--	--	--	--	--	--	--	--
07-21-87	--	<0.100	<0.100	0.60	0.80	0.020	0.010	--	--	1.9	--
09-22-87	--	--	--	--	--	--	--	--	--	--	--
10-23-87	--	--	--	--	--	--	--	--	--	--	--
12-07-87	--	--	--	--	--	--	--	--	--	--	--
01-13-88	--	--	--	--	--	--	--	--	--	--	--
02-18-88	--	--	--	--	--	--	--	--	--	--	--
04-22-88	--	--	--	--	--	--	--	--	--	--	--
05-25-88	--	--	--	--	--	--	--	--	--	--	--
06-28-88	--	--	--	--	--	--	--	--	--	--	--
07-29-88	--	--	--	--	--	--	--	--	--	--	--
09-15-88	--	--	--	--	--	--	--	--	--	--	--
10-13-88	--	--	--	--	--	--	--	--	--	--	--
10-25-88	--	--	--	--	--	--	--	--	--	--	--
11-07-88	0.20	--	0.150	--	<0.20	--	0.020	14	3	--	1.5
11-23-88	--	--	--	--	--	--	--	--	--	--	--
12-28-88	--	--	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--	--	--
03-13-89	--	--	--	--	--	--	--	--	--	--	--
04-14-89	--	--	--	--	--	--	--	--	--	--	--
05-10-89	--	--	--	--	--	--	--	--	--	--	--
06-13-89	--	--	--	--	--	--	--	--	--	--	--
07-05-89	--	--	--	--	--	--	--	--	--	--	--
08-15-89	--	--	--	--	--	--	--	--	--	--	--
09-28-89	--	--	--	--	--	--	--	--	--	--	--
10-16-89	--	--	--	--	--	--	--	--	--	--	--
11-07-89	--	--	--	--	--	--	--	--	--	--	--
11-28-89	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CaCO3) (00900)
Site 06413650, Lime Creek at Mouth, at Rapid City, SD								
07-10-87	2.3	838	--	18.0	--	--	--	--
09-29-87	1.6	940	--	13.5	--	--	--	--
10-23-87	1.8	900	--	10.0	--	--	--	--
12-07-87	1.9	910	--	8.0	--	--	--	--
01-13-88	1.7	900	--	2.0	--	--	--	--
02-19-88	1.8	900	--	3.0	--	--	--	--
03-30-88	1.7	880	--	4.0	--	--	--	--
04-21-88	1.4	925	--	5.0	--	--	--	--
05-24-88	1.4	830	--	19.0	--	--	--	--
06-27-88	0.82	890	--	21.0	--	--	--	--
10-11-88	0.76	990	--	12.5	--	--	--	--
11-21-88	1.1	985	--	4.0	--	--	--	--
02-14-89	1.2	1030	--	0.0	--	--	--	--
03-15-89	0.90	1030	--	4.5	--	--	--	--
05-09-89	1.1	958	--	18.5	--	--	--	--
06-07-89	0.58	1060	--	14.5	--	--	--	--
07-03-89	0.65	1140	--	15.0	--	--	--	--
08-14-89	--	1130	--	17.0	--	--	--	--
09-27-89	0.58	1160	--	16.5	--	--	--	--
10-16-89	0.58	1280	--	8.0	--	--	--	--
10-28-89	14	330	--	9.0	--	--	--	--
11-07-89	1.2	920	--	9.0	--	--	--	--
11-29-89	0.81	1160	--	6.0	--	--	--	--
12-29-89	0.82	1170	--	5.0	--	--	--	--
03-08-90	1.8	1270	--	7.0	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINIT LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 06413650, Lime Creek at Mouth, at Rapid City, SD - Continued										
07-10-87	--	--	--	--	--	--	--	--	--	--
09-29-87	--	--	--	--	--	--	--	--	--	--
10-23-87	--	--	--	--	--	--	--	--	--	--
12-07-87	--	--	--	--	--	--	--	--	--	--
01-13-88	--	--	--	--	--	--	--	--	--	--
02-19-88	--	--	--	--	--	--	--	--	--	--
03-30-88	--	--	--	--	--	--	--	--	--	--
04-21-88	--	--	--	--	--	--	--	--	--	--
05-24-88	--	--	--	--	--	--	--	--	--	--
06-27-88	--	--	--	--	--	--	--	--	--	--
10-11-88	--	--	--	--	--	--	--	--	--	--
11-21-88	--	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--	--
05-09-89	--	--	--	--	--	--	--	--	--	--
06-07-89	--	--	--	--	--	--	--	--	--	--
07-03-89	--	--	--	--	--	--	--	--	--	--
08-14-89	--	--	--	--	--	--	--	--	--	--
09-27-89	--	--	--	--	--	--	--	--	--	--
10-16-89	--	--	--	--	--	--	--	--	--	--
10-28-89	--	--	--	--	--	--	--	--	--	--
11-07-89	--	--	--	--	--	--	--	--	--	--
11-29-89	--	--	--	--	--	--	--	--	--	--
12-29-89	--	--	--	--	--	--	--	--	--	--
03-08-90	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 06413650, Lime Creek at Mouth, at Rapid City, SD - Continued											
07-10-87	--	--	--	--	--	--	--	--	--	--	--
09-29-87	--	--	--	--	--	--	--	--	--	--	--
10-23-87	--	--	--	--	--	--	--	--	--	--	--
12-07-87	--	--	--	--	--	--	--	--	--	--	--
01-13-88	--	--	--	--	--	--	--	--	--	--	--
02-19-88	--	--	--	--	--	--	--	--	--	--	--
03-30-88	--	--	--	--	--	--	--	--	--	--	--
04-21-88	--	--	--	--	--	--	--	--	--	--	--
05-24-88	--	--	--	--	--	--	--	--	--	--	--
06-27-88	--	--	--	--	--	--	--	--	--	--	--
10-11-88	--	--	--	--	--	--	--	--	--	--	--
11-21-88	--	--	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--	--	--
05-09-89	--	--	--	--	--	--	--	--	--	--	--
06-07-89	--	--	--	--	--	--	--	--	--	--	--
07-03-89	--	--	--	--	--	--	--	--	--	--	--
08-14-89	--	--	--	--	--	--	--	--	--	--	--
09-27-89	--	--	--	--	--	--	--	--	--	--	--
10-16-89	--	--	--	--	--	--	--	--	--	--	--
10-28-89	--	--	--	--	--	--	--	--	--	--	--
11-07-89	--	--	--	--	--	--	--	--	--	--	--
11-29-89	--	--	--	--	--	--	--	--	--	--	--
12-29-89	--	--	--	--	--	--	--	--	--	--	--
03-08-90	--	--	--	--	--	--	--	--	--	--	--

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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Site 06413650, Lime Creek at Mouth, at Rapid City, SD - Continued

04-30-90	4.6	525	15.0
07-12-90	1.8	725	18.5
08-20-90	0.26	1350	15.0

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
Site 06413700, Rapid Creek above Water Treatment Plant, at Rapid City, SD			
09-22-87	26	440	14.0
10-23-87	23	480	11.0
12-07-87	21	460	7.0
01-13-88	23	460	3.0
02-19-88	25	430	4.0
03-30-88	24	560	8.0
04-21-88	49	425	6.5
05-24-88	70	395	15.5
06-27-88	110	375	21.0
08-01-88	115	370	18.5
09-15-88	55	370	15.5
10-12-88	14	420	12.5
10-25-88	19	455	10.0
11-02-88	21	410	12.5
11-25-88	21	450	1.0
12-29-88	18	460	2.5
02-13-89	18	425	0.0
03-15-89	20	560	8.5
04-12-89	22	420	12.0
06-09-89	102	390	14.0
07-07-89	97	395	18.5
08-08-89	84	390	10.5
09-27-89	14	470	19.0
10-18-89	21	470	7.5
11-09-89	19	485	8.5
11-28-89	14	455	4.0
12-21-89	17	480	0.0
02-02-90	17	450	0.0
Site 06413800, Deadwood Avenue Drain at Mouth, at Rapid City, SD			
07-13-87	2.8	910	20.5
09-22-87	3.4	930	14.5
10-27-87	2.6	930	10.5
12-09-87	3.0	860	6.0
01-14-88	3.0	800	5.0
02-19-88	2.4	870	6.0
03-28-88	2.8	810	8.0
04-21-88	2.6	755	9.5
05-23-88	2.4	750	19.0
06-27-88	2.7	785	24.0
07-29-88	1.8	860	22.0
09-15-88	2.3	840	17.0
10-11-88	2.0	880	14.0
11-25-88	2.7	820	5.0
02-09-89	2.5	900	3.0
03-15-89	2.5	970	7.0
05-10-89	2.5	374	17.0
06-15-89	2.1	955	14.5
07-03-89	2.0	950	20.0
07-12-89	3.3	935	22.0

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
Site 06413800, Deadwood Avenue Drain at Mouth, at Rapid City, SD - Continued			
07-14-89	17	730	21.0
08-14-89	1.8	1010	21.5
09-27-89	2.6	1060	17.0
10-16-89	2.0	1140	11.0
11-07-89	2.4	955	8.0
11-28-89	2.3	955	4.5
12-28-89	3.1	994	5.5
01-25-90	2.4	953	5.0
03-16-90	2.6	1050	6.5
04-09-90	2.4	925	4.0
05-04-90	1.8	--	9.0
06-14-90	2.9	985	16.0
08-03-90	2.3	860	17.5
08-20-90	2.4	960	18.0
Site 06414000, Rapid Creek at Rapid City, SD			
10-15-75	26	--	11.5
11-13-75	26	--	9.0
12-11-75	29	--	4.0
12-29-75	26	--	2.0
01-27-76	25	--	5.5
02-26-76	27	--	5.0
03-25-76	29	--	9.0
04-20-76	30	--	10.0
05-17-76	28	--	18.0
06-14-76	164	--	10.0
06-17-76	298	--	12.0
07-19-76	73	--	19.0
08-18-76	49	--	20.0
09-16-76	51	--	20.0
10-14-76	35	--	--
11-17-76	29	--	9.5
12-15-76	33	--	4.5
01-11-77	25	--	0.0
02-10-77	30	--	3.5
03-10-77	33	--	4.5
04-08-77	69	--	10.5
05-12-77	108	--	15.0
06-09-77	69	--	22.0
07-06-77	--	--	--
07-13-77	71	--	20.0
08-16-77	45	--	22.0
09-29-77	36	--	14.5
10-07-77	24	720	10.0
10-17-77	26	--	13.5
12-08-77	20	600	0.5
01-09-78	26	670	0.0
02-15-78	28	530	1.0
03-31-78	27	650	15.5
05-09-78	118	570	12.0
06-05-78	399	--	10.5
08-01-78	73	480	22.0
09-14-78	50	480	19.5
10-12-78	46	465	10.0
11-06-78	36	515	12.0
12-04-78	39	515	4.0

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
Site 06414000, Rapid Creek at Rapid City, SD - Continued			
02-08-79	57	476	2.5
03-12-79	57	553	9.0
04-19-79	59	450	14.0
05-16-79	37	442	14.5
06-14-79	82	440	16.0
07-03-79	44	445	24.5
08-15-79	56	465	20.5
09-11-79	45	448	20.5
08-30-82	126	440	16.0
10-04-82	47	530	15.0
11-10-82	29	578	7.5
12-15-82	38	544	3.5
01-07-83	38	519	4.0
03-17-83	42	483	5.0
04-15-83	89	443	7.0
05-25-83	196	390	14.0
06-24-83	110	405	18.0
07-12-83	58	440	18.5
09-06-83	58	430	17.5
10-03-83	31	--	12.0
11-03-83	36	520	12.5
12-06-83	34	520	4.5
01-10-84	44	550	3.5
02-02-84	38	500	3.5
03-02-84	32	520	5.0
04-03-84	71	487	7.0
05-15-84	256	400	12.5
07-02-84	86	450	18.5
08-14-84	97	410	20.5
10-17-84	41	520	9.5
11-21-84	35	505	3.5
12-11-84	47	490	4.0
01-14-85	47	490	2.5
02-14-85	46	470	4.5
03-29-85	86	410	5.5
04-22-85	49	470	14.5
05-15-85	133	370	13.0
06-03-85	58	438	13.5
07-03-85	71	385	20.0
08-07-85	61	380	20.5
08-19-85	--	--	--
09-10-85	35	470	14.5
10-24-85	34	490	11.0
11-21-85	25	560	1.0
12-09-85	27	510	2.0
01-09-86	28	480	6.0
02-18-86	30	540	2.0
03-13-86	33	540	9.0
04-09-86	35	570	13.0
05-06-86	39	530	14.0
06-06-86	73	440	19.0
07-01-86	51	400	22.5
08-11-86	46	480	17.5
08-12-86	856	--	--
08-12-86	706	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
Site 06414000, Rapid Creek at Rapid City, SD - Continued								
09-09-86	40	530	--	16.5	--	--	--	--
10-31-86	90	480	--	7.5	--	--	--	--
11-26-86	57	510	--	6.0	--	--	--	--
12-05-86	--	--	--	--	--	--	--	--
12-15-86	42	550	--	5.0	--	--	--	--
01-12-87	43	530	--	<6.0	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--
02-27-87	27	580	--	1.0	--	--	--	--
03-16-87	--	--	--	--	--	--	--	--
03-26-87	36	530	--	8.5	--	--	--	--
04-09-87	--	--	--	--	--	--	--	--
05-11-87	55	440	--	16.0	--	--	--	--
06-04-87	--	--	--	--	--	--	--	--
06-05-87	54	450	--	20.5	--	--	--	--
07-02-87	71	410	--	19.0	--	--	--	--
07-02-87	--	--	--	--	--	--	--	--
08-13-87	--	--	--	--	--	--	--	--
08-18-87	35	460	--	18.5	--	--	--	--
09-30-87	27	470	--	15.0	--	--	--	--
10-27-87	25	550	--	11.5	--	--	--	--
12-09-87	24	550	--	6.0	--	--	--	--
01-14-88	29	530	--	4.0	--	--	--	--
02-19-88	28	532	--	5.0	--	--	--	--
03-28-88	26	525	--	7.0	--	--	--	--
04-21-88	45	490	--	8.0	--	--	--	--
05-23-88	61	440	--	18.0	--	--	--	--
06-27-88	89	390	--	20.0	--	--	--	--
08-01-88	92	390	--	18.0	--	--	--	--
09-15-88	45	370	--	17.0	--	--	--	--
10-11-88	13	550	--	10.5	--	--	--	--
11-25-88	23	522	--	4.0	--	--	--	--
12-29-88	19	530	--	0.5	--	--	--	--
02-13-89	20	540	--	0.0	--	--	--	--
03-15-89	21	670	--	2.5	--	--	--	--
04-12-89	23	500	--	14.0	--	--	--	--
06-09-89	93	420	--	13.5	--	--	--	--
07-07-89	66	410	--	20.0	--	--	--	--
08-14-89	77	385	--	16.0	--	--	--	--
10-10-89	24	570	--	11.0	--	--	--	--
11-09-89	21	600	--	9.0	--	--	--	--
11-28-89	17	510	--	1.0	--	--	--	--
12-22-89	21	540	--	0.0	--	--	--	--
02-02-90	18	580	--	--	--	--	--	--
03-15-90	21	600	--	3.5	--	--	--	--
04-19-90	13	660	--	13.5	--	--	--	--
05-17-90	56	450	--	16.0	--	--	--	--
06-13-90	18	610	--	17.0	--	--	--	--
07-12-90	75	420	--	19.0	--	--	--	--
08-20-90	42	431	--	19.5	--	--	--	--
09-28-90	23	485	--	13.0	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
Site 06414000, Rapid Creek at Rapid City, SD - Continued									
09-09-86	--	--	--	--	--	--	--	--	--
10-31-86	--	--	--	--	--	--	--	--	--
11-26-86	--	--	--	--	--	--	--	--	--
12-05-86	--	--	--	--	--	--	--	--	--
12-15-86	--	--	--	--	--	--	--	--	--
01-12-87	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--
02-27-87	--	--	--	--	--	--	--	--	--
03-16-87	--	--	--	--	--	--	--	--	0.360
03-26-87	--	--	--	--	--	--	--	--	--
04-09-87	--	--	--	--	--	--	--	--	--
05-11-87	--	--	--	--	--	--	--	--	--
06-04-87	--	--	--	--	--	--	--	--	--
06-05-87	--	--	--	--	--	--	--	--	--
07-02-87	--	--	--	--	--	--	--	--	--
07-02-87	--	--	--	--	--	--	--	--	--
08-13-87	--	--	--	--	--	--	--	--	--
08-18-87	--	--	--	--	--	--	--	--	--
09-30-87	--	--	--	--	--	--	--	--	--
10-27-87	--	--	--	--	--	--	--	--	--
12-09-87	--	--	--	--	--	--	--	--	--
01-14-88	--	--	--	--	--	--	--	--	--
02-19-88	--	--	--	--	--	--	--	--	--
03-28-88	--	--	--	--	--	--	--	--	--
04-21-88	--	--	--	--	--	--	--	--	--
05-23-88	--	--	--	--	--	--	--	--	--
06-27-88	--	--	--	--	--	--	--	--	--
08-01-88	--	--	--	--	--	--	--	--	--
09-15-88	--	--	--	--	--	--	--	--	--
10-11-88	--	--	--	--	--	--	--	--	--
11-25-88	--	--	--	--	--	--	--	--	--
12-29-88	--	--	--	--	--	--	--	--	--
02-13-89	--	--	--	--	--	--	--	--	--
03-15-89	--	--	--	--	--	--	--	--	--
04-12-89	--	--	--	--	--	--	--	--	--
06-09-89	--	--	--	--	--	--	--	--	--
07-07-89	--	--	--	--	--	--	--	--	--
08-14-89	--	--	--	--	--	--	--	--	--
10-10-89	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--
11-28-89	--	--	--	--	--	--	--	--	--
12-22-89	--	--	--	--	--	--	--	--	--
02-02-90	--	--	--	--	--	--	--	--	--
03-15-90	--	--	--	--	--	--	--	--	--
04-19-90	--	--	--	--	--	--	--	--	--
05-17-90	--	--	--	--	--	--	--	--	--
06-13-90	--	--	--	--	--	--	--	--	--
07-12-90	--	--	--	--	--	--	--	--	--
08-20-90	--	--	--	--	--	--	--	--	--
09-28-90	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
Site 06416000, Rapid Creek below Hawthorn Ditch, at Rapid City, SD								
02-13-53	--	501	8.2	--	260	301	314	61
03-30-53	--	432	7.9	--	220	--	--	53
04-06-53	--	468	7.8	--	230	--	--	60
04-13-53	--	489	7.8	--	240	--	--	62
04-20-53	--	473	--	--	230	--	--	56

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
Site 06416000, Rapid Creek below Hawthorn Ditch, at Rapid City, SD - Continued										
02-13-53	26	5.7	5	0.2	2.8	84	3.7	0.20	12	--
03-30-53	22	5.1	5	0.1	3.0	--	--	--	--	--
04-06-53	20	5.1	4	0.1	2.8	84	--	--	--	--
04-13-53	21	5.3	4	0.1	2.8	97	--	--	--	--
04-20-53	23	5.4	5	0.2	2.8	--	--	--	--	--

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
Site 06416000, Rapid Creek below Hawthorn Ditch, at Rapid City, SD - Continued								
04-27-53	--	420	8.0	--	210	--	--	51
05-04-53	--	443	7.9	--	230	--	--	57
05-11-53	--	393	7.4	--	190	--	--	48
05-18-53	--	386	7.9	--	200	--	--	46
05-25-53	--	404	7.9	--	200	--	--	46
06-01-53	--	427	7.9	--	220	--	--	50
06-08-53	--	428	8.0	--	210	--	--	50
06-15-53	--	601	7.4	--	310	--	--	97
06-22-53	--	462	7.5	--	230	--	--	60
06-30-53	--	470	7.2	--	240	--	--	60
07-06-53	--	469	7.7	--	230	--	--	59
07-13-53	--	446	7.6	--	220	--	--	54
07-15-53	--	482	7.6	--	240	295	298	60
07-20-53	--	482	7.7	--	240	--	--	61
07-27-53	--	480	7.6	--	230	--	--	61
08-03-53	--	467	7.4	--	230	--	--	59
08-11-53	--	477	7.5	--	250	--	--	62
08-17-53	--	438	7.8	--	220	--	--	53
08-24-53	--	424	7.8	--	210	--	--	54
08-31-53	--	490	7.5	--	250	--	--	62
09-08-53	--	467	7.8	--	240	--	--	55
09-14-53	--	501	7.5	--	250	--	--	67
09-21-53	--	500	7.5	--	250	--	--	65
09-28-53	--	499	7.5	--	250	--	--	64

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00932) (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)
Site 06416000, Rapid Creek below Hawthorn Ditch, at Rapid City, SD - Continued								
04-27-53	21	4.7	4	0.1	4.4	--	--	--
05-04-53	22	5.2	5	0.1	3.0	--	--	--
05-11-53	18	4.1	4	0.1	2.8	--	--	--
05-18-53	20	4.5	5	0.1	2.6	--	--	--
05-25-53	20	4.7	5	0.1	2.8	--	--	--
06-01-53	22	5.2	5	0.2	2.8	--	--	--
06-08-53	21	5.5	5	0.2	3.0	--	--	--
06-15-53	17	5.1	3	0.1	5.6	--	--	--
06-22-53	20	5.2	5	0.1	3.2	--	--	--
06-30-53	21	6.0	5	0.2	3.2	--	--	--
07-06-53	21	5.9	5	0.2	3.0	--	--	--
07-13-53	21	5.6	5	0.2	3.4	--	--	--
07-15-53	23	6.1	5	0.2	4.1	92	3.0	0.20
07-20-53	22	6.7	6	0.2	3.8	--	--	--
07-27-53	20	7.5	6	0.2	4.1	--	--	--
08-03-53	21	6.4	6	0.2	3.2	--	--	--
08-11-53	22	5.8	5	0.2	3.2	--	--	--
08-17-53	21	5.8	5	0.2	3.1	--	--	--
08-24-53	19	5.4	5	0.2	3.2	--	--	--
08-31-53	22	6.1	5	0.2	3.3	--	--	--
09-08-53	24	6.1	5	0.2	4.3	--	--	--
09-14-53	21	6.6	5	0.2	3.2	--	--	--
09-21-53	22	6.4	5	0.2	3.7	--	--	--
09-28-53	23	6.2	5	0.2	4.0	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
Site 06418900, Rapid Creek below Sewage Plant, near Rapid City, SD								
11-02-81	28	1090	--	12.0	--	--	--	--
12-04-81	47	1040	--	3.0	--	--	--	--
01-04-82	35	930	--	3.5	--	--	--	--
02-09-82	30	950	--	2.5	--	--	--	--
03-08-82	36	967	--	3.0	--	--	--	--
04-05-82	36	1070	--	7.0	--	--	--	--
05-10-82	38	965	--	14.0	--	--	--	--
05-15-82	330	653	--	11.5	--	--	--	--
06-10-82	59	1040	--	16.0	--	--	--	--
07-13-82	135	650	--	20.0	--	--	--	--
08-12-82	144	759	--	18.0	--	--	--	--
09-09-82	92	723	--	18.0	--	--	--	--
10-15-82	75	1100	--	14.0	--	--	--	--
11-15-82	77	1090	--	4.5	--	--	--	--
12-15-82	71	764	--	2.0	--	--	--	--
01-26-83	55	937	--	2.5	--	--	--	--
03-14-83	68	733	--	8.5	--	--	--	--
04-15-83	117	819	--	8.5	--	--	--	--
05-12-83	355	595	--	5.0	--	--	--	--
06-23-83	146	727	--	19.0	--	--	--	--
07-12-83	34	1180	--	22.5	--	--	--	--
09-06-83	24	1400	--	20.0	--	--	--	--
10-03-83	51	800	--	13.0	--	--	--	--
11-04-83	35	1040	--	12.5	--	--	--	--
12-01-83	39	930	--	5.0	--	--	--	--
01-10-84	61	990	--	2.0	--	--	--	--
02-02-84	58	930	--	2.0	--	--	--	--
03-02-84	51	940	--	7.0	--	--	--	--
04-16-84	83	880	--	13.0	--	--	--	--
05-04-84	164	970	--	9.5	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
Site 06418900, Rapid Creek below Sewage Plant, near Rapid City, SD - Continued									
11-02-81	--	--	--	--	--	--	--	--	--
12-04-81	--	--	--	--	--	--	--	--	--
01-04-82	--	--	--	--	--	--	--	--	--
02-09-82	--	--	--	--	--	--	--	--	--
03-08-82	--	--	--	--	--	--	--	--	--
04-05-82	--	--	--	--	--	--	--	--	--
05-10-82	--	--	--	--	--	--	--	--	--
05-15-82	--	--	--	--	--	--	--	--	--
06-10-82	--	--	--	--	--	--	--	--	--
07-13-82	--	--	--	--	--	--	--	--	--
08-12-82	--	--	--	--	--	--	--	--	--
09-09-82	--	--	--	--	--	--	--	--	--
10-15-82	--	--	--	--	--	--	--	--	--
11-15-82	--	--	--	--	--	--	--	--	--
12-15-82	--	--	--	--	--	--	--	--	--
01-26-83	--	--	--	--	--	--	--	--	--
03-14-83	--	--	--	--	--	--	--	--	--
04-15-83	--	--	--	--	--	--	--	--	--
05-12-83	--	--	--	--	--	--	--	--	--
06-23-83	--	--	--	--	--	--	--	--	--
07-12-83	--	--	--	--	--	--	--	--	--
09-06-83	--	--	--	--	--	--	--	--	--
10-03-83	--	--	--	--	--	--	--	--	--
11-04-83	--	--	--	--	--	--	--	--	--
12-01-83	--	--	--	--	--	--	--	--	--
01-10-84	--	--	--	--	--	--	--	--	--
02-02-84	--	--	--	--	--	--	--	--	--
03-02-84	--	--	--	--	--	--	--	--	--
04-16-84	--	--	--	--	--	--	--	--	--
05-04-84	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
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Site 06418900, Rapid Creek below Sewage Plant, near Rapid City, SD - Continued

06-15-84	366	835	12.0
07-02-84	111	910	20.5
08-14-84	50	1000	22.0
09-05-84	30	1250	21.0
10-17-84	32	1250	11.0
11-20-84	55	1010	4.5
12-11-84	62	1100	3.0
01-14-85	58	770	2.5
02-22-85	65	860	4.0
03-19-85	77	930	10.0
04-10-85	86	770	15.5
05-15-85	72	740	16.0
06-12-85	23	1060	14.5
07-03-85	43	950	22.0
08-07-85	42	770	24.5
09-10-85	30	1240	17.0
10-07-85	31	1150	13.0
11-07-85	35	1080	9.0
12-10-85	39	1060	2.0
01-09-86	43	1020	4.0
02-11-86	34	1180	3.5
03-20-86	52	1010	6.0
04-09-86	57	1140	12.5
05-06-86	57	1060	11.5
06-06-86	63	930	19.0
07-01-86	72	930	22.0
08-11-86	29	1160	21.5
08-13-86	154	872	16.0
09-08-86	51	1010	17.5
10-29-86	114	770	10.0
11-26-86	81	1070	5.0
12-15-86	64	890	2.5
01-12-87	68	870	2.5
02-27-87	53	950	1.5
04-14-87	125	630	9.5
05-11-87	54	870	16.0
06-05-87	47	960	21.0
07-02-87	27	1330	20.0
08-18-87	21	1220	18.5
09-30-87	21	1300	15.5
11-16-87	46	940	7.0
12-21-87	37	970	4.0
01-29-88	46	930	3.5
03-18-88	44	830	1.0
04-11-88	30	1050	8.0
06-13-88	53	790	18.0
07-08-88	27	1050	21.0
08-18-88	22	1190	22.0
10-07-88	26	1130	11.0
11-18-88	36	1010	4.0
01-06-89	38	1060	2.0
02-17-89	33	1100	1.0
03-30-89	34	1180	10.0
04-17-89	38	940	9.5
05-15-89	37	870	16.5

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	
Site 06418900, Rapid Creek below Sewage Plant, near Rapid City, SD - Continued									
06-15-89	32	1100	--	18.0	--	--	--	--	
07-20-89	24	1120	--	21.5	--	--	--	--	
08-24-89	18	1210	--	22.0	--	--	--	--	
10-02-89	25	1140	--	14.5	--	--	--	--	
11-09-89	40	1000	--	10.5	--	--	--	--	
12-19-89	32	1140	--	5.0	--	--	--	--	
02-02-90	35	950	--	4.5	--	--	--	--	
03-16-90	36	960	--	8.5	--	--	--	--	
04-09-90	34	580	--	7.0	--	--	--	--	
05-17-90	38	1200	--	13.0	--	--	--	--	
06-05-90	29	1280	--	19.0	--	--	--	--	
07-12-90	41	943	--	21.0	--	--	--	--	
08-10-90	33	1140	--	21.0	--	--	--	--	
09-24-90	32	925	--	19.0	--	--	--	--	
DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
Site 06418900, Rapid Creek below Sewage Plant, near Rapid City, SD - Continued									
06-15-89	--	--	--	--	--	--	--	--	--
07-20-89	--	--	--	--	--	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--
12-19-89	--	--	--	--	--	--	--	--	--
02-02-90	--	--	--	--	--	--	--	--	--
03-16-90	--	--	--	--	--	--	--	--	--
04-09-90	--	--	--	--	--	--	--	--	--
05-17-90	--	--	--	--	--	--	--	--	--
06-05-90	--	--	--	--	--	--	--	--	--
07-12-90	--	--	--	--	--	--	--	--	--
08-10-90	--	--	--	--	--	--	--	--	--
09-24-90	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
Site 06421500, Rapid Creek near Farmingdale, SD								
12-22-49	--	837	7.5	--	400	--	609	99
02-13-53	--	813	7.7	--	390	525	548	94
02-15-53	--	828	7.7	--	390	531	570	98
02-25-53	--	783	7.6	--	370	497	518	92
03-11-53	--	924	8.2	--	400	628	680	93
03-19-53	--	864	7.7	--	400	573	614	93
03-31-53	--	820	7.5	--	380	534	558	88
05-04-53	--	809	7.5	--	380	531	554	90
05-12-53	--	807	7.5	--	370	505	516	89
05-22-53	--	856	7.8	--	410	548	550	90
05-30-53	--	689	7.9	--	320	444	462	74
06-27-53	--	690	7.6	--	330	443	471	81
07-02-53	--	761	7.7	--	350	499	524	82
07-15-53	--	959	7.6	--	440	654	698	99
07-18-53	--	1110	8.1	--	490	780	839	110
08-11-53	--	802	7.6	--	370	535	556	81
08-16-53	--	830	7.8	--	380	972	583	83
08-24-53	--	948	7.8	--	420	650	679	92
09-08-53	--	1150	7.9	--	510	811	866	110
10-01-55	--	942	7.7	--	440	629	665	100
10-24-55	--	1020	7.9	--	480	674	714	120
11-21-55	--	868	7.9	--	400	567	590	99
11-26-55	--	914	7.9	--	430	591	629	100
12-28-55	--	828	7.8	--	380	526	561	93
01-17-56	--	881	7.7	--	420	554	606	99
02-01-56	--	859	7.8	--	410	536	578	93
02-19-56	--	868	8.0	--	420	540	578	94
02-24-56	--	888	8.0	--	420	542	578	94
02-25-56	--	782	7.7	--	350	500	523	85
03-18-56	--	691	7.6	--	300	442	457	73
03-27-56	--	560	7.9	--	260	351	390	63
04-01-56	--	763	7.7	--	350	490	529	84
04-20-56	--	865	7.6	--	390	570	611	86
05-01-56	--	1030	7.9	--	440	680	744	99
05-28-56	--	1320	8.3	--	560	900	984	130
05-30-56	--	925	8.1	--	420	611	647	100
06-07-56	--	1190	8.0	--	510	815	881	110
07-01-56	--	1150	7.8	--	490	807	848	120
07-03-56	--	629	7.7	--	230	407	426	66
07-07-56	--	1310	7.8	--	560	906	1010	120

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
12-22-49	37	--	20	--	240	9.5	2.0	10	20
02-13-53	38	28	13	0.6	4.2	220	11	0.30	8.1
02-15-53	35	32	15	0.7	4.0	220	13	0.40	6.9
02-25-53	33	29	15	0.7	4.0	200	11	0.40	7.0
03-11-53	41	52	22	1	5.6	310	10	0.40	13
03-19-53	40	37	17	0.8	4.4	260	14	0.40	11
03-31-53	38	34	16	0.8	4.8	230	11	0.40	9.6
05-04-53	37	32	15	0.7	4.9	240	8.5	0.30	13
05-12-53	37	33	16	0.7	5.6	150	8.0	0.40	13
05-22-53	44	36	16	0.8	6.3	130	14	0.30	26
05-30-53	32	27	15	0.7	4.4	180	11	4.0	6.1
06-27-53	30	21	12	0.5	4.9	190	9.5	0.40	2.3
07-02-53	36	27	14	0.6	4.9	220	11	0.40	14
07-15-53	46	45	18	0.9	5.5	330	12	0.50	7.5
07-18-53	53	62	21	1	6.7	410	14	0.50	12
08-11-53	40	32	16	0.7	5.2	250	11	0.40	11
08-16-53	42	37	17	0.8	5.4	270	21	--	13
08-24-53	47	46	19	1	5.9	330	14	0.50	8.3
09-08-53	55	65	21	1	7.2	410	17	0.50	8.4
10-01-55	46	39	16	0.8	4.8	270	16	0.40	15
10-24-55	46	43	16	0.9	5.2	300	17	0.30	4.9
11-21-55	37	34	15	0.7	4.7	250	13	--	8.2
11-26-55	42	36	15	0.8	4.5	250	16	0.50	11
12-28-55	37	31	15	0.7	4.1	220	12	0.30	9.8
01-17-56	42	31	14	0.7	4.2	220	13	0.20	10
02-01-56	42	32	15	0.7	4.3	220	14	0.30	8.5
02-19-56	44	29	13	0.6	5.2	210	16	0.30	9.3
02-24-56	44	29	13	0.6	5.2	210	18	0.30	9.3
02-25-56	34	31	16	0.7	4.9	210	14	0.30	6.8
03-18-56	28	30	18	0.8	6.7	190	9.5	0.30	8.5
03-27-56	25	16	12	0.4	4.3	140	7.0	0.20	13
04-01-56	35	28	15	0.6	4.0	210	12	0.40	3.7
04-20-56	43	39	18	0.9	4.3	260	15	0.40	2.7
05-01-56	48	57	22	1	5.6	330	14	0.40	4.7
05-28-56	56	82	24	2	7.8	440	16	--	10
05-30-56	41	37	16	0.8	6.3	290	10	0.40	15
06-07-56	56	68	22	1	8.7	420	13	0.40	12
07-01-56	44	69	23	1	8.7	420	12	0.30	17
07-03-56	17	36	24	1	8.1	180	4.5	0.20	19
07-07-56	61	86	25	2	9.4	480	14	0.30	11

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued							
08-07-56	942	8.0	420	642	674	93	45
08-14-56	1060	7.9	500	706	775	110	52
08-25-56	1040	8.0	460	691	753	98	52
10-01-56	1540	8.3	690	--	1210	150	77
10-27-56	1280	8.1	560	--	987	100	72
11-05-56	477	8.0	220	--	320	64	15
11-10-56	750	8.2	350	--	500	79	36
11-13-56	503	8.2	230	--	326	60	19
11-14-56	656	8.2	300	--	436	71	29
11-15-56	960	8.2	440	--	683	110	43
12-06-56	988	8.1	470	656	692	110	46
12-27-56	848	8.0	370	--	598	92	35
01-01-57	1010	7.8	480	--	719	110	49
01-12-57	953	7.6	460	--	675	110	44
02-06-57	767	8.1	340	--	534	80	34
02-16-57	800	8.1	360	--	570	88	35
02-20-57	885	7.9	400	--	616	99	36
02-25-57	668	7.9	280	--	446	72	24
03-01-57	719	7.7	310	--	473	76	29
03-04-57	821	7.7	360	--	570	81	38
03-16-57	988	7.7	450	648	689	100	48
04-01-57	1050	7.5	410	--	751	95	42
04-17-57	1090	7.5	440	--	788	97	47
04-26-57	1210	7.4	550	--	962	130	55
05-20-57	873	7.8	410	--	636	100	35
05-28-57	969	7.6	460	661	717	110	44
07-01-57	997	7.7	450	--	722	100	47
07-16-57	703	7.6	320	--	478	83	27
07-20-57	974	7.6	440	--	701	97	47
08-02-57	1090	7.7	490	--	805	100	57
08-27-57	1000	7.7	460	672	723	100	51
10-01-57	1050	7.4	500	719	769	120	51
11-01-57	979	7.6	460	655	705	110	45
11-30-57	590	7.5	280	381	393	76	21
12-12-57	947	7.9	450	644	664	100	47
12-13-57	629	7.5	290	409	425	80	23
12-26-57	923	7.9	430	616	662	95	47
01-06-58	562	7.7	260	337	362	64	24
01-09-58	888	7.8	420	567	610	100	39
02-01-58	860	7.7	410	547	595	100	35
02-21-58	752	7.8	340	478	511	82	33
02-27-58	905	7.8	440	596	642	100	42
03-15-58	684	7.8	320	433	456	79	29
03-19-58	862	7.6	390	551	600	89	41
04-06-58	1070	7.8	500	724	786	120	52
04-30-58	722	7.1	320	471	518	78	30
05-01-58	1090	7.4	500	741	800	100	59
05-31-58	1210	7.7	540	873	946	120	57
06-17-58	844	7.4	400	560	620	81	48
07-01-58	986	7.0	460	675	726	100	49
07-21-58	831	7.2	390	571	604	110	31
07-23-58	963	7.1	460	658	696	110	45
08-08-58	1060	7.1	480	719	766	110	52
09-10-58	1320	7.1	580	943	1030	120	65
10-01-68	1260	7.7	570	--	881	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
08-07-56	45	19	1	9.1	310	12	0.40	17	--
08-14-56	44	16	0.9	6.3	320	16	0.50	14	--
08-25-56	51	19	1	6.0	350	17	0.50	5.7	--
10-01-56	99	23	2	--	600	22	--	--	--
10-27-56	79	24	1	--	500	20	--	--	--
11-05-56	13	11	0.4	--	140	3.0	--	--	--
11-10-56	30	16	0.7	--	200	11	--	--	--
11-13-56	16	13	0.5	--	140	4.0	--	--	--
11-14-56	27	16	0.7	--	190	8.0	--	--	--
11-15-56	42	17	0.9	--	300	14	--	--	--
12-06-56	40	15	0.8	5.3	290	16	0.20	10	--
12-27-56	40	19	0.9	--	260	11	--	--	--
01-01-57	40	15	0.8	--	290	17	--	--	--
01-12-57	37	15	0.8	--	250	18	--	--	--
02-06-57	35	18	0.8	--	220	13	--	--	--
02-16-57	35	17	0.8	--	220	14	--	--	--
02-20-57	36	16	0.8	--	240	15	--	--	--
02-25-57	32	19	0.8	--	180	11	--	--	--
03-01-57	33	19	0.8	--	180	13	--	--	--
03-04-57	39	19	0.9	--	250	13	--	--	--
03-16-57	48	19	1	4.4	300	19	0.50	3.3	--
04-01-57	74	28	2	--	380	16	--	--	--
04-17-57	70	25	1	--	400	16	--	--	--
04-26-57	65	21	1	--	500	16	--	--	--
05-20-57	34	15	0.7	--	290	7.4	--	--	--
05-28-57	39	15	0.8	5.9	320	12	0.40	13	--
07-01-57	48	19	1	--	350	15	--	--	--
07-16-57	24	14	0.6	--	220	6.9	--	--	--
07-20-57	47	19	1	--	340	16	--	--	--
08-02-57	58	20	1	--	400	19	--	--	--
08-27-57	45	17	0.9	10	320	16	0.40	7.9	--
10-01-57	46	17	0.9	6.1	340	17	0.40	9.8	--
11-01-57	40	16	0.8	4.9	300	18	0.30	3.9	--
11-30-57	17	12	0.4	2.4	190	7.0	0.30	4.0	--
12-12-57	39	16	0.8	5.5	310	20	0.40	4.6	--
12-13-57	19	12	0.5	2.7	200	8.3	0.30	4.8	10
12-26-57	36	15	0.8	5.9	300	19	0.40	6.1	--
01-06-58	18	13	0.5	3.2	130	9.0	0.30	5.3	--
01-09-58	33	14	0.7	4.5	230	16	0.40	6.3	--
02-01-58	30	14	0.6	4.7	230	15	0.40	7.6	--
02-21-58	32	17	0.8	4.5	210	11	0.30	5.9	--
02-27-58	37	15	0.8	4.5	260	14	0.40	6.9	--
03-15-58	24	14	0.6	3.2	180	8.8	0.40	6.2	--
03-19-58	37	17	0.8	4.7	260	13	0.40	2.7	--
04-06-58	48	17	0.9	6.0	360	17	0.40	3.6	--
04-30-58	28	16	0.7	4.3	250	13	0.40	4.6	--
05-01-58	55	19	1	6.5	390	18	0.40	4.5	--
05-31-58	73	22	1	8.9	450	16	0.40	14	--
06-17-58	32	15	0.7	5.1	260	11	0.40	11	4
07-01-58	45	17	0.9	6.1	330	18	0.40	9.6	--
07-21-58	28	13	0.6	9.4	280	9.6	0.40	12	--
07-23-58	37	15	0.8	7.0	320	17	0.40	11	--
08-08-58	52	19	1	7.4	360	21	0.50	7.4	--
09-10-58	89	25	2	8.3	510	23	0.50	6.0	--
10-01-68	72	22	1	--	380	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued										
10-08-68	1290	7.9	10.0	550	866	935	130	56	77	23
10-31-68	1260	7.8	5.0	540	828	908	130	54	74	23
11-01-68	1140	8.0	--	490	--	758	--	--	69	24
12-10-68	1120	7.7	0.0	470	742	789	110	46	62	22
01-22-69	885	8.2	0.0	410	582	625	100	38	37	16
01-26-69	--	7.4	--	--	--	--	--	--	--	--
02-01-69	907	7.7	--	390	--	610	--	--	47	21
02-14-69	945	7.7	0.0	390	604	674	95	36	53	23
03-06-69	861	7.7	0.0	360	548	611	88	35	42	20
03-26-69	829	7.8	2.0	360	528	617	86	35	34	17
04-01-69	902	7.6	--	400	581	645	95	39	42	18
04-06-69	1000	8.6	--	--	--	--	--	--	--	--
04-18-69	760	7.5	12.0	360	487	561	85	35	29	15
05-01-69	1050	7.6	--	460	--	722	--	--	62	23
05-23-69	1040	7.7	--	480	704	764	110	47	52	19
06-20-69	1140	8.1	17.0	510	790	870	120	52	64	21
06-30-69	990	8.5	--	--	--	--	--	--	--	--
07-01-69	1220	7.7	--	530	--	930	--	--	83	25
07-11-69	1450	7.8	23.0	660	1050	1150	140	73	100	26
07-13-69	--	9.2	--	--	--	--	--	--	--	--
07-29-69	840	7.8	22.0	390	532	580	90	41	31	14
08-10-69	--	9.0	--	--	--	--	--	--	--	--
08-20-69	1280	7.7	22.0	540	884	955	120	60	95	27
09-12-69	1550	7.8	18.0	650	1100	1220	150	71	110	27
09-21-69	1250	9.2	--	--	--	--	--	--	--	--
10-01-69	1290	7.8	17.0	540	866	950	120	55	89	26
10-24-69	1280	7.6	7.0	590	897	944	130	61	76	22
11-12-69	1000	7.9	4.0	420	619	693	99	42	50	20
12-23-69	1010	8.2	0.0	440	637	667	100	44	44	17
01-16-70	949	7.9	0.0	430	621	646	100	40	46	19
01-18-70	--	8.0	--	--	--	--	--	--	--	--
01-26-70	--	--	0.0	--	--	--	--	--	--	--
02-04-70	918	8.3	0.0	430	626	640	110	39	40	17
02-27-70	888	7.8	1.0	360	556	588	85	35	52	24
03-19-70	977	7.8	4.0	410	656	674	100	40	61	24
04-01-70	891	7.8	--	390	603	667	92	38	50	22
04-09-70	1070	8.1	9.0	450	666	699	100	46	56	21
05-01-70	676	7.7	--	320	433	490	75	33	25	14
05-11-70	590	8.2	--	--	--	--	--	--	--	--
05-21-70	656	8.1	18.5	300	411	473	69	32	22	13
06-01-70	670	8.0	--	300	430	447	74	29	23	14
06-07-70	--	8.0	--	--	--	--	--	--	--	--
06-10-70	766	7.5	21.0	360	489	595	80	38	29	15
07-01-70	965	8.2	--	430	670	688	100	44	54	21
08-01-70	1030	8.2	--	460	727	742	110	47	60	22
08-12-70	926	7.4	21.0	440	626	656	100	44	44	18
09-01-70	905	8.2	--	430	628	628	96	46	47	19
10-01-70	1020	8.4	--	480	717	710	110	49	56	20
10-13-70	1060	8.0	10.0	470	687	736	110	47	58	21
11-01-70	958	7.5	--	430	648	674	100	43	51	20
12-01-70	1020	8.4	--	490	702	700	120	47	52	18
12-15-70	988	8.0	0.0	460	668	756	110	46	52	19
01-01-71	978	8.5	--	450	630	660	110	43	38	15
02-01-71	824	7.9	--	350	499	564	86	32	32	16
02-17-71	630	7.7	0.0	220	366	394	57	19	26	19

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued											
10-08-68	1	8.7	390	53	0.80	5.9	--	--	--	110	160
10-31-68	1	7.4	370	45	--	--	--	--	--	--	--
11-01-68	1	--	300	--	--	--	--	--	--	--	--
12-10-68	1	6.1	290	51	--	--	--	--	--	--	--
01-22-69	0.8	5.1	230	21	--	--	--	--	--	--	--
01-26-69	--	--	--	--	--	--	--	--	--	--	--
02-01-69	1	--	220	--	--	--	--	--	--	--	--
02-14-69	1	5.8	210	53	--	--	--	--	--	--	--
03-06-69	1	5.3	210	32	--	--	--	--	--	--	--
03-26-69	0.8	5.4	230	17	--	--	--	--	--	--	--
04-01-69	0.9	5.2	240	25	--	--	--	--	--	--	--
04-06-69	--	--	--	--	--	--	--	--	--	--	--
04-18-69	0.7	5.0	190	11	0.50	6.8	--	--	--	90	--
05-01-69	1	--	320	--	--	--	--	--	--	--	--
05-23-69	1	6.9	310	27	0.50	8.4	--	--	--	180	--
06-20-69	1	6.2	360	24	0.60	6.1	--	--	--	10	--
06-30-69	--	--	--	--	--	--	--	--	--	--	--
07-01-69	2	--	390	--	--	--	--	--	--	--	--
07-11-69	2	8.8	510	35	--	--	--	--	--	--	--
07-13-69	--	--	--	--	--	--	--	--	--	--	--
07-29-69	0.7	6.2	230	9.4	--	--	--	--	--	--	--
08-10-69	--	--	--	--	--	--	--	--	--	--	--
08-20-69	2	6.8	430	40	--	--	--	--	--	--	--
09-12-69	2	11	560	42	--	--	--	--	--	--	--
09-21-69	--	--	--	--	--	--	--	--	--	--	--
10-01-69	2	9.4	400	30	--	--	--	--	--	--	--
10-24-69	1	7.3	410	37	0.60	6.3	--	--	--	--	--
11-12-69	1	5.4	280	1.6	0.50	4.7	--	--	--	320	160
12-23-69	0.9	6.6	260	29	0.40	5.4	--	--	--	69	130
01-16-70	1	6.7	230	32	0.40	9.6	--	--	--	430	180
01-18-70	--	--	--	--	--	--	--	--	--	--	--
01-26-70	--	--	--	--	--	--	--	--	--	--	--
02-04-70	0.8	6.2	250	28	0.40	8.5	--	--	--	57	200
02-27-70	1	5.6	220	34	--	--	--	--	--	--	--
03-19-70	1	6.9	270	41	0.40	1.9	--	--	--	85	200
04-01-70	1	6.6	280	20	0.40	9.3	--	--	--	--	--
04-09-70	1	6.2	280	33	0.50	1.3	--	--	--	45	210
05-01-70	0.6	4.6	160	12	0.40	7.6	--	--	--	--	--
05-11-70	--	--	--	--	--	--	--	--	--	--	--
05-21-70	0.5	4.6	160	9.4	0.40	5.9	--	--	--	77	58
06-01-70	0.6	5.2	160	13	0.40	10	--	--	--	--	--
06-07-70	--	--	--	--	--	--	--	--	--	--	--
06-10-70	0.7	4.7	200	18	0.30	5.9	--	--	--	13	36
07-01-70	1	7.4	290	30	0.50	8.7	--	--	--	--	--
08-01-70	1	8.0	320	31	0.50	12	--	--	--	--	--
08-12-70	0.9	7.2	270	19	0.40	10	--	--	--	150	30
09-01-70	1	6.6	260	26	0.50	11	--	--	--	--	--
10-01-70	1	8.8	310	40	--	--	2.30	1.70	--	--	--
10-13-70	1	7.3	280	37	0.50	3.0	--	--	1.50	40	110
11-01-70	1	6.8	270	34	0.50	--	--	--	--	--	--
12-01-70	1	8.7	280	42	--	--	4.70	2.20	--	--	--
12-15-70	1	7.1	260	34	0.30	9.4	--	--	1.20	20	260
01-01-71	0.8	9.1	240	46	--	--	4.70	1.70	--	--	--
02-01-71	0.7	7.3	190	31	--	--	4.10	1.00	--	--	--
02-17-71	0.8	12	150	18	0.30	8.3	--	0.490	--	70	170

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (000061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
03-01-71	--	890	7.6	--	380	592	592	94	35
04-01-71	--	678	7.5	--	300	430	434	72	28
04-23-71	--	580	7.6	12.5	270	352	--	62	28
05-01-71	--	570	7.6	--	250	342	372	57	27
06-01-71	--	--	7.5	--	280	356	406	65	28
06-02-71	--	705	7.6	18.5	320	436	--	77	32
07-01-71	--	769	7.7	--	340	462	498	81	33
07-12-71	--	802	8.2	26.0	350	517	--	78	37
08-01-71	--	963	7.4	--	420	640	--	98	42
08-04-71	--	986	8.1	21.5	470	689	--	110	48
09-01-71	--	987	8.0	--	420	665	--	96	44
09-14-71	--	878	7.9	16.0	400	588	--	95	40
10-01-71	--	1070	7.9	--	460	705	--	110	46
11-01-71	--	970	7.8	--	450	645	--	110	43
12-01-71	--	959	8.0	--	440	650	--	110	39
01-01-72	--	931	7.9	--	440	649	--	110	41
01-18-72	--	1060	7.7	0.0	490	683	--	120	46
02-01-72	--	812	8.2	--	360	540	--	88	34
03-01-72	--	705	8.2	--	310	448	--	75	31
04-01-72	--	772	8.0	--	340	497	--	82	34
04-10-72	--	775	8.8	14.0	350	507	--	82	36
05-01-72	--	828	8.0	--	360	541	--	86	35
06-01-72	--	657	8.0	--	290	409	--	74	26
07-01-72	--	634	8.2	--	290	393	--	70	28
08-01-72	--	748	8.1	--	330	468	--	79	33
08-18-72	--	880	8.1	28.0	390	584	--	91	39
09-01-72	--	807	8.2	--	370	541	--	88	36
10-01-72	--	636	8.3	--	350	503	--	83	35
10-19-72	--	739	8.5	7.0	330	465	--	79	32
11-01-72	--	851	8.2	--	390	561	--	92	38
11-28-72	--	828	8.0	0.0	380	543	--	91	38
12-01-72	--	848	8.0	--	390	536	--	94	37
01-01-73	--	856	8.2	--	390	548	--	93	39
02-01-73	--	802	8.1	--	350	501	--	82	35
02-12-73	--	875	8.0	0.5	370	557	--	90	36
03-01-73	--	892	7.5	--	380	586	--	92	37
03-20-73	--	811	7.6	4.0	340	510	--	83	33
04-01-73	--	975	7.8	--	420	641	--	100	41
04-09-73	--	1100	8.5	3.0	510	751	--	120	50
05-01-73	--	628	7.9	--	290	402	--	69	29
05-08-73	--	574	7.7	12.5	270	359	--	62	27
05-22-73	--	630	8.4	--	--	--	--	--	--
06-01-73	--	727	8.2	--	320	473	--	75	33
06-05-73	--	767	8.0	17.5	350	478	--	84	33
07-01-73	--	916	8.0	--	390	611	--	90	40
07-19-73	--	887	8.0	20.0	400	589	--	94	40
08-01-73	--	1120	8.2	--	460	744	--	110	46
08-27-73	--	1170	8.4	25.5	480	785	--	110	50
09-01-73	--	912	8.2	--	400	597	--	95	39
09-18-73	--	714	8.1	--	--	--	--	--	--
09-26-73	--	810	7.8	13.0	350	519	--	86	34
10-23-73	39	944	8.3	10.5	400	595	--	95	40
11-12-73	--	790	8.3	--	--	--	--	--	--
11-20-73	46	847	8.2	0.0	390	543	--	95	37
11-20-73	--	680	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued											
03-01-71	43	19	1	6.2	270	27	--	--	2.90	1.50	--
04-01-71	29	17	0.7	5.4	180	12	--	--	1.50	2.10	--
04-23-71	16	11	0.4	4.2	120	9.2	0.20	8.6	1.20	0.200	--
05-01-71	17	13	0.5	3.8	130	7.2	--	--	0.960	1.40	--
06-01-71	18	12	0.5	3.6	130	9.4	--	--	1.00	0.630	--
06-02-71	21	12	0.5	3.9	180	11	0.40	9.1	0.890	0.550	--
07-01-71	28	15	0.7	4.9	180	20	--	--	1.40	0.640	--
07-12-71	35	18	0.8	4.9	220	19	0.40	2.9	0.340	0.250	--
08-01-71	47	19	1	6.1	280	29	0.50	8.6	0.870	0.490	--
08-04-71	49	18	1	6.0	300	38	0.50	1.4	0.170	0.460	--
09-01-71	48	20	1	6.5	290	34	0.60	11	1.40	0.830	--
09-14-71	37	16	0.8	5.0	250	18	0.50	7.1	0.790	0.950	--
10-01-71	56	21	1	6.7	290	43	0.50	4.6	1.80	1.10	--
11-01-71	41	16	0.8	7.4	260	39	0.50	4.9	3.10	--	--
12-01-71	43	17	0.9	5.5	250	38	0.50	10	3.90	1.40	1.30
01-01-72	42	17	0.9	5.4	250	38	0.60	9.5	3.70	1.50	1.40
01-18-72	45	16	0.9	8.6	250	43	0.70	10	1.10	1.80	--
02-01-72	36	18	0.8	4.8	200	32	0.40	11	3.20	1.30	1.30
03-01-72	26	15	0.6	4.2	170	20	0.40	5.2	1.70	0.800	0.780
04-01-72	31	16	0.7	4.7	200	24	0.50	3.8	1.10	0.740	0.770
04-10-72	35	17	0.8	5.0	200	26	0.50	0.30	0.720	0.950	0.820
05-01-72	36	18	0.8	5.0	230	22	0.50	9.6	2.00	0.660	0.650
06-01-72	18	12	0.5	5.5	160	12	0.40	13	1.40	0.270	0.210
07-01-72	20	13	0.5	4.4	140	13	0.50	9.4	0.920	0.280	0.260
08-01-72	27	15	0.6	5.1	180	19	0.50	8.8	0.780	0.410	0.420
08-18-72	39	18	0.9	5.3	250	23	0.60	5.9	0.270	0.560	1.40
09-01-72	34	16	0.8	5.2	210	27	1.5	5.2	1.00	0.690	0.690
10-01-72	32	16	0.7	5.1	190	25	0.60	4.7	0.900	0.680	0.680
10-19-72	27	15	0.6	4.6	170	21	0.50	2.9	0.360	0.990	0.960
11-01-72	35	16	0.8	4.8	220	29	0.50	4.9	1.70	0.880	0.880
11-28-72	35	16	0.8	4.6	210	24	0.50	4.1	2.20	0.830	0.690
12-01-72	35	16	0.8	4.8	190	31	0.50	10	3.00	1.00	1.00
01-01-73	36	16	0.8	4.9	200	30	0.50	9.0	2.90	1.10	1.10
02-01-73	36	18	0.8	4.7	180	29	0.50	7.5	2.60	1.00	1.00
02-12-73	39	18	0.9	4.8	200	38	0.50	8.1	0.540	1.20	1.20
03-01-73	50	22	1	5.5	240	31	0.60	4.7	1.80	0.940	0.920
03-20-73	37	19	0.9	6.3	210	26	0.40	7.7	0.480	0.740	0.530
04-01-73	48	20	1	6.3	300	24	0.60	5.5	1.40	0.560	0.540
04-09-73	57	19	1	5.4	350	34	0.50	2.1	1.60	0.640	0.560
05-01-73	22	14	0.6	4.2	150	13	0.40	9.9	1.40	0.360	0.340
05-08-73	16	11	0.4	3.6	130	9.3	0.30	9.1	0.130	0.520	0.220
05-22-73	--	--	--	--	--	--	--	--	--	--	--
06-01-73	29	16	0.7	4.9	190	19	0.50	7.7	1.40	0.470	0.470
06-05-73	27	14	0.6	4.9	190	19	0.40	7.9	1.70	0.460	0.340
07-01-73	46	20	1	6.7	260	27	0.50	13	0.960	0.400	0.360
07-19-73	43	19	0.9	6.7	240	27	0.50	7.7	0.610	0.530	0.310
08-01-73	66	23	1	8.7	330	39	0.60	7.2	1.10	0.510	0.450
08-27-73	68	23	1	9.4	330	49	0.70	11	1.50	0.620	0.570
09-01-73	45	19	1	6.6	230	37	1.0	9.4	1.70	0.890	0.810
09-18-73	--	--	--	--	--	--	--	--	--	--	--
09-26-73	33	17	0.8	4.9	200	26	0.30	9.4	1.90	0.830	0.710
10-23-73	45	19	1	6.1	230	39	0.50	1.0	1.60	0.970	0.960
11-12-73	--	--	--	--	--	--	--	--	--	--	--
11-20-73	34	16	0.7	5.6	210	26	0.50	4.5	1.60	0.940	0.900
11-20-73	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
01-16-74	180	936	7.9	0.0	390	597	95	37	43
03-19-74	50	879	8.6	4.5	390	561	93	39	42
04-02-74	--	789	8.2	--	--	--	--	--	--
04-16-74	42	1010	8.6	7.5	460	684	110	44	55
05-01-74	--	803	8.1	--	--	--	--	--	--
05-16-74	7.1	1070	7.7	12.0	430	689	100	43	63
06-06-74	--	1290	8.1	--	--	--	--	--	--
07-18-74	47	968	7.9	25.5	410	612	90	44	51
08-13-74	45	880	8.0	19.5	380	576	89	38	42
08-19-74	--	898	8.4	--	--	--	--	--	--
09-11-74	34	1030	8.1	15.5	430	649	100	44	54
09-30-74	--	921	--	--	--	--	--	--	--
10-09-74	18	1080	--	12.5	450	687	110	42	60
10-28-74	--	1020	--	--	--	--	--	--	--
11-08-74	33	1340	8.3	--	430	640	110	38	48
11-25-74	--	908	>8.4	--	--	--	--	--	--
11-25-74	33	930	--	1.0	430	655	110	38	54
12-16-74	--	896	--	--	--	--	--	--	--
01-15-75	--	1140	7.8	--	--	--	--	--	--
01-21-75	50	1220	--	0.0	390	591	96	37	45
02-16-75	--	--	--	--	--	--	--	--	--
02-26-75	--	832	8.1	--	--	--	--	--	--
03-13-75	--	863	--	--	--	--	--	--	--
03-17-75	81	735	8.3	0.5	320	533	76	31	63
04-14-75	71	820	8.4	4.5	370	624	90	36	59
04-23-75	--	905	8.4	--	--	--	--	--	--
05-12-75	33	1040	8.6	15.0	420	594	97	42	46
05-27-75	--	811	8.2	--	--	--	--	--	--
06-11-75	135	805	8.6	15.5	370	527	88	36	32
06-25-75	--	880	8.4	--	--	--	--	--	--
07-07-75	271	840	8.2	25.0	330	468	79	32	29
07-24-75	--	933	8.4	--	--	--	--	--	--
08-11-75	2.9	950	8.5	25.5	400	624	90	42	54
08-19-75	--	1040	8.4	--	--	--	--	--	--
09-09-75	13	1090	8.9	19.0	500	747	110	54	63
09-24-75	--	1070	8.4	--	--	--	--	--	--
10-14-75	17	1440	8.2	8.5	520	820	120	53	76
10-28-75	--	1230	8.4	--	--	--	--	--	--
11-13-75	45	900	8.6	3.0	410	604	100	39	45
11-18-75	--	946	8.4	--	--	--	--	--	--
12-10-75	47	860	8.4	0.0	370	558	92	35	40
12-17-75	--	1170	8.0	--	--	--	--	--	--
01-12-76	--	1050	7.4	--	--	--	--	--	--
01-29-76	48	1100	7.4	0.5	420	656	110	35	55
02-12-76	--	910	8.2	--	--	--	--	--	--
02-25-76	49	990	--	0.5	380	574	92	36	42
03-24-76	44	960	9.2	9.5	370	548	89	37	38
03-29-76	--	870	8.2	--	--	--	--	--	--
04-12-76	--	910	8.0	--	--	--	--	--	--
04-20-76	46	900	8.6	13.5	370	570	87	37	44
05-11-76	--	1020	8.4	--	--	--	--	--	--
05-17-76	12	--	--	13.5	500	754	120	49	60
06-17-76	342	810	7.7	16.0	350	507	92	29	28
06-22-76	--	560	6.0	--	--	--	--	--	--
07-14-76	--	830	8.4	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued										
01-16-74	19	0.9	7.1	240	33	0.50	9.8	1.30	1.40	1.30
03-19-74	19	0.9	5.3	220	31	0.60	1.7	0.850	1.20	1.10
04-02-74	--	--	--	--	--	--	--	--	--	--
04-16-74	21	1	6.4	310	30	0.50	6.3	0.750	0.840	0.760
05-01-74	--	--	--	--	--	--	--	--	--	--
05-16-74	24	1	8.6	290	28	0.60	8.8	0.950	0.530	0.350
06-06-74	--	--	--	--	--	--	--	--	--	--
07-18-74	21	1	7.0	240	36	0.60	8.0	1.40	0.710	0.300
08-13-74	19	0.9	7.8	230	23	0.50	12	1.30	0.600	0.320
08-19-74	--	--	--	--	--	--	--	--	--	--
09-11-74	21	1	8.6	250	41	0.60	6.3	2.00	0.710	0.620
09-30-74	--	--	--	--	--	--	--	--	--	--
10-09-74	22	1	8.1	270	48	0.60	4.5	1.30	0.840	0.840
10-28-74	--	--	--	--	--	--	--	--	--	--
11-08-74	19	1	8.1	230	50	0.60	10	3.00	1.40	1.30
11-25-74	--	--	--	--	--	--	--	--	--	--
11-25-74	21	1	6.0	250	47	0.50	4.7	2.90	1.30	1.30
12-16-74	--	--	--	--	--	--	--	--	--	--
01-15-75	--	--	--	--	--	--	--	--	--	--
01-21-75	20	1	5.9	210	52	0.40	9.3	1.60	1.30	1.30
02-16-75	--	--	--	--	--	--	--	--	--	--
02-26-75	--	--	--	--	--	--	--	--	--	--
03-13-75	--	--	--	--	--	--	--	--	--	--
03-17-75	30	2	6.3	180	67	0.50	6.0	0.730	0.740	0.700
04-14-75	25	1	7.2	280	32	0.60	7.9	1.20	0.790	0.570
04-23-75	--	--	--	--	--	--	--	--	--	--
05-12-75	19	1	6.3	240	29	0.40	4.7	0.980	0.730	0.500
05-27-75	--	--	--	--	--	--	--	--	--	--
06-11-75	16	0.7	8.2	210	22	0.40	9.8	0.840	0.720	0.270
06-25-75	--	--	--	--	--	--	--	--	--	--
07-07-75	16	0.7	5.7	190	18	0.50	8.2	1.40	1.50	0.320
07-24-75	--	--	--	--	--	--	--	--	--	--
08-11-75	22	1	9.3	270	28	0.50	5.0	0.010	0.280	0.160
08-19-75	--	--	--	--	--	--	--	--	--	--
09-09-75	21	1	8.1	330	45	0.60	0.30	0.330	0.320	0.150
09-24-75	--	--	--	--	--	--	--	--	--	--
10-14-75	24	1	8.4	340	60	0.70	1.0	1.30	0.820	0.740
10-28-75	--	--	--	--	--	--	--	--	--	--
11-13-75	19	1	7.2	230	34	0.50	3.2	2.00	1.30	1.10
11-18-75	--	--	--	--	--	--	--	--	--	--
12-10-75	19	0.9	6.2	210	34	0.40	7.8	2.00	1.10	1.10
12-17-75	--	--	--	--	--	--	--	--	--	--
01-12-76	--	--	--	--	--	--	--	--	--	--
01-29-76	22	1	7.0	230	63	0.60	9.2	2.80	1.80	1.70
02-12-76	--	--	--	--	--	--	--	--	--	--
02-25-76	19	0.9	6.3	230	35	0.40	6.2	2.70	1.20	1.00
03-24-76	18	0.9	5.5	220	25	0.40	3.3	1.30	1.00	0.870
03-29-76	--	--	--	--	--	--	--	--	--	--
04-12-76	--	--	--	--	--	--	--	--	--	--
04-20-76	20	1	7.3	240	30	0.50	6.7	1.50	0.560	0.520
05-11-76	--	--	--	--	--	--	--	--	--	--
05-17-76	20	1	6.8	330	39	0.50	1.9	0.400	0.420	0.330
06-17-76	15	0.7	7.7	230	14	0.30	12	0.780	0.770	0.130
06-22-76	--	--	--	--	--	--	--	--	--	--
07-14-76	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
07-22-76	51	1050	8.3	22.5	440	661	100	45	48
08-18-76	23	920	8.3	26.0	380	534	88	39	38
08-24-76	--	880	8.4	--	--	--	--	--	--
09-16-76	33	1100	7.9	18.0	390	571	90	39	41
09-29-76	--	980	8.4	--	--	--	--	--	--
10-21-76	38	1140	8.8	3.0	430	705	100	44	63
10-26-76	--	980	--	--	--	--	--	--	--
11-17-76	50	1100	8.6	0.5	410	593	100	39	47
11-22-76	--	960	7.7	--	--	--	--	--	--
12-15-76	--	890	8.1	--	--	--	--	--	--
12-15-76	47	1090	8.2	0.0	410	619	99	39	43
01-12-77	--	960	7.8	--	--	--	--	--	--
01-13-77	38	980	8.3	0.0	450	668	110	42	42
02-08-77	--	890	7.8	--	--	--	--	--	--
02-09-77	45	970	7.9	0.0	350	555	84	35	46
03-08-77	63	820	8.4	1.0	340	506	81	33	40
03-16-77	--	830	8.2	--	--	--	--	--	--
04-11-77	--	670	8.2	--	--	--	--	--	--
04-12-77	392	630	7.9	8.5	230	395	58	20	40
05-11-77	126	--	8.1	21.5	260	334	61	26	16
05-23-77	--	750	8.2	--	--	--	--	--	--
06-29-77	--	800	8.0	--	--	--	--	--	--
07-13-77	25	975	8.4	24.5	430	653	98	45	54
07-26-77	--	890	8.2	--	--	--	--	--	--
08-16-77	28	820	8.5	--	380	576	89	38	50
08-23-77	--	1080	8.4	--	--	--	--	--	--
09-20-77	17	1300	8.5	17.5	470	789	110	48	79
09-26-77	--	650	8.2	--	--	--	--	--	--
10-05-77	--	860	8.2	--	--	--	--	--	--
10-17-77	4.3	--	--	8.5	--	--	--	--	--
10-19-77	41	1200	8.2	12.0	480	688	110	49	45
11-07-77	3.5	480	--	6.0	--	--	--	--	--
11-08-77	--	1040	8.2	--	--	--	--	--	--
11-08-77	48	935	8.4	5.0	440	699	110	41	66
12-06-77	22	1200	8.0	0.0	500	753	120	49	68
12-08-77	4.4	400	--	0.5	--	--	--	--	--
12-19-77	--	940	7.8	--	--	--	--	--	--
01-09-78	--	950	7.5	--	--	--	--	--	--
01-11-78	8.1	410	--	0.0	--	--	--	--	--
02-09-78	37	1300	7.8	0.0	400	611	100	37	49
02-22-78	--	860	7.4	--	--	--	--	--	--
03-07-78	43	1050	7.7	0.0	420	643	100	41	57
03-08-78	--	1120	7.7	--	--	--	--	--	--
03-14-78	244	550	7.9	1.5	170	276	44	15	20
03-17-78	18	440	--	8.5	--	--	--	--	--
04-03-78	9.6	400	--	9.5	--	--	--	--	--
04-05-78	--	940	7.5	--	--	--	--	--	--
05-01-78	--	720	7.4	--	--	--	--	--	--
05-09-78	187	800	8.5	8.5	350	489	86	33	28
05-09-78	89	350	--	12.5	--	--	--	--	--
06-05-78	299	420	--	10.5	--	--	--	--	--
06-06-78	--	430	7.8	--	--	--	--	--	--
07-06-78	61	785	8.2	19.5	350	495	82	35	32
07-10-78	--	605	7.4	--	--	--	--	--	--
08-01-78	58	377	--	19.5	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued										
07-22-76	19	1	7.2	290	32	0.50	5.3	1.10	0.420	0.330
08-18-76	18	0.8	7.4	200	27	0.50	8.3	0.940	0.510	0.420
08-24-76	--	--	--	--	--	--	--	--	--	--
09-16-76	18	0.9	6.6	230	29	0.60	6.3	0.940	0.660	0.520
09-29-76	--	--	--	--	--	--	--	--	--	--
10-21-76	24	1	6.7	280	59	0.60	1.4	2.60	1.30	1.20
10-26-76	--	--	--	--	--	--	--	--	--	--
11-17-76	20	1	5.9	210	46	0.50	6.8	2.60	1.00	0.990
11-22-76	--	--	--	--	--	--	--	--	--	--
12-15-76	--	--	--	--	--	--	--	--	--	--
12-15-76	18	0.9	5.4	250	38	0.50	7.2	3.10	1.20	1.10
01-12-77	--	--	--	--	--	--	--	--	--	--
01-13-77	17	0.9	5.8	260	32	0.50	9.7	3.60	1.40	1.40
02-08-77	--	--	--	--	--	--	--	--	--	--
02-09-77	22	1	5.5	190	52	0.50	8.6	2.00	1.20	1.10
03-08-77	20	0.9	5.5	190	38	0.50	5.3	1.30	1.00	--
03-16-77	--	--	--	--	--	--	--	--	--	--
04-11-77	--	--	--	--	--	--	--	--	--	--
04-12-77	27	1	6.7	180	9.7	0.30	8.6	0.480	0.930	0.190
05-11-77	12	0.4	4.1	110	9.2	0.40	6.7	0.390	0.490	0.270
05-23-77	--	--	--	--	--	--	--	--	--	--
06-29-77	--	--	--	--	--	--	--	--	--	--
07-13-77	21	1	7.3	280	29	0.60	6.1	0.580	0.500	0.410
07-26-77	--	--	--	--	--	--	--	--	--	--
08-16-77	22	1	6.3	220	27	0.60	7.1	0.890	0.690	0.560
08-23-77	--	--	--	--	--	--	--	--	--	--
09-20-77	26	2	8.3	310	73	0.80	6.1	0.990	0.800	0.570
09-26-77	--	--	--	--	--	--	--	--	--	--
10-05-77	--	--	--	--	--	--	--	--	--	--
10-17-77	--	--	--	--	--	--	--	--	--	--
10-19-77	17	0.9	7.2	290	41	0.60	6.0	2.00	1.00	0.860
11-07-77	--	--	--	--	--	--	--	--	--	--
11-08-77	--	--	--	--	--	--	--	--	--	--
11-08-77	24	1	6.9	260	66	0.70	0.40	2.10	0.950	0.990
12-06-77	22	1	6.7	290	53	0.60	7.1	1.80	1.50	1.40
12-08-77	--	--	--	--	--	--	--	--	--	--
12-19-77	--	--	--	--	--	--	--	--	--	--
01-09-78	--	--	--	--	--	--	--	--	--	--
01-11-78	--	--	--	--	--	--	--	--	--	--
02-09-78	21	1	5.7	210	53	0.70	11	1.60	1.70	2.00
02-22-78	--	--	--	--	--	--	--	--	--	--
03-07-78	23	1	6.6	220	61	0.60	11	0.780	2.20	2.00
03-08-78	--	--	--	--	--	--	--	--	--	--
03-14-78	19	0.7	10	100	15	0.30	7.5	0.740	0.800	0.510
03-17-78	--	--	--	--	--	--	--	--	--	--
04-03-78	--	--	--	--	--	--	--	--	--	--
04-05-78	--	--	--	--	--	--	--	--	--	--
05-01-78	--	--	--	--	--	--	--	--	--	--
05-09-78	15	0.7	5.8	210	14	0.30	9.4	0.870	0.760	0.160
05-09-78	--	--	--	--	--	--	--	--	--	--
06-05-78	--	--	--	--	--	--	--	--	--	--
06-06-78	--	--	--	--	--	--	--	--	--	--
07-06-78	16	0.7	6.2	200	27	0.50	8.7	0.890	0.570	0.420
07-10-78	--	--	--	--	--	--	--	--	--	--
08-01-78	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
08-03-78	67	840	7.2	18.0	330	467	--	77	34
08-08-78	--	805	7.5	--	--	--	--	--	--
09-06-78	--	930	7.6	--	--	--	--	--	--
09-11-78	14	1220	8.3	21.0	470	733	--	110	47
09-11-78	36	360	--	16.0	--	--	--	--	--
10-03-78	--	890	7.4	--	--	--	--	--	--
10-11-78	34	1050	--	14.0	--	--	--	--	--
10-11-78	34	1050	8.7	14.0	390	597	--	93	38
11-07-78	42	840	--	8.0	--	--	--	--	--
11-07-78	42	840	8.5	8.0	350	504	--	86	33
11-08-78	--	760	7.8	--	--	--	--	--	--
12-05-78	54	1100	--	0.0	--	--	--	--	--
12-05-78	54	1100	7.9	0.0	380	589	--	92	36
12-07-78	--	800	--	--	--	--	--	--	--
01-02-79	25	1300	7.6	0.0	450	677	296	110	42
01-04-79	--	920	--	--	--	--	--	--	--
02-05-79	44	860	7.3	0.0	320	461	--	77	32
02-07-79	--	670	--	--	--	--	--	--	--
03-06-79	--	690	7.6	--	--	--	--	--	--
03-23-79	91	850	7.6	0.0	350	521	--	88	31
04-04-79	--	1590	7.7	--	--	--	--	--	--
04-17-79	59	790	7.8	14.5	350	495	--	79	36
05-08-79	--	960	8.2	--	--	--	--	--	--
05-18-79	6.0	1050	8.7	14.0	430	684	--	100	43
06-06-79	--	1110	7.6	--	--	--	--	--	--
06-13-79	9.5	1040	8.1	26.5	420	647	--	100	42
07-05-79	--	850	7.6	--	--	--	--	--	--
07-10-79	42	908	8.1	25.0	350	562	--	79	38
08-07-79	--	820	8.5	--	--	--	--	--	--
08-15-79	38	1020	8.3	16.5	450	732	--	110	43
09-10-79	8.6	--	8.6	8.5	440	729	--	100	47
09-10-79	12	1070	--	23.0	--	--	--	--	--
09-17-79	--	1120	7.8	--	--	--	--	--	--
10-03-79	--	1200	8.5	--	--	--	--	--	--
10-04-79	17	1180	8.3	9.0	470	762	--	110	47
11-05-79	--	880	8.3	--	--	--	--	--	--
11-16-79	50	1050	8.4	3.0	380	569	--	90	37
12-12-79	33	967	7.8	0.0	400	546	545	97	39
12-12-79	--	870	8.4	--	--	--	--	--	--
12-12-79	--	1330	8.6	--	--	--	--	--	--
01-08-80	--	1030	8.1	--	--	--	--	--	--
01-16-80	50	860	8.3	0.0	280	404	403	68	27
02-04-80	--	915	7.9	--	--	--	--	--	--
03-05-80	--	880	8.1	--	--	--	--	--	--
03-20-80	48	865	7.2	1.0	360	501	499	85	35
04-02-80	--	1100	8.6	--	--	--	--	--	--
04-17-80	52	1020	8.9	12.0	420	649	647	100	42
05-07-80	--	1290	8.2	--	--	--	--	--	--
05-14-80	34	957	8.3	16.0	360	576	575	85	36
06-03-80	--	720	8.2	--	--	--	--	--	--
06-06-80	15	959	8.3	20.5	380	558	--	86	39
06-16-80	657	540	--	14.5	--	--	--	--	--
07-02-80	--	1200	7.9	--	--	--	--	--	--
07-16-80	42	732	8.4	21.5	340	485	484	77	36
08-06-80	--	1240	8.3	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued											
08-03-78	34	18	0.8	5.4	170	26	0.60	8.5	1.40	0.820	0.660
08-08-78	--	--	--	--	--	--	--	--	--	--	--
09-06-78	--	--	--	--	--	--	--	--	--	--	--
09-11-78	65	23	1	7.7	320	50	0.70	2.6	0.120	0.470	0.300
09-11-78	--	--	--	--	--	--	--	--	--	--	--
10-03-78	--	--	--	--	--	--	--	--	--	--	--
10-11-78	--	--	--	--	--	--	--	--	--	--	--
10-11-78	49	21	1	6.6	230	48	0.60	0.40	1.30	0.860	0.810
11-07-78	--	--	--	--	--	--	--	--	--	--	--
11-07-78	33	17	0.8	5.0	210	28	0.40	3.0	1.00	0.840	0.770
11-08-78	--	--	--	--	--	--	--	--	--	--	--
12-05-78	--	--	--	--	--	--	--	--	--	--	--
12-05-78	40	18	0.9	5.9	240	38	0.50	7.2	1.90	0.990	0.940
12-07-78	--	--	--	--	--	--	--	--	--	--	--
01-02-79	57	21	1	7.6	240	58	0.50	11	1.70	1.30	1.20
01-04-79	--	--	--	--	--	--	--	--	--	--	--
02-05-79	29	16	0.7	4.8	160	29	0.40	10	0.860	0.860	0.840
02-07-79	--	--	--	--	--	--	--	--	--	--	--
03-06-79	--	--	--	--	--	--	--	--	--	--	--
03-23-79	44	21	1	4.6	190	43	0.40	7.5	0.470	0.750	0.720
04-04-79	--	--	--	--	--	--	--	--	--	--	--
04-17-79	40	20	0.9	5.1	180	27	0.50	4.0	0.770	0.810	0.630
05-08-79	--	--	--	--	--	--	--	--	--	--	--
05-18-79	67	25	1	6.9	300	38	0.60	0.90	<0.100	0.270	0.250
06-06-79	--	--	--	--	--	--	--	--	--	--	--
06-13-79	55	22	1	8.1	270	32	0.50	7.1	0.810	0.340	0.300
07-05-79	--	--	--	--	--	--	--	--	--	--	--
07-10-79	48	22	1	6.2	220	36	0.50	9.5	<0.100	0.560	0.380
08-07-79	--	--	--	--	--	--	--	--	--	--	--
08-15-79	60	22	1	6.9	320	46	0.50	11	2.20	0.570	0.500
09-10-79	64	24	1	6.2	330	44	0.60	3.3	0.240	0.380	0.300
09-10-79	--	--	--	--	--	--	--	--	--	--	--
09-17-79	--	--	--	--	--	--	--	--	--	--	--
10-03-79	--	--	--	--	--	--	--	--	--	--	--
10-04-79	69	24	1	8.8	310	61	0.70	7.4	1.70	0.770	0.710
11-05-79	--	--	--	--	--	--	--	--	--	--	--
11-16-79	44	20	1	6.4	220	36	0.50	6.1	1.30	1.40	1.10
12-12-79	36	16	0.8	5.7	200	21	0.40	6.5	1.50	0.760	0.690
12-12-79	--	--	--	--	--	--	--	--	--	--	--
12-12-79	--	--	--	--	--	--	--	--	--	--	--
01-08-80	--	--	--	--	--	--	--	--	--	--	--
01-16-80	23	15	0.6	4.4	150	14	0.40	8.1	1.20	0.800	0.820
02-04-80	--	--	--	--	--	--	--	--	--	--	--
03-05-80	--	--	--	--	--	--	--	--	--	--	--
03-20-80	35	17	0.8	4.8	200	23	0.40	2.0	1.20	0.860	0.880
04-02-80	--	--	--	--	--	--	--	--	--	--	--
04-17-80	49	20	1	6.7	280	45	0.60	0.70	2.00	0.900	0.860
05-07-80	--	--	--	--	--	--	--	--	--	--	--
05-14-80	48	22	1	6.6	240	28	0.50	9.5	1.70	0.640	0.370
06-03-80	--	--	--	--	--	--	--	--	--	--	--
06-06-80	41	19	0.9	6.5	230	13	0.40	11	0.920	0.530	0.310
06-16-80	--	--	--	--	--	--	--	--	--	--	--
07-02-80	--	--	--	--	--	--	--	--	--	--	--
07-16-80	36	18	0.8	6.8	190	18	0.80	7.7	0.720	0.610	0.370
08-06-80	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
08-07-80	18	1140	8.8	24.0	420	685	--	91	48
09-03-80	42	1020	8.7	20.0	400	658	657	93	40
09-10-80	--	1200	8.2	--	--	--	--	--	--
10-08-80	--	1250	8.3	--	--	--	--	--	--
10-09-80	9.5	1320	--	14.0	--	--	--	--	--
11-12-80	25	1220	--	5.0	--	--	--	--	--
11-15-80	25	1220	--	5.0	--	--	--	--	--
12-11-80	--	990	8.4	--	--	--	--	--	--
01-07-81	--	925	8.2	--	--	--	--	--	--
01-12-81	38	1120	--	0.0	--	--	--	--	--
02-03-81	--	1180	7.6	--	--	--	--	--	--
03-06-81	--	900	8.3	--	--	--	--	--	--
03-09-81	37	975	--	4.5	--	--	--	--	--
04-03-81	27	1010	--	10.5	--	--	--	--	--
04-08-81	--	988	7.8	--	--	--	--	--	--
05-08-81	54	978	--	15.0	--	--	--	--	--
05-14-81	--	1040	8.6	--	--	--	--	--	--
06-04-81	12	1230	--	23.0	--	--	--	--	--
06-22-81	--	1010	7.8	--	--	--	--	--	--
07-08-81	--	920	8.6	--	--	--	--	--	--
07-09-81	1.4	950	--	24.0	--	--	--	--	--
08-06-81	16	1140	--	25.5	--	--	--	--	--
08-06-81	16	1140	--	25.5	--	--	--	--	--
09-03-81	13	1060	--	20.0	--	--	--	--	--
10-02-81	20	1250	--	14.5	--	--	--	--	--
11-04-81	--	1250	8.2	--	--	--	--	--	--
12-04-81	17	1120	--	0.0	--	--	--	--	--
02-09-82	31	1080	--	0.0	--	--	--	--	--
03-22-82	41	1020	--	1.0	--	--	--	--	--
04-07-82	--	1300	8.5	--	--	--	656	--	--
04-28-82	24	1120	--	9.5	--	--	--	--	--
05-06-82	--	1130	8.6	--	--	--	812	--	--
05-10-82	19	1040	--	15.0	--	--	--	--	--
06-10-82	70	1020	--	19.0	--	--	--	--	--
06-16-82	--	910	7.6	--	--	--	628	--	--
07-13-82	124	593	--	21.5	--	--	--	--	--
07-15-82	--	670	7.8	--	--	--	400	--	--
08-11-82	158	810	--	20.0	--	--	--	--	--
08-19-82	--	740	7.9	--	--	--	574	--	--
09-07-82	103	605	--	22.0	--	--	--	--	--
09-09-82	--	750	7.9	--	--	--	498	--	--
10-15-82	91	1100	--	11.0	--	--	--	--	--
11-02-82	--	860	7.9	--	--	--	596	--	--
11-12-82	100	1080	--	0.0	--	--	--	--	--
12-03-82	97	908	--	0.0	--	--	--	--	--
12-16-82	--	800	7.8	--	--	--	510	--	--
01-06-83	--	890	7.7	--	--	--	602	--	--
01-26-83	51	858	--	0.0	--	--	--	--	--
02-03-83	--	1000	7.8	--	--	--	632	--	--
03-14-83	68	876	--	8.0	--	--	--	--	--
04-14-83	--	800	7.9	--	--	--	490	--	--
04-19-83	128	760	--	14.0	--	--	--	--	--
05-18-83	--	575	7.7	--	--	--	368	--	--
05-25-83	214	560	--	16.0	--	--	--	--	--
06-09-83	--	1060	8.1	--	--	--	698	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued											
08-07-80	67	25	1	8.1	320	53	0.70	0.60	0.00	0.400	0.170
09-03-80	60	24	1	7.4	260	54	0.60	6.2	2.00	0.880	0.670
09-10-80	--	--	--	--	--	--	--	--	--	--	--
10-08-80	--	--	--	--	--	--	--	--	--	--	--
10-09-80	--	--	--	--	--	--	--	--	--	--	--
11-12-80	--	--	--	--	--	--	--	--	--	--	--
11-15-80	--	--	--	--	--	--	--	--	--	--	--
12-11-80	--	--	--	--	--	--	--	--	--	--	--
01-07-81	--	--	--	--	--	--	--	--	--	--	--
01-12-81	--	--	--	--	--	--	--	--	--	--	--
02-03-81	--	--	--	--	--	--	--	--	--	--	--
03-06-81	--	--	--	--	--	--	--	--	--	--	--
03-09-81	--	--	--	--	--	--	--	--	--	--	--
04-03-81	--	--	--	--	--	--	--	--	--	--	--
04-08-81	--	--	--	--	--	--	--	--	--	--	--
05-08-81	--	--	--	--	--	--	--	--	--	--	--
05-14-81	--	--	--	--	--	--	--	--	--	--	--
06-04-81	--	--	--	--	--	--	--	--	--	--	--
06-22-81	--	--	--	--	--	--	--	--	--	--	--
07-08-81	--	--	--	--	--	--	--	--	--	--	--
07-09-81	--	--	--	--	--	--	--	--	--	--	--
08-06-81	--	--	--	--	--	--	--	--	--	--	--
08-06-81	--	--	--	--	--	--	--	--	--	--	--
09-03-81	--	--	--	--	--	--	--	--	--	--	--
10-02-81	--	--	--	--	--	--	--	--	--	--	--
11-04-81	--	--	--	--	--	--	--	--	--	--	--
12-04-81	--	--	--	--	--	--	--	--	--	--	--
02-09-82	--	--	--	--	--	--	--	--	--	--	--
03-22-82	--	--	--	--	--	--	--	--	--	--	--
04-07-82	--	--	--	--	--	--	--	--	--	--	--
04-28-82	--	--	--	--	--	--	--	--	--	--	--
05-06-82	--	--	--	--	--	--	--	--	--	--	--
05-10-82	--	--	--	--	--	--	--	--	--	--	--
06-10-82	--	--	--	--	--	--	--	--	--	--	--
06-16-82	--	--	--	--	--	--	--	--	--	--	--
07-13-82	--	--	--	--	--	--	--	--	--	--	--
07-15-82	--	--	--	--	--	--	--	--	--	--	--
08-11-82	--	--	--	--	--	--	--	--	--	--	--
08-19-82	--	--	--	--	--	--	--	--	--	--	--
09-07-82	--	--	--	--	--	--	--	--	--	--	--
09-09-82	--	--	--	--	--	--	--	--	--	--	--
10-15-82	--	--	--	--	--	--	--	--	--	--	--
11-02-82	--	--	--	--	--	--	--	--	--	--	--
11-12-82	--	--	--	--	--	--	--	--	--	--	--
12-03-82	--	--	--	--	--	--	--	--	--	--	--
12-16-82	--	--	--	--	--	--	--	--	--	--	--
01-06-83	--	--	--	--	--	--	--	--	--	--	--
01-26-83	--	--	--	--	--	--	--	--	--	--	--
02-03-83	--	--	--	--	--	--	--	--	--	--	--
03-14-83	--	--	--	--	--	--	--	--	--	--	--
04-14-83	--	--	--	--	--	--	--	--	--	--	--
04-19-83	--	--	--	--	--	--	--	--	--	--	--
05-18-83	--	--	--	--	--	--	--	--	--	--	--
05-25-83	--	--	--	--	--	--	--	--	--	--	--
06-09-83	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued					
06-23-83	161	624	--	21.0	--
07-12-83	26	1020	--	25.0	--
07-13-83	--	925	7.6	--	610
08-04-83	--	930	8.5	--	602
09-08-83	--	1200	8.3	--	794
09-09-83	50	1060	--	19.5	--
10-06-83	--	1040	8.0	--	656
10-07-83	35	1020	--	10.0	--
11-04-83	44	1030	--	11.0	--
12-01-83	42	1040	--	0.5	--
12-08-83	--	990	7.6	--	654
01-05-84	--	910	7.4	--	586
01-10-84	71	880	--	0.0	--
02-02-84	96	850	--	0.0	--
02-08-84	--	810	7.9	--	536
03-02-84	60	920	--	0.5	--
03-08-84	--	900	7.9	--	596
04-11-84	--	725	7.8	--	470
04-16-84	76	730	--	14.0	--
05-10-84	--	650	7.7	--	398
05-15-84	252	570	--	18.0	--
06-15-84	238	720	--	13.0	--
07-02-84	121	740	--	29.5	--
07-10-84	--	710	7.9	--	478
08-08-84	--	860	8.2	--	536
08-14-84	22	940	--	26.0	--
09-06-84	13	1100	--	21.5	--
09-14-84	--	1150	8.1	--	774
10-01-84	--	1050	8.1	--	672
10-17-84	45	1060	--	9.0	--
11-14-84	--	870	8.2	--	608
11-20-84	64	870	--	0.5	--
12-05-84	--	900	7.6	--	662
12-10-84	81	810	--	1.5	--
01-08-85	--	870	7.5	--	544
01-09-85	57	890	--	0.5	--
02-07-85	--	1000	7.6	--	641
02-14-85	44	870	--	1.0	--
03-14-85	--	800	7.8	--	536
03-18-85	116	850	--	1.0	--
04-02-85	--	670	7.1	--	424
04-10-85	87	770	--	11.5	--
05-08-85	--	1230	8.8	--	826
05-14-85	46	790	--	18.5	--
06-11-85	--	1100	8.2	--	706
06-12-85	59	1130	--	16.5	--
07-03-85	40	1040	--	23.0	--
07-18-85	--	810	8.0	--	504
08-07-85	38	730	--	26.0	--
09-03-85	--	1200	8.8	--	746
09-11-85	25	1380	--	16.0	--
10-07-85	24	1160	--	10.0	--
10-17-85	--	1050	8.2	--	688
11-06-85	--	940	8.2	--	582
11-07-85	43	950	--	4.0	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued					
12-09-85	--	1150	7.5	--	710
12-10-85	38	--	--	0.0	--
01-09-86	--	960	7.5	--	666
01-14-86	51	960	--	0.0	--
02-11-86	41	1220	--	0.0	--
02-21-86	--	1250	7.6	--	746
03-17-86	66	1140	--	4.5	--
03-26-86	--	1150	8.5	--	774
04-06-86	169	990	--	11.5	--
04-09-86	--	1250	7.1	--	930
04-18-86	522	750	--	7.0	--
05-06-86	--	1140	8.6	--	722
05-08-86	99	1120	--	9.5	--
06-04-86	--	1440	8.2	--	1000
06-06-86	58	1480	--	19.5	--
07-01-86	114	1100	--	22.5	--
08-08-86	11	1190	--	22.0	--
08-13-86	--	1040	8.0	--	638
09-08-86	68	810	--	17.5	--
09-24-86	--	1010	8.1	--	664
10-15-86	104	780	--	7.0	--
10-22-86	--	815	8.2	--	518
11-06-86	--	775	7.8	--	424
11-14-86	105	840	--	0.0	--
12-03-86	--	825	8.3	--	524
12-12-86	70	1080	--	0.0	--
12-30-86	54	940	--	1.0	--
02-04-87	--	1010	8.2	--	628
02-12-87	56	1060	--	0.5	--
03-05-87	--	1030	8.0	--	670
04-06-87	110	860	--	9.0	--
04-08-87	--	850	8.2	--	536
05-07-87	87	910	--	18.5	--
05-14-87	--	950	7.8	--	606
06-04-87	62	900	--	17.5	--
06-10-87	--	950	7.8	--	608
07-09-87	16	980	--	23.5	--
07-16-87	--	1050	8.4	--	721
08-10-87	65	730	--	22.0	--
08-12-87	--	910	8.0	--	594
08-03-87	--	885	8.4	--	538
09-29-87	40	1330	--	13.0	--
10-28-87	--	1170	8.4	--	704
11-04-87	--	1200	8.6	--	730
11-10-87	38	1240	--	3.0	--
12-01-87	--	1070	8.3	--	682
12-18-87	32	1140	--	0.5	--
01-19-88	--	960	7.1	--	586
02-08-88	33	1060	--	0.0	--
02-16-88	--	1180	7.6	--	667
03-10-88	--	855	8.5	--	520
03-15-88	3.2	1140	--	0.0	--
04-12-88	28	1290	--	9.0	--
04-21-88	--	1360	8.0	--	903
05-05-88	45	1020	--	12.0	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued						
05-25-88	--	1200	7.9	--	--	--
06-07-88	--	1650	8.2	--	--	--
06-13-88	16	1240	--	20.0	--	--
07-08-88	2.3	1030	--	24.5	--	--
07-11-88	--	1200	8.2	--	--	--
08-18-88	10	1070	--	24.0	--	--
08-22-88	--	1200	8.4	--	--	--
09-12-88	--	1190	8.7	--	--	--
10-06-88	22	1120	--	8.5	--	--
10-19-88	--	2400	8.6	--	--	--
11-09-88	--	1130	7.9	--	--	--
11-17-88	42	1050	--	0.0	--	--
12-22-88	39	1040	--	0.5	--	--
01-10-89	--	1320	7.1	--	--	--
02-14-89	--	1070	8.0	--	--	--
02-16-89	32	970	--	0.0	--	--
03-20-89	--	1150	7.8	--	--	--
03-21-89	41	995	8.2	0.0	--	--
03-30-89	30	1070	--	8.5	--	--
04-03-89	--	1150	8.2	--	--	--
05-09-89	--	1100	8.7	--	--	--
05-15-89	18	1350	--	15.5	--	--
06-02-89	17	983	8.5	16.5	644	7.6
06-15-89	21	1300	--	15.5	--	--
06-19-89	--	1200	7.6	--	--	--
07-10-89	0.53	1320	--	23.5	--	--
07-12-89	--	1340	7.3	--	--	--
07-20-89	15	1000	--	25.0	--	--
07-31-89	5.8	1270	--	24.5	--	--
08-09-89	--	1110	8.0	--	--	--
08-24-89	5.1	1060	--	25.0	--	--
09-13-89	30	870	8.4	10.5	698	8.9
09-18-89	--	1800	7.8	--	--	--
10-02-89	17	1240	--	11.5	--	--
10-18-89	--	1100	8.1	--	--	--
11-08-89	--	1000	7.9	--	--	--
12-20-89	--	1200	7.8	--	--	--
09-24-90	27	900	--	14.0	--	--
11-20-90	26	1290	8.7	5.5	677	13.3

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
05-25-88	--	--	--	--	850	--	--	--	--
06-07-88	--	--	--	--	1150	--	--	--	--
06-13-88	--	--	--	--	--	--	--	--	--
07-08-88	--	--	--	--	--	--	--	--	--
07-11-88	--	--	--	--	754	--	--	--	--
08-18-88	--	--	--	--	--	--	--	--	--
08-22-88	--	--	--	--	761	--	--	--	--
09-12-88	--	--	--	--	794	--	--	--	--
10-06-88	--	--	--	--	--	--	--	--	--
10-19-88	--	--	--	--	1700	--	--	--	--
11-09-88	--	--	--	--	731	--	--	--	--
11-17-88	--	--	--	--	--	--	--	--	--
12-22-88	--	--	--	--	--	--	--	--	--
01-10-89	--	--	--	--	876	--	--	--	--
02-14-89	--	--	--	--	686	--	--	--	--
02-16-89	--	--	--	--	--	--	--	--	--
03-20-89	--	--	--	--	749	--	--	--	--
03-21-89	--	400	201	648	660	96	40	59	24
03-30-89	--	--	--	--	--	--	--	--	--
04-03-89	--	--	--	--	770	--	--	--	--
05-09-89	--	--	--	--	676	--	--	--	--
05-15-89	--	--	--	--	--	--	--	--	--
06-02-89	93	430	225	636	658	98	46	52	20
06-15-89	--	--	--	--	--	--	--	--	--
06-19-89	--	--	--	--	762	--	--	--	--
07-10-89	--	--	--	--	--	--	--	--	--
07-12-89	--	--	--	--	962	--	--	--	--
07-20-89	--	--	--	--	--	--	--	--	--
07-31-89	--	--	--	--	--	--	--	--	--
08-09-89	--	--	--	--	657	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
09-13-89	88	360	181	563	576	84	37	49	22
09-18-89	--	--	--	--	764	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
10-18-89	--	--	--	--	701	--	--	--	--
11-08-89	--	--	--	--	669	--	--	--	--
12-20-89	--	--	--	--	792	--	--	--	--
09-24-90	--	--	--	--	--	--	--	--	--
11-20-90	119	530	227	834	868	130	51	83	25

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
05-25-88	--	--	--	--	--	--	--	--	--
06-07-88	--	--	--	--	--	--	--	--	--
06-13-88	--	--	--	--	--	--	--	--	--
07-08-88	--	--	--	--	--	--	--	--	--
07-11-88	--	--	--	--	--	--	0.310	--	--
08-18-88	--	--	--	--	--	--	--	--	--
08-22-88	--	--	--	--	--	--	--	--	--
09-12-88	--	--	--	--	--	--	--	--	--
10-06-88	--	--	--	--	--	--	--	--	--
10-19-88	--	--	--	--	--	--	--	--	--
11-09-88	--	--	--	--	--	--	--	--	--
11-17-88	--	--	--	--	--	--	--	--	--
12-22-88	--	--	--	--	--	--	--	--	--
01-10-89	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--
02-16-89	--	--	--	--	--	--	--	--	--
03-20-89	--	--	--	--	--	--	--	--	--
03-21-89	1	6.5	240	59	0.60	6.7	--	3.30	1.5
03-30-89	--	--	--	--	--	--	--	--	--
04-03-89	--	--	--	--	--	--	--	--	--
05-09-89	--	--	--	--	--	--	--	--	--
05-15-89	--	--	--	--	--	--	--	--	--
06-02-89	1	7.2	250	35	0.50	6.2	--	1.20	0.80
06-15-89	--	--	--	--	--	--	--	--	--
06-19-89	--	--	--	--	--	--	--	--	--
07-10-89	--	--	--	--	--	--	--	--	--
07-12-89	--	--	--	--	--	--	--	--	--
07-20-89	--	--	--	--	--	--	--	--	--
07-31-89	--	--	--	--	--	--	--	--	--
08-09-89	--	--	--	--	--	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
09-13-89	1	6.5	220	39	0.50	9.4	--	1.90	0.70
09-18-89	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
10-18-89	--	--	--	--	--	--	--	--	--
11-08-89	--	--	--	--	--	--	--	--	--
12-20-89	--	--	--	--	--	--	--	--	--
09-24-90	--	--	--	--	--	--	--	--	--
11-20-90	2	7.6	270	140	0.50	0.40	--	3.50	0.90

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
Site 06421500, Rapid Creek near Farmingdale, SD - Continued									
05-25-88	--	--	--	--	--	--	--	--	--
06-07-88	--	--	--	--	--	--	--	--	--
06-13-88	--	--	--	--	--	--	--	--	--
07-08-88	--	--	--	--	--	--	--	--	--
07-11-88	--	--	--	--	--	--	--	--	--
08-18-88	--	--	--	--	--	--	--	--	--
08-22-88	--	--	--	--	--	--	--	--	--
09-12-88	--	--	--	--	--	--	--	--	--
10-06-88	--	--	--	--	--	--	--	--	--
10-19-88	--	--	--	--	--	--	--	--	--
11-09-88	--	--	--	--	--	--	--	--	--
11-17-88	--	--	--	--	--	--	--	--	--
12-22-88	--	--	--	--	--	--	--	--	--
01-10-89	--	--	--	--	--	--	--	--	--
02-14-89	--	--	--	--	--	--	--	--	--
02-16-89	--	--	--	--	--	--	--	--	--
03-20-89	--	--	--	--	--	--	--	--	--
03-21-89	1.20	<1	2	<1.0	2	20	74	<0.1	17
03-30-89	--	--	--	--	--	--	--	--	--
04-03-89	--	--	--	--	--	--	--	--	--
05-09-89	--	--	--	--	--	--	--	--	--
05-15-89	--	--	--	--	--	--	--	--	--
06-02-89	0.410	2	3	<1.0	1	10	170	<0.1	10
06-15-89	--	--	--	--	--	--	--	--	--
06-19-89	--	--	--	--	--	--	--	--	--
07-10-89	--	--	--	--	--	--	--	--	--
07-12-89	--	--	--	--	--	--	--	--	--
07-20-89	--	--	--	--	--	--	--	--	--
07-31-89	--	--	--	--	--	--	--	--	--
08-09-89	--	--	--	--	--	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
09-13-89	0.750	1	3	<1.0	2	40	26	<0.1	16
09-18-89	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
10-18-89	--	--	--	--	--	--	--	--	--
11-08-89	--	--	--	--	--	--	--	--	--
12-20-89	--	--	--	--	--	--	--	--	--
09-24-90	--	--	--	--	--	--	--	--	--
11-20-90	1.20	<1	1	<10	2	7	40	<0.1	4

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)
Site 06422000, Rapid Creek at Creston, SD						
07-31-89	5.4	1220	--	30.0	--	--
08-24-89	5.8	950	--	28.0	--	--
10-02-89	18	1160	--	11.5	--	--
10-30-89	94	--	--	4.5	--	--
11-09-89	33	1080	--	7.0	--	--
12-04-89	40	1050	8.7	0.0	690	13.3
12-19-89	15	1340	--	0.0	--	--
01-10-90	50	1000	--	0.0	--	--
02-02-90	21	1130	--	0.0	--	--
03-16-90	38	1130	--	6.5	--	--
04-09-90	28	1110	--	6.0	--	--
05-11-90	14	1260	--	12.0	--	--
05-25-90	112	1040	--	16.0	--	--
06-05-90	37	1180	--	21.0	--	--
06-12-90	23	1260	8.6	20.5	688	8.9

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LINEITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)
Site 06422000, Rapid Creek at Creston, SD - Continued									
07-31-89	--	--	--	--	--	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
10-30-89	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--
12-04-89	101	440	218	696	718	110	41	59	22
12-19-89	--	--	--	--	--	--	--	--	--
01-10-90	--	--	--	--	--	--	--	--	--
02-02-90	--	--	--	--	--	--	--	--	--
03-16-90	--	--	--	--	--	--	--	--	--
04-09-90	--	--	--	--	--	--	--	--	--
05-11-90	--	--	--	--	--	--	--	--	--
05-25-90	--	--	--	--	--	--	--	--	--
06-05-90	--	--	--	--	--	--	--	--	--
06-12-90	110	540	190	852	906	120	58	87	26

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO2) (00955)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
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Site 06422000, Rapid Creek at Creston, SD - Continued

07-31-89	--	--	--	--	--	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
10-30-89	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--
12-04-89	1	7.0	270	58	0.60	3.3	--	3.00	0.50
12-19-89	--	--	--	--	--	--	--	--	--
01-10-90	--	--	--	--	--	--	--	--	--
02-02-90	--	--	--	--	--	--	--	--	--
03-16-90	--	--	--	--	--	--	--	--	--
04-09-90	--	--	--	--	--	--	--	--	--
05-11-90	--	--	--	--	--	--	--	--	--
05-25-90	--	--	--	--	--	--	--	--	--
06-05-90	--	--	--	--	--	--	--	--	--
06-12-90	2	7.6	400	64	0.50	<0.50	--	<0.100	0.70

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
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Site 06422000, Rapid Creek at Creston, SD - Continued

07-31-89	--	--	--	--	--	--	--	--	--
08-24-89	--	--	--	--	--	--	--	--	--
10-02-89	--	--	--	--	--	--	--	--	--
10-30-89	--	--	--	--	--	--	--	--	--
11-09-89	--	--	--	--	--	--	--	--	--
12-04-89	0.990	1	2	<1.0	3	20	11	<0.1	5
12-19-89	--	--	--	--	--	--	--	--	--
01-10-90	--	--	--	--	--	--	--	--	--
02-02-90	--	--	--	--	--	--	--	--	--
03-16-90	--	--	--	--	--	--	--	--	--
04-09-90	--	--	--	--	--	--	--	--	--
05-11-90	--	--	--	--	--	--	--	--	--
05-25-90	--	--	--	--	--	--	--	--	--
06-05-90	--	--	--	--	--	--	--	--	--
06-12-90	0.080	2	2	<10	5	11	17	<0.1	4

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	
Site 06422000, Rapid Creek at Creston, SD - Continued										
07-12-90	53	820	--	--	--	21.5	--	--	--	
08-10-90	8.5	1100	--	--	--	25.0	--	--	--	
09-24-90	31	1100	--	--	--	10.0	--	--	--	
DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
Site 06422000, Rapid Creek at Creston, SD - Continued										
07-12-90	--	--	--	--	--	--	--	--	--	
08-10-90	--	--	--	--	--	--	--	--	--	
09-24-90	--	--	--	--	--	--	--	--	--	
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
Site 06422000, Rapid Creek at Creston, SD - Continued										
07-12-90	--	--	--	--	--	--	--	--	--	--
08-10-90	--	--	--	--	--	--	--	--	--	--
09-24-90	--	--	--	--	--	--	--	--	--	--
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 06422000, Rapid Creek at Creston, SD - Continued										
07-12-90	--	--	--	--	--	--	--	--	--	--
08-10-90	--	--	--	--	--	--	--	--	--	--
09-24-90	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	
Site 440124103054601, Sewage Treatment Plant Effluent near Rapid City, SD										
12-21-88	14	--	1530	8.0	--	11.0	--	8.9	--	
DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
Site 440124103054601, Sewage Treatment Plant Effluent near Rapid City, SD - Continued										
12-21-88	--	--	--	--	--	--	--	--	--	
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AM-NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	
Site 440124103054601, Sewage Treatment Plant Effluent near Rapid City, SD - Continued										
12-21-88	--	--	--	--	12.0	11.0	3.2	2.8	15	7.00
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440124103054601, Sewage Treatment Plant Effluent near Rapid City, SD - Continued										
12-21-88	7.00	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	
Site 440239103193001, Rapid Creek below Tittle Springs, SD										
08-01-89	74	384	386	8.5	--	16.5	673	9.1	106	
DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
Site 440239103193001, Rapid Creek below Tittle Springs, SD - Continued										
08-01-89	--	--	--	--	--	--	--	--	--	
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SiO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	
Site 440239103193001, Rapid Creek below Tittle Springs, SD - Continued										
08-01-89	--	--	--	--	0.013	<0.010	<0.20	<0.20	<0.010	
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440239103193001, Rapid Creek below Tittle Springs, SD - Continued										
08-01-89	<0.010	--	--	--	--	--	--	--	--	

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	
Site 440245103210501, Rapid Creek near Dark Canyon 1										
10-30-88	--	--	--	--	--	--	--	--	--	
12-21-88	--	--	--	--	--	--	--	--	--	
06-03-89	--	--	--	--	--	--	--	--	--	
06-03-89	--	--	387	--	8.3	--	--	--	--	
DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
Site 440245103210501, Rapid Creek near Dark Canyon 1 - Continued										
10-30-88	--	--	--	--	--	--	--	--	--	
12-21-88	--	--	--	--	--	--	--	--	--	
06-03-89	--	--	--	--	--	--	--	--	--	
06-03-89	200	168	213	218	42	24	3.2	3	0.1	
2.4										
DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
Site 440245103210501, Rapid Creek near Dark Canyon 1 - Continued										
10-30-88	--	--	--	--	--	--	--	--	--	--
12-21-88	--	--	--	--	--	--	--	--	--	--
06-03-89	--	--	--	--	--	--	--	--	--	--
06-03-89	39	1.6	--	--	0.014	0.012	0.30	0.30	0.31	<0.010
DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440245103210501, Rapid Creek near Dark Canyon 1 - Continued										
10-30-88	--	--	--	--	--	--	--	--	--	--
12-21-88	--	--	--	--	--	--	--	--	--	--
06-03-89	--	--	--	--	--	--	--	--	--	--
06-03-89	<0.010	--	--	--	<3	1	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	
Site 440321103181101, Rapid Creek at Braeburn Addition, at Rapid City, SD										
03-27-89	5.7	--	372	--	--	--	--	--	--	
05-31-89	24	--	356	--	--	--	--	--	--	
DATE	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
Site 440321103181101, Rapid Creek at Braeburn Addition, at Rapid City, SD - Continued										
03-27-89	--	--	--	--	--	--	--	--	--	
05-31-89	--	--	--	--	--	--	--	--	--	
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00625)	NITRO-GEN, TOTAL (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	
Site 440321103181101, Rapid Creek at Braeburn Addition, at Rapid City, SD - Continued										
03-27-89	--	--	--	--	0.046	0.186	0.20	0.20	0.25	
05-31-89	--	--	--	--	0.022	0.023	0.30	0.30	0.32	
0.010										
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440321103181101, Rapid Creek at Braeburn Addition, at Rapid City, SD - Continued										
03-27-89	<0.010	--	--	--	--	--	--	--	--	--
05-31-89	<0.010	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
Site 440322103181301, Rapid Creek above Jackson Springs Pump House									
07-02-87	--	--	--	--	--	--	--	--	--
07-21-87	--	--	--	--	--	--	--	--	--
08-07-87	--	--	--	--	--	--	--	--	--

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LINIT LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
Site 440322103181301, Rapid Creek above Jackson Springs Pump House - Continued									
07-02-87	--	--	--	--	--	--	--	--	--
07-21-87	--	--	--	--	--	--	--	--	--
08-07-87	--	--	--	--	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
Site 440322103181301, Rapid Creek above Jackson Springs Pump House - Continued										
07-02-87	--	--	--	--	--	--	--	--	--	--
07-21-87	--	--	--	--	<0.100	<0.100	0.40	0.40	--	0.020
08-07-87	--	--	--	--	--	--	--	--	--	--

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440322103181301, Rapid Creek above Jackson Springs Pump House - Continued										
07-02-87	--	--	--	--	--	--	--	--	--	--
07-21-87	<0.010	--	--	--	--	--	--	--	1.9	--
08-07-87	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	
Site 440326103180701, Rapid Creek just above Jackson Springs										
11-02-88	--	--	388	--	8.3	--	--	--	--	
DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
Site 440326103180701, Rapid Creek just above Jackson Springs - Continued										
11-02-88	200	168	214	221	43	23	3.9	4	0.1 2.6	
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. TOTAL (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	
Site 440326103180701, Rapid Creek just above Jackson Springs - Continued										
11-02-88	38	2.5	0.20	--	--	<0.100	--	<0.20	--	
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440326103180701, Rapid Creek just above Jackson Springs - Continued										
11-02-88	<0.010	--	--	--	9	3	--	--	--	3.5

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (US/CM) (90095)	PH (STAND-ARD) (UNITS) (00400)	PH LAB (STAND-ARD) (UNITS) (00403)	TEMPER-ATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	
Site 440327103180401, Rapid Creek just below Jackson Springs										
10-26-87	7.0	380	--	--	--	7.0	--	--	--	
10-27-87	11	380	--	--	--	5.5	--	--	--	
10-28-87	12	370	--	--	--	7.5	--	--	--	
11-02-88	--	--	--	8.2	--	11.0	678	10.9	--	
DATE	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
Site 440327103180401, Rapid Creek just below Jackson Springs - Continued										
10-26-87	--	--	--	--	--	--	--	--	--	
10-27-87	--	--	--	--	--	--	--	--	--	
10-28-87	--	--	--	--	--	--	--	--	--	
11-02-88	--	--	--	--	--	--	--	--	--	
DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
Site 440327103180401, Rapid Creek just below Jackson Springs - Continued										
10-26-87	--	--	--	--	--	--	--	--	--	--
10-27-87	--	--	--	--	--	--	--	--	--	--
10-28-87	--	--	--	--	--	--	--	--	--	--
11-02-88	--	--	--	--	--	--	--	--	--	--
DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440327103180401, Rapid Creek just below Jackson Springs - Continued										
10-26-87	--	--	--	--	--	--	--	--	--	--
10-27-87	--	--	--	--	--	--	--	--	--	--
10-28-87	--	--	--	--	--	--	--	--	--	--
11-02-88	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)
Site 440327103180501, Jackson Springs Pumphouse									
06-17-57	--	--	--	7.6	--	--	--	--	--
11-28-64	--	--	--	8.2	--	--	--	--	--
09-23-69	--	--	--	7.6	--	--	--	--	--
10-20-75	--	--	--	7.8	--	--	--	--	--
06-22-77	--	--	--	--	--	--	--	--	--
09-26-79	--	--	365	7.6	--	--	--	--	--
05-22-86	--	--	--	--	--	12.5	--	--	--
12-05-86	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--
03-10-87	--	--	--	--	--	--	--	--	--
04-10-87	--	--	--	--	--	--	--	--	--
07-22-87	--	--	--	--	--	--	--	--	--
11-02-88	--	354	--	7.8	--	--	--	--	--
12-07-88	--	367	--	--	7.9	10.0	--	--	--
03-27-89	6.3	--	382	--	--	--	--	--	--
05-31-89	7.6	--	379	--	--	--	--	--	--
06-30-89	--	325	--	7.8	--	13.5	675	--	--
08-08-89	--	--	--	--	--	--	--	--	--
08-17-89	--	--	--	--	--	--	--	--	--

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LINEITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
Site 440327103180501, Jackson Springs Pumphouse - Continued										
06-17-57	190	--	209	223	45	18	9.7	10	0.3	2.6
11-28-64	190	--	182	236	44	19	7.1	8	0.2	2.3
09-23-69	190	--	227	236	48	17	6.9	7	0.2	2.5
10-20-75	200	--	199	223	47	20	5.2	5	0.2	2.5
06-22-77	--	--	--	--	--	--	--	--	--	--
09-26-79	190	--	193	222	43	20	5.8	6	0.2	2.4
05-22-86	--	--	--	--	--	--	--	--	--	--
12-05-86	--	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--	--
03-10-87	--	--	--	--	--	--	--	--	--	--
04-10-87	--	--	--	--	--	--	--	--	--	--
07-22-87	--	--	--	--	--	--	--	--	--	--
11-02-88	180	169	204	205	41	20	5.1	6	0.2	2.6
12-07-88	190	155	210	211	43	21	5.4	6	0.2	2.5
03-27-89	--	--	--	--	--	--	--	--	--	--
05-31-89	--	--	--	--	--	--	--	--	--	--
06-30-89	190	171	216	207	44	19	4.0	4	0.1	2.7
08-08-89	--	--	--	--	--	--	--	--	--	--
08-17-89	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SiO ₂) (00955)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
Site 440327103180501, Jackson Springs Pumphouse - Continued										
06-17-57	27	5.0	--	--	--	--	--	--	--	--
11-28-64	2.9	3.0	0.20	--	--	--	--	--	--	--
09-23-69	31	20	0.34	--	--	--	--	--	--	--
10-20-75	27	3.7	--	--	--	--	--	--	--	--
06-22-77	--	--	--	--	--	--	--	--	--	--
09-26-79	26	2.2	--	--	--	--	--	--	--	--
05-22-86	--	--	--	--	--	0.310	<0.20	--	--	<0.010
12-05-86	--	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--	--
03-10-87	--	--	--	--	--	0.310	--	--	--	--
04-10-87	--	--	--	--	--	--	--	--	--	--
07-22-87	--	--	--	--	--	0.250	--	0.50	--	--
11-02-88	30	2.9	0.30	--	--	0.260	--	<0.20	--	--
12-07-88	39	3.6	1.1	--	--	0.240	--	<0.20	--	--
03-27-89	--	--	--	--	0.267	0.437	0.20	0.20	0.47	0.010
05-31-89	--	--	--	--	0.215	0.228	0.20	0.30	0.41	0.010
06-30-89	30	2.6	--	10	--	0.220	--	--	--	--
08-08-89	--	--	--	--	--	--	--	--	--	--
08-17-89	--	--	--	--	--	--	--	--	--	--

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440327103180501, Jackson Springs Pumphouse - Continued										
06-17-57	--	--	--	--	--	--	--	--	--	--
11-28-64	--	--	--	--	--	--	--	--	--	--
09-23-69	--	--	--	--	--	--	--	--	--	--
10-20-75	--	--	--	--	--	--	--	--	--	--
06-22-77	--	--	--	--	--	--	--	--	--	--
09-26-79	--	--	--	--	--	--	--	--	--	--
05-22-86	0.010	--	--	--	--	--	--	--	--	--
12-05-86	--	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--	--
03-10-87	--	--	--	--	--	--	--	--	>80	--
04-10-87	--	--	--	--	--	--	--	--	--	--
07-22-87	0.010	--	--	--	--	--	--	--	--	--
11-02-88	0.030	--	--	--	7	<1	--	--	--	0.7
12-07-88	<0.010	--	--	--	<3	<1	--	--	--	0.5
03-27-89	0.010	--	--	--	--	--	--	--	--	--
05-31-89	<0.010	--	--	--	--	--	--	--	--	--
06-30-89	--	3	<1.0	<10	<3	<1	--	4	--	--
08-08-89	--	--	--	--	--	--	<0.1	--	--	--
08-17-89	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	
Site 440327103180503, Cleghorn Springs at North Raceway										
05-22-86	--	--	--	-	--	11.0	688	6.6	--	
12-05-86	--	--	--	--	--	--	--	--	--	
02-06-87	--	--	--	--	--	--	--	--	--	
03-10-87	--	--	--	--	--	--	--	--	--	
04-10-87	--	--	--	--	--	--	--	--	--	
DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
Site 440327103180503, Cleghorn Springs at North Raceway - Continued										
05-22-86	--	--	--	--	--	--	--	--	--	
12-05-86	--	--	--	--	--	--	--	--	--	
02-06-87	--	--	--	--	--	--	--	--	--	
03-10-87	--	--	--	--	--	--	--	--	--	
04-10-87	--	--	--	--	--	--	--	--	--	
DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)
Site 440327103180503, Cleghorn Springs at North Raceway - Continued										
05-22-86	--	--	--	--	--	0.300	<0.20	--	--	0.010
12-05-86	--	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--	--
03-10-87	--	--	--	--	--	0.330	--	--	--	--
04-10-87	--	--	--	--	--	--	--	--	--	--
DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440327103180503, Cleghorn Springs at North Raceway - Continued										
05-22-86	0.010	--	--	--	--	--	--	--	--	--
12-05-86	--	--	--	--	--	--	--	--	--	--
02-06-87	--	--	--	--	--	--	--	--	--	--
03-10-87	--	--	--	--	--	--	--	--	--	--
04-10-87	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
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Site 440327103180503, Cleghorn Springs at North Raceway - Continued

05-07-87	--	--	--	--	--	--	--	--	--
06-04-87	--	--	--	--	--	--	--	--	--
07-02-87	--	--	--	--	--	--	--	--	--
08-07-87	--	--	--	--	--	--	--	--	--

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
------	--	--	---	---	---	---	--	--	--	--	---

Site 440327103180503, Cleghorn Springs at North Raceway - Continued

05-07-87	--	--	--	--	--	--	--	--	--	--	--
06-04-87	--	--	--	--	--	--	--	--	--	--	--
07-02-87	--	--	--	--	--	--	--	--	--	--	--
08-07-87	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
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Site 440327103180503, Cleghorn Springs at North Raceway - Continued

05-07-87	--	0.280	--	0.20	--	--	--	--	--	--	--
06-04-87	--	--	--	--	--	--	--	--	--	--	--
07-02-87	--	--	--	--	--	--	--	--	--	--	--
08-07-87	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CONDUCTANCE (US/CM) (00095)	SPE-CIFIC CONDUCTANCE LAB (US/CM) (90095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESSURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PERCENT SATURATION) (00301)	HARDNESS TOTAL (MG/L AS CACO3) (00900)
Site 440327103180504, Cleghorn Springs in Hatchery Bldg									
07-21-87	--	390	--	7.8	19.0	673	--	--	--
03-27-89	--	--	373	--	--	--	--	--	--
05-31-89	--	--	360	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--

DATE	ALKALINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNESIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00932)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG AS F) (00950)
Site 440327103180504, Cleghorn Springs in Hatchery Bldg - Continued											
07-21-87	--	--	--	--	--	--	--	--	--	--	--
03-27-89	--	--	--	--	--	--	--	--	--	--	--
05-31-89	--	--	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--	--	--
06-01-89	--	--	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA + ORGANIC (MG/L AS N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS TOTAL (MG/L AS P) (00665)	PHOSPHORUS DIS-SOLVED (MG/L AS P) (00666)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440327103180504, Cleghorn Springs in Hatchery Bldg - Continued											
07-21-87	--	0.290	--	0.20	--	--	0.010	--	--	--	--
03-27-89	0.291	0.438	0.30	0.30	0.59	0.010	0.010	--	--	--	--
05-31-89	0.302	0.297	0.30	0.50	0.60	0.020	<0.010	--	--	--	--
06-01-89	0.294	0.332	<0.20	0.30	--	0.010	<0.010	--	--	--	--
06-01-89	0.291	0.319	<0.20	0.40	--	0.010	0.020	--	--	--	--
06-01-89	0.294	0.336	0.30	0.20	0.59	<0.010	<0.010	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CONDUCTANCE (US/CM) (00095)	SPE-CIFIC CONDUCTANCE LAB (US/CM) (90095)	PH (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	BARO-METRIC PRES-SURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (00301)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)
Site 440327103180505, Cleghorn Springs above Bike Path									
07-21-87	--	--	--	--	--	--	--	--	--

DATE	ALKA-LINITY LAB (MG/L AS CAC03) (90410)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG AS F) (00950)
Site 440327103180505, Cleghorn Springs above Bike Path - Continued											
07-21-87	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS-SOLVED (MG/L AS N) (00623)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
Site 440327103180505, Cleghorn Springs above Bike Path - Continued											
07-21-87	0.300	0.310	0.60	0.30	0.90	0.060	0.040	--	--	1.2	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
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Site 440330103175101, Rapid Creek above Confluence with Cleghorn Spring, at Rapid City, SD

03-27-89	7.2	--	378	--	--	--	--	--	--
05-31-89	21	--	359	--	--	--	--	--	--

DATE	ALKA- LITY LAB (MG/L CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L) AS CA (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L) AS MG (00925)	SODIUM, DIS- SOLVED (MG/L) AS NA (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L) AS K (00935)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	CHLO- RIDE, DIS- SOLVED (MG/L) AS CL (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
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Site 440330103175101, Rapid Creek above Confluence with Cleghorn Spring, at Rapid City, SD - Continued

03-27-89	--	--	--	--	--	--	--	--	--	--	--
05-31-89	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
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Site 440330103175101, Rapid Creek above Confluence with Cleghorn Spring, at Rapid City, SD - Continued

03-27-89	0.108	0.247	0.20	0.20	0.31	<0.010	<0.010	--	--	--	--
05-31-89	0.023	0.022	0.30	0.30	0.32	0.010	<0.010	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CAO3) (00900)
------	---	--	---	---	---	---	---	---	---

Site 440331103175001, Cleghorn Spring at Mouth, at Rapid City, SD

03-27-89	11	--	363	--	--	--	--	--	--
05-31-89	9.2	--	360	--	--	--	--	--	--

DATE	ALKA- LINEITY LAB (MG/L AS CAO3) (90410)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
------	--	--	---	---	---	---	--	--	--	--	--	---

Site 440331103175001, Cleghorn Spring at Mouth, at Rapid City, SD - Continued

03-27-89	--	--	--	--	--	--	--	--	--	--	--
05-31-89	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
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Site 440331103175001, Cleghorn Spring at Mouth, at Rapid City, SD - Continued

03-27-89	0.289	0.525	0.40	0.40	0.69	0.070	0.060	--	--	--	--
05-31-89	0.282	0.301	0.50	0.40	0.78	0.060	0.040	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
------	---	--	---	---	---	---	---	---	--

Site 440333103174902, Rapid Creek just above Cleghorn Springs

11-02-88	--	380	--	8.1	--	668	12.0	--	--
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DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
------	--	---	---	---	---	---	------------------------------	--	--	--	--	---

Site 440333103174902, Rapid Creek just above Cleghorn Springs - Continued

11-02-88	--	--	--	--	--	--	--	--	--	--	--	--
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DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00631)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
------	---	---	---	--	--	---	--	---	---	--	---

Site 440333103174902, Rapid Creek just above Cleghorn Springs - Continued

11-02-88	--	--	--	--	--	--	--	--	--	--	--
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Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 440343103163003, Rapid Creek at Meadowbrook Pumphouse									
01-14-88	--	--	--	--	--	--	--	--	--
04-14-88	--	--	--	--	--	--	--	--	--
07-22-88	--	--	--	--	--	--	--	--	--
08-18-88	--	--	--	--	--	--	--	--	--
10-24-88	--	365	--	8.6	11.0	677	9.8	100	--
12-07-88	--	--	--	--	--	--	--	--	--

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
Site 440343103163003, Rapid Creek at Meadowbrook Pumphouse - Continued											
01-14-88	--	--	--	--	--	--	--	--	--	--	--
04-14-88	--	--	--	--	--	--	--	--	--	--	--
07-22-88	--	--	--	--	--	--	--	--	--	--	--
08-18-88	--	--	--	--	--	--	--	--	--	--	--
10-24-88	--	--	--	--	--	--	--	--	--	--	--
12-07-88	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440343103163003, Rapid Creek at Meadowbrook Pumphouse - Continued											
01-14-88	--	--	--	--	--	--	--	--	--	--	--
04-14-88	--	--	--	--	--	--	--	--	--	--	--
07-22-88	--	--	--	--	--	--	--	--	--	--	--
08-18-88	--	--	--	--	--	--	--	--	--	--	--
10-24-88	--	--	--	--	--	--	--	--	--	--	--
12-07-88	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 440407103160902, Rapid Creek at Girl Scout Gallery									
09-01-87	--	--	--	--	--	--	--	--	--
03-17-88	--	--	--	--	--	--	--	--	--
05-12-88	--	--	--	--	--	--	--	--	--
07-15-88	--	--	--	--	--	--	--	--	--
08-19-88	--	--	--	--	--	--	--	--	--
10-24-88	--	364	--	8.7	11.5	678	9.6	99	200
12-07-88	--	--	--	--	--	--	--	--	--

DATE	ALKA- LITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
Site 440407103160902, Rapid Creek at Girl Scout Gallery - Continued											
09-01-87	--	--	--	--	--	--	--	--	--	--	--
03-17-88	--	--	--	--	--	--	--	--	--	--	--
05-12-88	--	--	--	--	--	--	--	--	--	--	--
07-15-88	--	--	--	--	--	--	--	--	--	--	--
08-19-88	--	--	--	--	--	--	--	--	--	--	--
10-24-88	175	212	218	43	22	5.0	5	0.2	2.7	31	3.2
12-07-88	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440407103160902, Rapid Creek at Girl Scout Gallery - Continued											
09-01-87	--	--	--	--	--	--	--	--	--	--	--
03-17-88	--	--	--	--	--	--	--	--	--	--	--
05-12-88	--	--	--	--	--	--	--	--	--	--	--
07-15-88	--	--	--	--	--	--	--	--	--	--	--
08-19-88	--	--	--	--	--	--	--	--	--	--	--
10-24-88	--	<0.100	--	<0.20	--	--	0.010	43	4	--	1.5
12-07-88	--	--	--	--	--	--	--	--	--	--	--

Table 2.--Chemical analyses of selected surface-water samples collected and analyzed by the U.S. Geological Survey at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 440428103154901, Rapid Creek above Confluence with Lime Creek at Rapid City, SD									
04-13-89	20	--	--	--	10.0	--	--	--	--
08-01-89	65	--	--	--	20.0	--	--	--	--

DATE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO SODIUM PERCENT (00932)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG AS F) (00950)
Site 440428103154901, Rapid Creek above Confluence with Lime Creek at Rapid City, SD - Continued											
04-13-89	--	--	--	--	--	--	--	--	--	--	--
08-01-89	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)
Site 440428103154901, Rapid Creek above Confluence with Lime Creek at Rapid City, SD - Continued											
04-13-89	--	--	--	--	--	--	--	--	--	--	--
08-01-89	--	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir

[--, no data; -, questionable data deleted; <, less than; >, greater than]

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)
Site 00460669, Rapid Creek West of Rapid City								
AUG 1975								
19...	15.0	--	343	8.7	85	8.4	150	--
SEP								
24...	12.0	--	363	10.8	100	8.4	150	--
OCT								
28...	8.0	--	382	11.5	97	8.4	149	--
NOV								
13...	0.0	--	392	12.5	86	8.4	157	--
DEC								
17...	0.0	--	416	11.5	79	--	159	--
JAN 1976								
12...	0.0	-1.0	395	12.3	84	8.2	154	--
FEB								
12...	0.5	5.5	380	12.2	86	8.4	149	--
MAR								
29...	6.5	10.0	360	12.5	103	8.2	155	--
APR								
12...	13.5	26.0	360	10.2	96	8.2	153	--
MAY								
11...	13.5	21.5	340	11.2	106	8.2	148	--
JUN								
22...	13.5	21.0	330	9.0	85	8.0	146	--
JUL								
14...	11.0	22.0	340	9.6	86	8.4	151	--
AUG								
26...	14.5	28.5	370	9.5	91	8.2	154	--
SEP								
28...	9.0	10.5	340	10.4	90	8.0	150	--
OCT								
25...	3.5	5.0	360	11.0	81	8.2	154	--
NOV								
08...	4.5	10.0	370	11.6	89	8.2	151	--
DEC								
14...	0.5	4.5	360	12.4	87	8.4	149	--
JAN 1977								
11...	0.5	-10.0	380	12.8	90	--	161	--
FEB								
09...	0.5	4.5	370	12.0	85	7.8	149	--
MAR								
14...	4.0	4.5	360	11.5	88	8.4	152	--
APR								
25...	13.5	21.0	360	10.2	96	8.4	144	--
MAY								
23...	13.5	24.5	360	9.5	90	8.4	141	--
JUN								
27...	16.0	26.0	340	8.6	86	8.2	138	--
JUL								
25...	14.0	20.0	350	9.4	90	8.2	142	--
AUG								
22...	15.0	20.0	350	8.2	80	8.2	139	--
SEP								
12...	14.5	15.5	340	8.7	84	8.4	141	--
OCT								
04...	10.5	6.5	360	11.0	99	8.4	--	--
NOV								
15...	4.5	5.5	360	11.5	88	8.0	--	--
DEC								
07...	-1.0	0.0	370	12.5	--	--	--	--
JAN 1978								
05...	0.5	-12.0	370	12.0	85	7.7	--	--
FEB								
07...	0.0	-7.0	360	12.5	86	7.8	--	--
MAR								
07...	1.0	3.5	365	12.4	87	8.0	--	--
APR								
03...	10.5	13.5	350	11.3	102	7.8	--	--
MAY								
02...	9.5	14.5	325	16.0	138	7.9	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)
Site 00460669, Rapid Creek West of Rapid City - Continued								
JUN 1978								
05...	11.0	21.5	320	9.8	88	7.6	--	--
JUL								
05...	19.5	26.5	330	8.0	85	7.5	--	--
AUG								
07...	21.0	31.5	340	8.5	94	7.6	--	--
SEP								
05...	21.0	--	320	10.1	112	7.4	--	--
OCT								
17...	10.5	--	330	10.5	95	7.3	--	--
NOV								
06...	6.0	--	335	11.1	89	7.4	--	--
DEC								
06...	0.0	-9.5	350	12.4	85	--	--	--
FEB 1979								
05...	0.5	5.0	345	11.6	82	--	--	--
26...	1.0	6.5	335	12.1	85	--	--	--
MAR								
05...	1.5	10.0	340	12.2	88	7.6	--	--
APR								
02...	4.0	1.0	335	11.5	88	7.7	--	--
MAY								
07...	11.5	14.5	330	9.6	89	7.9	--	--
JUN								
05...	16.5	25.5	330	8.5	88	7.8	--	--
JUL								
02...	23.0	35.5	320	10.1	116	7.9	--	--
AUG								
06...	23.5	33.0	340	9.7	112	8.6	--	--
SEP								
10...	15.0	19.5	323	9.8	96	8.6	--	--
19...	18.0	31.0	365	9.6	101	7.8	--	--
OCT								
01...	14.0	21.0	360	10.6	102	8.4	--	--
JAN 1980								
07...	0.0	-11.0	410	13.2	90	8.6	--	--
APR								
08...	9.5	8.0	440	11.1	96	7.9	--	--
JUL								
02...	13.0	18.0	380	10.6	100	8.1	--	--
OCT								
06...	11.0	26.5	400	9.7	87	8.5	--	--
JAN 1981								
20...	0.5	-4.5	400	12.7	89	7.2	--	--
FEB								
17...	0.5	5.5	375	--	--	--	--	--
APR								
06...	6.5	10.0	390	11.8	97	7.2	--	--
JUL								
07...	16.5	38.0	375	8.5	88	8.3	--	--
APR 1982								
28...	6.0	--	390	11.7	94	7.7	--	--
JUL								
14...	11.5	26.5	390	9.7	90	7.6	--	--
OCT								
18...	6.5	9.5	400	10.5	86	7.8	16	170
NOV								
01...	5.0	9.5	380	10.9	85	7.8	12	170
DEC								
14...	0.0	-1.0	370	12.5	86	7.3	--	160
JAN 1983								
04...	0.5	6.5	400	11.8	83	7.8	--	170
FEB								
01...	0.0	1.5	390	12.6	86	7.8	--	180
MAR								
01...	5.0	15.5	380	11.6	91	7.2	--	180
APR								
11...	4.5	9.5	375	12.1	92	7.7	18	170
MAY								
25...	5.5	22.0	400	10.3	82	7.6	--	170

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)
Site 00460669, Rapid Creek West of Rapid City - Continued								
JUN 1983								
05...	14.0	20.0	370	9.3	89	8.2	12	170
JUL								
11...	14.5	26.0	370	9.1	87	7.3	--	170
AUG								
02...	18.0	22.0	350	9.8	103	8.0	12	160
SEP								
06...	12.0	25.0	360	10.1	93	8.0	18	160
OCT								
04...	9.0	17.0	375	10.8	93	8.0	164	--
DEC								
06...	0.0	-3.0	390	12.6	86	7.6	162	--
JAN 1984								
05...	0.0	9.0	375	12.3	84	7.6	160	--
FEB								
06...	0.0	11.0	370	12.4	85	7.8	173	--
MAR								
06...	0.0	1.0	390	12.4	85	8.1	168	--
APR								
09...	6.0	10.0	370	10.1	81	7.7	162	10
MAY								
07...	5.0	11.0	340	11.0	86	7.7	150	--
JUL								
09...	13.0	20.0	350	9.6	91	8.2	152	--
AUG								
06...	13.0	13.0	360	9.5	90	8.0	153	8
SEP								
11...	12.0	17.0	360	10.7	99	7.8	164	--
OCT								
03...	8.0	20.0	365	10.9	92	7.9	160	6
NOV								
13...	--	--	360	11.6	--	8.0	146	--
DEC								
03...	1.0	-4.0	390	-	-	7.6	164	--
JAN 1985								
07...	2.0	0.0	360	12.7	92	7.5	140	--
FEB								
05...	2.0	0.0	400	12.5	91	7.6	176	--
MAR								
12...	2.0	5.0	360	12.3	89	7.8	156	--
APR								
04...	8.0	5.0	340	10.4	87	--	153	--
MAY								
06...	16.0	23.0	360	10.0	100	8.3	156	--
JUN								
10...	12.0	14.0	360	9.8	91	7.9	152	--
JUL								
16...	16.0	31.0	350	10.0	100	8.0	166	--
AUG								
20...	20.0	30.0	345	9.8	107	8.3	136	--
SEP								
05...	20.0	27.0	350	10.4	113	8.1	134	--
OCT								
16...	12.0	20.0	390	10.1	93	8.0	162	--
NOV								
05...	6.0	6.0	400	10.7	86	8.2	158	--
DEC								
10...	1.0	0.0	460	10.7	75	7.4	194	--
JAN 1986								
09...	0.0	6.0	360	12.1	83	7.7	184	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
Site 00460669, Rapid Creek West of Rapid City - Continued										
AUG 1975										
19...	180	228	221	7	--	--	--	--	<1.00	--
SEP										
24...	180	225	221	4	<0.020	--	--	0.001	<1.00	--
OCT										
28...	180	240	240	0	<0.020	--	--	0.001	<1.00	--
NOV										
13...	190	256	256	0	<0.020	--	--	0.000	<1.00	--
DEC										
17...	190	238	225	13	<0.020	--	--	0.000	<1.00	--
JAN 1976										
12...	190	240	222	18	0.030	--	--	0.000	<1.00	--
FEB										
12...	180	218	215	3	<0.020	--	--	0.000	<1.00	--
MAR										
29...	190	230	230	--	<0.020	--	--	0.000	<1.00	--
APR										
12...	190	247	220	27	0.020	--	--	0.001	<1.00	--
MAY										
11...	180	224	220	4	<0.020	--	--	0.001	<1.00	--
JUN										
22...	180	246	213	33	0.050	--	--	0.001	<1.00	--
JUL										
14...	180	225	223	2	<0.020	--	--	0.001	<1.00	--
AUG										
26...	190	245	245	0	0.110	--	--	0.004	<1.00	--
SEP										
28...	180	234	227	7	<0.020	--	--	0.000	<1.00	--
OCT										
25...	190	222	216	6	0.030	--	--	0.000	<1.00	--
NOV										
08...	180	226	226	0	0.020	--	--	0.000	<1.00	--
DEC										
14...	180	212	210	2	0.020	--	--	0.000	<1.00	--
JAN 1977										
11...	200	253	249	4	0.030	--	--	0.000	<1.00	--
FEB										
09...	180	231	228	3	0.020	--	0.010	0.000	0.220	--
MAR										
14...	180	244	235	9	0.030	--	<0.010	0.001	<0.100	--
APR										
25...	180	221	205	16	<0.020	--	<0.010	0.001	<0.100	--
MAY										
23...	170	229	213	16	0.040	--	<0.010	0.002	0.100	--
JUN										
27...	170	194	182	12	--	0.020	<0.010	0.001	0.100	--
JUL										
25...	170	227	217	10	--	0.020	<0.010	0.001	<0.100	--
AUG										
22...	170	238	237	1	--	<0.020	0.010	0.001	<0.100	--
SEP										
12...	170	231	218	13	--	<0.020	<0.010	0.001	0.100	--
OCT										
04...	--	--	210	24	--	0.040	<0.010	0.002	<0.100	--
NOV										
15...	--	--	209	4	--	<0.020	<0.010	0.000	0.100	--
DEC										
07...	--	--	232	1	--	<0.020	<0.010	0.000	0.100	--
JAN 1978										
05...	--	--	229	0	--	0.020	<0.010	0.000	0.100	--
FEB										
07...	--	--	219	0	--	<0.020	<0.010	0.000	0.100	--
MAR										
07...	--	--	218	1	--	<0.020	<0.010	0.000	0.100	--
APR										
03...	--	--	238	9	--	<0.020	0.010	0.000	<0.100	--
MAY										
02...	--	--	226	1	--	0.020	0.010	0.000	<0.100	--
JUN										
05...	--	--	199	53	--	0.020	<0.010	0.000	0.100	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
Site 00460669, Rapid Creek West of Rapid City - Continued										
JUL 1978										
05...	--	--	205	7	--	<0.020	<0.010	0.000	<0.100	--
AUG										
07...	--	--	217	1	--	0.020	<0.010	0.000	<0.100	--
SEP										
05...	--	--	224	11	--	0.030	0.010	0.000	<0.100	--
OCT										
17...	--	--	191	2	--	<0.020	<0.010	0.000	<0.100	--
NOV										
06...	--	--	213	1	--	0.030	<0.010	0.000	<0.100	--
DEC										
06...	--	--	222	23	--	0.030	<0.010	0.000	0.100	--
FEB 1979										
05...	--	--	226	17	--	0.020	<0.010	0.000	0.100	--
26...	--	--	237	6	--	<0.020	<0.010	0.000	<0.100	--
MAR										
05...	--	--	207	17	--	0.030	<0.010	0.000	0.100	--
APR										
02...	--	--	229	3	--	0.050	0.010	0.000	<0.100	--
MAY										
07...	--	--	212	<1	--	<0.020	<0.010	0.000	0.100	--
JUN										
05...	--	--	201	12	--	<0.002	<0.010	0.000	<0.100	--
JUL										
02...	--	--	231	<1	--	<0.020	<0.010	0.001	0.100	--
AUG										
06...	--	--	230	12	--	<0.020	<0.010	0.004	<0.100	--
SEP										
10...	--	--	164	1	--	0.040	<0.010	0.005	<0.050	--
19...	--	--	190	1	--	<0.010	<0.010	0.000	<0.050	--
OCT										
01...	--	--	180	2	--	0.100	<0.010	0.007	<0.100	--
JAN 1980										
07...	--	--	220	<1	--	<0.050	<0.010	0.002	0.100	--
APR										
08...	--	--	232	2	--	0.120	<0.010	0.002	<0.100	--
JUL										
02...	--	--	220	2	--	0.050	<0.010	0.002	<0.100	--
OCT										
06...	--	--	204	<1	--	0.100	<0.010	0.007	<0.100	--
JAN 1981										
20...	--	--	232	3	--	<0.030	<0.010	0.000	<0.100	--
FEB										
17...	--	--	222	<1	--	0.020	<0.010	0.000	<0.100	--
APR										
06...	--	--	231	2	--	0.070	<0.010	0.000	<0.100	--
JUL										
07...	--	--	168	<1	--	<0.030	<0.010	0.002	<0.100	--
APR 1982										
28...	--	--	--	<1	--	0.080	<0.010	0.001	<0.100	--
JUL										
14...	--	--	--	6	--	0.093	<0.010	0.001	<0.100	--
OCT										
18...	--	--	--	6	--	<0.030	--	0.000	--	--
NOV										
01...	--	--	--	<1	--	0.040	--	0.000	--	--
DEC										
14...	--	--	--	2	--	0.090	--	0.000	--	--
JAN 1983										
04...	--	--	--	7	--	<0.030	--	0.000	--	--
FEB										
01...	--	--	--	<1	--	0.040	--	0.000	--	--
MAR										
01...	--	--	--	3	--	0.070	--	0.000	--	--
APR										
11...	--	--	--	1	--	0.040	--	0.000	--	--
MAY										
25...	--	--	--	8	--	<0.030	--	0.000	--	--
JUN										
05...	--	--	--	2	--	0.070	--	0.004	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
Site 00460669, Rapid Creek West of Rapid City - Continued										
JUL 1983										
11...	--	--	--	3	--	0.030	--	0.000	--	--
AUG										
02...	--	--	--	<1	--	<0.030	--	0.001	--	--
SEP										
06...	--	--	--	<1	--	0.070	--	0.002	--	--
OCT										
04...	--	--	--	<1	--	0.130	--	0.002	--	--
DEC										
06...	--	--	--	1	--	0.110	--	0.000	--	--
JAN 1984										
05...	--	--	--	2	--	0.130	--	0.001	--	--
FEB										
06...	--	--	--	2	--	8.00	--	0.045	--	--
MAR										
06...	--	--	--	1	--	<0.030	--	0.000	--	--
APR										
09...	--	--	--	7	--	<0.030	--	0.000	--	--
MAY										
07...	--	--	--	11	--	<0.030	--	0.000	--	--
JUL										
09...	--	--	--	68	--	0.090	--	0.004	--	--
AUG										
06...	--	--	--	6	--	0.100	--	0.003	--	--
SEP										
11...	--	--	--	3	--	0.040	--	0.001	--	--
OCT										
03...	--	--	--	<1	--	0.320	--	0.005	--	--
NOV										
13...	--	--	--	<1	--	<0.030	--	--	--	--
DEC										
03...	--	--	--	4	--	<0.030	--	0.000	--	--
JAN 1985										
07...	--	--	--	2	--	0.050	--	0.000	--	--
FEB										
05...	--	--	--	3	--	<0.030	--	0.000	--	--
MAR										
12...	--	--	--	1	--	0.040	--	0.000	--	--
APR										
04...	--	--	--	5	--	<0.030	--	0.002	--	--
MAY										
06...	--	--	--	6	--	0.110	--	0.007	--	--
JUN										
10...	--	--	--	1	--	0.030	--	0.001	--	--
JUL										
16...	--	--	--	3	--	0.080	--	0.003	--	--
AUG										
20...	--	180	--	4	--	0.080	--	0.008	--	--
SEP										
05...	--	--	--	4	--	0.070	--	0.004	--	--
OCT										
16...	--	164	--	<1	--	0.050	--	0.001	--	--
NOV										
05...	--	196	--	4	--	0.050	--	0.001	--	--
DEC										
10...	--	301	--	9	--	0.060	--	0.000	--	--
JAN 1986										
09...	--	221	--	7	--	0.050	--	0.000	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOPHOS- PHATE DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOVERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOVERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOVERABLE (MG/L AS K) (00937)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 00460669, Rapid Creek West of Rapid City - Continued										
AUG 1975										
19...	--	--	190	--	43	--	20	4.3	2.5	3.0
SEP										
24...	--	--	190	--	44	--	21	3.7	2.2	3.0
OCT										
28...	--	--	200	--	45	--	21	4.3	2.3	4.0
NOV										
13...	--	--	210	--	46	--	22	4.4	2.4	4.0
DEC										
17...	--	--	210	--	48	--	22	4.6	2.5	4.0
JAN 1976										
12...	--	--	200	--	45	--	21	4.0	2.3	2.0
FEB										
12...	--	--	190	--	43	--	20	3.7	2.4	1.0
MAR										
29...	--	--	200	--	46	--	21	3.5	2.5	2.0
APR										
12...	--	--	190	--	41	--	20	3.8	2.7	0.0
MAY										
11...	--	--	200	--	44	--	22	3.9	2.6	2.0
JUN										
22...	--	--	180	--	41	--	20	3.6	2.5	0.60
JUL										
14...	--	--	200	--	44	--	21	3.8	2.5	0.90
AUG										
26...	--	--	200	--	45	--	22	3.5	2.5	1.0
SEP										
28...	--	--	200	--	42	--	22	3.9	2.6	0.40
OCT										
25...	--	--	200	--	43	--	22	4.3	2.4	4.0
NOV										
08...	--	--	200	--	44	--	22	4.5	2.3	4.0
DEC										
14...	--	--	190	--	41	--	21	4.2	2.6	7.0
JAN 1977										
11...	--	--	200	--	45	--	22	3.4	2.6	3.0
FEB										
09...	--	--	190	--	41	--	21	4.0	2.3	3.0
MAR										
14...	--	--	180	--	38	--	20	3.9	2.1	0.30
APR										
25...	--	--	180	--	39	--	21	3.9	2.4	4.0
MAY										
23...	--	--	180	--	39	--	20	4.6	2.1	7.0
JUN										
27...	--	--	170	--	38	--	19	3.9	2.4	8.0
JUL										
25...	--	--	180	--	39	--	19	3.8	2.4	4.0
AUG										
22...	--	--	180	--	40	--	20	3.5	2.5	6.0
SEP										
12...	--	--	170	--	37	--	18	3.2	2.5	5.0
OCT										
04...	--	--	--	--	--	--	--	3.8	--	5.0
NOV										
15...	--	--	--	--	--	--	--	4.0	--	4.0
DEC										
07...	--	--	--	--	--	--	--	4.4	--	4.0
JAN 1978										
05...	--	--	--	--	--	--	--	--	--	4.0
FEB										
07...	--	--	--	--	--	--	--	4.1	--	3.0
MAR										
07...	--	--	--	--	--	--	--	--	--	5.0
APR										
03...	--	0.011	--	--	--	--	--	4.1	--	5.0
MAY										
02...	--	<0.004	--	--	--	--	--	3.8	--	2.0
JUN										
05...	--	--	--	--	--	--	--	3.0	--	1.0

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 00460669, Rapid Creek West of Rapid City - Continued										
JUL 1978										
05...	--	--	--	--	--	--	--	3.2	--	2.0
AUG										
07...	--	--	--	--	--	--	--	3.9	--	2.0
SEP										
05...	--	--	--	--	--	--	--	4.3	--	20
OCT										
17...	--	--	--	--	--	--	--	3.8	--	3.0
NOV										
06...	--	--	--	--	--	--	--	4.2	--	2.0
DEC										
06...	--	--	--	--	--	--	--	3.9	--	1.0
FEB 1979										
05...	--	--	--	--	--	--	--	4.0	--	2.0
26...	--	--	--	--	--	--	--	2.8	--	3.0
MAR										
05...	--	--	--	--	--	--	--	4.1	--	2.0
APR										
02...	--	--	--	--	--	--	--	3.3	--	2.0
MAY										
07...	--	--	--	--	--	--	--	4.2	--	1.0
JUN										
05...	--	--	--	--	--	--	--	3.4	--	1.0
JUL										
02...	--	--	--	--	--	--	--	3.5	--	0.40
AUG										
06...	--	--	--	--	--	--	--	3.7	--	2.0
SEP										
10...	--	--	--	--	--	--	--	3.6	--	1.0
19...	--	--	--	--	--	--	--	4.1	--	2.0
OCT										
01...	--	--	--	--	--	--	--	3.7	--	1.0
JAN 1980										
07...	--	--	--	--	--	--	--	4.2	--	1.0
APR										
08...	--	--	--	--	--	--	--	4.5	--	<1.0
JUL										
02...	--	--	--	--	--	--	--	3.5	--	3.0
OCT										
06...	--	--	--	--	--	--	--	3.8	--	2.0
JAN 1981										
20...	--	--	--	--	--	--	--	4.5	--	1.0
FEB										
17...	--	--	--	--	--	--	--	3.8	--	2.0
APR										
06...	--	<0.010	--	--	--	--	--	4.0	--	4.0
JUL										
07...	--	--	--	--	--	--	--	3.2	--	3.0
APR 1982										
28...	--	--	210	44	--	24	--	3.0	--	4.0
JUL										
14...	--	--	--	--	--	--	--	3.0	--	1.0
OCT										
18...	--	--	--	--	--	--	--	4.3	--	4.0
NOV										
01...	--	--	--	--	--	--	--	3.1	--	2.0
DEC										
14...	--	--	--	--	--	--	--	3.7	--	3.0
JAN 1983										
04...	<0.010	--	--	--	--	--	--	4.0	--	4.0
FEB										
01...	0.020	--	--	--	--	--	--	4.0	--	4.0
MAR										
01...	0.010	--	--	--	--	--	--	3.6	--	4.0
APR										
11...	0.015	--	--	--	--	--	--	3.0	--	4.0
MAY										
25...	0.022	--	--	--	--	--	--	3.5	--	3.0
JUN										
05...	<0.010	--	--	--	--	--	--	3.3	--	3.0

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 00460669, Rapid Creek West of Rapid City - Continued										
JUL 1983										
11...	0.010	<0.010	--	--	--	--	--	3.7	--	3.0
AUG										
02...	0.024	0.010	--	--	--	--	--	3.6	--	1.0
SEP										
06...	0.035	--	--	--	--	--	--	3.4	--	3.0
OCT										
04...	0.010	0.010	--	--	--	--	--	3.8	--	4.0
DEC										
06...	0.010	<0.010	--	--	--	--	--	4.1	--	3.0
JAN 1984										
05...	0.013	0.010	--	--	--	--	--	3.9	--	5.0
FEB										
06...	0.026	<0.010	--	--	--	--	--	3.6	--	2.0
MAR										
06...	0.015	0.015	--	--	--	--	--	4.4	--	3.0
APR										
09...	0.016	0.016	--	--	--	--	--	3.6	--	5.0
MAY										
07...	0.057	0.010	--	--	--	--	--	3.4	--	3.0
JUL										
09...	0.020	0.010	--	--	--	--	--	3.5	--	3.0
AUG										
06...	0.025	0.015	--	--	--	--	--	3.5	--	3.0
SEP										
11...	0.025	0.014	--	--	--	--	--	3.5	--	4.0
OCT										
03...	0.280	0.010	--	--	--	--	--	4.0	--	3.0
NOV										
13...	0.020	0.011	--	--	--	--	--	4.8	--	3.0
DEC										
03...	0.015	0.015	--	--	--	--	--	5.0	--	4.0
JAN 1985										
07...	0.016	0.016	--	--	--	--	--	4.0	--	2.0
FEB										
05...	0.024	<0.010	--	--	--	--	--	--	--	--
MAR										
12...	0.040	0.016	--	--	--	--	--	--	--	--
APR										
04...	0.025	0.010	--	--	--	--	--	3.0	--	3.0
MAY										
06...	0.180	0.055	--	--	46	--	24	--	--	1.0
JUN										
10...	0.010	0.026	--	--	40	--	20	--	--	4.0
JUL										
16...	0.025	--	--	--	36	--	20	--	--	1.0
AUG										
20...	0.036	<0.010	--	--	41	--	20	--	--	2.0
SEP										
05...	<0.010	<0.010	--	--	25	--	21	--	--	1.0
OCT										
16...	0.010	0.010	--	--	--	--	--	4.0	--	5.0
NOV										
05...	<0.010	<0.010	--	--	--	--	--	4.0	--	27
DEC										
10...	0.048	0.018	--	--	--	--	--	5.0	--	4.0
JAN 1986										
09...	<0.010	<0.010	--	--	--	--	--	4.6	--	4.0

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCHI FECAL, (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460669, Rapid Creek West of Rapid City - Continued							
AUG 1975							
19...	42	<20	3	24	--	0.002	0.03
SEP							
24...	42	<20	<3	10	--	0.015	0.32
OCT							
28...	45	<20	<3	<5	--	--	0.02
NOV							
13...	47	30	<3	5	--	0.002	0.06
DEC							
17...	42	<20	<3	<5	--	0.002	0.12
JAN 1976							
12...	46	20	<3	<5	--	0.006	0.09
FEB							
12...	44	50	<3	10	--	<0.002	<0.02
MAR							
29...	46	<20	<3	<5	--	<0.002	0.05
APR							
12...	45	<20	<3	<5	--	0.002	0.20
MAY							
11...	43	<20	3	<5	--	0.007	0.50
JUN							
22...	42	60	<3	10	--	0.009	0.34
JUL							
14...	41	<20	6	10	--	0.004	0.05
AUG							
26...	42	20	3	25	--	0.002	<0.02
SEP							
28...	42	<20	6	5	--	0.002	<0.02
OCT							
25...	41	<20	<3	<5	--	0.006	<0.02
NOV							
08...	44	70	<3	5	--	0.002	0.04
DEC							
14...	43	<20	<3	<5	--	0.009	0.03
JAN 1977							
11...	46	<20	<3	<5	--	<0.002	<0.02
FEB							
09...	54	<20	<3	40	--	0.018	0.05
MAR							
14...	43	<20	<3	<5	--	0.005	0.06
APR							
25...	35	20	<3	<5	--	<0.002	0.11
MAY							
23...	42	<20	<3	10	--	<0.002	0.14
JUN							
27...	38	30	<3	5	--	0.004	0.70
JUL							
25...	40	40	3	90	--	<0.002	0.07
AUG							
22...	40	<20	7	<5	--	0.004	<0.02
SEP							
12...	43	<20	3	10	--	0.004	<0.02
OCT							
04...	41	--	<3	--	--	0.004	--
NOV							
15...	42	--	<3	--	--	--	--
DEC							
07...	42	--	<3	--	--	0.00	--
JAN 1978							
05...	40	--	<3	--	--	<0.004	--
FEB							
07...	42	--	<3	--	--	<0.004	--
MAR							
07...	39	--	<3	--	--	0.013	--
APR							
03...	37	--	<3	--	--	--	--
MAY							
02...	38	--	<3	--	--	--	--
JUN							
05...	36	--	--	--	--	0.005	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460669, Rapid Creek West of Rapid City - Continued							
JUL 1978							
05...	32	--	3	--	--	<0.005	--
AUG							
07...	36	--	63	--	--	<0.005	--
SEP							
05...	39	--	33	--	--	<0.005	--
OCT							
17...	42	--	<3	--	--	<0.005	--
NOV							
06...	39	--	<3	--	--	<0.005	--
DEC							
06...	34	--	<3	--	--	<0.005	--
FEB 1979							
05...	32	--	<3	--	--	<0.005	--
26...	35	--	20	--	--	<0.005	--
MAR							
05...	34	--	<3	--	--	<0.005	--
APR							
02...	36	--	<3	--	--	<0.005	--
MAY							
07...	36	--	<3	--	--	<0.005	--
JUN							
05...	24	--	7	--	--	<0.005	--
JUL							
02...	33	--	13	--	--	<0.005	--
AUG							
06...	29	--	10	--	--	<0.005	--
SEP							
10...	14	--	3	--	--	0.020	--
19...	42	--	7	--	--	0.017	--
OCT							
01...	40	--	4	--	--	0.020	--
JAN 1980							
07...	43	--	0	--	--	<0.010	--
APR							
08...	36	--	0	--	--	<0.010	--
JUL							
02...	39	--	110	--	--	0.010	--
OCT							
06...	58	--	2	--	--	0.010	--
JAN 1981							
20...	44	--	2	--	--	0.020	--
FEB							
17...	29	--	<1	--	--	<0.005	--
APR							
06...	35	--	<3	--	--	--	--
JUL							
07...	42	--	4	--	--	0.014	--
APR 1982							
28...	46	--	<2	--	222	0.035	--
JUL							
14...	38	--	68	--	204	0.011	--
OCT							
18...	38	--	20	--	166	<0.010	--
NOV							
01...	33	--	8	--	222	<0.010	--
DEC							
14...	38	--	<2	--	212	0.010	--
JAN 1983							
04...	35	--	6	--	226	<0.010	--
FEB							
01...	18	--	2	--	236	0.010	--
MAR							
01...	35	--	<2	--	184	0.010	--
APR							
11...	38	--	12	--	216	<0.010	--
MAY							
25...	31	--	<2	--	210	<0.010	--
JUN							
05...	34	--	2	--	220	<0.010	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460669, Rapid Creek West of Rapid City - Continued							
JUL 1983							
11...	35	--	40	--	180	--	--
AUG							
02...	35	--	16	--	160	--	--
SEP							
06...	34	--	32	--	200	<0.010	--
OCT							
04...	35	--	36	--	186	--	--
DEC							
06...	35	--	<2	--	242	--	--
JAN 1984							
05...	41	--	8	--	218	--	--
FEB							
06...	32	--	<2	--	220	--	--
MAR							
06...	38	--	<2	--	212	--	--
APR							
09...	40	--	<2	--	202	--	--
MAY							
07...	35	--	6	--	186	--	--
JUL							
09...	36	--	6	--	226	--	--
AUG							
06...	38	--	18	--	192	--	--
SEP							
11...	37	--	17	--	200	--	--
OCT							
03...	37	--	4	--	194	--	--
NOV							
13...	38	--	<2	--	206	--	--
DEC							
03...	38	--	<2	--	289	--	--
JAN 1985							
07...	35	--	<2	--	206	--	--
FEB							
05...	--	--	<2	--	246	--	--
MAR							
12...	--	--	4	--	178	--	--
APR							
04...	37	--	2	--	150	--	--
MAY							
06...	38	--	2	--	208	--	--
JUN							
10...	37	--	14	--	170	--	--
JUL							
16...	44	--	8	--	156	<0.010	--
AUG							
20...	38	--	30	--	176	--	--
SEP							
05...	38	--	30	--	250	--	--
OCT							
16...	36	--	<10	--	164	--	--
NOV							
05...	3500	--	<10	--	192	--	--
DEC							
10...	130	--	<10	--	292	--	--
JAN 1986							
09...	43	--	<10	--	214	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LILITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LILITY PHENOL- PHTHA- LEIN (MG/L) (00415)
Site 00460669, Rapid Creek West of Rapid City - Continued								
FEB 1986								
10...	0.0	0.0	425	11.3	77	8.2	178	--
MAR								
24...	14.0	21.0	390	10.6	102	8.3	156	--
APR								
07...	14.0	19.0	375	10.2	98	8.1	166	10
MAY								
07...	8.0	2.0	360	11.1	93	8.0	155	--
JUN								
03...	20.0	29.0	370	9.2	100	8.1	170	2
JUL								
09...	21.0	26.0	355	9.0	100	8.2	142	--
AUG								
11...	21.0	28.0	370	10.6	118	7.9	162	--
SEP								
23...	16.0	24.0	365	10.2	102	8.3	147	--
OCT								
21...	10.5	15.0	370	10.8	97	8.5	156	--
NOV								
05...	8.0	12.0	385	11.5	97	8.4	168	--
DEC								
02...	1.0	1.0	360	12.1	85	8.5	169	--
JAN 1987								
07...	1.5	1.0	400	11.9	86	7.9	158	--
FEB								
02...	1.0	8.5	370	11.9	84	8.3	156	--
MAR								
03...	2.0	12.0	360	12.6	91	7.8	149	--
APR								
06...	8.0	16.0	360	10.8	91	8.3	114	--
MAY								
12...	16.0	18.0	370	10.3	103	8.2	163	--
JUN								
08...	16.0	21.0	370	9.4	94	8.1	170	--
JUL								
14...	19.0	29.0	375	8.8	94	7.7	156	--
AUG								
11...	19.0	26.0	360	9.6	102	8.3	162	--
SEP								
01...	16.0	23.0	360	9.9	99	8.7	159	--
22...	10.0	24.0	530	10.7	95	7.8	160	--
OCT								
08...	12.0	14.0	380	11.0	102	--	152	--
NOV								
05...	8.0	9.0	495	10.7	90	8.0	182	--
DEC								
03...	4.0	9.5	400	11.6	89	8.3	170	--
JAN 1988								
18...	0.5	-3.0	405	11.6	82	8.5	162	--
FEB								
17...	2.0	6.5	400	11.3	82	7.7	154	--
MAR								
07...	1.5	2.0	390	12.2	88	7.5	140	--
APR								
19...	10.5	17.0	395	10.0	90	7.9	156	--
MAY								
24...	19.0	25.5	375	10.4	111	8.7	186	--
JUN								
08...	20.0	31.0	400	9.1	99	8.6	156	--
JUL								
13...	14.5	21.0	380	9.9	95	8.4	170	--
AUG								
23...	14.5	21.5	375	9.6	92	7.9	170	--
SEP								
13...	10.0	11.0	380	10.4	92	8.3	180	--
OCT								
19...	7.0	5.5	385	10.7	88	8.2	164	--
NOV								
07...	6.5	8.0	380	12.3	101	8.0	182	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LILITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LILITY PHENOL- PHTHA- LEIN (MG/L) (00415)
Site 00460669, Rapid Creek West of Rapid City - Continued								
JAN 1989								
11...	1.0	-4.0	450	10.8	76	7.6	219	--
FEB								
13...	0.5	-2.0	405	10.4	73	8.4	190	--
MAR								
22...	4.5	5.0	370	11.4	87	7.6	170	--
APR								
05...	8.0	10.0	400	11.2	94	7.9	162	--
MAY								
10...	16.0	22.0	390	10.4	104	7.5	170	--
JUN								
12...	14.5	20.5	390	10.3	99	7.6	168	--
JUL								
10...	18.0	29.0	350	10.0	105	7.3	212	--
AUG								
08...	18.5	29.0	390	9.8	103	7.4	185	--
SEP								
20...	15.5	13.5	370	10.3	103	7.4	158	--
OCT								
16...	10.0	4.5	400	11.4	101	7.1	174	--
NOV								
06...	6.5	8.5	400	11.9	97	7.9	206	--
DEC								
19...	0.5	-15.5	475	10.7	75	7.6	203	--
JAN 1990								
09...	4.5	9.0	415	10.9	83	7.9	176	--
FEB								
12...	3.0	2.0	400	12.3	91	7.6	160	--
MAR								
05...	3.0	8.0	380	12.8	95	7.3	194	--
APR								
10...	10.5	1.0	400	12.2	110	7.4	158	--
MAY								
02...	14.5	20.0	400	9.9	95	6.8	157	--
JUN								
05...	20.0	22.0	360	10.4	113	8.3	150	--
JUL								
17...	20.5	28.0	390	9.1	101	8.5	157	--
AUG								
14...	20.5	29.0	360	9.8	109	8.8	148	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	BICAR- BONATE WATER WH FET FIELD HCO3 (00440)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
Site 00460669, Rapid Creek West of Rapid City - Continued										
FEB 1986										
10...	--	220	--	4	--	0.050	--	0.001	--	--
MAR										
24...	--	245	--	3	--	<0.030	--	0.002	--	--
APR										
07...	--	235	--	2	--	<0.030	--	0.001	--	--
MAY										
07...	--	99	--	9	--	0.070	--	0.001	--	--
JUN										
03...	--	--	--	6	--	0.057	--	0.003	--	--
JUL										
09...	--	197	--	--	--	--	--	--	--	--
AUG										
11...	--	210	--	2	--	<0.030	--	0.001	--	--
SEP										
23...	--	232	--	2	--	0.040	--	0.003	--	--
OCT										
21...	--	186	--	4	--	<0.030	--	0.002	--	--
NOV										
05...	--	234	--	2	--	0.040	--	0.002	--	--
DEC										
02...	--	196	--	<1	--	<0.030	--	0.001	--	--
JAN 1987										
07...	--	194	--	184	--	<0.030	--	0.000	--	--
FEB										
02...	--	222	--	2	--	0.130	--	0.003	--	--
MAR										
03...	--	220	--	<1	--	<0.030	--	0.000	--	--
APR										
06...	--	194	--	--	--	<0.030	--	0.001	--	--
MAY										
12...	--	--	--	<1	--	0.060	--	0.004	--	--
JUN										
08...	--	--	--	6	--	0.035	--	0.002	--	--
JUL										
14...	--	--	--	2	--	0.030	--	0.001	--	--
AUG										
11...	--	--	--	2	--	<0.030	--	0.002	--	--
SEP										
01...	--	--	--	4	--	<0.030	--	0.005	--	--
22...	--	--	--	2	--	0.030	--	0.000	0.140	--
OCT										
08...	--	--	--	3	--	0.039	--	0.002	--	--
NOV										
05...	--	252	--	8	--	<0.030	--	0.001	--	--
DEC										
03...	--	194	--	<1	--	<0.030	--	0.001	<0.100	--
JAN 1988										
18...	--	224	--	<1	--	<0.030	--	0.001	0.160	--
FEB										
17...	--	226	--	5	--	0.070	--	0.000	0.140	--
MAR										
07...	--	164	--	<1	--	0.050	--	0.000	0.140	--
APR										
19...	--	212	--	4	--	<0.030	--	0.000	<0.100	--
MAY										
24...	--	214	--	11	--	0.030	--	0.006	<0.100	--
JUN										
08...	--	242	--	12	--	0.070	--	0.012	--	--
JUL										
13...	--	236	--	5	--	0.040	--	0.003	--	<0.100
AUG										
23...	--	208	--	4	--	0.070	--	0.002	0.100	--
SEP										
13...	--	204	--	1	--	0.120	--	0.005	<0.100	--
OCT										
19...	--	210	--	<1	--	0.030	--	0.001	<0.010	--
NOV										
07...	--	250	--	1	--	0.060	--	0.001	<0.100	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
Site 00460669, Rapid Creek West of Rapid City - Continued										
JAN 1989										
11...	--	202	--	<1	--	0.060	--	0.000	0.100	--
FEB										
13...	--	230	--	4	--	<0.030	--	0.001	0.210	--
MAR										
22...	--	176	--	<1	--	0.040	--	0.000	0.120	--
APR										
05...	--	202	--	<1	--	0.040	--	0.000	<0.100	--
MAY										
10...	--	215	--	10	--	0.030	--	0.000	<0.100	--
JUN										
12...	--	240	--	4	--	0.050	--	0.001	<0.100	--
JUL										
10...	--	214	--	2	--	0.040	--	0.000	<0.100	--
AUG										
08...	--	232	--	4	--	<0.030	--	0.000	<0.100	--
SEP										
20...	--	272	--	6	--	0.040	--	0.000	<0.100	--
OCT										
16...	--	190	--	<1	--	0.030	--	0.000	<0.100	--
NOV										
06...	--	220	--	<1	--	<0.030	--	0.000	<0.100	--
DEC										
19...	--	252	--	11	--	<0.030	--	0.000	0.120	--
JAN 1990										
09...	--	250	--	4	--	0.050	--	0.000	0.150	--
FEB										
12...	--	170	--	<1	--	0.050	--	0.000	<0.100	--
MAR										
05...	--	286	--	3	--	0.040	--	0.000	<0.100	--
APR										
10...	--	230	--	10	--	<0.030	--	0.000	<0.100	--
MAY										
02...	--	252	--	4	--	<0.030	--	0.000	<0.100	--
JUN										
05...	--	200	--	7	--	<0.030	--	0.003	<0.100	--
JUL										
17...	--	172	--	2	--	0.050	--	0.006	0.100	--
AUG										
14...	--	246	--	4	--	<0.030	--	0.008	<0.100	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHOSOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOVERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOVERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOVERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOVERABLE (MG/L AS K) (00937)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 00460669, Rapid Creek West of Rapid City - Continued										
FEB 1986										
10...	<0.010	<0.010	--	--	--	--	--	5.0	--	5.0
MAR										
24...	0.016	<0.010	--	--	--	--	--	4.5	--	4.0
APR										
07...	0.027	--	--	--	--	--	--	4.1	--	4.0
MAY										
07...	0.050	<0.010	--	--	49	--	20	5.0	--	6.0
JUN										
03...	0.025	0.020	--	--	43	--	22	4.0	--	9.0
JUL										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	0.013	0.012	--	--	38	--	22	4.1	--	6.0
SEP										
23...	0.030	0.013	--	--	--	--	--	4.0	--	4.0
OCT										
21...	0.023	0.021	--	--	--	--	--	9.0	--	3.0
NOV										
05...	<0.010	<0.010	--	--	--	--	--	4.0	--	2.0
DEC										
02...	0.023	0.021	--	--	--	--	--	9.0	--	5.0
JAN 1987										
07...	0.041	0.015	--	--	--	--	--	4.0	--	4.0
FEB										
02...	0.012	<0.010	--	--	--	--	--	--	--	--
MAR										
03...	0.015	0.015	--	--	--	--	--	4.0	--	4.0
APR										
06...	0.020	0.011	--	--	--	--	--	4.0	--	8.0
MAY										
12...	--	0.011	--	--	42	--	22	4.0	--	6.0
JUN										
08...	0.010	<0.010	--	--	43	--	23	4.0	--	6.0
JUL										
14...	0.022	0.022	--	--	39	--	24	3.0	--	6.0
AUG										
11...	0.018	0.012	--	--	43	--	21	4.0	--	5.0
SEP										
01...	0.030	0.024	--	--	--	--	--	4.0	--	4.0
22...	0.190	<0.010	--	--	75	--	27	7.0	--	7.0
OCT										
08...	0.010	<0.010	--	--	--	--	--	5.0	--	5.0
NOV										
05...	0.065	0.026	--	--	--	--	--	7.0	--	7.0
DEC										
03...	0.020	0.020	--	--	--	--	--	4.0	--	2.0
JAN 1988										
18...	0.032	0.010	--	--	--	--	--	4.0	--	5.0
FEB										
17...	0.042	0.012	--	--	--	--	--	4.0	--	5.0
MAR										
07...	0.012	0.010	--	--	--	--	--	4.0	--	6.0
APR										
19...	0.018	0.010	--	--	--	--	--	4.0	--	4.0
MAY										
24...	0.060	0.014	--	--	42	--	22	4.0	--	3.0
JUN										
08...	0.035	0.019	--	--	45	--	23	4.0	--	1.0
JUL										
13...	0.026	0.026	--	--	47	--	22	5.0	--	2.0
AUG										
23...	0.012	0.011	200	--	47	--	23	4.0	--	2.0
SEP										
13...	0.013	0.011	230	--	--	--	--	3.0	--	3.0
OCT										
19...	0.018	0.010	140	--	--	--	--	7.0	--	3.0
NOV										
07...	<0.010	--	150	--	--	--	--	4.0	--	2.0

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
Site 00460669, Rapid Creek West of Rapid City - Continued										
JAN 1989										
11...	0.038	0.014	200	--	--	--	--	5.0	--	2.0
FEB										
13...	0.022	<0.010	130	--	--	--	--	5.0	--	2.0
MAR										
22...	0.013	0.013	170	--	--	--	--	4.0	--	4.0
APR										
05...	0.038	0.010	130	--	--	--	--	38	--	4.0
MAY										
10...	0.023	0.010	180	--	41	--	26	4.0	--	1.0
JUN										
12...	0.038	<0.010	210	--	53	--	20	3.0	--	<1.0
JUL										
10...	<0.010	<0.010	200	--	42	--	23	3.0	--	9.0
AUG										
08...	0.034	0.012	210	--	46	--	23	3.0	--	5.0
SEP										
20...	0.019	0.019	190	--	--	--	--	4.0	--	5.0
OCT										
16...	0.015	0.010	370	--	--	--	--	4.0	--	7.0
NOV										
06...	0.021	0.016	250	--	--	--	--	4.0	--	6.0
DEC										
19...	<0.010	--	330	--	--	--	--	4.0	--	4.0
JAN 1990										
09...	0.012	0.012	230	--	--	--	--	4.0	--	3.0
FEB										
12...	0.012	0.012	210	--	--	--	--	3.0	--	1.0
MAR										
05...	0.010	0.010	220	--	--	--	--	4.0	--	4.0
APR										
10...	0.068	0.028	220	--	--	--	--	4.0	--	4.0
MAY										
02...	0.019	0.011	190	--	43	--	20	4.0	--	6.0
JUN										
05...	0.019	0.012	200	--	35	--	20	4.0	--	3.0
JUL										
17...	0.509	0.013	170	--	36	--	20	3.0	--	1.0
AUG										
14...	0.039	<0.010	170	--	33	--	20	4.0	--	4.0

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460669, Rapid Creek West of Rapid City - Continued							
FEB 1986							
10...	21	--	<10	--	216	--	--
MAR							
24...	37	--	<10	--	242	--	--
APR							
07...	41	--	<10	--	232	0.021	--
MAY							
07...	45	--	<10	--	90	--	--
JUN							
03...	44	--	20	--	226	--	--
JUL							
09...	--	--	10	--	--	--	--
AUG							
11...	--	--	80	--	208	--	--
SEP							
23...	40	--	<10	--	230	--	--
OCT							
21...	38	--	<10	--	182	--	--
NOV							
05...	24	--	<10	--	232	--	--
DEC							
02...	39	--	<10	--	196	--	--
JAN 1987							
07...	44	--	<10	--	10	--	--
FEB							
02...	--	--	<10	--	220	--	--
MAR							
03...	38	--	<10	--	220	--	--
APR							
06...	38	--	<10	--	4	--	--
MAY							
12...	41	--	<10	--	170	--	--
JUN							
08...	37	--	<10	--	162	--	--
JUL							
14...	37	--	10	--	196	--	--
AUG							
11...	28	--	10	--	194	--	--
SEP							
01...	31	--	40	--	210	--	--
22...	83	--	<10	--	328	--	--
OCT							
08...	<0.01	--	20	--	212	--	--
NOV							
05...	70	--	10	--	246	--	--
DEC							
03...	38	--	<10	--	194	--	--
JAN 1988							
18...	40	--	<10	--	224	--	--
FEB							
17...	40	--	<10	--	221	--	--
MAR							
07...	37	--	<10	--	164	--	--
APR							
19...	33	--	10	--	208	--	--
MAY							
24...	34	--	2	--	203	--	--
JUN							
08...	43	--	17	--	230	--	--
JUL							
13...	36	--	8	--	231	--	--
AUG							
23...	39	--	14	--	204	--	--
SEP							
13...	38	--	4	--	203	--	--
OCT							
19...	37	--	6	--	210	--	--
NOV							
07...	38	--	2	--	249	<0.010	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (00945)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460669, Rapid Creek West of Rapid City - Continued							
JAN 1989							
11...	50	--	2	--	201	--	--
FEB							
13...	40	--	4	--	226	--	--
MAR							
22...	38	--	<2	--	176	--	--
APR							
05...	38	--	<2	--	202	--	--
MAY							
10...	37	--	--	--	205	--	--
JUN							
12...	130	--	7	--	236	--	--
JUL							
10...	42	--	6	--	212	--	--
AUG							
08...	38	--	12	--	228	--	--
SEP							
20...	40	--	98	--	266	--	--
OCT							
16...	44	--	4	--	190	--	--
NOV							
06...	41	--	3	--	220	--	--
DEC							
19...	40	--	<2	--	241	--	--
JAN 1990							
09...	39	--	2	--	246	--	--
FEB							
12...	24	--	<2	--	170	--	--
MAR							
05...	43	--	<2	--	283	--	--
APR							
10...	43	--	<2	--	220	--	--
MAY							
02...	47	--	<2	--	248	--	--
JUN							
05...	44	--	10	--	193	--	--
JUL							
17...	40	--	<2	--	170	--	--
AUG							
14...	46	--	<2	--	242	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
Site 00460110, Rapid Creek Immediately above WWTP Discharge							
NOV 1982							
02...	3.0	3.5	--	12.6	93	7.8	16
DEC							
16...	0.0	-4.0	--	12.6	86	7.6	--
JAN 1983							
06...	0.0	4.0	--	13.6	93	7.7	--
FEB							
03...	0.0	1.5	--	12.9	88	7.8	--
APR							
14...	2.0	4.5	--	12.6	91	7.9	--
MAY							
18...	5.5	10.5	--	10.7	86	7.6	--
JUN							
09...	14.0	22.0	--	8.5	82	7.6	--
JUL							
13...	22.0	33.5	--	8.1	92	7.6	--
AUG							
04...	24.0	28.0	--	10.1	119	7.8	--
SEP							
08...	17.0	24.0	--	6.7	69	7.9	--
OCT							
06...	10.0	21.0	--	9.7	86	7.6	198
NOV							
02...	8.0	16.0	--	10.2	86	7.8	196
DEC							
08...	0.0	-11.0	--	12.4	85	7.5	211
JAN 1984							
05...	0.0	6.0	--	11.1	76	7.5	178
FEB							
08...	0.0	10.0	--	12.0	82	8.1	194
MAR							
08...	0.0	0.0	--	12.5	86	7.6	197
APR							
11...	7.0	8.0	--	9.8	80	7.6	198
MAY							
10...	8.0	15.0	--	9.6	81	7.6	167
JUL							
10...	17.0	20.0	--	8.0	82	7.6	171
AUG							
06...	19.0	30.0	--	10.1	107	8.3	166
SEP							
14...	11.0	13.0	--	8.4	76	8.0	183
OCT							
01...	5.0	8.0	--	9.8	77	6.9	194
NOV							
14...	6.0	9.0	--	10.7	86	7.6	182
DEC							
05...	1.0	-6.0	--	12.4	87	7.5	-
JAN 1985							
09...	2.0	0.0	--	11.6	84	7.1	178
FEB							
07...	1.0	0.0	--	12.3	87	7.6	196
MAR							
14...	6.0	9.0	--	12.3	98	7.9	-
APR							
02...	8.0	15.0	--	10.0	84	7.3	172
MAY							
08...	22.0	30.0	--	10.2	116	7.9	186
JUN							
11...	15.0	18.0	--	8.6	84	7.4	164
JUL							
18...	19.0	24.0	--	7.6	81	7.8	202
AUG							
22...	22.0	28.0	--	9.8	111	8.2	-
SEP							
03...	18.0	24.0	--	7.5	79	7.6	-
OCT							
17...	10.0	14.0	--	9.1	80	7.9	207
NOV							
06...	8.0	7.0	--	11.0	92	8.1	-

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued							
DEC 1985							
09...	0.0	0.0	--	10.1	69	7.2	206
JAN 1986							
09...	0.0	0.0	--	10.9	75	7.6	208
FEB							
21...	1.0	6.0	720	12.4	87	7.9	216
MAR							
26...	7.0	8.0	--	10.6	87	8.0	194
APR							
09...	10.0	8.0	--	10.1	89	7.1	202
MAY							
06...	16.0	17.0	--	10.7	107	8.3	178
JUN							
04...	18.0	16.0	--	8.0	84	7.8	182
JUL							
07...	20.0	21.0	750	7.1	77	7.6	180
AUG							
13...	18.0	25.0	--	8.2	86	7.6	134
SEP							
24...	14.0	16.0	--	8.4	81	8.1	183
OCT							
22...	11.0	14.5	--	9.7	87	7.9	181
NOV							
06...	7.0	2.0	--	10.1	83	8.0	180
DEC							
03...	0.5	-1.0	--	12.3	87	8.0	206
JAN 1987							
06...	1.0	-1.0	685	10.8	76	8.1	198
FEB							
04...	2.0	-1.0	--	11.6	84	8.2	192
MAR							
05...	5.5	11.0	--	10.4	81	8.0	770
APR							
08...	8.5	12.0	--	9.8	82	8.0	174
MAY							
14...	15.5	18.0	--	7.7	77	7.8	190
JUN							
10...	16.0	21.0	--	6.8	68	7.6	166
JUL							
16...	22.0	31.0	--	7.0	80	7.3	790
AUG							
12...	19.0	19.0	--	6.8	72	8.0	194
SEP							
03...	19.0	22.0	--	6.6	70	8.2	170
OCT							
28...	6.5	18.0	--	10.2	84	8.1	204
NOV							
04...	8.5	9.0	--	10.6	89	8.3	191
DEC							
01...	0.5	-3.5	--	12.3	87	8.2	208
JAN 1988							
20...	0.0	-10.5	--	11.8	81	7.4	212
FEB							
16...	0.5	1.5	--	11.8	83	7.1	215
MAR							
10...	4.5	3.5	--	9.4	72	8.5	176
APR							
21...	9.0	5.5	--	8.7	75	8.1	206
MAY							
25...	21.0	28.5	700	10.3	114	7.6	200
JUN							
07...	28.5	39.0	--	12.1	153	8.3	186
JUL							
11...	22.0	23.0	--	10.2	116	8.2	184
AUG							
22...	24.0	33.5	--	9.7	114	7.6	198
SEP							
12...	13.5	10.0	--	9.8	92	9.1	194
OCT							
17...	11.5	7.0	--	7.8	72	7.8	158

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET MG/L AS CACO3 (00410)
Site 00460110, Rapid Creek Immediately above WTP Discharge - Continued							
NOV 1988							
09...	5.5	1.0	--	10.8	86	8.0	201
JAN 1989							
10...	0.5	-8.0	--	10.6	75	7.1	230
FEB							
14...	0.5	-0.5	--	11.3	80	7.9	216
MAR							
20...	0.0	-5.5	--	10.3	71	8.0	180
APR							
03...	5.5	5.0	--	10.4	83	8.6	184
MAY							
09...	16.5	20.0	--	11.3	117	7.1	198
JUN							
19...	14.0	29.0	--	7.8	75	7.6	204
JUL							
12...	22.0	26.5	--	6.5	74	7.1	207
AUG							
09...	23.0	32.0	--	10.3	118	8.2	206
SEP							
18...	16.5	20.0	--	7.7	79	7.6	202
OCT							
18...	5.0	3.0	--	10.8	84	8.6	212
NOV							
08...	6.5	9.0	--	12.1	99	8.0	214
DEC							
20...	0.5	-18.5	--	10.1	71	7.5	230
JAN 1990							
10...	2.0	15.0	--	11.7	85	7.4	200
FEB							
21...	2.0	5.5	--	11.3	82	7.0	176
MAR							
12...	6.5	8.0	--	8.7	71	7.1	176
APR							
11...	3.5	-5.5	--	11.2	83	7.6	186
MAY							
01...	12.0	17.0	--	11.7	108	7.5	164
JUN							
06...	16.5	23.0	--	7.3	75	7.8	173
JUL							
18...	20.0	19.5	--	7.4	80	8.2	200
AUG							
07...	22.0	31.0	--	8.6	98	7.8	170

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)	AMMONIA UN- IONIZED (MG/L) AS N (00619)	NITRO- GEN, NITRATE TOTAL (MG/L) AS N (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)
Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued										
NOV 1982										
02...	190	--	--	0.060	--	0.000	--	--	--	--
DEC										
16...	200	--	--	<0.030	--	0.000	--	--	--	--
JAN 1983										
06...	190	--	--	0.250	--	0.001	--	--	--	--
FEB										
03...	210	--	--	0.060	--	0.000	--	--	--	--
APR										
14...	170	--	--	0.070	--	0.001	--	--	--	--
MAY										
18...	170	--	--	<0.030	--	0.000	--	--	--	--
JUN										
09...	200	--	--	0.070	--	0.001	--	--	--	--
JUL										
13...	180	--	--	0.070	--	0.002	--	--	--	--
AUG										
04...	190	--	--	0.090	--	0.003	--	--	--	--
SEP										
08...	190	--	--	0.130	--	0.003	--	--	--	--
OCT										
06...	--	--	--	0.070	--	0.001	--	--	--	--
NOV										
02...	--	--	--	0.050	--	0.000	--	--	--	--
DEC										
08...	--	--	--	0.100	--	0.000	--	--	--	--
JAN 1984										
05...	--	--	--	0.090	--	0.000	--	--	--	--
FEB										
08...	--	--	--	0.060	--	0.001	--	--	--	--
MAR										
08...	--	--	--	0.090	--	0.000	--	--	--	--
APR										
11...	--	--	--	<0.030	--	0.000	--	--	--	--
MAY										
10...	--	--	--	<0.300	--	0.003	--	--	--	--
JUL										
10...	--	--	--	0.130	--	0.002	--	--	--	--
AUG										
06...	--	--	--	0.110	--	0.009	--	--	--	--
SEP										
14...	--	--	--	<0.030	--	0.001	--	--	--	--
OCT										
01...	--	--	--	<0.030	--	0.000	--	--	--	--
NOV										
14...	--	--	--	<0.030	--	0.000	--	--	--	--
DEC										
05...	--	--	--	0.070	--	0.000	--	--	--	--
JAN 1985										
09...	--	--	--	0.060	--	0.000	--	--	--	--
FEB										
07...	--	--	--	0.090	--	0.000	--	--	--	--
MAR										
14...	--	--	--	<0.030	--	0.000	--	--	--	--
APR										
02...	--	--	--	<0.030	--	0.000	--	--	--	--
MAY										
08...	--	--	--	0.077	--	0.003	--	--	--	--
JUN										
11...	--	--	--	0.090	--	0.001	--	--	--	--
JUL										
18...	--	--	--	0.120	--	0.003	--	--	--	--
AUG										
22...	--	--	--	1.40	--	0.115	--	--	--	--
SEP										
03...	--	--	--	0.180	<0.010	0.003	<0.100	--	--	--
OCT										
17...	--	--	--	0.030	--	0.000	--	--	--	--
NOV										
06...	--	--	--	0.110	--	0.003	0.120	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINITY PHENOL- PHTHA- LEIN (MG/L) (000415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (000500)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (000530)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N) (000610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N) (000613)	AMMONIA UN- IONIZED (MG/L) AS N) (000619)	NITRO- GEN, NITRATE TOTAL (MG/L) AS N) (000620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N) (000630)	PHOS- PHORUS TOTAL (MG/L) AS P) (000665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P) (000671)
Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued										
DEC 1985										
09...	--	--	--	0.110	--	0.000	--	--	--	--
JAN 1986										
09...	--	--	--	<0.030	--	0.000	--	--	--	--
FEB										
21...	--	--	--	0.060	--	0.000	--	--	--	--
MAR										
26...	--	--	--	<0.030	--	0.001	--	--	--	--
APR										
09...	--	--	--	<0.030	--	0.000	--	--	--	--
MAY										
06...	--	--	--	<0.030	--	0.002	--	--	--	--
JUN										
04...	--	--	--	<0.030	--	0.001	--	--	--	--
JUL										
07...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	--	--	--	0.164	--	0.003	--	--	--	--
SEP										
24...	--	--	--	0.070	--	0.003	--	--	--	--
OCT										
22...	--	--	--	0.860	--	0.017	--	--	--	--
NOV										
06...	--	--	--	<0.030	--	0.000	--	--	--	--
DEC										
03...	--	--	--	<0.030	--	0.000	--	--	--	--
JAN 1987										
06...	--	426	8	<0.030	--	0.000	--	--	0.035	<0.010
FEB										
04...	--	--	--	0.077	--	0.001	--	--	--	--
MAR										
05...	--	--	--	0.050	--	0.001	--	--	--	--
APR										
08...	--	--	--	<0.030	--	0.001	--	--	--	--
MAY										
14...	--	--	--	0.110	--	0.002	--	--	--	--
JUN										
10...	--	--	--	0.108	--	0.002	--	--	--	--
JUL										
16...	--	--	--	<0.030	--	0.000	--	--	--	--
AUG										
12...	--	--	--	0.050	--	0.002	--	--	--	--
SEP										
03...	--	--	--	<0.030	--	0.002	--	--	--	--
OCT										
28...	--	--	--	0.045	--	0.001	--	--	--	--
NOV										
04...	--	--	--	0.040	--	0.002	--	--	--	--
DEC										
01...	--	--	--	0.120	--	0.002	0.550	--	--	--
JAN 1988										
20...	--	--	--	<0.030	--	0.000	0.310	--	--	--
FEB										
16...	--	--	--	0.050	--	0.000	0.400	--	--	--
MAR										
10...	--	--	--	<0.030	--	0.001	0.170	--	--	--
APR										
21...	--	--	--	0.060	--	0.002	<0.100	--	--	--
MAY										
25...	--	--	--	<0.030	--	0.000	<0.100	--	--	--
JUN										
07...	--	--	--	0.080	--	0.013	--	--	--	--
JUL										
11...	--	--	--	<0.030	--	0.003	--	0.130	--	--
AUG										
22...	--	--	--	0.110	--	0.003	--	--	--	--
SEP										
12...	--	--	--	0.040	--	0.011	<0.100	--	--	--
OCT										
17...	--	--	--	0.040	--	0.001	0.100	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINITITY PHENOL- PHTHA- LEIN (MG/L) (00415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA TOTAL (MG/L) AS N (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L) AS N (00613)	AMMONIA UN- IONIZED (MG/L) AS N (00619)	NITRO- GEN, NITRATE TOTAL (MG/L) AS N (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L) AS N (00630)	PHOS- PHORUS TOTAL (MG/L) AS P (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)
Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued										
NOV 1988										
09...	--	--	--	0.050	--	0.001	<0.100	--	--	--
JAN 1989										
10...	--	--	--	<0.030	--	0.000	0.370	--	--	--
FEB										
14...	--	--	--	0.050	--	0.000	0.460	--	--	--
MAR										
20...	--	--	--	0.170	--	0.002	1.05	--	--	--
APR										
03...	--	--	--	<0.030	--	0.002	0.140	--	--	--
MAY										
09...	--	--	--	0.030	--	0.000	<0.100	--	--	--
JUN										
19...	--	--	--	0.080	--	0.001	<0.100	--	--	--
JUL										
12...	--	--	--	<0.030	--	0.000	<0.100	--	--	--
AUG										
09...	--	--	--	<0.030	--	0.003	<0.100	--	--	--
SEP										
18...	--	--	--	0.110	--	0.002	<0.100	--	--	--
OCT										
18...	--	--	--	<0.030	--	0.002	<0.100	--	--	--
NOV										
08...	--	--	--	<0.030	--	0.000	<0.100	--	--	--
DEC										
20...	--	--	--	0.100	--	0.000	0.600	--	--	--
JAN 1990										
10...	--	--	--	0.100	--	0.000	0.330	--	--	--
FEB										
21...	--	--	--	0.050	--	0.000	0.440	--	--	--
MAR										
12...	--	--	--	0.100	--	0.000	0.160	--	--	--
APR										
11...	--	--	--	0.084	--	0.000	<0.100	--	--	--
MAY										
01...	--	--	--	<0.030	--	0.000	<0.100	--	--	--
JUN										
06...	--	--	--	<0.030	--	0.001	<0.100	--	--	--
JUL										
18...	--	--	--	0.060	--	0.004	<0.100	--	--	--
AUG										
07...	--	--	--	0.030	--	0.001	<0.100	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
------	--	--	--	--	--	---

Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued

NOV 1982						
02...	--	--	--	--	20	--
DEC						
16...	--	--	--	--	--	--
JAN 1983						
06...	--	--	--	--	--	--
FEB						
03...	--	--	--	--	--	--
APR						
14...	--	--	--	--	--	--
MAY						
18...	--	--	--	--	--	--
JUN						
09...	--	--	--	--	--	--
JUL						
13...	--	--	--	--	--	--
AUG						
04...	--	--	--	--	--	--
SEP						
08...	--	--	--	--	--	--
OCT						
06...	--	--	--	--	--	--
NOV						
02...	--	--	--	--	--	--
DEC						
08...	--	--	--	--	--	--
JAN 1984						
05...	--	--	--	--	--	--
FEB						
08...	--	--	--	--	--	--
MAR						
08...	--	--	--	--	--	--
APR						
11...	--	--	--	--	--	--
MAY						
10...	--	--	--	--	--	--
JUL						
10...	--	--	--	--	--	--
AUG						
06...	--	--	--	--	--	--
SEP						
14...	--	--	--	--	--	--
OCT						
01...	--	--	--	--	--	--
NOV						
14...	--	--	--	--	--	--
DEC						
05...	--	--	--	--	--	--
JAN 1985						
09...	--	--	--	--	--	--
FEB						
07...	--	--	--	--	--	--
MAR						
14...	--	--	--	--	--	--
APR						
02...	--	--	--	--	--	--
MAY						
08...	--	--	--	--	--	--
JUN						
11...	--	--	--	--	--	--
JUL						
18...	--	--	--	--	--	--
AUG						
22...	--	--	--	--	--	--
SEP						
03...	--	--	--	--	--	--
OCT						
17...	--	--	--	--	--	--
NOV						
06...	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued						
DEC 1985						
09...	--	--	--	--	--	--
JAN 1986						
09...	--	--	--	--	<10	--
FEB						
21...	--	--	--	--	--	--
MAR						
26...	--	--	--	--	--	--
APR						
09...	--	--	--	--	--	--
MAY						
06...	--	110	37	19	--	--
JUN						
04...	--	--	--	--	--	--
JUL						
07...	--	71	42	16	--	--
AUG						
13...	--	--	--	--	--	--
SEP						
24...	--	100	35	12	--	--
OCT						
22...	--	84	32	15	--	--
NOV						
06...	--	--	--	--	--	--
DEC						
03...	--	90	35	16	--	--
JAN 1987						
06...	--	--	--	--	--	418
FEB						
04...	--	--	--	--	--	--
MAR						
05...	--	--	--	--	--	--
APR						
08...	--	--	--	--	--	--
MAY						
14...	--	80	32	16	--	--
JUN						
10...	--	79	25	11	--	--
JUL						
16...	--	120	54	22	--	--
AUG						
12...	--	75	35	12	--	--
SEP						
03...	--	100	45	11	--	--
OCT						
28...	--	110	42	19	--	--
NOV						
04...	--	100	39	23	--	--
DEC						
01...	--	100	39	15	--	--
JAN 1988						
20...	--	93	35	12	--	--
FEB						
16...	--	94	31	12	--	--
MAR						
10...	--	87	32	14	--	--
APR						
21...	--	92	37	20	--	--
MAY						
25...	--	92	37	16	--	--
JUN						
07...	--	9.0	41	20	40	--
JUL						
11...	--	65	30	10	330	--
AUG						
22...	470	110	50	19	130	--
SEP						
12...	290	70	31	10	--	--
OCT						
17...	250	--	--	--	4000	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
------	--	--	--	--	--	---

Site 00460110, Rapid Creek Immediately above WWTP Discharge - Continued

NOV 1988						
09...	320	84	34	1.0	--	--
JAN 1989						
10...	410	96	18	25	--	--
FEB						
14...	330	80	31	15	--	--
MAR						
20...	320	79	28	45	--	--
APR						
03...	410	120	38	15	--	--
MAY						
09...	500	130	52	25	--	--
JUN						
19...	320	80	30	10	--	--
JUL						
12...	290	68	30	8.0	--	--
AUG						
09...	330	78	32	9.0	--	--
SEP						
18...	500	120	49	20	--	--
OCT						
18...	410	100	37	11	--	--
NOV						
08...	410	83	31	14	--	--
DEC						
20...	490	130	38	13	--	--
JAN 1990						
10...	390	120	40	17	--	--
FEB						
21...	380	90	31	47	--	--
MAR						
12...	460	120	38	26	--	--
APR						
11...	530	100	42	19	--	--
MAY						
01...	430	99	43	24	--	--
JUN						
06...	530	140	44	19	--	--
JUL						
18...	360	83	37	17	--	--
AUG						
07...	270	60	29	15	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)
Site 00460692, Rapid Creek below WWTP Discharge									
MAY 1979									
08...	13.0	4.	960	9.6	91	8.1	--	--	--
JUN									
06...	19.5	21.	1030	7.6	81	7.8	--	--	--
JUL									
05...	23.5	25.	680	5.6	64	7.5	--	--	--
AUG									
07...	27.0	31.	890	6.3	78	7.7	--	--	--
SEP									
17...	22.0	27.	1330	8.4	95	7.5	--	--	--
OCT									
03...	16.5	15.	1220	8.6	89	7.9	--	--	--
NOV									
27...	3.5	-3.	810	12.1	90	8.5	--	--	--
JAN 1980									
02...	1.0	-1.	680	12.8	90	8.1	--	--	--
08...	0.5	-20.	1030	12.6	89	8.1	--	--	--
FEB									
04...	2.0	7.	830	11.8	85	8.4	--	--	--
MAR									
05...	0.5	-11.	890	12.5	88	7.9	--	--	--
APR									
02...	5.5	6.	1050	11.2	90	8.1	--	--	--
MAY									
07...	16.0	15.	1100	9.8	98	7.9	--	--	--
JUN									
03...	20.0	28.	870	9.6	104	8.1	--	--	--
JUL									
02...	23.5	30.	1000	8.5	98	8.5	--	--	--
AUG									
06...	20.0	34.	750	7.4	80	8.2	--	--	--
SEP									
10...	15.5	24.	1250	7.8	78	8.0	--	--	--
OCT									
08...	14.0	28.	1230	6.7	64	7.8	--	--	--
DEC									
11...	3.0	4.	1000	11.9	88	8.2	--	--	--
JAN 1981									
07...	3.5	4.	970	12.4	92	8.0	--	--	--
FEB									
03...	1.5	-2.	1060	12.2	88	7.4	--	--	714
MAR									
06...	4.5	1.	920	11.6	88	7.9	--	--	--
APR									
08...	9.5	15.	1070	9.4	81	7.3	--	--	--
MAY									
14...	15.0	20.	832	9.9	97	7.8	--	--	--
JUN									
22...	20.0	28.	1110	7.9	86	7.4	--	--	--
JUL									
08...	16.5	24.	900	7.5	77	7.8	--	--	--
NOV									
04...	11.0	--	1120	9.3	84	7.4	--	--	--
APR 1982									
07...	3.0	--	995	11.8	87	8.0	--	--	--
MAY									
06...	10.0	--	910	9.6	85	7.6	--	--	--
JUN									
16...	17.0	--	960	10.7	110	7.5	--	--	--
FEB 1983									
03...	1.0	3.	950	13.2	93	7.7	--	230	--
APR									
14...	3.5	5.	760	12.4	92	7.5	--	190	--
MAY									
18...	7.0	12.	540	10.3	84	7.8	--	180	--
JUN									
09...	16.0	23.	950	8.2	82	7.5	--	210	--
JUL									
13...	21.0	33.	1230	7.4	82	7.6	--	210	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)
Site 00460692, Rapid Creek below WWTP Discharge - Continued									
AUG 1983									
04...	23.0	29.	1460	7.1	82	7.5	--	230	--
SEP									
08...	18.0	24.	915	5.8	61	7.6	--	200	--
OCT									
06...	12.0	21.	1220	9.4	87	7.5	210	--	--
DEC									
08...	0.0	-11.	890	11.4	78	7.6	218	--	--
JAN 1984									
05...	0.0	9.	900	10.8	74	7.4	194	--	--
FEB									
08...	2.0	10.	870	11.5	83	8.0	221	--	--
MAR									
08...	0.0	0.	950	12.1	83	7.4	204	--	--
APR									
11...	8.0	8.	640	9.1	76	7.6	182	--	--
MAY									
10...	10.0	15.	560	9.4	83	7.6	176	--	--
JUL									
10...	16.0	21.	650	7.5	75	7.7	176	--	--
AUG									
08...	20.0	29.	800	8.9	97	8.0	186	--	--
SEP									
14...	11.0	13.	810	7.8	70	7.6	197	--	--
OCT									
01...	8.0	9.	860	9.0	76	7.3	208	--	--
NOV									
14...	8.0	9.	910	10.1	85	7.1	196	--	--
DEC									
05...	2.0	-6.	790	11.2	81	7.8	204	--	--
JAN 1985									
09...	3.0	0.	740	10.8	80	7.4	188	--	--
FEB									
07...	4.0	0.	900	11.6	88	7.8	198	--	--
MAR									
14...	6.0	10.	890	11.0	88	7.9	178	--	--
APR									
02...	9.0	15.	600	9.8	85	7.5	179	--	--
MAY									
08...	22.0	30.	1260	9.8	111	7.9	214	--	--
JUN									
11...	16.0	18.	900	7.5	75	7.4	186	--	--
JUL									
18...	20.0	25.	825	7.7	84	7.6	224	--	--
AUG									
22...	22.0	28.	895	7.6	86	7.9	203	--	600
SEP									
03...	20.0	26.	1120	6.3	69	7.5	230	--	--
OCT									
17...	10.0	14.	950	7.8	69	7.9	223	--	592
NOV									
06...	8.0	7.	940	9.8	82	7.8	212	--	569
DEC									
09...	1.0	0.	900	9.9	70	7.3	206	--	583
JAN 1986									
09...	2.0	0.	830	10.3	75	7.8	230	--	534
FEB									
21...	4.0	5.	1040	10.3	79	7.7	242	--	612
MAR									
26...	8.0	8.	950	10.1	85	8.0	200	--	646
APR									
09...	11.0	7.	990	9.6	86	7.0	214	--	734
MAY									
06...	17.0	17.	1110	10.4	107	8.5	206	--	696
JUN									
04...	17.0	16.	1350	7.8	80	7.9	228	--	--
JUL									
07...	19.0	22.	1030	7.3	78	7.3	200	--	741
AUG									
13...	19.0	24.	960	7.9	84	7.4	118	--	846

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- LEIN (MG/L) (00415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)
Site 00460692, Rapid Creek below WWTP Discharge - Continued									
SEP 1986									
24...	14.0	16.	825	7.7	74	8.0	182	--	573
OCT									
22...	12.0	14.	840	9.9	92	7.9	188	--	550
NOV									
06...	7.0	2.	660	9.8	80	8.0	190	--	325
DEC									
03...	2.0	0.	825	11.6	84	8.1	195	--	490
JAN 1987									
06...	1.5	-1.	840	10.2	74	7.9	204	--	549
FEB									
04...	3.5	-1.	925	10.3	76	8.1	202	--	558
MAR									
05...	6.5	11.	855	11.0	90	8.1	194	--	566
APR									
08...	9.5	13.	655	9.6	83	8.0	174	--	441
MAY									
14...	16.5	18.	810	7.4	76	7.3	194	--	--
JUN									
10...	18.0	22.	700	6.6	70	7.4	195	--	--
JUL									
16...	22.0	33.	1300	4.8	55	7.4	198	--	--
AUG									
12...	19.0	20.	1000	7.4	79	7.8	184	--	--
SEP									
03...	20.0	23.	1440	6.1	66	7.8	183	--	--
OCT									
28...	9.0	18.	1110	10.4	90	7.9	207	--	--
NOV									
04...	10.5	9.	970	10.3	93	8.3	196	--	676
DEC									
01...	3.5	-3.	980	10.8	80	8.2	218	--	627
JAN 1988									
20...	1.0	-10.	850	11.5	81	7.6	217	--	484
FEB									
16...	2.0	1.	775	11.2	81	7.1	228	--	480
MAR									
10...	6.5	4.	825	9.8	80	8.4	165	--	508
APR									
21...	10.5	4.	1070	8.1	73	8.0	218	--	691
MAY									
25...	20.0	28.	1100	8.5	92	7.1	212	--	768
JUN									
07...	29.5	39.	1100	11.4	146	8.4	224	--	696
JUL									
11...	23.5	24.	740	8.5	98	7.9	190	--	580
AUG									
22...	25.5	33.	1050	8.6	105	7.7	202	--	686
SEP									
12...	14.5	11.	800	9.4	90	7.8	204	--	500
OCT									
17...	13.0	9.	825	8.1	76	7.9	232	--	576
NOV									
09...	8.5	1.	1090	10.6	89	7.7	224	--	700
JAN 1989									
10...	3.5	-8.	1060	10.2	76	7.0	242	--	696
FEB									
14...	5.0	-1.	1100	10.4	81	7.9	235	--	662
MAR									
20...	2.0	-5.	950	10.1	73	7.6	196	--	662

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 00460692, Rapid Creek below WWTP Discharge - Continued											
JUN 1976											
06...	791	20	--	1.40	0.220	0.040	5.30	--	--	--	--
MAY 1979											
08...	697	20	1.64	--	0.160	0.046	5.00	--	--	2.82	--
JUL											
05...	584	-	0.630	--	0.040	0.010	2.10	--	--	0.630	290
AUG											
07...	658	42	--	0.540	0.080	0.021	2.50	--	--	--	--
SEP											
17...	942	10	--	0.300	0.190	0.005	4.11	--	--	--	--
OCT											
03...	848	7	--	1.92	0.350	0.056	7.45	--	--	--	--
NOV											
27...	548	6	--	1.00	0.034	0.040	1.46	--	--	--	--
JAN 1980											
02...	461	15	--	0.760	0.082	0.010	2.66	--	--	--	--
08...	650	15	--	1.76	0.420	0.023	6.09	--	--	--	--
FEB											
04...	500	12	--	2.20	0.030	0.065	1.13	--	--	--	--
MAR											
05...	584	22	--	1.03	0.020	0.009	0.880	--	--	--	--
APR											
02...	586	49	--	1.40	0.019	0.028	1.06	--	--	--	--
MAY											
07...	584	33	--	2.63	0.078	0.074	2.60	--	--	--	--
JUN											
03...	580	29	--	0.620	0.103	0.036	2.77	--	--	--	--
JUL											
02...	700	28	--	1.40	0.250	0.234	2.70	--	--	--	--
AUG											
06...	482	46	--	0.940	0.030	0.068	1.96	--	--	--	--
SEP											
10...	748	15	--	1.80	0.120	0.061	4.75	--	--	--	--
OCT											
08...	796	5	--	3.80	0.087	0.072	4.40	--	--	--	--
DEC											
11...	672	14	--	2.40	0.070	0.047	2.77	--	--	--	--
JAN 1981											
07...	606	7	--	1.28	0.070	0.017	2.07	--	--	--	--
FEB											
03...	706	8	--	2.40	0.060	0.007	1.34	--	--	--	--
MAR											
06...	570	16	--	1.65	0.020	0.019	0.960	--	--	--	--
APR											
08...	691	28	--	1.72	0.180	0.007	3.60	--	--	--	--
MAY											
14...	623	33	--	0.860	0.120	0.018	2.10	--	--	--	--
JUN											
22...	936	8	--	1.17	0.320	0.014	7.10	--	--	--	--
JUL											
08...	570	48	--	0.290	0.091	0.007	2.86	--	--	--	--
NOV											
04...	576	10	1.40	--	--	0.007	4.10	--	--	3.04	--
APR 1982											
07...	--	25	--	1.70	0.033	0.021	1.52	--	--	--	--
MAY											
06...	--	15	--	1.50	0.060	0.013	5.10	--	--	--	400
JUN											
16...	--	27	--	1.35	0.040	0.017	1.55	--	--	--	420
FEB 1983											
03...	--	5	--	1.70	--	0.009	--	--	1.08	--	--
APR											
14...	--	22	--	0.800	--	0.003	--	--	0.615	0.490	--
MAY											
18...	--	36	--	--	--	0.130	--	--	0.470	--	--
JUN											
08...	--	13	--	0.700	--	0.007	--	--	1.10	--	--
JUL											
13...	--	15	--	1.75	--	0.036	--	--	1.87	1.52	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 00460692, Rapid Creek below WWTP Discharge - Continued											
AUG 1983											
04...	--	12	--	3.60	--	0.067	--	--	2.60	2.50	--
SEP											
08...	--	47	--	1.55	--	0.028	--	--	1.87	--	--
OCT											
06...	--	24	--	2.10	--	0.016	--	--	2.74	2.52	--
DEC											
08...	--	18	--	1.45	--	0.005	--	--	1.30	1.05	--
JAN 1984											
05...	--	8	--	1.50	--	0.004	--	--	1.06	0.890	--
FEB											
08...	--	22	--	1.67	--	0.020	--	--	1.18	0.950	--
MAR											
08...	--	9	--	1.70	--	0.004	--	--	1.32	0.470	--
APR											
11...	--	42	--	0.390	--	0.003	--	--	0.670	0.496	--
MAY											
10...	--	94	--	0.450	--	0.005	--	--	0.570	--	--
JUL											
10...	--	97	--	0.780	--	0.014	--	--	0.950	0.325	--
AUG											
08...	--	33	--	1.00	--	0.041	--	--	0.850	0.610	--
SEP											
14...	--	79	--	0.840	--	0.009	--	--	1.27	0.880	--
OCT											
01...	--	34	--	0.980	--	0.004	--	--	1.68	1.62	--
NOV											
14...	--	23	--	1.25	--	0.003	--	--	1.10	1.03	--
DEC											
05...	--	37	--	1.45	--	0.011	--	--	0.935	0.790	--
JAN 1985											
09...	--	9	--	1.41	--	0.004	--	--	0.825	0.675	--
FEB											
07...	--	8	--	2.55	--	0.020	--	--	1.18	0.790	--
MAR											
14...	--	31	--	2.20	--	0.025	--	--	1.03	0.110	--
APR											
02...	--	32	--	0.530	--	0.003	--	--	1.20	0.500	--
MAY											
08...	--	18	--	1.98	--	0.076	--	--	3.90	2.95	--
JUN											
11...	--	338	--	1.02	--	0.008	--	--	3.03	1.75	--
JUL											
18...	--	144	--	1.60	--	0.030	--	--	0.275	0.238	--
AUG											
22...	--	62	--	1.80	--	0.069	--	--	2.90	1.15	--
SEP											
03...	--	32	--	2.10	0.094	0.032	2.34	--	3.95	2.78	--
OCT											
17...	--	16	--	1.50	--	0.024	--	--	1.38	1.38	--
NOV											
06...	--	19	--	2.00	--	0.022	--	--	1.30	1.10	--
DEC											
09...	--	9	--	2.10	--	0.004	--	--	1.91	1.43	--
JAN 1986											
09...	--	13	--	1.75	--	0.012	--	--	1.05	0.925	--
FEB											
21...	--	10	--	3.50	--	0.024	--	--	2.08	1.49	--
MAR											
26...	--	18	--	1.70	--	0.029	--	--	1.28	0.600	--
APR											
09...	--	42	--	0.840	--	0.002	--	--	1.20	0.671	--
MAY											
06...	--	24	--	1.50	--	0.166	--	--	1.76	0.995	--
JUN											
04...	--	32	--	0.800	--	0.024	--	--	1.12	1.06	--
JUL											
07...	--	39	--	0.420	--	0.003	--	--	1.00	0.195	--
AUG											
13...	--	212	--	3.01	--	0.030	--	--	0.830	0.675	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 00460692, Rapid Creek below WWTP Discharge - Continued											
SEP 1986											
24...	--	45	--	0.700	--	0.019	--	--	1.04	0.648	--
OCT											
22...	--	16	--	0.910	--	0.017	--	--	0.940	0.760	--
NOV											
06...	--	13	--	0.490	--	0.009	--	--	0.460	0.450	--
DEC											
03...	--	10	--	0.990	--	0.017	--	--	0.781	0.641	--
JAN 1987											
06...	--	9	--	1.00	--	0.009	--	--	1.15	0.775	--
FEB											
04...	--	8	--	1.65	--	0.027	--	--	1.05	0.752	--
MAR											
05...	--	15	--	0.640	--	0.014	--	--	0.900	0.900	--
APR											
08...	--	31	--	0.140	--	0.003	--	--	0.525	0.357	--
MAY											
14...	--	42	--	0.290	--	0.002	--	--	0.925	0.769	--
JUN											
10...	--	118	--	0.162	--	0.002	--	--	1.00	0.501	--
JUL											
16...	--	<1	--	0.480	--	0.007	--	--	2.80	2.70	--
AUG											
12...	--	33	--	0.180	--	0.005	--	--	1.98	1.81	--
SEP											
03...	--	16	--	0.660	--	0.020	--	--	3.46	3.28	--
OCT											
28...	--	10	--	0.160	--	0.003	--	--	2.04	1.92	--
NOV											
04...	--	22	--	0.080	--	0.004	--	--	1.80	1.47	--
DEC											
01...	--	19	--	0.230	--	0.005	6.00	--	2.01	1.92	--
JAN 1988											
20...	--	12	--	0.390	--	0.002	1.80	--	0.900	0.880	--
FEB											
16...	--	6	--	0.300	--	0.000	1.60	--	1.72	1.05	--
MAR											
10...	--	12	--	0.170	--	0.007	1.31	--	1.05	0.881	--
APR											
21...	--	30	--	0.290	--	0.006	5.50	--	2.04	1.63	--
MAY											
25...	--	34	--	0.160	--	0.001	3.35	--	5.30	2.26	--
JUN											
07...	--	27	--	<0.030	--	0.006	--	--	2.25	2.00	--
JUL											
11...	--	179	--	0.160	--	0.007	--	3.60	1.30	1.08	--
AUG											
22...	--	2	--	0.340	--	0.012	7.90	--	3.88	3.45	420
SEP											
12...	--	14	--	0.130	--	0.002	4.42	--	2.06	1.94	400
OCT											
17...	--	62	--	0.070	--	0.002	1.52	--	0.713	0.713	410
NOV											
09...	--	12	--	0.140	--	0.001	5.80	--	3.13	2.77	380
JAN 1989											
10...	--	19	--	0.270	--	0.000	13.8	--	2.48	2.45	390
FEB											
14...	--	8	--	1.63	--	0.017	5.58	--	3.40	2.30	330
MAR											
20...	--	24	--	1.12	--	0.006	0.330	--	2.29	1.15	350

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
Site 00460692, Rapid Creek below WWTP Discharge - Continued								
JUN 1976								
06...	--	100	--	40	64	4900	--	2.11
MAY 1979								
08...	--	--	--	--	--	100	--	--
JUL								
05...	75	--	26	--	31	20000	--	--
AUG								
07...	--	94	--	34	48	2800	--	2.07
SEP								
17...	--	--	--	--	--	1300	--	3.46
OCT								
03...	--	--	--	--	--	1700	--	1.08
NOV								
27...	--	--	--	--	--	48	--	1.22
JAN 1980								
02...	--	--	--	--	--	11	--	1.16
08...	--	--	--	--	--	45	--	2.33
FEB								
04...	--	--	--	--	--	22000	--	1.33
MAR								
05...	--	--	--	--	--	21000	--	1.05
APR								
02...	--	--	--	--	--	14000	--	0.900
MAY								
07...	--	88	--	36	50	11000	--	1.57
JUN								
03...	--	94	--	36	50	2200	--	1.65
JUL								
02...	--	94	--	37	59	4400	--	2.10
AUG								
06...	--	80	--	32	33	600	--	0.860
SEP								
10...	--	--	--	--	--	20	--	2.50
OCT								
08...	--	--	--	--	--	65000	--	5.30
DEC								
11...	--	--	--	--	--	20000	--	1.56
JAN 1981								
07...	--	--	--	--	--	18000	--	1.35
FEB								
03...	--	--	--	--	--	36000	--	1.66
MAR								
06...	--	--	--	--	--	19000	--	1.74
APR								
08...	--	--	--	--	--	14000	--	0.570
MAY								
14...	--	81	--	32	48	1600	--	0.741
JUN								
22...	--	110	--	42	68	110	--	2.96
JUL								
08...	--	98	--	38	54	2000	--	1.74
NOV								
04...	--	--	--	--	--	--	--	--
APR 1982								
07...	--	--	--	--	--	27000	610	0.150
MAY								
06...	94	--	40	--	51	300	626	2.10
JUN								
16...	100	--	39	--	46	950	628	0.870
FEB 1983								
03...	--	--	--	--	--	13000	574	0.900
APR								
14...	--	--	--	--	--	9600	440	--
MAY								
18...	--	65	--	30	11	100	344	0.272
JUN								
09...	--	110	--	45	40	360	598	0.950
JUL								
13...	--	110	--	45	40	200	842	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
Site 00460692, Rapid Creek below WWTP Discharge - Continued								
AUG 1983								
04...	--	150	--	54	110	2400	904	--
SEP								
08...	--	--	--	--	--	2700	578	1.60
OCT								
06...	--	--	--	--	--	27000	798	--
DEC								
08...	--	--	--	--	--	12000	540	--
JAN 1984								
05...	--	--	--	--	--	26000	500	--
FEB								
08...	--	--	--	--	--	20000	546	--
MAR								
08...	--	--	--	--	--	12000	614	--
APR								
11...	--	--	--	--	--	6400	386	--
MAY								
10...	--	69	--	27	12	100	342	0.253
JUL								
10...	--	79	--	30	21	400	414	--
AUG								
08...	--	94	--	34	30	120	510	--
SEP								
14...	--	--	--	--	--	1700	530	--
OCT								
01...	--	--	--	--	--	12000	542	--
NOV								
14...	--	--	--	--	--	13000	616	--
DEC								
05...	--	--	--	--	--	18000	542	--
JAN 1985								
09...	--	--	--	--	--	20000	442	--
FEB								
07...	--	--	--	--	--	21000	570	--
MAR								
14...	--	--	--	--	--	17000	496	--
APR								
02...	--	--	--	--	--	2300	370	--
MAY								
08...	--	130	--	48	89	<100	842	--
JUN								
11...	--	120	--	48	54	2200	482	--
JUL								
18...	--	79	--	35	50	2100	500	--
AUG								
22...	--	89	--	31	45	2200	538	--
SEP								
03...	--	--	--	--	--	1800	712	--
OCT								
17...	--	--	--	--	--	9800	576	--
NOV								
06...	--	--	--	--	--	29000	550	--
DEC								
09...	--	--	--	--	--	18000	574	--
JAN 1986								
09...	--	--	--	--	--	9600	521	--
FEB								
21...	--	--	--	--	--	28000	602	--
MAR								
26...	--	--	--	--	--	15000	628	--
APR								
09...	--	--	--	--	--	9000	692	--
MAY								
06...	--	130	--	170	67	70	672	--
JUN								
04...	--	160	--	69	56	220	976	--
JUL								
07...	--	84	--	48	140	470	702	--
AUG								
13...	--	120	--	31	42	5400	634	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
Site 00460692, Rapid Creek below WWTP Discharge - Continued								
SEP 1986								
24...	--	--	--	--	--	400	528	--
OCT								
22...	--	--	--	--	--	13000	534	--
NOV								
06...	--	--	--	--	--	540	312	--
DEC								
03...	--	--	--	--	--	15000	480	--
JAN 1987								
06...	--	--	--	--	--	16000	540	--
FEB								
04...	--	--	--	--	--	10000	550	--
MAR								
05...	--	--	--	--	--	17000	551	--
APR								
08...	--	--	--	--	--	100	410	--
MAY								
14...	--	91	--	36	44	460	482	--
JUN								
10...	--	94	--	32	25	3200	426	--
JUL								
16...	--	110	--	49	100	130	818	--
AUG								
12...	--	93	--	40	63	210	654	--
SEP								
03...	--	--	--	--	--	130	909	--
OCT								
28...	--	--	--	--	--	5100	678	--
NOV								
04...	--	--	--	--	--	5300	654	--
DEC								
01...	--	--	--	--	--	3300	608	--
JAN 1988								
20...	--	--	--	--	--	8200	472	--
FEB								
16...	--	--	--	--	--	6200	474	--
MAR								
10...	--	--	--	--	--	--	496	--
APR								
21...	--	--	--	--	--	5700	661	--
MAY								
25...	--	120	--	44	67	3700	734	--
JUN								
07...	--	110	--	44	75	<100	669	--
JUL								
11...	--	88	--	36	43	470	401	--
AUG								
22...	--	100	--	41	63	470	684	--
SEP								
12...	--	--	--	--	--	2900	486	--
OCT								
17...	--	--	--	--	--	4200	514	--
NOV								
09...	--	--	--	--	--	34000	688	--
JAN 1989								
10...	--	--	--	--	--	16000	677	--
FEB								
14...	--	--	--	--	--	18000	654	--
MAR								
20...	--	--	--	--	--	9300	598	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH (STAND- ARD UNITS) (00400)	ALKA- LILITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LILITY PHENOL- PHTHA- LEIN (MG/L) (00415)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)
Site 00460692, Rapid Creek below WWT Discharge - Continued									
APR 1989									
03...	8.5	5.	935	10.6	89	8.2	190	--	612
MAY									
09...	18.0	20.	1250	10.9	115	7.6	218	--	944
JUN									
19...	14.5	30.	775	8.2	79	7.5	202	--	502
JUL									
12...	22.0	28.	660	6.0	68	7.1	196	--	534
AUG									
09...	23.5	32.	890	7.8	90	7.7	199	--	643
SEP									
18...	18.0	20.	1100	7.8	82	7.3	204	--	812
OCT									
18...	6.5	3.	900	10.3	84	8.5	210	--	514
NOV									
08...	11.0	9.	990	11.3	102	7.6	225	--	648
DEC									
20...	1.0	-18.	850	10.4	73	7.6	238	--	657
JAN 1990									
09...	5.0	0.	1200	12.7	99	6.9	306	--	773
10...	5.0	15.	890	11.3	88	7.6	210	--	586
FEB									
14...	1.5	-10.	956	19.0	138	8.1	236	--	613
21...	6.0	5.	930	10.8	86	6.9	184	--	568
MAR									
12...	8.0	8.	953	9.2	77	7.1	168	--	650
13...	1.5	5.	494	13.0	94	7.6	126	--	356
APR									
11...	5.5	-4.	987	11.4	91	7.1	184	--	638
MAY									
01...	16.5	--	1250	11.2	116	7.5	200	--	862
14...	13.5	6.	869	10.3	97	8.1	217	--	668
JUN									
06...	16.5	21.	1210	6.8	70	8.0	204	--	878
11...	21.5	24.	968	7.9	90	8.1	242	--	730
JUL									
18...	20.5	20.	1090	7.3	81	8.2	208	--	779
AUG									
07...	23.0	31.	1030	8.2	94	8.0	180	--	702
13...	20.0	21.	998	8.6	93	8.2	219	--	831

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)
Site 00460692, Rapid Creek below WWTP Discharge - Continued											
APR 1989											
03...	--	10	--	1.16	--	0.040	3.25	--	1.67	1.55	320
MAY											
09...	--	36	--	0.250	--	0.005	9.03	--	4.45	4.29	450
JUN											
19...	--	41	--	0.250	--	0.002	3.07	--	1.47	1.19	420
JUL											
12...	--	73	--	0.090	--	0.001	1.32	--	0.990	0.829	310
AUG											
09...	--	21	--	0.200	--	0.006	4.42	--	2.49	2.34	380
SEP											
18...	--	20	--	0.680	--	0.006	7.19	--	2.90	2.75	460
OCT											
18...	--	4	--	0.250	--	0.012	3.12	--	1.83	1.29	430
NOV											
08...	--	10	--	0.190	--	0.002	4.61	--	2.38	2.24	400
DEC											
20...	--	15	--	0.310	--	0.002	3.30	--	1.29	1.15	540
JAN 1990											
09...	--	5	--	1.65	--	0.002	--	1.00	0.793	0.727	520
10...	--	10	--	0.210	--	0.001	2.25	--	1.09	1.03	420
FEB											
14...	--	10	--	0.680	--	0.011	--	0.500	0.295	0.266	430
21...	--	9	--	0.080	--	0.000	3.85	--	1.93	1.59	400
MAR											
12...	--	25	--	0.340	--	0.001	1.11	--	1.03	0.840	430
13...	--	30	--	0.350	--	0.002	--	0.200	0.170	0.115	230
APR											
11...	--	5	--	0.190	--	0.000	3.61	--	1.44	0.253	430
MAY											
01...	--	14	--	0.160	--	0.002	7.52	--	4.48	4.37	450
14...	--	40	--	0.040	--	0.001	--	<0.100	0.244	0.013	410
JUN											
06...	--	24	--	0.290	--	0.010	2.25	--	2.10	1.84	540
11...	--	12	--	0.130	--	0.008	--	0.200	0.184	0.052	450
JUL											
18...	--	27	--	0.390	--	0.030	3.62	--	2.37	2.29	400
AUG											
07...	--	21	--	0.270	--	0.015	5.82	--	3.15	2.91	420
13...	--	60	--	<0.020	--	0.001	--	<0.100	0.272	0.016	530

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
Site 00460692, Rapid Creek below WWTP Discharge - Continued								
APR 1989								
03...	--	--	--	--	--	9000	602	--
MAY								
09...	--	110	--	48	110	<100	908	--
JUN								
19...	--	120	--	32	29	510	461	--
JUL								
12...	--	75	--	30	26	1800	461	--
AUG								
09...	--	95	--	35	53	760	622	--
SEP								
18...	--	--	--	--	--	300	792	--
OCT								
18...	--	--	--	--	--	20000	510	--
NOV								
08...	--	--	--	--	--	20000	638	--
DEC								
20...	--	--	--	--	--	24000	642	--
JAN 1990								
09...	--	--	--	--	--	10	768	--
10...	--	--	--	--	--	11000	576	--
FEB								
14...	--	--	--	--	--	10	603	--
21...	--	--	--	--	--	5800	559	--
MAR								
12...	--	--	--	--	--	5200	625	--
13...	--	--	--	--	--	40	326	--
APR								
11...	--	--	--	--	--	25000	633	--
MAY								
01...	--	110	--	41	99	<100	848	--
14...	--	88	--	47	--	200	628	--
JUN								
06...	--	130	--	48	55	400	854	--
11...	--	100	--	48	--	160	718	--
JUL								
18...	--	97	--	39	72	200	--	--
AUG								
07...	--	110	--	34	75	220	681	--
13...	--	97	--	60	--	80	771	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)
Site 00460910, Rapid Creek near Farmingdale									
JUN 1967									
27...	18.0	--	250	--	--	7.6	80	--	7.3
JUL									
28...	20.5	--	73	--	--	7.1	79	--	8.0
AUG									
21...	22.0	--	65	--	--	8.3	94	--	7.8
MAY 1968									
08...	11.0	--	--	--	890	--	--	--	--
JUN									
13...	--	--	--	--	--	--	--	--	--
JUL									
16...	--	--	--	--	--	--	--	--	--
31...	20.0	--	140	810	--	10.6	115	30	7.8
AUG									
29...	21.0	--	65	1200	--	10.3	114	11	8.6
SEP									
25...	17.0	--	50	1150	1160	14.1	145	7.0	8.6
JAN 1969									
26...	1.0	--	39	--	--	6.5	46	8.2	7.4
APR									
06...	12.0	--	45	1070	1000	14.2	132	11	8.6
JUN									
30...	22.0	--	77	--	990	10.3	117	3.9	8.5
JUL									
13...	28.0	--	75	910	--	18.4	233	15	9.2
AUG									
10...	27.0	--	130	990	--	18.7	231	19	9.0
SEP									
21...	20.0	--	77	1090	1250	15.1	164	12	9.2
JAN 1970									
18...	1.0	--	36	--	--	7.4	52	5.3	8.0
MAY									
11...	15.0	--	480	370	590	7.6	75	--	8.2
JUN									
07...	20.0	--	110	653	--	6.4	70	--	8.0
MAY 1973									
22...	19.0	--	--	--	630	9.1	97	--	8.4
SEP									
18...	10.0	--	--	--	714	10.3	91	--	8.1
NOV									
12...	3.0	--	--	--	790	11.8	87	--	8.3
20...	--	--	--	--	680	--	--	--	--
APR 1974									
02...	7.0	--	--	--	789	13.5	111	--	8.2
MAY									
01...	13.5	--	--	--	803	8.1	76	--	8.1
JUN									
06...	19.0	--	--	--	1290	--	--	--	8.1
AUG									
19...	25.0	37.0	--	--	898	--	--	--	8.4
SEP									
30...	12.0	18.0	--	--	921	12.5	116	--	--
OCT									
28...	8.0	19.0	--	--	1020	9.7	82	--	--
NOV									
25...	0.0	2.0	--	--	908	13.2	90	--	>8.4
DEC									
16...	0.0	--	--	--	896	12.0	82	--	--
JAN 1975									
15...	ND	--	--	--	1140	13.1	92	--	7.8
FEB									
16...	1.5	--	--	--	--	--	--	--	--
26...	0.0	1.0	--	--	832	11.2	77	--	8.1
MAR									
13...	0.0	--	--	--	863	11.2	77	--	--
APR									
23...	11.0	--	--	--	905	9.5	86	--	8.4
MAY									
27...	17.0	--	--	--	811	9.0	93	--	8.2

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUN 1975									
25...	27.0	--	--	--	880	7.0	86	--	8.4
JUL									
24...	22.0	--	--	--	933	9.5	108	--	8.4
AUG									
19...	19.0	--	--	--	1040	8.2	87	--	8.4
SEP									
24...	10.5	--	--	--	1070	10.0	90	--	8.4
OCT									
28...	6.0	--	--	--	1230	10.8	86	--	8.4
NOV									
18...	3.5	--	--	--	946	13.0	96	--	8.4
DEC									
17...	0.5	--	--	--	1170	12.3	87	--	8.0
JAN 1976									
12...	0.5	-3.5	--	--	1050	7.6	54	--	7.4
FEB									
12...	0.5	9.5	--	--	910	--	--	--	8.2
MAR									
29...	8.0	12.0	--	--	870	12.4	104	--	8.2
APR									
12...	11.5	14.5	--	--	910	10.4	96	--	8.0
MAY									
11...	18.5	20.5	--	--	1020	11.0	116	--	8.4
JUN									
22...	18.0	26.0	--	--	560	7.7	81	--	6.0
JUL									
14...	14.5	28.0	--	--	830	12.1	116	--	8.4
AUG									
24...	27.0	37.0	--	--	880	10.4	128	--	8.4
SEP									
29...	9.0	16.5	--	--	980	10.8	93	--	8.4
OCT									
26...	0.5	-1.0	--	--	980	12.8	90	--	--
NOV									
22...	0.5	6.5	--	--	960	12.8	90	--	7.7
DEC									
15...	0.5	11.0	--	--	890	12.1	85	--	8.1
JAN 1977									
12...	0.5	-12.0	--	--	960	12.7	90	--	7.8
FEB									
08...	0.5	10.0	--	--	890	10.5	74	--	7.8
MAR									
16...	4.5	10.0	--	--	830	12.0	92	--	8.2
APR									
11...	8.0	8.0	--	--	670	10.2	86	--	8.2
MAY									
23...	20.0	16.5	--	--	750	9.3	101	--	8.2
JUN									
29...	24.5	34.0	--	--	800	10.5	124	--	8.0
JUL									
26...	24.5	28.0	--	--	890	9.8	115	--	8.2
AUG									
23...	23.5	28.0	--	--	1080	10.3	119	--	8.4
SEP									
26...	15.0	23.5	--	--	650	9.3	91	--	8.2
OCT									
05...	11.0	9.0	--	--	860	9.8	88	--	8.2
NOV									
08...	5.5	6.5	--	--	1040	--	--	--	8.2
DEC									
19...	0.5	-5.5	--	--	940	10.8	76	--	7.8
JAN 1978									
09...	0.0	-29.0	--	--	950	9.5	65	--	7.5
FEB									
22...	0.5	3.5	--	--	860	9.1	64	--	7.4
MAR									
08...	0.5	1.0	--	--	1120	11.5	81	--	7.7
APR									
05...	13.5	18.5	--	--	940	11.8	111	--	7.5

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)
Site 00460910, Rapid Creek near Farmingdale - Continued									
MAY 1978									
01...	13.0	10.5	--	--	720	9.5	90	--	7.4
JUN									
06...	16.5	26.5	--	--	430	8.5	88	--	7.8
JUL									
10...	22.0	23.5	--	--	605	8.6	98	--	7.4
AUG									
08...	25.0	29.0	--	--	805	10.2	121	--	7.5
SEP									
06...	23.0	--	--	--	930	10.1	116	--	7.6
OCT									
03...	13.5	--	--	--	890	11.4	108	--	7.4
NOV									
08...	9.0	--	--	--	760	12.6	109	--	7.8
DEC									
07...	0.5	-13.0	--	--	800	11.6	82	--	--
JAN 1979									
04...	0.5	-16.5	--	--	920	9.7	68	--	--
FEB									
07...	0.5	-6.5	--	--	670	9.6	68	--	--
MAR									
06...	1.0	7.0	--	--	690	11.2	79	--	7.6
APR									
04...	4.0	11.0	--	--	1590	10.8	82	--	7.7
MAY									
08...	13.0	4.5	--	--	960	11.4	108	--	8.2
JUN									
06...	20.5	22.0	--	--	1110	9.5	106	--	7.6
JUL									
05...	23.0	24.5	--	--	850	7.7	88	--	7.6
AUG									
07...	28.0	31.5	--	--	820	7.6	96	--	8.5
SEP									
17...	19.5	27.0	--	--	1120	9.6	102	--	7.8
OCT									
03...	13.5	15.5	--	--	1200	10.8	102	--	8.5
NOV									
05...	5.0	0.5	--	--	880	10.9	85	--	8.3
DEC									
12...	0.5	5.0	--	--	870	12.6	89	--	8.4
12...	1.0	5.5	--	--	1330	11.6	82	--	8.6
JAN 1980									
08...	0.0	-20.5	--	--	1030	12.9	88	--	8.1
FEB									
04...	0.0	8.0	--	--	915	11.6	80	--	7.9
MAR									
05...	0.0	-11.5	--	--	880	11.9	81	--	8.1
APR									
02...	5.5	12.0	--	--	1100	13.6	109	--	8.6
MAY									
07...	16.5	16.0	--	--	1290	10.7	110	--	8.2
JUN									
03...	20.0	26.0	--	--	720	7.5	81	--	8.2
JUL									
02...	22.0	28.5	--	--	1200	7.7	87	--	7.9
AUG									
06...	22.0	34.0	--	--	1240	10.4	118	--	8.3

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LIVITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LIVITY PHENOL- PHTHA- LEIN (MG/L) (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUN 1967									
27...	166	12	--	--	820	404	416	--	--
JUL									
28...	183	14	--	--	556	508	48	--	--
AUG									
21...	192	7	--	--	812	756	56	--	--
MAY 1968									
08...	204	28	250	--	738	--	--	--	--
JUN									
13...	--	--	--	--	--	--	--	--	--
JUL									
16...	--	--	--	--	--	--	--	--	--
31...	205	0	--	--	700	550	150	--	--
AUG									
29...	--	--	--	--	785	735	50	--	--
SEP									
25...	232	0	280	--	857	--	--	--	--
JAN 1969									
26...	--	--	--	--	780	770	10	--	--
APR									
06...	208	0	250	--	749	--	--	--	--
JUN									
30...	225	12	--	--	865	815	50	--	--
JUL									
13...	--	--	--	--	960	895	65	--	--
AUG									
10...	--	--	--	--	870	740	130	--	--
SEP									
21...	225	0	280	--	598	--	--	--	--
JAN 1970									
18...	--	--	--	--	650	630	20	--	--
MAY									
11...	164	0	200	--	1190	490	700	--	--
JUN									
07...	188	0	--	--	671	527	144	--	--
MAY 1973									
22...	156	2	190	--	514	439	75	--	--
SEP									
18...	174	0	210	--	616	525	91	1.25	--
NOV									
12...	180	0	220	--	645	622	23	--	--
20...	174	--	210	--	616	525	91	--	--
APR 1974									
02...	192	8	240	10	665	650	15	1.07	--
MAY									
01...	211	11	230	14	836	799	37	--	--
JUN									
06...	251	0	310	0	1040	963	77	--	--
AUG									
19...	219	1	270	1	786	724	62	--	--
SEP									
30...	216	16	220	19	833	814	19	0.040	--
OCT									
28...	240	--	290	--	893	866	27	0.360	--
NOV									
25...	199	--	240	--	712	696	16	--	--
DEC									
16...	218	--	270	--	680	675	5	1.27	--
JAN 1975									
15...	252	--	310	--	839	820	19	4.30	--
FEB									
16...	--	--	--	--	--	--	0	--	--
26...	175	--	210	--	627	627	0	2.21	--
MAR									
13...	204	--	250	--	664	647	17	1.92	--
APR									
23...	187	--	230	--	801	667	134	0.410	--
MAY									
27...	196	--	240	--	693	579	114	0.180	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LIVITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LIVITY PHENOL- FIELD MG/L AS LEIN (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUN 1975									
25...	195	--	240	--	838	673	165	0.040	--
JUL									
24...	210	--	260	--	735	667	68	<0.020	--
AUG									
19...	219	--	270	--	873	803	70	--	--
SEP									
24...	214	--	260	--	785	748	37	0.380	--
OCT									
28...	223	--	270	--	927	892	35	0.440	--
NOV									
18...	209	--	260	--	724	679	45	0.160	--
DEC									
17...	234	--	290	--	803	779	24	1.80	--
JAN 1976									
12...	225	--	280	--	717	678	39	2.30	--
FEB									
12...	173	--	210	--	623	587	36	1.18	--
MAR									
29...	204	--	250	--	659	626	33	0.110	--
APR									
12...	190	--	230	--	715	657	58	0.190	--
MAY									
11...	214	--	260	--	817	783	34	0.050	--
JUN									
22...	163	--	200	--	947	468	479	0.100	--
JUL									
14...	195	--	240	--	704	651	53	<0.020	--
AUG									
24...	138	--	170	--	731	682	49	<0.020	--
SEP									
29...	218	--	270	--	749	731	18	0.020	--
OCT									
26...	210	--	260	--	738	720	18	0.050	--
NOV									
22...	209	--	260	--	718	692	26	0.880	--
DEC									
15...	200	--	240	--	656	656	0	0.530	--
JAN 1977									
12...	229	--	280	--	723	707	16	1.26	--
FEB									
08...	195	--	240	--	681	655	26	1.56	--
MAR									
16...	193	--	240	--	648	640	8	0.230	--
APR									
11...	122	--	150	--	946	483	463	0.280	--
MAY									
23...	178	--	220	--	652	625	27	0.050	--
JUN									
29...	202	--	250	--	690	628	62	--	<0.020
JUL									
26...	200	--	240	--	779	747	32	--	0.030
AUG									
23...	232	--	280	--	911	850	61	--	<0.020
SEP									
26...	135	--	170	--	530	464	66	--	0.150
OCT									
05...	--	--	--	--	--	690	140	0.130	--
NOV									
08...	--	--	--	--	--	694	41	--	<0.020
DEC									
19...	--	--	--	--	--	675	14	--	0.790
JAN 1978									
09...	--	--	--	--	--	698	19	--	0.920
FEB									
22...	--	--	--	--	646	612	31	--	1.69
MAR									
08...	--	--	--	--	--	770	26	--	3.66
APR									
05...	--	--	--	--	--	676	49	--	0.100

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LINITY PHENOL- PHTHA- LEIN (MG/L) (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
Site 00460910, Rapid Creek near Farmingdale - Continued									
MAY 1978									
01...	--	--	--	--	--	492	370	0.380	--
JUN									
06...	--	--	--	--	--	294	515	--	0.050
JUL									
10...	--	--	--	--	--	449	128	--	0.010
AUG									
08...	--	--	--	--	--	626	39	--	<0.020
SEP									
06...	--	--	--	--	--	695	48	--	0.030
OCT									
03...	--	--	--	--	--	628	1	--	<0.020
NOV									
08...	--	--	--	--	--	540	7	--	<0.020
DEC									
07...	--	--	--	--	--	572	32	--	0.900
JAN 1979									
04...	--	--	--	--	--	701	17	--	0.810
FEB									
07...	--	--	--	--	--	459	10	1.31	--
MAR									
06...	--	--	--	--	--	446	30	2.63	--
APR									
04...	--	--	--	--	--	1370	1350	--	0.200
MAY									
08...	--	--	--	--	--	710	25	--	0.030
JUN									
06...	--	--	--	--	--	897	48	--	0.090
JUL									
05...	--	--	--	--	--	681	905	--	0.040
AUG									
07...	--	--	--	--	--	614	148	0.340	--
SEP									
17...	--	--	--	--	--	782	25	--	<0.010
OCT									
03...	--	--	--	--	--	860	22	--	0.150
NOV									
05...	--	--	--	--	--	614	26	--	0.440
DEC									
12...	--	--	--	--	--	606	24	--	<0.050
12...	--	--	--	--	--	886	22	--	0.050
JAN 1980									
08...	--	--	--	--	--	670	14	--	0.810
FEB									
04...	--	--	--	--	--	576	12	--	1.50
MAR									
05...	--	--	--	--	--	592	16	--	0.620
APR									
02...	--	--	--	--	--	646	44	--	0.400
MAY									
07...	--	--	--	--	--	854	69	--	0.040
JUN									
03...	--	--	--	--	--	484	336	--	0.160
JUL									
02...	--	--	--	--	--	852	97	--	0.060
AUG									
06...	--	--	--	--	--	856	123	--	<0.030

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL (MG/L AS CACO3) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUN 1967										
27...	--	--	0.600	--	--	<0.10	--	--	270	66
JUL										
28...	--	--	2.10	--	--	1.2	--	--	350	13
AUG										
21...	--	--	1.20	--	--	0.50	--	--	460	94
MAY 1968										
08...	--	--	0.450	--	--	--	--	--	420	120
JUN										
13...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
AUG										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
25...	--	--	0.900	--	--	--	--	--	490	120
JAN 1969										
26...	--	--	--	--	--	--	--	--	--	--
APR										
06...	--	--	1.80	--	--	--	--	--	420	110
JUN										
30...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
SEP										
21...	--	--	1.00	--	--	--	--	--	540	140
JAN 1970										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	--	--	1.40	--	--	--	--	--	280	79
JUN										
07...	--	--	--	--	--	--	--	--	--	--
MAY 1973										
22...	--	--	1.40	--	--	--	--	--	290	--
SEP										
18...	--	0.029	1.25	--	--	--	--	--	350	--
NOV										
12...	--	--	2.65	--	--	--	--	--	400	--
20...	--	--	1.25	--	--	--	--	--	340	--
APR 1974										
02...	--	0.025	1.07	1.1	--	--	--	--	410	--
MAY										
01...	--	--	0.190	1.9	--	--	--	--	470	--
JUN										
06...	--	--	1.19	1.4	--	--	--	--	560	--
AUG										
19...	--	--	0.490	1.1	--	--	--	--	--	--
SEP										
30...	--	0.004	0.120	0.77	--	--	--	--	480	--
OCT										
28...	--	0.010	2.07	1.6	--	--	--	--	500	--
NOV										
25...	--	--	2.45	1.4	--	--	--	--	430	--
DEC										
16...	--	0.016	1.56	--	--	--	--	--	410	--
JAN 1975										
15...	--	0.024	2.62	--	--	--	--	--	470	--
FEB										
16...	--	--	--	--	--	--	--	--	--	--
26...	--	0.023	0.820	--	--	--	--	--	340	--
MAR										
13...	--	0.013	1.09	--	--	--	--	--	410	--
APR										
23...	--	0.020	1.83	--	--	--	--	--	410	--
MAY										
27...	--	0.009	1.25	--	--	--	--	--	380	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL (MG/L AS CACO3) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUN 1975										
25...	--	0.006	1.39	--	--	--	--	--	430	--
JUL										
24...	--	0.002	1.15	--	--	--	--	--	420	--
AUG										
19...	--	--	0.860	--	--	--	--	--	480	--
SEP										
24...	--	0.018	1.70	--	--	--	--	--	450	--
OCT										
28...	--	0.014	2.55	--	--	--	--	--	530	--
NOV										
18...	--	0.004	1.84	--	--	--	--	--	440	--
DEC										
17...	--	0.015	2.72	--	--	--	--	--	480	--
JAN 1976										
12...	--	0.005	2.29	--	--	--	--	--	430	--
FEB										
12...	--	0.016	0.800	--	--	--	--	--	340	--
MAR										
29...	--	0.003	1.06	--	--	--	--	--	390	--
APR										
12...	--	0.004	1.61	--	--	--	--	--	370	--
MAY										
11...	--	0.004	<1.00	--	--	--	--	--	480	--
JUN										
22...	--	0.000	0.820	--	--	--	--	--	280	--
JUL										
14...	--	0.001	<1.00	--	--	--	--	--	420	--
AUG										
24...	--	0.003	<1.00	--	--	--	--	--	390	--
SEP										
29...	--	0.001	1.21	--	--	--	--	--	440	--
OCT										
26...	--	0.002	1.48	--	--	--	--	--	440	--
NOV										
22...	--	0.004	2.94	--	--	--	--	--	420	--
DEC										
15...	--	0.006	2.89	--	--	--	--	--	390	--
JAN 1977										
12...	--	0.007	2.87	--	--	--	--	--	440	--
FEB										
08...	0.040	0.008	1.44	--	--	--	--	--	370	--
MAR										
16...	0.040	0.004	2.16	--	--	--	--	--	390	--
APR										
11...	0.030	0.007	0.470	--	--	--	--	0.173	270	--
MAY										
23...	0.040	0.003	1.00	--	--	--	--	--	340	--
JUN										
29...	0.010	0.001	0.200	--	--	--	--	--	380	--
JUL										
26...	0.030	0.003	1.10	--	--	--	--	--	400	--
AUG										
23...	0.010	0.003	<0.100	--	--	--	--	0.297	490	--
SEP										
26...	0.030	0.008	0.700	--	--	--	--	0.288	300	--
OCT										
05...	0.070	0.004	2.10	--	--	--	--	0.411	--	--
NOV										
08...	0.050	0.000	2.20	--	--	--	--	0.945	--	--
DEC										
19...	0.050	0.005	1.50	--	--	--	--	--	--	--
JAN 1978										
09...	0.030	0.003	1.80	--	--	--	--	--	--	--
FEB										
22...	0.010	0.004	0.700	2.2	--	--	--	0.986	--	--
MAR										
08...	0.050	0.019	0.900	--	--	--	--	1.52	--	--
APR										
05...	0.050	0.001	0.900	--	--	--	--	0.696	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL (MG/L AS CACO3) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
MAY 1978										
01...	0.070	0.002	1.40	--	--	--	--	0.268	--	--
JUN										
06...	0.050	0.001	0.400	--	--	--	--	0.119	--	--
JUL										
10...	0.020	0.000	0.400	--	--	--	--	--	--	--
AUG										
08...	0.010	0.000	1.00	--	--	--	--	--	--	--
SEP										
06...	0.010	0.001	0.300	--	--	--	--	--	--	--
OCT										
03...	0.010	0.000	1.40	--	--	--	--	--	--	--
NOV										
08...	0.030	0.000	1.70	--	--	--	--	--	--	--
DEC										
07...	0.010	0.011	1.40	--	--	--	--	--	--	--
JAN 1979										
04...	0.010	0.005	2.70	--	--	--	--	--	--	--
FEB										
07...	0.010	0.006	0.900	--	--	--	--	0.750	--	--
MAR										
06...	<0.010	0.009	0.400	--	--	--	--	0.900	--	--
APR										
04...	0.010	0.001	0.500	--	--	--	--	--	--	--
MAY										
08...	0.040	0.001	1.30	--	--	--	--	--	--	--
JUN										
06...	0.010	0.002	0.300	--	--	--	--	--	--	--
JUL										
05...	0.060	0.001	1.20	--	--	--	--	--	340	--
AUG										
07...	<0.010	0.061	1.30	--	--	--	--	0.609	--	--
SEP										
17...	<0.010	0.000	0.940	--	--	--	--	--	--	--
OCT										
03...	0.014	0.013	1.13	--	--	--	--	--	--	--
NOV										
05...	0.033	0.013	1.07	--	--	--	--	--	--	--
DEC										
12...	0.075	0.001	1.36	--	--	--	--	--	--	--
12...	0.058	0.002	1.52	--	--	--	--	--	--	--
JAN 1980										
08...	0.026	0.010	1.37	--	--	--	--	--	--	--
FEB										
04...	<0.010	0.012	1.18	--	--	--	--	--	--	--
MAR										
05...	<0.010	0.008	1.06	--	--	--	--	--	--	--
APR										
02...	<0.010	0.024	1.82	--	--	--	--	--	--	--
MAY										
07...	<0.010	0.002	0.530	--	--	--	--	--	--	--
JUN										
03...	<0.010	0.011	0.900	--	--	--	--	--	--	--
JUL										
02...	<0.010	0.003	<0.100	--	--	--	--	--	--	--
AUG										
06...	<0.010	0.003	<0.100	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUN 1967										
27...	66	--	--	27	27	--	--	18	4.1	--
JUL										
28...	130	--	--	6.1	6.1	--	--	15	4.5	--
AUG										
21...	94	--	--	55	55	--	--	51	7.0	--
MAY 1968										
08...	120	--	--	33	33	--	--	51	5.0	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
AUG										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
25...	130	--	--	42	42	--	--	68	6.9	--
JAN 1969										
26...	--	--	--	--	--	--	--	--	--	--
APR										
06...	110	--	--	36	36	--	--	53	5.3	--
JUN										
30...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
SEP										
21...	140	--	--	43	43	--	--	83	7.8	--
JAN 1970										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	79	--	--	20	20	--	--	20	3.8	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
MAY 1973										
22...	72	--	--	--	26	--	--	22	3.4	--
SEP										
18...	--	81	--	--	--	34	29	--	--	5.4
NOV										
12...	98	--	--	--	38	--	--	39	5.6	--
20...	81	--	--	--	34	--	--	29	5.4	--
APR 1974										
02...	--	98	--	--	--	39	51	--	--	5.4
MAY										
01...	--	100	--	--	--	50	69	--	--	6.8
JUN										
06...	130	--	--	--	56	--	--	80	7.4	--
AUG										
19...	--	100	--	--	--	44	60	--	--	6.5
SEP										
30...	--	110	--	--	--	48	69	--	--	6.7
OCT										
28...	--	120	--	--	--	47	72	--	--	7.7
NOV										
25...	--	110	--	--	--	39	52	--	--	5.6
DEC										
16...	--	100	--	--	--	37	49	--	--	5.3
JAN 1975										
15...	--	120	--	--	--	44	75	--	--	7.6
FEB										
16...	--	--	--	--	--	--	--	--	--	--
26...	--	86	--	--	--	31	51	--	--	7.2
MAR										
13...	--	99	--	--	--	39	44	--	--	5.6
APR										
23...	--	100	--	--	--	39	47	--	--	6.1
MAY										
27...	--	92	--	--	--	38	37	--	--	6.3

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUN 1975										
25...	--	110	--	--	--	39	35	--	--	6.5
JUL										
24...	--	98	--	--	--	42	46	--	--	7.5
AUG										
19...	--	110	--	--	--	48	66	--	--	8.5
SEP										
24...	--	110	--	--	--	45	64	--	--	7.0
OCT										
28...	--	130	--	--	--	51	74	--	--	9.5
NOV										
18...	--	110	--	--	--	41	56	--	--	6.7
DEC										
17...	--	120	--	--	--	46	64	--	--	7.1
JAN 1976										
12...	--	110	--	--	--	41	54	--	--	6.4
FEB										
12...	--	84	--	--	--	33	54	--	--	6.6
MAR										
29...	--	93	--	--	--	38	52	--	--	5.9
APR										
12...	--	87	--	--	--	37	58	--	--	7.3
MAY										
11...	--	110	49	--	--	49	66	--	--	7.3
JUN										
22...	--	67	--	--	--	28	15	--	--	5.0
JUL										
14...	--	97	--	--	--	42	39	--	--	5.9
AUG										
24...	--	81	--	--	--	46	56	--	--	7.7
SEP										
29...	--	100	--	--	--	43	58	--	--	6.4
OCT										
26...	--	100	--	--	--	43	55	--	--	6.1
NOV										
22...	--	100	--	--	--	41	56	--	--	5.7
DEC										
15...	--	93	--	--	--	38	46	--	--	5.3
JAN 1977										
12...	--	110	--	--	--	42	50	--	--	6.1
FEB										
08...	--	88	--	--	--	36	58	--	--	5.7
MAR										
16...	--	92	--	--	--	39	41	--	--	5.4
APR										
11...	64	--	--	--	26	--	--	34	6.6	--
MAY										
23...	--	80	--	--	--	35	35	--	--	5.8
JUN										
29...	--	88	--	--	--	39	42	--	--	6.0
JUL										
26...	--	93	--	--	--	40	54	--	--	7.0
AUG										
23...	--	110	--	--	--	51	72	--	--	7.1
SEP										
26...	--	71	--	--	--	29	31	--	--	7.8
OCT										
05...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
19...	--	--	--	--	--	--	--	--	--	--
JAN 1978										
09...	--	--	--	--	--	--	--	--	--	--
FEB										
22...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
MAY 1978										
01...	--	91	--	--	--	30	39	--	--	--
JUN 06...	--	68	--	--	--	25	9.5	--	--	--
JUL 10...	--	69	--	--	--	29	22	--	--	--
AUG 08...	--	91	--	--	--	37	40	--	--	--
SEP 06...	--	--	--	--	--	--	--	--	--	--
OCT 03...	--	--	--	--	--	--	--	--	--	--
NOV 08...	--	--	--	--	--	--	--	--	--	--
DEC 07...	--	--	--	--	--	--	--	--	--	--
JAN 1979										
04...	--	--	--	--	--	--	--	--	--	--
FEB 07...	--	--	--	--	--	--	--	--	--	--
MAR 06...	--	--	--	--	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--	--	--	--	--
MAY 08...	--	--	--	--	--	--	--	--	--	--
JUN 06...	--	110	--	--	--	51	75	--	--	--
JUL 05...	81	--	--	--	33	--	54	--	--	--
AUG 07...	--	94	--	--	--	35	39	--	--	--
SEP 17...	--	--	--	--	--	--	--	--	--	--
OCT 03...	--	--	--	--	--	--	--	--	--	--
NOV 05...	--	--	--	--	--	--	--	--	--	--
DEC 12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
JAN 1980										
08...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 05...	--	--	--	--	--	--	--	--	--	--
APR 02...	--	--	--	--	--	--	--	--	--	--
MAY 07...	--	120	--	--	--	54	86	--	--	--
JUN 03...	--	86	--	--	--	57	32	--	--	--
JUL 02...	--	100	--	--	--	110	73	--	--	--
AUG 06...	--	120	--	--	--	62	82	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUN 1967										
27...	9.0	--	--	--	--	--	--	--	12200	11000
JUL										
28...	8.0	--	--	--	--	--	--	--	5500	2400
AUG										
21...	16	--	--	--	--	--	--	--	900	4600
MAY 1968										
08...	22	280	--	0.68	80	--	230	--	--	--
JUN										
13...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
AUG										
29...	--	--	--	--	--	--	--	--	--	--
SEP										
25...	40	350	--	0.55	20	--	80	--	--	--
JAN 1969										
26...	--	--	--	--	--	--	--	--	--	--
APR										
06...	23	280	--	0.54	240	--	250	--	--	--
JUN										
30...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
SEP										
21...	44	410	--	0.63	150	--	150	--	--	--
JAN 1970										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
11...	10	140	--	0.36	-	--	780	--	--	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
MAY 1973										
22...	15	150	--	0.32	--	--	400	--	--	--
SEP										
18...	14	180	--	0.38	--	--	210	--	--	--
NOV										
12...	34	220	--	0.42	--	--	120	--	--	--
20...	22	180	--	0.38	--	--	210	--	--	--
APR 1974										
02...	47	260	--	--	--	--	240	--	--	--
MAY										
01...	46	350	--	--	--	--	570	--	--	--
JUN										
06...	52	410	--	--	--	--	550	--	--	--
AUG										
19...	43	290	--	--	--	--	210	--	--	--
SEP										
30...	50	320	--	--	--	--	160	--	--	--
OCT										
28...	61	310	--	--	--	--	250	--	--	--
NOV										
25...	44	250	--	--	--	--	130	--	--	--
DEC										
16...	45	220	--	--	--	--	90	--	--	--
JAN 1975										
15...	77	290	--	--	--	--	130	--	--	--
FEB										
16...	--	--	--	--	--	--	--	--	--	--
26...	60	190	--	--	--	--	220	--	--	--
MAR										
13...	33	270	--	--	--	--	230	--	--	--
APR										
23...	28	270	--	--	--	--	420	--	--	--
MAY										
27...	19	230	--	--	--	--	300	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUN 1975										
25...	23	250	--	--	--	--	390	--	--	--
JUL										
24...	32	270	--	--	--	--	140	--	--	--
AUG										
19...	53	330	--	--	--	--	110	--	--	--
SEP										
24...	60	270	--	--	--	--	70	--	--	--
OCT										
28...	71	330	--	--	--	--	20	--	--	--
NOV										
18...	55	250	--	--	--	--	130	--	--	--
DEC										
17...	60	290	--	--	--	--	190	--	--	--
JAN 1976										
12...	52	230	--	--	--	--	170	--	--	--
FEB										
12...	51	220	--	--	--	--	990	--	--	--
MAR										
29...	43	240	--	--	--	--	220	--	--	--
APR										
12...	51	240	--	--	--	--	290	--	--	--
MAY										
11...	42	320	--	--	--	--	250	--	--	--
JUN										
22...	11	130	--	--	--	--	60	--	--	--
JUL										
14...	26	270	--	--	--	--	140	--	--	--
AUG										
24...	33	320	--	--	--	--	240	--	--	--
SEP										
29...	54	250	--	--	--	--	70	--	--	--
OCT										
26...	59	250	--	--	--	--	70	--	--	--
NOV										
22...	59	230	--	--	--	--	160	--	--	--
DEC										
15...	50	230	--	--	--	--	110	--	--	--
JAN 1977										
12...	43	260	--	--	--	--	150	--	--	--
FEB										
08...	85	200	--	--	--	--	140	--	--	--
MAR										
16...	34	250	--	--	--	--	170	--	--	--
APR										
11...	15	--	200	--	--	--	--	70	--	--
MAY										
23...	24	210	--	--	--	--	230	--	--	--
JUN										
29...	30	230	--	--	--	--	20	--	--	--
JUL										
26...	54	250	--	--	--	--	130	--	--	--
AUG										
23...	66	300	--	--	--	--	120	--	--	--
SEP										
26...	24	190	--	--	--	--	130	--	--	--
OCT										
05...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
19...	--	--	--	--	--	--	--	--	--	--
JAN 1978										
09...	--	--	--	--	--	--	--	--	--	--
FEB										
22...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. PER 100 ML (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
MAY 1978										
01...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
JUL										
10...	--	--	--	--	--	--	--	--	--	--
AUG										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
06...	--	--	--	--	--	--	--	--	--	--
OCT										
03...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
07...	--	--	--	--	--	--	--	--	--	--
JAN 1979										
04...	--	--	--	--	--	--	--	--	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
APR										
04...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
JUL										
05...	--	--	--	--	--	--	--	--	--	--
AUG										
07...	--	--	--	--	--	--	--	--	--	--
SEP										
17...	--	--	--	--	--	--	--	--	--	--
OCT										
03...	--	--	--	--	--	--	--	--	--	--
NOV										
05...	--	--	--	--	--	--	--	--	--	--
DEC										
12...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
JAN 1980										
08...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
07...	--	--	--	--	--	--	--	--	--	--
JUN										
03...	--	--	--	--	--	--	--	--	--	--
JUL										
02...	--	--	--	--	--	--	--	--	--	--
AUG										
06...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	COLI-FORM, FECAL, EC (MPN) (31615)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31616)	STREP-TOCOCCI, KF AGAR (COLS./100 ML) (31673)	STREP-TOCOCCI, FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-ORTHOPHOS TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
JUN 1967							
27...	--	810	260	--	--	--	--
JUL 28...	--	130	200	--	--	--	--
AUG 21...	--	26	24	--	--	--	--
MAY 1968							
08...	--	120	--	--	--	--	0.08
JUN 13...	--	200	--	--	--	--	--
JUL 16...	--	42	--	--	--	--	--
31...	--	44	--	--	--	--	--
AUG 29...	--	22	--	--	--	--	--
SEP 25...	--	3	--	--	--	--	0.02
JAN 1969							
26...	--	78	160	--	--	--	--
APR 06...	--	2	26	--	--	--	0.24
JUN 30...	--	52	38	--	--	--	--
JUL 13...	--	16	88	--	--	--	--
AUG 10...	--	52	300	--	--	--	--
SEP 21...	--	20	10	--	--	--	0.15
JAN 1970							
18...	--	1200	380	--	--	--	--
MAY 11...	--	270	160	--	--	--	3.0
JUN 07...	--	44	16	--	--	--	--
MAY 1973							
22...	--	<3	8	--	--	--	3.0
SEP 18...	--	37	12	--	--	--	2.6
NOV 12...	--	300	8	--	--	--	0.74
20...	--	--	--	--	--	--	2.6
APR 1974							
02...	--	<3	8	--	--	0.980	0.51
MAY 01...	--	<3	<4	--	--	0.363	0.70
JUN 06...	--	10	20	--	--	0.412	1.5
AUG 19...	--	27	64	--	--	0.316	1.2
SEP 30...	--	13	32	--	--	0.311	0.51
OCT 28...	--	37	96	--	--	1.18	0.91
NOV 25...	--	6	100	--	--	1.24	0.48
DEC 16...	--	27	130	--	--	-	0.32
JAN 1975							
15...	--	1600	4000	--	--	1.85	0.39
FEB 16...	--	--	--	--	--	--	--
26...	--	17	3000	--	--	1.08	0.82
MAR 13...	--	3	60	--	--	1.22	0.48
APR 23...	--	210	65	--	--	0.700	2.8
MAY 27...	--	430	520	--	--	0.310	2.6

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	COLI-FORM, FECAL, EC (MPN) (31615)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./100 ML) (31616)	STREP-TOCOCCI KF AGAR (COLS./100 ML) (31673)	STREP-TOCOCCI FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-ORTHOTOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
JUN 1975							
25...	--	330	680	--	--	0.597	5.4
JUL							
24...	--	870	760	--	--	0.519	1.5
AUG							
19...	--	470	200	--	--	0.634	1.0
SEP							
24...	--	60	56	--	--	0.737	0.54
OCT							
28...	--	120	190	--	--	1.11	1.5
NOV							
18...	--	10	260	--	--	1.02	0.55
DEC							
17...	--	73	92	--	--	1.39	0.47
JAN 1976							
12...	--	43	48	--	--	1.49	0.72
FEB							
12...	--	120	2000	--	--	0.815	0.15
MAR							
29...	--	17	28	--	--	1.04	0.58
APR							
12...	--	60	28	--	--	0.858	0.96
MAY							
11...	--	33	60	--	--	0.284	0.91
JUN							
22...	--	670	700	--	--	0.156	0.85
JUL							
14...	--	240	140	--	--	0.295	1.1
AUG							
24...	--	150	16	--	--	0.041	1.7
SEP							
29...	--	82	56	--	--	0.660	0.44
OCT							
26...	--	13	90	--	--	1.16	0.39
NOV							
22...	--	3	15	--	--	1.02	0.81
DEC							
15...	--	7	35	--	--	1.17	0.40
JAN 1977							
12...	--	20	65	--	--	0.838	0.38
FEB							
08...	--	7	20	--	--	1.08	0.62
MAR							
16...	--	7	40	--	--	0.597	0.76
APR							
11...	160	--	--	210	--	--	--
MAY							
23...	--	80	5	--	--	0.257	1.4
JUN							
29...	--	160	30	--	--	0.420	1.8
JUL							
26...	--	200	80	--	--	0.405	1.5
AUG							
23...	--	10	5	--	--	--	0.59
SEP							
26...	--	160	50	--	--	--	2.0
OCT							
05...	--	300	--	--	--	--	--
NOV							
08...	--	7	--	--	--	--	--
DEC							
19...	--	77	--	--	--	1.01	--
JAN 1978							
09...	--	27	--	--	--	1.23	--
FEB							
22...	--	17	--	--	--	--	--
MAR							
08...	--	200	--	--	--	--	--
APR							
05...	--	17	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./100 ML) (31616)	STREP-TOCOCCI KF AGAR (COLS. PER 100 ML) (31673)	STREP-TOCOCCI FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
MAY 1978							
01...	3500	--	--	--	--	--	--
JUN							
06...	--	370	--	--	--	--	--
JUL							
10...	--	590	--	--	--	0.259	--
AUG							
08...	--	60	--	--	--	0.345	--
SEP							
06...	--	70	--	--	--	0.421	--
OCT							
03...	--	40	--	--	--	0.072	--
NOV							
08...	--	<3	--	--	--	--	--
DEC							
07...	--	10	--	--	--	1.05	--
JAN 1979							
04...	--	6	--	--	--	1.15	--
FEB							
07...	--	7	--	--	--	--	--
MAR							
06...	--	2300	--	--	--	--	--
APR							
04...	--	<10	--	--	--	0.109	--
MAY							
08...	--	110	--	--	--	0.579	--
JUN							
06...	--	240	--	--	--	0.194	--
JUL							
05...	--	1800	--	--	--	0.462	--
AUG							
07...	--	240	--	--	--	--	--
SEP							
17...	--	--	--	--	--	0.584	--
OCT							
03...	--	150	--	--	--	0.640	--
NOV							
05...	--	66	--	--	--	1.20	--
DEC							
12...	--	6	--	--	--	0.670	--
12...	--	8	--	--	--	0.680	--
JAN 1980							
08...	--	15	--	--	--	0.870	--
FEB							
04...	--	140	--	--	--	0.490	--
MAR							
05...	--	1	--	--	--	0.834	--
APR							
02...	--	32	--	--	--	0.840	--
MAY							
07...	--	180	--	--	--	0.408	--
JUN							
03...	--	100	--	--	--	0.640	--
JUL							
02...	--	180	--	--	--	0.330	--
AUG							
06...	--	120	--	--	--	0.270	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)
Site 00460910, Rapid Creek near Farmingdale - Continued									
SEP 1980									
10...	15.0	24.5	--	--	1200	11.4	112	--	8.2
OCT									
08...	11.5	29.0	--	--	1250	9.5	88	--	8.3
DEC									
11...	0.0	4.0	--	--	990	13.6	93	--	8.4
JAN 1981									
07...	0.0	6.0	--	--	925	13.8	95	--	8.2
FEB									
03...	0.0	-3.0	--	--	1180	12.8	88	--	7.6
MAR									
06...	2.0	1.5	--	--	900	12.4	90	--	8.3
APR									
08...	9.0	15.5	--	--	988	10.2	88	--	7.8
MAY									
14...	16.5	20.5	--	--	1040	10.8	111	--	8.6
JUN									
22...	22.0	27.0	--	--	1010	11.6	132	--	7.8
JUL									
08...	19.5	23.0	--	--	920	9.8	104	--	8.6
NOV									
04...	8.5	--	--	--	1250	12.6	106	--	8.2
APR 1982									
07...	1.0	--	--	--	1300	13.1	92	--	8.5
MAY									
06...	11.0	--	--	--	1130	10.8	97	--	8.6
JUN									
16...	18.5	--	--	--	910	11.4	120	--	7.6
JUL									
15...	21.0	33.0	--	--	670	8.4	93	--	7.8
AUG									
19...	21.0	29.5	--	--	740	7.3	81	--	7.9
SEP									
09...	21.0	33.0	--	--	750	8.7	97	--	7.9
OCT									
21...	3.0	7.0	--	--	970	11.1	82	--	7.9
NOV									
02...	4.5	6.0	--	--	860	12.4	95	--	7.9
DEC									
16...	0.0	-3.0	--	--	800	12.7	87	--	7.8
JAN 1983									
06...	0.0	4.0	--	--	890	13.1	90	--	7.7
FEB									
03...	0.0	3.5	--	--	1000	13.2	90	--	7.8
APR									
14...	1.5	6.5	--	--	800	13.2	96	--	7.9
MAY									
18...	6.0	15.5	--	--	575	10.0	80	--	7.7
JUN									
09...	17.0	24.0	--	--	1060	9.8	101	--	8.1
JUL									
13...	24.5	33.5	--	--	925	10.1	119	--	7.6
AUG									
04...	24.0	33.0	--	--	930	10.1	119	--	8.5
SEP									
08...	18.0	23.0	--	--	1200	7.9	83	--	8.3
OCT									
06...	9.0	21.0	--	--	1040	9.7	84	--	8.0
DEC									
08...	0.0	-10.0	--	--	990	12.1	83	--	7.6
JAN 1984									
05...	0.0	10.0	--	--	910	10.4	71	--	7.4
FEB									
08...	0.0	11.0	--	--	810	11.7	80	--	7.9
MAR									
08...	0.0	0.0	--	--	900	12.6	86	--	7.9
APR									
11...	8.0	10.0	--	--	725	9.9	83	--	7.8
MAY									
10...	9.0	14.0	--	--	650	7.9	68	--	7.7

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUL 1984									
10...	19.0	21.0	--	--	710	7.5	80	--	7.9
AUG									
08...	23.0	30.0	--	--	860	9.8	113	--	8.2
SEP									
14...	12.0	13.0	--	--	1150	9.8	91	--	8.1
OCT									
01...	5.0	12.0	--	--	1050	10.2	80	--	8.1
NOV									
14...	6.0	8.0	--	--	870	10.6	85	--	8.2
DEC									
05...	0.0	-8.0	--	--	900	11.7	80	--	7.6
JAN 1985									
08...	2.0	0.0	--	--	870	10.6	77	--	7.5
FEB									
07...	1.0	0.0	--	--	1000	8.9	63	--	7.6
MAR									
14...	2.0	8.0	--	--	800	11.8	85	--	7.8
APR									
02...	9.0	18.0	--	--	670	10.3	89	--	7.1
MAY									
08...	22.0	29.0	--	--	1230	10.0	114	--	8.8
JUN									
11...	16.0	21.0	--	--	1100	10.0	100	--	8.2
JUL									
18...	22.0	27.0	--	--	810	7.4	84	--	8.0
AUG									
22...	23.0	28.0	--	--	825	7.8	90	--	8.0
SEP									
03...	20.0	27.0	--	--	1200	10.2	111	--	8.8
OCT									
17...	10.0	15.0	--	--	1050	10.2	90	--	8.2
NOV									
06...	5.0	10.0	--	--	940	10.1	79	--	8.2
DEC									
09...	0.0	0.0	--	--	1150	10.4	71	--	7.5
JAN 1986									
09...	0.0	1.0	--	--	960	10.5	72	--	7.5
FEB									
21...	1.0	3.0	--	--	1250	8.9	63	--	7.6
MAR									
26...	9.0	10.0	--	--	1150	10.6	91	--	8.5
APR									
09...	11.0	7.0	--	--	1250	10.6	95	--	7.1
MAY									
06...	16.0	17.0	--	--	1140	10.7	107	--	8.6
JUN									
04...	19.0	16.0	--	--	1440	9.2	98	--	8.2
AUG									
13...	20.0	23.0	--	--	1040	9.1	99	--	8.0
SEP									
24...	14.0	16.0	--	--	1010	9.1	87	--	8.1
OCT									
22...	11.0	15.0	--	--	815	9.8	88	--	8.2
NOV									
06...	7.0	3.0	--	--	775	10.4	85	--	7.8
DEC									
03...	0.5	0.0	--	--	825	12.4	87	--	8.3
JAN 1987									
06...	0.5	-0.5	--	--	920	11.1	78	--	7.7
FEB									
04...	0.5	-0.5	--	--	1010	11.1	78	--	8.2
MAR									
05...	1.0	13.5	--	--	1030	11.2	79	--	8.0
APR									
08...	10.0	15.5	--	--	850	10.3	91	--	8.2
MAY									
14...	18.0	19.0	--	--	950	8.0	84	--	7.8
JUN									
10...	19.0	24.0	--	--	950	7.7	82	--	7.8

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUL 1987									
16...	23.0	33.0	--	--	1050	7.5	86	--	8.4
AUG									
12...	21.0	18.0	--	--	910	7.4	82	--	8.0
SEP									
03...	20.0	24.0	--	--	885	8.6	93	--	8.4
OCT									
28...	5.5	17.0	--	--	1170	10.9	87	--	8.4
NOV									
04...	8.0	--	--	--	1200	8.4	71	--	8.6
DEC									
01...	0.5	-2.0	--	--	1070	11.2	79	--	8.3
JAN 1988									
19...	0.0	-9.5	--	--	960	11.6	80	--	7.1
FEB									
16...	0.0	2.0	--	--	1180	11.6	80	--	7.6
MAR									
10...	1.0	3.0	--	--	855	10.6	75	--	8.5
APR									
21...	9.0	4.5	--	--	1360	10.2	88	--	8.0
MAY									
25...	21.5	28.0	--	--	1200	10.1	115	--	7.9
JUN									
07...	30.0	39.0	--	--	1650	7.9	104	--	8.2
JUL									
11...	25.5	21.5	--	--	1200	10.6	129	--	8.2
AUG									
22...	25.5	32.0	--	--	1200	9.9	121	--	8.4
SEP									
12...	14.5	13.5	--	--	1190	12.0	115	--	8.7
OCT									
19...	11.5	8.5	--	--	2400	10.1	93	--	8.6
NOV									
09...	5.0	2.0	--	--	1130	12.4	97	--	7.9
JAN 1989									
10...	0.5	-8.5	--	--	1320	11.3	80	--	7.1
FEB									
14...	0.5	-1.0	--	--	1070	10.9	77	--	8.0
MAR									
20...	0.0	-4.5	--	--	1150	10.4	71	--	7.8
APR									
03...	8.0	7.0	--	--	1150	10.4	87	--	8.2
MAY									
09...	19.5	21.0	--	--	1100	10.6	113	--	8.7
JUN									
19...	14.5	30.5	--	--	1200	7.8	75	--	7.6
JUL									
12...	25.0	30.0	--	--	1340	6.4	76	--	7.3
AUG									
09...	22.0	31.5	--	--	1110	9.6	109	--	8.0
SEP									
18...	18.0	21.0	--	--	1800	8.7	92	--	7.8
OCT									
18...	5.5	3.5	--	--	1100	10.4	83	--	8.1
NOV									
08...	6.5	8.5	--	--	1000	11.3	93	--	7.9
DEC									
20...	0.5	-19.0	--	--	1200	10.5	74	--	7.8
JAN 1990									
10...	1.5	15.5	--	--	970	10.8	78	--	7.6

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINTY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LINTY PHENOL- PTHAL- LEIN (MG/L) (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
Site 00460910, Rapid Creek near Farmingdale - Continued									
SEP 1980									
10...	--	--	--	--	--	714	23	--	<0.030
OCT									
08...	--	--	--	--	--	926	43	--	0.040
DEC									
11...	--	--	--	--	--	702	25	--	0.980
JAN 1981									
07...	--	--	--	--	--	626	17	--	0.190
FEB									
03...	--	--	--	--	--	795	13	--	1.18
MAR									
06...	--	--	--	--	--	640	21	--	<0.030
APR									
08...	--	--	--	--	--	680	30	--	<0.020
MAY									
14...	--	--	--	--	--	801	21	--	0.040
JUN									
22...	--	--	--	--	--	762	45	--	<0.020
JUL									
08...	--	--	--	--	--	534	64	--	<0.030
NOV									
04...	--	--	--	--	--	860	30	<0.030	--
APR 1982									
07...	--	--	--	--	--	--	19	--	0.290
MAY									
06...	--	--	--	--	--	--	2	--	0.150
JUN									
16...	--	--	--	--	--	--	500	--	0.160
JUL									
15...	--	--	--	--	--	--	195	--	<0.030
AUG									
19...	--	--	--	--	--	--	75	--	<0.030
SEP									
09...	--	--	--	--	--	--	85	--	<0.030
OCT									
21...	--	220	--	--	--	--	660	--	0.460
NOV									
02...	12	210	--	--	--	--	6	--	0.120
DEC									
16...	--	210	--	--	--	--	8	--	0.200
JAN 1983									
06...	--	210	--	--	--	--	8	--	0.630
FEB									
03...	--	230	--	--	--	--	2	--	0.880
APR									
14...	--	190	--	--	--	--	73	--	0.410
MAY									
18...	--	190	--	--	--	--	171	--	0.040
JUN									
09...	--	240	--	--	--	--	26	--	0.030
JUL									
13...	34	220	--	--	--	--	46	--	<0.030
AUG									
04...	20	240	--	--	--	--	86	--	0.030
SEP									
08...	12	200	--	--	--	--	95	--	<0.030
OCT									
06...	--	230	--	--	--	--	11	--	0.360
DEC									
08...	228	--	--	--	--	--	7	--	0.920
JAN 1984									
05...	218	--	--	--	--	--	4	--	2.02
FEB									
08...	217	--	--	--	--	--	17	--	0.870
MAR									
08...	210	--	--	--	--	--	12	--	0.260
APR									
11...	190	--	--	--	--	--	131	--	0.110
MAY									
10...	174	--	--	--	--	--	460	--	0.110

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LIVITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LIVITY PHENOL- PHTHA- LEIN (MG/L) (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUL 1984									
10...	176	--	--	--	--	--	102	--	0.090
AUG									
08...	207	8	--	--	--	--	71	--	<0.030
SEP									
14...	258	--	--	--	--	--	26	--	<0.030
OCT									
01...	230	--	--	--	--	--	6	--	<0.030
NOV									
14...	196	--	--	--	--	--	11	--	0.110
DEC									
05...	227	--	--	--	--	--	6	--	1.50
JAN 1985									
08...	198	--	--	--	--	--	4	--	1.40
FEB									
07...	224	--	--	--	--	--	9	--	2.05
MAR									
14...	178	--	--	--	--	--	15	--	1.05
APR									
02...	187	--	--	--	--	--	121	--	0.350
MAY									
08...	222	--	--	--	--	--	49	--	<0.030
JUN									
11...	256	--	--	--	--	--	349	--	0.030
JUL									
18...	208	--	--	--	--	--	125	--	0.310
AUG									
22...	150	--	--	--	772	--	--	--	0.080
SEP									
03...	246	--	--	--	--	--	66	--	<0.030
OCT									
17...	224	--	--	--	721	--	33	--	<0.030
NOV									
06...	230	--	--	--	614	--	32	--	<0.030
DEC									
09...	243	--	--	--	722	--	12	--	2.70
JAN 1986									
09...	252	--	--	--	678	--	12	--	1.90
FEB									
21...	250	--	--	--	753	--	7	--	2.37
MAR									
26...	206	--	--	--	797	--	23	--	<0.030
APR									
09...	216	--	--	--	1000	--	71	--	0.070
MAY									
06...	211	--	--	--	754	--	32	--	--
JUN									
04...	282	12	--	--	--	--	24	--	1.48
AUG									
13...	179	--	--	--	1580	--	944	--	0.080
SEP									
24...	204	--	--	--	743	--	79	--	0.040
OCT									
22...	206	--	--	--	557	--	39	--	0.060
NOV									
06...	178	--	--	--	447	--	23	--	<0.030
DEC									
03...	214	--	--	--	533	--	9	--	0.380
JAN 1987									
06...	216	--	--	--	568	--	550	--	1.06
FEB									
04...	208	--	--	--	640	--	12	--	1.95
MAR									
05...	190	--	--	--	694	--	24	--	0.880
APR									
08...	190	--	--	--	576	--	40	--	0.060
MAY									
14...	211	--	--	--	--	--	59	--	0.580
JUN									
10...	218	--	--	--	--	--	176	--	0.182

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LINITY PHENOL- FIELD MG/L AS (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
Site 00460910, Rapid Creek near Farmingdale - Continued									
JUL 1987									
16...	240	--	--	--	--	--	35	--	0.030
AUG									
12...	201	--	--	--	--	--	150	--	0.040
SEP									
03...	182	--	--	--	--	--	41	--	<0.030
OCT									
28...	218	--	--	--	--	--	9	--	<0.030
NOV									
04...	226	--	--	--	740	--	10	--	<0.030
DEC									
01...	228	--	--	--	704	--	22	--	<0.030
JAN 1988									
19...	245	--	--	--	589	--	3	--	0.360
FEB									
16...	237	--	--	--	674	--	7	--	0.450
MAR									
10...	165	--	--	--	528	--	8	--	<0.030
APR									
21...	250	--	--	--	962	--	59	--	<0.030
MAY									
25...	266	--	--	--	986	--	136	--	0.190
JUN									
07...	342	--	--	--	1220	--	69	--	0.240
JUL									
11...	252	--	--	--	950	--	196	--	0.030
AUG									
22...	230	--	--	--	816	--	55	--	0.050
SEP									
12...	256	--	--	--	832	--	38	--	0.040
OCT									
19...	115	--	--	--	1720	--	19	--	0.120
NOV									
09...	237	--	--	--	742	--	11	--	0.070
JAN 1989									
10...	268	--	--	--	884	--	8	--	0.110
FEB									
14...	254	--	--	--	692	--	6	--	1.46
MAR									
20...	212	--	--	--	762	--	13	--	1.12
APR									
03...	244	--	--	--	782	--	12	--	0.070
MAY									
09...	156	--	--	--	840	--	164	--	<0.030
JUN									
19...	260	--	--	--	840	--	78	--	0.110
JUL									
12...	302	--	--	--	1040	--	78	--	<0.030
AUG									
09...	274	--	--	--	782	--	125	--	<0.030
SEP									
18...	220	--	--	--	854	--	90	--	0.050
OCT									
18...	232	--	--	--	711	--	10	--	<0.030
NOV									
08...	252	--	--	--	700	--	31	--	0.900
DEC									
20...	266	--	--	--	796	--	4	--	0.310
JAN 1990									
10...	213	--	--	--	612	--	11	--	<0.030

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM TOTAL (MG/L AS CAC03) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
SEP 1980										
10...	<0.010	0.002	0.920	--	--	--	--	--	--	--
OCT										
08...	<0.010	0.002	0.910	--	--	--	--	--	--	--
DEC										
11...	0.010	0.024	3.00	--	--	--	--	--	--	--
JAN 1981										
07...	<0.010	0.003	2.03	--	--	--	--	--	--	--
FEB										
03...	<0.010	0.005	1.88	--	--	--	--	--	--	--
MAR										
06...	<0.010	0.001	0.640	--	--	--	--	--	--	--
APR										
08...	<0.010	0.000	0.400	--	--	--	--	--	--	--
MAY										
14...	<0.010	0.005	<0.100	--	--	--	--	--	--	--
JUN										
22...	<0.010	0.001	<0.100	--	--	--	--	--	--	--
JUL										
08...	<0.010	0.005	0.110	--	--	--	--	--	--	--
NOV										
04...	--	0.001	2.75	--	--	--	--	0.476	--	--
APR 1982										
07...	<0.010	0.010	2.20	--	--	--	--	--	--	--
MAY										
06...	<0.010	0.014	1.02	--	--	--	--	--	490	--
JUN										
16...	<0.010	0.003	1.80	--	--	--	--	--	370	--
JUL										
15...	<0.010	0.001	1.35	--	--	--	--	--	--	--
AUG										
19...	<0.010	0.001	1.02	--	--	--	--	--	--	--
SEP										
09...	<0.010	0.001	0.960	--	--	--	--	--	--	--
OCT										
21...	--	0.005	--	--	--	--	--	--	--	--
NOV										
02...	--	0.001	--	--	--	--	--	--	--	--
DEC										
16...	--	0.001	--	0.31	--	--	--	--	--	--
JAN 1983										
06...	--	0.003	--	--	--	--	0.678	--	--	--
FEB										
03...	--	0.006	--	--	--	--	0.886	--	--	--
APR										
14...	--	0.004	--	--	--	--	0.446	0.290	--	--
MAY										
18...	--	0.000	--	--	--	--	0.900	--	--	--
JUN										
09...	--	0.002	--	--	--	--	0.180	--	--	--
JUL										
13...	--	0.001	--	--	--	--	0.435	0.230	--	--
AUG										
04...	--	0.005	--	--	--	--	0.500	0.275	--	--
SEP										
08...	--	0.002	--	--	--	--	0.600	--	--	--
OCT										
06...	--	0.008	--	--	--	--	1.17	1.17	--	--
DEC										
08...	--	0.004	--	1.3	--	--	1.36	1.15	--	--
JAN 1984										
05...	--	0.005	--	--	--	--	1.20	1.15	--	--
FEB										
08...	--	0.006	--	--	--	--	0.775	0.625	--	--
MAR										
08...	--	0.002	--	--	--	--	0.820	0.780	--	--
APR										
11...	--	0.001	--	--	--	--	0.630	0.412	--	--
MAY										
10...	--	0.001	--	--	--	--	1.05	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL (MG/L AS CACO3) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUL 1984										
10...	--	0.003	--	--	--	--	0.725	0.360	--	--
AUG										
08...	--	0.003	--	--	--	--	0.502	0.315	--	--
SEP										
14...	--	0.001	--	--	--	--	0.490	0.435	--	--
OCT										
01...	--	0.001	--	--	--	--	0.676	0.670	--	--
NOV										
14...	--	0.003	--	--	--	--	0.680	0.630	--	--
DEC										
05...	--	0.005	--	--	--	--	0.900	0.748	--	--
JAN 1985										
08...	--	0.005	--	--	--	--	0.800	0.785	--	--
FEB										
07...	--	0.008	--	--	--	--	1.30	0.795	--	--
MAR										
14...	--	0.008	--	--	--	--	1.78	0.680	--	--
APR										
02...	--	0.001	--	--	--	--	1.60	0.415	--	--
MAY										
08...	--	0.008	--	--	--	--	0.375	0.123	--	--
JUN										
11...	--	0.002	--	2.0	--	--	1.00	0.377	--	--
JUL										
18...	--	0.018	--	--	--	--	0.630	0.440	--	--
AUG										
22...	--	0.005	--	--	--	--	0.520	0.249	--	--
SEP										
03...	<0.010	0.007	0.650	--	--	--	0.980	0.424	--	--
OCT										
17...	--	0.001	--	--	--	--	0.800	0.800	--	--
NOV										
06...	--	0.001	--	--	--	--	1.09	0.760	--	--
DEC										
09...	--	0.008	3.40	--	--	--	1.56	1.39	--	--
JAN 1986										
09...	--	0.005	--	--	--	--	1.24	1.23	--	--
FEB										
21...	--	0.010	--	--	--	--	1.50	1.27	--	--
MAR										
26...	--	0.002	--	--	--	--	0.700	0.410	--	--
APR										
09...	--	0.000	--	--	--	--	0.500	0.288	--	--
MAY										
06...	--	--	<0.030	--	--	--	0.600	0.365	--	--
JUN										
04...	--	0.099	--	--	--	--	0.660	0.635	--	--
AUG										
13...	--	0.003	--	--	--	--	1.15	0.570	--	--
SEP										
24...	--	0.002	--	--	--	--	1.70	0.511	--	--
OCT										
22...	--	0.003	--	--	--	--	0.720	0.450	--	--
NOV										
06...	--	0.000	--	--	--	--	0.500	0.500	--	--
DEC										
03...	--	0.009	--	--	--	--	0.595	0.567	--	--
JAN 1987										
06...	--	0.006	--	--	--	--	1.15	0.860	--	--
FEB										
04...	--	0.032	--	--	--	--	0.881	--	--	--
MAR										
05...	--	0.010	--	--	--	--	1.15	1.15	--	--
APR										
08...	--	0.002	--	--	--	--	0.695	0.445	--	--
MAY										
14...	--	0.015	--	--	--	--	0.700	0.519	--	--
JUN										
10...	--	0.005	--	--	--	--	0.775	0.459	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL (MG/L AS CACO3) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUL 1987										
16...	--	0.004	--	--	--	--	0.460	0.389	--	--
AUG										
12...	--	0.002	--	--	--	--	0.630	0.446	--	--
SEP										
03...	--	0.003	--	--	--	--	0.695	0.530	--	--
OCT										
28...	--	0.001	--	--	--	--	1.27	1.13	--	--
NOV										
04...	--	0.002	--	--	--	--	1.64	1.52	--	--
DEC										
01...	--	0.001	3.65	--	--	--	1.36	1.22	--	--
JAN 1988										
19...	--	0.000	2.90	--	--	--	1.51	1.44	--	--
FEB										
16...	--	0.002	2.90	--	--	--	1.40	--	--	--
MAR										
10...	--	0.001	1.61	--	--	--	0.990	0.859	--	--
APR										
21...	--	0.000	0.100	--	--	--	0.625	0.260	--	--
MAY										
25...	--	0.007	0.720	--	--	--	0.800	0.425	--	--
JUN										
07...	--	0.036	--	--	--	--	0.365	0.250	--	--
JUL										
11...	--	0.003	--	--	0.310	--	0.604	0.295	--	--
AUG										
22...	--	0.008	<0.100	--	--	--	0.508	0.213	530	--
SEP										
12...	--	0.006	0.130	--	--	--	0.374	0.231	520	--
OCT										
19...	--	0.012	<0.100	--	--	--	0.033	0.016	740	--
NOV										
09...	--	0.001	2.66	--	--	--	1.32	1.24	430	--
JAN 1989										
10...	--	0.000	5.42	--	--	--	1.97	1.76	560	--
FEB										
14...	--	0.014	4.08	--	--	--	1.66	1.53	400	--
MAR										
20...	--	0.007	3.75	--	--	--	1.31	1.22	390	--
APR										
03...	--	0.002	0.740	--	--	--	0.950	0.815	380	--
MAY										
09...	--	0.006	0.250	--	--	--	0.508	0.095	480	--
JUN										
19...	--	0.002	0.440	--	--	--	0.450	0.305	640	--
JUL										
12...	--	0.000	<0.100	--	--	--	0.507	0.300	570	--
AUG										
09...	--	0.001	0.610	--	--	--	0.488	0.375	560	--
SEP										
18...	--	0.001	2.32	--	--	--	0.718	0.615	470	--
OCT										
18...	--	0.001	3.31	--	--	--	2.05	1.31	500	--
NOV										
08...	--	0.011	1.28	--	--	--	1.06	1.00	480	--
DEC										
20...	--	0.002	5.80	--	--	--	1.59	1.46	750	--
JAN 1990										
10...	--	0.000	3.60	--	--	--	1.08	1.03	440	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
SEP 1980										
10...	--	--	--	--	--	--	--	--	--	--
OCT										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
11...	--	--	--	--	--	--	--	--	--	--
JAN 1981										
07...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
14...	--	96	--	--	--	46	79	--	--	--
JUN										
22...	--	110	--	--	--	45	63	--	--	--
JUL										
08...	--	100	--	--	--	44	52	--	--	--
NOV										
04...	--	--	--	--	--	--	--	--	--	--
APR 1982										
07...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	110	--	--	--	53	--	72	--	--	--
JUN										
16...	90	--	--	--	35	--	57	--	--	--
JUL										
15...	--	68	--	--	--	30	24	--	--	--
AUG										
19...	--	76	--	--	--	32	240	--	--	--
SEP										
09...	--	--	--	--	--	--	--	--	--	--
OCT										
21...	--	--	--	--	--	--	--	--	--	--
NOV										
02...	--	--	--	--	--	--	--	--	--	--
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN 1983										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
APR										
14...	--	--	--	--	--	--	--	--	--	--
MAY										
18...	--	71	--	--	--	32	16	--	--	--
JUN										
09...	--	120	--	--	--	52	51	--	--	--
JUL										
13...	--	98	--	--	--	45	44	--	--	--
AUG										
04...	--	100	--	--	--	54	49	--	--	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--
OCT										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
08...	--	--	--	--	--	--	--	--	--	--
JAN 1984										
05...	--	--	--	--	--	--	--	--	--	--
FEB										
08...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	--	--	--	--	--	--	--	--	--
APR										
11...	--	--	--	--	--	--	--	--	--	--
MAY										
10...	--	74	--	--	--	31	20	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by
the South Dakota Department of Environment and Natural Resources at stations
within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUL 1984										
10...	--	75	--	--	--	34	15	--	--	--
AUG										
08...	--	100	--	--	--	40	31	--	--	--
SEP										
14...	--	--	--	--	--	--	--	--	--	--
OCT										
01...	--	--	--	--	--	--	--	--	--	--
NOV										
14...	--	--	--	--	--	--	--	--	--	--
DEC										
05...	--	--	--	--	--	--	--	--	--	--
JAN 1985										
08...	--	--	--	--	--	--	--	--	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
14...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	110	--	--	--	66	97	--	--	--
JUN										
11...	--	89	--	--	--	42	61	--	--	--
JUL										
18...	--	70	--	--	--	37	47	--	--	--
AUG										
22...	--	75	--	--	--	30	47	--	--	--
SEP										
03...	--	--	--	--	--	--	--	--	--	--
OCT										
17...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
09...	--	--	--	--	--	--	--	--	--	--
JAN 1986										
09...	--	--	--	--	--	--	--	--	--	--
FEB										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	--	--	--	--	--	--	--	--	--	--
APR										
09...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	130	--	--	--	100	70	--	--	--
JUN										
04...	--	160	--	--	--	66	100	--	--	--
AUG										
13...	--	100	--	--	--	43	70	--	--	--
SEP										
24...	--	--	--	--	--	--	--	--	--	--
OCT										
22...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	--	--
JAN 1987										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
14...	--	110	--	--	--	45	57	--	--	--
JUN										
10...	--	120	--	--	--	50	46	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUL 1987										
16...	--	110	--	--	--	50	61	--	--	--
AUG										
12...	--	93	--	--	--	35	43	--	--	--
SEP										
03...	--	--	--	--	--	--	--	--	--	--
OCT										
28...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
01...	--	--	--	--	--	--	--	--	--	--
JAN 1988										
19...	--	--	--	--	--	--	--	--	--	--
FEB										
16...	--	--	--	--	--	--	--	--	--	--
MAR										
10...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
25...	--	130	--	--	--	54	91	--	--	--
JUN										
07...	--	150	--	--	--	73	99	--	--	--
JUL										
11...	--	130	--	--	--	60	130	--	--	--
AUG										
22...	--	110	--	--	--	54	77	--	--	--
SEP										
12...	--	--	--	--	--	--	--	--	--	--
OCT										
19...	--	--	--	--	--	--	--	--	--	--
NOV										
09...	--	--	--	--	--	--	--	--	--	--
JAN 1989										
10...	--	--	--	--	--	--	--	--	--	--
FEB										
14...	--	--	--	--	--	--	--	--	--	--
MAR										
20...	--	--	--	--	--	--	--	--	--	--
APR										
03...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	110	--	--	--	58	91	--	--	--
JUN										
19...	--	160	--	--	--	56	73	--	--	--
JUL										
12...	--	130	--	--	--	62	88	--	--	--
AUG										
09...	--	140	--	--	--	53	61	--	--	--
SEP										
18...	--	--	--	--	--	--	--	--	--	--
OCT										
18...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
20...	--	--	--	--	--	--	--	--	--	--
JAN 1990										
10...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
SEP 1980										
10...	--	--	--	--	--	--	--	--	--	--
OCT										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
11...	--	--	--	--	--	--	--	--	--	--
JAN 1981										
07...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
14...	--	--	--	--	--	--	--	--	--	--
JUN										
22...	--	--	--	--	--	--	--	--	--	--
JUL										
08...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	--	--	--	--	--	--	--	--	--	--
APR 1982										
07...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	--	--	--	--	--	--	--	--	--
JUN										
16...	--	--	--	--	--	--	--	--	--	--
JUL										
15...	--	--	--	--	--	--	--	--	--	--
AUG										
19...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	--	--	--	--	--	--	--	--	--	--
OCT										
21...	--	--	--	--	--	--	--	--	--	--
NOV										
02...	--	--	--	--	--	--	--	--	--	--
DEC										
16...	--	--	--	--	--	--	--	--	--	--
JAN 1983										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
APR										
14...	--	--	--	--	--	--	--	--	--	--
MAY										
18...	--	--	--	--	--	--	--	--	--	--
JUN										
09...	--	--	--	--	--	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--
AUG										
04...	--	--	--	--	--	--	--	--	--	--
SEP										
08...	--	--	--	--	--	--	--	--	--	--
OCT										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
08...	--	--	--	--	--	--	--	--	--	--
JAN 1984										
05...	--	--	--	--	--	--	--	--	--	--
FEB										
08...	--	--	--	--	--	--	--	--	--	--
MAR										
08...	--	--	--	--	--	--	--	--	--	--
APR										
11...	--	--	--	--	--	--	--	--	--	--
MAY										
10...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUL 1984										
10...	--	--	--	--	--	--	--	--	--	--
AUG										
08...	--	--	--	--	--	--	--	--	--	--
SEP										
14...	--	--	--	--	--	--	--	--	--	--
OCT										
01...	--	--	--	--	--	--	--	--	--	--
NOV										
14...	--	--	--	--	--	--	--	--	--	--
DEC										
05...	--	--	--	--	--	--	--	--	--	--
JAN 1985										
08...	--	--	--	--	--	--	--	--	--	--
FEB										
07...	--	--	--	--	--	--	--	--	--	--
MAR										
14...	--	--	--	--	--	--	--	--	--	--
APR										
02...	--	--	--	--	--	--	--	--	--	--
MAY										
08...	--	--	--	--	--	--	--	--	--	--
JUN										
11...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
22...	--	--	--	--	--	--	--	--	--	--
SEP										
03...	67	--	--	--	--	--	--	--	--	--
OCT										
17...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
09...	--	--	--	--	--	--	--	--	--	--
JAN 1986										
09...	--	--	--	--	--	--	--	--	--	--
FEB										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	--	--	--	--	--	--	--	--	--	--
APR										
09...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	--	--	--	--	--	--	--	--	--
JUN										
04...	--	--	--	--	--	--	--	--	--	--
AUG										
13...	--	--	--	--	--	--	--	--	--	--
SEP										
24...	--	--	--	--	--	--	--	--	--	--
OCT										
22...	--	--	--	--	--	--	--	--	--	--
NOV										
06...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	--	--
JAN 1987										
06...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	--	--	--	--	--	--	--	--	--	--
APR										
08...	--	--	--	--	--	--	--	--	--	--
MAY										
14...	--	--	--	--	--	--	--	--	--	--
JUN										
10...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. PER 100 ML) (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
JUL 1987										
16...	--	--	--	--	--	--	--	--	--	--
AUG										
12...	--	--	--	--	--	--	--	--	--	--
SEP										
03...	--	--	--	--	--	--	--	--	--	--
OCT										
28...	--	--	--	--	--	--	--	--	--	--
NOV										
04...	--	--	--	--	--	--	--	--	--	--
DEC										
01...	--	--	--	--	--	--	--	--	--	--
JAN 1988										
19...	--	--	--	--	--	--	--	--	--	--
FEB										
16...	--	--	--	--	--	--	--	--	--	--
MAR										
10...	--	--	--	--	--	--	--	--	--	--
APR										
21...	--	--	--	--	--	--	--	--	--	--
MAY										
25...	--	--	--	--	--	--	--	--	--	--
JUN										
07...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
AUG										
22...	--	--	--	--	--	--	--	--	--	--
SEP										
12...	--	--	--	--	--	--	--	--	--	--
OCT										
19...	--	--	--	--	--	--	--	--	--	--
NOV										
09...	--	--	--	--	--	--	--	--	--	--
JAN 1989										
10...	--	--	--	--	--	--	--	--	--	--
FEB										
14...	--	--	--	--	--	--	--	--	--	--
MAR										
20...	--	--	--	--	--	--	--	--	--	--
APR										
03...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	--	--	--	--	--	--	--	--	--
JUN										
19...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	--	--	--	--	--	--	--	--	--	--
AUG										
09...	--	--	--	--	--	--	--	--	--	--
SEP										
18...	--	--	--	--	--	--	--	--	--	--
OCT										
18...	--	--	--	--	--	--	--	--	--	--
NOV										
08...	--	--	--	--	--	--	--	--	--	--
DEC										
20...	--	--	--	--	--	--	--	--	--	--
JAN 1990										
10...	--	--	--	--	--	--	--	--	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	COLI-FORM, FECAL, EC (MPN) (31615)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31616)	STREP-TOCOCCI KF AGAR (COLS./100 ML) (31673)	STREP-TOCOCCI FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-PHOSPHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
SEP 1980							
10...	--	46	--	--	--	0.480	--
OCT							
08...	--	72	--	--	--	0.510	--
DEC							
11...	--	28	--	--	--	1.33	--
JAN 1981							
07...	--	4	--	--	--	0.900	--
FEB							
03...	--	6	--	--	--	1.22	--
MAR							
06...	--	<5	--	--	--	1.17	--
APR							
08...	--	10	--	--	--	0.779	--
MAY							
14...	--	10	--	--	--	0.091	--
JUN							
22...	--	57	--	--	--	0.355	--
JUL							
08...	--	130	--	--	--	0.450	--
NOV							
04...	--	--	--	--	--	--	--
APR 1982							
07...	--	5	--	--	656	0.980	--
MAY							
06...	--	12	--	--	812	0.775	--
JUN							
16...	--	900	--	--	628	0.825	--
JUL							
15...	--	380	--	--	400	0.126	--
AUG							
19...	--	150	--	--	574	0.468	--
SEP							
09...	--	220	--	--	498	0.450	--
OCT							
21...	--	1200	--	--	114	0.430	--
NOV							
02...	--	40	--	--	596	0.346	--
DEC							
16...	--	92	--	--	510	1.08	--
JAN 1983							
06...	--	44	--	--	602	0.665	--
FEB							
03...	--	22	--	--	632	0.870	--
APR							
14...	--	110	--	--	490	--	--
MAY							
18...	--	65	--	--	368	0.192	--
JUN							
09...	--	56	--	--	698	0.175	--
JUL							
13...	--	140	--	--	610	--	--
AUG							
04...	--	520	--	--	602	--	--
SEP							
08...	--	180	--	--	794	0.240	--
OCT							
06...	--	40	--	--	656	--	--
DEC							
08...	--	240	--	--	654	--	--
JAN 1984							
05...	--	1000	--	--	586	--	--
FEB							
08...	--	100	--	--	536	--	--
MAR							
08...	--	10	--	--	596	--	--
APR							
11...	--	130	--	--	470	--	--
MAY							
10...	--	80	--	--	398	0.184	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	COLI-FORM, FECAL, UM-MF (COLS./ 100 ML) (31616)	STREP-TOCOCCEI, KF AGAR (COLS. PER 100 ML) (31673)	STREP-TOCOCCEI, FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-ORTHOPHOS TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
JUL 1984							
10...	--	240	--	--	478	--	--
AUG							
08...	--	290	--	--	536	--	--
SEP							
14...	--	280	--	--	774	--	--
OCT							
01...	--	40	--	--	672	--	--
NOV							
14...	--	34	--	--	608	--	--
DEC							
05...	--	110	--	--	662	--	--
JAN 1985							
08...	--	440	--	--	544	--	--
FEB							
07...	--	1900	--	--	641	--	--
MAR							
14...	--	31	--	--	536	--	--
APR							
02...	--	43	--	--	424	--	--
MAY							
08...	--	68	--	--	826	--	--
JUN							
11...	--	1500	--	--	706	--	--
JUL							
18...	--	1000	--	--	504	--	--
AUG							
22...	--	410	--	--	242	--	--
SEP							
03...	--	40	--	--	746	--	--
OCT							
17...	--	<10	--	--	688	--	--
NOV							
06...	--	30	--	--	582	--	--
DEC							
09...	--	2700	--	--	710	--	--
JAN 1986							
09...	--	110	--	--	666	--	--
FEB							
21...	--	1300	--	--	746	--	--
MAR							
26...	--	20	--	--	774	--	--
APR							
09...	--	70	--	--	930	--	--
MAY							
06...	--	<10	--	--	722	--	--
JUN							
04...	--	300	--	--	1000	--	--
AUG							
13...	--	1600	--	--	638	--	--
SEP							
24...	--	70	--	--	664	--	--
OCT							
22...	--	20	--	--	518	--	--
NOV							
06...	--	30	--	--	424	--	--
DEC							
03...	--	10	--	--	524	--	--
JAN 1987							
06...	--	50	--	--	18	--	--
FEB							
04...	--	60	--	--	628	--	--
MAR							
05...	--	80	--	--	670	--	--
APR							
08...	--	120	--	--	536	--	--
MAY							
14...	--	250	--	--	606	--	--
JUN							
10...	--	600	--	--	608	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	COLI-FORM, FECAL, EC BROTH (MPN) (31615)	COLI-FORM, FECAL, 0.45 UM-MF (COLS./100 ML) (31616)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	STREP-TOCOCCI, FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	PHOS-ORTHOTOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
JUL 1987							
16...	--	100	--	--	721	--	--
AUG 12...	--	220	--	--	594	--	--
SEP 03...	--	270	--	--	538	--	--
OCT 28...	--	<10	--	--	704	--	--
NOV 04...	--	40	--	--	730	--	--
DEC 01...	--	10	--	--	682	--	--
JAN 1988							
19...	--	60	--	--	586	--	--
FEB 16...	--	210	--	--	667	1.29	--
MAR 10...	--	--	--	--	520	--	--
APR 21...	--	240	--	--	903	--	--
MAY 25...	--	85	--	--	850	--	--
JUN 07...	--	320	--	--	1150	--	--
JUL 11...	--	310	--	--	754	--	--
AUG 22...	--	82	--	--	761	--	--
SEP 12...	--	110	--	--	794	--	--
OCT 19...	--	38	--	--	1700	--	--
NOV 09...	--	22	--	--	731	--	--
JAN 1989							
10...	--	18	--	--	876	--	--
FEB 14...	--	18	--	--	686	--	--
MAR 20...	--	6	--	--	749	--	--
APR 03...	--	25	--	--	770	--	--
MAY 09...	--	44	--	--	676	--	--
JUN 19...	--	250	--	--	762	--	--
JUL 12...	--	>600	--	--	962	--	--
AUG 09...	--	160	--	--	657	--	--
SEP 18...	--	62	--	--	764	--	--
OCT 18...	--	50	--	--	701	--	--
NOV 08...	--	50	--	--	669	--	--
DEC 20...	--	130	--	--	792	--	--
JAN 1990							
10...	--	7	--	--	601	--	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	TEMPER- ATURE WATER (DEG C) (00010)	TEMPER- ATURE AIR (DEG C) (00020)	TUR- BID- ITY (JCU) (00070)	SPE- CIFIC CON- DUCT- ANCE FIELD (US/CM) (00094)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	PH (STAND- ARD UNITS) (00400)	
Site 00460910, Rapid Creek near Farmingdale - Continued										
FEB 1990										
21...	1.0	5.5	--	--	940	12.2	86	--	7.1	
MAR										
12...	8.5	8.0	--	--	900	8.6	72	--	7.2	
APR										
26...	11.0	16.0	--	--	1330	10.6	95	--	7.2	
MAY										
01...	9.0	16.5	--	--	1300	11.5	99	--	8.0	
JUN										
06...	18.0	22.0	--	--	1430	8.4	88	--	7.9	
JUL										
18...	22.0	23.5	--	--	1080	8.2	93	--	8.3	
AUG										
07...	23.5	32.0	--	--	1080	9.1	105	--	8.7	
DATE	ALKA- LITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	ALKA- LITY PHENOL- PHTHA- LEIN (MG/L) (00415)	BICAR- BONATE WATER WH FET FIELD MG/L AS HCO3 (00440)	CAR- BONATE WATER WH FET FIELD MG/L AS CO3 (00445)	SOLIDS, RESIDUE AT 105 DEG. C, TOTAL (MG/L) (00500)	RESIDUE AT 105 DEG. C, DIS- SOLVED (MG/L) (00515)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	
Site 00460910, Rapid Creek near Farmingdale - Continued										
FEB 1990										
21...	206	--	--	--	661	--	12	--	<0.030	
MAR										
12...	159	--	--	--	1220	--	707	--	0.170	
APR										
26...	228	--	--	--	1040	--	44	--	<0.030	
MAY										
01...	243	--	--	--	1000	--	31	--	<0.030	
JUN										
06...	234	--	--	--	1040	--	196	--	<0.030	
JUL										
18...	220	--	--	--	892	--	124	--	0.040	
AUG										
07...	204	--	--	--	858	--	127	--	<0.030	
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	NITRO- GEN, NITRATE TOTAL (MG/L AS N) (00620)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00653)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM TOTAL (MG/L AS CACO3) (00910)
Site 00460910, Rapid Creek near Farmingdale - Continued										
FEB 1990										
21...	--	0.000	3.91	--	--	--	1.80	1.44	440	--
MAR										
12...	--	0.000	2.31	2.6	--	--	0.800	0.570	330	--
APR										
26...	--	0.000	<0.100	--	--	--	0.463	0.310	580	--
MAY										
01...	--	0.001	1.10	--	--	--	0.870	0.775	560	--
JUN										
06...	--	0.001	1.54	--	--	--	0.720	0.256	590	--
JUL										
18...	--	0.005	0.140	--	--	--	1.05	0.205	400	--
AUG										
07...	--	0.007	2.49	--	--	--	0.873	0.710	330	--

Table 3.--Chemical analyses of surface-water samples collected and analyzed by the South Dakota Department of Environment and Natural Resources at stations within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA) (00916)	CALCIUM RECOV. FM BOT- TOM MA- TERIAL (MG/KG AS CA) (00917)	MAGNES- IUM (MG/L AS CACO3) (00920)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG) (00927)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA) (00929)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K) (00937)
Site 00460910, Rapid Creek near Farmingdale - Continued										
FEB 1990										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	--	--	--	--	--	--	--	--	--	--
APR										
26...	--	--	--	--	--	--	--	--	--	--
MAY										
01...	--	130	--	--	--	57	86	--	--	--
JUN										
06...	--	170	--	--	--	40	94	--	--	--
JUL										
18...	--	89	--	--	--	42	66	--	--	--
AUG										
07...	--	74	--	--	--	34	67	--	--	--

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFATE (MG/L AS SO4) (00946)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	COLI- FORM, TOTAL, IMMED. PER (COLS. 100 ML) (31501)	COLI- FORM, CON- FIRMED (MPN) (31505)
Site 00460910, Rapid Creek near Farmingdale - Continued										
FEB 1990										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
12...	--	--	--	--	--	--	--	--	--	--
APR										
26...	--	--	--	--	--	--	--	--	--	--
MAY										
01...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
JUL										
18...	--	--	--	--	--	--	--	--	--	--
AUG										
07...	--	--	--	--	--	--	--	--	--	--

DATE	COLI- FORM, FECAL, EC BROTH (MPN) (31615)	COLI- FORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)	STREP- TOCOCCHI KF AGAR (COLS. PER 100 ML) (31673)	STREP- TOCOCCHI FECAL (MPN) (31677)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)	IRON, TOTAL (MG/L AS FE) (74010)
Site 00460910, Rapid Creek near Farmingdale - Continued							
FEB 1990							
21...	--	5	--	--	649	--	--
MAR							
12...	--	110	--	--	513	--	--
APR							
26...	--	5	--	--	996	--	--
MAY							
01...	--	13	--	--	969	--	--
JUN							
06...	--	600	--	--	848	--	--
JUL							
18...	--	120	--	--	768	--	--

Table 4.--Physical and chemical data determined from four synoptic samples collected during water year 1989 within the Rapid Creek basin downstream of Pactola Reservoir

[e, estimated; --, no data; <, less than]

STATION	NUMBER	DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
06411500		10-15-88	15	--	385	8.0	9.0	<1	<1	0.047
		12-21-88	15	--	386	8.8	3.0	5	3	<0.010
		04-13-89	14	375	--	8.7	5.5	4	12	<0.010
		08-01-89	76	382	--	8.3	9.0	5	5	0.015
06412200		10-15-88	15	--	375	8.6	11.0	<1	4	<0.010
		12-21-88	13	--	405	8.8	0.2	<1	<1	0.076
		04-13-89	15	380	--	8.8	8.5	7	11	<0.010
		08-01-89	74	364	--	8.5	22.0	1	<1	0.013
06413200		10-13-88	17	370	--	8.7	13.0	<1	<1	0.042
		12-21-88	18	360	--	8.0	4.5	14	<1	0.215
		04-13-89	23	360	--	8.0	8.5	18	7	0.020
		08-01-89	72	369	--	8.3	22.0	8	<1	0.040
06413650		10-16-88	0.77	--	1020	8.0	12.0	11	10	0.463
		12-22-88	0.98	1040	--	8.3	4.5	11	2	1.00
		04-14-89	0.65	1000	--	9.1	9.0	21	7	0.890
		08-01-89	0.36	1230	--	8.0	20.0	8	2	0.663
06413800		10-16-88	2.5	--	830	8.1	15.0	26	22	0.674
		12-22-88	2.4	900	--	8.3	5.0	32	5	0.928
		04-14-89	2.3	930	--	8.3	11.0	20	13	0.721
		08-01-89	1.9e	960	--	8.2	26.0	21	4	0.822
06421500		10-15-88	15	--	1190	8.9	15.0	20	3	1.40
		12-22-88	39	--	677	8.5	2.0	15	6	4.30
		04-14-89	25	1000	--	9.1	13.0	72	21	2.60
		08-01-89	8.6	1150	--	8.5	29.0	10	10	0.046
440124103054601		10-15-88	14	--	1520	8.0	18.9	<1	<1	15.0
		12-21-88	14	--	1530	7.5	11.0	16	6	12.0
		04-13-89	6.3	--	1430	--	13.5	14	23	9.10
		08-01-89	16	1090	--	7.8	24.5	15	<1	6.90
440126103054701		10-15-88	2.9	--	1080	8.3	14.0	8	3	0.021
		12-21-88	33	--	708	7.8	0.0	18	7	0.235
		04-13-89	20	--	729	--	9.5	46	12	0.048
		08-01-89	20	675	--	8.3	24.5	13	<1	0.015
440241103193701		10-16-88	1.2	--	387	8.0	11.0	<1	9	0.048
		12-21-88	1.0	--	395	8.1	1.3	11	5	0.095
		04-13-89	1.8	--	388	8.3	4.8	19	6	0.091
		08-01-89	2.1	390	--	8.0	12.0	4	<1	0.043
440259103235301		10-15-88	15e	--	377	8.5	10.0	16	1	<0.010
		12-21-88	16e	--	409	8.6	0.8	<1	<1	0.092
		04-13-89	15	--	393	8.7	6.2	3	8	0.033
		08-01-89	82	371	--	8.7	16.0	3	3	<0.010
440321103181101		10-15-88	6.6	--	389	8.4	11.5	2	<1	0.021
		12-21-88	6.6	--	398	8.4	20	4	<1	0.279
		04-13-89	5.4	--	383	8.8	12.6	6	8	0.028
		08-01-89	68	383	--	8.4	15.0	5	<1	<0.100

Table 4.--Physical and chemical data determined from four synoptic samples collected during water year 1989 within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
10-15-88	0.048	0.013	0.034	0.20	0.20	0.010	0.010	<0.010	<0.010
12-21-88	<0.010	0.010	0.003	<0.20	<0.20	0.010	<0.010	0.020	<0.010
04-13-89	0.022	0.008	0.004	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010
08-01-89	0.015	0.003	0.003	<0.20	0.30	<0.010	<0.010	<0.010	0.010
10-15-88	<0.010	0.004	0.046	0.30	0.30	0.020	0.010	0.010	0.020
12-21-88	0.063	0.009	<0.002	<0.20	<0.20	0.010	<0.010	<0.010	<0.010
04-13-89	0.024	<0.002	<0.002	0.30	0.30	<0.010	<0.010	<0.010	<0.010
08-01-89	<0.010	<0.002	0.008	<0.20	0.20	<0.010	<0.010	<0.010	<0.010
10-13-88	0.044	0.015	0.026	<0.20	0.40	0.030	0.010	<0.010	0.010
12-21-88	0.100	0.024	0.038	<0.20	<0.20	0.030	0.010	<0.010	<0.010
04-13-89	0.019	0.012	0.011	<0.20	0.20	0.020	<0.010	<0.010	<0.010
08-01-89	0.039	0.022	0.031	1.5	1.9	0.030	0.020	0.010	0.020
10-16-88	0.459	0.074	0.153	0.40	0.40	0.010	0.010	<0.010	<0.010
12-22-88	0.148	0.011	0.074	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010
04-14-89	0.886	0.020	0.025	0.20	0.30	<0.010	<0.010	<0.010	<0.010
08-01-89	0.541	0.012	0.034	<0.20	0.40	0.010	0.010	<0.010	0.010
10-16-88	0.673	0.033	0.109	0.30	0.40	0.030	0.020	<0.010	0.010
12-22-88	0.373	0.009	0.083	<0.20	0.40	0.050	0.010	<0.010	<0.010
04-14-89	0.753	<0.002	<0.002	0.30	0.50	0.040	0.010	0.020	0.020
08-01-89	0.728	<0.002	0.018	<0.20	0.30	0.030	<0.010	<0.010	<0.010
10-15-88	1.30	0.045	0.123	0.60	0.70	0.880	0.880	0.680	0.740
12-22-88	4.30	0.057	0.139	0.80	0.80	1.50	1.50	1.30	1.20
04-14-89	2.30	<0.002	<0.002	0.80	1.8	0.920	0.630	0.580	0.670
08-01-89	0.029	<0.002	0.018	0.30	1.2	0.480	0.280	0.205	0.260
10-15-88	14.0	0.199	0.154	1.8	2.0	7.20	6.90	5.60	5.90
12-21-88	11.0	0.282	0.252	2.8	3.2	7.00	7.00	27.0	5.50
04-13-89	8.70	7.20	7.20	<0.20	13	15.0	11.0	5.00	5.50
08-01-89	7.40	0.227	0.195	3.1	3.5	6.30	4.20	3.70	4.80
10-15-88	0.045	0.064	0.132	0.40	0.50	0.040	0.030	0.050	0.100
12-21-88	0.218	0.026	<0.002	<0.20	0.30	0.020	<0.010	<0.010	<0.010
04-13-89	<0.010	<0.002	<0.002	<0.20	0.30	0.060	0.060	0.030	0.020
08-01-89	<0.010	<0.002	0.015	<0.20	0.40	0.040	0.010	0.010	0.020
10-16-88	0.054	0.006	0.047	<0.20	<0.20	0.010	0.010	<0.010	<0.010
12-21-88	0.092	0.003	<0.002	0.20	0.20	0.020	0.020	0.040	0.010
04-13-89	0.120	0.005	<0.002	0.20	0.30	<0.010	<0.010	<0.010	<0.010
08-01-89	0.043	<0.002	<0.002	<0.20	0.20	<0.010	<0.010	<0.010	<0.010
10-15-88	<0.010	0.008	0.014	0.30	0.30	0.010	0.010	<0.010	<0.010
12-21-88	0.078	0.009	<0.002	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010
04-13-89	0.023	<0.002	<0.002	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010
08-01-89	0.013	<0.002	0.005	0.20	0.20	0.010	0.240	0.220	0.010
10-15-88	0.014	0.012	0.048	0.30	--	0.010	0.010	<0.010	<0.010
12-21-88	0.048	0.007	0.068	0.20	0.20	0.090	0.010	<0.010	0.040
04-13-89	0.021	0.011	0.009	<0.20	0.20	<0.010	<0.010	<0.010	<0.010
08-01-89	0.030	0.002	<0.002	0.70	2.5	0.020	0.020	0.020	0.040

Table 4.--Physical and chemical data determined from four synoptic samples collected during water year 1989 within the Rapid Creek basin downstream of Pactola Reservoir--Continued

STATION	NUMBER	DATE	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	RESIDUE VOLA- TILE, SUS- PENDE (MG/L) (00535)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
440330103175101		10-15-88	8.1	--	391	8.2	11.5	3	<1	0.069
		12-21-88	4.8	--	397	8.1	4.5	3	<1	0.111
		04-13-89	6.0	--	385	8.1	12.6	12	14	0.083
		08-01-89	68	385	--	8.4	18.0	12	<1	0.018
440331103175001		10-15-88	11	--	375	7.7	12.5	<1	6	--
		12-21-88	10	--	375	7.8	10.0	4	1	0.054
		04-13-89	9.8	--	372	7.7	14.7	17	9	0.301
		08-02-89	11.2	438	--	7.9	13.0	2	<1	0.299
440336103105801		10-15-88	13	--	636	8.3	13.5	<1	<1	0.020
		12-21-88	20	--	605	8.6	2.3	9	1	0.328
		04-13-89	22	--	602	8.6	11.4	16	11	0.042
		08-01-89	48	437	--	--	--	24	4	<0.010
440428103154901		10-16-88	16	--	395	6.4	12.0	<1	7	<0.010
		12-21-88	12	--	397	8.5	5.5	8	2	0.235
		04-13-89	20	--	385	8.4	10.0	29	9	0.018
		08-01-89	65	380	--	8.9	20.0	1	1	0.011
440455103151901		10-16-88	8.9	--	451	8.7	14.6	5	25	<0.010
		12-21-88	16	--	471	8.5	2.5	12	11	0.288
		04-13-89	23	--	430	8.5	11.0	30	19	0.079
		08-01-89	55	381	--	8.8	24.0	2	<1	<0.010
440457103263301		10-15-88	15	--	380	8.3	9.0	<1	<1	0.013
		12-21-88	18	--	392	8.7	0.4	7	1	0.021
		04-13-89	13	--	385	9.6	4.6	6	16	0.010
		08-01-89	82	380	--	8.4	11.0	1	4	<0.010

Table 4.--Physical and chemical data determined from four synoptic samples collected during water year 1989 within the Rapid Creek basin downstream of Pactola Reservoir--Continued

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
10-15-88	0.048	0.010	0.021	0.20	0.20	0.010	0.010	<0.010	<0.010
12-21-88	0.117	0.008	<0.002	<0.20	<0.20	0.010	0.010	<0.010	<0.010
04-13-89	0.116	<0.002	<0.002	0.20	0.20	0.010	<0.010	<0.010	<0.010
08-01-89	0.018	<0.002	<0.002	<0.20	<0.20	0.010	<0.010	<0.010	<0.010
10-15-88	--	--	--	--	--	0.070	0.050	0.040	0.040
12-21-88	0.256	0.103	<0.002	0.20	0.20	<0.010	0.040	0.040	<0.010
04-13-89	0.287	0.158	0.152	0.20	0.50	0.090	0.050	0.040	0.050
08-02-89	0.243	0.066	0.093	<0.20	<0.20	0.030	0.030	0.020	0.020
10-15-88	0.015	0.012	0.076	0.30	0.40	0.020	0.020	<0.010	0.010
12-21-88	0.309	0.016	<0.002	0.20	0.20	<0.010	<0.010	<0.010	<0.010
04-13-89	<0.010	<0.002	<0.002	0.20	0.40	0.010	0.010	0.020	0.020
08-01-89	<0.010	<0.002	<0.002	<0.20	0.30	0.020	0.010	<0.010	0.020
10-16-88	0.012	<0.002	0.020	0.20	0.30	0.020	0.010	0.010	0.010
12-21-88	0.264	0.018	0.014	0.20	0.30	0.010	0.040	0.030	<0.010
04-13-89	0.013	0.011	<0.002	0.20	0.30	0.050	<0.010	<0.010	0.010
08-01-89	0.010	<0.002	0.007	<0.20	<0.20	0.020	<0.010	<0.010	0.020
10-16-88	0.010	<0.002	0.050	0.30	0.40	0.020	0.010	<0.010	<0.010
12-21-88	0.273	0.030	0.021	<0.20	0.70	0.010	<0.010	<0.010	<0.010
04-13-89	0.037	<0.002	0.011	0.20	0.50	0.010	0.010	0.010	0.010
08-01-89	<0.010	<0.002	<0.002	0.20	<0.20	0.020	<0.010	<0.010	0.010
10-15-88	0.018	0.005	0.019	<0.20	<0.20	0.010	0.010	<0.010	<0.010
12-21-88	<0.010	0.009	<0.002	<0.20	<0.20	0.020	<0.010	<0.010	<0.010
04-13-89	0.057	0.030	<0.002	0.30	0.30	<0.010	<0.010	<0.010	<0.010
08-01-89	<0.010	<0.002	<0.002	<0.20	<0.20	<0.010	<0.010	<0.010	<0.010

Table 5.--Physical and chemical data determined from samples collected during a 14-hour period at Cleghorn Springs Main Channel at Fish Hatchery, Rapid City, SD (station 06412600)

[--, no data]

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
06-01-89	0800	8.0	0.278	0.359	0.134	0.138
06-01-89	0815	8.0	0.274	0.287	0.126	0.126
06-01-89	0830	8.0	0.268	0.277	0.129	0.134
06-01-89	0845	8.0	0.270	0.272	0.131	0.146
06-01-89	0900	8.0	0.267	0.336	0.140	0.135
06-01-89	0930	8.3	0.264	0.275	0.138	0.142
06-01-89	1000	8.0	0.273	0.270	0.128	0.139
06-01-89	1030	8.3	0.282	0.308	0.138	0.143
06-01-89	1100	8.3	0.272	0.276	0.124	0.128
06-01-89	1130	7.7	0.265	0.272	0.115	0.094
06-01-89	1200	8.0	0.271	0.283	0.153	0.155
06-01-89	1230	7.6	0.268	0.279	0.171	0.151
06-01-89	1300	7.7	0.271	0.281	0.153	0.161
06-01-89	1330	7.8	0.277	0.281	0.169	0.175
06-01-89	1400	7.8	0.278	0.271	0.184	0.198
06-01-89	1430	7.7	0.273	0.304	0.164	0.167
06-01-89	1445	7.7	0.268	0.282	0.169	0.162
06-01-89	1730	7.8	--	--	--	--
06-01-89	1800	7.8	0.275	0.278	0.190	0.192
06-01-89	1830	7.8	0.271	0.279	0.184	0.181
06-01-89	1900	7.8	0.269	0.270	0.173	0.176
06-01-89	1930	7.8	0.275	0.279	0.176	0.174
06-01-89	2000	7.8	0.276	0.266	0.183	0.187

DATE	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS ORTHO TOTAL (MG/L AS P) (70507)
06-01-89	0.50	0.70	0.070	0.050	0.050	0.070
06-01-89	0.50	0.60	0.070	0.050	0.040	0.070
06-01-89	0.30	0.50	0.050	0.040	0.050	0.060
06-01-89	0.60	0.60	0.060	0.050	0.050	0.060
06-01-89	0.30	0.40	0.050	0.040	0.050	0.060
06-01-89	0.70	0.70	0.070	0.060	0.050	0.060
06-01-89	0.20	0.30	0.050	0.040	0.050	0.070
06-01-89	0.70	0.70	0.090	0.050	0.060	0.070
06-01-89	0.50	0.80	0.060	0.060	0.050	0.060
06-01-89	0.30	0.50	0.140	0.100	0.120	0.130
06-01-89	0.60	0.70	0.220	0.190	0.170	0.200
06-01-89	0.70	0.50	0.320	0.280	0.260	0.290
06-01-89	0.40	0.40	0.090	0.080	0.090	0.100
06-01-89	0.20	0.40	0.060	0.050	0.060	0.070
06-01-89	0.70	0.70	0.070	0.060	0.060	0.070
06-01-89	0.70	1.0	0.140	0.110	0.120	0.150
06-01-89	0.60	0.70	0.210	0.190	0.200	0.220
06-01-89	--	--	--	--	--	--
06-01-89	0.90	0.80	0.080	0.070	0.070	0.070
06-01-89	0.60	0.60	0.070	0.060	0.060	0.070
06-01-89	0.50	0.40	0.050	0.040	0.060	0.060
06-01-89	0.70	0.60	0.060	0.040	0.050	0.060
06-01-89	0.70	0.60	0.060	0.050	0.050	0.060