WATER-RESOURCES DATA FOR INDIANA COUNTY, PENNSYLVANIA

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CONVERSION FACTORS AND ABBREVIATIONS

Multiply inch-pound unit	By	To obtain metric unit
	Length	
inch (in.)	25.4	millimeter (mm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
	Area	
square mile (mi^2)	2.590	square kilometer (km^2)
	Volume	
gallon (gal)	3.785	liter (L)
gallon (gal)	0.003785	cubic meter (m^3)
	Flow	
cubic foot per second (ft^3/s)	0.02832	cubic meter per second (m^3/s)
cubic foot per second per square mile [$(ft^3/s)/mi^2$]	0.01093	cubic meter per second per square kilometer [$(m^3/s)/km^2$]
gallon per minute (gal/min)	0.06308	liter per second (L/s)
	Temperature	
degree Fahrenheit (°F)	°C = 5/9 (°F-32)	degree Celsius (°C)
	Specific capacity	
gallon per minute per foot [(gal/min)/ft]	0.2070	liter per second per meter [(L/s)/m]

Other Abbreviations

milligrams per liter (mg/L)
micrograms per liter ($\mu g/L$)

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ABSTRACT

Hydrologic data were collected during a water-resources study throughout Indiana County, Pennsylvania, from May 1986 through September 1988. Surface-water data include average-daily discharges at 9 streamflow-gaging stations, water-quality data collected at 9 streamflow-gaging stations and 22 intermittent sites, seepage-run data for 20 subbasins in the South Branch Plum Creek basin and 23 subbasins in the Cherry Run basin, and daily precipitation amounts in the South Branch Plum Creek and Cherry Run basins. Ground-water data include well-inventory data for 517 wells, spring-inventory data for 133 springs, well-water quality for 300 wells, spring-water quality for 118 springs, observation-well hydrographs for 19 wells, and aquifer-test data for 22 wells. Maps of the county show the location of the townships and boroughs, the data-collection sites, and the 7-1/2-minute quadrangles used in the study. A glossary is provided for users of the report who are unfamiliar with hydrologic terminology.

INTRODUCTION

The U.S. Geological Survey, in cooperation with the Pennsylvania Bureau of Topographic and Geologic Survey and the Indiana County Commissioners, conducted a water-resources investigation throughout Indiana County from May 1986 through September 1988. The investigation was conducted to describe the water resources of the County and determine the effect, if any, of coal mining and gas-well drilling on the water resources.

Purpose and Scope

This report provides a compilation of data collected during the investigation. Maps show county subdivisions with respect to 7-1/2-minute quadrangles (fig. 1), townships and boroughs, and the location of all data-collection sites. Data tables and illustrations are presented to show the surface-water, ground-water, and water-quality data collected at the data-collection sites.

Study Area

Indiana County is in west-central Pennsylvania and includes an area of 825 mi^2 (square miles). The county is bordered on the north by Jefferson County, on the east by Clearfield and Cambria Counties, on the south by Westmoreland County, and on the west by Armstrong County. The county has 24 townships and 15 boroughs (fig. 2). The two main population centers include Indiana, in the central part of the county, and Blairsville on the south-central border of the county.

The 1 to 50,000 scale map (plate 1) of Indiana County shows the location of all data sites.

A network of surface-water and ground-water data-collection sites was established throughout the county to provide detailed data for the evaluation of its water resources (fig. 3). Most of Indiana County is drained by westward-flowing tributaries of the Allegheny River basin. The major streams include Mahoning Creek, Little Mahoning Creek, South Branch Plum Creek, Crooked Creek, Blacklegs Creek, Two Lick Creek, Yellow Creek, Blacklick Creek, and numerous smaller tributaries of the Conemaugh River. The Conemaugh River forms the southern boundary of the county. The northeastern corner of the county is drained by the headwaters of the West Branch Susquehanna River. Major tributaries include South Branch Bear Run, Cush Creek, and Cush Cushion Creek.

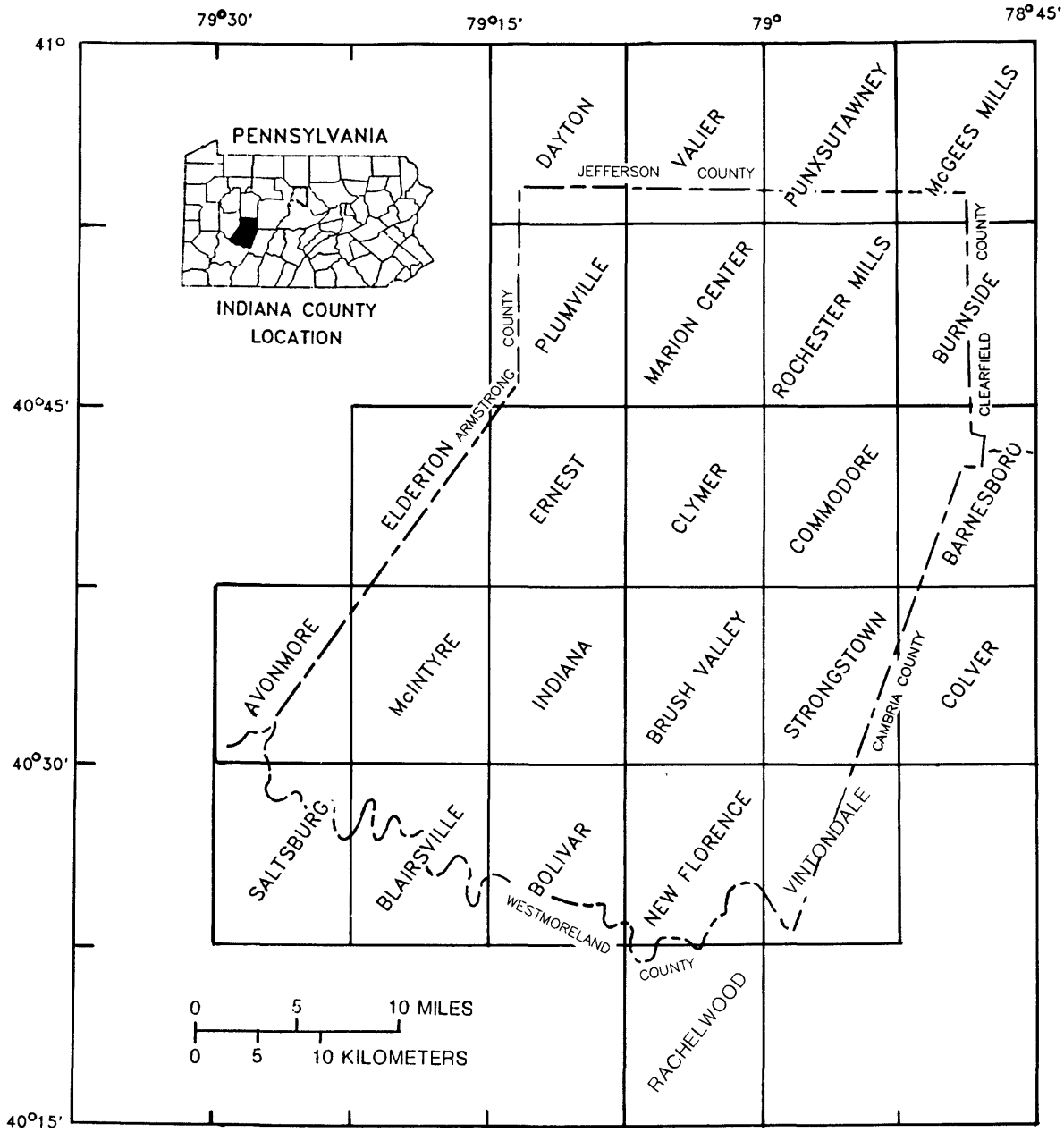

Figure 1.--Indiana County with 7 1/2-minute quadrangle coverage.

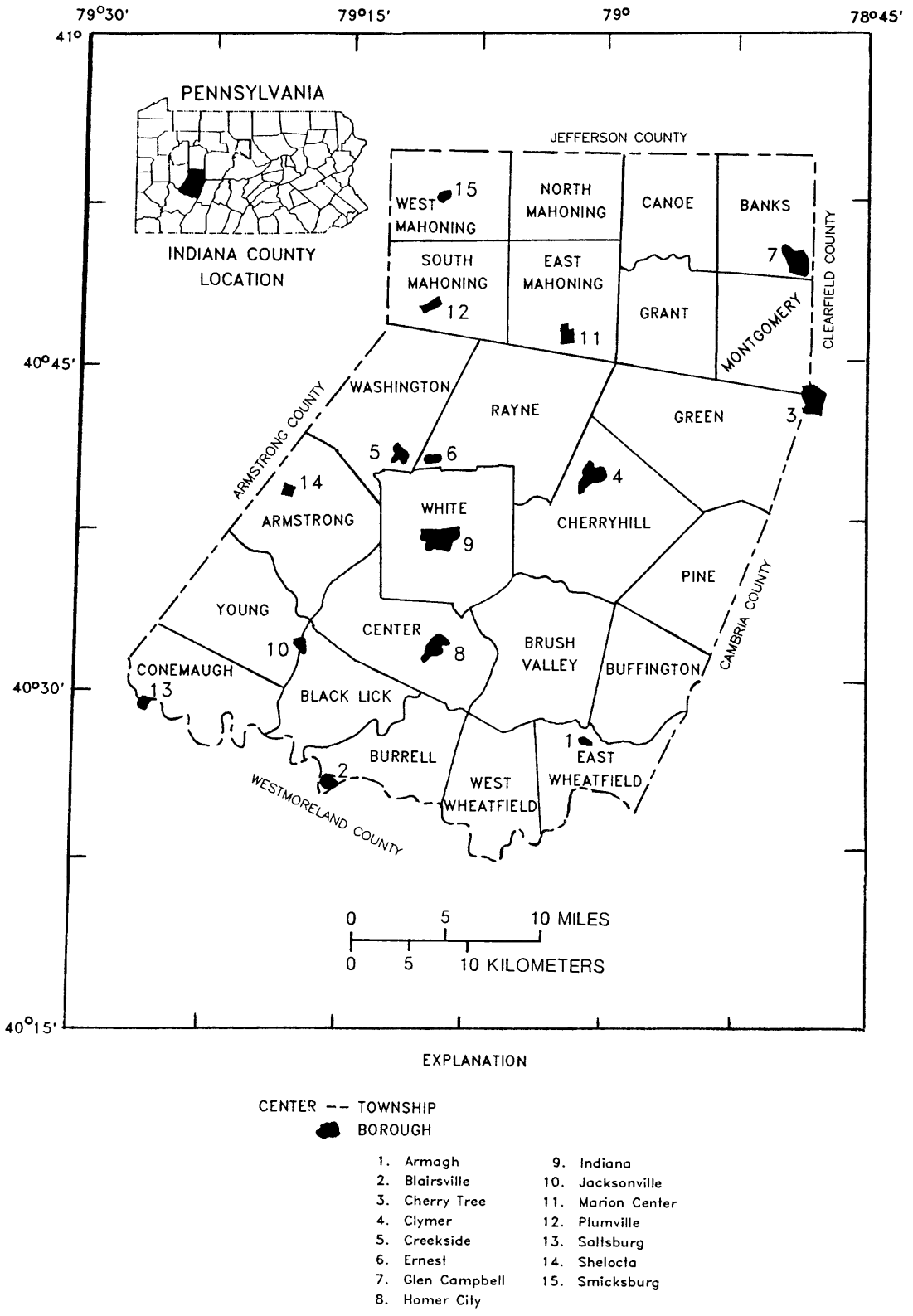

Figure 2.--Indiana County with townships and boroughs.

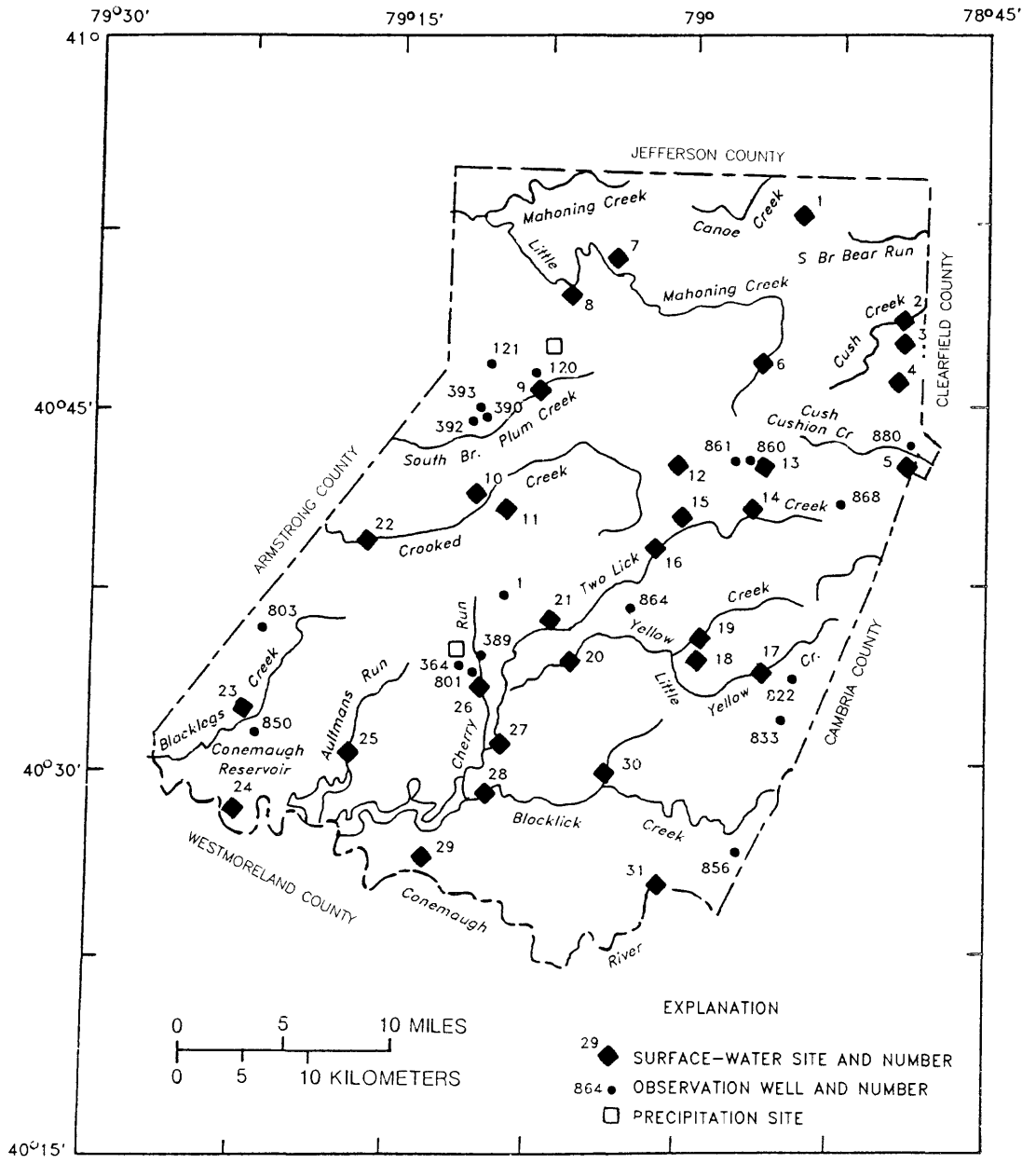

Figure 3.--Data-collection sites. (See table 3 for a list of the surface-water sites and table 13 for a list of observation wells)

Geologic Setting

Indiana County is underlain by a sequence of sedimentary rocks consisting of shale, siltstone, and claystone, with minor amounts of limestone and coal. Overlying the sedimentary rocks are unconsolidated deposits. The Mississippian-Devonian age Rockwell **Formation**[1] is the oldest rock exposed in the county. Above it, in decreasing age, are the Mississippian age Burgoon Sandstone, Loyalhanna Formation, and Mauch Chunk Formation. Pennsylvanian age rocks, from oldest to youngest, are the Pottsville Group, Allegheny Group, Conemaugh Group (Glenshaw and Casselman Formations), and the Monongahela Group. A Jurassic Age kimberlite was intruded near Dixonville. The unconsolidated deposits are the Pleistocene age Carmichaels Formation and Holocene age alluvium. The major coal seams in the county are included in the Monongahela and Allegheny Groups.

The geologic structure is characterized by simple, open folds that generally **strike** N. 30° E. There are four major **anticlines** and five major **synclines**. From west to east these features are Caledonia syncline, Dutch Run anticline, Elders Ridge syncline, Jacksonville anticline, Dixonville and Nashville synclines, Chestnut Ridge anticline, Brush Valley syncline, Nolo anticline, and Ligonier syncline. **Amplitude** of folding on Chestnut Ridge approaches 2,100 ft (feet), with bedrock **dips** commonly about 7.0°. Elsewhere in the county folding amplitude is gentler, typically 500 to 1,000 ft, with dips of about 2.5°. Dips steepen slightly to the east.

Acknowledgments

The authors gratefully acknowledge the interest and cooperation of individual landowners, companies, and municipalities who provided access to their properties for the collection of field data for the study. We particularly thank those who allowed the installation of hydrologic monitoring equipment on their properties for the collection of data.

[1]Words in bold type are defined in the glossary.

DATA BASE

Precipitation

Daily precipitation was measured by the U.S. Gelogical Survey in the South Branch Plum Creek basin (station no. 404656079064901) and the Cherry Run basin (station no. 403450079120401), and the data are presented by water year[1] in tables 1 and 2, respectively. Figure 4 shows the daily precipitation amounts in the South Branch Plum Creek basin and the Cherry Run basin.

Surface Water

Continuous long-term **streamflow** data were collected at seven **gaging stations**, and continuous short-term streamflow data were collected at two gaging stations. Instantaneous discharges were measured at 22 intermittent sites.

Surface-water-quality data were collected at all 31 sites during high and low **base-flow** conditions. Five base-flow sampling runs were completed. Water-quality analyses included **specific conductance**, **pH**, temperature, and concentrations of **hardness**, **acidity**, calcium, magnesium, sodium, potassium, **alkalinity**, sulfate, chloride, fluoride, silica, **dissolved solids**, nitrate, aluminum, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, strontium, and zinc. Table 6 gives the maximum contaminant levels (MCLs[2]) and the recommended maximum contaminant levels (RMCLs[2]) for drinking water for public supply systems as established by the U.S. Environmental Protection Agency (1986).

High and low base-flow-seepage-run data were collected in the subbasins of South Branch Plum Creek (fig. 5) and Cherry Run (fig. 6). The data included streamflow, specific conductance and water temperature and are presented in tables 7 and 8, respectively.

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[1]A water year is the 12-month period beginning on October 1 and ending on September 30. It is designated by the year in which it ends.

[2]U.S. Environmental Protection Agency maximum contaminant levels (MCLs) are levels of drinking-water contaminants that could cause health effects if exceeded, and are enforceable by law. Recommended maximum contaminant levels (RMCLs) are levels of drinking-water contaminants that are not health related and are intended to protect public welfare by establishing unenforceable guidelines on the taste, odor, or color of drinking water.

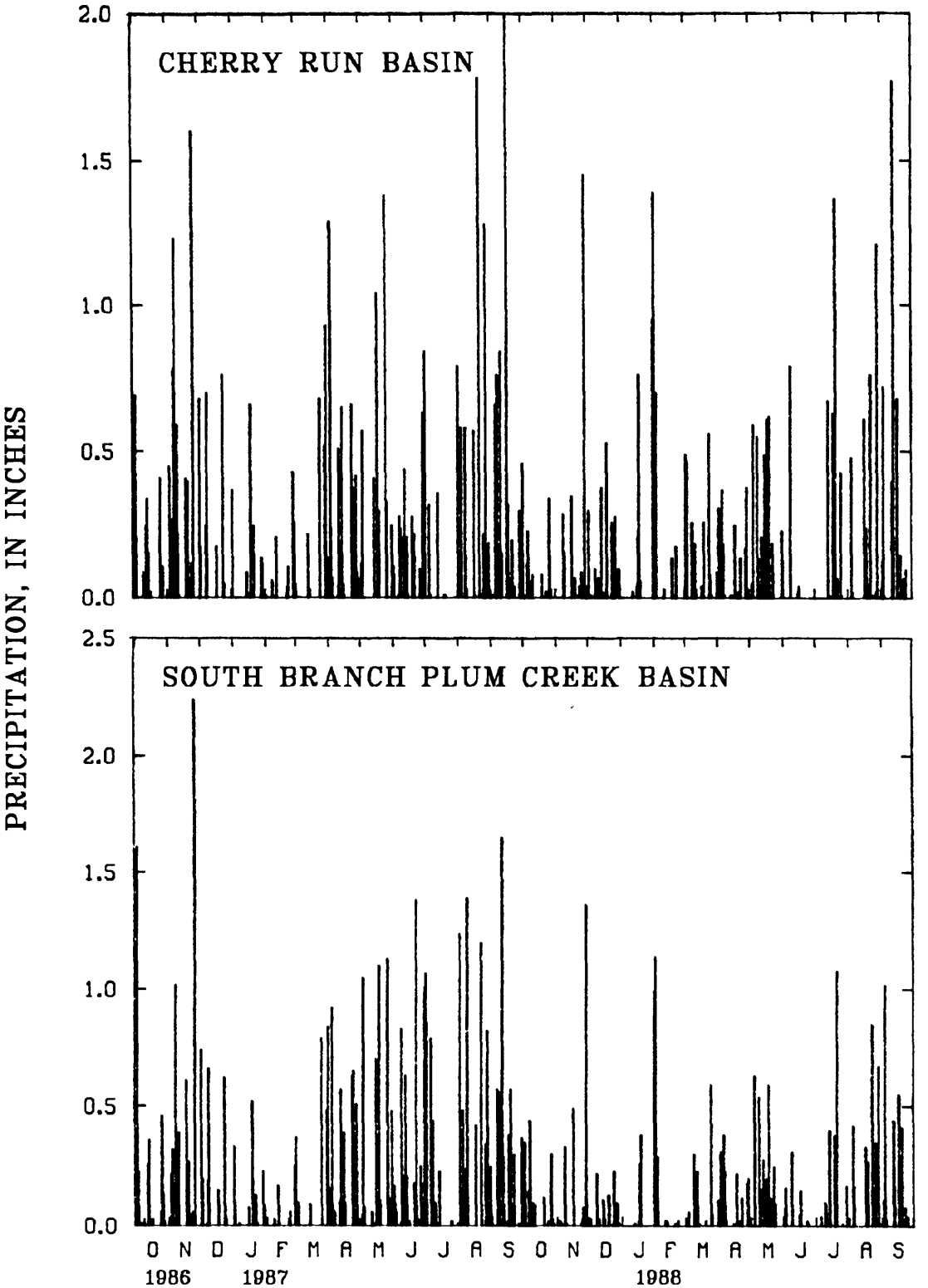

Figure 4.--Daily sum of precipitation in the Cherry Run basin and the South Branch Plum Creek basin, water years 1987-88.

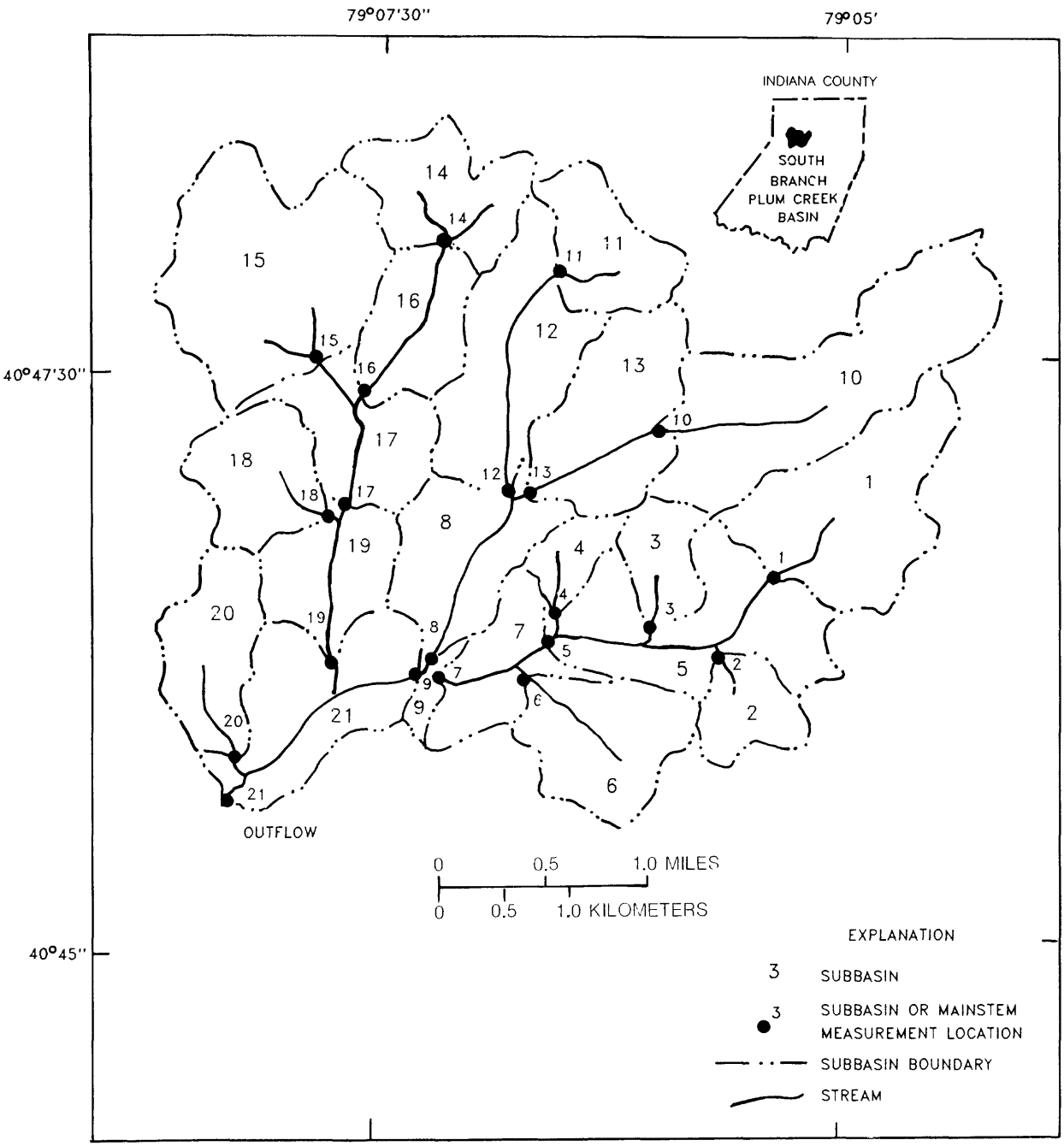

Figure 5.--Subbasins of South Branch Plum Creek. (See table 7 for drainage areas and seepage-run data).

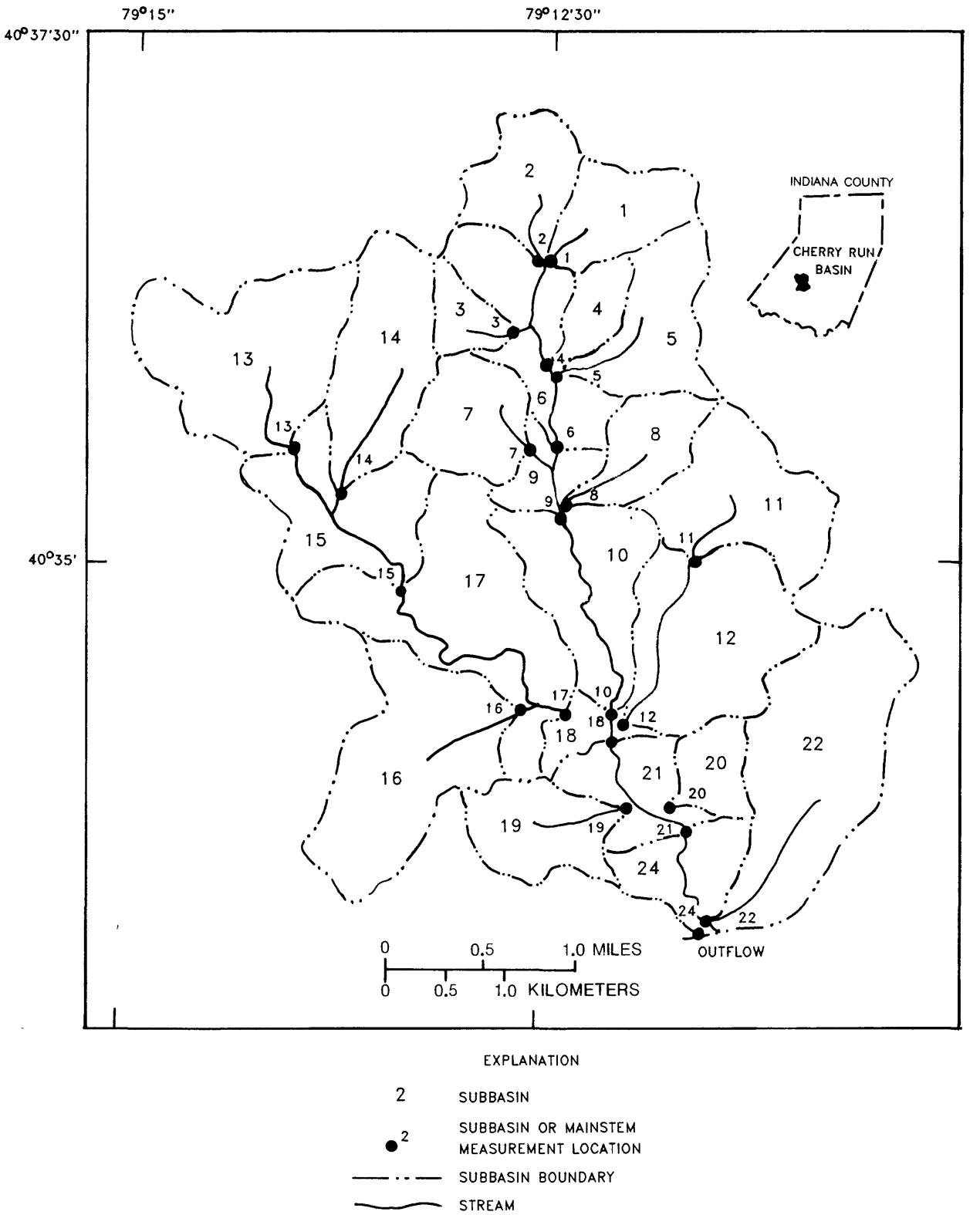

Figure 6.--Subbasins of Cherry Run. (See table 8 for drainage areas and seepage-run data).

Ground Water

Table 9 is a compilation of the water wells inventoried throughout the study. Many of the well locations were obtained from water-well-inventory reports completed by the drillers and filed with the Pennsylvania Geological Survey. The data in table 9 are from both the water-well-inventory reports and from field observations made at the time of the site visit.

Table 10 is a compilation of the springs inventoried throughout the study. Most spring locations were obtained from landowner replies to a local newspaper request for spring information throughout the county.

Many of the inventoried wells and springs were analyzed for water quality (tables 11-12). The water quality analyses included specific conductance, pH, and concentrations of dissolved solids, hardness, calcium, magnesium, sodium, potassium, acidity, alkalinity, sulfate, chloride, fluoride, silica, nitrate, aluminum, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, strontium, and sulfide.

Continuous water-level data were collected at 19 observation wells (table 13, figs. 7-16) and aquifer tests were performed on most of the observation wells and at other miscellaneous well sites (table 14).

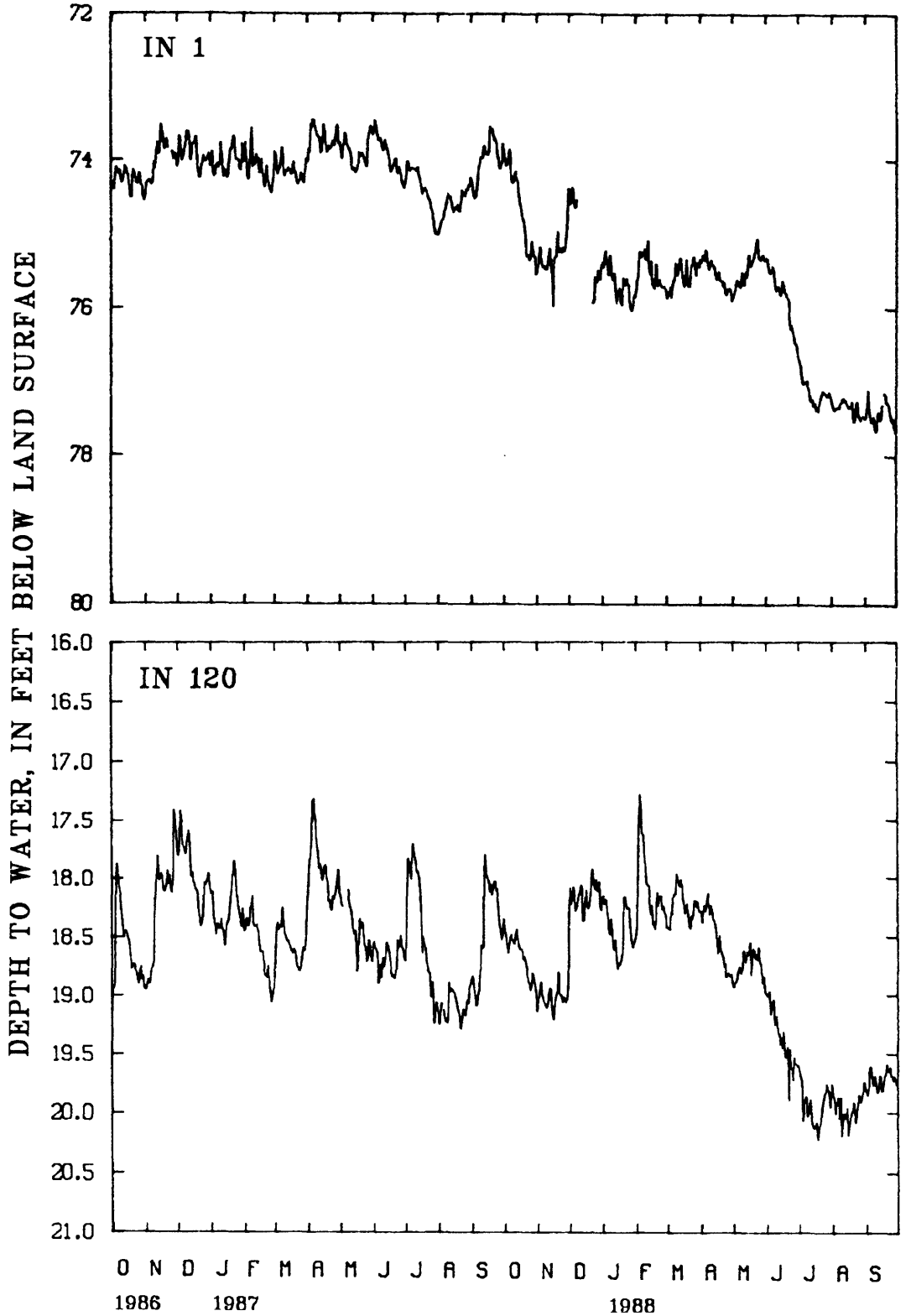

Figure 7.--Maximum daily depth to water level in wells IN 1 and IN 120 for water years 1987-88.

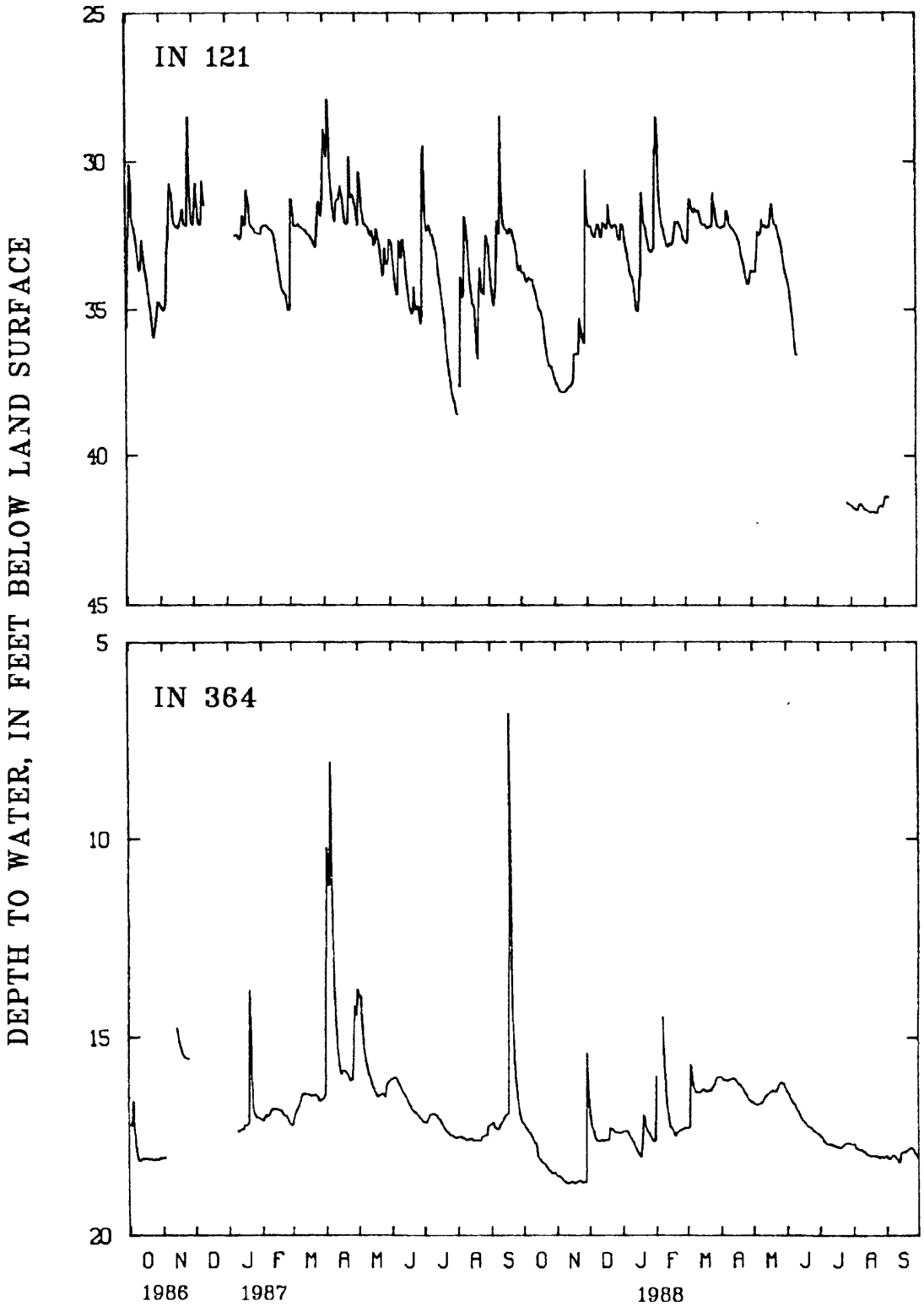

Figure 8.--Maximum daily depth to water level in wells IN 121 and IN 364 for water years 1987-88.

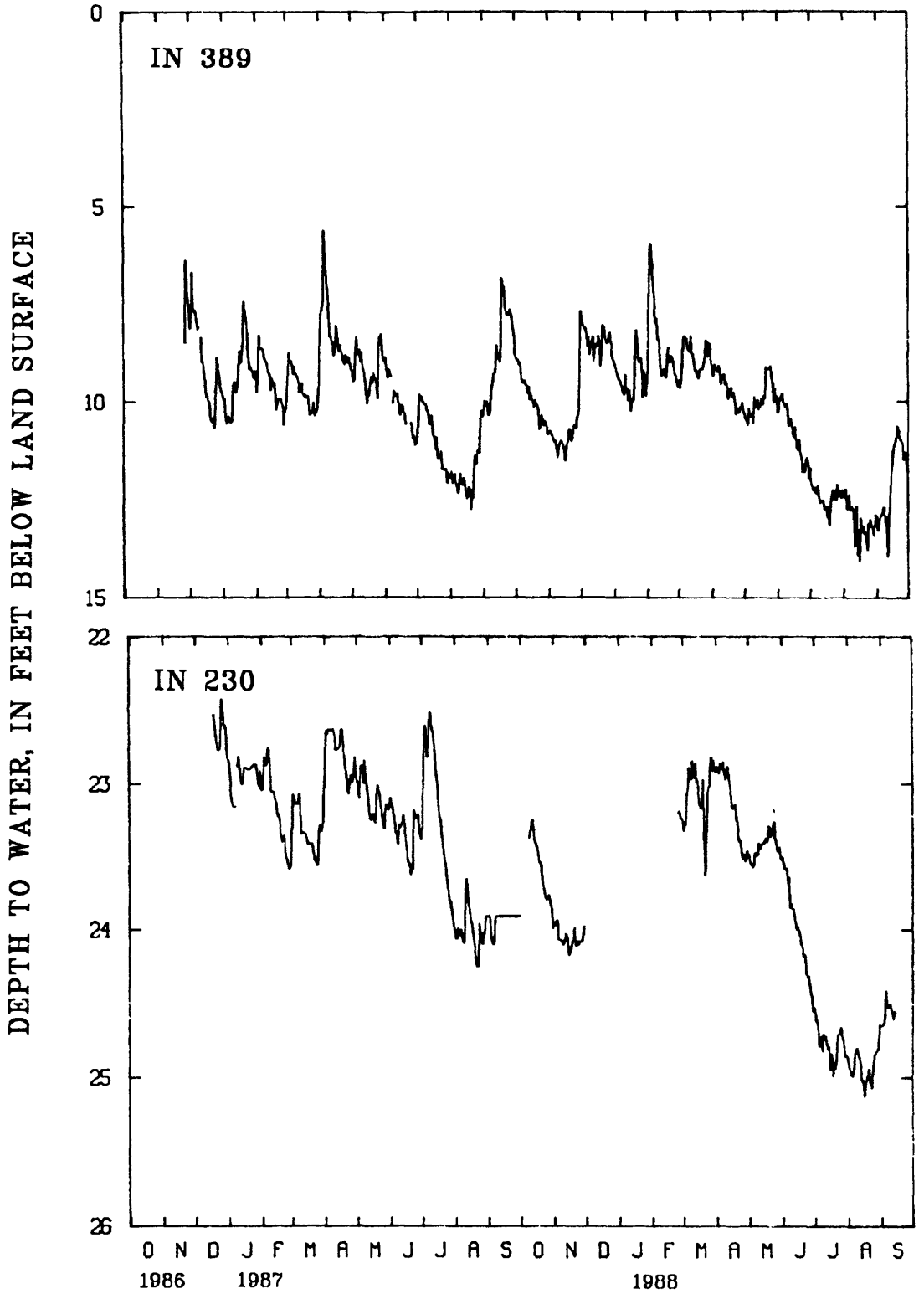

Figure 9.--Maximum daily depth to water level in wells IN 389 and IN 230 for water years 1987-88.

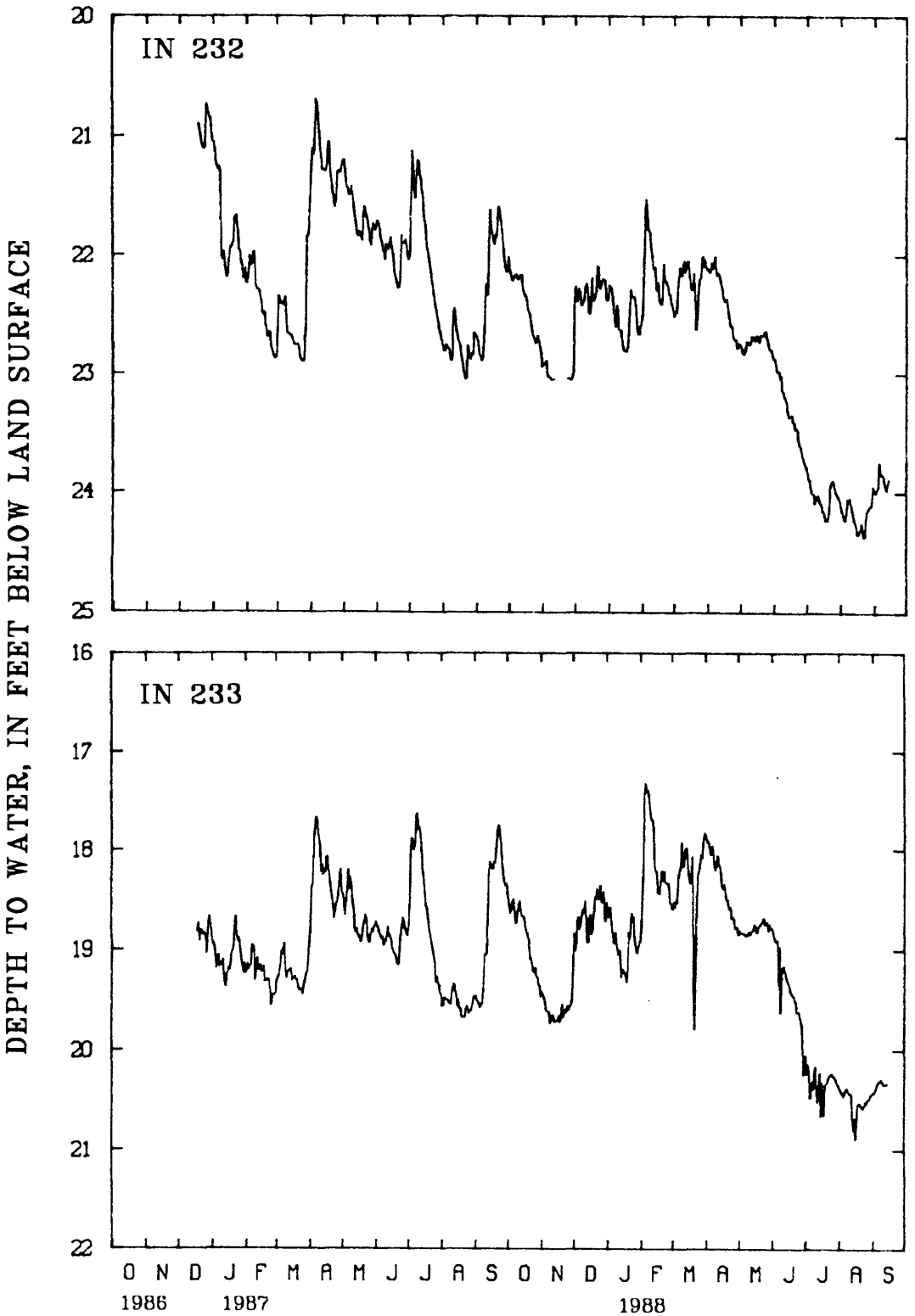

Figure 10.--Maximum daily depth to water level in wells IN 232 and IN 233 for water years 1987-88.

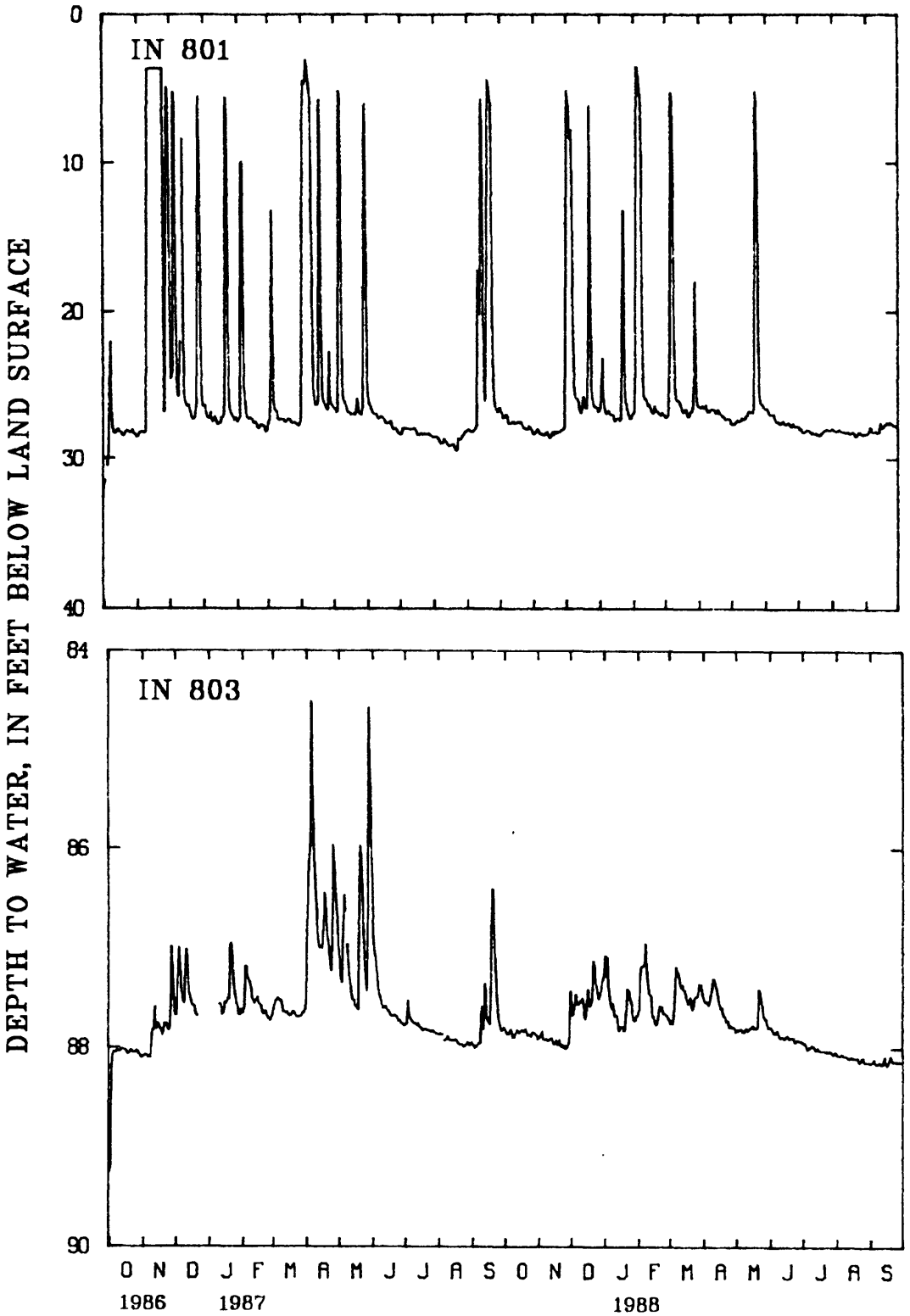

Figure 11.--Maximum daily depth to water level in wells IN 801 and IN 803 for water years 1987-88.

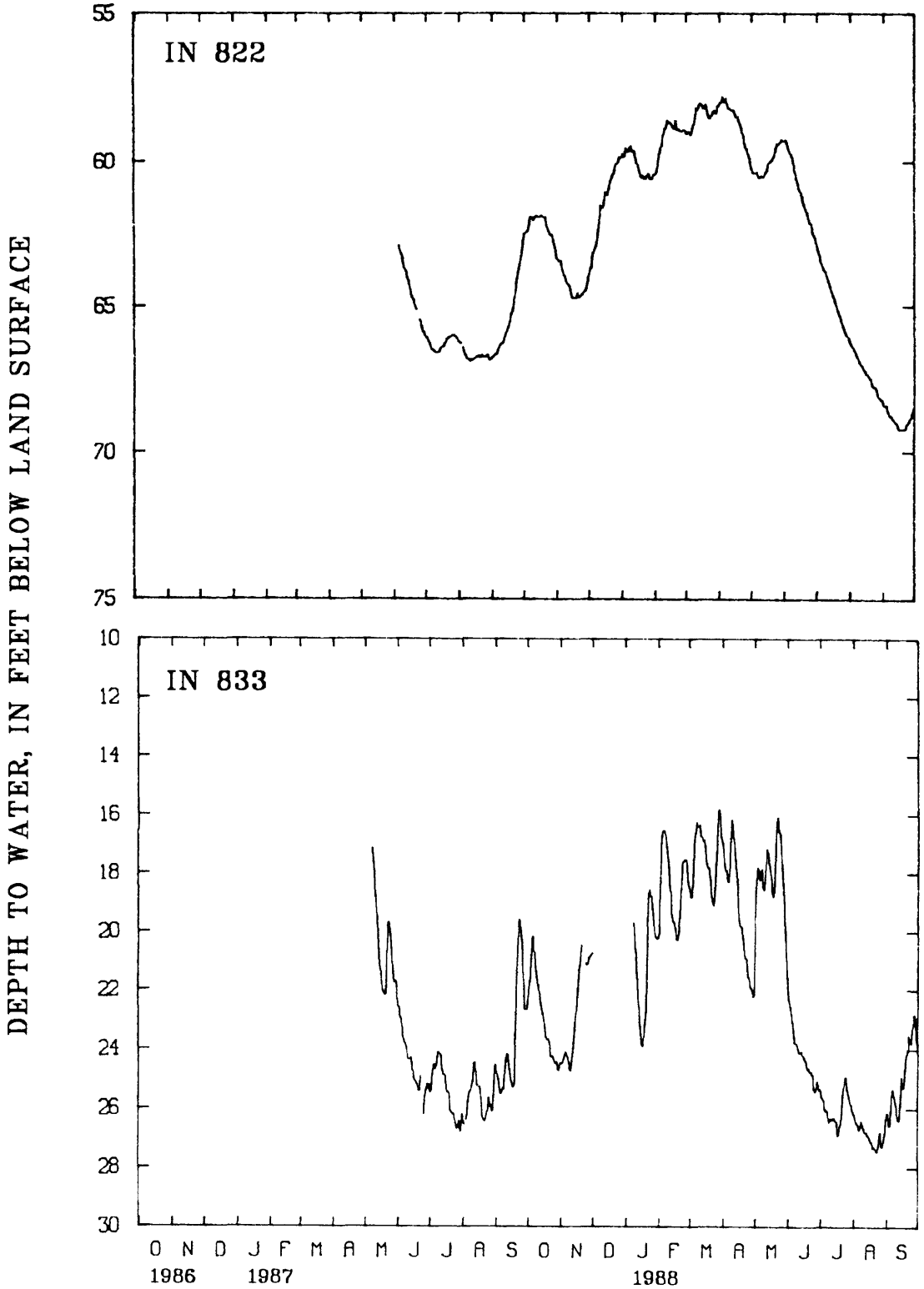

Figure 12.--Maximum daily depth to water level in wells IN 822 and IN 833 for water years 1987-88.

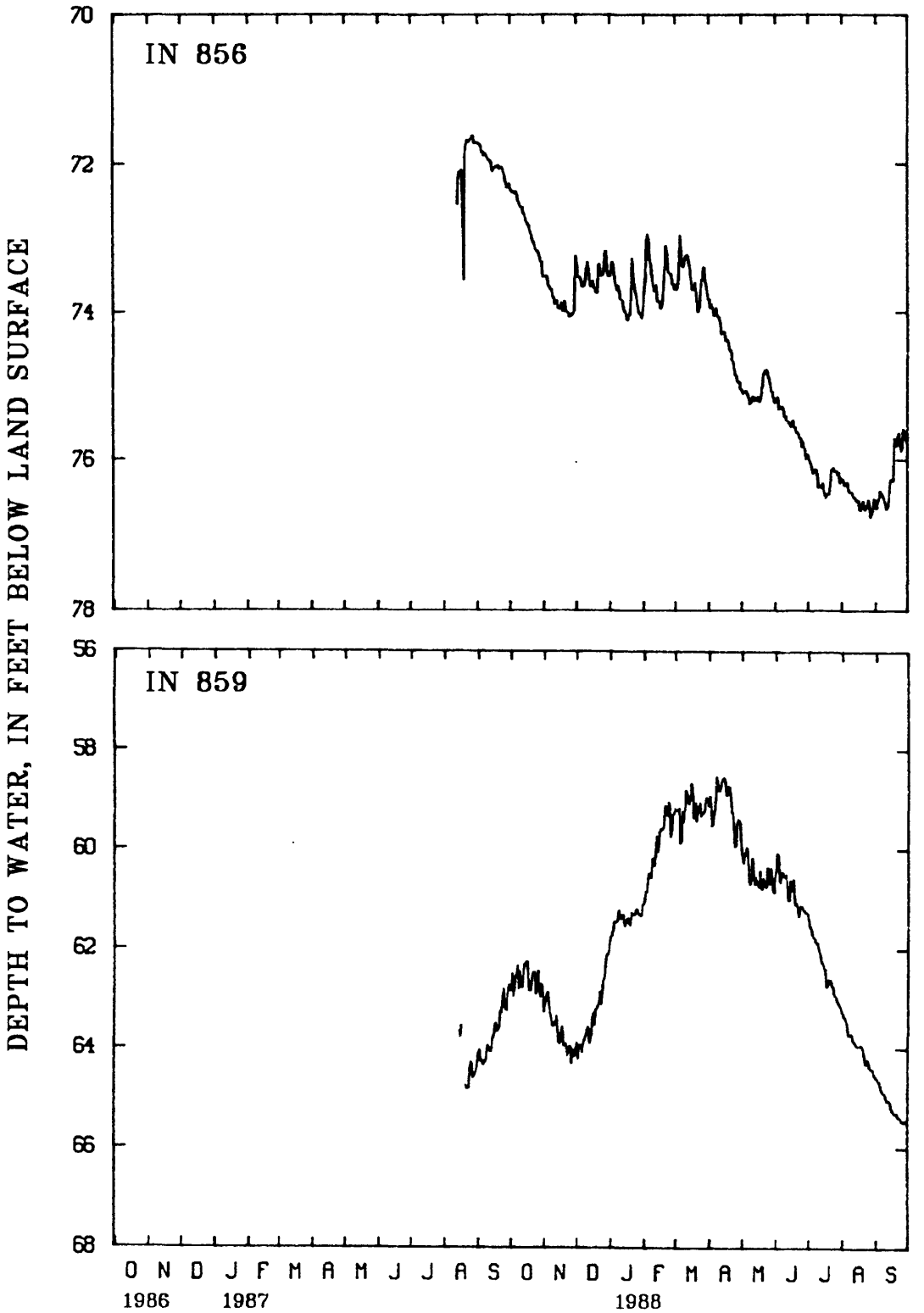

Figure 13.–Maximum daily depth to water level in wells IN 856 and IN 859 for water years 1987-88.

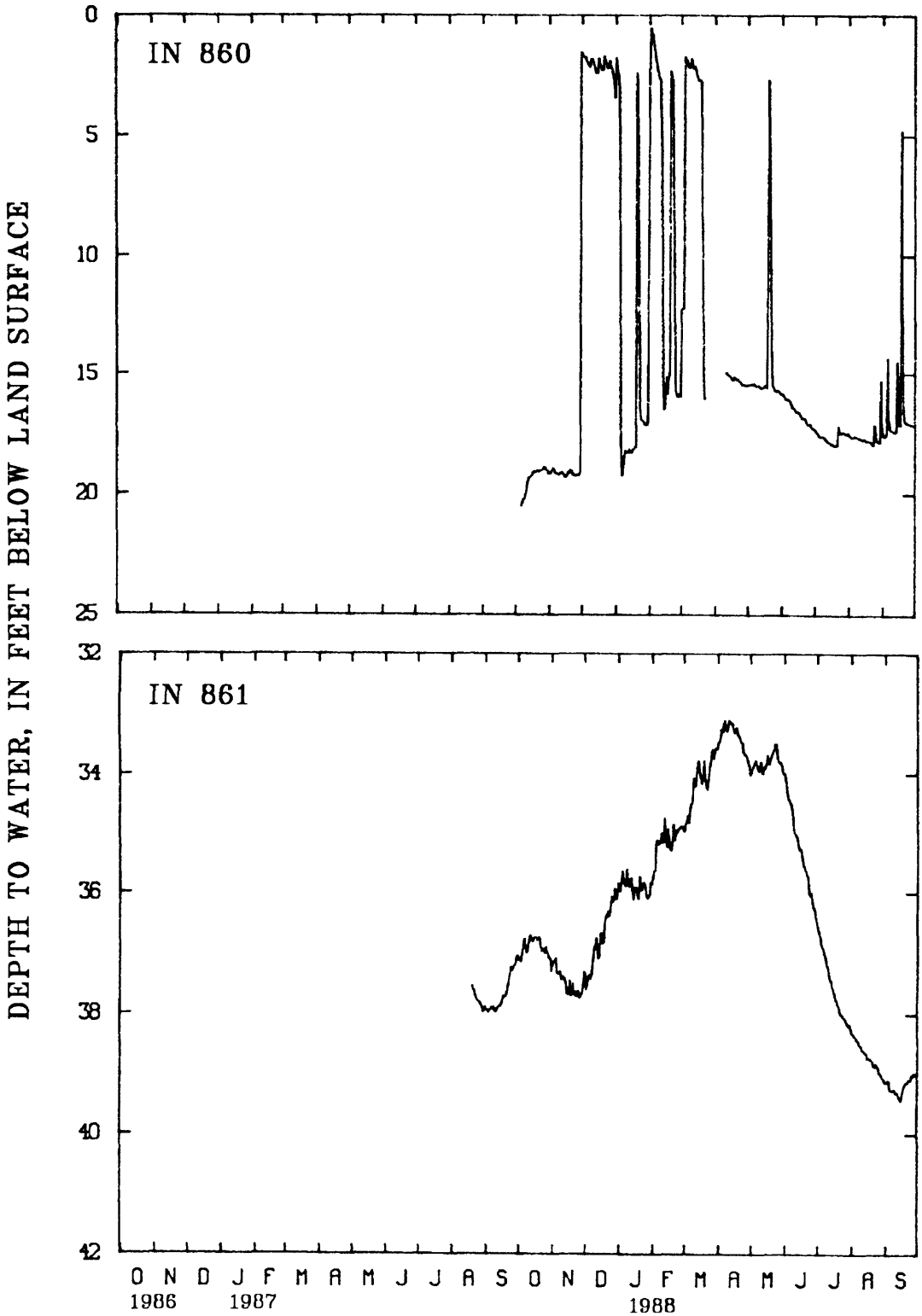

Figure 14.--Maximum daily depth to water level in wells IN 860 and IN 861 for water years 1987-88.

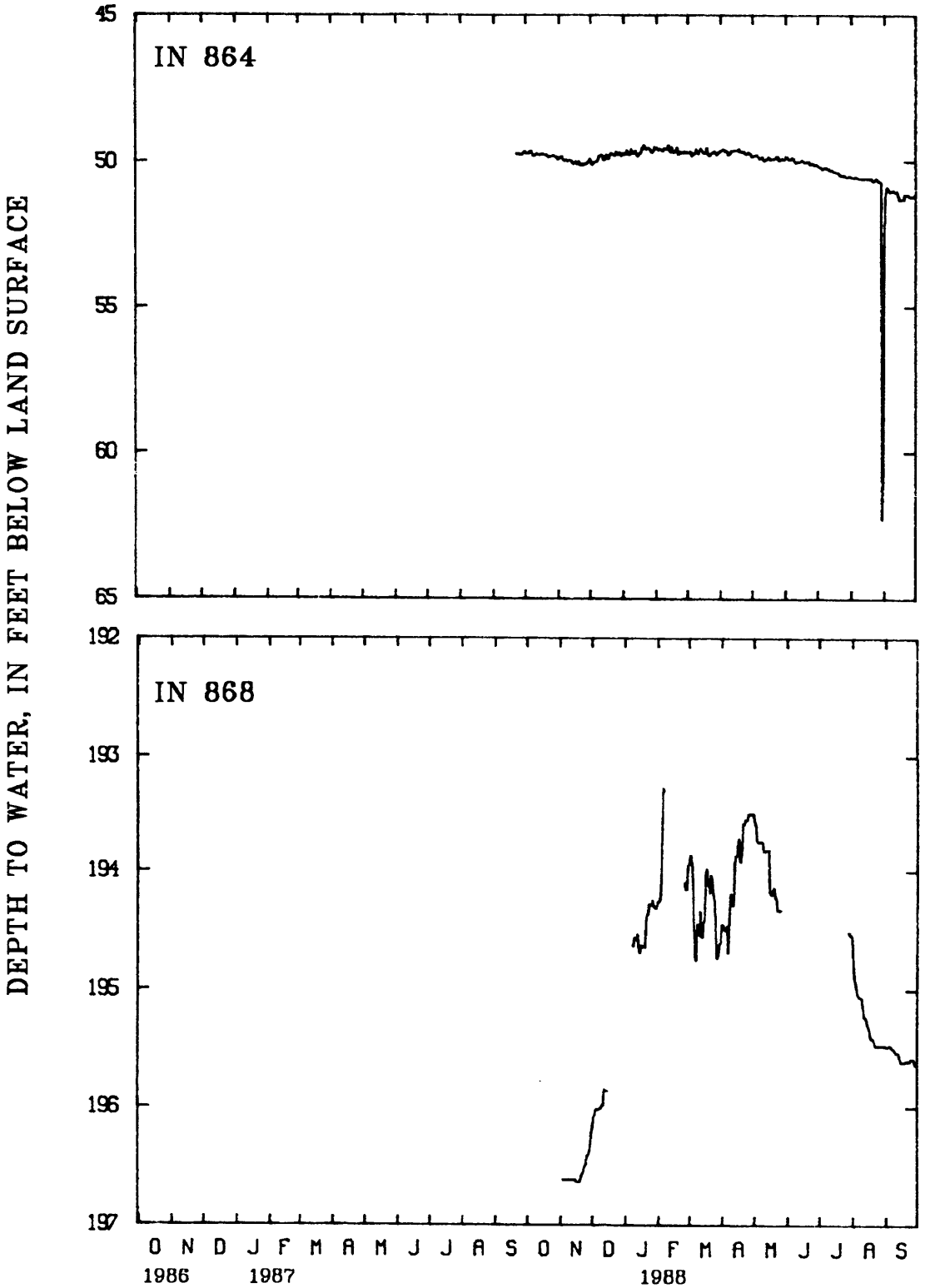

Figure 15.–Maximum daily depth to water level in wells IN 864 and IN 868 for water years 1987-88.

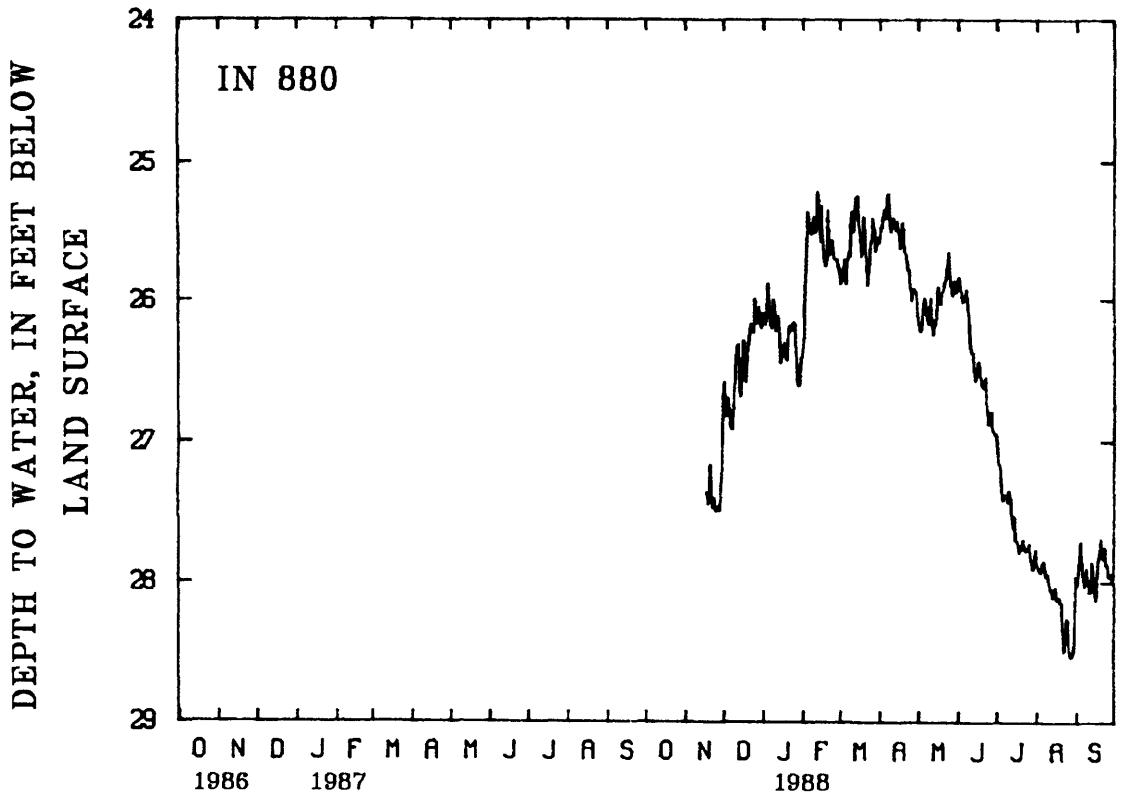

Figure 16.--Maximum daily depth to water level in well IN 880 for water year 1988.

REFERENCE CITED

U.S. Environmental Protection Agency, 1986, Drinking Water Standards (Information from Code of Federal Regulations No. 40, 1989, parts 141.11 through 141.16).

GLOSSARY

Acidity.--The capacity of a water for neutralizing a basic solution. Acidity, as used in this report, is primarily caused by the presence of hydrogen ions produced by hydrolysis of the salts of strong acids and weak bases.

Alkalinity.--The capacity of a water for neutralizing an acidic solution. Alkalinity in natural water is caused primarily by the presence of carbonate and bicarbonate.

Amplitude.--The vertical distance between the crest and the trough of a marker bed. An example of a marker bed is the Upper Freeport Coal.

Anticline.--An upfold or arch of stratified rock in which the beds dip in opposite directions from the crest.

Aquifer.--A geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield useable quantities of water to wells and springs.

Aquifer test.--A test or controlled field experiment involving either the withdrawal of measured quantities of water from, or addition of water to, a well (or wells) and the measurement of resulting changes in head in the aquifer both during and after the period of discharge or addition.

Base flow.--Discharge entering stream channels as effluent from the groundwater reservoir; the dry-weather flow of streams.

Cubic feet per second (ft^3/s).--The rate of discharge representing a volume of 1 cubic foot passing a given point during one second (equivalent to 7.48 gallons per second or 448.8 gallons per minute).

Cubic feet per second per square mile [$(ft^3/s)/mi^2$].--The average number of cubic feet of water per second flowing from each square mile of area drained by a stream, assuming that the runoff is distributed uniformly, in time and area.

Dip.--The angle at which the bed is inclined from the horizontal, measured at a right angle to the strike of the bed.

Dissolved.--Refers to that material in a representative water sample which passes through a 0.45 micrometer membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved solids.--The dissolved mineral constituents in water; they form the residue after evaporation and drying at a temperature of 105 degrees Celsius; they also may be calculated by adding concentrations of anions and cations.

Formation.--The fundamental unit in rock-stratigraphic classification. It is a body of internally homogeneous rock; it is prevailingly but not necessarily tabular and is mappable at the earth's surface or traceable in the subsurface.

Gaging station.--A particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness.--A physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Micrograms per liter (µg/L).--A unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/L).--A unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water.

pH.--A measure of the acidity or alkalinity of water. Mathematically, the pH is the negative logarithm of the hydrogen-ion activity; $pH = -\log_{10}[H+]$, where [H+] is the hydrogen-ion concentration in moles per liter. A pH of 7.0 indicates a neutral condition. An acid solution has a pH less than 7.0 and a basic or alkaline solution has a pH greater than 7.0.

Specific conductance.--A measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 degrees Celsius. Specific conductance is related to the type and concentration of ions in the solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Streamflow.--The discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff," as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Strike.--The bearing of the outcrop of an inclined bed on a level surface. It is perpendicular to the direction of the dip.

Syncline.--A downfold or depression of stratified rock in which the beds dip inward toward the axis of the fold.

Table 1.--Daily sum of precipitation at the South Branch Plum Creek basin precipitation gage, water years 1987-88

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
					WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987							
1	0.06	0.00	0.00	0.00	0.00	0.37	0.00	0.00	0.17	1.07	0.00	0.01
2	.00	.00	.74	.33	.00	.03	.16	.05	.13	.86	1.24	.00
3	1.61	.01	.20	.00	.00	.10	.11	1.05	.06	.00	.05	.00
4	.23	.22	.00	.00	.00	.00	.92	.08	.00	.00	.00	.00
5	.00	.32	.00	.00	.00	.00	.01	.00	.00	.00	.48	.00
6	.01	.00	.00	.01	.00	.00	.06	.00	.00	.79	.00	.57
7	.00	.02	.01	.00	.00	.00	.00	.00	.01	.00	.00	.31
8	.00	1.02	.19	.00	.03	.00	.00	.00	.83	.44	.24	.56
9	.03	.33	.66	.00	.00	.00	.00	.00	.21	.00	1.39	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00
11	.00	.39	.00	.00	.00	.00	.10	.06	.00	.01	.00	1.65
12	.00	.00	.00	.00	.17	.00	.57	.01	.63	.00	.00	.29
13	.26	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00	.00
14	.36	.00	.00	.00	.00	.09	.00	.00	.00	.23	.00	.01
15	.00	.00	.00	.08	.00	.00	.39	.70	.02	.00	.00	.01
16	.01	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.02
17	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.42	.38
18	.00	.61	.15	.00	.00	.00	.00	1.10	.00	.00	.00	.06
19	.00	.00	.00	.52	.00	.00	.00	.11	.00	.00	.00	.57
20	.00	.27	.00	.00	.00	.00	.00	.00	.18	.00	.00	.02
21	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00
22	.00	.00	.00	.13	.03	.00	.00	.00	1.38	.00	1.20	.30
23	.00	.05	.00	.01	.06	.00	.63	.00	.03	.00	.00	.00
24	.00	.06	.62	.00	.00	.00	.65	.00	.00	.00	.00	.00
25	.06	.00	.03	.00	.00	.79	.00	.00	.00	.02	.00	.00
26	.46	2.24	.00	.00	.00	.00	.00	1.13	.25	.00	.34	.01
27	.14	.00	.00	.00	.00	.00	.51	.12	.18	.00	.03	.00
28	.02	.00	.00	.00	.25	.00	.00	.00	.01	.00	.82	.00
29	.00	.00	.00	.23	--	.00	.03	.01	.03	.00	.00	.37
30	.00	.00	.00	.09	--	.48	.00	.48	1.01	.00	.01	.25
31	.00	--	.00	.00	--	.84	--	.00	--	.01	.25	--
TOTAL	3.28	5.54	2.60	1.40	0.54	2.70	4.24	4.90	5.45	3.53	6.47	5.39
					WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988							
1	0.01	0.00	0.00	0.00	0.99	0.00	0.11	0.00	0.04	0.00	0.00	0.00
2	.35	.00	.00	.00	1.14	.03	.01	.00	.08	.00	.00	.00
3	.01	.00	.03	.00	.01	.03	.31	.00	.16	.00	.00	.11
4	.00	.02	.00	.00	.29	.06	.20	.00	.00	.00	.00	1.02
5	.00	.01	.00	.00	.00	.00	.00	.63	.00	.00	.42	.03
6	.15	.00	.00	.00	.00	.00	.38	.00	.00	.04	.17	.00
7	.44	.00	.00	.00	.00	.00	.23	.00	.00	.00	.00	.00
8	.05	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
9	.00	.33	.22	.00	.00	.30	.00	.54	.31	.00	.00	.00
10	.10	.01	.00	.00	.00	.00	.00	.16	.00	.10	.00	.00
11	.09	.00	.03	.00	.02	.00	.00	.00	.00	.06	.00	.00
12	.00	.00	.00	.00	.02	.23	.00	.00	.00	.00	.00	.44
13	.00	.00	.00	.01	.01	.00	.00	.28	.00	.00	.00	.17
14	.00	.00	.00	.00	.00	.01	.00	.00	.00	.40	.00	.00
15	.00	.00	.11	.00	.00	.00	.01	.00	.00	.02	.00	.00
16	.00	.00	.03	.00	.00	.00	.00	.20	.05	.00	.00	.00
17	.00	.49	.00	.02	.00	.00	.00	.00	.15	.00	.33	.55
18	.00	.00	.00	.26	.00	.00	.22	.59	.00	.00	.22	.00
19	.00	.00	.00	.38	.00	.00	.00	.05	.00	.38	.27	.00
20	.12	.00	.13	.00	.01	.02	.00	.12	.00	.16	.00	.41
21	.00	.00	.00	.00	.00	.00	.02	.00	.00	1.08	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.02	.00	.12	.25	.02	.00	.85	.08
24	.02	.01	.01	.00	.00	.00	.00	.10	.01	.00	.00	.00
25	.00	.03	.23	.00	.00	.59	.00	.00	.00	.00	.00	.04
26	.00	.08	.00	.00	.00	.05	.00	.00	.00	.01	.35	.00
27	.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.03	.00	.10	.00	.00	.00	.18	.00	.00	.00	.00	.00
29	.01	1.36	.01	.00	.00	.00	.20	.00	.00	.00	.67	.00
30	.00	.03	.00	.00	--	.00	.00	.00	.00	.17	.01	.00
31	.00	--	.00	.00	--	.00	--	.00	--	.00	.00	--
TOTAL	1.68	2.37	0.90	0.67	2.51	1.32	2.02	2.92	0.82	2.42	3.29	2.85

WATER YEAR 1987 TOTAL 46.04 CALENDAR YEAR 1987 TOTAL 39.57 WATER YEAR 1988 TOTAL 23.77

Table 2.--Daily sum of precipitation at the Cherry Run basin precipitation gage, water years 1987-88

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
					WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987							
1	0.22	0.00	0.00	0.03	0.00	0.26	0.00	0.00	0.25	0.45	0.00	0.00
2	.02	.00	.68	.37	.01	.05	.14	.00	.11	.84	.79	.00
3	.69	.00	.18	.00	.00	.02	.11	.12	.08	.00	.05	.01
4	.21	.45	.00	.00	.00	.00	1.29	.57	.00	.00	.01	.00
5	.00	.14	.00	.00	.00	.00	.24	.00	.00	.00	.58	.00
6	.00	.27	.00	.00	.00	.00	.07	.00	.00	.32	.00	.66
7	.00	.00	.00	.00	.00	.00	.00	.00	.01	.01	.00	.25
8	.00	.78	.25	.00	.06	.00	.00	.00	.28	.00	.00	.76
9	.00	1.23	.70	.00	.00	.00	.00	.00	.24	.00	.58	.01
10	.09	.07	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
11	.00	.59	.00	.00	.00	.00	.04	.00	.00	.00	.00	.84
12	.00	.22	.00	.00	.21	.00	.51	.00	.21	.00	.00	.16
13	.25	.01	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00
14	.34	.00	.00	.00	.00	.22	.01	.00	.00	.36	.00	.00
15	.16	.00	.00	.09	.00	.03	.65	.41	.21	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.05	.00	.01	.00	.00	.00
17	.02	.00	.00	.00	.00	.00	.01	.00	.00	.00	.57	2.00
18	.00	.00	.18	.01	.00	.00	.00	1.04	.00	.00	.01	.32
19	.00	.41	.00	.66	.00	.00	.00	.13	.00	.00	.00	.07
20	.00	.00	.00	.00	.00	.00	.00	.30	.28	.01	.00	.05
21	.00	.40	.00	.00	.00	.00	.00	.00	.07	.01	.00	.00
22	.00	.00	.00	.25	.04	.00	.00	.00	.22	.00	1.78	.20
23	.00	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00	.00
24	.00	.12	.76	.00	.00	.00	.66	.00	.00	.00	.00	.04
25	.00	.00	.05	.00	.00	.68	.38	.00	.00	.00	.00	.00
26	.41	1.60	.00	.00	.00	.00	.20	1.38	.00	.00	.22	.00
27	.08	.00	.00	.00	.00	.00	.00	.33	.10	.00	.00	.00
28	.11	.00	.00	.00	.43	.00	.42	.00	.04	.00	1.28	.00
29	.00	.00	.00	.14	--	.00	.09	.00	.05	.00	.00	.30
30	.00	.00	.00	.12	--	.52	.07	.00	.63	.00	.00	.05
31	.00	--	.00	.00	--	.93	--	.00	--	.00	.19	--
TOTAL	2.60	6.29	2.80	1.67	0.86	2.71	4.94	4.28	3.23	2.00	6.09	5.72
					WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988							
1	0.00	0.00	0.04	0.04	0.95	0.00	0.09	0.00	0.23	0.00	0.00	0.00
2	.46	.00	.01	.00	1.39	.04	.01	.00	.13	.00	.00	.00
3	.01	.00	.30	.00	.03	.49	.31	.00	.00	.00	.00	.13
4	.00	.00	.00	.00	.70	.47	.19	.05	.00	.00	.00	.72
5	.00	.00	.01	.00	.00	.00	.00	.59	.00	.00	.48	.01
6	.12	.00	.00	.00	.00	.00	.37	.00	.00	.00	.02	.00
7	.23	.00	.00	.00	.00	.00	.19	.00	.00	.00	.00	.00
8	.04	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
9	.00	.29	.10	.00	.00	.26	.00	.55	.79	.00	.00	.00
10	.06	.16	.00	.00	.00	.01	.00	.14	.00	.00	.00	.00
11	.08	.00	.05	.00	.01	.00	.00	.01	.00	.00	.00	.00
12	.00	.00	.07	.00	.03	.19	.00	.00	.00	.00	.00	.40
13	.00	.00	.00	.02	.00	.03	.00	.21	.00	.00	.00	1.77
14	.00	.00	.00	.00	.00	.00	.01	.00	.00	.67	.00	.00
15	.00	.00	.38	.00	.00	.00	.01	.00	.00	.01	.00	.00
16	.00	.00	.02	.00	.00	.00	.00	.49	.02	.00	.00	.00
17	.00	.35	.00	.04	.00	.00	.00	.00	.04	.00	.61	.68
18	.00	.00	.00	.21	.00	.04	.25	.61	.00	.00	.23	.00
19	.00	.00	.02	.76	.14	.00	.00	.23	.00	.63	.24	.00
20	.08	.07	.53	.06	.01	.26	.00	.62	.00	.35	.05	.15
21	.00	.00	.00	.00	.00	.00	.02	.01	.00	1.37	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.18	.00	.14	.19	.00	.07	.76	.07
24	.02	.04	.01	.00	.00	.00	.00	.09	.00	.00	.00	.02
25	.00	.00	.26	.00	.00	.56	.00	.00	.00	.00	.00	.10
26	.00	.09	.03	.00	.00	.08	.00	.00	.00	.43	.01	.00
27	.34	.05	.00	.00	.00	.01	.00	.00	.00	.01	.00	.00
28	.03	.00	.28	.00	.00	.00	.17	.00	.00	.00	.02	.00
29	.00	1.45	.02	.00	.00	.00	.38	.00	.00	.00	1.21	.00
30	.00	.02	.00	.00	--	.00	.00	.00	.00	.00	.00	.00
31	.00	--	.10	.00	--	.00	--	.00	--	.00	.00	--
TOTAL	1.47	2.52	2.23	1.13	3.44	2.44	2.15	3.79	1.21	3.54	3.63	4.05

WATER YEAR 1987 TOTAL 43.19 CALENDAR YEAR 1987 TOTAL 37.72 WATER YEAR 1988 TOTAL 31.60

Table 3.--Surface-water sites in Indiana County
[mi^2, square miles]

Site number	Station number	Station name	USGS Quadrangle	Latitude	Longitude	Drainage area (mi^2)
1	03033350	Tributary to Canoe Creek at Rossiter	Punxsutawney	405305	785504	1.46
2	01540705	Cush Creek at Glen Campbell	Burnside	404851	784928	15.8
3	01540670	Rock Run near Glen Campbell	Burnside	404801	784828	2.13
4	01540660	Shryock Run near Arcadia	Burnside	404612	784943	.42
5	01540649	Cush Cushion Creek at Cherry Tree	Barnsboro	404325	784858	12.2
6	03034300	Little Mahoning Creek near Rochester Mills	Rochester Mills	404748	785541	19.7
7	03034400	Mudlick Run near Georgeville	Marion Center	405115	790424	5.88
8	*03034500	Little Mahoning Creek at McCormick	Marion Center	405010	790637	87.4
9	*03037400	South Branch Plum Creek near Home	Plumville	404535	790820	9.38
10	03036995	Crooked Creek above McKee Run at Creekside	Ernest	404059	791127	53.4
11	03036997	McKee Run at Ernest	Ernest	404026	791920	12.0
12	03042055	Unnamed Tributary to Dixon Run at Dixonville	Clymer	404245	790051	.11
13	03042045	Unnamed Trib. to N. Br. Two Lick Cr. at Commodore	Commodore	404244	785625	.39
14	03042040	South Branch Two Lick Creek near Wandin Junction	Commodore	404029	785641	19.7
15	03042061	Dixon Run at Clymer	Clymer	404013	790054	10.7
16	03042075	Two Lick Creek near Clymer	Clymer	403844	790212	51.4
17	*03042200	Little Yellow Creek near Strongstown	Strongstown	403345	785644	7.36
18	03042190	Laurel Run near Nolo	Strongstown	403443	785959	5.21
19	03042185	Yellow Creek near Pikes Peak	Brush Valley	403458	790010	21.8
20	*03042280	Yellow Creek near Homer City	Brush Valley	403418	790613	57.4
21	03042120	Ramsey Run near Indiana	Brush Valley	403551	790635	4.48
22	03037150	Curry Run at Shelocta	Elderton	403915	791653	11.2
23	03047480	Blacklegs Creek at Clarksburg	Avonmore	403214	792233	21.6
24	*03044000	Conemaugh River at Tunnelton	Saltsburg	402716	792328	1,358
25	03043990	Aultmans Run near Lewisville	McIntyre	403002	791739	19.9
26	*03042700	Cherry Run near Homer City	Indiana	403315	791131	10.5
27	*03042500	Two Lick Creek at Graceton	Indiana	403102	791019	171
28	*03042000	Blacklick Creek at Josephine	Bolivar	402824	791101	192
29	03041675	Toms Run near Blairsville	Bolivar	402548	791317	5.21
30	03041900	Brush Creek at Claghorn	New Florence	402948	790403	21.8
31	*03041500	Conemaugh River at Seward	New Florence	402509	790135	715

*Gaging Station

Table 4.--Mean daily discharges at streamflow-gaging stations
Site 8.--Little Mahoning Creek at McCormick

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	344	75	201	105	e41	e350	561	128	40	203	e18	45
2	180	72	320	e90	e39	589	527	111	43	755	20	38
3	424	69	714	e82	e44	310	501	205	42	570	64	34
4	1,500	71	521	e74	e45	215	663	570	40	268	38	31
5	834	80	347	e68	e54	163	1,190	322	33	150	44	30
6	413	157	250	e64	e70	155	791	236	30	101	48	34
7	244	115	208	e60	e74	212	578	181	27	539	31	47
8	168	243	184	e56	e70	304	399	136	27	226	28	92
9	129	1,020	356	e52	e68	303	282	109	39	137	50	89
10	106	580	578	e50	e68	217	206	91	34	100	164	60
11	88	442	368	e49	e66	158	158	79	28	88	55	97
12	79	449	270	e48	e66	131	171	71	41	64	43	169
13	81	301	208	e46	e64	111	221	63	66	55	37	101
14	120	222	150	e70	e50	95	151	56	49	58	32	76
15	135	186	150	e150	e42	93	140	108	35	61	29	60
16	92	162	122	260	e35	89	188	78	31	45	26	56
17	82	135	108	184	e45	79	165	60	27	39	24	62
18	76	133	128	154	e40	74	137	55	24	34	35	130
19	70	396	134	e120	e34	71	115	353	23	31	30	129
20	66	246	103	e105	e36	68	100	156	31	29	25	320
21	63	468	91	e84	e37	66	90	109	68	28	24	172
22	61	308	75	e74	e38	63	82	86	536	25	34	115
23	59	243	83	e68	e45	61	78	72	375	24	49	104
24	57	217	118	e56	e42	58	444	63	163	24	33	82
25	55	181	539	e50	e37	65	411	53	93	26	27	70
26	70	1,310	371	e45	e37	222	264	49	76	25	25	61
27	90	1,810	262	e42	e36	148	198	80	65	e23	28	55
28	122	641	212	e38	e35	121	296	60	53	e21	36	50
29	107	393	174	e38	--	103	217	48	44	e20	124	48
30	90	268	148	e39	--	134	171	42	44	e19	52	79
31	80	--	125	e43	--	672	--	47	--	e19	41	--
TOTAL	6,085	10,993	7,618	2,464	1,358	5,500	9,495	3,877	2,227	3,807	1,314	2,536
MEAN	196	366	246	79.5	48.5	177	316	125	74.2	123	42.4	84.5
MAX	1,500	1,810	714	260	74	672	1,190	570	536	755	164	320
MIN	55	69	75	38	34	58	78	42	23	19	18	30

WATER YEAR 1987 TOTAL 57,274 MEAN 157 MAX 1,810 MIN 18

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 8.--Little Mahoning Creek at McCormick--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	70	34	395	265	e100	77	103	83	37	7.7	5.5	8.3
2	60	32	278	229	e1770	71	101	71	37	7.7	5.1	5.9
3	90	32	205	210	1160	87	91	66	40	8.1	4.0	4.5
4	72	31	197	166	1230	319	178	64	43	8.0	3.3	19
5	63	32	167	e150	745	282	140	79	37	7.8	3.4	33
6	58	29	133	e130	423	229	114	116	31	7.7	24	17
7	71	26	116	e110	264	205	192	84	29	7.8	24	9.7
8	89	23	110	e94	227	164	181	72	27	7.4	11	6.8
9	74	25	165	e80	167	183	140	71	29	6.1	6.3	5.6
10	56	36	281	e72	134	324	119	226	30	5.8	4.6	5.0
11	57	37	214	e62	106	224	104	185	25	5.7	3.9	4.6
12	58	35	194	e58	98	181	92	129	23	7.5	3.4	4.1
13	51	36	157	e70	79	209	81	112	22	7.8	3.1	6.3
14	45	41	124	e64	e70	170	73	121	21	4.9	2.9	21
15	42	42	213	e50	e76	136	69	94	19	3.6	2.8	11
16	40	37	311	e50	e74	113	65	108	17	3.1	2.6	7.0
17	38	36	216	e56	e72	102	63	95	20	2.9	2.5	6.5
18	37	93	173	e80	e80	95	64	134	19	2.6	4.1	23
19	36	70	144	e150	e76	95	66	373	16	2.8	8.3	16
20	35	56	405	e480	e250	94	57	254	13	3.9	7.5	13
21	37	51	400	401	216	78	54	222	12	24	6.2	17
22	36	41	280	242	164	74	51	150	12	32	4.7	14
23	33	41	230	181	173	81	48	112	11	14	5.2	10
24	31	43	185	142	160	131	51	108	11	8.5	20	9.7
25	32	38	193	e110	116	112	47	88	9.8	7.2	15	11
26	31	36	206	e94	100	431	44	73	9.0	6.2	9.0	9.3
27	32	37	174	e86	95	312	42	60	8.8	6.8	9.5	8.1
28	41	35	154	e80	83	228	44	53	9.0	9.1	7.7	7.1
29	43	666	155	e76	78	176	66	47	8.5	6.2	10	6.1
30	40	898	109	e80	--	136	123	43	8.0	4.6	30	5.7
31	37	--	129	e94	--	109	--	40	--	5.0	15	--
TOTAL	1,535	2,669	6,413	4,212	8,386	5,228	2,663	3,533	634.1	242.5	264.6	325.3
MEAN	49.5	89.0	207	136	289	169	88.8	114	21.1	7.82	8.54	10.8
MAX	90	898	405	480	1770	431	192	373	43	32	30	33
MIN	31	23	109	50	70	71	42	40	8.0	2.6	2.5	4.1

WATER YEAR 1988 TOTAL 36,105.5 MEAN 98.6 MAX 1,770 MIN 2.5

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 9.--South Branch Plum Creek near Home

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	17	3.0	19	9.6	e4.9	e18	63	11	7.4	49	0.20	2.7
2	7.4	2.8	48	9.7	e7.6	34	58	9.9	7.2	134	1.6	1.6
3	50	2.4	78	7.9	e11	26	48	33	5.9	76	4.2	1.2
4	159	3.6	51	6.5	e9.4	19	159	44	4.9	28	.80	.86
5	55	6.8	33	6.3	e7.0	16	148	30	3.9	14	2.3	.68
6	26	12	25	5.9	e6.0	13	68	22	3.4	18	1.0	3.6
7	16	9.7	21	e5.6	e5.4	13	41	17	2.9	64	.53	2.4
8	11	34	19	e5.2	e4.8	13	28	12	4.3	32	.64	19
9	7.8	143	51	e5.0	e4.7	14	20	9.7	12	20	16	16
10	5.9	51	57	e4.8	e4.3	11	15	7.7	5.2	17	11	9.3
11	4.2	50	37	e4.7	e4.1	9.1	13	6.2	4.2	15	2.9	95
12	3.3	39	28	e4.5	e3.9	7.7	19	5.6	9.1	9.7	1.7	83
13	4.8	28	20	e4.3	e3.7	6.7	19	4.5	8.1	6.9	1.1	34
14	8.8	20	17	e7.0	e3.6	6.1	16	3.8	5.9	7.3	.79	19
15	5.8	16	14	25	e3.4	6.8	19	9.3	4.9	4.7	.57	14
16	4.1	14	11	26	e3.3	6.0	23	5.0	4.1	3.3	.46	10
17	3.4	11	11	20	e3.2	5.3	22	4.1	3.3	2.5	.70	11
18	2.6	19	14	17	e3.1	5.0	18	18	2.7	2.1	1.1	13
19	2.1	29	11	42	e3.1	4.8	14	24	2.4	1.8	.38	15
20	2.0	28	9.4	46	e2.9	4.5	12	15	2.7	1.6	.25	23
21	1.8	32	8.1	31	e2.9	4.4	9.6	11	3.0	1.3	.17	17
22	1.7	25	7.1	23	e2.8	4.2	8.1	8.4	20	1.1	7.5	15
23	1.5	20	6.7	e17	e2.8	4.0	8.7	7.0	17	.95	2.3	13
24	1.4	18	27	e13	e2.7	3.9	45	5.8	8.3	.82	.97	10
25	1.2	14	59	e11	e2.7	8.9	35	5.0	6.1	.70	.61	8.1
26	4.9	287	39	e9.4	e2.6	24	25	8.4	6.7	.69	1.2	6.2
27	5.4	165	29	e8.0	e2.6	17	20	17	5.4	.60	1.2	4.8
28	6.0	55	22	e7.2	e6.0	13	25	9.4	4.7	.46	11	3.8
29	5.0	34	18	e6.4	--	11	18	7.2	3.7	.39	8.5	4.6
30	4.3	24	15	e6.0	--	16	14	6.0	8.2	.30	3.5	10
31	3.3	--	12	e5.4	--	90	--	12	--	.23	2.7	--
TOTAL	432.7	1196.3	817.3	400.4	124.5	435.4	1031.4	389.0	187.6	514.44	87.87	466.84
MEAN	14.0	39.9	26.4	12.9	4.45	14.0	34.4	12.5	6.25	16.6	2.83	15.6
MAX	159	287	78	46	11	90	159	44	20	134	16	95
MIN	1.2	2.4	6.7	4.3	2.6	3.9	8.1	3.8	2.4	.23	.17	.68

WATER YEAR 1987 TOTAL 6,083.75 MEAN 16.7 MAX 287 MIN .17

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 9.--South Branch Plum Creek near Home--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	7.1	1.6	34	31	e11	6.2	9.5	3.3	0.81	0.0	0.0	0.07
2	7.3	1.6	25	e25	343	5.7	8.2	3.0	.92	.0	.0	.01
3	9.6	1.5	20	e19	132	9.3	7.8	2.7	.93	.0	.0	.01
4	7.5	1.5	23	e14	e90	34	14	2.6	.78	.0	.0	2.6
5	6.4	1.5	20	e11	e60	34	10	7.5	.54	.0	.0	.75
6	6.2	1.3	17	e8.0	e40	26	11	7.8	.39	.0	.15	.31
7	12	1.1	14	e6.6	e22	21	25	5.8	.27	.0	.17	.15
8	13	1.1	13	e7.6	e15	17	22	4.8	.17	.0	.02	.10
9	11	2.2	18	e6.6	e11	21	18	5.5	.55	.0	.0	.07
10	9.5	2.3	20	e5.6	e9.4	25	14	14	.16	.0	.0	.03
11	9.6	2.1	18	e4.9	e8.0	19	12	10	.10	.0	.0	.01
12	7.8	2.2	18	e5.2	e7.2	17	9.2	7.7	.03	.0	.0	.01
13	6.3	2.4	14	e4.5	e6.4	19	7.4	7.6	.01	.0	.0	.59
14	5.2	2.2	12	e3.7	e5.8	16	6.3	6.9	.01	.0	.0	.29
15	4.4	1.9	27	e3.5	e6.8	13	5.5	5.3	.0	.0	.0	.09
16	3.9	1.8	29	e3.7	e7.0	11	5.0	6.4	.01	.0	.0	.02
17	3.5	2.4	23	e5.0	e6.8	10	4.4	4.6	.10	.0	.0	.91
18	3.2	9.2	18	e8.0	e7.0	10	5.0	8.3	.01	.0	.01	.54
19	2.9	5.6	16	17	e9.0	11	4.0	12	.0	.0	.01	.29
20	2.9	5.2	53	127	e13	11	3.4	10	.0	.0	.01	.91
21	2.9	4.1	37	28	19	10	3.2	8.3	.0	1.8	.0	.63
22	2.3	3.4	29	19	19	9.3	2.8	6.2	.0	.39	.0	.30
23	2.1	3.2	22	15	17	10	2.8	4.9	.0	.11	.20	.35
24	1.9	3.0	17	13	15	11	2.7	6.6	.0	.10	.52	.54
25	1.8	2.8	20	11	13	12	2.2	4.1	.0	.07	.07	.41
26	1.7	2.9	21	e9.4	12	40	2.0	3.1	.0	.04	.38	.40
27	2.6	2.6	18	e8.0	9.5	30	1.8	2.5	.0	.04	.16	.41
28	2.9	2.4	17	e7.2	7.8	22	2.6	1.9	.0	.04	.03	.40
29	2.2	103	16	e6.4	6.9	17	3.9	1.6	.0	.01	1.2	.28
30	1.9	60	14	e7.6	--	13	4.7	1.3	.0	.0	.54	.25
31	1.7	--	16	e9.2	--	10	--	.98	--	.01	.17	--
TOTAL	163.3	238.1	659	450.7	929.6	520.5	230.4	177.28	5.79	2.61	3.64	11.73
MEAN	5.27	7.94	21.3	14.5	32.1	16.8	7.68	5.72	.19	.084	.12	.39
MAX	13	103	53	127	343	40	25	14	.93	1.8	1.2	2.6
MIN	1.7	1.1	12	3.5	5.8	5.7	1.8	.98	.00	.00	.00	.01

WATER YEAR 1988 TOTAL 3,392.65 MEAN 9.27 MAX 343 MIN .00

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 17.--Little Yellow Creek near Strongstown

[discharge is in cubic feet per second; e, estimated]

WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	2.1	4.3	13	8.8	e5.0	34	29	12	2.6	3.9	1.0	4.8
2	2.1	4.1	25	8.9	e6.4	39	30	11	2.9	8.1	1.7	3.4
3	13	3.9	68	7.8	e7.2	23	26	25	2.8	4.6	5.8	2.9
4	80	8.8	43	7.1	e6.0	17	114	32	2.4	2.7	1.7	2.6
5	47	11	28	e6.4	e5.2	16	98	22	2.0	2.0	14	2.5
6	18	15	22	e6.0	e4.7	14	86	18	1.9	2.3	4.0	5.1
7	11	10	18	e5.4	e4.4	27	79	15	1.9	22	2.3	4.7
8	7.7	37	17	e5.2	e4.2	36	47	12	1.9	5.8	2.3	12
9	5.9	175	39	e4.8	e4.0	35	31	10	2.7	4.0	10	8.7
10	4.8	54	38	e4.7	e3.8	24	23	8.7	2.1	5.7	17	6.3
11	3.9	47	27	e4.5	e3.5	19	18	7.6	1.9	21	5.0	4.9
12	3.4	39	22	e4.3	e3.3	14	21	6.8	2.1	6.1	3.5	4.8
13	4.0	28	17	e4.2	e3.2	11	18	6.1	2.3	4.2	2.7	4.3
14	12	21	23	e6.0	e3.1	9.9	15	5.4	2.2	5.0	2.2	3.6
15	7.9	18	12	e20	e3.0	9.6	14	8.2	2.4	3.8	1.9	3.1
16	5.4	15	10	25	e2.9	8.5	12	5.9	2.5	2.7	1.7	3.0
17	4.7	12	9.4	18	e2.8	7.7	11	4.9	1.8	2.2	1.8	69
18	4.0	15	14	15	e2.7	7.1	9.9	5.9	1.6	1.8	2.4	75
19	3.6	24	12	25	e2.6	6.8	8.8	9.1	1.5	1.6	1.7	43
20	3.4	24	9.6	22	e2.5	6.6	8.0	8.2	4.6	1.4	1.4	45
21	3.1	36	8.3	16	e2.4	6.3	7.5	6.2	4.7	1.3	1.2	31
22	3.0	24	7.8	15	e2.4	5.9	8.0	5.2	3.7	1.2	8.4	22
23	2.8	19	8.4	e12	e2.3	5.6	9.1	4.7	3.6	1.2	4.8	17
24	2.6	20	11	e11	e2.3	5.4	18	4.1	2.3	1.0	2.6	12
25	2.6	16	40	e9.2	e2.3	7.0	16	3.7	1.8	.98	2.0	9.3
26	5.2	52	27	e8.0	e2.3	13	12	3.8	1.5	1.1	2.0	7.6
27	5.8	42	21	e7.2	e3.0	8.5	12	6.0	1.5	1.0	2.1	6.2
28	12	28	17	e6.6	e4.0	7.5	26	4.1	1.4	.91	11	5.1
29	7.4	22	14	e6.4	--	6.7	17	3.2	1.2	.91	19	5.2
30	5.9	17	12	e5.8	--	15	15	2.8	2.0	.92	6.3	12
31	4.8	--	10	e5.4	--	41	--	2.7	--	1.0	4.8	--
TOTAL	299.1	842.1	643.5	311.7	101.5	487.1	839.3	280.3	69.8	122.42	148.3	436.1
MEAN	9.65	28.1	20.8	10.1	3.62	15.7	28.0	9.04	2.33	3.95	4.78	14.5
MAX	80	175	68	25	7.2	41	114	32	4.7	22	19	75
MIN	2.1	3.9	7.8	4.2	2.3	5.4	7.5	2.7	1.2	.91	1.0	2.5

WATER YEAR 1987 TOTAL 4,581.22 MEAN 12.6 MAX 175 MIN .91

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 17.--Little Yellow Creek near Strongstown--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	7.3	3.1	30	21	e20	8.4	12	9.9	4.0	1.3	1.1	1.0
2	8.5	3.0	22	19	e220	8.3	11	8.7	4.2	1.2	1.5	1.1
3	16	2.9	17	17	89	17	9.7	8.0	3.7	1.1	1.1	1.0
4	9.6	2.9	15	11	91	58	13	7.4	3.6	1.1	.98	5.8
5	8.1	2.8	12	e9.2	49	35	10	11	3.3	1.2	1.3	2.9
6	7.3	2.7	10	e7.6	e29	27	10	11	3.0	1.2	2.8	1.8
7	7.6	2.8	9.3	e6.8	e20	22	20	9.0	2.8	1.0	1.7	1.4
8	7.1	2.6	9.7	e6.0	e15	18	15	8.1	2.6	1.1	1.1	1.1
9	6.0	3.5	19	e5.4	e12	24	13	8.9	7.9	.95	.94	.97
10	5.3	4.5	20	e5.0	e10	32	12	18	3.5	.92	.90	.93
11	5.6	4.2	16	e4.8	e9.0	22	10	13	2.9	.98	.87	.89
12	5.3	4.1	15	e4.5	e8.6	19	9.2	11	2.7	.98	.85	.93
13	4.7	4.6	11	e4.3	e8.0	22	8.4	9.9	2.4	.89	.85	12
14	4.4	6.3	9.7	e4.0	e7.6	17	7.6	9.4	2.2	.93	.83	3.9
15	4.1	5.7	19	e4.1	e7.6	14	7.3	8.2	2.1	1.3	.82	2.1
16	4.0	5.0	19	e4.1	e7.2	13	7.1	8.0	2.1	.39	.81	1.6
17	3.6	5.2	14	e4.2	e7.0	11	6.7	6.9	2.4	.95	.81	17
18	3.0	9.0	12	e5.0	e7.2	11	7.9	13	2.0	.94	1.7	7.2
19	2.9	6.7	10	e7.0	e7.4	9.9	7.4	24	1.8	2.0	1.1	4.4
20	3.1	6.6	35	e50	e13	9.7	6.5	19	1.7	12	.96	4.7
21	3.1	6.0	27	23	e11	9.0	6.2	17	1.6	17	.87	4.3
22	2.8	5.2	21	16	e16	9.8	5.6	14	1.5	4.9	.83	3.1
23	2.7	5.2	17	13	15	13	5.4	12	1.4	2.9	1.2	3.0
24	2.6	5.7	14	11	13	23	5.4	14	1.3	2.4	1.3	2.9
25	2.6	5.2	19	e9.4	12	20	4.9	10	1.3	1.8	.91	3.1
26	2.5	5.1	22	e8.6	13	48	4.7	8.3	1.3	1.6	.85	2.8
27	3.1	4.9	17	e7.8	9.6	31	4.6	7.1	1.4	1.4	.82	2.3
28	4.6	4.6	15	e7.2	8.7	23	5.4	6.2	1.6	1.3	.82	2.2
29	3.9	89	14	e6.8	8.5	19	9.6	5.5	1.7	1.1	5.4	2.1
30	3.5	53	13	e7.4	--	15	16	4.8	1.3	1.2	2.3	1.7
31	3.2	--	13	e9.0	--	13	--	4.4	--	1.2	1.2	--
TOTAL	158.1	272.1	516.7	319.2	744.4	622.1	271.6	325.7	75.3	69.83	39.52	100.22
MEAN	5.10	9.07	16.7	10.3	25.7	20.1	9.05	10.5	2.51	2.25	1.27	3.34
MAX	16	89	35	50	220	58	20	24	7.9	17	5.4	17
MIN	2.5	2.6	9.3	4.0	7.0	8.3	4.6	4.4	1.3	.89	.81	.89

WATER YEAR 1988 TOTAL 3,514.77 MEAN 9.60 MAX 220 MIN .81

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 20.--Yellow Creek near Homer City

[discharge is in cubic feet per second; e, estimated]

WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	9.6	38	171	108	70	69	243	144	38	17	9.5	54
2	9.5	36	176	103	71	139	271	136	49	26	9.5	48
3	19	32	308	95	84	155	277	140	45	35	11	39
4	194	42	366	84	94	153	466	223	36	33	10	30
5	323	51	304	74	94	148	1,010	235	27	28	9.9	24
6	251	66	241	64	92	140	748	207	22	23	19	20
7	173	73	193	61	90	128	604	175	19	50	13	24
8	132	116	161	64	89	146	437	149	18	62	12	25
9	101	726	196	62	86	161	338	140	19	62	12	48
10	81	658	303	61	77	160	259	123	18	55	15	49
11	65	435	286	61	73	148	202	104	16	52	29	48
12	53	406	243	61	73	129	180	88	16	54	27	48
13	48	317	196	58	71	112	175	76	15	48	22	44
14	57	246	155	55	66	99	152	64	15	40	19	38
15	67	193	141	74	60	93	145	64	14	36	16	34
16	64	157	123	128	e52	84	143	61	14	30	14	30
17	59	140	108	142	47	74	136	54	14	19	13	54
18	54	125	97	145	43	68	123	54	13	19	13	216
19	48	134	99	167	37	63	110	72	12	18	12	283
20	43	138	95	230	33	59	99	79	12	13	11	278
21	37	184	84	226	29	53	89	72	13	14	10	271
22	32	197	79	195	28	49	82	62	14	14	9.9	218
23	28	181	72	168	31	46	84	55	14	12	16	175
24	24	162	72	e140	28	42	115	48	14	11	16	141
25	23	150	122	e120	26	43	142	41	13	11	15	117
26	28	255	167	e100	24	62	142	221	12	10	14	95
27	32	425	178	e88	24	68	140	149	12	9.9	13	78
28	38	359	167	95	26	68	153	89	11	9.9	13	66
29	43	277	148	73	--	66	157	69	10	9.7	26	58
30	43	215	136	73	--	74	150	56	11	9.5	62	63
31	43	--	122	74	--	169	--	47	--	9.4	61	--
TOTAL	2,222.1	6,534	5,309	3,249	1,618	3,068	7,372	3,297	556	840.4	552.8	2,716
MEAN	71.7	218	171	105	57.8	99.0	246	106	18.5	27.1	17.8	90.5
MAX	323	726	366	230	94	169	1,010	235	49	62	62	283
MIN	9.5	32	72	55	24	42	82	41	10	9.4	9.5	20

WATER YEAR 1987 TOTAL 37,334.3 MEAN 102 MAX 1,010 MIN 9.4

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 20.--Yellow Creek near Homer City--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	56	18	404	113	106	73	125	58	36	9.5	12	9.8
2	53	17	285	118	1,280	66	111	64	34	9.5	11	9.5
3	73	17	213	107	1,320	71	100	56	29	9.5	10	9.5
4	76	16	183	104	945	162	110	54	25	9.5	10	13
5	71	16	157	113	672	254	110	61	22	9.5	10	11
6	64	15	132	142	413	249	106	77	20	9.5	9.9	10
7	63	14	116	184	263	219	123	77	18	9.5	9.9	9.9
8	61	14	106	179	212	185	133	74	17	9.5	9.7	9.9
9	55	15	106	81	175	173	128	72	25	9.5	9.5	9.0
10	50	18	116	45	149	208	120	106	24	9.5	9.5	8.8
11	47	20	117	46	129	201	110	118	21	9.1	9.5	8.8
12	44	20	117	43	114	182	99	115	18	9.1	9.5	8.9
13	40	21	114	34	99	176	88	107	16	9.1	9.5	22
14	36	23	108	34	84	166	77	102	15	9.1	9.5	11
15	33	29	114	43	77	147	67	96	14	12	9.5	11
16	30	32	134	34	77	132	59	87	13	9.5	9.5	10
17	27	33	138	22	71	118	53	78	13	9.5	9.5	21
18	26	46	126	26	70	107	52	117	12	9.5	11	32
19	24	52	117	35	75	99	52	160	11	10	10	33
20	24	50	155	127	109	95	47	175	11	15	9.9	32
21	24	52	230	168	129	86	43	180	9.9	22	9.5	31
22	22	50	210	159	123	73	39	166	9.5	21	9.5	28
23	21	48	185	139	129	75	37	143	9.4	22	11	26
24	20	46	160	120	130	100	34	135	9.1	21	10	26
25	18	46	145	111	119	118	32	121	9.5	19	9.7	24
26	17	46	150	102	107	198	29	102	9.5	19	9.5	21
27	17	48	145	88	98	239	27	87	9.5	17	9.5	19
28	19	46	135	75	89	221	26	72	9.5	15	9.5	18
29	20	211	126	64	80	189	32	59	9.5	14	14	17
30	20	532	110	58	--	166	51	50	9.5	13	11	16
31	19	--	98	63	--	140	--	42	--	12	9.9	--
TOTAL	1,170	1,611	4,752	2,777	7,444	4,688	2,220	3,011	488.9	391.9	312.0	516.1
MEAN	37.7	53.7	153	89.6	257	151	74.0	97.1	16.3	12.6	10.1	17.2
MAX	76	532	404	184	1,320	254	133	180	36	22	14	33
MIN	17	14	98	22	70	66	26	42	9.1	9.1	9.5	8.8

WATER YEAR 1988 TOTAL 29,381.9 MEAN 80.3 MAX 1,320 MIN 8.8

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 24.--Conemaugh River at Tunnelton

[discharge is in cubic feet per second; e, estimated]

WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	383	694	5,630	2,090	1,900	951	3,870	3,420	1,930	1,160	345	1,100
2	869	684	3,900	1,720	1,440	2,030	3,990	2,840	1,610	1,310	354	986
3	1,430	616	3,840	1,390	1,990	4,300	5,090	2,330	1,600	1,410	625	780
4	1,520	571	7,430	1,410	2,670	4,980	4,800	2,540	1,580	1,660	550	613
5	1,770	653	8,260	1,400	2,870	3,920	3,270	2,720	1,550	1,610	502	493
6	3,470	915	6,810	1,380	2,820	2,960	5,530	2,780	1,520	1,310	643	500
7	4,100	1,550	4,200	1,380	2,740	2,730	7,050	3,890	1,320	1,750	694	505
8	2,090	2,020	3,370	1,400	2,390	3,440	7,210	5,540	1,090	3,770	552	680
9	1,860	2,440	3,400	1,410	1,910	4,590	9,480	4,440	1,070	3,210	491	1,720
10	1,480	4,460	5,880	1,410	1,400	4,960	13,100	3,660	852	1,580	649	1,920
11	1,390	5,930	7,860	1,410	1,420	4,870	14,100	3,520	752	1,310	769	1,180
12	911	5,940	7,380	1,410	1,510	4,300	13,500	2,400	776	978	606	976
13	650	5,890	4,930	1,400	1,560	3,850	15,000	1,290	775	801	490	976
14	826	5,760	3,140	1,390	1,560	3,370	14,000	1,210	785	811	447	962
15	1,200	5,560	2,550	1,410	1,540	2,450	9,670	1,230	1,030	1,020	377	673
16	1,210	4,480	2,480	3,320	1,250	2,130	5,490	1,260	1,310	1,160	348	441
17	936	3,680	2,390	4,630	934	1,690	5,100	1,270	987	1,030	357	472
18	911	3,540	2,120	3,820	1,050	1,470	5,150	1,270	764	913	356	2,070
19	746	3,410	2,450	3,080	1,120	1,530	5,100	1,480	760	669	356	5,800
20	650	3,670	2,620	4,890	1,010	1,540	4,930	1,760	678	490	356	6,450
21	650	4,300	2,240	5,560	929	1,550	3,890	2,150	626	492	360	4,720
22	652	4,890	1,610	3,710	931	1,540	3,260	2,370	723	490	370	4,000
23	663	4,760	1,360	3,190	938	1,540	2,860	1,930	873	490	669	2,170
24	667	4,140	1,750	e1,850	939	1,540	1,930	1,490	1,090	446	960	1,910
25	604	3,000	3,340	e1,400	939	1,540	1,290	1,190	1,150	412	857	1,870
26	550	2,130	4,580	e1,400	941	1,710	3,010	1,100	1,100	412	714	837
27	630	2,370	4,440	e1,400	938	1,810	3,520	1,220	1,190	595	567	1,030
28	632	4,420	3,410	e1,400	939	1,800	2,840	1,050	1,160	600	522	1,030
29	705	5,890	2,460	1,430	--	1,770	2,720	1,030	635	404	839	1,010
30	709	5,790	2,090	1,800	--	1,760	3,510	1,880	386	405	1,140	767
31	704	--	2,120	2,190	--	2,100	--	2,220	--	368	1,130	--
TOTAL	35,568	104,153	120,040	67,080	42,578	80,721	184,260	68,480	31,672	33,066	17,995	48,641
MEAN	1,147	3,472	3,872	2,164	1,521	2,604	6,142	2,209	1,056	1,067	580	1,621
MAX	4,100	5,940	8,260	5,560	2,870	4,980	15,000	5,540	1,930	3,770	1,140	6,450
MIN	383	571	1,360	1,380	929	951	1,290	1,030	386	368	345	441

WATER YEAR 1987 TOTAL 834,254 MEAN 2,286 MAX 15,000 MIN 345

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 24.--Conemaugh River at Tunnelton--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	1,040	540	9,590	2,950	1,130	1,880	2,400	2,380	1,500	430	436	739
2	1,540	540	9,640	3,290	1,500	1,640	1,990	2,560	1,200	430	464	731
3	1,450	540	5,140	3,270	2,100	1,420	2,010	2,200	1,010	430	470	728
4	1,480	540	4,020	1,520	6,040	1,830	2,010	1,630	1,010	425	463	726
5	2,050	545	3,450	685	7,580	3,270	2,030	1,800	1,260	420	465	838
6	1,480	543	2,860	596	9,060	6,460	2,030	2,330	1,010	420	463	1,020
7	1,080	540	2,640	608	10,300	7,760	2,090	3,200	1,010	420	486	1,310
8	1,110	594	2,060	623	10,100	7,580	3,430	3,550	890	416	463	1,230
9	1,300	637	2,050	622	10,600	7,350	4,490	2,300	1,050	412	460	871
10	968	614	2,380	627	10,700	6,130	4,410	2,030	1,280	412	385	731
11	975	632	2,740	764	10,200	6,100	4,270	3,610	1,290	406	319	724
12	964	732	2,970	1,160	6,850	6,410	3,290	3,770	1,090	405	337	561
13	963	808	2,790	1,190	3,570	6,190	2,490	2,690	963	404	337	407
14	963	808	2,450	1,180	2,810	6,130	2,280	2,240	951	408	341	788
15	778	911	2,120	1,180	2,760	4,340	1,670	1,980	778	407	338	1,030
16	775	1,110	2,530	1,180	2,720	2,420	1,490	1,970	660	406	344	932
17	613	1,400	3,170	1,150	3,060	2,250	1,510	1,640	660	404	344	845
18	610	1,540	2,810	1,130	2,540	2,570	1,520	1,530	660	401	404	818
19	618	1,410	2,260	1,010	2,340	2,550	1,520	1,730	660	403	474	1,020
20	620	1,160	2,330	1,220	3,010	2,510	1,520	2,230	660	563	473	1,250
21	620	880	4,420	2,860	4,070	2,170	1,510	4,120	660	1,530	473	1,250
22	625	1,070	5,510	7,100	3,510	1,960	1,490	6,050	654	1,620	463	1,250
23	630	1,250	4,330	8,100	2,900	1,940	1,180	7,280	649	1,590	353	1,250
24	628	1,100	3,370	8,130	2,760	1,950	989	7,610	640	1,590	266	1,250
25	630	1,160	3,020	6,210	3,080	2,020	1,130	7,430	555	1,610	420	1,250
26	622	1,320	3,810	3,610	2,400	2,630	1,210	7,120	494	1,540	465	1,260
27	622	1,320	3,930	1,160	2,090	3,840	1,210	6,080	491	1,160	420	1,350
28	571	1,310	3,100	1,020	1,900	4,460	1,200	4,310	417	788	420	1,450
29	533	1,820	3,150	1,100	1,900	4,390	1,070	2,450	393	711	437	1,440
30	540	5,020	2,790	968	--	4,270	1,540	1,710	424	599	529	1,420
31	540	--	2,740	1,080	--	3,500	--	1,500	--	401	675	--
TOTAL	27,938	32,394	110,170	67,293	133,580	119,920	60,979	103,030	24,969	21,561	13,187	30,469
MEAN	901	1,080	3,554	2,171	4,606	3,868	2,033	3,324	832	696	425	1,016
MAX	2,050	5,020	9,640	8,130	10,700	7,760	4,490	7,610	1,500	1,620	675	1,450
MIN	533	540	2,050	596	1,130	1,420	989	1,500	393	401	266	407

WATER YEAR 1988 TOTAL 745,490 MEAN 2,037 MAX 10,700 MIN 266

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 26.--Cherry Run near Homer City

[discharge is in cubic feet per second; e, estimated]

WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	1.2	1.9	13	8.3	e5.2	22	52	9.0	11	3.2	0.13	3.1
2	.60	1.8	42	8.5	e5.0	24	50	8.7	13	11	.13	2.3
3	5.4	1.7	60	6.8	e11	19	40	33	8.8	9.3	.39	1.7
4	25	4.4	38	5.2	e10	15	186	40	6.5	4.2	.38	1.1
5	34	5.1	25	4.4	e8.8	12	143	26	5.0	2.9	.97	.77
6	10	8.3	18	e5.0	e7.4	11	78	20	3.9	2.3	1.5	1.6
7	5.8	6.2	15	e4.7	e6.8	9.8	49	16	3.4	4.0	.60	2.3
8	3.9	71	14	e4.4	e6.2	9.1	32	12	2.9	2.5	.33	5.8
9	2.9	174	51	e4.1	e5.6	8.6	23	9.8	5.0	2.0	.33	13
10	2.3	48	47	e4.0	e5.2	6.3	18	7.8	2.8	1.8	1.7	10
11	1.9	68	30	e4.1	e4.9	5.4	15	6.5	2.2	1.5	1.1	8.1
12	1.7	45	22	e4.8	e4.6	5.2	20	5.6	2.6	1.1	.51	18
13	2.5	27	15	e6.0	e4.3	4.6	17	4.5	3.5	.99	.25	14
14	5.8	17	12	e8.0	e4.0	4.5	13	3.6	2.7	.96	.17	11
15	3.6	13	10	19	e3.8	6.1	26	5.9	2.5	1.4	.15	8.1
16	2.6	11	8.3	17	e3.6	5.4	29	3.5	2.6	.97	.15	e6.8
17	2.3	8.4	7.7	14	e3.4	4.5	24	2.9	1.7	.66	.13	e9.0
18	2.0	10	10	13	e3.3	4.0	19	12	1.2	.57	.42	e12
19	1.7	13	8.0	50	e3.1	3.8	15	16	1.1	.41	.47	e15
20	1.5	14	6.4	45	e3.0	3.5	12	13	1.2	.28	.37	e23
21	1.4	20	5.4	29	e2.9	3.3	10	8.2	1.8	.26	.28	e19
22	1.4	16	4.3	22	e2.9	3.1	8.8	6.2	1.9	.22	5.8	e15
23	1.3	14	4.0	17	e2.8	2.8	8.5	5.2	2.0	.19	5.5	e11
24	1.1	13	22	e14	e2.7	2.8	30	4.2	1.5	.15	2.1	e9.0
25	1.1	11	52	e11	e2.7	5.3	19	3.5	1.2	.15	1.2	7.0
26	3.9	196	32	e9.2	e2.9	13	15	59	1.1	.16	.89	5.5
27	3.8	87	23	e8.0	e3.3	8.0	13	74	.94	.19	.88	4.4
28	3.9	41	18	e6.6	e3.8	7.0	17	31	.88	.19	4.2	3.4
29	2.9	25	14	e6.2	--	6.1	13	19	.83	.19	16	2.9
30	2.5	18	12	e5.6	--	12	11	14	.88	.19	6.6	4.4
31	2.0	--	9.6	e5.2	--	84	--	10	--	.16	3.8	--
TOTAL	142.00	989.8	648.7	370.1	133.2	331.2	1006.3	490.1	96.63	54.09	57.43	248.27
MEAN	4.58	33.0	20.9	11.9	4.76	10.7	33.5	15.8	3.22	1.74	1.85	8.28
MAX	34	196	60	50	11	84	186	74	13	11	16	23
MIN	.60	1.7	4.0	4.0	2.7	2.8	8.5	2.9	.83	.15	.13	.77

WATER YEAR 1987 TOTAL 4,567.82 MEAN 12.5 MAX 196 MIN .13

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 26.--Cherry Run near Homer City--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	3.5	e1.1	38	25	22	e4.5	13	2.8	2.0	0.20	0.10	0.31
2	3.0	e1.0	31	18	330	e4.0	12	2.6	2.8	.21	.08	.22
3	5.2	e.90	24	17	111	4.6	11	2.8	2.0	.19	.09	.19
4	4.1	e.88	23	14	131	e48	e13	2.8	1.8	.17	.10	1.1
5	3.2	e.86	24	11	82	e37	12	3.3	1.4	.18	.12	.80
6	2.7	e.84	21	8.8	e48	32	11	5.7	1.2	.20	.37	.30
7	3.0	e.80	17	e7.0	e34	26	14	5.6	.99	.20	.20	.20
8	3.4	e.80	15	e6.4	e24	20	e16	e4.2	.88	.20	.11	.15
9	3.0	e.96	e16	e5.8	e17	e22	15	e3.5	4.5	.21	.09	.12
10	2.6	1.7	e20	e5.2	e12	e28	14	9.3	1.4	.21	.09	.12
11	2.2	2.0	e17	e4.8	e9.8	e20	12	9.7	.98	.23	.08	.11
12	2.2	1.9	e14	e4.5	e8.0	e17	9.3	e6.6	.82	.24	.07	.16
13	2.0	e2.2	12	e4.2	e7.2	e21	8.4	e6.0	.66	.25	.08	22
14	1.7	e2.6	9.9	e4.0	e6.4	e13	7.5	e5.4	.57	.26	.08	3.0
15	1.5	e2.4	14	e3.8	e5.6	12	6.7	e4.8	.49	.47	.07	1.2
16	1.4	e2.2	20	e3.6	e5.2	12	6.1	e4.4	.43	.26	.08	.66
17	1.3	1.9	18	e3.4	e4.8	11	5.6	e4.0	.40	.22	.12	5.6
18	1.2	3.9	15	e3.5	e4.7	10	5.1	6.3	.33	.24	.78	2.9
19	1.1	4.3	13	e8.0	e4.7	10	4.8	8.2	.25	.29	.29	1.6
20	1.0	3.8	43	e62	12	10	4.4	15	.22	.84	.21	1.2
21	1.0	e3.4	38	27	e8.4	9.6	4.0	28	.19	9.8	.13	1.0
22	1.0	e3.1	26	18	12	9.0	3.7	e18	.16	1.5	.11	.71
23	.93	e2.8	21	14	11	9.0	3.3	e14	.16	.60	.47	.87
24	.88	3.3	16	12	e8.0	9.4	3.1	e10	.12	.47	1.6	.78
25	.88	3.4	16	10	e6.2	9.8	2.8	e8.0	.12	.32	.27	.56
26	e.80	e3.1	20	7.0	e6.6	32	2.6	6.4	.14	.78	.16	.56
27	.99	e2.9	16	5.5	e5.2	32	2.4	5.1	.16	.58	.13	.48
28	1.7	3.4	e13	5.4	e4.7	27	2.1	4.3	.17	.32	.10	.35
29	e1.6	71	e12	5.1	e4.4	22	2.1	3.6	.17	.21	4.1	.28
30	e1.4	65	12	4.8	--	18	2.8	3.1	.18	.15	1.4	.22
31	e1.2	--	14	6.0	--	15	--	2.2	--	.13	.49	--
TOTAL	61.68	198.44	608.9	334.8	945.9	554.9	229.8	215.7	25.69	20.13	12.17	47.75
MEAN	1.99	6.61	19.6	10.8	32.6	17.9	7.66	6.96	.86	.65	.39	1.59
MAX	5.2	71	43	62	330	48	16	28	4.5	9.8	4.1	22
MIN	.80	.80	9.9	3.4	4.4	4.0	2.1	2.2	.12	.13	.07	.11

WATER YEAR 1988 TOTAL 3,255.86 MEAN 8.90 MAX 330 MIN .07

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 27.--Two Lick Creek near Graceton

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	79	71	464	247	191	235	745	318	138	106	63	132
2	68	70	690	226	190	396	757	305	204	214	62	96
3	121	66	1,010	216	271	413	869	448	164	264	93	76
4	753	92	959	198	304	396	1,780	870	162	125	60	68
5	1,210	100	787	171	264	380	2,770	572	107	87	178	63
6	641	143	556	137	284	397	1,730	497	93	75	77	95
7	380	165	479	154	280	373	1,490	444	90	1,090	54	85
8	257	422	427	185	243	347	931	377	83	397	50	216
9	249	2,370	625	168	151	369	801	276	99	235	62	245
10	226	1,380	850	183	214	358	555	248	73	217	113	154
11	151	1,100	664	185	184	283	483	228	70	200	72	164
12	92	1,130	513	178	203	223	487	212	76	205	65	190
13	128	652	452	172	191	210	464	180	74	147	59	202
14	212	527	382	168	180	244	407	149	75	102	55	131
15	226	442	311	236	160	245	423	175	84	104	54	98
16	180	386	286	429	98	199	408	186	74	120	49	92
17	140	309	256	437	93	136	382	120	67	82	64	301
18	132	301	239	366	91	128	319	201	60	66	90	694
19	117	356	228	510	97	127	266	417	67	55	49	616
20	92	395	215	633	94	153	284	339	70	54	46	592
21	128	609	199	562	93	148	214	191	64	53	45	535
22	227	511	186	513	92	133	195	178	70	51	184	406
23	193	451	176	438	107	119	205	167	115	68	94	312
24	67	388	246	306	112	124	548	153	52	69	61	267
25	65	362	607	271	85	118	546	129	50	68	56	236
26	96	1,170	623	247	83	154	372	557	51	68	55	197
27	124	1,500	432	214	82	138	331	765	50	67	55	148
28	111	859	386	206	89	135	502	352	51	65	146	130
29	79	619	359	185	--	130	427	222	64	65	242	121
30	84	528	305	203	--	175	378	177	75	64	128	183
31	74	--	279	207	--	551	--	148	--	64	108	--
TOTAL	6,702	17,474	14,191	8,551	4,526	7,537	20,069	9,601	2,572	4,647	2,589	6,845
MEAN	216	582	458	276	162	243	669	310	85.7	150	83.5	228
MAX	1,210	2,370	1,010	633	304	551	2,770	870	204	1,090	242	694
MIN	65	66	176	137	82	118	195	120	50	51	45	63

WATER YEAR 1987 TOTAL 105,304 MEAN 289 MAX 2,770 MIN 45

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 27.--Two Lick Creek near Graceton--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	170	67	909	378	474	157	278	191	92	42	42	40
2	145	68	667	392	4,200	149	294	195	96	43	42	39
3	249	67	555	329	2,850	189	196	170	88	39	42	39
4	241	62	514	272	2,670	610	236	130	97	40	47	65
5	178	56	422	243	1,620	666	204	184	89	39	49	48
6	136	54	361	699	1,120	632	203	288	73	44	60	42
7	151	53	389	1,110	620	582	315	163	69	43	50	40
8	205	53	382	1,050	519	535	340	154	66	44	47	40
9	179	62	362	682	442	539	433	212	93	45	45	39
10	122	65	349	205	340	585	378	390	64	47	46	37
11	124	67	382	171	255	553	295	328	59	50	46	37
12	119	66	346	155	239	429	257	258	56	48	46	36
13	114	67	300	117	227	440	238	236	59	47	48	226
14	102	69	272	147	212	441	208	278	52	48	48	62
15	96	69	339	143	206	391	176	198	51	78	46	47
16	90	71	436	119	209	305	168	240	48	48	39	42
17	85	115	462	87	197	236	161	210	48	44	42	118
18	76	163	423	129	199	227	179	416	46	43	75	83
19	68	133	333	177	222	219	180	548	44	63	44	74
20	69	109	522	574	365	251	150	604	43	71	45	72
21	69	126	603	541	376	275	118	557	42	186	37	69
22	66	91	577	519	360	233	111	420	42	61	43	63
23	63	88	543	434	384	217	109	313	41	54	55	63
24	61	88	464	329	345	270	109	360	41	53	55	58
25	60	131	417	319	274	357	102	332	45	49	38	55
26	59	131	435	299	239	653	99	228	45	63	39	53
27	67	86	409	263	214	643	95	199	46	62	40	50
28	75	94	358	205	196	606	99	132	43	48	46	49
29	72	1,240	314	172	175	562	119	118	42	46	119	47
30	70	1,460	278	206	--	494	172	108	41	42	53	47
31	68	--	269	258	--	307	--	98	--	44	42	--
TOTAL	3,449	5,071	13,392	10,724	19,749	12,753	6,022	8,258	1,761	1,674	1,516	1,780
MEAN	111	169	432	346	681	411	201	266	58.7	54.0	48.9	59.3
MAX	249	1,460	909	1,110	4,200	666	433	604	97	186	119	226
MIN	59	53	269	87	175	149	95	98	41	39	37	36

WATER YEAR 1988 TOTAL 86,149 MEAN 235 MAX 4,200 MIN 36

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 28.--Blacklick Creek at Josephine

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	108	119	477	e230	e105	e125	838	331	e150	e94	51	109
2	231	115	512	e200	e100	e800	727	301	e170	e190	53	91
3	213	111	981	e180	e98	609	706	404	e160	e420	91	75
4	1,290	109	845	e170	e96	e500	1,900	1,090	e140	e170	79	67
5	1,320	e200	650	e160	e125	e380	3,060	611	e125	e94	73	64
6	590	e330	594	e150	e160	e360	2,210	561	e115	e82	144	84
7	e330	e240	519	e145	e210	e330	2,600	486	e110	502	70	102
8	e230	243	467	e140	e170	633	1,710	423	e100	e380	58	166
9	e170	2,860	898	e130	e140	785	991	363	e110	e310	88	219
10	e140	1,410	1,460	e125	e130	639	633	313	e130	e230	233	149
11	e120	925	760	e120	e120	e500	587	275	e100	e200	144	112
12	e100	990	e600	e110	e115	e420	556	250	e94	e160	84	104
13	e130	680	e490	e110	e110	e360	611	229	e200	e140	69	126
14	e170	e560	e380	e105	e105	e330	528	210	e460	e130	62	104
15	220	e450	e350	e180	e105	e310	471	205	e210	e140	58	86
16	e190	e400	e300	342	e100	e290	470	226	e150	e120	56	84
17	e150	e360	e270	440	e130	e280	423	198	e120	e90	57	133
18	e125	e330	352	e250	e120	e260	389	170	e100	e74	58	1,190
19	e110	412	383	440	e110	e250	334	176	e84	e64	50	856
20	e100	425	342	620	e115	e230	297	e340	e170	e56	47	584
21	e100	882	e300	e500	e120	e230	270	e260	e370	e50	51	510
22	e96	622	e250	e420	e125	e220	251	233	e320	e48	170	387
23	e94	586	e220	e350	e150	e210	267	e210	e450	e44	197	335
24	e92	558	e200	e300	e140	e200	356	e180	e230	e42	93	266
25	e90	526	e300	e230	e125	208	419	e160	e100	e42	69	230
26	116	1,230	e640	e190	e120	301	313	e160	e88	e42	67	192
27	120	1,830	e520	e160	e120	265	275	e200	e220	e41	70	156
28	125	816	440	e130	e120	234	491	e350	e120	e41	97	136
29	127	658	390	e120	--	215	474	e260	e78	e42	336	124
30	127	591	e310	e110	--	255	389	e190	e84	e44	187	223
31	124	--	e290	e105	--	1,010	--	e140	--	52	114	--
TOTAL	7,248	19,568	15,490	6,962	3,484	11,739	23,546	9,505	5,058	4,134	3,076	7,064
MEAN	234	652	500	225	124	379	785	307	169	133	99.2	235
MAX	1,320	2,860	1,460	620	210	1,010	3,060	1,090	460	502	336	1,190
MIN	90	109	200	105	96	125	251	140	78	41	47	64

WATER YEAR 1987 TOTAL 116,874 MEAN 320 MAX 3,060 MIN 41

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 28.--Blacklick Creek at Josephine--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	225	83	981	529	e600	270	372	288	147	55	e45	57
2	179	e78	621	435	4,950	254	348	238	159	55	e43	50
3	312	e74	468	330	2,990	345	317	216	144	59	e41	53
4	268	e70	435	350	2,760	1,830	360	202	136	59	e40	121
5	219	e66	380	239	1,640	1,410	349	232	131	51	e39	237
6	197	e64	323	174	930	864	318	304	121	48	e50	118
7	200	e60	282	e160	660	703	577	258	106	43	63	83
8	196	e58	265	e145	596	576	570	236	97	40	e42	69
9	174	e64	314	e135	473	634	460	230	214	35	e39	61
10	149	92	469	e130	422	1170	406	405	202	47	38	e52
11	142	e110	408	e120	366	760	353	439	121	50	38	e48
12	153	e105	378	e125	345	613	317	346	104	46	e34	e45
13	141	113	346	e130	312	649	284	302	94	42	e34	301
14	125	141	292	e125	e270	556	259	284	87	45	e32	258
15	117	163	311	e120	e250	473	247	251	78	58	44	138
16	112	151	454	e125	e230	413	238	248	73	45	43	94
17	106	138	377	e135	e220	382	237	234	78	36	41	399
18	98	185	312	e150	e230	361	232	376	75	38	70	452
19	94	184	278	e190	e260	346	221	769	78	47	70	234
20	89	e160	476	e1,030	e700	337	201	683	76	192	61	201
21	e94	e145	781	777	650	283	188	744	71	375	e50	275
22	e100	e135	553	506	454	259	175	552	63	274	e45	186
23	e94	e130	457	413	501	305	166	446	51	121	51	151
24	e90	154	386	362	472	490	176	549	52	127	92	e120
25	84	168	444	e290	384	519	164	401	58	101	71	e150
26	80	161	618	e260	338	1,080	145	319	65	79	55	230
27	81	154	511	e240	337	882	131	275	66	68	50	173
28	e130	141	442	e230	304	669	128	242	61	62	41	142
29	111	1,700	416	e220	274	536	170	217	56	e56	122	117
30	93	2,290	320	e210	--	468	371	195	56	e52	216	98
31	88	--	287	e240	--	406	--	174	--	e48	81	--
TOTAL	4,341	7,337	13,385	8,625	22,918	18,843	8,480	10,655	2,920	2,454	1,781	4,713
MEAN	140	245	432	278	790	608	283	344	97.3	79.2	57.5	157
MAX	312	2,290	981	1,030	4,950	1,830	577	769	214	375	216	452
MIN	80	58	265	120	220	254	128	174	51	35	32	45

WATER YEAR 1988 TOTAL 106,452 MEAN 291 MAX 4,950 MIN 32

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 31.--Conemaugh River at Seward

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	332	348	1,640	e960	e930	e1,050	3,160	1,330	620	471	240	342
2	707	336	1,640	e880	e1,000	3,420	2,790	1,360	677	882	237	300
3	915	329	3,480	e800	1,610	2,500	2,470	1,840	624	909	300	268
4	1,250	428	3,000	e720	e1,500	1,930	8,160	3,530	551	631	295	257
5	1,610	571	2,290	e680	e1,300	1,560	9,370	2,900	499	499	336	243
6	1,060	1,020	1,850	e620	e1,100	1,480	7,270	2,320	450	415	350	328
7	725	919	1,620	e780	e1,000	2,130	9,660	1,960	440	3,400	285	347
8	548	1,160	1,540	e860	e960	3,690	7,350	1,670	427	1,240	264	614
9	463	4,500	3,040	e800	e920	4,290	5,340	1,440	511	832	323	880
10	404	3,330	4,550	e720	e900	3,650	4,040	1,280	534	684	336	526
11	372	2,620	3,290	e700	e880	2,760	3,230	1,170	431	574	278	415
12	337	2,940	2,570	e680	e860	2,200	3,150	1,090	421	749	256	374
13	377	2,220	2,040	e640	e860	1,870	3,540	966	650	561	238	376
14	521	1,710	1,620	e600	e700	1,630	2,810	862	1,030	545	229	352
15	650	1,420	1,510	e1,000	e620	1,550	2,540	1,150	895	558	213	317
16	520	1,280	1,300	2,710	e580	1,370	2,620	975	641	466	205	308
17	435	1,140	1,200	2,090	e580	1,270	4,080	815	495	406	210	419
18	394	1,100	1,440	1,610	e520	1,190	3,810	784	414	365	225	3,620
19	360	2,050	1,700	2,000	e480	1,150	2,970	1,150	384	332	203	1,630
20	341	1,950	1,380	2,900	e440	1,120	2,490	1,240	448	315	192	1,270
21	344	3,820	1,190	2,100	e470	1,090	2,140	1,180	734	309	193	1,070
22	333	2,890	1,010	1,660	e500	1,070	1,870	959	647	291	550	959
23	331	2,240	931	e1,400	e540	1,060	1,640	821	946	276	518	832
24	323	2,020	1,040	e1,100	e540	1,070	1,780	731	642	274	318	712
25	310	1,880	1,900	e940	e470	1,110	1,740	660	506	270	262	590
26	415	2,780	2,350	e1,250	e420	1,180	1,440	670	451	264	262	539
27	448	4,610	1,830	1,070	e430	1,080	1,340	1,040	512	263	275	462
28	444	3,220	1,540	946	e450	1,080	1,850	1,240	434	263	470	426
29	417	2,480	1,340	913	--	1,050	1,770	926	380	257	972	392
30	397	1,990	e1,200	e900	--	1,220	1,530	736	400	243	462	844
31	369	--	e1,100	e1,070	--	3,080	--	651	--	252	343	--
TOTAL	16,452	59,301	58,131	36,099	21,560	55,900	107,950	39,446	16,794	17,796	9,840	20,012
MEAN	531	1,977	1,875	1,164	770	1,803	3,598	1,272	560	574	317	667
MAX	1,610	4,610	4,550	2,900	1,610	4,290	9,660	3,530	1,030	3,400	972	3,620
MIN	310	329	931	600	420	1,050	1,340	651	380	243	192	243

WATER YEAR 1987 TOTAL 459,281 MEAN 1,258 MAX 9,660 MIN 192

Table 4.--Mean daily discharges at streamflow-gaging stations--Continued
Site 31.--Conemaugh River at Seward--Continued

[discharge is in cubic feet per second; e, estimated]

	WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988											
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT
1	760	297	3,390	2,030	2,170	1,000	1,340	1,740	930	290	323	449
2	600	300	2,480	2,160	6,790	949	1,250	1,380	951	274	316	377
3	1,050	301	1,950	e1,400	7,050	1,300	1,160	1,170	859	252	304	336
4	827	297	1,780	e1,000	5,710	6,790	1,280	1,070	765	251	283	1,520
5	670	292	1,560	e840	4,490	7,400	1,260	1,290	687	252	284	1,570
6	600	294	1,330	e760	3,160	4,250	1,120	2,500	630	247	364	943
7	611	281	1,180	e640	2,500	3,310	2,750	2,550	562	234	279	670
8	577	270	1,090	e620	2,250	2,740	3,330	2,050	517	223	268	514
9	522	294	1,230	e580	1,900	2,700	2,550	1,760	1,380	211	263	435
10	470	360	1,960	e560	1,690	3,390	2,120	2,400	1,050	210	255	387
11	470	443	1,940	e540	1,470	2,840	1,860	2,080	702	229	244	350
12	470	431	1,690	e520	1,380	2,460	1,630	1,730	574	231	246	332
13	441	431	1,480	e500	1,170	2,440	1,460	1,520	511	236	242	1,520
14	398	536	1,260	e480	1,080	2,220	1,300	1,350	467	250	235	1,180
15	365	750	1,480	e470	e940	1,930	1,230	1,220	438	260	243	719
16	365	806	2,030	e460	e820	1,700	1,150	1,190	416	243	257	538
17	343	823	1,620	e460	e740	1,530	1,090	1,090	488	231	250	2,750
18	292	812	1,340	e460	e740	1,420	1,050	2,680	435	242	353	2,710
19	322	682	1,180	e740	e820	1,360	994	6,520	388	468	328	1,570
20	336	656	2,180	e4,600	e1,500	1,320	905	5,440	382	967	298	1,260
21	350	646	3,390	4,170	2,220	1,180	816	5,100	361	1,990	273	1,080
22	329	567	2,500	2,510	1,600	1,050	752	3,800	342	990	263	e899
23	315	552	2,030	1,890	1,790	1,090	713	2,970	331	1,290	331	e740
24	311	716	1,710	1,570	1,750	1,530	876	3,960	331	1,860	959	e620
25	300	991	1,750	1,450	1,470	1,670	811	3,020	311	813	431	e860
26	301	865	2,330	1,320	1,280	2,250	715	2,330	301	557	334	e1,100
27	315	757	2,220	1,090	1,210	2,570	644	1,930	301	467	283	e800
28	376	695	1,920	1,060	1,120	2,170	646	1,600	299	620	262	e560
29	360	3,360	1,810	992	1,040	1,870	886	1,370	293	426	1,840	e400
30	332	5,290	1,450	935	--	1,640	2,040	1,190	287	364	1,300	e370
31	319	--	1,260	1,070	--	1,450	--	1,040	--	335	643	--
TOTAL	14,097	23,795	56,520	37,877	61,850	71,519	39,728	71,040	16,289	15,513	12,554	27,559
MEAN	455	793	1,823	1,222	2,133	2,307	1,324	2,292	543	500	405	919
MAX	1,050	5,290	3,390	4,600	7,050	7,400	3,330	6,520	1,380	1,990	1,840	2,750
MIN	292	270	1,090	460	740	949	644	1,040	287	210	235	332

WATER YEAR 1988 TOTAL 448,341 MEAN 1,225 MAX 7,400 MIN 210

Table 5.--Surface-water-quality data

[ft^3/s, cubic feet per second; µS/cm, microsiemens per centimeter at 25 degrees Celsius; °C, degrees Celsius; mg/L, milligrams per liter; µg/L, micrograms per liter; <, less than; --, no data]

Date	Time	Streamflow, instantaneous (ft^3/s)	Specific conductance (µS/cm)	pH (standard units)	Water temperature (°C)	Hardness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dissolved (mg/L as Ca)	Magnesium, dissolved (mg/L as Mg)	Sodium, dissolved (mg/L as Na)	Potassium, dissolved (mg/L as K)
01540649	CUSH CUSHION CREEK AT CHERRY TREE, PA Site 5 (LAT 40 43 25 N. LONG 078 48 58 W.)										
NOV 03, 1986	1440	4.7	290	7.4	7.5	110	0.00	26	10	5.5	1.8
MAY 11, 1987	1320	9.5	275	7.5	15.5	100	.00	24	9.8	4.4	1.3
OCT 19, 1987	1215	2.0	335	7.1	8.0	110	--	28	10	5.4	--
MAY 31, 1988	1230	3.6	285	6.9	18.5	120	--	28	11	5.3	1.3
AUG 17, 1988	1100	.00	--	--	--	--	--	--	--	--	--
01540660	SHRYOCK RUN NEAR ARCADIA, PA Site 4 (LAT 40 46 12 N. LONG 078 49 43 W.)										
NOV 03, 1986	1315	0.33	72	6.9	8.0	21	0.00	6.7	2.2	2.3	0.8
MAY 11, 1987	1215	.60	83	6.8	13.0	20	.00	5.9	2.1	2.4	.6
OCT 19, 1987	1120	.18	110	6.9	7.5	31	--	8.4	2.5	--	--
MAY 31, 1988	1130	.28	72	6.9	13.5	26	--	7.0	2.2	2.1	.5
AUG 17, 1988	1040	.03	205	7.5	17.5	93	--	28	5.6	3.0	.8
01540670	ROCK RUN NEAR GLEN CAMPBELL, PA Site 3 (LAT 40 48 01 N. LONG 078 48 28 W.)										
NOV 03, 1986	1220	1.5	56	6.9	6.0	17	0.00	4.4	1.8	1.3	0.9
MAY 11, 1987	1130	2.4	70	7.0	12.0	16	.00	4.1	1.7	1.5	.8
OCT 19, 1987	1040	.66	80	7.1	6.0	20	--	4.9	2.0	1.7	--
MAY 31, 1988	1045	1.1	58	7.4	14.0	20	--	5.1	1.9	1.4	.7
AUG 17, 1988	1010	.02	100	7.7	20.0	38	--	9.7	3.2	2.3	1.3
01540705	CUSH CREEK AT GLEN CAMPBELL, PA Site 2 (LAT 40 48 51 N. LONG 078 49 28 W.)										
NOV 03, 1986	1030	12	322	7.5	6.0	110	0.00	27	10	14	2.3
MAY 11, 1987	1030	22	305	7.3	12.0	110	.00	26	10	10	1.6
OCT 19, 1987	1000	7.8	375	7.1	6.5	120	--	29	11	16	--
MAY 31, 1988	1010	12	360	7.2	14.5	140	--	34	12	14	1.7
AUG 17, 1988	0950	2.1	520	7.3	18.5	180	--	46	16	34	2.3

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
01540649 CUSH CUSHION CREEK AT CHERRY TREE, PA Site 5 (LAT 40 43 25 N. LONG 078 48 58 W.)										
NOV 03, 1986	22	24	95	11	<0.1	7.7	184	0.76	<130	<130
MAY 11, 1987	18	18	92	6.0	<.1	6.6	218	.70	<130	<130
OCT 19, 1987	--	34	--	6.0	<.1	--	228	.34	<130	<130
MAY 31, 1988	--	34	82	7.0	<.1	6.3	192	.65	200	<130
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
01540660 SHRYOCK RUN NEAR ARCADIA, PA Site 4 (LAT 40 46 12 N. LONG 078 49 43 W.)										
NOV 03, 1986	16	16	20	6.0	<0.1	8.8	56	0.12	<130	<130
MAY 11, 1987	14	14	23	4.0	<.1	6.7	72	.10	<130	<130
OCT 19, 1987	--	28	--	6.0	<.1	--	96	.04	<130	<130
MAY 31, 1988	--	18	12	5.0	<.1	7.3	88	.20	200	<130
AUG 17, 1988	--	90	53	4.0	<.1	13	340	.10	<130	<130
01540670 ROCK RUN NEAR GLEN CAMPBELL, PA Site 3 (LAT 40 48 01 N. LONG 078 48 28 W.)										
NOV 03, 1986	12	12	20	4.0	<0.1	7.0	48	0.18	<130	<130
MAY 11, 1987	6	--	24	3.0	<.1	6.6	80	.22	--	<130
OCT 19, 1987	--	14	--	4.0	<.1	--	68	.04	<130	<130
MAY 31, 1988	--	12	12	3.0	<.1	6.2	76	.24	200	<130
AUG 17, 1988	--	42	40	2.0	<.1	5.9	212	.28	600	200
01540705 CUSH CREEK AT GLEN CAMPBELL, PA Site 2 (LAT 40 48 51 N. LONG 078 49 28 W.)										
NOV 03, 1986	40	40	100	9.0	<0.1	7.8	214	0.26	<130	<130
MAY 11, 1987	32	32	100	6.0	<.1	7.5	218	.30	<130	<130
OCT 19, 1987	--	46	--	10	.1	--	258	.14	<130	<130
MAY 31, 1988	--	46	110	6.0	.1	7.5	324	.28	200	<130
AUG 17, 1988	--	88	240	7.0	.2	5.8	376	.18	200	<130

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
01540649 CUSH CUSHION CREEK AT CHERRY TREE, PA Site 5 (LAT 40 43 25 N. LONG 078 48 58 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
01540660 SHRYOCK RUN NEAR ARCADIA, PA Site 4 (LAT 40 46 12 N. LONG 078 49 43 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	40	30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	30	30
01540670 ROCK RUN NEAR GLEN CAMPBELL, PA Site 3 (LAT 40 48 01 N. LONG 078 48 28 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	1	<50	<50	30	30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	30	30
01540705 CUSH CREEK AT GLEN CAMPBELL, PA Site 2 (LAT 40 48 51 N. LONG 078 49 28 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	30	30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	30	30

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
01540649 CUSH CUSHION CREEK AT CHERRY TREE, PA Site 5 (LAT 40 43 25 N. LONG 078 48 58 W.)										
NOV 03, 1986	<10	<10	330	290	0	<4	80	70	<1.0	<1.0
MAY 11, 1987	--	--	200	100	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	<100	<100	0	<4	50	50	--	--
MAY 31, 1988	10	10	360	160	0	<4	150	140	<1.0	<1.0
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
01540660 SHRYOCK RUN NEAR ARCADIA, PA Site 4 (LAT 40 46 12 N. LONG 078 49 43 W.)										
NOV 03, 1986	<10	<10	330	260	0	<4	60	60	<1.0	<1.0
MAY 11, 1987	--	--	290	150	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	690	350	0	<4	60	60	--	--
MAY 31, 1988	20	14	530	230	0	<4	70	50	<1.0	<1.0
AUG 17, 1988	10	13	290	130	0	<4	200	200	<1.0	<1.0
01540670 ROCK RUN NEAR GLEN CAMPBELL, PA Site 3 (LAT 40 48 01 N. LONG 078 48 28 W.)										
NOV 03, 1986	<10	<10	460	190	0	<4	70	60	<1.0	<1.0
MAY 11, 1987	--	--	270	130	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	260	<100	0	<4	60	50	--	--
MAY 31, 1988	10	18	380	220	0	<4	50	<50	<1.0	<1.0
AUG 17, 1988	10	10	1300	340	0	<4	110	70	<1.0	<1.0
01540705 CUSH CREEK AT GLEN CAMPBELL, PA Site 2 (LAT 40 48 51 N. LONG 078 49 28 W.)										
NOV 03, 1986	<10	<10	400	190	0	<4	280	280	<1.0	<1.0
MAY 11, 1987	--	--	280	110	--	--	180	170	<1.0	<1.0
OCT 19, 1987	<10	<10	310	<100	0	<4	290	270	--	--
MAY 31, 1988	30	14	230	170	0	<4	190	190	<1.0	<1.0
AUG 17, 1988	20	23	420	<100	0	<4	110	100	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
01540649 CUSH CUSHION CREEK AT CHERRY TREE, PA Site 5 (LAT 40 43 25 N. LONG 078 48 58 W.)								
NOV 03, 1986	<25	<25	<15	<15	170	170	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	--	--	140	140	<10	<10
MAY 31, 1988	<25	<25	<15	<15	140	130	<10	<10
AUG 17, 1988	--	--	--	--	--	--	--	--
01540660 SHRYOCK RUN NEAR ARCADIA, PA Site 4 (LAT 40 46 12 N. LONG 078 49 43 W.)								
NOV 03, 1986	<25	<25	<15	<15	<100	<100	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	--	--	--	<100	<100	<10	--
MAY 31, 1988	90	62	<15	<15	<100	<100	<10	<10
AUG 17, 1988	40	42	<15	<15	150	150	20	20
01540670 ROCK RUN NEAR GLEN CAMPBELL, PA Site 3 (LAT 40 48 01 N. LONG 078 48 28 W.)								
NOV 03, 1986	<25	<25	<15	<15	<100	<100	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	--	--	<100	<100	<10	<10
MAY 31, 1988	100	65	<15	<15	<100	<100	<10	<10
AUG 17, 1988	40	42	<15	<15	<100	<100	20	20
01540705 CUSH CREEK AT GLEN CAMPBELL, PA Site 2 (LAT 40 48 51 N. LONG 078 49 28 W.)								
NOV 03, 1986	<25	<25	<15	<15	280	270	20	10
MAY 11, 1987	--	--	--	--	--	--	20	20
OCT 19, 1987	<25	<25	--	--	300	300	<10	<10
MAY 31, 1988	90	73	<15	<15	300	290	10	<10
AUG 17, 1988	30	<25	<15	<15	550	550	20	20

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
03033350	TRIBUTARY TO CANOE CR AT ROSSITER, PA Site 1 (LAT 40 53 05 N. LONG 078 55 04 W.)										
NOV 03, 1986	0910	0.71	164	7.2	5.5	60	0.00	15	5.4	3.9	1.6
MAY 11, 1987	0920	1.3	175	7.0	12.0	56	.00	14	5.3	4.1	1.2
OCT 19, 1987	0900	.34	205	6.7	6.0	75	--	17	5.7	5.2	1.5
MAY 31, 1988	0910	.63	205	6.7	15.0	75	--	21	7.7	5.2	1.1
AUG 17, 1988	0910	.03	315	6.9	20.0	110	--	33	10	6.1	1.8
03034300	LITTLE MAHONING CR NR ROCHESTER MILLS, PA Site 6 (LAT 40 47 48 N. LONG 078 55 41 W.)										
NOV 04, 1986	0830	15	180	7.0	7.5	57	0.00	15	4.8	5.5	1.0
MAY 11, 1987	1715	14	173	7.0	17.5	55	.00	14	4.7	3.7	1.2
OCT 19, 1987	1510	6.3	230	6.6	9.0	67	--	17	6.1	4.5	--
MAY 31, 1988	1630	5.9	205	7.1	21.5	85	--	23	6.8	4.1	1.4
AUG 17, 1988	1230	1.1	480	7.4	22.5	220	--	59	17	5.1	2.4
03034400	MUDLICK RUN NEAR GEORGEVILLE, PA Site 7 (LAT 40 51 15 N. LONG 079 044 24 W.)										
NOV 04, 1986	0945	3.8	145	7.4	8.0	41	0.00	12	4.0	6.1	1.2
MAY 11, 1987	1830	4.9	120	7.7	19.5	55	.00	8.0	2.8	4.2	1.2
OCT 19, 1987	1630	1.7	175	7.1	11.5	44	--	11	3.9	6.8	--
MAY 31, 1988	1740	2.9	128	7.2	24.0	39	--	10	3.3	5.7	1.3
AUG 17, 1988	1320	.04	350	7.6	29.0	63	--	21	5.8	30	11
0303450	LITTLE MAHONING CREEK AT MCCORMICK, PA Site 8 (LAT 40 50 10 N. LONG 079 06 37 W.)										
NOV 04, 1986	1010	64	240	7.2	8.0	83	0.00	19	7.8	7.7	2.0
MAY 11, 1987	1845	84	223	8.0	19.5	73	.00	17	7.0	5.7	1.4
OCT 19, 1987	1700	48	285	7.1	10.0	83	--	20	7.8	--	--
MAY 31, 1988	1800	37	255	7.3	24.5	100	--	25	9.2	7.1	1.4
AUG 17, 1988	1340	4.6	440	7.8	26.0	170	--	42	15	19	2.8

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03033350 TRIBUTARY TO CANOE CR AT ROSSITER, PA Site 1 (LAT 40 53 05 N. LONG 078 55 04 W.)										
NOV 03, 1986	20	22	45	9.0	<0.1	6.4	120	0.26	<130	<130
MAY 11, 1987	16	16	51	7.0	<.1	7.4	170	.34	<130	<130
OCT 19, 1987	--	32	52	11	<.1	7.4	--	.10	<130	<130
MAY 31, 1988	--	26	50	9.0	<.1	7.4	116	.36	400	200
AUG 17, 1988	--	68	200	11	<.1	4.6	252	.24	200	<130
03034300 LITTLE MAHONING CR NR ROCHESTER MILLS, PA Site 6 (LAT 40 47 48 N. LONG 078 55 41 W.)										
NOV 04, 1986	20	20	32	16	<0.1	4.8	120	0.34	<130	<130
MAY 11, 1987	12	16	45	8.0	<.1	5.3	114	.36	<130	<130
OCT 19, 1987	--	28	--	14	<.1	--	162	.18	<130	200
MAY 31, 1988	--	28	48	10	<.1	<4.3	272	.36	200	<130
AUG 17, 1988	--	56	150	12	.1	<4.3	412	.80	300	200
03034400 MUDLICK RUN NEAR GEORGEVILLE, PA Site 7 (LAT 40 51 15 N. LONG 079 04 24 W.)										
NOV 04, 1986	26	26	30	14	<0.1	5.9	108	1.5	<130	<130
MAY 11, 1987	14	16	26	6.0	<.1	5.9	104	1.2	<130	<130
OCT 19, 1987	--	34	120	14	<.1	--	100	1.4	<130	<130
MAY 31, 1988	--	24	19	9.0	<.1	6.4	120	1.2	200	<130
AUG 17, 1988	--	48	42	31	.2	<4.3	180	.2	500	<130
03034500 LITTLE MAHONING CREEK AT MCCORMICK, PA Site 8 (LAT 40 50 10 N. LONG 079 06 37 W.)										
NOV 04, 1986	26	28	53	17	<0.1	4.9	194	0.72	<130	<130
MAY 11, 1987	18	20	64	9.0	<.1	4.7	188	.72	<130	<130
OCT 19, 1987	--	34	--	18	<.1	--	182	.66	<130	<130
MAY 31, 1988	--	26	65	12	.1	<4.3	168	.59	300	<130
AUG 17, 1988	--	48	99	34	.2	<4.3	288	.14	200	200

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
03033350 TRIBUTARY TO CANOE CR AT ROSSITER, PA Site 1 (LAT 40 53 05 N. LONG 078 55 04 W.)										
NOV 03, 1986	<4	<4	<500	--	0	1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	--	--
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	40	40
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	30	30
03034300 LITTLE MAHONING CR NR ROCHESTER MILLS, PA Site 6 (LAT 40 47 48 N. LONG 078 55 41 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	1	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	--	<500	<500	0	0	<50	<50	<30	<30
03034400 MUDLICK RUN NEAR GEORGEVILLE, PA Site 7 (LAT 40 51 15 N. LONG 079 04 24 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	--	<500	<500	0	0	<50	<50	<30	<30
03034500 LITTLE MAHONING CREEK AT MCCORMICK, PA Site 8 (LAT 40 50 10 N. LONG 079 06 37 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03033350 TRIBUTARY TO CANOE CR AT ROSSITER, PA Site 1 (LAT 40 53 05 N. LONG 078 55 04 W.)										
NOV 03, 1986	<10	<10	190	110	0	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	200	100	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	<100	<100	0	<4	<50	<50	<1.0	<1.0
MAY 31, 1988	20	13	270	<100	0	<4	50	<50	<1.0	<1.0
AUG 17, 1988	20	14	240	<100	0	<4	90	80	<1.0	<1.0
03034300 LITTLE MAHONING CR NR ROCHESTER MILLS, PA Site 6 (LAT 40 47 48 N. LONG 078 55 41 W.)										
NOV 04, 1986	<10	<10	700	130	0	<4	100	70	<1.0	<1.0
MAY 11, 1987	--	--	300	140	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	11	180	100	0	<4	70	60	--	--
MAY 31, 1988	10	14	370	220	0	<4	60	60	<1.0	<1.0
AUG 17, 1988	10	11	390	<100	0	<4	90	80	<1.0	<1.0
03034400 MUDLICK RUN NEAR GEORGEVILLE, PA Site 7 (LAT 40 51 15 N. LONG 079 04 24 W.)										
NOV 04, 1986	<10	<10	420	230	0	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	240	120	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	<100	<100	0	<4	<50	<50	<1.0	<1.0
MAY 31, 1988	10	10	330	150	0	<4	<50	<50	<1.0	<1.0
AUG 17, 1988	10	12	1,200	170	0	<4	170	120	<1.0	<1.0
03034500 LITTLE MAHONING CREEK AT MCCORMICK, PA Site 8 (LAT 40 50 10 N. LONG 079 06 37 W.)										
NOV 04, 1986	<10	<10	490	150	0	<4	100	90	<1.0	<1.0
MAY 11, 1987	--	--	260	100	--	--	70	70	<1.0	<1.0
OCT 19, 1987	<10	<10	210	120	0	<4	60	60	--	--
MAY 31, 1988	10	10	310	150	0	<4	90	70	<1.0	<1.0
AUG 17, 1988	10	11	110	<100	0	<4	90	70	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03033350 TRIBUTARY TO CANOE CR AT ROSSITER, PA Site 1 (LAT 40 53 05 N. LONG 078 55 04 W.)								
NOV 03, 1986	<25	<25	<15	<15	130	120	<10	<10
MAY 11, 1987	--	--	--	--	--	--	10	10
OCT 19, 1987	<25	<25	<15	<15	<100	<100	<10	<10
MAY 31, 1988	100	89	<15	<15	140	100	<10	<10
AUG 17, 1988	<25	43	<15	<15	180	180	20	20
03034300 LITTLE MAHONING CR NR ROCHESTER MILLS, PA Site 6 (LAT 40 47 48 N. LONG 078 55 41 W.)								
NOV 04, 1986	<25	<25	<15	<15	140	140	10	10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	--	--	100	100	<10	<10
MAY 31, 1988	<25	<25	<15	<15	110	100	<10	<10
AUG 17, 1988	<25	23	<15	<15	300	300	20	10
03034400 MUDLICK RUN NEAR GEORGEVILLE, PA Site 7 (LAT 40 51 15 N. LONG 079 04 24 W.)								
NOV 04, 1986	<25	<25	<15	<15	130	130	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	<15	<15	100	<100	<10	<10
MAY 31, 1988	<25	<25	<15	<15	<100	<100	<10	<10
AUG 17, 1988	30	<25	<15	<15	220	210	10	10
03034500 LITTLE MAHONING CREEK AT MCCORMICK, PA Site 8 (LAT 40 50 10 N. LONG 079 06 37 W.)								
NOV 04, 1986	<25	<25	<15	<15	160	160	10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	--	--	--	140	130	<10	<10
MAY 31, 1988	<25	<25	<15	<15	120	120	<10	<10
AUG 17, 1988	30	34	<15	<15	300	300	20	20

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
03036995	CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA Site 10 (LAT 40 40 59 N. LONG 079 11 27 W.)										
NOV 04, 1986	1100	37	550	7.4	9.0	130	0.00	35	11	65	13
MAY 11, 1987	1835	59	400	7.8	19.0	130	.00	34	11	37	2.0
OCT 20, 1987	0800	22	650	8.0	7.0	160	--	42	13	61	2.7
JUNE 01, 1988	1140	25	695	7.6	20.0	180	--	49	14	63	2.3
AUG 17, 1988	1630	2.4	1000	8.2	26.0	250	--	67	20	180	3.4
03036997	MCKEE RUN AT ERNEST, PA Site 11 (LAT 40 40 26 N. LONG 079 09 20 W.)										
NOV 04, 1986	0930	15	260	7.1	9.5	83	0.00	20	6.5	14	2.2
MAY 11, 1987	1735	11	160	8.8	19.0	53	--	16	5.1	9.0	1.3
OCT 19, 1987	1715	2.3	280	8.5	10.5	87	--	23	7.2	14	--
JUNE 01, 1988	1050	2.6	265	7.6	18.5	82	--	22	6.5	120	1.5
AUG 17, 1988	1545	.04	400	8.3	26.0	120	--	34	9.2	24	2.9
03037150	CURRY RUN AT SHELOCTA, PA Site 22 (LAT 40 39 15 N. LONG 079 16 53 W.)										
NOV 04, 1986	1235	6.9	205	7.7	9.5	62	0.00	17	5.6	8.6	2.3
MAY 11, 1987	1930	6.7	130	8.8	19.5	44	--	12	4.1	5.3	1.3
OCT 20, 1987	0850	1.2	230	8.2	8.0	62	--	16	5.3	8.9	--
JUNE 01, 1988	1230	3.1	180	7.5	24.0	63	--	17	5.1	7.3	1.7
AUG 17, 1988	1730	.00	--	--	--	--	--	--	--	--	--
03037400	SOUTH BRANCH PLUM CREEK NEAR HOME, PA Site 9 (LAT 40 45 35 N. LONG 079 08 20 W.)										
NOV 04, 1986	1215	4.7	182	7.4	9.0	61	0.00	15	5.8	6.1	3.0
MAY 11, 1987	1950	5.6	147	7.4	20.0	44	.00	11	4.2	4.1	1.5
OCT 19, 1987	1815	3.0	185	7.2	10.0	64	--	16	6.1	4.9	--
MAY 31, 1988	1915	1.6	165	7.4	24.0	64	--	16	5.6	5.8	1.8
JUNE 07, 1988	1620	.88	161	7.6	26.0	58	--	17	5.8	6.5	2.3
AUG 17, 1988	1420	.00	--	--	--	--	--	--	--	--	--

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03036995 CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA Site 10 (LAT 40 40 59 N. LONG 079 11 27 W.)										
NOV 04, 1986	76	76	130	38	0.1	7.1	328	0.80	<130	<130
MAY 11, 1987	60	58	130	25	<.1	5.6	316	.66	<130	<130
OCT 20, 1987	--	90	160	66	.2	6.8	404	.60	200	200
JUNE 1, 1988	--	94	170	46	.1	7.6	460	.60	200	200
AUG 17, 1988	--	150	310 1	120	.3	<4.3	728	.12	200	200
03036997 MCKEE RUN AT ERNEST, PA Site 11 (LAT 40 40 26 N. LONG 079 09 20 W.)										
NOV 04, 1986	46	46	26	31	0.2	6.1	314	0.77	<130	<130
MAY 11, 1987	32	32	30	15	<.1	6.0	124	.58	<130	<130
OCT 19, 1987	--	62	38	26	.1	--	186	.26	<130	<130
JUNE 1, 1988	--	60	28	27	.1	7.9	200	--	300	<130
AUG 17, 1988	--	64	47	43	.2	<4.3	208	.26	200	<130
03037150 CURRY RUN AT SHELOCTA, PA Site 22 (LAT 40 39 15 N. LONG 079 16 53 W.)										
NOV 04, 1986	40	40	28	17	<0.1	4.7	162	0.23	500	<130
MAY 11, 1987	24	24	29	8.0	<.1	6.5	146	.34	<130	<130
OCT 20, 1987	--	52	22	16	.1	--	134	.20	600	<130
JUNE 1, 1988	--	40	26	11	.1	7.5	96	.60	300	<130
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
03037400 SOUTH BRANCH PLUM CREEK NEAR HOME, PA Site 9 (LAT 40 45 35 N. LONG 079 08 20 W.)										
NOV 04, 1986	36	36	24	15	<0.1	5.8	142	1.6	<130	<130
MAY 11, 1987	22	22	31	7.0	<.1	6.8	202	1.6	200	<130
OCT 19, 1987	--	34	28	11	<.1	--	126	1.6	100	<130
MAY 31, 1988	--	42	21	10	<.1	5.6	84	.71	400	<130
JUNE 7, 1988	--	46	24	12	<.1	4.6	144	.58	300	<130
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
03036995 CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA Site 10 (LAT 40 40 59 N. LONG 079 11 27 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 20, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01,, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03036997 MCKEE RUN AT ERNEST, PA Site 11 (LAT 40 40 26 N. LONG 079 09 20 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01,, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03037150 CURRY RUN AT SHELOCTA, PA Site 22 (LAT 40 39 15 N. LONG 079 16 53 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 20, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01,, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
03037400 SOUTH BRANCH PLUM CREEK NEAR HOME, PA Site 9 (LAT 40 45 35 N. LONG 079 08 20 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 07, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03036995 CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA Site 10 (LAT 40 40 59 N. LONG 079 11 27 W.)										
NOV 04, 1986	<10	<10	960	520	0	<4	170	170	<1.0	<1.0
MAY 11, 1987	--	--	820	100	--	--	150	140	<1.0	<1.0
OCT 20, 1987	<10	<10	920	<100	0	<4	190	180	<1.0	<1.0
JUNE 01, 1988	<10	<10	550	140	0	<4	320	310	<1.0	<1.0
AUG 17, 1988	10	<10	340	<100	0	<4	110	90	<1.0	<1.0
03036997 MCKEE RUN AT ERNEST, PA Site 11 (LAT 40 40 26 N. LONG 079 09 20 W.)										
NOV 04, 1986	<10	<10	730	210	0	<4	120	100	<1.0	<1.0
MAY 11, 1987	--	--	260	120	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	380	260	0	<4	50	50	--	--
JUNE 01, 1988	<10	<10	590	200	0	<4	220	200	<1.0	<1.0
AUG 17, 1988	10	12	230	<100	0	<4	80	70	<1.0	<1.0
03037150 CURRY RUN AT SHELOCTA, PA Site 22 (LAT 40 39 15 N. LONG 079 16 53 W.)										
NOV 04, 1986	<10	<10	740	130	0	<4	50	<50	<1.0	<1.0
MAY 11, 1987	--	--	270	110	--	--	<50	<50	<1.0	<1.0
OCT 20, 1987	<10	<10	670	150	0	<4	80	70	--	--
JUNE 01, 1988	160	13	500	200	0	<4	80	70	<1.0	<1.0
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
03037400 SOUTH BRANCH PLUM CREEK NEAR HOME, PA Site 9 (LAT 40 45 35 N. LONG 079 08 20 W.)										
NOV 04, 1986	<10	<10	660	240	0	<4	180	160	<1.0	<1.0
MAY 11, 1987	--	--	630	360	--	--	100	80	<1.0	<1.0
OCT 19, 1987	10	<10	290	150	0	<4	150	150	--	--
MAY 31, 1988	10	10	960	310	0	<4	330	310	<1.0	<1.0
JUNE 07, 1988	10	12	890	290	0	<4	370	350	<1.0	<1.0
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03036995 CROOKED C ABOVE MCKEE RN AT CREEKSIDE, PA Site 10 (LAT 40 40 59 N. LONG 079 11 27 W.)								
NOV 04, 1986	<25	<25	<15	<15	460	420	10	10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 20, 1987	<25	<25	<15	<15	600	600	<10	<10
JUNE 01, 1988	<25	<25	<15	<15	650	650	<10	<10
AUG 17, 1988	40	35	<15	<15	1,200	1,200	20	10
03036997 MCKEE RUN AT ERNEST, PA Site 11 (LAT 40 40 26 N. LONG 079 09 20 W.)								
NOV 04, 1986	<25	<25	<15	<15	160	150	<10	10
MAY 11, 1987	--	--	--	--	--	--	20	20
OCT 19, 1987	<25	<25	--	--	150	150	20	20
JUNE 01, 1988	<25	<25	<15	<15	170	170	10	10
AUG 17, 1988	30	31	<15	<15	200	200	20	20
03037150 CURRY RUN AT SHELOCTA, PA Site22 (LAT 40 39 15 N. LONG 079 16 53 W.)								
NOV 04, 1986	<25	<25	<15	<15	130	130	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 20, 1987	30	26	--	--	160	160	--	--
JUNE 01, 1988	30	<25	<15	<15	120	120	<10	<10
AUG 17, 1988	--	--	--	--	--	--	--	--
03037400 SOUTH BRANCH PLUM CREEK NEAR HOME, PA Site 9 (LAT 40 45 35 N. LONG 079 08 20 W.)								
NOV 04, 1986	<25	<25	<15	<15	180	150	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	--	--	<100	<100	20	10
MAY 31, 1988	<25	<25	<15	<15	<100	<100	<10	<10
JUN 07, 1988	30	<25	<15	<15	<100	<100	10	10
AUG 17, 1988	--	--	--	--	--	--	--	--

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
03041500 CONEMAUGH RIVER AT SEWARD, PA Site 31 (LAT 40 25 09 N. LONG 079 01 35 W.)											
NOV 04, 1986	1320	388	725	4.5	10.0	220	0.3	64	21	21	3.8
MAY 11, 1987	0745	1160	455	3.9	16.0	180	.5	41	15	11	2.4
OCT 19, 1987	1840	367	610	4.9	12.0	240	--	60	21	13	3.7
MAY 31, 1988	1815	1010	465	5.0	22.0	180	--	48	15	9.7	2.1
AUG 18, 1988	0910	358	830	4.1	24.5	360	--	94	29	24	4.4
03041675 TOMS RUN NEAR BLAIRSVILLE, PA Site 29 (LAT 40 25 48 N. LONG 079 13 17 W.)											
NOV 04, 1986	1445	3.6	170	7.2	10.0	65	0.0	16	5.8	6.2	2.7
MAY 11, 1987	1325	5.0	128	7.9	17.5	41	.0	9.7	3.9	3.1	1.5
OCT 19, 1987	1800	.77	210	7.0	11.5	69	--	18	6.1	--	--
MAY 31, 1988	1725	2.6	190	6.7	20.0	51	--	13	4.5	3.6	1.4
AUG 17, 1988	1300	<.01	235	7.8	26.0	88	--	23	7.4	6.8	2.1
03041900 BRUSH CREEK AT CLAGHORN, PA Site 30 (LAT 40 29 48 N. LONG 079 04 03 W.)											
NOV 04, 1986	1235	28	210	7.3	8.5	57	0.0	15	5.6	5.1	1.9
MAY 11, 1987	1955	21	140	6.4	18.0	38	.1	8.9	3.7	3.2	1.2
OCT 20, 1987	0855	7.5	180	7.0	10.0	64	--	16	5.6	5.7	--
MAY 31, 1988	1935	13	160	7.0	20.0	48	--	12	4.4	3.9	1.3
AUG 17, 1988	1445	.57	400	7.6	25.0	140	--	36	11	14	2.1
03042000 BLACKLICK CREEK AT JOSEPHINE, PA Site 28 (LAT 40 28 24 N. LONG 079 11 01 W.)											
NOV 03, 1986	1710	120	940	3.7	9.0	280	1.5	90	15	67	2.7
MAY 11, 1987	0905	269	580	4.3	17.0	180	.9	44	12	32	1.9
OCT 19, 1987	1500	96	820	4.8	14.0	200	--	55	14	61	2.5
MAY 31, 1988	1610	168	725	4.0	26.0	220	--	66	14	42	2.1
AUG 18, 1988	0810	76	1,700	3.5	24.0	530	--	170	29	140	4.1

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03041500 CONEMAUGH RIVER AT SEWARD, PA Site 31 (LAT 40 25 09 N. LONG 079 01 35 W.)										
NOV 04, 1986	0	2	240	19	0.2	9.7	474	0.47	1,400	1,200
MAY 11, 1987	--	2	200	9.0	.1	9.2	370	.80	2,300	1,200
OCT 19, 1987	--	--	270	14	.3	12	436	.58	2,300	1,800
MAY 31, 1988	--	<2	180	10	.2	11	372	.72	1,800	900
AUG 18, 1988	--	--	360	19	.3	12	760	.54	2,400	2,300
03041675 TOMS RUN NEAR BLAIRSVILLE, PA Site 29 (LAT 40 25 48 N. LONG 079 13 17 W.)										
NOV 04, 1986	20	22	68	12	<0.1	6.1	128	0.66	220	<130
MAY 11, 1987	10	10	35	6.0	<.1	7.4	120	.92	<130	<130
OCT 19, 1987	--	28	--	12	.1	--	142	.52	<130	<130
MAY 31, 1988	--	16	40	8.0	.1	8.1	144	.74	200	200
AUG 17, 1988	--	46	62	14	.1	4.7	192	.22	<130	<130
03041900 BRUSH CREEK AT CLAGHORN, PA Site 30 (LAT 40 29 48 N. LONG 079 04 03 W.)										
NOV 04, 1986	22	22	45	12	<0.1	6.8	120	0.24	<130	<130
MAY 11, 1987	8	8	30	6.0	<.1	6.3	140	.90	<130	<130
OCT 20, 1987	--	18	55	11	.1	--	44	.64	<130	<130
MAY 31, 1988	--	10	39	8.0	.1	7.0	112	.96	200	200
AUG 17, 1988	--	30	150	10	.2	<4.3	320	.22	200	<130
03042000 BLACKLICK CREEK AT JOSEPHINE, PA Site 28 (LAT 40 28 24 N. LONG 079 11 01 W.)										
NOV 03, 1986	--	--	380	11	0.2	12	780	0.44	5,200	5,100
MAY 11, 1987	--	--	280	7.0	.1	12	454	.64	3,700	2,700
OCT 19, 1987	--	--	390	11	.3	12	596	.50	3,400	2,000
MAY 31, 1988	--	--	300	14	.1	12	480	.56	4,000	3,800
AUG 18, 1988	--	--	860	12	.2	12	1,200	.40	2,700	15,000

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
03041500 CONEMAUGH RIVER AT SEWARD, PA Site 31 (LAT 40 25 09 N. LONG 079 01 35 W.)										
NOV 04, 1986	<4	<4	<500	--	0	3	<50	<50	60	50
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	1	<50	<50	50	40
MAY 31, 1988	<4	<4	<500	<500	0	2	<50	<50	60	60
AUG 18, 1988	--	--	<500	<500	0	0	<50	<50	90	90
03041675 TOMS RUN NEAR BLAIRSVILLE, PA Site 29 (LAT 40 25 48 N. LONG 079 13 17 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	1	<50	<50	<30	40
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03041900 BRUSH CREEK AT CLAGHORN, PA Site 30 (LAT 40 29 48 N. LONG 079 04 03 W.)										
NOV 04, 1986	<4	<4	<500	--	0	1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 20, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<10	30	40
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03042000 BLACKLICK CREEK AT JOSEPHINE, PA Site 28 (LAT 40 28 24 N. LONG 079 11 01 W.)										
NOV 03, 1986	<4	<4	<500	--	0	2	<50	<50	40	40
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	30	30
MAY 31, 1988	<4	<4	<500	<500	0	3	<50	<50	40	40
AUG 18, 1988	--	--	<500	<500	0	1	<50	<50	40	40

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03041500 CONEMAUGH RIVER AT SEWARD, PA Site 31 (LAT 40 25 09 N. LONG 079 01 35 W.)										
NOV 04, 1986	10	11	1,800	1,400	0	6	1,600	1,600	<1.0	<1.0
MAY 11, 1987	--	--	3,700	2,200	--	--	1,300	1,200	<1.0	<1.0
OCT 19, 1987	<10	<10	1,800	1,000	10	9	1,700	1,700	<1.0	<1.0
MAY 31, 1988	20	73	3,000	1,800	10	4	1,100	1,100	<1.0	<1.0
AUG 18, 1988	40	35	1,200	140	10	6	1,900	1,900	<1.0	<1.0
03041675 TOMS RUN NEAR BLAIRSVILLE, PA Site 29 (LAT 40 25 48 N. LONG 079 13 17 W.)										
NOV 04, 1986	<10	<10	380	<100	0	<4	80	50	<1.0	<1.0
MAY 11, 1987	--	--	230	110	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	130	<100	0	<4	50	<50	--	--
MAY 31, 1988	10	17	190	190	0	<4	<50	<50	<1.0	<1.0
AUG 17, 1988	<10	<10	<100	<100	0	<4	<50	<50	<1.0	<1.0
03041900 BRUSH CREEK AT CLAGHORN, PA Site 30 (LAT 40 29 48 N. LONG 079 04 03 W.)										
NOV 04, 1986	<10	<10	160	<100	0	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	220	130	--	--	<50	<50	<1.0	<1.0
OCT 20, 1987	<10	<10	180	180	0	<4	<50	<50	--	--
MAY 31, 1988	<10	35	280	<100	0	<4	60	50	<1.0	<1.0
AUG 17, 1988	<10	<10	260	<100	0	<4	130	110	<1.0	<1.0
03042000 BLACKLICK CREEK AT JOSEPHINE, PA Site 28 (LAT 40 28 24 N. LONG 079 11 01 W.)										
NOV 03, 1986	20	22	4,700	2,500	0	<4	1,400	1,400	<1.0	<1.0
MAY 11, 1987	--	--	6,700	2,800	--	--	950	940	<1.0	<1.0
OCT 19, 1987	<10	<10	9,600	5,300	0	<4	1,400	1,400	<1.0	<1.0
MAY 31, 1988	30	27	5,400	2,700	0	<4	1,100	1,100	<1.0	<1.0
AUG 18, 1988	20	21	770	620	10	4	1,600	1,600	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03041500 CONEMAUGH RIVER AT SEWARD, PA Site 31 (LAT 40 25 09 N. LONG 079 01 35 W.)								
NOV 04, 1986	100	88	<15	<15	290	250	210	210
MAY 11, 1987	--	--	--	--	--	--	180	180
OCT 19, 1987	80	74	<15	<15	290	290	200	200
MAY 31, 1988	130	120	<15	<15	160	150	160	170
AUG 18, 1988	160	160	<15	<15	350	350	450	450
03041675 TOMS RUN NEAR BLAIRSVILLE, PA Site 29 (LAT 40 25 48 N. LONG 079 13 17 W.)								
NOV 04, 1986	30	<25	<15	<15	120	120	10	10
MAY 11, 1987	--	--	--	--	--	--	20	20
OCT 19, 1987	--	--	--	--	--	--	--	--
MAY 31, 1988	50	62	<15	<15	<100	<100	<10	20
AUG 17, 1988	30	29	<15	<15	110	110	<10	<10
03041900 BRUSH CREEK AT CLAGHORN, PA Site 30 (LAT 40 29 48 N. LONG 079 04 03 W.)								
NOV 04, 1986	40	<25	<15	<15	<100	<100	20	20
MAY 11, 1987	--	--	--	--	--	--	20	20
OCT 20, 1987	<25	<25	--	--	130	130	20	20
MAY 31, 1988	70	76	<15	<15	100	100	10	<10
AUG 17, 1988	<25	<25	<15	<15	310	310	<10	<10
03042000 BLACKLICK CREEK AT JOSEPHINE, PA Site 28 (LAT 40 28 24 N. LONG 079 11 01 W.)								
NOV 03, 1986	70	72	<15	<15	440	400	130	130
MAY 11, 1987	--	--	--	--	--	--	70	70
OCT 19, 1987	40	39	--	<15	420	420	100	100
MAY 31, 1988	120	120	<15	<15	330	330	100	170
AUG 18, 1988	90	79	--	--	740	740	130	130

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
03042040	S BR TWO LICK C NR WANDIN JUNCTION, PA Site 14 (LAT 40 40 29 N. LONG 078 56 41 W.)										
NOV 03, 1986	1300	5.2	185	7.2	8.5	56	0.1	13	4.8	9.5	1.7
MAY 11, 1987	1615	1.8	95	7.3	16.5	33	.0	9.7	3.1	3.2	1.6
OCT 19, 1987	1325	4.8	190	8.5	9.0	54	--	14	4.6	--	--
MAY 31, 1988	1330	6.4	175	7.4	21.0	54	--	14	4.4	9.1	1.2
AUG 17, 1988	1445	.11	240	7.8	26.5	76	--	21	6.0	12	2.6
03042045	TRIB TO N BR TWO LICK C AT COMMODORE, PA Site 13 (LAT 40 42 44 N. LONG 078 56 25 W.)										
NOV 03, 1986	1520	0.03	73	6.8	9.0	23	0.0	6.4	2.4	0.8	1.5
MAY 11, 1987	1415	.24	85	7.1	19.0	23	.0	6.1	2.4	.9	1.0
OCT 19, 1987	1320	.04	113	7.1	9.5	35	--	9.3	3.2	--	--
MAY 31, 1988	1400	.01	75	7.0	22.5	29	--	7.6	2.6	.9	1.0
AUG 17, 1988	1135	.00	--	--	--	--	--	--	--	--	--
03042055	TRIB. TO DIXON RUN AT DIXONVILLE, PA Site 12 (LAT 40 42 45 N. LONG 079 00 51 W.)										
NOV 03, 1986	1630	0.03	140	7.0	11.0	51	0.1	12	4.6	4.9	1.4
MAY 11, 1987	1515	.02	100	6.9	18.0	36	.1	8.7	4.0	2.5	1.1
OCT 19, 1987	1455	.02	150	8.0	13.0	44	--	11	4.4	--	--
JUNE 01, 1988	0940	.02	138	7.6	15.0	58	--	14	5.5	4.0	1.0
AUG 17, 1988	1335	.02	135	7.2	24.0	47	--	11	4.8	6.1	1.2
03042061	DIXON RUN AT CLYMER, PA Site 15 (LAT 40 40 13 N. LONG 079 00 54 W.)										
NOV 03, 1986	1700	5.9	520	7.2	9.0	200	0.1	49	18	15	2.0
MAY 11, 1987	1435	11	370	6.8	17.5	170	.1	41	15	7.8	1.7
OCT 19, 1987	1425	4.6	530	8.2	10.0	260	--	70	21	11	2.2
JUNE 01, 1988	0915	5.3	480	7.2	16.0	220	--	58	19	10	1.9
AUG 17, 1988	1310	.82	620	7.8	25.0	300	--	77	26	16	2.9

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03042040 S BR TWO LICK C NR WANDIN JUNCTION, PA Site 14 (LAT 40 40 29 N. LONG 078 56 41 W.)										
NOV 03, 1986	37	38	32	11	<0.1	6.1	188	0.26	<130	<130
MAY 11, 1987	22	20	23	6.0	<.1	6.1	92	.60	100	<130
OCT 19, 1987	--	40	--	10	.1	--	116	.22	<130	<130
MAY 31, 1988	--	34	26	8.0	.1	5.2	100	.82	300	<130
AUG 17, 1988	--	76	31	12	.1	<4.3	128	.14	600	500
03042045 TRIB TO N BR TWO LICK C AT COMMODORE, PA Site 13 (LAT 40 42 44 N. LONG 078 56 25 W.)										
NOV 03, 1986	10	12	25	3.0	<0.1	4.6	50	0.24	<130	<130
MAY 11, 1987	12	12	26	1.0	<.1	6.7	118	.36	200	<130
OCT 19, 1987	--	26	--	2.0	<.1	--	--	--	200	<130
MAY 31, 1988	--	14	18	2.0	.1	5.3	52	.42	400	<130
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
03042055 TRIB. TO DIXON RUN AT DIXONVILLE, PA Site 12 (LAT 40 42 45 N. LONG 079 00 51 W.)										
NOV 03, 1986	36	38	21	7.0	<0.1	6.9	188	0.28	<130	200
MAY 11, 1987	20	20	25	5.0	<.1	5.2	112	.70	1000	<130
OCT 19, 1987	--	34	--	13	<.1	--	100	.20	200	<130
JUNE 1, 1988	--	36	22	6.0	<.1	5.0	40	.80	900	<130
AUG 17, 1988	--	34	15	10	<.1	7.1	68	.08	300	<130
03042061 DIXON RUN AT CLYMER, PA Site 15 (LAT 40 40 13 N. LONG 079 00 54 W.)										
NOV 03, 1986	42	42	170	28	<0.1	7.1	406	0.39	<130	<130
MAY 11, 1987	24	38	140	14	<.1	6.3	354	.56	600	130
OCT 19, 1987	--	50	170	25	.1	7.1	330	.40	200	<130
JUNE 1, 1988	--	50	150	15	.1	7.3	412	.67	400	300
AUG 17, 1988	--	60	380	36	.2	<4.3	760	.12	200	300

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
03042040 S BR TWO LICK C NR WANDIN JUNCTION, PA Site 14 (LAT 40 40 29 N. LONG 078 56 41 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03042045 TRIB TO N BR TWO LICK C AT COMMODORE, PA Site 13 (LAT 40 42 44 N. LONG 078 56 25 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
03042055 TRIB. TO DIXON RUN AT DIXONVILLE, PA Site 12 (LAT 40 42 45 N. LONG 079 00 51 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	--	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03042061 DIXON RUN AT CLYMER, PA Site 15 (LAT 40 40 13 N. LONG 079 00 54 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	--	<4	<500	<500	0	0	<50	<50	30	30

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03042040 S BR TWO LICK C NR WANDIN JUNCTION, PA Site 14 (LAT 40 40 29 N. LONG 078 56 41 W.)										
NOV 03, 1986	<10	<10	330	210	0	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	230	<100	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	10	12	120	<100	0	<4	<50	<50	--	--
MAY 31, 1988	10	11	280	150	0	<4	<50	<50	<1.0	<1.0
AUG 17, 1988	10	14	240	<100	0	<4	60	50	<1.0	<1.0
03042045 TRIB TO N BR TWO LICK C AT COMMODORE, PA Site 13 (LAT 40 42 44 N. LONG 078 56 25 W.)										
NOV 03, 1986	<10	<10	410	370	0	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	320	<100	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	300	<100	0	<4	130	120	--	--
MAY 31, 1988	<10	11	420	140	0	<4	<50	<50	<1.0	<1.0
AUG 17, 1988	--	--	--	--	--	--	--	--	--	--
03042055 TRIB. TO DIXON RUN AT DIXONVILLE, PA Site 12 (LAT 40 42 45 N. LONG 079 00 51 W.)										
NOV 03, 1988	<10	11	420	140	0	<4	<50	<50	<1.0	<1.0
1986	<10	<10	1,600	230	10	<4	160	60	<1.0	<1.0
MAY 11, 1987	--	--	1,400	<100	--	--	140	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	210	<100	0	<4	90	60	--	--
JUNE 01, 1988	<10	<10	1,300	130	0	<4	240	80	<1.0	<1.0
AUG 17, 1988	10	14	1,300	190	0	<4	710	450	<1.0	<1.0
03042061 DIXON RUN AT CLYMER, PA Site 15 (LAT 40 40 13 N. LONG 079 00 54 W.)										
NOV 03, 1986	<10	<10	2,100	530	0	<4	690	640	<1.0	<1.0
MAY 11, 1987	--	--	1,500	<100	--	--	350	340	<1.0	<1.0
OCT 19, 1987	<10	<10	730	160	0	<4	620	620	<1.0	<1.0
JUNE 01, 1988	10	12	400	120	0	<4	500	500	<1.0	<1.0
AUG 17, 1988	20	19	120	<100	0	<4	110	110	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03042040 S BR TWO LICK C NR WANDIN JUNCTION, PA Site 14 (LAT 40 40 29 N. LONG 078 56 41 W.)								
NOV 03, 1986	<25	<25	<15	<15	200	200	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	--	--	--	--	--	--	--	--
MAY 31, 1988	30	25	<15	<15	140	140	<10	<10
AUG 17, 1988	40	39	<15	<15	250	250	20	10
03042045 TRIB TO N BR TWO LICK C AT COMMODORE, PA Site 13 (LAT 40 42 44 N. LONG 078 56 25 W.)								
NOV 03, 1986	<25	<25	<15	<15	<100	<100	<10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	--	--	--	--	--	--	--	--
MAY 31, 1988	30	33	<15	<15	<100	<100	<10	10
AUG 17, 1988	--	--	--	--	--	--	--	--
03042055 TRIB. TO DIXON RUN AT DIXONVILLE, PA Site 12 (LAT 40 42 45 N. LONG 079 00 51 W.)								
NOV 03, 1986	<25	<25	<15	<15	120	120	10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	--	--	--	--	--	--	--	--
JUNE 01, 1988	<25	<25	<15	<15	<100	<100	<10	<10
AUG 17, 1988	40	<25	<15	<15	<100	<100	20	20
03042061 DIXON RUN AT CLYMER, PA Site 15 (LAT 40 40 13 N. LONG 079 00 54 W.)								
NOV 03, 1986	30	<25	<15	<15	500	500	30	20
MAY 11, 1987	--	--	--	--	--	--	10	<10
OCT 19, 1987	<25	<25	<15	<15	560	560	10	10
JUNE 01, 1988	30	38	<15	<15	460	460	20	20
AUG 17, 1988	100	63	<15	<15	950	900	20	20

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
03042075	TWO LICK CREEK NEAR CLYMER, PA Site 16 (LAT 40 38 44 N. LONG 079 02 12 W.)										
NOV 04, 1986	0800	37	440	6.0	9.0	170	0.2	39	14	12	2.3
MAY 11, 1987	1330	58	315	5.5	17.5	130	.2	32	11	7.9	1.7
OCT 19, 1987	1600	19	440	7.8	10.0	160	--	41	14	12	2.2
JUNE 01, 1988	0830	23	420	7.2	17.0	170	--	46	14	9.8	1.7
AUG 17, 1988	1225	5.1	620	6.3	25.5	300	--	78	25	18	3.0
03042120	RAMSEY RUN NEAR INDIANA, PA Site 21 (LAT 40 35 51 N. LONG 079 06 35 W.)										
NOV 04, 1986	0940	5.3	320	7.7	9.0	100	0.0	26	8.5	19	2.8
MAY 11, 1987	1755	2.7	250	6.9	19.0	73	.3	18	6.5	13	1.7
OCT 20, 1987	0800	.79	335	6.6	11.0	97	--	25	8.6	16	--
JUNE 01, 1988	0850	.99	315	7.6	16.0	130	--	33	11	19	2.0
AUG 17, 1988	1810	.14	430	7.3	23.5	120	--	33	9.9	20	3.0
03042185	YELLOW CREEK NEAR PIKES PEAK, PA Site 19 (LAT 40 34 58 N. LONG 079 00 10 W.)										
NOV 03, 1986	1210	10	340	7.2	8.0	120	0.0	31	9.9	12	2.1
MAY 11, 1987	0945	26	180	7.1	13.0	84	.1	21	7.1	7.8	1.5
OCT 19, 1987	0955	11	320	6.8	8.0	110	--	29	9.4	11	2.2
JUNE 01, 1988	1020	11	320	7.6	16.0	120	--	32	9.5	11	1.7
AUG 17, 1988	0910	2.3	450	7.5	20.5	190	--	52	15	18	2.5
03042190	LAUREL RUN NEAR NOLO, PA Site 18 (LAT 40 34 43 N. LONG 078 59 59 W.)										
NOV 03, 1986	1105	1.8	125	7.4	7.5	36	0.0	9.8	3.6	6.5	1.3
MAY 11, 1987	1040	6.8	70	6.5	13.5	23	.0	5.9	2.5	4.9	1.0
OCT 19, 1987	1100	1.9	120	8.8	7.0	35	--	8.5	3.2	5.6	--
JUNE 01, 1988	1105	3.2	120	7.6	16.0	34	--	8.5	3.1	6.4	1.0
AUG 17, 1988	0950	.06	170	7.5	19.5	64	--	17	5.2	8.0	1.4

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03042075 TWO LICK CREEK NEAR CLYMER, PA Site 16 (LAT 40 38 44 N. LONG 079 02 12 W.)										
NOV 04, 1986	8	8	170	17	<0.1	9.2	350	0.55	<130	<130
MAY 11, 1987	4	4	140	11	<.1	9.0	566	.64	2,100	<130
OCT 19, 1987	--	12	180	16	.1	10	348	.48	1,000	<130
JUNE 1, 1988	--	10	160	11	.1	10	344	.48	900	200
AUG 17, 1988	--	2	300	22	.2	12	524	.24	500	300
03042120 RAMSEY RUN NEAR INDIANA, PA Site 21 (LAT 40 35 51 N. LONG 079 06 35 W.)										
NOV 04, 1986	56	60	38	43	<0.1	3.3	204	0.61	200	200
MAY 11, 1987	36	36	37	26	<.1	4.4	184	.62	<130	<130
OCT 20, 1987	--	62	40	36	<.1	--	220	.32	200	<130
JUNE 1, 1988	--	56	33	34	<.1	6.2	212	.78	<130	<130
AUG 17, 1988	--	78	69	58	.2	<4	292	.48	200	<130
03042185 YELLOW CREEK NEAR PIKES PEAK, PA Site 19 (LAT 40 34 58 N. LONG 079 00 10 W.)										
NOV 03, 1986	32	32	87	25	<0.1	5.9	276	0.52	<130	<130
MAY 11, 1987	22	22	67	14	<.1	6.6	260	.76	<130	<130
OCT 19, 1987	--	36	89	22	<.1	20	144	.50	<130	<130
JUNE 1, 1988	--	36	83	16	<.1	6.9	--	.53	<130	<130
AUG 17, 1988	--	60	210	26	.2	4.3	336	.34	<130	<130
03042190 LAUREL RUN NEAR NOLO, PA Site 18 (LAT 40 34 43 N. LONG 078 59 59 W.)										
NOV 03, 1986	16	16	21	19	<0.1	6.4	120	0.56	500	<130
MAY 11, 1987	8	8	21	11	<.1	6.7	124	.74	<130	<130
OCT 19, 1987	--	14	20	17	<.1	--	84	.72	<130	<130
JUNE 1, 1988	--	10	16	15	<.1	7.4	--	.74	<130	<130
AUG 17, 1988	--	40	23	19	.1	6.1	104	.34	200	200

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
03042075 TWO LICK CREEK NEAR CLYMER, PA Site 16 (LAT 40 38 44 N. LONG 079 02 12 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	40	40
03042120 RAMSEY RUN NEAR INDIANA, PA Site 21 (LAT 40 35 51 N. LONG 079 06 35 W.)										
NOV 04, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 20, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	1	<50	<50	30	30
03042185 YELLOW CREEK NEAR PIKES PEAK, PA Site 19 (LAT 40 34 58 N. LONG 079 00 10 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	3	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	20	20
03042190 LAUREL RUN NEAR NOLO, PA Site 18 (LAT 40 34 43 N. LONG 078 59 59 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03042075 TWO LICK CREEK NEAR CLYMER, PA Site 16 (LAT 40 38 44 N. LONG 079 02 12 W.)										
NOV 04, 1986	<10	<10	5,000	1,800	0	<4	830	790	<1.0	<1.0
MAY 11, 1987	--	--	3,600	1,400	--	--	480	480	<1.0	<1.0
OCT 19, 1987	<10	<10	1,800	960	0	<4	730	720	<1.0	<1.0
JUNE 01, 1988	<10	<10	1,900	1,100	0	<4	540	540	<1.0	<1.0
AUG 17, 1988	20	19	240	180	0	<4	1,100	1,100	<1.0	<1.0
03042120 RAMSEY RUN NEAR INDIANA, PA Site 21 (LAT 40 35 51 N. LONG 079 06 35 W.)										
NOV 04, 1986	<10	<10	360	<100	0	<4	50	<50	<1.0	<1.0
MAY 11, 1987	--	--	350	100	--	--	<50	<50	<1.0	<1.0
OCT 20, 1987	<10	<10	130	<100	0	<4	<50	<50	--	--
JUNE 01, 1988	10	<10	290	160	0	<4	50	<50	<1.0	<1.0
AUG 17, 1988	50	50	110	<100	10	<4	<50	<50	<1.0	<1.0
03042185 YELLOW CREEK NEAR PIKES PEAK, PA Site 19 (LAT 40 34 58 N. LONG 079 00 10 W.)										
NOV 03, 1986	<10	<10	110	100	0	<4	80	80	<1.0	<1.0
MAY 11, 1987	--	--	20	<100	--	--	80	70	<1.0	<1.0
OCT 19, 1987	<10	<10	140	110	0	<4	90	90	<1.0	<1.0
JUNE 01, 1988	<10	<10	210	140	0	<4	50	50	<1.0	<1.0
AUG 17, 1988	10	13	120	<100	0	<4	<50	<50	<1.0	<1.0
03042190 LAUREL RUN NEAR NOLO, PA Site 18 (LAT 40 34 43 N. LONG 078 59 59 W.)										
NOV 03, 1986	<10	<10	580	740	10	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	130	<100	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	<100	<100	0	<4	<50	<50	--	--
JUNE 01, 1988	<10	28	190	130	0	<4	<50	<50	<1.0	<1.0
AUG 17, 1988	20	21	<100	<100	0	<4	<50	<50	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03042075 TWO LICK CREEK NEAR CLYMER, PA Site 16 (LAT 40 38 44 N. LONG 079 02 12 W.)								
NOV 04, 1986	30	<25	<15	<15	460	390	60	50
MAY 11, 1987	--	--	--	--	--	--	40	40
OCT 19, 1987	<25	<25	<15	<15	500	480	40	40
JUNE 01, 1988	60	49	<15	<15	420	420	40	40
AUG 17, 1988	90	86	<15	<15	910	830	90	80
03042120 RAMSEY RUN NEAR INDIANA, PA Site 21 (LAT 40 35 51 N. LONG 079 06 35 W.)								
NOV 04, 1986	<25	<25	<15	<15	220	160	10	10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 20, 1987	<25	<25	--	--	150	150	<10	<10
JUNE 01, 1988	30	<25	<15	<15	140	140	10	<10
AUG 17, 1988	80	75	<15	<15	220	220	30	30
03042185 YELLOW CREEK NEAR PIKES PEAK, PA Site 19 (LAT 40 34 58 N. LONG 079 00 10 W.)								
NOV 03, 1986	<25	<25	<15	<15	670	630	10	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	<15	<15	580	570	10	10
JUNE 01, 1988	40	37	<15	<15	460	450	<10	20
AUG 17, 1988	50	54	<15	<15	850	830	20	20
03042190 LAUREL RUN NEAR NOLO, PA Site 18 (LAT 40 34 43 N. LONG 078 59 59 W.)								
NOV 03, 1986	<25	<25	<15	<15	290	280	210	<10
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	--	--	190	190	<10	<10
JUNE 01, 1988	40	<25	<15	<15	160	160	<10	<10
AUG 17, 1988	50	48	<15	<15	270	270	20	20

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
3042200	LITTLE YELLOW CREEK NEAR STRONGSTOWN, PA Site 17 (LAT 40 33 45 N. LONG 078 56 44 W.)										
NOV 03, 1986	0945	3.9	350	7.2	6.5	140	0.1	38	11	8.8	1.6
MAY 11, 1987	1200	8.0	275	7.1	14.0	110	.0	30	8.5	8.7	1.1
OCT 19, 1987	1150	2.7	400	8.6	7.0	200	--	60	13	12	1.7
JUNE 01, 1988	1145	4.2	420	7.8	18.0	180	--	50	13	13	1.4
AUG 17, 1988	1035	.81	600	7.8	18.5	340	--	94	25	15	1.8
03042280	YELLOW CREEK NEAR HOMER CITY, PA Site 20 (LAT 40 34 18 N. LONG 079 06 13 W.)										
NOV 04, 1986	1035	40	195	7.3	10.5	57	0.0	15	5.1	6.2	1.9
MAY 11, 1987	2055	97	138	6.7	17.0	44	.0	11	3.8	4.8	1.2
OCT 19, 1987	0900	23	200	6.9	12.0	59	--	15	5.1	6.1	1.6
JUNE 01, 1988	1500	35	170	7.4	25.0	55	--	15	4.5	5.9	1.2
AUG 17, 1988	1810	9.5	200	7.4	.0	69	--	18	5.6	6.8	1.3
03042500	TWO LICK CREEK AT GRACETON, PA Site 27 (LAT 40 31 02 N. LONG 079 10 19 W.)										
NOV 03, 1986	1635	65	460	4.7	11.0	180	0.7	38	12	19	3.0
MAY 11, 1987	1425	235	322	4.8	17.0	110	.5	23	8.1	10	1.9
OCT 19, 1987	1415	69	510	4.9	12.5	140	--	36	12	--	--
MAY 31, 1988	1430	122	460	4.3	25.0	130	--	33	11	13	2.0
AUG 18, 1988	0730	102	420	5.7	22.5	140	--	42	8.8	19	3.0
03042700	CHERRY RUN NEAR HOMER CITY, PA Site 26 (LAT 40 33 15 N. LONG 079 11 31 W.)										
NOV 03, 1986	1425	1.7	555	6.9	11.0	140	0.4	39	11	47	4.7
MAY 11, 1987	1435	6.6	245	7.6	20.5	75	.1	19	6.6	15	1.8
OCT 19, 1987	1330	.78	620	6.9	13.0	170	--	45	13	51	--
MAY 31, 1988	1330	2.6	500	7.0	25.0	130	--	42	11	36	4.1
JUNE 07, 1988	1430	.97	685	6.5	27.5	180	--	54	13	59	5.3
AUG 17, 1988	1630	.12	2,770	6.6	23.5	83	--	300	66	410	19

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03042200 LITTLE YELLOW CREEK NEAR STRONGSTOWN, PA Site 17 (LAT 40 33 45 N. LONG 078 56 44 W.)										
NOV 03, 1986	46	44	110	14	<0.1	10	290	0.22	<130	<130
MAY 11, 1987	40	42	90	9.0	<.1	5.9	312	.32	<130	<130
OCT 19, 1987	--	66	130	14	.1	8.0	306	.10	<130	<130
JUNE 1, 1988	--	74	120	10	.1	7.1	284	.34	200	<130
AUG 17, 1988	--	110	250	13	.2	6.7	520	.18	200	<130
03042280 YELLOW CREEK NEAR HOMER CITY, PA Site 20 (LAT 40 34 18 N. LONG 079 06 13 W.)										
NOV 04, 1986	20	22	42	13	<0.1	3.1	118	0.38	700	<130
MAY 11, 1987	14	14	34	9.0	<.1	5.8	142	.72	<130	<130
OCT 19, 1987	--	20	60	13	<.1	<4.3	102	.48	<130	<130
JUNE 1, 1988	--	16	35	10	<.1	4.7	100	.57	200	<130
AUG 17, 1988	--	24	55	12	.1	<4.3	112	.34	200	200
03042500 TWO LICK CREEK AT GRACETON, PA Site 27 (LAT 40 31 02 N. LONG 079 10 19 W.)										
NOV 03, 1986	0	2	190	23	0.2	8.2	324	0.81	2,600	1,600
MAY 11, 1987	0	2	120	14	<.1	8.7	262	.81	2,200	500
OCT 19, 1987	--	--	--	20	.2	--	364	.80	3,300	2,500
MAY 31, 1988	--	--	150	16	.1	10	316	.80	3,100	2,900
AUG 18, 1988	--	6	140	27	.2	5.6	380	1.20	300	230
03042700 CHERRY RUN NEAR HOMER CITY, PA Site 26 (LAT 40 33 15 N. LONG 079 11 31 W.)										
NOV 03, 1986	58	48	200	21	<0.1	6.5	382	1.87	400	<130
MAY 11, 1987	28	28	68	9.0	<.1	5.6	180	3.00	<130	<130
OCT 19, 1987	--	56	210	20	.1	--	404	1.82	<130	<130
MAY 31, 1988	--	46	140	14	<.1	9.4	312	1.77	1,000	400
JUNE 7, 1988	--	66	230	18	.1	8.9	636	.93	1,100	<130
AUG 17, 1988	196	200	1,800	23	.3	18	2,580	.04	400	140

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dis-solved (µg/L as As)	Barium, total recov-erable (µg/L as Ba)	Barium, dis-solved (µg/L as Ba)	Cadmium, total recov-erable (µg/L as Cd)	Cadmium, dis-solved (µg/L as Cd)	Chro-mium, total recov-erable (µg/L as Cr)	Chro-mium, dis-solved (µg/L as Cr)	Cobalt, total recov-erable (µg/L as Co)	Cobalt, dis-solved (µg/L as Co)
03042200 LITTLE YELLOW CREEK NEAR STRONGSTOWN, PA Site 17 (LAT 40 33 45 N. LONG 078 56 44 W.)										
NOV 03, 1986	<4	<4	<500	--	0	<1	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03042280 YELLOW CREEK NEAR HOMER CITY, PA Site 20 (LAT 40 34 18 N. LONG 079 06 13 W.)										
NOV 04, 1986	<4	<4	<500	--	0	2	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
JUNE 01, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
03042500 TWO LICK CREEK AT GRACETON, PA Site 27 (LAT 40 31 02 N. LONG 079 10 19 W.)										
NOV 03, 1986	<4	<4	<500	--	0	2	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	1	<50	<50	40	30
AUG 18, 1988	<4	<4	<500	<500	0	1	<50	<50	30	10
03042700 CHERRY RUN NEAR HOMER CITY, PA Site 26 (LAT 40 33 15 N. LONG 079 11 31 W.)										
NOV 03, 1986	<4	<4	<500	--	1	0	<50	<50	<30	<30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	<30
MAY 31, 1988	<4	<4	<500	<500	0	1	<50	<50	20	20
JUNE 07, 1988	<4	<4	<500	<500	0	0	<50	<50	<30	<30
AUG 17, 1988	<10	<20	<500	<500	0	0	<50	<50	<30	<30

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03042200 LITTLE YELLOW CREEK NEAR STRONGSTOWN, PA Site 17 (LAT 40 33 45 N. LONG 078 56 44 W.)										
NOV 03, 1986	<10	<10	440	260	0	<4	480	480	<1.0	<1.0
MAY 11, 1987	--	--	420	<100	--	--	180	160	<1.0	<1.0
OCT 19, 1987	<10	<10	150	<100	0	<4	310	310	<1.0	<1.0
JUNE 01, 1988	20	12	280	150	0	<4	140	130	<1.0	<1.0
AUG 17, 1988	30	29	190	<100	0	<4	80	80	<1.0	<1.0
03042280 YELLOW CREEK NEAR HOMER CITY, PA Site 20 (LAT 40 34 18 N. LONG 079 06 13 W.)										
NOV 04, 1986	<10	<10	170	<100	0	<4	<50	<50	<1.0	<1.0
MAY 11, 1987	--	--	150	<100	--	--	<50	<50	<1.0	<1.0
OCT 19, 1987	<10	<10	<100	<100	0	<4	<50	<50	<1.0	<1.0
JUNE 01, 1988	10	13	270	160	0	<4	120	100	<1.0	<1.0
AUG 17, 1988	<10	<10	100	<100	0	<4	<50	<50	<1.0	<1.0
03042500 TWO LICK CREEK AT GRACETON, PA Site 27 (LAT 40 31 02 N. LONG 079 10 19 W.)										
NOV 03, 1986	<10	<10	14,000	12,000	0	<4	750	730	<1.0	<1.0
MAY 11, 1987	--	--	6,300	5,700	--	--	510	510	<1.0	<1.0
OCT 19, 1987	<10	<10	14,000	11,000	0	<4	840	840	--	--
MAY 31, 1988	<10	23	7,000	4,400	0	<4	750	720	<1.0	<1.0
AUG 18, 1988	20	11	2,300	2,100	0	<4	880	870	<1.0	<1.0
03042700 CHERRY RUN NEAR HOMER CITY, PA Site 26 (LAT 40 33 15 N. LONG 079 11 31 W.)										
NOV 03, 1986	<10	<10	11,000	8,700	0	<4	410	430	<1.0	<1.0
MAY 11, 1987	--	--	2,100	590	--	--	90	80	<1.0	<1.0
OCT 19, 1987	<10	<10	8,200	5,600	0	<4	550	550	--	--
MAY 31, 1988	<10	<10	8,900	3,200	0	<4	510	450	<1.0	<1.0
JUNE 07, 1988	<10	--	12,000	5,200	0	<4	790	770	<1.0	<1.0
AUG 17, 1988	<10	<10	100,000	87,000	0	<4	2,300	2,200	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03042200 LITTLE YELLOW CREEK NEAR STRONGSTOWN, PA Site 17 (LAT 40 33 45 N. LONG 078 56 44 W.)								
NOV 03, 1986	<25	<25	<15	<15	250	250	20	17
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	<15	<15	270	260	<10	<10
JUNE 01, 1988	40	28	<15	<15	250	250	20	<10
AUG 17, 1988	<25	<25	<15	<15	480	480	20	20
03042280 YELLOW CREEK NEAR HOMER CITY, PA Site 20 (LAT 40 34 18 N. LONG 079 06 13 W.)								
NOV 04, 1986	<25	<25	<15	<15	280	300	20	20
MAY 11, 1987	--	--	--	--	--	--	<10	<10
OCT 19, 1987	<25	<25	<15	<15	230	230	<10	<10
JUNE 01, 1988	30	26	<15	<15	140	140	10	20
AUG 17, 1988	20	25	<15	<15	220	220	<10	<10
03042500 TWO LICK CREEK AT GRACETON, PA Site 27 (LAT 40 31 02 N. LONG 079 10 19 W.)								
NOV 03, 1986	50	50	<15	<15	310	300	70	70
MAY 11, 1987	--	--	--	--	--	--	50	40
OCT 19, 1987	--	--	--	--	--	--	--	--
MAY 31, 1988	80	89	<15	<15	230	230	90	90
AUG 18, 1988	60	45	<15	<15	220	220	60	60
03042700 CHERRY RUN NEAR HOMER CITY, PA Site 26 (LAT 40 33 15 N. LONG 079 11 31 W.)								
NOV 03, 1986	<25	<25	<15	<15	450	350	20	20
MAY 11, 1987	--	--	--	--	--	--	30	<10
OCT 19, 1987	<25	<25	--	--	360	360	<10	<10
MAY 31, 1988	60	59	<15	<15	270	270	<10	20
JUNE 07, 1988	40	37	<15	<15	400	400	10	10
AUG 17, 1988	<25	<25	<15	<15	3,000	3,000	10	10

Table 5.--Surface-water-quality data--Continued

Date	Time	Stream-flow, instan-taneous (ft^3/s)	Spe-cific conduc-tance ($\mu S/cm$)	pH (stan-dard units)	Water temper-ature (°C)	Hard-ness, total (mg/L as $CaCO_3$)	Acidity (mg/L as H)	Calcium, dis-solved (mg/L as Ca)	Magne-sium, dis-solved (mg/L as Mg)	Sodium, dis-solved (mg/L as Na)	Potas-sium, dis-solved (mg/L as K)
03043990 AULTMANS RUN NEAR LEWISVILLE, PA Site 25 (LAT 40 30 02 N. LONG 079 17 39 W.)											
NOV 03, 1986	1310	4.4	1,000	4.8	8.0	410	1.0	120	39	40	3.8
MAY 11, 1987	1140	17	570	5.8	15.0	220	.3	49	18	16	2.1
OCT 19, 1987	1230	4.0	1,100	6.5	8.0	340	--	88	30	46	3.5
MAY 31, 1988	1200	8.3	880	5.0	17.0	350	--	91	29	26	2.5
AUG 17, 1988	1200	.27	1,800	7.0	22.5	620	--	170	49	98	3.9
03044000 CONEMAUGH RIVER AT TUNNELTON, PA Site 24 (LAT 40 27 16 N. LONG 079 23 28 W.)											
NOV 04, 1986	1535	530	750	4.4	10.5	230	0.4	68	17	31	3.5
MAY 11, 1987	0830	3,550	370	4.4	16.0	130	.3	33	10	13	1.9
OCT 19, 1987	1010	625	620	5.0	12.0	220	--	62	16	56	3.3
MAY 31, 1988	1100	1,500	440	5.0	22.0	160	--	43	13	14	2.0
AUG 18, 1988	1030	260	1,100	4.2	27.5	410	--	120	28	51	5.4
03047480 BLACKLEGS CREEK AT CLARKSBURG, PA Site 23 (LAT 40 32 14 N. LONG 079 22 33 W.)											
NOV 03, 1986	1010	4.5	720	8.0	6.5	320	--	78	30	59	3.2
MAY 11, 1987	0955	26	660	7.0	13.5	240	0.1	57	23	37	2.0
OCT 19, 1987	0910	--	--	--	--	340	--	81	33	52	2.7
MAY 31, 1988	0940	14	740	7.1	16.0	290	--	73	27	53	2.3
AUG 17, 1988	0920	2.4	1,200	7.7	--	190	--	--	46	75	3.2

Table 5.--Surface-water-quality data--Continued

Date	Alkalinity field (mg/L as $CaCO_3$)	Alkalinity lab (mg/L as $CaCO_3$)	Sulfate, dissolved (mg/L as SO_4)	Chloride, dissolved (mg/L as Cl)	Fluoride, total (mg/L as F)	Silica, dissolved (mg/L as SiO_2)	Residue at 105 °C dissolved (mg/L)	Nitrogen nitrate, total (mg/L as N)	Aluminum, total recoverable (µg/L as Al)	Aluminum, dissolved (µg/L as Al)
03043990 AULTMANS RUN NEAR LEWISVILLE, PA Site 25 (LAT 40 30 02 N. LONG 079 17 39 W.)										
NOV 03, 1986	0	0	430	76	0.2	16	894	0.71	11,000	6,700
MAY 11, 1987	2	4	230	22	<.1	11	472	.83	3,000	<130
OCT 19, 1987	--	8	460	78	.2	14	704	.45	1,100	270
MAY 31, 1988	--	2	360	32	.2	15	664	.51	4,000	2,700
AUG 17, 1988	--	18	630	200	.1	10	1,340	.26	200	150
03044000 CONEMAUGH RIVER AT TUNNELTON, PA Site 24 (LAT 40 27 16 N. LONG 079 23 28 W.)										
NOV 04, 1986	--	0	280	18	0.2	9.4	496	0.65	2,100	2,100
MAY 11, 1987	--	2	160	8.0	<.1	9.2	302	.90	700	610
OCT 19, 1987	--	2	290	15	.3	11	374	.73	1,100	1,200
MAY 31, 1988	--	<2	--	11	.2	10	344	.77	700	--
AUG 18, 1988	--	--	500	27	.2	13	784	1.00	2,300	3,100
03047480 BLACKLEGS CREEK AT CLARKSBURG, PA Site 23 (LAT 40 32 14 N. LONG 079 22 33 W.)										
NOV 03, 1986	96	96	360	15	0.2	9.1	628	0.50	<130	<130
MAY 11, 1987	70	66	280	8.0	.2	11	474	.50	1,900	<130
OCT 19, 1987	--	94	400	11	.3	12	592	.24	360	140
MAY 31, 1988	--	96	300	10	.2	11	580	.59	920	230
AUG 17, 1988	--	116	540	15	.3	8.2	896	.42	<130	<130

Table 5.--Surface-water-quality data--Continued

Date	Arsenic, total (µg/L as As)	Arsenic, dissolved (µg/L as As)	Barium, total recoverable (µg/L as Ba)	Barium, dissolved (µg/L as Ba)	Cadmium, total recoverable (µg/L as Cd)	Cadmium, dissolved (µg/L as Cd)	Chromium, total recoverable (µg/L as Cr)	Chromium, dissolved (µg/L as Cr)	Cobalt, total recoverable (µg/L as Co)	Cobalt, dissolved (µg/L as Co)
03043990 AULTMANS RUN NEAR LEWISVILLE, PA Site 25 (LAT 40 30 02 N. LONG 079 17 39 W.)										
NOV 03, 1986	<4	<4	<500	--	1	1	<50	<50	90	90
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	1	0	<50	<50	40	50
MAY 31, 1988	<4	<4	<500	<500	1	1	<50	<50	80	80
AUG 17, 1988	<4	<4	<500	<500	0	0	<50	<50	80	60
03044000 CONEMAUGH RIVER AT TUNNELTON, PA Site 24 (LAT 40 27 16 N. LONG 079 23 28 W.)										
NOV 04, 1986	<4	<4	<500	--	2	2	<50	<50	40	30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	2	1	<50	<50	40	50
MAY 31, 1988	--	--	--	--	--	--	--	--	--	--
AUG 18, 1988	<4	<4	<500	<500	1	1	<50	<50	80	80
03047400 BLACKLEGS CREEK AT CLARKSBURG, PA Site 23 (LAT 40 32 14 N. LONG 079 22 33 W.)										
NOV 03, 1986	<4	<4	<500	--	0	1	<50	<50	<30	30
MAY 11, 1987	--	--	<500	<500	--	--	--	--	--	--
OCT 19, 1987	<4	<4	<500	<500	0	0	<50	<50	<30	30
MAY 31, 1988	<4	<4	<500	<500	0	1	<50	<50	50	40
AUG 17, 1988	<10	<10	<500	<500	0	0	<50	<50	50	40

Table 5.--Surface-water-quality data--Continued

Date	Copper, total recoverable (µg/L as Cu)	Copper, dissolved (µg/L as Cu)	Iron, total recoverable (µg/L as Fe)	Iron, dissolved (µg/L as Fe)	Lead, total recoverable (µg/L as Pb)	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Mercury, dissolved (µg/L as Hg)
03043990 AULTMANS RUN NEAR LEWISVILLE, PA Site 25 (LAT 40 30 02 N. LONG 079 17 39 W.)										
NOV 03, 1986	15	15	3,700	2,700	0	5	5,000	5,000	<1.0	<1.0
MAY 11, 1987	--	--	2,500	1,600	--	--	1,700	1,700	<1.0	<1.0
OCT 19, 1987	11	<10	1,700	1,200	0	<4	4,400	4,400	<1.0	<1.0
MAY 31, 1988	30	18	2,300	1,600	0	<4	4,000	3,900	<1.0	<1.0
AUG 17, 1988	20	13	340	170	0	<4	5,300	5,200	<1.0	<1.0
03044000 CONEMAUGH RIVER AT TUNNELTON, PA Site 24 (LAT 40 27 16 N. LONG 079 23 28 W.)										
NOV 04, 1986	20	15	550	330	0	5	1,500	1,500	<1.0	<1.0
MAY 11, 1987	--	--	2,000	1,800	--	--	870	870	<1.0	<1.0
OCT 19, 1987	<10	<10	610	390	0	<4	1,500	1,500	<1.0	<1.0
MAY 31, 1988	--	--	--	--	--	--	--	--	--	--
AUG 18, 1988	20	24	200	180	0	5	2,100	2,000	<1.0	<1.0
03047400 BLACKLEGS CREEK AT CLARKSBURG, PA Site 23 (LAT 40 32 14 N. LONG 079 22 33 W.)										
NOV 03, 1986	<10	17	390	230	0	5	1,700	1,700	<1.0	<1.0
MAY 11, 1987	--	--	590	<100	--	--	1,800	1,800	<1.0	<1.0
OCT 19, 1987	<10	<10	450	120	0	<4	2,600	2,600	<1.0	<1.0
MAY 31, 1988	10	<10	470	140	0	<4	1,500	1,500	<1.0	<1.0
AUG 17, 1988	20	15	160	130	0	<4	1,600	1,600	<1.0	<1.0

Table 5.--Surface-water-quality data--Continued

Date	Nickel, total recoverable (µg/L as Ni)	Nickel, dissolved (µg/L as Ni)	Selenium, total (µg/L as Se)	Selenium, dissolved (µg/L as Se)	Strontium, total recoverable (µg/L as Sr)	Strontium, dissolved (µg/L as Sr)	Zinc, total recoverable (µg/L as Zn)	Zinc, dissolved (µg/L as Zn)
03043990 AULTMANS RUN NEAR LEWISVILLE, PA Site 25 (LAT 40 30 02 N. LONG 079 17 39 W.)								
NOV 03, 1986	130	130	<15	<15	720	730	300	300
MAY 11, 1987	--	--	--	--	--	--	80	70
OCT 19, 1987	70	49	<15	<15	630	630	160	110
MAY 31, 1988	100	70	<15	<15	500	490	150	130
AUG 17, 1988	110	82	<15	<15	1,300	1,300	60	60
03044000 CONEMAUGH RIVER AT TUNNELTON, PA Site 24 (LAT 40 27 16 N. LONG 079 23 28 W.)								
NOV 04, 1986	60	54	<15	<15	290	290	150	150
MAY 11, 1987	--	--	--	--	--	--	120	120
OCT 19, 1987	100	56	<15	<15	320	310	140	40
MAY 31, 1988	--	--	--	--	--	--	--	--
AUG 18, 1988	120	120	<15	<15	530	530	260	260
03047400 BLACKLEGS CREEK AT CLARKSBURG, PA Site 23 (LAT 40 32 14 N. LONG 079 22 33 W.)								
NOV 03, 1986	30	29	<15	<15	840	740	40	40
MAY 11, 1987	--	--	--	--	--	--	50	<10
OCT 19, 1987	40	28	<15	<15	820	750	60	50
MAY 31, 1988	50	<25	<15	<15	600	590	20	20
AUG 17, 1988	80	57	<15	<15	1,100	1,100	20	<10

Table 6.--Federal maximum contaminant levels and recommended maximum contaminant levels for selected contaminants of drinking water for public supply systems

[Levels in milligrams per liter except as indicated; --, no data]

Contaminant	Maximum contaminant level	Recommended maximum contaminant level
Arsenic (As)	0.05	--
Barium (Ba)	1	--
Cadmium (Cd)	.010	--
Chromium (Cr)	.05	--
Flouride (F)	4	--
Lead (Pb)	.05	--
Mercury (Hg)	.002	--
Nitrate (N)	10	--
Selenium (Se)	.01	--
Silver (Ag)	.05	--
Chloride (Cl)	--	250
Color (color units)	--	15
Copper (Cu)	--	1
Corrosivity	--	Noncorrosive
Foaming agents	--	.5
Iron (Fe)	--	.3
Manganese (Mn)	--	.05
Odor (threshold odor number)	--	3
pH (units)	--	6.5 - 8.5
Sulfate (SO_4)	--	250
Total dissolved solids	--	500
Zinc (Zn)	--	5

Table 7.--Seepage-run-discharge, water-temperature, and specific-conductance data for the subbasins in South Branch Plum Creek

[mi^2, square miles; ft^3/s, cubic feet per second; $[(ft^3/s)/mi^2]$, cubic feet per second per square mile; °C, degrees Celsius; µS/cm, microsiemens per centimeter at 25 degrees Celsius; <, less than; --, no data available]

		May 14, 1987				October 16, 1987			
Subbasin number	Drainage area (mi^2)	Discharge (ft^3/s)	Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	Water temperature (°C)	Specific conductance (µS/cm)	Discharge (ft^3/s)	Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	Water temperature (°C)	Specific conductance (µS/cm)
1	0.69	0.298	43.2	12.0	175	0.252	36.5	10.5	160
2	.20	.106	53.0	12.5	175	.451	226	10.5	160
3	.19	.067	35.3	13.0	190	.171	90.0	10.0	195
4	.12	.061	50.8	14.0	198	.233	194.2	8.5	185
5*	1.83	.803	43.9	15.0	175	.635	34.7	9.0	170
6	.45	.155	34.4	16.5	195	.254	56.4	9.0	190
7*	2.57	1.05	40.9	22.5	180	2.04	79.4	8.0	180
8*	2.93	1.36	46.4	19.0	167	1.39	47.4	7.0	160
9*	5.54	2.41	43.5	--	--	3.43	61.9	7.0	170
10	.99	.428	43.2	15.5	155	.490	49.5	8.5	170
11	.32	.104	32.5	16.5	145	.110	34.4	9.0	155
12*	.94	.300	31.9	21.0	163	.336	35.7	10.5	182
13*	1.54	.629	40.8	21.0	153	.757	49.2	12.0	170
14	.39	.130	33.3	12.0	88	.171	43.8	8.5	125
15	.95	.320	33.7	13.0	102	.413	43.5	8.0	135
16*	.72	.320	44.4	14.0	100	.250	34.7	6.5	127
17*	2.06	.780	37.9	16.0	112	.899	43.6	6.5	140
18	.35	.120	34.3	16.0	112	.122	34.8	5.5	145
19*	2.75	1.08	39.3	15.5	112	1.17	42.5	6.5	145
20	.36	.200	55.6	20.5	135	.169	46.9	7.0	190
21*	9.38	4.10	43.7	19.0	142	3.94	42.0	7.5	170

		June 7, 1988				July 6, 1988			
Subbasin number	Drainage area (mi^2)	Discharge (ft^3/s)	Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	Water temperature (°C)	Specific conductance (µS/cm)	Discharge (ft^3/s)	Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	Water temperature (°C)	Specific conductance (µS/cm)
1	0.69	0.051	7.4	24.0	147	0.020	2.9	23.0	180
2	.20	.044	22.0	23.0	162	.002	1.0	20.0	200
3	.19	.052	27.4	24.5	190	<.001	.59	21.0	285
4	.12	.013	10.8	28.0	212	.004	3.7	19.0	265
5*	1.83	.265	14.5	28.5	187	.008	.44	20.0	380
6	.45	.036	8.0	20.0	180	0	--	--	--
7*	2.57	.350	13.6	23.5	188	0	--	--	--
8*	2.93	.318	10.9	20.0	183	0	--	--	--
9*	5.54	.668	12.1	--	--	0	--	--	--
10	.99	.071	7.2	25.0	161	0	--	--	--
11	.32	.007	2.2	23.0	150	0	--	--	--
12*	.94	.036	3.8	29.5	161	0	--	--	--
13*	1.54	.068	4.4	31.0	156	0	--	--	--
14	.39	--	--	--	--	0	--	--	--
15	.95	.024	2.5	14.5	123	0	--	--	--
16*	.72	.058	8.1	15.0	123	0	--	--	--
17*	2.06	.171	8.3	18.0	186	0	--	--	--
18	.35	.027	7.7	16.0	130	0	--	--	--
19*	2.75	.351	12.7	17.0	133	0	--	--	--
20	.36	.041	11.4	17.5	175	0	--	--	--
21*	9.38	.877	9.4	26.0	161	0	--	--	--

* Mainstem sites-drainage areas at the mainstem sites include all subbasins upstream of the site.

Table 8.--Seepage-run-discharge, water-temperature, and specific-conductance data for the the subbasins in Cherry Run

[mi^2, square miles; ft^3/s, cubic feet per second; $[(ft^3/s)/mi^2]$, cubic feet per second per square mile; °C, degrees Celsius; µS/cm, microsiemens per centimeter at 25 degrees Celsius; <, less than; --, no data available]

Subbasin number	Drainage area (mi^2)	May 14, 1987 Discharge (ft^3/s)	May 14, 1987 Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	May 14, 1987 Water temperature (°C)	May 14, 1987 Specific conductance (µS/cm)	October 16, 1987 Discharge (ft^3/s)	October 16, 1987 Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	October 16, 1987 Water temperature (°C)	October 16, 1987 Specific conductance (µS/cm)
1	0.31	0.089	28.7	24.5	235	0.041	13.2	6.0	240
2	.32	.100	31.2	23.0	165	.047	14.7	6.0	150
3	.14	.044	31.5	20.5	235	.018	12.8	8.0	360
4	.15	--	--	26.0	225	.020	13.3	7.0	200
5	.43	.183	42.5	21.5	180	.075	17.4	5.5	180
6*	1.82	.550	30.2	21.0	190	.317	17.4	6.5	190
7	.36	.075	20.8	20.5	165	.064	17.8	8.0	160
8	.27	.188	69.6	20.0	300	.032	11.8	10.5	250
9*	2.61	.809	31.0	19.5	237	.410	15.7	7.5	220
10*	3.18	.794	25.0	20.5	205	.517	16.3	12.0	200
11	.57	.018	3.2	21.5	210	.010	1.8	12.5	480
12*	1.33	.212	15.9	22.0	175	.077	5.8	6.5	190
13	.84	.376	44.8	21.0	152	.161	19.2	5.5	220
14	.56	.189	33.8	22.0	205	.113	20.2	6.0	250
15*	1.95	.555	28.5	20.0	180	.288	14.8	6.0	215
16	.80	.109	13.6	21.0	160	.045	5.6	6.5	183
17*	3.70	.852	23.0	21.0	200	.241	6.5	6.0	227
18*	8.32	1.86	22.4	--	--	1.26	15.1	9.0	225
19	.34	.080	23.5	19.0	235	.050	14.7	9.0	235
20	.17	.054	31.8	19.0	165	.064	37.6	11.5	170
21	9.12	--	--	--	--	1.22	13.4	9.0	223
22	.97	.356	36.7	20.5	173	.152	15.7	13.0	235
23	#	.017	--	12.5	4,000	.047	--	12.5	4,100
24*	10.5	2.95	28.1	20.5	315	1.73	16.5	14.0	520

Subbasin number	Drainage area (mi^2)	June 7, 1988 Discharge (ft^3/s)	June 7, 1988 Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	June 7, 1988 Water temperature (°C)	June 7, 1988 Specific conductance (µS/cm)	July 6, 1988 Discharge (ft^3/s)	July 6, 1988 Discharge per square mile $[(ft^3/s)/mi^2] \times 10^{-2}$	July 6, 1988 Water temperature (°C)	July 6, 1988 Specific conductance (µS/cm)
1	0.31	0.049	15.8	25.0	295	0	--	--	--
2	.32	.040	12.5	23.0	255	0	--	--	--
3	.14	.040	28.5	23.0	310	0	--	--	--
4	.15	.003	2.0	24.0	235	0	--	--	--
5	.43	.052	12.1	22.5	190	0	--	--	--
6*	1.82	.198	10.9	21.0	235	0	--	--	--
7	.36	.035	9.7	20.0	170	0	--	--	--
8	.27	.010	3.7	19.0	380	0	--	--	--
9*	2.61	.183	7.0	19.0	253	0	--	--	--
10*	3.18	.222	7.0	21.5	225	0	--	--	--
11	.57	0	--	--	--	0	--	--	--
12*	1.33	.056	4.2	18.5	190	0	--	--	--
13	.84	.168	20.0	18.0	195	0	--	--	--
14	.56	.054	9.6	18.0	250	0	--	--	--
15*	1.95	.253	13.0	17.0	230	0	--	--	--
16	.80	.001	.125	17.0	165	0	--	--	--
17*	3.70	.230	6.2	17.5	225	0	--	--	--
18*	8.32	0	--	--	--	0	--	--	--
19	.34	.026	7.6	27.5	275	0	--	--	--
20	.17	.018	10.6	25.0	190	0	--	--	--
21	9.12	.679	7.4	23.0	225	<.002	--	28.0	245
22	.97	.130	13.4	28.5	195	0	--	--	--
23	#	.044	--	14.0	4,000	.044	--	14.0	4,200
24*	10.5	.973	9.3	27.5	685	0	--	26.5	2,750

* Mainstem sites-drainage areas at the mainstem sites include all subbasins upstream of the site.

Mine discharge.

Table 9.--Record of wells

County well or spring number: The number that is assigned to identify the well. The prefix *In* before the well number signifies that the well is located in Indiana county.

Primary use of site: O, observation; U, unused; W, withdrawal; Z, destroyed.

Primary use of water: A, air conditioning; C, commercial; E, power; H, domestic; N, industrial; P, public supply; Q, agriculture; S, stock; T, institution; U, unused.

Topographic setting: F, flat; H, hilltop; S, hillside; V, valley flat; W, upland draw.

Hydrogeologic unit: 111ALVM, Holocene alluvium; 321MNGL, Monongahela group; 321CSLM, Casselman Formation; 321GLNS, Glenshaw Formation; 324ALGN, Allegheny group; 324PSVL, Pottsville Group.

Lithology: CLAY, clay; SDSL, sandstone and shale; SDST, sandstone and siltstone; SHLE, shale; SNDS, sandstone.

Reported yield: gal/min, gallons per minute.

Specific capacity: [(gal/min)/ft], gallons per minute per foot of drawdown.

Measured yield discharge: gal/min, gallons per minute.

Specific conductance: μS/cm, microsiemens per centimeter at 25 degrees Celsius.

Driller license numbers and driller names:

019	Joseph E. Hedelmeyer	1249	William T. Martin
0035	Shellhammer Bros.	1369	Gordon B. Miller
0080	Wilson Electric Pumps	1374	Jim Leighton Drilling Co.
0400	Roy L. Smith	1390	Jack A. Huber
0406	Pennsylvania Drilling	1392	Dean Lenhart
0643	Ben Lightcap	1398	R&R Perry Drilling Co.
0704	Toy Drilling Co., Inc.	1446	Smith Drilling, Marlin Smith
0807	Dinger Bros. Drilling	1447	WACO
0864	Clair A. Spahn	1473	Ron Phillips
0996	Donald D. Piper	1501	Moore Drilling
1043	Bill Cover	1519	Brian L. Stockdale
1086	James R. Miller	1523	Richard W. Toy
1139	William R. Parks, Jr.	1528	William L. McCormick
1164	Richard Vining	1632	Jones Drilling
1169	Donald R. Lightcap	1641	Larry Huber Water Well Drilling
1232	Everett C. Trimble	1655	ALCO Drilling Co.

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In- 1	403702	0790933	Indiana Boro	Indiana University	--	1903	O	U	1,310	S	321CNMG
5	403704	0791013	Indiana Boro	McCreary Tire & Rubber Co.	--	1915	W	A	1,270	V	321GLNS
6	403704	0791013	Indiana Boro	McCreary Tire & Rubber Co.	019	1943	W	U	1,270	V	321GLNS
10	403719	0791017	Indiana Boro	McCreary Tire & Rubber Co.	--	1946	U	U	1,270	V	321GLNS
13	402904	0792711	Saltsburg Boro	Altman Feed Co.	--	1930	U	U	850	V	321GLNS
16	403358	0791742	Young	Young Water Co.	--	1912	W	U	1,150	S	324ALGN
33	402614	0791208	Burrell	Victor Peterson	--	1955	W	H	1,330	S	321GLNS
34	403658	0790924	Indiana Boro	Indiana University Of PA	1043	1970	W	E	1,280	S	321GLNS
35	403453	0791319	Center	Viola Whiteman	1043	1964	W	H	1,180	V	321GLNS
36	403517	0792215	Young	Wallace Shearer	--	--	W	H	1,080	V	321GLNS
37	404540	0790555	East Mahoning	John McMillan	--	--	W	S	1,300	S	321GLNS
38	404039	0791130	Creekside Boro	Creekside Water Systems	--	1950	W	P	1,080	S	321GLNS
39	404504	0790546	Rayne	Robert Hermann	0807	1957	W	H	1,260	S	321GLNS
40	404857	0784920	Glen Campbell B.	Glen Campbell Water Co.	0406	1955	W	P	1,380	V	324ALGN
41	403746	0785132	Pine	Alverda Water Association	--	1929	W	P	1,890	W	324ALGN
42	403331	0792335	Young	Indiana Comm. Serv. Auth.	--	1949	W	P	1,070	V	321CSLM
43	403327	0792334	Young	Indiana Comm. Serv. Auth.	0643	1950	W	P	1,080	S	321CSLM
101	404543	0791018	Washington	J. Blazavich	1447	1978	W	H	1,170	V	321GLNS
102	405211	0791020	West Mahoning	Paul Buzzard	0643	1976	U	U	1,160	V	324ALGN
103	405239	0790434	North Mahoning	Lutheran Church	1390	1976	W	H	1,520	H	321GLNS
104	405241	0790434	North Mahoning	Mt. Zion Lutheran Church	0807	1969	U	U	1,520	H	321GLNS
105	405243	0790430	North Mahoning	W. Chambers	1528	1979	W	H	1,480	H	321GLNS
106	405242	0790438	North Mahoning	Wendall Neal	0807	1967	W	H	1,520	H	321GLNS
107	405252	0790451	North Mahoning	Shirley Rishel	0704	1982	W	H	1,480	S	321GLNS
108	405243	0790421	North Mahoning	Fred Chambers	1390	1976	W	H	1,530	S	321GLNS
109	405358	0790051	North Mahoning	Melvin Miller	1369	1976	W	H	1,530	H	321GLNS
110	405359	0790053	North Mahoning	Melvin Miller	--	1976	W.	H	1,530	H	321CSLM
111	405429	0790050	North Mahoning	C. Rumgay	--	1979	W	H	1,480	H	321GLNS
112	405350	0790320	North Mahoning	R. Orr	1447	1978	W	H	1,300	V	321GLNS
113	404603	0790303	East Mahoning	Mahoning Medical Center	1169	1976	W	T	1,280	S	324ALGN
114	404535	0790356	East Mahoning	West Penn Tipple	1398	1979	W	N	1,250	V	324ALGN
115	404605	0790252	East Mahoning	W. McKee	1398	1979	W	H	1,280	S	324ALGN
116	404543	0790246	East Mahoning	Ron Byers	0807	1967	W	H	1,370	S	324ALGN
117	404629	0790302	Marion Center	Frank Lydick	0807	1968	W	H	1,360	S	324ALGN
118	404641	0790300	East Mahoning	R. Steffey	1232	1980	W	H	1,440	S	321GLNS
119	404733	0790317	East Mahoning	Dale Thomas	0807	1968	W	H	1,320	V	321GLNS
120	404541	0790820	Washington	James McMillan	--	1927	O	U	1,130	V	321GLNS
121	404723	0791052	Plumville Boro	Fred Tost	--	1940	U	U	1,210	S	321GLNS
122	404654	0790428	East Mahoning	Richard Burns	0693	1972	W	H	1,400	H	321GLNS
123	404738	0790426	East Mahoning	Raymond Good	1169	1984	W	H	1,350	V	321GLNS
124	404622	0790622	East Mahoning	Ronald Smith	1169	1982	W	H	1,180	V	321GLNS
125	404117	0790942	Rayne	Indiana Parks	1473	1985	W	P	1,170	S	324ALGN
126	404222	0790748	Rayne	Bernard Stadtmiller	1447	1981	W	H	1,160	V	321GLNS
127	403747	0791002	White	Indiana Parks	1473	1979	W	P	1,600	H	321CSLM
128	403856	0791350	Armstrong	Roy Fleming	--	1983	U	U	1,120	V	321GLNS
129	403907	0791432	Armstrong	Roy Fleming	1447	1977	W	P	1,080	V	321GLNS
130	403906	0791429	Armstrong	Roy Fleming	--	1983	W	P	1,080	V	321GLNS
131	403904	0791358	Armstrong	Vicki Gregory	1447	1978	W	H	1,120	S	321GLNS
132	404135	0790802	Rayne	T. Receski	1447	1980	W	H	1,330	H	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (μS/cm)	Field water quality pH (standard units)
SNDS	198	--	--	--	79.00	03-17-49	--	0.38	8	1.0	--	--	--
SNDS	163	--	--	--	29.00	07-11-36	--	100	100	24	--	--	--
SNDS	204	15	10	--	60.00	01-15-52	--	--	--	--	--	--	--
SNDS	192	--	--	--	23.30	01-09-52	25	--	--	--	--	--	--
SNDS	31	--	--	--	15.30	01-16-52	--	--	--	--	--	--	--
--	205	172	6	--	176.00	06-15-66	20	--	--	2.0	--	--	--
		--	--	--			300	--	--	--	--	--	--
--	122	--	--	90	100.00	00-00-70	1	--	--	--	--	--	--
--	187	120	6	--	88.00	00-00-71	--	1.1	45	990	00-00-70	350	--
--	80	--	--	--	--	--	--	--	--	--	10-07-64	180	7.3
--	150	--	--	--	--	--	--	--	--	--	10-07-64	1,250	--
--	100	--	--	--	25.00	10-06-64	--	--	--	--	10-06-64	287	--
--	93	63	8	--	10.00	--	25	--	--	--	--	--	--
--	36	--	--	24	18.00	10-07-64	100	--	--	--	10-07-64	141	--
--	205	74	8	--	45.00	10-15-55	--	15	37	8	--	--	--
SDST	194	--	--	--	--	--	60	--	--	--	--	--	--
SDSL	160	21	8	--	5.00	10-25-50	--	5.0	50	24	--	--	--
SHLE	181	80	8	--	30.00	11-00-50	12	--	--	--	--	--	--
SHLE	62	23	5	34/41	--	--	8	--	--	--	--	--	--
--	40	25	6	35	--	--	--	--	--	--	--	--	--
--	110	38	6	60	30.00	07-06-76	--	.06	4	1	--	--	--
SHLE	260	22	6	62/82/124	--	--	1	--	--	--	--	--	--
SHLE	210	40	6	34/50/195	60.00	06-00-79	--	.01	2	--	06-10-86	340	--
SHLE	120	22	6	45/110	--	--	5	--	--	--	06-10-86	320	7.0
SDSL	124	21	6	34	42.00	06-10-86	1	--	--	--	06-10-86	280	6.7
SHLE	100	32	6	29/62	75.00	07-26-76	20	--	--	--	--	--	--
SDSL	204	20	6	126/180	--	--	--	--	--	--	06-11-86	300	6.9
--	15	--	--	--	--	--	--	--	--	--	06-11-86	300	6.5
SHLE	106	31	6	50/85	--	--	5	--	--	--	06-11-86	230	7.2
SDSL	35	20	5	19/27	11.30	06-11-86	20	--	--	--	06-11-86	215	6.7
SHLE	52	40	8	45	--	--	30	--	--	--	--	--	--
--	44	40	6	32	--	--	20	--	--	--	--	--	--
SHLE	30	25	--	--	--	--	15	--	--	--	--	--	--
SDSL	100	22	5	28/95	--	--	4	--	--	--	--	--	--
SHLE	70	33	6	38/64	--	--	7	--	--	--	--	--	--
SDSL	46	41	5	44	14.00	05-21-80	25	--	--	--	--	--	--
--	42	22	5	23/30	--	--	3	--	--	--	--	--	--
--	76	--	--	--	18.00	06-26-86	--	10	15	2	06-26-86	910	8.1
--	49	--	--	--	--	--	<1	--	--	--	--	--	--
--	117	24	6	85	--	--	--	--	--	--	--	--	--
SHLE	77	26	6	35/65	--	--	10	--	--	--	08-28-86	240	6.9
SHLE	72	42	6	20/65	--	--	15	--	--	--	--	--	--
--	160	27	6	45	110.00	06-10-87	<1	--	--	--	06-10-87	380	6.9
SDSL	90	20	5	42	45.00	06-10-87	8	--	--	--	06-10-87	365	6.4
SHLE	70	32	5	40/51	--	--	2	--	--	--	06-10-87	108	6.4
--	80	--	--	--	9.50	06-11-87	50	--	--	--	--	--	--
SHLE	62	22	5	34/55	--	--	15	--	--	--	06-11-87	305	6.5
--	80	--	--	--	--	--	42	--	--	--	--	--	--
SDSL	42	20	5	26	7.35	06-11-87	10	--	--	--	06-11-87	260	6.7
SDSL	180	120	5	92/102	--	--	2	--	--	--	--	--	--

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-133	404309	0790917	Rayne	Jessie Donahue	--	1973	W	H	1,100	V	321GLNS
134	404159	0790808	Rayne	Jack Summerfield	1043	1977	W	H	1,250	V	321GLNS
135	404158	0790806	Rayne	L.J. Summerfield	1043	1977	W	H	1,250	V	321GLNS
136	404428	0790842	Washington	E. Jewart	1169	1983	W	H	1,270	S	321GLNS
137	403930	0791348	Armstrong	Glenn Campbell	--	1986	W	H	1,210	H	321GLNS
138	403931	0791348	Armstrong	Glenn Campbell	1447	1978	W	H	1,210	H	321GLNS
139	403934	0791348	Washington	G. Campbell	1447	1978	W	H	1,230	S	321GLNS
140	404330	0791329	Washington	E. Park	1447	1978	W	H	1,170	S	321GLNS
141	404418	0791312	Washington	Walter L. Houser	0704	1980	U	U	1,090	V	324ALGN
142	404418	0791312	Washington	Walter L. Houser	0704	1980	W	H	1,090	V	324ALGN
143	404302	0791329	Washington	Neal Ryan	1164	1979	W	H	1,080	V	321GLNS
144	404127	0791302	Washington	D. Moody	1447	1978	W	H	1,300	H	321GLNS
145	404129	0791301	Washington	Barry Kestembaum	--	1977	W	H	1,300	H	321GLNS
146	403820	0791346	Armstrong	J. Capizzi	1043	1983	W	H	1,380	S	321GLNS
147	403948	0791414	Armstrong	D. Yarmick	1447	1981	W	H	1,020	V	321GLNS
148	404011	0791423	Washington	M. Yarnick	1447	1979	W	H	1,060	V	321GLNS
149	402834	0791140	Blacklick	Sewage Authority	1374	1984	W	N	980	V	321GLNS
150	402918	0791437	Blacklick	J. Buzzard	1473	1985	W	H	1,230	H	321CSLM
151	402909	0791341	Blacklick	Helen Mines	0080	1985	W	N	1,080	V	321CSLM
152	402528	0790741	West Wheatfield	Edna Barkley	1392	1979	W	H	1,500	S	324ALGN
153	402537	0790747	West Wheatfield	Leonard Lickenfels	0080	1977	W	H	1,390	S	324ALGN
154	402543	0790724	West Wheatfield	Gilbert Penrose	0080	1981	W	H	1,480	S	324ALGN
155	402647	0790615	West Wheatfield	Ray Cowan	0080	1970	U	U	1,760	H	321GLNS
156	402544	0790212	East Wheatfield	Daniel Fry	0080	1977	W	H	1,200	V	324ALGN
157	402652	0790504	West Wheatfield	Ralph Lichtenfels	0080	1975	U	U	1,820	H	321GLNS
158	402702	0790415	West Wheatfield	Robert Joseph	--	1984	W	H	1,820	H	321GLNS
159	402731	0790339	East Wheatfield	Willis R. Griffith	--	1983	U	U	1,610	H	321GLNS
160	402658	0790415	West Wheatfield	Clyde Fire Co.	0080	1966	W	P	1,810	H	321GLNS
161	402910	0790531	Brush Valley	George McDowell	0080	1977	W	H	1,490	S	321GLNS
162	402849	0790218	East Wheatfield	A.M. Balko	0080	1966	W	H	1,350	V	324ALGN
163	402833	0790347	East Wheatfield	Pete Brown	0080	1984	W	H	1,760	H	321GLNS
164	402802	0790021	Buffington	Janice Hicks	0080	1982	W	H	1,380	S	324ALGN
165	402817	0790405	East Wheatfield	Richard Lichtenfels	0080	1984	W	H	1,820	S	321GLNS
166	402739	0790113	East Wheatfield	John Gawlas	0080	1979	W	H	1,550	S	321GLNS
167	402707	0790321	East Wheatfield	Summit Lumber Company	0080	1973	W	C	1,590	S	321GLNS
168	402707	0790321	East Wheatfield	Summit Lumber Company	0080	1975	W	C	--	S	321GLNS
169	402707	0790321	East Wheatfield	Summit Lumber Company	0080	1974	W	C	1,590	S	321GLNS
170	402719	0790032	East Wheatfield	Ben Mack	0080	1967	W	H	1,550	S	321GLNS
171	402640	0790257	East Wheatfield	Blaine Empfield	0080	1980	W	H	1,600	S	321GLNS
172	402615	0790358	West Wheatfield	David Lawson	0080	1975	W	H	1,700	V	321GLNS
173	402610	0790358	West Wheatfield	Jay Gessler	0080	1976	W	H	1,680	V	321GLNS
174	402600	0790228	East Wheatfield	Melvin Rumbaugh	0080	1980	W	H	1,300	V	321GLNS
175	402509	0790224	East Wheatfield	Leo Nist	0080	1979	W	H	1,230	V	321GLNS
176	402755	0790509	West Wheatfield	Dunkard Creek Coal Co.	1392	1982	W	N	1,390	S	324ALGN
177	402716	0790351	East Wheatfield	Charles Patz	0080	1983	W	H	1,690	S	321CSLM
178	402628	0790355	East Wheatfield	Jeff Lamb	0080	1980	W	H	1,710	S	321GLNS
179	402625	0790432	West Wheatfield	W. Tomalson	1447	1978	W	H	1,690	W	321GLNS
180	402539	0790724	East Wheatfield	George Penrose	0080	1980	W	H	1,500	S	324ALGN
181	404346	0790523	Rayne	Fenton Meats	1447	1978	W	C	1,170	V	324ALGN
182	404246	0790714	Rayne	S. Kirk	1447	1981	W	H	1,110	V	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (μS/cm)	Field water quality pH (standard units)
SHLE	42	22	5	26	15.00	08-20-73	15	--	--	--	06-17-87	305	7.0
SHLE	145	30	6	120	86.40	06-17-87	--	--	--	--	06-17-87	450	--
SHLE	125	20	6	65	--	--	5	--	--	--	06-17-87	260	6.3
--	140	42	6	50/130	--	--	12	--	--	--	--	--	--
--	160	--	--	--	--	--	--	--	--	--	06-17-87	500	6.6
SNDS	140	20	5	--	26.70	06-17-87	<1	--	--	--	--	--	--
SDSL	160	20	5	--	--	--	<1	--	--	--	--	--	--
SDSL	120	20	5	80/103	--	--	2	--	--	--	06-18-87	370	6.6
SDSL	43	33	6	39	--	--	4	--	--	--	--	--	--
SDSL	90	48	6	65	--	--	8	--	--	--	06-18-87	680	6.7
SHLE	59	44	6	20/50	--	--	15	--	--	--	--	--	--
SHLE	120	26	5	53/56	--	--	3	--	--	--	06-23-87	215	6.5
SHLE	141	20	5	123	--	--	4	--	--	--	06-23-87	350	6.8
--	185	20	6	61/105/149	51.90	06-23-87	8	--	--	--	06-23-87	500	6.6
SNDS	50	31	5	40/45	--	--	10	--	--	--	--	--	--
SDSL	81	20	5	54/64	--	--	5	--	--	--	--	--	--
SDSL	110	32	6	63/90	--	--	20	--	--	--	--	--	--
SHLE	190	19	5	85/99	--	--	2	--	--	--	--	--	--
SHLE	150	30	5	50/120	60.00	10-14-85	30	--	--	--	--	--	--
SDSL	345	21	6	188/290	--	--	4	--	--	--	06-30-87	950	6.5
SDSL	50	21	5	--	4.00	05-21-77	--	0.56	20	--	--	--	--
--	60	--	--	--	--	--	10	--	--	--	--	--	--
--	170	--	--	--	--	--	5	--	--	--	--	--	--
--	90	21	5	29/67	--	--	25	--	--	--	--	--	--
SHLE	165	40	5	140	--	--	4	--	--	--	--	--	--
--	235	--	--	--	--	--	1	--	--	--	--	--	--
--	115	--	--	--	--	--	25	--	--	--	--	--	--
--	100	47	5	90	60.00	06-22-66	--	1	20	1	--	--	--
SDSL	75	23	5	68	--	--	--	--	--	--	--	--	--
SDSL	176	32	6	156	--	--	28	--	--	--	--	--	--
--	185	--	--	--	85.00	06-15-84	2	--	--	--	--	--	--
--	175	--	--	--	150.00	09-28-82	<1	--	--	--	--	--	--
--	150	--	--	--	60.00	06-15-84	2	--	--	--	--	--	--
SHLE	120	20	5	--	--	--	6	--	--	--	--	--	--
SDSL	150	28	5	--	--	--	20	--	--	--	--	--	--
SHLE	120	21	5	--	70.00	06-24-75	3	--	--	--	--	--	--
SHLE	120	47	5	--	45.00	06-22-74	7	--	--	--	--	--	--
SHLE	78	40	5	68	--	--	20	--	--	--	--	--	--
--	120	--	--	--	--	--	3	--	--	--	--	--	--
SHLE	105	21	5	--	69.00	06-24-75	15	--	--	--	--	--	--
SHLE	180	20	5	--	30.00	07-01-76	--	.03	4	--	--	--	--
--	44	27	5	--	--	--	30	--	--	--	--	--	--
SHLE	345	--	--	--	--	--	3	--	--	--	--	--	--
SDSL	200	20	6	110/185	--	--	2	--	--	--	--	--	--
SHLE	195	43	5	--	--	--	15	--	--	--	--	--	--
SHLE	105	30	5	--	--	--	15	--	--	--	--	--	--
--	100	20	5	35/54	--	--	3	--	--	--	--	--	--
--	35	25	5	--	--	--	15	--	--	--	--	--	--
SDSL	90	20	5	77	--	--	20	--	--	--	--	--	--
SDSL	61	20	5	41	--	--	10	--	--	--	--	--	--

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-183	404248	0790105	Rayne	Joe Hodak	1369	1987	Z	U	1,360	H	324ALGN
184	404244	0790223	Rayne	W. Barnett	1447	1978	W	H	1,330	V	324ALGN
185	404328	0785832	Green	W. Dobson	1169	1983	W	H	1,670	H	321GLNS
186	403800	0785836	Cherryhill	Dave Mallott	1169	1976	W	H	1,510	H	321GLNS
187	403821	0785810	Cherryhill	C. Butterbaugh	1447	1979	W	H	1,500	S	321GLNS
188	403821	0785810	Cherryhill	C. Butterbaugh	1447	1979	W	H	1,500	S	321GLNS
189	403808	0785706	Cherryhill	Sam Trinkley	1043	1979	W	H	1,600	H	321GLNS
190	404159	0785448	Green	Cookport Fair Association	1169	1973	W	P	1,600	H	321GLNS
191	403847	0785650	Cherryhill	Edgar Emigh	0807	1975	W	H	1,590	H	321GLNS
192	404230	0785408	Green	D. McCoy	1043	1983	U	U	1,590	S	321CSLM
193	404029	0791716	Armstrong	M. Vallie	1043	1983	U	U	1,160	V	321GLNS
194	404131	0791533	Washington	R. Smeltzer	1043	1979	W	H	1,260	S	321GLNS
195	403737	0791542	Armstrong	J. Rafferty	1043	1984	W	H	1,210	S	321GLNS
196	403846	0791635	Armstrong	J. Marshall	1043	1983	W	H	1,090	S	321GLNS
197	404534	0790552	Rayne	Lawrence Wallace	1169	1982	W	Q	1,260	V	321GLNS
198	402812	0791301	Blacklick	D. McAfoos	1249	1979	W	H	1,080	S	321CSLM
199	402704	0791227	Burrell	Mervin Lichtenfels	0996	1969	W	H	1,100	S	321GLNS
200	402704	0791226	Burrell	E. Kwisnek	1447	1980	W	H	1,060	V	321GLNS
201	402629	0791343	Burrell	G. Jones	1447	1982	W	H	1,090	S	321CSLM
202	402623	0791341	Burrell	Marlin Yeager	0996	1976	W	H	1,100	S	321CSLM
203	402618	0791214	Burrell	G. Neese	1632	1983	W	H	1,240	S	321GLNS
204	402711	0790840	Burrell	Daniel Boring	0080	1985	W	H	1,910	S	324ALGN
205	402810	0791046	Burrell	Jerry Shirley	0996	1980	W	H	1,130	S	324ALGN
206	402810	0791048	Burrell	F. Stiffey	0996	1980	W	H	1,120	S	324ALGN
207	402909	0791340	Black Lick	Linda Lambert	--	1980	W	H	1,240	H	321CSLM
208	402808	0791450	Black Lick	Dennis Long	1632	1985	W	H	1,020	V	321CSLM
209	404848	0790426	East Mahoning	Paul Stewart	1169	1980	W	H	1,540	S	321CSLM
210	405355	0785508	Canoe	Haverilla Resthome	1519	1982	W	C	1,460	S	324ALGN
211	403632	0790437	Cherryhill	State Gamelands 248	1086	1982	W	P	1,560	S	324ALGN
212	404505	0785255	Montgomery	Edward Blazosky	1447	1977	W	H	1,680	S	321GLNS
213	404507	0785305	Montgomery	Harper Stickler	1447	1979	W	H	1,690	S	321GLNS
214	405346	0785834	Canoe	Butch White	1655	1984	U	U	1,380	V	324ALGN
215	405343	0785833	Canoe	Jay White	1655	1984	U	U	1,360	V	321GLNS
216	405313	0785742	Canoe	Lawrence Gardner	1447	1985	W	H	1,310	V	321GLNS
217	405239	0785648	Canoe	Edward Brestovich	1398	1983	W	H	1,500	S	324ALGN
218	405147	0785824	Canoe	Francis Austin	0807	1968	W	H	1,520	S	324ALGN
219	405120	0785928	Canoe	R. Laird	1369	1980	W	H	1,480	S	321GLNS
220	405130	0785453	Canoe	G. Hawk	1398	1983	W	H	1,800	H	324ALGN
221	405223	0785508	Canoe	Louis Manfredo	--	1972	W	H	1,650	V	324ALGN
222	403139	0792152	Conemaugh	John Blaisen	--	1988	U	U	1,000	V	321GLNS
223	402712	0791226	Burrell	Roland Levesque	--	1980	U	U	1,110	S	321GLNS
224	404229	0785916	Green	John C. Rossi	--	1976	W	H	1,500	S	324ALGN
225	404221	0790206	Rayne	William Geisel	--	1988	U	U	1,180	V	324ALGN
226	404221	0790203	Rayne	Fred Burnheimer	--	1968	U	U	1,180	V	324ALGN
227	404222	0790202	Rayne	Fred Burnheimer	--	1988	W	H	1,180	V	324ALGN
228	404222	0790205	Rayne	William Geisel	--	1988	W	H	1,180	V	324ALGN
229	404220	0790200	Rayne	Martha Palvi	--	1987	W	H	1,180	V	324ALGN
230	404509	0791040	Washington	George Wyant	1398	1986	O	U	1,140	V	321GLNS
231	404509	0791040	Washington	George Wyant	1398	1986	O	U	1,140	V	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield: Specific capacity [(gal/min)/ft]	Measured yield: Discharge (gal/min)	Measured yield: Pumping period (hours)	Field water quality: Date measured	Field water quality: Specific conductance (µS/cm)	Field water quality: pH (standard units)
--	168	--	--	--	--	--	<1	--	--	--	--	--	--
SDSL	160	--	--	98/140	--	--	1	--	--	--	--	--	--
SHLE	105	25	6	70/90	--	--	10	--	--	--	--	--	--
SDSL	80	22	6	70	--	--	15	--	--	--	--	--	--
SDSL	140	20	5	20/100	--	--	5	--	--	--	--	--	--
SHLE	44	29	5	34	--	--	25	--	--	--	--	--	--
SDSL	85	20	6	--	--	--	10	--	--	--	--	--	--
SDSL	100	18	8	75	--	--	--	--	--	--	--	--	--
SDSL	80	40	6	45/68	--	--	15	--	--	--	--	--	--
--	85	40	6	62/71	--	--	11	--	--	--	--	--	--
--	185	28	6	78/126/162	--	--	22	--	--	--	--	--	--
SHLE	200	20	6	140	--	--	3	--	--	--	--	--	--
--	165	20	6	105/129	--	--	7	--	--	--	--	--	--
SDSL	145	20	6	68/102/121	--	--	9	--	--	--	--	--	--
SHLE	100	40	6	20/60/80	--	--	16	--	--	--	--	--	--
SDSL	142	22	6	42/84	--	--	2	--	--	--	10-07-87	420	8.1
SDSL	193	20	6	64	37.00	06-12-69	--	0.01	<1	24	--	--	--
SDSL	96	20	5	67/75	--	--	7	--	--	--	--	--	--
SNDS	101	27	5	50/78	--	--	10	--	--	--	--	--	--
SHLE	137	--	--	28/89	21.00	07-28-76	3	--	--	--	10-08-87	400	7.8
SDSL	130	20	6	65/87/95	--	--	5	--	--	--	--	--	--
--	155	--	--	--	120.00	07-25-85	20	--	--	--	--	--	--
SDSL	121	20	6	25/55/96	--	--	5	--	--	--	10-08-87	245	6.9
SDSL	92	20	6	58/86	0.00	08-00-80	30	--	--	--	--	--	--
--	317	--	--	--	--	--	10	--	--	--	--	--	--
--	150	25	6	36/48/85	--	--	6	--	--	--	--	--	--
SDSL	154	42	6	100/140	--	--	10	--	--	--	--	--	--
SDSL	80	20	6	45	--	--	30	--	--	--	--	--	--
SDSL	103	70	6	73/93	--	--	21	--	--	--	06-15-88	310	6.8
SDSL	80	20	5	39	--	--	5	--	--	--	--	--	--
SDSL	124	20	6	40/80/110	--	--	3	--	--	--	--	--	--
SHLE	165	23	6	0/132	--	--	3	--	--	--	06-22-88	600	7.1
SHLE	100	20	6	--	--	--	4	--	--	--	--	--	--
--	100	30	6	--	--	--	15	--	--	--	06-22-88	2,150	6.7
SDSL	250	20	6	45/185/220/228/240	125.00	07-13-88	2	--	--	--	07-13-88	385	7.0
--	286	36	6	230/274	--	--	3	--	--	--	--	--	--
SDSL	84	20	6	40	--	--	6	--	--	--	--	--	--
--	200	20	6	87/104	87.00	08-00-83	3	--	--	--	--	--	--
--	80	--	--	--	--	--	--	--	--	--	--	--	--
--	40	--	--	--	20.00	07-27-88	--	--	--	--	07-27-88	480	7.3
--	280	--	--	--	34.70	07-26-88	--	--	--	--	09-21-88	658	8.7
--	81	--	--	--	43.00	07-27-88	--	--	--	--	07-27-88	310	7.2
SDSL	81	--	--	--	--	--	--	--	--	--	--	--	--
--	85	--	--	--	80.80	07-27-88	--	--	--	--	--	--	--
--	64	--	--	--	30.00	07-27-88	--	--	--	--	07-27-88	260	8.2
--	60	--	--	--	--	--	--	--	--	--	07-27-88	320	--
--	102	--	--	--	--	--	--	--	--	--	07-27-88	450	6.9
SDSL	130	20	5	18/21/60/75	23.50	01-10-89	--	9.8	30	1.0	--	--	--
SDSL	107	20	5	48/77/90	25.00	01-10-89	--	12	26	1.0	--	--	--
		--	--	--			--	4.5	34	24	--	--	--

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topo-graphic setting	Hydro-geologic unit
In-232	404509	0791040	Washington	George Wyant	1398	1986	O	U	1,140	V	321GLNS
233	404509	0791040	Washington	George Wyant	1398	1986	O	U	1,140	V	321GLNS
234	404510	0791041	Washington	George Wyant	1398	1986	O	U	1,150	V	321GLNS
301	404641	0790821	South Mahoning	D. Mahon	1043	1981	W	H	1,390	S	321GLNS
302	404708	0790900	South Mahoning	B. Lydic	1447	1979	W	H	1,220	S	321GLNS
303	404722	0790934	South Mahoning	Ronald Skinner	1390	--	U	U	1,340	S	321GLNS
304	404739	0791002	South Mahoning	K. Wells	1447	1981	W	H	1,210	V	321GLNS
305	404726	0791053	South Mahoning	F. Tost	1447	1978	W	H	1,240	S	324ALGN
306	404718	0791105	South Mahoning	Sarokon	1447	1981	W	H	1,240	S	321GLNS
307	404747	0791249	South Mahoning	Thomas Marshall	0704	1982	W	H	1,330	S	324ALGN
308	404753	0791253	South Mahoning	Thomas Marshall	0704	1982	W	H	1,320	H	321GLNS
309	404925	0791115	South Mahoning	Albert Byler	0807	1970	W	H	1,450	S	321GLNS
310	404937	0791138	South Mahoning	Mahoning Parochial School	0807	1967	W	T	1,330	S	321GLNS
311	405207	0791012	West Mahoning	William Busch	1447	1977	W	H	1,200	V	321GLNS
312	405209	0791129	West Mahoning	Kenneth Lightner	0704	1978	W	H	1,500	F	321GLNS
313	405145	0790658	West Mahoning	Dan Ladesic	1398	1978	W	H	1,550	H	321GLNS
314	403406	0791219	Center	Thomas McCoy	0080	1984	U	U	1,180	S	321GLNS
315	405300	0791149	West Mahoning	Elmo Travis	1169	1982	W	Q	1,260	S	324ALGN
316	405412	0790752	West Mahoning	Phillips Production Co.	0035	1976	W	C	1,160	V	324ALGN
317	405412	0790751	West Mahoning	H. Rummel	1447	1981	W	H	1,160	V	324ALGN
318	403600	0791244	White	Charles Shubra	0704	1976	U	U	1,320	H	321GLNS
319	403558	0791318	Armstrong	R. Stossel	1473	1984	Z	U	1,350	S	321GLNS
320	403519	0791229	White	C. Heglund	1473	1984	W	H	1,220	V	321GLNS
321	403435	0791425	Center	R. Smith	1447	1979	W	H	1,220	S	321GLNS
322	403525	0791425	Center	Bert Lewis	1447	1978	W	H	1,340	H	321GLNS
323	403528	0791424	Center	Dennis Mattini	1447	1977	W	H	1,340	H	321GLNS
324	403512	0791407	Center	F. Anderson	1043	1981	W	H	1,300	H	321GLNS
325	403612	0791455	Armstrong	Hornka	1447	1982	Z	U	1,430	S	321GLNS
326	403530	0791404	Center	James Hoover	1447	1977	U	U	1,270	S	321GLNS
327	403449	0791403	Center	Ken Marshall	1447	1977	W	H	1,310	H	321GLNS
328	403308	0791429	Center	D. Nehrig	1249	1983	U	U	1,240	S	324ALGN
329	403245	0791435	Center	Marilyn Funk	1523	1980	W	H	1,140	S	321GLNS
330	403244	0791439	Center	Dan Weir	1043	1982	W	H	1,170	S	321GLNS
331	403459	0791313	Center	Marie Bahn	1043	1984	W	H	1,230	S	321GLNS
332	403203	0791032	Center	William Rhodes	1169	1975	W	H	1,230	S	321CSLM
333	403320	0791459	Center	Duane Graham	0704	1981	W	H	1,140	S	324ALGN
334	403251	0791432	Center	Ed Nehrig	0704	1980	U	U	1,150	S	321GLNS
335	403209	0791029	Center	J. Seman	1043	1982	W	H	1,080	S	321CSLM
336	403216	0791028	Center	R. Stiles	1169	1983	W	H	1,080	S	321GLNS
337	403223	0791022	Center	D. Biconik	1447	1978	W	H	1,100	S	321GLNS
338	403021	0791431	Black Lick	Richard Smith	1447	1978	W	H	1,070	S	321GLNS
339	403021	0791327	Black Lick	Harry Allison	1139	1981	W	H	1,230	H	321GLNS
340	403621	0790810	White	Martin Jacoby	1447	1980	W	H	1,230	S	321GLNS
341	403545	0790908	White	J. Kerzan	1040	1977	W	H	1,220	S	321GLNS
342	403515	0791010	White	Paul Barber	1447	1978	W	H	1,240	S	321GLNS
343	403514	0791002	White	David Sobulewsky	1249	1984	W	H	1,200	S	321GLNS
344	403501	0791846	Young	Pat Gazda	1043	1982	W	H	1,190	V	321GLNS
345	403455	0791851	Young	George Gerlack	1043	1982	W	H	1,200	S	321GLNS
346	403230	0791834	Young	Frank Sasnick	1169	1974	W	H	1,270	S	324ALGN
347	403237	0792051	Young	Harvey Wright	0035	1973	W	H	1,060	S	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (μS/cm)	Field water quality pH (standard units)
SDSL	110	20	5	38/58/70	23.70	01-10-89	--	9.6	30	1.0	--	--	--
SDSL	110	20	5	27/58	19.40	01-10-89	--	.46	8	1	--	--	--
SDSL	123	20	5	25/29	7.40	01-10-89	--	.76	15	1	--	--	--
SDSL	145	30	6	104/122	30.90	05-20-86	5	--	--	--	--	--	--
--	42	23	5	28	10.40	06-20-86	15	--	--	--	06-20-86	255	7.4
--	110	35	6	45/80	30.00	05-20-86	--	--	--	--	--	--	--
SDSL	61	5	--	42/50	--	--	30	--	--	--	--	--	--
SDSL	140	23	5	40/105	81.20	05-21-86	3	--	--	--	05-21-86	300	6.8
SNDS	95	20	5	52/84	42.20	05-21-86	5	--	--	--	--	--	--
--	460	--	--	--	--	--	<1	--	--	--	--	--	--
--	205	--	--	--	106.00	05-21-86	<1	--	--	--	--	--	--
SDSL	76	22	6	60/68	--	--	3	--	--	--	05-21-86	280	6.3
SHLE	40	22	6	18/40	--	--	3	--	--	--	--	--	--
SHLE	42	20	5	35	--	--	40	--	--	--	--	--	--
SDSL	80	29	6	60	--	--	25	--	--	--	05-21-86	220	6.3
SHLE	70	13	6	30/45	45.00	07-22-78	--	--	--	--	--	--	--
--	135	21	5	--	--	--	25	--	--	--	--	--	--
--	103	24	8	60/70	--	--	10	--	--	--	--	--	--
SNDS	60	20	6	38	--	--	4	--	--	--	--	--	--
SNDS	76	31	5	61/73	--	--	50	--	--	--	--	--	--
--	245	20	5	57/85/220	--	--	<1	--	--	--	--	--	--
--	207	--	--	--	--	--	<1	--	--	--	--	--	--
--	110	--	--	43/77	16.10	06-04-86	5	--	--	--	06-04-86	300	6.7
SDSL	87	23	5	62/75	--	--	10	--	--	--	06-10-86	230	6.5
SHLE	120	20	5	60	--	--	3	--	--	--	06-10-86	195	6.6
SDSL	192	20	5	166	--	--	2	--	--	--	06-10-86	325	6.8
--	205	20	6	--	--	--	3	--	--	--	--	--	--
SDSL	220	32	5	109/120	--	--	5	--	--	--	--	--	--
SDSL	160	20	5	--	--	--	<1	--	--	--	--	--	--
SHLE	150	20	5	41/82	--	--	1	--	--	--	06-11-86	125	6.6
--	250	23	6	--	--	--	--	--	--	--	--	--	--
--	170	21	6	142	--	--	5	--	--	--	06-11-86	1,200	7.1
SDSL	205	20	6	109	--	--	4	--	--	--	06-11-86	400	7.1
SDSL	105	20	6	64/84	62.20	06-17-86	<1	--	--	--	06-17-86	280	6.6
SDSL	105	40	6	80/95	--	--	6	--	--	--	06-17-86	460	--
SHLE	203	82	6	92/165/194	51.00	06-17-86	5	--	--	--	--	--	--
SDSL	100	22	6	74/87	87.40	06-18-86	18	--	--	--	--	--	--
SDSL	225	20	6	--	--	--	35	--	--	--	--	--	--
SHLE	120	31	6	23/70/100	--	--	4	--	--	--	--	--	--
SHLE	82	29	5	40/63	--	--	4	--	--	--	06-18-86	235	6.9
SDSL	100	20	5	55/82	--	--	2	--	--	--	--	--	--
--	338	23	6	53/295	90.00	09-00-81	--	.01	2	1.5	06-18-86	620	7.3
SNDS	42	20	5	30/34	--	--	25	--	--	--	--	--	--
--	185	20	6	130	--	--	15	--	--	--	--	--	--
SDSL	109	20	5	39/106	7.51	06-19-86	3	--	--	--	06-19-86	410	7.0
SDSL	180	21	6	22	69.70	06-19-86	<1	--	--	--	06-19-86	450	6.7
SDSL	85	20	6	62	15.70	06-24-86	20	--	--	--	06-24-86	360	6.3
SDSL	105	30	6	--	--	--	12	--	--	--	06-24-86	290	6.8
SDSL	105	21	6	60/80	--	--	--	--	--	--	--	--	--
SHLE	60	21	6	42	--	--	11	--	--	--	--	--	--

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-348	403233	0791902	Young	R. Conrad	1447	1978	W	H	1,320	S	321GLNS
349	403035	0791925	Conemaugh	T. Eaton	1249	1980	W	H	1,330	H	321GLNS
350	403016	0791835	Conemaugh	C. McKeever	--	1978	U	U	1,270	H	321GLNS
352	403431	0791839	Young	R. Nye	1043	1980	W	H	1,310	H	321GLNS
353	403252	0791721	Young	Thomas Cavalier	1043	1979	W	H	1,100	V	324ALGN
354	403313	0792123	Young	G. Pless	1043	1983	W	H	975	V	321GLNS
355	403432	0792040	Young	J. Finnegan	1043	1981	W	H	975	V	111ALVM
356	403136	0792103	Conemaugh	J. Dixon	1249	1978	W	H	1,130	S	321GLNS
357	403144	0792213	Conemaugh	D. Lake	1632	1983	W	H	1,060	S	321GLNS
358	403559	0791754	Conemaugh	R. Craig	1447	1982	W	H	1,210	S	321GLNS
359	403604	0791755	Armstrong	R. Bowersox	1447	1978	W	H	1,160	S	321GLNS
360	403616	0791746	Armstrong	J. Milrode	1447	1979	W	H	1,160	S	321GLNS
361	403544	0791601	Armstrong	Thomas Boske	1043	1977	W	H	1,420	S	321GLNS
362	403608	0791552	Armstrong	H.E. Barber	1447	1982	W	H	1,420	H	321GLNS
363	403717	0791533	Armstrong	William Welker	1447	1981	W	H	1,340	S	321GLNS
364	4035110	791255	Center	T.C. Graham	--	--	O	U	1,320	H	321GLNS
365	403513	0791255	Center	T.C. Graham	--	1984	U	U	1,320	H	321GLNS
366	403513	0791254	Center	T.C. Graham	--	1984	W	H	1,320	H	321GLNS
367	402857	0791604	Black Lick	Charles Swasy	--	1986	W	H	980	V	321GLNS
368	403144	0791601	Black Lick	Thomas Donaldson	1447	1978	W	C	1,160	S	321GLNS
369	403154	0791623	Black Lick	E. Cunkelman	--	1986	W	H	1,180	S	321GLNS
370	403146	0791628	Black Lick	E. Cunkelman	1043	1981	W	H	1,200	S	321GLNS
371	403154	0791625	Black Lick	V. Cunkelman	1043	1981	U	U	1,220	H	321GLNS
372	403138	0792148	Young	Pete Prenni	1249	1975	W	H	1,030	S	321GLNS
373	402955	0792118	Conemaugh	Harold Ball	1249	1975	W	H	1,270	S	321GLNS
374	403147	0792208	Conemaugh	John McKown	1369	1976	W	H	970	S	321GLNS
375	403037	0792300	Conemaugh	Thomas Baird	1249	1975	W	H	1,170	S	321GLNS
376	402850	0791600	Black Lick	Paul McFadden	--	1986	W	H	1,030	S	321GLNS
377	403231	0792437	Conemaugh	Edwin Irwin	1447	1981	W	H	1,000	S	321CSLM
378	403239	0792359	Conemaugh	C. Streams	1043	1981	U	U	1,140	S	321CSLM
379	403052	0792441	Conemaugh	L. Robinson	1447	1946	W	H	970	S	321GLNS
380	403213	0792508	Conemaugh	D. Polahar	0400	1978	W	H	1,220	H	321MNGL
381	403025	0792621	Conemaugh	Edward Jones	1249	1976	W	H	1,120	S	321CSLM
382	403142	0792509	Conemaugh	M. Chesnick	1043	1980	W	H	1,100	S	321CSLM
383	403014	0792256	Conemaugh	James Fulton	1249	1976	W	H	1,200	S	321GLNS
384	403839	0791550	Armstrong	Peggy Clark	--	1986	U	U	1,040	V	321GLNS
385	403353	0792430	Young	Nick Bedich	0704	1983	W	H	1,130	S	321MNGL
386	402942	0792534	Conemaugh	J. Pistininzi	1249	1978	W	H	1,030	V	321GLNS
387	402946	0792435	Conemaugh	Willis Praksti	1501	1980	W	H	1,180	S	321CSLM
388	403228	0791729	Young	Carla Horrell	--	1984	W	H	1,160	S	324ALGN
389	403521	0791227	White	Charles Heglund	--	1986	U	U	1,250	V	321GLNS
390	405102	0790218	North Mahoning	E. Anthony	--	1982	W	H	1,530	H	321GLNS
391	405103	0790221	North Mahoning	C. Anthony	1398	1983	W	H	1,520	H	321GLNS
392	405130	0790513	North Mahoning	L. Conrad	1641	1983	W	H	1,210	V	324ALGN
393	404939	0790542	East Mahoning	Larry Weaver	1169	1976	W	H	1,300	V	321GLNS
394	404845	0790305	East Mahoning	East Mahoning Township	1169	1976	W	T	1,260	V	321GLNS
395	404730	0790320	East Mahoning	Robert Lingenfelter	--	1979	W	H	1,360	S	321GLNS
396	404740	0790311	East Mahoning	Ron Griffith	1169	1980	W	H	1,350	S	321GLNS
397	404904	0790334	North Mahoning	Ralph Streams	0807	1966	W	H	1,460	S	321GLNS
398	405005	0790527	East Mahoning	Robert Dilts	0807	1968	W	H	1,400	S	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield: Specific capacity [(gal/min)/ft]	Measured yield: Discharge (gal/min)	Measured yield: Pumping period (hours)	Field water quality: Date measured	Field water quality: Specific conductance (µS/cm)	Field water quality: pH (standard units)
SHLE	100	20	5	21/82	--	--	3	--	--	--	--	--	--
SDSL	165	21	6	93	--	--	5	--	--	--	06-25-86	200	6.5
--	210	20	5	--	--	--	<1	--	--	--	--	--	--
--	225	20	6	--	--	--	3	--	--	--	--	--	--
--	205	20	6	--	--	--	3	--	--	--	--	--	--
SDSL	85	28	6	49/62	--	--	12	--	--	--	--	--	--
SDGL	47	40	6	--	9.13	07-02-86	30	--	--	--	07-02-86	210	7.1
--	222	20	6	001	110.00	07-02-86	1	--	--	--	07-02-86	470	7.1
SDSL	270	20	6	25/105	--	--	<1	--	--	--	--	--	--
SDSL	101	20	5	65/87	--	--	7	--	--	--	--	--	--
SDSL	100	20	5	31/47	--	--	1	--	--	--	--	--	--
SHLE	75	20	5	22/41/51	--	--	2	--	--	--	--	--	--
--	125	20	6	90	--	--	9	--	--	--	07-10-86	175	6.5
SNDS	102	20	5	98	83.90	07-15-86	25	--	--	--	07-15-86	250	7.2
SDSL	219	28	5	82/163	--	--	2	--	--	--	07-15-86	195	7
--	204	--	--	--	57.47	07-16-86	--	--	--	0.1	07-16-86	265	--
--	154	--	--	--	10.80	07-16-86	--	--	--	--	07-16-86	220	6.3
--	245	--	--	--	--	--	--	--	--	--	07-16-86	270	6.6
--	65	--	--	--	17.80	07-29-86	--	--	--	--	07-29-86	478	6.9
SDSL	141	20	5	100/120	85.40	07-30-86	5	--	--	--	07-30-86	360	6.8
--	--	--	--	--	120.00	07-30-86	--	--	--	--	07-30-86	375	6.7
SDSL	125	20	6	103	52.80	07-30-86	7	--	--	--	07-30-86	325	6.5
--	225	20	6	--	--	--	3	--	--	--	--	--	--
SDSL	122	21	6	58/80	52.30	07-30-86	20	--	--	--	--	--	--
--	105	20	6	40	14.40	07-30-86	10	--	--	--	07-30-86	220	6.7
SDSL	124	23	6	39/118	--	--	6	--	--	--	--	--	--
SDSL	102	20	6	60	--	--	6	--	--	--	07-31-86	395	6.7
--	--	--	--	--	43.10	08-05-86	--	--	--	--	08-05-86	550	8.8
SDSL	82	27	5	38/60	--	--	3	--	--	--	08-06-86	530	8.0
--	305	60	6	--	--	--	<1	--	--	--	--	--	--
SHLE	160	26	5	135	--	--	5	--	--	--	--	--	--
SDSL	140	20	6	66	57.00	05-00-78	--	0.01	1	72.0	08-06-86	380	6.8
SDSL	202	20	6	157	--	--	2	--	--	--	--	--	--
--	265	40	6	--	--	--	2	--	--	--	--	--	--
SDSL	102	20	6	50/73	18.50	08-06-86	5	--	--	--	08-06-86	360	7.5
--	--	--	--	--	41.90	08-07-86	<1	--	--	--	08-07-86	330	6.8
--	75	38	6	41/52	28.70	08-12-86	4	--	--	--	--	--	--
--	122	21	6	28	--	--	3	--	--	--	08-12-86	368	7.1
--	182	20	6	30/70	113.00	08-13-86	2	--	--	--	08-13-86	370	7.6
--	100	--	--	--	--	--	--	--	--	--	08-13-86	2,200	6.3
--	59	--	--	--	7.22	08-14-86	--	.42	4	1.5	08-14-86	468	6.3
SNDS	95	20	5	66/75	--	--	15	--	--	--	06-02-87	285	6.9
SDSL	204	20	7	56	56.00	09-00-83	3	--	--	--	06-02-87	310	6.6
--	93	70	6	75	20.00	05-00-83	--	1.5	30	.5	--	--	--
SHLE	85	41	6	60/75	22.40	06-02-87	20	--	--	--	06-02-87	302	6.8
SDSL	80	48	6	20/40/65	--	--	7	--	--	--	06-03-87	520	7.0
--	77	--	--	--	--	--	8	--	--	--	06-03-87	1,080	6.8
SHLE	148	103	6	130	--	--	15	--	--	--	06-03-87	320	6.9
SDSL	180	20	6	60/80	--	--	4	--	--	--	--	--	--
SDSL	142	22	5	30/132	--	--	2	--	--	--	06-03-87	310	7

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In 399	404706	0790312	East Mahoning	Edward Simpson	1043	1979	W	H	1,300	V	324ALGN
400	404424	0790619	Rayne	K & K Products	--	1978	W	C	1,210	V	324ALGN
401	403827	0790319	Cherryhill	Ed Warnock	--	1973	W	H	1,440	S	324ALGN
402	403957	0790328	Rayne	L. Isemburg	1043	1980	W	H	1,200	V	321GLNS
403	404149	0790137	Rayne	T. Kirkland	1447	1978	W	H	1,400	H	321GLNS
404	404202	0790255	Rayne	T. Lipsie	1447	1978	W	H	1,130	V	321GLNS
405	403909	0790409	Cherryhill	L. Rising	1043	1982	W	H	1,420	S	321GLNS
406	404028	0790143	Cherryhill	Mary Gresko	--	1971	W	H	1,520	S	321GLNS
407	403828	0790608	White	Albert Buratti	1043	1979	W	H	1,410	S	321GLNS
408	404032	0790619	Rayne	G. Dilts	1447	1980	W	H	1,400	S	321GLNS
409	404051	0790639	Rayne	Gary Wolfe	1232	1974	W	H	1,340	S	321CSLM
410	404229	0790716	Rayne	Samuel Kirk	--	1972	W	H	1,150	S	321GLNS
411	404142	0790622	Rayne	Robert Witchel	1169	1982	W	H	1,450	S	321GLNS
412	404354	0790505	Rayne	P. Kessler	1447	1978	W	H	1,220	S	324ALGN
413	404400	0790508	Rayne	J. Fenton	1447	1979	W	H	1,280	H	324ALGN
414	404126	0790559	Rayne	Key Well Services	1398	1982	W	C	1,480	V	321CSLM
415	404401	0790719	Rayne	L. Montgomery	1447	1982	W	H	1,210	V	321GLNS
416	404406	0790703	Rayne	G. Houser	1169	1982	W	H	1,260	S	321GLNS
417	403905	0791624	Armstrong	K. Adamson	1447	1978	W	H	1,010	F	321GLNS
418	403835	0791544	Armstrong	M. McGuiness	1043	1985	W	H	1,040	V	321GLNS
419	404030	0791601	Armstrong	G. Kerr	1043	1981	W	H	1,070	V	321GLNS
420	404045	0791555	Armstrong	Dave Allison	0704	1976	W	H	1,140	S	321GLNS
421	403918	0791733	Armstrong	B and J Pipeline Company	1043	1981	W	C	1,000	V	321GLNS
422	403911	0791852	Armstrong	Raymond Calhoun	1169	1980	W	H	1,030	S	321GLNS
423	403908	0791857	Armstrong	J. Grillo	1169	1980	W	H	1,020	S	321GLNS
424	403902	0791614	Armstrong	B. Davis	1043	1983	W	H	1,020	V	321GLNS
426	403913	0791845	Armstrong	Carl Stevens	1169	1981	W	H	1,040	S	321GLNS
427	402656	0790610	West Wheatfield	Robert Stiles	0080	1984	W	H	1,620	V	324ALGN
428	402840	0790546	Brush Valley	First National Bank	0080	1977	W	C	1,460	S	324ALGN
429	402849	0790358	East Wheatfield	John Ofman	0080	1974	W	H	1,770	S	321GLNS
430	402833	0790352	East Wheatfield	John Gordon	0080	1971	W	H	1,750	H	321GLNS
431	402833	0790344	East Wheatfield	Roger Boring	0080	1976	W	H	1,760	H	321GLNS
432	402810	0790425	East Wheatfield	Russel Lindsey	0080	1977	W	H	1,850	H	321GLNS
433	402808	0790428	West Wheatfield	R. Gisbreckt	--	1981	W	H	1,850	H	321GLNS
434	402803	0790414	West Wheatfield	David Whitford	0080	1973	W	H	1,850	H	321GLNS
435	402758	0790414	East Wheatfield	Earl Shetler	0080	1983	W	H	1,850	H	321GLNS
436	402653	0790510	West Wheatfield	Ralph Lichtenfels	0080	1983	W	H	1,820	H	321GLNS
437	402628	0790418	West Wheatfield	William Yackovich	0080	1977	W	H	1,740	F	321GLNS
438	402627	0790418	West Wheatfield	Andrew Yackovitch	0080	1973	W	H	1,740	F	321GLNS
439	402630	0790412	West Wheatfield	Helen Berkavich	0080	1973	W	H	1,720	F	321GLNS
440	402944	0790241	East Wheatfield	Paul Lear	0080	1984	W	H	1,560	S	324ALGN
441	402838	0790350	West Wheatfield	D. Hixson	0080	1974	W	H	1,730	S	321GLNS
442	402807	0790405	East Wheatfield	Daniel Strazisar	0080	1984	W	H	1,830	S	321GLNS
443	402612	0790445	West Wheatfield	Bernard Hoover	0080	1978	W	H	1,740	S	321GLNS
444	402644	0790608	East Wheatfield	Leonard Fisher	0080	1984	W	H	1,820	H	321GLNS
445	402946	0790309	Brush Valley	T. Twigg	1043	1985	W	H	710	H	321GLNS
446	402530	0790213	East Wheatfield	James Mintmeier	0080	1975	W	H	1,250	V	324ALGN
447	402640	0790157	East Wheatfield	Joel Freidhoff	0080	1978	W	H	1,500	S	321GLNS
448	402728	0790029	East Wheatfield	Dale Bowman	0080	1973	W	H	1,610	H	321GLNS
449	402634	0790629	West Wheatfield	Jeff Payne	--	1982	W	H	1,620	S	324ALGN

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (µS/cm)	Field water quality pH (standard units
SNDS	105	20	6	85	4.90	06-04-87	70	--	--	--	06-04-87	280	6.2
SHLE	54	31	6	40	--	--	15	--	--	--	06-04-87	350	6.4
--	158	--	--	--	--	--	--	--	--	--	06-09-87	360	6.8
--	105	20	6	--	--	--	6	--	--	--	06-09-87	315	6.3
SDSL	160	20	5	34/124	--	--	1	--	--	--	06-09-87	218	6.2
SHLE	34	30	5	33	--	--	50	--	--	--	06-10-87	820	6.6
--	165	20	6	--	--	--	17	--	--	--	06-11-87	258	6.6
--	315	--	--	--	85.70	06-11-87	--	--	--	--	06-11-87	400	6.5
SDSL	85	20	6	--	--	--	14	--	--	--	06-11-87	335	6.8
SDSL	140	20	5	122/127	--	--	30	--	--	--	--	--	--
--	115	20	5	--	59.50	06-16-87	16	--	--	--	06-16-87	200	6.4
--	67	--	--	--	--	--	--	--	--	--	06-17-87	475	7.1
SHLE	200	43	6	140	--	--	2	--	--	--	06-17-87	385	7.2
SHLE	92	20	5	80/89	--	--	5	--	--	--	--	--	--
SDSL	136	20	5	94/128	--	--	5	--	--	--	06-17-87	860	6.7
SDSL	50	35	5	37	--	--	25	--	--	--	06-18-87	300	6.9
SNDS	42	20	5	38	--	--	100	--	--	--	--	--	--
SHLE	68	46	6	60	--	--	10	--	--	--	--	--	--
SDSL	50	32	5	40	--	--	40	--	--	--	06-23-87	418	6.8
--	105	20	6	61/84	--	--	9	--	--	--	06-23-87	380	6.8
SDSL	145	20	6	--	--	--	7	--	--	--	06-23-87	318	7.1
SDSL	65	20	5	45	--	--	6	--	--	--	06-23-87	355	7.2
SDSL	85	30	6	67	--	--	7	--	--	--	--	--	--
SHLE	90	37	6	40/80	--	--	8	--	--	--	--	--	--
SHLE	78	28	6	35/70	--	--	10	--	--	--	06-24-87	295	6.6
--	225	20	6	73/120	--	--	4	--	--	--	06-25-87	555	6.8
SHLE	97	36	6	40/85	--	--	9	--	--	--	06-25-87	285	6.7
SHLE	105	30	5	--	--	--	12	--	--	--	06-29-87	285	6.7
SDSL	105	35	5	--	70.00	07-06-77	--	0.09	3	1.0	06-29-87	875	6.8
SDSL	120	27	5	--	--	--	2	--	--	--	06-29-87	115	6.1
SHLE	82	20	5	72	--	--	10	--	--	--	06-29-87	238	6.2
SHLE	135	47	5	129	115.00	05-14-76	15	--	--	--	06-29-87	242	6.7
SDSL	165	33	5	--	129.00	04-19-77	7	--	--	--	06-30-87	88	6.0
--	130	--	--	--	37.30	06-30-87	--	--	--	--	06-30-87	132	6.3
SHLE	180	34	5	--	--	--	9	--	--	--	06-30-87	295	6.8
SDSL	120	28	5	--	--	--	5	--	--	--	06-30-87	78	5.3
--	195	--	--	--	173.00	06-30-87	20	--	--	--	06-30-87	520	6.4
SHLE	150	29	5	--	110.00	05-20-77	--	.18	6	--	06-30-87	195	6.7
SHLE	150	21	5	--	--	--	6	--	--	--	06-30-87	178	6.8
SHLE	105	26	5	--	--	--	12	--	--	--	06-30-87	282	6.7
SHLE	105	68	5	--	--	--	10	--	--	--	07-07-87	248	7.2
SHLE	90	30	5	--	--	--	6	--	--	--	07-07-87	95	6.0
--	135	--	--	--	--	--	12	--	--	--	07-07-87	210	6.7
SHLE	180	25	5	--	--	--	10	--	--	--	07-07-87	240	6.9
--	165	--	--	--	--	--	3	--	--	--	07-08-87	162	6.4
SDSL	105	35	6	51/87	--	--	5	--	--	--	07-14-87	90	6.7
SDSL	105	28	5	--	--	--	5	--	--	--	07-14-87	180	--
--	--	--	--	--	--	--	8	--	--	--	07-14-87	235	6.8
SHLE	135	23	5	--	--	--	15	--	--	--	07-15-87	228	6.7
--	225	--	--	--	--	--	--	--	--	--	07-15-87	1,500	6.3

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-450	402503	0790659	West Wheatfield	Orville Boring	0080	1982	W	H	1,280	V	324ALGN
451	402648	0790555	West Wheatfield	Elda Springer	0080	1983	W	H	1,760	H	321GLNS
452	402648	0790557	West Wheatfield	Francis Alberter	0080	1984	W	H	1,760	H	321GLNS
453	402648	0790557	West Wheatfield	Francis Alberter	--	1985	U	U	1,760	H	321GLNS
454	402649	0790538	West Wheatfield	Wayne Tomb	0080	1983	W	H	1,740	H	321GLNS
455	402637	0790630	West Wheatfield	Wesley Boring	0080	1982	W	H	1,620	S	324ALGN
456	402609	0790355	West Wheatfield	Paul McGrath	0080	1966	W	H	1,690	S	321GLNS
457	402646	0790607	East Wheatfield	Stanley Ofman	0080	1984	W	H	1,760	H	321GLNS
458	404221	0785824	Green	R. Meckley	1447	1987	W	H	1,520	S	324ALGN
459	404129	0785821	Greene	Lawrence Peles	0807	1971	W	H	1,600	F	324ALGN
460	403849	0785651	Pine	Bob White	0080	1970	W	H	1,590	F	321GLNS
461	403816	0785538	Cherry Hill	Scott	1447	1978	W	H	1,590	F	321GLNS
462	403812	0785537	Cherry Hill	J. Romanchick	1447	1979	W	H	1,590	F	321GLNS
463	403819	0785526	Cherry Hill	J. Hawk	1447	1978	W	H	1,620	F	321GLNS
464	404031	0785235	Green	Mike Repik	1447	1981	W	H	1,620	H	321GLNS
465	404027	0785245	Green	Steve Repik	1447	1981	W	H	1,620	H	321GLNS
466	404153	0785453	Green	Truitt	0210	1968	W	H	1,600	F	321GLNS
467	404151	0785456	Green	M.J. McCracken	0210	1968	W	H	1,600	F	321GLNS
468	404200	0785442	Green	F. Todhunter	1043	1977	W	H	1,610	F	321CSLM
469	404158	0785446	Green	John Jacobs	0080	1968	W	H	1,600	F	321GLNS
470	404155	0785447	Green	Robert McDonald	0807	1966	W	H	1,600	F	321CSLM
471	404235	0785409	Green	Ken Anderson	--	1985	W	H	1,620	S	321CSLM
472	404407	0785439	Green	Purchase Line School	1169	1974	W	P	1,680	H	321GLNS
473	404407	0785845	Green	J. Misko	1447	1978	W	H	1,680	H	321GLNS
474	404317	0785834	Green	D. Fyock	1169	1983	W	H	1,580	S	324ALGN
475	404304	0785824	Green	Isaac Meckley	1169	1975	W	H	1,600	F	324ALGN
476	404311	0785752	Green	Thomal Kitchen	1447	1977	W	H	1,480	V	324ALGN
477	403027	0792115	Conemaugh	Bob Repine	--	1987	U	U	1,330	S	321GLNS
478	404814	0785241	Montgomery	John Mattis	0807	1971	W	H	1,600	V	324ALGN
479	405134	0785706	Canoe	Elmer Wellard	0207	1968	W	H	1,580	V	324ALGN
480	402634	0790629	West Wheatfield	Jeff Payne	0080	1982	U	U	1,630	S	324ALGN
481	402634	0790629	West Wheatfield	Jeff Payne	0080	1982	U	U	1,630	S	324ALGN
482	402634	0790629	West Wheatfield	Jeff Payne	0080	1982	U	U	1,630	S	324ALGN
483	402648	0790557	East Wheatfield	Francis Alberter	0080	1984	U	U	1,760	H	321GLNS
484	402648	0790557	West Wheatfield	Francis Alberter	0080	1984	U	U	1,760	H	321GLNS
485	402649	0790552	West Wheatfield	Alton Hewitt	0080	1981	W	H	1,750	H	321GLNS
486	402649	0790552	West Wheatfield	Alton Hewitt	0080	1983	W	H	1,750	H	321GLNS
487	402649	0790552	West Wheatfield	Alton Hewitt	0080	1983	U	U	1,750	H	321GLNS
488	402646	0790617	West Wheatfield	Tom McCullough	0080	1984	U	U	1,740	H	321GLNS
489	402646	0790617	West Wheatfield	Tom McCullough	0080	1984	W	H	1,740	H	321GLNS
490	402558	0790405	West Wheatfield	Charles Huczko	0080	1968	W	H	1,680	S	321GLNS
491	402631	0790010	East Wheatfield	James Felix	0080	1975	W	H	1,500	S	321GLNS
492	402729	0790420	West Wheatfield	Robert Joseph	0080	1974	W	H	1,840	H	321GLNS
493	402946	0790313	Brush Valley	Anderson	1447	1979	W	H	1,740	H	321GLNS
494	402651	0790316	East Wheatfield	Harry Lavock	0080	1969	W	H	1,700	H	321GLNS
495	402605	0790230	East Wheatfield	Raymond Nagle	0080	1975	W	H	1,390	S	321GLNS
496	402624	0790510	West Wheatfield	Clyde Saddle	0080	1967	W	H	1,680	S	321GLNS
497	402508	0790700	West Wheatfield	Germany United Church	0080	1979	W	P	1,340	S	324ALGN
498	402420	0790606	West Wheatfield	Betts Stephen	0080	1980	W	H	1,500	F	321GLNS
499	402810	0790425	East Wheatfield	Lindsey Russel	0080	1971	W	H	1,850	H	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (μS/cm)	Field water quality pH (sandard units)
SDSL	75	28	5	--	--	--	25	--	--	--	07-15-87	440	6.7
SDSL	150	--	--	--	--	--	3	--	--	--	07-21-87	702	7
--	250	32	5	--	--	--	18	--	--	--	07-21-87	600	6.6
--	123	--	--	--	--	--	--	--	--	--	07-21-87	295	7.2
SDSL	210	--	--	--	--	--	1	--	--	--	07-21-87	920	6.7
--	145	--	--	--	--	--	5	--	--	--	07-21-87	525	6.6
SDSL	95	50	6	87	--	--	25	--	--	--	07-21-87	340	6.9
--	250	--	--	--	--	--	<1	--	--	--	07-23-87	325	6.8
SHLE	61	20	5	40	--	--	7	--	--	--	07-28-87	275	5.2
SHLE	245	22	5	30/161	--	--	--	--	--	--	07-28-87	200	6.9
SDSL	47	20	6	40	--	--	40	--	--	--	07-28-87	300	6.9
SNDS	60	32	5	36/46	--	--	8	--	--	--	07-29-87	198	6.9
SDSL	42	26	5	35	--	--	25	--	--	--	07-29-87	95	6.5
SDSL	60	23	5	32/29	--	--	7	--	--	--	07-29-87	120	6.0
SDSL	81	20	5	41/75	--	--	30	--	--	--	07-29-87	138	6.8
SDSL	--	40	5	59/65	--	--	8	--	--	--	07-29-87	198	6.3
SHLE	87	22	5	55/70	--	--	8	--	--	--	07-29-87	202	7.1
SHLE	85	22	5	6/80	--	--	8	--	--	--	07-29-87	162	7.2
--	65	20	6	48	--	--	20	--	--	--	07-29-87	680	6.8
SDSL	75	26	5	70	--	--	20	--	--	--	07-29-87	525	6.9
SHLE	82	21	6	22/36/44	--	--	15	--	--	--	07-29-87	438	6
--	170	--	--	--	--	--	--	--	--	--	07-29-87	605	6.4
SDSL	213	33	8	120/175/195	--	--	--	1	40	4	07-30-87	365	6.9
SDSL	87	39	5	63/ 78	--	--	20	--	--	--	07-30-87	300	6.8
SDSL	100	29	6	60/ 80	--	--	5	--	--	--	07-30-87	145	6.1
SHLE	108	9	6	50/ 95	--	--	5	--	--	--	07-30-87	342	7.2
SDSL	120	20	5	62/103	--	--	8	--	--	--	07-30-87	95	5.2
--	--	--	--	--	--	--	3	--	--	--	08-04-87	425	7
SDSL	65	24	5	40/ 45	--	--	20	--	--	--	08-06-87	160	6.1
SDSL	80	26	6	48/60/67	--	--	10	--	--	--	08-06-87	340	6.6
SDSL	225	--	--	--	--	--	<1	--	--	--	--	--	--
SHLE	195	30	6	--	--	--	<1	--	--	--	--	--	--
SHLE	205	--	--	--	--	--	<1	--	--	--	--	--	--
SDSL	194	31	5	--	--	--	<1	--	--	--	--	--	--
--	250	31	5	--	--	--	<1	--	--	--	--	--	--
--	--	--	--	--	--	--	<1	--	--	--	--	--	--
SDSL	240	20	--	--	--	--	2	--	--	--	--	--	--
--	235	--	--	--	--	--	<1	--	--	--	--	--	--
--	250	--	--	--	--	--	<1	--	--	--	--	--	--
SHLE	150	32	5	--	--	--	2	--	--	--	--	--	--
SHLE	140	30	5	130	--	--	10	--	--	--	--	--	--
SHLE	--	20	5	--	--	--	11	--	--	--	--	--	--
SDSL	175	--	--	--	--	--	3	--	--	--	--	--	--
SDSL	100	20	--	79/66	--	--	6	--	--	--	--	--	--
SHLE	118	--	--	109	--	--	5	--	--	--	--	--	--
SHLE	90	21	5	--	--	--	12	--	--	--	--	--	--
SHLE	73	27	6	60	--	--	12	--	--	--	--	--	--
SDSL	90	40	--	--	--	--	12	--	--	--	--	--	--
SHLE	90	55	--	--	--	--	24	--	--	--	--	--	--
SHLE	150	27	--	121/136	--	--	--	.6	15	1	--	--	--

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-501	403709	0791705	Armstrong	Anthony Hewitt	1043	1985	W	H	1,290	S	321CSLM
502	403708	0791705	Armstrong	Anthony Hewitt	1446	1984	U	U	1,280	H	321CSLM
503	405333	0785218	Banks	James Bowers	--	1941	W	H	1,920	S	324ALGN
504	405335	0785220	Banks	Richard Bubb	0080	1983	W	H	1,930	S	324ALGN
505	405335	0785220	Banks	Richard Bubb	--	--	W	H	1,930	S	324ALGN
506	405328	0785231	Banks	David Brooks	--	1972	W	H	1,870	S	324ALGN
507	405326	0785235	Banks	James Jenary	1447	1977	W	H	1,860	F	324ALGN
508	405112	0785458	Canoe	C. Pearce	1398	1984	W	H	1,760	S	324ALGN
510	405337	0785827	Canoe	Ron Guidash	--	1979	W	H	1,380	S	321GLNS
511	405308	0785738	Canoe	C. Sunderland	1369	1979	W	H	1,330	V	321GLNS
512	405341	0785722	Canoe	Rachel Yount	1369	1978	W	H	1,310	V	324ALGN
513	403158	0790346	Brush Valley	Mark Stewart	--	1978	W	H	1,430	H	321GLNS
514	403141	0790419	Brush Valley	Charles McMullen	0080	1983	W	H	1,480	H	321GLNS
515	403358	0790404	Brush Valley	Paynter	--	1988	W	H	1,610	H	321GLNS
516	403400	0790348	Brush Valley	Paynter	0080	1982	W	H	1,570	S	321GLNS
517	403313	0790504	Brush Valley	John Findlay	--	--	W	H	1,600	H	321GLNS
518	403316	0790504	Brush Valley	Harry Shirley	1447	1982	W	H	1,600	H	321GLNS
519	403045	0790129	Brush Valley	Louie Pisarcik	1447	1982	W	H	1,740	S	321GLNS
520	403358	0790345	Brush Valley	Stefanick	1043	1981	W	H	1,560	S	321GLNS
521	403112	0790139	Brush Valley	Howard Ramer	1447	1979	W	H	1,620	S	321GLNS
522	403719	0790034	Cherryhill	Clair Trough	0080	1984	W	H	1,460	V	324ALGN
523	403707	0790029	Cherryhill	Dave Silvis	1369	1979	W	H	1,460	S	324ALGN
524	403559	0790035	Cherryhill	Chris Newlin	1447	1981	W	H	1,520	S	321GLNS
525	403635	0790156	Cherryhill	Steve Sutilla	0080	1984	W	H	1,610	V	324ALGN
526	403620	0790116	Cherryhill	Jeff Bertig	1447	1978	W	H	1,720	S	321GLNS
527	403637	0790706	White	Rich Palmer	0035	1985	W	H	1,230	V	321GLNS
528	403628	0790726	White	Brian Mock	1528	1979	W	H	1,310	S	321GLNS
529	403725	0790044	Cherryhill	Richard Rainey	1043	1980	W	H	1,510	S	324ALGN
530	403716	0790650	White	Larry Moorhead	1232	1974	W	H	1,360	H	321GLNS
531	403622	0790217	Cherryhill	Paul Mentch	--	1988	W	H	1,860	S	324ALGN
532	403209	0790353	Brush Valley	James Herbert	1232	1972	W	H	1,350	H	321GLNS
533	403201	0790419	Brush Valley	Ed Gaston	0080	1973	W	H	1,470	H	321GLNS
534	403201	0790416	Brush Valley	John Shaffer	0080	1973	W	H	1,480	H	321GLNS
535	403211	0790354	Brush Valley	Joseph Lomnicki	1232	1972	W	H	1,360	H	321GLNS
536	403227	0790327	Brush Valley	Glenn Overdorff	0080	1965	W	H	1,370	S	321GLNS
537	403227	0790312	Brush Valley	Doris Mack	0080	1974	W	H	1,390	V	321GLNS
538	403703	0790636	White	Clyde Mentch	--	1988	W	H	1,410	S	321GLNS
539	403620	0790159	Cherryhill	Gerald Mentch	1447	1978	W	H	1,820	S	321GLNS
540	403530	0790149	Cherryhill	Maurice L. Moore	--	1981	W	H	1,550	H	324ALGN
541	403627	0790714	White	Jerry Sears	--	1988	W	H	1,550	H	324ALGN
542	403541	0790050	Cherryhill	Chloe Muller	1043	1978	W	H	1,530	S	321GLNS
543	403056	0790108	Brush Valley	Pisarcik	1447	1979	W	H	1,790	S	321GLNS
544	403126	0790154	Brush Valley	David Pavelchick	0080	1981	W	H	1,450	V	321GLNS
545	403612	0790110	Cherryhill	Graham	1447	1978	W	H	1,640	S	321GLNS
546	403354	0790348	Brush Valley	Kaufman	1043	1981	W	H	1,540	S	321GLNS
547	403649	0790605	White	P. Pitzerell	1043	1981	W	H	1,450	H	321GLNS
548	403207	0790402	Brush Valley	Dobson	0080	1978	W	H	1,440	H	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (µS/cm)	Field water quality pH (standard units)
--	110	--	--	--	59.30	10-08-86	5	--	--	--	10-09-86	442	6.9
--	137	--	--	--	71.20	10-09-86	--	0.04	2	1.0	10-09-86	270	7.0
		--	--	--			10	--	--	--	--	--	
--	60	--	--	--	--	--	--	--	--	--	04-10-87	540	7.5
--	144	6	--	--	30.60	04-10-87	5	--	--	--	04-10-87	74	5.9
--	30	--	--	--	12.30	04-10-87	--	--	--	--	--	--	--
--	75	--	--	--	25.50	06-03-87	--	--	--	--	06-03-87	175	6.6
--	102	--	--	--	--	--	--	--	--	--	06-03-87	322	6.8
--	57	20	6	--	10.80	04-21-88	--	5.2	10	1.0	06-03-87	84	5.1
		--	--	--			--	1.6	16	1.0	--	--	
		--	--	--			5	--	--	--	--	--	--
--	125	--	--	100	--	--	--	--	--	--	06-15-88	270	7.3
SHLE	64	25	--	38/60	--	--	50	--	--	--	--	--	--
SHLE	64	20	6	43	--	--	50	--	--	--	06-16-88	390	6.9
SHLE	90	20	--	--	--	--	12	--	--	--	06-22-88	360	6.9
--	150	--	--	--	--	--	11	--	--	--	06-29-86	180	7.7
--	--	--	--	--	--	--	--	--	--	--	06-23-88	105	7
--	145	20	--	121	--	--	6	--	--	--	06-23-88	295	7.5
--	--	--	--	--	--	--	--	--	--	--	06-23-88	125	6.4
SDSL	61	20	5	54	--	--	20	--	--	--	06-29-88	120	6.9
SDSL	100	20	--	82	--	--	10	--	--	--	--	--	--
SDSL	125	30	--	87/106	--	--	8	--	--	--	06-29-88	170	7.7
SDSL	62	20	--	42/33/35	--	--	7	--	--	--	06-29-88	175	7.1
--	75	--	--	--	--	--	20	--	--	--	06-29-88	520	7
SDSL	84	25	--	55	--	--	10	--	--	--	06-29-88	300	7.2
SDSL	62	23	--	32	--	--	8	--	--	--	--	--	--
SHLE	180	30	5	--	--	--	25	--	--	--	07-05-88	360	7
SDSL	127	20	--	36/73	--	--	3	--	--	--	07-05-88	150	7.5
SDSL	80	29	--	14/28/55	--	--	150	--	--	--	07-06-88	340	7.6
SHLE	60	40	--	50	--	--	--	--	--	--	07-06-88	122	6.7
--	145	20	--	--	--	--	11	--	--	--	--	--	--
SDSL	85	21	5	55/80	--	--	16	--	--	--	--	--	--
--	439	--	--	--	--	--	--	--	--	--	07-07-88	600	8
--	202	--	--	60/100/190	--	--	3	--	--	--	--	--	--
SDSL	120	21	5	--	--	--	4	--	--	--	--	--	--
--	90	21	5	--	--	--	12	--	--	--	--	--	--
SHLE	250	20	--	--	--	--	4	--	--	--	--	--	--
--	60	--	--	--	--	--	15	--	--	--	07-13-88	280	7.6
SHLE	68	21	5	--	--	--	20	--	--	--	--	--	--
--	69	--	--	--	--	--	--	--	--	--	07-13-88	290	7.7
SDSL	120	20	5	102	--	--	3	--	--	--	07-13-88	220	7.2
--	270	--	--	--	--	--	--	--	--	--	--	--	--
--	210	--	--	--	--	--	--	--	--	--	07-14-88	135	7.1
SNDS	165	20	--	125	--	--	5	--	--	--	07-14-88	295	7.7
SNDS	90	20	--	27/71	--	--	5	--	--	--	--	--	--
SDSL	70	26	--	--	--	--	20	--	--	--	--	--	--
SDSL	82	20	5	58/74	--	--	4	--	--	--	--	--	--
SDSL	85	20	--	61	--	--	9	--	--	--	--	--	--
--	225	20	6	--	--	--	6	--	--	--	--	--	--
SDSL	150	32	5	--	--	--	6	--	--	--	--	--	--

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-549	403424	0790416	Brush Valley	George Evans	0080	1975	W	H	1,790	S	321GLNS
550	403205	0790352	Brush Valley	Margret Smith	0080	1975	W	H	1,360	H	321GLNS
551	403111	0790111	Brush Valley	Darrell Shirley	0080	1974	W	H	1,720	S	321GLNS
552	403147	0790436	Brush Valley	Mike Halaburda	0080	1973	W	H	1,450	S	321GLNS
553	403107	0790122	Brush Valley	Edith Pruner	1447	1979	W	H	1,750	S	321GLNS
554	404212	0790023	Green	Stanford Mining Company	1447	1980	W	C	1,280	V	324ALGN
555	404956	0785949	East Mahoning	Blain Hamilton	1169	1978	W	H	1,470	S	321GLNS
556	403742	0790058	Cherryhill	George Rumsey	0080	1983	W	H	1,520	S	324ALGN
557	403306	0790429	Brush Valley	Bill Miller	1447	1981	W	H	1,490	S	321GLNS
558	402730	0791621	Burrell	Lear	0864	1981	W	H	1,020	S	321GLNS
559	402635	0791638	Burrell	John Davis	0996	1979	W	H	1,090	S	321GLNS
560	402633	0791620	Burrell	R. Yeager	1632	1984	W	H	1,110	S	321GLNS
561	403529	0791243	White	R. Edwards	1043	1982	W	H	1,330	S	321GLNS
562	404916	0785804	Grant	Paul Smith	1528	1979	W	H	1,510	S	324ALGN
563	403351	0791150	Center	P. Shultz	1473	1979	W	H	1,060	V	321GLNS
564	404831	0785830	Grant	L. Perry	--	1980	W	H	1,640	S	324ALGN
565	403534	0791422	Center	J. Succheralli	1447	1978	U	U	1,350	H	321GLNS
566	404909	0785858	Grant	W. Wagner	1447	1979	W	H	1,340	S	324PSVL
567	403648	0790812	White	Isenberg	1447	1978	W	H	1,310	S	321GLNS
568	403502	0790959	White	Gerry Otto	1447	1981	W	H	1,220	S	321GLNS
801	403450	0791203	White	John King, Sr.	--	--	W	H	1,180	S	321GLNS
802	403450	0791203	White	John King, Sr.	--	--	W	H	1,180	S	321GLNS
803	403556	0792152	Young	Michail Bertolino	--	--	W	H	1,230	S	321MNGL
804	403557	0792154	Young	Michael Bertolino	--	--	W	H	1,250	S	321MNGL
805	403228	0785422	Pine	William A. Metcalfe	0080	1984	W	H	1,760	H	321GLNS
806	403230	0785430	Pine	Dale Holby	0080	1978	W	H	1,760	H	321GLNS
807	403231	0785432	Pine	David Hughes	0080	1977	W	H	1,760	H	321GLNS
808	403200	0785349	Pine	Robert Stevens	0080	1969	W	H	1,690	H	321GLNS
809	403304	0785528	Pine	Harry Bennett	0080	1981	W	H	1,880	H	321GLNS
810	403309	0785519	Pine	Michael Oros	0080	1973	W	H	1,890	H	321GLNS
811	403318	0785529	Pine	Curtin Campbell	0080	1968	W	H	1,900	H	321GLNS
812	403228	0785433	Pine	Florence Boring	--	--	W	H	1,770	H	321GLNS
813	403245	0785450	Pine	Florence Boring	0080	1980	W	H	1,790	H	321GLNS
814	403144	0785616	Pine	Charles Schultz	1447	1977	W	H	1,910	F	321GLNS
815	403143	0785615	Buffington	Joseph F. Harasty	1043	1983	W	H	1,910	F	321GLNS
816	403226	0785551	Buffington	Robert Luther	0080	1982	W	H	1,910	F	321GLNS
817	403245	0785541	Buffington	Anthony Hugar	0080	1977	W	H	1,880	F	321GLNS
818	403228	0785733	Buffington	John Wagner	0080	1985	W	H	1,920	S	321GLNS
819	403028	0785736	Buffington	John Wagner	0080	1984	W	H	1,920	S	321GLNS
820	403306	0785529	Pine	Joseph Malenich	0080	1983	W	H	1,890	H	321GLNS
821	403315	0785328	Pine	Tim Detwiler	0080	1976	W	H	1,780	H	321GLNS
822	403408	0785437	Pine	Kevin Bracken	0080	1983	W	H	1,900	H	321GLNS
823	403408	0785437	Pine	Kevin Bracken	1043	1984	W	H	1,900	H	321GLNS
824	403224	0785555	Buffington	Henry Hayes	0080	1985	W	H	1,930	H	321GLNS
825	403126	0785911	Buffington	Rick Golinski	0080	1982	W	H	1,990	H	321GLNS
826	403059	0785912	Buffington	Donald Martin	0080	1982	W	H	1,980	H	321GLNS
827	403037	0785917	Buffington	Michael Meagher	0080	1983	W	H	2,030	H	321GLNS
828	403122	0785926	Buffington	James Henry	0080	1985	W	H	1,860	H	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (µS/cm)	Field water quality pH (standard units)
--	180	21	5	--	--	--	15	--	--	--	--	--	--
SHLE	155	23	5	--	--	--	--	--	--	--	07-19-88	195	7.4
SDSL	75	21	5	--	--	--	10	--	--	--	07-19-88	195	7.6
--	47	19	6	--	8.00	05-29-73	--	--	--	--	--	--	--
SDSL	80	20	5	52/64	--	--	7	--	--	--	07-20-88	165	6.8
SDSL	61	35	--	43	--	--	30	--	--	--	07-20-88	250	7.4
SHLE	107	44	6	60/80	--	--	8	--	--	--	07-21-88	200	7
SDSL	135	20	--	--	--	--	35	--	--	--	--	--	--
SDSL	81	26	5	40/59	--	--	8	--	--	--	--	--	--
SDSL	120	36	--	97	--	--	6	--	--	--	07-28-88	350	9.0
SHLE	212	20	--	30/160	--	--	<1	--	--	--	07-28-88	540	7.5
SDSL	190	--	--	125	--	--	3	--	--	--	--	--	--
--	145	20	6	47/102	--	--	13	--	--	--	--	--	--
--	50	40	6	40/47	9.00	08-00-79	--	0.23	7	0.5	08-17-88	300	6.7
SNDS	30	20	5	20	--	--	25	--	--	--	08-17-88	203	6.6
--	84	40	6	--	--	--	--	--	--	--	--	--	--
--	220	20	5	--	--	--	<1	--	--	--	--	--	--
SNDS	81	20	5	61/69	--	--	3	--	--	--	--	--	--
SDSL	175	20	--	63/157	--	--	<1	--	--	--	--	--	--
SDSL	190	20	--	122/170	--	--	10	--	--	--	--	--	--
--	137	--	--	--	26.00	09-23-86	--	.08	6	.42	09-23-86	220	6.4
--	--	--	--	--	57.70	06-23-87	--	--	--	--	06-23-87	270	7.1
--	138	--	--	--	88.00	10-02-86	--	.11	5	.28	10-02-86	2,000	6.4
--	118	--	--	--	92.00	09-25-86	--	--	--	--	--	--	--
--	90	--	--	--	19.00	03-09-87	--	--	--	--	03-09-87	50	5.9
--	60	40	5	--	21.00	03-09-87	10	--	--	--	03-09-87	175	6.5
--	65	--	--	--	11.00	03-09-87	--	--	--	--	03-09-87	240	6.6
SNDS	46	16	6	30	8.90	03-09-87	30	--	--	--	03-09-87	190	5.4
--	47	--	--	--	26.60	03-09-87	--	--	--	--	03-09-87	135	4.9
SDSL	150	93	5	98/128/137	55.10	03-16-87	20	--	--	--	03-16-87	315	6.8
SNDS	80	--	--	--	73.20	03-16-87	15	--	--	1	03-16-87	245	6.7
--	--	--	--	--	21.20	03-16-87	--	--	--	--	03-16-87	190	6.4
--	90	--	--	--	29.70	03-16-87	10	--	--	--	03-16-87	415	6.2
--	94	20	5	26/82	36.80	03-16-87	2	--	--	--	03-16-87	50	5.6
SDSL	165	20	6	62/125	52.20	03-16-87	5	--	--	--	03-16-87	50	6.0
--	60	38	5	--	27.70	03-16-87	25	--	--	--	03-16-87	95	6.5
--	75	39	5	--	28.70	03-16-87	12	--	--	--	03-16-87	110	6.5
--	105	28	5	--	55.00	03-17-87	25	--	--	--	03-17-87	235	6.8
--	155	--	--	--	50.00	03-17-87	--	--	--	--	03-17-87	157	6.7
--	75	--	--	--	55.20	03-26-87	20	--	--	--	03-26-87	73	6.4
--	75	21	5	--	26.40	03-26-87	20	--	--	--	09-26-76	240	6.4
--	165	--	--	--	64.00	03-26-87	--	.04	3.2	.67	--	--	--
		--	--	--			--	.04	2.5	.50	--	--	--
		--	--	--			6	--	--	--	--	--	--
--	145	--	--	--	62.70	03-26-87	--	--	--	--	03-26-87	595	--
--	70	--	--	--	--	--	20	--	--	--	03-26-87	95	6.3
--	90	--	--	--	48.80	03-26-87	--	--	--	--	--	--	--
--	150	--	--	--	58.90	03-26-87	--	--	--	--	03-26-87	140	4.4
--	90	47	5	--	44.20	03-26-87	24	--	--	--	03-26-87	90	6.0
--	60	23	5	--	11.10	03-26-87	25	--	--	--	03-26-87	230	6.3

Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit
In-829	403134	0785554	Buffington	Robert Dill	0080	1982	W	H	1,890	S	321GLNS
830	403024	0785936	Buffington	Bernard Statler	0080	1979	W	H	2,030	F	321GLNS
831	403134	0785602	Buffington	A.K. Mack	0080	1983	W	H	1,880	S	321GLNS
832	402856	0785848	Buffington	Kathryn Stewart	0080	1984	W	H	1,750	H	321GLNS
833	403144	0785616	Buffington	Charles Schultz	1043	1983	W	H	1,910	F	321GLNS
834	403130	0785910	Buffington	James Nicklon	0080	1974	W	H	1,980	S	321GLNS
835	402859	0785858	Buffington	William Tollis	0080	1984	W	H	1,760	H	321GLNS
836	402804	0785955	Buffington	Earnest Widmar	0080	1977	W	H	1,350	V	324ALGN
837	402806	0785956	Buffington	James Widmar	0080	1969	W	H	1,350	V	324ALGN
838	402705	0785718	East Wheatfield	Telford Dixon	0080	1982	W	H	1,490	V	324ALGN
839	402620	0785910	East Wheatfield	Earl Garretson	0080	1969	W	H	1,530	H	321GLNS
840	402616	0790008	East Wheatfield	Ralph Goodlin	0080	1968	W	H	1,410	S	321GLNS
841	403131	0785909	Buffington	Timothy Graham	1447	1983	W	H	1,970	F	321GLNS
842	402940	0785832	Buffington	James Tantlinger	0080	1985	W	H	1,820	H	324ALGN
843	402739	0785746	Buffington	Mary Yaworsky	0080	1982	W	H	1,380	V	324ALGN
844	402712	0785717	East Wheatfield	Pleasant Valley Golf Club	0080	1977	W	H	1,550	S	321GLNS
845	402712	0785751	East Wheatfield	William M. Simon	0080	1986	W	H	1,410	V	321GLNS
846	402647	0785817	East Wheatfield	Norman Rager	0080	1976	W	H	1,730	H	321GLNS
847	402634	0785811	East Wheatfield	Mary Cherry	--	--	W	H	1,800	H	321GLNS
848	402552	0785817	East Wheatfield	William Hoffman	0080	1967	W	H	1,620	S	321GLNS
849	402552	0785821	East Wheatfield	Dennis Hoffman	0080	1984	W	H	1,610	S	321GLNS
850	402550	0785825	East Wheatfield	Thomas Hyland	0080	1967	W	H	1,580	H	324ALGN
851	402549	0785827	East Wheatfield	D.L. Griffith	0080	1967	W	H	1,590	H	324ALGN
852	402634	0785811	East Wheatfield	Mary Cherry	--	1952	W	H	1,800	H	321GLNS
853	402938	0785832	Buffington	Kermit Turner	0080	--	W	H	1,820	H	321GLNS
854	403013	0785742	Buffington	Richard Dill	0080	1978	W	H	1,860	H	321GLNS
855	402626	0785725	East Wheatfield	George Gresh	0080	1984	W	H	1,790	H	321GLNS
856	402632	0785731	East Wheatfield	George Gresh	--	--	W	H	1,860	S	321GLNS
857	402731	0785625	East Wheatfield	John Milko	1447	1982	W	H	1,630	H	324ALGN
858	402851	0785657	Buffington	Darla McGlynn	0080	1982	W	H	1,640	H	321GLNS
859	403025	0792115	Conemaugh	Robert Repine	--	--	W	H	1,350	H	321GLNS
860	404231	0785409	Green	Dennis McCoy	--	--	W	H	1,600	F	321GLNS
861	404230	0785409	Green	Dennis McCoy	--	--	W	H	1,600	F	321GLNS
862	404231	0785409	Green	Dennis McCoy	--	--	W	H	1,600	F	321GLNS
863	403204	0791314	Center	John Burcic	--	--	W	H	1,120	S	321GLNS
864	403629	0790419	Cherryhill	Frank Novak	--	--	O	-	1,580	S	324ALGN
865	403750	0785135	Pine	Ronald Preston	1447	1980	W	H	1,970	F	321GLNS
866	404210	0785136	Green	Roger Berringer	0807	1973	W	H	1,670	F	321GLNS
867	404050	0785138	Green	Rich Karlinsey	1447	1978	W	H	1,670	S	321GLNS
868	404050	0785142	Green	Rich Karlinsey	--	--	W	H	1,660	S	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield Specific capacity [(gal/min)/ft]	Measured yield Discharge (gal/min)	Measured yield Pumping period (hours)	Field water quality Date measured	Field water quality Specific conductance (µS/cm)	Field water quality pH (standard units)
--	120	--	--	--	23.20	03-26-87	6	--	--	--	03-26-87	90	6.5
--	120	39	6	--	36.70	03-27-87	8	--	--	--	03-27-87	85	6.4
--	125	86	--	--	36.60	03-27-87	15	--	--	--	--	--	--
--	85	--	--	--	36.50	03-27-87	3	--	--	--	03-27-87	225	5.2
--	140	--	--	--	26.00	04-09-87	--	0.05	4	1.0	04-09-87	115	6.4
		--	--	--			--	.03	3	1.0	--	--	--
SHLE	120	21	6	84	45.00	04-09-87	25	--	--	--	04-09-87	183	6.0
--	150	--	--	--	61.90	04-09-87	12	--	--	--	04-09-87	80	6.1
		--	--	--			--	--	--	--	07-08-87	67	5.9
--	--	--	--	--	14.10	04-09-87	5	--	--	--	04-09-87	215	6.8
		--	--	--			--	--	--	--	07-08-87	300	6.8
SHLE	85	40	5	70	--	--	20	--	--	1	04-09-87	277	7.1
		--	--	--			--	--	--	--	07-14-87	273	--
--	120	32	5	--	--	--	30	--	--	--	04-10-87	305	6.7
		--	--	--			--	--	--	--	07-08-87	295	6.8
SDSL	165	81	5	62/142	113.00	04-10-87	8	--	--	--	04-10-87	295	7.2
		--	--	--			--	--	--	--	07-08-87	295	7.7
SHLE	135	20	5	90	25.50	04-10-87	5	--	--	--	04-10-87	295	7.0
		--	--	--			--	--	--	--	07-14-87	275	6.9
SNDS	82	20	6	60	35.30	04-13-87	14	--	--	--	04-13-87	125	6.4
		--	--	--			14	--	--	--	--	--	--
--	210	21	5	--	50.30	07-08-87	2	--	--	--	04-13-87	195	6.8
		--	--	--			--	--	--	--	07-08-87	205	7.2
--	105	--	--	--	31.10	06-03-87	7	--	--	--	06-03-87	155	6.3
--	105	45	5	--	26.90	06-03-87	10	--	--	--	06-03-87	147	5.1
--	60	--	--	--	16.30	06-03-87	--	--	--	--	06-03-87	255	6.3
--	210	36	5	--	55.50	06-03-87	2	--	--	--	06-03-87	235	6.4
--	50	--	--	--	31.40	06-03-87	--	--	--	--	06-03-87	147	5.7
SHLE	55	27	5	50	50.00	08-10-67	6	--	--	--	06-03-87	170	6.5
--	60	21	5	--	--	--	20	--	--	--	06-03-87	175	6.6
CLAY	62	28	5	56	20.00	06-03-87	14	--	--	--	06-03-87	277	7.2
SHLE	66	29	5	55	18.80	06-03-81	15	--	--	--	06-03-81	300	7.2
--	50	--	--	--	31.40	06-03-87	--	--	--	--	06-03-87	147	--
--	149	--	--	--	31.10	07-08-87	--	--	--	--	07-08-87	125	5.7
--	90	20	5	--	45.40	07-08-87	7	--	--	--	07-08-87	245	6.5
--	180	32	--	--	38.10	07-14-87	5	--	--	--	07-14-87	335	7.0
--	180	--	--	--	73.20	07-14-87	--	.08	8	.67	--	--	7.1
SDSL	102	20	5	38/76	46.80	07-14-87	1	--	--	--	07-14-87	310	--
--	90	--	--	--	53.10	07-14-87	20	--	--	--	07-14-87	122	7.2
--	227	--	--	--	63.50	08-17-87	--	.03	2	.50	08-17-87	310	6.2
--	58	--	--	--	19.80	08-18-87	--	.30	10	.12	08-18-87	605	7.5
--	84	--	--	--	37.40	08-18-87	--	2.3	14	1.0	08-18-87	790	6.3
--	--	--	--	--	42.40	08-18-87	--	--	--	--	--	--	6.7
--	70	--	--	--	17.50	09-02-87	--	--	--	--	09-02-87	190	--
--	--	--	--	--	49.70	09-21-87	--	.04	<1	.45	--	--	6.5
SDSL	122	34	5	60/83/100	77.60	10-29-87	2	--	--	--	10-29-87	325	--
SNDS	100	21	5	93	--	--	5	--	--	--	10-29-87	375	6.5
SDSL	100	20	5	36/57	77.70	10-29-87	--	.08	1	1.0	10-29-87	330	7.1
		--	--	--			4	--	--	--	--	--	7.2
--	220	--	--	--	197.00	11-02-87	--	.02	<1	1.0	11-02-87	240	--

7.2Table 9.--Record of wells--Continued

USGS well number	Location Latitude (degrees)	Location Longitude (degrees)	Township or borough	Owner	Driller license number	Year drilled	Primary Use of site	Primary Use of water	Altitude of land surface (feet)	Topo-graphic setting	Hydro-geologic unit
In-869	404050	0785137	Green	Rich Karlinsey	--	--	W	H	1,680	S	321GLNS
870	404225	0784943	Green	Robert Muir	--	--	W	H	1,670	S	321GLNS
871	404247	0784925	Green	Ray Long	0807	1967	W	H	1,700	S	321GLNS
872	404240	0785128	Green	Rick Hartman	0800	1982	W	H	1,650	S	321GLNS
873	403746	0785137	Pine	Don Croyle	0080	1966	W	H	1,890	S	324ALGN
874	404149	0785144	Green	Budd Stiffler	--	1978	W	H	1,660	S	321GLNS
875	404244	0784938	Greene	Dennis Pavlick	1369	1978	W	H	1,680	S	321GLNS
876	404341	0784848	Cherry Tree	Alice Davis	1447	1980	W	H	1,600	S	321GLNS
877	404932	0784815	Burnside	George Ferrance	0080	1982	W	H	1,380	S	321GLNS
878	405015	0785229	Banks	Banks School	1369	1982	W	H	1,810	S	324ALGN
879	405153	0785208	Banks	Don Neal	0807	1970	W	H	1,890	H	324ALGN
880	404327	0784850	Cherry Tree	Roy Craver	0080	1979	O	H	1,380	V	321GLNS
881	402544	0790611	W. Wheatfield	Wilbur McClure	--	--	W	H	1,760	S	321GLNS
882	402545	0790612	W.wheatfield	Wilbur McClure	--	--	W	H	1,760	S	321GLNS
883	403423	0790331	Brush Valley	Sandy Hoffmann	--	--	W	H	1,580	S	321GLNS
884	405111	0785457	Canoe	C. Pearce	--	--	W	H	1,760	S	324ALGN
885	405110	0785502	Canoe	John Hilliard	1398	--	W	H	1,740	S	324ALGN
886	405108	0785500	Canoe	John Hilliard	--	--	W	H	1,740	S	324ALGN
887	403450	0791205	White	John King, Jr.	--	--	W	H	1,180	S	321GLNS
888	405426	0790053	N. Mahoning	John Kachmars	--	--	W	H	1,480	H	321GLNS
889	405135	0785452	Canoe	Gary Mack	--	--	W	H	1,800	F	324ALGN
890	405133	0785452	Canoe	Gene Hawk	--	--	W	H	1,800	F	324ALGN
891	405124	0785452	Canoe	David Neal	--	--	W	H	1,800	F	324ALGN
892	403307	0790501	Brush Valley	Anthony Zele	--	--	W	H	1,560	S	321GLNS
893	403306	0790505	Brush Valley	Anthony Zele	--	--	W	H	1,600	H	321GLNS
894	403303	0790507	Brush Valley	Terry Zele	--	--	W	H	1,600	F	321GLNS
895	403421	0790332	Brush Valley	Sandy Hoffman	--	--	W	H	1,600	H	321GLNS
896	404338	0785209	Green	Clifford Pardee	1447	1978	W	H	1,540	H	321GLNS
897	404647	0785054	Montgomery	Jennie Babco	0807	1971	W	H	1,560	S	321GLNS
898	404404	0785307	Green	William Degenkolb	0080	1970	W	H	1,640	F	321GLNS
899	404426	0785124	Montgomery	B. Bee	1447	1982	W	H	1,520	F	321GLNS
900	404553	0785035	Montgomery	C. Rexroth	1447	1980	W	H	1,660	S	321GLNS
901	404553	0785033	Montgomery	Tim Bash	1447	1979	W	H	1,650	H	321GLNS
902	404543	0785039	Burnside	H.D. Beck	1447	1979	W	H	1,640	H	321GLNS
903	404536	0785011	Montgomery	Terry Watson	1448	1978	W	H	1,600	S	321GLNS
904	404903	0785004	Banks	Norman Temple	1369	1979	W	H	1,520	S	324ALGN
905	405011	0785340	Banks	Debbie Patterson	1369	1978	W	H	1,760	S	324ALGN
906	404627	0785032	Montgomery	Virginia Bobick	0807	1966	W	H	1,660	S	321GLNS
907	405123	0785157	Banks	E. Sandstorm	1369	1980	W	H	1,860	F	324ALGN
908	405139	0785157	Banks	Tom Pearce	--	--	W	H	1,880	S	324ALGN
909	405021	0785155	Banks	G. Gibson	1369	1980	W	H	1,820	F	324ALGN
910	402713	0791225	Burrell	Roland Levesque	--	--	W	H	1,120	S	321GLNS

Table 9.--Record of wells--Continued

Lithology	Depth of well (feet)	Casing Depth (feet)	Casing Diameter (inches)	Depth to water-bearing zone(s) (feet)	Water level (feet)	Date water level measured	Reported yield (gal/min)	Measured yield: Specific capacity [(gal/min)/ft]	Measured yield: Discharge (gal/min)	Measured yield: Pumping period (hours)	Field water quality: Date measured	Field water quality: Specific conductance (μS/cm)	Field water quality: pH (standard units)
--	200	--	--	--	--	--	--	--	--	--	10-29-87	295	7.5
--	170	--	--	--	104.00	11-02-87	--	--	--	--	11-02-87	115	6.0
SDSL	80	21	6	40/52/76	42.30	11-02-87	5	--	--	--	11-02-87	50	5.4
SNDS	165	--	--	--	46.70	11-02-87	12	--	--	--	11-02-87	400	7.2
SHLE	180	41	5	--	120.00	11-05-87	6	--	--	1.0	11-05-87	335	6.9
SHLE	200	--	--	--	124.00	11-05-87	--	--	--	--	11-05-87	237	7.0
SHLE	84	20	6	--	46.20	11-05-87	15	--	--	--	11-05-87	690	9.4
SHLE	62	23	5	42	--	--	6	--	--	--	11-05-87	125	6.6
		--	--	--			6	--	--	--	--	--	--
--	69	--	--	--	22.50	11-12-87	30	--	--	--	11-12-87	2,070	--
SNDS	130	20	6	57	--	--	5	--	--	--	11-12-87	255	6.2
SNDS	202	21	6	140/180	--	--	1	--	--	--	11-12-87	225	6.7
--	49	32	5	--	37.50	11-16-87	--	8.0	28	.67	--	--	--
--	185	--	--	--	--	--	--	--	--	--	04-21-88	215	7.0
--	12	--	--	--	7.30	04-21-88	--	--	--	--	04-21-88	105	5.4
--	120	--	--	--	62.20	04-21-88	--	--	--	--	04-21-88	170	7.3
--	70	--	--	--	39.90	05-02-88	--	--	--	--	05-02-88	69	5.9
SNDS	64	20	6	37	50.00	05-02-88	5	--	--	--	05-02-88	60	6.0
--	13	--	--	--	8.50	05-02-88	--	--	--	--	05-02-88	135	6.0
--	101	--	--	--	81.60	07-26-88	--	.16	3	.62	07-26-88	255	7.4
		--	--	--			--	.15	2	.43	--	--	--
--	--	--	--	--	68.70	08-23-88	--	--	--	--	08-23-88	145	6.1
--	105	--	--	--	--	--	--	--	--	--	08-23-88	320	6.9
--	200	--	--	--	--	--	--	--	--	--	08-23-88	330	7.1
--	200	--	--	--	82.70	08-23-88	--	--	--	--	08-23-88	270	5.6
--	--	--	--	--	9.45	08-23-88	--	--	--	--	08-23-88	200	5.7
--	50	--	--	--	--	--	--	--	--	--	08-23-88	155	6.8
--	90	--	--	--	--	--	--	--	--	--	08-23-88	150	7.0
--	185	--	--	--	42.50	08-23-88	--	--	--	--	08-23-88	255	7.4
SNDS	82	20	6	50/75	56.80	09-07-88	8	--	--	--	09-07-88	340	6.6
SHLE	140	61	6	110/132	--	--	20	--	--	--	09-07-88	175	6.0
SHLE	165	--	--	91/158	142.00	09-07-88	15	--	--	--	09-07-88	400	7.4
SNDS	62	28	6	42/49	34.90	09-07-88	11	--	--	--	09-07-88	300	7.4
SNDS	62	20	6	42	37.60	09-07-88	13	--	--	--	09-07-88	150	7.0
SNDS	92	20	6	89/62/40/77	--	--	6	--	--	--	09-07-88	105	6.4
SNDS	180	20	6	104/90/51	74.80	09-07-88	2	--	--	--	09-07-88	285	7.2
SHLE	140	25	6	123/107	76.00	09-14-88	5	--	--	--	09-14-88	265	7.5
SDSL	204	20	6	92/179	41.00	09-14-88	5	--	--	--	09-14-88	520	6.4
SNDS	124	20	6	64	80.90	09-14-88	18	--	--	--	09-14-88	315	6.6
SHLE	82	23	6	42/68	--	--	5	--	--	--	09-14-88	225	6.6
SNDS	144	20	6	116/144	122.00	09-14-88	5	--	--	--	09-14-88	340	5.6
--	220	--	--	--	133.00	09-14-88	--	--	--	--	09-14-88	285	6.5
SNDS	224	20	6	104	77.20	09-14-88	--	--	--	--	09-14-88	230	5.1
--	170	--	--	--	--	--	--	--	--	--	09-21-88	320	7.9

Table 10.--Record of springs

County well or spring number: The number that is assigned to identify the spring. The prefix *In* before the spring number signifies that the spring is located in Indiana county.

Primary use of water: C, commercial; H, domestic; P, public supply; U, unused.

Topographic setting: F, flat; S, hillside; T, terrace; V, valley flat; W, upland draw.

Hydrogeologic unit: 321MNGL, Monongahela group; 321CSLM, Casselman Formation; 321GLNS, Glenshaw Formation; 321MNNG, Mahoning Sandstone member of the Glenshaw formation; 324ALGN, Allegheny group.

Measurements of discharge, rate: gal/min, gallons per minute.

Measurements of discharge, method used: C, current meter; E, estimated; V, volumetric.

Permanence: I, intermittent; P, perennial; Z, other.

Specific conductance: μS/cm, microsiemens per centimeter at 25 degrees Celsius.

Temperature: °C, degrees Celsius.

Table 10.--Record of springs--Continued

USGS spring number	Location Latitude (degrees)	Location Longitude (degrees)	Quadrangle name	Township or borough	Owner	Primary use of water
In-SP 5	403543	0792213	McIntyre	Young	Wallace Shearer	U
6	403945	0791223	Ernest	White	Fulton Run Water Supply	P
7	403343	0792341	Avonmore	Young	Indiana Comm. Serv. Auth.	P
100	405351	0790853	Dayton	West Mahoning	--	U
101	404742	0790502	Marion Center	East Mahoning	Horace Steele	U
102	402609	0790755	Bolivar	West Wheatfield	Horace Steele	U
103	403931	0791353	Ernest	Armstrong	Keith Milner	H
104	405231	0785737	Punxsutawney	Canoe	Wanda Hixon	H
150	403402	0791220	Indiana	Center	Tom McCoy	H
151	403447	0791409	Indiana	Center	--	H
152	403302	0791424	Indiana	Center	--	U
153	403244	0791715	McIntyre	Young	--	U
154	403431	0791751	McIntyre	Young	John Turk	H
155	403718	0791542	McIntyre	Armstrong	Ray Stewart	H
156	402845	0791609	Blairsville	Black Lick	Charles Swasy	U
157	402845	0791609	Blairsville	Black Lick	Charles Swasy	U
158	402845	0791609	Blairsville	Black Lick	Charles Swasy	U
159	402831	0791618	Blairsville	Black Lick	Charles Swasy	U
160	403952	0791754	Elderton	Armstrong	William Clark	H
161	402949	0792538	Saltsburg	Conemaugh	Nofie Pistininzi	H
162	405007	0790529	Marion Center	East Mahoning	Jay B. Ditts	H
163	404438	0790650	Clymer	Rayne	John Taylor	H
164	404137	0790258	Clymer	Rayne	Tanoma Spring	U
165	404346	0790523	Clymer	Rayne	Fenton Meats	C
166	403858	0791624	Elderton	Armstrong	J. Shovestull	H
167	404030	0791715	Elderton	Armstrong	Vallie	H
168	402808	0790450	New Florence	West Wheatfield	R. Gisbreckt	H
169	402650	0790403	New Florence	West Wheatfield	Ray Cowan	H
170	402945	0790244	New Florence	Brush Valley	Paul Lear	H
171	402730	0790342	New Florence	East Wheatfield	Willis Griffith	H
172	402746	0790031	New Florence	East Wheatfield	George Draksler	H
173	403017	0790229	Brush Valley	Brush Valley	Joan Draksler	H
174	402649	0790413	New Florence	West Wheatfield	T.D. Bracken	H
175	404814	0785241	Rochester Mills	Montgomery	J. Mattis	H
176	403332	0790647	Brush Valley	Brush Valley	Tom Palguta	H
177	403241	0790238	Brush Valley	Brush Valley	--	H
178	404958	0785951	Rochester Mills	East Mahoning	Blain Hamilton	H
179	405000	0790005	Marion Center	East Mahoning	Dennis Beatty	H
250	403601	0792158	McIntyre	Young	Wilmer Shearer	H
251	403558	0792203	McIntyre	Young	Wilmer Shearer	H
252	403233	0785431	Strongstown	Pine	David Hughes	H
253	402941	0785722	Vintondale	Buffington	Kevin Hess	H
254	403026	0785737	Strongstown	Buffington	John Wagner	H
255	403136	0791532	McIntyre	Black Lick	Kenneth Allen	H
256	403608	0791744	McIntyre	Armstrong	Sam Dible	H
257	403615	0791758	McIntyre	Armstrong	Fred Park	H
258	403614	0791750	McIntyre	Armstrong	Fred Park	H
259	404114	0791719	Elderton	Armstrong	Dan Cilo	H
260	403241	0791205	Indiana	Center	John Rudyk	H

Table 10.--Record of springs--Continued

Altlitude of land surface (feet)	Topo-graphic setting	Hydro-geologic unit	Measurements of discharge				Field water quality measurements			
			Date measured	Rate (gal/min)	Method used	Perm-anence	Date measured	Specific conductance (μS/cm)	pH (standard units)	Temper-ature (°C)
1,200	S	321CNMG	--	--	--	--	10-07-64	1,100	--	14.0
1,270	S	321MNNG	08-03-78	14	--	P	--	--	--	--
1,100	W	321MNGL	08-04-78	20	--	P	--	--	--	--
1,220	S	324ALGN	05-22-86	5	V	--	05-22-86	125	6.9	12
1,420	V	321GLNS	--	--	--	--	08-26-86	220	5.8	14.5
1,500	S	324ALGN	06-30-87	<1	V	--	06-30-87	92	7	14
1,190	S	321GLNS	06-11-87	3	V	--	06-11-87	420	6.8	14
1,450	S	321GLNS	--	--	--	--	06-24-88	195	6.7	15
1,180	S	321GLNS	--	--	--	--	05-22-86	310	6.6	12
1,230	S	321GLNS	06-11-86	<1	V	--	06-11-86	460	6.9	15
1,160	S	321GLNS	06-11-86	<1	V	--	06-11-86	190	6	17
1,100	S	324ALGN	07-01-86	<1	V	--	07-01-86	620	6.7	12
1,170	S	324ALGN	--	--	--	--	07-10-86	1,520	6.5	11
1,300	S	321GLNS	07-15-86	1	V	--	07-15-86	160	6.8	17
1,170	S	321CSLM	07-29-86	<1	V	--	07-29-86	285	6.7	18
1,170	S	321CSLM	07-29-86	<1	V	--	07-29-86	390	--	17
1,070	S	321CSLM	07-29-86	<1	V	--	07-29-86	420	4.4	16
1,060	S	321CSLM	07-29-86	<1	V	--	07-29-86	420	6.8	17
1,100	V	321GLNS	07-30-86	<1	V	--	07-30-86	210	6.7	18
1,080	S	321GLNS	--	--	--	--	08-13-86	440	7.8	21
1,440	S	321GLNS	--	--	--	--	06-03-87	230	6.2	14
1,440	S	321GLNS	--	--	--	--	06-10-87	125	6.8	15
1,180	V	321GLNS	--	--	--	--	06-10-87	340	6.6	14
1,170	S	324ALGN	--	--	--	--	06-17-87	318	6.5	15
1,060	S	321GLNS	--	--	--	--	06-23-87	170	7.2	--
1,160	S	321GLNS	--	--	--	--	06-24-87	70	6.7	13
1,650	S	321GLNS	--	--	--	--	06-30-87	55	5.1	12
1,760	S	321GLNS	--	--	--	--	06-30-87	240	6	--
1,580	S	321GLNS	--	--	--	--	07-07-87	115	7.3	--
1,690	S	321GLNS	--	--	--	--	07-07-87	165	5.6	16
1,700	S	321GLNS	--	--	--	--	07-14-87	240	6.3	14
1,700	T	321GLNS	--	--	--	--	07-15-87	50	3.8	14
1,780	S	321GLNS	--	--	--	--	07-15-87	160	5.8	13
1,600	S	324ALGN	--	--	--	--	08-06-87	75	5.5	11
1,430	S	321GLNS	--	--	--	--	07-12-88	446	6.2	13
1,440	S	321CSLM	--	--	--	--	07-14-88	247	7.2	17
1,470	S	321GLNS	--	--	--	--	07-21-88	120	6.1	13
1,580	S	321GLNS	--	--	--	--	07-21-88	75	6.4	17
1,310	S	321MNGL	10-02-86	<1	V	--	10-02-86	555	7.5	19.5
1,310	S	321MNGL	--	--	--	--	10-02-86	430	7.0	21.5
1,760	S	321GLNS	03-09-87	29	C	--	03-09-87	50	4.8	7
1,710	S	321GLNS	03-16-87	20	V	--	03-16-87	90	5.0	8.0
1,900	S	321GLNS	--	--	--	--	03-17-87	205	5.6	3.5
1,220	S	321GLNS	09-02-87	1	V	I	09-02-87	120	6.0	13.5
1,240	S	321GLNS	09-02-87	<1	V	--	09-02-87	385	7.0	14
1,160	S	321GLNS	--	--	--	--	09-02-87	265	7.0	18.5
1,140	S	321GLNS	09-02-87	4	V	--	09-02-87	235	6.5	14
1,350	S	321CSLM	09-02-87	1	V	--	09-02-87	110	6.1	12.0
1,130	V	321GLNS	--	--	--	--	09-02-87	125	6.8	16.0

Table 10.--Record of springs--Continued

USGS spring number	Location Latitude (degrees)	Location Longitude (degrees)	Quadrangle name	Township or borough	Owner	Primary use of water
In-SP261	403241	0791210	Indiana	Center	John Rudyk	H
262	403213	0791243	Indiana	Center	John Boris	H
263	403455	0791222	Indiana	White	Gil McLaughlin	H
264	403220	0791020	Indiana	Indiana	Frank Arch	H
265	403737	0791154	Ernest	White	Richard Rezzolla	H
266	403903	0791308	Ernest	Armstrong	William Ramer	H
267	404030	0791252	Ernest	Washington	Howard Little	H
268	404116	0790024	Clymer	Cherry Hill	Erma Treese	H
269	404240	0790127	Clymer	Rayne	James Rethi	H
270	404420	0790147	Clymer	Rayne	Chuck Glasser	H
271	404430	0790156	Clymer	Rayne	Ray Glasser	H
272	403418	0792004	McIntyre	Young	Armor Cribbs	H
273	403428	0792012	McIntyre	Young	Donald Dustin	H
274	403025	0790500	Brush Valley	Brush Valley	Ronald Robinson	H
275	403436	0795942	Strongstown	Cherry Hill	Mike Minich	H
276	403615	0785912	Strongstown	Cherry Hill	John Smith	H
277	403541	0785636	Strongstown	Pine	William Rogers	H
278	403458	0790008	Brush Valley	Cherry Hill	Norma Murdick	H
279	403525	0790211	Brush Valley	Cherry Hill	Douglas Wilhide	H
280	403725	0790044	Brush Valley	Cherry Hill	Charles Lydic	H
281	403634	0790032	Brush Valley	Cherry Hill	Robert Wolfe	H
282	403442	0785947	Strongstown	Cherry Hill	William Fulmer	H
283	403629	0790419	Brush Valley	Cherry Hill	Frank Novak	H
284	403607	0790052	Brush Valley	White	Clarence Ray	H
285	403938	0790322	Clymer	Rayne	Howard McCunn	H
286	403258	0792028	McIntyre	Young	Howard Murry	H
287	404810	0790712	Marion Center	W. Mahoning	Elmer Laney	H
288	405027	0790916	Plumville	W. Mahoning	Clifford Griffith	H
289	404928	0790230	Marion Center	E. Mahoning	Earl Wetzel	H
290	404600	0790135	Marion Center	E. Mahoning	Leland Pfeiffer	H
291	404400	0790624	Clymer	Rayne	Mrs. James McElhoes	H
292	404349	0790542	Clymer	Rayne	John Weaver	H
293	405051	0790826	Plumville	W. Mahoning	Richard Mertz	H
294	403934	0790300	Clymer	Rayne	Robert Dixon	H
295	404138	0790257	Clymer	Rayne	Walter Krytusa	H
296	404117	0785920	Commodore	Cherry Hill	James Jarvie	H
297	403021	0790311	Brush Valley	Brush Valley	Richard Murdick	H
298	403538	0790150	Brush Valley	Cherry Hill	Edward Ray	H
299	403550	0790203	Brush Valley	Cherry Hill	Alton Strong	H
300	403923	0785903	Commodore	Cherry Hill	Carlyle Dick	H
301	403927	0785850	Commodore	Cherry Hill	Carlyle Dick	H
302	403321	0785548	Strongstown	Pine	Bruce Wynkoop	H
303	403422	0785433	Strongstown	Pine	Arthur Antal	H
304	404945	0790308	Marion Center	E. Mahoning	Wade Wetzel	H
305	405000	0790314	Marion Center	E. Mahoning	Bruce McFarland	H
306	405012	0790318	Marion Center	E. Mahoning	Chuck Wetzel	H
307	403103	0792255	Avonmore	Conemaugh	Francis Demaria	H
308	403125	0792125	McIntyre	Conemaugh	Harold Hans	H
309	403356	0791515	McIntyre	Center	Ricco Baroni	H
310	403647	0791850	McIntyre	Armstrong	Robert Shirey	H

Table 10.--Record of springs--Continued

Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit	Measurements of discharge: Date measured	Rate (gal/min)	Method used	Permanence	Field water quality measurements: Date measured	Specific conductance (μS/cm)	pH (standard units)	Temperature (°C)
1,120	V	321GLNS	09-02-87	<1	V	--	09-02-87	460	7.6	13.0
1,250	S	321CSLM	09-02-87	1	V	--	09-02-87	140	6.7	15.0
1,250	V	321GLNS	--	--	--	--	09-03-87	220	5.6	16.0
1,090	S	321GLNS	09-03-87	<1	V	--	09-03-87	225	6.4	13.5
1,340	S	321GLNS	09-03-87	<1	V	--	09-03-87	335	7.4	12.0
1,220	S	321GLNS	09-03-87	<1	V	--	09-03-87	275	6.5	13.5
1,050	V	321GLNS	09-03-87	6	C	--	09-03-87	113	6.4	12.0
1,400	S	324ALGN	09-03-87	2	V	--	09-03-87	405	5.0	15.5
1,340	S	321GLNS	--	--	--	--	09-03-87	235	5.6	22.0
1,270	V	324ALGN	--	--	--	--	09-03-87	490	6.6	13.5
1,360	S	324ALGN	09-03-87	1	V	--	09-03-87	325	5.9	14.0
1,390	S	321GLNS	09-03-87	2	V	--	09-03-87	255	6.9	14.0
1,300	S	321GLNS	--	--	--	--	09-03-87	285	6.6	20.0
1,410	V	321GLNS	09-09-87	7	C	--	09-09-87	250	5.5	15.0
1,330	V	321GLNS	--	--	--	--	09-09-87	137	6.3	15.5
1,540	S	321GLNS	09-09-87	2	V	--	09-09-87	245	5.8	14.0
1,860	S	321GLNS	--	--	--	P	09-09-87	130	5.6	12.5
1,230	V	321GLNS	09-09-87	11	V	--	09-09-87	500	8.3	11.5
1,440	S	321GLNS	09-09-87	2	E	--	09-09-87	105	7.1	12.0
1,510	S	324ALGN	--	--	--	P	09-09-87	270	7.0	20.5
1,570	F	321GLNS	--	--	--	P	09-09-87	65	5.0	12.5
1,340	S	321GLNS	09-09-87	<1	V	--	09-09-87	115	5.7	14.5
1,580	S	324ALGN	09-09-87	<1	V	--	09-09-87	135	6.6	16.5
1,560	F	321GLNS	--	--	--	--	09-09-87	340	5.3	16.5
1,340	S	321GLNS	09-10-87	<1	E	--	09-10-87	275	6.5	14.5
1,170	S	321GLNS	09-10-87	<1	V	--	09-10-87	360	6.9	14.5
1,300	S	321GLNS	--	--	--	P	09-16-87	153	5.6	13.0
1,300	S	321GLNS	09-16-87	9	V	P	09-16-87	90	5.2	14.5
1,350	S	321GLNS	09-16-87	<1	V	--	09-16-87	390	7.2	14.5
1,610	V	321GLNS	09-16-87	12	V	P	09-16-87	115	4.9	12.5
1,250	S	321GLNS	09-16-87	1	V	P	09-16-87	85	5.4	11.5
1,260	S	321GLNS	09-16-87	1	V	P	09-16-87	850	5.5	16.5
1,250	S	321GLNS	--	--	--	P	09-16-87	102	6.7	22.0
1,440	S	321GLNS	--	--	--	P	09-17-87	80	5.9	12.5
1,150	V	321GLNS	09-17-87	3	V	--	09-17-87	340	6.6	11.5
1,320	S	324ALGN	--	--	--	Z	09-17-87	103	5.9	16.0
1,530	S	321GLNS	--	--	--	P	10-29-87	143	5.6	11.0
1,580	S	321GLNS	--	--	--	I	09-21-87	85	4.7	12.5
1,670	S	321GLNS	--	--	--	--	09-21-87	67	5.4	11.0
1,440	S	324ALGN	09-21-87	7	V	I	09-21-87	345	6.7	11.5
1,400	S	324ALGN	09-21-87	9	V	--	09-21-87	335	7.0	12.5
1,840	S	321GLNS	--	--	--	P	09-21-87	250	5.5	10.5
1,860	S	321GLNS	--	--	--	P	09-21-87	73	4.3	14.5
1,350	S	321GLNS	09-22-87	1	V	P	09-22-87	101	6.4	14.5
1,260	S	321GLNS	09-22-87	1	V	--	09-22-87	95	5.5	11.0
1,280	S	321GLNS	09-22-87	<1	V	--	09-22-87	115	5.8	14.0
1,060	S	321GLNS	09-23-87	2	V	P	09-23-87	335	6.9	13.0
1,120	S	321GLNS	09-23-87	12	V	P	09-23-87	133	7.0	10.5
1,180	S	321GLNS	--	--	--	--	09-23-87	125	6.1	18.0
1,190	S	321CSLM	09-23-87	3	V	P	09-23-87	220	5.8	15.0

Table 10.--Record of springs--Continued

USGS spring number	Location Latitude (degrees)	Location Longitude (degrees)	Quadrangle name	Township or borough	Owner	Primary use of water
In-SP311	404255	0790750	Ernest	Rayne	Karl E. Bennett	H
312	404709	0785350	Rochester Mills	Montgomery	George Scott	H
313	404629	0785356	Rochester Mills	Montgomery	Earl Trimble	H
314	404434	0785455	Commodore	Grant	Charles Reed	H
315	404522	0785418	Rochester Mills	Grant	Delvin Gromley	H
316	403304	0791057	Indiana	Center	Joe Daskivich	H
317	402912	0791618	Blairsville	Black Lick	George Clawson	H
318	403434	0792303	Avonmore	Young	Clarence Cloeman	H
319	403420	0792238	Avonmore	Young	Clarence Coleman	H
320	404952	0785916	Rochester Mills	Canoe	Edward Hill	H
321	404923	0785315	Rochester Mills	Banks	Ruth Monnie	H
322	404908	0785840	Rochester Mills	Canoe	Louise Oberlin	H
324	403823	0791539	Elderton	Armstrong	William Clark	H
325	403755	0791644	Elderton	Armstrong	David Truby	H
326	403857	0791351	Ernest	Armstrong	Herman Bohn	H
327	403838	0791312	Ernest	Armstrong	Debra Heggenstaller	H
328	403553	0791153	Indiana	White	Leonard Anderson	H
329	403554	0791149	Indiana	White	Leonard Anderson	H
330	403248	0792027	McIntyre	Young	Mike McLay	H
331	403558	0791158	Indiana	White	Leonard Anderson	H
332	403551	0791144	Indiana	Armstrong	George Lenz	H
333	403810	0791628	Elderton	Armstrong	Leonard Anderson	H
334	404633	0790003	Marion Center	E. Mahoning	Robert Mikesell	H
335	402543	0790604	New Florence	West Wheatfield	Wilbur McClure	--
336	402552	0790544	New Florence	West Wheatfield	Robert Sylves	--
337	402540	0790558	New Florence	West Wheatfield	Robert Sylves	--
338	402532	0790602	New Florence	West Wheatfield	Mike Krause	--
340	405110	0785458	Rochester Mills	Canoe	Clint Pearce	--
341	403448	0791206	Indiana	White	John King, Jr.	--

Table 10.--Record of springs--Continued

Altitude of land surface (feet)	Topographic setting	Hydrogeologic unit	Measurements of discharge: Date measured	Rate (gal/min)	Method used	Permanence	Field water quality measurements: Date measured	Specific conductance (μS/cm)	pH (standard units)	Temperature (°C)
1,080	S	324ALGN	--	--	--	P	09-23-87	215	6.8	11.0
1,820	S	321GLNS	09-23-87	8	V	P	09-23-87	225	6.7	10.5
1,800	S	321GLNS	09-23-87	3	V	--	09-23-87	77	6.5	10.5
1,630	S	321GLNS	--	--	--	--	10-05-87	76	5.8	11.0
1,780	S	321GLNS	--	--	--	--	10-15-87	75	6.2	14.5
1,070	S	321GLNS	--	--	--	--	10-06-87	440	6.9	14.0
1,050	S	321CSLM	--	--	--	--	10-09-87	480	7.0	14.0
1,180	S	321MNGL	--	--	--	--	10-09-87	705	7.1	13.5
1,190	S	321MNGL	--	--	--	--	10-09-87	645	7.5	12.5
1,460	S	324ALGN	10-26-87	8	V	--	10-26-87	540	5.7	12.0
1,720	S	324ALGN	--	--	--	--	10-26-87	85	6.4	13.5
1,580	S	324ALGN	--	--	--	--	10-26-87	110	6.1	16.5
1,130	S	321GLNS	10-26-87	<1	V	--	10-26-87	195	6.9	12.5
1,220	S	321CSLM	--	--	--	--	10-26-87	290	7.1	13.0
1,120	S	321GLNS	--	--	--	--	10-26-87	155	5.7	13.5
1,150	S	321GLNS	10-26-87	<1	V	--	10-26-87	225	6.5	13.0
1,320	S	321GLNS	--	--	--	--	10-26-87	305	6.1	13.0
1,320	S	321GLNS	--	--	--	--	10-26-87	475	6.4	13.0
1,100	S	321GLNS	--	--	--	--	10-27-87	190	6.8	11.5
1,300	S	321GLNS	11-03-87	1	C	--	11-03-87	185	5.9	14.0
1,360	S	321GLNS	11-03-87	1	E	--	11-03-87	225	6.2	11.0
1,140	S	321CSLM	--	--	--	--	11-03-87	395	7.2	12.0
1,720	S	324ALGN	--	--	--	--	11-12-87	495	4.4	12.0
1,690	S	321GLNS	04-21-88	6	--	--	04-21-88	140	7.1	8.0
1,700	S	321GLNS	04-22-88	6	--	--	04-22-88	78	5.8	8.5
1,670	S	321GLNS	04-22-88	1	--	--	04-22-88	75	6.8	8.5
1,560	S	321GLNS	04-22-88	4	--	--	04-22-88	60	6.6	7.5
1,760	S	324ALGN	05-02-88	4	--	--	05-02-88	234	5.6	10.0
1,170	S	321GLNS	--	--	--	--	08-03-88	210	6.5	18.0

Table 11.--Water-quality analyses of wells and springs (major constituents)

[Quantities are in milligrams per liter except where otherwise indicated; µS/cm, microsiemens per centimeter at 25 degrees Celsius; °C, degrees Celsius; <, less than; --, no data]

County well or spring number	Date of sample	Geologic unit	Specific conductance (µS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 106	6/18/86	321GLNS	311	226	7.4	140	48	6.8	2.1	0.5	98	29	9.0	0.1	7.8
IN 107	6/18/86	321GLNS	267	174	7.5	120	38	8.5	3.5	1	114	16	10	.3	15
IN 109	6/18/86	321GLNS	303	186	7.6	72	23	5.4	36	2	144	16	6.0	.2	12
IN 110	6/18/86	321CSLN	286	178	7.0	97	35	4.4	12	2	66	29	23	<.1	3.8
IN 111	6/17/86	321GLNS	215	206	7.2	10	5	5	50	.1	80	19	13	.2	11
IN 112	6/17/86	321GLNS	219	156	7.0	73	24	5.7	11	.9	90	40	6.0	.2	11
IN 120	7/10/86	321GLNS	907	542	8.5	10	3.1	.9	240	1	392	11	75	1	7.9
IN 123	8/28/86	321GLNS	254	200	7.3	100	33	7.8	12	1	134	12	4.0	.3	22
IN 125	6/10/87	324ALGN	330	218	7.0	160	47	14	14	3	186	22	5.0	.5	8.5
IN 126	6/10/86	321GLNS	315	218	6.9	170	48	14	2	2	160	17	6.0	.3	7.5
IN 127	6/10/87	321CSLN	70	68	6.2	28	4.1	3.5	4.2	1	42	<10	<1	.1	20
IN 129	6/11/87	321GLNS	265	184	6.5	110	34	10	13	1	102	33	10	.2	14
IN 131	6/11/87	321GLNS	200	152	6.8	93	27	9.1	11	1	106	21	3.0	.2	10
IN 133	6/17/87	321GLNS	285	216	7.0	120	37	7.4	7.5	.9	106	20	17	.2	10
IN 135	6/11/87	321GLNS	235	172	7.0	110	30	7.8	6.9	.8	88	30	5.0	.3	11
IN 137	6/17/87	321GLNS	445	278	7.7	180	51	14	31	1	222	12	9.0	.3	16
IN 140	6/17/87	321GLNS	335	216	7.0	150	43	9.7	12	4	142	24	7.0	.1	6.5
IN 142	6/18/87	324ALGN	625	386	7.7	200	61	14	55	2	208	33	58	.3	7.6
IN 144	6/23/87	321GLNS	200	188	6.5	74	20	5.5	4.8	1	52	26	--	<.1	12
IN 145	6/23/87	321GLNS	310	218	7.1	94	25	6.4	24	2	140	20	--	.2	12
IN 146	6/23/87	321GLNS	445	298	7.2	200	58	14	6.7	1	204	25	--	.1	14
IN 152	6/30/87	324ALGN	950	698	7.4	520	160	42	--	5	338	240	3.0	.4	--
IN 202	10/08/87	321CSLN	400	326	7.8	190	44	21	4.5	1	160	27	16	.2	11
IN 205	10/08/87	324ALGN	245	228	6.9	120	29	9.1	2.6	2	76	36	6.0	<.1	7.1
IN 208	10/08/87	321CSLN	350	270	7.6	140	39	11	11	.9	142	14	20	.2	16
IN 211	6/10/88	324ALGN	266	216	6.8	140	53	7.4	1.6	1	106	29	14	.1	7.1
IN 214	6/24/88	324ALGN	531	0	7.1	240	100	18	5.9	2	152	170	15	.1	8.4
IN 216	6/22/88	321GLNS	1,680	0	6.7	1,300	340	69	19	5	208	1100	4.0	.3	14
IN 217	7/15/88	324ALGN	373	284	8.0	91	23	6.1	39	3	186	31	2.0	.3	8.9
IN 222	9/01/88	321GLNS	449	388	7.8	250	68	24	4.7	2	258	<10	18	.1	12
IN 223	9/21/88	321GLNS	658	344	8.7	10	1.9	.5	150	.5	202	11	120	.5	9.4
IN 224	7/27/88	324ALGN	276	232	8.2	160	49	14	1.6	2	164	18	9.0	.1	8.3

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 227	7/27/88	324ALGN	266	0	8.2	140	40	15	10	2	136	27	9.0	0.2	9.2
IN 228	7/27/88	324ALGN	234	0	6.7	120	30	11	12	1	116	28	9.0	.1	11
IN 229	7/28/88	324ALGN	426	0	6.9	230	68	23	7.1	2	168	72	30	.1	9.7
IN 230	12/17/86	321GLNS	310	178	6.6	110	31	9.3	24	1	144	21	2.0	.3	7.3
IN 231	12/17/86	321GLNS	310	180	6.5	99	26	7.6	27	1	146	21	2.0	.3	8.7
IN 232	12/16/86	321GLNS	320	180	6.5	110	31	9.1	21	1	156	22	4.0	.3	8.6
IN 233	12/17/86	321GLNS	330	286	6.5	100	28	8.7	28	1	164	22	2.0	.3	9.0
	9/19/88	321GLNS	270	144	7.7	91	29	8.6	24	1	146	26	4.0	.3	7.9
	9/20/88	321GLNS	272	140	7.7	94	32	8.7	23	2	146	24	4.0	.3	7.8
IN 234	6/24/87	321GLNS	270	150	7.9	94	24	7.9	19	.6	124	21	2.0	.2	9.7
IN 320	7/16/86	321GLNS	460	314	6.7	170	53	11	18	2	102	44	50	.2	7.9
IN 322	7/16/86	321GLNS	242	178	6.8	98	29	7.0	7.8	1	90	25	5.0	.2	13
IN 323	7/16/86	321GLNS	301	170	7.2	110	32	8.5	18	1	144	14	4.0	.2	11
IN 327	6/19/86	321GLNS	130	100	6.1	48	8.9	5.6	1.9	1	14	25	6.0	<.1	7.8
IN 329	6/17/86	321GLNS	1,020	720	7.7	340	98	29	84	2	224	470	15	.1	14
IN 330	6/17/86	321GLNS	369	234	7.1	160	42	12	8.0	1	112	66	6.0	.1	8.8
IN 331	6/17/86	321GLNS	318	198	6.8	96	28	7.8	17	1	50	30	43	<.1	8.1
	8/06/86	321GLNS	331	234	6.6	130	39	8.6	9.2	1	96	26	27	.3	7.4
IN 337	6/18/86	321GLNS	225	144	7.8	93	33	5.7	2.6	.5	94	19	6.0	.2	9.7
IN 339	6/18/86	321GLNS	617	474	7.9	270	75	28	12	1	194	59	42	<.1	14
IN 342	6/19/86	321GLNS	413	194	7.7	190	60	15	3.7	.9	158	36	17	.1	8.5
IN 343	6/19/86	321GLNS	416	244	7.7	190	51	14	7.8	1	160	23	27	.2	14
IN 344	6/25/86	321GLNS	327	218	7.4	150	41	11	6.5	.8	138	27	10	.1	15
IN 345	6/24/86	321GLNS	325	224	7.3	130	38	8.8	19	.8	140	29	8.0	.2	11
IN 349	6/25/86	321GLNS	203	162	6.6	78	24	5.4	2.2	.6	44	18	26	<.1	13
IN 351	6/25/86	324ALGN	1,360	0	6.7	810	240	46	19	2	72	750	14	.5	6.2
IN 361	7/10/86	321GLNS	201	124	6.6	82	23	7.7	5.9	1	72	27	7.0	<.1	10
IN 362	7/15/86	321GLNS	261	8	6.6	110	28	9.7	7.9	.7	52	34	26	.2	17
IN 363	7/15/86	321GLNS	170	118	6.5	62	18	5.0	6.2	1	38	26	4.0	.2	9.7
IN 364	7/17/86	321GLNS	258	164	7.1	92	28	7.9	14	2	126	<10	9.0	.2	10
IN 365	7/17/86	321GLNS	220	164	6.6	92	32	3.7	3.8	1	52	24	9.0	.2	5.2
IN 366	7/17/86	321GLNS	255	182	7.1	73	21	6.8	26	2	130	<10	4.0	.2	8.9
IN 367	7/29/86	321GLNS	432	288	6.8	200	75	4.2	7.2	.7	170	46	9.0	.2	16
	8/05/86	321GLNS	417	310	6.8	190	73	7.7	7.3	.8	162	43	9.0	.3	17
IN 368	7/30/86	321GLNS	318	204	6.9	120	34	5	21	1	162	<10	3.0	.3	16
IN 375	7/31/86	321GLNS	433	256	7.0	170	48	11	18	1	194	25	2.0	.2	9.3

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (µS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 376	8/05/86	321GLNS	515	384	8.5	24	7.3	2.6	110	0.4	250	24	11	0.6	9.2
IN 377	8/06/86	321CSLN	523	378	7.9	39	14	3.0	120	.6	246	30	4.0	.5	8.6
IN 380	8/06/86	321NNGL	372	304	6.6	150	46	12	8.5	2	90	59	21	.3	21
IN 383	8/06/86	321GLNS	374	256	7.1	160	50	12	10	1	176	21	5.0	.2	2.2
IN 384	8/14/86	321GLNS	272	230	6.5	120	42	6.0	8.8	3	102	34	6.0	.2	8.2
IN 386	8/12/86	321GLNS	321	242	7.0	170	55	11	3.5	2	160	25	8.0	.2	8.4
IN 387	8/13/86	321CSLN	402	294	7.4	120	37	9.2	49	1	194	28	9.0	.4	8.4
IN 388	8/13/86	324ALGN	2,190	0	6.2	1,300	170	81	50	6	102	1,200	11	.2	11
IN 389	8/14/86	321GLNS	434	342	6.3	140	39	1	33	2	74	54	97	.2	9.1
	10/02/86	321GLNS	480	314	6.3	150	41	11	34	1	30	100	74	<.1	8.4
IN 390	6/02/87	321GLNS	0	0	--	0	--	--	5.4	3	--	12	--	--	27
IN 391	6/02/87	321GLNS	0	0	--	0	--	--	5	1	--	16	--	--	28
IN 393	6/02/87	321GLNS	0	0	--	0	--	--	12	1	--	19	--	--	17
IN 396	6/03/87	321GLNS	0	0	--	0	--	--	3.9	1	--	34	--	--	15
IN 398	6/03/87	321GLNS	0	0	--	0	--	--	3.5	1	--	18	--	--	15
IN 399	6/04/87	324ALGN	0	0	--	0	--	--	11	2	--	42	--	--	11
IN 400	6/04/87	324ALGN	0	0	--	0	--	--	18	1	--	<10	--	--	8.7
IN 403	6/09/87	321GLNS	180	130	6.5	86	20	11	6.5	.7	76	30	8.0	.2	18
IN 404	6/10/87	321GLNS	685	480	6.7	250	66	28	69	2	206	180	15	<.1	9.5
IN 405	6/11/87	321GLNS	205	136	6.6	98	29	9.2	7.2	1	96	19	11	.2	13
IN 406	6/11/87	321GLNS	385	272	6.8	190	56	15	7.0	2	140	54	17	.1	7.7
IN 407	6/11/87	321GLNS	290	220	7.0	140	43	9.2	11	1	150	54	11	.2	15
IN 408	6/16/87	321GLNS	580	382	7.8	10	.3	.1	160	1	228	46	43	.5	12
IN 409	6/16/87	321CSLN	175	156	6.6	76	18	7.8	4.6	.9	56	28	8.0	.2	12
IN 410	6/17/87	321GLNS	470	354	7.3	240	64	22	6.4	3	218	30	17	.3	6.8
IN 411	6/17/87	321GLNS	360	256	7.4	71	19	5.3	61	.9	184	22	3.0	.1	16
IN 413	6/17/87	324ALGN	870	708	7.4	400	120	27	3.0	2	248	250	8.0	.2	9.6
IN 414	6/17/87	321CSLN	305	212	7.5	110	34	7.0	17	.3	122	17	17	.2	16
IN 415	6/17/87	321GLNS	300	200	7.2	110	30	7.2	22	.6	108	35	10	.3	12
IN 418	6/23/87	321GLNS	365	208	6.7	100	26	7.8	34	.8	56	37	58	<.1	12
IN 419	6/23/87	321GLNS	280	164	8.0	79	23	5.6	35	.4	130	13	9.0	.3	13
IN 420	6/23/87	321GLNS	325	198	8.1	96	26	6.9	43	1	174	<10	4.0	.3	18
IN 423	6/24/87	321GLNS	280	170	7.6	120	31	9.0	9.6	.3	126	12	8.0	.2	28
IN 424	6/25/87	321GLNS	545	300	7.6	130	34	9.6	59	1	150	46	59	.2	16
IN 426	6/25/87	321GLNS	260	140	7.3	110	30	10	10	.3	112	11	13	.2	20
IN 427	6/29/87	324ALGN	270	0	7.5	120	34	8.9	2.7	8	90	13	29	<.1	8.1

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (µS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 428	6/29/87	324ALGN	850	706	7.8	410	140	28	0.5	2	178	250	20	0.3	7.2
IN 429	6/29/87	321GLNS	95	84	7.0	42	9.5	5.6	.5	.6	48	13	10	.2	8.3
IN 430	6/29/87	321GLNS	210	130	7.4	94	29	6.1	1.2	.8	78	18	14	.1	8.7
IN 431	6/29/87	321GLNS	215	126	7.1	100	33	5.2	1.3	.7	94	20	6.0	<.1	7.9
IN 432		321GLNS	90	82	7.1	36	10	3.3	2.8	.2	44	10	3.0	.2	18
IN 433	6/30/87	321GLNS	125	92	7.6	55	18	3.4	2.2	.2	64	11	3.0	.2	16
IN 434	6/30/87	321GLNS	280	0	8.0	130	36	9.6	4.3	1	130	21	3.0	.1	12
IN 435	6/30/87	321GLNS	75	62	6.6	27	4.0	4.8	2.5	.1	20	11	8.0	<.1	13
IN 436	6/30/87	321GLNS	490	380	7.5	180	44	11	14	.9	84	18	95	<.1	9.1
IN 437	6/30/87	321GLNS	175	130	7.8	77	27	5.3	2.5	.4	78	<10	6.0	.2	16
IN 438	6/30/87	321GLNS	165	116	7.8	74	24	4.7	2.3	.4	70	12	6.0	.1	17
IN 439	6/30/87	321GLNS	230	166	6.4	110	36	7.4	1.8	.5	84	34	5.0	.2	13
IN 440	7/07/87	324ALGN	230	160	8.0	110	39	5.6	1.7	1	122	16	1.0	<.1	9.2
IN 441	7/07/87	321GLNS	180	138	7.4	83	22	8.5	4.9	.8	86	11	4.0	.3	16
IN 442	7/07/87	321GLNS	80	82	6.8	36	8.3	4.5	1.3	.6	36	<10	4.0	<.1	9.8
IN 443	7/07/87	321GLNS	220	152	8.0	100	33	6.4	4.0	1	112	<10	2.0	.1	11
IN 444	7/08/87	321GLNS	150	128	7.0	66	16	7.2	2.9	.7	44	13	13	.2	15
IN 445	7/14/87	321GLNS	80	98	6.7	39	6.9	6.5	1.1	.7	42	18	3.0	.3	12
IN 447	7/14/87	321GLNS	400	276	7.2	170	46	13	9.7	2	96	34	70	.3	9.2
IN 448	7/15/87	321GLNS	255	188	7.5	120	39	11	1.8	.9	120	25	7.0	.2	10
IN 449	7/15/87	324ALGN	1,560	0	7.0	960	310	52	9.9	2	108	970	43	.2	9.9
IN 450	7/15/87	324ALGN	380	346	6.8	180	48	15	1.9	2	100	100	12	.1	8.6
IN 451	7/21/87	321GLNS	770	0	7.1	300	93	17	11	2	94	10	180	.2	11
IN 452	7/21/87	321GLNS	550	490	7.1	220	71	12	3.6	1	84	<10	120	.2	11
IN 453	7/21/87	321GLNS	270	178	7.6	140	39	7.5	1.8	.8	124	<10	10	.2	9.0
IN 454	7/21/87	321GLNS	845	632	7.5	290	86	20	29	2	148	14	150	.2	8.8
IN 455	7/21/87	324ALGN	475	0	7.2	160	43	9.4	26	1	106	<10	85	<.1	11
IN 456	7/21/87	321GLNS	295	208	7.8	140	37	11	3.6	.8	152	<10	2.0	.2	14
IN 457	7/23/87	321GLNS	345	286	7.2	140	38	8	4.7	1	68	10	53	.1	8.1
IN 458	7/28/87	324ALGN	310	200	4.8	130	27	14	2.2	2	2	150	9.0	.2	18
IN 459	7/28/87	324ALGN	180	0	7.0	77	17	8.5	.8	1	30	72	6.0	.1	8.0
IN 460	7/28/87	321GLNS	265	0	7.6	130	37	8.6	3.0	1	118	30	5.0	.3	14
IN 461	7/29/87	321GLNS	190	0	7.8	85	26	4.3	1.5	.7	84	25	8.0	.1	12
IN 462	7/29/87	321GLNS	160	0	7.3	71	19	3.8	2.0	.7	68	<10	7.0	<.1	13
IN 463	7/29/87	321GLNS	155	0	6.5	63	7.6	7.3	1.5	.8	28	<10	24	.2	12
IN 464	7/29/87	321GLNS	180	0	7.7	82	28	3.3	3.3	.6	90	<10	4.0	.2	17

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 465	7/29/87	321GLNS	170	0	7.6	77	25	3.3	3.2	0.5	84	<10	2.0	0.2	19
IN 466	7/29/87	321GLNS	330	270	8.1	160	42	11	2.9	1	152	<10	9.0	.1	11
IN 467	7/29/87	321GLNS	225	214	8.0	100	28	7.3	3.7	.8	98	<10	10	.2	14
IN 468	7/29/87	321CSLN	630	0	7.4	260	73	17	20	2	190	20	78	<.1	12
IN 469	7/29/87	321GLNS	485	226	8.0	230	62	14	5.8	1	164	39	28	<.1	11
IN 470	7/29/87	321CSLN	390	206	6.4	120	27	10	25	2	46	57	50	<.1	12
IN 471	7/29/87	321CSLN	540	0	7.0	260	64	19	12	1	152	130	4.0	.2	15
IN 472	7/30/87	321GLNS	365	280	7.2	160	45	8.6	5.6	.9	102	28	36	.2	18
IN 473	7/30/87	321GLNS	290	192	7.2	130	38	6.5	3.3	.9	90	29	19	.2	13
IN 474	7/30/87	324ALGN	135	0	6.7	69	12	7.8	.7	1	60	<10	4.0	.2	11
IN 475	7/30/87	324ALGN	310	0	7.6	150	35	14	2.1	2	142	<10	7.0	.1	12
IN 476	7/30/87	324ALGN	85	0	6.0	38	6.4	3.4	1.5	1	10	<10	4.0	<.1	7.7
IN 477	8/04/87	321GLNS	395	286	7.0	200	47	17	7.1	2	186	26	4.0	.3	16
IN 478	8/06/87	324ALGN	175	150	6.5	85	21	6.3	1.5	1	68	20	3.0	<.1	9.0
IN 479	8/06/87	324ALGN	330	0	6.7	170	37	16	.8	.9	100	64	5.0	.2	12
IN 501	10/09/86	321GLNS	450	288	7.7	180	44	16	18	1	210	37	6.0	<.1	17
IN 502	10/09/86	321GLNS	270	166	7.3	110	26	8.3	9.5	2	108	<54	3.0	<.1	13
IN 503	4/10/87	324ALGN	0	0	--	0	--	--	.7	1	--	190	--	--	7.8
	11/12/87	324ALGN	621	518	7.5	270	85	23	.7	1	120	210	2.0	.2	7.8
IN 504	4/10/87	324ALGN	0	0	--	0	--	--	.8	.9	--	28	--	--	6.5
	11/12/87	324ALGN	265	0	6.8	110	28	1	3.4	1	50	81	10	<.1	7.6
IN 506	6/03/87	324ALGN	0	0	--	0	--	--	1.0	1	--	21	--	--	8.0
IN 507	6/03/87	324ALGN	0	0	--	0	--	--	.8	2	--	63	--	--	8.5
IN 508	6/03/87	324ALGN	95	66	5.6	31	5.3	2.6	4.7	1	6	10	10	<.1	5.7
	5/02/88	324ALGN	185	186	6.1	54	9.7	4.4	14	3	10	23	50	5.	4.5
	5/02/88	324ALGN	190	0	6.1	53	9.5	4.3	14	3	10	22	53	<.1	4.6
	6/16/88	324ALGN	136	0	5.9	44	9.1	3.9	10	2	8	15	28	<.1	6.6
	8/03/88	324ALGN	160	152	6.1	43	9.5	4.5	11	2	12	10	30	<.1	6.4
IN 508	8/03/88	324ALGN	156	0	6.0	44	9.8	4.4	1	7	10	17	33	<.1	7.6
	8/30/88	324ALGN	160	136	6.0	47	8.7	4.1	11	2	10	18	38	<.1	6.8
	9/21/88	324ALGN	156	0	6.0	45	10	4.4	14	2	8	16	30	<.1	6.4
IN 510	6/17/88	321GLNS	226	288	6.9	130	31	7.1	4.9	1	102	25	5.0	.1	8.4
IN 512	6/17/88	324ALGN	315	400	6.7	160	33	10	13	1	96	26	40	.1	9.7
IN 513	6/21/88	321GLNS	290	392	6.8	150	46	12	4.8	1	102	26	33	.1	14
IN 514	6/24/88	321GLNS	208	164	7.9	0	33	7.4	8.6	1	118	<10	4.0	.2	15
IN 515	6/24/88	321GLNS	115	204	7.0	63	18	5.4	1.3	.8	62	<10	3.0	.3	14

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 516	6/24/88	321GLNS	203	164	7.6	110	38	7.4	2.5	0.4	116	<10	2.0	8	10
IN 517	6/24/88	321GLNS	109	100	6.8	54	12	6.3	2.4	1	36	13	6.0	<.1	6.7
IN 518	7/01/88	321GLNS	151	268	6.6	85	20	8.8	.5	1	70	<10	7.0	.2	8.8
IN 519	6/30/88	321GLNS	147	0	6.7	81	25	4.1	1.0	.7	78	13	4.0	.2	8.5
IN 520	7/01/88	321GLNS	207	220	7.2	99	33	7.7	6	1	114	<10	3.0	.2	11
IN 521	6/30/88	321GLNS	211	160	7.0	120	46	8.8	1.8	.9	116	15	2.0	<.1	7.3
IN 522	7/01/88	324ALGN	538	0	7.0	300	120	23	2.2	2	108	180	34	.1	6.9
IN 523	7/01/88	324ALGN	246	192	7.8	150	44	7.7	2.1	1	120	29	4.0	.2	8.0
IN 524	6/30/88	321GLNS	169	0	7.0	80	16	9.1	4.5	1	26	17	26	<.1	8.0
IN 525	7/08/88	324ALGN	439	0	7.0	170	41	9.9	13	1	32	96	70	.1	9.1
IN 526	7/08/88	321GLNS	151	96	7.5	75	17	3.9	2.3	.9	68	15	8.0	.1	15
IN 527	7/07/88	321GLNS	328	0	7.6	160	37	8.7	5.4	1	120	20	26	<.1	11
IN 528	7/08/88	321GLNS	122	0	6.7	54	11	3.4	2.3	.7	26	21	7.0	<.1	15
IN 529	7/06/88	324ALGN	231	0	7.6	120	27	5.4	.5	.9	118	12	4.0	.6	8.0
IN 530	7/06/88	321GLNS	338	196	8.1	37	9.1	2.2	47	1	174	<10	11	.3	12
IN 531	7/07/88	324ALGN	506	0	8.0	220	75	17	15	2	124	110	34	.2	9.4
IN 532	7/12/88	321GLNS	388	328	7.1	160	54	14	21	1	148	30	37	.1	14
IN 533	7/12/88	321GLNS	211	0	7.1	100	34	8.4	6.9	1	124	12	3.0	.1	15
IN 535	7/13/88	321GLNS	355	280	7.6	57	18	4.3	61	1	154	23	31	.2	12
IN 536	7/13/88	321GLNS	243	220	7.3	110	31	7.0	12	1	138	18	4.0	.2	16
IN 537	7/13/88	321GLNS	256	208	7.8	120	39	9.6	13	.9	152	18	6.0	.1	16
IN 538	7/13/88	321GLNS	321	296	7.7	160	50	14	9.7	1	142	24	23	.1	20
IN 539	7/13/88	321GLNS	258	236	7.2	130	48	7.8	1.2	1	88	27	21	.2	11
IN 540	7/13/88	324ALGN	229	188	7.7	87	30	7.2	18	2	124	18	2.0	.3	9.1
IN 541	7/14/88	324ALGN	162	168	7.1	71	19	8.2	5.9	1	48	27	10	.2	15
IN 542	7/14/88	321GLNS	304	240	7.7	150	47	15	7.9	2	154	19	6.0	.2	16
IN 550	7/19/88	321GLNS	229	160	7.3	100	32	9.1	9.3	1	126	16	3.0	.2	14
IN 551	7/19/88	321GLNS	222	176	7.4	120	43	7.9	.8	.9	130	11	<1	<.1	7.0
IN 553	7/20/88	321GLNS	199	168	6.8	100	28	9.2	.5	1	96	20	4.0	.2	9.2
IN 554	7/20/88	324ALGN	299	232	7.4	160	49	13	6.1	1	166	23	3.0	.2	6.9
IN 555	7/20/88	321GLNS	213	168	7.0	110	32	8.8	5.3	1	110	11	4.0	.1	15
IN 559	7/28/88	321GLNS	665	548	7.5	150	47	12	75	1	164	41	110	.1	--
IN 562	8/17/88	324ALGN	376	420	6.7	240	71	14	3.0	1	114	140	8.0	.1	6.7
IN 563	8/17/88	321GLNS	155	176	6.6	89	25	6.9	3.9	1	84	<10	12	.1	8.5
IN 801	9/23/86	321GLNS	200	124	6.4	90	23	7.2	4.0	2	66	51	8.0	.3	13
IN 802	6/23/87	321GLNS	260	154	7.9	120	33	8.9	3.6	1	122	14	6.0	.3	10

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (µS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 803	10/02/86	321NNGL	1,840	0	6.3	1,100	250	94	52	3	94	1100	10	0.2	13
IN 805	3/09/87	321GLNS	25	102	6.2	18	1.8	2.0	.6	.1	12	<10	<1	<.1	8.1
IN 806	9/27/86	321GLNS	140	112	6.6	61	17	4.2	2.1	.1	46	<10	16	<.1	9.2
IN 807	3/09/87	321GLNS	225	164	6.7	90	27	5.3	2.2	.1	48	14	36	<.1	12
IN 808	3/09/87	321GLNS	185	180	5.5	46	11	4.6	13	.1	12	11	32	<.1	7.3
IN 809	3/09/87	321GLNS	120	102	5.4	33	7.6	3.4	5.8	.3	4	19	10	<.1	5.9
IN 810	3/16/87	321GLNS	288	178	6.7	110	37	6.2	6.2	.6	66	23	44	<.1	12
IN 811	3/16/87	321GLNS	220	128	6.5	69	21	4.4	14	.4	46	25	33	.1	12
IN 812	3/16/87	321GLNS	164	94	6.5	67	20	4.4	2.7	.3	52	19	18	<.1	12
IN 813	3/16/87	321GLNS	387	266	5.7	120	25	12	17	.6	6	19	120	<.1	11
IN 814	3/16/87	321GLNS	43	16	5.9	15	2.7	1.5	1.2	.1	8	19	4.0	<.1	7.9
IN 815	3/16/87	321GLNS	37	26	6.1	16	2.5	1.5	.8	.1	12	19	4.0	<.1	6.6
IN 816	3/16/87	321GLNS	65	74	6.3	24	5.5	2.3	.4	.1	28	21	2.0	<.1	8.9
IN 817	3/16/87	321GLNS	74	84	6.3	27	7.5	2.8	.8	.3	24	20	7.0	<.1	8.7
IN 818	3/17/87	321GLNS	223	122	7.0	100	32	7.0	1.0	.8	110	21	3.0	.2	9.5
IN 819	3/17/87	321GLNS	146	72	6.7	66	17	5.4	1.0	3	62	20	6.0	.2	1
IN 820	4/10/87	321GLNS	57	54	6.8	26	4.5	3.3	.6	.6	16	13	3.0	.3	11
IN 821	3/26/87	321GLNS	233	152	6.4	100	31	7.9	1.0	.9	96	19	5.0	.1	15
IN 822	5/06/87	321GLNS	1,290	812	4.2	210	35	27	150	3	0	48	340	.4	7.6
	6/23/87	321GLNS	1,320	758	3.9	230	46	25	140	2	0	85	330	.3	11
IN 823	3/26/87	321GLNS	590	414	6.2	170	54	15	30	1	54	100	72	.1	9.2
IN 824	3/26/87	321GLNS	66	54	6.1	30	4.3	2.2	1.4	.5	24	13	2.0	.3	11
IN 826	3/26/87	321GLNS	121	100	4.9	33	7.6	2.2	4.8	1	2	18	8.0	.2	8.8
IN 827	3/26/87	321GLNS	61	50	5.9	21	2.7	2.0	.4	.5	18	12	2.0	.1	10
IN 828	3/26/87	321GLNS	200	172	6.2	77	26	4.7	1.7	.5	52	12	27	.3	14
IN 829	3/26/87	321GLNS	61	64	6.1	26	5.6	3.0	.4	.6	24	12	1.0	.2	9.4
IN 830	3/27/87	321GLNS	211	116	5.5	63	13	7.1	6.5	3	10	35	9.0	.2	5.3
IN 832	3/27/87	321GLNS	67	76	6.1	26	7.9	1.9	.4	.6	22	22	3.0	.2	11
IN 833	4/09/87	321GLNS	0	0		0	--	--	1.2	1	--	20	--	--	8.5
	6/23/87	321GLNS	80	50	6.5	33	8.5	2.5	.8	5	32	13	3.0	<.1	9.2
IN 834	4/09/87	321GLNS	0	0		0	--	--	.9	.7	--	30	--	--	9.3
	7/14/87	321GLNS	130	140	6.4	54	13	5.6	.9	.6	26	36	7.0	.1	8.9
IN 835	4/09/87	321GLNS	0	0		0	--	--	.4	.5	--	19	--	--	8.2
	7/08/87	321GLNS	40	62	6.4	21	3.2	2.5	.4	.4	18	<10	3.0	.1	7.4
IN 836	4/09/87	324ALGN	0	0		0	--	--	2.5	1	--	21	--	--	7.8
	7/08/87	324ALGN	270	196	7.0	10	1.5	.6	61	.3	74	17	39	.1	10

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 837	4/09/87	324ALGN	0	0	--	0	--	--	37	2	--	19	--	--	8.0
IN 838	4/10/87	324ALGN	0	0	--	0	--	--	2.5	1	--	29	--	--	8.4
	7/08/87	324ALGN	280	238	7.3	140	38	10	2.3	1	126	41	4.0	0.1	8.0
	4/21/88	324ALGN	90	0	6.0	42	8.4	4.8	1.0	1	6	23	4.0	<.1	6.7
IN 839	4/10/87	321GLNS	0	0	--	0	--	--	48	.9	--	21	--	--	8.7
	7/08/87	321GLNS	270	204	7.9	44	14	3.1	47	.8	140	12	6.0	.5	8.6
IN 840	4/10/87	321GLNS	0	0	--	0	--	--	6.9	1	--	22	--	--	11
	7/14/87	321GLNS	275	196	7.6	120	33	9.8	6.5	1	114	21	14	.3	7.5
IN 841	4/13/87	321GLNS	0	0	--	0	--	--	.4	.4	--	22	--	--	8.4
	7/30/87	321GLNS	85	90	6.2	30	8.2	2.8	.5	.5	22	<10	6.0	.1	8.7
IN 842	4/13/87	324ALGN	0	0	--	0	--	--	.8	.8	--	22	--	--	9.3
	7/08/87	324ALGN	175	146	7.2	83	26	5.4	.8	.8	90	<10	2.0	.2	9.2
IN 843	6/03/87	324ALGN	125	232	6.4	57	13	6.0	.7	1	52	<10	8.0	<.1	8.9
IN 844	6/03/87	321GLNS	0	0	--	0	--	--	1.2	2	--	18	--	--	6.4
IN 845	6/03/87	321GLNS	232	198	6.5	97	24	8.5	5.6	1	76	10	21	<.1	8.3
IN 846	6/03/87	321GLNS	190	124	6.6	87	26	4.7	2.1	1	76	11	8.0	<.1	
IN 847	6/03/87	321GLNS	130	84	5.9	34	7.2	3.1	8.8	2	6	<10	15	<.1	6.2
IN 848	6/03/87	321GLNS	154	96	6.6	70	20	4.4	1.0	.7	66	<10	8.0	<.1	9.6
IN 849	6/03/87	321GLNS	261	202	6.9	130	35	12	.5	.8	130	20	2.0	<.1	8.3
IN 850	6/03/87	321GLNS	0	0	--	0	--	--	.4	1	--	25	--	--	7.1
	11/13/87	324ALGN	220	174	8.0	120	31	11	.6	1	112	20	4.0	<.1	7.0
IN 851	6/03/87	324ALGN	290	168	7.1	150	38	13	.4	1	140	24	2.0	<.1	6.6
	11/05/87	324ALGN	260	182	8.1	140	37	12	.6	1	130	18	3.0	<.1	7.1
IN 853	7/08/87	321GLNS	85	72	6.7	42	9.5	4.1	.3	.6	40	16	4.0	.4	8.3
IN 854	7/08/87	321GLNS	215	178	7.2	110	31	7.8	.9	.9	98	14	6.0	.2	8.3
IN 855	7/14/87	321GLNS	310	216	7.4	140	41	8.1	2.0	.9	90	24	33	.3	11
IN 856	8/18/87	321GLNS	315	184	7.3	140	41	11	4.4	2	202	56	9.0	.2	11
IN 857	7/14/87	321GLNS	280	212	7.6	140	44	8.8	1.0	1	134	19	5.0	.2	9.1
IN 858	7/14/87	321GLNS	100	100	6.7	50	10	5.6	.5	.6	38	14	6.0	.1	9.2
IN 859	8/17/87	321GLNS	315	206	7.8	79	22	7.3	82	2	152	38	2.0	.3	15
IN 860	8/18/87	321GLNS	595	416	6.8	260	66	22	8.8	1	106	210	9.0	.2	12
IN 861	8/18/87	321GLNS	700	496	7.1	340	95	22	6.1	1	154	120	4.0	.3	17
IN 863	9/02/87	321GLNS	165	90	6.4	70	18	4.8	3.5	.5	48	23	11	<.1	10
IN 864	9/07/87	324ALGN	448	360	7.6	230	65	18	20	3	180	85	15	.3	7.1
IN 865	10/29/87	321GLNS	320	198	6.7	100	31	6.2	18	.9	50	52	38	<.1	13
IN 866	10/29/87	321GLNS	365	242	7.5	170	55	9.0	4.9	1	136	46	12	.2	18

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (µS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 867	8/10/88	321GLNS	256	256	7.5	140	49	7.3	3.1	1	104	32	18	<0.1	9.0
IN 868	8/10/88	321GLNS	238	260	7.9	110	40	7.6	6.4	2	120	11	17	.2	8.7
IN 869	10/29/87	321GLNS	280	164	7.8	80	25	5.4	29	3	132	15	6.0	.4	11
IN 870	11/02/87	321GLNS	95	76	6.5	42	9.1	5.0	1.2	1	30	12	6.0	.3	14
IN 871	11/02/87	321GLNS	40	44	6.0	16	1.7	1.5	2.1	1	4	13	3.0	<.1	14
IN 872	11/02/87	321GLNS	375	228	7.6	170	51	12	7.6	1	132	58	8.0	.2	18
IN 873		324ALGN	315	242	7.5	170	43	9.6	.8	1	110	45	13	<.1	7.9
IN 874	11/05/87	321GLNS	215	152	7.6	110	34	6.3	2.8	1	96	22	6.0	.2	14
IN 875	11/05/87	321GLNS	630	402	9.5	19	6.9	3.3	140	2	238	<10	66	.1	9.8
IN 876	11/05/87	321GLNS	75	80	6.8	45	5.3	6.1	1.2	1	38	<10	4.0	.2	12
IN 877	11/12/87	321GLNS	2430	0	6.4	1,200	330	110	4.6	4	52	1,400	4.0	1	12
IN 878	11/12/87	324ALGN	260	0	6.5	94	21	8.2	7.5	3	28	82	20	<.1	8.9
IN 879	11/12/87	324ALGN	227	270	7.0	95	24	6.9	2.3	2	80	33	17	.1	9.0
IN 880	8/30/88	321GLNS	483	340	7.4	120	32	6.7	62	1	152	<10	88	.2	8.5
IN 881	4/21/88	321GLNS	165	164	7.0	68	21	5.4	11	1	94	16	3.0	.2	13
IN 882	4/21/88	321GLNS	115	76	5.7	50	11	6.3	3.1	3	6	26	8.0	<.1	7.1
IN 883	4/21/88	321GLNS	130	92	7.7	67	22	6.1	4.1	1	80	10	2.0	.2	11
IN 884	5/02/88	324ALGN	45	0	6.4	25	3.4	2.6	.7	1	18	<10	5.0	<.1	6.7
	6/16/88	324ALGN	55	0	6.3	22	4.7	2.0	.6	.4	24	<10	3.0	5	7.8
	7/28/88	324ALGN	55	88	6.3	41	5.2	2.4	.5	.6	24	<10	2.0	<.1	7.2
	8/30/88	324ALGN	45	48	6.4	13	4.7	2.3	.8	.4	24	<10	3.0	<.1	6.6
	9/21/88	324ALGN	48	36	6.3	23	5.2	2.3	.5	.4	22	<10	3.0	<.1	7.1
IN 885	5/02/88	324ALGN	50	48	6.4	23	5.0	2.0	.9	.7	14	12	4.0	<.1	8.4
IN 886	5/02/88	324ALGN	105	0	6.3	37	8.6	1.6	3.1	3	12	29	8.0	<.1	9.8
IN 887	8/03/88	321GLNS	257	208	7.4	120	38	11	3.9	2	142	<10	8.0	.3	6.8
IN 888	8/23/88	324ALGN	131	140	6.5	55	19	4.8	1.7	.9	50	20	10	.2	14
IN 889	8/23/88	324ALGN	293	272	6.8	140	39	11	.8	1	114	46	10	<.1	7.7
IN 890	8/23/88	324ALGN	322	0	6.9	160	49	16	.6	1	126	56	3.0	<.1	7.6
IN 892	8/23/88	321GLNS	183	0	5.8	51	12	6.2	11	2	4	28	38	<.1	7.0
IN 893	8/23/88	321GLNS	135	140	6.6	61	22	4.9	.7	1	66	21	2.0	.2	1
IN 894	8/23/88	321GLNS	126	136	6.6	61	17	6.4	.8	1	64	<10	2.0	.1	10
IN 895	8/23/88	321GLNS	226	180	7.1	110	30	8	3.3	2	126	<10	<1	.2	11
IN 896	9/07/88	321GLNS	311	280	7.6	180	68	3.0	1.3	.9	150	22	8.0	<.1	10
IN 897	9/07/88	321GLNS	141	0	7.1	69	19	4.4	3.5	3	58	19	4.0	<.1	19
IN 898	9/07/88	321GLNS	321	272	7.9	140	47	8.9	23	1	168	13	14	.2	14
IN 899	9/07/88	321GLNS	238	224	8.0	140	47	9.3	2.4	1	142	<10	4.0	.1	12

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (µS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN 900	9/07/88	321GLNS	120	0	6.9	61	19	4.3	2.4	1	42	22	4.0	<0.1	10
IN 901	9/07/88	321GLNS	86	0	6.8	37	11	3.0	4.0	.6	40	12	4.0	<.1	21
IN 902	9/07/88	321GLNS	231	248	7.9	120	41	7.6	7.9	1	144	15	3.0	<.1	13
IN 903	9/14/88	321GLNS	160	160	7.2	70	42	6.3	5.5	1	76	12	7.0	<.1	13
IN 904	9/14/88	324ALGN	447	0	6.6	250	65	21	1.2	2	38	220	2.0	.1	14
IN 905	9/14/88	324ALGN	267	240	7.1	140	42	8.5	1.3	1	80	42	19	<.1	6.7
IN 906	9/14/88	321GLNS	196	0	6.9	67	19	4.8	13	1	56	14	24	<.1	9.4
IN 907	9/14/88	324ALGN	301	268	6.0	71	16	5.9	24	2	12	13	82	<.1	4.5
IN 908	9/14/88	324ALGN	238	180	7.5	130	38	9.2	1.0	2	122	<10	8.0	.2	6.9
IN 909	9/14/88	324ALGN	194	0	6.3	64	15	6.5	11	1	12	24	38	<.1	6.4
IN 910	9/21/88	321GLNS	271	136	8.2	63	20	6.2	36	1	154	16	4.0	.3	13
IN SP101	8/28/86	321GLNS	200	0	5.9	81	19	7.7	5.2	3	14	18	19	.2	11
IN SP102	6/30/87	324ALGN	65	74	6.0	22	3.8	2.9	6.0	17	4	17	6.0	<.1	--
IN SP103	6/11/87	321GLNS	355	258	7.3	200	60	19	2.4	2	186	31	3.0	.1	8.5
IN SP104	6/23/88	321GLNS	154	156	6.7	74	23	6.1	2.8	1	46	27	4.0	<.1	8.4
IN SP150	7/17/86	321GLNS	251	194	7.0	110	37	7.1	1.8	1	90	21	5.0	.2	8.5
IN SP153	7/17/86	324ALGN	394	312	6.5	170	51	11	5.8	2	30	130	13	.2	6.8
IN SP154	7/10/86	324ALGN	1480	0	6.8	900	250	67	13	5	168	780	12	<.1	8.2
IN SP155	7/15/96	321GLNS	156	132	6.6	64	19	5.3	1.5	1	38	28	4.0	.2	11
IN SP156	7/29/86	321CSLN	322	238	6.7	160	49	.1	3.7	.5	128	29	6.0	.2	10
IN SP157	7/29/86	321CSLN	37	24	4.4	10	6.5	5.	3.3	.4	0	10	<1	.2	8.1
IN SP158	7/29/86	321CSLN	390	284	6.6	180	60	.1	3.6	.2	90	41	9.0	.2	10
IN SP159	7/29/86	321CSLN	402	256	6.9	200	56	7.	6.3	.8	182	28	4.0	.2	11
IN SP160	7/30/86	321GLNS	208	148	6.4	82	24	5.	2.8	1	60	19	8.0	.2	9.8
IN SP161	8/13/86	321GLNS	388	276	6.8	180	47	20	17	2	196	31	4.0	.2	9.2
IN SP162	6/03/87	321GLNS	0	0	--	0	--	--	8.0	2	--	23	--	--	7.0
IN SP163	6/10/87	321GLNS	125	90	6.3	61	18	5.1	1.4	1	44	29	3.0	<.1	9.8
IN SP164	6/10/87	321GLNS	250	160	6.7	88	24	10	37	1	120	48	6.0	.3	7.0
IN SP165	6/17/87	324ALGN	560	426	6.9	280	82	21	2.1	1	148	160	7.0	.2	1.3
IN SP166	6/26/87	321GLNS	170	114	6.9	77	18	5.8	2.0	.6	56	28	4.0	<.1	9.5
IN SP167	6/24/87	321GLNS	60	58	6.3	22	4.5	1.9	2.1	.1	10	21	2.0	<.1	13
IN SP168	6/30/87	321GLNS	50	34	6.2	16	3.1	2.0	1.0	.7	4	10	5.0	<.1	7.2
IN SP169	6/30/87	321GLNS	230	168	6.8	83	20	9.1	7.9	1	40	27	26	<.1	8.3
IN SP170	7/07/87	321GLNS	105	96	7.2	43	13	3.3	2.6	.9	30	22	6.0	<.1	11
IN SP171	7/07/87	321GLNS	145	134	6.4	44	13	2.9	6.9	2	8	39	15	<.1	5.3
IN SP172	7/14/87	321GLNS	230	194	7.0	100	30	6.3	1.5	2	74	33	6.0	<.1	7.6

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN SP173	7/15/87	321GLNS	35	66	5.7	15	2.1	1.2	0.5	0.8	4	19	3.0	<0.1	6.9
IN SP174	7/15/87	321GLNS	135	136	6.1	51	11	5.5	7.0	1	20	31	11	<.1	9.0
IN SP175	8/06/87	324ALGN	75	92	6.1	27	6.3	3.0	.9	.8	14	18	3.0	<.1	7.6
IN SP176	7/12/88	321GLNS	446	0	6.2	200	61	17	8.6	2	28	70	85	<.1	9.7
IN SP177	7/14/88	321CSLN	247	0	7.2	120	43	6.1	2.5	.8	112	29	6.0	.1	10
IN SP178	7/21/88	321GLNS	123	0	6.1	51	14	5.4	2.3	1	18	22	5.0	<.1	8.4
IN SP179	7/21/88	321GLNS	88	0	6.4	37	14	1.8	1.6	2	28	17	4.0	<.1	8.7
IN SP226	11/12/87	324ALGN	514	474	4.8	210	45	26	1.7	2	2	240	6.0	.4	15
IN SP250	10/02/86	321NNGL	580	372	7.4	390	92	31	4.1	2	240	73	18	<.1	12
IN SP251	10/02/86	321NNGL	455	324	6.9	300	66	18	2	1	168	65	4.0	<.1	11
IN SP252	3/09/87	321GLNS	35	46	6.3	14	2.5	1.3	.7	.1	6	17	2.0	<.1	5.3
IN SP253	3/16/87	321GLNS	69	44	5.6	28	5.5	2.4	.7	1	4	22	5.0	<.1	4.1
IN SP254	3/17/87	321GLNS	185	122	6.0	72	1	8.0	1.6	3	12	30	9.0	<.1	6.2
IN SP255	9/02/87	321GLNS	100	50	5.8	34	7.8	3.8	2.3	.9	12	26	4.0	<.1	9.5
IN SP256	9/02/87	321GLNS	355	232	6.8	160	52	9.7	4.2	1	152	37	6.0	<.1	9.4
IN SP257	9/02/87	321GLNS	235	130	6.6	110	36	4.7	.9	.7	94	29	3.0	.1	7.7
IN SP258	9/02/87	321GLNS	215	144	6.5	94	23	7.4	3.7	1	66	36	7.0	<.1	12
IN SP259	9/02/87	321CSLN	85	60	6.0	30	6.7	2.9	3.0	.9	12	22	4.0	<.1	13
IN SP260	9/02/87	321GLNS	105	50	6.1	41	10	3.6	2.0	.8	24	23	4.0	<.1	6.7
IN SP261	9/02/87	321GLNS	420	240	7.2	130	32	13	39	1	208	27	4.0	.3	10
IN SP262	9/02/87	321CSLN	120	62	6.0	45	7.8	5.2	3.2	2	12	24	6.0	<.1	12
IN SP263	9/03/87	321GLNS	200	146	5.7	75	13	9.0	3	2	4	13	10	<.1	7.8
IN SP264	9/13/87	321GLNS	200	122	6.3	75	17	8.1	6.3	1	36	14	16	<.1	12
IN SP265	9/03/87	321GLNS	315	158	7.3	110	31	8.5	22	1	150	<10	4.0	.3	8.4
IN SP266	9/03/87	321GLNS	250	138	6.8	120	28	9.6	5.2	1	98	<10	8.0	<.1	11
IN SP267	9/03/87	321GLNS	90	50	6.4	33	7.0	3.6	3.1	1	20	<10	3.0	<.1	8.9
IN SP268	9/03/87	324ALGN	370	280	5.6	170	33	19	1.3	2	4	180	3.0	.1	13
IN SP269	9/03/87	321GLNS	215	106	6.1	53	11	5.7	16	3	16	15	31	<.1	9.7
IN SP270	9/03/87	324ALGN	465	300	6.7	200	52	17	4.5	4	72	140	11	<.1	8.1
IN SP271	9/03/87	324ALGN	290	0	6.3	120	29	10	2.6	2	16	83	7.0	<.1	9.2
IN SP272	9/03/87	321GLNS	230	138	6.8	97	24	9.6	3.2	1	54	<10	14	<.1	13
IN SP273	9/03/87	321GLNS	155	116	6.3	59	13	6.1	2.4	2	22	<10	8.0	<.1	15
IN SP274	9/09/87	321GLNS	230	264	5.2	76	12	11	6.1	2	2	32	32	<.1	8.9
IN SP275	9/09/87	321GLNS	115	0	6.6	37	9.3	4.0	4.0	1	16	28	6.0	<.1	12
IN SP276	9/09/87	321GLNS	225	226	6.5	66	14	7.5	12	1	14	12	49	<.1	9.1
IN SP277	9/09/87	321GLNS	105	126	6.4	40	8.9	4.7	1.6	2	16	25	4.0	<.1	7.9

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN SP278	9/09/87	321GLNS	450	312	8.8	11	5.1	1.2	100	0.8	188	<10	36	0.6	10
IN SP279	9/09/87	321GLNS	80	104	6.7	30	6.0	3.7	1.0	1	10	21	4.0	<.1	8.3
IN SP280	9/09/87	324ALGN	245	178	7.6	120	40	5.0	.6	.9	104	27	3.0	<.1	8.8
IN SP281	9/09/87	321GLNS	45	0	5.7	17	2.1	2.1	.7	1	2	<10	3.0	<.1	7.9
IN SP282	9/09/87	321GLNS	95	98	6.4	34	7.2	5.0	.8	.9	8	21	4.0	<.1	7.9
IN SP283	9/09/87	324ALGN	110	112	6.9	44	13	3.7	.9	1	16	33	3.0	<.1	9.5
IN SP284	9/09/87	321GLNS	310	216	6.2	47	13	3.9	36	3	8	49	<53	<.1	9.1
IN SP285	9/10/87	321GLNS	255	0	7.4	110	28	9.8	3.4	1	62	57	11	<.1	8.5
IN SP286	9/10/87	321GLNS	335	228	7.8	160	51	7.0	3.8	2	140	34	3.0	<.1	10
IN SP287	9/16/87	321GLNS	130	124	6.7	50	9.8	6.6	1.2	2	14	29	4.0	<.1	8.3
IN SP288	9/16/87	321GLNS	65	66	6.2	23	4.3	3.2	1.1	1	8	<10	4.0	<.1	8.3
IN SP289	9/16/87	321GLNS	345	244	8.0	170	42	15	6.0	2	166	24	11	.1	10
IN SP290	9/16/87	321GLNS	85	90	5.6	38	6.1	4.0	1.0	2	4	18	5.0	<.1	6.5
IN SP291	9/16/87	321GLNS	60	84	6.3	19	4.3	2.7	1.3	1	6	24	3.0	<.1	9.1
IN SP292	9/16/87	321GLNS	790	678	6.4	410	80	51	6.9	4	66	380	4.0	.2	8.8
IN SP293	9/16/87	321GLNS	75	76	7.2	29	6.6	3.7	1.1	1	18	30	3.0	<.1	9.0
IN SP295	9/17/87	321GLNS	310	196	7.6	91	23	9.3	29	1	110	90	5.0	.3	7.8
IN SP296	9/17/87	324ALGN	80	80	7.0	31	8.7	2.8	.5	1	18	14	2.0	<.1	7.7
IN SP297	10/29/87	321GLNS	125	104	6.3	35	7.7	3.5	8.7	.9	10	24	18	<.1	6.8
IN SP298	9/21/87	321GLNS	60	30	5.4	25	4.1	2.4	.6	2	2	11	4.0	<.1	6.1
IN SP299	9/21/87	321GLNS	45	24	6.3	17	3.5	1.8	1.2	1	2	13	4.0	<.1	6.4
IN SP300	9/21/87	324ALGN	310	220	7.5	140	43	6.6	1.9	1	88	24	11	<.1	7.1
IN SP301	9/21/87	324ALGN	310	186	7.8	150	48	4.8	.8	.9	120	23	6.0	<.1	7.0
IN SP302	9/21/87	321GLNS	220	126	6.3	34	7.1	3.0	25	1	10	24	42	<.1	7.0
IN SP303	9/21/87	321GLNS	55	40	4.5	15	2.7	.9	1.8	.9	0	11	5.0	<.1	6.5
IN SP304	9/22/87	321GLNS	80	42	6.4	28	5.8	3.4	2.2	1	10	16	9.0	<.1	9.1
IN SP305	9/22/87	321GLNS	80	0	6.4	28	5.4	4.0	1.4	1	8	17	5.0	<.1	8.2
IN SP306	9/22/87	321GLNS	100	94	6.7	35	8.7	3.9	2.4	1	20	19	5.0	<.1	9.2
IN SP307	9/23/87	321GLNS	315	184	7.9	150	40	13	3.6	1	126	35	4.0	.1	8.9
IN SP308	9/23/87	321GLNS	110	70	6.9	45	10	5.1	1.9	1	24	24	2.0	<.1	9.3
IN SP309	9/23/87	321GLNS	105	48	6.6	39	7.5	5.0	2.9	.9	14	30	3.0	<.1	17
IN SP310	9/23/87	321CSLN	205	158	6.5	80	20	7.7	2.7	2	22	16	8.0	<.1	8.9
IN SP311	9/23/87	324ALGN	195	138	7.2	84	26	5.9	2.1	1	62	22	8.0	<.1	9.8
IN SP312	9/23/87	321GLNS	195	118	7.1	81	22	7.8	3.6	1	44	25	15	<.1	9.9
IN SP313	9/23/87	321GLNS	55	32	6.7	21	4.7	2.7	1.3	.6	12	11	2.0	<.1	9.8
IN SP314	10/05/87	321GLNS	55	0	6.2	20	3.7	2.0	1.5	1	8	16	4.0	<.1	6.1

Table 11.--Water-quality analyses of wells and springs (major consitiuents)--Continued

County well or spring number	Date of sample	Geologic unit	Specific conductance (μS/cm)	Dissolved solids (residue at 105 °C)	pH (units)	Hardness ($CaCO_3$)	Calcium (Ca)	Magnesium (Mg)	Sodium (Na)	Potassium (K)	Alkalinity ($CaCO_3$)	Sulfate (SO_4)	Chloride (Cl)	Fluoride (F)	Silica (SiO_2)
IN SP315	10/05/87	321GLNS	50	0	6.3	20	4.3	2.4	3.5	1	12	17	3.0	<0.1	6.8
IN SP316	10/06/87	321GLNS	420	272	7.9	190	58	12	8.6	1	172	36	13	.3	8.0
IN SP317	1/25/87	321CSLN	480	364	7.5	210	45	20	7.6	1	160	47	32	.2	11
	10/09/87	321CSLN	475	378	7.7	210	61	19	7.9	1	160	28	29	.3	9.7
IN SP318	10/09/87	321NNGL	670	464	7.8	340	87	34	6.1	2	268	83	16	.3	13
IN SP319	10/09/87	321NNGL	630	428	8.0	330	79	34	3.8	1	266	88	4.0	.3	12
IN SP320	10/26/87	324ALGN	500	366	6.7	260	49	25	1.6	3	46	210	4.0	.1	7.6
IN SP321	10/26/87	324ALGN	60	74	6.4	26	4.4	2.5	.4	1	6	28	2.0	<.1	7.2
IN SP322	10/26/87	324ALGN	90	82	5.9	33	6.1	3.7	1.0	1	12	25	6.0	<.1	6.2
IN SP325	10/26/87	321CSLN	265	226	7.3	110	32	4.3	4.5	6	98	45	4.0	<.1	16
IN SP326	10/26/87	321GLNS	130	122	6.3	45	9.3	5.0	7.2	1	24	31	8.0	<.1	9.2
IN SP328	10/26/87	321GLNS	285	188	6.6	78	22	5.1	22	4	48	45	35	<.1	10
IN SP329	10/26/87	321GLNS	455	292	6.8	130	40	8.9	34	2	96	43	66	<.1	8.6
IN SP330	10/27/87	321GLNS	170	130	6.9	76	23	4.0	1.6	1	60	34	4.0	<.1	13
IN SP331	11/03/87	321GLNS	170	124	6.5	38	8.5	4.1	18	2	16	28	23	<.1	4.9
IN SP332	11/03/87	321GLNS	210	156	6.8	96	30	5.1	1.7	1	64	33	4.0	<.1	9.3
IN SP333	11/03/87	321CSLN	385	220	7.8	170	57	13	12	1	178	26	2.0	.2	8.9
IN SP334	11/12/87	324ALGN	514	474	4.8	210	45	26	1.7	2	2	240	6.0	.4	15
IN SP335	4/21/88	321GLNS	105	80	7.4	55	15	4.6	1.8	.8	42	22	3.0	<.1	12
IN SP336	4/22/88	321GLNS	45	32	6.1	23	3.7	2.9	1.0	.8	6	12	2.0	<.1	8.5
IN SP337	4/22/88	321GLNS	55	44	6.7	21	4.3	3.4	1.2	.8	6	13	3.0	<.1	9.0
IN SP338	4/22/88	321GLNS	45	28	6.6	17	3.4	3.1	1.2	.7	6	12	3.0	<.1	8.8
IN SP340	5/02/88	324ALGN	195	0	6.1	53	12	5	17	2	8	20	53	<.1	6.0
IN SP340	6/23/88	324ALGN	137	0	5.8	49	8.7	3.6	11	3	8	32	29	<.1	4.9
	7/28/88	324ALGN	161	132	6.3	54	8.0	3.7	10	2	12	24	32	<.1	4.9
	9/21/88	324ALGN	160	84	6.2	43	9.3	4.1	17	2	14	18	31	<.1	3.4
IN SP341	8/03/88	321GLNS	175	0	6.4	72	17	6.6	4.6	2	22	14	25	<.1	11

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)

[Quantities are in micrograms per liter except where otherwise indicated; mg/L, milligrams per liter; changes in detection limits for the same constituent represented by less than symbols were the result of different types of laboratory equipment used; <, less than; --, no data]

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN 106	6/18/86	321GLNS	4.00	<135	<4	0	<0	<4	<25	<10	50	<4	<10	<1	<25	<6	<120	<1	70	0
107	6/18/86	321GLNS	0	<135	<4	150	0	<4	<25	<10	220	<4	70	<1	<25	<6	130	<1	50	0
109	6/18/86	321GLNS	.40	<135	<4	330	0	<4	<25	40	330	23	<10	<1	<25	<6	1,200	<1	270	0
110	6/18/86	321CSLM	.62	<135	<4	0	0	<4	<25	<10	230	7	<10	<1	<25	<6	130	<1	650	0
111	6/17/86	321GLNS	.23	<135	<4	<4	0	<4	<25	<10	40	<4	<10	<1	<25	<6	<100	<1	10	0
112	6/17/86	321GLNS	.23	<135	<4	240	0	<4	<25	<10	1,800	<4	240	<1	<25	<6	380	<1	50	0
120	7/10/86	321GLNS	0	<135	<4	<500	0	<50	<25	<10	330	<4	<50	<1	<25	<6	120	<1	20	0
123	8/28/86	321GLNS	1.70	<135	<4	<500	<0	<50	<25	<10	440	5	60	<1	<25	<6	460	<1	60	0
125	6/10/87	324ALGN	0	<135	<4	0	0	<50	<25	10	1,100	7	110	<1	<25	<6	940	<1	30	0
126	6/10/86	321GLNS	.36	<135	<4	<1	0	<50	<25	<10	890	<4	130	<1	<25	<6	800	<1	<10	0
127	6/10/87	321CSLM	2.9	<135	<4	<5	110	<50	<25	50	1,600	20	170	<1	49	<6	<100	<1	8,300	6
129	6/11/87	321GLNS	0	<135	<4	<1	1	<50	<25	<10	2,200	<4	850	<1	<25	<6	520	<1	110	0
131	6/11/87	321GLNS	.14	<135	<4	<1	<0	<50	<25	10	110	<4	<50	<1	36	<6	310	<1	<10	0
133	6/17/87	321GLNS	.10	<135	<4	<1	0	<50	<25	<10	370	12	100	<1	<25	<6	410	<1	500	0
135	6/11/87	321GLNS	1.60	200	<4	<1	0	<50	<25	90	290	6	<50	<1	380	<6	240	<1	140	0
137	6/17/87	321GLNS	.18	<135	<4	0	0	<50	<25	<10	180	7	<50	<1	<25	<6	2,100	<1	20	0
140	6/17/87	321GLNS	1.29	<135	<4	<1	<0	<50	<25	<10	<100	5	<50	<1	<25	<6	820	<1	<10	0
142	6/18/87	324ALGN	0	<135	<4	0	<0	<50	<25	<10	650	4	90	<1	<25	<6	800	<1	10	0
144	6/23/87	321GLNS	2.40	<135	<4	<1	0	<50	<25	50	100	5	<50	<1	70	<6	380	<1	90	0
145	6/23/87	321GLNS	.18	<135	<4	<1	1	<50	<25	10	<100	<4	80	<1	50	<6	1,600	<1	30	0
146	6/23/87	321GLNS	.10	<135	<4	<1	<0	<50	<25	10	<100	<4	<50	<1	35	<6	1,500	<1	20	0
152	6/30/87	324ALGN	<2	<135	<4	--	--	--	--	--	1,700	--	340	<1	--	--	--	<1	--	0
202	10/08/87	321CSLM	3.09	<135	<4	<500	<0	<50	<25	10	360	<4	<50	<1	<25	<6	500	<1	<10	0
205	10/08/87	324ALGN	0	<135	<4	<500	0	<50	<25	20	450	<4	110	<1	<25	<6	230	<1	10	0
208	10/08/87	321CSLM	0	<135	<4	<500	<0	<50	<25	<10	540	<4	170	<1	<25	<6	550	<1	60	0
211	6/10/88	324ALGN	0	<135	<4	<500	0	<50	<25	<10	1,300	<4	280	<1	<25	<6	150	<1	30	0
214	6/24/88	324ALGN	9.00	300	<4	<500	1	<50	0	20	1,700	<4	590	<1	<25	<6	1,700	<1	70	0
216	6/22/88	321GLNS	0	300	15	<500	1	50	50	800	35,100	<4	540	<1	140	<30	4,400	<1	170	0
217	7/15/88	324ALGN	2.90	200	<5	<500	<0	<50	<25	50	600	<4	70	<1	70	<7	<100	<1	130	0
222	9/01/88	321GLNS	.10	200	<4	2,000	0	<50	<25	700	770	140	260	<1	29	<6	600	<1	40	0
223	9/21/88	321GLNS	0	200	<4	<500	0	<50	<25	10	140	<4	<50	<1	<25	<6	<100	<1	20	0
224	7/27/88	324ALGN	0	300	<4	<500	0	<50	<25	10	790	5	90	<1	<25	<6	350	<1	170	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-227	7/27/88	324ALGN	0	100	<4	<500	<0	<50	<25	20	300	<4	70	<1	<25	<6	650	<1	10	0
228	7/27/88	324ALGN	0	200	<4	<500	<0	<50	<25	20	350	5	3,500	<1	<25	<6	260	<1	60	0
229	7/28/88	324ALGN	0	200	<4	<500	<0	<50	<25	700	1,400	4	190	<1	<25	<6	540	<1	660	0
230	12/17/86	321GLNS	0	<135	<4	520	<0	<50	<25	400	260	6	120	<1	<25	<6	740	<1	130	0
231	12/17/86	321GLNS	0	<135	<4	540	<0	<50	<25	<10	260	4	90	<1	<25	<6	810	<1	<10	0
232	12/16/86	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	350	<4	100	<1	25	<6	660	<1	<10	0
233	12/17/86	321GLNS	0	400	<4	<500	<0	<50	<25	<10	750	6	110	<1	<25	<6	870	<1	20	0
	9/19/88	321GLNS	0	<135	<4	<500	0	<50	<25	10	210	<4	70	<1	28	<6	700	<1	10	0
	9/20/88	321GLNS	0	100	<4	<500	0	<50	<25	10	100	<4	90	<1	42	<6	640	<1	30	0
234	6/24/87	321GLNS	0	<135	<4	<500	0	<50	<25	<10	360	5	90	<1	46	<6	690	<1	60	0
320	7/16/86	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	3,200	5	630	<1	<25	<6	400	<1	20	0
322	7/16/86	321GLNS	7.00	<135	<4	<500	<0	<50	<25	60	340	10	50	<1	<25	<6	300	<1	50	0
323	7/16/86	321GLNS	7.00	<135	<20	900	<0	<50	<25	<10	180	7	60	<1	<25	<6	1,100	<1	20	0
327	6/19/86	321GLNS	2.90	<135	<4	0	<0	10	<25	400	240	<4	<10	<1	<25	<6	<100	<1	30	14
329	6/17/86	321GLNS	2.90	<135	<4	0	<0	<4	<25	<10	270	<4	<10	<1	<25	<6	2,200	<1	50	0
330	6/17/86	321GLNS	.18	<135	<4	100	0	<4	<25	10	110	<4	<10	<1	<25	<6	520	<1	30	0
331	6/17/86	321GLNS	.5	200	<4	100	<0	<4	<25	700	2,400	140	13	<1	<25	<6	<100	<1	120	0
	8/06/86	321GLNS	2.90	<135	<4	<500	<0	<50	<25	60	1,100	89	460	<1	<25	<6	180	<1	50	0
337	6/18/86	321GLNS	0	<135	<4	170	<0	10	<25	<10	110	<4	<10	<1	<25	<6	170	<1	<10	0
339	6/18/86	321GLNS	.36	<135	<4	180	<0	20	<25	20	40	<4	<10	<1	<25	<6	330	<1	230	0
342	6/19/86	321GLNS	0	<135	<4	0	<0	10	<25	20	40	<4	23	<1	<25	<6	340	<1	10	0
343	6/19/86	321GLNS	.18	<135	<4	780	0	10	<25	30	80	<4	120	<1	25	<6	720	<1	30	0
344	6/25/86	321GLNS	5.00	<135	<4	<500	<0	<50	<25	<10	200	4	<50	<1	<25	<6	380	<1	<10	0
345	6/24/86	321GLNS	0	<135	<4	<500	0	<50	<25	<10	270	25	<50	<1	<25	<6	640	<1	<10	0
349	6/25/86	321GLNS	5.00	<135	<4	<500	<0	<50	<25	<10	3,300	18	780	<1	<25	<6	170	<1	170	0
351	6/25/86	324ALGN	.10	600	<4	<500	0	<50	<25	<10	160	6	<50	<1	<25	<6	480	<1	130	0
361	7/10/86	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	3,500	<4	300	<1	<25	<6	310	<1	20	0
362	7/15/86	321GLNS	5.0	<135	<4	<500	<0	<50	<25	10	2,400	<4	100	<1	<25	<7	<100	<1	10	0
363	7/15/86	321GLNS	1.8	<135	<20	<500	<0	<50	<25	<10	230	<4	<50	<1	<25	<6	210	<1	120	0
364	7/17/86	321GLNS	0	<135	<4	<620	0	<50	<25	<10	110	8	100	<1	<25	<6	800	<1	130	0
365	7/17/86	321GLNS	0	<135	<4	<500	0	<50	<25	<10	240	17	<50	<1	<25	<6	110	<1	20	0
366	7/17/86	321GLNS	0	<135	<4	680	0	<50	<25	400	260	22	<50	<1	28	<6	620	<1	110	0
367	7/29/86	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	3,900	<4	780	<1	<25	<6	220	<1	10	0
	8/05/86	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	1,500	5	750	<1	<25	<6	210	<1	<10	0
368	7/30/86	321GLNS	.20	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	1,000	<1	<10	0
375	7/31/86	321GLNS	2.90	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	720	<1	30	0
376	8/05/86	321GLNS	7.00	<135	<4	<500	<0	<50	<25	<10	240	8	<50	<1	<25	<6	250	<1	<10	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-377	8/06/86	321CSLM	0	<135	<4	<500	<0	<50	<25	<10	130	<4	<50	<1	<25	<6	320	<1	<10	0
380	8/06/86	321MNGL	.10	<135	<4	<500	0	<50	<25	<10	120	82	370	<1	<25	<6	760	<1	180	0
383	8/06/86	321GLNS	.23	<135	<4	<500	<0	<50	<25	<10	390	8	90	<1	<25	<6	800	<1	190	0
384	8/14/86	321GLNS	.33	<176	<4	<500	6	<50	<25	20	1,200	94	290	<1	26	<6	480	<1	4,100	0
386	8/12/86	321GLNS	.46	<135	<4	<500	<0	<50	<25	20	480	4	<50	<1	<25	<6	190	<1	250	0
387	8/13/86	321CSLM	.97	<135	<4	<500	0	<50	<25	<10	170	<4	<50	<1	<25	<6	650	<1	30	0
388	8/13/86	324ALGN	2.90	<135	<20	<500	<0	<50	<25	30	32,400	5	4,000	<1	45	<30	1,900	<1	70	10
389	8/14/86	321GLNS	9.00	347	<4	<500	<0	<50	<25	10	7,000	10	1,500	<1	26	<6	210	<1	30	0
	10/02/86	321GLNS	0	<135	<30	<500	<0	<50	<35	<10	9,200	<4	1,500	<1	<25	<6	310	<1	90	0
390	6/02/87	321GLNS	--	--	--	<1	6	<50	<25	10	--	13	--	<1	<25	<6	190	<1	50	--
391	6/02/87	321GLNS	--	--	--	<1	0	<50	<25	<10	--	5	--	<1	<25	<6	190	<1	<10	--
393	6/02/87	321GLNS	--	--	--	<1	0	<50	<25	<10	--	<5	--	<1	<25	<6	500	<1	80	--
396	6/03/87	321GLNS	--	--	--	<1	<0	<50	<25	<10	--	4	--	<1	<25	<6	300	<1	10	--
398	6/03/87	321GLNS	--	--	--	<1	0	<50	<25	20	--	5	--	<1	56	<6	310	<1	<10	--
399	6/04/87	324ALGN	--	--	--	<1	<0	<50	<25	400	--	16	--	<1	<25	<6	260	<1	70	--
400	6/04/87	324ALGN	--	--	--	<1	<0	<50	<25	<10	--	<5	--	<1	<25	<6	530	<1	530	--
403	6/09/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	1,700	<4	400	<1	<25	<6	100	<1	<10	0
404	6/10/87	321GLNS	.15	<135	<4	<1	0	<50	<25	<10	310	<4	50	<1	0	<6	550	<1	<10	0
405	6/11/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	2,200	<4	590	<1	<25	<6	470	<1	<10	0
406	6/11/87	321GLNS	1.29	<135	<4	<1	<0	<50	<25	40	180	<4	<50	<1	<25	<6	1,000	<1	<10	0
407	6/11/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	330	<4	90	<1	<25	<6	880	<1	<10	0
408	6/16/87	321GLNS	.11	<135	<4	<1	0	<50	<25	10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
409	6/16/87	321CSLM	1.39	<135	<4	<1	<0	<50	<25	50	<100	6	<50	<1	<25	<6	140	<1	<10	0
410	6/17/87	321GLNS	5.00	<135	<4	<1	2	<50	<25	<10	360	13	90	<1	<25	<6	540	<1	<10	0
411	6/17/87	321GLNS	.31	<135	9	<1	<0	<50	<25	<10	<100	4	<50	<1	<25	<6	670	<1	<10	0
413	6/17/87	324ALGN	.50	<135	<4	<1	0	<50	<25	10	100	<4	<50	<1	<25	<6	530	<1	10	0
414	6/17/87	321CSLM	0	<135	<4	<1	<0	<50	<25	<10	470	<4	230	<1	<25	<6	480	<1	<10	0
415	6/17/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	920	<4	250	<1	<25	<6	370	<1	<10	0
418	6/23/87	321GLNS	.10	<135	<4	<1	<0	<50	<25	400	1,600	50	130	<1	<25	<6	310	<1	340	0
419	6/23/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	140	<4	<50	<1	<25	<6	660	<1	<10	0
420	6/23/87	321GLNS	0	<135	<4	0	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	1,900	<1	<10	0
423	6/24/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	460	<4	440	<1	<25	<6	410	<1	20	0
424	6/25/87	321GLNS	0	<135	<4	<1	<0	<50	<25	50	100	<4	540	<1	<25	<6	850	<1	20	0
426	6/25/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	1,700	<4	310	<1	<25	<6	180	<1	<10	0
427	6/29/87	324ALGN	.40	<135	<4	<500	<0	<50	<25	<10	820	<4	70	<1	<25	<6	2,400	<1	10	0
428	6/29/87	324ALGN	.20	<135	<4	<500	<0	<50	<25	<10	270	<4	50	<1	<25	<6	370	<1	<10	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydro-geologic unit	Nitrate NO_3 as N (mg/L)	Alumi-num (Al)	Arsenic (As)	Barium (Ba)	Cad-mium (Ca)	Chro-mium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manga-nese (Mn)	Mer-cury (Hg)	Nickel (Ni)	Sele-nium (Se)	Stron-tium (Sr)	Sul-fide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-429	6/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	5,200	7	680	<1	<25	<6	<100	<1	2,600	0
430	6/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	4,400	<4	180	<1	<25	<6	<100	<1	330	0
431	6/29/87	321GLNS	.10	<135	<4	<500	0	<50	<25	60	1,300	28	70	<1	35	<6	<100	<1	180	0
432	6/30/87	321GLNS	5.00	200	<4	<500	<0	<50	<25	30	4,800	<4	100	<1	<25	<6	<100	<1	20	0
433	6/30/87	321GLNS	2.90	<135	<4	<500	<0	<50	<25	40	4,100	<4	120	<1	<25	<6	<100	<1	<10	0
434	6/30/87	321GLNS	.14	<135	<4	<500	<0	<50	<25	<10	170	<4	<50	<1	<25	<6	490	<1	60	0
435	6/30/87	321GLNS	.31	<135	<4	<500	<0	<50	<25	400	170	<4	60	<1	<25	<6	<100	<1	10	0
436	6/30/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	2,600	<4	560	<1	<25	<6	160	<1	<10	0
437	6/30/87	321GLNS	.10	<135	<4	<500	<0	<50	<25	20	270	<4	<50	<1	<25	<6	<100	<1	<10	0
438	6/30/87	321GLNS	.10	<135	<4	<500	<0	<50	<25	<10	240	<4	<50	<1	<25	<6	100	<1	<233	0
439	6/30/87	321GLNS	.10	<135	<4	<500	<0	<50	<25	<10	520	<4	50	<1	<25	<6	<100	<1	610	0
440	7/07/87	324ALGN	0	<135	<4	<500	0	<50	<25	<10	890	<4	130	<1	<25	<6	200	<1	<10	0
441	7/07/87	321GLNS	0	<135	<4	<500	0	<50	<25	<10	1,300	<4	80	<1	<25	<6	<100	<1	20	0
442	7/07/87	321GLNS	.20	<135	<4	<500	<0	<50	<25	<10	4,100	<4	830	<1	<25	<6	<100	<1	10	0
443	7/07/87	321GLNS	0	<135	<4	960	0	<50	<25	30	<100	<4	<50	<1	<25	<6	380	<1	<10	0
444	7/08/87	321GLNS	0	<135	<4	<500	<0	<50	<25	50	2,800	38	160	<1	<25	<6	<100	<1	20	0
445	7/14/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	4,700	5	1,700	<1	<25	<6	<100	<1	20	0
447	7/14/87	321GLNS	.18	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	770	<1	260	0
448	7/15/87	321GLNS	5.00	<135	<4	<500	0	<50	<25	<10	200	10	70	<1	29	<6	320	<1	20	0
449	7/15/87	324ALGN	.20	<135	<4	<500	0	<50	<25	<10	3,500	<4	510	<1	<25	<6	640	<1	<10	0
450	7/15/87	324ALGN	0	<135	<4	<500	<0	<50	<25	<10	6,900	15	490	<1	<25	<6	450	<1	<10	0
451	7/21/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	1,100	<4	720	<1	<25	<6	890	<1	<10	0
452	7/21/87	321GLNS	2.90	<135	<4	760	<0	<50	<25	10	700	10	250	<1	<25	<6	430	<1	20	0
453	7/21/87	321GLNS	5.00	<135	<4	<500	<0	<50	<25	40	410	<4	<50	<1	<25	<6	200	<1	20	0
454	7/21/87	321GLNS	.56	<135	<4	<500	<0	<50	<25	20	<100	5	<50	<1	<25	<6	1,100	<1	<10	0
455	7/21/87	324ALGN	0	<135	4	<500	0	<50	<25	30	10,200	10	340	<1	<25	<6	310	<1	30	0
456	7/21/87	321GLNS	0	<135	<4	<500	<0	<50	<25	80	1,000	13	160	<1	<25	<6	250	<1	20	0
457	7/23/87	321GLNS	.88	<135	<4	<500	<0	<50	<25	20	120	<4	<50	<1	<25	<6	260	<1	20	0
458	7/28/87	324ALGN	.15	1100	<4	<500	0	<50	<25	20	140	<4	660	<1	73	<6	130	<1	170	16
459	7/28/87	324ALGN	.92	<135	<4	<500	<0	<50	<25	<10	690	<4	190	<1	25	<6	<100	<1	20	0
460	7/28/87	321GLNS	0	<135	<4	<500	<0	<50	<25	400	1,900	18	280	<1	35	<6	280	<1	60	0
461	7/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	1,900	<4	340	<1	<25	<6	150	<1	<10	0
462	7/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	4,600	<4	400	<1	<25	<6	110	<1	<10	0
463	7/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	40	18,600	14	2,200	<1	<25	<6	<100	<1	40	0
464	7/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	400	460	21	200	<1	<25	<6	<100	<1	20	0
465	7/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	40	2,200	23	330	<1	<25	<6	<100	<1	30	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-466	7/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	260	<4	50	<1	<25	<6	1,500	<1	10	0
467	7/29/87	321GLNS	.10	<135	<4	<500	0	<50	<25	20	310	<4	<50	<1	<25	<6	320	<1	10	0
468	7/29/87	321CSLM	.56	<135	<4	<500	0	<50	<25	50	670	10	1,900	<1	<25	<6	160	<1	490	0
469	7/29/87	321GLNS	1.60	<135	<4	<500	<1	<50	<25	40	110	<4	100	<1	<25	<6	140	<1	<10	0
470	7/29/87	321CSLM	3.70	<135	<4	<500	<1	<50	<25	400	160	5	50	<1	<25	<6	100	<1	20	0
471	7/29/87	321CSLM	0	<135	<4	<500	0	<50	<25	<10	3,200	7	1,200	<1	<25	<6	810	<1	<10	0
472	7/30/87	321GLNS	0	<135	<4	<500	<0	<50	<25	50	2,700	7	200	<1	<25	<6	460	<1	<10	0
473	7/30/87	321GLNS	.43	<135	<4	<500	<0	<50	<25	40	160	6	<50	<1	<25	<6	220	<1	10	0
474	7/30/87	324ALGN	0	<135	<4	<500	<0	<50	<25	70	11,400	10	420	<1	<25	<6	<100	<1	20	0
475	7/30/87	324ALGN	7.00	<135	<4	<500	<0	<50	<25	<10	150	<4	<50	<1	<25	<6	1,800	<1	<10	0
476	7/30/87	324ALGN	1.60	<135	<4	<500	<0	<50	<25	400	140	5	<50	<1	<25	<6	<100	<1	90	4
477	8/04/87	321GLNS	0	2,700	29	<500	<0	<50	<25	10	1,000	5	230	<1	<25	<6	410	<1	40	0
478	8/06/87	324ALGN	0	<135	<4	<500	0	<50	<25	40	1,500	<4	380	<1	<25	<6	220	<1	280	0
479	8/06/87	324ALGN	0	200	<4	<500	<0	<50	<25	<10	2,700	<4	230	<1	<25	<6	110	<1	<10	0
501	10/09/86	321GLNS	7.00	<135	6	<500	<0	<50	<25	<10	180	4	<50	<1	<25	<6	1,700	<1	<10	0
502	10/09/86	321GLNS	.91	200	<4	<500	2	<50	<25	10	350	9	<50	<1	<25	<6	1,200	<1	<10	0
503	4/10/87	324ALGN	--	--	--	<1	<0	<50	<25	<10	--	<4	--	<1	<25	<6	250	<1	<10	--
	11/12/87	324ALGN	0	<135	<4	<500	<0	<50	<25	<10	170	<4	150	<1	<25	<6	260	<1	10	0
504	4/10/87	324ALGN	--	--	--	<1	<0	<50	<25	400	--	5	--	<1	<25	<6	<100	<1	20	--
	11/12/87	324ALGN	.46	<135	<4	<500	<0	<50	<25	40	<100	<4	60	<1	<25	<6	140	<1	10	0
506	6/03/87	324ALGN	--	--	--	<1	1	<50	<25	<10	--	<5	--	<1	--	<6	170	<1	60	--
507	6/03/87	324ALGN	--	--	--	<1	0	<50	<25	<10	--	5	--	<1	<25	<6	510	<1	20	--
508	6/03/87	324ALGN	1.39	<135	<4	<1	0	<50	<25	<10	<100	7	150	<1	<25	<6	<100	<1	10	16
	5/02/88	324ALGN	.18	<135	<4	<500	0	<50	260	10	580	<4	5,000	<1	<25	<6	<100	<1	60	32
	5/02/88	324ALGN	.20	<135	<4	<500	0	<50	250	10	540	<4	4,800	<1	<25	<6	<100	<1	60	34
	6/16/88	324ALGN	.46	200	<4	<500	1	<50	150	<10	280	<4	2,400	<1	47	<6	<100	<1	70	24
	8/03/88	324ALGN	.87	<135	<10	<500	1	<50	84	20	160	<4	2,200	<1	<10	<6	<100	<1	90	12
508	8/03/88	324ALGN	.75	100	<4	<500	1	<50	89	<10	650	<4	2,400	<1	<25	<6	<100	<1	90	18
	8/30/88	324ALGN	.34	200	<4	<500	1	<50	67	10	400	<4	2,100	<1	40	<6	<100	<1	110	14
	9/21/88	324ALGN	2.29	200	<4	<500	1	<50	51	<10	620	<4	1,800	<1	<25	<6	<100	<1	80	12
510	6/17/88	321GLNS	9.00	100	<4	<500	<1	<50	<25	20	180	<4	170	<1	30	<6	630	<1	50	0
512	6/17/88	324ALGN	0	<135	<4	<500	<0	<50	<25	<10	8,900	<4	650	<1	<25	<6	260	<1	140	0
513	6/21/88	321GLNS	0	<135	<4	<500	<0	<50	<25	10	2,000	<4	190	<1	<25	<6	200	<1	70	0
514	6/24/88	321GLNS	0	<135	<4	550	<0	<50	<25	20	300	<4	60	<1	<25	<6	420	<1	30	0
515	6/24/88	321GLNS	0	<135	<4	<500	<0	<50	<25	20	800	<4	1,200	<1	<25	0	<100	<1	70	0
516	6/24/88	321GLNS	7.00	100	<4	<500	<0	<50	<25	<10	160	<4	130	<1	<25	<6	300	<1	130	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-517	6/24/88	321GLNS	0.37	<135	<4	<500	<0	<50	<25	30	250	<4	<50	<1	<25	<6	<100	<1	70	0
518	7/01/88	321GLNS	0	200	<4	<500	<0	<50	31	<10	<100	<10	510	<1	<25	<6	<100	<1	<10	0
519	6/30/88	321GLNS	0	200	<4	<500	<0	<50	31	20	3,200	4	480	<1	25	<6	<100	<1	30	0
520	7/01/88	321GLNS	0	90	<4	<500	<0	<50	<25	10	130	<4	60	<1	<25	<6	820	<1	<10	0
521	6/30/88	321GLNS	.46	200	<4	<500	<0	<50	27	20	120	<4	120	<1	28	<6	150	<1	20	0
522	7/01/88	324ALGN	0	<135	<4	<500	<0	<50	30	40	180	4	440	<1	33	<6	540	<1	50	0
523	7/01/88	324ALGN	2.90	100	<4	<500	<0	<50	30	600	7,100	25	300	<1	49	<6	290	<1	90	0
524	6/30/88	321GLNS	3	<135	<4	<500	<0	<50	30	50	650	7	<50	<1	<25	<6	<100	<1	110	0
525	7/08/88	324ALGN	5.00	100	<4	<500	<0	30	<25	60	4,300	9	200	<1	67	<6	210	<1	100	0
526	7/08/88	321GLNS	.10	<135	<4	<500	0	<50	<25	80	1,500	22	80	<1	85	<6	130	<1	20	0
527	7/07/88	321GLNS	0	<135	<4	<500	<0	<50	<25	20	1,100	<4	430	<1	54	<6	740	<1	20	0
528	7/08/88	321GLNS	2.90	100	<4	<500	<0	<50	<25	600	140	5	110	<1	80	<6	<100	<1	60	0
529	7/06/88	324ALGN	0	100	<4	<500	0	<50	35	10	12,300	6	570	<1	43	<6	140	<1	50	0
530	7/06/88	321GLNS	0	200	<4	<500	<0	<50	27	20	<100	<4	100	<1	73	<6	300	<1	<10	0
531	7/07/88	324ALGN	7.00	200	<4	<500	0	<50	<25	60	120	<4	<50	<1	43	<6	480	<1	80	0
532	7/12/88	321GLNS	.40	<135	<4	<500	<0	<50	26	400	470	30	<50	<1	61	<6	650	<1	50	0
533	7/12/88	321GLNS	.20	<135	<4	<500	<0	<50	<25	20	<100	5	<50	<1	<25	<6	690	<1	10	0
535	7/13/88	321GLNS	.14	200	<4	<500	<0	<50	<25	10	<100	<4	<50	<1	<25	<6	530	<1	<10	0
536	7/13/88	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	460	<4	80	<1	37	<6	520	<1	20	0
537	7/13/88	321GLNS	0	<135	<4	<500	<0	<50	<25	20	910	<4	180	<1	38	<6	390	<1	40	0
538	7/13/88	321GLNS	0	<135	<4	<500	<0	<50	<25	40	140	<4	<50	<1	<25	<6	500	<1	20	0
539	7/13/88	321GLNS	.10	<134	<4	<500	<0	<50	<25	60	280	5	<50	<1	27	<6	140	<1	50	0
540	7/13/88	324ALGN	.34	<135	<4	760	<0	<50	<25	20	240	5	<50	<1	<25	<6	820	<1	50	0
541	7/14/88	324ALGN	.10	<135	<40	<500	<0	<50	<25	<10	3,900	<10	<50	<1	<25	<7	110	<1	40	0
542	7/14/88	321GLNS	.14	<135	<5	<500	<0	<50	<25	80	200	<4	<50	<1	<25	<30	470	<1	40	0
550	7/19/88	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	380	<4	<50	<1	<25	<6	550	<1	170	0
551	7/19/88	321GLNS	0	<134	<4	<500	<0	<50	<25	30	420	<4	<50	<1	<25	<6	180	<1	130	0
553	7/20/88	321GLNS	0	<135	<4	<500	<0	<50	<25	30	1,100	5	260	<1	26	<6	<100	<1	<10	0
554	7/20/88	324ALGN	0	<135	<4	<500	<0	<50	<25	40	1,400	6	80	<1	35	<6	450	<1	60	0
555	7/20/88	321GLNS	0	<135	<4	<500	<0	<50	<25	10	310	5	160	<1	<25	<6	340	<1	350	0
559	7/28/88	321GLNS	0	200	<4	--	<0	20	34	20	--	<4	--	<1	39	<6	--	<1	20	0
562	8/17/88	324ALGN	0	<135	<4	<500	<0	<50	<25	<10	9,500	<4	1,100	<1	<25	<6	310	<1	20	0
563	8/17/88	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	1,800	<4	870	<1	<25	<6	130	<1	<10	0
801	9/23/86	321GLNS	.5	<135	<4	<500	1	<50	<25	<10	2,400	12	770	<1	<25	<6	180	<1	<10	0
802	6/23/87	321GLNS	0	<135	<4	<500	1	<50	<25	<10	200	<4	70	<1	41	<6	490	<1	40	0
803	10/02/86	321MNGL	0	<135	<20	<500	0	<50	48	20	18,100	<4	6,400	<1	240	<50	5,300	<1	260	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-805	3/09/87	321GLNS	0.10	<135	<4	<500	0	<50	<25	<10	2,800	<4	350	<1	<25	<6	<100	<1	10	12
806	9/27/86	321GLNS	0	<135	<4	<500	<0	<50	<25	30	7,600	<4	770	<1	<25	<6	<100	<1	<10	0
807	3/09/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	2,700	<4	290	<1	<25	<6	240	<1	20	0
808	3/09/87	321GLNS	4.80	<135	<4	<500	0	<50	<25	400	220	<4	50	<1	26	<6	<100	<1	80	18
809	3/09/87	321GLNS	4	<135	<4	<500	0	<50	<25	400	<100	15	130	<1	<25	<6	<100	<1	100	20
810	3/16/87	321GLNS	2.90	<135	<4	<500	<0	<50	<25	<10	3,000	<4	190	<1	<25	<6	200	<1	<10	0
811	3/16/87	321GLNS	.14	<135	<4	<500	<0	<50	<25	<10	2,500	<4	450	<1	<25	<6	<100	<1	20	0
812	3/16/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	3,900	<4	330	<1	<25	<6	130	<1	1,400	0
813	3/16/87	321GLNS	2.90	<135	<4	520	0	<50	<25	40	10,300	<4	2,000	<1	<25	<6	<100	<1	50	12
814	3/16/87	321GLNS	.75	<135	<4	<500	<0	<50	<25	80	390	<4	50	<1	25	<6	<100	<1	50	2
815	3/16/87	321GLNS	.18	<135	<4	<500	<0	<50	<25	50	<100	5	680	<1	32	<6	<100	<1	20	0
816	3/16/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	8,200	4	440	<1	<25	<6	<100	<1	20	0
817	3/16/87	321GLNS	0	<135	<4	<400	<0	<50	<25	<10	8,700	<4	820	<1	54	<6	<100	<1	30	0
818	3/17/87	321GLNS	2.90	<135	<4	<500	<0	<50	<25	<10	200	<4	200	<1	<25	<6	150	<1	<10	0
819	3/17/87	321GLNS	7.00	<135	<4	<500	<0	<50	<25	<10	<100	<4	190	<1	<25	<6	<100	<1	<10	0
820	4/10/87	321GLNS	0	400	<4	<500	<0	<50	<25	<10	330	<4	440	<1	<25	<6	150	<1	10	0
821	3/26/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	1,700	<4	110	<1	<25	<6	120	<1	<10	0
822	5/06/87	321GLNS	9.00	<135	16	<500	2	<50	47	70	172,000	5	1,500	<1	130	<6	150	<1	420	30
	6/23/87	321GLNS	8.30	<135	<4	<500	1	<50	<25	400	3,000	110	2,200	<1	28	<6	120	<1	600	0
823	3/26/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	1,200	<4	830	<1	<25	<6	320	<1	20	0
824	3/26/87	321GLNS	0	<135	<4	<500	<0	<50	<25	80	1,600	<4	780	<1	<25	<6	150	<1	40	0
826	3/26/87	321GLNS	0	600	<4	<500	0	<50	<25	1100	230	12	470	<1	<25	<6	<100	<1	90	20
827	3/26/87	321GLNS	0	200	<4	<1	0	<50	<25	<10	11,200	<4	510	<1	<25	<6	<100	<1	20	12
828	3/26/87	321GLNS	0	<135	<4	<1	<0	<50	<25	<10	8,500	<4	850	<1	<25	<6	100	<1	10	0
829	3/26/87	321GLNS	0	<135	<4	<5	<0	<50	<25	<33	3,400	<4	480	<1	<25	<6	<100	<1	<10	0
830	3/27/87	321GLNS	0	400	<4	<1	1	<50	53	900	130	30	1,000	<1	150	<6	<100	<1	370	16
832	3/27/87	321GLNS	0	200	<4	<1	0	<50	<25	20	2,000	<4	570	<1	25	<6	<100	<1	20	0
833	4/09/87	321GLNS	--	--	--	<1	0	<50	<25	<10	--	<4	--	<1	<25	<6	260	<1	40	--
	6/23/87	321GLNS	5.00	<135	<4	<500	0	<50	30	10	1,900	<4	570	<1	56	<6	<100	<1	70	0
834	4/09/87	321GLNS	--	--	--	<1	0	<50	<25	50	--	<4	--	<1	<25	<6	<100	<1	360	--
	7/14/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	13,200	<4	1,200	<1	<25	<6	<100	<1	180	0
835	4/09/87	321GLNS	--	--	--	<1	0	<50	<25	20	--	<4	--	<1	<25	<6	<100	<1	20	--
	7/08/87	321GLNS	5.00	<135	<4	<500	0	<50	<25	20	700	<4	450	<1	<25	<6	<100	<1	30	0
836	4/09/87	324ALGN	--	--	--	<1	<0	<50	<25	<10	--	<4	--	<1	<25	<6	170	<1	<10	--
	7/08/87	324ALGN	0	<135	<4	<500	0	<50	<25	10	<100	4	60	<1	<25	<6	<100	<1	30	0
837	4/09/87	324ALGN	--	--	--	0	<0	<50	<25	<10	--	<4	--	<1	<25	<6	130	<1	<10	--

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-838	4/10/87	324ALGN	--	--	--	<1	<0	<50	<25	<10	--	<4	--	<1	<25	<6	160	<1	<10	--
	7/08/87	324ALGN	0	<135	<4	<500	0	<50	<25	<10	1,200	4	150	<1	<25	<6	190	<1	20	0
	4/21/88	324ALGN	4.80	300	<4	<500	<1	50	52	70	<100	<4	<50	<1	110	<6	<100	<1	20	16
839	4/10/87	321GLNS	--	--	--	--	<1	<50	<25	400	--	<4	--	<1	<25	<6	130	<1	140	--
	7/08/87	321GLNS	.15	<135	<4	<500	0	<50	<25	400	<100	<4	<50	<1	<25	<6	170	<1	100	0
840	4/10/87	321GLNS	--	--	--	--	<1	<50	<25	20	--	<4	--	<1	<25	<6	750	<1	<10	--
	7/14/87	321GLNS	.20	<135	<4	<500	0	<50	<25	10	<100	<4	<50	<1	<25	<6	770	<1	<10	0
841	4/13/87	321GLNS	--	--	--	--	<1	<50	<25	<10	--	<4	--	<1	<25	<6	<100	<1	10	--
	7/30/87	321GLNS	0	<135	<4	<500	0	<50	<25	<10	10,100	<54	930	<1	36	<6	<100	<1	30	0
842	4/13/87	324ALGN	--	--	--	<1	0	<50	<25	<10	--	<4	--	<1	<25	<6	110	<1	40	--
	7/08/87	324ALGN	.14	<135	<4	<500	0	<50	<25	<10	<100	4	<50	<1	<25	<6	140	<1	60	0
843	6/03/87	324ALGN	0	<135	<4	<1	0	<50	<25	<10	4,400	<4	670	<1	<25	<6	<100	<1	20	0
844	6/03/87	321GLNS	--	--	--	<1	0	<50	<25	40	--	7	--	<1	<25	<6	<100	<1	20	--
845	6/03/87	321GLNS	.28	<135	<4	<1	0	<50	<25	70	<100	<4	<50	<1	<25	<6	170	<1	10	0
846	6/03/87	321GLNS	0	<135	<4	<1	0	<50	<25	50	<100	<4	<50	<1	<25	<6	110	<1	10	0
847	6/03/87	321GLNS	5.19	--	<4	<1	0	<50	<25	400	<100	7	<50	<1	<25	<6	<100	<1	50	12
848	6/03/87	321GLNS	.25	<135	<4	<1	0	<50	<25	80	<100	<4	<50	<1	<25	<6	<100	<1	30	0
849	6/03/87	321GLNS	.10	<135	<4	<1	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	100	<1	<10	0
850	6/03/87	321GLNS	--	--	--	<1	<0	<50	<25	<10	--	6	--	<1	<25	<6	220	<1	<10	--
	11/13/87	324ALGN	.25	<135	<4	<500	<0	<50	<25	10	<100	<4	<50	<1	<25	<6	160	<1	20	0
851	6/03/87	324ALGN	2.90	<135	<4	<1	<0	<50	<25	20	<100	<4	<50	<1	<25	<6	210	<1	<10	0
	11/05/87	324ALGN	.10	100	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	6	140	<1	<10	0
853	7/08/87	321GLNS	5.00	300	<4	<500	0	<50	<20	<10	3,100	<4	1,300	<1	22	<6	<100	<1	20	0
854	7/08/87	321GLNS	5.00	<135	<4	<500	0	<50	<25	<10	<100	4	100	<1	33	<6	110	<1	20	0
855	7/14/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	120	<4	300	<1	<25	<6	240	<1	<10	0
856	8/18/87	321GLNS	.25	<135	<4	<500	<0	<50	<25	<10	360	<4	120	<1	<25	<6	1100	<1	<10	0
857	7/14/87	321GLNS	0	<135	<4	<500	<0	<50	<25	20	<100	<4	60	<1	60	<6	<100	<1	40	0
858	7/14/87	321GLNS	0	<135	<4	<500	<0	<50	<25	60	110	<4	180	<1	57	<6	<100	<1	30	0
859	8/17/87	321GLNS	.88	<135	<4	<500	0	<50	<25	10	<100	<4	100	<1	<25	<6	420	<1	40	0
860	8/18/87	321GLNS	.49	<135	<4	<500	0	<50	<25	<10	690	<4	3,400	<1	<25	<6	350	<1	<10	0
861	8/18/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	4,300	<4	1,200	<1	<25	<6	550	<1	<10	0
863	9/02/87	321GLNS	.31	<135	<4	<500	<0	<50	<25	30	<100	<4	<50	<1	<25	<6	150	<1	20	0
864	9/07/87	324ALGN	.54	<135	<4	<500	<0	<50	<25	10	<100	<4	<50	<1	<25	<6	1,100	<1	50	0
865	10/29/87	321GLNS	1.29	<135	<4	<500	<0	<50	<25	60	160	<4	60	<1	<25	<6	110	<1	30	0
866	10/29/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	190	<4	200	<1	<25	<6	240	<1	10	0
867	8/10/88	321GLNS	.10	<135	<4	<500	<0	<50	<25	20	<100	<4	240	<1	<25	<6	310	<1	50	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-868	8/10/88	321GLNS	0.61	200	<4	<500	<0	<50	<25	10	210	<4	<50	<1	<25	<6	1,300	<1	20	0
869	10/29/87	321GLNS	.54	<135	<4	<500	<0	<50	<25	70	<100	<4	<50	<1	<25	<6	860	<1	20	0
870	11/02/87	321GLNS	2.90	<135	<4	<500	0	<99	<25	400	<100	5	<50	<1	<25	<6	<100	<1	50	0
871	11/02/87	321GLNS	.54	<135	<4	<500	0	<50	<25	70	<100	5	100	<1	<25	<6	<100	<1	70	0
872	11/02/87	321GLNS	.18	<135	<4	<500	0	<50	<25	<10	150	<4	<50	<1	<25	<6	1,500	<1	<100	0
873		324ALGN	0	<135	<4	<500	<0	<50	<25	<10	<100	<4	260	<1	<25	<6	160	<1	10	0
874	11/05/87	321GLNS	.14	<135	<4	<500	<0	<99	<250	<100	<100	<4	<50	<1	<250	<6	240	<1	190	0
875	11/05/87	321GLNS	1	<135	<4	<500	<0	<99	<250	<100	<100	<4	420	<1	<25	<6	800	<1	<100	0
876	11/05/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	10,000	4	820	<1	<25	<6	<100	<1	10	0
877	11/12/87	321GLNS	0	<135	<4	<500	<0	<50	71	<10	31,800	<4	8,200	<1	110	<30	2,400	<1	110	0
878	11/12/87	324ALGN	1.79	<135	<4	<500	0	<50	<25	400	130	6	70	<1	<25	<6	<100	<1	130	0
879	11/12/87	324ALGN	2.9	<135	<4	500	0	<50	<25	400	<100	<4	50	<1	<25	<6	<100	<1	10	0
880	8/30/88	321GLNS	0	<135	<4	700	<0	<10	<25	<10	330	<4	110	<1	<25	<6	460	<1	<10	0
881	4/21/88	321GLNS	.40	<135	<4	<500	<0	<50	51	40	<100	<4	<50	<1	130	<6	280	<1	20	0
882	4/21/88	321GLNS	6.19	200	<4	<500	0	<50	48	50	<100	<4	170	<1	100	<6	<100	<1	110	20
883	4/21/88	321GLNS	.43	<135	<4	<500	<1	<50	51	80	<100	<4	<50	<1	90	<6	730	<1	20	0
884	5/02/88	324ALGN	0	<135	<4	<500	2	<50	<25	<10	920	<4	950	<1	<25	<6	<100	<1	120	18
	6/16/88	324ALGN	0	<135	<4	<500	<0	<50	<25	20	10,700	5	720	<1	30	<6	<100	<1	70	10
	7/28/88	324ALGN	0	<135	<4	<500	0	<50	<25	<10	8,300	<4	770	<1	<25	<6	<100	<1	<10	4
884	8/30/88	324ALGN	0	100	<4	<500	<0	<50	11	<10	8,700	<4	690	<1	30	<6	<100	<1	20	0
	9/21/88	324ALGN	0	<135	<4	<500	<0	<50	<25	10	6,900	<4	700	<1	<25	<6	<100	<1	30	0
885	5/02/88	324ALGN	7.00	200	<4	<500	0	<50	<25	100	480	<4	640	<1	38	<6	<100	<1	2,700	22
886	5/02/88	324ALGN	1.50	200	<4	<500	5	<50	<25	100	9,000	<4	470	<1	<25	<6	<100	<1	2,800	26
887	8/03/88	321GLNS	0	<135	<4	<500	<0	<50	<25	10	290	<4	340	<1	<25	<6	520	<1	<10	0
888	8/23/88	324ALGN	7.00	<135	<4	<500	0	<50	<25	20	<100	<4	60	<1	<25	<7	170	<1	60	0
889	8/23/88	324ALGN	.10	<135	<5	<500	0	<50	25	20	<100	<10	<50	<1	<25	<6	170	<1	20	0
890	8/23/88	324ALGN	1.29	<135	<5	<500	<0	<50	<25	30	<100	<4	<50	<1	<25	<6	200	<1	20	0
892	8/23/88	321GLNS	2.29	100	<10	<500	0	<50	28	20	110	<4	<50	<1	36	<6	<100	<1	50	22
893	8/23/88	321GLNS	0	200	<5	<500	<0	<50	25	<10	1,300	<4	310	<1	<25	<7	<100	<1	10	0
894	8/23/88	321GLNS	0	<135	<5	<500	<0	<50	<25	<10	2,000	<4	570	<1	29	<7	<100	<1	<10	0
895	8/23/88	321GLNS	.23	<135	<5	<500	0	<50	<25	400	<100	<4	<50	<1	<25	<7	1,100	<1	60	0
896	9/07/88	321GLNS	2.40	200	<4	<500	0	<50	<25	40	<100	<4	<50	<1	70	<6	110	<1	50	0
897	9/07/88	321GLNS	.14	<135	<4	<500	0	<50	<25	400	<100	<4	140	<1	68	<6	470	<1	780	0
898	9/07/88	321GLNS	.23	<135	<4	<500	0	<50	25	80	<100	7	<50	<1	80	<6	1,400	<1	170	0
899	9/07/88	321GLNS	0	<135	<4	<500	0	<50	26	20	250	<4	80	<1	64	<6	360	<1	30	0
900	9/07/88	321GLNS	2.00	200	<4	<500	0	<50	<25	700	<100	<10	<50	<1	59	<6	<100	<1	30	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-901	9/07/88	321GLNS	0.10	200	<4	<500	<0	<50	<25	50	<100	8	170	<1	25	<6	<100	<1	30	0
902	9/07/88	321GLNS	.18	300	<4	<500	<0	<50	<25	20	<100	<4	<50	<1	51	<6	430	<1	20	0
903	9/14/88	321GLNS	9.00	<135	<4	<500	1	<50	28	20	<100	<4	<50	<1	53	<6	550	<1	20	0
904	9/14/88	324ALGN	5.00	<135	<4	<500	1	<50	41	30	420	<4	3,400	<1	55	<6	130	<1	110	0
905	9/14/88	324ALGN	.20	100	<4	<500	1	<50	27	<10	<100	<4	<50	<1	46	<6	180	<1	220	0
906	9/14/88	321GLNS	.68	<135	<4	<500	0	<50	<25	40	<100	<4	<50	<1	<25	<6	120	<1	80	0
907	9/14/88	324ALGN	.68	200	<4	<500	2	<50	<25	700	820	7	750	<1	52	<6	290	<1	180	10
908	9/14/88	324ALGN	.11	<135	<4	600	0	<50	<25	20	<100	<4	<50	<1	36	<6	1,000	<1	10	0
909	9/14/88	324ALGN	2.40	200	<4	<500	0	<50	25	700	<100	5	<50	<1	47	<6	130	<1	70	4
910	9/21/88	321GLNS	.23	<135	<4	<500	0	<50	<25	50	<100	<4	<50	<1	<25	<6	460	<1	30	0
SP101	8/28/86	321GLNS	9.50	<135	<4	<500	0	<50	<25	20	240	<4	<50	<1	<25	<6	<100	<1	20	16
SP102	6/30/87	324ALGN	.66	<135	<4	<100	--	--	--	--	--	--	<50	<1	--	--	--	<1	--	22
SP103	6/11/87	321GLNS	.56	900	<4	<1	0	<50	<25	<10	1,200	<4	250	<1	<25	<6	450	<1	<10	0
SP104	6/23/88	321GLNS	2.20	200	<4	<500	<0	<50	<25	700	200	6	<50	<1	25	<6	120	<1	70	0
SP150	7/17/86	321GLNS	5.0	<135	<4	<500	<0	<50	<25	<10	150	5	<50	<1	<25	<6	120	<1	<10	0
SP153	7/17/86	324ALGN	1.39	<135	<20	<500	<0	<50	<25	<10	140	5	<50	<1	<25	<6	120	<1	30	0
SP154	7/10/86	324ALGN	4.40	<135	<4	<500	<0	<50	<25	30	110	<4	<50	<1	40	<6	530	<1	20	0
SP155	7/15/96	321GLNS	.66	<135	<20	<500	<0	<50	<25	<10	190	<4	<50	<1	27	<6	<100	<1	20	0
SP156	7/29/86	321CSLM	4.80	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	340	<1	10	0
SP157	7/29/86	321CSLM	2.00	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	400	<1	<10	0
SP158	7/29/86	321CSLM	7.00	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	360	<1	<10	0
SP159	7/29/86	321CSLM	1.39	<135	<4	<500	<0	<50	<25	<10	120	<4	<50	<1	<25	<6	610	<1	<10	0
SP160	7/30/86	321GLNS	.18	<135	<4	<500	<0	<50	<25	<10	100	<4	<50	<1	<25	<6	100	<1	<10	0
SP161	8/13/86	321GLNS	.63	<135	<4	<500	<0	<50	<25	<10	140	<4	<50	<1	<25	<6	490	<1	30	0
SP162	6/03/87	321GLNS	--	--	--	<1	0	<50	<25	<10	--	4	--	<1	<25	<6	130	<1	60	--
SP163	6/10/87	321GLNS	.31	800	<4	<1	<0	<50	<25	<10	580	<4	60	<1	<25	<7	<100	<1	<10	0
SP164	6/10/87	321GLNS	.20	<135	<4	<1	<0	<50	<25	<10	100	4	<50	<1	<25	<6	300	<1	<10	0
SP165	6/17/87	324ALGN	1.29	<135	<4	<1	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	350	<1	<10	0
SP166	6/26/87	321GLNS	.14	<135	<4	<1	0	<50	<25	40	<100	<4	<50	<1	42	<6	<100	<1	30	0
SP167	6/24/87	321GLNS	5.00	<135	<4	<1	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP168	6/30/87	321GLNS	1.70	<135	<4	<500	4	<50	<25	<10	300	23	<50	<1	<25	<6	<100	<1	20	20
SP169	6/30/87	321GLNS	1.70	<135	<4	<500	<0	<50	<25	400	<100	<4	<50	<1	<25	<6	<100	<1	20	0
SP170	7/07/87	321GLNS	.37	1000	<4	<500	0	<50	<25	<10	2,100	<4	630	<1	<25	<6	<100	<1	<10	0
SP171	7/07/87	321GLNS	3.50	<157	<4	<500	0	<50	<25	<10	<100	<4	70	<1	<25	<6	130	<1	10	8
SP172	7/14/87	321GLNS	2.40	<135	<4	<500	<0	<50	<25	400	<100	<4	<50	<1	<25	<6	130	<1	130	0
SP173	7/15/87	321GLNS	.87	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	10

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-SP174	7/15/87	321GLNS	1.29	<135	<4	<500	<0	<50	<25	<10	100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP175	8/06/87	324ALGN	.76	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	24	<6	<100	<1	10	16
SP176	7/12/88	321GLNS	.88	100	<4	<500	<0	<50	<25	600	1,800	56	130	<1	<25	<6	1,100	<1	80	0
SP177	7/14/88	321CSLM	1.50	300	<4	<500	<0	<50	<25	10	260	<4	60	<1	73	<6	150	<1	60	0
SP178	7/21/88	321GLNS	7.00	<135	<20	<500	0	<50	<25	400	160	6	<50	<1	<25	<6	<100	<1	80	0
SP179	7/21/88	321GLNS	1.10	200	<4	<500	<0	<50	<25	60	270	5	<50	<1	<25	<6	<100	<1	30	0
SP226	11/12/87	324ALGN	1.29	1200	<4	<500	2	<50	<25	<10	<100	<4	5,800	<1	140	<6	<100	<1	240	18
SP250	10/02/86	321MNGL	3.50	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	7	670	<1	<10	0
SP251	10/02/86	321MNGL	1.39	<135	<4	<500	0	<50	<25	<10	150	<4	<50	<1	<25	6	430	<1	410	0
SP252	3/09/87	321GLNS	.20	<135	<4	<500	<0	<50	<25	<10	100	<4	<50	<1	<25	<6	<100	<1	30	22
SP253	3/16/87	321GLNS	2.40	<135	<4	<500	0	<50	<25	<10	180	<4	60	<1	29	<6	<100	<1	20	10
SP254	3/17/87	321GLNS	9.50	<135	<4	<500	0	50	<25	<10	<100	1	60	<1	<25	<6	<100	<1	60	2
SP255	9/02/87	321GLNS	2.59	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	10
SP256	9/02/87	321GLNS	.60	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	220	<1	<10	0
SP257	9/02/87	321GLNS	0	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	150	<1	<10	0
SP258	9/02/87	321GLNS	.31	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	130	<1	20	0
SP259	9/02/87	321CSLM	.74	<135	<4	<500	<0	<50	<25	<10	<100	<4	110	<1	<25	<6	<100	<1	10	10
SP260	9/02/87	321GLNS	.18	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP261	9/02/87	321GLNS	.15	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	510	<1	<10	0
SP262	9/02/87	321CSLM	2.90	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	12
SP263	9/03/87	321GLNS	15.69	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	40	16
SP264	9/13/87	321GLNS	2.40	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	160	<1	20	0
SP265	9/03/87	321GLNS	.14	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	310	<1	<10	0
SP266	9/03/87	321GLNS	.68	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	180	<1	20	0
SP267	9/03/87	321GLNS	1.10	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	2
SP268	9/03/87	324ALGN	.10	200	<4	<500	0	<50	<25	<10	<100	<4	180	<1	44	<6	<100	<1	60	16
SP269	9/03/87	321GLNS	.37	<135	<4	<500	<0	<50	<25	400	<100	5	<50	<1	<25	<6	<100	<1	40	2
SP270	9/03/87	324ALGN	5.90	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	230	<1	<10	0
SP271	9/03/87	324ALGN	9.50	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	120	<1	10	4
SP272	9/03/87	321GLNS	6.19	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	25	<6	100	<1	<10	0
SP273	9/03/87	321GLNS	6.59	<135	<4	<500	1	<50	<25	400	<100	14	<50	<1	<25	<6	<100	<1	2,300	0
SP274	9/09/87	321GLNS	6.59	400	<4	<500	2	<50	<25	<10	<100	<20	170	<1	28	<6	110	<1	80	22
SP275	9/09/87	321GLNS	4.40	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	30	0
SP276	9/09/87	321GLNS	3.50	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	20	0
SP277	9/09/87	321GLNS	2.40	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	10	10
SP278	9/09/87	321GLNS	0	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	150	<1	<10	0

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-SP279	9/09/87	321GLNS	1.20	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	10	0
SP280	9/09/87	324ALGN	.30	<135	<4	<500	<0	<50	<25	400	<100	<4	<50	<1	<25	<6	130	<1	20	0
SP281	9/09/87	321GLNS	1.10	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	20	22
SP282	9/09/87	321GLNS	3.70	100	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	16
SP283	9/09/87	324ALGN	.74	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP284	9/09/87	321GLNS	1.29	200	<4	<500	2	<50	<25	10	<100	<4	90	<1	<25	<6	<100	<1	20	16
SP285	9/10/87	321GLNS	.10	<135	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	180	<1	<10	0
SP286	9/10/87	321GLNS	.14	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<7	190	<1	<10	0
SP287	9/16/87	321GLNS	2.90	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP288	9/16/87	321GLNS	1.70	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<10	<1	20	12
SP289	9/16/87	321GLNS	7.00	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	170	<1	10	0
SP290	9/16/87	321GLNS	5.30	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	30	18
SP291	9/16/87	321GLNS	2.90	<135	<4	<500	0	0	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	16
SP292	9/16/87	321GLNS	0	<135	<4	<500	0	<50	85	<10	4,500	<4	13,200	<1	39	<6	250	<1	70	0
SP293	9/16/87	321GLNS	.10	<135	<4	<500	0	<50	<25	20	<100	<4	50	<1	<25	<6	<100	<1	30	0
SP295	9/17/87	321GLNS	.46	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	310	<1	<10	0
SP296	9/17/87	324ALGN	.15	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP297	10/29/87	321GLNS	.54	200	<4	<500	<0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	26
SP298	9/21/87	321GLNS	3.09	<135	<4	<500	0	<50	<25	<10	<100	<4	80	<1	<25	<6	<100	<1	20	6
SP299	9/21/87	321GLNS	.46	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	10	4
SP300	9/21/87	324ALGN	9.50	<135	<5	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	130	<1	<10	0
SP301	9/21/87	324ALGN	3.70	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	130	<1	<10	0
SP302	9/21/87	321GLNS	.75	<135	<4	<500	0	<50	<25	<10	<100	<4	80	<1	<25	<6	<100	<1	30	0
SP303	9/21/87	321GLNS	.18	500	<4	<500	0	<50	<25	<10	<100	<4	180	<1	<25	<6	<100	<1	40	8
SP304	9/22/87	321GLNS	.30	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP305	9/22/87	321GLNS	2	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP306	9/22/87	321GLNS	.87	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP307	9/23/87	321GLNS	1.00	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	280	<1	<10	0
SP308	9/23/87	321GLNS	.72	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP309	9/23/87	321GLNS	.10	<135	<4	<500	0	<50	<25	40	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP310	9/23/87	321CSLM	13.69	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	100	<1	<10	0
SP311	9/23/87	324ALGN	1.00	<135	<4	<500	0	<50	<25	30	<100	<4	<50	<1	<25	<6	<100	<1	30	0
SP312	9/23/87	321GLNS	.50	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	100	<1	<10	0
SP313	9/23/87	321GLNS	.40	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	<10	0
SP314	10/05/87	321GLNS	.31	<135	<4	<500	1	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	30	4
SP315	10/05/87	321GLNS	.20	<135	<4	<500	0	<50	<25	400	<100	4	<50	<1	30	<6	<100	<1	30	6

Table 12.--Water-quality analyses of wells and springs (trace and miscellaneous constituents)--Continued

County well or spring number	Date of sample	Hydrogeologic unit	Nitrate NO_3 as N (mg/L)	Aluminum (Al)	Arsenic (As)	Barium (Ba)	Cadmium (Ca)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Mercury (Hg)	Nickel (Ni)	Selenium (Se)	Strontium (Sr)	Sulfide (H_2S)	Zinc (Zn)	Acidity (mg/l)
IN-SP316	10/06/87	321GLNS	1.50	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	490	<1	20	0
SP317	1/25/87	321CSLM	8.10	<135	<4	<500	<1	<50	<25	<10	<100	<4	<50	<1	28	<6	500	<1	<10	0
	10/09/87	321CSLM	6.30	<135	<4	<500	0	150	<25	10	<100	<4	<50	<1	<25	<6	500	<1	30	0
SP318	10/09/87	321MNGL	1.29	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	1,100	<1	20	0
SP319	10/09/87	321MNGL	.34	<135	<4	<500	0	<50	<25	<10	120	<4	<50	<1	26	<6	1,200	<1	20	0
SP320	10/26/87	324ALGN	.54	<135	<4	<500	0	<50	<25	10	<100	<4	<50	<1	43	<6	1,900	<1	40	0
SP321	10/26/87	324ALGN	.40	<135	<4	<500	<0	<50	<25	50	<100	<4	<50	<1	25	<6	<100	<1	30	26
SP322	10/26/87	324ALGN	1.70	<135	<4	<500	<0	<50	<25	400	<100	15	<50	<1	44	<6	<100	<1	80	22
SP325	10/26/87	321CSLM	.82	<135	<4	<500	<0	<50	<25	20	<100	<4	<50	<1	<25	<6	140	<1	80	0
SP326	10/26/87	321GLNS	1.29	<135	<4	<500	0	<50	<25	<10	<100	<4	<50	<1	<25	<6	<100	<1	20	36
SP328	10/26/87	321GLNS	.75	<135	<4	<500	<0	<50	<25	400	150	<4	380	<1	46	<6	<100	<1	30	0
SP329	10/26/87	321GLNS	1.79	<135	<4	<500	0	<50	<25	0	110	<4	<50	<1	37	<6	100	<1	20	0
SP330	10/27/87	321GLNS	.28	300	<4	<500	<0	<50	<25	60	100	<4	<50	<1	<25	<6	<100	<1	20	0
SP331	11/03/87	321GLNS	0	<135	<4	<500	0	<50	<25	<10	<100	<4	180	<1	<25	<6	<100	<1	<10	0
SP332	11/03/87	321GLNS	2.59	<135	<4	<500	0	<50	<25	<10	270	<4	330	<1	<25	<6	<100	<1	<10	0
SP333	11/03/87	321CSLM	.20	<135	<4	<500	0	<50	<25	400	<100	<4	<50	<1	<25	<6	400	<1	40	0
SP334	11/12/87	324ALGN	1.29	1,200	<4	<500	2	<50	<25	<10	<100	<4	5,800	<1	140	<6	<100	<1	240	18
SP335	4/21/88	321GLNS	.50	<135	<4	<500	<1	<50	54	40	<100	<4	<50	<1	100	<6	<100	<1	10	0
SP336	4/22/88	321GLNS	1.20	<135	<4	<500	<0	60	44	40	<100	<4	<50	<1	84	<6	<100	<1	20	18
SP337	4/22/88	321GLNS	1.39	<135	<4	<500	0	60	66	40	<100	<4	<50	<1	130	<6	<100	<1	20	0
SP338	4/22/88	321GLNS	.80	200	<4	<500	<0	60	66	40	<100	<4	<50	<1	120	<6	<100	<1	30	0
SP340	5/02/88	324ALGN	2.90	200	<4	<500	0	<50	220	<10	830	<4	5,800	<1	33	<6	<100	<1	40	32
	6/23/88	324ALGN	.40	200	<4	<500	2	<50	130	60	720	<4	2,600	<1	37	<6	<100	<1	80	14
	7/28/88	324ALGN	0	200	<4	<500	0	<50	120	20	230	<4	2,400	<1	77	<6	<100	<1	70	18
	9/21/88	324ALGN	.67	<135	<4	<500	0	<50	<85	<10	<100	<4	1,600	<1	<25	<6	<100	<1	60	6
SP341	8/03/88	321GLNS	1.60	<135	<4	<500	1	<50	<25	30	<100	5	50	<1	52	<6	<100	<1	50	0

Table 13.--Observation-well data for Indiana County
(Well locations are shown in figure 2.)

Well number	Station number	Quadrangle	Township or borough (B)	Altitude (feet)	Latitude	Longitude	Depth (feet)	Hydrogeologic unit
In- 1	403702079093301	Indiana	Indiana (B)	1305	403702	790933	198	Conemaugh Formation
120	404541079082001	Plumville	Washington	1140	404541	790820	69	Glenshaw Formation
121	404723079105201	Plumville	Plumville (B)	1210	404723	791052	49	Glenshaw Formation
230	404509079104001	Plumville	Washington	1140	404509	791040	128	Glenshaw Formation
232	404509079104003	Plumville	Washington	1140	404509	791040	110	Glenshaw Formation
233	404509079104004	Plumville	Washington	1140	404509	791040	110	Glenshaw Formation
364	403511079125501	Indiana	Center	1320	403511	791255	150	Glenshaw Formation
389	403521079122701	Indiana	White	1220	403521	791227	62	Glenshaw Formation
801	403450079120301	Indiana	White	1180	403450	791203	137	Glenshaw Formation
803	403556079215201	McIntyre	Young	1220	403556	792152	138	Monongahela Group
822	403408078543701	Strongstown	Pine	1900	403408	785437	159	Glenshaw Formation
833	403144078561602	Strongstown	Buffington	1910	403144	785616	137	Glenshaw Formation
856	402632078573101	Vintondale	E. Wheatfield	1860	402632	785731	180	Glenshaw Formation
859	403025079211501	McIntyre	E. Wheatfield	1350	403025	792115	227	Glenshaw Formation
860	404231078540901	Commodore	Green	1600	404231	785409	58	Glenshaw Formation
861	404230078540901	Commodore	Green	1600	404230	785409	84	Glenshaw Formation
864	403629079041901	Brush Valley	Cherryhill	1570	403629	790419	71	Allegheny Group
868	404050078514201	Barnsboro	Green	1660	404050	785142	220	Glenshaw Formation
880	404327078485001	Barnsboro	Cherry Tree (B)	1380	404327	784850	49	Glenshaw Formation

Table 14.--Aquifer-test data from observation wells and other miscellaneous-well sites

[See table 9 for additional information on these wells; gal/min, gallons per minute]

Well number	Date	Principle water-bearing unit	Pumping rate (gal/min)	Duration of pumping (hours)	Total drawdown (feet)
In-120	6-26-86	Glenshaw Formation	15.0	1.0	1.60
230	12-16-86	Glenshaw Formation	30.0	1.0	3.07
231	12-16-86	Glenshaw Formation	26.0	1.0	2.22
232	12-16-86	Glenshaw Formation	30.0	1.1	3.11
233	12-16-86	Glenshaw Formation	8.5	1.1	18.36
234	6-24-87	Glenshaw Formation	15.0	1.7	39.40
389	10-02-86	Glenshaw Formation	4.0	1.5	9.51
502	10-09-86	Glenshaw Formation	2.1	1.1	59.81
508	5-02-88	Allegheny Group	9.7	1.0	1.87
	6-16-88	Allegheny Group	16.2	2.0	4.77
	8-03-88	Allegheny Group	15.7	1.0	9.96
	8-30-88	Allegheny Group	36.0	.4	12.89
	9-21-88	Allegheny Group	36.0	.3	12.83
801	9-23-86	Glenshaw Formation	4.5	.4	77.68
803	10-02-86	Monongahela Group	5.0	.3	41.26
822	5-06-87	Glenshaw Formation	3.0	.7	80.75
	6-23-87	Glenshaw Formation	2.5	.5	58.60
833	4-09-87	Glenshaw Formation	3.8	1.4	103.39
	6-23-87	Glenshaw Formation	3.3	1.2	105.01
856	8-18-87	Glenshaw Formation	9.0	.7	96.65
859	8-17-87	Glenshaw Formation	2.0	.5	77.30
860	8-18-87	Glenshaw Formation	9.8	.1	33.03
861	8-18-87	Glenshaw Formation	14.4	1.0	6.14
864	8-30-88	Allegheny Group	.6	.4	14.44
867	8-10-88	Glenshaw Formation	1.4	1.1	12.84
868	8-10-88	Glenshaw Formation	.4	1.0	19.25
880	8-30-88	Glenshaw Formation	28.0	.7	3.48
887	8-03-88	Glenshaw Formation	2.7	.6	16.97
	8-11-88	Glenshaw Formation	2.1	.4	14.37