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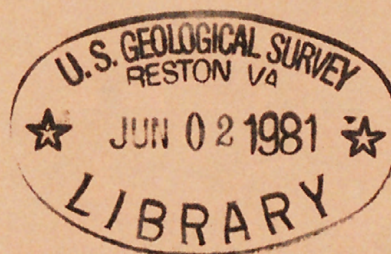
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SELECTED HYDROLOGIC AND CLIMATOLOGIC DATA FROM THE PRAIRIE
DOG CREEK BASIN, SOUTHEASTERN MONTANA, WATER YEAR 1979

U.S. GEOLOGICAL SURVEY

Open-File Report 81-412



Prepared in cooperation with the

U.S. Bureau of Land Management



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



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DOG CREEK BASIN, SOUTHEASTERN MONTANA, WATER YEAR 1979
by Lawrence E. Cary and Joel D. Johnson

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Helena, Montana

April 1981

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METRIC CONVERSION TABLE

The following factors may be used to convert inch-pound units published herein to the International System (SI) of metric units.

<u>Multiply inch-pound unit</u>	<u>By</u>	<u>To obtain SI unit</u>
acre-foot	1233	cubic meter
cubic foot per second	28.32	liter per second
foot (ft)	0.3048	meter (m)
inch (in.)	25.40	millimeter (mm)
mile (mi)	1.609	kilometer (km)
square mile (mi ²)	2.590	square kilometer (km ²)
ton (short) per day	0.9072	megagram per day

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

$$^{\circ}\text{F} = 1.8^{\circ}\text{C} + 32$$

April 28, 1981

REVISED DATA

The rating curve of stage versus discharge has been revised for stream-gaging station 18. As a result, average daily stream discharge, in cubic feet per second, for August and September (table 19, p. 67) is:

DAY	AUG	SEP	DAY	AUG	SEP
1	.53	.13	21	.13	.09
2	.49	.09	22	.18	.09
3	.49	.07	23	.18	.09
4	.49	.07	24	.13	.09
5	.32	.07	25	.13	.10
6	.32	.09	26	.18	.09
7	.18	.09	27	.13	.10
8	.32	.07	28	.13	.10
9	.18	.09	29	.10	.10
10	.32	.10	30	.10	.18
11	.18	.10	31	.10	---
12	.18	.13	TOTAL	7.25	2.90
13	.32	.13	MEAN	.23	.097
14	.32	.10	MAX	.53	.18
15	.32	.10	MIN	.10	.07
16	.13	.10	AC-FT	14	5.8
17	.13	.09			
18	.18	.07			
19	.18	.09			
20	.18	.09			

The change in discharge also affects selected chemical-quality data. The discharge at station 18 for September 26 at 10:30 a.m. (table 21, p. 70-71) is 0.09 cubic foot per second, resulting in dissolved solids of 0.32 ton per day. The suspended-sediment discharge at station 18 (table 23, p. 73) for the same date, time, and discharge is updated to 0.0 ton per day.

SELECTED HYDROLOGIC AND CLIMATOLOGIC DATA FROM THE PRAIRIE

DOG CREEK BASIN, SOUTHEASTERN MONTANA, WATER YEAR 1979

By

Lawrence E. Cary and Joel D. Johnson

ABSTRACT

Hydrologic and climatologic data are being collected in a 19-square-mile (49-square-kilometer) basin in southeastern Montana to provide a base for development, calibration, and verification of a precipitation-runoff model. The study area and data-collection stations within the area are shown on a map. A summary of data collected at each station during the first year, beginning in October 1978, is provided in tables. The data include precipitation, snow depth and water content, air temperature, relative humidity, wind run, solar radiation, soil temperature and moisture, stream discharge, chemical analyses of water, and sediment content.

INTRODUCTION

In 1978, a precipitation-runoff modeling study was initiated by the U.S. Geological Survey in cooperation with the U.S. Bureau of Land Management. The study was funded as part of the Bureau of Land Management EMRIA (Energy Mineral Rehabilitation Inventory and Analysis) program. The objective of the study is to develop, test, and verify a hydrologic model that can be used to estimate the hydrologic processes on small basins when data are lacking and to simulate the hydrologic effects of proposed land-use changes such as surface mining. This study is being conducted in one of several small basins that have been instrumented in coal regions to provide the data necessary for model development, calibration, and verification.

The purpose of this report is to provide a summary of the data being collected as part of the modeling study in Montana. The data are for the first year of operation, October 1978 through September 1979.

STUDY AREA

The study area is located within the Tongue River drainage near Birney, in southeastern Montana (fig. 1). The Prairie Dog Creek basin encloses an area of about 25 mi² (65 km²). A stream-gaging station is located about 3 mi (4.8 km) upstream from the mouth, yielding an effective area of about 19 mi² (49 km²) included in the study.

The surficial geology consists primarily of sandstone, siltstone, and clinker of the Tongue River Member of the Fort Union Formation, which is of Paleocene age. Several faults have been mapped in and near the basin (Lewis and Roberts, 1978).

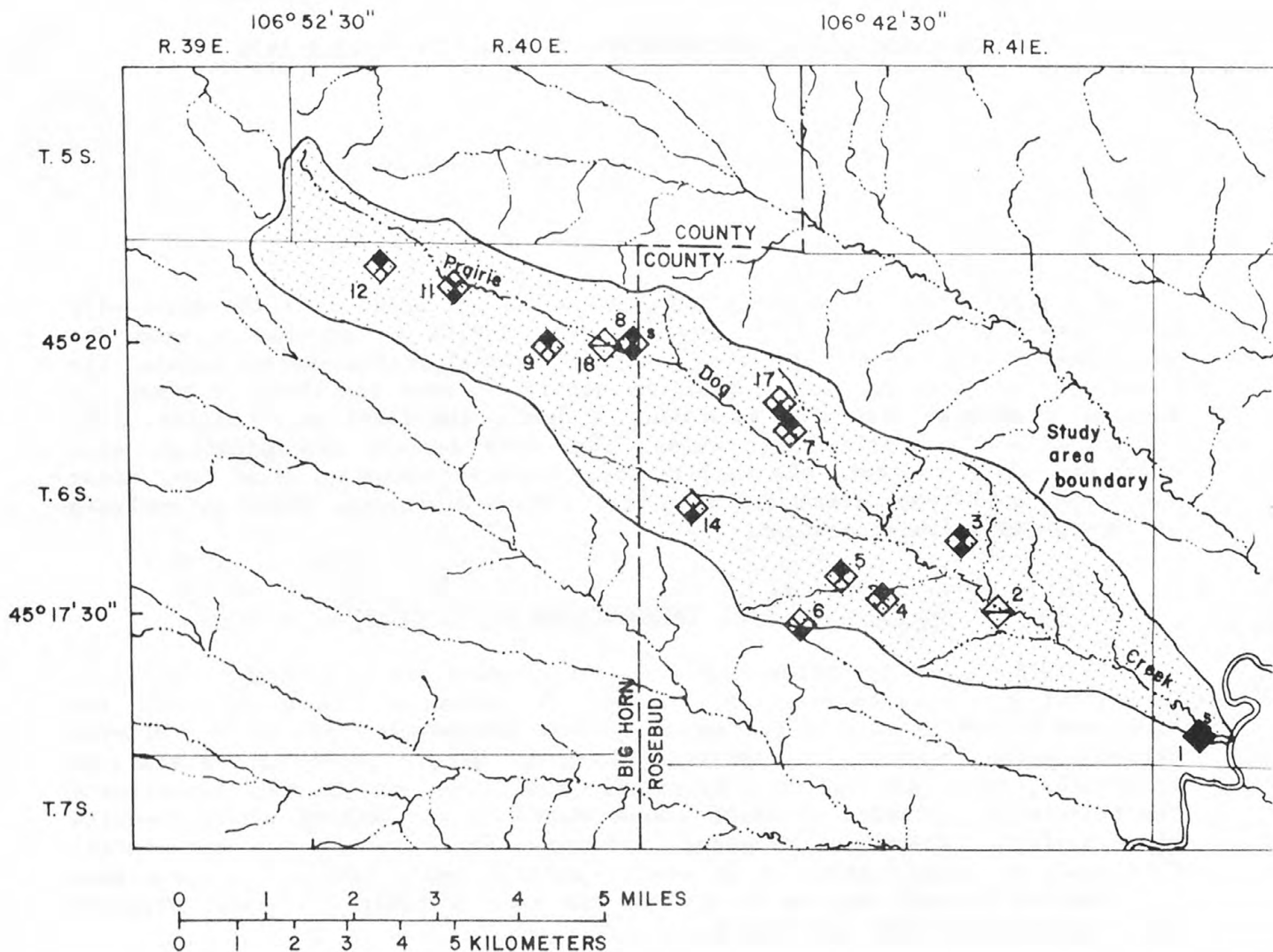
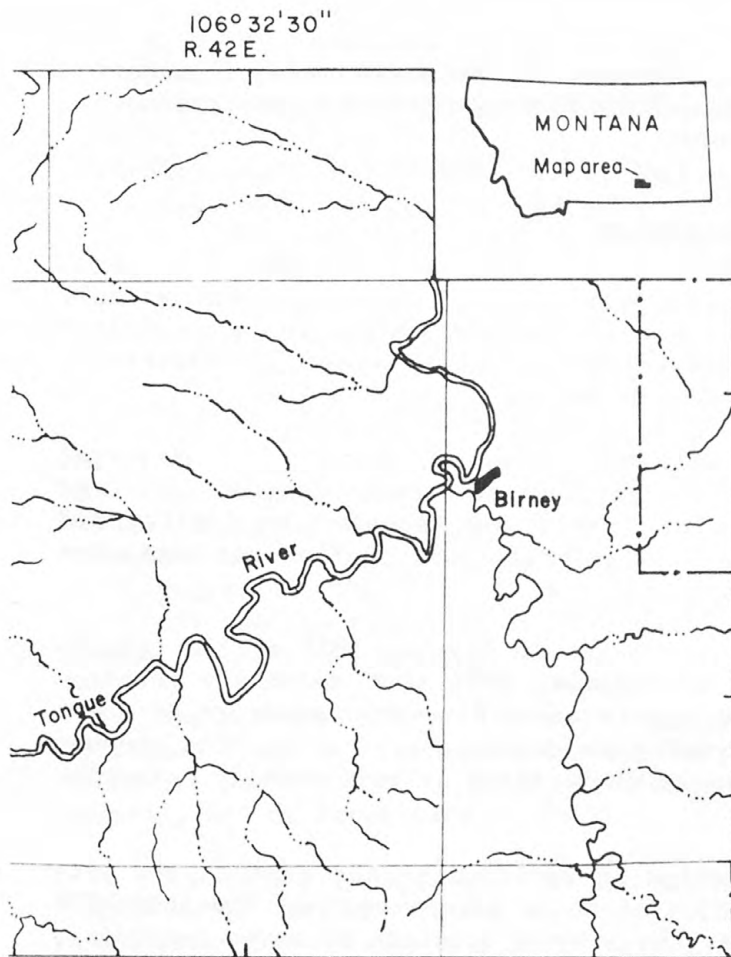


Figure 1.--Location of study area

The terrain is relatively steep and dissected, especially on the north side of Prairie Dog Creek. Near the headwaters and along the flanks of the watershed, the terrain consists of nearly level, plateau-like erosional remnants.

The climate of the area is semiarid, continental steppe, which is characteristic of the northern Great Plains. The mean annual precipitation is about 13 in. (330 mm), with almost 60 percent occurring from April through July. During the first part of this period cyclonic storms are common; however, during the summer months convective storms become the common type. Almost 30 percent of the average annual precipitation occurs as snow. Nearly all precipitation from November through March is in the form of snow, and late spring snowstorms are not uncommon. The seasonal temperature ranges widely, with cold winters and hot summers. Mean January temperature is 7.8°C (46°F) and mean July temperature is 21.7°C (71°F).



EXPLANATION

DATA-COLLECTION SITE AND NUMBER (table 1)

-  ² Stream-gaging and quality-of-water station
-  ¹ Complete weather station
-  Precipitation station
-  Snow-survey course
-  Soil-moisture and soil-temperature measurement site. Letter is appended to station symbols shown above

and data-collection sites.

Low- to medium-intensity soil surveys have recently been completed by the U.S. Soil Conservation Service in Big Horn County in the upper part of the basin and are in progress in Rosebud County. About 12 soil series are present in the basin. The soil texture ranges from sand to clay loam. The depth ranges from several feet along Prairie Dog Creek to no soil at and below rock outcrops (Meshnick and others, 1977; U.S. Department of Agriculture, 1978).

Several vegetation types are represented in the basin. These include sagebrush steppe, with big sagebrush and silver sagebrush the common dominants; sagebrush grassland; mid-short grass type on steeper hillsides; ponderosa pine, badlands type; and riparian-grasslands type. Rocky Mountain juniper occurs with the ponderosa pine on dry slopes at lower elevations. Green ash and cottonwood

occur along the upper part of Prairie Dog Creek, giving way to isolated stands of cottonwood along the lower reaches.

Prairie Dog Creek is an intermittent stream. During most years, flow begins during spring snowmelt and ceases by fall. Peak flows generally occur in response to high intensity summer convection storms.

DATA COLLECTION

Data collection began in October 1978 with the activation of the primary climatological station (station 1). Data acquired at the station include precipitation, snowpack, air temperature, relative humidity, wind speed and direction, solar radiation, soil temperature, and soil moisture.

A trapezoidal, supercritical flume with a 1-ft (0.3-m) throat was constructed on Prairie Dog Creek about 3 mi (5 km) upstream from the mouth (station 2). Gage heights are measured by a servo-manometer system and recorded by digital and analog recorders. This stream-gaging and quality-of-water station was activated in early November 1978.

The use of soil-moisture access tubes began in October 1978 at the primary meteorological station (station 1) and in December 1978 at a secondary meteorological station about 8 mi (13 km) upstream (station 8). Soil moisture at these sites was measured with a neutron depth-moisture gage. Copper constantan thermocouples were installed at several depths at these sites to periodically determine soil temperature.

Six precipitation gages were installed in addition to the gage at the primary climatological station. Installation of these gages began in November 1978 and was completed by summer 1979. Thus, the network consists of seven recording, weighing-type precipitation gages.

Snow courses were established at several locations during December 1978. Snow depth and equivalent water content were measured along these courses periodically with a federal snow sampler¹.

In March 1979, a second stream-gaging and quality-of-water station (station 18) was activated about 6 mi (9.7 km) upstream from the first. No artificial control was constructed at this site.

In the summer of 1979 additional sites were selected and instrumented for soil moisture and temperature. During that period, a pumping sediment sampler was installed and activated at the downstream gaging station (station 2). A list of stations, date of activation, and summary of the types of information acquired are given in table 1.

¹ A federal snow sampler is a particular type of snow sampling tube.

REFERENCES

- Lewis, B. D., and Roberts, R. S., 1978, Geology and water-yielding characteristics of rocks of the northern Powder River Basin, southeastern Montana: U.S. Geological Survey Miscellaneous Investigations Map I-847-D, 2 sheets.
- Meshnick, J. C., and others, 1977, Soil survey of Big Horn County area, Montana: U.S. Soil Conservation Service and U.S. Bureau of Indian Affairs, 223 p.
- U.S. Soil Conservation Service, 1978, Soil survey data for Rosebud County, Montana: Forsyth, Mont., U.S. Department of Agriculture, Soil Survey Office, Unpublished data.

DATA

Stream-gaging stations are identified by an 8-digit number in downstream order following the system used by the U.S. Geological Survey. All other stations are identified by a 13-digit number based on the grid system of latitude and longitude. The first 6 digits denote the degrees, minutes, and seconds of latitude and the remaining 7 digits denote the degrees, minutes, and seconds of longitude.

Replicate sampling of soil temperature and soil moisture was made at stations 1 and 8. For replicate samples, the stations were assigned sequential letters: a for the first array of thermocouples or first access tube, b for the second, and so forth (see table 1).

The data presented are for the period October 1978 through September 1979 (1979 water year). The table formats differ depending upon the nature of the data being presented. The tables are grouped in the following order. Precipitation data from all gages are in tables 2-8. Snow depth and equivalent water content, measured at eight locations in the basin, are given in table 9. The climatologic data from the primary climatologic station (station 1) are reported in tables 10-13. The wind data presented in table 12 are values of total daily wind run, which is the distance the air mass at the measurement height would move in 1 day. Soil temperatures measured at the primary climatologic station are in table 14. Two replicates are reported for the first three depths. For the remaining depths, one replicate is reported owing to the close agreement of the temperatures between the two. Table 15 contains the periodically measured soil temperatures at station 8. Data for soil moisture are listed in table 16 (station 1) and table 17 (station 8). Streamflow, chemical quality, and sediment data for the two stream-gaging stations (2 and 8) are reported in tables 18-23.

Abbreviations used in column headings of the tables are:

AC-FT	Acre-feet
CFS	Cubic feet per second
DEG C	Degrees Celsius
FT	Feet
MG/L	Milligrams per liter
UG/L	Micrograms per liter
WTR-YR	Water year

Table 1.--*Prairie Dog Creek data-collection network*

Station identification				
Local number	Se- quence let- ter	Downstream-order or latitude/longitude number	Date activated	Data aquisition
1	--	4516181063808	Oct. 1978	Precipitation
	--	----	--do--	Snowpack
	--	----	--do--	Air temperature
	--	----	--do--	Relative humidity
	--	----	--do--	Wind speed and direction
	--	----	--do--	Solar radiation
	a	----	--do--	Soil temperature
	b	----	--do--	Soil temperature
	a	----	--do--	Soil moisture
	b	----	--do--	Soil moisture
	c	----	--do--	Soil moisture
	d	----	--do--	Soil moisture
2	--	06307528	Nov. 1978	Stream discharge
	--	----	Dec. 1978	Chemical quality
	--	----	June 1979	Suspended sediment
3	--	4518121064125	Nov. 1978	Precipitation
				Snowpack
4	--	4517401064248	Dec. 1978	Snowpack
5	--	4517461064324	Dec. 1978	Snowpack
6	--	4517201064346	Nov. 1978	Precipitation
7	--	4519141064333	Dec. 1978	Snowpack

Table 1.--*Prairie Dog Creek data-collection network*--Continued

Station identification				
Local number	Se- quence let- ter	Downstream-order or latitude/longitude number	Date activated	Data aquisition
8	--	4520071064617	Mar. 1979	Precipitation
	--	---	Dec. 1978	Snowpack
	--	---	--do--	Soil temperature
	a	---	--do--	Soil moisture
	b	---	--do--	Soil moisture
	c	---	--do--	Soil moisture
	d	---	--do--	Soil moisture
9	--	4520031064717	Dec. 1978	Snowpack
11	--	4520501064841	Nov. 1978	Precipitation
12	--	4521011064950	Dec. 1978	Snowpack
14	--	4518411064523	July 1979	Precipitation
17	--	4519181064336	May 1979	Precipitation
18	--	06307525	Mar. 1979	Stream discharge
	--	---	--do--	Chemical quality
	--	---	--do--	Suspended sediment

Stations 10, 13, 15, 16, 19, and 20 have been excluded owing to insufficient data for the 1979 water year.

Table 2.--Total daily precipitation, in inches, at station 1 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
4	.0	.0	.5	.0	.0	.0	.3	.0	.0	.0	.0	.0
5	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0
6	.0	.0	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0
7	.0	.0	.0	.0	.3	.0	.0	.0	.1	.0	.0	.0
8	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
9	.0	1.1	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
10	.0	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
11	.0	.2	.0	.1	.0	.0	.2	.0	.0	.0	.0	.4
12	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14	.0	.0	.0	.0	.3	.0	.1	.0	.0	.0	.0	.0
15	.0	.0	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0
16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0
17	.1	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
18	.0	.1	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0
19	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
20	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0
23	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
24	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0
25	.0	.0	.2	.0	.0	.1	.0	.0	.0	.0	.2	.0
26	.0	.0	.3	.0	.0	.0	.2	.0	.1	.0	.0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0
28	.0	.1	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
29	.0	.0	.0	.0		.0	.0	.9	.0	.1	.0	.0
30	.0	.0	.0	.0		.1	.0	.2	.0	.0	.0	.0
31	.0		.0	.0		.0		.0		.0	.0	
TOTAL	0.2	1.7	1.3	0.3	1.1	0.3	1.6	1.6	1.3	0.9	0.5	0.4

Water year October 1978 to September 1979

^a The precipitation gage used at this station measures to the nearest one-tenth of 1 inch.

Table 3.--Total daily precipitation, in inches, at station 3 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.20	.05	.00	.00	.04	.00	.00	.00	.00	.24
2			.00	.02	.00	.02	.02	.00	.00	.00	.00	.00
3			.00	.00	.02	.00	.00	.00	.00	.00	.00	.00
4			.59	.00	.02	.00	.33	.00	.00	.00	.00	.00
5			.00	.00	.08	.00	.16	.00	.00	.00	.00	.00
6			.02	.00	.14	.00	.00	.00	.07	.00	.00	.00
7			.00	.00	.08	.02	.00	.00	.12	.00	.00	.00
8			.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
9			.00	.00	.00	.02	.00	.12	.00	.00	.00	.00
10			.00	.00	.00	.00	.23	.00	.00	.00	.00	.02
11			.00	.09	.00	.00	.41	.00	.00	.00	.00	.47
12			.07	.08	.00	.00	.02	.02	.00	.00	.00	.00
13			.00	.08	.00	.00	.05	.00	.00	.00	.18	.00
14			.00	.00	.57	.00	.00	.00	.00	.00	.00	.00
15			.00	.04	.09	.00	.00	.00	.07	.00	.00	.00
16			.00	.00	.00	.00	.00	.00	.00	.25	.00	.00
17			.00	.00	.00	.00	.00	.12	.00	.00	.00	.00
18			.00	.00	.00	.00	.24	.00	.12	.00	.00	.00
19			.00	.00	.00	.00	.16	.00	.00	.00	.00	.00
20			.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21			.20	.00	.00	.00	.00	.00	.00	.00	.00	.00
22			.03	.05	.20	.00	.00	.00	.00	.04	.00	.00
23			.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
24			.22	.00	.00	.04	.00	.00	.00	.00	.00	.00
25			.08	.00	.00	.05	.00	.00	.00	.00	.00	.00
26			.00	.00	.00	.00	.17	.00	.19	.00	.00	.00
27			.00	.00	.00	.00	.00	.00	.00	.08	.00	.00
28			.04	.00	.00	.00	.00	.09	.00	.31	.00	.00
29		.00	.00	.00		.00	.00	.68	.00	.00	.00	.00
30		.02	.00	.00		.09	.00	.08	.08	.00	.00	.00
31			.00	.00		.03		.00		.00	.00	
TOTAL		0.02	1.48	0.41	1.20	0.27	1.83	1.13	0.65	0.68	0.18	0.73

Water year October 1978 to September 1979

^a The precipitation gage used at this station measures to the nearest one-hundredth of 1 inch.

Table 4.--Total daily precipitation, in inches, at station 6 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.19	.04	.00	.00	.04	.00	.00	.00	.00	.07
2			.02	.04	.00	.02	.00	.00	.00	.00	.00	.07
3			.00	.00	.03	.00	.00	.00	.00	.00	.00	.00
4			.63	.00	.03	.00	.33	.00	.00	.00	.00	.00
5			.00	.00	.10	.00	.16	.00	.03	.00	.00	.04
6			.01	.00	.06	.00	.00	.00	.08	.00	.00	.00
7			.00	.00	.06	.02	.00	.00	.06	.00	.00	.00
8			.00	.00	.00	.00	.00	.04	.00	.00	.00	.00
9			.00	.00	.00	.06	.00	.18	.00	.00	.00	.00
10			.00	.00	.00	.00	.14	.00	.00	.00	.00	.03
11			.00	.07	.00	.00	.25	.00	.00	.00	.00	.40
12			.04	.09	.00	.00	.03	.05	.00	.00	.05	.00
13			.00	.08	.00	.00	.14	.00	.00	.00	.10	.00
14			.00	.00	.28	.00	.00	.00	.00	.00	.00	.00
15			.00	.09	.03	.00	.00	.00	.09	.00	.00	.00
16			.00	.00	.00	.00	.00	.00	.00	.23	.00	.00
17			.00	.00	.00	.00	.00	.13	.00	.00	.00	.00
18			.00	.00	.00	.00	.07	.00	.33	.00	.00	.00
19			.00	.00	.00	.00	.51	.00	.00	.00	.00	.00
20			.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21			.22	.00	.04	.00	.00	.00	.00	.00	.00	.00
22			.07	.05	.12	.00	.00	.00	.00	.04	.00	.00
23			.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
24			.18	.00	.00	.05	.00	.00	.00	.05	.00	.00
25			.07	.00	.00	.04	.00	.00	.00	.04	.00	.00
26			.00	.00	.00	.00	.30	.00	.10	.00	.00	.00
27			.00	.00	.00	.00	.00	.00	.00	.05	.00	.00
28			.02	.04	.00	.00	.00	.14	.00	.14	.00	.00
29		.00	.00	.00		.00	.00	.79	.00	.00	.00	.00
30		.03	.00	.00		.10	.00	.04	.02	.00	.00	.00
31			.00	.00		.02		.00		.00	.00	
TOTAL		0.03	1.45	0.50	0.75	0.31	2.00	1.37	0.71	0.55	0.15	0.61
Water year October 1978 to September 1979												

^a The precipitation gage used at this station measures to the nearest one-hundredth of 1 inch.

Table 5.--Total daily precipitation, in inches, at station 8 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.0	.0	.0	.0	.0	.0
2							.0	.1	.0	.0	.0	.0
3							.0	.0	.0	.0	.0	.0
4							.4	.0	.0	.0	.0	.0
5							.1	.0	.0	.0	.0	.0
6							.0	.0	.1	.0	.0	.0
7							.0	.0	.0	.0	.0	.0
8							.0	.0	.0	.0	.0	.0
9							.0	.2	.0	.0	.0	.0
10							.0	.0	.0	.1	.0	.0
11							.2	.1	.0	.0	.0	.4
12							.1	.0	.1	.0	.0	.0
13							.0	.0	.1	.0	.2	.0
14							.1	.1	.0	.0	.0	.0
15							.0	.0	.0	.0	.0	.0
16							.1	.0	.0	.2	.0	.0
17							.0	.1	.0	.0	.0	.0
18							.0	.0	.2	.0	.0	.0
19							.4	.0	.0	.0	.0	.0
20							.1	.0	.0	.0	.0	.0
21							.0	.0	.0	.0	.0	.0
22							.0	.0	.0	.1	.1	.0
23							.0	.0	.0	.0	.0	.0
24							.0	.0	.0	.0	.0	.0
25							.0	.0	.0	.1	.0	.0
26						.0	.2	.0	.1	.0	.0	.0
27						.0	.0	.0	.0	.3	.0	.0
28						.0	.0	.0	.0	.4	.1	.0
29						.0	.0	.8	.0	.0	.0	.0
30						.0	.0	.1	.0	.0	.0	.0
31						.0		.0		.0	.0	
TOTAL						0.0	1.7	1.5	0.6	1.2	0.4	0.4

Water year October 1978 to September 1979

^a The precipitation gage used at this station measures to the nearest one-tenth of 1 inch.

Table 6.--Total daily precipitation, in inches, at station 11 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.23	.03	.00	.00	.04	.00	.00	.00	.00	.00
2			.00	.05	.00	.03	.00	.00	.00	.00	.00	.00
3			.00	.00	.04	.00	.00	.00	.00	.00	.00	.00
4			.67	.00	.06	.00	.46	.00	.00	.00	.00	.00
5			.00	.00	.08	.00	.13	.00	.00	.00	.00	.00
6			.01	.00	.10	.00	.00	.00	.10	.00	.00	.00
7			.00	.00	.08	.04	.00	.00	.05	.00	.00	.00
8			.00	.00	.00	.00	.00	.02	.00	.00	.00	.00
9			.04	.00	.00	.06	.00	.23	.00	.00	.00	.00
10			.06	.00	.00	.00	.17	.00	.00	.00	.00	.09
11			.00	.10	.00	.00	.43	.06	.00	.00	.00	.27
12			.10	.08	.00	.00	.07	.06	.00	.00	.00	.00
13			.00	.06	.00	.00	.11	.00	.00	.00	.32	.00
14			.00	.00	.53	.00	.00	.00	.00	.00	.00	.00
15			.00	.08	.08	.00	.00	.00	.00	.00	.00	.00
16			.00	.00	.00	.00	.00	.03	.00	.31	.00	.00
17			.00	.00	.00	.00	.00	.06	.00	.00	.00	.00
18			.00	.00	.03	.00	.05	.00	.12	.00	.00	.00
19			.00	.00	.00	.00	.53	.00	.00	.00	.00	.00
20			.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21			.28	.00	.00	.00	.00	.00	.00	.00	.00	.00
22			.07	.24	.21	.00	.00	.00	.00	.05	.00	.00
23			.00	.00	.00	.00	.06	.00	.00	.00	.00	.00
24			.24	.00	.00	.07	.00	.00	.00	.00	.00	.00
25			.07	.00	.00	.03	.00	.00	.00	.00	.00	.00
26			.00	.00	.00	.00	.43	.00	.07	.00	.00	.00
27			.00	.00	.00	.00	.00	.00	.00	.14	.00	.00
28		.11	.06	.00	.00	.00	.00	.10	.00	.28	.00	.00
29		.05	.00	.00		.00	.00	.63	.00	.00	.00	.00
30		.00	.00	.00		.06	.00	.13	.00	.00	.00	.00
31			.00	.00		.03		.00		.00	.00	
TOTAL		0.16	1.83	0.64	1.21	0.32	2.48	1.32	0.34	0.78	0.32	0.36

Water year October 1978 to September 1979

^a The precipitation gage used at this station measures to the nearest one-hundredth of 1 inch.

Table 7.--Total daily precipitation, in inches, at station 14 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										.00	.00	.04
2										.00	.00	.00
3										.00	.00	.00
4										.00	.00	.00
5										.00	.00	.00
6										.00	.00	.00
7										.00	.00	.00
8										.00	.00	.00
9										.00	.00	.00
10										.00	.00	.06
11										.00	.00	.35
12										.00	.00	.00
13										.00	.11	.00
14										.00	.00	.00
15										.00	.00	.00
16										.29	.00	.00
17										.00	.00	.00
18										.00	.00	.00
19										.00	.00	.00
20										.00	.00	.00
21										.00	.00	.00
22										.08	.00	.00
23										.00	.00	.00
24										.04	.00	.00
25										.03	.00	.00
26										.00	.00	.00
27										.10	.00	.00
28										.49	.00	.00
29									.00	.00	.00	.00
30									.00	.00	.00	.00
31									.00	.00	.00	
TOTAL										1.03	0.11	0.45

Water year October 1978 to September 1979

^a The precipitation gage used at this station measures to the nearest one-hundredth of 1 inch.

Table 8.--Total daily precipitation, in inches, at station 17 ^a

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									.00	.00	.00	.26
2									.00	.00	.00	.00
3									.00	.00	.00	.00
4									.00	.00	.00	.00
5									.00	.00	.00	.00
6									.10	.00	.00	.00
7									.02	.00	.00	.00
8									.00	.00	.00	.00
9									.00	.00	.00	.00
10									.00	.00	.00	.03
11								.00	.00	.00	.00	.47
12								.00	.00	.00	.00	.00
13								.00	.00	.00	.20	.00
14								.00	.00	.00	.00	.00
15								.00	.05	.00	.00	.00
16								.00	.00	.12	.00	.00
17								.00	.00	.00	.00	.00
18								.00	.22	.00	.00	.00
19								.00	.00	.00	.00	.00
20								.00	.00	.00	.00	.00
21								.00	.00	.00	.00	.00
22								.00	.00	.00	.00	.00
23								.00	.00	.00	.00	.00
24								.00	.00	.00	.26	.00
25								.00	.00	.00	.00	.00
26								.00	.12	.00	.00	.00
27								.00	.00	.18	.00	.00
28								.04	.00	.43	.00	.00
29								.59	.00	.00	.00	.00
30								.06	.00	.00	.00	.00
31								.00		.00	.00	
TOTAL								0.69	0.51	0.73	0.46	0.76

Water year October 1978 to September 1979

^a The precipitation gage used at this station measures to the nearest one-hundredth of 1 inch.

Table 9.--Snow depth and equivalent water content
at stations 1, 3, 4, 5, 7, 8, 9, and 12

Station number	Date	Average depth (inches)	Water content (inches)	Station number	Date	Average depth (inches)	Water content (inches)
1	<u>1978</u>			7	<u>1978</u>		
	Nov. 16	5.7	0.6		Dec. 20	13.0	2.3
	<u>1979</u>				<u>1979</u>		
	Jan. 11	11.4	2.3		Jan. 10	15.6	2.6
	Jan. 18	14.3	2.5	8	Feb. 6	22.8	3.9
	Jan. 31	15.6	3.5		Mar. 1	22.6	4.2
	Feb. 8	14.8	3.3		Mar. 15	11.1	4.1
	Feb. 20	18.1	4.9		<u>1978</u>		
	Mar. 15	5.9	1.8		Dec. 20	11.7	2.2
	Mar. 21	.0	.0		<u>1979</u>		
3	<u>1978</u>				Jan. 9	15.3	3.6
	Dec. 21	13.3	2.1		Feb. 6	21.0	5.1
	<u>1979</u>				Feb. 27	21.3	5.6
	Feb. 21	18.3	1.2		Mar. 13	10.3	3.8
	Mar. 13	11.1	3.2		Mar. 22	.6	.2
	Mar. 23	9.8	3.0	9	<u>1978</u>		
	<u>1978</u>				Dec. 20	9.7	1.7
4	Dec. 21	12.5	1.6		<u>1979</u>		
	<u>1979</u>				Mar. 15	6.5	2.3
	Jan. 10	13.5	2.6		Mar. 24	.8	0.4
	Feb. 21	19.6	5.2	12	<u>1978</u>		
	Mar. 23	8.3	2.8		Dec. 19	9.3	3.1
	<u>1978</u>				<u>1979</u>		
	Dec. 21	9.2	1.6		Mar. 13	10.0	3.6
5	<u>1979</u>				Mar. 24	3.9	1.6
	Jan. 10	11.2	2.3				
	Feb. 21	16.6	4.3				
	Mar. 23	.0	.0				

Table 10.--Air temperature, in degrees Celsius, at station 1

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.5	3.0	12.5	22.5	-9.0	2.5	-2.5	-19.0	-10.5	-13.0	-29.5	-19.5
2	14.0	-2.5	8.5	22.5	-7.5	4.5	-9.0	-23.5	-16.5	-8.0	-27.5	-18.5
3	21.0	-5.0	7.5	18.0	-4.0	5.5	-8.5	-27.5	-16.5	-11.0	-27.0	-20.5
4	14.5	3.5	10.0	23.0	-2.0	7.0	6.5	-6.0	-2.5	-17.0	-35.0	-25.0
5	13.5	-5.0	3.5	8.0	-10.0	-1.0	-5.5	-23.5	-11.0	-15.0	-37.5	-26.5
6	19.5	-8.0	4.5	13.0	-12.0	-1.5	-5.0	-26.0	-17.5	-9.0	-25.0	-19.0
7	26.5	-6.0	7.5	18.5	-5.5	4.0	-11.0	-27.0	-20.5	-9.0	-31.0	-22.0
8	21.0	.0	9.5	16.0	.5	8.0	-8.5	-30.0	-21.0	-3.5	-30.0	-20.0
9	24.0	-2.5	8.5	4.5	-5.5	-0.5	1.5	-23.0	-6.0	-12.0	-30.0	-19.0
10	26.5	-1.5	11.5	-6.5	-13.5	-9.5	1.5	-18.0	-5.0	-11.5	-26.5	-17.0
11	15.5	3.5	11.0	-7.0	-17.0	-10.5	-3.0	-20.0	-10.5	-7.5	-16.5	-12.0
12	11.0	-5.0	5.5	-6.5	-10.5	-8.0	2.0	-12.5	-3.0	-16.5	-28.0	-20.0
13	12.5	-9.0	1.5	-7.0	-16.0	-9.0	-5.0	-24.0	-18.0	-19.5	-31.5	-25.5
14	20.5	-8.0	4.5	-4.5	-23.5	-16.0	3.5	-25.0	-9.5	-16.0	-37.5	-26.0
15	19.0	-4.0	6.5	-5.5	-24.5	-17.5	2.5	-11.0	-4.0	-9.0	-25.0	-18.0
16	20.0	-6.0	6.0	-3.5	-23.0	-13.5	-1.5	-24.5	-12.0	-3.0	-24.5	-16.5
17	10.5	1.0	6.0	.0	-13.5	-6.5	-9.5	-26.0	-18.5	-8.5	-25.5	-19.0
18	17.0	-1.0	6.0	-9.5	-18.5	-15.0	-5.0	-19.0	-12.5	-2.5	-19.5	-12.5
19	24.0	-4.0	7.0	-17.0	-19.5	-18.5	-3.0	-15.5	-7.5	2.0	-21.0	-7.5
20	23.5	-2.0	7.0	-11.5	-23.5	-18.5	.0	-21.0	-10.0	1.5	-14.0	-5.5
21	14.0	-1.0	5.5	-10.5	-25.5	-18.0	3.0	-16.0	-7.5	3.5	-16.0	-4.0
22	10.0	-5.0	2.0	-5.0	-19.5	-14.0	1.5	-13.0	-7.0	-7.5	-26.5	-14.5
23	20.5	-8.5	4.5	1.0	-16.5	-9.0	-0.5	-7.0	-4.0	-2.5	-27.0	-16.0
24	17.5	-3.0	5.0	.0	-18.0	-11.5	4.5	-6.0	-1.0	.0	-18.5	-9.5
25	11.0	-3.5	4.5	-5.5	-20.5	-13.0	-2.5	-15.5	-8.5	-3.0	-23.0	-11.0
26	19.0	-7.0	3.5	.0	-9.0	-3.5	-3.5	-23.0	-16.5	-5.0	-25.5	-17.0
27	16.0	-7.5	2.5	-1.0	-14.5	-6.5	-9.5	-23.0	-14.5	-12.0	-25.5	-19.5
28	17.0	-6.5	3.0	3.5	-10.5	-2.5	-12.5	-24.0	-17.5	-15.0	-30.5	-20.0
29	17.0	-3.5	4.0	4.0	-5.5	.0	-19.0	-37.0	-26.5	-15.0	-34.0	-26.0
30	10.5	-10.5	-1.5	1.0	-9.0	-3.0	-22.5	-39.0	-32.5	-14.0	-33.0	-25.5
31	14.5	-13.5	-2.0				-18.0	-39.5	-31.0	-11.5	-34.5	-26.0
MONTH	26.5	-13.5	5.5	23.0	-25.5	-6.5	6.5	-39.5	-13.0	3.5	-37.5	-18.0

Water year October 1978 to September 1979

Table 10.--Air temperature, in degrees Celsius, at station 1--Continued

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	-17.5	-33.0	-25.0	-6.5	-10.5	-9.0	.0	-6.5	-3.5	13.0	2.5	8.0
2	-14.5	-32.5	-25.0	-5.0	-21.5	-11.0	3.5	-9.5	-1.5	9.0	-1.0	4.0
3	-3.5	-27.0	-13.0	2.0	-25.5	-14.5	6.5	-6.0	.0	17.0	-5.5	6.5
4	-2.0	-24.0	-14.0	7.0	-24.0	-9.0	7.0	-3.5	.0	24.5	-3.5	11.0
5	6.0	-23.5	-7.0	11.0	-13.5	-2.0	-3.0	-10.5	-6.0	21.0	8.0	14.0
6	-0.5	-13.0	-6.0	10.5	-4.5	2.5	22.0	-12.5	3.0	14.0	-0.5	9.5
7	4.5	-13.5	-4.5	13.5	-1.5	4.5	13.0	-4.0	7.0	11.5	-2.5	5.5
8	-2.0	-25.5	-16.5	4.5	-6.0	.0	18.5	-6.0	5.0	4.5	-1.0	2.5
9	4.0	-18.5	-7.0	.0	-11.5	-4.0	20.5	-5.5	9.0	3.5	-0.5	1.0
10	12.5	-12.5	-3.5	11.5	-15.0	-2.0	6.0	-0.5	3.5	11.5	-5.0	2.5
11	-5.5	-11.0	-10.0	15.5	-8.0	1.5	2.0	-1.0	.0	12.0	-4.0	5.0
12	4.0	-13.5	-8.0	14.5	-8.5	2.0	5.5	-6.0	.0	16.0	.0	10.0
13	9.0	-13.5	-4.5	5.0	-8.0	.5	11.0	-5.0	2.5	17.0	5.0	11.5
14	.5	-22.5	-11.0	11.5	-10.5	-3.0	14.5	-4.5	4.5	19.5	5.5	14.0
15	-14.0	-37.0	-23.0	16.0	-9.5	1.0	18.5	-3.5	8.0	28.5	1.5	12.5
16	-9.5	-35.0	-23.5	17.0	-7.0	2.0	23.0	-2.0	12.0	29.5	3.5	18.0
17	4.0	-21.0	-10.5	7.5	-2.0	3.0	28.0	7.0	17.0	18.5	5.0	11.5
18	1.0	-21.0	-10.5	2.0	-0.5	.5	20.5	4.0	12.0	20.5	6.5	14.0
19	4.5	-11.0	-4.5	3.0	-8.0	-1.5	9.5	-1.0	3.0	16.5	2.0	11.5
20	1.5	-18.5	-6.0	6.0	-10.0	-1.5	14.5	-4.0	5.0	19.0	1.0	12.0
21	.0	-20.5	-10.5	8.5	-9.5	1.0	15.5	-3.0	6.5	24.5	1.0	14.5
22	-8.5	-19.5	-12.0	6.0	-5.0	.5	19.0	-1.0	10.5	20.0	2.0	12.0
23	-8.0	-25.0	-17.0	8.0	-5.5	1.0	7.5	3.5	5.0	23.5	-0.5	13.0
24	-5.0	-26.5	-16.0	16.5	-6.5	5.0	9.5	.0	5.0	29.5	1.5	18.0
25	3.5	-21.5	-9.5	3.5	-8.5	-2.5	13.5	-4.5	5.5	24.5	5.0	17.5
26	5.0	-14.0	-5.0	2.0	-9.5	-3.5	10.0	.0	4.5	28.0	3.0	17.0
27	-1.0	-11.0	-4.0	7.5	-4.0	.0	15.5	-3.0	6.5	31.5	8.0	20.5
28	5.0	-13.5	-3.5	7.0	-6.5	-1.0	11.5	-3.0	6.5	14.0	5.5	11.0
29				14.5	-6.0	3.0	15.0	-6.5	5.0	8.5	2.5	6.0
30				9.0	-4.0	2.0	16.0	-4.5	7.5	12.0	.5	7.0
31				8.5	-4.0	1.5				14.0	.0	7.5
MONTH	12.5	-37.0	-11.0	17.0	-25.5	-1.0	28.0	-12.5	5.0	31.5	-5.5	10.5

Water year October 1978 to September 1979

Table 10.--Air temperature, in degrees Celsius, at station 1--Continued

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.5	-0.5	12.0	30.0	7.0	21.0	33.0	10.0	22.0	27.5	7.5	18.0
2	24.5	3.5	15.5	29.0	10.0	19.5	34.0	8.5	22.5	33.0	5.5	19.0
3	27.5	5.5	18.5	33.0	9.0	24.0	35.5	10.5	24.0	35.5	7.5	21.5
4	27.5	6.5	18.5	27.5	13.5	20.5	31.0	12.0	23.0	28.0	10.0	19.5
5	28.0	9.5	20.0	32.5	9.0	22.0	37.5	16.5	27.0	27.5	6.0	17.5
6	18.5	7.0	13.0	33.0	14.0	24.0	34.0	16.5	25.5	31.5	5.0	18.5
7	12.5	.0	7.0	34.5	15.5	25.5	29.5	16.0	22.5	33.5	7.5	21.0
8	15.0	-1.5	11.5	34.5	10.5	23.5	30.5	18.5	23.5	38.5	5.5	21.5
9	20.0	.0	11.0	32.5	10.5	24.0	23.0	18.0	20.0	29.5	9.5	21.5
10	28.5	1.5	16.0	38.5	11.5	27.0	29.0	13.0	24.0	17.5	2.5	12.5
11	32.0	7.5	20.0	32.5	15.5	24.0	35.0	8.5	22.5	23.0	-1.0	11.0
12	35.0	6.5	22.0	32.0	14.5	21.5	24.0	13.5	20.5	16.0	3.5	9.0
13	36.5	7.0	24.0	26.0	10.0	19.0	16.5	13.0	15.0	16.5	.0	8.0
14	24.5	10.0	20.0	27.0	7.0	18.5	22.0	13.0	17.0	24.0	-3.0	9.5
15	27.0	5.0	17.0	25.0	7.0	18.0	30.5	9.5	20.5	32.0	-1.0	14.0
16	23.0	7.5	16.0	25.0	12.5	18.0	29.0	11.0	20.5	34.5	2.0	17.0
17	21.5	9.5	16.5	32.0	10.5	21.5	31.5	10.0	21.0	25.5	5.0	16.0
18	24.0	6.0	15.0	33.0	9.0	23.0	26.5	9.5	19.0	32.0	2.0	16.5
19	23.0	4.0	14.5	34.0	9.0	24.5	25.0	11.5	17.5	28.5	3.5	16.5
20	24.0	10.0	17.5	35.5	13.0	25.5	22.0	11.5	17.0	24.5	4.5	13.5
21	28.5	7.5	17.0	37.0	11.5	25.5	27.5	8.5	18.5	29.5	.0	15.0
22	24.5	8.0	16.5	33.5	13.0	24.5	25.0	11.5	18.5	25.5	5.0	15.5
23	27.5	6.5	18.0	26.5	14.5	21.0	29.5	7.5	19.5	25.5	3.0	14.5
24	31.0	6.5	20.0	34.0	10.0	21.0	27.0	7.0	16.5	29.5	2.0	15.0
25	28.5	10.0	20.5	26.5	14.5	19.0	24.0	11.0	17.0	32.0	2.0	21.5
26	31.0	12.5	20.5	25.0	14.0	18.5	24.5	7.5	16.0	26.5	6.5	15.5
27	27.0	10.0	18.5	29.0	13.0	21.5	27.5	9.5	17.0	23.0	2.5	13.0
28	31.0	8.0	21.5	32.0	14.5	22.5	27.0	9.5	18.5	29.0	.0	14.0
29	34.0	11.0	24.5	26.5	12.5	20.0	31.5	6.0	19.5	26.5	1.5	13.5
30	37.0	16.5	26.0	25.5	9.5	18.5	36.0	7.0	23.0	25.0	1.5	12.5
31				31.0	8.5	20.5	25.0	12.0	20.0			
MONTH	37.0	-1.5	17.5	38.5	7.0	22.0	37.5	6.0	20.5	38.5	-3.0	15.5
YEAR	38.5	-39.5	4.0									

Water year October 1978 to September 1979

Table 11.--Average daily percent relative humidity at station 1

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53.3	54.0	79.2	65.2	65.4	79.9	77.7	67.2	53.7	42.0	43.0	45.9
2	48.3	55.9	74.0	71.7	63.2	73.5	69.1	62.6	54.8	55.5	39.5	46.0
3	51.3	55.0	69.1	69.3	65.3	63.5	63.5	61.4	49.1	48.5	39.2	36.7
4	45.0	44.2	80.9	64.6	70.1	65.3	83.6	55.2	54.9	64.6	55.6	44.4
5	59.5	54.0	70.7	58.6	70.1	70.2	78.5	62.1	51.7	53.2	45.5	41.2
6	58.5	55.5	74.0	63.5	82.3	79.6	66.7	61.0	60.2	47.5	33.4	45.2
7	55.5	52.8	67.6	62.1	78.3	72.5	60.2	60.5	74.8	31.2	41.4	45.4
8	52.1	51.0	61.9	59.0	65.8	74.8	61.0	64.7	54.2	38.4	55.5	39.6
9	58.0	93.0	61.2	68.9	69.9	74.0	52.4	87.5	62.2	45.6	50.1	37.5
10	48.1	82.2	67.8	68.8	73.9	64.8	80.1	68.7	54.0	37.6	32.5	62.7
11	47.7	79.6	74.7	71.4	81.7	64.6	86.8	74.1	50.1	36.2	41.0	68.6
12	55.5	76.1	70.5	69.8	78.4	63.0	68.6	53.2	45.3	42.2	45.2	77.5
13	55.0	73.8	71.7	67.9	74.1	61.0	74.3	52.3	43.7	45.7	83.2	71.6
14	51.2	70.7	64.3	62.4	80.9	72.5	64.6	42.2	34.4	38.4	69.4	59.7
15	59.9	70.8	52.9	70.1	56.0	68.0	60.5	57.0	55.8	42.9	59.0	48.5
16	64.0	74.3	55.3	68.9	60.0	70.2	56.5	47.7	64.4	69.0	56.2	40.8
17	77.5	77.5	70.3	69.2	64.7	76.4	43.2	58.3	63.5	55.5	51.2	46.3
18	74.6	71.9	72.7	68.3	69.2	83.2	61.7	50.5	73.5	49.9	58.4	48.8
19	65.5	69.8	76.0	65.1	69.1	70.2	85.9	50.0	70.2	39.8	63.1	46.8
20	63.4	68.0	65.6	67.9	74.0	61.9	61.0	43.6	59.7	37.7	68.1	55.8
21	74.3	69.5	79.3	68.2	72.8	66.4	59.6	48.6	64.7	41.0	59.6	47.0
22	76.0	71.6	83.7	69.0	71.2	71.3	54.5	52.6	69.5	46.1	57.6	44.7
23	61.3	77.9	72.7	62.2	64.2	67.7	83.7	50.6	54.1	58.8	55.2	50.8
24	62.5	76.8	75.2	65.7	65.9	57.4	78.0	46.9	50.8	64.1	64.6	48.1
25	55.7	76.8	72.9	73.6	66.4	67.5	59.0	54.8	53.1	75.4	73.5	46.1
26	53.1	78.7	72.5	72.0	72.0	65.8	76.7	52.5	61.5	76.7	70.8	54.0
27	57.3	78.5	70.9	70.8	80.1	73.7	62.2	49.0	72.5	61.2	77.4	55.3
28	63.8	80.2	65.8	70.0	77.4	67.7	57.0	70.2	51.5	97.6	53.4	43.1
29	66.4	70.4	63.8	64.6		66.5	57.2	88.7	45.8	62.3	52.7	36.7
30	62.7	84.5	59.6	62.1		74.4	56.3	78.1	42.1	59.0	42.3	43.5
31	57.1		60.7	59.5		68.9		72.2		58.9	37.7	
MEAN	59.2	69.8	69.6	66.8	70.8	69.6	66.7	59.5	56.5	52.3	54.0	49.3
Water year October 1978 to September 1979					MEAN	61.9	MAX	97.6	MIN	31.2		

Table 12.--Wind run, in total miles per day, at station 1^b

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	80	153	227	91	164	111	119	144	142	---	---
2	224	76	63	77	82	135	100	113	127	141	---	---
3	84	88	85	128	82	66	122	115	177	156	---	---
4	233	151	136	86	97	92	103	101	109	138	---	---
5	140	87	159	84	100	91	57	122	124	141	---	---
6	73	100	104	95	92	102	76	225	147	155	---	---
7	66	73	101	94	237	128	267	191	164	142	---	---
8	152	93	142	75	82	141	96	132	68	146	---	---
9	72	138	69	63	78	188	106	104	165	125	---	---
10	122	186	218	74	133	94	157	114	111	145	---	---
11	116	113	65	145	124	96	174	182	98	152	---	---
12	227	171	155	145	140	143	311	173	103	148	---	---
13	153	175	83	99	68	210	112	170	116	145	---	---
14	105	73	90	66	203	92	86	101	169	188	---	---
15	101	57	232	69	132	63	121	93	108	119	---	---
16	49	74	112	106	55	75	139	123	127	109	---	---
17	73	79	85	84	115	116	152	162	234	137	---	---
18	76	156	83	91	70	144	159	128	179	115	---	---
19	75	110	77	152	93	190	125	206	182	111	---	242
20	107	75	170	123	135	78	86	112	178	125	---	85
21	130	69	146	109	72	80	99	200	91	123	---	98
22	88	68	89	240	254	147	141	120	92	196	---	88
23	96	94	133	107	95	140	154	97	97	112	---	120
24	212	84	173	87	81	108	170	114	96	---	---	76
25	178	75	145	95	83	191	181	158	118	---	---	94
26	128	99	62	55	97	131	171	88	132	---	---	195
27	68	100	74	95	143	133	116	114	98	---	---	163
28	92	118	281	106	88	116	249	177	113	---	---	94
29	169	109	89	93		155	118	119	128	---	---	86
30	86	84	71	86		103	96	114	182	---	---	179
31	66		97	56		163		168		---	---	
TOTAL	3702	3055	3742	3212	3122	3875	4155	4255	3977		---	

Water year October 1978 to September 1979

^bDashes indicate instrument malfunction.

Table 13.--Total daily solar radiation, in calories per square centimeter per day, at station 1

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	346	261	55	114	204	147	266	235	720	704	658	550
2	281	255	117	89	244	281	340	380	686	644	651	474
3	365	227	204	169	232	399	376	592	645	668	649	532
4	284	155	41	182	107	394	233	485	670	453	629	425
5	358	219	29	188	147	266	144	443	576	632	533	524
6	377	220	26	134	46	244	520	453	365	481	599	513
7	359	166	26	186	113	312	351	716	305	703	281	519
8	328	97	36	157	275	278	540	202	334	583	289	511
9	344	67	51	204	235	285	533	238	610	700	461	451
10	320	127	122	132	272	419	78	372	668	642	535	213
11	247	47	117	118	251	424	115	433	652	554	583	565
12	296	23	76	119	191	403	402	524	722	580	437	372
13	325	157	108	93	248	406	295	433	708	600	95	372
14	327	247	107	61	74	312	569	593	640	709	259	499
15	327	239	102	43	258	414	525	427	613	632	556	494
16	224	219	163	52	292	353	461	531	482	601	468	480
17	71	159	68	114	281	195	450	580	314	665	493	457
18	299	111	80	156	292	113	541	626	302	695	290	450
19	308	150	85	135	287	316	193	654	458	687	269	388
20	214	177	138	171	283	474	583	700	679	659	242	347
21	226	198	73	116	195	451	604	642	594	642	419	437
22	289	182	58	133	191	332	485	629	578	506	410	398
23	261	205	140	214	338	289	107	712	719	346	527	427
24	105	223	88	191	341	400	349	664	689	539	265	411
25	271	215	142	171	341	189	558	588	549	532	425	371
26	284	103	173	170	297	272	256	700	524	346	504	342
27	265	136	111	230	248	380	614	650	515	610	400	382
28	254	107	138	167	242	414	587	119	720	635	555	382
29	207	152	173	227		427	523	113	617	626	547	359
30	288	117	172	210		272	433	428	590	481	489	273
31	274		173	198		442		587		661	419	
TOTAL	8724	4961	3192	4644	6525	10303	12031	15449	17244	18516	13937	12918

Water year October 1978 to September 1979

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1

Thermocouple array a

Depth of observation 0.06 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.8	.6	-0.1	-5.2	-6.5	-2.7	1.7	9.3	12.4	23.3	22.2	19.5
2	10.2	1.8	-0.2	-5.0	-6.6	-2.7	1.7	8.3	14.6	22.4	23.5	19.7
3	8.5	3.1	-0.4	-5.0	-6.5	-3.0	2.3	8.4	16.0	24.3	24.9	20.7
4	9.6	5.0	-0.3	-4.8	-5.6	-3.3	2.6	10.3	17.4	22.0	25.2	20.5
5	6.9	1.7	-0.1	-5.8	-5.3	-3.2	.8	12.8	18.6	24.1	27.4	19.7
6	6.0	-0.2	-0.1	-6.2	-4.6	-2.2	1.9	11.1	15.7	25.3	26.8	20.1
7	6.9	2.4	-0.2	-6.3	-3.9	-1.2	4.7	8.6	11.5	26.4	25.1	21.1
8	8.8	5.1	-0.4	-6.7	-3.7	-0.2	4.6	7.1	11.5	25.4	25.2	21.6
9	8.2	2.7	-0.5	-6.7	-4.2	-0.1	6.1	6.4	12.5	26.0	24.6	21.7
10	9.4	.9	-0.2	-6.2	-3.9	-0.2	4.7	6.2	15.4	27.5	24.9	17.0
11	10.4	1.2	-0.2	-5.6	-3.5	-0.1	2.7	7.0	18.5	26.9	24.9	15.5
12	7.7	1.1	-0.2	-5.2	-3.3	-0.1	2.5	9.3	20.2	25.4	24.6	13.2
13	4.5	.9	-0.2	-5.1	-3.3	-0.1	3.8	10.6	21.7	24.2	19.7	11.6
14	5.0	.7	-0.4	-5.2	-3.0	.0	4.8	12.4	20.9	23.2	19.3	11.2
15	6.2	.3	-0.5	-5.1	-3.3	-0.1	6.8	12.5	19.8	23.1	21.5	12.8
16	6.3	.2	-0.5	-4.9	-3.2	-0.1	8.8	14.6	18.4	21.7	22.2	15.1
17	7.0	.2	-0.9	-4.9	-3.8	-0.1	11.0	13.4	17.8	22.8	22.9	15.7
18	7.0	.0	-1.1	-4.8	-3.7	.0	10.8	13.8	15.6	24.4	22.1	16.3
19	5.7	-0.2	-0.9	-4.6	-3.5	.0	7.5	12.4	14.9	25.6	21.3	19.3
20	6.3	-0.2	-1.2	-4.1	-3.2	.0	7.4	13.4	16.7	27.2	20.5	15.5
21	6.3	-0.3	-1.2	-3.9	-3.1	.0	8.3	14.0	17.6	27.4	20.9	15.8
22	4.4	-0.4	-0.9	-3.7	-3.1	.2	9.5	13.9	17.6	26.5	21.6	16.0
23	3.7	-0.4	-0.8	-4.3	-3.2	.8	7.8	14.6	18.4	23.9	21.8	15.8
24	4.7	-0.5	-0.7	-4.5	-3.4	1.6	8.1	16.7	19.4	24.2	19.7	15.8
25	5.0	-0.8	-0.4	-4.1	-3.6	.5	7.3	17.9	19.9	24.1	16.3	19.0
26	3.1	-0.6	-0.9	-4.3	-3.4	-0.1	6.9	17.5	20.8	21.9	18.2	16.4
27	2.6	-0.3	-1.3	-4.7	-3.2	1.0	7.9	19.5	19.4	24.1	18.2	14.6
28	2.8	-0.3	-1.8	-4.8	-2.9	1.4	7.5	14.6	21.1	23.5	18.0	14.7
29	3.9	.0	-2.6	-5.2		2.5	7.3	10.8	23.4	20.9	18.3	14.5
30	.9	.0	-3.6	-5.8		3.3	8.3	10.7	25.1	20.3	20.2	14.2
31	-0.8		-4.7	-6.2		3.3		10.9		21.6	19.5	
MEAN	6.1	.8	-0.9	-5.1	-4.0	-0.2	5.9	11.9	17.8	24.2	22.0	16.8
Water year October 1978 to September 1979					MEAN	8.0	MAX	27.5	MIN	-6.7		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 0.15 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	1.0	.1	-4.9	-6.3	-2.6	2.0	9.3	12.4	23.0	22.3	19.5
2	10.8	1.9	.0	-4.7	-6.3	-2.6	1.8	8.5	14.5	22.3	23.2	19.6
3	8.9	3.1	-0.2	-4.7	-6.3	-2.9	2.4	8.5	15.8	23.0	24.4	20.4
4	10.0	4.8	-0.1	-5.0	-5.5	-3.2	2.7	10.1	17.1	23.4	24.8	20.4
5	7.7	2.6	.0	-6.0	-5.3	-3.1	1.3	12.4	18.3	23.1	26.5	19.8
6	6.6	.4	.0	-5.9	-4.6	-2.3	1.9	11.4	16.2	24.7	26.3	20.0
7	7.2	2.3	-0.1	-6.0	-3.9	-1.4	4.5	9.1	12.5	25.5	24.9	20.8
8	8.9	4.7	-0.2	-6.4	-3.6	-0.4	4.4	7.8	9.3	24.8	24.9	21.3
9	8.5	3.3	-0.3	-6.4	-4.2	-0.1	5.8	6.9	12.8	25.5	24.3	21.3
10	9.4	1.4	-0.1	-6.0	-3.8	-0.1	5.1	6.6	15.1	26.6	24.5	18.2
11	10.6	1.5	-0.1	-5.5	-3.4	-0.1	3.2	7.2	17.9	26.4	24.5	16.1
12	8.4	1.4	.0	-5.1	-3.3	.0	2.8	9.1	19.6	25.2	24.5	14.3
13	5.5	1.2	.0	-5.0	-3.2	.0	3.7	10.4	21.0	24.3	20.9	12.6
14	5.4	1.0	-0.3	-5.1	-3.0	.0	4.8	12.0	20.6	23.3	19.9	11.9
15	6.5	.6	-0.3	-4.9	-3.2	.0	6.5	12.6	19.6	23.1	21.5	13.2
16	6.6	.4	-0.4	-4.7	-3.1	.0	8.3	14.3	18.6	22.4	22.2	15.0
17	7.3	.4	-0.6	-4.7	-3.7	.0	10.5	13.6	17.7	22.9	22.8	15.8
18	7.5	.3	-0.9	-4.7	-3.6	.0	10.6	13.7	15.5	24.1	22.1	16.2
19	6.2	.1	-0.9	-4.5	-3.5	.1	8.0	12.8	15.1	25.0	21.5	18.6
20	6.6	.0	-1.0	-4.0	-3.2	.0	7.5	13.5	16.6	26.5	20.8	15.8
21	6.6	-0.1	-1.0	-3.8	-3.1	.0	8.4	14.1	17.6	26.8	20.8	15.8
22	5.3	-0.2	-0.8	-3.6	-3.0	.1	9.3	14.1	18.0	26.2	21.6	16.1
23	4.1	-0.2	-0.7	-4.2	-3.1	.5	8.2	14.5	18.4	24.2	21.7	15.8
24	5.0	-0.3	-0.6	-4.4	-3.3	1.3	8.2	16.2	19.3	24.2	20.2	15.9
25	5.5	-0.5	-0.3	-4.0	-3.5	.6	7.5	17.7	19.7	23.8	19.5	16.2
26	3.6	-0.4	-0.7	-4.1	-3.3	.0	7.2	17.3	20.9	22.2	18.7	16.4
27	3.2	-0.2	-1.1	-4.5	-3.1	.9	7.9	19.0	19.9	23.7	18.7	15.2
28	3.2	-0.2	-1.5	-4.7	-2.8	1.3	7.9	15.5	20.8	23.7	18.5	14.8
29	4.1	.1	-2.2	-5.0		2.3	7.4	11.8	22.7	21.5	18.5	14.7
30	2.0	.1	-3.2	-5.6		3.1	8.3	11.1	24.3	20.7	20.0	14.5
31	.0		-4.3	-6.0		3.3		11.3		21.7	19.6	
MEAN	6.6	1.0	-0.7	-5.0	-3.9	-0.2	5.9	12.0	17.6	24.0	22.1	16.9
Water year October 1978 to September 1979					MEAN	8.1	MAX	26.8	MIN	-6.4		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 0.32 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.2	1.5	.3	-4.3	-6.1	-2.6	2.2	9.2	12.4	22.7	22.4	19.7
2	11.5	2.4	.2	-4.3	-6.0	-2.6	2.0	8.6	14.2	22.3	23.0	19.6
3	9.6	3.3	.1	-4.3	-6.1	-2.8	2.3	8.4	15.5	22.8	24.0	20.3
4	10.4	4.8	.1	-4.5	-5.4	-3.1	2.7	9.7	16.6	23.3	24.5	20.4
5	8.7	3.5	.2	-5.2	-5.1	-3.0	1.7	11.7	17.8	23.1	25.8	20.1
6	7.4	1.3	.2	-5.5	-4.6	-2.5	1.8	11.5	16.6	24.1	26.0	20.0
7	7.7	2.5	.1	-5.5	-4.0	-1.7	4.1	9.4	13.4	24.8	24.9	20.6
8	9.1	4.4	.0	-5.8	-3.9	-0.7	4.1	8.4	10.6	24.4	24.6	21.1
9	8.9	4.0	-0.1	-5.9	-4.0	-0.1	5.4	7.3	12.9	25.0	24.1	21.1
10	9.4	2.1	.1	-5.7	-3.8	-0.1	5.3	6.9	14.7	25.8	24.6	19.3
11	10.7	2.0	.1	-5.3	-3.4	-0.1	3.5	7.2	17.2	26.0	24.2	16.7
12	9.2	1.8	.1	-4.9	-3.2	.0	3.0	8.7	18.9	25.0	24.5	15.3
13	6.6	1.6	.1	-4.8	-3.2	-0.1	3.5	10.1	20.1	24.3	21.8	13.7
14	6.1	1.4	-0.1	-4.8	-2.9	-0.1	4.5	11.4	20.3	23.4	20.3	12.7
15	6.9	1.0	-0.1	-4.7	-3.5	.0	6.0	12.4	19.4	23.1	21.3	13.5
16	7.0	.8	-0.2	-4.5	-3.2	.0	7.6	13.7	18.7	22.7	22.1	15.0
17	7.6	.8	-0.3	-4.5	-3.8	-0.1	9.7	13.5	17.7	22.7	22.6	15.9
18	7.8	.7	-0.6	-4.5	-3.5	.0	10.1	13.4	15.8	23.7	22.1	16.2
19	6.8	.5	-0.6	-4.3	-3.4	.0	8.4	12.8	14.3	24.5	21.7	17.8
20	6.9	.4	-0.7	-3.9	-3.2	.0	7.5	13.3	16.3	25.8	21.0	16.2
21	7.0	.2	-0.8	-3.7	-3.0	-0.1	8.2	13.9	17.4	26.2	20.6	15.9
22	6.2	.1	-0.6	-3.5	-3.0	.0	8.9	14.0	17.6	25.9	21.4	16.2
23	4.8	.0	-0.6	-3.9	-3.0	.1	8.4	14.3	18.2	24.4	21.5	16.0
24	5.5	.0	-0.5	-4.1	-3.2	.6	7.9	15.7	19.0	24.1	20.7	16.0
25	6.0	-0.1	-0.3	-3.9	-3.4	.5	7.5	17.3	19.5	23.4	19.9	16.1
26	4.3	-0.2	-0.4	-3.9	-3.3	.1	7.4	16.9	20.3	22.3	19.1	16.5
27	3.9	.0	-0.8	-4.2	-3.1	.6	7.8	18.3	19.9	23.3	19.1	15.6
28	3.8	.0	-1.1	-4.4	-2.9	1.1	8.0	16.2	20.3	23.7	18.8	15.0
29	4.4	.2	-1.7	-4.7		1.9	7.5	12.8	22.0	22.0	18.6	15.0
30	3.1	.3	-2.5	-5.2		2.8	8.2	11.5	23.6	21.0	20.1	14.7
31	1.0		-3.5	-5.7		3.2		11.6		21.7	19.9	
MEAN	7.1	1.4	-0.5	-4.7	-3.8	-0.3	5.8	11.9	17.4	23.8	22.1	17.1
Water year October 1978 to September 1979					MEAN	8.2	MAX	26.2	MIN	-6.1		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 0.65 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.9	3.0	1.0	-2.8	-5.0	-2.5	2.6	8.8	12.5	22.2	22.4	20.0
2	12.7	3.2	.9	-3.1	-5.0	-2.4	2.1	8.6	13.8	22.1	22.8	19.9
3	11.2	4.0	.9	-3.2	-5.1	-2.5	2.3	8.4	14.9	22.0	23.5	20.3
4	11.5	5.0	.8	-3.4	-4.8	-2.6	2.6	9.1	15.8	22.8	24.1	20.6
5	10.4	4.9	.9	-3.8	-4.6	-2.7	2.2	10.6	16.9	22.4	24.9	20.4
6	9.3	3.2	.9	-4.2	-4.2	-2.5	1.8	11.1	16.8	23.2	25.4	20.2
7	9.1	3.4	.9	-4.3	-3.8	-2.0	3.4	9.8	14.6	23.8	25.0	20.6
8	9.9	4.5	.7	-4.6	-3.5	-0.6	3.7	9.2	12.0	23.8	24.5	21.0
9	10.0	5.0	.7	-4.7	-3.5	.0	4.7	8.2	13.2	24.2	24.2	21.1
10	10.1	3.7	.7	-4.7	-3.4	.0	5.3	7.6	14.2	24.7	23.8	20.5
11	11.1	3.2	.8	-4.5	-3.2	.0	4.1	7.5	16.0	25.1	23.9	18.2
12	10.5	3.0	.7	-4.2	-3.0	.0	3.4	8.3	17.6	24.8	24.4	17.1
13	8.7	2.7	.7	-4.1	-2.9	.0	3.5	9.5	18.8	24.3	23.1	15.6
14	7.7	2.5	.6	-4.1	-2.8	.0	4.2	10.5	19.6	23.6	21.2	14.4
15	8.1	2.2	.5	-4.0	-2.7	.0	5.3	11.9	19.0	23.3	21.2	14.5
16	8.1	1.9	.4	-3.9	-2.6	.0	6.6	12.7	18.7	23.1	22.0	15.4
17	8.5	1.8	.2	-3.9	-3.1	-0.1	8.3	13.1	17.8	22.6	22.4	16.2
18	8.6	1.7	.4	-3.9	-3.1	-0.1	9.1	12.9	16.7	23.3	22.4	16.5
19	8.1	1.5	.0	-3.8	-3.0	.0	8.6	12.8	14.7	23.9	21.9	17.1
20	7.9	1.4	-0.1	-3.5	-2.9	.0	7.5	13.0	16.0	24.9	21.5	16.8
21	7.9	1.3	-0.2	-3.3	-2.7	.0	8.0	13.5	17.1	25.4	20.8	16.4
22	7.7	1.1	-0.1	-3.2	-2.7	.0	8.5	13.7	17.6	25.5	21.0	16.7
23	6.4	1.0	-0.1	-3.3	-2.7	.0	8.5	14.0	17.8	24.6	21.4	16.5
24	6.6	.9	.0	-3.5	-2.8	.0	8.0	14.8	18.5	23.9	21.2	16.5
25	6.9	.8	.1	-3.4	-2.9	.2	7.7	16.3	19.1	23.2	20.5	16.6
26	5.9	.7	.1	-3.4	-3.0	.1	7.7	16.2	19.8	22.7	19.8	16.8
27	5.5	.8	-0.1	-3.6	-2.9	.3	7.6	17.2	20.9	22.8	19.7	16.4
28	5.2	.8	-0.2	-3.8	-2.7	.7	8.1	16.8	19.7	23.5	19.4	15.7
29	5.4	.9	-0.7	-4.0		1.3	7.7	14.2	22.3	22.7	19.1	15.7
30	5.0	1.0	-1.2	-4.4		2.2	8.0	12.5	22.4	21.6	19.8	15.4
31	3.3		-1.9	-4.7		2.9		12.3		21.8	20.3	
MEAN	8.4	2.4	.3	-3.9	-3.4	-0.3	5.7	11.8	17.2	23.5	22.2	17.6
Water year October 1978 to September 1979					MEAN	8.5	MAX	25.5	MIN	-5.1		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 1.63 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.1	6.5	2.7	.1	-2.5	-1.9	2.3	7.7	12.6	19.7	21.6	20.1
2	14.1	6.3	2.6	-0.2	-2.6	-1.8	2.3	7.9	12.8	20.3	21.8	20.1
3	13.7	6.2	2.6	-0.5	-2.7	-1.8	2.3	7.9	13.2	19.6	22.1	20.1
4	13.3	6.4	2.6	-0.9	-2.8	-1.8	2.4	8.0	13.8	20.4	22.5	20.3
5	13.0	6.7	2.5	-1.3	-2.8	-1.8	2.5	8.5	14.4	20.4	22.8	20.3
6	12.4	6.5	2.5	-1.2	-2.8	-1.8	2.3	9.2	15.0	20.7	23.3	20.3
7	11.9	6.0	2.5	-1.4	-2.7	-1.8	2.4	9.4	14.8	21.0	23.5	20.3
8	11.8	5.9	2.4	-1.6	-2.5	-1.4	2.9	9.3	13.3	21.4	23.4	20.5
9	11.8	6.3	2.4	-1.8	-2.4	-0.8	3.3	8.9	13.5	21.6	23.4	20.6
10	11.7	6.2	2.3	-2.0	-2.4	-0.6	4.0	8.4	13.5	21.9	23.0	20.7
11	11.9	5.8	2.3	-2.1	-2.3	-0.5	4.1	8.1	13.9	22.3	23.0	20.1
12	12.0	5.5	2.2	-2.1	-2.2	-0.4	3.8	8.0	14.7	22.6	23.1	19.4
13	11.9	5.2	2.2	-2.2	-2.2	-0.4	3.6	8.4	15.6	22.6	23.1	18.5
14	10.9	4.9	2.1	-2.1	-2.1	-0.3	3.6	8.8	16.4	22.4	22.4	17.6
15	10.5	4.6	2.0	-2.1	-1.9	-0.3	4.0	9.6	16.8	22.3	21.7	16.9
16	10.4	4.4	1.9	-2.1	-1.6	-0.2	4.7	10.2	17.0	22.2	21.6	16.7
17	10.4	4.2	1.8	-2.2	-2.0	-0.2	5.5	11.0	16.9	21.9	21.7	16.9
18	10.3	4.1	1.6	-2.1	-2.0	-0.1	6.4	11.2	16.5	21.9	21.9	17.1
19	10.1	3.9	1.6	-2.2	-2.0	-0.1	7.0	11.5	15.9	22.1	21.7	17.3
20	9.9	3.7	1.5	-2.1	-2.0	.0	6.9	11.6	15.5	22.5	21.5	17.4
21	9.8	3.6	1.5	-2.1	-2.0	.0	6.9	11.9	15.8	22.9	21.2	17.3
22	9.8	3.4	1.4	-2.0	-1.9	.0	7.2	12.2	16.1	23.3	21.0	17.2
23	9.3	3.3	1.3	-2.0	-1.9	.0	7.5	12.4	16.4	23.3	21.1	17.2
24	9.0	3.1	1.3	-2.0	-1.9	.1	7.4	12.8	17.6	23.0	21.1	17.2
25	8.9	3.0	1.3	-2.0	-1.9	.2	7.3	13.4	17.2	22.7	20.9	17.1
26	8.6	2.8	1.3	-2.0	-2.0	.3	7.3	14.0	17.6	22.4	20.6	17.2
27	8.2	2.8	1.3	-2.0	-2.0	.3	7.2	14.4	18.4	22.1	20.3	17.2
28	8.0	2.7	1.1	-2.1	-2.0	.4	7.3	15.0	18.5	22.2	20.1	16.9
29	7.8	2.7	.9	-2.2		.7	7.4	14.6	18.4	22.3	19.8	16.7
30	7.7	2.7	.8	-2.3		1.2	7.5	13.7	19.1	21.9	19.8	16.5
31	7.1		.5	-2.4		1.9		13.0		21.6	20.0	
MEAN	10.7	4.7	1.8	-1.8	-2.2	-0.4	5.0	10.7	15.7	21.8	21.8	18.4
Water year October 1978 to September 1979					MEAN	8.9	MAX	23.5	MIN	-2.8		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 3.27 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.2	9.9	5.3	2.9	.0	-0.4	1.6	6.5	11.9	16.0	20.0	19.4
2	15.1	9.7	5.2	2.7	.0	-0.4	1.9	6.6	11.7	16.4	20.0	19.4
3	15.0	9.4	5.1	2.5	-0.1	-0.4	2.0	6.8	11.7	16.7	20.0	19.4
4	14.9	9.2	5.1	2.3	-0.1	-0.4	2.1	6.9	11.8	16.9	20.1	19.4
5	14.7	9.1	5.0	2.1	-0.2	-0.4	2.2	7.0	12.0	17.1	20.3	19.4
6	14.5	9.1	4.9	2.0	-0.2	-0.4	2.3	7.2	12.2	17.3	20.4	19.5
7	14.3	9.0	4.8	1.8	-0.3	-0.4	2.3	7.4	12.5	18.3	20.6	19.5
8	14.0	8.8	4.7	1.5	-0.3	-0.4	2.4	7.7	12.7	17.7	20.8	19.5
9	13.8	8.6	4.7	1.4	-0.3	-0.3	2.6	7.8	12.6	18.0	20.8	19.5
10	13.7	8.6	4.6	1.3	-0.7	-0.3	2.8	7.9	12.5	18.2	20.9	19.6
11	13.5	8.5	4.6	1.2	-0.4	-0.2	3.1	7.8	12.5	18.4	20.9	19.7
12	13.5	8.3	4.5	1.0	-0.3	-0.2	3.3	7.7	12.6	18.7	21.0	19.5
13	13.4	8.1	4.4	.8	-0.4	-0.1	3.3	7.6	12.8	19.0	21.0	19.3
14	13.2	7.9	4.3	.7	-0.4	-0.1	3.4	7.7	13.1	19.2	21.0	19.0
15	13.0	7.7	4.3	.7	-0.3	.0	3.4	7.8	13.5	19.3	20.9	18.6
16	12.8	7.5	4.2	.6	-0.1	.1	3.6	8.1	13.9	19.4	20.7	18.3
17	12.7	7.3	4.1	.6	-0.4	.1	3.8	8.4	14.1	19.4	20.6	18.0
18	12.5	7.2	4.0	.5	-0.3	.2	4.1	8.8	14.2	19.4	20.5	17.9
19	12.3	7.0	4.0	.5	-0.3	.3	4.5	9.1	14.3	19.4	20.5	17.8
20	12.1	6.8	3.9	.4	-0.3	.4	5.0	9.4	14.3	19.5	20.5	17.7
21	12.0	6.6	3.8	.3	-0.3	.4	5.2	9.6	14.2	19.7	20.4	17.7
22	11.9	6.5	3.8	.3	-0.3	.4	5.4	9.8	14.3	19.9	20.3	17.6
23	11.7	6.3	3.6	.3	-0.3	.5	5.6	10.1	14.4	20.1	20.2	17.6
24	11.6	6.2	3.5	.3	-0.3	.6	5.9	10.3	14.5	20.2	20.1	17.6
25	11.4	6.0	3.5	.3	-0.3	.7	6.0	10.6	15.1	20.3	20.1	17.5
26	11.2	5.8	3.4	.2	-0.3	.8	6.1	10.9	14.9	20.3	20.0	17.5
27	11.0	5.7	3.4	.2	-0.4	.9	6.2	11.2	15.1	20.2	20.0	17.4
28	10.8	5.6	3.3	.2	-0.4	1.0	6.2	11.6	15.4	20.2	19.8	17.4
29	10.6	5.5	3.2	.1		1.0	6.3	11.9	15.5	20.2	19.6	17.3
30	10.4	5.4	3.1	.0		1.2	6.4	12.1	15.8	20.2	19.5	17.2
31	10.2		3.0	.0		1.4		12.0		20.1	19.4	
MEAN	12.8	7.6	4.2	1.0	-0.3	.2	4.0	8.9	13.5	18.9	20.3	18.5
Water year October 1978 to September 1979					MEAN	9.2	MAX	21.0	MIN	-0.7		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 4.91 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	11.7	7.4	4.8	1.9	1.1	1.8	5.5	10.0	13.5	17.9	18.4
2	15.5	11.5	7.3	4.7	1.9	1.0	1.9	5.6	10.0	13.7	17.9	18.4
3	15.4	11.3	7.2	4.6	1.9	1.0	2.0	5.7	10.1	13.9	18.0	18.4
4	15.3	11.1	7.1	4.5	1.7	1.0	2.1	5.8	10.2	14.1	18.0	18.3
5	15.2	11.0	7.0	4.4	1.8	1.0	2.2	5.9	10.2	14.3	18.1	18.3
6	15.1	10.9	6.9	4.3	1.7	1.0	2.3	6.0	10.4	14.5	18.1	18.3
7	15.0	10.8	6.8	4.1	1.7	1.0	2.4	6.1	10.5	15.0	18.2	18.3
8	14.9	10.6	6.7	4.0	1.6	.9	2.5	6.4	10.6	14.8	18.3	18.3
9	14.8	10.5	6.7	3.9	1.5	1.0	2.5	6.5	10.8	15.0	18.3	18.3
10	14.6	10.4	6.6	3.8	1.5	1.0	2.6	6.7	10.9	15.2	18.5	18.3
11	14.5	10.3	6.5	3.7	1.5	1.0	2.7	6.7	11.0	15.3	18.6	18.4
12	14.4	10.2	6.4	3.5	1.5	.9	2.9	6.8	11.0	15.6	18.6	18.4
13	14.2	10.1	6.3	3.3	1.4	1.0	3.0	6.8	11.1	15.8	18.7	18.4
14	14.1	9.9	6.2	3.2	1.3	1.0	3.1	6.9	11.2	16.0	18.8	18.3
15	14.0	9.7	6.1	3.2	1.3	1.0	3.2	6.9	11.3	16.1	18.8	18.2
16	13.9	9.6	6.1	3.0	1.5	1.0	3.3	7.0	11.5	16.3	18.9	18.1
17	13.9	9.5	5.7	2.9	1.2	1.0	3.4	7.1	11.7	16.5	18.9	18.0
18	13.7	9.3	5.8	2.9	1.3	1.1	3.5	7.2	11.9	16.6	18.8	17.8
19	13.5	9.1	5.8	2.8	1.3	1.1	3.6	7.4	12.1	16.7	18.8	17.7
20	13.3	9.0	5.8	2.7	1.3	1.2	3.8	7.6	12.2	16.8	18.8	17.6
21	13.2	8.8	5.7	2.6	1.2	1.2	4.0	7.8	12.3	16.9	18.8	17.5
22	13.1	8.7	5.5	2.6	1.2	1.2	4.2	8.0	12.4	17.1	18.8	17.5
23	13.0	8.5	5.5	2.5	1.2	1.3	4.4	8.2	12.5	17.2	18.8	17.4
24	12.9	8.4	5.5	2.4	1.2	1.3	4.6	8.3	12.6	17.3	18.7	17.3
25	12.8	8.3	5.4	2.4	1.2	1.3	4.7	8.5	12.7	17.5	18.7	17.3
26	12.6	8.1	5.1	2.3	1.1	1.4	4.9	8.7	12.8	17.5	18.7	17.2
27	12.5	8.0	5.2	2.2	1.1	1.4	5.0	8.9	12.9	17.7	18.7	17.2
28	12.3	7.8	5.1	2.2	1.1	1.5	5.2	9.2	13.0	17.7	18.6	17.1
29	12.2	7.7	5.0	2.1		1.6	5.3	9.4	13.2	17.8	18.6	17.1
30	12.0	7.6	4.9	2.0		1.6	5.4	9.6	13.3	17.8	18.5	17.0
31	11.9		4.9	2.0		1.7		9.8		17.9	18.5	
MEAN	13.9	9.6	6.1	3.2	1.4	1.2	3.4	7.3	11.6	16.1	18.5	17.9
Water year October 1978 to September 1979					MEAN	9.2	MAX	18.9	MIN	.9		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array a--Continued

Depth of observation 6.55 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.6	12.7	9.2	6.5	3.9	2.7	2.6	5.0	8.4	11.7	15.8	17.2
2	15.5	12.7	9.1	6.4	3.9	2.7	2.6	5.1	8.6	11.8	15.9	17.2
3	15.4	12.5	9.0	6.3	3.8	2.6	2.7	5.2	8.7	12.0	15.9	17.2
4	15.4	12.4	8.9	6.3	3.8	2.6	2.7	5.3	8.8	12.1	16.0	17.1
5	15.3	12.3	8.8	6.2	3.7	2.6	2.8	5.4	8.9	12.3	16.1	17.1
6	15.2	12.2	8.7	6.1	3.6	2.5	2.9	5.5	9.0	12.4	16.1	17.2
7	15.1	12.1	8.6	6.0	3.6	2.5	2.9	5.6	9.1	12.5	16.2	17.1
8	15.1	11.9	8.5	5.9	3.6	2.5	3.0	5.7	9.2	12.7	16.3	17.1
9	15.0	11.8	8.4	5.9	3.5	2.5	3.0	5.8	9.3	12.9	16.3	17.2
10	14.9	11.7	8.3	5.8	3.4	2.5	3.1	5.9	9.4	13.0	16.4	17.1
11	14.8	11.7	8.2	5.7	3.4	2.5	3.1	6.0	9.6	13.1	16.5	17.2
12	14.7	11.5	8.1	5.5	3.3	2.4	3.3	6.1	9.7	13.3	16.6	17.2
13	14.6	11.4	8.0	5.4	3.3	2.4	3.3	6.2	9.8	13.4	16.7	17.2
14	14.5	11.3	8.0	5.3	3.1	2.4	3.4	6.3	9.8	13.6	16.7	17.2
15	14.5	11.1	7.8	5.3	3.1	2.4	3.4	6.3	9.9	13.7	16.8	17.2
16	14.4	11.0	7.8	5.2	3.3	2.4	3.5	6.4	10.0	13.9	16.9	17.2
17	14.4	10.9	7.6	5.1	3.0	2.4	3.6	6.5	10.1	14.1	16.9	17.2
18	14.3	10.8	7.5	5.0	3.0	3.0	3.6	6.6	10.3	14.2	17.0	17.1
19	14.1	10.7	7.5	4.9	3.0	2.4	3.7	6.7	10.4	14.3	17.0	17.0
20	14.0	10.6	7.5	4.8	3.0	2.4	3.8	6.8	10.5	14.4	17.1	17.0
21	13.9	10.5	7.4	4.7	2.9	2.4	3.9	6.9	10.7	14.6	17.1	17.0
22	13.8	10.3	7.3	4.6	2.9	2.4	4.0	7.0	10.8	14.7	17.1	16.9
23	13.7	10.2	7.2	4.5	2.9	2.4	4.1	7.1	10.9	14.8	17.1	16.9
24	13.6	10.1	7.2	4.5	2.9	2.4	4.3	7.3	11.0	15.0	17.1	16.8
25	13.6	10.0	7.1	4.4	2.8	2.4	4.4	7.4	11.1	15.1	17.2	16.7
26	13.4	9.8	7.0	4.3	2.8	2.5	4.5	7.5	11.2	15.2	17.2	16.7
27	13.3	9.7	6.9	4.2	2.7	2.5	4.6	7.7	11.3	15.3	17.2	16.6
28	13.2	9.4	6.8	4.2	2.7	2.5	4.7	7.8	11.4	15.4	17.2	16.6
29	13.1	9.5	6.7	4.0		2.5	4.8	8.0	11.7	15.5	17.2	16.6
30	13.0	9.4	6.6	4.0		2.5	4.9	8.1	11.6	15.6	17.2	16.5
31	12.8		6.6	4.0		2.6		8.3		15.7	17.2	
MEAN	14.3	11.1	7.8	5.2	3.3	2.5	3.6	6.5	10.0	13.8	16.7	17.0
Water year October 1978 to September 1979					MEAN	9.4	MAX	17.2	MIN	2.4		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array b												
Depth of observation 0.06 ft												
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.9	3.1	.3	-6.4	-7.5	-2.7	2.6	11.0	16.2	27.4	27.3	23.7
2	12.1	4.7	.3	-6.3	-7.6	-2.7	3.3	9.4	18.5	26.9	28.2	22.9
3	11.3	5.8	.0	-5.7	-7.5	-2.9	4.2	11.2	20.2	28.9	29.8	24.5
4	11.6	6.5	.1	-6.5	-6.4	-3.3	4.1	13.7	22.4	26.5	29.9	23.3
5	9.3	3.3	.3	-7.5	-6.2	-3.2	1.8	15.5	22.3	27.6	31.7	23.1
6	9.2	1.2	.3	-7.4	-5.1	-2.4	4.8	13.2	18.2	28.7	31.4	23.7
7	10.6	3.9	.2	-7.6	-4.5	-0.6	6.5	13.1	13.0	32.3	27.3	24.8
8	11.7	6.1	.0	-7.9	-3.7	.1	7.4	8.7	11.3	32.3	26.6	25.1
9	11.5	2.9	.0	-7.8	-4.0	.2	9.3	7.5	16.2	31.4	28.4	25.7
10	12.8	1.8	.2	-7.3	-3.8	.2	5.4	7.6	20.0	32.3	29.0	17.1
11	12.8	1.6	.2	-6.6	-3.5	.2	3.3	8.8	23.6	31.7	29.0	18.7
12	9.7	1.5	.0	-5.9	-3.4	.2	4.0	12.5	25.7	29.5	28.0	13.9
13	6.5	1.4	-0.8	-5.7	-3.4	.2	5.1	13.3	27.7	28.8	18.9	12.3
14	7.9	1.0	-1.7	-5.7	-3.0	.2	7.8	16.6	26.5	28.4	19.0	13.2
15	9.4	.6	-1.3	-5.5	-3.9	.2	9.8	16.0	24.2	27.6	24.6	15.8
16	8.5	.6	-1.8	-5.4	-3.4	.2	10.8	18.6	20.3	23.9	25.1	18.2
17	7.7	.6	-3.3	-5.4	-4.0	.2	13.0	16.5	18.9	26.4	26.8	19.0
18	9.0	.6	-3.8	-5.3	-3.8	.2	14.3	17.5	17.6	29.0	23.3	19.2
19	8.0	.5	-2.8	-5.1	-3.6	.3	8.0	16.9	17.4	30.3	22.4	23.8
20	7.4	.5	-3.9	-4.4	-3.3	.8	9.9	18.0	20.3	32.4	21.3	17.8
21	7.9	.3	-3.6	-4.3	-3.4	2.5	11.2	18.2	20.9	32.1	22.8	18.8
22	5.9	.2	-2.6	-3.8	-3.3	2.9	11.1	18.9	20.3	30.3	24.0	19.1
23	5.3	.2	-2.1	-4.5	-3.4	2.9	8.5	19.8	22.4	25.3	25.0	19.1
24	5.4	.2	-1.8	-4.7	-3.6	5.2	9.8	22.3	24.2	27.8	20.8	19.0
25	7.2	.0	-1.4	-4.3	-3.8	2.2	10.0	23.3	23.9	26.7	21.4	19.2
26	5.3	.1	-2.3	-4.5	-3.7	.1	8.2	23.5	25.2	23.0	19.9	19.2
27	5.2	.2	-2.9	-4.9	-3.4	3.8	10.5	25.8	22.8	27.8	20.8	16.8
28	5.1	.2	-2.9	-5.1	-3.0	3.8	10.0	16.6	26.0	27.1	20.9	17.2
29	5.9	.4	-3.9	-5.5		5.5	9.6	11.7	28.3	23.5	21.9	17.0
30	3.0	.4	-5.3	-6.1		4.8	11.0	12.5	29.0	22.9	23.9	16.0
31	1.6		-6.2	-6.9		6.1		13.7		25.8	23.2	
MEAN	8.4	1.7	-1.7	-5.8	-4.3	.8	7.8	15.2	21.4	28.2	24.9	19.6
Water year October 1978 to September 1979					MEAN	9.8	MAX	32.4	MIN	-7.9		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array b--Continued

Depth of observation 0.15 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.7	3.3	.4	-6.3	-7.3	-2.9	3.0	10.8	15.6	26.1	26.4	23.2
2	12.8	4.6	.3	-6.1	-7.5	-2.9	3.4	9.4	17.9	25.9	26.9	22.4
3	11.4	5.4	.1	-6.1	-7.5	-3.1	3.9	10.7	19.5	27.1	28.2	23.6
4	12.0	6.1	.1	-6.3	-6.4	-3.4	3.9	12.8	21.4	25.9	28.5	22.8
5	10.0	4.2	.3	-7.0	-6.3	-3.3	2.0	14.6	21.5	25.6	30.0	22.8
6	9.5	1.8	.3	-7.3	-5.3	-2.6	4.1	13.2	18.5	27.4	30.0	23.1
7	10.5	3.6	.2	-7.4	-4.6	-1.1	6.1	12.5	13.8	30.0	27.0	24.1
8	11.6	5.5	.0	-7.1	-3.8	-0.4	6.8	9.3	10.1	28.1	26.2	24.3
9	11.4	3.4	.0	-7.8	-4.1	-0.2	8.5	7.8	15.8	29.7	27.5	24.7
10	12.2	2.0	.2	-7.3	-3.9	-0.2	5.8	7.6	19.0	30.4	27.6	18.9
11	12.7	1.8	.2	-6.6	-3.7	-0.1	3.5	8.5	22.1	30.2	27.9	18.4
12	10.4	1.6	.1	-6.0	-3.6	-0.1	4.0	11.6	23.9	28.6	27.5	14.9
13	7.6	1.5	-0.4	-5.7	-3.5	-0.1	4.8	12.7	25.6	28.0	20.6	13.2
14	8.0	1.2	-1.2	-5.7	-3.2	-0.1	7.2	15.5	25.0	27.5	19.6	13.7
15	9.3	.8	-1.2	-5.5	-3.4	.0	9.0	15.6	23.1	26.8	24.1	15.9
16	8.6	.7	-1.5	-5.4	-3.4	-0.1	10.0	17.6	20.6	24.7	24.6	17.9
17	8.0	.7	-2.8	-5.4	-4.0	-0.1	12.1	16.3	18.8	26.1	25.9	18.6
18	9.3	.8	-3.5	-5.3	-3.9	.0	13.4	16.9	17.3	27.8	23.2	18.7
19	8.4	.6	-3.0	-5.1	-3.8	.1	8.6	16.5	17.4	28.7	22.5	19.0
20	7.8	.6	-3.7	-4.6	-3.5	.3	9.5	17.3	19.7	30.5	21.5	17.8
21	8.0	.4	-3.6	-4.4	-3.5	1.7	10.7	17.7	20.5	30.6	22.3	18.3
22	6.9	.3	-2.6	-4.0	-3.4	2.4	10.7	18.0	20.1	29.5	23.6	18.7
23	5.7	.3	-2.3	-4.5	-3.5	2.5	8.7	18.7	21.8	25.7	24.3	18.6
24	5.7	.2	-1.9	-4.7	-3.7	4.4	9.2	20.5	22.5	27.1	21.4	18.6
25	7.5	.1	-1.5	-4.4	-3.8	2.4	9.7	21.9	23.1	24.1	21.8	18.7
26	5.7	.1	-2.0	-4.6	-3.8	.2	8.4	21.8	24.2	23.2	20.3	18.8
27	5.5	.3	-2.8	-4.9	-3.5	3.2	10.1	23.7	22.5	26.7	20.9	17.2
28	5.3	.2	-3.1	-5.1	-3.2	3.5	9.9	17.4	24.6	27.1	21.2	16.9
29	6.0	.4	-3.7	-5.4		4.7	9.4	12.6	26.6	23.9	21.7	16.9
30	4.0	.4	-5.0	-6.0		4.5	10.6	12.6	27.5	22.9	23.2	16.1
31	2.2		-6.1	-6.7		5.7		13.5		25.2	22.9	
MEAN	8.7	1.8	-1.6	-5.8	-4.3	.5	7.6	14.7	20.7	27.1	24.5	19.2
Water year October 1978 to September 1979					MEAN	9.5	MAX	30.6	MIN	-7.8		

Table 14.--Average daily soil temperature, in degrees Celsius, at station 1--Continued

Thermocouple array b--Continued

Depth of observation 0.32 ft

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.6	3.6	.6	-5.8	-6.9	-3.0	3.2	10.6	15.0	25.3	25.7	22.8
2	13.3	4.5	.5	-5.7	-7.1	-2.9	3.0	9.5	17.1	25.2	26.1	22.1
3	11.7	5.3	.3	-5.7	-7.2	-3.0	3.6	10.1	18.6	25.7	27.2	23.0
4	12.3	6.0	.3	-5.9	-6.3	-3.3	3.7	11.9	20.2	24.6	27.6	22.5
5	10.7	4.9	.4	-6.6	-6.1	-3.3	2.3	13.7	20.7	25.4	28.6	22.5
6	9.9	2.5	.5	-6.8	-5.3	-2.8	3.5	13.0	18.7	26.4	28.9	22.6
7	10.5	3.6	.4	-6.9	-4.7	-1.6	5.7	11.9	14.6	27.8	26.7	23.4
8	11.5	5.1	.2	-6.7	-3.9	-0.8	6.1	9.9	10.2	27.1	25.8	23.7
9	11.4	4.1	.2	-7.4	-4.1	-0.6	7.6	8.2	15.4	28.2	26.4	23.8
10	11.9	2.6	.4	-7.0	-4.0	-0.5	6.1	7.7	17.8	28.9	26.6	20.4
11	12.7	2.2	.3	-6.4	-3.7	-0.4	3.9	8.3	20.6	29.0	26.8	18.3
12	11.0	1.9	.3	-5.9	-3.6	-0.4	3.9	10.7	22.4	27.7	26.9	16.2
13	8.5	1.8	.0	-5.6	-3.6	-0.3	4.5	12.0	23.8	27.2	22.2	14.3
14	8.3	1.6	-0.5	-5.5	-3.3	-0.3	6.4	14.2	23.9	26.6	20.3	14.2
15	9.3	1.2	-0.8	-5.4	-3.3	-0.3	8.1	15.1	22.4	26.1	23.3	15.8
16	8.8	1.1	-1.0	-5.3	-3.3	-0.3	9.2	16.6	20.6	24.9	24.2	17.5
17	8.5	1.0	-2.0	-5.2	-3.9	-0.3	11.1	16.0	18.8	25.3	25.1	18.4
18	9.5	1.1	-2.9	-5.2	-3.8	-0.2	12.4	16.1	17.6	26.9	23.4	18.4
19	8.7	.9	-2.5	-5.0	-3.7	.0	9.3	15.9	14.2	27.6	22.6	18.7
20	8.1	.8	-3.2	-4.6	-3.5	.1	9.1	16.5	18.9	29.1	21.8	17.9
21	8.2	.7	-3.3	-4.4	-3.5	.8	10.2	17.0	19.9	29.3	21.9	18.0
22	7.7	.6	-2.5	-4.0	-3.4	1.7	10.2	17.3	19.4	28.7	23.1	18.4
23	6.1	.5	-2.2	-4.4	-3.4	1.9	9.0	17.7	21.0	25.9	23.6	18.3
24	6.2	.5	-1.9	-4.6	-3.6	3.4	9.3	19.1	22.4	26.5	21.9	18.3
25	7.6	.3	-1.5	-4.3	-3.8	2.5	8.8	20.8	22.3	24.3	21.7	18.4
26	6.0	.3	-1.9	-4.4	-3.7	.5	8.5	20.5	22.9	23.4	20.6	18.5
27	6.0	.4	-2.5	-4.7	-3.5	2.4	9.5	22.0	22.2	25.6	20.9	17.4
28	5.6	.4	-2.5	-4.9	-3.2	3.0	9.8	18.1	22.6	26.5	21.1	16.8
29	6.1	.5	-3.3	-5.2		4.0	9.1	13.7	24.8	24.2	21.3	16.9
30	4.9	.6	-4.4	-5.7		4.2	10.1	12.7	26.3	23.0	22.6	16.2
31	3.0		-5.4	-6.3		5.2		13.4		24.6	22.6	
MEAN	9.0	2.0	-1.3	-5.5	-4.3	.2	7.2	14.2	19.8	26.3	24.1	19.1
Water year October 1978 to September 1979					MEAN	9.3	MAX	29.3	MIN	-7.4		

Table 15.--Soil temperature, in degrees Celsius,
at station 8

DATE	TIME	SAM- PLING DEPTH (FT)	TEMPER- ATURE OF SOIL (DEG C)	DATE	TIME	SAM- PLING DEPTH (FT)	TEMPER- ATURE OF SOIL (DEG C)
DEC 1978				MAR 1979			
13...	1320	.0	.0	24...	1200	3.2	1.0
13...	1321	.1	.0	24...	1201	4.9	3.0
13...	1322	.3	.0	24...	1202	6.5	4.0
13...	1323	.6	.0	26...	1355	.0	-1.0
13...	1324	1.6	2.0	26...	1356	.1	-2.0
13...	1325	3.2	4.0	26...	1357	.3	-1.0
13...	1326	4.9	6.0	26...	1358	.6	-1.0
13...	1327	6.5	8.0	26...	1359	1.6	.0
				26...	1400	3.2	1.0
JAN 1979				26...	1401	4.9	2.0
09...	1420	.0	-3.0	26...	1402	6.5	3.0
09...	1421	.1	-3.0				
09...	1422	.3	-3.0	APR 1979			
09...	1423	.6	-2.0	03...	1405	.0	12.0
09...	1424	1.6	-1.0	03...	1406	.1	9.0
09...	1425	3.2	1.0	03...	1407	.3	5.0
09...	1426	4.9	3.0	03...	1408	.6	2.0
09...	1427	6.5	5.0	03...	1409	1.6	2.0
				03...	1410	3.2	3.0
FEB 1979				03...	1411	4.9	3.0
27...	1445	.0	-2.0	03...	1412	6.5	4.0
27...	1446	.1	-2.0	26...	0950	.0	6.0
27...	1447	.3	-2.0	26...	0951	.1	5.0
27...	1448	.6	-2.0	26...	0952	.3	5.0
27...	1449	1.6	-1.0	26...	0953	.6	6.0
27...	1450	3.2	1.0	26...	0954	1.6	6.0
27...	1451	4.9	2.0	26...	0955	3.2	5.0
27...	1452	6.5	4.0	26...	0956	4.9	4.0
				26...	0957	6.5	4.0
MAR 1979							
22...	1245	.0	1.0	MAY 1979			
22...	1246	.1	.0	08...	1215	.0	10.0
22...	1247	.3	-1.0	08...	1216	.1	9.0
22...	1248	.6	-1.0	08...	1217	.3	9.0
22...	1249	1.6	.0	08...	1218	.6	9.0
22...	1250	3.2	1.0	08...	1219	1.6	9.0
22...	1251	4.9	2.0	08...	1220	3.2	7.0
22...	1252	6.5	4.0	08...	1221	4.9	6.0
24...	1155	.0	12.0	08...	1222	6.5	5.0
24...	1156	.1	6.0	23...	1120	.0	30.0
24...	1157	.3	3.0	23...	1121	.1	23.0
24...	1158	.6	1.0	23...	1122	.3	19.0
24...	1159	1.6	1.0				

Table 15.--Soil temperature, in degrees Celsius,
at station 8--Continued

DATE	TIME	SAM- PLING DEPTH (FT)	TEMPER- ATURE OF SOIL (DEG C)	DATE	TIME	SAM- PLING DEPTH (FT)	TEMPER- ATURE OF SOIL (DEG C)
MAY 1979				JUL 1979			
23...	1123	.6	15.0	13...	0905	3.2	19.0
23...	1124	1.6	14.0	13...	0906	4.9	15.0
23...	1125	3.2	11.0	13...	0907	6.5	13.0
23...	1126	4.9	9.0	26...	1430	.0	31.0
23...	1127	6.5	7.0	26...	1431	.1	28.0
JUN 1979				26...	1432	.3	25.0
07...	1345	.0	15.0	26...	1433	.6	22.0
07...	1346	.1	15.0	26...	1434	1.6	22.0
07...	1347	.3	14.0	26...	1435	3.2	20.0
07...	1348	.6	13.0	26...	1436	4.9	17.0
07...	1349	1.6	15.0	26...	1437	6.5	14.0
07...	1350	3.2	13.0	AUG 1979			
07...	1351	4.9	10.0	09...	1315	.0	41.0
07...	1352	6.5	9.0	09...	1316	.1	37.0
18...	1520	.0	30.0	09...	1317	.3	32.0
18...	1521	.1	26.0	09...	1318	.6	26.0
18...	1522	.3	22.0	09...	1319	1.6	23.0
18...	1523	.6	20.0	09...	1320	3.2	21.0
18...	1524	1.6	18.0	09...	1321	4.9	18.0
18...	1525	3.2	15.0	09...	1322	6.5	15.0
18...	1526	4.9	12.0	23...	0950	.0	35.0
18...	1527	6.5	10.0	23...	0951	.1	27.0
JUL 1979				23...	0952	.3	23.0
13...	0900	.0	24.0	23...	0953	.6	21.0
13...	0901	.1	24.0	23...	0954	1.6	21.0
13...	0902	.3	23.0	23...	0955	3.2	20.0
13...	0903	.6	24.0	23...	0956	4.9	18.0
13...	0904	1.6	23.0	23...	0957	6.5	16.0

Table 16.--Soil moisture, in percent of total volume,
at station 1

Access tube a

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
NOV 1978			DEC 1978		
02...	.5	11.5	12...	2.5	18.0
02...	1.0	15.0	12...	3.0	19.0
02...	1.5	16.5	12...	3.5	17.0
02...	2.0	16.5	12...	4.0	15.0
02...	2.5	16.0	12...	4.5	14.0
02...	3.0	18.5	12...	5.0	14.0
02...	3.5	20.0	12...	5.5	15.0
02...	4.0	18.5	12...	6.0	14.0
02...	4.5	16.0	12...	6.5	14.5
02...	5.0	15.0	12...	7.0	16.0
02...	5.5	14.0	12...	7.5	16.5
02...	6.0	15.5	JAN 1979		
02...	6.5	15.5	11...	.5	17.0
02...	7.0	16.0	11...	1.0	16.5
02...	7.5	17.5	11...	1.5	17.0
16...	.5	17.5	11...	2.0	15.0
16...	1.0	15.5	11...	2.5	16.0
16...	1.5	16.5	11...	3.0	18.0
16...	2.0	16.0	11...	3.5	19.0
16...	2.5	16.0	11...	4.0	16.5
16...	3.0	18.5	11...	4.5	15.0
16...	3.5	19.5	11...	5.0	14.0
16...	4.0	18.0	11...	5.5	14.5
16...	4.5	15.5	11...	6.0	15.0
16...	5.0	15.0	11...	6.5	15.0
16...	5.5	14.5	11...	7.0	15.0
16...	6.0	15.0	11...	7.5	17.0
16...	6.5	15.5	30...	.5	17.0
16...	7.0	15.5	30...	1.0	16.5
16...	7.5	17.5	30...	1.5	16.0
DEC 1978			30...	2.0	15.0
12...	.5	16.5	30...	2.5	16.5
12...	1.0	16.0	30...	3.0	18.0
12...	1.5	15.0	30...	3.5	18.5
12...	2.0	15.0	30...	4.0	16.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube a--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JAN 1979			FEB 1979		
30...	4.5	15.0	20...	6.0	15.5
30...	5.0	14.0	20...	6.5	15.5
30...	5.5	14.0	20...	7.0	15.5
30...	6.0	14.5	20...	7.5	18.0
30...	6.5	14.5			
30...	7.0	15.5	MAR 1979		
30...	7.5	17.0	15...	.5	21.0
			15...	1.0	19.0
FEB 1979			15...	1.5	19.5
08...	.5	18.0	15...	2.0	19.5
08...	1.0	17.0	15...	2.5	20.5
08...	1.5	17.0	15...	3.0	24.0
08...	2.0	16.0	15...	3.5	23.5
08...	2.5	16.5	15...	4.0	22.5
08...	3.0	18.0	15...	4.5	22.0
08...	3.5	19.0	15...	5.0	21.5
08...	4.0	17.0	15...	5.5	26.0
08...	4.5	15.0	15...	6.0	25.5
08...	5.0	14.5	15...	7.0	22.5
08...	5.5	14.5	15...	7.5	23.0
08...	6.0	15.0	26...	.5	27.5
08...	6.5	15.0	26...	1.0	22.5
08...	7.0	15.5	26...	1.5	20.0
08...	7.5	17.5	26...	2.0	20.5
20...	.5	20.0	26...	2.5	20.5
20...	1.0	17.0	26...	3.0	21.0
20...	1.5	17.5	26...	3.5	22.0
20...	2.0	16.5	26...	4.0	20.5
20...	2.5	17.0	26...	4.5	20.5
20...	3.0	18.5	26...	5.0	20.5
20...	3.5	19.0	26...	5.5	21.5
20...	4.0	18.0	26...	6.0	21.5
20...	4.5	15.5	26...	6.5	21.5
20...	5.0	15.0	26...	7.0	22.5
20...	5.5	14.5	26...	7.5	25.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube a--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
APR 1979			MAY 1979		
05...	.5	25.0	11...	2.0	19.5
05...	1.0	21.5	11...	2.5	19.0
05...	1.5	19.0	11...	3.0	20.5
05...	2.0	18.5	11...	3.5	21.5
05...	2.5	19.5	11...	4.0	21.0
05...	3.0	20.5	11...	4.5	19.5
05...	3.5	21.5	11...	5.0	20.0
05...	4.0	20.0	11...	5.5	20.0
05...	4.5	20.0	11...	6.0	21.0
05...	5.0	20.0	11...	6.5	20.5
05...	5.5	20.5	11...	7.0	21.0
05...	6.0	20.0	11...	7.5	23.5
05...	6.5	20.5	17...	.5	21.0
05...	7.0	22.0	17...	1.0	22.5
05...	7.5	24.0	17...	1.5	20.0
26...	.5	27.0	17...	2.0	18.0
26...	1.0	23.0	17...	2.5	18.5
26...	1.5	20.0	17...	3.0	19.5
26...	2.0	17.5	17...	3.5	20.5
26...	2.5	19.0	17...	4.0	19.5
26...	3.0	19.5	17...	4.5	19.0
26...	3.5	20.5	17...	5.0	18.5
26...	4.0	19.5	17...	5.5	19.0
26...	4.5	19.0	17...	6.0	19.5
26...	5.0	18.5	17...	6.5	19.0
26...	5.5	15.5	17...	7.0	20.5
26...	6.0	19.5	17...	7.5	22.5
26...	6.5	19.0	22...	.5	19.0
26...	7.0	20.5	22...	1.0	35.0
26...	7.5	22.5	22...	1.5	33.0
			22...	2.0	18.0
			22...	2.5	18.5
MAY 1979			22...	3.0	20.0
11...	.5	23.0	22...	3.5	20.5
11...	1.0	25.0			
11...	1.5	22.5			

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube a--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAY 1979			JUN 1979		
22...	4.0	20.0	29...	5.5	17.5
22...	4.5	19.0	29...	6.0	19.0
22...	5.0	18.5	29...	6.5	18.5
22...	5.5	19.0	29...	7.0	19.0
22...	6.0	20.0	29...	7.5	22.0
22...	6.5	19.5			
22...	7.0	20.5	JUL 1979		
22...	7.5	22.5	10...	.5	13.0
JUN 1979			10...	1.0	15.0
07...	.5	16.0	10...	1.5	16.0
07...	1.0	18.0	10...	2.0	16.0
07...	1.5	19.5	10...	2.5	18.0
07...	2.0	17.5	10...	3.0	18.0
07...	2.5	18.0	10...	3.5	19.0
07...	3.0	19.0	10...	4.0	18.5
07...	3.5	20.0	10...	4.5	18.0
07...	4.0	19.0	10...	5.0	18.0
07...	4.5	18.0	10...	5.5	18.0
07...	5.0	17.5	10...	6.0	18.5
07...	5.5	18.0	10...	6.5	18.0
07...	6.0	19.0	10...	7.0	19.0
07...	6.5	18.5	10...	7.5	21.0
07...	7.0	19.0	25...	.5	12.5
07...	7.5	22.0	25...	1.0	15.0
29...	.5	15.5	25...	1.5	15.0
29...	1.0	17.5	25...	2.0	15.0
29...	1.5	17.5	25...	2.5	16.5
29...	2.0	16.0	25...	3.0	18.0
29...	2.5	17.5	25...	3.5	19.0
29...	3.0	18.5	25...	4.0	18.0
29...	3.5	20.0	25...	4.5	18.0
29...	4.0	19.0	25...	5.0	17.5
29...	4.5	18.0	25...	5.5	18.0
29...	5.0	18.0	25...	6.0	18.5
			25...	6.5	18.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube a--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUL 1979			AUG 1979		
25...	7.0	19.5	22...	3.5	18.5
25...	7.5	21.5	22...	4.0	18.0
			22...	4.5	17.5
AUG 1979			22...	5.0	17.5
22...	.5	12.0	22...	5.5	17.5
22...	1.0	14.5	22...	6.0	18.5
22...	1.5	15.0	22...	6.5	18.0
22...	2.0	15.0	22...	7.0	18.5
22...	2.5	15.5	22...	7.5	21.0
22...	3.0	17.5			

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube b

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
NOV 1978			DEC 1978		
02...	.5	11.5	12...	2.0	15.0
02...	1.0	14.0	12...	2.5	14.0
02...	1.5	16.0	12...	3.0	15.0
02...	2.0	16.0	12...	3.5	15.0
02...	2.5	14.5	12...	4.0	15.5
02...	3.0	16.0	12...	4.5	16.0
02...	3.5	15.5	12...	5.0	16.0
02...	4.0	16.5	12...	5.5	14.0
02...	4.5	17.0	12...	6.0	14.0
02...	5.0	17.0	12...	6.5	15.0
02...	5.5	15.0	12...	7.0	14.0
02...	6.0	14.5	12...	7.5	13.0
02...	6.5	16.0	12...	8.0	11.0
02...	7.0	15.5	JAN 1979		
02...	7.5	13.5	11...	.5	20.0
02...	8.0	12.0	11...	1.0	15.0
16...	.5	18.5	11...	1.5	16.5
16...	1.0	15.0	11...	2.0	15.0
16...	1.5	16.5	11...	2.5	14.0
16...	2.0	15.0	11...	3.0	15.0
16...	2.5	15.0	11...	3.5	15.0
16...	3.0	16.0	11...	4.0	16.0
16...	3.5	15.5	11...	4.5	16.0
16...	4.0	17.0	11...	5.0	16.0
16...	4.5	16.5	11...	5.5	14.0
16...	5.0	16.5	11...	6.0	14.0
16...	5.5	16.5	11...	6.5	16.0
16...	6.0	14.5	11..	7.0	14.5
16...	6.5	16.5	11...	7.5	13.0
16...	7.0	15.0	11...	8.0	12.0
16...	7.5	13.0	30...	.5	17.5
DEC 1978			30...	1.0	17.0
12...	.5	19.0	30...	1.5	16.0
12...	1.0	15.0	30...	2.0	14.0
12...	1.5	16.0	30...	2.5	14.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube b--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JAN 1979			FEB 1979		
30...	3.0	14.5	20...	4.0	16.5
30...	3.5	15.0	20...	4.5	17.0
30...	4.0	16.0	20...	5.0	16.5
30...	4.5	16.0	20...	5.5	14.5
30...	5.0	15.0	20...	6.0	14.5
30...	5.5	13.5	20...	6.5	16.5
30...	6.0	14.0	20...	7.0	16.0
30...	6.5	15.5	20...	7.5	14.0
30...	7.0	14.0	20...	8.0	12.0
30...	7.5	12.5	MAR 1979		
30...	8.0	11.0	15...	.5	17.5
FEB 1979			15...	1.0	17.0
08...	.5	19.0	15...	1.5	17.5
08...	1.0	15.0	15...	2.0	15.5
08...	1.5	16.5	15...	2.5	16.5
08...	2.0	15.0	15...	3.0	16.0
08...	2.5	14.5	15...	3.5	16.5
08...	3.0	15.0	15...	4.0	18.0
08...	3.5	15.0	15...	4.5	18.0
08...	4.0	12.5	15...	5.0	16.0
08...	4.5	12.5	15...	5.5	15.0
08...	5.0	16.0	15...	6.0	16.0
08...	5.5	14.0	15...	6.5	17.5
08...	6.0	14.0	15...	7.0	15.0
08...	6.5	15.5	15...	7.5	13.0
08...	7.0	15.5	26...	.5	28.5
08...	7.5	13.0	26...	1.0	25.5
08...	8.0	11.5	26...	1.5	18.0
20...	.5	21.0	26...	2.0	16.0
20...	1.0	16.0	26...	2.5	15.0
20...	1.5	16.5	26...	3.0	15.5
20...	2.0	15.5	26...	3.5	15.0
20...	2.5	15.0	26...	4.0	16.5
20...	3.0	16.0	26...	4.5	16.5
20...	3.5	15.0	26...	5.0	17.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access-tube b--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAR 1979			APR 1979		
26...	5.5	14.5	26...	6.5	14.5
26...	6.0	14.5	26...	7.0	16.5
26...	6.5	16.5	26...	7.5	13.5
26...	7.0	15.5	26...	8.0	12.0
26...	7.5	14.0			
26...	8.0	11.5	MAY 1979		
APR 1979			11...	.5	23.5
05...	.5	26.5	11...	1.0	24.5
05...	1.0	21.5	11...	1.5	20.5
05...	1.5	17.5	11...	2.0	16.5
05...	2.0	15.5	11...	2.5	17.0
05...	2.5	15.5	11...	3.0	16.0
05...	3.0	15.5	11...	3.5	17.5
05...	3.5	15.5	11...	4.0	18.0
05...	4.0	16.5	11...	4.5	17.5
05...	4.5	17.0	11...	5.0	18.0
05...	5.0	16.0	11...	5.5	17.5
05...	5.5	14.5	11...	6.0	15.5
05...	6.0	14.5	11...	6.5	15.5
05...	6.5	16.5	11...	7.0	18.0
05...	7.0	15.5	11...	7.5	16.0
05...	7.5	13.5	17...	.5	20.0
05...	8.0	12.0	17...	1.0	22.5
26...	.5	28.5	17...	1.5	20.0
26...	1.0	26.5	17...	2.0	16.5
26...	1.5	25.5	17...	2.5	15.5
26...	2.0	19.5	17...	3.0	16.0
26...	2.5	16.0	17...	3.5	15.0
26...	3.0	15.0	17...	4.0	16.5
26...	3.5	16.0	17...	4.5	17.0
26...	4.0	15.0	17...	5.0	16.5
26...	4.5	16.5	17...	5.5	14.5
26...	5.0	17.0	17...	6.0	14.5
26...	5.5	16.5	17...	6.5	17.0
26...	6.0	15.0	17...	7.0	15.5
			17...	7.5	13.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube b--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAY 1979			JUN 1979		
17...	8.0	12.0	29...	1.5	17.0
22...	.5	15.5	29...	2.0	15.0
22...	1.0	21.0	29...	2.5	15.0
22...	1.5	20.5	29...	3.0	15.5
22...	2.0	17.0	29...	3.5	15.0
22...	2.5	15.5	29...	4.0	16.0
22...	3.0	16.0	29...	4.5	17.0
22...	3.5	15.5	29...	5.0	16.0
22...	4.0	16.5	29...	5.5	14.0
22...	4.5	17.0	29...	6.0	15.0
22...	5.0	17.0	29...	6.5	16.5
22...	5.5	15.0	29...	7.0	15.0
22...	6.0	15.0	29...	7.5	13.5
22...	6.5	17.0			
22...	7.0	16.0	JUL 1979		
22...	7.5	14.0	10...	.5	10.0
22...	8.0	12.5	10...	1.0	14.0
			10...	1.5	16.0
JUN 1979			10...	2.0	15.0
07...	.5	15.0	10...	2.5	14.0
07...	1.0	17.5	10...	3.0	15.5
07...	1.5	18.5	10...	3.5	14.5
07...	2.0	16.0	10...	4.0	16.0
07...	2.5	15.5	10...	4.5	17.0
07...	3.0	15.5	10...	5.0	16.0
07...	3.5	15.0	10...	5.5	14.5
07...	4.0	15.5	10...	6.0	14.0
07...	4.5	16.5	10...	6.5	16.0
07...	5.0	16.5	10...	7.0	15.0
07...	5.5	14.5	10...	7.5	13.0
07...	6.0	17.0	25...	.5	9.5
07...	6.5	16.0	25...	1.0	14.0
07...	7.0	15.5	25...	1.5	16.0
07...	7.5	13.0	25...	2.0	15.0
29...	.5	13.5	25...	2.5	14.5
29...	1.0	16.0	25...	3.0	15.0
			25...	3.5	14.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

<u>Access tube c</u>					
DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
NOV 1978			DEC 1978		
02...	.5	14.0	12...	1.0	17.0
02...	1.0	15.8	12...	1.5	18.0
02...	1.5	18.0	12...	2.0	16.0
02...	2.0	16.0	12...	2.5	15.0
02...	2.5	16.5	12...	3.0	15.0
02...	3.0	15.0	12...	3.5	14.0
02...	3.5	16.0	12...	4.0	15.0
02...	4.0	15.5	12...	4.5	14.0
02...	4.5	14.5	12...	5.0	13.0
02...	5.0	13.0	12...	5.5	12.0
02...	5.5	13.5	12...	6.0	13.0
02...	6.0	13.5	12...	6.5	13.0
02...	6.5	12.5	12...	7.0	11.0
02...	7.0	9.5	12...	7.5	8.0
02...	7.5	9.0	12...	8.0	9.0
02...	8.0	11.5	12...	8.5	12.0
02...	8.5	14.0	12...	9.0	13.0
02...	9.0	12.0	12...	9.5	9.0
16...	.5	16.5			
16...	1.0	18.5	JAN 1979		
16...	1.5	18.5	11...	.5	17.0
16...	2.0	16.5	11...	1.0	18.0
16...	2.5	16.0	11...	1.5	17.5
16...	3.0	16.0	11...	2.0	15.0
16...	3.5	14.5	11...	2.5	15.0
16...	4.0	16.0	11...	3.0	15.0
16...	4.5	14.5	11...	3.5	14.5
16...	5.0	13.5	11...	4.0	15.0
16...	5.5	13.0	11...	4.5	14.5
16...	6.0	14.0	11...	5.0	13.0
16...	6.5	13.0	11...	5.5	12.5
16...	7.0	11.0	11...	6.0	13.0
16...	7.5	8.5	11...	6.5	12.0
			11...	7.0	10.0
DEC 1978			11...	7.5	8.0
12...	.5	17.0	11...	8.0	10.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube c--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JAN 1979			FEB 1979		
11...	8.5	13.0	08...	6.5	12.5
11...	9.0	13.0	08...	7.0	10.5
11...	9.5	8.0	08...	7.5	25.0
30...	.5	17.5	08...	8.0	10.0
30...	1.0	18.0	08...	8.5	13.0
30...	1.5	17.5	08...	9.0	13.0
30...	2.0	15.5	08...	9.5	8.5
30...	2.5	15.0	20...	.5	18.0
30...	3.0	15.0	20...	1.0	19.0
30...	3.5	14.5	20...	1.5	18.0
30...	4.0	15.0	20...	2.0	16.0
30...	4.5	14.0	20...	2.5	16.0
30...	5.0	13.0	20...	3.0	15.0
30...	5.5	13.0	20...	3.5	15.0
30...	6.0	13.0	20...	4.0	16.0
30...	6.5	12.5	20...	4.5	14.0
30...	7.0	10.0	20...	5.0	13.0
30...	7.5	8.0	20...	5.5	13.0
30...	8.0	10.0	20...	6.0	13.5
30...	8.5	13.0	20...	6.5	12.0
30...	9.0	13.0	20...	7.0	10.0
30...	9.5	8.0	20...	7.5	9.0
FEB 1979			20...	8.0	10.0
08...	.5	18.0	20...	8.5	13.0
08...	1.0	18.5	20...	9.0	13.0
08...	1.5	18.0	20...	9.5	8.0
08...	2.0	16.0	MAR 1979		
08...	2.5	15.5	15...	.5	20.0
08...	3.0	15.0	15...	1.0	19.5
08...	3.5	15.0	15...	1.5	18.5
08...	4.0	15.0	15...	2.0	17.0
08...	4.5	14.0	15...	2.5	16.5
08...	5.0	13.0	15...	3.0	16.0
08...	5.5	12.5	15...	3.5	15.5
08...	6.0	13.0	15...	4.0	16.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube c--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAR 1979			APR 1979		
15...	5.0	14.0	05...	3.0	31.0
15...	5.5	13.5	05...	3.5	29.5
15...	6.0	14.0	05...	4.0	27.5
15...	6.5	13.5	05...	4.5	22.0
15...	7.0	11.0	05...	5.0	19.5
15...	7.5	9.0	05...	5.5	22.5
15...	8.0	11.0	05...	6.0	20.5
15...	8.5	14.0	05...	6.5	20.5
15...	9.0	14.0	05...	7.0	19.0
15...	9.5	9.0	05...	7.5	15.5
26...	.5	35.0	05...	8.0	19.5
26...	1.0	37.0	05...	8.5	19.5
26...	1.5	31.0	05...	9.0	18.0
26...	2.0	23.0	05...	9.5	15.5
26...	2.5	18.0	26...	.5	31.0
26...	3.0	15.5	26...	1.0	35.0
26...	3.5	15.0	26...	1.5	31.0
26...	4.0	16.0	26...	2.0	23.5
26...	4.5	14.5	26...	2.5	18.0
26...	5.0	13.5	26...	3.0	16.0
26...	5.5	13.0	26...	3.5	16.0
26...	6.0	14.0	26...	4.0	16.0
26...	6.5	13.0	26...	4.5	15.0
26...	7.0	11.0	26...	5.0	13.5
26...	7.5	8.5	26...	5.5	13.5
26...	8.0	10.5	26...	6.0	14.0
26...	8.5	13.0	26...	6.5	13.0
26...	9.0	13.5	26...	7.0	11.0
26...	9.5	8.5	26...	7.5	9.0
APR 1979			26...	8.0	10.5
05...	.5	41.0	26...	8.5	13.0
05...	1.0	36.5	26...	9.0	13.5
05...	1.4	34.0	26...	9.5	8.5
05...	2.0	31.0	MAY 1979		
05...	2.5	31.0	11...	.5	28.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube c--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAY 1979			MAY 1979		
11...	1.0	35.0	22...	1.5	29.5
11...	1.5	32.5	22...	2.0	23.5
11...	2.0	25.0	22...	2.5	19.0
11...	2.5	19.5	22...	3.0	16.0
11...	3.0	17.0	22...	3.5	16.0
11...	3.5	16.5	22...	4.0	16.5
11...	4.0	17.5	22...	4.5	15.5
11...	4.5	16.0	22...	5.0	14.0
11...	5.0	15.0	22...	5.5	13.5
11...	5.5	14.0	22...	6.0	14.0
11...	6.0	15.0	22...	6.5	13.5
11...	6.5	14.0	22...	7.0	11.0
11...	7.0	12.0	22...	7.5	9.0
11...	7.5	9.5	22...	8.0	11.0
17...	.5	25.0	22...	8.5	13.5
17...	1.0	31.0	22...	9.0	13.5
17...	1.5	30.0	22...	9.5	8.5
17...	2.0	23.5			
17...	2.5	18.5	JUN 1979		
17...	3.0	16.0	07...	.5	17.5
17...	3.5	16.0	07...	1.0	23.5
17...	4.0	16.5	07...	1.5	24.5
17...	4.5	15.0	07...	2.0	21.0
17...	5.0	14.0	07...	2.5	18.0
17...	5.5	13.5	07...	3.0	16.0
17...	6.0	12.0	07...	3.5	15.5
17...	6.5	13.0	07...	4.0	16.0
17...	7.0	11.0	07...	4.5	15.0
17...	7.5	9.0	07...	5.0	13.5
17...	8.0	11.0	07...	5.5	13.0
17...	8.5	13.5	07...	6.0	13.5
17...	9.0	13.5	07...	6.5	13.0
17...	9.5	8.5	07...	7.0	10.5
22...	.5	21.0	07...	7.5	8.5
22...	1.0	30.0	07...	8.0	10.5
			07...	8.5	13.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube c--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUN 1979			JUL 1979		
07...	9.0	13.5	10...	6.5	11.5
07...	9.5	8.5	10...	7.0	9.0
29...	.5	13.5	10...	7.5	9.0
29...	1.0	20.0	10...	8.0	12.5
29...	1.5	20.5	10...	8.5	14.0
29...	2.0	19.0	10...	9.0	10.0
29...	2.5	17.5	10...	9.5	7.0
29...	3.0	16.0	25...	.5	11.5
29...	3.5	15.5	25...	1.0	18.0
29...	4.0	16.0	25...	1.5	18.0
29...	4.5	15.0	25...	2.0	16.5
29...	5.0	13.5	25...	2.5	16.0
29...	5.5	13.5	25...	3.0	15.0
29...	6.0	14.0	25...	3.5	15.0
29...	6.5	13.0	25...	4.0	15.5
29...	7.0	11.0	25...	4.5	14.5
29...	7.5	8.5	25...	5.0	13.5
29...	8.0	10.5	25...	5.5	13.5
29...	8.5	13.0	25...	6.0	15.0
29...	9.0	14.0	25...	6.5	13.0
29...	9.5	8.5	25...	7.0	11.0
JUL 1979			25...	7.5	8.5
10...	.5	15.5	25...	8.0	10.5
10...	1.0	19.0	25...	8.5	13.5
10...	1.5	18.0	25...	9.0	13.0
10...	2.0	17.0	AUG 1979		
10...	2.5	16.0	22...	.5	11.0
10...	3.0	14.0	22...	1.0	18.0
10...	3.5	16.0	22...	1.5	17.5
10...	4.0	15.0	22...	2.0	16.0
10...	4.5	14.0	22...	2.5	15.5
10...	5.0	13.0	22...	3.0	14.5
10...	5.5	14.0	22...	3.5	14.5
10...	6.0	13.0			

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

<u>Access tube d</u>					
DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
NOV 1978			DEC 1978		
02...	.5	13.5	12...	2.0	14.0
02...	1.0	15.5	12...	2.5	15.0
02...	1.5	15.0	12...	3.0	16.0
02...	2.0	15.5	12...	3.5	20.0
02...	2.5	15.5	12...	4.0	18.0
02...	3.0	18.0	12...	4.5	16.5
02...	3.5	21.5	12...	5.0	16.0
02...	4.0	18.0	12...	5.5	13.0
02...	4.5	18.0	12...	6.0	16.0
02...	5.0	15.5	12...	6.5	16.0
02...	5.5	13.5	12...	7.0	15.0
02...	6.0	16.5	12...	7.5	11.0
02...	6.5	17.0	12...	8.0	9.0
02...	7.0	15.0			
02...	7.5	11.5	JAN 1979		
02...	8.0	10.0	11...	.5	19.0
16...	.5	18.5	11...	1.0	16.0
16...	1.0	16.0	11...	1.5	14.0
16...	1.5	15.0	11...	2.0	15.0
16...	2.0	15.0	11...	2.5	15.0
16...	2.5	15.5	11...	3.0	18.0
16...	3.0	17.5	11...	3.5	20.0
16...	3.5	21.5	11...	4.0	17.0
16...	4.0	17.5	11...	4.5	17.0
16...	4.5	17.5	11...	4.0	14.0
16...	5.0	16.0	11...	5.5	14.0
16...	5.5	14.0	11...	6.0	17.0
16...	6.0	17.0	11...	6.5	16.0
16...	6.5	17.0	11...	7.0	14.0
16...	7.0	15.0	11...	7.5	10.0
16...	7.5	15.0	11...	8.0	10.0
			30...	.5	19.0
DEC 1978			30...	1.0	16.0
12...	.5	20.0	30...	1.5	14.5
12...	1.0	16.0	30...	2.0	14.5
12...	1.5	15.0	30...	2.5	15.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube d--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JAN 1979			FEB 1979		
30...	3.0	17.5	20...	4.0	18.0
30...	3.5	20.0	20...	4.5	17.5
30...	4.0	17.0	20...	5.0	16.5
30...	4.5	17.5	20...	5.5	13.5
30...	5.0	14.5	20...	6.0	17.0
30...	5.5	13.5	20...	6.5	17.0
30...	6.0	17.0	20...	7.0	16.0
30...	6.5	16.5	20...	7.5	12.0
30...	7.0	14.0	20...	8.0	10.5
30...	7.5	10.5			
30...	8.0	9.5	MAR 1979		
FEB 1979			15...	.5	31.5
08...	.5	19.5	15...	1.0	26.5
08...	1.0	17.0	15...	1.5	25.0
08...	1.5	15.0	15...	2.0	22.5
08...	2.0	14.5	15...	2.5	22.0
08...	2.5	15.0	15...	3.0	23.0
08...	3.0	16.0	15...	3.5	24.5
08...	3.5	20.5	15...	4.0	23.0
08...	4.0	17.5	15...	4.5	22.0
08...	4.5	17.5	15...	5.0	21.5
08...	5.0	16.0	15...	5.5	17.5
08...	5.5	13.0	15...	6.0	21.5
08...	6.0	16.5	15...	6.5	21.5
08...	6.5	17.0	15...	7.0	19.5
08...	7.0	15.5	15...	7.5	18.5
08...	7.5	11.5	15...	8.0	18.5
08...	8.0	10.0	26...	.5	31.5
20...	.5	22.0	26...	1.0	34.0
20...	1.0	21.0	26...	1.5	33.0
20...	1.5	15.0	26...	2.0	31.0
20...	2.0	15.0	26...	3.5	22.5
20...	2.5	15.0	26...	3.0	19.5
20...	3.0	16.0	26...	3.5	23.0
20...	3.5	21.0	26...	4.0	21.0
			26...	4.5	20.5

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube d--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAR 1979			APR 1979		
26...	5.0	19.0	26...	5.5	15.0
26...	5.5	16.0	26...	6.0	19.5
26...	6.0	20.0	26...	6.5	19.5
26...	6.5	19.5	26...	7.0	18.0
26...	7.0	18.5	26...	7.5	15.0
26...	7.5	16.5	26...	8.0	13.5
26...	8.0	15.5			
APR 1979			MAY 1979		
05...	.5	18.0	11...	.5	27.0
05...	1.0	15.5	11...	1.0	31.0
05...	1.5	15.5	11...	1.5	28.5
05...	2.0	16.0	11...	2.0	27.0
05...	2.5	14.5	11...	2.5	21.5
05...	3.0	13.5	11...	3.0	21.0
05...	3.5	13.5	11...	3.5	23.5
05...	4.0	14.0	11...	4.0	21.0
05...	4.5	13.0	11...	4.5	21.0
05...	5.0	10.5	11...	5.0	19.0
05...	5.5	8.5	11...	5.5	16.5
05...	6.0	11.0	11...	6.0	21.0
05...	6.5	13.5	11...	6.5	20.5
05...	7.0	13.5	11...	7.0	18.5
05...	7.5	8.0	11...	7.5	15.0
05...	8.0	7.0	17...	.5	21.0
26...	.5	28.0	17...	1.0	27.0
26...	1.0	31.5	17...	1.5	26.5
26...	1.5	28.5	17...	2.0	15.0
26...	2.0	26.0	17...	2.5	21.5
26...	2.5	21.5	17...	3.0	19.0
26...	3.0	19.0	17...	3.5	22.0
26...	3.5	22.0	17...	4.0	19.5
26...	4.0	20.0	17...	4.5	20.0
26...	4.5	20.0	17...	5.0	19.0
26...	5.0	18.5	17...	5.5	15.5
			17...	6.0	19.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube d--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAY 1979			JUN 1979		
17...	6.5	19.5	07...	7.5	14.0
17...	7.0	18.0	07...	8.0	12.0
17...	7.5	14.5	29...	.5	13.5
17...	8.0	13.5	29...	1.0	20.0
22...	.5	17.0	29...	1.5	20.5
22...	1.0	25.0	29...	2.0	19.0
22...	1.5	24.5	29...	2.5	17.5
22...	2.0	14.0	29...	3.0	16.0
22...	2.5	21.5	29...	3.5	15.5
22...	3.0	19.0	29...	4.0	16.0
22...	3.5	22.5	29...	4.5	15.0
22...	4.0	20.0	29...	5.0	13.5
22...	4.5	20.0	29...	5.5	13.5
22...	5.0	19.0	29...	6.0	14.0
22...	5.5	15.5	29...	6.5	13.0
22...	6.0	19.0	29...	7.0	11.0
22...	6.5	20.0	29...	7.5	8.5
22...	7.0	18.0	29...	8.0	10.5
22...	7.5	15.0	29...	8.5	13.0
22...	8.0	13.0	29...	9.0	14.0
JUN 1979			JUL 1979		
07...	.5	16.0	10...	.5	10.0
07...	1.0	19.0	10...	1.0	15.5
07...	1.5	19.0	10...	1.5	15.0
07...	2.0	19.0	10...	2.0	14.0
07...	2.5	19.0	10...	2.5	15.0
07...	3.0	18.0	10...	3.0	16.0
07...	3.5	21.5	10...	3.5	21.0
07...	4.0	19.0	10...	4.0	19.0
07...	4.5	19.0	10...	4.5	19.5
07...	5.0	18.0	10...	5.0	19.0
07...	5.5	14.5	10...	5.5	14.5
07...	6.0	19.0	10...	6.0	19.0
07...	6.5	19.0	10...	6.5	19.0
07...	7.0	17.5	10...	7.0	17.0

Table 16.--Soil moisture, in percent of total volume,
at station 1--Continued

Access tube d--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUL 1979			AUG 1979		
10...	7.5	13.5	22...	.5	9.0
10...	8.0	12.0	22...	1.0	14.5
25...	.5	13.5	22...	1.0	14.5
25...	1.0	14.5	22...	1.5	14.0
25...	1.5	13.5	22...	2.0	13.5
25...	2.0	14.5	22...	2.5	14.0
25...	2.5	15.0	22...	3.0	15.5
25...	3.0	19.0	22...	3.5	20.5
25...	3.5	20.0	22...	4.0	19.0
25...	4.0	19.0	22...	4.5	19.5
25...	4.5	19.5	22...	5.0	18.5
25...	5.0	15.0	22...	5.5	15.0
25...	5.5	17.5	22...	6.0	18.5
25...	6.0	19.5	22...	6.5	19.0
25...	6.5	18.0	22...	7.0	17.0
25...	7.0	14.0	22...	7.5	13.5
25...	7.5	11.5	22...	8.0	11.0

Table 17.--Soil moisture, in percent of total volume,
at station 8

Access tube a

DATE	SAM- PLING DEPTH (FT)	PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	PERCENT OF TOTAL VOLUME
DEC 1978			FEB 1979		
13...	.5	18.0	27...	3.5	24.0
13...	1.0	18.0	27...	4.0	22.5
13...	1.5	17.0	27...	4.5	25.5
13...	2.0	27.5	27...	5.0	24.0
13...	2.5	18.0			
13...	3.0	22.0	MAR 1979		
13...	3.5	24.0	14...	.5	26.5
13...	4.0	23.0	14...	1.0	25.0
13...	4.5	25.0	14...	1.5	24.5
13...	5.0	24.0	14...	2.0	24.0
			14...	2.5	25.0
JAN 1979			14...	3.0	28.5
09...	.5	18.0	14...	3.5	26.5
09...	1.0	18.0	14...	4.0	28.0
09...	1.5	17.0	14...	4.5	29.5
09...	2.0	17.5	14...	5.0	28.5
09...	2.5	18.0	26...	.5	22.0
09...	3.0	23.0	26...	1.0	21.0
09...	3.5	23.0	26...	1.5	21.0
09...	4.0	22.5	26...	2.0	21.0
09...	4.5	24.0	26...	2.5	22.5
09...	5.0	24.0	26...	3.0	24.5
			26...	3.5	23.0
FEB 1979			26...	4.0	25.5
06...	.5	19.5	26...	4.5	21.0
06...	1.0	19.0			
06...	1.5	10.0	APR 1979		
06...	2.0	11.0	03...	.5	25.0
06...	2.5	11.5	03...	1.0	23.5
06...	3.0	23.5	03...	1.5	22.0
06...	3.5	25.0	03...	2.0	22.5
06...	4.0	23.0	03...	2.5	22.5
06...	4.5	26.0	03...	3.0	25.5
06...	5.0	25.0	03...	3.5	12.0
27...	.5	19.5	03...	4.0	25.0
27...	1.0	18.5	03...	4.5	27.5
27...	1.5	18.0	03...	5.0	26.5
27...	2.0	19.0	26...	.5	24.0
27...	2.5	19.0	26...	1.0	20.5
27...	3.0	22.0	26...	1.5	21.0

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube a--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
APR 1979			MAY 1979		
26...	2.0	20.5	23...	4.0	25.5
26...	2.5	23.0	23...	4.5	23.5
26...	3.0	24.5	23...	5.0	25.5
26...	3.5	23.5	23...	5.5	25.5
26...	4.0	25.5			
26...	4.5	26.0	JUN 1979		
26...	5.0	25.0	07...	.5	23.0
			07...	1.0	24.5
MAY 1979			07...	1.5	24.0
08...	.5	29.5	07...	2.0	20.5
08...	1.0	24.5	07...	2.5	21.0
08...	1.5	20.5	07...	3.0	20.5
08...	2.0	21.0	07...	3.5	22.5
08...	2.5	21.0	07...	4.0	25.5
08...	3.0	24.0	07...	4.5	23.0
08...	3.5	24.5	07...	5.0	25.0
08...	4.0	23.5	07...	5.5	24.5
08...	4.5	26.0	29...	.5	15.0
08...	5.0	24.5	29...	1.0	17.5
18...	.5	29.5	29...	1.5	20.5
18...	1.0	25.0	29...	2.0	20.0
18...	1.5	21.0	29...	2.5	20.5
18...	2.0	22.0	29...	3.0	20.5
18...	2.5	21.5	29...	3.5	22.0
18...	3.0	24.5	29...	4.0	25.5
18...	3.5	25.5	29...	4.5	23.0
18...	4.0	24.5	29...	5.0	25.0
18...	4.5	27.0	29...	5.5	26.5
18...	5.0	25.5			
23...	.5	24.5	JUL 1979		
23...	1.0	27.0	13...	.5	13.5
23...	1.5	26.5	13...	1.0	16.0
23...	2.0	21.5	13...	1.5	18.0
23...	2.5	21.5	13...	2.0	18.0
23...	3.0	21.0	13...	2.5	18.5
23...	3.5	22.5	13...	3.0	19.0

Table 17.--Soil moisture, in percent of total volume,
station 8--Continued

Access tube a--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUL 1979			AUG 1979		
13...	3.5	22.0	09...	1.5	17.0
13...	4.0	25.0	09...	2.0	17.0
13...	4.5	23.0	09...	2.5	18.0
13...	5.0	26.0	09...	3.0	18.5
24...	.5	13.0	09...	3.5	21.0
24...	1.0	15.0	09...	4.0	24.0
24...	1.5	17.0	09...	4.5	22.5
24...	2.0	17.0	09...	5.0	25.0
24...	2.5	18.0	09...	5.5	25.0
24...	3.0	18.5	23...	.5	13.0
24...	3.5	21.5	23...	1.0	15.0
24...	4.0	24.5	23...	1.5	17.0
24...	4.5	23.0	23...	2.0	17.0
24...	5.0	25.5	23...	2.5	17.5
24...	5.5	25.0	23...	3.0	18.0
AUG 1979			23...	3.5	21.0
09...	.5	13.0	23...	4.0	24.0
09...	1.0	15.0	23...	4.5	22.5
			23...	5.0	25.5

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube b

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
DEC 1978			FEB 1979		
13...	.5	30.0	06...	5.0	21.5
13...	1.0	23.0	06...	5.5	24.5
13...	1.5	21.0	06...	6.0	24.0
13...	2.0	18.0	27...	.5	28.0
13...	2.5	19.0	27...	1.0	26.0
13...	3.0	19.0	27...	1.5	21.5
13...	3.5	18.0	27...	2.0	19.0
13...	4.0	20.0	27...	2.5	19.5
13...	4.5	20.0	27...	3.0	19.5
13...	5.0	21.5	27...	3.5	19.5
13...	5.5	23.0	27...	4.0	21.0
13...	6.0	23.0	27...	4.5	21.0
JAN 1979			27...	5.0	20.5
09...	.5	29.0	27...	5.5	23.5
09...	1.0	24.5	27...	6.0	24.0
09...	1.5	21.0	MAR 1979		
09...	2.0	17.0	14...	.5	56.5
09...	2.5	19.0	14...	1.0	39.0
09...	3.0	19.0	14...	1.5	40.0
09...	3.5	18.0	14...	2.0	40.0
09...	4.0	20.0	14...	2.5	37.0
09...	4.5	20.0	14...	3.0	38.5
09...	5.0	20.0	14...	3.5	34.5
09...	5.5	22.0	14...	4.0	30.5
09...	6.0	23.0	14...	4.5	30.0
FEB 1979			14...	5.0	26.5
06...	.5	28.0	14...	5.5	24.0
06...	1.0	24.0	14...	6.0	26.0
06...	1.5	20.0	14...	6.5	27.5
06...	2.0	19.0	26...	.5	34.0
06...	2.5	20.5	26...	1.0	36.0
06...	3.0	19.5	26...	1.5	33.0
06...	3.5	20.5	26...	2.0	31.5
06...	4.0	21.5	26...	2.5	30.5
06...	4.5	21.0	26...	3.0	27.5

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube b--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAR 1979			MAY 1979		
26...	3.5	24.5	08...	1.5	33.0
26...	4.0	23.5	08...	2.0	32.0
26...	4.5	21.5	08...	2.5	31.5
26...	5.0	22.0	08...	3.0	30.0
26...	5.5	24.0	08...	3.5	26.0
26...	6.0	24.0	08...	4.0	24.5
			08...	4.5	22.0
			08...	5.0	22.0
			08...	5.5	24.0
			08...	6.0	24.5
			18...	.5	31.0
			18...	1.0	32.5
			18...	1.5	35.5
			18...	2.0	35.0
			18...	2.5	32.5
			18...	3.0	32.5
			18...	3.5	32.0
			18...	4.0	28.0
			18...	4.5	26.5
			18...	5.0	24.0
			18...	5.5	22.0
			18...	6.0	24.5
			18...	6.5	25.5
			23...	.5	29.0
			23...	1.0	32.0
			23...	1.5	34.5
			23...	2.0	32.5
			23...	2.5	32.0
			23...	3.0	32.0
			23...	3.5	30.5
			23...	4.0	27.0
			23...	4.5	25.0
			23...	5.0	22.5
			23...	5.5	23.0
			23...	6.0	24.5
			23...	6.5	25.0
APR 1979					
03...	.5	35.5			
03...	1.0	37.0			
03...	1.5	35.0			
03...	2.0	34.0			
03...	2.5	32.0			
03...	3.0	28.5			
03...	3.5	25.5			
03...	4.0	25.5			
03...	4.5	23.0			
03...	5.0	23.5			
03...	5.5	25.5			
03...	6.0	25.5			
26...	.5	33.0			
26...	1.0	35.5			
26...	1.5	33.5			
26...	2.0	32.5			
26...	2.5	31.5			
26...	3.0	28.5			
26...	3.5	24.5			
26...	4.0	23.5			
26...	4.5	22.0			
26...	5.0	21.5			
26...	5.5	24.0			
26...	6.0	24.5			
MAY 1979					
08...	.5	32.0			
08...	1.0	34.5			

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube b--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUN 1979			JUL 1979		
07...	.5	26.0	13...	5.5	22.5
07...	1.0	29.5	13...	6.0	25.0
07...	1.5	32.5	13...	6.5	26.0
07...	2.0	31.0	24...	.5	17.0
07...	2.5	30.5	24...	1.0	20.5
07...	3.0	30.5	24...	1.5	21.5
07...	3.5	29.0	24...	2.0	22.0
07...	4.0	26.5	24...	2.5	21.0
07...	4.5	25.5	24...	3.0	23.0
07...	5.0	23.0	24...	3.5	25.0
07...	5.5	23.0	24...	4.0	22.0
07...	6.0	24.0	24...	4.5	23.0
29...	.5	19.5	24...	5.0	22.5
29...	1.0	25.0	24...	5.5	22.0
29...	1.5	26.5	24...	6.0	24.0
29...	2.0	29.5	24...	6.5	25.0
29...	2.5	29.0	AUG 1979		
29...	3.0	29.5	09...	.5	16.0
29...	3.5	30.0	09...	1.0	19.5
29...	4.0	26.5	09...	1.5	20.5
29...	4.5	26.0	09...	2.0	20.5
29...	5.0	24.5	09...	2.5	19.0
29...	5.5	23.5	09...	3.0	20.5
29...	6.0	25.0	09...	3.5	21.5
JUL 1979			09...	4.0	20.5
13...	.5	18.0	09...	4.5	21.5
13...	1.0	22.0	09...	5.0	21.0
13...	1.5	23.0	09...	5.5	21.0
13...	2.0	24.0	09...	6.0	23.5
13...	2.5	24.0	09...	6.5	25.0
13...	3.0	27.0	23...	.5	16.5
13...	3.5	27.0	23...	1.0	19.5
13...	4.0	24.0	23...	1.5	20.5
13...	4.5	24.0	23...	2.0	20.5
13...	5.0	24.0	23...	2.5	18.5

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube b--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
AUG 1979			AUG 1979		
23...	3.0	19.5	23...	5.0	21.0
23...	3.5	20.5	23...	5.5	19.5
23...	4.0	19.5	23...	6.0	23.0
23...	4.5	21.0	23...	6.5	25.0

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube c

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAY 1979			JUN 1979		
18...	.5	27.0	07...	5.5	28.0
18...	1.0	29.0	07...	6.0	30.0
18...	1.5	31.5	29...	.5	15.5
18...	2.0	34.5	29...	1.0	18.0
18...	2.5	33.5	29...	1.5	21.0
18...	3.0	29.0	29...	2.0	26.0
18...	3.5	24.5	29...	2.5	28.5
18...	4.0	24.5	29...	3.0	27.5
18...	4.5	24.0	29...	3.5	25.0
18...	5.0	26.5	29...	4.0	26.0
18...	5.5	30.0	29...	4.5	24.5
18...	6.0	30.5	29...	5.0	27.5
23...	.5	25.5	29...	5.5	30.0
23...	1.0	28.0	29...	6.0	30.5
23...	1.5	31.0			
23...	2.0	33.5	JUL 1979		
23...	2.5	33.0	13...	.5	14.0
23...	3.0	28.5	13...	1.0	16.0
23...	3.5	24.5	13...	1.5	18.5
23...	4.0	24.5	13...	2.0	21.0
23...	4.5	23.5	13...	2.5	23.5
23...	5.0	26.5	13...	3.0	24.0
23...	5.5	29.0	13...	3.5	24.0
23...	6.0	29.5	13...	4.0	25.0
			13...	4.5	25.0
			13...	5.0	27.5
			13...	5.5	30.0
			13...	6.0	31.0
JUN 1979			24...	.5	13.0
07...	.5	22.5	24...	1.0	15.5
07...	1.0	24.0	24...	1.5	18.0
07...	1.5	28.0	24...	2.0	20.0
07...	2.0	31.5	24...	2.5	22.0
07...	2.5	30.5	24...	3.0	22.0
07...	3.0	27.5	24...	3.5	23.0
07...	3.5	24.0	24...	4.0	24.5
07...	4.0	24.0			
07...	4.5	23.5			
07...	5.0	26.5			

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube c--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUL 1979			AUG 1979		
24...	4.5	24.0	09...	5.5	29.0
24...	5.0	22.0	09...	6.0	30.5
24...	5.5	29.0	23...	.5	15.0
24...	6.0	30.5	23...	1.0	17.5
			23...	1.5	14.5
AUG 1979			23...	2.0	14.5
09...	.5	13.0	23...	2.5	17.5
09...	1.0	15.0	23...	3.0	24.0
09...	1.5	17.0	23...	3.5	26.0
09...	2.0	19.5	23...	4.0	29.0
09...	2.5	21.5	23...	4.5	29.0
09...	3.0	20.5	23...	5.0	27.5
09...	3.5	21.5	23...	5.5	29.5
09...	4.0	23.5	23...	6.0	31.5
09...	4.5	23.5	23...	6.5	34.5
09...	5.0	26.5			

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

<u>Access tube d</u>					
DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
MAY 1979			JUN 1979		
18...	.5	26.5	07...	4.5	29.5
18...	1.0	31.5	07...	5.0	27.5
18...	1.5	28.5	07...	5.5	29.0
18...	2.0	24.0	07...	6.0	31.0
18...	2.5	22.0	07...	6.5	33.5
18...	3.0	25.5	29...	.5	17.5
18...	3.5	29.0	29...	1.0	20.5
18...	4.0	28.0	29...	1.5	29.5
18...	4.5	30.5	29...	2.0	19.0
18...	5.0	27.5	29...	2.5	21.5
18...	5.5	29.5	29...	3.0	26.0
18...	6.0	32.5	29...	3.5	29.0
18...	6.5	35.0	29...	4.0	29.0
23...	.5	24.0	29...	4.5	31.0
23...	1.0	29.5	29...	5.0	28.5
23...	1.5	27.5	29...	5.5	30.0
23...	2.0	24.5	29...	6.0	32.0
23...	2.5	22.5	29...	6.5	34.5
23...	3.0	25.0			
23...	3.5	28.5	JUL 1979		
23...	4.0	27.5	13...	.5	15.0
23...	4.5	30.0	13...	1.0	18.0
23...	5.0	27.5	13...	1.5	20.0
23...	5.5	29.0	13...	2.0	16.0
23...	6.0	32.0	13...	2.5	19.0
23...	6.5	34.5	13...	3.0	25.0
			13...	3.5	28.5
			13...	4.0	29.0
			13...	4.5	31.0
			13...	5.0	29.0
			13...	5.5	30.0
			13...	6.0	32.0
			13...	6.5	35.0
			24...	.5	15.0
			24...	1.0	17.0
			24...	1.5	15.5
JUN 1979					
07...	.5	23.0			
07...	1.0	26.0			
07...	1.5	25.0			
07...	2.0	22.0			
07...	2.5	22.0			
07...	3.0	25.0			
07...	3.5	28.0			
07...	4.0	28.0			

Table 17.--Soil moisture, in percent of total volume,
at station 8--Continued

Access tube d--Continued

DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME	DATE	SAM- PLING DEPTH (FT)	SOIL MOIS- TURE PERCENT OF TOTAL VOLUME
JUL 1979			AUG 1979		
24...	2.0	14.5	09...	4.0	28.0
24...	2.5	17.5	09...	4.5	29.5
24...	3.0	24.0	09...	5.0	27.5
24...	3.5	28.0	09...	5.5	28.5
24...	4.0	28.5	09...	6.0	30.5
24...	4.5	30.0	09...	6.5	33.5
24...	5.0	28.0	23...	.5	14.0
24...	5.5	30.0	23...	1.0	15.0
24...	6.0	31.0	23...	1.5	17.5
24...	6.5	34.0	23...	2.0	19.5
			23...	2.5	21.5
AUG 1979			23...	3.0	20.5
09...	.5	15.0	23...	3.5	21.0
09...	1.0	17.0	23...	4.0	23.5
09...	1.5	15.5	23...	4.5	23.5
09...	2.0	13.0	23...	5.0	26.5
09...	2.5	16.5	23...	5.5	29.0
09...	3.0	22.5	23...	6.0	30.0
09...	3.5	26.5			

Table 18.--Average daily stream discharge, in cubic feet per second, at station 2

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			.00	.00	.00	.00	.00	2.3	1.50	.50	.30	.00
2			.00	.00	.00	.00	.00	2.2	1.30	.50	.30	.00
3			.00	.00	.00	.00	.00	2.1	1.20	.50	.30	.00
4			.00	.00	.00	.00	.00	2.3	1.20	.50	.25	.00
5			.00	.00	.00	.00	.00	2.4	1.20	.50	.25	.00
6		.00	.00	.00	.00	.00	.00	2.4	1.20	.50	.25	.00
7		.00	.00	.00	.00	.00	.01	2.1	1.20	.50	.25	.00
8		.00	.00	.00	.00	.00	.01	2.3	.90	.50	.25	.00
9		.00	.00	.00	.00	.00	.01	2.3	.90	.50	.30	.00
10		.00	.00	.00	.00	.00	.07	2.3	.90	.50	.25	.00
11		.00	.00	.00	.00	.00	.62	2.1	.90	.41	.35	.00
12		.00	.00	.00	.00	.00	.30	2.2	.90	.35	.35	.20
13		.00	.00	.00	.00	.00	.25	2.1	.90	.35	.30	.20
14		.00	.03	.00	.00	.00	.41	2.0	.90	.41	.20	.11
15		.00	.07	.00	.00	.00	.30	1.9	.90	.35	.15	.07
16		.00	.04	.00	.00	.00	.69	1.9	.90	.48	.15	.07
17		.00	.01	.00	.00	.00	1.2	1.9	.90	.48	.15	.07
18		.00	.01	.00	.00	.00	1.2	1.9	3.00	.41	.15	.02
19		.00	.01	.00	.00	.00	2.1	1.7	.99	.35	.11	.02
20		.00	.01	.00	.00	.00	1.9	1.6	.95	.35	.15	.02
21		.00	.01	.00	.00	.00	1.7	1.5	.95	.35	.20	.01
22		.00	.01	.00	.00	.00	1.7	1.6	.90	.35	.30	.02
23		.00	.01	.00	.00	.00	2.2	1.2	.84	.35	.25	.02
24		.00	.01	.00	.00	.00	2.2	1.4	.76	.35	.20	.00
25		.00	.00	.00	.00	.06	2.1	1.4	.62	.30	.20	.00
26		.00	.00	.00	.00	.02	2.4	1.3	.50	.25	.20	.00
27		.00	.00	.00	.00	.01	2.5	1.3	.50	.25	.07	.00
28		.00	.00	.00	.00	.00	2.3	1.3	.50	.25	.00	.00
29		.00	.00	.00		.00	2.3	1.5	.50	.30	.00	.00
30		.00	.00	.00		.00	2.2	1.7	.50	.35	.00	.00
31			.00	.00		.00		1.5		.35	.00	
TOTAL		.00	.22	.00	.00	.09	30.67	57.7	29.31	12.39	6.18	.83
MEAN		.000	.007	.000	.000	.003	1.02	1.86	.98	.40	.20	.028
MAX		.00	.07	.00	.00	.06	2.5	2.4	3.0	.50	.35	.20
MIN		.00	.00	.00	.00	.00	.00	1.2	.50	.25	.00	.00
AC-FT		.00	.44	.00	.00	.18	61	114	58	25	12	1.6

Water year October 1978 to September 1979

Table 19.--Average daily stream discharge, in cubic feet per second, at station 18

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						.00	.95	3.6	1.7	.90	.53	.30
2						.00	.95	3.5	1.6	.90	.48	.22
3						.01	.84	3.4	1.6	.84	.48	.19
4						.02	.84	3.2	1.6	.84	.48	.19
5						.10	.90	3.0	1.5	.84	.39	.19
6						.20	.90	3.0	1.4	.84	.39	.22
7						.80	1.4	3.0	1.4	.68	.34	.22
8						.70	1.6	3.0	1.4	.73	.39	.22
9						.75	1.6	3.3	1.3	.68	.34	.26
10						.80	1.9	3.2	1.3	.63	.39	.30
11						1.1	2.5	3.1	1.1	.58	.34	.30
12						1.0	2.7	3.1	1.1	.58	.34	.34
13						1.0	2.9	3.1	1.0	.58	.39	.34
14						.95	3.0	2.9	1.0	.68	.39	.30
15						.90	3.2	2.7	.90	.73	.39	.30
16						1.0	3.7	2.7	.95	.68	.30	.30
17						.90	5.1	2.6	.95	.68	.30	.26
18						.95	5.9	2.6	.84	.68	.34	.22
19						.84	6.6	2.5	.95	.68	.34	.26
20						.84	5.0	2.3	1.0	.73	.34	.26
21						.79	4.8	2.1	1.1	.68	.30	.26
22						.79	4.7	2.0	1.2	.73	.34	.26
23						.79	4.7	2.1	1.1	.79	.34	.26
24						1.0	4.5	2.1	.95	.79	.30	.26
25						1.1	4.4	2.1	.95	.68	.30	.30
26						1.0	4.4	1.9	.95	.68	.34	.26
27						.95	3.9	1.9	.95	.63	.30	.30
28						.90	3.8	1.7	.95	.58	.30	.30
29						.84	3.9	1.9	.84	.63	.26	.30
30						.90	3.8	2.2	.84	.58	.26	.39
31						.95		1.9		.53	.26	
TOTAL						22.87	95.38	81.7	34.42	21.78	10.98	8.08
MEAN						.74	3.18	2.64	1.15	.70	.35	.27
MAX						1.1	6.6	3.6	1.7	.90	.53	.39
MIN						.00	.84	1.7	.84	.53	.26	.19
AC-FT						45	189	162	68	43	22	16

Water year October 1978 to September 1979

Table 20.--Chemical quality of water at station 2

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATU- RATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)
DEC 1978									
15...	1030	.07	1860	8.0	2.5	.0	3.7	28	--
APR 1979									
16...	1450	.95	1320	7.8	24.0	17.0	5.4	63	.6
19...	1700	2.6	1120	8.6	11.0	9.0	5.6	55	--
MAY									
09...	1350	2.3	1320	8.7	6.0	9.5	12.0	122	--
JUN									
04...	1535	1.1	1380	8.6	21.0	26.0	5.2	73	--
JUL									
12...	1600	.37	1600	9.2	27.5	26.5	4.4	62	.6
AUG									
24...	1000	.10	1720	8.6	21.5	16.0	8.4	95	--

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE (MG/L CACO3)	CALCIUM, DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY (MG/L AS CACO3)	SULFATE, DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 1978										
15...	940	560	78	180	110	1.6	9.0	380	750	8.4
APR 1979										
16...	700	310	64	130	70	1.2	5.6	390	440	5.6
19...	620	280	91	95	45	.8	6.2	340	340	5.0
MAY										
09...	750	--	85	130	65	1.0	5.5	--	460	5.4
JUN										
04...	730	380	62	140	74	1.2	7.1	350	510	6.3
JUL										
12...	760	410	42	160	100	1.6	9.3	350	640	7.5
AUG										
24...	820	410	50	170	120	1.8	9.1	410	730	9.0

Table 20.--Chemical quality of water at station 2--Continued

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE, DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
DEC 1978									
15...	.3	--	--	14	1380	1.88	.26	.27	.01
APR 1979									
16...	.4	--	--	6.4	957	1.30	2.45	.02	.02
19...	.3	--	--	8.3	796	1.08	5.59	.26	.07
MAY									
09...	.3	--	--	6.8	--	--	--	.14	.01
JUN									
04...	.4	.0	.00	5.2	1020	1.39	3.03	.05	.03
JUL									
12...	.5	.1	.00	1.9	1170	1.59	1.17	.01	.00
AUG									
24...	.5	--	--	4.5	1340	1.82	.36	.00	.00

DATE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED (MG/L AS C)
DEC 1978								
15...	.28	.29	.010	140	10	5.5	5.3	.0
APR 1979								
16...	.34	.36	.010	110	10	--	6.7	--
19...	.61	.68	.050	70	980	--	--	--
MAY								
09...	.37	.38	.000	90	10	--	--	--
JUN								
04...	.30	.33	.020	120	10	--	7.8	.5
JUL								
12...	.49	.49	.020	190	10	--	8.3	.7
AUG								
24...	.30	.30	.020	150	<10	--	--	--

Table 21.--Chemical quality of water at station 18

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATU- RATION)	OXYGEN DEMAND, BIOCHEM UNINHIB 5 DAY (MG/L)
MAR 1979									
14...	1400	.68	1330	--	8.0	1.0	11.6	94	1.8
APR									
19...	1425	6.8	1080	8.5	9.0	6.0	9.4	88	--
JUN									
04...	1500	1.6	1360	8.3	21.0	17.0	3.8	45	--
JUL									
12...	1030	.73	1500	8.4	19.5	15.0	7.7	88	1.0
SEP									
26...	1030	.30	1770	8.1	24.0	14.0	8.9	100	--
DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS, NONCAR- BONATE- (MG/L CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY (MG/L AS CACO3)	SULFATE, DIS- SOLVED (MG/L AS SO4)
MAR 1979									
14...	740	310	100	120	50	.8	5.2	430	370
APR									
19...	300	190	91	17	35	.9	5.0	110	280
JUN									
04...	230	0	94	--	51	--	5.3	400	420
JUL									
12...	800	350	91	140	65	1.0	6.7	450	490
SEP									
26...	940	470	95	170	84	1.2	7.3	470	670

Table 21.--Chemical quality of water at station 18--Continued

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE, DIS- SOLVED (MG/L AS BR)	IODIDE, DIS- SOLVED (MG/L AS I)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR 1979									
14...	4.5	.3	--	--	11	920	1.25	1.69	.25
APR									
19...	4.0	.3	--	--	8.6	507	.69	9.31	.44
JUN									
04...	5.1	.4	.0	.00	6.9	--	1.12	--	.18
JUL									
12...	5.7	.4	.0	.00	12	1080	1.47	2.13	.31
SEP									
26...	6.5	.4	--	--	13	1330	1.81	1.08	.14
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE D (MG/L AS C)	
MAR 1979									
14...	.02	.42	.44	.010	70	10	6.2	--	
APR									
19...	.01	.49	.50	.080	70	40	--	--	
JUN									
04...	.01	.38	.39	.020	100	20	6.1	1.1	
JUL									
12...	.00	.53	.53	.040	180	10	6.7	.5	
SEP									
26...	.02	.38	.40	.000	120	30	--	--	

Table 22.--Instantaneous suspended sediment at station 2

DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDE (T/DAY)
DEC 1978						JUL					
15...	1030	.0	.07	82	.02	15...	1100	--	.35	12	.01
APR 1979						16...	1100	--	.48	39	.05
16...	1450	17.0	.95	78	.20	17...	1100	--	.48	19	.02
17...	1120	13.0	1.1	170	.50	19...	1100	--	.35	32	.03
19...	1700	9.0	2.6	271	1.9	24...	1100	--	.35	22	.02
MAY						25...	1110	20.5	.35	52	.05
09...	1350	9.5	2.3	28	.17	25...	1115	20.5	.35	24	.02
15...	1600	24.0	2.1	88	.50	26...	1100	--	.25	27	.02
23...	1545	23.0	1.5	21	.09	27...	1100	--	.25	106	.07
JUN						28...	1100	--	.25	11	.01
04...	1535	26.0	1.1	27	.08	29...	1100	--	.30	87	.07
06...	1200	19.0	1.2	13	.04	30...	1100	--	.35	19	.02
08...	2300	--	.91	106	.26	AUG					
09...	0500	--	.91	74	.18	02...	1100	--	.30	23	.02
10...	1100	--	.90	118	.29	03...	1100	--	.30	24	.02
19...	0810	12.5	1.0	106	.29	04...	1100	--	.25	26	.02
19...	0815	12.5	1.0	75	.20	05...	1100	--	.25	27	.02
26...	0840	20.0	.76	51	.10	07...	1100	--	.25	86	.06
26...	0845	20.0	.76	6	.01	08...	1100	--	.35	27	.03
27...	1100	--	.50	75	.10	10...	1100	--	.62	127	.21
28...	0500	--	.50	86	.12	23...	1100	--	.15	244	.10
29...	1100	--	.50	29	.04	24...	0955	16.0	.10	3	.00
30...	0500	--	.50	35	.05	24...	1000	16.0	.10	29	.01
JUL						24...	1100	--	.10	401	.11
10...	1110	21.0	.48	7	.01	31...	1100	--	.03	7	.00
10...	1115	21.0	.48	27	.03	SEP					
11...	1100	--	.48	15	.02	01...	1100	--	.03	29	.00
12...	1100	--	.41	4	.00	02...	1100	--	.03	17	.00
12...	1600	26.5	.37	38	.04	03...	1100	--	.03	20	.00
13...	1100	--	.41	3	.00	04...	1100	--	.03	5	.00
14...	1100	--	.35	22	.02	05...	1100	--	.03	2	.00

Table 23.--Suspended sediment at station 18

DATE	TIME	TEMPER- ATURE, WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY)
MAR 1979					
14...	1400	1.0	.68	168	.31
24...	1600	5.0	1.0	358	.97
APR					
16...	1630	10.5	3.7	361	3.6
17...	1245	8.0	5.1	546	7.5
17...	1420	6.0	5.1	418	5.8
MAY					
23...	1230	13.0	2.1	99	.56
JUN					
04...	1500	17.0	1.6	78	.34
JUL					
12...	1030	15.0	.73	110	.22
SEP					
26...	1030	14.0	.30	12	.01

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