

# **GROUND WATER RECORDS FOR ST. CROIX, U.S. VIRGIN ISLANDS 1969-1973**

**By  
Héctor M. Colón-Ramos**

---

**U.S. Geological Survey  
Open-File Data Report 83-546**

**Prepared in cooperation with the  
Caribbean Research Institute  
College of the Virgin Islands  
St. Thomas, U.S. Virgin Islands**



**San Juan, Puerto Rico  
July 1983**

# UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

## GEOLOGICAL SURVEY

Dallas L. Peck, Director

---

For additional information  
write to:

Chief, Caribbean District, WRD  
U.S. Geological Survey  
GPO Box 4424  
San Juan, Puerto Rico 00936  
(Telephone: (809) 753-4414)

Copies of this report  
can be purchased from:

Open-File Services Section  
Western Distribution Branch  
U.S. Geological Survey  
Box 25425, Federal Center  
Denver, Colorado 80225  
(Telephone: (303) 234-5888)

## CONTENTS

Abstract .....	1
Introduction .....	1
Purpose and scope .....	1
Climate of St. Croix .....	3
Collection of ground-water data .....	3
References .....	5
Appendix 1. Water levels at Mahogany well .....	6
Appendix 2. Water levels at Airport well .....	12
Appendix 3. Water levels at Castle Coakley well .....	17
Appendix 4. Water levels at Adventure well .....	22
Appendix 5.. Water levels at Barren Spot well .....	26
Appendix 6. Water levels at River Gut well .....	28

## ILLUSTRATIONS

Figure 1. Map showing St. Croix and the location of ground-water and rainfall stations .....	2
2. Map showing rainfall distribution on St. Croix for 1963-64, and annual average from 1918 to 1967 .....	4
3. Hydrographs showing water levels at Mahogany Well and rainfall at the Annaly precipitation station .....	11
4. Hydrographs showing water levels at the Airport Well and rainfall at the Kingshill precipitation station .....	16
5. Hydrographs showing water levels at Castle Coakley well and rainfall at the Kingshill precipitation station .....	21
6. Hydrograph showing water levels at the Adventure well .....	25
7. Hydrographs showing water levels at the River Gut and Barren Spot Wells .....	27



# **GROUND-WATER RECORDS FOR ST. CROIX, U.S. VIRGIN ISLANDS, 1969-73**

## **ABSTRACT**

Ground-water levels at selected wells in St. Croix, the largest of three U.S. Virgin Islands, were monitored from 1969-73. Continuous recording instruments were installed at Mahogany, Castle Coakley, Airport, and Adventure wells, in central St. Croix. Monthly observations of instantaneous ground-water levels were also made at two wells near Barren Spot and River Gut. Precipitation data from National Weather Service stations near the Mahogany, Airport, and Castle Coakley wells are shown with the water-level data.

## **INTRODUCTION**

### **Purpose and Scope**

St. Croix, the largest of the three U.S. Virgin Islands (about 84 square miles) is located about 50 miles east-southeast of San Juan, Puerto Rico (figure 1). Water is not an abundant resource in St. Croix, with no perennial streams and limited ground-water resources (Jordan, 1975). The aquifers are small and shallow and in many areas produce saline water.

The population of St. Croix has increased dramatically to about 48,000 (1980 census). As a result of the population growth, water demands have also increased significantly. Ground water, although limited, is an important component of the water supplies of St. Croix. Water wells contribute about 1.1 million gallons per day (Mgal/d) for domestic uses in the island ( Fernando Gomez-Gomez, personal communication).

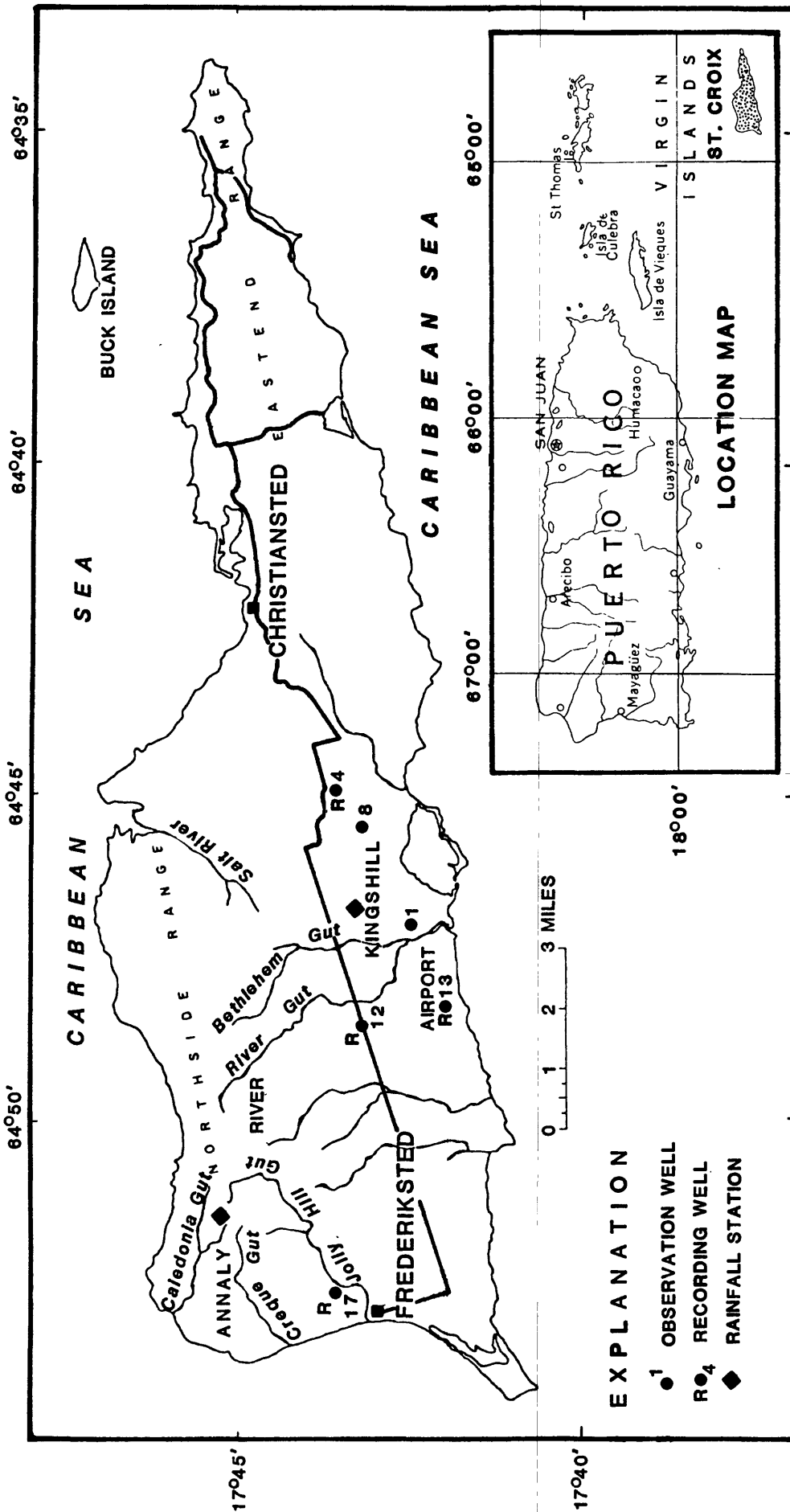


Figure 1.--Location of ground-water, rainfall stations and location map.

**GROUND-WATER RECORDS FOR ST. CROIX,  
U.S. VIRGIN ISLANDS, 1969-73**

**Purpose and Scope - Continued**

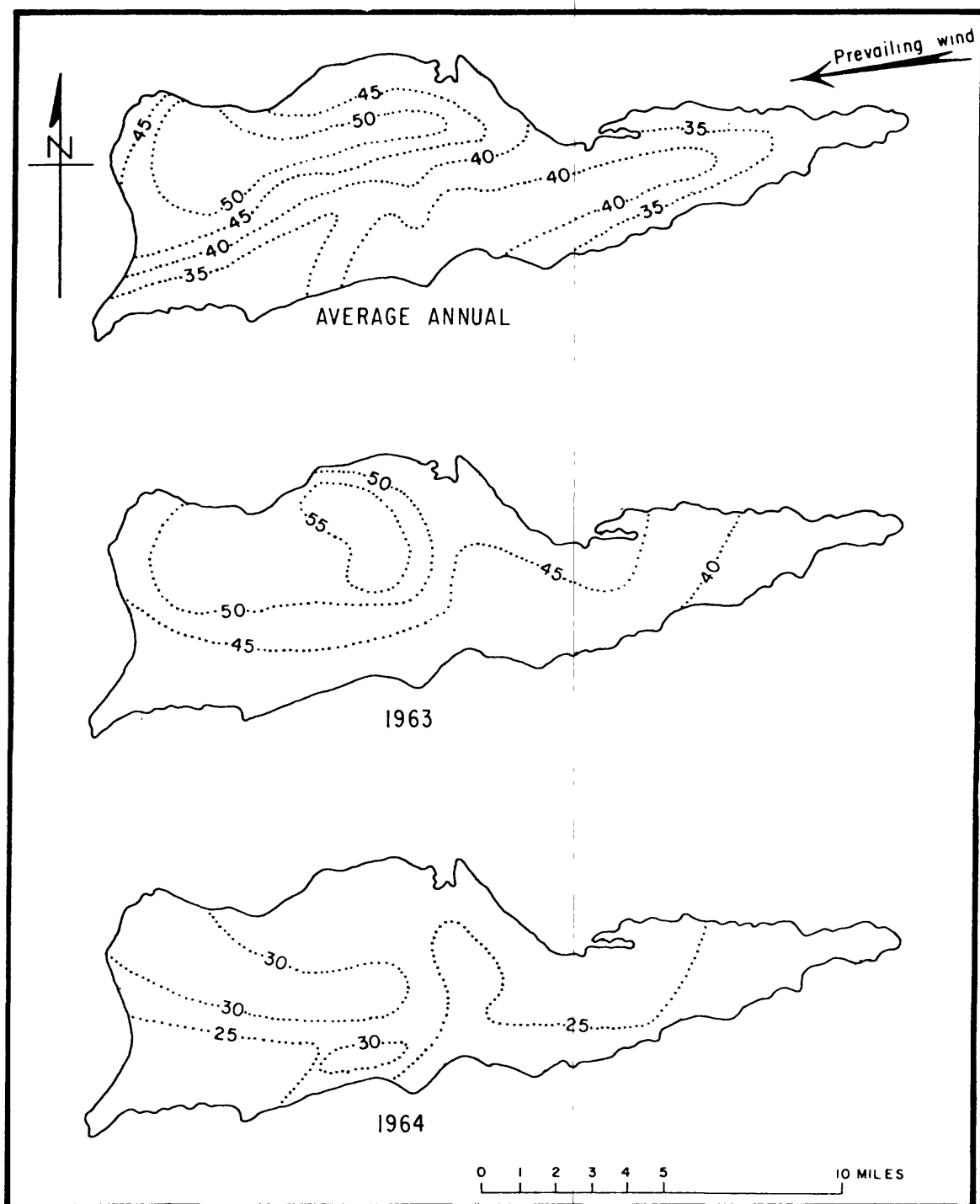
In 1967, in cooperation with the Water Resources Research Institute of the Caribbean Research Institute, College of the U.S. Virgin Islands, the U.S. Geological Survey initiated a project to collect ground-water data in St. Croix. The purpose of the project was to obtain baseline water-level data at selected wells throughout the island. Ground-water levels are necessary for future studies of the ground-water resources in St. Croix and to assist in the management and pumpage-optimization of existing well fields.

**Climate of St. Croix**

Precipitation over St. Croix averages 40 inches per year (figure 2), with a range from 30 to 50 inches (Jordan, 1975). Most of the rain occurs from May to September, although frequent droughts can occur during any period of the year. January to March are the driest months. Rainfall effects on the recharge of the aquifers in St. Croix have not been defined. The data in this report includes rainfall at selected National Weather Service Stations that could be related to ground-water levels.

**COLLECTION OF GROUND-WATER DATA**

Water-level data presented in this report were obtained from a network of observation wells operated by the U.S. Geological Survey, Water Resources Division, in St. Croix. The wells are located at the most important aquifers throughout the island. Water levels are reported from six (6) observation wells, of which four (4) were equipped with automatic-



**Figure 2.--Rainfall distribution, in inches on St. Croix for 1963, 1964, and average-annual precipitation, 1918-67 (Modified from Jordan, 1975).**



## **GROUND-WATER RECORDS FOR ST. CROIX, U.S. VIRGIN ISLANDS, 1969-73**

### **COLLECTION OF GROUND-WATER DATA - Continued**

continuous recorders. At the two other wells, water levels were measured about monthly as instantaneous values.

Water-level measurements are given in feet referenced to a land surface datum (lsd). The land-surface datum is approximately equal to the land elevation in the vicinity of the well. A measuring point is also shown for each well, also relative to the lsd. In some of the wells, a measuring point higher than the lsd is used.

At wells equipped with recorders, the mean-daily water level is shown. This contrasts with prior publications (Robison, T.M., 1973), where only every fifth day is shown. At non-recording wells the instantaneous values determined during the indicated day are shown.

Water levels are reported to the nearest hundredth of a foot (0.01 ft). Periods of missing record at the wells equipped with recorders are shown blank. A well description precedes each table of data. Included are general characteristics of the well, location, aquifer formation, datum to which elevations are referenced, and the period of record.

Additional information on wells and the data published in this report may be available from the San Juan office of the U.S. Geological Survey, Caribbean District.

### **REFERENCES**

- Jordan, Donald G., 1975, A survey of the water resources of St. Croix, U. S. Virgin Islands: U.S. Geological Survey Open-file Report, 51 p.
- Robison, Tully M., and others, 1973, Water records of the U.S. Virgin Islands : U.S. Geological Survey Data Report, 163 p.

## APPENDIX 1. WATER LEVELS AT MAHOGANY WELL

USGS NUMBER.-- 174336064523200. Local number 17.  
 LOCATION.-- Lat 17 43' 36", Long 64 52' 32".  
 OWNER.-- U.S. Virgin Islands Government.  
 NAME.-- Mahogany Road 3 well.  
 AQUIFER.-- Alluvium of quaternary age and volcanic rock of cretaceous age.  
 WELL CHARACTERISTICS.-- Drilled unused water table, diameter 6-in cased  
 0-104 ft, perforated 64-104 ft. Depth 104 ft.  
 DATUM.-- Altitude of lsd is 70 ft above mean sea level.  
 MEASURING POINT.-- Top of 6-in casing, which is 3.6 ft above lsd.  
 REMARKS.-- Recording observation well. Affected by nearby pumpage.  
 PERIOD OF RECORD.-- Water levels: 1964-72 [discontinued].  
 EXTREMES FOR PERIOD OF RECORD.-- Highest water level 26.24 ft below lsd,  
 Dec. 16, 1969; lowest water level 74.31 ft below lsd, Mar. 29, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, ON 5TH, 10TH, 15TH, 20TH, 25TH, AND LAST DAY OF MONTH  
CALENDAR YEAR JANUARY 1969 TO DECEMBER 1969

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
5	72.71	72.92	72.88	72.69	---	---	---	39.89	44.22	46.84	45.54	27.19
10	72.75	72.89	72.79	---	---	57.18	---	40.55	44.77	---	45.05	---
15	72.76	72.91	---	---	---	---	---	---	50.60	45.35	46.89	26.29
20	72.94	72.87	72.71	70.38	---	---	---	42.26	45.92	46.73	43.32	26.85
25	72.83	72.88	72.67	---	---	---	39.88	42.95	46.25	46.45	35.20	27.76
30	72.89	72.98	72.65	---	---	---	39.26	43.66	46.57	45.96	30.86	29.37

Continued

# APPENDIX 1. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1970 TO DECEMBER 1970

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	29.32	36.53	41.13	46.67	51.88	49.42	42.43	---	39.83	---	---	---
2	30.09	36.64	41.31	46.87	52.03	49.28	42.15	---	39.96	---	---	---
3	30.39	36.80	41.45	47.04	51.96	49.06	41.86	---	40.11	---	---	---
4	30.69	36.95	41.61	47.20	52.28	48.91	41.55	---	40.27	---	---	---
5	30.97	37.09	41.80	47.41	52.43	48.71	41.30	36.25	40.44	---	---	---
6	31.25	37.26	41.92	47.59	52.57	48.52	---	36.28	40.60	---	---	---
7	31.54	37.42	42.06	47.77	52.70	48.40	---	36.30	40.76	---	---	---
8	31.80	37.57	42.23	47.95	51.80	48.18	---	36.33	40.92	---	---	---
9	32.05	37.74	42.40	48.12	52.99	48.00	---	36.36	41.08	---	---	---
10	32.32	37.93	42.57	48.29	53.08	47.84	---	36.41	41.19	---	---	---
11	32.59	38.07	42.74	48.47	53.01	47.67	---	36.47	41.35	---	---	---
12	32.85	38.26	42.91	48.62	52.87	47.51	---	36.53	41.50	---	---	---
13	33.11	38.43	43.06	48.81	52.82	47.33	---	36.58	41.63	---	---	---
14	33.37	38.59	43.22	48.98	52.71	47.18	---	36.66	41.76	---	---	---
15	33.62	38.79	43.40	49.18	52.54	46.90	---	36.76	41.89	---	---	---
16	33.85	38.97	43.86	49.30	52.38	46.65	---	36.85	42.02	---	---	---
17	34.06	39.11	44.04	49.45	52.22	46.35	---	36.95	42.15	---	---	---
18	34.24	39.27	44.20	49.65	52.10	46.05	---	37.07	42.29	---	---	---
19	34.43	39.43	44.38	49.85	51.91	45.80	---	37.16	42.44	---	---	---
20	34.59	39.66	44.56	50.02	51.70	45.50	---	37.27	42.57	---	---	---
21	34.76	39.83	44.74	50.18	51.49	45.25	---	37.38	42.67	---	---	---
22	34.94	39.99	44.91	50.35	51.28	44.95	---	37.49	41.00	---	---	---
23	35.07	40.16	45.07	50.51	51.10	44.70	---	37.60	41.94	---	---	---
24	35.27	40.32	45.24	50.69	50.91	44.40	---	37.71	42.08	---	---	---
25	35.43	40.47	45.43	50.87	50.71	44.14	---	37.85	42.22	---	---	---
26	35.57	40.62	45.62	51.05	50.52	43.92	---	37.99	42.35	---	---	---
27	35.72	40.79	45.80	51.23	50.34	43.61	---	38.11	42.51	---	---	---
28	35.88	40.95	45.97	51.40	50.17	43.30	---	38.25	42.65	---	---	---
29	36.03	---	46.14	51.56	49.98	43.00	---	38.38	42.73	---	---	---
30	36.19	---	46.31	51.72	49.79	42.73	---	38.52	---	---	---	---
31	36.33	---	46.50	---	49.58	---	---	38.69	---	---	---	---

Continued

## APPENDIX 1. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1972 TO DECEMBER 1972

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	62.38	58.61	57.58	58.66	59.12	58.41	60.04	62.77	64.56	66.66	67.78	68.60
2	62.82	58.52	57.52	58.70	59.11	58.42	60.11	62.85	64.65	66.76	67.82	68.64
3	62.73	58.44	57.64	58.72	59.10	58.42	60.16	62.90	64.57	66.25	67.83	68.67
4	62.77	58.37	57.64	58.77	59.07	58.43	60.25	62.97	64.78	66.76	67.84	68.70
5	62.60	58.29	57.64	58.82	59.06	58.44	60.40	63.03	64.86	66.88	67.86	68.70
6	62.52	58.22	57.57	58.85	59.05	58.46	60.45	63.09	64.93	66.92	67.89	68.75
7	62.44	58.15	57.69	58.88	59.00	58.48	60.56	63.16	64.99	66.96	67.91	68.75
8	62.37	58.08	57.71	58.92	59.00	58.50	60.66	63.21	65.16	67.00	67.94	68.75
9	62.25	58.01	57.73	58.96	58.95	58.55	60.75	63.27	65.15	67.03	67.96	68.80
10	62.15	58.96	57.76	58.99	58.95	58.58	60.86	63.33	65.22	66.92	67.99	68.80
11	61.07	58.91	57.79	58.85	58.90	58.62	60.95	63.38	65.31	67.06	68.02	68.80
12	61.97	58.38	57.83	58.98	58.90	58.67	61.08	63.44	65.37	67.12	68.05	68.85
13	61.93	58.34	57.88	59.09	58.85	58.71	61.19	63.50	65.45	67.15	68.07	68.90
14	61.77	58.32	57.92	59.11	58.85	58.76	61.29	63.55	65.51	67.19	68.11	68.90
15	61.62	58.79	57.95	59.13	58.80	58.30	61.38	63.60	65.58	67.23	68.14	68.90
16	61.40	58.75	57.98	59.15	58.80	58.35	61.49	63.66	65.67	67.27	68.17	68.90
17	61.38	58.72	58.02	59.16	58.75	58.90	61.59	63.72	65.72	67.15	68.19	68.90
18	61.27	58.70	58.07	59.17	58.75	58.96	61.69	63.77	65.81	67.31	68.21	68.90
19	61.17	58.67	58.12	59.20	58.70	59.04	61.79	63.82	65.88	67.34	68.24	68.85
20	60.06	58.65	58.17	59.19	58.70	59.12	61.88	63.88	65.96	67.38	68.26	68.85
21	60.95	58.64	58.21	59.20	58.65	59.19	61.97	63.94	66.03	67.43	68.29	68.85
22	60.87	58.62	58.25	59.21	58.65	59.27	62.07	63.99	66.09	67.47	68.32	68.85
23	60.70	58.60	58.30	59.17	58.60	59.35	62.14	64.05	66.16	67.50	68.34	68.80
24	60.48	58.60	58.34	59.20	58.60	59.42	62.23	64.11	66.21	67.54	68.37	68.80
25	60.24	58.60	58.38	59.19	58.55	59.48	61.32	64.16	66.28	67.58	68.41	68.80
26	59.99	58.61	58.42	59.18	58.55	59.59	61.39	64.21	66.35	67.62	68.44	68.75
27	59.75	58.60	58.45	59.18	58.50	59.69	61.45	64.27	66.42	67.65	68.47	68.75
28	59.53	58.60	58.48	59.17	58.50	59.78	61.54	64.32	66.47	67.67	68.50	68.75
29	59.32	58.60	58.53	59.15	58.45	59.84	61.61	64.37	66.55	67.69	68.54	68.70
30	59.03	0.00	58.58	59.14	58.45	59.94	61.68	64.42	66.61	67.72	68.57	68.70
31	58.70	0.00	58.61	0.00	58.42	0.00	62.75	64.48	0.00	67.75	0.00	68.65

Continued

# APPENDIX 1. - Continued

## MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM CALENDAR YEAR JANUARY 1973 TO DECEMBER 1973

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	68.60	68.70	68.82	69.20	69.55	69.65	69.84	70.24	70.28	70.33	70.15	70.34
2	68.57	68.70	68.84	69.20	69.56	69.65	69.87	70.25	70.36	70.36	70.15	70.35
3	68.53	68.70	68.84	69.19	69.56	69.65	69.90	70.24	70.36	70.37	70.15	70.36
4	68.48	68.70	68.85	69.19	69.57	69.65	69.93	70.24	70.36	70.37	70.14	70.38
5	68.48	68.71	68.85	69.21	69.58	69.65	69.98	70.24	70.36	70.37	70.14	70.39
6	68.48	68.72	68.85	69.23	69.60	69.65	70.00	70.24	70.34	70.37	70.12	70.39
7	68.48	68.72	68.90	69.26	69.62	69.66	70.03	70.24	70.35	70.36	70.13	70.42
8	68.48	68.72	68.90	69.27	69.63	69.67	70.05	70.25	70.37	70.36	70.13	70.45
9	68.48	68.73	68.90	69.29	69.64	69.68	70.08	70.25	70.30	70.36	70.13	70.48
10	68.49	68.73	68.90	69.31	69.64	69.69	70.10	70.25	70.37	70.36	70.14	70.51
11	68.50	68.73	68.95	69.32	69.65	69.64	70.13	70.25	70.37	70.35	70.13	70.55
12	68.51	68.74	68.95	69.33	69.65	69.69	70.15	70.25	70.37	70.14	70.13	70.59
13	68.52	68.74	68.95	69.33	69.65	69.66	70.18	70.24	70.38	70.18	70.13	70.61
14	68.52	68.74	68.95	69.33	69.65	69.70	70.20	70.14	70.38	70.31	70.14	70.63
15	68.63	68.75	69.00	69.35	69.65	69.70	70.23	70.21	70.28	70.29	70.14	70.65
16	68.54	68.76	69.00	69.36	69.65	69.71	70.24	70.21	70.38	70.32	70.15	70.67
17	68.56	68.77	69.00	69.36	69.64	69.70	70.24	70.21	70.40	70.33	70.15	70.68
18	68.58	68.77	69.00	69.38	69.64	69.69	70.24	70.21	70.42	70.34	70.16	70.69
19	68.59	68.77	69.00	69.41	69.64	69.68	70.25	70.21	70.42	70.24	70.16	70.70
20	68.60	68.77	69.05	69.42	69.64	69.67	70.25	70.22	70.42	70.33	70.17	70.73
21	68.61	68.77	69.05	69.43	69.64	69.67	70.26	70.23	70.42	70.32	70.18	70.75
22	68.62	68.77	69.05	69.45	69.64	69.66	70.26	70.25	70.42	70.32	70.20	70.77
23	68.63	68.77	69.10	69.45	69.64	69.66	70.26	70.27	70.42	70.28	70.21	70.79
24	68.64	68.78	69.10	69.46	69.64	69.66	70.26	70.28	70.42	70.27	70.22	70.81
25	68.66	68.78	69.10	69.46	69.64	69.68	70.25	70.29	70.32	70.27	70.24	70.84
26	68.66	68.79	69.10	69.49	69.64	69.71	70.24	70.30	70.36	70.24	70.25	70.85
27	68.67	68.80	69.10	69.50	69.64	69.74	70.23	70.32	70.38	70.21	70.28	70.88
28	68.68	68.82	69.15	69.52	69.64	69.77	70.22	70.33	70.40	70.19	70.29	70.90
29	68.68	---	69.15	69.54	69.64	69.79	70.22	70.34	70.30	70.17	70.31	70.92
30	68.69	---	69.15	69.54	69.64	69.81	70.22	70.36	70.38	70.15	70.32	70.94
31	68.70	---	69.15	---	69.64	---	70.22	70.37	---	70.16	---	70.95

## APPENDIX 1. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1971 TO DECEMBER 1971

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	---	---	---	---	---	---	53.98	56.78	59.68	62.04	63.36	63.87
2	---	---	---	---	---	---	54.03	56.88	59.81	62.10	63.29	63.87
3	---	---	---	---	---	---	54.11	56.96	59.81	62.17	63.38	63.86
4	---	---	---	---	---	---	54.20	57.05	59.98	62.22	63.39	63.86
5	---	---	---	---	---	---	54.35	57.20	60.08	62.27	63.40	63.86
6	---	---	---	---	---	---	54.40	57.28	60.16	62.33	63.40	63.86
7	---	---	---	---	---	---	54.50	57.35	60.24	62.37	63.40	63.86
8	---	---	---	---	---	---	54.58	57.43	60.34	62.39	63.49	63.86
9	---	---	---	---	---	---	54.68	57.52	60.41	62.49	63.41	63.85
10	---	---	---	---	---	---	54.79	57.60	60.49	62.50	63.67	63.83
11	---	---	---	---	---	---	54.90	57.72	60.57	62.54	63.64	63.81
12	---	---	---	---	---	---	55.00	57.80	60.64	62.59	63.65	63.80
13	---	---	---	---	---	---	55.11	57.88	60.74	62.63	63.66	63.78
14	---	---	---	---	---	---	55.20	58.00	60.82	62.68	63.68	63.75
15	---	---	---	---	---	---	55.32	58.05	60.90	62.72	63.69	63.75
16	---	---	---	---	---	---	55.40	58.14	60.98	62.75	63.70	63.73
17	---	---	---	---	---	---	55.49	58.24	61.04	62.78	63.71	63.69
18	---	---	---	---	---	---	55.57	58.31	61.12	62.83	63.75	63.66
19	---	---	---	---	---	---	55.67	58.40	61.20	62.86	63.80	63.65
20	---	---	---	---	---	---	55.76	58.48	61.28	62.89	63.81	63.61
21	---	---	---	---	---	---	55.87	58.58	61.36	62.91	63.82	63.56
22	---	---	---	---	---	---	55.95	58.68	61.42	62.96	63.83	63.51
23	---	---	---	---	---	---	56.03	58.78	61.48	63.00	63.83	63.48
24	---	---	---	---	---	---	56.10	58.85	61.55	63.04	63.84	63.25
25	---	---	---	---	---	---	56.20	58.95	61.63	63.09	63.85	63.31
26	---	---	---	---	---	---	56.28	59.08	61.68	63.13	63.86	63.29
27	---	---	---	---	---	---	56.37	59.18	61.75	63.18	63.86	63.26
28	---	---	---	---	---	---	56.45	59.29	61.83	63.23	63.86	63.20
29	---	---	---	---	---	---	56.53	59.38	61.90	63.33	63.86	63.08
30	---	---	---	---	---	---	56.60	59.47	61.98	63.34	63.86	62.98
31	---	---	---	---	---	---	56.70	59.57	---	63.35	---	62.90

Continued

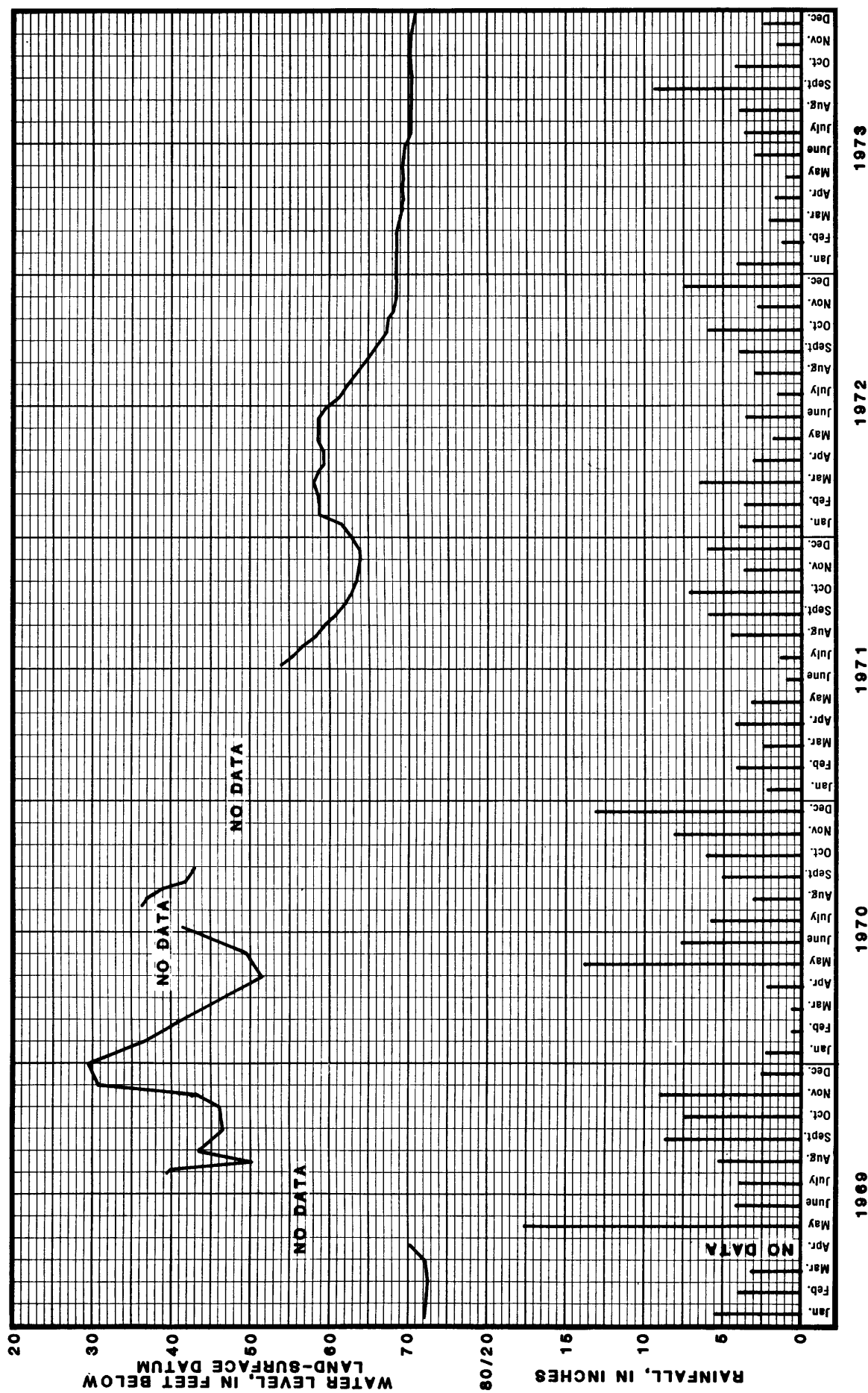


Figure 3.--Water levels at Mahogany well and rainfall at the Annaly precipitation station.

## APPENDIX 2. WATER LEVELS AT AIRPORT WELL

USGS NUMBER.-- 174159064481900. Local number 13.

LOCATION.-- Lat 17 41' 59", lon 64 48' 19".

OWNER.-- U.S. Virgin Islands Government.

NAME.-- Airport 39 well.

AQUIFER.-- Marl and limestone of Tertiary Age.

WELL CHARACTERISTICS.-- Drilled unused water table well, diameter 8-in, cased 0-110 ft, perforated 58-110 ft. Depth 110 ft.

DATUM.-- Altitude of lsd is 35 ft above mean sea level.

MEASURING POINT.-- Top of 8-in casing, which is 1.7 ft above lsd.

REMARKS.-- Recording observation well.

PERIOD OF RECORD.-- Water levels: 1962-73 [discontinued].

EXTREMES FOR PERIOD OF RECORD.-- Highest water level 29.30 ft below lsd,

Nov. 16, 1962; lowest water level 36.63 ft below lsd, June 27, 1962.

LOWEST WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM, ON 5TH, 10TH, 15TH, 20TH, 25TH, AND LAST DAY OF MONTH  
CALENDAR YEAR JANUARY 1969 TO DECEMBER 1969

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
5	31.47	31.55	31.49	31.66	31.19	30.23	30.76	30.04	30.85	---	30.66	30.57
10	31.45	31.55	31.47	31.71	---	30.37	---	30.88	30.90	---	30.66	30.57
15	31.39	31.56	---	31.73	31.20	30.53	---	30.83	30.92	---	30.67	30.57
20	31.42	31.55	31.63	31.74	31.14	30.60	---	30.82	30.89	30.65	---	30.58
25	31.46	31.58	31.65	---	29.85	30.66	30.83	30.84	---	20.62	30.57	30.61
eom	31.49	---	31.66	---	29.88	30.72	30.82	30.83	---	30.65	30.50	30.62

CALENDAR YEAR JANUARY 1970 TO DECEMBER 1970

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
5	30.66	30.71	31.05	30.89	30.85	30.91	30.75	30.44	---	---	---	---
10	30.65	30.68	31.06	30.89	30.83	30.92	30.69	30.43	---	---	---	---
15	30.61	30.68	31.10	30.91	30.79	30.88	30.68	30.43	---	---	---	---
20	30.68	30.96	30.85	30.91	30.80	30.79	30.48	30.42	---	---	---	---
25	30.71	30.96	30.88	30.95	30.86	30.77	30.45	30.42	---	---	---	---
eom	30.72	30.98	30.89	30.94	30.92	30.75	---	---	---	---	---	---

Continued



# APPENDIX 2. - Continued

## MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM CALENDAR YEAR JANUARY 1971 TO DECEMBER 1971

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	29.36	29.85	29.98	30.13	30.23	30.18	30.26	30.44	30.28	30.18	29.62	29.72
2	29.38	29.86	30.00	30.12	30.23	30.17	30.27	30.44	30.25	30.16	29.62	29.72
3	29.39	29.87	30.02	30.12	30.22	30.18	30.27	30.45	30.22	30.16	29.63	29.73
4	29.40	29.88	30.03	30.11	30.22	30.17	30.28	30.45	30.19	30.15	29.64	29.74
5	29.42	29.89	30.03	30.12	30.23	30.17	30.29	30.45	30.16	30.14	29.65	29.76
6	29.44	29.90	30.03	30.11	30.24	30.16	30.29	30.46	30.14	30.13	29.67	29.77
7	29.47	29.91	30.03	30.11	30.24	30.16	30.30	30.46	30.13	30.13	29.68	29.78
8	29.50	29.92	30.03	30.10	30.25	30.16	30.30	30.46	30.12	30.13	29.69	29.79
9	29.53	29.93	30.03	30.10	30.26	30.17	30.31	30.46	30.11	30.13	29.71	29.79
10	29.56	29.94	30.03	30.10	30.27	30.19	30.32	30.45	30.11	30.13	29.72	29.80
11	29.58	29.95	30.03	30.10	30.28	30.20	30.32	30.44	30.12	30.14	29.73	29.82
12	29.60	29.96	30.03	30.11	30.28	30.19	30.33	30.44	30.12	30.14	29.74	29.83
13	29.62	29.96	30.03	30.12	30.28	30.19	30.33	30.43	30.12	30.14	29.75	29.83
14	29.63	29.97	30.03	30.13	30.28	30.19	30.34	30.43	30.12	30.14	29.76	29.84
15	29.64	29.97	30.03	30.13	30.27	30.19	30.34	30.44	30.13	30.13	29.77	29.84
16	29.65	29.98	30.03	30.13	30.27	30.19	30.35	30.45	30.13	30.11	29.77	29.87
17	29.67	29.99	30.04	30.14	30.26	30.18	30.35	30.45	30.13	30.09	29.68	29.90
18	29.69	30.01	30.05	30.14	30.26	30.19	30.36	30.44	30.12	30.07	29.67	29.92
19	29.70	30.01	30.06	30.15	30.25	30.20	30.36	30.43	30.13	30.05	29.68	29.95
20	29.71	30.02	30.07	30.16	30.24	30.21	30.37	30.42	30.13	30.04	29.69	29.97
21	29.73	30.02	30.07	30.17	30.23	30.23	30.38	30.41	30.14	30.03	29.71	29.98
22	29.75	30.03	30.07	30.18	30.23	30.23	30.38	30.39	30.14	30.01	29.71	29.98
23	29.76	30.03	30.08	30.19	30.23	30.24	30.39	30.38	30.15	29.93	29.72	29.97
24	29.76	30.03	30.09	30.20	30.22	30.25	30.39	30.37	30.16	29.84	29.72	29.96
25	29.78	30.03	30.09	30.20	30.21	30.26	30.40	30.36	30.16	29.74	29.73	29.93
26	29.79	30.03	30.10	30.21	30.20	30.26	30.40	30.34	30.17	29.67	29.72	29.92
27	29.80	30.01	30.10	30.22	30.20	30.26	30.41	30.33	30.17	29.62	29.72	29.91
28	29.82	29.99	30.10	30.22	30.19	30.25	30.42	30.33	30.17	29.58	29.71	29.91
29	29.83	---	30.10	30.22	30.19	30.25	30.42	30.32	30.17	29.64	29.71	29.92
30	29.83	---	30.10	30.23	30.19	30.25	30.43	30.31	30.18	29.63	29.72	29.94
31	29.84	---	30.12	---	30.18	---	30.44	30.29	---	29.63	---	29.95

Continued

## APPENDIX 2. - Continued

MEAN-DAILY-WATER LEVEL IN FSEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1972 TO DECEMBER 1972

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	29.97	30.12	30.27	30.14	30.27	30.42	30.48	30.48	30.48	30.37	30.35	30.57
2	29.98	30.12	30.24	30.14	30.27	30.42	30.46	30.44	30.47	30.37	30.34	30.58
3	30.00	30.12	30.21	30.16	30.28	30.42	30.44	30.45	30.46	30.37	30.30	30.60
4	30.01	30.12	30.18	30.18	30.29	30.42	30.43	30.46	30.44	30.36	30.30	30.60
5	30.02	30.13	30.17	30.20	30.30	30.40	30.42	30.46	30.41	30.34	30.31	30.59
6	30.02	30.14	30.16	30.21	30.30	30.40	30.42	30.46	30.40	30.32	30.31	30.58
7	30.03	30.14	30.16	30.22	30.31	30.39	30.41	30.46	30.39	30.31	30.33	30.58
8	30.04	30.15	30.17	30.22	30.31	30.39	30.41	30.47	30.38	30.30	30.34	30.57
9	30.06	30.16	30.18	30.23	30.31	30.39	30.42	30.47	30.38	30.30	30.36	30.55
10	30.07	30.16	30.19	30.23	30.32	30.39	30.42	30.47	30.37	30.30	30.37	30.52
11	30.09	30.17	30.19	30.23	30.32	30.39	30.43	30.46	30.37	30.30	30.38	30.49
12	30.10	30.18	30.19	30.22	30.33	30.39	30.44	30.46	30.38	30.30	30.40	30.44
13	30.11	30.18	30.19	30.22	30.33	30.39	30.44	30.45	30.38	30.32	30.40	30.41
14	30.12	30.18	30.19	30.22	30.34	30.39	30.44	30.44	30.39	30.32	30.41	30.38
15	30.11	30.18	30.19	30.22	30.34	30.39	30.44	30.43	30.39	30.34	30.41	30.36
16	30.10	30.18	30.19	30.22	30.35	30.40	30.43	30.44	30.39	30.34	30.42	30.34
17	30.09	30.18	30.19	30.23	30.36	30.40	30.43	30.44	30.40	30.35	30.41	30.33
18	30.07	30.19	30.19	30.24	30.36	30.41	30.43	30.45	30.40	30.36	30.42	30.32
19	30.06	30.20	30.19	30.25	30.36	30.42	30.43	30.45	30.40	30.36	30.43	30.31
20	30.05	30.21	30.19	30.26	30.36	30.42	30.44	30.46	30.40	30.36	30.44	30.31
21	30.05	30.23	30.19	30.26	30.36	30.43	30.45	30.46	30.40	30.35	30.45	30.31
22	30.05	30.24	30.20	30.27	30.36	30.43	30.46	30.46	30.39	30.35	30.47	30.31
23	30.05	30.26	30.19	30.27	30.38	30.44	30.46	30.46	30.39	30.36	30.48	30.30
24	30.06	30.27	30.18	30.26	30.40	30.45	30.46	30.46	30.38	30.36	30.50	30.30
25	30.07	30.28	30.17	30.26	30.40	30.46	30.47	30.46	30.38	30.37	30.51	30.31
26	30.07	30.30	30.16	30.26	30.41	30.47	30.48	30.45	30.38	30.38	30.52	30.30
27	30.09	30.30	30.16	30.26	30.41	30.48	30.48	30.44	30.38	30.39	30.54	30.30
28	30.09	30.28	30.15	30.26	30.41	30.49	30.48	30.44	30.38	30.40	30.55	30.31
29	30.11	30.27	30.15	30.26	30.41	30.50	30.49	30.44	30.37	30.40	30.56	30.31
30	30.11	---	30.14	30.26	30.42	30.50	30.50	30.45	30.37	30.38	30.56	30.31
31	30.11	---	30.14	---	30.42	---	30.50	30.46	---	30.36	---	30.32

Continued

# APPENDIX 2. - Continued

## MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM CALENDAR YEAR JANUARY 1973 TO DECEMBER 1973

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	30.32	30.52	30.72	30.83	---	---	31.02	31.00	31.04	---	---	---
2	30.33	30.53	30.72	30.82	---	30.38	31.03	30.99	30.05	---	---	---
3	30.33	30.54	30.72	30.91	---	30.38	31.03	30.99	31.06	---	---	---
4	30.34	30.55	30.73	30.82	---	30.39	31.03	30.98	31.07	---	---	---
5	30.35	30.55	30.73	30.82	---	30.39	31.03	30.98	31.08	---	---	---
6	30.36	30.56	30.73	30.83	---	30.90	31.03	30.99	---	---	---	---
7	30.37	30.56	30.73	30.84	---	30.91	31.03	30.99	---	---	---	---
8	30.38	30.56	30.73	30.85	---	30.91	31.04	31.00	---	---	---	---
9	30.39	30.55	30.74	30.85	---	30.91	31.05	31.01	---	---	---	---
10	30.39	30.55	30.74	30.86	---	30.92	31.07	31.01	---	---	---	---
11	30.38	30.55	30.75	30.86	---	30.92	31.08	31.02	---	---	---	---
12	30.38	30.55	30.76	30.86	---	30.93	31.08	31.01	---	---	---	---
13	30.39	30.56	30.78	30.87	---	30.94	31.10	31.01	---	---	---	---
14	30.39	30.57	30.78	30.87	---	30.94	31.10	31.00	---	---	---	---
15	30.40	30.57	30.79	30.88	---	30.95	31.10	30.98	---	---	---	---
16	30.41	30.58	30.80	30.88	---	30.96	31.09	30.96	---	---	---	---
17	30.42	30.58	30.80	30.88	---	30.96	31.08	30.94	---	---	---	---
18	30.42	30.59	30.80	30.88	---	30.97	31.07	30.93	---	---	---	---
19	30.41	30.59	30.80	30.89	---	30.97	31.06	30.93	---	---	---	---
20	30.40	30.60	30.80	30.89	---	30.98	31.05	30.94	---	---	---	---
21	30.41	30.60	30.80	30.89	---	30.98	31.05	30.96	---	---	---	---
22	30.41	30.60	30.80	30.89	---	30.99	31.04	30.97	---	---	---	---
23	30.42	30.60	30.80	30.89	---	30.99	31.03	30.98	---	---	---	---
24	30.42	30.60	30.80	30.89	---	30.99	31.02	30.98	---	---	---	---
25	30.43	30.60	30.82	30.88	---	30.99	31.02	30.99	---	---	---	---
26	30.44	30.60	30.83	30.88	---	31.00	31.02	31.00	---	---	---	---
27	30.46	30.60	30.83	30.87	---	31.00	31.03	31.00	---	---	---	---
28	30.47	30.61	30.84	30.86	---	31.00	31.03	31.01	---	---	---	---
29	30.48	---	30.84	30.86	---	31.01	31.03	31.02	---	---	---	---
30	30.49	---	30.84	30.85	---	31.02	31.02	31.03	---	---	---	---
31	30.51	---	30.84	---	---	---	31.01	31.04	---	---	---	---

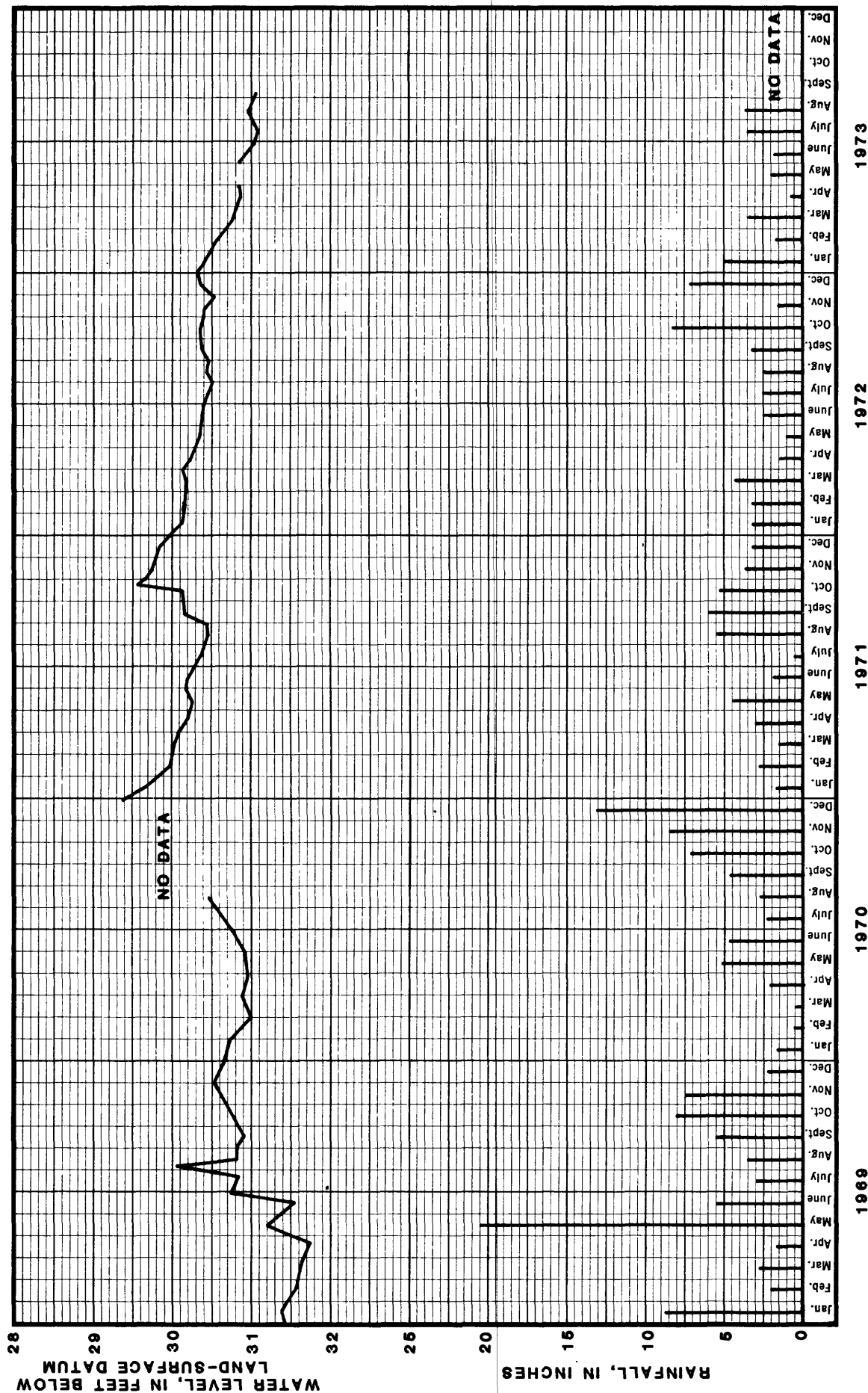


Figure 4.--Water levels at the Airport well, and rainfall at Kingshill precipitation station.

# APPENDIX 3. WATER LEVELS AT CASTLE COAKLEY WELL

USGS NUMBER.-- 174339064445100. Local number USGS-46.  
LOCATION.-- Lat 17 43' 39", long 64 44' 51".  
OWNER.--U.S. Virgin Islands Government.  
NAME.-- USGS-46 [Castle Coakley].  
AQUIFER.-- Marl and limestone of Tertiary Age.  
WELL CHARACTERISTICS.-- Drilled unused water-table well, diameter 6-in, cased  
0-154 ft, slotted 94-154 ft. Depth 154 ft.  
DATUM.--Altitude of lsd is 97 ft above mean sea level.  
MEASURING POINT.-- Top of shelter floor, which is 2.8 ft above lsd.  
REMARKS.-- Recording observation well.  
PERIOD OF RECORD.-- Water levels: 1969-73 [discontinued].  
EXTREMES FOR PERIOD OF RECORD.-- Highest water level 82.44 ft below lsd,  
Jan. 1, 1971; lowest water level 90.11 ft below lsd, May 10, 1969.

## LOWEST WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM, ON 5TH, 10TH, 15TH, 20TH, 25TH, AND LAST DAY OF MONTH CALENDAR YEAR JANUARY 1969 TO DECEMBER 1969

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
5	89.95	89.81	89.83	89.99	---	87.34	87.35	37.40	---	88.10	87.99	86.82
10	89.88	89.78	89.86	90.00	90.11	87.20	87.35	87.45	---	88.12	---	86.80
15	89.76	89.78	---	90.01	90.00	87.20	---	87.48	---	88.17	---	86.78
20	89.74	89.80	90.00	90.09	89.71	87.26	87.33	---	---	88.00	---	86.76
25	89.76	89.81	89.96	---	89.08	87.29	87.33	---	88.18	87.95	---	86.70
eom	89.77	89.79	89.98	---	88.59	87.34	87.36	---	88.16	87.90	86.83	---

## CALENDAR YEAR JANUARY 1970 TO DECEMBER 1970

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
5	---	88.70	---	---	87.49	87.39	86.53	86.54	---	---	---	---
10	---	88.77	---	---	87.48	87.38	86.55	---	---	---	---	---
15	---	88.83	88.01	---	87.43	87.30	86.50	---	---	---	---	---
20	---	87.89	---	87.54	87.39	---	86.50	---	---	---	---	---
25	---	---	---	87.60	87.39	---	86.47	89.85	---	---	---	---
eom	88.70	---	---	87.55	87.38	86.60	---	90.05	---	---	---	---

## APPENDIX 3. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1971 TO DECEMBER 1971

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	82.44	83.56	83.85	84.11	84.19	84.08	84.65	84.74	85.17	83.50	82.90	82.79
2	82.47	83.58	83.86	84.12	84.14	84.06	84.68	84.72	85.18	83.50	82.90	82.80
3	82.48	83.60	83.89	84.10	84.18	84.04	84.71	84.72	---	83.51	82.86	82.82
4	82.53	83.60	83.91	84.10	84.18	84.00	84.71	84.72	---	83.53	82.86	82.82
5	82.59	83.62	83.91	84.08	84.19	83.95	84.68	84.73	---	83.57	82.85	82.87
6	82.63	83.68	83.94	84.07	84.22	83.93	84.68	84.73	---	83.56	82.84	82.86
7	82.70	83.64	83.94	84.02	84.23	83.92	84.71	84.73	---	83.56	82.79	82.88
8	82.76	83.71	83.93	83.98	84.25	83.99	84.71	84.73	---	83.56	82.75	82.87
9	82.78	83.72	83.93	83.95	84.24	83.99	84.71	84.72	---	83.58	82.72	82.87
10	82.84	83.72	83.90	83.94	84.24	83.88	84.74	84.73	---	83.61	82.69	82.89
11	82.85	83.75	83.89	83.92	84.25	83.99	84.74	84.72	---	83.61	82.66	82.92
12	82.91	83.76	83.89	83.90	84.24	83.88	84.73	84.75	---	83.63	82.68	82.92
13	82.99	83.77	83.88	83.93	84.22	83.96	84.74	84.75	---	83.63	82.70	82.91
14	83.03	83.76	83.88	83.94	84.19	83.89	84.78	84.73	---	83.62	82.68	82.95
15	83.04	83.77	83.87	83.93	84.16	83.93	84.80	84.71	---	83.65	82.66	83.01
16	83.04	83.77	83.88	83.92	84.13	83.90	84.82	84.69	---	83.66	82.63	83.01
17	83.06	83.82	83.90	83.94	84.10	83.92	84.81	84.68	---	83.65	82.65	83.04
18	83.10	83.82	83.94	83.98	84.11	83.91	84.79	84.69	---	83.60	82.70	83.06
19	83.16	83.84	83.95	83.98	84.18	83.91	84.81	84.70	---	83.56	82.68	83.08
20	83.26	83.85	83.94	83.98	84.19	83.89	84.80	84.70	---	83.51	82.67	83.09
21	83.24	83.84	83.96	84.02	84.18	83.89	84.77	84.72	---	83.42	82.67	83.10
22	83.26	83.85	83.96	84.04	84.18	83.90	84.76	84.74	---	83.34	82.68	83.10
23	83.29	83.86	83.95	84.07	84.17	83.92	84.75	84.77	---	83.32	82.69	83.10
24	83.33	83.86	83.96	84.08	84.17	83.95	84.75	84.74	---	83.30	82.69	83.10
25	83.39	83.87	83.99	84.07	84.15	83.95	84.75	84.72	---	83.23	82.68	83.11
26	83.33	83.89	84.01	84.10	84.10	83.93	84.76	84.73	---	83.16	82.68	83.13
27	83.44	83.90	84.00	84.11	84.07	83.92	84.77	84.77	---	83.10	82.69	83.18
28	83.47	83.88	84.02	84.12	84.07	83.91	84.76	84.83	---	83.05	82.72	83.20
29	83.51	---	84.05	84.16	84.09	83.92	84.72	84.89	---	82.97	82.70	83.16
30	83.53	---	84.07	84.20	84.13	83.95	84.74	85.01	83.52	82.92	82.75	83.17
31	83.52	---	84.08	---	84.09	---	84.75	85.12	---	82.39	---	83.14

Continued

# APPENDIX 3. - Continued

## MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM CALENDAR YEAR JANUARY 1972 TO DECEMBER 1972

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	83.16	83.45	83.68	83.16	83.40	83.36	84.11	84.13	83.88	83.04	83.07	---
2	83.17	83.45	83.68	83.14	83.42	83.87	84.07	84.13	83.84	83.04	83.09	---
3	83.18	83.45	83.67	83.13	83.48	83.36	84.06	84.14	83.84	83.06	---	---
4	83.21	83.45	83.66	83.14	83.52	83.84	84.05	84.19	83.81	83.03	---	---
5	83.26	83.44	83.63	83.17	83.53	83.82	84.03	84.16	83.79	82.99	---	---
6	83.25	83.43	83.60	83.17	83.53	83.83	84.03	84.13	83.77	82.96	---	---
7	83.26	83.41	83.58	83.17	83.53	83.83	84.07	84.13	83.75	82.93	---	---
8	83.30	83.41	83.56	83.19	83.53	83.36	84.09	84.13	83.72	82.90	---	---
9	83.32	83.42	83.55	83.21	83.55	83.37	84.10	84.12	83.68	82.88	---	---
10	83.32	83.43	83.54	83.21	83.59	83.38	84.09	84.10	83.64	82.86	---	---
11	83.33	83.40	83.52	83.22	83.61	83.91	84.11	84.09	83.59	82.80	---	---
12	83.34	83.40	83.50	83.25	83.64	83.90	84.11	84.04	83.56	82.75	---	---
13	83.33	83.40	83.52	83.25	83.68	83.91	84.08	83.99	83.53	82.75	---	---
14	83.32	83.42	83.53	83.26	83.73	83.92	84.07	84.95	83.50	82.77	---	---
15	83.32	83.43	83.54	83.26	83.75	83.92	84.07	83.92	83.49	82.78	---	---
16	83.32	83.44	83.55	83.26	83.75	83.91	84.07	83.90	83.47	82.79	---	---
17	83.31	83.45	83.57	83.26	83.75	83.91	84.07	83.86	83.46	82.82	---	---
18	83.32	83.46	83.61	83.30	83.75	83.91	84.09	83.86	83.45	82.83	---	---
19	83.35	83.47	83.62	83.32	83.76	83.92	84.10	83.87	83.43	82.83	---	---
20	83.34	83.49	83.59	83.33	83.79	83.95	84.10	83.87	83.40	82.83	---	---
21	83.34	83.50	83.59	83.34	83.79	83.99	84.11	83.88	83.36	82.84	---	---
22	83.34	83.52	83.58	83.35	83.80	84.05	84.12	83.88	83.32	82.00	---	---
23	83.34	83.54	83.56	83.36	83.82	84.07	84.12	83.38	83.29	82.88	---	---
24	83.36	83.57	83.50	83.36	83.92	84.07	84.11	83.39	83.25	82.89	---	---
25	83.37	83.63	83.42	83.35	83.84	84.05	84.12	83.89	83.21	82.91	---	---
26	83.42	83.66	83.33	83.36	83.84	84.06	84.14	83.88	83.17	82.93	---	---
27	83.44	83.67	83.28	83.38	83.95	84.09	84.14	83.87	83.14	82.95	---	---
28	83.46	83.65	83.22	83.39	83.86	84.10	84.14	83.37	83.10	82.98	---	---
29	83.46	83.68	83.17	83.39	83.85	84.09	84.14	83.88	83.07	83.00	---	---
30	83.47	---	83.16	83.40	83.85	84.11	84.14	83.90	83.04	83.02	---	---
31	83.46	---	83.16	---	83.85	---	84.13	83.91	---	83.05	---	---

## APPENDIX 3. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1973 TO DECEMBER 1973

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	---	84.50	85.01	85.31	85.67	85.73	86.05	86.09	85.91	85.68	---	---
2	---	84.49	85.01	85.30	85.67	85.73	86.06	86.09	85.90	85.67	---	---
3	---	84.45	85.02	85.41	85.68	85.73	86.08	86.08	85.87	85.66	---	---
4	---	84.45	85.01	85.43	85.68	85.74	86.06	86.08	85.85	85.64	85.68	---
5	---	84.45	85.02	85.46	85.70	85.74	86.04	86.06	85.82	85.64	---	85.94
6	---	84.47	85.07	85.48	85.71	85.75	86.06	86.03	85.82	85.64	---	85.95
7	---	84.48	85.12	85.48	85.72	85.76	86.08	86.03	85.82	85.64	---	85.94
8	---	84.51	85.15	85.48	85.74	85.77	86.08	86.03	85.81	85.63	---	85.94
9	---	84.53	85.19	85.50	85.76	85.77	86.07	86.03	85.80	85.63	---	85.94
10	---	84.55	85.22	85.51	85.78	85.78	86.08	86.02	85.79	---	---	85.94
11	---	84.56	85.23	85.52	85.81	85.79	86.09	86.02	85.79	---	---	85.95
12	---	84.57	85.23	85.55	85.72	85.79	86.10	86.01	85.79	---	---	85.95
13	---	84.61	85.23	85.57	85.82	85.79	86.10	86.98	85.78	---	---	85.96
14	---	84.68	85.23	85.59	85.82	85.78	86.11	86.98	85.75	---	---	85.96
15	---	84.71	85.23	85.61	85.81	85.78	86.10	85.95	85.72	---	---	85.97
16	---	84.73	85.23	85.62	85.82	85.79	86.09	85.95	85.73	---	---	85.98
17	---	84.75	85.23	85.63	85.82	85.81	86.10	85.94	85.74	---	---	85.98
18	---	84.77	85.23	85.64	85.82	85.83	86.10	85.92	85.74	---	---	85.99
19	---	84.80	85.23	85.64	85.82	85.85	86.11	85.90	85.74	---	---	86.00
20	---	84.82	85.24	85.61	85.82	85.88	86.11	85.87	85.74	---	---	86.00
21	---	84.83	85.24	85.60	85.80	85.90	86.11	85.88	85.74	---	---	86.01
22	---	84.84	85.24	85.61	85.77	85.91	86.12	85.88	85.72	---	---	86.01
23	---	84.85	85.24	85.61	85.74	85.91	86.12	85.88	85.71	---	---	86.02
24	---	84.87	85.24	85.62	85.72	85.92	86.13	85.87	85.69	---	---	86.02
25	---	84.89	85.24	85.62	85.71	85.94	86.14	85.87	85.68	---	---	86.03
26	---	84.91	85.24	85.63	85.70	85.96	86.15	85.88	85.69	---	---	86.04
27	---	84.92	85.25	85.64	85.70	85.99	86.14	85.87	85.68	---	---	86.04
28	---	84.94	85.25	85.65	85.69	86.01	86.19	85.88	85.68	---	---	86.05
29	---	---	85.26	85.67	85.68	85.03	86.13	85.89	85.68	---	---	86.05
30	---	---	85.28	85.67	85.63	85.04	86.12	85.90	85.68	---	---	86.06
31	---	---	85.30	---	85.71	---	86.11	85.90	---	---	---	86.07



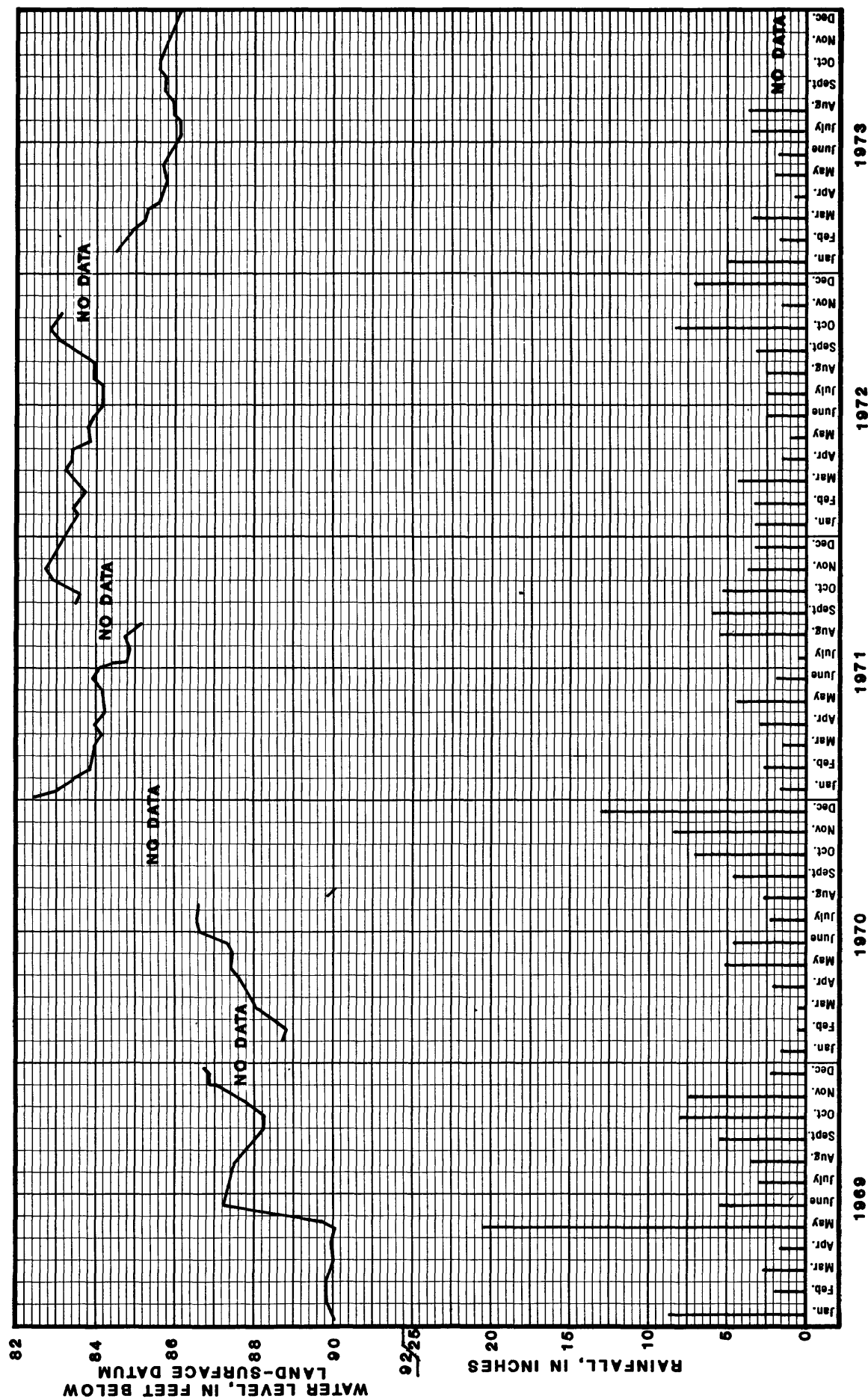


Figure 5.--Water levels at the Castle Coakley well, and rainfall at Kingshill precipitation station.

## APPENDIX 4. WATER LEVELS AT ADVENTURE WELL

USGS NUMBER.-- 174308064484000. Local number 12.  
 LOCATION.-- Lat 17 43' 08", Long 64 48' 40".  
 OWNER.-- U.S. Virgin Islands Government.  
 NAME.-- USGS-38 [Estate Adventure].  
 AQUIFER.-- Limey sediments of Tertiary and Quaternary Age.  
 WELL CHARACTERISTICS.-- Drilled unused water-table well, diameter 4-in, cased  
 0-50 ft, perforated 30-50 ft, open hole 50-97 ft [now plugged at 46.8 ft].  
 DATUM.-- Altitude of lsd is 80 ft above mean sea level.  
 MEASURING POINT.-- Top of shelter floor, which is about 0.6 ft above lsd.  
 REMARKS.-- Recorder and observation well. Affected by nearby pumpage.  
 PERIOD OF RECORD.-- Water levels: 1966 - 69, Sept. 1970-73 [discontinued].  
 EXTREMES FOR PERIOD OF RECORD.-- Highest water level 14.40 ft above lsd,  
 Nov. 29, 1971; lowest water level, dry [well plugged at 46.8 ft].

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, SEPTEMBER 1970 TO DECEMBER 1971  
INSTANTANEOUS OBSERVATIONS

Date	Water level	Date	Water level
Sep 29, 1970	19.80	Mar. 4, 1971	21.60
Nov. 5	17.06	Mar. 31	22.04
Dec. 1	18.67	May 3	18.88
Dec. 31	17.11	June 3	246.57
Jan. 29, 1971	17.31	Aug. 4	244.97
Feb. 25	17.30		
		Sept. 2, 1971	245.33
		Sept. 30	243.37
		Oct. 29	243.26
		Nov. 29	14.40
		Dec. 30	15.03

a Pumping.  
 Continued

# APPENDIX 4. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1972 TO DECEMBER 1972

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	15.07	15.55	16.55	16.23	17.27	---	---	---	---	---	---	---
2	15.11	15.63	16.40	16.27	17.29	---	---	---	---	---	23.01	---
3	15.15	15.70	16.21	16.30	17.35	---	---	---	---	---	---	---
4	15.16	15.73	16.15	16.33	17.40	---	---	---	---	---	---	23.70
5	15.19	15.74	16.12	16.37	17.45	---	---	---	---	---	---	23.66
6	15.20	15.78	16.12	16.37	17.52	---	---	---	---	---	---	23.65
7	15.21	15.83	16.13	16.38	17.55	---	---	---	---	---	---	23.60
8	15.33	15.89	16.13	16.42	17.63	---	---	---	---	---	---	23.30
9	15.32	15.93	16.16	16.46	17.69	---	---	---	---	---	---	23.83
10	15.36	15.99	16.16	16.50	17.72	---	---	---	---	---	---	22.90
11	15.40	16.00	16.17	16.51	17.79	---	---	---	---	---	---	23.22
12	15.42	16.05	16.20	16.52	17.83	---	---	---	---	---	---	23.25
13	15.42	16.08	16.22	16.56	17.87	---	---	---	---	---	---	23.15
14	15.45	16.12	16.25	16.59	17.93	---	---	---	---	---	---	23.03
15	15.51	16.15	16.30	16.51	17.98	---	---	---	---	---	---	22.98
16	15.50	16.17	16.33	16.63	18.03	---	---	---	---	---	---	22.95
17	15.46	16.20	16.37	16.70	18.10	---	---	---	---	---	---	23.00
18	15.49	16.25	16.40	16.75	17.19	---	---	---	---	---	---	22.80
19	15.42	16.30	16.43	16.79	18.27	---	---	---	---	---	---	22.87
20	15.45	16.35	16.49	16.81	18.35	---	---	---	---	---	---	22.90
21	15.46	16.39	16.51	16.86	18.45	---	---	---	---	---	---	22.92
22	15.47	16.43	16.51	16.89	18.52	---	---	---	---	---	---	22.95
23	15.51	16.49	16.52	16.93	18.70	---	---	---	---	---	---	22.96
24	15.53	16.52	16.52	16.95	18.73	---	---	---	---	---	---	22.99
25	15.53	16.56	16.46	17.00	18.76	---	---	---	---	---	---	23.01
26	15.52	16.60	16.36	17.03	18.80	---	---	---	---	---	---	23.02
27	15.55	16.25	16.53	17.10	18.81	---	---	---	---	---	---	23.05
28	15.58	16.62	16.19	17.14	18.83	---	---	---	---	---	---	23.08
29	15.56	16.60	16.18	17.20	18.85	---	---	---	---	---	---	23.10
30	15.59	---	16.19	17.23	18.87	---	---	---	---	---	---	23.12
31	15.55	---	16.21	---	18.90	---	---	---	---	---	---	23.13

Continued

## APPENDIX 4. - Continued

MEAN-DAILY-WATER LEVEL IN FEET BELOW LAND-SURFACE DATUM  
CALENDAR YEAR JANUARY 1973 TO DECEMBER 1973

Day	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
1	23.16	23.80	24.75	25.48	26.40	27.65	28.51	30.30	---	---	31.00	31.50
2	23.20	23.82	24.76	25.50	---	27.75	28.68	---	---	---	31.00	31.60
3	23.21	23.88	24.77	25.58	---	27.80	28.63	---	---	---	31.00	31.67
4	23.20	23.90	24.77	25.70	---	27.85	28.55	---	---	29.79	31.00	31.70
5	23.15	23.95	24.78	25.71	---	27.99	28.50	---	30.51	29.80	30.95	31.77
6	23.19	23.97	24.81	25.76	---	27.90	28.55	---	---	29.80	31.00	31.77
7	23.25	24.11	24.85	25.80	---	27.94	28.59	---	---	29.80	31.02	31.78
8	23.24	24.10	24.85	25.85	---	27.98	28.60	---	---	29.70	30.07	31.77
9	23.20	24.10	24.90	25.88	---	27.99	28.65	---	---	29.60	31.10	31.80
10	23.26	24.11	24.93	25.90	---	28.05	28.72	---	---	29.65	31.15	31.82
11	23.28	24.12	24.00	96.00	25.30	---	28.08	28.75	---	---	29.75	31.20
12	23.27	24.17	23.80	25.90	---	28.10	28.76	---	---	28.75	31.21	31.89
13	22.98	24.18	25.05	25.96	---	28.13	28.80	---	---	28.95	31.23	31.90
14	23.26	24.20	24.50	26.00	---	28.15	28.81	---	---	30.60	30.95	31.95
15	23.18	24.15	25.01	26.02	---	28.19	28.83	---	---	30.60	31.08	31.97
16	23.24	24.14	25.05	26.05	---	28.19	28.88	---	---	30.60	31.17	31.99
17	22.98	24.18	25.13	26.09	---	28.20	28.92	---	---	30.60	31.20	32.00
18	23.47	24.30	25.15	26.12	---	28.28	29.03	---	---	30.60	31.20	32.01
19	23.38	24.30	25.15	26.13	---	28.30	29.22	---	---	3	31.25	32.03
20	23.39	23.40	25.16	26.20	---	28.34	29.60	---	---	30.70	31.30	32.07
21	23.40	23.90	25.21	26.25	---	28.37	30.13	---	---	30.70	31.30	32.08
22	23.44	24.22	25.23	26.30	---	28.40	30.22	---	---	30.70	31.33	32.10
23	23.46	24.33	25.28	26.30	---	28.42	29.39	---	---	30.70	31.00	32.12
24	23.46	24.40	25.30	26.35	---	28.47	30.60	---	---	30.70	30.82	32.16
25	23.51	24.41	25.30	26.39	---	28.50	31.00	---	---	30.72	30.93	32.18
26	23.53	24.43	25.31	26.42	---	28.51	31.15	---	---	30.75	31.01	32.21
27	23.57	24.46	25.33	26.45	---	28.56	31.25	---	---	30.75	31.12	32.23
28	23.63	24.55	25.37	26.50	---	28.58	31.43	---	---	30.75	31.20	32.26
29	23.69	---	25.42	26.50	---	28.60	31.56	---	---	30.75	31.28	32.28
30	23.73	---	25.46	26.45	---	28.62	31.68	---	---	30.75	31.38	32.29
31	23.77	---	25.47	---	---	---	31.75	---	---	30.80	---	32.36

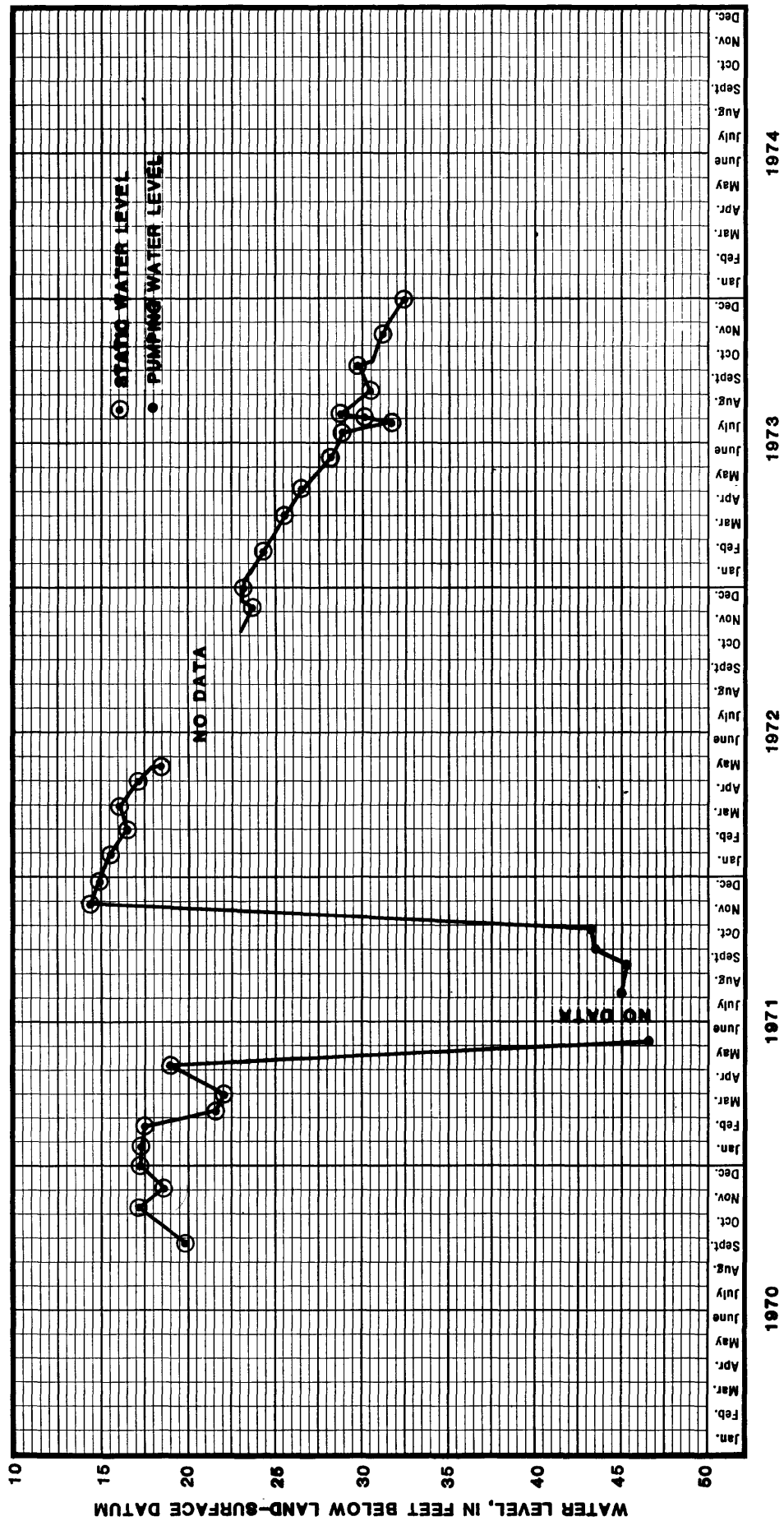


Figure 6.--Water levels at the Adventure well.

## APPENDIX 6. WATER LEVELS AT BARREN SPOT WELL

USGS NUMBER.-- 174316064453800. Local number 8.  
 LOCATION.-- Lat 17 43' 16", Long 64 45' 38".  
 OWNER.--U.S. Virgin Islands Government.  
 NAME.-- Barren Spot 7 well.  
 AQUIFER.-- Limey sediments of Tertiary and Quaternary Age.  
 WELL CHARACTERISTICS.-- Drilled Water-table production well, diameter 6-in., cased 0-115 ft, perforated 55-115 ft, open hole 115-140 ft. Depth 140 ft.  
 DATUM.-- Altitude of lsd is 60 ft above mean sea level. Measuring point: 1-in hole in concrete pump base, which is about 1.9 ft above lsd.  
 REMARKS.-- Recorder and observation well.  
 PERIOD OF RECORD.-- Water levels: Nov. 1962 to Oct. 1964, Nov. 1970 - 73 (discontinued).  
 EXTREMES FOR PERIOD OF RECORD.-- Highest water level 50.10 ft below lsd, Oct. 22, 1962; lowest water level a67.25 ft below lsd, Dec. 5, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1970 TO DECEMBER 1973  
INSTANTANEOUS OBSERVATIONS

Date	Water level	Date	Water level
Nov. 5, 1970	59.38	Nov. 29, 1971	a64.90
Dec. 1	a65.59	Dec. 30	a64.54
Dec. 31	a64.45	Feb. 1, 1972	a64.65
Jan. 29, 1971	a64.91	Feb. 29, 1972	a64.18
Feb. 25	a62.35	May 1	a65.17
Mar. 4	a62.35	May 31	a59.01
Mar. 31	a63.41	June 30	a63.80
May 3	a63.38	Aug. 1	a63.70
June 3	a62.25	Sept. 1	a67.13
July 1	a57.82	Oct. 3	a63.99
Aug. 3	a61.10	Nov. 2	a64.12
Sept. 2	a61.15	Dec. 4	a64.98
		Jan. 4, 1973	a63.55
		Feb. 1	a58.59
		Mar. 1	a63.21
		May 1	a63.00
		June 1	a62.80
		July 5	a60.70
		Aug. 1	a62.84
		Sept. 6	a62.83
		Oct. 4	a66.65
		Nov. 5	a65.47
		Dec. 5	a67.25

a Pumping.

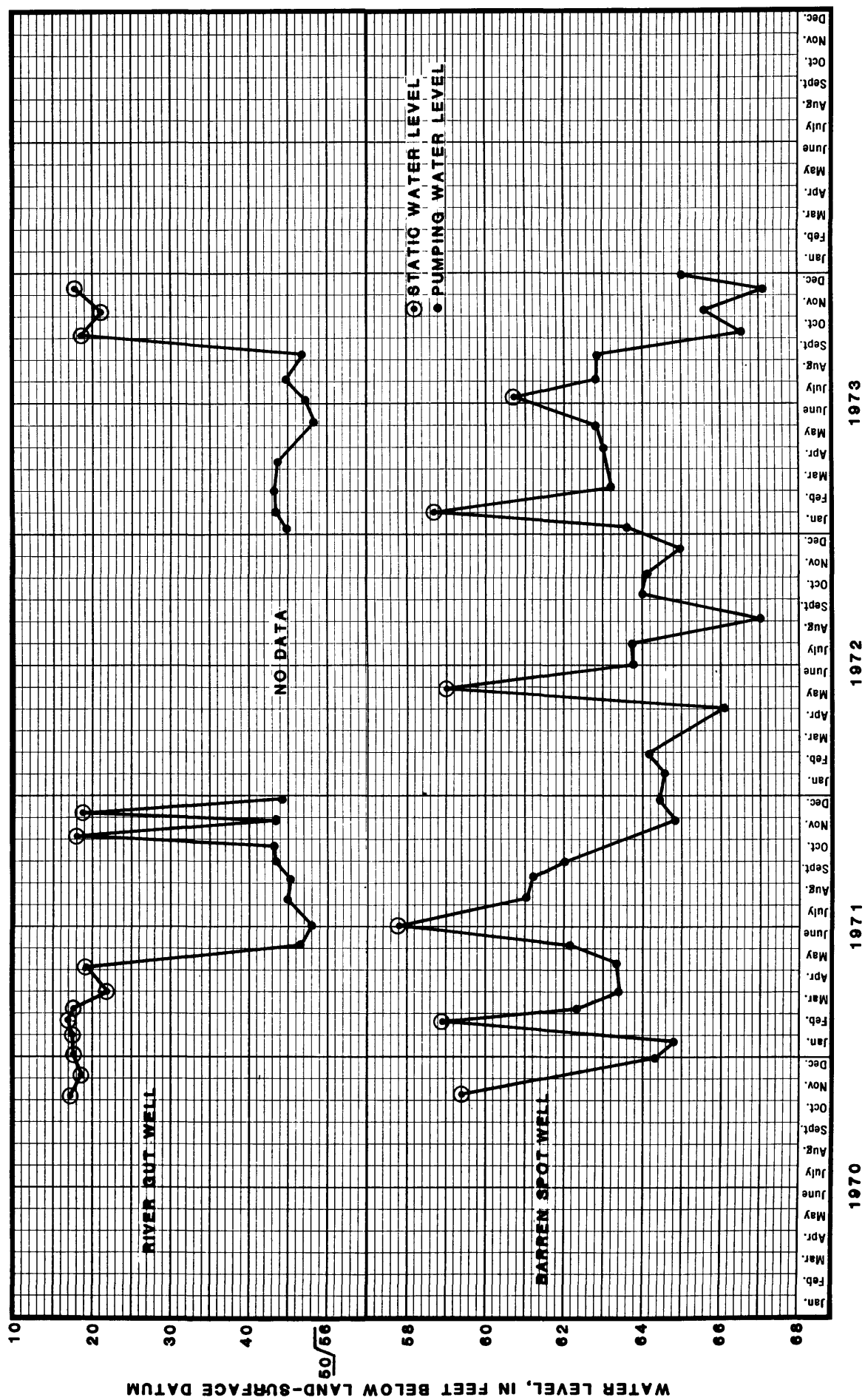


Figure 7.--Water levels at the River Gut and Barren Spot wells.

## APPENDIX 6. WATER LEVELS AT RIVER GUT WELL

USGS NUMBER.-- 174221054470500. Local number 1.  
 LOCATION.-- Lat 17 42' 21", long 54 47' 05".  
 OWNER.-- U.S. Virgin Islands Government.  
 NAME.-- River Gut well.  
 DATUM.-- Altitude of lsd is about 55 ft above mean sea level.  
 MEASURING POINT.-- 3/4-in bronze nipple on pump concrete base, which is 2.6 ft above lsd.  
 REMARKS.-- Observation well.  
 PERIOD OF RECORD.-- Water levels: Nov. 1970 - Dec. 1971, Jan. 1973 - Dec. 1973.  
 . [discontinued].  
 EXTREMES FOR PERIOD OF RECORD.-- Highest water level 16.60 ft below lsd, Feb. 25, 1971; lowest water level a48.50 ft below lsd, June 1, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, NOVEMBER 1970 DECEMBER 1973  
INSTANTANEOUS OBSERVATIONS

Date	Water level	Date	Water level	Date	Water level
Nov. 5, 1970	17.06	Aug. 4, 1971	a44.97	Apr. 3, 1973	a43.55
Dec. 1	18.67	Sep. 2	a45.33	May 1	a45.70
Dec. 31	17.11	Sep. 30	a43.37	June 1	a48.50
Jan. 29, 1971	17.31	Oct. 29	a43.26	July 5	a47.10
Feb. 25	16.60	Nov. 2	17.68	Aug. 1	a44.80
Mar. 4	17.30	Dec. 4	18.54	Sep. 6	a47.11
Mar. 31	22.04	Jan. 4, 1973	a45.20	Oct. 4	19.17
May 3	18.88	Feb. 1	a43.43	Nov. 5	21.26
June 3	a46.51	Mar. 1	a43.33	Dec. 5	17.78
July 1	a47.95				

a Pumping.