

TEXAS WATER DEVELOPMENT BOARD

REPORT 177

**WATER-QUALITY RECORDS FOR SELECTED RESERVOIRS
IN TEXAS, 1970-71 WATER YEARS**

By

Jack Rawson, H. L. Kunze, and Helen J. Davidson
United States Geological Survey

This report was prepared by the U.S. Geological Survey
under cooperative agreement with the
Texas Water Development Board

September 1973

TEXAS WATER DEVELOPMENT BOARD

John H. McCoy, Chairman
Robert B. Gilmore
Milton T. Potts

Marvin Shurbet, Vice Chairman
W. E. Tinsley
Carl Illig

Harry P. Burleigh, Executive Director

Authorization for use or reproduction of any original material contained in this publication, i.e., not obtained from other sources, is freely granted. The Board would appreciate acknowledgement.

Published and distributed
by the
Texas Water Development Board
Post Office Box 13087
Austin, Texas 78711

TABLE OF CONTENTS

| | Page |
|--|------|
| ABSTRACT | 1 |
| INTRODUCTION | 3 |
| PURPOSE AND SCOPE OF THIS REPORT | 3 |
| SELECTED REFERENCES | 5 |

TABLES

| | |
|--|----|
| 1- 4. Chemical-Quality Survey of Sam Rayburn Reservoir | 10 |
| 5-10. Chemical-Quality Survey of Livingston Reservoir | 23 |
| 11-16. Chemical-Quality Survey of Hubbard Creek Reservoir | 35 |
| 17-20. Chemical-Quality Survey of Possum Kingdom Reservoir | 48 |
| 21-24. Chemical-Quality Survey of Lake Granbury | 59 |
| 25-28. Chemical-Quality Survey of Whitney Lake | 68 |
| 29-32. Chemical-Quality Survey of Belton Lake | 81 |
| 33-34. Chemical-Quality Survey of Canyon Lake | 90 |
| 35-36. Chemical-Quality Survey of Lake Corpus Christi | 95 |
| 37. Miscellaneous Chemical Analyses of Reservoirs in Texas | 97 |

FIGURES

| | |
|--|----|
| 1. Map Showing Locations of Reservoirs | 7 |
| 2. Map Showing Locations of Water-Quality Data-Collection Sites in Sam Rayburn Reservoir | 9 |
| 3. Map Showing Locations of Water-Quality Data-Collection Sites in Livingston Reservoir | 22 |
| 4. Map Showing Locations of Water-Quality Data-Collection Sites in Hubbard Creek Reservoir | 34 |
| 5. Map Showing Locations of Water-Quality Data-Collection Sites in Possum Kingdom Reservoir | 47 |
| 6. Map Showing Locations of Water-Quality Data-Collection Sites in Lake Granbury | 58 |

TABLE OF CONTENTS (Cont'd.)

| | Page |
|---|------|
| 7. Map Showing Locations of Water-Quality Data-Collection Sites in Whitney Lake | 67 |
| 8. Map Showing Locations of Water-Quality Data-Collection Sites in Belton Lake | 80 |
| 9. Map Showing Locations of Water-Quality Data-Collection Sites in Canyon Lake | 89 |
| 10. Map Showing Locations of Water-Quality Data-Collection Sites in Lake Corpus Christi | 94 |

TABLE

| | |
|--|-----|
| | 1 |
| | 2 |
| | 3 |
| | 4 |
| | 5 |
| | 6 |
| | 7 |
| | 8 |
| | 9 |
| | 10 |
| | 11 |
| | 12 |
| | 13 |
| | 14 |
| | 15 |
| | 16 |
| | 17 |
| | 18 |
| | 19 |
| | 20 |
| | 21 |
| | 22 |
| | 23 |
| | 24 |
| | 25 |
| | 26 |
| | 27 |
| | 28 |
| | 29 |
| | 30 |
| | 31 |
| | 32 |
| | 33 |
| | 34 |
| | 35 |
| | 36 |
| | 37 |
| | 38 |
| | 39 |
| | 40 |
| | 41 |
| | 42 |
| | 43 |
| | 44 |
| | 45 |
| | 46 |
| | 47 |
| | 48 |
| | 49 |
| | 50 |
| | 51 |
| | 52 |
| | 53 |
| | 54 |
| | 55 |
| | 56 |
| | 57 |
| | 58 |
| | 59 |
| | 60 |
| | 61 |
| | 62 |
| | 63 |
| | 64 |
| | 65 |
| | 66 |
| | 67 |
| | 68 |
| | 69 |
| | 70 |
| | 71 |
| | 72 |
| | 73 |
| | 74 |
| | 75 |
| | 76 |
| | 77 |
| | 78 |
| | 79 |
| | 80 |
| | 81 |
| | 82 |
| | 83 |
| | 84 |
| | 85 |
| | 86 |
| | 87 |
| | 88 |
| | 89 |
| | 90 |
| | 91 |
| | 92 |
| | 93 |
| | 94 |
| | 95 |
| | 96 |
| | 97 |
| | 98 |
| | 99 |
| | 100 |

FIGURES

| | |
|--|-----|
| | 1 |
| | 2 |
| | 3 |
| | 4 |
| | 5 |
| | 6 |
| | 7 |
| | 8 |
| | 9 |
| | 10 |
| | 11 |
| | 12 |
| | 13 |
| | 14 |
| | 15 |
| | 16 |
| | 17 |
| | 18 |
| | 19 |
| | 20 |
| | 21 |
| | 22 |
| | 23 |
| | 24 |
| | 25 |
| | 26 |
| | 27 |
| | 28 |
| | 29 |
| | 30 |
| | 31 |
| | 32 |
| | 33 |
| | 34 |
| | 35 |
| | 36 |
| | 37 |
| | 38 |
| | 39 |
| | 40 |
| | 41 |
| | 42 |
| | 43 |
| | 44 |
| | 45 |
| | 46 |
| | 47 |
| | 48 |
| | 49 |
| | 50 |
| | 51 |
| | 52 |
| | 53 |
| | 54 |
| | 55 |
| | 56 |
| | 57 |
| | 58 |
| | 59 |
| | 60 |
| | 61 |
| | 62 |
| | 63 |
| | 64 |
| | 65 |
| | 66 |
| | 67 |
| | 68 |
| | 69 |
| | 70 |
| | 71 |
| | 72 |
| | 73 |
| | 74 |
| | 75 |
| | 76 |
| | 77 |
| | 78 |
| | 79 |
| | 80 |
| | 81 |
| | 82 |
| | 83 |
| | 84 |
| | 85 |
| | 86 |
| | 87 |
| | 88 |
| | 89 |
| | 90 |
| | 91 |
| | 92 |
| | 93 |
| | 94 |
| | 95 |
| | 96 |
| | 97 |
| | 98 |
| | 99 |
| | 100 |

**WATER-QUALITY RECORDS FOR SELECTED RESERVOIRS
IN TEXAS, 1970-71 WATER YEARS**

By

**Jack Rawson, H. L. Kunze, and Helen J. Davidson
United States Geological Survey**

ABSTRACT

Periodically since 1961, the U.S. Geological Survey, in cooperation with State, Federal, and local agencies, has made comprehensive water-quality surveys of selected reservoirs in Texas. During the 1970 water year, the program was expanded to include periodic sampling of many other reservoirs in the State where

surveys were not being made. Water-quality data collected before October 1969 have been published previously. This report contains the results of water-quality surveys of nine reservoirs and the results of analyses of samples collected periodically from 55 other reservoirs.

WATER-LUBRICATED FRICTION TESTS

REPORT OF THE INVESTIGATION

CONDUCTED AT THE NATIONAL BUREAU OF STANDARDS

CONTENTS

1. Introduction

2. Apparatus

3. Test Procedure

4. Results

5. Discussion

6. Conclusions

7. References

8. Appendix

9. Figures

10. Tables

11. Summary

12. Acknowledgments

WATER-QUALITY RECORDS FOR SELECTED RESERVOIRS IN TEXAS, 1970-71 WATER YEARS

INTRODUCTION

As part of continuing cooperative programs with State, Federal, and local agencies to inventory the surface-water resources of Texas, the U.S. Geological Survey has made comprehensive water-quality surveys of selected reservoirs in Texas periodically since 1961. Results of the water-quality surveys before April 1965 were summarized by Leifeste and Popkin (1968); data collected from April 1965 through September 1969 were compiled by Kunze and Rawson (1972). Other reports containing results of water-quality surveys are cited in the list of references.

During the 1970 water year, the program was expanded to include the periodic collection and analyses of water samples from many other reservoirs throughout the State.

PURPOSE AND SCOPE OF THIS REPORT

The purpose of this report is to provide a convenient compilation of water-quality records for nine reservoirs where comprehensive water-quality surveys were made and for 55 other reservoirs that were sampled periodically during the 1970-71 water years.

Locations of the reservoirs are shown on Figure 1. Descriptive information for most of the reservoirs has been compiled by Dowell and Breeding (1967). The locations of data-collection sites in the reservoirs are shown on Figures 2-10. Water-quality data for each of the sampling sites shown on Figures 2-10 were not collected during every survey of the reservoir. Instead, the specific conductance, dissolved-oxygen content, temperature, and pH of the water at a number of selected sites were determined 1 foot below the water surface, near the reservoir bottom, and at several intermediate depths. The results of these on-site determinations were used as guides in the collection of water samples for laboratory analyses. Water-quality and reservoir-content data collected during the periodic surveys are shown in Tables 1-36. Water-quality data for the other reservoirs are given in Table 37.

The data for these reservoirs are tabulated according to USGS standard stream order, progressing downstream within each river basin and in clockwise river-basin sequence beginning with the most northerly basin.

Daily or monthly records of contents for most of the reservoirs are published in the Geological Survey annual reports entitled "Water Resources Data for Texas, Part 1: Surface Water Records."

SELECTED REFERENCES

- Davidson, Helen J., 1968, Water-quality records for the Hubbard Creek watershed, Texas, October 1966-September 1967: U.S. Geol. Survey open-file rept., 34 p., 2 figs.
- Dowell, C. L., and Breeding, S. D., 1967, Dams and reservoirs in Texas, historical and descriptive information: Texas Water Devel. Board Rept. 64, 111 p., 1 pl.
- Flugrath, Marvin, and Connell, Helen, 1967, Water-quality records for the Hubbard Creek watershed, Texas, April 1955-September 1966: U.S. Geol. Survey open-file rept., 97 p., 2 figs.
- Kunze, H. L., and Rawson, Jack, 1970, Water-quality records for Red Bluff Reservoir, Texas and New Mexico, October 1965-August 1968: U.S. Geol. Survey open-file rept., 22 p., 1 fig.
- _____, 1972, Water-quality records for selected reservoirs in Texas and adjoining areas, April 1965-September 1969: Texas Water Devel. Board Rept. 140, 139 p., 9 figs.
- Leifeste, Donald K., and Popkin, Barney, 1968, Quality of water and stratification of Possum Kingdom, Whitney, Hubbard Creek, Proctor, and Belton Reservoirs: Texas Water Devel. Board Rept. 85, 116 p., 16 figs.
- Mendieta, H. B., and Blakey, J. F., 1963, Brazos River Basin reservoir studies, progress report, May 1962, Chemical quality and stratification of Belton, Whitney, and Possum Kingdom Reservoirs: Texas Water Comm. Memo. Rept. 63-01, 24 p., 9 pls.
- Mendieta, H. B., and Skinner, P. W., 1966, Quality of water of Big Mineral Arm and tributaries, Lake Texoma, Texas: Texas Water Devel. Board Rept. 35, 16 p., 4 figs.
- Rawson, Jack, and Lansford, Myra W., 1971, The water quality of Sam Rayburn Reservoir, eastern Texas: U.S. Geol. Survey Water-Supply Paper 1999-J, 67 p., 9 figs.

SELECTED REFERENCES

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

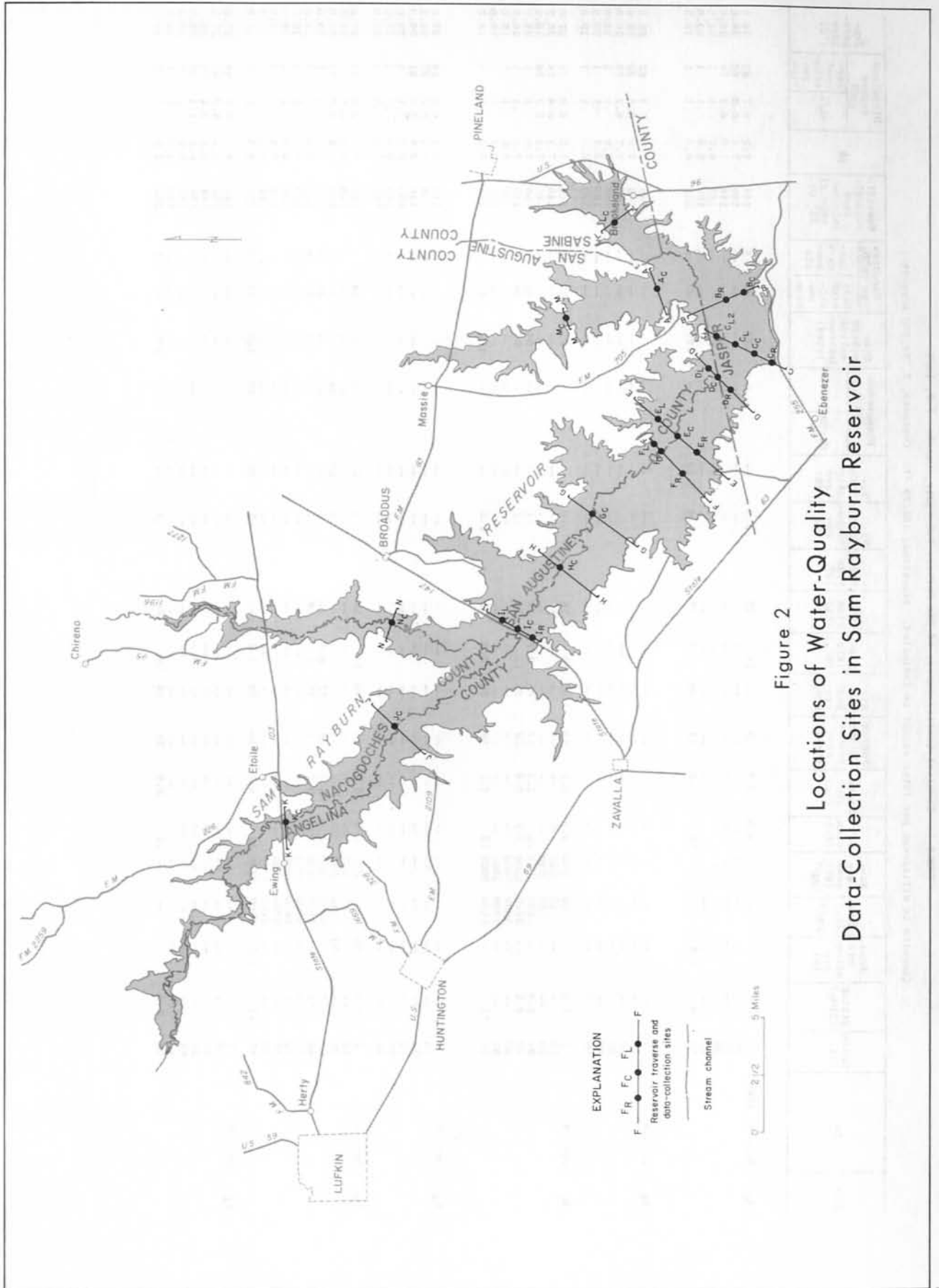


Figure 2
 Locations of Water-Quality
 Data-Collection Sites in Sam Rayburn Reservoir

TABLE 1.--Chemical-quality survey of Sam Rayburn Reservoir, October 7-9, 1969
(Results in milligrams per liter except as indicated. Elevation, 159.79 ft. Contents, 2,399,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gane- se (Mn) (µg/l) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Disolved oxygen (DO) | | Tem- pera- ture (°C) | |
|------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|-----------------------------|--|-----|----------------------------|---------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- car- bon- ate | | | mg/l | Per- cent satu- ration | | |
| Ac | Oct. 9, 1969 | 1 | 6.9 | -- | -- | -- | 8.5 | 3.3 | 13 | 31 | 14 | 17 | -- | 0.0 | -- | -- | -- | 78 | 35 | 9 | 148 | 7.2 | 6.7 | 82 | 26.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.1 | 6.6 | 80 | 26.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.0 | 6.2 | 76 | 26.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 6.7 | 1 | 1 | 28.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 198 | 6.6 | 1 | 1 | 20.0 |
| 55 | 15 | -- | 2.8 | -- | -- | 17 | 5.0 | 17 | 109 | 4 | 13 | -- | -- | .4 | 0.00 | -- | -- | 127 | 63 | 0 | 300 | 6.6 | 1 | 1 | 19.5 | |
| Br | Oct. 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.2 | 6.8 | 83 | 26.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.2 | 6.5 | 79 | 26.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.1 | 6.2 | 76 | 26.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | 6.7 | 1 | 1 | 20.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | 6.7 | 1 | 1 | 20.0 |
| 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 6.6 | 1 | 1 | 19.5 | | |
| Bc | Oct. 9 | 1 | 7.0 | -- | 30 | 200 | 8.0 | 3.2 | 15 | 31 | 15 | 18 | -- | 0 | -- | -- | -- | 81 | 33 | 8 | 148 | 7.2 | 6.5 | 81 | 27.0 | |
| | | 10 | -- | -- | -- | 40 | 350 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 145 | 7.1 | 6.4 | 78 | 26.5 |
| | | 20 | -- | -- | -- | 140 | 940 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.1 | 6.2 | 76 | 26.0 |
| | | 30 | 9.0 | -- | 1200 | 5000 | 15 | 3.5 | 17 | 65 | 9.2 | 18 | -- | 1 | -- | -- | -- | 104 | 52 | 0 | 195 | 7.0 | 1 | 1 | 20.0 | |
| | | 40 | 9.2 | -- | 4600 | 3300 | 9.2 | 3.6 | 18 | 48 | 11 | 19 | -- | 1 | -- | -- | -- | 94 | 38 | 0 | 185 | 6.6 | 1 | 1 | 20.0 | |
| | | 50 | -- | -- | 5000 | 3400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 192 | 6.4 | 1 | 1 | 19.0 |
| | | 60 | -- | -- | 6600 | 4500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 225 | 6.4 | 1 | 1 | 19.0 |
| 74 | 11 | -- | 8400 | 5000 | 12 | 4.2 | 19 | 56 | 8.2 | 21 | -- | 1.3 | -- | -- | -- | -- | 109 | 47 | 1 | 238 | 6.4 | 1 | 1 | 18.5 | | |
| Cr | Oct. 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 146 | 7.1 | 6.8 | 84 | 27.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 146 | 7.1 | 6.8 | 83 | 26.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 6.8 | 5.0 | 61 | 26.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 6.7 | 1 | 1 | 23.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | 6.4 | 1 | 1 | 21.0 |
| 54 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 192 | 6.2 | 1 | 1 | 20.0 | | |
| Cc | Oct. 9 | 1 | 6.9 | .00 | 20 | 220 | 8.0 | 3.3 | 14 | 30 | 15 | 17 | -- | 0 | -- | -- | 0.00 | 79 | 34 | 9 | 147 | 7.1 | 7.0 | 86 | 27.0 | |
| | | 10 | -- | -- | 40 | 350 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 145 | 7.0 | 6.9 | 81 | 27.0 |
| | | 20 | -- | -- | 140 | 880 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 145 | 6.8 | 5.7 | 70 | 26.0 |
| | | 30 | 9.3 | .00 | 1500 | 5000 | 14 | 3.5 | 15 | 62 | 9.4 | 16 | -- | 0 | -- | 0.00 | .02 | 99 | 49 | 0 | 190 | 6.5 | 1 | 1 | 23.0 | |
| | | 40 | 9.2 | -- | 4400 | 3400 | 10 | 3.5 | 17 | 48 | 10 | 18 | -- | 1 | -- | -- | -- | 92 | 39 | 0 | 182 | 6.0 | 1 | 1 | 21.0 | |
| | | 50 | -- | -- | 4600 | 2900 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 5.7 | 1 | 1 | 19.5 |
| | | 60 | -- | -- | 5400 | 3600 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 202 | 5.6 | 1 | 1 | 19.0 |
| | | 70 | -- | -- | 6700 | 4800 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | 5.5 | 1 | 1 | 19.0 |
| 80 | -- | -- | 6400 | 4700 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | 5.5 | 1 | 1 | 18.5 | | |
| 89 | 11 | -- | 1.3 | 6800 | 4600 | 11 | 4.1 | 18 | 59 | 7.2 | 21 | -- | 1.7 | 0.00 | -- | -- | .10 | 106 | 44 | 0 | 220 | 5.5 | 1 | 1 | 18.5 | |
| Cl | Oct. 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 146 | 6.6 | 6.8 | 84 | 27.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 145 | 6.5 | 6.6 | 81 | 27.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 6.4 | 6.4 | 78 | 26.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 159 | 6.0 | 1.4 | 17 | 25.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | 4.9 | 1 | 1 | 20.0 |
| 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 4.9 | 1 | 1 | 19.5 | | |
| 60 | 9.8 | -- | -- | -- | -- | 10 | 3.9 | 21 | 48 | 18 | 20 | -- | .3 | -- | -- | -- | 108 | 41 | 2 | 205 | 4.9 | 1 | 1 | 19.5 | | |

TABLE 1.--Chemical-quality survey of Sam Rayburn Reservoir, October 7-9, 1969--Continued
(Results in milligrams per liter except as indicated. Elevation, 159.79 ft. Contents, 2,399,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- ga- nese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nium (Mg) | Sodium plus potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Disolved oxygen (DO) | | Tem- pera- ture (°C) |
|----------------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|----------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|-----------------------------|--|-----|----------------------------|---------------------------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- mag- ne- sium | | | mg/l | per- cent satu- ration | |
| D _C | Oct. 8, 1969 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 145 | 7.1 | 7.0 | 89 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.9 | 6.5 | 80 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.8 | 6.2 | 77 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.8 | 5.8 | 71 | 26.0 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 187 | 6.7 | .1 | 1 | 24.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 6.5 | .1 | 1 | 21.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 205 | 6.5 | .1 | 1 | 20.5 | |
| | | 78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | 6.6 | .1 | 1 | 19.5 | |
| E _C | Oct. 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 146 | 7.0 | 6.8 | 86 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.9 | 6.5 | 80 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.9 | 6.4 | 79 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.9 | 6.4 | 78 | 26.5 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 187 | 6.8 | .1 | 1 | 24.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 180 | 6.8 | .1 | 1 | 21.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 6.6 | .1 | 1 | 20.0 | |
| | | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 215 | 6.6 | .1 | 1 | 18.0 | |
| F _C | Oct. 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 7.0 | 7.0 | 90 | 28.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.9 | 7.0 | 86 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 143 | 6.9 | 7.0 | 86 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.9 | 7.0 | 85 | 26.5 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.5 | .1 | 1 | 23.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 6.5 | .1 | 1 | 21.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 6.5 | .1 | 1 | 20.5 | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 205 | 6.5 | .1 | 1 | 20.0 | |
| G _C | Oct. 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 7.0 | 7.1 | 90 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.8 | 6.3 | 78 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.8 | 6.0 | 74 | 27.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.6 | 5.3 | 65 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 165 | 6.6 | .1 | 1 | 24.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 198 | 6.6 | .1 | 1 | 22.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 217 | 6.5 | .1 | 1 | 20.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 213 | 6.5 | .1 | 1 | 20.0 | |
| H _C | Oct. 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 135 | 6.8 | 6.5 | 83 | 28.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 135 | 6.7 | 6.2 | 78 | 27.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 133 | 6.6 | 5.2 | 64 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 187 | 6.5 | .1 | 1 | 24.5 | |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 240 | 6.3 | .1 | 1 | 22.0 | |

TABLE 1.--Chemical-quality survey of Sam Rayburn Reservoir, October 7-9, 1969--Continued
(Results in milligrams per liter except as indicated. Elevation, 159.79 ft. Contents, 2,399,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gane- se (Mn) | Cal- cium (Ca) | Mag- nesium (Mg) | Sodium plus potas- sium (Na+K) | Bicar- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ Cal- cium, mag- nesium | Specific conduc- tance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | | |
|------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|-----------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|---|--|-----|-----------------------------|---------------------------------|-------------------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | mg/l | per- cent satu- ration | | | |
| IR | Oct. 8, 1969 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.5 | 6.1 | 77 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.4 | 5.2 | 64 | 27.0 |
| | | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 300 | 6.1 | .2 | 2 | 25.0 |
| IC | Oct. 8 | 1 | 7.1 | 0.00 | 110 | 160 | 8.0 | 3.4 | 15 | 32 | 15 | 17 | | | 0.0 | 0.00 | 0.06 | 82 | 34 | 8 | 140 | 6.5 | 6.2 | 79 | 28.5 | |
| | | 10 | -- | -- | 120 | 160 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.4 | 5.2 | 65 | 27.5 |
| | | 20 | -- | -- | 240 | 160 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.3 | 4.6 | 57 | 27.0 |
| | | 30 | -- | -- | 77 | 3200 | 1200 | -- | -- | -- | -- | -- | -- | -- | -- | 7 | 0.00 | .08 | -- | -- | -- | 160 | 6.1 | 2.6 | 32 | 27.0 |
| | | 40 | 14 | -- | .86 | 31000 | 3500 | 14 | 5.6 | 28 | 102 | .4 | 19 | | | 2.9 | 0.00 | -- | 145 | 58 | 0 | 315 | 6.0 | .2 | 2 | 25.5 |
| | | 55 | 15 | -- | 5.6 | 46000 | 4400 | 14 | 6.0 | 15 | 111 | .2 | 15 | | | .1 | -- | 1.4 | 128 | 60 | 0 | 355 | 6.1 | .2 | 2 | 22.0 |
| JC | Oct. 7 | 1 | 7.8 | -- | -- | -- | 8.5 | 3.8 | 16 | 34 | 14 | 20 | | | 0 | -- | -- | 87 | 37 | 9 | 150 | 7.0 | 4.8 | 59 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 150 | 7.0 | 4.6 | 57 | 27.0 | |
| | | 20 | 13 | -- | -- | -- | -- | 14 | 5.4 | 70 | 88 | 26 | 77 | | | .2 | -- | 249 | 57 | 0 | 490 | 7.0 | .0 | 0 | 26.0 | |
| | | 33 | 14 | 1.5 | -- | -- | -- | 15 | 5.6 | 50 | 96 | 14 | 56 | | | .4 | -- | 205 | 60 | 0 | 380 | 6.7 | .0 | 0 | 24.0 | |
| KC | Oct. 7 | 1 | 10 | .00 | 220 | 180 | 12 | 5.1 | 35 | 60 | 17 | 42 | | | .1 | 0.00 | .04 | 152 | 51 | 2 | 255 | 7.2 | 5.2 | 63 | 26.0 | |
| | | 10 | -- | -- | .00 | 320 | 380 | -- | -- | -- | -- | -- | -- | -- | -- | .1 | 0.00 | .05 | -- | -- | -- | 270 | 7.2 | 4.8 | 59 | 26.0 |
| | | 20 | 12 | -- | .27 | 2600 | 800 | 16 | 5.6 | 96 | 93 | 41 | 108 | | | .3 | 0.00 | .10 | 326 | 63 | 0 | 600 | 7.0 | .2 | 2 | 24.0 |
| LC | Oct. 9 | 1 | 6.4 | .00 | 40 | 230 | 9.0 | 3.4 | 13 | 33 | 14 | 17 | | | 0 | 0.00 | .01 | 79 | 36 | 9 | 148 | 7.1 | 5.8 | 68 | 26.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 148 | 7.0 | 5.6 | 68 | 26.0 | |
| | | 20 | -- | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1 | 0.00 | .01 | -- | -- | -- | 150 | 7.0 | 4.9 | 60 | 26.0 | |
| MC | Oct. 9 | 30 | 12 | 3.3 | 22000 | 13000 | 18 | 5.1 | 21 | 117 | .4 | 17 | | | .7 | 0.00 | .01 | 139 | 66 | 0 | 330 | 6.7 | .1 | 1 | 24.0 | |
| | | 1 | 5.6 | .00 | 60 | 100 | 8.5 | 3.4 | 14 | 34 | 14 | 17 | | | 0 | 0.00 | .04 | 80 | 35 | 7 | 150 | 7.0 | 5.6 | 69 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 150 | 6.9 | 4.5 | 55 | 26.5 | |
| | | 15 | -- | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | .04 | -- | -- | -- | 150 | 6.9 | 3.8 | 46 | 26.5 |
| NC | Oct. 7 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | 6.7 | .6 | 7 | 26.0 | |
| | | 34 | 13 | 4.7 | 37000 | 5100 | 20 | 5.7 | 13 | 118 | .4 | 14 | | | .2 | 0.00 | .07 | 131 | 73 | 0 | 380 | 6.6 | .1 | 1 | 22.0 | |
| | | 1 | 7.8 | .00 | 130 | 120 | 8.2 | 3.8 | 13 | 36 | 13 | 15 | | | 0 | 0.00 | .06 | 79 | 36 | 7 | 136 | 7.1 | 5.6 | 69 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 137 | 7.0 | 4.8 | 59 | 27.0 | |
| | | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 138 | 7.0 | 4.2 | 52 | 27.0 | |
| | | 20 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | .05 | -- | -- | -- | 140 | 7.0 | 3.2 | 40 | 27.0 | |
| | | 25 | 12 | 5.6 | 40000 | 3200 | 15 | 7.1 | 16 | 116 | 4.0 | 13 | | | .8 | -- | .14 | 135 | 67 | 0 | 350 | 7.0 | .2 | 2 | 25.0 | |

TABLE 2.--Chemical-quality survey of Sam Rayburn Reservoir, March 4-5, 1970
(Results in milligrams per liter except as indicated. Elevation, 161.10 ft. Contents, 2,535,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|------|--------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|-----|-----------------------------|------------|---------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | Per- cent | Saturation | | | |
| AC | Mar. 4, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 7.1 | 9.6 | 96 | 16.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 7.1 | 9.5 | 93 | 15.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 7.1 | 9.4 | 92 | 15.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 7.0 | 9.2 | 90 | 15.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 6.7 | 8.4 | 81 | 14.0 |
| | | 59 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | 6.5 | 6.8 | 65 | 14.0 |
| BC | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 7.2 | 10.0 | 100 | 16.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 7.2 | 9.9 | 98 | 15.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 7.1 | 9.7 | 95 | 15.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.6 | 94 | 15.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.2 | 89 | 14.5 | |
| | | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.8 | 9.0 | 87 | 14.5 | |
| CR | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.2 | 10.0 | 100 | 16.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.2 | 9.8 | 96 | 15.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.6 | 93 | 14.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.4 | 91 | 14.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.0 | 9.4 | 91 | 14.5 | |
| | | CC | Mar. 4 | 1 | 6.8 | 0.00 | 200 | 30 | 8.5 | 3.4 | 14 | 31 | 16 | 16 | 16 | 0.0 | 0.3 | 0.00 | 0.04 | 81 | 35 | 10 | 163 | 7.3 | 10.2 | 100 | 15.0 |
| 10 | -- | | | -- | 80 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.2 | 10.0 | 97 | 14.5 | |
| 20 | -- | | | -- | 80 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.8 | 94 | 14.0 | |
| 30 | -- | | | -- | 40 | 20 | 8.5 | 3.5 | -- | 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 36 | 10 | 163 | 7.1 | 9.6 | 92 | 14.0 | |
| 40 | -- | | | -- | .00 | 40 | 40 | -- | -- | -- | 31 | -- | 16 | -- | -- | .3 | .00 | .03 | -- | -- | -- | 163 | 7.0 | 9.4 | 90 | 14.0 | |
| 50 | -- | | | -- | -- | 40 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 9.0 | 87 | 14.0 | |
| CL | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 9.0 | 87 | 14.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 8.8 | 85 | 14.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 8.8 | 85 | 14.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 8.8 | 85 | 14.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 9.0 | 87 | 14.0 | |
| | | 80 | -- | -- | .00 | 70 | 70 | 8.5 | 3.6 | -- | 32 | -- | 16 | -- | -- | .3 | .00 | .06 | -- | 36 | 10 | 163 | 7.0 | 8.6 | 83 | 14.0 | |
| DC | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 161 | 7.3 | 10.0 | 100 | 16.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 7.3 | 10.0 | 98 | 15.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 7.2 | 9.8 | 96 | 15.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.0 | 9.6 | 93 | 14.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.9 | 9.2 | 88 | 14.0 | |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 6.8 | 8.8 | 85 | 14.0 | |

TABLE 2.--Chemical-quality survey of Sam Rayburn Reservoir, March 4-5, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 161.10 ft. Contents, 2,535,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|------|--------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-----------------|---|-----|-----------------------------|-----------------------|---------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- calcium | | | mg/l | percent saturation | | | |
| EC | Mar. 4, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 10.2 | 101 | 7.3 | 10.2 | 101 | 15.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 9.7 | 93 | 7.2 | 9.7 | 93 | 14.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.6 | 92 | 7.1 | 9.6 | 92 | 14.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.4 | 90 | 7.1 | 9.4 | 90 | 14.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.0 | 9.2 | 88 | 7.0 | 9.2 | 88 | 14.0 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 165 | 6.8 | 8.4 | 80 | 6.8 | 8.4 | 80 | 13.5 |
| 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.7 | 7.8 | 74 | 6.7 | 7.8 | 74 | 13.0 | | |
| FC | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 10.0 | 98 | 7.2 | 10.0 | 98 | 15.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.6 | 92 | 7.1 | 9.6 | 92 | 14.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.1 | 9.5 | 91 | 7.1 | 9.5 | 91 | 14.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 7.0 | 9.2 | 88 | 7.0 | 9.2 | 88 | 14.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.8 | 8.6 | 82 | 6.8 | 8.6 | 82 | 13.5 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.8 | 8.4 | 80 | 6.8 | 8.4 | 80 | 13.5 |
| 75 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.8 | 8.2 | 77 | 6.8 | 8.2 | 77 | 13.0 | | |
| GC | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 9.8 | 97 | 7.2 | 9.8 | 97 | 15.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 7.0 | 9.3 | 89 | 7.0 | 9.3 | 89 | 14.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 7.0 | 8.9 | 86 | 7.0 | 8.9 | 86 | 14.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.8 | 8.3 | 80 | 6.8 | 8.3 | 80 | 14.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.7 | 7.6 | 72 | 6.7 | 7.6 | 72 | 13.5 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.6 | 7.0 | 66 | 6.6 | 7.0 | 66 | 13.0 |
| 75 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 163 | 6.6 | 6.0 | 57 | 6.6 | 6.0 | 57 | 13.0 | | |
| HC | Mar. 4 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 165 | 5.8 | 55 | 6.5 | 5.8 | 55 | 13.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 9.7 | 95 | 6.9 | 9.7 | 95 | 15.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.7 | 9.4 | 92 | 6.7 | 9.4 | 92 | 15.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.6 | 9.0 | 87 | 6.6 | 9.0 | 87 | 14.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 166 | 6.4 | 8.3 | 80 | 6.4 | 8.3 | 80 | 14.0 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 168 | 6.2 | 7.4 | 70 | 6.2 | 7.4 | 70 | 13.0 |
| IR | Mar. 5 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 172 | 6.1 | 6.8 | 64 | 6.1 | 6.8 | 64 | 13.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 172 | 6.0 | 6.6 | 62 | 6.0 | 6.6 | 62 | 13.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 9.8 | 98 | 6.7 | 9.8 | 98 | 16.0 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 6.7 | 9.4 | 94 | 6.7 | 9.4 | 94 | 16.0 |

TABLE 2.--Chemical-quality survey of Sam Rayburn Reservoir, March 4-5, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 161.10 ft. Contents, 2,535,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nesium (Mg) | Sodium plus potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (Calcu- lated) | Hardness as CaCO ₃ Cal- Non- cium, car- mag- bon- ne- ate sium | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- per- ature (°C) | |
|------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|---|--|-----|-----------------------------|---------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | mg/l | Per- cent satu- ration | | |
| Ic | Mar. 5, 1970 | 1 | 6.7 | 0.00 | 180 | 50 | 8.0 | 3.6 | 16 | 28 | 18 | 19 | 0.1 | 0.2 | 0.00 | 0.06 | 86 | 35 | 12 | 172 | 6.8 | 9.6 | 9.4 | 15.0 | |
| | | 10 | -- | -- | 160 | 50 | -- | -- | -- | -- | 28 | -- | -- | -- | -- | -- | -- | -- | -- | 172 | 6.7 | 9.2 | 8.9 | 14.5 | |
| | | 20 | -- | .00 | 160 | 50 | 8.0 | 3.6 | -- | -- | 28 | 20 | -- | -- | .2 | .00 | -- | -- | 35 | 12 | 175 | 6.5 | 8.8 | 8.5 | 14.0 |
| | | 30 | -- | -- | 440 | 120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 210 | 6.4 | 8.2 | 7.8 | 13.5 | |
| | | 40 | -- | -- | 520 | 160 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 230 | 6.1 | 5.7 | 5.4 | 13.0 | |
| | | 47 | -- | -- | 590 | 220 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 240 | 6.0 | 5.4 | 5.1 | 13.0 | |
| 55 | 8.0 | .13 | 590 | 250 | 8.8 | 3.9 | 28 | 32 | 25 | 32 | .2 | .3 | .00 | .08 | 124 | 38 | 12 | 247 | 6.0 | 5.0 | 4.7 | 12.5 | | | |
| Jc | Mar. 5 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 260 | 6.5 | 9.6 | 9.8 | 16.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 260 | 6.2 | 8.6 | 8.6 | 16.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 270 | 5.7 | 6.8 | 6.6 | 14.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 270 | 5.4 | 3.0 | 2.9 | 13.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 270 | 5.3 | 1.0 | 1.0 | 13.5 | | |
| | | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 270 | 5.3 | 1.0 | 1.0 | 13.5 | | |
| Kc | Mar. 5 | 1 | 9.3 | .08 | 290 | 240 | 10 | 4.5 | 33 | 14 | 43 | 41 | .0 | .2 | .00 | .10 | 149 | 43 | 32 | 280 | 5.8 | 7.7 | 7.7 | 16.0 | |
| | | 7 | -- | -- | 200 | 220 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 280 | 5.6 | 6.1 | 6.0 | 15.0 | |
| | | 13 | -- | .18 | 430 | 240 | 10 | 4.0 | -- | -- | 12 | 41 | -- | -- | .2 | .00 | -- | -- | 41 | 32 | 280 | 5.5 | 5.7 | 5.5 | 14.0 |
| | | 18 | -- | -- | 330 | 260 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 280 | 5.5 | 5.1 | 5.0 | 15.0 | |
| | | 25 | -- | .21 | 350 | 300 | 10 | 4.6 | -- | -- | 15 | 37 | -- | -- | .2 | .00 | -- | -- | 44 | 32 | 272 | 5.5 | 4.2 | 4.1 | 15.0 |
| Lc | Mar. 4 | 1 | -- | .00 | 60 | 100 | 8.5 | 3.1 | -- | 30 | -- | 16 | -- | .1 | .00 | .08 | -- | 34 | 9 | 152 | 7.2 | 9.4 | 9.9 | 18.0 | |
| | | 10 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .16 | -- | -- | 155 | 7.0 | 8.8 | 9.1 | 17.0 | |
| | | 20 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 159 | 6.4 | 6.0 | 6.0 | 16.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 6.3 | 3.9 | 3.8 | 15.0 | |
| | | 32 | 6.4 | .18 | 60 | 420 | 8.5 | 3.3 | 14 | 31 | 16 | 16 | .0 | .2 | .01 | .11 | 81 | 35 | 9 | 162 | 6.3 | 3.9 | 3.8 | 15.0 | |
| Mc | Mar. 4 | 1 | 4.8 | .00 | 60 | 60 | 8.5 | 3.2 | 13 | 30 | 15 | 16 | .0 | .2 | .00 | .14 | 76 | 34 | 10 | 155 | 6.9 | 9.2 | 9.5 | 17.0 | |
| | | 10 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | 6.7 | 8.8 | 9.0 | 16.5 | |
| | | 20 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | 6.5 | 7.2 | 7.1 | 15.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 165 | 6.2 | 4.0 | 3.9 | 14.5 | |
| | | 40 | -- | .26 | 160 | 400 | 9.0 | 3.3 | -- | -- | 32 | -- | 16 | -- | .2 | .01 | .11 | -- | 36 | 10 | 165 | 6.1 | 1.2 | 1.2 | 14.0 |
| Nc | Mar. 5 | 1 | -- | .00 | 390 | 100 | 6.2 | 3.1 | -- | 20 | -- | 10 | -- | .1 | .00 | .08 | -- | 28 | 12 | 123 | 6.4 | 9.4 | 9.9 | 18.0 | |
| | | 20 | 9.5 | .22 | 460 | 250 | 6.5 | 3.2 | 10 | 20 | 20 | 10 | .0 | .2 | .00 | .13 | 71 | 29 | 13 | 132 | 5.9 | 7.6 | 7.6 | 16.0 | |

TABLE 3.--Chemical-quality survey of Sam Rayburn Reservoir, July 28-29, 1970

(Results in milligrams per liter except as indicated. Elevation, 161.85 ft. Contents, 2,615,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-----------|--|-----|-----------------------|-----|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Magnesium | | | Percent saturation | | | |
| AC | July 28, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | 7.7 | 7.0 | 90 | 29.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 153 | 7.5 | 6.5 | 82 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | 7.4 | 6.2 | 77 | 27.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | 6.8 | .1 | 1 | 26.0 |
| | | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 173 | 6.9 | .1 | 1 | 23.5 |
| BC | July 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 265 | 7.2 | .0 | 0 | 18.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | 7.2 | 7.0 | 89 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | 7.1 | 6.8 | 85 | 27.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 172 | 6.4 | .1 | 1 | 23.0 |
| | | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 178 | 6.4 | .1 | 1 | 20.0 |
| CR | July 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 157 | 7.3 | 6.8 | 86 | 28.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | 6.8 | 5.8 | 72 | 27.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 164 | 6.8 | 5.6 | 68 | 26.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 178 | 6.5 | .1 | 1 | 23.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 172 | 6.4 | .1 | 1 | 21.0 |
| CC | July 28 | 1 | 4.0 | 0.00 | 0 | 100 | 8.5 | 3.4 | 16 | 29 | 18 | 19 | 0.2 | 0.0 | 0.00 | 0.00 | 0.00 | 83 | 35 | 11 | 158 | 7.2 | 6.8 | 86 | 28.0 | |
| | | 10 | -- | -- | 0 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | 7.1 | 6.4 | 80 | 27.5 |
| | | 20 | -- | .00 | 0 | 350 | -- | -- | -- | 28 | 28 | 20 | -- | -- | .01 | -- | -- | 38 | 15 | 15 | 160 | 6.5 | 3.5 | 43 | 27.0 | |
| | | 30 | -- | -- | 240 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 177 | 6.4 | .1 | 1 | 23.0 |
| | | 50 | -- | -- | 1000 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 6.4 | .1 | 1 | 18.5 |
| CL | July 28 | 1 | -- | -- | 930 | 2100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 178 | 6.5 | .1 | 1 | 17.0 | |
| | | 30 | -- | -- | 1800 | 3300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 178 | 6.5 | .1 | 1 | 17.0 | |
| | | 60 | -- | -- | 2500 | 4000 | -- | -- | -- | 17 | 50 | 12 | 18 | .2 | .3 | .00 | .03 | 106 | 41 | 0 | 198 | 6.6 | .1 | 1 | 16.0 | |
| CL | July 28 | 1 | -- | -- | -- | -- | -- | -- | 3.9 | 17 | 50 | 12 | 18 | .2 | .3 | .00 | .03 | 106 | 41 | 0 | 198 | 6.6 | .1 | 1 | 16.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 157 | 7.3 | 7.3 | 94 | 28.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 157 | 7.1 | 6.8 | 84 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.1 | .1 | 1 | 26.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 172 | 6.4 | .1 | 1 | 22.5 | |

TABLE 3.--Chemical-quality survey of Sam Rayburn Reservoir, July 28-29, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 161.85 ft. Contents, 2,615,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (Calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos/cm at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|----|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | saturation | |
| DC | July 28, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 7.0 | 90 | 29.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | -- | -- | 7.3 | 91 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 162 | -- | -- | 6.8 | 63 | 26.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 178 | -- | -- | 6.5 | 1 | 22.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 180 | -- | -- | 6.5 | 1 | 20.0 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 188 | -- | -- | 6.5 | 1 | 17.0 |
| EC | July 28 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | -- | -- | 6.5 | 1 | 17.5 |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | -- | -- | 6.5 | 1 | 17.0 |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 195 | -- | -- | 6.6 | 1 | 16.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | -- | -- | 7.4 | 96 | 29.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 7.5 | 97 | 28.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 158 | -- | -- | 7.0 | 84 | 27.5 |
| FC | July 28 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 172 | -- | -- | 6.4 | 1 | 20.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 | -- | -- | 6.5 | 1 | 17.5 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | -- | -- | 6.5 | 1 | 17.0 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.6 | 1 | 17.0 |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.6 | 1 | 17.0 |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.7 | 1 | 17.0 |
| HC | July 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 7.5 | 97 | 29.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 7.2 | 86 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 165 | -- | -- | 7.1 | 79 | 27.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 210 | -- | -- | 6.5 | 1 | 23.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.5 | 1 | 20.5 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.5 | 1 | 18.0 |
| HC | July 28 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.6 | 1 | 17.0 |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.6 | 1 | 17.0 |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 193 | -- | -- | 6.7 | 1 | 17.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 166 | -- | -- | 7.7 | 104 | 30.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 166 | -- | -- | 7.1 | 91 | 28.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.3 | 86 | 27.0 |
| HC | July 28 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 280 | -- | -- | 6.2 | 52 | 27.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 280 | -- | -- | 6.2 | 52 | 27.0 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 240 | -- | -- | 6.4 | 52 | 27.0 |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 240 | -- | -- | 6.4 | 52 | 27.0 |

TABLE 3.--Chemical-quality survey of Sam Hayburn Reservoir, July 28-29, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 161.85 ft. Contents, 2,615,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|-----|-----------------------------|------------|---------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | saturation | | |
| IR | July 29, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 7.4 | 7.8 | 100 | 29.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 7.1 | 7.1 | 90 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 6.8 | .1 | 1 | 27.5 |
| | | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 260 | 6.2 | .1 | 1 | 23.0 |
| IC | July 29 | 1 | 4.2 | 0.00 | 370 | 350 | 9.0 | 3.5 | 17 | 29 | 19 | 21 | 0.2 | 0.0 | 0.00 | 0.00 | 0.00 | 89 | 37 | 13 | 170 | 7.5 | 7.9 | 101 | 29.0 | |
| | | 10 | -- | 0.00 | 260 | 300 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 7.2 | 7.0 | 89 | 28.0 |
| | | 20 | -- | 0.00 | 1400 | 210 | -- | -- | -- | -- | 28 | -- | 22 | -- | 0.00 | 0.00 | 0.00 | 0.01 | 36 | 13 | 170 | 6.9 | 6.6 | 84 | 28.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 6.7 | 5.8 | 73 | 28.0 |
| | | 30 | -- | -- | -- | 2000 | 840 | -- | -- | -- | 74 | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- | 225 | 6.3 | .1 | 1 | 25.5 |
| | | 40 | -- | -- | -- | 9000 | 1900 | -- | -- | -- | 74 | -- | 34 | -- | -- | -- | -- | -- | -- | -- | -- | 285 | 6.2 | .1 | 1 | 21.0 |
| | | 55 | 14 | -- | 2.9 | 1400 | 1900 | 13 | 5.6 | 16 | 76 | .4 | 25 | .2 | .4 | .00 | .00 | .47 | 120 | 56 | 0 | 290 | 6.4 | .1 | 1 | 20.0 |
| JC | July 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 7.1 | 7.2 | 97 | 31.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 7.0 | 7.1 | 91 | 29.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 190 | 6.5 | 4.8 | 62 | 28.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 194 | 5.9 | .1 | 1 | 28.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 320 | 6.2 | .1 | 1 | 22.0 | |
| KC | July 29 | 1 | 7.8 | .00 | 170 | 360 | 11 | 4.7 | 28 | 35 | 26 | 37 | .3 | .0 | .00 | .00 | .05 | 132 | 47 | 18 | 238 | 7.1 | 7.9 | 107 | 32.0 | |
| | | 5 | -- | .00 | 150 | 150 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 240 | 6.8 | 7.0 | 91 | 29.5 | |
| | | 10 | -- | .00 | 100 | 310 | -- | -- | -- | 41 | -- | 41 | -- | -- | 0.00 | 0.00 | .07 | -- | 48 | 14 | 255 | 6.4 | 3.8 | 49 | 29.0 | |
| | | 15 | -- | -- | 900 | 650 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 320 | 6.2 | .1 | 1 | 28.0 | |
| | | 25 | 12 | .61 | 6600 | 1100 | 13 | 5.3 | 60 | 80 | 29 | 64 | .3 | .3 | .00 | .00 | .25 | 232 | 54 | 0 | 450 | 6.5 | .1 | 1 | 26.0 | |
| LC | July 28 | 1 | -- | .00 | 640 | 560 | -- | -- | -- | 31 | -- | 19 | -- | .0 | .00 | .02 | .02 | -- | 35 | 10 | 148 | 7.6 | 7.6 | 97 | 29.0 | |
| | | 10 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .01 | -- | -- | -- | 155 | 6.6 | 7.2 | 92 | 28.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 177 | 6.5 | .1 | 1 | 26.0 | |
| | | 20 | -- | -- | 6100 | 5000 | 13 | 4.2 | 12 | 69 | 2.4 | 17 | .2 | .3 | .00 | .00 | .16 | 107 | 50 | 0 | 180 | 6.5 | .1 | 1 | 25.5 | |
| | | 31 | 9.4 | 2.2 | 6100 | 5000 | 13 | 4.2 | 12 | 69 | 2.4 | 17 | .2 | .3 | .00 | .00 | .16 | 107 | 50 | 0 | 227 | 6.3 | .1 | 1 | 23.5 | |
| MC | July 28 | 1 | 2.9 | .00 | 330 | 1200 | 9.0 | 3.4 | 15 | 32 | 16 | 18 | .1 | .1 | .00 | .00 | .02 | 82 | 36 | 10 | 150 | 7.5 | 6.8 | 89 | 30.0 | |
| | | 10 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .02 | -- | -- | -- | 150 | 7.2 | 5.8 | 74 | 29.0 | |
| | | 20 | -- | -- | 3100 | 2800 | -- | -- | -- | 76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 6.8 | .2 | 2 | 27.0 | |
| | | 39 | -- | 2.9 | 3100 | 2800 | -- | -- | -- | 76 | -- | 17 | -- | -- | .3 | .00 | .26 | -- | 65 | 3 | 240 | 6.7 | .2 | 2 | 21.5 | |
| NC | July 28 | 1 | -- | .00 | 0 | 420 | -- | -- | -- | 32 | -- | 21 | -- | .0 | .00 | .02 | -- | -- | 38 | 12 | 170 | 7.5 | 8.0 | 107 | 31.0 | |
| | | 10 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .02 | -- | -- | -- | 170 | 7.0 | 7.4 | 95 | 29.0 | |
| | | 15 | -- | -- | 750 | 580 | 10 | 4.0 | 18 | 39 | 18 | 20 | .2 | .2 | .00 | .00 | .03 | 97 | 41 | 9 | 170 | 6.5 | 6.8 | 87 | 28.0 | |

TABLE 4.--Chemical-quality survey of Sam Rayburn Reservoir, February 23-24, 1971
(Results in milligrams per liter except as indicated. Elevation, 160.52 ft. Contents, 2,475,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | saturation | |
| A _C | Feb. 23, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.0 | 8.8 | 82 | 12.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.0 | 8.8 | 82 | 12.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.0 | 8.8 | 81 | 12.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.0 | 8.9 | 83 | 12.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 8.2 | 77 | 12.5 |
| B _C | Feb. 23 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 8.1 | 76 | 12.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.8 | 91 | 12.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.6 | 89 | 12.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.6 | 89 | 12.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.6 | 89 | 12.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.6 | 89 | 12.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.8 | 91 | 12.0 | |
| C _R | Feb. 23 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.6 | 89 | 12.0 | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.6 | 89 | 12.0 | |
| | | 77 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | 9.1 | 83 | 11.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 9.1 | 84 | 12.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 9.8 | 92 | 12.5 | |
| C _C | Feb. 23 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.6 | 87 | 11.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.6 | 87 | 11.5 | |
| | | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 9.6 | 89 | 12.0 | |
| | | 1 | 0.7 | 0.00 | 0 | 0 | 0 | 9.2 | 4.0 | 13 | 32 | 18 | 17 | 0.1 | 0.1 | 0.00 | 0.00 | 0.00 | 78 | 41 | 15 | 6.9 | 9.8 | 92 | 13.0 |
| | | 5 | -- | -- | 10 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 9.7 | 90 | 12.0 |
| C _L | Feb. 23 | 15 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.5 | 88 | 12.0 | |
| | | 25 | -- | -- | 10 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.5 | 88 | 12.0 | |
| | | 35 | -- | -- | 0 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.4 | 87 | 12.0 | |
| | | 45 | -- | -- | 10 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.4 | 87 | 12.0 | |
| | | 55 | -- | -- | 40 | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.6 | 9.4 | 87 | 12.0 | |
| | | 65 | -- | -- | 0 | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.6 | 9.2 | 85 | 12.0 | |
| | | 75 | -- | -- | 20 | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.6 | 9.2 | 85 | 12.0 | |
| | | 83 | 7 | 0.00 | 10 | 100 | 9.2 | 3.8 | 16 | 31 | 19 | 19 | 2 | 0.03 | 0.03 | 83 | 13 | 140 | 6.6 | 9.2 | 84 | 11.5 | | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.8 | 9.7 | 92 | 13.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.7 | 90 | 12.0 |
| 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.7 | 90 | 12.0 | | |
| 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.7 | 90 | 12.0 | | |
| 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.7 | 90 | 12.0 | | |
| 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | 9.7 | 90 | 12.0 | | |
| 61 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.6 | 9.6 | 89 | 12.0 | | |

TABLE 4.--Chemical-quality survey of Sam Rayburn Reservoir, February 23-24, 1971--Continued
 (Results in milligrams per liter except as indicated. Elevation, 160.52 ft. Contents, 2,475,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|----------------|---------------|------------|----------------------------|----------------------|-----------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|---|----|-----------------------|------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium-magnesium | Non-carbonate | | | mg/l | saturation | | |
| D _C | Feb. 23, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.9 | 9.9 | 92 | 12.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.9 | 9.7 | 90 | 12.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.7 | 9.6 | 89 | 12.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.6 | 9.5 | 86 | 11.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.6 | 9.5 | 86 | 11.5 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.6 | 9.5 | 86 | 11.5 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.7 | 9.4 | 85 | 11.5 |
| | | 81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | 6.7 | 9.0 | 82 | 11.5 |
| F _C | Feb. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.9 | 9.6 | 89 | 12.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.5 | 88 | 12.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.7 | 9.4 | 87 | 12.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.6 | 9.2 | 85 | 12.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.6 | 9.2 | 85 | 12.0 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.6 | 9.2 | 85 | 12.0 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.6 | 9.2 | 85 | 12.0 |
| | | 71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.6 | 9.0 | 83 | 12.0 |
| F _C | Feb. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.9 | 9.8 | 92 | 13.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.9 | 9.6 | 89 | 12.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.6 | 89 | 12.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.6 | 89 | 12.0 |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.6 | 89 | 12.0 |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.6 | 89 | 12.0 |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.6 | 89 | 12.0 |
| | | 66 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.7 | 9.5 | 88 | 12.0 |
| G _C | Feb. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 7.0 | 9.6 | 91 | 13.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.9 | 9.4 | 87 | 12.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.9 | 9.4 | 87 | 12.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.3 | 86 | 12.0 |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.3 | 86 | 12.0 |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.8 | 9.2 | 85 | 12.0 |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.7 | 9.2 | 85 | 12.0 |
| | | 63 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | -- | -- | 6.6 | 8.8 | 81 | 12.0 |
| H _C | Feb. 24 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | -- | -- | 7.2 | 9.8 | 92 | 13.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | -- | -- | 7.0 | 9.4 | 87 | 12.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.9 | 9.3 | 86 | 12.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.9 | 9.3 | 86 | 12.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.9 | 9.3 | 86 | 12.0 |
| | | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.7 | 8.6 | 78 | 11.5 |
| I _R | Feb. 24 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | -- | -- | 7.0 | 9.2 | 86 | 12.5 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.9 | 9.2 | 85 | 12.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.7 | 8.6 | 80 | 12.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.7 | 8.5 | 79 | 12.0 |
| | | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | -- | -- | 6.7 | 8.7 | 81 | 12.0 |

TABLE 4.--Chemical-quality survey of Sam Rayburn Reservoir, February 23-24, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 160.52 ft. Contents, 2,475,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|-----|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium, magnesium | Non-carbonate | | | mg/l | Percent saturation | |
| I _C | Feb. 24, 1971 | 1 | 2.4 | 0.00 | 60 | 30 | 8.8 | 3.7 | 18 | 26 | 23 | 22 | 0.2 | 0.1 | 0.00 | 0.01 | 92 | 37 | 16 | 175 | 7.0 | 9.4 | 88 | 12.5 | |
| | | 5 | -- | -- | 80 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 7.0 | 9.2 | 85 | 12.0 | |
| | | 15 | -- | -- | 70 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 180 | 6.8 | 8.8 | 81 | 12.0 | |
| | | 25 | -- | -- | 60 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 180 | 6.8 | 8.8 | 81 | 12.0 | |
| | | 35 | -- | -- | 90 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 180 | 6.8 | 8.8 | 81 | 12.0 | |
| | | 45 | -- | -- | 60 | 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 180 | 6.8 | 8.6 | 80 | 12.0 | |
| I _L | Feb. 24 | 56 | 3.4 | .06 | 50 | 180 | 8.5 | 3.8 | 20 | 25 | 25 | 24 | .2 | .1 | .00 | .13 | 98 | 37 | 16 | 180 | 6.8 | 8.6 | 80 | 12.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 7.0 | 9.4 | 88 | 12.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 170 | 6.9 | 9.2 | 85 | 12.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 6.8 | 8.5 | 79 | 12.0 | |
| | | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 6.8 | 8.5 | 79 | 12.0 | |
| | | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 175 | 6.8 | 8.4 | 78 | 12.0 | |
| J _C | Feb. 24 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 230 | 6.8 | 10.0 | 94 | 13.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 240 | 6.9 | 9.8 | 92 | 13.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 260 | 6.5 | 8.0 | 81 | 12.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 260 | 6.4 | 8.0 | 74 | 12.0 | | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 280 | 6.1 | 5.3 | 48 | 11.0 | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 280 | 6.1 | 5.3 | 48 | 11.0 | |
| K _C | Feb. 24 | 1 | 8.3 | .07 | 390 | 30 | 11 | 4.5 | 61 | 25 | 50 | 73 | .7 | .2 | .00 | .10 | 222 | 46 | 25 | 420 | 6.5 | 8.2 | 79 | 13.5 | |
| | | 5 | -- | -- | 720 | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 6.3 | 6.8 | 63 | 12.0 | |
| | | 15 | -- | -- | 1500 | 250 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 6.3 | 6.8 | 63 | 12.0 | |
| | | 26 | 8.7 | .12 | 1100 | 660 | 12 | 4.4 | 62 | 26 | 62 | 52 | 74 | .7 | .4 | .00 | .20 | 231 | 48 | 27 | 420 | 6.3 | 5.8 | 54 | 12.0 |
| | | 26 | 8.7 | .12 | 1100 | 660 | 12 | 4.4 | 62 | 26 | 62 | 52 | 74 | .7 | .4 | .00 | .20 | 231 | 48 | 27 | 420 | 6.3 | 5.8 | 54 | 12.0 |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 6.3 | 5.8 | 54 | 12.0 | |
| L _C | Feb. 23 | 1 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | .1 | .00 | -- | -- | -- | 145 | 7.1 | 9.0 | 85 | 13.0 | | |
| | | 5 | -- | -- | 0 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 150 | 7.1 | 9.0 | 85 | 13.0 | | |
| | | 15 | -- | -- | 0 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 150 | 7.1 | 9.0 | 85 | 13.0 | | |
| | | 25 | -- | -- | 0 | 150 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 155 | 7.0 | 8.8 | 83 | 13.0 | | |
| | | 35 | 4.1 | .00 | 60 | 490 | 10 | 3.6 | 22 | 34 | 22 | 23 | 24 | .2 | .1 | .00 | 1.2 | 105 | 40 | 12 | 160 | 6.3 | 4.0 | 37 | 12.0 |
| | | 35 | 4.1 | .00 | 60 | 490 | 10 | 3.6 | 22 | 34 | 22 | 23 | 24 | .2 | .1 | .00 | 1.2 | 105 | 40 | 12 | 160 | 6.3 | 4.0 | 37 | 12.0 |
| M _C | Feb. 23 | 1 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | -- | -- | -- | 140 | 7.0 | 8.1 | 76 | 13.0 | | |
| | | 10 | -- | -- | 80 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.9 | 8.0 | 75 | 13.0 | | |
| | | 20 | -- | -- | 80 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.9 | 8.0 | 75 | 13.0 | | |
| | | 30 | -- | -- | 100 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 140 | 6.8 | 8.1 | 76 | 13.0 | | |
| | | 38 | 2.4 | .06 | 80 | 110 | 9.5 | 3.6 | 17 | 31 | 17 | 20 | 19 | .2 | .3 | .00 | .12 | 88 | 38 | 13 | 140 | 6.3 | 4.8 | 44 | 12.0 |
| | | 38 | 2.4 | .06 | 80 | 110 | 9.5 | 3.6 | 17 | 31 | 17 | 20 | 19 | .2 | .3 | .00 | .12 | 88 | 38 | 13 | 140 | 6.3 | 4.8 | 44 | 12.0 |
| N _C | Feb. 24 | 1 | -- | -- | 240 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.7 | 9.6 | 92 | 14.0 | | |
| | | 10 | -- | -- | 250 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.5 | 9.0 | 84 | 12.5 | | |
| | | 20 | -- | -- | 210 | 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 160 | 6.5 | 8.8 | 81 | 12.0 | | |
| | | 29 | 3.6 | .02 | 200 | 140 | 7.8 | 3.6 | 18 | 20 | 26 | 20 | 20 | .2 | .2 | .00 | .09 | 90 | 34 | 18 | 165 | 6.4 | 8.0 | 74 | 12.0 |
| | | 29 | 3.6 | .02 | 200 | 140 | 7.8 | 3.6 | 18 | 20 | 26 | 20 | 20 | .2 | .2 | .00 | .09 | 90 | 34 | 18 | 165 | 6.4 | 8.0 | 74 | 12.0 |
| | | 29 | 3.6 | .02 | 200 | 140 | 7.8 | 3.6 | 18 | 20 | 26 | 20 | 20 | .2 | .2 | .00 | .09 | 90 | 34 | 18 | 165 | 6.4 | 8.0 | 74 | 12.0 |

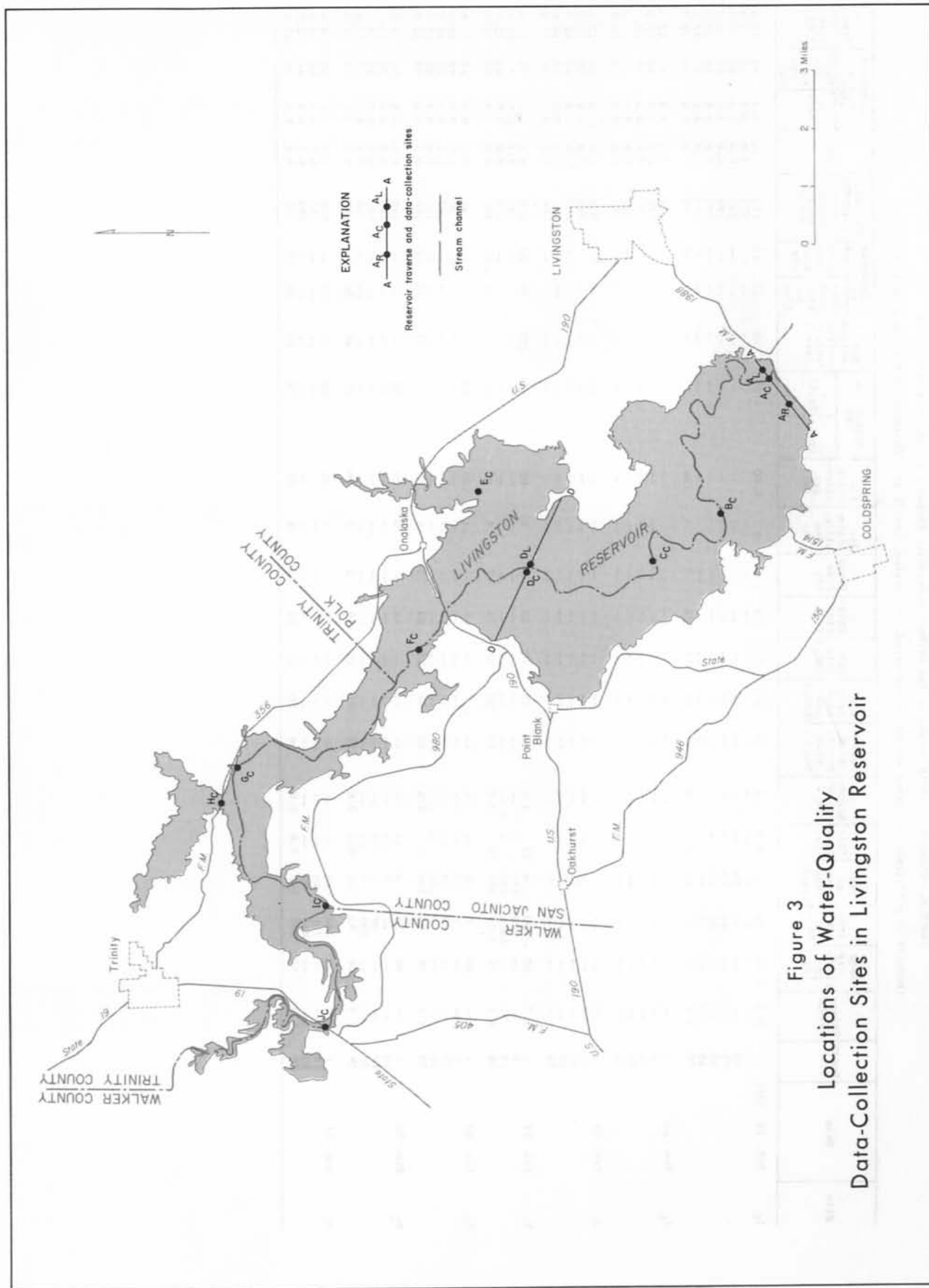


Figure 3
 Locations of Water-Quality
 Data-Collection Sites in Livingston Reservoir

TABLE 5.--Chemical-quality survey of Livingston Reservoir, October 15, 1969
(Results in milligrams per liter except as indicated. Elevation, 99.85 ft. Contents, 173,700 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|-----|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | percent saturation | |
| A _R | Oct. 15, 1969 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 645 | 7.5 | 9.6 | 109 | 22.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 645 | 7.4 | 8.6 | 98 | 22.0 | | |
| | | 17 | -- | -- | -- | -- | -- | -- | 199 | -- | 62 | -- | -- | -- | -- | -- | -- | -- | 650 | 7.2 | 8.6 | 98 | 22.0 | | |
| A _C | Oct. 15 | 1 | 2.8 | 0.00 | 20 | 20 | 60 | 5.2 | 64 | 200 | 51 | 65 | 0.5 | 0.2 | 0.02 | 0.11 | 0.16 | 348 | 171 | 7 | 648 | 7.7 | 9.1 | 103 | 22.0 |
| | | 10 | -- | -- | 30 | 20 | -- | -- | -- | -- | 64 | -- | -- | -- | -- | -- | -- | -- | 645 | 7.6 | 8.6 | 98 | 22.0 | | |
| | | 20 | 4.1 | .00 | 30 | 50 | 60 | 5.0 | 66 | 200 | 51 | 66 | .6 | .3 | .02 | .11 | .18 | 352 | 170 | 6 | 648 | 7.6 | 8.4 | 95 | 22.0 |
| | | 30 | -- | -- | 20 | 50 | -- | -- | -- | -- | 64 | -- | -- | -- | -- | -- | -- | -- | 640 | 7.5 | 8.5 | 97 | 22.0 | | |
| | | 41 | 3.9 | .00 | 30 | 70 | 60 | 5.0 | 62 | 199 | 49 | 62 | .5 | .2 | .02 | .16 | .20 | 342 | 170 | 7 | 640 | 7.5 | 8.6 | 98 | 22.0 |
| B _C | Oct. 15 | 1 | 11 | -- | -- | -- | 58 | 5.3 | 101 | 194 | 72 | 100 | .7 | 2.4 | -- | -- | -- | 454 | 166 | 8 | 790 | 8.6 | 8.3 | 99 | 24.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 790 | 8.5 | 6.7 | 79 | 24.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 790 | 8.5 | 7.0 | 80 | 23.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 770 | 8.5 | 7.0 | 80 | 23.0 | | |
| | | 36 | -- | -- | -- | -- | -- | -- | -- | 200 | -- | -- | 92 | -- | -- | -- | -- | -- | 168 | 4 | 760 | 7.4 | 6.6 | 76 | 23.0 |
| C _C | Oct. 15 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 102 | -- | -- | -- | -- | -- | -- | 800 | 8.5 | 7.2 | 86 | 25.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 800 | 8.4 | 6.4 | 76 | 25.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 790 | 8.4 | 5.9 | 70 | 25.0 | | |
| | | 34 | 11 | -- | -- | -- | 61 | 5.3 | 86 | 202 | 62 | 86 | .6 | 2.1 | -- | -- | -- | 420 | 174 | 8 | 725 | 8.3 | 5.2 | 61 | 24.0 |
| D _C | Oct. 15 | 1 | 14 | .00 | 30 | 0 | 56 | 5.6 | 123 | 165 | 84 | 121 | .9 | 5.0 | .31 | 3.3 | 3.4 | 518 | 162 | 28 | 890 | 8.2 | 6.4 | 78 | 26.0 |
| | | 10 | -- | -- | 20 | 10 | -- | -- | -- | -- | -- | 122 | -- | -- | -- | -- | -- | -- | 900 | 8.2 | 5.2 | 63 | 25.5 | | |
| | | 20 | -- | -- | 10 | 20 | -- | -- | -- | -- | -- | 122 | -- | -- | -- | -- | -- | -- | 900 | 8.2 | 5.2 | 63 | 25.5 | | |
| | | 32 | 14 | .00 | 20 | 50 | 55 | 5.4 | 122 | 166 | 82 | 118 | .9 | 4.8 | .28 | 3.1 | 3.3 | 511 | 159 | 23 | 875 | 8.1 | 5.0 | 60 | 25.5 |
| E _C | Oct. 15 | 1 | 14 | -- | 10 | 20 | 55 | 5.8 | 130 | 176 | 90 | 125 | .9 | 7.7 | -- | -- | -- | 542 | 161 | 17 | 925 | 8.4 | 6.9 | 83 | 25.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 900 | 8.3 | 6.6 | 78 | 24.0 | | |
| | | 19 | -- | -- | 10 | 20 | -- | -- | -- | -- | 190 | -- | 110 | -- | -- | -- | -- | -- | 164 | 8 | 845 | 8.4 | 7.0 | 82 | 24.0 |
| F _C | Oct. 15 | 1 | 13 | -- | 20 | 10 | 52 | 5.3 | 127 | 166 | 101 | 102 | 1.1 | 11 | -- | -- | -- | 532 | 152 | 16 | 890 | 8.2 | 3.9 | 48 | 26.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 890 | 8.1 | 2.0 | 24 | 26.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 890 | 8.1 | 2.3 | 28 | 25.5 | | |
| | | 34 | 13 | -- | 10 | 50 | 54 | 5.4 | 124 | 166 | 101 | 104 | 1.0 | 10 | -- | -- | -- | 528 | 156 | 20 | 890 | 8.1 | 2.3 | 28 | 25.5 |

TABLE 6.--Chemical-quality survey of Livingston Reservoir, March 6, 1970
(Results in milligrams per liter except as indicated. Elevation, 104.22 ft. Contents, 279,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) | Man- gane- se (Mn) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) | Bicar- bonate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate gen (N) | Ni- nitro- nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Disolved oxygen (DO) | | Tem- pera- ture (°C) | |
|----------------|--------------|---------------|-------------------------------|-------------------------------------|--------------|-----------------------------|----------------------|------------------------|--|---|------------------------------------|-----------------------|----------------------|----------------------------|---------------------------------------|-------------------|-------|---|----------------------------------|-----------------------------|--|-----|----------------------------|---------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- mag- ne- sium | | | mg/l | per- cent satu- ration | | |
| A _R | Mar. 6, 1970 | 1 | -- | -- | -- | -- | 41 | 4.0 | -- | 105 | -- | 37 | -- | -- | -- | -- | -- | -- | -- | 119 | 33 | 410 | 7.3 | 6.8 | 70 | 17.0 |
| | | 10 | -- | -- | -- | -- | 41 | 4.0 | -- | 104 | -- | 38 | -- | -- | -- | -- | -- | -- | -- | 119 | 34 | 410 | 7.3 | 6.6 | 67 | 16.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.2 | 6.2 | 62 | 16.0 |
| A _C | Mar. 6 | 1 | 7.6 | 0.21 | 150 | 60 | 40 | 4.0 | 34 | 104 | 45 | 36 | 0.3 | 2.3 | 0.03 | 0.48 | 228 | 116 | 31 | 410 | 7.3 | 6.8 | 89 | 16.5 | | |
| | | 10 | -- | -- | 100 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 50 | -- | -- | 410 | 7.2 | 6.4 | 65 | 16.5 | | |
| | | 20 | -- | .19 | 90 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | 2.8 | .03 | -- | -- | -- | 410 | 7.1 | 5.4 | 54 | 16.0 | | |
| | | 30 | -- | -- | 100 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.0 | 4.7 | 47 | 16.0 | | |
| | | 45 | 8.4 | .29 | 40 | 40 | 4.2 | 36 | 104 | 47 | 42 | .3 | 2.2 | .03 | .60 | 241 | 122 | 37 | 450 | 7.0 | 4.6 | 46 | 16.0 | | | |
| B _C | Mar. 6 | 1 | -- | -- | -- | -- | 36 | 3.3 | -- | 96 | -- | 18 | -- | -- | -- | -- | -- | -- | 103 | 25 | 310 | 7.3 | 6.4 | 66 | 17.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 310 | 7.3 | 6.2 | 64 | 17.0 | | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 310 | 7.3 | 6.2 | 64 | 17.0 | | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 310 | 7.3 | 6.2 | 64 | 17.0 | | | |
| C _C | Mar. 6 | 1 | 7.3 | .10 | 210 | 40 | 36 | 3.1 | 18 | 96 | 34 | 17 | .2 | .9 | .00 | .42 | 167 | 103 | 24 | 290 | 7.3 | 6.2 | 64 | 17.0 | | |
| | | 10 | -- | -- | 210 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 290 | 7.3 | 6.2 | 64 | 17.0 | | |
| | | 20 | -- | -- | 100 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 290 | 7.2 | 6.2 | 64 | 17.0 | | |
| | | 34 | -- | .05 | 180 | 40 | -- | -- | -- | -- | -- | -- | 16 | -- | .9 | .03 | .49 | -- | -- | 290 | 7.2 | 6.1 | 63 | 17.0 | | |
| D _C | Mar. 6 | 1 | -- | -- | -- | -- | 36 | 3.1 | -- | 97 | -- | 16 | -- | -- | -- | -- | -- | -- | 101 | 25 | 320 | 7.3 | 6.5 | 67 | 17.0 | |
| | | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 295 | 7.3 | 6.5 | 67 | 17.0 | | | |
| | | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 295 | 7.2 | 6.5 | 67 | 17.0 | | | |
| E _C | Mar. 6 | 1 | 8.1 | -- | -- | -- | 35 | 3.3 | -- | 92 | 36 | 21 | .2 | -- | -- | -- | -- | -- | 101 | 25 | 320 | 7.2 | 6.6 | 68 | 17.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 340 | 7.1 | 5.8 | 57 | 15.5 | | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | |
| F _C | Mar. 6 | 1 | 7.1 | .10 | 110 | 40 | 37 | 3.0 | 16 | 98 | 33 | 16 | .3 | .8 | .00 | .54 | 164 | 105 | 24 | 295 | 7.2 | 6.5 | 67 | 17.0 | | |
| | | 17 | -- | -- | 90 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 295 | 7.2 | 6.5 | 67 | 17.0 | | |
| | | 35 | -- | .11 | 90 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | .8 | .00 | .68 | -- | -- | 295 | 7.2 | 6.5 | 67 | 17.0 | | |

TABLE 7.--Chemical-quality survey of Livingston Reservoir, August 26-27, 1970
(Results in milligrams per liter except as indicated. Elevation, 118.48 ft. Contents, 908,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (mg/l) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|-------------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|-----|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | | |
| AC | Aug. 26, 1970 | 1 | 2.2 | 0.00 | 0 | 60 | 54 | 4.6 | 31 | 166 | 40 | 30 | 0.3 | 0.0 | 0.0 | 0.0 | 0.14 | 244 | 154 | 18 | 445 | 8.3 | 8.4 | 108 | 29.0 | |
| | | 10 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 445 | 8.2 | 7.8 | 100 | 29.0 |
| | | 20 | -- | 0.00 | 0 | 80 | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | -- | 0.14 | -- | -- | -- | -- | 445 | 7.7 | 5.7 | 73 | 29.0 |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.7 | 5.6 | 72 | 29.0 |
| | | 40 | -- | -- | 80 | 240 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.7 | 5.6 | 72 | 28.5 |
| AL | Aug. 26 | 55 | 7.6 | 2.4 | 20 | 230 | 51 | 4.5 | 21 | 160 | 28 | 28 | .3 | .1 | .00 | -- | 1.5 | 223 | 146 | 15 | 445 | 7.2 | .2 | 2 | 27.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 445 | 8.4 | 8.8 | 114 | 29.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 445 | 8.2 | 7.8 | 100 | 29.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 445 | 7.8 | 5.2 | 67 | 29.0 | |
| | | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 445 | 7.7 | 5.2 | 67 | 29.0 | |
| BC | Aug. 26 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 462 | 8.4 | 8.8 | 113 | 29.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 7.8 | 6.0 | 77 | 28.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 7.8 | 6.0 | 77 | 28.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 7.7 | 5.8 | 73 | 28.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 7.7 | 5.4 | 68 | 28.0 | |
| CC | Aug. 26 | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 7.5 | 3.4 | 43 | 28.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 455 | 8.5 | 12.9 | 172 | 31.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.6 | 5.0 | 64 | 28.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.6 | 4.5 | 57 | 28.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.6 | 4.8 | 61 | 28.0 | |
| DC | Aug. 26 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.6 | 4.6 | 58 | 28.0 | |
| | | 1 | 2.1 | .00 | 0 | 320 | 57 | 5.0 | 38 | 181 | 42 | 37 | .4 | .1 | .01 | -- | .15 | 271 | 163 | 14 | 460 | 8.4 | 11.6 | 153 | 30.0 | |
| | | 5 | -- | .00 | 0 | 80 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | -- | .13 | -- | -- | -- | -- | 460 | 8.1 | 8.6 | 110 | 29.0 |
| | | 10 | -- | -- | 20 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.6 | 4.4 | 56 | 28.5 |
| | | 20 | -- | -- | 20 | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.6 | 4.4 | 56 | 28.5 |
| EC | Aug. 26 | 30 | -- | -- | 160 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.6 | 4.3 | 54 | 28.0 | |
| | | 40 | -- | -- | -- | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 7.6 | 4.3 | 54 | 28.0 | |
| | | 48 | 2.6 | .28 | 480 | 60 | 58 | 5.1 | 38 | 186 | 44 | 36 | .3 | .0 | .01 | -- | .16 | 276 | 166 | 13 | 465 | 7.6 | 4.4 | 55 | 27.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 8.4 | 10.6 | 139 | 30.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.2 | 10.0 | 132 | 30.0 | |
| EC | Aug. 26 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 7.6 | 4.0 | 51 | 28.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 7.6 | 4.0 | 51 | 28.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 7.6 | 3.6 | 46 | 28.0 | |

TABLE 7.--Chemical-quality survey of Livingston Reservoir, August 26-27, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 118.48 ft. Contents, 908,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) | Bi- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | | | | |
|------|---------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|---|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|------------------------|--|-----|-----------------------------|---------------------------------|-------------------------------|------|------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium, magn- esium | Non- carbon- ate | | | mg/l | Per- cent satu- ration | | | | | |
| FC | Aug. 26, 1970 | 1 | 6.8 | 0.19 | 0 | 0 | 60 | 5.9 | 100 | 224 | 79 | 86 | 0.7 | 0.9 | 0.20 | 1.2 | 453 | 174 | 0 | 775 | 7.9 | 3.6 | 47 | 30.0 | 8.4 | 11.3 | 151 | 31.0 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 530 | 7.5 | 2.9 | 37 | 29.0 | 7.5 | 2.9 | 37 | 29.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 570 | 7.4 | .2 | 3 | 29.0 | 7.4 | .2 | 3 | 29.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 600 | 7.4 | .2 | 3 | 29.0 | 7.4 | .2 | 3 | 29.0 |
| | | 45 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 605 | 7.4 | .2 | 3 | 29.0 | 7.4 | .2 | 3 | 29.0 |
| GC | Aug. 27 | 1 | 6.8 | 0.19 | 0 | 0 | 60 | 5.9 | 100 | 224 | 79 | 86 | 0.7 | 0.9 | 0.20 | 1.2 | 453 | 174 | 0 | 775 | 7.9 | 3.6 | 47 | 30.0 | 7.9 | 3.6 | 47 | 30.0 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 775 | 7.8 | 2.0 | 26 | 29.5 | 7.8 | 2.0 | 26 | 29.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 775 | 7.8 | 1.7 | 22 | 29.5 | 7.8 | 1.7 | 22 | 29.5 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 770 | 7.8 | 1.6 | 21 | 29.0 | 7.8 | 1.6 | 21 | 29.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 760 | 7.7 | 1.6 | 21 | 29.0 | 7.7 | 1.6 | 21 | 29.0 |
| HC | Aug. 27 | 1 | 5.2 | .52 | 0 | 40 | 61 | 5.9 | 84 | 220 | 70 | 75 | .6 | .2 | .07 | .55 | 412 | 176 | 0 | 720 | 7.4 | 1.2 | 15 | 28.5 | 7.4 | 1.2 | 15 | 28.5 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 720 | 7.4 | 1.2 | 15 | 28.5 | 7.4 | 1.2 | 15 | 28.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 715 | 8.0 | 4.7 | 60 | 29.0 | 8.0 | 4.7 | 60 | 29.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 680 | 7.8 | 5.1 | 65 | 28.5 | 7.8 | 5.1 | 65 | 28.5 |
| | | 28 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 690 | 8.0 | 4.9 | 63 | 28.5 | 8.0 | 4.9 | 63 | 28.5 |
| IC | Aug. 27 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 765 | 7.7 | 2.2 | 29 | 29.5 | 7.7 | 2.2 | 29 | 29.5 |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 765 | 7.6 | .8 | 10 | 29.5 | 7.6 | .8 | 10 | 29.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 765 | 7.6 | .8 | 10 | 29.5 | 7.6 | .8 | 10 | 29.5 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 7.5 | 1.0 | 13 | 29.0 | 7.5 | 1.0 | 13 | 29.0 |
| | | 32 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 7.5 | 1.0 | 13 | 29.0 | 7.5 | 1.0 | 13 | 29.0 |
| JC | Aug. 27 | 1 | 13 | .29 | 0 | 0 | 56 | 5.6 | 99 | 201 | 80 | 82 | .7 | 1.6 | .30 | 2.7 | 447 | 162 | 0 | 760 | 7.8 | 3.6 | 47 | 30.0 | 7.8 | 3.6 | 47 | 30.0 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 760 | 7.7 | 2.2 | 29 | 30.0 | 7.7 | 2.2 | 29 | 30.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 760 | 7.6 | 1.8 | 24 | 30.0 | 7.6 | 1.8 | 24 | 30.0 |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 760 | 7.6 | 1.9 | 25 | 30.0 | 7.6 | 1.9 | 25 | 30.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 765 | 7.6 | 1.5 | 19 | 29.5 | 7.6 | 1.5 | 19 | 29.5 |
| 26 | 12 | .53 | 0 | 0 | 0 | 57 | 5.9 | 102 | 224 | 74 | 88 | .7 | .8 | .32 | 1.8 | 455 | 167 | 0 | 790 | 7.6 | 1.2 | 3 | 29.0 | 7.6 | 1.2 | 3 | 29.0 | | |

TABLE 8.--Chemical-quality survey of Livingston Reservoir, October 20, 1970
(Results in milligrams per liter except as indicated. Elevation, 120.88 ft. Contents, 1,054,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nesium (Mg) | Sodium plus potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trate nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | |
|----------------|---------------|---------------|-------------------------------|------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|--------------------------------------|---------------------|--|-----|-----------------------------|--------------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium, mag- ne- sium | Non- bon- ate | | | mg/l | Per- cent sat- ura- tion | | |
| A _C | Oct. 20, 1970 | 1 | 2.0 | 0.00 | 0 | 0 | 50 | 4.8 | 34 | 156 | 40 | 34 | 0.4 | 0.0 | 0.00 | 0.10 | 0.09 | 242 | 144 | 17 | 450 | 8.4 | 10.6 | 115 | 20.0 | |
| | | 5 | --- | .00 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.0 | 8.5 | 91 | 19.5 |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.2 | 8.5 | 91 | 19.5 |
| | | 20 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.0 | 8.5 | 91 | 19.5 |
| | | 30 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.1 | 8.5 | 91 | 19.5 |
| | | 40 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.1 | 8.5 | 91 | 19.5 |
| | | 60 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.1 | 8.5 | 91 | 19.5 |
| A _L | Oct. 20 | 67 | 2.5 | .00 | 0 | 0 | 55 | 4.8 | 34 | 171 | 40 | 34 | .4 | 0.00 | .11 | 255 | 157 | 17 | 460 | 8.0 | 8.4 | 90 | 19.5 | | | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 450 | 8.3 | 9.7 | 105 | 20.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.2 | 8.6 | 92 | 19.5 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.2 | 8.7 | 94 | 19.5 | |
| B _C | Oct. 20 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.2 | 8.6 | 91 | 19.0 | |
| | | 37 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.1 | 8.4 | 90 | 19.5 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.3 | 10.1 | 110 | 20.0 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.2 | 9.5 | 102 | 19.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 450 | 8.0 | 8.3 | 88 | 19.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.0 | 7.7 | 82 | 19.0 | |
| C _C | Oct. 20 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 470 | 8.0 | 7.8 | 83 | 19.0 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 480 | 8.0 | 7.7 | 82 | 18.5 | |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 480 | 8.0 | 7.6 | 81 | 18.5 | |
| | | 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 480 | 7.9 | 7.5 | 80 | 18.5 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 450 | 8.3 | 10.3 | 113 | 20.5 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 450 | 8.2 | 9.4 | 101 | 19.5 | |
| D _C | Oct. 20 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 450 | 8.1 | 8.5 | 90 | 19.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 450 | 8.1 | 8.6 | 91 | 19.0 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 460 | 8.0 | 8.2 | 87 | 19.0 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 470 | 7.9 | 7.8 | 83 | 18.5 | |
| | | 46 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 470 | 7.9 | 7.4 | 79 | 19.0 | |
| | | 1 | 7.2 | .00 | 0 | 0 | 0 | 50 | 4.4 | 45 | 145 | 55 | 40 | .4 | 1.7 | .05 | .51 | 281 | 143 | 24 | 500 | 8.0 | 9.5 | 104 | 20.5 | |
| 5 | --- | .00 | 0 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 500 | 7.9 | 8.3 | 88 | 18.5 | | |
| 10 | --- | --- | 0 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 500 | 7.8 | 8.0 | 84 | 18.0 | | |
| 20 | --- | --- | 0 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 490 | 7.8 | 7.8 | 82 | 18.0 | | |
| 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 490 | 7.8 | 7.8 | 82 | 18.0 | | |
| 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 490 | 7.8 | 7.5 | 80 | 18.5 | | |
| 48 | 4.2 | .00 | 1.0 | 0 | 0 | 52 | 4.7 | 43 | 162 | 47 | 40 | .4 | .9 | .02 | .34 | 275 | 149 | 16 | 490 | 7.8 | 7.5 | 80 | 18.5 | | | |

TABLE 8.--Chemical-quality survey of Livingston Reservoir, October 20, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 120.88 ft. Contents, 1,054,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Man- gane- se (Mn) (µg/l) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) | Bicar- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ Cal- cium, car- bon- ate | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | |
|------|---------------|---------------|-------------------------------|----------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|---|--|-----|-----------------------------|--------------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | mg/l | Per- cent satu- ra- tion | | |
| FC | Oct. 20, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 8.2 | 11.1 | 122 | 20.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 8.1 | 10.5 | 114 | 20.0 | |
| | | 16 | -- | -- | -- | -- | -- | 156 | 47 | 41 | -- | -- | -- | -- | -- | -- | -- | -- | 144 | 480 | 7.5 | 6.3 | 66 | 18.0 | |
| FC | Oct. 20 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.5 | 5.5 | 60 | 20.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.4 | 5.1 | 55 | 19.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.5 | 5.5 | 59 | 19.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 7.7 | 7.6 | 81 | 18.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.8 | 7.2 | 77 | 18.5 | |
| GC | Oct. 20 | 1 | 8.0 | 0.00 | 0 | 0 | 44 | 4.2 | 39 | 125 | 45 | 40 | 0.4 | 1.7 | 0.00 | 0.54 | 249 | 127 | 25 | 430 | 7.7 | 7.9 | 88 | 21.0 | |
| | | 5 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | 1.8 | .00 | .55 | -- | -- | -- | 410 | 7.5 | 6.0 | 64 | 18.5 | |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 7.4 | 5.2 | 55 | 18.5 | |
| | | 20 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 390 | 7.4 | 4.9 | 52 | 18.5 | |
| HC | Oct. 20 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 118 | 15 | 450 | 7.5 | 5.7 | 61 | 18.5 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.6 | 13.4 | 149 | 21.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.7 | 7.0 | 74 | 19.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.5 | 6.2 | 66 | 18.5 | |
| IC | Oct. 20 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.6 | 7.4 | 80 | 20.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 430 | 7.3 | 2.9 | 30 | 17.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 430 | 7.3 | 2.9 | 30 | 17.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.3 | 3.0 | 31 | 17.5 | |
| JC | Oct. 20 | 1 | 8.3 | .00 | 10 | 0 | 40 | 3.1 | 32 | 120 | 36 | 27 | .4 | 1.9 | .00 | .62 | 214 | 113 | 14 | 360 | 7.5 | 5.7 | 61 | 19.5 | |
| | | 5 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .57 | -- | -- | 320 | 7.5 | 5.1 | 53 | 17.0 | |
| | | 10 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 310 | 7.5 | 5.2 | 54 | 17.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 310 | 7.5 | 5.2 | 54 | 17.0 | |
| 34 | 7.3 | .00 | 0 | 0 | 40 | 2.8 | 16 | 117 | 28 | 10 | .4 | 1.6 | .00 | .58 | 170 | 111 | 15 | 310 | 7.5 | 5.3 | 55 | 17.0 | | | |

TABLE 9.--Chemical-quality survey of Livingston Reservoir, February 25-26, 1971
(Results in milligrams per liter except as indicated. Elevation, 125.87 ft. Contents, 1,391,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos/cm at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-----------|--|------|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Magnesium | | | Per cent | Saturation | |
| A _C | Feb. 25, 1971 | 1 | 2.2 | 0.00 | 0 | 0 | 52 | 4.6 | 37 | 162 | 46 | 33 | 0.4 | 0.2 | 0.00 | 0.10 | 256 | 150 | 16 | 420 | 8.3 | 9.6 | 91 | 13.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 8.0 | 9.6 | 91 | 13.0 | | | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.8 | 9.1 | 86 | 13.0 | | | |
| | | 30 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.0 | 84 | 12.5 | | | |
| | | 40 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.0 | 84 | 12.5 | | | |
| | | 50 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.0 | 84 | 12.5 | | | |
| | | 60 | -- | -- | 0 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.0 | 84 | 12.5 | | | |
| 70 | 4.5 | .00 | 0 | 310 | 52 | 4.6 | 36 | 160 | 46 | 33 | .4 | .2 | .00 | .22 | .257 | 150 | 18 | 420 | 7.8 | 8.8 | 82 | 12.5 | | | |
| A _L | Feb. 25 | 1 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .08 | -- | -- | 420 | 8.0 | 9.7 | 92 | 13.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 8.0 | 9.7 | 92 | 13.0 | | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.3 | 88 | 13.0 | | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.2 | 86 | 12.5 | | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.9 | 9.0 | 84 | 12.5 | | | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 8.0 | 8.9 | 83 | 12.5 | | | |
| | | 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 8.0 | 8.4 | 79 | 12.5 | | | |
| B _C | Feb. 25 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 8.0 | 10.8 | 102 | 13.0 | | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.1 | 10.8 | 102 | 13.0 | | | |
| | | 15 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .12 | -- | 450 | 8.1 | 10.4 | 98 | 13.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.0 | 10.2 | 96 | 13.0 | | |
| | | 25 | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .13 | -- | 450 | 7.9 | 9.5 | 90 | 13.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.9 | 9.0 | 85 | 13.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.8 | 8.8 | 83 | 13.0 | | |
| 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.8 | 8.6 | 81 | 13.0 | | | | |
| 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.6 | 7.8 | 73 | 12.5 | | | | |
| C _C | Feb. 25 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.1 | 10.6 | 100 | 13.0 | | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.1 | 10.6 | 100 | 13.0 | | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.1 | 10.4 | 98 | 13.0 | | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 8.0 | 10.0 | 94 | 13.0 | | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.9 | 9.3 | 88 | 13.0 | | | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.8 | 8.8 | 83 | 13.0 | | | |
| | | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.4 | 7.8 | 73 | 12.5 | | | |
| D _C | Feb. 25 | 1 | .6 | .00 | 0 | 0 | 51 | 4.6 | 38 | 160 | 46 | 35 | .4 | .0 | .00 | .21 | 255 | 150 | 15 | 480 | 8.5 | 12.0 | 115 | 14.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 8.4 | 11.8 | 113 | 14.0 | | | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 8.4 | 11.6 | 112 | 14.0 | | | |
| | | 25 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | .1 | .02 | .22 | -- | 480 | 8.4 | 11.3 | 108 | 13.5 | | |
| | | 30 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 8.2 | 10.2 | 96 | 13.0 | | | |
| | | 40 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 8.2 | 9.8 | 92 | 13.0 | | | |
| | | 50 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 8.1 | 9.0 | 85 | 13.0 | | | |
| 61 | 7.1 | .00 | 20 | 0 | -- | -- | 54 | 4.7 | 45 | 168 | 52 | 41 | .4 | .06 | .17 | 289 | 150 | 16 | 500 | 7.8 | 8.0 | 75 | 13.0 | | |

TABLE 9.--Chemical-quality survey of Livingston Reservoir, February 25-26, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 125.87 ft. Contents, 1,391,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Hardness as CaCO ₃ | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|--|-----|-----------------------|--------------------|------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | mg/l | Percent saturation | | | |
| FC | Feb. 25, 1971 | 1 | 3.5 | 0.00 | 0 | 0 | 52 | 5.7 | 74 | 162 | 71 | 68 | 0.5 | 2.2 | 0.18 | 1.6 | 365 | 150 | 20 | 650 | 8.6 | 13.5 | 132 | 15.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 690 | 8.1 | 9.6 | 92 | 14.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 700 | 7.7 | 7.1 | 68 | 13.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 7.6 | 5.6 | 53 | 13.5 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 7.6 | 5.2 | 49 | 13.0 |
| | | 58 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 7.6 | 5.0 | 47 | 13.0 |
| GC | Feb. 25 | 1 | 5.2 | .46 | 10 | 0 | 53 | 6.2 | 85 | 166 | 79 | 78 | .6 | 3.9 | .22 | 1.8 | 407 | 160 | 22 | 750 | 7.6 | 5.0 | 47 | 13.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 580 | 8.3 | 10.8 | 105 | 14.5 |
| | | 15 | 4.0 | .05 | --- | --- | --- | 48 | 5.4 | 64 | 150 | 63 | 60 | .5 | 1.8 | .15 | 1.1 | 327 | 140 | 19 | 580 | 7.7 | 7.8 | 74 | 13.5 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 620 | 7.7 | 5.8 | 55 | 13.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 650 | 7.7 | 5.6 | 52 | 12.5 |
| | | 37 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 650 | 7.7 | 5.6 | 52 | 12.5 |
| IC | Feb. 26 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 6.6 | 8.4 | 82 | 15.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 6.5 | 6.8 | 65 | 14.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 6.4 | 6.6 | 63 | 14.0 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 6.5 | 6.4 | 62 | 14.0 | |
| JC | Feb. 25 | 5 | 9.0 | .62 | 10 | 0 | 50 | 6.6 | 92 | 158 | 82 | 89 | .7 | 3.3 | .18 | 3.2 | 424 | 150 | 22 | 760 | 6.4 | 6.7 | 66 | 15.0 | |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 760 | 6.5 | 6.6 | 65 | 15.0 |
| | | 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 750 | 6.4 | 5.7 | 55 | 14.0 |
| 33 | 8.5 | 1.1 | 60 | 0 | 49 | 6.2 | 91 | 160 | 79 | 87 | .7 | 3.3 | .17 | 3.1 | 418 | 150 | 17 | 750 | 6.3 | 5.3 | 51 | 14.0 | | | |

TABLE 10.--Chemical-quality survey of Livingston Reservoir, May 19, 1971
(Results in milligrams per liter except as indicated. Elevation, 126.85 ft. Contents, 1,463,000 acre-ft.)

| Site | Date | Depth (ft) | Silicon (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|------|--------------|------------|-----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | |
| AC | May 19, 1971 | 1 | 1.0 | 0.00 | 0 | 0 | 52 | 4.8 | 42 | 168 | 44 | 40 | 0.4 | 0.0 | 0.00 | 0.06 | 267 | 150 | 12 | 460 | 8.6 | 9.5 | 110 | 23.5 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.3 | 7.5 | 86 | 23.0 | |
| | | 20 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.2 | 6.7 | 76 | 22.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.8 | 4.4 | 50 | 22.0 | |
| | | 30 | -- | -- | 10 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.7 | 4.1 | 46 | 21.5 | |
| | | 40 | -- | -- | 20 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.7 | 4.0 | 45 | 21.5 | |
| | | 50 | -- | -- | 20 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.6 | 3.9 | 44 | 21.5 | |
| AL | May 19 | 60 | -- | .00 | 190 | 470 | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .12 | -- | -- | 470 | 7.5 | 3.1 | 35 | 21.5 | | |
| | | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.4 | .6 | 7 | 20.5 | | |
| | | 72 | 3.9 | .27 | 0 | 1600 | 4.8 | 56 | 4.8 | 37 | 175 | 41 | 37 | .4 | .2 | .01 | .30 | 269 | 160 | 16 | 490 | 7.3 | .4 | 4 | 19.5 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.5 | 9.3 | 108 | 23.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.4 | 8.0 | 92 | 23.0 | |
| BC | May 19 | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.4 | 7.9 | 91 | 23.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.0 | 6.1 | 69 | 22.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.7 | 4.1 | 46 | 21.5 | | |
| | | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.6 | 3.3 | 37 | 21.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.7 | 10.4 | 124 | 25.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 8.5 | 9.4 | 108 | 23.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 8.2 | 7.3 | 83 | 22.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 8.1 | 6.7 | 76 | 22.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 8.1 | 6.6 | 75 | 22.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 8.0 | 6.5 | 74 | 22.5 | |
| CC | May 19 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.9 | 5.4 | 61 | 22.0 | | |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.7 | 3.8 | 43 | 22.0 | | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.6 | 2.5 | 28 | 21.5 | | |
| | | 66 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.5 | 1.5 | 17 | 21.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 8.6 | 11.2 | 133 | 24.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 8.1 | 7.5 | 86 | 23.0 | |
| CC | May 19 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.9 | 6.4 | 74 | 23.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.8 | 5.8 | 66 | 22.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.8 | 6.1 | 69 | 22.5 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.8 | 6.1 | 69 | 22.5 | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.7 | 4.2 | 48 | 22.0 | | |
| 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 7.6 | 4.0 | 45 | 22.0 | | | |

TABLE 10.--Chemical-quality survey of Livingston Reservoir, May 19, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 126.85 ft. Contents, 1,463,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|--|------|-----------------------|------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | Percent saturation | | |
| DC | May 19, 1971 | 1 | 1.7 | 0.00 | 1.0 | 0 | 52 | 4.9 | 42 | 163 | 46 | 41 | 0.4 | 0.1 | 0.00 | 0.20 | 268 | 150 | 16 | 480 | 8.8 | 12.5 | 149 | 25.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.5 | 9.0 | 105 | 23.5 |
| | | 10 | -- | -- | 1.0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.2 | 6.7 | 77 | 23.0 |
| | | 15 | -- | -- | 1.0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| | | 20 | -- | 0.00 | 1.0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 1.1 | 0.00 | .16 | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| | | 30 | -- | -- | 1.0 | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| | | 35 | -- | -- | 1.0 | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| | | 40 | -- | -- | 1.0 | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| | | 45 | -- | -- | 1.0 | 1.0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.1 | 6.5 | 75 | 23.0 |
| EC | May 19 | 1 | 5.8 | .19 | 1.0 | 120 | 48 | 5.0 | 51 | 153 | 52 | 49 | .4 | .4 | .20 | .82 | 289 | 140 | 15 | 500 | 7.4 | 2.5 | 29 | 23.0 | |
| | | 5 | 2.6 | .00 | 50 | 30 | 50 | 5.0 | 4.4 | 160 | 45 | 44 | .4 | .1 | .00 | .20 | 270 | 140 | 14 | 470 | 8.9 | 12.9 | 157 | 26.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.6 | 9.0 | 107 | 23.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 150 | 16 | 480 | 8.0 | 6.5 | 69 | 23.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 150 | 16 | 490 | 9.0 | 5.8 | 67 | 23.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 490 | 150 | 16 | 490 | 7.9 | 5.6 | 64 | 23.0 | |
| | | 34 | 1.4 | .37 | 60 | 1100 | 41 | 3.9 | 3.9 | 35 | 129 | 38 | 34 | .3 | .2 | .00 | 1.5 | 232 | 120 | 13 | 440 | 7.5 | .5 | 9 | 21.5 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 150 | 16 | 500 | 8.9 | 13.4 | 163 | 26.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 150 | 16 | 500 | 9.0 | 6.6 | 78 | 23.0 |
| | | GC | May 19 | 1 | 5.5 | .06 | 110 | 30 | 45 | 5.0 | 55 | 134 | 64 | 50 | .5 | .7 | .27 | 1.2 | 295 | 130 | 23 | 510 | 9.0 | 16.0 | 193 |
| 5 | -- | | | -- | 130 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 150 | 16 | 500 | 7.7 | 4.6 | 53 | 23.5 | |
| 10 | -- | | | -- | 130 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | 150 | 16 | 510 | 7.4 | 3.4 | 39 | 23.0 | |
| 15 | -- | | | -- | 130 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | 150 | 16 | 510 | 7.2 | 1.5 | 17 | 22.5 | |
| 20 | -- | | | .13 | 180 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | 1.6 | .16 | .72 | 480 | 150 | 16 | 480 | 7.1 | .4 | 5 | 22.5 |
| 30 | -- | | | -- | 270 | 200 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | 150 | 16 | 510 | 7.1 | .1 | 1 | 22.0 | |
| 40 | -- | | | -- | 150 | 250 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | 150 | 16 | 510 | 7.1 | .2 | 2 | 22.0 | |
| 48 | 7.4 | | | .29 | 560 | 290 | 37 | 5.0 | 4.7 | 108 | 55 | 47 | .4 | .4 | .5 | .10 | .75 | 236 | 110 | 24 | 460 | 7.0 | .2 | 2 | 21.5 |

TABLE 10.--Chemical-quality survey of Livingston Reservoir, May 19, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 126.85 ft. Contents, 1,463,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|--------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|-----------------------|---------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | Percent saturation | |
| H _C | May 19, 1971 | 1 | 5.5 | 0.08 | 40 | 40 | 38 | 4.8 | 47 | 114 | 54 | 47 | 0.4 | 0.2 | 0.10 | 0.80 | 254 | 120 | 21 | 460 | 9.4 | 19.5 | 238 | 26.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 9.1 | 16.0 | 195 | 26.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 480 | 7.5 | 5.0 | 57 | 23.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.2 | 3.1 | 35 | 22.5 | |
| | | 37 | 11 | .30 | 60 | 1100 | 36 | 5.0 | 45 | 100 | 58 | 46 | .3 | .2 | .04 | .90 | 253 | 110 | 28 | 440 | 6.9 | .1 | 1 | 21.5 | |
| I _C | May 19 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 450 | 7.6 | 7.2 | 86 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.0 | .8 | 9 | 22.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.0 | .1 | 1 | 21.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.0 | .1 | 1 | 21.5 | |
| | | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.0 | .2 | 2 | 21.5 | |
| J _C | May 19 | 1 | 8.3 | .05 | 20 | 10 | 38 | 4.3 | 43 | 98 | 59 | 39 | .4 | 2.2 | .10 | .88 | 250 | 110 | 32 | 450 | 8.1 | 10.0 | 120 | 25.5 | |
| | | 5 | -- | .09 | 40 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | 2.2 | .08 | .88 | -- | -- | -- | 450 | 7.2 | 3.9 | 45 | 23.5 |
| | | 10 | -- | -- | 50 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 460 | 7.0 | .4 | 5 | 22.5 |
| | | 20 | -- | -- | 60 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.0 | .1 | 1 | 21.5 |
| | | 30 | -- | -- | 130 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 470 | 7.0 | .1 | 1 | 21.0 |
| 38 | 11 | .59 | 40 | 40 | 37 | 4.0 | 48 | 117 | 50 | 45 | .4 | .8 | .08 | 1.4 | 258 | 110 | 13 | 470 | 7.0 | .4 | 4 | 21.0 | | | |

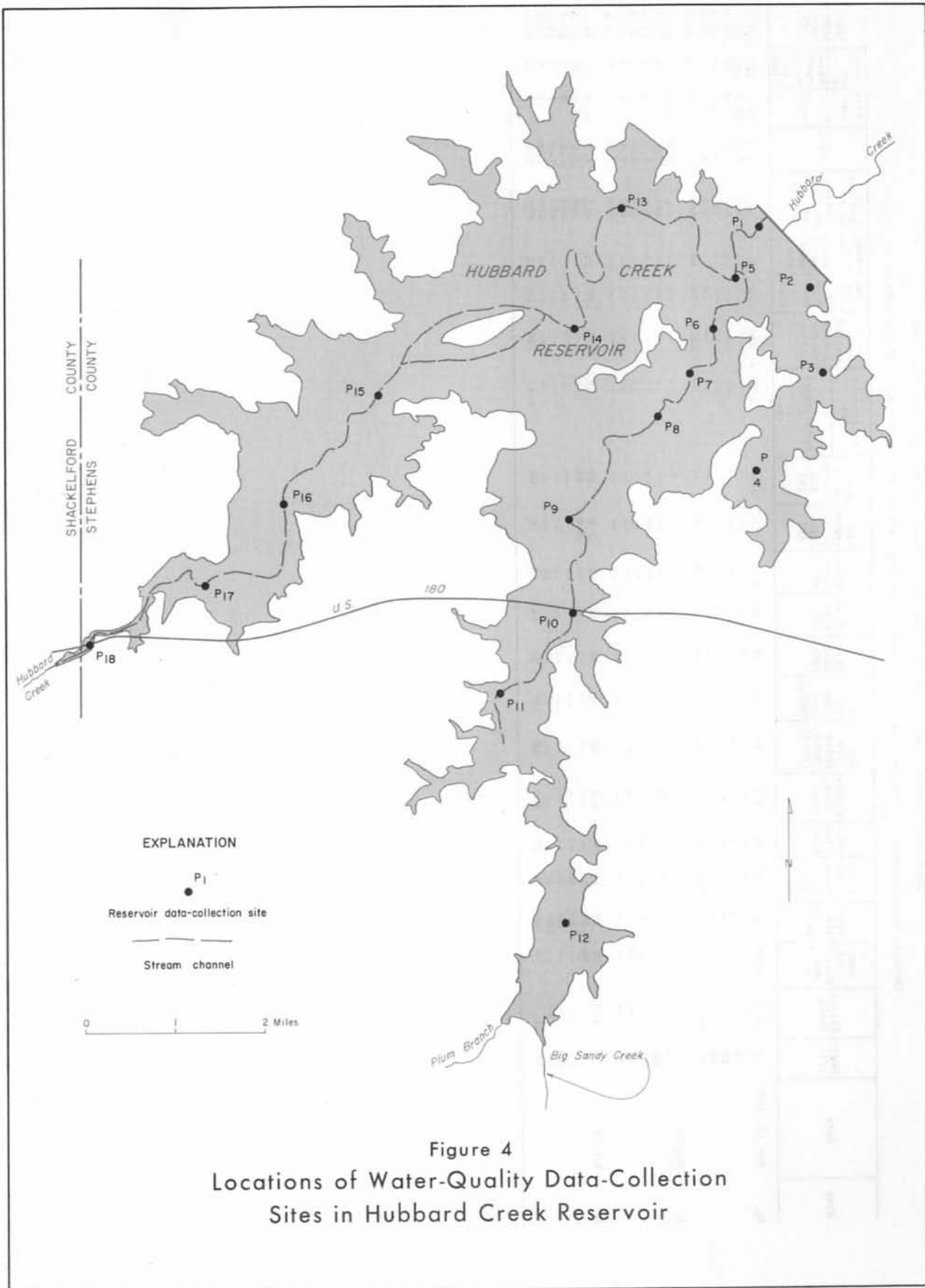


Figure 4
 Locations of Water-Quality Data-Collection
 Sites in Hubbard Creek Reservoir

TABLE 11.--Chemical-quality survey of Hubbard Creek Reservoir, February 9, 1970
(Results in milligrams per liter except as indicated. Elevation, 1178.9 ft. Contents, 259,400 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nium (Mg) | Sodium plus potas- sium (Na+K) | Bic- ar- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- per- ature (°C) |
|------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|----------------------|--|---|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|-----------------------------|--|------|-----------------------------|---------------------------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- mag- ne- sium | | | mg/l | per- cent satu- ration | |
| P-1 | Feb. 9, 1970 | 1 | 4.0 | | 0 | 0 | 65 | 14 | 82 | 135 | 31 | 180 | 0.3 | 0.1 | | | 443 | 220 | 109 | 840 | 8.5 | 11.8 | 102 | 9.0 | |
| | | 10 | | | 0 | 0 | | | | | | | | | | | | | | | 840 | 8.5 | 11.8 | 102 | 9.0 |
| | | 20 | | | 0 | 0 | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 101 | 9.0 |
| | | 30 | | | 0 | 0 | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 101 | 9.0 |
| | | 40 | | | 0 | 0 | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 101 | 9.0 |
| | | 50 | | | 0 | 0 | | | | | | | | | | | | | | | 840 | 8.5 | 11.6 | 100 | 9.0 |
| | | 77 | | 4.3 | | 0 | 0 | 65 | 14 | 82 | 135 | 31 | 180 | .3 | .1 | | | 443 | 220 | 109 | 840 | 8.5 | 11.2 | 97 | 9.0 |
| P-3 | Feb. 9 | 1 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 104 | 10.5 | |
| | | 10 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 105 | 11.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.6 | 104 | 10.5 | |
| | | 29 | | | | | | | | | | | | | | | | | | 840 | 8.6 | 11.2 | 101 | 11.0 | |
| P-5 | Feb. 9 | 1 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.8 | 104 | 10.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 104 | 10.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.7 | 104 | 10.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.6 | 103 | 10.0 | |
| | | 40 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.3 | 99 | 9.5 | |
| | | 58 | | | | | | | | | | | 181 | | | | | | | 840 | 8.5 | 11.1 | 98 | 10.0 | |
| P-7 | Feb. 9 | 1 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.9 | 105 | 10.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.9 | 105 | 10.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.8 | 104 | 10.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.6 | 102 | 9.5 | |
| P-9 | Feb. 9 | 1 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.5 | 101 | 9.5 | |
| | | 10 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.5 | 101 | 9.5 | |
| | | 20 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.3 | 99 | 9.5 | |
| | | 38 | | | | | | | | | | | | | | | | | | 840 | 8.5 | 11.4 | 101 | 10.0 | |
| P-10 | Feb. 9 | 1 | | | 0 | 0 | | | | | | | | | | | | | | 830 | 8.5 | 11.6 | 100 | 9.0 | |
| | | 10 | | | 0 | 0 | | | | | | | | | | | | | | 830 | 8.5 | 11.5 | 97 | 8.5 | |
| | | 20 | | | 0 | 0 | | | | | | | | | | | | | | 830 | 8.5 | 11.7 | 101 | 9.0 | |
| | | 35 | | 3.8 | 0 | 0 | 64 | 14 | 79 | 132 | 30 | 176 | .3 | .1 | | | 432 | 217 | 109 | 800 | 8.4 | 11.0 | 92 | 8.0 | |
| P-11 | Feb. 9 | 1 | 3.8 | | | | 63 | 13 | 78 | 129 | 30 | 173 | .2 | .0 | | | 424 | 210 | 105 | 790 | 8.4 | 11.2 | 97 | 9.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 790 | 8.4 | 11.2 | 97 | 9.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 790 | 8.4 | 11.2 | 97 | 9.0 | |
| | | 28 | | | | | | | | | | | | | | | | | | 790 | 8.4 | 11.0 | 95 | 9.0 | |
| P-15 | Feb. 9 | 1 | | | | | | | | | | 188 | | | | | | | | 850 | 8.6 | 11.8 | 104 | 10.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 850 | 8.6 | 11.7 | 104 | 10.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 850 | 8.5 | 11.6 | 104 | 10.5 | |
| | | 32 | | | | | | | | | | | | | | | | | | 850 | 8.5 | 11.2 | 101 | 11.0 | |

TABLE 11.--Chemical-quality survey of Hubbard Creek Reservoir, February 9, 1970--Continued

(Results in milligrams per liter except as indicated. Elevation, 1178.9 ft. Contents, 259,400 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) (mg) | Magnesium (Mg) (mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|-------------------|---------------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-----------------|---|------|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium-magnesium | Non-bicarbonate | | | mg/l | Percent saturation | | |
| P-16 | Feb. 9, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | 254 | 142 | -- | 880 | 8.6 | 11.7 | 105 | 11.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 930 | 8.5 | 11.5 | 105 | 11.0 |
| | | 32 | -- | -- | -- | -- | 75 | 17 | 146 | 43 | 208 | -- | -- | -- | -- | -- | -- | -- | 257 | 138 | -- | 930 | 8.4 | 11.0 | 99 | 11.0 |
| P-17 | Feb. 9 | 1 | 2.9 | 0 | 0 | 74 | 17 | 93 | 137 | 44 | 211 | 0.2 | 0.1 | -- | -- | -- | -- | 925 | 421 | 286 | 1700 | 8.5 | 11.6 | 109 | 13.0 | |
| | | 10 | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 215 | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.5 | 10.6 | 98 | 12.0 | |
| | | 15 | -- | 0 | 0 | -- | -- | 235 | -- | -- | -- | 315 | -- | -- | -- | -- | -- | -- | -- | -- | 1020 | 8.2 | 9.9 | 88 | 10.5 | |
| | | 24 | 4.4 | 0 | 0 | 96 | 26 | 151 | 69 | 315 | -- | 87 | 420 | .2 | .3 | -- | -- | -- | 925 | 421 | 286 | 1700 | 8.2 | 9.0 | 82 | 11.5 |
| P-18 | Feb. 9 | 1 | 3.9 | -- | -- | 76 | 20 | 101 | 134 | 54 | 230 | .2 | .3 | -- | -- | -- | -- | 552 | 272 | 162 | 1000 | 8.6 | 11.0 | 104 | 13.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 8.5 | 11.1 | 104 | 12.5 | |
| | | 12 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.2 | 9.6 | 87 | 11.5 | |
| | | 15 | 3.8 | -- | -- | 132 | 37 | 212 | 170 | 100 | 495 | .2 | .2 | -- | -- | -- | -- | 1060 | 482 | 342 | 1850 | 8.2 | 9.7 | 91 | 12.5 | |

TABLE 12.--Chemical-quality survey of Hubbard Creek Reservoir, July 15, 1970
(Results in milligrams per liter except as indicated. Elevation, 1177.8 ft. Contents, 245,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|---|-----|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | percent saturation | | |
| P-1 | July 15, 1970 | 1 | 4.1 | 0.00 | 20 | 0 | 66 | 15 | 90 | 125 | 37 | 198 | 0.3 | 0.0 | 0.00 | 0.00 | 0.00 | 471 | 226 | 124 | 900 | 8.7 | 8.6 | 113 | 30.0 | |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | 198 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.6 | 7.8 | 100 | 28.5 |
| | | 20 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | 198 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.5 | 7.6 | 97 | 28.5 |
| | | 30 | --- | --- | 10 | 0 | --- | --- | --- | --- | --- | 196 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.3 | 6.5 | 82 | 28.0 |
| | | 40 | --- | --- | 10 | 190 | --- | --- | --- | --- | --- | 189 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.6 | 1.0 | 12 | 24.0 |
| P-2 | July 15 | 50 | --- | --- | 40 | 1400 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.6 | 1.1 | 24.0 | 24.0 | |
| | | 65 | 8.0 | 1.3 | 0 | 2600 | 72 | 14 | 87 | 165 | 26 | 190 | .3 | .2 | .00 | .00 | .22 | 484 | 237 | 102 | 930 | 7.7 | 1.1 | 22.0 | 22.0 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.5 | 8.0 | 103 | 29.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.5 | 7.6 | 96 | 28.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.3 | 7.0 | 89 | 28.0 |
| P-4 | July 15 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 199 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.2 | 6.4 | 81 | 28.0 |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.1 | 5.8 | 73 | 28.0 |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.6 | 8.1 | 104 | 28.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.3 | 7.0 | 86 | 27.5 |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.3 | 6.8 | 85 | 27.5 |
| P-6 | July 15 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.7 | 8.4 | 108 | 29.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.6 | 8.3 | 105 | 28.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.5 | 7.5 | 95 | 28.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.2 | 6.1 | 75 | 27.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.7 | 1.7 | 21 | 26.5 |
| P-8 | July 15 | 45 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 193 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.7 | 1.8 | 22 | 26.0 |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.6 | 8.3 | 106 | 29.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.5 | 7.2 | 91 | 28.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.2 | 5.8 | 72 | 27.5 |
| | | 33 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.0 | 5.0 | 62 | 27.5 |
| P-9 | July 15 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.7 | 7.8 | 100 | 28.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.6 | 7.4 | 92 | 27.5 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.4 | 5.9 | 74 | 27.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.1 | 4.2 | 52 | 27.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.1 | 4.2 | 52 | 27.5 |
| P-10 | July 15 | 1 | 4.6 | .00 | 20 | 69 | 15 | 90 | 132 | 37 | 200 | .3 | .0 | .00 | .00 | .00 | .00 | 481 | 234 | 126 | 900 | 8.6 | 8.5 | 112 | 30.0 | |
| | | 10 | --- | --- | 70 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.5 | 7.6 | 96 | 28.0 |
| | | 20 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.4 | 6.5 | 82 | 28.0 |
| | | 31 | --- | --- | .00 | 0 | --- | --- | --- | 134 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.2 | 5.4 | 68 | 27.5 |
| | | 31 | --- | --- | .00 | 0 | --- | --- | --- | 134 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.2 | 5.4 | 68 | 27.5 |
| P-11 | July 15 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 940 | 8.6 | 8.1 | 107 | 30.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 8.4 | 6.3 | 80 | 28.0 |
| | | 21 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.8 | 2.1 | 27 | 28.0 |
| | | 1 | 5.0 | .00 | 10 | 0 | 75 | 16 | 105 | 142 | 41 | 228 | .3 | .0 | .00 | .00 | .05 | 540 | 253 | 136 | 1000 | 8.6 | 8.5 | 109 | 29.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.9 | 2.8 | 35 | 27.5 |
| P-14 | July 15 | 16 | --- | --- | .23 | 0 | 20 | --- | --- | 142 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 900 | 7.8 | 1.6 | 20 | 27.5 |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 800 | 8.7 | 8.3 | 108 | 29.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 800 | 8.7 | 8.2 | 105 | 29.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 800 | 8.6 | 7.3 | 94 | 28.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 800 | 8.5 | 6.8 | 86 | 28.0 |
| 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 800 | 8.4 | 6.5 | 83 | 29.0 | |

TABLE 12.--Chemical-quality survey of Hubbard Creek Reservoir, July 15, 1970--Continued
 (Results in milligrams per liter except as indicated. Elevation, 1177.8 ft. Contents, 245,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | |
|------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|---------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium, magnesium, silica | Non- carbonate | | | mg/l | Per- cent satu- ration | | |
| P-15 | July 15, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 800 | 8.6 | 8.2 | 105 | 29.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 800 | 8.6 | 7.9 | 100 | 28.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 202 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 800 | 8.5 | 7.3 | 92 | 28.0 |
| P-16 | July 15 | 1 | 4.3 | 0.00 | 0 | 0 | 68 | 15 | 91 | 127 | 37 | 202 | 0.3 | 0.0 | 0.00 | -- | -- | 0.01 | 480 | 231 | 127 | 850 | 8.4 | 8.2 | 105 | 29.0 |
| | | 10 | -- | -- | 40 | 0 | -- | -- | -- | -- | -- | -- | 205 | -- | -- | -- | -- | -- | -- | -- | -- | 900 | 8.4 | 7.6 | 96 | 28.0 |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 900 | 8.1 | 5.4 | 68 | 28.0 |
| | | 30 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 900 | 8.0 | 4.6 | 58 | 28.0 |
| P-17 | July 15 | 35 | -- | .22 | 80 | 10 | -- | -- | -- | 132 | -- | 202 | -- | .0 | .00 | -- | -- | .06 | -- | 226 | 118 | 900 | 7.9 | 3.8 | 48 | 28.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 260 | -- | -- | -- | -- | -- | -- | -- | -- | 900 | 8.1 | 5.6 | 73 | 29.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 800 | 7.8 | 3.3 | 42 | 28.0 |
| P-18 | July 15 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.5 | .7 | 9 | 28.0 |
| | | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 352 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 7.4 | .7 | 9 | 28.0 |
| | | 1 | -- | .00 | 60 | 0 | -- | -- | -- | -- | 144 | -- | 410 | -- | .0 | .00 | -- | .04 | -- | 376 | 258 | 1600 | 8.5 | 8.0 | 103 | 29.0 |
| P-18 | July 15 | 10 | -- | -- | 20 | 30 | -- | -- | -- | -- | -- | 455 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.8 | 3.4 | 44 | 29.0 |
| | | 16 | 7.0 | .00 | 10 | 560 | 117 | 39 | 229 | 155 | 106 | 505 | .3 | .1 | .00 | -- | -- | .14 | 1080 | 452 | 326 | 1900 | 7.4 | .1 | 1 | 28.5 |

TABLE 13.--Chemical-quality survey of Hubbard Creek Reservoir, September 19, 1970
(Results in milligrams per liter except as indicated. Elevation, 1176.6 ft. Contents, 230,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|----------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|-----|-----------------------------|-----------------------|---------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | percent saturation | | |
| P-1 | Sept. 19, 1970 | 1 | 4.8 | 0.00 | 10 | 0 | 68 | 16 | 95 | 126 | 38 | 212 | 0.3 | 0.0 | 0.0 | 0.02 | 496 | 236 | 132 | 955 | 8.1 | 7.6 | 94 | 27.0 | | |
| | | 10 | -- | -- | 0 | -- | -- | -- | -- | -- | -- | 215 | -- | -- | -- | -- | -- | -- | -- | 955 | 8.1 | 7.6 | 94 | 27.0 | | |
| | | 20 | -- | -- | 50 | -- | -- | -- | -- | -- | -- | 212 | -- | -- | -- | -- | -- | -- | -- | 955 | 8.0 | 7.0 | 86 | 27.0 | | |
| | | 30 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | -- | 955 | 7.8 | 6.2 | 76 | 26.5 | | |
| | | 40 | -- | -- | 10 | 30 | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | -- | 955 | 7.7 | 5.7 | 70 | 26.0 | | |
| P-3 | Sept. 19 | 50 | -- | .00 | 10 | 130 | -- | -- | -- | -- | 215 | -- | -- | -- | .00 | .03 | -- | -- | 495 | 244 | 95 | 955 | 7.2 | 5.2 | 63 | 26.0 |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 945 | 7.2 | 1.2 | 14 | 25.0 |
| | | 63 | 9.6 | 2.1 | 10 | 7000 | 73 | 15 | 87 | 181 | 16 | 195 | .3 | .0 | .00 | .12 | 495 | 244 | 95 | 955 | 7.2 | .2 | 2 | 22.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 215 | -- | -- | -- | -- | -- | -- | -- | 955 | 8.1 | 8.1 | 100 | 27.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.8 | 6.4 | 78 | 26.0 | | |
| P-4 | Sept. 19 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.8 | 6.2 | 76 | 26.0 | | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.5 | 4.7 | 57 | 26.0 | | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.5 | 3.9 | 48 | 26.0 | | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 215 | -- | -- | -- | -- | -- | -- | 955 | 8.1 | 8.2 | 101 | 27.0 | | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.3 | 2.8 | 34 | 26.0 | | | |
| P-6 | Sept. 19 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | -- | 950 | 8.1 | 7.9 | 98 | 27.0 | | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | 950 | 8.1 | 7.6 | 93 | 26.5 | | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.9 | 6.6 | 80 | 26.0 | | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.8 | 6.4 | 78 | 26.0 | | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.8 | 6.1 | 74 | 26.0 | | | |
| P-8 | Sept. 19 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.8 | 5.6 | 68 | 26.0 | | | |
| | | 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.3 | .2 | 2 | 25.0 | | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.2 | 8.4 | 106 | 28.0 | | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.1 | 7.8 | 96 | 27.0 | | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.9 | 7.1 | 87 | 26.5 | | | |
| P-9 | Sept. 19 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.7 | 6.0 | 73 | 26.0 | | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.6 | 5.6 | 68 | 26.0 | | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.6 | 5.2 | 63 | 26.0 | | | |
| | | 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | 950 | 7.7 | 3.9 | 48 | 26.0 | | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | 950 | 8.1 | 8.4 | 105 | 27.5 | | | |
| P-10 | Sept. 19 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.1 | 7.8 | 95 | 26.5 | | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.8 | 6.2 | 76 | 26.0 | | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.7 | 5.2 | 63 | 26.0 | | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.6 | 4.8 | 59 | 26.0 | | | |
| | | 1 | 5.0 | .00 | 10 | 30 | 68 | 16 | 97 | 124 | 36 | 218 | .3 | .0 | .00 | .03 | 501 | 236 | 134 | 950 | 8.3 | 9.0 | 114 | 28.0 | | |
| P-11 | Sept. 19 | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | 220 | -- | -- | -- | -- | -- | -- | -- | 955 | 8.3 | 8.6 | 106 | 27.0 | | | |
| | | 20 | -- | .00 | 30 | 0 | -- | -- | 130 | -- | 242 | -- | -- | -- | .00 | .05 | -- | -- | 136 | 955 | 7.8 | 5.4 | 66 | 26.0 | | |
| | | 30 | -- | -- | 10 | 90 | -- | -- | -- | -- | 220 | -- | -- | -- | -- | -- | -- | -- | 955 | 7.5 | 4.2 | 51 | 26.0 | | | |
| | | 38 | 4.8 | .00 | 10 | 160 | 78 | 16 | 90 | 131 | 38 | 218 | .3 | .0 | .00 | .10 | 509 | 260 | 153 | 955 | 7.5 | 3.9 | 48 | 26.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | 980 | 8.3 | 8.8 | 110 | 27.5 | | | |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 980 | 8.0 | 7.3 | 89 | 26.5 | | | | | |
| 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 995 | 7.4 | 3.5 | 43 | 26.0 | | | | | |
| 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 995 | 7.4 | 2.6 | 32 | 26.0 | | | | | |

TABLE 13.--Chemical-quality survey of Hubbard Creek Reservoir, September 19, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 1176.6 ft. Contents, 230,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gane- se (Mn) (µg/l) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | |
|------|----------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|-----------------------------|--|------|-----------------------------|---------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- mag- ne- sium | | | mg/l | Per- cent satu- ration | | |
| P-12 | Sept. 19, 1970 | 1 | -- | 0.00 | 460 | 30 | -- | -- | -- | 129 | -- | 230 | -- | -- | 0.1 | 0.00 | 0.05 | -- | 249 | 144 | 1010 | 8.2 | 9.0 | 115 | 29.0 | |
| | | 5 | -- | .15 | 10 | 0 | -- | -- | -- | -- | 225 | -- | 225 | -- | .0 | .00 | .04 | -- | -- | -- | 1010 | 8.1 | 7.9 | 96 | 26.5 | |
| | | 10 | -- | -- | 80 | 30 | -- | -- | -- | -- | 228 | -- | 228 | -- | -- | -- | -- | -- | -- | -- | 1010 | 7.4 | 3.6 | 44 | 26.0 | |
| | | 15 | -- | -- | 300 | 260 | -- | -- | -- | -- | 232 | -- | 232 | -- | -- | -- | -- | -- | -- | -- | 1010 | 7.2 | 2.2 | 27 | 26.0 | |
| P-13 | Sept. 19 | 23 | 4.6 | .45 | 60 | 660 | 80 | 16 | 100 | 139 | 41 | 232 | 0.3 | .18 | .0 | .00 | .18 | 543 | 266 | 152 | 1010 | 7.1 | .5 | 6 | 26.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 215 | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.1 | 7.7 | 97 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.0 | 7.2 | 89 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.8 | 6.0 | 74 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.8 | 5.6 | 69 | 27.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.7 | 4.6 | 56 | 26.5 | |
| P-14 | Sept. 19 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.4 | 3.0 | 37 | 26.0 | |
| | | 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.3 | .2 | 2 | 25.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 953 | 8.2 | 8.2 | 102 | 27.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 953 | 8.2 | 8.0 | 99 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 953 | 7.8 | 6.0 | 73 | 26.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 953 | 7.7 | 5.2 | 63 | 26.0 | |
| P-15 | Sept. 19 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 953 | 7.6 | 5.0 | 61 | 26.0 | |
| | | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | -- | -- | 953 | 7.6 | 4.8 | 59 | 26.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.2 | 8.4 | 105 | 27.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 218 | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 8.2 | 8.1 | 100 | 27.0 | |
| P-16 | Sept. 19 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.7 | 4.9 | 60 | 26.0 | |
| | | 32 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 955 | 7.4 | 3.1 | 38 | 26.0 | |
| | | 1 | -- | .00 | 70 | 20 | -- | -- | -- | -- | 124 | -- | 220 | -- | .04 | .1 | .00 | .04 | -- | 240 | 138 | 955 | 8.2 | 8.0 | 101 | 28.0 |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | 220 | -- | -- | .0 | .00 | .06 | -- | -- | -- | 970 | 7.8 | 4.1 | 50 | 26.0 |
| | | 29 | 4.7 | .52 | 0 | 360 | 72 | 16 | 96 | 125 | 38 | 222 | .3 | .11 | .1 | .00 | .11 | 511 | 246 | 143 | 975 | 7.3 | 2.2 | 27 | 26.0 | |
| P-17 | Sept. 19 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 248 | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 7.5 | 95 | 28.0 | |
| | | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.2 | 1.4 | 17 | 26.0 | |
| P-18 | Sept. 19 | 1 | -- | .00 | 180 | 0 | -- | -- | -- | 146 | -- | 348 | -- | .05 | .1 | .00 | .05 | -- | 340 | 220 | 1380 | 8.1 | 7.2 | 89 | 27.0 | |
| | | 5 | -- | -- | 50 | 0 | -- | -- | -- | -- | -- | 350 | -- | -- | -- | -- | -- | -- | -- | -- | 1390 | 7.9 | 6.9 | 85 | 27.0 | |
| | | 10 | -- | .00 | 20 | 30 | -- | -- | -- | -- | -- | 402 | -- | .07 | .0 | .00 | .07 | -- | -- | -- | 1570 | 7.3 | 1.2 | 15 | 27.0 | |
| | | 15 | -- | -- | 40 | 450 | -- | -- | -- | -- | -- | 420 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1600 | 7.1 | .2 | 2 | 27.0 |
| P-19 | Sept. 19 | 18 | 6.7 | .00 | 60 | 660 | 104 | 30 | 188 | 150 | 75 | 418 | .3 | .10 | .00 | .10 | 897 | 383 | 260 | 1600 | 7.1 | .2 | 2 | 27.0 | | |

TABLE 14.--Chemical-quality survey of Hubbard Creek Reservoir, January 27-28, 1971
(Results in milligrams per liter except as indicated. Elevation, 1175.0 ft. Contents, 211,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Calc.) (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphate phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|-----------------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|--|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|--------------------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|------------|---------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | saturation | | |
| P ₁ | Jan. 28, 1971 | 1 | 4.3 | 0.00 | 0 | 0 | 75 | 17 | 100 | 137 | 39 | 230 | 0.3 | 0.0 | 0.00 | 0.00 | 0.00 | 533 | 260 | 140 | 1050 | 7.9 | 10.4 | 87 | 8.0 | |
| | | 5 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.4 | 87 | 7.5 |
| | | 25 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 8.0 | 10.4 | 87 | 8.0 |
| | | 45 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 8.0 | 10.4 | 87 | 7.5 |
| | | 55 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.3 | 86 | 7.5 |
| P ₃ | Jan. 28 | 1 | 4.2 | .00 | 0 | 0 | 74 | 17 | 100 | 136 | 40 | 230 | .3 | .1 | .00 | .00 | .00 | 533 | 250 | 140 | 1060 | 7.9 | 10.6 | 88 | 7.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.6 | 91 | 9.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.9 | 10.4 | 87 | 7.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.9 | 10.6 | 88 | 7.5 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.4 | 92 | 10.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.4 | 90 | 9.0 |
| P ₆ | Jan. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.7 | 92 | 9.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.6 | 89 | 8.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.6 | 89 | 8.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.6 | 89 | 8.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.5 | 88 | 7.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 10.6 | 88 | 7.5 | |
| P ₈ | Jan. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.6 | 91 | 9.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.6 | 89 | 8.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.4 | 87 | 8.0 | |
| | | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.8 | 10.3 | 87 | 8.0 | |
| P ₉ | Jan. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.6 | 91 | 9.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 88 | 8.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.6 | 89 | 8.0 | |
| P ₁₀ | Jan. 28 | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | .0 | .00 | .00 | .00 | -- | -- | -- | 1060 | 7.9 | 10.6 | 91 | 9.0 | |
| | | 5 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 10.5 | 91 | 9.0 | |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.8 | 10.3 | 87 | 8.0 | |
| | | 25 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.8 | 10.3 | 87 | 8.0 | |
| | | 36 | -- | -- | .00 | 0 | 0 | -- | -- | -- | -- | 230 | -- | -- | .0 | .00 | .00 | .00 | -- | -- | -- | 1070 | 7.7 | 10.6 | 89 | 8.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.9 | 10.5 | 91 | 9.0 | |
| P ₁₁ | Jan. 27, | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.9 | 10.6 | 91 | 9.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.9 | 10.7 | 92 | 9.0 | |
| | | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.9 | 10.8 | 93 | 9.0 | |
| | | 1 | 3.0 | .00 | 0 | 0 | 79 | 18 | 100 | 142 | 43 | 240 | .3 | .0 | .00 | .00 | .00 | 553 | 270 | 150 | 1120 | 7.8 | 10.0 | 86 | 9.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.8 | 10.1 | 87 | 9.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.8 | 10.1 | 87 | 9.0 |
| P ₁₂ | Jan. 27 | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.8 | 10.2 | 86 | 8.0 | |
| | | 22 | -- | -- | .00 | 0 | 0 | -- | -- | -- | -- | 230 | -- | .1 | .00 | .00 | .00 | -- | -- | -- | 1120 | 7.8 | 10.3 | 87 | 8.0 | |

TABLE 14.--Chemical-quality survey of Hubbard Creek Reservoir, January 27-28, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 1175.0 ft. Contents, 211,000 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Calc.) (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphate (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|-----------------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|--|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|-----------------------|---------------------|------|-----|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | Percent saturation | | | |
| P ₁₃ | Jan. 28, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 90 | 8.0 | 10.6 | 90 | 8.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 89 | 8.0 | 10.6 | 89 | 8.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 89 | 8.0 | 10.6 | 89 | 8.0 | |
| | | 49 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 7.5 | |
| P ₁₄ | Jan. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 7.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 89 | 8.0 | 10.6 | 89 | 8.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 89 | 8.0 | 10.6 | 89 | 8.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 230 | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 7.5 | |
| P ₁₅ | Jan. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 8.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 7.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 7.5 | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.6 | 10.6 | 88 | 8.0 | 10.6 | 88 | 7.5 | |
| P ₁₆ | Jan. 28 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | 0.0 | 0.00 | 0.00 | 0.00 | -- | 10.4 | 10.4 | 88 | 8.1 | 10.4 | 88 | 8.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.4 | 10.4 | 87 | 8.0 | 10.4 | 87 | 8.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.4 | 10.4 | 87 | 8.0 | 10.4 | 87 | 8.0 | |
| | | 29 | 3.3 | .00 | 0 | 0 | 77 | 18 | 100 | 138 | 42 | 230 | 0.3 | 0.00 | 539 | 270 | 150 | 1050 | 8.0 | 10.1 | 85 | 8.0 | 10.1 | 85 | 8.0 | | |
| P ₁₇ | Jan. 27 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | 250 | -- | -- | -- | -- | -- | -- | -- | -- | 10.3 | 10.3 | 91 | 7.8 | 10.3 | 91 | 10.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.2 | 10.2 | 90 | 10.0 | 10.2 | 90 | 10.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.9 | 9.9 | 85 | 9.0 | 9.9 | 85 | 9.0 | |
| | | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.4 | 8.4 | 71 | 8.5 | 8.4 | 71 | 8.5 | |
| P ₁₈ | Jan. 27 | 1 | 2.3 | .00 | 50 | 0 | 97 | 25 | 130 | 156 | 69 | 310 | .3 | 0 | .01 | .00 | .00 | .00 | 711 | 340 | 220 | 1400 | 7.7 | 9.7 | 85 | 9.5 | |
| | | 5 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 310 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 7.7 | 9.6 | 81 | 8.5 |
| | | 10 | -- | -- | 80 | 0 | -- | -- | -- | -- | -- | 380 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1700 | 7.5 | 8.4 | 72 | 9.0 |
| | | 17 | 3.0 | .12 | 300 | 0 | 120 | 32 | 170 | 174 | 110 | 400 | .3 | .7 | .01 | .00 | .00 | .00 | 925 | 440 | 300 | 1750 | 7.4 | 8.4 | 72 | 9.0 | |

TABLE 15.--Chemical-quality survey of Hubbard Creek Reservoir, June 8, 1971
 (Results in milligrams per liter except as indicated. Elevation, 1174.9 ft. Contents, 209,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ Calcium, carbonate | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) mg/l | Temperature (°C) | | |
|-----------------|--------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|--|---|------|-------------------------------------|---------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | | | | |
| P ₁ | June 8, 1971 | 1 | 1.8 | 0.00 | 0 | 0 | 78 | 18 | 110 | 140 | 45 | 240 | 0.3 | 0.0 | 0.00 | 0.00 | 0.00 | 567 | 270 | 150 | 1080 | 7.9 | 8.1 | 99 | 25.5 |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.9 | 8.1 | 99 | 25.5 |
| | | 20 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.9 | 8.1 | 99 | 25.0 |
| | | 30 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | 240 | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.8 | 7.8 | 93 | 25.0 |
| | | 40 | -- | -- | 0 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.1 | 7.1 | 85 | 24.5 |
| | | 45 | -- | -- | 0.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.03 | -- | -- | -- | -- | 1090 | 7.4 | 7.4 | 64 | 24.0 |
| P ₄ | June 8 | 50 | -- | -- | 30 | 170 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.2 | 7.2 | 3.3 | 22.0 | |
| | | 62 | 2.9 | .23 | 0 | 380 | 81 | 19 | 110 | 149 | 44 | 250 | .3 | .1 | .04 | .36 | .582 | 280 | 160 | 1100 | 7.2 | 7.2 | 2.6 | 29 | 21.5 |
| | | 1 | -- | -- | 0.00 | 30 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | -- | -- | -- | 1090 | 7.9 | 7.9 | 95 | 25.5 | |
| | | 5 | -- | -- | 0.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.02 | -- | -- | -- | 1090 | 7.8 | 7.8 | 93 | 25.0 | |
| | | 11 | -- | -- | 0.00 | 1200 | 100 | -- | -- | -- | -- | -- | 250 | -- | -- | .02 | .46 | -- | -- | 1110 | 7.5 | 7.5 | 6.6 | 79 | 25.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.9 | 7.9 | 8.3 | 100 | 25.5 |
| P ₆ | June 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.9 | 7.9 | 8.1 | 96 | 25.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.8 | 7.8 | 93 | 25.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.7 | 7.7 | 91 | 24.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.5 | 7.5 | 65 | 24.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.5 | 7.5 | 5.5 | 65 | 24.0 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.1 | 7.1 | 3.7 | 43 | 23.0 |
| P ₉ | June 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1040 | 7.7 | 7.6 | 9.0 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1040 | 7.7 | 7.6 | 9.0 | 24.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.7 | 7.2 | 8.5 | 24.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.6 | 6.9 | 8.1 | 24.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.3 | 4.2 | 4.8 | 23.0 | |
| | | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.2 | 2.7 | 3.1 | 23.0 | |
| P ₁₀ | June 8 | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | 230 | -- | -- | .01 | -- | -- | -- | -- | 1030 | 7.8 | 8.0 | 9.5 | 25.0 | |
| | | 10 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1030 | 7.7 | 7.7 | 9.2 | 25.0 | |
| | | 20 | -- | -- | 10 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1030 | 7.6 | 7.0 | 8.2 | 24.0 | |
| | | 30 | -- | -- | 80 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.3 | 4.8 | 5.5 | 22.0 | |
| | | 36 | 2.9 | .16 | 0 | 250 | 77 | 17 | 110 | 141 | 43 | 240 | .3 | .1 | .02 | .02 | .551 | 260 | 150 | 1040 | 7.2 | 2.0 | 2.0 | 23 | 22.5 |
| | | 46 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 914 | 7.7 | 7.6 | 9.3 | 26.0 | |
| P ₁₁ | June 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 914 | 7.6 | 7.4 | 8.9 | 25.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 914 | 7.6 | 7.4 | 8.9 | 25.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1020 | 7.5 | 6.8 | 8.0 | 24.0 | |
| | | 28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1020 | 7.3 | 6.1 | 7.2 | 24.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 914 | 7.5 | 6.9 | 8.4 | 26.5 | |
| | | 5 | -- | -- | .18 | 10 | 10 | 59 | 11 | 67 | 120 | 32 | 140 | .3 | .3 | .03 | .10 | .379 | 190 | 94 | 718 | 7.4 | 6.5 | 7.9 | 26.0 |
| P ₁₂ | June 8 | 10 | -- | -- | 0 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 737 | 7.4 | 6.6 | 7.9 | 24.5 | |
| | | 15 | -- | -- | .16 | 0 | 30 | -- | -- | -- | -- | 180 | -- | -- | .02 | -- | -- | -- | -- | 859 | 7.4 | 6.4 | 6.4 | 24.5 | |
| | | 21 | 4.3 | .24 | 10 | 590 | 72 | 14 | 84 | 140 | 37 | 190 | .3 | .3 | .01 | .19 | .472 | 240 | 120 | 896 | 7.4 | 6.4 | 6.4 | 24.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 8.1 | 9.6 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 8.0 | 9.5 | 25.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.9 | 8.0 | 9.5 | 25.0 | |
| P ₁₃ | June 8 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.8 | 7.4 | 8.8 | 25.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.7 | 6.8 | 8.1 | 24.5 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.2 | 3.4 | 3.9 | 23.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 7.8 | 9.3 | 25.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 7.7 | 9.2 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.8 | 7.5 | 8.9 | 24.5 | |
| P ₁₅ | June 8 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.7 | 7.3 | 8.6 | 24.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.7 | 7.0 | 8.2 | 24.0 | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.7 | 7.0 | 8.2 | 24.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.5 | 5.4 | 6.4 | 24.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.9 | 7.8 | 9.3 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.9 | 7.7 | 9.2 | 25.0 | |

TABLE 15.--Chemical-quality survey of Hubbard Creek Reservoir, June 8, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 1174.9 ft. Contents, 209,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) | Manganese (Mn) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) |
|-----------------|--------------|---------------|-------------------------------|----------------------------|--------------|-------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|-----|-----------------------------|---------------------------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | Per- cent satu- ration | |
| P ₁₆ | June 8, 1971 | 1 | 2.1 | 0.00 | 0 | 0 | 76 | 18 | 110 | 138 | 45 | 240 | 0.3 | 0.1 | 0.00 | 0.03 | 562 | 260 | 150 | 1060 | 7.9 | 7.8 | 93 | 25.0 | |
| | | 5 | -- | -- | -- | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 7.7 | 92 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.9 | 7.4 | 87 | 24.0 | |
| | | 15 | -- | -- | -- | 20 | -- | -- | -- | -- | -- | 240 | -- | -- | -- | -- | -- | -- | -- | 1060 | 7.8 | 7.3 | 86 | 24.0 | |
| | | 20 | -- | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0.08 | -- | -- | -- | -- | 1060 | 7.8 | 7.3 | 86 | 24.0 | |
| P ₁₇ | June 8 | 24 | 16 | 1.0 | 0 | 1600 | 112 | 28 | 130 | 328 | 14 | 280 | .3 | .1 | .01 | 6.1 | 741 | 390 | 130 | 1330 | 7.1 | 4.6 | 54 | 24.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 93 | -- | -- | -- | -- | -- | -- | -- | 562 | 7.5 | 5.1 | 61 | 25.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 560 | 7.5 | 4.6 | 54 | 24.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 560 | 7.4 | 3.9 | 23.0 | 23.0 | |
| P ₁₈ | June 8 | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 550 | 7.3 | 1.6 | 18 | 22.0 | |
| | | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 552 | 7.3 | .6 | 7 | 21.5 | |
| | | 1 | 7.8 | .00 | 100 | 10 | 46 | 7.4 | 7.4 | 38 | 114 | 24 | 77 | .2 | .3 | .02 | .10 | 258 | 140 | 52 | 473 | 7.6 | 4.6 | 55 | 25.0 |
| | | 5 | -- | -- | 70 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 473 | 7.5 | 3.7 | 44 | 24.0 |
| P ₁₈ | June 8 | 10 | -- | -- | 200 | 40 | -- | -- | -- | -- | -- | 66 | -- | -- | -- | -- | -- | -- | -- | 427 | 7.3 | .2 | 2 | 23.0 | |
| | | 13 | 7.5 | .00 | 220 | 150 | 44 | 6.7 | 6.7 | 29 | 111 | 21 | 61 | .2 | .3 | .05 | .12 | 226 | 140 | 46 | 417 | 7.2 | .0 | 0 | 23.0 |

TABLE 16.--Chemical-quality survey of Hubbard Creek Reservoir, September 14, 1971
(Results in milligrams per liter except as indicated. Elevation, 1173.9 ft. Contents, 198,500 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitro- gen (N) | Iron (Fe) | Manganese (Mn) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potas- sium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitro- gen (N) | Nitrite nitro- gen (N) | Phosphorus (P) | | Dissolved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) |
|-----------------|----------------|---------------|-------------------------------|------------------------------|--------------|-------------------|-----------------|-------------------|--|------------------------------------|-------------------------------|------------------|-----------------|------------------------------|------------------------------|-------------------|-------|--|----------------------------------|----------------------|--|------|-----------------------------|-----------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium, mag- nesium | Non- bion- ate | | | mg/l | satur- ation | |
| P ₁ | Sept. 14, 1971 | 1 | 3.5 | 0.00 | 0 | 30 | 72 | 18 | 110 | 117 | 45 | 250 | 0.4 | 0.0 | 0.00 | 0.02 | 562 | 250 | 160 | 1080 | 8.1 | 10.4 | 130 | 27.5 | |
| | | 10 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 10.0 | 123 | 27.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 9.5 | 119 | 27.0 | |
| | | 30 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 7.7 | 94 | 26.5 | |
| | | 40 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 6.0 | 73 | 26.5 | |
| P ₄ | Sept. 14 | 45 | -- | .00 | 0 | 180 | -- | -- | -- | -- | -- | -- | -- | .03 | .00 | .29 | 581 | 280 | 140 | 1090 | 7.2 | 2 | 2 | 23.5 | |
| | | 50 | -- | -- | 620 | 2400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.1 | .2 | 2 | 24.5 | |
| | | 63 | 9.9 | 1.9 | 0 | 2700 | 82 | 19 | -- | 110 | 169 | 24 | 250 | .4 | .00 | .00 | .29 | 581 | 280 | 140 | 1120 | 7.0 | .4 | 5 | 23.0 |
| | | 1 | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 8.1 | 10.4 | 128 | 27.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 8.0 | 9.7 | 120 | 27.0 |
| P ₆ | Sept. 14 | 10 | -- | .00 | 0 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .06 | -- | -- | -- | 1120 | 7.4 | 2.9 | 35 | 26.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 11.0 | 138 | 27.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 10.5 | 130 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.0 | 9.8 | 121 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.2 | 100 | 26.5 | 26.5 | |
| P ₉ | Sept. 14 | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.3 | 2.7 | 33 | 26.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.3 | 2.7 | 33 | 26.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.2 | .4 | 5 | 23.5 | |
| | | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.2 | .7 | 8 | 23.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 10.2 | 128 | 27.5 | |
| P ₁₀ | Sept. 14 | 10 | -- | -- | 60 | 30 | 73 | 18 | 110 | 120 | 44 | 250 | .3 | .0 | .00 | .03 | 559 | 260 | 160 | 1080 | 8.2 | 11.4 | 142 | 27.5 | |
| | | 20 | -- | -- | 80 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.0 | 8.9 | 110 | 27.0 | |
| | | 30 | -- | -- | 0 | 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.7 | 7.6 | 93 | 26.5 | |
| | | 40 | -- | -- | 0 | 210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.7 | 7.0 | 85 | 26.5 | |
| | | 46 | -- | -- | 0 | 640 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.4 | 1.0 | 12 | 26.0 | |
| P ₁₁ | Sept. 14 | 1 | 4.1 | .00 | 60 | 30 | 73 | 18 | 110 | 120 | 44 | 250 | .3 | .0 | .00 | .03 | 559 | 260 | 160 | 1080 | 8.2 | 11.4 | 142 | 27.5 | |
| | | 10 | -- | -- | 80 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.2 | 10.9 | 136 | 27.5 | |
| | | 20 | -- | -- | 0 | 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.8 | 7.8 | 93 | 26.0 | |
| | | 30 | -- | -- | 0 | 210 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.8 | 6.6 | 74 | 26.0 | |
| | | 35 | -- | .00 | 1300 | 640 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .20 | -- | -- | -- | 1070 | 7.6 | 5.8 | 71 | 26.0 |
| P ₁₂ | Sept. 14 | 1 | -- | -- | 160 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 8.2 | 11.0 | 138 | 27.5 | |
| | | 5 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.6 | 7.9 | 90 | 26.5 | |
| | | 10 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.6 | 5.8 | 71 | 26.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1070 | 7.4 | 4.0 | 49 | 26.0 | |
| | | 18 | 4.7 | .00 | 620 | 370 | 74 | 18 | 130 | 128 | 42 | 240 | .3 | .13 | .03 | .10 | 631 | 260 | 150 | 1060 | 7.4 | 12.7 | 161 | 28.0 | |

TABLE 16.--Chemical-quality survey of Hubbard Creek Reservoir, September 14, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 1173.9 ft. Contents, 198,600 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | | |
|-----------------|----------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|---------------|---|------|-----------------------------|------------|---------------------|------|----|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium, carbonate | Non-carbonate | | | mg/l | saturation | | | | |
| P ₁₃ | Sept. 14, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 562 | 250 | 160 | 1080 | 8.0 | 9.9 | 122 | 27.0 | | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.0 | 9.8 | 120 | 26.5 | 9.8 | 120 | 26.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.8 | 9.0 | 110 | 26.5 | 9.0 | 110 | 26.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.8 | 8.7 | 106 | 26.5 | 8.7 | 106 | 26.5 | | |
| P ₁₅ | Sept. 14 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.4 | 5.7 | 70 | 26.0 | 5.7 | 70 | 26.0 | | | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1120 | 7.2 | .5 | 6 | 26.0 | .5 | 6 | 26.0 | | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.1 | 10.4 | 130 | 27.5 | 10.4 | 130 | 27.5 | | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.0 | 9.7 | 120 | 27.0 | 9.7 | 120 | 27.0 | | | |
| P ₁₆ | Sept. 14 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.8 | 8.5 | 104 | 26.5 | 8.5 | 104 | 26.5 | | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.6 | 6.6 | 80 | 26.0 | 6.6 | 80 | 26.0 | | | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.5 | .5 | 6 | 25.5 | .5 | 6 | 25.5 | | | |
| | | 1 | 3.8 | 0.00 | 0 | 10 | 72 | 18 | 110 | 117 | 45 | 250 | 0.3 | 0.0 | 0.00 | 0.0 | 0.00 | 0.04 | 562 | 250 | 160 | 1080 | 8.0 | 11.0 | 136 | 27.0 | | |
| P ₁₇ | Sept. 14 | 10 | -- | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.0 | 9.7 | 118 | 26.0 | 9.7 | 118 | 26.0 | | |
| | | 20 | -- | -- | -- | 0 | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.8 | 7.0 | 84 | 25.5 | 7.0 | 84 | 25.5 | | |
| | | 26 | -- | -- | -- | 0 | 160 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .09 | -- | -- | 1090 | 7.5 | 5.9 | 70 | 25.0 | 5.9 | 70 | 25.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 906 | 7.7 | 7.8 | 96 | 27.0 | 7.8 | 96 | 27.0 | | |
| P ₁₈ | Sept. 14 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 940 | 7.3 | 4.3 | 52 | 26.5 | 4.3 | 52 | 26.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1000 | 7.3 | 4.0 | 49 | 26.0 | 4.0 | 49 | 26.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1000 | 7.4 | 4.5 | 55 | 26.0 | 4.5 | 55 | 26.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.3 | 1.7 | 21 | 26.0 | 1.7 | 21 | 26.0 | | |
| P ₁₈ | Sept. 14 | 1 | -- | .00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .06 | -- | -- | 1090 | 8.1 | 10.8 | 137 | 28.0 | | | |
| | | 5 | -- | .00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.6 | 6.9 | 85 | 27.0 | 6.9 | 85 | 27.0 | | |
| P ₁₈ | Sept. 14 | 12 | 7.2 | .00 | 0 | 20 | 72 | 17 | 110 | 110 | 37 | 250 | .3 | .0 | .00 | .00 | .06 | 545 | 250 | 160 | 1040 | 7.6 | 6.7 | 82 | 26.5 | | | |
| | | 12 | 7.2 | .00 | 0 | 20 | 72 | 17 | 110 | 110 | 37 | 250 | .3 | .0 | .00 | .00 | .06 | 545 | 250 | 160 | 1040 | 7.6 | 6.7 | 82 | 26.5 | | | |

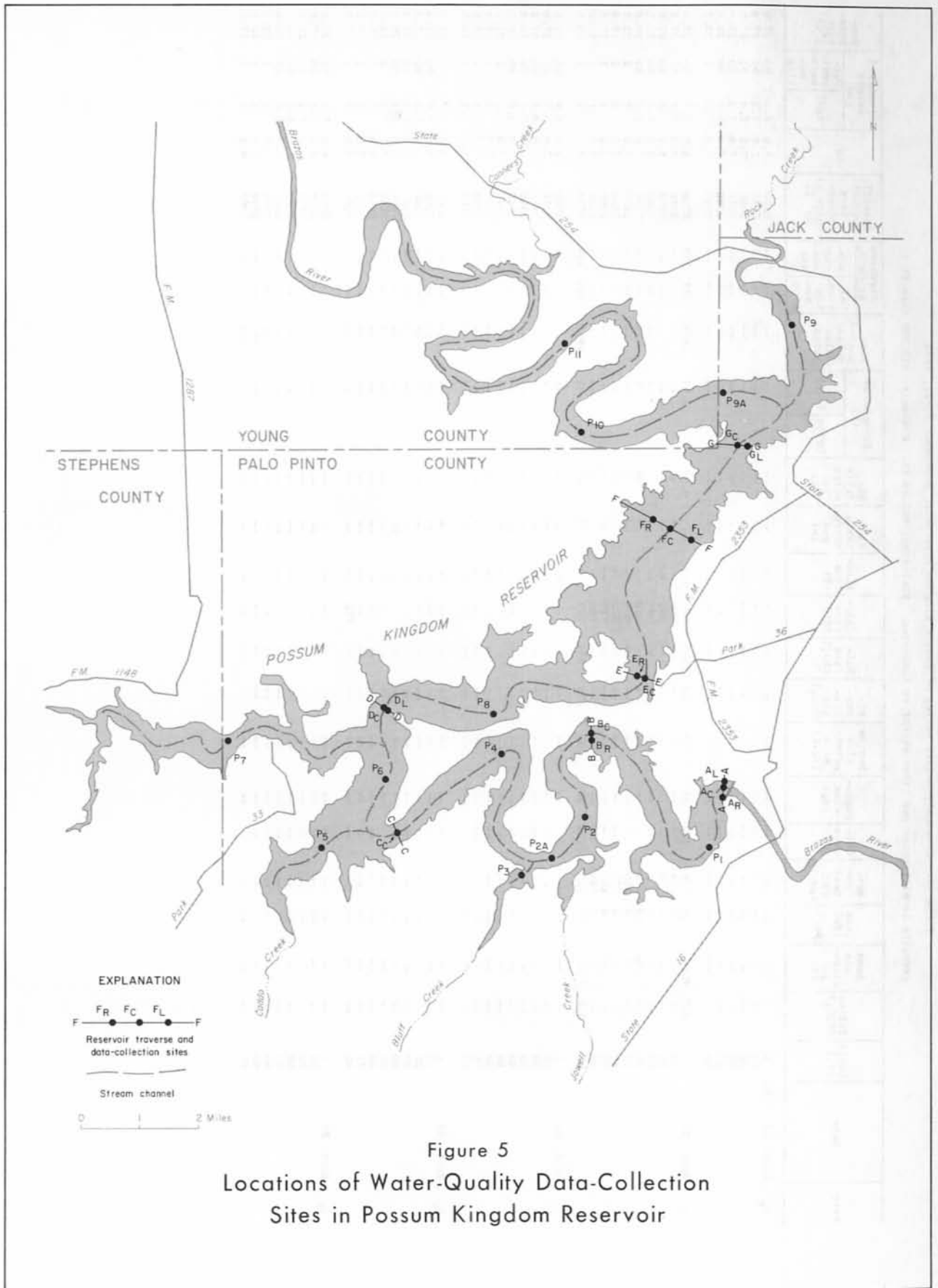


Figure 5
Locations of Water-Quality Data-Collection
Sites in Possum Kingdom Reservoir

TABLE 17.--Chemical-quality survey of Possum Kingdom Reservoir, September 20-21, 1970
(Results in milligrams per liter except as indicated. Elevation, 987.84 ft. Contents, 515,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|---|-----|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | Percent saturation | | |
| A _R | Sept. 20, 1970 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.9 | 7.5 | 93 | 27.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.9 | 7.4 | 91 | 27.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.9 | 7.2 | 89 | 27.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.6 | 5.6 | 68 | 26.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.0 | .2 | 2 | 23.5 |
| A _C | Sept. 20 | 1 | 5.7 | 0.00 | 10 | 0 | 123 | 28 | 357 | 122 | 296 | 560 | 0.4 | 0.0 | 0.00 | 0.01 | 1430 | 422 | 322 | 2350 | 8.2 | 7.6 | 95 | 27.5 | | |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | 560 | --- | --- | --- | --- | --- | --- | --- | --- | 2350 | 8.2 | 7.4 | 92 | 27.5 | |
| | | 20 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | 560 | --- | --- | --- | --- | --- | --- | --- | --- | 2360 | 8.1 | 7.5 | 93 | 27.0 | |
| | | 30 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | 560 | --- | --- | --- | --- | --- | --- | --- | --- | 2360 | 8.0 | 7.6 | 95 | 26.5 | |
| | | 40 | --- | --- | 0.00 | 20 | 0 | --- | --- | --- | --- | 560 | --- | --- | --- | --- | --- | --- | --- | --- | 2390 | 7.8 | 5.2 | 63 | 26.0 | |
| | | 50 | --- | --- | --- | 0 | 240 | --- | --- | --- | --- | 620 | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.2 | .2 | 2 | 23.0 | |
| | | 60 | --- | --- | --- | 0 | 270 | --- | --- | --- | --- | 720 | --- | --- | --- | --- | --- | --- | --- | --- | 2620 | 7.2 | .2 | 2 | 19.0 | |
| | | 70 | --- | --- | --- | 0 | 430 | --- | --- | --- | --- | 770 | --- | --- | --- | --- | --- | --- | --- | --- | 2990 | 7.2 | .1 | 1 | 17.0 | |
| | | 87 | 8.5 | 1.3 | 50 | 720 | 154 | 38 | 492 | 172 | 344 | 790 | .4 | .0 | .00 | .21 | 1910 | 540 | 400 | 3120 | 7.1 | .1 | 1 | 15.5 | | |
| P ₁ | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.8 | 6.8 | 84 | 27.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.8 | 6.7 | 83 | 27.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.8 | 6.5 | 80 | 27.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.7 | 6.4 | 79 | 26.5 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.4 | 4.0 | 49 | 26.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.0 | .2 | 2 | 21.5 |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.0 | .1 | 1 | 18.5 |
| | | 84 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.9 | .1 | 1 | 16.0 |
| B _C | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.0 | 7.7 | 96 | 27.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.0 | 7.6 | 95 | 27.5 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.0 | 7.6 | 95 | 27.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.9 | 7.0 | 86 | 27.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.6 | 5.4 | 66 | 26.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.1 | .2 | 2 | 22.5 |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.0 | .1 | 1 | 19.0 |
| | | 82 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 770 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.9 | .1 | 1 |
| P ₂ | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.0 | 7.6 | 94 | 27.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.0 | 7.5 | 93 | 27.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 8.0 | 7.4 | 91 | 27.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.7 | 6.0 | 73 | 26.5 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.3 | 3.2 | 39 | 26.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.0 | .1 | 1 | 22.0 |
| 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 7.0 | .1 | 1 | 19.0 | | |
| 75 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 6.9 | .1 | 1 | 17.0 | |

TABLE 17.--Chemical-quality survey of Possum Kingdom Reservoir, September 20-21, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 987.84 ft. Contents, 515,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (mg/l) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ Calcium, magnesium, silum | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | | |
|----------------|----------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|---|---|------|-----------------------------|-----------------|-------------------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | per- cent | satu- ration | | | |
| P ₃ | Sept. 20, 1970 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2380 | 7.8 | 7.0 | 88 | 27.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2380 | 7.8 | 6.7 | 83 | 27.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2380 | 7.6 | 5.8 | 72 | 27.0 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.4 | 3.6 | 44 | 26.5 | |
| | | 45 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 580 | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.0 | .2 | 2 | 25.0 | |
| P ₄ | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 8.0 | 8.0 | 101 | 28.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 8.0 | 8.0 | 100 | 27.5 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 8.0 | 8.0 | 100 | 27.5 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.9 | 7.8 | 98 | 27.5 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2410 | 7.7 | 5.9 | 73 | 26.5 | |
| | | 65 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2480 | 7.0 | .2 | 2 | 24.0 | |
| C _C | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2410 | 8.0 | 8.2 | 102 | 27.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2410 | 8.0 | 8.0 | 99 | 27.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.8 | 6.6 | 81 | 26.5 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2410 | 7.7 | 6.0 | 74 | 26.5 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2550 | 7.1 | 1.4 | 17 | 26.0 | |
| | | 65 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2600 | 7.0 | .1 | 1 | 22.0 | |
| P ₅ | Sept. 20 | 1 | --- | 0.00 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2750 | 6.9 | .1 | 1 | 19.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2810 | 6.8 | .1 | 1 | 18.0 | |
| | | 20 | 5.7 | .00 | 10 | 0 | --- | 125 | 30 | 366 | 124 | 298 | 580 | 0.4 | --- | 0.00 | 0.00 | 0.01 | 1470 | 436 | 334 | 2400 | 7.7 | 5.6 | 69 | 27.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.7 | 5.4 | 67 | 27.0 | |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 8.1 | 8.1 | 100 | 27.0 | |
| P ₆ | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2410 | 8.0 | 8.1 | 100 | 27.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2420 | 8.0 | 7.9 | 98 | 27.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2490 | 7.9 | 7.2 | 89 | 26.5 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2590 | 7.0 | 1.9 | 23 | 25.5 | |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2720 | 7.0 | .1 | 1 | 22.0 | |
| P ₇ | Sept. 20 | 1 | --- | .00 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2390 | 8.2 | 8.7 | 110 | 28.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 8.1 | 8.6 | 109 | 28.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 8.0 | 7.8 | 96 | 27.0 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2400 | 7.9 | 6.6 | 81 | 27.0 | |
| | | 52 | 7.5 | .92 | 0 | 1000 | 127 | 30 | 361 | 151 | 276 | 580 | .4 | --- | .04 | .00 | .00 | 1460 | 440 | 317 | 2400 | 7.1 | .2 | 2 | 25.0 | |
| D _C | Sept. 20 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2410 | 8.1 | 8.2 | 102 | 27.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2420 | 8.1 | 8.1 | 101 | 27.5 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2440 | 8.0 | 8.0 | 100 | 27.5 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2450 | 8.0 | 7.9 | 99 | 27.5 | |
| | | 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2510 | 7.5 | 3.8 | 47 | 26.5 | |

TABLE 17.--Chemical-quality survey of Possum Kingdom Reservoir, September 20-21, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 987.84 ft. Contents, 515,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- per- ature (°C) |
|-----------------|----------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|-----|-----------------------------|--------------------------------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | Per- cent sat- ura- tion | |
| P ₈ | Sept. 20, 1970 | 1 | 5.4 | 0.00 | 10 | 0 | 124 | 30 | 375 | 118 | 306 | 590 | 0.3 | 0.0 | 0.0 | 0.01 | 1490 | 433 | 336 | 2420 | 8.1 | 8.1 | 103 | 27.5 | |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 580 | -- | -- | -- | -- | -- | -- | -- | 2420 | 8.0 | 7.5 | 94 | 27.0 | |
| | | 20 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 590 | -- | -- | -- | -- | -- | -- | -- | 2420 | 7.9 | 6.1 | 75 | 26.5 | |
| | | 30 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 590 | -- | -- | -- | -- | -- | -- | -- | 2480 | 7.6 | 4.2 | 52 | 26.5 | |
| | | 40 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 590 | -- | -- | -- | -- | -- | -- | -- | 2500 | 7.5 | 4.0 | 49 | 26.0 | |
| E ₈ | Sept. 20 | 50 | 6.8 | 1.3 | 0 | 40 | 128 | 33 | 386 | 141 | 296 | 620 | .3 | .0 | .00 | .10 | 1540 | 455 | 340 | 2510 | 7.0 | .1 | 1 | 24.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2450 | 8.0 | 7.7 | 97 | 27.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2450 | 8.0 | 7.1 | 89 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2480 | 7.8 | 6.1 | 76 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2490 | 7.7 | 5.1 | 64 | 26.5 | |
| F ₈ | Sept. 21 | 44 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2490 | 7.5 | 4.9 | 60 | 26.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2580 | 8.0 | 7.0 | 88 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2580 | 8.0 | 7.0 | 88 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2580 | 8.0 | 6.8 | 85 | 27.0 | |
| | | 31 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 640 | -- | -- | -- | -- | -- | -- | -- | 2600 | 7.5 | 3.1 | 38 | 26.5 | |
| G ₈ | Sept. 21 | 1 | 5.9 | .00 | 60 | 0 | 125 | 34 | 394 | 110 | 316 | 630 | .3 | .0 | .00 | .04 | 1560 | 452 | 362 | 2590 | 8.1 | 7.1 | 89 | 27.0 | |
| | | 10 | -- | -- | 90 | 0 | -- | -- | -- | -- | -- | 630 | -- | -- | -- | -- | -- | -- | -- | 2590 | 8.0 | 7.0 | 86 | 26.5 | |
| | | 23 | 5.8 | .00 | 180 | 0 | 126 | 35 | 391 | 113 | 314 | 630 | .3 | .0 | .00 | .08 | 1560 | 458 | 366 | 2590 | 8.0 | 6.5 | 80 | 26.5 | |
| | | 1 | -- | -- | 30 | 0 | -- | -- | -- | -- | -- | -- | 640 | -- | -- | -- | -- | -- | -- | 2600 | 8.1 | 6.8 | 85 | 27.0 | |
| | | 21 | 6.3 | .00 | 10 | 0 | 125 | 35 | 399 | 112 | 316 | 640 | .3 | .0 | .00 | .08 | 1580 | 456 | 364 | 2600 | 8.0 | 6.8 | 85 | 27.0 | |
| P ₁₀ | Sept. 21 | 1 | -- | -- | 200 | 40 | 141 | 43 | 451 | 126 | 348 | 740 | .4 | .0 | .00 | .14 | 1790 | 529 | 426 | 2950 | 7.6 | 5.9 | 74 | 27.0 | |
| | | 6 | 6.6 | .00 | 30 | 0 | 141 | 43 | 451 | 126 | 348 | 740 | .4 | .0 | .00 | .28 | 1790 | 529 | 426 | 2950 | 7.5 | 4.7 | 59 | 27.0 | |

TABLE 18.--Chemical-quality survey of Possum Kingdom Reservoir, January 29-30, 1971
(Results in milligrams per liter except as indicated. Elevation, 982.68 ft. Contents, 444,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- per- ature (°C) | |
|----------------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|----------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | per- cent saturation | | |
| A _R | Jan. 29, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.3 | 10.6 | 96 | 11.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.3 | 10.6 | 95 | 10.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.3 | 10.3 | 82 | 10.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.2 | 9.9 | 88 | 10.0 |
| | | 47 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 9.0 | 80 | 10.0 |
| A _C | Jan. 29 | 1 | 4.7 | 0.00 | 10 | 0 | 140 | 32 | 390 | 148 | 320 | 620 | 0.3 | 0.0 | 0.00 | 0.09 | 1580 | 480 | 350 | 2800 | 8.3 | 10.4 | 95 | 11.0 | | |
| | | 5 | -- | -- | 40 | 0 | -- | -- | -- | -- | -- | 600 | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.3 | 10.4 | 95 | 11.0 | | |
| | | 15 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 600 | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.3 | 10.4 | 93 | 10.0 | | |
| | | 25 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 610 | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.2 | 9.6 | 96 | 10.0 | | |
| | | 35 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 610 | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 8.9 | 79 | 10.0 | | |
| | | 45 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 620 | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 8.7 | 78 | 10.0 | | |
| | | 55 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 620 | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 8.6 | 77 | 10.0 | | |
| | | 75 | -- | -- | 30 | 0 | -- | -- | -- | -- | -- | 620 | -- | -- | -- | -- | -- | -- | -- | 2810 | 8.1 | 8.6 | 76 | 9.5 | | |
| 85 | 5.5 | .00 | 20 | 0 | 130 | 33 | 390 | 136 | 320 | 620 | .3 | .0 | .00 | .06 | 1570 | 460 | 350 | 2810 | 8.0 | 8.7 | 77 | 9.5 | | | | |
| P ₁ | Jan. 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 8.2 | 10.5 | 95 | 10.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 8.2 | 10.5 | 94 | 10.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 8.2 | 10.3 | 92 | 10.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.1 | 9.5 | 85 | 10.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.1 | 9.3 | 83 | 10.0 | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.1 | 9.4 | 83 | 9.5 | | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.1 | 9.2 | 81 | 9.5 | | |
| | | 82 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 8.8 | 77 | 9.0 | | |
| B _C | Jan. 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.6 | 95 | 10.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.6 | 95 | 10.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.5 | 94 | 10.0 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.2 | 91 | 10.0 | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.0 | 88 | 9.5 | | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.1 | 9.9 | 88 | 9.5 | | |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.1 | 9.4 | 83 | 9.5 | | |
| | | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 8.9 | 77 | 9.0 | | |
| 76 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 7.9 | 8.2 | 71 | 9.0 | | | | |
| P ₂ | Jan. 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.3 | 10.6 | 95 | 10.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.2 | 10.6 | 95 | 10.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.2 | 10.5 | 94 | 10.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.2 | 10.1 | 90 | 10.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2760 | 8.1 | 9.9 | 88 | 9.5 | | |
| P ₃ | Jan. 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 9.3 | 82 | 9.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 9.1 | 79 | 9.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 8.9 | 77 | 9.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 8.9 | 77 | 9.0 | | |
| | | 41 | -- | -- | -- | -- | -- | -- | -- | -- | 620 | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.0 | 8.9 | 77 | 9.0 | | |

TABLE 18.--Chemical-quality survey of Possum Kingdom Reservoir, January 29-30, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 982.68 ft. Contents, 444,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) (Mg) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|-------------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|------------|------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | saturation | | | |
| P ₄ | Jan. 29, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.3 | 10.9 | 97 | 10.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.3 | 10.9 | 97 | 10.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.3 | 10.9 | 97 | 10.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.3 | 10.8 | 96 | 10.0 |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.7 | 96 | 10.0 |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.1 | 88 | 9.0 |
| C _C | Jan. 29 | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 9.7 | 84 | 9.0 | |
| | | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 7.9 | 9.0 | 77 | 8.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.7 | 96 | 10.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.7 | 96 | 10.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.6 | 94 | 9.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2780 | 8.2 | 10.3 | 90 | 9.0 |
| P ₅ | Jan. 29 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 10.1 | 86 | 8.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.0 | 9.6 | 82 | 8.5 | |
| | | 62 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 7.9 | 8.5 | 73 | 8.5 | |
| | | 1 | -- | 0.00 | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | -- | 0.04 | -- | -- | -- | 2780 | 8.1 | 10.5 | 95 | 10.5 |
| | | 5 | -- | .00 | 20 | 0 | -- | -- | -- | -- | -- | -- | 620 | -- | -- | .0 | .00 | -- | .17 | -- | -- | -- | 2780 | 8.1 | 10.3 | 90 | 9.0 |
| | | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2840 | 8.2 | 10.7 | 95 | 9.5 |
| P ₆ | Jan. 30 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2840 | 8.2 | 10.7 | 95 | 9.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2840 | 8.2 | 10.6 | 92 | 9.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2840 | 8.2 | 10.5 | 91 | 9.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2840 | 8.2 | 10.3 | 90 | 9.0 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2850 | 8.1 | 9.4 | 80 | 8.5 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2850 | 7.8 | 8.8 | 75 | 8.5 | |
| P ₇ | Jan. 30 | 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.2 | 10.5 | 91 | 9.0 | |
| | | 1 | -- | .00 | 20 | 0 | -- | -- | -- | -- | -- | 630 | -- | -- | .0 | .00 | -- | .04 | -- | -- | -- | 2800 | 8.2 | 10.5 | 91 | 9.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 10.1 | 88 | 9.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 10.1 | 86 | 8.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 10.0 | 85 | 8.5 | |
| | | 40 | -- | 5.5 | .00 | 10 | 0 | 130 | 33 | 390 | 134 | 320 | 620 | 0.3 | 0 | .00 | -- | .04 | 1560 | 470 | 360 | 2800 | 8.1 | 10.0 | 85 | 8.5 | |
| D _C | Jan. 30 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.2 | 10.8 | 96 | 9.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.2 | 10.7 | 95 | 9.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 10.5 | 91 | 9.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 10.2 | 87 | 8.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.0 | 9.6 | 82 | 8.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.0 | 9.5 | 81 | 8.5 | |
| P ₈ | Jan. 30 | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 8.1 | 10.8 | 96 | 10.0 | |
| | | 1 | -- | .00 | 10 | 0 | -- | -- | -- | -- | -- | 630 | -- | -- | .1 | .00 | -- | .06 | -- | -- | -- | 2650 | 8.1 | 10.8 | 96 | 10.0 | |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 630 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 8.1 | 10.8 | 96 | 9.5 | |
| | | 20 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 630 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 8.0 | 10.2 | 89 | 9.0 | |
| | | 30 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 650 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 7.9 | 9.9 | 85 | 8.5 | |
| | | 40 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 650 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 7.9 | 9.6 | 82 | 8.5 | |
| 50 | 5.1 | .00 | 20 | 0 | 140 | 35 | 410 | 138 | 330 | 660 | .3 | .0 | .00 | -- | .03 | 1650 | 490 | 380 | 2800 | 7.9 | 9.6 | 82 | 8.5 | | | | |

TABLE 18.--Chemical-quality survey of Possum Kingdom Reservoir, January 29-30, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 982.68 ft. Contents, 444,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (SO ₄) (HCO ₃) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|-----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|--|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | Percent saturation | | |
| E _C | Jan. 30, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.0 | 10.8 | 96 | 10.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.0 | 10.8 | 96 | 10.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.0 | 10.8 | 96 | 9.5 |
| | | 41 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3100 | 7.9 | 9.3 | 79 | 8.5 |
| F _C | Jan. 30 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 8.0 | 10.7 | 96 | 10.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 8.0 | 10.7 | 96 | 10.0 |
| | | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3100 | 7.9 | 10.2 | 87 | 9.5 |
| G _C | Jan. 30 | 1 | 4.8 | 0.00 | 10 | 0 | 140 | 36 | 450 | 140 | 340 | 720 | 0.3 | 0.0 | 0.00 | 0.06 | 1770 | 510 | 400 | 3050 | 8.0 | 10.8 | 96 | 10.0 | |
| | | 10 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 720 | -- | -- | -- | -- | -- | -- | -- | 3100 | 8.0 | 10.8 | 96 | 9.5 | |
| | | 20 | 4.3 | 0.00 | 20 | 0 | 160 | 40 | 500 | 140 | 360 | 820 | .4 | .0 | .00 | .12 | 1960 | 560 | 440 | 3450 | 7.9 | 10.1 | 88 | 9.0 | |
| P ₉ | Jan. 30 | 1 | -- | 0.00 | 10 | 0 | -- | -- | -- | -- | -- | 750 | -- | .0 | .00 | .06 | -- | -- | -- | 3200 | 8.1 | 11.2 | 100 | 10.0 | |
| | | 10 | -- | 0.00 | 10 | 0 | -- | -- | -- | -- | -- | 770 | -- | .0 | .00 | .07 | -- | -- | -- | 3220 | 8.1 | 11.1 | 99 | 10.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3300 | 7.9 | 9.9 | 85 | 8.5 | |
| P ₁₀ | Jan. 30 | 19 | 4.4 | 0.00 | 20 | 0 | 160 | 40 | 490 | 142 | 350 | 850 | .4 | .1 | .00 | .07 | 1910 | 550 | 440 | 3400 | 7.9 | 9.5 | 83 | 9.0 | |
| | | 2 | 1.3 | 0.00 | 30 | 20 | 280 | 94 | 1300 | 100 | 780 | 2200 | .4 | .0 | .00 | .48 | 4750 | 1100 | 1000 | 8000 | 8.2 | 9.0 | 83 | 11.0 | |

TABLE 19.--Chemical-quality survey of Possum Kingdom Reservoir, June 9, 1971
(Results in milligrams per liter except as indicated. Elevation, 985.85 ft. Contents, 487,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nesium (Mg) | Sodium plus potas- sium (Na+K) | Bic- ar- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) |
|----------------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|---|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|------------------------|--|-----|-----------------------------|---------------------------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- mag- nesium | | | mg/l | per- cent satu- ration | |
| A _C | June 9, 1971 | 1 | 4.2 | 0.00 | 0 | 0 | 130 | 34 | 400 | 128 | 310 | 640 | 0.4 | 0.0 | 0.00 | 0.02 | 1580 | 460 | 350 | 2680 | 8.2 | 8.2 | 8.2 | 99 | 25.0 |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2700 | 8.2 | 8.3 | 100 | 25.0 |
| | | 20 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2700 | 8.2 | 8.3 | 100 | 25.0 |
| | | 30 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2710 | 8.1 | 8.1 | 93 | 22.0 |
| | | 40 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2690 | 8.0 | 7.3 | 81 | 20.5 |
| | | 50 | --- | --- | 10 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2650 | 7.7 | 5.7 | 59 | 17.0 |
| | | 60 | --- | --- | 40 | 80 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2650 | 7.5 | 5.1 | 50 | 15.0 |
| | | 80 | --- | --- | 190 | 200 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2660 | 7.2 | 1.7 | 16 | 13.5 |
| B _C | June 9 | 1 | 9.7 | .00 | 10 | 490 | 160 | 33 | 390 | 156 | 330 | 640 | .4 | .0 | .00 | .06 | 1640 | 520 | 400 | 2730 | 7.1 | 7.1 | 7.1 | 3 | 13.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2700 | 8.2 | 8.0 | 99 | 26.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2700 | 8.2 | 8.1 | 100 | 26.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2700 | 8.2 | 7.9 | 95 | 25.0 |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2710 | 8.0 | 6.5 | 76 | 23.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2710 | 7.7 | 4.8 | 54 | 21.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2710 | 7.5 | 3.2 | 35 | 19.5 |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2890 | 7.3 | 2.5 | 26 | 16.5 |
| P ₃ | June 9 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2670 | 7.2 | 1.7 | 17 | 15.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2670 | 7.2 | .5 | 5 | 14.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2670 | 7.1 | .5 | 5 | 13.5 |
| | | 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2740 | 8.2 | 8.7 | 106 | 25.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2740 | 8.2 | 8.5 | 102 | 25.0 |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2750 | 8.1 | 7.6 | 90 | 24.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2760 | 7.8 | 5.4 | 64 | 23.5 |
| | | 80 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2790 | 7.5 | 3.6 | 41 | 22.0 |
| C _C | June 9 | 1 | 5.4 | .00 | 50 | 490 | 140 | 33 | 410 | 146 | 310 | 660 | .4 | .0 | .01 | .06 | 1630 | 490 | 370 | 2730 | 7.1 | 7.1 | 7.1 | 3 | 18.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2760 | 8.1 | 8.1 | 100 | 26.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2760 | 8.1 | 8.0 | 96 | 25.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2770 | 8.1 | 7.5 | 90 | 25.0 |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2790 | 7.7 | 4.8 | 57 | 24.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2790 | 7.5 | 3.4 | 40 | 23.5 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2770 | 7.3 | 1.8 | 20 | 21.0 |
| | | 64 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2760 | 7.1 | .2 | 2 | 16.5 |
| P ₅ | June 9 | 1 | 4.0 | .00 | 0 | 10 | 140 | 34 | 410 | 136 | 320 | 660 | .4 | .0 | .00 | .02 | 1630 | 490 | 380 | 2780 | 8.2 | 8.2 | 8.2 | 93 | 25.5 |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2780 | 8.1 | 7.5 | 90 | 25.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2780 | 8.1 | 7.0 | 84 | 24.5 |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2780 | 7.7 | 5.9 | 71 | 24.5 |
| | | 18 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2790 | 7.8 | 5.9 | 70 | 24.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2810 | 8.2 | 7.9 | 99 | 27.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2810 | 8.1 | 7.8 | 96 | 26.0 |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2810 | 8.0 | 5.9 | 71 | 25.0 |
| P ₇ | June 9 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2800 | 7.5 | 2.3 | 27 | 24.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2850 | 7.2 | .2 | 2 | 20.5 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2850 | 7.2 | .2 | 2 | 20.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2850 | 7.2 | .2 | 2 | 20.5 |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2850 | 7.2 | .2 | 2 | 20.5 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2850 | 7.2 | .2 | 2 | 20.5 |
| | | 51 | 9.5 | .00 | 100 | 1500 | 160 | 34 | 420 | 186 | 330 | 670 | .4 | .7 | .00 | 1.2 | 1710 | 540 | 390 | 2860 | 7.2 | 7.2 | 7.2 | 1 | 18.5 |

TABLE 19.--Chemical-quality survey of Possum Kingdom Reservoir, June 9, 1971.--Continued
(Results in milligrams per liter except as indicated. Elevation, 985.85 ft. Contents, 487,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|-----------------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | |
| D _C | June 9, 1971 | 1 | 4.1 | 0.00 | 0 | 0 | 140 | 35 | 420 | 126 | 320 | 670 | 0.4 | 0.0 | 0.00 | 0.01 | 1650 | 480 | 380 | 2800 | 8.1 | 8.0 | 99 | 26.5 | |
| | | 2 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.1 | 8.0 | 99 | 26.5 | |
| | | 3 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2810 | 8.1 | 8.0 | 99 | 26.0 | |
| | | 35 | -- | 0.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.04 | -- | -- | -- | -- | 2850 | 8.1 | 7.9 | 98 | 25.5 | |
| | | 40 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3270 | 7.6 | 5.5 | 66 | 24.5 | |
| | | 54 | 5.8 | 0.00 | 0 | 410 | 37 | 190 | 37 | 480 | 130 | 450 | 760 | .4 | .1 | .00 | .04 | 1980 | 620 | 510 | 3460 | 7.2 | 1.1 | 13 | 23.0 |
| E _C | June 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3180 | 8.2 | 8.0 | 99 | 26.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3300 | 7.9 | 6.2 | 75 | 25.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3500 | 7.7 | 5.5 | 66 | 25.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3700 | 7.5 | 4.9 | 59 | 25.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 810 | -- | -- | -- | -- | -- | 3700 | 7.2 | 1.4 | 18 | 23.5 | | |
| | | 43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3640 | 7.1 | .5 | 6 | 23.0 | | |
| F _C | June 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3110 | 8.3 | 8.9 | 111 | 27.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3110 | 8.2 | 8.8 | 109 | 26.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3110 | 8.1 | 7.9 | 98 | 26.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.7 | 4.3 | 52 | 25.0 | | |
| | | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.1 | .1 | 1 | 25.0 | | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.1 | .1 | 1 | 25.0 | |
| G _C | June 9 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 390 | -- | .6 | .02 | .11 | -- | -- | 2050 | 8.3 | 8.5 | 105 | 27.0 | | |
| | | 5 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2050 | 8.2 | 8.4 | 104 | 27.0 | | |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | .6 | .02 | .08 | -- | -- | 2050 | 8.2 | 8.1 | 99 | 26.5 | |
| | | 15 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2230 | 8.0 | 7.8 | 95 | 26.0 | |
| | | 20 | 9.4 | .23 | 0 | 150 | 170 | 25 | 290 | 126 | 420 | 440 | .5 | .7 | .02 | 2.0 | 1420 | 520 | 420 | 2280 | 7.7 | 6.1 | 74 | 26.0 | |
| | | 21 | -- | -- | 0 | 440 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2170 | 7.5 | 6.4 | 79 | 27.0 | |
| P ₉ | June 9 | 1 | 7.0 | 0.00 | 0 | 40 | 150 | 25 | 270 | 106 | 400 | 400 | .4 | .3 | .02 | .07 | 1300 | 480 | 390 | 2060 | 8.5 | 9.7 | 121 | 27.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2060 | 8.5 | 9.7 | 121 | 27.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2060 | 8.5 | 9.3 | 115 | 27.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2060 | 8.4 | 9.0 | 111 | 27.0 | |
| | | 21 | -- | .24 | 0 | 440 | -- | -- | -- | -- | -- | -- | 410 | -- | -- | -- | -- | -- | -- | 2170 | 7.5 | 6.4 | 79 | 27.0 | |
| | | 21 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3450 | 8.5 | 10.2 | 132 | 28.5 | |
| P ₁₀ | June 9 | 3 | 9.5 | 0.00 | 10 | 30 | 240 | 32 | 500 | 110 | 680 | 720 | .6 | .9 | .02 | .13 | 2240 | 740 | 650 | 3460 | 8.2 | 9.7 | 123 | 27.5 | |
| | | 5 | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3460 | 8.2 | 9.7 | 123 | 27.5 | |
| | | 6 | 9.5 | 0.00 | 10 | 10 | 240 | 32 | 500 | 110 | 680 | 720 | .6 | .9 | .02 | .13 | 2240 | 740 | 650 | 3460 | 8.0 | 7.9 | 99 | 27.0 | |

TABLE 20.--Chemical-quality survey of Possum Kingdom Reservoir, September 15, 1971

(Results in milligrams per liter except as indicated. Elevation, 996.56 ft. Contents, 661,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) mg/l | Temperature (°C) | | | | |
|----------------|----------------|----------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|--|------|----------------------------|------------------|------|------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | | | | | | |
| A _C | Sept. 15, 1971 | 1 | 6.2 | 0.00 | 0 | 0 | 130 | 27 | 310 | 82 | 340 | 500 | 0.4 | 0.0 | 0.00 | 0.02 | 0.02 | 1350 | 440 | 370 | 2310 | 8.1 | 11.8 | 151 | 28.5 | | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2310 | 8.0 | 11.3 | 145 | 28.5 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2310 | 7.7 | 10.3 | 130 | 28.0 | |
| | | 30 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.4 | 8.9 | 111 | 27.5 | |
| | | 45 | -- | -- | .00 | 30 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .02 | -- | -- | -- | -- | 2620 | 7.7 | 6.5 | 82 | 27.5 | |
| | | 50 | -- | -- | -- | 30 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.5 | 2.2 | 28 | 27.0 | |
| | | 60 | -- | -- | -- | 70 | 270 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3020 | 7.3 | .2 | 2 | 25.5 | |
| | | 70 | -- | -- | -- | 120 | 270 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2830 | 7.2 | .2 | 2 | 22.0 | |
| | | 80 | -- | -- | -- | 180 | 480 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2730 | 7.1 | .3 | 3 | 16.5 | |
| | | 90 | -- | -- | .97 | 210 | 580 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 7.1 | .5 | 5 | 16.0 | |
| B _C | Sept. 15 | 1 | 8.6 | .97 | 80 | 430 | 140 | 33 | 380 | 163 | 290 | 630 | .4 | .0 | .00 | .11 | .11 | 1570 | 490 | 350 | 2700 | 6.6 | 1.1 | 11 | 15.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1720 | 8.0 | 12.5 | 160 | 28.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1720 | 7.8 | 12.2 | 154 | 28.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1820 | 7.6 | 11.0 | 138 | 27.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 7.4 | 9.2 | 115 | 27.5 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 7.3 | 4.3 | 53 | 27.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.1 | 1.4 | 18 | 27.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.2 | .3 | 4 | 25.0 | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 7.1 | .4 | 4 | 21.5 | |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2850 | 7.1 | .5 | 5 | 18.5 | |
| P ₃ | Sept. 15 | 1 | 7.2 | .00 | 0 | 0 | 100 | 19 | 210 | 79 | 260 | 320 | .4 | .0 | .00 | .02 | .02 | 855 | 340 | 270 | 1640 | 7.9 | 12.0 | 152 | 28.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1860 | 7.7 | 10.7 | 134 | 27.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1940 | 7.5 | 6.8 | 84 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2170 | 7.4 | 4.4 | 55 | 27.5 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2500 | 7.3 | 3.6 | 45 | 27.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 7.2 | 1.0 | 12 | 26.5 | |
| | | 50 | -- | -- | .58 | 90 | 360 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3040 | 7.1 | .1 | 1 | 25.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3010 | 7.2 | .7 | 8 | 22.5 | |
| | | C _C | Sept. 15 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.7 | 11.4 | 146 | 29.0 |
| | | | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1420 | 7.5 | 10.4 | 132 |
| 20 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1620 | 8.0 | 8.3 | 104 | 27.5 | |
| 25 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2150 | 7.7 | 4.6 | 58 | 28.0 | |
| 30 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2450 | 7.3 | 5.0 | 62 | 27.5 | |
| 35 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 7.2 | 2.7 | 34 | 27.5 | |
| 40 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 7.2 | 1.3 | 16 | 27.0 | |
| 50 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.2 | .4 | 5 | 25.0 | |
| 60 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 7.0 | .5 | 6 | 22.5 | |
| 74 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3110 | 6.9 | .6 | 7 | 19.5 | |
| P ₅ | Sept. 15 | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .02 | .02 | -- | -- | -- | 1610 | 8.1 | 9.9 | 127 | 29.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1540 | 7.9 | 10.3 | 130 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1540 | 8.1 | 9.4 | 118 | 27.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1660 | 7.0 | 5.7 | 72 | 28.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2330 | 7.0 | .4 | 5 | 28.0 | |
| 27 | 7.6 | .28 | 0 | 270 | 140 | 29 | 340 | 109 | 350 | 540 | .4 | .0 | .00 | .04 | .04 | .04 | 1460 | 480 | 390 | 2470 | 7.2 | .6 | 8 | 28.0 | | | |

TABLE 20.--Chemical-quality survey of Possum Kingdom Reservoir, September 15, 1971.--Continued
(Results in milligrams per liter except as indicated. Elevation, 996.56 ft. Contents, 661,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|-----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|---|-----|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | Percent saturation | |
| P ₇ | Sept. 15, 1971 | 1 | -- | 0.00 | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | 0.03 | -- | -- | -- | -- | 1420 | 7.9 | 11.8 | 151 | 29.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1420 | 7.5 | 10.5 | 131 | 27.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.3 | 5.8 | 172 | 27.5 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1760 | 7.3 | 3.2 | 4 | 27.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2500 | 7.1 | 2 | 2 | 27.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2940 | 7.0 | 1 | 1 | 27.0 |
| D _C | Sept. 15 | 1 | -- | 1.5 | 280 | 810 | -- | -- | -- | -- | -- | -- | -- | 0 | .00 | .09 | -- | -- | -- | -- | 2940 | 6.9 | 1 | 1 | 24.5 |
| | | 10 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | .00 | .03 | -- | -- | -- | 1250 | 8.4 | 12.7 | 165 | 29.5 |
| | | 20 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | 7.5 | 11.6 | 145 | 27.5 |
| | | 25 | -- | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | 7.2 | 2.0 | 62 | 27.0 |
| | | 30 | -- | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2340 | 7.2 | 2 | 23 | 27.0 |
| | | 40 | -- | -- | -- | 20 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2840 | 7.2 | 2 | 2 | 26.5 |
| E _C | Sept. 15 | 1 | -- | 1.1 | 130 | 620 | 180 | 36 | 460 | 144 | 410 | 750 | 0.5 | 0 | .00 | .08 | 1930 | 600 | 482 | -- | 3240 | 7.0 | 3 | 3 | 23.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3240 | 6.9 | 5.6 | 7 | 21.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.5 | 13.0 | 165 | 28.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 8.2 | 10.6 | 129 | 26.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1190 | 7.9 | 8.2 | 100 | 26.5 |
| | | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.3 | 2.6 | 32 | 26.0 |
| F _C | Sept. 15 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2810 | 7.2 | 3 | 4 | 26.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1060 | 8.5 | 14.0 | 177 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 8.2 | 12.4 | 151 | 26.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.8 | 8.2 | 100 | 26.5 |
| G _C | Sept. 15 | 1 | 6.8 | .00 | 10 | 0 | 90 | 14 | 140 | 94 | 210 | 210 | .3 | 0 | .00 | .04 | 714 | 280 | 200 | -- | 1230 | 8.3 | 15.6 | 200 | 29.0 |
| | | 10 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.8 | 13.4 | 165 | 27.0 |
| | | 20 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1360 | 7.5 | 6.1 | 74 | 26.5 |
| | | 34 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2050 | 7.3 | 5.9 | 72 | 26.5 |
| P ₉ | Sept. 15 | 1 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1310 | 8.2 | 14.7 | 191 | 29.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | 7.8 | 12.8 | 160 | 27.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1380 | 7.6 | 3.0 | 37 | 26.0 |
| P ₁₀ | Sept. 15 | 1 | 8.7 | .21 | 0 | 350 | 120 | 21 | 240 | 102 | 280 | 380 | .4 | .2 | .02 | .06 | 1100 | 390 | 310 | -- | 1890 | 7.4 | 6 | 7 | 26.0 |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1370 | 8.1 | 13.0 | 171 | 30.5 |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1420 | 7.7 | 13.4 | 168 | 27.5 |
| P ₁₀ | Sept. 15 | 10 | 6.0 | .00 | 0 | 30 | 130 | 22 | 230 | 116 | 310 | 360 | .4 | .1 | .00 | .06 | 1120 | 420 | 320 | -- | 1900 | 7.5 | 8.2 | 100 | 26.5 |
| | | 20 | 6.0 | .00 | 0 | 30 | 130 | 22 | 230 | 116 | 310 | 360 | .4 | .1 | .00 | .06 | 1120 | 420 | 320 | -- | 1900 | 7.5 | 8.2 | 100 | 26.5 |

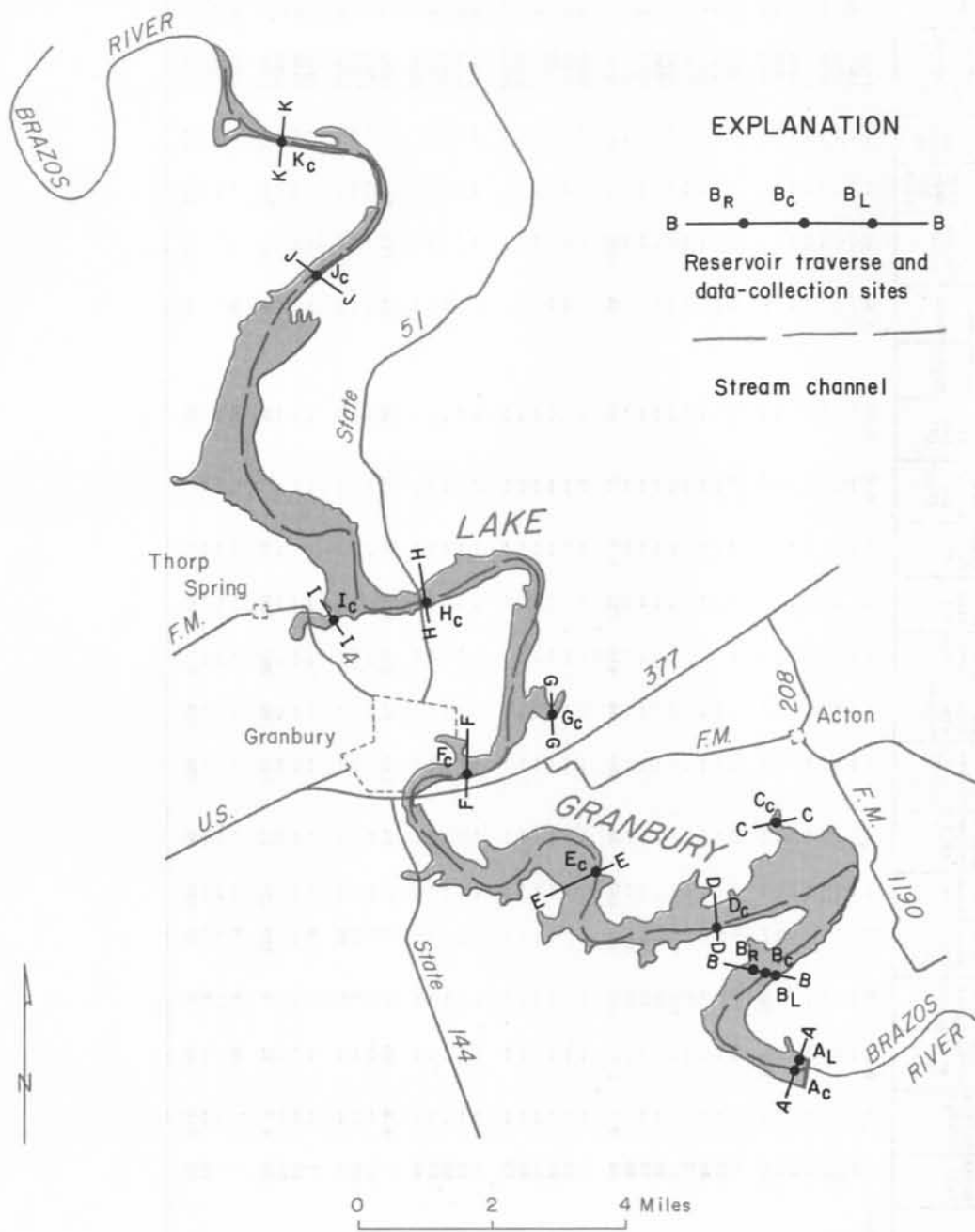


Figure 6
 Locations of Water-Quality
 Data-Collection Sites in Lake Granbury

TABLE 21.--Chemical-quality survey of Lake Granbury, September 22, 1970
(Results in milligrams per liter except as indicated. Elevation, 692.15 ft. Contents, 146,300 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nesium (Mg) | Sodium plus potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) |
|------|----------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|-----------------------------|--|-----|--------------------------------------|------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- car- bon- ate | | | Per- cent sat- ura- tion | | |
| AC | Sept. 22, 1970 | 1 | 4.7 | 0.00 | 10 | 0 | 107 | 27 | 306 | 146 | 236 | 480 | 0.3 | 0.0 | 0.00 | 0.02 | 1230 | 378 | 258 | 2020 | 7.6 | 4.1 | 51 | 27.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | | 2020 | 7.6 | 4.0 | 49 | 27.0 |
| | | 20 | | | | | | | | | | | | | | | | | | | 2020 | 7.6 | 4.0 | 49 | 26.5 |
| | | 30 | | | | | | | | | | | | | | | | | | | 2020 | 7.6 | 3.8 | 46 | 26.5 |
| | | 40 | | | | | | | | | | | | | | | | | | | 2010 | 7.5 | 2.8 | 34 | 26.0 |
| | | 50 | | | | | | | | | | | | | | | | | | | 1600 | 7.1 | .2 | 2 | 22.5 |
| AL | Sept. 22 | 60 | | | | | | | | | | | | | | | | | | 1300 | 7.1 | .2 | 2 | 19.5 | |
| | | 65 | 12 | 2.4 | 50 | 1700 | 88 | 17 | 143 | 215 | 105 | 228 | .3 | .0 | .00 | .40 | 704 | 290 | 114 | 1380 | 7.1 | .2 | 2 | 19.0 | |
| | | 1 | | | | | | | | | | | | | | | | | | 2010 | 7.6 | 4.3 | 53 | 27.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 2010 | 7.6 | 4.2 | 52 | 27.0 | |
| BR | Sept. 22 | 20 | | | | | | | | | | | | | | | | | | 2010 | 7.7 | 4.2 | 52 | 27.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | 2010 | 7.7 | 4.1 | 51 | 27.0 | |
| | | 40 | | | | | | | | | | | | | | | | | | 2000 | 7.6 | 4.0 | 49 | 27.0 | |
| BC | Sept. 22 | 1 | | | | | | | | | | | | | | | | | | 2030 | 7.6 | 4.2 | 52 | 27.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 2030 | 7.6 | 4.0 | 49 | 27.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 2020 | 7.6 | 4.0 | 49 | 27.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | 2020 | 7.5 | 3.5 | 43 | 27.0 | |
| | | 40 | | | | | | | | | | | | | | | | | | | 2020 | 7.9 | 6.0 | 74 | 27.0 |
| | | 50 | | | | | | | | | | | | | | | | | | | 2020 | 7.9 | 5.8 | 72 | 27.0 |
| BL | Sept. 22 | 62 | | | | | | | | | | | | | | | | | | | 2020 | 7.8 | 5.7 | 70 | 27.0 |
| | | 1 | | | | | | | | | | | | | | | | | | 2080 | 7.5 | 2.1 | 26 | 27.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 2090 | 7.4 | 1.2 | 15 | 26.5 | |
| | | 20 | | | | | | | | | | | | | | | | | | 1700 | 7.3 | .2 | 2 | 23.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | 1300 | 7.2 | .2 | 2 | 19.5 | |
| | | 50 | | | | | | | | | | | | | | | | | | 2040 | 8.0 | 6.0 | 74 | 27.0 | |
| CC | Sept. 22 | 1 | | | | | | | | | | | | | | | | | | 2050 | 7.9 | 5.9 | 73 | 27.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 2040 | 7.8 | 5.0 | 62 | 27.0 | |
| | | 18 | | | | | | | | | | | | | | | | | | 2060 | 7.6 | 3.3 | 41 | 27.0 | |
| DC | Sept. 22 | 1 | | | | | | | | | | | | | | | | | | 2040 | 8.3 | 7.8 | 99 | 28.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | 2040 | 8.2 | 6.6 | 84 | 28.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | 2050 | 8.1 | 5.8 | 73 | 28.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | 2050 | 8.3 | 7.2 | 90 | 27.5 | |
| | | 40 | | | | | | | | | | | | | | | | | | 2050 | 8.2 | 6.5 | 81 | 27.5 | |
| | | 55 | | | | | | | | | | | | | | | | | | 2150 | 7.7 | 3.1 | 39 | 27.5 | |

TABLE 21.--Chemical-quality survey of Lake Granbury, September 22, 1970.--Continued
(Results in milligrams per liter except as indicated. Elevation, 692.15 ft. Contents, 146,300 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | | | |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|---|-----|-----------------------|--------------------|------------------|-----|------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | percent saturation | | | | | |
| E _C | Sept. 22, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.1 | 6.3 | 79 | 27.5 | 8.1 | 6.3 | 79 | 27.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.1 | 6.3 | 79 | 27.5 | 8.1 | 6.3 | 79 | 27.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2190 | 8.1 | 6.2 | 78 | 27.5 | 8.1 | 6.2 | 78 | 27.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.0 | 5.9 | 74 | 27.5 | 8.0 | 5.9 | 74 | 27.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 620 | -- | -- | -- | -- | -- | -- | 2400 | 7.7 | 2.1 | 26 | 27.0 | 7.7 | 2.1 | 26 | 27.0 | |
| F _C | Sept. 22 | 1 | 5.7 | 0.00 | 30 | 0 | 116 | 29 | 353 | 131 | 268 | 560 | 0.3 | 0.0 | 0.00 | 0.04 | 0.04 | 1400 | 409 | 302 | 2350 | 8.3 | 7.2 | 90 | 27.5 | 8.3 | 7.2 | 90 | 27.5 |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 560 | -- | -- | -- | -- | -- | -- | 2350 | 8.3 | 7.0 | 88 | 27.5 | 8.3 | 7.0 | 88 | 27.5 | | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 570 | -- | -- | 0.00 | 0.04 | 0.04 | -- | 2400 | 8.1 | 6.1 | 76 | 27.5 | 8.1 | 6.1 | 76 | 27.5 | | |
| | | 30 | -- | -- | 0 | 190 | -- | -- | -- | -- | -- | 640 | -- | -- | -- | -- | -- | -- | 2590 | 7.5 | 1.4 | 18 | 27.0 | 7.5 | 1.4 | 18 | 27.0 | | |
| | | 40 | 6.1 | 0.00 | 50 | 260 | 130 | 32 | 400 | 135 | 300 | 640 | .4 | 0.00 | 0.00 | 0.04 | 0.04 | 1570 | 456 | 346 | 2600 | 7.5 | .9 | 11 | 27.0 | 7.5 | .9 | 11 | 27.0 |
| G _C | Sept. 22 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2410 | 8.5 | 8.0 | 103 | 28.5 | 8.5 | 8.0 | 103 | 28.5 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 8.5 | 6.8 | 86 | 28.0 | 8.5 | 6.8 | 86 | 28.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.8 | 3.0 | 38 | 27.5 | 7.8 | 3.0 | 38 | 27.5 | | |
| | | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2380 | 7.3 | .4 | 5 | 27.0 | 7.3 | .4 | 5 | 27.0 | | |
| H _C | Sept. 22 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 620 | -- | 0.00 | 0.00 | 0.05 | 0.05 | -- | 2580 | 8.5 | 8.2 | 104 | 28.0 | 8.5 | 8.2 | 104 | 28.0 | | |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 630 | -- | -- | -- | -- | -- | -- | 2580 | 8.1 | 5.7 | 71 | 27.5 | 8.1 | 5.7 | 71 | 27.5 | | |
| | | 20 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 640 | -- | 0.00 | 0.00 | 0.04 | 0.04 | -- | 2600 | 8.0 | 4.4 | 55 | 27.0 | 8.0 | 4.4 | 55 | 27.0 | | |
| | | 32 | 6.5 | 0.00 | 0 | 40 | 137 | 33 | 405 | 156 | 306 | 645 | .4 | 0.00 | 0.00 | 0.06 | 0.06 | 1610 | 478 | 350 | 2620 | 7.5 | 1.0 | 13 | 27.0 | 7.5 | 1.0 | 13 | 27.0 |
| I _C | Sept. 22 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 640 | -- | -- | -- | -- | -- | -- | 2600 | 8.0 | 6.3 | 81 | 28.0 | 8.0 | 6.3 | 81 | 28.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 7.7 | 3.9 | 49 | 27.0 | 7.7 | 3.9 | 49 | 27.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2580 | 7.6 | 3.1 | 39 | 27.0 | 7.6 | 3.1 | 39 | 27.0 | | |
| | | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2580 | 7.6 | 2.7 | 34 | 27.0 | 7.6 | 2.7 | 34 | 27.0 | | |
| J _C | Sept. 22 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 8.4 | 8.1 | 105 | 28.5 | 8.4 | 8.1 | 105 | 28.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 8.2 | 7.3 | 95 | 28.5 | 8.2 | 7.3 | 95 | 28.5 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2590 | 8.1 | 6.1 | 78 | 28.0 | 8.1 | 6.1 | 78 | 28.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 640 | -- | -- | -- | -- | -- | -- | 2590 | 7.8 | 4.2 | 54 | 28.0 | 7.8 | 4.2 | 54 | 28.0 | | |
| K _C | Sept. 22 | 1 | -- | 0.00 | 10 | 0 | -- | -- | -- | 132 | -- | 630 | -- | 0.00 | 0.00 | 0.03 | 0.03 | -- | 458 | 350 | 2600 | 8.4 | 8.9 | 117 | 29.5 | 8.4 | 8.9 | 117 | 29.5 |
| | | 5 | -- | 0.00 | 90 | 0 | -- | -- | -- | -- | -- | 630 | -- | 0.00 | 0.00 | 0.03 | 0.03 | -- | 2580 | 8.2 | 6.8 | 87 | 28.0 | 8.2 | 6.8 | 87 | 28.0 | | |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 630 | -- | 0.00 | 0.00 | -- | -- | -- | 2560 | 8.1 | 6.3 | 80 | 27.5 | 8.1 | 6.3 | 80 | 27.5 | | |
| | | 13 | 4.0 | 0.00 | 20 | 10 | 129 | 32 | 388 | 134 | 300 | 620 | .4 | 0.00 | 0.00 | 0.06 | 0.06 | 1540 | 454 | 344 | 2540 | 8.0 | 6.3 | 81 | 28.0 | 8.0 | 6.3 | 81 | 28.0 |

TABLE 22.--Chemical-quality survey of Lake Granbury, February 19, 1971
(Results in milligrams per liter except as indicated. Elevation, 692.01 ft. Contents, 145,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Ortho Phosphorus (P) | Dissolved solids (calculated) | Hardness as CaCO ₃ Calcium magnesium sulfate | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | | |
|----------------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|-------------------------------|------------------------------------|---------------------------------------|-----------------|----------------------------|----------------------------|-------------------------------------|---|---|-----|-----------------------------|---------------------------------|---------------------|------|------|------|
| | | | | | | | | | | | | | | | | | | | mg/l | Per- cent sat- uration | | | | |
| A _C | Feb. 19, 1971 | a 1 | 4.6 | 0.00 | 20 | 10 | 120 | 28 | 340 | 152 | 260 | 540 | 0.3 | 0.00 | 0.02 | 1360 | 420 | 300 | 2200 | 8.1 | 10.5 | 96 | 11.5 | |
| | | 5 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 540 | -- | -- | -- | -- | -- | -- | 2250 | 8.1 | 10.4 | 95 | 11.0 | |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 530 | -- | -- | -- | -- | -- | -- | 2250 | 8.1 | 10.3 | 94 | 11.0 | |
| | | 25 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 540 | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 10.3 | 93 | 10.5 | |
| | | 35 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 540 | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 10.2 | 92 | 10.5 | |
| | | 45 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 540 | -- | -- | -- | -- | -- | -- | 2350 | 8.0 | 9.9 | 88 | 10.0 | |
| A _L | Feb. 19 | 66 | 4.4 | .00 | 0 | 0 | 120 | 29 | 340 | 152 | 260 | 540 | .4 | .00 | .04 | 1360 | 420 | 300 | 2400 | 7.9 | 9.7 | 86 | 9.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2150 | 8.1 | 10.5 | 95 | 11.0 | |
| B _R | Feb. 19 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2150 | 8.1 | 10.3 | 94 | 11.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.0 | 10.3 | 94 | 11.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.0 | 10.3 | 93 | 10.5 | |
| | | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 8.0 | 10.4 | 94 | 10.5 | |
| B _C | Feb. 19 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 10.0 | 91 | 11.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 10.1 | 92 | 11.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 9.8 | 89 | 11.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 8.1 | 9.4 | 88 | 12.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .02 | -- | -- | -- | 2300 | 8.0 | 10.2 | 93 | 11.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1900 | 8.0 | 10.1 | 92 | 11.0 |
| B _L | Feb. 19 | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1950 | 8.0 | 10.1 | 92 | 11.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2100 | 8.0 | 9.9 | 90 | 11.0 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2150 | 7.9 | 9.6 | 86 | 10.5 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 7.9 | 9.5 | 85 | 10.0 | |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 7.9 | 9.5 | 85 | 10.0 | |
| | | 63 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .1 | .13 | -- | -- | -- | 2300 | 7.8 | 9.4 | 84 | 10.0 |
| C _C | Feb. 19 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.0 | 10.2 | 93 | 11.0 | |
| | | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.0 | 10.1 | 92 | 11.0 | |
| D _C | Feb. 19 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 8.0 | 10.2 | 93 | 11.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 8.0 | 9.9 | 94 | 13.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 540 | -- | -- | -- | -- | -- | -- | 2400 | 7.9 | 9.5 | 90 | 12.5 | |
| D _L | Feb. 19 | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.9 | 9.6 | 91 | 12.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.9 | 10.0 | 93 | 12.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.9 | 9.9 | 93 | 12.0 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.9 | 9.9 | 91 | 11.5 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.9 | 9.7 | 88 | 11.0 | |
| D _C | Feb. 19 | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.8 | 9.3 | 83 | 10.0 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.7 | 9.1 | 81 | 10.0 | |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .09 | .07 | -- | -- | 2400 | 7.7 | 8.9 | 79 | 9.5 | |

a Bromide (Br) 1.4 mg/l; Iodide (I) 0.03 mg/l; Organic nitrogen (N) 0.26 mg/l; Boron (B) 190 µg/l; Suspended solids at 105°C 5 mg/l; Volatile solids 0 mg/l; Color (units) 0; Turbidity (JTU) 2; Chemical oxygen demand (COD) 11 mg/l; Biochemical oxygen demand (BOD) 1.3 mg/l; Chlorophyll *a* 0.0 µg/l; Chlorophyll *b* 0.0 µg/l; Chlorophyll *c* 0.0 µg/l; Coliform (colonies per 100 ml) 250; Fecal coliform (colonies per 100 ml) 0; Fecal streptococci (colonies per 100 ml) 0; Phenols 0 µg/l; Detergents (MBAS) 0.00 µg/l; Aluminum (Al) 0 µg/l; Arsenic (As) 0 µg/l; Cadmium (Cd) 0 µg/l; Cobalt (Co) 0 µg/l; Chromium, total (Cr) 0 µg/l; Copper (Cu) 4 µg/l; Mercury, dissolved (Hg) <0.5 µg/l; Lithium (Li) 30 µg/l; Nickel (Ni) 0 µg/l; Lead (Pb) 0 µg/l; Strontium (Sr) 1600 µg/l; Zinc (Zn) 24 µg/l.

TABLE 22.--Chemical-quality survey of Lake Granbury, February 19, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 892.01 ft. Contents, 145,100 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------------------------------|-------------------------------|-------------|--|-----|-----------------------|--------------------|------------------|----|------|
| | | | | | | | | | | | | | | | | | | Calcium | Non-calcium | | | mg/l | Percent saturation | | | |
| E _C | Feb. 19, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.9 | 9.7 | 92 | 12.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.9 | 9.7 | 92 | 12.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.9 | 9.5 | 87 | 11.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.8 | 9.2 | 82 | 10.0 | | |
| F _C | Feb. 19 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.8 | 9.1 | 81 | 10.0 | | |
| | | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.7 | 9.2 | 82 | 10.0 | | |
| | | 1 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2250 | 8.0 | 10.1 | 94 | 12.0 | | |
| | | 10 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2300 | 7.9 | 9.9 | 91 | 11.5 | | |
| G _C | Feb. 19 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.9 | 9.6 | 88 | 11.5 | | |
| | | 30 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2350 | 7.8 | 8.7 | 79 | 11.0 | | |
| | | 42 | 3.3 | 0.00 | 0 | 10 | 130 | 30 | 340 | 160 | 270 | 540 | 0.3 | 0 | 0 | 0 | 0 | 0 | 0 | 440 | 310 | 2350 | 7.7 | 8.3 | 75 | 11.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 7.9 | 10.0 | 98 | 14.5 | | |
| H _C | Feb. 19 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.7 | 9.1 | 85 | 12.0 | | |
| | | 15 | -- | 0.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 2300 | 7.6 | 8.8 | 82 | 12.0 | | |
| | | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.5 | 7.5 | 69 | 11.5 | | |
| | | 1 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2400 | 7.9 | 9.8 | 93 | 13.0 | | |
| I _C | Feb. 19 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.9 | 9.5 | 91 | 12.5 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 7.9 | 9.4 | 88 | 12.0 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.8 | 9.2 | 84 | 11.0 | | |
| | | 33 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2400 | 7.7 | 8.8 | 80 | 11.0 | | |
| J _C | Feb. 19 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2050 | 7.8 | 9.3 | 91 | 14.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2150 | 7.8 | 8.4 | 81 | 13.5 | | |
| | | 15 | -- | 0.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0 | 0 | 0 | 0 | 2200 | 7.7 | 9.1 | 86 | 12.5 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.5 | 7.1 | 63 | 10.0 | | |
| K _C | Feb. 19 | 1 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2350 | 7.4 | 7.2 | 65 | 10.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 7.9 | 9.2 | 91 | 15.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 7.7 | 7.9 | 75 | 13.0 | | |
| | | 22 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 7.6 | 7.9 | 74 | 12.0 | | |
| K _C | Feb. 19 | 1 | .5 | 0.00 | 0 | 0 | 120 | 30 | 300 | 172 | 250 | 480 | .3 | 0 | 0 | 0 | 0 | 0 | 1260 | 420 | 270 | 2050 | 7.9 | 10.0 | 97 | 14.0 |
| | | 14 | .7 | 0.00 | 0 | 0 | 120 | 31 | 320 | 165 | 260 | 500 | .3 | 0 | 0 | 0 | 0 | 0 | 1310 | 420 | 290 | 2200 | 7.7 | 8.5 | 79 | 12.0 |

TABLE 23.--Chemical-quality survey of Lake Granbury, June 10, 1971

(Results in milligrams per liter except as indicated. Elevation, 689.39 ft. Contents, 124,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|----------------|---------------|------------|----------------------------|----------------------|------------------|----------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|--|------|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | Percent saturation | | |
| A _C | June 10, 1971 | at | 3.2 | 0.00 | 0 | 0 | 120 | 31 | 340 | 154 | 270 | 560 | 0.3 | 0.0 | 0.0 | 0.00 | 0.00 | 1410 | 440 | 310 | 2250 | 7.8 | 5.9 | 70 | 24.5 | |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.8 | 5.2 | 61 | 24.0 |
| | | 20 | --- | --- | 10 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.9 | 2.4 | 28 | 23.0 |
| | | 30 | --- | --- | 20 | 390 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.2 | 8 | 9 | 24.0 |
| | | 40 | --- | --- | 50 | 890 | --- | --- | --- | --- | --- | 560 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.1 | 0 | 0 | 18.0 |
| A _L | June 10 | b52 | 10 | 0.00 | 700 | 1400 | 140 | 30 | 340 | 192 | 270 | 560 | .4 | 0.00 | 0.00 | .16 | 1450 | 470 | 310 | 2250 | 7.1 | 0 | 0 | 16.5 | | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.8 | 6.4 | 76 | 25.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.8 | 6.2 | 74 | 24.5 | |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.5 | 4.2 | 50 | 24.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.4 | 2.7 | 31 | 23.0 | |
| B _H | June 10 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.2 | 1.8 | 20 | 22.0 | |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.1 | 1.4 | 4 | 20.5 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2260 | 8.1 | 8.0 | 99 | 26.5 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2260 | 8.0 | 8.0 | 99 | 26.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2260 | 7.9 | 7.6 | 93 | 26.0 | |
| B _C | June 10 | 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2260 | 7.7 | 5.0 | 60 | 23.5 | |
| | | 1 | --- | 0.00 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | 0.00 | 0.00 | .02 | --- | --- | --- | 2250 | 8.1 | 7.8 | 96 | 26.5 | |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 8.0 | 7.6 | 93 | 26.0 | |
| | | 20 | --- | --- | 0 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2250 | 7.5 | 4.2 | 50 | 24.5 | |
| | | 25 | --- | --- | 0.00 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 0.04 | .02 | --- | --- | --- | 2250 | 7.2 | 2.0 | 24 | 24.0 | |
| B _L | June 10 | 30 | --- | --- | 0 | 170 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2300 | 7.1 | 4 | 5 | 22.0 | |
| | | 40 | --- | --- | 0 | 610 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2300 | 7.1 | 0 | 0 | 20.0 | |
| | | 50 | --- | --- | 30 | 1100 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2300 | 7.1 | 0 | 0 | 18.0 | |
| | | 60 | --- | --- | 0 | 970 | --- | --- | --- | --- | --- | 550 | --- | --- | --- | --- | --- | --- | --- | --- | 2300 | 7.1 | 1.1 | 1 | 17.0 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2270 | 8.0 | 7.9 | 98 | 26.5 | |
| C _C | June 10 | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2270 | 8.0 | 7.8 | 96 | 26.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2270 | 8.0 | 7.2 | 89 | 26.5 | |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2270 | 7.9 | 6.8 | 84 | 26.5 | |
| | | 19 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2270 | 7.8 | 6.6 | 80 | 26.0 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 2270 | 8.1 | 8.0 | 100 | 27.5 | |

a Bromide (Br) 1.0 mg/l; Iodide (I) 0.040 mg/l; Boron (B) 180 µg/l; Suspended solids at 105°C 8 mg/l; Volatile solids 4 mg/l; Turbidity (JTU) 1; Chemical oxygen demand (COD) 14 mg/l; Biochemical oxygen demand (BOD) 1.7 mg/l; Chlorophyll a 0.0 µg/l; Chlorophyll b 0.0 µg/l; Chlorophyll c 0.0 µg/l; Coliform (colonies per 100 ml) 1000; Fecal coliform (colonies per 100 ml) 2; Fecal streptococci (colonies per 100 ml) 1; Phenols 0 µg/l; Aluminum (Al) 20 µg/l; Arsenic (As) 0 µg/l; Cadmium (Cd) 0 µg/l; Chromium, total (Cr) 1 µg/l; Cobalt (Co) 0 µg/l; Copper (Cu) 3 µg/l; Lead (Pb) 0 µg/l; Lithium (Li) 30 µg/l; Mercury, dissolved (Hg) < 0.5 µg/l; Nickel (Ni) 0 µg/l; Strontium (Sr) 1800 µg/l; Zinc (Zn) 0 µg/l.

b Bromide (Br) 0.9 mg/l; Iodide (I) 0.023 mg/l; Boron (B) 180 µg/l; Suspended solids at 105°C 87 mg/l; Volatile solids 14 mg/l; Turbidity (JTU) 35; Chemical oxygen demand (COD) 44 mg/l; Biochemical oxygen demand (BOD) > 7.9 mg/l; Chlorophyll a 0.0 µg/l; Chlorophyll b 0.0 µg/l; Chlorophyll c 0.0 µg/l; Aluminum (Al) 20 µg/l; Arsenic (As) 0 µg/l; Cadmium (Cd) 0 µg/l; Chromium, total (Cr) 1 µg/l; Cobalt (Co) 0 µg/l; Copper (Cu) 1 µg/l; Lead (Pb) 0 µg/l; Lithium (Li) 30 µg/l; Mercury, dissolved (Hg) < 0.5 µg/l; Nickel (Ni) 0 µg/l; Strontium (Sr) 1800 µg/l; Zinc (Zn) 0 µg/l.

TABLE 23.--Chemical-quality survey of Lake Granbury, June 10, 1971--Continued
 (Results in milligrams per liter except as indicated. Elevation, 689.39 ft. Contents, 124,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (HCO ₃) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen | | Temperature (°C) | |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|--|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|--|------|------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | Percent saturation | | |
| D _C | June 10, 1971 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | 0.03 | -- | -- | -- | 2300 | 8.1 | 8.0 | 99 | 27.0 | |
| | | 10 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .05 | -- | -- | -- | 2300 | 8.0 | 7.2 | 88 | 26.0 | |
| | | 15 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .05 | -- | -- | -- | 2300 | 7.7 | 5.6 | 68 | 26.0 | |
| | | 20 | -- | .00 | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.4 | 2.5 | 30 | 24.5 |
| | | 30 | -- | .00 | 0 | 360 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2350 | 7.1 | .1 | 1 | 23.0 |
| E _C | June 10 | 40 | -- | .00 | 20 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .15 | 1430 | 460 | 300 | 2350 | 7.1 | .0 | 0 | 19.5 | |
| | | 54 | 6.3 | .00 | 0 | 1200 | 130 | 30 | 350 | 186 | 270 | 550 | 0.4 | .0 | .00 | .00 | .15 | 1430 | 460 | 300 | 2350 | 7.1 | .1 | 1 | 17.5 | |
| | | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 8.1 | 7.9 | 98 | 26.5 | |
| | | 10 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 8.0 | 7.6 | 93 | 26.0 | |
| | | 20 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 7.0 | 85 | 26.0 | |
| F _C | June 10 | 30 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.4 | 3.5 | 40 | 23.0 | |
| | | 40 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.3 | .2 | 2 | 19.0 | |
| | | 50 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.3 | .4 | 4 | 18.5 | |
| | | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .11 | -- | -- | 2230 | 8.0 | 7.9 | 98 | 27.0 | |
| | | 10 | -- | .00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2230 | 8.0 | 7.9 | 98 | 26.5 | |
| G _C | June 10 | 20 | -- | .00 | 50 | 640 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2230 | 7.7 | 4.8 | 59 | 26.0 | |
| | | 30 | -- | .00 | 0 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2230 | 7.5 | 3.2 | 38 | 25.0 | |
| | | 40 | -- | .00 | 0 | 2000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2250 | 7.2 | .2 | 2 | 21.0 | |
| | | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 7.5 | 94 | 27.5 | |
| | | 5 | -- | .00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 8.0 | 7.4 | 91 | 27.0 | |
| H _C | June 10 | 10 | -- | .00 | 0 | 140 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.7 | 4.8 | 59 | 26.5 | |
| | | 15 | -- | .00 | 0 | 400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.4 | 3.0 | 37 | 26.0 | |
| | | 19 | -- | .00 | 0 | 400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | 7.2 | .6 | 7 | 26.0 | |
| | | 1 | 1.7 | .00 | 0 | 0 | 120 | 30 | 330 | 158 | 260 | 520 | .4 | .0 | .00 | .00 | .06 | 1340 | 420 | 290 | 2100 | 8.0 | 7.0 | 86 | 26.5 | |
| | | 10 | -- | .00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2100 | 7.9 | 6.0 | 73 | 26.0 | |
| I _C | June 10 | 20 | -- | .00 | 0 | 400 | -- | -- | -- | -- | -- | 470 | -- | -- | -- | -- | -- | -- | -- | -- | 2100 | 7.7 | 5.2 | 63 | 26.0 | |
| | | 30 | -- | .00 | 0 | 400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2000 | 7.4 | 1.0 | 12 | 25.0 | |
| | | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.9 | 6.2 | 78 | 26.0 | |
| | | 5 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.8 | 5.7 | 70 | 26.0 | |
| | | 10 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.7 | 4.5 | 54 | 25.5 | |
| J _C | June 10 | 15 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.5 | 3.2 | 39 | 25.5 | |
| | | 22 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1850 | 7.0 | .4 | 5 | 25.5 | |
| | | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 7.9 | 5.8 | 73 | 28.0 | |
| | | 5 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 7.8 | 5.2 | 65 | 27.5 | |
| | | 10 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1200 | 7.6 | 4.4 | 54 | 27.0 | |
| K _C | June 10 | 15 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.5 | 4.3 | 52 | 26.0 | |
| | | 20 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 830 | 7.1 | .4 | 5 | 25.0 | |
| | | 1 | 1.0 | .00 | 30 | 0 | 76 | 19 | 190 | 132 | 150 | 300 | .3 | .0 | .00 | .14 | .00 | 790 | 270 | 160 | 1330 | 7.9 | 7.0 | 90 | 28.5 | |
| 5 | 1.6 | .00 | 120 | 180 | 84 | 19 | 190 | 158 | 150 | 300 | .3 | .0 | .00 | .36 | .00 | 818 | 290 | 160 | 1350 | 7.7 | 5.6 | 71 | 28.0 | | | |
| 11 | 1.6 | .00 | 20 | 420 | 84 | 19 | 190 | 158 | 150 | 300 | .3 | .0 | .00 | .36 | .00 | 818 | 290 | 160 | 1350 | 7.3 | 2.8 | 35 | 28.0 | | | |

TABLE 24.---Chemical-quality survey of Lake Granbury, September 28-29, 1971

(Results in milligrams per liter except as indicated. Elevation, 691.62 ft. Contents, 141,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (HCO ₃) | Bicarbonate (SO ₄) (HCO ₃) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|--|--|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | saturation | |
| A _C | Sept. 29, 1971 | a1 | 4.6 | 0.00 | 0 | 0 | 130 | 33 | 370 | 120 | 300 | 600 | 0.4 | 0.0 | 0.00 | 0.03 | 1510 | 460 | 360 | 2650 | 11.8 | 144 | 26.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 11.2 | 137 | 25.5 | |
| | | 20 | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 9.6 | 117 | 25.5 | |
| | | 30 | -- | -- | 0 | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 5.4 | 64 | 24.5 | |
| | | 40 | -- | -- | 0 | 190 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 4.4 | 52 | 24.5 | |
| | | 45 | -- | -- | .00 | 650 | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | -- | .04 | -- | -- | 2800 | 2.0 | 24 | 24.0 | |
| | | 50 | -- | -- | 60 | 1800 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | .4 | 5 | 23.5 | |
| 57 | -- | -- | 60 | 2600 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | .0 | 0 | 22.5 | | | |
| b64 | 8.3 | 1.4 | 80 | 3700 | 130 | 30 | 340 | 188 | 240 | 540 | .4 | .0 | .00 | .20 | 1380 | 440 | 290 | 2500 | .6 | 7 | 21.5 | | | |
| A _L | Sept. 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 11.8 | 144 | 25.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 11.4 | 139 | 25.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 11.0 | 134 | 25.5 | | |
| B _R | Sept. 29 | 33 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 6.6 | 79 | 25.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 11.0 | 134 | 25.5 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 10.8 | 132 | 25.5 | | |
| B _C | Sept. 29 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 10.6 | 129 | 25.5 | | |
| | | 17 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 10.2 | 129 | 25.5 | | |
| | | 1 | -- | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | 0.00 | .06 | -- | -- | 2650 | 10.6 | 129 | 25.5 | | |
| B _L | Sept. 29 | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2650 | 10.0 | 122 | 25.5 | | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 9.0 | 107 | 25.0 | | |
| | | 30 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 5.2 | 62 | 24.0 | | |
| | | 40 | -- | -- | 0 | 170 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 4.2 | 49 | 23.5 | | |
| | | 50 | -- | -- | 0 | 650 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2950 | 3.0 | 35 | 23.5 | | |
| | | 62 | -- | -- | 1.4 | 20 | 2000 | -- | -- | -- | -- | -- | -- | -- | 0.00 | .20 | -- | -- | 2700 | .7 | 7 | 22.0 | | |
| B _L | Sept. 29 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 11.2 | 137 | 26.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 11.2 | 137 | 25.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 11.0 | 134 | 25.5 | | |
| | | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 10.2 | 124 | 25.5 | | |
| C _C | Sept. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 6.2 | 74 | 25.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 10.8 | 133 | 26.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 10.6 | 131 | 26.5 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 10.2 | 124 | 26.0 | | |
| C _C | Sept. 28 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 10.4 | 127 | 26.0 | | |
| | | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2600 | 9.8 | 120 | 25.5 | | |
| | | | | | | | | | | | | | | | | | | 2600 | 9.2 | 110 | 25.0 | | | |

a Bromide (Br) 1.0 mg/l; Iodide (I) 0.038 mg/l; Organic nitrogen (N) 0.21 mg/l; Boron (B) 230 ug/l; Suspended solids at 105°C 6 mg/l; Volatile solids 0 mg/l; Turbidity (JTU) 1; Chemical oxygen demand (COD) 14 mg/l; Biochemical oxygen demand (BOD) 1.9 mg/l; Chlorophyll a 0.0 ug/l; Chlorophyll b 0.0 ug/l; Chlorophyll c 0.0 ug/l; Coliform (colonies per 100 ml) 2000; Fecal coliform (colonies per 100 ml) 1; Fecal streptococci (colonies per 100 ml) 17; Phenols 0 ug/l; Detergents (MBAS) 0.00 ug/l; Aluminum (Al) 0 ug/l; Arsenic (As) 0 ug/l; Cadmium (Cd) 0 ug/l; Chromium, total (Cr) 0 ug/l; Cobalt (Co) 0 ug/l; Copper (Cu) 0 ug/l; Lead (Pb) 0 ug/l; Lithium (Li) 20 ug/l; Mercury, dissolved (Hg) < 0.5 ug/l; Nickel (Ni) 0 ug/l; Strontium (Sr) 1900 ug/l; Zinc (Zn) 10 ug/l.

b Bromide (Br) 1.1 mg/l; Iodide (I) 0.062 mg/l; Organic nitrogen (N) 0.30 mg/l; Boron (B) 210 ug/l; Suspended solids at 105°C 13 mg/l; Volatile solids 6 mg/l; Turbidity (JTU) 4; Chemical oxygen demand (COD) 16 mg/l; Biochemical oxygen demand (BOD) 2.9 mg/l; Chlorophyll a 0.0 ug/l; Chlorophyll b 0.0 ug/l; Chlorophyll c 0.0 ug/l; Phenols 0 ug/l; Detergents (MBAS) 0.00 ug/l; Aluminum (Al) 0 ug/l; Arsenic (As) 10 ug/l; Cadmium (Cd) 0 ug/l; Chromium, total (Cr) 0 ug/l; Cobalt (Co) 0 ug/l; Copper (Cu) 0 ug/l; Lead (Pb) 0 ug/l; Lithium (Li) 20 ug/l; Mercury, dissolved (Hg) < 0.5 ug/l; Nickel (Ni) 0 ug/l; Strontium (Sr) 1800 ug/l; Zinc (Zn) 20 ug/l.

TABLE 24.--Chemical-quality survey of Lake Granbury, September 28-29, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 691.62 ft. Contents, 141,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Hardness as CaCO ₃ | Specific conductance (micro-mhos at 25° C) | Dissolved oxygen | | Temperature (°C) | |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|-------------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|--|--------------------|-----------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | Calcium, magnesium | Non-bicarbonate | | mg/l |
| D _C | Sept. 28, 1971 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | 0.03 | -- | -- | 2700 | 11.0 | 134 | 26.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2700 | 9.2 | 112 | 25.5 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 6.0 | 71 | 24.5 | |
| | | 30 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2950 | 4.6 | 55 | 24.0 | |
| | | 40 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 3000 | 3.6 | 42 | 23.5 |
| | | 56 | 5.5 | 0.00 | 0 | 130 | 150 | 35 | 420 | 120 | 360 | 670 | 0.4 | 0 | 0.00 | 0.04 | 1700 | 520 | 420 | 3000 | 3.2 | 38 | 23.5 |
| E _C | Sept. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 9.8 | 120 | 26.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 9.4 | 115 | 25.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2750 | 8.8 | 107 | 25.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 6.4 | 76 | 25.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2850 | 4.0 | 47 | 23.5 |
| | | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 4.6 | 53 | 23.5 |
| F _C | Sept. 28 | 1 | 4.6 | 0.00 | 0 | 0 | 140 | 35 | 400 | 114 | 340 | 640 | 4 | 0 | 0.00 | 0.03 | 1620 | 490 | 400 | 2900 | 10.4 | 127 | 26.0 |
| | | 10 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | -- | -- | -- | 2900 | 10.0 | 122 | 25.5 |
| | | 20 | -- | 0.00 | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.04 | -- | -- | 2900 | 6.4 | 76 | 24.5 |
| | | 30 | -- | 0.00 | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.04 | -- | -- | 2900 | 3.6 | 42 | 23.5 |
| | | 41 | -- | 0.00 | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.04 | -- | -- | 2900 | 4.0 | 47 | 23.5 |
| | | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.05 | -- | -- | 2900 | 10.0 | 125 | 27.0 |
| G _C | Sept. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2850 | 9.0 | 111 | 26.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2850 | 7.8 | 95 | 25.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 6.4 | 78 | 25.5 | |
| | | 16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 6.4 | 78 | 25.5 | |
| | | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 3.2 | 38 | 25.0 |
| | | 21 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 10.0 | 125 | 27.0 |
| H _C | Sept. 28 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.04 | -- | -- | 2900 | 9.8 | 120 | 26.0 | |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 8.2 | 98 | 24.5 | |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2900 | 3.0 | 35 | 23.0 | |
| | | 20 | -- | 0.00 | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.04 | -- | -- | 2900 | 3.6 | 42 | 23.5 |
| | | 20 | -- | 0.00 | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.04 | -- | -- | 2900 | 3.2 | 37 | 23.0 |
| | | 31 | -- | 0.00 | 0 | 130 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.05 | -- | -- | 2900 | 3.4 | 40 | 23.0 |
| I _C | Sept. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 9.2 | 112 | 25.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 7.2 | 86 | 25.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 4.6 | 55 | 24.0 | |
| | | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 3.8 | 44 | 23.5 | |
| | | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 2.0 | 23 | 23.5 |
| | | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 9.8 | 121 | 26.5 |
| J _C | Sept. 28 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 9.4 | 115 | 26.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 9.2 | 112 | 26.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.8 | 107 | 25.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 8.8 | 107 | 25.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 5.8 | 69 | 24.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2800 | 9.2 | 115 | 27.5 | |
| K _C | Sept. 28 | 1 | 4.8 | 0.00 | 0 | 0 | 110 | 26 | 270 | 136 | 230 | 440 | 4 | 0 | 0.00 | 0.06 | 1150 | 380 | 270 | 1950 | 9.2 | 115 | 27.5 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2000 | 8.5 | 105 | 27.0 |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.06 | -- | -- | 2200 | 7.2 | 88 | 26.5 |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | 0.00 | 0.06 | -- | -- | 2200 | 7.2 | 88 | 26.5 |
| | | 13 | 4.7 | 0.00 | 0 | 0 | 130 | 31 | 320 | 140 | 280 | 530 | 4 | 0 | 0.00 | 0.06 | 1370 | 450 | 340 | 2400 | 6.8 | 82 | 25.5 |
| | | 13 | 4.7 | 0.00 | 0 | 0 | 130 | 31 | 320 | 140 | 280 | 530 | 4 | 0 | 0.00 | 0.06 | 1370 | 450 | 340 | 2400 | 6.8 | 82 | 25.5 |

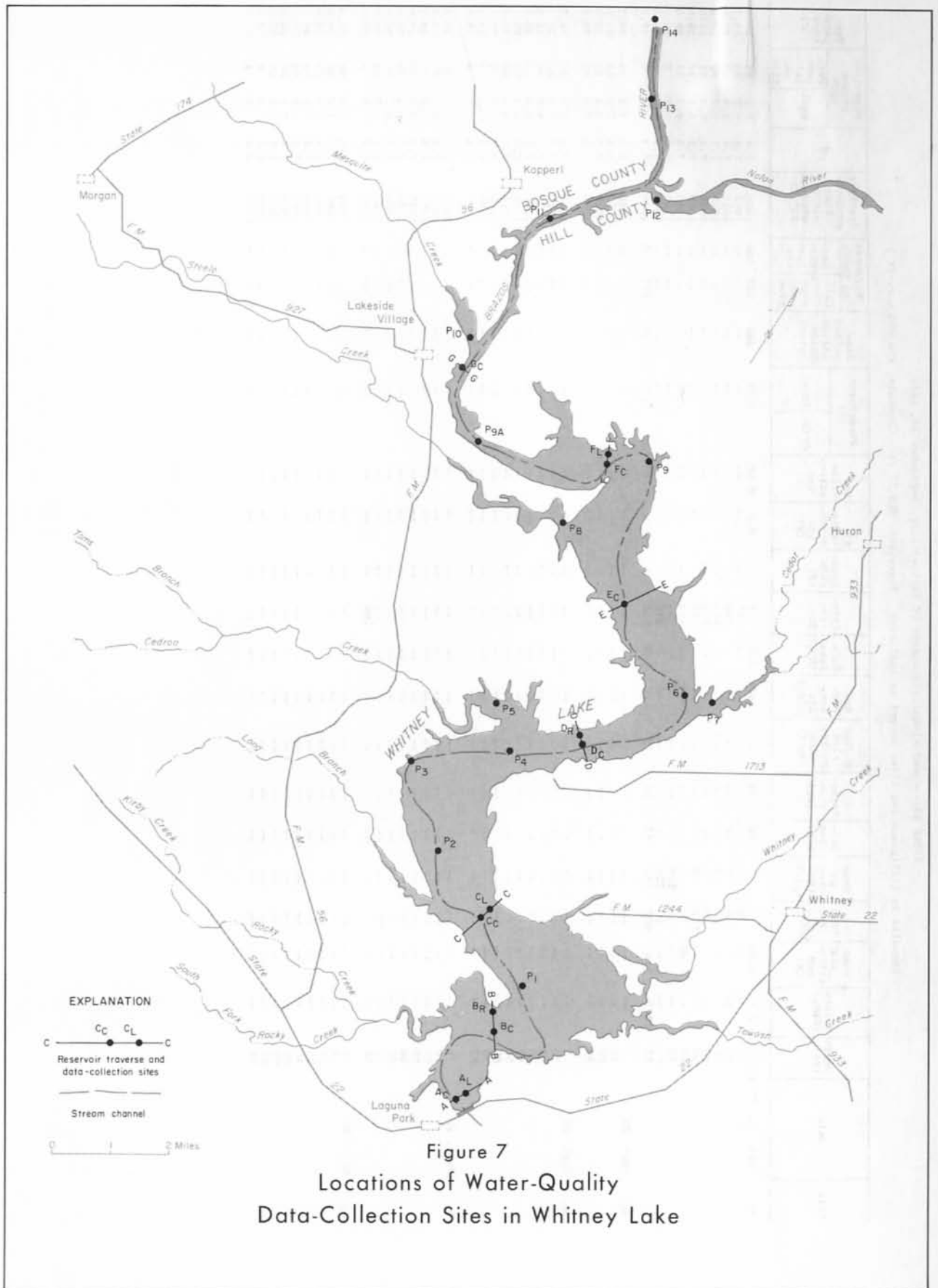


TABLE 25.--Chemical-quality survey of Whitney Lake, September 23, 1970

(Results in milligrams per liter except as indicated. Elevation, 518.57 ft. Contents, 356,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|---|------|-----------------------|------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | saturation | | |
| AC | Sept. 23, 1970 | 1 | 3.7 | 0.00 | 0 | 0 | 66 | 14 | 121 | 142 | 102 | 185 | 0.3 | 0.0 | 0.00 | 0.03 | 0.03 | 562 | 222 | 106 | 1010 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 10 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.4 | 6.9 | 84 | 26.0 |
| | | 20 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.4 | 6.9 | 84 | 26.0 |
| | | 30 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.7 | 82 | 26.0 |
| | | 40 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.4 | 78 | 26.0 |
| | | 50 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.3 | 77 | 26.0 |
| | | 60 | --- | --- | .00 | 10 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.2 | 6.3 | 77 | 26.0 |
| | | 70 | --- | --- | --- | 0 | 200 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1000 | 6.2 | 6.3 | 72 | 20.0 |
| AL | Sept. 23 | 80 | --- | --- | 10 | 220 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1230 | 6.5 | 6.2 | 2 | 19.0 | |
| | | 83 | 9.5 | 1.6 | 400 | 240 | 84 | 14 | 136 | 191 | 103 | 215 | .3 | .0 | .00 | .19 | .19 | 659 | 267 | 110 | 1210 | 6.4 | 6.2 | 2 | 19.0 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.5 | 7.3 | 89 | 26.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.4 | 7.2 | 88 | 26.0 |
| BC | Sept. 23 | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.8 | 83 | 26.0 |
| | | 34 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.8 | 83 | 26.0 |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.5 | 7.4 | 90 | 26.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.8 | 83 | 26.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.6 | 80 | 26.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.6 | 80 | 26.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.5 | 79 | 26.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1010 | 7.3 | 6.5 | 79 | 26.0 |
| PL | Sept. 23 | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1090 | 6.7 | 5.4 | 66 | 26.0 |
| | | 70 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1090 | 6.5 | 5.2 | 2 | 22.0 |
| | | 80 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1090 | 6.5 | 5.2 | 2 | 22.0 |
| | | 80 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1200 | 6.4 | 5.2 | 2 | 19.0 |
| CC | Sept. 23 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1030 | 7.4 | 7.2 | 88 | 26.5 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1030 | 7.3 | 6.8 | 83 | 26.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1030 | 7.3 | 6.7 | 82 | 26.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1040 | 7.3 | 6.5 | 79 | 26.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1040 | 7.3 | 6.5 | 79 | 26.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1040 | 7.2 | 5.7 | 70 | 26.0 |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1040 | 6.7 | 5.2 | 14 | 25.0 |
| | | 76 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 198 | --- | --- | --- | --- | --- | --- | --- | --- | 1140 | 6.4 | 5.2 | 2 | 20.0 |
| CC | Sept. 23 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.5 | 7.9 | 96 | 26.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.4 | 7.2 | 86 | 26.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.4 | 7.0 | 85 | 26.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.4 | 7.0 | 85 | 26.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.4 | 6.9 | 84 | 26.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.4 | 7.1 | 87 | 26.0 |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 7.3 | 7.1 | 86 | 25.5 |
| | | 65 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1080 | 6.7 | 5.2 | 2 | 21.0 |
| 74 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1120 | 6.4 | 5.2 | 2 | 21.0 | | |

TABLE 25.--Chemical-quality survey of Whitney Lake, September 23, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 518.57 ft. Contents, 356,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) | |
|----------------|----------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-----------------|-------------------|---------------------------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | saturation | | |
| P ₂ | Sept. 23, 1970 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 198 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.5 | 7.1 | 87 | 26.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.4 | 7.0 | 85 | 26.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.3 | 6.6 | 80 | 26.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.3 | 6.6 | 80 | 26.0 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.3 | 6.4 | 78 | 26.0 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.2 | 6.1 | 74 | 26.0 |
| P ₃ | Sept. 23 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 6.6 | .9 | 10 | 23.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 6.6 | .9 | 10 | 23.0 | |
| | | 71 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 6.5 | .2 | 2 | 21.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.5 | 7.6 | 94 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.5 | 7.4 | 91 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.4 | 7.0 | 85 | 26.5 | |
| P ₄ | Sept. 23 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1080 | 7.4 | 6.9 | 84 | 26.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.3 | 6.6 | 80 | 26.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1090 | 7.2 | 5.8 | 71 | 26.0 | |
| | | 57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 6.6 | .2 | 2 | 25.0 | |
| | | 66 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 6.6 | .2 | 2 | 24.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.5 | 7.6 | 93 | 26.5 | |
| P ₅ | Sept. 23 | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 185 | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.5 | 7.9 | 96 | 26.0 | |
| | | 20 | -- | -- | 40 | 0 | -- | -- | -- | -- | -- | 185 | -- | -- | -- | -- | -- | -- | -- | -- | 1050 | 7.5 | 7.9 | 96 | 26.0 | |
| | | 1 | 4.1 | 0.00 | 260 | 0 | 68 | 0 | 68 | 16 | 140 | 137 | 118 | 215 | 0.3 | 0.0 | 0.00 | 0.02 | 629 | 236 | 123 | 1120 | 7.4 | 7.2 | 89 | 27.0 |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 212 | -- | -- | -- | -- | -- | -- | -- | 1120 | 7.4 | 7.0 | 86 | 27.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 208 | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.4 | 6.8 | 83 | 26.5 | |
| | | 30 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | 208 | -- | -- | .00 | -- | -- | -- | -- | 1110 | 7.4 | 6.8 | 83 | 26.5 | |
| D _C | Sept. 23 | 40 | -- | -- | 40 | 0 | -- | -- | -- | -- | -- | 210 | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.4 | 6.9 | 84 | 26.0 | | |
| | | 50 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 208 | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.5 | 7.0 | 85 | 26.0 | | |
| | | 63 | 4.7 | .00 | 10 | 0 | 68 | 0 | 68 | 16 | 133 | 138 | 117 | 205 | .3 | .0 | .00 | .04 | 612 | 236 | 122 | 1110 | 7.5 | 6.8 | 83 | 26.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.5 | 7.4 | 90 | 26.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| P ₆ | Sept. 23 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |
| | | 58 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.4 | 7.2 | 88 | 26.0 | |

TABLE 25.--Chemical-quality survey of Whitney Lake, September 23, 1970--Continued
(Results in milligrams per liter except as indicated. Elevation, 518.57 ft. Contents, 356,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) mg/l | Temperature (°C) | | | |
|-----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|--|------|----------------------------|------------------|------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | | | | | |
| P ₇ | Sept. 23, 1970 | 1 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 205 | -- | -- | -- | -- | -- | 668 | 244 | 136 | 1110 | 7.5 | 7.2 | 89 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.3 | 6.8 | 84 | 27.0 | |
| | | 28 | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | 205 | -- | -- | -- | -- | -- | -- | -- | 1110 | 7.3 | 6.9 | 85 | 27.0 | |
| EC | Sept. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.5 | 7.5 | 91 | 26.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.4 | 7.4 | 90 | 26.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.4 | 7.4 | 90 | 26.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.4 | 7.4 | 90 | 26.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.4 | 7.4 | 90 | 26.0 | |
| P ₈ | Sept. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.4 | 7.2 | 87 | 25.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1130 | 7.3 | 6.8 | 83 | 26.0 | |
| | | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1140 | 7.2 | 6.2 | 76 | 26.0 | |
| P ₉ | Sept. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.5 | 7.5 | 93 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.5 | 7.4 | 90 | 26.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.5 | 7.4 | 90 | 26.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.4 | 7.1 | 87 | 26.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 7.5 | 7.1 | 87 | 26.0 | |
| FC | Sept. 23 | 1 | 4.4 | 0.00 | 0 | 0 | 70 | 17 | 150 | 133 | 129 | 232 | 0.3 | 0.0 | 0.00 | 0.03 | 0.03 | 668 | 244 | 136 | 1220 | 7.5 | 7.1 | 88 | 27.0 | |
| | | 10 | -- | 0.00 | 10 | 0 | -- | -- | -- | -- | -- | -- | 245 | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 7.3 | 6.3 | 78 | 27.0 |
| | | 20 | -- | 0.00 | 240 | 0 | -- | -- | -- | -- | -- | -- | 255 | -- | 0.00 | 0.04 | 0.04 | -- | -- | -- | -- | 1290 | 7.2 | 5.9 | 73 | 27.0 |
| | | 30 | -- | 0.00 | 10 | 0 | -- | -- | -- | -- | -- | -- | 302 | -- | 0.00 | 0.06 | 0.06 | -- | -- | -- | -- | 1490 | 6.9 | 4.2 | 52 | 27.0 |
| | | 43 | 5.0 | 0.00 | 0 | 30 | 84 | 21 | 204 | 140 | 165 | 165 | 320 | .3 | 0.00 | 0.06 | 0.06 | 868 | 296 | 182 | 1510 | 6.8 | 3.2 | 40 | 27.0 | |
| P ₁₀ | Sept. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 352 | -- | -- | -- | -- | -- | -- | -- | -- | 1640 | 7.6 | 7.3 | 88 | 25.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1650 | 7.6 | 7.3 | 87 | 25.0 | |
| P ₁₁ | Sept. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1900 | 7.3 | 6.4 | 78 | 26.5 | |
| | | 16 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1900 | 7.1 | 4.6 | 56 | 26.0 | |
| P ₁₂ | Sept. 23 | 1 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1510 | 7.2 | 6.3 | 77 | 26.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1510 | 7.2 | 6.0 | 72 | 25.5 | |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 310 | -- | -- | -- | -- | -- | -- | -- | 1510 | 7.2 | 6.6 | 79 | 25.0 | |
| P ₁₃ | Sept. 23 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 438 | -- | -- | -- | -- | -- | -- | -- | -- | 1970 | 7.5 | 6.5 | 79 | 26.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1970 | 7.4 | 6.5 | 79 | 26.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1970 | 7.4 | 6.4 | 78 | 26.5 | |
| | | 24 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1970 | 7.3 | 6.2 | 76 | 26.5 | |
| P ₁₄ | Sept. 23 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 430 | -- | 0.00 | 0.04 | 0.04 | -- | -- | -- | -- | 1950 | 7.1 | 6.4 | 79 | 27.0 | |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | 430 | -- | 0.00 | 0.04 | 0.04 | -- | -- | -- | -- | 1950 | 7.1 | 6.3 | 78 | 27.0 | |
| | | 18 | 5.2 | 0.00 | 0 | 0 | 98 | 25 | 279 | 144 | 216 | 432 | .3 | 0.00 | 0.19 | 0.19 | 1130 | 348 | 230 | 1950 | 7.1 | 6.2 | 76 | 26.5 | | |

TABLE 26.--Chemical-quality survey of Whitney Lake, February 10, 17, 1971
(Results in milligrams per liter except as indicated. Elevation, 518.44 ft. Contents, 354,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) (Mg) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) (Cl) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|---------------|---------------|-------------------------------|----------------------------|------------------------|-----------------------------|-------------------------|-------------------|---------------------------------------|------------------------------------|---------------------------------------|------------------|-----------------|----------------------------|----------------------------|-------------------|-------|-------------------------------------|----------------------------------|-------------------|---|------|-----------------------------|-----------------------|---------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non- carbonate | | | mg/l | Percent saturation | |
| A _C | Feb. 17, 1971 | 1 | 4.8 | 0.00 | 70 | 0 | 78 | 17 | 150 | 146 | 130 | 230 | 0.3 | 0.0 | 0.00 | 0.02 | 686 | 260 | 140 | 1240 | 8.0 | 10.4 | 93 | 10.5 | 10.5 |
| | | 5 | --- | --- | 90 | 0 | --- | --- | --- | --- | --- | 230 | --- | --- | --- | --- | --- | --- | --- | 1240 | 8.0 | 10.5 | 94 | 10.5 | 10.5 |
| | | 15 | --- | --- | 40 | 0 | --- | --- | --- | --- | --- | 230 | --- | --- | --- | --- | --- | --- | --- | 1240 | 8.0 | 10.4 | 92 | 10.0 | 10.0 |
| | | 35 | --- | --- | 10 | 0 | --- | --- | --- | --- | --- | 230 | --- | --- | --- | --- | --- | --- | --- | 1240 | 8.0 | 10.4 | 92 | 10.0 | 10.0 |
| | | 45 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.3 | 91 | 10.5 | 10.5 |
| | | 55 | --- | --- | 140 | 0 | --- | --- | --- | --- | --- | --- | 240 | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.3 | 90 | 9.5 | 9.5 |
| | | 65 | --- | --- | --- | 40 | 0 | --- | --- | --- | --- | --- | 230 | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.3 | 90 | 9.5 | 9.5 |
| A _L | Feb. 17 | 75 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | 230 | --- | --- | --- | --- | --- | --- | 1240 | 9.0 | 9.8 | 75 | 9.5 | 9.5 | |
| | | 86 | 7.0 | .00 | 90 | 360 | 79 | 17 | 150 | 152 | 140 | 230 | .3 | .0 | .00 | .25 | 699 | 270 | 140 | 1260 | 7.9 | 8.9 | 77 | 9.0 | 9.0 |
| | | 1 | --- | .00 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .0 | .00 | .01 | --- | --- | 1240 | 8.0 | 10.3 | 92 | 10.5 | 10.5 |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.5 | 94 | 10.5 | 10.5 |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.4 | 92 | 10.0 | 10.0 |
| | | 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.4 | 92 | 10.0 | 10.0 |
| | | 35 | --- | .00 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | .02 | --- | 1240 | 7.9 | 10.4 | 92 | 10.0 | 10.0 |
| B _C | Feb. 17 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.5 | 94 | 10.5 | 10.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.4 | 92 | 10.0 | 10.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.4 | 92 | 10.0 | 10.0 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.4 | 92 | 10.0 | 10.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 7.9 | 10.5 | 91 | 10.0 | 10.0 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1280 | 7.9 | 10.2 | 90 | 10.0 | 10.0 |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1280 | 7.9 | 10.0 | 85 | 10.0 | 10.0 |
| | | 70 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1280 | 7.9 | 9.9 | 87 | 9.5 | 9.5 |
| P ₁ | Feb. 17 | 81 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1280 | 7.8 | 9.4 | 82 | 9.5 | 9.5 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1280 | 8.0 | 10.6 | 95 | 11.0 | 11.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1280 | 8.0 | 10.5 | 95 | 11.0 | 11.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1300 | 8.0 | 10.4 | 93 | 10.5 | 10.5 |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1320 | 8.0 | 10.2 | 90 | 10.0 | 10.0 |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1320 | 8.0 | 10.1 | 89 | 9.5 | 9.5 |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1320 | 8.0 | 10.1 | 89 | 9.5 | 9.5 |
| C _C | Feb. 17 | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1320 | 8.0 | 10.0 | 86 | 9.0 | 9.0 | |
| | | 70 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1320 | 8.0 | 9.9 | 85 | 9.0 | 9.0 | |
| | | 78 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1320 | 7.9 | 9.8 | 84 | 9.0 | 9.0 |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.6 | 95 | 11.0 | 11.0 |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.6 | 95 | 11.0 | 11.0 |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.6 | 95 | 10.5 | 10.5 |
| | | 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1260 | 8.0 | 10.5 | 93 | 10.0 | 10.0 |
| 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1300 | 7.9 | 10.1 | 89 | 9.5 | 9.5 | | |
| 45 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1300 | 7.9 | 10.1 | 89 | 9.5 | 9.5 | | |
| 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1300 | 7.9 | 10.1 | 89 | 9.5 | 9.5 | | |
| 65 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1300 | 7.9 | 9.9 | 87 | 9.5 | 9.5 | | |
| 75 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 1300 | 7.9 | 9.8 | 86 | 9.5 | 9.5 | | |

TABLE 26.--Chemical-quality survey of Whitney Lake, February 10, 17, 1971.--Continued
 (Results in milligrams per liter except as indicated. Elevation, 518.44 ft. Contents, 354,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (HCO ₃) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|--|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-----------|--|------|-----------------------|--------------------|------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Magnesium | | | mg/l | Percent saturation | | | |
| P ₂ | Feb. 17, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1180 | 8.0 | 10.6 | 96 | 11.5 | 10.6 | 96 | 11.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1200 | 8.0 | 10.7 | 96 | 11.0 | 10.7 | 96 | 11.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 8.0 | 10.3 | 91 | 10.0 | 10.3 | 91 | 10.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 7.9 | 10.2 | 90 | 10.0 | 10.2 | 90 | 10.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1240 | 7.9 | 10.1 | 89 | 10.0 | 10.1 | 89 | 10.0 | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.9 | 9.9 | 85 | 9.5 | 9.9 | 85 | 9.5 | |
| P ₃ | Feb. 17 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.1 | 10.6 | 95 | 11.0 | 10.6 | 95 | 11.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.1 | 10.8 | 97 | 11.0 | 10.8 | 97 | 11.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.1 | 10.6 | 95 | 11.0 | 10.6 | 95 | 11.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.0 | 10.6 | 95 | 10.5 | 10.6 | 95 | 10.5 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | 8.0 | 10.3 | 91 | 10.0 | 10.3 | 91 | 10.0 | | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 10.1 | 89 | 10.0 | 10.1 | 89 | 10.0 | | |
| P ₄ | Feb. 17 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 10.1 | 89 | 10.0 | 10.1 | 89 | 10.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.8 | 10.1 | 89 | 9.5 | 10.1 | 89 | 9.5 | | |
| | | 13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.0 | 10.8 | 98 | 11.5 | 10.8 | 98 | 11.5 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.0 | 10.7 | 96 | 11.0 | 10.7 | 96 | 11.0 | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1360 | 7.9 | 10.5 | 94 | 10.5 | 10.5 | 94 | 10.5 | | |
| | | 64 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1380 | 7.9 | 10.1 | 89 | 10.0 | 10.1 | 89 | 10.0 | | |
| P ₅ | Feb. 17 | 1 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.02 | 0.02 | 1280 | 8.0 | 10.4 | 97 | 12.5 | 10.4 | 97 | 12.5 | |
| | | 5 | -- | 0.00 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.09 | 0.09 | 1280 | 8.0 | 10.4 | 96 | 12.0 | 10.4 | 96 | 12.0 |
| | | 13 | -- | 0.00 | 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.09 | 0.09 | 1280 | 7.9 | 10.3 | 95 | 12.0 | 10.3 | 95 | 12.0 |
| D _C | Feb. 17 | 1 | -- | 0.00 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.02 | 0.02 | 1300 | 8.0 | 10.2 | 94 | 12.0 | 10.2 | 94 | 12.0 | |
| | | 10 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1300 | 8.0 | 10.4 | 95 | 11.5 | 10.4 | 95 | 11.5 | |
| | | 20 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1320 | 7.9 | 10.4 | 94 | 11.0 | 10.4 | 94 | 11.0 | |
| | | 30 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1380 | 7.9 | 10.1 | 90 | 10.5 | 10.1 | 90 | 10.5 | |
| | | 40 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1400 | 7.9 | 10.0 | 88 | 10.0 | 10.0 | 88 | 10.0 | |
| | | 50 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.01 | 0.01 | 1440 | 7.8 | 10.7 | 95 | 10.0 | 10.7 | 95 | 10.0 |
| P ₆ | Feb. 17 | 1 | 5.4 | 0.11 | 0 | 0 | 78 | 20 | 190 | 154 | 160 | 280 | 280 | 0.3 | 0 | 0 | 0.03 | 0.03 | 1480 | 7.8 | 9.5 | 84 | 10.0 | 9.5 | 84 | 10.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 10.6 | 98 | 12.0 | 10.6 | 98 | 12.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 10.6 | 98 | 12.0 | 10.6 | 98 | 12.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | 7.9 | 10.3 | 93 | 11.0 | 10.3 | 93 | 11.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 7.8 | 10.2 | 91 | 10.5 | 10.2 | 91 | 10.5 | |
| | | 59 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1500 | 7.6 | 9.6 | 85 | 10.0 | 9.6 | 85 | 10.0 | |

TABLE 26.--Chemical-quality survey of Whitney Lake, February 10, 17, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 518.44 ft. Contents, 354,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) (Mg) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos/cm at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|-------------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|---|------|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | |
| P7 | Feb. 17, 1971 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | 0.02 | -- | -- | 1300 | 7.9 | 10.6 | 100 | 13.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 10.6 | 98 | 12.0 | | |
| | | 25 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0 | .00 | .02 | -- | -- | 1300 | 7.8 | 10.3 | 95 | 12.0 | |
| | | 36 | -- | .00 | 0 | 10 | -- | -- | -- | -- | 250 | -- | -- | -- | 0 | .00 | .04 | -- | -- | 1360 | 7.8 | 10.5 | 97 | 11.0 | |
| E8 | Feb. 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | 8.3 | 11.1 | 93 | 8.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | 8.1 | 11.1 | 93 | 8.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | 7.8 | 11.1 | 92 | 7.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1320 | 7.9 | 11.1 | 92 | 7.5 | | |
| | | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1320 | 7.9 | 11.1 | 92 | 7.5 | |
| E9 | Feb. 17 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.1 | 10.6 | 98 | 12.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.1 | 10.7 | 99 | 12.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | 8.1 | 10.7 | 96 | 11.0 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1380 | 8.1 | 10.6 | 95 | 11.0 | | |
| | | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1420 | 8.0 | 10.2 | 90 | 10.0 | |
| P8 | Feb. 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 11.2 | 92 | 7.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | 7.9 | 11.2 | 92 | 7.0 | | |
| | | 19 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1360 | 7.9 | 11.1 | 91 | 7.0 | | |
| P9 | Feb. 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 8.4 | 10.7 | 90 | 8.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 8.5 | 10.8 | 91 | 8.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 8.4 | 10.8 | 91 | 8.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 8.4 | 10.8 | 91 | 8.0 | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | 8.5 | 10.8 | 89 | 8.0 | |
| F9 | Feb. 10 | 1 | -- | .00 | 50 | 0 | -- | -- | -- | -- | -- | 280 | -- | -- | .0 | .00 | .04 | -- | 1480 | 7.8 | 10.6 | 91 | 9.0 | | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 280 | -- | -- | -- | -- | -- | -- | 1440 | 7.7 | 10.6 | 90 | 8.5 | | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | 280 | -- | -- | -- | -- | -- | -- | 1440 | 7.9 | 10.5 | 90 | 8.5 | | |
| | | 42 | 5.0 | .11 | 0 | 0 | 90 | 20 | 180 | 156 | 160 | 290 | 0.3 | .0 | .00 | .06 | 8.14 | 310 | 180 | 1490 | 7.8 | 10.1 | 86 | 8.5 | |
| G9 | Feb. 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1750 | 7.7 | 10.6 | 91 | 9.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1750 | 7.7 | 10.6 | 91 | 9.0 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1700 | 7.6 | 10.5 | 89 | 8.5 | | |
| | | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 350 | -- | -- | -- | -- | -- | -- | 1750 | 7.7 | 10.5 | 89 | 8.5 | | |
| P10 | Feb. 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1560 | 7.8 | 11.7 | 98 | 8.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1560 | 7.8 | 12.0 | 101 | 8.0 | | |

TABLE 26.--Chemical-quality survey of Whitney Lake, February 10, 17, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 518.44 ft. Contents, 354,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (microhms at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|-----------------|---------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|--------------------|------------------|-----|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | | |
| P ₁₁ | Feb. 10, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1940 | 8.0 | 11.2 | 95 | 8.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1940 | 8.0 | 11.2 | 95 | 8.5 |
| | | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 390 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1920 | 8.0 | 11.4 | 97 | 8.5 |
| P ₁₂ | Feb. 10 | 1 | -- | 0.00 | 130 | 0 | -- | -- | -- | -- | -- | 390 | -- | -- | 0.0 | 0.00 | 0.09 | -- | -- | -- | -- | 1940 | 7.9 | 11.8 | 102 | 9.0 |
| | | 16 | 4.6 | .00 | 120 | 0 | 120 | 26 | 240 | 196 | 200 | 390 | 0.3 | .0 | .0 | .00 | .08 | 1070 | 390 | 230 | -- | 1980 | 8.0 | 11.3 | 96 | 8.5 |
| P ₁₃ | Feb. 10 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2020 | 7.9 | 10.8 | 93 | 9.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2040 | 7.9 | 10.8 | 93 | 9.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2000 | 7.8 | 10.6 | 90 | 8.5 |
| P ₁₄ | Feb. 10 | 1 | 5.1 | .00 | 90 | 0 | 110 | 28 | 230 | 191 | 190 | 360 | .3 | .0 | .00 | .03 | 1020 | 380 | 220 | -- | 1840 | 7.7 | 11.0 | 95 | 9.0 | |
| | | 10 | -- | -- | 370 | 0 | -- | -- | -- | -- | -- | -- | 370 | -- | -- | -- | -- | -- | -- | -- | -- | 1890 | 7.6 | 10.9 | 92 | 8.5 |
| | | 17 | 5.2 | .15 | 200 | 0 | 130 | 29 | 230 | 196 | 200 | 400 | .3 | .0 | .00 | .04 | 1100 | 440 | 280 | -- | 2000 | 7.5 | 10.2 | 88 | 9.0 | |

TABLE 27.--Chemical-quality survey of Whitney Lake, May 25, 1971
 (Results in milligrams per liter except as indicated. Elevation, 519.14 ft. Contents, 365,700 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25°C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|--------------|----------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|---|------|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | saturation | |
| A _C | May 25, 1971 | 1 | 4.2 | 0.00 | 0 | 0 | 77 | 18 | 170 | 147 | 150 | 260 | 0.3 | 0.0 | 0.00 | 0.02 | 748 | 270 | 150 | 1290 | 8.1 | 8.4 | 95 | 22.0 | |
| | | 5 | -- | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.1 | 8.4 | 95 | 22.0 | |
| | | 15 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.0 | 7.6 | 85 | 21.5 | |
| | | 25 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.9 | 7.2 | 80 | 21.0 | |
| | | 35 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.8 | 7.0 | 78 | 21.0 | |
| | | 45 | -- | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | -- | -- | -- | 1290 | 7.8 | 6.5 | 72 | 21.0 | |
| | | 55 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 7.6 | 5.0 | 54 | 20.0 | |
| | | 65 | -- | -- | -- | 540 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.3 | 2.4 | 26 | 19.0 | |
| A _L | May 25 | 75 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 748 | 260 | 140 | 1300 | 7.2 | 1.6 | 17 | 18.0 |
| | | 84 | 2.2 | 0.00 | 0 | 200 | 74 | 18 | 170 | 142 | 150 | 260 | 0.3 | 0.2 | 0.00 | 0.10 | 748 | 260 | 140 | 1300 | 7.2 | 1.0 | 10 | 17.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.1 | 8.5 | 98 | 23.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.1 | 8.1 | 92 | 23.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.9 | 7.4 | 82 | 21.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.9 | 7.2 | 80 | 21.0 | |
| | | 39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.9 | 7.0 | 78 | 21.0 | |
| | | B _C | May 25 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.1 | 8.6 | 99 | 23.0 |
| 10 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.0 | 8.3 | 94 | 23.0 | | |
| 20 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 8.0 | 7.8 | 89 | 22.0 | | |
| 30 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 7.4 | 83 | 21.5 | | |
| 40 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.8 | 7.1 | 79 | 21.0 | | |
| 50 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.7 | 6.2 | 69 | 21.0 | | |
| 60 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.4 | 3.6 | 39 | 19.5 | | |
| 70 | -- | | | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.3 | 1.6 | 17 | 18.0 | | |
| C _C | May 25 | 81 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.2 | 0.8 | 8 | 17.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.1 | 8.6 | 99 | 23.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.1 | 8.6 | 98 | 22.5 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.1 | 8.0 | 91 | 22.0 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 8.0 | 7.9 | 90 | 22.0 | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.9 | 7.2 | 81 | 21.5 | | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.8 | 6.7 | 74 | 21.0 | | |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.5 | 4.4 | 48 | 20.0 | | |
| P ₃ | May 25 | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.4 | 2.3 | 24 | 19.0 | | |
| | | 75 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.3 | 1.6 | 6 | 18.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.2 | 8.5 | 100 | 24.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.1 | 8.1 | 92 | 22.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.0 | 7.7 | 88 | 22.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.0 | 7.2 | 82 | 22.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 7.9 | 6.8 | 77 | 22.0 | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 7.6 | 4.7 | 52 | 21.0 | | |
| D ₅ | May 25 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1290 | 7.2 | 1.3 | 14 | 18.5 | | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 7.2 | 1.1 | 12 | 18.5 | | |
| | | 1 | -- | 0.00 | 0 | 0 | 0 | 250 | -- | -- | -- | -- | -- | -- | 0.00 | 0.03 | -- | -- | 1240 | 8.0 | 7.4 | 88 | 25.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.0 | 7.3 | 83 | 22.5 | | |
| 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 7.9 | 7.0 | 80 | 22.5 | | | | |
| 14 | -- | 0.00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | 0.08 | -- | -- | 1260 | 7.8 | 6.5 | 74 | 22.5 | | | |

TABLE 27.---Chemical-quality survey of Whitney Lake, May 25, 1971.---Continued
 (Results in milligrams per liter except as indicated. Elevation, 519.14 ft. Contents, 365,700 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (μg/l.) | Manganese (Mn) (μg/l.) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | | Dissolved oxygen (DO) mg/l saturation | Temperature (°C) |
|-----------------|--------------|------------|----------------------------|----------------------|-------------------|------------------------|--------------|----------------|-------------------------------------|---------------------------------|---|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|------|---------------------------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | | | |
| D _C | May 25, 1971 | 1 | -- | 0.00 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | 0.02 | -- | -- | -- | 1280 | 8.2 | 8.5 | 100 | 24.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.2 | 8.5 | 99 | 23.5 | |
| | | 15 | -- | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.1 | 7.8 | 89 | 22.5 | |
| | | 25 | -- | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | 8.0 | 7.1 | 81 | 22.0 | |
| | | 35 | -- | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.9 | 7.0 | 80 | 22.0 | |
| | | 45 | -- | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.8 | 6.3 | 72 | 22.0 | |
| P ₇ | May 25 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.6 | 5.1 | 57 | 21.5 | | |
| | | 55 | -- | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | 7.3 | 2.5 | 27 | 20.5 | | |
| | | 63 | 4.7 | .00 | 0 | 80 | 79 | 18 | 170 | 152 | 150 | 260 | 0.3 | .1 | .00 | .08 | .756 | 270 | 150 | 1290 | 7.2 | 2.5 | 25 | 20.0 | |
| | | 1 | -- | .00 | 10 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1240 | 8.0 | 7.9 | 93 | 24.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 7.9 | 6.9 | 78 | 22.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1200 | 7.9 | 6.8 | 77 | 22.5 | |
| E _C | May 25 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 7.8 | 6.3 | 72 | 22.5 | | |
| | | 37 | -- | .21 | 50 | 200 | -- | -- | -- | -- | 260 | -- | -- | -- | -- | -- | -- | -- | 1240 | 7.7 | 4.9 | 56 | 22.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 8.1 | 8.5 | 100 | 24.0 | | |
| | | 10 | -- | -- | -- | -- | -- | 68 | 12 | -- | 148 | -- | 170 | -- | -- | -- | -- | -- | 1260 | 8.0 | 7.7 | 89 | 23.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 8.0 | 7.3 | 82 | 22.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.9 | 6.7 | 76 | 22.5 | | |
| P ₈ | May 25 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.9 | 7.1 | 81 | 22.5 | | |
| | | 51 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.8 | 6.5 | 74 | 22.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | 68 | 12 | -- | 148 | -- | 170 | -- | -- | -- | -- | 950 | 7.9 | 7.6 | 92 | 25.5 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 950 | 7.9 | 7.5 | 86 | 25.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1100 | 7.7 | 5.6 | 64 | 23.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 940 | 7.5 | 3.9 | 44 | 23.0 | | |
| F _C | May 25 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 990 | 7.3 | 3.2 | 37 | 23.0 | | |
| | | 1 | 3.4 | .00 | 0 | 0 | 76 | 17 | 170 | 147 | 140 | 250 | .3 | .0 | .00 | .03 | .731 | 260 | 140 | 1220 | 8.1 | 8.5 | 100 | 24.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.9 | 7.6 | 80 | 23.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1260 | 7.8 | 6.6 | 75 | 23.0 | |
| | | 30 | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1220 | 7.8 | 6.3 | 72 | 23.0 | |
| | | 42 | -- | .00 | 0 | 270 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .1 | .46 | -- | -- | -- | 1240 | 7.4 | 5.0 | 57 | 23.0 |
| P ₁₀ | May 25 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1040 | 8.4 | 7.8 | 92 | 24.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1020 | 8.3 | 7.4 | 86 | 23.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | 160 | -- | -- | -- | -- | -- | -- | -- | 940 | 8.0 | 5.3 | 60 | 23.0 | | |
| P ₁₁ | May 25 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1210 | 8.1 | 6.9 | 82 | 25.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1230 | 8.0 | 6.0 | 70 | 23.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1250 | 8.0 | 6.1 | 71 | 23.5 | | |
| P ₁₂ | May 25 | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1250 | 8.0 | 6.0 | 69 | 23.0 | | |
| | | 18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1250 | 7.8 | 5.0 | 57 | 23.0 | | |
| | | 1 | -- | .20 | 10 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .02 | .10 | -- | -- | 1100 | 8.1 | 7.5 | 89 | 24.5 | |
| P ₁₄ | May 25 | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1150 | 7.9 | 5.7 | 67 | 23.0 | | |
| | | 10 | -- | .55 | 20 | 310 | 78 | 18 | 170 | 164 | 140 | 250 | .3 | .0 | .04 | .24 | .784 | 270 | 130 | 1230 | 7.9 | 5.5 | 64 | 23.5 | |
| | | 16 | 2.8 | .55 | 20 | 310 | 78 | 18 | 170 | 164 | 140 | 250 | .3 | .0 | .04 | .24 | .958 | 310 | 190 | 1650 | 8.2 | 7.8 | 92 | 24.0 | |
| P ₁₄ | May 25 | 1 | .5 | .00 | 0 | 0 | 87 | 23 | 230 | 150 | 190 | 350 | .3 | .0 | .00 | .04 | .958 | 310 | 190 | 1650 | 8.1 | 7.6 | 87 | 23.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1610 | 8.0 | 6.2 | 71 | 23.0 | | |
| | | 10 | -- | -- | 100 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1610 | 8.0 | 6.0 | 69 | 23.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1620 | 8.0 | 6.3 | 74 | 24.0 | | |
| 17 | 2.0 | .00 | 60 | 30 | 86 | 23 | 230 | 154 | 190 | 340 | .3 | .0 | .00 | .10 | .954 | 310 | 180 | 1630 | 7.9 | 6.1 | 71 | 23.5 | | | |

TABLE 28.--Chemical-quality survey of Whitney Lake, September 16, 1971

(Results in milligrams per liter except as indicated. Elevation, 522.32 ft. Contents, 416,300 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (mg/l) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ Cal-cium, mag-nesium | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|-------------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|--|--|------|-----------------------|---------------------|------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | | | | mg/l | Per-cent saturation | | | |
| A _C | Sept. 16, 1971 | 1 | 5.9 | 0.00 | 0 | 0 | 72 | 18 | 180 | 126 | 140 | 270 | 0.3 | 0.0 | 0.00 | 0.02 | 0.02 | 745 | 250 | 150 | 1330 | | 10.2 | 129 | 28.0 | |
| | | 10 | -- | -- | 0 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 9.5 | 119 | 27.5 |
| | | 20 | -- | -- | 0 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 8.6 | 108 | 27.5 |
| | | 30 | -- | -- | 0 | 30 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 5.7 | 70 | 27.0 |
| | | 40 | -- | -- | 0 | 40 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | | 3.8 | 46 | 26.5 |
| | | 45 | -- | -- | .00 | 80 | 110 | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | -- | .02 | -- | -- | -- | 1360 | | .2 | 2 | 25.5 |
| | | 50 | -- | -- | -- | 200 | 830 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1360 | | .2 | 2 | 25.0 |
| | | 60 | -- | -- | -- | 200 | 1100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | .2 | 2 | 24.0 |
| | | 70 | -- | -- | -- | 240 | 1000 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1280 | | .2 | 2 | 22.0 |
| | | 88 | 10 | 1.1 | 160 | 1100 | 80 | 18 | 177 | 120 | 250 | .3 | .0 | .00 | .18 | .18 | .18 | .18 | .18 | 724 | 270 | 130 | 1300 | | .6 | 7 |
| A _L | Sept. 16 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 10.6 | 134 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 10.5 | 131 | 27.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 9.2 | 115 | 27.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1330 | | 6.8 | 84 | 27.0 | |
| B _C | Sept. 16 | 37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | | 5.4 | 67 | 27.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | | 10.2 | 129 | 28.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | | 10.0 | 125 | 27.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | | 8.4 | 104 | 27.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1340 | | 6.6 | 81 | 27.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | | 2.2 | 27 | 26.5 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1500 | | .2 | 2 | 26.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1450 | | .2 | 2 | 25.0 | |
| C _C | Sept. 16 | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | | .2 | 2 | 24.0 | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | | .4 | 5 | 22.0 | |
| | | 85 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1300 | | .4 | 4 | 20.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | | 10.9 | 140 | 28.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | | 10.8 | 135 | 27.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1400 | | 9.8 | 122 | 27.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1500 | | 7.2 | 89 | 27.0 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1500 | | 4.2 | 52 | 27.0 | |
| P ₃ | Sept. 16 | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1650 | | .3 | 4 | 26.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1500 | | .3 | 4 | 25.5 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1450 | | .3 | 4 | 24.0 | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | | .4 | 4 | 21.0 | |
| | | 78 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1350 | | .8 | 9 | 20.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1370 | | 11.0 | 141 | 29.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1370 | | 11.1 | 141 | 28.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1370 | | 10.4 | 130 | 27.5 | |
| P ₃ | Sept. 16 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1550 | | 6.9 | 86 | 27.5 | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1800 | | 3.2 | 40 | 27.0 | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1800 | | 1.6 | 20 | 27.0 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1800 | | .2 | 2 | 26.5 | |
| 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1700 | | .3 | 4 | 25.0 | | | |
| 72 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1360 | | .4 | 5 | 22.0 | | |

TABLE 28.--Chemical-quality survey of Whitney Lake, September 16, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 522.32 ft. Contents, 416,300 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) (mg) | Bi- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trate nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- pera- ture (°C) |
|----------------|----------------|---------------|-------------------------------|---------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|---|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|--------------------------------------|-----------------------------|--|------|--------------------------------------|------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium, mag- ne- sium | Non- car- bon- ate | | | Per- cent sat- ura- tion | | |
| P ₅ | Sept. 16, 1971 | 1 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11.5 | 149 | 29.5 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 11.6 | 149 | 29.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.9 | 140 | 28.5 |
| D _C | Sept. 16 | 18 | -- | 0.00 | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | 0.0 | 0.00 | 0.06 | -- | -- | -- | -- | -- | 1450 | 114 | 28.0 |
| | | 1 | -- | .00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .03 | -- | -- | -- | -- | -- | 1470 | 147 | 28.5 |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1410 | 148 | 27.5 |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1610 | 114 | 27.0 |
| | | 30 | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1890 | 78 | 27.0 |
| | | 40 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1980 | 51 |
| P ₇ | Sept. 16 | 45 | 5.3 | .00 | 0 | 110 | 100 | 26 | 280 | 137 | 220 | 440 | 0.3 | .0 | .02 | .02 | .1130 | 360 | 240 | 2010 | 2.5 | 31 | 27.0 | | |
| | | 50 | -- | -- | 0 | 290 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | -- | -- | -- | 2020 | 1.0 | 12 | 27.0 | | |
| | | 65 | -- | 1.2 | 60 | 1300 | -- | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .10 | -- | -- | 1700 | .6 | 7 | 24.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1630 | 11.5 | 149 | 29.5 | | |
| E _C | Sept. 16 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1680 | 8.7 | 109 | 27.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1780 | 6.7 | 84 | 27.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1790 | 4.6 | 58 | 27.5 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1790 | .6 | 7 | 27.0 | | |
| P ₈ | Sept. 16 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1570 | 11.6 | 149 | 29.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1600 | 10.8 | 135 | 27.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1700 | 9.0 | 112 | 27.5 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2100 | 2.8 | 35 | 27.5 | | |
| | | 53 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2340 | 1.9 | 24 | 27.5 | | |
| F _C | Sept. 16 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1770 | 11.3 | 151 | 31.0 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1770 | 10.9 | 140 | 29.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1770 | 9.3 | 118 | 28.0 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1770 | 5.8 | 73 | 28.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1770 | .5 | 6 | 27.5 | | |
| G _C | Sept. 16 | 23 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1800 | .5 | 6 | 27.5 | | |
| | | 1 | 4.8 | .00 | 0 | 0 | 89 | 24 | 250 | 127 | 190 | 390 | .3 | .0 | .00 | .00 | .05 | 1010 | 320 | 220 | 1800 | 12.1 | 159 | 30.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1800 | 10.3 | 130 | 28.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2190 | 4.0 | 51 | 28.0 | |
| | | 35 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2290 | 2.4 | 30 | 27.5 | |
| G _C | Sept. 16 | 44 | -- | .00 | 0 | 170 | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | .06 | -- | -- | -- | 2380 | 2.3 | 29 | 27.5 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 1.7 | 21 | 27.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1930 | 12.7 | 167 | 30.0 | | |
| G _C | Sept. 16 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1950 | 11.7 | 148 | 28.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.3 | 105 | 28.0 | | |
| | | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2400 | 4.0 | 50 | 27.5 | | |
| G _C | Sept. 16 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2510 | 2.0 | 25 | 27.5 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 1930 | 12.7 | 167 | 30.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2200 | 8.3 | 105 | 28.0 | | |

TABLE 28.--Chemical-quality survey of Whitney Lake, September 16, 1971--Continued
 (Results in milligrams per liter except as indicated. Elevation, 522.32 ft. Contents, 416,300 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|-----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-----------------|--|------|-----------------------|--------------------|------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium-magnesium | Non-bicarbonate | | | mg/l | percent saturation | | | |
| P ₁₂ | Sept. 16, 1971 | 1 | -- | -- | 60 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | -- | -- | 13.6 | 179 | 30.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2300 | -- | -- | 12.9 | 163 | 28.0 |
| | | 18 | 5.5 | 0.00 | 10 | 420 | 130 | 32 | 360 | 290 | 580 | 0.4 | 0.1 | 0.00 | 0.08 | 1450 | 450 | 340 | 2400 | 2510 | 4.0 | 49 | 27.0 | 1.4 | 18 | 27.0 | |
| P ₁₄ | Sept. 16 | 1 | -- | .00 | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | .0 | .00 | -- | -- | -- | -- | -- | -- | 2560 | -- | -- | 13.4 | 179 | 30.0 |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2540 | -- | -- | 12.6 | 162 | 28.5 |
| | | 10 | -- | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 2540 | -- | -- | 10.1 | 129 | 28.0 |
| | | 18 | 5.3 | .00 | 10 | 130 | 130 | 33 | 370 | 128 | 300 | 600 | .4 | .0 | .00 | .05 | 1500 | 460 | 350 | 2590 | 2590 | 8.0 | 100 | 27.0 | 5.2 | 64 | 26.5 |

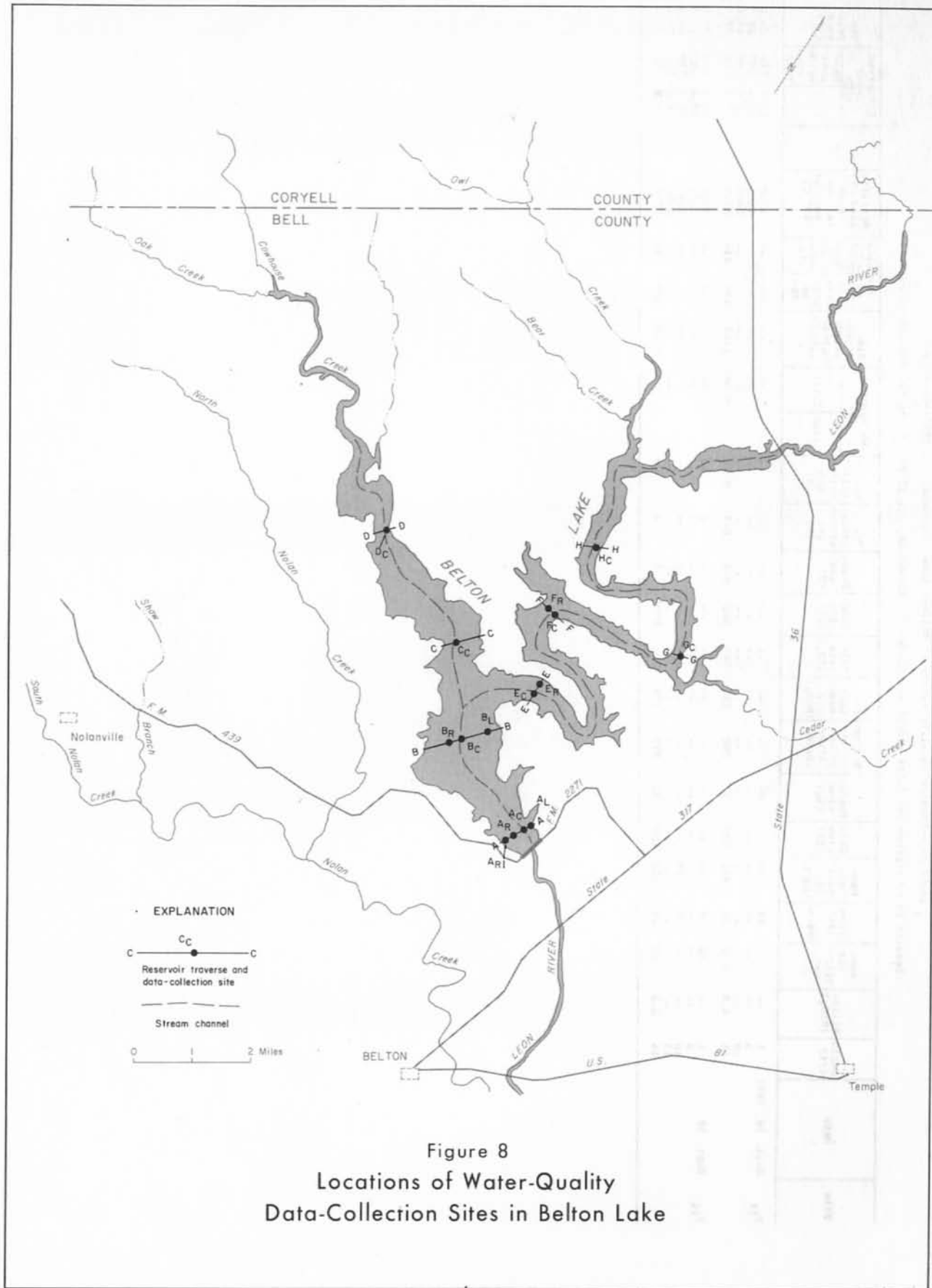


Figure 8
 Locations of Water-Quality
 Data-Collection Sites in Belton Lake

TABLE 29.--Chemical-quality survey of Belton Lake, September 25, 1970
(Results in milligrams per liter except as indicated. Elevation, 569.67 ft. Contents, 215,600 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|----------------|----------------|----------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-----------|--|-----|-----------------------|------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Magnesium | | | mg/l | Saturation | | |
| A _C | Sept. 25, 1970 | 1 | 6.4 | 0.00 | 0 | 0 | 48 | 12 | 34 | 162 | 34 | 52 | 0.3 | 0.0 | 0.00 | 0.01 | 0.01 | 267 | 169 | 36 | 487 | 8.0 | 5.6 | 68 | 26.0 | |
| | | 10 | | | | 0 | | | | | | | | | | | | | | | | 490 | 7.9 | 5.5 | 67 | 26.0 |
| | | 20 | | | | 10 | | | | | | | | | | | | | | | | 487 | 7.9 | 5.3 | 65 | 26.0 |
| | | 30 | | | .00 | 10 | | | | | | | | | .00 | | | | | | | 489 | 7.9 | 5.1 | 62 | 26.0 |
| | | 35 | | | | 10 | | | | | | | | | | | | | | | | 489 | 7.9 | 5.7 | 62 | 26.0 |
| | | 40 | | | | 10 | | | | | | | | | | | | | | | | 489 | 7.4 | 7 | 5 | 25.0 |
| | | 50 | | | | 10 | | | | | | | | | | | | | | | | 535 | 7.3 | 2 | 2 | 21.5 |
| | | 60 | | | | 10 | | | | | | | | | | | | | | | | 536 | 7.2 | 2 | 2 | 21.0 |
| | | 70 | | | 1.3 | 80 | 0 | | | 27 | 216 | 24 | 51 | .3 | .0 | .00 | .15 | .15 | 299 | 212 | 34 | 540 | 7.1 | .2 | 2 | 20.5 |
| | | 79 | | | | | | | | | | | | | | | | | | | | 487 | 8.0 | 5.7 | 70 | 26.0 |
| A _L | Sept. 25 | 1 | | | | | | | | | | | | | | | | | | | 490 | 7.9 | 5.3 | 65 | 26.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | | 490 | 7.9 | 5.3 | 65 | 26.0 | |
| | | 20 | | | | | | | | | | | | | | | | | | | 490 | 7.9 | 5.3 | 61 | 26.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | | 520 | 7.5 | 5.8 | 10 | 25.0 | |
| | | 40 | | | | | | | | | | | | | | | | | | | 525 | 7.3 | 5 | 2 | 22.5 | |
| | | 50 | | | | | | | | | | | | | | | | | | | 540 | 7.3 | 5 | 2 | 21.5 | |
| | | 60 | | | | | | | | | | | | | | | | | | | 540 | 7.3 | 5 | 2 | 21.5 | |
| | | 70 | | | | | | | | | | | | | | | | | | | 540 | 7.3 | 5 | 2 | 21.0 | |
| | | 79 | | | | | | | | | | | | | | | | | | | 551 | 7.1 | .2 | 2 | 21.0 | |
| | | B _C | Sept. 25 | 1 | | | | | | | | | | | | | | | | | | | 491 | 8.1 | 6.6 | 80 |
| 10 | | | | | | | | | | | | | | | | | | | | | 490 | 8.1 | 6.5 | 79 | 26.5 | |
| 20 | | | | | | | | | | | | | | | | | | | | | 485 | 8.0 | 6.3 | 77 | 26.5 | |
| 30 | | | | | | | | | | | | | | | | | | | | | 480 | 8.0 | 5.8 | 71 | 26.0 | |
| 40 | | | | | | | | | | | | | | | | | | | | | 480 | 7.7 | 4.9 | 48 | 24.5 | |
| 45 | | | | | | | | | | | | | | | | | | | | | 485 | 7.2 | 2 | 2 | 22.5 | |
| 50 | | | | | | | | | | | | | | | | | | | | | 535 | 7.1 | 2 | 2 | 22.0 | |
| 60 | | | | | | | | | | | | | | | | | | | | | 540 | 7.1 | 2 | 2 | 22.0 | |
| 70 | | | | | | | | | | | | | | | | | | | | | 540 | 7.1 | 2 | 2 | 21.0 | |
| 77 | | | | | | | | | | | | | 52 | | | | | | | | 562 | 7.0 | .2 | 2 | 21.0 | |
| B _L | Sept. 25 | 1 | | | | | | | | | | | | | | | | | | | 492 | 8.1 | 6.6 | 80 | 26.5 | |
| | | 10 | | | | | | | | | | | | | | | | | | | 490 | 8.0 | 6.4 | 78 | 26.5 | |
| | | 20 | | | | | | | | | | | | | | | | | | | 490 | 8.0 | 6.4 | 76 | 26.0 | |
| | | 30 | | | | | | | | | | | | | | | | | | | 490 | 8.0 | 6.2 | 76 | 26.0 | |
| | | 35 | | | | | | | | | | | | | | | | | | | 490 | 7.9 | 6.1 | 74 | 26.0 | |
| C _C | Sept. 25 | 1 | | | | | | | | | | | | | | | | | | | 488 | 8.2 | 7.2 | 89 | 27.0 | |
| | | 10 | | | | | | | | | | | | | | | | | | | 488 | 8.1 | 6.7 | 82 | 26.5 | |
| | | 20 | | | | | | | | | | | | | | | | | | | 488 | 8.0 | 6.5 | 79 | 26.5 | |
| | | 30 | | | | | | | | | | | | | | | | | | | 480 | 7.9 | 4.7 | 70 | 26.0 | |
| | | 35 | | | | | | | | | | | | | | | | | | | 330 | 7.7 | 4.7 | 56 | 24.5 | |
| | | 40 | | | | | | | | | | | | | | | | | | | 315 | 7.7 | 5.5 | 54 | 23.5 | |
| 53 | | | | | | | | | 133 | 15 | 11 | | | | | | | | 283 | 7.6 | 4.9 | 56 | 23.0 | | | |

TABLE 29.--Chemical-quality survey of Belton Lake, September 25, 1970--Continued

(Results in milligrams per liter except as indicated. Elevation, 569.67 ft. Contents, 215,600 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|-----|-----------------------|--------------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | |
| Dc | Sept. 25, 1970 | 1 | 6.6 | 0.00 | 10 | 0 | 48 | 12 | 32 | 159 | 35 | 51 | 0.3 | 0.0 | 0.00 | 0.02 | 263 | 169 | 39 | 483 | 8.2 | 7.7 | 95 | 27.0 | |
| | | 10 | -- | -- | 10 | -- | -- | -- | -- | -- | -- | 46 | -- | -- | -- | -- | -- | -- | -- | 463 | 8.1 | 7.3 | 89 | 26.5 | |
| | | 20 | 8.0 | .00 | 30 | 0 | 45 | 10 | 21 | 150 | 27 | 33 | .2 | .1 | .00 | .04 | 219 | 153 | 31 | 400 | 7.9 | 6.5 | 77 | 25.0 | |
| Ec | Sept. 25 | 25 | 8.7 | .00 | 20 | 0 | 40 | 6.6 | 9.1 | 132 | 17 | 14 | .2 | .00 | .29 | 162 | 127 | 19 | 295 | 7.6 | 5.8 | 68 | 24.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 56 | -- | -- | -- | -- | -- | -- | -- | 504 | 8.0 | 6.7 | 83 | 27.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 505 | 7.9 | 6.3 | 78 | 27.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 505 | 7.7 | 5.2 | 63 | 26.5 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 7.8 | 5.1 | 62 | 26.5 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 7.7 | 4.8 | 59 | 26.0 | |
| Gc | Sept. 25 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 485 | 7.3 | .8 | 10 | 25.5 | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 530 | 7.0 | .2 | 2 | 23.0 | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 575 | 7.0 | .2 | 2 | 22.0 | |
| | | 74 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 577 | 6.9 | .2 | 2 | 21.5 | |
| Hc | Sept. 25 | 1 | 6.9 | .00 | 10 | 0 | 44 | 11 | 35 | 145 | 35 | 53 | .2 | .0 | .00 | .09 | 256 | 155 | 36 | 473 | 8.3 | 9.0 | 110 | 26.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 8.1 | 7.9 | 96 | 26.5 | |
| | | 10 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | -- | 52 | -- | .0 | .00 | .07 | -- | -- | -- | 464 | 8.0 | 6.9 | 84 | 26.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 465 | 8.0 | 6.7 | 82 | 26.0 |
| Hc | Sept. 25 | 20 | 7.3 | .00 | 200 | 0 | 44 | 11 | 34 | 149 | 34 | 51 | .2 | .0 | .00 | .12 | 255 | 155 | 33 | 468 | 7.9 | 6.2 | 76 | 26.0 | |

TABLE 30.--Chemical-quality survey of Belton Lake, February 9, 1971
(Results in milligrams per liter except as indicated. Elevation, 568.75 ft. Contents, 208,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen | | Temperature (°C) | |
|----------------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|------------|--|------|------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Noncalcium | | | mg/l | Percent saturation | | |
| A _C | Feb. 9, 1971 | 1 | 7.8 | 0.00 | 0 | 0 | 53 | 13 | 32 | 172 | 35 | 54 | 0.3 | 0.1 | 0.00 | 0.00 | 0.00 | 280 | 190 | 44 | 560 | 8.1 | 9.9 | 88 | 10.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 560 | 8.0 | 9.9 | 88 | 10.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 540 | 8.1 | 9.8 | 87 | 10.0 | |
| | | 30 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 540 | 8.1 | 9.8 | 87 | 10.0 | |
| | | 40 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 540 | 8.1 | 9.8 | 88 | 10.5 | |
| | | 50 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 540 | 8.1 | 9.8 | 88 | 10.5 | |
| A _L | Feb. 9 | 60 | -- | -- | 10 | 0 | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 540 | 8.1 | 9.8 | 88 | 10.5 | | |
| | | 70 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 54 | -- | -- | -- | -- | -- | -- | -- | 540 | 8.1 | 9.8 | 88 | 10.5 | | |
| | | 84 | 7.3 | .00 | 20 | 0 | 53 | 13 | 32 | 172 | 36 | 54 | .3 | .2 | .00 | .01 | .01 | 282 | 190 | 44 | 540 | 8.1 | 10.2 | 91 | 10.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .1 | .00 | .00 | -- | -- | -- | 560 | 8.0 | 9.9 | 88 | 10.0 | |
| B _C | Feb. 9 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 560 | 8.0 | 9.9 | 88 | 10.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 560 | 8.0 | 9.8 | 87 | 10.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 560 | 8.0 | 9.8 | 86 | 10.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 560 | 8.0 | 9.8 | 86 | 10.5 | | |
| | | 55 | -- | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .1 | .00 | .01 | -- | -- | -- | 560 | 8.0 | 9.8 | 88 | 10.5 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.1 | 89 | 10.0 | |
| B _L | Feb. 9 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.0 | 88 | 10.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.0 | 88 | 10.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.0 | 88 | 10.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.0 | 88 | 10.0 | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.0 | 88 | 10.0 | | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.0 | 88 | 10.0 | | |
| C _C | Feb. 9 | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.1 | 89 | 10.0 | | |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.1 | 89 | 10.0 | | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 540 | 7.8 | 10.0 | 88 | 10.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 540 | 7.9 | 10.1 | 89 | 10.0 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 540 | 7.9 | 10.1 | 89 | 10.0 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 540 | 7.9 | 10.3 | 91 | 10.0 | | |
| D _C | Feb. 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.2 | 91 | 10.5 | | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.2 | 91 | 10.5 | | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 8.0 | 10.1 | 89 | 10.0 | | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.0 | 10.1 | 89 | 10.0 | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.1 | 89 | 10.0 | | |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.1 | 89 | 10.0 | | |
| D _C | Feb. 9 | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.1 | 89 | 10.0 | | |
| | | 1 | -- | .00 | 60 | 0 | -- | -- | -- | 180 | -- | 55 | -- | -- | .1 | .00 | .00 | -- | -- | 190 | 42 | 540 | 7.9 | 10.2 | 90 | 10.0 |
| | | 10 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 55 | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.5 | 92 | 9.5 | |
| | | 20 | -- | -- | 20 | 0 | -- | -- | -- | -- | -- | 55 | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.9 | 10.7 | 92 | 9.0 | |
| 33 | 6.4 | .00 | 20 | 0 | 55 | 14 | 32 | 181 | 37 | 54 | .3 | .1 | .00 | .00 | .00 | 288 | 190 | 46 | 520 | 8.1 | 10.8 | 93 | 9.0 | | | |

TABLE 30.--Chemical-quality survey of Belton Lake, February 9, 1971.--Continued
 (Results in milligrams per liter except as indicated. Elevation, 568.75 ft. Contents, 208,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|----------------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|--|------|-----------------------|------------|------------------|------|
| | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | saturation | | |
| F _C | Feb. 9, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.7 | 8.7 | 11.0 | 7.9 | 9.7 | 8.7 | 11.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.6 | 8.6 | 10.5 | 7.9 | 9.6 | 8.6 | 10.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.6 | 8.6 | 10.5 | 7.9 | 9.6 | 8.6 | 10.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.6 | 8.6 | 10.5 | 7.9 | 9.6 | 8.6 | 10.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.6 | 8.6 | 10.5 | 7.9 | 9.6 | 8.6 | 10.5 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.6 | 8.6 | 10.5 | 7.9 | 9.6 | 8.6 | 10.5 |
| | | 77 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.5 | 8.5 | 10.5 | 7.9 | 9.5 | 8.5 | 10.5 |
| F _C | Feb. 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.0 | 8.9 | 10.5 | 8.0 | 10.0 | 8.9 | 10.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.0 | 8.9 | 10.5 | 8.0 | 10.0 | 8.9 | 10.5 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.9 | 8.8 | 10.0 | 8.0 | 9.9 | 8.8 | 10.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.9 | 8.8 | 10.0 | 8.0 | 9.9 | 8.8 | 10.0 | |
| | | 52 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.9 | 8.8 | 10.0 | 8.0 | 9.9 | 8.8 | 10.0 | |
| G _C | Feb. 9 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.0 | 8.9 | 10.5 | 8.0 | 10.0 | 8.9 | 10.5 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.0 | 8.9 | 10.5 | 8.0 | 10.0 | 8.9 | 10.5 | |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 10.0 | 8.8 | 10.0 | 8.0 | 10.0 | 8.8 | 10.0 | |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 9.9 | 8.8 | 10.0 | 8.0 | 9.9 | 8.8 | 10.0 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 120 | -- | -- | -- | -- | -- | 10.1 | 8.9 | 10.0 | 8.0 | 10.1 | 8.9 | 10.0 | |
| H _C | Feb. 9 | 1 | -- | 0.00 | 130 | 10 | -- | -- | -- | 220 | -- | 60 | -- | 0.0 | 0.00 | 0.03 | -- | 230 | 46 | 640 | 8.0 | 10.7 | 9.4 | 9.5 | |
| | | 10 | -- | .00 | 210 | 10 | -- | -- | -- | -- | -- | 61 | -- | .0 | .04 | -- | -- | -- | 650 | 8.0 | 10.5 | 8.9 | 8.5 | | |
| | | 20 | 7.0 | .00 | 270 | 10 | 65 | 16 | 40 | 222 | 45 | 61 | 0.3 | .0 | .05 | 344 | 230 | 46 | 650 | 8.0 | 10.7 | 9.1 | 8.5 | | |

TABLE 31.--Chemical-quality survey of Beiton Lake, May 26, 1971--Continued

(Results in milligrams per liter except as indicated. Elevation, 564.67 ft. Contents, 180,400 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|-----|-----------------------|--------------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | Percent saturation | | |
| FC | May 26, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 501 | 8.2 | 8.7 | 104 | 24.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 500 | 8.1 | 8.5 | 100 | 24.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.7 | 5.8 | 66 | 22.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.5 | 3.6 | 41 | 22.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 520 | 7.4 | 2.0 | 23 | 22.0 |
| GC | May 26 | 48 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 544 | 7.2 | .1 | 1 | 20.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 509 | 8.0 | 8.1 | 96 | 24.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 510 | 7.8 | 6.2 | 72 | 23.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 530 | 7.7 | 5.3 | 61 | 23.0 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 530 | 7.4 | 3.8 | 44 | 23.0 |
| HC | May 26 | 34 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 558 | 7.1 | .8 | 9 | 22.5 |
| | | 1 | -- | 0.00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.11 | 0.11 | -- | -- | 502 | 8.1 | 8.1 | 99 | 26.0 |
| | | 5 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -- | -- | -- | -- | 506 | 8.0 | 7.9 | 95 | 25.5 |
| | | 10 | -- | -- | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | -- | -- | -- | -- | 503 | 7.9 | 7.0 | 83 | 25.0 |
| | | 15 | 7.4 | .00 | 0 | 20 | 52 | 12 | 44 | 190 | 43 | 52 | .4 | .2 | .00 | .34 | 305 | 180 | 24 | 514 | 7.7 | 5.9 | 70 | 25.0 | | |

TABLE 32.--Chemical-quality survey of Belton Lake, September 21, 1971
(Results in milligrams per liter except as indicated. Elevation, 572.36 ft. Contents, 236,600 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|------|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | saturation | |
| A _C | Sept. 21, 1971 | 1 | 6.7 | 0.00 | 0 | 0 | 40 | 8.6 | 23 | 133 | 25 | 35 | 0.3 | 0.0 | 0.00 | 0.02 | 204 | 140 | 26 | 362 | 8.0 | 8.8 | 106 | 25.5 | |
| | | 10 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 366 | 7.9 | 8.4 | 101 | 25.5 | |
| | | 20 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 366 | 7.8 | 7.5 | 89 | 25.0 | |
| | | 30 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 365 | 7.8 | 6.5 | 77 | 25.0 | |
| | | 40 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 359 | 7.6 | 5.6 | 67 | 25.0 | |
| | | 45 | --- | .34 | 40 | 150 | --- | --- | --- | --- | --- | --- | --- | --- | --- | 0.00 | .05 | --- | --- | --- | 366 | 7.2 | 4 | 5 | 23.5 |
| | | 50 | --- | --- | 80 | 320 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 485 | 7.0 | 2 | 2 | 23.0 |
| | | 70 | --- | --- | 220 | 290 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 515 | 7.0 | 3 | 3 | 21.0 |
| A _L | Sept. 21 | 85 | 9.7 | .48 | 130 | 280 | 55 | 13 | 30 | 189 | 28 | 51 | .3 | .0 | .00 | .06 | 281 | 190 | 36 | 519 | 7.1 | .6 | 7 | 21.0 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 7.9 | 8.9 | 109 | 26.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 7.9 | 8.5 | 102 | 25.5 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 7.8 | 8.0 | 95 | 25.5 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 7.7 | 7.3 | 87 | 25.0 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 369 | 7.4 | 4.1 | 49 | 24.5 | |
| | | 51 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 381 | 7.2 | .4 | 5 | 23.0 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 7.8 | 9.2 | 112 | 26.5 | |
| B _C | Sept. 21 | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 7.8 | 9.0 | 110 | 26.5 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 7.7 | 8.5 | 104 | 26.0 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 367 | 7.7 | 8.0 | 98 | 26.0 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 6.9 | 1.5 | 19 | 27.0 | |
| | | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 7.0 | .8 | 10 | 26.0 | |
| | | 60 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 490 | 7.1 | .3 | 3 | 23.5 | |
| | | 70 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 510 | 6.9 | .4 | 5 | 23.5 | |
| | | 77 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 516 | 7.0 | .8 | 9 | 23.0 | |
| B _L | Sept. 21 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 7.8 | 10.0 | 122 | 26.0 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 7.8 | 10.0 | 122 | 26.0 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 7.8 | 9.5 | 116 | 26.0 | |
| | | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 7.7 | 9.1 | 111 | 26.0 | |
| C _C | Sept. 21 | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 355 | 7.6 | 5.7 | 69 | 25.5 | |
| | | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 366 | 7.6 | 8.6 | 104 | 25.5 | |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 366 | 7.5 | 7.6 | 92 | 25.5 | |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 366 | 7.5 | 6.4 | 77 | 25.5 | |
| D _C | Sept. 21 | 30 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 370 | 7.4 | 5.3 | 63 | 25.0 | |
| | | 40 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 7.3 | 3.8 | 45 | 24.0 | |
| | | 52 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 399 | 7.5 | 3.0 | 36 | 24.5 | |
| | | 1 | --- | .00 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 368 | 7.7 | 9.2 | 112 | 26.0 | |
| D _C | Sept. 21 | 10 | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 370 | 7.6 | 8.7 | 105 | 25.5 | |
| | | 20 | --- | 0 | 50 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 378 | 7.4 | 7.0 | 83 | 24.5 | |
| | | 32 | 7.9 | .00 | 0 | 30 | 44 | 9.5 | 30 | 165 | 26 | 36 | .3 | .0 | .00 | .05 | 235 | 150 | 14 | 420 | 7.4 | 5.5 | 65 | 24.5 | |

TABLE 32.--Chemical-quality survey of Belton Lake, September 21, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 572.36 ft. Contents, 236,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (HCO ₃) | Bicarbonate (SO ₄) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) |
|----------------|----------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|--|--------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|--|-----|-----------------------|------------|------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | saturation | |
| E _C | Sept. 21, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.6 | 8.2 | 100 | 26.0 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.5 | 7.8 | 95 | 26.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 | 7.2 | 87 | 25.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.5 | 7.3 | 88 | 25.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.0 | .4 | 5 | 25.0 |
| F _C | Sept. 21 | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.0 | .7 | 8 | 24.5 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.9 | .6 | 7 | 23.5 |
| | | 73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 6.7 | .8 | 9 | 22.5 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.5 | 8.1 | 99 | 26.0 |
| G _C | Sept. 21 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.5 | 7.4 | 89 | 25.5 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 | 6.3 | 76 | 25.5 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 | 4.9 | 59 | 25.5 |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.3 | 3.5 | 42 | 25.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.3 | .6 | 7 | 25.0 |
| | | 56 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.2 | .7 | 8 | 24.0 |
| H _C | Sept. 21 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.04 | 0.04 | -- | -- | -- | 7.6 | 8.8 | 106 | 25.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 | 6.6 | 79 | 25.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 | 5.5 | 65 | 25.0 |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.3 | 3.6 | 43 | 24.5 |
| I _C | Sept. 21 | 36 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.3 | 1.4 | 17 | 24.5 |
| | | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.9 | 12.7 | 151 | 25.0 |
| | | 5 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.8 | 10.7 | 127 | 24.5 |
| | | 10 | -- | 0.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.8 | 10.7 | 127 | 24.5 |
| J _C | Sept. 21 | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.3 | 5.3 | 62 | 23.5 |
| | | 23 | 8.8 | 0.00 | 0 | 30 | 54 | 7.7 | 26 | 175 | 23 | 39 | 0.3 | 0 | 0.00 | 0.00 | .07 | 245 | 170 | 23 | 441 | 7.6 | 6.5 | 76 | 24.0 |

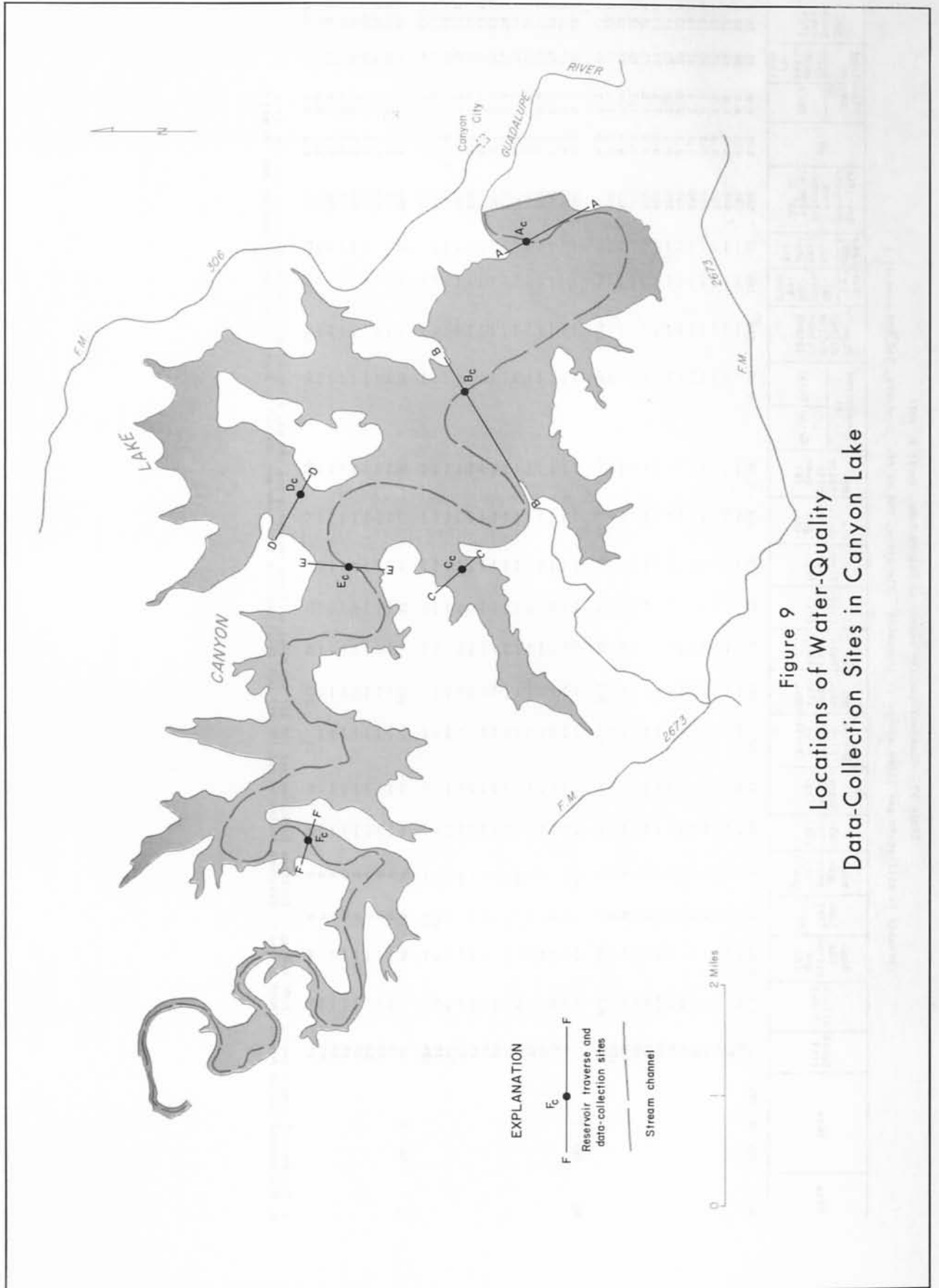


Figure 9
 Locations of Water-Quality
 Data-Collection Sites in Canyon Lake

TABLE 33.--Chemical-quality survey of Canyon Lake, April 2, 1971
(Results in milligrams per liter except as indicated. Elevation, 904.82 ft. Contents, 352,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|---------------|--|-----|-----------------------|------------|------------------|------|
| | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-magnesium | | | mg/l | saturation | | |
| AC | Apr. 2, 1971 | 1 | 9.1 | 0.00 | 0 | 0 | 46 | 17 | 10 | 198 | 17 | 0.2 | 0.1 | 0.00 | 0.00 | 0.00 | 216 | 180 | 22 | 380 | 8.2 | 8.8 | 88 | 16.0 | |
| | | 5 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.2 | 8.8 | 88 | 16.0 |
| | | 15 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.2 | 8.8 | 88 | 16.0 |
| | | 30 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.2 | 8.8 | 87 | 15.5 |
| | | 40 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.2 | 8.7 | 86 | 15.5 |
| | | 50 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 390 | 8.1 | 8.3 | 81 | 14.5 |
| | | 60 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 390 | 8.1 | 8.0 | 76 | 13.5 |
| | | 70 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 390 | 8.1 | 7.8 | 74 | 13.5 |
| | | 80 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.8 | 74 | 13.0 |
| | | 90 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.5 | 71 | 13.0 |
| | | 100 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.2 | 68 | 13.0 |
| | | 110 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.0 | 66 | 13.0 |
| 120 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.0 | 66 | 13.0 | | |
| 129 | 9.7 | .00 | 0 | 0 | 0 | 49 | 17 | 9.2 | 204 | 19 | .2 | .2 | .00 | .00 | .00 | 222 | 190 | 25 | 400 | 8.0 | 7.2 | 68 | 13.0 | | |
| BC | Apr. 2 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 87 | 16.5 | |
| | | 5 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 87 | 16.5 | |
| | | 15 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 85 | 16.0 | |
| | | 25 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 85 | 16.0 | |
| | | 35 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 85 | 16.0 |
| | | 45 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 85 | 16.0 |
| | | 55 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.2 | 7.8 | 76 | 15.0 |
| | | 65 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 390 | 8.0 | 7.4 | 71 | 14.0 |
| | | 75 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 390 | 8.0 | 7.4 | 71 | 14.0 |
| | | 85 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.4 | 71 | 14.0 |
| | | 95 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.2 | 69 | 14.0 |
| | | 105 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.2 | 69 | 14.0 |
| 115 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.3 | 70 | 14.0 | | |
| 124 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.0 | 7.3 | 70 | 14.0 | | |
| CC | Apr. 2 | 1 | --- | .00 | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.7 | 90 | 17.0 | |
| | | 5 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.4 | 8.7 | 89 | 16.5 | |
| | | 15 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.4 | 8.6 | 88 | 16.5 | |
| | | 25 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.4 | 8.6 | 86 | 16.0 | |
| | | 35 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.5 | 85 | 16.0 |
| | | 45 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 380 | 8.3 | 8.4 | 84 | 16.0 |
| | | 55 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 390 | 8.2 | 7.4 | 73 | 15.5 |
| | | 65 | --- | --- | 0 | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 400 | 8.1 | 6.0 | 58 | 14.0 |
| | | 75 | 9.9 | .00 | 0 | 0 | 0 | 50 | 17 | 11 | 211 | 20 | .2 | .1 | .00 | .00 | .00 | 230 | 200 | 22 | 400 | 8.1 | 6.0 | 57 | 13.5 |

a Biochemical oxygen demand (BOD) 0.9 mg/l; Coliform (colonies per 100 ml) 49; Fecal coliform (colonies per 100 ml) 0; Fecal streptococci (colonies per 100 ml) 1.
b Biochemical oxygen demand (BOD) 1.1 mg/l; Coliform (colonies per 100 ml) 130; Fecal coliform (colonies per 100 ml) 0; Fecal streptococci (colonies per 100 ml) 0.

TABLE 33.--Chemical-quality survey of Canyon Lake, April 2, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 904.82 ft. Contents, 352,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos/cm at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | |
|------|--------------|------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|------------------------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|-------------------------------|-------------------------------|-------------|---|-----|-----------------------|------------|------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-calcium | | | mg/l | saturation | | |
| DC | Apr. 2, 1971 | 1 | -- | 0.00 | 0 | 0 | -- | -- | -- | 205 | -- | 17 | -- | 0.00 | 0.1 | 0.00 | -- | 180 | 17 | -- | 380 | 8.4 | 8.6 | 88 | 16.5 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.6 | 86 | 16.0 |
| | | 20 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.3 | 8.6 | 86 | 16.0 |
| | | 30 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.3 | 8.5 | 85 | 16.0 |
| | | 40 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 390 | 8.2 | 7.6 | 74 | 14.5 |
| | | 50 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.2 | 7.0 | 67 | 14.0 |
| | | 60 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 6.6 | 63 | 14.0 |
| | | 70 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 6.2 | 59 | 13.5 |
| | | 82 | 10 | -- | .00 | 0 | 0 | 51 | 17 | 9.7 | 210 | 20 | 17 | 0.2 | -- | .02 | .2 | .00 | .02 | 229 | 200 | 25 | 400 | 8.1 | 6.1 | 58 |
| EC | Apr. 2 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.7 | 90 | 17.0 | |
| | | 5 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.6 | 89 | 17.0 |
| | | 15 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.5 | 87 | 16.5 |
| | | 25 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.5 | 87 | 16.5 |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.3 | 83 | 16.0 |
| | | 45 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 390 | 8.2 | 6.8 | 67 | 15.0 |
| | | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 6.1 | 59 | 14.0 |
| | | 65 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 5.7 | 54 | 13.5 |
| | | 75 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 5.6 | 53 | 13.5 |
| 85 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 5.6 | 53 | 13.5 | | |
| 94 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 390 | 8.0 | 5.4 | 51 | 13.5 | | |
| FC | Apr. 2 | 41 | 7.8 | .00 | 0 | 0 | 50 | 17 | 12 | 213 | 20 | 17 | .2 | -- | .1 | .00 | .01 | 229 | 200 | 20 | 380 | 8.4 | 8.4 | 87 | 17.0 | |
| | | 5 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.4 | 87 | 17.0 |
| | | 15 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.4 | 8.3 | 83 | 16.0 |
| | | 25 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 380 | 8.3 | 8.1 | 81 | 16.0 |
| | | 35 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 8.1 | 6.5 | 64 | 15.5 |
| | | 45 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 420 | 7.8 | 4.9 | 48 | 15.0 |
| | | 55 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 440 | 7.7 | 3.4 | 33 | 15.0 |
| | | 65 | 18 | .27 | 0 | 40 | 64 | 18 | 16 | 242 | 36 | 22 | .2 | -- | -- | .3 | .00 | 1.8 | 295 | 230 | 35 | 440 | 7.7 | 3.0 | 29 | 15.0 |

c Biochemical oxygen demand (BOD) 1.0 mg/l; Coliform (colonies per 100 ml) 230; Fecal coliform (colonies per 100 ml) 0; Fecal streptococci (colonies per 100 ml) 4.
d Biochemical oxygen demand (BOD) 1.2 mg/l; Coliform (colonies per 100 ml) 420; Fecal coliform (colonies per 100 ml) 0; Fecal streptococci (colonies per 100 ml) 0.

TABLE 34.--Chemical-quality survey of Canyon Lake, July 8, 1971
(Results in milligrams per liter except as indicated. Elevation, 904.32 ft. Contents, 348,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nesium (Mg) | Sodium potas- sium (Na+K) | Bil- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcui- dated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- per- ature (°C) | |
|----------------|--------------|----------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|------------------------------------|--|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|--|----------------------------------|------------------------|---|------|-----------------------------|---------------------------------|-------------------------------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium | Non- carbon- ate | | | mg/l | Per- cent satu- ration | | |
| A _C | July 8, 1971 | 1 | 9.6 | 0.00 | 0 | 0 | 37 | 17 | 13 | 172 | 18 | 21 | 0.2 | 0.0 | 0.00 | 0.01 | 201 | 160 | 21 | 349 | 8.3 | 7.6 | 95 | 27.5 | | |
| | | 10 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 354 | 8.2 | 7.7 | 96 | 27.5 | | |
| | | 20 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 354 | 8.2 | 8.0 | 99 | 27.0 | | |
| | | 30 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 368 | 7.8 | 5.1 | 61 | 25.0 | | |
| | | 35 | -- | -- | -.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .1 | .00 | .00 | -- | -- | 397 | 7.6 | 3.5 | 41 | 24.0 | | |
| | | 40 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 397 | 7.6 | 2.7 | 29 | 20.0 | | |
| | | 50 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 7.7 | 3.5 | 37 | 18.0 | | |
| | | 55 | -- | -- | -- | -.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .2 | .00 | .00 | -- | 599 | 7.8 | 4.2 | 43 | 16.5 | | |
| | | 60 | -- | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 408 | 7.8 | 3.9 | 39 | 16.0 | | |
| | | 70 | -- | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 406 | 7.6 | 3.4 | 34 | 15.5 | | |
| | | 80 | -- | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 407 | 7.7 | 2.9 | 28 | 15.0 | | |
| | | 90 | -- | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 407 | 7.6 | 2.3 | 23 | 15.0 | | |
| | | 100 | -- | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 406 | 7.5 | 1.6 | 16 | 15.0 | | |
| | | 120 | -- | -- | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 413 | 7.4 | 1.0 | 10 | 14.5 | | |
| 130 | -- | -- | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 411 | 7.4 | -.4 | 4 | 14.0 | | | | |
| 143 | 12 | -- | -- | -.00 | 0 | 110 | 51 | 18 | 9.5 | 212 | 18 | 20 | .2 | .2 | .00 | .01 | 234 | 200 | 28 | 355 | 8.2 | 8.2 | 104 | 28.0 | | |
| B _C | July 8 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 370 | 8.2 | 8.2 | 104 | 28.0 | | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 370 | 8.2 | 8.0 | 100 | 27.5 | | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 370 | 8.2 | 7.0 | 84 | 25.5 | | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 390 | 7.4 | 1.5 | 18 | 23.0 | | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 1.2 | 13 | 20.0 | | |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 1.2 | 13 | 20.0 | | |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 1.8 | 18 | 17.0 | | |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| | | 90 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| | | 100 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| | | 110 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| | | 120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.5 | 2 | 2 | 15.0 | | |
| 128 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 412 | 7.5 | 2 | 2 | 15.0 | | | | |
| C _C | July 8 | 1 | -- | -.00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | .1 | .00 | .00 | -- | -- | -- | 354 | 8.4 | 7.5 | 96 | 29.0 | | |
| | | 10 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 354 | 8.3 | 7.4 | 94 | 28.0 | | |
| | | 20 | -- | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 356 | 8.1 | 6.8 | 84 | 27.0 | | |
| | | 30 | -- | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 359 | 7.8 | 4.9 | 60 | 26.0 | | |
| | | 35 | -- | -- | -- | 0 | -- | -- | -- | -- | -- | -- | -- | .01 | -- | .00 | .00 | -- | -- | 380 | 7.4 | 3.9 | 11 | 21.0 | | |
| | | 40 | -- | -- | -- | 0 | 170 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 399 | 7.4 | 3 | 2 | 18.0 | | |
| | | 50 | -- | -- | -- | 0 | 330 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 407 | 7.4 | 2 | 2 | 17.0 | | |
| | | 60 | -- | -- | -- | 10 | 360 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 407 | 7.4 | 2 | 2 | 17.0 | | |
| | | 70 | 13 | -- | -.00 | 0 | 500 | 51 | 18 | 9.1 | 216 | 16 | 19 | .2 | .0 | .00 | .00 | .02 | 233 | 200 | 24 | 408 | 7.4 | 2 | 3 | 16.5 |
| | | D _C | July 8 | 1 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 353 | 8.2 | 8.0 | 103 | 29.0 |
| | | | | 10 | -- | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 351 | 8.2 | 7.0 | 103 | 28.5 |
| | | | | 20 | -- | -- | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 351 | 8.2 | 7.4 | 94 | 28.0 |
| | | | | 30 | -- | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 365 | 7.8 | 4.6 | 55 | 25.5 |
| | | | | 35 | -- | -- | -.00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .3 | .00 | .00 | -- | -- | 380 | 7.5 | 2.0 | 25 | 23.0 |
| 40 | -- | | | -- | -- | 0 | 120 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 393 | 7.5 | 2 | 2 | 19.5 | | |
| 50 | -- | | | -- | -- | 0 | 270 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 407 | 7.5 | 2 | 2 | 17.5 | | |
| 60 | -- | | | -- | -- | 0 | 440 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 408 | 7.5 | 2 | 2 | 16.0 | | |
| 70 | -- | | | -- | -- | 10 | 500 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 410 | 7.6 | 2 | 2 | 16.0 | | |
| 80 | -- | | | -- | -- | 180 | 460 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 414 | 7.6 | 3 | 3 | 15.5 | | |
| 87 | 12 | | | -- | -.00 | 0 | 360 | 51 | 18 | 9.8 | 218 | 17 | 18 | .2 | .1 | .00 | .00 | .02 | 234 | 200 | 23 | 412 | 7.5 | 2 | 5 | 15.5 |

TABLE 34.--Chemical-quality survey of Canyon Lake, July 8, 1971--Continued
(Results in milligrams per liter except as indicated. Elevation, 904.32 ft. Contents, 348,900 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Ammonia nitrogen (N) | Iron (Fe) (µg/l) | Manganese (Mn) (µg/l) | Calcium (Ca) | Magnesium (Mg) | Sodium plus potassium (Na+K) (HCO ₃) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Nitrite nitrogen (N) | Phosphorus (P) | | Dissolved solids (calculation) | Hardness as CaCO ₃ | | Specific conductance (micro-mhos at 25° C) | pH | Dissolved oxygen (DO) | | Temperature (°C) | | |
|----------------|--------------|----------------|----------------------------|----------------------|------------------|-----------------------|--------------|----------------|--|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------|----------------|-------|--------------------------------|-------------------------------|---------------|--|-----|-----------------------|--------------------|------------------|------|------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Calcium | Non-carbonate | | | mg/l | percent saturation | | | |
| E _C | July 8, 1971 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.2 | 8.3 | 108 | 29.5 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.2 | 8.0 | 103 | 29.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8.2 | 7.3 | 92 | 28.0 | |
| | | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.7 | 4.2 | 51 | 25.5 | |
| | | 35 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 400 | 7.4 | 1.4 | 16 | 23.5 |
| | | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 7.4 | .4 | 4 | 20.0 |
| | | 50 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 415 | 7.4 | .2 | 2 | 17.5 |
| | | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 415 | 7.4 | .3 | 3 | 17.0 |
| | | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 415 | 7.4 | .3 | 3 | 16.0 |
| | | 80 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 415 | 7.4 | .3 | 3 | 15.5 |
| | | 92 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 416 | 7.4 | .3 | 3 | 15.5 |
| | | F _C | July 8 | 1 | 8.7 | 0.00 | 0 | 0 | 34 | 18 | 14 | 170 | 20 | 20 | 0.2 | 0.0 | 0.00 | 0.01 | 0.01 | 199 | 160 | 20 | 348 | 8.3 | 8.4 | 109 | 29.5 |
| 10 | -- | | | -- | 0 | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 350 | 8.3 | 8.0 | 103 | 29.0 | |
| 20 | -- | | | -- | 0 | 70 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 361 | 8.0 | 6.0 | 75 | 27.5 | |
| 25 | -- | | | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | .01 | .00 | .01 | .01 | -- | -- | -- | 360 | 7.5 | 1.7 | 21 | 27.0 | |
| 30 | -- | | | -- | .00 | 20 | 210 | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .00 | .02 | -- | -- | -- | 393 | 7.4 | .3 | 3 | 25.5 | |
| 35 | -- | | | -- | .00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | .00 | .00 | -- | -- | -- | -- | 410 | 7.3 | .4 | 4 | 23.0 | |
| 40 | -- | | | -- | -- | 300 | 380 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 444 | 7.3 | .2 | 2 | 20.5 | |
| 50 | -- | | | -- | -- | 320 | 430 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 448 | 7.2 | .2 | 2 | 18.0 | |
| 60 | -- | | | -- | -- | 290 | 400 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 440 | 7.2 | .2 | 2 | 17.0 | |
| 65 | 13 | | | -- | .00 | 70 | 410 | 54 | 19 | 11 | 238 | 14 | 19 | .2 | .1 | .00 | .01 | .01 | 248 | 210 | 18 | 435 | 7.2 | .2 | 2 | 17.0 | |

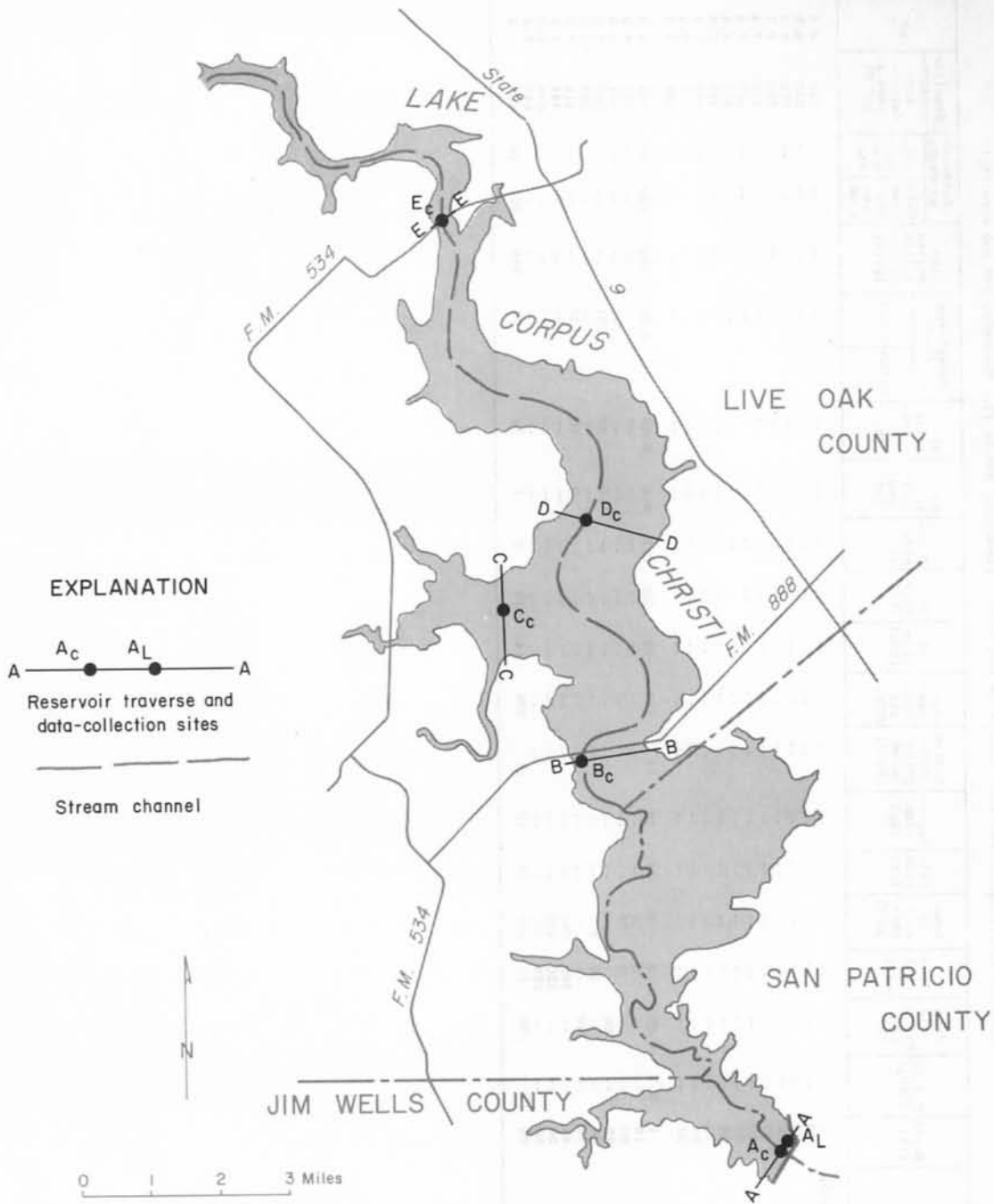


Figure 10
 Locations of Water-Quality Data-Collection
 Sites in Lake Corpus Christi

TABLE 35.--Chemical-quality survey of Lake Corpus Christi, March 30, 1971
(Results in milligrams per liter except as indicated. Elevation, 90.54 ft. Contents, 230,400 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gane- se (Mn) (µg/l) | Cal- cium (Ca) | Magne- sium (Mg) | Sodium plus potas- sium (Na+K) | Bicar- bonate (HCO ₃) | Sul- fate (SO ₄) | Chlo- ride (Cl) | Fluo- ride (F) | Ni- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- hos at 25° C) | pH | Dissolved oxygen (DO) | | Tem- per- ature (°C) |
|----------------|---------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|------------------------|--|---|------------------------------------|-----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|----------------------------------|------|---|------|-----------------------------|--------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- | Non- | | | mg/l | per- cent | |
| A _C | Mar. 30, 1971 | a1 | 17 | 0.00 | 0 | 0 | 63 | 6.5 | 50 | 203 | 40 | 59 | 0.2 | 0.0 | 0.00 | 0.15 | 336 | 180 | 17 | 560 | 8.3 | 8.9 | 97 | 20.0 | |
| | | 10 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 560 | 8.3 | 8.8 | 96 | 20.0 |
| | | 20 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 560 | 8.3 | 8.8 | 95 | 19.5 |
| | | b41 | 18 | .15 | 0 | 40 | 6.4 | 49 | 200 | 40 | 58 | .3 | .0 | .00 | .78 | 332 | 180 | 17 | 560 | 8.2 | 8.3 | 89 | 19.5 | | |
| A _L | Mar. 30 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 560 | 8.3 | 8.8 | 96 | 20.0 |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 560 | 8.3 | 8.6 | 93 | 20.0 |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 560 | 8.3 | 8.5 | 92 | 20.0 |
| | | 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 560 | 8.2 | 8.0 | 86 | 19.5 |
| B _C | Mar. 30 | c1 | 18 | .10 | 0 | 0 | 65 | 6.6 | 52 | 210 | 42 | 62 | .2 | .0 | .00 | .19 | 349 | 190 | 17 | 580 | 8.1 | 8.8 | 98 | 21.0 | |
| | | 5 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 580 | 8.1 | 8.8 | 98 | 21.0 |
| | | 15 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 580 | 8.0 | 8.6 | 93 | 20.0 |
| | | d34 | 18 | .00 | 0 | 0 | 65 | 6.6 | 53 | 210 | 42 | 63 | .2 | .0 | .00 | .38 | 351 | 190 | 17 | 580 | 8.0 | 8.5 | 92 | 20.0 | |
| C _C | Mar. 30 | e1 | 17 | .00 | 0 | 0 | 68 | 7.0 | 55 | 215 | 44 | 68 | .2 | .0 | .00 | .00 | 365 | 200 | 22 | 620 | 8.0 | 8.9 | 100 | 21.5 | |
| | | 10 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 640 | 8.0 | 8.2 | 89 | 20.0 |
| | | 20 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 640 | 8.0 | 8.5 | 92 | 20.0 |
| | | 28 | 17 | .00 | 0 | 10 | 67 | 7.0 | 57 | 216 | 45 | 68 | .2 | .0 | .00 | .34 | 367 | 200 | 19 | 640 | 7.9 | 8.1 | 88 | 20.0 | |
| D _C | Mar. 30 | 1 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 10 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 20 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | | 29 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| E _C | Mar. 30 | f1 | 15 | .00 | 0 | 0 | 79 | 8.9 | 85 | 243 | 62 | 110 | .3 | .1 | .00 | .18 | 478 | 230 | 34 | 819 | 7.8 | 8.0 | 90 | 21.5 | |
| | | 5 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 820 | 7.8 | 8.0 | 85 | 18.5 |
| | | 15 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 827 | 7.8 | 8.5 | 89 | 18.0 |
| | | 25 | --- | --- | 0 | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | 832 | 7.5 | 7.8 | 81 | 17.5 |
| 33 | 15 | .00 | 0 | 0 | 80 | 9.0 | 85 | 244 | 63 | 110 | .3 | .0 | .00 | .21 | 482 | 240 | 36 | 832 | 7.7 | 7.5 | 75 | 16.0 | | | |

a Biochemical oxygen demand (BOD) 1.0 mg/l.
b Biochemical oxygen demand (BOD) 1.7 mg/l.
c Biochemical oxygen demand (BOD) 1.0 mg/l.
d Biochemical oxygen demand (BOD) 0.8 mg/l.
e Biochemical oxygen demand (BOD) 1.4 mg/l.
f Biochemical oxygen demand (BOD) 3.5 mg/l.

TABLE 36.--Chemical-quality survey of Lake Corpus Christi, July 7, 1971
(Results in milligrams per liter except as indicated. Elevation, 90.20 ft. Contents, 224,800 acre-ft.)

| Site | Date | Depth (ft) | Silica (SiO ₂) | Amo- nia nitro- gen (N) | Iron (Fe) (µg/l) | Man- gan- ese (Mn) (µg/l) | Cal- cium (Ca) | Mag- nium (Mg) | Sodium plus potas- sium (Na+K) | Bi- car- bon- ate (HCO ₃) | Sul- fate (SO ₄) (Cl) | Chlo- ride (F) | Fluo- ride (N) | Mi- trate nitro- gen (N) | Ni- trite nitro- gen (N) | Phosphorus (P) | | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | Specific conduct- ance (micro- mhos at 25° C) | pH | Disolved oxygen (DO) | | Tem- pera- ture (°C) |
|----------------|--------------|---------------|-------------------------------|-------------------------------------|------------------------|---------------------------------------|----------------------|----------------------|--|---|--|----------------------|----------------------|--------------------------------------|--------------------------------------|-------------------|-------|---|--------------------------------------|-----------------------------|--|-----|----------------------------|--------------------------------------|-------------------------------|
| | | | | | | | | | | | | | | | | Ortho | Total | | Cal- cium, mag- ne- sium | Non- car- bon- ate | | | mg/l | Per- cent sat- ura- tion | |
| A _C | July 7, 1971 | 1 | 19 | 0.00 | 30 | 0 | 69 | 7.6 | 55 | 220 | 44 | 68 | 0.3 | 0.0 | 0.00 | 0.18 | 0.18 | 371 | 200 | 23 | 633 | 8.4 | 9.5 | 120 | 28.0 |
| | | 10 | -- | -- | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 631 | 8.3 | 9.2 | 116 | 28.0 |
| | | 15 | -- | -- | 00 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 0.00 | -- | .17 | -- | -- | -- | 631 | 8.3 | 9.1 | 115 | 28.0 |
| | | 20 | -- | -- | 60 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 631 | 8.2 | 6.7 | 84 | 27.5 |
| | | 30 | -- | -- | 150 | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 626 | 8.2 | 6.2 | 77 | 27.0 |
| A _L | July 7 | 35 | 18 | 00 | 180 | 30 | 68 | 7.6 | 55 | 218 | 44 | 67 | .3 | .1 | 0.00 | .21 | .21 | 368 | 200 | 22 | 630 | 8.1 | 6.1 | 75 | 27.0 |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 635 | 8.4 | 7.7 | 99 | 28.5 |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 635 | 8.3 | 7.5 | 95 | 28.0 |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 630 | 8.3 | 7.1 | 89 | 27.5 |
| | | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 630 | 8.2 | 6.2 | 78 | 27.5 |
| B _C | July 7 | 1 | -- | 00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | .2 | 0.00 | .22 | -- | -- | -- | 708 | 8.3 | 7.1 | 91 | 29.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 711 | 8.3 | 6.7 | 86 | 29.0 | |
| | | 20 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 717 | 8.3 | 6.6 | 85 | 29.0 | |
| | | 27 | 20 | 00 | 0 | 0 | 68 | 7.4 | 76 | 212 | 55 | 94 | .3 | .1 | 0.00 | .23 | .23 | 425 | 200 | 26 | 723 | 8.2 | 6.5 | 83 | 29.0 |
| | | 1 | 19 | 00 | 0 | 0 | 56 | 6.0 | 62 | 184 | 44 | 71 | .3 | .2 | 0.00 | .24 | .24 | 349 | 160 | 13 | 594 | 8.1 | 6.1 | 80 | 30.0 |
| C _C | July 7 | 1 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 609 | 8.1 | 5.9 | 76 | 29.0 | |
| | | 10 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 684 | 8.2 | 5.7 | 73 | 29.0 | |
| | | 14 | -- | -- | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 689 | 8.1 | 5.9 | 76 | 29.0 | |
| | | 17 | -- | -- | 00 | 0 | 0 | -- | -- | -- | -- | -- | -- | -- | .2 | 0.00 | .33 | -- | -- | 739 | 8.2 | 6.0 | 77 | 29.0 | |
| | | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 305 | 7.3 | 1.4 | 18 | 30.0 | |
| D _C | July 7 | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 305 | 7.3 | 1.2 | 16 | 30.0 | |
| | | 10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 305 | 7.3 | 1.2 | 16 | 30.0 | |
| | | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 303 | 7.3 | 1.5 | 20 | 30.0 | |
| | | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 303 | 7.3 | 1.5 | 20 | 30.0 | |
| | | 1 | -- | 26 | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | .4 | 0.00 | -- | -- | -- | 299 | 7.1 | .8 | 11 | 30.0 | |
| F _C | July 7 | 10 | -- | -- | 0 | 40 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 294 | 7.1 | .8 | 11 | 30.0 | |
| | | 20 | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 297 | 7.1 | .8 | 11 | 30.0 | |
| | | 30 | -- | -- | 0 | 30 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 302 | 7.1 | .8 | 11 | 30.0 | |
| | | 1 | 18 | .18 | 0 | 30 | 43 | 4.0 | 16 | 150 | 22 | 8.6 | .2 | .4 | 0.00 | .4 | .4 | 188 | 120 | 1 | 292 | 7.1 | 1.0 | 13 | 30.0 |

TABLE 37.--Miscellaneous chemical analyses of reservoirs in Texas, October 1969-September 1971

| Date | Silica (SiO ₂) | Iron (Fe) ug/l | Manganese (Mn) ug/l | Calcium (Ca) | Magnesium (Mg) | Sodium (Na) | Potassium (K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate (N) | Orthophosphate (P) | Boron (B) ug/l | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Sodium adsorption ratio (SAR) | Specific conductance (microhmhos at 25° C) | pH | |
|--|----------------------------|----------------|---------------------|--------------|----------------|-------------|---------------|---------------------------------|----------------------------|---------------|--------------|-------------|--------------------|----------------|-------------------------------|-------------------------------|---------------|-------------------------------|--|-----|--|
| | | | | | | | | | | | | | | | | Calcium | Non-carbonate | | | | |
| 07227900 LAKE MEREDITH NEAR SANFORD, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Dec. 30, 1969..... | 13 | 0 | 0 | 57 | 23 | 220 | 5.8 | 191 | 230 | 231 | 0.8 | 0.2 | -- | 240 | 875 | 236 | 80 | 6.2 | 1470 | 7.7 | |
| July 6, 1970..... | 2.0 | 0 | -- | 59 | 23 | 237 | 6.0 | 212 | 240 | 255 | .6 | .0 | -- | 220 | 927 | 242 | 68 | 6.6 | 1590 | 7.5 | |
| Aug. 5..... | 2.5 | -- | -- | 50 | 25 | 230 | 6.1 | 204 | 198 | 259 | .8 | .1 | -- | 280 | 872 | 228 | 61 | 6.6 | 1610 | 7.8 | |
| Aug. 26..... | 2.5 | -- | -- | 60 | 25 | 237 | 6.5 | 207 | 246 | 255 | .8 | .1 | -- | 260 | 935 | 252 | 83 | 6.5 | 1610 | 7.6 | |
| Sept. 21..... | 3.5 | -- | -- | 61 | 24 | 244 | 6.3 | 212 | 249 | 260 | .8 | .2 | -- | 260 | 954 | 250 | 77 | 6.7 | 1600 | 7.7 | |
| Nov. 4..... | 3.6 | -- | -- | 63 | 24 | 240 | 6.6 | 214 | 240 | 260 | 1.0 | .0 | -- | 280 | 943 | 260 | 80 | 6.5 | 1640 | 8.0 | |
| Jan. 5, 1971..... | 2.9 | -- | -- | 58 | 24 | 260 | 6.4 | 208 | 250 | 270 | .8 | .0 | -- | 260 | 974 | 240 | 72 | 7.1 | 1650 | 7.7 | |
| Jan. 5..... | 2.9 | -- | -- | 52 | 25 | 260 | 9.2 | 182 | 260 | 270 | .7 | .0 | -- | -- | 967 | 230 | 84 | 7.4 | 1610 | 8.1 | |
| 07299840 GREENBELT RESERVOIR NEAR CLARENDON, TEX. | | | | | | | | | | | | | | | | | | | | | |
| July 8, 1970..... | 9.4 | 10 | -- | 45 | 13 | 28 | 4.7 | 168 | 59 | 28 | .5 | .0 | -- | 60 | 271 | 166 | 28 | .9 | 477 | 7.8 | |
| Aug. 3..... | 9.1 | -- | -- | 45 | 14 | 29 | 4.8 | 166 | 60 | 31 | .6 | .1 | -- | 60 | 276 | 170 | 34 | 1.0 | 478 | 7.7 | |
| Sept. 2..... | 11 | -- | -- | 43 | 14 | 30 | 4.7 | 161 | 57 | 31 | .6 | .1 | -- | 80 | 271 | 165 | 33 | 1.0 | 466 | 7.4 | |
| Apr. 21, 1971..... | 7.0 | -- | -- | 44 | 17 | 36 | 5.6 | 156 | 76 | 37 | .6 | .3 | -- | 70 | 302 | 180 | 52 | 1.2 | 511 | 7.9 | |
| 07312600 LAKE WICHITA AT WICHITA FALLS, TEX. | | | | | | | | | | | | | | | | | | | | | |
| July 7, 1970..... | 5.6 | 20 | -- | 108 | 32 | 358 | 8.5 | 126 | 218 | 620 | .3 | .5 | -- | 370 | 1410 | 401 | 298 | 7.8 | 2530 | 6.7 | |
| July 5, 1971..... | 5.6 | 640 | 300 | 220 | 120 | 840 | -- | 104 | 580 | 1500 | .4 | .1 | -- | -- | 3350 | 1000 | 960 | 11 | 5880 | 7.7 | |
| Sept. 22..... | 6.0 | -- | -- | 85 | 26 | 310 | 9.5 | 70 | 230 | 500 | .3 | .9 | -- | 270 | 1210 | 320 | 260 | 7.5 | 2070 | 6.6 | |
| 07314000 LAKE KICKAPOO NEAR ARCHER CITY, TEX. | | | | | | | | | | | | | | | | | | | | | |
| June 9, 1970..... | 1.8 | -- | -- | 36 | 9.7 | 42 | 4.5 | 168 | 13 | 51 | .3 | .1 | 0.01 | 100 | 242 | 130 | 0 | 1.6 | 455 | 7.5 | |
| July 4, 1971..... | 5.0 | 40 | 20 | 46 | 14 | 85 | -- | 202 | 15 | 124 | .4 | .0 | -- | -- | 388 | 170 | 6 | 2.8 | 720 | 8.1 | |
| Sept. 19..... | 8.6 | -- | -- | 32 | 10 | 53 | 6.6 | 150 | 18 | 74 | .3 | .3 | -- | 110 | 278 | 120 | 0 | 2.1 | 501 | 7.6 | |
| 07314800 LAKE ARROWHEAD NEAR HENRIETTA, TEX. | | | | | | | | | | | | | | | | | | | | | |
| July 5, 1971..... | 1.6 | 110 | 20 | 52 | 18 | 100 | -- | 198 | 12 | 180 | .3 | .2 | -- | -- | 458 | 200 | 42 | 3.1 | 888 | 8.2 | |
| 07315600 FARMERS CREEK RESERVOIR NEAR NOCONA, TEX. | | | | | | | | | | | | | | | | | | | | | |
| May 20, 1970..... | 4.0 | -- | -- | 52 | 15 | 49 | 5.4 | 157 | 39 | 99 | .3 | .1 | .00 | 80 | 341 | 191 | 62 | 1.5 | 641 | 7.6 | |
| Aug. 3, 1971..... | 5.6 | -- | -- | 53 | 17 | 56 | 8.1 | 154 | 44 | 110 | .4 | .4 | -- | 95 | 373 | 200 | 76 | 1.7 | 696 | 7.4 | |
| 07315950 MOSS LAKE NEAR GAINESVILLE, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Dec. 2, 1969..... | 6.9 | 40 | 0 | 58 | 3.7 | 12 | 3.6 | 182 | 13 | 17 | .1 | .2 | .01 | 0 | 204 | 160 | 11 | .4 | 357 | 7.4 | |
| Apr. 20, 1971..... | 5.0 | 310 | 40 | 55 | 4.3 | 18 | -- | 180 | 16 | 20 | .2 | .4 | -- | -- | 209 | 160 | 8 | .6 | 365 | 7.9 | |
| 07335390 PAT MAYSE LAKE NEAR CHICOTA, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Dec. 3, 1969..... | .1 | 40 | 0 | 25 | 2.1 | 5.7 | 2.1 | 82 | 10 | 4.6 | .2 | .1 | .02 | 50 | 90 | 71 | 4 | .3 | 169 | 7.1 | |
| Apr. 21, 1971..... | 1.2 | 40 | 20 | 24 | 2.7 | 8.3 | -- | 80 | 14 | 5.5 | .1 | .3 | -- | -- | 96 | 71 | 5 | .4 | 177 | 7.5 | |
| 07344200 TEXARKANA RESERVOIR NEAR TEXARKANA, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Dec. 4, 1969..... | 3.9 | 120 | 0 | 35 | 3.1 | 14 | 2.8 | 115 | 21 | 13 | .2 | .1 | .03 | 10 | 150 | 100 | 6 | .6 | 264 | 7.2 | |
| Apr. 20, 1971..... | 2.8 | 370 | 20 | 32 | 3.2 | 19 | -- | 94 | 31 | 16 | .2 | .5 | -- | -- | 163 | 93 | 16 | 1.0 | 278 | 7.4 | |

TABLE 37.--Miscellaneous chemical analyses of reservoirs in Texas, October 1969-September 1971--Continued

| Date | Silica (SiO ₂) ug/l | Iron (Fe) ug/l | Manganese (Mn) ug/l | Calcium (Ca) ug/l | Magnesium (Mg) | Sodium (Na) | Potassium (K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate (N) | Orthophosphate (P) | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Sodium adsorption ratio (SAR) | Specific conductance (microhm-cm at 25° C) | pH | |
|--|---------------------------------|----------------|---------------------|-------------------|----------------|-------------|---------------|---------------------------------|----------------------------|---------------|--------------|-------------|--------------------|-------------------------------|-------------------------------|---------------|-------------------------------|--|-----|-----|
| | | | | | | | | | | | | | | | Calcium | Non-carbonate | | | | |
| 07345000 ELLISON CREEK RESERVOIR NEAR DAINGERFIELD, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 4, 1969..... | 2.0 | 70 | 0 | 18 | 5.1 | 8.0 | 4.4 | 26 | 41 | 17 | 0.3 | 0.3 | 0.03 | 20 | 110 | 66 | 45 | 0.4 | 196 | 6.5 |
| Apr. 22, 1971..... | 2.7 | 130 | 40 | 29 | 5.8 | 15 | -- | 37 | 52 | 27 | .4 | 1.3 | -- | -- | 180 | 96 | 66 | 1.1 | 283 | 7.1 |
| 07345900 LAKE O'THE PINES NEAR JEFFERSON, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 4, 1969..... | 8.8 | 70 | 0 | 8.5 | 3.6 | 11 | 2.3 | 30 | 18 | 15 | .1 | .1 | .04 | 20 | 83 | 36 | 11 | .8 | 141 | 7.6 |
| Apr. 22, 1971..... | 11 | 20 | 20 | 6.0 | 4.6 | 15 | -- | 23 | 24 | 15 | .1 | .2 | -- | -- | 88 | 34 | 15 | 1.1 | 149 | 6.9 |
| 08017400 LAKE TAWAKONI NEAR WILLS POINT, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 3, 1969..... | .7 | 70 | 0 | 29 | 3.1 | 10 | 3.2 | 108 | 13 | 5.8 | .2 | .1 | .02 | 0 | 118 | 85 | 0 | .5 | 214 | 7.1 |
| Apr. 29, 1971..... | .2 | 30 | 20 | 27 | 3.6 | 12 | -- | 106 | 13 | 5.4 | .2 | .2 | -- | -- | 114 | 82 | 0 | .6 | 210 | 7.5 |
| 08021500 LAKE CHEROKEE NEAR LONGVIEW, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 4, 1969..... | 10 | 50 | 0 | 8.0 | 2.9 | 13 | 2.3 | 18 | 11 | 26 | .1 | .1 | .02 | 20 | 83 | 32 | 17 | 1.0 | 145 | 6.2 |
| Apr. 22, 1971..... | 9.4 | 30 | 40 | 7.0 | 2.8 | 19 | -- | 9 | 14 | 34 | .0 | .2 | -- | -- | 91 | 29 | 22 | 1.5 | 165 | 6.5 |
| 08022200 MURVAUL LAKE NEAR GARY, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 4, 1969..... | 5.2 | 90 | 0 | 10 | 5.1 | 16 | 2.2 | 40 | 16 | 24 | .1 | .3 | .04 | 30 | 100 | 46 | 13 | 1.0 | 182 | 6.7 |
| Apr. 22, 1971..... | .6 | 60 | 60 | 14 | 7.1 | 29 | -- | 42 | 28 | 45 | .1 | .3 | -- | -- | 146 | 64 | 30 | 1.6 | 294 | 7.2 |
| 08033800 LAKE STRIKER NEAR NEW SALEM, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 17, 1969..... | 10 | -- | -- | 10 | 5.1 | 52 | -- | 8 | 28 | 87 | .1 | .1 | -- | -- | 197 | 46 | 39 | 3.3 | 362 | 6.6 |
| June 10, 1971..... | 6.5 | -- | -- | 14 | 8.5 | 100 | -- | 10 | 29 | 180 | .2 | .0 | -- | -- | 345 | 70 | 62 | 5.3 | 689 | 6.1 |
| 08043000 BRIDGEPORT RESERVOIR ABOVE BRIDGEPORT, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 13, 1970..... | 3.0 | 110 | 0 | 39 | 5.5 | 16 | 4.4 | 130 | 15 | 26 | .2 | .1 | .04 | 70 | 174 | 120 | 13 | .6 | 312 | 7.7 |
| Apr. 20, 1971..... | 7.0 | 40 | 10 | 43 | 6.5 | 24 | -- | 150 | 18 | 31 | .2 | .2 | -- | -- | 205 | 130 | 11 | .9 | 365 | 7.9 |
| 08043700 LAKE AMON G. CARTER NEAR BOWIE, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 13, 1970..... | 4.6 | 350 | 0 | 24 | 6.6 | 19 | 5.7 | 86 | 15 | 35 | .3 | .0 | .04 | 30 | 152 | 87 | 16 | .9 | 276 | 7.4 |
| Apr. 20, 1971..... | 3.5 | 180 | 30 | 29 | 8.9 | 31 | -- | 109 | 19 | 46 | .3 | .2 | -- | -- | 193 | 110 | 20 | 1.3 | 357 | 7.8 |
| 08045400 LAKE WORTH ABOVE FORT WORTH, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 13, 1970..... | 5.9 | 60 | 0 | 45 | 6.2 | 18 | 4.3 | 152 | 19 | 28 | .2 | .1 | .03 | 20 | 202 | 138 | 13 | .7 | 359 | 7.5 |
| Apr. 19, 1971..... | 5.6 | 210 | 10 | 49 | 9.2 | 31 | -- | 179 | 25 | 38 | .3 | .2 | -- | -- | 247 | 160 | 13 | 1.1 | 436 | 8.0 |
| 08046500 BENBROOK LAKE NEAR BENBROOK, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 14, 1970..... | 4.2 | 40 | 0 | 45 | 6.0 | 15 | 4.2 | 150 | 23 | 21 | .2 | .1 | .03 | 30 | 193 | 137 | 14 | .6 | 340 | 7.4 |
| Apr. 19, 1971..... | 2.2 | 100 | 10 | 47 | 7.5 | 24 | -- | 162 | 29 | 25 | .3 | .3 | -- | -- | 216 | 150 | 15 | .9 | 383 | 8.0 |
| 08049200 LAKE ARLINGTON AT ARLINGTON, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 12, 1970..... | .3 | 120 | 0 | 36 | 5.4 | 35 | 4.9 | 150 | 34 | 26 | .3 | .2 | .09 | 60 | 217 | 112 | 0 | 1.4 | 383 | 7.5 |
| Apr. 9, 1971..... | .2 | 170 | 40 | 36 | 6.9 | 57 | -- | 164 | 48 | 38 | .4 | .7 | -- | -- | 271 | 120 | 0 | 2.3 | 469 | 7.8 |

TABLE 37.--Miscellaneous chemical analyses of reservoirs in Texas, October 1969-September 1971--Continued
(Results in milligrams per liter except as indicated)

| Date | Silica (SiO ₂) ug/l | Iron (Fe) ug/l | Man- gan- ese (Mn) ug/l | Mag- ne- sium (Mg) | Sod- ium (Na) | Pot- as- sium (K) | Bi- car- bon- ate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluo- ride (F) | Ni- tro- gen (N) | Or- tho- pho- sate (P) | Bo- ron (B) ug/l | Dis- solved solids (calcu- lated) | Hardness as CaCO ₃ | | So- dium ad- sorp- tion ratio (SAR) | Specific con- duc- tance (micro- mhos at 25° C) | pH | |
|---|---------------------------------------|----------------------|-------------------------------------|-----------------------------|---------------------|----------------------------|---|-------------------------------|------------------|----------------------|---------------------------|------------------------------------|---------------------------|---|--------------------------------------|-----------------------------|---|---|-----|-----|
| | | | | | | | | | | | | | | | Cal- cium, mag- ne- sium | Non- car- bon- ate | | | | |
| 08050050 MOUNTAIN CREEK LAKE NEAR GRAND PRAIRIE, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 12, 1970..... | 1.5 | 120 | 0 | 59 | 5.1 | 52 | 6.7 | 135 | 23 | 0.6 | 0.6 | 0.10 | 70 | 360 | 168 | 58 | 1.7 | 578 | 7.6 | |
| Apr. 19, 1971..... | .8 | 90 | 20 | 61 | 6.6 | 76 | -- | 154 | 170 | 27 | .7 | .5 | -- | 419 | 180 | 53 | 2.5 | 676 | 7.9 | |
| 08052800 LEWISVILLE LAKE NEAR LEWISVILLE, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 1, 1969..... | 5.2 | 70 | 0 | 43 | 3.6 | 20 | 3.7 | 124 | 32 | 26 | .3 | .1 | .02 | 20 | 195 | 122 | 20 | .8 | 338 | 7.7 |
| Apr. 29, 1971..... | 5.1 | 40 | 20 | 47 | 5.0 | 25 | -- | 144 | 33 | 27 | .3 | .5 | -- | 216 | 140 | 20 | .9 | 374 | 8.0 | |
| 08054500 GRAPEVINE LAKE NEAR GRAPEVINE, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 1, 1969..... | 5.9 | 40 | 0 | 42 | 5.2 | 16 | 3.6 | 130 | 29 | 20 | .3 | .0 | .02 | 10 | 186 | 126 | 19 | .6 | 322 | 7.5 |
| Apr. 19, 1971..... | 4.6 | 140 | 20 | 48 | 4.9 | 20 | -- | 154 | 29 | 18 | .3 | .4 | -- | 203 | 140 | 14 | .7 | 353 | 7.8 | |
| 08060500 LAVON LAKE NEAR LAVON, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 12, 1970..... | 7.2 | 280 | -- | 50 | 2.5 | 11 | 3.3 | 144 | 30 | 7.6 | .4 | .5 | .08 | 30 | 185 | 135 | 17 | .4 | 306 | 7.6 |
| Apr. 29, 1971..... | 3.6 | 350 | 20 | 56 | 2.3 | 20 | -- | 172 | 35 | 8.7 | .4 | .3 | -- | 212 | 150 | 8 | .7 | 355 | -- | |
| 08061550 LAKE RAY HUBBARD NEAR FORNEY, TEX. | | | | | | | | | | | | | | | | | | | | |
| Jan. 12, 1970..... | .7 | 110 | 0 | 49 | 2.9 | 17 | 3.6 | 150 | 27 | 16 | .3 | .1 | .05 | 30 | 191 | 134 | 11 | .6 | 333 | 7.5 |
| Apr. 29, 1971..... | 1.7 | 40 | 20 | 53 | 3.6 | 16 | -- | 172 | 27 | 7.6 | .3 | .4 | -- | 196 | 150 | 6 | .6 | 339 | 7.9 | |
| 08063010 CEDAR CREEK RESERVOIR NEAR TRINIDAD, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 4, 1969..... | .2 | 50 | 0 | 20 | 3.9 | 12 | 3.6 | 73 | 16 | 13 | .2 | .1 | .03 | 20 | 105 | 66 | 6 | .6 | 193 | 6.8 |
| Apr. 23, 1971..... | .9 | 240 | 10 | 21 | 4.0 | 16 | -- | 76 | 19 | 14 | .2 | .3 | -- | 113 | 69 | 7 | .8 | 210 | 7.5 | |
| 08063050 NAVARRO MILLS LAKE NEAR DAWSON, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 2, 1969..... | 2.2 | 50 | -- | 46 | 4.7 | 18 | 4.1 | 137 | 45 | 15 | .4 | .1 | .03 | 30 | 203 | 134 | 22 | .7 | 349 | 7.2 |
| Apr. 29, 1971..... | 1.4 | 120 | 20 | 54 | 4.2 | 27 | -- | 167 | 51 | 16 | .5 | .5 | -- | 236 | 150 | 19 | 1.0 | 403 | 8.0 | |
| 08063700 BARDWELL LAKE NEAR ENNIS, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 2, 1969..... | 1.0 | 90 | 0 | 38 | 2.7 | 13 | 3.8 | 118 | 23 | 12 | .3 | .2 | .02 | 30 | 153 | 106 | 9 | .5 | 276 | 7.3 |
| Apr. 30, 1971..... | .9 | 140 | 0 | 46 | 4.7 | 18 | -- | 150 | 28 | 12 | .4 | .6 | -- | 187 | 130 | 11 | .7 | 331 | 7.8 | |
| 08065330 HOUSTON COUNTY LAKE NEAR CROCKETT, TEX. | | | | | | | | | | | | | | | | | | | | |
| Oct. 16, 1969..... | 6.3 | -- | -- | 8.8 | 2.4 | 9.3 | -- | 38 | 5.2 | 11 | .0 | .0 | -- | 62 | 32 | 1 | .7 | 116 | 6.6 | |
| June 9, 1971..... | 6.5 | -- | -- | 9.5 | 3.0 | 9.0 | -- | 37 | 8.4 | 11 | .0 | .3 | -- | 67 | 36 | 6 | .7 | 137 | 7.0 | |
| 08072000 LAKE HOUSTON NEAR SHELDON, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 18, 1969..... | 12 | -- | -- | 19 | 3.1 | 18 | -- | 54 | 8.8 | 32 | .2 | .2 | -- | 121 | 60 | 16 | 1.0 | 208 | 7.1 | |
| Mar. 19, 1971..... | 8.3 | -- | -- | 14 | 2.2 | 20 | -- | 39 | 10 | 30 | .0 | .6 | -- | 106 | 44 | 12 | 1.3 | 191 | 6.8 | |

TABLE 37.--Miscellaneous chemical analyses of reservoirs in Texas, October 1969-September 1971--Continued
(Results in milligrams per liter except as indicated)

| Date | Silica (SiO ₂) | Iron (Fe) | Manganese (Mn) | Calcium (Ca) | Magnesium (Mg) | Sodium (Na) | Potassium (K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate (N) | Orthophosphate (P) | Borophosphate (B) | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Sodium adsorption ratio (SAR) | Specific conductance (micro- mhos at 25° C) | pH | |
|--|-------------------------------|--------------|-------------------|-----------------|-------------------|----------------|------------------|------------------------------------|-------------------------------|------------------|-----------------|----------------|-----------------------|----------------------|-------------------------------------|----------------------------------|---------------|--|---|-----|--|
| | | | | | | | | | | | | | | | | Calcium | Non-carbonate | | | | |
| 08080910 WHITE RIVER RESERVOIR NEAR SPUR, TEX. | | | | | | | | | | | | | | | | | | | | | |
| July 15, 1971..... | 2.9 | -- | -- | 19 | 10 | 120 | 6.4 | 218 | 43 | 86 | 1.8 | 0.0 | -- | 310 | 391 | 88 | 0 | 5.4 | 702 | 8.0 | |
| 08083500 FORT PHANTOM HILL RESERVOIR NEAR NUGENT, TEX. | | | | | | | | | | | | | | | | | | | | | |
| July 15, 1971..... | .5 | -- | -- | 54 | 22 | 68 | 10 | 175 | 81 | 110 | .4 | .1 | -- | 200 | 436 | 220 | 82 | 2.0 | 790 | 7.5 | |
| Sept. 21, 1971..... | .0 | -- | -- | 47 | 16 | 33 | 7.5 | 147 | 69 | 85 | .4 | .2 | -- | 120 | 351 | 180 | 63 | 1.7 | 637 | 8.2 | |
| Sept. 15, 1970..... | 1.1 | 70 | -- | 50 | 20 | 62 | 7.5 | 166 | 64 | 109 | .4 | .1 | -- | 200 | 397 | 208 | 72 | 1.9 | 793 | 7.4 | |
| 08084500 LAKE STAMFORD NEAR HASKELL, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Mar. 23, 1970..... | 4.4 | -- | -- | 50 | 23 | 60 | 9.9 | 205 | 90 | 74 | .3 | .1 | 0.01 | 220 | 413 | 220 | 52 | 1.8 | 719 | 7.5 | |
| July 27, 1971..... | 7.2 | -- | -- | 51 | 37 | 110 | 19 | 212 | 160 | 140 | .6 | .5 | -- | 460 | 631 | 280 | 110 | 2.9 | 1080 | 8.1 | |
| 08086800 LAKE DANIELS NEAR BRECKENRIDGE, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Sept. 15, 1970..... | 2.9 | 130 | -- | 57 | 7.9 | 33 | 6.5 | 136 | 44 | 68 | .3 | .0 | -- | 200 | 287 | 174 | 63 | 1.1 | 519 | 7.3 | |
| 08088400 LAKE GRAHAM NEAR GRAHAM, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Mar. 25, 1970..... | 5.1 | -- | -- | 47 | 7.6 | 45 | 5.6 | 114 | 16 | 103 | .2 | .0 | .00 | 80 | 286 | 149 | 56 | 1.6 | 547 | 7.4 | |
| July 20, 1971..... | 7.3 | -- | -- | 65 | 11 | 66 | 9.2 | 142 | 22 | 150 | .3 | .6 | -- | 80 | 408 | 210 | 90 | 2.0 | 776 | 7.9 | |
| 08090300 LAKE PALO PINTO NEAR SANTO, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Jan. 13, 1970..... | 6.2 | 80 | 0 | 49 | 8.2 | 28 | 3.9 | 146 | 35 | 46 | .2 | .2 | .03 | 40 | 250 | 156 | 36 | 1.0 | 442 | 7.5 | |
| Apr. 20, 1971..... | 5.6 | 40 | 20 | 66 | 16 | 65 | -- | 186 | 74 | 98 | .3 | .3 | -- | -- | 418 | 230 | 80 | 1.9 | 731 | 8.1 | |
| 08091900 LAKE PAT CLEBURNE NEAR CLEBURNE, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Dec. 2, 1969..... | 5.2 | 40 | 0 | 42 | 3.7 | 7.1 | 3.5 | 144 | 10 | 6.5 | .2 | .1 | .02 | 40 | 150 | 120 | 2 | .3 | 262 | 7.5 | |
| Apr. 30, 1971..... | 2.2 | 100 | 10 | 42 | 5.2 | 14 | -- | 152 | 16 | 10 | .5 | .4 | -- | -- | 166 | 130 | 1 | .5 | 296 | 7.9 | |
| 08095500 WACO LAKE NEAR WACO, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Mar. 18, 1970..... | 8.3 | -- | -- | 62 | 4.8 | 14 | 2.4 | 177 | 29 | 18 | .2 | .8 | .00 | 40 | 229 | 174 | 29 | .5 | 397 | 7.2 | |
| May 13, 1971..... | 8.0 | -- | -- | 54 | 6.4 | 22 | 3.3 | 160 | 37 | 29 | .3 | .3 | -- | 50 | 240 | 160 | 30 | .8 | 410 | 8.0 | |
| 08099000 LEON RESERVOIR NEAR RANGER, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Oct. 29, 1970..... | 3.5 | -- | -- | 65 | 13 | 67 | 5.2 | 136 | 68 | 130 | .3 | .0 | -- | 70 | 419 | 220 | 100 | 2.0 | 766 | 7.5 | |
| 08099400 PROCTOR LAKE NEAR PROCTOR, TEX. | | | | | | | | | | | | | | | | | | | | | |
| Oct. 29, 1970..... | 4.4 | -- | -- | 54 | 21 | 90 | 6.2 | 133 | 62 | 180 | .3 | .0 | -- | 100 | 483 | 220 | 110 | 2.6 | 895 | 7.4 | |
| July 7, 1971..... | .0 | -- | -- | 54 | 23 | 100 | 7.0 | 140 | 69 | 200 | .3 | .3 | -- | 80 | 524 | 230 | 110 | 2.9 | 983 | 8.1 | |

TABLE 37.--Miscellaneous chemical analyses of reservoirs in Texas, October 1969-September 1971--Continued

(Results in milligrams per liter except as indicated)

| Date | Silica (SiO ₂) | Iron (Fe) ug/l | Manganese (Mn) ug/l | Calcium (Ca) | Magnesium (Mg) | Sodium (Na) | Potassium (K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate (NO ₃) | Orthophosphate (PO ₄) | Dissolved solids (calculated) | Hardness as CaCO ₃ | | Sodium adsorption ratio (SAR) | Specific conductance (micro-mhos at 25° C) | pH | |
|--|----------------------------|----------------|---------------------|--------------|----------------|-------------|---------------|---------------------------------|----------------------------|---------------|--------------|----------------------------|-----------------------------------|-------------------------------|-------------------------------|---------------|-------------------------------|--|------|-----|
| | | | | | | | | | | | | | | | Calcium | Non-carbonate | | | | |
| 08104050 STILLHOUSE HOLLOW LAKE NEAR BELTON, TEX. | | | | | | | | | | | | | | | | | | | | |
| July 2, 1970..... | 6.0 | -- | -- | 40 | 20 | 22 | 2.5 | 184 | 24 | 44 | 0.3 | 0.0 | -- | 50 | 249 | 182 | 31 | 0.7 | 456 | 7.9 |
| Sept. 1..... | 7.3 | -- | -- | 42 | 20 | 23 | 2.4 | 191 | 23 | 44 | .3 | .0 | -- | 90 | 256 | 187 | 31 | .7 | 475 | 7.6 |
| Dec. 18..... | 7.7 | -- | -- | 48 | 20 | 26 | 2.7 | 208 | 23 | 48 | .3 | .1 | -- | 240 | 278 | 200 | 32 | .8 | 508 | 7.5 |
| June 19, 1971..... | 6.7 | -- | -- | 40 | 22 | 32 | 3.7 | 182 | 26 | 58 | .3 | .1 | -- | 80 | 278 | 190 | 42 | 1.0 | 512 | 7.9 |
| 08108900 SOMERVILLE LAKE NEAR SOMERVILLE, TEX. | | | | | | | | | | | | | | | | | | | | |
| Mar. 3, 1970..... | 9.4 | -- | -- | 33 | 7.0 | 23 | 5.8 | 72 | 53 | 36 | .2 | .2 | 0.01 | 60 | 263 | 111 | 52 | .9 | 360 | 6.8 |
| Aug. 24..... | 9.9 | -- | -- | 32 | 6.8 | 22 | 5.9 | 72 | 48 | 37 | .3 | .8 | -- | 70 | 200 | 108 | 49 | .9 | 354 | 7.2 |
| Sept. 24..... | 11 | -- | -- | 31 | 6.5 | 22 | 5.7 | 70 | 48 | 36 | .2 | .5 | -- | 60 | 197 | 104 | 47 | .9 | 341 | 6.9 |
| Feb. 16, 1971..... | 8.8 | -- | -- | 34 | 7.5 | 24 | 5.9 | 75 | 55 | 39 | .2 | .4 | -- | 110 | 213 | 120 | 54 | 1.0 | 372 | 7.2 |
| June 1..... | 3.0 | -- | -- | 38 | 8.1 | 27 | 6.5 | 85 | 61 | 45 | .2 | .1 | -- | 70 | 231 | 130 | 58 | 1.0 | 409 | 7.5 |
| 08110300 LAKE MEXIA NEAR MEXIA, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 3, 1969..... | 3.1 | -- | -- | 42 | 3.8 | 17 | 5.0 | 138 | 21 | 18 | .3 | .2 | -- | 179 | 120 | 7 | 7 | .7 | 317 | 7.1 |
| Mar. 17, 1970..... | 11 | -- | -- | 29 | 2.3 | 7.1 | 2.9 | 92 | 11 | 5.9 | .2 | .5 | .01 | 30 | 115 | 82 | 6 | .3 | 196 | 7.1 |
| Feb. 2, 1971..... | 4.9 | -- | -- | 43 | 3.8 | 11 | 4.2 | 135 | 23 | 9.2 | .2 | .2 | -- | 100 | 166 | 120 | 12 | .4 | 253 | 7.3 |
| July 28..... | 2.6 | -- | -- | 49 | 4.4 | 16 | 6.4 | 152 | 34 | 16 | .3 | .4 | -- | 130 | 266 | 140 | 16 | .6 | 352 | 7.4 |
| 08123000 LAKE COLORADO CITY NEAR COLORADO CITY, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 18, 1969..... | 7.3 | -- | -- | 53 | 24 | 108 | 12 | 162 | 185 | 111 | .7 | .0 | .00 | 210 | 581 | 230 | 98 | 3.1 | 966 | 7.9 |
| Oct. 20, 1970..... | 8.4 | -- | -- | 70 | 37 | 104 | 17 | 166 | 290 | 150 | 1.1 | .1 | -- | 290 | 796 | 330 | 190 | 3.3 | 1300 | 7.9 |
| June 14, 1971..... | 5.9 | -- | -- | 93 | 54 | 200 | 12 | 160 | 460 | 200 | 1.2 | .1 | -- | 370 | 1100 | 450 | 320 | 4.1 | 1720 | 7.5 |
| July 28..... | 5.1 | -- | -- | 86 | 57 | 200 | 21 | 148 | 480 | 200 | 1.2 | .4 | -- | 430 | 1130 | 450 | 330 | 4.1 | 1720 | 7.9 |
| 08123800 CHAMPION CREEK RESERVOIR NEAR COLORADO CITY, TEX. | | | | | | | | | | | | | | | | | | | | |
| Dec. 19, 1969..... | 3.2 | -- | -- | 60 | 24 | 46 | 9.8 | 148 | 156 | 57 | .4 | .0 | -- | 429 | 218 | 126 | 1.3 | 714 | 7.8 | |
| Oct. 20, 1970..... | 5.2 | -- | -- | 76 | 33 | 61 | 11 | 162 | 220 | 76 | .5 | .1 | -- | 150 | 563 | 320 | 190 | 1.5 | 920 | 7.6 |
| June 14, 1971..... | 3.6 | -- | -- | 54 | 17 | 28 | 8.8 | 96 | 140 | 41 | .4 | .5 | -- | 90 | 338 | 200 | 130 | .9 | 567 | 7.4 |
| 08123950 E. V. SPENCE RESERVOIR NEAR ROBERT LEE, TEX. | | | | | | | | | | | | | | | | | | | | |
| Nov. 20, 1969..... | 5.8 | -- | -- | 103 | 38 | 320 | 10 | 186 | 238 | 520 | .4 | .0 | -- | 1330 | 414 | 261 | 6.8 | 2290 | 7.5 | |
| Oct. 21, 1970..... | 3.9 | -- | -- | 110 | 50 | 420 | 12 | 138 | 340 | 660 | .4 | .0 | -- | 170 | 1660 | 480 | 370 | 8.3 | 2840 | 7.2 |
| June 17, 1971..... | 5.2 | -- | -- | 76 | 21 | 180 | 7.1 | 96 | 200 | 290 | .3 | .7 | -- | 100 | 831 | 280 | 200 | 4.8 | 1450 | 7.7 |
| July 28..... | 3.5 | -- | -- | 63 | 14 | 110 | 7.7 | 104 | 120 | 180 | .3 | .0 | -- | 80 | 553 | 210 | 130 | 3.3 | 1000 | 7.8 |
| 08125500 OAK CREEK RESERVOIR NEAR BLACKWELL, TEX. | | | | | | | | | | | | | | | | | | | | |
| Nov. 3, 1970..... | 1.5 | -- | -- | 48 | 22 | 43 | 7.6 | 104 | 110 | 74 | .3 | .0 | -- | 90 | 357 | 210 | 130 | 1.3 | 638 | 7.5 |
| 08131200 TWIN BUTTES RESERVOIR NEAR SAN ANGELO, TEX. | | | | | | | | | | | | | | | | | | | | |
| July 17, 1970..... | 6.0 | -- | -- | 57 | 28 | 85 | 4.9 | 194 | 61 | 155 | .4 | .1 | -- | 200 | 493 | 257 | 98 | 2.3 | 910 | 7.4 |
| Oct. 10..... | 11 | -- | -- | 54 | 40 | 140 | 6.0 | 174 | 110 | 250 | .5 | .7 | -- | 290 | 701 | 300 | 160 | 3.5 | 1280 | 7.0 |
| June 9, 1971..... | 2.7 | -- | -- | 39 | 9.0 | 25 | 5.5 | 121 | 26 | 48 | .2 | .7 | -- | 70 | 219 | 130 | 35 | .9 | 399 | 7.8 |
| Aug. 23..... | 6.2 | -- | -- | 31 | 4.0 | 9.4 | 4.0 | 102 | 10 | 16 | .1 | .8 | -- | 40 | 134 | 94 | 10 | .4 | 238 | 7.7 |

TABLE 37.--Miscellaneous chemical analyses of reservoirs in Texas, October 1969-September 1971.--Continued

(Results in milligrams per liter except as indicated)

| Date | Silica (SiO ₂) ug/l | Iron (Fe) ug/l | Manganese (Mn) ug/l | Calcium (Ca) (Mg) | Magnesium (Mg) | Sodium (Na) (K) | Potassium (K) | Bicarbonate (HCO ₃) | Sulfate (SO ₄) | Chloride (Cl) | Fluoride (F) | Nitrate nitrogen (N) | Orthophosphate as phosphorus (P) | Dissolved solids (calcium-labeled) | Hardness as CaCO ₃ | | Sodium adsorption ratio (SAR) | Specific conductance (microhos at 25° C) | pH |
|---|---------------------------------|----------------|---------------------|-------------------|----------------|-----------------|---------------|---------------------------------|----------------------------|---------------|--------------|----------------------|----------------------------------|------------------------------------|-------------------------------|---------------|-------------------------------|--|-----|
| | | | | | | | | | | | | | | | Calcium-magnesium | Non-carbonate | | | |
| 08132000 LAKE NASWORTHY NEAR SAN ANGELO, TEX. | | | | | | | | | | | | | | | | | | | |
| Nov. 13, 1969..... | 8.4 | -- | -- | 66 | 35 | 176 | 7.9 | 164 | 114 | 322 | 0.3 | 0.2 | -- | 812 | 308 | 174 | 4.4 | 1470 | 7.2 |
| July 17, 1970..... | 7.5 | -- | -- | 78 | 43 | 217 | 8.8 | 184 | 130 | 412 | .5 | .2 | -- | 350 | 372 | 220 | 4.9 | 1790 | 8.1 |
| June 9, 1971..... | 12 | -- | -- | 77 | 44 | 220 | 7.8 | 198 | 130 | 400 | .4 | .4 | -- | 350 | 370 | 210 | 5.0 | 1790 | 7.5 |
| Aug. 23..... | 9.1 | -- | -- | 53 | 27 | 120 | 7.2 | 163 | 72 | 220 | .4 | .4 | -- | 220 | 240 | 110 | 3.5 | 1100 | 7.8 |
| 08134500 SAN ANGELO LAKE AT SAN ANGELO, TEX. | | | | | | | | | | | | | | | | | | | |
| June 9, 1971..... | 3.8 | -- | -- | 47 | 10 | 24 | 12 | 105 | 52 | 50 | .2 | 5.0 | -- | 50 | 160 | 72 | .8 | 463 | 7.6 |
| 08141000 HORDS CREEK LAKE NEAR VALERA, TEX. | | | | | | | | | | | | | | | | | | | |
| June 2, 1970..... | 6.2 | -- | -- | 58 | 14 | 43 | 4.2 | 153 | 25 | 107 | .1 | .1 | 0.01 | 60 | 202 | 76 | 1.3 | 638 | 7.3 |
| July 8, 1971..... | 6.1 | -- | -- | 60 | 21 | 70 | 7.3 | 141 | 49 | 170 | .2 | .0 | -- | 80 | 240 | 120 | 2.0 | 833 | 7.7 |
| 08143000 LAKE BROWNWOOD NEAR BROWNWOOD, TEX. | | | | | | | | | | | | | | | | | | | |
| Oct. 26, 1970..... | 7.5 | -- | -- | 60 | 14 | 59 | 5.3 | 140 | 50 | 120 | .3 | .0 | -- | 100 | 210 | 92 | 1.8 | 702 | 7.9 |
| July 8, 1971..... | 7.5 | -- | -- | 66 | 15 | 66 | 7.1 | 144 | 70 | 140 | .3 | .3 | -- | 100 | 230 | 110 | 1.9 | 790 | 7.8 |
| 08144900 BRADY CREEK RESERVOIR NEAR BRADY, TEX. | | | | | | | | | | | | | | | | | | | |
| Aug. 10, 1970..... | 9.9 | -- | -- | 50 | 12 | 45 | 11 | 158 | 35 | 86 | .2 | .0 | -- | 150 | 174 | 45 | 1.5 | 600 | 7.3 |
| July 6, 1971..... | 8.4 | -- | -- | 52 | 13 | 58 | 15 | 160 | 45 | 100 | .2 | .1 | -- | 160 | 180 | 52 | 1.9 | 678 | 7.8 |
| 08167700 CANYON LAKE NEAR NEW BRAUNFELS, TEX. | | | | | | | | | | | | | | | | | | | |
| Dec. 1, 1969..... | 12 | -- | -- | 53 | 16 | 11 | -- | 220 | 16 | 16 | .2 | .6 | -- | 235 | 198 | 18 | .3 | 417 | 7.6 |
| Feb. 2, 1970..... | 9.1 | -- | -- | 56 | 16 | 9.2 | 2.3 | 224 | 18 | 16 | .2 | .5 | -- | 237 | 206 | 22 | .3 | 421 | 7.6 |
| July 1, 1971..... | 9.3 | -- | -- | 54 | 17 | 8.8 | 2.0 | 221 | 18 | 17 | .2 | .2 | -- | 40 | 237 | 201 | .3 | 423 | 7.8 |
| Jan. 4, 1971..... | 10 | -- | -- | 47 | 17 | 9.6 | 2.0 | 204 | 18 | 18 | .2 | .2 | -- | 150 | 223 | 190 | .3 | 401 | 7.6 |
| July 1, 1971..... | 11 | -- | -- | 54 | 16 | 9.4 | 2.1 | 214 | 19 | 17 | .2 | .2 | -- | 80 | 235 | 200 | .3 | 418 | 7.6 |
| Aug. 20..... | 10 | -- | -- | 50 | 17 | 8.7 | 2.2 | 210 | 17 | 17 | .2 | .1 | -- | 50 | 200 | 23 | .3 | 412 | 7.5 |
| 08179500 MEDINA LAKE NEAR SAN ANTONIO, TEX. | | | | | | | | | | | | | | | | | | | |
| Feb. 10, 1970..... | 7.8 | -- | -- | 61 | 16 | 8.0 | 2.3 | 194 | 56 | 15 | .2 | .6 | -- | 264 | 218 | 59 | .2 | 452 | 7.5 |
| July 10..... | 8.8 | 0 | -- | 62 | 16 | 8.0 | 1.9 | 198 | 56 | 16 | .2 | .4 | -- | 50 | 268 | 220 | .2 | 460 | 7.5 |
| Feb. 26, 1971..... | 8.1 | -- | -- | 61 | 18 | 8.0 | 2.1 | 185 | 64 | 15 | .3 | .2 | -- | 50 | 268 | 230 | .2 | 463 | 7.5 |
| July 21..... | 7.5 | -- | -- | 51 | 18 | 7.5 | 2.4 | 160 | 61 | 15 | .3 | .0 | -- | 40 | 200 | 70 | .2 | 421 | 8.0 |