

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Cheoah

HYDRAULIC DATA BRANCH

20-12

NAME OF RESERVOIR

DATA SHEET NO.

| DAM | 1. OWNER Alum. Co. of America | | | 2. RIVER Little Tennessee | | | 3. STATE North Carolina | | | | | | | | | |
|--------------------|---|-----------------------------------|---|------------------------------------|---|------------------------|-----------------------------------|-----------------------|---|---------------------|-----------------------------|-----------|-------------------------|-----------------|-----------------------------------|--|
| | 4. SEC. TWP. RANGE | | 5. NEAREST TOWN Tapoco | | | 6. COUNTY Graham-Swain | | | | | | | | | | |
| | 7. STREAM BED ELEV. 1078 | | | 8. TOP OF DAM ELEV. 1286.6 | | | 9. SPILLWAY CREST ELEV. 1/1276.6 | | | | | | | | | |
| RESERVOIR | 10. STORAGE ALLOCATION | | 11. ELEVATION TOP OF POOL | | 12. SURFACE AREA ACRES | | 13. STORAGE ACRE- FEET | | 14. ACCUMULATED ACRE- FEET | | 15. DATE STORAGE BEGAN | | | | | |
| | a. FLOOD CONTROL | | | | 2/ | | 2/ | | 2/ | | 12/8/18 | | | | | |
| | b. POWER | | 1276.6 | | 632 | | 18,930 | | 35,030 | | | | | | | |
| | c. MULTIPLE USE | | | | | | | | | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | d. INACTIVE | | 1228.6 | | 270 | | 16,100 | | 16,100 | | 4/13/19 | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 10 MILES | | | | | | AV. WIDTH OF RESERVOIR 0.10 MILES | | | | | | | | | |
| | 18. TOTAL DRAINAGE AREA 1608 SQ. MI. | | | | 22. MEAN ANNUAL PRECIPITATION 60.4(15) INCHES | | | | | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 1607 SQ. MI. | | | | 23. MEAN ANNUAL RUNOFF 31.9(31) INCHES | | | | | | | | | | | |
| | 20. LENGTH 93 MILES | | AV. WIDTH 17 MILES | | 24. MEAN ANNUAL RUNOFF 2,737,000 AG.-FT. | | | | | | | | | | | |
| | 21. MAX. ELEV. 6642 | | MIN. ELEV. 1078 | | 25. CLIMATIC CLASSIFICATION Perhumid | | | | | | | | | | | |
| SURVEY DATA | 26. DATE OF SURVEY | | 27. PERIOD YEARS | | 28. ACCL. YEARS | | 29. TYPE OF SURVEY | | 30. NO. OF RANGES OR CONTOUR INT. | | 31. SURFACE AREA ACRES | | 32. CAPACITY ACRE- FEET | | 33. C/W RATIO AC.-FT. PER SQ. MI. | |
| | Dec. 8, 1918 | | 0 | | 0 | | 0 | | 0 | | - | | 3/ 44,030 | | 27 | |
| | Sep. 1930 | | 11.8 | | 11.8 | | Range | | 34 | | - | | 39,030 | | 24 | |
| | Aug. 4, 1941 | | 10.9 | | 22.7 | | Range (D) | | 34 | | 632 | | 35,030 | | 22 | |
| | 26. DATE OF SURVEY | | 34. PERIOD ANNUAL PRECIPITATION | | 35. PERIOD WATER INFLOW ACRE- FEET | | | | 36. WATER INFL. TO DATE AC.-FT. | | | | | | | |
| | | | | | a. MEAN ANNUAL | | b. MAX. ANNUAL | | c. PERIOD TOTAL | | d. MEAN ANNUAL | | b. TOTAL TO DATE | | | |
| | | | | | | | | | | | | | | | | |
| | 26. DATE OF SURVEY | | 37. PERIOD SEDIMENT DEPOSITS ACRE- FEET | | | | | | 38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET. | | | | | | | |
| | | | a. PERIOD TOTAL | | b. AV. ANNUAL | | c. PER SQ. MI.-YEAR | | d. TOTAL TO DATE | | b. AV. ANNUAL | | c. PER SQ. MI.-YEAR | | | |
| | Dec. 8, 1918 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |
| Sep. 1930 | | 5000 | | 424 | | 0.264 | | 5000 | | 424 | | 0.264 | | | | |
| Aug. 4, 1941 | | 5000 | | 367 | | 0.228 | | 9000 | | 396 | | 0.246 | | | | |
| 26. DATE OF SURVEY | | 39. AV. DRY WGT. LBS. PER CU. FT. | | 40. SED. DEP. TONS PER SQ. MI.-YR. | | | | 41. STORAGE LOSS PCT. | | 42. SED. INFLOW PPM | | | | | | |
| | | | | a. PERIOD | | b. TOTAL TO DATE | | a. AV. ANNUAL | | b. TOT. TO DATE | | c. PERIOD | | b. TOT. TO DATE | | |
| Sep. 1930 | | 55* | | 316.2 | | 316.2 | | 4/0.963 | | 11.356 | | - | | - | | |
| Aug. 4, 1941 | | | | 273.1 | | 294.7 | | 0.899 | | 20.441 | | - | | - | | |

1/ Top of gates.

2/ From first accurate area-volume curves, 1941 conditions.

* Assumed.

| | | | | | | | | | | | | | |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | | |
| Not Available | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|--------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 26. DATE OF SURVEY | 44. REACH DESIGNATION PERCENT OF TOTAL ORIGINAL LENGTH OF RESERVOIR | | | | | | | | | | | | | | |
| | 0-10 | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 | 80-90 | 90-100 | -105 | -110 | -115 | -120 | -125 |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION | | | | | | | | | | | | | | |
| Dec. 3, 1918 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Sep. 1930 | 15 | 12 | 12 | 13 | 11 | 11 | 9 | 6 | 7 | 4 | | | | | |
| Aug. 4, 1941 | 14 | 12 | 12 | 12 | 10 | 10 | 9 | 8 | 7 | 6 | | | | | |

| 45. RANGE IN RESERVOIR OPERATION | | | | | | | |
|----------------------------------|------------|------------|----------------|------------|------------|------------|----------------|
| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
| 1945 | 1154.23 | 1136.30 | 1,717,971 | 1950 | 1154.49 | 1146.67 | 4,304,038 |
| 1946 | 1154.35 | 1141.90 | 3,588,497 | 1951 | 1154.39 | 1148.37 | 2,688,107 |
| 1947 | 1154.22 | 1134.90 | 3,102,688 | | | | |
| 1948 | 1154.33 | 1149.14 | 2,569,771 | | | | |
| 1949 | 1154.26 | 1146.84 | 3,861,988 | | | | |

| 46. ELEVATION-AREA-CAPACITY DATA (1941) | | | | | | | | |
|---|------|----------|-----------|------|----------|-----------|------|----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| 1101.3 | 0 | 0 | 1222.6 | 258 | 14,480 | | | |
| 1122.6 | 51 | 611 | 1242.6 | 305 | 20,070 | | | |
| 1142.6 | 178 | 1,870 | 1262.6 | 462 | 27,300 | | | |
| 1162.6 | 114 | 3,735 | 1272.6 | 590 | 32,590 | | | |
| 1182.6 | 155 | 6,358 | 1276.6 | 632 | 35,030 | | | |
| 1202.6 | 206 | 9,974 | | | | | | |

47. REMARKS AND REFERENCES
3/ Computed from probings and available maps.
4/ Based on original volume of 14,030 acre-feet.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE March 1, 1952