RESERVOIR SEDIMENT
DATA SUMMARY

Ocoee #3
NAME OF RESERVOIR

20-21b (revised)
DATA SHEET NO.

**DAM**

| | | |
|---|---|---|
| 1. OWNER TVA | 2. STREAM Ocoee | 3. STATE Tennessee |
| 4. SEC. TWP. RANGE | 5. NEAREST POST OFF. Ducktown | 6. COUNTY Polk |
| 7. LAT. 35° 02' 26" LONG. 84° 27' 00" | 8. TOP OF DAM ELEVATION 1,443 | 9. SPILLWAY CREST ELEV. 1/ 1,435 |

**RESERVOIR**

| 10. STORAGE ALLOCATION | 11. ELEVATION TOP OF POOL | 12. ORIGINAL SURFACE AREA ACRES | 13. ORIGINAL CAPACITY ACRE-FEET | 14. GROSS STORAGE ACRE-FEET | 15. DATE STORAGE BEGAN |
|---|---|---|---|---|---|
| a. FLOOD CONTROL | | | | | |
| b. MULTIPLE USE | 1/ | | | | 8/15/42 |
| c. POWER | 1,435 | 621 | 11,104 | 14,304 | |
| d. WATER SUPPLY | | | | | 16. DATE NORMAL OPER. BEGAN |
| e. IRRIGATION | | | | | |
| f. CONSERVATION | | | | | |
| g. INACTIVE | 1,405 | 160 | 3,200 | 3,200 | 4/30/43 |

**WATERSHED**

| | | | |
|---|---|---|---|
| 17. LENGTH OF RESERVOIR | 7 MILES | AV. WIDTH OF RESERVOIR | 0.1 MILES |
| 18. TOTAL DRAINAGE AREA | 496 SQ. MI. | 22. MEAN ANNUAL PRECIPITATION | 61.3 INCHES |
| 19. NET SEDIMENT CONTRIBUTING AREA | 263 SQ. MI. | 23. MEAN ANNUAL RUNOFF | 31.5 INCHES |
| 20. LENGTH 74 MILES | AV. WIDTH 7 MILES | 24. MEAN ANNUAL RUNOFF | 832,600 AC.-F T. |
| 21. MAX. ELEV. 4,081 | MIN. ELEV. 1,345 | 25. ANNUAL TEMP.: MEAN 58 | RANGE 1° – 97° |

**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/I. RATIO AC.-FT. PER AC.-FT. |
|---|---|---|---|---|---|---|---|
| 8-15-42 | 0 | 0 | Range (D) | 22 | 621 | 14,304 | |
| 7-25-45 | 2.9 | 2.9 | Range (D) | 16 | 3/ | 12,140 | |
| 11-20-46 | 1.3 | 4.2 | Range (D) | 21 | | 11,349 | |
| 8-23-48 | 1.8 | 6.0 | Range (D) | 30 | | 10,570 | |
| 8-18-50 | 2.0 | 8.0 | Range (D) | 31 | | 9,849 | |
| 7-28-53 | 3.0 | 11.0 | Range (D) | 31 | | 8,696 | |

| 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 | a. MEAN ANNUAL | b. TOTAL TO DATE |
| 7-25-45 | 58.3 | 630,693 | | 1,829,010 | 630,693 | 1,829,010 |
| 11-20-46 | 69.7 | 1,113,131 | 1,234,147 | 1,447,070 | 780,019 | 3,276,080 |
| 8-23-48 | 60.9 | 709,272 | 782,632 | 1,276,690 | 758,795 | 4,552,770 |
| 8-18-50 | 71.5 | 965,436 | 1,018,882 | 1,930,872 | 810,455 | 6,483,642 |
| 7-28-53 | 61.4 | 765,805 | 899,261 | 2,297,417 | 798,278 | 8,781,059 |

| 26. DATE OF SURVEY | 37. PERIOD CAPACITY LOSS ACRE-FEET | | | 38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET. | | |
|---|---|---|---|---|---|---|
| | a. PERIOD TOTAL | b. AV. ANNUAL | c. PER SQ. MI.-YEAR | a. TOTAL TO DATE | b. AV. ANNUAL | c. PER SQ. MI.-YEAR |
| 7-25-45 | 2,164 | 746 | 2.84 | 2/ 2,164 | 746 | 2.84 |
| 11-20-46 | 791 | 608 | 2.31 | 2,955 | 704 | 2.68 |
| 8-23-48 | 779 | 433 | 1.65 | 3,734 | 622 | 2.37 |
| 8-18-50 | 721 | 361 | 1.37 | 4,455 | 557 | 2.12 |
| 7-28-53 | 1,153 | 384 | 1.46 | 5,608 | 510 | 1.94 |

| 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. TOTAL TO DATE | b. PERIOD | a. AV. AN. | b. TOT. TO DATE | a. PERIOD | b. TOT. TO DATE |
| 7-25-45 | 64* | 3,959 | 3,959 | 5.22 | 15.1 | 1,214 | 1,214 |
| 11-20-46 | 64* | 3,736 | 3,220 | 4.92 | 20.7 | 560 | 925 |
| 8-23-48 | 64(15) | 3,304 | 2,300 | 4.35 | 26.1 | 628 | 820 |
| 8-18-50 | 64* | 2,955 | 1,910 | 3.89 | 31.1 | 383 | 705 |
| 7-28-53 | 64* | 2,704 | 2,035 | 3.57 | 39.2 | 514 | 655 |

*Assumed

| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 87-80 | 80-70 | 70-60 | 60-50 | 50-40 | 40-30 | 30-20 | 20-10 | 10-Top of Hashborads | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| 7-25-45 | 2 | 4 | 1 | 5 | 3 | 7 | 17 | 41 | 20 | | | |
| 11-20-46 | 1 | 3 | 1 | 4 | 3 | 6 | 19 | 38 | 25 | | | |
| 8-23-48 | 1 | 2 | 1 | 4 | 2 | 7 | 21 | 38 | 24 | | | |
| 8-18-50 | 1 | 2 | 1 | 3 | 2 | 8 | 20 | 38 | 25 | | | |
| 7-28-53 | 1 | 2 | 1 | 3 | 2 | 9 | 22 | 36 | 24 | | | |

| 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 | | | | | | | | | | | | | | |
| 7-25-45 | 9 | 6 | 4 | 9 | 25 | 24 | 15 | 4 | 3 | 1 | | | | | |
| 11-20-46 | 7 | 5 | 6 | 16 | 24 | 21 | 14 | 4 | 2 | 1 | | | | | |
| 8-23-48 | 6 | 5 | 10 | 19 | 24 | 18 | 11 | 4 | 2 | 1 | | | | | |
| 8-18-50 | 5 | 6 | 14 | 20 | 23 | 16 | 10 | 3 | 2 | 1 | | | | | |
| 7-28-53 | 5 | 11 | 19 | 18 | 19 | 13 | 9 | 3 | 2 | 1 | | | | | |

45. RANGE IN RESERVOIR OPERATION

| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
|---|---|---|---|---|---|---|---|
| 1944 | 1,435.90 | 1,410.48 | 752,430 | | | | |
| 1945 | 1,435.15 | 1,414.66 | 616,032 | | | | |
| 1946 | 1,436.70 | 1,414.45 | 1,234,147 | | | | |
| 1947 | 1,435.50 | 1,417.69 | 782,632 | | | | |
| 1948 | 1,435.25 | 1,420.43 | 679,125 | | | | |
| 1949 | 1,435.55 | 1,414.98 | 929,668 | | | | |
| 1950 | 1,436.94 | 1,415.88 | 1,018,882 | | | | |
| 1951 | 1,435.52 | 1,424.16 | 702,478 | | | | |
| 1952 | 1,435.78 | 1,419.62 | 899,261 | | | | |
| 1953 | 1,435.34 | 1,414.57 | 698,303 | | | | |

46. ELEVATION-AREA-CAPACITY DATA

| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
|---|---|---|---|---|---|---|---|---|
| | 1942 | | 1,398 | 112 | 2,253 | 1,363 | 3/ | 0 |
| 1,347.6 | 0 | 0 | 1,403 | 143 | 2,875 | 1,368 | | 93 |
| 1,353 | 7 | 24 | 1,408 | 184 | 3,682 | 1,378 | | 449 |
| 1,363 | 20 | 155 | 1,413 | 250 | 4,763 | 1,388 | | 895 |
| 1,368 | 31 | 283 | 1,318 | 329 | 6,187 | 1,398 | | 1,638 |
| 1,373 | 42 | 466 | 1,423 | 427 | 8,067 | 1,408 | | 2,417 |
| 1,378 | 53 | 702 | 1,428 | 510 | 10,403 | 1,418 | | 3,363 |
| 1,383 | 63 | 992 | 1,435 | 621 | 14,304 | 1,423 | | 4,263 |
| 1,388 | 75 | 1,338 | 1,435 | | 1953 | 1,428 | | 5,526 |
| 1,393 | 91 | 1,746 | 1,347.6 | | 0 | 1,435 | | 8,696 |

47. REMARKS AND REFERENCES

1/ Top of gates. Normal maximum pool level elev. 1,435; normal minimum pool level elev. 1,413; centerline of intake to turbine elev. 1,405; centerline of sluice gates elev. 1,382.5.

2/ A small retention dam failed in March 1944 flushing approximately 553 acre-feet of tailings into the reservoir. Sediment volumes for the 1945 and succeeding dates include these tailings.

3/ Not measured or computed after initial survey.

48. AGENCY MAKING SURVEY: Tennessee Valley Authority

49. AGENCY SUPPLYING DATA: Data Services Branch

50. DATE: (revised) October, 1980

# RESERVOIR SEDIMENT DATA SUMMARY

Ocoee #3
NAME OF RESERVOIR

20-21c (revised)
DATA SHEET NO.

## DAM

| | | |
|---|---|---|
| 1. OWNER TVA | 2. STREAM Ocoee | 3. STATE Tennessee |
| 4. SEC. TWP. RANGE | 5. NEAREST POST OFF. Ducktown | 6. COUNTY Polk |
| 7. LAT. 35° 02' 26" LONG. 84° 27' 00" | 8. TOP OF DAM ELEVATION 1448 | 9. SPILLWAY CREST ELEV. 1/1,435 |

## RESERVOIR

| 10. STORAGE ALLOCATION | 11. ELEVATION TOP OF POOL | 12. ORIGINAL SURFACE AREA ACRES | 13. ORIGINAL CAPACITY ACRE-FEET | 14. GROSS STORAGE ACRE-FEET | 15. DATE STORAGE BEGAN |
|---|---|---|---|---|---|
| a. FLOOD CONTROL | | | | | |
| b. MULTIPLE USE | | | | | 8/15/42 |
| c. POWER | 1435 | 621 | 11,104 | 14,304 | 16. DATE NORMAL OPER. BEGAN |
| d. WATER SUPPLY | | | | | |
| e. IRRIGATION | | | | | |
| f. CONSERVATION | | | | | 4/30/43 |
| g. INACTIVE | 1405 | 160 | 3,200 | 3,200 | |

## WATERSHED

| | | | |
|---|---|---|---|
| 17. LENGTH OF RESERVOIR | 7 MILES | AV. WIDTH OF RESERVOIR | 0.1 MILES |
| 18. TOTAL DRAINAGE AREA | 496 SQ. MI. | 22. MEAN ANNUAL PRECIPITATION | 61.2 INCHES |
| 19. NET SEDIMENT CONTRIBUTING AREA | 263 SQ. MI. | 23. MEAN ANNUAL RUNOFF | 31.5 INCHES |
| 20. LENGTH 74 MILES | AV. WIDTH 7 MILES | 24. MEAN ANNUAL RUNOFF | 833,200 AC.-FT. |
| 21. MAX. ELEV. 4081 | MIN. ELEV. 1345 | 25. ANNUAL TEMP.: MEAN 58 | RANGE 1° - 97° |

## 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/I. RATIO AC.-FT. PER AC.-FT. |
|---|---|---|---|---|---|---|---|
| 8-15-42 | 0 | 0 | Range (D) | 22 | 621 | 14,304 | |
| 10-06-55 | 2.1 | 13.1 | Range (D) | 30 | 3/ | 8,042 | |
| 10-03-58 | 3.0 | 16.1 | Range (D) | 30 | | 6,766 | |
| 10-19-60 | 2.0 | 18.1 | Range (D) | 30 | | 5,920 | |
| 6-18-62 | 1.8 | 19.9 | Range (D) | 30 | | 5,286 | |
| 9-02-65 | 3.2 | 23.1 | Range (D) | 30 | | 4,653 | |

| 26. DATE OF SURVEY | 34. PERIOD ANNUAL PRECIPITATION | 35. PERIOD WATER INFLOW ACRE-FEET a. MEAN ANNUAL | b. MAX. ANNUAL | c. PERIOD TOTAL | 36. WATER INFL. TO DATE AC.-FT. a. MEAN ANNUAL | b. TOTAL TO DATE |
|---|---|---|---|---|---|---|
| 10-06-55 | 57.7 | 685,484 | 698,303 | 1,440,281 | 780,255 | 10,221,340 |
| 10-03-58 | 66.3 | 783,012 | 865,705 | 2,349,035 | 780,769 | 12,570,375 |
| 10-19-60 | 61.9 | 681,645 | 710,170 | 1,363,307 | 769,817 | 13,933,682 |
| 6-18-62 | 70.0 | 826,221 | 956,202 | 1,487,197 | 774,919 | 15,420,879 |
| 9-02-65 | 66.2 | 954,619 | 997,157 | 2,734,782 | 785,959 | 18,155,661 |

| 26. DATE OF SURVEY | 37. PERIOD CAPACITY LOSS ACRE-FEET a. PERIOD TOTAL | b. AV. ANNUAL | c. PER SQ. MI.-YEAR | 38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET. a. TOTAL TO DATE | b. AV. ANNUAL | c. PER SQ. MI.-YEAR |
|---|---|---|---|---|---|---|
| 10-06-55 | 654 | 311 | 1.183 | 6,262 | 478 | 1.818 |
| 10-03-58 | 1,276 | 425 | 1.616 | 7,538 | 468 | 1.780 |
| 10-19-60 | 846 | 423 | 1.608 | 8,384 | 463 | 1.761 |
| 6-18-62 | 634 | 352 | 1.388 | 9,018 | 453 | 1.723 |
| 9-02-65 | 633 | 198 | 0.752 | 9,651 | 418 | 1.589 |

| 26. DATE OF SURVEY | 39. AV. DRY WGT. LBS. PER CU. FT. | 40. SED. DEP. TONS PER SQ. MI.-YR. a. TOTAL TO DATE | b. PERIOD | 41. STORAGE LOSS PCT. a. AV. AN. | b. TOT. TO DATE | 42. SED. INFLOW PPM a. PERIOD | b. TOT. TO DATE |
|---|---|---|---|---|---|---|---|
| 10-06-55 | 64* | 2,534 | 1,649 | 3.34 | 43.8 | 466 | 628 |
| 10-03-58 | 64* | 2,481 | 2,253 | 3.27 | 52.7 | 577 | 615 |
| 10-19-60 | 64* | 2,455 | 2,242 | 3.24 | 58.6 | 636 | 617 |
| 6-18-62 | 64* | 2,402 | 1,865 | 3.17 | 63.0 | 440 | 600 |
| 9-02-65 | 64* | 2,215 | 1,048 | 2.92 | 67.5 | 237 | 545 |

* Assumed

| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 87-80 | 20-70 | 70-60 | 60-50 | 50-40 | 40-30 | 30-20 | 20-10 | 10-Top of gates | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| 10-06-55 | 1 | 2 | 1 | 3 | 3 | 8 | 20 | 36 | 26 | | | |
| 10-03-58 | 1 | 2 | 3 | 3 | 6 | 11 | 18 | 31 | 25 | | | |
| 10-19-60 | 0 | 2 | 4 | 4 | 6 | 10 | 20 | 29 | 25 | | | |
| 6-18-62 | 0 | 2 | 4 | 4 | 5 | 10 | 18 | 33 | 24 | | | |
| 10-02-65 | 0 | 2 | 4 | 6 | 7 | 9 | 18 | 29 | 25 | | | |

| 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 | | | | | | | | | | | | | | |
| 10-06-65 | 5 | 12 | 21 | 17 | 20 | 12 | 8 | 3 | 1 | 1 | | | | | |
| 10-03-58 | 10 | 16 | 18 | 15 | 18 | 10 | 7 | 3 | 2 | 1 | | | | | |
| 10-19-60 | 13 | 19 | 17 | 14 | 17 | 10 | 6 | 3 | 1 | 0 | | | | | |
| 6-18-62 | 13 | 20 | 17 | 13 | 16 | 9 | 8 | 2 | 2 | 0 | | | | | |
| 10-02-65 | 17 | 20 | 16 | 13 | 16 | 9 | 6 | 2 | 1 | 0 | | | | | |

45. RANGE IN RESERVOIR OPERATION

| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
|---|---|---|---|---|---|---|---|
| 1954 | 1,435.36 | 1,416.96 | 675,776 | 1964 | 1,435.10 | 1,420.82 | 997,157 |
| 1955 | 1,435.80 | 1,417.61 | 642,241 | 1965 | 1,435.99 | 1,415.85 | 828,244 |
| 1956 | 1,435.51 | 1,413.72 | 681,642 | | | | |
| 1957 | 1,435.40 | 1,415.07 | 806,588 | | | | |
| 1958 | 1,435.44 | 1,419.8* | 865,705 | | | | |
| 1959 | 1,435.08 | 1,413.11 | 639,139 | | | | |
| 1960 | 1,435.60 | 1,410.90 | 710,170 | | | | |
| 1961 | 1,436.17 | 1,409.30 | 734,982 | | | | |
| 1962 | 1,435.42 | 1,411.90 | 956,202 | | | | |
| 1963 | 1,435.05 | 1,307.0* | 766,295 | | | | |

46. ELEVATION-AREA-CAPACITY DATA

| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
|---|---|---|---|---|---|---|---|---|
| | | 1960 | 1,413 | | 1,339 | 1,388 | | 35 |
| 1,347.6 | 3/ | 0 | 1,410 | | 1,666 | 1,393 | | 95 |
| 1,373 | | 0 | 1,423 | | 1,341 | 1,398 | | 201 |
| 1,378 | | 53 | 1,428 | | 3,312 | 1,403 | | 388 |
| 1,383 | | 216 | 1,435 | | 5,920 | 1,408 | | 583 |
| 1,388 | | 385 | | | | 1,413 | | 793 |
| 1,393 | | 560 | | | | 1,418 | | 1,047 |
| 1,398 | | 740 | | | 1965 | 1,423 | | 1,423 |
| 1,403 | | 928 | 1,347.6 | 3/ | 0 | 1,428 | | 2,225 |
| 1,408 | | 1,123 | 1,383 | | 0 | 1,435 | | 4,653 |

47. REMARKS AND REFERENCES

1/ Top of gates. Normal maximum pool level elev. 1,435; normal minimum pool level elev. 1,413; centerline of intake to turbins elev. 1,405; centerline of sluice gates elev. 1,382.5.

3/ Not measured or computed after initial survey.

For preceeding data, see Sheet 20-21b (revised).

48. AGENCY MAKING SURVEY: Tennessee Valley Authority

49. AGENCY SUPPLYING DATA: Data Services Branch

50. DATE: (revised) October, 1980

# RESERVOIR SEDIMENT DATA SUMMARY

Ocoee #3
NAME OF RESERVOIR

20-21d (revised)
DATA SHEET NO.

## DAM

| | | |
|---|---|---|
| 1. OWNER TVA | 2. STREAM Ocoee | 3. STATE Tennessee |
| 4. SEC. TWP. RANGE | 5. NEAREST POST OFF. Ducktown | 6. COUNTY Polk |
| 7. LAT. 35° 02' 26" LONG. 84° 27' 00" | 8. TOP OF DAM ELEVATION 1,443 | 9. SPILLWAY CREST ELEV. 1/ 1,435 |

## RESERVOIR

| 10. STORAGE ALLOCATION | 11. ELEVATION TOP OF POOL | 12. ORIGINAL SURFACE AREA ACRES | 13. ORIGINAL CAPACITY ACRE-FEET | 14. GROSS STORAGE ACRE-FEET | 15. DATE STORAGE BEGAN |
|---|---|---|---|---|---|
| a. FLOOD CONTROL | 1/ | | | | |
| b. MULTIPLE USE | 1,435 | 621 | 11,104 | 14,304 | 8/15/42 |
| c. POWER | | | | | 16. DATE NORMAL OPER. BEGAN |
| d. WATER SUPPLY | | | | | |
| e. IRRIGATION | | | | | |
| f. CONSERVATION | | | | | 4/30/43 |
| g. INACTIVE | 1,405 | 160 | 3,200 | 3,200 | |

## WATERSHED

| | | | |
|---|---|---|---|
| 17. LENGTH OF RESERVOIR | 7 MILES | AV. WIDTH OF RESERVOIR | 0.1 MILES |
| 18. TOTAL DRAINAGE AREA | 496 SQ. MI. | 22. MEAN ANNUAL PRECIPITATION | 61.04 INCHES |
| 19. NET SEDIMENT CONTRIBUTING AREA | 263 SQ. MI. | 23. MEAN ANNUAL RUNOFF | 31.27 INCHES |
| 20. LENGTH 74 MILES | AV. WIDTH 7 MILES | 24. MEAN ANNUAL RUNOFF | 827,144 AC.-FT. |
| 21. MAX. ELEV. 4,081 | MIN. ELEV. 1,345 | 25. ANNUAL TEMP: MEAN | 58° RANGE 1° – 97° |

## 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/I. RATIO AC.-FT. PER AC.-FT. |
|---|---|---|---|---|---|---|---|
| 8-15-42 | 0 | 0 | Range (D) | 22 | 604 | 14,304 | |
| 3-28-68 | 26 | 25.6 | Range (D) | 31 | 3/ | 4,026 | |

| 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 | a. MEAN ANNUAL | b. TOTAL TO DATE |
| 3-28-68 | 63.3 | 768,584 | 933,624 | 1,998,319 | 787,265 | 20,153,980 |

| 26. DATE OF SURVEY | 37. PERIOD CAPACITY LOSS ACRE-FEET | | | 38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET. | | |
|---|---|---|---|---|---|---|
| | a. PERIOD TOTAL | b. AV. ANNUAL | c. PER SQ. MI.-YEAR | a. TOTAL TO DATE | b. AV. ANNUAL | c. PER SQ. MI.-YEAR |
| 3-28-68 | 627 | 241 | 0.916 | 10,278 | 401 | 1.527 |

| 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. TOTAL TO DATE | b. PERIOD | a. AV. AN. | b. TOT. TO DATE | a. PERIOD | b. TOT. TO DATE |
| 3-28-68 | 64* | 2,129 | 1,277 | 2.80 | 71.9 | 322 | 523 |

*Assumed

| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 87-80 | 80-70 | 70-60 | 60-50 | 50-40 | 40-30 | 30-20 | 20-10 | 10-Top of gates | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| 3-28-68 | 0 | 2 | 3 | 5 | 8 | 11 | 18 | 29 | 24 | | | |

| 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 | | | | | | | | | | | | | | |
| 3-28-68 | 20 | 20 | 15 | 12 | 15 | 9 | 6 | 2 | 1 | 0 | | | | | |

45. RANGE IN RESERVOIR OPERATION

| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
|---|---|---|---|---|---|---|---|
| 1966 | 1,434.98 | 1,412.93 | 680,563 | | | | |
| 1967 | 1,435.55 | 1,419.26 | 741,236 | | | | |
| 1968 | 1,435.18 | 1,400.00 | 933,624 | | | | |

46. ELEVATION-AREA-CAPACITY DATA

| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
|---|---|---|---|---|---|---|---|---|
| | | 1942 | 1,298 | 112 | 2,253 | | | 1968 |
| 1,347.6 | 0 | 0 | 1,403 | 143 | 2,875 | 1,393 | 3/ | 0 |
| 1,353 | 7 | 24 | 1,408 | 184 | 3,682 | 1,398 | | 5 |
| 1,363 | 20 | 155 | 1,413 | 250 | 4,763 | 1,403 | | 59 |
| 1,368 | 31 | 283 | 1,418 | 329 | 6,187 | 1,408 | | 131 |
| 1,373 | 42 | 466 | 1,423 | 427 | 8,067 | 1,413 | | 276 |
| 1,378 | 53 | 702 | 1,428 | 510 | 10,403 | 1,418 | | 497 |
| 1,383 | 63 | 992 | 1,435 | 621 | 14,304 | 1,423 | | 872 |
| 1,388 | 75 | 1,338 | | | | 1,428 | | 1,612 |
| 1,393 | 91 | 1,746 | | | | 1,435 | | 4,026 |

47. REMARKS AND REFERENCES

1/ Top of gates. Normal maximum pool level elev. 1,435; normal minimum pool level elev. 1,413; centerline of intake to turvines elev. 1,405; centerline of sluice gates elev. 1,382.5.

3/ Not measured or computed after initial survey.

For preceeding data see Sheets 20-21 b and c (revisions).

43. AGENCY MAKING SURVEY Tennessee Valley Authority (revised)

49. AGENCY SUPPLYING DATA Data Services Branch 50. DATE October, 1980

# RESERVOIR SEDIMENT DATA SUMMARY

Ocoee #3
NAME OF RESERVOIR

20-21e (revised)
DATA SHEET NO.

## DAM

| | | |
|---|---|---|
| 1. OWNER TVA | 2. STREAM Ocoee | 3. STATE Tennessee |
| 4. SEC. TWP. RANGE | 5. NEAREST POST OFF. Ducktown | 6. COUNTY Polk |
| 7. LAT. 35° 02' 26" LONG. 84° 27' 00" | 8. TOP OF DAM ELEVATION 1,448 | 9. SPILLWAY CREST ELEV. 1/ 1,435 |

## RESERVOIR

| 10. STORAGE ALLOCATION | 11. ELEVATION TOP OF POOL | 12. ORIGINAL SURFACE AREA ACRES | 13. ORIGINAL CAPACITY ACRE-FEET | 14. GROSS STORAGE ACRE-FEET | 15. DATE STORAGE BEGAN |
|---|---|---|---|---|---|
| a. FLOOD CONTROL | | | | | |
| b. MULTIPLE USE | 1/ | | | | 8/15/42 |
| c. POWER | 1,435 | 621 | 11,104 | 14,304 | |
| d. WATER SUPPLY | | | | | 16. DATE NORMAL OPER. BEGAN |
| e. IRRIGATION | | | | | |
| f. CONSERVATION | | | | | 4/30/43 |
| g. INACTIVE | 1,405 | 160 | 3,200 | 3,200 | |

17. LENGTH OF RESERVOIR 7 MILES — AV. WIDTH OF RESERVOIR 0.1 MILES

## WATERSHED

| | | | |
|---|---|---|---|
| 18. TOTAL DRAINAGE AREA | 496 SQ. MI. | 22. MEAN ANNUAL PRECIPITATION | 61.0 INCHES |
| 19. NET SEDIMENT CONTRIBUTING AREA | 263 SQ. MI. | 23. MEAN ANNUAL RUNOFF | 30.96 INCHES |
| 20. LENGTH 74 MILES — AV. WIDTH 7 MILES | | 24. MEAN ANNUAL RUNOFF | 812,385 AC.-FT. |
| 21. MAX. ELEV. 4,081 — MIN. ELEV. 1,345 | | 25. ANNUAL TEMP.: MEAN 58 | RANGE 1° - 97° |

## 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/I. RATIO AC.-FT. PER AC.-FT. |
|---|---|---|---|---|---|---|---|
| 8-15-42 | 0 | 0 | Range (D) | 22 | 621 | 14,304 | |
| 6-14-72 | 4.2 | 29.8 | Range (D) | 30 | 3/ | 3,879 | |

| 26. DATE OF SURVEY | 34. PERIOD ANNUAL PRECIPITATION | 35. PERIOD WATER INFLOW ACRE-FEET a. MEAN ANNUAL | b. MAX. ANNUAL | c. PERIOD TOTAL | 36. WATER INFL. TO DATE AC.-FT. a. MEAN ANNUAL | b. TOTAL TO DATE |
|---|---|---|---|---|---|---|
| 1-14-72 | 61.2 | 747,549 | 859,984 | 3,139,706 | 781,667 | 23,293,686 |

| 26. DATE OF SURVEY | 37. PERIOD CAPACITY LOSS ACRE-FEET a. PERIOD TOTAL | b. AV. ANNUAL | c. PER SQ. MI.-YEAR | 38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET. a. TOTAL TO DATE | b. AV. ANNUAL | c. PER SQ. MI.-YEAR |
|---|---|---|---|---|---|---|
| 1-14-72 | 148 | 35 | 0.133 | 10,425 | 350 | 1.33 |

| 26. DATE OF SURVEY | 39. AV. DRY WGT. LBS. PER CU. FT. | 40. SED. DEP. TONS PER SQ. MI.-YR. a. TOTAL TO DATE | b. PERIOD | 41. STORAGE LOSS PCT. a. AV. AN. | b. TOT. TO DATE | 42. SED. INFLOW PPM a. PERIOD | b. TOT. TO DATE |
|---|---|---|---|---|---|---|---|
| 1-14-72 | 64* | 1,854 | 185 | 2.45 | 72.9 | 4/ | 4/ |

*Assumed

| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 87–80 | 80–70 | 70–60 | 60–50 | 50–40 | 40–30 | 30–20 | 20–10 | 10–Top of gates | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| 1-14-72 | 0 | 2 | 3 | 5 | 9 | 12 | 18 | 27 | 24 | | | |

| 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 | | | | | | | | | | | | | | |
| 1-14-72 | 20 | 19 | 15 | 13 | 15 | 9 | 6 | 2 | 1 | 0 | | | | | |

45. RANGE IN RESERVOIR OPERATION

| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
|---|---|---|---|---|---|---|---|
| 1969 | 1,435.10 | 1,386.00 | 701,810 | | | | |
| 1970 | 1,435.28 | 1,422.87 | 632,328 | | | | |
| 1971 | 1,435.05 | 1,390.00 | 770,790 | | | | |
| 1972 | 1,435.12 | 1,390.00 | 859,984 | | | | |

46. ELEVATION–AREA–CAPACITY DATA

| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
|---|---|---|---|---|---|---|---|---|
| | | 1942 | 1,393 | 91 | 1,746 | | | 1972 |
| 1,347.6 | 0 | 0 | 1,398 | 112 | 2,253 | 1,347.6 | 3/ | 0 |
| 1,353 | 7 | 24 | 1,403 | 143 | 2,875 | 1,398 | | 0 |
| 1,358 | 13 | 73 | 1,408 | 184 | 3,682 | 1,403 | | 10 |
| 1,363 | 20 | 155 | 1,413 | 250 | 4,763 | 1,408 | | 65 |
| 1,368 | 31 | 283 | 1,418 | 329 | 6,187 | 1,413 | | 180 |
| 1,373 | 42 | 466 | 1,423 | 427 | 8,067 | 1,418 | | 422 |
| 1,378 | 53 | 702 | 1,428 | 510 | 10,403 | 1,423 | | 846 |
| 1,383 | 63 | 992 | 1,435 | 621 | 14,304 | 1,428 | | 1,552 |
| 1,388 | 75 | 1,338 | | | | 1,435 | | 3,879 |

47. REMARKS AND REFERENCES

1/ Top of gates. Normal maximum pool level elev. 1,435; normal minimum pool level elev. 1,413; centerline of intake to turvines elev. 1,405; centerline of sluice gates elev. 1,302.5.

3/ Not measured or computed after initial survey.

4/ The trap efficiency of this reservoir has been reduced due to extended operation of sediment sluice gates and reduction in storage volume.

For preceeding data see Sheets 20-21b, c, and d (revisions).

48. AGENCY MAKING SURVEY Tennessee Valley Authority

49. AGENCY SUPPLYING DATA Data Services Branch

50. DATE (revised) October, 1980