

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Wheeler

HYDRAULIC DATA BRANCH
 18-5

NAME OF RESERVOIR

DATA SHEET NO.

| DAM | 1. OWNER TVA | | | 2. RIVER Tennessee | | | 3. STATE Alabama | | | | | | | | | |
|--------------------|---|-----------------------------------|---|------------------------------------|---|-----------------------|---|---------------------|-----------------------------------|-----------------|-----------------------------|-----------|-------------------------|-----------------|-----------------------------------|--|
| | 4. SEC. TWP. RANGE | | | 5. NEAREST TOWN Town Creek | | | 6. COUNTY Lawrence-Lauderdale | | | | | | | | | |
| | 7. STREAM BED ELEV. 497 | | | 8. TOP OF DAM ELEV. 568 | | | 9. SPILLWAY CREST ELEV. 1/556.28 | | | | | | | | | |
| 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 | | | | | | | | | | 10/3/36 | | | | | |
| | b. POWER | | | | | | | | | | | | | | | |
| | c. MULTIPLE USE | | 556.28 | | 68,300 | | 347,500 | | 1,150,400 | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | d. INACTIVE 2/ | | 550 | | 43,000 | | 776,200 | | 802,900 | | 11/9/36 | | | | | |
| e. Lowest Outlet | | 508.3 | | 3,300 | | 26,700 | | 26,700 | | | | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 74.1 MILES | | | | | | AV. WIDTH OF RESERVOIR 1.44 MILES | | | | | | | | | |
| | 18. TOTAL DRAINAGE AREA 29,590 SQ. MI. | | | | 22. MEAN ANNUAL PRECIPITATION 52.0(15) INCHES | | | | | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 5033 SQ. MI. | | | | 23. MEAN ANNUAL RUNOFF 22.5(50) INCHES | | | | | | | | | | | |
| | 20. LENGTH 648 MILES AV. WIDTH 16 MILES | | | | 24. MEAN ANNUAL RUNOFF 35,475,000 AC.-FT. | | | | | | | | | | | |
| | 21. MAX. ELEV. 6684 MIN. ELEV. 497 | | | | 25. CLIMATIC CLASSIFICATION Humid | | | | | | | | | | | |
| 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. | |
| | Oct. 3, 1936 | | 0 | | 0 | | Range | | 119 | | 68,300 | | 1,150,400 | | - | |
| | Jun. 9, 1947 | | 10.7 | | 10.7 | | Range (D) | | 38 | | 68,300 | | 1,082,571 | | - | |
| | 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 | | | |
| | Oct. 3, 1936 | | 50.4 | | 31,719,544 | | 43,743,195 | | 339,399,117 | | 31,719,544 | | 339,399,117 | | | |
| | Jun. 9, 1947 | | | | | | | | | | | | | | | |
| | 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 | | | |
| | Oct. 3, 1936 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | | |
| Jun. 9, 1947 | | 67,829 | | 6339 | | - | | 67,829 | | 6339 | | - | | | | |
| 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 | | a. PERIOD | | b. TOT. TO DATE | | |
| Jun. 9, 1947 | | 55* | | - | | - | | 0.551 | | 5.896 | | 175 | | 175 | | |

1/ Top of gates.
 2/ Lowest elevation for flat pool navigation requirements.
 * Assumed.

| | | | | | | | | | | | | | | |
|-----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 25. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | | | |
| Not Computed | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | |
|-----------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 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 | | | | | | | | | | | | | | |
| Oct. 3, 1936 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| Jun. 9, 1947 | 22 | 34 | 17 | 9 | 5 | 4 | 2 | 2 | 3 | 2 | | | | | |

| 45. RANGE IN RESERVOIR OPERATION | | | | | | | |
|----------------------------------|------------|------------|----------------|------------|------------|------------|----------------|
| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
| 1941 | 556.43 | 549.42 | 18,691,381 | 1946 | 556.47 | 549.95 | 43,743,195 |
| 1942 | 555.99 | 549.59 | 19,789,443 | 1947 | 556.43 | 549.28 | 33,962,806 |
| 1943 | 556.47 | 549.78 | 34,913,456 | 1948 | 556.38 | 549.70 | 30,643,926 |
| 1944 | 557.32 | 549.37 | 32,669,885 | 1949 | 556.49 | 549.76 | 46,055,045 |
| 1945 | 556.42 | 549.57 | 32,143,472 | 1950 | 556.50 | 549.47 | 47,071,383 |
| | | | | 1951 | 556.40 | 549.70 | 35,999,254 |

| 46. ELEVATION-AREA-CAPACITY DATA (1936) | | | | | | | | |
|---|--------|----------|-----------|--------|-----------|-----------|------|----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| 500 | 1,800 | 5,300 | 545 | 34,800 | 612,100 | | | |
| 510 | 3,600 | 31,100 | 550 | 43,000 | 802,900 | | | |
| 520 | 8,400 | 86,900 | 555 | 62,900 | 1,066,000 | | | |
| 530 | 18,000 | 217,300 | 556.28 | 68,300 | 1,150,400 | | | |
| 540 | 29,000 | 452,800 | | | | | | |

47. REMARKS AND REFERENCES

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE March 1, 1952

TENNESSEE VALLEY AUTHORITY
**RESERVOIR SEDIMENTATION
 DATA SUMMARY**

HYDRAULIC DATA BRANCH

Wheeler
 NAME OF RESERVOIR

18-5a
 DATA SHEET NO.

| | | | | | | | | | | | | | | | | |
|--------------------|---|-----------------------------------|---|------------------------------------|---|-------------------------------|---|-----------------------|-----------------------------------|---------------------|-----------------------------|---------------------|-------------------------|-----------------|--|--|
| DAM | 1. OWNER TVA | | | 2. RIVER Tennessee | | | 3. STATE Alabama | | | | | | | | | |
| | 4. SEC. TWP. RANGE | | 5. NEAREST TOWN Town Creek | | | 6. COUNTY Lawrence-Lauderdale | | | | | | | | | | |
| | 7. STREAM BED ELEV. 497 | | | 8. TOP OF DAM ELEV. 568 | | | 9. SPILLWAY GREST ELEV. 556.28 | | | | | | | | | |
| 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 | | 4/ 556.28 | | 4/ 66,580 | | 4/ 20,000 | | 4/ 1,142,000 | | 10/3/36 | | | | | |
| | b. POWER | | | | | | | | | | | | | | | |
| | c. MULTIPLE USE | | 3/ 556.28 | | 3/ 62,000 | | 3/332,000 | | 3/ 1,122,000 | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | d. INACTIVE | | 2/ 550 | | 44,810 | | 766,000 | | 790,000 | | | | | | | |
| | e. Lowest Outlet | | 508.3 | | 3,200 | | 24,000 | | 24,000 | | 11/9/36 | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 74.1 MILES | | | | AV. WIDTH OF RESERVOIR 1.44 MILES | | | | | | | | | | | |
| | 18. TOTAL DRAINAGE AREA 29,590 SQ. MI. | | | | 22. MEAN ANNUAL PRECIPITATION 49.5(18) INCHES | | | | | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 5/ 5,033 SQ. MI. | | | | 23. MEAN ANNUAL RUNOFF 22.5(50) INCHES | | | | | | | | | | | |
| | 20. LENGTH 648 MILES | | AV. WIDTH 46 MILES | | 24. MEAN ANNUAL RUNOFF 35,475,000 AG.-FT. | | | | | | | | | | | |
| | 21. MAX. ELEV. 6684 | | MIN. ELEV. 497 | | 25. CLIMATIC CLASSIFICATION Humid | | | | | | | | | | | |
| 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 AG.-FT. PER SQ. MI. | |
| | Oct. 3, 1936 | | 0 | | 0 | | Range | | 119 | | 62,000 | | 3/1,122,000 | | | |
| | Jun. 9, 1947 | | 10.7 | | 10.7 | | Range | | 38 | | 62,000 | | 3/1,071,717 | | | |
| | May. 20, 1953 | | 6.0 | | 16.7 | | Range (D) | | 56 | | 62,000 | | 3/1,059,593 | | | |
| | 26. DATE OF SURVEY | | 34. PERIOD ANNUAL PRECIPITATION | | 35. PERIOD WATER INFLOW ACRE- FEET | | | | 36. WATER INFL. TO DATE AG.-FT. | | | | | | | |
| | | | | | a. MEAN ANNUAL | | b. MAX. ANNUAL | | c. PERIOD TOTAL | | d. MEAN ANNUAL | | e. TOTAL TO DATE | | | |
| | Oct. 3, 1936 | | 50.4 | | 31,719,544 | | 43,743,195 | | 339,399,117 | | 31,719,544 | | 339,399,117 | | | |
| | Jun. 9, 1947 | | 55.2 | | 37,271,134 | | 47,071,383 | | 223,626,801 | | 33,714,127 | | 563,025,918 | | | |
| | May 20, 1953 | | | | | | | | | | | | | | | |
| | 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 | | e. AV. ANNUAL | | f. PER SQ. MI.-YEAR | | | | |
| Oct. 3, 1936 | | 50,283 | | 4,699 | | 5/ | | 50,283 | | 4,699 | | 5/ | | | | |
| Jun. 9, 1947 | | 12,124 | | 2,201 | | 0.437 | | 62,407 | | 3,737 | | | | | | |
| May 20, 1953 | | | | | | | | | | | | | | | | |
| 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 | | c. AV. ANNUAL | | d. TOT. TO DATE | | e. PERIOD | | f. TOT. TO DATE | | |
| Oct. 3, 1936 | | 55* | | | | | | 3/ 0.419 | | 4.48 | | 131 | | 131 | | |
| Jun. 9, 1947 | | 55* | | 524 | | | | 3/ 0.333 | | 5.56 | | 48 | | 98 | | |
| May 20, 1953 | | | | | | | | | | | | | | | | |

1/ Top of gates.
 2/ Lowest elevation for flat pool navigation requirements.
 3/ Excluding diked areas.
 4/ Including areas behind dikes.
 * Assumed.

| | | | | | | | | | | | | | | |
|--------------------|---|-------|-------|-------|-------|-------|--------------------------|--|--|--|--|--|--|--|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION | | | | | | | | | | | | | |
| | 72-60 | 60-50 | 50-40 | 40-30 | 30-20 | 20-10 | 10- ^{Top} Gates | | | | | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | | | |
| Oct. 3, 1936 | | | | | | | | | | | | | | |
| Jun. 9, 1947 | 7 | 8 | 9 | 23 | 25 | 23 | 5 | | | | | | | |
| May 20, 1953 | 6 | 9 | 13 | 27 | 22 | 19 | 4 | | | | | | | |

| | | | | | | | | | | | | | | | |
|--------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 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 | | | | | | | | | | | | | | |
| Oct. 3, 1936 | | | | | | | | | | | | | | | |
| Jun. 9, 1947 | 20 | 36 | 17 | 11 | 6 | 2 | 3 | 2 | 2 | 1 | | | | | |
| May 20, 1953 | 25 | 42 | 15 | 10 | 2 | 1 | 2 | 1 | 1 | 1 | | | | | |

| 45. RANGE IN RESERVOIR OPERATION | | | | | | | |
|----------------------------------|------------|------------|----------------|------------|------------|------------|----------------|
| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
| 1941 | 556.43 | 549.42 | 18,691,381 | 1947 | 556.43 | 549.28 | 33,962,806 |
| 1942 | 555.99 | 549.59 | 19,789,443 | 1948 | 556.38 | 549.70 | 30,643,926 |
| 1943 | 556.47 | 549.78 | 34,913,456 | 1949 | 556.49 | 549.76 | 46,055,045 |
| 1944 | 557.32 | 549.37 | 32,669,885 | 1950 | 556.50 | 549.47 | 47,071,383 |
| 1945 | 556.42 | 549.57 | 32,143,472 | 1951 | 556.40 | 549.70 | 35,999,254 |
| 1946 | 556.47 | 549.95 | 43,743,195 | 1952 | 556.30 | 549.35 | 35,288,213 |
| | | | | 1953 | 556.45 | 549.74 | 29,716,494 |

| 46. ELEVATION-AREA-CAPACITY DATA (1936) | | | | | | | | |
|---|---------|-----------|-----------|---------|-----------|-----------|---------|-----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| | (Acres) | (Ac.-Ft.) | | (Acres) | (Ac.-Ft.) | | (Acres) | (Ac.-Ft.) |
| 483.8 | 0 | 0 | 545 | 33,058 | 595,751 | 545 | 33,088 | 595,766 |
| 490 | 138 | 344 | 550 | 44,806 | 790,362 | 550 | 45,446 | 791,687 |
| 500 | 1,221 | 7,136 | 556 | 61,187 | 1,108,303 | 556 | 64,887 | 1,120,533 |
| 510 | 3,680 | 31,301 | 556.28 | 62,000 | 1,122,000 | 556.28 | 66,580 | 1,142,000 |
| 520 | 8,078 | 88,537 | | | | 560 | 89,104 | 1,428,515 |
| 530 | 18,598 | 219,527 | | | | | | |
| 538 | 24,866 | 393,124 | | | | | | |

47. REMARKS AND REFERENCES

5/ Guntersville Dam closed January 16, 1939, reducing sediment contributing area to 5033 sq. mi.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE April 1, 1955

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Wheeler
 NAME OF RESERVOIR

HYDRAULIC DATA BRANCH
 18-5 b
 DATA SHEET NO.

| DAM | 1. OWNER TVA | | | 2. RIVER Tennessee | | | 3. STATE Alabama | | | | | | | | | |
|--------------------|---|---|---------------------------------|------------------------------------|---|---|----------------------------------|---------------------|-----------------------------------|-----------------|-----------------------------|---------------------|-------------------------|-----------------|--|--|
| | 4. SEC. TWP RANGE | | | 5. NEAREST TOWN Town Creek | | | 6. COUNTY Lawrence-Lauderdale | | | | | | | | | |
| | 7. STREAM BED ELEV. 497 | | | 8. TOP OF DAM ELEV. 568 | | | 9. SPILLWAY CREST ELEV. 1/556.28 | | | | | | | | | |
| 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 | | 4/ 556.28 | | 4/ 66,580 | | 4/ 20,000 | | 4/ 1,142,000 | | | | | | | |
| | b. POWER | | | | | | | | | | 10-3-36 | | | | | |
| | c. MULTIPLE USE | | 3/ 556.28 | | 3/ 62,000 | | 3/ 332,000 | | 3/ 1,122,000 | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | d. INACTIVE | | 2/ 550 | | 44,810 | | 776,000 | | 790,000 | | | | | | | |
| | e. Lowest Outlet | | 508.3 | | 3,200 | | 24,000 | | 24,000 | | 11-9-36 | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 74.1 MILES | | | | AV. WIDTH OF RESERVOIR 1.44 MILES | | | | | | | | | | | |
| | 18. TOTAL DRAINAGE AREA 29,590 SQ. MI. | | | | 22. MEAN ANNUAL PRECIPITATION 51.8(26) INCHES | | | | | | | | | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 5/ 5,033 SQ. MI. | | | | 23. MEAN ANNUAL RUNOFF 22.5(50) INCHES | | | | | | | | | | | |
| | 20. LENGTH 648 MILES | | AV. WIDTH 46 MILES | | 24. MEAN ANNUAL RUNOFF 35,475,000 AC.-FT. | | | | | | | | | | | |
| | 21. MAX. ELEV. 6684 | | MIN. ELEV. 497 | | 25. CLIMATIC CLASSIFICATION Humid | | | | | | | | | | | |
| 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. | |
| | Oct. 3, 1936 | | 0 | | 0 | | Range | | 119 | | 62,000 | | 3/ 1,122,000 | | - | |
| | Jun. 9, 1947 | | 10.7 | | 10.7 | | Range | | 38 | | 62,000 | | 3/ 1,071,717 | | - | |
| | May 20, 1953 | | 6.0 | | 16.7 | | Range | | 56 | | 62,000 | | 6/ 1,061,411 | | - | |
| | Jun. 13, 1956 | | 3.0 | | 19.7 | | Range | | 56 | | 62,000 | | 1,061,005 | | - | |
| | | | | | | | (D) | | | | | | | | | |
| | 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 | | | |
| | Jun. 9, 1947 | | 50.4 | | 81,719,544 | | 43,743,195 | | 339,339,117 | | 31,719,544 | | 339,399,117 | | | |
| | May 20, 1953 | | 55.2 | | 87,271,134 | | 47,071,383 | | 223,626,801 | | 33,714,127 | | 563,025,918 | | | |
| Jun. 13, 1956 | | 47.9 | | 28,575,028 | | 29,263,567 | | 85,725,085 | | 32,931,523 | | 648,751,003 | | | | |
| 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 | | a. TOTAL TO DATE | | b. AV. ANNUAL | | c. PER SQ. MI.-YEAR | | | | |
| Jun. 9, 1947 | | 50,283 | | 4,699 | | 5/ | | 50,283 | | 4,699 | | 5/ | | | | |
| May 20, 1953 | | 10,306 | | 1,718 | | 0.341 | | 6/ 60,589 | | 3,688 | | | | | | |
| Jun. 13, 1956 | | 406 | | 135 | | 0.027 | | 60,995 | | 3,096 | | | | | | |
| 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 | | a. PERIOD | | b. TOT. TO DATE | | |
| Jun. 9, 1947 | | 55* | | 5/ | | 5/ | | 3/0.419 | | 4.48 | | 131 | | 131 | | |
| May 20, 1953 | | 55* | | 408 | | | | 3/0.323 | | 5.40 | | 41 | | 95 | | |
| Jun. 13, 1956 | | 55* | | 32 | | | | 0.276 | | 5.44 | | 4 | | 83 | | |

- 1/ Top of gates.
 - 2/ Lowest elevation for flat pool navigation requirements.
 - 3/ Excluding diked area.
 - 4/ Including area behind dikes.
 - 5/ Guntersville Dam closed Jan. 19, 1939, reducing sediment contributing area to 5,033 square miles.
 - 6/ 1953 Survey revised
- * Assumed.

| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION | | | | | | | | | | |
|--------------------|---|-------|-------|-------|-------|-------|-----------------|--|--|--|--|
| | 72-60 | 60-50 | 50-40 | 40-30 | 30-20 | 20-10 | 10-Top of Gates | | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | |
| Jun. 9, 1947 | 7 | 8 | 9 | 23 | 25 | 23 | 5 | | | | |
| May 20, 1953 | 6 | 9 | 13 | 27 | 23 | 19 | 3 | | | | |
| Jun. 13, 1956 | 7 | 10 | 13 | 27 | 23 | 17 | 3 | | | | |

| 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 | | | | | | | | | | | | | | |
| Jun. 9, 1947 | 20 | 36 | 17 | 11 | 6 | 2 | 3 | 2 | 2 | 1 | | | | | |
| May 20, 1953 | 25 | 42 | 15 | 10 | 2 | 1 | 2 | 1 | 1 | 1 | | | | | |
| Jun. 13, 1956 | 26 | 43 | 13 | 6 | 5 | 2 | 2 | 1 | 1 | 1 | | | | | |

| 45. RANGE IN RESERVOIR OPERATION | | | | | | | |
|----------------------------------|------------|------------|----------------|------------|------------|------------|----------------|
| WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
| 1941 | 556.43 | 549.42 | 18,691,381 | 1949 | 556.49 | 549.76 | 46,055,045 |
| 1942 | 555.99 | 540.59 | 19,789,443 | 1950 | 556.50 | 549.47 | 47,071,383 |
| 1943 | 556.47 | 549.78 | 34,913,456 | 1951 | 556.40 | 549.70 | 35,999,254 |
| 1944 | 557.32 | 549.37 | 32,669,885 | 1952 | 556.30 | 549.35 | 35,288,213 |
| 1945 | 556.42 | 549.57 | 32,143,472 | 1953 | 556.45 | 549.74 | 29,716,494 |
| 1946 | 556.47 | 549.95 | 43,743,195 | 1954 | 556.36 | 549.60 | 25,579,811 |
| 1947 | 556.43 | 549.28 | 33,962,806 | 1955 | 556.39 | 549.72 | 29,263,567 |
| 1948 | 556.38 | 549.70 | 30,643,926 | 1956 | 556.39 | 549.77 | 29,533,720 |

| 46. ELEVATION-AREA-CAPACITY DATA (1936) | | | | | | | | |
|---|--------|----------|-----------|--------|-----------|-----------|--------|-----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| 483.8 | 0 | 0 | 545 | 33,058 | 595,751 | 545 | 33,088 | 595,766 |
| 490 | 138 | 344 | 550 | 44,806 | 790,362 | 550 | 45,446 | 791,687 |
| 500 | 1,221 | 7,136 | 556 | 61,187 | 1,108,303 | 556 | 64,887 | 1,120,533 |
| 510 | 3,680 | 31,301 | 556.28 | 62,000 | 1,122,000 | 556.28 | 66,580 | 1,142,000 |
| 520 | 8,078 | 88,537 | | | | 560 | 89,104 | 1,428,515 |
| 530 | 18,598 | 219,527 | | | | | | |
| 538 | 24,866 | 393,124 | | | | | | |

47. REMARKS AND REFERENCES
 5/ Guntersville Dam closed January 16, 1939, reducing sediment contributing area to 5,033 square miles.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE September 1, 1949

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Wheeler

HYDRAULIC DATA BRANCH
 18-5c
 DATA SHEET NO

| DAM | | OWNER | | TVA | | RIVER | | Tennessee | | STATE | | Alabama | | | | | |
|-------------|--|------------------------------------|--|---|--|---|--|---------------------------------|--|-----------------------------------|--|-----------------------------|--|-------------------------|--|--|--|
| RESERVOIR | | SEC. | | TWP. RANGE | | NEAREST TOWN | | Town Creek | | COUNTY | | Lawrence-Lauderdale | | | | | |
| WATERSHED | | STREAM BED ELEV. | | 497 | | TOP OF DAM ELEV. | | 568 | | SPILLWAY CREST ELEV. | | 1/ 556.28 | | | | | |
| SURVEY DATA | | STORAGE ALLOCATION | | ELEVATION TOP OF POOL | | SURFACE AREA ACRES | | STORAGE ACRE- FEET | | ACCUMULATED ACRE- FEET | | DATE STORAGE BEGAN | | | | | |
| | | a. FLOOD CONTROL | | 4/ 556.28 | | 4/ 66,580 | | 4/ 20,000 | | 4/ 1,142,000 | | 10/3/36 | | | | | |
| | | b. POWER | | | | | | | | | | | | | | | |
| | | c. MULTIPLE USE | | 3/ 556.28 | | 3/ 62,000 | | 3/ 332,000 | | 3/ 1,122,000 | | 16. DATE NORMAL OPER. BEGAN | | | | | |
| | | d. INACTIVE | | 2/ 550 | | 44,810 | | 766,000 | | 790,000 | | | | | | | |
| | | e. Lowest Outlet | | 508.3 | | 3,200 | | 24,000 | | 24,000 | | 11/9/36 | | | | | |
| | | 17. LENGTH OF RESERVOIR | | 74.1 | | MILES | | AV. WIDTH OF RESERVOIR | | 1.44 | | MILES | | | | | |
| | | 18. TOTAL DRAINAGE AREA | | 29,590 | | SQ. MI. | | 22. MEAN ANNUAL PRECIPITATION | | 51.8(26) | | INCHES | | | | | |
| | | 19. NET SEDIMENT CONTRIBUTING AREA | | 5/ 5,033 | | SQ. MI. | | 23. MEAN ANNUAL RUNOFF | | 22.5(50) | | INCHES | | | | | |
| | | 20. LENGTH | | 648 | | MILES | | AV. WIDTH | | 46 | | MILES | | | | | |
| | | 21. MAX. ELEV. | | 6684 | | MIN. ELEV. | | 497 | | 25. CLIMATIC CLASSIFICATION | | Humid | | | | | |
| | | 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. | |
| | | Aug. 1, 1961 | | 5.1 | | 24.8 | | Range | | 50 | | 62,000 | | 1,050,303 | | - | |
| | | | | | | | | (D) | | | | | | | | | |
| | | 26. DATE OF SURVEY | | 34. PERIOD ANNUAL PRECIPITATION | | 35. PERIOD WATER INFLOW ACRE- FEET | | 36. WATER INFL. TO DATE AC- FT. | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | Aug. 1, 1961 | | 52.9 | | 34,226,265 | | 43,236,135 | | 174,553,951 | | 33,197,780 | | 823,304,954 | | | |
| | | | | | | | | | | | | | | | | | |
| | | 26. DATE OF SURVEY | | 37. PERIOD SEDIMENT DEPOSITS ACRE- FEET | | 38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET. | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | Aug. 1, 1961 | | 10,702 | | 2,098 | | 0.417 | | 71,697 | | 2,891 | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | 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 | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | Aug. 1, 1961 | | 55* | | 500 | | - | | 0.258 | | 6.39 | | 54 | | 77 | |

- 1/ Top of gates.
- 2/ Lowest elevation for flat pool navigation requirements.
- 3/ Excluding diked areas.
- 4/ Including area behind dikes.
- * Assumed.

| | | | | | | | | | | | | |
|-----------------------|---|-------|-------|-------|-------|-------|------------------|--|--|--|--|--|
| 26. DATE OF SURVEY | 43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION | | | | | | | | | | | |
| | 72-60 | 60-50 | 50-40 | 40-30 | 30-20 | 20-10 | 10-Top of Gates. | | | | | |
| | PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION | | | | | | | | | | | |
| Aug. 1, 1961 | 6 | 9 | 12 | 28 | 24 | 17 | 4 | | | | | |

| | | | | | | | | | | | | | | | |
|-----------------------|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|------|------|------|
| 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 | | | | | | | | | | | | | | |
| Aug. 1, 1961 | 23 | 45 | 16 | 7 | 4 | 2 | 2 | 0 | 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. |
| 1957 | 556.29 | 549.87 | 36,870,686 | | | | |
| 1958 | 556.42 | 549.79 | 43,236,135 | | | | |
| 1959 | 556.40 | 549.51 | 24,092,384 | | | | |
| 1960 | 556.38 | 549.76 | 33,764,922 | | | | |
| 1961 | 556.26 | 548.81 | 35,098,033 | | | | |

| 46. ELEVATION-AREA-CAPACITY DATA | | | | | | | | |
|----------------------------------|--------|----------|-----------|--------|-----------|-----------|--------|-----------|
| ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| | | | | 3/ | 3/ | | 4/ | 4/ |
| 483.8 | 0 | 0 | 545 | 33,058 | 595,751 | 545 | 33,058 | 595,766 |
| 490 | 138 | 344 | 550 | 44,806 | 790,362 | 550 | 45,446 | 791,687 |
| 500 | 1,221 | 7,136 | 556 | 61,187 | 1,108,303 | 556 | 64,887 | 1,120,533 |
| 510 | 3,680 | 31,301 | 556.28 | 62,000 | 1,122,000 | 556.28 | 66,580 | 1,142,000 |
| 520 | 8,078 | 88,537 | | | | 560 | 89,104 | 1,428,515 |
| 530 | 18,598 | 219,527 | | | | | | |
| 538 | 24,866 | 393,124 | | | | | | |

47. REMARKS AND REFERENCES
 3/ Excluding diked areas.
 4/ Including areas behind dikes.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

For preceding data see sheet No. 18-5a.

49. DATE September 1, 1961