

26. 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														
Not Computed															

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1943	743.90	735.02	20,773,959	1949	744.71	735.04	22,455,130
1944	741.84	734.82	17,972,198	1950	744.90	734.37	26,167,419
1945	741.22	733.44	18,304,736	1951	742.50	734.68	20,342,292
1946	742.75	734.90	21,787,175				
1947	742.13	734.56	18,158,343				
1948	743.55	734.87	16,902,606				

46. ELEVATION-AREA-CAPACITY DATA (1942)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
670	0	0	720	20,600	365,000			
680	1,800	12,000	730	27,700	603,000			
690	3,700	38,000	740	37,600	930,000			
700	6,900	92,000	745	43,100	1,132,000			
710	13,900	195,000						

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**

Watts Bar

HYDRAULIC DATA BRANCH

20-15a

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER TVA		2. RIVER Tennessee		3. STATE Tennessee															
	4. SEC. TWP. RANGE		5. NEAREST TOWN Spring City		6. COUNTY Rhea-Meigs															
	7. STREAM BED ELEV. 665		8. TOP OF DAM ELEV. 757		9. SPILLWAY CREST ELEV. 1/ 745.0															
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		3/	3/	3/	1/1/42														
	b. POWER																			
	c. MULTIPLE USE	745	43,724	378,614	1,195,229	16. DATE NORMAL OPER. BEGAN														
	d. INACTIVE 2/	735	32,567	795,615	816,615															
	e. Lowest Outlet	676	1,600	21,000	21,000	2/12/42														
17. LENGTH OF RESERVOIR 72.4 MILES			13. AV. WIDTH OF RESERVOIR 0.93 MILES																	
WATERSHED	18. TOTAL DRAINAGE AREA 17,310 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 48.9(18) INCHES																	
	19. NET SEDIMENT CONTRIBUTING AREA 2,925 SQ. MI.		23. MEAN ANNUAL RUNOFF 20.7(22) INCHES																	
	20. LENGTH 39.4 MILES AV. WIDTH 4.4 MILES		24. MEAN ANNUAL RUNOFF 19,113,000 AC.-FT.																	
	21. MAX. ELEV. 668.4		MIN. ELEV. 665		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.											
Oct. 24, 1946		0	0	Range	42	43,724	1,195,229													
Jun. 20, 1951		4.7	4.7	Range (D)	42	43,724	1,192,743													
SURVEY DATA	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET			36. WATER INFL. TO DATE AC.-FT.													
		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET		36. WATER INFL. TO DATE AC.-FT.														
	34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET		36. WATER INFL. TO DATE AC.-FT.															
Oct. 24, 1946		52.9		21,045,304		26,167,419		98,912,928		19,898,404		98,912,928								
Jun. 20, 1951		4/ 2,486		529		0.181		2,436		529		0.181								
26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS ACRE- FEET			38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET.																
	37. PERIOD SEDIMENT DEPOSITS ACRE- FEET			38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET.																
37. PERIOD SEDIMENT DEPOSITS ACRE- FEET			38. TOTAL SED. DEPOSITS TO DATE ACRE- FEET.																	
Oct. 24, 1946			0			2,436			529			0.181								
Jun. 20, 1951			4/ 2,486			529			0.181			2,436			529			0.181		
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													
	39. AV. DRY WGT. LBS. PER CU. FT.		40. SED. DEP. TONS PER SQ. MI.-YR.		41. STORAGE LOSS PCT.		42. SED. INFLOW PPM													
39. AV. DRY WGT. LBS. PER CU. FT.		40. SED. DEP. TONS PER SQ. MI.-YR.		41. STORAGE LOSS PCT.		42. SED. INFLOW PPM														
Jun. 20, 1951		55*		217		0.044		0.208		22		22								

1/ Top of gates.
 2/ Lowest elevation for flat pool navigation requirements.
 3/ From first accurate area-volume curves, 1946 survey.
 4/ Does not include sediment deposits before October 24, 1946.
 * Assumed.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION											
	109-100	100-90	90-80	80-70	70-60	60-50	50-40	40-30	30-20	20-10	10- ^{Top} Gates	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
Oct. 24, 1946 Jun. 20, 1951	2	3	10	10	7	22	30	21	9	18	-32 5/	

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. 24, 1946 Jun. 20, 1951	32	15	7	12	8	52 6/	-13 5/	-10 5/	1	-4 5/					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1943	743.90	735.02	20,773,959	1948	743.55	734.87	16,902,606
1944	741.84	734.82	17,972,198	1949	744.71	735.04	22,455,130
1945	741.22	733.44	18,304,736	1950	744.90	734.37	26,167,419
1946	742.75	734.90	21,787,175	1951	742.50	734.68	20,342,292
1947	742.13	734.56	18,158,343				

46. ELEVATION-AREA-CAPACITY DATA (1946)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
	(Acres)	(Ac.-Ft.)		(Acres)	(Ac.-Ft.)			
635.6	0	0	710	14,526	236,322			
640	37	81	720	21,786	417,306			
650	208	1,287	722	23,223	462,314			
660	463	4,511	730	27,960	665,047			
670	1,145	11,916	735	32,667	816,619			
680	1,926	26,951	741	38,687	1,030,406			
690	4,478	56,992	745	43,724	1,195,229			
700	8,559	121,868						

47. REMARKS AND REFERENCES
 5/ (-) indicates scour. Considered as negative sediment.
 6/ Includes Clinch River and Emory River tributaries.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE April 1, 1955

TENNESSEE VALLEY AUTHORITY
 RESERVOIR SEDIMENTATION
 DATA SUMMARY

Watts Bar
 NAME OF RESERVOIR

HYDRAULIC DATA BRANCH
 20-15b
 DATA SHEET NO.

DAM	1. OWNER TVA			2. RIVER Tennessee			3. STATE Tennessee					
	4. SEC. TWP. RANGE			5. NEAREST TOWN Spring City			6. COUNTY Rhea-Meigs					
	7. STREAM BED ELEV. 665			8. TOP OF DAM ELEV. 757			9. SPILLWAY CREST ELEV. 1/ 745.0					
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				3/		3/		3/			
	b. POWER										1/1/42	
	c. MULTIPLE USE		745		43,724		378,614		1,195,229		16. DATE NORMAL OPER. BEGAN	
	d. INACTIVE 2/		735		32,667		795,615		816,615			
	e. lowest outlet		676		1,600		21,000		21,000		2/12/42	
WATERSHED	17. LENGTH OF RESERVOIR 72.4 MILES				AV. WIDTH OF RESERVOIR 0.93 MILES							
	18. TOTAL DRAINAGE AREA 17,310 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 48.9(18) INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 2,925 SQ. MI.				23. MEAN ANNUAL RUNOFF 20.7(22) INCHES							
	20. LENGTH 394 MILES; AV. WIDTH 44 MILES				24. MEAN ANNUAL RUNOFF 19,113,000 AC.-FT.							
	21. MAX. ELEV. 6684		MIN. ELEV. 665		25. CLIMATIC CLASSIFICATION Humid							
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS	28. AGCL. 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. 24, 1946		0	0	Range	41	43,724	1,195,229	-			
	Jun. 20, 1951		4.7	4.7	Range	41	43,724	1,193,106	-			
	Apr. 27, 1956		4.8	9.5	Range	41	43,724	1,183,735				
					(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. 20, 1951		52.9		21,045,304		26,167,419		98,912,928		19,898,404	
	Apr. 27, 1956		48.7		16,994,050		19,081,270		81,571,438		18,998,354	
	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. 20, 1951		2,123		452	0.155		2,123		452		0.155	
Apr. 27, 1956		9,371		1,952	0.667		11,494		1,210		0.414	
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. 20, 1951		55*		186		0.038		0.178		19		19
Apr. 27, 1956		55*		799		0.101		0.962		101		56

- 1/ Top of gates.
- 2/ Lowest elevation for flat pool navigation requirements.
- 3/ From first accurate area-volume curves, 1946 survey.
- 4/ Does not include sediment deposits before October 24, 1946.
- * Assumed.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION										
	109-100	100-90	90-80	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										
Jun. 20, 1951	2	3	3	4	9	25	35	25	11	21	5/-38
Apr. 27, 1956	1	1	2	5	9	14	18	17	15	18	5/-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. 20, 1951	21	18	7	14	10	61	5/-15	5/-12	1	5/-5					
Apr. 27, 1956	17	15	4	10	8	41	7	0	1	5/-3					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1943	743.90	735.02	20,773,959	1951	742.50	734.68	20,342,292
1944	741.84	734.82	17,972,198	1952	742.56	734.50	19,081,270
1945	741.22	733.44	18,304,736	1953	744.19	734.89	16,565,399
1946	742.75	734.90	21,787,175	1954	742.55	734.81	14,933,375
1947	742.13	734.56	18,158,343	1955	742.75	734.95	16,348,404
1948	734.55	734.87	16,902,606	1956	743.46	735.00	16,980,744
1949	744.71	735.04	22,455,130				
1950	744.90	734.37	26,167,419				

46. ELEVATION-AREA-CAPACITY DATA (1946)								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
635.6	0	0	710	14,526	236,322			
640	37	81	720	21,786	417,306			
650	208	1,287	722	23,223	462,314			
660	463	4,511	730	27,960	665,047			
670	1,145	11,916	735	32,667	816,615			
680	1,926	26,951	741	38,687	1,030,406			
690	4,478	56,992	745	43,724	1,195,229			
700	8,559	121,868						

47. REMARKS AND REFERENCES

5/ (-) Indicates scour. Considered as negative sediment.

6/ Includes Clinch River and Emory River tributaries.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE September 1, 1968

TENNESSEE VALLEY AUTHORITY
**RESERVOIR SEDIMENTATION
 DATA SUMMARY**

Watts Bar
 NAME OF RESERVOIR

HYDRAULIC DATA BRANCH
20-151c
 DATA SHEET NO.

DAM	1. OWNER TVA			2. RIVER Tennessee		3. STATE Tennessee		
	4. SEC. TWP.		RANGE	5. NEAREST TOWN Spring City		6. COUNTY Rhea-Meigs		
	7. STREAM BED ELEV. 665			8. TOP OF DAM ELEV. 757		9. SPILLWAY CREST ELEV. 1/745.0		
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		3/	3/	3/	1/1/42		
	b. POWER							
	c. MULTIPLE USE	745	43,724	378,614	1,195,229	16. DATE NORMAL OPER. BEGAN		
	d. INACTIVE	2/735	32,667	795,615	816,615			
	e. lowest outlet	676	1,600	21,000	21,000	2/12/42		
17. LENGTH OF RESERVOIR	72.4	MILES	AV. WIDTH OF RESERVOIR	0.93	MILES			
WATERSHED	18. TOTAL DRAINAGE AREA 17,310			SQ. MI.	22. MEAN ANNUAL PRECIPITATION 49.8(26)			INCHES
	19. NET SEDIMENT CONTRIBUTING AREA 2,925			SQ. MI.	23. MEAN ANNUAL RUNOFF 20.7(22)			INCHES
	20. LENGTH 394	MILES	AV. WIDTH 44	MILES	24. MEAN ANNUAL RUNOFF 19,113,000			AC.-FT.
	21. MAX. ELEV. 6684		MIN. ELEV. 665		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.
Jun. 7, 1961	5.1	14.6	Range	41	43,724	1,174,954	-	
			(D)					
SURVEY DATA	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE- FEET			36. WATER INFL. TO DATE AC.-FT.	
		51.6	19,919,668	24,397,447	101,590,308	19,320,115	282,073,682	
		a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	d. MEAN ANNUAL	e. TOTAL TO DATE		
	Jun. 7, 1961							
SURVEY DATA	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	
	Jun. 7, 1961	8,781	1722	0.589	4/ 20,275	1389	0.475	
SURVEY DATA	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	
	Jun. 7, 1961	55*	700	569	0.116	1.696	76	63

- 1/ Top of Gates.
- 2/ Lowest elevation for flat pool navigation requirements.
- 3/ From first accurate area volume curves, 1946 Survey.
- 4/ Does not include sediment deposits before Oct. 24, 1946.
- * Assumed.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION											Top of Gales.
	100-100	100-90	90-80	80-70	70-60	60-50	50-40	40-20	30-20	20-10	10-	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
Jun. 7, 1961	1	2	2	4	9	15	21	23	13	13	5/-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. 7, 1961	21	16	13	13	6/ 9	25	4	1	1	5/-3					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1957	742.60	734.98	22,471,865				
1958	744.45	734.81	24,397,447				
1959	744.57	734.82	14,479,748				
1960	742.54	734.84	20,725,988				
1961	742.54	734.87	10,363,125				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
635.6	0	0	710	14,526	236,322			
640	37	81	720	21,786	417,306			
650	208	1,287	722	23,223	462,314			
660	463	4,511	730	27,960	665,047			
670	1,145	11,916	735	32,667	816,615			
680	1,926	26,951	741	38,687	1,030,406			
690	4,478	56,992	745	43,724	1,195,229			
700	8,559	121,868						

47. REMARKS AND REFERENCES
 5/ (-) Indicated scour - treated as negative sediment.
 6/ Includes Clinch River and Emory River tributaries.

For preceding data see Sheet No. 20-15a.

48. AGENCY SUPPLYING DATA
 TENNESSEE VALLEY AUTHORITY
 HYDRAULIC DATA BRANCH

49. DATE September 1, 1966