

RESERVOIR SEDIMENT
DATA SUMMARY

Ocoee #1

NAME OF RESERVOIR

20-22c (revised)
DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Ocoee			3. STATE Tennessee						
	4. SEC. TWP. RANGE			5. NEAREST POST OFF. Parksville			6. COUNTY Polk						
	7. LAT. 35° 05' 41" LONG. 84° 39' 02"			8. TOP OF DAM ELEVATION 843.94			9. SPILLWAY CREST ELEV. 837.65						
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		2/		6/		4/		4/		12-15-11		
	b. MULTIPLE USE												
	c. POWER		837.65		1,986		109,100		109,200				
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION												
	f. CONSERVATION												
g. INACTIVE		724.6		20*		100*		100*		1-10-12			
WATERSHED	17. LENGTH OF RESERVOIR 7.5 MILES				AV. WIDTH OF RESERVOIR 0.4 MILES								
	18. TOTAL DRAINAGE AREA 295 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 60.1 INCHES								
	19. NET SEDIMENT CONTRIBUTING AREA 5/ 96 SQ. MI.				23. MEAN ANNUAL RUNOFF 28.7 INCHES								
	20. LENGTH 91 MILES		AV. WIDTH 7 MILES		24. MEAN ANNUAL RUNOFF 912,200 AC.-FT.								
	21. MAX. ELEV. 4081		MIN. ELEV. 715		25. ANNUAL TEMP. MEAN 57° RANGE 1° to 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.		
	12-15-11		0	0			1,986		4/ 109,200				
	10-8-40		28.8	28.0	Range (D)	46	1,910		3/ 91,300				
	9-1-49		8.9	37.7	Range (D)	37	1,986		6/ 86,737				
	8-18-54		5.0	42.7	Range (D)	36	7		87,267				
	6-15-59		4.8	47.5	Range (D)	36	7		86,809				
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE-FEET			36. WATER INFL. TO DATE AC.-FT.					
					b. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL		d. MEAN ANNUAL	e. TOTAL TO DATE			
	10-8-40		58.6		1,003,120	1,424,375	28,889,858		1,003,120	28,889,858			
	9-1-49		60.2		912,226	1,360,719	18,118,817		981,662	37,008,675			
	8-18-54		61.5		978,172	1,214,007	4,890,858		981,254	41,899,533			
	6-15-59		62.1		946,506	1,160,240	4,543,227		998,795	46,442,760			
	26. DATE OF SURVEY		37. PERIODIC CAPACITY LOSS ACRE-FEET			38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET							
			a. PERIOD TOTAL	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	b. TOTAL TO DATE		b. AV. ANNUAL	c. PER SQ. MI.-YEAR				
	10-8-40		17,900	622	-	17,900		622	-				
9-1-49		4,563	513	-	22,463		596	-					
8-18-54		8/ 530	-	-	21,933		514	-					
6-15-59		458	95.4	-	22,391		471	-					
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						
10-8-40		64*	-	-	0.570	16.39	635	635					
9-1-49		64	-	-	0.546	20.57	576	622					
8-18-54		64*	-	-	0.471	20.08	-	537					
6-15-59		64*	-	1,386	0.431	20.50	10.3	494					

* Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												

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														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1941	835.7	816.0	507,816	1950	839.9	827.3	1,214,007
1942	837.5	816.7	678,954	1951	840.2	825.1	848,765
1943	837.9	830.8	1,071,104	1952	837.7	827.5	1,094,176
1944	838.0	815.5	916,966	1953	837.1	824.4	890,357
1945	837.2	818.2	816,686	1954	838.3	823.8	842,277
1946	840.4	823.2	1,360,719	1955	837.5	826.4	775,608
1947	839.8	830.3	940,875	1956	838.1	817.7	879,555
1948	837.1	816.7	826,889	1957	839.1	826.1	1,052,189
1949	839.9	826.1	1,110,728	1958	839.4	821.6	1,160,240

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
	1940			1949/76			1959	
730	30	100	730	0	0	730	7/	0
740	140	900	740	134	525	740		515
760	530	8,400	760	479	7,035	760		7,094
780	740	21,000	780	674	18,485	780		18,613
800	1,020	38,300	800	957	34,224	800		34,408
810	1,200	49,600	810	1,130	44,703	810		44,887
820	1,370	62,300	820	1,376	57,116	820		57,231
830	1,690	77,500	830	1,727	72,550	830		72,600
837.65	1,910	91,300	837.65	1,986	86,737	837.65		86,809

47. REMARKS AND REFERENCES

- 1/ Top of 70 inch high Hashboards.
- 2/ 1936 datum. Normal maximum pool level elev. 837.65; normal minimum pool level elev. 827; centerline of sluice gates elev. 724.6.
- 3/ From first area - volume curves, developed from 1940 survey. Volume computed by average end area method.
- 4/ Volume estimated from 1940 survey and Tenn. Electric Power Co. data and drawings.
- 5/ Blue Ridge Reservoir closed Dec. 6, 1930. Ocoee #3 Reservoir closed Aug. 15, 1942.
- 6/ Permanent sediment ranges established. Areas and volumes computed from contours measured on topographic maps with bottom contours adjusted to the 1949 survey.

48. AGENCY MAKING SURVEY 7/ Not measured or calculated after the 1949 survey. (revised)
 49. AGENCY SUPPLYING DATA Tennessee Valley Authority, Services Data 50. DATE October, 1980

RESERVOIR SEDIMENT
DATA SUMMARY

Ocoee #1
NAME OF RESERVOIR

20-22d (revised)
DATA SHEET NO.

DAM	1. OWNER TVA		2. STREAM Ocoee		3. STATE Tennessee			
	4. SEC. TWP. RANGE		5. NEAREST POST/OFF, Parksville		6. COUNTY Polk			
	7. LAT. 35° 5' 41" LONG. 84° 39' 02"		8. TOP OF DAM ELEVATION 843.94		9. SPILLWAY CREST ELEV. 1/837.65			
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	2/	6/	4/	4/	12/15/11		
	b. MULTIPLE USE							
	c. POWER	837.65	1,986	109,100	109,200	16. DATE NORMAL OPER. BEGAN		
	d. WATER SUPPLY							
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE	724.6	20*	100*	100*	1/10/12			
WATERSHED	17. LENGTH OF RESERVOIR 7.5 MILES		AV. WIDTH OF RESERVOIR 0.4 MILES					
	18. TOTAL DRAINAGE AREA 595 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 60.77 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 5/ 96 SQ. MI.		23. MEAN ANNUAL RUNOFF 30.02 INCHES					
	20. LENGTH 91 MILES		AV. WIDTH 7 MILES		24. MEAN ANNUAL RUNOFF 952,575 AC.-FT.			
	21. MAX. ELEV. 4081		MIN. ELEV. 715		25. ANNUAL TEMP: MEAN 57 RANGE 1° to 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.
	12-15-11	0	0			1,986	109,200	
	4-11-68	8.8	56.3	Range (D)	38	7/	86,466	
	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		
	4-11-68	62.0	1,083,864	1,356,908	9,536,864	994,310	55,979,624	
	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	
	4-11-68	343	39	.406	22,734	404	-	
	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		
4-11-68	64*	-	566	0.370	20.819	37	417	

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												

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														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1959	837.69	825.29	805,835				
1960	837.19	827.09	961,512				
1961	837.79	826.79	986,442				
1962	839.19	827.19	1,356,908				
1963	838.99	826.99	1,015,764				
1964	839.69	826.99	1,290,060				
1965	839.69	827.79	1,075,519				
1966	837.19	827.09	870,585				
1967	837.79	826.69	967,920				
1968	837.29	827.00	1,234,994				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
	1940			1949 /6			1968	
730	30	100	730	0	0	730	7/	0
740	140	900	740	134	525	740		475
760	530	8,400	760	479	7,035	760		6,953
780	740	21,000	780	674	18,485	780		18,419
800	1,020	38,300	800	957	34,224	800		34,166
810	1,200	49,600	810	1,130	44,703	810		44,610
820	1,370	62,300	820	1,376	57,116	820		56,935
830	1,690	77,500	830	1,727	72,550	830		72,226
837.65	1,910	91,300	837.65	1,986	86,737	837.65		86,466

47. REMARKS AND REFERENCES

1/ Top of 70 inch high Hashboards.

2/ 1936 datum. Normal maximum pool level elev. 837.65; normal minimum pool level elev. 827; centerline at sluice gates elev. 724.6.

3/ From first area-volume curves, developed from 1940 survey. Volume computed by average end area method.

4/ Volume estimated from 1940 survey and Tenn. Electric Power Co. data and drawings.

5/ Blue Ridge Reservoir closed Dec. 6, 1930. Ocoee #3 Reservoir closed Aug. 15, 1942.

6/ Permanent sediment ranges established. Areas and volumes computed from contours measured on topographic maps with bottom contours adjusted to the 1949 survey.

48. AGENCY MAKING SURVEY 7/ Not measured or calculated after the 1949 survey.

49. AGENCY SUPPLYING DATA Tennessee Valley Authority, Data Services DATE October, 1980 (revised)

RESERVOIR SEDIMENT
DATA SUMMARY

Ocoee #1
NAME OF RESERVOIR

20-22e (revised)
DATA SHEET NO.

DAM	1. OWNER TVA			2. STREAM Ocoee			3. STATE Tennessee									
	4. SEC. TWP. RANGE			5. NEAREST POST OFF. Parksville			6. COUNTY Polk									
	7. LAT. 35° 05' 41" LONG. 84° 39' 02"			8. TOP OF DAM ELEVATION 843.94			9. SPILLWAY CREST ELEV. 1/837.65									
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					
	d. FLOOD CONTROL		2/		6/		4/		4/		12/15/11					
	b. MULTIPLE USE															
	c. POWER		837.65		1,986		109,100		109,200							
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION															
g. INACTIVE		724.6		20*		100*		100*								
17. LENGTH OF RESERVOIR		7.5 MILES		AV. WIDTH OF RESERVOIR		0.4 MILES										
WATERSHED	18. TOTAL DRAINAGE AREA				295 SQ. MI.				22. MEAN ANNUAL PRECIPITATION				60.4 INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA				5/ 96 SQ. MI.				23. MEAN ANNUAL RUNOFF				29.94 INCHES			
	20. LENGTH				91 MILES				AV. WIDTH				7 MILES			
	21. MAX. ELEV.				4081				MIN. ELEV.				715			
	25. ANNUAL TEMP.; MEAN				57°				RANGE				1° to 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.	
	12-15-11		0		0		Range (D)		36		1,986		109,200			
	8-01-72		4.3		60.6						7/		85,434			
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW ACRE-FEET				36. WATER INFL. TO DATE AC.-FT.							
	8-01-72		58.7		a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL		a. MEAN ANNUAL		b. TOTAL TO DATE			
					943,265		963,943		4,056,039		990,688		60,035,663			
	26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS ACRE-FEET				38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET.									
	8-01-72		a. PERIOD TOTAL		b. AV. ANNUAL		c. PER SQ. MI.-YEAR		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YEAR			
			1,032		240		2.50		23,766		392		-			
	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					
8-01-72		64*		a. TOTAL TO DATE		b. PERIOD		a. AV. AN.		b. TOT. TO DATE		a. PERIOD		b. TOT. TO DATE		
				-		3,485		0.359		21.76		261		406		

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION												

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														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1969	837.29	826.89	919,759				
1970	837.19	827.19	824,057				
1971	827.49	823.39	963,943				
1972	837.09	826.99	1,053,014				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
	1940			1949 /6			1972	
730	30	100	730	0	0	730	7/	0
740	140	900	740	134	525	740		412
760	530	8,400	760	479	7,035	760		6,749
780	740	21,000	780	674	18,485	780		18,175
800	1,020	38,300	800	957	34,224	800		33,851
810	1,200	49,600	810	1,130	44,703	810		44,235
820	1,370	62,300	820	1,376	57,116	820		56,472
830	1,690	77,500	830	1,727	72,550	830		71,258
837.65	1,910	91,300	837.65	1,986	86,737	837.65		85,434

47. REMARKS AND REFERENCES

1/ Top of 70 inch high Hashboards.

2/ 1936 datum. Normal maximum pool level elev. 837.65; normal minimum pool level elev. 827; centerline at sluice gates elev. 724.6.

3/ From first area-volume curves, developed from 1940 survey. Volume computed by average end area method.

4/ Volume estimated from 1940 survey and Tenn. Electric Power Co. data and drawings

5/ Blue Ridge Reservoir closed Dec. 6, 1930. Ocoee #3 Reservoir Closed Aug. 15, 1942

6/ Permanent sediment ranges established. Areas and volumes computed from contours measured on topographic maps with bottom contours adjusted to the 1949 survey.

48. AGENCY MAKING SURVEY 7/ Not measured or calculated after the 1949 survey. (revised) Data

49. AGENCY SUPPLYING DATA Tennessee Valley Authority, Services Br. 50. DATE October, 1980