

**RESERVOIR SEDIMENT
DATA SUMMARY**

Grenada Reservoir
NAME OF RESERVOIR

15-32
DATA SHEET NO.

DATA	1. OWNER U.S. Army Corps of Engrs		2. STREAM Yalobusha River		3. STATE Mississippi				
	4. SEC. 4 TWP. 22N RANGE 5E		3. NEAREST TOWN Grenada, Miss.		6. COUNTY Grenada				
	7. STREAM BED ELEVATION 160		8. TOP OF DAM ELEVATION 256		9. SPILLWAY CREST ELEV. 231				
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. MULTIPLE USE	231	64,640	1,251,710	1,337,400	30 Jun 1953			
	b. FLOOD CONTROL								
	c. POWER								
	d. WATER SUPPLY								
	e. IRRIGATION					18. DATE NORMAL OPER. BEGAN			
	f. CONSERVATION	193	9,810	85,690	85,690	Jan. 1954			
	g. SEDIMENT								
h. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR 44 1/2 MILES		AV. WIDTH OF RESERVOIR 1.31 MILES						
	18. TOTAL DRAINAGE AREA 1,320 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 54.03 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 1,219 SQ. MI.		23. MEAN ANNUAL RUNOFF 19.60 (11.83) INCHES						
	20. LENGTH 70 MILES AV. WIDTH 19 MILES		24. MEAN ANNUAL RUNOFF 1,379,800 (11.83) AC.-FT.						
	21. MAX. ELEV. 350 MIN. ELEV. 160		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.	
	30 Jun 53 2/			Contour	5-Foot	64,640	1,337,400	1013	
	2/53-4/55 3/	0	0	Range, D	80				
	May 1965 4/	11.83	11.83	Range, D	21	64,640	1,320,020 5/	1000	
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW ACRE-Feet			36. WATER INFL. TO DATE AC.-FT.			
	May 1965	54.03	a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	d. MEAN ANNUAL	e. TOTAL TO DATE		
			1,379,800	2,371,100	16,370,100	1,379,800	16,370,100		
	26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS ACRE-Feet			38. TOTAL SED. DEPOSITS TO DATE ACRE-Feet.				
	May 1965	a. PERIOD TOTAL	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR		
		17,377	1469	1.205	17,377	1469	1.205		
26. DATE OF SURVEY	39. AV. DRY WAT. LCG. PER CU. FT.	40. SED. DEP. TONS PER SQ. MI.-YR.		41. STORAGE LOSS PCT.		42. SED. INFLOW PPM			
May 1965	60*	a. PERIOD	b. TOTAL TO DATE	c. AV. AN.	d. TOT. TO DATE	e. PERIOD	f. TOT. TO DATE		
		1575	1575	.110	1.30	1021	1021		
	* Assumed								

Grenada Reservoir

39. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION											
	71-66	66-61	61-56	56-51	51-46	46-41	41-38	38-36	36-31	31-26	26-21	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
May 1965	0.5	1.1	1.6	4.6	8.7	13.9	7.5	5.1	11.7	9.9	9.6	
Continued	21-16	16-11	11-6	6-Cr.								
	6.4	9.1	6.5	3.8								

42. 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	-103	-110	-115	-120	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
May 1965	13.8	14.7	22.3	15.0	5.4	7.0	6.2	11.9	3.0	0.7					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1953 (3 mos.)	181.1	171.2	46,460	1960-61	225.5	192.8	1,574,140
1953-54	205.6	191.9	535,040	1961-62	228.6	192.9	2,531,580
1954-55	223.0	191.8	1,289,730	1962-63	212.1	191.0	719,490
1955-56	215.7	193.0	1,051,780	1963-64	227.3	193.1	1,631,870
1956-57	216.6	193.1	1,412,220	1964-65	217.2	193.8	92,000
1957-58	220.8	193.0	2,238,020				
1958-59	211.5	192.9	1,073,600				
1959-60	217.0	193.1	1,371,390				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
160	0	0	178	1,200	4,780	225	52,510	986,580
161	23	12	180	2,055	8,000	230	62,510	1,273,830
162	46	46	185	5,135	26,110	235	73,360	1,613,280
164	92	185	190	8,007	58,970			
166	138	416	195	11,013	106,520			
168	185	740	200	15,500	171,790			
170	231	1,157	205	21,630	264,340			
172	277	1,666	210	29,280	389,070			
174	328	2,269	215	35,820	549,310			
176	550	3,066	220	43,380	747,300			

47. REMARKS AND REFERENCES

1/ Thalweg distance along major stream (Yalobusha River) to valley El 231.0, valley length of reservoir at spillway crest El 231.0 along major stream is 22 miles; Thalweg distance along Skuna River to valley El 231.0 is 33 miles, valley length along Skuna River at spillway crest El 231.0 is 18 miles.

2/ Surveyed in 1941 with topography from aerial photographs of 1940 and 1941 to determine original reservoir area and volume.

48. AGENCY MAKING SURVEY U. S. Army Engr. Dist., Vicksburg

49. AGENCY SUPPLYING DATA Vicksburg, Mississippi

DL DATE August 1

- 3/ 1 July 1953 used as beginning date of sediment deposits.
- 4/ Average date of first sediment survey, 1 May 1965.
- 5/ This small change in volume does not require a change in operational procedures.