

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Lake Hamilton

NAME OF RESERVOIR

15-1

DATA SHEET NO.

407-13  
407-221

DAM	1. OWNER Arkansas Power & Light Co.			2. RIVER Ouachita River		3. STATE Arkansas		
	4. SEC. 27 TWP. 35 RANGE 19W			5. NEAREST TOWN Hot Springs		6. COUNTY Garland		
	7. STREAM BED ELEV. 305			8. TOP OF DAM ELEV. 405		9. SPILLWAY CREST ELEV. 400		
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					Dec. 1930		
	b. POWER	400	4,878	156,345	156,345			
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION							
	f. INACTIVE					Dec. 1930		
17. LENGTH OF RESERVOIR 13 MILES			AV. WIDTH OF RESERVOIR 0.5 MILES					
WATERSHED	18. TOTAL DRAINAGE AREA 1,421 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 53 * INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA 1,413.4 SQ. MI.			23. MEAN ANNUAL RUNOFF INCHES				
	20. LENGTH 72 MILES		AV. WIDTH 20 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV. 2,000		MIN. ELEV.		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.
	Dec. 1930 May 1950	- 19.4	- 19.4	- Range Recon.	- 28	4,878 4,878	156,345 153,279	110 108
	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	e. TOTAL TO DATE		
	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	
	May 1950	3,066	158	0.11	3,066	158	0.11	
	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	
	May 1950	50*	120	120	0.10	1.96		

\* Estimated

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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.

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES  
 A Reconnaissance Investigation of Sedimentation in Lake Hamilton, James A. Ogle, Mimeo., 1950.  
 The sediment is a very fine, soft gray clay.

Region 4, Soil Conservation Service  
 U. S. Dept. of Agriculture  
 Fort Worth, Texas

48. AGENCY SUPPLYING DATA  
 49. DATE March 1951