

RESERVOIR SEDIMENT  
DATA SUMMARY

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS

POOL NO. 5  
NAME OF RESERVOIR

15-36

DATA SHEET NO.

DAM	1. OWNER Dept. of the Army, C. of E.		2. STREAM Arkansas River		4. STATE Arkansas	
	4. SEC. 32 TWP. 3 S RANGE 10 W		5. NEAREST P.O. Wright 2 SW		6. COUNTY Jefferson	
	7. LAT 34° 24' 48" LONG 92° 06' 07"		8. TOP OF DAM ELEVATION 223		9. SPILLWAY CREST ELEV. 214 1/2	
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				Dec 20, 1968	
	b. MULTIPLE USE				16. DATE NORMAL OPER. BEGAN	
	c. POWER				Jan 1, 1969	
	d. WATER SUPPLY					
WATERSHED	e. IRRIGATION					
	f. CONSERVATION 2/		213		4,880	
	g. INACTIVE 3/		183		0	
	17. LENGTH OF RESERVOIR 21.35		MILES		AV. WIDTH OF RESERVOIR 0.49	
	18. TOTAL DRAINAGE AREA 158,542		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 12-50	
	19. NET SEDIMENT CONTRIBUTING AREA 4,145		SQ. MI.		23. MEAN ANNUAL RUNOFF 3.42 (45 yrs) 4/	
SURVEY DATA	20. LENGTH 1,294		MILES		AV. WIDTH 122	
	21. MAX. ELEV. 14,431		MIN. ELEV. 183		24. MEAN ANNUAL RUNOFF 28,842,000 (45) 4/	
	25. ANNUAL TEMP. MEAN 56		RANGE -22 to 114		26. G/L RATIO, AC.-FT. PER AC.-FT. 5/	
	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. G/L RATIO, AC.-FT. PER AC.-FT.			
May 11, 1969				Range (D) 20 4,880 60,120 .0144		
Jun 23, 1970		1.12		1.12 Range (D) 20 4,880 62,800 .0149		
Apr 6, 1972		1.79		2.91 Range (D) 20 4,870 62,300 .0145		
26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-Feet		
				36. WATER INFLOW TO DATE, AC.-Feet		
				a. MEAN ANNUAL b. MAX. ANNUAL c. PERIOD TOTAL		
				a. MEAN ANNUAL b. TOTAL TO DATE		
Jun 23, 1970				31,968,000 35,804,200 31,968,000 35,804,200		
Apr 6, 1972				20,139,916 36,050,450 24,692,230 71,854,650		
26. DATE OF SURVEY		37. PERIOD CAPACITY LOSS, ACRE-Feet		38. TOTAL SED. DEPOSITS TO DATE, ACRE-Feet		
				a. TOTAL TO DATE b. AV. ANNUAL c. PER SQ. MI. YEAR		
				a. PERIOD TOTAL b. AV. ANNUAL c. PER SQ. MI. YEAR		
				a. TOTAL TO DATE b. AV. ANNUAL c. PER SQ. MI. YEAR		
Jun 23, 1970		-2,680		-2,393 -2,680 -2,393 -.577		
Apr 6, 1972		500		279 .067 -2,180 -749 -.181		
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. INFLOW, TONS PER SQ. MI. YR.		
				41. STORAGE LOSS, PCT		
				a. PERIOD b. TOT. TO DATE		
				a. PERIOD b. TOT. TO DATE		
Jun 23, 1970		80*		-1,005 -1,005 -3.98 -4.46 221 221		
Apr 6, 1972		80*		117 -315 -1.25 -3.63 70 128		

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET										M.S.L.			
	183-91	191-95	195-99	199-03	203-07	205-07	207-09	209-11	211-13					
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
Jun 23, 1970	-27	15	-69	-13	3	4	-2	-5	-6					
Apr 6, 1972	-13	16	72	20	2	4	-2	-7	8					

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 23, 1970	29	46	24	18	-7	-19	-4	4	10	-1					
Apr 6, 1972	-18	90	-52	62	44	-34	16	51	-1	-58					

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1969	213.0	212.5	39,803,000				
1970	215.0	212.1	26,004,000				
1971	213.8	212.5	19,741,000				
1972	215.2	212.2	17,961,000				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Original Survey - 1969			195	920	5,620	207	3,280	35,470
213	4,880	60,120	191	320	2,320	205	2,820	28,680
211	4,260	50,320	183			203	2,450	22,800
209	3,870	41,440	1972 Survey			199	1,800	13,290
207	3,310	33,650				195	1,120	6,920
205	2,920	26,720	213	4,870	62,300	191	400	3,100
203	2,470	20,770	211	4,300	42,380	183	0	0
199	1,760	11,510	209	3,880	43,320			

47. REMARKS AND REFERENCES
- 1/ Top of spillway gates in closed position.
  - 2/ Top of navigation pool.
  - 3/ Spillway crest.
  - 4/ Based on USGS Water Resources Data for Arkansas at Murray Dam at Little Rock and runoff from area between Dardanelle and Murray Dam.
  - 5/ Adjustment based on inflow from net sediment contributing area (Item 19) as taken from USGS W.R. Data; 1969 (4,179,200 AC.FT); 1970 (4,207,000 AC.FT); 1972 (4,302,110 AC. FT).
  - 6/ Computed from measured sediment concentrations.