

RESERVOIR SEDIMENT  
DATA SUMMARY

DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS

POOL NO. 3  
NAME OF RESERVOIR

15-34  
DATA SHEET NO.

DAM	1. OWNER Dept. of the Army, C. of E.		2. STREAM Arkansas River		3. STATE Arkansas			
	4. SEC. 20-34 TWP. 6 S RANGE 6 W		5. NEAREST P.O. Grady 6 N		6. COUNTY Jefferson-Lincoln			
	7. LAT 34° 09' 30.5" LONG 91° 40' 43.5"		8. TOP OF DAM ELEVATION 192		9. SPILLWAY CREST ELEV. 183 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 15, 1968	
	b. MULTIPLE USE							
	c. POWER						16. DATE NORMAL OPER. BEGAN	
	d. WATER SUPPLY							
	e. IRRIGATION						Jan 1, 1969	
	f. CONSERVATION 2/		182	3,240	43,720	43,720		
	g. INACTIVE 3/		158	0	0	0		
WATERSHED	17. LENGTH OF RESERVOIR 15.60		MILES	AV. WIDTH OF RESERVOIR 0.32		MILES		
	18. TOTAL DRAINAGE AREA 158,937		SQ. MI.	22. MEAN ANNUAL PRECIPITATION 12-50		INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA 4,525		SQ. MI.	23. MEAN ANNUAL RUNOFF 3.44 (44 yrs)		4 INCHES		
	20. LENGTH 1.324		MILES	AV. WIDTH 120	MILES	24. MEAN ANNUAL RUNOFF 29,410,000 (44)		4/AC.-FT.
	21. MAX. ELEV. 14,431		MIN. ELEV. 158	25. ANNUAL TEMP: MEAN 56		RANGE -22 to 114		
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, 2/ AC.-FT. PER AC.-FT.
	May 10, 1969			Range (D)	13	3,240	43,720	.0097
	Aug 30, 1971	2.31	2.31	Range (D)	13	3,270	41,430	.0090
	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	
	Aug 30, 1971		23,687,000		54,718,000	23,687,000	54,718,000	
	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	
	Aug 30, 1971	2,290	991	.219	2,290	991	.219	
	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. ANN	b. TOT TO DATE	a. PERIOD	b. TOT TO DATE	
Aug 30, 1971	80*	381.6	381.6	2.27	5.24	126	126	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET												M.S.J.	
	158-162	162-164	164-166	166-168	168-170	170-172	172-174	174-176	176-178	178-180	180-182	182-184		
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
Aug 30, 1971	11	9	9	20	15	9	8	1	17	3	0	-2		
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
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
Aug 30, 1971	36	34	15	13	6	0	1	-6	3	-2				
45. RANGE IN RESERVOIR OPERATION														
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC. FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC. FT.							
1969	182.0	177.0	40,229,800											
1970	183.9	178.3	26,368,400											
1971	182.9	181.1	20,003,280											
46. ELEVATION-AREA-CAPACITY DATA														
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY						
Original Survey - 1969			166	1,080	6,010	176	2,020	23,700						
184	3,830	51,670	164	740	4,100	174	1,810	18,890						
182	3,240	43,720	162	450	2,900	172	1,670	14,730						
180	2,880	36,910	160	290	2,000	170	1,430	10,970						
178	2,460	30,860	158	180	1,500	168	1,180	7,800						
176	2,130	25,550	1971 Survey			166	820	3,650						
174	1,900	20,720	184	3,920	49,420	164	520	3,650						
172	1,750	16,370	182	3,270	41,430	162	320	2,650						
170	1,610	12,410	180	2,850	34,610	160	200	1,950						
168	1,400	8,910	178	2,350	28,630	158	130	1,500						
47. REMARKS AND REFERENCES														
<p>1/ Top of spillway gates in closed position.</p> <p>2/ Top of navigation pool.</p> <p>3/ Spillway crest.</p> <p>4/ Based on USGS Water Resources Data for Arkansas at Murray Dam at Little Rock and runoff from area between Dardanelle and Murray Dam.</p> <p>5/ Adjustment based on inflow from net sediment contributing area (Item 19) as taken from USGS W.R. Data; 1969 (4,518,000 AC.FT); 1971 (4,590,500 AC.FT).</p> <p>6/ Computed from measured suspended sediment concentrations.</p>														
48. AGENCY MAKING SURVEY Dept. of the Army, Corps of Engineers														
49. AGENCY SUPPLYING DATA Southwestern Div., Little Rock Dist. 50. DATE 1 Nov 76														