

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

POOL NO. 7 (MURRAY LOCK AND DAM)
NAME OF RESERVOIR

15-38

DATA SHEET NO.

DAM	1. OWNER Dept. of the Army, C. of E.			2. STREAM Arkansas River			3. STATE Arkansas						
	4. SEC. 23 TWP. 211 RANGE 13W			5. NEAREST P.O. Little Rock 6NW			6. COUNTY Pulaski						
	7. LAT 34° 47' 27.2" LONG 92° 21' 32.1"			8. TOP OF DAM ELEVATION 259			9. SPILLWAY CREST ELEV. 251 1/						
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										Oct 16, 1969		
	b. MULTIPLE USE												
	c. POWER												
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION										Jan 1, 1970		
	f. CONSERVATION 2/		249		7,750		87,330		87,330				
g. INACTIVE 3/		218		0		0		0					
WATERSHED	17. LENGTH OF RESERVOIR 29.8 MILES				AV. WIDTH OF RESERVOIR 0.41 MILES								
	18. TOTAL DRAINAGE AREA 158,030 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 12-50 INCHES								
	19. NET SEDIMENT CONTRIBUTING AREA 3,650 SQ. MI.				23. MEAN ANNUAL RUNOFF 3.40 (44 yrs) INCHES								
	20. LENGTH 1,257 MILES				AV. WIDTH 12.6 MILES								
	21. MAX. ELEV. 14,431				MIN. ELEV. 218								
SURVEY DATA	26. DATE OF SURVEY		27. PERIOD YEARS	28. ACCL. YEARS	29. TYPE OF SURVEY		30. NO. OF RANGES OR CONTROL INT.	31. SURFACE AREA, ACRES	32. CAPACITY, ACRE-FEET	33. C/I. RATIO, 4/ AC.-FT. PER AC.-FT.			
	Jan 17, 1970				Range (D)		28	7,750	87,330	.0234			
	Mar 16, 1971		1.16	1.16	Range (D)		28	7,640	89,910	.0239			
	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
	Mar 16, 1971				27,892,000				32,355,000		27,892,000		32,355,000
	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
	Mar 16, 1971		-2,580		-2,224		-.609		-2,580		-2,224		-.609
	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 5/				
				a. PERIOD		b. TOTAL TO DATE		a. AV. ANN		b. TOT. TO DATE		a. PERIOD	b. TOT. TO DATE
Mar 16, 1971		80*		-1,061		-1,061		-2.55		-2.95		121	121

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET										M.S.L.				
	218-33	233-35	235-37	237-39	239-41	241-43	243-45	245-47	247-49	249-51					
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION															
Mar 16, 1971	-58	-27	-20	8	-12	-6	-10	3	13	9					
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															
Mar 16, 1971	-49	-17	-20	-29	-3	3	-11	5	-7	28					
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.								
1970	251.9	247.3	25,530,000												
1971	250.2	248.4	19,400,000												
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
Original Survey - 1970			237	2,470	19,450	245	5,740	61,080							
251	8,680	104,920	235	1,810	13,780	243	5,080	49,030							
249	7,750	87,330	233	1,460	9,820	241	4,400	38,440							
247	6,700	71,750	1971 Survey			239	3,620	29,340							
245	5,650	58,120				237	2,750	21,930							
243	4,940	46,310	251	8,590	107,290	235	2,080	15,780							
241	4,250	35,860	249	7,640	89,910	233	1,610	11,190							
239	3,400	27,050	247	6,630	74,620										
47. REMARKS AND REFERENCES															
<p>1/ Top of gates in closed position.</p> <p>2/ Top of navigation pool.</p> <p>3/ Spillway crest.</p> <p>4/ Adjustment based on inflow from net sediment contributing area (Item 19) as taken from USGS Water Resources Data for Arkansas; 1969 (3,740,000 AC. FT) and 1970 (3,765,000 AC. FT).</p> <p>5/ 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															