

RESERVOIR SEDIMENTATION
DATA SUMMARY

Lock and Dam 25 (Windfield)

24-10a

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Corps of Engineers			2. RIVER Mississippi River			3. STATE Mo. Ill.									
	4. SEC. TWP. 49N RANGE 3E			5. NEAREST TOWN Windfield, Mo.			6. COUNTY Lincoln									
	7. STREAM BED ELEV. 400.00 m.s.l.			8. TOP OF DAM ELEV. 434.00m.s.l.			9. SPILLWAY CREST ELEV. 409.00									
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										May 1939					
	b. POWER															
	c. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION										July 1939					
	e. CONSERVATION		434.00 m.s.l.		18,000		62,500		180,000							
f. INACTIVE																
WATERSHED	17. LENGTH OF RESERVOIR 32 MILES				AV. WIDTH OF RESERVOIR 0.88 MILES											
	18. TOTAL DRAINAGE AREA 142,000 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 22 - 46 INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA SQ. MI.				23. MEAN ANNUAL RUNOFF 1 - 15 INCHES											
	20. LENGTH 1125 MILES		AV. WIDTH 126.2 MILES		24. MEAN ANNUAL RUNOFF 150,000 AC.-FT.											
	21. MAX. ELEV. 1900		MIN. ELEV. 400.0		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.ML	
	July 1939		--		--		Range		7		--		180,000			
	May 1945		5.9		5.9		Range		7		18,000		194,100			
	May 1946		1.0		6.9		Range		7		18,000		181,400			
	Dec 1947		1.6		8.5		Range		7		18,000		184,000			
	May 1959		11.4		19.9		Range		7		18,000		155,000			
	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			
	May 1945		Not		57,100		67,300		337,000		57,100		337,000			
	May 1946		Pertinent		67,600		67,600		67,600		58,600		404,600			
	Dec 1947				61,300		68,500		98,100		59,100		502,700			
	May 1959				47,600		80,800		542,600		52,500		1,045,300			
	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.-YR.		a. TOTAL TO DATE		b. AV. ANNUAL		c. PER SQ. MI.-YR.			
	May 1945		-14,100		-2,390				-14,100		-2,350					
May 1946		+12,700		+12,700				-1,400		-203						
Dec 1947		-2,600		-1,630				-4,000		-470						
May 1959		+29,000		+2,540				+25,000		+1,260						
		+ denotes fill			- denotes scour											
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. TO DATE		a. PERIOD		b. TO DATE		
May 1945		No sediment sample taken						+1.31		+7.85						
May 1946								+0.11		+0.70						
Dec 1947								+0.26		+2.22						
May 1959								-0.70		-13.89						

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, CREST ELEVATION															
	434.0 to 429.7				429.7 to 400.0											
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION																
All Surveys	ZERO				100%											

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															
Sept 1937	--	--	--	--	--	--									
May 1945	+8.0	-23.7	+5.3	+7.9		-15.5	16.0		-65.6						
May 1946	+18.6	-2.0	+6.0	+4.7		-16.9	-4.7		-43.5						
Dec 1947	+13.3	+4.6	+6.9	+13.9		-16.2	12.0		-59.9						
May 1959	+24.3	+11.6	+22.6	+23.6		+1.4	+7.3		-34.4						
+ denotes fill - denotes scour															

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1939	434.00	423.80	49,100	1950	*435.34	420.10	50,400
1940	434.00	429.95	26,800	1951	*438.91	428.48	71,000
1941	434.09	426.72	41,200	1952	*438.47	429.05	74,300
1942	*435.80	425.95	68,200	1953	434.01	429.49	52,100
1943	*438.27	427.01	72,500	1954	434.16	420.38	43,700
1944	*438.85	420.83	67,600	1955	434.09	429.46	45,900
1945	*437.65	428.00	66,900	1956	434.13	429.57	32,000
1946	*436.98	422.26	61,300	1957	434.19	429.53	34,500
1947	*441.19	428.62	72,900	1958	434.23	429.58	33,700
1948	*434.98	427.67	44,900	1959	*434.40	429.48	41,600

46. 1949 434.44 428.90 ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Not applicable since all sedimentation occurs below the maximum operating range of elevations of the pool.								

47. REMARKS AND REFERENCES

* Flood period; dam not in operation.