

RESERVOIR SEDIMENT
DATA SUMMARY

Pool No. 22
NAME OF RESERVOIR

24-52a
DATA SHEET NO.

DA	1. OWNER Dept. of the Army (CE)			2. STREAM Mississippi			3. STATE Missouri					
	4. SEC. 21 TWP. 56N RANGE 3W			5. NEAREST P O Saverton, Mo.			6. COUNTY Ralls					
	7. LAT 39° 38' 07" LONG 91° 14' 56"			8. TOP OF DAM ELEVATION 459.5(1)			9. SPILLWAY CREST ELEV 434.5(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										7/27/38	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY											
	e. IRRIGATION										16. DATE NORMAL OPER. BEGAN	
	f. CONSERVATION											
	g. INACTIVE		459.5		8,843(3)						5/13/39	
17. LENGTH OF RESERVOIR 23.7 MILES			AV. WIDTH OF RESERVOIR 0.63 MILES									
WATERSHED	18. TOTAL DRAINAGE AREA 137,500 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 32.1 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA SQ. MI.				23. MEAN ANNUAL RUNOFF 6.91 INCHES							
	20. LENGTH 1065.0 MILES		AV. WIDTH 129.1 MILES		24. MEAN ANNUAL RUNOFF 50,700,000 AC.-FT.							
	21. MAX. ELEV.		MIN. ELEV.		25. ANNUAL TEMP MEAN 49°F, RANGE -59°F., 114°F.							
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, AC.-FT. PER AC.-FT.		
	July 1938		16.33	16.33	Range	31	8,843	93,858		.0017		
	Dec. 1954		15.00	31.33	Range	31	8,657	85,231				
	Dec. 1969				Range	31	8,657	102,362				
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					
July 1938			54,300,000	70,100,000	886,300,000		54,300,000	886,300,000				
Dec. 1954			48,200,000	79,600,000	723,100,000		51,400,000	1,609,400,000				
Dec. 1969												
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			
July 1938	8,267		528	.004		8,627	528		.004			
Dec. 1954												
Dec. 1969	-17,131											
26. DATE OF SURVEY	39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PERSQ. MI.-YR.		41. STORAGE LOSS, PCT.		42. SED. INFLOW, PPM					
	a. PERIOD		b. TOTAL TO DATE	a. AV. ANN.	b. TOT. TODATE	a. PERIOD	b. TOT. TODATE					

25. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CRES. 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	-1
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														
July 1938	0	0	0	0	0	0	0	0	0	0					
Dec. 1954	11	21	2	6	12	16	5	11	16	*					
Dec. 1969	*	*	*	*	*	*	*	*	*	*					
															*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.
See attached sheet.							

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

47. REMARKS AND REFERENCES Elevations refer to Mean Sea Level (1912 Adjustment)

- (1) Nonsubmersible earth dike elevation -484.0.
- (2) Principal waterway through dam is a 20-ft. high movable gate section. Gate sills at elevation 450.0, 13 ft. above lowest point of preconstruction streambed. Gates operated to maintain 9.0 ft. navigation channel depths above dam but pool elev. at the dam cannot exceed elev. 470.0. As river flows increase from minimum gates are raised to provide additional waterway, until gates are entirely out of water at a flow that would produce tailwater elev. 470.0.
- (3) Surface area revised from 9,500 acres.

48. AGENCY MAKING SURVEY Rock Island Dist., Corps of Engineers
 49. AGENCY SUPPLYING DATA Rock Island Dist., Corps of Engineers 50. DATE 25 February 1971

Department of the Army

Corps of Engineers

45. Range in reservoir operation

<u>Water Year</u>	<u>Max. Elev.*</u>	<u>Min. Elev.*</u>	<u>Inflow Million Acre-Feet</u>
1939	463.4	445.9	46.7
1940	459.9	454.9	26.8
1941	460.9	447.5	42.6
1942	463.1	458.3	63.7
1943	462.9	457.5	67.0
1944	467.5	448.6	63.3
1945	465.2	454.3	61.3
1946	464.6	456.5	57.4
1947	469.4	457.5	67.1
1948	466.9	448.1	42.1
1949	460.7	456.6	36.7
1950	464.2	455.3	49.3
1951	467.7	457.4	70.1
1952	466.9	458.9	54.4
1953	461.7	458.3	69.8
1954	461.6	446.6	43.1
1955	460.34	455.45	38.3
1956	459.88	458.53	30.5
1957	459.92	457.95	35.8
1958	459.81	458.64	29.6
1959	462.68	458.02	48.0
1960	468.78	458.17	66.2
1961	464.49	457.52	49.6
1962	466.36	457.16	63.4
1963	459.79	458.62	34.4
1964	460.08	458.10	29.1
1965	469.88	457.92	79.6
1966	460.77	458.17	51.8
1967	464.95	458.50	48.5
1968	460.12	458.85	47.1
1969	468.25	458.47	71.2

* - Calendar Year