

RESERVOIR-SEDIMENT
DATA SUMMARY

WISTER LAKE

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

NAME OF RESERVOIR

49-12
DATA SHEET NO.

DAM	1. OWNER Corps of Engineers		2. STREAM Potesu River		3. STATE Oklahoma			
	4. SEC. 1 TWP. T5E RANGE R24E		5. NEAREST P.O. Wister 2S		6. COUNTY LeFlore			
	7. LAT 34° 50' 10" LONG 94° 43' 10"		8. TOP OF DAM ELEVATION 527.5		9. SPILLWAY CREST ELEV. 502.5			
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		502.5	23000 2/	400,000 2/	430,000 2/	4 Oct 49	
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY							
	e. IRRIGATION						16. DATE NORMAL OPER BEGAN	
	f. CONSERVATION		471.6	4,000 2/	30,000 1/2/	30,000 1/2/	19 Oct 49	
g. INACTIVE								
WATERSHED	17. LENGTH OF RESERVOIR		41.0 2/ MILES		AV. WIDTH OF RESERVOIR		0.88 MILES	
	18. TOTAL DRAINAGE AREA		993 SQ. MI.		22. MEAN ANNUAL PRECIPITATION		45.55 INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		157 SQ. MI.		23. MEAN ANNUAL RUNOFF		14.9 INCHES	
	20. LENGTH		22.6 MILES	AV. WIDTH		10.7 MILES	24. MEAN ANNUAL RUNOFF 769100 (33.8) AC FT.	
	21. MAX. ELEV.		2660	MIN. ELEV.		439	25. ANNUAL TEMP MEAN 62°F RANGE	
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.
	10-I-49 4/			Range (D)	37	22982	429003	0.54
	7-1-72	22.75	22.75	Range (D)	37	23069	427888	0.54
	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	
	7-1-72	45.13	737000	1502300	16766300	737000	16766300	
	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	
	7-1-72	1115	49.0	.051	1115	49.0	.051	
	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, FPM		
	a. PERIOD	b. TOTAL TO DATE	a. AV ANN	b. TOT TO DATE	a. PERIOD	b. TOT TO DATE		
7-1-72	66.3	73.6	73.6	.011	.259	70	70	

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	66.5-70	0-54	54-48	48-42	42-36	36-30	30-24	24-18	18-12	12-6	6-0	0-6
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
7-1-72	27	38	46	36	30	18	-9	-25	-40	-33	-48	

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													
7-1-72	132	67	48	34	28	74	-20	-64	3.5	1.5				

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1950	495.11	455.02	1254000	1962	484.24	456.97	714500
1951	493.44	471.22	562500	1963	476.36	469.48	239300
1952	491.10	470.06	794000	1964	479.41	468.25	284500
1953	491.54	469.50	1063000	1965	484.67	471.02	737500
1954	485.47	469.15	311600	1966	489.42	470.92	413500
1955	490.26	469.05	507600	1967	487.38	470.82	423200
1956	479.46	470.47	148900	1968	502.22	471.23	1391000
1957	505.73	469.98	1502300	1969	491.49	471.33	1243000
1958	493.20	471.48	1012000	1970	494.19	470.82	656400
1959	478.20	471.20	391400	1971	486.93	471.32	551500
1960	502.98	471.49	1160000	1972(9 mo)	501.20	471.09	707300
1961	436.18	471.07	685200				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
Original Capacity (1940)			448	190	1172	471.6	4005	27063
510	28753	622715	440	77	135	468	2585	15091
502.5	22982	429003	436	0	0	464	1202	7808
494	17190	258866	1972 Capacity			460	647	4235
486	12060	142366	510	28753	622197	456	369	2183
478	7200	65140	502.5	23069	427888	452	205	1077
471.6	4020	29888	494	17231	257115	448	483	133
464	1420	9920	486	12185	139919	440	2	2
456	450	3554	478	7333	52352	436	0	0

47. REMARKS AND REFERENCES

- 1/ Includes 9600 acre-feet for water supply.
- 2/ Rounded figure
- 3/ Length of Poteau River arm of lake is 24.0 miles
Length of Fourche Maline arm of lake is 17.0 miles.
- 4/ Date of original survey assumed 1 October 1949 to facilitate computations in Item 27 and 28.

48. AGENCY MAKING SURVEY Dept of Army, Corps of Engineers
49. AGENCY SUPPLYING DATA Dept of Army, Corps of Engineers
50. DATE 10 April 1974