

RESERVOIR SEDIMENT
DATA SUMMARY

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Lake O' the Pines (Merrells Bridge)

NAME OF RESERVOIR

49-10

DATA SHEET NO.

DAM	1. OWNER U.S. Army, C of E			2. STREAM Cypress Creek			3. STATE Texas					
	4. SEC. TWP.		RANGE		5. NEAREST P O Jefferson			6. COUNTY Marion				
	7. LAT. 32° 45' " LONG. 94° 30' "			8. TOP OF DAM ELEVATION 277			9. SPILLWAY CREST ELEV. 249.5					
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		249.5		38,200		587,200		842,100		Aug. 1957	
	b. MULTIPLE USE											
	c. POWER											
	d. WATER SUPPLY		228.5		16,700		251,100		254,900		16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION										Nov. 1960	
	f. CONSERVATION		201.0		1,100		3,800		3,800			
g. INACTIVE												
WATERSHED	17. LENGTH OF RESERVOIR 32 MILES				AV. WIDTH OF RESERVOIR 1.9 MILES							
	18. TOTAL DRAINAGE AREA 880 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 43(1925-73) INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 790 SQ. MI.				23. MEAN ANNUAL RUNOFF 10.29(1958-73) INCHES							
	20. LENGTH 64 MILES		AV. WIDTH 13 MILES		24. MEAN ANNUAL RUNOFF 482,815(1958-73) AC. FT.							
	21. MAX. ELEV. 550		MIN. ELEV. 183		25. ANNUAL TEMP MEAN 64°F RANGE 118°F to -13°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.				
	Dec. 1959	Original		Survey	28	38,200	842,100	1.74				
	Apr. 1966	6.4	6.4	Check	6	38,200	842,100	1.74				
	Apr. 1973	7.0	13.4	Check	1	38,200	842,100	1.74				
	Mar. 1974	0.9	14.3	Check	2	38,200	842,100	1.74				
	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					
	Apr. 1966	39.92	418,010	738,689	2,675,263	418,010	2,675,263					
	Apr. 1973	38.35	443,759	695,909	3,106,313	431,460	5,781,576					
	Mar. 1974	28.28	617,297	617,297	617,297	447,473	6,398,873					
	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					
	Apr. 1966	No appreciable sedimentation										
Apr. 1973	No appreciable sedimentation											
Mar. 1974	No appreciable sedimentation											
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					

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST 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	-125
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN REACH DESIGNATION														

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1958	239.7	201.8	1,349,905	1967	231.1	228.3	247,666
1959	212.7	201.9	445,861	1968	231.8	228.2	584,059
1960	227.7	201.9	446,916	1969	230.6	228.4	695,909
1961	235.4	227.7	738,689	1970	230.5	228.2	403,835
1962	230.1	227.9	554,142	1971	229.0	227.6	84,824
1963	229.9	227.1	205,106	1972	229.6	227.4	218,514
1964	229.0	226.5	95,799	1973	235.4	227.7	774,487
1965	231.0	227.8	297,053				
1966	245.4	227.9	581,568				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
185	5	5	225	16,110	193,940			
190	47	135	230	19,780	283,680			
195	191	584	235	24,030	392,680			
200	826	2,860	240	28,650	523,990			
205	2,710	10,900	245	33,820	680,310			
210	5,820	32,140	250	38,700	861,200			
215	9,040	69,200	255	44,090	1,068,150			
220	12,380	122,680						

47. REMARKS AND REFERENCES