

RESERVOIR SEDIMENTATION  
DATA SUMMARY

Lake Duncan  
NAME OF RESERVOIR

50 - 8  
DATA SHEET NO.

DAM	1. OWNER City of Duncan			2. RIVER Fitzpatrick Creek			3. STATE Oklahoma			
	4. SEC. 27, 34 TWP. 1N RANGE 6W			5. NEAREST TOWN Duncan			6. COUNTY Stephens			
	7. STREAM BED ELEV. 1,063			8. TOP OF DAM ELEV. 1,102			9. SPILLWAY CREST ELEV. 1,094.6			
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					Oct. 1937				
	b. POWER									
	c. WATER SUPPLY	1,094.6	411	6,291	6,291	16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION					1938				
	e. CONSERVATION									
	f. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR 1.6 MILES			14. AV. WIDTH OF RESERVOIR 0.4 MILES						
	18. TOTAL DRAINAGE AREA 11.0 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 34.15 (12) INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 10.4 SQ. MI.			23. MEAN ANNUAL RUNOFF						
	20. LENGTH 4.7 MILES			AV. WIDTH 2.3 MILES			24. MEAN ANNUAL RUNOFF			AC.-FT.
	21. MAX. ELEV.			MIN. ELEV.			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. MI.		
	Oct. 1937	-	-	-	-	411	6,291	572		
	Aug. 1950	12.8	12.8	Range detailed	14	395	5,783	526		
	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			
	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.-YEAR	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR			
	Aug. 1950	508 (524) <u>1/</u>	39.7 (40.9)	3.82 (3.93)	508 (524)	39.7 (40.9)	3.82 (3.93)			
	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. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE		
Aug. 1950	63.4 (9)	5,275 (5,427)	5,275 (5,427)	0.63	8.08	-	-			

1/ Above crest deposits within original flow line.

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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															
Aug. 1950	15.6	14.1	10.3	11.1	13.4	6.7	7.0	11.4	6.2	4.2					
(Tributary enters reaches 30-40 and 40-50)															
45. RANGE IN RESERVOIR OPERATION															
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.								
46. ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
47. REMARKS AND REFERENCES															
Sediment is gray silt or sandy silt in a large part of the reservoir. The sediment in the delta areas is silty sand.															
Region 4, Soil Conservation Service U. S. Dept of Agriculture Fort Worth, Texas															
48. AGENCY SUPPLYING DATA										49. DATE <u>March, 1951</u>					