

**RESERVOIR SEDIMENT
DATA SUMMARY**

SCS-34 Rev. 6-62

Brown Lake

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

45-4b

DATA SHEET NO.

DAM	1. OWNER U. S. Navy			2. STREAM Peaceable Creek		3. STATE Oklahoma						
	4. SEC. 12 TWP. 8N RANGE 13E			5. NEAREST TOWN McAlester		6. COUNTY Pittsburg						
	7. STREAM BED ELEVATION 688			8. TOP OF DAM ELEVATION 725		9. SPILLWAY CREST ELEV. 717						
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. MULTIPLE USE										May 1943	
	b. FLOOD CONTROL											
	c. POWER											
	d. WATER SUPPLY		717		637		4,995		4,995		16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION											
	f. CONSERVATION											
	g. SEDIMENT											
h. INACTIVE												
17. LENGTH OF RESERVOIR 2.1 MILES					AV. WIDTH OF RESERVOIR 0.28 MILES							
18. TOTAL DRAINAGE AREA 20.9 SQ. MI.					22. MEAN ANNUAL PRECIPITATION 38 INCHES							
19. NET SEDIMENT CONTRIBUTING AREA 19.9 SQ. MI.					23. MEAN ANNUAL RUNOFF 7.0 INCHES							
20. LENGTH 11.4 MILES		AV. WIDTH 8.0 MILES		24. MEAN ANNUAL RUNOFF 7802 AC.-F.T.								
21. MAX. ELEV.				MIN. ELEV. 688		25. CLIMATIC CLASSIFICATION Humid						
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.				
May 1943		-	-	-	-	637	4,995	239				
July 1952		9.2	9.2	Range Detail	15	596	4,660	223				
April 1963		10.75	19.95	"	"	596	4,525	217				
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					
July 1952		335	36.41	1.83	335	36.41	1.83					
April 1963		135	12.56	0.63	470	23.55	1.18					
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. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE				
July 1952		54.2	2,160	2,160	0.73	6.71	-	-				
April 1963		-	743	1,392	0.47	9.41	-	-				

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														

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

(a) C.I. ratio 1943 = 0.67, 1952 = 0.63, 1963 = 0.61.
 (b) Estimated trap efficiency = 97%.
 (c) Total annual sediment load adjusted for trap efficiency = 1.22 ac.ft./sq.mi.
 (d) All grassland with some woodland. Good cover conditions throughout.
 No construction. Areas grazed are controlled for maintenance.
 Fire hazard very low.

48. AGENCY MAKING SURVEY Soil Conservation Service
 49. AGENCY SUPPLYING DATA Stillwater, Oklahoma 50. DATE May 29, 1963