

RESERVOIR SEDIMENT  
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE

SCS-34 Rev. 6-66

Bailey Reservoir

NAME OF RESERVOIR

31- 59

Tributary--

DATA SHEET NO.

DAM	1. OWNER David Bailey			2. STREAM of Grindstone		3. STATE Missouri				
	4. SEC. 25 TWP. 51N RANGE 13W			5. NEAREST P.O. Sturgeon		6. COUNTY Boone				
	7. LAT 39° 10' 5" LONG. 92° 20' 0"			8. TOP OF DAM ELEVATION 830.0		9. SPILLWAY CREST ELEV. *103.0				
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						1965			
	b. MULTIPLE USE									
	c. POWER									
	d. WATER SUPPLY									
	e. IRRIGATION						16. DATE NORMAL OPER. BEGAN			
	f. CONSERVATION		*100.0	10.0	55.9	55.9	1965			
	g. INACTIVE									
17. LENGTH OF RESERVOIR		1400 ft.		.265 MILES	AV. WIDTH OF RESERVOIR	310 ft.	.059 MILES			
WATERSHED	18. TOTAL DRAINAGE AREA			235 ac.		.367 SQ. MI.	22. MEAN ANNUAL PRECIPITATION	38.12 INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA			225 ac.		.352 SQ. MI.	23. MEAN ANNUAL RUNOFF		INCHES	
	20. LENGTH		.85 MILES	AV. WIDTH	.43 MILES	24. MEAN ANNUAL RUNOFF			AC.-FT.	
	21. MAX. ELEV.		860	MIN. ELEV.		810	25. ANNUAL TEMP: MEAN			54.6 RANGE -10 to 105 F
	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.	
Sept., 1965						14.4	92.7			
Sept., 1967		2.0	2.0	Range "D"	16	14.4	91.0			
Sept., 1975		8.0	10.0	Range "D"	16	14.3	87.7			
SURVEY DATA	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		
	Sept., 1965									
	Sept., 1967									
	Sept., 1975		41.6	276.2 <sup>1/</sup>	495.9 <sup>1/</sup>	1933.3 <sup>1/</sup>	276.2 <sup>1/</sup>	1933.3 <sup>1/</sup>		
	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		
Sept., 1965		0.0	0.0	0.0	0.0	0.0	0.0			
Sept., 1967		1.7	0.85	2.4	1.7	0.85	2.4			
Sept., 1975		3.3	0.41	1.16	5.0	0.50	1.4			
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. TO DATE	a. PERIOD	b. TOT. TO DATE		
Sept., 1965										
Sept., 1967										
Sept. 1975		42	---	1281	.54	5.4	---	1740		

\* assumed Elev.  
1/ 7 years of Record 69-75

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	103.0	102.0	101.0	100.0	98.0	96.0	94.0	92.0	90.0	88.0	86.0				
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
1975	0	2.9	2.5	2.6	11.1	14.1	13.1	10.5	13.8	14.4	13.1				
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							
1975			96.0	5.6	21.2										
103.0	14.3	87.7	94.0	3.8	11.9										
102.0	12.9	74.1	92.0	2.2	5.9										
101.0	11.5	61.9	90.0	1.3	2.4										
100.0	9.9	51.2	88.0	0.6	0.5										
98.0	7.4	34.1	86.0	0.0	0.0										
47. REMARKS AND REFERENCES															
48. AGENCY MAKING SURVEY				USDA-ARS-Watershed Research				50. DATE				12-7-76			
49. AGENCY SUPPLYING DATA				USDA-ARS-Watershed Research											