

RESERVOIR SEDIMENT DATA SUMMARY

Springbrook
NAME OF RESERVOIR

25 - 13a
DATA SHEET NO.

DAM	1. OWNER State of Iowa			2. STREAM Middle Raccoon Trib		3. STATE Iowa			
	4. SEC. 4 TWP. 80N RANGE 31W			5. NEAREST P.O. Guthrie Center		6. COUNTY Guthrie			
	7. LAT. 41° 47' " LONG 94° 28' "			8. TOP OF DAM ELEVATION 1098.0		9. SPILLWAY CREST ELEV. 1085.7			
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						1936		
	b. MULTIPLE USE								
	c. POWER								
	d. WATER SUPPLY								
	e. IRRIGATION						1936		
	f. CONSERVATION		1085.7	17	185	185			
g. INACTIVE									
17. LENGTH OF RESERVOIR 0.38 MILES				AV. WIDTH OF RESERVOIR 0.07 MILES					
WATERSHED	18. TOTAL DRAINAGE AREA 1.9 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 33.62 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 1.87 SQ. MI.			23. MEAN ANNUAL RUNOFF 4.8 INCHES					
	20. LENGTH 2.6 MILES		AV. WIDTH 0.7 MILES		24. MEAN ANNUAL RUNOFF 490 AC.-FT.				
	21. MAX. ELEV. 1246		MIN. ELEV. 1065		25. ANNUAL TEMP: MEAN 45.9 RANGE 6.6 - 72.9				
	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.
1936		-	-	-	-	17	185.0	.38	
1946		10	10	Contour (D)	-	17	171.6	.35	
Feb 1980		34	44	Range (D)	10	14.4	113.2	.23	
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
	1946								
	1980		33.6						
	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		
1946		13.4	1.34	.71	13.4	1.34	.71		
1980		58.4	1.72	.92	71.8	1.63	.87		
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	
1946		50*	779	779	0.72	7.2			
1980		47.9	947	908	0.88	38.8			

*Estimated

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.

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES

Mitchem, P. Stan, Sedimentation of Springbrook Reservoir, Guthrie County, Iowa, Soil Conservation Service, May 1980.

Land Use: 80% Cropland, 13% Pastureland, 6% Woodland, 1% Other.

Sediment: 44% Clay, 52% Silt, 4% Sand.

48. AGENCY MAKING SURVEY Soil Conservation Service

49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE 5/80