

RESERVOIR SEDIMENTATION
DATA SUMMARY

Spring Lake
NAME OF RESERVOIR

24-7
DATA SHEET NO.

DAM	1. OWNER City of Macomb			2. RIVER Spring Creek			3. STATE Illinois			
	4. SEC. 15 TWP. 6 N RANGE 3 W			5. NEAREST TOWN Macomb			6. COUNTY McDonough			
	7. STREAM BED ELEV. app. 623			8. TOP OF DAM ELEV. 649			9. SPILLWAY CREST ELEV. 642.3			
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					April 1927				
	b. POWER									
	c. WATER SUPPLY	642.3 1/	84.3	607	607	16. DATE NORMAL OPER. BEGAN				
	d. IRRIGATION					April 1927				
	e. CONSERVATION									
	f. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR 1.1 MILES			AV. WIDTH OF RESERVOIR 0.12 MILES						
	18. TOTAL DRAINAGE AREA 20.2 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 34.93 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA 20.1 SQ. MI.			23. MEAN ANNUAL RUNOFF INCHES						
	20. LENGTH 4.6 MILES			AV. WIDTH 4.4 MILES			24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV. app. 740			MIN. ELEV. 623			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.		
	April 1927	-	-	-	-	84.3	607	30.0		
	Aug-Sept. 1947	20.4	20.4	Range Detailed	12	70.3	320	15.8		
	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	d. MEAN ANNUAL	e. TOTAL TO DATE			
	Aug-Sept. 1947	36.08								
	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	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR			
	Aug-Sept. 1947	287.0 (290.2) 2/	14.1 (14.2)	0.701 (0.706)	287.0 (290.2)	14.1 (14.2)	0.701 (0.706)			
	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-Sept. 1947	59.7 (10)	911 (918)	911 (918)	2.32	47.28					

2/ 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
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
1/ Original spillway crest elev. = 641.0
 Raised in 1946 to Elev. = 642.3 (top of wooden flashboards)
 All storage and sedimentation data based on spillway crest elev. = 642.3

Stall, J.B., L. C. Gottschalk, A. A. Klingebiel, E. L. Sauer and E.E. DeTurk.
 The silt problem at Spring Lake, Macomb, Ill. Report of Investigation No. 4,
 Illinois State Water Survey Division, Urbana, Illinois. 1949.

48. AGENCY SUPPLYING DATA Illinois State Water Survey
Urbana, Illinois

49. DATE June 15, 1950