

RESERVOIR SEDIMENT
DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Gregory
NAME OF RESERVOIR

47-9

DATA SHEET NO.

Ark Basin

DAM	1. OWNER Ward Gregory			2. STREAM Trib to Ark River			3. STATE Kansas									
	4. SEC. 5 TWP. 25 RANGE 41W			5. NEAREST P.O. Syracuse			6. COUNTY Hamilton									
	7. LAT 37° 52' 30" LONG. 101° 52' 30"			8. TOP OF DAM ELEVATION 103.00*			9. SPILLWAY CREST ELEV. 98.00*									
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										April 1 1951					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY		98.00*		9.40		62.20		62.20		16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION										April 1 1951					
	f. CONSERVATION															
	g. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR				0.36 MILES		AV. WIDTH OF RESERVOIR				0.03 MILES					
	18. TOTAL DRAINAGE AREA				6.50 SQ. MI.		22. MEAN ANNUAL PRECIPITATION				16. INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA				6.50 SQ. MI.		23. MEAN ANNUAL RUNOFF				0.1 INCHES					
	20. LENGTH		3.50 MILES		AV. WIDTH		1.80 MILES		24. MEAN ANNUAL RUNOFF		34 AC.-FT.					
	21. MAX. ELEV.		3,600.00		MIN. ELEV.		3,390.00		25. ANNUAL TEMP.: MEAN 54 RANGE -26 to 114							
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/I. RATIO, AC.-FT. PER AC.-FT.	
	June 15 1967		16.5		16.5		Range		6		9.40		Original 62.20 Present 50.83		1.79 1.50	
	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 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			
	June 15 1967		11.37		0.69		0.11		11.37		0.69		0.11			
	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			
June 15 1967		70		167		167		1.11 18.28								

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

* Assumed

Cropland = 90% with 1 - 2% slopes
 Pasture (good) = 10% with 3% slopes
 T.E. = 85%
 Watershed Yield = 0.13 ac. ft./sq. mi./yr.

48. AGENCY MAKING SURVEY
 49. AGENCY SUPPLYING DATA U.S.D.A., Soil Conservation Service 50. DATE August 15, 1967