

RESERVOIR SEDIMENT  
DATA SUMMARY

SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Brodie

NAME OF RESERVOIR

46-51

DATA SHEET NO.

Cimarron Basin

DAM	1. OWNER <u>E. R. Brodie</u>		2. STREAM <u>Spring Creek</u>		3. STATE <u>Kansas</u>				
	4. SEC. <u>SE 27</u> TWP. <u>33</u> RANGE <u>22</u>		5. NEAREST P.O. <u>Ashland</u>		6. COUNTY <u>Clark</u>				
	7. LAT. <u>37° 08' 30"</u> LONG. <u>99° 42' 00"</u>		8. TOP OF DAM ELEVATION <u>100</u> <u>1/</u>		9. SPILLWAY CREST ELEV. <u>96</u> <u>1/</u>				
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					June 1951			
	b. MULTIPLE USE								
	c. POWER								
	d. WATER SUPPLY	<u>96.0</u> <u>1/</u>	<u>4.5</u>	<u>31.2</u>	<u>31.2</u>	16. DATE NORMAL OPER. BEGAN			
	e. IRRIGATION					June 1951			
	f. CONSERVATION								
WATERSHED	17. LENGTH OF RESERVOIR	<u>0.30</u> <u>2/</u>	MILES	AV. WIDTH OF RESERVOIR	<u>0.02</u>	MILES			
	18. TOTAL DRAINAGE AREA	<u>2.17</u>	SQ. MI.	22. MEAN ANNUAL PRECIPITATION	<u>21</u>	INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA	<u>2.0</u>	SQ. MI.	23. MEAN ANNUAL RUNOFF	<u>0.75</u>	INCHES			
	20. LENGTH	<u>2.1</u>	MILES	AV. WIDTH	<u>1.03</u>	MILES			
	21. MAX. ELEV.	MIN. ELEV.	24. MEAN ANNUAL RUNOFF	<u>86.8</u>	AC.-FT.				
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.	
	<u>July 26, 1966</u>	<u>15.1</u>	<u>15.1</u>	<u>Range (R)</u>	<u>5 (M)</u>	<u>3.8</u>	<u>31.2</u> <u>29.0</u>	<u>0.36</u> <u>0.33</u>	
	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
	<u>July 26, 1966</u>	<u>2.2</u>	<u>0.15</u>	<u>0.07</u>	<u>2.2</u>	<u>0.15</u>	<u>0.07</u>		
	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
	<u>July 26, 1966</u>	<u>70</u> <u>1/</u>	<u>107</u>	<u>107</u>	<u>0.5</u>	<u>7.1</u>			

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

Land use - pasture good - 50 percent rolling  
 Cropland - 50 percent gently rolling  
 Trap efficiency - 86 percent

1/ Assumed  
 2/ No side arms to main channel

48. AGENCY MAKING SURVEY Soil Conservation Service  
 49. AGENCY SUPPLYING DATA Soil Conservation Service  
 50. DATE Aug. 15, 1966