

RESERVOIR SEDIMENT  
DATA SUMMARY  
SCS-34 Rev. 6-66

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

CANYON LAKE  
NAME OF RESERVOIR

38-9

DATA SHEET NO.

DAM	1. OWNER <u>Rapid City</u>				2. STREAM <u>Rapid Creek</u>				3. STATE <u>South Dakota</u>				
	4. SEC. <u>8 &amp; 9</u> TWP. <u>1N</u> RANGE <u>7E</u>				5. NEAREST P.O. <u>Rapid City</u>				6. COUNTY <u>Pennington</u>				
	7. LAT. " " " " " " " "				8. TOP OF DAM ELEVATION <u>3,385+</u>				9. SPILLWAY CREST ELEV. <u>3,380+</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												
	b. MULTIPLE USE		<u>3,380</u>		<u>40.1</u>		<u>300.77</u>		<u>300.77</u>		<u>Sept. 1933</u>		
	c. POWER										16. DATE NORMAL OPER. BEGAN		
	d. WATER SUPPLY												
	e. IRRIGATION												
	f. CONSERVATION												
	g. INACTIVE										<u>Sept. 1933</u>		
WATERSHED	17. LENGTH OF RESERVOIR <u>.56</u> MILES				AV. WIDTH OF RESERVOIR <u>0.11</u> MILES								
	18. TOTAL DRAINAGE AREA <u>385</u> SQ. MI.				22. MEAN ANNUAL PRECIPITATION <u>18</u> INCHES								
	19. NET SEDIMENT CONTRIBUTING AREA <u>66.35</u> SQ. MI.				23. MEAN ANNUAL RUNOFF <u>1.31</u> INCHES								
	20. LENGTH <u>36.5</u> MILES		AV. WIDTH <u>10.5</u> MILES		24. MEAN ANNUAL RUNOFF <u>26,897</u> AC. FT.								
	21. MAX. ELEV. <u>6,040</u>		MIN. ELEV. <u>3,368</u>		25. ANNUAL TEMP: MEAN <u>48</u> RANGE <u>107 &amp; -34</u>								
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>Oct. 1970</u>		<u>37</u>	<u>37</u>	<u>Range</u>	<u>11</u>	<u>38.9</u>	<u>221.75</u>	<u>.011</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						
	<u>Oct. 1970</u>		<u>18 inches</u>	<u>26,897</u>	<u>56,870</u>	<u>995,189</u>	<u>26,897</u>	<u>995,189</u>					
	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>Oct. 1970</u>		<u>79.0</u> <sup>2/</sup>	<u>2.1</u>	<u>.032</u>	<u>88.9</u> <sup>2/</sup>	<u>2.4</u>	<u>.036</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	a. PERIOD	b. TOT. TO DATE					
<u>Oct. 1970</u>		<u>65</u>	<u>50</u>	<u>50</u>	<u>0.80</u>	<u>29.49</u>	<u>93</u>	<u>93</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.
46-47			56,870	58-59			16,370
47-48			31,390	59-60			13,240
48-49			30,160	60-61			16,230
49-50			27,060	61-62			14,410
50-51			18,110	62-63			20,780
51-52			40,710	63-64			38,440
52-53			24,040	64-65			75,010
53-54			15,840	65-66			33,970
54-55			18,180	66-67			48,120
55-56			15,560	67-68			21,020
56-57			11,410	68-69			22,000
57-58			10,680	69			

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

47. REMARKS AND REFERENCES

1/ Pactola Reservoir controls about 320 sq. miles

2/ 9.9 acre-feet sediment removed in 1956

48. AGENCY MAKING SURVEY \_\_\_\_\_

49. AGENCY SUPPLYING DATA **Soil Conservation Service**

50. DATE \_\_\_\_\_