

RESERVOIR SEDIMENT  
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

Frye Creek (No. 3)

NAME OF RESERVOIR

60 - 50  
DATA SHEET NO.

DAM	1. OWNER <u>Town of Thatcher</u>		2. STREAM <u>Frye Creek</u>		3. STATE <u>Arizona</u>		
	4. SEC. <u>14</u> TWP. <u>7S</u> RANGE <u>25E</u>		5. NEAREST P.O. <u>Thatcher</u>		6. COUNTY <u>Graham</u>		
	7. LAT <u>35° 55' 00"</u> LONG. <u>109° 45' 40"</u>		8. TOP OF DAM ELEVATION <u>2998.6</u>		9. SPILLWAY CREST ELEV. <u>2992.5</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	<u>2992.5</u>	<u>210.9</u>	<u>1431.3</u>	<u>2194.0*</u>	<u>6/62</u>	
	b. MULTIPLE USE						
	c. POWER						
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN	
	e. IRRIGATION						
	f. CONSERVATION					<u>6/62</u>	
	g. INACTIVE <u>1/</u>	<u>2983.5</u>	<u>114.2</u>	<u>762.7</u>	<u>762.7</u>		
17. LENGTH OF RESERVOIR		<u>0.50</u> MILES	AV. WIDTH OF RESERVOIR		<u>0.66</u> MILES		
WATERSHED	18. TOTAL DRAINAGE AREA		<u>26.0</u> SQ. MI.	22. MEAN ANNUAL PRECIPITATION <u>9 to 35 <sup>3/</sup></u> INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA		<u>21.4 <sup>2/</sup></u> SQ. MI.	23. MEAN ANNUAL RUNOFF <u>0.5 <sup>4/</sup></u> INCHES			
	20. LENGTH <u>11.8</u> MILES	AV. WIDTH <u>2.2</u> MILES	24. MEAN ANNUAL RUNOFF <u>570 <sup>2/</sup>, <sup>4/</sup></u> AC.-FT.				
	21. MAX. ELEV. <u>10,713</u>		MIN. ELEV. <u>2969</u>	25. ANNUAL TEMP.: MEAN <u>63° F</u> RANGE <u>7 to 114</u>			
	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
<u>4/63</u>			Range (D)	<u>15</u>	<u>210.9</u>	<u>2194.0</u>	<u>3.8</u>
<u>5/68</u>	<u>5.0</u>	<u>5.0</u>	Range (D)	<u>15</u>	<u>212.0</u>	<u>2109.5</u>	<u>3.7</u>
<u>5/74</u>	<u>6.0</u>	<u>11.0</u>	Range (D) <sup>5/</sup>	<u>15</u>	<u>212.1</u>	<u>2107.7</u>	<u>3.7</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>5/68</u>	<u>84.5</u>	<u>16.90</u>	<u>0.79</u>	<u>84.5</u>	<u>16.90</u>	<u>0.79</u>
<u>5/74</u>	<u>1.8</u>	<u>0.30</u>	<u>0.014</u>	<u>86.3</u>	<u>7.85</u>	<u>0.37</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>5/68</u>	<u>78.7</u>	<u>1354</u>	<u>1354</u>	<u>0.77</u>	<u>3.85</u>		
<u>5/74</u>	<u>89.2</u>	<u>178</u>	<u>712</u>	<u>0.36</u>	<u>3.93</u>		

\* 4/63 capacity assumed to be original capacity

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															
<p>1/ Sediment pool only.</p> <p>2/ Drainage area of Frye Mesa Reservoir excluded.</p> <p>3/ Approximately 9 inches at the reservoir and approximately 35 inches on Mt. Graham. Weighted average approximately 15 inches.</p> <p>4/ Estimated</p> <p>5/ Contour range method used for computation.</p> <p>Geology: 16% Precambrian granite gneiss, 35 % deeply incised Quaternary-Tertiary alluvial fan deposits, 49% moderately to gently sloping Quaternary-Tertiary valley fill.</p> <p>Land Use in Net Sediment Contributing Area: 97% rangeland, 1% forest, 2% residential and miscellaneous.</p>															
48. AGENCY MAKING SURVEY Soil Conservation Service														50. DATE 1/76	
49. AGENCY SUPPLYING DATA Soil Conservation Service															