

RESERVOIR SEDIMENT DATA SUMMARY

East Fork

41 - 5

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER City of Lewistown			2. STREAM Big Spring Creek			3. STATE Montana									
	4. SEC. 14 TWP. 14N RANGE 19E			5. NEAREST P. O. Lewistown			6. COUNTY Fergus									
	7. LAT. 46° 58' 45" LONG. 109° 16' 45"			8. TOP OF DAM ELEVATION 4413			9. SPILLWAY CREST ELEV. 4405									
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		4405		226		3,597		5,297		1-74					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION		4384		119		900		1,700							
g. INACTIVE				79		800		800		1-74						
WATERSHED	17. LENGTH OF RESERVOIR 1.0 MILES				AV. WIDTH OF RESERVOIR 0.35 MILES											
	18. TOTAL DRAINAGE AREA 61.8 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 17.83 INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 61.45 SQ. MI.				23. MEAN ANNUAL RUNOFF 4.5 INCHES											
	20. LENGTH 16.4 MILES				AV. WIDTH 3.8 MILES				24. MEAN ANNUAL RUNOFF 14,832 AC.-FT.							
	21. MAX. ELEV. 8,730				MIN. ELEV. 4,350				25. ANNUAL TEMP: MEAN 42.6° RANGE 105° to -46°F							
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 1/		33. C/I. RATIO, AC.-FT. PER AC.-FT.	
	1-74		--		--		---		---		226		5,297		.36	
	1-80		6		6		Range		14		226		5,200		.35	
	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			
	1-80		16- 21.5"		14,823											
	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			
	1-80		97		16.17		.26		97		16.17		.26			
	26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PERSQ. 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		
1-80		55 ^{2/}		315.2		315.2		.30		1.83						

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION														
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION														
	1-80 No sediment above crest														
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														
1-80 13.5 16.0 14.5 10.4 10.3 15.2 18.7 1.4 0 0															
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															
*Hydrology from watershed work plan 3-69															
1/ Total 5,297 Retarding 3,597 Recreation 900 Sediment 800															
2/ Assumed based on other samples on other reservoirs in the area															
48. AGENCY MAKING SURVEY Soil Conservation Service															
49. AGENCY SUPPLYING DATA Soil Conservation Service															
50. DATE January 1980															