

RESERVOIR SEDIMENT
DATA SUMMARY

Bureau of Reclamation

KEYHOLE
NAME OF RESERVOIR

39-10
DATA SHEET NO.

DAM	1. OWNER Dept. of Int. - USBR		2. STREAM Belle Fourche R.		3. STATE Wyoming			
	4. SEC. 27 TWP. 51N RANGE 66W		5. NEAREST P O Moorcroft, WY		6. COUNTY Crook			
	7. LAT 44° 22' 55" LONG. 104° 46' 45"		8. TOP OF DAM ELEVATION 4134.0		9. SPILLWAY CREST ELEV. 4099.3			
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	4111.5 1/	13,686	140,186	340,057	March 1952		
	b. MULTIPLE USE							
	c. POWER					16. DATE NORMAL OPER. BEGAN		
	d. WATER SUPPLY							
	e. IRRIGATION							
	f. CONSERVATION	4099.3	9,394	190,393	199,871		October 1952	
	g. INACTIVE	4051.0		9,478	9,478			
17. LENGTH OF RESERVOIR 13 MILES		AV. WIDTH OF RESERVOIR 1.6 MILES						
WATERSHED	18. TOTAL DRAINAGE AREA 1950 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 17.4 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 1929 SQ. MI.		23. MEAN ANNUAL RUNOFF 0.20 INCHES					
	20. LENGTH 80 MILES	AV. WIDTH 24 MILES	24. MEAN ANNUAL RUNOFF 20,165 (27) AC.-FT.					
	21. MAX. ELEV.		MIN. ELEV. 4020		25. ANNUAL TEMP MEAN 44.2 RANGE -36 - 100			
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.
	2/12/52 8/78	0 26.5	0 26.5	Range (D) Range (D)	35	9394 9411	199,871 193,753	9.61
	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	
	2/12/52 8/78	14.02	20,545	100,318	544,444	20,165	544,444	
	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	
	2/12/52 8/78	6118	231	0.120	6118	231	0.120	
	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

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.
1952			9026	1965	4092.85	4092.16	14747
1953	4059.44	4048.66	16394	1966	4091.97	4088.76	7158
1954	4052.84	4048.95	2673	1967	4092.94	4088.53	19161
1955	4067.48	4046.35	37237	1968	4090.97	4088.93	7636
1956	4062.44	4054.15	10859	1969	4091.76	4088.45	12634
1957	4057.05	4052.51	5990	1970	4091.98	4088.76	12657
1958	4055.70	4050.27	6854	1971	4096.31	4088.47	
1959	4057.91	4049.88	5149	1972	4098.87	4093.78	
1960	4061.99	4050.99	10625	1973	4096.41	4094.32	
1961	4055.52	4049.35	964	1974	4095.74	4091.89	
1962	4079.70	4049.10	87761	1975	4094.46	4091.42	
1963	4085.02	4078.57	22162	1976	4093.73	4091.06	8804
1964	4091.76	4081.22	46777	1977	4096.56	4087.88	9189
				1978	4100.39	4087.64	114816

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
4020	0	0	4065	1953	26837	4110	13150	314055
4025	1	2	4070	2406	37735	4115	15085	384642
4030	41	107	4075	3227	51817	4120	16965	464767
4035	142	565	4080	3982	69840	4125	19055	554817
4040	331	1747	4085	5062	92450			
4045	536	3915	4090	6267	102772			
4050	763	7162	4095	7974	156375			
4055	1025	11632	4100	9645	200422			
4060	1552	18075	4105	11329	252857			

47. REMARKS AND REFERENCES

1/ Top surcharge El. 4128.73, capacity 634,229 AF