

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

Barrel Detention Dam

SCS-34 Rev. 6-66

NAME OF RESERVOIR

38-10a

DATA SHEET NO.

DAM	1. OWNER Ruth Gaskill				2. STREAM Unnamed				3. STATE Wyoming			
	4. SEC. 24 TWP. 41N RANGE 66W				5. NEAREST P.O. Newcastle				6. COUNTY Weston			
	7. LAT. 43° 30' " LONG. 104° 45' "				8. TOP OF DAM ELEVATION 105.7				9. SPILLWAY CREST ELEV. 100.7			
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		100.7		39.83		401.04		454.55		8/13/68	
	b. MULTIPLE USE										16. DATE NORMAL OPER. BEGAN	
	c. POWER										8/13/68	
	d. WATER SUPPLY											
	e. IRRIGATION											
	f. CONSERVATION											
g. INACTIVE 1/		84.7		10.62		53.51		53.51				
WATERSHED	17. LENGTH OF RESERVOIR 1.02 MILES				AV. WIDTH OF RESERVOIR 0.061 MILES							
	18. TOTAL DRAINAGE AREA 6.15 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 12.81 INCHES							
	19. NET SEDIMENT CONTRIBUTING AREA 4.77 2/ SQ. MI.				23. MEAN ANNUAL RUNOFF 1.9 INCHES							
	20. LENGTH 4.8 MILES		AV. WIDTH 1.25 MILES		24. MEAN ANNUAL RUNOFF 623.2 AC.-FT.							
	21. MAX. ELEV. 4532		MIN. ELEV. 4071.4		25. ANNUAL TEMP.: MEAN RANGE							
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.			
	8/13/68		-	-	Range	-	39.82	454.55	0.73			
	12/16/70		2.25	2.25	Range	9	39.82	438.38	0.70			
	11/11/71		1.00	3.25	Range	9	39.82	431.55	0.69			
	6/6/74		2.75	6.0	Range	9	39.82 ^{3/}	415.9 ^{3/}	0.67			
	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					
12/16/70		16.17	7.19	1.51	16.17	7.19	1.51					
11/11/71		6.83	6.83	1.43	23.0	7.08	1.48					
6/ 6/74		15.65	5.69	1.19	38.65	6.44	1.35					
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				
12/16/70		86.25	2836.6	2836.6	1.58	3.56						
11/11/71			2689.8	2780.2	1.56	5.06						
6/ 6/74			2241.2	2536.0	1.42	8.50						

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

1/ Sediment Pool only.
2/ 1.32 mi² noncontributing above ponds.
3/ Total Reservoir below crest elevation (100.7')
Land Use in Watershed: 100% Range
Geology: 100% Tullock member of Fort Union FM.

48. AGENCY MAKING SURVEY
49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE Feb. 21, 1975