

RESERVOIR SEDIMENT  
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

YUCCA (2-B)

NAME OF RESERVOIR

63-12

DATA SHEET NO.

DAM	1. OWNER USDI BLM		2. STREAM TRIB. OF BADGER WASH		3. STATE COLO.			
	4. SEC. 25 TWP. 8 S. RANGE 104 W.		5. NEAREST P.O. MACK, COLO.		6. COUNTY MESA			
	7. LAT. 39°20' " LONG. 108°57' "		8. TOP OF DAM ELEVATION 4,979		9. SPILLWAY CREST ELEV. 4,975.7			
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					Dec. 1953		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY	4,975.7	3.24 <sup>4/</sup>	8.45	8.45	16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION					Dec. 1953		
	g. INACTIVE							
WATERSHED	17. LENGTH OF RESERVOIR .139 MILES		AV. WIDTH OF RESERVOIR .037 MILES					
	18. TOTAL DRAINAGE AREA .158 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 8.75(38 yr) INCHES		1/			
	19. NET SEDIMENT CONTRIBUTING AREA .158 SQ. MI.		23. MEAN ANNUAL RUNOFF .47 (17 yr) INCHES					
	20. LENGTH .69 MILES AV. WIDTH .23 MILES		24. MEAN ANNUAL RUNOFF 3.95 (17 yr) AC.-FT.					
	21. MAX. ELEV. 5,110 MIN. ELEV. 4,960		25. ANNUAL TEMP: MEAN 51°F 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.
	12-6-53	--	--	Range D	6	1.84	8.45	2.14
	7-28-55	1.6	1.6	"	6	"	6.05	1.53
	11-4-56	1.3	2.9	"	6	"	6.05	1.53
	10-25-57	1.0	3.9	"	6	"	5.94	1.50
	11-20-58	1.1	5.0	"	6	"	5.94	1.50
	11-12-59	1.0	6.0	"	6	3.65 <sup>4/</sup>	24.80 <sup>4/</sup>	6.28
	11-2-61	2.0	8.0	"	6	"	24.18	6.12
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW, ACRE-Feet <sup>2/</sup>			36. WATER INFL. TO DATE, AC.-FT.		
			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE	
	12-6-53	--	--	--	--	--	--	--
	7-28-55	11.3	9.58	9.03	15.32	9.56	15.32	
	11-4-56	7.4	1.41	1.83	1.83	5.91	17.15	
	10-25-57	13.1	5.72	5.72	5.72	5.86	22.87	
	11-20-58	21.6	0	0	0	4.58	22.87	
11-12-59	5.8	3.27	3.27	3.27	4.35	26.14		
11-2-61	18.0	4.73	9.47	9.47	4.45	35.61		
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		
12-6-53	--	--	--	--	--	--		
7-28-55	2.40	1.50	9.50	2.40	1.50	9.50		
11-4-56	0	0	0	2.40	.83	5.25		
10-25-57	.11	.11	.70	2.51	.64	4.05		
11-20-58	0	0	0	2.51	.50	3.16		
11-12-59	.34	.34	2.15	2.85	.48	3.04		
11-2-61	.62	.31	1.96	3.47	.43	2.72		
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	
12-6-53	--	--	--	--	--	--	--	
7-28-55	90*	18,622	18,622	17.75	28.40	226,112	225,948	
11-4-56	"	--	10,291	9.82	28.40	--	201,839	
10-25-57	"	1,365	7,939	7.57	29.70	27,735	158,295	
11-20-58	"	--	6,194	5.92	29.70	--	158,295	
11-12-59	"	2,840	5,959	5.68	33.73	101,612	157,252	
11-2-61	"	3,846	5,332	5.09	41.06	94,433	140,545	

\*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION									
	18-16	16-14	14-12	12-10	10-8	8-6	6-4	4-2	2-0	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION									
10-25-57	0	4	29	40	18	9	0	0	0	
11-10-63	0	2	19	39	23	11	4	2	0	
10-25-67	0	2	15	31	34	13	3	2	0	

  

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														
11-4-56	26	30	9	8	14	6	3	2	1	1					
11-10-63	21	26	9	9	16	9	4	3	2	1					
10-25-67	20	25	10	9	16	9	5	3	2	1					

  

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW, AC.-FT.
1954	--	--	--	1966	64.94	64.6	.58
1955	68.73	62.6	8.12	1967	67.23	64.8	5.05
1956	--	--	0	1968	72.05	65.7	14.60
1957	66.42	62.9	5.72	1969	--	--	0
1958	--	--	0	1970	--	--	0
1959	65.22	63.3	3.28				
1960	--	--	0				
1961	69.19	63.5	9.47				
1962	67.38	63.7	3.32				
1963	65.42	63.9	1.43				
1964	67.79	64.2	3.70				
1965	67.52	64.7	4.30				

  

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
<u>ORIGINAL CAPACITY 1953</u>			<u>CAPACITY 1968</u>					
59	0	0	64.8	0	0			
60	.14	.08	66.0	.50	.11			
62	.53	.76	68.0	1.25	1.93			
64	.88	2.14	69.0	1.47	3.30			
66	1.22	4.23	70.0	1.75	4.91			
68	1.63	7.06	72.0	2.58	9.24			
69	1.89	8.82						
70	2.17	10.42						
72	3.00	14.75						

  

47. REMARKS AND REFERENCES

- 1/ From National Weather Service Record at Fruita, Colo.
- 2/ Inflow amounts recorded during April 1 to Nov. 1 season. This generally includes most of the inflow for the year.
- 3/ Capacity increase
- 4/ Dam and spillway raised in 1959.

Lusby, G. C., Turner, G. T., Thompson, J. R., and Reid, V. H., 1963, Hydrologic and biotic characteristics of grazed and ungrazed watersheds of Badger Wash basin in western Colorado, 1953-58: U.S. Geol. Survey Water-Supply Paper 1532-B.

Lusby, G. C., Reid, V. H., and Knipe, O. D., Effects of grazing on the hydrology and biology of the Badger Wash basin in western Colorado, 1953-66: U.S. Geol. Survey open-file report.

48. AGENCY MAKING SURVEY U.S. Geological Survey

49. AGENCY SUPPLYING DATA U.S. Geological Survey

50. DATE 11/71

RESERVOIR SEDIMENT  
DATA SUMMARY

YUCCA (2-B)--Cont.

SCS-34 Rev. 6-66

NAME OF RESERVOIR

63-12

DATA SHEET NO.

DAM	1. OWNER		2. STREAM		3. STATE			
	4. SEC.	TWP.	RANGE		5. NEAREST P. O.			
	7. LAT.		" LONG.		8. TOP OF DAM ELEVATION			
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							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE								
WATERSHED	17. LENGTH OF RESERVOIR			MILES				
	18. TOTAL DRAINAGE AREA			SQ. MI.				
	19. NET SEDIMENT CONTRIBUTING AREA			SQ. MI.				
	20. LENGTH			MILES				
	21. MAX. ELEV.			MIN. ELEV.				
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.					
	11-10-63	2.0	10.0	Range D	6	1.84		
	11-5-64	1.0	11.0	"	6	"		
	11-4-65	1.0	12.0	"	6	"		
	11-3-66	1.0	13.0	"	6	"		
	10-25-67	1.0	14.0	"	6	"		
	11-9-68	1.0	15.0	"	6	"		
	11-4-69	1.0	16.0	"	6	"		
	26. DATE OF SURVEY		34. PERIOD ANNUAL PRECIPITATION			35. PERIOD WATER INFLOW, ACRE-Feet <sup>4/</sup>		
			a. MEAN ANNUAL		b. MAX. ANNUAL		c. PERIOD TOTAL	
			a. MEAN ANNUAL		b. TOTAL TO DATE			
	11-10-63	17.6	2.38		3.32		4.75	
	11-5-64	5.0	3.70		3.70		4.00	
11-4-65	10.7	4.31		4.31		4.03		
11-3-66	6.2	0		0		3.72		
10-25-67	16.9	5.05		5.05		3.81		
11-9-68	20.8	14.06		14.06		4.50		
11-4-69	16.9	0		0		4.21		
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		
11-10-63	.29	.15		.95		3.76		
11-5-64	.44	.44		2.78		4.20		
11-4-65	.30 <sup>3/</sup>	.30 <sup>3/</sup>		1.90		4.50		
11-3-66	-.08 <sup>3/</sup>	-.08 <sup>3/</sup>		--		4.50		
10-25-67	.37	.37		2.34		4.87		
11-9-68	.98 <sup>3/</sup>	.98 <sup>3/</sup>		6.20		5.85		
11-4-69	-.24 <sup>3/</sup>	-.24 <sup>3/</sup>		--		5.85		
26. DATE OF SURVEY		39. AV. DRY WGT., LBS. PER CU. FT.		40. SED. DEP., TONS PER SQ. MI.-YR.		41. STORAGE LOSS, PCT.		
		a. PERIOD		b. TOTAL TO DATE		a. PERIOD		
		a. PERIOD		b. TOT. TO DATE		b. TOT. TO DATE		
11-10-63	90*	1,110		4,704		4.50		
11-5-64	"	5,459		4,704		4.50		
11-4-65	"	3,722		4,587		4.38		
11-3-66	"	--		4,352		4.14		
10-25-67	"	4,590		4,352		4.14		
11-9-68	"	12,158		4,842		4.62		
11-4-69	"	--		4,587		4.38		

<sup>4/</sup> Capacity increase was not considered in computations of storage loss.

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															
48. AGENCY MAKING SURVEY															
49. AGENCY SUPPLYING DATA USGS															
50. DATE 11/71															

RESERVOIR SEDIMENT  
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

Yucca (2-B)

SCS-34 Rev. 6-66

NAME OF RESERVOIR

63-12 a

DATA SHEET NO.

DAM	1. OWNER			2. STREAM			3. STATE														
	4. SEC.		TWP.	RANGE		5. NEAREST P.O.			6. COUNTY												
	7. LAT.		" LONG.			" 8. TOP OF DAM ELEVATION			9. SPILLWAY CREST ELEV.												
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																				
	c. POWER																				
	d. WATER SUPPLY								8.45		16. DATE NORMAL OPER. BEGAN										
	e. IRRIGATION																				
	f. CONSERVATION																				
g. INACTIVE																					
WATERSHED	17. LENGTH OF RESERVOIR						MILES			AV. WIDTH OF RESERVOIR			MILES								
	18. TOTAL DRAINAGE AREA						SQ. MI.			22. MEAN ANNUAL PRECIPITATION						INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA						1.58			SQ. MI.			23. MEAN ANNUAL RUNOFF						INCHES		
	20. LENGTH			MILES			AV. WIDTH			MILES			24. MEAN ANNUAL RUNOFF			3.95			AC. FT.		
21. MAX. ELEV.			MIN. ELEV.			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.								
	10-28-70		1	17.0	Range D		6		1.84		22.12		5.6								
	11-17-71		1	18.0	"		6		"		22.16		5.6								
	11-08-72		1	19.0	"		6		"		22.13		5.6								
	10-18-73		1	20.0	"		6		"		22.01		5.6								
	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											
	10-28-70		7.43		0	0	0		3.97	67.48											
	11-17-71		7.88		.13	.13	.13		3.76	67.61											
	11-08-72		6.60		.32	.32	.32		3.58	67.93											
10-18-73		9.65		.26	.26	.26		3.41	68.19												
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									
10-28-70		0		0		0		5.85		.34		2.15									
11-17-71		-.04 <sup>3/</sup>		—		—		5.85		.32		2.03									
11-08-72		.03		.03		.19		5.88		.31		1.96									
10-18-73		.12		.12		.76		6.00		.30		1.90									
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												
10-28-70		90*		0	4,214	4.07	69.23														
11-17-71		"		0	3,979	3.85	69.23														
11-08-72		"		372	3,842	3.66	69.58														
10-18-73		"		1,490	3,724	3.55	71.00														

25. 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

48. AGENCY MAKING SURVEY  
 49. AGENCY SUPPLYING DATA U. S. Geological Survey  
 50. DATE January 1977