

RESERVOIR SEDIMENTATION
DATA SUMMARY

Fiddlers Canyon Debris Basin

66-11

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER --		2. RIVER Fiddlers Canyon		3. STATE Utah			
	4. SEC. 26 & 35 TWP. 35S RANGE 11W		5. NEAREST TOWN Cedar City		6. COUNTY Iron			
	7. STREAM BED ELEV. --		8. TOP OF DAM ELEV. --		9. SPILLWAY CREST ELEV. --			
RESERVOIR	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. SURFACE AREA ACRES	13. STORAGE ACRE- FEET	14. ACCUMULATED ACRE- FEET	15. DATE STORAGE BEGAN		
	a. FLOOD CONTROL	--	3.36	15.0*	15.0*	1947		
	b. POWER							
	c. WATER SUPPLY							
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN		
	e. CONSERVATION							
f. INACTIVE						1947		
WATERSHED	17. LENGTH OF RESERVOIR 0.11 MILES		AV. WIDTH OF RESERVOIR 0.046 MILES					
	18. TOTAL DRAINAGE AREA 12.6 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 10-20 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 12.6 SQ. MI.		23. MEAN ANNUAL RUNOFF 0.25* INCHES					
	20. LENGTH 6.0 MILES AV. WIDTH 2.1 MILES		24. MEAN ANNUAL RUNOFF 1680* AC.-FT.					
	21. MAX. ELEV. 9600 MIN. ELEV. 5500		25. CLIMATIC CLASSIFICATION Semi-arid					
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/W RATIO AC.-FT. PER SQ. MI.
	1947	-	-	-	-	3.36	16.46 ^{1/}	1.3
	11/1/56	9	9	Range (R)	10	3.36	0.0	1.2 ±
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION	35. PERIOD WATER INFLOW ACRE- FEET			36. WATER INFL. TO DATE AQ.-FT.		
			a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE	
	11/1/56	10-20	1680*	--	15,120*	--	--	
	26. DATE OF SURVEY	37. PERIOD SEDIMENT DEPOSITS 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	
	11/1/56	16.46 ^{1/}	1.83	0.145 ^{2/}	16.46 ^{1/}	1.83	0.145 ^{2/}	
	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. ANNUAL	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE	
11/1/56	70*	221	221	100	100	1221	1221	

* Assumed

^{1/} Includes deposition above crest of spillway

^{2/} A large portion of fines have passed through the spillway

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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
	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						
No data available														
47. REMARKS AND REFERENCES														
A small basin located about 1/4 mile below has trapped 3.7 ac. ft. of sediment. Flood which filled Fiddlers debris basin and overtopped basin located below occurred in 1955. A large flood occurred previous to this in 1903 or 1904.														
48. AGENCY SUPPLYING DATA				Soil Conservation Service				49. DATE		9/19/61				

**RESERVOIR SEDIMENT
DATA SUMMARY**

SCS-34 Rev. 6-62

Fiddlers Canyon Debris Basin
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

66- 11a

DATA SHEET NO.

DAM	1. OWNER --				2. STREAM Fiddlers Canyon		3. STATE Utah								
	4. SEC. 26&35 TWP. 35S RANGE 11W			5. NEAREST TOWN Cedar City		6. COUNTY Iron									
	7. STREAM BED ELEVATION --				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. MULTIPLE USE										1947				
	b. FLOOD CONTROL		--		3.36		15.0*		15.0*						
	c. POWER										16. DATE NORMAL OPER. BEGAN				
	d. WATER SUPPLY														
	e. IRRIGATION														
	f. CONSERVATION														
	g. SEDIMENT										1947				
	h. INACTIVE														
17. LENGTH OF RESERVOIR 0.11 MILES				AV. WIDTH OF RESERVOIR 0.046 MILES											
WATERSHED	18. TOTAL DRAINAGE AREA 12.6 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 10-20 INCHES										
	19. NET SEDIMENT CONTRIBUTING AREA 12.6 SQ. MI.				23. MEAN ANNUAL RUNOFF 0.25* INCHES										
	20. LENGTH 6.0 MILES		AV. WIDTH 2.1 MILES		24. MEAN ANNUAL RUNOFF 168.0* AC.-F.T.										
	21. MAX. ELEV. 9,600		MIN. ELEV. 5,500		25. CLIMATIC CLASSIFICATION Semi-arid										
	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/W RATIO AC.-FT. PERSQ. MI.
11-1-56		9		9		Range (R)		10		3.36		15.0*		1.2*	
SURVEY DATA	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						
	11-1-56		10-20		168.0*	--	1,512.0*	168.0*	1,512.0*						
	26. DATE OF SURVEY		37. PERIOD SEDIMENT DEPOSITS 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							
11-1-56		16.46 <u>1/</u>	1.83	0.145 <u>2/</u>	16.46 <u>1/</u>	1.83	0.145 <u>2/</u>								
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. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE								
11-1-56		70*	221	221	100	100	12,210	12,210							

* Assumed

1/ Includes some deposition above crest of spillway

2/ A large portion of fines have passed through the spillway

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET ABOVE, AND BELOW, 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
--	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
No data available.								

47. REMARKS AND REFERENCES
 A small basin located about 1/4 mile below has trapped 3.7 ac. ft. of sediment. Flood which filled Fiddlers debris basin and overtopped basin located below occurred in 1955. A large flood occurred previous to this in 1903 or 1904.

48. AGENCY MAKING SURVEY
 49. AGENCY SUPPLYING DATA SCS, WPS, Salt Lake City, Utah
 50. DATE 9/19/61