

RESERVOIR SEDIMENTATION
DATA SUMMARY

East Canyon
NAME OF RESERVOIR

65-1

DATA SHEET NO.

Canal Co.

DAM	1. OWNER Davis & Weber Counties/			2. RIVER East Canyon Creek			3. STATE Utah									
	4. SEC. 10 TWP. 2N RANGE 3E			5. NEAREST TOWN Morgan, Utah			6. COUNTY Morgan									
	7. STREAM BED ELEV. 5550			8. TOP OF DAM ELEV.			9. SPILLWAY CREST ELEV. 5691									
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										1896					
	b. POWER															
	c. WATER SUPPLY															
	d. IRRIGATION		5691				3,850		1/ 3,850		16. DATE NORMAL OPER. BEGAN					
	e. CONSERVATION										1896					
	f. INACTIVE															
WATERSHED	17. LENGTH OF RESERVOIR 4.75 MILES						AV. WIDTH OF RESERVOIR .26 MILES									
	18. TOTAL DRAINAGE AREA 144 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 18.44 (Morgan) INCHES											
	19. NET SEDIMENT CONTRIBUTING AREA 144 SQ. MI.				23. MEAN ANNUAL RUNOFF 5.1 INCHES											
	20. LENGTH 24 MILES		AV. WIDTH 6 MILES		24. MEAN ANNUAL RUNOFF 3/ 39,200 AC.-FT.											
	21. MAX. ELEV. 9342		MIN. ELEV. 5550		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.	
	1896						R				400		1/ 3,850		26.8	
	Oct. 1954		58		58				16 (M)		28,730				199	
	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		d. MEAN ANNUAL		e. TOTAL TO DATE			
	Oct. 1954		18.44" (Morgan)		2/ 39,200		Since 1928 76,700 (1952)		2/2,273,600		3/ 39,200		2/2,273,600			
	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		d. TOTAL TO DATE		e. AV. ANNUAL		f. PER SQ. MI.-YEAR			
	Oct. 1954		1030		17.8		.124		1030		17.8		.124			
	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		c. AV. ANNUAL		d. TOT. TO DATE		e. PERIOD		f. TOT. TO DATE		
Oct. 1954		4/ 77.1		208		208		0.06		3.59		559		559		

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	-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.
1938	5/ 141	5/ 0	44,500	1947	5/ 141	5/ 28	42,700
1939	136	97	27,300	1948	140	114	54,100
1940	139	66	18,000	1949	141	89	49,600
1941	128	66	24,500	1950	141	91	61,800
1942	141	105	39,300	1951	141	97	42,300
1943	142	104	39,800	1952	141	68	76,700
1944	142	106	39,000	1953	141	83	34,100
1945	141	121	32,300	1954	122	0	17,500
1946	141	0	45,800				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES
 1/ Formed by original rock fill dam 58 feet high which was subsequently raised in 1900, 1902, and 1916.
 2/ Records available for period 1928-54, incl. Remaining period 1898-1927 assumed to be mean. Evaporation estimated at 1,000 acre-ft/yr.
 3/ Mean for period 1928-54, incl. Data from "Report of Sedimentation Survey Made on Echo Reservoir and East Canyon Reservoir in October 1954," Region 4, Bureau of Reclamation, Salt Lake City, Utah
 4/ Computed from Size Analysis (Report No. 9).
 5/ Staff gage = 0 at bottom outlet works.
 Particle Size Analysis--See attached sheet.

48. AGENCY SUPPLYING DATA U.S. Department of the Interior 49. DATE 9-1-55

Bureau of Reclamation, Region 4,
 Salt Lake City, Utah

No. 47

Particle Size Analysis

1. East Canyon-Upper End Reservoir	1%	between .59	and .297	mm
	7%	"	.297	" .074 "
	10%	"	.074	" .05 "
	60%	"	.05	" .005 "
	6%	"	.005	" .002 "
	16%	smaller than	.002	mm
2. East Canyon Reservoir--Central Section	1%	between .074	and .05	mm
	46%	"	.05	" .005 "
	10%	"	.005	" .002 "
	43%	smaller than	.002	mm