

U.S. DEPARTMENT OF AGRICULTURE
**RESERVOIR SEDIMENTATION
 DATA SUMMARY**

Mortenson
 NAME OF RESERVOIR

SOIL CONSERVATION SERVICE
36-12^a
 DATA SHEET NO.

DAM	1. OWNER <u>Mortenson</u>				2. RIVER		3. STATE <u>Iowa</u>		
	4. SEC. <u>3</u> TWP. <u>90N</u> RANGE <u>40W</u>			5. NEAREST TOWN <u>Cherokee</u>		6. COUNTY <u>Cherokee</u>			
	7. STREAM BED ELEV.				8. TOP OF DAM ELEV.		9. SPILLWAY CREST ELEV. <u>1,282.0</u>		
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	<u>1,295.0</u>	<u>19.1</u>	<u>165.1</u>	<u>229.0</u>	<u>Oct. 1949</u>			
	b. POWER								
	c. WATER SUPPLY								
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN			
	e. CONSERVATION	<u>1,282.0</u>	<u>7.6</u>	<u>63.4</u>	<u>63.4</u>	<u>Oct. 1949</u>			
	f. INACTIVE								
17. LENGTH OF RESERVOIR				MILES	AV. WIDTH OF RESERVOIR		MILES		
WATERSHED	18. TOTAL DRAINAGE AREA <u>1.39</u>			SQ. MI.	22. MEAN ANNUAL PRECIPITATION			INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA <u>1.37</u>			SQ. MI.	23. MEAN ANNUAL RUNOFF <u>4.3 est.</u>			INCHES	
	20. LENGTH		MILES	AV. WIDTH		MILES	24. MEAN ANNUAL RUNOFF		AC.-FT.
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION				
	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.	
<u>Oct. 12, 1950</u>	<u>-</u>	<u>-</u>	<u>Detailed</u>	<u>34 ranges</u>	<u>7.6</u>	<u>229.0</u>	<u>165</u>		
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	d. MEAN ANNUAL	e. TOTAL TO DATE		
SURVEY DATA	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		
SURVEY DATA	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	

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.

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

47. REMARKS AND REFERENCES

(1) Below crest. Original capacity inflow ratio estimated to be 0.199. Tral efficiency estimated to be 93%.
 Survey was also made in 1949 after construction, but was not used, as rocks and debris were dumped into the reservoir after this survey, but before the 1950 survey.
 In Little Sio x Watershed.

48. AGENCY SUPPLYING DATA SCS, Milwaukee, Wis. 49. DATE July 9, 1952