

RESERVOIR SEDIMENTATION
DATA SUMMARY

Theobold Lateral C

NAME OF RESERVOIR

36-10

DATA SHEET NO.

DAM	1. OWNER Theobold			2. RIVER			3. STATE Iowa				
	4. SEC. 34 TWP. 88N RANGE 44W			5. NEAREST TOWN Anthony			6. COUNTY Woodbury				
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.			9. SPILLWAY CREST ELEV. 1279.0				
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	1,279.0	6.58	23.1	37.5	Sept. 1948					
	b. POWER										
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN					
	d. IRRIGATION										
	e. CONSERVATION	1,274.1	3.44	14.4	14.4	Sept. 1948					
	f. INACTIVE	1,265.0	0	0	0						
17. LENGTH OF RESERVOIR		MILES		AV. WIDTH OF RESERVOIR		MILES					
WATERSHED	18. TOTAL DRAINAGE AREA		0.250	SQ. MI.		22. MEAN ANNUAL PRECIPITATION		29.67 (40 in) INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA		0.234	SQ. MI.		23. MEAN ANNUAL RUNOFF		3.8 estimate INCHES			
	20. LENGTH		MILES		AV. WIDTH		MILES		24. MEAN ANNUAL RUNOFF		AC.-FT.
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION				Sub-Humid		
	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 1/ AC.-FT. PER SQ. MI.		
Nov. 17, 1948		-	-	Detailed	Contour (2 ft.)	6.58 (3.44)	37.5 (14.4)	150			
Jul. 27, 1950		1.70	1.70	"	"	6.58 (3.44)	34.5 (11.4)	138			
May 25, 1951		0.83	2.53	"	"	6.58 (3.44)	34.3 (11.2)	137			
May 2, 1952		0.94	3.47	"	"	6.58 (3.44)	33.5 (10.4)	134			
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			
	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				
	Jul. 27, 1950	3.04	1.79	7.65	3.04	1.79	7.65				
	May 25, 1951	0.210	0.253	1.08	3.25	1.28	5.47				
	May 2, 1952	0.797	0.848	3.60	4.05	1.17	5.00				
	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			
Jul. 27, 1950	67.9 assumed	11,313	11,313	4.77	8.11	-	-				
May 25, 1951	67.9 "	1,597	8,931	3.41	8.67	-	-				
May 2, 1952	67.9 (3)	5,324	7,394	3.12	10.8	-	-				

1/ G/I ratio is estimated to be 0.74 in 1948; 0.68 in 1950; 0.67 in 1951; and 0.66 in 1952. Trap efficiency estimated to be 95% up to 1952.

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

"Dry" reservoir in Little Sioux Watershed.
 Total load adjusted for trap efficiency 7,800 tons/sq.mi./yr.