

RESERVOIR SEDIMENTATION
DATA SUMMARY

LOCKHART FARM POND

33-2

NAME OF RESERVOIR
Unnamed tributary

DATA SHEET NO.

DAM	1. OWNER L. G. Lockhart			2. RIVER of North Platte Riv.		3. STATE Nebraska		
	4. SEC. SE 433 TWP. RANGE 55W		5. NEAREST TOWN Gering		6. COUNTY Scotts Bluff			
	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					Aug. 1939		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION			3.99	15.64	15.64	Aug. 1939	
	f. INACTIVE							
17. LENGTH OF RESERVOIR 0.21 MILES; AV. WIDTH OF RESERVOIR 0.02 MILES								
WATERSHED	18. TOTAL DRAINAGE AREA 2.564 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 15.57(63) INCHES				
	19. NET SEDIMENT CONTRIBUTING AREA 2.558 SQ. MI.			23. MEAN ANNUAL RUNOFF 0.5 INCHES				
	20. LENGTH 2.36 MILES		AV. WIDTH 1.08 MILES		24. MEAN ANNUAL RUNOFF 68.4 AC.-FT.			
	21. MAX. ELEV.		MIN. ELEV.		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.
	Aug. 1939	-	-	-	-	3.99	15.64	6.1
	July 1952	12.9	12.9	D	8 Ranges	3.50	8.83	3.4
	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	
	July 1952	14.85 ²	-	-	-	-	-	-
	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	
		July 1952	6.813	0.528	0.206	6.813	0.528	0.206
		0.822 ⁴	0.064	0.025	0.822	0.064	0.025	
	(7.635)	(0.592)	(0.231)	(7.635)	(0.592)	(0.231)		
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	
July 1952	57.3(6)	257	257	3.38	43.6	-	-	
		<u>31</u>	<u>31</u>					
		(288)	(288)					

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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/ Main arm - 0.21 mi.; side arm 0.06 miles
 2/ From Scottsbluff, Nebraska, rainfall record.
 3/ From Colby & Oltman, Discharge and runoff in Mo. River Basin, 1948.
 4/ Above crest deposits include upstream above flow line deposits.
 (Drainage area includes a partial sediment trap for 0.133 square miles and is estimated to retain 0.04 acre feet of sediment per yr.)

48. AGENCY SUPPLYING DATA USDA, Soil Conservation Service,
 Engr. & Watershed Planning Unit
 Lincoln, Nebraska

49. DATE Dec. 6, 19 54