

RESERVOIR SEDIMENT
DATA SUMMARY

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

SCS-34 Rev. 6-66

Marindahl
NAME OF RESERVOIR

36-23

DATA SHEET NO.

DAM	1. OWNER <u>SD Dept. GF&P</u>			2. STREAM <u>Clay Creek</u>			3. STATE <u>South Dakota</u>			
	4. SEC. <u>20</u> TWP. <u>95N</u> RANGE <u>54W</u>			5. NEAREST P.O. <u>Irene 6NE</u>			6. COUNTY <u>Yankton</u>			
	7. LAT. <u>42° 35' 3"</u> LONG. <u>97° 15' 46"</u>			8. TOP OF DAM ELEVATION <u>1,329.9</u>			9. SPILLWAY CREST ELEV. <u>1,328.0</u>			
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. FLOOD CONTROL					2/53 ^{2/}				
	b. MULTIPLE USE <u>1/</u>	<u>1,321.0</u>	<u>146</u>	<u>2,228</u>	<u>2,228</u>					
	c. POWER									
	d. WATER SUPPLY									
	e. IRRIGATION					16. DATE NORMAL OPER. BEGAN				
	f. CONSERVATION					<u>7/54</u> ^{2/}				
	g. INACTIVE									
WATERSHED	17. LENGTH OF RESERVOIR		<u>1.59</u> MILES	AV. WIDTH OF RESERVOIR		<u>0.14</u> MILES				
	18. TOTAL DRAINAGE AREA			<u>61.9</u> SQ. MI.	22. MEAN ANNUAL PRECIPITATION			<u>25</u> INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA			<u>57.6</u> ^{3/} SQ. MI.	23. MEAN ANNUAL RUNOFF			<u>0.75</u> INCHES		
	20. LENGTH	<u>22.5</u> MILES	AV. WIDTH	<u>2.75</u> MILES	24. MEAN ANNUAL RUNOFF			<u>2,476</u> AC.-FT.		
	21. MAX. ELEV.	<u>1,730</u>	MIN. ELEV.	<u>1,321</u>	25. ANNUAL TEMP: MEAN <u>49.10</u> RANGE <u>114° to -38°</u> F.					
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/I. RATIO, AC.-FT. PER AC.-FT.		
	<u>7/54</u>		<u>0</u>	<u>0</u>	<u>-</u>	<u>146</u>	<u>2,228</u>	<u>0.90</u>		
	<u>7/72</u>	<u>18</u>	<u>18</u>	<u>Range</u>	<u>11</u>	<u>146</u>	<u>2,034</u>	<u>0.82</u>		
	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				
	<u>7/72</u>	<u>1954-72</u> <u>24"</u>	<u>2,476</u>	<u>-</u>	<u>44,568</u>	<u>2,476</u>	<u>44,568</u>			
	26. DATE OF SURVEY	37. PERIOD CAPACITY LOSS, 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			
	<u>7/72</u>	<u>194</u>	<u>10.8</u>	<u>0.19</u>	<u>194</u>	<u>10.8</u>	<u>0.19</u>			
	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. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE				
<u>7/72</u>	<u>46.74</u>	<u>193.4</u>	<u>193.4</u>	<u>0.48</u>	<u>8.7</u>	<u>150</u>	<u>3,260</u>			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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														
7/8/72	8	6.5	4	8	19	16	12	8	11	6	1.5				
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							
	(Acres)	(Ac.-Ft)													
Original Capacity		1954	1,290	20.4	98.1										
1,330	209.5	3,919.1	1,285	8.2	26.6										
1,320	140.4	2,169.6	1,280	1.2	3.0										
1,315	113.8	1,534.0	1,275	0.0	0.0										
1,310	85.8	1,034.9													
1,305	67.5	651.7													
1,300	38.0	388.0													
1,295	28.8	221.0													
47. REMARKS AND REFERENCES															
<p>1/ Flood control and recreation.</p> <p>2/ Bad leakage problems developed and repaired between 2/53 and 7/54. Land use in watershed- 77% cropland, 15% pasture and hayland, 4% woodland, 2.5% roads, 1.5% farmstead. Geology - thin mantle of Wisconsin drift overlying either Cretaceous Pierre shale or Niobrara Marl.</p> <p>3/ Excludes pothole areas and reservoir area.</p>															
48. AGENCY MAKING SURVEY USDA-SCS, Huron, S. Dak.										50. DATE 3-17-76					
49. AGENCY SUPPLYING DATA USDA-SCS, Huron, S. Dak.															