U.S. DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

# RESERVOIR SEDIMENTATION DATA SUMMARY

Split Rock — NAME OF RESERVOIR

36-1 — DATA SHEET NO.

## DAM

| | | |
|---|---|---|
| 1. OWNER Minnesota Conservation Dept. | 2. RIVER Trib. of Big Sioux R. | 3. STATE Minnesota |
| 4. SEC. 15 TWP. 105N RANGE 46W | 5. NEAREST TOWN Ihlen | 6. COUNTY Pipestone |
| 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 | | | | | July 1938 |
| b. POWER | | | | | |
| c. WATER SUPPLY | | | | | 16. DATE NORMAL OPER. BEGAN |
| d. IRRIGATION | | | | | |
| e. CONSERVATION | | 120.6 | 899.0 | 899.0 | July 1938 |
| f. INACTIVE | | | | | |

17. LENGTH OF RESERVOIR ____ MILES; AV. WIDTH OF RESERVOIR ____ MILES

## WATERSHED

| | | | |
|---|---|---|---|
| 18. TOTAL DRAINAGE AREA 41.3 SQ. MI. | | 22. MEAN ANNUAL PRECIPITATION 23 (32) | INCHES |
| 19. NET SEDIMENT CONTRIBUTING AREA 41.1 SQ. MI. | | 23. MEAN ANNUAL RUNOFF 1.3* | INCHES |
| 20. LENGTH ____ MILES; AV. WIDTH ____ | MILES | 24. MEAN ANNUAL RUNOFF | AC.-FT. |
| 21. MAX. ELEV. ____ MIN. ELEV. ____ | | 25. CLIMATIC CLASSIFICATION Sub-Humid | |

## 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. |
|---|---|---|---|---|---|---|---|
| July 1938 | - | - | - | - | 120.6 | 899.0 | 21.8 |
| June 1949 | 10.9 | 10.9 | Range Detailed | 18 | 114.8 | 692.1 | 16.8 |

| 26. DATE OF SURVEY | 34. PERIOD ANNUAL PRECIPITATION | 35. PERIOD WATER INFLOW ~~ACRE-FEET~~ a. MEAN ANNUAL | b. MAX. ANNUAL | c. PERIOD TOTAL | 36. WATER INFL. TO DATE ~~ACRE-FEET~~ d. MEAN ANNUAL | b. TOTAL TO DATE |
|---|---|---|---|---|---|---|
| June 1949 | 23 | (inches) 2.0* | | | (inches) 2.0* | |

| 26. DATE OF SURVEY | 37. PERIOD SEDIMENT DEPOSITS ACRE-FEET a. PERIOD TOTAL | b. AV. ANNUAL | c. PER SQ. MI.-YEAR | 38. TOTAL SED. DEPOSITS TO DATE ACRE-FEET. a. TOTAL TO DATE | b. AV. ANNUAL | c. PER SQ. MI.-YEAR |
|---|---|---|---|---|---|---|
| June 1949 | 206.9 (211.4) 1/ | 19.0 (19.4) | 0.462 (0.472) | 206.9 (211.4) | 19.0 (19.4) | 0.462 (0.472) |

| 26. DATE OF SURVEY | 39. AV. DRY WGT. LBS. PER CU. FT. | 40. SED. DEP. TONS PER SQ. MI.-YR. a. PERIOD | b. TOTAL TO DATE | 41. STORAGE LOSS PCT. a. AV. ANNUAL | b. TOT. TO DATE | 42. SED. INFLOW PPM a. PERIOD | b. TOT. TO DATE |
|---|---|---|---|---|---|---|---|
| June 1949 | 42.8 (6) | 431 (440) | 431 (440) | 2.11 | 23.0 | 2,960 2/ (3,020) 2/ | 2,960 2/ (3,020) 2/ |

* Estimated

1/ Above-crest deposits within original flow line

| 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 LENGH 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. U.S.D.A. Yearbook of Agriculture, Washington, D.C., 1941.

2. Gottschalk, L.C., and Brune, G.M. Sediment design criteria for the Missouri Basin Loess Hills. Soil Conserv. Serv. SCS-TP-97, Milwaukee, Wisconsin, 1950.

Checked and approved by R. E. Johnson, Research Supervisor, Fisheries Research Unit, Div. of Game and Fish, Minnesota Dept. of Conservation, St.Paul 1, Minn. "Survey by Pittman-Robertson game research unit substantiates this survey."

2/ $42 = \frac{37b \times 39 \times 1{,}000{,}000}{35a \times 18 \times \frac{640 \times 62.4}{12}}$

48. AGENCY SUPPLYING DATA Region 3, Soil Conservation Service
U. S. Dept. of Agriculture, Milwaukee, Wis.

49. DATE January 11, 1950

AGR-SCS-BELTSVILLE, MD. 2323 MARCH 1952