

**RESERVOIR SEDIMENT  
DATA SUMMARY**

SCS-34 Rev. 6-62

Lake Vermillion  
NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

36-17

DATA SHEET NO.

|                                   |  |           |   |                              |   |   |                                 |                                 |                                   |  |                             |  |
|-----------------------------------|--|-----------|---|------------------------------|---|---|---------------------------------|---------------------------------|-----------------------------------|--|-----------------------------|--|
| DAM                               | 1. OWNER S.D. Dept. of Fish-Parks                |           |   | 2. STREAM Vermillion         |   |   | 3. STATE South Dakota           |                                 |                                   |  |                             |  |
|                                   | 4. SEC. 34 TWP. 102 RANGE 53                     |           |   | 5. NEAREST TOWN Montrose     |   |   | 6. COUNTY McCook                |                                 |                                   |  |                             |  |
|                                   | 7. STREAM BED ELEVATION 478.6                    |           |   | 8. TOP OF DAM ELEVATION 510* |   |   | 9. SPILLWAY CREST ELEV. 500*    |                                 |                                   |  |                             |  |
| 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. MULTIPLE USE                                  |           |   |                              |   |   |                                 |                                 |                                   |  | March 1959                  |  |
|                                   | b. FLOOD CONTROL                                 |           |   |                              |   |   |                                 |                                 |                                   |  |                             |  |
|                                   | c. POWER   |           |   |                              |   |   |                                 |                                 |                                   |  |                             |  |
|                                   | d. WATER SUPPLY                                  |           | 500                                     |                              | 618.4                                     |   | 5173.7                          |                                 | 5173.7                            |  | 16. DATE NORMAL OPER. BEGAN |  |
|                                   | e. IRRIGATION                                    |           |   |                              |   |   |                                 |                                 |                                   |  | March 1959                  |  |
|                                   | f. CONSERVATION                                  |           |   |                              |   |   |                                 |                                 |                                   |  |                             |  |
|                                   | g. SEDIMENT                                      |           |   |                              |   |   |                                 |                                 |                                   |  |                             |  |
|                                   | h. INACTIVE                                      |           |   |                              |   |   |                                 |                                 |                                   |  |                             |  |
| 17. LENGTH OF RESERVOIR 3.5 MILES |  |           |   |                              | AV. WIDTH OF RESERVOIR 0.28 MILES         |   |                                 |                                 |                                   |  |                             |  |
| WATERSHED                         | 18. TOTAL DRAINAGE AREA 402.9 SQ. MI.            |           |   |                              | 22. MEAN ANNUAL PRECIPITATION 22.0 INCHES |   |                                 |                                 |                                   |  |                             |  |
|                                   | 19. NET SEDIMENT CONTRIBUTING AREA 402.0 SQ. MI. |           |   |                              | 23. MEAN ANNUAL RUNOFF 0.81 INCHES        |   |                                 |                                 |                                   |  |                             |  |
|                                   | 20. LENGTH 38 MILES                              |           | AV. WIDTH 11 MILES                      |                              | 24. MEAN ANNUAL RUNOFF 17400 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. |  |                             |  |
|                                   | March 1959                                       |           | -                                       | -                            | -   | -   | 618.4                           | 5173.7                          | 12.8                              |  |                             |  |
|                                   | June 1964  |           | 5.25                                    | 5.25                         | Range D                                   | 10 R  | 618.4                           | 4927.5                          | 12.2                              |  |                             |  |
|                                   | 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                  |  |                             |  |
|                                   | June 1964  |           | 31.0                                    |                              | 29250                                     | 64320                                       | 153562                          | 29250                           | 153562                            |  |                             |  |
|                                   | 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             |                                   |  |                             |  |
|                                   | June 1964  |           | 246.2                                   | 46.9                         | 0.117                                     | 246.2                                       | 46.9                            | 0.117                           |                                   |  |                             |  |
|                                   | 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. AN.                   | b. TOT. TO DATE                           | a. PERIOD                                   | b. TOT. TO DATE                 |                                 |                                   |  |                             |  |
| June 1964                         |  | 35        | 89                                      | 89                           | 0.90                                      | 4.8   | 902                             | 902                             |                                   |  |                             |  |

\*Assumed

|                    |   |  |  |  |  |  |  |  |  |  |  |  |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|
| 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          |       |       |       |       |       |       |       |       |        |      |      |      |      |      |
| June 1964          | 3.0   | 4.0   | 6.0   | 9.0   | 11.0  | 18.0  | 20.0  | 15.0  | 11.0  | 3.0    |      |      |      |      |      |

| 45. RANGE IN RESERVOIR OPERATION |            |            |                |            |            |            |                |
|----------------------------------|------------|------------|----------------|------------|------------|------------|----------------|
| WATER YEAR                       | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. | WATER YEAR | MAX. ELEV. | MIN. ELEV. | INFLOW AC.-FT. |
| <u>1/</u>                        |            |            |                |            |            |            |                |

| 46. ELEVATION-AREA-CAPACITY DATA |      |          |           |      |          |           |      |          |
|----------------------------------|------|----------|-----------|------|----------|-----------|------|----------|
| ELEVATION                        | AREA | CAPACITY | ELEVATION | AREA | CAPACITY | ELEVATION | AREA | CAPACITY |
| <u>1/</u>                        |      |          |           |      |          |           |      |          |

47. REMARKS AND REFERENCES  
1/ Data not available

Watershed Land Use  
65% Cropland  
35% Pasture

Geology  
Wisconsin Age glacial drift.

48. AGENCY MAKING SURVEY  
49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE April 1, 1965

Huron, South Dakota