

**RESERVOIR SEDIMENT
DATA SUMMARY**

SCS-34 Rev. 6-62

NIELSON

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

72-24

DATA SHEET NO.

| | | | | | | | | |
|-------------|--|--|-----------------------------------|-----------------------------------|--|-----------------------------|---------------------------------|--|
| DAM | 1. OWNER Nielson | | | | 2. STREAM Trib. Santa Rosa Cr. | | 3. STATE California | |
| | 4. SEC. NE, NW TWP. 7N RANGE 7W | | | | 5. NEAREST TOWN Santa Rosa | | 6. COUNTY Sonoma | |
| | 7. STREAM BED ELEVATION 97* | | | | 8. TOP OF DAM ELEVATION 124* | | 9. SPILLWAY CREST ELEV. 118.8* | |
| 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 Nov. 1960 |
| | a. MULTIPLE USE | | | | | | | |
| | b. FLOOD CONTROL | | | | | | | |
| | c. POWER | | | | | | | 16. DATE NORMAL OPER. BEGAN Nov. 1960 |
| | d. WATER SUPPLY | | | | | | | |
| | e. IRRIGATION | 114.8 | | 2.05 | 17.36 | 17.36 | | |
| | f. CONSERVATION | | | | | | | |
| | g. SEDIMENT | | | | | | | |
| h. INACTIVE | | | | | | | | |
| WATERSHED | 17. LENGTH OF RESERVOIR 0.08 MILES | | | | AV. WIDTH OF RESERVOIR 0.04 MILES | | | |
| | 18. TOTAL DRAINAGE AREA 0.187 SQ. MI. | | | | 22. MEAN ANNUAL PRECIPITATION 35 INCHES | | | |
| | 19. NET SEDIMENT CONTRIBUTING AREA 0.184 SQ. MI. | | | | 23. MEAN ANNUAL RUNOFF 19 INCHES | | | |
| | 20. LENGTH 0.11 MILES | | AV. WIDTH 0.06 MILES | | 24. MEAN ANNUAL RUNOFF 188 AC.-FT. | | | |
| | 21. MAX. ELEV. 402* | | MIN. ELEV. 97* | | 25. CLIMATIC CLASSIFICATION 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. PERSQ. MI. |
| | 11-60 ^{1/2} | | | | | 2.05 | 17.36 | 91 |
| | 11-4-64 | 4 | 4 | Range (D) | 4 Ranges | 2.05 | 16.62 | 87 |
| | 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 | | |
| | 11-4-64 | 35 in. | 188 | - | 752 | 188 | 752 | |
| | 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 | |
| | 11-4-64 | 0.74 | 0.185 | 0.96 ^{2/3} | 0.74 | 0.185 | 0.96 ^{2/3} | |
| | 26. DATE OF SURVEY | 39. AV. DRY WGT. LBS. PER CU. FT. | 40. SED. DEP. TONS PERSQ. 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 | |
| 11-4-64 | 65 ^{3/4} | 1359 | 1359 | 1.06 | 4.26 | -- | -- | |

* assumed datum - Add 198 feet to obtain approximate M.S.L. elevation.

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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 |
| | 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 <u>1</u> /Original data obtained from 1964 survey. <u>2</u> / Total yield from watershed computed to be 1.1 ac.ft./sq.mi./yr.using trap efficiency of 87 percent. <u>3</u> / Assumed dry unit weight of 65 lb./cu.ft. Geology: Pliocene, volcanic rocks of Sonoma Volcanics (or Sonoma Group). Land Use: Woodland - 100 percent | | | | | | | | | | | | | | |
| 48. AGENCY MAKING SURVEY USDA: SCS, Berkeley, Calif. | | | | | | | | | | | | | | |
| 49. AGENCY SUPPLYING DATA USDA, Soil Conservation Service | | | | | | | | | | | | | | |
| 50. DATE <u>1-20-66</u> | | | | | | | | | | | | | | |