

RESERVOIR SEDIMENT
DATA SUMMARY

Pine Lake

NAME OF RESERVOIR

16-42

DATA SHEET NO.

DAM		1. OWNER TVA		2. STREAM Piney Creek		3. STATE Tennessee										
DAM		4. SEC. TWP. RANGE		5. NEAREST POST OFF. Lexington		6. COUNTY Henderson										
DAM		7. LAT. 35° 34' 12" LONG. 88° 24' 22"		8. TOP OF DAM ELEVATION 474.5		9. SPILLWAY CREST ELEV. 469.5 1/										
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		469.5 1/		593		2,580		7,610		10/15/64					
	b. MULTIPLE USE															
	c. POWER															
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN					
	e. IRRIGATION															
	f. CONSERVATION		464.63 2/		474		150		5,030		3/29/65					
g. INACTIVE		464.3 3/		458		4,880		4,880								
RESERVOIR		17. LENGTH OF RESERVOIR 4/			3.48 MILES			AV. WIDTH OF RESERVOIR			0.21 MILES					
WATERSHED		18. TOTAL DRAINAGE AREA			7.60 SQ. MI.			22. MEAN ANNUAL PRECIPITATION			52.75 INCHES					
WATERSHED		19. NET SEDIMENT CONTRIBUTING AREA			6.86 SQ. MI.			23. MEAN ANNUAL RUNOFF			15.49 INCHES					
WATERSHED		20. LENGTH 4.7 MILES		AV. WIDTH 1.6 MILES		24. MEAN ANNUAL RUNOFF			6276 AC.-FT.							
WATERSHED		21. MAX. ELEV. 660		MIN. ELEV. 434		25. ANNUAL TEMP: MEAN 60°			RANGE 4° to 98°							
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.	
	Apr. 9, 1965		0		0		Range		11		474		5,030			
	Oct. 12, 1972		7.5		7.5		Range		6		5/		5,010			
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				
Oct. 12, 1972		53.21		4977		5820		37,331		4977		37,331				
SURVEY DATA	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						
Oct. 12, 1972		20		2.67	0.389	20		2.67	0.389							
SURVEY DATA	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. TOTAL TO DATE		b. PERIOD	a. AV. AN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE							
Oct. 12, 1972		65*		551	551	0.05	0.40									

*Assumed

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION												
	31.7-25	20	20-15	15-10	10-5	5-0							
PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION													
Oct. 12, 1972	0	17.5	2.5	2.5	42.5	12.5							

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														
Oct. 12, 1972	5	10	13.5	13.5	16	16	12	7.5	4	2.5				

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
1965	466.05		7,087				
1966	465.87	464.70	3,658				
1967	465.74	464.74	4,917				
1968	465.47	463.03	5,072				
1969	465.49	463.04	4,439				
1970	465.81	464.73	5,804				
1971	465.80	464.71	4,768				
1972	465.70	464.74	5,820				
1973	467.24	462.96	14,920				

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
		1965		5/	1972			
434	0	0			0			
440	7	16			16			
445	58	164			160			
450	138	643			639			
455	247	1590			1,584			
460	362	3120			3,101			
464.63	474	5030			5,010			
469.5	593	7610			7,591			

47. REMARKS AND REFERENCES

1/ Emergency spillway crest.
2/ Main spillway crest; normal full pool.
3/ Planned minimum pool.
4/ Pine Creek 2.42 miles; unnamed tributary 1.06 miles.
5/ Not measured or calculated after initial survey.