

RESERVOIR SEDIMENT DATA SUMMARY

Tucker Lake
NAME OF RESERVOIR

17- 31
DATA SHEET NO.

DAM	1. OWNER State of Indiana		2. STREAM French Lick Creek		3. STATE Indiana			
	4. SEC. 31 TWP. 1 N RANGE 1 W		5. NEAREST P.O. French Lick		6. COUNTY Orange			
	7. LAT. 38° 28' 45" LONG. 86° 34' 00 "		8. TOP OF DAM ELEVATION 601.5		9. SPILLWAY CREST ELEV. 592.0			
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	592.0	240.0	3270	5142	13 Nov 63		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION	575.0	141.3	1689	1872	Jan 1964		
g. INACTIVE	556.0	35.0	183	183				
WATERSHED	17. LENGTH OF RESERVOIR 2.24 ^{1/2} MILES		AV. WIDTH OF RESERVOIR 0.10 MILES					
	18. TOTAL DRAINAGE AREA 6.98 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 45.42 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA 6.76 SQ. MI.		23. MEAN ANNUAL RUNOFF 17.54 ^{2/3} INCHES					
	20. LENGTH 3.50 MILES		AV. WIDTH 1.99 MILES		24. MEAN ANNUAL RUNOFF 6530 AC.-FT.			
	21. MAX. ELEV. 890		MIN. ELEV. 545		25. ANNUAL TEMP: MEAN 53.6 RANGE			
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.
	13 Nov 63	-	-	-	-	141.3	1872.0 ^{3/4}	0.287
	13 May 77	13.5	13.5	Range (S)	16	141.3	1833.9 ^{3/4}	0.281
	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	
	13 May 77	45.42	6530	-	88,155	6530	88,155	
	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	
	13 May 77	38.15 ^{3/4}	2.83 ^{3/4}	0.42 ^{3/4}	38.15 ^{3/4}	2.83 ^{3/4}	0.42 ^{3/4}	
	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	
13 May 77	34.4 ^{4/4}	313 ^{3/4}	313 ^{3/4}	0.15	2.04			

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														

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/ Three arms - SE arm is 0.38 mi long; main arm is 1.18 mi long; N arm is 0.68 mi long. Conservation pool only.

2/ Data from gauge on Patoka River at Ellsworth, Indiana.

3/ Conservation and inactive pools. Sediment not measured above elevation 575.0.

4/ Texture: Submerged sediment is grey, soft silt. Deltaic sediment is organic-rich sandy silt. Three samples.

48. AGENCY MAKING SURVEY Soil Conservation Service

49. AGENCY SUPPLYING DATA Soil Conservation Service

50. DATE 21 June 77