

RESERVOIR SEDIMENT
ITA SUMMARY

DEFEATED CREEK SEDIMENT BASIN

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

Carr Fork Lake, Ky.
NAME OF RESERVOIR

19-64
DATA SHEET NO.

DAM	1. OWNER Corps of Engrs, USA		2. STREAM Defeated Creek		3. STATE Kentucky			
	4. SEC. Corps of Engrs, USA		5. NEAREST P O Sassafras		6. COUNTY Knott			
	7. LAT 37°12'00" LONG 82°58'45"		8. TOP OF DAM ELEVATION 1060.0		9. SPILLWAY CREST ELEV. 1054			
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	1054	10.7	146.4	146.4	Jan 1976		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE					Jan 1976			
WATERSHED	17. LENGTH OF RESERVOIR @1054		0.496 MILES		AV. WIDTH OF RESERVOIR 0.034 MILES			
	18. TOTAL DRAINAGE AREA		3.29 SQ. MI.		22. MEAN ANNUAL PRECIPITATION INCHES			
	19. NET SEDIMENT CONTRIBUTING AREA		3.29 SQ. MI.		23. MEAN ANNUAL RUNOFF INCHES			
	20. LENGTH 3.50 MILES		AV. WIDTH 0.94 MILES		24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV. 2064		MIN. ELEV. 1020		25. ANNUAL TEMP MEAN 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.
	14 Jan 1976			Contour /1	2 ft.	10.7 acres @ 1054	146.4 @ 1054	unknown
	11 Nov 1977	1.83	1.83	Contour /2	2 ft.	10.7 acres @ 1054	138.6 @ 1054	
	26. DATE OF SURVEY	34. PERIOD ANNUAL PRECIPITATION		35. PERIOD WATER INFLOW, ACRE-FEET			36. WATER INFL. TO DATE, AC.-FT.	
		unknown	unknown	a. MEAN ANNUAL	b. MAX. ANNUAL	c. PERIOD TOTAL	a. MEAN ANNUAL	b. TOTAL TO DATE
	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	
	14 Jan 76							
	11 Nov 77	11.8	6.45	1.96	11.8	6.45	1.96	
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		
14 Jan 76								
11 Nov 77	65*	2775	2775	4.41	8.06			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION										
	34.30	30.26	26.22	22.18	18.14	14-10	10-6	6-2	2-Crest		
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
14 Jan 76 11 Nov 77	1.8	10.6	40.0	40.7	6.9	0	0	0	0		

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
ORIGINAL	AREA-CAPACITY		11 Nov 77	AREA-CAPACITY				
1020	0	0	1020	0	0			
1022	0.06	0.05	1022	0	0			
1024	0.10	0.23	1024	0	0			
1026	0.23	0.56	1026	0	0			
1028	0.70	1.48	1028	0	0			
1030	1.23	3.41	1030	0	0			
1032	2.19	6.83	1032	0.60	0.60			
1034	3.09	12.1	1034	1.69	2.89			

47. REMARKS AND REFERENCES					
1036	3.97	19.2	1036	3.54	8.12
1038	4.58	27.7	1038	4.38	16.0
1040	5.15	37.4	1040	5.18	25.6

/1 Plane table survey
 /2 Contours derived from cross-sections