

RESERVOIR SEDIMENTATION  
DATA SUMMARY

High Rock Reservoir

NAME OF RESERVOIR

7-10

DATA SHEET NO.

(Alcoa)

DAM	1. OWNER <b>Carolina Aluminum Co./</b>			2. RIVER <b>Yadkin</b>		3. STATE <b>North Carolina</b>		
	4. SEC. - TWP. - RANGE -			5. NEAREST TOWN <b>14 SE Salisbury</b>		6. COUNTY <b>Rowan, Davidson, Davie</b>		
	7. STREAM BED ELEV.			8. TOP OF DAM ELEV.		9. SPILLWAY CREST ELEV. <b>655 1/</b>		
RESERVOIR	10. STORAGE ALLOCATION	11. ELEVATION TOP OF POOL	12. SURFACE AREA ACRES	13. STORAGE ACRE- FEET	14. ACCUMULATED ACRE- FEET	15. DATE STORAGE BEGAN		
	a. FLOOD CONTROL					Nov. 1927		
	b. POWER	655	15,886	289,432 2/	289,432			
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION							
	f. INACTIVE							
WATERSHED	17. LENGTH OF RESERVOIR <b>26.6</b>		MILES	AV. WIDTH OF RESERVOIR <b>.56</b>		MILES		
	18. TOTAL DRAINAGE AREA <b>3,930</b>		SQ. MI.	22. MEAN ANNUAL PRECIPITATION <b>47.78</b>		INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA <b>3,863 3/</b>		SQ. MI.	23. MEAN ANNUAL RUNOFF		INCHES		
	20. LENGTH <b>162</b>		MILES	AV. WIDTH		MILES		
	21. MAX. ELEV. <b>3,500</b>		MIN. ELEV. <b>624</b>	25. CLIMATIC CLASSIFICATION <b>Humid</b>				
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.
	Nov. 1927	-	-	-	-	15,886	289,432	73.6
	Aug. 1935	7.8	7.8	Range 4/ Detailed	197 1 ft. C.I.	15,833	275,516	70.1
	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		
	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	
	Aug. 1935	13,916	1784	.462	13,916	1784	.462	
	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. ANNUAL	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE	
Aug. 1935				0.62	4.81			

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														
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> Local datum (624.1 ft. USGS datum). <u>2/</u> Usable storage above max, drawdown 255,000 acre-feet. <u>3/</u> Several reservoirs upstream trap sediment. <u>4/</u> 5-mile section of reservoir surveyed by contour method.															
Eargle, D. H. Advance report on the sedimentation survey of High Rock Reservoir, Salisbury, N.C., U.S. Soil Conserv. Serv., SCS-SS-10, 23 pp., illus., processed. Washington, D. C., February 1937.															
Region 2, Soil Conservation Service															
U. S. Department of Agriculture															
Spartanburg, South Carolina															
48. AGENCY SUPPLYING DATA											49. DATE <u>October 1950</u>				