

Complex

RESERVOIR SEDIMENTATION
DATA SUMMARY

Pool #15

26-1

NAME OF RESERVOIR

DATA SHEET NO.

OWNER	1. OWNER Dept of the Army, C of E			2. RIVER Mississippi		3. STATE Illinois-Iowa		
	4. SEC. 25 TWP. 18N RANGE 2W			5. NEAREST TOWN Rock Island		6. COUNTY Rock Island-Scott		
RESERVOIR	7. STREAM BED ELEV. 531.0			8. TOP OF DAM ELEV. 563.25		9. SPILLWAY CREST ELEV. 563.25		
	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							
	b. POWER					March 1934		
	c. WATER SUPPLY							
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN		
	e. CONSERVATION					March 7, 1934		
f. INACTIVE Navigation	561.0	3725	39,432	39,432				
WATERSHED	17. LENGTH OF RESERVOIR 10.4 MILES		AV. WIDTH OF RESERVOIR 0.59 MILES					
	18. TOTAL DRAINAGE AREA 88,500 SQ. MI.		22. MEAN ANNUAL PRECIPITATION 29.8 INCHES					
	19. NET SEDIMENT CONTRIBUTING AREA SQ. MI.		23. MEAN ANNUAL RUNOFF 7.33 INCHES					
	20. LENGTH 883.3 MILES AV. WIDTH 100.2 MILES		24. MEAN ANNUAL RUNOFF 34,600,000 AC.-FT.					
	21. MAX. ELEV.		MIN. ELEV. 531.0		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. PER SQ. MI.
	Mar. 1934			Range	38	3725	39,432	---
	Aug. 1938	4.5	4.5	Range	38		38,546	---
	Nov. 1944	6.2	10.7	Range	38		38,229	---
	Dec. 1946	2.1	12.8	Range	38		39,224	---
	Nov. 1948	1.9	14.7	Range	38		37,643	---
	Nov. 1950	2.0	16.7	Range	38		37,881	---
	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	
	Aug. 1938		27,200,000	36,000,000	122,200,000	27,200,000	122,200,000	
	Nov. 1944		35,400,000	45,400,000	221,800,000	32,000,000	344,000,000	
	Dec. 1946		37,200,000	38,000,000	77,500,000	32,800,000	421,500,000	
	Nov. 1948		31,830,000	38,900,000	61,008,000	32,900,000	482,476,000	
Nov. 1950		27,567,000	33,256,000	55,134,000	32,256,000	537,610,000		
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.-YR.	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YR.		
Aug. 1938	886	197		886	197			
Nov. 1944	317	51		1203	112			
Dec. 1946	-995	-474		208	16			
Nov. 1948	1581	832		1789	122			
Nov. 1950	-238	-119		1551	93			
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. TO DATE	a. PERIOD	b. TO DATE	
Aug. 1938				0.50	2.25			
Nov. 1944				0.28	3.05			
Dec. 1946				0.04	0.53			
Nov. 1948				0.31	4.54			
Nov. 1950				0.24	3.93			

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														
Aug. 1938	28	*	*	3	19	22	7	*	17	4					
Nov. 1944	14	5	1	5	14	19	20	11	8	3					
Dec. 1946	*	*	*	1	11	20	22	46	*	*					
Nov. 1948	12	7	5	*	16	26	19	15	*	*					
Nov. 1950	12	0	*	2	19	31	23	13	*	*					
		* - Scour													

45. RANGE IN RESERVOIR OPERATION 2/							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
Calendar				Calendar			
1934	560.9	547.8	17.1	1942	561.5	558.0	39.7
1935	561.5	560.2	28.8	1943	561.7	560.0	42.7
1936	561.1	560.0	25.7	1944	562.0	558.0	38.8
1937	561.0	560.5	24.1	1945	561.7	557.3	40.3
1938	561.1	557.3	40.4	1946	561.6	560.0	37.0
1939	561.3	560.0	28.3	1947	561.9	560.0	36.0
1940	561.2	560.7	22.5	1948	561.3	559.9	25.4
1941	561.6	560.5	37.2	1949	561.3	560.8	22.8
				1950	561.2	560.9	

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES

1/ Principal waterway through dam is a 26 ft. high movable gate section. Gate sills at elevation 537.25, 6.25 ft. above lowest point of pre-construction stream bed. Gates operated to maintain 9.0 ft. navigation channel depths above dam, but pool elevation at the dam cannot exceed elevation 561.0. As river flows increase from minimum, gates are raised to provide additional waterway, and the pool at the dam is lowered, until the gates are entirely out of the water at a flow that would produce tailwater elevation 557.2.

2/ Inflows are expressed in million acre-feet.

RESERVOIR SEDIMENTATION
DATA SUMMARY

Pool # 15

26-1a

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Dept of the Army, CE			2. RIVER Mississippi			3. STATE Illinois			
	4. SEC. 25 TWP. 18N RANGE 2W			5. NEAREST TOWN Rock Island			6. COUNTY Rock Island (1)			
	7. STREAM BED ELEV. 531.0			8. TOP OF DAM ELEV. 563.25			9. SPILLWAY CREST ELEV. 537.25			
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									
	b. POWER					March 1934				
	c. WATER SUPPLY									
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN				
	e. CONSERVATION									
	f. INACTIVE	561.0	3725	37,086			March 1934			
17. LENGTH OF RESERVOIR 10.4 MILES			AV. WIDTH OF RESERVOIR 0.59 MILES							
WATERSHED	18. TOTAL DRAINAGE AREA 88,500 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 29.8 INCHES						
	19. NET SEDIMENT CONTRIBUTING AREA SQ. MI.			23. MEAN ANNUAL RUNOFF 7.33 INCHES						
	20. LENGTH 883.3 MILES AV. WIDTH 100.2 MILES			24. MEAN ANNUAL RUNOFF 34,600,000 AC.-FT.						
	21. MAX. ELEV.		MIN. ELEV.		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. PER SQ. MI.		
	Mar. 1934			Range	38	3725	39,432	0.4		
	Aug. 1938	4.5	4.5	Range	38		38,546	0.4		
	Nov. 1944	6.2	10.7	Range	38		38,229	0.4		
	Dec. 1946	2.1	12.8	Range	38		39,224	0.4		
	Nov. 1948	1.9	14.7	Range	38		37,643	0.4		
	Nov. 1950	2.0	16.7	Range	38		37,881	0.4		
	Nov. 1952	2.0	18.7	Range	38		37,086	0.4		
	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			
	Mar. 1934									
	Aug. 1938		27,000,000	36,000,000	121,500,000	27,000,000	121,500,000			
	Nov. 1944		35,600,000	45,500,000	220,800,000	32,000,000	342,300,000			
Dec. 1946		37,600,000	38,800,000	78,900,000	32,900,000	421,200,000				
Nov. 1948		31,700,000	38,900,000	60,300,000	32,800,000	481,500,000				
Nov. 1950		28,000,000	33,200,000	55,900,000	32,200,000	537,400,000				
Nov. 1952		46,500,000	49,000,000	93,000,000	33,700,000	630,400,000				
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.-YR.	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YR.				
Mar. 1934										
Aug. 1938	886	197	.002	886	197	.002				
Nov. 1944	317	51	.001	1203	112	.001				
Dec. 1946	- 995	- 474	- .005	203	16	.0002				
Nov. 1948	1581	832	.009	1789	122	.001				
Nov. 1950	- 238	- 119	- .001	1551	93	.001				
Nov. 1952	795	398	.004	2346	125	.001				
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. TO DATE	a. PERIOD	b. TO DATE			

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															
Mar. 1934	0	0	0	0	0	0	0	0	0	0					
Aug. 1938	28	*	*	3	19	22	7	*	17	4					
Nov. 1944	14	5	1	5	14	19	20	11	8	3					
Dec. 1946	*	*	*	1	11	20	22	46	*	*					
Nov. 1948	12	7	5	*	16	26	19	15	*	*					
Nov. 1950	12	0	*	2	19	31	23	13	*	*					
Nov. 1952	4	6	7	9	20	23	19	9	0	3					
															* - Scour

45. RANGE IN RESERVOIR OPERATION							
WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.	WATER YEAR	MAX. ELEV.	MIN. ELEV.	INFLOW AC.-FT.
See attached sheet.							

46. ELEVATION-AREA-CAPACITY DATA								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES (1) Principal waterway through dam is a 26 ft. high movable gate section. Gate sills at elevation 537.25, 6.25 ft. above lowest point of pre-construction stream bed. Gates operated to maintain 9.0 ft. navigation channel depths above dam, but pool elevation at the dam cannot exceed elevation 561.0. As river flows increase from minimum, gates are raised to provide additional waterway, and the pool at the dam is lowered, until the gates are entirely out of the water at a flow that would produce tailwater elevation 557.2.

48. AGENCY SUPPLYING DATA Dept of the Army
Corps of Engineers, Rock Island District

49. DATE 8 January 1954

POOL # 15

45. Range in reservoir operation.

<u>Calendar year</u>	<u>Maximum elevation</u>	<u>Minimum elevation</u>	<u>Million inflow acre-feet</u>
1934	560.9	547.8	17.1
1935	561.5	560.2	28.8
1936	561.1	560.0	25.7
1937	561.0	560.5	24.1
1938	561.1	557.3	40.4
1939	561.3	560.0	28.3
1940	561.2	560.7	22.5
1941	561.6	560.5	37.2
1942	561.5	558.0	39.7
1943	561.7	560.0	42.7
1944	562.0	558.0	38.8
1945	561.7	557.3	40.3
1946	561.6	560.0	37.0
1947	561.9	560.0	36.0
1948	561.3	559.9	25.4
1949	561.3	560.8	22.8
1950	561.2	560.0	33.5
1951	561.2	557.6	50.0
1952	561.1	557.3	43.3