

RESERVOIR SEDIMENTATION
DATA SUMMARY

Sandstone Creek No. 10A

50-32

NAME OF RESERVOIR
trib. of

DATA SHEET NO.

DAM	1. OWNER Konf & French Est.		2. RIVER Sandstone Cr.		3. STATE Oklahoma			
	4. SEC. 32 TWP. 12N RANGE 22W		5. NEAREST TOWN Elk City		6. COUNTY Beckham			
	7. STREAM BED ELEV. 51.8		8. TOP OF DAM ELEV. 94.0		9. SPILLWAY CREST ELEV. 79.4			
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	90.0	1/ 74.84		1/ (1046.02)	4-1-51		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION							
	e. CONSERVATION							
	f. INACTIVE	79.4	1/ 41.50		1/ 440.90	4-1-51		
17. LENGTH OF RESERVOIR 1.51		MILES		AV. WIDTH OF RESERVOIR 0.08		MILES		
WATERSHED	18. TOTAL DRAINAGE AREA 2.87		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 25.00		INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA 2.80		SQ. MI.		23. MEAN ANNUAL RUNOFF 1.1		INCHES	
	20. LENGTH 2.0	MILES	AV. WIDTH 1.44	MILES	24. MEAN ANNUAL RUNOFF 58.6		AC.-FT.	
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION Subhumid			
	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.
4-1-51	-	-	-	-	41.50 (74.84)	440.90 (1046.02)	153.62 (364.47)	
10-1-56	5.50	5.50	Det. Rnge.	12	41.50 (74.84)	413.68 (1018.80)	144.14 (354.98)	
9-26-61	4.90	10.40	-	-	37.55 (74.84)	348.50 (943.90)	121.43 (328.89)	
SURVEY DATA	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	
	-	-	-	-	-	-	-	
SURVEY DATA	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	
	10-1-56	27.22 (27.22)	4.95 (4.95)	1.77 (1.77)	27.22 (27.22)	4.95 (4.95)	1.77 (1.77)	
9-26-61	65.18 (74.90)	13.30 (15.29)	4.75 (5.46)	92.40 (102.12)	8.88 (9.82)	3.17 (3.51)		
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. PERIOD	b. TOTAL TO DATE	a. AV. ANNUAL	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE
	10-1-56	79.31	3057 (3057)	3057 (3057)	1.12 (0.47)	06.17 (02.60)		
9-26-61	82.80	5542 (9993)	5476 (6330)	2.01 (0.94)	20.96 (9.76)			

() Includes both pools.
1/ original capacity.

Continuation

U. S. Department of Agriculture

Soil Conservation Service

50-32

Data Sheet No.

Sandstone Creek No. 10A

46. ELEVATION - AREA - CAPACITY DATA

1956 Capacity

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
90.0	74.84	1018.80	62.0	6.48	20.64
86.0	60.61	748.08	58.0	2.41	3.56
82.0	48.75	531.33	54.0	.02	0
79.4	41.50	413.68			
78.0	37.57	357.96			
74.0	30.17	223.08			
70.0	20.43	122.76			
66.0	12.46	57.79			

1961 Capacity

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
90.0	74.84	943.90	62.0	4.60	5.38
86.0	60.61	674.18	59.0	.10	0
82.0	47.44	459.16			
79.4	37.55	448.50			
78.0	31.80	229.66			
74.0	25.81	184.93			
70.0	19.55	94.73			
66.0	10.75	35.15			

U.S. DEPARTMENT OF AGRICULTURE
**RESERVOIR SEDIMENTATION
DATA SUMMARY**

Sandstone Creek No. 10A

SOIL CONSERVATION SERVICE
50-32 a
DATA SHEET NO.

DAM		1. OWNER Konf & French Est.		2. RIVER Sandstone Cr.		3. STATE Oklahoma		
		4. SEC. 32 TWP. 12N RANGE 22W		5. NEAREST TOWN Elk City		6. COUNTY Beckham		
		7. STREAM BED ELEV. 51.8		8. TOP OF DAM ELEV. 94.0		9. SPILLWAY CREST ELEV. 79.4		
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	90.0	1/ 74.84		1/ (1046.02)	4-1-51		
	b. POWER							
	c. WATER SUPPLY							
	d. IRRIGATION					16. DATE NORMAL OPER. BEGAN		
	e. CONSERVATION							
	f. INACTIVE	79.4	1/ 41.50		1/ 440.90	4-1-51		
17. LENGTH OF RESERVOIR		1.51		MILES		AV. WIDTH OF RESERVOIR 0.08 MILES		
WATERSHED	18. TOTAL DRAINAGE AREA		2.87		SQ. MI.		22. MEAN ANNUAL PRECIPITATION 25.00 INCHES	
	19. NET SEDIMENT CONTRIBUTING AREA		2.80		SQ. MI.		23. MEAN ANNUAL RUNOFF 1.1 INCHES	
	20. LENGTH 2.0 MILES		AV. WIDTH 1.44 MILES		24. MEAN ANNUAL RUNOFF 58.6 AC.-FT.			
	21. MAX. ELEV.		MIN. ELEV.		25. CLIMATIC CLASSIFICATION Subhumid			
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.
	4-1-51	-	-	-	-	41.50	1/ 440.90	153.62
	10-1-56	5.50	5.50	Det. Rnge.	12	(74.84)	(1046.02)	(364.47)
	9-26-61	4.90	10.40	-	-	(74.84)	(1018.80)	(354.98)
						37.55	348.50	121.43
						(74.84)	(943.90)	(328.89)
	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		
10-1-56	27.22	4.95	1.77	27.22	4.95	1.77		
9-26-61	(27.22)	(4.95)	(1.77)	(27.22)	(4.95)	(1.77)		
	65.18	13.30	4.75	92.40	8.88	3.17		
	(74.90)	(15.29)	(5.46)	(102.12)	(9.82)	(3.51)		
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	
10-1-56	79.31	3057	3057	1.12	06.17			
9-26-61	82.80	(3057)	(3057)	(0.47)	(02.60)			
		8566	5717	2.01	20.96			
		(9847)	(6330)	(0.94)	(9.76)			

() Includes both pools.
1/ original capacity.

90-

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. Original Capacity			ELEVATION-AREA-CAPACITY DATA					
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY
90.0	74.84	1046.02	66.0	13.37	78.00			
86.0	60.61	776.30	62.0	8.77	34.15			
82.0	48.75	558.55	58.0	3.91	9.51			
*79.4	41.50	440.90	54.0	0.87	0.71			
78.0	37.57	385.19	52.0	.03	0.0			
74.0	30.17	250.30						
70.0	21.70	147.29						

47. REMARKS AND REFERENCES
 Land Use: Native pasture 61%, cultivation 37%, miscellaneous 2%.
 Geology: 72% Elk City member Quartermaster formation
 28% Doxey member Quartermaster formation.

Soil Conservation Service
 Stillwater, Okla.

48. AGENCY SUPPLYING DATA

49. DATE Mar. 26, 1962

Continuation

U. S. Department of Agriculture

Soil Conservation Service

50-32

Data Sheet No.

Sandstone Creek No. 10A

46. ELEVATION - AREA - CAPACITY DATA

1956 Capacity

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
90.0	74.84	1018.80	62.0	6.48	20.64
86.0	60.61	748.08	58.0	2.41	3.56
82.0	48.75	531.33	54.0	.02	0
79.4	41.50	413.68			
78.0	37.57	357.96			
74.0	30.17	223.08			
70.0	20.43	122.76			
66.0	12.46	57.79			

1961 Capacity

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
90.0	74.84	943.90	62.0	4.60	5.38
86.0	60.61	674.18	59.0	.10	0
82.0	47.44	459.16			
79.4	37.55	448.50			
78.0	31.80	229.66			
74.0	25.81	184.93			
70.0	19.55	94.73			
66.0	10.75	35.15			

92 - one side

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION											
	86-90	82-89	79-82	78-79	74-78	70-74	66-70	62-69	58-62	54-58	52-54	
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION											
10-1-56	0	0	0	0	0	10	17	25	28	19	1	
9-26-61	0	3	6	7	20	12	10	14	19	8	1	
7-15-66	0	9	10	6	15	14	14	14	13	5	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 <u>1/</u>								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES
1/ Elevation - Area - Capacity Data on separate sheet.
 Land Use: 56% Cultivation, 42% Pasture, 2% Miscellaneous
 Geology: 72% Elk City, 28% Dozey, Both of the Quartermaster Formation

48. AGENCY MAKING SURVEY
 49. AGENCY SUPPLYING DATA SCS - Stillwater, Oklahoma
 50. DATE _____

ELEVATION-AREA-CAPACITY DATA

Sandstone 10A

Data Sheet No. 50-

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>	:	<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
<u>Original Capacity</u>				<u>Capacity - 1961</u>		
90.0	74.84	1046.02		90.0	74.84	943.90
86.0	60.61	776.30		86.0	60.61	674.18
82.0	48.75	558.55		82.0	47.44	459.16
79.4	41.50	440.90		79.4	37.55	348.50
78.0	37.57	385.18		78.0	31.80	299.66
74.0	30.17	250.30		74.0	25.81	184.93
70.0	21.70	147.29		70.0	19.55	94.73
66.0	13.37	78.00		66.0	10.75	35.15
62.0	8.77	34.15		62.0	4.60	5.38
58.0	3.91	9.51		59.0	0.10	0
54.0	0.87	0.71				
52.0	0.03	0				
<u>1956 Capacity</u>				<u>Capacity - 1966</u>		
90.0	74.84	1018.80		90.0	74.84	888.00
86.0	60.61	749.08		86.0	60.61	617.68
82.0	48.75	531.33		82.0	42.04	413.57
79.4	41.50	413.68		79.40	35.79	312.46
78.0	37.57	357.96		78.0	31.41	265.42
74.0	30.17	223.08		76.0	27.66	206.36
70.0	20.43	122.76		74.0	24.31	154.41
66.0	12.46	57.79		72.0	20.20	109.95
62.0	6.48	20.64		70.0	16.10	73.62
58.0	2.41	3.56		68.0	11.50	46.06
54.0	0.2	0.01		66.0	8.50	26.12
				64.0	6.22	11.45
				62.0	3.22	2.17
				60.0	0.2	0.1
				58.0	0	0

RESERVOIR SEDIMENT

U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

DATA SUMMARY

Sandstone Site 10A

SCS-34 Rev. 6-66

NAME OF RESERVOIR

50-32c

DATA SHEET NO.

DAM	1. OWNER Konf & French Estage		2. STREAM Washita		3. STATE Oklahoma			
	4. SEC. 32 TWP. 12N RANGE 22W		5. NEAREST P. O. Elk City		6. COUNTY Beckham			
	7. LAT 35° 23' 40" LONG 99° 33' 30"		8. TOP OF DAM ELEVATION 94.0		9. SPILLWAY CREST ELEV. 90.0			
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	90.0	74.84	605.12	1046.02	4-1-51		
	b. MULTIPLE USE							
	c. POWER							
	d. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	e. IRRIGATION							
	f. CONSERVATION							
g. INACTIVE 1/	79.4	41.50	440.90	440.90	4-1-51			
WATERSHED	17. LENGTH OF RESERVOIR		1.51 MILES	AV. WIDTH OF RESERVOIR		0.08 MILES		
	18. TOTAL DRAINAGE AREA		2.87 SQ. MI.	22. MEAN ANNUAL PRECIPITATION		25.00 INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA		2.75 SQ. MI.	23. MEAN ANNUAL RUNOFF		1.10 INCHES		
	20. LENGTH	2.0 MILES	AV. WIDTH	1.43 MILES	24. MEAN ANNUAL RUNOFF		168.36 AC.-FT.	
	21. MAX. ELEV. Est. 2240		MIN. ELEV. 1954		25. ANNUAL TEMP: MEAN 65° RANGE +113° -11°			
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.
	4-1-51	-	-	Detail Range	12	41.5(74.8)	440.9(1046.0)	2.62(6.21)
	10-1-56	5.50	5.50	"	12	41.5(74.8)	413.7(1018.8)	2.46(6.05)
	9-26-61	4.90	10.40	"	12	37.6(74.8)	348.5(943.9)	2.07(5.06)
	7-15-66	4.80	15.20	Range Contour (D)	13(R)2' C.I.	35.8(74.8)	312.5(888.0)	1.86(5.27)
	6-9-72	5.90	21.10	"	13(R)2' C.I.	35.3(74.4)	307.1(877.1)	1.83(5.21)
	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 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		
10-1-56	27.2(27.2)	5.0(5.0)	1.80(1.80)	27.2(27.2)	5.0(5.0)	1.80(1.80)		
9-22-61	65.2(74.9)	13.3(15.3)	4.84(5.55)	92.4(102.1)	8.9(9.8)	3.23(3.57)		
7-15-66	36.0(55.9)	7.5(11.7)	7.72(4.23)	128.4(158.0)	8.4(10.4)	3.07(3.78)		
6-9-72	5.4(10.9)	0.9(1.8)	0.33(0.67)	133.8(168.9)	6.3(8.0)	2.31(2.91)		
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	
10-1-56	79 lbs ave	3097(3097)	3097(3097)	1.1(0.5)	6.2(2.6)			
9-22-61	83 lbs ave	8923(10224)	5839(6454)	2.0(1.0)	21.0(9.8)			
7-15-66	50 SedP(2)							
	84 DetP(2)	2970(5744)	3343(4642)	1.9(1.0)	29.1(15.1)			
6-9-72	54 SedP(3)							
	86 DetP(3)	1081(1795)	2716(3839)	1.4(.8)	30.3(16.1)			

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, CREST ELEVATION										
	86-90	82-86	79-81	78-80	74-78	70-74	66-70	62-66	58-62	54-58	52-54
	PERCENT OF TOTAL SEDIMENT LOCATED WITHIN DEPTH DESIGNATION										
10-1-56	0	0	0	0	0	10	17	25	28	19	1
9-26-61	0	3	6	7	20	12	10	14	19	8	1
7-15-66	0	9	10	6	15	14	14	14	13	5	0
6-9-72	5	8	8	5	14	14	12	14	14	5	1

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 2/								
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY

47. REMARKS AND REFERENCES

1/ Sediment Pool
 2/ See attached sheet for Elevation-Area-Capacity Data
 Land Use: 56% cropland, 42% pasture, 2% miscellaneous - 1966
 Land Use: 31% cropland, 68% pasture, 1% miscellaneous - 1972
 Geology: 28% Doxey Shale, 72% Elk City Sandstone, Quartermaster FM, Permian Age
 Land Resource Area: Central Rolling Red Plains
 () Figures in parenthesis include sediment and flood pools.

48. AGENCY MAKING SURVEY Oklahoma Watershed Planning Staff
 49. AGENCY SUPPLYING DATA S.C.S. U.S.D.A. 50. DATE August 7, 1972