

RESERVOIR SEDIMENTATION
DATA SUMMARY

Medina Lake

52-2

NAME OF RESERVOIR

DATA SHEET NO.

DAM	1. OWNER Medina Irrig. Fams Inc.			2. RIVER Medina River		3. STATE Texas		
	4. SEC. - TWP. - RANGE --			5. NEAREST TOWN San Antonio		6. COUNTY Medina		
	7. STREAM BED ELEV. 919			8. TOP OF DAM ELEV. 1,083		9. SPILLWAY CREST ELEV. 1,072		
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					March 1913		
	b. POWER							
	c. WATER SUPPLY					16. DATE NORMAL OPER. BEGAN		
	d. IRRIGATION	1,072	5,647	274,065	274,065			
	e. CONSERVATION							
	f. INACTIVE					March 1913		
17. LENGTH OF RESERVOIR 15.6			MILES		AV. WIDTH OF RESERVOIR MILES			
WATERSHED	18. TOTAL DRAINAGE AREA 587			SQ. MI.		22. MEAN ANNUAL PRECIPITATION 29 INCHES		
	19. NET SEDIMENT CONTRIBUTING AREA 578			SQ. MI.		23. MEAN ANNUAL RUNOFF INCHES		
	20. LENGTH MILES		AV. WIDTH MILES		24. MEAN ANNUAL RUNOFF AC.-FT.			
	21. MAX. ELEV. 2,500		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.
	March 1913	-	-	-	-	5,647	274,065	467
	Jan. 1937	23.9	23.9	Range Detailed	60	5,647	267,630	456
	May 1948	11.3	35.2	"	41	5,647	265,075	452
	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	d. MEAN ANNUAL	e. 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	d. TOTAL TO DATE	e. AV. ANNUAL	f. PER SQ. MI.-YEAR	
Jan. 1937	6,435	269	0.465	6,435	269	0.465		
May 1948	2,555	226	0.391	8,990	255	0.441		
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	
Jan. 1937	61.1 (28)	619	619	0.098	2.35			
May 1948	75.0 (11)	Not Applicable	720	0.093	3.28			

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
 Faris, O. A., The Silt Load of Texas Streams, Tech. Bull. 382, USDA, 1933, pp. 20-30.

The sediment is silty clay. The reservoir is drawn down 50 feet or more annually and was completely drained in 1948. Sediment has had frequent opportunity to compact.

48. AGENCY SUPPLYING DATA Region 4, Soil Conservation Service
U. S. Dept. of Agriculture
Fort Worth, Texas

49. DATE August 3, 1950