

## DATA SUMMARY

Site No. 1, Diablo Arroyo

NAME OF RESERVOIR

56- 9

DATA SHEET NO.

DAM	1. OWNER State of Texas			2. STREAM Rio Grande			3. STATE Texas											
	4. SEC. -- TWP. -- RANGE --			5. NEAREST P.O. McNary			6. COUNTY Hudspeth											
	7. LAT. 30° 20' 05" LONG. 105° 42' 30"			8. TOP OF DAM ELEVATION 4064.4			9. SPILLWAY CREST ELEV. 4054.4											
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		4054.4 1/		246.2		3508.1		4489.7		4-60							
	b. MULTIPLE USE																	
	c. POWER																	
	d. WATER SUPPLY										16. DATE NORMAL OPER. BEGAN							
	e. IRRIGATION																	
	f. CONSERVATION		4032.3 2/		84.5		654.0		981.6		4-60							
g. INACTIVE		4020.8 3/		35.1		327.6		327.6										
WATERSHED	17. LENGTH OF RESERVOIR 0.80 MILES				AV. WIDTH OF RESERVOIR 0.48 MILES													
	18. TOTAL DRAINAGE AREA 29.89 SQ. MI.				22. MEAN ANNUAL PRECIPITATION 7.86 INCHES													
	19. NET SEDIMENT CONTRIBUTING AREA 29.51 SQ. MI.				23. MEAN ANNUAL RUNOFF 0.25 INCHES													
	20. LENGTH 11.40 MILES				24. MEAN ANNUAL RUNOFF 398 AC.-FT.													
	21. MAX. ELEV. 5241.0 MIN. ELEV. 4004.0				25. ANNUAL TEMP.: MEAN 60°F RANGE 42°F - 79°F													
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.			
	4-26-60		-		-		Range-		16 R		246.2		4489.7		11.3			
	4-26-65		5		5						246.2		4343.1		10.9			
	4-26-70		5		10						246.2		4235.1		10.6			
	4-26-60		-		-		Contour (D)		2' CI		84.5		981.6		--			
	4-26-65		5		5						82.0		838.7		--			
	4-26-70		5		10						80.1		731.1		--			
	<del>XX</del>																	
	<del>XX</del>																	
	4-26-60		-		-						35.1		327.6		--			
	4-26-65		5		5						30.5		227.5		--			
	4-26-70		5		10						26.3		158.5		--			
	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					
	4-26-70		108.0		21.6		0.73		254.6		25.5		0.86					
4-26-70		107.6		21.5		0.73		250.5		25.1		0.85						
4-26-70		69.0		13.8		0.47		169.1		16.9		0.57						
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										
4-26-70		-		976.2 1129.5		0.57 5.67		-- --										
4-26-70		70.8		400.9 431.8		2.56 25.52		-- --										
4-26-70		56.2		575.3 697.7		5.16 51.62		-- --										

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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							
See attached sheet															
47. REMARKS AND REFERENCES															
<u>1/</u> Emergency spillway crest (all pools up to elev. 4054.4) <u>2/</u> Principal spillway crest (including sediment pool and sediment reserve up to elev. 4032.3) <u>3/</u> Sediment pool (below port at elev. 4020.8)															
48. AGENCY MAKING SURVEY    Sedimentation Survey Party 49. AGENCY SUPPLYING DATA    Soil Conservation Service, Texas 50. DATE    9-71															

Reservoir Sediment  
Data Summary Cont'd.

Site No. 1, Diablo Arroyo

46. Elevation-Area-Capacity Data

1960 Survey

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
4004.0	2.2	2.6
4006.0	7.1	12.5
4008.0	13.0	33.1
4010.0	16.1	61.9
4012.0	19.0	96.9
4014.0	22.3	138.4
4016.0	24.9	185.6
4018.0	28.7	239.1
4020.0	32.6	300.5
4020.8	35.1	327.6
4022.0	38.9	371.8
4024.0	45.7	456.2
4026.0	52.5	554.6
4028.0	62.6	669.1
4030.0	70.9	802.9
4032.3	84.5	981.6
4034.0	95.8	1134.9
4036.0	107.3	1337.9
4038.0	117.3	1561.9
4040.0	131.0	1809.7
4042.0	144.0	2084.5
4044.0	158.3	2386.2
4046.0	176.4	2720.2
4048.0	191.4	3087.4
4050.0	211.1	3489.4
4052.0	227.3	3927.7
4054.4	246.2	4489.7

Reservoir Sediment  
Data Summary Cont'd.

Site No. 1, Diablo Arroyo

46. Elevation-Area-Capacity Data

1965 Survey

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
4008.0	1.83	1.22
4010.0	7.63	10.01
4012.0	13.52	30.86
4014.0	18.24	62.47
4016.0	21.96	102.57
4018.0	25.20	149.64
4020.8	30.50	227.47
4022.0	33.45	265.83
4024.0	39.72	338.84
4026.0	48.62	426.94
4028.0	60.34	535.58
4030.0	69.34	665.02
4032.3	81.99	838.70
4034.0	93.19	987.32
4036.0	106.12	1186.30
4038.0	117.10	1409.20
4040.0	131.86	1657.77
4042.0	144.58	1933.83
4044.0	158.64	2236.64
4046.0	174.47	2569.30
4048.0	191.53	2934.80
4050.0	210.18	3335.96
4052.0	228.35	3773.83
4054.4	246.25	4343.09

Reservoir Sediment  
Data Summary Cont'd.

Site No. 1, Diablo Arroyo

46. Elevation-Area-Capacity Data

1970 Survey

<u>Elevation</u>	<u>Area</u>	<u>Capacity</u>
4012.0	3.68	2.45
4014.0	13.61	18.70
4016.0	18.49	50.67
4018.0	21.94	91.05
4020.8	26.30	158.49
4022.0	32.15	193.51
4024.0	36.31	261.93
4026.0	43.75	341.87
4028.0	54.23	439.67
4030.0	67.71	561.36
4032.3	80.12	731.14
4034.0	93.19	878.34
4036.0	105.91	1077.30
4038.0	116.99	1300.11
4040.0	131.86	1548.81
4042.0	144.58	1825.15
4044.0	158.27	2127.90
4046.0	174.47	2460.51
4048.0	191.53	2826.38
4050.0	210.18	3227.94
4052.0	228.25	3665.81
4054.4	246.25	4235.07

# RESERVOIR SEDIMENT DATA SUMMARY

CS-34 Rev. 6-66

Diablo Arroyo, Site 1

NAME OF RESERVOIR

U. S. DEPARTMENT OF AGRICULTURE  
SOIL CONSERVATION SERVICE

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DATA SHEET NO.

DAM	1. OWNER State of Texas			2. STREAM Rio Grande			3. STATE Texas			
	4. SEC. TWP. RANGE			5. NEAREST P.O. McNary			6. COUNTY Hudspeth			
RESERVOIR	7. LAT. 31° 20' 5" LONG 105° 42' 30"			8. TOP OF DAM ELEVATION 4064.4			9. SPILLWAY CREST ELEV. 4054.4			
	10. STORAGE ALLOCATION		11. ELEVATION TOP OF POOL		12. ORIGINAL SURFACE AREA, ACRES		13. ORIGINAL CAPACITY, ACRE-Feet		14. GROSS STORAGE, ACRE-Feet	
	a. FLOOD CONTROL		1/ 4054.4		246.2		3508.1		4489.7	
	b. MULTIPLE USE								4-60	
	c. POWER								16. DATE NORMAL OPER. BEGAN	
	d. WATER SUPPLY								4-60	
	e. IRRIGATION									
	f. CONSERVATION		2/ 4032.3		84.5		654		981.6	
	g. INACTIVE		3/ 4020.8		35.1		327.6		327.6	
	WATERSHED	17. LENGTH OF RESERVOIR 0.80 MILES			AV. WIDTH OF RESERVOIR 0.48 MILES					
18. TOTAL DRAINAGE AREA 29.89 SQ. MI.			22. MEAN ANNUAL PRECIPITATION 7.86 INCHES							
19. NET SEDIMENT CONTRIBUTING AREA 29.51 SQ. MI.			23. MEAN ANNUAL RUNOFF 0.25 INCHES							
20. LENGTH 11.40 MILES			AV. WIDTH 2.62 MILES			24. MEAN ANNUAL RUNOFF 398 AC.-FT.				
21. MAX. ELEV. 5241.0			MIN. ELEV. 4004.0			25. ANNUAL TEMP: MEAN 60°F RANGE 42° - 79° F				
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.	
	4-26-60	-	-	Range-Contour (D)	16 R	246.20	4489.70	11.3		
	4-26-65	5.00	5.00		2' CI	246.20	4343.10	10.9		
	4-26-70	5.00	10.00			246.20	4235.10	10.6		
	8-26-76	6.33	16.33			246.20	4146.73	10.4		
	4-26-60	-	-			84.50	981.60			
	4-26-65	5.00	5.00			82.00	838.70			
	4-26-70	5.00	10.00			80.10	731.10			
	<del>26. DATE OF SURVEY</del> <del>27. PERIOD YEARS</del> <del>28. ACCL. YEARS</del> <del>29. TYPE OF SURVEY</del> <del>30. NO. OF RANGES OR CONTOUR INT.</del> <del>31. SURFACE AREA, ACRES</del> <del>32. CAPACITY, ACRE-Feet</del> <del>33. C/I. RATIO, AC.-FT. PER AC.-FT.</del>									
	8-26-76	6.33	16.33			78.49	646.63			
	4-26-60	-	-			35.10	327.60			
	4-26-65	5.00	5.00			30.50	227.50			
	4-26-70	5.00	10.00			26.30	158.50			
	8-26-76	6.33	16.33			24.83	93.92			
	<del>26. DATE OF SURVEY</del> <del>37. PERIOD CAPACITY LOSS, ACRE-Feet</del> <del>38. TOTAL SED. DEPOSITS TO DATE, ACRE-Feet</del>									
	26. DATE OF SURVEY	a. PERIOD TOTAL	b. AV. ANNUAL	c. PER SQ. MI.-YEAR	a. TOTAL TO DATE	b. AV. ANNUAL	c. PER SQ. MI.-YEAR			
	8-26-76	88.37	13.96	0.47	342.97	21.00	0.71			
	8-26-76	84.47	13.34	0.45	334.97	20.51	0.70			
	8-26-76	64.58	10.20	0.35	233.68	14.31	0.48			
	<del>26. DATE OF SURVEY</del> <del>39. AV. DRY WGT., LBS. PER CU. FT.</del> <del>40. SED. DEP., TONS PER SQ. MI.-YR.</del> <del>41. STORAGE LOSS, PCT.</del> <del>42. SED. INFLOW, PPM</del>									
26. DATE OF SURVEY	a. PERIOD	b. TOTAL TO DATE	a. AV. ANN.	b. TOT. TO DATE	a. PERIOD	b. TOT. TO DATE				
8-26-76	870.87	1040.58	0.47	7.64						
8-26-76	DetP 87.1(6)	47.40	18.97							
8-26-76	DetP 87.1(6)	356.70	417.35	2.09	34.12					
8-26-76	SedP 57.8(5)	466.77	604.26	4.37	71.33					

26. DATE OF SURVEY	43. DEPTH DESIGNATION RANGE IN FEET BELOW, AND ABOVE, 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. 1976 ELEVATION-AREA-CAPACITY DATA															
ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY	ELEVATION	AREA	CAPACITY							
4016.0	10.15	6.80	4030.0	65.93	480.90	4044.0	159.98	2031.66							
4018.0	17.87	34.43	4032.3	78.49	646.63	4046.0	176.00	2367.18							
4020.8	24.83	93.92	4034.0	90.40	789.90	4048.0	192.02	2734.72							
4022.0	29.90	126.71	4036.0	104.24	984.18	4050.0	211.88	3138.05							
4024.0	35.29	191.76	4038.0	116.00	1204.10	4052.0	228.20	3577.59							
4026.0	42.07	268.94	4040.0	130.93	1450.63	4054.4	246.20	4146.73							
4028.0	52.31	363.04	4042.0	145.47	1726.63										
47. REMARKS AND REFERENCES															
1/ Emergency spillway crest (all pools up to elevation 4054.4).															
2/ Principal spillway crest (including sediment pool and sediment reserve up to elevation 4032.3).															
3/ Sediment pool only (below port at elevation 4020.8).															
4/ Detention pool only (elevation 4032.3 up to elevation 4054.4).															
5/ Pool between elevations 4020.8 and 4032.3.															
48. AGENCY MAKING SURVEY    SCS, Temple, Texas															
49. AGENCY SUPPLYING DATA    SCS, Temple, Texas															
50. DATE    Feb. 1977															