9-275 c
(August 1949)

RECORDED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES DIVISION

DISCHARGE MEASUREMENT NOTES

Meas. No. 510

Comp. by

Checked by

Brazos River at Richmond Tex.

Date April 30, 1957 Party Rosenquest & Sansom

Width 470 Area 12,200 Vel. 6.13 G. H. Disch. 87,900

Method 2-8 No. secs. 23 G. H. change +.02 in hrs. Susp. 100.0

Method coef. .93 Hor. angle coef. 1.00 Susp. coef. 1.00 Meter No. 3051

Date rated 8-12-49 Used rating for rod Rod susp. Meter 1.00 ft. above bottom of wt. Tags checked —

Spin before meas. OK after OK

Meas. plots — % diff. from — rating

Wading, cable, ice, boat, upstr., downstr., side bridge 270 feet, mile, above, below gage, and

Check-bar, chain found 58.69

changed to — at

Correct 58.68

Levels obtained No

GAGE READINGS				w. wt.
Time	Tape	Recorder	Inside	Outside
3:05pm		33.70	+.50	33.90
3:30pm	Start	33.70		
4:45pm	End	33.74		
5:05pm				33.94
Weighted M. G. H.		33.72		
G. H. correction				
Correct M. G. H.				

Measurement rated excellent (2%), good (5%), fair (8%), poor (over 8%), based on following conditions: Cross section Uniform - firm -

Flow Smooth Weather clear to showers -

Other — Air — ° F. @

Gage OK Water — ° F. @

Record removed No Intake flushed U. — L. —

Observer USWB - not seen

Control Channel -

Soundings are uncertain -

Remarks .2 depth method used for entire meas.

Soundings corrected on basis of meas. dated 4-28 and 5-1 (see plotted x-sect filed in Misc. file)

G. H. of zero flow — ft. Sheet No. 1 of 3 sheets.

16—59921-1 U. S. GOVERNMENT PRINTING OFFICE

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

9-275
January 1935

Date Apr. 30, 1957 DISCHARGE MEASUREMENT NOTES

Brazos River, at Richmond, Tex.

Dist. from initial point	Angle Coefficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	Area	Mean depth	Width	Discharge
Lew @ 3:30 pm 100 Cl.o #3051							TG=33.70±.50		WW= 33.90±.02 @ 3:05 pm			
500		0						0	0		10	0
	vertical drag angle											
480	↓	13.5	2.7	40	41	2.16		1.62	338		25	730
			10.8	20	41	1.09						
450	° ↓	20.0	4.0	80	45	3.90		[illegible]	600		30	2,340
			16.0	50	48	2.30						
420	° ↓	21.5	4.3	80	48	3.66		3.66	645		30	2,360
			17.2	80	48	3.66						
390	° ↓	25.6	5.1	100	40	5.46		[illegible]	768		30	4,190
			20.5	80	42	4.17						
360	° ↓	34.0	6.8	100	40	5.46		5.66	1,020		30	5,570
			27.2	150	56	5.86						7080
330	5° ↓	39.8	8.0	150	46			7.12	995		25	~~7,100~~
20' to W.S. 4:00 pm												
310	5° ↓	36.0	7.2	150	42			7.79	720		20	5,610
290	15° ↓	36.0	7.2	150	42			7.79	69~~4~~8		20	5,4~~0~~3
		-1.3 -1.1										
270	22° ↓	37.0	7.4	150	44			7.44	688		20	5120 ~~5,200~~
		-2.6										5870
250	10° ↓	36.4 ~~39.0~~	7.8	150	40			8.18	728 ~~780~~ 718		20	~~5960~~ ~~6,300~~
		-.5										5190
230	15° ↓	36.0 ~~39.0~~	7.8	150	44			7.44	720 ~~780~~ 698 754		20	5360 ~~5,610~~
		-1.8										49480

No. 2 of 3 Sheets. Comp. by JAS Chk. by

Sub. 49,750

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9-275
January 1935

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date Apr. 30, 1957 DISCHARGE MEASUREMENT NOTES

Brazos River, at Richmond, Tex.

Dist. from initial point	Angle Coefficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY At point	VELOCITY Mean in vertical	VELOCITY Mean in section	Area	Mean depth	Width	Discharge
4:17 pm												
210	16°	36.0 / 41.0	8.2	200	53			8.23	820		20	6500
22' to W.S.		-1.5										
190	20°	36.4 / 43.0	8.6	200	55			7.93	860		20	6450
		-2.8										
170	20°	38.0 / 43.2	8.6	150	47			6.97	864		20	5680
		-2.5										
150	20°	38.0 / 42.5	8.5	150	45			7.27	850		20	5880
		-2.5										
130	20°	38.0 / 42.5	8.5	150	43			7.61	850		20	6080
25' to W.S.		-2.5										
110	15°	39.0 / 42.3	8.5	200	54			8.08	846		20	6550
		-1.7										
90	20°	40.0 / 43.5	8.7	150	45			7.27	870		20	5960
		-2.5										
70	5°	22.2	6.4	150	57			5.75	644		20	3700
50	70°	22.0	4.4	25	44	1.26		1.52	230	330	15	350
			17.6	40	50	1.77						
10		10.0	Est v = ½ Δ					.76	100		10	80
30		0						0			5	
	Rev @ 4:45 pm											
WW = 33.94 @ 5:05 pm								Coeff to convert $Q_{.2}$ to $Q_{.2-.8}$ =				x .93
Soundings are in error —								Boyers Adj. factor = 1.02				

No. 2 of 2 Sheets. Comp. by JAS, Chk. by