9-275 c
(July 1935)

RECORDED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES BRANCH

DISCHARGE MEASUREMENT NOTES

Meas. No. 245

Checked by MKR

Date 7-21-44

Brazos River at Richmond, Tex.

Date May 9, 1944 Party Goines and Longacre

Width 461 Area 16,300 Vel. 5.69 G. H. _____ Disch. 92,900

Method .2 No. secs. 24 G. H. change +0.02 in 1.3 hrs. Susp. 100 c 1.0

Method coef. 0.93 Hor. angle coef. as Noted Meter No. 1705 Susp. coef. 1.00

GAGE READINGS (Tape)

Time	C. W. T.	Recorder	Inside	Outside
8:40 a.m.		34.50	34.51	34.45 ± 0.05
9:00	Start		(34.52)	
10:15	Finish		(34.54)	
10:35		34.54	34.55	34.5 ± 0.02
	~~Finish~~ U.S.W.B. W-wt.			
10:40 a.m.				34.81 ± 0.02
Weighted M. G. H.			34.53	
G. H. correction				
Correct M. G. H.				

Date rated Apr. 9 1942 Used rating for rod Red susp. Meter 1.0 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 —

Chain, wire, found 58.58, changed to no at _____

Correct length 58.57

Levels obtained no

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

Flow Smooth Weather Favorable

Other _____

Gage OK

Record removed No Intake flushed No

Observer —

Control Channel Rising 0.02 ft./hr.

Remarks _____

Sheet No. 1 of 4 sheets. G. H. of zero flow _____ ft.

U. S. GOVERNMENT PRINTING OFFICE 6—7440

T 34.51
P 50
O 45 ± 0.05
8:40 am

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9-275
January 1935

Date 5/9/44, 19__ **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	Uncorr area ~~Mean depth~~	Width	Discharge
		Comp. by mid-sect. method Horiz. coeff to area										
LEW 507		0						0	0		13½	0
480	96	15.5	3.1	40	45			2.00	424	442	28½	850
450	96	25.1	5.0	60	48			2.81	663	690	27½	1860
425	98	37.2	7.4	80	45			3.98	912	930	25	3630
400	99	41.1	8.2	100	52			4.31	916	925	22½	3950
380	⊥	43.4	8.8	150	54			6.21	868		20	5380
360		* (42.5) ~~43.5~~	8.7	150	49			6.85	850		20	5830
340	⊥	(41.9) ~~42.9~~	8.6	150	55			6.10	838		20	5110
320		(41.3) ~~43.2~~	8.6	150	52			6.45	826		20	5330
300		(42.2) ~~44.1~~	8.8	150	49			6.85	844		20	5770
280		(42.7) ~~44.6~~	8.9	100	31			7.21	854		20	6150
260		(41.8) ~~43.7~~	8.7	150	46			7.29	836		20	6100

No. 2 of 4 Sheets. Comp. by WHG JKL Chk. by

U. S. GOVERNMENT PRINTING OFFICE 16—26076-1

* (Depth) See sheet 4

T 34.55
P .54
O .5 ± 0.2
10:35 am

W-W 58.5 corr 58.57
34.81 ± 0.02
10:42 am

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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
240	1	(41.9) 43.4	8.7	150	47			7.14	838		20	5980
220		(41.5) 43.4	8.7	150	46			7.29	830		20	6050
200		(42.0) 43.5	8.7	150	45			7.45	840		20	6260
9:40 am												
180		(43.6) 44.8	8.9	150	48			6.99	872		20	6100
160		(42.0) 42.9	8.6	150	51			6.58	840		20	5520
140		(41.8) 42.5	8.5	150	53			6.33	836		20	5290
				Downstr from pier								
120		(42.4) 43.8	8.8	150	54			6.21	742		17½	4610
105		(40.9) 41.9	8.4	150	52			6.45	511		12½	3300
95		(36.5) 37.0	7.4	150	49			6.85	456		12½	3120
80		(28.3) 28.6	5.7	150	55			6.10	495		17½	3020
60		14.0	2.8	60	41			3.28	238		17	780
46		0						0	0		7	0
REW												
									16329		461	99900 × .93 = 92900

No. 3 of 4 Sheets. Comp. by WRG JKL Chk. by

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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
DEPTH CORRECTIONS												
Sta	Dist to W.S	Vert. ∡	obs D.	Air Corr	WL D.	Water Corr		Corr Depth				
360	16'	15°	43.5	.5	43.0	.5		42.5				
340	16'	15°	42.9	.5	42.4	.5		41.9				
320	16'	20°	43.2	1.0	42.2	.9		41.3				
300	16'	20°	44.1	1.0	43.1	.9		42.2				
280	16'	20°	44.6	1.0	43.6	.9		42.7				
260	16'	20°	43.7	1.0	42.7	.9		41.8				
240	16'	18°	43.4	.8	42.6	.7		41.9				
220	16	20°	43.4	1.0	42.4	.9		41.5				
200	16'	18°	43.5	.8	42.7	.7		42.0				
180	16'	16°	44.8	.6	44.2	.6		43.6				
160	17'	14°	42.9	.5	42.4	.4		42.0				
140	18'	12°	42.5	.4	42.1	.3		41.8				
120	19'	16°	43.8	.8	43.0	.6		42.4				
105	20'	14°	41.9	.6	41.3	.4		40.9				
95	22'	10°	37.0	.3	36.7	.2		36.5				
80	24'	8°	28.6	.2	28.4	.1		28.3				
60		0°	14.0									

No. 4 of 4 Sheets. Comp. by WHG Chk. by MRB