9-275 c
(July 1935)

RECORDED

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES BRANCH

DISCHARGE MEASUREMENT NOTES

Meas. No. 146

Checked by M.G.F.

Date 11/29/39

Brazos River at Richmond, Tex.

Date Nov. 14, 1939 Party Gaines and Watson

Width 276 Area 1230 Vel. 0.72 G. H. 2.80 Disch. 880

Method 2-8 No. secs. 20 G. H. change -0.01 in 1 hrs. Susp. 30 & 6

Method coef. ——— Hor. angle coef. ——— Meter No. 1705 Susp. coef. 1.005

GAGE READINGS

Time		Recorder	Inside	Outside
9:12		W.S. W	W.S. W	2.83
9:15	Start	2.80	2.80	2.81
9:15			2.80 + Tape	
9:50	Start	2.80		
10:50	Finish	2.79	+ Tape	
12:00		2.79	2.79	2.79
	Finish			
Weighted M. G. H.		2.80		
G. H. correction				
Correct M. G. H.				

Date rated Nov. 12, 1938 Used rating for rod rod susp. Meter 0.50 ft. above bottom of wt. Tags checked ——— Spin before meas. OK after 1 min. 30 sec. Meas. plots 4 % diff. from 3.8 rating Wading, cable, ice, boat, upstr., downstr., side bridge 1220 feet, mile, above, below gage, and at cable Chain, wire, found 58.58, changed to ——— at ——— Correct length ——— Levels obtained ———

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

Flow Uniform Weather Cloudy & cold

Other Gentle downstr. wind

Gage Checked Nov. 13, 1939

——— Record removed Yes Intake flushed No

Observer Not seen

Control ———

Remarks No silt in well

Rate of change in stage = 0.01 ft./hr.

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

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80 • 75 •

9-275
January 1935

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

85 •

Date Nov 14, 1939 **DISCHARGE MEASUREMENT NOTES**

Brazos River, at Richmond, Tex.

90 •

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 380		0		0	0		0					
								.15	9.75 ~~9.45~~	.65 ~~.63~~	15	1.5 ~~1.4~~
365		1.3	.8	7	55		.30					
								.38	27.75	1.85	15	10.6
350		2.4	1.4	10	49½		.46					
								.46	36.75 ~~37.20~~	2.45 ~~2.48~~	15	16.9 ~~17.2~~
335		2.5	1.5	10	50		.46					
								.54	42.75	2.85	15	23.1
320		3.2	1.9	15	56		.61					
								.60	48.75	3.25	15	29.2 ~~28.6~~
305		3.3	2.0	15	57		.60					
								.62	48.00	3.20	15	29.8
290		3.1	1.8	15	54		.63					
								.60	45.00	3.00	15	27.0
275		2.9	1.7	15	61		.56					
								.67	45.75	3.05	15	30.6
260		3.2	1.9	20	58		.78					
								.80	51.00	3.40	15	40.8
245		3.6	2.9	15	43	.79	.81 ~~.82~~					
			.7	20	54½	.83 ~~.84~~						
								.82 ~~.83~~	58.50	3.90	15	48.0 ~~48.5~~
230		4.2	3.4	15	44	.77	.84					
			.8	20	50	.90						
								.81	67.50 ~~67.75~~	4.50	15	54.7 ~~54.9~~

No. 2 of 4 Sheets. Comp. by E.R.W. Chk. by M.G.F.

75 •

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85 •

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WATER RESOURCES BRANCH

Date Nov 14, 1939 **DISCHARGE MEASUREMENT NOTES**

Brazos River, at Richmond, Tex

90 •

Dist. from initial point	Angle coef-ficient	Depth	Depth of observation	Revolutions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	Mean in section	Area	Mean depth	Width	Discharge
92 •												
94 •												
215		4.8	3.8	15	42	.81 ✓	.78 ✓					
96 •												
			1.6	15	45	.75 ✓						
97 •												
								.84 ✓	75.75 ✓	5.05 ✓	15 ✓	63.6 ✓
98 •												
200		5.3	4.2	15	41½	.82 ✓	.90 ✓					
99 •												
			1.1	20	46½	.97 .98 ✓						
								.86 ✓	89.25 ✓	5.95 ✓	15 ✓	76.7 ✓
185		6.6	5.3	20	60½	.75 ✓	.82 ✓					
			1.3	20	51	.88 ✓						
								.85 ✓	105.75 ✓	7.05 ✓	15 ✓	90.0 ✓
170		7.5	6.0	15	42	.81 ✓	.88 ✓					
99 •			1.5	20	47	.96 ✓						
								.87 ✓	116.25 ✓	7.75 ✓	15 ✓	101.0 ✓
98 •												
155		8.0	6.4	15	46	.74 ✓	.86 ✓					
97 •												
			1.6	20	46	.98 ✓						
96 •												
								.81 ✓	121.50 ✓	8.10 ✓	15 ✓	98.5 ✓
94 •												
140		8.2	6.4	15	50½	.67 ✓	.76 ✓					
92 •			1.6	20	53	.85 ✓						
								.69 .84	128.25 129.75	8.55 ✓	15 ✓	88.5 ✓ 94.5
90 •												
125		8.9	7.1	15	60	.57 ✓	.62 .72					
			1.8	15	50	.68 ✓						
								.48 .74	73.00 ✓ 168.00	7.30 ✓ 6.00	10 ✓	35.0 ✓ 37.3
85 •												
115		5.7	4.6	7	50	.33 ✓	.35 ✓					
			1.1	7	44	.37 ✓						
80 •												
								.36 ✓	23.50 ✓	4.70 ✓	5 ✓	8.4 ✓

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Date Nov 14, 1939 **DISCHARGE MEASUREMENT NOTES**

Brazos River, at Richmond, Tex.

Dist. from initial point	Angle coef-ficient	Depth	Depth of ob-servation	Rev-olu-tions	Time in seconds	VELOCITY: At point	VELOCITY: Mean in vertical	VELOCITY: Mean in section	Area	Mean depth	Width	Discharge
110		3.7	2.2	10	63		.37					
								.18	11410	1.85	6	2.0
REW									13883			98
104		0		0	0		0					
									1000.75		276	844
									1225.85			875.9

Suspension coef = 1.005

875.9 × 1.005 = 880

884 × 1.005 = 888 adj.

No. 4 of 4 Sheets. Comp. by ERW Chk. by MLG

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