9-275 c
(July 1935)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

WATER RESOURCES BRANCH

DISCHARGE MEASUREMENT NOTES

Meas. No. 110

Checked by Ham.

Date

RECORDED

Brazos River at Richmond, Tex.

Date Dec. 6, 1936 Party W. H. Goines

Width 357 Area 3,650 Vel. 2.82 G. H. Disch. 10,300

Method 2-8 No. secs. 20 G. H. change +0.30 in 1.0 hrs. Susp. 20 E 6.7

Method coef. 1.00 Hor. angle coef. 1.00 Meter No. 969 Susp. coef. 1.00

GAGE READINGS				
Time		Recorder	Inside	Outside
6:55 am		8.50	8.50	8.50
9:00	Start	9.30		
9:30		9.49		
10:00	Finish	9.69		
10:10		9.70	9.70	9.70
US WB	Wire	wt. gage		
7:30 am	~~Finish~~			8.71
10:20				9.76
Weighted M. G. H.		9.46		
G. H. correction		-.09		
Correct M. G. H.		9.37		

Date rated July 7, 1936 Used rating for ~~rod~~ ~~15 E 6.7~~ susp. Meter 0.7 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 2.70 feet, ~~mile~~, ~~above~~, below gage, ~~and~~

Chain, wire, found ____, changed to ____ at ____

Correct length ____

Levels obtained ____

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

Flow Uniform Weather Favorable

Other

Gage

Record removed Yes Intake flushed No

Observer

Control

Remarks

Sheet No. 1 of 5 sheets. G. H. of zero flow ____ ft.

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80 • 75 •

9-275
January 1935

85 •

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 12/5/36, 19___ DISCHARGE MEASUREMENT NOTES

Brazos River, at Richmond, Tex.

90 •

92 •

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
		St	8:05 am									
LEW 449		0				0						
440		3.0		15	50							
420		4.6		30	61½							
400		6.0 ~~4.0~~										
		Start			9:00 am							
449		0				0						
								.36	14.8		9	5
440		3.3	2.0	15	49	.71						
								.90	79		20	71
420		4.6	.9	30	56	1.21	1.08					
			3.7	30	72	.95						
								1.38	109		20	151
400		6.3	1.3	40	46	1.96	1.67					
			5.0	30	49	1.38						
								1.92	140		20	269
380		7.7	1.5	50	48	2.33	2.16					
			6.2	40	45	2.00						
								2.68	170		20	455
360		9.3	1.9	70	41	3.84	3.19					
			7.4	50	44	2.54						

No. 2 of 5 Sheets. Comp. by WHS. Chk. by WWH.

75 •

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January 1935

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 12/5/36, 19__ 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
								3.18	196		20	623
340		10.6	2.1	70	42	3.75	3.19					
			8.5	50	42½	~~2.58~~ 2.63						
9:15 am								3.26	222		20	722
320		11.6	2.3	80	47	3.81	3.34					
			9.3	50	39	2.86						
								3.30	233		20	769
300		11.7	2.3	70	41	3.84	3.25					
			9.4	50	42	2.66						
								3.32	233		20	774
280		11.6	2.3	70	40	3.93	3.40					
			9.3	60	47	2.87						
								3.46	233		20	806
260		11.7	2.3	80	47	3.81	3.53					
			9.4	60	41½	3.25						
								3.44	235		20	807
240		11.8	2.4	80	48	3.73	3.34					
			9.4	60	45½	2.96						
								3.38	244		20	825
220		12.6	2.5	70	38½	4.08	3.42					
			10.1	60	49	2.75						
9:30 am								3.44	261		20	898
200		13.5	2.7	80	44	4.07	3.46					
			10.8	60	47½	2.84						
								3.65	273		20	995

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January 1935

UNITED STATES
DEPARTMENT OF THE INTERIOR
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WATER RESOURCES BRANCH

Date 12/5/36, 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	Mean depth	Width	Discharge
180		13.8	2.7	70	40½	3.88	3.84					
			11.1	70	41½	3.80						
								3.42	284		20	972
160		14.6	3.0	60	44	3.07	3.00					
			11.6	60	46	2.93						
								2.32	309		20	717
140		16.3	3.3	30	64	1.05	1.64					
			13.0	40	40½	2.22						
								1.41	153		10	216
130		14.3	2.9	30	53	1.27	1.18					
			11.4	20	41	1.10						
								.83	169		15	140
115		8.2	1.6	15	51	.68	.48					
			6.6	5	42	.29						
								.60	82		15	49
100		2.7	1.1	15	48	.72	.72					
								.36	11		8	4
92		0				0						
REW.												
			found 10.00									
									3650.8			10,288

No. 4 of 5 Sheets. Comp. by WHS. Chk. by WWK

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(Sept., 1927)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 12/5/36, 19____ No. of Meas.____

SUPPLEMENTARY DISCHARGE MEASUREMENT NOTES

Brazos R. nr. Richmond, Tex.

Enter on this form ample notes in regard to the following:

1. Accuracy of measurement; 2, gage; 3, observer; 4, bench marks; 5, gage-height corrections; 6, adjustments to total discharge; 7, station equipment; 8, channel, control, and point of zero flow; 9, rating, backwater; 10, diversions, regulation; 11, records; 12, cooperation.

W.M. GH.

40 x 7175 = 287000

59 x 3093 = 182487

10,268 469487

$\frac{469487}{10268} = .46$

W.M.GH. = 9.46

Comp. WHG Check

No. 5 of 5 sheets

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