9-275 c
(July 1935)

clock X°
264337
cl. 10/8/45

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Meas. No. 273
Checked by MAE
Date 1-29-46

RECORDED

DISCHARGE MEASUREMENT NOTES

Brazos River at Richmond, Tex

Date Jan. 17, 1946 Party W.H. Goines

Width 410 Area 6350 Vel. 4.91 G. H. ____ Disch. 31,200

Method .2-.8 No. secs. 25 G. H. change +0.04 in 1.4 hrs. Susp. 100C1.0

Method coef. 1.00 Hor. angle coef. Noted (AS) Meter No. 1791 Susp. coef. 1.00

GAGE READINGS (Tape)

Time	G. W. T.	Recorder	Inside	Outside
9:50 a.m.		16.15	16.15	16.3 +a?
10:45	Start		(16.18)	
12:10	Finish		(16.22)	
12:40 p.m.		16.23	16.23	16.4 +a?
USWB	W-wt. Gage.			
9:55 a.m.	Finish			16.33
12:45 p.m.				16.40
Weighted M. G. H.			16.20	
G. H. correction				
Correct M. G. H.				

Date rated June 1, 1943 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 58.59,

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 Good soundings, max. vert. ∠ 5° no corr. applied.

Gage ok

Record removed No Intake flushed No

Observer ~~Usually the water surface at about this stage is choppy (indicating an unstable stream bed). On~~

Control ~~this date the w.s. was very smooth~~

Remarks RATE OF CHANGE IN STAGE, +0.03 ft./HR.

Control - Channel control

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

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80 • 75 •

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

9-275
January 1935

85 •

Date 1-17-46, 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
92 • 10:45												
94 •		100	1.0	179								
96 • LEW 470		0						0	0		5	0
97 •												
98 • 460	⊥	7.4	1.5	40	47	1.96		1.86	111	74 37	15	210
99 •			5.9	40	52	1.77						
440		10.8	2.2	80	55	3.33		3.13	216		20	680
			8.6	60	47	2.93	36					
420		12.4	2.5	80	50	3.66		3.30	248		20	820
			9.9	60	47	2.93	59					
400	⊥	11.9	2.4	100	45	5.07		4.76	238		20	1130
99 •			9.5	80	41	4.46						
380	99	12.9	2.6	100	41	5.57		5.38	255	258	20	1370
98 •			10.3	100	44	5.19						
97 •												
96 • 360	99	12.8	2.6	150	54	6.34		5.82	253	256	20	1470
			10.2	100	43	5.31						
94 • 340	99	12.3	2.5	150	57	6.00		5.95	244	246	20	1450
92 •			9.8	150	58	5.90						
320	99	12.5	2.5	150	55	6.22		6.06	248	250	20	1500
90 • 11:10 am			10.0	150	58	5.90	14					
300	99	13.5	2.7	150	52	6.58		6.34	267	270	20	1690
			10.8	150	56	6.11						
85 • 280	99	15.3	3.1	150	57	6.00		5.60	303	306	20	1700
			12.2	100	44	5.19						
80 • 260	99	18.5	3.7	150	58	5.90		5.54	366	370	20	2030
			14.8	100	44	5.19						

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75 •

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9-275
January 1935

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 1/17/46, 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
240	99	21.9	4.4	150	57	6.00		5.43	434	438	20	2,360
			17.5	100	47	4.86						
220	99	22.2	4.4	150	56	6.11		4.92	440	444	20	2160
			17.8	80	49	3.74	985					
200	⊥	20.1	4.0	150	56	6.11		5.34	402	402	20	2140
			16.1	80	40	4.57						
180	⊥	18.9	3.8	150	56	6.11		5.38	331		17½	1780
			15.1	100	49	4.66						
165	⊥	17.6	3.5	150	55	6.22		5.64	264		15	1490
		8.5	14.1	100	45	5.07						
150	⊥	20.1	4.0	100	47	4.86		4.42	302		15	1340
		10.5	16.1	80	46	3.98						
135	⊥	20.2	4.0	100	51	4.48		4.28	303		15	1300
			16.2	100	56	4.08						
120		23.4	4.7	80	41	4.46		4.36	351		15	1530
		11.7	18.7	80	43	4.25						
105		23.1	4.6	100	50	4.57		4.36	346		15	1510
		11.55	18.5	100	55	4.16						
90	⊥	17.8	3.6	100	48	4.76		4.18	222		12½	930
			14.2	80	51	3.59	35					
80		12.9	2.6	80	46	3.98		3.56	129		10	460
			10.3	60	44	3.13						
70		7.4	1.5	25	49	1.18		1.40	74		10	100
			5.9	40	57	1.62						
60		0						0	0	6347	5	0

Gage Well & Pier above

12:10 M

LEW

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31150

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Recomp. meas of 1-17-46 by 0.2 depth method to check curve Q_2 vs Q_{2-8}

9-275
January 1935

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

Date 1-17-46, 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
LEW 470								0	0			0
460								1.96	111			220
440								3.33	216			720
420								3.66	248			910
400								5.07	238			1210
380								5.57	255			1420
360								6.34	253			1610
340								6.06	244			1460
320								6.22	248			1540
300								6.58	267			1760
280								6.00	303			1820
260								5.90	366			2160
240								6.00	434			2600
220								6.11	440			2690
200								6.11	402			2460
180								6.11	331			2020
165								6.22	264			1640
150								4.86	302			1470
135								4.48	303			1360
120								4.46	351			1570
105								4.57	346			1580
90								4.76	222			1060
80								3.98	129			510
70								1.18	174			90
60								0	0			0

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LEW

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SEE BACK THIS SHEET

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
WATER RESOURCES BRANCH

3-275
January 1958

Date 1-17-46, 19__ DISCHARGE MEASUREMENT NOTES

River, at

Dist. from initial point	Angle coef. ft. elect	Depth	Depth of obs. Rev. olu. tions	Time in sec. onds	VELOCITY At point	VELOCITY Mean	VELOCITY Mean	Area	Mean depth	Width	Discharge
										$C = \frac{Q_{2-8}}{Q_{.2}}$	$= \frac{31.150}{33880} = 0.919$
0								0			
220											
240											
260											
280											
300											
320											
340											
360											
380											
400											
420											
440											
460											
480											
500											
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980											
1000											

RECORDED

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