

Geological Survey  
Water Resources Division

Processed by BB

Ck'd by\_\_\_\_\_

Sta. No. \_\_\_\_\_ Acoustic Profiler Discharge Measurement Notes Ck'd by \_\_\_\_\_

Sta. Name INFLOW/OUTFLOW 1

Date 5/17, 2011 Party BB, CR

Width 1270 Area 17100 Vel. 5.09 G.H. — Disch. 86.900

Profiler Water Temp. 17.6 °C at 0925 Rated area: \_\_\_\_\_ Index Velocity \_\_\_\_\_

Profiler S/N: 2339 Mfr: RDI Freq: 1200 Firmware: 10.16 Software Ver: 2.07

Depth Cell Size	25	Other commands:	Profiler Depth 1.80
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No. of Cells		Config. file	
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Blanking Distance 25 Deployment mmB

Water Mode	12	Moving Bed	000
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Ambiguity Vel.	254	Moving Bed Present:	Y (N)
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Water pings	Diag. Test <u>YES</u>
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Bottom pings	1	Diag Test Errors:	Y (N)
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Boat/Motor Used Waxpridge ADCP Time to WT ☐ @ \_\_\_\_\_ GPS: ☒

Mag. Var. 1) MODEL 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_ Avg: -1.4 Comp. Cal.: ✓

GAGE READINGS					
Time				Inside	Outside
Weighed MGH					
GH correction					
Correct MGH					

Samples collected: water quality, sediment, biological, other: \_\_\_\_\_

Measurements documented on other sheets:  
water quality, aux/base gage, other:

Rain gage serviced/calibrated \_\_\_\_\_

Weather\_\_\_\_\_

Wind Spd. \_\_\_\_\_ Dir. \_\_\_\_\_

Air Temp. \_\_\_\_\_ °C at \_\_\_\_\_

Water Temp. \_\_\_\_\_ °C at \_\_\_\_\_

Specific. Cond: \_\_\_\_\_

Checkbar/chain found\_\_\_\_\_

Changed to \_\_\_\_\_ at \_\_\_\_\_

Correct \_\_\_\_\_

Wading, cable, ice, boat, upstr., downstr., side bridge, \_\_\_\_\_ ft., mi. upstr., downstr. of gage.

Measurement rated: excellent (2%), good (5%), fair (8%), ~~poor (>8%)~~ based on following conditions:

Flow: UNEVEN, SWIRLS, MULTI-DIRECTIONAL FLOW

Cross section: SILT MUD, CROP FIELD, MOSTLY EVEN

Control: \_\_\_\_\_

Gage operating:\_\_\_\_\_ Record removed: Y or N    Filename:\_\_\_\_\_

Battery voltage: \_\_\_\_\_ Intakes/Orifice cleaned/purged: \_\_\_\_\_

Bubble-gage psi: Tank \_\_\_\_\_, Line \_\_\_\_\_; Bubble rate \_\_\_\_\_/min.

Extreme-GH indicators: max \_\_\_\_\_, min \_\_\_\_\_.

CSG checked: \_\_\_\_\_ HWM height on stick \_\_\_\_\_ Ref elev \_\_\_\_\_ HWM elev \_\_\_\_\_

Remarks: BOTTOM TRACK REFERENCE INCLUDED - NO CORRECTION

RECOMMENDED

GH of zero flow = GH \_\_\_\_\_ - depth at control \_\_\_\_\_ = \_\_\_\_\_ ft, rated \_\_\_\_\_

Station Number:

Meas. No:

Station Name: Inflow/Outflow 1

Date: 05/17/2011

Party: BB,CR	Width: 1,270 ft	Processed by: BB
Boat/Motor: wooldridge	Area: 17,100 ft <sup>2</sup>	Mean Velocity: 5.09 ft/s
Gage Height: 0.00 ft	G.H.Change: 0.000 ft	Discharge: 86,900 ft <sup>3</sup> /s
Area Method: Avg. Course	ADCP Depth: 1.800 ft	Index Vel.: 0.00 ft/s
Nav. Method: DGPS	Shore Ens.:10	Rating No.: 1
MagVar Method: None (-1.4°)	Bottom Est: Power (0.1667)	Adj.Mean Vel: 0.00 ft/s
Depth Sounder: Not Used	Top Est: Power (0.1667)	Qm Rating: P
		Rated Area: 0.000 ft <sup>2</sup>
		Diff.: 0.000%
		Control1: Unspecified
		Control2: Unspecified
		Control3: Unspecified

Screening Thresholds:	ADCP:
BT 3-Beam Solution: YES	Type/Freq.: Rio Grande/1200 kHz
WT 3-Beam Solution: NO	Serial #: 2339
BT Error Vel.: 0.33 ft/s	Firmware: 10.16
WT Error Vel.: 3.50 ft/s	Bin Size: 25 cm
BT Up Vel.: 1.00 ft/s	Blank: 25 cm
WT Up Vel.: 10.00 ft/s	BT Mode: 5
Use Weighted Mean Depth: YES	BT Pings: 1
	WT Mode: 12
	WT Pings: 1
	WV : 254
	WO : 1, 9
	Max. Vel.: 14.0 ft/s
	Max. Depth: 48.1 ft
	Mean Depth: 13.4 ft
	% Meas.: 66.14
	Water Temp.: None
	ADCP Temp.: 17.6 °C

Performed Diag. Test: YES  
 Performed Moving Bed Test: YES  
 Performed Compass Test: YES  
 Meas. Location: at breach

Project Name: breachinflow7.mmt  
 Software: 2.07

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad		
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins	
000	R	120	80	584	17540	56259	10112	133	-54.9	83989	1226	16381	09:23	09:29	4.09	5.13	17	2	
001	L	120	97	394	19059	58662	11819	315	-88.1	89767	1319	17804	09:29	09:33	5.58	5.04	10	1	
Mean		120	89	489	18299	57461	10965	224	-71.5	86878	1273	17093	Total	00:09	4.84	5.09	14	1	
SDev		0	12	134	1074	1700	1207	128	23.5	4085	65.8	1006.2				1.06	0.06		
SD/M		0.00	0.14	0.27	0.06	0.03	0.11	0.57	0.33	0.05	0.05	0.06				0.22	0.01		

Remarks:

Station Number:

Meas. No:

Station Name: Inflow/Outflow 1

Date: 05/17/2011

Party: BB,CR

Width: 1,280 ft

Processed by: BB

Boat/Motor: wooldridge

Area: 17,000 ft<sup>2</sup>

Mean Velocity: 4.58 ft/s

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: 77,800 ft<sup>3</sup>/s

Area Method: Avg. Course

ADCP Depth: 1.800 ft

Index Vel.: 0.00 ft/s

Rating No.: 1

Nav. Method: Bottom Track *NO CORRECTION*

Shore Ens.:10

Adj.Mean Vel: 0.00 ft/s

Qm Rating: P

MagVar Method: None (-1.4°) *RECOMMENDED*

Bottom Est: Power (0.1667)

Rated Area: 0.000 ft<sup>2</sup>

Diff.: 0.000%

Depth Sounder: Not Used

Top Est: Power (0.1667)

Control1: Unspecified

Control2: Unspecified

Control3: Unspecified

## Screening Thresholds:

BT 3-Beam Solution: YES

Max. Vel.: 13.4 ft/s

WT 3-Beam Solution: NO

Max. Depth: 48.1 ft

BT Error Vel.: 0.33 ft/s

Mean Depth: 13.3 ft

WT Error Vel.: 3.50 ft/s

% Meas.: 65.83

BT Up Vel.: 1.00 ft/s

Water Temp.: None

WT Up Vel.: 10.00 ft/s

ADCP Temp.: 17.6 °C

Use Weighted Mean Depth: YES

## ADCP:

Type/Freq.: Rio Grande/1200 kHz

Serial #: 2339

Firmware: 10.16

Bin Size: 25 cm

Blank: 25 cm

BT Mode: 5

BT Pings: 1

WT Mode: 12

WT Pings: 1

WV : 254

WO : 1, 9

Performed Diag. Test: YES

Project Name: breachinflow7.mmt

Performed Moving Bed Test: YES

Software: 2.07

Performed Compass Test: YES

Meas. Location: at breach

Tr.#	Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
	L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000 R	120	80	584	15646	49336	8846	144	-47.8	73924	1194	15702	09:23	09:29	4.23	4.71	27	2
001 L	120	97	394	17618	53133	10734	313	-67.7	81730	1365	18361	09:29	09:33	5.77	4.45	25	0
Mean	120	89	489	16632	51234	9790	228	-57.7	77827	1279	17032	Total	00:09	5.00	4.58	26	1
SDev	0	12	134	1394	2684	1335	119	14.0	5519	121.0	1880.1			1.09	0.18		
SD/M	0.00	0.14	0.27	0.08	0.05	0.14	0.52	0.24	0.07	0.09	0.11			0.22	0.04		

Remarks:

LC Version 3.20, July 8, 2010

Processed on: 14-Jun-2011

Loop File: breachinflow700011-05-17LBTASC.TXT

Distance Made Good (ft)	Loop Time (sec)	Moving Bed Velocity (ft/s)	Moving Bed Direction (degrees)	Flow Direction (degrees)	Estimated Percent Correction (percent)
116.69	377.01	0.31	193.23	74.06	10.36

Percent Bad Bottom Track: 21.8

WARNING: Percentage of bad bottom track values exceeds 5.  
Loop may not be accurate. Please review data.

Difference in flow direction between out and back sections: 0.5 deg

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Loop Closure Error not in Upstream Direction -- No Correction Recommended

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