

## Meas. No. \_\_\_\_\_

Geological Survey  
Water Resources Division

Processed by BB

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

Sta. No. 2 Ck'd by                     Sta. Name INFLOW/OUTFLOW 1

Date 5/18, 20 11 Party BB, CR

Width 1740 Area 16200 Vel. 5.18 G.H. — Disch. 83.700

Profiler Water Temp. 17.9 °C at 0945 Rated area: \_\_\_\_\_ Index Velocity \_\_\_\_\_

Profiler S/N: 2339 Mfg: LD1 Freq: 1200 Firmware: 10.16 Software Ver: 2.07

Depth Cell Size	14	Other commands:	Profiler Depth <u>180</u>
No. of Cells			Config. file _____
Blanking Distance	25		Deployment <u>MMB</u>
Water Mode	12		Moving Bed <u>000</u>
Ambiguity Vel.	303		Moving Bed Present: <input checked="" type="radio"/> Y <input type="radio"/> N
Water pings	1		Diag. Test <u>YES</u>
Bottom pings	1		Diag. Test Errors: Y <input checked="" type="radio"/> N <input type="radio"/>

Boat/Motor Used WOOLDRIDGE 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: 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 WITH LOOP CORRECTION

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

Station Number:

Meas. No:

Station Name: Inflow/Outflow 1

Date: 05/18/2011

Party: BB,CR

Width: 1,740 ft

Processed by: BB

Boat/Motor: wooldridge

Area: 16,200 ft<sup>2</sup>

Mean Velocity: 5.18 ft/s

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: 83,700 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: DGPS

Shore Ens.:10

Adj.Mean Vel: 0.00 ft/s

Qm Rating: P

MagVar Method: None (-1.4°)

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

WT 3-Beam Solution: NO

BT Error Vel.: 0.33 ft/s

WT Error Vel.: 3.50 ft/s

BT Up Vel.: 1.00 ft/s

WT Up Vel.: 10.00 ft/s

Use Weighted Mean Depth: YES

Max. Vel.: 13.6 ft/s

Max. Depth: 28.2 ft

Mean Depth: 9.29 ft

% Meas.: 55.26

Water Temp.: None

ADCP Temp.: 17.9 °C

## ADCP:

Type/Freq.: Rio Grande/1200 kHz

Serial #: 2339

Firmware: 10.16

Bin Size: 14 cm

Blank: 25 cm

BT Mode: 5

BT Pings: 1

WT Mode: 12

WT Pings: 1

WV : 303

WO : 1, 8

Performed Diag. Test: YES

Project Name: breachinflow8.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	71	105	526	28761	46989	9406	47.5	70.2	85274	1709	15592	09:33	09:41	4.17	5.47	6	3
001	L	112	103	392	27181	45487	9505	-6.78	-96.3	82069	1772	16766	09:41	09:47	5.58	4.90	9	2
<b>Mean</b>		92	104	459	27971	46238	9455	20.4	-13.0	83672	1740	16179	<b>Total</b>	00:14	4.87	5.18	8	3
<b>SDev</b>		29	1	95	1118	1062	69.9	38.4	118	2266	44.6	830.4			1.00	0.41		
<b>SD/M</b>		0.32	0.01	0.21	0.04	0.02	0.01	1.88	9.05	0.03	0.03	0.05			0.21	0.08		

Remarks:

Station Number:

Meas. No:

Station Name: Inflow/Outflow 1

Date: 05/18/2011

Party: BB,CR

Width: 1,730 ft

Processed by: BB

Boat/Motor: wooldridge

Area: 15,700 ft<sup>2</sup>Mean Velocity: ~~4.71 ft/s~~ 5.08

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: ~~73,000 ft<sup>3</sup>/s~~ 79,814

Area Method: Avg. Course

ADCP Depth: 1.800 ft

Index Vel.: 0.00 ft/s

Rating No.: 1

Nav. Method: Bottom Track *Loop CORRECTED*

Shore Ens.:10

Adj.Mean Vel: 0.00 ft/s

Qm Rating: P

MagVar Method: None (-1.4°)

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.: 13.6 ft/s

## ADCP:

WT 3-Beam Solution: NO

Max. Depth: 28.2 ft

Type/Freq.: Rio Grande/1200 kHz

BT Error Vel.: 0.33 ft/s

Mean Depth: 9.04 ft

Serial #: 2339

Firmware: 10.16

WT Error Vel.: 3.50 ft/s

% Meas.: 54.81

Bin Size: 14 cm

Blank: 25 cm

BT Up Vel.: 1.00 ft/s

Water Temp.: None

BT Mode: 5

BT Pings: 1

WT Up Vel.: 10.00 ft/s

ADCP Temp.: 17.9 °C

WT Mode: 12

WT Pings: 1

Use Weighted Mean Depth: YES

WV : 303

WO : 1, 8

Performed Diag. Test: YES

Project Name: breachinflow8.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	71	105	526	26658	41423	8228	-36.3	81.9	76354	1613	14294	09:33	09:41	4.16	5.34	23	3
001	L	112	103	391	23482	38610	7661	21.8	-111	69663	1847	17040	09:41	09:47	5.95	4.09	33	2
<b>Mean</b>		92	104	458	25070	40016	7945	-7.26	-14.5	73009	1730	15667	<b>Total</b>	00:14	5.06	4.71	28	3
<b>SDev</b>		29	1	95	2246	1989	401	41.1	136	4731	165.8	1941.7			1.26	0.89		
<b>SD/M</b>		0.32	0.01	0.21	0.09	0.05	0.05	5.67	9.37	0.06	0.10	0.12			0.25	0.19		

Remarks:

LC Version 3.20, July 8, 2010

Processed on: 14-Jun-2011

Loop File: breachinflow800011-05-18LBTASC.TXT

Distance Made Good (ft)	Loop Time (sec)	Moving Bed Velocity (ft/s)	Moving Bed Direction (degrees)	Flow Direction (degrees)	Estimated Percent Correction (percent)
233.92	730.96	0.32	210.78	64.63	9.89

Percent Bad Bottom Track: 29.9

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: 19.4 deg

WARNING: Flow direction too noisy for valid assessment of compass.

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Loop Indicates a Moving Bed -- Select transects to be corrected

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File Name	Original Discharge cfs	Adjusted Discharge cfs
breachinflow800011-05-18ASC.TXT	76353.70	82481.67
breachinflow800111-05-18ASC.TXT	69650.10	77148.23
Average	73001.90	79814.95