

Meas. No. _____

Geological Survey
Water Resources Division

Processed by BS

Sta. No. _____ Acoustic Profiler Discharge Measurement Notes _____

Ck'd by_____

Sta. Name INFLOW/OUTFLOW 1

Date 5/12, 2011 Party BB, SS

Width 817 Area 11000 Vel. 5.58 G.H. — Disch. 61,300

Profiler Water Temp. 18.4 °C at 0950 Rated area: _____ Index Velocity _____

Profiler S/N: 2339 Mfg: R01 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 mm5

Water Mode	12	Moving Bed	008
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Ambiguity Vel.	175	Moving Bed Present:	(Y) N
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Water pings	1	Diag. Test	YES
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Bottom pings	/	Diag Test Errors:	Y (N)
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Boat/Motor Used WINDRIDGE ADCP Time to WT ☐ @ GPS: ☒

Mag. Var. 1) model 2) _____ 3) _____ 4) _____ Avg: 1.4 Comp. Cal.: ✓

GAGE READINGS						Samples collected: water quality, sediment, biological, other:
Time					Inside	Outside
Weighed MGH						
GH correction						
Correct MGH						

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 SILT-MUD 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: 2

Station Name: Inflow/Outflow 1

Date: 05/12/2011

Party: BB,SS

Width: 817 ft

Processed by: BB

Boat/Motor: wooldridge

Area: 11,000 ft²

Mean Velocity: 5.58 ft/s

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: 61,300 ft³/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: Model (-1.4°)

Bottom Est: Power (0.1667)

Rated Area: 0.000 ft²

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.: 8.00 ft/s

Use Weighted Mean Depth: YES

Max. Vel.: 17.0 ft/s

Max. Depth: 15.6 ft

Mean Depth: 13.5 ft

% Meas.: 58.77

Water Temp.: None

ADCP Temp.: 18.4 °C

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 : 175

WO : 1, 5

Performed Diag. Test: YES

Performed Moving Bed Test: YES

Performed Compass Test: YES

Meas. Location: at breach

Project Name: breachinflow.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	L	0	0	414	15623	40279	8284	0.000	0.000	64186	914	12292	09:38	09:40	6.15	5.22	2	0
001	R	0	0	491	18874	36580	8617	0.000	0.000	64070	944	12467	09:44	09:47	5.45	5.14	1	0
002	L	0	0	445	17729	37926	7985	0.000	0.000	63641	787	10984	09:47	09:51	5.52	5.79	2	0
003	R	0	0	356	16375	31634	7217	0.000	0.000	55226	714	9410	09:51	09:53	5.61	5.87	1	0
004	L	0	0	368	18913	35707	8030	0.000	0.000	62650	872	11276	09:55	09:57	7.72	5.56	5	0
005	R	0	0	312	17199	34395	7944	0.000	0.000	59538	743	9929	09:57	10:00	6.40	6.00	2	0
006	L	0	0	445	16224	36226	7352	0.000	0.000	59802	761	11076	10:00	10:03	5.17	5.40	0	0
007	R	0	0	363	17667	35227	8026	0.000	0.000	60920	803	10819	10:03	10:05	6.16	5.63	2	0
Mean	0	0	399	17326	35997	7932	0.000	0.000	61254	817	11032	Total	00:27	6.02	5.58	2	0	
SDev	0	0	59	1209	2528	457	0.000	0.000	3063	83.7	1042.0			0.81	0.31			
SD/M	0.00	0.00	0.15	0.07	0.07	0.06	0.00	0.00	0.05	0.10	0.09			0.13	0.06			

Remarks:

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 50% from the mean

Station Number:

Meas. No:

Station Name: Inflow/Outflow 1

Date: 05/12/2011

Party: BB,SS

Width: 813 ft

Processed by: BB

Boat/Motor: wooldridge

Area: 11,000 ft²Mean Velocity: ~~4.27~~ ft/s *5.98*

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: ~~46,800~~ ft³/s *65,839*

Area Method: Avg. Course

ADCP Depth: 1.800 ft*

Index Vel.: 0.00 ft/s

Rating No.: 1

Nav. Method: Bottom Track

Shore Ens.:10

Adj.Mean Vel: 0.00 ft/s

Qm Rating: P

MagVar Method: Model (-1.6°)

Bottom Est: Power (0.1667)

Rated Area: 0.000 ft²

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.: 8.00 ft/s

Use Weighted Mean Depth: YES

Max. Vel.: 26.4 ft/s

Max. Depth: 15.6 ft

Mean Depth: 13.6 ft

% Meas.: 58.80

Water Temp.: None

ADCP Temp.: 18.4 °C

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 : 175

WO : 1, 5

Performed Diag. Test: YES

Project Name: breachinflow.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	L	0	0	414	11741	30158	6101	0.000	0.000	48001	888	11890	09:38	09:40	5.54	4.04	29	0
001	R	0	0	491	14947	29011	7010	0.000	0.000	50968	906	11996	09:44	09:47	5.10	4.25	24	0
002	L	0	0	445	13330	28345	6206	0.000	0.000	47881	825	11584	09:47	09:51	5.35	4.13	27	0
003	R	0	0	356	13767	26497	6232	0.000	0.000	46496	734	9687	09:51	09:53	5.58	4.80	24	0
004	L	0	0	365	13244	25767	5556	0.000	0.000	44566	841	11019	09:55	09:57	7.11	4.05	29	0
005	R	0	0	308	13467	26857	6295	0.000	0.000	46618	693	9270	09:57	10:00	5.83	5.03	33	0
006	L	0	0	445	11431	25978	5214	0.000	0.000	42623	823	12035	10:00	10:03	5.16	3.54	22	0
007	R	0	0	363	13448	27409	6145	0.000	0.000	47003	791	10777	10:03	10:05	5.82	4.36	26	0
Mean	0	0	0	398	13172	27503	6095	0.000	0.000	46770	813	11032	Total	00:27	5.68	4.27	27	0
SDev	0	0	0	60	1120	1550	532	0.000	0.000	2466	72.0	1066.1			0.64	0.47		
SD/M	0.00	0.00	0.15	0.09	0.06	0.09	0.09	0.00	0.00	0.05	0.09	0.10			0.11	0.11		

Remarks:

* - value not consistent for all transects

Discharge for transects in *italics* have a total Q more than 50% from " "

LC Version 3.20, July 8, 2010

Processed on: 13-Jun-2011

Loop File: breachinflow00811-05-12LBTASC.TXT

Distance Made Good (ft)	Loop Time (sec)	Moving Bed Velocity (ft/s)	Moving Bed Direction (degrees)	Flow Direction (degrees)	Estimated Percent Correction (percent)
430.03	278.88	1.54	211.88	38.88	41.44

Percent Bad Bottom Track: 30.1

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: 1.4 deg

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

File Name	Original Discharge cfs	Adjusted Discharge cfs
breachinflow00011-05-12ASC.TXT	48000.60	70247.24
breachinflow00111-05-12ASC.TXT	50968.00	73397.91
breachinflow00211-05-12ASC.TXT	47881.10	68020.52
breachinflow00311-05-12ASC.TXT	42540.90	59032.26
breachinflow00511-05-12ASC.TXT	47052.20	63290.00
breachinflow00611-05-12ASC.TXT	42622.90	58868.45
breachinflow00711-05-12ASC.TXT	47002.60	68017.81
Average	46581.19	65839.17

→ 004 WOULD NOT PROCESS THROUGH LC UNKNOWN REASON?