

Meas. No. _____

9-275-I
REV (10-01)

Geological Survey
Water Resources Division

Processed by SB

Acoustic Profiler Discharge Measurement Notes

Sta. No. _____ Acoustic Prolifer Discharge Measurement Notes Ck'd by _____

Sta. Name NEW MADRID FLOODWAY OUTFLOW

Date 5/12, 20 11 Party BB, SS

Width 15,900 Area 311,000 Vel. 1.04 G.H. — Disch. 324,000

Profiler Water Temp. 19.3 °C at 1130 Rated area: _____ Index Velocity _____

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

Depth Cell Size	25	Other commands:	
No. of Cells			
Blanking Distance	25		
Water Mode	12		
Ambiguity Vel.	175		
Water pings	1		
Bottom pings	1		

Profiler Depth 1.80

Config. file _____

Deployment MANNED BOAT

Moving Bed 002

Moving Bed Present: Y ☒ N

Diag. Test YES

Diag. Test Errors: Y N

Boat/Motor Used WOODRIDGE ADCP Time to WT ☐ @ _____ GPS: ✓

Mag. Var. 1) MODEL 2) _____ 3) _____ 4) _____ Avg: 1.3 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 HOT, SUNNY

Wind Spd. 5-15 Dir. VAR

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: MOSTLY EVEN

Cross section: FARMLAND, TREES, BRUSH, UNEVEN

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: GPS DATA INCONSISTENT / DIRECTIONAL BIAS

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

Station Number:

Meas. No:

Station Name: New Madrid Floodway Outflow

Date: 05/12/2011

Party: BB,SS

Width: 15,900 ft

Processed by: BB

Boat/Motor: woodridge

Area: 311,000 ft²

Mean Velocity: 1.04 ft/s

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: 324,000 ft³/s

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: None (-1.3°)

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

Max. Vel.: 4.01 ft/s

ADCP:

WT 3-Beam Solution: NO

Max. Depth: 42.2 ft

Type/Freq.: Rio Grande/1200 kHz

BT Error Vel.: 0.33 ft/s*

Mean Depth: 19.6 ft

Serial #: 2339

Firmware: 10.16

WT Error Vel.: 3.50 ft/s

% Meas.: 69.31

Bin Size: 25 cm

Blank: 25 cm

BT Up Vel.: 1.00 ft/s

Water Temp.: None

BT Mode: 5

BT Pings: 1

WT Up Vel.: 4.00 ft/s

ADCP Temp.: 19.3 °C

WT Mode: 12

WT Pings: 1

Use Weighted Mean Depth: YES

WV : 175

WO : 3, 6

Performed Diag. Test: YES

Project Name: newMadridoutflow.mml

Performed Moving Bed Test: YES

Software: 2.07

Performed Compass Test: YES

Meas. Location: near new madrid

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	160	98	4164	64017	223711	35184	233	408	323553	15879	311448	11:09	11:52	6.46	1.04	0	0
001	L	160	109	3555	63752	224904	34030	317	712	323715	15866	309998	11:52	12:28	7.54	1.04	0	0
Mean		160	103	3859	63884	224308	34607	275	560	323634	15873	310723	Total	01:19	7.00	1.04	0	0
SDev		0	8	431	187	843	816	59.2	215	114	9.5	1025.8			0.76	0.00		
SD/M		0.00	0.08	0.11	0.00	0.00	0.02	0.22	0.38	0.00	0.00	0.00			0.11	0.00		

Remarks:

* - value not consistent for all transects

LC Version 3.20, July 8, 2010

Processed on: 14-Jun-2011

Loop File: newMadridoutflow00211-05-12LBTASC.TXT

Distance Made Good (ft)	Loop Time (sec)	Moving Bed Velocity (ft/s)	Moving Bed Direction (degrees)	Flow Direction (degrees)	Estimated Percent Correction (percent)
60.29	1542.70	0.04	62.35	212.30	2.80

Percent Bad Bottom Track: 0.3

Difference in flow direction between out and back sections: 1.3 deg

Moving Bed Vel. (MBV) < Minimum MBV Criteria -- No Correction Recommended
