

9-275-1	10/24/08	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey				Meas. No. <b>5</b>	
Station Number		ADCP Discharge Measurement Notes				Processed by <b>SS</b> Checked by <b>SS</b>	
Station Name		OHIO RIVER CALIB				MAIN CHANNEL	
Date	5-3-2011	Party	ESS/CSB				
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
4750	222,000	4.50	—	—	999,000		
Gage Height Change	Meas. plots	From rating	Shift	ADCP Sync'd to WT			
—	—	—	—	Y at or N			
ADCP Mfr. / Model / Frequency		Serial No.	Firmware	Software			
RDI / 310 / 600		11170	10.16	2.07			
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?			
MO WSC WORKSHEET TRIM AG.		—	—	Y or N			
Compass Calib. & Total Error		Mag. Var	Mag Var Method	Moving Bed?			
Y or N	—	—	—	Y or N			
Meas. Water Temp	ADCP Water Temp	Weather / Air Temp	Wind Speed / Dir.				
15.3 °F	15.9 °F	PC 5000	0-10		NNW		
Gage Readings							
Time	Inside	Outside	Max Water Depth		75.4		
0918			Max Water Speed				
0949			Max Boat Speed				
			Water Mode		12		
			Bottom Mode		5		
			Streambed material				
			Salinity		ppt at		
Weighted MGH			Checkbar found				
GH corrections			Checkbar changed to:		at		
Correct MGH							
Wading, cable, ice, boat upstr., downstr., side bridge							
Measurement rated: excellent (2%) good (5%) fair (8%) poor (>8%) based on following conditions							
Flow	EVEN						
Cross section:	EVEN						
Control:	CHANNEL						
Gage operating:	Y or N	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	Y or N			
HWM on stick	Ref elev.	HWM elevation					
GH of zero flow = GH	- depth at control	=	ft.	Rated =			
Sheet No.		of		sheets			

Station Number:

Meas. No:

Station Name: Ohio Rv at Cairo (Main Channel Only)

Date: 05/03/2011

Party: ESS/CSB

Width: 4,750 ft

Processed by: ESS

Boat/Motor: MO WSC Workskiff

Area: 222,000 ft<sup>2</sup>

Mean Velocity: 4.50 ft/s

Gage Height: 0.00 ft

G.H.Change: 0.000 ft

Discharge: 999,000 ft<sup>3</sup>/s

Area Method: Avg. Course

ADCP Depth: 0.900 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: F

MagVar Method: Model (-1.6°)

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:

ADCP:

BT 3-Beam Solution: YES

Max. Vel.: 10.2 ft/s

Type/Freq.: Rio Grande/600 kHz

WT 3-Beam Solution: NO

Max. Depth: 95.4 ft

Serial #: 11170

Firmware: 10.16

BT Error Vel.: 0.33 ft/s

Mean Depth: 46.7 ft

Bin Size: 50 cm

Blank: 25 cm

WT Error Vel.: 3.50 ft/s

% Meas.: 85.04

BT Mode: 5

BT Pings: 1

BT Up Vel.: 1.00 ft/s

Water Temp.: 15.3 °C

WT Mode: 12

WT Pings: 1

WT Up Vel.: 9.00 ft/s

ADCP Temp.: 15.9 °C

WV : 175

WO : 1, 19

Use Weighted Mean Depth: YES

Performed Diag. Test: YES

Project Name: OhioCairo050311\_0.mmt

Performed Moving Bed Test: YES

Software: 2.07

Performed Compass Test: YES

Meas. Location:

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	300	684	1267	52545	841079	86768	878	7723	988993	4785	222383	09:18	09:32	4.89	4.45	1	1
001 L	170	682	1155	54181	857291	88601	1069	7038	1008180	4710	221061	09:36	09:49	5.33	4.56	2	1
<b>Mean</b>	235	683	1211	53363	849185	87684	974	7381	998587	4748	221722	<b>Total</b>	00:31	5.11	4.50	1	1
<b>SDev</b>	92	1	79	1157	11464	1296	135	484	13567	52.9	934.7			0.32	0.08		
<b>SD/M</b>	0.39	0.00	0.07	0.02	0.01	0.01	0.14	0.07	0.01	0.01	0.00			0.06	0.02		

Remarks:

2 XSECT -  
Large TRAP

LC Version 3.20, July 8, 2010

Processed on: 03-May-2011

Loop File: OhioCairo050311\_0\_002\_LBT\_ASC.TXT

Distance Made Good (ft)	Loop Time (sec)	Moving Bed Velocity (ft/s)	Moving Bed Direction (degrees)	Flow Direction (degrees)	Estimated Percent Correction (percent)
101.80	819.24	0.12	305.10	127.50	2.53

Percent Bad Bottom Track: 0.9

Difference in flow direction between out and back sections: 0.3 deg

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

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