

9-275-1	10/24/08	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey				Meas. No.		
Station Number		ADCP Discharge Measurement Notes				Processed by		
Station Name		Birds Point Inflow					Checked by	
Date	05-28, 2011	Party		BR/ZM				
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge			
447	7476	0.057	—	—	461			
Gage Height Change		Meas. plots	From rating	Shift	ADCP Sync'd to WT			
in hrs.		% diff	No.:		Y at ___ or N			
ADCP Mfr / Model / Frequency			Serial No.	Firmware	Software			
RS m9			2010	1.50	2.50			
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?				
		NO	0.3	<input checked="" type="checkbox"/> Y or <input type="checkbox"/> N				
Compass Calib. & Total Error		Mag. Var	MagVar Method		Moving Bed?			
<input type="checkbox"/> Y or <input checked="" type="checkbox"/> N		M2Q9	-1.6	On-site <input type="checkbox"/> Model <input checked="" type="checkbox"/> Previous	Y or <input type="checkbox"/> N / <input checked="" type="checkbox"/> A			
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.			
75 °F / C at		75 °F / C at			°F / C			
Gage Readings				Site Conditions				
Time			Inside	Outside	Max Water Depth			
					Max Water Speed			
16 27					Max Boat Speed			
					Water Mode			
					Bottom Mode			
16 34					Streambed material			
					Salinity			
					ppt at			
Weighted MGH				Checkbox found				
GH corrections				Checkbox changed to:				
Correct MGH				at				
Wading, cable, ice <input type="checkbox"/> 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								
Cross section:								
Control:								
Gage operating:	Y or N	Record removed:	Y or N	Filename:				
Battery voltage	V	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			

NOTE: Added 40 cfs  
to account for  
unmeasured  
inflow.

# Discharge Measurement Summary

Date Measured: Saturday, May 28, 2011

Site Information		Measurement Information	
Site Name	birdspoint	Party	bcr/zwm
Station Number		Boat/Motor	
Location		Meas. Number	

System Information		System Setup		Units	
System Type	RS-M9	Transducer Depth (ft)	0.30	Distance	ft
Serial Number	2010	Salinity (ppt)	0.0	Velocity	ft/s
Firmware Version	1.50	Magnetic Declination (deg)	-1.6	Area	ft <sup>2</sup>
Software Version	2.50			Discharge	cfs
				Temperature	degF

Discharge Calculation Settings				Discharge Results			
Track Reference	Bottom-Track	Left Method	Sloped Bank	Width (ft)	447.04		
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft <sup>2</sup> )	7,476.2		
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.057		
		Bottom Fit Type	Power Fit	Total Q (cfs)	421.404		

Measurement Results																		
Tr		Time			Distance			Mean Vel		Discharge						%		
#		Time	Duration	Temp.	Track	DMG	Width	Area	Boat	Water	Left	Right	Top	Middle	Bottom	Total	LCTotal	Measured
2	L	4:27:44 PM	0:02:29	75.7	437.26	423.96	437.08	6,445.8	2.935	0.065	-0.85	-0.06	34.38	304.01	83.62	421.105	--	72.2
3	R	4:30:34 PM	0:03:45	75.0	486.66	443.89	457.01	8,506.7	2.163	0.050	1.65	-0.58	30.00	322.36	68.26	421.703	--	76.4
			<b>Mean</b>	75.4	461.96	433.92	447.04	7,476.2	2.549	0.057	0.40	-0.32	32.19	313.19	75.94	421.404	0.000	74.3
			<b>Std Dev</b>	0.4	24.70	9.97	9.97	1,030.4	0.386	0.008	1.25	0.26	2.19	9.18	7.68	0.299	0.000	2.1
			<b>COV</b>	0.0	0.053	0.023	0.022	0.138	0.151	0.137	3.108	0.813	0.068	0.029	0.101	0.001	0.000	0.029

Exposure Time: 0:06:14

Tr2=20110528162744.riv; Tr3=20110528163033.riv;

**Comments**  
Tr2=20110528162744.riv - ; Tr3=20110528163033.riv - ;

Loop Method						
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction	
62.51	242	0.26	60.32	260.59	325.59	

File Name: Loop\_20110528162155.riv

Percent Bad Bottom Track: 4.1.

Difference in flow direction between out and back sections: 65.8 deg.

WARNING: Difference in flow direction between out and back sections of loop exceeds 5 degrees. This may indicate an inaccurate compass and the loop may not be accurate. Please review data.

Loop Indicates a Moving Bed

**Compass Calibration**  
File Name: CompassCal20110528161848.txt

Results: PASS  
Score is excellent.  
Magnetic interference is very low.

Calibration score: M2.00Q9

**System Test**  
Not Loaded