

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	
						Checked by	
Station Name		Birds Point Inflow					
Date	05-31, 20 11	Party	BR/ZM				
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
455	3,539	0.417	—	—	1,700		
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		M109	-1.6	On-site <input checked="" type="checkbox"/> Model <input type="checkbox"/> Previous	Y or <input checked="" type="checkbox"/> N/A		
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
80 °F / C at		80 °F / C at			°F / C		
Gage Readings				Site Conditions			
Time			Inside	Outside	Max Water Depth		
					Max Water Speed		
1634					Max Boat Speed		
					Water Mode		
1640					Bottom Mode		
					Streambed material		
					Salinity		
					ppt at		
Weighted MGH				Checkbar found			
GH corrections				Checkbar changed to:			
Correct MGH				at			
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							
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 250 cfs to account for unmeasured inflow

Discharge Measurement Summary

Date Measured: Tuesday, May 31, 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 ²
Software Version	2.50			Discharge	cfs
				Temperature	degF

Discharge Calculation Settings				Discharge Results			
Track Reference	Bottom-Track	Left Method	Sloped Bank	Width (ft)	454.81		
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft ²)	3,538.6		
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.417		
		Bottom Fit Type	Power Fit	Total Q (cfs)	1,453.018		

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
8	L 4:34:38 PM	0:02:28	79.9	476.81	449.72	462.84	3,863.8	3.222	0.346	0.63	-0.82	213.86	805.72	318.16	1,337.554	--	60.2
9	R 4:37:27 PM	0:02:24	79.4	447.62	433.66	446.78	3,213.3	3.108	0.488	0.89	-2.48	196.49	956.77	416.82	1,568.483	--	61.0
		Mean	79.7	462.21	441.69	454.81	3,538.6	3.165	0.417	0.76	-1.65	205.17	881.25	367.49	1,453.018	0.000	60.6
		Std Dev	0.3	14.59	8.03	8.03	325.2	0.057	0.071	0.13	0.83	8.69	75.53	49.33	115.464	0.000	0.4
		COV	0.0	0.032	0.018	0.018	0.092	0.018	0.170	0.167	0.503	0.042	0.086	0.134	0.079	0.000	0.006

Exposure Time: 0:04:52

Tr8=20110531163438.riv; Tr9=20110531163727.riv;

Comments
Tr8=20110531163438.riv - ; Tr9=20110531163727.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
27.62	236	0.12	93.29	213.04	62.66

File Name: Loop_20110531154849.riv

Percent Bad Bottom Track: 0.9.

Difference in flow direction between out and back sections: 36.1 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 Closure Error not in Upstream Direction -- No Correction Recommended.

Compass Calibration
File Name: CompassCal20110531154544.txt
Results: PASS
Score is excellent.
Magnetic interference is very low.
Calibration score: M1.00Q9

System Test
Not Loaded

Parameters and settings marked with a * are not constant for all files.

Report generated using SonTek RiverSurveyor Live v2.50