

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		Inflow/Outflow 2					
Date	06-01, 2011	Party BR/ZM					
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
55.37	217	2.99	—	—	649		
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 checked="" type="checkbox"/> N			
Compass Calib. & Total Error		Mag. Var	MagVar Method		Moving Bed?		
<input checked="" type="radio"/> Y or N		MI 09	-1.3	On-site <input checked="" type="radio"/> Model <input checked="" type="radio"/> Previous	Y or <input checked="" type="radio"/> N		
Meas. Water Temp		ADCP Water Temp	Weather	Air Temp	Wind Speed / Dir.		
77 °F / C at		78 °F / C at			°F / C		
Gage Readings				Site Conditions			
Time				Inside	Outside	Max Water Depth	
						Max Water Speed	
0910						Max Boat Speed	
						Water Mode	
0912						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%) <input checked="" type="radio"/> 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		

# Discharge Measurement Summary

Date Measured: Wednesday, June 01, 2011

Site Information		Measurement Information	
Site Name	inflow/outflow 2	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)	-1.3	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)	55.37		
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft <sup>2</sup> )	216.6		
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	2.995		
		Bottom Fit Type	Power Fit	Total Q (cfs)	648.707		

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 9:10:31 AM	0:00:44	78.5	53.51	40.63	53.75	214.8	1.216	2.964	-1.44	-0.32	83.26	463.50	91.82	636.817	--	72.8
3	R 9:11:34 AM	0:00:37	78.7	48.59	43.86	56.98	218.4	1.313	3.025	-2.02	-0.57	92.43	472.47	98.29	660.597	--	71.5
		<b>Mean</b>	78.6	51.05	42.25	55.37	216.6	1.265	2.995	-1.73	-0.44	87.84	467.99	95.05	648.707	0.000	72.2
		<b>Std Dev</b>	0.1	2.46	1.61	1.61	1.8	0.049	0.030	0.29	0.12	4.58	4.49	3.23	11.890	0.000	0.6
		<b>COV</b>	0.0	0.048	0.038	0.029	0.008	0.038	0.010	0.167	0.279	0.052	0.010	0.034	0.018	0.000	0.009

Exposure Time: 0:01:21

Tr2=20110601091031.riv; Tr3=20110601091134.riv;

**Comments**  
Tr2=20110601091031.riv - ; Tr3=20110601091134.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
8.36	62	0.13	1.31	240.54	4.75

File Name: Loop\_20110601090910.riv

Percent Bad Bottom Track: 1.6.

Difference in flow direction between out and back sections: 6.7 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: CompassCal20110601081741.txt  
  
Results: PASS  
Score is excellent.  
Magnetic interference is very low.  
  
Calibration score: M1.00Q9

**System Test**  
Not Loaded