

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		1500 ft Gap Outflow					
Date		06-03, 20 11		Party		BR/2M	
Width	Area / Rated Area	Velocity		Index Vel.	Gage Height	Discharge	
1510	11,194	1.56		—	—	2,647	
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		M109	-1.3		On-site <input checked="" type="radio"/> Model Previous		<input checked="" type="radio"/> Y or N
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
80 °F / C at		81 °F / C at	°F / C				
Gage Readings						Site Conditions	
Time				Inside	Outside	Max Water Depth	
						Max Water Speed	
S 0829						Max Boat Speed	
						Water Mode	
						Bottom Mode	
F 0854						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		

# Discharge Measurement Summary

Date Measured: Friday, June 03, 2011

Site Information		Measurement Information	
Site Name	1500 ft gap	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	ft2
Software Version	2.50			Discharge	cfs
				Temperature	degF

Discharge Calculation Settings				Discharge Results	
Track Reference	Bottom-Track with LC	Left Method	Sloped Bank	Width (ft)	1,510.13
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	11,193.5
Coordinate System	ENU	Top Fit Type	Power Fit	Total Q (cfs)	21,646.691
		Bottom Fit Type	Power Fit		

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 R	8:29:20 AM	0:06:14	81.6	1,531.09	1,477.92	1,504.92	11,550.4	4.094	1.479	3.18	2.18	1,526.27	12,759.30	2,797.31	17,088.244	20,945.135	74.7
3 L	8:35:56 AM	0:05:58	80.2	1,537.94	1,490.08	1,512.08	10,911.3	4.296	1.644	3.72	0.47	1,632.03	13,195.98	3,104.69	17,936.896	22,078.083	73.6
4 R	8:42:25 AM	0:06:36	82.2	1,571.97	1,489.40	1,511.40	11,175.3	3.970	1.552	3.24	0.72	1,540.64	12,907.90	2,894.52	17,347.023	22,033.645	74.4
5 L	8:49:18 AM	0:05:35	80.6	1,524.98	1,490.10	1,512.10	11,137.1	4.552	1.557	2.65	1.91	1,587.61	12,777.48	2,965.68	17,335.320	21,529.898	73.7
	Mean		81.1	1,541.49	1,486.88	1,510.13	11,193.5	4.228	1.558	3.20	1.32	1,571.64	12,910.17	2,940.55	17,426.871	21,646.691	74.1
	Std Dev		0.8	18.18	5.18	3.02	229.4	0.220	0.058	0.38	0.74	41.60	174.69	112.04	312.070	458.708	0.5
	COV		0.0	0.012	0.003	0.002	0.020	0.052	0.037	0.118	0.557	0.026	0.014	0.038	0.018	0.021	0.006

Exposure Time: 0:24:23

Tr2=20110603082921.riv; Tr3=20110603083556.riv; Tr4=20110603084225.riv; Tr5=20110603084919.riv;

Comments
Tr2=20110603082921.riv - ; Tr3=20110603083556.riv - ; Tr4=20110603084225.riv - ; Tr5=20110603084919.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
165.50	661	0.25	73.02	264.86	16.78

File Name: Loop\_20110603081803.riv

Percent Bad Bottom Track: 2.0.

Difference in flow direction between out and back sections: 7.3 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: CompassCal20110603081348.txt
Results: PASS
Score is excellent.
Magnetic interference is very low.
Calibration score: M1.00Q9

System Test
File Name: SystemTest20110603080856.txt
System Test: PASS