

9-275-1	10/24/08	U.S. DEPARTMENT OF THE INTERIOR				Meas. No.	
Station Number		U.S. Geological Survey				Processed by	
ADCP Discharge Measurement Notes					Checked by		
Station Name							1500 ft Gap Outflow
Date		06-05	20	11	Party		BR/ZM
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
1527	8,620	1.67	—	—	17,756		
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="radio"/> Y or <input type="radio"/> N	M909	-1.3	<input type="radio"/> On-site <input checked="" type="radio"/> Model <input type="radio"/> Previous		<input type="radio"/> Y or <input type="radio"/> N		
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
82 °F / C at		84 °F / C at			°F / C		
Gage Readings					Site Conditions		
Time			Inside	Outside	Max Water Depth		
					Max Water Speed		
0901					Max Boat Speed		
					Water Mode		
					Bottom Mode		
0924					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: Sunday, June 05, 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)	1,526.57
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	8,620.4
Coordinate System	ENU	Top Fit Type	Power Fit	Total Q (cfs)	17,755.680
		Bottom Fit Type	Power Fit		

Measurement Results																	
Tr #	Time	Duration	Temp.	Distance			Mean Vel		Discharge						%		
#	Time	Duration	Temp.	Track	DMG	Width	Area	Boat	Water	Left	Right	Top	Middle	Bottom	Total	LCTotal	Measured
2	R 9:01:30 AM	0:05:03	84.7	1,300.75	1,282.88	1,517.88	8,804.6	4.293	1.694	50.29	41.08	1,192.99	11,169.61	2,463.33	14,917.304	18,403.614	74.9
3	L 9:06:57 AM	0:05:18	82.8	1,321.55	1,287.60	1,522.60	8,523.3	4.156	1.632	52.36	35.22	1,136.95	10,360.04	2,327.24	13,911.808	17,220.594	74.5
4	R 9:12:36 AM	0:05:23	84.8	1,314.04	1,291.44	1,526.44	8,708.1	4.068	1.637	50.17	33.18	1,172.77	10,705.51	2,295.58	14,257.218	17,504.303	75.1
5	L 9:18:18 AM	0:06:11	83.0	1,368.74	1,304.37	1,539.37	8,445.4	3.689	1.723	46.35	46.14	1,229.56	10,797.29	2,430.86	14,550.193	17,894.206	74.2
		Mean	83.8	1,326.27	1,291.57	1,526.57	8,620.4	4.052	1.672	49.79	38.91	1,183.07	10,758.11	2,379.25	14,409.130	17,755.680	74.7
		Std Dev	0.9	25.63	7.99	7.99	142.9	0.224	0.038	2.17	5.09	33.51	288.14	69.71	370.319	443.992	0.3
		COV	0.0	0.019	0.006	0.005	0.017	0.055	0.023	0.044	0.131	0.028	0.027	0.029	0.026	0.025	0.005

Exposure Time: 0:21:55

Tr2=20110605090129.riv; Tr3=20110605090657.riv; Tr4=20110605091235.riv; Tr5=20110605091818.riv;

Comments
Tr2=20110605090129.riv - ; Tr3=20110605090657.riv - ; Tr4=20110605091235.riv - ; Tr5=20110605091818.riv - ;

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
114.58	594	0.19	86.58	260.91	13.71

File Name: Loop_20110605085107.riv

Percent Bad Bottom Track: 1.0.

Difference in flow direction between out and back sections: 6.9 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: CompassCal20110605084700.txt

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

Calibration score: M0.00Q9

System Test
File Name: SystemTest20110605084811.txt

System Test: PASS