

9-275-I	10/24/08	U.S. DEPARTMENT OF THE INTERIOR U.S. Geological Survey				Meas. No.	
Station Number						Processed by	
		ADCP Discharge Measurement Notes				Checked by	
Station Name		1500 ft Gap Outflow					
Date		06-01		, 20		Party BR/ZM	
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
1512	11,457	1.50	—	—	2,186		
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		
PS 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="checkbox"/> Y or <input checked="" type="checkbox"/> N		m149	-1.3		On-site <input checked="" type="checkbox"/> Model <input checked="" type="checkbox"/> Previous		<input checked="" type="checkbox"/> Y or <input checked="" type="checkbox"/> N
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
79 °F / C at		79 °F / C at			°F / C		
Gage Readings					Site Conditions		
Time				Inside	Outside	Max Water Depth	
						Max Water Speed	
0829						Max Boat Speed	
						Water Mode	
						Bottom Mode	
0857						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: Wednesday, June 01, 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)	1,512.14
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	11,456.5
Coordinate System	ENU	Top Fit Type	Power Fit	Total Q (cfs)	21,185.918
		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	8:29:49 AM	0:06:06	79.2	1,518.32	1,486.30	1,511.30	11,684.6	4.148	1.448	0.75	1.57	1,501.15	12,784.93	2,630.92	16,919.315	20,946.342	75.6
3 L	8:36:17 AM	0:06:21	78.4	1,546.76	1,487.50	1,512.50	11,257.5	4.060	1.569	0.00	1.50	1,588.88	13,187.24	2,883.52	17,661.137	21,760.442	74.7
4 R	8:42:56 AM	0:07:17	79.8	1,531.53	1,485.27	1,510.27	11,690.1	3.505	1.481	1.69	0.00	1,559.58	13,164.17	2,588.97	17,314.402	21,324.541	76.0
5 L	8:50:33 AM	0:07:05	78.9	1,535.06	1,489.50	1,514.50	11,193.8	3.612	1.489	2.30	1.82	1,592.94	12,455.06	2,612.58	16,664.699	20,712.351	74.7
		Mean	79.1	1,532.92	1,487.14	1,512.14	11,456.5	3.831	1.497	1.18	1.22	1,560.64	12,897.85	2,679.00	17,139.888	21,185.918	75.3
		Std Dev	0.5	10.14	1.57	1.57	231.9	0.277	0.044	0.88	0.72	36.68	301.45	119.01	379.675	397.164	0.6
		COV	0.0	0.007	0.001	0.001	0.020	0.072	0.030	0.743	0.585	0.024	0.023	0.044	0.022	0.019	0.008

Exposure Time: 0:26:49

Tr2=20110601082949.riv; Tr3=20110601083618.riv; Tr4=20110601084256.riv; Tr5=20110601085033.riv;

Comments																
Tr2=20110601082949.riv - ; Tr3=20110601083618.riv - ; Tr4=20110601084256.riv - ; Tr5=20110601085033.riv - ;																

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
149.19	579	0.26	77.19	268.13	17.67
File Name: Loop_20110601081950.riv					
Percent Bad Bottom Track: 0.7.					
Difference in flow direction between out and back sections: 1.6 deg.					
Loop Indicates a Moving Bed					

Compass Calibration	
File Name: CompassCal20110601081741.txt	
Results: PASS	
Score is excellent.	
Magnetic interference is very low.	
Calibration score: M1.00Q9	

System Test	
File Name: SystemTest20110601081715.txt	
System Test: PASS	

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

Report generated using SonTek RiverSurveyor Live v2.50