

9-275-I	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 <u>Inflow/Outflow 1</u>							
Date		<u>05-31</u>	, 20 <u>11</u>		Party	<u>BR/2M</u>	
Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge		
<u>430</u>	<u>14,587</u>	<u>1.068</u>	<u>—</u>	<u>—</u>	<u>15,581</u>		
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		
<u>RS M9</u>			<u>2010</u>	<u>1.50</u>	<u>2.50</u>		
Boat/Motors Used		GPS Used	ADCP Depth	Diag. Test / Errors?			
		<u>NO</u>	<u>0.3</u>	<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 N		<u>M209</u>	<u>-1.4</u>		On-site <input checked="" type="checkbox"/> Model <input checked="" type="checkbox"/> Previous		Y or <input checked="" type="checkbox"/> N
Meas. Water Temp		ADCP Water Temp	Weather / Air Temp		Wind Speed / Dir.		
<u>78</u> °F / C at		<u>78</u> °F / C at			°F / C		
Gage Readings						Site Conditions	
Time				Inside	Outside	Max Water Depth	
						Max Water Speed	
<u>1402</u>						Max Boat Speed	
						Water Mode	
<u>1413</u>						Bottom Mode	
						Streambed material	
						Salinity	
						ppt at	
Weighted MGH						Checkbar found	
GH corrections						Checkbar changed to:	
Correct MGH						at	
Wading, cable, ice, <input checked="" type="checkbox"/> boat, <input checked="" type="checkbox"/> upstr., downstr., side bridge					ft., mi. upstr., downstr. of gage		
Measurement rated:		<u>excellent (2%), good (5%), fair (8%), poor (>8%)</u>			based on following conditions		
Flow							
Cross section:							
Control:							
Gage operating:		<input checked="" type="checkbox"/> Y or N	Record removed:	<input checked="" type="checkbox"/> Y or N	Filename:		
Battery voltage		<u>V</u>	Intakes/Orifice cleaned/purged:				
Bubble-gage psi:	Tank		Line		Bubble rate	/ min	
Extreme-GH indicators:		Max		Min		CSG Checked	<input checked="" type="checkbox"/> 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: Tuesday, May 31, 2011

Site Information		Measurement Information	
Site Name	inflow/outflow 1	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)	-1.4	Area	ft2
Software Version	2.50			Discharge	cfs
				Temperature	degF

Discharge Calculation Settings				Discharge Results	
Track Reference	Bottom-Track	Left Method	Sloped Bank	Width (ft)	430.24
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	14,586.6
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	1.068
		Bottom Fit Type	Power Fit	Total Q (cfs)	15,581.126

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	2:02:11 PM	0:02:30	79.9	427.81	417.57	430.69	14,661.5	2.852	1.029	-0.20	15.87	867.11	11,549.04	2,691.09	15,091.179	--	76.5	
3	R	2:05:01 PM	0:02:32	78.5	427.76	416.73	429.85	14,569.9	2.814	1.123	-0.78	20.53	956.73	12,561.27	2,864.84	16,361.527	--	76.8	
4	L	2:07:54 PM	0:02:30	78.3	439.21	416.08	429.20	14,624.3	2.928	1.047	-3.10	19.91	874.64	11,820.44	2,644.61	15,316.685	--	77.2	
5	R	2:10:42 PM	0:02:39	77.0	431.16	418.12	431.24	14,490.7	2.712	1.073	-0.30	27.37	910.88	11,870.66	2,801.24	15,555.111	--	76.3	
			Mean	78.4	431.49	417.12	430.24	14,586.6	2.827	1.068	-1.10	20.92	902.34	11,950.35	2,750.44	15,581.126	0.000	76.7	
			Std Dev	1.0	4.67	0.78	0.78	64.3	0.078	0.035	1.18	4.13	35.50	373.33	87.16	479.499	0.000	0.3	
			COV	0.0	0.011	0.002	0.002	0.004	0.028	0.033	1.075	0.197	0.039	0.031	0.032	0.031	0.000	0.004	

Exposure Time: 0:10:11

Tr2=20110531140211.riv; Tr3=20110531140501.riv; Tr4=20110531140755.riv; Tr5=20110531141043.riv;

Comments																
Tr2=20110531140211.riv - ; Tr3=20110531140501.riv - ; Tr4=20110531140755.riv - ; Tr5=20110531141043.riv - ;																

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
49.80	240	0.21	57.76	84.68	18.38
File Name: Loop_20110531135751.riv					
Percent Bad Bottom Track: 0.4.					
Difference in flow direction between out and back sections: 4.0 deg.					
Loop Closure Error not in Upstream Direction -- No Correction Recommended.					

Compass Calibration																
File Name: CompassCal20110531135544.txt																
Results: PASS																
Score is excellent.																
Magnetic interference is very low.																
Calibration score: M2.00Q9																

System Test																
Not Loaded																

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

Report generated using SonTek RiverSurveyor Live v2.50