9-275-I	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	Inflow/Outflow 1		
Date	05-30 , 20 11	Party	BR/ZM

Width	Area / Rated Area	Velocity	Index Vel.	Gage Height	Discharge
429	14,371	0.941	—	—	13,509

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	☑ Y or (N)

Compass Calib. & Total Error		Mag. Var	MagVar Method	Moving Bed?
(Y) or N	M209	-1.4	On-site (Model) Previous	Y or (N)

Meas. Water Temp	ADCP Water Temp	Weather / Air Temp	Wind Speed / Dir.
75 °F / C at	75 °F / C at	°F / C	

Gage Readings							**Site Conditions**
Time					Inside	Outside	Max Water Depth
							Max Water Speed
S 1203							Max Boat Speed
							Water Mode
							Bottom Mode
F 1216							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: Monday, May 30, 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)	428.76
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	14,370.9
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.941
		Bottom Fit Type	Power Fit	Total Q (cfs)	13,509.422

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
3	L	12:03:38 PM	0:03:07	75.8	437.49	410.72	423.84	13,808.2	2.340	0.974	-0.86	-20.18	772.73	10,359.40	2,334.17	13,445.260	--	77.0
4	R	12:07:06 PM	0:02:33	74.9	434.90	415.90	429.02	14,593.0	2.842	0.900	-1.20	-22.36	767.16	10,196.55	2,187.92	13,128.067	--	77.7
5	L	12:09:56 PM	0:02:56	74.8	430.93	417.40	430.52	14,565.8	2.448	0.921	-2.28	-18.43	776.43	10,303.00	2,358.85	13,417.574	--	76.8
6	R	12:13:16 PM	0:02:48	74.0	429.25	418.53	431.65	14,516.7	2.555	0.968	-3.50	-18.43	827.43	10,714.56	2,526.73	14,046.784	--	76.3
			Mean	74.9	433.14	415.64	428.76	14,370.9	2.546	0.941	-1.96	-19.85	785.94	10,393.38	2,351.92	13,509.422	0.000	76.9
			Std Dev	0.7	3.24	2.99	2.99	326.1	0.187	0.031	1.03	1.62	24.18	194.44	120.23	334.194	0.000	0.5
			COV	0.0	0.007	0.007	0.007	0.023	0.074	0.033	-0.526	-0.081	0.031	0.019	0.051	0.025	0.000	0.007

Exposure Time: 0:11:24

Tr3=20110530120338.riv; Tr4=20110530120706.riv; Tr5=20110530120956.riv; Tr6=20110530121315.riv;

Comments

Tr3=20110530120338.riv - ; Tr4=20110530120706.riv - ; Tr5=20110530120956.riv - ; Tr6=20110530121315.riv - ;

Loop Method

DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
31.04	246	0.13	68.72	82.75	11.99

File Name: Loop_20110530115916.riv

Percent Bad Bottom Track: 2.4.

Difference in flow direction between out and back sections: 11.5 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: CompassCal20110530115643.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