

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey
WATER RESOURCES DIVISION
DISCHARGE MEASUREMENT AND
GAGE INSPECTION NOTES

Meas. No. _____

Comp. by JTL

Checked by _____

Sta. No. _____

Sta. Name OutflowDate 6/7, 20 11 Party JTL ZWMWidth 167 Area 2730 Vel. 3.52 G.H. — Disch. 9590Method ADCP No. secs. — G.H. change — in — hrs.Method coef. — Horiz. angle coef. — Susp. — Tags checked —Meter Type M-9 Meter No. 1411 Meter — ft. above bottom of wt.Rating used — Spin test before meas. —; after —Meas. plots — % diff. from rating no. — Indicated shift —

GAGE READINGS

Time					Inside	Outside
0758	ST					
	Start					
0806	FIN					
	Finish					
Weighted MGH						
GH correction						
Correct MGH						

Samples collected: water quality,
sediment, biological, other ADMeasurements documented on
separate sheets: water quality,
aux./base gage, other ADRain gage serviced/calibrated ADWeather: CLD/WARMAir Temp. — °C at —Water Temp. — °C at —Check bar/chain found —Changed to — at —Correct —Wading, cable, ice, boat upstr., downstr., side bridge, Heavy wire ft., mi. upstr., downstr. of gage.

Measurement rated excellent (2%), good (5%), fair (8%), poor (> 8%); based on following

conditions: Flow: Steady, uniformCross section: Rip-Rap / MudGage operating: N/A Record Removed —Battery voltage: — Intake/Orifice cleaned/purged: —Bubble-gage pressure, psi: Tank —, Line —; Bubble-rate — /min.Extreme-GH indicators: max —, min —CSG checked: N/A HWM height on stick — Ref. elev. — HWM elev. —HWM inside/outside: —Control: Channel

Remarks: _____

GH of zero flow = GH — - depth at control — = — ft., rated —Sheet No. 1 of 1 sheets

Discharge Measurement Summary

Date Measured: Tuesday, June 07, 2011

Site Information		Measurement Information	
Site Name	Outflow	Party	ZWM/JTL
Station Number		Boat/Motor	Hydroboard
Location	DS side of Hwy WW bridge	Meas. Number	

System Information		System Setup		Units	
System Type	RS-M9	Transducer Depth (ft)	0.30	Distance	ft
Serial Number	1411	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	Left Method	Sloped Bank	Width (ft)	166.77
Depth Reference	Bottom-Track	Right Method	Sloped Bank	Area (ft2)	2,729.3
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	3.515
		Bottom Fit Type	Power Fit	Total Q (cfs)	9,593.463

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	7:58:13 AM	0:02:16	82.2	161.80	145.52	170.52	2,722.4	1.190	3.579	26.42	34.38	670.38	6,970.32	2,043.21	9,744.716	--	71.5
4	R	8:00:50 AM	0:02:26	82.4	158.08	140.93	165.93	2,713.5	1.083	3.465	13.83	56.70	649.30	6,663.88	2,017.27	9,400.974	--	70.9
5	L	8:03:30 AM	0:02:02	82.5	155.34	141.43	166.43	2,745.3	1.273	3.497	23.18	43.82	661.93	6,809.69	2,061.83	9,600.458	--	70.9
6	R	8:05:54 AM	0:02:20	82.7	162.95	139.20	164.20	2,736.1	1.164	3.519	26.22	41.51	665.43	6,787.99	2,106.56	9,627.703	--	70.5
			Mean	82.4	159.54	141.77	166.77	2,729.3	1.177	3.515	22.41	44.10	661.76	6,807.97	2,057.22	9,593.463	0.000	71.0
			Std Dev	0.1	3.02	2.32	2.32	12.2	0.068	0.042	5.12	8.06	7.80	109.00	32.59	123.644	0.000	0.4
			COV	0.0	0.019	0.016	0.014	0.004	0.058	0.012	0.228	0.183	0.012	0.016	0.016	0.013	0.000	0.005

Exposure Time: 0:09:04

Tr3=20110607075813.riv; Tr4=20110607080049.riv; Tr5=20110607080330.riv; Tr6=20110607080553.riv;

Comments																
Tr3=20110607075813.riv - ; Tr4=20110607080049.riv - ; Tr5=20110607080330.riv - ; Tr6=20110607080553.riv - ;																

Loop Method					
DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
1.87	209	0.01	171.30	255.63	0.23

File Name: Loop_20110607075221.riv

Percent Bad Bottom Track: 1.9.

Difference in flow direction between out and back sections: 4.3 deg.

Loop Closure Error not in Upstream Direction -- No Correction Recommended.

Compass Calibration

File Name: CompassCal20110607074835.txt

Results: PASS

Score is excellent.

Magnetic interference is very low.

Calibration score: M2.00Q9

System Test

File Name: SystemTest20110607074734.txt

System Test: PASS

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

Report generated using SonTek RiverSurveyor Live v2.50

