

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

Meas. No. _____

Comp. by ITL

Checked by _____

Sta. No. _____

Sta. Name Inflow / Outflow #1

Date 6/7, 20 11 Party ITL ZOOM

Width 408 Area 14000 Vel. .029 G.H. _____ Disch. 413

Method 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
<u>1100</u>	<u>ST</u>				
	<u>Start</u>				
<u>1132</u>	<u>FIN</u>				
	<u>Finish</u>				
Weighted MGH					
GH correction					
Correct MGH					

Samples collected: water quality, sediment, biological, other _____

NO

Measurements documented on separate sheets: water quality, aux./base gage, other _____

NO

Rain gage serviced/calibrated _____

NO

Weather: CLR / WARM

Air Temp. _____ °C at _____

Water Temp. _____ °C at _____

Check bar/chain found _____

Changed to _____ at _____

Correct : _____

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: Slow, barely moving

Cross section: Dirt, levee hole

Gage 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: Farm/land

Remarks: Flow moving into floodplain

GH of zero flow = GH _____ - depth at control _____ = _____ ft., rated _____

Discharge Measurement Summary

Date Measured: Tuesday, June 07, 2011

Site Information		Measurement Information	
Site Name	inflow/outflow 1	Party	jtl/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	1411	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)	408.29
Depth Reference	Vertical Beam	Right Method	Sloped Bank	Area (ft2)	13,974.4
Coordinate System	ENU	Top Fit Type	Power Fit	Mean Speed (ft/s)	0.029
		Bottom Fit Type	Power Fit	Total Q (cfs)	413.413

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	11:00:01 AM	0:04:04	83.3	448.20	406.74	423.30	14,617.1	1.837	0.041	-0.26	-5.82	38.62	460.45	107.62	600.613	--	76.7
3	R	11:04:23 AM	0:04:20	84.2	395.23	387.99	404.55	13,795.5	1.520	0.032	-0.21	0.35	26.40	342.61	67.42	436.577	--	78.5
4	L	11:08:57 AM	0:05:37	82.8	414.14	396.31	412.87	14,096.6	1.229	0.026	0.18	0.63	21.68	279.40	61.89	363.787	--	76.8
5	R	11:14:54 AM	0:03:38	84.7	400.29	386.12	406.12	13,859.6	1.836	0.032	1.04	0.08	25.69	349.47	66.51	442.804	--	78.9
6	L	11:18:49 AM	0:04:45	83.1	408.05	390.14	405.14	13,913.2	1.432	0.023	-0.15	0.24	19.89	236.40	57.98	314.349	--	75.2
7	R	11:23:51 AM	0:03:44	85.2	394.17	381.86	401.86	13,734.0	1.760	0.015	0.90	3.04	12.16	151.85	33.19	201.129	--	75.5
8	L	11:27:55 AM	0:04:12	83.2	394.46	387.42	407.42	13,892.0	1.565	0.032	-0.17	0.82	28.78	337.91	81.74	449.082	--	75.2
9	R	11:32:28 AM	0:03:52	85.6	391.40	385.03	405.03	13,887.6	1.687	0.036	-0.05	0.23	30.73	383.31	84.75	498.966	--	76.8
			Mean	84.0	405.74	390.20	408.29	13,974.4	1.608	0.029	0.16	-0.06	25.49	317.68	70.14	413.413	0.000	76.7
			Std Dev	1.0	17.63	7.39	6.40	262.0	0.199	0.008	0.49	2.36	7.38	88.25	20.48	113.124	0.000	1.3
			COV	0.0	0.043	0.019	0.016	0.019	0.124	0.262	3.011	42.357	0.289	0.278	0.292	0.274	0.000	0.017

Exposure Time: 0:34:12

Tr2=20110607110001.riv; Tr3=20110607110422.riv; Tr4=20110607110857.riv; Tr5=20110607111453.riv; Tr6=20110607111848.riv; Tr7=20110607112350.riv; Tr8=20110607112754.riv; Tr9=20110607113227.riv;

Comments

Tr2=20110607110001.riv - ; Tr3=20110607110422.riv - ; Tr4=20110607110857.riv - ; Tr5=20110607111453.riv - ;
Tr6=20110607111848.riv - ; Tr7=20110607112350.riv - ; Tr8=20110607112754.riv - ; Tr9=20110607113227.riv - ;

Loop Method

DMG	Loop Time	Moving Bed Velocity	Moving Bed Direction	Flow Direction	Estimated Percent Correction
17.76	360	0.05	215.69	89.55	140.19

File Name: Loop_20110607105344.riv

Percent Bad Bottom Track: 1.1.

Difference in flow direction between out and back sections: 35.6 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: CompassCal20110607105120.txt

Results: PASS

Score is excellent.

Magnetic interference is very low.

Calibration score: M2.00Q9

System Test

File Name: SystemTest20110607074747.txt

System Test: PASS

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

Report generated using SonTek RiverSurveyor Live v2.50

