

Swami Report

Site Visit Date: 2011-06-07

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

Meas #: 2924

SWAMI ver. 4.10.0R5

Processed by ELB

Stylesheet ver. 4.10.0R8

Checked by _____

Site Visit Summary

Site Number: 07022000 Site Name: Mississippi River at Thebes, IL
Start Time: 08:40:00 End Time: 10:59:13
Party: SSW Battery: _____
Weather: clear, hot, no precip, light wind
Comment: _____
Other Actions: _____

Discharge Measurement

Meas #: 2924 Meas Flow: 579284.643 cfs
Meas Start Time: 09:12:16 Meas End Time: 09:30:24
Stage: 35.35 ft Stage Change: ft
Change Duration: hrs. Qm Rated: Good (5%)
Base Flow: Non-base flow
Comment: _____
Meas. plots: 3.9 % Diff. from rating no. 17.0 Indicated shift: _____

Channel Summary

Meas Flow: 579284.643 cfs () Qm Type: Manned moving boat Qm Method: ADCP
Vel Method: ADCP Horiz Flow: Unspecified Vel Desc: Steady
Vert Vel Desc: Unknown Ch Evenness: Uneven Ch Stability: Soft
Ch Material: Sand Sect Loc.: Upstream - 1500 ft. to gage

ADCP Discharge Measurement

Mtr S/N: 1127 ADCP Frequency: 600 kHz Water Mode: 1
Bottom Mode: BT5 Total Area: 93484.93 Total Width: 2511.89
Mean Vel: 6.197 Max Depth: 57.723 Max Vel: 13.888

Gage Readings

TIME	Non-Subm Pres Tran (07022000) Name: 07022000	Reference Point (07022000) Name: 07022000
08:40:00		35.95(+/- .10)
08:41:00	35.08(+/- .10)	
10:51:00		35.86(+/- .10)
10:59:00	35.34(+/- .10)	

Key: Primary Reference: Primary Recorder

Sensor Inspections

Non-Subm Pres Tran (07022000) Name: 07022000

Gas Type: Air Orif Serviced: Not serviced Service Time: _____
Des Cond: Good Des Chng: No
Comment: _____

Reference Point (07022000) Name: 07022000

Comment: staff used

WT ?
AT ?

Party: KB SW JM	Width: 2,510 ft	Processed by: KB
Boat/Motor: QW-1	Area: 93,500 ft²	Mean Velocity: 6.20 ft/s
Gage Height: 35.35 ft	G.H.Change: 0.000 ft	Discharge: 579,000 ft³/s

Area Method: Avg. Course	ADCP Depth: 2.000 ft	Index Vel.: 0.00 ft/s	Rating No.: 1
Nav. Method: DGPS	Shore Ens.:10	Adj.Mean Vel: 0.00 ft/s	Qm Rating: G
MagVar Method: Model (-1.4°)	Bottom Est: Power (0.1667)	Rated Area: 0.000 ft²	Diff.: 0.000%
Depth Sounder: Not Used	Top Est: Constant	Control1: 15-Submerged	
		Control2: Unspecified	
		Control3: Unspecified	

Screening Thresholds:		ADCP:	
BT 3-Beam Solution: YES	Max. Vel.: 13.9 ft/s	Type/Freq.: Rio Grande / 600 kHz	
WT 3-Beam Solution: NO	Max. Depth: 57.7 ft	Serial #: 1127	Firmware: 10.16
BT Error Vel.: 0.33 ft/s	Mean Depth: 37.2 ft	Bin Size: 50 cm	Blank: 25 cm
WT Error Vel.: 3.50 ft/s	% Meas.: 78.93	BT Mode: 5	BT Pings: 2
BT Up Vel.: 1.00 ft/s	Water Temp.: 23.9 °C	WT Mode: 1	WT Pings: 1
WT Up Vel.: 9.00 ft/s	ADCP Temp.: 24.3 °C	WV : 196	
Use Weighted Mean Depth: YES			

Performed Diag. Test: YES
 Performed Moving Bed Test: YES
 Performed Compass Test: YES
 Meas. Location: 1500' above gage

Project Name: THEB_0.mmt
 Software: 2.08

Tr.#		Edge Distance		#Ens.	Discharge						Width	Area	Time		Mean Vel.		% Bad	
		L	R		Top	Middle	Bottom	Left	Right	Total			Start	End	Boat	Water	Ens.	Bins
000	L	63	160	516	62234	458279	58453	458	1229	580652	2546	93577	09:12	09:17	7.02	6.20	5	0
001	R	40	160	595	60600	460500	58015	403	855	580374	2489	93844	09:18	09:24	5.92	6.18	6	0
002	L	40	240	480	60655	446001	57885	125	2242	566906	2498	93619	09:24	09:30	7.45	6.06	0	0
003	R	60	240	529	61918	464113	60991	724	1460	589206	2514	92899	09:30	09:36	6.61	6.34	1	0
Mean		51	200	530	61352	457223	58836	428	1447	579285	2512	93485	Total	00:23	6.75	6.20	3	0
SDev		12	46	48	846	7858	1457	246	586	9214	25.2	407.7			0.65	0.12		
SD/M		0.25	0.23	0.09	0.01	0.02	0.02	0.57	0.40	0.02	0.01	0.00			0.10	0.02		

Remarks: