



# QRev Discharge Measurement Report

1 of 4

Station Name: 07092025\_Rockford

Station Number:

Measurement Date: 2025.07.09

Measurement Number: 0

Discharge: 131.39

Stage: 0.00

User Rating: Not Rated

Processed: 2025.07.17 16:31:11

| Field Crew:          |                  | Discharge Summary        |          | Cross Section                                                                                                                                                                                                                                                                                                                                                                      |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
|----------------------|------------------|--------------------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------|------------------|------------|------|-----|------|---------|------|-------|-----|------------|-----|---------|-----|
| Processed By:        | ADCPH            | Discharge (ft3/s):       | 131.39   | Mean Velocity (ft/s):                                                                                                                                                                                                                                                                                                                                                              | 0.852   |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Software:            | QRev             | Navigation Ref.:         | bt_vel   | Max. Velocity (ft/s):                                                                                                                                                                                                                                                                                                                                                              | 1.877   |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Version:             | 4.37             | Total Duration (s):      | 875.8    | Mean Depth (ft):                                                                                                                                                                                                                                                                                                                                                                   | 4.713   |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| ADCP                 |                  | Start Time:              | 07:38:14 | Max. Depth (ft):                                                                                                                                                                                                                                                                                                                                                                   | 6.679   |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Manufacturer:        | TRDI             | End Time:                | 07:51:07 | Width (ft):                                                                                                                                                                                                                                                                                                                                                                        | 32.738  |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Model:               | StreamPro        | Stage Start:             | 0.00     | Width COV (%):                                                                                                                                                                                                                                                                                                                                                                     | 1.12    |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Serial Number:       | 2673             | Stage End:               | 0.00     | Area (ft2):                                                                                                                                                                                                                                                                                                                                                                        | 154.304 |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Firmware:            | 31.19            | Mean Stage:              | 0.00     | Area COV (%):                                                                                                                                                                                                                                                                                                                                                                      | 0.73    |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Frequency (kHz):     | 2000             | Mean Boat Speed (ft/s):  | 0.135    | Uncertainty                                                                                                                                                                                                                                                                                                                                                                        |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Premeasurement       |                  | Top Extrap:              | Constant | Uncertainty Method: QRev                                                                                                                                                                                                                                                                                                                                                           |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| W. Temp. (C):        | 20.927778        | Bottom Extrap:           | No Slip  | <div><div>95% Total Uncertainty: 4.3</div><table><thead><tr><th>Component</th><th>Percent of Total</th></tr></thead><tbody><tr><td>Systematic</td><td>~48%</td></tr><tr><td>COV</td><td>~28%</td></tr><tr><td>Extrap.</td><td>~10%</td></tr><tr><td>Edges</td><td>~8%</td></tr><tr><td>Moving-bed</td><td>~8%</td></tr><tr><td>Invalid</td><td>~2%</td></tr></tbody></table></div> |         | Component | Percent of Total | Systematic | ~48% | COV | ~28% | Extrap. | ~10% | Edges | ~8% | Moving-bed | ~8% | Invalid | ~2% |
| Component            | Percent of Total |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Systematic           | ~48%             |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| COV                  | ~28%             |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Extrap.              | ~10%             |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Edges                | ~8%              |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Moving-bed           | ~8%              |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Invalid              | ~2%              |                          |          |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| W. Temp. ADCP (C):   |                  | Extrap Exponent:         | 0.2969   |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| System Test:         | Passed           | Discharg COV (%):        | 1.46     |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Compass Cal/Eval:    | 0.56             | Top Q (%):               | 7.74     |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Magnetic Variaton:   | 13.5             | Measured Q (%):          | 75.50    |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| MovBed Test Type:    | Loop             | Left Q (%):              | 2.74     |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| MovBed Test Quality: | Good             | Right Q (%):             | 0.93     |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| MovBed Test Dur.(s): | 295.6            | Bottom Q (%):            | 13.09    |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Max MovBed (%):      | 0.37             | Invalid Cells Q (%):     | 0.01     |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |
| Q Correction (%):    | 0.00             | Invalid Ensembles Q (%): | 0.43     |                                                                                                                                                                                                                                                                                                                                                                                    |         |           |                  |            |      |     |      |         |      |       |     |            |     |         |     |

## Automated QA Messages:

### WARNINGS

### Cautions

- Edges: The percent of invalid ensembles exceeds 25% in one or more transects.
- Site Info: Station number not entered;

### Comments:

- MMT Remarks:
- [Main, 2025-07-17 16:26:01, ADCPH]: This site has no station number. Measurement conditions were sunny and cool. Ideal conditions are in the morning for this site due to consistent afternoon winds that push the boat under the bridge with slow moving water. The invalid edge ensembles were reviewed, and the required 10 ensembles for the edge were gathered. Likely when the user went to end the transect the boat entered an area with zero good bins as they were closing out the transect, which resulted in the high percentage of invalid ensembles. Given that the required 10 ensembles were gathered, disregard this caution.
- [2025-07-17 16:31:03, ADCPH]: File Saved Q = 131.39 ft<sup>3</sup>/s (Uncertainty: 4.3%)



# QRev Discharge Measurement Report

2 of 4

Station Name: 07092025\_Rockford

Station Number:

Measurement Date: 2025.07.09

Measurement Number: 0

Discharge: 131.39

Stage: 0.00

User Rating: Not Rated

Processed: 2025.07.17 16:31:11

| ID | File Name                            |
|----|--------------------------------------|
| 0  | 07092025_Rockford_0_000_25-07-09.PD0 |
| 1  | 07092025_Rockford_0_001_25-07-09.PD0 |
| 2  | 07092025_Rockford_0_002_25-07-09.PD0 |
| 3  | 07092025_Rockford_0_003_25-07-09.PD0 |

| Transect ID | Start Edge | Start Time | End Time | Duration (sec) | Top Q (ft3/s) | Middle Q (ft3/s) | Bottom Q (ft3/s) | Left Q (ft3/s) | Right Q (ft3/s) | Total Q (ft3/s) |
|-------------|------------|------------|----------|----------------|---------------|------------------|------------------|----------------|-----------------|-----------------|
| 0           | Left       | 07:38:14   | 07:41:27 | 192.9          | 10.34         | 100.08           | 18.03            | 3.75           | 1.22            | 133.42          |
| 1           | Right      | 07:42:07   | 07:46:08 | 241.4          | 9.75          | 96.66            | 17.47            | 3.78           | 1.14            | 128.81          |
| 2           | Left       | 07:46:57   | 07:50:35 | 218.1          | 10.26         | 99.94            | 16.77            | 3.45           | 1.42            | 131.84          |
| 3           | Right      | 07:51:07   | 07:54:50 | 223.4          | 10.34         | 100.09           | 16.54            | 3.4            | 1.12            | 131.49          |
|             |            |            |          | 875.8          | 10.17         | 99.19            | 17.2             | 3.59           | 1.22            | 131.39          |

| Transect ID | Start Edge | Left Edge Type | Left Dist. (ft) | Left Edge # Ens. | Left Edge Coeff. | Right Edge Type | Right Dist (ft) | Right Edge # Ens. | Right Edge Coeff. |
|-------------|------------|----------------|-----------------|------------------|------------------|-----------------|-----------------|-------------------|-------------------|
| 0           | Left       | Triangular     | 4.00            | 10               | 0.3535           | Triangular      | 2.00            | 10                | 0.3535            |
| 1           | Right      | Triangular     | 4.00            | 10               | 0.3535           | Triangular      | 2.00            | 10                | 0.3535            |
| 2           | Left       | Triangular     | 4.00            | 10               | 0.3535           | Triangular      | 2.00            | 10                | 0.3535            |
| 3           | Right      | Triangular     | 4.00            | 10               | 0.3535           | Triangular      | 2.00            | 10                | 0.3535            |



# QRev Discharge Measurement Report

3 of 4

Station Name: 07092025\_Rockford

Station Number:

Measurement Date: 2025.07.09

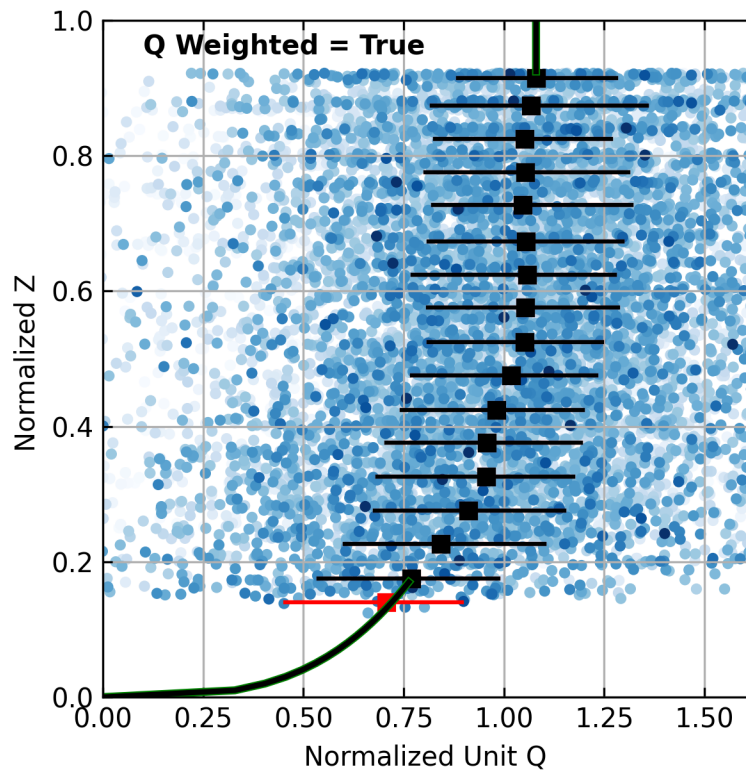
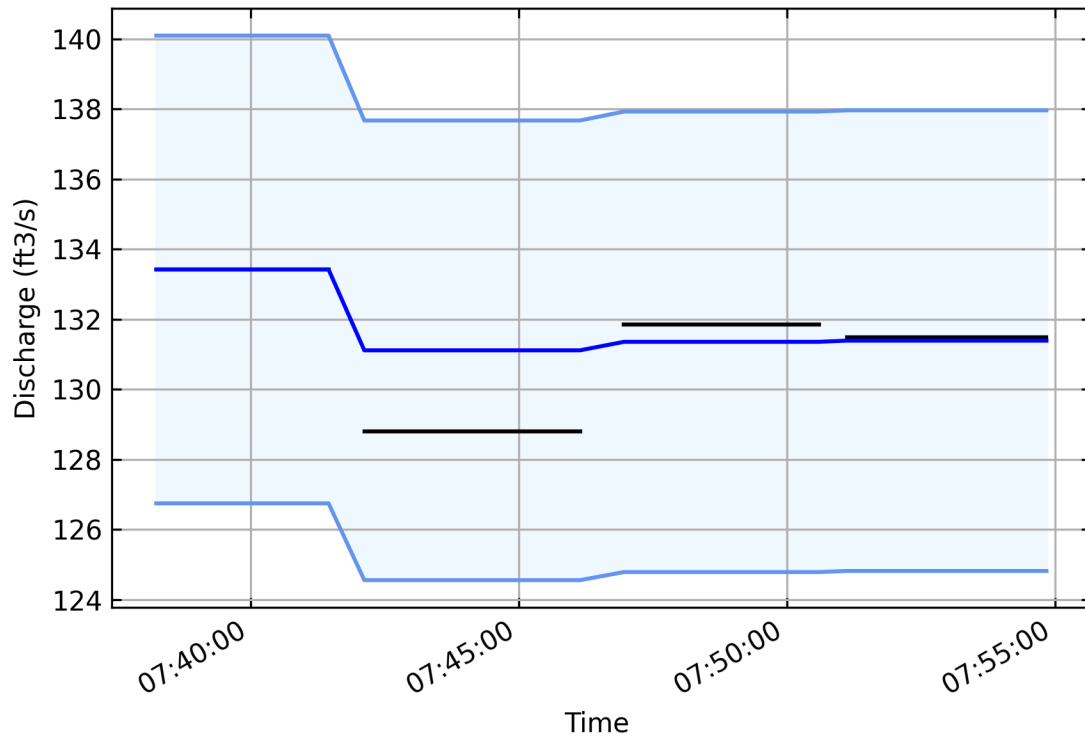
Measurement Number: 0

Discharge: 131.39

Stage: 0.00

User Rating: Not Rated

Processed: 2025.07.17 16:31:11





# QRev Discharge Measurement Report

4 of 4

Station Name: 07092025\_Rockford

Station Number:

Measurement Date: 2025.07.09

Measurement Number: 0

Discharge: 131.39

Stage: 0.00

User Rating: Not Rated

Processed: 2025.07.17 16:31:12

