

Rabbit River at Campbell, CR4
STATION ID: H54-017-001
NWS ID: CSRM5
EQUIS ID: S002-002
USGS ID: 05051000

LOCATION:

Lat: 46° 05' 43.1" N **UTMX:** 236378.3 **Township:** Campbell
TWP RNG SEC Q QQ
130 46W 2 SE SE

County: Wilkin

Drainage area: 161,072 acres

Driving directions: From intersection of MN-9 and Wilkin CR-4 in Campbell, travel west on CR-4 0.5 miles to bridge and gage.

History: Present gage established by USGS on 7/15/98 by E. S. Wakeman, D. W. Daly, J. D. Larson and K.J. Kuehlwein.

Cooperation: Minnesota Department of Natural Resources (MN DNR), Minnesota Pollution Control Agency (MPCA), International Water Institute (IWI), National Weather Service (NWS).

GAGE: Base gage is a wire-weight gage attached to upstream side of bridge; checkbar elevation of 25.89 ft. gage datum, and 985.598 ft above mean sea level. Datum of gage is 959.70 ft above mean sea level elevation. A Design Analysis H-350XL Pressure Transducer and H-355 Gas Purge System are housed in a 2' x 1.5' x 6' Hoffman look-in type shelter. Instruments are powered by a 1.2 ampere solar panel run to a deep cycle marine battery through a Sun saver power regulator. Solar panel and a rain gage are attached to side of shelter on a 10' mast. Data collected at 15-minute intervals and transmitted via Goes satellite at 1-hour intervals, 15-second window.

Goes ID:	5532009E	Azimuth:	228
Primary Channel:	38	Elevation:	24
Transmit Time (GMT):	003830		
Random Channel:	124		

CHANNEL AND CONTROL: Channel and banks control all but extreme stages. Extreme stage control is a steel bridge beam at 21.4 ft., gage datum. Channel is muddy and banks are tree and brush covered.

DISCHARGE MEASUREMENTS:

Low flow: Wading measurements to a stage of 6.3 ft. are possible at the gage or 10 feet downstream of bridge

High flow: Upstream or downstream of the bridge.

REFERENCE MARKS:

B.M. 1: Brass tablet on upstream right abutment, Wilkin County Bridge #7144
Elevation: 25.00 ft assumed datum (984.70 ft NGVD29)

R.M. 1: Top of eyebolt in landward side of left downstream cement guardrail post
Elevation: 26.39 ft assumed datum (986.09 ft NGVD29)

R.M. 2: Lower beveled edge chiseled square upstream side
Elevation: 24.88 ft assumed datum (984.58 ft NGVD29)

R.M. 3: Paint mark on top of guard rail in middle of channel downstream side
Elevation: 27.11 ft assumed datum (986.81 ft NGVD29)

R.M. 4: Wire weight gage checkbar attached to downstream side of bridge
Elevation: 25.89 ft assumed datum (985.59 ft NGVD29) (Checkbar surveyed 3/17/10 by KCW/JBC)

Gage Zero: 984.70 ft NGVD29 - 25.00 ft Assumed = 959.70 ft NGVD29

Primary reference: R.M. 4 checkbar (25.89 ft assumed datum)