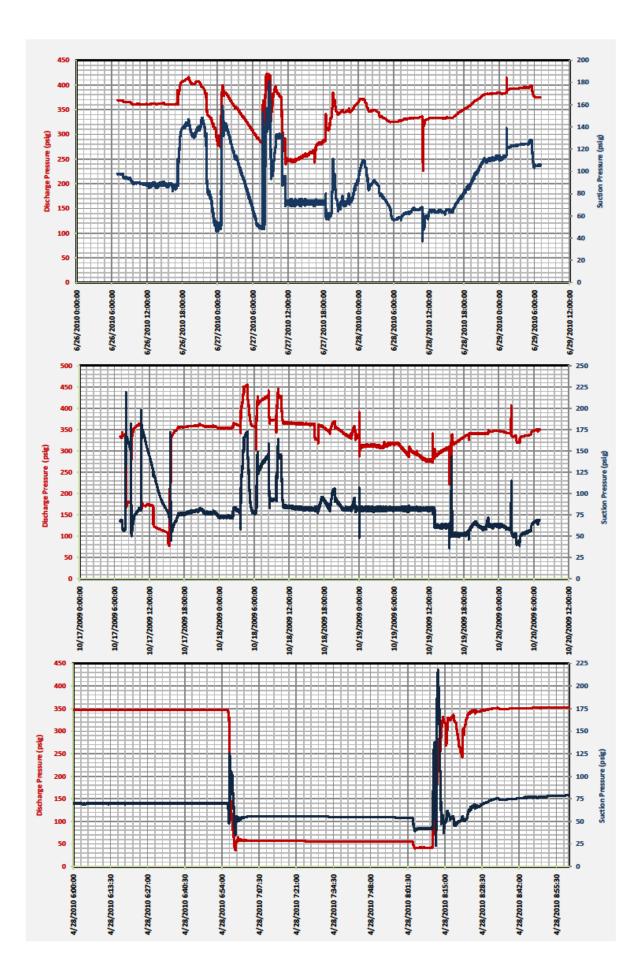
MP 608 – Marshall, Michigan Incident NTSB/PHMSA Information Request No. 129

129Reference:Email request (3 of 3, #3) by Matt Nicholson of November 9, 2010Preamble:Please clarify between which times the column separations are
occurring in the trends provided under IR59. Are these upstream or
downstream of Marshall? Which sections of 6b are these 3 column
separations associated with (see attached plots)?
MARSHALL COL SEP HISTORY (sm).pdfRequested by November 26, 2010

Please refer to the response below:



RESPONSE:

Marshall Elevation is 927.17ft, highest upstream elevation is at milepost 602.5, at 967.85ft. The highest downstream elevation before the check valve is at milepost 620.62, at 983.60ft. Using heavy crude (930kg/m3), a confirmed column separation would occur on a static line when Marshall suction pressure is less than 16.4psi, and when Marshall discharge pressure is less than 22.7psi.

- 1. 6MR 2009 Oct hist: no column separation occurred either upstream or downstream. Lowest suction pressure was 40psi; lowest discharge pressure was 77psi.
- 6MR 2010 Apr hist: no column separation occurred either upstream or downstream. Lowest suction pressure was 26psi; lowest discharge pressure was 33psi.
- 3. 6MR 2010 Jun hist: no column separation occurred either upstream or downstream. Lowest suction pressure was 31psi; lowest discharge pressure was 226psi.

The sections in the attached plots refer to suction and discharge pressure at MR Station