Q. Reference: Gas Turbine Failure Analysis - Final Report, January 11, 2017,
Performance Improvements (PI) Limited Report, page 8 of 21. PI indicates that the
Stephenville scavenge/return oil filter relief bypass valve lifted due to filter
blockage. How long did the system operate with this bypass valve open and what
steps, if any, are in place to inform operators that the filter has been bypassed?

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The scavenge/return oil filter relief bypass is designed to operate at 10 psig¹. A 8 A. 9 pressure switch is installed in the line upstream of the filter and activates an alarm 10 in the control system to notify the operator of an increasingly blocked oil filter. This switch was tested post failure and found to operate as designed. Prior to the engine 11 12 failure, there was no alarm activated for the lube oil system, thus Hydro's position is 13 that the relief valve lifted during/after the failure of the engine. This is supported by 14 the fact that the majority of debris found in the filter post failure was in fact failure debris. 15

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¹ Pound Per Square Inch Gauge.