



















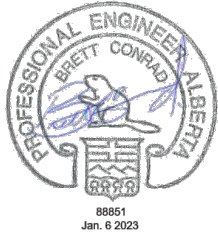




restrictions ranging between **Redacted by TC Energy**. An additional review of the caliper data was conducted in order to review for geometry indications which may be indicative of a bulge or possible wrinkle. Based upon the review conducted by Baker Hughes, there are no other elbows on the affected segment which are associated with similar geometry features having characteristics of a possible wrinkle. Based upon this assessment, no other ILI features on the affected segment are considered to exhibit similar characteristics to the failure location.

Written by:

Reviewed by:

  
08 January 2023

Brett Conrad, M.Sc., P.Eng.  
Pipe Integrity Engineer  
Pipeline Integrity Engineering  
APEGA Permit to Practice: 7100

Ross Adamson, P.Eng.  
Pipe Integrity Engineer  
Pipeline Integrity Engineering

Responsible Member:

<b>PERMIT TO PRACTICE</b> <b>TRANSCANADA PIPELINES LIMITED</b>
RM SIGNATURE: <u>Niteesha Falcon</u>
RM APEGA ID #: <u>82111</u>
DATE: <u>2023-01-10</u>
<b>PERMIT NUMBER: P007100</b> The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

Niteesha Falcon, P.Eng.  
Manager, Pipeline Integrity Engineering  
APEGA Permit to Practice: 7100