



OIL

CPC Crude Oil Pipeline Integrity Review and Rehabilitation Plan

Caspian Pipeline Consortium

The Caspian Pipeline Consortium (CPC) operates a 1500km pipeline between Tengiz and Novorossiysk. The 40" diameter section between Tengiz and KP116 had a degraded tape wrap coating and external corrosion.

The objective of the project was to provide guidance to enable CPC select the best option for the future of the Tengiz to KP116 section of the pipeline, given the risks posed by external corrosion.

Penspen provided the following services:

Review of inspection reports and additional data supplied to determine: the condition of the line, maximum credible corrosion rates, and future repair and inspection requirements.

Determination of the consequences (in terms of volume of oil spilt) of a small leak and a rupture taking into account effect of leak detection, inspection frequency, and oil spill response capability.

Guidance on pipeline rehabilitation, including sections requiring re-coating and coating methods to use

Profile: 1500 km 40", API 5L X65, Crude Oil Transmission Pipeline
 Site Survey
 Corrosion Process Assessment
 Defect Assessment
 Coating Systems
 Inspection Systems

Skills: Integrity
 CP and Coatings
 Rehabilitation and Repair

