

Abstract

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Review of leakage detection methods for subsea pipeline

The world now depends extensively on pipeline networks, to transfer fluids from one place to another. Due to the fact, that hydrocarbon exists with large quantities under seabed pipeline may be installed and spreads over hundreds of miles on seabed, in the harsh environment. Any leakage can damage the environment and cause economic loss. Therefore, detecting leaks and containment its hazardous effects is essential. There are several techniques that can be used to detect any leaks in subsea pipelines. In this paper, all techniques used in subsea pipeline, have been discussed and compared, while stating the advantages and disadvantages of each one. Therefore, in the case of designing a leak detection system for the subsea pipeline, this paper will enable the engineers to choose between the different techniques, according to the real situation, in terms of pipeline fluid specifications, pipeline length, pipeline specifications, pipeline location, cost efficiency, accuracy.