



# OptaSense Ensures Uninterrupted Operations On One Of World's Longest Pipelines

Baku-Tbilisi-Ceyhan (BTC) Pipeline, Central Turkey

## Project Overview

The BTC pipeline, owned by The Baku-Tbilisi-Ceyhan Pipeline Company, is one of the longest crude oil pipelines in the world. The pipeline covers a wide range of terrain, from the central Turkish highlands reaching elevations of 2,650m to the highly arable and populated Ceyhan/Seyhan valley.

The Turkish section of the BTC export system includes four pumping stations, two pigging stations, 52 block valve sites and the Ceyhan marine export terminal. At a throughput of 1 Million barrels per day, ensuring successful and uninterrupted operations is of key strategic importance.

## Securing the BTC with Fiber Optics

The OptaSense Fiber Optic Pipeline

Monitoring solution was selected to monitor 1,770 km of the BTC pipeline on the Turkey section. The fiber optic system includes security monitoring to prevent incidents of theft or accidental damages. Security capabilities include third-party intrusion and right-of-way monitoring.

## Securing the BTC with Fiber Optics

Shortly after the system was installed, the OptaSense pipeline monitoring system detected the approach of a vehicle, footsteps and periods of manual digging near the pipeline. The system raised an alarm, alerting operators to initiate and mobilize appropriate response mechanisms to the exact location of the incident. A significant impact to the environment and business operations were prevented.

## Background:

- BTC Pipeline, Central Turkey
- 1,770km of pipeline

## Solution:

- OptaSense Pipeline Security Monitoring System
  - Third-party Intrusion
  - Right-of-way
  - Theft prevention
  - Slack line and inline inspection tool tracking

## Value Delivered:

- Prevention of incidents of theft and accidental damage
- Single pipeline monitoring solution delivering
  - Security monitoring
  - Lower installation costs
  - Real-time, 24/7 peace of mind and security



Other successful episodes of damage prevention and operational efficiency includes:

- Hot tap attempt detected
- Telecommunication pylons construction detected on the right-of-way (ROW)
- Water irrigation canal construction detected on the ROW
- Successful pig tracking for operational purposes

**Added Benefit**

The system continues to demonstrate its performance in detecting and classifying events ranging from third party intrusion, agricultural and construction activities near or within the right of way corridor and seismic activity, as well as slack line and inline inspection tool tracking.

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For more information, please contact your OptaSense representative or visit [www.optasense.com/pipeline-monitoring](http://www.optasense.com/pipeline-monitoring).

