CASE STUDY

Canline pipeline solutions Ltd.

ADVANCED PULLING TECHNOLOGY

PROJECT OVERVIEW

INDUSTRY: Oil and Gas
PROJECT: Free Standing Liner Rehabilitation

PROJECT CRITERIA

The client approached Canline after receiving a recommendation from the pipe manufacturer regarding their requirement to pull a FlexSteel product through a 5.5 mile 8” 1500 psi Free Standing Liner Rehabilitation Project.

PROJECT CHALLENGES

The client had no previous experience with a liner rehabilitation project and subsequently, the California regulatory bodies were not familiar with approving this type of project. The approval process was arduous, lasting 13 months until final approval to proceed was granted.

HOW THE CRITERIA WAS MET

Canline Pipeline Solutions’ technical team started discussions with the client in April of 2019, with a planned start date of June 2019. Canline’s comprehensive pre-job coordination process involved several presentations and conference calls with stakeholders.

Canline advised the client on the innovative approach to this liner project so they could fully understand and feel comfortable with the proposed execution.

PROJECT SNAPSHOT

This Free Standing Liner Rehabilitation Project required significant consultation with Canline’s expert team to navigate the approval process with California’s regulator bodies.

Timeline of Project:

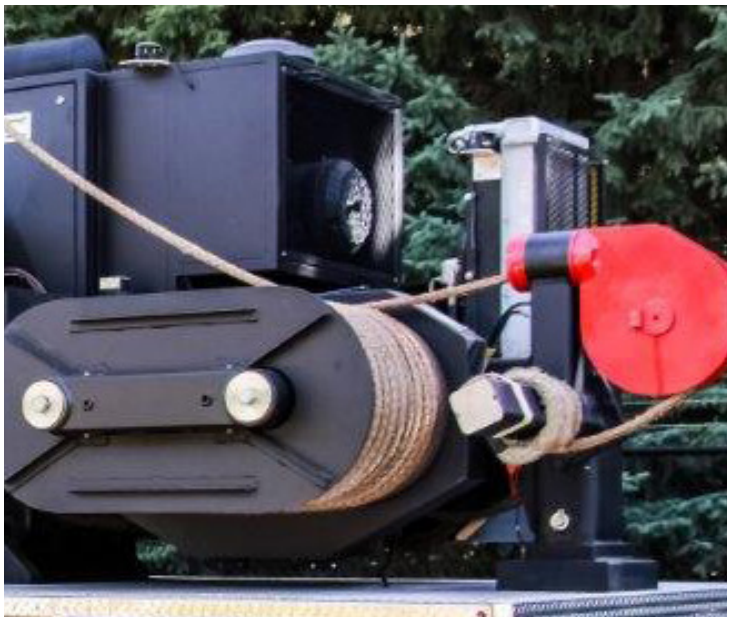
Thirteen months for completion of the approval process, 6 weeks on-site.

Pipeline Details:

5.5 mile 8” 1500 psi

HOW THE CRITERIA WAS MET (cont.)

Due to the fact the regulatory bodies were not acquainted with Canline's high tech approach, the project was delayed, waiting for the necessary approval. Over the course of the 13 months, Canline collaborated with the client's operations team, health and safety team, and pipe manufacturer to help navigate the required documentation and offer advice when communicating with the regulatory bodies involved. This included providing ITPs, Canline's competency assurance standards, and all other critical documentation requested by the Office of State Fire Marshall (OSFM) and the Pipeline and Hazardous Materials Safety Administration (PHMSA).



Canline deployed one of its state-of-the-art Advanced Pulling Technology (APT) units to the site. All APT units are equipped with Real Time Data Acquisition Equipment that monitors and records speed, weight, and distance in a Data Logging Record (DLR). The APT's direct drive hydraulic capstan system, allows for smooth, consistent pulling power, making it far superior to conventional "wire-line" trucks. This unit also features specialized, lightweight, high performance, synthetic rope. It is extremely strong, flexible, and safer than steel cable, which has an incredible amount of stored energy when it is under tension. The use of synthetic, lightweight rope, allows for longer pulls and mitigates the potential for internal damage to the pipeline, especially where there are bends. The installation was completed on July 7th, 2020, without issue.

Throughout the project there was adherence to Canline's high safety standards. This included defining an exclusion zone to keep people away from operational equipment. Canline's radio procedures were established giving priority radio access to team members monitoring for emergencies. As well, ongoing Job Safety Analysis (JSA) and Job Hazard Analysis (JHA) was conducted. At the completion of the project, the client received Canline's standard Quality Control Package. This detailed package included job location, date, time, pipeline size, and the electronic run data logs.

The combination of Canline's knowledgeable team of experts, reliable processes and systems, and technology innovations, ensured this client's free standing liner rehabilitation project was approved and successfully completed.