

GAS FIELD OPTIMIZATION



HISTORY

A producer recently acquired a gas field from another producer. There were many optimization opportunities in-field. Which optimization strategy to take was a real challenge due to the variety of production from the field. Gas flows from various formations such as Debolt, Halfway, Gething, Bluesky, Dunlevy, and Montney. Downhole completions vary from packer to packer-less, dual production strings, commingled production through sliding sleeve.

Gas production and wellhead pressure from wells varies from 1-50e3m3 and 300-5000 kPa. Liquids production and make-up vary as well. Some wells make little condensate, more water and some wells make mostly condensate. Gas to liquids ratios were varied as well however metering liquids from the wells is not an option in this field.

PROBLEM

Many wells are flowing at or below critical rate. An optimization initiative was necessary to increase production levels, however, considering the deflated gas prices, any optimization initiative needed to be as cost effective as possible.

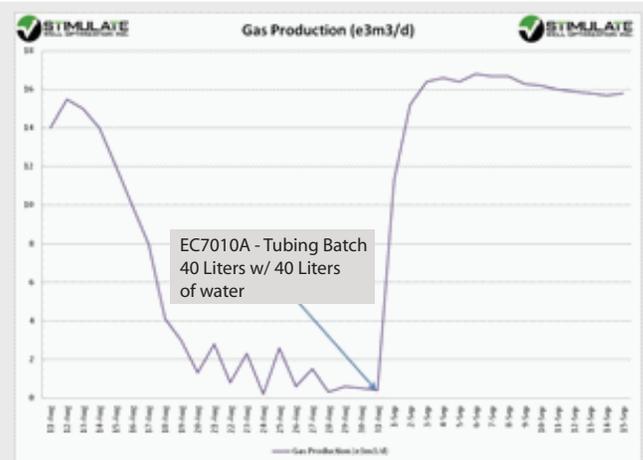
Considering the standard optimization methods: Compression, coil tubing, gas lift, plunger lift, foamer – D-Liquefy's approach to well optimization with foamers was the most cost effective approach.

SOLUTION

The D-Liquefy team sat down with the producer and reviewed all gas wells in the field. Combining D-Liquefy's knowledge of chemistry and application with the producers knowledge of the production and the individual wells, a list of potential candidates was drafted. Samples of fluid were tested for foamer performance. Downhole completions were reviewed to determine proper application. The list of wells were ranked by probability of success, a game plan was made for each well, and field trials ensued shortly thereafter.

The D-Liquefy team managed the trials from start to finish. Some wells used a batch application, some used a D-Liquefy portable test trailer for continuous injection and some wells used both.

Throughout the trials, programs were adjusted as necessary and rates were optimized. Once the application had been optimized, economics of each application were reviewed and D-Liquefy designed and installed permanent programs where necessary.



Disclaimer: The contents of this document are, to the best of our knowledge, accurate at the date of publication. We shall not be liable for any lost or damage whatsoever resulting from reliance on its contents. All warranties as to the fitness for purpose or otherwise (howsoever made or implied) in respect to this publication are excluded.