

# CASE STUDY

## LUBSOIL® SYNTHETIC COMPRESSOR 68

Multinational oil and natural gas service company  
Rotary Screw Compressor application

### APPLICATION

Gaseous nitrogen production from multi-sequenced rotary screw compressors. Gaseous nitrogen is used to optimize performance in oil and gas drilling operations.

### CHALLENGES

The current compressor fluid was working “well enough;” however, it was producing sludge and varnish which were lowering efficiencies, creating costly maintenance issues, and equipment downtime. Taking the compressors offline to make necessary repairs and/or drain the fouled compressor fluid was decreasing production and increasing costs.

### ACTIONS

Quantitative oil analysis of the current and well-known compressor fluid revealed very high contents (>17,000 ppm) of a conventional element traditionally used as an extreme pressure additive. This element will produce a residue in equipment when operating at the high temperatures like those seen in this compressor application. The residue eventually produces sludge and varnish which result in operational issues and equipment failures. The comprehensive laboratory analysis and results warranted field tests of the existing product compared to the Lubsoil® Synthetic Compressor fluid.

### TULCO OILS LUBSOIL® SOLUTION

Extensive field tests revealed the Lubsoil® Synthetic Compressor fluid produced 3,000 hour equipment run times compared to the 1,000 hour interval for the current fluid.

### RESULTS

The advanced technology Lubsoil® Synthetic Compressor fluid allowed the customer to decrease fluid costs by 65% simply by producing extended run times. Additional cost savings were realized with reducing production downtimes and significantly lowering scheduled maintenance and costly repairs. Company generated cost savings exceed \$2,000,000 per year. Based on the considerable cost savings produced by the Lubsoil® Synthetic Compressor fluid, the customer moved their engine and booster oils to Lubsoil® designed lubricants.



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