

CASE STUDY

LUBSOIL® SYN LPG WS 150

Multinational Oil and Gas Service Company

APPLICATION

An oil field service company operates approximately 400 rotary screw vapor recovery units to recover valuable gaseous vapors from inside crude oil storage tanks.

CHALLENGES

Vapors being recovered from crude oil tanks contained high NGL content averaging 2200-3000 BTU. Suction pressures ranged from 30-50 PSIG and discharge pressures from 100-360 PSIG. These variables require a polyalkylene glycol-based (PAG) oil to help combat oil dilution and loss from carry off. However, the competitive brand of PAG lubricants being used were still experiencing issues with condensate, dilution and carry-off. This resulted in large consumption rates of oil and repeat visits to the lease sites to maintain performance. At some lease sites the oil was being diluted and VRU sumps needed refilling every five to seven days.

ACTIONS TAKEN

The Tulco Oils team spoke with staff and area managers of the field service company and obtained gas stream analysis, equipment performance, lubrication procedures and operational inefficiencies. Recommended oil viscosity and operational parameters were confirmed through OEM. Lubsoil® Synthetic LPG WS 150 was put through a trial of in-lab tests to simulate the demanding application. Successful lab trials led to a field test in one of the most problematic VRU applications, where the Lubsoil® Synthetic LPG WS 150 outlasted the major competitive brand by four times.

TULCO OILS LUBSOIL® SOLUTION

After additional field trials and improved performance, Lubsoil® Synthetic LPG WS 150 was implemented in all vapor recovery units.

RESULTS

The advanced technology of Lubsoil® Synthetic LPG WS 150 allowed for rapid separation from the NGLs and better ability to resist dilution. This has proven to reduce oil consumption by 51% and save this customer approximately \$42,900 per month in lubricant purchases. Additional operational costs savings averaging \$21,120 per month were also realized, as repeat visits by field technicians for oil top off have been greatly reduced. The major improvements in oil quality and equipment performance have allowed this customer to reduce downtime, improve efficiency and increase margins, and they are on track to save approximately \$700,000 for the year by using Lubsoil® Synthetic LPG WS 150.