

BP increases mature well gas production with lower maintenance costs

Oil and Gas

Result

- Weekly/monthly maintenance reduced to annually
- Proven annual service costs of less than \$1,000 including parts and labor
- Well casing pressure lowered (10 psi or less) to increase gas production
- Fewer start/stops and lockout shutdowns due to unplanned maintenance and shutdowns
- Improved workforce productivity by eliminating need for daily/weekly compressor checks and adjustments

Application

Conventional gas well boosting at 40-50+ mcf per day, 10 psig suction, 100+ psig discharge. Variable speed controlled Copeland Scroll® compressor used to precisely control casing pressure.

Customer

BP America, one of North America's largest oil and gas producers, with operations in the San Juan basin.

Challenge

BP America sought to find a cost effective compression technology that could match the low flow rates and higher pressure requirements at conventional gas sites, with little operator intervention. Traditional reciprocating compressors installed can be oversized for the application and often do not match suction/discharge pressure needs. Smaller, marginal wells had operational issues due to the maintenance intensive reciprocating compressors and required regular operator intervention.



“The Copeland Scroll® compressor takes care of itself. It makes an ideal installation for winter operation.”

Tim McCown
BP Facilities Engineer
San Juan Basin



At this higher-elevation site in New Mexico, cold snaps can freeze the line and shut down compression packages. Wells are attended to on a priority basis starting with the largest. Lower rate wells need to be more automated, or they aren't producing.

Solution

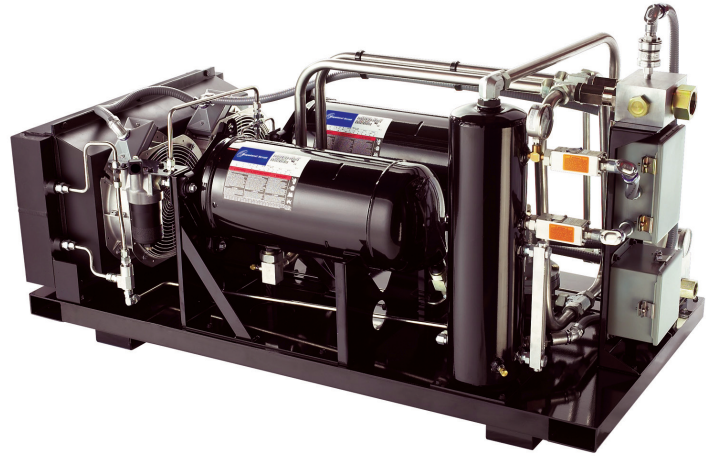
BP American was introduced to Copeland Scroll® compression technology and its ability to match suction pressures with changing flow conditions. Utilizing suction pressure control, the compressor automatically varies flow to maintain a constant suction pressure even when faced with line pressure swings. The scroll compressor is well-suited to match flow and pressure requirements with very little maintenance and without operator intervention.

The welded hermetic compressor design means no emissions, shaft seals, or external moving parts. Copeland Scroll® compressors have the lowest maintenance requirements of any compressor in the oilfield. Annual planned maintenance for this application includes changing oil and installing new oil filters. There are no belts, gears, couplers, alignments, shaft seals or lube points.

The all-electric approach was critical to achieving low maintenance and enhanced gas production. The electric package turned out to be the ideal solution for winter operation as well. When traditional gas driven reciprocating compressors shut down due to downstream conditions, the scroll compressor keeps running, eliminating daily and weekly site visits and reducing the impact of traffic related issues associated with truck access.

Resources

To learn more about Copeland Scroll® compression solutions visit EmersonClimate.com/oil_gas



Modular Copeland Scroll® compression package designed to increase marginal gas production while reducing maintenance costs often associated with sub- 50HP compression packages.

EmersonClimate.com

2006SSD-210 R1 (5/07) Emerson and Copeland Scroll are the trademarks of Emerson Electric Co. or one of its affiliated companies. ©2006 Emerson Electric Co. All rights reserved. Printed in the USA.

EMERSON. CONSIDER IT SOLVED.™