

DAKOTA GASIFICATION COMPANY

A BASIN ELECTRIC SUBSIDIARY

GREAT PLAINS SYNFUELS PLANT
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March 12, 2007

Peter Dalrymple
Vice President
One Royal Purple Lane
Porter, Texas 77365

Dear Pete,

The purpose of this letter is to share with you the results that Dakota Gasification Co. has obtained with using your product Synfilm GT32 synthetic oil in our 3ea carbon dioxide (CO₂) compressors.

Each identical compressor is a 20,000HP electric motor driven 8 stage integral gear machine. These are unique machines that each compressor 55MMSCFD of CO₂ from 16.7psia to a discharge pressure of 2,710psia. The 1800rpm motor and bull gear drive 4 high speed pinions operating at 7,367rpm, 14,080rpm, 23,467rpm and 26,400rpm respectively. In 2006, it became necessary to change the mineral lubricating oil because of degradation caused by hydrogen sulfide in the gas and because the operating oil was no longer available. Investigation into high quality lubricants for the demanding service of this machine led us to select your product which also offered the opportunity for power savings.

Consequently, prior to the oil change out in June, 2006, inlet gas flows, guide vane positions, stage suction and discharge temperatures and pressures, seal gas leakage rates and power consumption were recorded by our DCS (Distributed Control System). Base loading the machine for nearly identical operating conditions after the oil conversion and compensating the calculations for the small variations of flow, polytropic head and seal gas leakages allowed us to evaluate the difference in machine power from the oil. Many data points were averaged and plotted vs flow. A trendline best fit of the data clearly shows a 2.0% power reduction whereas averaging the data shows a 2.7% power reduction. At a power reduction of 2%, the annual power savings exceeds \$100,000/year/machine.

These results are judged by us to be impressive and speak highly of your product.

Regards,

/S/

Robert L. De Maria
Plant Reliability Superintendent