

PureMark[™] B800 Carbon Dioxide Scavenger Enables Commercialization of Natural Gas in Oklahoma





An operator in Stephens County Oklahoma had a new "artesian" well not producing oil yet. At the time of the trial the well was producing natural gas (NG) and water. The NG had to be flared production despite access to NG pipeline.

Flaring was performed because the NG contained carbon dioxide (CO_2) at levels exceeding the maximum allowable percentage for the pipeline of 3%.

To enable NG commercialization, the CO₂ levels had to be reduced.

The trial well has been producing 300 - 365 MCF of NG per day. The CO₂ concentration range in the NG was 3.8% -3.9%. Foremark Performance Chemicals developed PureMark[™] B800 CO₂ Scavenger that exhibits high affinity and reactivity with CO₂ in NG streams.

This unique, patent pending technology was engineered to separate from the gas stream and form a water soluble light oil. The viscosity of the oil can be reduced as needed.

PureMark[™] B800 CO₂ Scavenger was injected via a general purpose spray nozzle into the gas stream after the low - pressure separator at 80 psi and 150°F.

At 90 gallons per day, the product lowered the CO_2 level in the NG to 2.8%. This concentration level has been maintained constant and thus the NG was brought into compliance for pipeline concentration.

Key Benefits

- Allows operators to take their natural gas from flare to pipeline.
- Provides CO₂ scrubbing when an amine plant is not available.
- Reduces waste and impact to the environment.

The Challenge

 Reduce CO₂ level of the NG to achieve pipeline specification and enable its commercialization.

Solution & Results

- ◆ 90 gallons of PureMark ™ B800 CO₂ Scavenger per day lowered CO₂ level from 3.9% to 2.8% in a 365 MCF a day NG stream.
- Foremark Performance Chemicals has been continuing technology development to increase scavenging activity of CO₂ from NG.

Foremark Performance Chemicals, Inc. makes this information available to you solely for your use in connection with your evaluation of the products. You are solely responsible for testing the products to determine if they are suitable for your intended use, purpose and/or application, and instructing your employees, agents, contractors, customers or any other third party who may be exposed to the products to take applicable precautions. This information is intended for use by persons having appropriate technical skill and knowledge and is used at their own discretion and risk. Since we cannot anticipate all variations in actual end-use conditions, we make no warranties, express or implied, regarding the accuracy of this information, and we assume no liability in connection with any use of this information. Nothing herein shall be construed as a recommendation to use any product in conflict with, or be considered as a license to operate under, any patent or other proprietary right.

FOREMARK PERFORMANCE CHEMICALS and the FOREMARK PERFORMANCE CHEMICALS Logo are trademarks of Foremark Performance Chemicals, Inc.