ONE COMPANY'S APPROACH FOR SHALE WATER MANAGEMENT

Bhavana Karnik* Norman MacLeod

Chevron
3901 Briar Park Drive
Houston, TX 77042
713-954-6099
bhavanakarnik@chevron.com

Jonathan Lilien Chevron Bakersfield, CA

Technological advances have revolutionized shale production across North America. Operations utilizing hydraulic fracturing have the potential to consume significantly more water than conventional oil field operations. Water management costs may account for 10% or more of a well's operating expense, leaving the industry vulnerable to escalating and variable costs in a time of slim profit margins. Operations lack guidance to screen and short-list fit-for purpose water treatment solutions. The access to various competing and emerging water treatment technologies add to the technology chaos and is an industry-wide challenge. This paper presents one company's approach for shale water management to screen sustainable water treatment technologies to meet site-specific water treatment needs. The approach is developed to (1) identify cost-effective, efficient, reliable and sustainable operations (2) reduce freshwater consumption and (3) sustain and enhance credibility as a socially responsible operator.

###