



New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



Administrative Order IPI-358  
January 22, 2010

Chesapeake Operating, Inc.  
P.O. Box 18496  
Oakhoma City, OK 73154-0496

Attention: Shannon Glancy

**RE: Injection Pressure Increase  
Quail Queen Unit Waterflood Project  
Lea County, New Mexico**

Dear Mr. Glancy:

Reference is made to your request on behalf of Chesapeake Operating, Inc. (OGRID 147179) received by the Division on January 11, 2010 to increase the surface injection pressure on three (3) wells within the Quail Queen Unit Waterflood Project. This request is based upon step rate tests recently conducted on these wells. The results of the step rate tests for the Quail Queen Unit Wells No. 3, 12 and 14 indicate that an increase in the surface injection pressure for these wells is justified and will not result in the fracturing of the injection formation and confining strata.

It is our understanding that these wells will not take a sufficient volume of water at the present pressure limits and a higher pressure limits are needed for waterflood operations.

Based on a step rate injection tests that were conducted in December, 2009 you are hereby authorized to increase the surface injection pressure on the following wells all located in Township 19 South, Range 34 East, NMPM, Lea County, New Mexico:



<b>WELL NUMBER</b>	<b>SURFACE INJECTION PRESSURE</b>
Quail Queen Unit No. 3 API No. 30-025-26221, Unit I, Section 11	1150 PSIG
Quail Queen Unit No. 12 API No. 30-025-22841, Unit G, Section 11	1150 PSIG
Quail Queen Unit No. 14 API No. 30-025-25493, Unit G, Section 14	1180 PSIG

Provided the tubing size, packer setting depth and perforation depths do not change. However, you are prohibited from injecting at pressures that would induce fracturing.

The operator is responsible for ensuring injected waters do not migrate upward inside or outside of this casing and enter formations above the permitted injection interval.

This approval is subject to your being in compliance with all other Division rules, including but not limited to Division Rule 5.9.

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers.

Sincerely,



Mark E. Fesmire, P.E.  
Director

MEF/tw

cc: Oil Conservation Division – Hobbs  
New Mexico State Land Office