



# 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-315  
March 4, 2009

Masters Consulting, LLC  
7500 Rialto Blvd.; Ste. 180  
Austin, TX 78735

Attention: Keith Masters

**RE: Injection Pressure Increase Request**

Cato San Andres Unit Waterflood Project (Case No 14128, Order No R-9029-A)  
CSAU Well No. 21    API No. 30-005-20069, Unit C, Sec 11  
CSAU Well No. 23    API No. 30-005-10523, Unit A, Sec 11  
CSAU Well No. 50    API No. 30-005-29021, Unit J, Sec 11  
CSAU Well No. 533    API No. 30-005-27985, Unit K, Sec 11  
CSAU Well No. 822    API No. 30-005-29028, Unit B, Sec 11  
Township 8 South, Range 30 East, NMPM, Chavez County, New Mexico  
Cato-San Andres Pool (10540)

Reference is made to your request on behalf of Cano Petro of New Mexico, Inc. (OGRID 248802) received February 23, 2009, to increase the surface injection pressure limit on the five above named wells in the in the north portion of the Cato-San Andres Unit Waterflood Project.

Hearing Order No. R-9029-A approved on September 3, 2008, permitted Cano Petro of New Mexico, Inc. to inject water into the San Andres formations (Cato-San Andres Pool) strikes northeast to southwest and is approximately 3300 feet to the top. Injection pressures were originally set a 650 psi for all wells in this Unit.

It is our understanding that these wells will not take sufficient volumes of water at these pressure limits and higher pressure limits are needed to optimize the waterflood operation within this unit.

The basis for granting your requested pressure increases is based on the injection step rate tests run on these wells in October and November of 2008 and February 2009. You measured both surface and bottomhole pressures during this test. The results of the step rate tests data show 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.



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You are hereby authorized to utilize up to the following maximum surface injection pressures on these wells provided the tubing, size, type, and setting depth does not change. However, you are prohibited from injecting at pressures that would induce fracturing in individual wells.

<u>Well</u>		<u>Perforations</u>	<u>Max Pressure</u>
CSAU Well No. 21	API No. 30-005-20069	3383-3477	1365
CSAU Well No. 23	API No. 30-005-10523	3472-3559	1220
CSAU Well No. 50	API No. 30-005-29021	3496-3678	850
CSAU Well No. 533	API No. 30-005-27985	3440-3634	1380
CSAU Well No. 822	API No. 30-005-29028	3424-3603	1370

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  
R-9029-A