



**LINN OPERATING, INC.**

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June 22, 2015

New Mexico State Lands Office  
310 Old Santa Fe Trail  
Santa Fe, NM 87501

ATTENTION: Mr. Audrey Dunn  
Commissioner of Public Lands

Dear Mr. Dunn:

Linn Operating Inc. (LINN) operates the East Hobbs San Andres Pressure Maintenance Unit in Lea County, New Mexico. Pursuant to Section 18 of the Unit Agreement for the East Hobbs San Andres Unit, LINN requests the approval of the Commissioner to use fresh water to re-pressure the Unit. LINN, with a partner, Tabula Rasa Energy, intend to initiate a carbon dioxide flood in the near future. The reservoir however needs to be re-pressured in order for the tertiary process to work efficiently. The best and possibly only way to do so while avoiding excessive technological and financial burdens is to use fresh water from the City of Hobbs water system.

The City of Hobbs water solution was the result of an effort to locate and evaluate source water considering produced oil field brine, greywater and freshwater. The closest producing oil field to the project is the South Hobbs Unit. Unfortunately, the operator of that unit has a new carbon dioxide flood in need of makeup water and they bought the City of Hobbs' greywater, which was on the City's distribution system. There are other oilfields to the north but pipelining or trucking water 9 to 10 miles through the City for two years or less was an economic burden for this small project, not to mention the safety and environmental concerns. In return, the City will receive 3,300 feet of new city water main built at our costs and receive outside city limits water rates.

It is estimated that 8,600 barrels of water per day is required for two years to raise the reservoir pressure to approximately 1,225 psi. Once this is accomplished, carbon dioxide injection will replace any make up water volumes. An additional 12.5% recovery of oil from the San Andres is expected (4.6 million barrels).

I have attached water compatibility tests that show good compatibility via reduced scale formation with the combined waters.

New Mexico Oil Commission Order R-11980-A approved a statutory unit for waterflooding. In the Order, Paragraph 9 required that no fresh water be used as make-up water or otherwise be injected. We are also looking to amend the order to allow fresh water makeup at a July 16, 2015 hearing before the Oil Conservation Commission. We request your approval to use freshwater, pursuant to the Unit Agreement. Please acknowledge and sign this letter as documentation that you approve this proposed operation. You may scan and email this approval to [dgordon@linnenergy.com](mailto:dgordon@linnenergy.com) or mail the original to 600 Travis, Suite 5100, Houston, Tx 77002 to the attention of Debra Gordon.

Oil Conservation Commission  
Case No. \_\_\_\_\_  
Exhibit No. 11

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Should you have any questions regarding this project, please do not hesitate to contact Bob Sutherland with Tabula Rasa Energy @ [BoBs@tabularasa.com](mailto:BoBs@tabularasa.com) 281.668.8478.

Sincerely,

  
Debra Gordon  
Regulatory Compliance Manager

Cc/ Terry G. Warnell, Director  
Oil, Gas and Minerals Division  
New Mexico State Lands Office  
310 Old Santa Fe Trail  
Santa Fe, NM 87501

B. Sutherland -TR

Attachments/ State/Fee Waterflood Unit Agreement East Hobbs San Andres Unit  
EHSAU Water Compatibility Testing Data

\_\_\_\_\_  
Acknowledged and Approved

\_\_\_\_\_  
Date

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title