

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2006 SEP 32 60 11 42

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator **Lance Oil & Gas Company, Inc.**

3a. Address
P. O. Box 70, Kirtland, NM 87417

3b. Phone No. (include area code)
505-598-5601

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
2,130' FNL & 575' FEL - Section 25, T30N-R14W, NMPM

5. Lease Serial No.

NM-0207001

6. If Indian, Allottee or Tribe Name

N/A

7. If Unit or CA/Agreement, Name and/or No.

N/A

8. Well Name and No.

WF Federal 25 #1

9. API Well No.

30-045-30681

10. Field and Pool, or Exploratory Area

B.Fruitland Coal/Harper Hill FS PC

11. County or Parish, State

San Juan County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Deepen | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Reclamation | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Casing Repair | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete | <input checked="" type="checkbox"/> Other Downhole |
| <input type="checkbox"/> Change Plans | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon | Commingling |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Disposal | Application |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Lance requests approval to allocate production from the WF Federal 25 #1 well to Basin Fruitland Coal and Harper Hill Fruitland Sand Pictured Cliffs sandstone reservoirs in proportion to the recoverable reserves in-place calculated for each reservoir in accordance with legally-accepted reservoir engineering practices. The methodology was thoroughly reviewed with the BLM and NMOCD on Thursday afternoon, July 13, 2006. An attachment is enclosed entitled "Supplement to Downhole Commingling Application - Fruitland Coal & Pictured Cliffs Sandstone Allocation Methodology". The WF Federal 25 #1 is completed in the Basin Fruitland Coal and Harper Hills PC Ext. However, the WF Federal 25 #1 is currently producing from only the Basin Fruitland Coal with a bridge plug set over the Harper Hill Fruitland Sandstone Pictured Cliffs. The well is perforated as follows:

Basin Fruitland Coal: 1,076' - 83' KB, 1,104' - 07' KB, 1,161' - 73' KB
Harper Hill FS PC: 1,184' - 94' KB

All working, royalty and overriding royalty interests are identical in the commingled zones. The produced fluids from all commingled zones are compatible with each other and commingling will not decrease the value of production. Lance is requesting approval to allocate production based upon a split of Basin Fruitland Coal - 89.109% and Harper Hill Fruitland Sand Pictured Cliffs - 10.891%.

Your timely approval would be appreciated as Lance has a rig in the area to commence pulling the bridge plug as soon as possible.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Thomas M. Erwin, P.E.

Title **Senior Production Engineer**

Signature

Thomas M. Erwin

Date

9/27/06

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Joe Hewitt

Title **Geo**

Date **10-3-06**

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **FFD**

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

LANCE OIL & GAS COMPANY, INC.

**WF Federal 25 #1
SENE Section 25, T30N - R14W
San Juan County, New Mexico**

Supplement to Downhole Commingling Application Fruitland Coal - Pictured Cliffs Sandstone Allocation Methodology

The WF Federal 25 #1 is capable of producing from both the Basin Fruitland Coal and the Harper Hill FS PC intervals. Currently, open perforations exist in both intervals; however, a plug is in-place over the Pictured Cliffs perforations keeping production from this interval behind pipe until downhole commingling is approved. Pursuant to Order R-11363, Lance Oil and Gas seeks approval to downhole commingle the "Pre-approved pools and areas": Basin Fruitland Coal (71629) and Harper Hill FS PC (78160) in this well.

The Basin Fruitland Coal is perforated from 1,076' - 83' KB, 1,104' - 07' KB, 1,161' - 73' KB. The Harper Hill FS PC is perforated from 1,184' to 1,194' KB. Lance Oil & Gas Company, Inc. (Lance) requests downhole commingling of production from the two zones with an allocation of future production to each zone that is not evenly split. Further, Lance intends to allocate production to the Basin Fruitland Coal and the Pictured Cliffs sandstone reservoir in proportion to the recoverable reserves in-place calculated for each reservoir, rather than by a production-based method.

In requesting this approach, Lance is acknowledging the fact that coal reservoirs and sandstone reservoirs are very different in their gas storage capacity and productive performance. The reserves extracted from each reservoir horizon, therefore, will be substantially disproportionate over the expected life of the well. Lance recommends this reserve-based allocation method because production-based methods suffer from the fact that once the juxtaposed coal and sand reservoirs are frac'd, they communicate with each other and the production attributable to each is very difficult to determine accurately. In addition, because sandstone and coal reservoirs perform so differently, the proportion of production attributable to each change very significantly over the life of the well as drawdown occurs. This adds yet another level of uncertainty and complexity to production-based allocation methods.

Calculations of reserves, on the other hand, can be done with accuracy in either reservoir type, and in accord with legally-accepted standard reservoir engineering practices. Lance advocates using this approach to allocating the total recoverable resource because it is a more fair way of assessing the resource volume that will be eventually produced from either zone. The reserves method acknowledges that all of the recoverable reserves in each zone will be extracted over the life of the well, and assures that respective parties will be properly credited for those reserves. The approach also avoids problematic issues with determining relative rates of production from each reservoir - particularly after frac'ing - and the change in those rates that occurs over time. Instead it leaves in-place a fixed proportion of production from each reservoir until all reserves are recovered. This further simplifies accounting for companies and interest owners by keeping the allocation constant over time until the end of the well's productive life.

On July 13th, 2006, Lance Oil & Gas Company, Inc. presented the results of a reservoir study to the BLM and NMOCDC that demonstrated how reserves for each reservoir can be determined with accuracy using this method for our wells and how an allocation by this method would work. The reserve calculation is accomplished using industry-accepted and legally-accepted engineering and geological methods for calculating gas-in-place for CBM reservoirs and for gas sand reservoirs.

For CBM reservoirs the volume of recoverable reserves is given by

$$RGIP = Rf*[1359.7*A*h*RhoB*Gc]$$

Where:

- A* = The drainage area of the well, which is taken as the spacing unit for the reservoir and is in this area being developed at 160 Acres.
- h* = Thickness of the coal using a density cutoff of 2.0 g/cc.
- RhoB* = Average bulk density of the coal seam.
- Gc* = In-situ average gas content of the coal seam(s).

For Gas Sand reservoirs, this is given by:

$$RGIP = Rf*[(43,560*A*h*(1-Sw)*PHIe)/Bg]$$

Where:

- Rf* = Recovery Factor, determined by the ratio of final gas formation volume factor to initial gas formation volume factor in the reservoir.
- A* = The drainage area of the well, which is taken as the spacing unit for the reservoir and is in this area being developed at 160 Acres.
- h* = Thickness of the reservoir interval over which there is sufficient gas saturation (1-Sw) for significant productivity.
- Sw* = The average total water saturation in the reservoir over the interval having sufficient gas saturation for significant productivity.
- PHIe* = Average "effective" porosity in the reservoir over the interval having sufficient gas saturation for significant productivity.

By using this method, the proposed allocation we propose for the WF Federal 25 #1 is:

Fruitland Coal	-	89.109%
Pictured Cliffs	-	10.891%

If you have any questions about the proposal, please contact Mr. Bill Lyons with Lance Oil and Gas Company, Inc, San Juan Basin Business Unit, 1099 18th Street, Suite 1200, Denver, CO 80202