Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
May 27, 2004

WELL API NO.
30 - 045 - 29838

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.
NM - 0206995

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name
WF Federal 34

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

8. Well Number
#1

SEP 2006 RECEIVED

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

9. OGRID Number
229938

3. Address of Operator
P. O . Box 70, Kirtland, NM 87417

10. Pool name or Wildcat
Basin Fruitland Coal / Harper Hills FS PC

4. Well Location
Unit Letter O : 895 feet from the South line and 1,595' feet from the East line
Section 34 Township 30N Range 14W NMPM San Juan County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
5488' GL

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER:	Application for Downhole Commingle		☒	OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Lance requests approval to allocate production from the WF Federal 34 #1 well to Basin Fruitland Coal and Harper Hills Fruitland Sandstone Pictured Cliffs sandstone reservoirs in proportion to the recoverable reserves in-place calculated for each reservoir in accordance with legally-accepted reservoir engineering practices. Pursuant to NMOCD Rule 303C(3)(b)(iii), a copy of the application to downhole commingle has been provided to the BLM. 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 34 #1 well is perforated as follows:

Basin Fruitland Coal:	918' – 23' KB, 971 - 81' KB, 1,030' – 37' KB and 1,043' - 48' KB
Harper Hills FS PC:	1,035' - 1,046' KB

All working, royalty and overriding royalty interests are identical in all commingled zones. The produced fluids from all commingled zones are compatible with each other and commingling will not decrease the value of production. A C102 for each zone to be commingled showing its spacing unit and acreage dedication is attached. Lance is requesting approval to allocate production based upon a split of Basin Fruitland Coal – 84.50% and Harper Hill FS PC – 15.50%. Your timely approval would be appreciated as Lance has a rig in the area to commence pulling the bridge plug as soon as possible.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.**

DHC 2396 AZ

SIGNATURE Thomas McGinnis TITLE PRODUCTION SUPERINTENDENT DATE 9/13/06

Type or print name E-mail address: Telephone No.

For State Use Only

APPROVED BY: TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE SEP 14 2006

Conditions of Approval (if any):

B 9/27

LANCE OIL & GAS COMPANY, INC.

WF Federal 34 #1
SWSE Section 34, T30N - R14W
San Juan County, New Mexico

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

The WF Federal 34 #1 is capable of producing from both the Basin Fruitland Coal and the West Kutz Pictured Cliffs 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 918' - 23' KB, 971' – 81' KB, 1,030' – 37' KB and 1,043' – 46' KB. The Harper Hill FS PC is perforated from 1,054' to 68' 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 NMOCD 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 34 #1 is:

Fruitland Coal - 84.50%
Pictured Cliffs - 15.50%

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