

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

Form C-103
May 27, 2004

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

WELL API NO. 30 - 045 - 31039
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. Navajo 14-20-603-2168
7. Lease Name or Unit Agreement Name ONV Navajo 34
8. Well Number #2
9. OGRID Number 229938
10. Pool name or Wildcat Basin Fruitland Coal / West Kutz PC Ext

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.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator Lance Oil & Gas Company, Inc.	
3. Address of Operator P. O. Box 70, Kirtland, NM 87417	
4. Well Location Unit Letter <u>C</u> : <u>1080</u> feet from the <u>North</u> line and <u>1870</u> feet from the <u>West</u> line Section <u>34</u> Township <u>29N</u> Range <u>14W</u> NMPM <u>San Juan</u> County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) <u>5715'</u>	
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>	
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 <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: Application for Downhole Commingle <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

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 NV Navajo 34 #2 well to Basin Fruitland Coal and West Kutz Pictured Cliffs Ext 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 NV Navajo 34 #2 well is perforated as follows:

Basin Fruitland Coal: 1,119' - 1,126' KB
West Kutz PC Ext: 1,136' - 1,146' 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 - 90.842% and West Kutz PC Ext - 9.158%. 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 2418 A-2
SIGNATURE Thomas M. Erwin TITLE Production Superintendent DATE 9/27/06
Type or print name Thomas M. Erwin, P.E. E-mail address: tom.erwin@anadarko.com Telephone No. (505) 598-5601
For State Use Only
APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #1 DATE OCT 02 2006
Conditions of Approval (if any):

LANCE OIL & GAS COMPANY, INC.

**NV NAVAJO 34 #2
NENW Section 34, T29N - R14W
San Juan County, New Mexico**

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

The NV Navajo 34 #2 is capable of producing from both the Basin Fruitland Coal and the West Kutz Pictured Cliffs Ext 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 West Kutz PC Ext (79680) in this well.

The Basin Fruitland Coal is perforated from 1,119' - 26' KB. The West Kutz PC Ext is perforated from 1,136' to 46' 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:

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

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.
- $PHLe$ = 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 NV Navajo 34 #2 is:

Fruitland Coal	-	90.842%
Pictured Cliffs	-	9.158%

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

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Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-045-31039	Pool Code 79680 & 71629	Pool Name West Katz PC + Basin Fruitland Coal
Property Code cr	Property Name NY Navajo 34	Well Number #2
OGRID No. 229938	Operator Name Lance Oil & Gas Company, Inc	Elevation 5715

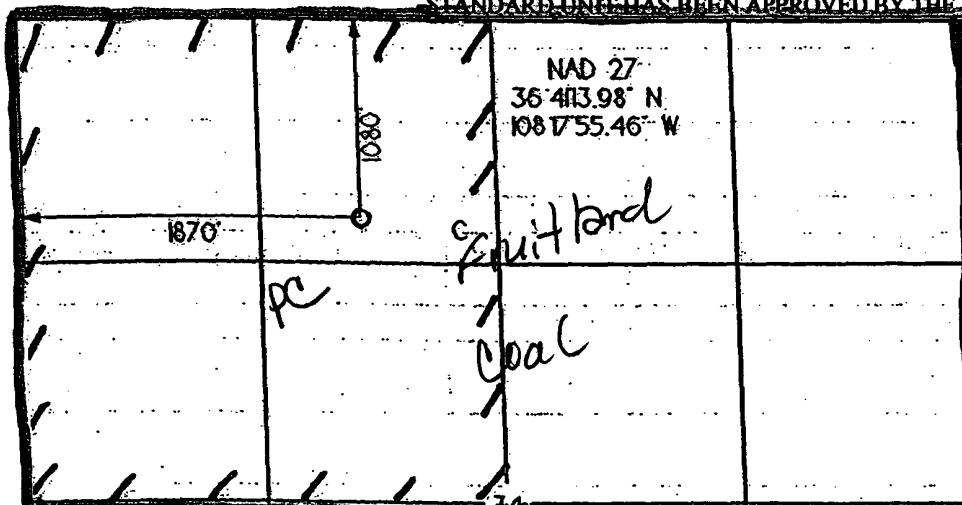
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	34	29N	14W		1080'	North	1870'	West	San Juan

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres		Joint or Infill		Consolidation Code		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature
Anne Jones

Printed Name
Anne Jones

Title and E-mail Address
Jr. Land man

Date
12/20/05

SURVEYOR CERTIFICATION

I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature of Professional Surveyor

