|   | 1                                    |  |               | ATS   | -11-45             |
|---|--------------------------------------|--|---------------|---|--------------------|
| April 2004)   | D-HOBB                               |  |               | FORM APP<br>OMB No. 100<br>Expires Marci                                | 04-0137            |
| April 2004) REGERENCE 10 2011 UNITED STATES<br>FEB 10 2011 UNITED STATES<br>BUREAU OF LAND MAN<br>CAPPLICATION FOR PERMIT TO  | NTERIOR                              | Split Es   | tate          | 5. Lease Serial No.<br>NM-78273   |                    |
| APPLICATION FOR PERMIT TO   | DRILL OR                             | REENTER  |               | 6. If Indian, Allotee or  | Tribe Name         |
| la. Type of work: X DRILL REENTE  | ER                                   |  |               | 7 If Unit or CA Agreeme   | ent, Name and No.  |
| 1b. Type of Well: X Oil Well Gas Well Other   | XSing                                | gle Zone 🔲 Multip  | ole Zone      | 8. Lease Name and Well<br>LUCY FEDERAL #                                |                    |
| 2. Name of Operator READ AND STEVENS, INC.  | <1891                                | $\hat{\partial}$   |               | 9. API Well No.<br>30-025-  | 40055              |
| ROSWELL, NEW MEXICO 88201   | 575-622-                             |  |               | 10. Field and Pool, or Exp<br>LEA-YATES                                 | loratory<br>37620  |
| <ol> <li>Location of Well (Report location clearly and in accordance with an<br/>At surface 1980' FSL &amp; 330' FWL SECTION</li> </ol>   |                                      |  |               | 11. Sec., T. R. M. or Blk. a<br>SECTION 14 T2                           | and Survey or Are: |
| At proposed prod. zone SAME   |                                      |  |               | 12. County or Parish  |                    |
| 4. Distance in miles and direction from nearest town or post office*<br>Approximately 30 miles Southwest of H   | 1                                    |  | <del>,</del>  | LEA CO.   | 13. State<br>NM    |
| 5. Distance from proposed*<br>location to nearest<br>property or lease line, ft. 330'<br>(Also to nearest drig. unit line, if any)  | 16. No. of ac<br>400                 |  | 17. Spacin    | g Unit dedicated to this well<br>40                                     |                    |
| 8. Distance from proposed location*<br>to nearest well, drilling, completed,<br>applied for, on this lease, ft. 990'  | 19. Proposed 3760'                   | Depth  |               | BIA Bond No. on file<br>EWIDE NM-2310                                   |                    |
| 1. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3648 GL   |                                      | nate date work will sta<br>APPROVED  | !<br>ut*      | 23. Estimated duration<br>10 days                                       |                    |
|   | 24. Attac                            | hments   |               |   | <u> </u>           |
| <ol> <li>The following, completed in accordance with the requirements of Onsho</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol> |                                      | <ol> <li>Bond to cover the second to cover the second to cover the second term and ter</li></ol> | the operation | nis form:<br>ons unless covered by an ex<br>formation and/or plans as m | -                  |
| 25. Signature   | _                                    | (Printed/Typed)  |               |   | ate<br>11/09/10    |
| Title Permit Eng.   |                                      | Joe T. Janic   | .a            | <u> </u>  |                    |
| Approved by (Signature) /s/ Don Peterson  | Name                                 | (Printed/Typed <b>)s/</b>  | Don Pet       | erson   | Date<br>FEB - 4 2( |
|   | Office                               |  | DEIEI         | DOFFICE   |                    |
| Application approval does not warrant or certify that the applicant hol<br>conduct operations thereon.  | ds legal or equi                     | table title to those rig   | in the su     | bject lease which would ent   |                    |
| Conditions of approval, if any, are attached.   |                                      |  |               |   | 4 88 84-0          |
| Conditions of approval, if any, are attached.<br>Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a<br>States any false, fictitious or fraudulent statements or representations as  | crime for any p<br>s to any matter v | within its jurisdiction.   |               |   | agency of the Un   |
| Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a States any false, fictitious or fraudulent statements or representations as  | crime for any p<br>s to any matter v | NGINEDS FEB  | 4 20          |   |                    |

|   | <b>55</b> 37620<br><b>waship</b> Range<br>20-S 34-E | Pool Code<br>)<br>]<br>REA  | AND ACRE<br>Property Name<br>LUCY FEDE<br>Operator Name<br>D & STEVE<br>Surface Locatio |                   | YON PLAT<br>Pool Name   | Well 1  | NDED REPORT   |
|---|---|---|---|-------------------|---|---|---|
| 3D - D 25 - 400 5           Property Code           95 4 5         OGRID No.           18917         Town           UL or lot No.         Section           UL or lot No.         Section           UL or lot No.         Section           UL or lot No.         Section | <b>55</b> 37620<br><b>vaship</b> Range<br>20-S 34-E | )<br>REA  | UCY FEDE<br>Operator Name   | RAL               | Pooi Name   |   |   |
| UL or lot No. Section Town  | vnship Range<br>20-S 34-E                           | REA   | UCY FEDE<br>Operator Name   |                   |   |   |   |
| 18917<br>UL or lot No. Section Tow<br>142<br>UL or lot No. Section Tow  | 20-S 34-E   | REA   | Operator Name<br>D & STEVE  |                   | <u>_</u>  |   |   |
| UL or lot No. Section Tow<br>L 14 2<br>UL or lot No. Section Tow  | 20-S 34-E   |   | D & STEVE   | NS INC            |   |   | 2   |
| L 14 2  | 20-S 34-E   | Lot idn   | Surface Location  | 15, 110.          |   | 36  | ation<br>48'  |
| L 14 2  | 20-S 34-E   | Lot Idn   |   | )n                |   |   |   |
| UL or lot No. Section Town  |   | 1   | Feet from the   | North/South line  | Feet from the   | East/West line  | County  |
|   | Prehin Panne  |   | 1980  | SOUTH             | 330   | WEST  | LEA   |
|   | Panne Panne   | · · · · · · · · · · · · · · · · · · ·                                 | ·····   | rent From Surface |   |   |   |
| Dedicated Acres Joint or Infill   | Analige Range                                       | Lot Idn 1   | Feet from the   | North/South line  | Feet from the   | East/West line  | County  |
| NM-78273<br>330' O SEE DETAIL<br>3646   |   | GEODETIC CC<br>NAD 2.<br>Y=5724<br>X=7450<br>LAT.=32.5<br>LONG.=103.3 | 7 NME<br>32.2 N<br>30.2 E<br>71206° N   |                   | I hereby cert<br>true and complete<br>belief, and that is<br>working interess<br>land including the<br>has a right to dri-<br>to a contract with<br>working interess<br>agreement or a d-<br>entered by the de<br>Signature<br>Printed Nar<br>Joe T.<br>SURVEY<br>I hereby cert<br>this plat was plo<br>surveys made by | Antica<br>11/0<br>ne<br>Janica<br>OR CERTIFICA<br>for that the well location<br>the driom field notes of<br>me or under my super-<br>true and correct to the b<br>OBLE//910,20<br>red | herein is<br>weldge and<br>owns a<br>terest in the<br>le location or<br>ion pursuant<br>teral or<br>ing<br>ler heretofore<br>Date<br>9/10<br>XTION<br>n shown on<br>actual<br>vision, and<br>test of my |

~

EXHIBIT "A"

#### APPLICATION TO DRILL

### READ & STEVENS, INC. LUCY FEDERAL # 2 UNIT "L" SECTION 14 T2OS-R34E LEA CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

1. LOCATION: 1980' FSL & 330' FWL SECTION 14 T20S-R34E LEA CO. NM.

2. ELEVATION ABOVE SEA LEVEL:

- 3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;
- 4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solidsfrom the hole.
- 5. PROPOSED DRILLING DEPTH: 3760'
- 6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

| Rustler Anhydrite | 1590' | Base of Salt | 3210'         |
|-------------------|-------|--------------|---------------|
| Top of Salt       | 1720' | Yates        | 3424          |
|                   |       | TD           | 3760 <b>'</b> |

7. POSSIBLE MINERAL BEARING FORMATIONS:

Yates 0il, Gas & water

8. CASING PROGRAM:

|     | HOLE SIZE | INTERVAL | CASING OD | WEIGHT | THREAD | COLLAR | GRADE         | CONDITION |
|-----|-----------|----------|-----------|--------|--------|--------|---------------|-----------|
| Gee | 26"       | 0-40     | 20"       | NA     | NA     | NA     | Conductor     | New       |
| NON | 121"      | 0-1625!  | 8 5/8"    | 32#    | 8-R    | ST&C   | J <u>-</u> 55 | New       |
| Cur | 7 7/8"    | 0-3760'  | 5½"       | 15.5#  | 8-R    | ST&C   | J-55          | New       |

CASING SAFETY FACTORS: Collapse 1.125 Burst 1.00 Body Yield 1.5 Joint Strength 8-Round 1.8 Buttress 1.6

READ & STEVENS, INC. LUCY FEDERAL # 2 UNIT "L" SECTION 14 T20S-R34E LEA CO. NM

## 9. CASING SETTING DEPTHS & CEMENTING:

20'

53"

Set 40' of 20" conductor pipe and cement to surface Conductor with Redi-mix. ee COA 8 5/8" Surface of 8 5/8" 32# J-55 ST&C casing. Run and set Cement with 660 Sx of ExtendaCem-CZ cement Yield 1.75, tail in with 150 Sx. of HalCem-class "C" + 2% 2% CaCl Yield 1.35, circulate cement to surface. Run and set 3760' of  $5\frac{1}{2}$ " 15.5# J-55 ST&C casing. Production Gement with 330 Sx. of Econo-Cem-HLC + 5# Salt, + 0.125# Boly-E-flakes/Sx Yield 2.04, tail in with 150 Sx. of HalCem-Class:"G" cement + 0.5% LAP-1, + 0.4% CFR-3, + 3# Salt/Sx. + 0.25# D-AIR-3000/Sx. Yield 1.37. Circulate cement to surface.

## 10. PRESSURE CONTROL EQUIPMENT:

Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, top pipe rams and bottom blind rams. the B.O.P. will be nippled uppon the 8 5/8" surface casing. Included on this schematic is a 3000PSI choke manifold with adjustable chokes. The B.O.P. will be operated at least once each 48 hour period, and the blind rams will be operated when the drill pipe is out of the hole on trips. full opening stabbing valve and kelly cock will be available on the derrick floor at all times. No abnormal pressures or temperatures are expected during the drilling of this well.

11. PROPOSED MUD CIRCULATING SYSTEM:

|            | '             |              |                   |            |  |
|------------|---------------|--------------|-------------------|------------|--|
|            | DEPTH         | MUD WT.      | VISC.             | FLUID LOSS | TYPE MUD SYSTEM  |
| See<br>10A | 40-1625'      | 8.5          | 29–35             | NC         | Fresh water Spud Mud add<br>paper to control seepage,<br>use high viscosity sweeps<br>to clean hole. |
| $\bigcirc$ | 1625-3760'    | 10.0-10.1    | 28-34             | NC .       | Brine water use paper to control seepage and high  |
|            | THIS WELL WIL | L BE DRILLED | USING A CLOSED MU | D SYSTEM.  | viscosity sweeps to clean hole.  |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing the viscosity and/or water loss may have to be adjusted in order to meet these needs.

### APPLICATION TO DRILL

### READ & STEVENS, INC. LUCY FEDERAL # 2 UNIT "L" SECTION 14 T2OS-R34E LEA CO. NM

LOGGING, CORING, AND TESTING PROGRAM:

A. Open hole logs consisting of PEX-HRLA-NGT will be runfrom TD back to the 8 5/8" casing shoe, Gamma Ray Neutron run from 8 5/8" casubg shoe to surface.

B. No cores or DST's are planned at this time.

C. Mud logger will be rigged up on well at 1625±'.

## 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of  $H^2S$  in this area. If  $H^2S$  is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP \_\_\_\_\_\_PSI, and Estimated BHT 95°

# 14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take <u>10</u> days. If production casing is run then an additional <u>30</u> days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

## 15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Yates formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.

| WELL NAME:   |   |   | <b>FEVENS, INC</b><br>npletion Prognosis   |              | RECEIVED                        |
|--|---|---|--|--------------|---------------------------------|
| API NUMBER:<br>FIELD/POOL:<br>POOL CODE:                   | 30-02:<br>Lea, Y<br>37620                                   | 5-?<br>Vates  |  |              | FEB 10 2011<br><b>-IOBBSOCD</b> |
| LEASE CODE:<br>LOCATION:                                   | NM-7<br>Lea Co  | 8273 (400 acr<br>ounty, New M                             | lexico   |              |                                 |
| TD:<br>CONTRACTOR:<br>MUD LOGGER:<br>ELEVATIONS:<br>CSG:   | 3760'<br>Weste<br>Start at<br>GL ?' 1<br>8 5/8' 2<br>(TOC @ | rn Drilling<br>1625'. Catch<br>KB ?' (?')<br>32# J-55 STC | , 1980' FSL & 330' F<br>10' samples<br>@ 1625', 5 ½' 15.5#<br>of 20" conductor ) |              | 3760'                           |
| MUD:<br>HOLE & CASING                                      |   |   |  |              |                                 |
| Se 0'-1625' 12 1/4"<br>1625'-3760' 7 7/8"<br>CEMENT DESIGN | 'hole   | 8 5/8" csg<br>5 ½" csg                                    | 8.6# Fresh Water (N<br>10.0# Brine   | lative Mud)  | 34 vis<br>29 vis                |
| 6 8 5/8" csg. 100%   |   | 660 sks<br>150 sks  | ExtendaCem - CZ<br>Hal Cem-C   | Lead<br>Tail |                                 |

EconoCem - HLC

Ext. 305 Office 575 625-0666 home

575 691-8520 cellular

575 392-7282 home

Hal Cem-C

Lead

Tail

| FORMATIO      | <u>N</u>          | <u>Lauri</u>  | e D #1 | Lucy #1   | Lauri D #2         |
|---------------|-------------------|---------------|--------|-----------|--------------------|
| Rustler       |                   | 1596'         |        | 1582'     | 1590'              |
| Top of Salt   |                   | 1728'         |        | 1713'     | 1720'              |
| Base of Salt  |                   | 3217'         |        | 3205'     | 3210'              |
| Yates         |                   | 3420'         |        | 3403'     | 3424'              |
| TD            | 3760'             |               |        |           |                    |
|               | C                 | <b>ONTACT</b> | LIST   |           |                    |
| Operator:     | Read & Ste        | vens, Inc.    |        | 575 622-3 | 770 8-5 M-F Office |
| 400 Penn Plaz | a, Suite 1000 Ros | swell, NM     | 88201  | 575 622-8 | 643 fax            |
| Geologist:    | Jim Brannig       | gan           |        | 575 420-3 | 438 cellular       |
|               | benben@dfn.com    |               |        | 575 625-1 | 516 Office         |
|               |                   |               |        | 575 623-0 | 831 home           |
| Engineer:     | David Luna        |               |        | 575 626-9 | 395 cellular       |

50% Excess 330 sks

150 sks

dluna@read-stevens.com Drilling Consultant: Bud Thorp

5 1/2"

n de Standard Little de Standard Standard Stat csg.

budwjt@vahoo.com>

1

Western Drilling Rig #4: Drilling Super (RC Costello) cell 631-2919 or 432-683-1700 Office Tool Pushers: Joel Black 441-1708, Travis Mann 513-2934 Dog House: 441-1903 DST's: Bulldog Testers 575 390-3070 or Rig Testers 432-570-0421 Mudlogger: Selman & Associates 432 563-8851 Mud Co.: 432-697-8661 Newpark Drilling Fluids Dirt Contractor: South Environmental <u>910-6120 or 441-4159</u> 575 677-2148 Closed Loop: CLS, Mike Harrington, 432-296-0513 or 575-885-3996 Bins, Rails, Disposal: CRI, Laura Sooter, 393-1079, or 631-9829 Casing Co.: DRM, Don Meeks, 432-682-5084. Scooter, 432-620-8400 Electric Logs: Schlumberger. 622-9080. Pex-HRLA-NGT

### **Directions to Well:**

West of Hobbs on Hwy. 62/180. South on Marathon Road for 3.3 miles. West around 2 miles. South at Read & Stevens sign. Follow to location.

### **Completion Procedure:**

- 1. TIH w/  $4 \frac{3}{4}$ " bit and scraper.
- 2. Clean out to 3689' (FC). Displace hole w/ 2% KCL.
- 3. Run Bond Log w/ 1000 psi.
- 4. Perf 3491-97, 3502-08, 3512-16, 3602-07, 3613-18, & 3622-3626. 66 Total holes. 4" casing guns at 2 spf, 120 phasing.
- 5. Acidize: 2500 gals 7 1/2 % NEFe HC1. Swab test.
- 6. Put on pump if swab test warrants.
- 7. Frac down casing: 18,000# 20/40, and 62000# 16/20. Tag with 3 isotopes.
- 8. Run after Frac Multi Isotope Log.
- 9. Put on pump.

#### Drilling Plan Lucy Federal #2 1980' FSL & 330' FWL Sec 14 –T20S – R34E, Lea Co., NM API: 30-025-? Lease Number: NM-78273 (400 acres) Field/Pool: Lea, Yates (#37620)

Tops:

| Formation         | Depth below<br>Ground level<br>(ft) |
|-------------------|-------------------------------------|
| DTW (Exhibit "F") | 270                                 |
| Rustler           | 1590                                |
| TOS               | 1720                                |
| BOS               | 3210                                |
| Yates             | 3410                                |
| TD                | 3760                                |

Pay info: Yates (Oil), 3500', Pressure=1300 psi, Temp=95 deg F

Potential Hazards/Abnormal Conditions: None expected (None in previously drilled wells). If Loss-circulation zone, or over pressured zone, is encountered, approved LCM and mud additives will be mixed in mud to control losses.

Casing Program:

|     | Depth (ft) | Hole<br>Size (in) | Casing Size/Wt/Grade/Thds | Coll | Burst | Tens | Cement  |
|-----|------------|-------------------|---------------------------|------|-------|------|---|
| See |            | 12 1/4            | 8 5/8 32# J-55, STC (new) | 5.3  | 2.5   | 30   | Lead:660 sx ExtendaCem-<br>CZ (1.75 yield).Tail:150 sx<br>HalCem-C, 2% CACL(1.35<br>yield), TOC=Surf.         |
| Cor | 0'-3760':  | 7 7/8"            | 5 ½ 15.5# J-55, LTC (new) | 2.1  | 1.9   | 4.1  | Lead: 330sx EconoCem-<br>HLC (2.04 yield) 5# salt.<br>Tail: 150 sx HalCem-C (1.37<br>yield)3# salt, TOC=Surf. |

Mud Program:

|       | Depth (ft) | Mud<br>Type | Weight<br>(ppg) | Vis<br>(sec) | Fluid<br>Loss<br>(cc) |
|-------|------------|-------------|-----------------|--------------|-----------------------|
| Selor | 0-1625     | Fresh       | 8.5             | 35           | NC                    |
|       | 1625-3760  | Brine       | 10.0            | 28           | NC                    |

BOP Equipment: Exhibit "E"

BOPE to be installed on 8 5/8" casing, rated to 3,000 psi working pressure, and pressure tested prior to drilling out of casing shoe per BLM.

No Testing or Coring. Logging: Schlumberger PEX-HRLA

Other Information:

Read & Stevens Drilling & Completion Procedure (includes wellbore schematic): Exhibit "G"





# PROPOSED PRODUCTION FACILITY

READ & STEVENS, INC. LUCY FEDERAL # 2 UNET "L" SECTION 14 T20S-R34E LEA CO. NM

