



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION



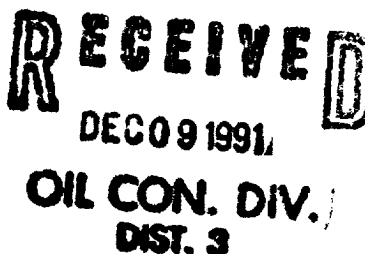
BRUCE KING  
GOVERNOR

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87504  
(505) 827-5800

December 4, 1991

BCO, Inc.  
135 Grant  
Santa Fe, New Mexico 87501

Attention: Elizabeth B. Keeshan



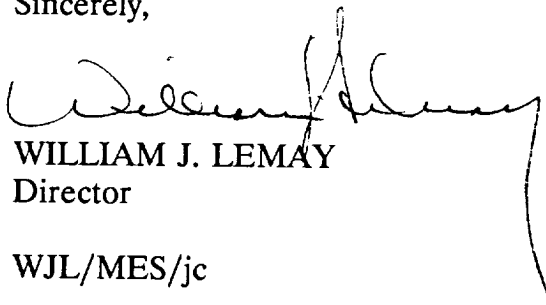
*Administrative Order NSL-3083*

Dear Ms. Keeshan:

Reference is made to your application dated November 14, 1991 for a non-standard oil well location for your State "J" Well No. 5 to be located 1170 feet from the North line and 2040 feet from the West line (Unit C) of Section 16, Township 23 North, Range 7 West, NMPM, Lybrook-Gallup Oil Pool, Rio Arriba County, New Mexico. The NE/4 NW/4 of said Section 16 shall be dedicated to the well forming a standard 40-acre oil spacing and proration unit for said pool.

By authority granted me under the provisions of General Rule 104F.(1), the above described unorthodox oil well location is hereby approved.

Sincerely,



WILLIAM J. LEMAY  
Director

WJL/MES/jc

cc: Oil Conservation Division - Aztec ✓  
NMSLO - Santa Fe

303-14-91  
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303-14-91  
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303-14-91  
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STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION  
AZTEC DISTRICT OFFICE

GARREY CARRUTHERS  
GOVERNOR

1000 RIO BRAZOS ROAD  
AZTEC, NEW MEXICO 87410  
(505) 334-0170

Date: 11-14-91

Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87504-2088

Re: Proposed MC \_\_\_\_\_  
Proposed DHC \_\_\_\_\_  
Proposed NSL X \_\_\_\_\_  
Proposed SWD \_\_\_\_\_  
Proposed WFX \_\_\_\_\_  
Proposed PMX \_\_\_\_\_

Gentlemen:

I have examined the application dated 11-13-91  
for the BCO, INC. STATE J#5  
Operator Lease & Well No.

C-16-23N-7W and my recommendations are as follows:  
Unit, S-T-R

Approve  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Yours truly,

Eric Busch



AREA CODE 505  
983-1228

**BCO, Inc.**  
OIL WELL OPERATOR  
135 GRANT  
SANTA FE, N. M. 87501

12 November 1991

**RECEIVED**  
NOV 13 1991  
OIL CON. DIV.  
DIST. 3

Mr. Frank T. Chavez, Director  
Oil Conservation Division  
1000 Rio Brazos Road  
Aztec, New Mexico 87410

**Re: Non-Standard Location Application**  
**State "J" No. 5**  
1170' FNL x 2040' FWL (UL "C") Sec 16 T23N R7W  
Rio Arriba County, New Mexico  
Lybrook Gallup Pool

Dear Mr. Chavez:

BCO, Inc respectfully requests administrative approval to drill the above referenced well in a non-standard location. An orthodox location is not possible because of topographic restrictions.

The topography consists of a hillside sloping upward on the south side of highway 44. This hillside is dominated by rocks and drainage arroyos which are 50-75 feet wide and 15-20 feet deep.

In addition to the terrain features which prevent construction there are three beautiful ponderosa pines on the hillside. Ponderosa pines are scarce in this area and we do not wish to disturb these trees.

A topographical map which shows the terrain features is presented as Exhibit "F". The orthodox window and proration unit are mapped in Exhibit "E".

Attached is a copy of the APD and the exhibits required by Bill LeMay's memorandum 1-90. A list of exhibits follows this letter.

Directional drilling is not feasible to reach a legal bottom-hole location. Straight hole drilling economics are marginally profitable (rate of return less than 15%) and an additional \$48,083 in horizontal displacement costs would kill the project by bringing the rate of return down below the cost of money.

Additionally, beam lift may be required to produce this well. Beam pumping operations in deviated holes are very complex and sometimes uneconomical.

Offset operators have been notified of our application. A notification affidavit which includes a list of the operators and a sample letter are provided in Exhibit "G". Please note that the proposed location is unorthodox only with respect to our own acreage and the correlative rights of the offset operators are protected.

Respectfully,

A handwritten signature in dark ink, appearing to read 'Neel L. Duncan', with a horizontal line extending to the right.

Neel L. Duncan  
Petroleum Engineer & Production Manager

**LIST OF EXHIBITS**  
**Non-Standard Location Application**  
**State "J" No. 5**

<u><b>Exhibit</b></u>	<u><b>Description &amp; Purpose</b></u>
A	Copy of Application for Permit to Drill
B	OCD Form C-102. Shows location & dedicated acreage.
C	Plat showing proposed wellsite, offset operators, and offset wells.
D	Listing of working interest owners for offset wells.
E	Topographic map showing proposed location, orthodox windows, and terrain features.
F	Enlarged topographic map showing details of the canyons and mesas.
G	Affidavit that notice has been sent & sample letter.

Submit to Appropriate  
District Office  
State Lease - 6 copies  
Fee Lease - 5 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-101  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

API NO. (assigned by OCD on New Wells)

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

V-2258

7. Lease Name or Unit Agreement Name

STATE "J"

8. Well No.

5

9. Pool name or Wildcat

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL ☒ RE-ENTER ☐ DEEPEN ☐ PLUG BACK ☐

b. Type of Well:

OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. Name of Operator

BCO, INC.

3. Address of Operator

135 GRANT SANTA FE, NEW MEXICO 87501

4. Well Location

Unit Letter C : 1170 Feet From The NORTH Line and 2040 Feet From The WEST Line

Section 16

Township 23N

Range 7W

NMPM

RIO ARRIBA

County

10. Proposed Depth

5800'

11. Formation

GALLUP

12. Rotary or C.T.

ROTARY

13. Elevations (Show whether DF, RT, GR, etc.)

GL: 7295' KB: 7307'

14. Kind & Status Plug. Bond

50,000 BLANKET PLUGGING

15. Drilling Contractor

WALTERS DRILLING

16. Approx. Date Work will start

01 MARCH 1992

17. BOND ON FILE W/OCD  
PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12.250	8.625"	24# J-55	360'	275	SURFACE
7.875	4.500"	11.6# J-55	5800'	1550	SURFACE

Plan to drill a 12.250" hole and set 360' of 8.625" casing. Thence drill a 7 7/8" hole to total depth with gel-water mud program to test Gallup formation. Plan to run dual induction and density log. If productive, will set 4 1/2" casing and cement in two stages with stage tool at +/- 4900'. Cement volumes and location of the stage tool will be adjusted after logging to ensure that cement is successfully circulated.

Well will be perforated, fracture stimulated, and placed on production following the drilling process.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

SIGNATURE [Signature] TITLE PETROLEUM ENGINEER DATE 11/4/91

TYPE OR PRINT NAME \_\_\_\_\_ TELEPHONE NO. \_\_\_\_\_

(This space for State Use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

CONDITIONS OF APPROVAL, IF ANY:



Submit to Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

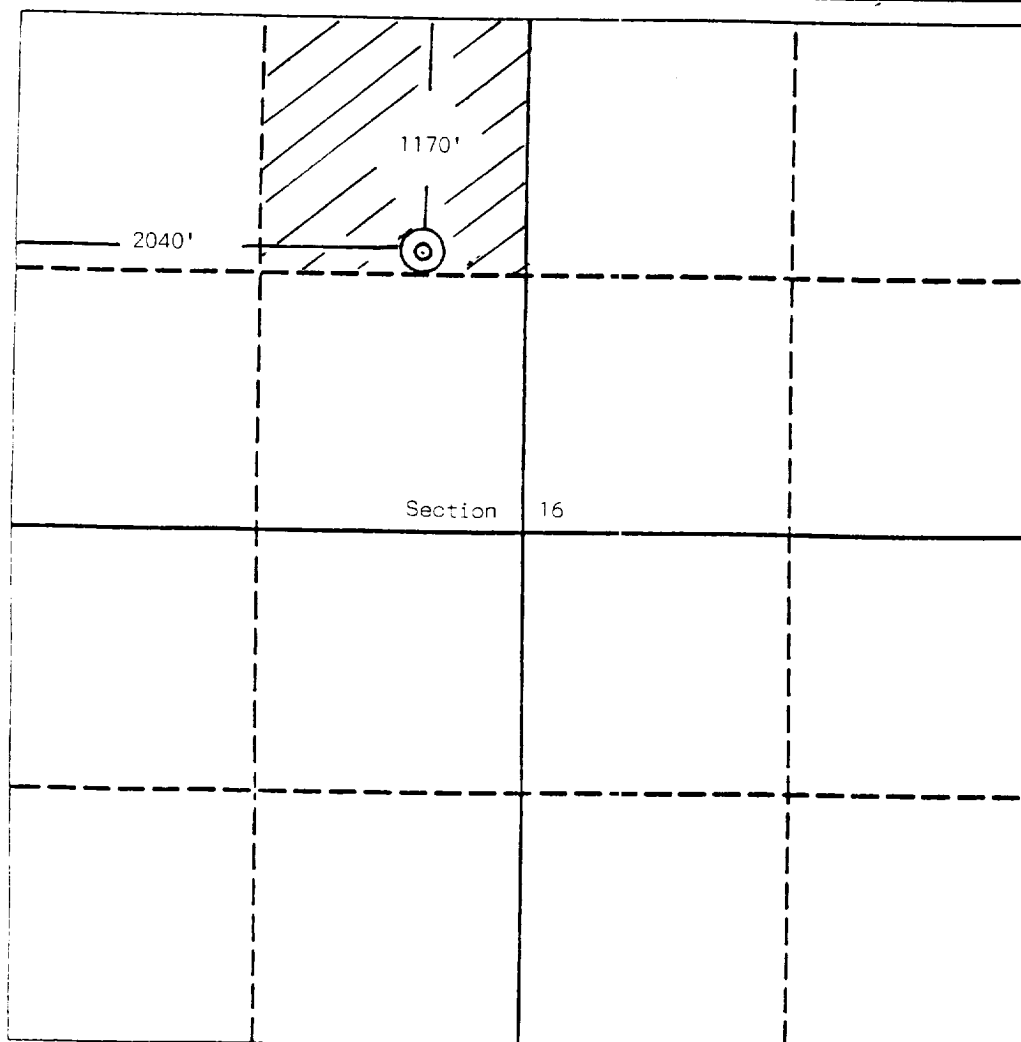
All Distances must be from the outer boundaries of the section

Operator BOC, Inc.			Lease State J		Well No. 5
Unit Letter C	Section 16	Township 23 North	Range 7 West	County Rio Arriba	
Actual Footage Location of Well: 1170 feet from the North line and 2040 feet from the West line					
Ground level Elev. 7240 Est.		Producing Formation		Pool	Dedicated Acreage: Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communization, unitization, force-pooling, etc?  
☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_

If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)

No allowable will be assigned to the well until all interests have been consolidated (by communization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature

Printed Name

NEEL L. DUNCAN

Position

PETROLEUM ENGINEER

Company

BOC INC

Date

04 Nov 91

SURVEYOR CERTIFICATION

I hereby certify that the well location shown 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 knowledge and belief.

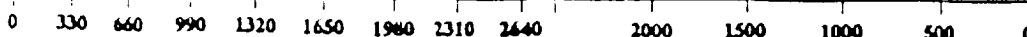
Date Surveyed

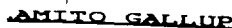
October 23, 1991

Signature & Seal of  
Professional Surveyor

Edgar L. Risenhoover  
Certificate No. 5979

Edgar L. Risenhoover, P.S.





R - 7 - W

N -

**EXHIBIT "D"**  
**NON-STANDARD LOCATION APPLICATION**  
Offset Well WI Owners

**Well:** State "J" No. 1                      **Location:** NE/4 NE/4 Sec 16 T23N R7W  
**Operator:** BCO, Inc.                                      NM.P.M. Rio Arriba Co., NM

1. Harry L. Bigbee
2. Harry R. Bigbee
3. Nancy B. Jensen
4. Elizabeth B. Keeshan
5. Donnan Stephenson
6. NM Commissioner of Public Lands (ORRI)

**Well:** State "J" No. 3                      **Location:** SW/4 NW/4 Sec 16 T23N R7W  
**Operator:** BCO, Inc.                                      NM.P.M. Rio Arriba Co., NM

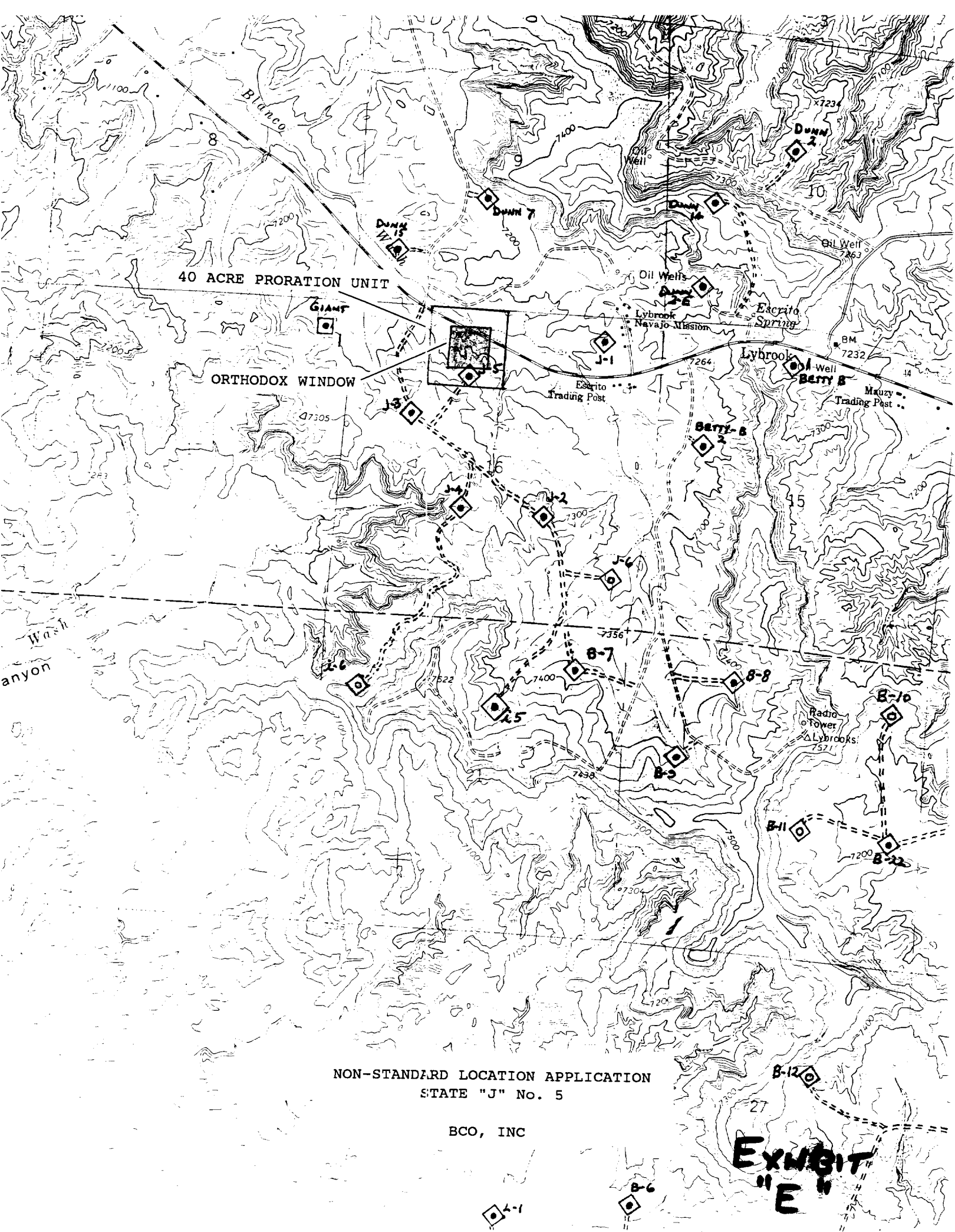
1. Harry L. Bigbee
2. Harry R. Bigbee
3. Nancy B. Jensen
4. Elizabeth B. Keeshan
5. NM Commissioner of Public Lands (ORRI)

**Well:** State "J" No. 4                      **Location:** NE/4 SW/4 Sec 16 T23N R7W  
**Operator:** BCO, Inc.                                      NM.P.M. Rio Arriba Co., NM

1. Harry L. Bigbee
2. Harry R. Bigbee
3. Elizabeth B. Keeshan
4. Nancy B. Jensen
5. NM Commissioner of Public Lands (ORRI)

**Well:** Dunn No. 15                              **Location:** SW/4 SW/4 Sec 09 T23N R7W  
**Operator:** BCO, Inc.                                      NM.P.M. Rio Arriba Co., NM

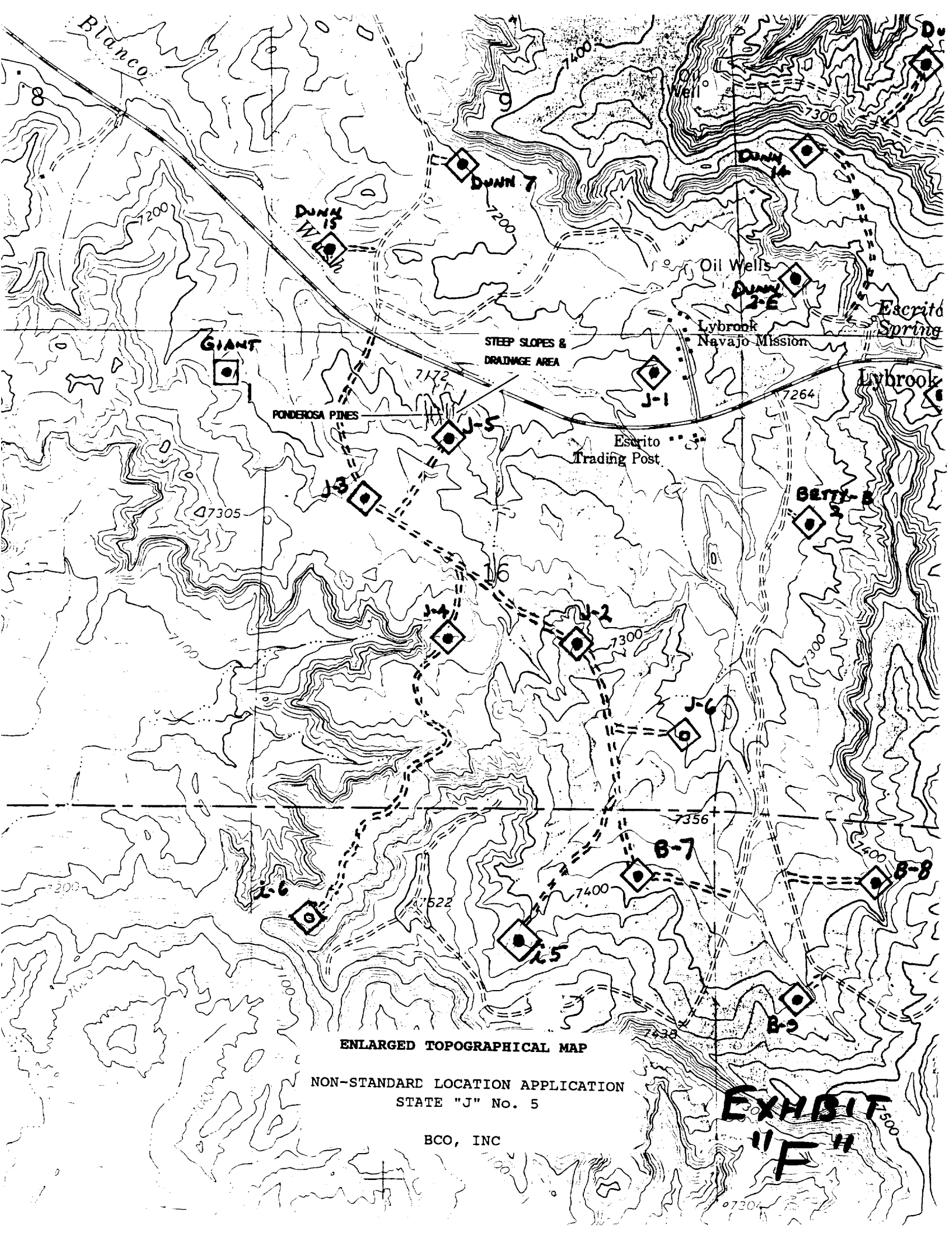
1. Harry L. Bigbee
2. Harry R. Bigbee
3. Nancy B. Jensen
4. Elizabeth B. Keeshan
5. Donnan Stephenson
6. Minerals Management Service (ORRI)



NON-STANDARD LOCATION APPLICATION  
STATE "J" No. 5

BCO, INC

EXHIBIT  
"E"



ENLARGED TOPOGRAPHICAL MAP

NON-STANDARD LOCATION APPLICATION  
STATE "J" No. 5

BCO, INC

EXHIBIT  
"F"

**EXHIBIT "G"**  
**OFFSET OPERATOR NOTIFICATION**  
**Non-Standard Location Application**  
**BCO, Inc.**

I certify that notice has been served to the following operators of BCO Inc.'s application for permit to drill State "J" No. 5 in a non-standard location at 1170' FNL x 2040' FWL Sec 16 T23N R7W, Lybrook Gallup, Rio Arriba County, New Mexico:

1. Giant Exploration & Producing  
Attention: Charlie Foster  
P.O. Box 2810  
Farmington, New Mexico 87499-2810
  
2. Meridian Oil Inc.  
Attention: Van Goebel, Senior Landman  
P.O. Box 4289  
Farmington, New Mexico 87499-4289

Copies of the return receipt cards and a sample letter are attached.

  
\_\_\_\_\_  
Neel L. Duncan      Date