Form 3160
(July 1992)

**UNITED STATES**
**DEPARTMENT OF THE INTERIOR**
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE

FORM APPROVED
OMB NO. 1004-0136

EXPEDITED Right-of-Way

# APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.: NM-03187

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: NA

7. UNIT AGREEMENT NAME: NA — 28917

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ]

b. TYPE OF WELL: OIL WELL [ ] GAS WELL [X] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME, WELL NO.: Lambe 1B

2. NAME OF OPERATOR: ~~Koch Exploration Company~~ Burlington Resources 2002

9. API WELL NO.: 30 045 30744

3. ADDRESS AND TELEPHONE NO.: ~~P.O. Box 489, Aztec, NM (505) 334-9111~~

10. FIELD AND POOL, OR WILDCAT: Blanco Mesa Verde / Basin Dakota

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 1235' FNL & 1890' FWL
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK AND SURVEY OR AREA: S21, T31N, R10W (C)

12. COUNTY OR PARISH: San Juan

13. STATE: NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: Approx. 7 Miles NE of Aztec, NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any): 741'

16. NO. OF ACRES IN LEASE: 318.86

17. NO. OF ACRES ASSIGNED TO THIS WELL: 318.86 W/2

18. DISTANCE FROM PROPOSED* LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR ON THE LEASE, FT.: 801'

19. PROPOSED DEPTH: 5600'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 6153' GR

22. APPROXIMATE DATE WORK WILL START*: 11/8/2001

23. PROPOSED CASING AND CEMENTING PROGRAM

| SIZE OF HOLE | GRADE, SIZE OF CASING | WEIGHT PER FOOT | SETTING DEPTH | QUANTITY OF CEMENT |
|---|---|---|---|---|
| 12 1/4" | 9 5/8" ~~J-55~~ H40 | ~~36#~~ 32.3# | 200' 220' +/- | ~~188~~ 188 cf |
| 8 3/4" | 7" J-55 | ~~20#~~ 20# | 3100' ~~3150'~~ +/- | ~~315~~ 931 cf |
| 6 1/4" | 4 1/2" J-55 | 10.5# | 3000' ~~5600'~~ 7600' | ~~220~~ 661 cf |

See Attached

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24
SIGNED: _____ TITLE: Operations Manager DATE: 7/20/01

(This space for Federal or State office use)

PERMIT NO.: APPROVAL DATE:

Application approval 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.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY: /s/ David J. Mankiewicz TITLE: AFM DATE: 2/7/02

NMOCD

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| ¹ API Number | ² Pool Code | ³ Pool Name |
|---|---|---|
| 30-045- 30744 | 72319/71599 | Blanco Mesaverde/Basin Dakota |

| ⁴ Property Code | ⁵ Property Name | ⁶ Well Number |
|---|---|---|
| 28917 | LAMBE | 1B |

| ⁷ OGRID No. | ⁸ Operator Name | ⁹ Elevation |
|---|---|---|
| 14538 | Burlington Resources Oil & Gas Company, LP | 6153' |

## ¹⁰ Surface Location

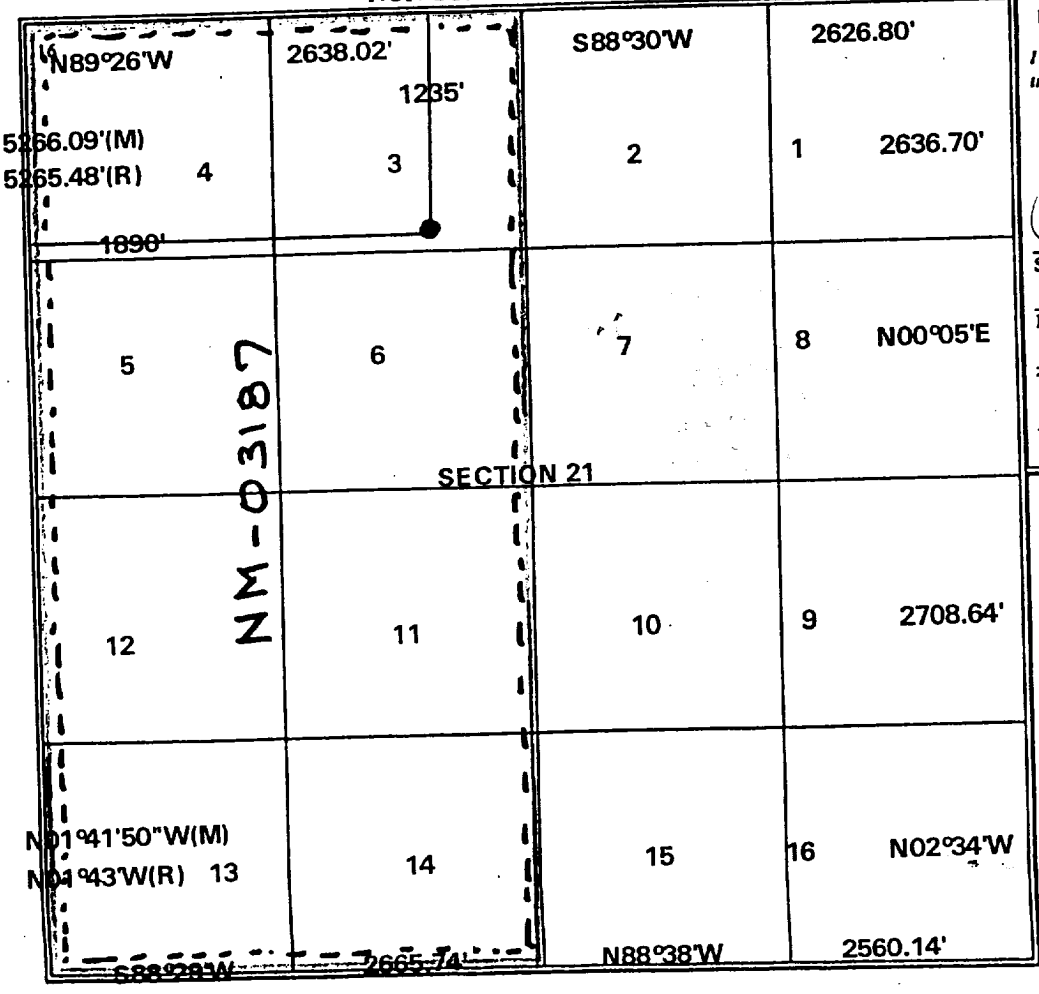
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| C | 21 | 31N | 10W | | 1235' | NORTH | 1890' | WEST | SAN JUAN |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| ¹² Dedicated Acres | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|---|---|---|---|
| W/318.86 | I | | |

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

Peggy Cole
Printed Name

Regulatory Supervisor
Title

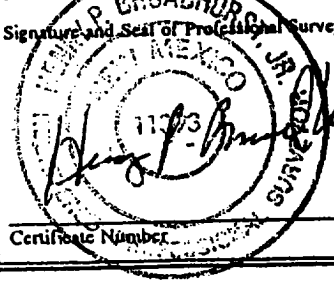
9-18-01
Date

## ¹⁸ 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 belief.*

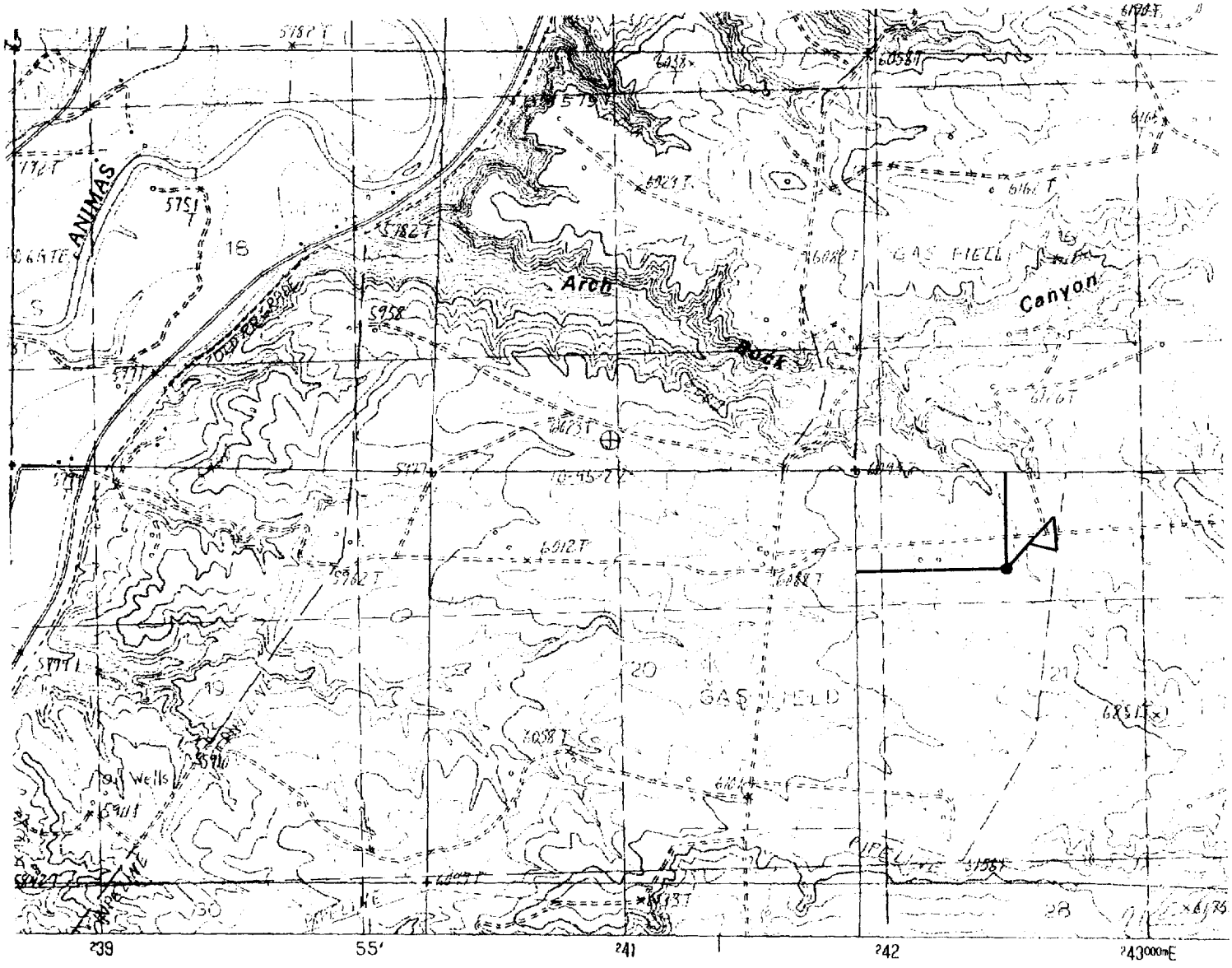
04/17/01
Date of Survey

Signature and Seal of Professional Surveyor:




Certificate Number

# KOCH EXPLORATION CO.
## LAMBE #1B
## 1235' FNL, 1890' FWL, EL. 6153
## SECTION 21, T-31-N, R-10-W, N.M.P.M.,
## SAN JUAN COUNTY, NEW MEXICO




NEW MEXICO

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Improved Road . . . . . .
Unimproved Road . . . . . .
Trail . . . . . .

Interstate Route  U.S. R

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 1 Pinkerton Mesa<br>2 Long Mountain<br>3 Bordad Hill<br>4 Adobe Downs Ranch<br>5 Mount Nebo<br>6 Flora Vista<br>7 Aztec<br>8 Turley |
| 4 | | 5 | |
| 6 | 7 | 8 | |

ADJOINING 7.5' QUADRANGLE NAMES

CEDAR HILL,
PROVISIONAL

ACY STANDARDS
, COLORADO 80225

36107-I

EXHIBIT A

CEDAR HILL – N.M., COLO.

submitted in lieu of Form 3160-5

**UNITED STATES**
**DEPARTMENT OF THE INTERIOR**
**BUREAU OF LAND MANAGEMENT**

Sundry Notices and Reports on Wells

1. **Type of Well**
GAS

5. **Lease Number**
NM-03187

6. **If Indian, All. or Tribe Name**

7. **Unit Agreement Name**

2. **Name of Operator**
BURLINGTON RESOURCES OIL & GAS COMPANY

8. **Well Name & Number**
Lambe #1B

3. **Address & Phone No. of Operator**
PO Box 4289, Farmington, NM 87499 (505) 326-9700

9. **API Well No.**
30-045- 30744

4. **Location of Well, Footage, Sec., T, R, M**
1235'FNL, 1890'FWL, Sec.21, T-31-N, R-10-W, NMPM

10. **Field and Pool**
Blanco MV/Basin DK

11. **County and State**
San Juan Co, NM

12. **CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA**

| Type of Submission | Type of Action | | |
|---|---|---|---|
| _X_ Notice of Intent | ___ Abandonment | _X_ Change of Plans | |
| | ___ Recompletion | ___ New Construction | |
| ___ Subsequent Report | ___ Plugging Back | ___ Non-Routine Fracturing | |
| | ___ Casing Repair | ___ Water Shut off | |
| ___ Final Abandonment | ___ Altering Casing | ___ Conversion to Injection | |
| | _X_ Other - | | |

13. **Describe Proposed or Completed Operations**

It is intended to add the Dakota formation to the subject well. The operations plan will be altered according to the attached.

RECEIVED
070 FARMINGTON NM
2001 SEP 19 PM 2:55

14. **I hereby certify that the foregoing is true and correct.**

Signed Peggy Cole Title Regulatory Supervisor Date 9/17/01
TLW

(This space for Federal or State Office use)
APPROVED BY /s/ David J. Mankiewicz Title AFM Date 2/7/02
CONDITION OF APPROVAL, if any:

Title 18 U.S.C. Section 1001, makes 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.

NMOCD

# OPERATIONS PLAN

***Well Name:*** Lambe #1B
***Location:*** 1235'FNL, 1890'FWL, Sec 21, T-31-N, R-10-W
San Juan County, NM
Latitude 36° 53.17, Longitude 107° 53.25
***Formation:*** Blanco Mesaverde/Basin Dakota
***Elevation:*** 6153'GL

| ***Formation Tops:*** | ***Top*** | ***Bottom*** | ***Contents*** |
|---|---|---|---|
| Surface | San Jose | 1350' | |
| Ojo Alamo | 1350' | 1420' | aquifer |
| Kirtland | 1420' | 2245' | gas |
| Fruitland | 2245' | 2900' | gas |
| Pictured Cliffs | 2900' | 3000' | gas |
| Lewis | 3000' | 3610' | gas |
| **Intermediate TD** | **3100'** | | |
| Mesa Verde | 3610' | 3975' | gas |
| Chacra | 3975' | 4625' | gas |
| Massive Cliff House | 4625' | 4725' | gas |
| Menefee | 4725' | 5125' | gas |
| Massive Point Lookout | 5125' | 5525' | gas |
| Mancos | 5525' | 6440' | gas |
| Gallup | 6440' | 7139' | gas |
| Greenhorn | 7139' | 7200' | gas |
| Graneros | 7200' | 7252' | gas |
| Dakota | 7252' | 7556' | gas |
| Morrison | 7556' | | |
| **TD** | **7600'** | | |

***Logging Program:***
Cased hole - CBL-CCL-GR - TD to surface
Open hole - DIL/GR, Density & Neutron Porosity, Bulk Density/ Correction, Microlog, Temp - TD to minimum operations depth
Mudlog - 6800' to TD
Cores - none

***Mud Program:***

| Interval | Type | Weight | Vis. | Fluid Loss |
|---|---|---|---|---|
| 0- 200' | Spud | 8.4-9.0 | 40-50 | no control |
| 200- 3100' | LSND | 8.4-9.0 | 30-60 | no control |
| 3100- 7202' | Air/N2 | n/a | n/a | n/a |
| 7202- 7600' | LSND | 8.4-9.0 | 30-60 | no control |

Pit levels will be visually monitored to detect gain or loss of fluid control.

***Casing Program (as listed, the equivalent, or better):***

| Hole Size | Depth Interval | Csg.Size | Wt. | Grade |
|---|---|---|---|---|
| 12 1/4" | 0' - 200' | 9 5/8" | 32.3# | H-40 |
| 8 3/4" | 0' - 3100' | 7" | 20.0# | J-55 |
| 6 1/4" | 3000' - 7600' | 4 1/2" | 10.5# | J-55 |

***Tubing Program:***

| | | | |
|---|---|---|---|
| 0' - 7600' | 2 3/8" | 4.7# | J-55 |

***BOP Specifications, Wellhead and Tests:***

**Surface to Intermediate TD -**
11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

**Intermediate TD to Total Depth -**
11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

**Surface to Total Depth -**
2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**
7 1/16" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

**Wellhead -**
9 5/8" x 7" x 2 3/8" x 3000 psi tree assembly.

**General -**
- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

***Cementing:***

9 5/8" surface casing - cement with 159 sx Class "B" cement with 1/4# celloflake/sx and 3% calcium chloride (188 cu.ft. of slurry, 200% excess to circulate to surface). WOC 8 hrs. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing -
Lead w/317 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx. Tail w/90 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent (931 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 8 hours before drilling out intermediate casing. If cement does not circulate to surface, a CBL will be run during completion operations to determine TOC. Test casing to 1500 psi for 30 minutes.

**See attached alternative intermediate lead slurry.**

7" intermediate casing alternative two stage: Stage collar at 2145'. First stage: cement with 224 sx 50/50 Class "G" Poz w/2% calcium chloride, 2% gel, 1/4 pps celloflake, 5 pps gilsonite, 0.1% antifoam agent. Second stage: 250 sx 50/50 Class G/TXI lightweight w/2.5% sodium metasilicate, 2% calcium chloride, 10# gilsonite/sx and 1/2# celloflake/sx (931 cu.ft., 100% excess to circulate to surface).

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom, to the base of the Ojo Alamo at 1420'. Two turbolating centralizers at the base of the Ojo Alamo at 1420'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

4 1/2" Production Casing -
Cement to cover minimum of 100' of 4 1/2" x 7" overlap. Lead with 459 sx 50/50 Class "G" Poz with 5% gel, 0.25# celloflake/sx, 5# gilsonite/sx, 0.1% retardant and 0.25% fluid loss additive, 0.15% dispersant, 0.1% antifoam agent (661 cu.ft.), 40% excess to cement 4 1/2" x 7" overlap). WOC a minimum of 18 hrs prior to completing.

4 1/2" production casing alternative: Lead w/185 sx 9.5 PPG Litecrete Blend w/0.11% dispersant, 0.5% fluid loss. Tail w/168 sx Class G 50/50 poz w/5% gel, 0.25 pps celloflake, 5 pps gilsonite, 0.25% fluid loss, 0.15% dispersant, 0.1% retarder, 0.1% antifoam (707 cu.ft., 50% excess to cement 4 ½" x 7" overlap).

Note: If open hole logs are run, cement volumes will be based on 25% excess over caliper volumes.

Cement float shoe on bottom with float collar spaced on top of float shoe.

Note: To facilitate higher hydraulic stimulation completion work, no liner hanger will be used. In its place, a long string of 4 1/2" casing will be run and cemented with a minimum of 100' of cement overlap between the 4 1/2" x 7" casing strings. After completion of the well, a 4 1/2" retrievable bridge plug will be set below the top of cement in the 4 1/2" x 7" overlap. The 4 1/2" casing will then be backed off above the top of cement in the 4 1/2" x 7" overlap and laid down. The 4 1/2" bridge plug will then be retrieved and the production tubing will be run to produce the well.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.

***Special Drilling Operations (Gas/Mist Drilling):***

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.