

RECEIVED

ATS-09-33

MAR 23 2009 OCD-HOBBS

Form 3160-3  
(April 2004)

**Split Estate**  
HOBBSOCD

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

5 Lease Serial No.  
**LC032573B**

6. If Indian, Allottee or Tribe Name

7 If Unit or CA Agreement, Name and No

8 Lease Name and Well No.  
**Elliott B Federal #21** *<301545>*

9 API Well No.  
**30-025-39383**

10. Field and Pool, or Exploratory  
**Blinebry/Tubb/Drinkard/Abo**

11. Sec, T. R. M. or Blk. and Survey or Area

**Unit P, Sec. 6, T22S, R37E**

12 County or Parish

**Lea**

13. State

**NM**

1a Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		16 No of acres in lease		17 Spacing Unit dedicated to this well	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		40		40	
2 Name of Operator <b>Range Operating New Mexico, Inc.</b> <i>&lt;227588&gt;</i>		19. Proposed Depth		20 BLM/BIA Bond No on file <i>SH</i>	
3a Address <b>100 Throckmorton St., Ste. 1200</b> <b>Fort Worth, TX 76102</b>		817-869-4216		NM2399	
4 Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>230' FSL &amp; 1030' FEL</b> <i>Unit P</i> At proposed prod. zone <b>230' FSL &amp; 1030' FEL</b>		<b>UNORTHODOX LOCATION</b>			
14 Distance in miles and direction from nearest town or post office* <b>2 miles SE of Eunice, New Mexico</b>		22 Approximate date work will start* <b>01/01/2009</b>		23 Estimated duration <b>10 Days</b>	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drng unit line, if any) <b>230</b>		24. Attachments			

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form

- 1. Well plat certified by a registered surveyor
- 2. A Drilling Plan
- 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>[Signature]</i>	Name (Printed/Typed) <b>Paula Hale</b>	Date <b>11/20/2008</b>
Title <b>Sr. Reg. Sp.</b>		

Approved by (Signature) <i>Is/ Don Peterson</i>	Name (Printed/Typed) <i>Is/ Don Peterson</i>	Date <b>MAR 13 2009</b>
Title <b>FIELD MANAGER</b>		Office <b>CARLSBAD FIELD OFFICE</b>

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, are attached **APPROVAL FOR TWO YEARS**

Title 18 U.S.C. Section 1001 and Title 18 U.S.C. Section 1003

Conditions of Approval. Approval to drill & test all new zones separate, but cannot produce Downhole commingle until DHC is approved in Hobbs District office according to R-11363

to any department or agency of the United States

\*(Instructions on page 2)

*NSL-5996*

CAPTAIN CONTROLLED WATER BASIN

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

*KZ*  
**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED**

United State Department of the Interior

Bureau of Land Management

ROSWELL FIELD OFFICE  
2902 West Second Street  
Roswell, New Mexico 88201

Statement Accepting Responsibility for Operations

Operator Name: Range Operating New Mexico, Inc.  
Street or Box: 100 Throckmorton St., St. 1200  
City, State: Fort Worth, TX  
Zip Code: 76102

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below:


Lease No.: 032573 B  
~~LC-032753-B~~

Legal Description of Land: Sec. 6, T22S, R37E  
SE/4 of SE/4

Formations: Blinbry-Tubb-Drinkard-Abo

Bond Coverage: (State, Nationwide or Individual) Statewide

BLM Bond File No.: NM2399

Authorized Signature: 

Title: Petroleum Engineer

Date: 11/10/08

## NOTICE TO SURFACE OWNER

**Surface Owner**

Range Operating New Mexico, Inc.  
100 Throckmorton Street, Ste 1200  
Fort Worth, Texas 76102

**Date**

November 20, 2008

State of New Mexico

DISTRICT I  
1220 S. FRANCIS DR., HOBBS, NM

Energy, Minerals and Natural Resources Department

Form C-102

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM

**RECEIVED**

MAR 23 2009

**OIL CONSERVATION DIVISION**  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM

**HOBBSOCD**

DISTRICT IV  
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

AMENDED REPORT

API Number <b>30-025-39383</b>	Pool Code 6660	Pool Name Blinebry Oil and Gas
Property Code 301545	Property Name ELLIOT "B" FEDERAL	Well Number 21
OGRID No. 227588	Operator Name RANGE OPERATING NM, INC.	Elevation 3437'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	22-S	37-E		230	SOUTH	1030	EAST	LEA

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 40	Joint or Infill	Consolidation Code	Order No. <b>NSL-5996</b>
-----------------------	-----------------	--------------------	------------------------------

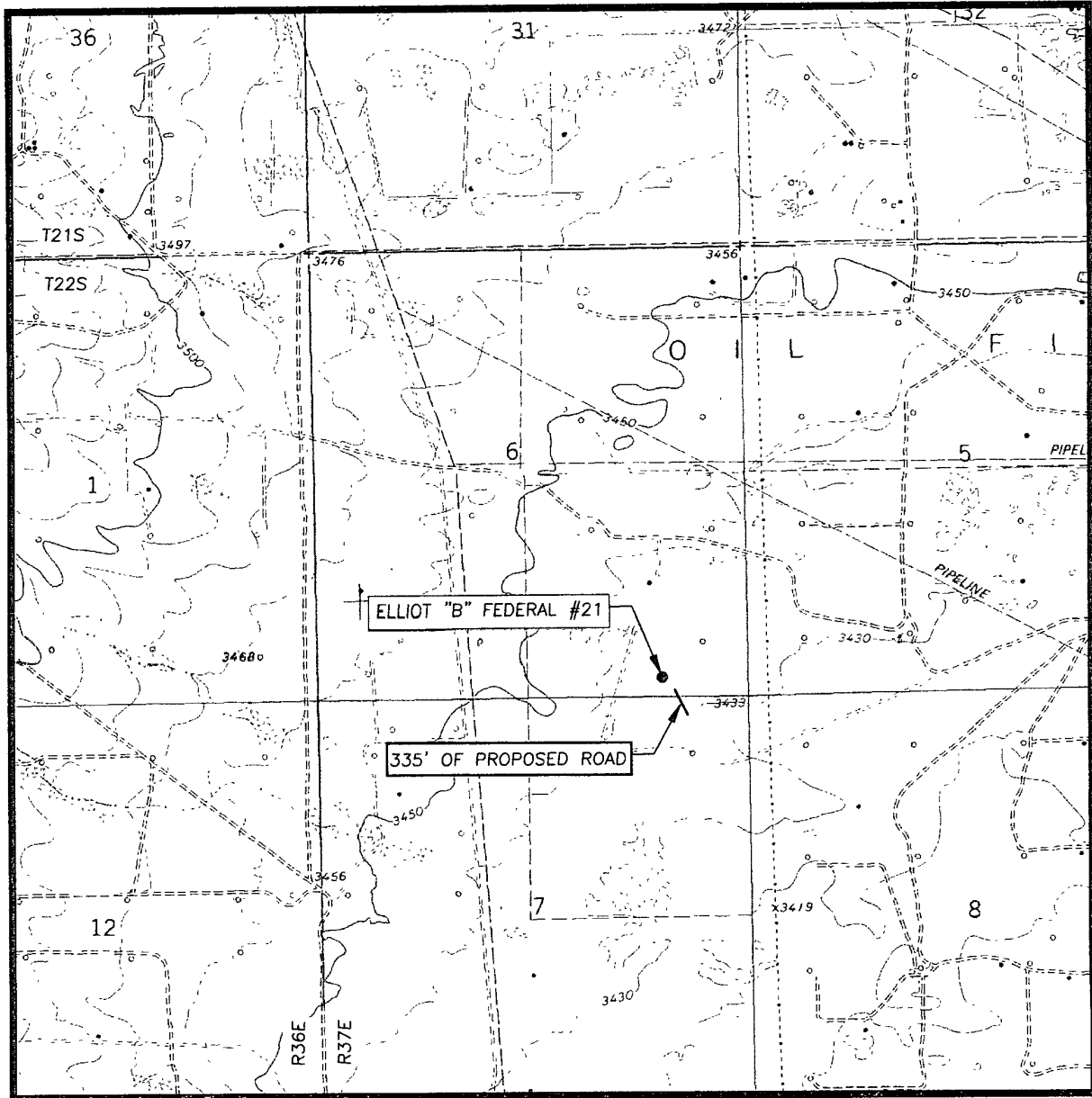
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 4 37.24 AC											<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Paula Hale</i> 11/20/08 Signature Date</p> <p>Paula Hale Printed Name</p> <hr/> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>Date Surveyed: OCTOBER 8, 2008 Signature &amp; Seal of Professional Surveyor: <i>Ronald J. Eidson</i> Professional Surveyor No. 3239</p> <p>Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239</p>
LOT 5											
LOT 6 37.13 AC											
LOT 7 37.07 AC											
LOT 7 36.99 AC											

GEODETIC COORDINATES  
 NAD 27 NME  
 Y=516230.9 N  
 X=850818.2 E  
 LAT.=32.414104° N  
 LONG.=103.196535° W

3438.8' 3435.8'  
 600'  
 600'  
 230'  
 1030'  
 3438.3' 3433.8'

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
EUNICE, N.M. - 10'

SEC. 6 TWP. 22-S RGE. 37-E

SURVEY \_\_\_\_\_ N.M.P.M. \_\_\_\_\_

COUNTY LEA STATE NEW MEXICO


DESCRIPTION 230' FSL & 1030' FEL

ELEVATION 3437'

OPERATOR \_\_\_\_\_ RANGE \_\_\_\_\_  
OPERATING NM, INC.

LEASE ELLIOT "B" FEDERAL

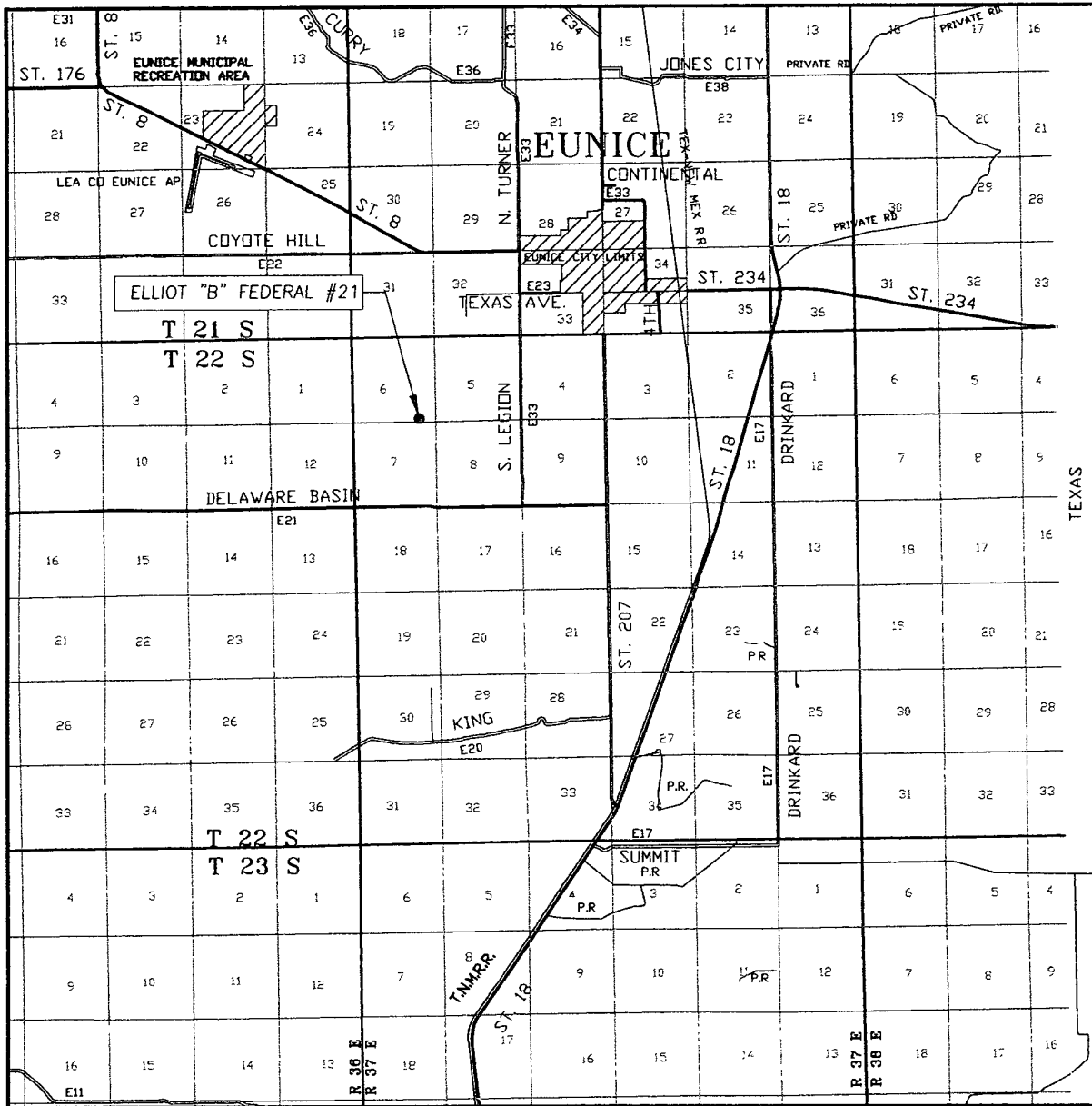
U.S.G.S. TOPOGRAPHIC MAP  
EUNICE, N.M.



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117


EXHIBIT A

# VICINITY MAP



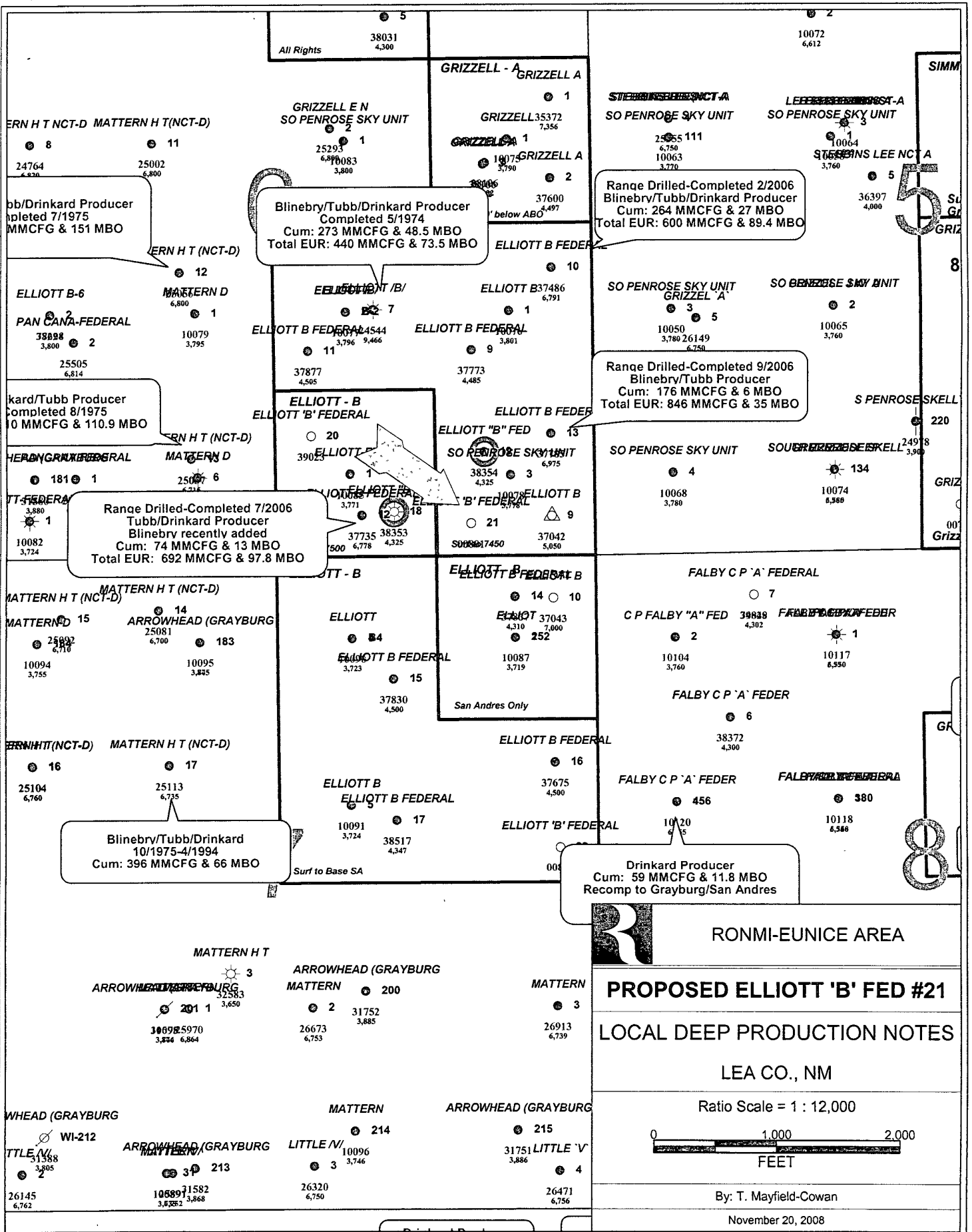
SCALE: 1" = 2 MILES

SEC. 6 TWP. 22-S RGE. 37E  
 SURVEY \_\_\_\_\_ N.M.P.M. \_\_\_\_\_  
 COUNTY LEA STATE NEW MEXICO  
 DESCRIPTION 230' FSL & 1030' FEL  
 ELEVATION 3437'  
 OPERATOR OPERATING NM, INC.  
 LEASE ELLIOT "B" FEDERAL



PROVIDING SURVEYING SERVICES  
 SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

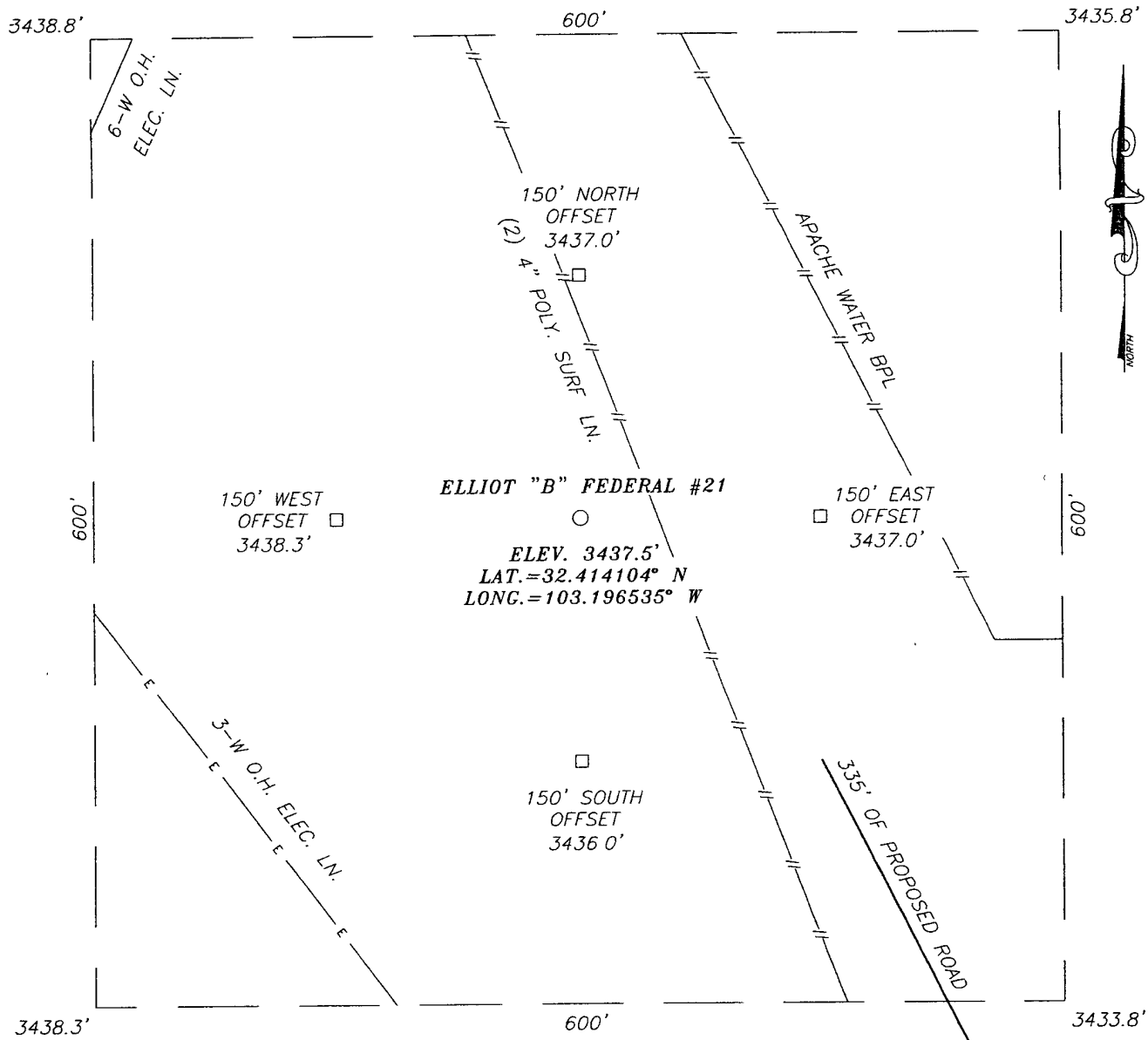
EXHIBIT B



PETRA 11/20/2008 11:28:09 AM

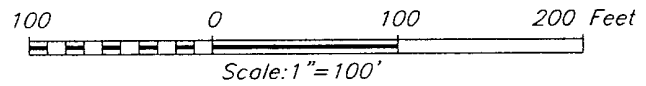
EXHIBIT D

SECTION 6, TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF S. LEGION RD. (CO. RD. E33) AND TEXAS AVE. (CO. RD. E23) GO SOUTH APPROX. 1.2 MILES ON S. LEGION RD. TURN RIGHT AND GO WEST APPROX. 300' TO "Y". TURN LEFT AND GO SOUTHWEST APPROX. 0.2 MILES; ROAD BENDS RIGHT, GO WEST APPROX. 0.1 MILE; BEND LEFT, GO SOUTHWEST APPROX. 0.85 MILES; BEND RIGHT, GO WEST APPROX. 250' TO INTERSECTION; TURN RIGHT AND GO NORTH APPROX. 300' TO EXISTING ELLIOT "B" FEDERAL #14 WELL PAD. THIS LOCATION IS APPROX. 600 FEET NORTHWEST.



**RANGE OPERATING NM, INC.**

ELLIOT "B" FEDERAL #21 WELL  
LOCATED 230 FEET FROM THE SOUTH LINE  
AND 1030 FEET FROM THE EAST LINE OF SECTION 6,  
TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO

Survey Date: 10/08/08	Sheet 1 of 1 Sheets
W.O. Number: 08.11.1731	Dr By: JC
Date: 10/13/08	08111731
	Scale: 1" = 100'

PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117



**Elliott 'B' Federal #21  
DRILLING PROGRAM**

**PROPOSED DEPTH: 7150' MD / 7150' TVD**

**GROUND ELEVATION: 3447'**

**KB: 13'**

**LOCATION: 1030' FEL & 230' FSL, Sec 6, T 22 S, R 37 E, Lea County, NM**

**ANTICIPATED PRODUCTIVE FORMATION: Blinebry/Tubb/Drinkard**

**1. Geologic Name of Surface Formation**

- a. Permian

**2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a. Rustler	1090'	Water
b. Penrose-Skelly	3475'	
c. San Andres	3900'	
d. Glorieta	5100'	
e. Blinebry	5480'	Oil
f. Tubb	6155'	Oil
g. Drinkard	6330'	Oil
h. Abo	6710'	

No other formations are expected to yield oil, gas or fresh water in measurable volumes. Potash / fresh water sands will be protected by setting 8 5/8" casing at 1110' and circulating cement to surface.

**3. Casing Program:**

<u>Hole Size</u>	<u>Depth</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>	<u>New/Used</u>
12 1/4"	0' - 1110'	8 5/8"	24#	ST&C	J-55	New
7 7/8"	0' - 7150'	5 1/2"	17#	LT&C	J-55	New

<u>Csg Size</u>	<u>Burst</u>	<u>Collapse</u>	<u>Tension</u>
8 -5/8"	1.1	2.6	10.8
5-1/2"	2.0	1.6	2.4

**Safety factors: Burst 1.1**

**Collapse 1.2**

**Tension 1.8**

See CCA

4. Cement Program:

- a. 8 5/8" Surface Cement to surface with 350sx 35:65 Poz C, 6% Bentonite, 5% salt, .25# Celloflake, 12.8 ppg, 1.90 cu ft/sx, Tail-150sx C, 1% CaCl2, .25# Celloflake 14.8 ppg, 1.34 cu ft/sx, TOC @ surface.
- b. 5 1/2" Production Cement with Stage 1: Lead-350sx 35:65 Poz-C, 6% Bentonite, 5% salt, .25# Celloflake, 12.8 ppg, 1.90 cu ft/sx, Tail-150sx C, 1% CaCl2, .25# Celloflake, 14.80 ppg, 1.34 cu ft/sx, DV @ 3500', TOC @ 900.

See attached page 3/12/09 MCB

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 200' above the 8 5/8" casing shoe.

5. Pressure Control Equipment:

See CCA  
3M System required

The blowout preventor equipment (BOP) as shown below will consist of a (2M system) double ram type (3000 psi WP) preventor and rotating head. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 1/2 " drill pipe rams on bottom. The BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. ~~All BOP's and associated equipment will be tested to 1000 psi high and 250 psi low with the rig pump.~~ Prior to drilling out the 8 5/8" casing shoe, the BOP's AND Hydril will be tested per BLM Drilling Operations Order #2.

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having a minimum 2000 psi WP rating.

6. Proposed Mud Circulation System

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 1110'	8.4	32-40	NC	Fresh Water
1110' - 7150'	9.3-10	29	NC	Cut Brine/Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times.

## Standardized Cement Job for SE New Mexico:

If we encounter significant lost circulation during the drilling of the well, we will utilize a DV tool to improve the probability of success. If lost circulation is not observed while drilling we will pump the job a single stage with cement reaching the surface casing. The actual cement volumes run will be based on caliper log +10%.

### SINGLE STAGE JOB:

*see* → 1100' to 5000'  
*COF*

4000' x .1733 x 1.2 = 831 cuft / 2.45 cuft/sk = 340 sks ~ 350 sks Lead

LEAD: 50/50 (Poz/Class C) + 10% gel + 5% salt + additives      Density = 11.8 ppg    Yield = 2.45 cuft/s

5000' to 6800' — *7150*

1800' x .1733 x 1.2 = 374 cuft / 1.29 cuft/sk = 290 sks ~ 300 sks Tail

TAIL: 50/50 (Poz/Class C) + 2% gel + 5% salt + additives      Density = 14.2 ppg    Yield = 1.29 cuft/s

### 2 STAGE JOB:

#### First Stage:

3500' to 5000'

1500' x .1733 x 1.2 = 312 cuft / 2.45 cuft/sk = 127 sks ~ 150 sks Lead

LEAD: 50/50 (Poz/Class C) + 10% gel + 5% salt + additives      Density = 11.8 ppg    Yield = 2.45 cuft/s

5000' to 6800' — *7150*

1800' x .1733 x 1.2 = 374 cuft / 1.29 cuft/sk = 290 sks ~ 300 sks Tail

TAIL: 50/50 (Poz/Class C) + 2% gel + 5% salt + additives      Density = 14.2 ppg    Yield = 1.29 cuft/s

#### Second Stage:

1100' to 3500'

*see* → 2500' x .1733 x 1.2 = 520 cuft / 2.45 cuft/sk = 212 sks ~ 250 sks Lead  
*COF*

LEAD: 50/50 (Poz/Class C) + 10% gel + 5% salt + additives      Density = 11.8 ppg    Yield = 2.45 cuft/s

**7. Auxiliary Well Control and Monitoring Equipment:**

- a. A Kelly cock will be in the drill string at all times.
  - b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
  - c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 8 5/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 8 5/8" shoe until total depth is reached.
- 

**8. Logging, Coring, and Testing Program:**

Mudlogging: Mud System 10.1 lbs/gal Brine-Suttles Unit on @2500' w/ gas monitoring equipment & cuttings collected

Drillstem Tsts: No DST's are planned-should the need for a DST arise, a procedure, equipment to be used & safety measures will be provided via sundry notice to the BLM

Wireline Logs: Upon TD, the following open hole logs will be run from TD to surface casing point:

1. Dual Laterolog-Micro Guard, Spectral Gamma Ray, Compensated neutron, Spectral Density
2. Delta T Sonic & Rotary Sidewall Cores are optional services for the open hole
3. From Surface Casing point to Surface, Compensated neutron & Gamma Ray will be run in cased portion of hole

Whole Coring: No Whole Coring in planned.

**9. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. There is no known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S 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 2800 psi and Estimated BHT 130°. No H<sub>2</sub>S is anticipated to be encountered.

**10. Anticipated Starting Date and Duration of Operations:**

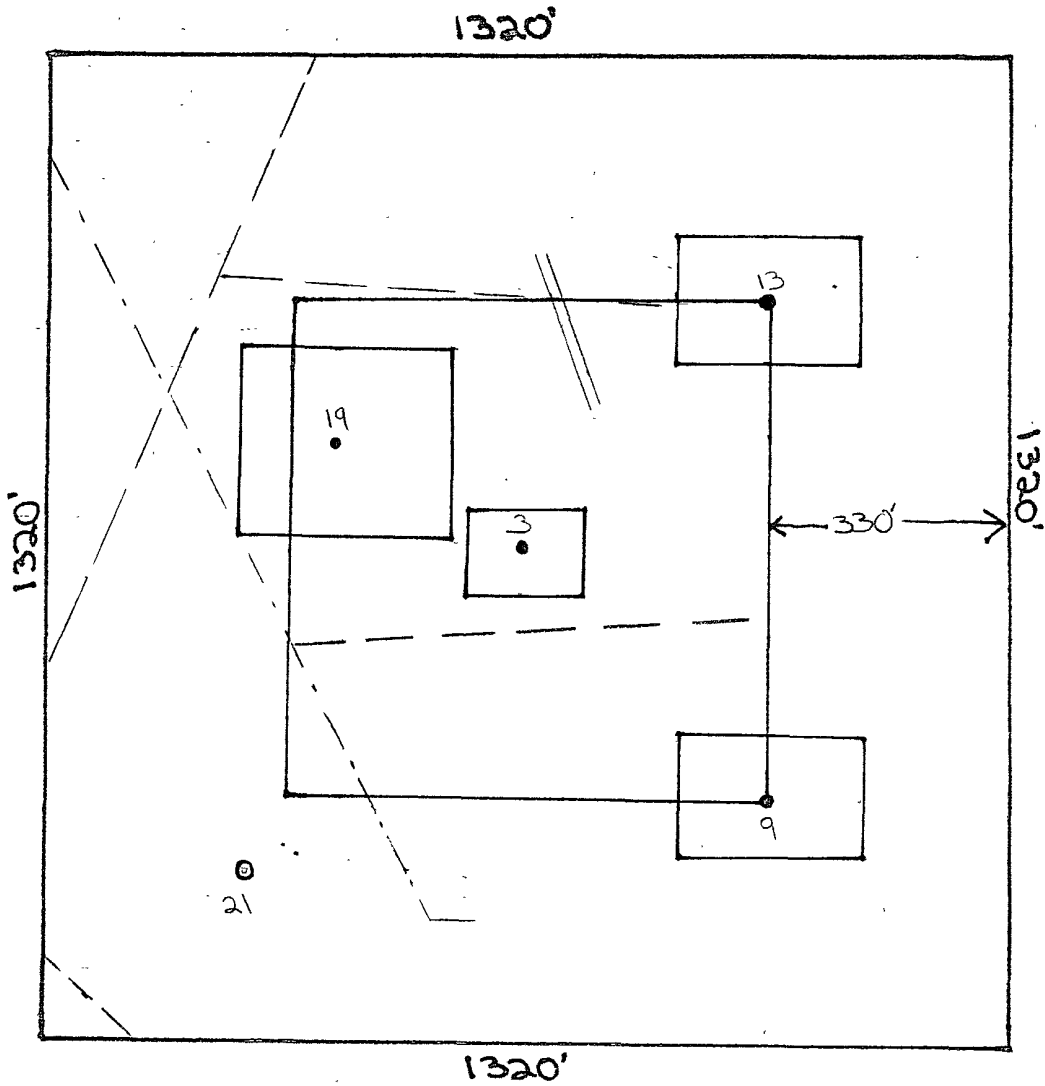
- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 15 days. If production casing is run then an additional 30

days will be needed to complete well and construct surface facilities  
and/or lay flow lines in order to place well on production.

---

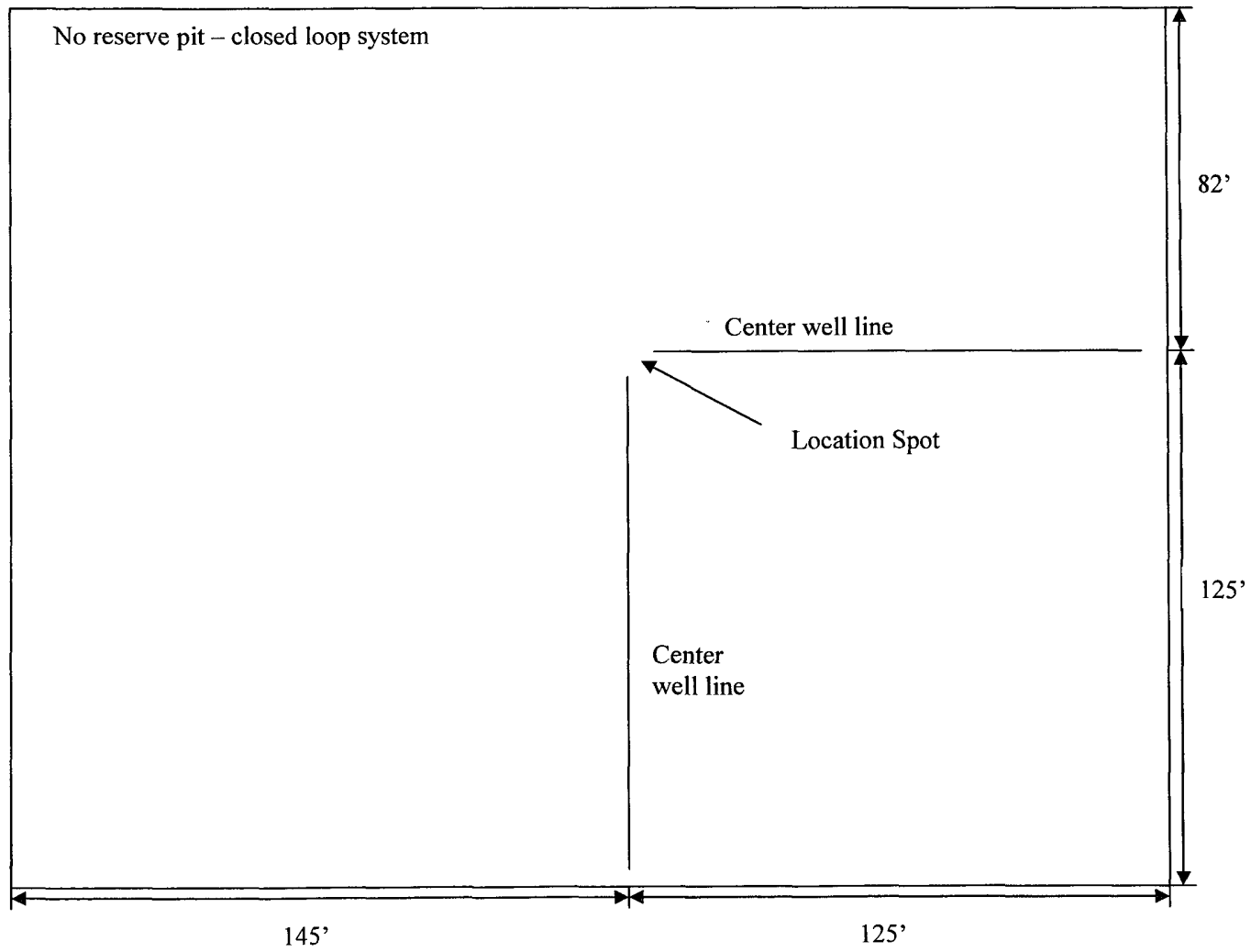


6-225-37E  
 SE/4 of SE/4



- - well location perimeters
- ~ well location
- ~ 330' offset
- ~ proposed well location
- - - ~ overhead electrical line
- · - ~ buried water line
- == ~ leaseroad

1" = 250'



Location Plat  
Patterson Rig #63  
Scale 1"=40'

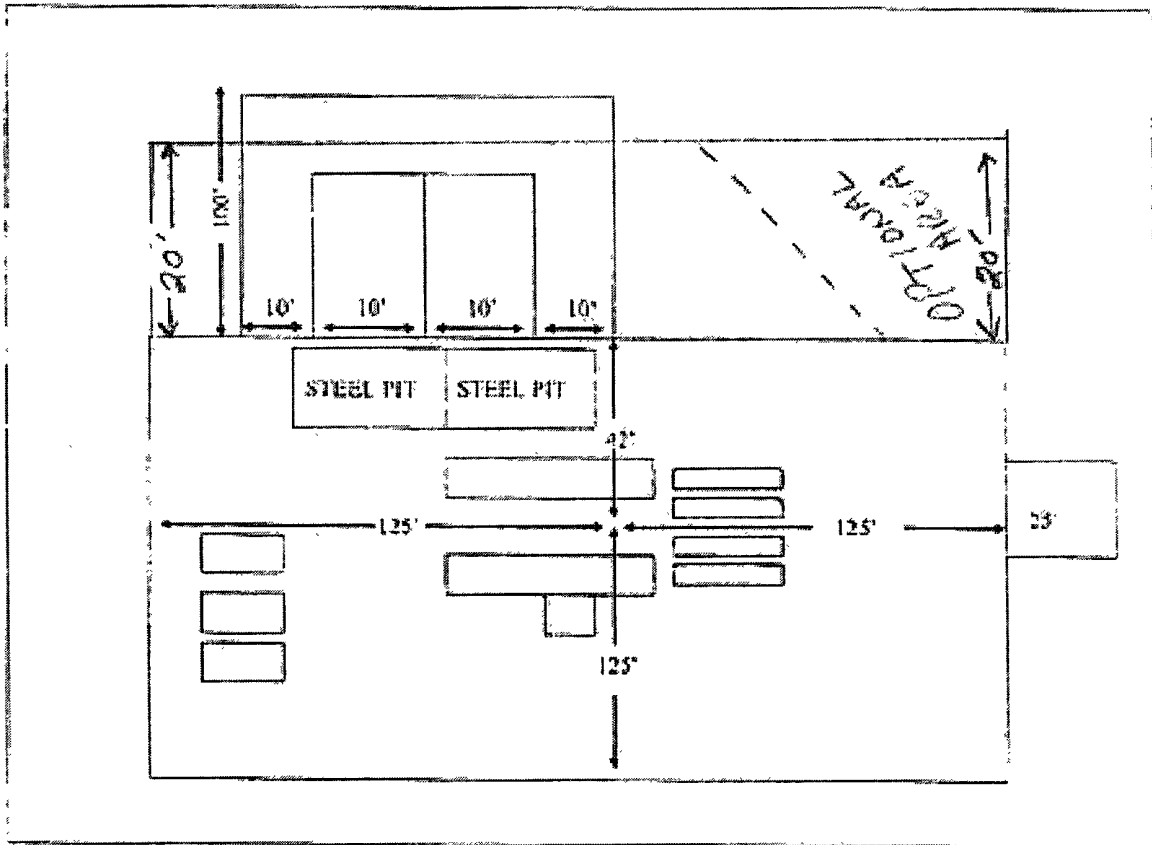
EXHIBIT C



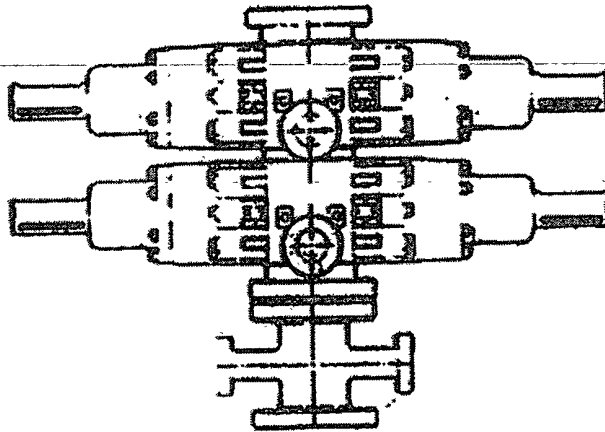
## Design/Operating Plan: Closed Loop System

A closed loop system will be used to drill the Elliott B Federal #21. Below is a schematic of the rig footprint, which includes the closed loop system. During drilling operations, all fluid circulated out of the hole will first come across a primary shaker. The primary shaker will remove the bulk of the solids from the fluid. The solid waste will pass over the shaker screens into the roll off bin. The fluid will fall through the shaker screen into the first compartment of the steel pit. The fluid then is sucked out of the steel pit and circulated through a 16 cone mud cleaner system which consists of desanders and desilters. The desanders and desilters work to remove finer solids from the fluid. The solid waste will be dumped into the roll off bin while the fluids will be dumped into the second compartment of the steel pit. The fluid is then sucked from the steel pit and circulated through a centrifugal pump. This will remove all the remaining solids in the fluid. The solid waste will be dumped into the roll of bin while the fluid is dumped into the third compartment of the steel pit. The roll off bins will be changed out once they reach 80% capacity. This will be done to ensure that no waste is spilt on location when the bins are lifted onto the hauling trucks. In the event that the roll off bins become full too fast for removal, a frac tank will be available to flow fluids into.

During drilling operations, all liquids, fluids, and cuttings will be hauled offsite to Sundance disposal. (Permit #NM-01-0003 ) No closure will be necessary on the well site. CRI will be our back-up disposal site located in Hobbs, NM (Permit #R9166). After drilling operations, a five point sample will be taken before and after operations are completed to verify that the ground was not contaminated.



# BLOW OUT PREVENTION EQUIPMENT



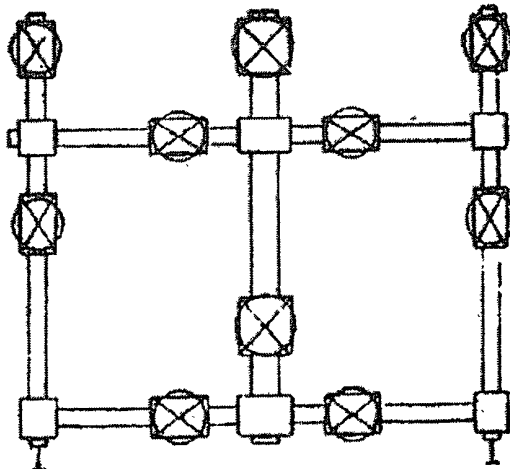
## BOP Stack

- 1 Rucker Shaffer "B" double ram  
10" - 3000 psi WP

## Closing Unit

- Hydril model 80 three station accumulator
- Controls located in accumulator house and on rig floor

## CHOKE MANIFOLD



900 Series, 3000 psi WP

PLAT #2

Multi-Point Surface Use Operating Plan  
Range Operating New Mexico, Inc.  
Elliott B Federal #21

This plan is submitted with form 3160-3, Applications for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, and the proposed construction. And the procedures to be followed in rehabilitation of the surface after completion of the operations, so that a complete appraisal can be made of the environmental affects associated with the operation.

1. Existing Roads:

- A. Exhibit A is a portion of a road map showing the location of the proposed well. The proposed location is situated approximately 2 miles SW of Eunice, New Mexico.
- B. Directions:  
See Exhibit B

2. Planned Access Road

- A. The proposed well site is located 230' FSL & 1030' FEL of Section 06-T22S-R37E.

3. Location of Existing Wells:

- A. There are three (3) existing wells in the vicinity as shown on Exhibit D

4. Location of Existing and/or Proposed Facilities

- A. The Layout of the well pad, drilling rig and reserve pit are shown in Exhibit B & C.
- B. In the event that this well is productive, the current tank battery and production facilities will be utilized.
- C. The production facility consists of two 210 & one 500 bbl steel oil storage tanks, two 500 bbl water tanks, two vertical separators for production and two vertical separators for testing.

5. Location and Type of Water Supply:

- A. The well is to be drilled with both fresh and brine water to be hauled to the location by truck and will be bought from commercial sources.

6. Source of Construction Material:

- A. Any caliche required for construction of the well pad will be obtained from company-owned caliche pit.

7. Methods of Handling Waste Disposal:

- A. Drill cuttings will be disposed of in steel tanks that are part of a closed loop drilling system.
- B. Drilling fluids and cuttings will be hauled off location by a licensed service company and disposed of at licensed disposal facilities.
- C. Oil produced during operations will be stored in tanks and hauled off site.
- D. Human sewage will be contained in a portable chemical toilet, transported from the site and disposed of at an approved site.
- E. Trash will be deposited in a metal container and hauled to an approved disposal site.
- F. Within 30 days following drilling and/or completion operations, trash and debris will be hauled to an approved disposal site.

8. Ancillary Facilities

None

9. Well site Layout:

- A. Exhibit B shows the dimensions of the well pad. Location of the major rig components, and well pad orientation are shown Exhibit C.
- B. Topography of the area is relatively level across the entire location. Fills should be no more than 3' deep. The location will be capped with 4" to 6" of caliche.
- C. No diversion ditches are planned.

D. The pad has been staked and flagged and an archeological study conducted and attached with this permit application.

10. Plans for Restoration of the Surface:

A. Upon completion of drilling, completion and production operations, the area disturbed by the project will be restored to BLM specifications or to as near their former natural condition as possible.

B. All of the caliche material will be removed and the area will be leveled to pre-project grade.

C. No drainage systems will be needed on the site.

D. No segregation of soils is planned at this time as it is a blow sand area.

E. Waste disposal was outlined in Section 7.

F. Re-vegetation and fertilization will be as per BLM stipulations.

G. All areas not used for production will be restored after completion of the well. The existing roads will not be restored.

11. Other Information

A. The general location of this site is a sandy desert and mesquite brush area. The soil has a very small amount of vegetation and stockpiling of material is not planned.

B. The vegetation is desert scrub characterized by various species of cacti, acacia, and mesquite.

C. Wildlife species that occur in the area include: rabbits, mule deer, coyote, snakes and various rodents.

D. No river is in the general area of the well site.

E. An archaeological survey of the site and proposed access road has been conducted and the report is attached.

12. Surface Owner's Name and Address:

Range Operating New Mexico, Inc.  
100 Throckmorton Street, Suite 1200  
Fort Worth, Texas 76102

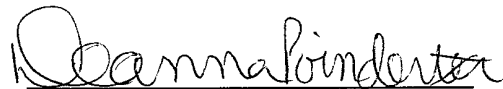
13. Operator's Representative and Certification.

- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

	Office	Mobile
District Engineer Deanna Poindexter	817-509-1518	817-422-8378
Area Superintendent Chris Garcia	505-394-1485	505-631-9025

- B. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Range Operating New Mexico, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of the 18 U.S.C. 1001 for the filing of a false statement.

DATE: 11-10-2008



Deanna Poindexter  
District Engineer

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

RECEIVED State of New Mexico  
Energy Minerals and Natural Resources  
Department  
Oil Conservation Division  
220 South St. Francis Dr.  
Santa Fe, NM 87505  
MAR 23 2009  
HOBBSDO

Form C-144 CLEZ  
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office.

### Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action:  Permit  Closure

Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

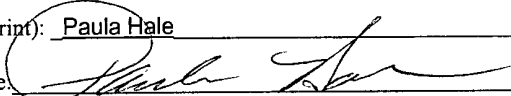
1.  
Operator: Range Operating New Mexico, Inc. OGRID #: 227588  
Address: 100 Throckmorton St., Ste. 1200, Fort Worth, TX 76102  
Facility or well name: Elliott B Federal #21  
API Number: \_\_\_\_\_ OCD Permit Number: \_\_\_\_\_  
U/L or Qtr/Qtr P Section 6 Township 22S Range 37E County: Lea  
Center of Proposed Design: Latitude 32.414104° N Longitude 103.196535° NAD:  1927  1983  
Surface Owner:  Federal  State  Private  Tribal Trust or Indian Allotment

2.  
 **Closed-loop System:** Subsection H of 19.15.17.11 NMAC  
Operation:  Drilling a new well  Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)  P&A  
 Above Ground Steel Tanks or  Haul-off Bins

3.  
**Signs:** Subsection C of 19.15.17.11 NMAC  
 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers  
 Signed in compliance with 19.15.3.103 NMAC

4.  
**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15.17.9 NMAC  
**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.  
 Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC  
 Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  
 Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  
 Previously Approved Design (attach copy of design) API Number: \_\_\_\_\_  
 Previously Approved Operating and Maintenance Plan API Number: \_\_\_\_\_

5.  
**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19.15.17.13.D NMAC)  
**Instructions:** Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.  
Disposal Facility Name: Sundance Disposal Disposal Facility Permit Number: NM-01-0003  
Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_  
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?  
 Yes (If yes, please provide the information below)  No  
**Required for impacted areas which will not be used for future service and operations:**  
 Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC  
 Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC  
 Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6.  
**Operator Application Certification:**  
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.  
Name (Print): Paula Hale Title: Sr. Reg. Sp.  
Signature:  Date: 11-10-2008  
e-mail address: phale@rangeresources.com Telephone: 817-869-4216

7. **OCD Approval:**  Permit Application (including closure plan)  Closure Plan (only)

OCD Representative Signature: \_\_\_\_\_ Approval Date: \_\_\_\_\_

Title: \_\_\_\_\_ OCD Permit Number: \_\_\_\_\_

8. **Closure Report (required within 60 days of closure completion):** Subsection K of 19.15.17.13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

Closure Completion Date: \_\_\_\_\_

9. **Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

*Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Disposal Facility Name: \_\_\_\_\_ Disposal Facility Permit Number: \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

Yes (If yes, please demonstrate compliance to the items below)  No

*Required for impacted areas which will not be used for future service and operations:*

- Site Reclamation (Photo Documentation)
- Soil Backfilling and Cover Installation
- Re-vegetation Application Rates and Seeding Technique

10. **Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

e-mail address: \_\_\_\_\_ Telephone: \_\_\_\_\_



# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Range Operating
LEASE NO.:	NMLC032573B
WELL NAME & NO.:	Elliott B Federal No 21
SURFACE HOLE FOOTAGE:	230' FSL & 1030' FEL
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 6, T. 22 S., R 37 E., NMPM
COUNTY:	Lea County, New Mexico

## TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
- Construction**
  - Notification
  - Topsoil
  - Reserve Pit – Closed-loop mud system
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Drilling**
  - Optional cementing for production casing
- Production (Post Drilling)**
- Reserve Pit Closure/Interim Reclamation**
- Final Abandonment/Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (505) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

### **C. RESERVE PITS**

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## F. ON LEASE ACCESS ROADS

### Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

### Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

### Crowning

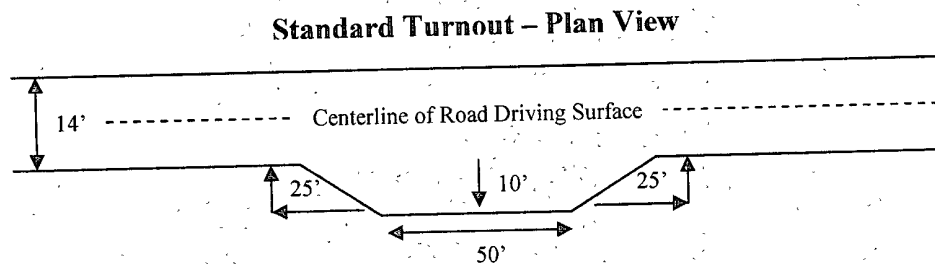
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

### Ditching

Ditching shall be required on both sides of the road.

### Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

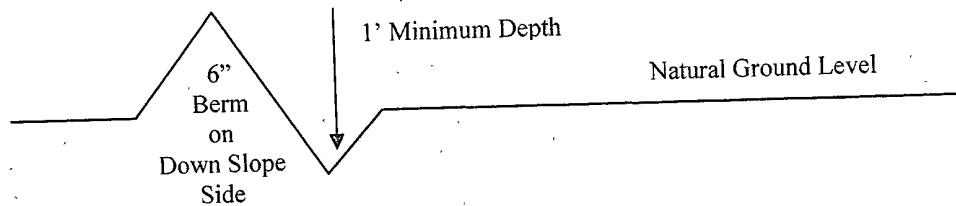


### Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

### Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

### Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

### Fence Requirement

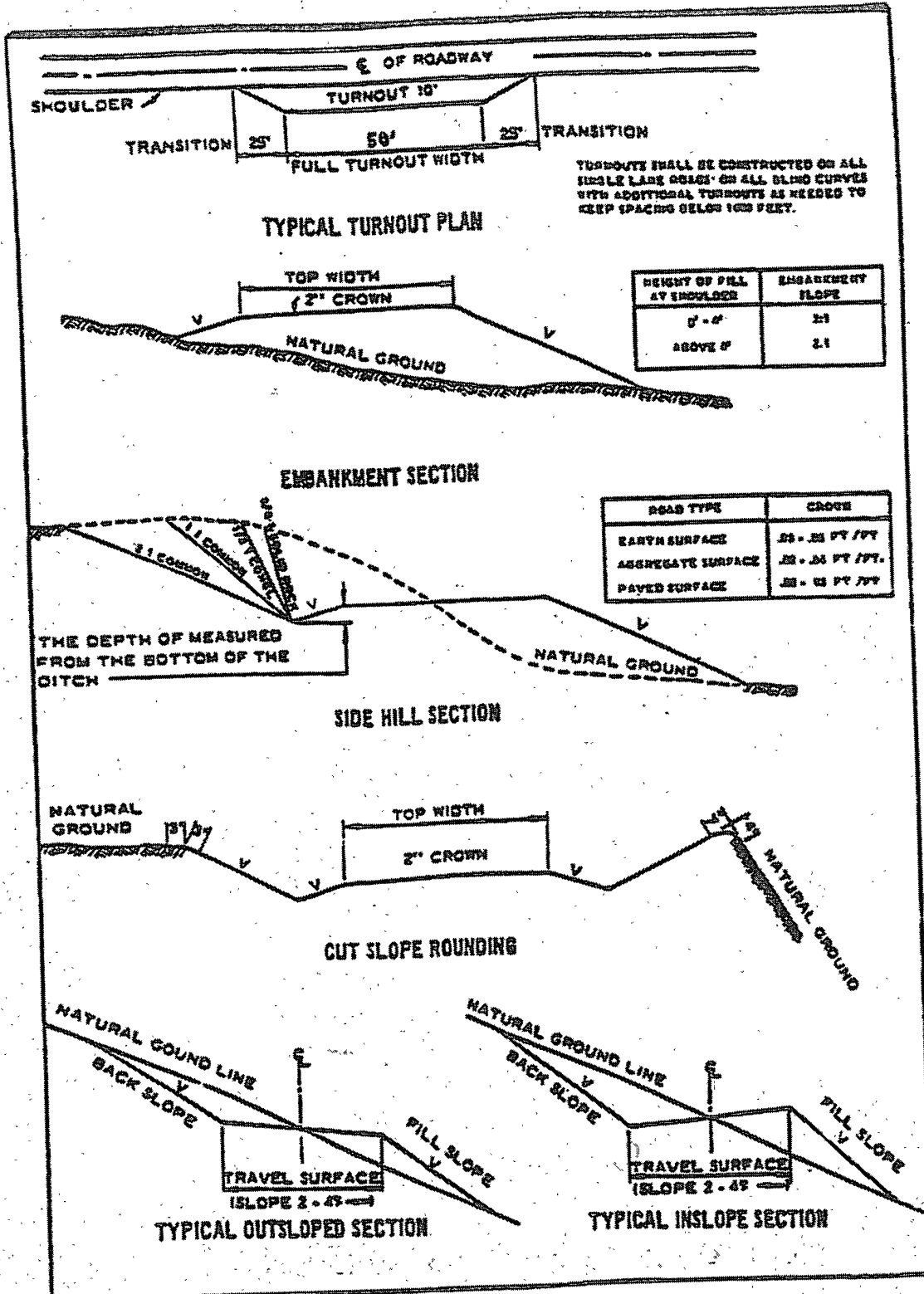
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



## VI. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

**Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 393-3612

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a possible hazard. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

### B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**



**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible lost circulation in the Delaware Mountain Group.**

1. The 8-5/8 inch surface casing shall be set at approximately 1110 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) feet and cemented to the surface. If the salt is encountered, the casing is to be set 25 feet above the salt.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength; whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 5-1/2 inch production casing is:

**Single stage option:**

- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Additional cement may be needed as excess cement calculates to 10%**

**Two stage option:**

- a. First stage to DV tool, cement shall:
  - Cement to circulate. If cement does not circulate, **contact the appropriate BLM office, before proceeding with second stage cement job. Additional cement may be needed as excess cement calculates to 16%**
- b. Second stage above DV tool, cement shall:
  - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Additional cement may be needed as excess cement calculates to 14%**

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

#### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

#### **D. DRILL STEM TEST**

**If drill stem tests are performed, Onshore Order 2.III.D shall be followed.**

**RGH 022409**

## **VII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color  
Shale Green, Munsell Soil Color Chart # 5Y 4/2

## VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

### A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

## Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

\*\*Four-winged Saltbush

5lbs/A

\* This can be used around well pads and other areas where caliche cannot be removed.

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## **X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS**

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.