OCD-HOBBS

Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. **LC-032573B**

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. (30154?) **Elliott B Federal #13**

2. Name of Operator **Range Operating New Mexico, Inc.** (227588)

9. API Well No. **30-025-37785**

3a. Address **777 Main St., Ste. 800 Fort Worth, TX 76102**

3b. Phone No. *(include area code)* **817-810-1916**

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

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **990' FSL & 330' FEL**
At proposed prod. zone **990' FSL & 330' FEL** Unit P

11. Sec., T. R. M. or Blk. and Survey or Area **Sec. 6, T22S, R37E, N.M.P.M.**

14. Distance in miles and direction from nearest town or post office* **2 miles SE from Eunice, NM**

12. County or Parish **Lea**

13. State **TX**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
	360	**40**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth **6800**	20. BLM/BIA Bond No. on file **NM2399**
21. Elevations (Show whether DF, KDB, RT, GL, etc.) **3438'**	22. Approximate date work will start* **02/15/2006**	23. Estimated duration **15**

24. Attachments

Capitan Controlled Water Basin

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	Name *(Printed/Typed)*	Date
	Paula Hale	**02/10/2006**

Title **Sr. Reg. Sp.**

Approved by *(Signature)* /s/ Tony J. Herrell	Name *(Printed/Typed)* /s/ Tony J. Herrell	Date APR 0 4 2006
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

*(Instructions on page 2)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

Witness Surface Casing

CONDITIONS OF APPROVAL: Approval for Drilling -- CANNOT produce Downhole commingled until DHC is approved according to R-11363 by the OCD District office.

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:	777 Main Street, Suite 800
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.:	LC-032573B
Legal Description of Land:	Sec. 6, T22S, R37E SE/4 SE/4
Formations:	Tubb, Drinkard
Bond Coverage: (State, Nationwide or Individual)	Statewide
BLM Bond File No.:	NM2339 (STP)

Authorized Signature: _____

Title: Petroleum Engineer

Date: 2-10-06

NOTICE TO SURFACE OWNER

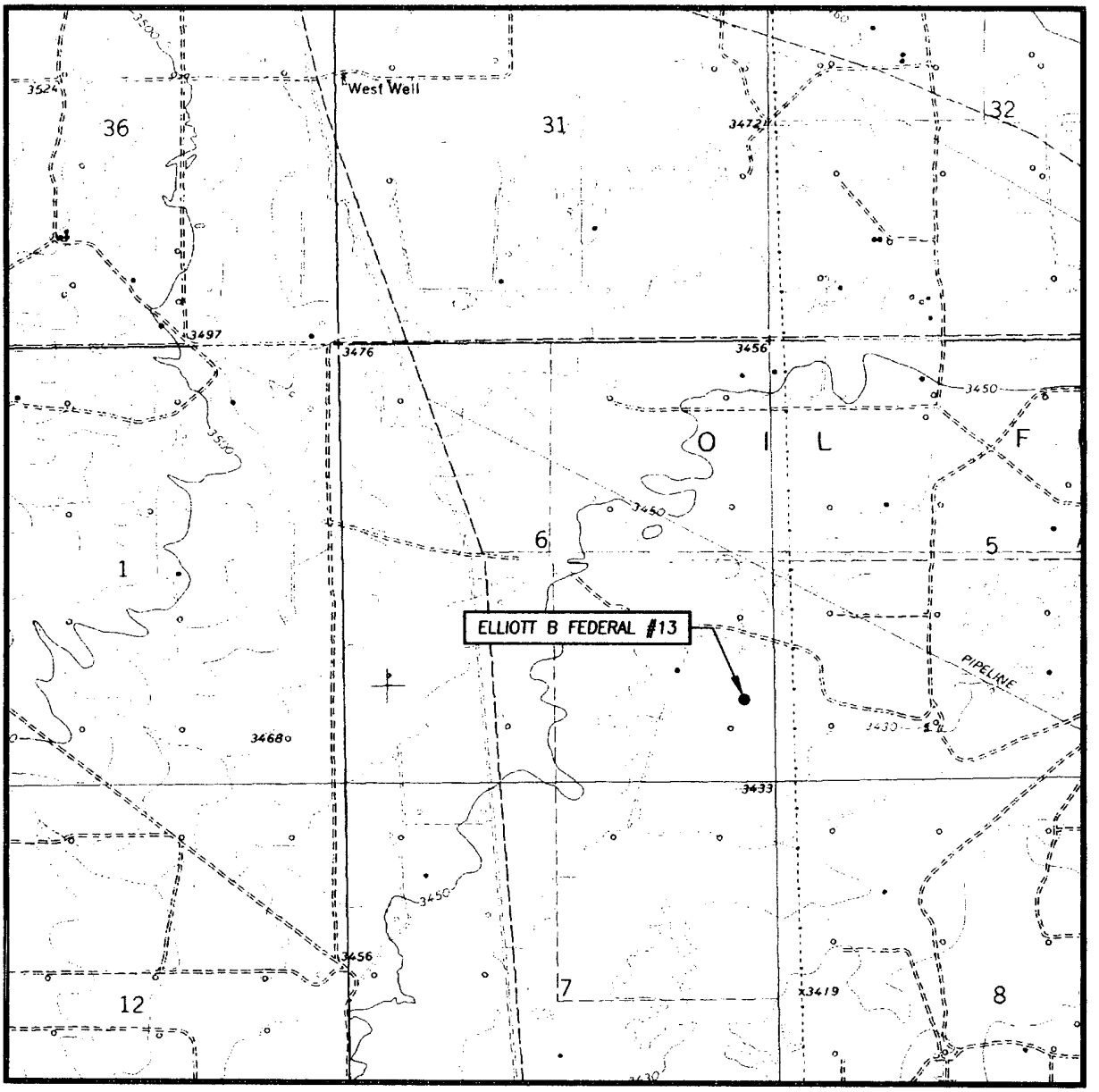
Surface Owner

Range Operating New Mexico, Inc.
777 Main St., Ste. 800
Fort Worth, TX 76102

Notice Date

2-10-06

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

DESCRIPTION 990' FSL & 330' FEL

ELEVATION 3437.6'

OPERATOR RANGE OPERATING NEW MEXICO, INC

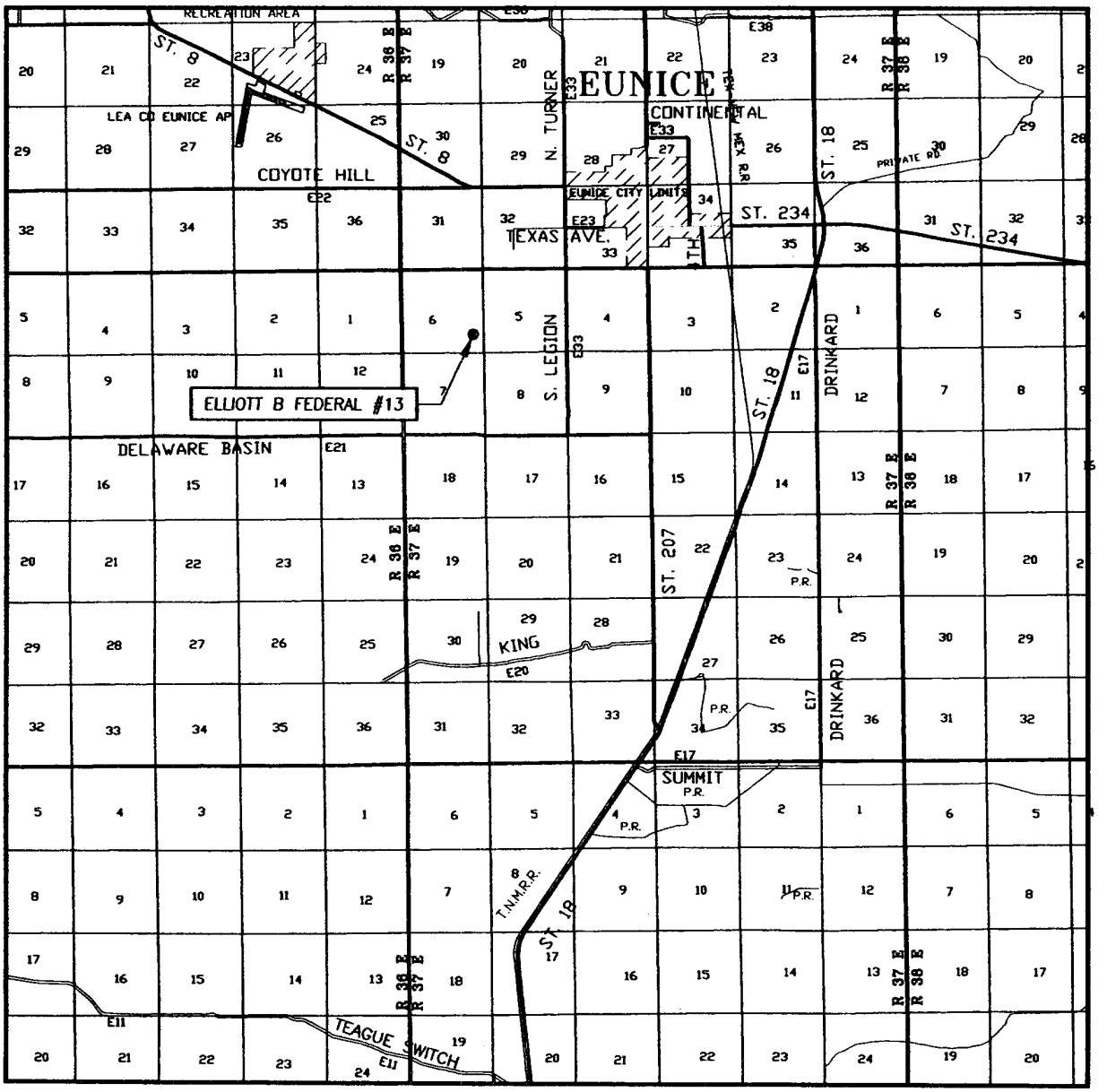
LEASE ELLIOTT B FEDERAL

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. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 990' FSL & 330' FEL

ELEVATION 3437.6'

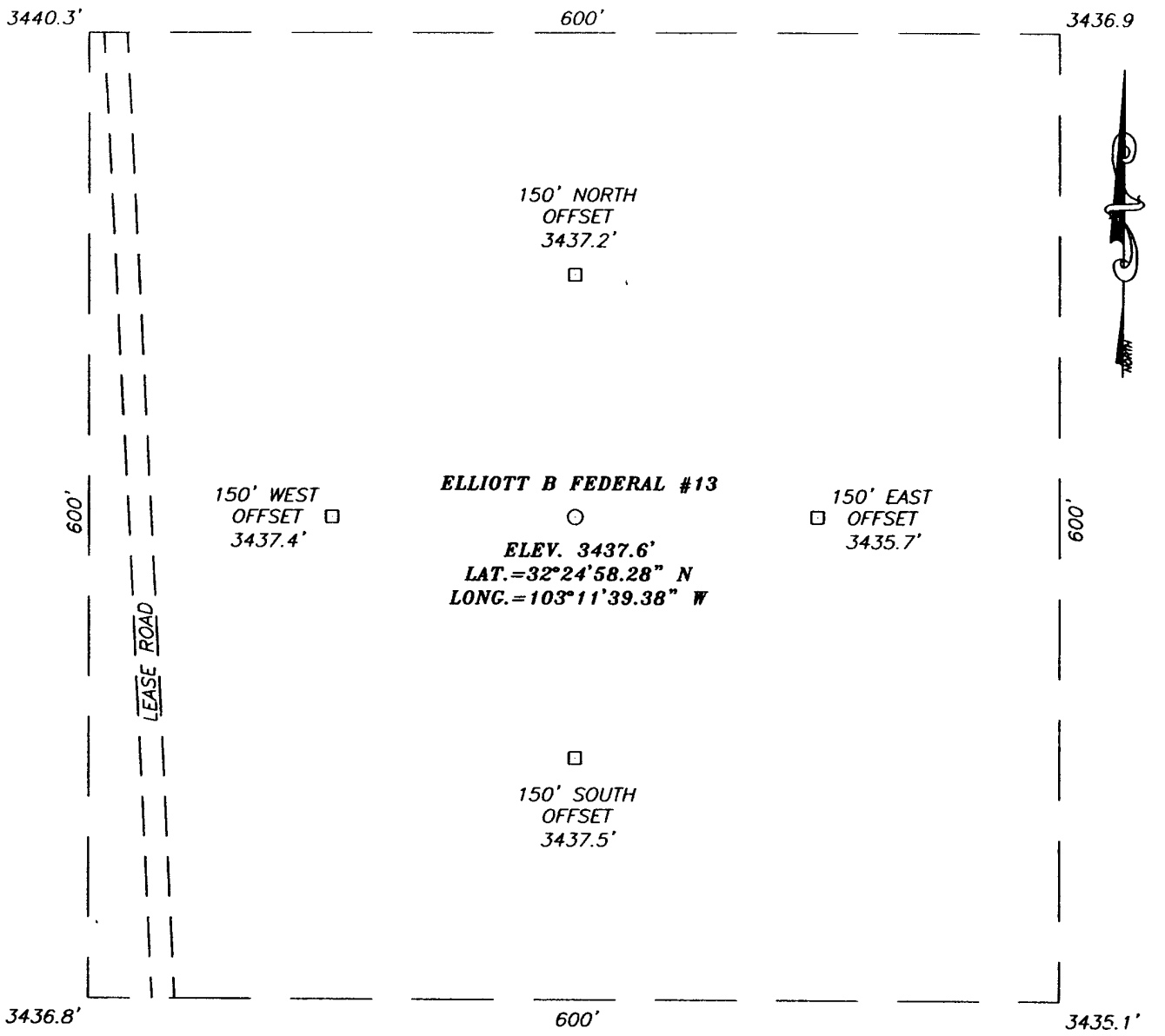
OPERATOR RANGE OPERATING NEW MEXICO, INC

LEASE ELLIOTT B FEDERAL

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

SECTION 6, TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF E33 AND E21 GO WEST APPROX. 1.7 MILES TO A LEASE RD. GOING NORTH. CONTINUE NORTH ON LEASE RD. FOR APPROX. 1.6 MILES TO A LEASE RD. GOING SOUTHEAST. GO SOUTHEAST FOR APPROX. 0.4 MILES TO A LEASE RD. GOING SOUTH SE. GO SOUTH SE FOR APPROX. 0.3 MILES, THIS LOCATION IS APPROX. 250 FEET TO THE EAST.

100 0 100 200 Feet

Scale:1"=100'

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

RANGE OPERATING NEW MEXICO, INC

ELLIOTT B FEDERAL #13 WELL
LOCATED 990 FEET FROM THE SOUTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 6,
TOWNSHIP 22 SOUTH, RANGE 37 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.

Survey Date: 12/23/05	Sheet 1 of 1 Sheets		
W.O. Number: 05.11.2003	Dr By: RZB	Rev 1:N/A	
Date: 12/29/05	Disk: CD#4	05112003	Scale:1"=100'

EXHIBIT B

UNITED DRILLING INC.

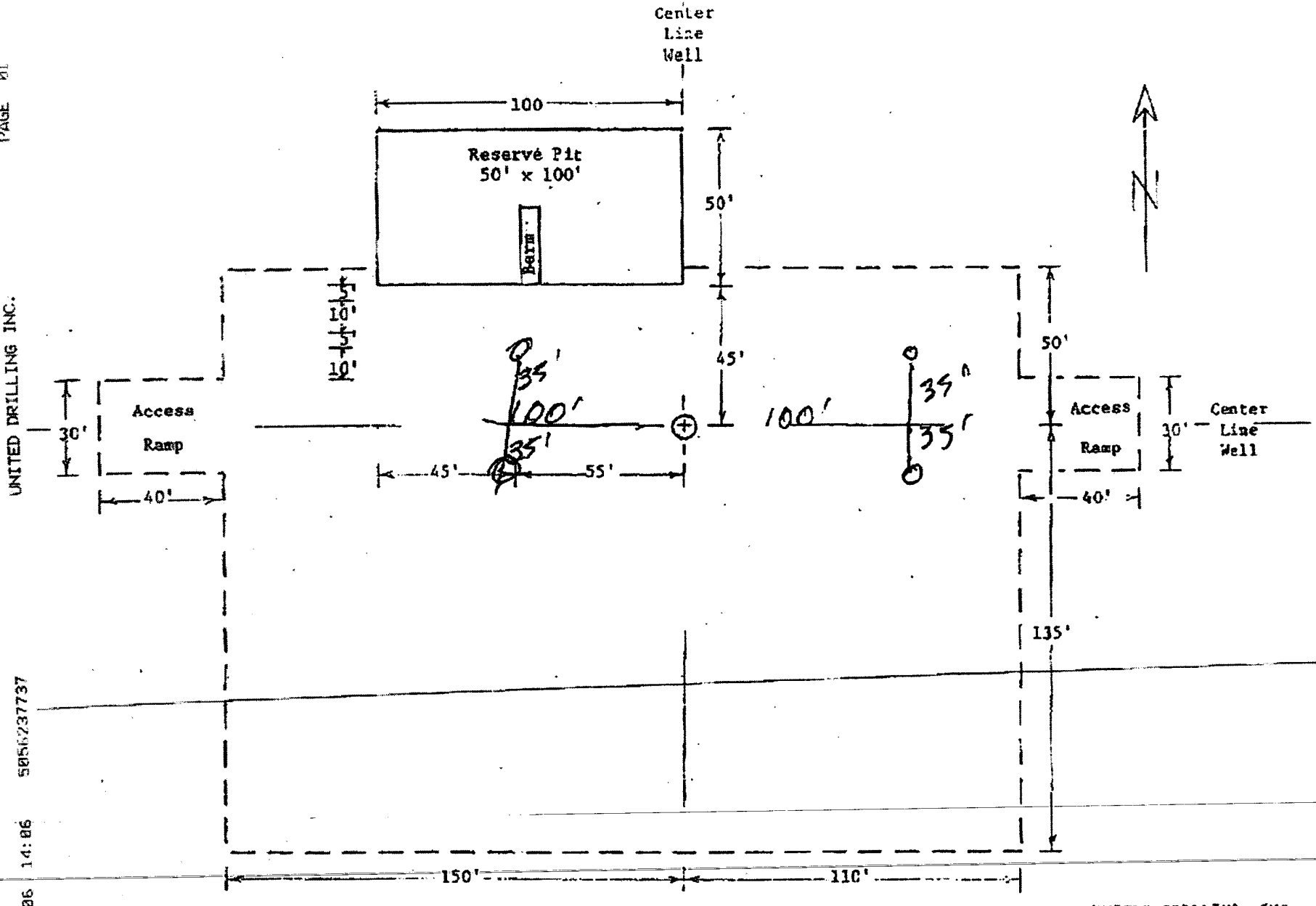
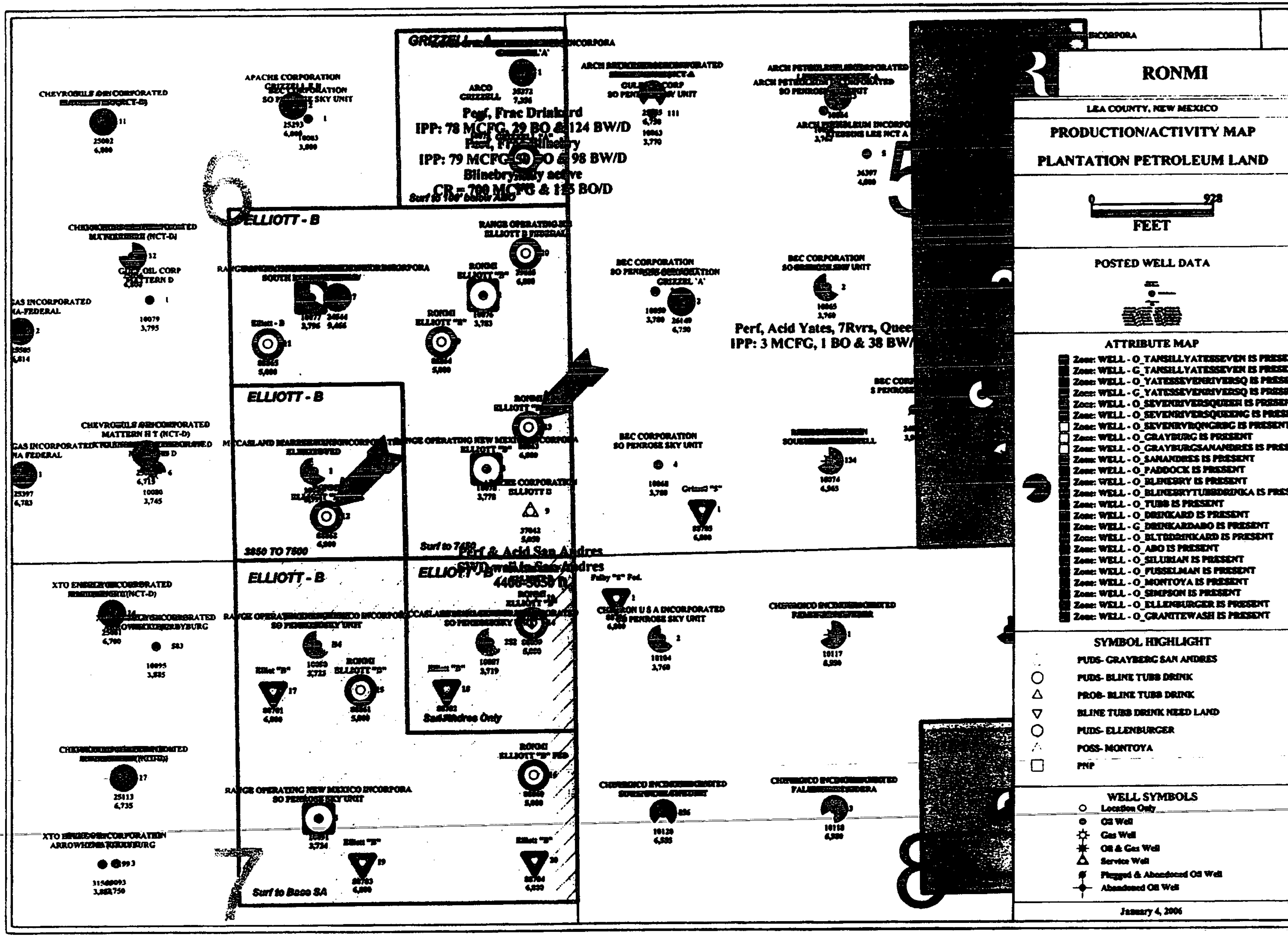


EXHIBIT C

UNITED DRILLING, INC.

LOCATION PLAT

SEC 6 22 630



RONMI
LEA COUNTY, NEW MEXICO
PRODUCTION/ACTIVITY MAP
PLANTATION PETROLEUM LAND
0 928
FEET
POSTED WELL DATA
ATTRIBUTE MAP
Zone: WELL - O_TANSILLYATESSEVEN IS PRESENT
Zone: WELL - G_TANSILLYATESSEVEN IS PRESENT
Zone: WELL - O_YATESSEVENRIVERSQ IS PRESENT
Zone: WELL - G_YATESSEVENRIVERSQ IS PRESENT
Zone: WELL - O_SEVENRIVERSQUEEN IS PRESENT
Zone: WELL - O_SEVENRIVERSQUEENG IS PRESENT
Zone: WELL - O_SEVENRVRQNGRBG IS PRESENT
Zone: WELL - O_GRAYBURG IS PRESENT
Zone: WELL - O_GRAYBURGSANANDRES IS PRESENT
Zone: WELL - O_SANANDRES IS PRESENT
Zone: WELL - O_PADDOCK IS PRESENT
Zone: WELL - O_BLINEBRY IS PRESENT
Zone: WELL - O_TUBB IS PRESENT
Zone: WELL - O_DRINKARD IS PRESENT
Zone: WELL - G_DRINKARDABO IS PRESENT
Zone: WELL - O_ABO IS PRESENT
Zone: WELL - O_SILURIAN IS PRESENT
Zone: WELL - O_FUSSELMAN IS PRESENT
Zone: WELL - O_MONTOYA IS PRESENT
Zone: WELL - O_SIMPSON IS PRESENT
Zone: WELL - O_ELLENBURGER IS PRESENT
Zone: WELL - O_GRANITEWASH IS PRESENT
SYMBOL HIGHLIGHT
PUDS- GRAYBERG SAN ANDRES
PUDS- BLINE TUBB DRINK
PROB- BLINE TUBB DRINK
BLINE TUBB DRINK NEED LAND
PUDS- ELLENBURGER
POSS- MONTOYA
PNP
WELL SYMBOLS
Location Only
Oil Well
Gas Well
Oil & Gas Well
Service Well
Plugged & Abandoned Oil Well
Abandoned Oil Well
January 4, 2006
ELLIOTT - B
ELLIOTT - B
ELLIOTT - B
3850 TO 7500
Surf to Base SA
San Andres Only
Perf & Acid San Andres
4400-5050 D
Perf, Acid Yates, 7Rvrs, Quee
IPP: 3 MCFG, 1 BO & 38 BW/
IPP: 78 MCFG, 29 BO & 124 BW/D
IPP: 79 MCFG, 50 BO & 98 BW/D
APACHE CORPORATION
SO PENROSE SKY UNIT
BEC CORPORATION
SO PENROSE SKY UNIT
ARCH PETROLEUM INCORPORATED
CHEVRON U S A INCORPORATED
SO PENROSE SKY UNIT
XTO ENERGY INCORPORATED
RANGE OPERATING NEW MEXICO INCORPORA
SO PENROSE SKY UNIT
PETRA 1/4/2006 10:32:51 AM

EXHIBIT D

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-025-37785	19190/60240	Drinkard/Tubb Oil & Gas

Property Code	Property Name	Well Number
301545	ELLIOTT B FEDERAL	13

OGRID No.	Operator Name	Elevation
227588	RANGE OPERATING NEW MEXICO, INC	3438'

Surface Location

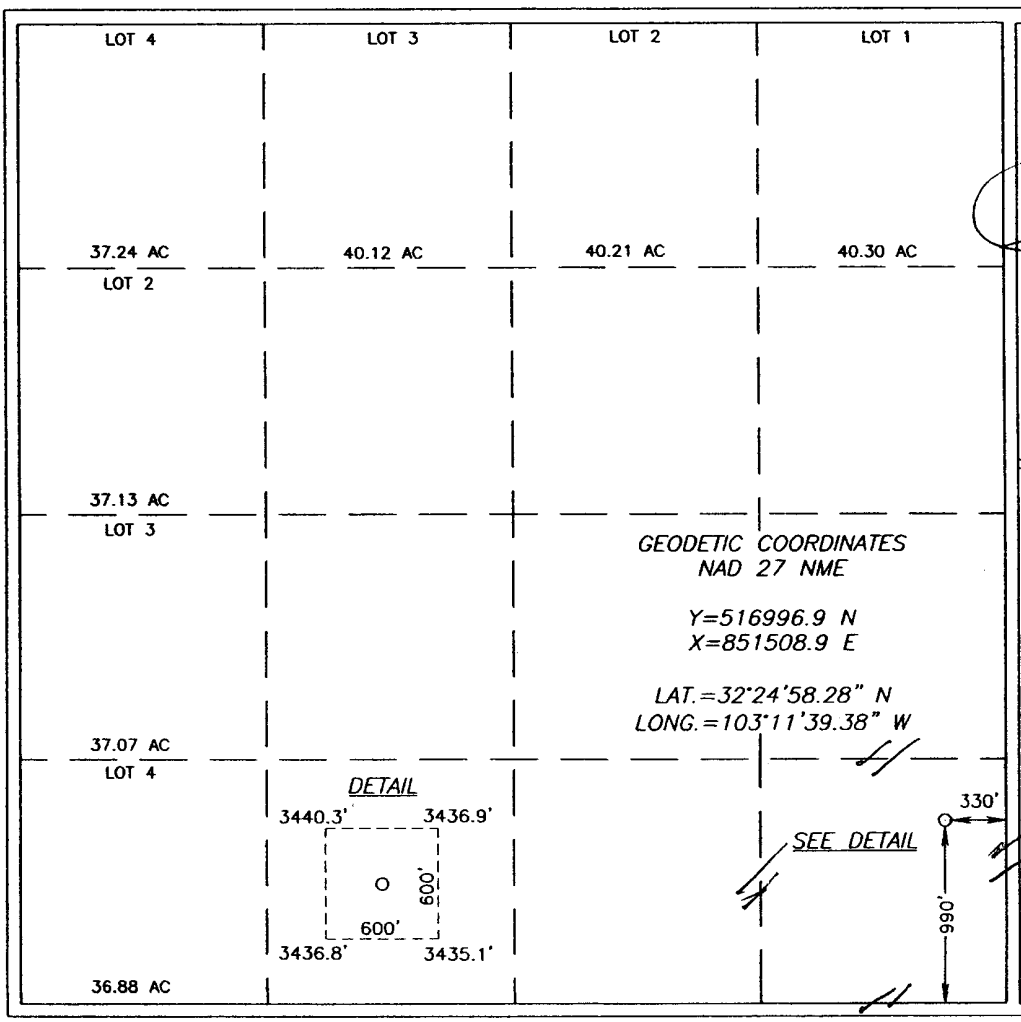
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	22-S	37-E		990	SOUTH	330	EAST	LEA

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	Joint or Infill	Consolidation Code	Order No.
40			

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



OPERATOR CERTIFICATION

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

Signature

Paula Hale
Printed Name

Sr. Reg. Sp.
Title

1-20-2006
Date

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 supervison, and that the same is true and correct to the best of my belief.

DECEMBER 23, 2005
Date Surveyed RZB

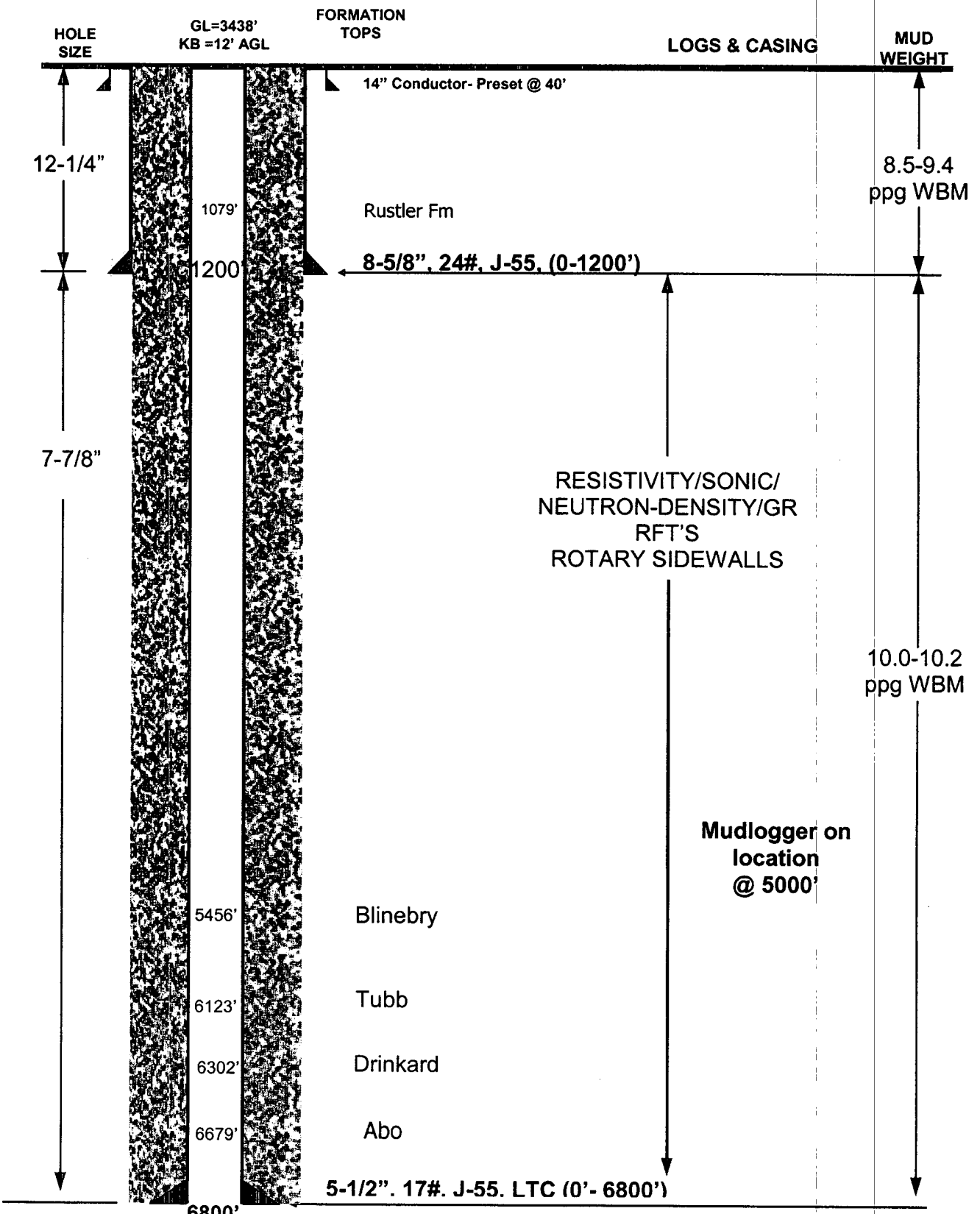
Signature & Seal of Professional Surveyor

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

12/30/05

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239

WELL	**: Elliott B Federal #13**	**AFE:**
SL	**: 990' FSL & 330' FEL, Sec 6-T22S-R37E**	**FIELD: Drinkard**
COUNTY	**: LEA COUNTY**	**TD: 6800'**
STATE	**: NEW MEXICO**	**PERMIT NO:**



Range Operating New Mexico

Elliott B Federal #13
Lea County, NM
Drilling Program

Prepared January 19, 2006

PROPOSED DEPTH: 6,800' MD / 6,800' TVD
GROUND ELEVATION: **3,438'**
KB: **12'**

LOCATION: 990' FSL & 330' FEL, Section 6-T22S-R37E, Lea County, NM

ANTICIPATED PRODUCTIVE FORMATION: Tubb-Drinkard

API NO:

GENERAL:
The Elliott B Federal #13 will be a 6,800' Tubb-Drinkard test in Lea County, New Mexico drilled on a daywork basis by United Rig #30. A 12-1/4" surface hole will be drilled to +/-1200'. A string of 8-5/8" casing will be run and cemented to surface.

Nipple up BOPs and test same, drilling will continue with a 7-7/8" hole to a total depth of 6,800'. Actual TD will be spaced so that casing will be landed where the casing head can be screwed on. After electric-logging the open-hole interval, a string of 5-1/2" casing will be run and cemented from total depth to 1,000' and the tubing head installed.

ESTIMATED FORMATION TOPS: (Log Depths)

Upper Permian Rustler Fm	+2375 ft	1079 ft MD	
Upper Permian PS Fm	-30 ft	3485 ft MD	
Upper Permian San Andres Fm	-435 ft	3890 ft MD	+
Upper Permian Glorieta Fm	-1647 ft	5102 ft MD	+
Upper Permian Blinebry Fm	-2001 ft	5456 ft MD	*
Lower Permian Tubb Fm	-2668 ft	6123 ft MD	*
Lower Permian Drinkard Fm	-2847 ft	6302 ft MD	*
Lower Permian Abo Fm	-3224 ft	6679 ft MD	
PTD	-3345 ft	6800 ft MD	

*= Primary Reservoir Targets
+= Secondary Reservoir Targets

DETAILED DRILLING PROCEDURE

TIMES AND EVENTS TO NOTE ON DRILLING REPORT:

A. SPUD (date and time)
B. TD (each interval date and time)
C. CEMENT IN PLACE (date and time)
D. RIG RELEASE (date and time)

BOTTOM HOLE ASSEMBLIES

BHA #1: (0-1200') - Bit, (2) 8" DC, (10) 6.25" DC's

BHA #2: (1200'-6000') - Bit, (2) 6.25" DC's, IBS, (1) 6.25" DC, IBS, (22) 6.25" DC's

BHA #3: (6000'-6800') - Bit, (22) 6.25" DC's

The IBS's will be layed down prior to drilling the Tubb.

USE OF RT TOOL

Two RT tools will be run, one 500' above the top of the collars and the other at 1500' above the top the first RT tool.

MUD PROGRAM

INTERVAL	MUD WEIGHT	FUNNEL VIS.	API Fluid Loss
0' - 1200'	8.4 – 9.4	32-34	NC
1200' - 6000'	10.0	28	NC
6000' - 6800'	10.0 – 10.2	30-33	10cc

1) Level and build an all-weather location and access road.

2) MIRU United Rig #30. Perform rig safety inspection and ensure that everything is in proper working order prior to spudding well.

3) Notify NMOCD of intent to spud, run casing and cement each 24 hours in advance 505-748-1283.

4) Spud well with 12-1/4" mill tooth bit. BHA should consist of 3-8" drill collars and 6" drill collars. Drill to +/- 1200' with surveys at 500' and 1000' (Actual depth will be determined by the length of the casing). Circulate hole clean. Sweep and condition hole to run casing. Pull out of hole, lay down BHA.

NOTE: Mud through this interval will be a native spud mud supplemented with Bentonite. Lime may be used to flocculate the mud and increase the yield point to clean the hole. Mix paper for seepage control. Utilize all solids control equipment to control drill solids. Run as fine of mesh shaker screens as possible. Use water to control mud weight and viscosity. Maintain mud weight at 8.4 – 9.0 ppg.

5) Rig up casing crew and run 8-5/8", 24#, J-55 casing as follows:

1-8-5/8" Texas Pattern Shoe
1-8-5/8" Insert Float Collar
1-8-5/8" x 11" Centralizer 10' above shoe
1-8-5/8" x 11" Centralizer every other joint
1-8-5/8" Stop Ring

6) Circulate for at least bottoms up plus one casing volume with mud prior to cementing. Cement surface casing according to cement recommendation. NOTE: Have field bin, cement, and circulating equipment on location prior to casing job.

a) Review rates, pressures, displacement volumes and casing pressure rating with Service Company and rig personnel. All cement slurries are to be lab tested; both a pilot test and a test of the actual field blend. Report results, including 24 hour compressive strengths, to the office. **(See Cement Testing Requirements below).** Also keep two samples of each dry cement in the event that a problem is encountered while cementing. Discard this sample if all indications are positive.

b) Cement well as follows: Pump 20 bbl fresh water followed by **200** sks of Lead: 35/65 POZ:Class C + 6% D020 + 5% (BWOW) D044 + 1 pps D130, @ 12.8 ppg, followed by **180** sks Tail: Class C + 1% S001 + 0.1 pps D130 @ 14.8 ppg. Displace with fresh water, bump plug with w/ 500 psi over final pump pressure.

c) If cement is not circulated to surface, contact the office and the NMOCD and prepare to run 1" pipe and top out cement. Have 1" pipe on location for possible top-out.

d) If cement falls, fill 12-1/4" X 8-5/8" annulus with cement.

7) Release pressure and check for flow back. Set casing on bottom. If float is holding, base nipple up of wellhead and BOP on the surface cement samples. Well must stand at least 8 hours total before any testing of casing is performed as per NMOCD.

8) After cementing casing, weld on 8-5/8" flange type casing head. Test BOP blind rams & choke manifold to 250# low & 3000# high. Pick up Bit #2 (7-7/8") & BHA , trip in hole, test BOP pipe rams to 250# low & 3000#. **Pressure test casing to 1000 psi for 30 minutes prior to drilling out shoe.** Clearly report this test information of the daily drilling report.

MUD NOTES: See Mud Program for details

After cementing 8-5/8" casing circ pit with brine water. Mix paper for seepage control. Utilize pre-hydrated Gel/Lime sweeps for flushing the hole. Run all available solids control equipment to control weight. Add brine water as needed to maintain volume. Add LCM to system only as needed. Use batch LCM treatment if losses occur and maintain as needed.

9) Drill ahead with brine water in 7-7/8" hole taking deviation surveys every ± 500' or nearest bit run per NMOCD rules. Use sweeps as needed to clean hole. Drill to ± 6800; exact TD will be determined by the length of the casing. Sweep and condition hole in preparation for logging. Spot a 50 bbl, 40-42 visc pill prior to POOH for logs. Strap out of hole.

10) RU Wireline Truck and Tools. Log well as instructed by Range Operating NM. Rotary sidewall cores may be required along with RFT's.

11) Make a conditioning trip prior to running casing. Trip into hole with BHA and drill pipe, break circulation at 6800'. Ream last two stands to bottom. Circulate and condition hole. Maintain viscosity of 28. TOH laying down 4-1/2" drill pipe and drill collars. Clear floor and prepare to run casing.

12) Rig up casing crew and run 5-1/2", 17#, J-55, LT&C as follows:

a) Float shoe (thread-lock)
b) 1 jt. 5-1/2", 17#, J-55, LT&C casing (thread-lock)
c) Float collar (thread-lock)
d) 5-1/2", 17#, J-55, LT&C Casing to surface.

The float shoe, bottom joint of 5-1/2" casing and the float collar should be thread-locked (do not weld pipe). Run 1 centralizer 5' above shoe with limit clamp, one on the next collar, one just below the float collar with limit clamp and one per joint up to 4500'.

13) Circulate mud for at least bottoms up plus one casing volume prior to cementing.

14) Cement the production casing as follows. Re-figure cement volumes on a basis of: caliper + 20% + 50 sx. Precede cement with 20 bbl fresh water, 500 gals superflush, 20 bbl fresh water.

Cement well as follows:

Lead: **370** sks of 50/50 POZ:Class C + 10% D020 + 5% (BWOW) D044 + 0.25 pps D29 + 0.2% D046. Slurry weight = 12.0 ppg, Yield = 2.39 cf/sk followed by:

Tail: **350** sks of 50/50 POZ:Class C + 2% D020 + 5% (BWOW) D044 + 0.25 pps D29 + 0.2% D046 + 0.2% D167+ 4 pps D042. Slurry weight = 14.2 ppg, Yield = 1.38 cf/sk. Displace with fresh water.

Review rates, pressures, displacement volumes and casing pressure rating with Service Company and rig personnel. All cement slurries are to be lab tested; both a pilot test and a test of the actual field blend. Report results, including 24 hour compressive strengths, to the office. **(See Cement Testing Requirements below).** Also keep two samples of each dry cement.

a) Have additional water storage on location as necessary for mixing cement. Have water analyzed by cementing company for compatibility with cement and chemicals.

b) Reciprocate pipe during cement job. Take special care to move pipe very slowly on the down stroke. Pump spacer and cement at 7-8 BPM. When the last cement has been pumped, maintain rate at 7-8 BPM. Displace with fresh water. When reaching displacement to shoe joint minus 10 bbls slow pump rate to 2 barrels per minute or less prior to bumping plug. Bleed off pressure and check for backflow. If negative, remove the cap and drop the opening bomb for the second stage job.

c) Bump plug with 500 psi over final displacement pressure and hold pressure for 15 minutes.

15) Release pressure and check for flow back. If floats are holding, continue to make preparations to hang 5-1/2" casing one (1) foot off bottom. If floats do not hold, wait 12 hours on cement.

16) Set 5-1/2" slips in "A" section with full string weight. Nipple down BOP, Nipple up well head.

17) Install cap. Clean mud pits and release rig.

CEMENT TESTING REQUIREMENTS:

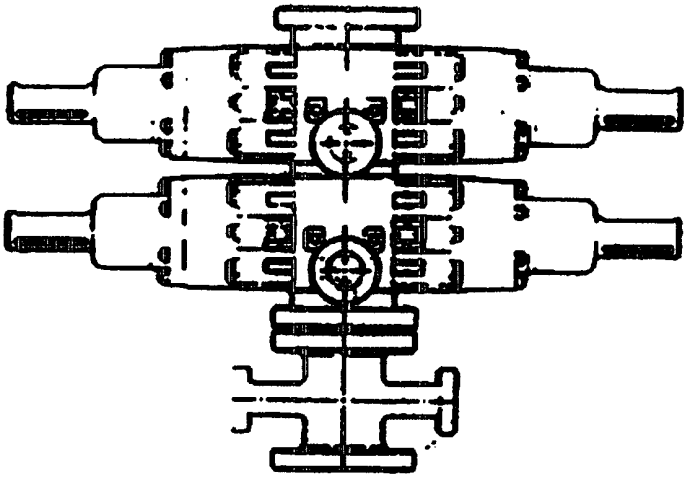
Laboratory Blend: Obtain thickening time, rheology, water loss, and compressive strengths of the laboratory cement blend with a water sample of the actual water to be used in cementing for each cement slurry to be pumped.

Field Blend: Obtain thickening time of the field cement blend with a water sample of the actual water to be used in cementing for each slurry to be pumped. If the thickening time of the field blend is consistent with the thickening time of the laboratory blend, proceed with the cement job. If not, wait on the compressive strength results. Regardless of thickening time results, obtain all of the compressive strengths of field blend to compare with the compressive strengths of the laboratory blend.

NAME	POSITION	CELL PHONE	HOME PHONE	OFFICE PHONE
Don Robinson	Drilling Manager	(469) 450-2281	(972) 317-8345	(817) 509-1506
George Allen Teer	VP of Operations	(817) 723-1107	(817) 491-3740	(817) 870-2601
Bryan Surles	District Engineer	(817) 360-9663	(817) 346-8188	(817) 810-1971
Martin Emery	Chief Geologist	(817) 366-3693	(817) 430-4861	(817) 870-2601
Paula Hale	Sr. Regulatory Sp.	(817) 773-6002		(817) 810-1916

		CONTACT PERSON	TELEPHONE NO.
United Rig Company, Artesia, NM	Rig Company	Angel Salazar	(505) 623-7730
United Rig #30			
Nova Mud, Inc - Hobbs, NM	Drlg Mud	Dale Welch	(800) 530-8786
Master Tubulars – Midland, TX	Casing & Tubing	Randy Martin	(800) 682-8996
Suttles Logging, Inc. – Midland, TX	Mudlogging	Sam Samford	(432) 687-3148
Schlumberger-Artesia, NM	Cementing Service	Lynn Northcutt	(505)748-1392 cell (505) 365-7510
National – Hobbs, NM	Well Heads		(505) 393-9928
TFH –Hobbs, NM	Dirt Contractor		(505) 397-3270
Weatherford –Artesia, NM	Float Equipment		
Halliburton Logging –Hobbs, NM	Open Hole Logs	Michael Escriva Tommy Johnson	(505) 392-7543
Allen's Casing Crew -Hobbs, TX	Csg Crew		
Riverside- Carlsbad, TX	Water -		(505) 885-6663
National –Hobbs, NM	General Supplies		(505) 393-9928
TFH –Hobbs, NM	Fork Lift		(505) 397-3270
Abbot Brothers	Conductor setting		
RTO Sales & Lease	Satellite Internet		(432) 550-5678

BLOW OUT PREVENTION EQUIPMENT



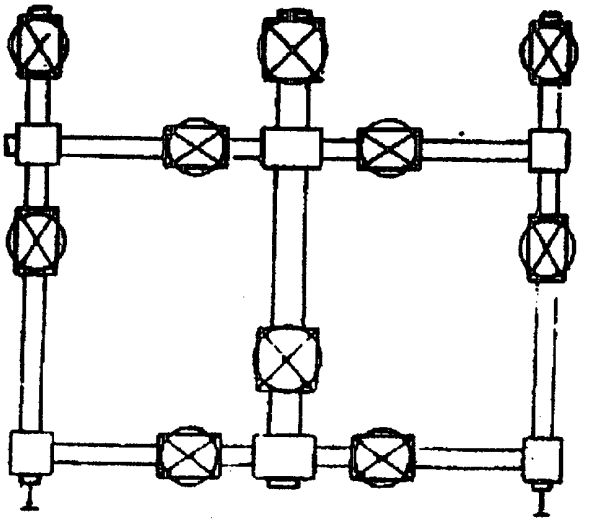
BOP Stack

— 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

EUNICE PROSPECT (Blinebry/Tubb/Drinkard)
Elliott "B" Fed. No. 13
Well Objectives/Prognosis/Evaluation
January 4, 2006

I) GENERAL

Operator:	**Range Operating NM, Inc. (100%)**	
Partners/WI:	none	
Proposed Well Designation:	Elliott "B" Fed. No. 13	
API No.:	30-025-	
Well Classification:	PUD	
Confidentiality Status:	Restricted, no information release without approval	
PTD (Permit Depth):	6800 ft MD	
Anticipated Spud Date:		
Estimated Days to Drill:	20	
Drilling Contractor:		
Expected Type of Hydrocarbon:	Oil/Gas, Gravity and GOR variable	
Contacts:	Tom Brace, Geol. Mgr.	(817)810-1926
	Martin Emery, Project Geologist	(817)810-1951
	Steve Chapman, Reservoir Engineer	(817)810-1912
	Bobby Ebeier, Landman	(817)810-1987
	Don Robinson, Drilling Mgr.	(817)509-1506
	Bryan Surles, Oper. Eng.	(817)810-1971

II) WELL OBJECTIVES

The objective of the well is to drill and evaluate the Blinebry, Tubb, and Drinkard Formations and complete the well as a Blinebry-Drinkard producer. The expected **EUR** for the well is **1194 MMCFGE**. The expected **IP** is **400 MCFG & 90 BO/D**.

III) LOCATION

Surface Location:	**990 ft FSL 330 ft FEL** **Section 6-T22S-R37E** Lea County, New Mexico **Lat: 32 deg 24' 57.98"** **Long: 103 deg 11' 39.60"**
Bottom-hole Location:	same, vertical
Elevation:	GL: 3443 ft est KB: 3455 ft est
Directions to Location:	
Access to Location:	Unrestricted

IV) PROGNOSIS

Upper Permian Rustler Fm	+2375 ft	1079 ft MD	
Upper Permian PS Fm	-30 ft	3485 ft MD	
Upper Permian San Andres Fm	-435 ft	3890 ft MD	+
Upper Permian Glorieta Fm	-1647 ft	5102 ft MD	+
Upper Permian Blinebry Fm	-2001 ft	5456 ft MD	*
Lower Permian Tubb Fm	-2668 ft	6123 ft MD	*
Lower Permian Drinkard Fm	-2847 ft	6302 ft MD	*
Lower Permian Abo Fm	-3224 ft	6679 ft MD	
PTD	-3345 ft	6800 ft MD	

*= Primary Reservoir Targets
+= Secondary Reservoir Targets

EUNICE PROSPECT (Blinebry/Tubb/Drinkard)
Elliott "B" Fed. No. 13
Well Objectives/Prognosis/Evaluation

V) PRIMARY RESERVOIR TARGETS

Upper Permian **Blinebry DOL**

Rock Type:	crypto-c xlln DOL
Thickness:	50-75 ft net pay
Avg. Porosity:	8%; ranges from 2-18%
Avg. Perm.:	? md
Est. Reservoir Temp.:	120°F
Est. Reservoir Press.:	2200 psi (assuming no pressure depletion)

Lower Permian **Tubb DOL**

Rock Type:	crypto-c xlln DOL
Thickness:	10-15 ft net pay
Avg. Porosity:	8%; ranges from 2-15%
Avg. Perm.:	? md
Est. Reservoir Temp.:	130°F
Est. Reservoir Press.:	2480 psi (assuming no pressure depletion)

Lower Permian **Drinkard DOL**

Rock Type:	crypto-c xlln DOL
Thickness:	50-75 ft net pay
Avg. Porosity:	12%; ranges from 2-20%
Avg. Perm.:	? md
Est. Reservoir Temp.:	135°F
Est. Reservoir Press.:	2640 psi (assuming no pressure depletion)

VI) SECONDARY RESERVOIR TARGETS

Upper Permian San Andres DOL & Glorieta/Paddock DOL

VII) PROPOSED WELL DESIGN

Drilling Fluids/Additives: Brine, 10.1 lbs/gal

Casing Design:

VIII) EVALUATION

Mud-Logging:

Contractor:	**SUTTLES LOGGING, INC.** **Office: (432)687-3148** www.sutlog.com
Basic Requirements:	Cuttings lithology description/comments Oil shows/fluorescence/cut description Gas monitoring, chromatography, gas ratios Penetration rate/depth, rig operations, bit and mud properties One man unit
Correlation:	Please use the following logs for correlation and refer to Section **(X)** for offset well tops: **1) CHEVRON** **Mattern NCT "D" No. 13** 810 ft FSL & 1930 ft FWL Section 6-T22S-R37E 30-025-25057 **2) RONMI** **Elliott "B" No. 7** 1980 ft FSL & 1780 ft FEL Section 6-T22S-R37E 30-025-24544
Sampling:	2500-6800 ft MD 10 ft samples Collect 1 dry sample per interval
Reporting:	E-mail/WWW or fax daily reports/logs to: **Martin Emery** **(Primary)** (817)810-1951 (wk) memery@rangeresources.com (817)810-1988 (fax) (817)430-4861 (hm) (817)366-3693 (cell)
Distribution:	see attached distribution

EUNICE PROSPECT (Blinebry/Tubb/Drinkard)
Elliott "B" Fed. No. 13
Well Objectives/Prognosis/Evaluation

VIII) EVALUATION (cont)

Conventional Coring: None

Open-Hole DSTs:
- DST Contractor: None
- DST Program: None
- Distribution: see attached distribution

Open-Hole Logging:
- Contractor: **HALLIBURTON**
- Logging Program: 2500-6800 ft MD (TD) — SGR-DSN-SDL-DLL-MSFL-FWS (delta T) (log GR-Neutron to surface)
- Optional 5000-6800 ft — GR-RSCT
- Distribution: see attached distribution

IX) POTENTIAL HAZARDS/PITFALLS

Problematic Drilling Zones:
- Abnormal Pressure/Temperature Zones: Possibilty of partial depletion within Queen to Grayburg Formations
- Fractured/Lost Circulation Zones: See above; **Please tag mud if circulation is lost in primary pay interval**
- Presence of H_2S or CO_2: None expected
- Faults Intersecting the Wellbore: None expected

X) CORRELATION LOG TOPS:

Correlations	CHEVRON Mattern NCT "D" No. 13 Sec. 6-T22S-R37E KB: 3471 ft	RONMI Elliott "B" No. 7 Sec. 6-T22S-R37E KB: 3457 ft
Upper Permian Rustler Fm	(+2373') 1098'	NL
Upper Permian PS Fm	(15') 3476'	(-36') 3493'
Upper Permian San Andres Fm	(-430') 3901'	(-449') 3903'
Upper Permian Glorieta Fm	(-1649') 5120'	(1649') 5106'
Upper Permian Blinebry Fm	(-2078') 5549'	(-2075') 5532'
Lower Permian Tubb Fm	(-2683') 6154'	(-2690') 6147'
Lower Permian Drinkard Fm	(-2865') 6336'	(-2872') 6329'
Lower Permian Abo Fm	NDE	(-3247') 6704'
TD	6715'	9466'

Prepared by: Martin Emery
Date: January 4, 2006
Revised:

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name: Range Operating New Mexico Inc Well Name & #: Elliott B Federal #13
Location 990 F S L & 330 F E L; Sec. 6, T.22 S., R. 37 E.
Lease #: LC-032573b County: Lea State: New Mexico

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (stips attached)
( ) San Simon Swale (stips attached)
( ) Flood plain (stips attached)
( ) Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(x) The BLM will monitor construction of this drill site. Notify the (x) Carlsbad Field Office at (505) 234-5972 ( ) Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

( ) Roads and the drill pad for this well must be surfaced with _____ inches of compacted caliche upon completion of well and it is determined to be a producer.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____inches in depth. Approximately _____cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other.

III. WELL COMPLETION REQUIREMENTS

( ) A Communlitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(x) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

( ) A. Seed Mixture 1 (Loamy Sites)
Side Oats Grama (*Bouteloua curtipendula*) 5.0
Sand Dropseed (*Sporobolus cryptandrus*) 1.0

(x) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (*Sporobolus crptandrus)* 1.0
Sand Lovegrass (*Eragostis trichodes*) 1.0
Plains Bristlegrass (*Setaria magrostachya*) 2.0

( ) C. Seed Mixture 3 (Shallow Sites)
Side oats Grama (*Boute curtipendula*) 1.0

( ) D. Seed Mixture 4 (Gypsum Sites)
Alkali Sacaton (*Sporobollud airoides*) 1.0
Four-Wing Saltbush (*Atriplex canescens*) 5.0

( ) OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

( ) Other

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6-mil plastic. Mineral material extracted from within the boundary of the APD during construction of the well pad and reserve pits and be used for the construction of this well pad and its immediate access road only, as long as that portion of the access road it is use on remains on-lease. Removal of any additional material from this location for construction or improvement of other well pads and other access or lease roads must first be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.
The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

(1) Lined as specified above and

(2) A temporary or emergency pit may be constructed immediately adjacent to the reserve pit as long as the pit remains within the APD boundary. Mineral material removed from this pit may be used for the construction of this well pad only and its immediate access road, as long as that portion of the access road the material is used on remains on-lease. Removal of any material from the APD boundary for use on other well locations or roads must first be purchased from BLM.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be re-contoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to process by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

BLM SERIAL #: LC-032573B
COMPANY REFERENCE: Range Operating New Mexico Inc
WELL # & NAME: Elliott B Federal #13

Seed Mixture 2, for Sandy 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 see 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:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

CONDITIONS OF APPROVAL - DRILLING

Operator's Name:	**RANGE OPERATING NEW MEXICO, INC.**
Well Name & No.	**13 – ELLIOTT B FEDERAL**
Location:	**990' FSL & 330' FEL – SEC 6 – T22S – R37E – LEA COUNTY**
Lease:	**LC-032573B**

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

1. Spudding (Setting of a conductor pipe does not constitute the spudding of a well)
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Lea County call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612

B. **There is no reported occurrence of Hydrogen Sulfide (H2S) gas in Sec 6 – T22S – R37E.**

C. 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.

II. CASING:

A. The **8-5/8** inch surface casing shall be set at **1200** **feet** and cemented to the surface.

1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey (an electronic type temperature survey will be used) or cement bond log shall be run to verify the top of the cement.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, or 24 hours in the potash area.
3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours or 500 psi compressive strength (which ever is greater) after bringing cement to surface.
4. If cement falls back, remedial action will be done prior to drilling out that string.

B. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.**

C. No "new" hardband drill pipe will be rotated inside the casing. Hardband drill pipe will be considered new until it has a smooth surface.

III. PRESSURE CONTROL:

A. 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.

B. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface shoe shall be **2000** psi.

C. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. 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.
4. The BOP/BOPE test shall include a low pressure test in accordance with API RP 53. 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.
5. A variance to test the **surface casing and BOPE** to the reduced pressure of **1000** psi with the rig pumps is approved.

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

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☐

Operator: Range Operating New Mexico, Inc. Telephone: 817/810-1916 e-mail address: phale@rangeresources.com
Address: 777 Main St., Ste. 800, Ft. Worth, TX 76102
Facility or well name: Elliott B Federal #13 API #: 30-025- 37785 U/L or Qtr/Qtr P Sec 6 T 22S R 37E
County: Lea Latitude 32°24'58.28"N Longitude 103°11'39.38 W NAD: 1927 ☒ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**
Type: Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume 6,000 bbl	Volume: ____bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility_____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface_____ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments: Pit will also have a felt liner under the sysnthetic liner.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.**

Date: 1/20/2006
Printed Name/Title Paula Hale Signature _____

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:
Printed Name/Title _____ Signature PETROLEUM ENGINEER Date: APR 10 2006

The sender of this message has requested a read receipt. Click here to send a receipt.

Mull, Donna, EMNRD

From: Phillips, Dorothy, EMNRD **Sent:** Fri 4/7/2006 8:06 AM
To: Mull, Donna, EMNRD
Cc:
Subject: RE: Financial Assurance Requirement
Attachments:

All have blanket bonds and none appear on Jane's list.

From: Mull, Donna, EMNRD
Sent: Friday, April 07, 2006 7:44 AM
To: Phillips, Dorothy, EMNRD
Cc: Macquesten, Gail, EMNRD; Sanchez, Daniel J., EMNRD
Subject: Financial Assurance Requirement

Dorothy,

Is the Financial Assurance Requirement for these Operators OK ?

EOG Resources Inc (7377)
Pogo Producing Co (17891)
Range Operating New Mexico Inc (227588)
Harvard Petroleum Corp (10155)
Yates Petroleum Corp (25575)
Platinum Exploration Inc (227103)
Marbob Energy Corp (14049)
Chevron USA Inc (4323)
Marathon Oil Co (14021)
XTO Energy Inc (5380)

Please let me know. Donna