

OCD-ARTESIA

SECRETARY'S POTASH

Form 3160-3
(April 2004)

0419

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

JUL 20 2005

OCD-ARTESIA


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

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-922080
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Indian, Allottee or Tribe Name N/A
2. Name of Operator FOREST OIL PERMIAN CORPORATION 33016		8. Lease Name and Well No. BARCLAY FEDERAL 28
3a. Address 1600 BROADWAY, SUITE 2200 DENVER, CO 80202	3b. Phone No. (include area code) (303) 812-1400 94149	9. API Well No. 30-015- 34226
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1980 FNL & 660 FEL At proposed prod. zone SAME		10. Field and Pool, or Exploratory LIVINGSTON RIDGE; DEL., S.
14. Distance in miles and direction from nearest town or post office* 22 AIR MILES EAST OF LOVING		11. Sec., T. R. M. or Blk. and Survey or Area 1-23S-31E NMPM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 660'	16. No. of acres in lease 1,280	12. County or Parish EDDY
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1,320' (#27 & #29)	19. Proposed Depth 8,400'	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,507' GL	22. Approximate date work will start* 05/01/2005	20. BLM/BIA Bond No. on file BLM NATION WIDE WYB000195
		23. Estimated duration 6 WEEKS

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 01/21/2005
---	------------------------------------	--------------------

Title
CONSULTANT

PHONE: (505) 466-8120

FAX: (505) 466-9682

Approved by (Signature) /s/ Linda S. C. Rundell

Name (Printed/Typed) /s/ Linda S. C. Rundell

Date JUL 11 2005

Title

STATE DIRECTOR

Office

NM STATE 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)

Controlled Water Basin

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

**PREVIOUSLY APPROVED (API #30-015-30884)
FOR ARCO PERMIAN AS BARCLAY FEDERAL 28
BUILT & CONDUCTOR PIPE SET**

**Witness Surface &
Intermediate Casing**

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

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO.	30-015-34226
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	NMNM-022080
7. Lease Name or Unit Agreement Name	BARCLAY FEDERAL
8. Well Number	28
9. OGRID Number	33016
10. Pool name or Wildcat	LIVINGSTON RIDGE; DELAWARE, SOUTH

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH
PROPOSALS.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐

2. Name of Operator
FOREST OIL PERMIAN CORPORATION

3. Address of Operator 1600 BROADWAY, SUITE 2200
DENVER, CO 80202

4. Well Location

Unit Letter H : 1980 feet from the NORTH line and 660 feet from the EAST line
Section 1 Township 23 S Range 31 E NMPM County EDDY

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

3,507' GL

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type Reserve Depth to Groundwater ~210' Distance from nearest fresh water well >1 mi Distance from nearest surface water >1,000'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume _____ bbls Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

OTHER: RESERVE PIT ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

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

SIGNATURE Brian Wood TITLE CONSULTANT DATE 1-21-05

Type or print name BRIAN WOOD

E-mail address: brian@permitswest.com Telephone No. 466-8120

For State Use Only

Field Supervisor

APPROVED BY: [Signature] TITLE _____

DATE JUL 25 2005

Conditions of Approval (if any):

State of New Mexico

DISTRICT I

1625 N. FRENCH DR., BOBBS, NM 86240

Energy, Minerals and Natural Resources Department

Form C-102

Revised JUNE 10, 2003

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

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

Submit to Appropriate District Office

State Lease - 4 Copies

Pee Lease - 3 Copies

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number .	Pool Code 96149	Pool Name LIVINGSTON RIDGE; DELAWARE, SOUTH
Property Code .	Property Name BARCLAY FEDERAL	Well Number "28
OGRID No. 33016	Operator Name FOREST OIL PERMIAN CORPORATION	Elevation 3507'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	1	23-S.	31-E	.	1980	NORTH.	660	EAST	EDDY

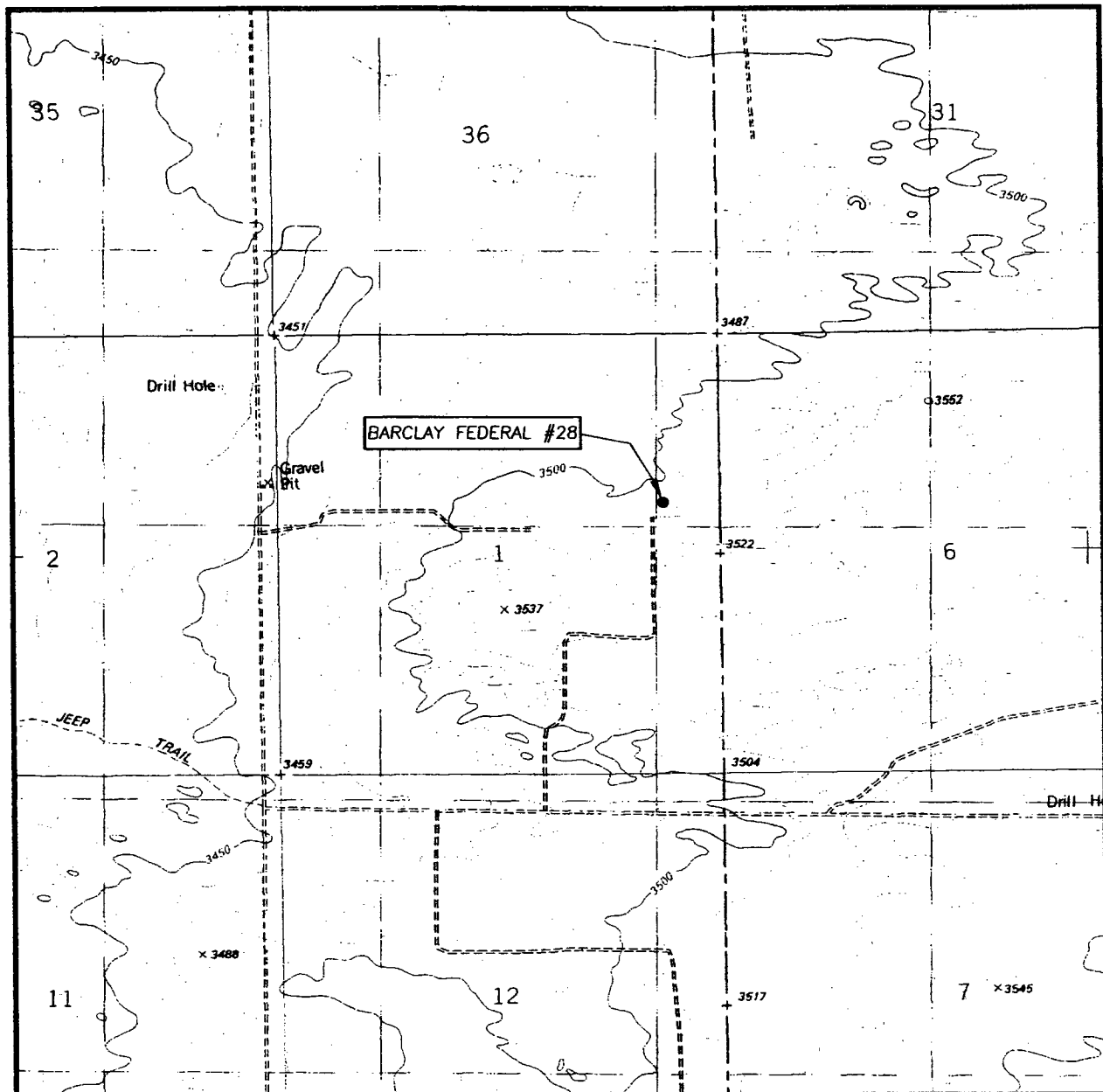
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
<table border="1"> <tr> <td>Dedicated Acres 40.00</td> <td>Joint or Infill</td> <td>Consolidation Code</td> <td>Order No.</td> </tr> </table>										Dedicated Acres 40.00	Joint or Infill	Consolidation Code	Order No.
Dedicated Acres 40.00	Joint or Infill	Consolidation Code	Order No.										

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	LOT 3	LOT 2	LOT 1
40.00 AC	40.00 AC	40.00 AC	40.00 AC
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=486177.2 N X=688014.3 E</p> <p>LAT.=32°20'06.53" N LONG.=103°43'28.58" W</p>			<p>1980'</p> <p>3497.4'</p> <p>3511.0'</p> <p>660'</p> <p>3508.8'</p> <p>3515.1'</p>
<h3>OPERATOR CERTIFICATION</h3> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Brian Wood</i></p> <p>Signature BRIAN WOOD</p> <p>Printed Name CONSULTANT</p> <p>Title JAN. 21, 2005</p> <p>Date</p>			
<h3>SURVEYOR CERTIFICATION</h3> <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>DECEMBER 20, 2004</p> <p>Date Surveyed. JR</p> <p>Signature & Seal of Professional Surveyor</p> <p><i>Gary Hudson</i> 12/28/04</p> <p>04.11.1699</p> <p>Certificate No. GARY HUDSON 12841</p>			

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
BOOTLEG RIDGE, N.M. - 10'

SEC. 1 TWP. 23-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1980' FNL & 660' FEL

ELEVATION 3507'

OPERATOR FOREST OIL
PERMIAN CORPORATION

LEASE BARCLAY FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
BOOTLEG RIDGE, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBES, N.M. 88240
(505) 383-3117

Forest Oil Permian Corporation
Barclay Federal 28
1980' FNL & 660' FEL
Sec. 1, T. 23 S., R. 31 E.
Eddy County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Red Beds	000'	20'	+3,507'
Rustler	807'	827'	+2,700'
Castile Anhydrite Salt	1,182'	1,202'	+2,325'
Delaware Lamar Shale	4,507'	4,527'	-1,000'
Delaware Bell Canyon	4,557'	4,577'	-1,050'
Delaware Cherry Canyon	5,557'	5,577'	-2,050'
Delaware Brushy Canyon	7,007'	7,027'	-3,500'
Delaware Lower Brushy Canyon	8,107'	8,127'	-4,600'
Total Depth (TD)*	8,400'	8,420'	-4,893'

2. NOTABLE ZONES

<u>Gas or Oil Zones</u>	<u>Water Zone</u>	<u>Mineral Zone</u>
Delaware - Bone Spring	Red Beds	Potash

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

3. PRESSURE CONTROL

The drilling contract has not been awarded. Thus, the exact BOP model to be used is not yet known. A typical 2,000 psi model is on PAGE 3.

BOP and choke manifold will be installed and pressure tested before drilling out of the surface casing. Subsequent pressure tests will be performed

Forest Oil Permian Corporation
Barclay Federal 28
1980' FNL & 660' FEL
Sec. 1, T. 23 S., R. 31 E.
Eddy County, New Mexico

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whenever pressure seals are broken. BOP and manifold mechanical operating conditions will be checked daily. BOP will be tested at least once every 30 days. Ram type preventers and related pressure control equipment will be pressure tested to related working pressure of the stack if a test plug is used. If a plug is not used, then the stack will be tested to the rated working pressure of the stack or 70% of the minimum internal yield of the casing, whichever is less. Annular type preventers will be pressure tested to 50% of their working pressure. All casing strings will be pressure tested to 0.22 psi/foot or 1,500 psi, whichever is greater, not to exceed 70% of the internal yield. The casing shoe will be tested by drilling 5'-20' out from under the shoe and pressure tested to a maximum expected mud weight equivalent as shown in the mud program.

A manual locking device (i. e., hand wheels) or automatic locking devices will be installed on the BOP stack. Remote controls capable of both opening and closing all preventers will be readily accessible to the driller.

Choke manifold and accumulator will meet or exceed OCD standards. BOP equipment will be tested after any repairs. Pipe & blind rams and annular preventer will be activated on each trip. Weekly BOP drills will be conducted with each crew. All tests, maintenance, and BOP drills will be recorded on the rig tower sheets.

Manual and/or hydraulic controls will comply with OCD 5,000 psi rules. A remote accumulator will be used. Pressures, capacities, and the locations of remote hydraulic and manual controls will be identified at the time of the OCD supervised BOP test. Auxiliary equipment will include:

- upper kelly cock, lower kelly cock will be installed while drilling
- inside BOP or stabbing valve with handle available on rig floor
- safety valve(s) and subs to fit all string connections in use
- electronic/mechanical mud monitor will use a Pason Unit with a minimum pit volume totalizer; stroke counter; flow sensor

Forest Oil Permian Corporation
Barclay Federal 28
1980' FNL & 660' FEL
Sec. 1, T. 23 S., R. 31 E.
Eddy County, New Mexico

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4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Setting Depth</u>	
17-1/2"	13-3/8"	54.5	K-55	New	Butt	900'	WITNESS
12-1/4"	8-5/8"	24	K-55	New	S T & C	4,500'	WITNESS
7-7/8"	5-1/2"	17	N-80	New	L T & C	8,400'	

Surface casing will be cemented to the surface with >80% excess. Lead with \approx 470 sacks 35:65 Class C + additives (yield = 1.89 cubic feet per sack). Tail with \approx 200 sacks Class C + additives (yield = 1.34 cubic feet per sack).

Intermediate casing will be cemented to the surface with 50% excess. Lead with \approx 1,040 sacks 50:50 Poz + additives (yield = 2.45 cubic feet per sack). Tail with \approx 200 sacks Class C + additives (yield = 1.34 cubic feet per sack).

Production casing will be cemented to the surface with \approx 20% excess. Lead with \approx 380 sacks 35:65 Class C + additives (yield = 1.92 cubic feet per sack). Tail with \approx 600 sacks Class H + additives (yield = 1.79 cubic feet per sack).

A string of 2-3/8", 4.7 pound, N-80, EUE 8 round tubing will be run for production.

5. MUD PROGRAM

<u>RANGE</u>	<u>MUD TYPE</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>WATER LOSS</u>
0' - 900'	Fresh Water	8.5		
900' - 4,500'	Brine	10		
4,500' - TD	Fresh water polymer	8.6-9.0	35	\leq 20 cc

Enough mud material will be on site to maintain mud properties and control lost circulation or a kick.

Forest Oil Permian Corporation
Barclay Federal 28
1980' FNL & 660' FEL
Sec. 1, T. 23 S., R. 31 E.
Eddy County, New Mexico

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6. CORES, TESTS, & LOGS

No cores are planned. Drill stem tests may be run on shows of interest. DIL-GR-SP-CAL and ND-GR-CAL logs will be run from TD to $\approx 4,400'$.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\approx 3,612$ psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take ≈ 16 days to drill and one month to complete the well.

Forest Oil Permian Corporation
Barclay Federal 28
1980' FNL & 660' FEL
Sec. 1, T. 23 S., R. 31 E.
Eddy County, New Mexico

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Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See PAGES 10 & 11)

From the junction of US 285 & NM 31 between Carlsbad & Loving ...
Go Northeast 9 miles on NM 31
Then turn right and go East 17.4 miles NM 128 to Mile post \approx 17.4
Then turn left onto County Road 798 (Red Road) and go North 5.1 miles
Then turn right after a cattle guard and go East 0.6 miles on a caliche road
Then turn left and go North 0.4 miles via the #9 well to the #18 well
Then turn right and go East 0.2 miles
Then turn left and go North 0.25 miles to existing #28 pad

Roads will be maintained to a standard at least equal to their present condition.

2. ROAD TO BE BUILT OR UPGRADED (See PAGES 11 & 12)

Pad was built by Arco and never reclaimed. Thus, neither any upgrade nor new road is needed.

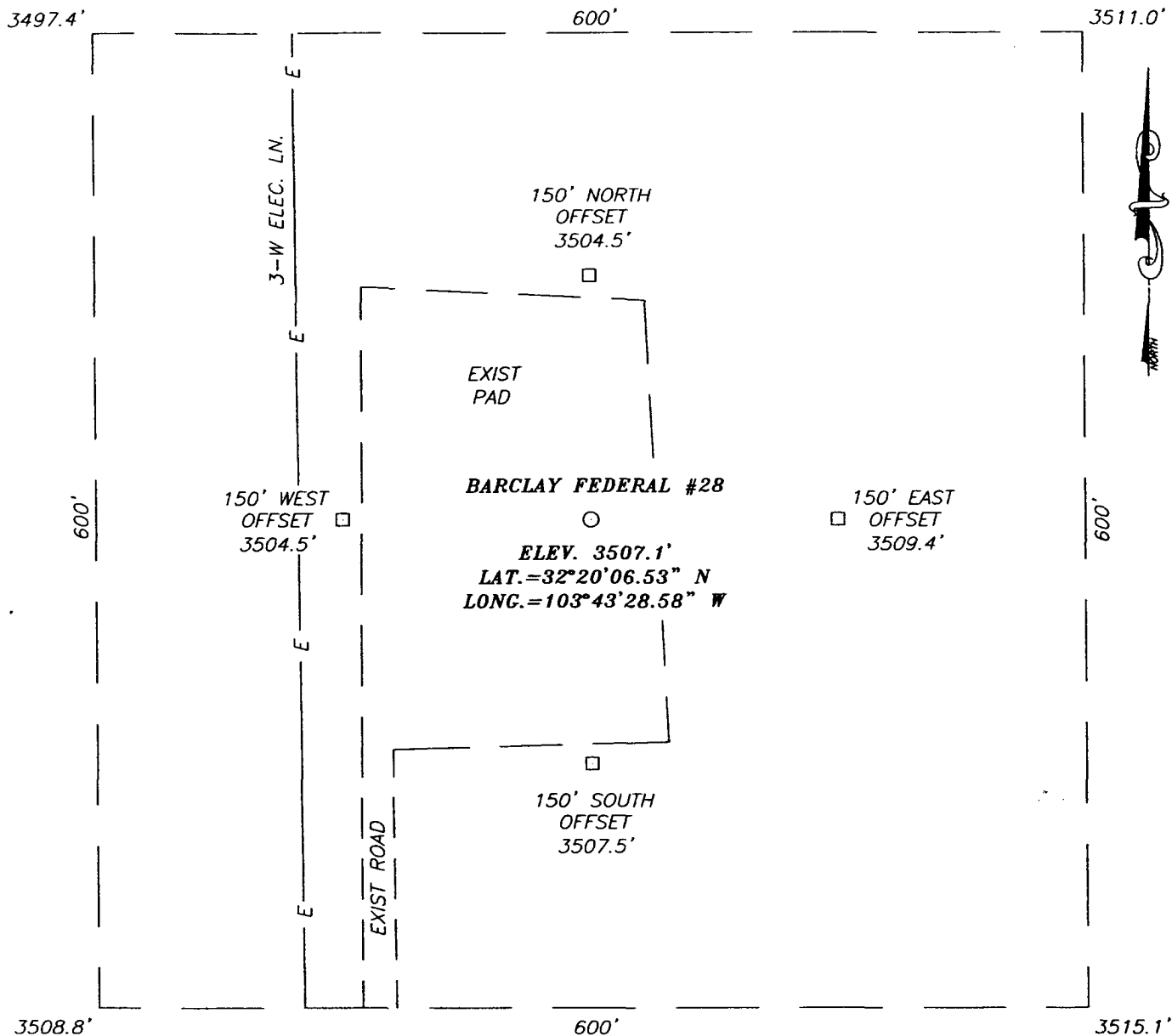
3. EXISTING WELLS (See PAGE 11)

There are 29 oil or gas wells and 2 P & A wells within a 1 mile radius. There are no water, disposal, or injection wells within a mile.

4. PROPOSED PRODUCTION FACILITIES

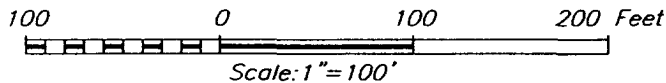
An over head raptor proof power line will be built by Forest to an existing

SECTION 1, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. #128 AND CO. RD. #798 (RED RD.) GO NORTH ON CO. RD. #798 FOR APPROX. 5.1 MILES TO A CALICHE ROAD. ON THE RIGHT. TURN RIGHT (EAST) AND GO APPROX. 0.6 MILES TO A ROAD ON THE LEFT. TURN LEFT (NORTH) AND GO APPROX. 0.4 MILES TO WHERE THE ROAD BENDS EAST. GO EAST APPROX. 0.2 MILES TO A "T" INTERSECTION. TURN LEFT (NORTH) AND GO APPROX. 0.25 MILES TO PROPOSED LOCATION.



FOREST OIL PERMIAN CORPORATION

BARCLAY FEDERAL #28 WELL
 LOCATED 1980 FEET FROM THE SOUTH LINE
 AND 660 FEET FROM THE EAST LINE OF SECTION 1,
 TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.,
 EDDY COUNTY, NEW MEXICO.

Survey Date: 12/20/04	Sheet 1 of 1 Sheets
W.O. Number: 04.11.1699	Dr By: J.R.
Date: 12/27/04	Disk: CD#10
04111699	Scale: 1"=100'

PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N. DAL PASO
 HOBBS, N.M. 88240
 (505) 383-3117