

CEMENT TO COVER ALL  
OIL, GAS AND WATER  
BEARING ZONES, EXAMPLE:  
GLORIETA FORMATION

Form 3160-3  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER

b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone

2. Name of Operator

Yates Petroleum Corporation

3A. Address 105 South Fourth Street

Artesia, New Mexico 88210

3b. Phone No. (include area code)

(505) 748-1471

4. Location of Well (Report location clearly and in accordance with any State requirements. \*)

At surface

990' FNL and 660' FWL, NWNW, Unit D

At proposed prod. Zone

same as above

14. Distance in miles and direction from nearest town or post office\*

Approximately thirty two (32) miles northeast of Roswell, New Mexico

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any)

990'

16. No. of Acres in lease

1000

17. Spacing Unit dedicated to this well

W/2

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

1320'

19. Proposed Depth

5,270

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3735'

22. Approximate date work will start\*

ASAP

23. Estimated duration

30 Days

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 office.

25. Signature

Debbie S. Caffall

Name (Printed/Typed)

Debbie Caffall

Date

7/17/2006

Regulatory Agent/Land Department

Approved by (Signature)

/S/LARRY D. BRAY

Name (Printed/Typed)

/S/LARRY D. BRAY

Date

SEP 27 2006

Title

Assistant Field Manager,  
Lands And Minerals

Office

ROSWELL FIELD OFFICE

APPROVED FOR 1 YEAR

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subj  
operations thereon.

Conditions of approval, if any, are attached.

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  
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on reverse)

C-144 attached

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS ATTACHED

ROSWELL CONTROLLED WATER BASIN

WITNESS

If earthen pits are used in  
association with the drilling of this  
well, an OCD pit permit must be  
obtained prior to pit construction.

R-12565

DISTRICT I  
1635 N. French Dr., Hobbs, NM 88240

DISTRICT II  
511 South First, Artesia, NM 88210

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999  
Instruction on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 97189	Pool Name Pecos Slope - Pennsylvanian
Property Code	Property Name GEORGE "Q" FEDERAL COM.	Well Number 13
OGED No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3735

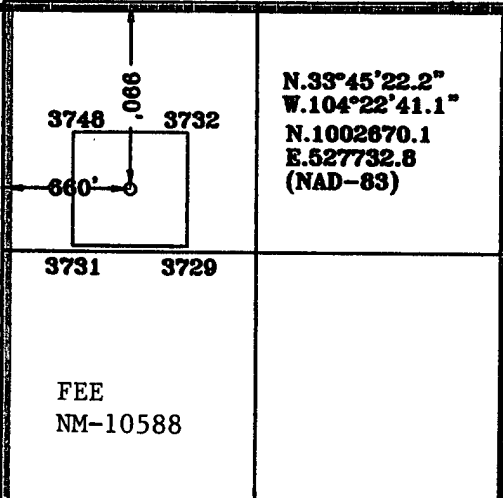
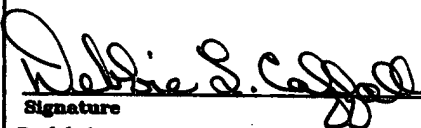

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	35	6S	25E		990	NORTH	660	WEST	CHAVES

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 320	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

				<b>OPERATOR CERTIFICATION</b> <i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Debbie L. Caffall Printed Name Regulatory Agent Title 7/17/2006 Date
				<b>SURVEYOR CERTIFICATION</b> <i>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.</i> 7/03/2006 Date Surveyed  Signature & Seal of Professional Surveyor HERSCHEE L. JONES NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR No. 2840 Commission Expires 12/31/2007 Certification No. 13 GENERAL SURVEYING COMPANY

0 330' 660' 990' 1650' 1980' 2310' 2310' 1980' 1650' 990' 660' 330' 0'

**YATES PETROLEUM CORPORATION**  
**George "QJ" Federal Com. #13**  
990' FNL and 660' FWL  
Section 35,-T6S-R25E  
Chaves County, New Mexico

1. The estimated tops of geologic markers are as follows:

San Andres	455'
Glorieta	1385'
Yeso	1500'
Tubb	2935'
Abo	3570'
Wolfcamp	4375'
WC B Zone	4465'
Spear Zone	4610'
Cisco	4865'
Strawn	5015'
Precambrian	5120'
TD	5270'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 150'-200'  
Oil or Gas: All potential zones.

3. Pressure Control Equipment: 3000 psi BOP nipped up on 8 5/8" casing. If 8 5/8" casing is not run, then 3K system will be nipped up on 11 3/4" casing. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

**Auxiliary Equipment:**

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

4. THE PROPOSED CASING AND CEMENTING PROGRAM:

- A. Casing Program: (All New)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>
14 3/4	11 3/4"	42#	H-40	ST&C	0-900'
11	8 5/8"	24#	J-55	ST&C	0-1600'
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-5270'

1. Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Tensile Strength 1.8

## A. CEMENTING PROGRAM:

Surface Casing: 250 sx Lite "C" (YLD 2.10 WT 12.6). Tail in with 200 sx "C"  
+ 2% CaCl<sub>2</sub> (YLD 1.32 WT 14.8).

INTERMEDIATE CASING WILL ONLY BE RUN IF LOST CIRCULATION IS ENCOUNTERED.  
Intermediate Casing: 375 sx class C +2% CaCl<sub>2</sub> (YLD 1.32 WT 14.8)

Production Casing: 250 sx LiteCrete (YLD 2.92 WT 9.82). Tail in with 550 sx Pecos Valley  
Lite (YLD 1.41 WT 13.0)

## 5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-900'	FW GEL	8.60 – 9.0	32-34	N/C
900'-1600'	Fresh Water	8.40 – 8.40	28	N/C
1600'-3500'	Brine Water	10.00 – 10.00	28	N/C
3500'-5270'	Salt Gel/Starch/4-6% KCL	9.60 – 9.90	45-55	<6/cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

## 6. EVALUATION PROGRAM:

Samples: 10' samples –Surface casing to TD.

Logging: Sch: Platform Express; CNL/LDT/NGT from TD to surface casing  
CNL/GR from TD to surface. DLL-MSFL from TD to surface casing. BHC-Sonic from TD  
to surface casing.

Coring: None Anticipated

DST's: None Anticipated

Mudlogging: Anticipated

## 7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Anticipated BHP:

From: 0	TO: 900'	Anticipated Max. BHP: 420 PSI
From: 900'	TO: 1600'	Anticipated Max. BHP: 700 PSI
From: 1600'	TO: 5270'	Anticipated Max. BHP: 2715 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H<sub>2</sub>S Zones Anticipated: None Anticipated

Maximum Bottom Hole Temperature: 110 F

## 8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 25 days to drill the well with completion taking another 20 days.

## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**George "QJ" Federal Com. #13**

990' FNL and 660' FWL

Section 35,-T6S-R25E

Chaves County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

### **1. EXISTING ROADS:**

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 32 miles northeast of Roswell, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

### **DIRECTIONS:**

Go north of Roswell on Highway 285 for approx. 21.1 miles to Cottonwood Road. Turn right (east) and follow road approx. 11 miles, turn right (east) and cross cattle guard and travel on existing road for approximately 1500 feet. Turn left (west) the new access road will start and continue approximately 1290 feet to the southwest corner of the pad.

### **2. PLANNED ACCESS ROAD:**

- A. The proposed new access will be approximately 1290' in length from the point of origin to the southwest corner of the drilling pad. The road will lie in a west to east direction.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
- C. Existing roads will be maintained in the same or better condition.

### **3. LOCATION OF EXISTING WELL:**

- A. There is drilling activity within a one-mile radius of the wellsite.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

### **4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:**

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

RECEIVED  
SEP 22 11 8:45  
M 8:45

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate nearest pit and obtain any permits and materials needed for construction.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill. Burial on site is not approved.

8. ANCILLARY FACILITIES: NONE

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.

11. SURFACE OWNERSHIP: Marie Joyce Haumont  
1265 Cottonwood Road  
Roswell, NM 88201

An agreement will be reached concerning surface use in the drilling of this well.

Minerals Ownership: Bureau of Land Management  
Roswell, New Mexico.

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.  
B. The primary surface use is for grazing.

13. OPERATOR'S REPRESENTATIVE:

- |   |   |
|---|---|
| A. Through A.P.D. Approval:<br>Debbie L. Caffall, Regulatory Agent<br>Yates Petroleum Corporation<br>105 South Fourth Street<br>Artesia, New Mexico 88210<br>Phone (505) 748-1471 | B. Through Drilling, Completions & Prod.<br>Pinson McWhorter, Operations Manager<br>Yates Petroleum Corporation<br>105 South Fourth Street<br>Artesia, New Mexico 88210<br>Phone (505) 748-1471 |
|---|---|

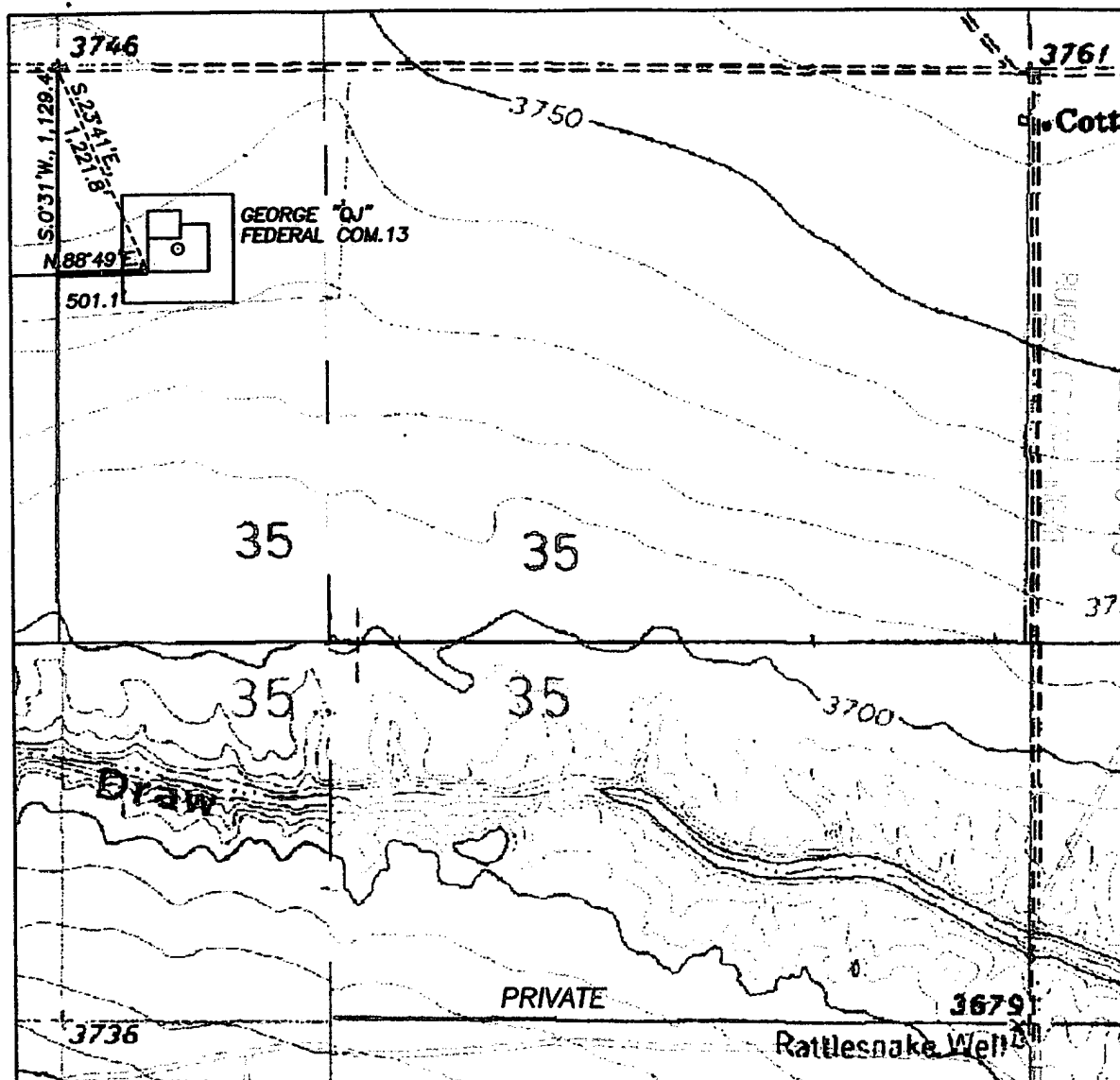
14. CERTIFICATION:

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 presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and , that the work associated with the operations proposed herein will be performed by Yates Petroleum Corporation 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 18 U.S.C. 1001 for the filing of a false statement.

07/17/2006

  
Regulatory Agent

SECTION 35, TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM, CHAVES COUNTY, NEW MEXICO.



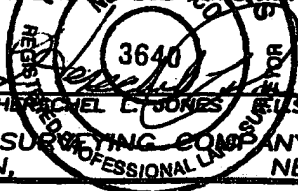
DESCRIPTION:

A LEASE ROAD RIGHT OF WAY 30 FEET WIDE, BEING 15 FEET TO THE LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE AS SHOWN IN RED ON THIS PLAT.

BEGINNING AT A POINT LOCATED S.0°31'W., 1,129.4 FEET DISTANT FROM THE NORTHWEST CORNER OF SECTION 35, TOWNSHIP 8 SOUTH, RANGE 25 EAST, NMPM, CHAVES COUNTY, NEW MEXICO; THENCE N.88°49'E., 501.1 FEET TO A POINT LOCATED S.23°41'E., 1,221.8 FEET DISTANT FROM THE NORTHWEST CORNER OF SAID SECTION 35.

501.1 FEET = 30.3697 RODS, MORE OR LESS.

THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.



GENERAL SURVEYING COMPANY P.O. BOX 1928  
LOVINGTON, NEW MEXICO 88260

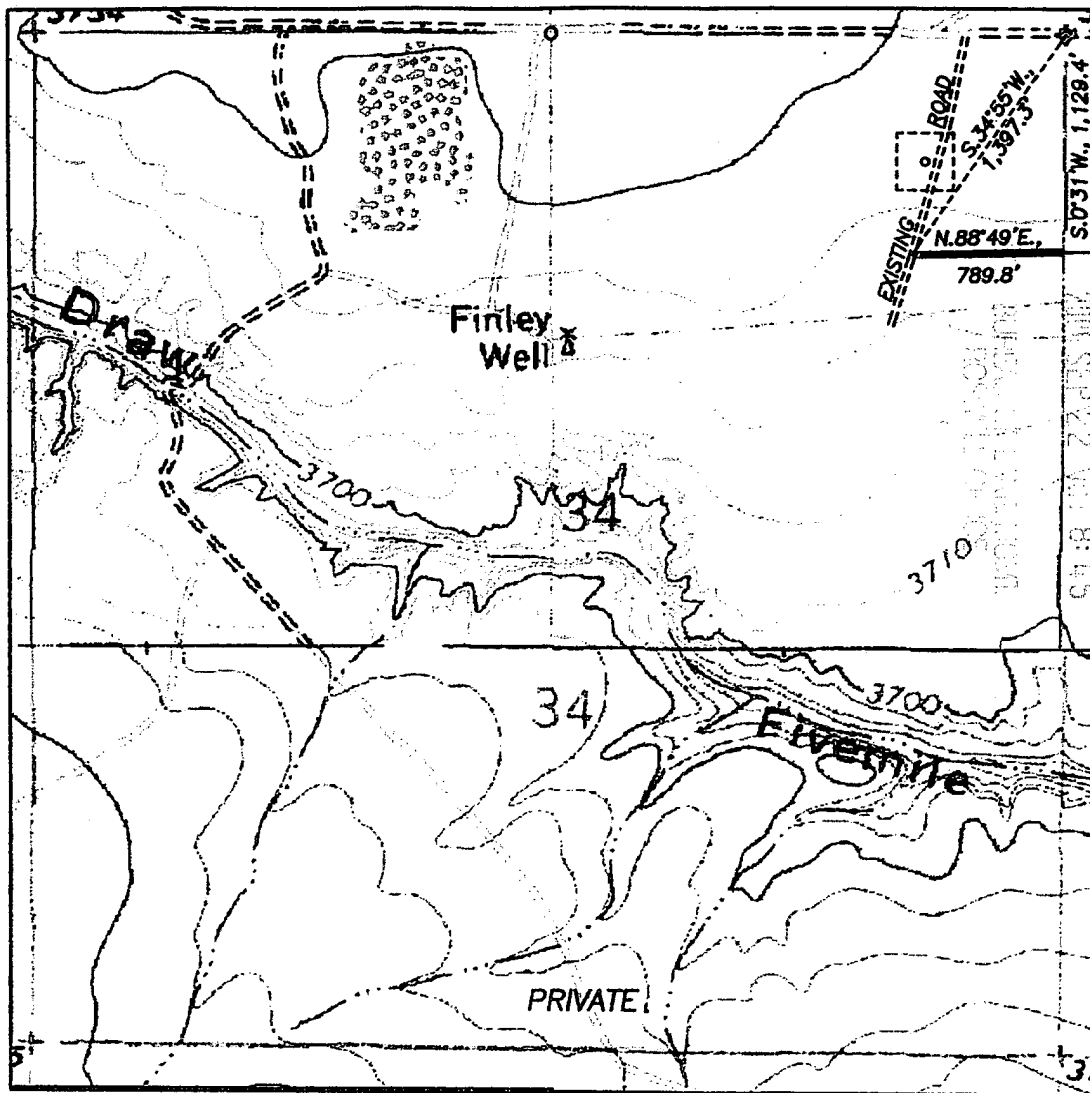
YATES PETROLEUM CORP.

LEASE ROAD TO ACCESS THE YATES GEORGE "QJ" FEDERAL COM. #13 WELL, LOCATED IN SECTION 35, TOWNSHIP 8 SOUTH, RANGE 25 EAST, NMPM, CHAVES COUNTY, NEW MEXICO.

Survey Date: 6/29/2006	Sheet 2 of 2 Sheets
Drawn By: Ed Blewins	W.O. Number
Date: 6/29/06	Scale 1" = 1000' GEORGE 13



SECTION 35, TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM, CHAVES COUNTY, NEW MEXICO.



**DESCRIPTION:**

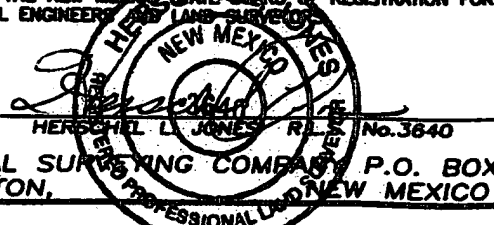
A LEASE ROAD RIGHT OF WAY 30 FEET WIDE, BEING 15 FEET TO THE LEFT AND RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE AS SHOWN IN RED ON THIS PLAT.

BEGINNING AT A POINT LOCATED S.34°55'W., 1,397.3 FEET DISTANT FROM THE NORTHEAST CORNER OF SECTION 34, TOWNSHIP 8 SOUTH, RANGE 25 EAST, NMPM, CHAVES COUNTY, NEW MEXICO; THENCE N.88°49'E., 789.8 FEET TO A POINT LOCATED S.0°31'W., 1,129.4 FEET DISTANT FROM THE NORTHEAST CORNER OF SAID SECTION 34.

789.8 FEET = 47.8667 RODS, MORE OR LESS.

1000' 0 1000' 2000'  
Scale 1" = 1000'

THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

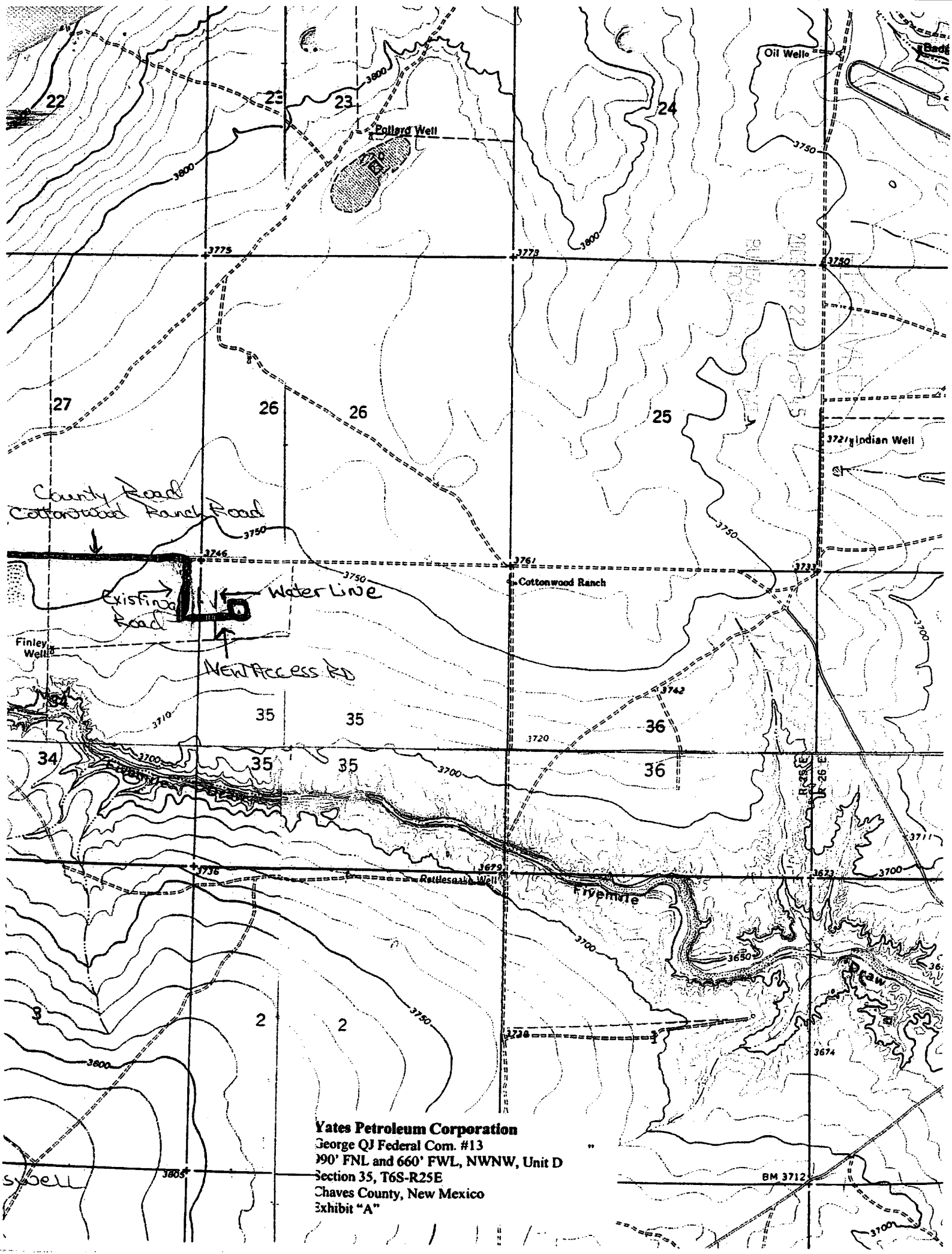


**YATES PETROLEUM CORP.**

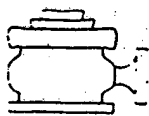
LEASE ROAD TO ACCESS THE YATES GEORGE "QJ" FEDERAL COM. #13 WELL, LOCATED IN SECTION 35, TOWNSHIP 6 SOUTH, RANGE 25 EAST, NMPM, CHAVES COUNTY, NEW MEXICO.

Survey Date: 6/29/2006	Sheet 1 of 2 Sheets
Drawn By: Ed Blodins	W.O. Number
Date: 6/29/06	Scale 1" = 1000' GEORGE 13

GENERAL SURVEYING COMPANY, P.O. BOX 1928  
LOVINGTON, NEW MEXICO 88260



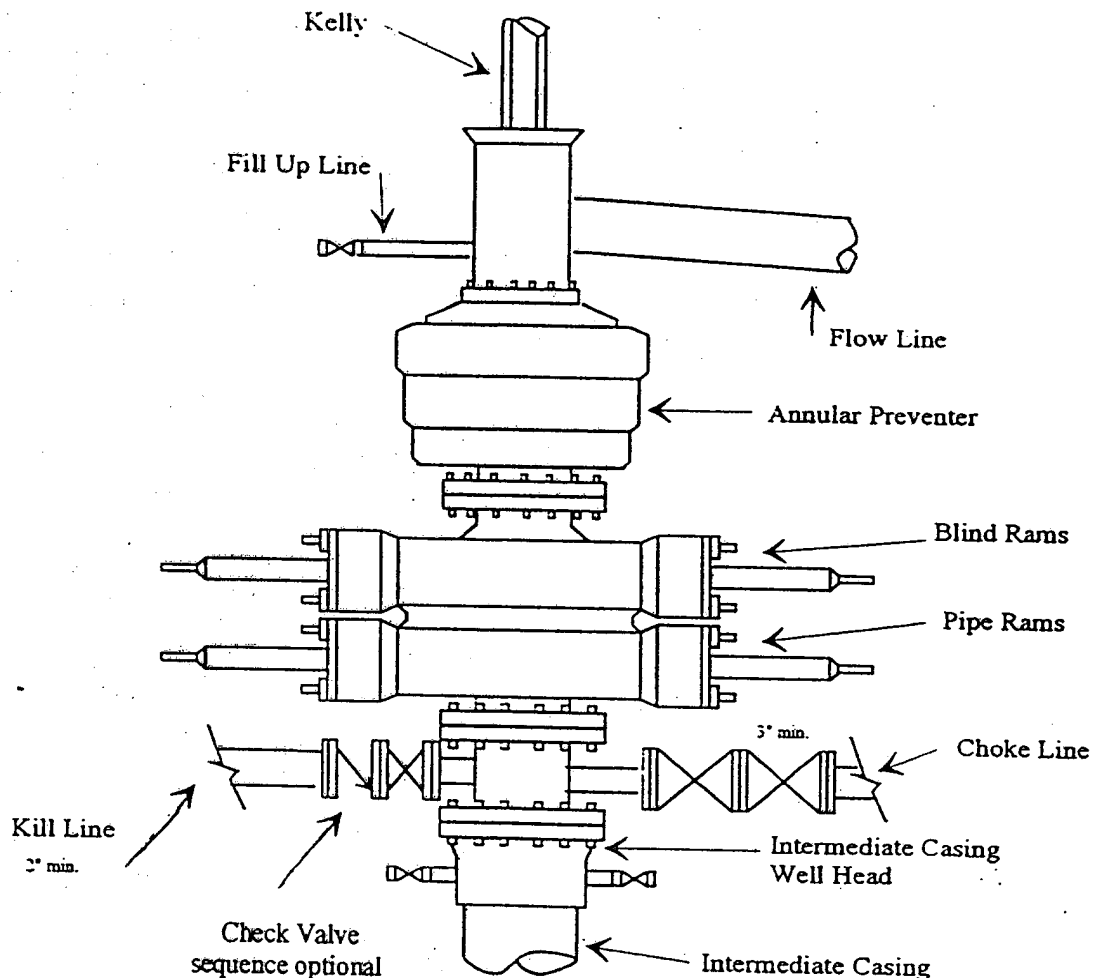
**Yates Petroleum Corporation**  
George QJ Federal Com. #13  
390' FNL and 660' FWL, NWNW, Unit D  
Section 35, T6S-R25E  
Chaves County, New Mexico  
Exhibit "A"



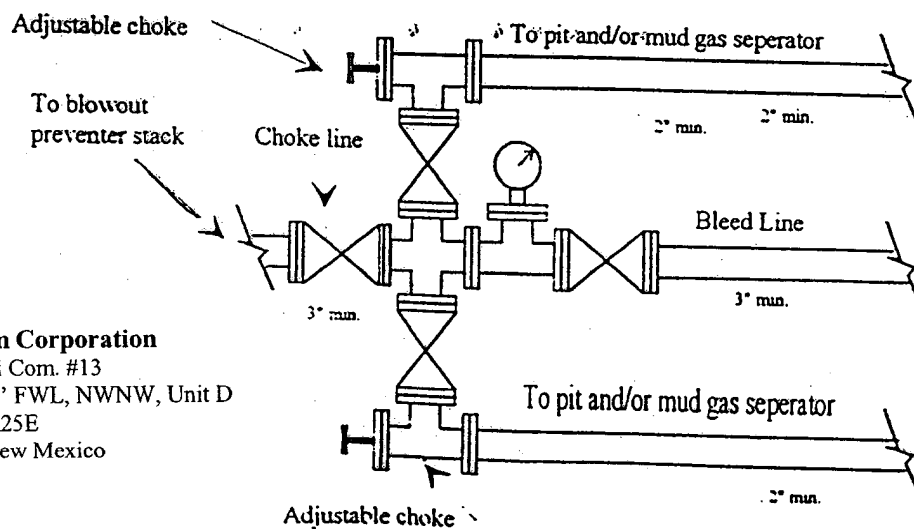
# Yates Petroleum Corporation

BOP-3

## Typical 3,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



## Typical 3,000 psi choke manifold assembly with at least these minimum features



**Yates Petroleum Corporation**  
George QJ Federal Com. #13  
990' FNL and 660' FWL, NWNW, Unit D  
Section 35, T6S-R25E  
Chaves County, New Mexico  
Exhibit "B"



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
Roswell Field Office  
2909 West Second Street  
Roswell, New Mexico 88201

## EXHIBIT B

### WELL DRILLING REQUIREMENTS

1 of 5 pages

OPERATORS NAME: Yates Petroleum Corporation LEASE NO.: NM-10588  
WELL NAME & NO: George "QJ" Federal Com. #13  
QUARTER/QUARTER & FOOTAGE: NW¼NW¼ - 990' FNL & 660' FWL  
LOCATION: Section 35, T. 6 S., R. 25 E., NMPM  
COUNTY: Chaves County, New Mexico

#### I. GENERAL PROVISIONS:

- A. The operator has the right of administrative review of these requirements pursuant to 43 CFR 3165.1(a).
- B. The operator shall hereafter be identified as the holder in these requirements. The Authorized Officer is the person who approves the Well Drilling Requirements.

#### II. WELL PAD CONSTRUCTION REQUIREMENTS:

- A. The BLM shall administer compliance and monitor construction of the access road and well pad. Notify Richard G. Hill at least 3 working days (72 Hours) prior to commencing construction of the access road and/or well pad. Roswell Field Office number (505) 627-0247.
- B. Prior to commencing construction of the access road, well pad, or other associated developments, the holder shall provide the dirt contractor with a copy of the approved APD signature page, a copy of the location map (EXHIBIT A), a copy of pages 1 & 2 from the Well Drilling Requirements (EXHIBIT B), and a copy of the Permanent Resource Road Requirements (EXHIBIT D).
- C. The holder shall stockpile the topsoil from the surface of the well pad. The topsoil on the George "QJ" Federal Com. #13 well pad is approximate 6 inches in depth. Approximately 800 cubic yards of topsoil shall be stockpiled on the Southeast corner of the well pad, opposite the reserve pit.
- D. **Reserve Pit Requirements:**
1. The reserve pit shall be constructed 175' X 150' on the **North** side of the well pad.
  2. The reserve pit shall be constructed to a minimum depth of four (4) feet below ground level. The reserve pit shall be constructed, so that the cuttings in the reserve pit can be buried a minimum depth of three (3) feet below ground level. **See Exhibit E – Surface Reclamation/Restoration Requirements.**
  3. A synthetic or fabricated liner 12 mil in thickness shall be used to line the reserve pit. The liner shall meet ASTM standards that are designed to be resistant to the reserve pit contents.

## WELL DRILLING REQUIREMENTS

2 of 5 pages

4. The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.
5. The reserve pit shall be constructed so as not to leak, break, or allow discharge of drilling muds. Under no circumstances will the reserve pit be cut to drain drilling muds on the well location.
6. The reserve pit shall not be located in any natural drainage.
7. The reserve pit shall be equipped to deter entry by birds, bats, other wildlife, and livestock, if the reserve pit contains any oil and/or toxic fluids.
8. Drilling muds shall be properly disposed of before the reserve pit is reclaimed. Drilling muds can be allowed to evaporate in the reserve pit or be removed and transported to an authorized disposal site. The reserve pit shall be backfilled when dry.
9. Dumping of junk or trash into the reserve pit is not allowed. Junk or trash shall be removed from within the reserve pit before the reserve pit is reclaimed. **Junk or trash shall not be buried in the reserve pit.**

### **E. Federal Mineral Materials Pit Requirements:**

1. Caliche, gravel, or other related materials from new or existing pits on Federal mineral estate shall not be taken without prior approval from the authorized officer. Contact Jerry Dutchover at (505) 627 -0236.
2. Payment for any Federal mineral materials that will be used to surface the access road and the well pad is required prior to removal of the mineral materials.
3. Mineral Materials extracted during construction of the reserve pit may be used for development of the pad and access road as needed, for the George "QJ" Federal Com. #13 gas well only. Removal of any additional material on location must be purchased from BLM prior to removal of any material.
  - a. An optional mineral material pit may be constructed within the archaeologically cleared area. The mineral material removed in the process can be used for pad and access road construction. However, a mineral material sales contract must be purchased from the BLM prior to removal of any material.

### **F. Well Pad Surfacing Requirement:**

The well pad shall be surfaced with 6 inches of compacted caliche, gravel, or other approved surfacing material. The well pad shall be surfaced prior to drilling operations. **See Permanent Resource Road Requirements - EXHIBIT D - requirement #4, for road surfacing.**

### **G. Cave Requirements:**

1. If, during any construction activities any sinkholes or cave openings are discovered, all construction activities shall immediately cease. Contact Larry Bray at (505) 627-0250.
2. The BLM Authorized Officer will, within 24 hours of notification in "A" above, conduct an on-the-ground field inspection for karst. At the field inspection the authorized field inspector will authorize or suggest mitigating measures to lessen the damage to the karst environment. A verbal order to proceed or stop the operation will be issued at that time.

**III. WELL SUBSURFACE REQUIREMENTS:****A. GENERAL DRILLING REQUIREMENTS:**

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second Street, Roswell, NM 88201, (505) 627-0270 for wells in Chaves County in sufficient time for a representative to witness:

A. Well spud B. Cementing casing: 11-3/4 inch 8-5/8 inch (if set) 5-1/2 inch C. BOP tests

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. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

**B. CASING:**

1. The 11-3/4 inch surface casing shall be set at approximately 900 feet and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing (if set) is be circulated to the surface.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is to reach at least 500 feet above the top of the uppermost hydrocarbon productive interval.

**C. PRESSURE CONTROL:**

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 11-3/4 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

**D. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

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

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING:**

**CASE NO. 13706  
ORDER NO. R-12565**

**APPLICATION OF YATES PETROLEUM CORPORATION FOR APPROVAL  
OF A PILOT PROJECT INCLUDING AN EXCEPTION FROM RULE NO. (4)  
OF THE SPECIAL RULES AND REGULATIONS FOR THE PECOS SLOPE-  
PENNSYLVANIAN POOL FOR PURPOSES OF ESTABLISHING A PROGRAM  
TO DETERMINE PROPER WELL DENSITY AND WELL LOCATION  
REQUIREMENTS IN PENNSYLVANIAN WELLS, CHAVES COUNTY, NEW  
MEXICO.**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on May 11, 2006, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 31<sup>st</sup> day of May, 2006, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

**FINDS THAT:**

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) By Order No. R-1 1721 issued in Case No. 12751 on February 6, 2002, the Division, upon the application of Yates Petroleum Corporation, created the Pecos Slope-Pennsylvanian Pool. The pool initially comprised the W/2 of Section 26, Township 6 South, Range 25 East, NMPM, Chaves County, New Mexico. This order also promulgated special rules and regulations for this oil pool, described in part, as follows:

- (a) Rule No. (2) requires 320-acre spacing and proration units;

- (b) Rule No. (4) designates well location requirements such that the initial and infill well on a unit shall be located no closer than 660 feet to the outer boundary of the quarter section on which the well is located, and no closer than 10 feet to any governmental quarter-quarter section line or subdivision inner boundary;
- (c) Rule No. (4) also provides for a well density limit of two wells per unit, provided that the infill well within the unit shall be located within the quarter section not containing the parent well; and
- (d) Rule No. (6) provides for an oil allowable of 694 barrels of oil per day/unit.

(3) The applicant, Yates Petroleum Corporation ("Yates"), seeks an exception to Rule No. (4) of the "*Special Rules and Regulations for the Pecos Slope-Pennsylvanian Pool*", to allow it to drill its proposed George "QJ" Federal Well No. 12 at a location 990 feet from the South line and 660 feet from the West line (Unit M) of Section 26, Township 6 South, Range 25 East, NMPM, and its proposed George "QJ" Federal Com Well No. 13 at a location 990 feet from the North line and 660 feet from the West line (Unit D) of Section 35, Township 6 South, Range 25 East, NMPM.

(4) The George "QJ" Federal Well No. 12 will be dedicated to an existing 320-acre spacing and proration unit comprising the W/2 of Section 26. This unit is currently dedicated to Yates' George "QJ" Federal Well No. 10 (API No. 30-005-63368) located in Unit N. The George "QJ" Federal Com Well No. 13 will be dedicated to an existing 320-acre spacing and proration unit comprising the W/2 of Section 35. This unit is currently dedicated to Yates' George "QJ" Federal Com Well No. 9 (API No. 30-005-63098) located in Unit C.

(5) The Pecos Slope-Pennsylvanian Pool currently comprises the W/2 of Section 26, the S/2 and NW/4 of Section 27 and the W/2 of Section 35, Township 6 South, Range 25 East, NMPM.

(6) There are currently only four wells producing from the pool, the aforesaid George "QJ" Federal Com Well No. 9 and George "QJ" Federal Well No. 10, the Yates George "QJ" Federal Well No. 2Y located in Unit P of Section 27, and the Yates Powers "OL" Deep Federal Well No 6 located in Unit K of Section 27.

- (7) Yates currently owns or controls all of the acreage within the pool.
- (8) Yates presented geologic evidence that demonstrates that:



- (a) the limits of this reservoir have reasonably been defined by drilling;
  - (b) this Cisco reservoir encompasses an area of approximately 500 acres, and comprises portions of the S/2 of Section 26, the N/2 of Section 35, the S/2 of Section 27 and the N/2 of Section 34. The reservoir trends northwest to southeast, and there is a gas cap present in the up-dip northwest area of the structure; and
  - (c) pressure and well performance data suggests that a porosity barrier exists and separates this reservoir into two separate and distinct producing areas.
- (9) Yates presented engineering evidence that demonstrates that:
- (a) the four wells producing from the pool have cumulatively produced approximately 394,000 barrels of oil and 0.87 BCF of gas; and
  - (b) ultimate recovery from the pool by primary means is estimated to be 450,000 barrels of oil and 1.0 BCF of gas.
- (10) Yates proposes to drill the George "QJ" Federal Wells. No. 12 and 13 to gather additional reservoir data, to produce remaining reserves that may be present at these well locations, and to ultimately utilize these wells as producing wells within a secondary recovery project that may be implemented in the near future.
- (11) Yates estimates that implementing possible secondary recovery operations within this Cisco reservoir may result in the recovery of an additional 300,000 barrels of oil that may otherwise not be recovered.
- (12) There are no interest owners and/or offset operators that will be adversely affected by the approval of this application.
- (13) Approval of the application will afford Yates the opportunity to recover additional oil reserves from the Cisco reservoir, both by primary and possible secondary recovery methods, thereby preventing waste, and will not violate correlative rights.

**IT IS THEREFORE ORDERED THAT:**

- (1) As an exception to the requirements of Rule No. (4) of the "*Special Rules and Regulations for the Pecos Slope-Pennsylvanian Pool*", the applicant, Yates Petroleum Corporation, is hereby authorized to drill its George "QJ" Federal Well No. 12

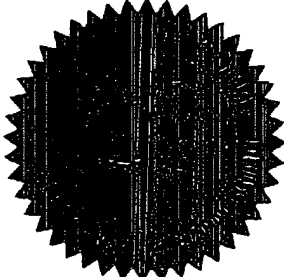
at a location 990 feet from the South line and 660 feet from the West line (Unit M) of Section 26, and its George "QJ" Federal Com Well No. 13 at a location 990 feet from the North line and 660 feet from the West line (Unit D) of Section 35, both in Township 6 South, Range 25 East, NMPM, Chaves County, New Mexico to test the Pecos Slope-Pennsylvanian Pool.

(2) The George "QJ" Federal Well No. 12 shall be dedicated to an existing 320-acre spacing and proration unit comprising the W/2 of Section 26 that is currently dedicated to Yates' George "QJ" Federal Well No. 10 (API No. 30-005-63368) located in Unit N.

(3) The George "QJ" Federal Com Well No. 13 shall be dedicated to an existing 320-acre spacing and proration unit comprising the W/2 of Section 35 that is currently dedicated to Yates' George "QJ" Federal Com Well No. 9 (API No. 30-005-63098) located in Unit C,

(4) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.  
Director