

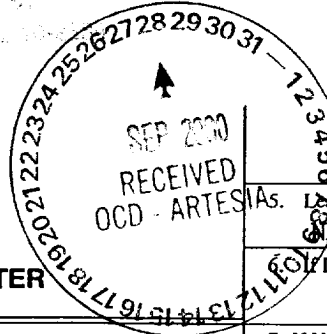
N. M. Oil Cons. Division

ARTESIA FIELD OFFICE

Form 3160-3
(August 1999)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER



FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No. <u>19226</u>	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. Engwall RL Federal #4	
2. Name of Operator Yates Petroleum Corporation <u>25575</u>		9. API Well No. <u>30-005-63284</u>	
3a. Address 105 South Fourth Street, Artesia,		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 1980' FSL & 1650' FEL At proposed prod. zone 1980' FSL & 1650' FEL <u>Unit J</u>		10. Field and Pool, or Exploratory Wildcat Precambrian	
14. Distance in miles and direction from nearest town or post office* <u>approximately 18 miles east of Roswell, New Mexico</u>		11. Sec., T., R., M., or Blk. and Survey or Area Section 4-T9S-R26E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <u>1000'</u>		12. County or Parish Chaves	
16. No. of Acres in lease <u>320.44</u>		13. State NM	
17. Spacing Unit dedicated to this well <u>E/2</u>		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <u>1800'</u>	
19. Proposed Depth <u>6410'</u>		20. BLM/BIA Bond No. on file <u>585997</u>	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <u>3856' GL</u>		22. Approximate date work will start* <u>As soon as approved</u>	
23. Estimated duration <u>30 days</u>		24. Attachments	

ROSWell 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. | 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) Cy Cowan	Date May 8, 2000
Title Regulatory Agent		
Approved by (Signature) <u>/S/LARRY D. BRAY</u>	Name (Printed/Typed)	Date
Title Assistant Field Manager, Lands And Minerals	Office ROSWell FIELD OFFICE	SEP 27 2000 APPROVED FOR 1 YEAR

Application approval does not warrant or certify the 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.

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 reverse)

Notify OCD at SPUD & TIME
to witness cementing the
8 5/8" casing.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
SPECIAL STIPULATIONS
ATTACHED

WITNESS

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

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

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	Pool Name Wildcat Percambrian
Property Code	Property Name ENGWALL "RL" FEDERAL	Well Number 4
OGED No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3856

Surface Location

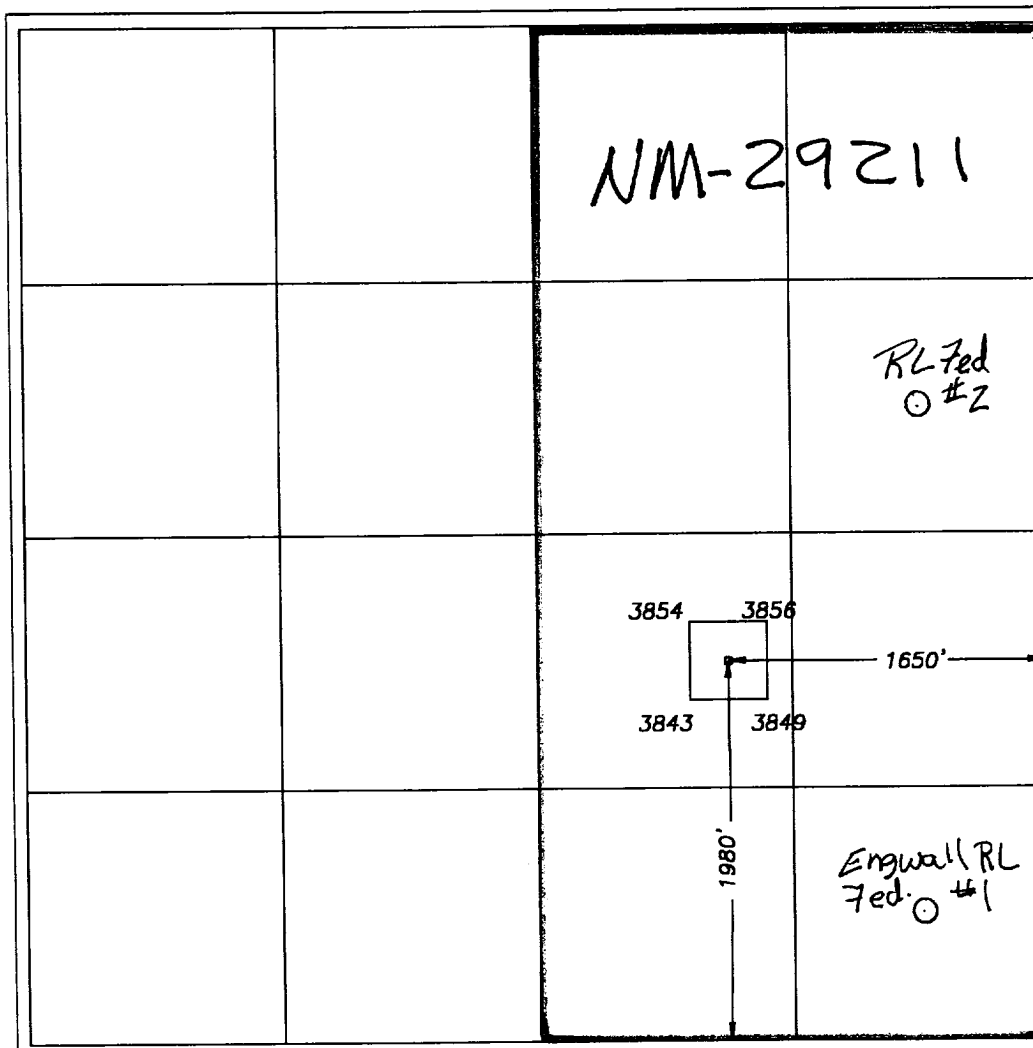

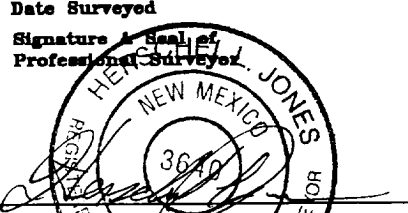
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	4	9S	26E		1980	SOUTH	1650	EAST	CHAVES

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	Joint or Infill	Consolidation Code	Order No.
320			

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 that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Cy Cowan Printed Name Regulatory Agent Title 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 supervision, and that the same is true and correct to the best of my belief. 4/18/2000 Date Surveyed Signature & Seal of Professional Surveyor  Certificate No. Herschel L. Jones RLS 3640 ENGWALL 4A DISK 26 GENERAL SURVEYING COMPANY

**YATES PETROLEUM CORPORATION
ENGWALL RL FEDERAL #4
1980' FSL AND 1650' FEL
Sec. 4-T9S-R26E
Chaves County, New Mexico**

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

San Andres	1000'	Cisco	5685'
Glorieta	2110'	Penn Clastics	5813'
Yeso	2210'	Mississippian	6020'
Tubb	3635'	Ordovician	6085'
Abo	4410'	Basement Granite	6310'
Wolfcamp	5085'	TD	6410'

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

Water: 150'-300'
Oil or Gas: 4410' to 6410'

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 2000# BOP systems will be consistent with API RP 53. 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</u>	<u>Size Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
12 3/4"	8 5/8"	24#	J55	ST&C	0-1100'	1100'
7 7/8"	5 1/2"	15.5#	J55	ST&C	0-6410'	6410'

WITNESS

1. A 2,000 psi BOP will be nipped up on the 8 5/8" casing and tested to 500 psi. Yates Petroleum Corporation requests a variance be granted in requiring the casing and BOPE to tested to 2000 psi to testing the casing and BOPE to 500 psi. The rig pumps will be used to test the casing and BOPE. Rig pumps used in this area cannot safely test above 500 psi. We would have to go to the greater expense of hiring an independent service company to do the testing. Also, the bottom hole pressure in this field is proven to be near 500 psi due to depletion. A shut in surface pressure would be less than 500 psi. The Abo formation usually requires stimulation before it flows. We feel that a 500 psi test will demonstrate that the BOPE is functioning properly, and in the unlikely event of gas influx that the BOPE would be sufficient to control the well.

B. CEMENTING PROGRAM:

Surface casing: Cement with 250 sx Lite "C" (Yield 2.0, Wt. 12.5). Tail in with 200 sx "C" + 2% CaCl₂ (Yield 1.33, wt. 15.6).

Production Casing: TOC 3900' Cement with 350 sx "C" with 8# Silica Lite 5# Salt (Yield 1.67 Wt 13).

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
Spud - 1100'	FWGel/Paper/LCM	8.6-9.6	32-36	N/C
1100' - 4400'	Brine	10-10.2	28	N/C
4400' to TD	MF-55/Starch/Salt Gel	9.6-10.2	32-40	<10cc

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 out from surface casing to TD.

Logging: Platform Express: CNL/LDT w/NGT TD to surface casing; CNL/GR up to surface; DLL/MSFL TD to surface casing; Sonic TD to surface casing.

Coring: Possible sidewall coring.

DST's: Possible.

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

From: 0	To: 1100'	Anticipated Max. BHP:	400 PSI
From: 1100'	To: TD	Anticipated Max. BHP:	1100 PSI

Abnormal Pressures Anticipated: None

Lost Circulation zones anticipated: None

H₂S Zones Anticipated: None

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 15 days to drill the well with completion taking another 15 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Engwall RL Federal #4
1980' FSL and 1650' FEL
Sec. 4-T9S-R26E
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 18 miles east of Roswell, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go east of Roswell on Highway 70 to the Acme School House. Turn right on (south) on Magdalena Road and go approximately 4.5 miles. Just past the windmill turn northeast and go approximately 1.9 miles on main lease road. At this point turn west and go approximately 1200' on the lease road to the Engwall RL Federal #1. The new road will start here going northwest.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately 1900' in length from the point of origin to the southwest corner of the drilling pad. The road will lie in a(n) southeast/northwest 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. The new road will be bladed with drainage on both sides. Traffic turnouts may be built.
- D. The route of the road is visible.
- E. 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.

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:

The dirt contractor will be responsible for finding any surfacing materials needed and will obtain any permits that may be 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 400' x 400' area has been staked and flagged.
- D. Pad will be rotated with the pits to the south.

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: Federal surface administered by 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:

Cy Cowan, Regulatory Agent
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471

B. Through Drilling Operations,
Completions and Production:

Brian Collins, Operations Manager
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471

14. CERTIFICATION:

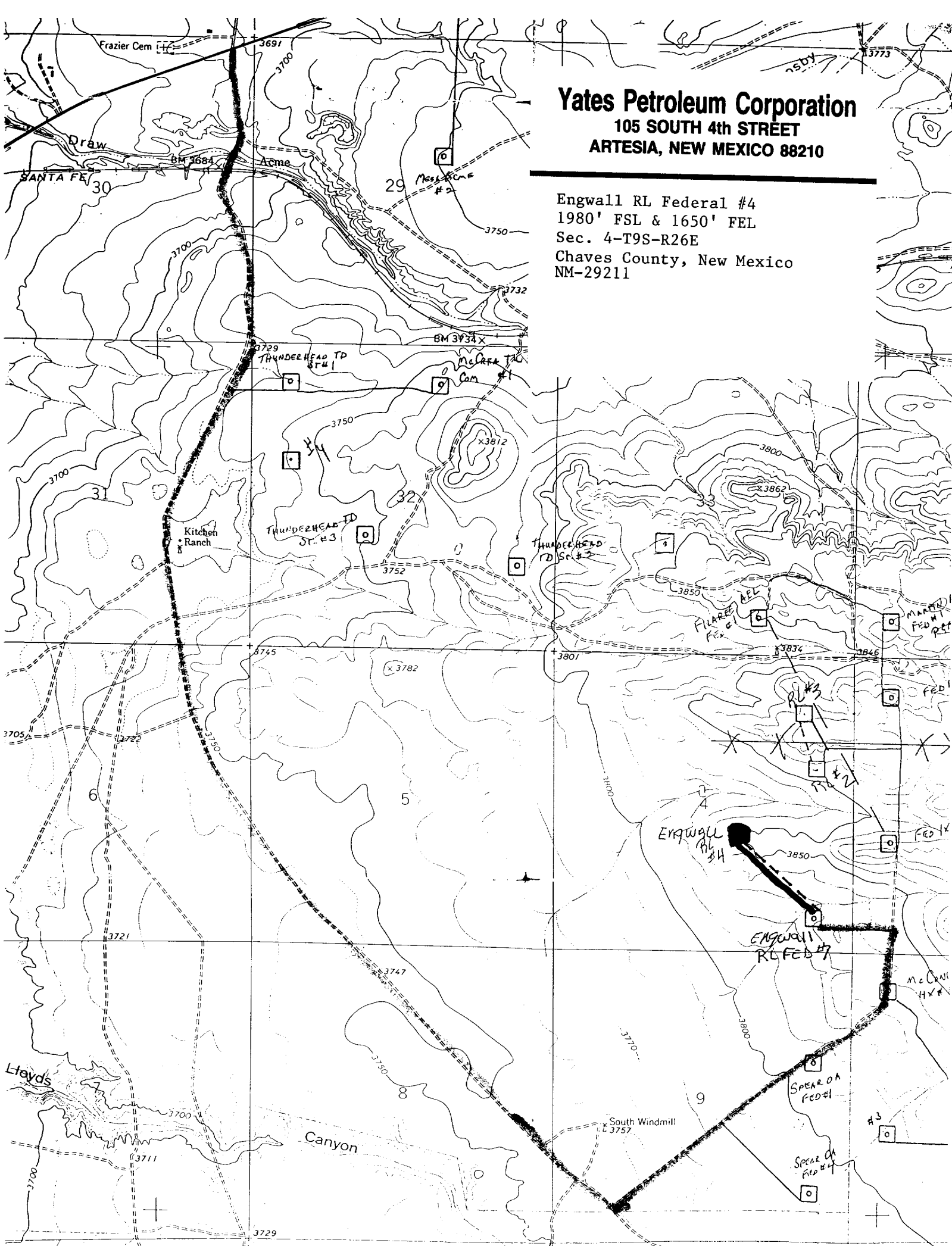
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and , that the work associated 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.

5/04/00


Regulatory Agent

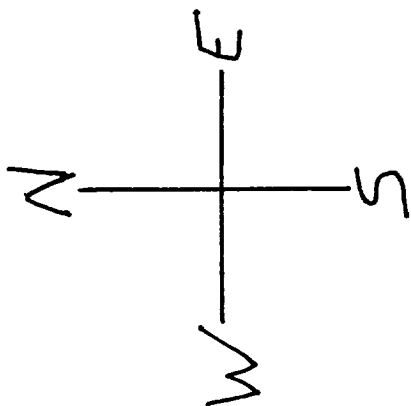
Yates Petroleum Corporation
105 SOUTH 4th STREET
ARTESIA, NEW MEXICO 88210

Engwall RL Federal #4
1980' FSL & 1650' FEL
Sec. 4-T9S-R26E
Chaves County, New Mexico
NM-29211

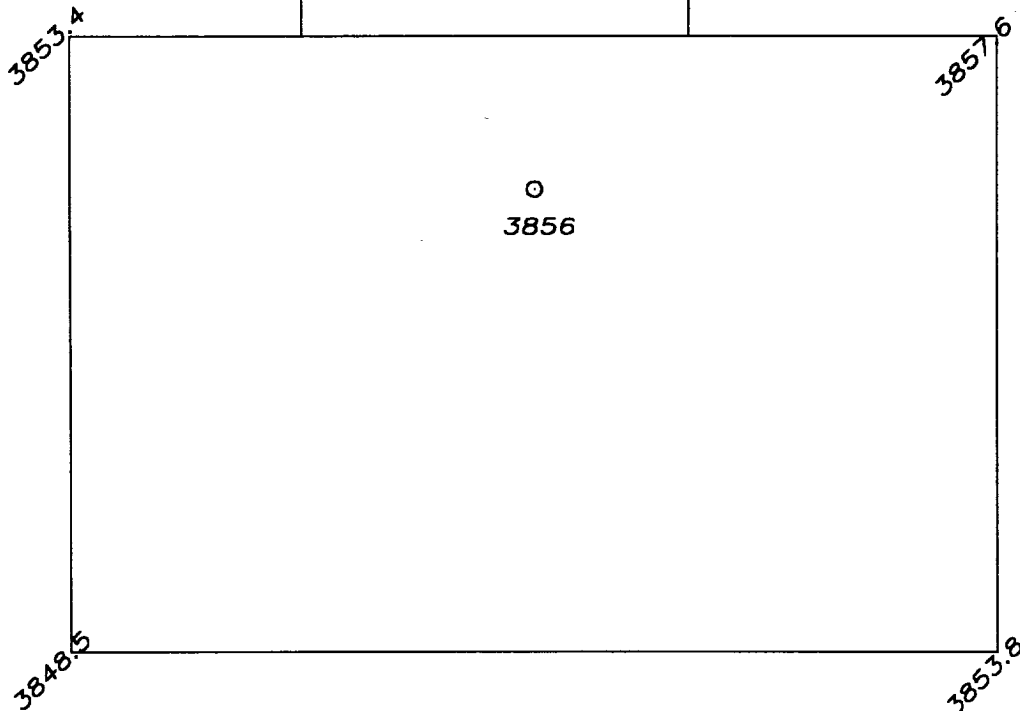


YATES PETROLEUM CORPORATION ENGWALL "RL" FED. #4, 1980/S & 1650/E
SECTION 4, TOWNSHIP 9 SOUTH, RANGE 26 EAST, NMPM, CHAVES COUNTY, NEW MEXICO.

Yates Petroleum Corporation
105 SOUTH 4th STREET
ARTESIA, NEW MEXICO 88210



Engwall RL Federal #4
1980' FSL & 1650' FEL
Sec. 4-T9S-R26E
Chaves County, New Mexico
NM-29211



50' 0 50' 100'
Scale 1" = 50'

THE PREPARATION OF THIS PLAN AND THE PERFORMANCE OF
THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY
DIRECTION AND THE PLAN ACCURATELY REFLECTS 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.

HERSCHEL LOJONES R.L.S. No. 3640

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

YATES PETROLEUM CORP.

WELL PAD PLAN VIEW ON THE YATES ENGWALL
"RL" FEDERAL #4 LOCATED 1980/S AND
1650/E OF SECTION 4, TOWNSHIP 9 SOUTH,
RANGE 26 EAST, NMPM, CHAVES COUNTY, NEW
MEXICO.

Survey Date: 4/18/2000	Sheet 1 of 1 Sheets
Drawn By: Ed Blevins	W.O. Number
Date: 4/19/00	Scale 1" = 50' ENGWALL 4

PB - L1

Yates Petroleum Corporation

Location Layout for Permian Basin

Up to 12,000'

Yates Petroleum Corporation

105 SOUTH 4th STREET

ARTESIA, NEW MEXICO 88210

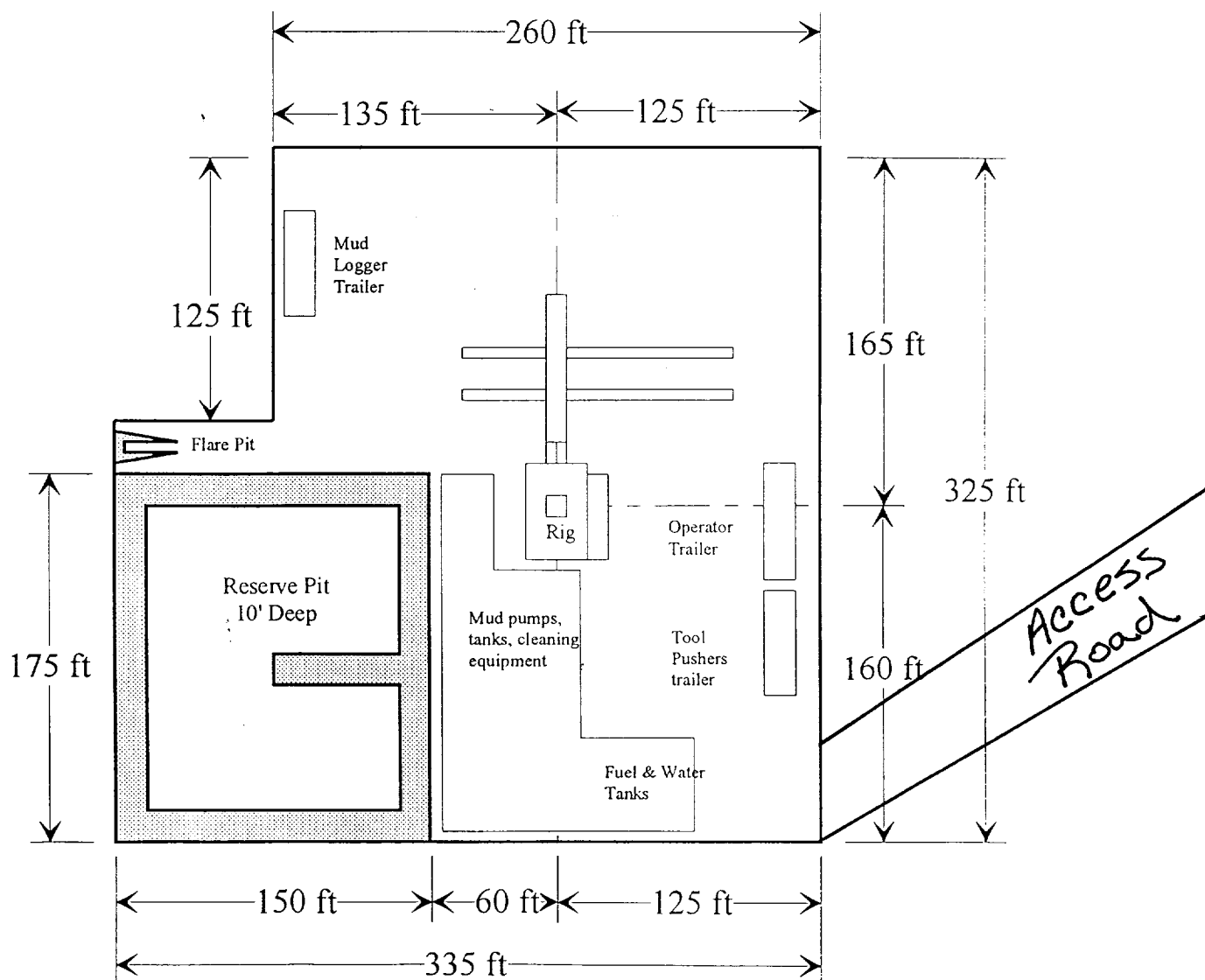
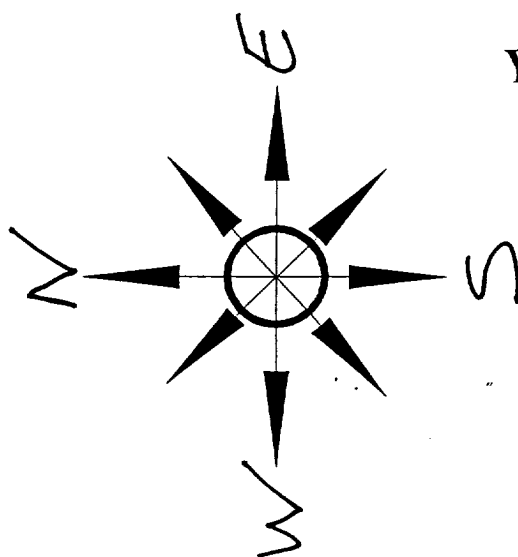
Engwall RL Federal #4

1980' FSL & 1650' FEL

Sec. 4-T9S-R26E

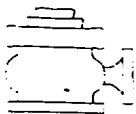
Chaves County, New Mexico

NM-29211



Distance from Well
Head to Reserve Pit
will vary between rigs

The above dimension
should be a maximum



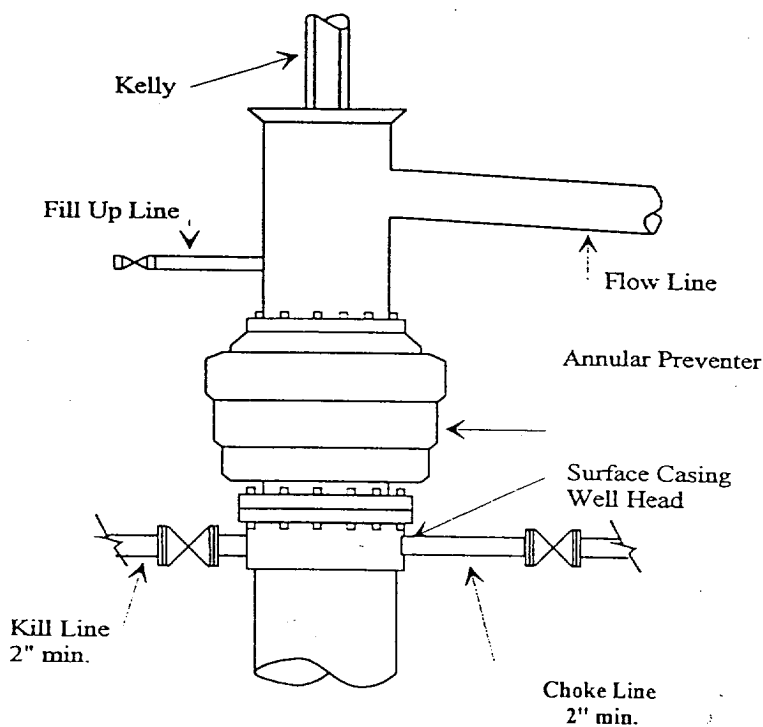
Yates Petroleum Corporation

BOP-1

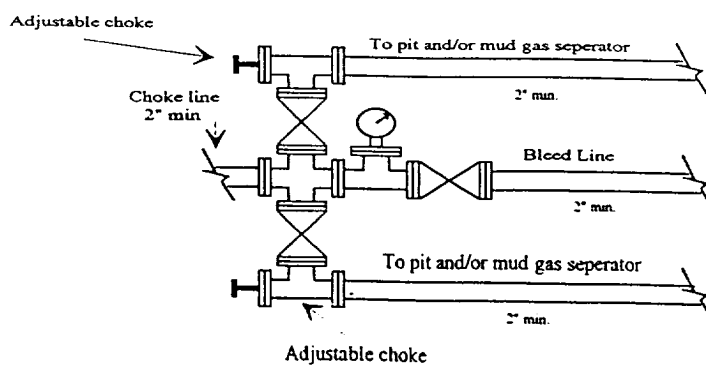
Typical low Pressure System

Schematic

Annular Preventer 2,000 psi



Typical 2,000 psi choke manifold assembly with at least these minimum features



Yates Petroleum Corporation
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