



OCD-ARTESIA

Form 3160-3
(August 1999)

RESUBMITTAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTOMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

Month - Year
APR 16 2007
OCD - ARTESIA, NM

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-108454
b. 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		6. If Indian, Allottee or Tribe Name
2. Name of Operator Yates Petroleum Corporation 25575 CARLSBAD CONTROLLED WATER BASIN		7. If Unit or CA Agreement, Name and No. 30923
3a. Address 105 South Fourth Street Artesia, New Mexico 88210	3b. Phone No. (include area code) (505) 748-1471	8. Lease Name and Well No. Mystery AYM Federal #2
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1150' FSL and 1980' FEL, Unit O At proposed prod. Zone Same		9. API Well No. 30-015-35551
14. Distance in miles and direction from nearest town or post office* Approximately 16 miles northwest of Carlsbad, New Mexico.		10. Field and Pool, or Exploratory Cemetery Morrow 8508d
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1150'	16. No. of Acres in lease 320.00	11. Sec., T., R., M., or Blk. and Survey or Area Section 33, T20S-R25E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. .6 of mile	19. Proposed Depth 10000'	12. County or Parish Eddy County
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3686' GL	22. Approximate date work will start* ASAP	13. State NM
20. BLM/BIA Bond No. on file NMB000434		
23. Estimated duration 45 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. | 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 office. |

25. Signature 	Name (Printed/Typed) Cy Cowan	Date 3/2/2007
Regulatory Agent		
Regulatory Agent		
Approved by (Signature) /s/ James Stovall	Name (Printed/Typed)	Date APR -6 2007
Title ACTING FIELD MANAGER	Office CARLSBAD FIELD OFFICE	APR -6 2007

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.

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 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****SEE ATTACHED FOR
CONDITIONS OF APPROVAL****If earthen pits are used in
association with the drilling of this
well, an OCD pit permit must be
obtained prior to pit construction.****APPROVAL FOR 1 YEAR**

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
☐ AMENDED REPORT

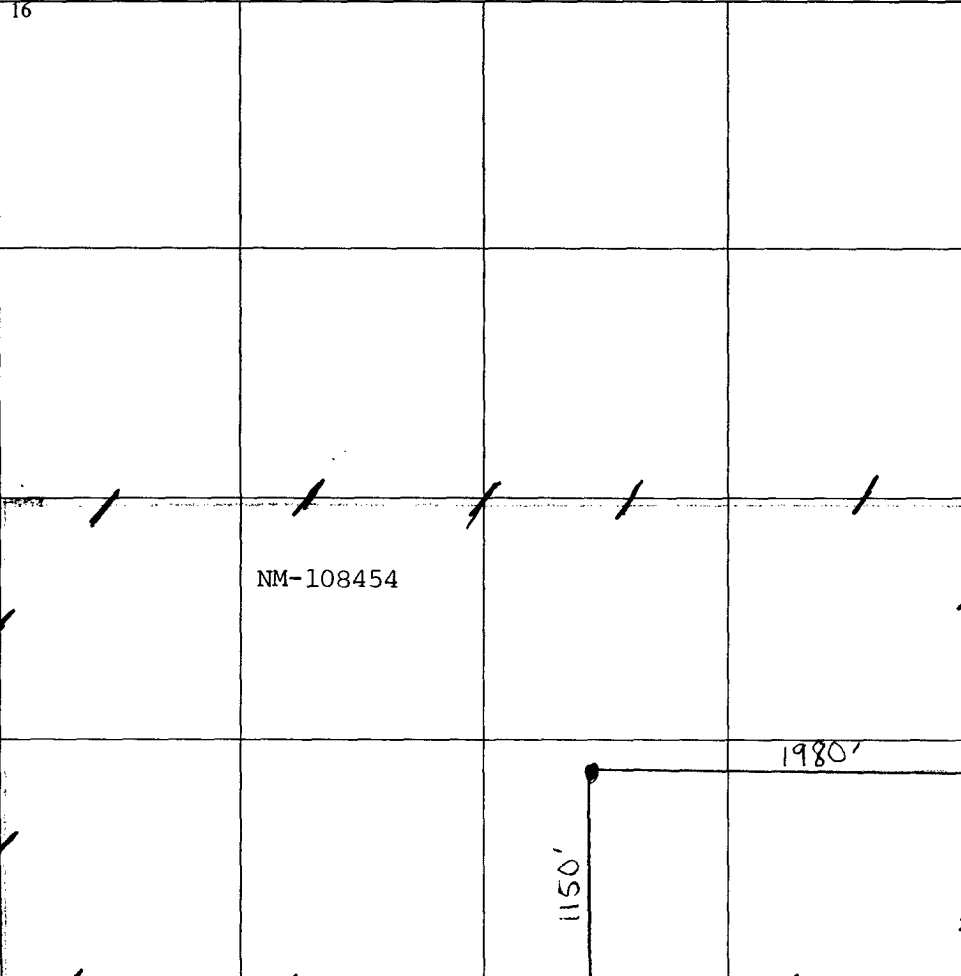
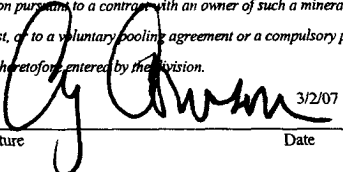
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code 74640		³ Pool Name Cemetery Morrow	
⁴ Property Code		⁵ Property Name MYSTERY AYM FEDERAL			⁶ Well Number 2
⁷ OGRID No. 025575		⁸ Operator Name YATES PETROLEUM CORPORATION			⁹ Elevation 3686'

¹⁰ Surface Location									
UL or lot no. O	Section 33	Township 20S	Range 25E	Lot Idn	Feet from the 1150	North/South line SOUTH	Feet from the 1980	East/West line EAST	County EDDY

¹¹ 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
¹² Dedicated Acres 320 52		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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.

<div>¹⁶</div> 	<div>¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</i>  Signature _____ Date 3/2/07 Cy Cowan Printed Name Regulatory Agent Title</div>
	<div>¹⁸ SURVEYOR CERTIFICATION <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> Date of Survey _____ Signature and Seal of Professional Surveyor: _____ REFER TO ORIGINAL PLAT Certificate Number _____</div>

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

Santa Fe, New Mexico 87504-2088

□ AMENDED REPORT

API Number		Pool Code	Pool Name Seven Rivers Hills Morrow
Property Code	Property Name MYSTERY "AYM" FEDERAL		Well Number 2
OGRIID No. 025575	Operator Name YATES PETROLEUM CORPORATION		Elevation 3686

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	33	20S	25E		1150	SOUTH	1980	EAST	EDDY

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.						

NM-108454

N.32°31'33.4"
 W.104°29'15.2"
 N.555045.4
 E.452625.1
 (NAD-27)

OPERATOR CERTIFICATION

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

Cy Cowan

Signature _____

Cy Cowan

Printed Name _____

Regulatory Agent

Title _____

February 9, 2005

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.

1/28/2005

Date Surveyed _____

Signature & Seal of Professional Surveyor _____

Certificate No. Herschel B. Jones RLS 3640

HERSTERY

SURVEYING COMPANY

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

YATES PETROLEUM CORPORATION

Mystery AYM Federal #2

1150' FSL and 1980' FEL

Section 33, T20S-R25E

Eddy County, New Mexico

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

San Andres	955'	Strawn	8855'
Glorietta	2615'	Atoka	9195'
Upper Yeso	2785'	Upper Morrow	9525'
2 nd Bone Spring Lime	4900'	Middle Morrow	9595'
3rd Bone Spring Lime	6615'	Lower Morrow	9775'
Wolfcamp	6380'	Base of Morrow	9860'
Cisco Canyon	7555'	TD	10000'

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

Water: 200' - 300'
Oil or Gas: All potential zones

3. Pressure Control Equipment: BOPE will be installed on the 9 5/8" casing and rated for 5000 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)

see
com

Hole Size	Casing Size	Wt./Ft	Grade	Thread	Interval	Length
17 1/2"	13 3/8"	48#	H-40	ST&C	0-400'	400'
12 1/4"	9 5/8"	36#	J-55	ST&C	0-3450'	3450'
8 3/4"	5 1/2"	15.5#+17#	J-55+L80	LT&C	0-10000'	10000'

Yates Petroleum Corporation requests a variance to install a rotating head on the surface casing strings when intermediate casing will be set. If a BOP system is required then we wish to install a 2M system and receive a variance to test the system to 1000# using the rig pumps. The test will be held for 30 minutes on each system component. Components to be tested include pipe rams, blind rams, and annular preventer.

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

B. CEMENTING PROGRAM:

Surface casing: 450 sx 'C' + 2% CaCl₂ (YLD 1.34 WT 14.8).

Intermediate casing: 1100 sx Lite C (Yld 1.98 WT 12.5) Tail in w/200 sx Class C (YLD 1.34 WT 14.8).

Production Casing: TOC 3000', Lead w/ 750 sx Lite 'C' (YLD 1.95 WT 12.5) Tail in w/ 775 sx Super 'C' Modified (YLD 1.57 WT 13.2).

5. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
Spud to 400'	FW/Spud Mud	8.4-8.6	34-36	N/C
400'-3500'	Fresh Water	8.4	28	N/C
3500'-6800'	Cut Brine	8.7-9.0	28	N/C
6800'-7755'	Cut Brine	9.0-9.3	28	N/C
7755'-8800'	Cut Brine	9.3-9.6	34	N/C
8800'-10000'	SW/Gel/Starch/4%-6% KCL	9.6-9.8	30-32	<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' out from under intermediate casing to TD.

Logging: Platform Express/HALS/NGT/FMI.

Coring: None anticipated.

DST's: Possible from Wolfcamp to TD.

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

Anticipated BHP:

From: 0	TO 400'	Anticipated Max. BHP: 180	PSI
From: 400'	TO 3500'	Anticipated Max. BHP: 1550	PSI
From: 3500'	TO 10000'	Anticipated Max. BHP: 5100	PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None

H₂S Zones Anticipated: None

Maximum Bottom Hole Temperature: 189° F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 30 days to drill the well with completion taking another 15 days.

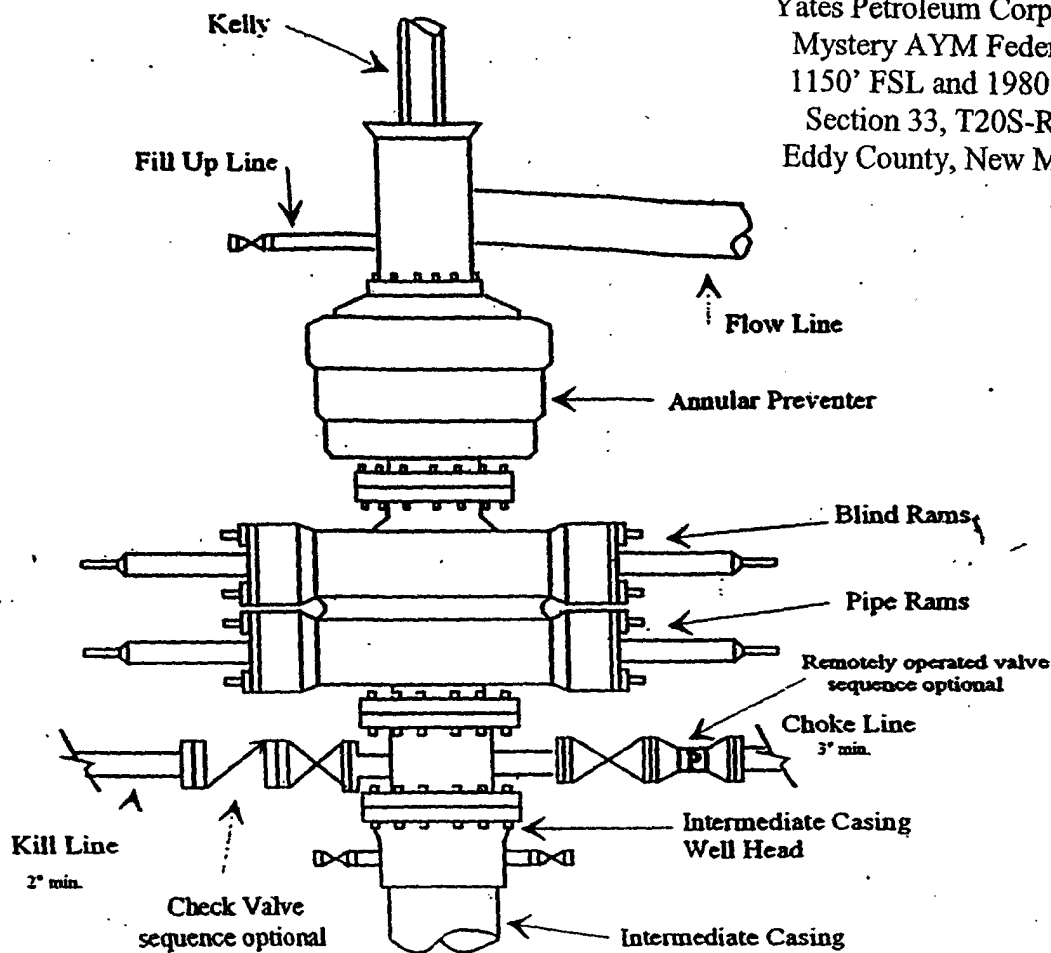


Yates Petroleum Corporation

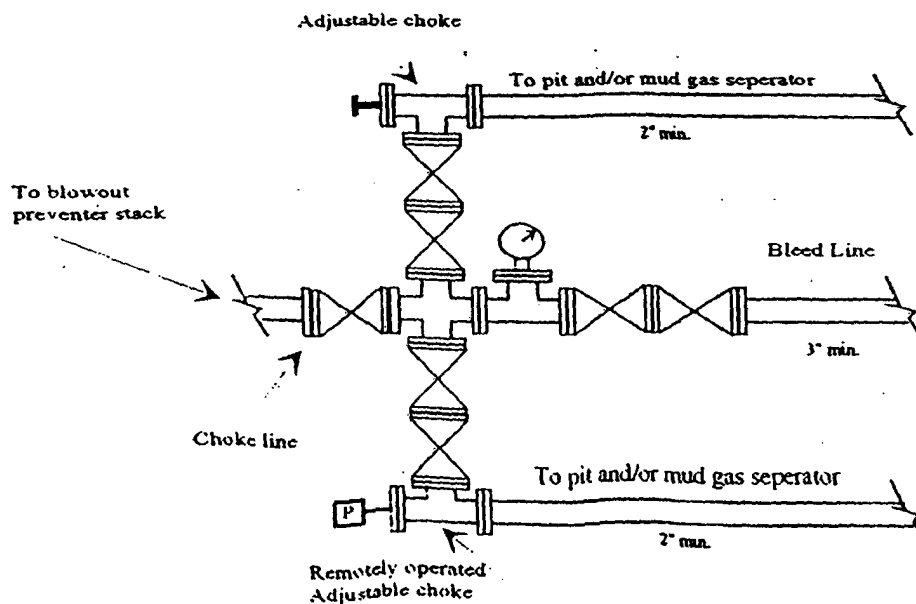
BOP-4

Typical 5,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack

Yates Petroleum Corporation
Mystery AYM Federal #2
1150' FSL and 1980' FEL
Section 33, T20S-R25E
Eddy County, New Mexico



Typical 5,000 psi choke manifold assembly with at least these minimum features



MULTI-JOINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Mystery AYM Federal #2
1150' FSL and 1980' FEL
Section 33, T20S-R25E
Eddy 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 16 miles northwest of Carlsbad, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go south of Artesia of Highway 285 to White Pine Road. (CR 28) Turn right on White Pine Road and go approx. 6.2 miles. Turn left here and go to the Mystery AYM Federal #1 well location. From the southeast corner of the Mystery AYM Federal #1, go east on existing lease road for approx. 0.3 of a mile. Turn right here on lease road and go south for approx. .4 of a mile. The new road will start here going east.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately 300 feet in length from the point of origin to the north corner of drilling pad. The road will lie in a north/south 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 one side. 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 no 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.

Mystery AYM Federal #2

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will acquire any materials from the closest source at the time of construction of the well pad.

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 landfill. 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. Yates Petroleum Corporation is in full compliance with the OCD General Plan for Drilling Pits approved on April 15, 2004.
- 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 within 90 days after abandonment.

11. SURFACE OWNERSHIP: Bureau of Land Management, Carlsbad, 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.

Mystery AYM Federal #2

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

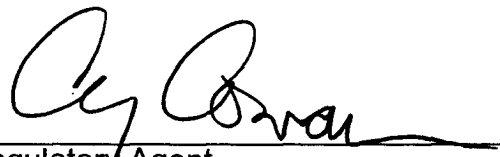
B. Through Drilling Operations,
Completions and Production:

Pinson McWhorter, 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.

3/2/07


Regulatory Agent

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Yates Petroleum Corp.
Well Name & No. Mystery AYM Federal #2
Location: 1150' FSL, 1980' FEL, SEC33, T20S, R25E, Eddy County, NM
Lease: NM-108454

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance, at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

1. Spudding
2. Cementing casing: 13.375 inch 9.625 inch 5.5 inch
3. BOP tests

B. A Hydrogen Sulfide (H₂S) Drilling Plan is N/A.

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.

D. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute. (R-111-P area only)

E. If floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

II. CASING:

A. The 13.375 inch surface casing shall be set at 400 feet and cement circulated to the surface.

1. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
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, 24 hours in the potash area, or 500 pounds compression strength, which ever is greater. (This is to include the lead cement)
3. WOC time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds of compression strength, which ever is greater.
4. If cement falls back, Remedial cementing shall be completed prior to drilling out that string.

B. The minimum required fill of cement behind the 9.625 inch intermediate casing is circulate cement to the surface. If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the 5.5 inch production casing is cement shall extend upward a minimum of 450 feet above the base of the intermediate casing string. The 5.5" 15.5# J-55 casing will not be used below 7000 feet and the 5.5" 17# J-55 will not be used below 8500 feet.

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

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.
- B. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the intermediate casing well bore shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 9.625 inch casing shall be 3000 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 the independent service company test will be submitted to the appropriate BLM office.
 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. The test will be held for a minimum of 10 minutes if the test is done with a test plug and 30 minutes without a test plug.
 5. BOP/BOPE must be tested by an independent service within 500 feet of the top of the **Wolfcamp** Formation. This test does not exclude the test prior to drilling out the casing shoe as per onshore order No. 2.
 6. A variance to test the **2000 BOP and BOPE** to the reduced pressure of 1000 psi with the rig pumps is approved the BOP/BOPE must be tested by an independent service company.

IV. 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:

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

V. Hazards:

1. Our geologist has indicated that there is medium potential for Cave / Karst features.
2. Our geologist has indicated that there is potential for lost circulation in the San Andres, Wolfcamp and Strawn formations.

Engineering may be contacted at 505-706-2779 for variances if necessary.

FWright 3/06/07