

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

2007

ATS-07-582

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

OCD-ARTESIA
RESUBMITTAL

Split Estate

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. NM-28864
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 checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Yates Petroleum Corporation 25575		7. If Unit or CA Agreement, Name and No.
3a. Address 105 South Fourth Street, Artesia New Mexico 88210		8. Lease Name and Well No. Maddox QU Federal #2 34752
3b. Phone No. (include area code) (505) 748-1471		9. API Well No. 30 - 015 - 35803
4. Location of well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FSL and 660' FEL, Unit I At proposed prod. zone same as above		10. Field and Pool, or Exploratory WC. Mississippian Gas
11. Sec., T., R., M., or Blk. And Survey or Area Section 33, T18S-R24E		12. County or Parish Eddy County
14. Distance in miles and direction from the nearest town or post office* Approximately 14 miles southwest of Artesia, New Mexico		13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg unit line, if any) 660'	16. No. of acres in lease 320.00	17. Spacing Unit dedicated to this well 320 - S/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. .5 of mile	19. Proposed Depth 8750'	20. BLM/ BIA Bond No. on file NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, RT, GR, etc.) 3744' GL	22. Approximate date work will start* ASAP	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 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 7/18/2007
Title Regulatory Agent		
Approved By (Signature) /s/ Don Peterson	Name (Printed/ Typed) /s/ Don Peterson	Date SEP 13 2007
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to cc operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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)

Roswell Controlled Water Basin
**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

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

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 97338		³ Pool Name WC. Mississippian Gas	
⁴ Property Code 34752		⁵ Property Name MADDOX QU FEDERAL			⁶ Well Number 2
⁷ OGRID No. 025575		⁸ Operator Name YATES PETROLEUM CORPORATION			⁹ Elevation 3744'

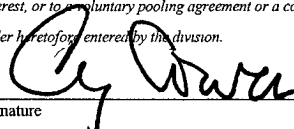
¹⁰ Surface Location

UL or lot no. I	Section 33	Township 18S	Range 24E	Lot Idn	Feet from the 1980	North/South line SOUTH	Feet from the 660	East/West line EAST	County EDDY
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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 S/2									
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.

¹⁶				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 718/07 Cy Cowan Printed Name Regulatory Agent Title	
NM-28864				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	

District I
1825 N. French Dr. Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 Rdo Brazos Rd., Aztec NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, N M 87505

Form C-102

Revised March 17, 1999
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name Chester
Property Code	Property Name MADDOX QU FEDERAL	Well Number 2
OGRID No. 025575	Operation Name YATES PETROLEUM CORPORATION	Elevation 3744

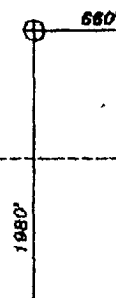
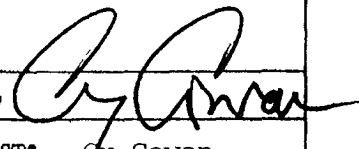
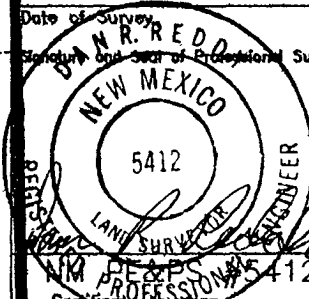
Surface Location

UL or Lot No. I	Section 33	Township 18-S	Range 24-E	Lot Idn.	Feet from the 1980	North/South line SOUTH	Feet from the 660	East/West line EAST	County EDDY
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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 INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

NM-28864	LAT N32°42'51.8" LONG W104°35'13.1"		OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION HEREON IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.
			Signature 
			Printed Name Cy Cowan
			Title Regulatory Agent
			Date May 9, 2005
			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 KNOWLEDGE AND BELIEF.
			Date of Survey APRIL 6, 2005
			Signature and Seal of Professional Surveyor 
			Certificate Number 5412

YATES PETROLEUM CORPORATION

Maddox QU Federal #2
1980' FSL and 660' FEL
Section 33-T18S-R24E
Eddy County, New Mexico

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

San Andres	520'	Oil Pay	Cisco	6280'	Gas Pay
Glorieta	1810'	Oil Pay	Strawn	7430'	Gas Pay
Upper Yeso	1970'	Oil Pay	Atoka	7810'	Gas Pay
Tubb	3195'	Oil Pay	Middle Morrow	8380'	Gas Pay
Lower Yeso	3370'	Oil Pay	Lower Morrow	8500'	Gas Pay
Abo	3845'	Oil Pay	Chester	8560'	Gas Pay
Wolfcamp	5220'	Oil Pay	TD	8750'	Gas Pay

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

Water: 453'
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)

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
14 3/4	9 5/8"	36#	J-55	ST&C	0-1200'	1200'
8 3/4"	5 1/2"	17#	J-55	LT&C	0-100'	100'
8 3/4"	5 1/2"	15.5#	J-55	LT&C	100'-6800'	6700'
8 3/4"	5 1/2"	17#	L-80	LT&C	6800'-8750'	1950'

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, Joint Strength 1.8

B. CEMENTING PROGRAM:

Surface casing: 875 sx POZ "C" (YLD 1.9 WT 12.4). Tail in with 200 sx "C"
(YLD 1.32 WT 14.8) Surface

Production Casing: Stage I 750 sx "C" (YLD 1.82 WT 13.6) DV Tool @ 6000. TOC 6000
Stage II 1500 sx Lite "C" (YLD 2.04 WT 12.4) Tail in with 100 sx
"C" (YLD 1.32 WT 14.8). Surface

Nitrified mud maybe used to bring cement to the surface on production
string.

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1200'	FW Gel/LCM	8.3-8.6	30	N/C
1200'-3800'	Cut Brine	9.1-9.3	28	N/C
3800'-7750'	Cut Brine	9.3-9.5	29	N/C
7750'-TD	Cut Brine/Starch/4-6% KCL	9.5-9.8	31-34	<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 under intermediate casing.

Logging: Platform Express/HRLA, possible FMI.

Coring: Possible Rotary Sidewall Cores

DST's: Possible Abo to TD.

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

Anticipated BHP:

From: 0	TO: 1200'	Anticipated Max. BHP: 540	PSI
From: 1200'	TO: 8750'	Anticipated Max. BHP: 4450	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: Possible Canyon.

8. ANTICIPATED STARTING DATE:

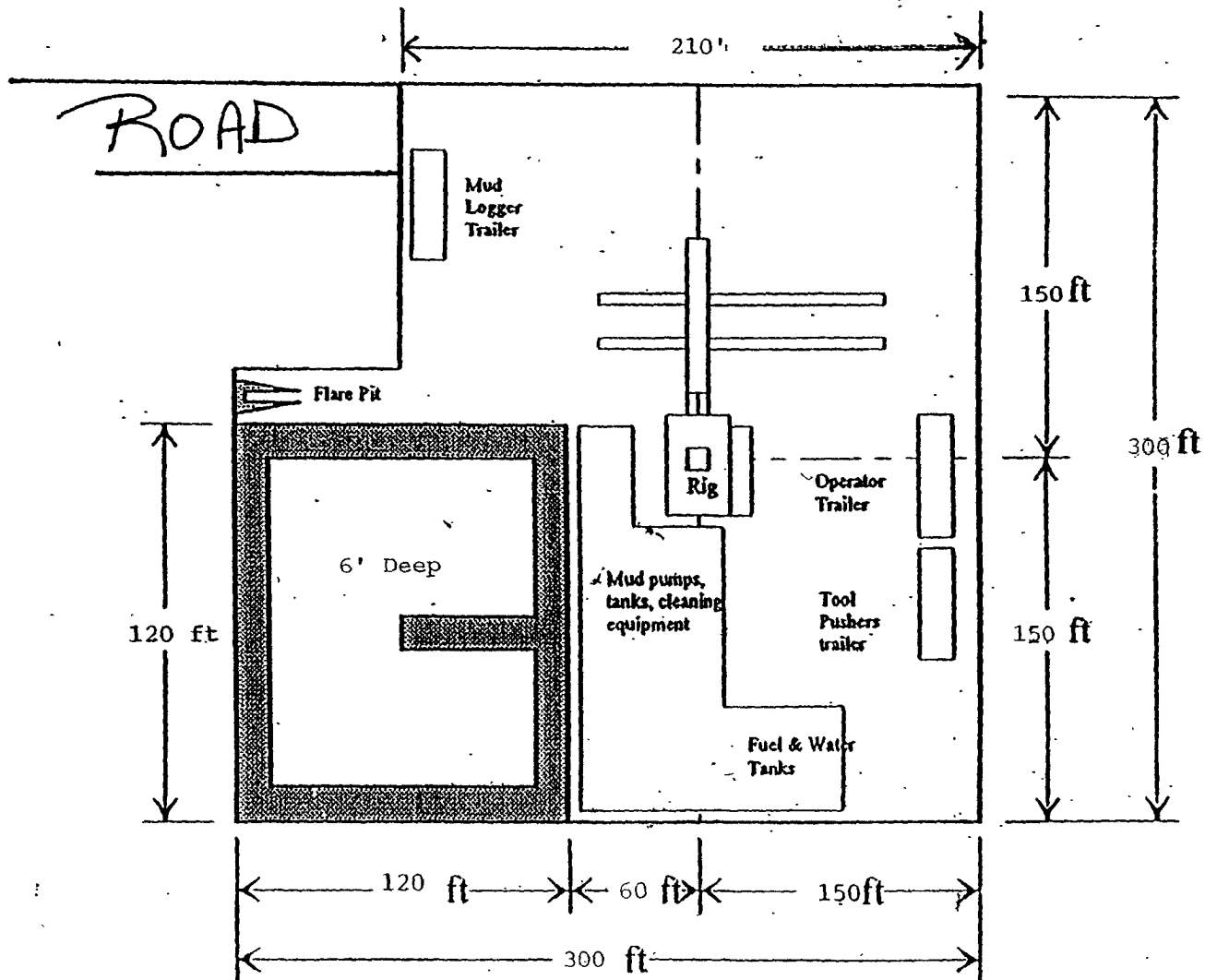
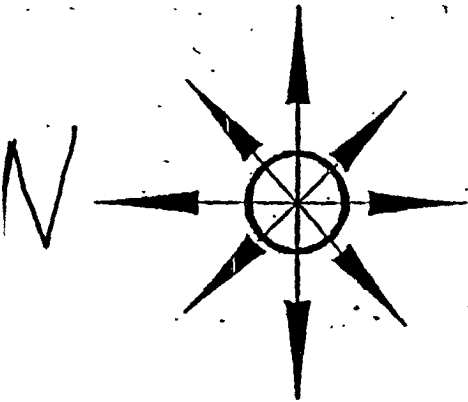
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 20 days to drill the well with completion taking another 15 days.

Yates Petroleum Corporation

Location Layout for Permian Basin
Up to 12,000'

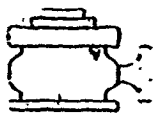
PB - LI

Yates Petroleum Corporation
Maddox QU Federal #2
1980' FSL and 660' FEL
Section 33, T18S-R24E
Eddy County, New Mexico



Distance from Well
Head to Reserve Pit
will vary between rigs

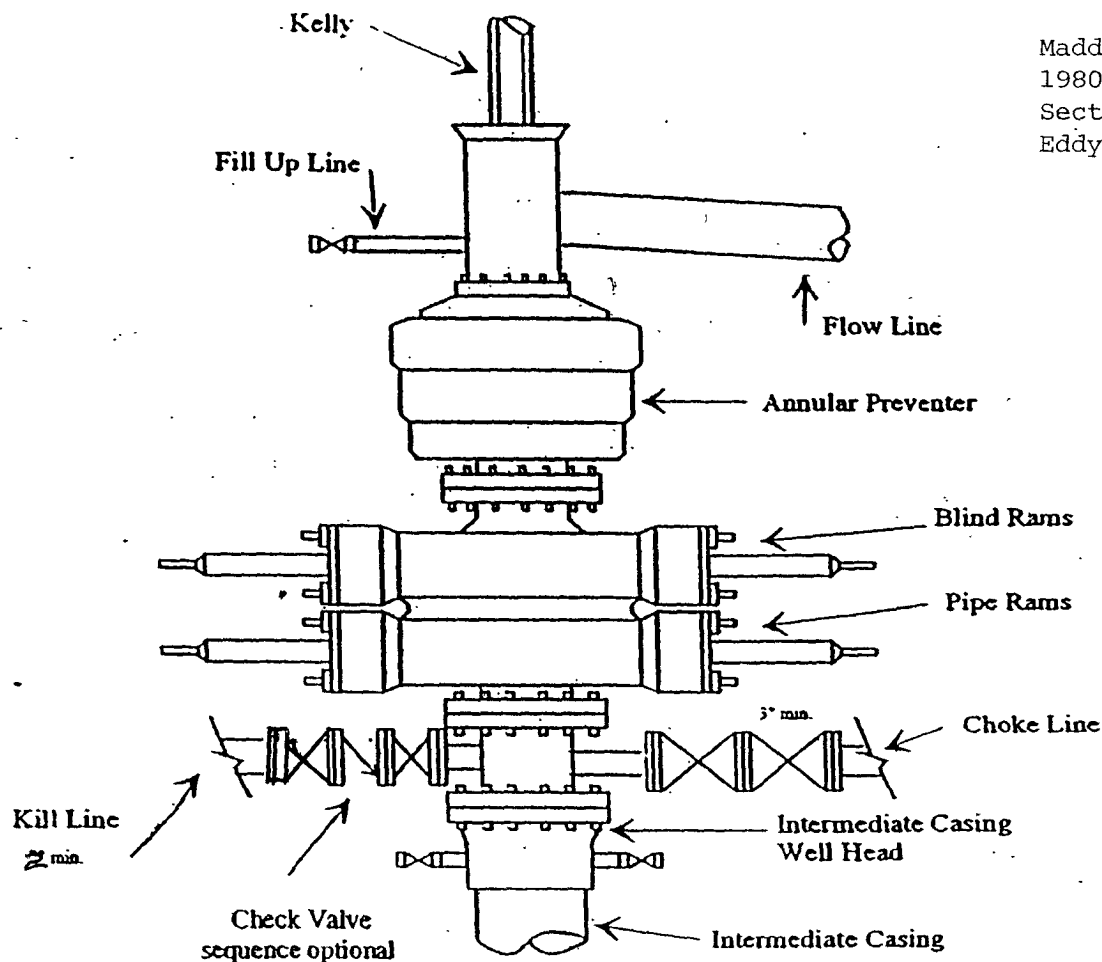
The above dimension
should be a maximum



Yates Petroleum Corporation

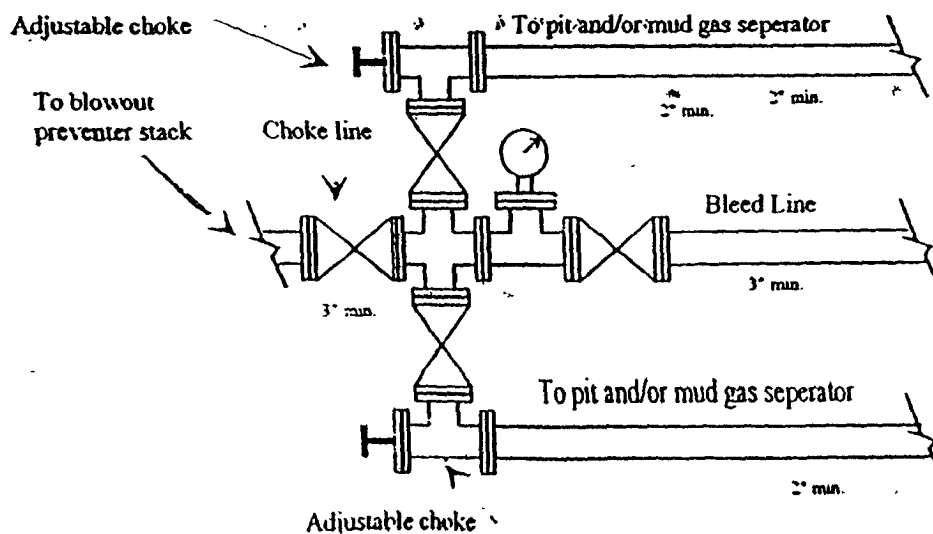
BOP-3

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



Maddox QU Federal #1
1980' FSL and 660 FEL
Section 33, T18S-24E
Eddy County, New Mexico

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



Yates Petroleum Corporation

105 S. Fourth Street

Artesia, NM 88210

Hydrogen Sulfide (H₂S) Contingency Plan

For

Maddox QU Federal #2

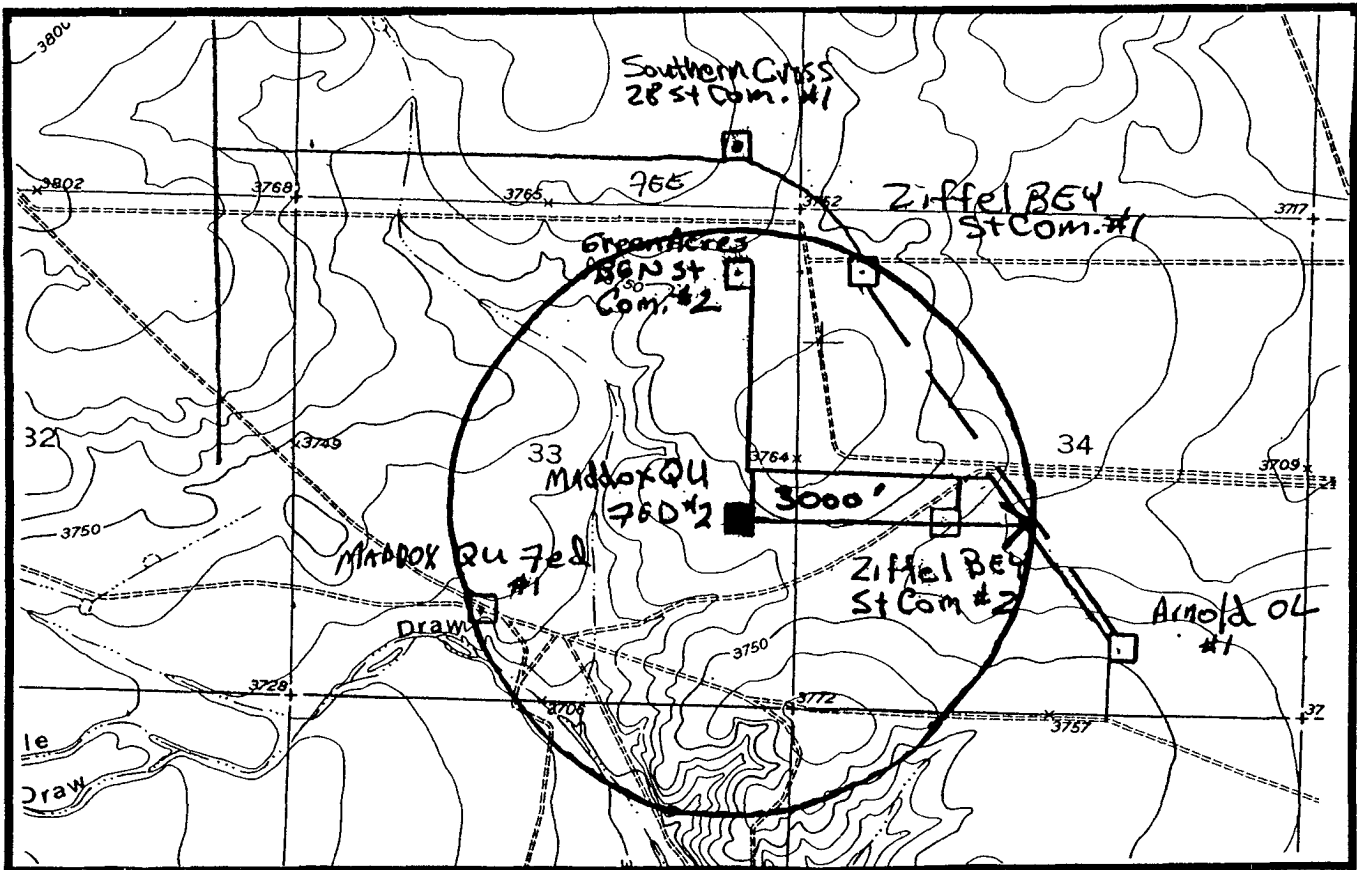
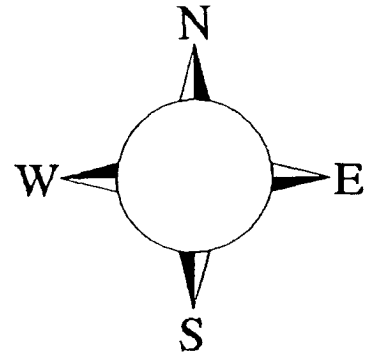
1980' FSL, 660' FEL

Section 33, T-18S, R-24E

Eddy County NM

Maddox QU Federal #2 Location

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain



Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

YPC personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. YPC Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN
YATES PETROLEUM CORPORATION**

Maddox QU Federal #2
1980' FSL and 660' FEL
Section 33 T18S-R24E
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 14 miles southwest of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go south of Artesia on Highway 285 to Kincaid Ranch Road (CR-38). Turn right on Kincaid Ranch Road and go 3.3 miles to the end of the pavement and a cattleguard. Cross cattleguard and continue on CR-38 for 1 mile. At this point follow county road west and cross a cattleguard. Continue going west on double road for approx. 3.7 miles to end of double road. From here continue west on lease road for approx. 1.4 miles. Turn right here and go .1 of a mile to the Arnold OL #1 well pad. The new road will start here from the northwest corner of the Arnold OL #1 following a pipeline right-of-way. Follow pipeline for approx. .4 of a mile to a fence. Turn west at the fence and go along fence for approx. .4 of a mile. The new road will start here going south for .1 of a mile to the northeast corner of the well pad.

2. PLANNED ACCESS ROAD:

- A. The proposed new access will be approximately .9 of a mile going to the northeast corner of the drilling pad. The road will lie in a northwest/west/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 will 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:

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. 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 after they have evaporated and dried.

11. SURFACE OWNERSHIP: Private Surface owned by the James H. and Betty R. Howell Revocable Trust, P.O. Box 75, Lakewood, NM 88254. Attention Mr. Alan Howell, (505) 365-7810. A surface damage agreement has been reached with the Howell Trust.
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:

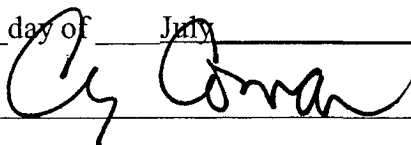
Pinson McWhorter,
Operations Manager
Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210
Phone (505) 748-1471

CERTIFICATION
YATES PETROLEUM CORPORATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 18th day of July, 2007.

Name Cy Cowan



Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone 505-748-4376

Field Representative (if not above signatory) Jim Krogman

Address (if different from above) Same

Telephone (if different from above) 505-748-4215

E-mail (optional) _____

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of **2** hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(505) 361-2822

1. **Although no Hydrogen Sulfide has been reported, it is always a potential hazard.**
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. When 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.

B. CASING

1. The **9-5/8** inch surface casing shall be set at **approximately 1200** feet and cemented to the surface.
 - a. 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.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

- d. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Grayburg and San Andres formations.

Medium potential for cave/karst.

Possible high pressure gas bursts in Wolfcamp and over pressured Pennsylvanian Section.

2. The minimum required fill of cement behind the **5-1/2** inch production casing is:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Both stages to circulate.**

3. 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.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
3. The appropriate BLM office shall be notified a minimum of **2** hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of**

the surface casing and reaching this depth exceeds 20 days. . This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

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.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

Engineer on call phone (after hours): Carlsbad: (505) 706-2779

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VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

VRM Facility Requirement

Low-profile tanks not greater than eight-feet-high shall be used.

B. PIPELINES

C. ELECTRIC LINES