

ATS-12-32

OCD-HOBBS

Form 3160-3  
(February 2005)

HOBBS OCD

AUG 09 2012

RECEIVED

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

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

1a. Type of Work: ☐ DRILL ☒ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☒ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator  
**Yates Petroleum Corporation 025575**

3a. Address **105 South Fourth Street, Artesia, NM 88210**  
3b. Phone No. (include area code) **575-748-1471**

4. Location of well (Report location clearly and in accordance with any State requirements. \*)  
At surface **1980' FNL & 1980' FEL, SWNE, Section 28-T24S-32E**  
At proposed prod. zone **Same**

14. Distance in miles and direction from the nearest town or post office\*  
**Approximately 40 miles southeast of Carlsbad, NM**

15. Distance from proposed\* location to nearest lease line.  
(Also to nearest drlg. unit line, if any) **1980'**  
16. No. of acres in lease **1720 BH & 40 SH**

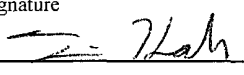
18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft **4000'**  
19. Proposed Depth **6550'**

21. Elevations (Show whether DF, KDB, RT, GL, etc.) **3540 GL**  
22. Approximate date work will start\* **ASAP**

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. ap   | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the BLM          |

25. Signature 	Name (Printed/ Typed) <b>Travis Hahn</b>	Date <b>3/19/2012</b>
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Title **Land Regulatory Agent**

Approved By (Signature) <b>/s/ Don Peterson</b>	Name (Printed/ Typed) <b>/s/ Don Peterson</b>	Date <b>AUG - 6 2012</b>
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Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>
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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 operations thereon  
**APPROVAL FOR TWO YEARS**

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 wilfully 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)

SWD-1301

Carlsbad Controlled Water Basin



Approval Subject to General Requirements & Special Stipulations Attached

AUG 13 2012

CONDITIONS OF APPROVAL

YATES PETROLEUM CORPORATION  
Allen B Federal SWD #1 Re-entry  
1980' FNL and 1980' FEL  
Section 28-T24S-R32E  
Lea County, New Mexico

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

Rustler	1,033'	Bell Canyon	4,742'
Salado	1,339'	Cherry Canyon	5,684'
Castille	3,298'	Brushy Canyon	6,976'
BOS	4,648'	Bone Springs	8,634'
Lamar Lime	4,716'		
2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: Already Cased Off  
Oil or Gas: None – This will be a SWD well for Yate's produced water.
3. Pressure Control Equipment: An 11" <sup>3</sup> M BOP will be installed on the 8 5/8" casing and rated to 5000 PSI. Pressure tests on this re-entry will be conducted when nipped up before drilling out surface plug and prior to drilling the intermediate plug. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers 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.
4. 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.
5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: All new casing to be used

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8"	54.5#	K-55	ST&C	0-642'-in place	
11"	8 5/8"	24# & 32#	K-55	ST&C	0-4675'-inplace	
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-6550'	6550'

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

B. CEMENTING PROGRAM:

Surface Casing: Originally cemented with 640 sacks and circulated to surface.

Intermediate Casing: Originally cemented with 2100 sacks and cement circulated to surface.

Production Casing: Production casing will be cemented in two stages with a DV tool set at 4725'.

Stage One: Cement with 440 sacks of Pecos Valley Lite (Yld 1.41 Wt 13) with D112 0.4%, D151 22.5 lbs/sack, D174 1.5 lbs/sack, D177 0.01 lbs/sack, D800 0.6 lbs/sack, D46 0.15 lbs/sack. Cement designed with 35% excess. TOC 4725'.

Stage Two: Cement lead with 665 sacks of 35/65/6 Poz C (Yld 2 Wt 12.5). Tail in 200 sacks of Class C (Yld 1.34 Wt 14.8) with CaCl<sub>2</sub> 2%. Cement designed with 35% excess. TOC surface'.

6. MUD PROGRAM: If the mud in the well bore is in satisfactory condition Yates will circulate with the mud in the hole. If it is not satisfactory Yates will displace and drill with cut brine with 8.9 – 9.3 ppg possibly with a small amount of fluid loss.

7. EVALUATION PROGRAM:

Samples: None

Logging: Open hole logs are available. Will run GR/CBL log.

Coring: None

DST: None

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

Maximum Anticipated BHP: 2900 PSI at 6550' (pressure will be hydrostatic pressure)

Abnormal Pressure Anticipated: None

Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 80 F

9. ANTICIPATED STARTING DATE:

Plans are to reenter this well as soon as possible after receiving approval of the APD and the application for an easement for the drill pad and SWD facility pad as well as the road access which have been applied for.

RE-ENTRY PLANS:

The Allen B Federal #1 was spudded on 7/29/83 and P&A on 8/31/83. They drilled the well to a TD of 8,710'. They did not set production casing in this well, only surface and intermediate casing. Both casing strings are cemented to the surface. This well is not <sup>on</sup> a Yates lease. Yates has approval to inject into this well, SWD-1301.

Yates' plan is to re-enter the well with a completion unit. Plan to drill the surface plug out with a 7 7/8" bit, pick up drill collars and drill out the plug across the intermediate casing shoe at 4,675' and circulate. If existing mud in the well bore is in satisfactory condition Yates would circulate with the mud in the hole. If not Yates would displace and drill with cut brine with a probably 8.9-9.3 ppg possibly with a small amount of fluid loss. Yates would trip in the hole through the open hole and tag the cement plug and clean out to 6,550'. Yates will then set a 100' 50 sack cement plug of Class H with CFR-3 0.4%; Gilsonite 3.0 lb/sack; HALAD4-344 0.5%; HR-800 0.2% and Poly-E-Flake 0.125 lb/sack designed with 10% excess with the top of cement with @ 6,500' set 5 1/2" 15.5# J-55 casing and cement to surface in two stages with DV tool at 4,000'. Yates will then perforate permeable sands between 5,220' and 6,460' and ~~(fracture stimulate)~~ Yates will set a 5 1/2" nickel plated injection packer 100' above the top perforation and run plastic coated 2 7/8" or 3 1/2" tubing and turn the well over to production for injection.

*See COA*

*Sundry required for any stimulation treatment*

ENGINEERING ANALYZING OF PROJECT:

Yates Petroleum Corporation does not plan any production testing in this well. The re-entry will be for injection only. There ~~are~~<sup>is</sup> no production~~s~~ from the same zone that Yates is planning to inject into in the area, neither in the immediate area nor townships of the surrounding area. There ~~are~~<sup>is</sup> some old, minor production in the upper Bell Canyon (above the proposed injection interval) with the nearest productive interval being the Brushy Canyon as Yates identified in the ~~(Haraco)~~<sup>(Harcro)</sup> wells west of this well's proposed location, the next interval known to be productive is the Bone Springs~~s~~, most wells in the area are productive in the Avalon Shale. This well was drilled and abandoned, with nothing found to be worthy of testing from the Bell Canyon down to the Bone Springs~~s~~. The closest well to this location drilled to the Bell Canyon ~~are/were~~<sup>is/was</sup> dry non-productive holes~~s~~.

All production in this area is or was from the Upper Bell Canyon of the Delaware. These wells have not been productive, with only minor oil produced with very high water produced. There are two injection wells to the east the Exxon A Federal #2 and US Smelting Federal #5, both injecting into perforations in the Bell Canyon interval that proved productive for their surrounding wells. The recent Turquoise SWD well just to the west of this location in Section 30 (SWD order 1203) was approved for injection into the exact same sands in which Yates is proposing to inject.

WELL NAME: Allen B Federal #1 FIELD: Wildcat Bone Springs, Undesignated Double X Delaware

LOCATION: 1,980' FNL & 1980' FEL of Section 28-24S-32E Lea Co., NM

GL: 3,540' ZERO: KB:

SPUD DATE: 7/29/83 COMPLETION DATE:

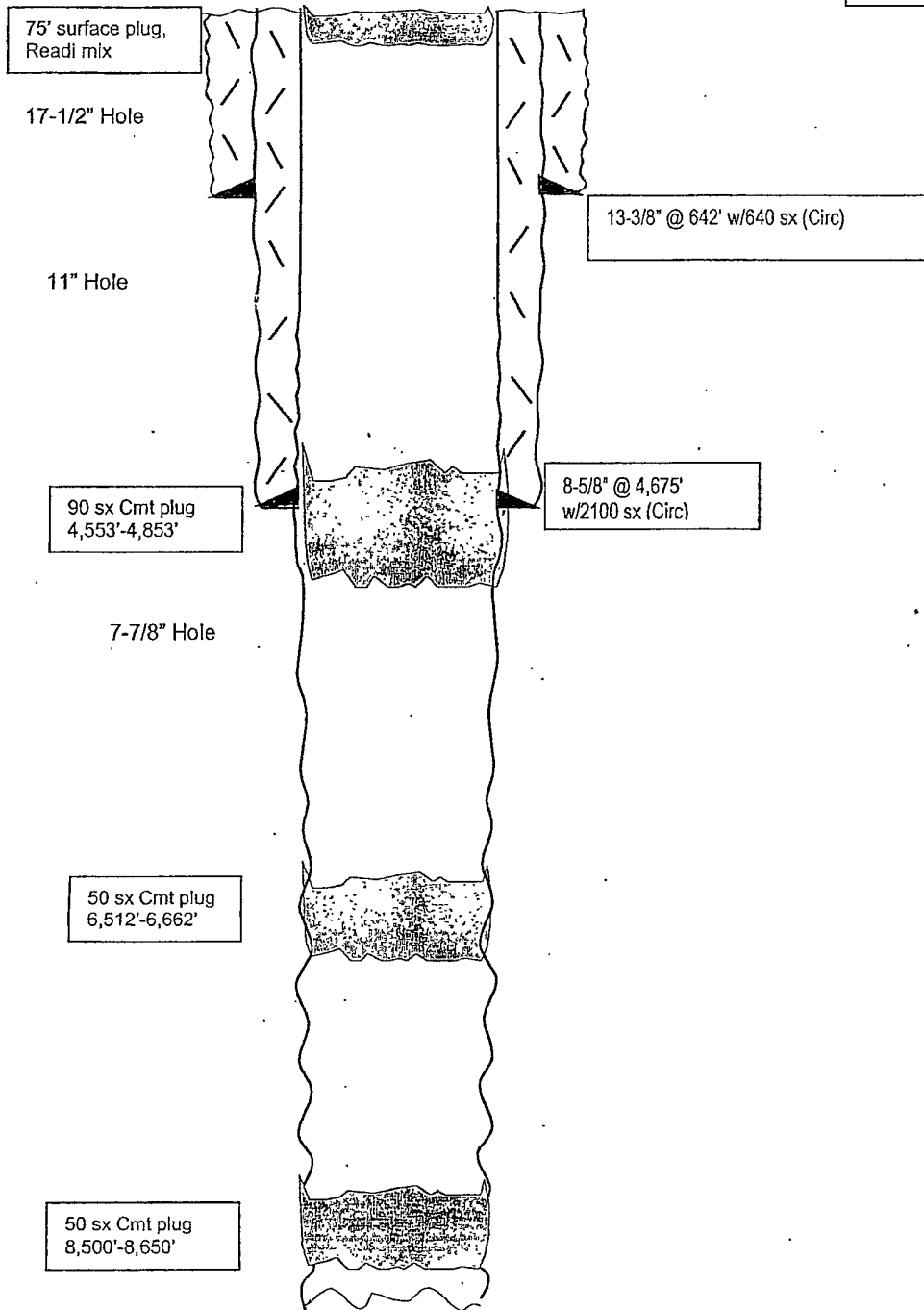
#### CASING PROGRAM

COMMENTS: API No.: 30-025-28237

P&A 8/31/1983

Drilled & P&A by Exxon Corporation

13-3/8" 54.5# K-55	642'
8-5/8" 24# & 32# K-55	4,675'



TD: 8,710'

**Current**

#### TOPS

'Rustler	1,033'
Salado	1,339'
Castille	3,298'
BOS	4,648'
Lamar lime	4,716'
Bell Canyon	4,742'
Cherry Canyon	5,684'
Brushy Canyon	6,976'
Bone Springs	8,634'

Not to Scale

9/6/11  
MMFH

WELL NAME: Allen B Federal #1 SWD FIELD: Wildcat Bone Springs; Undesignated Double X Delaware  
 LOCATION: 1,980' FNL & 1980' FEL of Section 28-24S-32E Lea Co., NM

GL: 3,540' ZERO: \_\_\_\_\_ KB: \_\_\_\_\_

SPUD DATE: 7/29/83 COMPLETION DATE: \_\_\_\_\_

COMMENTS: API No.: 30-025-28237

P&A 8/31/1983

Drilled & P&A by Exxon Corporation

# CASING PROGRAM

13-3/8" 54.5# K-55	642'
8-5/8" 24# & 32# K-55	4,675'
5-1/2" 15.5 # J-55	6,550'

17-1/2" Hole

11" Hole

Nickle plated injection  
packer @ 5,120'

7-7/8" Hole

13-3/8" @ 642' w/640 sx (Circ)

8-5/8" @ 4,675'  
w/2100 sx (Circ)

Injection interval:  
poreous sands  
between 5,220' and  
6,460'.

5-1/2" @ 6,550' w/ cmt  
circ to surface

50 sx Cmt plug 6,550'-  
6,662"

50 sx Cmt plug 8,500'-  
8,650"

TD: 8,710'

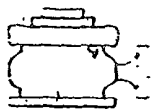
**After**

## TOPS

Rustler	1,033'
Salado	1,339'
Castille	3,298'
BOS	4,648'
Lamar lime	4,716'
Bell Canyon	4,742'
Cherry Canyon	5,684'
Brushy Canyon	6,976'
Bone Springs	8,634'

Not to Scale

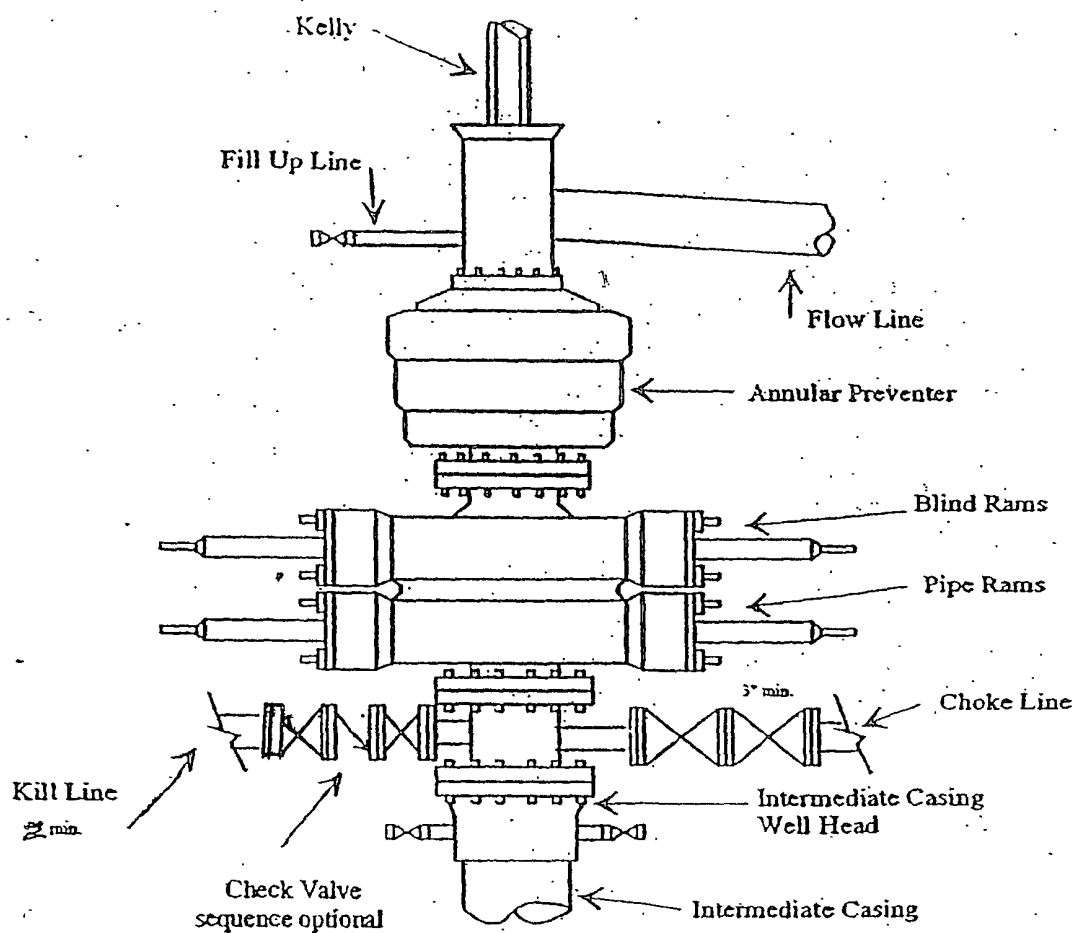
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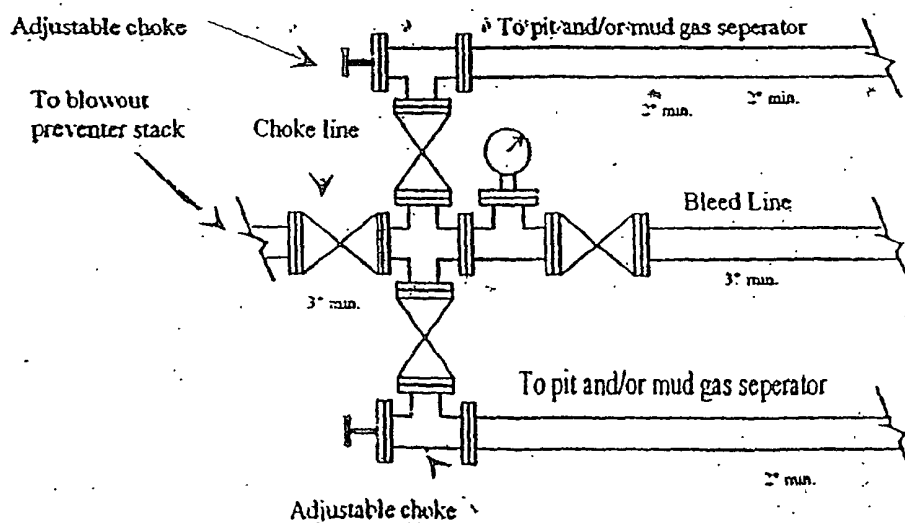
# Yates Petroleum Corporation

BOP-3

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

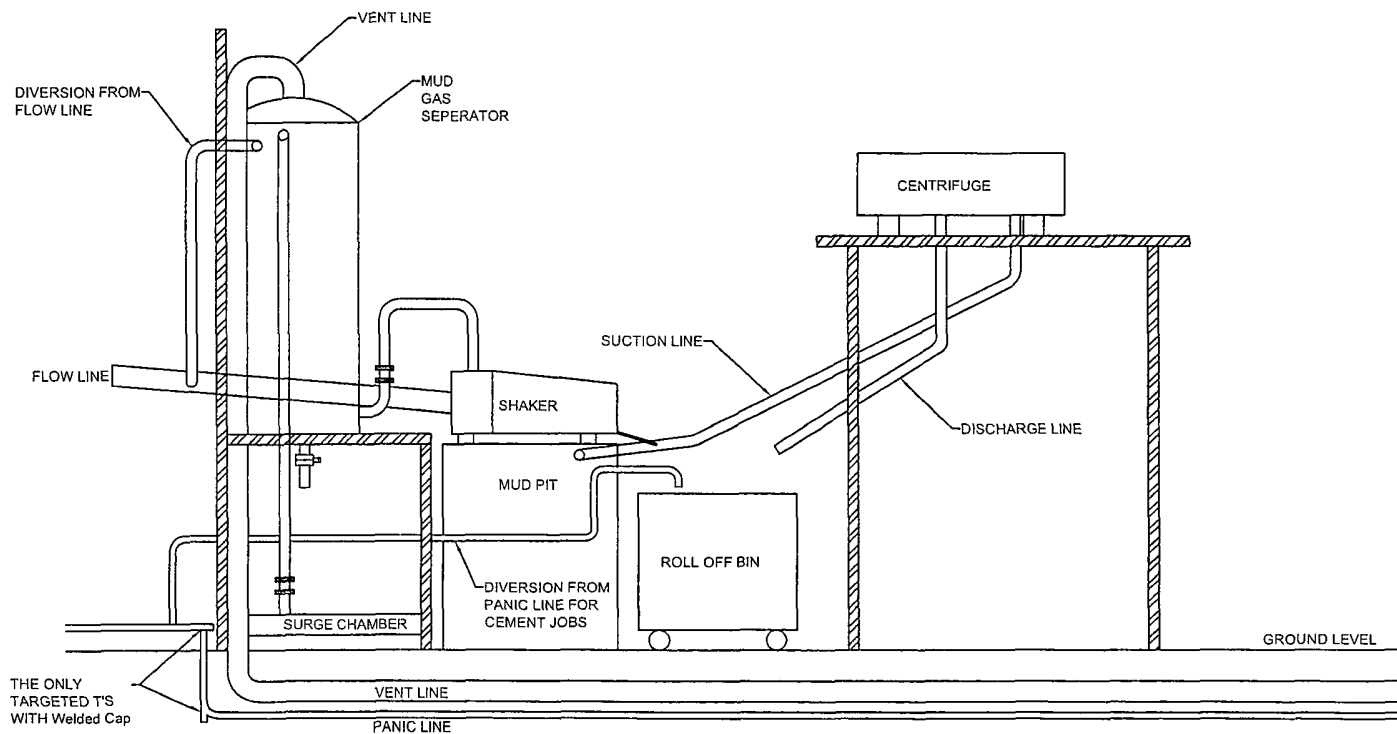


## Typical 3,000 psi choke manifold assembly with at least these minimum features



# YATES PETROLEUM CORPORATION

Piping from Choke Manifold  
to the Closed Loop Drilling Mud System



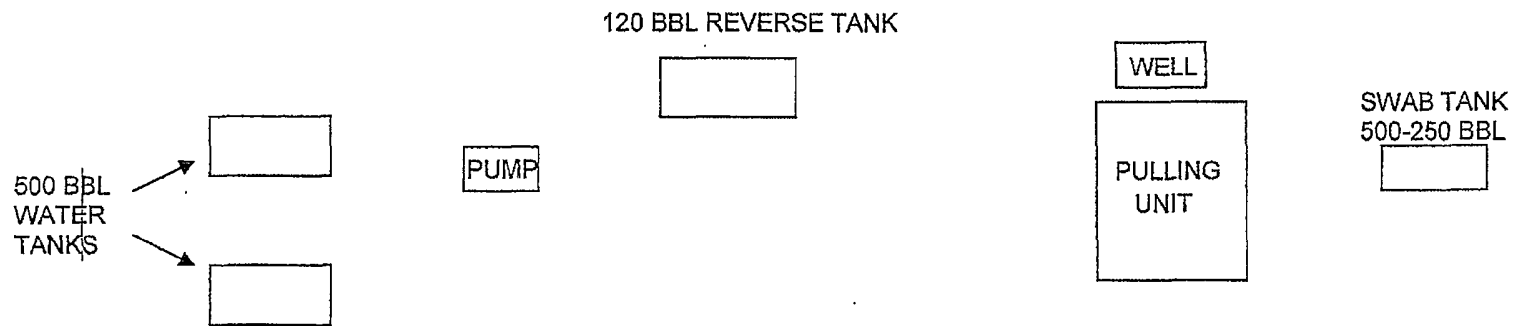
The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.





105 South 4<sup>th</sup> Street \* Artesia, NM 88210  
(575)-748-1471

## RE-COMPLETION WITH DRILL OUT



## Yates Petroleum Corporation

### Hydrogen Sulfide Drilling Operation Plan

#### I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and H<sub>2</sub>S Contingency Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operation Plan and the H<sub>2</sub>S Contingency Plan. **The location of this well does not require a Public Protection Plan.**

## II. H2S SAFETY EQUIPMENT AND SYSTEMS

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

### 1. Well Control Equipment:

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

### 2. Protective equipment for essential personnel:

- A. Mark II Survive Air (or equivalent) 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

### 3. H2S detection and monitoring equipment:

- A. 3 portable H2S monitors positioned at: Shale Shaker, Bell Nipple, and Rig Floor. These units have warning lights and audible sirens when H2S levels of 10 PPM are reached.

### 4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (attached).
- B. Caution/Danger signs (attached) shall be posted on roads providing direct access to location. Signs will be painted with high visibility yellow with black lettering of a sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

### 5. Mud program:

- A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

### 6. Metallurgy:

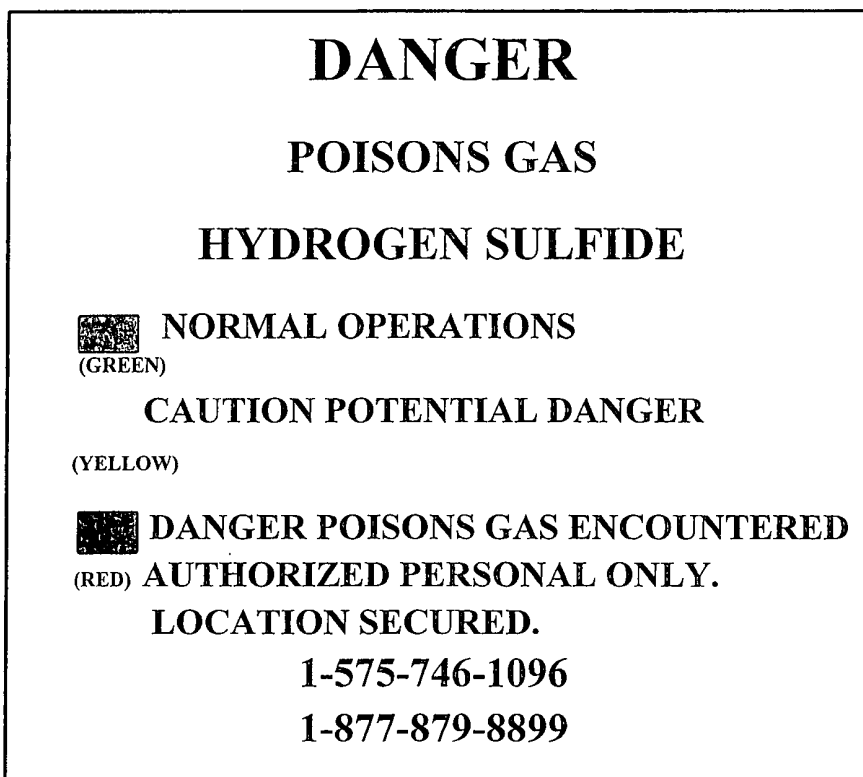
- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

**7. Communication:**

- A. Cellular communications in company vehicles.
- B. Land line (telephone) communication at the Office.

**8. Well testing:**

- A. There will be no drill stem testing.

**EXHIBIT**EDDY COUNTY EMERGENCY NUMBERS

ARTESIA FIRE DEPT. 575-746-5050

ARTESIA POLICE DEPT. 575-746-5000

EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS

HOBBS FIRE DEPT. 575-397-9308

HOBBS POLICE DEPT. 575-397-9285

LEA CO. SHERIFF DEPT. 575-396-1196