

HOBBBS OCD

FEB 06 2013

SECRETARY'S POTASH

OCD Hobbs

FORM APPROVED  
OMB No. 1004-0137  
Expires July 31, 2010

11-923

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-59392
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input 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		7. If Unit or CA Agreement, Name and No.
3a. Address 105 S. Fourth St Artesia, NM 88210		8. Lease Name and Well No. Lusk AHB Federal #8H
3b. Phone No. (include area code) 575-748-4120		9. API Well No. 30-025-40989
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 200' FNL & 1980' FEL At proposed prod. zone 330' FSL & 1980' FEL		10. Field and Pool, or Exploratory Undesignated, 2nd Bone Spring, East
14. Distance in miles and direction from nearest town or post office* Approximately 37 miles to Carlsbad		11. Sec., T. R. M. or Blk. and Survey or Area Section 35 T19S-R32E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200'	16. No. of acres in lease 636.08	12. County or Parish Lea
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1800'	19. Proposed Depth 9814' TVD 14323' MD	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3574' GL	22. Approximate date work will start* 01/16/2013	17. Spacing Unit dedicated to this well W2E2, 160 acres
		20. BLM/BIA Bond No. on file NATIONWIDE BOND #NMB000434
		23. Estimated duration 30 days

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must 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 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) Travis Hahn	Date 07/16/2012
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Title

Land Regulatory Agent

Approved by (Signature) 	Name (Printed/Typed) Aden L Seidlitz	Date JAN 29 2013
Title STATE DIRECTOR	Office NM STATE 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 conduct 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.

(Continued on page 2)

\*(Instructions on page 2)

Capitan Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations AttachedSEE ATTACHED FOR  
CONDITIONS OF APPROVAL

# YATES PETROLEUM CORPORATION

Lusk AHB Federal #8H  
200' FNL & 1980' FEL Surface Hole Location  
330' FSL and 1980' FEL Bottom Hole Location  
Section. 35-T19S-R32-E  
Lea County, New Mexico

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

Rustler	1101'	Avalon Sand	7936' Oil
Top of Salt	1191'	Middle Avalon	8257'
Base of Salt	2726'	Lower Avalon	8591'
Yates	2931' Oil	1 <sup>st</sup> Bone Spring/SD	8836' Oil
Capitan Reef	3281'	2 <sup>nd</sup> Bone Spring/SD	9483' Oil
Bell Canyon	4691' Oil	Target Zone SBSG	10088' Oil
Cherry Canyon	5001' Oil	TD	14323'
Brushy Canyon	6261' Oil		
Bone Spring	7741' Oil		

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

Water: Approx 250' - 350' and 3281'  
Oil or Gas: All Potential Zones—see above

3. Pressure Control Equipment: Pressure Control Equipment: Yates Petroleum Corporation hereby request a variance to allow us to place a 2000 PSI annular system with a 21 1/4" opening will be installed on the 20" a 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375" casing and 5000 PSI BOPE will be installed on the 9.625" casing. Pressure tests to 1000 PSI, 3000 PSI and 5000 PSI respectively and held for 30 minutes will be conducted before drilling out from under all casing strings, which are set and cemented in place. 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. *low pressure test - See COA*

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) Intermediate casing will be J-55/H-40 Hybrid

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
36"	30"		H-40		0-58'	58'
26"	20"	106.5#	J-55	ST&C	0-80'	80'
26"	20"	94.0#	J-55	ST&C	80'-900'	820'
26"	20"	106.5#	J-55	ST&C	900'-1130'	230'
17 1/2"	13 3/8"	61.0#	HCK-55	ST&C	0-80'	80'
17 1/2"	13 3/8"	54.5#	J-55	ST&C	80'-1800'	1720'
17 1/2"	13 3/8"	61.0#	HCK-55	ST&C	1800'-2900'	1100'
12 1/4"	9 5/8"	40.0#	HCK-55	LT&C	0-80'	80'
12 1/4"	9 5/8"	36.0#	J-55	LT&C	80'-3500'	3420'
12 1/4"	9 5/8"	40.0#	HCK-55	LT&C	3500'-4800'	1300'
8 3/4"	5 1/2"	17.0#	P-110	LT&C	0-9330'	9330'
8 1/2"	5 1/2"	17.0#	P-110	Buttress Thread	9330'-14323'	4993'

Well will be drilled vertically to 9336'. Well will be kicked off at approximately 9336' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 10088' MD (9814' TVD). Hole size will then be reduced to 8 1/2" and drilled to 14323' MD (9796' TVD) where 5 1/2" casing will be set. A DV tool will be set at approximately 7000'. Penetration point of producing zone will be encountered at 679' FNL & 1977' FWL, 35-19S-32E. Deepest TVD in the well will be 9814', in the lateral. NO PILOT HOLE.

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

**B. CEMENTING PROGRAM:**

Surface casing: Lead with 1566 sacks of Class PozC 35:65:6 (Yld 2.00 Wt.12.5). Tail in w/200 sacks of "C" (Yld 1.34 Wt 14.8) w/CaCl2 + 2% designed with 100% excess. TOC-Surface.

Intermediate Casing 1 (0'-2900'): Lead with 1875 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5); Tail in w/200 sacks of Class "C" (Yld 1.34 Wt. 14.8) w/CaCl2 +2% designed with 100% excess. TOC-Surface.

Intermediate Casing 2:

Stage 2 (0'-3200'): Lead with 860 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5); Tail in w/200 sacks of Class C (Yld 1.34 Wt 14.8) w/CaCl2 +2% designed with 100% excess. TOC Surface.

Stage 1 (3200'-4800'): Lead with 360 sacks of Class PozC 35:65:6 (YLD 2.0 Wt 12.5); tail in with 200 sacks of Class C (Yld 1.34 Wt 14.8) with CaCl2 + 2%, designed with 100% excess.

Production casing will be cemented using DV tool at 7000'.

Production Casing 2<sup>nd</sup> stage (3000'-7000'): Lead w/545 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5). Tail in 200 sacks of Pecos VILt (Yld 1.41 Wt 13.0) with the additives including 30% CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15% Fluid loss. Designed with 35% excess with the TOC is 3000'.

Production Casing 1<sup>st</sup> stage (7000'-14323'): Lead with 510 sacks of Class PozC 35:65:6 (Yld 2.0 Wt 12.5); Tail in 1045 sacks of Pecos VILt (Yld 1.41 Wt. 13.0) with the additives including 30% CaCO, 3.2% Expansion additive, 2% Antifoam, 0.8% Retarder, 15% Fluid loss, designed with 35% excess. TOC-7000'

**5. Mud Program and Auxiliary Equipment:**

*See COA*

Interval	Type	Weight	Viscosity	Fluid Loss
0'-1130'	Fresh Water Gel	8.6-9.2	32-34	N/C
1130'-2900'	Brine Water	10.0-10.2	28-29	N/C
2900'-4800'	Fresh Water	8.6-9.2	28-29	N/C
4800'-14323'	Cut Brine	8.8-9.2	28-32	N/C

*1190'*

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: 30' samples to 4800' then 10' samples from 4800' to TD.

Logging: GR Newtron 30 degrees dev to surface, Density 30 degrees dev to intermediate casing, Laterolog 30 degrees dev to intermediate casing, CMR 30 degrees dev to intermediate casing, Schlumberger Tools Platform/HRLA/CMR.

Coring: As warranted.

DST's: As warranted.

Mudlogging: On, from surface casing to TD (1130'-14323')

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

Anticipated BHP:

From: 0	TO: 1130'	Anticipated Max. BHP:	541	PSI
From: 1130'	TO: 2900'	Anticipated Max. BHP:	1538	PSI
From: 2900'	TO: 4800'	Anticipated Max. BHP:	2296	PSI
From: 4800'	TO: 9814'	Anticipated Max. BHP:	4695	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None

8. ANTICIPATED STARTING DATE:

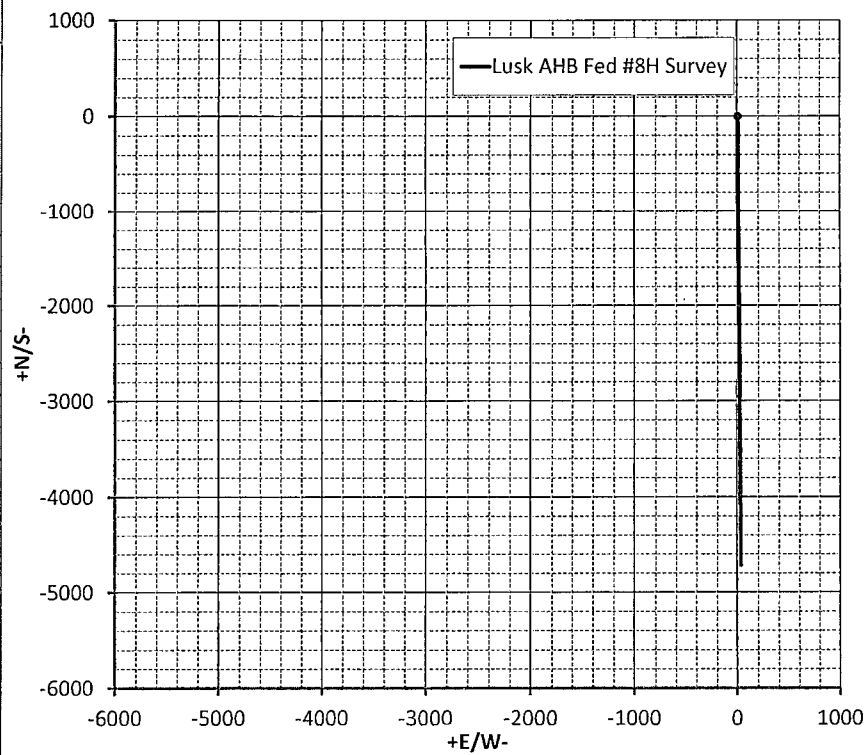
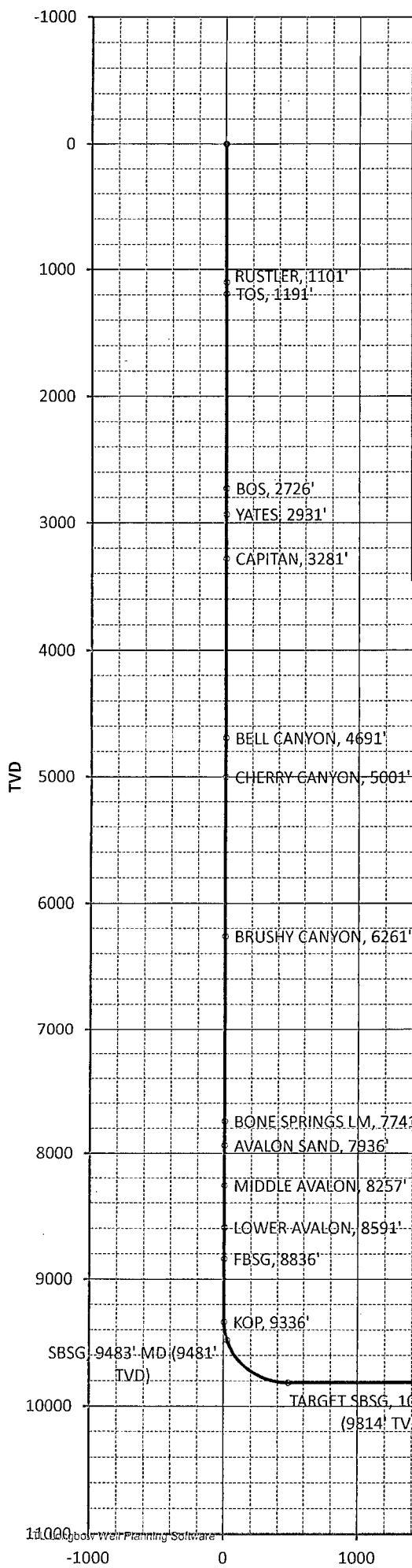
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 15 days.

Operator Co.

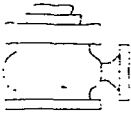
Your Co.

Survey/Planning Report									
Operator	Yates Petroleum Corp.			Northing			Date	3-Jul-12	
Dir. Co.	Yates Petroleum Corp.			Easting			System	2 - St. Plane	
Well Name	Lusk AHB Fed #8H Survey			Elevation			Datum	1983 - NAD83	
Location	Sec. 35, 19S-32E			Latitude			Zone	4302 - Utah Central	
Rig				Longitude			Scale Fac.		
Job				Units	Feet		Converg.		
MD	INC	AZI	TVD	+N/S-	+E/W-	VS@179.7°	BR	TR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1101.00	0.00	0.00	1101.00	0.00	0.00	0.00	0.00	0.00	0.00
1101: RUSTLER, 1101'									
1191.00	0.00	0.00	1191.00	0.00	0.00	0.00	0.00	0.00	0.00
1191: TOS, 1191'									
2726.00	0.00	0.00	2726.00	0.00	0.00	0.00	0.00	0.00	0.00
2726: BOS, 2726'									
2931.00	0.00	0.00	2931.00	0.00	0.00	0.00	0.00	0.00	0.00
2931: YATES, 2931'									
3281.00	0.00	0.00	3281.00	0.00	0.00	0.00	0.00	0.00	0.00
3281: CAPITAN, 3281'									
4691.00	0.00	0.00	4691.00	0.00	0.00	0.00	0.00	0.00	0.00
4691: BELL CANYON, 4691'									
5001.00	0.00	0.00	5001.00	0.00	0.00	0.00	0.00	0.00	0.00
5001: CHERRY CANYON, 5001'									
6261.00	0.00	0.00	6261.00	0.01	0.00	-0.01	0.00	0.00	0.00
6261: BRUSHY CANYON, 6261'									
7741.00	0.00	0.00	7741.00	0.01	0.00	-0.01	0.00	0.00	0.00
7741: BONE SPRINGS LM, 7741'									
7936.00	0.00	0.00	7936.00	0.01	0.00	-0.01	0.00	0.00	0.00
7936: AVALON SAND, 7936'									
8257.00	0.00	0.00	8257.00	0.01	0.00	-0.01	0.00	0.00	0.00
8257: MIDDLE AVALON, 8257'									
8591.00	0.00	0.00	8591.00	0.01	0.00	-0.01	0.00	0.00	0.00
8591: LOWER AVALON, 8591'									
8836.00	0.00	0.00	8836.00	0.01	0.00	-0.01	0.00	0.00	0.00
8836: FBSG, 8836'									
9336.28	0.00	179.70	9336.28	0.01	0.00	-0.01	0.00	1.92	0.00
9336.28: KOP, 9336'									
9400.00	7.65	179.70	9399.81	-4.24	0.02	4.24	12.00	0.00	12.00
9483.30	17.64	179.70	9480.99	-22.45	0.12	22.45	12.00	0.00	12.00
9483.3: SBSG, 9483' MD (9481' TVD)									
9500.00	19.65	179.70	9496.81	-27.79	0.15	27.79	12.00	0.00	12.00
9600.00	31.65	179.70	9586.79	-70.99	0.38	70.99	12.00	0.00	12.00
9700.00	43.65	179.70	9665.83	-131.96	0.70	131.96	12.00	0.00	12.00
9800.00	55.65	179.70	9730.46	-208.03	1.10	208.03	12.00	0.00	12.00
9900.00	67.65	179.70	9777.86	-295.87	1.57	295.87	12.00	0.00	12.00
10000.00	79.65	179.70	9805.97	-391.65	2.08	391.65	12.00	0.00	12.00
10088.28	90.24	179.70	9813.74	-479.45	2.55	479.46	12.00	0.00	12.00
10088.28: TARGET SBSG, 10088' MD (9814' TVD)									
14323.43	90.24	179.70	9796.00	-4714.50	25.03	4714.57	0.00	0.00	0.00
14323.43: LATERAL TD, 14323' MD (9796' TVD)									





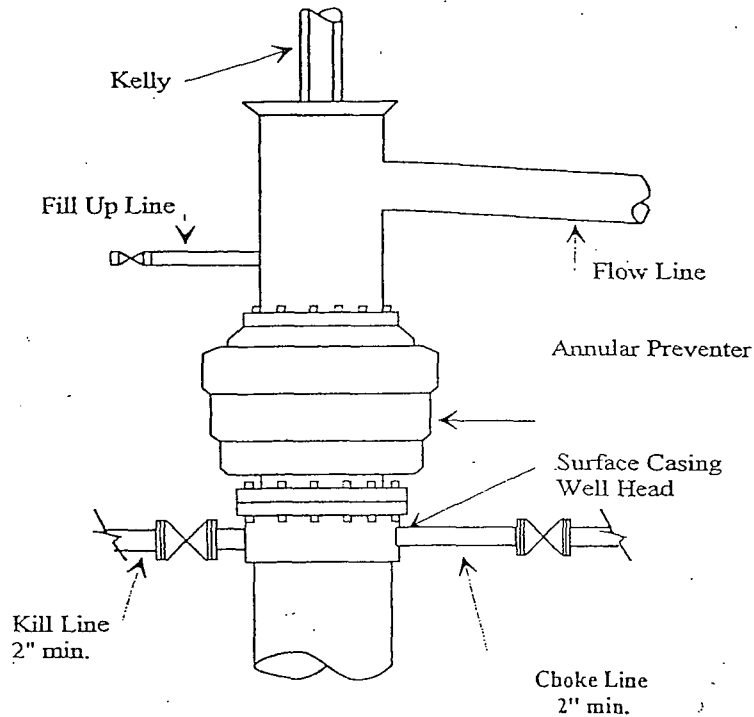
Lusk AHB Fed #8H Survey



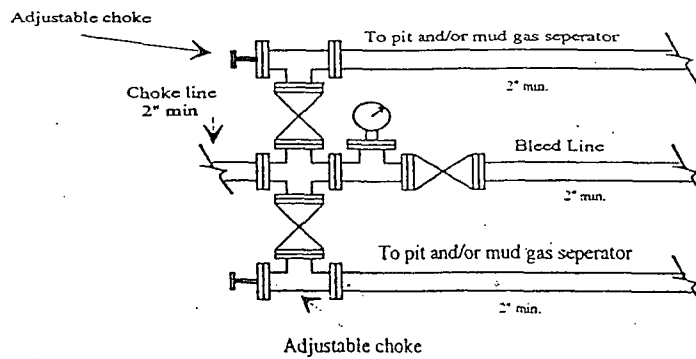
# Yates Petroleum Corporation

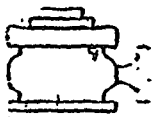
BOP-1

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

BOP-3

Typical 3,000 psi Pressure System  
Schematic

Annular with Double Ram Preventer Stack

YATES PETROLEUM CORPORATION

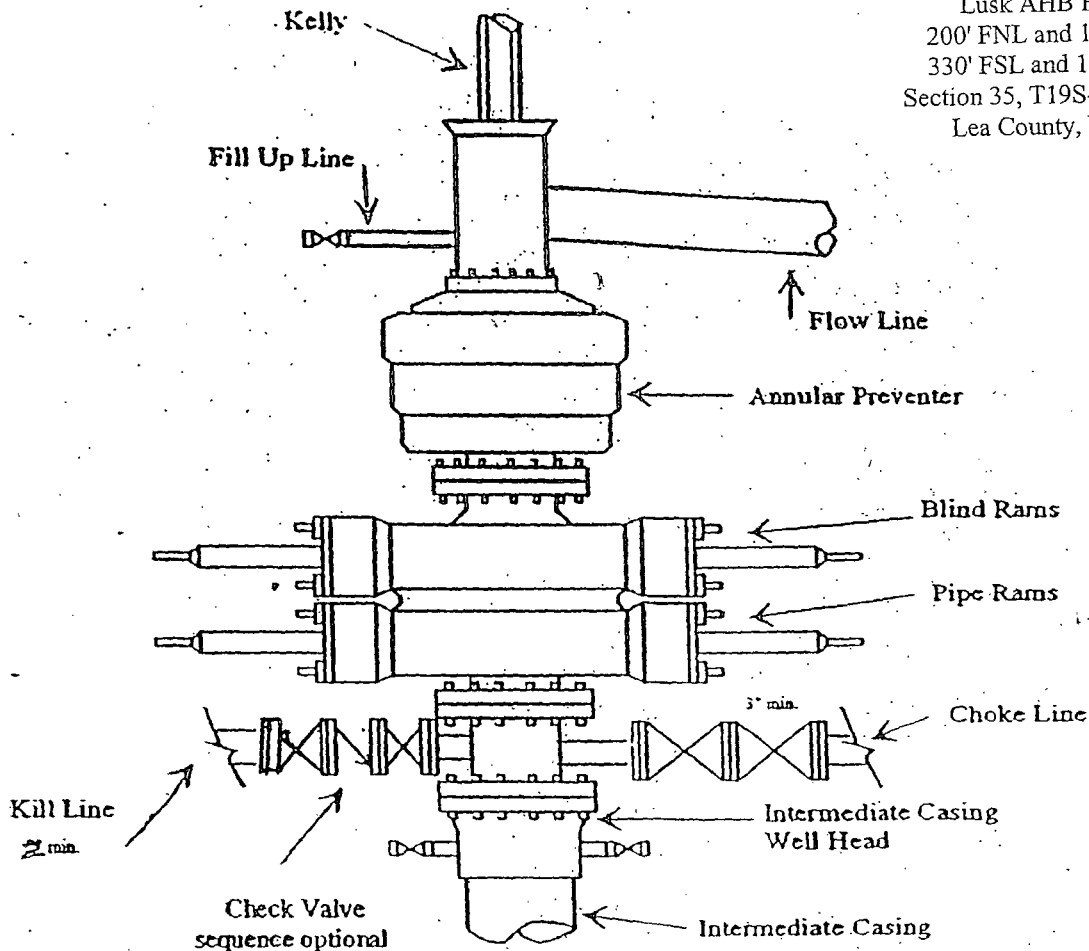
Lusk AHB Federal #8H

200' FNL and 1980' FEL SHL

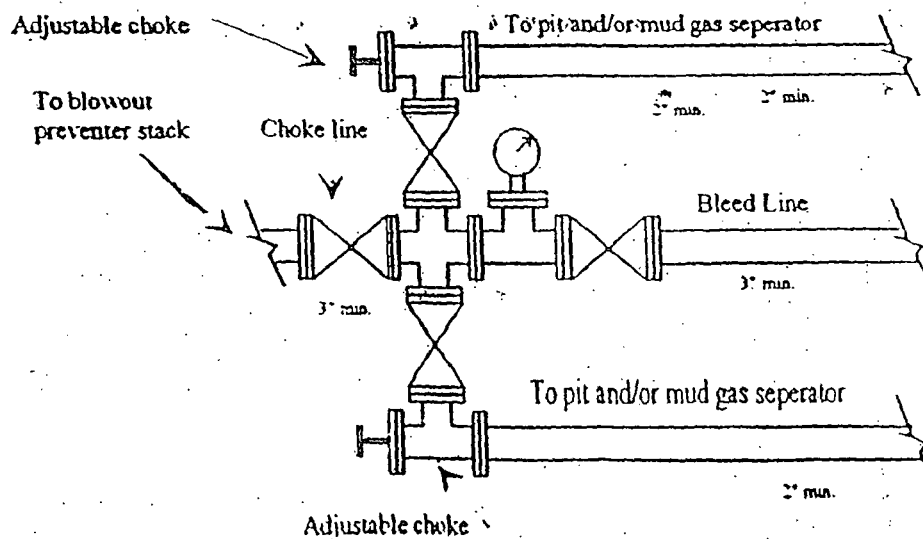
330' FSL and 1980' FEL BHL

Section 35, T19S-R32E Exhibit D

Lea County, New Mexico



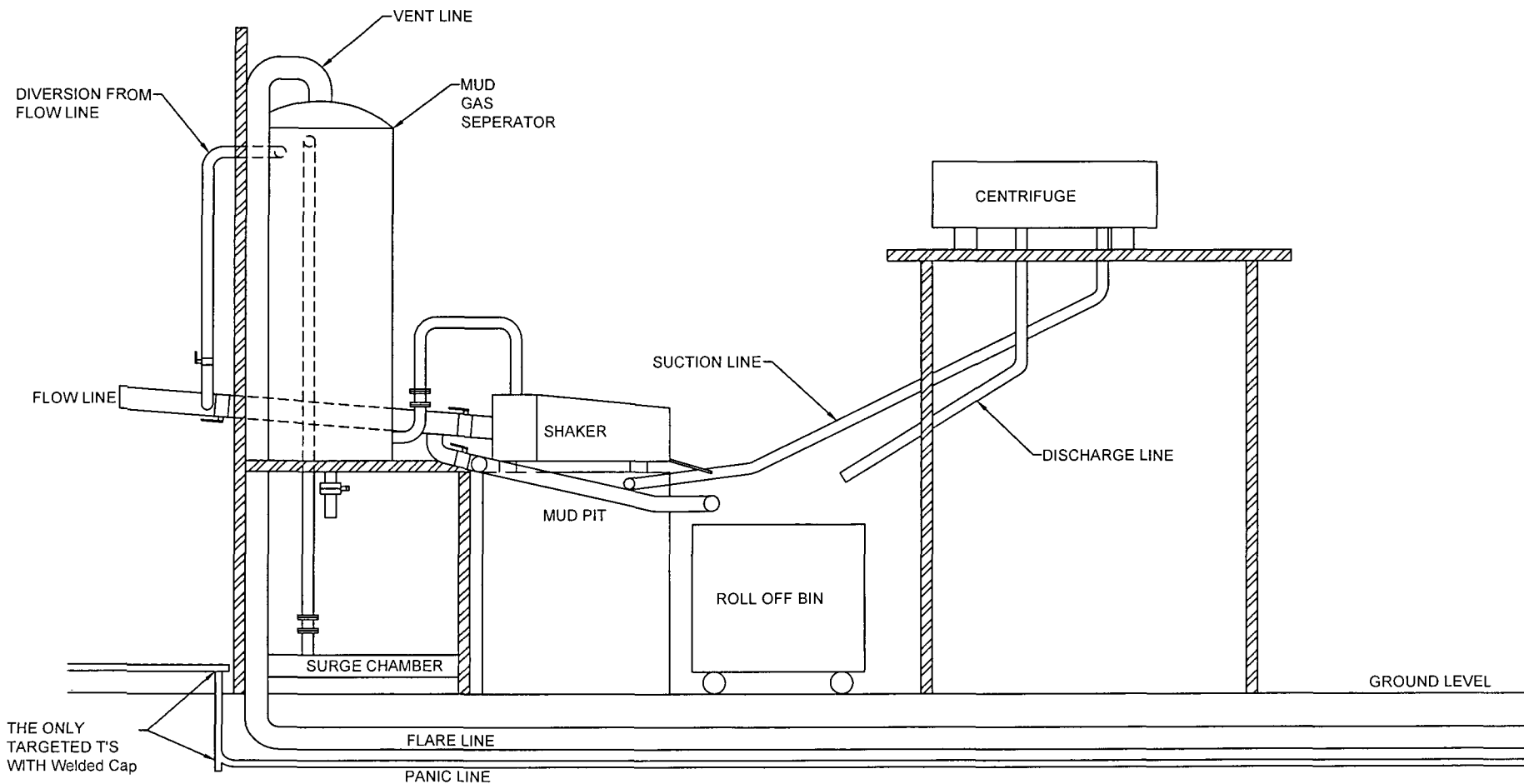
Typical 3,000 psi choke manifold assembly with at least these minimum features



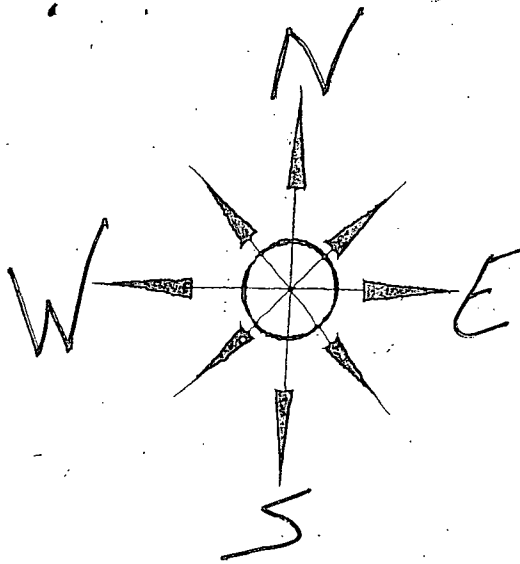


# YATES PETROLEUM CORPORATION

## 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.



# Yates Petroleum Corporation

Location Layout for Permian Basin

YATES PETROLEUM CORPORATION  
Lusk AHB Federal #8H  
200' FNL and 1980' FEL SHL  
330' FSL and 1980' FEL BHL  
Section 35, T19S-R32E Exhibit C  
Lea County, New Mexico

## Closed Loop Design Plan

