

12-330

OCD-HORRBS OCD

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MAY 08 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No
NM-108476
6 If Indian, Allottee or Tribe Name
N/A

7 If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
Rider BRQ Federal #24392057

9. API Well No.
30-025-40558

10. Field and Pool, or Exploratory
Fairview Mills; ~~Wildcat Bone Spring~~ <96340>

11. Sec , T., R., M., or Blk And Survey or Area
Sec. 13 T25S-R34E

12. County or Parish
Lea
13. State
NM

17. Spacing Unit dedicated to this well
S2S2-Sec 13-T25S-R34E

20 BLM/ BIA Bond No. on file
NATIONWIDE BOND #NMB000434

23 Estimated duration
60 Days

24 Attachments

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)
575-748-4120

4 Location of well (Report location clearly and in accordance with any State requirements. *)
At surface
330' FSL & 660' FWL, SWSW, Sec 13-T25S-R34E
At proposed prod. zone
660' FSL & 330' FEL, SESE, Sec 13-T25S-R34E

14 Distance in miles and direction from the nearest town or post office*
Approximately 30 miles west of Jal, NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drlg. unit line, if any) 330
16 No. of acres in lease
1080.00

18 Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft N/A
19. Proposed Depth
13,878' MD
9750' TVD

21. Elevations (Show whether DF, KDB, RT, GL, etc)
3364' GL
22. Aproximate 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. 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 	Printed Name Travis Hahn	Date 2/6/2012
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Title
Land Regulatory Agent

Approved By (Signature) /s/George MacDonell	Name (Printed/ Typed)	Date MAY 3 2012
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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 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 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)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

MAY 09 2012

YATES PETROLEUM CORPORATION

Rider BRQ Federal #2H
330' FSL & 660' FWL, Surface Hole
660' FSL & 330' FEL, Bottom Hole
Section 13 -T25S-R34E
Lea County, New Mexico

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

Rustler	870'	Brushy Canyon Marker	9,245'
Top of Salt	990'	Bone Springs	9,337' Oil
Base of Salt	4,630'	Target Avalon Shale	10,053' Oil
Bell Canyon	5,400' Oil	TD	13,878'
Cherry Canyon	6,375' Oil		
Brushy Canyon	8,010' Oil		

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

Water: Approx. 0' - 900'

Oil or Gas: Oil Zones: 5,400', 6,375', 8,010', 9,337', 10,053'

3. Pressure Control Equipment: 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375 casing and also on the 9.625" casing. Pressure tests to 3000 PSI 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 B.

4. 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.

5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

See COA

See COA

This is a hybrid not "or" max 3/23/12

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	48#	J-55 or H-40	ST&C	0-900'	800'
12 1/4"	9 5/8"	40#	N-80	LT&C	0-100'	100'
12 1/4"	9 5/8"	40#	J-55	LT&C	100' - 4200'	4100'
12 1/4"	9 5/8"	40#	N-80	LT&C	4200 - 4200 5400	500' → 1200
8 3/4"	5 1/2"	20#	L-80	LT&C	0 - 9299'	9299'
8 1/4"	5 1/2"	20#	L-80	LT&C	9299' - 13878'	4579'

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

B. CEMENTING PROGRAM:

Surface Casing: 486 sacks of Class C POZ 35:65:6 (YLD 2.00 WT.12.50). Tail in with 200 sacks of Class C + 2% CaCl₂ (WT 14.80, YLD 1.34). Designed with 100% excess. TOC-Surface.

Intermediate Casing: Lead with 1347 sacks of Class C POZ 35:65:6 (YLD 2.00 WT 12.50). Tail in with 200 sacks of Class C + 2% CaCl₂ (YLD 1.34 WT. 14.80). Designed with 100% excess. TOC-Surface

Production Casing: Cement to be done in ^{two} three stages.

Stage 1 from 9299'-13878'; cement with 1107 sacks of Pecos Valley Lite (YLD 1.41 WT. 13.00). 30%CaCO₃, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Designed with 35% excess. TOC-9299' = Dr Tool

Stage 2 from 0'-9299'; Lead with 716 sacks of Class C POZ 35:65:6 (YLD 2.00 WT 12.50). Tail with 200 sacks of Pecos Valley Lite (WT 13.00, YLD 1.41), 30%CaCO₃, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Designed with 35% excess.

Well will be drilled vertically depth to 9299'. Well will be kicked off at approximately 9299' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 10053' MD (9777' TVD). If hole conditions dictate, 7"

casing will be set and cemented. A 6" hole will then be drilled to 13878' MD (9750' TVD) and 4 1/2" casing will be set from TD to surface. If 7" is not set then hole will then be reduced to 8 1/2" and drilled to 13787' MD (9750' TVD) where 5 1/2" casing will be set and cemented to 4200' in two stages. A DV cementer tool will be set at 9299'. Penetration point of producing zone will be encountered at 370' FSL & 1139' FWL, Section 13-25S-34E. Deepest TVD is 9778' in the lateral. NO PILOT HOLE.

6. Mud Program and Auxiliary Equipment:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-900' ¹⁰⁰⁰	Fresh Water Gel	8.8-9.2	32-34	N/C
900'-4700' ⁵⁴⁰⁰	Brine Water	10.0-10.20	28-28	N/C
4700'-10053'	Cut Brine	8.8-9.0	28-28	N/C
10053'-13787'	Cut Brine (Lateral Section)	9.0-9.2	30-32	N/C

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.

7. EVALUATION PROGRAM: *See COA*

Samples: 30' Samples to 4700', 10' samples from 4700' to TD

Coring: TBD.

DST's: TBD.

Mudlogging: Yes, from surface casing.

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

Anticipated BHP:

From: 0 TO 900'	Anticipated Max. BHP:	431	PSI
From: 900' TO 4700'	Anticipated Max. BHP:	2493	PSI
From: 4700' TO 9780'	Anticipated Max. BHP:	4679	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None

9. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 65 days to drill the well with completion taking another 30 days.

Rider BRQ Federal #2H

Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 10,053' MD (9777' TVD). A 6" hole will then be drilled to 13878' MD (9750' TVD) where 4 1/2" casing will be set from TD to surface.

2nd Intermediate

0 ft to 10,053 ft				Make up Torque ft-lbs			Total ft =
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	29 #/ft	L-80	LT&C	5870	4400	7340	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
7,020 psi	8,160 psi	587 ,000 #		676 ,000 #		6.059	

DV tool placed at 7,900' and 4,900'.

Stage I: Cemented w/310sx PVL (YLD 1.41 Wt 13) Landing Point to 7900'

Stage II: Lead w/245sx 35:65;6 PosC (YLD 2.0 Wt 12.5), tail w/125sx PVL (YLD 1.41 Wt 13) 7900'-4700'

Stage III: Lead w/675sx 35:65;6 PosC (YLD 2.0 Wt 12.5), tail w/125sx Class C (YLD 1.34 Wt 14.8) 4700'-0'

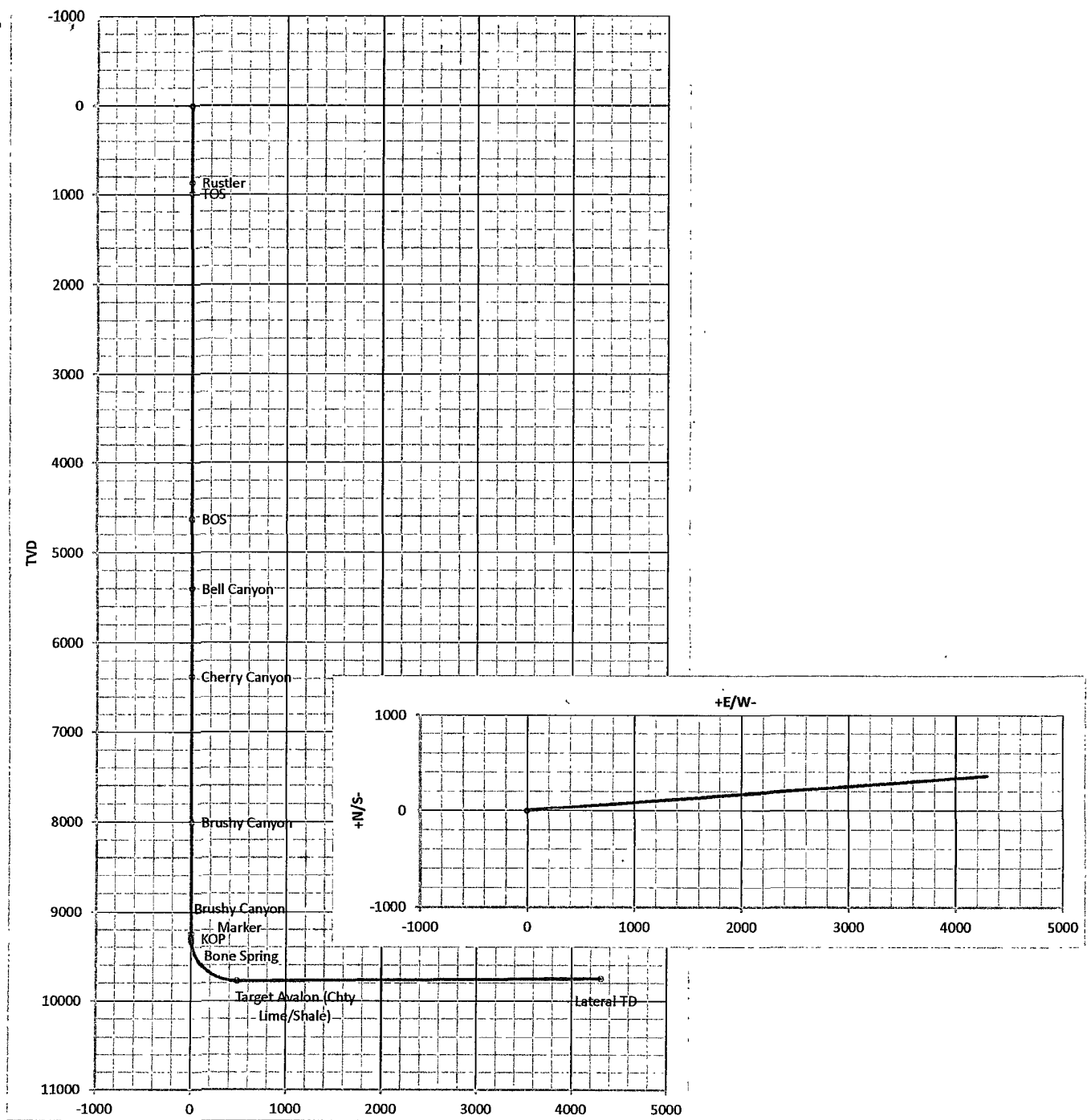
Production

0 ft to 9,299 ft				Make up Torque ft-lbs			Total ft =
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	P-110	LT&C	3020	2270	3780	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
7,580 psi	10,690 psi	279 ,000 #		367 ,000 #		3.875	

9,299 ft to 13,878 ft				Make up Torque ft-lbs			Total ft =
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	L-80	BT&C	N/A	N/A	N/A	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
6,350	7,780 psi	212 ,000 #		267 ,000 #		3.875	

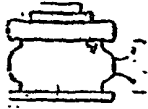
4 1/2" Casing will be set from TD to Surface and cemented to TOC (9,299').

Cemented w/1,261sx PVL (YLD 1.41 Wt 13) 13,878'-9299'.



Rider BRQ Fed 2H

Co:	Yates Petroleum Corporation					Units:	Feet, °, 7100ft			VS Az:	85.22		Method:	Minimum Curvature	
Drillers:	0					Elevation:				Map System:	NAD83, St. Plane, Wyoming West				
Well Name:	Rider BRQ Federal 2H					Northing:				Latitude:					
Location:	Sec. 13, 25S-34E					Easting:				Longitude:					
Yates Petroleum Corporation: Rider BRQ Fed 2H															
No	MD	CL	Inc	Azi	TVD	VS	N/S	E/W	BR	WR	DLS	Comments			
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
1	870.00	870.00	0.00	0.00	870.00	0.00	0.00	0.00	0.00	0.00	0.00	Rustler			
2	990.00	120.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00	0.00	0.00	TOS			
3	4630.00	3640.00	0.00	0.00	4630.00	0.00	0.00	0.00	0.00	0.00	0.00	BOS			
4	5400.00	770.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	0.00	0.00	Bell Canyon			
5	6375.00	975.00	0.00	0.00	6375.00	0.00	0.01	0.00	0.00	0.00	0.00	Cherry Canyon			
6	8010.00	1635.00	0.00	0.00	8010.00	0.00	0.01	0.00	0.00	0.00	0.00	Brushy Canyon			
7	9245.00	1235.00	0.00	0.00	9245.00	0.00	0.01	0.00	0.00	0.00	0.00	Brushy Canyon Marker			
8	9299.26	54.26	0.00	85.22	9299.26	0.00	0.01	0.00	0.00	0.92	0.00	KOP			
9	9300.00	0.74	0.09	85.22	9300.00	0.00	0.01	0.00	11.99	-0.01	11.99				
10	9337.03	37.03	4.53	85.22	9336.99	1.49	0.13	1.49	12.00	0.00	12.00	Bone Spring			
11	9400.00	62.97	12.09	85.22	9399.25	10.59	0.89	10.55	12.00	0.00	12.00				
12	9500.00	100.00	24.09	85.22	9494.14	41.58	3.47	41.44	12.00	0.00	12.00				
13	9600.00	100.00	36.09	85.22	9580.50	91.63	7.64	91.31	12.00	0.00	12.00				
14	9700.00	100.00	48.09	85.22	9654.58	158.54	13.21	157.98	12.00	0.00	12.00				
15	9800.00	100.00	60.09	85.22	9713.12	239.38	19.95	238.55	12.00	0.00	12.00				
16	9900.00	100.00	72.09	85.22	9753.58	330.63	27.55	329.48	12.00	0.00	12.00				
17	10000.00	100.00	84.09	85.22	9774.18	428.30	35.69	426.81	12.00	0.00	12.00				
18	10052.59	52.59	90.40	85.22	9776.71	480.80	40.06	479.13	12.00	0.00	12.00	Target Avalon (Chty Lime			
19	13878.35	3825.76	90.40	85.22	9750.00	4306.47	358.73	4291.50	0.00	0.00	0.00	Lateral TD			



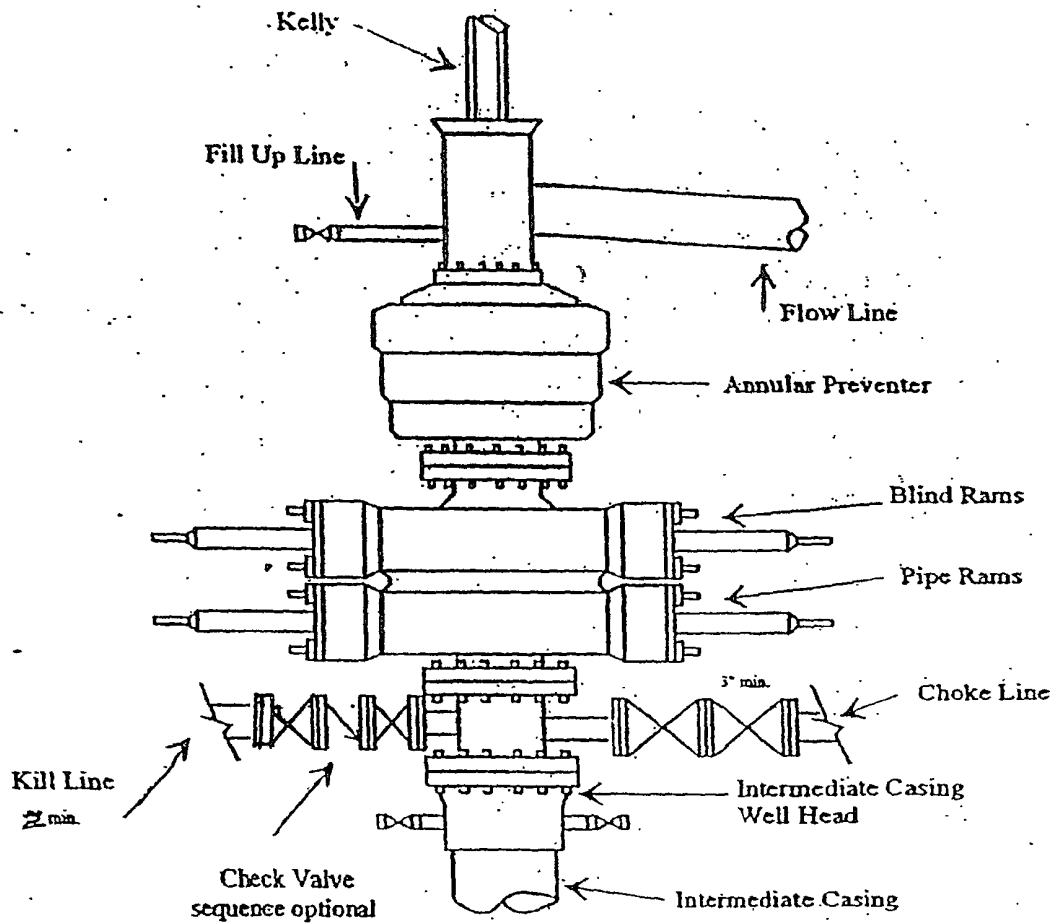
Yates Petroleum Corporation

Typical 3,000 psi Pressure System

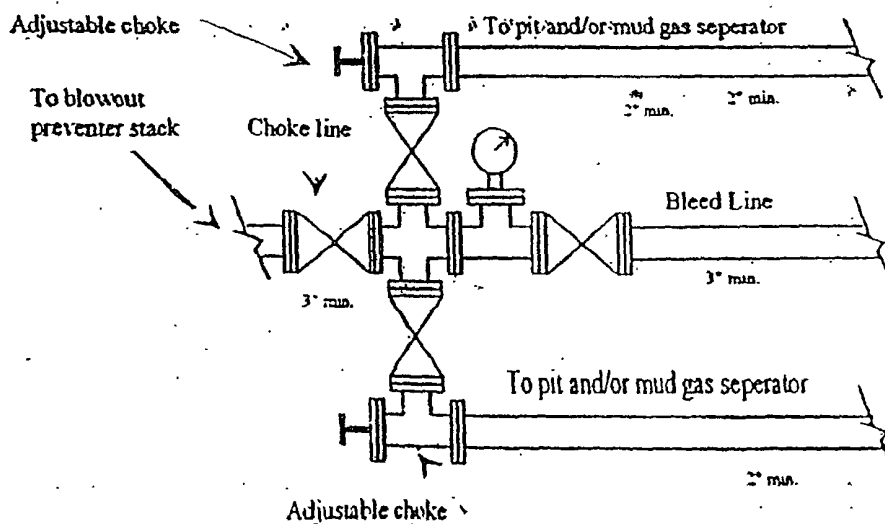
Schematic

Annular with Double Ram Preventer Stack

BOP-3

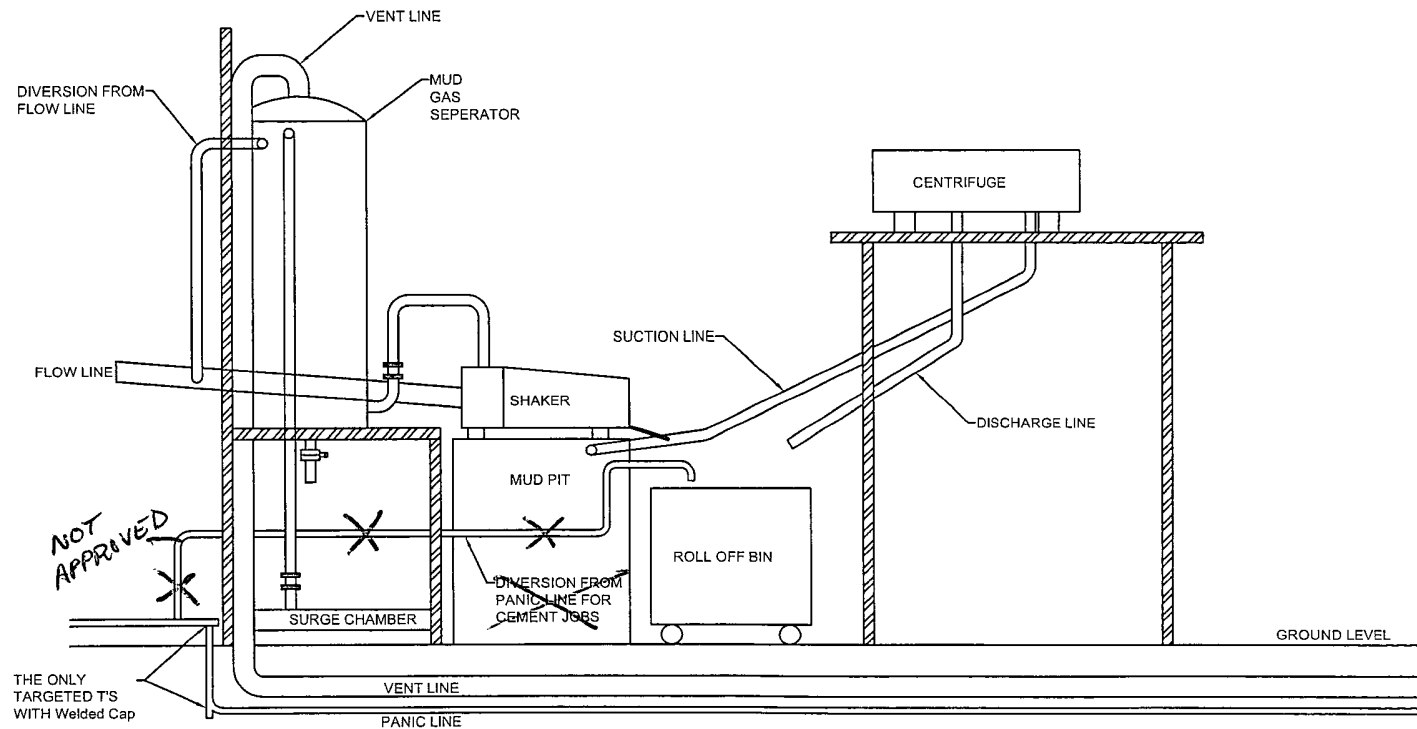


Typical 3,000 psi choke manifold assembly with at least these minimum features



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