

OPERATOR'S COPY

Form 3160-3
(February 2005)

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

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-62211
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name N/A
2. Name of Operator Yates Petroleum Corporation 025575		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 105 South Fourth Street, Artesia, NM 88210		8. Lease Name and Well No. Hanagan APL Fed #2-H [7558]
3b. Phone No. (include area code) 505-748-1471		9. API Well No. 30-015-39511
4. Location of well (Report location clearly and in accordance with any State requirements.) At surface 1600' FSL & 330' RL, 31-19S-30E, NWSW At proposed prod. zone 1980' FSL & 330' FEL, 31-19S-30E, NESE		10. Field and Pool or Exploratory Parkway Bone Spring Wildcat Bone Spring 49622
11. Sec., T., R., M., or Blk. And Survey or Sec. 31-19S-30E		
12. County or Parish Eddy		13. State NM
14. Distance in miles and direction from the nearest town or post office* Approximately 41 miles southeast of Artesia, New Mexico		
15. Distance from proposed* location to nearest (Also to nearest drlg. unit line, if any) 330'	16. No. of acres in lease 200.00	17. Spacing Unit dedicated to this well N2S2, Section 31, T19S-R30E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 500'	19. Proposed Depth 8420' TVD & 12792' MD	20. BLM/ BIA Bond No. on file NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3324' GL	AS/ Aproximate date work will start* ASAP	23. Estimated duration 60 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:

- Well plat certified by a registered surveyor.
- ap
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by existing bond on file (see item 20 above).
- Operator certification.
- Such other site specific information and/ or plans as may be required by the BLM

25. Signature 	Name (Printed/ Typed) Cy Cowan	Date 8/22/11
Title Land Regulatory Agent		
Approved By (Signature) 	Name (Printed/ Typed) Jesse Tuen	Date 10/12/2011
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 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)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL
CAPTAN CONTROLLED WATER BASIN

RECEIVED

OCT 19 2011

NMOC D ARTESIA

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

YATES PETROLEUM CORPORATION

Hanagan APL Federal Com. #2-H
1600' FSL & 330' FWL, Surface Hole
1980' FSL & 330' FEL, Bottom Hole
Section 31 -T19S-R30-E
Eddy County, New Mexico

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

Salt	400'	Cherry Canyon	3650' Oil Pay
Tansill	1320' Oil Pay	Brushy Canyon	4550' Oil Pay
Yates	1450' Oil Pay	Bone Spring Lime	6080' Oil Pay
Seven Rivers	1700' Oil Pay	1st Bone Spring	7430' Oil
Capitan	2400' Oil Pay	2nd Bone Spring	8050' Oil Pay
Delaware	3550' Oil Pay	Target Sand	8380' Oil Pay 8648'-MD
		Pilot Hole TD	8550'
		TD (Lateral Hole)	8420' 12792'-MD

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

Water: Approx 250' - 350'

Oil or Gas: See above--All Potential Zones

3. Pressure Control Equipment: Yates Petroleum Corporation hereby requests a variance to allow us to place a 2000 PSI annular system with a 17.5" opening will be installed on the 20" casing. 3000 PSI BOPE with a 13.625" opening will be installed on the 13.3/8" casing and also on the 9 5/8" 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)

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
26"	20"	94#	H-40	ST&C	0-400'	400'
17 1/2"	13 3/8"	54.5#	J-55	ST&C	0-100'	100'
17 1/2"	13 3/8"	48#	H-40	ST&C	100'-1200'	1100'
17 1/2"	13 3/8"	54.5#	J-55	ST&C	1200'-1500'	300'
12 1/4"	9 5/8"	36#	K-55	LT&C	0-3500'	3500'
8 1/2"	5 1/2"	17#	HCP-110	LT&C	0-7900'	7900'
8 1/2"	5 1/2"	17#	L-80	LT&C	7900'-12792'	4892'

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

B. CEMENTING PROGRAM:

Surface casing: 460 sacks Class C Lite+ 2% CaCl₂ (YLD 1.97 WT.12.90). Tail in w/200 sacks Class C + 2% CaCl₂ (YLD 1.34 WT 14.80). Designed with 100% excess. TOC-Surface.

Intermediate Casing: Lead with 760 sacks Pecos Valley Lite + 2% CaCl₂ (YLD 2.00 WT 12.50); tail in with 200 sacks Class C + 2% CaCl₂ (YLD 1.34 WT. 14.80). Designed with 100% excess. TOC-Surface

2nd Intermediate Casing: Lead with 600 sacks Pecos Valley Lite + CaCl₂ (YLD 2.18 WT 12.50); tail in with 200 sacks Class C + CaCl₂ (YLD 1.34 WT 14.80). TOC-Surface

Production Casing: Cement to be done in two stages with stage tool at approx. 6500'.

Stage 1 from 6500'-12792'; Lead with 500 sacks 35:65:6PzC (YLD 2.08 WT 12.60); cement with 1100 sacks Pecos Valley Lite (YLD 1.83 WT. 13.00). 30%CaCO₃, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Designed with 100% excess. TOC-6500'

*
See
COA

Stage 2 from 3000'-6500'; Lead with 760 sacks C Lite (YLD 2.00 WT 12.50) 5% Salt, 6% Extender, 1% Fluid Loss, .2% w/100 sacks Antifoam, 2.0 lb/sack LCM Extender, .125 lb/sack LCM, .35 gal/sack Retarder. Tail in 200 sacks Class C (YLD 1.34 Wt 14.80) TOC-3000'. Designed with 100% excess.

Kick off plug will be 600' being 8300' up to 7700' with 335 sacks Class H Neat (YLD 0.94 WT. 17.5) with Retarder D-177 25 gallon and Retarder D-800 17 gallons. Cement designed with 25% excess.

Pilot hole plug will be 180' being 8550' up to 8370' with 100 sacks of Class H Neat (YLD 0.94 WT. 17.5) with Retarder D-177 25 gallon and Retarder D-800 17 gallons. Cement designed with 25% excess.

The pilot hole will be drilled vertically depth to 8550'. Well will be plugged back with a 500-600' kick-off plug, then kicked off at approximately 7906' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 8652' MD (8384' TVD). Hole size will then be reduced to 8 1/2" and drilled to 12792' MD (8420' TVD) where 5 1/2" casing will be set and cemented. Drill 8 1/2" lateral to TD at 12792' MD (8420' TVD). Penetration point of producing zone will be encountered at 1640' FSL & 802' FWL, 31-19S-30E. Deepest TVD in the well is 8550' in pilot hole. Deepest TVD in the lateral will be 8420'.

6. Mud Program and Auxiliary Equipment: *See COA - Fresh Water Mud -> Capitan Reef*

See
COA

Interval	Type	Weight	Viscosity	Fluid Loss
0-400'	Fresh Water	8.60-9.20	32-366	N/C
400'-1500'	Brine Water	10.00-10.00	28-29	N/C
1500'-2400'	Cut Brine *	8.60-8.80	28-29	N/C
2400'-3600'	Fresh Water *	8.60-9.20	32-366	N/C
3600'-12880'	Cut Brine	8.80-9.20	28-32	N/C
7906'-12792'	Cut Brine (lateral section)	8.80-9.00	28-32	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 3000'. 10 samples 3000' to TD.

Logging: Platform Express/Hals/ NGT, CMR.

Coring: As warranted.

DST's: As warranted.

Mudlogging on from surface casing to TD

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

Anticipated BHP:

From: 0	TO: 400'	Anticipated Max. BHP:	190	PSI
From: 400'	TO: 1500'	Anticipated Max. BHP:	720	PSI
From: 1500'	TO: 3500'	Anticipated Max. BHP:	1820	PSI
From: 3500'	TO: 8550'	Anticipated Max. BHP:	4090	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: None.

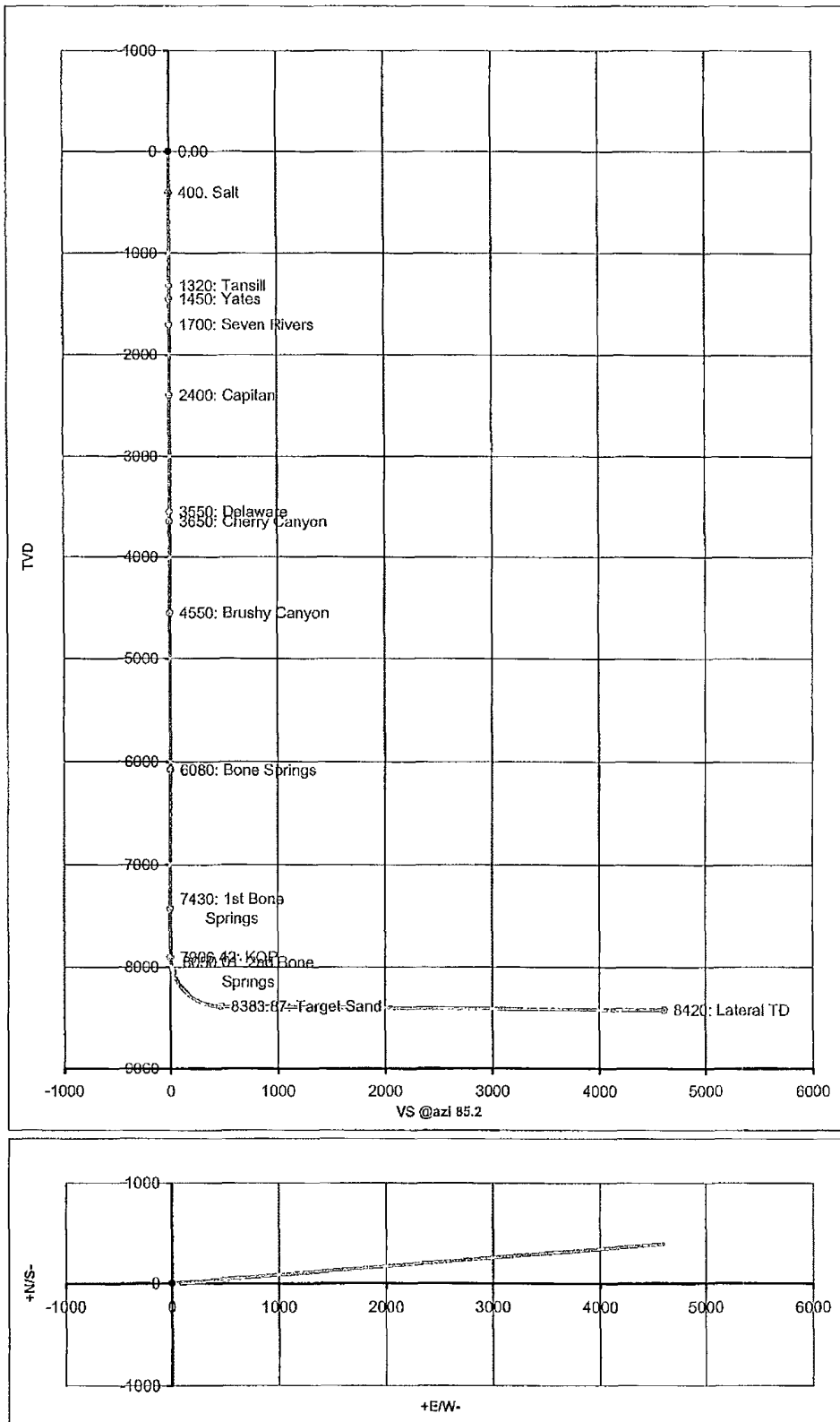
H2S Zones Anticipated: None

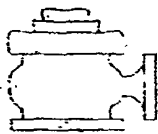
9. ANTICIPATED STARTING DATE:

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

Co: Yates Petroleum Corporation	Units: Feet, °, 7100ft	VS Az: 85.20	Tgt TVD: 8420.00
Drillers: 0	Elevation:	Tgt Radius: 0.00	Tgt MD: 0.00
Well Name: Hanagan APL Federal Com #2H	Northing:	Tgt N/S: 385.65	Tgt Displ.: 0.00
Location: Section 31, 19S-30E	Easting:	Tgt E/W: 4597.18	Method: Minimum Curvature

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	400.00	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	Salt
2	1320.00	920.00	0.00	0.00	1320.00	0.00	0.00	0.00	0.00	0.00	0.00	Tansill
3	1450.00	130.00	0.00	0.00	1450.00	0.00	0.00	0.00	0.00	0.00	0.00	Yates
4	1700.00	250.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00	0.00	Seven Rivers
5	2400.00	700.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00	0.00	Capitan
6	3550.00	1150.00	0.00	0.00	3550.00	0.00	0.00	0.00	0.00	0.00	0.00	Delaware
7	3650.00	100.00	0.00	0.00	3650.00	0.00	0.00	0.00	0.00	0.00	0.00	Cherry Canyon
8	4550.00	900.00	0.00	0.00	4550.00	0.00	0.00	0.00	0.00	0.00	0.00	Brushy Canyon
9	6080.00	1530.00	0.00	0.00	6080.00	0.00	0.01	0.00	0.00	0.00	0.00	Bone Springs
10	7430.00	1350.00	0.00	0.00	7430.00	0.00	0.01	0.00	0.00	0.00	0.00	1st Bone Springs
11	7906.42	7906.42	0.00	85.20	7906.42	0.00	0.01	0.00	0.00	1.08	0.00	KOP
12	8000.00	93.58	11.23	85.20	7999.40	9.14	0.77	9.11	12.00	0.00	12.00	
13	8052.27	145.84	17.50	85.20	8050.01	22.10	1.85	22.02	12.00	0.00	12.00	2nd Bone Springs
14	8100.00	47.73	23.23	85.20	8094.74	38.70	3.24	38.57	12.00	0.00	12.00	
15	8200.00	100.00	35.23	85.20	8181.85	87.45	7.32	87.14	12.00	0.00	12.00	
16	8300.00	100.00	47.23	85.20	8256.92	153.23	12.82	152.70	12.00	0.00	12.00	
17	8400.00	100.00	59.23	85.20	8316.67	233.19	19.50	232.37	12.00	0.00	12.00	
18	8500.00	100.00	71.23	85.20	8358.49	323.82	27.08	322.69	12.00	0.00	12.00	
19	8600.00	100.00	83.23	85.20	8380.56	421.17	35.21	419.70	12.00	0.00	12.00	
20	8652.26	745.83	89.50	85.20	8383.87	473.30	39.57	471.64	12.00	0.00	12.00	Target Sand
21	12792.44	4140.19	89.50	85.20	8420.00	4613.33	385.65	4597.18	0.00	0.00	0.00	Lateral TD





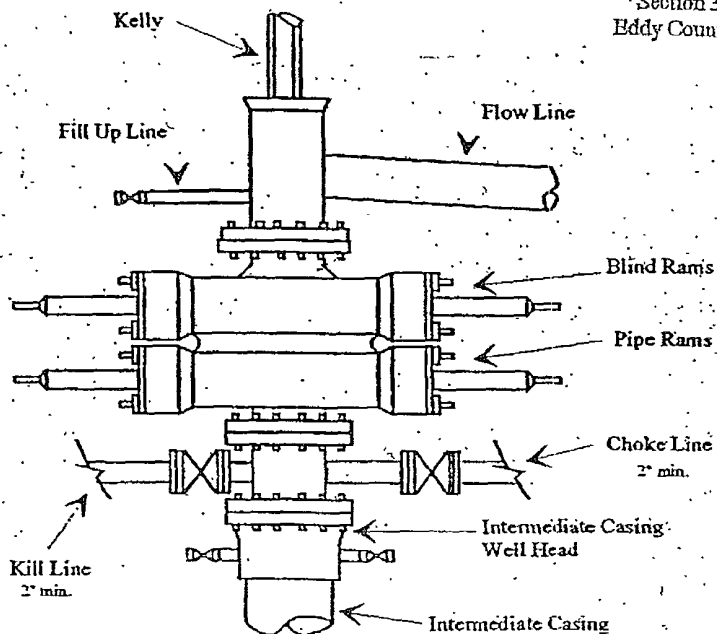
Yates Petroleum Corporation

BOP-2

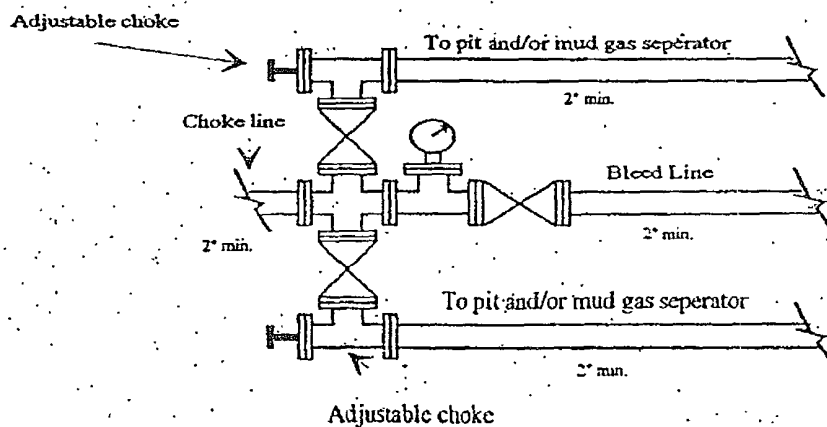
Typical 2,000 psi Pressure System Schematic

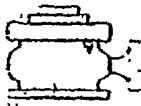
Double Ram Preventer Stack

YATES PETROLEUM CORPORATION
Hanagan APL Federal Com. #2H
1600' FSL and 330' FWL SHL
1980' FSL and 330' FBL BHL
Section 31, T19S-R30E
Eddy County, NM Exhibit C-1



Typical 2,000 psi choke manifold assembly with at least these minimum features

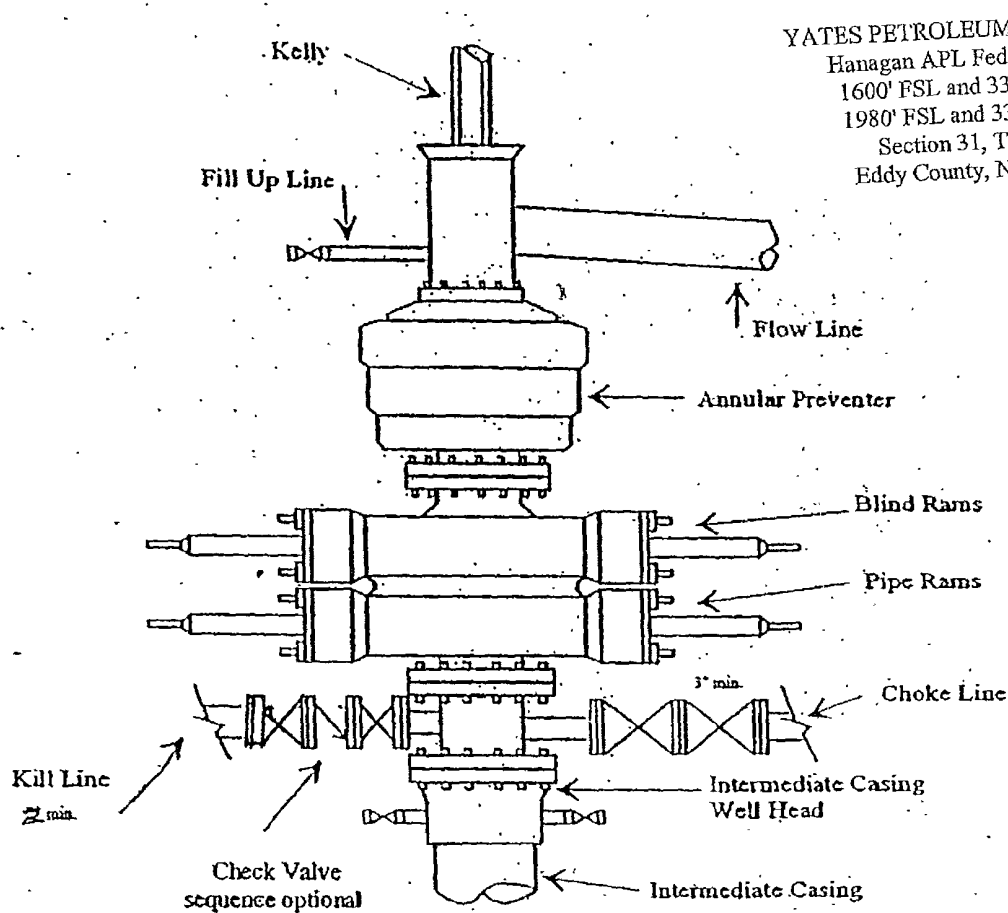




Yates Petroleum Corporation

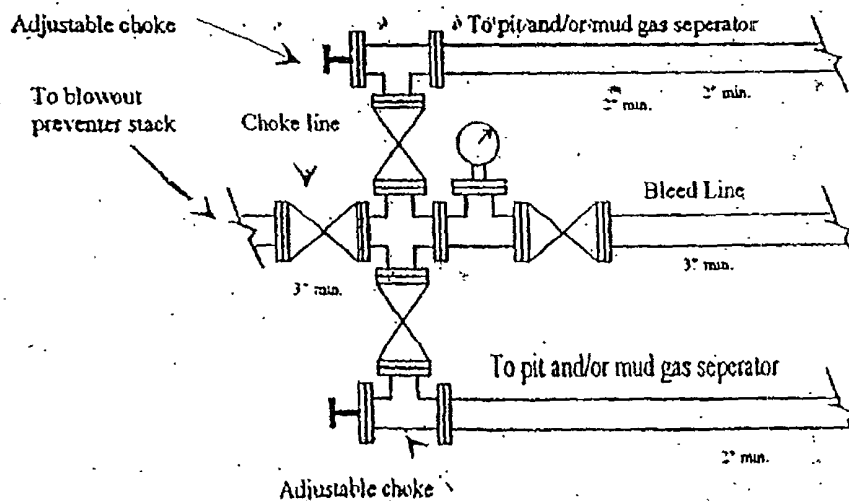
BOP-3

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



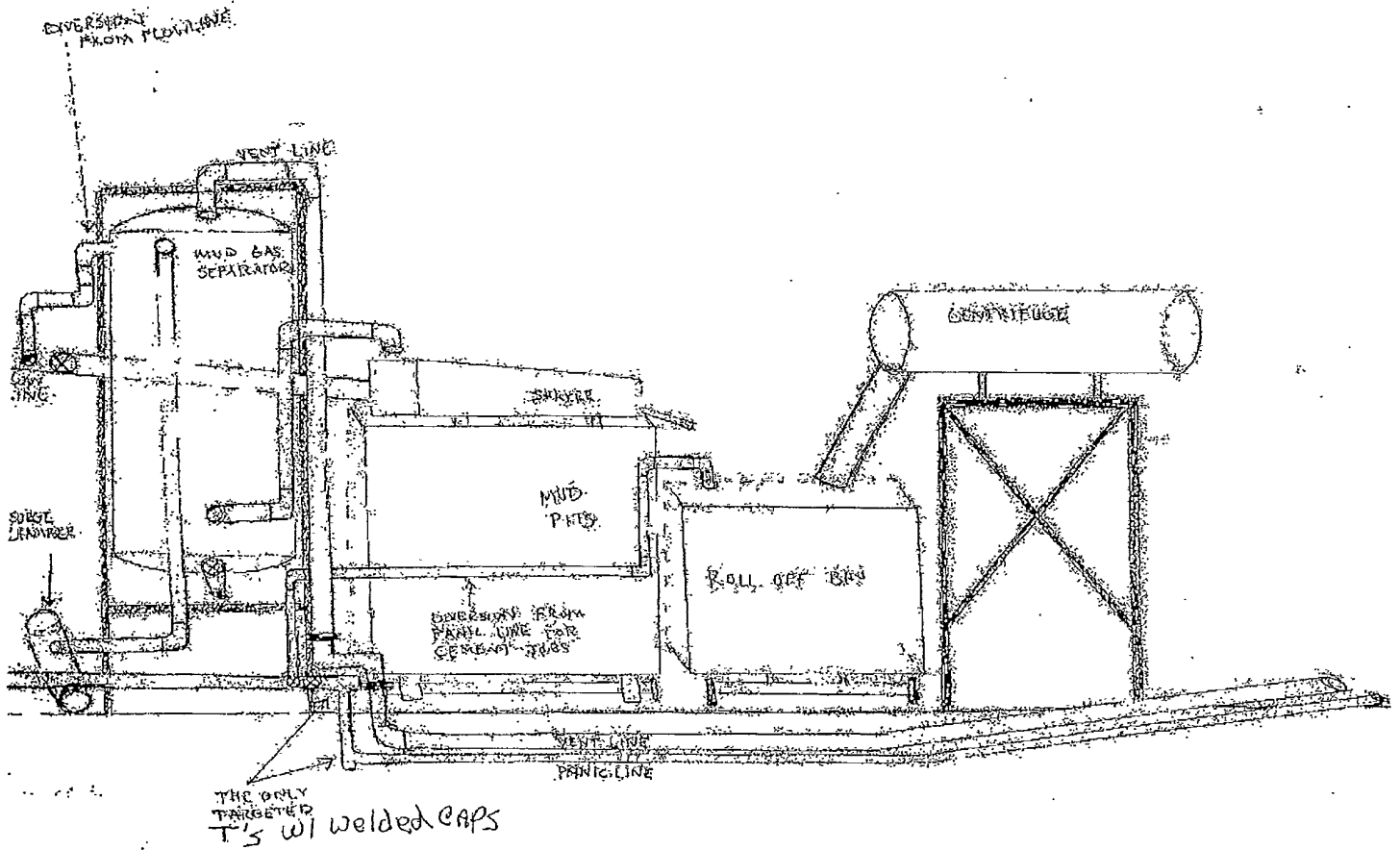
YATES PETROLEUM CORPORATION
Hanagan APL Federal Com. #2H
1600' FSL and 330' FWL SHL
1980' FSL and 330' FEL BHL
Section 31, T19S-R30E
Eddy County, NM Exhibit C

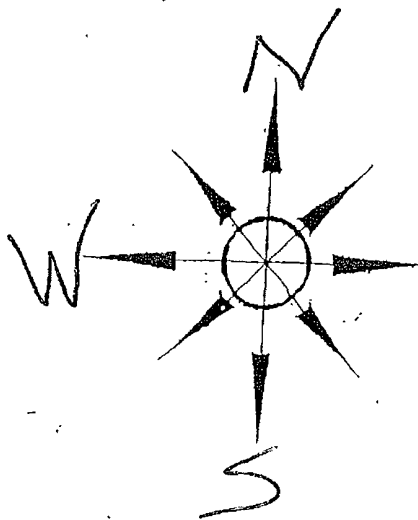
Typical 3,000 psi choke manifold assembly with at least these minimum features



YATES PETROLEUM CORPORATION
Piping from Choke Manifold
to the Closed-Loop Drilling Mud System

YATES PETROLEUM CORPORATION
Hanagan APL Federal Com. #2H
1600' FSL and 330' FWL SHL
1980' FSL and 330' FEL BHL
Section 31, T19S-R30E
Eddy County, NM Exhibit E



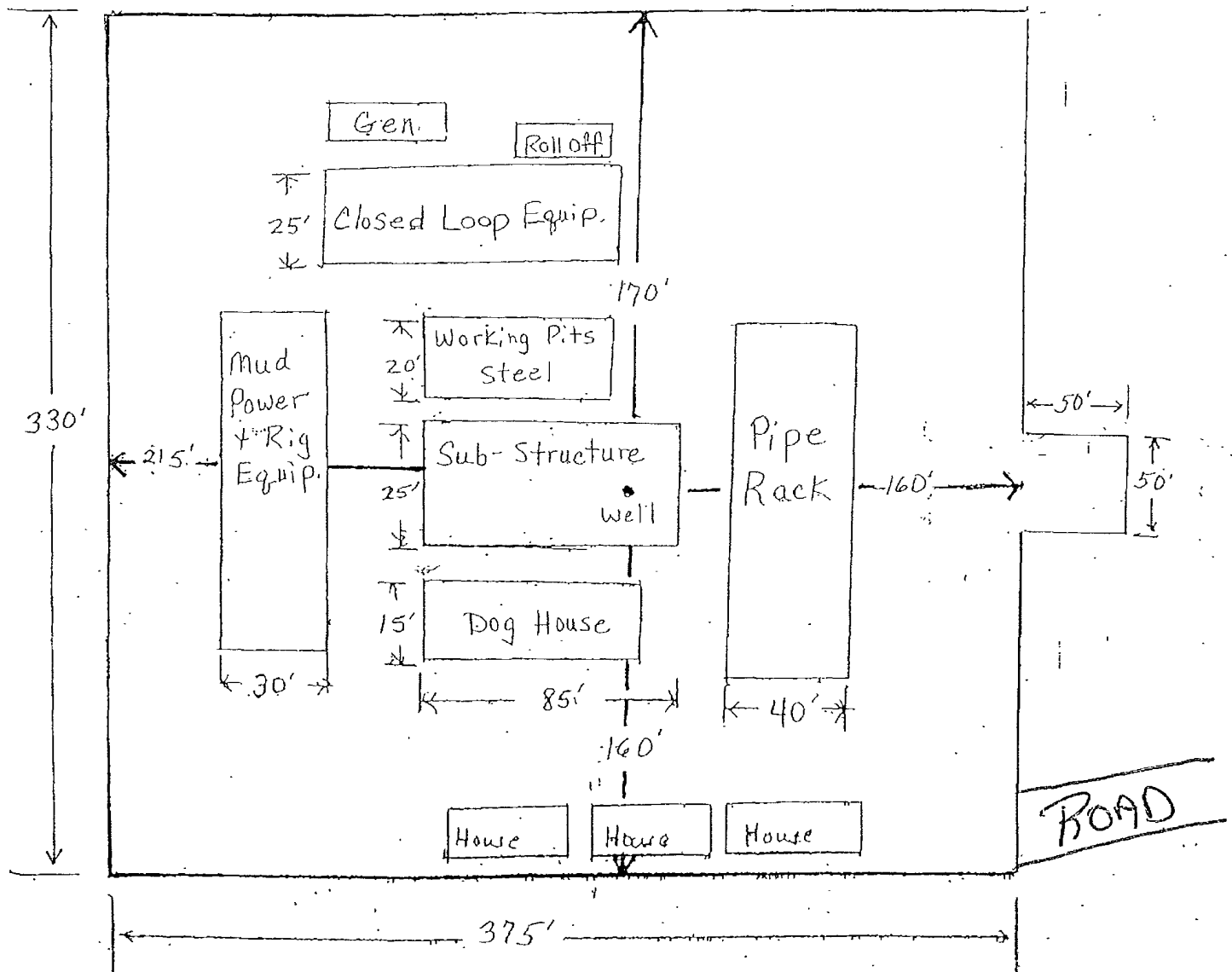


Yates Petroleum Corporation
Location Layout for Permian Basin

YATES PETROLEUM CORPORATION
Hanagan APL Federal Com. #2H
1600' FSL and 330' FWL SHL
1980' FSL and 330' FEL BHL
Section 31, T19S-R30E
Eddy County, NM Exhibit B

Closed Loop Design Plan

* NOT TO SCALE



DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator Yates Pot. OGRID # 25375
 Well Name & # HANAGAN "APL" FBO. COM Surface Type (F) (S) (P)
 Location: UL L Sect 31 Township 19 s, RNG 30 e, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd 10/19/2011 C101 reviewed 10/19/2011

B. 1. Check mark, Information is OK on Forms:

OGRID ☒, BONDING ☒, PROP CODE ☒, WELL # ☒, SIGNATURE ☒

2. Inactive Well list as of: 10/19/2011 # wells ☒, # Inactive wells ☒

a. District Grant APD but see number of inactive wells:

No Letter required ☒; Sent Letter to Operator ☐, to Santa Fe ☐

3. Additional Bonding as of: 10/19/2011

a. District Denial because operator needs addition bonding:

No Letter required ☐; Sent Letter to Operator ☐, To Santa Fe ☐

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required ☐; Sent Letter to Operator ☐, To Santa Fe ☐

C. C102 YES ☒, NO ☐, Signature ☒

1. Pool "Parkway"; "Boie Spring?" Code 49622

a. Dedicated acreage 160, What Units L-I

b. SUR. Location Standard ☒: Non-Standard Location ☐

c. Well shares acres: Yes ☐, No ☒, # of wells ☐ plus this well # ☐

2. 2nd. Operator in same acreage, Yes ☐, No ☒

Agreement Letter ☐, Disagreement letter ☐

3. Intent to Directional Drill Yes ☒, No ☐

a. Dedicated acreage 160, What Units L-I

b. Bottomhole Location Standard ☒, Non-Standard Bottomhole ☐

4. Downhole Commingle: Yes ☐, No ☒

a. Pool #2 ☐, Code ☐, Acres ☐

Pool #3 ☐, Code ☐, Acres ☐

Pool #4 ☐, Code ☐, Acres ☐

5. POTASH Area Yes ☐, No ☒

D. Blowout Preventer Yes ☒, No ☐

E. H2S Yes ☒, No ☐

F. C144 Pit Registration Yes ☐, No ☐

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes ☐, No ☒, NSL # ☐

2. Non-Standard Proration: Yes ☐, No ☐, NSP # ☐

3. Simultaneous Dedication: Yes ☐, No ☐, SD # ☐

Number of wells ☐ Plus # ☐

4. Injection order Yes ☐, No ☒; PMX # ☐ or WFX # ☐

5. SWD order Yes ☐, NO ☒; SWD # ☐

6. DHC from SF ☐; DHC-HOB ☐; Holding ☐

7. OCD Approval Date 10/19/2011

API #30-015-39511

8. Reviewers TCS