

**RESUBMITTAL**

OCD Artesia

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

13-316

**HIGH CAVEKARST**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

5. Lease Serial No.  
NM-107383

6. If Indian, Allottee or Tribe Name

1a. Type of work:  DRILL  REENTER

7. If Unit or CA Agreement, Name and No.

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

8. Lease Name and Well No.  
Marcell BMM Federal #2H **<37533>**

2. Name of Operator YATES PETROLEUM CORPORATION

9. API Well No.  
30-015- **41677**

3a. Address 105 South Fourth Street Artesia, NM 88220

3b. Phone No. (include area code)  
575-748-4347 **<971977>**

10. Field and Pool, or Exploratory  
*County Line tank Also - per S. Mullen 9-6-13*  
Undesignated Wolfcamp *AW*

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*  
At surface 2310' FNL and 150' FWL  
At proposed prod. zone 1650' FNL and 330' FWL **Sec. 1 - T16S - R29E**

11. Sec., T. R. M. or Blk. and Survey or Area  
Section 6, T16S-R30E

14. Distance in miles and direction from nearest town or post office\*  
Approximately 12 miles north of Loco Hills, New Mexico.

12. County or Parish  
Eddy County

13. State  
NM

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 150'

16. No. of acres in lease 327.28

17. Spacing Unit dedicated to this well  
S/2N/2

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. Approximately 1300'

19. Proposed Depth  
7290' TVD 12227' TMD

20. BLM/BIA Bond No. on file  
Nationwide Bond: NMB-000434  
Individual Bond: NMB-000920

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3798' GL

22. Approximate date work will start\*  
07/01/2013

23. Estimated duration  
45 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.
- 2. A Drilling Plan.
- 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).
- 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- 5. Operator certification
- 6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature *Cy Cowan*

Name (Printed/Typed)  
Cy Cowan

Date  
03/12/2013

Approved by (Signature) **JS/STEPHEN J. CAFFEY**

Name (Printed/Typed)

Date  
**SEP 12 2013**

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 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)

**Roswell Controlled Water Basin**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

**RECEIVED  
SEP 17 2013  
NMOCD ARTESIA**

Approval Subject to General Requirements  
& Special Stipulations Attached

CERTIFICATION  
YATES PETROLEUM CORPORATION  
Marcell BMM Federal #2H

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; and an someone under employment of Yates Petroleum Corporation has 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 15<sup>th</sup> day of JANUARY 2013

Signature 

Name Cy Cowan

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

Telephone (505) 748-4372

Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor

Address (if different from above) Same as above.

Telephone (if different from above) (505) 748-4221

E-mail (optional) \_\_\_\_\_

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 and Natural Resources Department

Form C-102  
Revised October 12, 2005

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-015-41677</b>	Pool Code <b>97197</b>	Pool Name <del>Undesignated Wofcamp</del> <b>CO. LINE TANK; Abo</b>
Property Code <b>32533</b>	Property Name <b>MARCEL "BMM" FEDERAL</b>	Well Number <b>2H</b>
OGRID No. <b>025575</b>	Operator Name <b>YATES PETROLEUM CORP.</b>	Elevation <b>3798'</b>

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 5	6	16 S	30 E		2310	NORTH	150	WEST	EDDY

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
LOT 5	1	16 S	29 E		1650	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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

**BOTTOM HOLE LOCATION**  
Lat - N32°57'39.01"  
Long - W104°02'08.69"  
SPC- N.: 713417.119  
E.: 632611.025  
(NAD-83)

**SURFACE LOCATION**  
Lat - N32°57'32.32"  
Long - W104°01'08.88"  
SPC- N.: 712755.598  
E.: 637708.888  
(NAD-83)

**OPERATOR CERTIFICATION**

*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 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.*

*Cy Cowan 1/15/13*  
Signature \_\_\_\_\_ Date \_\_\_\_\_

Cy Cowan  
Printed Name \_\_\_\_\_

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**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 belief.*

OCTOBER 24 2008

Date Surveyed \_\_\_\_\_

Signature & Seal of Professional Surveyor \_\_\_\_\_  
7977

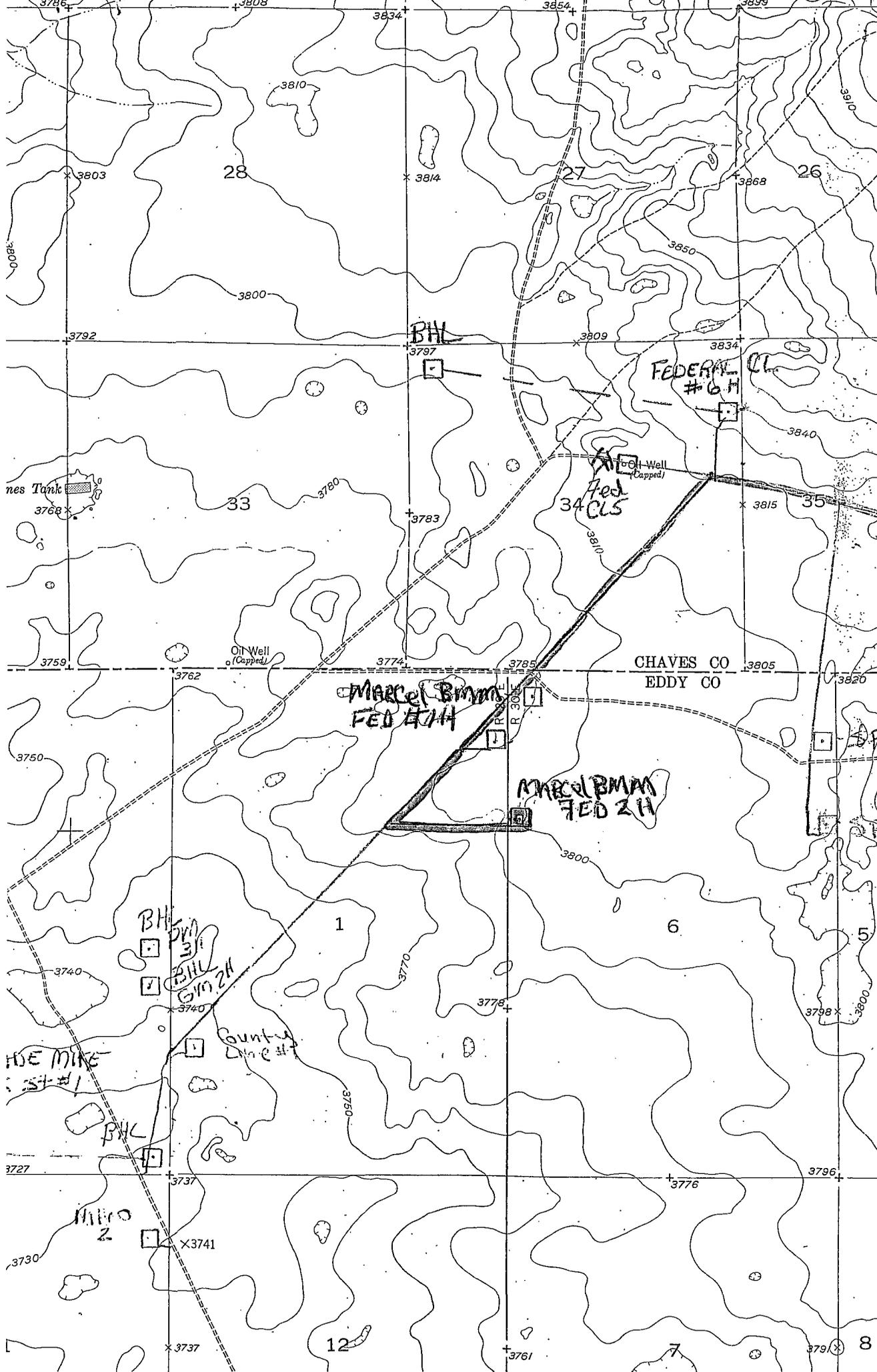
W.C. JONES 7/21

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Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SCALE - 1" = 2000'



720 000  
FEET

T. 15 S.  
T. 16 S.

57'30"

729

8

HAGERMAN  
Cutoff

CHAVES CO  
EDDY CO

MARCEL BMAN  
FED #14

MARCEL BMAN  
FED 24

FEDERAL #6 H

Oil Well  
(Capped)  
FED 34  
CLS

BHL  
BHL  
BHL

DE MIKE  
ST #1

Gunter  
Line #1

MARCO  
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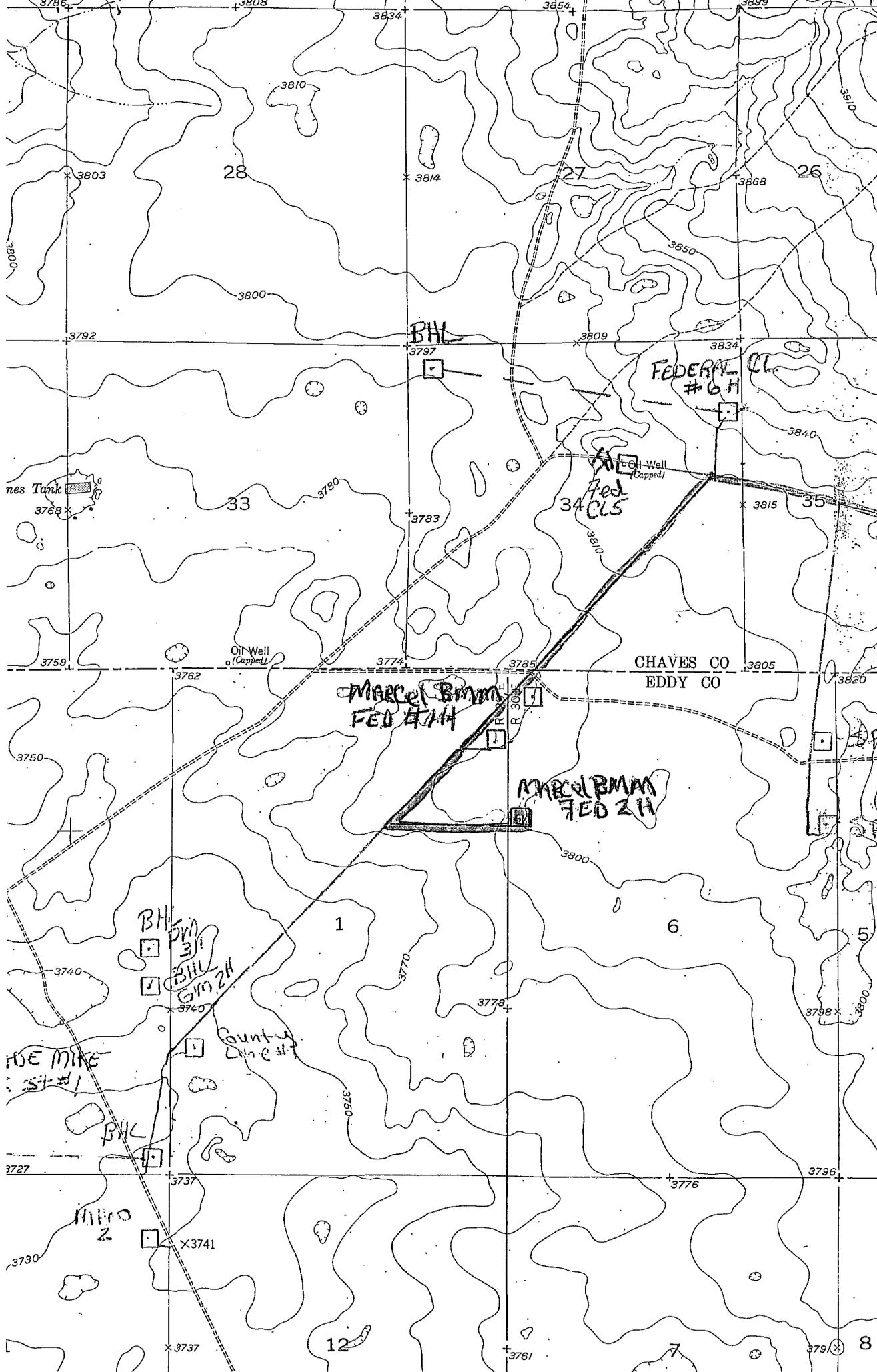
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RESEARCH (OPER)

HBC S/2 (Fed - 51000) 2.00 7

2 E.M. Mem Ince U.S. 01926 1292 Sulimar U.S. 1292

Chisos Ltd. HBP 0202801 01961 Floyd, Equity, et al SR

Coacha Res. H-1-2007 V-6792 11-1-2007 V-6792 315 B

WICKY LAKE WIU U.S. Big Luckula 1.0 MI.

(Texas) 28988 Champsey Fed. TO 11250 DIA 7-2-69

ESTAWK U.S.

31 30.88 30.92

BHL Yates Per. et al HBP 11-4949 2914

Murchison et al. 12-1-201 107384 M. Fed. 290 TO 923 DIA 3-11-01

12-1-2009 101597 288

Murchison High Loresome Fed Com

Phillips Armstrong Ener HBP 061522 Gen Arher Former TO 3425 DIA 7-25-98

Pure E, Bellwether HOP 7724

mike wil

Yates Per P32 SUR Grand Mike 12K-SF 100-Disc

Former Explo HOP

7-25-05

Feather stone HBP 0680300

(Phillips) Vintage Drig. HBP 05584

(Phillips) COC DEG 095801

COC OEG 061622

WEST HENS PREMIER U FOREST OIL

SOME NIT IG ENER. (OPER)

(Genl Arher) Former Fed TIA 10952

Former Fed

GENL Arher. Eoye Per. CHISOS Ltd. TO 11020 DIA 5-21-70 063532 1-1-11

Genl Arher. 061632

Long Fed

Genl. Amer. 061630 Gray Pet. Lock Fed.

ominion 1722ly Arher Fed. Com. 9. Disc.

Leonard E. Lever HOP TO 9792

Chisos Ltd. 063532

Mobil 7725

**YATES PETROLEUM CORPORATION**

**Marcel BMM Federal #2H**

2310' FNL and 150' FEL, Section 6-16S-30E (Surface Hole Location)

1650' FNL and 330' FWL, Section 1-16S-29E (Bottom Hole Location)

Eddy County, New Mexico

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

Rustler	220'	San Andres	2500' Oil
Top of Salt	350'	Glorieta	4000'
Base of Salt	1020'	Tubb	5300'
Yates	1050'	ABO	6200' Gas
Seven Rivers	1250'	Wolfcamp Pay	7572' Oil
Queen	1800' Oil/Gas	TVD	7195'
Grayburg	2200' Oil	TMD	12227'

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

Water: 110'  
Oil or Gas: Wolfcamp Oil

**3. Pressure Control Equipment: 3000 PSI BOPE with a 13.625" opening will be installed and tested to 3000# and held for 30 minutes on the 13.3/8" casing and a 5000 PSI BOPE with a 13.625 opening will be nipped up and tested to 5000# and held for 30 minutes on the 9 5/8" casing. Pressure tests 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.**

**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)**

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Thread</u>	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8"	48#	J-55 Hybrid	ST&C	0-325' <sup>400'</sup>	325' <sup>400'</sup>
12 1/4"	9 5/8"	36#	J-55	LT&C	0-2600'	2600'
8 3/4"	5 1/2"	17#	P-110	Buttress	0-7572' MD	7572'
8 1/2"	5 1/2"	17#	P-110	Buttress	7572'-12227 MD'	4655'

See  
COA

***This well will be drilled vertically to 6813'. At 6813' the well will be kicked off and directionally drilled at 12 degrees per 100' with an 8 3/4" hole to 7572' MD (7290' TVD). The hole size will then be reduced to an 8 1/2" hole and drilled to 12227' MD (7195' TVD) where 5 1/2" casing will be set and cemented 500' into the intermediate casing with a Hydraulic DV tool set approximately at 7500' and a DV/Stage Packer tool set between 3750' and 4250'. If the DV/Stage tools are moved the cement will be adjusted proportionately. A packer and ports system will be utilized on this well from TD to 7300'. Penetration point of the producing zone will be encountered at 2247' FNL & 333' FEL, Section 1-T16S-R29E. Deepest TVD in this well is 7290' in the lateral.***

Minimum Casing Design Factors: Burst 1.0, Tensile Strength 1.8, Collapse 1.12

B. CEMENTING PROGRAM:

**13 3/8' Surface Casing:** 340 sacks "C" w/CaCl2 (WT 14.80 YLD 1.34). Cement designed with 100% excess. TOC at surface.

**9 5/8' Intermediate Casing:** 675 sacks 35:65:6PzC (Wt. 12.50 YLD 2.00). Tail in with 200 sacks C w/CaCl2 (Wt 14.80 YLD 1.34). Cement designed with 100% excess. TOC at surface.

**5 1/2' PRODUCTION CASING WILL BE CEMENTED IN TWO STAGES:**

**First Stage:** A hydraulic DV tool will be set at approximately 4000'. TOC 4000'. Lead w/530 sacks 35:65:6PzC (WT 12.50 YLD 2.00). Tail in with 100 sacks PecosVILt with D151-CaCo3 Wt.=30% BWOC; D174-Expanding Ce=1.5% BWOC; D046-Antifoam=.2% BWOC; D800-Retarder=.6% BWOC; D112-Fluid Loss=.5% BWOC; D208-Viscosifer =.1% BWOC (WT 13.00 YLD 1.41). Cement designed with 35% excess.

See COA

**Second Stage:** TOC 2100'. Lead with 255 sacks 35:65:6PzC (Wt. 12.50 Yld. 2.00). Tail in with 100 sacks Class C with CaCl2 (Wt. 14.80 Yld. 1.34). Cement designed with 35% excess.

5. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
0 to 325' <sup>400'</sup>	Fresh Water	8.60-9.20	32-34	N/C
325'-2600'	Brine Water	10.00-10.20	28-29	N/C
2600'-12227'	Cut Brine (Lateral Section)	8.70-9.00	30-34	N/C

See COA

*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. The slow pump speed will be recorded on the daily drilling report after mudding up. A mud test will be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH. After surface casing is set an electronic PVT system will be installed as our primary mud level monitoring system. A secondary system will also be implemented as to insure the PVT system is functioning properly. The secondary system will be comprised of the derrick hand visually checking the fluid level in the pits periodically using a nut on the end of a rope hanging just above the fluid level in the pit.*

6. EVALUATION PROGRAM:

Samples: 30' samples to 2600' 10' out from under intermediate casing (2600') to TD.  
 Logging: Horizontal MWD / GR TD to surface..  
 Coring: None anticipated.  
 DST's: None anticipated.  
 MUDLOGGING: Yes from surface to TD.  
 H2S: None anticipated.

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

**Anticipated BHP:**

From:	0	TO	400' TVD	Anticipated Max. BHP:	191	PSI
From:	400'	TO	2600' TVD	Anticipated Max. BHP:	1379	PSI
From:	2600'	to	7290' TVD	Anticipated Max. BHP:	3412	PSI

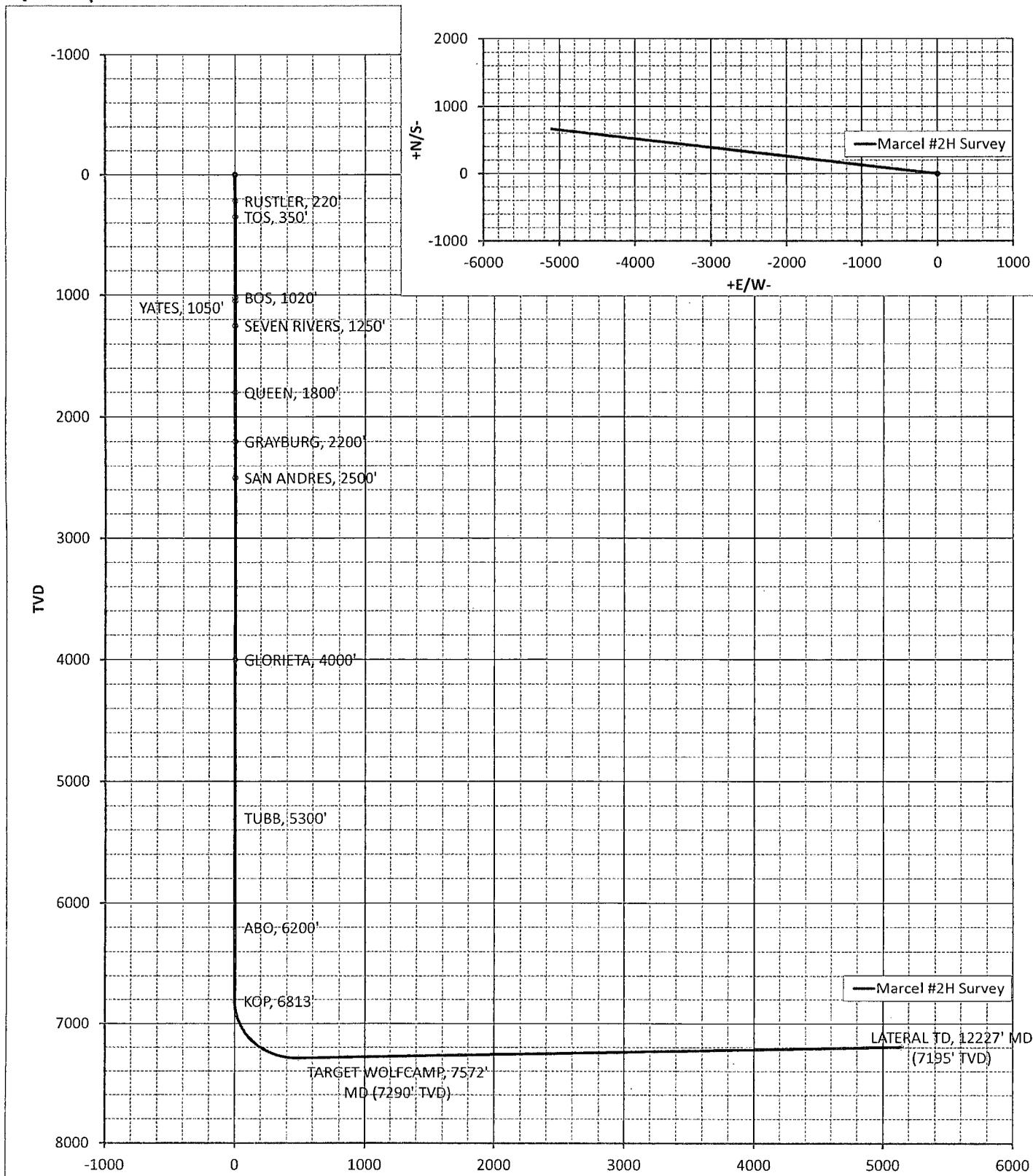
Abnormal Pressures Anticipated: None  
Lost Circulation Zones Anticipated: None  
H2S Zones Anticipated: None  
Maximum Bottom Hole Temperature: 120° F

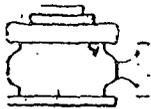
**8. ANTICIPATED STARTING DATE:**

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 30 days.

Survey/Planning Report									
Operator	Yates Petroleum Corp.			Northing		Date	20-Dec-12		
Dir. Co.	Yates Petroleum Corp.			Easting		System	2 - St. Plane		
Well Name	Marcel #2H Survey			Elevation		Datum	1983 - NAD83		
Location	Sec. 6, 16S-30E			Latitude		Zone	4302 - Utah Central		
Rig				Longitude		Scale Fac.			
Job				Units	Feet	Converg.			
MD	INC	AZI	TVD	+NS	+EW	VS@277.39°	BR	TR	DIS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
220.00	0.00	360.00	220.00	0.00	0.00	0.00	0.00	0.00	0.00
220: RUSTLER, 220'									
350.00	0.00	360.00	350.00	0.00	0.00	0.00	0.00	0.00	0.00
350: TOS, 350'									
1020.00	0.00	360.00	1020.00	0.00	0.00	0.00	0.00	0.00	0.00
1020: BOS, 1020'									
1050.00	0.00	360.00	1050.00	0.00	0.00	0.00	0.00	0.00	0.00
1050: YATES, 1050'									
1250.00	0.00	360.00	1250.00	0.00	0.00	0.00	0.00	0.00	0.00
1250: SEVEN RIVERS, 1250'									
1800.00	0.00	360.00	1800.00	0.00	0.00	0.00	0.00	0.00	0.00
1800: QUEEN, 1800'									
2200.00	0.00	360.00	2200.00	0.00	0.00	0.00	0.00	0.00	0.00
2200: GRAYBURG, 2200'									
2500.00	0.00	360.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00
2500: SAN ANDRES, 2500'									
4000.00	0.00	360.00	4000.00	0.00	0.00	0.00	0.00	0.00	0.00
4000: GLORIETA, 4000'									
5300.00	0.00	360.00	5300.00	0.00	0.00	0.00	0.00	0.00	0.00
5300: TUBB, 5300'									
6200.00	0.00	360.00	6200.00	0.01	0.00	0.00	0.00	0.00	0.00
6200: ABO, 6200'									
6812.67	0.00	277.39	6812.67	0.01	0.00	0.00	0.00	-1.21	0.00
6812.67: KOP, 6813'									
6900.00	10.48	277.39	6899.51	1.03	-7.90	7.96	12.00	0.00	12.00
7000.00	22.48	277.39	6995.23	4.67	-35.98	36.28	12.00	0.00	12.00
7100.00	34.48	277.39	7082.97	10.80	-83.18	83.88	12.00	0.00	12.00
7200.00	46.48	277.39	7158.89	19.14	-147.44	148.68	12.00	0.00	12.00
7300.00	58.48	277.39	7219.69	29.33	-225.95	227.84	12.00	0.00	12.00
7400.00	70.48	277.39	7262.69	40.92	-315.28	317.92	12.00	0.00	12.00
7500.00	82.48	277.39	7286.03	53.41	-411.52	414.97	12.00	0.00	12.00
7572.42	91.17	277.39	7290.04	62.70	-483.16	487.22	12.00	0.00	12.00
7572.42: TARGET WOLFCAMP, 7572' MD (7290' TVD)									
12226.78	91.17	277.39	7195.00	661.53	-5097.86	5140.60	0.00	0.00	0.00
12226.78: LATERAL TD, 12227' MD (7195' TVD)									

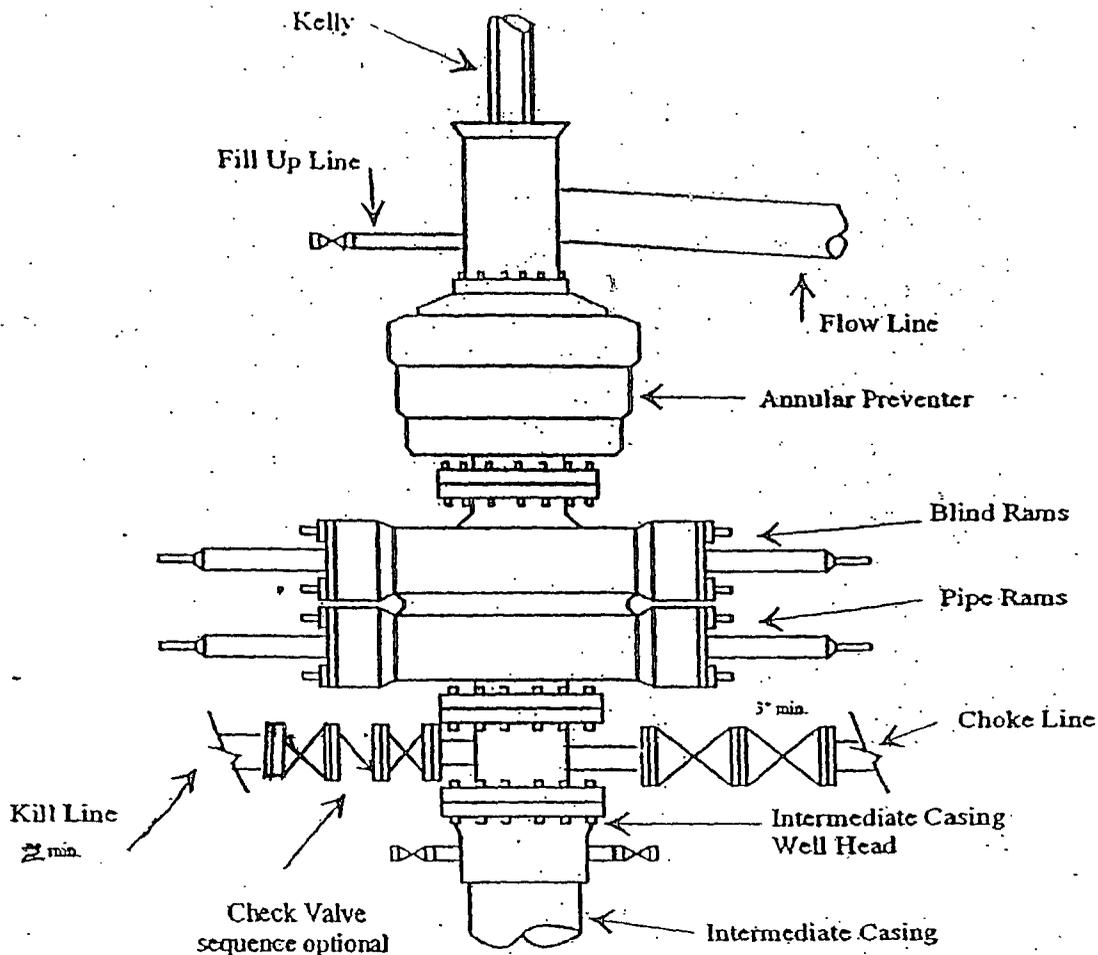




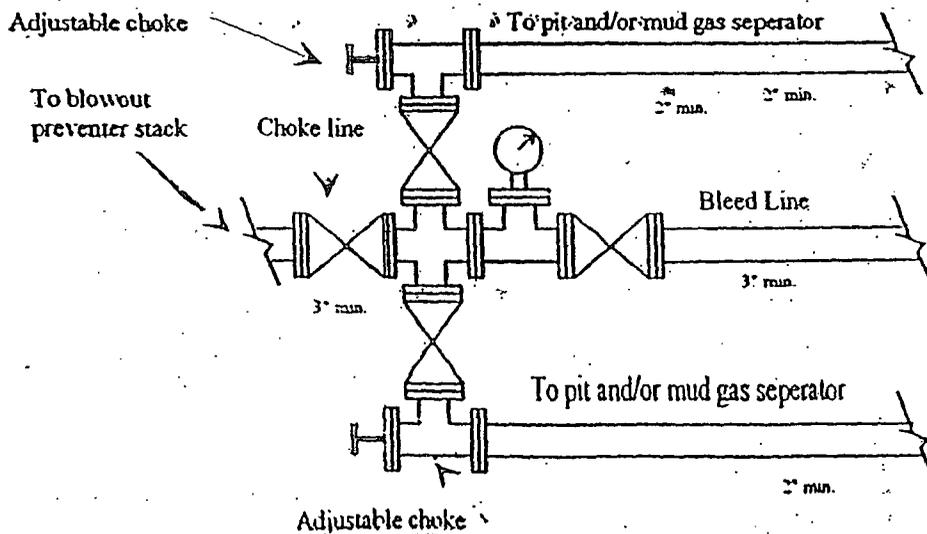


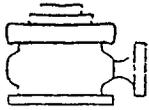
Yates Petroleum Corporation  
Typical 3,000 psi Pressure System  
Schematic  
Annular with Double Ram Preventer Stack

BOP-3



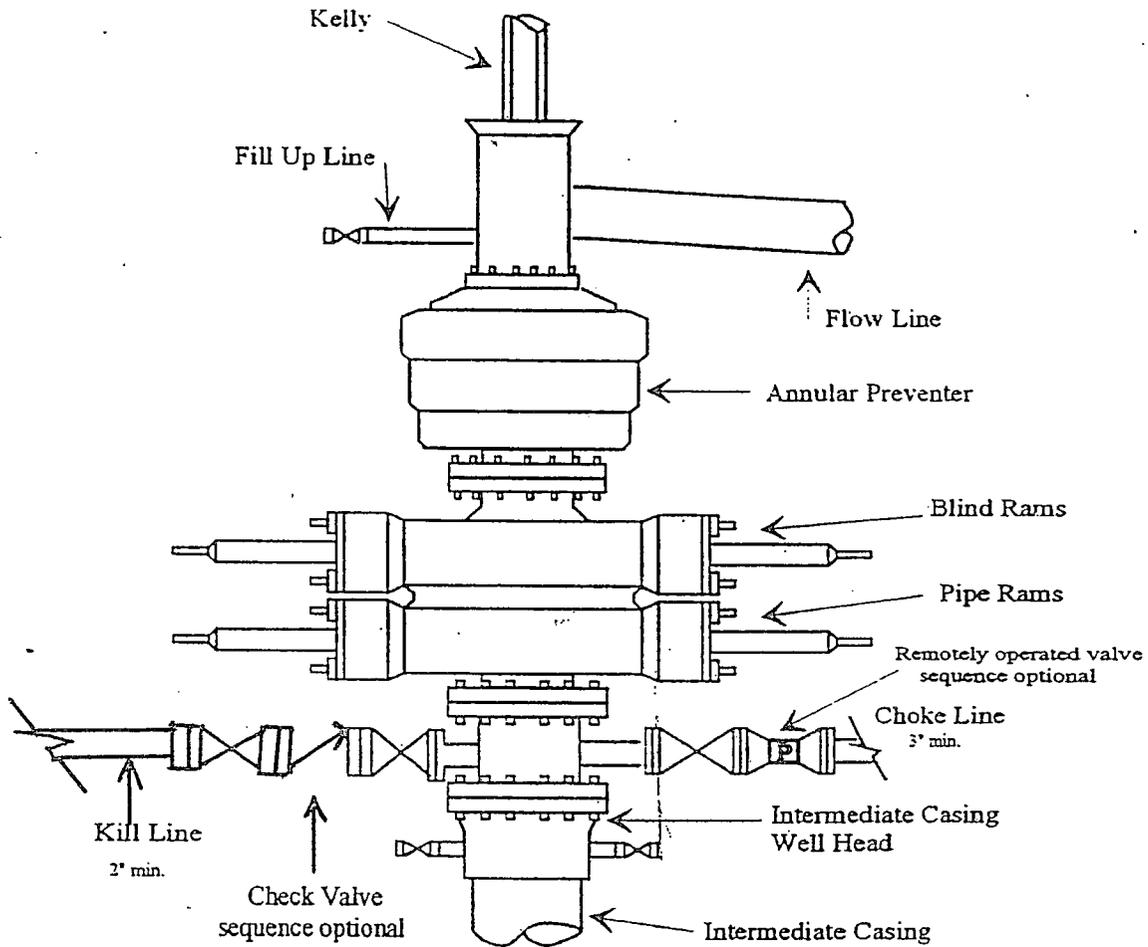
Typical 3,000 psi choke manifold assembly with at least these minimum features



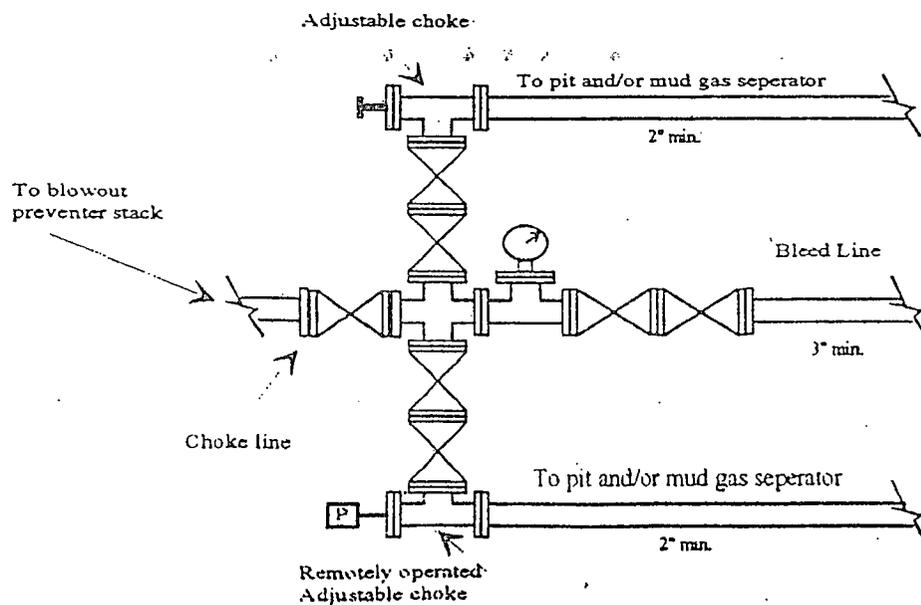


Yates Petroleum Corporation  
 Typical 5,000 psi Pressure System  
 Schematic  
 Annular with Double Ram Preventer Stack

BOP-4

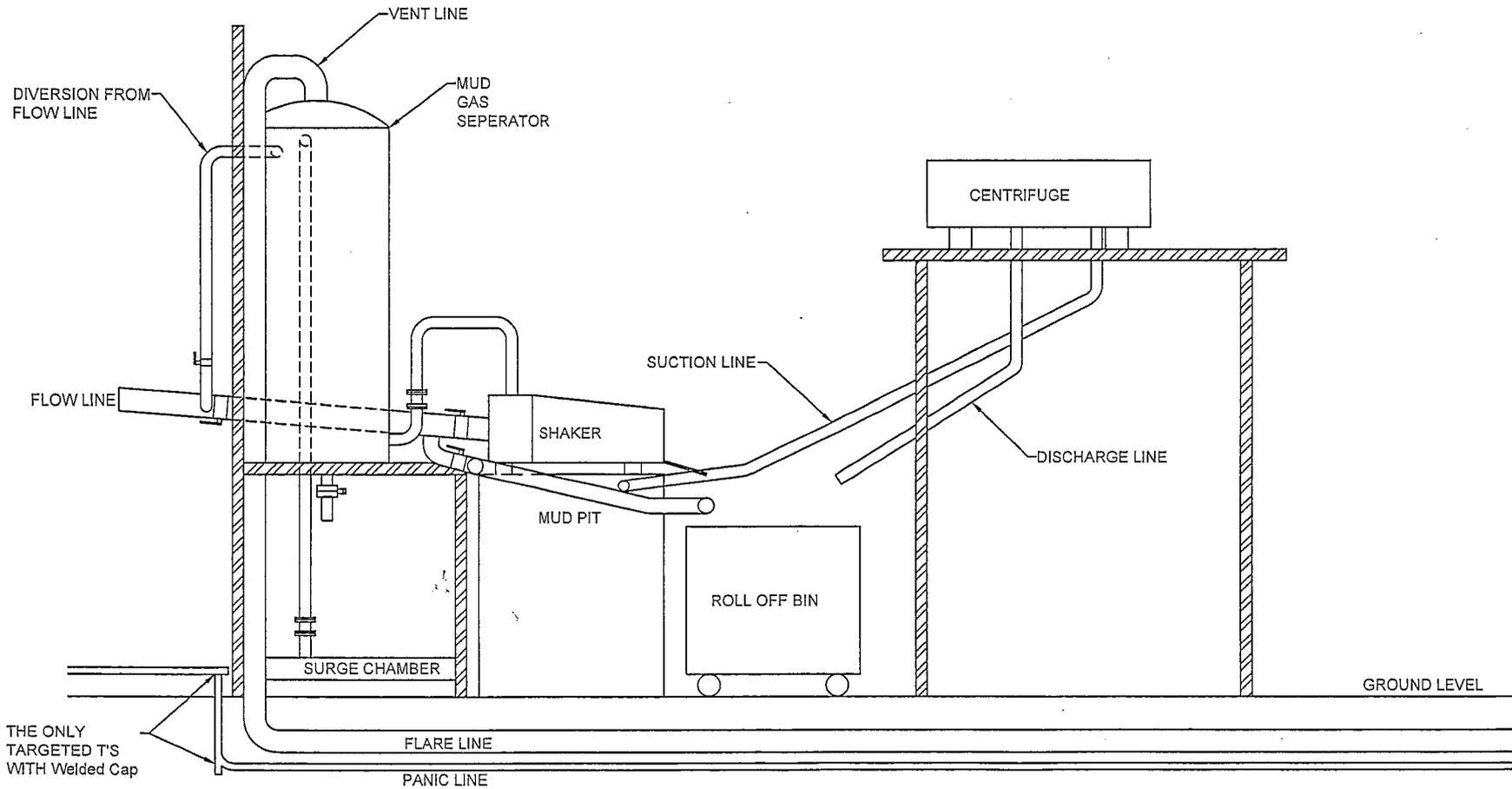


Typical 5,000 psi choke manifold assembly with at least these minimum features



# 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 Closed Loop System

## Equipment Design Plan

Closed Loop System will consist of:

1 – double panel shale shaker

1 – (minimum ) Centrifuge, certain wells and flow rates may require 2 centrifuges

On certain wells, the Centrifuge will be replaced by a Clackco Settling Tank System

1 – minimum centrifugal pump to transfer fluids

2- 500 bbl. FW Tanks

1 – 500 bbl. BW Tank

1 – half round frac tank – 250 bbl. capacity as necessary to catch cement / excess mud returns generated during a cement job.

1 Set of rail cars / catch bins

Certain wells will use an ASC Auger Tank

## Operation Plan

All equipment will be inspected at least hourly by rig personnel and daily by contractors' personnel.

Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

## Closure Plan

Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm, CRI or Sundance Services Inc.

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 and Natural Resources Department

Form C-102  
Revised October 12, 2005

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name
			Undesignated Wofcamp
Property Code	Property Name		Well Number
	MARCEL "BMM" FEDERAL		2H
OGRID No.	Operator Name		Elevation
025575	YATES PETROLEUM CORP.		3798'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 5	6	16 S	30 E		2310	NORTH	150	WEST	EDDY

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
LOT 5	1	16 S	29 E		1650	NORTH	330	WEST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
160									

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

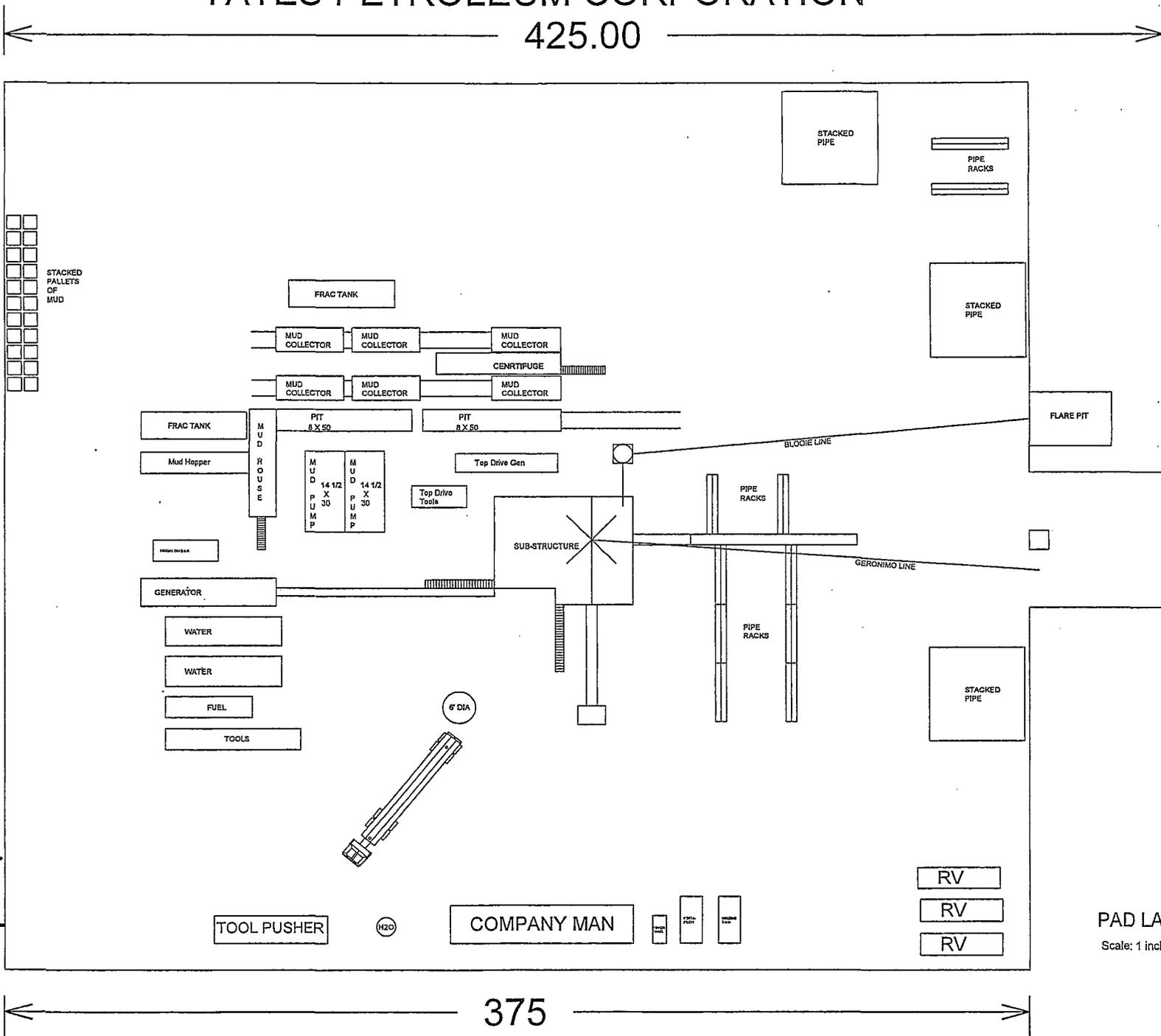
<p><b>BOTTOM HOLE LOCATION</b> Lat - N32°57'39.01" Long - W104°02'08.69" SPC - N.: 713417.119 E.: 632611.025 (NAD-83)</p>	<p><b>SURFACE LOCATION</b> Lat - N32°57'32.32" Long - W104°01'08.88" SPC - N.: 712755.598 E.: 637708.888 (NAD-83)</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that 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 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.</p> <p><i>Cy Cowan</i> 11/15/13 Signature Date</p> <p>Cy Cowan Printed Name</p>
		<p><b>SURVEYOR CERTIFICATION</b></p> <p>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.</p> <p>OCTOBER 24 2008 Date Surveyed</p> <p><i>Gary L. Jones</i> Signature of Professional Surveyor</p> <p>W.O. 7977 Professional Land Surveyor</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
<p>SCALE - 1" = 2000'</p>		

# YATES PETROLEUM CORPORATION

425.00

330

ROAD

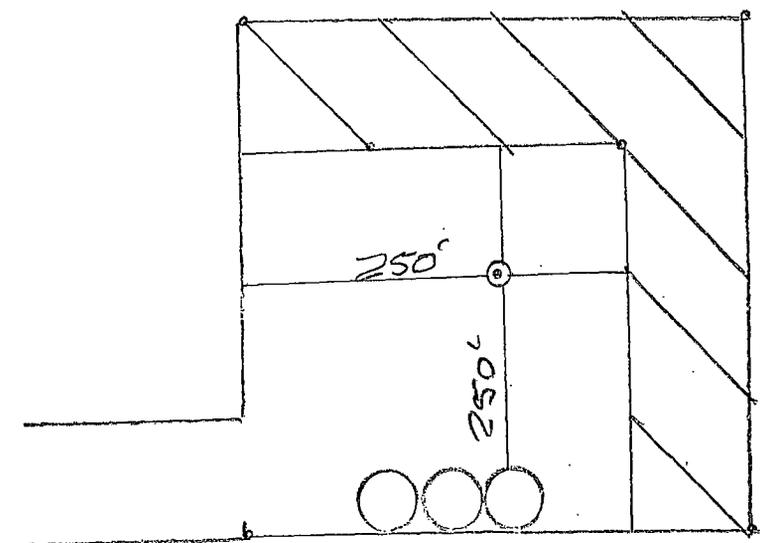


375

PAD LAYOUT

Scale: 1 inch = 50 feet

YATES PETROLEUM CORPORATION  
Marcel BMM Federal #1H  
2310' FNL and 150' FWL SHL  
1650' FNL and 330' FWL BHL  
Section 1, T16S-R29E  
Eddy County, New Mexico Exhibit X



/// Possible  
Reclaimed  
AREA

Not to Scale  
Final reclamation  
may be different  
than this Diagram

## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

**Yates Petroleum Corporation**

**Marcel BMM Federal #2H**

2310' FNL and 150' FEL, Section 6, 16S-30E (Surface Hole Location)

1650' FNL and 330' FWL, Section 1, 16S-29E (Bottom Hole Location)

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 well site is located approximately 34 miles east of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

### **DIRECTIONS:**

From Loco Hills, NM go north on the Hagerman Cutoff for approximately 9.7 miles. There will be a Chaves County Line marker at this point and a lease road going to the left. Turn left here on the lease road and go approximately 1.3 miles. At this point there will be a lease road on the left going southwest along a pipeline right of way. Turn left here and follow the lease road for approximately 1.1 miles. At this point the Marcell BMM Federal #1H and a frac reservoir will be on the left. The new road will start here going south along the pipeline right of way for approximately .3 of a mile. At this point the new access road will go to the left for approx. .4 of a mile to the southwest corner of the well location.

### **2. PLANNED ACCESS ROAD:**

- A. The proposed new road will go in a southwesterly direction for about .3 of a mile along an existing pipeline. At this point the new road will go east for approximately .4 of a mile to the southwest corner of the drilling pad.
- B. The new road will be 14' 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 may 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 well site.
- B. An Exhibit shows existing wells within a one-mile radius of the proposed well site.

### **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 until an electric power line can be built if needed.

**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:**

The dirt contractor will acquire any materials from the closest source at the time of construction of the well pad.

**7. METHODS OF HANDLING WASTE DISPOSAL:**

- A. This well will be drilled with a closed loop system
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the “Pit Rule” 19.15.17 NMAC.
- C. Drilling fluids will be removed after drilling and completions are completed.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. 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 landfill. 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, location of the drilling equipment, pulling unit orientation and access road approach. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the “Pit Rule” 19.15.17 NMAC.
- B. 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 well site 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 within 90 days after abandonment.

**11. SURFACE OWNERSHIP:**

Surface Estate Bureau of Land Management  
620 East Greene Street, Carlsbad, NM 88220.

Mineral Estate: Bureau of Land Management  
620 East Greene Street, Carlsbad, NM 88220

**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.

## PECOS DISTRICT CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>Yates Petroleum Corporation</b>
<b>LEASE NO.:</b>	<b>NMNM-107383</b>
<b>WELL NAME &amp; NO.:</b>	<b>Marcel BMM Federal 2H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>2310' FNL &amp; 0150' FWL</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>1650' FNL &amp; 0330' FWL</b>
<b>LOCATION:</b>	<b>Section 1, T. 16 S., R 29 E., NMPM</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

### TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
  - Lesser Prairie-Chicken Timing Stipulations
  - Ground-level Abandoned Well Marker
  - Cave/Karst
- Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- Road Section Diagram**
- Drilling**
  - Cement Requirements
  - Logging Requirements
  - Waste Material and Fluids
- Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- Interim Reclamation**
- Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## V. SPECIAL REQUIREMENT(S)

### **Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:**

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

**Ground-level Abandoned Well Marker to avoid raptor perching:** Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

### **F. ON LEASE ACCESS ROADS**

#### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

### Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

### Crowning

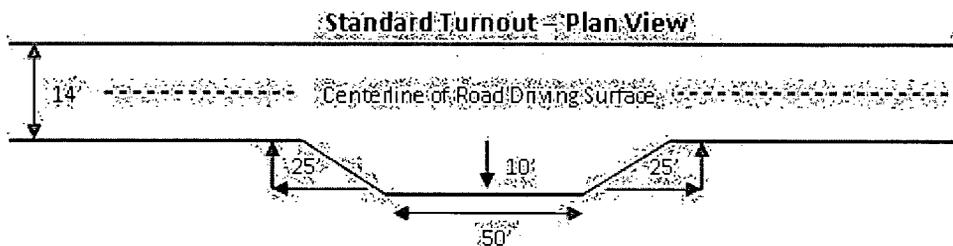
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

### Ditching

Ditching shall be required on both sides of the road.

### Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

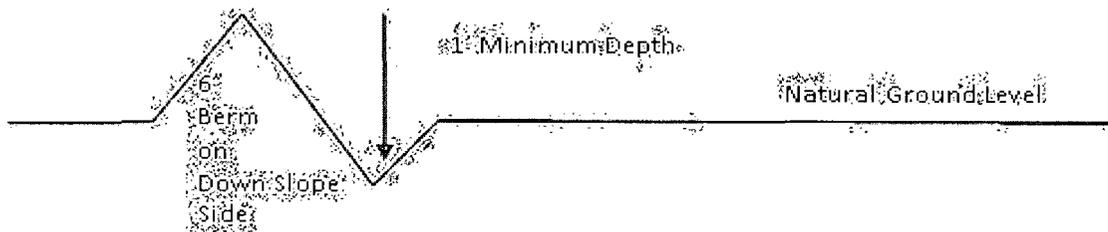


### Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### **Formula for Spacing Interval of Lead-off Ditches**

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

#### **Culvert Installations**

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

#### **Cattleguards**

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

#### **Fence Requirement**

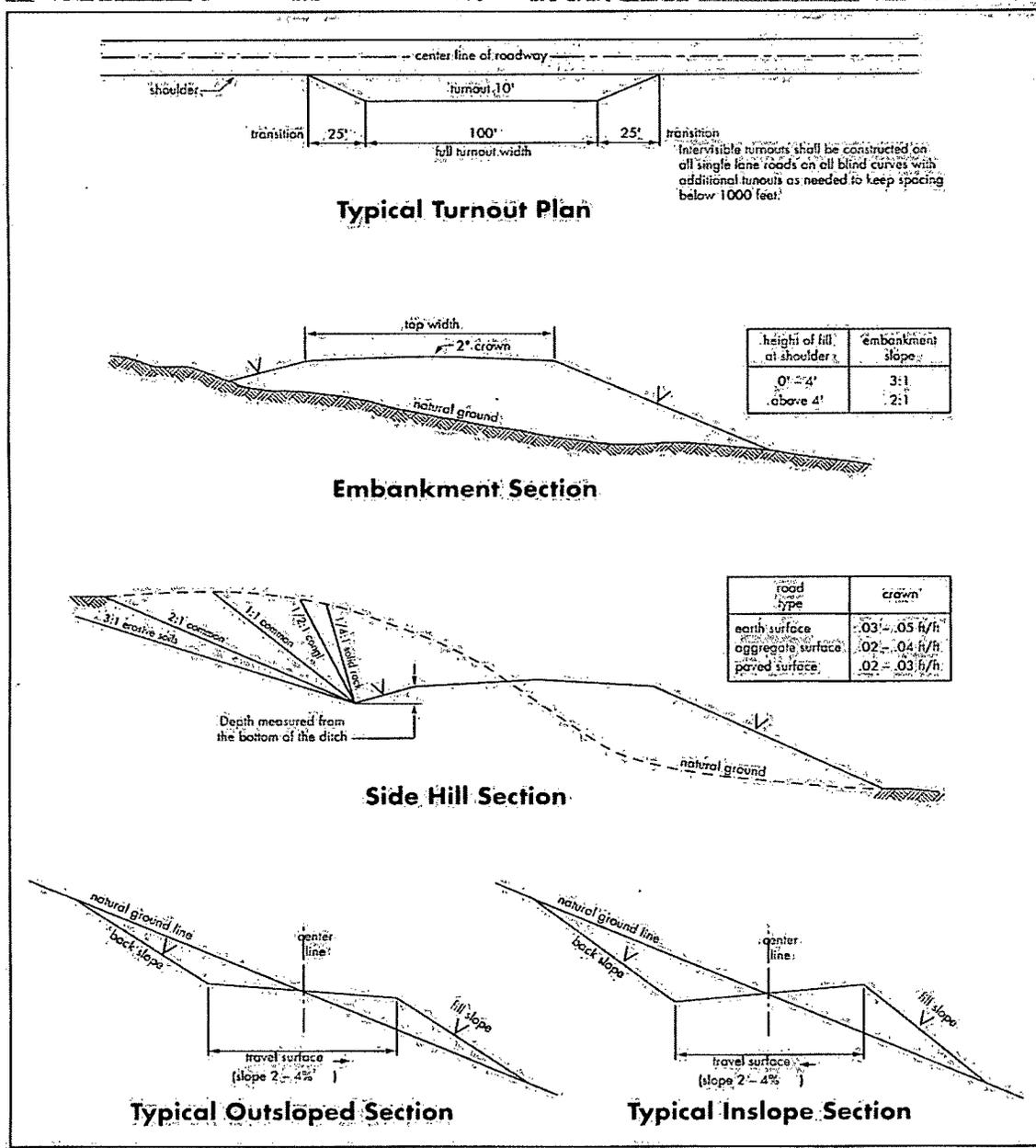
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

**Figure 1 – Cross Sections and Plans For Typical Road Sections**



## VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

**Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, report measured amounts and formations to the BLM.**
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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These 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 is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

### B. CASING

**Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time prior to drilling out 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 for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possibility of lost circulation in the Grayburg and San Andres. Abnormal pressures may be encountered when penetrating the Wolfcamp Formation.**

1. The 13-3/8 inch surface casing shall be set at approximately **400** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
  - 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
  - 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 cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

**Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.**

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

**Operator has proposed DV tool at depths of 4000', but will adjust cement proportionately if moved. The DV tool at 4000' shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.**

a. First stage to DV tool:

Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. 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 **3000 (3M)** psi.

a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be **5000 (5M) psi. 5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer.**
  - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. 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.**
  - f. 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. This test shall be performed prior to the test at full stack pressure.
  - g. 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 intermediate 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.

**F. WASTE MATERIAL AND FLUIDS**

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**JAM 041813**

## **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 from the BLM Standard Environmental Color Chart (CC-001: June 2008).

#### **VRM Facility Requirement**

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

### **B. PIPELINES**

Not applied for in resubmittal permit.

### **C. ELECTRIC LINES**

Not applied for in resubmittal permit.

## **IX. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **X. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass ( <i>Eragrostis intermedia</i> )	0.5
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sideoats grama ( <i>Bouteloua curtipendula</i> )	5.0
Plains bristlegrass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed