Form 3160-3 (April 2004)

0863

# OCD-ARTESIA RECEIVED

H-06-51 5/18/06

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

6. If Indian, Allotee or Tribe Name

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

JUL 2 0 2006

Lease Serial No. NM-13984

NM \$ 97120

APPLICATION FOR PERMIT TO DRILL OR REENTER

la. Type of work: ☐ DRILL	SR.		7 If Unit or CA Agree	ement, Name and No.
lb. Type of Well: Oil Well Gas Well Other	✓ Single Zone Mult	iple Zone	8. Lease Name and W Fed N #1	Vell No. 30650
2. Name of Operator Devon Energy Production Company, LF	r 6/37		9. API Well No. 30-015-23538	
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260	3b. Phone No. (include area code) 405-552-7802	des. Co	10. Field and Pool, or E	Exploratory Morrow Seuz
4. Location of Well (Report location clearly and in accordance with any	<del></del>		11. Sec., T. R. M. or B	k. and Survey or Area
At surface NESE 1980' FSL & 860' FEL	Like App By Steam		Sec 5, T23S R2	6E
At proposed prod. zone NESE 2045' FSL & 898' FEL	eg eesse	·	12. County or Parish	13. State
14. Distance in miles and direction from nearest town or post office* Approximately 7 miles southwest of Carlsbad, NM.		<u> </u>	Eddy County	NM
15. Distance from proposed* location to nearest property or lease line, ft.	16. No. of acres in lease	'	g Unit dedicated to this w	vell
(Also to nearest drig. unit line, if any)			BIA Bond No. on file	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 11,850'	20. BEM/	BIA BONG NO. ON RIC	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will st	art*	23. Estimated duration	)
3328.7	06/01/2006		45 days	
	24. Attachments		abad Controlled	Water Book
The following, completed in accordance with the requirements of Onshor	re Oil and Gas Order No.1, shall be	attached to th	nis form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>	4. Bond to cover Item 20 above)	the operation.	ons unless covered by an	existing bond on file (see
3. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).		e specific inf	ormation and/or plans as	may be required by the
25. Signature	Name (Printed/Typed) Stephanie A. Ysas	aga		Date 05/17/2006
Title Sr. Staff Engineering Technician	•		·	**************************************
Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed)	ony J.	Herrell	JUL 1 3 2006
Title PIELD MANAGER	Office CAF	LSBA	D FIELD C	OFFICE
Application approval does not warrant or certify that the applicant holds conduct operations thereon.  Conditions of approval if any are attached	ls legal or equitable title to those rig		pjectlease which would e	

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.

\*(Instructions on page 2)

If an earthen pit(s) will be utilized in association with this work, a permit must be obtained prior to pit construction.

>9.5

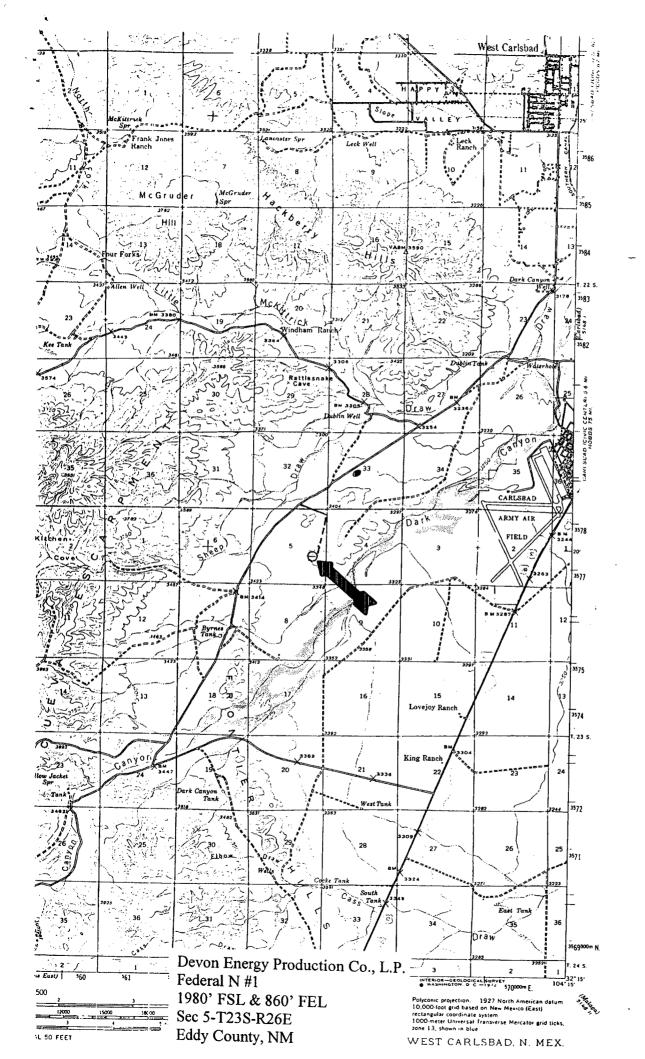
Conditions of approval, if any, are attached.

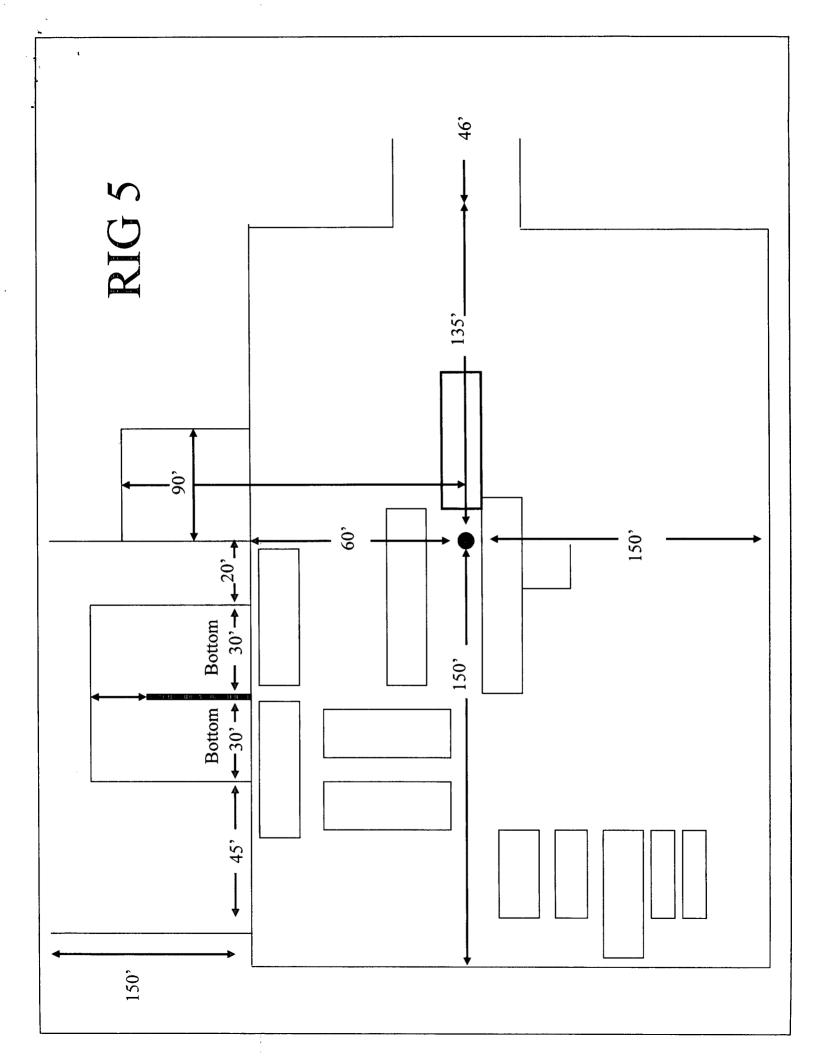
APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND Special stipulations ATTACHED

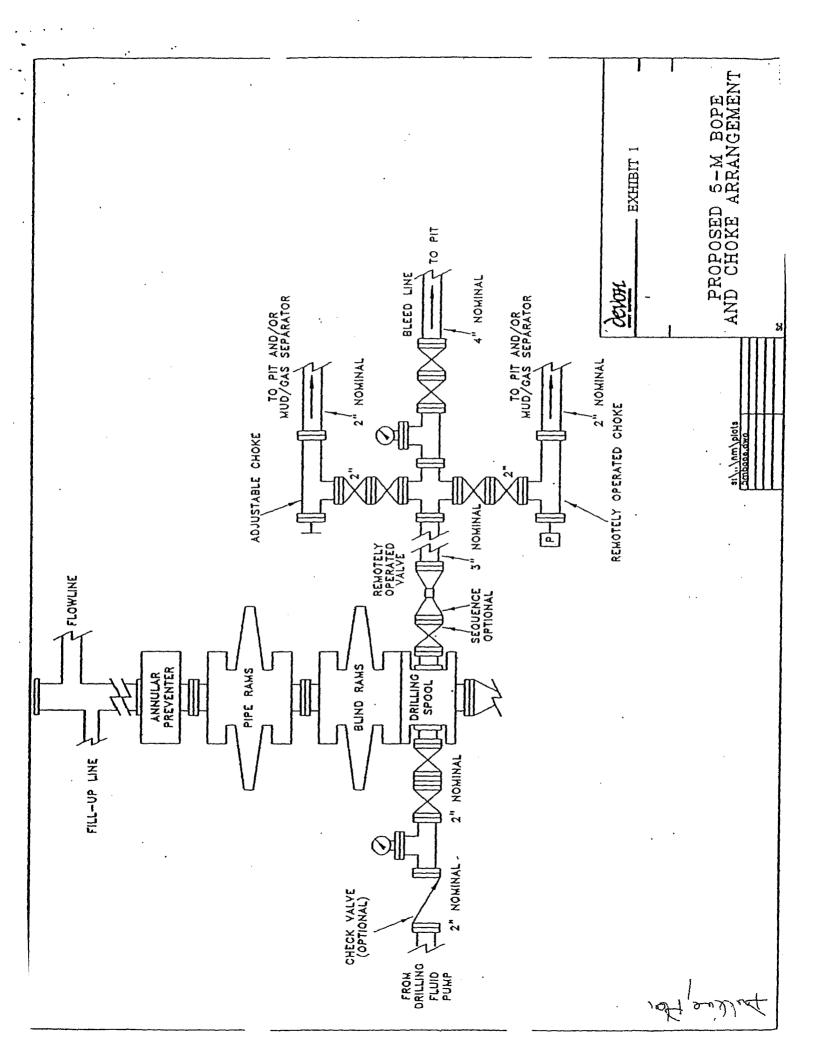
# MEXICO OIL CONSERVATION COMMIS' WELL LOCATION AND ACREAGE DEDICATION PLAT

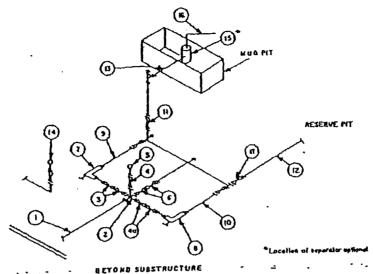
Form C-102 Supersedes C-128 Effective 1-1-65

		All distances must be from		the Section.					
Devon Energy 1	Production Co., LP		Federal	"N"	Well No.				
Unit Letter	Section 5	23 South	Range 26 East	County Eddy					
Actual Funtage Loc	ation : ! Well:	<u></u>	· · · · · · · · · · · · · · · · · · ·	<del></del>					
1980	leer from the	outh line and	860 tee	from the east	line				
Ground Level Elev.	Producing For		ool de	Morrow   C )	Dedicated Acroage:				
3328.7	Morrow		aris ou c	130017	321.58 Acres				
1. Outline th	e acreage dedica	ted to the subject well	by colored pencil b	r hachure marks on t	he plat below.				
2. If more th interest an	2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).								
		ifferent ownership is de nitization, force-pooling		have the interests o	f all owners been consoli-				
Yes	No II an	iswer is "yes;" type of c	consolidation						
this form it	necessary:)		<del></del>		ated. (Use reverse side of				
					nmunitization, unitization, a approved by the Commis-				
	)			<del>\</del> \	CERTIFICATION				
	1 1	АМОСО	PROD. COMBA		certily that the information con-				
					refightfodge of the bestile.				
E	EGEIVE		J-J-J-	Name Spe	nanie A. Ysasaga				
	OCT 24 1980				r. Staff Engineering Tech				
1	1 .01011 \	11/1 1/1 /			nergy Production Co., LP				
9	S. GEDLUGICAL OF ARTESIA, NEW ME				05/17/06				
			CITIES						
<b>j</b>	(		1	heraby	certify that the well location				
	i		\ \ \	shown an	this plat was platted from field				
1	ľ	NGINEER &	M1 9-8	18 1	actual surveys made by me or				
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1		\\ \\ \\ \\ \\		Date Survey	ed				
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	<u> </u>	OHN W WE		11 1	Professional Engineer				
		The state of the s	111	and/or Land	1 Surveyor				
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				Contilicate					
0 330 665 ·	90 1320 1880 1980	2310 2840 2000	<sup>23</sup> 1.800 1000 80	·	PATRICK A. ROMERO 6648 Ronald J. Eidson 3239				









			MINI	MUM REOL	HREMENT					
	<del>,</del>		3,000 MWP			5,000 MWP			10,000 MW/	
	ì	10.	HOMINAL	RATING	1.0.	HOMINAL	RATING	LD.	HOMMAL	RATING
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2	Cross 3" (2" x2" x2"	<del></del>	ļ			1				10,000
	Cuest 2,13,17_13,		<del> </del>	<del> </del>				2444		10,000
3	Valves(1) Gate []	3-1/8*		3,000	3-1/8"		\$,000	3-1/8"		
4	Valve Plug D(2)	1-13M6*	1	3,000	1-13/16"		5,000	1-13/16*		16,000
		2-1/16"		3,000	2-1/16"		5,000	3-1/8"	-	10,000
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_5_	Pressure Gauge	<del></del>	<del> </del>		<u> </u>		5,000	3-1/8"		10,000
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-	Lint	1	3*	3,000	<u> </u>	3-	5,000			
10	Live	1	2"	3,000			\$,000		3-	10,000
11	Gale []	3-1/6"		3,900	3-1/8*	1	5,000	3-1/8*		10,000
	Valves Plug □(2)	<del>-}</del>	3.	1,000	<del> </del>	3.	1,000		3*	2,000
12	Lines	-}	3.	1,000		3-	1,000		3"	2,000
13	Lines		<del> </del>	1,3000		1		•		10,000
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15	Gas Separator		275	·		2:5			5,72,	4
16	Lina	1	(*	1,008		-	1,000		4"	2,000
17	Valves Plug (2)	3-1/8"		3,000	2-1/8"		5,000	3-1/8*		10,000

- (1) Only one required in Chass 3M.
- (2) Gate raives only shall be used for Class 10M.
- (3) Hemote operated hydrause choice required on 5,000 psi and 10,000 psi for drilling.

# EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- 1. All connections in choice manifold shall be welded, studded, llanged or Cameron clamp of comparable rating.
- 2. All flanges shall be API 68 or 68X and ring gaskets shall be API RX or 8X. Use only 8X for 10 MWP.
- 3. All lines shall be securely anchored.
- 4. Chokes shall be equipped with tungsten carbide seats and needles, and reptacements shall be available.
- 5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- 6. Line from drilling spoot to choke manifold should be as straight as possible. Lines downstream from chokes shall make lums by large bends or 90° bends using bull plugged tees.
- 7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

#### **DRILLING PROGRAM**

# Devon Energy Production Company, LP Federal N #1

Surface Location: 1980' FSL & 860' FEL, Unit I, Sec 5 T23S R26E, Eddy, NM Bottom hole Location: 2045' FSL & 898' FEL, Unit I, Sec 5 T23S R26E, Eddy, NM

#### 1. Geologic Name of Surface Formation

a. Alluvium

## 2. Estimated tops of geological markers:

a.	Yates	545'
b.	Capitan	680'
c.	Delaware	1800'
d.	Bone Spring	4973'
e.	Third Bone Spring Sand	8118'
f.	Wolfcamp	8516'
g.	Penn	9555'
h.	Strawn	10098'
i.	Atoka	10409'
j.	Morrow Clastics	11149'
k.	Lower Morrow	11503'
1.	Total Depth	11850'

#### 3. Estimated Depths of Anticipated Fresh Water, Oil or Gas

a. Upper Permian Sands 0-200' Fresh Water

b. Delaware – Lower Morrow 1800-TD Gas/Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 2400 and circulating cement back to surface. Fresh water sands will be protected by setting 8 5/8" casing at 2400 and circulating cement to surface. The Morrow intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing.

#### 4. Casing Program:

Hole Size	Interval	OD Csg	Weight	<u>Collar</u>	<u>Grade</u>
17 1/2"	0' -397' V	13 3/8" 🗸	48#	ST&C	H-40 (In place)
12 1/4"	0'–3000', ✓	8 5/8" v	32# & 24#	ST&C	K-55 (In place) ✓
7 7/8"	0'-11850'	5 1/2"	17#	LT&C	HCP-110

\* KICK OFF AT APPROXIMATELY 3100' AND

DRILL NEW WELL BORE TO 11850'TD, SET 5%"

CASING- AND CEMENT ABOVE BASE OF 85/8" CASING.

5/30/06

#### 5. Cement Program:

a. 13 3/8" Surface In place @ 397'; 450 sacks circulated to surface. b. 8 5/8" Intermediate In place @ 3000'; 1450 sack + topped out with 400 sacks to surface. c. 5 1/2" Production Stage 1: 557 sacks (15:61:11) Poz (Fly Ash): Class C Cement: CSE-2 + 0.5% bwoc BA-10 + 0.15% bwoc R-3 + 2% bwow Potassium Cholride + 0.75% bwoc EC-1 + 0.25 lbs/sack Cello Flake + 0.7% bwoc CD-32 + 5 lbs/sack LCM-1 + 0.6% bwoc FL-25 + 0.6% bwoc FL-25A Stage 2: 876 sacks (60:40) Poz (Fly Ash): Premium Plus H Cement + 1% bwow Sodium Chloride + 0.75% bwoc BA-10 + 0.1% bwoc R-3 + 0.25 lbs/sack Cello Flake + 2 lbs/sack Kol Seal + 4% bwoc MPA-1 Stage 3: 426 sacks (60:40) Poz (Fly Ash): Class C Cement + 3% bwow Sodium Chloride + 0.25 lbs/sack Cello Flake + 0.4% bwoc Sodium Metasilicate + 4% bwoc MPA-1 + 0.75% bwoc BA-10 TOC @ Surface

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 8 5/8" casing shoe.

#### 6. Pressure Control Equipment:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (5M system) double ram type (5000 psi WP) preventor and a bag-type (Hydril) preventor (5000 psi WP) and rotating head. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. The drilling head will be installed on the 13 3/8" surface casing and utilized continuously until total depth is reached. All BOP's and associated equipment will be tested to 1200 psi with the rig pump before drilling out the 13 3/8" casing shoe (70% of 48#, H-40 casing). Prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating.

#### 7. Proposed Mud Circulation System

<b>Depth</b>	Mud Wt.	<u>Visc</u>	Fluid Loss	Type System
0' - 3100'	8.4-8.5	28	NC	Fresh Water
3100'-6500'	8.4-8.5	28	NC	Fresh Water
6500'-9900'	9.3-9.5	28	NC	
9900'-10359'	9.4-9.8	34-36	<10 cc	

The necessary mud products for weight addition and fluid loss control will be on location at all times.

# 8. Auxiliary Well Control and Monitoring Equipment:

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

#### 9. Logging, Coring, and Testing Program:

- a. Drill stem tests will be based on geological sample shows.
- b. The open hole electrical logging program will be:
  - i. Total Depth to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron Z Density log with Gamma Ray and Caliper.
  - ii. Total Depth to Surface Compensated Neutron with Gamma Ray
  - iii. No coring program is planned
  - iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

#### 10. Potential Hazards:

a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4700 psi and Estimated BHT 180°. No H2S is anticipated to be encountered.

#### 11. Anticipated Starting Date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 32 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

#### SURFACE USE PLAN

Devon Energy Production Company, LP

#### Federal N #1

Surface Location: 1980' FSL & 860' FEL, Unit I, Sec 5 T23S R26E, Eddy, NM Bottom hole Location: 2045' FSL & 898' FEL, Unit I, Sec 5 T23S R26E, Eddy, NM

#### 1. Existing Roads:

- a. The well site and elevation plat for the proposed well are reflected on Exhibit 2. The well was staked by John W. West.
- b. All existing roads into the location are depicted on Exhibit 3.
- c. Directions to Location: Exhibit "A" is a highway map showing the location of the well. The location is as follows: Go south of Carlsbad toward El Paso on Federal Highway 62-180. Turn right on black topped road at "Stuckey's" and go five miles in a southwesterly direction. Turn left off black top on existing ranch road, there is 900' of constructed road to proposed location.

#### 2. Access Road

- a. Exhibit #3 shows the existing County Road. Length and Width: 1950' of road previously built. Road was constructed.
- b. Road consists of six inches of caliche, watered, compacted and graded.
- c. Surface material are /will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

#### 3. Proposed Facilities

- a. In the event the well is found productive, the existing tank battery and flow line on location would be utilized and/or the necessary production equipment will be installed at the well site.
- b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
- c. All flow lines will adhere to API standards.
- d. If the well is productive, rehabilitation plans are as follows:
  - i. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
  - ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

#### 4. Methods of Handling Waste Material:

- a. Drill cuttings will be disposed of in the reserve pits.
- b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
- c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. Wastewater from living quarters will be drained into hole with a minimum of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

- will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.

#### 5. Well Site Layout

- a. Exhibit D shows the proposed well site layout.
- b. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- c. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface conditions encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- d. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

#### 6. Other Information:

- a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, some mesquite bushes and shinnery oak. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is of limited use except for the grazing of livestock and the production of oil and gas.
- c. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. or Boone Archeology Services and forwarded to the BLM office in Carlsbad, New Mexico.
- d. There are no dwellings within 2 miles of location.

#### **Operators Representative:**

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Wyatt Abbitt
Operations Engineer Advisor

Don Mayberry Superintendent

Devon Energy Production Company, L.P. 20 North Broadway, Suite 1500 Oklahoma City, OK 73102-8260

Devon Energy Production Company, L.P. Post Office Box 250 Artesia, NM 88211-0250

(405) 552-8137 (office) (405) 245-3471 (Cellular)

(505) 748-3371 (office) (505) 746-4945 (home)

#### Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed:

...\_\_\_\_

Date:

May 17th, 2006

Stephanie A. V sasaga

Sr. Staff Engineering Technician

# **Additional Operator Remarks:**

re-enter

Devon Energy Production Company, LP proposes to drill a Happy Valley; Morrow well to 11,850' for commercial quantities of oil and gas. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Devon Energy Production Co., LP plans to drill the well per the currently attached Drilling and Surface Use Plan.

#### History:

Well previously permitted October 22, 1980 as a vertical well, under API # 30-015-23538. Well plugged and abandoned November 10, 1982. Forward plan is to re-enter and sidetrack, see current and proposed wellbore schematics.

#### **Directions:**

The location is as follows: Go South of Carlsbad toward El Paso on Federal Highway 62-180. Turn right on black topped road at "Stuckey's" and go five miles in a southwesterly direction. Turn left off black top on existing ranch road, there is 900' of constructed road to proposed location.

#### Access Road:

Existing access road will be used.

#### H2S:

No H2S is expected to be encountered.

# Attachment to Exhibit #1 NOTES REGARDING BLOWOUT PREVENTERS

# Devon Energy Production Company, LP

#### Federal N #1

Surface Location: 1980' FSL & 860' FEL, Unit I, Sec 5 T23S R26E, Eddy, NM Bottom hole Location: 2045' FSL & 898' FEL, Unit I, Sec 5 T23S R26E, Eddy, NM

- 1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.
- 2. Wear ring will be properly installed in head.
- 3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 5000 psi working pressure.
- 4. All fittings will be flanged.
- 5. A full bore safety valve tested to a minimum 5000 psi WP with proper thread connections will be available on the rotary rig floor at all times.
- 6. All choke lines will be anchored to prevent movement.
- 7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.
- 8. Will maintain a kelly cock attached to the kelly.
- 9. Hand wheels and wrenches will be properly installed and tested for safe operation.
- 10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.
- 11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

# UNITED STATES DEPARTMENT OF THE INTERIOR

# Bureau of Land Management Roswell Field Office 2909 West Second Street Roswell, New Mexico 88201-1287

# Statement Accepting Responsibility for Operations

**Devon Energy Production Company, LP** 

20 North Broadway, Suite 1500

Operator Name:

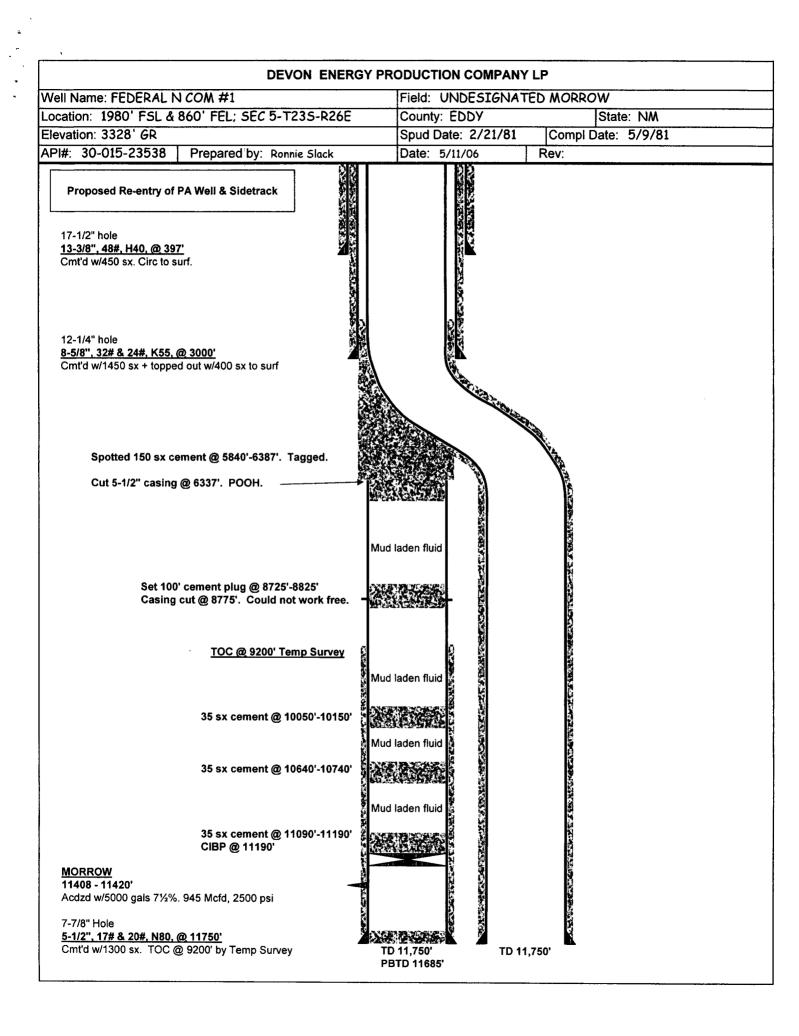
Street or Box:

City, State: Zip Code:	Oklahoma City, Oklahoma 73102-8260
The undersigned accepts all application conducted on the leased land or portion	able terms, conditions, stipulations and restrictions concerning operations tion thereof, as described below.
Lease Name:	Federal N #1
Lease No.:	NM-13984
Legal Description of Land:	320 acres 5-T23S-R26E Lot I NESE 1980' FSL & 860' FEL
Formation(s):	Morrow
Bond Coverage:	Nationwide
BLM Bond File No.:	CO-1104
Authorized Signature:	Stephavië A. Ysasaga
Title:	Sr. Staff Engineering Technician
Date:	05/17/06

#### HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - a. Characteristics of H2S
  - b. Physical effects and hazards
  - c. Proper use of safety equipment and life support systems.
  - d. Principle and operation of H2S detectors, warning system and briefing areas
  - e. Evacuation procedures, routes and first aid.
  - f. Proper use of 30-minute pressure demand air pack.
- 2. H2S Detection and Alarm System
  - a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
  - a. Windsock at mud pit area should be high enough to be visible
  - b. Windsock at briefing area should be high enough to be visible
  - c. There should be a windsock at entrance to location
- 4. Condition Flags and Signs
  - a. Warning Sign on access road to location
  - b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well Control Equipment
  - a. See Exhibit "E" & "E-1"
- 6. Communication
  - a. While working under masks chalkboards will be used for communication.
  - b. Hand signals will be used where chalk board is inappropriate
  - c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.
- 7. Drill stem Testing
  - a. Exhausts will be watered
  - b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
  - c. If the location is near to a dwelling a closed DST will be performed.
- 8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.



# **DEVON ENERGY PRODUCTION COMPANY LP** Well Name: FEDERAL N COM #1 Field: UNDESIGNATED MORROW Location: 1980' FSL & 860' FEL; SEC 5-T235-R26E County: EDDY State: NM Elevation: 3328' GR Compl Date: 5/9/81 Spud Date: 2/21/81 API#: 30-015-23538 Date: 2/2/06 Rev: Prepared by: Ronnie Slack Spotted 15 sx cement from 0'-50' **PLUGGED & ABANDONED** Wellhead cut off & dry hole marker installed BY CITIES SERVICE CO (11/82) Mud laden fluid 17-1/2" hole Spotted 75 sx cement @ 350'-450' 13-3/8", 48#, H40, @ 397" Cmt'd w/450 sx. Circ to surf. Mud laden fluid 12-1/4" hole Spotted 75 sx cement @ 2950'-3050' 8-5/8", 32# & 24#, K55, @ 3000' Cmt'd w/1450 sx + topped out w/400 sx to surf Mud laden fluid Spotted 150 sx cement @ 5840'-6387'. Tagged. Cut 5-1/2" casing @ 6337'. POOH. Mud laden fluid Set 100' cement plug @ 8725'-8825' Casing cut @ 8775'. Could not work free. TOC @ 9200' Temp Survey Mud laden fluid 35 sx cement @ 10050'-10150' Mud laden fluid 35 sx cement @ 10640'-10740' Mud laden fluid 35 sx cement @ 11090'-11190' CIBP @ 11190' MORROW 11408 - 11420' Acdzd w/5000 gals 71/2%. 945 Mcfd, 2500 psi 7-7/8" Hole 5-1/2", 17# & 20#, N80, @ 11750' PBTD 11685' Cmt'd w/1300 sx. TOC @ 9200' by Temp Survey TD 11,750'



2105 market Street Midland, TX 79703 Ph. (432)694-9517 Fax. (432)694-5648

# Directional/Horizontal Plan Report

**Devon Energy** 

Federal N Com #1

**Eddy County, NM** 

Plan #2

Prepared By Oscar Gomez Monday, May 15, 2006

#### DEVON ENERGY Federal N Com #1,slot #1 ,Eddy County New Mexico

PROPOSAL LISTING Page 1 Your ref : Plan2 Last revised : 15-May-2006

Measured Depth		Azimuth Degrees	True Vert Depth	RECT COOR			Dogleg Deg/100ft	Vert Sect
0.00	0.00	0.00	0.00	0.00	N	0.00 E	0.00	0.00
100.00	0.00	329.90	100.00	0.00		0.00 W	0.00	0.00
200.00	0.00	329.90	200.00	0.00	N	0.00 W	0.00	0.00
300.00	0.00	329.90	300.00	0.00	N	0.00 W	0.00	0.00
400.00	0.00	329.90	400.00	0.00	N	0.00 W	0.00	0.00
500.00	0.00	329.90	500.00	0.00	N	0.00 W	0.00	0.00
600.00	0.00	329.90	600.00	0.00		0.00 W	0.00 0.00	0.00
700.00	0.00	329.90	700.00	0.00		0.00 W	0.00	0.00
800.00	0.00	329.90	800.00	0.00		0.00 W	0.00	0.00
900.00	0.00	329.90	900.00	0.00		0.00 W	0.00	0.00 0.00
1000.00	0.00	329.90	1000.00	0.00				
1100.00	0.00	329.90	1100.00	0.00		0.00 W	0.00	0.00
1200.00	0.00	329.90	1200.00			0.00 W	0.00	0.00
1300.00	0.00	329.90	1300.00	0.00		0.00 W	0.00	0.00
1400.00	0.00	329.90	1400.00	0.00		0.00 W	0.00	0.00
	0.00	323.30	1400.00	0.00	M	0.00 W	0.00	0.00
1500.00	0.00	329.90	1500.00	0.00	N	0.00 W	0.00	0.00
1600.00	0.00	329.90	1600.00	0.00	N	0.00 W	0.00	0.00
1700.00	0.00	329.90	1700.00	0.00	N	0.00 W	0.00	0.00
1800.00	0.00	329.90	1800.00	0.00	N	0.00 W	0.00	0.00
1900.00	0.00	329.90	1900.00	0.00	N	0.00 W	0.00	0.00
2000.00	0.00	329.90	2000.00	0.00	N	0.00 W	0.00	0.00
2100.00	0.00	329.90	2100.00	0.00		0.00 W	0.00	0.00
2200.00	0.00	329.90	2200.00	0.00		0.00 W	0.00	0.00
2300.00	0.00	329.90	2300.00	0.00		0.00 W	0.00	0.00
2400.00	0.00	329.90	2400.00	0.00		0.00 W	0.00	0.00
2500.00	0.00	329.90	2500.00	0.00	N	0.00 W	0.00	0.00
2600.00	0.00	329.90	2600.00	0.00		0.00 W	0.00	
2700.00	0.00	329.90	2700.00	0.00		0.00 W	0.00	0.00 0.00
2800.00	0.00	329.90	2800.00	0.00		0.00 W	0.00	
2900.00	0.00	329.90	2900.00	0.00		0.00 W	0.00	0.00 0.00
3000.00	0.00	329.90	3000.00	0.00	N	0.00 W	0.00	0.00
3100.00		329.90		0.00		0.00 W	0.00	0.00
3200.00	2.00	330.00	3199.98	1.51		0.87 W	2.00	0.00 KOP
3300.00	4.00	330.00	3299.84	6.05		3.49 W	2.00	1.75 6.98
3321.61		330.00	3321.39	7.42		4.28 W		8.57 EOB
3321.66	4.43	330.00	3321.44	7 40	**	4 00		
3500.00	4.43	330.00	3499.25	7.42 19.36		4.29 W	2.00	8.57
3959.24	4.43	330.00	3957.11	50.11		11.18 W	0.00	22.36
4002.57	4.00	330.00	4000.32	52.86		28.93 W	0.00	57.86
4102.57	3.00	330.00	4100.14	58.15		30.52 W 33.57 W	1.00 1.00	61.04 67.15
4202.57	2.00	330.00						
4302.57	1.00		4200.04	61.93		35.75 W	1.00	71.51
4402.57		330.00 330.00	4300.01	64.20		37.06 W	1.00	74.13
4500.00	0.00	330.00	and the second second second	64.95		37.50 W	the real of the second of the second	75.00 TGT
5000.00	0.00	330.00	4497.43	64.95		37.50 W	0.00	75.00
2300,00	0.00	330.00	4997.43	64.95	N	37.50 W	0.00	75.00
5500.00	0.00	330.00	5497.43	64.95		37.50 W	0.00	75.00
6000.00	0.00	330.00	5997.43	64.95		37.50 W	0.00	75.00
6500.00	0.00	330.00	6497.43	64.95		37.50 W	0.00	75.00
7000.00	0.00	330.00	6997.43	64.95		37.50 W	0.00	75.00
7500.00	0.00	330.00	7497.43	64.95	N	37.50 W	0.00	75.00

All data is in feet unless otherwise stated.

Coordinates from structure and TVD from rotary table.

Bottom hole distance is 75.00 on azimuth 330.00 degrees from wellhead.

Vertical section is from N 0.00 E 0.00 on azimuth 330.00 degrees.

Calculation uses the minimum curvature method.

Presented by Baker Hughes INTEQ

DEVON ENERGY Federal N Com #1,slot #1, Eddy County New Mexico PROPOSAL LISTING Page 2 Your ref : Plan2 Last revised : 15-May-2006

Measured Depth		Azimuth Degrees	True Vert Depth	RECTANG COORDIN		Dogleg Deg/100ft	Vert Sect
8000.00	0.00	330.00	7997.43	64.95 N	37.50 W	0.00	75.00
8500.00	0.00	330.00	8497.43	64.95 N	37.50 W	0.00	75.00
9000.00	0.00	330.00	8997.43	64.95 N	37.50 W	0.00	75.00
9500.00	0.00	330.00	9497.43	64.95 N	37.50 W	0.00	75.00
10000.00	0.00	330.00	9997.43	64.95 N	37.50 W	0.00	75.00
10500.00	0.00	330.00	10497.43	64.95 N	37.50 W	0.00	75.00
11000.00	0.00	330.00	10997.43	64.95 N	37.50 W	0.00	75.00
11500.00	0.00	330.00	11497.43	64.95 N	37.50 W	0.00	75.00
11752.57	0.00	330.00	11750.00	64.95 N	37.50 W	0.00	75.00
11852.57	0.00	330.00	11850.00	64.95 N	37.50 W	0.00	75.00 TD

All data is in feet unless otherwise stated.

Coordinates from structure and TVD from rotary table.

Bottom hole distance is 75.00 on azimuth 330.00 degrees from wellhead.

Vertical section is from N 0.00 E 0.00 on azimuth 330.00 degrees.

Calculation uses the minimum curvature method.

Presented by Baker Hughes INTEQ

DEVON ENERGY Federal N Com #1, slot #1 ,Eddy County New Mexico

PROPOSAL LISTING Page 3 Your ref : Plan2 Last revised : 15-May-2006

#### Comments in wellpath

MD	TVD	Rectangular	Coords.	Comment
3100.00	3100.00	0.00 N	0.00 W	KOP
3321.61	3321.39	7.42 N	4.28 W	EOB
4402.57	4400.00	64.95 N	37.50 W	TGT

### Casing positions in string 'A'

•	Top TVD	Rectangular	Coords.	Bot MD	Bot TVD	Rectangular	Casing	
0.00	0.00	0.00N	0.00E	3000.00	3000.00	0.00и	8 5/8"	

#### Targets associated with this wellpath

Target name	Geographic Location	T.V.D.	-	Coordinates	Revised
TGT		4400.00	64.95N		15-May-2006



Field :

# DEVON ENERGY

Structure : Federal N Com #1

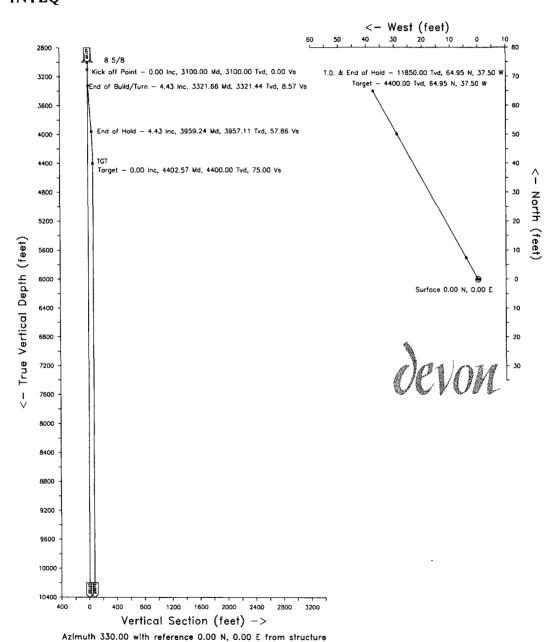
Slot : slot #1

Location : Eddy County New Mexico

Plot Reference is Plan2. Coordinates are in feet reference structure. Irue Vertical Depths are reference structure

- Boker Hughes INTEQ ---

INTEQ



#### **CONDITIONS OF APPROVAL - DRILLING**

Operator's Name:

**Devon Energy Production Company, L.P.** 

Well Name & No.

Fed N #1 - RE-ENTRY

SH Location: BH Location:

1980' FSL, 860' FEL, Section 5, T. 23 S., R. 26 E., Eddy County, New Mexico 2045' FSL. 898' FEL. Section 5, T. 23 S., R. 26 E., Eddy County, New Mexico

Lease:

NM-97120

#### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County in sufficient time for a representative to witness:

- A. Well spud
- B. Cementing casing: 5-1/2 inch

13-3/8 inch surface casing in place - set at 397' with cement circulated to surface. 8-5/8 inch intermediate casing in place -- set at 3000' with cement circulated to surface.

Operator plans to kick off at approximately 3100' and drill a new hole to above BHL, and set 5-1/2" casing.

- C. BOP tests
- 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.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

#### II. CASING:

- 1. The 13-3/8 inch surface casing shall is set at 397 feet with cement circulated to the surface.
- 2. The 8-5/8 inch intermediate casing is set at 3000 feet with cement circulated to the surface.
- 3. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>to reach at least 500 feet</u> above the top of the uppermost hydrocarbon producing interval.

#### **III. PRESSURE CONTROL:**

- 1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the <a href="8-5/8">8-5/8</a> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 5000 psi.

- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.

#### **IV. 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. Monitoring equipment shall consist of the following:

- Recording pit level indicator to indicate volume gains and losses.
- Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
- Flow-sensor on the flow-line to warn of abnormal mud returns from the well.

5/30/06 acs