

OCD-ARTESIA

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER MAR 30 2005

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM81616	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator DEVON Energy Prod. Co LP		7. If Unit or CA Agreement, Name and No.	
3a. Address 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY, OK 73102-8260		8. Lease Name and Well No. H B 10 FEDERAL 3 30484	
3b. Phone No. (include area code) Ph: 405-228-8209 Fx: 405-552-1319		9. API Well No. 30-015-34145	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NESE 1980FSL 660FEL At proposed prod. zone NESE 1980FSL 660FEL		10. Field and Pool, or Exploratory PIERCE CROSSING BONE SPRINGS	
14. Distance in miles and direction from nearest town or post office*		11. Sec., T., R., M., or Blk. and Survey or Area Sec 10 T24S R29E Mer NMP SME: BLM	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish EDDY	
16. No. of Acres in Lease 480.00		13. State NM	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.		17. Spacing Unit dedicated to this well 40.00	
19. Proposed Depth 8500 MD 8500 TVD		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 2794 GL		23. Estimated duration 30 DAYS	

24. Attachments

CARLSBAD CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) LINDA B GUTHRIE Ph: 405-228-8209	Date 10/12/2004
Title REGULATORY SPECIALIST		
Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed) /s/ Tony J. Herrell	Date MAR 29 2005
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify 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 1 YEAR

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.

Additional Operator Remarks (see next page)

NSL-5208

Electronic Submission #50021 verified by the BLM Well Information System  
For DEVON LOUISIANA CORP, sent to the Carlsbad  
Committed to AFMSS for processing by ARMANDO LOPEZ on 10/12/2004 (05AL0002AE)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

5-12 28.5

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Devon Energy Production Co., LP Telephone: (405) 228-8209 e-mail address: linda.guthrie@dvn.com  
Address: PO Box 250 Artesia, NM 88211  
Facility or well name: HB10 Fed #3 API #: 30-015-34145 U/L or Qtr/Qtr I Sec 10 T 24 S R 29 E  
County: Eddy Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☐ 1983 ☐  
Surface Owner: Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/>	Volume: _____ bbl Type of fluid: _____
Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/>	Construction material: _____
Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/>	Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. <b>RECEIVED</b>
Pit Volume _____ bbl	<b>FEB 02 2005</b> <b>OCD OFFICE</b>
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet (20 points) 50 feet or more, but less than 100 feet (10 points) 100 feet or more (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes (20 points) No (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet (20 points) 200 feet or more, but less than 1000 feet (10 points) 1000 feet or more (0 points)
	Ranking Score (Total Points) <u>20</u>

**this is a pit closure:** (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if you are burying in place) onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_. (3) Attach a general description of remedial action taken including mediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results.  
(5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☒, or an (attached) alternative OCD-approved plan ☐.

Date: 2/1/05

Printed Name/Title Linda Guthrie/ Sr. Regulatory Specialist

Signature Linda Guthrie

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title Field Rep ID

Signature [Signature]

**As a condition of approval  
a detailed closure plan  
must be filed before  
closure may commence.**

**As a condition of approval, if during  
construction water is encountered or  
if water seeps in pits after  
construction the **OCD MUST BE  
CONTACTED IMMEDIATELY!****

**FEB 7 2005**

**Additional Operator Remarks:**

Devon Energy Production Co LP respectfully requests approval to drill an 8500' well for commercial quantities of oil. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

Approximately 954' of additional road will need to be built.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000



**SUNDRY NOTICES AND REPORTS ON WELLS**  
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM81616
2. Name of Operator DEVON ENERGY PRODUCTION CO L P		6. If Indian, Allottee or Tribe Name
3a. Address 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY, OK 73102		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 405.228.8209		8. Well Name and No. H B 10 FEDERAL 3
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 10 T24S R29E NESE 1980FSL 660FEL		9. API Well No.
		10. Field and Pool, or Exploratory PIERCE CROSSING BONE SPRINGS
		11. County or Parish, and State EDDY COUNTY, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Devon Energy Production Co., LP requests approval to move the location due to an existing archeological site at the previously requested location:

Old location: 1980 FSL & 660 FEL 10-24S-29E  
New Location: 1480 FSL & 1110 FEL 10-24S-29E

14. I hereby certify that the foregoing is true and correct. Electronic Submission #53400 verified by the BLM Well Information System For DEVON ENERGY PRODUCTION CO L P, sent to the Carlsbad Committed to AFMSS for processing by ARMANDO LOPEZ on 01/25/2005 (05AL0103SE)	
Name (Printed/Typed) LINDA GUTHRIE	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 01/25/2005

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <u>/s/ Tony J. Herrell</u>	Title <b>FIELD MANAGER</b>	DATE <b>MAR 29 2005</b>
Conditions of approval, if any, are attached. Approval of this notice 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.	Office <b>CARLSBAD FIELD OFFICE</b>	

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.

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Ed., Aztec, NM 87410

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87506

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

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

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
Property Code	Property Name HB "10"	Well Number 3
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY LP	Elevation 2963'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	10	24 S	29 E		1480	SOUTH	1110	EAST	EDDY

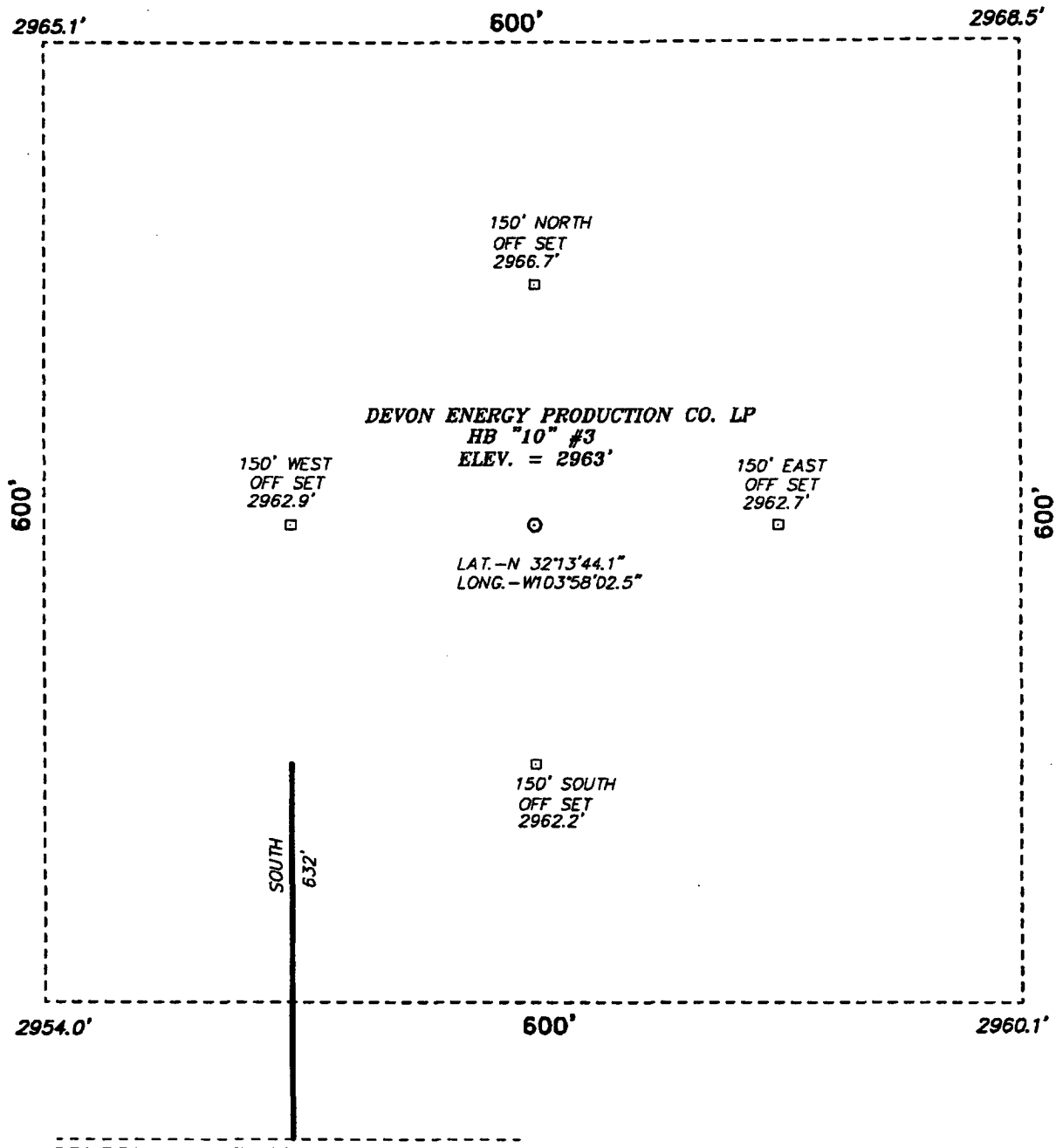
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

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

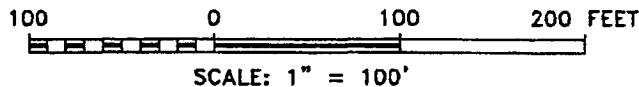
	<p>Lat.: N32°13'44.1"</p> <p>Long.: W103°58'02.5"</p>		<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Linda Guthrie</i></p> <p>Signature</p> <p>Linda Guthrie</p> <p>Printed Name</p> <p>Sr. Reg. Specialist</p> <p>Title</p> <p>01/25/2005</p> <p>Date</p>	
	<p>2965.1'</p> <p>2968.5'</p> <p>1110'</p> <p>2954.0'</p> <p>2960.1'</p> <p>1480'</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>December 21, 2004</p> <p>Date</p> <p><i>James L. Jones</i></p> <p>Signature</p> <p>Professional Surveyor</p> <p>7977</p> <p>W.O. No. 4958</p> <p>Certified Professional Surveyor</p> <p>JLP</p> <p>BASIN SURVEYS</p>
	<p>2965.1'</p> <p>2968.5'</p> <p>1110'</p> <p>2954.0'</p> <p>2960.1'</p> <p>1480'</p>			
	<p>2965.1'</p> <p>2968.5'</p> <p>1110'</p> <p>2954.0'</p> <p>2960.1'</p> <p>1480'</p>			

SECTION 10, TOWNSHIP 24 SOUTH, RANGE 29 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RDS. 745 AND 788 GO  
EAST 1.1 MILES TO "Y" TAKE LEFT 2.0 MILES TO  
CATTLE GUARD GO NORTH ON RD. 0.1 MILES TO  
ANOTHER CATTLE GUARD THEN EAST 1.0 MILES, THEN  
NORTH 1.8 MILES DOWN WINDING ROAD TO  
PROPOSED ROAD.



**DEVON ENERGY PRODUCTION CO. LP.**

REF: THE HB "10" #3 / Well Pad Topo

THE HB 10" #3 LOCATED 1480' FROM THE  
SOUTH LINE AND 1110' FROM THE EAST LINE OF  
SECTION 10, TOWNSHIP 24 SOUTH, RANGE 29 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

**BASIN SURVEYS** P.O. BOX 1786--HOBBS, NEW MEXICO

W.O. Number: 4959

Drawn By: JAMES PRESLEY

Date: 12/23/04

Disk: JLP #1 - DEV4959A

Survey Date: 12/21/04

Sheet 1 of 1 Sheets

## DRILLING PROGRAM

Devon Energy Production Company, LP

### **H. B. 10 FEDERAL #3**

(I) 1980' FSL & 660' FEL, Section 10, T-24-S, R-29-E

Eddy County, New Mexico

1. Geologic Name of Surface Formation

Quaternary Aeolian Deposits

2. Estimated Tops of Important Geologic Markers

Lamar	3050'
Bell Canyon	3100'
Brushy Canyon	5500'
Bone Spring	6800'
First Bone Spring	7100'
Total Depth	8500'

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

The estimated depths at which water, oil and gas will be encountered are as follows.

Lamar	3050'	
Bell Canyon	3100'	Oil
Brush Canyon	5500'	Oil
Bone Spring	6800'	
First Bone Spring	7100'	Oil

4. Casing Program

Hole Size	Interval	OD Csg	Weight	Collar	Grade
17 1/2"	0-350'	13 3/8"	42#	ST&C	H-40
11"	0-3100'	8 5/8"	32#	LT&C	J-55
7 7/8"	0-8500'	5 1/2"	17# & 15.5#	LT&C	J-55

5. CASING CEMENTING & SETTING DEPTH:

13 3/8"	Surface	Set 350' of 13 3/8", 42#, H-40, ST&C casing. Cement with 380 sacks Class C Neat + 2% CaCl <sub>2</sub> Circulate cement to surface	WITNESS
8 5/8"	Intermediate	Set 3100' of 8 5/8", 32#, J-55 LT&C casing. Cement with 1000 sx Class C + additives. Circulate cement to surface.	
5 1/2"	Production	Set 8500' of 5 1/2", 17# & 15.5#, J-55, LT&C casing. Cement with 1120 sx Class H + additives. Estimated top of cement @ 5600'	

6. PRESSURE CONTROL EQUIPMENT: Exhibit "E". A Blow-out Preventer (no less than 900 Series 3000 PSI working pressure) consisting of double ram type preventer with bag type preventer. Units will be hydraulically operated. Exhibit E-1 Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be tested as well as choke manifold. BOP will be worked at least once each day while drilling & blind ram will be worked on trips when no drill pipe is in hole. Full opening stabbing valve and upper Kelly cock will be utilized. Anticipated BHP 3000 PSI and 125° BHT. Note: **A 2000# drilling head will be installed on the 13 3/8" & tested to 1215# (70% burst rating) with the rig pump.**

7. PROPOSED MUD CIRCULATION SYSTEM:

DEPTH	MUD. WT.	MUD VISC.	FLUID LOSS	TYPE MUD
0' - 350'	8.4- 8.8	29-36	NC	Fresh water spud mud use paper for seepage.
350' - 3100'	10.5 - 11.0	29-32	NC	Brine water use paper for seepage control and lime for pH control.
3100' - 7500'	9.3 - 10	29-34	NC	Cut Brine Use paper for seepage control.
7500' - 8500'	9.3 - 10	34 -38	10 cc's or less	Cut Brine use Drispac starch & soda ash.

Sufficient mud materials to maintain mud properties, meet lost circulation and weight increase requirement will be kept at wellsite at all times. In order to run casing and log well viscosity may have to be raised and water loss may have to be lowered.



8. TESTING, LOGGING AND CORING PROGRAM:

- CNL-FDC, Gamma Ray, Caliper from TD to base of intermediate casing.
- AIT-Dual Laterolog – Micro SFL from TD to base of intermediate casing.
- Gamma Ray, Neutron, Caliper to surface
- Mud Logger on from 2800' to TD (Two man unit)
- Side wall cores taken between 3100' – 6700' in Delaware where shows occur.

9. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. No Hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No lost circulation is expected to occur. Estimated BHP 3000 psi, estimated BHT 125°

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM approval of APD. Anticipated spud date is December 1, 2004. Drilling is expected to take 18- 24 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

11. OTHER FACETS OF OPERATIONS:

After running casing, cased hole gamma ray neutron collar logs may be run from total depth over possible pay intervals. The Bone Spring pay will be perforated and stimulated. The well will be swab tested and potentialized as an oil well.

OPERATORS REPRESENTATIVE:

Devon Energy Production Company, LP  
20 North Broadway, Ste 1500  
Oklahoma City, OK 73102

James Blount Operations Engineering Advisor  
Work Phone (405)228-4301  
Home Phone (405)348-0102  
Cellular (405)834-9207

9. CERTIFICATION: - I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statement 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 Co., LP., it's contractors/subcontractors is in the conformity with this plan and the terms and condition under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME: James Blount  
DATE: 10-8-04  
Title: Operations Engineering Advisor

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

Operator Name: **Devon Energy Production Company, LP**  
Street or Box: **20 North Broadway, Suite 1500**  
City, State: **Oklahoma City, Oklahoma**  
Zip Code: **73102-8260**

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

Lease No.: **NMNM81616**  
Legal Description of Land: **40 acres 10-T24S-R29E**  
Formation(s): **Pierce Crossing; Bone Spring**  
Bond Coverage: **Nationwide**  
BLM Bond File No.: **CO1104**

Authorized Signature:

  
**Jim Blount**

Title: **Operations Engineering Advisor**  
Date: **October 7, 2004**

# MINIMUM BLOWOUT PREVENTER REQUIREMENTS

1,000 psi Working Pressure

3 MWP

EXHIBIT # 1

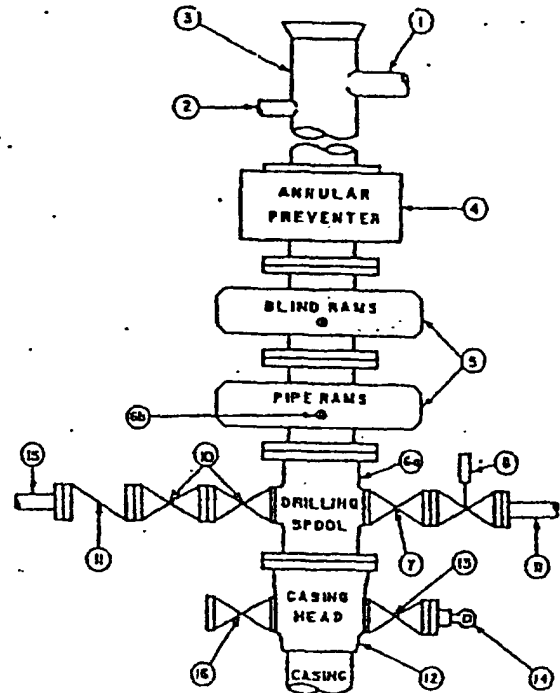
## STACK REQUIREMENTS

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

## OPTIONAL

16	Flanged valve	1-13/16"	
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CONFIGURATION A



## CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

## MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

## GENERAL NOTES:

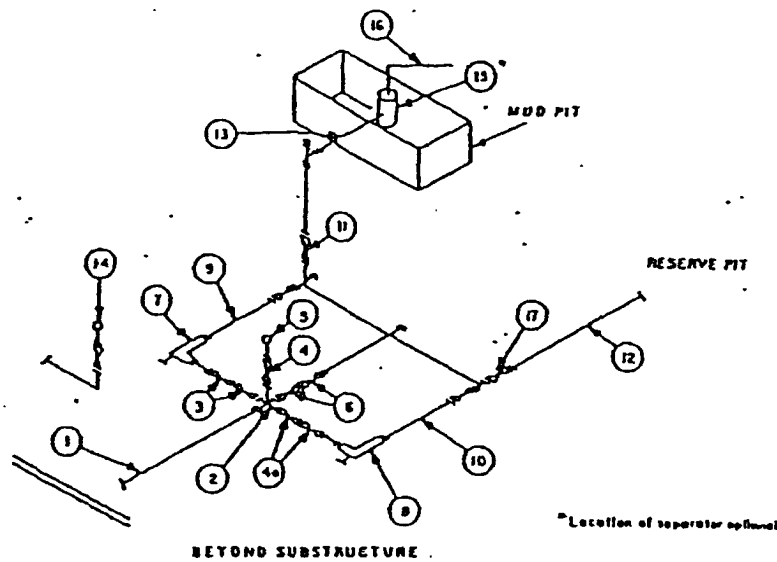
1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through chokes. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

**MINIMUM CHOKE MANIFOLD**  
3,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP

EXHIBIT # 1



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves (1) Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate □ Plug □ (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves (1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2'x5'			2'x5'			2'x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate □ Plug □ (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

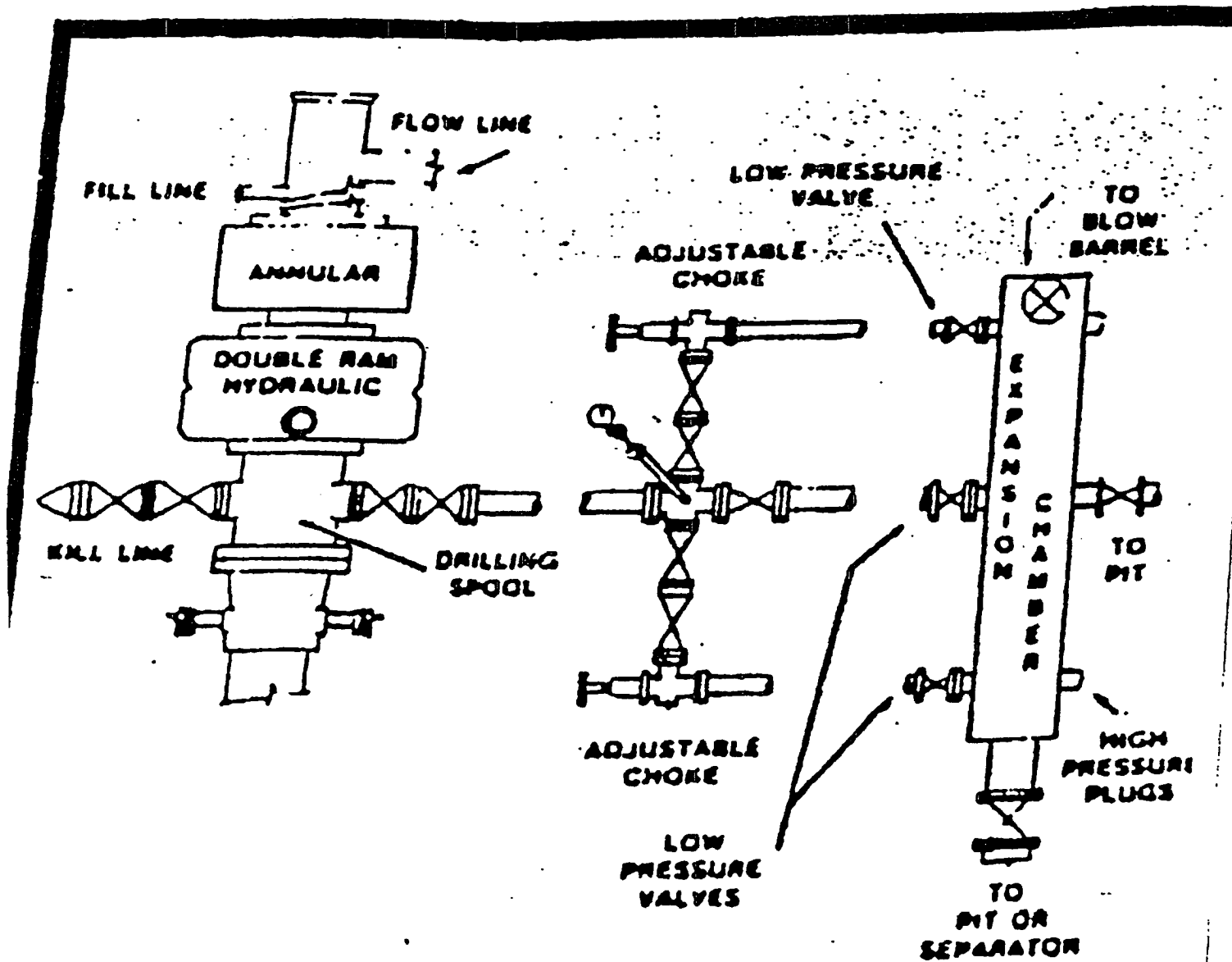
(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

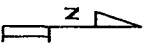
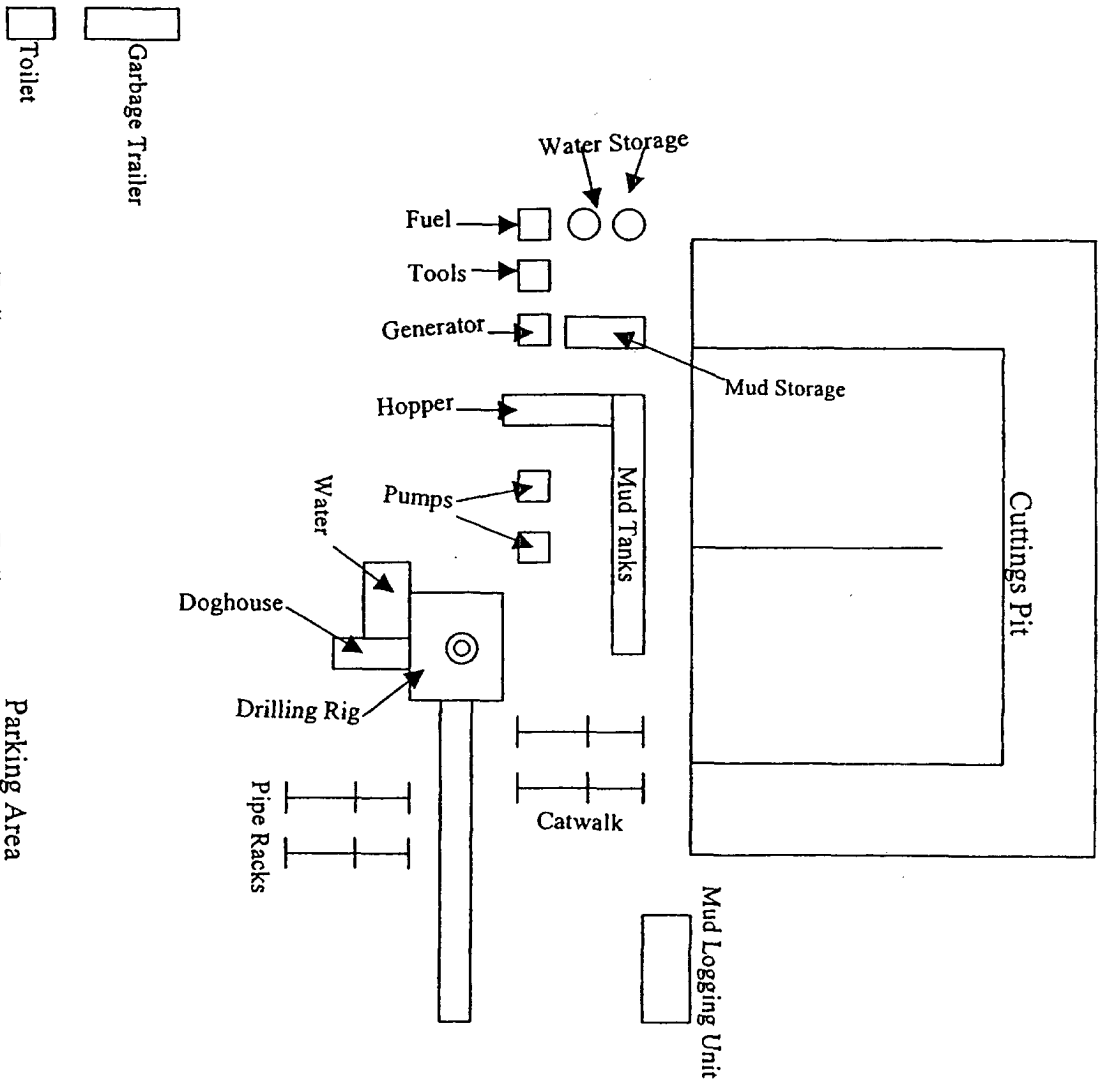
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

**EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS**

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- 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.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.



**Standard Blowout Preventer Stack**



Devon Energy Production Company, LP HB 10 FEDERAL #3	Drilling Pad Exhibit #
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