

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

Form C-144  
March 12, 2004

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

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 Company, LP Telephone: (405) 228-8209 e-mail address: linda.guthrie@dvn.com  
Address: 20 N Broadway, Suite 1500 Oklahoma City, OK 73102-8260  
Facility or well name: MAD DOG 15 FED COM 1 API #: \_\_\_\_\_ U/L or Qtr/Qtr P Sec 15 T 23S R 34E  
County: Lea Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

<b>Pit</b>	<b>Below-grade tank</b>	
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: _____	
Inner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Volume _____ bbl	Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____	
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)
	<u>100 feet or more</u>	(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)
	<u>No</u>	(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)
	<u>1000 feet or more</u>	(0 points)
Ranking Score (Total Points)		<u>0</u>

If 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:

onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_ (3) Attach a general description of remedial action taken including remediation 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.

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: 05/26/04

Printed Name/Title Linda Guthrie Regulatory Specialist Signature Linda Guthrie

Our 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:

Date: \_\_\_\_\_

Printed Name/Title \_\_\_\_\_ Signature \_\_\_\_\_

BEFORE THE  
OIL CONSERVATION COMMISSION  
Case No. 13286 Exhibit No. 2  
Submitted By:  
Devon Energy Production Co  
Hearing Date: June 24, 2004

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM13641
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" 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 PRODUCTION COMPAN		7. If Unit or CA Agreement, Name and No.
Contact: LINDA GUTHRIE E-Mail: linda.guthrie@dvn.com		8. Lease Name and Well No. MAD DOG 15 FED COM 1
3a. Address 20 NORTH BROADWAY, STE 1500 OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405.228.8209 Fx: 405.552.1319	9. API Well No.
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE 660FSL 660FEL At proposed prod. zone SESE 990FSL 1080FEL		10. Field and Pool, or Exploratory WILDCAT; DEVONIAN
14. Distance in miles and direction from nearest town or post office* APPROX 20 MILES WEST OF JAL, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 15 T23S R34E Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in Lease 400.00	12. County or Parish LEA
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 14800 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc. 3408 GL	22. Approximate date work will start 07/03/2004	17. Spacing Unit dedicated to this well 320.00
		20. BLM/BIA Bond No. on file
		23. Estimated duration 100 DAYS

24. Attachments

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

- |  |  |
|--|--|
| 1. Well plat certified by a registered surveyor.<br>2. A Drilling Plan.<br>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). | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).<br>5. Operator certification<br>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 GUTHRIE	Date 06/03/2004
Title REGULATORY SPECIALIST		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	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.

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)

Electronic Submission #31125 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION COMPAN, sent to the Hobbs

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

**Additional Operator Remarks:**

Devon Energy proposes to drill to approximately 14,800 feet to test the Devonian for commercial quantities of gas. If deemed non-commercial, the wellbore will be plugged and abandoned as per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

Approximately 919' of new access road will need to be constructed.

## DISTRICT I

1625 N. French Dr., Hobbs, NM 88240

## DISTRICT II

811 South First, Artesia, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

2040 South Pacheco, Santa Fe, NM 87505

## 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
		Wildcat; Devonian
Property Code	Property Name	Well Number
	MAD DOG "15" FEDERAL COM	1
OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY LP	3408'

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	15	23 S	34 E		660	SOUTH	660	EAST	LEA

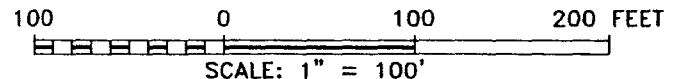
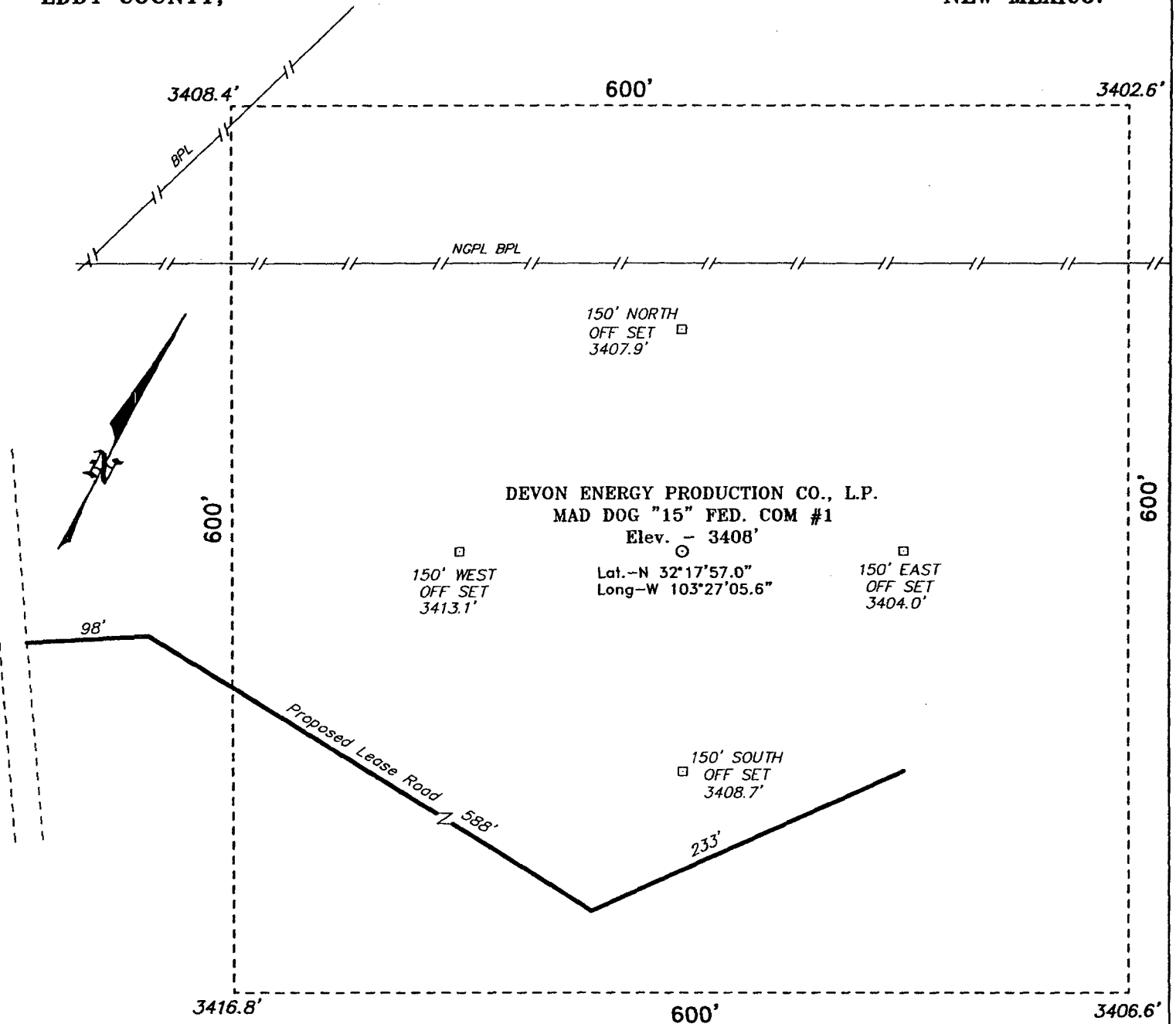
## Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	15	23S	34E		990	South	1080	East	Lea
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

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>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>Regulatory Specialist</p> <p>Title</p> <p>May 26, 2004</p> <p>Date</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>MARCH 15, 2004</p> <p>Date Surveyed</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Gary L. Jones</i></p> <p>Professional Surveyor</p> <p>7977</p> <p>Certificate No. 4044</p> <p>7977</p> <p>BASIN SURVEYS</p>
	<p>Lat.: N32°17'57.0"</p> <p>Long.: W103°27'05.6"</p>

SECTION 26, TOWNSHIP 20 SOUTH, RANGE 27 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF DELAWARE BASIN ROAD AND  
CO. RD. E-21, GO SOUTH ON E-21 FOR 1.8 MILE  
PAST ANTELOPE PLANT TO PROPOSED LEASE ROAD.

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

W.O. Number: 4044 Drawn By: K. GOAD

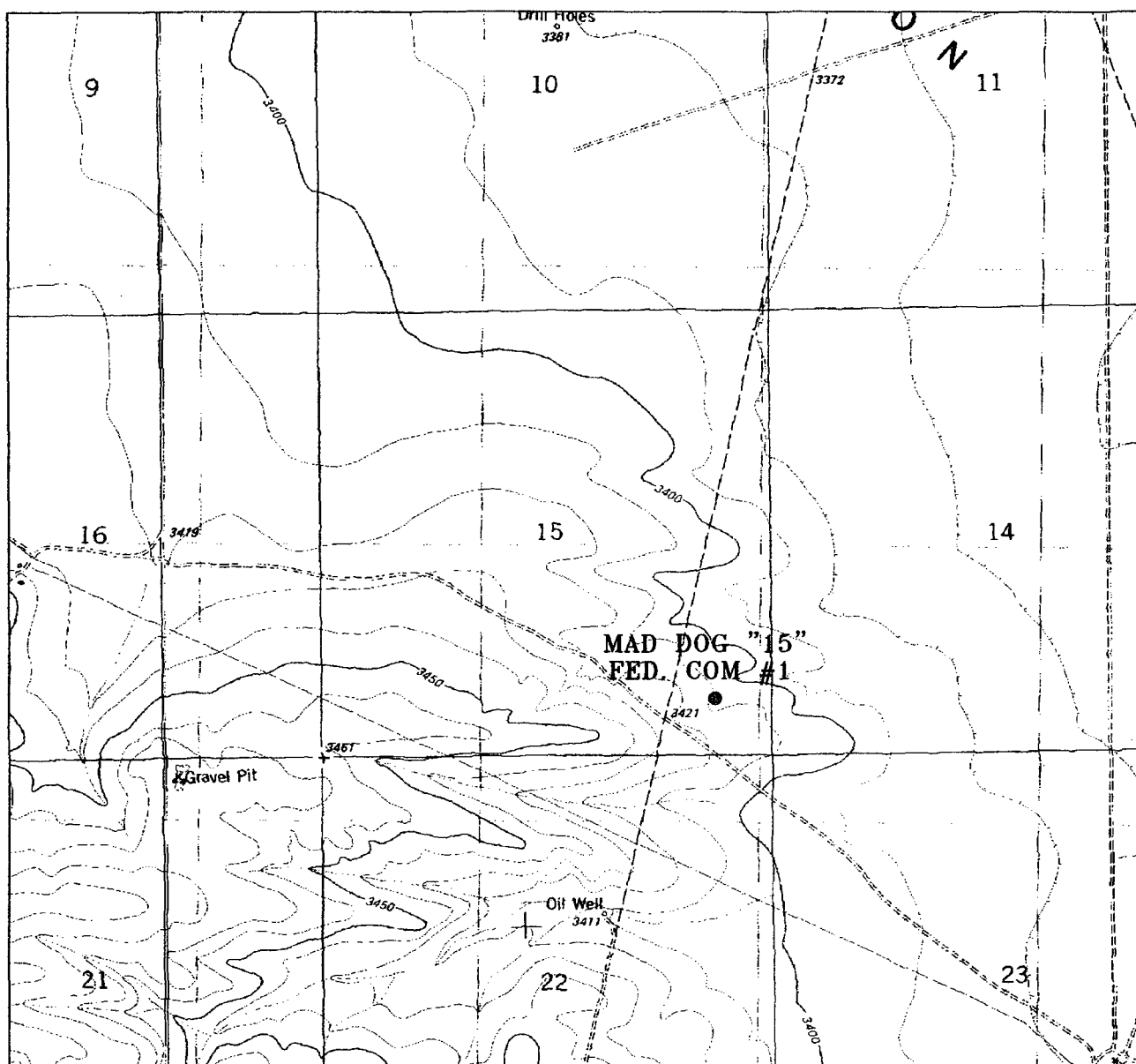
Date: 03-16-2004 Disk: KJG CD#4 - 4044A.DWG

**DEVON ENERGY PROD. CO., L.P.**

REF: MAD DOG "15" FED. COM No. 1 / Well Pad Topo

THE MAD DOG "15" FED. COM No. 1 LOCATED 660' FROM  
THE SOUTH LINE AND 660' FROM THE EAST LINE OF  
SECTION 15, TOWNSHIP 23 SOUTH, RANGE 34 EAST,  
N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 03-15-2004 Sheet 1 of 1 Sheets



# MAD DOG "15" FEDERAL COM #1

Located at 660' FSL and 660' FEL  
 Section 15, Township 23 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 -- Office  
 (505) 392-3074 -- Fax  
 basinsurveys.com

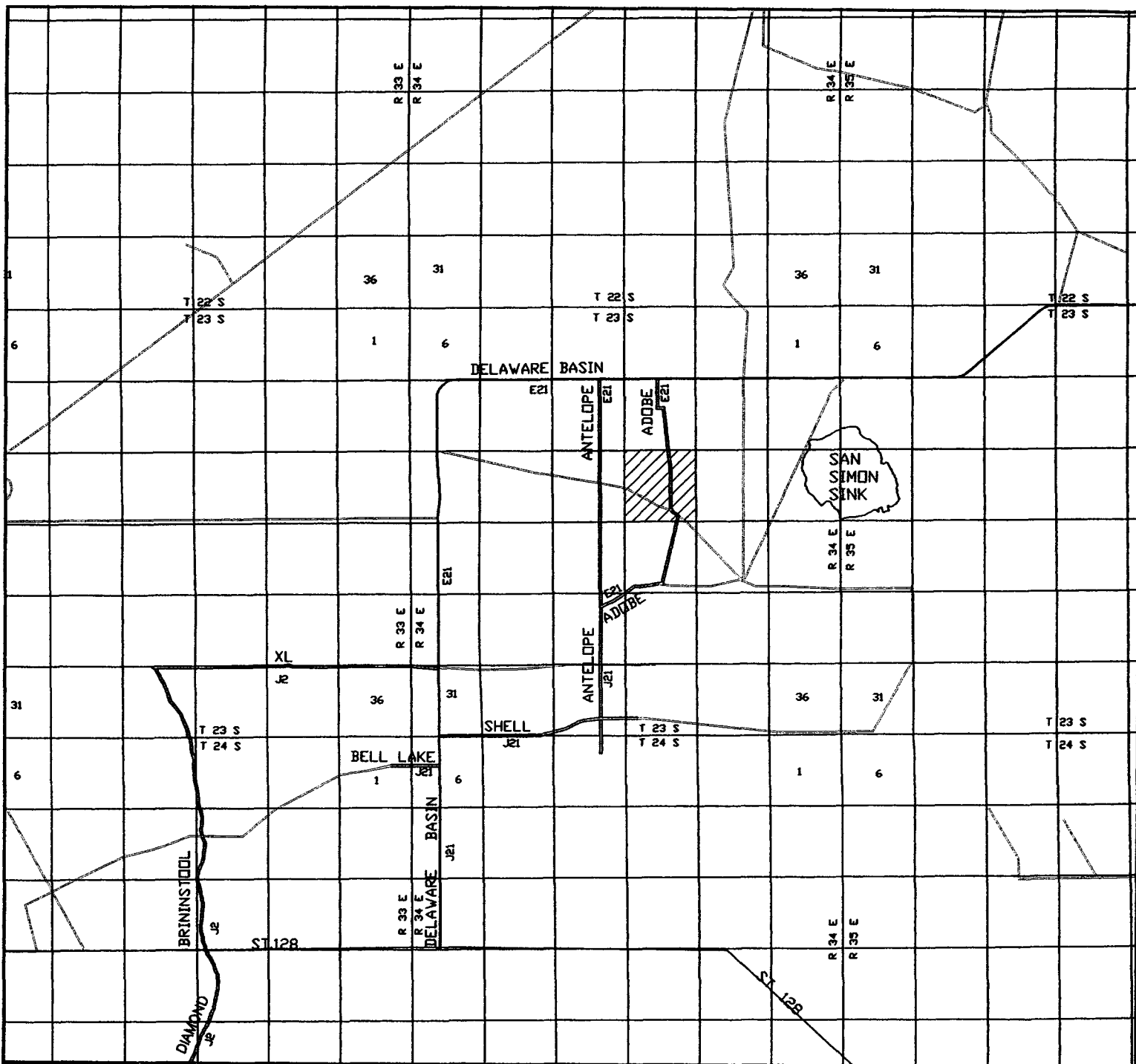
W.O. Number: 4044AA -- KJG #1

Survey Date: 03-15-2004

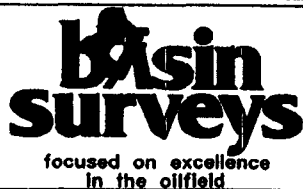
Scale: 1" = 2000'

Date: 03-16-2004

**DEVON ENERGY  
 PRODUCTION  
 COMPANY LP.**



MAD DOG "15" FEDERAL COM #1  
 Located at 660' FSL and 660' FEL  
 Section 15, Township 23 South, Range 34 East,  
 N.M.P.M., Lea County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basinsurveys.com

W.O. Number: 4044AA - KJG #1

Survey Date: 03-15-2004

Scale: 1" = 2 miles

Date: 03-16-2004

DEVON ENERGY  
 PRODUCTION  
 COMPANY LP.

## **DRILLING PROGRAM**

Devon Energy Production Company, LP

### **MAD DOG 15 FED COM #1**

660' FSL & 660' FEL, Section 15 T23S, R34E

BHL: 990' FSL & 1080' FEL, Section 15-T23S-R34E

Lea County, New Mexico

1. **Geologic Name of Surface Formation**

Alluvium

2. **Estimated Tops of Important Geologic Markers**

Rustler	900'
Delaware	4975'
Bone Spring	8350'
Wolfcamp	11100'
Strawn	11575'
Atoka	11775'
Morrow	12700'
Devonian	14525'
Total Depth	14800'

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.**

<b>Water</b>	<b>None expected in area</b>
<b>Oil</b>	<b>Bone Spring @8350'</b>
<b>Gas</b>	<b>Upper Morrow @12700</b>
	<b>Devonian @14,525'</b>

4. **Casing Program**

Hole Size	Interval	OD Csg	Weight	Collar	Grade
26	0 – 925'	20"	94#	Btrs	H40
17.5	0-3500'	13 3/8"	68#	Btrs	J55
	3500'-5100'				HCK55
12 1/4"	0 –8000'	9 5/8"	43.5#	LT&C	HCP110
	8000'-11700'		47#		
8 1/2"	11300'-14525'	7 5/8" liner	39#	ST-L	HCL-80
6.5"	14525'-14800'	Open Hole			



5. CASING CEMENTING & SETTING DEPTH:

20"	Surface	Run 20" 94# H40 Btrs casing. Cement with 1027 sx 35:65:6 Poz Class C followed by 300 sx Class C. Cement to surface.
13 3/8"	Intermediate	Run 13 3/8" 68# J55 Btrs casing.. Cement Stage I w/ 600 sx 50:50 Poz:Class C followed by 500 sx 60:40 Poz Class C. Cement Stage II w/ 1800 sx 50:50 Poz:Class C followed by 250 sx 60:40 Poz:Class C. Cement back to 20" casing.
9 5/8"	Production Interm.	9 5/8" 43.5# & 47# HCP110 LT&C casing. Cement with 900 sx Class H. Cement 500' above the top hydrocarbon bearing interval.
7 5/8"	Production Liner	Run 7 5/8" 39# HCL-80 ST-L liner. Cement with 325 sx Class H. Cement to top of liner.

Note: Cement volumes may vary based on hole conditions and caliper information.

6. **PRESSURE CONTROL EQUIPMENT:** Exhibit 1 Prior to intermediate, the blowout preventor equipment will consist of a 2M system. A 2000 psi WP pipe ram and/or a 2000 psi (Hydril) preventor. After Tding intermediate, a Blow-out Preventer (5,000/10,000 PSI working pressure) consisting of double ram type preventer with bag type preventor will be used. Units will be hydraulically operated. 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 6300 PSI and 200° BHT.

7. PROPOSED MUD CIRCULATION SYSTEM:

DEPTH	MUD. WT.	MUD VISC.	FLUID LOSS	TYPE MUD
0' – 925'	8.4 – 8.8	29-36	NC	Fresh water spud mud use paper for seepage.
925' – 5100'	8.5 – 10	29-32	NC	Brine water, use ground paper for seepage control and lime for ph
5100' – 11,700'	8.4 – 9	29-34	N/C	Cut Brine use paper for seepage control
11,700' – 14,525'	9-12.5	34-38	10cc for drilling Morrow	Cut Brine. Mud up at 12,000'
14,525' – 14,800'	8.4	28-30	N/C	Fresh Water

Sufficient mud materials to maintain mud properties, meet lost circulation and weight increase requirement will be kept at well site 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. 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 (Compliance Package) will be in operation when drilling out the 13 3/8" casing shoe until the well is TD'd.

9. Logging, Testing and Coring Program

- A. Drill stem tests may be run on potential pay interval.
- B. The open hole electrical logging program will be as follows.
  - 1) TD to intermediate casing; Induction/ Gamma Ray/ Neutron/ Density Log.
  - 2) TD to surface: Neutron with Gamma Ray.
- C. No coring program is planned.
- D. Additional testing may be initiated during drilling of the open hole section below 14,525'. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

11. Abnormal Pressures, Temperatures and Potential Hazards

Abnormally high pressured zones with a bottom hole pressure of approximately 7500 psi could possibly be encountered while drilling the Pennsylvanian interval. Sufficient barite will be on location to enable the weighting up to the estimated 11.5 ppg to control any high-pressure zone encountered. Along with the above mentioned primary control, a Blow Out Preventor System as outlined in Exhibit B will be utilized should the need arise to shut the well in prior to running and cementing the drilling liner. The estimated bottom hole temperature is 200°F. Hydrogen Sulfide has been reported at this depth in this area. No major lost circulation zones have been reported in the offsetting wells.

12. Anticipated Starting Date and Duration of Operations

Road and location preparation will not be undertaken until approval has been received from the BLM. If approved, this well will be drilled as part of a development project. The anticipated spud date for the project is in August 1, 2004. The drilling operation should require approximately 70 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

## **SURFACE USE AND OPERATING PLAN**

Devon Energy Production Company, LP  
**MAD DOG 15 FED COM #1**  
660' FSL & 660' FEL, Section 15 T23S, R34E  
BHL: 990' FSL & 1080' FEL, Section 15-T23S-R34E  
Lea County, New Mexico

### 1. Existing Roads

- A. The well site and elevation plat for the proposed well are reflected on Exhibit #2. This well was staked by Basin Surveys in Hobbs, NM.
- B. All roads into the location are depicted in Exhibit #3. New construction from the existing road will be used to access the location. New construction will conform to the specifications outlined in Item #2 below.
- C. Directions to location: From the junction of Delaware Basin Road and Co. Rd E-21, Go south on E-21 for 1.8 mile past Antelope Plant to proposed lease road.

### 2. Proposed Access Road

Exhibit #3 shows the existing lease road. Access to this location will require the construction of about 919' of proposed access road. All new construction will adhere to the following.

- A. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- B. Surface material 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%.
- C. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

### 3. Location of Existing and/or Proposed Facilities

- A. In the event the well is found productive, a tank battery would be constructed and the necessary production equipment will be installed at the well site.
  - 1) 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.
  - 2) The tank battery, all connections and all lines will adhere to API standards.

**RIO BLANCO 33 FEDERAL #2**  
SURFACE USE AND OPERATING PLAN  
PAGE 2

B. If the well is productive, rehabilitation plans are as follows.

- 1) The reserve pit will be closed pursuant to OCD rules and guidelines and reclaimed as per BLM specifications.
- 2) The original topsoil from the well site will be returned to the location. The drill site will then be contoured to the original natural state.

4. Methods of Handling Water Disposal

- A. Drill cuttings will be disposed into the reserve pit.
- B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain excess drilling fluid or fluid from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit roughly 200' x 150' x 8' in size.
- C. The reserve pit will be fenced on three sides throughout drilling operations and will be totally isolated upon removal of the rotary rig. The pit will be lined using a 20 mil liner to minimize loss of drilling fluids and saturation of the ground with brine water used during drilling.
- D. Water produced from the well during completion operations will be disposed into a steel tank or reserve pit, if volumes prove excessive. After placing the well on production through the production facilities, all water will be collected in tanks. Produced oil will be separated into steel stock tanks until sold.
- E. A portable chemical toilet will be available on the location for human waste during the drilling operations.
- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at an approved landfill. All waste material will be contained to prevent scattering by the wind. All water, fluids, salt or other chemicals will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be generated by this operation.
- G. All waste material will be removed within 30 days after the well is either completed or abandoned. The reserve pit will be completely fenced until it has it is ready to be closed. It will be closed pursuant to OCD rules and guidelines and reclaimed as per BLM specifications. Only the portion of the drilling pad used by the production equipment (pumping unit and tank battery) will remain in use. If the well is deemed non-commercial only a dry hole marker will remain.

**RIO BLANCO 33 FEDERAL #2**  
SURFACE USE AND OPERATING PLAN  
PAGE 3

5. Well Site Layout

- A. The drilling pad is shown on Exhibit #5. The pad, pits and general location of the rig equipment are displayed. Top soil will be stored adjacent to the pad until reclamation efforts are undertaken. Only modest cuts will be necessary to build the pad, which will be covered with 6" of compacted caliche.
- B. No permanent living facilities are planned, but temporary trailers for the tool pusher, drilling foreman and mud logger may be on location throughout drilling operations.

10. Plans for Restoration of Surface

- A. After concluding the drilling and/or completion operations, if the well is found non-commercial, the road will be reclaimed as directed by the BLM.
- B. The pit will be closed pursuant to OCD rules and guidelines and reclaimed as per BLM specifications. The original top soil will be returned to the pad and contoured as closely as possible to the original topography.
- C. The location and road will be rehabilitated as recommended by the BLM.
- D. The reserve pit will be fenced on three sides throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.

11. Surface Ownership

The well site is owned by the Bureau of Land Management.

The surface location will be restored as directed by the BLM.

**RIO BLANCO 33 FEDERAL #2**

**SURFACE USE AND OPERATING PLAN**

**PAGE 4**

**12. Other Information**

- A. The wellsite and access route are located in a relatively flat area.
- B. The top soil at the wellsite and access route is sandy.
- C. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some mesquite bushes, and shinnery oak.
- D. No wildlife was observed but it is likely that deer, rabbits, coyotes and rodents traverse the area.
- E. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

**13. Lessee's and Operator's Representative**

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

Bill Greenlees  
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) 552-8194 (office)  
(405) 203-7778 (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: \_\_\_\_\_

Bill Greenlees

Operations Engineer Advisor

Date: May 26, 2004

Attachment to Exhibit #1  
NOTES REGARDING BLOWOUT PREVENTERS  
Devon Energy Production Company, LP  
**MAD DOG 15 FED COM #1**  
660' FSL & 660' FEL, Section 15 T23S, R34E  
BHL: 990' FSL & 1080' FEL, Section 15-T23S-R34E  
Lea County, New Mexico

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. 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

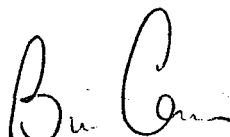
Statement Accepting Responsibility for Operations

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.: **NMNM13641**  
Legal Description of Land: **400 acres 15-23S-R34E**  
Formation(s): **Devonian**  
Bond Coverage: **Nationwide**  
BLM Bond File No.: **CO-1104**

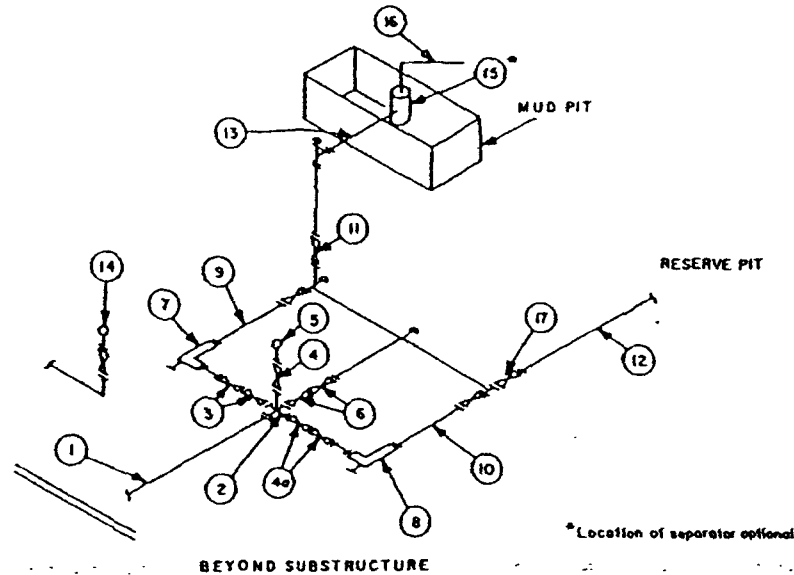
Authorized Signature:

  
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**Bill Greenlees**

Title: **Operations Engineering Advisor**  
Date: **05/26/04**

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

**3 MWP - 5 MWP - 10 MWP**



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 <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (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 <input type="checkbox"/> Plug <input type="checkbox"/> (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 <input type="checkbox"/> Plug <input type="checkbox"/> (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 <input type="checkbox"/> Plug <input type="checkbox"/> (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.

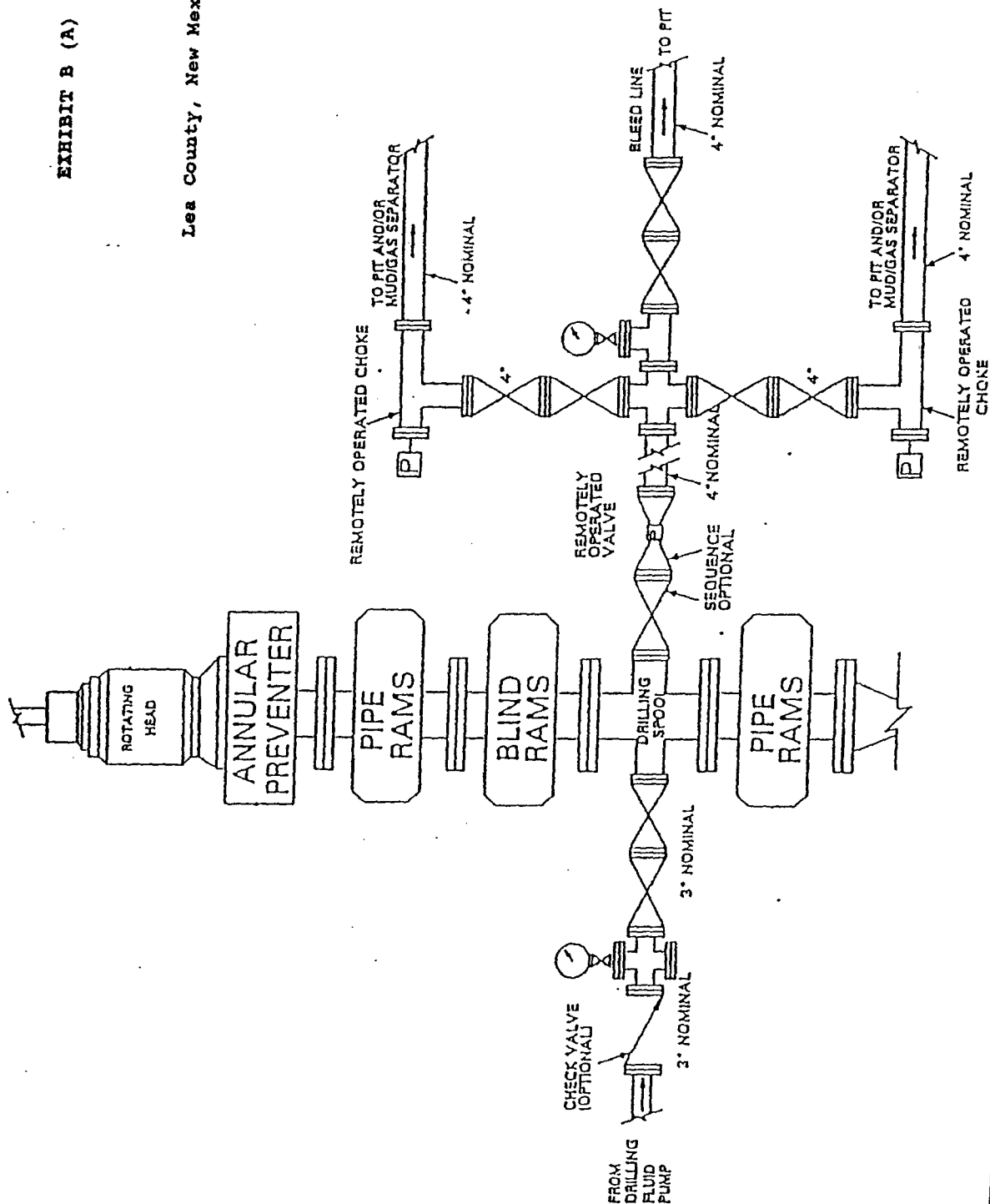
**EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS**

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements 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 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.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

# PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT B (A)

Lea County, New Mexico



Well name: **Mad Dog 15 Fed Com #1**  
 Operator: **Devon Energy Production Company, L.P.**  
 String type: **Surface**  
 Location: **Section 15-23S-34E, Lea Co, NM**

**Design parameters:**

**Collapse**

Mud weight: 9.000 ppg  
 Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 88 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 500 ft  
 Minimum Drift: 7.500 in  
 Cement top: -925 ft

**Burst**

Max anticipated surface pressure: 499 psi  
 Internal gradient: 0.032 psi/ft  
 Calculated BHP 529 psi

No backup mud specified.

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

Tension is based on air weight.  
 Neutral point: 801 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 5,000 ft  
 Next mud weight: 10.000 ppg  
 Next setting BHP: 2,597 psi  
 Fracture mud wt: 11.000 ppg  
 Fracture depth: 925 ft  
 Injection pressure 529 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	925	20	94.00	H-40	Buttress	925	925	18.999	23950
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	432	520	1.20	529	1530	2.89	86.9	1041	11.97 J

Devon Energy

Date: May 20, 2004  
 Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 925 ft, a mud weight of 9 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	<b>Mad Dog 15 Fed Com #1</b>
Operator:	<b>Devon Energy Production Company, L.P.</b>
String type:	<b>Intermediate</b>
Location:	<b>Section 15-23S-34E, Lea Co, NM</b>

**Design parameters:**
**Collapse**

Mud weight: 10.000 ppg  
Internal fluid density: 2.000 ppg

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.10

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 145 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 1,000 ft  
Minimum Drift: 2.250 in

**Burst**

Max anticipated surface pressure: 2,652 psi  
Internal gradient: 0.267 psi/ft  
Calculated BHP 3,986 psi  
Annular backup: 10.00 ppg

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Non-directional string.

Tension is based on air weight.  
Neutral point: 4,257 ft

Estimated cost: 86,374 (\$)

**Re subsequent strings:**

Next setting depth: 11,700 ft  
Next mud weight: 9.500 ppg  
Next setting BHP: 5,774 psi  
Fracture mud wt: 13.000 ppg  
Fracture depth: 11,700 ft  
Injection pressure 7,901 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	3500	13.375	68.00	J-55	Buttress	3500	3500	12.29	55140
1	1500	13.375	68.00	HCK-55	Buttress	5000	5000	12.29	31235

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	1455	1893	1.30	2652	3450	1.30	340	1069.5	3.15 B
1	2078	2850	1.37	1767	3450	1.95	102	1069.5	10.49 B

Devon Energy

Date: May 20,2004  
Oklahoma City, Oklahoma

**Remarks:**

Collapse is based on a vertical depth of 5000 ft, a mud weight of 10 ppg. An internal gradient of .104 psi/ft was used for collapse from TD to Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	<b>Mad Dog 15 Fed Com #1</b>
Operator:	<b>Devon Energy Production Company, L.P.</b>
String type:	<b>Intermediate (2)</b>
Location:	<b>Section 15-23S-34E, Lea Co, NM</b>

**Design parameters:**
**Collapse**

Mud weight: 9.100 ppg  
Design is based on evacuated pipe.

Surface pressure: 100 psi

**Burst**

Max anticipated surface pressure: 5,933 psi  
Internal gradient: 0.267 psi/ft  
Calculated BHP: 9,045 psi  
  
Annular backup: 10.00 ppg

**Minimum design factors:**
**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.10

**Tension:**

8 Round STC: 1.80 (J)  
8 Round LTC: 1.80 (J)  
Buttress: 1.60 (J)  
Premium: 1.50 (J)  
Body yield: 1.60 (B)

Tension is based on air weight.

Neutral point: 10,183 ft

Estimated cost: 194,072 (\$)

**Environment:**

H2S considered? No  
Surface temperature: 60 °F  
Bottom hole temperature: 165 °F  
Temperature gradient: 0.90 °F/100ft  
Minimum section length: 1,000 ft  
Minimum Drift: 8.625 in

**Directional Info - Build & Drop**

Kick-off point 7000 ft  
Departure at shoe: 534 ft  
Maximum dogleg: 2 °/100ft  
Inclination at shoe: 0 °

**Re subsequent strings:**

Next setting depth: 14,525 ft  
Next mud weight: 13.000 ppg  
Next setting BHP: 9,809 psi  
Fracture mud wt: 15.000 ppg  
Fracture depth: 12,000 ft  
Injection pressure 9,351 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
2	8000	9.625	43.50	HCP-110	LT&C	7992	8000	8.625	129413
1	3700	9.625	47.00	HCP-110	LT&C	11663	11700	8.625	64659

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3878	5378	1.39	5933	8700	1.47	520.2	1106	2.13 J
1	5613	7100	1.26	3914	9440	2.41	172.5	1213	7.03 J

Devon Energy

Date: May 20, 2004  
Oklahoma City, Oklahoma

**Remarks:**

Collapse is based on a vertical depth of 11663 ft, a mud weight of 9.1 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.

Well name: **Mad Dog 15 Fed Com #1**  
 Operator: **Devon Energy Production Company, L.P.**  
 String type: **Drilling Liner**  
 Location: **Section 15-23S-34E, Lea Co, NM**

**Design parameters:**

**Collapse**

Mud weight: 13.000 ppg  
 Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 0 psi  
 Internal gradient: 0.268 psi/ft  
 Calculated BHP 0 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Upper design factor 1.125  
 Changeover depth: 11,400 ft  
 Lower Design Factor 1.125

**Burst:**

Upper design factor 1.00  
 Changeover depth: 11,400 ft  
 Lower design factor: 1.00

**Tension:**

8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.60 (B)

Tension is based on air weight.  
 Neutral point: 0 ft

**Environment:**

H2S considered? No  
 Surface temperature: 60 °F  
 Bottom hole temperature: 165 °F  
 Temperature gradient: 0.90 °F/100ft  
 Minimum section length: 1,000 ft  
 Minimum Drift: 6.500 in

Liner top: 11,400 ft  
 Directional Info - Build & Drop  
 Kick-off point 7000 ft  
 Departure at shoe: 534 ft  
 Maximum dogleg: 0 °/100ft  
 Inclination at shoe: 0 °

**Re subsequent strings:**

Next setting depth: 15,000 ft  
 Next mud weight: 8.600 ppg  
 Next setting BHP: 6,701 psi  
 Fracture mud wt: 14.000 ppg  
 Fracture depth: 0 ft  
 Injection pressure 0 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost (\$)
1	3125	7.625	39.00	HCL-80	FL-4S	11663	14525	6.5	60019
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	7876	10600	1.35	3120	9180	2.94	11.7	711	60.77 J

Devon Energy

Date: May 21, 2004  
 Oklahoma City, Oklahoma

Remarks:

For this liner string, the top is rounded to the nearest 100 ft. Collapse is based on a vertical depth of 0 ft, a mud weight of 13 ppg. The casing Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

*Engineering responsibility for use of this design will be that of the purchaser.*

