Form 3160-3
(August 1999)

EC

OCD-HOBBS

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

5. Lease Serial No.
NMNM100864

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.
RIO BLANCO 33 FED 2

1a. Type of Work: ☒ DRILL ☐ REENTER

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

2. Name of Operator
DEVON ENERGY CORPORATION
Contact: KAREN COTTOM
E-Mail: karen.cottom@dvn.com

9. API Well No.
30-025-36360

3a. Address
1500 MID-AMERICA TOWER 20 N. BROADWAY
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405.228.7512
Fx: 405.552.4621

10. Field and Pool, or Exploratory
WILDCAT; Dev.

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SENW 1980FNL 1980FWL F

At proposed prod. zone SENW 1980FNL 1980FWL

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 33 T22S R34E Mer NMP
SME: BLM

14. Distance in miles and direction from nearest town or post office*
20 MILES WEST OF JAL, NEW MEXICO

12. County or Parish
LEA

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1000'

16. No. of Acres in Lease
360.00

17. Spacing Unit dedicated to this well
320.00

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
660'

19. Proposed Depth
15000 MD

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KB, RT, GL, etc.
3406 GL

22. Approximate date work will start
07/15/2003

23. Estimated duration
90 DAYS

24. Attachments Capitan 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.
2. A Drilling Plan.
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).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature
(Electronic Submission)

Name (Printed/Typed)
KAREN COTTOM

Date
06/09/2003

Title
ENGINEERING TECHNICIAN

Approved by (Signature)
James A. Amos

Name (Printed/Typed)
James A. Amos

Date
AUG 07 2003

FOR 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)

Electronic Submission #22910 verified by the BLM Well Information System
For DEVON ENERGY CORPORATION, sent to the Hobbs
Committed to AFMSS for processing by Armando Lopez on 06/09/2003 (03AL0101AE)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

OPER. OGRID NO. 6137
PROPERTY NO. 32682
POOL CODE
EFF. DATE 8-11-03
API NO. 30-025-36360

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISE**

Additional Operator Remarks:

Devon Energy proposes to drill a Devonian well to TD 15,000' for commercial quantities of gas. If the well is deemed noncommercial, the well bore will be plugged and abandonded per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments

Revisions to Operator-Submitted EC Data for APD #22910

	Operator Submitted	BLM Revised (AFMSS)
Lease:	NMNM92199	NMNM100864
Agreement:		
Operator:	DEVON ENERGY PRODUCTION CO. LP 20 NORTH BROADWAY OKLAHOMA CITY, OK 73102-8260 Ph: 405.228.7512 Fx: 405.552.4621	DEVON ENERGY CORPORATION 1500 MID-AMERICA TOWER 20 N. BROADWAY OKLAHOMA CITY, OK 73102 Ph: 405.235.3611
Admin Contact:	KAREN COTTOM ENGINEERING TECHNICIAN 20 NORTH BROADWAY OKLAHOMA CITY, OK 73102-8260 Ph: 405.228.7512 Fx: 405.552.4621 E-Mail: karen.cottom@dvn.com	KAREN COTTOM ENGINEERING TECHNICIAN 1500 MID-AMERICA TOWER 20 N. BROADWAY OKLAHOMA CITY, OK 73102 Ph: 405.228.7512 Fx: 405.552.4621 E-Mail: karen.cottom@dvn.com
Tech Contact:		
Well Name: Number:	RIO BLANCO 33 FED 2	RIO BLANCO 33 FED 2
Location: State: County: S/T/R: Surf Loc:	 NM LEA Sec 33 T22S R34E Mer NMP SENW 1980FNL 1980FWL	 NM LEA Sec 33 T22S R34E Mer NMP SENW 1980FNL 1980FWL
Field/Pool:	WILDCAT	WILDCAT
Bond:	CO1104	

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

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

Form C-102
Revised March 17, 1999

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-36360	✓	WILDCAT ; Dev.

Property Code	Property Name	Well Number
32682	RIO BLANCO "33" FEDERAL	2

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION CO., L.P.	3406'

Surface Location

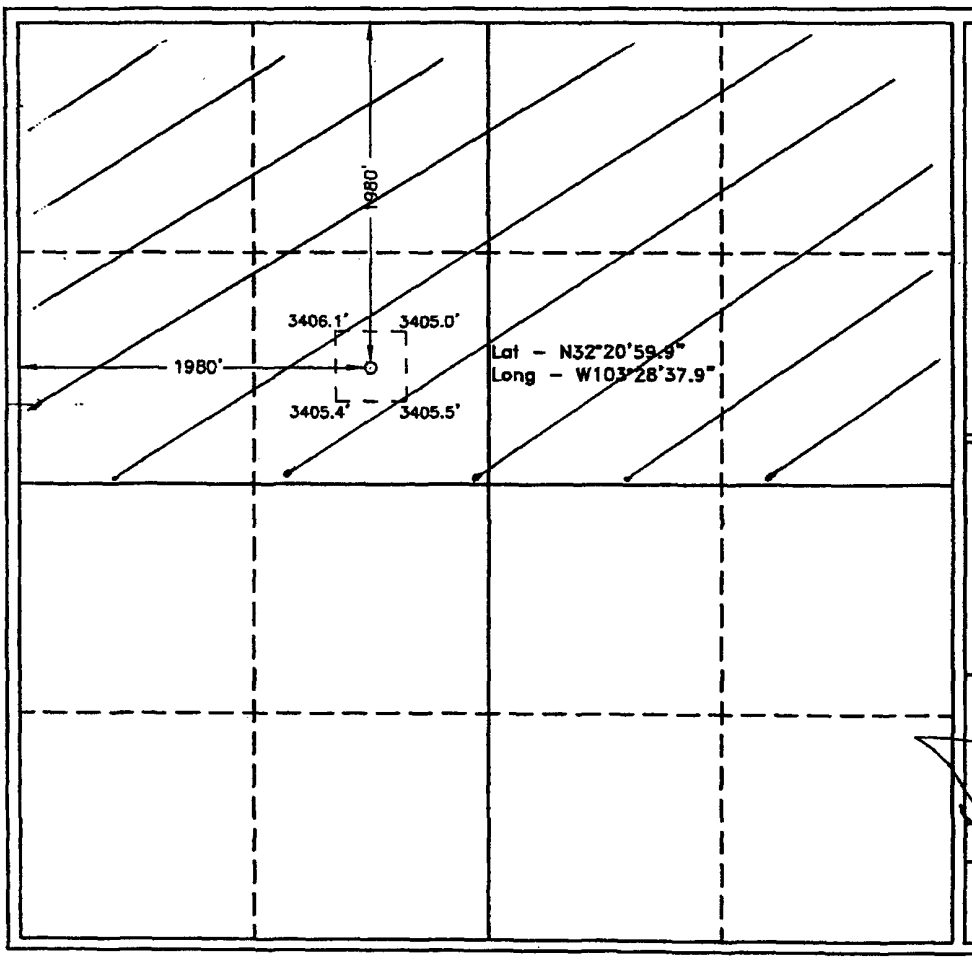
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	33	22 S	34 E		1980	NORTH	1980	WEST	LEA

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

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



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Bill Greenlees
Printed Name

Operations Engineering Advisor
Title

June 6, 2003
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

MARCH 5, 2003
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 3091

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

DRILLING PROGRAM

Attached to Form 3160-3
Devon Energy Production Company, LP
RIO BLANCO 33 FEDERAL #2
(F) 1980' FNL & 1980' FWL, Section 33 T22S, R34E
Lea, County, New Mexico

1. Geologic Name of Surface Formation

   Alluvium

2. Estimated Tops of Important Geologic Markers

Rustler	1790'
Salado	2400'
Delaware	5000'
Bone Spring	8450'
Wolfcamp	10970'
Strawn	11900'
Atoka	12100'
Morrow	12700'
Devonian	14,450'
Total Depth	15,000'

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.

Water	**None expected in area**
Oil	**Bone Spring @9100'**
Gas	**Upper Morrow @13,100'**
	Devonian @14,450'

4. Casing Program

Hole Size	Interval	OD Csg	Weight	Collar	Grade
26"	0 – 800'	20"	94#	ST&C	H-40
17 ½"	0 – 3400 & 3400' – 5000'	13 3/8"	68#	ST&C	J-55 & HCK-55
12 ¼"	0' – 8,900' & 8,900' – 12,000'	9 5/8"	43.5# & 53.5#	LT&C	HCP-110
8 ¼"	11,700' – 14,400'	7 5/8"	39#	LT&C	HCP-110
6 ½"	14,100' – 15,000'	5 ½"	17#	LT&C	HCP-110

5. CASING CEMENTING & SETTING DEPTH:

20"	Surface	Run 20",94#, ppf H-40 ST&C casing. Cement w/1100 sx 35:65 poz w/6% gel & ¼ pps Cello-Flake followed by 350 sx Class C cement containing 2% CaCl2. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints and guide shoe. Circulate cement to surface. WOC 12hrs
13-3/8"	Intermediate	Run 13-3/8" 68# J-55 & HCK-55, ST&C casing. Cement with 2000 sx50:50 Poz:Class C w/ 10% gel, 5% NaCl, ¼ pps Cello Flake followed by 500 sx 60:40 Poz:Class C w/ 5% NaCl & ¼ pps Cello Flake. Cement to surface.
9-5/8"	Intermediate	Run 9-5/8" 43.5# & 53.5#, HCP-110, LT&C casing. Cement Stage I w/ 329 sx 35:65 Poz:Class H w/ 6% gel, 5% NaCl, ¼ pps Cello Flake followed by 925 sx 15:61:11 Poz:Class C Cement:CSE w/ 2% KCl and ¼ pps Cello Flake. Cement Stage II w/ 385 sx 35:65 Poz:Class C w/ 6% gel, 5% NaCl & ¼ pps Cello Flake followed by 125 sx Class C. Cement back to 13-3/8" casing.
7 5/8	Drilling Liner	Run 7 5/8",39# HCP 110, LT&C liner . Cement with 400 sx Class H. Cement to top of Liner
5 ½"	Production Liner	Run 5 ½", 17# HCP-110 Cement with 225 sx Class H containing necessary additives. Cement to top of liner.

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

6. **PRESSURE CONTROL EQUIPMENT**: Exhibit "E". A Blow-out Preventer (5,000/10,000 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 6300 PSI and 200° BHT.

7. PROPOSED MUD CIRCULATION SYSTEM:

DEPTH	MUD. WT.	MUD VISC.	FLUID LOSS	TYPE MUD
0' – 800'	8.4 – 8.8	29-36	NC	Fresh water spud mud use paper for seepage.
800' – 5000'	8.5 – 10	29-32	NC	Brine water, use ground paper for seepage control and lime for ph
5000' – 11,800'	8.4 – 9	29-34	N/C	Cut Brine use paper for seepage control
11,800' – 14,400'	9-12.5	34-38	10cc for drilling Morrow	Cut Brine. Mud up at 12,000'
14,400' - 15,000'	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 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. 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 operations when drilling out the 13 3/8" casing shoe until the 5 ½" production liner is cemented.

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 will be initiated subsequent to setting the 5 1/2" production liner. 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 Preventer 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 July 15, 2003. 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

Attached to Form 3160-3
RIO BLANCO 33 FEDERAL #2
(F) 1980' FNL & 1980' FWL, Section 33 T22S, 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 lease 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 Co. Rd. E-21 and state Hwy 128, go north on Co. Rd. E-21 for approx. 8.0 miles; thence east on E-21 for approx. 1.5 miles to a lease road; thence north on lease road for approx 1.5 mile 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 1792' 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.

w/prior Sundry Notice approval. TSO

2) The tank battery, all connections and all lines will adhere to API standards.

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

1) The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).

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 125' x 125' x 6', or smaller, 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 5-7 mil plastic 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 dried. At the point the reserve pit is found sufficiently dry, it will be backfilled 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.

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.

C. The reserve pit will be lined using plastic sheeting of 5-7 mil thickness.

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. The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will be returned to the pad and contoured, as close as possible, to the original topography.

B. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment.

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.

E. If the well is deemed commercially productive, the reserve pit will be restored as described in 10 (A) within 120 days subsequent to the completion date. The original top soil will be returned to the area of the drilling pad not necessary to operate the well. These unused areas of the drilling pad will be contoured, as close as possible, to match the original topography.

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.

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

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

(405) 552-8194 (office)
(405) 203-7778 (Cellular)

Don Mayberry
Superintendent

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

(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: June 6, 2003
Bill Greenlees
Operations Engineer 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.:	**NM-92199**
Legal Description of Land:	**320 acres 33-T22S-R34E**
Formation(s):	**Morrow, Devonian**
Bond Coverage:	**Nationwide**
BLM Bond File No.:	**CO-1104**
Authorized Signature:	**Bill Greenlees**
Title:	**Operations Engineering Advisor**
Date:	06/06/03

Attachment to Exhibit #1

NOTES REGARDING BLOWOUT PREVENTERS

Devon Energy Production Company, LP

Rio Blanco 33 federal #2

(F) 1980' FNL & 1980' FWL, Section 33 T22S, 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.

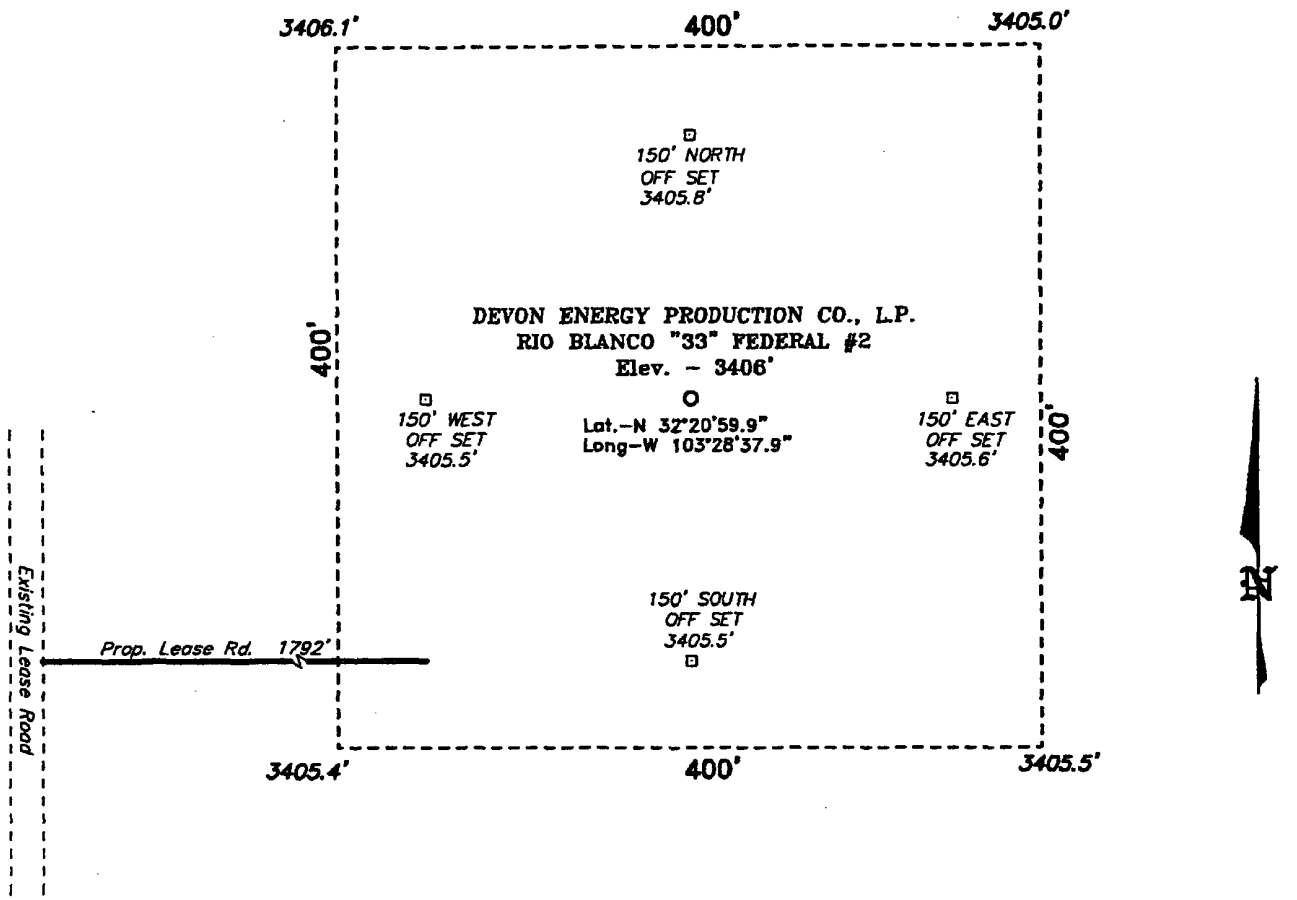
7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

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.

SECTION 33, TOWNSHIP 22 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, **NEW MEXICO.**



100 0 100 200 FEET

SCALE: 1" = 100'

Directions to Location:

FROM THE JUNCTION OF CO. RD. E-21 AND STATE HWY 128, GO NORTH ON CO. RD. E-21 FOR APPROX. 8.0 MILES; THENCE EAST ON E-21 FOR APPROX. 1.5 MILES TO A LEASE ROAD; THENCE NORTH ON LEASE ROAD FOR APPROX. 1.5 MILE TO PROPOSED LEASE ROAD.

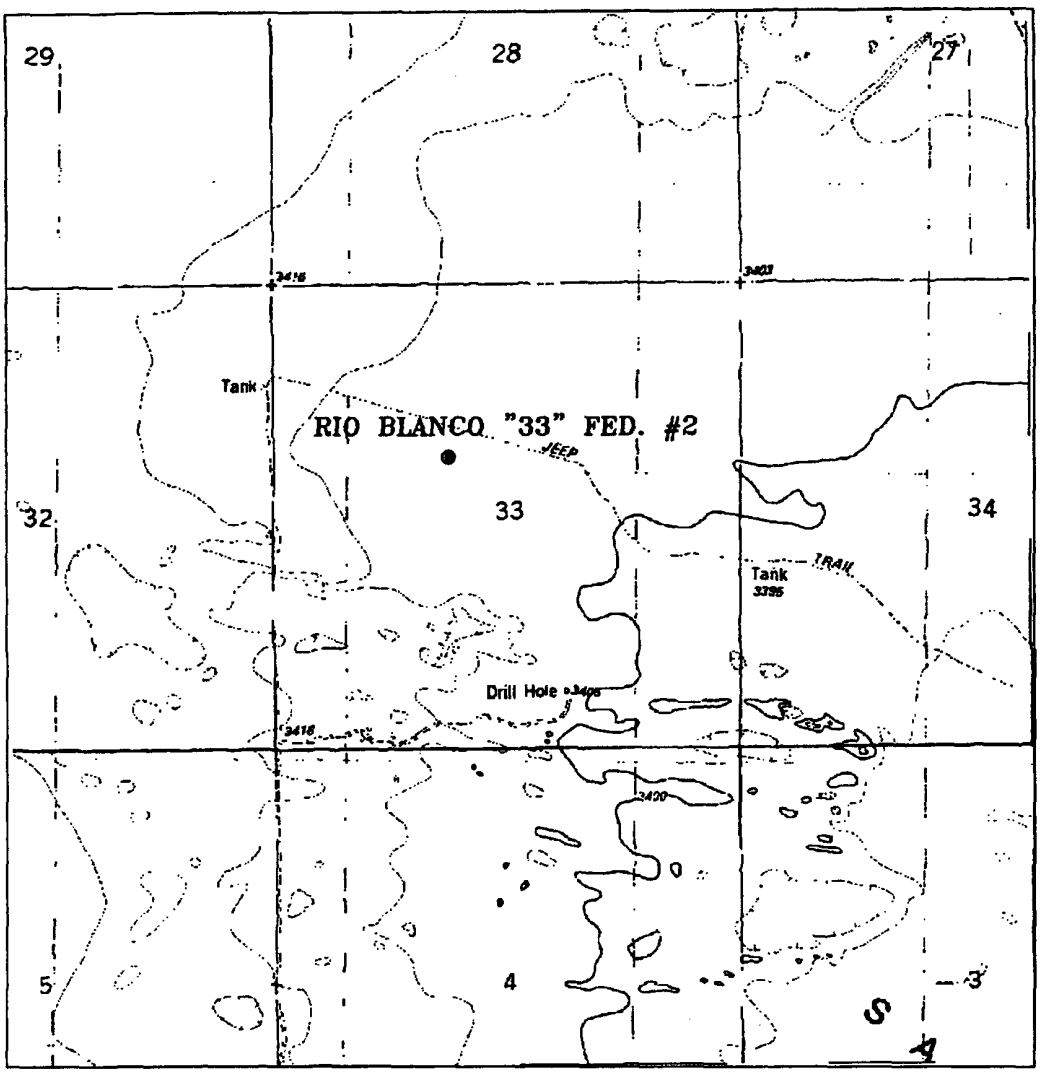
DEVON ENERGY PROD. CO., L.P.

REF: RIO BLANCO "33" FED. No. 2 / Well Pad Topo

THE RIO BLANCO "33" FED. No. 2 LOCATED 1980' FROM THE NORTH LINE AND 1980' FROM THE WEST LINE OF SECTION 33, TOWNSHIP 22 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 3091	Drawn By: K. GOAD		
Date: 03-11-2003	Disk: KJG CD#4 - 3091A.DWG	Survey Date: 03-05-2003	Sheet 1 of 1 Sheets



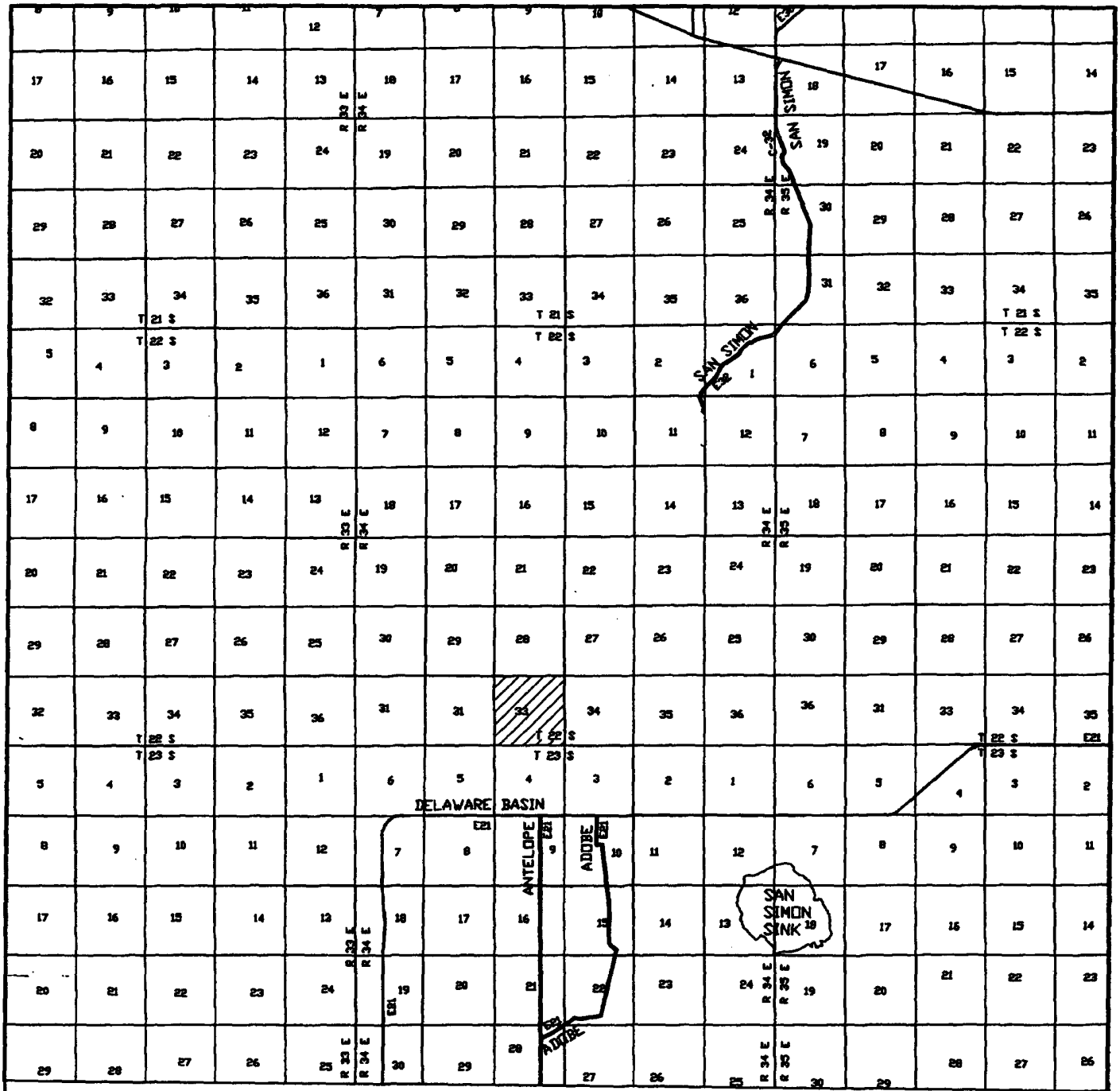
RIO BLANCO "33" FEDERAL #2
Located at 1980' FNL and 1980' FWL
Section 33, Township 22 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
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:	3091AA - KJG CD#4
Survey Date:	03-05-2003
Scale:	1" = 2000'
Date:	03-10-2003

DEVON ENERGY PROD. CO., L.P.



RIO BLANCO "33" FEDERAL #2
Located at 1980' FNL and 1980' FWL
Section 33, Township 22 South, Range 34 East, N.M.P.M., Lea County, New Mexico.

basin surveys
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: 3091AA - KJG CD#4

Survey Date: 03-05-2003

Scale: 1" = 2 MILES

Date: 03-10-2003

DEVON ENERGY PROD. CO., L.P.

Well name:	**Rio Blanco Prospect**
Operator:	**Devon Energy Production Company, L.P.**
String type:	Surface
Location:	Section 33-22S-34E, Lea Co, NM

Design parameters:

Collapse
Mud weight: 10.500 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 470 psi
Internal gradient: 0.268 psi/ft
Calculated BHP 684 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
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: 675 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 86 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 800 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 2,236 ft
Next mud weight: 9.200 ppg
Next setting BHP: 1,069 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 800 ft
Injection pressure 800 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	800	20	94.00	H-40	ST&C	800	800	18.999	19349

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	436	520	1.19	684	1530	2.24	75.2	581	7.73 J

Devon Energy

Date: March 4,2003
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 800 ft, a mud weight of 10.5 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:	**Rio Blanco 33 Fed # 1**
Operator:	**Devon Energy Production Company, L.P.**
String type:	~~Surface~~ INTERMEDIATE
Location:	Section 33-22S-34E, Lea Co, NM

Design parameters:

Collapse

Mud weight:	10.000 ppg
Internal fluid density:	0.900 ppg

Burst

Max anticipated surface pressure:	3,133 psi
Internal gradient:	0.075 psi/ft
Calculated BHP	3,506 psi
Gas gravity:	0.60
Annular backup:	10.10 ppg

Minimum design factors:

Collapse:

Design factor	1.125

Burst:

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: 4,257 ft

Estimated cost: 80,723 ($)

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature:	145 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	800 ft
Minimum Drift:	2.250 in

Non-directional string.

Re subsequent strings:

Next setting depth:	12,000 ft
Next mud weight:	9.800 ppg
Next setting BHP:	6,109 psi
Fracture mud wt:	13.500 ppg
Fracture depth:	5,000 ft
Injection pressure	3,506 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	3400	13.375	68.00	J-55	ST&C	3400	3400	12.29	49592
1	1600	13.375	68.00	HCK-55	ST&C	5000	5000	12.29	31131

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	1607	1893	1.18	3133	3450	1.10	340	675	1.99 J
1	2364	2850	1.21	1603	3450	2.15	108.8	905	8.32 J

Devon Energy

Date: June 3,2003
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 5000 ft, a mud weight of 10 ppg An internal gradient of .047 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:	**Rio Blanco Prospect 2**
Operator:	**Devon Energy Production Company, L.P.**
String type:	Intermediate - DEEP
Location:	Section 33-22S-34E, Lea Co, NM

Design parameters:

Collapse

Mud weight: 10.000 ppg
Design is based on evacuated pipe.

Surface pressure: 100 psi

Burst

Max anticipated surface pressure: 5,882 psi
Internal gradient: 0.267 psi/ft
Calculated BHP 9,084 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: 10,447 ft

Estimated cost: 205,659 ($)

Environment:

H2S considered?	No
Surface temperature:	75 °F
Bottom hole temperature:	243 °F
Temperature gradient:	1.40 °F/100ft
Minimum section length:	1,000 ft

Non-directional string.

Re subsequent strings:

Next setting depth:	14,400 ft
Next mud weight:	13.000 ppg
Next setting BHP:	9,725 psi
Fracture mud wt:	15.400 ppg
Fracture depth:	12,000 ft
Injection pressure	9,600 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	8900	9.625	43.50	HCP-110	LT&C	8900	8900	8.625	143972
1	3100	9.625	53.50	HCP-110	LT&C	12000	12000	8.5	61687

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	4723	5395	1.14	5882	8700	1.48	553	1106	2.00 J
1	6334	8850	1.40	3634	10900	3.00	165.9	1422	8.57 J

Devon Energy

Date: May 21,2003
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 12000 ft, a mud weight of 10 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:	**Rio Blanco Prospect 2**
Operator:	**Devon Energy Production Company, L.P.**
String type:	Drilling Liner
Location:	Section 33-22S-34E, Lea Co, NM

Design parameters:

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

Burst
Max anticipated surface pressure: 5,872 psi
Internal gradient: 0.268 psi/ft
Calculated BHP 9,725 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
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: 13,877 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 190 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 6.500 in

Liner top: 11,700 ft
Non-directional string.

Re subsequent strings:
Next setting depth: 15,000 ft
Next mud weight: 8.900 ppg
Next setting BHP: 6,935 psi
Fracture mud wt: 13.600 ppg
Fracture depth: 14,400 ft
Injection pressure 10,174 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	2700	7.625	39.00	HCP-110	LT&C	14400	14400	6.5	41216

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	9725	11080	1.14	9725	12620	1.30	105.3	1066	10.12 J

Devon Energy

Date: May 21,2003
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 14400 ft, a mud weight of 13 ppg The 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:	**Rio Blanco Prospect 2**
Operator:	**Devon Energy Production Company, L.P.**
String type:	Liner: Production
Location:	Section 33-22S-34E, Lea Co, NM

Design parameters:

Collapse
Mud weight: 8.900 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 2,922 psi
Internal gradient: 0.268 psi/ft
Calculated BHP 6,935 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
API - tubing: 1.50 (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: 14,879 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 195 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 800 ft
Minimum Drift: 2.100 in

Liner top: 14,100 ft
Non-directional string.

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	900	5.5	17.00	HCP-110	LT&C	15000	15000	4.767	5928

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	6935	8580	1.24	6935	10640	1.53	15.3	445	29.08 J

Devon Energy

Date: May 21,2003
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 15000 ft, a mud weight of 8.9 ppg The 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.

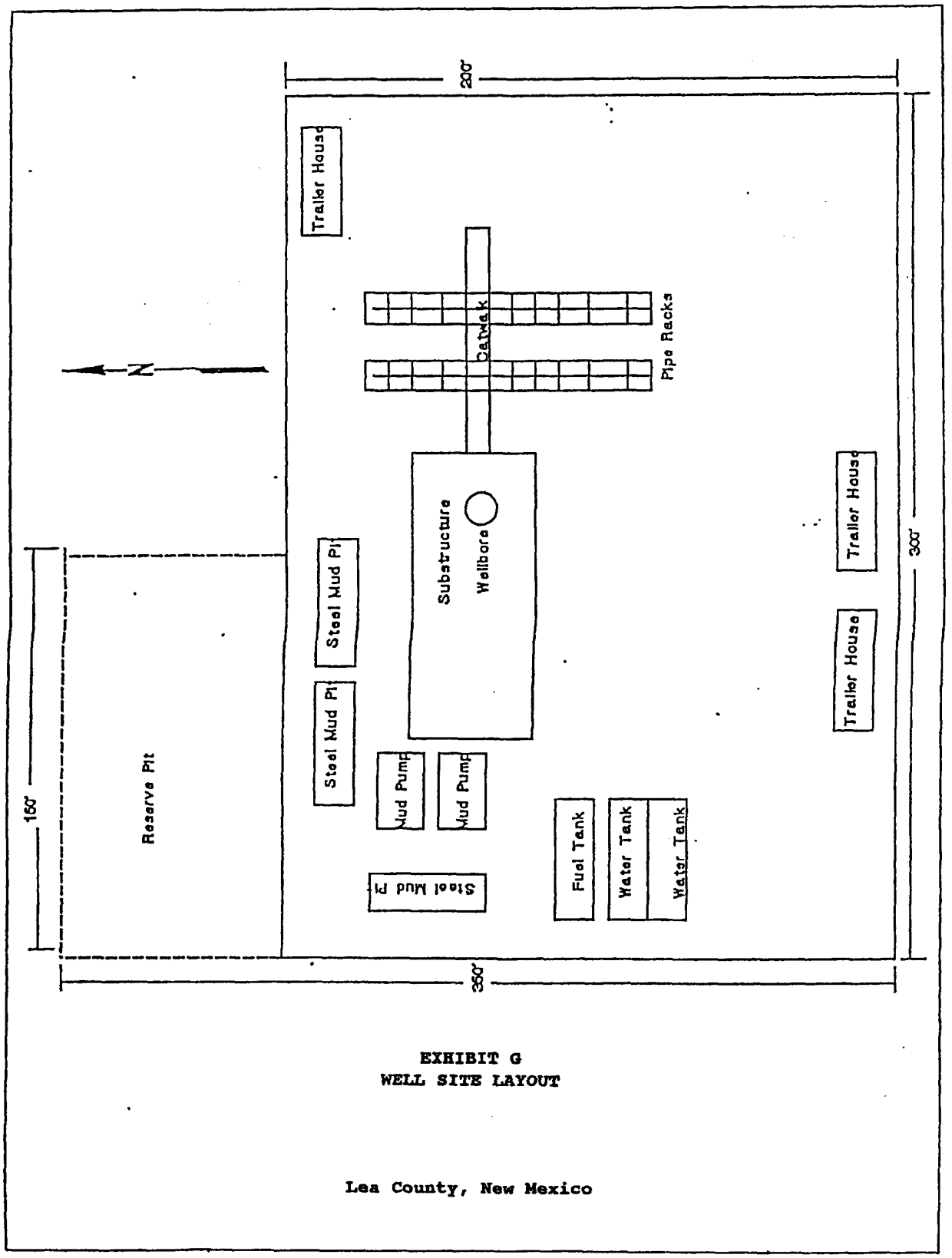
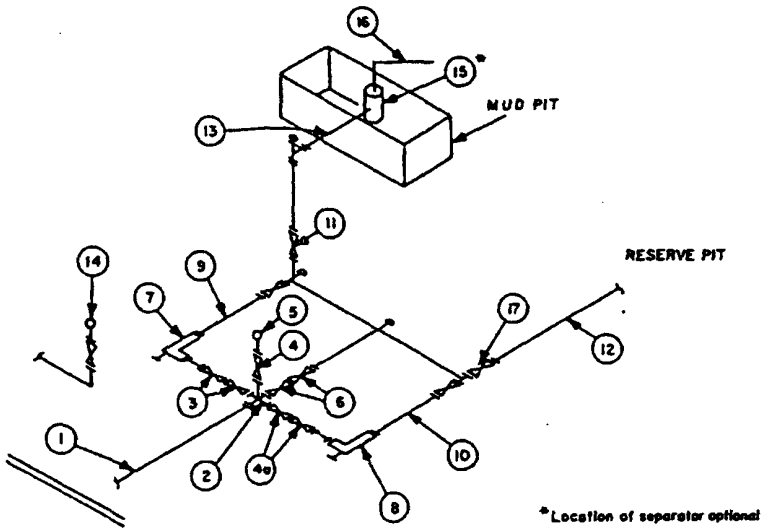


EXHIBIT G
WELL SITE LAYOUT

Lea County, New Mexico

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

3 MWP - 5 MWP - 10 MWP



BEYOND SUBSTRUCTURE

MINIMUM REQUIREMENTS										
		3,000 MWP			5,000 MWP			10,000 MWP		
No.		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

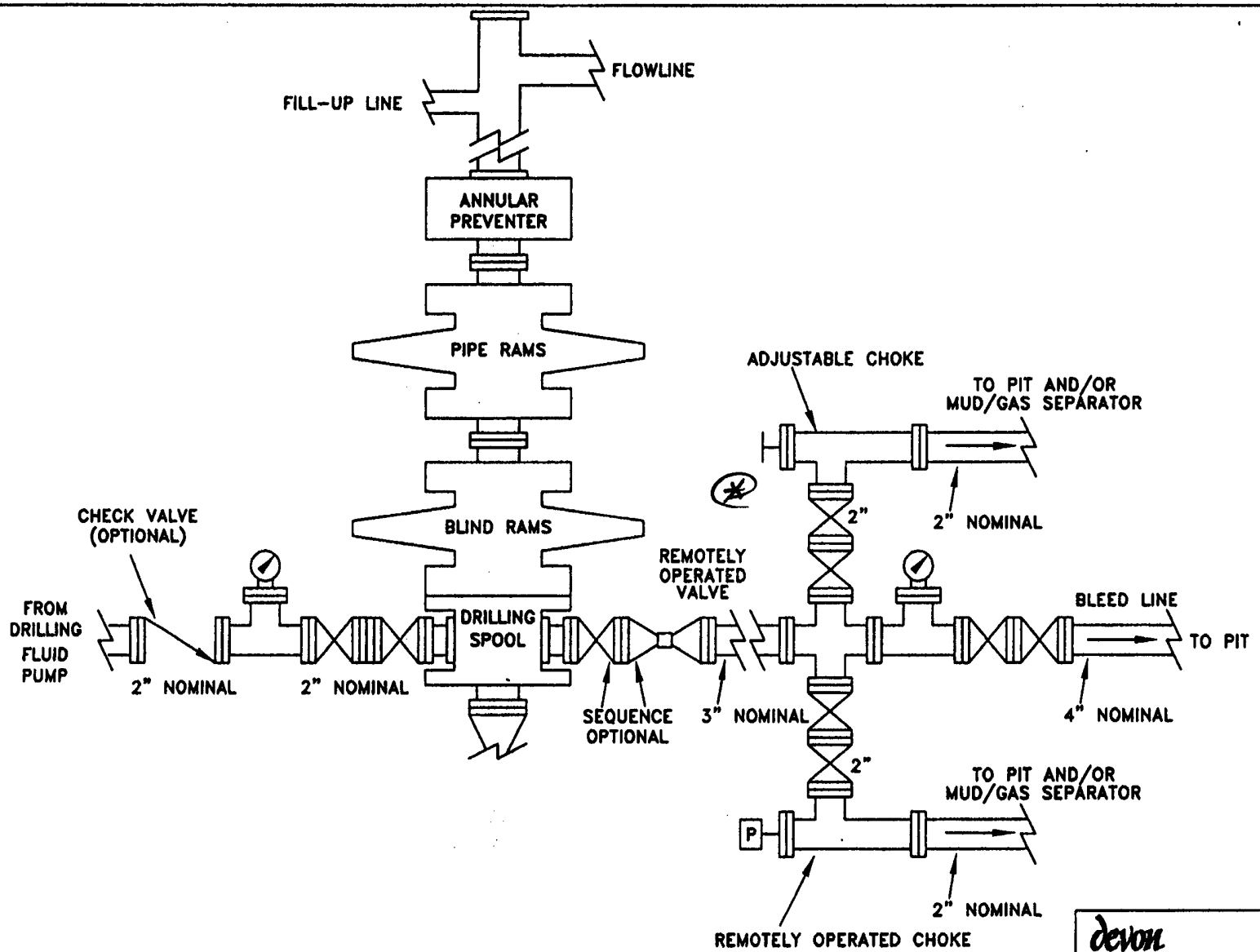
(1) Only one required in Class 3M.

(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

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.



devon

AREA NAME

COUNTY, STATE

SCHEMATIC

PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT

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SC

10/00

(*) 3" CHOKE LINE prior to adjustable choke - OK.

PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT B (A)

Lea County, New Mexico