

7046  
Form 3160-3  
(April 2004)

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

DIV-Dist. 2  
Avenue  
88210

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

BUREAU OF LAND MANAGEMENT  
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-96207
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 Company, LP		7. If Unit or CA Agreement, Name and No.
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260	3b. Phone No. (include area code) 405-552-7802	8. Lease Name and Well No. 35359 Indian Draw 13 Federal 3
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NWNE 660' FNL & 1100' FEL At proposed prod. zone NWNE 660' FNL & 1100' FEL		9. API Well No. 30-015-34531
14. Distance in miles and direction from nearest town or post office* Approximately 7 miles northwest to Carlsbad, New Mexico.		10. Field and Pool, or Exploratory OTIS ; Morrow (Gas)
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		11. Sec., T. R. M. or Blk. and Survey or Area Lot A Sec 13, T22S R27E
16. No. of acres in lease 320		12. County or Parish Eddy County
17. Spacing Unit dedicated to this well 320		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		
19. Proposed Depth 12,400		
20. BLM/BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3125'	22. Approximate date work will start* 12/01/2005	23. Estimated duration 45 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:

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

25. Signature *[Signature]* Name (Printed/Typed) Stephanie A. Ysasaga Date 10/12/2005

Title Senior Engineering Technician

Approved by (Signature) /s/ James Stovall

Name (Printed/Typed) /s/ James Stovall

Date JAN 03 2006

ACTING FOR Title FIELD MANAGER

Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

APPROVAL FOR 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.

\*(Instructions on page 2)

Carlsbad Controlled Water Basin

WITNESS : 13 3/8" CEMENT JOB

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

**Additional Operator Remarks:**

Devon Energy Production Company, LP proposes to drill a Happy Valley; Morrow (Gas) well to 12,400' for commercial quantities of oil and gas. If the well is deemed noncommercial, the wellbore will be plugged and abandoned per Federal regulations. Devon Energy Production Co., LP plans to drill the well per the currently attached Drilling and Surface Use Plan.

**Directions:**

From the junction of Hwy 62 / 180 and County Rd. 605, go southeasterly for 4.8 miles; thence go north +/- 100' through cattle guard; thence 300' west to proposed lease road. Approximately 7 miles northwest to Carlsbad, New Mexico.

**H2S:**

No H2S is expected to be encountered.

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 82360	Pool Name OTIS Morrow (Gas)
Property Code	Property Name INDIAN DRAW "13" FEDERAL	Well Number 3
OGRID No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.	Elevation 3125'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	13	22 S	27 E		660	NORTH	1100	EAST	EDDY

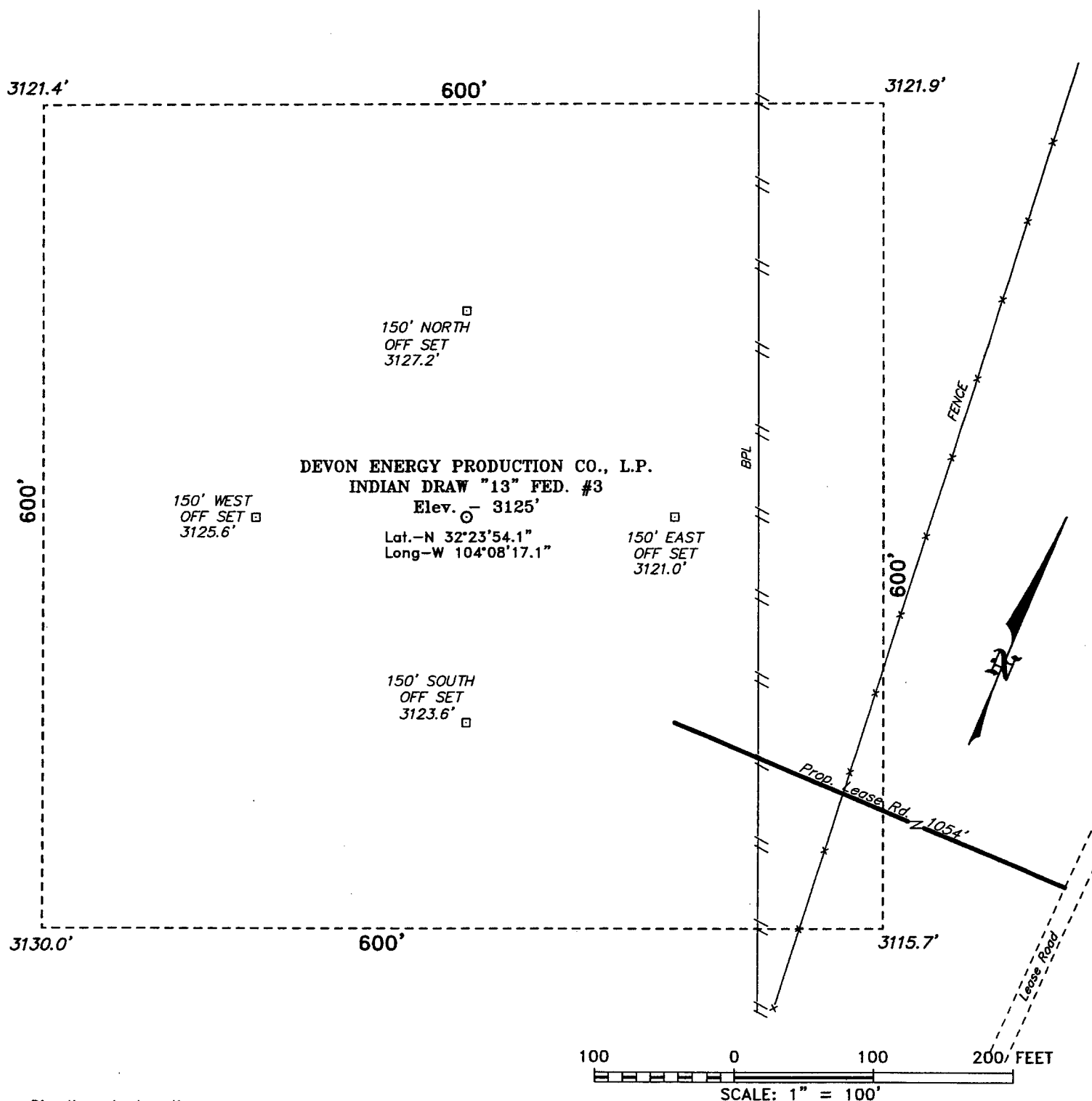
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	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><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained hereth is true and complete to the best of my knowledge and belief.</p> <p>Signature </p> <p>Printed Name Stephanie A. Ysasaga</p> <p>Title Senior Engineering Technician</p> <p>Date 10/11/05</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>SEPTEMBER 22, 2005</p> <p>Date Surveyed Signature &amp; Seal of Professional Engineer </p> <p>Certificate No. Gary Jones 7977</p> <p>BASIN SURVEYS</p>
--	---

SECTION 13, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF US HWY 62/180 AND CO.  
RD. 605, GO SOUTHEASTERLY FOR 4.8 MILES;  
THENCE NORTH  $\pm 100'$  THROUGH CATTLE GUARD;  
THENCE 300' WEST TO PROPOSED LEASE ROAD.

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

REF: INDIAN DRAW "13" FED. No. 3 / Well Pad Topo

THE INDIAN DRAW "13" FED. No. 3 LOCATED 660' FROM  
THE NORTH LINE AND 1100' FROM THE EAST LINE OF  
SECTION 13, TOWNSHIP 22 SOUTH, RANGE 27 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 5831

Drawn By: K. GOAD

Date: 09-23-2005

Disk: KJG CD#4 - 5831A.DWG

Survey Date: 09-22-2005

Sheet 1 of 1 Sheets



## DRILLING PROGRAM

Devon Energy Production Company, LP

### **Indian Draw 13 Federal 3**

Surface Location: 660' FNL & 1100' FEL, Unit A, Sec 13 T22S R27E, Eddy, NM

Bottom hole Location: 660' FNL & 1100' FEL, Unit A, Sec 13 T22S R27E, Eddy, NM

#### **1. Geologic Name of Surface Formation**

- a. Permian Undifferentiated

#### **2. Estimated tops of geological markers:**

a. Rustler	295'
b. Salado	410'
c. Delaware Sd	2220'
d. Manzanita	3075'
e. Bone Spring Lm	5525'
f. Base Leonard	9025'
g. Strawn Lm	10540'
h. Atoka	10965'
i. Morrow Clastics	11650'
j. Lower Morrow	12000'
k. Barnett Shale	12140'
l. Total Depth	12400'

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

a. Delaware sand	2220'	Oil
b. Bone Spring Lm	5525'	Gas
c. Strawn Lm	10540'	Gas
d. Atoka	10965'	Gas
e. Morrow Clastics	11650'	Gas
f. Lower Morrow	12000'	Gas

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 325' and circulating cement back to surface. Freshwater will be protected by setting 9 5/8" casing at 2945' and circulating cement to surface. The Morrow intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 8 5/8" casing.

#### **4. Casing Program:**

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
17 1/2"	0'-325	13 3/8"	48#	ST&C	H-40
12 1/4"	0' - 2945'	9 5/8"	36#	ST&C	J-55
8 3/4"	0' - 12400'	5 1/2"	17#	LT&C	HCP-110

5. **Cement Program:**

- a. 13 3/8" Surface Cement to surface with 120 sx 35:65 Poz Class "C" with 2% CaCl<sub>2</sub> + .25#/sx Cello Flake + 6% Bentonite. Tail w/200 sx Class "C" cement w/2% CaCl<sub>2</sub> + .25#/sx Cello Flake.
- b. 9 5/8" Intermediate Cement to surface with 1<sup>st</sup> lead: 200 sxs 35:65 Poz Class C cement w/5% NaCl + .25#/sx Cello Flake + 10#/sx LCM-1 + 6% Bentonite. 2<sup>nd</sup> lead: 504 sx 35:65 Poz: Class C cement w/5% NaCl + .25#/sx Cello Flake + 6% Bentonite. Tail with 300 sx 60:40 Poz: Class "C" + 5% NaCl<sub>2</sub> + .25#/sx Cello Flake + 0.5% Sodium Metasilicate + 4% MPA-1.
- c. 5 1/2" Production Cement Stage 1: with 935 sx 15:61:11 Poz Class C:CSE-2 3% KCl + 0.75% EC-1 + 0.25#/sx Cello Flake + 0.4 CD-32 + 5#/sx LCM-1 + 0.6% FL-25 + 0.6% FL-52A. Stage 2: with 1655 sxs 60:40 Poz Class H + 2% NaCl + 0.75% BA-10 + 0.15% R-3 + 0.25#/sx Cello Flake + 2#/sx Kol Seal + 4% MPA-1.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach approximately 500' above the 9 5/8" casing shoe.

6. **Pressure Control Equipment:**

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (5000 psi WP) preventor and a bag-type (Hydril) preventor (5000 psi WP). Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. The drilling head will be installed on the 13 3/8" surface casing and utilized continuously until total depth is reached. All BOP's and associated equipment will be tested to **1200 psi with the rig pump before drilling out the 13 3/8" casing shoe (70% of 48#, H-40 casing)**. Prior to drilling out the 9 5/8" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

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

7. **Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 325'	8.4-9.4	32-34	NC-25 cc	Fresh Water
325' - 2945'	9.8-10.1	28	NC	Brine
2945' - 8700'	8.4 - 9.4	28	NC	Fresh Water

8700'-10400'	9.6-10.0	28	NC	Fresh Water
10400'-10600'	10.0-10.2	30-33	8cc	Brine
10600'-12400'	10.4-10.5	36-42	6cc	Brine

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

**8. Auxiliary Well Control and Monitoring Equipment:**

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

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

- a. Drill stem tests will be based on geological sample shows.
- b. The open hole electrical logging program will be:
  - i. Total Depth to Intermediate Casing      Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
  - ii. Total Depth to Surface      Compensated Neutron with Gamma Ray
  - iii. No coring program is planned
  - iv. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

**10. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. There is no known presence of H<sub>2</sub>S in this area. If H<sub>2</sub>S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 5060 psi and Estimated BHT 151°. No H<sub>2</sub>S is anticipated to be encountered.

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

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

**SURFACE USE PLAN**  
Devon Energy Production Company, LP  
**Indian Draw 13 Federal 3**

Surface Location: 660' FNL & 1100' FEL, Unit A, Sec 13 T22S R27E, Eddy, NM  
Bottom hole Location: 660' FNL & 1100' FEL, Unit A, Sec 13 T22S R27E, Eddy, NM

**1. Existing Roads:**

- a. The well site and elevation plat for the proposed well are reflected on Exhibit 2. The well was staked by Basin Surveys.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location: From the junction of Hwy 62 / 180 and County Rd. 605, go southeasterly for 4.8 miles; thence go north +/- 100' through cattle guard; thence 300' west to proposed lease road. Approximately 7 miles northwest to Carlsbad, New Mexico.

**2. Access Road**

- a. Exhibit #3 shows the existing lease road. Approximately 1054' of new access road will be constructed as follows:
- b. 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.
- c. 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%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

**3. Proposed Facilities**

- a. In the event the well is found productive, the Indian Draw 13 Federal 3 tank battery would be utilized and the necessary production equipment will be installed at the well site.
- b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
- c. All flow lines will adhere to API standards.
- d. If the well is productive, rehabilitation plans are as follows:
  - i. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
  - ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

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

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

will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

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

**5. Well Site Layout**

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

**6. Other Information:**

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

**Operators Representative:**

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

Wyatt Abbitt  
Operations Engineer Advisor

Don Mayberry  
Superintendent

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

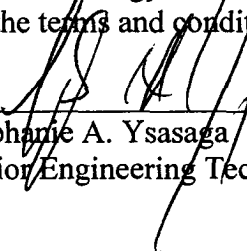
Devon Energy Production Company, L.P.  
Post Office Box 250  
Artesia, NM 88211-0250

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

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

### Certification

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

Signed:  \_\_\_\_\_ Date: November 1st, 2005  
Stephanie A. Ysasaga  
Senior Engineering Technician

Attachment to Exhibit #1  
NOTES REGARDING BLOWOUT PREVENTERS  
Devon Energy Production Company, LP  
Indian Draw 13 Federal 3

Surface Location: 660' FNL & 1100' FEL, Unit A, Sec 13 T22S R27E, Eddy, NM  
Bottom hole Location: 660' FNL & 1100' FEL, Unit A, Sec 13 T22S R27E, Eddy, NM

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

## **HYDROGEN SULFIDE DRILLING OPERATIONS PLAN**

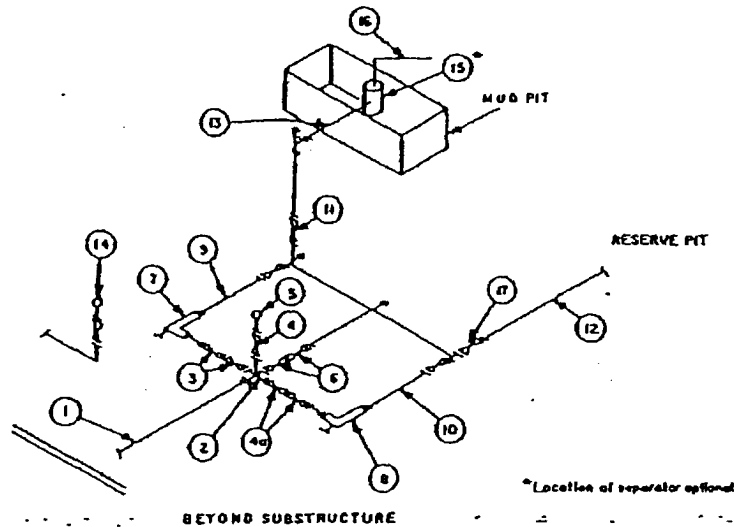
1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - a. Characteristics of H2S
  - b. Physical effects and hazards
  - c. Proper use of safety equipment and life support systems.
  - d. Principle and operation of H2S detectors,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

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

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

3 MWP - 5 MWP - 10 MWP

Exhibit E



MINIMUM REQUIREMENTS									
No.		3,000 MWP			5,000 MWP			10,000 MWP	
		LD.	NOMINAL	RATING	LD.	NOMINAL	RATING	LD.	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

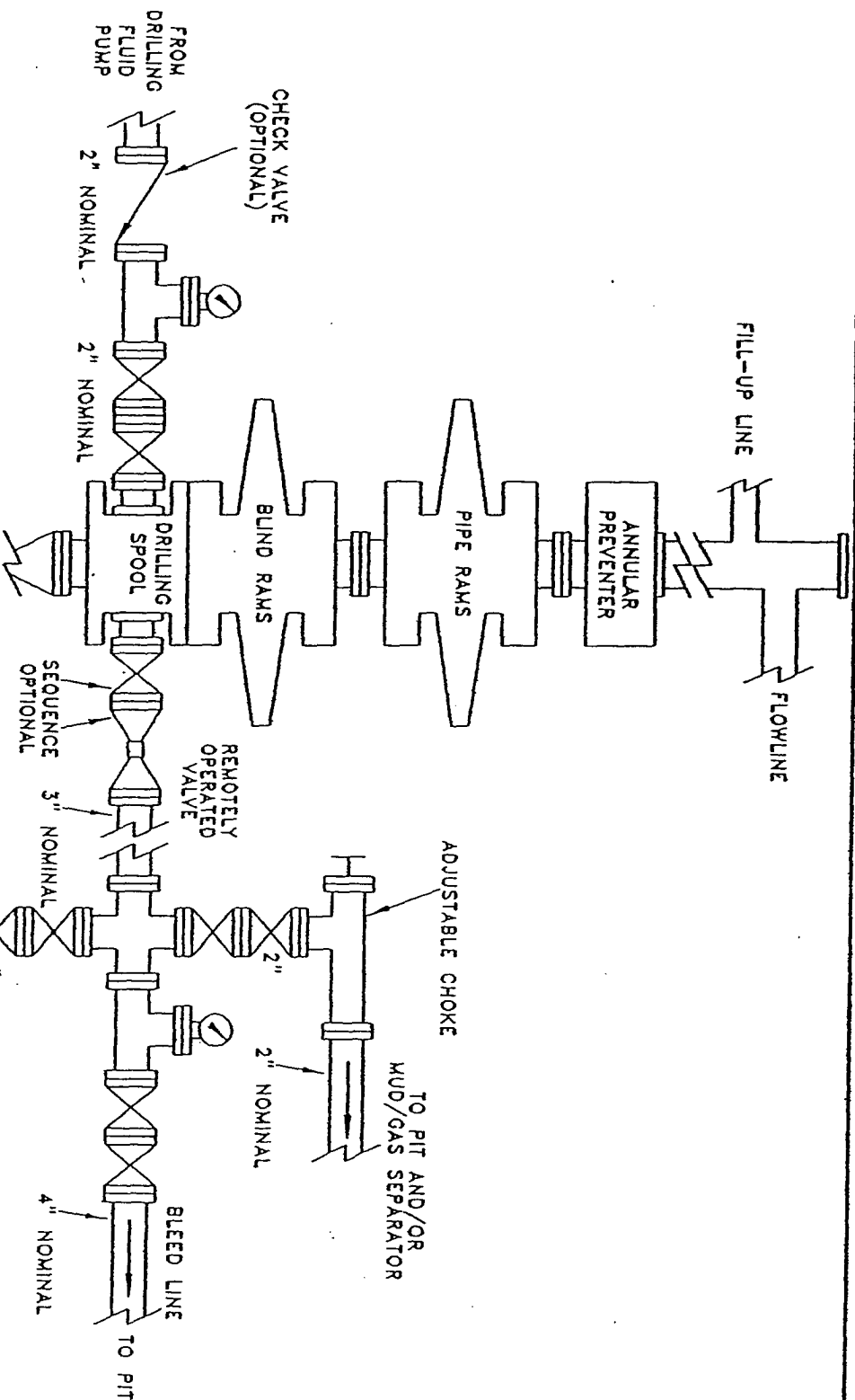
(1) Only one required in Class JM.

(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.



Fuller, H.

s:\m\plots
5mbope.dwg

**PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT**

EXHIBIT 1

10/00

50

**UNITED STATES DEPARTMENT OF THE INTERIOR**

**Bureau of Land Management**

**Roswell Field Office**

**2909 West Second Street**

**Roswell, New Mexico 88201-1287**

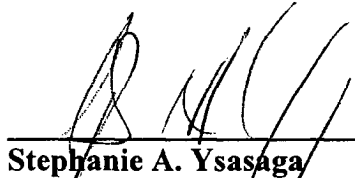
**Statement Accepting Responsibility for Operations**

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.: **NMNM-96207**  
Legal Description of Land: **320 acres 13-T22S-R27E  
Lot A NWNE 660' FNL & 1100' FEL**  
Formation(s): **Happy Valley; Morrow (Gas)**  
Bond Coverage: **Nationwide**  
BLM Bond File No.: **CO-1104**

Authorized Signature:

  
Stephanie A. Ysasaga

Title:

**Senior Engineering Technician**

Date:

**11/01/05**

RECEIVED  
NOV 17 PM 1 32  
CARLSBAD FIELD OFFICE

## CONDITIONS OF APPROVAL - DRILLING

Operator's Name: DEVON ENERGY PRODUCTION COMPANY, LP  
Well Name & No. 3 – INDIAN DRAW 13 FEDERAL  
Location: 660' FNL & 1100' FEL – SEC 13 – T22S – R27E – EDDY COUNTY  
Lease: NM-96207

.....

### I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:
  - A. Spudding
  - B. Cementing casing: 13-3/8 inch 9-5/8 inch 5-1/2 inch
  - C. BOP tests
2. **There is no known presence of H<sub>2</sub>S in Sec 13 – T22S – R27E.** If H<sub>2</sub>S is encountered the operator will comply with the provisions of Onshore Order No. 6. An H<sub>2</sub>S Drilling Plan has been included in the APD.
- 3 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
4. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing ( size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.
5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

### II. CASING:

1. The 13-3/8 inch surface casing shall be set at 325 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is circulate cement to the surface.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is cement shall extend upward a minimum of 500 feet above the uppermost hydrocarbon bearing interval.

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

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 9-5/8 inch casing shall be 5000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- A variance to test the **BOP and associated equipment** to the reduced pressure of 1200 psi with the rig pumps before drilling out of the 13-3/8 inch casing is approved.
- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the **Wolfcamp** Formation by an independent service company.

### **IV. DRILLING MUD:**

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

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