N.M. Oil Cons. DIV-Dist. 2 1301 W. Grand Avenue Artesia, NM 88210

Form 3160-3 (April 2004)

**UNITED STATES** 

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

5. Lease Serial No.

# DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MAN	NW10418220-A				
APPLICATION FOR PERMIT TO			6. If Indian, Allotee of	or Tribe Name	•
1a. Type of work: DRILL REENTE	R-111-POTAS	Н	7 If Unit or CA Agree	ment, Name and No.	-
lb. Type of Well: Oil Well Gas Well Other	Single Zone Multip	ole Zone	8. Lease Name and W Todd 270 Fede		9
2. Name of Operator Devon Energy Production Company, L	P 6137		9. API Well No.	5-34437	2
3a. Address 20 North Broadway Oklahoma City, Oklahoma City 73102-8260	3b. Phone No. (include area code) 405-552-7802	145	10. Field and Pool, or Engle Wells Del	•	•
4. Location of Well (Report location clearly and in accordance with an At surface 660' FSL & 1980' FEL	y State requirements.*)	\ĒĎ	11. Sec., T. R. M. or Bli	c. and Survey or Area	•
At proposed prod. zone 660' FSL & 1980' FEL	NOV 1 7	2005	Sec 27, T23S R3		_
<ol> <li>Distance in miles and direction from nearest town or post office*</li> <li>Approximately 35 miles west-northwest of Jal, NM</li> </ol>	OCU-AM	ESM	12. County or Parish  Eddy County	13. State NM	_
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	17. Spacin	g Unit dedicated to this w	ell	•
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 8350'	20. BLM/E	BIA Bond No. on file		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3419'	22. Approximate date work will sta 09/20/2005	rt*	23. Estimated duration 45 days		
	24. Attachments				,
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	4. Bond to cover t Item 20 above). Lands, the 5. Operator certific	he operation cation specific info	is form:  ns unless covered by an e  ormation and/or plans as r	·	
25. Signature	Name (Printed Typed) Stephanie A. Ysasa	ga	I	Date 09/14/2005	•
Title Senior Engineering Technician					•
Approved by (Signature)	Name (Printed Typed)	<u>e</u> L. (	Samby	Date NOV - 9	200
ACTING STATE DIRECTOR	Office NM :	STATE	OFFICE		
Application approval does not warrant or certify that the applicant hold conduct operations thereon.  Conditions of approval, if any, are attached.			ject lease which would en VAL FOR 1		•

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) Salt

CARLSBAD CONTROLLED WATER BASIN

APPROVAL SUBJECT TO **GENERAL REQUIREMENTS** AND SPECIAL STIPULATIONS ATTACHED

Witness Surface & Intermediate Casing

#### **Additional Operator Remarks:**

Devon Energy Production Company, LP proposes to drill a Delaware well to 8,350' 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 attached Drilling and Surface Use Plan.

#### **Directions To Location:**

From the Junction of Co. Rd 798 and State 128, go Northwest on Hwy 128 for 1.8 mile to lease road (0.3 mile west of MM 16); thence North on lease road to the Todd #15 and proposed road.

#### Access Road:

Approximatley 98' of access road will be required. Archeological survey's will be requested for the pad and access road.

#### H2S:

No H2S is anticipated to be encountered.

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 811 South Pirst, Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT III

DISTRICT IV

#### 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

7977

2040 South Pacheco	, Santa Fe, l	NM 87505		Santa I	ta Fe, New Mexico 87504-2088				REPORT	
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1	i			1 /	4	Z		Professional	Surveyor /\	- 1

\_ 3416.9'

3423.8

1980'

3415.9

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

## State of New Mexico **Energy Minerals and Natural Resources**

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

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

Form C-144

June 1, 2004

# Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes \(\bigcap\) No \(\overline{\text{X}}\)

Type of action: Registration of a pit or below-grade tank \(\overline{\text{X}}\) Closure of a pit or below-grade tank \(\overline{\text{X}}\) Operator: \_Devon Energy Production Company, L.P. \_\_\_\_\_\_ Telephone: \_(405)-552-7802 \_\_\_\_\_\_\_e-mail address: <u>Stephanie Ysasaga@dvn.com</u> Address: P.O. Box 250 Artesia, NM 88211 Facility or well name: Todd 270 Federal 15\_\_\_\_\_ API #: \_\_\_\_\_ U/L or Qtr/Qtr \_\_O\_ Sec \_27\_\_ T \_23S\_\_ R \_31E\_ Latitude Longitude NAD: 1927 🔲 1983 🔲 County: Eddy Surface Owner: Federal 🛛 State 🔲 Private 🔲 Indian 🔲 Below-grade tank RECEIVED Type: Drilling | Production | Disposal | Volume: bbl Type of fluid: Construction material: SEP 2 1 7005 Double-walled, with leak detection? Yes I f not, explain why not Lined M Unlined Liner type: Synthetic X Thickness \_12\_mil Clay Pit Volume Less than 50 feet (20 points) Depth to ground water (vertical distance from bottom of pit to seasonal 50 feet or more, but less than 100 feet (10 points) high water elevation of ground water.) 100 feet or more ( 0 points) Yes (20 points) Wellhead protection area: (Less than 200 feet from a private domestic No ( 0 points) water source, or less than 1000 feet from all other water sources.) Less than 200 feet (20 points) Distance to surface water: (horizontal distance to all wetlands, playas, 200 feet or more, but less than 1000 feet (10 points) irrigation canals, ditches, and perennial and ephemeral watercourses.) 1000 feet or more ( 0 points) Ranking Score (Total Points) 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: (check the onsite box if \_\_\_\_\_\_. (3) Attach a general description of remedial action taken including your are burying in place) onsite \( \square\) offsite \( \square\) If offsite, name of facility remediation start date and end date. (4) Groundwater encountered: No 🖾 Yes 🔲 If yes, show depth below ground surface fit. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations. Additional Comments: We plan to trench bury the drilling pit at the Todd 27O Federal #15. As per rule 50 of the Pit and Below-Grade Tank Guidelines, we will line the trench with 12 mil liner and bury pit contents and liner then cover with 20 mil plastic. We will cap with 3' of native material capable of supporting native plant growth. We will contour the pit area to prevent erosion and ponding of rainwater over the site. 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:09/20/05	ie A. Ysasaga/Senior Engineering Technician	n Signature	1/1//-	,
Your certification and NMO	CD approval of this application/closure does ealth or the environment. Nor does it relieve	not relieve the operato		
Approval: Printed Name/Title	Field Supervisor	Signature	LOR	Date:

# SECTION 27. TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., NEW MEXICO. EDDY COUNTY, 600' 3415.9' 3416.9' 150' NORTH OFF SET 3417.3 DEVON ENERGY PRODUCTION CO., L.P. TODD "27 O" FEDERAL #15 150' WEST OFF SET □ 3418.1' Elev. - 3419' 150' EAST OFF SET Lat.-N 32°16'12.0" Long-W 103°45'48.7" 3422.7 150' SOUTH OFF SET 3419.2' <sub>El</sub> 600 3417.6 100 100 200 FEET SCALE: 1" = 100' Directions to Location: DEVON ENERGY PROD. CO., L.P. FROM THE JUNCTION OF CO. RD. 798 AND STATE 128, GO NORTHWEST ON HWY 128 FOR 1.8 MILE TO REF: TODD "27 O" FED. No. 15 / Well Pad Topo LEASE ROAD (0.3 MILE WEST OF MM 16); THENCE NORTH ON LEASE ROAD TO LOCATION. THE TODD "27 O" FED. No. 15 LOCATED 660' FROM THE SOUTH LINE AND 1980' FROM THE EAST LINE OF SECTION 27, TOWNSHIP 23 SOUTH, RANGE 31 EAST, BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

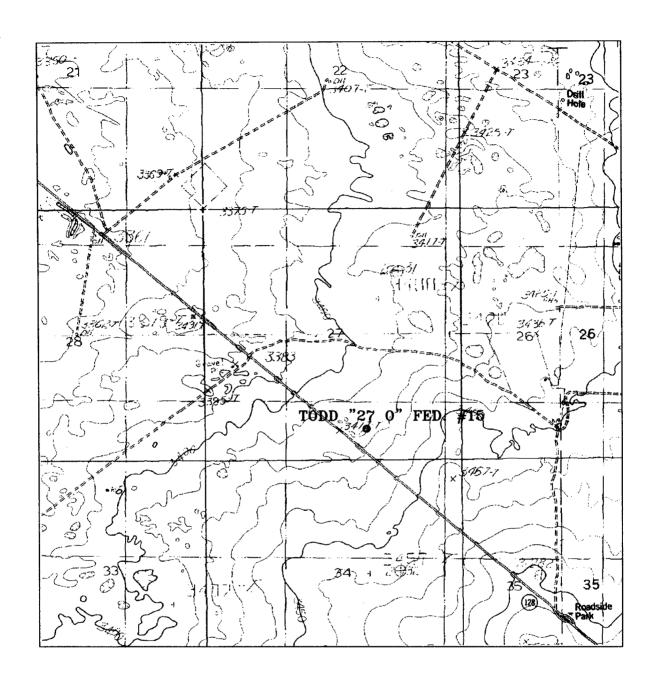
Date: 09-09-2005 | Disk: KJG CD#4 - 5776A.DWG | Survey Date: 08-31-2005 | Sheet 1 of 1 Sheets

Drawn By:

K. GOAD

W.O. Number: 5776

N.M.P.M., EDDY COUNTY, NEW MEXICO.



TODD "27 0" FEDERAL #15 Located at 660' FSL and 1980' FEL Section 27, Township 23 South, Range 31 East, N.M.P.M., Eddy 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:	5776AA - KJG #1
Survey Date:	08-31-2005
Scale: 1" = 2	000'
Date: 09-09-	-2005

DEVON ENERGY PROD. CO., L.P.

#### **DRILLING PROGRAM**

Attached to form 3160-3 Devon Energy Production Co., LP Todd 27O Federal #15 660' FSL & 1980' FEL Section 27-T23S-R31E, Unit K Eddy County, New Mexico

## 1. Geologic Name of Surface Formation

Permian

## 2. Estimated Tops of Important Geologic Markers

Rustler	800'
Top of Salt	1100'
Base of Salt	3900'
Bell Canyon	4400'
Cherry Canyon	5600'
Brushy Canyon	7000'
Bone Spring Lime	8300'
Total Depth	8800'

# 3. Estimated Depths of Possible Fresh Water-, Oil-, or Gas-Bearing Formations

U Upper Permian Sands	above 800'	fresh water
Delaware (Bell Canyon)	4400'	oil
Delaware (Cherry Canyon)	6000'	oil
Delaware (Brushy Canyon)	8000'	oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 850' and circulating cement back to surface. The Potash and Salt intervals will be protected by setting 8 5/8" casing at 4350' and circulating cement to surface. The Delaware 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

WITNESS WITNESS
WITNESS

Hole Size	Interval	Casing OD	Weight	Grade	Туре
<b>30</b> "	0-40'	20"		Conductor	0.30" wall
17 1/2"	0-850'	13 3/8"	48#	H-40	ST&C, new R-3
11"	0-4350'	8 5/8"	32#	J-55	ST&C, new R-3
7 7/8"	0'-TD (8800'±)	5 1/2"	15.5# & 17#	J-55	LT&C, new R-3

#### Cementing Program

20" Conductor Casing	Cement with Ready-mix to surface.
13 3/8" Surface Casing	Cement to surface using 500 sx Poz (35% Poz, 65% Class C, 6% gel) with 2% CaCl <sub>2</sub> and 1/4 lb/sx Cellophane flakes + 200 sx Class C with 2% CaCl <sub>2</sub> and 1/4 lb/sx Cellophane flakes.
8 5/8" Intermediate Casing	Cement to surface using 1600 sx Poz (35% Poz, 65% Class C, 6% gel, 15% salt) with 1/4 lb/sx Cellophane flakes + 200 sx Class C with 2% CaCl <sub>2</sub> , 1/4 lb/sx Cellophane flakes
5 1/2" Production Casing	Cement 1st stage with 525 sx Silica Lite (Class H) with 3% salt, 0.6% FL additive, 1/4 lb/sx Cellophane flakes
with DV tool at ±5500'	Cement 2nd stage with 225 sx Poz (35% Poz, 65% Class H, 6% gel) with 1/4 lb/sx Cellophane flakes + 400 sx Class H with 4% gel, 5% salt, 1/4 lb/sx Cellophane flakes.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach 450'± above the 8 5/8" casing seat at 4350'.

## 5. <u>Minimum Specifications for Pressure Control</u>

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (2000 psi WP) preventer and a bag-type (Hydril) preventer (2000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOP's 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

before drilling out the 13 3/8" casing shoe (70% of 48# H-40 casing). Prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be function 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 3000 psi WP rating.

## 6. Types and Characteristics of the Proposed Mud System

The well will be drilled to total depth using brine, cut brine and polymer mud systems. Depths of systems are as follows.

.,		Weight	Viscosity	Water Loss
Depth :	Туре	(ppg)	(1/sec)	(cc/30 mins)
0-850'	Fresh water	8.8	34-36	No control
850-4350'	Brine water	10.0	28	No control
4350'-TD	Fresh water polymer	8.8	32-36	10-20

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

## 7. 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 5 1/2" casing is cemented.

### 8. Logging, Testing and Coring Program

- A. Drill stem tests will be based on geological sample shows.
- B. The open hole wireline logging program will be as follows.

TD to intermediate casing: Induction / Gamma Ray / Neutron / Density Log.

TD to surface: Neutron with Gamma Ray.

- C. Rotary sidewall cores are planned.
- D. 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.

#### 9. Abnormal Pressures, Temperatures and Potential Hazards

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is approximately 130 degrees and maximum bottom hole pressure is approximately 2900 psig. No hydrogen sulfide gas has been reported or is known to exist at these depths in this area. No major lost circulation intervals have been encountered in adjacent wells.

## 10. Anticipated Starting Date and Duration of Operations

A Cultural Resources Examination will be completed by Don Clifton Archaeological Consultant, and submitted to the BLM. Road and location preparation will not be undertaken until approval has been received from the BLM. If approved, the anticipated spud date for the well will be in the second quarter, 1999. The drilling operation should require approximately 21 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 Devon Energy Production Co., LP Todd 270 Federal #15 660' FSL & 1980' FEL Section 27-T23S-R31E, Unit K Eddy County, New Mexico

#### 1. Existing Roads

- A. The well site and elevation plat for the proposed Todd 270 Federal #15 are reflected on Exhibit #2. This well was staked by Topographic Land Surveyors of Midland, Texas.
- B. All roads into the location are depicted in Exhibit #3. New construction from the County 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 798 and State 128, go Northwest on Hwy 128 for 1.8 mile to lease road (0.3 mile west of MM 16); thence North on lease road to the Todd #15 and proposed road.

#### 2. Proposed Access Road

Access to this location will require the construction of approximately 98' of new access road from the County road. All new road construction would adhere to the following specifications:

- A. The maximum width of the road will be fifteen (15) feet.
- B. It will be crowned and made of 6 inches 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.
- D. The average grade will be approximately 1%.

- E. No cattle guards, grates or fence cuts will be required.
- F. No turnouts are planned.
- 3. Location of Existing Wells

Exhibit #4 shows all existing wells within a one-mile radius of the proposed Todd 27O Federal #15

- 4. Location of Existing and/or Proposed Facilities
  - A. In the event the well is found productive, a tank battery would be constructed.
    - 1. Exhibit #5 shows the battery facility to be utilized by the Todd 270 Federal #15
    - 2. The tank battery, all connections and all lines will adhere to API standards.
    - 3. The well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
  - 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. Caliche from unused portions of the drill pad will be removed. 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.

## 5. Location and Type of Water Supply

The Todd 270 Federal #15 will be drilled using a combination of brine and fresh water mud systems (outlined in Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in Exhibit #3. Additionally, produced salt water from lease gathering tanks may be utilized. No water well will be drilled on the location.

### 6. Source of Construction Materials

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche.

### 7. 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 to drill from 850' to 4350'.
- 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.

## 8. Ancillary Facilities

No campsite or other facilities will be constructed as a result of this well.

#### 9. Well Site Layout

- A. The drill pad is shown on Exhibit #6. Approximate dimensions of 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 caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. 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 again 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. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill 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.

Road routes have been approved and the surface location will be restored as directed by the BLM.

#### 12. Other Information

- A. The area surrounding the well site is grassland. The top soil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds.
- B. There is no permanent or live water in the general proximity of the location.
- C. A Cultural Resources Examination will be completed by Don Clifton Archaeological Consultant, and forwarded to the BLM office in Carlsbad, New Mexico.

Todd 27O Federal #15 Drilling Program Page 6

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

The Devon Energy Corporation (Nevada) representatives responsible for ensuring compliance of the surface use plan are:

Stephanie A. Ysasaga Senior Engineering Technician

Devon Energy Corporation 20 North Broadway, Suite 500 Oklahoma City, OK 73102 (405)-552-7802 (office) Jim Blount Operations Engineer

Devon Energy Corporation 20 North Broadway, Suite 500 Oklahoma City, OK 73102 (405)-228-4301 (office) (405)-834-9207 (mobile)

#### 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 Corporation (Nevada) and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: // // // // // // Senior Engineering Technician

Date:

## 3,000 pei Working Pressure

#### 3 MWP

#### STACK REQUIREMENTS

No.	ltem		Min. I.D.	Min. Nominal
ı	Flowline			
2	Fill up line			2*
3	Orilling nipple			
4	Annular preventer			
5	Two single or one dual h operated rams	ydraulically		
6a	Orilling spool with 2" min 3" min choke line outlets			
6b	2° min. kill line and 3° m outlets in ram. (Alternate			
7	Valve	Gate 🗆 Plug 🔾	3-1/6*	
8	Gale valve—power oper	aled	3-1/8"	
9	Line to choke manifold			3-
10	Valves	Gate C Plug C	2-1/16*	
11	Check valve		2-1/16"	
12	Casing head			
13	Valve	Gate [] Plug []	1-13/16*	
14	Pressure gauge with nec	edie valve		
15	Kill line to rig mud pump			2"

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<b>®</b> —	FIP	E RANS	) <sup>30</sup>	
		POOL		
(ii)		ASING IEAD		•
	•	ASING	10	Œ

CONFIGURATION

OPTIONAL						
16 Flanged valve		1-13/16"				

#### CONTRACTOR'S OPTION TO FURNISH:

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

#### MEC TO FURNISH:

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

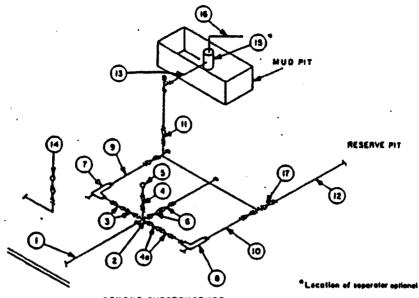
#### GENERAL NOTES:

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

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

3 MWP - 5 MWP - 10 MWP



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			MINI	NUM REQU	HREMENTS	3				
			3.000 MWP		5,000 MWP		10,000 MWP			
Na.		1.D.	NOMINAL	RATING	1.D.	HOMINAL	RATING	1.0.	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	3-1/6"		5,000	3-1/6*		10,000
4	Valve Gate C	1-13/16*		3,000	1-13/16"		5,000	1-13/16*		10,000
48	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 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*	1	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		5-	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	Vaives Gete □ Plug □(2)	3-1/6*		3,000	3-1/6"		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 chakes. 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 speel to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using buil plugged toes.
- 7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

# Exhibit #1A NOTES REGARDING BLOWOUT PREVENTORS

Devon Energy Production Co., LP
Todd 27K Federal #11
1830' FSL & 1980' FWL
Section 27-T23S-R31E, Unit K
Eddy 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 3000 psi working pressure.
- 4. All fittings will be flanged.
- 5. A full bore safety valve tested to a minimum 3000 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.

# **DEVON ENERGY CORPORATION**

## HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

## A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

- 1. The hazards and characteristics of hydrogen sulfide (H2S).
- 2. The proper use and maintenance of the H2S safety equipment and of personal protective equipment to be utilized at the location such as H2S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.
- 3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H2S bearing formation, H2S training will be required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H2S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H2S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

## **B. H2S Safety Equipment And Systems**

All H2S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H2S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

# Operations Plan

- (a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.
- (b) A choke manifold with a minimum of one remote choke.

## 2. H2S Detection And Monitoring Equipment

- (a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.
- (b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.
- 3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

- (a) Four (4) five minute escape packs located at strategic points around the rig.
- (b) Two (2) thirty minute rescue packs to be located at the designated briefing areas.

## 4. Visual Warning System

Visual warning system will consist of the following:

- (a) Two wind direction indicators.
- (b) One condition / warning sign which will be posted on the road providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

## DEVON ENERGY CORPORATION Hydrogen Sulfide Drilling Operations Plan

## 5. Mud Program

The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H2S bearing formations.

# 6. Metallurgy

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines and valves shall be suitable for H2S service.

#### 7. Communication

Cellular telephone communication will be available in company vehicles.

## C. Diagram of Drilling Location

Attached is a diagram representing a typical location layout as well as the location of H2S monitors, briefing areas and wind direction indicators.

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

**Operator's Name:** 

Devon Energy Production Company, L.P.

Well Name & No.

Todd 270 Federal # 15

Location:

660' FSL, 1980' FEL, Section 27, T. 23 S., R. 31 E., Eddy County, New Mexico

Lease:

NM-0418220A

#### **II. DRILLING OPERATIONS REQUIREMENTS:**

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

- A. Well spud
- B. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch
- C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15-day time frame.
- 4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.
- 5. Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

#### II. CASING:

- 1. The <u>13-3/8</u> inch surface casing shall be set at <u>approximately 850 feet in the top of the Rustler anhydrite and cement circulated to the surface</u>. 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 <u>8-5/8</u> inch intermediate casing is to be sufficient to circulate to the surface.
- 3. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>to be sufficient to circulate to the surface.</u>
- 4. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

#### **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 <u>13-3/8</u> inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- 2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
- 3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.
  - The tests shall be done by an independent service company.
  - The results of the test shall be reported to the appropriate BLM office.
  - Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
  - Testing must be done in a safe workman-like manner. Hard line connections shall be required.