

NM OIL CONS. COM. DIVISION  
DRAWER DD DEPARTMENT OF THE INTERIOR  
ARTESIA, NM BUREAU OF LAND MANAGEMENTSUBMIT IN DUPLICATE  
(Other line items on reverse)Form approved.  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input checked="" type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. LC-058-008-A	
b. TYPE OF WELL OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME NA	
2. NAME OF OPERATOR Devon Energy Corporation (Nevada) Attn: Debby O'Donnell		7. UNIT AGREEMENT NAME Shugart	
3. ADDRESS AND TELEPHONE NO. 20 North Broadway Ste 1500 New Mexico City, NM 87102		8. FARMOR LEASE NAME, WELL NO. East Shugart Unit #55	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 920' FNL & 1690' FEL		9. AP WELL NO. 30-015-27956	
At proposed prod. zone SAME		10. FIELD AND POOL, OR WELDCAT Shugart (Y-SR-Q-G)	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 15 1/2 miles southeast of Loco Hills, NM.		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Section 3-T19S-R31E	
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest strig. unit line, if any) 920'		12. COUNTY OR PARISH Eddy	
16. NO. OF ACRES IN LEASE 160		13. STATE NM	
17. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 600'		14. NO. OF ACRES ASSIGNED TO THIS WELL 40	
18. PROPOSED DEPTH 4500'		15. ROTARY OR CABLE TOOLS rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3610'		22. APPROX. DATE WORK WILL START May 1, 1994	

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	14"		40'	cmt with readi-mix to surface
12 1/4"	8 5/8", K-55	24 ppf	950'	280 sx Lite + 200 sx Class C
7 7/8"	5 1/2", J-55	15.5 ppf	4500'	550 sx Lite + 500 sx Class C

\* We plan to circulate cement to surface on all casing strings.

Devon Energy proposes to drill to 4500'± to test the Queen Sand formation for commercial quantities of oil. If the Queen is deemed non-commercial, the wellbore will be plugged and abandoned per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the following exhibits and attachments.

## Drilling Program

## Surface Use and Operating Plan

- Exhibits #1/1-A = Blowout Prevention Equipment
- Exhibit #2 = Location and Elevation Plat
- Exhibit #3/3-A = Road Map and Topo Map
- Exhibit #4 = Wells Within 1 Mile Radius
- Exhibit #5 = Production Facilities Plat
- Exhibit #6 = Rotary Rig Layout
- Exhibit #7 = Casing Design

H<sub>2</sub>S Operating Plan

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

Lease #: LC-058-008-A  
Legal Description: Section 3-T19S-R31E  
Formation: Queen Sand  
Bond Coverage: Nationwide  
BLM Bond #: CO-1104

Post ID-1  
5-20-94  
New loc + API

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24. E. L. Buttross, Jr.  
District Engineer  
March 16, 1994

(This space for Federal or State office use)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

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:APPROVED BY Scott Powers TITLE Area Manager DATE MAY 9 1994

\*See Instructions On Reverse Side

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

EXHIBIT #2

Form C-102  
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1880, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator <b>DEVON ENERGY CORPORATION</b>			Lease <b>EAST SHUGART UNIT</b>		Well No. <b>55</b>
Unit Letter <b>B</b>	Section <b>3</b>	Township <b>19 SOUTH</b>	Range <b>31 EAST</b>	County <b>EDDY</b>	
Actual Footage Location of Well:					
920 feet from the NORTH line and		1690 feet from the EAST line			
Ground Level Elev. <b>3610'</b>	Producing Formation <b>Queen Sand</b>	Pool <b>Shugart (Y-SR-Q-G)</b>		Dedicated Acreage: <b>40 Acres</b>	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.) _____</p> <p>No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>					
				<b>OPERATOR CERTIFICATION</b>	
				<p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature <i>E. L. Buttross Jr.</i></p> <p>Printed Name <b>E. L. Buttross, Jr.</b></p> <p>Position <b>District Engineer</b></p> <p>Company <b>Devon Energy Corporation (Nevada)</b></p> <p>Date <b>3/11/94</b></p>	
				<b>SURVEYOR CERTIFICATION</b>	
				<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 knowledge and belief.</p> <p>Date Surveyed <b>JANUARY 28, 1994</b></p> <p>Signature &amp; Seal of Professional Surveyor </p> <p>Certificate No. <b>JOHN W. WEST, 676</b> <b>RONALD J. EDSON, 3239</b> <b>GARY L. JONES, 7977</b></p> <p><b>94-11-0195</b></p>	

## MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

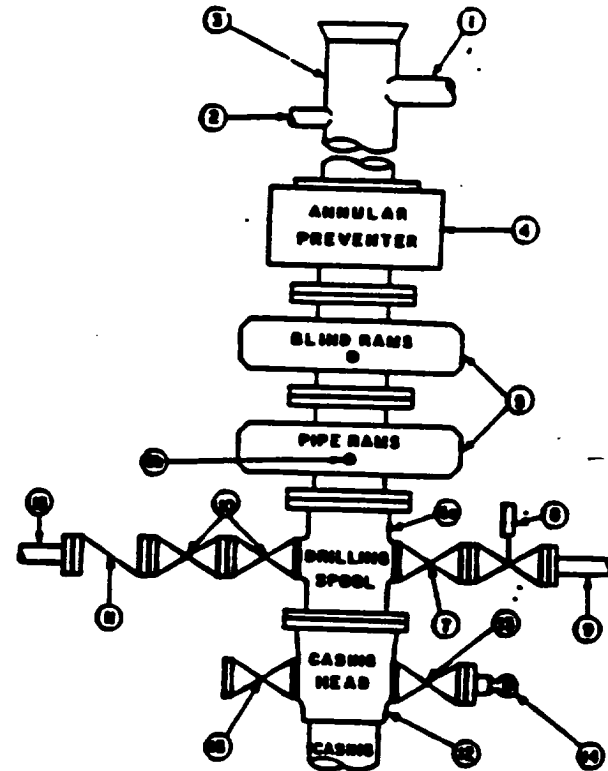
## STACK REQUIREMENTS

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

## OPTIONAL

16	Flanged valve	1-13/16"	
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CONFIGURATION A



## CONTRACTOR'S OPTION TO FURNISH:

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

## MEC TO FURNISH:

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

## GENERAL NOTES:

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

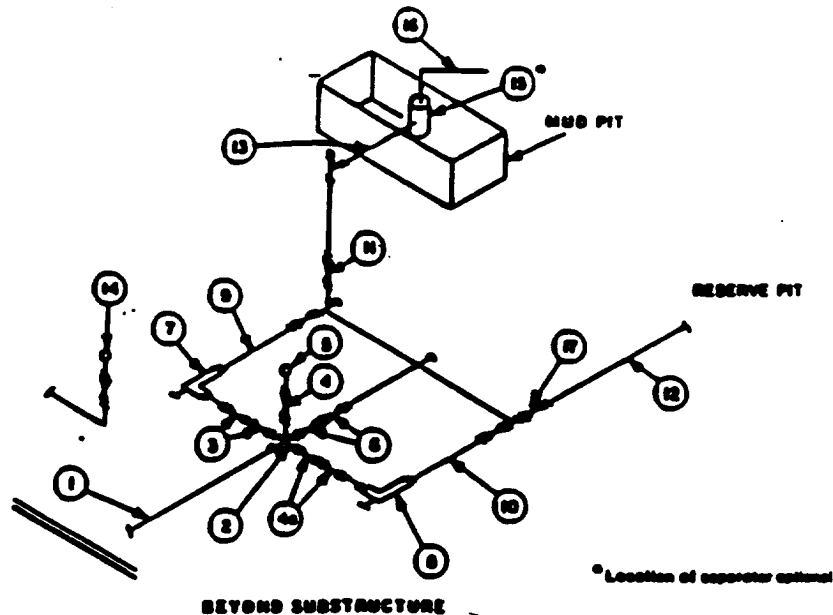
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead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

Attachment to Exhibit #1  
NOTES REGARDING BLOWOUT PREVENTORS  
East Shugart Unit #55  
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 preventor 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 preventor 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.

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

**3 MWP • 5 MWP • 10 MWP**



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves(1) Gate □ 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 ball plugged tees.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.