## OCD-ARTESIA

**UNITED STATES** DEPARTMENT OF THE INTERIOR I-04-04

FORM APPROVED OMB No. 1004-0136

BUREAU OF LAND	MANAGEMENT	5. Lease Serial No. NMNM89051	
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tril	be Name
1a. Type of Work: ☑ DRILL ☐ REENTER	R-111-POTASH	7. If Unit or CA Agreement	t, Name and No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Ot		Lease Name and Well No APACHE 24 FEDERA	
2 Name of Operator Contact: DEVON ENERGY PRODUCTION CO LP	LINDA GUTHRIE E-Mail: linda:guthrie@dvn.com	9 API Well No.	34020
- 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY OK 73102	3b. Phone No. (include area code) Ph: 405.228.8209 Fx: 405.552.1319	10. Field and Pool, or Explo QUAHADA RIDGE S	oratory
4. Location of Well (Report location clearly and in according 330 FN)		11. Sec., T., R., M., or Blk.	and Survey or Area
At surface SESE 66F8L 330FEL Sea At proposed prod. zone SWSW 990FSL 330FWL		Sec 24 T22S R30E SME: BLM	Mer NMP
14. Distance in miles and direction from nearest town or post APPROXIMATELY 46 MILES WEST FROM JAI	_, NM	12. County or Parish EDDY	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 RECEIVED  OCT 2 1 2004	17. Spacing Unit dedicated 40.00	to this well
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth OPP-APTESIA 7921 MD 7600 TVD	20. BLM/BIA Bond No. on	file
21. Elevations (Show whether DF, KB, RT, GL, etc. 3392 GL	22. Approximate date work will start 07/01/2004	23. Estimated duration 30 DAYS	
	24. Attachments CARLSBA	AD CONTROLLED WA	TER BASIN
The following, completed in accordance with the requirements of	f Onshore Oil and Gas Order No. 1, shall be attached to t	his form:	<del></del>
<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 Systes SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	4. Bond to cover the operation Item 20 above). 5. Operator certification 6. Such other site specific info authorized officer.		
25. Signature (Electronic Submission)	Name (Printed/Typed) LINDA GUTHRIE		Date 05/28/2004
Title REGULATORY SPECIALIST			
Approved by (Signature)  5/ W.M.am D. Cond A	Name (Printed/Typed)  Worll on 5. Con	194	CT 2004
CTINGSTATE DIRECTOR	NM STATE OFFICE		
Application approval does not warrant or certify the applicant holoperations thereon.  Conditions of approval, if any, are attached.		SOVAL FOR 1 Y	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, n States any false, fictitious or fraudulent statements or representati	nake it a crime for any person knowingly and willfully to		

Additional Operator Remarks (see I

If earthen pits are used is/ association with the drilling of this

well, an OCD pit permit must be | Well Information System obtained prior to pit construction.EZ on 06/01/2004 (04AL0195AE)

Committed ·

**Electr** 

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS

SUBJECT TO LIKE APPROVAL BY STATE

NSL

ATTACHED\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

#### aional Operator Remarks:

Devon Energy Production Company, LP proposed to drill a Delaware well to 7921' 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 approved MDSUP as amended by Attachment A, submitted for approval herewith to the drilling portion, of the currently approved Master Drilling and Surface Use Program for the Quahada Ridge, SE Field.

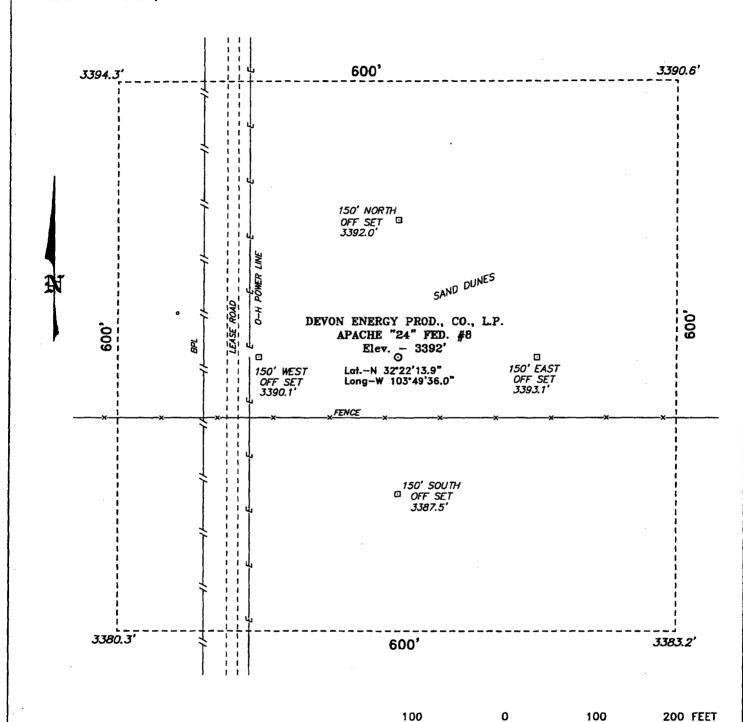
Directions: From the junction of Co. Rd. 128 and State Hwy 31, go northeast on Hwy 31 to a lease road; then east on lease road for approximately 10 miles; then north on lease road for approximately 0.5 miles to proposed location.

#### FORM APPROVED UNITED STATES **OCD-ARTESIA** OMB NO. 1004-0135 DEPARTMENT OF THE INTERIOR Expires: November 30, 2000 **BUREAU OF LAND MANAGEMENT** Lease Serial No. NMNM89051 SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals. 6. If Indian, Allottee or Tribe Name 7. If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE - Other instructions on reverse side. 8. Well Name and No. 1. Type of Well R-111-POTASH **APACHE 24 FEDERAL 8** Oil Well Gas Well Other 9. API Well No. 2. Name of Operator Contact: LINDA GUTHRIE **DEVON ENERGY PRODUCTION COLP** E-Mail: linda.guthrie@dvn.com 3b. Phone No. (include area code) Ph: 405.228.8209 10. Field and Pool, or Exploratory 3a. Address QUAHADA RIDGÉ SE DELAWARE 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY, OK 73102 Fx: 405.552.4621 11. County or Parish, and State 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T22S R30E SESE 66FSL 330FEL EDDY COUNTY, NM 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION ☐ Water Shut-Off □ Acidize ☐ Production (Start/Resume) ☐ Deepen Notice of Intent ☐ Well Integrity ☐ Alter Casing Fracture Treat ☐ Reclamation ☐ Subsequent Report Other Change to Original A □ New Construction ☐ Recomplete Casing Repair ☐ Final Abandonment Notice ☐ Plug and Abandon Temporarily Abandon ☐ Change Plans Plug Back ☐ Water Disposal Convert to Injection 13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.) Devon Energy Production Co., LP respectfully requests permission to change the surface location of this well pursuant to a request from Barry Hunt as follows: Old Location: 66 FSL & 330 FEL Section 24-22S-30E New Location: 330 FNL & 330 FEL Section 25-22S-30E

14. Thereby certify th	For DEVO	N ENERGY PRODUCTION	ON CO I	BLM Well Information System L P, sent to the Carlsbad KWIG on 08/24/2004 (04LA0767SE)		
Name (Printed/Typ	ed) LINDA GUTHRIE		Title	REGULATORY SPECIALIST		
Signature	(Electronic Submission)		Date	08/23/2004		
	THIS SP	ACE FOR FEDERA	LOR	STATE OFFICE USE		
Approved By	homiams C	ond it	CTIN Title	STATE DIRECTOR	1 2 UC	2004
certify that the applican	if any, are attached. Approval of this t holds legal or equitable title to those applicant to conduct operations thereo	rights in the subject lease	Office	NM STATE OFFICE		

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.

# SECTION 24, TOWNSHIP 22 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF CO. RD. 128 AND STATE HWY 31, GO NORTHEAST ON HWY 31 TO A LEASE ROAD; THENCE EASTERLY ON LEASE ROAD FOR APPROX. 0.5 MILE TO PROPOSED LOCATION.

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

W.O. Number: 4252 | Drawn By: K. GOAD

Date: 05-09-2004 | Disk: KJG CD#4 - 4252A.DWG

SCALE: 1" = 100'

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

EF: APACHE "24" FED. No. 8 / Well Pad Topo

THE APACHE "24" FED. No. 8 LOCATED 66' FROM
THE SOUTH LINE AND 330' FROM THE EAST LINE OF
SECTION 24, TOWNSHIP 22 SOUTH, RANGE 30 EAST,

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

Survey Date: 05-06-2004 Sheet 1 of 1 Sheets

# Attachment A Master Drilling Program Delaware Formation on the Following Leases.

To be attached to Form 3160-3

UNIT AREA: Leases in the following sections, Townships and Ranges that are operated by Devon Energy Production Company, LP.

Lease Numbers as follows but not limited to:

Section	Lease Number	Description of Section	Township & Range
Section 12	NMNM89051	SE4/SE4	T22S R30E
Section 13	NMNM89051	E2, E2/SW4, SE4/NW4	T22S R30E
Section 24	NMNM89051	All of Section 24 except W2/NW4	T22S R30E
Section 25	NMNM89052	W2, NE4, S2/SE4	T22S R30E

If drilling is proposed on additional leases, the BLM will be advised when they are proposed.

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

Permian

#### 2. <u>Estimated Tops of Important Geologic Markers:</u>

Permian	Surface'
Base of Salt	3690'
Delaware	3950'
Bone Spring	7720'
Total Depth	7860'

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

Upper Permian Sands	100'	Fresh Water
Delaware	3950'	Oil
Delaware	7475'	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 approximately 620' and circulating cement back to surface. The Potash and salt will be protected by setting 9 5/8" casing at 3845' and circulating cement to surface. The 7" production casing to be set at TD will be cemented to surface.

#### 4. <u>Casing Program</u>:

Hole Size	Interval	Csg OD	Weight,	Grade	<u>Type</u>
17 ½"	0 – 620'	13 3/8"	48#	H-40	ST&C
12 1/4"	0 – 3845'	9 5/8"	36# & 40#	J55	ST&C
8 3/4"	0 – 7900'	7"	23# & 26#	J55	LT&C
6 1/8"	Horiz section	Open hole			

#### 5. Casing Cementing & Setting Depth:

13 3/8"

Surface:

Cement to surface with 350 sx 35:65 Poz Class C + 6% Bentonite + 2% CaCl2 + .25 lb/sk Cello Flake & tail

w/250 sx Class Class C + 2% CaCl2. Circulate cement

to surface.

WITNESS

9 5/8"

7"

Intermediate:

Cement to surface Lead w/977 sx 35:65 Poz Class C +

6% Bentonite +5% Sodium Chloride + .25 lbs/sk Cello Flake. Tail w/200 sx 60:40 Poz Class C + 4% MPA=1 + 5% Sodium Chloriade + .4% Sodium Metasilicate +

.25 lbs/sack Cello Flake. Circulate cement to surface.

WITNESS

Production:

Cement 1<sup>st</sup> Stage Lead w/ 225 sx 35:65 Poz Class C + 6% Bentonite + 3% Sodium Chloride + 0.3% FL-52 + 3 lb/sk LCM-1 + .25 lb/sack Cellow Flake + .25% R-3. Tail w/510 sx 60:40 poz Class C + 4% MPA-1 + 2% Sodium Chloride +1% BA-10 +.75% EC-1+2 lbs/sk Kol Seal + .25 lbs/sk Cello Flake. Stage 2 lead w/203 sx 35:65 Poz Class C + 6% Bentonite + 5% Sodium Chloride + .25 lbs/sk Cello Flake, tail w/200 sx 60:40 Poz Class C + 4% MPA-1 + 5% Sodium Chloride + .4% Sodium Metasilicate + .25 lb/sk Cello Flake.

Circulate cement to surface.

The above cement volumes could be revised pending the caliper measurement from the open hole logs.

#### 6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (3000 psi WP) preventer and bag-type (hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 ½" or 3 ½"(depending on the hole size being drilled) drill pipe rams on bottom. Both BOP's will be nippled up on the 13 3/8" surface csg and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 70% of rated working pressure (2100 psi).

Pipe rams will be operated and checked weekly and the blind rams each time the drill pipe is out of the hole. These functional tests will be documented on the drillers log. A

2" kill line and 3" choke line will be incorporated in the drilling spool below the ramtype 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 a fresh and Brine water mud systems. Depths of systems are as follows:

<u>Depth</u>	Type	Weight (ppg)	Viscosity (1/sec)	Water Loss
0'-620'	Fresh Water	8.8	40-45	NC
620' – 3845'	Brine Water	10	30	NC
3845' – TD	Fresh Water/Gel/Starch	8.5 - 9.0	30-32	50-60
Horiz Section	Fresh Water/Gel/Starch	8.5 - 9.0	30-32	50-60

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 will be in operation after drilling out the 9 5/8" casing shoe until 7" casing is cemented.

#### 8. Logging, Testing and Coring Program:

- A. Drillstem tests will be run on the basis of drilling shows.
- B. The open hole electrical logging program will be:
  - a. GR-AIT, GR-Compensated Neutron-Density from TD to 3845' and GR/CNL to surface. Selected SW cores may be taken in zones of interest.
  - b. No coring program is planned.
  - c. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

#### 9. <u>Abnormal Pressures, Temperatures and Potential Hazards:</u>

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 122 degrees and maximum bottom hole pressure is 3500 psi. No Hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation intervals have been encountered in adjacent wells.

#### 10. Anticipated Starting Date and Duration of Operations: