

EC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		R-111-POTASH	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. APACHE 25 FEDERAL 14	
2. Name of Operator DEVON ENERGY PRODUCTION CO L P		9. API Well No. 30-015-33791	
3a. Address 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY, OK 73102		10. Field and Pool, or Exploratory QUAHADA RIDGE	
3b. Phone No. (include area code) Ph: 405.228.8209 Fx: 405.552.4621		11. Sec., T., R., M., or Blk. and Survey or Area Sec 25 T22S R30E Mer NMP SME: BLM	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENE 1254FNL 330FEL At proposed prod. zone NWNW 330FNL 330FEL <i>per telephone call w/ Linda Guthrie 7/29/04 JDR</i>		12. County or Parish EDDY	
14. Distance in miles and direction from nearest town or post office*		13. State NM	
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		17. Spacing Unit dedicated to this well 40.00	
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 3370 GL		22. Approximate date work will start 09/01/2004	
23. Estimated duration			

24. Attachments

CARLSBAD CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

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

25. Signature (Electronic Submission)	Name (Printed/Typed) LINDA GUTHRIE	Date 07/26/2004
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Title
REGULATORY SPECIALIST

Approved by (Signature) <i>William S. Condit</i>	Name (Printed/Typed) William S. Condit	Date 22 SEP 2004
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Title
ACTING STATE DIRECTOROffice
NM STATE OFFICEApplication approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

NSL SISZ (BHL) (CSD)

Electronic Submission #33561 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO L P, sent to the Carlsbad
Committed to AFMSS for processing by ARMANDO LOPEZ on 07/27/2004 (04AL0289AE)APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHEDWitness Surface &
Intermediate Casing

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

Additional Operator Remarks:

Devon Energy Production Company, LP proposes to drill this well per the approved Master Drilling and Surface Use Plan, Attachment A, for the Quahada Ridge, SE Field, Delaware Formation to 7860' for commercial quantities of oil and gas. If the well is deemed noncommercial, the well bore will be plugged and abandoned per Federal regulations.

Directions to location: On WIPP road, go 0.6 mile past MM2; then 1.7 miles on lease road and El Paso /r/W, then south 0.8 mile to location.

No additional roads will be required.

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	Pool Name
Property Code	Property Name APACHE "25" FEDERAL	Well Number 14
OCRID No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.	Elevation 3370'

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	25	22 S	30 E		1254	NORTH	330	EAST	EDDY

Bottom Hole Location If Different From Surface

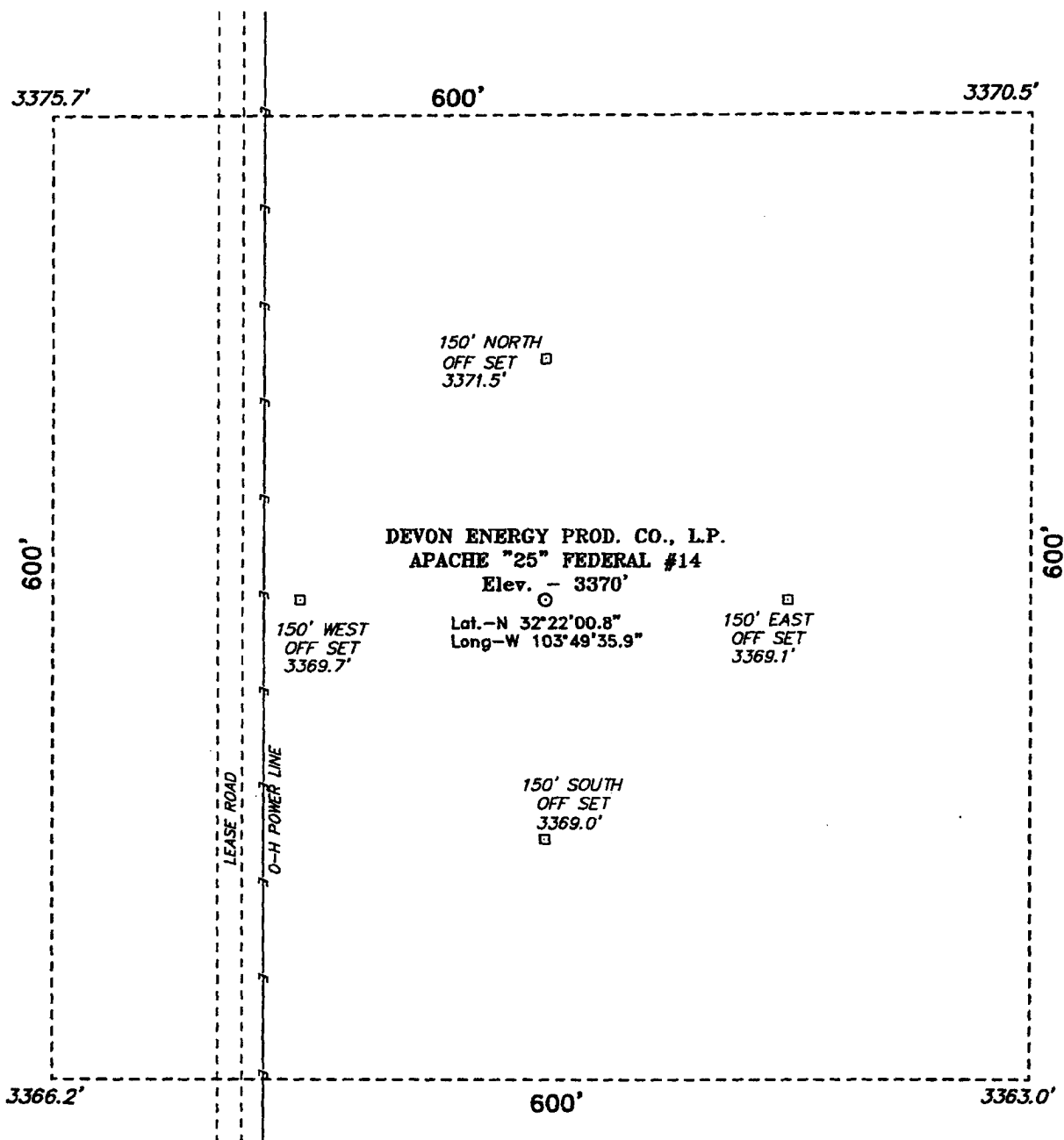
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	25	22 S	30 E		330	FNL	330	FWL	Eddy

Dedicated Acres 4.8160	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

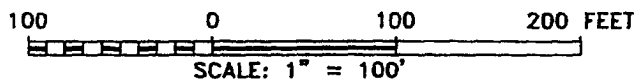
	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Linda Guthrie Printed Name Regulatory Specialist Title 07/23/04 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. JULY 2, 2004' Date Surveyed
	Signature & Seal of Professional Surveyor
	Certificate No. Gary L. Jones 7977 BASIN SURVEYS

SECTION 25, TOWNSHIP 22 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

ON WIPP ROAD, GO 0.6 MILE PAST MM 2; THENCE
1.7 MILE ON LEASE ROAD AND EL PASO R/W;
THENCE SOUTH 0.8 MILE TO LOCATION.



DEVON ENERGY PROD. CO., L.P.

REF: APACHE "25" FED. No. 14 / Well Pad Topo

THE APACHE "25" FED. No. 14 LOCATED 1254' FROM
THE NORTH LINE AND 330' FROM THE EAST LINE OF
SECTION 25, TOWNSHIP 22 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 4393

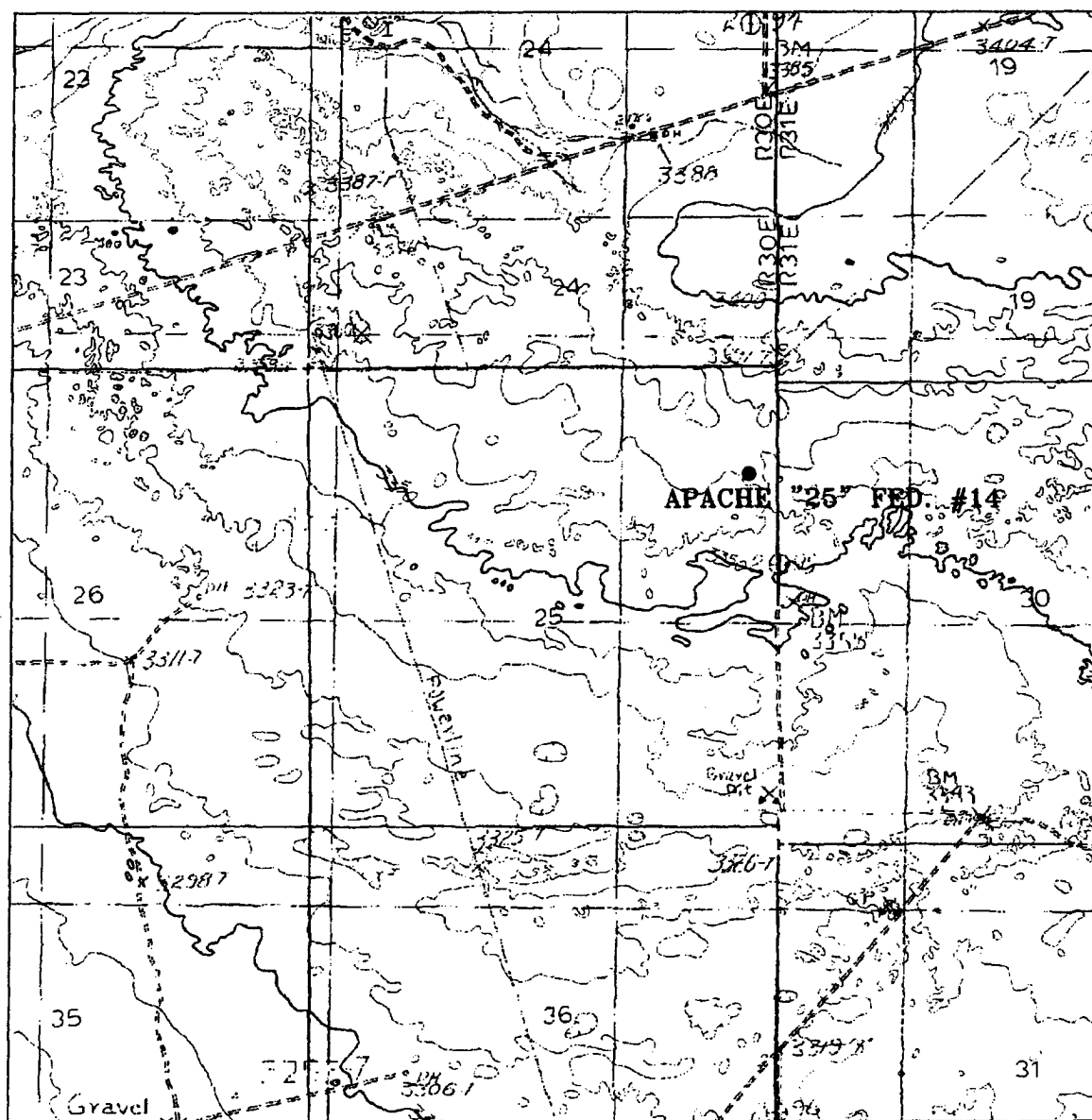
Drawn By: K. GOAD

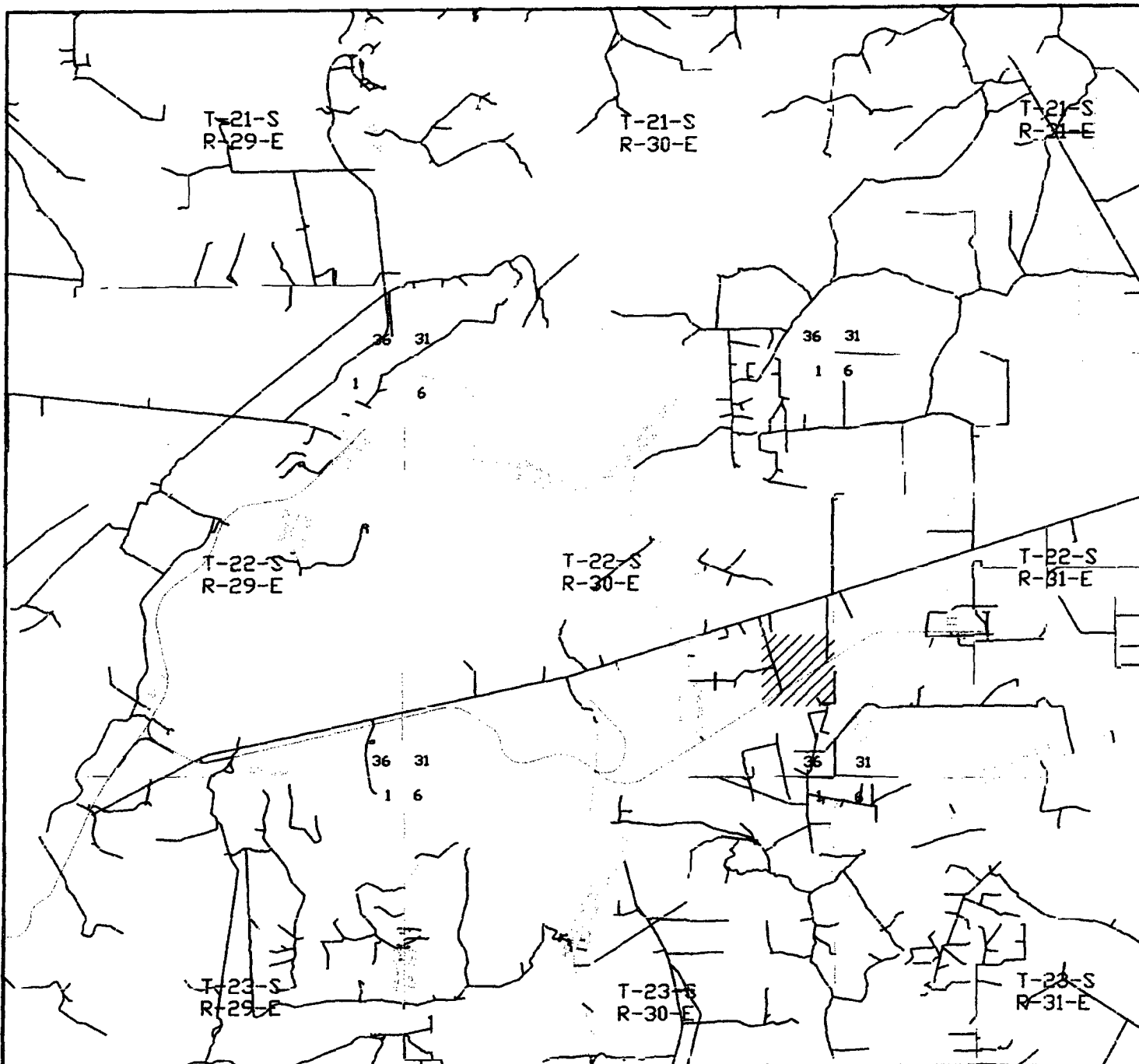
Date: 07-01-2004

Disk: KJG CD#4 - 4393A.DWG

Survey Date: 06-29-2004

Sheet 1 of 1 Sheets





APACHE "25" FEDERAL 14
 Located at 1254' FNL and 330' FEL
 Section 25, Township 22 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (505) 393-7316 - Office
 (505) 392-3074 - Fax
 basin-surveys.com

W.O. Number: 4426AA - KJG #1

Survey Date: 07-02-2004

Scale: 1" = 2 MILES

Date: 07-02-2004

DEVON ENERGY
 PROD. CO., L.P.

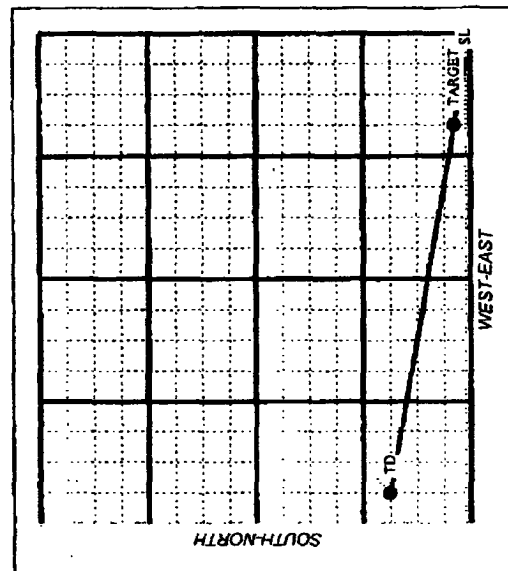
Directional Well Planner
Ramp-Shaped Well

FILE Apache 24-9 dir proposal.XLS

devon

Apache 25 Fed #14
Quahada Ridge (Del)
Sec 25, T22S, R30E

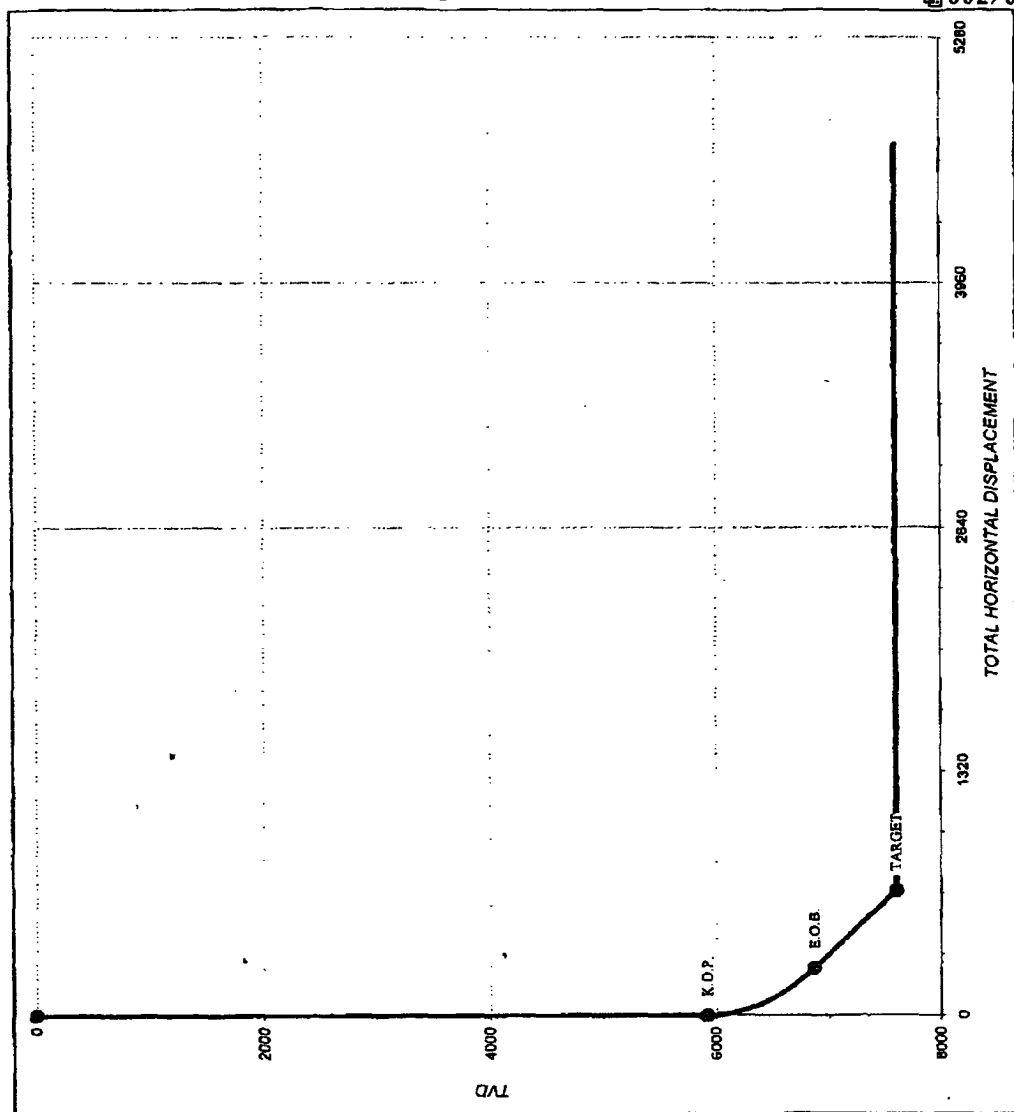
Blount
5/4/2004



Design Data	MD	TVD	Total Disp.
Kick Off Point	5.922	5.922	0
End of Build	6.922	6.877	256
TD	7.757	7.600	573

	Azimuth: N 78.69° W
	Build Rate (Deg/100'): 3.00°
	Ramp Angle (Deg): 30.00°

Locations & Targets	MD	TVD	Distance	Block No.
Surface	0	0		
Target	7.757	7.600		
BHL	7.757	7.600		
ZONE OF INTEREST	7.728	7.575		





United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201

IN REPLY REFER TO:

JUN 15 2004

Devon Energy Production Company, L.P.
Attn. Ms Linda Guthrie
20 North Broadway, Suite 1500
Oklahoma City, Oklahoma 73102-8260

Re: Master Drilling and Surface Use Plan
Delaware Formation
T. 22 S., R. 30 E., Sections 12, 13, 24, & 25
Eddy County, New Mexico

The Attachment A to the master drilling and surface use plan, dated May 28, 2004, for the Delaware formation in sections cited above is now approved. This amendment accommodates changes in casing design and cementing for drilling several horizontal wells located in the above sections. An approved copy is attached for your records.

If you have any questions, please contact Alexis C. Swoboda, P.E. at 505-627-0228.

Sincerely,

Larry D. Bray
Assistant Field Manager
Lands and Minerals

devon

RECEIVED

2004 JUN -1 AM 11:08

BUREAU OF LAND MANAGEMENT
POSTAL OFFICEDevon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-6260

May 28, 2004

Bureau of Land Management
Attn: Armando Lopez
2909 West Second Street
Roswell, NM 88201Re: Master Drilling and Surface Use Program
Delaware Formation in Sec 12, 13, 24 and 25, T22S R30E**R-111-P-POTASH**

Dear Armando:

I am submitting an Attachment A to the currently approved Master Drilling and Surface Use Program to be utilized in the drilling of several horizontal wells located in the above sections. I have electronically submitted three (3) APD's that I wish to utilize the drilling plan outlined in the Attachment A.

Please contact me if you have any questions or need additional information. Thanks for your help.

Sincerely,

Linda Guthrie
Regulatory Specialist

Enclosure

1

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

RECEIVED
 2004 JUN -1 AM 11:39
 BUREAU OF LAND MGMT.
 ROGERS OFFICE

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

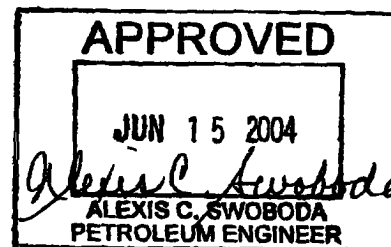
If drilling is proposed on additional leases, the BLM will be advised when they are proposed.

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

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.

2

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg OD</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>
17 1/2"	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.
- 9 5/8" 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 Chloride + .4% Sodium Metasilicate + .25 lbs/sack Cello Flake. Circulate cement to surface.
- 7" Production: Cement 1st 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 Cello 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 1/2" or 3 1/2" (depending on the hole size being drilled) drill pipe rams on bottom. Both BOP's will be nipped 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

3

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 a fresh and Brine water mud systems. Depths of systems are as follows:

Depth	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 7" 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 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:

4

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date will be provided with each well application. The drilling operation should require approximately 45 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether the well will be connected to an existing production facility.