

Form 3160-3
(August 1999)

EC

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

I-04-05

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM89051

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
APACHE 24 FEDERAL 9

9. API Well No.

30-015-33616
10. Field and Pool, or Exploratory
QUAHADA RIDGE SE DELAWARE

11. Sec., T., R., M., or Blk. and Survey or Area

Sec 24 T22S R30E Mer NMP
SME: BLM12. County or Parish
EDDY13. State
NM17. Spacing Unit dedicated to this well
40.00

20. BLM/BIA Bond No. on file

23. Estimated duration
30 DAYS

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 GUTHRIEDate
05/28/2004Title
REGULATORY SPECIALIST

Approved by (Signature)

Name (Printed/Typed)

Date

151 JANICE L. GAMBY

151 JANICE L. GAMBY

AUG 25 2004

Title
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.

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.

Additional Operator Remarks (see next page)

Electronic Submission #31231 verified by the BLM Well Information System
For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad
Committed to AFMSS for processing by ARMANDO LOPEZ on 06/01/2004 (04AL0193AE)APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

A15L 5110 (BHL) (SD)

Additional 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 approx 0.7 miles to proposed location.

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

Form C-102
Revised March 17, 1999

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

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

API Number		Pool Code 50443	Pool Name Quahada Ridge SE Delaware
Property Code	Property Name APACHE "24" FEDERAL		Well Number 9
OGRIID No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.		Elevation 3404'

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	24	22 S	30 E		1386	SOUTH	330	EAST	EDDY

UL or lot No. L	Section 24	Township 22 S	Range 30 E	Lot Idn	Feet from the 2310	North/South line SOUTH	Feet from the	East/West line WEST	County EDDY
Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.						

	OPERATOR CERTIFICATION <i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</i> <u>Linda Guthrie</u> Signature Linda Guthrie Printed Name Regulatory Specialist Title March 26, 2004 Date
	SURVEYOR CERTIFICATION <i>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.</i> MAY 6, 2004 Date Surveyed <u>GARY L. JOHNS</u> Signature & Seal of Professional Surveyor W.O. No. 4253 Certificate No. GARY L. JOHNS 7977

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
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
RECEIVED
JUN 04 2004
Oil Conservation Division
220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
March 12, 2004

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

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Devon Energy Production Company, LP Telephone: (405) 228-8209 e-mail address: linda.guthrie@dvn.com
Address: 20 N Broadway, Suite 1500 Oklahoma City, OK 73102-8260
Facility or well name: Apache 24 Fed 9 API #: _____ U/L or Qtr/Qtr rese Sec 24 T 22S R 30E
County: Eddy Latitude _____ Longitude _____ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 20 mil Clay ☐ Volume _____ bbl

Below-grade tank

Volume: _____ bbl Type of fluid: _____

Construction material: _____

Double-walled, with leak detection? Yes ☐ If not, explain why not. _____

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet (20 points)
50 feet or more, but less than 100 feet (10 points)
100 feet or more (0 points)

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes (20 points)
No (0 points)

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet (20 points)
200 feet or more, but less than 1000 feet (10 points)
1000 feet or more (0 points)

Ranking Score (Total Points)

0

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:

onsite ☐ offsite ☐ If offsite, name of facility _____. (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface _____ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

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: 05/28/04

Printed Name/Title Linda Guthrie Regulatory Specialist Signature Linda Guthrie

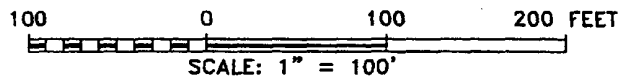
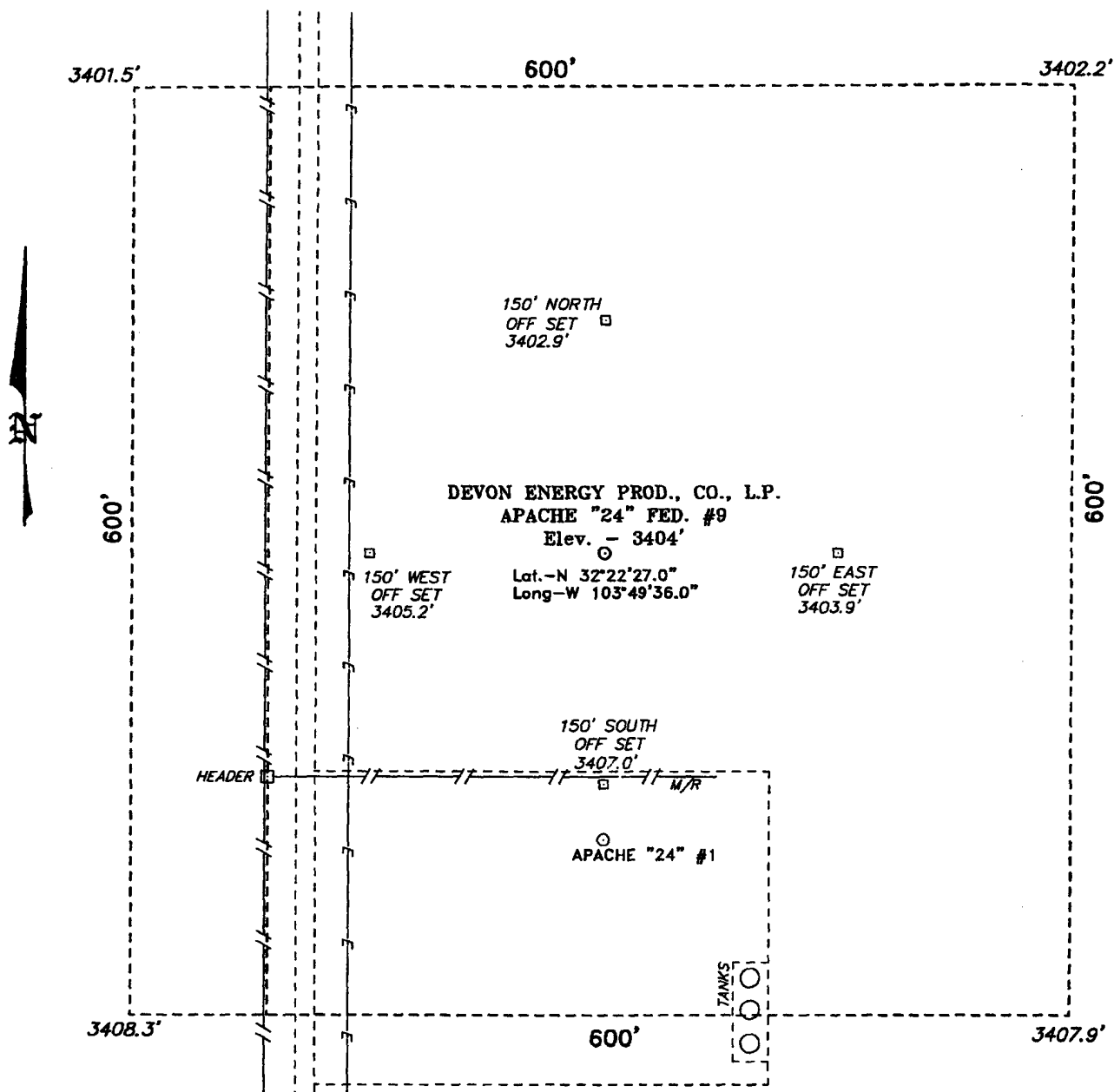
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval: JUN 8 2004 Child Rep ID

Date: _____ Signature: _____

Printed Name/Title: _____

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. 10 MILES; THENCE NORTH ON LEASE ROAD FOR APPROX. 0.7 MILE TO PROPOSED LOCATION.

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

W.O. Number: 4253

Drawn By: K. GOAD

Date: 05-09-2004

Disk: KJG CD#4 - 4253A.DWG

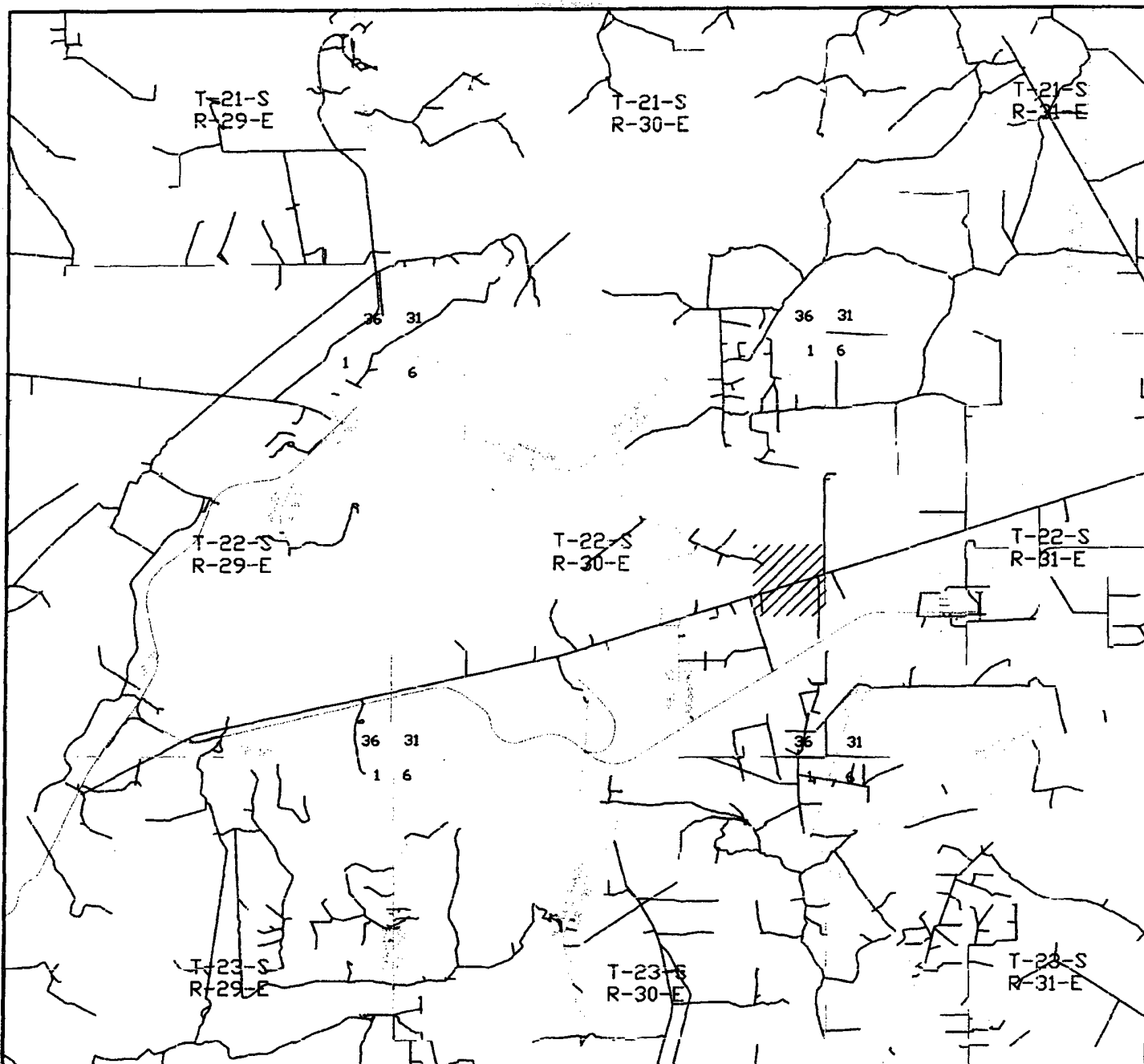
DEVON ENERGY PROD. CO., L.P.

REF: APACHE "24" FED. No. 9 / Well Pad Topo

THE APACHE "24" FED. No. 9 LOCATED 1386' 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



APACHE "24" FEDERAL #9
 Located at 1386' FSL and 330' FEL
 Section 24, 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
 basinsurveys.com

W.O. Number: 4253AA - KJG #1

Survey Date: 05-06-2004

Scale: 1" = 2 MILES

Date: 05-07-2004

DEVON ENERGY
 PROD. CO., L.P.

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. 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.

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% CaCl ₂ + .25 lb/sk Cello Flake & tail w/250 sx Class Class C + 2% CaCl ₂ . 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 1 st 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.

WITNESS

WITNESS

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

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:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (1/sec)</u>	<u>Water Loss</u>
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 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 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:

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.

**Directional Well Planner
Ramp-Shaped Well**

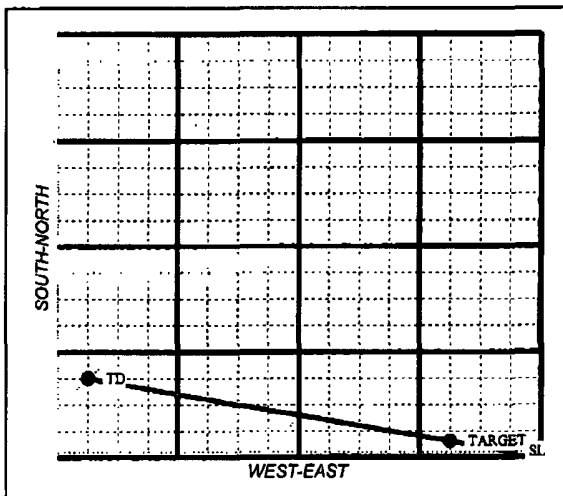
FILE Apache 24-9 dir proposal.XLS

30-015-33616

devon
**Apache 24 Fed #9
Quahada Ridge (Del)
Sec 24, T22S, R30E**

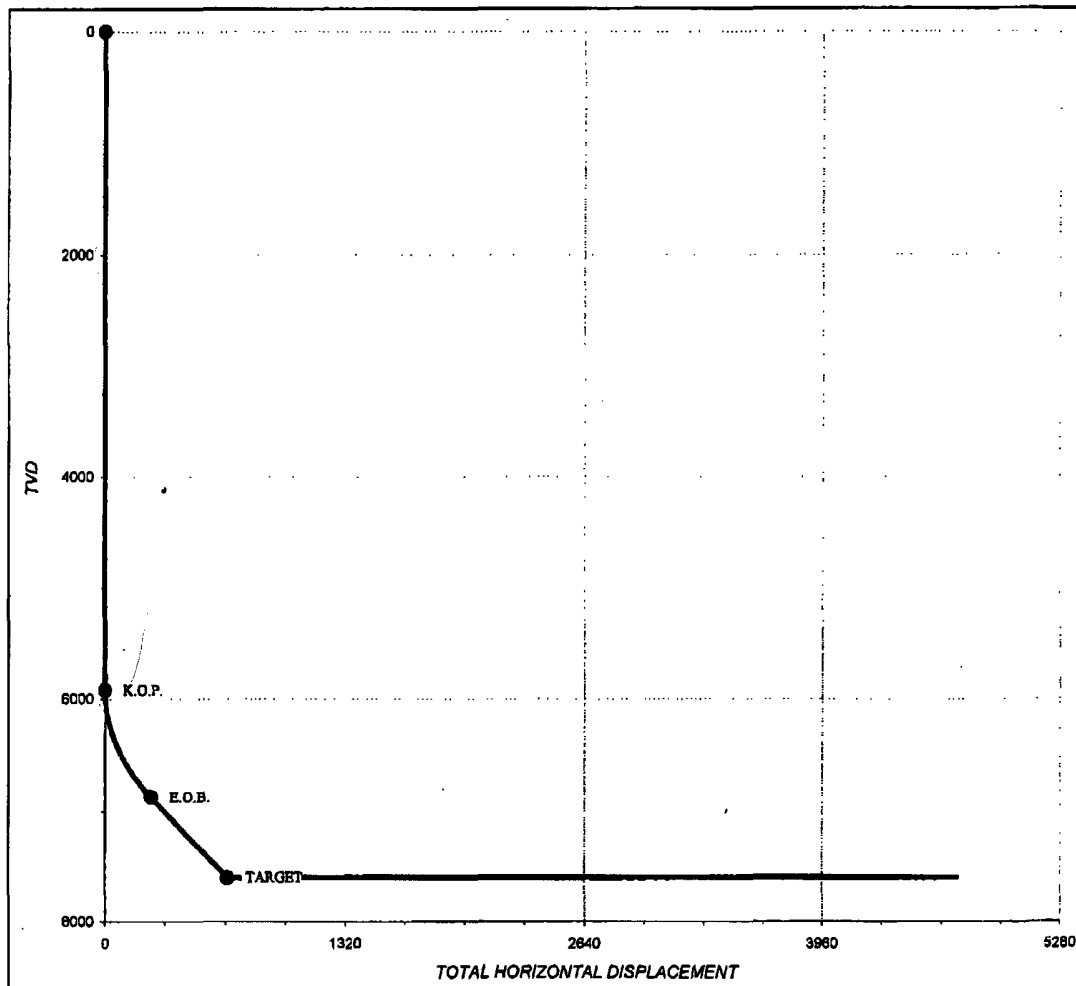
devon

Blount
5/4/2004



Design Data	MD	TVD	Total Disp.	
Kick Off Point	5,922	5,922	0	Azimuth: N 78.69° W
End of Build	6,922	6,877	256	Build Rate (Deg/100'): 3.00°
TD	7,757	7,600	673	Ramp Angle (Deg): 30.00°

Locations & Targets	MD	TVD	Distance	Distance	Block No.
Surface	0	0			
Target	7,757	7,600			
BHL	7,757	7,600			
ZONE OF INTEREST	7,728	7,575			



09/02/2004 13:25 FAX 4055524621

DEVON ENERGY

→ OCD

002

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 50443	Pool Name Quahada Ridge SE Delaware
Property Code	Property Name APACHE "24" FEDERAL	Well Number 9
OGRB No. 6137	Operator Name DEVON ENERGY PRODUCTION CO., L.P.	Elevation 3404'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	24	22 S	30 E		1386	SOUTH	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
L	24	22 S	30 E		2310	SOUTH	330	WEST	EDDY
Dedicated Acres 160	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

	OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature Linda Guthrie Printed Name Regulatory Specialist Title March 26, 2004 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. MAY 6, 2004 Date Surveyed Signature & Seal Professional Surveyor Certificate No. Gary L. Jones 7977

BLM Lease Number: NM-89051

Well Name & Number: Apache 24 Federal #9

Location: SHL: 1386 FSL & 330 FEL, Sec. 24, T.22S, R.30E
BHL: 2310 FSL & 330 FWL

Operator: Devon Energy Production Co L P

SPECIAL CONDITION OF APPROVAL

Your proposed well location falls within 330 feet of the Department of Energy's (DOE) Waste Isolation Pilot Plant (WIPP) boundary.

In accordance with 43 CFR 3162.4-2 and pursuant to a Memorandum of Understanding (MOU) between BLM & DOE, the operator is required to submit daily drilling reports (including borehole deviation survey results) by facsimile to Mr. Doug Lynn of DOE's WIPP Office [FAX #: (505) 885-0974; Phone #: (505) 234-8739].

The operator is also required to perform a directional survey to establish bottom hole location on wells that experience deviation averages of more than five degrees from vertical in any 500-foot interval.