Submit 3 Copies To Appropriate District Office
District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Ave , Artesia, NM 88210
District III
1000 Rio Brazos Rd , 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

Form C-103
May 27, 2004

WELL API NO.
30-015-34782

5. Indicate Type of Lease
STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS)

7. Lease Name or Unit Agreement Name
Hackberry 31 State

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

8. Well Number
2

2. Name of Operator
Devon Energy Production Company, LP

9. OGRID Number
6137

3. Address of Operator
20 North Broadway Oklahoma City, Oklahoma 73102-8260 (405) 552-7802

10. Pool name or Wildcat
Sheep Draw Morrow; Gas (85160)

4 Well Location
Unit Letter P : 920 feet from the South line and 1310 feet from the East line
Section 31 Township 22S Range 26E NMPM Eddy County, NM

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3381'

Pit or Below-grade Tank Application ☐ or Closure ☐

Pit type_____ Depth to Groundwater_____ Distance from nearest fresh water well_____ Distance from nearest surface water_____

Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☒	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
OTHER: CHANGES TO APD; INSERT 7" & 4 ½' LONG STRING	☒			OTHER:			☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Devon Energy Production Co., respectfully advises of change in the initial APD to add or change the following:

7" Casing Design for 8 ¾" Hole: (Circ cement to surf)
7" 26# N-80 LTC 0' – 800'
7" 26# J-55 LTC 800' – 7000'
7" 26# N-80 LTC 7000' – 8600'

4 ½"Long String for 6 1/8" Hole:
4 ½ 11.6# HCP-110 8600' – 11675'
Long string will be run and cemented with cement lifted 500' into the 7" casing shoe. TOL @ ~8100'

See attached cementing report for cement changes for the 7" casing design and insertion of 4 ½" long string.

Note: City of Carlsbad RESPEC consultant Dave Henard & Richard Aguilar to be notified of change per City of Carlsbad Sheep Draw Wellhead Protection Area permit requirements.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that any 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 ☐.**

SIGNATURE _____ TITLE Sr. Staff Engineering Technician DATE 01/30/08

Type or print name Stephanie A. Ysasaga E-mail address: Stephanie.Ysasaga@dvn.com Telephone No. (405) 552-7802

For State Use Only

APPROVED BY: BRYAN G. ARRANT DISTRICT II GEOLOGIST TITLE _____ DATE JAN 30 2008

Conditions of Approval (if any):

Proposal No: 440150077G

Devon Energy Corp
Hackberry 31 State #2

API # 30-015-34782-0000
Happy Valley Field
Sec. 31-22S-26E
Eddy County, New Mexico
January 29, 2008

Well Recommendation

Prepared for:
Don Jennings
Drilling Engineer Supervisor
Oklahoma City, Oklahoma
Bus Phone: (405) 552-3309

Prepared by:
John Parks
Region Technical Rep.
Oklahoma City, Oklahoma
Bus Phone: (405) 228-4302

THE BLUE WELLBORE℠
Makes better wells

Service Point:
Artesia
Bus Phone: (505) 746-3140
Fax: (505) 746-2293

Service Representatives:
Michael Palmer
District Sales Supervisor
Artesia, New Mexico

Operator Name: Devon Energy Corp
Well Name: Hackberry 31 State #2
Job Description: 7" Production Casing Option
Date: January 29, 2008

Proposal No: 440150077G

JOB AT A GLANCE

Depth (TVD)	8,600 ft
Depth (MD)	8,600 ft
Hole Size	8.75 in
Casing Size/Weight :	7 in, 26 lbs/ft
Pump Via	7" O.D. (6.276" I.D) 26
Total Mix Water Required	10,902 gals
Stage No: 1	**Float Collar set @** 8,520 ft
Spacer	
Mud Clean II	1,500 gals
Density	8.3 ppg
Cement Slurry	
60:40 Poz:Class H (MPA)	815 sacks
Density	13.8 ppg
Yield	1.35 cf/sack
Displacement	
Displacement Fluid	326 bbls

JOB AT A GLANCE (Continued)

Stage No: 2	**Stage Collar set @** 4,500 ft
Spacer	
Fresh Water	10 bbls
Density	8.3 ppg
Lead Slurry	
35:65:6 Poz:Class C	420 sacks
Density	12.5 ppg
Yield	2.04 cf/sack
Tail Slurry	
60:40 Poz:Class C (MPA)	200 sacks
Density	13.8 ppg
Yield	1.37 cf/sack
Displacement	
Displacement Fluid	172 bbls

Operator Name: Devon Energy Corp
Well Name: Hackberry 31 State #2
Job Description: 7" Production Casing Option
Date: January 29, 2008

Proposal No: 440150077G

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
8.835 CASING	1,600	1,600
8.750 HOLE	8,600	8,600

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
7.000	6.276	26	8,600	8,600

STAGE: 1

Float Collar set @	8,520 ft
Mud Density	9.50 ppg
Est. Static Temp.	157 ° F
Est. Circ. Temp.	131 ° F

VOLUME CALCULATIONS

4,100 ft	x	0.1503 cf/ft	with	75 % excess	=	1078.6 cf
80 ft	x	0.2148 cf/ft	with	0 % excess	=	17.2 cf (inside pipe)
				TOTAL SLURRY VOLUME	=	1095.8 cf
					=	195 bbls

STAGE: 2

Stage Collar set @	4,500 ft
Mud Density	9.50 ppg
Est. Static Temp.	121 ° F
Est. Circ. Temp.	102 ° F

VOLUME CALCULATIONS

1,600 ft	x	0.1585 cf/ft	with	0 % excess	=	253.6 cf
2,000 ft	x	0.1503 cf/ft	with	100 % excess	=	601.3 cf
900 ft	x	0.1503 cf/ft	with	100 % excess	=	270.6 cf
				TOTAL SLURRY VOLUME	=	1125.5 cf
					=	201 bbls

Operator Name: Devon Energy Corp
Well Name: Hackberry 31 State #2
Job Description: 7" Production Casing Option
Date: January 29, 2008

Proposal No: 440150077G

FLUID SPECIFICATIONS

STAGE NO.: 1

Spacer — 1,500.0 gals Mud Clean II @ 8.34 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	1096	/ 1.35	= 815 sacks (60:40) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.75% bwoc BA-10A + 0.15% bwoc R-3 + 0.125 lbs/sack Cello Flake + 2 lbs/sack Kol Seal + 4% bwoc MPA-1 + 61.2% Fresh Water

Displacement — 326.0 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1
Slurry Weight (ppg)	13.80
Slurry Yield (cf/sack)	1 35
Amount of Mix Water (gps)	6.02
Estimated Pumping Time - 70 BC (HH:MM)	4:00
Free Water (mls) @ 121 ° F @ 90 ° angle	0.0
Fluid Loss (cc/30min) at 1000 psi and 121 ° F	100.0
COMPRESSIVE STRENGTH	
12 hrs @ 157 ° F (psi)	1200
24 hrs @ 157 ° F (psi)	2000
72 hrs @ 157 ° F (psi)	2700

FLUID SPECIFICATIONS (Continued)

STAGE NO.: 2

Spacer — 10.0 bbls Fresh Water @ 8.34 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Lead Slurry	855	/ 2.04	= 420 sacks (35:65) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 6% bwoc Bentonite + 107.8% Fresh Water
Tail Slurry	271	/ 1.37	= 200 sacks (60:40) Poz (Fly Ash):Premium Plus C Cement + 5% bwow Sodium Chloride + 0.125 lbs/sack Cello Flake + 0.3% bwoc Sodium Metasilicate + 4% bwoc MPA-1 + 64.7% Fresh Water

Displacement — 172.2 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.50	13.80
Slurry Yield (cf/sack)	2.04	1.37
Amount of Mix Water (gps)	11.24	6.36
Estimated Pumping Time - 70 BC (HH:MM)	3:30	2:30
Free Water (mls) @ ° F @ 90 ° angle		
Fluid Loss (cc/30min) at 1000 psi and ° F		
COMPRESSIVE STRENGTH		
12 hrs @ 112 ° F (psi)	250	
24 hrs @ 112 ° F (psi)	400	
72 hrs @ 112 ° F (psi)	800	
12 hrs @ 121 ° F (psi)		800
24 hrs @ 121 ° F (psi)		1800
72 hrs @ 121 ° F (psi)		2500

Operator Name: Devon Energy Corp
Well Name: Hackberry 31 State #2
Job Description: 4 1/2" Long String Option
Date: January 29, 2008

Proposal No: 440150077G

JOB AT A GLANCE

Depth (TVD)	11,675 ft
Depth (MD)	11,675 ft
Hole Size	6.125 in
Casing Size/Weight :	4 1/2 in, 11.6 lbs/ft
Pump Via	4 1/2" O.D. (4.000" .I.D) 11.6
Total Mix Water Required	2,138 gals
Spacer	
Turbo Flow III	30 bbls
Density	11.5 ppg
Spacer	
Water	5 bbls
Density	8.3 ppg
Spacer	
Surebond III	1,000 gals
Density	9.4 ppg
Spacer	
Water	10 bbls
Density	8.3 ppg
Cement Slurry	
Super C Modified	280 sacks
Density	13.3 ppg
Yield	1.57 cf/sack
Displacement	
Displacement Fluid	180 bbls

Operator Name: Devon Energy Corp
Well Name: Hackberry 31 State #2
Job Description: 4 1/2" Long String Option
Date: January 29, 2008

Proposal No: 440150077G

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D. (in)	DEPTH(ft)	
	MEASURED	TRUE VERTICAL
6.276 CASING	8,600	8,600
6.125 HOLE	11,675	11,675

SUSPENDED PIPES

DIAMETER (in)		WEIGHT (lbs/ft)	DEPTH(ft)	
O.D.	I.D.		MEASURED	TRUE VERTICAL
4.500	4.000	11.6	11,675	11,675

Float Collar set @	11,595 ft
Mud Density	9.50 ppg
Est. Static Temp.	191 ° F
Est. Circ. Temp.	151 ° F

VOLUME CALCULATIONS

500 ft	x	0.1044 cf/ft	with	0 % excess	=	52.2 cf
3,075 ft	x	0.0942 cf/ft	with	30 % excess	=	376.4 cf
80 ft	x	0.0873 cf/ft	with	0 % excess	=	7.0 cf (inside pipe)
				TOTAL SLURRY VOLUME	=	435.6 cf
					=	78 bbls

Operator Name: Devon Energy Corp
Well Name: Hackberry 31 State #2
Job Description: 4 1/2" Long String Option
Date: January 29, 2008

Proposal No: 440150077G

FLUID SPECIFICATIONS

Spacer	30.0 bbls Turbo Flow III @ 11.5 ppg
Spacer	5.0 bbls Water @ 8.34 ppg
Spacer	1,000.0 gals Surebond III @ 9.35 ppg
Spacer	10.0 bbls Water @ 8.34 ppg

FLUID	VOLUME CU-FT	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT
Cement Slurry	436	/ 1.57	= 280 sacks (15:61:11) Poz (Fly Ash):Premium Plus C Cement:CSE-2 + 0.35% bwoc R-3 + 1% bwow Potassium Chloride + 0.75% bwoc EC-1 + 0.125 lbs/sack Cello Flake + 0.4% bwoc CD-32 + 2 lbs/sack LCM-1 + 0.6% bwoc FL-25 + 0.6% bwoc FL-52A + 73.2% Fresh Water
Displacement			180.2 bbls Displacement Fluid

CEMENT PROPERTIES

	SLURRY NO. 1
Slurry Weight (ppg)	13.30
Slurry Yield (cf/sack)	1.57
Amount of Mix Water (gps)	7.64
Estimated Pumping Time - 70 BC (HH:MM)	3:00
Free Water (mls) @ 151 ° F @ 90 ° angle	0.0
Fluid Loss (cc/30min) at 1000 psi and 151 ° F	40.0
COMPRESSIVE STRENGTH	
12 hrs @ 191 ° F (psi)	1400
24 hrs @ 191 ° F (psi)	2000
72 hrs @ 191 ° F (psi)	2500

ACTUAL CEMENT VOLUME MAY VARY BASED ON CALIPER.

BATCH MIX THE SUPER C MODIFIED CEMENT SLURRY IF FALCON CEMENT PUMP IS NOT AVAILABLE.