Form 3160-5
(June 1990)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
811 S. 1st Stre
Artesia, NM 88210-2834

C15F

FORM APPROVED
Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals

SUBMIT IN TRIPLICATE

1. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Designation and Serial No.: NM-0404441
2. Name of Operator: DEVON ENERGY PRODUCTION COMPANY, LP.	6. If Indian, Allottee or Tribe Name:
3. Address and Telephone No.: 20 NORTH BROADWAY, SUITE 1500, OKLAHOMA CITY, OKLAHOMA 73102 (405) 235-3611	7. If Unit or CA, Agreement Designation:
4. Location of Well (Footage. Sec., T., R., M., or Survey Description): 1980' FNL & 1980' FEL, Section 13-23S-31E, Unit "G"	8. Well Name and No.: Todd "13G" Federal #21
	9. API Well No.: 30-015-
	10. Field and Pool, or Exploratory Area: Sand Dunes (Delaware)
	11. County or Parish, State: Eddy County, NM

RECEIVED
OCD - ARTESIA

CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION	
☒ Notice of Intent	☐ Abandonment	☐ Change of Plans
☐ Subsequent Report	☐ Recompletion	☐ New Construction
☐ Final Abandonment Notice	☐ Plugging Back	☐ Non-Routine Fracturing
	☐ Casing Repair	☐ Water Shut-Off
	☐ Altering Casing	☐ Conversion to Injection
	☒ Other Change depth	☐ Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

The original Application for Permit to Drill, Form 3160-3, was approved on 12/05/00 for a proposed depth of 6400' in the Cherry Canyon formation. Devon Energy Production Company, L.P. requests to amend the depth to 8750' in the Delaware Bone Springs formation.

0 – 4400' 8 5/8" 32# J55 LT&C – Cmt to surface

0 – 900' 5 ½" 17# J55 LT&C

900' – 7300' 5 ½" 15.5# J55 LT&C

7300' – 8750' 5 ½" 17# J55 LT&C

Cmt 5 ½" in 2 stages. 1 stage 620 sx/ Class H. Stage collar @ 5,500'. Cmt stage 2 w/370 sx Class C. The cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach 100' above the baseof the 8 5/8" csg.

Please see the attached casing design for design conditions.

14. I hereby certify that the foregoing is true and correct

Signed Karen Cottom — Karen A. Cottom — Title Engineering Technician — Date June 19, 2001

(This space for Federal or State office use)

Approved by (ORIG. SGD.) ALEXIS C. SWOBODA — Title PETROLEUM ENGINEER — Date JUN 21 2001

Conditions of approval, if any:

Title 18 U.S.C. Section 1001, makes 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 to any matter within its jurisdiction.

***See Instruction on Reverse Side**

Well name:	**Todd Federal**
Operator:	**Devon Energy Production Company, L.P.**
String type:	Surface
Location:	T23S-R31E, Eddy County, NM

Design parameters:

Collapse
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 765 psi
Internal gradient: 0.335 psi/ft
Calculated BHP 1,050 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 738 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 87 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 850 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 4,400 ft
Next mud weight: 9.800 ppg
Next setting BHP: 2,240 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 4,400 ft
Injection pressure 4,400 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	850	13.375	48.00	H-40	ST&C	850	850	12.59	10541

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	397	740	1.86	1050	1730	1.65	40.8	322	7.89 J

Devon Energy

Date: June 19,2001
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 850 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name: **Todd Federal**
Operator: **Devon Energy Production Company, L.P.**
String type: Intermediate
Location: T23S-R31E, Eddy County, NM

Design parameters:

Collapse
Mud weight: 10.000 ppg
Internal fluid density: 0.200 ppg

Burst
Max anticipated surface pressure: 1,882 psi
Internal gradient: 0.248 psi/ft
Calculated BHP 2,971 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 3,747 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 137 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 850 ft

Non-directional string.

Re subsequent strings:
Next setting depth: 8,800 ft
Next mud weight: 9.000 ppg
Next setting BHP: 4,114 psi
Fracture mud wt: 13.000 ppg
Fracture depth: 4,400 ft
Injection pressure 2,971 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
1	4400	8.625	32.00	J-55	LT&C	4400	4400	7.875	35458

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	2240	2530	1.13	2971	3930	1.32	140.8	417	2.96 J

Date: June 19,2001
Oklahoma City, Oklahoma

Devon Energy

Remarks:
Collapse is based on a vertical depth of 4400 ft, a mud weight of 10 ppg An internal gradient of .01 psi/ft was used for collapse from TD to
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**Todd Federal**
Operator:	**Devon Energy Production Company, L.P.**
String type:	Production
Location:	T23S-R31E, Eddy County, NM

Design parameters:

Collapse
Mud weight: 9.000 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,216 psi
Internal gradient: 0.100 psi/ft
Calculated BHP 4,091 psi

No backup mud specified.

Minimum design factors:

Collapse:
Design factor 1.125

Burst:
Design factor 1.00

Tension:
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 7,635 ft

Estimated cost: 31,703 ($)

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 198 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 850 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Est. Cost ($)
3	900	5.5	17.00	J-55	LT&C	900	900	4.767	3487
2	6400	5.5	15.50	J-55	LT&C	7300	7300	4.825	22598
1	1450	5.5	17.00	J-55	LT&C	8750	8750	4.767	5618

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
3	421	3883	9.23	3306	5320	1.61	139.1	247	1.78 J
2	3413	3927	1.15	3946	4810	1.22	123.8	217	1.75 J
1	4091	4910	1.20	4091	5320	1.30	24.6	247	10.02 J

Devon Energy

Date: June 19,2001
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 8750 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.