District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

HOBBS OCD

NOV 21 2013

RECEIVED

State of New Mexico

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

Form C-101
Revised December 16, 2011

Permit

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Devon Energy Production Co., L.P. 333 W. Sheridan Oklahoma City,OK 73102-5015	6137
	[3] API Number 30-025-41524

[4] Property Code	[5] Property Name	[6] Well No
40261	**Cotton Draw 32 State SWD**	**2**

[7] Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	32	24S	32E		1180	South	1000	East	Lea

[8] Pool Information

SWD; Devonian	96101

Additional Well Information

[9] Work Type	[10] Well Type	[11] Cable/Rotary	[12] Lease Type	[13] Ground Level Elevation
New Well	SWD		State	3477.7
[14] Multiple	**[15] Proposed Depth**	**[16] Formation**	**[17] Contractor**	**[18] Spud Date**
N	20,050'			

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

[19] Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	26"	20"	94#	825'	1935 Cl "C"	0
Int 1	17 ½"	13 3/8"	68#	4600'	3225 Cl "C"	0
Int 2	12 ¼"	9 5/8"	47#	11750'	1845 Cl "H"	3500'
Prod liner	5 7/8"	7" top set	32#	0 – 11350'	765 Cl "H"	10750'
		7" liner	32#	11350 - 16992		

Casing/Cement Program: Additional Comments

Hole size: 5 7/8" Open hole Interval: 16992 – 20050'

See attached for details

Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular Double Ram	5,000 10,000	5,000 10,000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that the drilling pit will be constructed according to NMOCD guidelines ☐, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Signature: Patti Riechers

Printed name: Patti Riechers

Title: Regulatory Specialist

E-mail Address: patti.riechers@dvn.com

Date: 11/20/2013 Phone: 405-228-4248

OIL CONSERVATION DIVISION

Approved By:

Title: Petroleum Engineer

Approved Date: 11/27/13 Expiration Date: 11/27/15

OIL CONSERVATION DIVISION
CONDITION OF APPROVAL - Approval for drilling / workover **ONLY - CANNOT INJECT OR DISPOSAL** until the injection/disposal order has been approved by the OCD Santa Fe office.

DEC 02 2013 dm

DRILLING PROGRAM

Devon Energy Production Company, L.P.
CDU-32 State SWD 2

Pressure Control Equipment:

A 10M 13-5/8" BOP system (Triple Ram and 5M Annular preventer) will be installed and tested prior to drilling out the surface casing shoe. The BOP system used to drill the intermediate hole will be tested per BLM Onshore Oil and Gas Order 2.

A 10M 13-5/8" BOP system (Triple Ram and 5M Annular preventer) will be installed and tested prior to drilling out the intermediate casing shoe. The BOP system used to drill the production hole will be tested per BLM Onshore Oil and Gas Order 2.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 10,000 psi WP.

Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line); **if an H&P rig drills this well. Otherwise no flex line is needed**. The line will be kept as straight as possible with minimal turns.

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.

Casing Program:

Hole Size	Hole Interval	Casing OD	Casing Interval	Weight (lb/ft)	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
26"	0 – 825'	20"	0 – 825'	94#	BTC	J-55	1.35	4.48	4.15
17-1/2"	825' – 4,600'	13-3/8"	0 – 4,600'	68#	STC	HCP-110	1.22	2.89	6.84
12-1/4"	4,600' –11,750'	9-5/8"	0 – 11,750'	47#	LTC	HCP-110	1.16	1.55	2.70
8-1/2"	11,750' – 16,992'	7" top set	0 – 11,350'	32#	BTC	HCP-110	1.65	1.87	3.21
		7" Liner	11,350- 16,992'	32#	BTC	HCP-110	1.13	1.28	2.20
5-7/8"	16,992' – 20,050'	NA	NA	NA	NA	NA	NA	NA	NA

Casing Notes:

- This is an open hole completion, thus no casing is listed for hole interval 16,992' to 20,050'
- All casing is new and API approved
- Casing will not be fully evacuated when running in the hole.

Proposed mud Circulations System:

Depth	Mud Weight	Viscosity	Fluid Loss	Type System
0 – 825'	8.4-9.0	30-34	N/C	FW
825' – 4,600'	9.8-10.0	28-32	N/C	Brine
4,600' –11,750'	8.6-9.0	28-32	N/C	FW
11,750' – 16,992'	10.2 – 12.0	30-34	N/C	FW
16,992' – 20,050'	8.4-9.0	28-32	N/C	FW

The necessary mud products for weight addition and fluid loss control will be on location at all times. Visual mud monitoring equipment will be in place to detect volume changes indicating loss or gain of circulating fluid volume. If abnormal pressures are encountered, electronic/mechanical mud monitoring equipment will be installed.

Cementing Table:

String	Number of sx	Weight lbs/gal	Water Volume g/sx	Yield cf/sx	Stage; Lead/Tail	Slurry Description
20" Surface	1935	14.8	6.34	1.33	Tail	Class C Cement + 63.5% Fresh Water
13-3/8" Intermediate	2280	12.9	1.85	9.81	Lead	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sack Poly-E-Flake + 70.9 % Fresh Water
	945	14.8	6.32	1.33	Tail	Class C Cement + 0.125 lbs/sack Poly-E-Flake + 63.5% Fresh Water, 14.8 ppg
9-5/8" Intermediate	1445	11.9	12.89	2.26	Lead	(50:50) Class H Cement: Poz (Fly Ash) + 10% BWOC Bentonite + 1 lb/sk of Kol-Seal + 0.3% BWOC HR-601 + 0.5lb/sk D-Air 5000 + 76.4% Fresh Water
	400	14.5	5.37	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water
7" Production liner	765	14.5	5.37	1.22	Tail	(50:50) Class H Cement: Poz (Fly Ash) + 1 lb/sk Sodium Chloride + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% bwoc HR-601 + 2% bwoc Bentonite + 58.8% Fresh Water

TOC for all Strings:

- 20" Surface Casing 0ft
- 13-3/8" Intermediate Casing 0ft
- 9-5/8" Intermediate Casing 3,500ft
- 7" Production liner 10,750ft

Notes:

- Cement volumes Surface 100%, Intermediate 50%, Production based on at least 25% excess
- Actual cement volumes will be adjusted based on fluid caliper and caliper log data