

Submit 1 Copy To Appropriate District Office
 District I – (575) 393-6161
 1625 N. French Dr., Hobbs, NM 88240
 District II – (575) 748-1283
 811 S. First St., Artesia, NM 88210
 District III – (505) 334-6178
 1000 Rio Brazos Rd., Aztec, NM 87410
 District IV – (505) 476-3460
 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

Revised August 1, 2011

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.) 1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		WELL API NO. 30-015-47571
2. Name of Operator Devon Energy Production Company, L.P.		5. Indicate Type of Lease STATE ☐ FEE ☒
3. Address of Operator 333 West Sheridan, Oklahoma City, OK 73102		6. State Oil & Gas Lease No.
4. Well Location Unit Letter <u>O</u> : <u>775</u> feet from the <u>South</u> line and <u>1815</u> feet from the <u>East</u> line Section <u>31</u> Township <u>23S</u> Range <u>29E</u> NMPM County <u>Eddy</u>		7. Lease Name or Unit Agreement Name Spud Muffin 31-30
11. Elevation (Show whether DR, RKB, RT, GR, etc.) GL: 2959'		8. Well Number 234H
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data		9. OGRID Number 6137
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 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.		10. Pool name or Wildcat CEDAR CANYON; BONE SPRING

NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐ TEMPORARILY ABANDON ☐ CHANGE PLANS ☐ PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐ DOWNHOLE COMMINGLE ☐		SUBSEQUENT REPORT OF: REMEDIAL WORK ☐ ALTERING CASING ☐ COMMENCE DRILLING OPNS. ☐ P AND A ☐ CASING/CEMENT JOB ☐	
OTHER: SHL/BHL change ☒		OTHER: ☐	

Devon Energy Production Co., L.P. (Devon) respectfully requests to move the SHL/BHL on the subject well. Please see attached revised C102, drill plan, and directional plan.
 Permitted SHL: SWSE 625 FSL, 1865 FEL, 31-23S-29E
 Proposed SHL: SWSE 775 FSL, 1815 FEL, 31-23S-29E
 Permitted BHL: NWNE, 20 FNL, 2200 FEL, 30-23S-29E
 Proposed BHL: NWNE, 20 FNL, 1320 FEL, 30-23S-29E

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

SIGNATURE Shayda Omoumi TITLE Regulatory Compliance Professional DATE 4/27/2023
 Type or print name Shayda Omoumi E-mail address: shayda.omoumi@devon.com PHONE: 405-552-3513
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____
 Conditions of Approval (if any): _____

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47571	² Pool Code 11520	³ Pool Name CEDAR CANYON; BONE SPRING
⁴ Property Code 320827	⁵ Property Name SPUD MUFFIN 31-30	⁶ Well Number 234H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 2959.4

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	31	23 S	29 E		775	SOUTH	1815	EAST	EDDY

¹¹ 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
B	30	23 S	29 E		20	NORTH	1320	EAST	EDDY

¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No. Surface and bottomhole locations changed 7/12/23.
--------------------------------------	-------------------------------	----------------------------------	--

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.

	SPUD MUFFIN 31-30 234H EL. = 2959.4 GEODETTIC COORDINATES NAD 83 NMSP EAST SURFACE LOCATION N. = 457136.35 E. = 637840.09 LAT. = 32.2563573°N LONG. = 104.0211516°W KICK OFF POINT CALLS _____ N. = _____ E. = _____ LAT. = _____ LONG. = _____ FIRST TAKE POINT 100' FSL, 1320' FEL N. = 456457.92 E. = 638348.52 LAT. = 32.2544884°N LONG. = 104.0195133°W LAST TAKE POINT 100' FNL, 1320' FEL N. = 466826.83 E. = 638230.16 LAT. = 32.2829918°N LONG. = 104.0197982°W BOTTOM OF HOLE 20' FNL, 1320' FEL N. = 466906.84 E. = 638229.90 LAT. = 32.2832118°N LONG. = 104.0197983°W	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Shayda Omoumi</i> 5/9/2023 Signature Date Shayda Omoumi Printed Name shayda.omoumi@dvn.com E-mail Address																				
	CORNER COORDINATES TABLE NAD 83 NMSP EAST <table border="1"> <tr><td>A - N. = 466889.85</td><td>E. = 639549.68</td></tr> <tr><td>B - N. = 466963.00</td><td>E. = 636940.42</td></tr> <tr><td>C - N. = 464302.93</td><td>E. = 636926.75</td></tr> <tr><td>D - N. = 461649.00</td><td>E. = 636913.10</td></tr> <tr><td>E - N. = 458998.36</td><td>E. = 636967.53</td></tr> <tr><td>F - N. = 456367.27</td><td>E. = 637021.56</td></tr> <tr><td>G - N. = 456348.63</td><td>E. = 639670.65</td></tr> <tr><td>H - N. = 458974.88</td><td>E. = 639618.59</td></tr> <tr><td>I - N. = 461601.10</td><td>E. = 639566.56</td></tr> <tr><td>J - N. = 464237.89</td><td>E. = 639558.14</td></tr> </table> LEGEND --- SECTION LINE --- QUARTER LINE --- LEASE LINE --- WELL PATH	A - N. = 466889.85	E. = 639549.68	B - N. = 466963.00	E. = 636940.42	C - N. = 464302.93	E. = 636926.75	D - N. = 461649.00	E. = 636913.10	E - N. = 458998.36	E. = 636967.53	F - N. = 456367.27	E. = 637021.56	G - N. = 456348.63	E. = 639670.65	H - N. = 458974.88	E. = 639618.59	I - N. = 461601.10	E. = 639566.56	J - N. = 464237.89	E. = 639558.14	¹⁸ 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. APRIL 6, 2023 Date of Survey <i>Shayda Omoumi</i> Signature and Seal of Professional Surveyor Certificate Number: 12797 SURV. NO. 8478A
	A - N. = 466889.85	E. = 639549.68																				
	B - N. = 466963.00	E. = 636940.42																				
C - N. = 464302.93	E. = 636926.75																					
D - N. = 461649.00	E. = 636913.10																					
E - N. = 458998.36	E. = 636967.53																					
F - N. = 456367.27	E. = 637021.56																					
G - N. = 456348.63	E. = 639670.65																					
H - N. = 458974.88	E. = 639618.59																					
I - N. = 461601.10	E. = 639566.56																					
J - N. = 464237.89	E. = 639558.14																					

Intent ☒ As Drilled ☐

API #		
Operator Name: DEVON ENERGY PRODUCTION COMPANY, L.P.	Property Name: SPUD MUFFIN 31-30	Well Number 234H

Kick Off Point (KOP)

UL P	Section 31	Township 23S	Range 29E	Lot	Feet 52	From N/S SOUTH	Feet 1320	From E/W EAST	County EDDY
Latitude 32.25426182					Longitude -104.01959394			NAD 83	

First Take Point (FTP)

UL P	Section 31	Township 23S	Range 29E	Lot	Feet 100	From N/S SOUTH	Feet 1320	From E/W EAST	County EDDY
Latitude 32.2544884					Longitude 104.0195133			NAD 83	

Last Take Point (LTP)

UL B	Section 30	Township 23S	Range 29E	Lot	Feet 100	From N/S NORTH	Feet 1320	From E/W EAST	County EDDY
Latitude 32.2829918					Longitude 104.0197982			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ NIs this well an infill well? ☐ Y

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API # 30-015-45302		
Operator Name: DEVON ENERGY PRODUCTION COMPANY, L.P.	Property Name: SPUD MUFFIN 31 30	Well Number 332H

KZ 06/29/2018

Section 2 - Blowout Preventer Testing Procedure

Variance Request

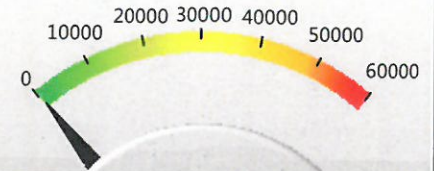
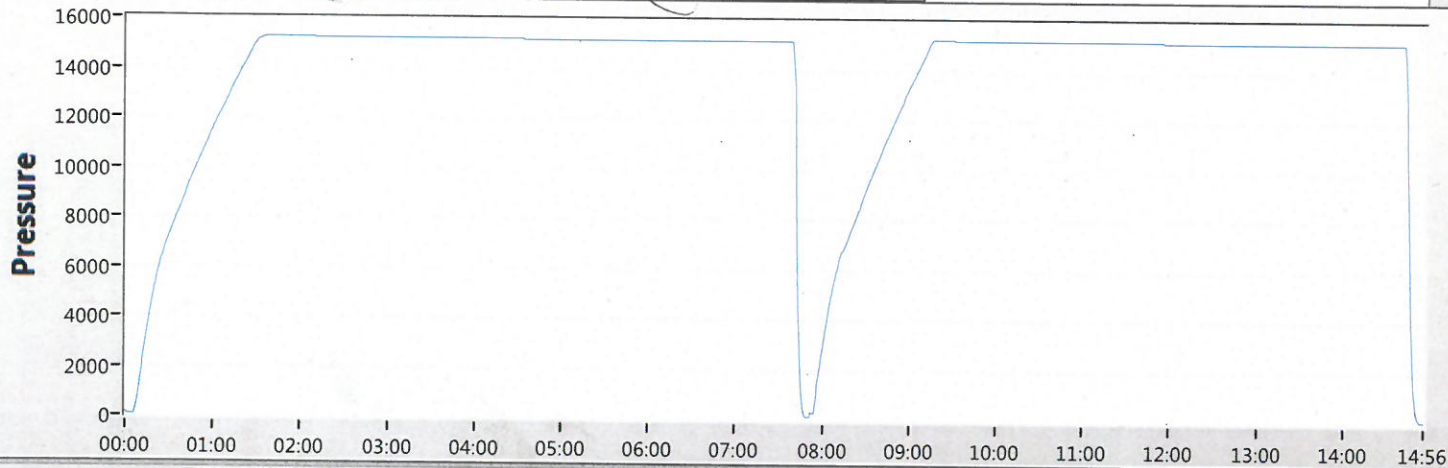
Devon Energy requests to only test BOP connection breaks after drilling out of surface casing and while skidding between wells which conforms to API Standard 53 and industry standards. This test will include the Top Pipe Rams, HCR, Kill Line Check Valve, QDC (quick disconnect to wellhead) and Shell of the 10M BOPE to 5M for 10 minutes. If a break to the flex hose that runs to the choke manifold is required due to repositioning from a skid, the HCR will remain open during the shell test to include that additional break. The variance only pertains to intermediate hole-sections and no deeper than the Bone Springs Formation where 5M BOP tests are required. The initial BOP test will follow OOGO2.III.A.2.i, and subsequent tests following a skid will only test connections that are broken. The annular preventer will be tested to 100% working pressure. This variance will meet or exceed OOGO2.III.A.2.i per the following: Devon Energy will perform a full BOP test per OOGO2.III.A.2.i before drilling out of the intermediate casing string(s) and starting the production hole, before starting any hole section that requires a 10M test, before the expiration of the allotted 14-days for 5M intermediate batch drilling or when the drilling rig is fully mobilized to a new well pad, whichever is sooner. We will utilize a 200' TVD tolerance between intermediate shoes as the cutoff for a full BOP test. The BLM will be contacted 4hrs prior to a BOPE test. The BLM will be notified if and when a well control event is encountered. Break test will be a 14 day interval and not a 30 day full BOPE test interval. If in the event break testing is not utilized, then a full BOPE test would be conducted.

1. Well Control Response:
 1. Primary barrier remains fluid
 2. In the event of an influx due to being underbalanced and after a realized gain or flow, the order of closing BOPE is as follows:
 - a) Annular first
 - b) If annular were to not hold, Upper pipe rams second (which were tested on the skid BOP test)
 - c) If the Upper Pipe Rams were to not hold, Lower Pipe Rams would be third

Cactus
Wellhead2-9-17
E Bell

80.7 °F

15:49



50

Date 02-09-17

Tested By E.BELL

Transducer bay2

Transducer Serial 181504

Calibration Date 9/6/15

	Job#	Part#	Serial#	Description	Test Pressure
1	TRJ0006341-0007	116966	TRJ6341-7-1	ADPT,DRLG,CW,MBU-3T,13-5/8 10M	15000
2					
3					
4					
5				TRANSDUCER CALIBRATION DUE 03/13/2017	
6					
7					
8					

TRANSDUCER CALIBRATION DUE 03/13/2017



Start



Stop



Zero



Config



Save



Print

EXIT

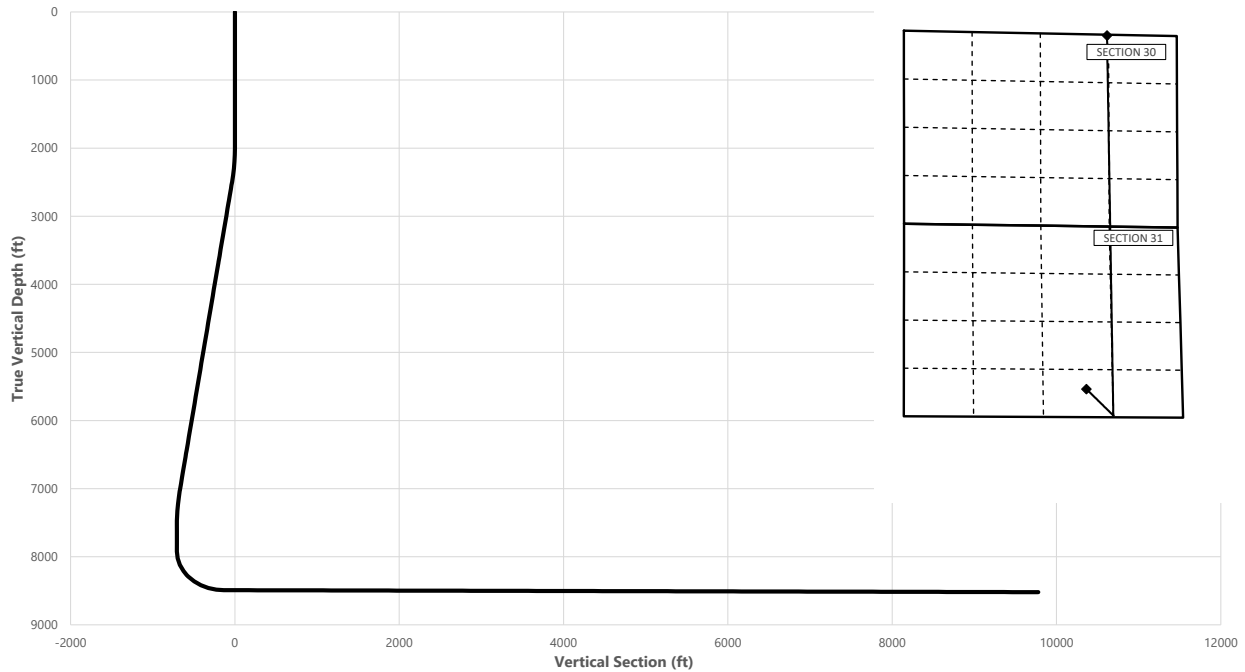
SPUD MUFFIN 31-30 234H



Well: SPUD MUFFIN 31-30 234H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	145.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	145.00	2497.47	-35.65	24.96	-34.63	2.00	Hold Tangent
7108.16	10.00	145.00	7035.62	-691.14	483.94	-671.29	0.00	Drop to Vertical
7608.16	0.00	145.00	7533.09	-726.79	508.90	-705.92	2.00	Hold Vertical
7993.12	0.00	359.35	7918.04	-726.79	508.90	-705.92	0.00	KOP
8891.45	89.83	359.35	8491.00	-155.54	502.42	-135.39	10.00	Landing Point
18818.16	89.83	359.35	8520.00	9770.49	389.81	9778.26	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	114.00	114.00
Top of Salt	469.00	469.00
Base of Salt	2547.25	2544.00
Lamar	2790.95	2784.00
Bell Canyon	2790.95	2784.00
Cherry Canyon	3694.68	3674.00
Brushy Canyon	5268.60	5224.00
1st Bone Spring Lime	6548.03	6484.00
1st Bone Spring Sand	7544.07	7469.00
Bone Spring 2nd / Point of Penetration	8370.85	8269.00
Exit	18738.16	8519.78

SHL
KOP
Point of Penetration
Exit
BHL

MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
0.00	0.00	32.2563	-104.0212	775' FSL, 1815' FEL of Sec 31 in T23S, R29E
7993.12	7918.04	32.2543	-104.0196	52' FSL, 1320' FEL of Sec 31 in T23S, R29E
8370.85	8269.00	32.2545	-104.0195	100' FSL, 1320' FEL of Sec 31 in T23S, R29E
18738.16	8519.78	32.2830	-104.0198	100' FNL, 1320' FEL of Sec 30 in T23S, R29E
18818.16	8520.00	32.2831	-104.0199	20' FNL, 1320' FEL of Sec 30 in T23S, R29E

SPUD MUFFIN 31-30 234H



Well: SPUD MUFFIN 31-30 234H
 County: Eddy
 Wellbore: Permit Plan
 Design: Permit Plan #1

Geodetic System: US State Plane 1983
 Datum: North American Datum 1927
 Ellipsoid: Clarke 1866
 Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	145.00	100.00	0.00	0.00	0.00	0.00	
114.00	0.00	145.00	114.00	0.00	0.00	0.00	0.00	Rustler
200.00	0.00	145.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	145.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	145.00	400.00	0.00	0.00	0.00	0.00	
469.00	0.00	145.00	469.00	0.00	0.00	0.00	0.00	Top of Salt
500.00	0.00	145.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	145.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	145.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	145.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	145.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	145.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	145.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	145.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	145.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	145.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	145.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	145.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	145.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	145.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	145.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	145.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	145.00	2099.98	-1.43	1.00	-1.39	2.00	
2200.00	4.00	145.00	2199.84	-5.72	4.00	-5.55	2.00	
2300.00	6.00	145.00	2299.45	-12.86	9.00	-12.49	2.00	
2400.00	8.00	145.00	2398.70	-22.84	15.99	-22.18	2.00	
2500.00	10.00	145.00	2497.47	-35.65	24.96	-34.63	2.00	Hold Tangent
2547.25	10.00	145.00	2544.00	-42.37	29.67	-41.16	0.00	Base of Salt
2600.00	10.00	145.00	2595.95	-49.88	34.92	-48.44	0.00	
2700.00	10.00	145.00	2694.43	-64.10	44.88	-62.26	0.00	
2790.95	10.00	145.00	2784.00	-77.04	53.94	-74.83	0.00	Lamar, Bell Canyon
2800.00	10.00	145.00	2792.91	-78.32	54.84	-76.08	0.00	
2900.00	10.00	145.00	2891.39	-92.55	64.80	-89.89	0.00	
3000.00	10.00	145.00	2989.87	-106.77	74.76	-103.71	0.00	
3100.00	10.00	145.00	3088.35	-121.00	84.72	-117.52	0.00	
3200.00	10.00	145.00	3186.83	-135.22	94.68	-131.34	0.00	
3300.00	10.00	145.00	3285.31	-149.45	104.64	-145.16	0.00	
3400.00	10.00	145.00	3383.79	-163.67	114.60	-158.97	0.00	
3500.00	10.00	145.00	3482.27	-177.90	124.56	-172.79	0.00	
3600.00	10.00	145.00	3580.75	-192.12	134.52	-186.60	0.00	
3694.68	10.00	145.00	3674.00	-205.59	143.95	-199.69	0.00	Cherry Canyon
3700.00	10.00	145.00	3679.23	-206.34	144.48	-200.42	0.00	
3800.00	10.00	145.00	3777.72	-220.57	154.44	-214.24	0.00	
3900.00	10.00	145.00	3876.20	-234.79	164.40	-228.05	0.00	
4000.00	10.00	145.00	3974.68	-249.02	174.36	-241.87	0.00	
4100.00	10.00	145.00	4073.16	-263.24	184.32	-255.68	0.00	
4200.00	10.00	145.00	4171.64	-277.47	194.28	-269.50	0.00	
4300.00	10.00	145.00	4270.12	-291.69	204.24	-283.32	0.00	
4400.00	10.00	145.00	4368.60	-305.92	214.20	-297.13	0.00	
4500.00	10.00	145.00	4467.08	-320.14	224.16	-310.95	0.00	
4600.00	10.00	145.00	4565.56	-334.36	234.13	-324.76	0.00	
4700.00	10.00	145.00	4664.04	-348.59	244.09	-338.58	0.00	
4800.00	10.00	145.00	4762.52	-362.81	254.05	-352.40	0.00	
4900.00	10.00	145.00	4861.00	-377.04	264.01	-366.21	0.00	
5000.00	10.00	145.00	4959.48	-391.26	273.97	-380.03	0.00	
5100.00	10.00	145.00	5057.97	-405.49	283.93	-393.84	0.00	
5200.00	10.00	145.00	5156.45	-419.71	293.89	-407.66	0.00	
5268.60	10.00	145.00	5224.00	-429.47	300.72	-417.14	0.00	Brushy Canyon
5300.00	10.00	145.00	5254.93	-433.93	303.85	-421.48	0.00	
5400.00	10.00	145.00	5353.41	-448.16	313.81	-435.29	0.00	
5500.00	10.00	145.00	5451.89	-462.38	323.77	-449.11	0.00	
5600.00	10.00	145.00	5550.37	-476.61	333.73	-462.92	0.00	
5700.00	10.00	145.00	5648.85	-490.83	343.69	-476.74	0.00	
5800.00	10.00	145.00	5747.33	-505.06	353.65	-490.56	0.00	
5900.00	10.00	145.00	5845.81	-519.28	363.61	-504.37	0.00	
6000.00	10.00	145.00	5944.29	-533.51	373.57	-518.19	0.00	
6100.00	10.00	145.00	6042.77	-547.73	383.53	-532.00	0.00	
6200.00	10.00	145.00	6141.25	-561.95	393.49	-545.82	0.00	
6300.00	10.00	145.00	6239.73	-576.18	403.45	-559.64	0.00	

SPUD MUFFIN 31-30 234H



Well: SPUD MUFFIN 31-30 234H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6400.00	10.00	145.00	6338.22	-590.40	413.41	-573.45	0.00	
6500.00	10.00	145.00	6436.70	-604.63	423.37	-587.27	0.00	
6548.03	10.00	145.00	6484.00	-611.46	428.15	-593.90	0.00	1st Bone Spring Lime
6600.00	10.00	145.00	6535.18	-618.85	433.33	-601.08	0.00	
6700.00	10.00	145.00	6633.66	-633.08	443.29	-614.90	0.00	
6800.00	10.00	145.00	6732.14	-647.30	453.25	-628.72	0.00	
6900.00	10.00	145.00	6830.62	-661.52	463.21	-642.53	0.00	
7000.00	10.00	145.00	6929.10	-675.75	473.17	-656.35	0.00	
7100.00	10.00	145.00	7027.58	-689.97	483.13	-670.16	0.00	
7108.16	10.00	145.00	7035.62	-691.14	483.94	-671.29	0.00	Drop to Vertical
7200.00	8.16	145.00	7126.30	-703.01	492.25	-682.83	2.00	
7300.00	6.16	145.00	7225.52	-713.22	499.40	-692.75	2.00	
7400.00	4.16	145.00	7325.11	-720.60	504.57	-699.91	2.00	
7500.00	2.16	145.00	7424.95	-725.12	507.73	-704.30	2.00	
7544.07	1.28	145.00	7469.00	-726.20	508.49	-705.35	2.00	1st Bone Spring Sand
7600.00	0.16	145.00	7524.92	-726.78	508.90	-705.91	2.00	
7608.16	0.00	145.00	7533.09	-726.79	508.90	-705.92	2.00	Hold Vertical
7700.00	0.00	359.35	7624.92	-726.79	508.90	-705.92	0.00	
7800.00	0.00	359.35	7724.92	-726.79	508.90	-705.92	0.00	
7900.00	0.00	359.35	7824.92	-726.79	508.90	-705.92	0.00	
7993.12	0.00	359.35	7918.04	-726.79	508.90	-705.92	0.00	KOP
8000.00	0.69	359.35	7924.92	-726.75	508.90	-705.88	10.00	
8100.00	10.69	359.35	8024.30	-716.85	508.79	-696.00	10.00	
8200.00	20.69	359.35	8120.46	-689.85	508.48	-669.03	10.00	
8300.00	30.69	359.35	8210.46	-646.56	507.99	-625.79	10.00	
8370.85	37.77	359.35	8269.00	-606.73	507.54	-586.01	10.00	Bone Spring 2nd / Point of Penetration
8400.00	40.69	359.35	8291.58	-588.30	507.33	-567.60	10.00	
8500.00	50.69	359.35	8361.35	-516.84	506.52	-496.23	10.00	
8600.00	60.69	359.35	8417.64	-434.35	505.58	-413.85	10.00	
8700.00	70.69	359.35	8458.76	-343.34	504.55	-322.95	10.00	
8800.00	80.69	359.35	8483.45	-246.57	503.45	-226.31	10.00	
8891.45	89.83	359.35	8491.00	-155.54	502.42	-135.39	10.00	Landing Point
8900.00	89.83	359.35	8491.02	-146.99	502.32	-126.85	0.00	
9000.00	89.83	359.35	8491.32	-47.00	501.19	-26.98	0.00	
9100.00	89.83	359.35	8491.61	53.00	500.05	72.89	0.00	
9200.00	89.83	359.35	8491.90	152.99	498.92	172.76	0.00	
9300.00	89.83	359.35	8492.19	252.98	497.78	272.63	0.00	
9400.00	89.83	359.35	8492.49	352.98	496.65	372.50	0.00	
9500.00	89.83	359.35	8492.78	452.97	495.51	472.36	0.00	
9600.00	89.83	359.35	8493.07	552.96	494.38	572.23	0.00	
9700.00	89.83	359.35	8493.36	652.96	493.24	672.10	0.00	
9800.00	89.83	359.35	8493.66	752.95	492.11	771.97	0.00	
9900.00	89.83	359.35	8493.95	852.94	490.97	871.84	0.00	
10000.00	89.83	359.35	8494.24	952.94	489.84	971.71	0.00	
10100.00	89.83	359.35	8494.53	1052.93	488.70	1071.57	0.00	
10200.00	89.83	359.35	8494.82	1152.92	487.57	1171.44	0.00	
10300.00	89.83	359.35	8495.12	1252.91	486.44	1271.31	0.00	
10400.00	89.83	359.35	8495.41	1352.91	485.30	1371.18	0.00	
10500.00	89.83	359.35	8495.70	1452.90	484.17	1471.05	0.00	
10600.00	89.83	359.35	8495.99	1552.89	483.03	1570.92	0.00	
10700.00	89.83	359.35	8496.29	1652.89	481.90	1670.78	0.00	
10800.00	89.83	359.35	8496.58	1752.88	480.76	1770.65	0.00	
10900.00	89.83	359.35	8496.87	1852.87	479.63	1870.52	0.00	
11000.00	89.83	359.35	8497.16	1952.87	478.49	1970.39	0.00	
11100.00	89.83	359.35	8497.46	2052.86	477.36	2070.26	0.00	
11200.00	89.83	359.35	8497.75	2152.85	476.22	2170.13	0.00	
11300.00	89.83	359.35	8498.04	2252.85	475.09	2269.99	0.00	
11400.00	89.83	359.35	8498.33	2352.84	473.95	2369.86	0.00	
11500.00	89.83	359.35	8498.62	2452.83	472.82	2469.73	0.00	
11600.00	89.83	359.35	8498.92	2552.83	471.68	2569.60	0.00	
11700.00	89.83	359.35	8499.21	2652.82	470.55	2669.47	0.00	
11800.00	89.83	359.35	8499.50	2752.81	469.41	2769.34	0.00	
11900.00	89.83	359.35	8499.79	2852.80	468.28	2869.21	0.00	
12000.00	89.83	359.35	8500.09	2952.80	467.14	2969.07	0.00	
12100.00	89.83	359.35	8500.38	3052.79	466.01	3068.94	0.00	
12200.00	89.83	359.35	8500.67	3152.78	464.87	3168.81	0.00	
12300.00	89.83	359.35	8500.96	3252.78	463.74	3268.68	0.00	
12400.00	89.83	359.35	8501.25	3352.77	462.60	3368.55	0.00	
12500.00	89.83	359.35	8501.55	3452.76	461.47	3468.42	0.00	
12600.00	89.83	359.35	8501.84	3552.76	460.33	3568.28	0.00	

SPUD MUFFIN 31-30 234H



Well: SPUD MUFFIN 31-30 234H

County: Eddy

Wellbore: Permit Plan

Design: Permit Plan #1

Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866

Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12700.00	89.83	359.35	8502.13	3652.75	459.20	3668.15	0.00	
12800.00	89.83	359.35	8502.42	3752.74	458.06	3768.02	0.00	
12900.00	89.83	359.35	8502.72	3852.74	456.93	3867.89	0.00	
13000.00	89.83	359.35	8503.01	3952.73	455.79	3967.76	0.00	
13100.00	89.83	359.35	8503.30	4052.72	454.66	4067.63	0.00	
13200.00	89.83	359.35	8503.59	4152.72	453.52	4167.49	0.00	
13300.00	89.83	359.35	8503.89	4252.71	452.39	4267.36	0.00	
13400.00	89.83	359.35	8504.18	4352.70	451.25	4367.23	0.00	
13500.00	89.83	359.35	8504.47	4452.69	450.12	4467.10	0.00	
13600.00	89.83	359.35	8504.76	4552.69	448.98	4566.97	0.00	
13700.00	89.83	359.35	8505.05	4652.68	447.85	4666.84	0.00	
13800.00	89.83	359.35	8505.35	4752.67	446.71	4766.70	0.00	
13900.00	89.83	359.35	8505.64	4852.67	445.58	4866.57	0.00	
14000.00	89.83	359.35	8505.93	4952.66	444.44	4966.44	0.00	
14100.00	89.83	359.35	8506.22	5052.65	443.31	5066.31	0.00	
14200.00	89.83	359.35	8506.52	5152.65	442.17	5166.18	0.00	
14300.00	89.83	359.35	8506.81	5252.64	441.04	5266.05	0.00	
14400.00	89.83	359.35	8507.10	5352.63	439.90	5365.91	0.00	
14500.00	89.83	359.35	8507.39	5452.63	438.77	5465.78	0.00	
14600.00	89.83	359.35	8507.68	5552.62	437.63	5565.65	0.00	
14700.00	89.83	359.35	8507.98	5652.61	436.50	5665.52	0.00	
14800.00	89.83	359.35	8508.27	5752.61	435.36	5765.39	0.00	
14900.00	89.83	359.35	8508.56	5852.60	434.23	5865.26	0.00	
15000.00	89.83	359.35	8508.85	5952.59	433.09	5965.13	0.00	
15100.00	89.83	359.35	8509.15	6052.58	431.96	6064.99	0.00	
15200.00	89.83	359.35	8509.44	6152.58	430.82	6164.86	0.00	
15300.00	89.83	359.35	8509.73	6252.57	429.69	6264.73	0.00	
15400.00	89.83	359.35	8510.02	6352.56	428.55	6364.60	0.00	
15500.00	89.83	359.35	8510.32	6452.56	427.42	6464.47	0.00	
15600.00	89.83	359.35	8510.61	6552.55	426.28	6564.34	0.00	
15700.00	89.83	359.35	8510.90	6652.54	425.15	6664.20	0.00	
15800.00	89.83	359.35	8511.19	6752.54	424.01	6764.07	0.00	
15900.00	89.83	359.35	8511.48	6852.53	422.88	6863.94	0.00	
16000.00	89.83	359.35	8511.78	6952.52	421.74	6963.81	0.00	
16100.00	89.83	359.35	8512.07	7052.52	420.61	7063.68	0.00	
16200.00	89.83	359.35	8512.36	7152.51	419.47	7163.55	0.00	
16300.00	89.83	359.35	8512.65	7252.50	418.34	7263.41	0.00	
16400.00	89.83	359.35	8512.95	7352.50	417.20	7363.28	0.00	
16500.00	89.83	359.35	8513.24	7452.49	416.07	7463.15	0.00	
16600.00	89.83	359.35	8513.53	7552.48	414.93	7563.02	0.00	
16700.00	89.83	359.35	8513.82	7652.47	413.80	7662.89	0.00	
16800.00	89.83	359.35	8514.11	7752.47	412.66	7762.76	0.00	
16900.00	89.83	359.35	8514.41	7852.46	411.53	7862.62	0.00	
17000.00	89.83	359.35	8514.70	7952.45	410.39	7962.49	0.00	
17100.00	89.83	359.35	8514.99	8052.45	409.26	8062.36	0.00	
17200.00	89.83	359.35	8515.28	8152.44	408.12	8162.23	0.00	
17300.00	89.83	359.35	8515.58	8252.43	406.99	8262.10	0.00	
17400.00	89.83	359.35	8515.87	8352.43	405.85	8361.97	0.00	
17500.00	89.83	359.35	8516.16	8452.42	404.72	8461.84	0.00	
17600.00	89.83	359.35	8516.45	8552.41	403.58	8561.70	0.00	
17700.00	89.83	359.35	8516.75	8652.41	402.45	8661.57	0.00	
17800.00	89.83	359.35	8517.04	8752.40	401.31	8761.44	0.00	
17900.00	89.83	359.35	8517.33	8852.39	400.18	8861.31	0.00	
18000.00	89.83	359.35	8517.62	8952.39	399.04	8961.18	0.00	
18100.00	89.83	359.35	8517.91	9052.38	397.91	9061.05	0.00	
18200.00	89.83	359.35	8518.21	9152.37	396.77	9160.91	0.00	
18300.00	89.83	359.35	8518.50	9252.37	395.64	9260.78	0.00	
18400.00	89.83	359.35	8518.79	9352.36	394.50	9360.65	0.00	
18500.00	89.83	359.35	8519.08	9452.35	393.37	9460.52	0.00	
18600.00	89.83	359.35	8519.38	9552.34	392.23	9560.39	0.00	
18700.00	89.83	359.35	8519.67	9652.34	391.10	9660.26	0.00	
18738.16	89.83	359.35	8519.78	9690.49	390.66	9698.37	0.00	Exit
18800.00	89.83	359.35	8519.96	9752.33	389.96	9760.12	0.00	
18818.16	89.83	359.35	8520.00	9770.49	389.81	9778.26	0.00	BHL

SPUD MUFFIN 31-30 234H

1. Geologic Formations

TVD of target	8520	Pilot hole depth	N/A
MD at TD:	18818	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	114		
Top of Salt	469		
Base of Salt	2544		
Lamar	2784		
Bell Canyon	2784		
Cherry Canyon	3674		
Brushy Canyon	5224		
1st Bone Spring Lime	6484		
1st Bone Spring Sand	7469		
Bone Spring 2nd	8269		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

SPUD MUFFIN 31-30 234H

2. Casing Program

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48	H40	BTC	0	139	0	139
12 1/4	9 5/8	40	J-55	BTC	0	2644	0	2644
8 3/4	5 1/2	17	P110	BTC	0	18818	0	8520

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.

SPUD MUFFIN 31-30 234H

3. Cementing Program (3-String Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft ³ /sack)	Slurry Description
Surface	139	Surf	13.2	1.4	Lead: Class C Cement + additives
Int 1	266	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	2144	13.2	1.4	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	345	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
	266	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	2144	13.2	1.4	Tail: Class H / C + additives
Production	498	2144	9.0	3.3	Lead: Class H / C + additives
	2089	7993	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

SPUD MUFFIN 31-30 234H

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular (5M)		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

SPUD MUFFIN 31-30 234H

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	Brine	10-10.5
Production	WBM	8.5-9

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned		Interval
	Resistivity	
	Density	
X	CBL	Production casing
X	Mud log	KOP to TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH pressure at deepest TVD	3987
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

N	H ₂ S is present
Y	H ₂ S plan attached.

SPUD MUFFIN 31-30 234H

8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
 - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan

 Other, describe

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 216296

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 216296
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Original COA's still apply.	7/12/2023