Page 1 of 25



U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Well Name: JAYHAWK 7-6 FED FEE

COM

Well Location: T26S / R34E / SEC 7 /

SWSE /

Well Number: 22H

Type of Well: OIL WELL

County or Parish/State:

Allottee or Tribe Name:

Lease Number: NMNM114990

Unit or CA Name:

Unit or CA Number:

**US Well Number: 3002548342** 

Well Status: Approved Application for

Permit to Drill

Operator: DEVON ENERGY PRODUCTION COMPANY LP

#### **Notice of Intent**

Sundry ID: 2711724

Type of Submission: Notice of Intent Type of Action: APD Change Date Sundry Submitted: 01/19/2023 Time Sundry Submitted: 02:49

Date proposed operation will begin: 01/09/2023

Procedure Description: DRILLING ONLY Devon Energy Production Co., L.P. (Devon) respectfully requests to change the BHL, depth, and for optional surface casing/drilling plan of 10-3/4" surface casing inside of 13-1/2" surface hole on the subject well. Please see attached revised C102, Drill plan, directional plan. Permitted BHL: NENE, 20 FNL, 750 FEL, 6-26S-34E Proposed BHL: NENE, 20 FNL, 395 FEL, 6-26S-34E Permitted TVD/MD: 10400/20665 Proposed TVD/MD: 11941/22482

#### **NOI Attachments**

#### **Procedure Description**

8.625\_32lb\_P110EC\_SPRINT\_FJ\_VST\_20230119144738.pdf

10.750 40.5lb H40 20230119144738.pdf

WA018096287\_JAYHAWK\_7\_6\_FED\_FEE\_COM\_22H\_WL\_R3\_SIGNED\_20230119144650.pdf

Jayhawk\_7\_6\_Fed\_Fee\_Com\_22H\_Directional\_Plan\_01\_13\_23\_20230119144650.pdf

Jayhawk\_7\_6\_Fed\_Fee\_Com\_22H\_20230119144650.pdf

Received by OCD: NINAWARD STANDAM 6 FED FEE

Well Location: T26S / R34E / SEC 7 / SWSE /

County or Parish/State:

Page 2 of 25

COM

Well Number: 22H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM114990

Unit or CA Name:

Unit or CA Number:

**US Well Number: 3002548342** 

Well Status: Approved Application for

Permit to Drill

Operator: DEVON ENERGY PRODUCTION COMPANY LP

### **Conditions of Approval**

#### Additional

Jayhawk\_7\_6\_Fed\_Fee\_Com\_22H\_Sundry\_ID\_2711724\_Dr\_COA\_20230124084026.pdf

7\_26\_34\_O\_Sundry\_ID\_2711724\_Jayhawk\_7\_6\_Fed\_Fee\_Com\_22H\_Lea\_NMNM114990\_DEVON\_ENERGY\_PROD UCTION\_COMPANY\_LP\_13\_22d\_1\_23\_2023\_LV\_20230124084026.pdf

#### **Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

**Operator Electronic Signature: CHELSEY GREEN** Signed on: JAN 19, 2023 02:47 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Compliance Professional Street Address: 333 West Sheridan Avenue City: Oklahoma City State: OK

Phone: (405) 228-8595

Email address: Chelsey.Green@dvn.com

#### **Field**

Representative Name:

**Street Address:** 

City:

State:

Zip:

Phone:

**Email address:** 

#### **BLM Point of Contact**

**BLM POC Name: CHRISTOPHER WALLS BLM POC Title:** Petroleum Engineer

**BLM POC Phone:** 5752342234 BLM POC Email Address: cwalls@blm.gov

Disposition: Approved Disposition Date: 03/01/2023

Signature: Chris Walls

Page 2 of 2

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
<u>District II</u>
811 S. First St., Artesia, NM 88210

Phone: (575) 748-1283 Fax: (575) 748-9720 <u>District III</u> 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

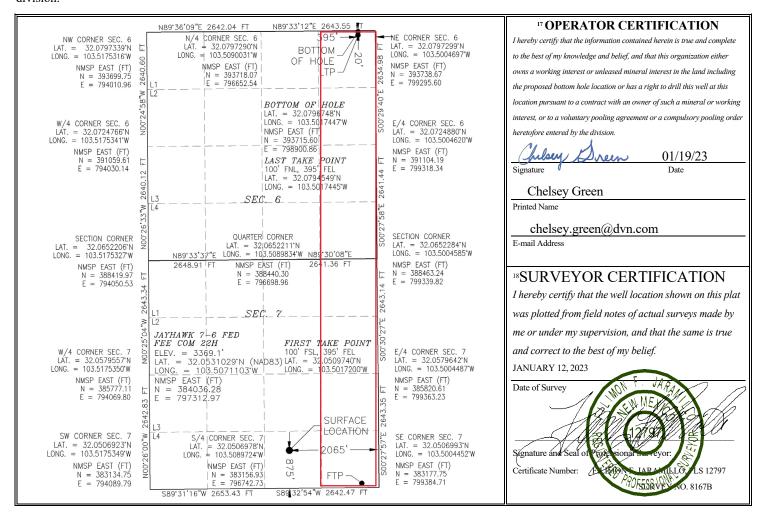
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code				
30-025-48342		98038	WC-025 G-09 S263406D; LOWER BS			
<sup>4</sup> Property Code		<sup>5</sup> Pr	operty Name	<sup>6</sup> Well Number		
319566		<b>JAYHAWK</b>	7-6 FED FEE COM	22H		
<sup>7</sup> OGRID No.		8 O <sub>I</sub>	8 Operator Name			
6137		DEVON ENERGY PRO	3369.1			

<sup>10</sup> Surface Location

					Surrac	c Docation				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
O	7	26 S	34 E		875	SOUTH	2065	EAST	LEA	
<sup>11</sup> 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	
A	6	26 S	34 E		20	NORTH	395	EAST	LEA	
12 Dedicated Acres	s 13 Joint	or Infill 14	Consolidatio	n Code	e 15 Order No.					
320										

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.



Inten <sup>-</sup>	t X	As Dril	led											
API#														
Operator Name: DEVON ENERGY PRODUCTION COMPANY, L.P.						Property Name: JAYHAWK 7-6 FED FEE COM								Well Number 22H
Kick C	Off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From N	N/S	Feet		Fron	n E/W	County	
Р	7	26S	34E		46		SOU	TH	39	5	EAS	ST	LEA	
Latitu	ıde				Longitu	ıde							NAD	
32.0	0507				-103.	5018							83	
First 1	Γake Poir	nt (FTP)												
UL P	Section 7	Township 26S	Range 34E	Lot	Feet 100		From N		Feet 395		Fron	n E/W	County <b>LEA</b>	
Latitu		203	34⊑		Longitu	ıdo	300	!П	393		EAS	) I	NAD	
	)50974	.0			103.5		7200						83	
UL A	Section	Township 26S	Range 34E	Lot	Feet 100		om N/S DRTH	Feet		From EAS		Count	zy .	
Latitu <b>32.0</b>	ude 079454	.9			Longitu 103.5		7445	l	L			NAD 83		
ls this	s well the	e defining v	vell for th	ie Horiz	zontal S <sub>i</sub>	oacin	g Unit?	) [	Y	]				
s this	s well an	infill well?		N										
	ll is yes p ng Unit.	lease prov	ide API if	availak	ole, Opei	rator	Name	and v	vell nu	umbe	r for I	Definir	ng well fo	r Horizontal
API#														
Ope	rator Na	me:				Pro	perty N	lame	•					Well Number
İ														

KZ 06/29/2018

#### 1. Geologic Formations

TVD of target	11941	Pilot hole depth	N/A
MD at TD:	22482	Deepest expected fresh water	

#### Basin

	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	900		
Salt	1251		
Base of Salt	4970		
Delaware	5212		
Cherry Canyon	6298		
Brushy Canyon	7935		
1st Bone Spring Lime	9433		
Bone Spring 1st	10380		
Bone Spring 2nd	10920		
3rd Bone Spring Lime	11430		
Bone Spring 3rd	12011		

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program (Primary Design)

	8	Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	10 3/4	40 1/2	H40	ВТС	0	925	0	925
9 7/8	8 5/8	32	P110	Sprint FJ	0	11600	0	11600
7 7/8	5 1/2	17	P110	ВТС	0	22482	0	11941

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

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	375	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	393	Surf	9	3.27	Lead: Class C Cement + additives
IIIt 1			13.2	1.44	Tail: Class H / C + additives
Int 1	855	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	393	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	427	7935	13.2	1.44	Tail: Class H / C + additives
Production	33	11100	9	3.27	Lead: Class H /C + additives
Troduction	1432	11658	13.2	1.44	Tail: Class H / C + additives

Cementing Program (Primary Design)Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the 8-5/8''intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

**4. Pressure Control Equipment (Three String Design)** 

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:								
			Anı	Annular		50% of rated working pressure								
Int 1	13-5/8"	5M	Bline	d Ram	X									
IIIt 1	13-3/6	3101	Pipe	Ram		5M								
			Doub	le Ram	X	J1V1								
			Other*											
			Annul	ar (5M)	X	50% of rated working pressure								
Production	13-5/8"	5M	Blind Ram		X									
Floduction		SIVI	JIVI	JIVI	JIVI	31 <b>V1</b>	3101	JIVI	JIVI	Pipe	Ram		5M	
			Double Ram		X	3101								
			Other*											
			Annul	ar (5M)										
			Blind Ram											
			Pipe Ram											
			Double Ram											
			Other*											
N A variance is requested for	the use of a	a diverter or	n the surface	casing. See	attached for s	chematic.								
Y A variance is requested to a	un a 5 M a	nnular on a	10M system	1		<del></del>								

5. Mud Program (Three String Design)

Section	Туре	Weight (ppg)	
Surface	FW Gel	8.5-9	
Intermediate	DBE / Cut Brine	10-10.5	
Production	OBM	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
what will be used to monitor the loss of gain of hala.	1 1/1 uson/ isuai Montollig

6. Logging and Testing Procedures

Logging,	Logging, Coring and Testing						
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the						
X	Completion Report and shumitted 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.						

Addition	al logs planned	Interval
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

#### 7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	5588
Abnormal temperature	No

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

Hydrogren 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 H2S is present
Y H2S plan attached.

#### 8. Other facets of operation

Is this a walking operation? Potentially

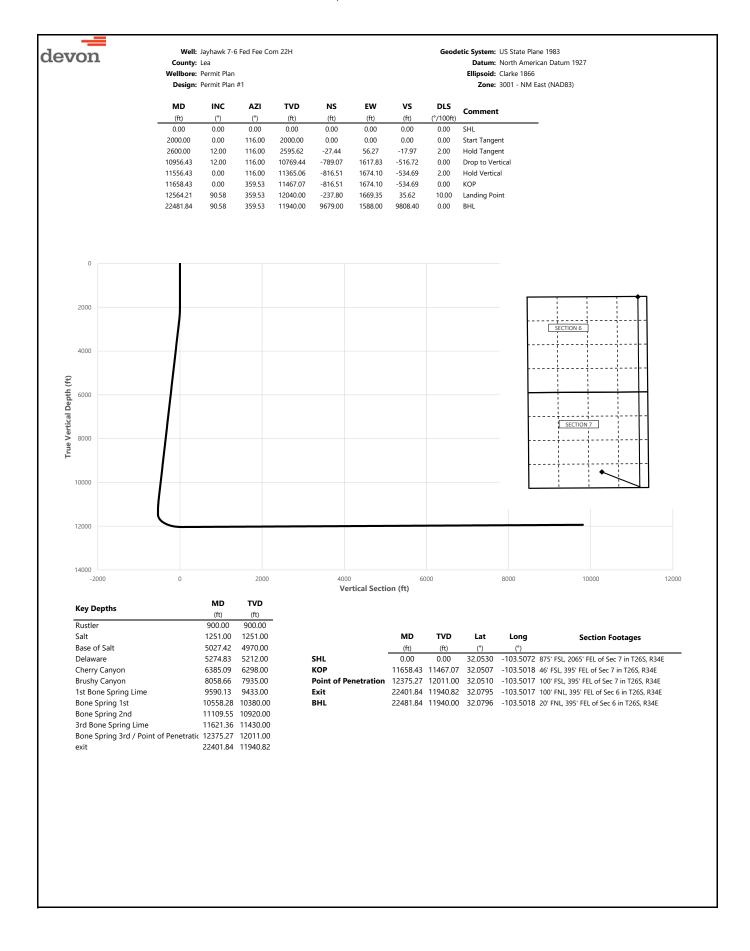
- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and 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 pa.
- 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. A that time an approved BOP stack will be nippled 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	3
X	Directional Plan
	Other, describe





County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866

	Design: Permit Plan #1							Zone: 3001 - NM East (NAD83)			
<b>M</b> (f	ID	INC (°)	<b>AZI</b> (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	<b>DLS</b> (°/100ft)	Comment		
	00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL		
	0.00	0.00	116.00	100.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	200.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	300.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00 116.00	400.00 500.00	0.00 0.00	0.00	0.00 0.00	0.00			
	0.00	0.00	116.00	600.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	700.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	800.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	900.00	0.00	0.00	0.00	0.00	Rustler,		
	0.00	0.00	116.00	1000.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00 116.00	1100.00 1200.00	0.00 0.00	0.00	0.00 0.00	0.00			
	1.00	0.00	116.00	1251.00	0.00	0.00	0.00	0.00	Salt		
	0.00	0.00	116.00	1300.00	0.00	0.00	0.00	0.00	<del></del>		
140	0.00	0.00	116.00	1400.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	1500.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	1600.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00	1700.00	0.00	0.00	0.00	0.00			
	0.00	0.00	116.00 116.00	1800.00 1900.00	0.00	0.00	0.00 0.00	0.00			
	0.00	0.00	116.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent		
	0.00	2.00	116.00	2099.98	-0.77	1.57	-0.50	2.00			
220	0.00	4.00	116.00	2199.84	-3.06	6.27	-2.00	2.00			
	0.00	6.00	116.00	2299.45	-6.88	14.11	-4.51	2.00			
	0.00	8.00	116.00	2398.70	-12.22	25.06	-8.00	2.00			
	0.00	10.00	116.00 116.00	2497.47	-19.08	39.12 56.27	-12.49 17.07	2.00	Hold Tangent		
	0.00	12.00 12.00	116.00	2595.62 2693.44	-27.44 -36.56	74.95	-17.97 -23.94	2.00 0.00	Hold Tangent		
	0.00	12.00	116.00	2791.25	-45.67	93.64	-29.91	0.00			
	0.00	12.00	116.00	2889.07	-54.79	112.33	-35.88	0.00			
	0.00	12.00	116.00	2986.88	-63.90	131.01	-41.85	0.00			
	0.00	12.00	116.00	3084.70	-73.01	149.70	-47.81	0.00			
	0.00	12.00	116.00	3182.51	-82.13	168.39	-53.78 -59.75	0.00			
	0.00	12.00 12.00	116.00 116.00	3280.33 3378.14	-91.24 -100.36	187.08 205.76	-59.75 -65.72	0.00			
	0.00	12.00	116.00	3475.96	-109.47	224.45	-71.69	0.00			
	0.00	12.00	116.00	3573.77	-118.59	243.14	-77.66	0.00			
370	0.00	12.00	116.00	3671.59	-127.70	261.82	-83.62	0.00			
	0.00	12.00	116.00	3769.40	-136.81	280.51	-89.59	0.00			
	0.00	12.00	116.00	3867.22	-145.93	299.20	-95.56	0.00			
	0.00	12.00 12.00	116.00 116.00	3965.03 4062.84	-155.04 -164.16	317.88 336.57	-101.53 -107.50	0.00			
	0.00	12.00	116.00	4160.66	-173.27	355.26	-113.47	0.00			
	0.00	12.00	116.00	4258.47	-182.38	373.95	-119.44	0.00			
440	0.00	12.00	116.00	4356.29	-191.50	392.63	-125.40	0.00			
	0.00	12.00	116.00	4454.10	-200.61	411.32	-131.37	0.00			
	0.00	12.00	116.00	4551.92	-209.73	430.01	-137.34	0.00			
	0.00	12.00 12.00	116.00 116.00	4649.73 4747.55	-218.84 -227.96	448.69 467.38	-143.31 -149.28	0.00			
	0.00	12.00	116.00	4845.36	-237.07	486.07	-145.25	0.00			
	0.00	12.00	116.00	4943.18	-246.18	504.75	-161.21	0.00			
	7.42	12.00	116.00	4970.00	-248.68	509.88	-162.85	0.00	Base of Salt		
	0.00	12.00	116.00	5040.99	-255.30	523.44	-167.18	0.00			
	0.00 4.83	12.00	116.00 116.00	5138.81	-264.41	542.13	-173.15	0.00	Delaware		
	0.00	12.00 12.00	116.00	5212.00 5236.62	-271.23 -273.53	556.11 560.82	-177.62 -179.12	0.00	Delaware		
	0.00	12.00	116.00	5334.44	-282.64	579.50	-185.09	0.00			
	0.00	12.00	116.00	5432.25	-291.76	598.19	-191.06	0.00			
	0.00	12.00	116.00	5530.07	-300.87	616.88	-197.03	0.00			
	0.00	12.00	116.00	5627.88	-309.98	635.56	-202.99	0.00			
	0.00	12.00	116.00	5725.70	-319.10	654.25	-208.96	0.00			
	0.00	12.00 12.00	116.00 116.00	5823.51 5921.33	-328.21 -337.33	672.94 691.62	-214.93 -220.90	0.00			
	0.00	12.00	116.00	6019.14	-346.44	710.31	-226.87	0.00			
	0.00	12.00	116.00	6116.95	-355.55	729.00	-232.84	0.00			
	0.00	12.00	116.00	6214.77	-364.67	747.68	-238.81	0.00			
	5.09	12.00	116.00	6298.00	-372.42	763.59	-243.88	0.00	Cherry Canyon		
	0.00	12.00	116.00	6312.58	-373.78	766.37	-244.77	0.00			
650	0.00	12.00	116.00	6410.40	-382.90	785.06	-250.74	0.00			



County: Lea
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)

	Design: Permit Plan #1							<b>Zone:</b> 3001 - NM East (NAD83)		
MD	INC	AZI	TVD	NS	EW	vs	DLS	•		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment		
6600.00	12.00	116.00	6508.21	-392.01	803.75	-256.71	0.00			
6700.00	12.00	116.00	6606.03	-401.13	822.43	-262.68	0.00			
6800.00	12.00	116.00	6703.84	-410.24	841.12	-268.65	0.00			
6900.00	12.00	116.00	6801.66	-419.35	859.81	-274.62	0.00			
7000.00	12.00	116.00	6899.47	-428.47	878.49	-280.58	0.00			
7100.00	12.00	116.00	6997.29	-437.58	897.18	-286.55	0.00			
7200.00	12.00	116.00	7095.10	-446.70	915.87	-292.52	0.00			
7300.00	12.00	116.00	7192.92	-455.81	934.55	-298.49	0.00			
7400.00	12.00	116.00	7290.73	-464.93	953.24	-304.46	0.00			
7500.00	12.00	116.00	7388.55	-474.04	971.93	-310.43	0.00			
7600.00	12.00	116.00	7486.36	-483.15	990.62	-316.40	0.00			
7700.00	12.00	116.00	7584.18	-492.27	1009.30	-322.36	0.00			
7800.00	12.00	116.00	7681.99	-501.38	1027.99	-328.33	0.00			
7900.00	12.00	116.00	7779.81	-510.50	1046.68	-334.30	0.00			
8000.00	12.00	116.00	7877.62	-519.61	1065.36	-340.27	0.00	De de Conse		
8058.66	12.00	116.00	7935.00	-524.96	1076.33	-343.77	0.00	Brushy Canyon		
8100.00 8200.00	12.00	116.00	7975.44	-528.72	1084.05	-346.24 -352.21	0.00			
8300.00	12.00 12.00	116.00 116.00	8073.25 8171.06	-537.84 -546.95	1102.74 1121.42		0.00			
8400.00		116.00		-546.95		-358.17 -364.14				
8500.00	12.00 12.00	116.00	8268.88 8366.69	-556.07 -565.18	1140.11 1158.80	-304.14 -370.11	0.00			
8600.00	12.00	116.00	8464.51	-505.16	1177.49	-376.08	0.00			
8700.00	12.00	116.00	8562.32	-574.50 -583.41	1177.49	-382.05	0.00			
8800.00	12.00	116.00	8660.14	-592.52	1214.86	-388.02	0.00			
8900.00	12.00	116.00	8757.95	-601.64	1233.55	-393.99	0.00			
9000.00	12.00	116.00	8855.77	-610.75	1252.23	-399.95	0.00			
9100.00	12.00	116.00	8953.58	-619.87	1270.92	-405.92	0.00			
9200.00	12.00	116.00	9051.40	-628.98	1289.61	-411.89	0.00			
9300.00	12.00	116.00	9149.21	-638.10	1308.29	-417.86	0.00			
9400.00	12.00	116.00	9247.03	-647.21	1326.98	-423.83	0.00			
9500.00	12.00	116.00	9344.84	-656.32	1345.67	-429.80	0.00			
9590.13	12.00	116.00	9433.00	-664.54	1362.51	-435.18	0.00	1st Bone Spring Lime		
9600.00	12.00	116.00	9442.66	-665.44	1364.36	-435.76	0.00			
9700.00	12.00	116.00	9540.47	-674.55	1383.04	-441.73	0.00			
9800.00	12.00	116.00	9638.29	-683.67	1401.73	-447.70	0.00			
9900.00	12.00	116.00	9736.10	-692.78	1420.42	-453.67	0.00			
10000.00	12.00	116.00	9833.92	-701.89	1439.10	-459.64	0.00			
10100.00	12.00	116.00	9931.73	-711.01	1457.79	-465.61	0.00			
10200.00	12.00	116.00	10029.55	-720.12	1476.48	-471.58	0.00			
10300.00	12.00	116.00	10127.36	-729.24	1495.16	-477.54	0.00			
10400.00	12.00	116.00	10225.17	-738.35	1513.85	-483.51	0.00			
10500.00	12.00	116.00	10322.99	-747.47	1532.54	-489.48	0.00			
10558.28	12.00	116.00	10380.00	-752.78	1543.43	-492.96	0.00	Bone Spring 1st		
10600.00	12.00	116.00	10420.80	-756.58	1551.23	-495.45	0.00			
10700.00	12.00	116.00	10518.62	-765.69	1569.91	-501.42	0.00			
10800.00	12.00	116.00	10616.43	-774.81	1588.60	-507.39	0.00			
10900.00	12.00	116.00	10714.25	-783.92	1607.29	-513.36	0.00	5		
10956.43	12.00	116.00	10769.44	-789.07	1617.83	-516.72	0.00	Drop to Vertical		
11000.00	11.13	116.00	10812.13	-792.90	1625.68	-519.23	2.00			
11100.00	9.13	116.00	10910.57	-800.61	1641.49	-524.28	2.00	Pone Spring and		
11109.55	8.94 7.12	116.00	10920.00	-801.26	1642.83	-524.71	2.00	Bone Spring 2nd		
11200.00 11300.00	7.13	116.00	11009.56 11108.98	-806.80 -811.48	1654.19	-528.34 521.41	2.00			
11400.00	5.13 3.13	116.00 116.00	11108.98		1663.79 1670.26	-531.41 -533.47	2.00			
11500.00	3.13 1.13	116.00	11308.64	-814.64 -816.27	1670.26	-533.47 -534.54	2.00 2.00			
11500.00	0.00	116.00	11308.64	-816.27 -816.51	1673.60	-534.54 -534.69	2.00	Hold Vertical		
11600.00	0.00	359.53	11408.64	-816.51 -816.51	1674.10	-534.69 -534.70	0.00	TIOIR VETREAL		
11621.36	0.00	359.53	11430.00	-816.51	1674.10	-534.70	0.00	3rd Bone Spring Lime		
11658.43	0.00	359.53	11467.07	-816.51	1674.10	-534.70	0.00	KOP		
11700.00	4.16	359.53	11508.60	-815.00	1674.10	-533.21	10.00	tie:		
11800.00	14.16	359.53	11607.20	-799.11	1673.95	-533.21	10.00			
11900.00	24.16	359.53	11701.54	-766.34	1673.69	-485.25	10.00			
12000.00	34.16	359.53	11788.76	-717.68	1673.29	-437.30	10.00			
	44.16	359.53	11866.21	-654.62	1672.77	-375.16	10.00			
		359.53	11931.52	-579.07	1672.15	-300.70	10.00			
12100.00	54.16			-493.32	1671.44	-216.20	10.00			
12100.00 12200.00	54.16 64.16		11982.73	-433.32						
12100.00	64.16	359.53	11982.73 12011.00			-147.52	10.00	Bone Spring 3rd / Point of Penetration		
12100.00 12200.00 12300.00			11982.73 12011.00 12018.26	-493.52 -423.63 -399.99	1670.87 1670.68	-147.52 -124.22	10.00 10.00	Bone Spring 3rd / Point of Penetration		
12100.00 12200.00 12300.00 12375.27	64.16 71.68	359.53 359.53	12011.00	-423.63	1670.87			Bone Spring 3rd / Point of Penetration		



County: Lea
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)

	Design.	r errint r iai						Zone. 3001 - NW East (NAD03)
MD	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
12600.00	90.58	359.53	12039.64	-202.01	1669.06	70.88	0.00	
12700.00	90.58	359.53	12038.63	-102.02	1668.24	169.42	0.00	
12800.00	90.58	359.53	12037.62	-2.03	1667.41	267.96	0.00	
12900.00	90.58	359.53	12037.02	97.97	1666.59	366.50	0.00	
13000.00	90.58	359.53	12035.61	197.96	1665.77	465.04	0.00	
13100.00	90.58	359.53	12034.60	297.95	1664.95	563.58	0.00	
13200.00	90.58	359.53	12033.59	397.94	1664.13	662.12	0.00	
13300.00	90.58	359.53	12032.58	497.93	1663.31	760.66	0.00	
13400.00	90.58	359.53	12031.57	597.92	1662.49	859.20	0.00	
13500.00	90.58	359.53	12030.57	697.91	1661.67	957.74	0.00	
13600.00	90.58	359.53	12029.56	797.91	1660.85	1056.28	0.00	
13700.00	90.58	359.53	12028.55	897.90	1660.03	1154.82	0.00	
13800.00	90.58	359.53	12027.54	997.89	1659.21	1253.35	0.00	
13900.00	90.58	359.53	12026.53	1097.88	1658.39	1351.89	0.00	
14000.00	90.58	359.53	12025.52	1197.87	1657.57	1450.43	0.00	
14100.00	90.58	359.53	12024.52	1297.86	1656.74	1548.97	0.00	
14200.00	90.58	359.53	12023.51	1397.86	1655.92	1647.51	0.00	
14300.00	90.58	359.53	12022.50	1497.85	1655.10	1746.05	0.00	
14400.00	90.58	359.53	12021.49	1597.84	1654.28	1844.59	0.00	
14500.00	90.58	359.53	12020.48	1697.83	1653.46	1943.13	0.00	
14600.00	90.58	359.53	12019.48	1797.82	1652.64	2041.67	0.00	
14700.00	90.58	359.53	12019.48	1897.81	1651.82	2140.21	0.00	
14800.00	90.58	359.53	12018.47	1997.81	1651.82	2238.75	0.00	
14900.00	90.58	359.53	12016.45	2097.80	1650.18	2337.29	0.00	
15000.00	90.58	359.53	12015.44	2197.79	1649.36	2435.83	0.00	
15100.00	90.58	359.53	12014.43	2297.78	1648.54	2534.37	0.00	
15200.00	90.58	359.53	12013.43	2397.77	1647.72	2632.91	0.00	
15300.00	90.58	359.53	12012.42	2497.76	1646.89	2731.45	0.00	
15400.00	90.58	359.53	12011.41	2597.75	1646.07	2829.99	0.00	
15500.00	90.58	359.53	12010.40	2697.75	1645.25	2928.53	0.00	
15600.00	90.58	359.53	12009.39	2797.74	1644.43	3027.06	0.00	
15700.00	90.58	359.53	12008.39	2897.73	1643.61	3125.60	0.00	
15800.00	90.58	359.53	12007.38	2997.72	1642.79	3224.14	0.00	
15900.00	90.58	359.53	12006.37	3097.71	1641.97	3322.68	0.00	
16000.00	90.58	359.53	12005.36	3197.70	1641.15	3421.22	0.00	
16100.00	90.58	359.53	12004.35	3297.70	1640.33	3519.76	0.00	
16200.00	90.58	359.53	12003.34	3397.69	1639.51	3618.30	0.00	
16300.00	90.58	359.53	12002.34	3497.68	1638.69	3716.84	0.00	
16400.00	90.58	359.53	12001.33	3597.67	1637.87	3815.38	0.00	
16500.00	90.58	359.53	12000.32	3697.66	1637.05	3913.92	0.00	
16600.00	90.58	359.53	11999.31	3797.65	1636.22	4012.46	0.00	
16700.00	90.58	359.53	11998.30	3897.64	1635.40	4111.00	0.00	
16800.00	90.58	359.53	11997.30	3997.64	1634.58	4209.54	0.00	
16900.00	90.58	359.53	11997.30	4097.63	1633.76	4308.08	0.00	
17000.00	90.58	359.53	11995.28	4197.62	1632.94	4406.62	0.00	
17100.00	90.58	359.53	11994.27	4297.61	1632.12	4505.16	0.00	
17200.00	90.58	359.53	11993.26	4397.60	1631.30	4603.70	0.00	
17300.00	90.58	359.53	11992.25	4497.59	1630.48	4702.24	0.00	
17400.00	90.58	359.53	11991.25		1629.66	4800.77	0.00	
17500.00	90.58	359.53	11990.24	4697.58	1628.84	4899.31	0.00	
17600.00	90.58	359.53	11989.23	4797.57	1628.02	4997.85	0.00	
17700.00	90.58	359.53	11988.22	4897.56	1627.20	5096.39	0.00	
17800.00	90.58	359.53	11987.21	4997.55	1626.38	5194.93	0.00	
17900.00	90.58	359.53	11986.21	5097.54	1625.55	5293.47	0.00	
18000.00	90.58	359.53	11985.20	5197.53	1624.73	5392.01	0.00	
18100.00	90.58	359.53	11984.19	5297.53	1623.91	5490.55	0.00	
18200.00	90.58	359.53	11983.18	5397.52	1623.09	5589.09	0.00	
18300.00	90.58	359.53	11982.17	5497.51	1622.27	5687.63	0.00	
18400.00	90.58	359.53	11981.17	5597.50	1621.45	5786.17	0.00	
18500.00	90.58	359.53	11980.16	5697.49	1620.63	5884.71	0.00	
18600.00	90.58	359.53	11979.15	5797.48	1619.81	5983.25	0.00	
18700.00			11979.13		1618.99			
	90.58	359.53		5897.48		6081.79	0.00	
18800.00	90.58	359.53	11977.13	5997.47	1618.17	6180.33	0.00	
18900.00	90.58	359.53	11976.12	6097.46	1617.35	6278.87	0.00	
19000.00	90.58	359.53	11975.12	6197.45	1616.53	6377.41	0.00	
	90.58	359.53	11974.11	6297.44	1615.71	6475.95	0.00	
		359.53	11973.10	6397.43	1614.88	6574.48	0.00	
19200.00	90.58							
19100.00 19200.00 19300.00	90.58	359.53	11972.09	6497.42	1614.06	6673.02	0.00	
19200.00			11972.09 11971.08	6497.42 6597.42	1614.06 1613.24	6673.02 6771.56	0.00	



County: Lea
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	INC	AZI	TVD	NS	EW	vs	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19600.00	90.58	359.53	11969.07	6797.40	1611.60	6968.64	0.00	
19700.00	90.58	359.53	11968.06	6897.39	1610.78	7067.18	0.00	
19800.00	90.58	359.53	11967.05	6997.38	1609.96	7165.72	0.00	
19900.00	90.58	359.53	11966.04	7097.37	1609.14	7264.26	0.00	
20000.00	90.58	359.53	11965.03	7197.37	1608.32	7362.80	0.00	
20100.00	90.58	359.53	11964.03	7297.36	1607.50	7461.34	0.00	
20200.00	90.58	359.53	11963.02	7397.35	1606.68	7559.88	0.00	
20300.00	90.58	359.53	11962.01	7497.34	1605.86	7658.42	0.00	
20400.00	90.58	359.53	11961.00	7597.33	1605.03	7756.96	0.00	
20500.00	90.58	359.53	11959.99	7697.32	1604.21	7855.50	0.00	
20600.00	90.58	359.53	11958.99	7797.31	1603.39	7954.04	0.00	
20700.00	90.58	359.53	11957.98	7897.31	1602.57	8052.58	0.00	
20800.00	90.58	359.53	11956.97	7997.30	1601.75	8151.12	0.00	
20900.00	90.58	359.53	11955.96	8097.29	1600.93	8249.66	0.00	
21000.00	90.58	359.53	11954.95	8197.28	1600.11	8348.19	0.00	
21100.00	90.58	359.53	11953.94	8297.27	1599.29	8446.73	0.00	
21200.00	90.58	359.53	11952.94	8397.26	1598.47	8545.27	0.00	
21300.00	90.58	359.53	11951.93	8497.26	1597.65	8643.81	0.00	
21400.00	90.58	359.53	11950.92	8597.25	1596.83	8742.35	0.00	
21500.00	90.58	359.53	11949.91	8697.24	1596.01	8840.89	0.00	
21600.00	90.58	359.53	11948.90	8797.23	1595.19	8939.43	0.00	
21700.00	90.58	359.53	11947.90	8897.22	1594.36	9037.97	0.00	
21800.00	90.58	359.53	11946.89	8997.21	1593.54	9136.51	0.00	
21900.00	90.58	359.53	11945.88	9097.21	1592.72	9235.05	0.00	
22000.00	90.58	359.53	11944.87	9197.20	1591.90	9333.59	0.00	
22100.00	90.58	359.53	11943.86	9297.19	1591.08	9432.13	0.00	
22200.00	90.58	359.53	11942.85	9397.18	1590.26	9530.67	0.00	
22300.00	90.58	359.53	11941.85	9497.17	1589.44	9629.21	0.00	
22400.00	90.58	359.53	11940.84	9597.16	1588.62	9727.75	0.00	
22401.84	90.58	359.53	11940.82	9599.01	1588.60	9729.56	0.00	exit
22481.84	90.58	359.53	11940.00	9679.00	1588.00	9808.40	0.00	BHL

 Well: Jayhawk 7-6 Fed Fee Com 22H
 Geodetic System: US State Plane 1983

 County: Lea
 Datum: North American Datum 1927

 Wellbore: Permit Plan
 Ellipsoid: Clarke 1866

 Design: Permit Plan #1
 Zone: 3001 - NM East (NAD83)

INC TVD MD AZI NS EW ٧S DLS Comment (ft) (°) (°) (ft) (ft) (ft) (ft) (°/100ft)

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Devon Energy Production Company LP
LEASE NO.: NMNM114990
LOCATION: Section 7, T.26 S., R.34 E., NMPM
COUNTY: Lea County, New Mexico

WELL NAME & NO.: Jayhawk 7-6 Fed Fee Com 22H
SURFACE HOLE FOOTAGE: 875'/S & 2065'/E
BOTTOM HOLE FOOTAGE 20'/N & 395'/E
ATS/API ID: 3002548342
APD ID: Sundry ID: 2711724

COA

H2S	O Yes	□ No	
Potash	None	☐ Secretary	□ R-111-P
Cave/Karst Potential	<b>©</b> Low	☐ Medium	☐ High
Cave/Karst Potential	Critical		
Variance	□ None	☐ Flex Hose	Other
Wellhead	Conventional	☐ Multibowl	Both
Wellhead Variance	Diverter		
Other	□4 String	□Capitan Reef	□WIPP
Other	✓ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency		☐ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	<b>☑</b> COM	□ Unit
Special Requirements	☐ Break Testing	☐ Offline	☐ Batch Sundry
Variance		Cementing	

#### A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Wolfcamp** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### B. CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 925 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

#### **Option 1 (Single Stage):**

• Cement to surface. If cement does not circulate see B.1.a, c-d above.

#### **Option 2:**

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

- a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon at 7935' (820 sxs Class H/C+ additives).
- b. Second stage:
  - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 855 sxs Class C)

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 8-5/8" casing to surface after the second stage BH to verify TOC.

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least 200 feet into previous casing string.
     Operator shall provide method of verification.
     Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

#### C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

#### Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 inch intermediate casing shoe shall be 5000 (5M) psi.

#### **Option 2:**

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 10-3/4 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

### D. SPECIAL REQUIREMENT (S)

#### **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in Onshore Order 1 and 2.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

## **GENERAL REQUIREMENTS**

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
  - Eddy County
     Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
  - ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)689-5981
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

#### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin

- after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

## C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

LVO 1/23/2023

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

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 191944

#### **CONDITIONS**

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	191944
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By		Condition Date
pkautz	None	3/16/2023