

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

Sundry Print Reports
12/02/2022

Well Name: BURTON FLAT 35-33 FED Well Location: T20S / R28E / SEC 35 / County or Parish/State:

COM NESW /

Well Number: 624H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM082992 Unit or CA Name: Unit or CA Number:

US Well Number: Well Status: Approved Application for Operator: DEVON ENERGY

Permit to Drill PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2700353

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 10/28/2022 Time Sundry Submitted: 04:30

Date proposed operation will begin: 10/28/2022

Procedure Description: Devon Energy Production Co., L.P. (Devon) respectfully requests to change the BHL and a break test variance on the subject well. Please see attached revised C102, Drill plan, directional plan. Permitted BHL: SWSW, 875 FSL, 20 FWL, 33-20S-28E Proposed BHL: SWSE, 880 FSL, 2620 FEL, 33-20S-28E

NOI Attachments

Procedure Description

break_test_variance_BOP_20221107072802.pdf

BURTON_FLAT_35_33_FED_COM_624H_20221107072740.pdf

BURTON_FLAT_35_33_FED_COM_624H_Directional_Plan_11_01_22_20221107072732.pdf

13.375_54.5_J55_SEAH_20221107072657.pdf

10.75_45.50_J55_BTC_SC_BLP_Devon_20221107072658.pdf

5.50_20__P110EC_DWC_C_IS_PLUS_VST__2__20221107072658.pdf

8.625_32lb_P110HSCY_TLW_20221107072658.PDF

WA018314481_BURTON_FLAT_35_33_FED_COM_624H_WL_R1_SIGNED_20221028162941.pdf

by OCD: 1/9/2023 8:36:49 AM Name: BURTON FLAT 35-33 FED Well Location: T20S / R28E / SEC 35 / County or Parish/State: NESW /

COM

Well Number: 624H Type of Well: OIL WELL

Page 2 of

Allottee or Tribe Name:

Lease Number: NMNM082992 **Unit or CA Name: Unit or CA Number:**

US Well Number: Well Status: Approved Application for **Operator: DEVON ENERGY**

Permit to Drill

PRODUCTION COMPANY LP

Conditions of Approval

Additional

35_20_28_K_Sundry_ID_2700353_Burton_Flat_35_33_Fed_Com_624H_Eddy_NM082992_DEVON_ENERGY_PROD UCTION_COMPANY_LP_13_22d_11_22_2022_LV_20221122125809.pdf

Burton_Flat_35_33_Fed_Com_624H_Dr_Sundry_ID_2700353_20221122125809.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: NOV 07, 2022 07:28 AM

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:

State: Zip: City:

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:** 12/02/2022

Signature: Chris Walls

Page 2 of 2

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

State of New Mexico Energy, Minerals & Natural Resources Department CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

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

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV

□ AMENDED REPORT

1220 S. ST. FRANCIS DR., SANTA FE, NM 67505 Phone: (505) 476-3460 Fax: (505) 476-3462 WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 98315				
Property Code	Pro	perty Name	Well Number		
	BURTON FLAT	35-33 FED COM	624H		
OGRID No.	0pe	erator Name	Elevation		
6137	DEVON ENERGY PRO	DDUCTION COMPANY, L.P.	3202.2'		

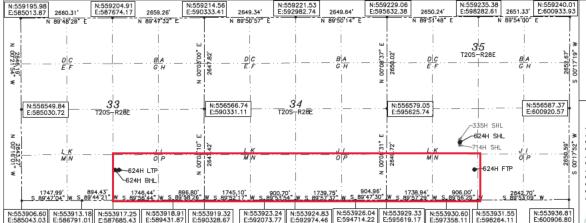
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	35	20-S	28-E		1631	SOUTH	2125	WEST	EDDY

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
0	33	20-S	28-E		880	SOUTH	2620	EAST	EDDY
Dedicated Acre	s Joint o	r Infill Co	nsolidation (Code Or	der No.				

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



BURTON FLAT 35-33 FED COM 624H

EL:3202.2' LAT:32.527166 LON:104.150301 N:555562.01 E:597748.22 FIRST TAKE POINT 880' FSL 2546' FWL SEC. 35 LAT:32,525101 LON:104.148946 N:554811.44 E:598167.17 LAST TAKE POINT 880' FSL 2540' FEL SEC. 33 LAT:32.525107 LON:104.182617 N:554797.35 E:587789.48 BOTTOM OF HOLE LAT:32.525107 LON:104.182877 N:554797.27

E:587709.48

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature

10/28/22 Date

Chelsey Green

Printed Name

chelsey.green@dvn.com

B-mail Address

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.

03/2021

Date of Survey

Signature & Seal of Professional Surveyor LAMAN ֍. SEN METICO TO SONAL SUPIL RÉV: 6/30/2022

Certificate No. 22404 B.L. LAMAN

DRAWN BY: CM

Inten	t X	As Dril	led											
API#														
DE\	rator Nar /ON EN MPANY	IERGY F	PRODUC	OITS	I	-	erty Na RTON			5-33	FED	CON	Л	Well Number 624H
Kick (Off Point	(KOP)												
UL N	Section 35	Township 20S	Range 28E	Lot	Feet 850		From N/ SOUT		Feet 2546	6	From	n E/W ST	County EDDY3	32.52492456
Latitu 32.	ide 524924	156			Longitu		94600)					NAD 83	
First 7	Γake Poin	nt (FTP)												
UL N	Section 35	Township 20-S	Range 28-E	Lot	Feet 880		From N/ SOU		Feet 254	6	From WE	ST	County EDDY	/
32.	5251	01			Longitu 104		8946)					NAD 83	
Last T	ake Poin	t (LTP)												
O	Section 33	Township 20-S	Range 28-E	Lot	Feet 880		n N/S UTH	Feet 254		From EAS		Count		
32.	5251	07			Longitu 104		2617	,				NAD 83		
Is this	s well the	defining v	vell for th	e Horiz	zontal Sp	pacing	; Unit?		(
Is this	well an	infill well?		N										
	l is yes p ng Unit.	lease prov	ide API if a	availak	ole, Opei	rator N	Name a	nd v	vell nu	ımber	for [Definir	ng well fo	or Horizontal
API#														
Ope	rator Nar	me:	1			Prop	erty Na	me:						Well Number
						<u> </u>								1

KZ 06/29/2018

BURTON FLAT 35-33 FED COM 624H

1. Geologic Formations

TVD of target	9100	Pilot hole depth	N/A
MD at TD:	19474	Deepest expected fresh water	

Basin

	Depth	Water/Mineral	
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	85		
Salt	441		
Base of Salt	640		
Lamar	854		
Capitan Reef Top	1130		
Delaware	2953		
Cherry Canyon	3192		
Brushy Canyon	3792		
1st Bone Spring Lime	5350	_	
Bone Spring 1st	6685		
Bone Spring 2nd	7327		
3rd Bone Spring Lime	7627	_	
Bone Spring 3rd	8522		
Wolfcamp	8977	_	

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

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Top (MD)	Bottom (MD)	Top (TVD)	Bottom (TVD)
17 1/2	13 3/8	54.5	J-55	ВТС	0.0	225 MD	0	225 TVD
12 1/4	10 3/4	45.5	J-55	BTC SC	0.0	780 MD	0	780 TVD
9 7/8	8 5/8	32.0	P110	TLW	0	3005 MD	0	3005 TVD
7 7/8	5 1/2	20.0	P110EC	DWC/C IS+	0	19474 MD	0	9100 TVD

[•] All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.
• The Rustler top will be validated via drilling parameters (i.e. reduction in ROP), and the surface casing setting depth will be revised accordingly. In addition, surface casing will be set a minimum of 25' above the top of the salt.

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	201	Surf	13.2	1.44	Lead: Class C Cement + additives
Int	21	Surf	9	3.27	Lead: Class C Cement + additives
Int	101	500' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1	98	Surf	9	3.27	Lead: Class C Cement + additives
Int 1	67	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1	As Needed	Surf	9	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	21	Surf	9	3.27	Lead: Class C Cement + additives
Squeeze	101	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Production	439	1080	9	3.27	Lead: Class H /C + additives
Production	1436	8621	13.2	1.44	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 and Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

4. Pressure Control Equipment (Four String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Т	ype	✓	Tested to:	
			An	nular		n/a	
Int			Blin	d Ram			
Int			Pipe	e Ram		500psi	
			Doub	le Ram		300psi	
			Other*	diverter	X		
			Annu	ar (5M)	X	100% of rated working pressure	
T . 1	12.5/0"	53.4	Blin	d Ram	X	Î	
Int 1	13-5/8"	5M	Pipe	e Ram		514	
			Doub	le Ram	X	- 5M	
			Other*				
			Annul	ar (5M)	X	100% of rated working pressure	
Production	13-5/8"	5M	Blin	d Ram	X		
Troduction	13-3/8	JIVI	Pipe	e Ram		5M	
			Doub	le Ram	X	3101	
			Other*				
N A variance is requested fo	r the use of a	diverter on the surface of	casing. See a	ttached for sc	hematic.		
N A variance is requested to	run a 5 M an	nular on a 10M system					

By definition, the diverter will only be used to divert flow from the well and not to shut in the well. Prior to drilling out, the diverter will be tested to 250 PSI to ensure functionality.

5. Mud Program (Four String Design)

Section	Туре	Weight (ppg)
Surface	WBM	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Intermediate 1	WBM	8.5-9
Production	OBM	10-10.5

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

888	or nogging and resums recedence						
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 Completion						
X	Report and sbumitted 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	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

7. Dining Conditions	
Condition	Specfiy what type and where?
BH pressure at deepest TVD	4969
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

IN	H2S is present
Y	H2S plan attached.

BURTON FLAT 35-33 FED COM 624H

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.

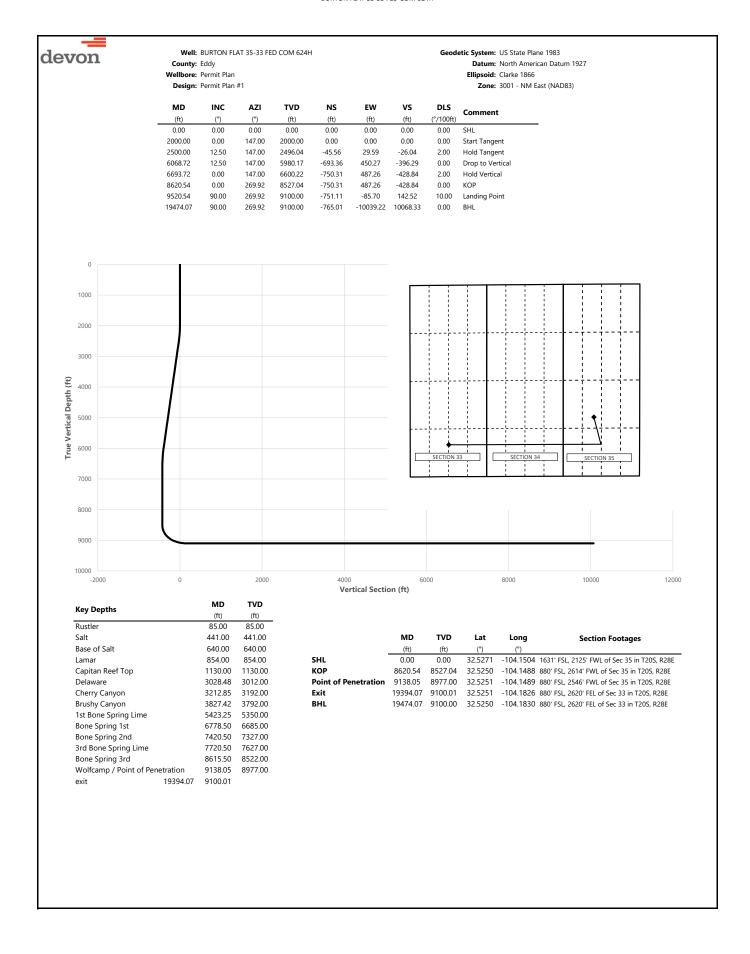
3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

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 preset surface casing.

Attachments X Directional Plan Other, describe





Well: BURTON FLAT 35-33 FED COM 624H Geodetic System: US State Plane 1983 County: Eddy Datum: North American Datum 1927 Wellbore: Permit Plan Ellipsoid: Clarke 1866

	Wellbore:	Permit Plan	١					Ellipsoid: Clarke 1866
	Design:	Permit Plan	ı #1					Zone: 3001 - NM East (NAD83)
MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
85.00	0.00	147.00	85.00	0.00	0.00	0.00	0.00	Rustler
100.00	0.00	147.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	147.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	147.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	147.00	400.00	0.00	0.00	0.00	0.00	
441.00	0.00	147.00	441.00	0.00	0.00	0.00	0.00	Salt
500.00	0.00	147.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	147.00	600.00	0.00	0.00	0.00	0.00	
640.00	0.00	147.00	640.00	0.00	0.00	0.00	0.00	Base of Salt
700.00	0.00	147.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	147.00	800.00	0.00	0.00	0.00	0.00	
854.00	0.00	147.00	854.00	0.00	0.00	0.00	0.00	Lamar
900.00	0.00	147.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	147.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	147.00	1100.00	0.00	0.00	0.00	0.00	
1130.00	0.00	147.00	1130.00	0.00	0.00	0.00	0.00	Capitan Reef Top
1200.00	0.00	147.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	147.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	147.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	147.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	147.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	147.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	147.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	147.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	147.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.50	147.00	2099.97	-1.83	1.19	-1.05	2.50	
2200.00	5.00	147.00	2199.75	-7.31	4.75	-4.18	2.50	
2300.00	7.50	147.00	2299.14	-16.44	10.68	-9.40	2.50	
2400.00	10.00	147.00	2397.97	-29.20	18.96	-16.69	2.50	
2500.00	12.50	147.00	2496.04	-45.56	29.59	-26.04	2.00	Hold Tangent
2600.00	12.50	147.00	2593.67	-63.71	41.38	-36.42	0.00	-
2700.00	12.50	147.00	2691.30	-81.87	53.16	-46.79	0.00	
2800.00	12.50	147.00	2788.93	-100.02	64.95	-57.16	0.00	
2900.00	12.50	147.00	2886.56	-118.17	76.74	-67.54	0.00	
3000.00	12.50	147.00	2984.19	-136.32	88.53	-77.91	0.00	
3028.48	12.50	147.00	3012.00	-141.49	91.89	-80.87	0.00	Delaware
3100.00	12.50	147.00	3081.82	-154.47	100.32	-88.29	0.00	
3200.00	12.50	147.00	3179.45	-172.63	112.11	-98.66	0.00	
3212.85	12.50	147.00	3192.00	-174.96	113.62	-100.00	0.00	Cherry Canyon
3300.00	12.50	147.00	3277.08	-190.78	123.89	-109.04	0.00	, ,
3400.00	12.50	147.00	3374.71	-208.93	135.68	-119.41	0.00	
3500.00	12.50	147.00	3472.34	-227.08	147.47	-129.79	0.00	
3600.00	12.50	147.00	3569.97	-245.23	159.26	-140.16	0.00	
3700.00	12.50	147.00	3667.60	-263.39	171.05	-150.54	0.00	
3800.00	12.50	147.00	3765.23	-281.54	182.83	-160.91	0.00	
3827.42	12.50	147.00	3792.00	-286.52	186.07	-163.76	0.00	Brushy Canyon
3900.00	12.50	147.00	3862.86	-299.69	194.62	-171.29	0.00	
4000.00	12.50	147.00	3960.49	-317.84	206.41	-181.66	0.00	
4100.00	12.50	147.00	4058.12	-336.00	218.20	-192.04	0.00	
4200.00	12.50	147.00	4155.75	-354.15	229.99	-202.41	0.00	
4300.00	12.50	147.00	4253.38	-372.30	241.77	-212.79	0.00	
4400.00	12.50	147.00	4351.01	-390.45	253.56	-223.16	0.00	
4500.00	12.50	147.00	4448.64	-408.60	265.35	-233.54	0.00	
4600.00	12.50	147.00	4546.26	-426.76	277.14	-243.91	0.00	
4700.00	12.50	147.00	4643.89	-444.91	288.93	-254.29	0.00	
4800.00	12.50	147.00	4741.52	-463.06	300.72	-264.66	0.00	
4900.00	12.50	147.00	4839.15	-481.21	312.50	-275.04	0.00	
5000.00	12.50	147.00	4936.78	-499.36	324.29	-285.41	0.00	
5100.00	12.50	147.00	5034.41	-517.52	336.08	-295.79	0.00	
		147.00						
5200.00	12.50		5132.04	-535.67	347.87	-306.16	0.00	
5300.00	12.50	147.00	5229.67	-553.82 571.97	359.66	-316.54	0.00	
5400.00	12.50	147.00	5327.30	-571.97	371.44	-326.91	0.00	1ct Pana Caring Lima
5423.25	12.50	147.00	5350.00	-576.19	374.19	-329.32	0.00	1st Bone Spring Lime
5500.00	12.50	147.00	5424.93	-590.12	383.23	-337.28	0.00	
5600.00	12.50	147.00	5522.56	-608.28	395.02	-347.66	0.00	
5700.00	12.50	147.00	5620.19	-626.43	406.81	-358.03	0.00	

-368.41

-378.78

-389.16

418.60

0.00

0.00

0.00

5800.00

6000.00

12.50

12.50 147.00 5717.82

5900.00 12.50 147.00 5815.45 -662.73 430.39

-644.58

147.00 5913.08 -680.89 442.17



Well: BURTON FLAT 35-33 FED COM 624H

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)

	Design:	Permit Plan	#1				Zone: 3001 - NM East (NAD83)			
MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment		
6068.72	12.50	147.00	5980.17	-693.36	450.27	-396.29	0.00	Drop to Vertical		
6100.00	11.87	147.00	6010.75	-698.90	453.87	-399.45	2.00			
6200.00	9.87	147.00	6108.94	-714.72	464.14	-408.50	2.00			
6300.00	7.87	147.00	6207.74	-727.66	472.55	-415.89	2.00			
6400.00 6500.00	5.87 3.87	147.00 147.00	6307.02 6406.65	-737.70 -744.82	479.07 483.69	-421.63 -425.70	2.00 2.00			
6600.00	1.87	147.00	6506.52	-744.02	486.42	-428.10	2.00			
6693.72	0.00	147.00	6600.22	-750.31	487.26	-428.84	2.00	Hold Vertical		
6700.00	0.00	269.92	6606.50	-750.31	487.26	-428.84	0.00			
6778.50	0.00	269.92	6685.00	-750.31	487.26	-428.84	0.00	Bone Spring 1st		
6800.00	0.00	269.92	6706.50	-750.31	487.26	-428.84	0.00			
6900.00	0.00	269.92	6806.50	-750.31	487.26	-428.84	0.00			
7000.00	0.00	269.92	6906.50	-750.31	487.26	-428.84	0.00			
7100.00	0.00	269.92	7006.50	-750.31	487.26	-428.84	0.00			
7200.00	0.00	269.92	7106.50	-750.31	487.26	-428.84	0.00			
7300.00 7400.00	0.00	269.92 269.92	7206.50 7306.50	-750.31 -750.31	487.26 487.26	-428.84 -428.84	0.00			
7420.50	0.00	269.92	7327.00	-750.31	487.26	-428.84	0.00	Bone Spring 2nd		
7500.00	0.00	269.92	7406.50	-750.31	487.26	-428.84	0.00	some spring and		
7600.00	0.00	269.92	7506.50	-750.31	487.26	-428.84	0.00			
7700.00	0.00	269.92	7606.50	-750.31	487.26	-428.84	0.00			
7720.50	0.00	269.92	7627.00	-750.31	487.26	-428.84	0.00	3rd Bone Spring Lime		
7800.00	0.00	269.92	7706.50	-750.31	487.26	-428.84	0.00			
7900.00	0.00	269.92	7806.50	-750.31	487.26	-428.84	0.00			
8000.00	0.00	269.92	7906.50	-750.31	487.26	-428.84	0.00			
8100.00 8200.00	0.00	269.92 269.92	8006.50 8106.50	-750.31 -750.31	487.26 487.26	-428.84 -428.84	0.00			
8300.00	0.00	269.92	8206.50	-750.31	487.26	-428.84	0.00			
8400.00	0.00	269.92	8306.50	-750.31	487.26	-428.84	0.00			
8500.00	0.00	269.92	8406.50	-750.31	487.26	-428.84	0.00			
8600.00	0.00	269.92	8506.50	-750.31	487.26	-428.84	0.00			
8615.50	0.00	269.92	8522.00	-750.31	487.26	-428.84	0.00	Bone Spring 3rd		
8620.54	0.00	269.92	8527.04	-750.31	487.26	-428.84	0.00	KOP		
8700.00	7.95	269.92	8606.25	-750.32	481.76	-423.35	10.00			
8800.00	17.95	269.92	8703.58	-750.35	459.38	-401.04	10.00			
8900.00	27.95	269.92	8795.55	-750.41	420.44	-362.21	10.00			
9000.00 9100.00	37.95 47.95	269.92 269.92	8879.37 8952.47	-750.48 -750.58	366.13 298.08	-308.05 -240.19	10.00 10.00			
9138.05	51.75	269.92	8977.00	-750.62	269.01	-211.20	10.00	Wolfcamp / Point of Penetration		
9200.00	57.95	269.92	9012.65	-750.69	218.38	-160.71	10.00	Troncamp / Tome of Tenediation		
9300.00	67.95	269.92	9058.08	-750.81	129.43	-72.01	10.00			
9400.00	77.95	269.92	9087.37	-750.95	33.95	23.21	10.00			
9500.00	87.95	269.92	9099.63	-751.09	-65.17	122.05	10.00			
9520.54	90.00	269.92	9100.00	-751.11	-85.70	142.52	10.00	Landing Point		
9600.00	90.00	269.92	9100.00	-751.22	-165.16	221.76	0.00			
9700.00	90.00	269.92	9100.00	-751.36	-265.16	321.48	0.00			
9800.00 9900.00	90.00 90.00	269.92 269.92	9100.00 9100.00	-751.50 -751.64	-365.16 -465.16	421.21 520.93	0.00			
10000.00	90.00	269.92	9100.00	-751.64 -751.78	-465.16 -565.16	620.65	0.00			
10100.00	90.00	269.92	9100.00	-751.76	-665.16	720.37	0.00			
10200.00	90.00	269.92	9100.00	-752.06	-765.16	820.09	0.00			
10300.00	90.00	269.92	9100.00	-752.20	-865.16	919.81	0.00			
10400.00	90.00	269.92	9100.00	-752.34	-965.16	1019.53	0.00			
10500.00	90.00	269.92	9100.00	-752.48	-1065.16	1119.26	0.00			
10600.00	90.00	269.92	9100.00	-752.62	-1165.16	1218.98	0.00			
10700.00	90.00	269.92	9100.00	-752.76 752.00	-1265.16	1318.70	0.00			
10800.00 10900.00	90.00 90.00	269.92 269.92	9100.00 9100.00	-752.90 -753.04	-1365.16 -1465.16	1418.42 1518.14	0.00			
11000.00	90.00	269.92	9100.00	-753.04	-1565.16	1617.86	0.00			
11100.00	90.00	269.92	9100.00	-753.32	-1665.16	1717.58	0.00			
11200.00	90.00	269.92	9100.00	-753.46	-1765.16	1817.31	0.00			
11300.00	90.00	269.92	9100.00	-753.60	-1865.16	1917.03	0.00			
11400.00	90.00	269.92	9100.00	-753.74	-1965.16	2016.75	0.00			
11500.00	90.00	269.92	9100.00	-753.88	-2065.16	2116.47	0.00			
11600.00	90.00	269.92	9100.00	-754.02	-2165.16	2216.19	0.00			
11700.00	90.00	269.92	9100.00	-754.16	-2265.16	2315.91	0.00			
11800.00	90.00	269.92	9100.00	-754.30	-2365.16	2415.63	0.00			
11900.00 12000.00	90.00 90.00	269.92 269.92	9100.00 9100.00	-754.44 -754.58	-2465.16 -2565.16	2515.36 2615.08	0.00			
12100.00	90.00	269.92	9100.00	-754.56 -754.72	-2665.16	2714.80	0.00			



Well: BURTON FLAT 35-33 FED COM 624H

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)

	Design:							
MD	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
2200.00	90.00	269.92	9100.00	-754.86	-2765.16	2814.52	0.00	
2300.00	90.00	269.92	9100.00	-755.00	-2865.16	2914.24	0.00	
2400.00	90.00	269.92	9100.00	-755.14	-2965.16	3013.96	0.00	
2500.00	90.00	269.92	9100.00	-755.28	-3065.16	3113.69	0.00	
2600.00	90.00	269.92	9100.00	-755.42	-3165.16	3213.41	0.00	
2700.00	90.00	269.92	9100.00	-755.56	-3265.16	3313.13	0.00	
2800.00	90.00	269.92	9100.00	-755.70	-3365.16	3412.85	0.00	
2900.00	90.00	269.92	9100.00	-755.84	-3465.16	3512.57	0.00	
3000.00	90.00	269.92	9100.00	-755.98	-3565.16	3612.29	0.00	
3100.00	90.00	269.92	9100.00	-756.12	-3665.16	3712.01	0.00	
3200.00	90.00	269.92	9100.00	-756.26	-3765.16	3811.74	0.00	
3300.00	90.00	269.92	9100.01	-756.40	-3865.16	3911.46	0.00	
3400.00	90.00	269.92	9100.01	-756.54	-3965.16	4011.18	0.00	
3500.00	90.00	269.92	9100.01	-756.68	-4065.16	4110.90	0.00	
3600.00	90.00	269.92	9100.01	-756.82	-4165.16	4210.62	0.00	
3700.00 3800.00	90.00	269.92	9100.01	-756.96 757.10	-4265.16	4310.34	0.00	
	90.00	269.92	9100.01	-757.10	-4365.16	4410.06	0.00	
3900.00	90.00	269.92	9100.01	-757.24 757.29	-4465.16	4509.79 4609.51	0.00	
4000.00	90.00	269.92	9100.01	-757.38	-4565.16	4609.51	0.00	
4100.00	90.00	269.92	9100.01	-757.52	-4665.16	4709.23	0.00	
4200.00	90.00	269.92	9100.01	-757.66	-4765.16	4808.95	0.00	
4300.00	90.00	269.92	9100.01	-757.80	-4865.16	4908.67	0.00	
4400.00	90.00	269.92	9100.01	-757.94	-4965.16	5008.39	0.00	
4500.00	90.00	269.92	9100.01	-758.08	-5065.16	5108.11	0.00	
4600.00	90.00	269.92	9100.01	-758.22	-5165.16	5207.84	0.00	
4700.00	90.00	269.92	9100.01	-758.36	-5265.16	5307.56	0.00	
4800.00	90.00	269.92	9100.01	-758.50	-5365.16	5407.28	0.00	
4900.00	90.00	269.92	9100.01	-758.64	-5465.16	5507.00	0.00	
5000.00	90.00	269.92	9100.01	-758.78	-5565.16	5606.72	0.00	
5100.00	90.00	269.92	9100.01	-758.92	-5665.16	5706.44	0.00	
5200.00	90.00	269.92	9100.01	-759.06	-5765.16	5806.16	0.00	
5300.00	90.00	269.92	9100.01	-759.20	-5865.16	5905.89	0.00	
5400.00	90.00	269.92	9100.01	-759.34	-5965.16	6005.61	0.00	
5500.00	90.00	269.92	9100.01	-759.48	-6065.16	6105.33	0.00	
5600.00	90.00	269.92	9100.01	-759.62	-6165.16	6205.05	0.00	
5700.00	90.00	269.92	9100.01	-759.76	-6265.15	6304.77	0.00	
5800.00	90.00	269.92	9100.01	-759.91	-6365.15	6404.49	0.00	
5900.00	90.00	269.92	9100.01	-760.05	-6465.15	6504.21	0.00	
6000.00	90.00	269.92	9100.01	-760.19	-6565.15	6603.94	0.00	
6100.00	90.00	269.92	9100.01	-760.33	-6665.15	6703.66	0.00	
6200.00	90.00	269.92	9100.01	-760.47	-6765.15	6803.38	0.00	
6300.00	90.00	269.92	9100.01	-760.61	-6865.15	6903.10	0.00	
6400.00	90.00	269.92	9100.01	-760.75	-6965.15	7002.82	0.00	
6500.00	90.00	269.92	9100.01	-760.89	-7065.15	7102.54	0.00	
6600.00	90.00	269.92	9100.01	-761.03	-7165.15	7202.27	0.00	
6700.00	90.00	269.92	9100.01	-761.17	-7265.15	7301.99	0.00	
6800.00	90.00	269.92	9100.01	-761.31	-7365.15	7401.71	0.00	
6900.00	90.00	269.92	9100.01	-761.45	-7465.15	7501.43	0.00	
7000.00	90.00	269.92	9100.01	-761.59	-7565.15	7601.15	0.00	
7100.00	90.00	269.92	9100.01	-761.73	-7665.15	7700.87	0.00	
7200.00	90.00	269.92	9100.01	-761.87	-7765.15	7800.59	0.00	
7300.00	90.00	269.92	9100.01	-762.01	-7865.15	7900.32	0.00	
7400.00	90.00	269.92	9100.01	-762.15	-7965.15	8000.04	0.00	
7500.00	90.00	269.92	9100.01	-762.29	-8065.15	8099.76	0.00	
7600.00	90.00	269.92	9100.01	-762.43	-8165.15	8199.48	0.00	
7700.00	90.00	269.92	9100.01	-762.43	-8265.15	8299.20	0.00	
7800.00	90.00	269.92	9100.01	-762.37 -762.71	-8365.15	8398.92	0.00	
7900.00	90.00	269.92	9100.01	-762.71 -762.85	-8465.15	8498.64	0.00	
8000.00		269.92				8598.37	0.00	
	90.00		9100.01	-762.99 762.12	-8565.15			
8100.00 8200.00	90.00	269.92	9100.01	-763.13	-8665.15	8698.09	0.00	
	90.00	269.92	9100.01	-763.27	-8765.15	8797.81	0.00	
8300.00	90.00	269.92	9100.01	-763.41	-8865.15	8897.53	0.00	
8400.00	90.00	269.92	9100.01	-763.55	-8965.15	8997.25	0.00	
8500.00	90.00	269.92	9100.01	-763.69	-9065.15	9096.97	0.00	
8600.00	90.00	269.92	9100.01	-763.83	-9165.15	9196.69	0.00	
8700.00	90.00	269.92	9100.01	-763.97	-9265.15	9296.42	0.00	
00.0088	90.00	269.92	9100.01	-764.11	-9365.15	9396.14	0.00	
8900.00	90.00	269.92	9100.01	-764.25	-9465.15	9495.86	0.00	
		269.92	9100.01	-764.39	-9565.15	9595.58	0.00	
9000.00 9100.00	90.00 90.00	269.92	9100.01	-764.53	-9665.15	9695.30	0.00	



Well: BURTON FLAT 35-33 FED COM 624H

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)

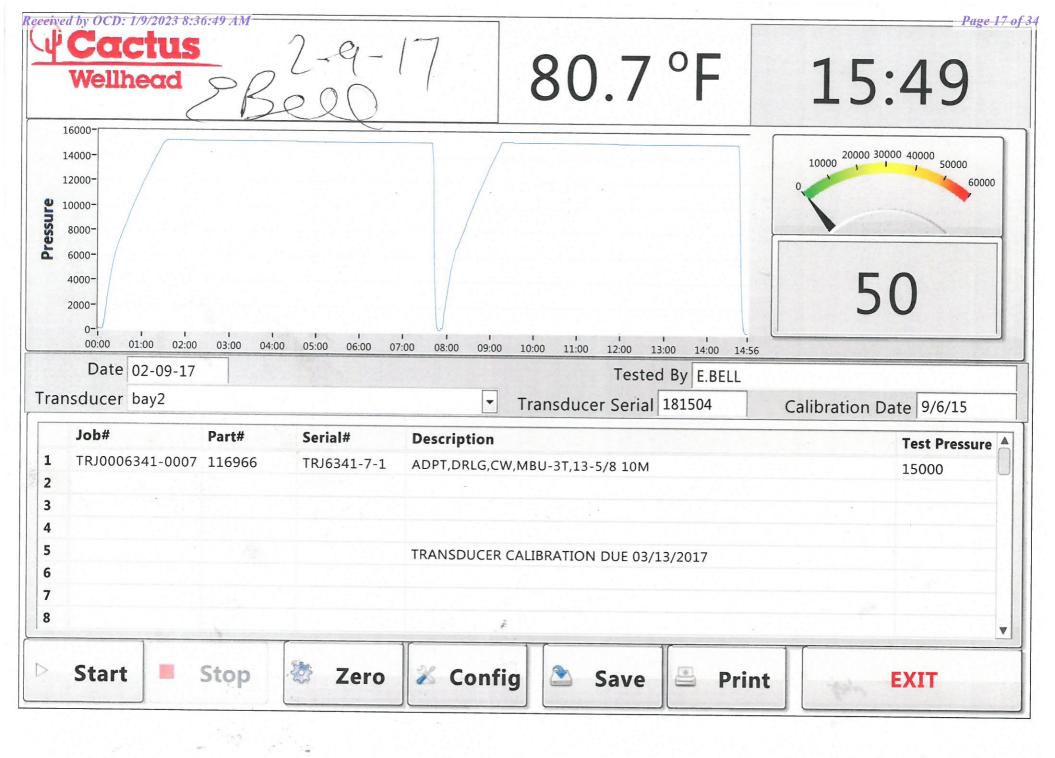
MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19200.00	90.00	269.92	9100.01	-764.67	-9765.15	9795.02	0.00	
19300.00	90.00	269.92	9100.01	-764.81	-9865.15	9894.74	0.00	
19394.07	90.00	269.92	9100.01	-764.94	-9959.22	9988.55	0.00	exit
19400.00	90.00	269.92	9100.01	-764.95	-9965.15	9994.47	0.00	
19474.07	90.00	269.92	9100.00	-765.01	-10039.22	10068.33	0.00	BHL

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





Connection Data Sheet

 OD (in.)
 WEIGHT (lbs./ft.)
 WALL (in.)
 GRADE
 API DRIFT (in.)
 RBW%
 CONNECTION

 5.500
 Nominal: 20.00
 0.361
 VST P110EC
 4.653
 87.5
 DWC/C-IS PLUS

 Plain End: 19.83

PIPE PROPI	ERTIES	
Nominal OD	5,500	in.
Nominal ID	4.778	in.
Nominal Area	5.828	sq.in.
Grade Type	API 5CT; Vallourec Sourced Mat	erial Only
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Tensile Strength	135	ksi
Yield Strength	729	klb
Ultimate Strength	787	klb
Min. Internal Yield Pressure	14,360	psi
Collapse Pressure	12,090	psi

CONNECTION PROP	ERTIES	
Connection Type	Semi-Pren	nium T&C
Connection OD (nom)	6.300	in.
Connection ID (nom)	4.778	in.
Make-Up Loss	4.125	in.
Coupling Length	9.250	in.
Critical Cross Section	5.828	sq.in.
Tension Efficiency	100.0%	of pipe
Compression Efficiency	100.0%	of pipe
Internal Pressure Efficiency	100.0%	of pipe
External Pressure Efficiency	100.0%	of pipe

CONNECTION PERFORMANO	CES	
Yield Strength	729	klb
Parting Load	787	klb
Compression Rating	729	klb
Min. Internal Yield	14,360	psi
External Pressure	12,090	psi
Maximum Uniaxial Bend Rating	104.2	°/100 ft
Reference String Length w 1.4 Design Factor	26,040	ft.

FIELD END TORQUE VALUES		
Min. Make-up torque	16,600	ft.lb
Opti. Make-up torque	17,850	ft.lb
Max. Make-up torque	19,100	ft.lb
Min. Shoulder Torque	1,660	ft.lb
Max. Shoulder Torque	13,280	ft.lb
Min. Delta Turn	-	Turns
Max. Delta Turn	0.200	Turns
†Maximum Operational Torque	24,300	ft.lb
†Maximum Torsional Value (MTV)	26,730	ft.lb

Need Help? Contact: <u>tech.support@vam-usa.com</u>
Reference Drawing: 8074PP Rev.06 & 8074BP Rev.05

Date: 08/04/2020 Time: 04:27:16 PM

† Maximum Operational Torque and Maximum Torsional Value Only Valid with Vallourec P110EC Material

For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

All information is provided by VAM USA or its affiliates at user's sole risk, without liability for loss, damage or injury resulting from the use thereof; and on an "AS IS" basis without warranty or representation of any kind, whether express or implied, including without limitation any warranty of merchantability, fitness for purpose or completeness. This document and its contents are subject to change without notice. In no event shall VAM USA or its affiliates be responsible for any indirect, special, incidental, punitive, exemplary or consequential loss or damage (including without limitation, loss of use, loss of bargain, loss of revenue, profit or anticipated profit) however caused or arising, and whether such losses or damages were foreseeable or VAM USA or its affiliates was advised of the possibility of such damages.



VAM USA

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VAM® USA Sales E-mail: <u>VAMUSAsales@vam-usa.com</u> Tech Support Email: <u>tech.support@vam-usa.com</u>

DWC Connection Data Sheet Notes:

- 1. DWC connections are available with a seal ring (SR) option.
- 2. All standard DWC/C connections are interchangeable for a given pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
- 3. Connection performance properties are based on nominal pipe body and connection dimensions.
- 4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
- 5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
- 6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
- 7. Bending efficiency is equal to the compression efficiency.
- 8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
- 9. Connection yield torque is not to be exceeded.
- 10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
- 11. DWC connections will accommodate API standard drift diameters.
- 12. DWC/C family of connections are compatible with API Buttress BTC connections. Please contact tech.support@vam-usa.com for details on connection ratings and make-up.

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

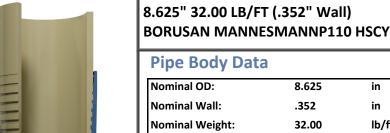
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TEC-LOCK WEDGE

8.625

in



.352 in 32.00 lb/ft Plain End Weight: 31.13 lb/ft **Material Grade:** P110 HSCY Mill/Specification: **BORUSAN MANNESMANN Yield Strength:** 125,000 psi Tensile Strength: 125,000 psi **Nominal ID:** 7.921 in **API Drift Diameter:** 7.796 in Special Drift Diameter: 7.875 in RBW: 87.5 % **Body Yield:** 1,144,000 lbf **Burst:** 8,930 psi Collapse: 4,230 psi

Connection Data

Standard OD: 9.000 in Pin Bored ID: 7.921 in in² **Critical Section Area:** 8.61433 Tensile Efficiency: 94.2 % **Compressive Efficiency:** 100.0 % Longitudinal Yield Strength: 1,077,000 lbf **Compressive Limit:** 1,144,000 lbf **Internal Pressure Rating:** 8,930 psi **External Pressure Rating:** 4,230 psi **Maximum Bend:** 62.6 °/100

Operational Data

Minimum Makeup Torque: 29,900 ft*lbf ft*lbf Optimum Makeup Torque: 37,375 Maximum Makeup Torque: 80,900 ft*lbf Minimum Yield: 89,900 ft*lbf Makeup Loss: 5.97 in

Notes

Operational Torque is equivalent to the Maximum Make-Up Torque.



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Please visit http://www.huntingplc.com for the latest technical information.



<u>10-3/4"</u>	<u>45.50#</u>	0.400"	<u>J-55</u>										
<u>Dimensions (Nominal)</u>													
Outside Diameter			10.750	in.									
Wall			0.400	in.									
Inside Diameter			9.950	in.									
Drift			9.875	in.									
Weight, T&C			45.500	lbs/ft									
Weight, PE			44.260	lbs/ft									
<u>Performance</u>	<u>Properties</u>												
Collapse			2090	psi									
Internal Yield Pres	sure at Minimum Yield												
	PE		3580	psi									
	STC		3580	psi									
	ВТС		3580	psi									
Yield Strength, Pip	e Body		715	1000 lbs									
Joint Strength													
	STC		493	1000 lbs									
	ВТС		796	1000 lbs									
	BTC Special Clearance ((11.25" OD Cplg)	506	1000 lbs									

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.



<u>13-3/8"</u> <u>54.50#</u> <u>.380</u> <u>J-55</u>

Dimensions (Nominal)

Outside Diameter	13.375	in.
Wall	0.380	in.
Inside Diameter	12.615	in.
Drift	12.459	in.
Weight, T&C	54.500	lbs/ft
Weight, PE	52.790	lbs/ft

Performance Ratings, Minimum

Collapse, PE	1130	psi
Internal Yields Pressure		
PE	2730	psi
STC	2730	PSI
ВТС	2730	psi
Yield Strength, Pipe Body	853	1000 lbs
Joint Strength, STC	514	1000 lbs
Joint Strength, BTC	909	1000 lbs

Note: SeAH Steel has produced this specification sheet for general information only. SeAH does not assume liability or responsibility for any loss or injury resulting from the use of information or data contained herein. All applications for the material described are at the customer's own risk and responsibility.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:
LEASE NO.:
NMNM082992
LOCATION:
COUNTY:
Devon Energy Production Company LP
NMNM082992
Section 35, T.20 S., R.28 E., NMPM
Eddy County, New Mexico

Sundry ID: | 2700353

WELL NAME & NO.: Burton Flat 35-33 Fed Com 624H

SURFACE HOLE FOOTAGE: 1631'/S & 2125'/W **BOTTOM HOLE FOOTAGE** 880'/S & 2620'/E

COA

H2S	O Yes	□ No	
Potash	None	Secretary	R-111-P
Cave/Karst Potential	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	✓ Cement Squeeze	☐ EchoMeter	
Special Requirements	☐ Water Disposal	□ COM	✓ Unit
Special Requirements	✓ Break Testing	☐ Offline	
Variance		Cementing	

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware, Bone Spring, and 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 13-3/8 inch surface casing shall be set at approximately 350 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) 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.
- 2. The minimum required fill of cement behind the 10-3/4 inch intermediate casing shall be set at approximately 1300 feet is:

Cement to surface. If cement does not circulate see B.1.a, c-d above. Add 30 sxs to the lead cement.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. 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.

- ❖ In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 200 feet** into the previous casing, whichever is greater. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Operator has proposed to pump down 10-3/4" X 8-5/8" annulus after primary cementing stage. Operator must run a CBL from TD of the 8-5/8" casing to surface. Submit results to the BLM.

If cement does not tie-back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

4. 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 tested to **500** psi. A Diverter system is approved as a variance to drill the **10-3/4** inch intermediate section in a **12 1/4** inch hole.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 10-3/4 inch intermediate casing shoe shall be 5000 (5M) psi.
- c. 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:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be tested to **500** psi. A Diverter system is approved as a variance to drill the **10-3/4** inch intermediate section in a **12 1/4** inch hole.
- b. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 10-3/4 inch intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be 5000 (5M) psi.
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- ii. 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.
- iii. Manufacturer representative shall install the test plug for the initial BOP test.
- iv. 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.
- v. 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)

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers. If a participating area has not been established, the operator can use the general unit designation, but will replace the unit number with the participating area number when the sign is replaced.

Commercial Well Determination

A commercial well determination shall be submitted after production has been established for at least six months.

BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 14-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

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 CountyCall 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 2nd 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 when specified), 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. 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.

35-20-28-K Sundry ID 2700353 Burton Flat 35-33 Fed Com 624H Eddy NM082992 DEVON ENERGY PRODUCTION COMPANY LP 13-22d 11-22-2022 LV.xlsm

Burton Flat 35-33 Fed Com 624H

13 3/8	Si	urface csg in a	17 1/2	inch hole.	<u>Design Factors</u> Surface					?		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j	55	btc	44.73	6.91	3.85	350	18	6.45	13.04	19,075
"B"				btc				0				0
1	w/8.4	1#/g mud, 30min Sfc Csg Test psig:	1,500	Tail Cmt	does not	circ to sfc.	Totals:	350	_			19,075
Comparison o	of Proposed to	Minimum Required Cement	Volumes_									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
17 1/2	0.6946	201	289	243	19	9.00	423	2M				1.56
1												

10 3/4	casi	ng inside the	13 3/8	<u>Design Factors</u>				Int 1	'			
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	45.50		j 55	btc scc	8.55	2.95	3.06	1,300	5	5.79	4.94	59,150
"B"								0				0
	w/8.4#/	g mud, 30min Sfc Csg Test p	osig: 1,500				Totals:	1,300				59,150
j		The cement v	olume(s) are intend	led to achieve a top of	0	ft from su	rface or a	350				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	0.1882	152	312	262	19	10.50	619	2M				0.50
D V Tool(s):							sum of sx	Σ CuFt				Σ%excess
t by stage % :		#VALUE!	#VALUE!				152	312				19
Class 'C' tail cm	t yld > 1.35											

8 5/8	casing	g inside the	10 3/4			Design Fac	tors			Int 2		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	32.00		p 110	tlw	13.46	3.62	1.8	2,500	8	3.02	6.84	80,000
"B"								0				0
	w/8.4#/g	mud, 30min Sfc Csg Test p	osig: 1,500				Totals:	2,500				80,000
		The cement v	olume(s) are intend	led to achieve a top of	1100	ft from su	rface or a	200				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
9 7/8	0.1261	165	417	178	134	9.00	2962	5M				0.44
class 'C' tail cm	nt yld > 1.35											

5 1/2	casin	g inside the	8 5/8			Design	Factors			Prod 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00		p 110	dwc/c is+	4.01	2.44	2.83	19,474	3	4.74	4.08	389,480
"B"								0				0
	w/8.4#/g	mud, 30min Sfc Csg Test	psig: 2,002				Totals:	19,474				389,480
		The cement	volume(s) are intende	ed to achieve a top of	2300	ft from su	ırface or a	200				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
7 7/8	0.1733	1875	3503	2976	18	10.50						0.91
Class 'H' tail cn	nt yld > 1.20		Capitan Reef est	top XXXX.								

Carlsbad Field Office 11/22/2022

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 173853

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	173853
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created B	Condition	Condition Date
kpickfor	Adhere to previous NMOCD Conditions of Approval	1/12/2023