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

Sundry Print Report

11/08/2022

Well Name: BURTON FLAT 35-33 FED COM	**Well Location:** T20S / R28E / SEC 35 / SENW /	**County or Parish/State:**
Well Number: 623H	**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 Permit to Drill	**Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2700352

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 10/28/2022

Time Sundry Submitted: 04:22

Date proposed operation will begin: 10/28/2022

Procedure Description: Devon Energy Production Co., L.P. (Devon) respectfully requests to change the BHL on the subject well. Please see attached revised C102, Drill plan, directional plan. Permitted BHL: NWSW, 1870 FSL, 20 FWL, 33-20S-28E Proposed BHL: NWSE, 2480 FSL, 2620 FEL, 33-20S-28E

NOI Attachments

Procedure Description

13.375_54.5_J55_SEAH_20221104093917.pdf

8.625_32lb_P110HSCY_TLW_20221104093827.PDF

5.50_20__P110EC_DWC_C_IS_PLUS_VST__2__20221104093819.pdf

10.75_45.50_J55_BTC_SC_BLP_Devon_20221104093818.pdf

BURTON_FLAT_35_33_FED_COM_623H_Directional_Plan_11_01_22_20221104093707.pdf

BURTON_FLAT_35_33_FED_COM_623H_20221104093707.pdf

WA018314459_BURTON_FLAT__35_33_FED_COM_623H_WL_R2_SIGNED_20221028162123.pdf

Well Name: BURTON FLAT 35-33 FED COM	**Well Location:** T20S / R28E / SEC 35 / SENW /	**County or Parish/State:**
Well Number: 623H	**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 Permit to Drill	**Operator:** DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Additional

35_20_28_F_Sundry_ID_2700352_Burton_Flat_35_33_Fed_Com_623H_Eddy_NM082992_DEVON_ENERGY_PRODUCTION_COMPANY_LP_13_22d_3_8_2022_LV_20221107132125.pdf

Burton_Flat_35_33_Fed_Com_623H_Dr_Sundry_ID_2700352_20221107132126.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 04, 2022 09:40 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:

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:** 11/07/2022

Signature: Chris Walls

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	98315	BURTON FLAT UPPER WOLFCAMP

Property Code	Property Name	Well Number
	BURTON FLAT 35-33 FED COM	623H

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3210.4'

Surface Location

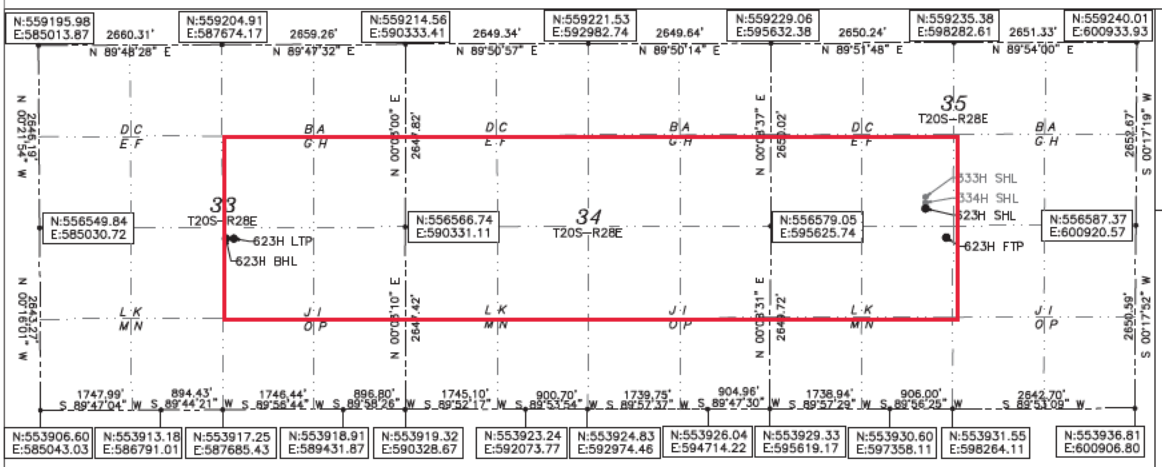
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	35	20-S	28-E		2367	NORTH	2182	WEST	EDDY

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
J	33	20-S	28-E		2480	SOUTH	2620	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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 623H

ELEV 3210.4'
LAT 32.530753
LON 104.150100
N 556867.14
E 597808.10

FIRST TAKE POINT
2480' FSL 2547' FWL SEC. 35
LAT:32.529499
LON:104.148919
N:556411.45
E:598172.75

LAST TAKE POINT
2480' FSL 2540' FEL SEC. 33
LAT:32.529505
LON:104.182605
N:556397.35
E:587790.95

BOTTOM OF HOLE
LAT:32.529505
LON:104.182865
N:556397.28
E:587710.95

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.

Chelsey Green 10/28/22
Signature Date

Chelsey Green
Printed Name

chelsey.green@dvn.com
E-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.

05/2021
Date of Survey

Signature & Seal of Professional Surveyor

B. L. LAMAN NEW MEXICO 22404 PROFESSIONAL SURVEYOR

REV: 6/30/2022
Certificate No. 22404 B.L. LAMAN
DRAWN BY: CM

Intent [X] As Drilled [ ]

API #

Operator Name:	Property Name:	Well Number
DEVON ENERGY PRODUCTION COMPANY, LP.	BURTON FLAT 35-33 FED COM	623H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
K	35	20S	28E		1845	SOUTH	2547	WEST	EDDY

Latitude	Longitude	NAD
32.52765946	-104.14892953	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
K	35	20-S	28-E		2480	SOUTH	2547	WEST	EDDY

Latitude	Longitude	NAD
32.529499	104.148919	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
J	33	20-S	28-E		2480	SOUTH	2540	EAST	EDDY

Latitude	Longitude	NAD
32.529505	104.182605	83

Is this well the defining well for the Horizontal Spacing Unit? [Y]

Is this well an infill well? [N]

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

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018

1. Geologic Formations

TVD of target	9095	Pilot hole depth	N/A
MD at TD:	19420	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
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	BTC	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	19420 MD	0	9095 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
	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
	67	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	9	1.44	Squeeze Lead: Class C Cement + additives
	21	Surf	9	3.27	Lead: Class C Cement + additives
	101	4000' above shoe	13.2	1.44	Tail: Class H / C + additives
Production	437	1080	9	3.27	Lead: Class H /C + additives
	1434	8585	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	Type	✓	Tested to:
Int			Annular		n/a
			Blind Ram		500psi
			Pipe Ram		
			Double Ram		
			Other* diverter	X	
Int 1	13-5/8"	5M	Annular (5M)	X	100% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular (5M)	X	100% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.				
N	A variance is requested to run a 5 M annular 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	Type	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

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

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4966
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

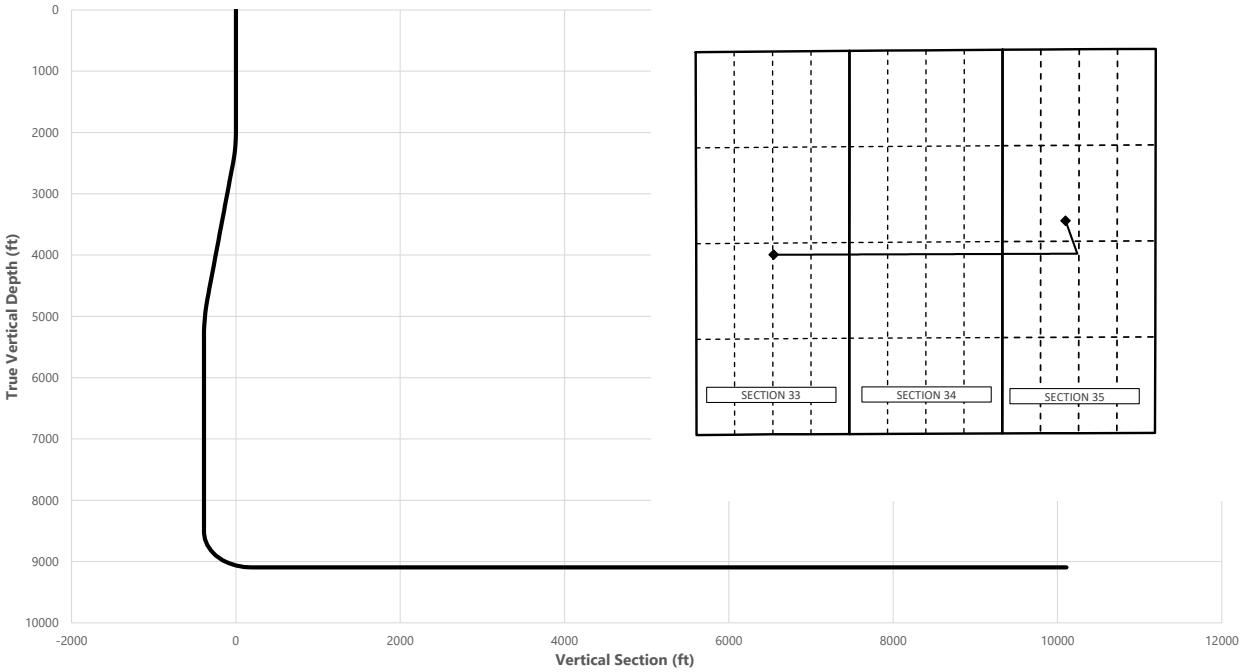
X Directional Plan

_____ Other, describe

Well: BURTON FLAT 35-33 FED COM 623H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

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

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	138.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	12.50	138.00	2496.04	-40.37	36.35	-34.43	2.00	Hold Tangent
4766.96	12.50	138.00	4709.27	-405.00	364.67	-345.44	0.00	Drop to Vertical
5391.96	0.00	138.00	5329.32	-455.47	410.11	-388.48	2.00	Hold Vertical
8584.68	0.00	269.92	8522.04	-455.47	410.11	-388.48	0.00	KOP
9484.68	90.00	269.92	9095.00	-456.27	-162.85	183.89	10.00	Landing Point
19419.94	90.00	269.92	9095.00	-470.14	-10098.10	10109.04	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	85.00	85.00
Salt	441.00	441.00
Base of Salt	640.00	640.00
Lamar	854.00	854.00
Capitan Reef Top	1130.00	1130.00
Delaware	3028.48	3012.00
Cherry Canyon	3212.85	3192.00
Brushy Canyon	3827.42	3792.00
1st Bone Spring Lime	5412.64	5350.00
Bone Spring 1st	6747.64	6685.00
Bone Spring 2nd	7389.64	7327.00
3rd Bone Spring Lime	7689.64	7627.00
Bone Spring 3rd	8584.64	8522.00
Wolfcamp / Point of Penetration	9110.34	8977.00
exit	19339.94	9095.01

	MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
SHL	0.00	0.00	32.5307	-104.1502	2367' FNL, 2182' FWL of Sec 35 in T20S, R28E
KOP	8584.64	8522.00	32.5294	-104.1489	2480' FSL, 2593' FWL of Sec 35 in T20S, R28E
Point of Penetration	9110.34	8977.00	32.5295	-104.1489	2480' FSL, 2547' FWL of Sec 35 in T20S, R28E
Exit	19339.94	9095.01	32.5295	-104.1826	2480' FSL, 2540' FEL of Sec 33 in T20S, R28E
BHL	19419.94	9095.00	32.5294	-104.1829	2480' FSL, 2620' FEL of Sec 33 in T20S, R28E

devon

Well: BURTON FLAT 35-33 FED COM 623H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

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

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
85.00	0.00	138.00	85.00	0.00	0.00	0.00	0.00	Rustler
100.00	0.00	138.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	138.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	138.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	138.00	400.00	0.00	0.00	0.00	0.00	
441.00	0.00	138.00	441.00	0.00	0.00	0.00	0.00	Salt
500.00	0.00	138.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	138.00	600.00	0.00	0.00	0.00	0.00	
640.00	0.00	138.00	640.00	0.00	0.00	0.00	0.00	Base of Salt
700.00	0.00	138.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	138.00	800.00	0.00	0.00	0.00	0.00	
854.00	0.00	138.00	854.00	0.00	0.00	0.00	0.00	Lamar
900.00	0.00	138.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	138.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	138.00	1100.00	0.00	0.00	0.00	0.00	
1130.00	0.00	138.00	1130.00	0.00	0.00	0.00	0.00	Capitan Reef Top
1200.00	0.00	138.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	138.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	138.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	138.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	138.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	138.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	138.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	138.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	138.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.50	138.00	2099.97	-1.62	1.46	-1.38	2.50	
2200.00	5.00	138.00	2199.75	-6.48	5.84	-5.53	2.50	
2300.00	7.50	138.00	2299.14	-14.57	13.12	-12.43	2.50	
2400.00	10.00	138.00	2397.97	-25.87	23.30	-22.07	2.50	
2500.00	12.50	138.00	2496.04	-40.37	36.35	-34.43	2.00	Hold Tangent
2600.00	12.50	138.00	2593.67	-56.46	50.83	-48.15	0.00	
2700.00	12.50	138.00	2691.30	-72.54	65.32	-61.87	0.00	
2800.00	12.50	138.00	2788.93	-88.63	79.80	-75.59	0.00	
2900.00	12.50	138.00	2886.56	-104.71	94.28	-89.31	0.00	
3000.00	12.50	138.00	2984.19	-120.79	108.76	-103.03	0.00	
3028.48	12.50	138.00	3012.00	-125.38	112.89	-106.94	0.00	Delaware
3100.00	12.50	138.00	3081.82	-136.88	123.25	-116.75	0.00	
3200.00	12.50	138.00	3179.45	-152.96	137.73	-130.47	0.00	
3212.85	12.50	138.00	3192.00	-155.03	139.59	-132.23	0.00	Cherry Canyon
3300.00	12.50	138.00	3277.08	-169.05	152.21	-144.19	0.00	
3400.00	12.50	138.00	3374.71	-185.13	166.69	-157.90	0.00	
3500.00	12.50	138.00	3472.34	-201.22	181.18	-171.62	0.00	
3600.00	12.50	138.00	3569.97	-217.30	195.66	-185.34	0.00	
3700.00	12.50	138.00	3667.60	-233.39	210.14	-199.06	0.00	
3800.00	12.50	138.00	3765.23	-249.47	224.63	-212.78	0.00	
3827.42	12.50	138.00	3792.00	-253.88	228.60	-216.54	0.00	Brushy Canyon
3900.00	12.50	138.00	3862.86	-265.56	239.11	-226.50	0.00	
4000.00	12.50	138.00	3960.49	-281.64	253.59	-240.22	0.00	
4100.00	12.50	138.00	4058.12	-297.72	268.07	-253.94	0.00	
4200.00	12.50	138.00	4155.75	-313.81	282.56	-267.66	0.00	
4300.00	12.50	138.00	4253.38	-329.89	297.04	-281.37	0.00	
4400.00	12.50	138.00	4351.01	-345.98	311.52	-295.09	0.00	
4500.00	12.50	138.00	4448.64	-362.06	326.00	-308.81	0.00	
4600.00	12.50	138.00	4546.26	-378.15	340.49	-322.53	0.00	
4700.00	12.50	138.00	4643.89	-394.23	354.97	-336.25	0.00	
4766.96	12.50	138.00	4709.27	-405.00	364.67	-345.44	0.00	Drop to Vertical
4800.00	11.84	138.00	4741.56	-410.18	369.33	-349.85	2.00	
4900.00	9.84	138.00	4839.78	-424.15	381.91	-361.77	2.00	
5000.00	7.84	138.00	4938.58	-435.57	392.19	-371.51	2.00	
5100.00	5.84	138.00	5037.87	-444.42	400.16	-379.06	2.00	
5200.00	3.84	138.00	5137.50	-450.69	405.80	-384.40	2.00	
5300.00	1.84	138.00	5237.38	-454.37	409.12	-387.54	2.00	
5391.96	0.00	138.00	5329.32	-455.47	410.11	-388.48	2.00	Hold Vertical
5400.00	0.00	269.92	5337.36	-455.47	410.11	-388.48	0.00	
5412.64	0.00	269.92	5350.00	-455.47	410.11	-388.48	0.00	1st Bone Spring Lime
5500.00	0.00	269.92	5437.36	-455.47	410.11	-388.48	0.00	
5600.00	0.00	269.92	5537.36	-455.47	410.11	-388.48	0.00	
5700.00	0.00	269.92	5637.36	-455.47	410.11	-388.48	0.00	
5800.00	0.00	269.92	5737.36	-455.47	410.11	-388.48	0.00	

devon

Well: BURTON FLAT 35-33 FED COM 623H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

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

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
5900.00	0.00	269.92	5837.36	-455.47	410.11	-388.48	0.00	
6000.00	0.00	269.92	5937.36	-455.47	410.11	-388.48	0.00	
6100.00	0.00	269.92	6037.36	-455.47	410.11	-388.48	0.00	
6200.00	0.00	269.92	6137.36	-455.47	410.11	-388.48	0.00	
6300.00	0.00	269.92	6237.36	-455.47	410.11	-388.48	0.00	
6400.00	0.00	269.92	6337.36	-455.47	410.11	-388.48	0.00	
6500.00	0.00	269.92	6437.36	-455.47	410.11	-388.48	0.00	
6600.00	0.00	269.92	6537.36	-455.47	410.11	-388.48	0.00	
6700.00	0.00	269.92	6637.36	-455.47	410.11	-388.48	0.00	
6747.64	0.00	269.92	6685.00	-455.47	410.11	-388.48	0.00	Bone Spring 1st
6800.00	0.00	269.92	6737.36	-455.47	410.11	-388.48	0.00	
6900.00	0.00	269.92	6837.36	-455.47	410.11	-388.48	0.00	
7000.00	0.00	269.92	6937.36	-455.47	410.11	-388.48	0.00	
7100.00	0.00	269.92	7037.36	-455.47	410.11	-388.48	0.00	
7200.00	0.00	269.92	7137.36	-455.47	410.11	-388.48	0.00	
7300.00	0.00	269.92	7237.36	-455.47	410.11	-388.48	0.00	
7389.64	0.00	269.92	7327.00	-455.47	410.11	-388.48	0.00	Bone Spring 2nd
7400.00	0.00	269.92	7337.36	-455.47	410.11	-388.48	0.00	
7500.00	0.00	269.92	7437.36	-455.47	410.11	-388.48	0.00	
7600.00	0.00	269.92	7537.36	-455.47	410.11	-388.48	0.00	
7689.64	0.00	269.92	7627.00	-455.47	410.11	-388.48	0.00	3rd Bone Spring Lime
7700.00	0.00	269.92	7637.36	-455.47	410.11	-388.48	0.00	
7800.00	0.00	269.92	7737.36	-455.47	410.11	-388.48	0.00	
7900.00	0.00	269.92	7837.36	-455.47	410.11	-388.48	0.00	
8000.00	0.00	269.92	7937.36	-455.47	410.11	-388.48	0.00	
8100.00	0.00	269.92	8037.36	-455.47	410.11	-388.48	0.00	
8200.00	0.00	269.92	8137.36	-455.47	410.11	-388.48	0.00	
8300.00	0.00	269.92	8237.36	-455.47	410.11	-388.48	0.00	
8400.00	0.00	269.92	8337.36	-455.47	410.11	-388.48	0.00	
8500.00	0.00	269.92	8437.36	-455.47	410.11	-388.48	0.00	
8584.64	0.00	269.92	8522.00	-455.47	410.11	-388.48	0.00	Bone Spring 3rd, KOP
8600.00	1.53	269.92	8537.36	-455.47	409.90	-388.27	10.00	
8700.00	11.53	269.92	8636.58	-455.48	398.54	-376.92	10.00	
8800.00	21.53	269.92	8732.33	-455.52	370.12	-348.53	10.00	
8900.00	31.53	269.92	8821.68	-455.59	325.51	-303.97	10.00	
9000.00	41.53	269.92	8901.93	-455.67	266.06	-244.58	10.00	
9100.00	51.53	269.92	8970.64	-455.77	193.57	-172.17	10.00	
9110.34	52.57	269.92	8977.00	-455.78	185.42	-164.02	10.00	Wolfcamp / Point of Penetration
9200.00	61.53	269.92	9025.72	-455.89	110.26	-88.94	10.00	
9300.00	71.53	269.92	9065.49	-456.02	18.65	2.58	10.00	
9400.00	81.53	269.92	9088.75	-456.15	-78.48	99.61	10.00	
9484.68	90.00	269.92	9095.00	-456.27	-162.85	183.89	10.00	Landing Point
9500.00	90.00	269.92	9095.00	-456.29	-178.17	199.20	0.00	
9600.00	90.00	269.92	9095.00	-456.43	-278.17	299.10	0.00	
9700.00	90.00	269.92	9095.00	-456.57	-378.17	399.00	0.00	
9800.00	90.00	269.92	9095.00	-456.71	-478.17	498.89	0.00	
9900.00	90.00	269.92	9095.00	-456.85	-578.17	598.79	0.00	
10000.00	90.00	269.92	9095.00	-456.99	-678.17	698.69	0.00	
10100.00	90.00	269.92	9095.00	-457.13	-778.17	798.59	0.00	
10200.00	90.00	269.92	9095.00	-457.27	-878.17	898.49	0.00	
10300.00	90.00	269.92	9095.00	-457.41	-978.17	998.38	0.00	
10400.00	90.00	269.92	9095.00	-457.55	-1078.17	1098.28	0.00	
10500.00	90.00	269.92	9095.00	-457.69	-1178.17	1198.18	0.00	
10600.00	90.00	269.92	9095.00	-457.83	-1278.17	1298.08	0.00	
10700.00	90.00	269.92	9095.00	-457.97	-1378.17	1397.98	0.00	
10800.00	90.00	269.92	9095.00	-458.11	-1478.17	1497.88	0.00	
10900.00	90.00	269.92	9095.00	-458.25	-1578.17	1597.77	0.00	
11000.00	90.00	269.92	9095.00	-458.39	-1678.17	1697.67	0.00	
11100.00	90.00	269.92	9095.00	-458.53	-1778.17	1797.57	0.00	
11200.00	90.00	269.92	9095.00	-458.67	-1878.17	1897.47	0.00	
11300.00	90.00	269.92	9095.00	-458.81	-1978.17	1997.37	0.00	
11400.00	90.00	269.92	9095.00	-458.95	-2078.17	2097.27	0.00	
11500.00	90.00	269.92	9095.00	-459.09	-2178.17	2197.16	0.00	
11600.00	90.00	269.92	9095.00	-459.23	-2278.17	2297.06	0.00	
11700.00	90.00	269.92	9095.00	-459.37	-2378.17	2396.96	0.00	
11800.00	90.00	269.92	9095.00	-459.51	-2478.17	2496.86	0.00	
11900.00	90.00	269.92	9095.00	-459.65	-2578.17	2596.76	0.00	
12000.00	90.00	269.92	9095.00	-459.79	-2678.17	2696.65	0.00	
12100.00	90.00	269.92	9095.00	-459.93	-2778.17	2796.55	0.00	
12200.00	90.00	269.92	9095.00	-460.07	-2878.17	2896.45	0.00	

devon

Well: BURTON FLAT 35-33 FED COM 623H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

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

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12300.00	90.00	269.92	9095.00	-460.21	-2978.17	2996.35	0.00	
12400.00	90.00	269.92	9095.00	-460.35	-3078.17	3096.25	0.00	
12500.00	90.00	269.92	9095.00	-460.49	-3178.17	3196.15	0.00	
12600.00	90.00	269.92	9095.00	-460.63	-3278.17	3296.04	0.00	
12700.00	90.00	269.92	9095.00	-460.77	-3378.17	3395.94	0.00	
12800.00	90.00	269.92	9095.00	-460.91	-3478.17	3495.84	0.00	
12900.00	90.00	269.92	9095.00	-461.05	-3578.17	3595.74	0.00	
13000.00	90.00	269.92	9095.00	-461.19	-3678.17	3695.64	0.00	
13100.00	90.00	269.92	9095.00	-461.33	-3778.17	3795.53	0.00	
13200.00	90.00	269.92	9095.00	-461.47	-3878.17	3895.43	0.00	
13300.00	90.00	269.92	9095.01	-461.61	-3978.17	3995.33	0.00	
13400.00	90.00	269.92	9095.01	-461.75	-4078.17	4095.23	0.00	
13500.00	90.00	269.92	9095.01	-461.89	-4178.17	4195.13	0.00	
13600.00	90.00	269.92	9095.01	-462.03	-4278.17	4295.03	0.00	
13700.00	90.00	269.92	9095.01	-462.17	-4378.17	4394.92	0.00	
13800.00	90.00	269.92	9095.01	-462.31	-4478.17	4494.82	0.00	
13900.00	90.00	269.92	9095.01	-462.45	-4578.17	4594.72	0.00	
14000.00	90.00	269.92	9095.01	-462.59	-4678.17	4694.62	0.00	
14100.00	90.00	269.92	9095.01	-462.73	-4778.17	4794.52	0.00	
14200.00	90.00	269.92	9095.01	-462.87	-4878.17	4894.42	0.00	
14300.00	90.00	269.92	9095.01	-463.01	-4978.17	4994.31	0.00	
14400.00	90.00	269.92	9095.01	-463.15	-5078.17	5094.21	0.00	
14500.00	90.00	269.92	9095.01	-463.29	-5178.17	5194.11	0.00	
14600.00	90.00	269.92	9095.01	-463.43	-5278.17	5294.01	0.00	
14700.00	90.00	269.92	9095.01	-463.57	-5378.17	5393.91	0.00	
14800.00	90.00	269.92	9095.01	-463.71	-5478.17	5493.80	0.00	
14900.00	90.00	269.92	9095.01	-463.85	-5578.17	5593.70	0.00	
15000.00	90.00	269.92	9095.01	-463.99	-5678.17	5693.60	0.00	
15100.00	90.00	269.92	9095.01	-464.13	-5778.17	5793.50	0.00	
15200.00	90.00	269.92	9095.01	-464.27	-5878.17	5893.40	0.00	
15300.00	90.00	269.92	9095.01	-464.41	-5978.17	5993.30	0.00	
15400.00	90.00	269.92	9095.01	-464.55	-6078.17	6093.19	0.00	
15500.00	90.00	269.92	9095.01	-464.69	-6178.17	6193.09	0.00	
15600.00	90.00	269.92	9095.01	-464.83	-6278.17	6292.99	0.00	
15700.00	90.00	269.92	9095.01	-464.97	-6378.17	6392.89	0.00	
15800.00	90.00	269.92	9095.01	-465.11	-6478.17	6492.79	0.00	
15900.00	90.00	269.92	9095.01	-465.25	-6578.17	6592.68	0.00	
16000.00	90.00	269.92	9095.01	-465.39	-6678.16	6692.58	0.00	
16100.00	90.00	269.92	9095.01	-465.53	-6778.16	6792.48	0.00	
16200.00	90.00	269.92	9095.01	-465.67	-6878.16	6892.38	0.00	
16300.00	90.00	269.92	9095.01	-465.81	-6978.16	6992.28	0.00	
16400.00	90.00	269.92	9095.01	-465.95	-7078.16	7092.18	0.00	
16500.00	90.00	269.92	9095.01	-466.09	-7178.16	7192.07	0.00	
16600.00	90.00	269.92	9095.01	-466.23	-7278.16	7291.97	0.00	
16700.00	90.00	269.92	9095.01	-466.37	-7378.16	7391.87	0.00	
16800.00	90.00	269.92	9095.01	-466.51	-7478.16	7491.77	0.00	
16900.00	90.00	269.92	9095.01	-466.65	-7578.16	7591.67	0.00	
17000.00	90.00	269.92	9095.01	-466.79	-7678.16	7691.56	0.00	
17100.00	90.00	269.92	9095.01	-466.93	-7778.16	7791.46	0.00	
17200.00	90.00	269.92	9095.01	-467.07	-7878.16	7891.36	0.00	
17300.00	90.00	269.92	9095.01	-467.21	-7978.16	7991.26	0.00	
17400.00	90.00	269.92	9095.01	-467.35	-8078.16	8091.16	0.00	
17500.00	90.00	269.92	9095.01	-467.49	-8178.16	8191.06	0.00	
17600.00	90.00	269.92	9095.01	-467.63	-8278.16	8290.95	0.00	
17700.00	90.00	269.92	9095.01	-467.77	-8378.16	8390.85	0.00	
17800.00	90.00	269.92	9095.01	-467.91	-8478.16	8490.75	0.00	
17900.00	90.00	269.92	9095.01	-468.05	-8578.16	8590.65	0.00	
18000.00	90.00	269.92	9095.01	-468.19	-8678.16	8690.55	0.00	
18100.00	90.00	269.92	9095.01	-468.33	-8778.16	8790.45	0.00	
18200.00	90.00	269.92	9095.01	-468.47	-8878.16	8890.34	0.00	
18300.00	90.00	269.92	9095.01	-468.61	-8978.16	8990.24	0.00	
18400.00	90.00	269.92	9095.01	-468.75	-9078.16	9090.14	0.00	
18500.00	90.00	269.92	9095.01	-468.89	-9178.16	9190.04	0.00	
18600.00	90.00	269.92	9095.01	-469.03	-9278.16	9289.94	0.00	
18700.00	90.00	269.92	9095.01	-469.17	-9378.16	9389.83	0.00	
18800.00	90.00	269.92	9095.01	-469.31	-9478.16	9489.73	0.00	
18900.00	90.00	269.92	9095.01	-469.45	-9578.16	9589.63	0.00	
19000.00	90.00	269.92	9095.01	-469.59	-9678.16	9689.53	0.00	
19100.00	90.00	269.92	9095.01	-469.73	-9778.16	9789.43	0.00	
19200.00	90.00	269.92	9095.01	-469.87	-9878.16	9889.33	0.00	

devon

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MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
19300.00	90.00	269.92	9095.01	-470.01	-9978.16	9989.22	0.00	
19339.94	90.00	269.92	9095.01	-470.07	-10018.10	10029.12	0.00	exit
19400.00	90.00	269.92	9095.01	-470.15	-10078.16	10089.12	0.00	
19419.94	90.00	269.92	9095.00	-470.14	-10098.10	10109.04	0.00	BHL

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SeAH

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

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**
BTC	**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.

SeAH

10-3/4" 45.50# 0.400" J-55

Dimensions (Nominal)

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**

Performance Properties

Collapse		**2090**	**psi**
Internal Yield Pressure at Minimum Yield			
	PE	**3580**	**psi**
	STC	**3580**	**psi**
	BTC	**3580**	**psi**
Yield Strength, Pipe Body		**715**	**1000 lbs**
Joint Strength			
	STC	**493**	**1000 lbs**
	BTC	**796**	**1000 lbs**
	BTC Special Clearance (11.25" OD Cplg)	**506**	**1000 lbs**

TEC-LOCK WEDGE

8.625" 32.00 LB/FT (.352" Wall)
BORUSAN MANNESMANNP110 HSCY

Pipe Body Data

Nominal OD:	8.625	in
Nominal Wall:	.352	in
Nominal Weight:	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
Critical Section Area:	8.61433	in²
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
Optimum Makeup Torque:	37,375	ft*lbf
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.

HUNTING

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

DWC/C-IS PLUS™

Connection Data Sheet

OD (in.)	WEIGHT (lbs./ft.)	WALL (in.)	GRADE	API DRIFT (in.)	RBW%	CONNECTION
5.500	Nominal: 20.00 Plain End: 19.83	0.361	VST P110EC	4.653	87.5	DWC/C-IS PLUS

PIPE PROPERTIES

Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Area	5.828	sq.in.
Grade Type	API 5CT; Vallourec Sourced Material 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 PROPERTIES

Connection Type	Semi-Premium 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 PERFORMANCES

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: tech.support@vam-usa.com

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).

VAM® USA

VAM USA
2107 CityWest Boulevard Suite 1300
Houston, TX 77042
Phone: 713-479-3200
Fax: 713-479-3234
VAM® USA Sales E-mail: VAMUSAsales@vam-usa.com
Tech Support Email: tech.support@vam-usa.com

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.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production Company LP**
LEASE NO.:	**NMNM082992**
LOCATION:	Section 35, T.20 S., R.28 E., NMPM
COUNTY:	Eddy County, New Mexico
Sundry ID:	2700352

WELL NAME & NO.:	**Burton Flat 35-33 Fed Com 623H**
SURFACE HOLE FOOTAGE:	2367'/N & 2182'/W
BOTTOM HOLE FOOTAGE	2480'/S & 2620'/E

COA

H2S	◉ 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 Variance	☐ Break Testing	☐ Offline 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 **1250 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 High Cave/Karst Areas 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 Capitan Reef Areas 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 casing 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 casing 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.

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 County
Call 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-F Sundry ID 2700352 Burton Flat 35-33 Fed Com 623H Eddy NM082992 DEVON ENERGY PRODUCTION COMPANY LP 13-22d 3-8-2022 LV.xlsm

Burton Flat 35-33 Fed Com 623H

13 3/8 surface csg in a 17 1/2 inch hole. — Design Factors — 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	4	350	18	6.71	13.04	19,075
"B"				btc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	1,500		Tail Cmt	does not	circ to sfc.	Totals:	350				19,075

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	201	289	243	19	9.00	407	2M	1.56

Site plat (pipe racks S or E) as per O.O.1.III.D.4.i. not found.

10 3/4 casing inside the 13 3/8 — Design Factors — Int 1

Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	45.50		j 55	btc special coupling	8.90	3.07	3.06	1,250	5	5.79	5.14	56,875
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	1,250				56,875
	The cement volume(s) are intended to achieve a top of				0	ft from surface or a		350				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.1882	152	312	253	24	10.50	619	2M	0.50

Class 'C' tail cmt yld > 1.35

8 5/8 casing inside the 10 3/4 — Design Factors — 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 psig:	1,500					Totals:	2,500				80,000
	The cement volume(s) are intended to achieve a top of				1050	ft from surface or a		200				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
9 7/8	0.1261	165	417	185	126	9.00	2960	5M	0.44

Class 'C' tail cmt yld > 1.35

5 1/2 casing 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	19,420	3	4.75	4.08	388,400
"B"								0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig:	2,001					Totals:	19,420				388,400
	The cement volume(s) are intended to achieve a top of				2300	ft from surface or a		200				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
7 7/8	0.1733	1871	3494	2967	18	10.50			0.91

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 157179

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 157179
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Adhere to previous NMOCD Conditions of Approval	11/8/2022