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



Well Name	Well Number	US Well Number	Lagge Number	Casa Number	Operator
well Name	well Number	05 Well Number	Lease Number	Case Number	Operator
CLAWHAMMER	423H	3001549843	NMNM35607	NMNM35607	WPX ENERGY
CLAWHAMMER	413H	3001549832	NMNM35607	NMNM35607	WPX FNFRGY

Notice of Intent

Sundry ID: 2727322

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 04/24/2023 Time Sundry Submitted: 05:51

Date proposed operation will begin: 04/24/2023

Procedure Description: Engineer Review only - DRILLING CHANGE: Devon Energy Production Co., L.P. (Devon) respectfully requests to change the drilling plan with casing changes and cement loss plan. Please see attachments. Batch sundry to only include attachments by pad for the drilling plan for the deepest well (TVD). Verbal given for approved design.

NOI Attachments

Procedure Description

Email_20230424174616.pdf

7.625in_29.7ppf_P110EC_SPRINT_FJ_12.9.2020_20230424113820.pdf

13.375_54.50_J55_20230424113818.pdf

5.5in_20lbf_P110EC_VAM_SPRINT_SF_20230424113821.pdf

 $5.500 in_20.00 \underline{\hspace{0.5cm}} 0.361 in_Wall_VST_P110EC_DWC_C_IS_CDS_AB_20230424113820.pdf$

 $9.625_40 lb_J_55_20230424113818.pdf$

 $Clawhammer_33_28_21_Fed_Com_423H_Slim_Hole_20230424113817.pdf$

Conditions of Approval

Additional

33_26_30_3_Sundry_ID_2727322_Clawhammer_33_28_21_Fed_Com_423H_Eddy_NM35607_WPX_ENERGY_PER MIAN_LLC_13_22fa_5_11_2023_LV_20230511080355.pdf

 $33_26_30_3_Sundry_ID_2727322_Clawhammer_33_28_21_Fed_Com_423H_Eddy_NM35607_WPX_ENERGY_PER\\MIAN_LLC_13_22fa_5_10_2023_LV_Alt_20230511080355.pdf$

Clawhammer_33_28_21_Fed_Com_423H_Dr_COA_Sundry_ID_2727322_20230511080254.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: APR 24, 2023 11:38 AM

Name: WPX ENERGY PERMIAN LLC

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:** 05/23/2023

Signature: Chris Walls

1. Geologic Formations

TVD of target	10839	Pilot hole depth	N/A
MD at TD:	20715	Deepest expected fresh water	

Basin

Dasin	Donth	Water/Mineral	
	Depth		**
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	1148		
Salt	1148		
Base of Salt	3388		
Delaware	3481		
Cherry Canyon	4621		
Brushy Canyon	5611		
1st Bone Spring Lime	7345		
Bone Spring 1st	8301		
Bone Spring 2nd	8929		
3rd Bone Spring Lime	9423		
Bone Spring 3rd	10173		
Wolfcamp	10563		
			·

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

2. Casing Program (Primary Design)

	B (Wt			Casing	Interval	Casing Interval	
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	54.5	J55	BTC	0	1173	0	1173
8 3/4	7 5/8	29.7	P110	VAM SPRINT FJ	0	10173	0	10173
6 3/4	5 1/2	20	P110	DWC/C IS & VAM SPRINT SF	0	20715	0	10839

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

Variance Approval -

*5-1/2" Production Casing will include Vam Sprint Semi-Flush Joint connection (5.783") from base of curve and 500ft into 7-5/8" casing shoe

*All other 5-1/2" Production Casing will run DWC/C IS (6.05")

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt.	Yld (ft3/sack)	Slurry Description
Surface	887	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1 (2 Stone Joh)	380	Surf	9	3.27	2nd Stage Lead: Class C Cement + additives
Int 1 (2 Stage Job)	422	5611	13.2	1.44	Tail: Class H / C + additives
Duodustion	62	8351	9	3.27	Lead: Class H /C + additives
Production	662	10352	13.2	1.44	Tail: Class H / C + additives

^{*}Note*

Cementing Program (Primary Design)Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the 7-5/8''intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 500 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld,12.91 ppg) will be executed as a contingency. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

2. Casing Program (Contingency 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	J55	BTC	0	1173 MD	0	1173 TVD
12 1/4	9 5/8	40.0	J55	BTC	0	3481 MD	0	3481 TVD
8 3/4	7 5/8	29.7	P110	VAM SPRINT FJ	0	10173 MD	0	10173 TVD
6 3/4	5 1/2	20.0	P110	DWC/C IS & VAM SPRINT SF	0	20715 MD	0	10839 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.

Variance Approval -

*5-1/2" Production Casing will include Vam Sprint Semi-Flush Joint connection (5.783") from base of curve and 500ft into 7-5/8" casing shoe

*All other 5-1/2" Production Casing will run DWC/C IS (6.05")

3. Cementing Program (Contingency Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	887	Surf	13.2	1.4	Lead: Class C Cement + additives
Last	360	Surf	9.0	3.3	Lead: Class C Cement + additives
int	Int 500' 13.2 1.4		1.4	Tail: Class H / C + additives	
Int 1 (2 stage)	184	Surf	9.0	3.3	2nd Stage Lead: Class C Cement + additives
Int 1 (2 stage)	Int 1 (2 stage) 421 5611 13.2		1.4	Tail: Class H / C + additives	
Production	62	8351	9.0	3.3	Lead: Class H /C + additives
rioduction	661	KOP	13.2	1.4	Tail: Class H / C + additives

^{*}Note*

Cementing Program (Contingency Design)Assuming no returns are established while drilling, Devon requests to pump a two stage cement job on the 7-5/8''intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 500 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld,12.91 ppg) will be executed as a contingency. The final cement top will be verified by Echo-meter. Devon will include the Echo-meter verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program. Devon will report to the BLM the volume of fluid (limited to 1 bbls) used to flush intermediate casing valves following backside cementing procedures.

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

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:
			Anı	nular	X	50% of rated working pressure
Int 1	13-5/8"	5M		d Ram	X	
1110 1	15 5/0	3111		Ram		5M
			Doub	le Ram	X	
			Other*			
			Annul	ar (5M)	X	50% of rated working pressure
Production	13-5/8"	5M	Blind Ram		X	
Troduction		J1 V1	Pipe Ram			5M
			Double Ram		X	J1V1
			Other*			
			Annul	ar (5M)		
			Bline	d Ram		
			Pipe	Ram		
			Doub	le Ram		
			Other*			
N A variance is requested for	the use of	a diverter or	n the surface	e casing. See	attached for	schematic.
Y A variance is requested to	run a 5 M a	nnular on a	10M system	n		

4. Pressure Control Equipment (Four String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре		✓	Tested to:		
			Anı	Annular		50% of rated working pressure		
Int	13-5/8"	5M	Bline	d Ram	X			
IIIt	13-3/6	3101	Pipe	Ram		5M		
			Doub	le Ram	X	3101		
			Other*					
			Annular		X	50% of rated working pressure		
Int 1	13-5/8"	5M	Blind Ram		X			
1111. 1	13-3/6	3101	Pipe Ram			5M		
			Doub	le Ram	X	3101		
			Other*					
		Annular (5)		ar (5M)	X	50% of rated working pressure		
Production	13-5/8"	5M	Blind Ram		X			
	13-3/6	3101	Pipe Ram		Pipe Ram			5M
			Double Ram		X	J1V1		
			Other*					

5. Mud Program (Three String Design)

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

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

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

6. Logging and Testing Procedures

	V 208mg und 100mg 11000uni 0					
Log	Logging, Coring and Testing					
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the					
	X	X Completion Report and shumitted to the BLM.				
	No logs are planned based on well control or offset log information.					
	Drill stem test? If yes, explain.					
		Coring? If yes, explain.				

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

77 D T T T T T T T T T T T T T T T T T T					
Condition	Specfiy what type and where?				
BH pressure at deepest TVI	5918				
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.

ence anterea	measured variety and remainded will be provided to the BEIVI.
N	H2S is present
Y	H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

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

casing, and install TA caps or tubing heads for completions.

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

Will be pre-setting casing? Potentially

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

Attachments	3
X	Directional Plan
	Other, describe



<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.



U. S. Steel Tubular Products 9.625" 40.00lbs/ft (0.395" Wall) J55

1/24/2019 2:45:24 PM

MECHANICAL PROPERTIES	Pipe	втс	LTC	STC	
Minimum Yield Strength	55,000				psi
Maximum Yield Strength	80,000				psi
Minimum Tensile Strength	75,000				psi
DIMENSIONS	Pipe	втс	LTC	STC	
Outside Diameter	9.625	10.625	10.625	10.625	in.
Wall Thickness	0.395				in.
Inside Diameter	8.835	8.835	8.835	8.835	in.
Standard Drift	8.679	8.679	8.679	8.679	in.
Alternate Drift	8.750	8.750	8.750	8.750	in.
Nominal Linear Weight, T&C	40.00				lbs/ft
Plain End Weight	38.97				lbs/ft
PERFORMANCE	Pipe	втс	LTC	STC	
Minimum Collapse Pressure	2,570	2,570	2,570	2,570	psi
Minimum Internal Yield Pressure	3,950	3,950	3,950	3,950	psi
Minimum Pipe Body Yield Strength	630				1,000 lbs
Joint Strength		714	520	452	1,000 lbs
Reference Length		11,898	8,665	7,529	ft
MAKE-UP DATA	Pipe	втс	LTC	STC	
Make-Up Loss		4.81	4.75	3.38	in.
Minimum Make-Up Torque			3,900	3,390	ft-lbs
Maximum Make-Up Torque			6,500	5,650	ft-lbs

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> U. S. Steel Tubular Products 460 Wildwood Forest Drive, Suite 300S connections@uss.com Spring, Texas 77380

1-877-893-9461 www.usstubular.com Page 11 of 17

Issued on: 09 Dec. 2020 by Logan Van Gorp



Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift:	Connection
7 5/8 in.	Nominal: 29.70 lb/ft	0.375 in.	P110EC	6.750 in.	VAM® SPRINT-FJ
	Plain End: 29.06 ft/lb				

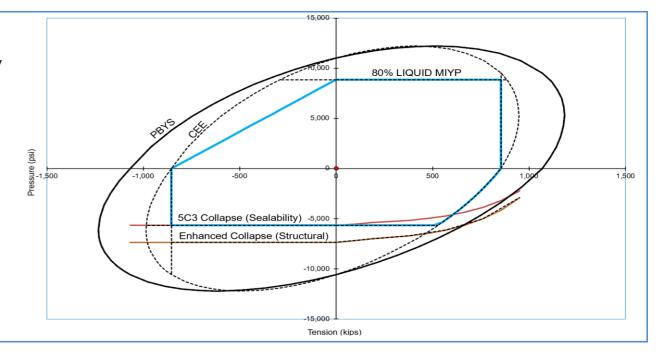
PIPE PROPERTIES					
Nominal OD	7.625	in.			
Nominal ID	6.875	in.			
Nominal Cross Section Area	8.541	sqin.			
Grade Type	Enhanced	Collapse			
Min. Yield Strength	125	ksi			
Max. Yield Strength	140	ksi			
Min. Ultimate Tensile Strength	135	ksi			

CONNECTION P	ROPERTIES	
Connection Type	Semi-Premium Inte	egral Flush
Connection OD (nom):	7.654	in.
Connection ID (nom):	6.827	in.
Make-Up Loss	4.055	in.
Critical Cross Section	6.979	sqin.
Tension Efficiency	80.0	% of pipe
Compression Efficiency	80.0	% of pipe
Internal Pressure Efficiency	80.0	% of pipe
External Pressure Efficiency	100	% of pipe

CONNECTION PERFORMANCES		
Tensile Yield Strength	854	klb
Compression Resistance	854	klb
Max. Internal Pressure	8,610	psi
Structural Collapse Resistance	7,360	psi
Max. Structural Bending	57	°/100ft
Max. Bending with Sealability	10	°/100ft

TORQUE VALUES		
Min. Make-up torque	15,000	ft.lb
Opt. Make-up torque	16,500	ft.lb
Max. Make-up torque	18,000	ft.lb
Max. Torque with Sealability (MTS)	32,000	ft.lb

VAM® SPRINT-FJ is a semi-premium flush connection designed for shale applications, where maximum clearance and high tension capacity are required for intermediate casing strings.



canada@vamfieldservice.com usa@vamfieldservice.com mexico@vamfieldservice.com brazil@vamfieldservice.com Do you need help on this product? - Remember no one knows VAM^{\circledR} like VAM^{\circledR}

uk@vamfieldservice.com dubai@vamfieldservice.com nigeria@vamfieldservice.com angola@vamfieldservice.com china@vamfieldservice.com baku@vamfieldservice.com singapore@vamfieldservice.com australia@vamfieldservice.com

Over 140 VAM® Specialists available worldwide 24/7 for Rig Site Assistance



^{* 87.5%} RBW

Issued on: 08 Jul. 2020 by Wesley Ott



Connection Data Sheet

OD	Weight	Wall Th.	Grade	API Drift:	Connection
5 1/2 in.	20.00 lb/ft	0.361 in.	P110EC	4.653 in.	VAM® SPRINT-SF
5 1, 1 IIII	20.00 15, 10		1		VAIN SI MILL SI

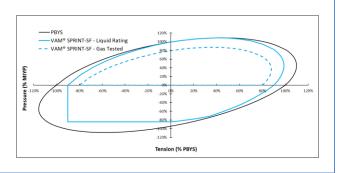
PIPE PROPERTIES				
Nominal OD	5.500	in.		
Nominal ID	4.778	in.		
Nominal Cross Section Area	5.828	sqin.		
Grade Type	Hig	h Yield		
Min. Yield Strength	125	ksi		
Max. Yield Strength	140	ksi		
Min. Ultimate Tensile Strength	135	ksi		

CONNECTION	PROPERTIES	
Connection Type	Semi-Premium Integral S	Semi-Flush
Connection OD (nom):	5.783	in.
Connection ID (nom):	4.717	in.
Make-Up Loss	5.965	in.
Critical Cross Section	5.244	sqin.
Tension Efficiency	90.0	% of pipe
Compression Efficiency	90.0	% of pipe
Internal Pressure Efficiency	100	% of pipe
External Pressure Efficiency	100	% of pipe

CONNECTION PERFORMANCES				
Tensile Yield Strength	656	klb		
Compression Resistance	656	klb		
Internal Yield Pressure	14,360	psi		
Collapse Resistance	12,080	psi		
Max. Structural Bending	89	°/100ft		
Max. Bending with ISO/API Sealability	30	°/100ft		

TORQUE VALUES		
Min. Make-up torque	20,000	ft.lb
Opt. Make-up torque	22,500	ft.lb
Max. Make-up torque	25,000	ft.lb
Max. Torque with Sealability (MTS)	40,000	ft.lb

VAM® SPRINT-SF is a semi-flush connection innovatively designed for extreme shale applications. Its high tension rating and ultra high torque capacity make it ideal to run a fill string length as production casing in shale wells with extended horizontal sections and tight clearance requirements.



Do you need help on this product? - Remember no one knows VAM^{\circledR} like VAM^{\circledR}

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^{* 87.5%} RBW





Connection Data Sheet

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

Plain End: 19.83

PIPE PROPERTIES					
Outside Diameter	5.500	in.			
Inside Diameter	4.778	in.			
Nominal Area	5.828	sq.in.			
Grade Type	API 5CT				
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	14,360	psi			
Collapse	12,090	psi			

	CONNECTION PROPERT	TES	
in.	Connection Type	Semi-Prem	ium T&C
in.	Connection O.D. (nom)	6.050	in.
in.	Connection I.D. (nom)	4.778	in.
	Make-Up Loss	4.125	in.
ksi	Coupling Length	9.250	in.
ksi	Critical Cross Section	5.828	sq.in.
ksi	Tension Efficiency	100.0%	of pipe
ιlb	Compression Efficiency	100.0%	of pipe
ιlb	Internal Pressure Efficiency	97.8%	of pipe
osi	External Pressure Efficiency	100.0%	of pipe
osi			

CONNECTION PERFORMANCES					
Yield Strength	729	klb			
Parting Load	787	klb			
Compression Rating	729	klb			
Min. Internal Yield	14,050	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 VA	ALUES	
)	Min. Make-up torque	15,800	ft.lb
ס	Opti. Make-up torque	17,050	ft.lb
ס	Max. Make-up torque	18,300	ft.lb
i	Min. Shoulder Torque	1,580	ft.lb
i	Max. Shoulder Torque	12,640	ft.lb
t	Min. Delta Turn	-	Turns
t	Max. Delta Turn	0.200	Turns
	Maximum Operational Torque	20,800	ft.lb
	Maximum Torsional Value (MTV)	22,880	ft.lb

Need Help? Contact: tech.support@vam-usa.com
Reference Drawing: 8087PP Rev.05 & 8087BP Rev.04

Date: 01/06/2020 Time: 10:56:21 AM

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 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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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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Green, Chelsey

From: Vo, Long T < lvo@blm.gov>

Sent: Wednesday, April 19, 2023 8:01 AM

To: Wardhana, Krisna

Cc: Green, Chelsey; Porraz, Isac

Subject: Re: [EXTERNAL] Devon: Clawhammer 33-28-21 Fed Com 413H & 423H - Surface Casing Change

Follow Up Flag: Follow up Flag Status: Flagged

Krisna,

You have verbal approval to proceed, please utilize a 17.5" borehole for the surface as the condition of approval. All previous COAs still apply. Please follow up with a subsequent report sundry within 5 business days of this verbal approval.

Regards,

Long Vo

Petroleum Engineer Carlsbad Field Office Land and Minerals Bureau of Land Management Department of Interior 575-988-5402 Cell

From: Wardhana, Krisna < Krisna. Wardhana@dvn.com>

Sent: Tuesday, April 18, 2023 4:08 PM

To: Vo, Long T < Ivo@blm.gov>

Cc: Green, Chelsey < Chelsey. Green@dvn.com>; Porraz, Isac < Isac. Porraz@dvn.com>

Subject: [EXTERNAL] Devon: Clawhammer 33-28-21 Fed Com 413H & 423H - Surface Casing Change

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Long,

As discussed over the phone, here is an email to follow up the verbal approval earlier to our request to change the 10-3/4" surface casing to 13-3/8" on the following wells below. Attached is the 13-3/8" pipe spec for your reference (API BTC Coupling OD = 14.375").

- Clawhammer 33-28-21 Fed Com 413H API ID: 3001549843; Sundry ID: 2704672
- Clawhammer 33-28-21 Fed Com 423H API ID: 3001549832; Sundry ID: 2704675

Thanks!

Krisna Wardhana

Drilling Engineer

Krisna.wardhana@dvn.com

Cell – (661) 868-9418

Office – (405) 552-4724



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1625 N. French Dr., Hobbs, NM 88240
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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 221546

CONDITIONS

Operator:	OGRID:
WPX Energy Permian, LLC	246289
Devon Energy - Regulatory	Action Number:
Oklahoma City, OK 73102	221546
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	If bradenhead squeeze is used during cementing, then a CBL is required. All other COA's still apply.	10/18/2023