Sundry Print Reports

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

FED

Well Name: FIGHTING OKRA 18-19 Well Location: T26S / R34E / SEC 18 /

NENW / 32.0493232 / -103.5097261

County or Parish/State: LEA /

NM

Well Number: 25H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM114992 Unit or CA Name: Unit or CA Number:

US Well Number: 3002547580 Operator: DEVON ENERGY

PRODUCTION COMPANY LP

Notice of Intent

Sundry ID: 2788600

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/06/2024 Time Sundry Submitted: 01:50

Date proposed operation will begin: 05/20/2024

Procedure Description: Engineering Only - Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD: Casing program change to slim hole design: Surface, Intermediate, and Production Casing size changes. Cement volume changes to accommodate casing change. Please see attached revised drilling & directional plans and supporting documentation.

NOI Attachments

Procedure Description

5.5_20lb_VAEP_P110_VAroughneck_SC_Slim_Hole_20240506134949.pdf

9.625_40lb_J_55_20240506134205.pdf

5.5_20lb_P110EC_VAM_SPRINT_SF_20240506134206.pdf

7_625_29_7lb_P110HSCY_MOFXL_20240506134205.pdf

FIGHTING_OKRA_18_19_FED_25H_Directional_Plan_05_06_24_20240506133340.pdf

FIGHTING_OKRA_18_19_FED_25H_Slim_Hole_Rev1_20240506133340.pdf

eived by OCD: 5/13/2024 3:22:15 AM Well Name: FIGHTING OKRA 18-19

FED

Well Location: T26S / R34E / SEC 18 /

NENW / 32.0493232 / -103.5097261

County or Parish/State: LEA/ 2 of

Well Number: 25H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM114992

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547580

Operator: DEVON ENERGY PRODUCTION COMPANY LP

Conditions of Approval

Specialist Review

Fighting_Okra_18_19_Fed_25H_Sundry_ID_2788600_20240509100206.pdf

State:

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: REBECCA DEAL Signed on: MAY 06, 2024 01:49 PM

Zip:

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Analyst

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (303) 299-1406

Email address: REBECCA.DEAL@DVN.COM

Field

Representative Name:

Street Address:

City:

Phone:

Email address:

BLM Point of Contact

Signature: Long Vo

BLM POC Name: LONG VO BLM POC Title: Petroleum Engineer

BLM POC Phone: 5759885402 BLM POC Email Address: LVO@BLM.GOV

Disposition: Approved Disposition Date: 05/09/2024

Page 2 of 2

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

(Julie 2019)	DEF	PARTMENT OF THE INT	ERIOR			Expi	res: October 31, 2021
	BUR	EAU OF LAND MANAG	EMENT		5. Lease	Serial No. NI	MNM114992
	ot use this t	NOTICES AND REPORT form for proposals to a Use Form 3160-3 (APD	Irill or to re-	enter an		ian, Allottee or	Tribe Name
	SUBMIT IN	TRIPLICATE - Other instruction	ns on page 2		7. If Uni	it of CA/Agree	ment, Name and/or No.
1. Type of Well							
✓ Oil We	ell Gas V	Vell Other			8. Well l	Name and No.	FIGHTING OKRA 18-19 FED/25H
2. Name of Operator	DEVON ENERG	GY PRODUCTION COMPANY	LP		9. API V	Vell No. 30025	547580
3a. Address 333 WE	ST SHERIDAN	/ (V L, OI L/ (I IOIVI/ (OI I I ,	Phone No. <i>(inclu</i> 5) 235-3611	ıde area code,			Exploratory Area 4/UPPER WOLFCAMP
4. Location of Well (F	o .	R.,M., or Survey Description)			11. Cour	ntry or Parish, IM	State
	12. CHE	CK THE APPROPRIATE BOX(ES) TO INDICA	TE NATURE	OF NOTICE, REP	ORT OR OTH	ER DATA
TYPE OF SUB	MISSION			TYP	PE OF ACTION		
✓ Notice of Inten	t	Acidize Alter Casing	Deepen Hydraulic	-	Production (S Reclamation	tart/Resume)	Water Shut-Off Well Integrity
Subsequent Re	port	Casing Repair Change Plans	New Cons Plug and A	Abandon	Recomplete Temporarily	Abandon	Other Other
Final Abandon	ment Notice	Convert to Injection	Plug Back		Water Disposa	al	
is ready for final in Engineering O Casing program accommodate	nspection.) nly - Devon Ene m change to slir casing change.	ergy Production Company L.P. m hole design: Surface, Interm Please see attached revised	respectfully reduced at the control of the control	quests the fo	ollowing changes sing size changes	to the approv	
14. I hereby certify tha		true and correct. Name (Printed) 406	/Typed)	Regulatory	/ Analyst		
Signature (Elect	ronic Submissio	on)	Date			05/06/20)24
		THE SPACE FO	OR FEDERA	L OR ST	ATE OFICE U	SE	
Approved by							
LONG VO / Ph: (57	75) 988-5402 / <i>F</i>	Approved		Petro Title	leum Engineer		05/09/2024 Pate
certify that the applica	nt holds legal or e	hed. Approval of this notice does equitable title to those rights in the		Office CAI	RLSBAD		

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.

(Instructions on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

 $0. \, SHL: \, NENW \, / \, 500 \, FNL \, / \, 2420 \, FWL \, / \, TWSP: \, 26S \, / \, RANGE: \, 34E \, / \, SECTION: \, 18 \, / \, LAT: \, 32.0493232 \, / \, LONG: \, -103.5097261 \, (TVD: \, 0 \, feet, \, MD: \, 0 \, feet \,)$ $PPP: \, NENW \, / \, 100 \, FNL \, / \, 2600 \, FWL \, / \, TWSP: \, 26S \, / \, RANGE: \, 34E \, / \, SECTION: \, 18 \, / \, LAT: \, 32.0504 \, / \, LONG: \, -103.5091 \, (TVD: \, 12560 \, feet, \, MD: \, 12599 \, feet \,)$ $BHL: \, SESW \, / \, 20 \, FSL \, / \, \, 2600 \, FWL \, / \, TWSP: \, 26S \, / \, RANGE: \, 34E \, / \, SECTION: \, 19 \, / \, LAT: \, 32.0216 \, / \, LONG: \, -103.5092 \, (TVD: \, 13085 \, feet, \, MD: \, 23369 \, feet \,)$



TECHNICAL DATA SHEET

Released to Imaging: 6/15/2024 12:45:52 PM

Connection: VAroughneck SC (OD=6.051in)

Grade: VA-EP-P110

Size: 5 1/2 in X 20.00 lb/ft

Material:

Drift: standard
Bevel: standard

Yield Strength Min. 125,000 psi Yield Strength Max. 140,000 psi Tensile Strength Min. 125,000 psi

US Customary

862 Mpa 965 Mpa 862 Mpa

Metric

Pipe:

	US Customary	Metric		US Customary	Metric
Nominal OD:	5.500 in	139.70 mm	Wall Thickness:	0.361 in	9.17 mm
Nominal ID:	4.778 in	121.36 mm	Standard Drift:	4.653 in	118.19 mm
Nominal Weight:	20.00 lb/ft	30.07 kg/m	Pipe Body Yield Strength:	729 klb	3,240 kN
Pipe Cross Section:	5.828 in ²	3.759.99 mm ²			

Connection:

	US Customary	Metric
OD:	6.051 in	153.70 mm
ID:	4.764 in	121.00 mm
Length:	8.976 in	228.00 mm

Threads per inch: 5 Threads

Connection Performance (Uniaxial Load):

	US Customary	Metric		US Customary	Metric
Joint Strength:	729 klb	3,240 kN	Tension Efficiency:	> 100.0 %	
Collapse Resistance:.	13,300 psi	91.70 Mpa	Displacement:	1.240 gal/ft	15.40 l/m
Internal Yield Pressure:	14,360 psi	99.00 Mpa	Production:	0.932 gal/ft	11.57 l/m
Load on Coupling Face:	411 klh	1.830 kN			

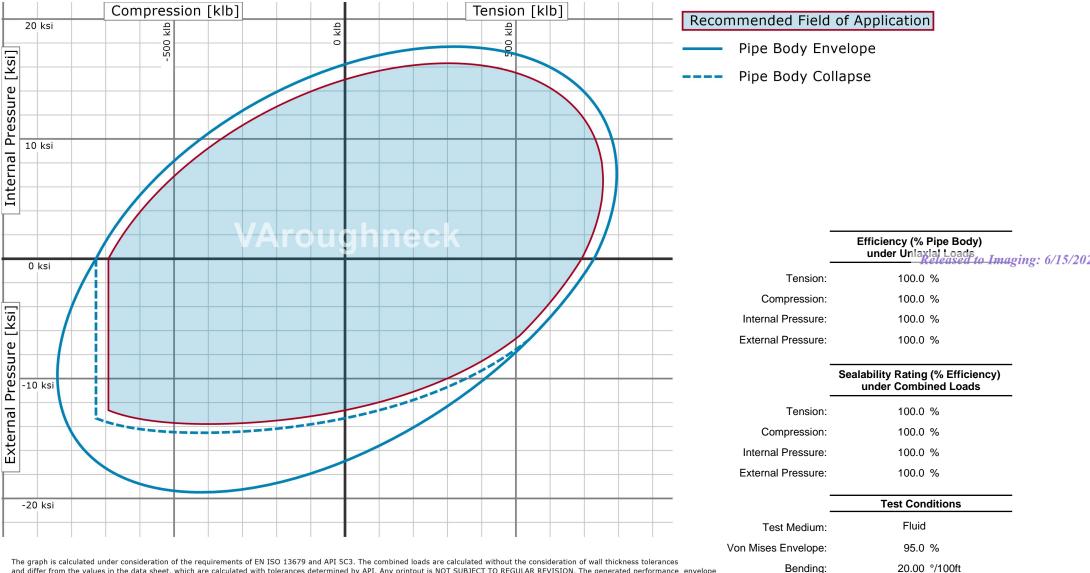
Field Make Up (Friction Factor = 1.0):

Min. Torque on Shoulder:

	US Customary	Metric		US Customary	Metric
Minimum Torque:	15,820 ft.lb	21,450 Nm	Make-Up Loss:	4.370 in	111.00 mm
Optimum Torque:	17,580 ft.lb	23,835 Nm	Yield Torque:	22,000 ft.lb	29,800 Nm
Maximum Torque:	19.340 ft.lb	26.220 Nm			



LOAD ENVELOPE



The graph is calculated under consideration of the requirements of EN ISO 13679 and API 5C3. The combined loads are calculated without the consideration of wall thickness tolerances and differ from the values in the data sheet, which are calculated with tolerances determined by API. Any printout is NOT SUBJECT TO REGULAR REVISION. The generated performance envelope shall solely be used as a tool to facilitate the comparison of performance properties under combined loads, of different grades, sizes and connections of voestalpine Tubulars products. Field-specific safety/design factors as well as other loads are not considered. Thus the results shall by no means be used to replace the own string design engineering or to justify any warranty/guaranty cases.





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

Legal Notice

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

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

1-877-893-9461 www.usstubular.com Issued on: 08 Jul. 2020 by Wesley Ott



Connection Data Sheet

	1				
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

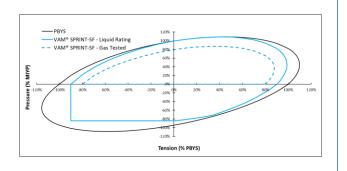
PIPE PROPERTIES		
Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Cross Section Area	5.828	sqin.
Grade Type	Hig	ıh Yield
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Ultimate Tensile Strength	135	ksi

CONNECTION P	ROPERTIES	
Connection Type	Semi-Premium Integral	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® like VAM® uk@vamfieldservice.com

canada@vamfieldservice.com usa@vamfieldservice.com mexico@vamfieldservice.com brazil@vamfieldservice.com 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



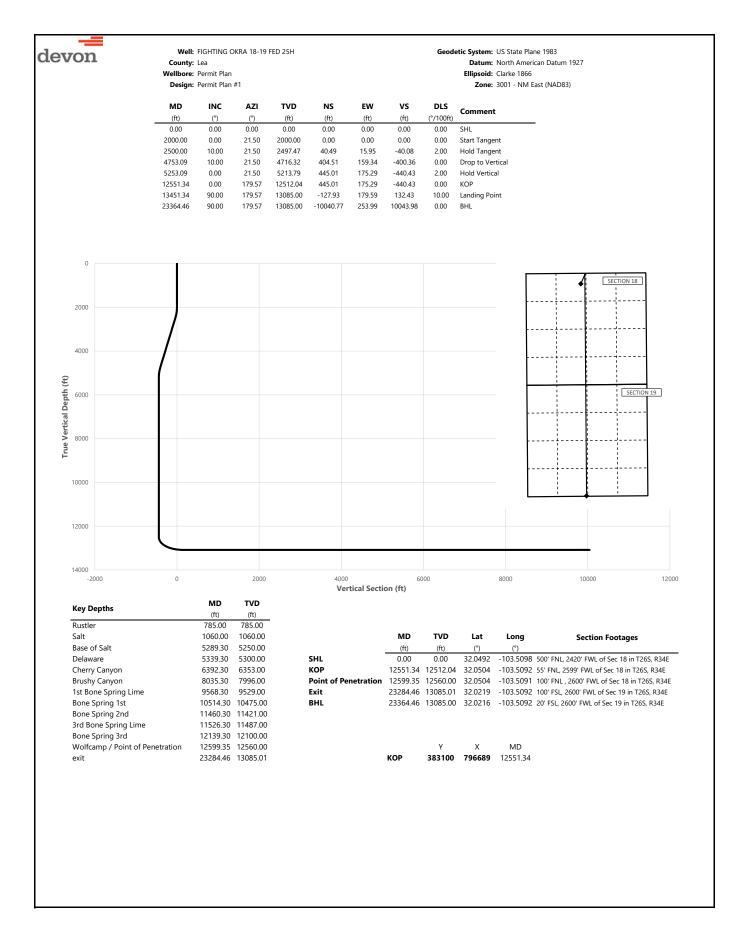
^{* 87.5%} RBW

	MO-FXL MO-					
Metal One	*1 Pipe Body: BMP P110HS	CDS#	P110HSCY MinYS125ksi			
Metal One	Min95%WT		Min95%WT			
	Connection Dat	a Sheet	Date	20-Se		
	0					
	Geometry	<u>Imperia</u>	<u>ıl</u>	<u>S.I.</u>		
	Pipe Body					
	Grade *	P110HSCY		P110HSCY		
	Pipe OD (D)	7 5/8	in	193.68	mm	
MO-FXL	Weight	29.70	lb/ft	44.25	kg/m	
	Actual weight	29.04		43.26	kg/m	
	Wall Thickness (t)	0.375	in	9.53	mm	
	Pipe ID (d)	6.875	in	174.63	mm	
	Pipe body cross section	8.541	in ²	5,510	mm ²	
	Drift Dia.	6.750	in	171.45	mm	
		0.700]	17 1110		
	Connection					
	Box OD (W)	7.625	in	193.68	mm	
	PIN ID	6.875	in	174.63	mm	
Box	Make up Loss	4.219	in	107.16	mm	
critical	Box Critical Area	5.714	in ²	3686	mm^2	
area	Joint load efficiency	70	%	70	%	
			1 40 / 4	0" ft \		
	Thread Taper	1	/10(1.	z perit)		
Make up	Number of Threads	1		TPI		
Make up	Number of Threads Performance					
Make up loss D	Number of Threads Performance Performance Properties	for Pipe Body	5	TPI	l kN	
Make up	Performance Performance Properties S.M.Y.S. *1	for Pipe Body	5 kips	TPI 4,749	kN MPa	
Make up oss D	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1	for Pipe Body 1,068 11,680	kips psi	4,749 80.55	MPa	
Make up poss D	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1	for Pipe Body 1,068 11,680 7,200	kips psi psi	4,749 80.55 49.66	MPa MPa	
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Make up loss D Pin critical	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE num Internal Yield si, Min95%WT, Col 5" 29.7lb/ft P110H3 for Connectio 747 kips	kips psi psi ELD Stre d Pressui llapse Stre SCY Rev3 n (70% (70%	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi 8, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.)	MPa MPa dy	
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Make up loss D Pin critical	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S. = Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft)	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE num Internal Yielo si, Min95%WT, Col 5" 29.7lb/ft P110H: for Connectio 747 kips 747 kips	kips psi psi ELD Stre d Pressuillapse Stre SCY Rev3 n (70% (70% (80% 100% c	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi 3, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.)	MPa MPa dy	
Make up loss D Pin critical	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S. = Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE num Internal Yield si, Min95%WT, Col 5" 29.7lb/ft P110H for Connectio 747 kips 747 kips 9,340 psi	kips psi psi ELD Stre d Pressul llapse Stre SCY Rev3 n (70% (70% (80% 100% (4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi 3, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.) of Collapse St	MPa MPa dy 3	
Make up loss D	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min.	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE num Internal Yield si, Min95%WT, Col 5" 29.7lb/ft P110H for Connectio 747 kips 747 kips 9,340 psi	kips psi psi ELD Stre d Pressuillapse Stre SCY Rev3 n (70% (70% (80% 100% c 3	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi 3, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.) of Collapse St 0	MPa MPa dy 3 rength	
Make up loss D	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti.	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE num Internal Yielo si, Min95%WT, Co 15" 29.7lb/ft P110H; for Connectio 747 kips 747 kips 9,340 psi	kips psi psi ELD Stre d Pressui llapse Stre SCY Rev3 n (70% (70% (80% 100% c 3	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi 3, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.) of M.I.Y.P.) of Collapse St 0	MPa MPa dy 3 rength N-m N-m	
Make up loss D	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti. Max.	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE for Connection 747 kips 747 kips 9,340 psi 15,500 17,200 18,900	kips psi psi psi Harage Stressur (70% (70% (80% 100% c 3	4,749 80.55 49.66 Ingth of Pipe bodyength 7,200psi 3, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.) of M.I.Y.P.) of Collapse St 0 21,000 23,300 25,600	MPa MPa dy 3 rength N-m N-m	
Make up loss D Pin critical	Performance Performance Properties S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Speci M.I.Y.P. = Minin * BMP P110HSCY: MinYS125k Performance Data Sheet: 7.62 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti.	for Pipe Body 1,068 11,680 7,200 fied Minimum YIE num Internal Yield si, Min95%WT, Col 5" 29.7lb/ft P110H: for Connectio 747 kips 747 kips 9,340 psi 15,500 17,200 18,900 23,600	kips psi psi psi ELD Stre d Pressur llapse Stry SCY Rev3 n (70% (70% (80% 100% c 3 ft-lb ft-lb ft-lb ft-lb	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi 8, dated 9/19/202 of S.M.Y.S.) of S.M.Y.S.) of M.I.Y.P.) of Collapse St 0 21,000 23,300 25,600 32,000	MPa MPa dy 3 rength N-m N-m N-m	

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Statements regarding the suitability of products for certain types of applications are based on Metal One's knowledge of typical requirements that are often placed on Metal One products in standard well configurations. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application

The products described in this Connection Data Sheet are not recommended for use in deep water offshore applications. For more information, please refer to http://www.mtlo.co.jp/mo-con/ images/top/WebsiteTerms Active 20333287 1.pdf the contents of which are incorporated by reference into this Connection Data Sheet.





County: Lea Wellbore: Permit Plan Geodetic System: US State Plane 1983

Datum: North American Datum 1927 Ellipsoid: Clarke 1866

	Design:	Permit Plan	n #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
100.00	0.00	21.50	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	21.50	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	21.50	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	21.50	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	21.50	500.00	0.00	0.00	0.00	0.00	
600.00 700.00	0.00	21.50 21.50	600.00 700.00	0.00	0.00	0.00	0.00	
785.00	0.00	21.50	785.00	0.00	0.00	0.00	0.00	Rustler
800.00	0.00	21.50	800.00	0.00	0.00	0.00	0.00	Kustiei
900.00	0.00	21.50	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	21.50	1000.00	0.00	0.00	0.00	0.00	
1060.00	0.00	21.50	1060.00	0.00	0.00	0.00	0.00	Salt
1100.00	0.00	21.50	1100.00	0.00	0.00	0.00	0.00	Suit
1200.00	0.00	21.50	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	21.50	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	21.50	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	21.50	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	21.50	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	21.50	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	21.50	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	21.50	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	21.50	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	21.50	2099.98	1.62	0.64	-1.61	2.00	State Langerit
2200.00	4.00	21.50	2199.84	6.49	2.56	-6.43	2.00	
2300.00	6.00	21.50	2299.45	14.60	5.75	-14.45	2.00	
2400.00	8.00	21.50	2398.70	25.94	10.22	-25.67	2.00	
2500.00	10.00	21.50	2497.47	40.49	15.95	-40.08	2.00	Hold Tangent
2600.00	10.00	21.50	2595.95	56.65	22.32	-56.07	0.00	Tiola rangent
2700.00	10.00	21.50	2694.43	72.81	28.68	-72.06	0.00	
2800.00	10.00	21.50	2792.91	88.96	35.04	-88.05	0.00	
2900.00	10.00	21.50	2891.39	105.12	41.41	-104.04	0.00	
3000.00	10.00	21.50	2989.87	121.28	47.77	-120.03	0.00	
3100.00	10.00	21.50	3088.35	137.43	54.14	-136.02	0.00	
3200.00	10.00	21.50	3186.83	153.59	60.50	-152.01	0.00	
3300.00	10.00	21.50	3285.31	169.75	66.86	-168.00	0.00	
3400.00	10.00	21.50	3383.79	185.90	73.23	-183.99	0.00	
3500.00	10.00	21.50	3482.27	202.06	79.59	-199.98	0.00	
3600.00	10.00	21.50	3580.75	218.22	85.96	-215.97	0.00	
3700.00	10.00	21.50	3679.23	234.37	92.32	-231.96	0.00	
3800.00	10.00	21.50	3777.72	250.53	98.69	-247.95	0.00	
3900.00	10.00	21.50	3876.20	266.69	105.05	-263.94	0.00	
4000.00	10.00	21.50	3974.68	282.84	111.41	-279.93	0.00	
4100.00	10.00	21.50	4073.16	299.00	117.78	-295.92	0.00	
4200.00	10.00	21.50	4171.64	315.16	124.14	-311.91	0.00	
4300.00	10.00	21.50	4270.12	331.31	130.51	-327.91	0.00	
4400.00	10.00	21.50	4368.60	347.47	136.87	-343.90	0.00	
4500.00	10.00	21.50	4467.08	363.62	143.24	-359.89	0.00	
4600.00	10.00	21.50	4565.56	379.78	149.60	-375.88	0.00	
4700.00	10.00	21.50	4664.04	395.94	155.96	-391.87	0.00	
4753.09	10.00	21.50	4716.32	404.51	159.34	-400.36	0.00	Drop to Vertical
4800.00	9.06	21.50	4762.59	411.74	162.19	-407.51	2.00	
4900.00	7.06	21.50	4861.59	424.79	167.33	-420.42	2.00	
5000.00	5.06	21.50	4961.03	434.61	171.20	-430.15	2.00	
5100.00	3.06	21.50	5060.77	441.20	173.79	-436.67	2.00	
5200.00	1.06	21.50	5160.70	444.55	175.11	-439.98	2.00	
5253.09	0.00	21.50	5213.79	445.01	175.29	-440.43	2.00	Hold Vertical
5289.30	0.00	179.57	5250.00	445.01	175.29	-440.43	0.00	Base of Salt
5300.00	0.00	179.57	5260.70	445.01	175.29	-440.43	0.00	
5339.30	0.00	179.57	5300.00	445.01	175.29	-440.43	0.00	Delaware
5400.00	0.00	179.57	5360.70	445.01	175.29	-440.43	0.00	
5500.00	0.00	179.57	5460.70	445.01	175.29	-440.43	0.00	
5600.00	0.00	179.57	5560.70	445.01	175.29	-440.43	0.00	
5700.00	0.00	179.57	5660.70	445.01	175.29	-440.43	0.00	
5800.00	0.00	179.57	5760.70	445.01	175.29	-440.43	0.00	
5900.00	0.00	179.57	5860.70	445.01	175.29	-440.43	0.00	
6000.00	0.00	179.57	5960.70	445.01	175.29	-440.43	0.00	
6100.00	0.00	179.57	6060.70	445.01	175.29	-440.43	0.00	
COOC				4 4 E O 1	7 7E 20	440.42	0.00	
6200.00 6300.00	0.00	179.57 179.57	6160.70 6260.70	445.01 445.01	175.29 175.29	-440.43 -440.43	0.00	



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

Geodetic System: US State Plane 1983

Datum: North American Datum 1927 Ellipsoid: Clarke 1866

Zone: 3001 - NM East (NAD83)

Design: Permit Plan #1							Zone: 3001 - NM East (NAD83)			
MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment		
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment		
6392.30	0.00	179.57	6353.00	445.01	175.29	-440.43	0.00	Cherry Canyon		
6400.00	0.00	179.57	6360.70	445.01	175.29	-440.43	0.00			
6500.00	0.00	179.57	6460.70	445.01	175.29	-440.43	0.00			
6600.00	0.00	179.57	6560.70	445.01	175.29	-440.43	0.00			
6700.00	0.00	179.57	6660.70	445.01	175.29	-440.43	0.00			
6800.00	0.00	179.57	6760.70	445.01	175.29	-440.43	0.00			
6900.00	0.00	179.57	6860.70	445.01	175.29	-440.43	0.00			
7000.00	0.00	179.57	6960.70	445.01	175.29	-440.43	0.00			
7100.00	0.00	179.57	7060.70	445.01	175.29	-440.43	0.00			
7200.00	0.00	179.57	7160.70	445.01	175.29	-440.43	0.00			
7300.00	0.00	179.57	7260.70	445.01	175.29	-440.43	0.00			
7400.00	0.00	179.57	7360.70	445.01	175.29	-440.43	0.00			
7500.00	0.00	179.57				-440.43	0.00			
			7460.70	445.01	175.29					
7600.00	0.00	179.57	7560.70	445.01	175.29	-440.43	0.00			
7700.00	0.00	179.57	7660.70	445.01	175.29	-440.43	0.00			
7800.00	0.00	179.57	7760.70	445.01	175.29	-440.43	0.00			
7900.00	0.00	179.57	7860.70	445.01	175.29	-440.43	0.00			
8000.00	0.00	179.57	7960.70	445.01	175.29	-440.43	0.00			
8035.30	0.00	179.57	7996.00	445.01	175.29	-440.43	0.00	Brushy Canyon		
8100.00	0.00	179.57	8060.70	445.01	175.29	-440.43	0.00			
8200.00	0.00	179.57	8160.70	445.01	175.29	-440.43	0.00			
8300.00	0.00	179.57	8260.70	445.01	175.29	-440.43	0.00			
8400.00	0.00	179.57	8360.70	445.01	175.29	-440.43	0.00			
8500.00	0.00	179.57	8460.70	445.01	175.29	-440.43	0.00			
8600.00	0.00	179.57	8560.70	445.01	175.29	-440.43	0.00			
8700.00	0.00	179.57	8660.70	445.01	175.29	-440.43	0.00			
8800.00	0.00	179.57	8760.70	445.01	175.29	-440.43	0.00			
8900.00	0.00	179.57	8860.70	445.01	175.29	-440.43	0.00			
9000.00	0.00	179.57	8960.70	445.01	175.29	-440.43	0.00			
9100.00	0.00	179.57	9060.70	445.01	175.29	-440.43	0.00			
9200.00	0.00	179.57	9160.70	445.01	175.29	-440.43	0.00			
9300.00	0.00	179.57	9260.70	445.01	175.29	-440.43	0.00			
9400.00	0.00	179.57	9360.70	445.01	175.29	-440.43	0.00			
9500.00	0.00	179.57	9460.70	445.01	175.29	-440.43	0.00			
9568.30	0.00	179.57	9529.00	445.01	175.29	-440.43	0.00	1st Bone Spring Lime		
9600.00		179.57				-440.43	0.00	ist bone spring Line		
	0.00		9560.70	445.01	175.29					
9700.00	0.00	179.57	9660.70	445.01	175.29	-440.43	0.00			
9800.00	0.00	179.57	9760.70	445.01	175.29	-440.43	0.00			
9900.00	0.00	179.57	9860.70	445.01	175.29	-440.43	0.00			
10000.00	0.00	179.57	9960.70	445.01	175.29	-440.43	0.00			
10100.00	0.00	179.57	10060.70	445.01	175.29	-440.43	0.00			
10200.00	0.00	179.57	10160.70	445.01	175.29	-440.43	0.00			
10300.00	0.00	179.57	10260.70	445.01	175.29	-440.43	0.00			
10400.00	0.00	179.57	10360.70	445.01	175.29	-440.43	0.00			
10500.00	0.00	179.57	10460.70	445.01	175.29	-440.43	0.00			
10514.30	0.00	179.57	10475.00	445.01	175.29	-440.43	0.00	Bone Spring 1st		
10600.00	0.00	179.57	10560.70	445.01	175.29	-440.43	0.00			
10700.00	0.00	179.57	10660.70	445.01	175.29	-440.43	0.00			
10800.00	0.00	179.57	10760.70	445.01	175.29	-440.43	0.00			
10900.00	0.00	179.57	10860.70	445.01	175.29	-440.43	0.00			
11000.00	0.00	179.57	10960.70	445.01	175.29	-440.43	0.00			
11100.00	0.00	179.57	11060.70	445.01	175.29	-440.43	0.00			
11200.00	0.00	179.57	11160.70	445.01	175.29	-440.43	0.00			
11300.00	0.00	179.57	11260.70	445.01	175.29	-440.43	0.00			
11400.00	0.00	179.57	11360.70	445.01	175.29	-440.43	0.00			
11460.30	0.00	179.57	11421.00	445.01	175.29	-440.43	0.00	Bone Spring 2nd		
11500.00	0.00	179.57	11460.70	445.01	175.29	-440.43	0.00	בייים שייים		
11526.30	0.00	179.57	11487.00	445.01	175.29	-440.43	0.00	3rd Bone Spring Lime		
11600.00	0.00	179.57	11560.70	445.01	175.29	-440.43	0.00	and a street opining announced		
11700.00	0.00	179.57	11660.70	445.01	175.29	-440.43	0.00			
11800.00	0.00	179.57	11760.70	445.01	175.29	-440.43	0.00			
11900.00	0.00	179.57	11860.70	445.01	175.29	-440.43	0.00			
12000.00	0.00	179.57	11960.70	445.01	175.29	-440.43	0.00			
12100.00	0.00	179.57	12060.70	445.01	175.29	-440.43	0.00			
12139.30	0.00	179.57	12100.00	445.01	175.29	-440.43	0.00	Bone Spring 3rd		
12200.00	0.00	179.57	12160.70	445.01	175.29	-440.43	0.00			
12200 00	0.00	179.57	12260.70	445.01	175.29	-440.43	0.00			
		179.57	12360.70	445.01	175.29	-440.43	0.00			
12300.00 12400.00	0.00									
	0.00 0.00 0.00	179.57 179.57 179.57	12460.70 12512.04	445.01	175.29 175.29	-440.43 -440.43	0.00	КОР		



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

Geodetic System: US State Plane 1983

Datum: North American Datum 1927 Ellipsoid: Clarke 1866

Zone: 3001 - NM East (NAD83)

	Design:	Permit Plan	n #1					Zone: 3001 - NM East (NAD8
MD	INC	AZI	TVD	NS	EW	vs	DLS	_
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
599.35	4.80	179.57	12560.00	443.00	175.31	-438.42	10.00	Wolfcamp / Point
2600.00	4.87	179.57	12560.64	442.94	175.31	-438.37	10.00	•
2700.00	14.87	179.57	12659.04	425.83	175.44	-421.26	10.00	
2800.00	24.87	179.57	12752.97	391.89	175.69	-387.33	10.00	
2900.00	34.87	179.57	12839.58	342.16	176.07	-337.60	10.00	
3000.00	44.87	179.57	12916.24	278.14	176.55	-273.59	10.00	
3100.00	54.87	179.57	12980.61	201.79	177.12	-197.25	10.00	
3200.00	64.87	179.57	13030.75	115.42	177.77	-110.88	10.00	
3300.00	74.87	179.57	13065.13	21.65	178.47	-17.13	10.00	
3400.00	84.87	179.57	13082.70	-76.66	179.21	81.17	10.00	
3451.34	90.00	179.57	13085.00	-127.93	179.59	132.43	10.00	Landing Point
3500.00	90.00	179.57	13085.00	-176.59	179.96	181.09	0.00	
3600.00	90.00	179.57	13085.00	-276.59	180.71	281.07	0.00	
3700.00	90.00	179.57	13085.00	-376.59	181.46	381.05	0.00	
3800.00	90.00	179.57	13085.00	-476.58	182.21	481.04	0.00	
3900.00 4000.00	90.00	179.57 179.57	13085.00	-576.58 -676.58	182.96	581.02	0.00	
4100.00	90.00 90.00	179.57	13085.00 13085.00	-776.57	183.71 184.46	681.01 780.99	0.00	
1200.00	90.00	179.57	13085.00	-776.57 -876.57	185.21	880.98	0.00	
4300.00	90.00	179.57	13085.00	-976.57	185.96	980.96	0.00	
4400.00	90.00	179.57	13085.00	-1076.57	186.72	1080.94	0.00	
4500.00	90.00	179.57	13085.00	-1176.56	187.47	1180.93	0.00	
4600.00	90.00	179.57	13085.00	-1276.56	188.22	1280.91	0.00	
4700.00	90.00	179.57	13085.00	-1376.56	188.97	1380.90	0.00	
1800.00	90.00	179.57	13085.00	-1476.55	189.72	1480.88	0.00	
1900.00	90.00	179.57	13085.00	-1576.55	190.47	1580.86	0.00	
5000.00	90.00	179.57	13085.00	-1676.55	191.22	1680.85	0.00	
5100.00	90.00	179.57	13085.00	-1776.55	191.97	1780.83	0.00	
5200.00	90.00	179.57	13085.00	-1876.54	192.72	1880.82	0.00	
5300.00	90.00	179.57	13085.00	-1976.54	193.47	1980.80	0.00	
5400.00	90.00	179.57	13085.00	-2076.54	194.22	2080.79	0.00	
5500.00	90.00	179.57	13085.00	-2176.53	194.97	2180.77	0.00	
5600.00	90.00	179.57	13085.00	-2276.53	195.72	2280.75	0.00	
5700.00	90.00	179.57	13085.00	-2376.53	196.48	2380.74	0.00	
5800.00	90.00	179.57	13085.00	-2476.53	197.23	2480.72	0.00	
5900.00	90.00	179.57	13085.00	-2576.52	197.98	2580.71	0.00	
6000.00	90.00	179.57	13085.00	-2676.52	198.73	2680.69	0.00	
6100.00	90.00	179.57	13085.00	-2776.52	199.48	2780.67	0.00	
6200.00 6300.00	90.00	179.57	13085.00	-2876.52 -2976.51	200.23	2880.66	0.00	
6400.00	90.00 90.00	179.57 179.57	13085.00 13085.00	-3076.51	200.98 201.73	2980.64 3080.63	0.00	
6500.00	90.00	179.57	13085.00	-3176.51	202.48	3180.61	0.00	
6600.00	90.00	179.57	13085.00	-3176.51	203.23	3280.60	0.00	
6700.00	90.00	179.57	13085.00	-3276.50	203.23	3380.58	0.00	
6800.00	90.00	179.57	13085.00	-3476.50	203.38	3480.56	0.00	
6900.00	90.00	179.57	13085.00	-3576.50	205.48	3580.55	0.00	
7000.00	90.00	179.57	13085.00	-3676.49	206.24	3680.53	0.00	
7100.00	90.00	179.57	13085.00	-3776.49	206.99	3780.52	0.00	
7200.00	90.00	179.57	13085.00	-3876.49	207.74	3880.50	0.00	
7300.00	90.00	179.57	13085.00	-3976.48	208.49	3980.48	0.00	
7400.00	90.00	179.57	13085.01	-4076.48	209.24	4080.47	0.00	
7500.00	90.00	179.57	13085.01	-4176.48	209.99	4180.45	0.00	
7600.00	90.00	179.57	13085.01	-4276.48	210.74	4280.44	0.00	
7700.00	90.00	179.57	13085.01	-4376.47	211.49	4380.42	0.00	
7800.00	90.00	179.57	13085.01	-4476.47	212.24	4480.41	0.00	
7900.00	90.00	179.57	13085.01	-4576.47	212.99	4580.39	0.00	
8000.00	90.00	179.57	13085.01	-4676.46	213.74	4680.37	0.00	
8100.00	90.00	179.57	13085.01	-4776.46	214.49	4780.36	0.00	
8200.00	90.00	179.57	13085.01	-4876.46	215.24	4880.34	0.00	
8300.00	90.00	179.57	13085.01	-4976.46	215.99	4980.33	0.00	
8400.00	90.00	179.57	13085.01	-5076.45	216.75	5080.31	0.00	
8500.00	90.00	179.57	13085.01	-5176.45	217.50	5180.30	0.00	
8600.00	90.00	179.57	13085.01	-5276.45	218.25	5280.28	0.00	
8700.00	90.00	179.57	13085.01	-5376.44	219.00	5380.26	0.00	
8800.00	90.00	179.57	13085.01	-5476.44	219.75	5480.25	0.00	
8900.00	90.00	179.57	13085.01	-5576.44	220.50	5580.23	0.00	
9000.00	90.00 90.00	179.57 179.57	13085.01 13085.01	-5676.44 -5776.43	221.25	5680.22 5780.20	0.00	
				-5776.43 -5876.43	222.00 222.75	5780.20	0.00	
	an nn							
9200.00	90.00 90.00	179.57 179.57	13085.01 13085.01	-5976.43	223.50	5980.17	0.00	



County: Lea Wellbore: Permit Plan Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927 Ellipsoid: Clarke 1866

Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19400.00	90.00	179.57	13085.01	-6076.43	224.25	6080.15	0.00	
19500.00	90.00	179.57	13085.01	-6176.42	225.00	6180.14	0.00	
19600.00	90.00	179.57	13085.01	-6276.42	225.75	6280.12	0.00	
19700.00	90.00	179.57	13085.01	-6376.42	226.51	6380.11	0.00	
19800.00	90.00	179.57	13085.01	-6476.41	227.26	6480.09	0.00	
19900.00	90.00	179.57	13085.01	-6576.41	228.01	6580.07	0.00	
20000.00	90.00	179.57	13085.01	-6676.41	228.76	6680.06	0.00	
20100.00	90.00	179.57	13085.01	-6776.41	229.51	6780.04	0.00	
20200.00	90.00	179.57	13085.01	-6876.40	230.26	6880.03	0.00	
20300.00	90.00	179.57	13085.01	-6976.40	231.01	6980.01	0.00	
20400.00	90.00	179.57	13085.01	-7076.40	231.76	7079.99	0.00	
20500.00	90.00	179.57	13085.01	-7176.39	232.51	7179.98	0.00	
20600.00	90.00	179.57	13085.01	-7276.39	233.26	7279.96	0.00	
20700.00	90.00	179.57	13085.01	-7376.39	234.01	7379.95	0.00	
20800.00	90.00	179.57	13085.01	-7476.39	234.76	7479.93	0.00	
20900.00	90.00	179.57	13085.01	-7576.38	235.51	7579.92	0.00	
21000.00	90.00	179.57	13085.01	-7676.38	236.27	7679.90	0.00	
21100.00	90.00	179.57	13085.01	-7776.38	237.02	7779.88	0.00	
21200.00	90.00	179.57	13085.01	-7876.37	237.77	7879.87	0.00	
21300.00	90.00	179.57	13085.01	-7976.37	238.52	7979.85	0.00	
21400.00	90.00	179.57	13085.01	-8076.37	239.27	8079.84	0.00	
21500.00	90.00	179.57	13085.01	-8176.37	240.02	8179.82	0.00	
21600.00	90.00	179.57	13085.01	-8276.36	240.77	8279.80	0.00	
21700.00	90.00	179.57	13085.01	-8376.36	241.52	8379.79	0.00	
21800.00	90.00	179.57	13085.01	-8476.36	242.27	8479.77	0.00	
21900.00	90.00	179.57	13085.01	-8576.35	243.02	8579.76	0.00	
22000.00	90.00	179.57	13085.01	-8676.35	243.77	8679.74	0.00	
22100.00	90.00	179.57	13085.01	-8776.35	244.52	8779.73	0.00	
22200.00	90.00	179.57	13085.01	-8876.35	245.27	8879.71	0.00	
22300.00	90.00	179.57	13085.01	-8976.34	246.02	8979.69	0.00	
22400.00	90.00	179.57	13085.01	-9076.34	246.78	9079.68	0.00	
22500.00	90.00	179.57	13085.01	-9176.34	247.53	9179.66	0.00	
22600.00	90.00	179.57	13085.01	-9276.33	248.28	9279.65	0.00	
22700.00	90.00	179.57	13085.01	-9376.33	249.03	9379.63	0.00	
22800.00	90.00	179.57	13085.01	-9476.33	249.78	9479.62	0.00	
22900.00	90.00	179.57	13085.01	-9576.33	250.53	9579.60	0.00	
23000.00	90.00	179.57	13085.01	-9676.32	251.28	9679.58	0.00	
23100.00	90.00	179.57	13085.01	-9776.32	252.03	9779.57	0.00	
23200.00	90.00	179.57	13085.01	-9876.32	252.78	9879.55	0.00	
23284.46	90.00	179.57	13085.01	-9960.77	253.42	9964.00	0.00	exit
23300.00	90.00	179.57	13085.01	-9976.32	253.53	9979.54	0.00	
	90.00	179.57	13085.00	-10040.77	253.99	10043.98	0.00	BHL

1. Geologic Formations

TVD of target	13085	Pilot hole depth	N/A
MD at TD:	23364	Deepest expected fresh water	

Basin

Dasin	Depth	Water/Mineral	
T (*			TT 1 *
Formation	(TVD)	Bearing/Target	Hazards*
	from KB	Zone?	
Rustler	785		
Salt	1060		
Base of Salt	5250		
Delaware	5300		
Cherry Canyon	6353		
Brushy Canyon	7996		
1st Bone Spring Lime	9529		
Bone Spring 1st	10475		
Bone Spring 2nd	11421		
3rd Bone Spring Lime	11487		
Bone Spring 3rd	12100		
Wolfcamp	12560		
		_	

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

2. Casing Program (Primary Design)

		Wt		Ca		Interval	Casing Interval	
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	9 5/8	40	J-55	BTC	0	865	0	865
8 3/4	7 5/8	29.7	P-110HSCY	MOFXL	0	12451	0	12451
6 3/4	5 1/2	20	P110	VARN & Sprint SF	0	23364	0	13085

[•]All casing strings will be tested in accordance with 43 CFR 3172.

Variance Approval -

o 5-1/2" Production Casing will include Sprint SF connection from base of curve to 500ft inside 7 5/8" casing shoe

o All other 5-1/2" Production Casing will run VARN (6.05") or equivalent

3. Cementing Program (Primary Design)

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

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	459	Surf	13.2		
Int 1	464	Surf	9	2.3	Lead: Class C Cement + additives
mt i	383	8308	13.2	1.44	Tail: Class H / C + additives
Int 1	603	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	464	Surf	9	2.3	Lead: Class C Cement + additives
Squeeze	383	8308	13.2	1.44	Tail: Class H / C + additives
Production	62	10551	9	3.27	Lead: Class H /C + additives
Fioduction	690	12551	13.2	1.44	Tail: Class H / C + additives

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	Blind	l Ram	X		
III. I	13-3/0	5141	Pipe	Ram		5M	
			Doub	le Ram	X	JIVI	
			Other*				
			Annular (5M)		X	100% of rated working pressure	
D 1	10.5/01	103.6	Bline	l Ram	X	1	
Production	13-5/8"	10M	Pipe	Ram		10M	
			Doub	le Ram	X	TOW	
			Other*				
			Annular (5M)				
			Blind Ram				
			Pipe Ram				
			Double Ram				
			Other*				
N A variance is requested for	the use of a	diverter on	the surface	casing. See a	ttached for so	chematic.	
Y A variance is requested to r	un a 5 M ai	nnular on a	10M system				

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	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				
	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the			
X	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	7144
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	greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is				
encountered	encountered measured values and formations will be provided to the BLM.				
N	H2S is present				
Y	H2S plan attached.				

FIGHTING OKRA 18-19 FED 25H

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	1
X	Directional Plan
	Other, describe



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

Sundry Print Reports

County or Parish/State: LEA /

Well Name: FIGHTING OKRA 18-19 Well Location: T26S / R34E / SEC 18 /

FED NENW / 32.0493232 / -103.5097261

Well Number: 25H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM114992 Unit or CA Name: Unit or CA Number:

US Well Number: 3002547580 **Operator:** DEVON ENERGY

PRODUCTION COMPANY LP

VO

Digitally signed by LONG VO
Date:
2024.05.09
11:00:05-05'00

Notice of Intent

Sundry ID: 2788600

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 05/06/2024 Time Sundry Submitted: 01:50

Date proposed operation will begin: 05/20/2024

Procedure Description: Engineering Only - Devon Energy Production Company L.P. respectfully requests the following changes to the approved APD: Casing program change to slim hole design: Surface, Intermediate, and Production Casing size changes. Cement volume changes to accommodate casing change. Please see attached revised drilling & directional plans and supporting documentation.

NOI Attachments

Procedure Description

5.5_20lb_VAEP_P110_VAroughneck_SC_Slim_Hole_20240506134949.pdf

9.625_40lb_J_55_20240506134205.pdf

5.5_20lb_P110EC_VAM_SPRINT_SF_20240506134206.pdf

7_625_29_7lb_P110HSCY_MOFXL_20240506134205.pdf

FIGHTING_OKRA_18_19_FED_25H_Directional_Plan_05_06_24_20240506133340.pdf

FIGHTING_OKRA_18_19_FED_25H_Slim_Hole_Rev1_20240506133340.pdf

eived by OCD: 5/13/2024 3:22:15 AM Well Name: FIGHTING OKRA 18-19

FED

Well Location: T26S / R34E / SEC 18 / NENW / 32.0493232 / -103.5097261

County or Parish/State: Page 22 of

NM

Well Number: 25H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM114992

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002547580

Operator: DEVON ENERGY PRODUCTION COMPANY LP

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: REBECCA DEAL Signed on: MAY 06, 2024 01:49 PM

Name: DEVON ENERGY PRODUCTION COMPANY LP

Title: Regulatory Analyst

Street Address: 333 W SHERIDAN AVE

City: OKLAHOMA CITY State: OK

Phone: (303) 299-1406

Email address: REBECCA.DEAL@DVN.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

Page 2 of 2

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: Devon Energy Production Company LP

LEASE NO.: | NMNM114992

LOCATION: Section 18, T.26 S., R.34 E., NMPM COUNTY: Lea County, New Mexico

WELL NAME & NO.: Fighting Okra 18-19 Fed 25H

SURFACE HOLE FOOTAGE: 500'/N & 2420'/W **BOTTOM HOLE FOOTAGE** 20'/S & 2600'/E **ATS/API ID:** 3002547580

APD ID: 10400056522 Sundry ID: 2788600

COA

H2S	Yes ▼			
Potash	None <u>•</u>			
Cave/Karst	Low ▼			
Potential				
Cave/Karst	Critical			
Potential				
Variance	O None	• Flex Hose	Other	
Wellhead	Conventional and Multibov	vI 🔻		
Other	4 String	Capitan Reef	□ WIPP	
		None ▼		
		IVOITE		
Other	Pilot Hole	Open Annulus		
	None 🔻	-		
Cementing	Contingency Squeeze	Echo-Meter	Primary Cement	
	None	Int 1	Squeeze	
	Tronc		None -	
Special	☐ Water	□ COM	Unit	
Requirements	Disposal/Injection			
Special	Batch Sundry			
Requirements				
Special	Break Testing	☐ Offline	✓ Casing	
Requirements		Cementing	Clearance	
Variance				

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Wolfcamp** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

- 1. The 10-3/4 inch surface casing shall be set at approximately 810 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be 14 3/4 inch in diameter.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8** hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing shall be set at approximately **12000 feet** is:

Option 1 (Single Stage):

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

Option 2:

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

- a. First stage: Operator will cement with intent to reach the top of the Brushy Canyon at 7996' (862 sxs Class H/C+ additives).
- b. Second stage:
 - Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified. (Squeeze 622 sxs Class C)
 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.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. <u>Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 7-5/8" casing to surface after the second stage BH to verify TOC.</u>

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

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

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

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

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

Option 1:

- a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 inch intermediate casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 9-5/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.

- a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Casing Clearance

Operator casing variance is approved for the utilization of 5-1/2 inch Vam Sprint SF **from** base of curve and a minimum of 500 feet or the minimum tie-back requirement above, whichever is greater into the previous casing shoe. **All** other 5-1/2 inch casing will run Varn or equivalent.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are less than 0.5 micron before cementing.

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)

✓ 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 **43** CFR part **3170** Subpart **3172** 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 when present.
- 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 integrity 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 integrity 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 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 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 43 CFR 3172.6(b)(9) must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-

- off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to 43 CFR part 3170 Subpart 3172 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 43 CFR part 3170 Subpart 3172.
- 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.

Long Vo (LVO) 5/9/2024

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

BUREAU OF LAND MANAGEMENT				5. Lease Serial No. NMNM114992			
SUNDRY N Do not use this t abandoned well.		enter an		6. If Indian, Allottee or Tribe Name			
SUBMIT IN TRIPLICATE - Other instructions on page 2					CA/Agree	ment, Name and/or No.	
1. Type of Well							
Oil Well Gas V	Vell Other			8. Well Nam	ne and No.	FIGHTING OKRA 18-19 FED/25H	
2. Name of Operator DEVON ENERG	GY PRODUCTION COMPAN	IY LP		9. API Well	9. API Well No. 3002547580		
3a. Address 333 WEST SHERIDAN CITY, OK 73102	AVE, ONLAHOWA	o. Phone No. <i>(inch</i> 105) 235-3611	ıde area code		10. Field and Pool or Exploratory Area Bobcat Draw 98094/UPPER WOLFCAMP		
4. Location of Well (Footage, Sec., T.,F	R.,M., or Survey Description)				11. Country or Parish, State		
SEC 18/T26S/R34E/NMP				LEA/NM			
12. CHE	CK THE APPROPRIATE BOX	K(ES) TO INDICA	TE NATURE	OF NOTICE, REPORT	Γ OR OTH	ER DATA	
TYPE OF SUBMISSION			TYF	E OF ACTION			
Notice of Intent	Acidize Alter Casing	Deepen Hydraulic	Fracturing	Production (Start/ Reclamation	Resume)	Water Shut-Off Well Integrity	
Subsequent Report	Casing Repair Change Plans	New Cons Plug and A		Recomplete Temporarily Aban	ndon	Other	
Final Abandonment Notice	Convert to Injection	Plug Back		Water Disposal			
is ready for final inspection.) Engineering Only - Devon Ene Casing program change to slir accommodate casing change.	n hole design: Surface, Inter	mediate, and Pro	duction Cas	ing size changes. Ce	ment volu		
14. I hereby certify that the foregoing is	true and correct. Name (Printe	ed/Typed)					
REBECCA DEAL / Ph: (303) 299-1	406	Title	Regulatory	Analyst			
Signature (Electronic Submission)					05/06/20	24	
	THE SPACE F	OR FEDERA	L OR ST	ATE OFICE USE			
Approved by							
			Title		D	ate	
Conditions of approval, if any, are attac certify that the applicant holds legal or of	* *		Office CAI	RLSBAD			

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.

(Instructions on page 2)

which would entitle the applicant to conduct operations thereon.

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

Additional Information

Location of Well

 $0. \, SHL: \, NENW \, / \, 500 \, FNL \, / \, 2420 \, FWL \, / \, TWSP: \, 26S \, / \, RANGE: \, 34E \, / \, SECTION: \, 18 \, / \, LAT: \, 32.0493232 \, / \, LONG: \, -103.5097261 \, (TVD: \, 0 \, feet, \, MD: \, 0 \, feet \,)$ $PPP: \, NENW \, / \, 100 \, FNL \, / \, 2600 \, FWL \, / \, TWSP: \, 26S \, / \, RANGE: \, 34E \, / \, SECTION: \, 18 \, / \, LAT: \, 32.0504 \, / \, LONG: \, -103.5091 \, (TVD: \, 12560 \, feet, \, MD: \, 12599 \, feet \,)$ $BHL: \, SESW \, / \, 20 \, FSL \, / \, \, 2600 \, FWL \, / \, TWSP: \, 26S \, / \, RANGE: \, 34E \, / \, SECTION: \, 19 \, / \, LAT: \, 32.0216 \, / \, LONG: \, -103.5092 \, (TVD: \, 13085 \, feet, \, MD: \, 23369 \, feet \,)$



TECHNICAL DATA SHEET

Released to Imaging: 6/15/2024 12:45:52 PM

Connection: VAroughneck SC (OD=6.051in)

Grade: VA-EP-P110

Size: 5 1/2 in X 20.00 lb/ft

Material:

Drift: standard
Bevel: standard

Yield Strength Min. 125,000 psi Yield Strength Max. 140,000 psi Tensile Strength Min. 125,000 psi

US Customary

862 Mpa 965 Mpa 862 Mpa

Metric

Pipe:

	US Customary	Metric		US Customary	Metric
Nominal OD:	5.500 in	139.70 mm	Wall Thickness:	0.361 in	9.17 mm
Nominal ID:	4.778 in	121.36 mm	Standard Drift:	4.653 in	118.19 mm
Nominal Weight:	20.00 lb/ft	30.07 kg/m	Pipe Body Yield Strength:	729 klb	3,240 kN
Pipe Cross Section:	5.828 in ²	3,759.99 mm ²			

Connection:

US Customary		Metric
OD:	6.051 in	153.70 mm
ID:	4.764 in	121.00 mm
Length:	8.976 in	228.00 mm

Threads per inch: 5 Threads

Connection Performance (Uniaxial Load):

	US Customary	Metric		US Customary	Metric
Joint Strength:	729 klb	3,240 kN	Tension Efficiency:	> 100.0 %	
Collapse Resistance:.	13,300 psi	91.70 Mpa	Displacement:	1.240 gal/ft	15.40 l/m
Internal Yield Pressure:	14,360 psi	99.00 Mpa	Production:	0.932 gal/ft	11.57 l/m
Load on Coupling Face:	411 klh	1.830 kN			

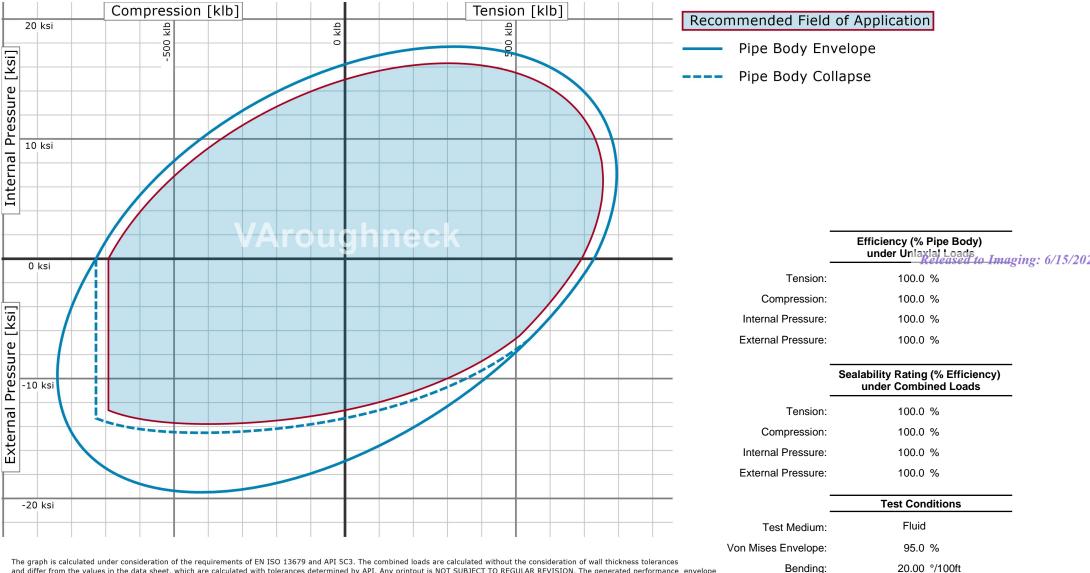
Field Make Up (Friction Factor = 1.0):

Min. Torque on Shoulder:

	US Customary	Metric		US Customary	Metric
Minimum Torque:	15,820 ft.lb	21,450 Nm	Make-Up Loss:	4.370 in	111.00 mm
Optimum Torque:	17,580 ft.lb	23,835 Nm	Yield Torque:	22,000 ft.lb	29,800 Nm
Maximum Torque:	19.340 ft.lb	26.220 Nm			



LOAD ENVELOPE



The graph is calculated under consideration of the requirements of EN ISO 13679 and API 5C3. The combined loads are calculated without the consideration of wall thickness tolerances and differ from the values in the data sheet, which are calculated with tolerances determined by API. Any printout is NOT SUBJECT TO REGULAR REVISION. The generated performance envelope shall solely be used as a tool to facilitate the comparison of performance properties under combined loads, of different grades, sizes and connections of voestalpine Tubulars products. Field-specific safety/design factors as well as other loads are not considered. Thus the results shall by no means be used to replace the own string design engineering or to justify any warranty/guaranty cases.





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

Legal Notice

All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

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

1-877-893-9461 www.usstubular.com 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, 2 IIII	20.00 15, 10		1		VAIN SI MILL SI

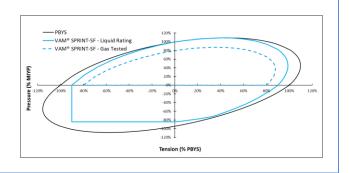
PIPE PROPERTIES											
Nominal OD	5.500	in.									
Nominal ID	4.778	in.									
Nominal Cross Section Area	5.828	sqin.									
Grade Type	Hig	h Yield									
Min. Yield Strength	125	ksi									
Max. Yield Strength	140	ksi									
Min. Ultimate Tensile Strength	135	ksi									

CONNECTION P	ROPERTIES	
Connection Type	Semi-Premium Integral	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.



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

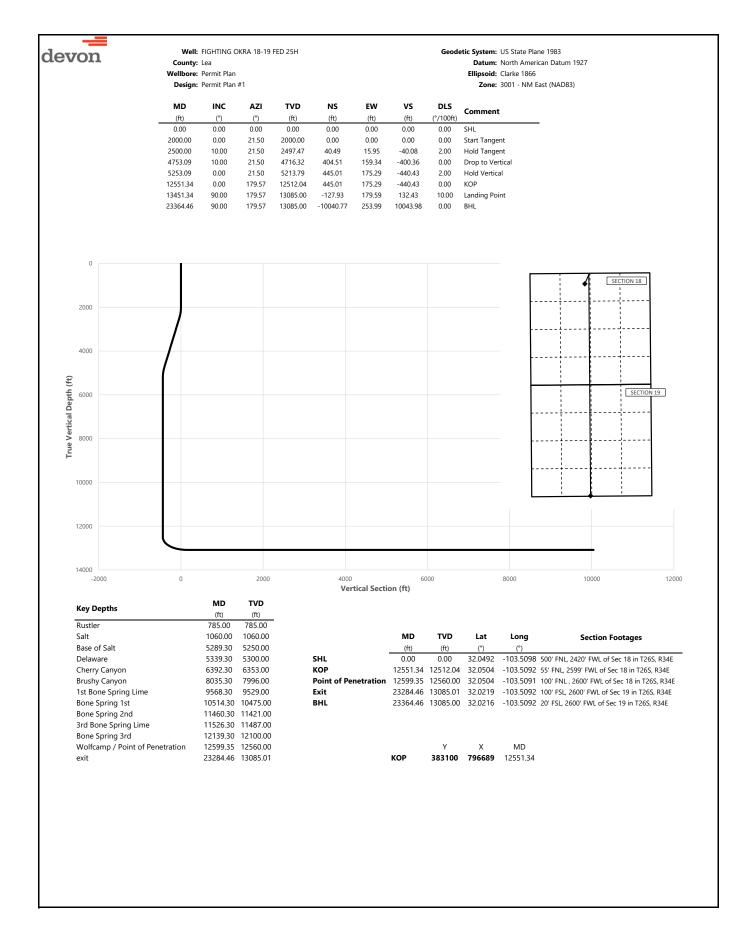
letal One Corp.	MO-FXL		MO-FXL 7-5/8 29.7 P110HSCY				
Metal One	*1 Pine Pody: PMP P110HSC	CDS#	MinYS125ksi				
Metal One	Min95%WT	*1 Pipe Body: BMP P110HSCY MinYS125ksi					
	Connection Data	Shoot	Date	Min959 20-Se			
	Connection Date	Jileet	Date	20-00	p-20		
	Geometry	<u>Imperia</u>	<u>l</u>	<u>S.I.</u>			
	Pipe Body						
	Grade *	P110HSCY		P110HSCY			
	Pipe OD (D)	7 5/8	in	193.68	mm		
MO-FXL	Weight	29.70	lb/ft	44.25	kg/m		
	Actual weight	29.04		43.26	kg/m		
	Wall Thickness (t)	0.375	in	9.53	mm		
	Pipe ID (d)	6.875	in	174.63	mm		
	Pipe body cross section	8.541	in ²	5,510	mm ²		
	Drift Dia.	6.750	in	171.45	mm		
	Connection						
A [1]	Connection Box OD (W)	7.625	in	193.68	mm		
	PIN ID	6.875	in	174.63	mm		
	Make up Loss	4.219	in	107.16	mm		
Box	•		in 2		mm		
critical	Box Critical Area	5.714	in ²	3686	mm ²		
	Joint load efficiency	70 % 70 %					
	·						
up C	Thread Taper Number of Threads	1	/ 10 (1. 5	2" per ft) TPI			
Make up	Thread Taper Number of Threads Performance			<u> </u>			
Make up loss	Thread Taper Number of Threads Performance Performance Properties f	or Pipe Body	5	TPI	l kN		
Make up loss D	Thread Taper Number of Threads Performance Performance Properties f S.M.Y.S. *1	or Pipe Body	5 kips	TPI 4,749	kN MPa		
Make up loss D	Thread Taper Number of Threads Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1	or Pipe Body 1,068 11,680	kips psi	4,749 80.55	MPa		
Make up loss D Pin critical	Thread Taper Number of Threads Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1	For Pipe Body 1,068 11,680 7,200	kips psi psi	4,749 80.55 49.66	MPa MPa		
Make up loss Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specific	for Pipe Body	kips psi psi LD Strei	4,749 80.55 49.66 ngth of Pipe boo	MPa MPa		
Make up loss Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specific M.I.Y.P. = Minimum	For Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yielo	kips psi psi ELD Strei	4,749 80.55 49.66 ngth of Pipe body	MPa MPa		
Make up loss D Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specifi M.I.Y.P. = Minimi * BMP P110HSCY: MinYS125ks	Tor Pipe Body 1,068 11,680 7,200 led Minimum YIE um Internal Yield i, Min95%WT, Col	kips psi psi ELD Strei I Pressur	4,749 80.55 49.66 agth of Pipe body e of Pipe body	MPa MPa dy		
Make up loss D Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specifi M.I.Y.P. = Minimu * BMP P110HSCY: MinYS125ks Performance Data Sheet: 7.625	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col	kips psi psi LD Strei I Pressur lapse Stre	4,749 80.55 49.66 agth of Pipe body e of Pipe body	MPa MPa dy		
Make up loss D Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specifi M.I.Y.P. = Minimi * BMP P110HSCY: MinYS125ks	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col	kips psi psi ELD Strei I Pressur lapse Stre SCY Rev3	4,749 80.55 49.66 agth of Pipe body ength 7,200psi 8, dated 9/19/2023	MPa MPa dy		
Make up loss D Pin critical	Thread Taper Number of Threads Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specifi M.I.Y.P. = Minimu * BMP P110HSCY: MinYS125ks Performance Data Sheet: 7.625 Performance Properties	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col " 29.7lb/ft P110H3 for Connectio 747 kips	kips psi psi ELD Strei I Pressur lapse Stre SCY Rev3 n	4,749 80.55 49.66 agth of Pipe body e of Pipe body	MPa MPa dy		
Make up loss D Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specifi M.I.Y.P. = Minimi * BMP P110HSCY: MinYS125ks Performance Data Sheet: 7.625 Performance Properties Tensile Yield load	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col i" 29.7lb/ft P110H8 for Connectio	kips psi psi I Pressur lapse Stre SCY Rev3 n (70% (70%	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi d, dated 9/19/2023 of S.M.Y.S.) of M.I.Y.P.)	MPa MPa dy		
Make up loss Pin critical	Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specifi M.I.Y.P. = Minimu * BMP P110HSCY: MinYS125ks Performance Data Sheet: 7.625 Performance Properties Tensile Yield load Min. Compression Yield	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col i" 29.7lb/ft P110HS for Connectio 747 kips	kips psi psi I Pressur lapse Stre SCY Rev3 n (70% (70%	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi d, dated 9/19/2023 of S.M.Y.S.) of M.I.Y.P.)	MPa MPa dy		
Make up loss D Pin critical	Thread Taper Number of Threads Performance Performance Properties of S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specific M.I.Y.P. = Minimular Mi	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col i" 29.7lb/ft P110HS for Connectio 747 kips	kips psi psi I Pressur lapse Stre SCY Rev3 n (70% (70%	4,749 80.55 49.66 ngth of Pipe body ength 7,200psi did dated 9/19/2023 of S.M.Y.S.) of S.M.Y.S.)	MPa MPa dy		
Make up loss D	Thread Taper Number of Threads Performance Performance Properties of S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specific M.I.Y.P. = Minimular Mi	for Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col i" 29.7lb/ft P110HS for Connectio 747 kips	kips psi psi ELD Strei Pressur lapse Stre SCY Rev3 n (70% (70% (80% 100% c	4,749 80.55 49.66 ngth of Pipe body ength 7,200psi did dated 9/19/2023 of S.M.Y.S.) of S.M.Y.S.)	MPa MPa dy		
Make up loss Pin critical	Thread Taper Number of Threads Performance Performance Properties of S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specification M.I.Y.P. = Minimon Min.Y.P. = Minimon Mi	For Pipe Body 1,068 11,680 7,200 ed Minimum YIE um Internal Yield i, Min95%WT, Col " 29.7lb/ft P110HS for Connectio 747 kips 747 kips 9,340 psi (kips psi psi ELD Strei Pressur lapse Stre SCY Rev3 n (70% 70% 100% c 3	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi did dated 9/19/2023 of S.M.Y.S.) of S.M.Y.S.) of M.I.Y.P.) of Collapse St	MPa MPa dy		
Make up loss Pin critical	Thread Taper Number of Threads Performance Performance Properties of S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specification M.I.Y.P. = Minimon Min.Y.P. = Minimon M	For Pipe Body 1,068 11,680 7,200 Fined Minimum YIE Fined Minimum Y	kips psi psi ELD Strei Pressur lapse Stre SCY Rev3 n (70% (70% (80% 100% c	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi did dated 9/19/2028 of S.M.Y.S.) of S.M.Y.S.) of Collapse St 0	MPa MPa dy 3		
Make up loss D	Thread Taper Number of Threads Performance Performance Properties f S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S. = Specifi M.I.Y.P. = Minimi * BMP P110HSCY: MinYS125ks Performance Data Sheet: 7.625 Performance Properties Tensile Yield load Min. Compression Yield Internal Pressure External Pressure External Pressure Max. DLS (deg. /100ft) Recommended Torque Min. Opti.	for Pipe Body 1,068 11,680 7,200 led Minimum YIE um Internal Yield i, Min95%WT, Col " 29.7lb/ft P110HS for Connectio 747 kips 747 kips 9,340 psi (15,500 17,200	kips psi psi psi la Pressur lapse Stre SCY Rev3 n (70% (70% (70%) 100% c 3	4,749 80.55 49.66 ngth of Pipe body ength 7,200psi 6, dated 9/19/2023 of S.M.Y.S.) of S.M.Y.S.) of M.I.Y.P.) of Collapse St 0	MPa MPa dy 3 rength N-m N-m		
Make up loss Pin critical	Thread Taper Number of Threads Performance Performance Properties of S.M.Y.S. *1 M.I.Y.P. *1 Collapse Strength *1 Note S.M.Y.S.= Specification M.I.Y.P. = Minimon Min.Y.P. = Minimon M	For Pipe Body 1,068 11,680 7,200 Fined Minimum YIE Fined Minimum Y	kips psi psi psi lapse Stre SCY Rev3 n 70% 70% 80% 100% c 3	4,749 80.55 49.66 Ingth of Pipe body ength 7,200psi did dated 9/19/2028 of S.M.Y.S.) of S.M.Y.S.) of Collapse St 0	MPa MPa dy 3		

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

Geodetic System: US State Plane 1983

Datum: North American Datum 1927 **Ellipsoid:** Clarke 1866

Zone: 3001 - NM East (NAD83)

	Design:	Permit Plan	n #1					Zone: 3001 - NM East (NAD83)
MD	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	21.50	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	21.50	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	21.50	300.00	0.00	0.00	0.00	0.00	
400.00 500.00	0.00	21.50 21.50	400.00 500.00	0.00	0.00	0.00	0.00	
600.00	0.00	21.50	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	21.50	700.00	0.00	0.00	0.00	0.00	
785.00	0.00	21.50	785.00	0.00	0.00	0.00	0.00	Rustler
800.00	0.00	21.50	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	21.50	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	21.50	1000.00	0.00	0.00	0.00	0.00	
1060.00	0.00	21.50	1060.00	0.00	0.00	0.00	0.00	Salt
1100.00 1200.00	0.00	21.50 21.50	1100.00 1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	21.50	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	21.50	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	21.50	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	21.50	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	21.50	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	21.50	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	21.50	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	21.50	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	21.50	2099.98	1.62	0.64	-1.61	2.00	
2200.00 2300.00	4.00 6.00	21.50 21.50	2199.84 2299.45	6.49 14.60	2.56 5.75	-6.43 -14.45	2.00 2.00	
2400.00	8.00	21.50	2398.70	25.94	10.22	-14.43	2.00	
2500.00	10.00	21.50	2497.47	40.49	15.95	-40.08	2.00	Hold Tangent
2600.00	10.00	21.50	2595.95	56.65	22.32	-56.07	0.00	
2700.00	10.00	21.50	2694.43	72.81	28.68	-72.06	0.00	
2800.00	10.00	21.50	2792.91	88.96	35.04	-88.05	0.00	
2900.00	10.00	21.50	2891.39	105.12	41.41	-104.04	0.00	
3000.00	10.00	21.50	2989.87	121.28	47.77	-120.03	0.00	
3100.00 3200.00	10.00	21.50	3088.35	137.43	54.14	-136.02 -152.01	0.00	
3300.00	10.00 10.00	21.50 21.50	3186.83 3285.31	153.59 169.75	60.50 66.86	-152.01	0.00	
3400.00	10.00	21.50	3383.79	185.90	73.23	-183.99	0.00	
3500.00	10.00	21.50	3482.27	202.06	79.59	-199.98	0.00	
3600.00	10.00	21.50	3580.75	218.22	85.96	-215.97	0.00	
3700.00	10.00	21.50	3679.23	234.37	92.32	-231.96	0.00	
3800.00	10.00	21.50	3777.72	250.53	98.69	-247.95	0.00	
3900.00	10.00	21.50	3876.20	266.69	105.05	-263.94	0.00	
4000.00	10.00	21.50	3974.68	282.84	111.41	-279.93	0.00	
4100.00 4200.00	10.00	21.50	4073.16	299.00	117.78 124.14	-295.92 211.91	0.00	
4300.00	10.00 10.00	21.50 21.50	4171.64 4270.12	315.16 331.31	130.51	-311.91 -327.91	0.00	
4400.00	10.00	21.50	4368.60	347.47	136.87	-343.90	0.00	
4500.00	10.00	21.50	4467.08	363.62	143.24	-359.89	0.00	
4600.00	10.00	21.50	4565.56	379.78	149.60	-375.88	0.00	
4700.00	10.00	21.50	4664.04	395.94	155.96	-391.87	0.00	
4753.09	10.00	21.50	4716.32	404.51	159.34	-400.36	0.00	Drop to Vertical
4800.00	9.06	21.50	4762.59	411.74	162.19	-407.51	2.00	
4900.00	7.06 5.06	21.50	4861.59	424.79	167.33	-420.42 420.15	2.00	
5000.00 5100.00	5.06 3.06	21.50 21.50	4961.03 5060.77	434.61 441.20	171.20 173.79	-430.15 -436.67	2.00 2.00	
5200.00	1.06	21.50	5160.70	444.55	175.11	-430.07	2.00	
5253.09	0.00	21.50	5213.79	445.01	175.29	-440.43	2.00	Hold Vertical
5289.30	0.00	179.57	5250.00	445.01	175.29	-440.43	0.00	Base of Salt
5300.00	0.00	179.57	5260.70	445.01	175.29	-440.43	0.00	
5339.30	0.00	179.57	5300.00	445.01	175.29	-440.43	0.00	Delaware
5400.00	0.00	179.57	5360.70	445.01	175.29	-440.43	0.00	
5500.00	0.00	179.57	5460.70	445.01	175.29	-440.43	0.00	
5600.00 5700.00	0.00	179.57 179.57	5560.70 5660.70	445.01 445.01	175.29 175.29	-440.43 -440.43	0.00	
5800.00	0.00	179.57	5760.70	445.01	175.29	-440.43 -440.43	0.00	
5900.00	0.00	179.57	5860.70	445.01	175.29	-440.43	0.00	
6000.00	0.00	179.57	5960.70	445.01	175.29	-440.43	0.00	
6100.00	0.00	179.57	6060.70	445.01	175.29	-440.43	0.00	
6200.00	0.00	179.57	6160.70	445.01	175.29	-440.43	0.00	
6300.00	0.00	179.57	6260.70	445.01	175.29	-440.43	0.00	



County: Lea Wellbore: Permit Plan Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927 **Ellipsoid:** Clarke 1866

Zone: 3001 - NM East (NAD83)

	Design.	Permit Plar						Zone: 3001 - NM East (NAD83)
MD	INC	AZI	TVD	NS	EW	vs	DLS	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
6392.30	0.00	179.57	6353.00	445.01	175.29	-440.43	0.00	Cherry Canyon
6400.00	0.00	179.57	6360.70	445.01	175.29	-440.43	0.00	
6500.00	0.00	179.57	6460.70	445.01	175.29	-440.43	0.00	
6600.00	0.00	179.57	6560.70	445.01	175.29	-440.43	0.00	
6700.00	0.00	179.57	6660.70	445.01	175.29	-440.43	0.00	
6800.00	0.00	179.57	6760.70	445.01	175.29	-440.43	0.00	
6900.00	0.00	179.57	6860.70	445.01	175.29	-440.43	0.00	
7000.00	0.00	179.57	6960.70	445.01	175.29	-440.43	0.00	
7100.00	0.00	179.57	7060.70	445.01	175.29	-440.43	0.00	
		179.57				-440.43		
7200.00	0.00		7160.70	445.01	175.29		0.00	
7300.00	0.00	179.57	7260.70	445.01	175.29	-440.43	0.00	
7400.00	0.00	179.57	7360.70	445.01	175.29	-440.43	0.00	
7500.00	0.00	179.57	7460.70	445.01	175.29	-440.43	0.00	
7600.00	0.00	179.57	7560.70	445.01	175.29	-440.43	0.00	
7700.00	0.00	179.57	7660.70	445.01	175.29	-440.43	0.00	
7800.00	0.00	179.57	7760.70	445.01	175.29	-440.43	0.00	
7900.00	0.00	179.57	7860.70	445.01	175.29	-440.43	0.00	
8000.00	0.00	179.57	7960.70	445.01	175.29	-440.43	0.00	
8035.30	0.00	179.57	7996.00	445.01	175.29	-440.43	0.00	Brushy Canyon
8100.00	0.00	179.57	8060.70	445.01	175.29	-440.43	0.00	
8200.00	0.00	179.57	8160.70	445.01	175.29	-440.43	0.00	
8300.00	0.00	179.57	8260.70	445.01	175.29	-440.43	0.00	
8400.00	0.00	179.57	8360.70	445.01	175.29	-440.43	0.00	
8500.00	0.00	179.57	8460.70	445.01	175.29	-440.43	0.00	
8600.00	0.00	179.57	8560.70	445.01	175.29	-440.43	0.00	
8700.00	0.00	179.57	8660.70	445.01	175.29	-440.43	0.00	
8800.00	0.00	179.57	8760.70	445.01	175.29	-440.43	0.00	
8900.00	0.00	179.57	8860.70	445.01	175.29	-440.43	0.00	
9000.00	0.00	179.57	8960.70	445.01	175.29	-440.43	0.00	
9100.00	0.00	179.57	9060.70	445.01	175.29	-440.43	0.00	
9200.00		179.57	9160.70	445.01		-440.43		
	0.00				175.29		0.00	
9300.00	0.00	179.57	9260.70	445.01	175.29	-440.43	0.00	
9400.00	0.00	179.57	9360.70	445.01	175.29	-440.43	0.00	
9500.00	0.00	179.57	9460.70	445.01	175.29	-440.43	0.00	
9568.30	0.00	179.57	9529.00	445.01	175.29	-440.43	0.00	1st Bone Spring Lime
9600.00	0.00	179.57	9560.70	445.01	175.29	-440.43	0.00	
9700.00	0.00	179.57	9660.70	445.01	175.29	-440.43	0.00	
9800.00	0.00	179.57	9760.70	445.01	175.29	-440.43	0.00	
9900.00	0.00	179.57	9860.70	445.01	175.29	-440.43	0.00	
10000.00	0.00	179.57	9960.70	445.01	175.29	-440.43	0.00	
10100.00	0.00	179.57	10060.70	445.01	175.29	-440.43	0.00	
10200.00	0.00	179.57	10160.70	445.01	175.29	-440.43	0.00	
10300.00	0.00	179.57	10260.70	445.01	175.29	-440.43	0.00	
10400.00	0.00	179.57	10360.70	445.01	175.29	-440.43	0.00	
10500.00	0.00	179.57	10460.70	445.01	175.29	-440.43	0.00	
10514.30	0.00	179.57	10475.00	445.01	175.29	-440.43	0.00	Bone Spring 1st
10600.00	0.00	179.57	10560.70	445.01	175.29	-440.43	0.00	, 9
10700.00	0.00	179.57	10660.70	445.01	175.29	-440.43	0.00	
10800.00	0.00	179.57	10760.70	445.01	175.29	-440.43	0.00	
10900.00	0.00	179.57	10760.70	445.01	175.29	-440.43	0.00	
11000.00	0.00	179.57	10960.70	445.01	175.29	-440.43	0.00	
						-440.43 -440.43		
11100.00	0.00	179.57	11060.70	445.01 445.01	175.29		0.00	
11200.00	0.00	179.57	11160.70	445.01	175.29	-440.43	0.00	
11300.00	0.00	179.57	11260.70	445.01	175.29	-440.43	0.00	
11400.00	0.00	179.57	11360.70	445.01	175.29	-440.43	0.00	Devision Codes Code
11460.30	0.00	179.57	11421.00	445.01	175.29	-440.43	0.00	Bone Spring 2nd
11500.00	0.00	179.57	11460.70	445.01	175.29	-440.43	0.00	
11526.30	0.00	179.57	11487.00	445.01	175.29	-440.43	0.00	3rd Bone Spring Lime
11600.00	0.00	179.57	11560.70	445.01	175.29	-440.43	0.00	
11700.00	0.00	179.57	11660.70	445.01	175.29	-440.43	0.00	
11800.00	0.00	179.57	11760.70	445.01	175.29	-440.43	0.00	
11900.00	0.00	179.57	11860.70	445.01	175.29	-440.43	0.00	
12000.00	0.00	179.57	11960.70	445.01	175.29	-440.43	0.00	
12100.00	0.00	179.57	12060.70	445.01	175.29	-440.43	0.00	
12139.30	0.00	179.57	12100.00	445.01	175.29	-440.43	0.00	Bone Spring 3rd
12200.00	0.00	179.57	12160.70	445.01	175.29	-440.43	0.00	, 9
12300.00	0.00	179.57	12260.70	445.01	175.29	-440.43	0.00	
12400.00	0.00	179.57	12360.70	445.01	175.29	-440.43	0.00	
12500.00	0.00	179.57	12460.70	445.01	175.29	-440.43	0.00	
12551.34	0.00	179.57	12512.04	445.01	175.29	-440.43	0.00	KOP



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

Geodetic System: US State Plane 1983

Datum: North American Datum 1927 **Ellipsoid:** Clarke 1866

March No. No		Design: Permit Plan #1						Zone: 3001 - NM East (NAD83)			
1959 13 140 1795									Comment		
12600.00									Wolfcamp / Point		
128000 2487 17957 12792.97 3918.9 1796 2873.9 100 180000 2487 17957 12918.24 2781.4 17855 24759.9 100 180000 2487 17957 12918.24 2781.4 17855 24759.9 100 180000 2487 17957 12900.3 2166 17974 1713 1902.5 100 180000 2487 17957 12900.3 2166 17874 1713 1902.5 100 180000 24757 13950.0 17657 13950.0	12600.00		179.57	12560.64	442.94		-438.37	10.00	·		
1900.00	12700.00	14.87	179.57	12659.04	425.83	175.44	-421.26	10.00			
1900.00					391.89	175.69					
1310000 1487 1795 130950 13045 130											
130000											
134000											
13400.0 8487 179.7 1286.270 7.660 179.21 81.17 1.000 13500.0 90.0 179.57 1380.00 10.0 179.57 1380.00 10.0 179.57 1380.00 10.0 179.57 1380.00 10.0 179.57 1380.00 10.0 179.57 1380.00 10.0 179.57 1380.00 179.57 1380.00 179.57 1380.00 179.57 1380.00 179.57 1380.00 179.57 1380.00 179.57 1380.00 179.57 1380.00 179.57 1380.00 176.57 184.40 10.00 179.57 1380.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57 180.00 179.57											
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	15500.00	50.00	113.31	15005.01	55,0.45	223.30	3300.17	0.00			



County: Lea Wellbore: Permit Plan Design: Permit Plan #1 Geodetic System: US State Plane 1983

Datum: North American Datum 1927

Ellipsoid: Clarke 1866 Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	vs	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	Comment
19400.00	90.00	179.57	13085.01	-6076.43	224.25	6080.15	0.00	
19500.00	90.00	179.57	13085.01	-6176.42	225.00	6180.14	0.00	
19600.00	90.00	179.57	13085.01	-6276.42	225.75	6280.12	0.00	
19700.00	90.00	179.57	13085.01	-6376.42	226.51	6380.11	0.00	
19800.00	90.00	179.57	13085.01	-6476.41	227.26	6480.09	0.00	
19900.00	90.00	179.57	13085.01	-6576.41	228.01	6580.07	0.00	
20000.00	90.00	179.57	13085.01	-6676.41	228.76	6680.06	0.00	
20100.00	90.00	179.57	13085.01	-6776.41	229.51	6780.04	0.00	
20200.00	90.00	179.57	13085.01	-6876.40	230.26	6880.03	0.00	
20300.00	90.00	179.57	13085.01	-6976.40	231.01	6980.01	0.00	
20400.00	90.00	179.57	13085.01	-7076.40	231.76	7079.99	0.00	
20500.00	90.00	179.57	13085.01	-7176.39	232.51	7179.98	0.00	
20600.00	90.00	179.57	13085.01	-7276.39	233.26	7279.96	0.00	
20700.00	90.00	179.57	13085.01	-7376.39	234.01	7379.95	0.00	
20800.00	90.00	179.57	13085.01	-7476.39	234.76	7479.93	0.00	
20900.00	90.00	179.57	13085.01	-7576.38	235.51	7579.92	0.00	
21000.00	90.00	179.57	13085.01	-7676.38	236.27	7679.90	0.00	
21100.00	90.00	179.57	13085.01	-7776.38	237.02	7779.88	0.00	
21200.00	90.00	179.57	13085.01	-7876.37	237.77	7879.87	0.00	
21300.00	90.00	179.57	13085.01	-7976.37	238.52	7979.85	0.00	
21400.00	90.00	179.57	13085.01	-8076.37	239.27	8079.84	0.00	
21500.00	90.00	179.57	13085.01	-8176.37	240.02	8179.82	0.00	
21600.00	90.00	179.57	13085.01	-8276.36	240.77	8279.80	0.00	
21700.00	90.00	179.57	13085.01	-8376.36	241.52	8379.79	0.00	
21800.00	90.00	179.57	13085.01	-8476.36	242.27	8479.77	0.00	
21900.00	90.00	179.57	13085.01	-8576.35	243.02	8579.76	0.00	
22000.00	90.00	179.57	13085.01	-8676.35	243.77	8679.74	0.00	
22100.00	90.00	179.57	13085.01	-8776.35	244.52	8779.73	0.00	
22200.00	90.00	179.57	13085.01	-8876.35	245.27	8879.71	0.00	
22300.00	90.00	179.57	13085.01	-8976.34	246.02	8979.69	0.00	
22400.00	90.00	179.57	13085.01	-9076.34	246.78	9079.68	0.00	
22500.00	90.00	179.57	13085.01	-9176.34	247.53	9179.66	0.00	
22600.00	90.00	179.57	13085.01	-9276.33	248.28	9279.65	0.00	
22700.00	90.00	179.57	13085.01	-9376.33	249.03	9379.63	0.00	
22800.00	90.00	179.57	13085.01	-9476.33	249.78	9479.62	0.00	
22900.00	90.00	179.57	13085.01	-9576.33	250.53	9579.60	0.00	
23000.00	90.00	179.57	13085.01	-9676.32	251.28	9679.58	0.00	
23100.00	90.00	179.57	13085.01	-9776.32	252.03	9779.57	0.00	
23200.00	90.00	179.57	13085.01	-9876.32	252.78	9879.55	0.00	
23284.46	90.00	179.57	13085.01	-9960.77	253.42	9964.00	0.00	exit
23300.00	90.00	179.57	13085.01	-9976.32	253.53	9979.54	0.00	
23364.46	90.00	179.57	13085.00	-10040.77	253.99	10043.98	0.00	BHL

1. Geologic Formations

TVD of target	13085	Pilot hole depth	N/A
MD at TD:	23364	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	785		
Salt	1060		
Base of Salt	5250		
Delaware	5300		
Cherry Canyon	6353		
Brushy Canyon	7996		
1st Bone Spring Lime	9529		
Bone Spring 1st	10475		
Bone Spring 2nd	11421		
3rd Bone Spring Lime	11487		
Bone Spring 3rd	12100		
Wolfcamp	12560		

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

2. Casing Program (Primary Design)

		Wt			Casing	Interval	Casing	Interval
Hole Size	Csg. Size	(PPF)	Grade	Conn	From (MD)	To (MD)	From (TVD)	To (TVD)
13 1/2	9 5/8	40	J-55	BTC	0	810	0	810
8 3/4	7 5/8	29.7	P-110HSCY	MOFXL	0	12000	0	12000
6 3/4	5 1/2	20	P110	VARN & Sprint SF	0	23364	0	13085

[•]All casing strings will be tested in accordance with 43 CFR 3172.

Variance Approval -

o 5-1/2" Production Casing will include Sprint SF connection from base of curve to 500ft inside 7 5/8" casing shoe

o All other 5-1/2" Production Casing will run VARN (6.05") or equivalent

3. Cementing Program (Primary Design)

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

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	459	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	464	Surf	9	2.3	Lead: Class C Cement + additives
mt i	383	8308	13.2	1.44	Tail: Class H / C + additives
Int 1	603	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
Intermediate	464	Surf	9	2.3	Lead: Class C Cement + additives
Squeeze	383	8308	13.2	1.44	Tail: Class H / C + additives
Production	62	10551	9	3.27	Lead: Class H /C + additives
Fioduction	690	12551	13.2	1.44	Tail: Class H / C + additives

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	Ty	ype	✓	Tested to:											
			Anı	nular	X	50% of rated working pressure											
Int 1	13-5/8"	5M	Bline	l Ram	X												
Int 1	13-3/6	3101	Pipe	Ram		5M											
			Doub	le Ram	X	JIVI											
			Other*														
	13-5/8" 10M		Annul	ar (5M)	X	100% of rated working pressure											
Production		13-5/8" 10M	13-5/8" 10M	103.4	Blin-	Bline	l Ram	X									
Production				13-3/8	13-3/8	13-3/8	13-3/8 101/1	13-3/8	13-3/8 10M	13-3/8 10M	13-5/8" 10M	5/8 10M	13-3/6 10W	Pipe	Ram		10 M
											Doub	le Ram	X	TOW			
			Other*														
			Annular (5M)														
			Blind Ram														
			Pipe Ram														
			Double Ram														
			Other*														
N A variance is requested for	the use of a diverter on the surface casing. See attached for schematic.			chematic.													
Y A variance is requested to r	A variance is requested to run a 5 M annular on a 10M system																

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

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

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	7144
Abnormal temperature	No

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

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

FIGHTING OKRA 18-19 FED 25H

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	1
X	Directional Plan
	Other, describe

Fighting Okra 18-19 Fed 25H

9 5/8		surface csg in a	13 1/2	inch hole.	Design Fac		Factors	actors		Surface		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	40.00		j 55	btc	19.44	6.79	0.6	810	11	1.01	12.82	32,40
"B"			,	btc				0				0
	w	/8.4#/g mud, 30min Sfc Csg Tes	st psig: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	810				32,40
Comparison of		to Minimum Required Ce										
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Reg'd				Min Di
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-C
13 1/2	0.4887	459	661	396	67	9.00	3905	5M				1.44
Burst Frac Grad	lient(s) for Se	egment(s) A, B = , b All >	0.70, OK.									
												
7 5/8		casing inside the	9 5/8	_		Design				Int 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weigl
"A"	29.70		p 110	mo-fxl	1.84	1.08	1.06	12,000	1	1.78	1.81	356,40
"B"								0				0
	w,	/8.4#/g mud, 30min Sfc Csg Tes	st psig: 70				Totals:	12,000				356,4
		The cement	volume(s) are intended to achieve a top of		0	ft from su	ırface or a	810				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Di
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-C
8 3/4	0.1005	847	1619	1212	34	10.50	4259	5M				0.56
D V Tool(s):			7996				sum of sx	Σ CuFt				Σ%exce
by stage % :	t yld > 1.20	302	7				1450	2487				105
by stage % :	t yld > 1.20	302	7				1450	2487				
by stage % : Class 'H' tail cm		302 casing inside the	7 5/8			Design Fa		2487		Prod 1		105
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment				Coupling	Joint	Design Fa		2487 Length	B@s	Prod 1 a-B	a-C	
by stage % : Class 'H' tail cm Tail cmt 5 1/2		casing inside the		Coupling varn	Joint 2.79	_	ctors		B@s 2		a-C 3.55	Weigl
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment	#/ft	casing inside the	7 5/8			Collapse	ctors Burst	Length		а-В		Weig 230,00
by stage %: Class 'H' tail cm Tail cmt 5 1/2 Segment "A"	#/ft 20.00	casing inside the	7 5/8 p 110	varn	2.79	Collapse 2.12	ctors Burst 1.95	Length 11,500	2	a-B 3.27	3.55	Weigl 230,00 31,70
by stage %: Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B"	#/ft 20.00 20.00	casing inside the	7 5/8 p 110 p 110	varn vam sprint sf	2.79 20.22	2.12 1.69	ctors Burst 1.95 2.01	Length 11,500 1,585	2 2	a-B 3.27 3.37	3.55 2.84	Weig 230,0 31,70
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C"	#/ft 20.00 20.00 20.00	casing inside the	7 5/8 p 110 p 110 p 110	varn vam sprint sf varn	2.79 20.22	2.12 1.69	ctors Burst 1.95 2.01	Length 11,500 1,585 10,279	2 2	a-B 3.27 3.37	3.55 2.84	Weigl 230,00 31,70 205,55
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C"	#/ft 20.00 20.00 20.00	Casing inside the Grade When the Grade (1997) (199	7 5/8 p 110 p 110 p 110 p 110	varn vam sprint sf varn	2.79 20.22	2.12 1.69	Ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0	2 2	a-B 3.27 3.37	3.55 2.84	Weig 230,0 31,70 205,5 0 467,2
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C"	#/ft 20.00 20.00 20.00	Casing inside the Grade When the Grade (1997) (199	7 5/8 p 110 p 110 p 110 p 110 volume(s) are intended	varn vam sprint sf varn 0	2.79 20.22 ∞	2.12 1.69 1.86	Ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0 23,364	2 2	a-B 3.27 3.37	3.55 2.84	Weigl 230,00 31,70 205,55 0 467,20 overlap.
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D"	#/ft 20.00 20.00 20.00	casing inside the Grade /8.4#/g mud, 30min Sfc Csg Tes The cement	7 5/8 p 110 p 110 p 110 p 110	varn vam sprint sf varn 0	2.79 20.22 ∞ 11500 1 Stage	2.12 1.69 1.86 ft from su	ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0 23,364 500	2 2	a-B 3.27 3.37	3.55 2.84	Weigl 230,00 31,70 205,55 0 467,20 overlap.
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D"	#/ft 20.00 20.00 20.00	casing inside the Grade (8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage	7 5/8 p 110 p 110 p 110 p 110 volume(s) are intended a stage	varn vam sprint sf varn 0 ded to achieve a top of Min	2.79 20.22 ∞	2.12 1.69 1.86	ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0 23,364 500 Req'd	2 2	a-B 3.27 3.37	3.55 2.84	Weigi 230,00 31,70 205,55 0 467,20 overlap. Min Di
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4	#/ft 20.00 20.00 20.00 20.00 Annular Volume 0.0835	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Ter The cement 1 Stage Cmt Sx	7 5/8 p 110 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft	2.79 20.22 ∞ 11500 1 Stage % Excess	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt	ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0 23,364 500 Req'd	2 2	a-B 3.27 3.37	3.55 2.84	Weigi 230,00 31,70 205,55 0 467,20 overlap. Min Di
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4	#/ft 20.00 20.00 20.00 20.00 Annular Volume 0.0835	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Ter The cement 1 Stage Cmt Sx	7 5/8 p 110 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft	2.79 20.22 ∞ 11500 1 Stage % Excess	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt	ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0 23,364 500 Req'd	2 2	a-B 3.27 3.37	3.55 2.84	Weigi 230,00 31,70 205,55 0 467,20 overlap. Min Di
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm	#/ft 20.00 20.00 20.00 20.00 Annular Volume 0.0835	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Ter The cement 1 Stage Cmt Sx	7 5/8 p 110 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft	2.79 20.22 ∞ 11500 1 Stage % Excess	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt	ctors Burst 1.95 2.01 1.95 Totals:	Length 11,500 1,585 10,279 0 23,364 500 Req'd	2 2	a-B 3.27 3.37	3.55 2.84	Weigl 230,00 31,70 205,58
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm	#/ft 20.00 20.00 20.00 20.00 Annular Volume 0.0835	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Ter The cement 1 Stage Cmt Sx	7 5/8 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft	2.79 20.22 ∞ 11500 1 Stage % Excess	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50	Ctors Burst 1.95 2.01 1.95 Totals: Irface or a Calc MASP	Length 11,500 1,585 10,279 0 23,364 500 Req'd	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weigl 230,00 31,70 205,55 0 467,25 overlap. Min Di
by stage %: Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm	#/ft 20.00 20.00 20.00 20.00 Annular Volume 0.0835	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Ter The cement 1 Stage Cmt Sx	7 5/8 p 110 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995	2.79 20.22 ∞ 11500 1 Stage % Excess	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50	Ctors Burst 1.95 2.01 1.95 Totals: Irface or a Calc MASP	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weigl 230,00 31,70 205,55 0 467,20 overlap. Min Di Hole-C ₁
by stage %: Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm #N/A 0 Segment	#/ft 20.00 20.00 20.00 w, Annular Volume 0.0835 t yld > 1.35	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752	7 5/8 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995	2.79 20.22 ∞ 11500 1 Stage % Excess 20	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50	Cotors Burst 1.95 2.01 1.95 Totals: Inface or a Calc MASP	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weig 230,0 31,70 205,5 0 467,2 overlap, Min Di Hole-C 0.35
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm #N/A 0 Segment "A"	#/ft 20.00 20.00 20.00 w, Annular Volume 0.0835 t yld > 1.35	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752	7 5/8 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995 Coupling 0.00	2.79 20.22 ∞ 11500 1 Stage % Excess 20	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50	Cotors Burst 1.95 2.01 1.95 Totals: Inface or a Calc MASP	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE Length 0	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weig 230,0 31,70 205,5 0 467,2 overlap. Hole-C 0.35
by stage %: Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm #N/A 0 Segment	#/ft 20.00 20.00 20.00 20.00 w, Annular Volume 0.0835 t yld > 1.35	/8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752	7 5/8 p 110 p 110 p 110 p 110 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995	2.79 20.22 ∞ 11500 1 Stage % Excess 20	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50	Ctors Burst 1.95 2.01 1.95 Totals: urface or a Calc MASP	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weig 230,0 31,77 205,5 0 467,2 overlap Min D Hole-C 0.35
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm #N/A 0 Segment "A"	#/ft 20.00 20.00 20.00 20.00 w, Annular Volume 0.0835 t yld > 1.35	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752 Grade (8.4#/g mud, 30min Sfc Csg Tes	7 5/8 p 110 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995 Coupling 0.00 0.00	2.79 20.22 11500 1 Stage % Excess 20 #N/A	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50 Design Collapse	ctors Burst 1.95 2.01 1.95 Totals: Inface or a Calc MASP Factors Burst	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE Length 0 0	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weig 230,0 31,7(205,5 0 467,2 overlap Min D Hole-C 0.35
by stage %: Class 'H' tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm #N/A 0 Segment "A" "B" "B" ""B"	#/ft 20.00 20.00 20.00 20.00 20.00 W/, Annular Volume 0.0835 t yld > 1.35	Casing inside the Grade /8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752 Grade /8.4#/g mud, 30min Sfc Csg Tes Cmt vol c	7 5/8 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995 Coupling 0.00 0.00 his csg, TOC intended	2.79 20.22 ∞ 11500 1 Stage % Excess 20 #N/A	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50 Design Collapse	Cotors Burst 1.95 2.01 1.95 Totals: Inface or a Calc MASP Factors Burst Totals:	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE Length 0 0 #N/A	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weig 230,0 31,7(205,5 0 0 467,2 2 overlap Min D Hole-C 0.35
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm "A" "B" Hole Hole	#/ft 20.00 20.00 20.00 20.00 20.00 Annular Volume 0.0835 t yld > 1.35	Casing inside the Grade (8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752 Grade (8.4#/g mud, 30min Sfc Csg Tes Cmt vol c 1 Stage	7 5/8 p 110 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196 5 1/2 st psig: alc below includes t 1 Stage	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995 Coupling 0.00 0.00 his csg, TOC intended Min	2.79 20.22 11500 1 Stage Kexcess 20 #N/A #N/A	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50 Design Collapse ft from su Drilling	Cotors Burst 1.95 2.01 1.95 Totals: Inface or a Calc MASP Factors Burst Totals: Inface or a Calc	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE Length 0 0 #N/A Req'd	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weig 230,0 31,7(205,5 0 0 467,2 overlap. Min D Hole-C 0.35 Weig 0 0 overlap. Min D
by stage % : Class 'H' tail cm Tail cmt 5 1/2 Segment "A" "B" "C" "D" Hole Size 6 3/4 Class 'C' tail cm #N/A 0 Segment "A" "B" "B"	#/ft 20.00 20.00 20.00 20.00 20.00 W/, Annular Volume 0.0835 t yld > 1.35	Casing inside the Grade /8.4#/g mud, 30min Sfc Csg Tes The cement 1 Stage Cmt Sx 752 Grade /8.4#/g mud, 30min Sfc Csg Tes Cmt vol c	7 5/8 p 110 p 110 p 110 st psig: 2,530 volume(s) are intend 1 Stage CuFt Cmt 1196	varn vam sprint sf varn 0 ded to achieve a top of Min Cu Ft 995 Coupling 0.00 0.00 his csg, TOC intended	2.79 20.22 ∞ 11500 1 Stage % Excess 20 #N/A	Collapse 2.12 1.69 1.86 ft from su Drilling Mud Wt 10.50 Design Collapse	Cotors Burst 1.95 2.01 1.95 Totals: Inface or a Calc MASP Factors Burst Totals:	Length 11,500 1,585 10,279 0 23,364 500 Req'd BOPE Length 0 0 #N/A	2 2 2 2	a-B 3.27 3.37 3.27	3.55 2.84 3.12	Weigi 230,00 31,70 205,55 0 467,20 overlap. Min Di Hole-C 0.35

Carlsbad Field Office 5/9/2024

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

CONDITIONS

Action 343352

CONDITIONS

Operator:	OGRID:
DEVON ENERGY PRODUCTION COMPANY, LP	6137
333 West Sheridan Ave.	Action Number:
Oklahoma City, OK 73102	343352
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	ALL PREVIOUS COA'S APPLY.	6/15/2024