Form 3160-5 (June 2015)

UNITED STATES DEPARTMENT OF THE INTERIOR

NMOCD

FORM APPROVED

I OIMI I II I IO I ED	
OMB NO. 1004-0137	
Expires: January 31, 2018	8

. В	UREAU OF LAND MANA	GEMENT		. -		anualy 31, 2016
SUNDRY	NOTICES AND REPO	RTS ON WE	ELLS Arte	esia	5. Lease Serial No. NMLC062140	
Do not use the abandoned we	is form for proposals to II. Use form 3160-3 (AP	drill or to re D) for such p	enter an roposals.	-	6. If Indian, Allottee	or Tribe Name
SUBMIT IN	TRIPLICATE - Other ins	tructions on	page 2	·	7. If Unit or CA/Agre NMNM71016X	ement, Name and/or No.
1. Type of Well	,				8. Well Name and No. POKER LAKE U	
2. Name of Operator		IZEL I V IZA DE				
XTO PERMIAN OPERATING	,LLC E-Mail: kelly_kard		com		9. API Well No. 30-015-45491	
3a. Address 6401 HOLIDAY HILL RD BLD MIDLAND, TX 79707	G 5	3b. Phone No Ph: 432-62	(include area code) 0-4374		10. Field and Pool or JENNINGS BO	Exploratory Area NE SPRING WEST
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description) .	,		11. County or Parish,	State
Sec 28 T25S R31E Mer NMP	SENE 2310FNL 690FEL				EDDY COUNTY	Y, NM
12. CHECK THE AI	PPROPRIATE BOX(ES)	TO INDICA	TE NATURE O	F NOTICE, I	REPORT, OR OTI	HER DATA
TYPE OF SUBMISSION			TYPE OF	ACTION		
Notice of Intent ■ Notice of Intent Notice of	☐ Acidize	☐ Dee	oen	☐ Production	on (Start/Resume)	☐ Water Shut-Off
_	Alter Casing	☐ Hyd	raulic Fracturing	□ Reclamat	tion	■ Well Integrity
☐ Subsequent Report	☐ Casing Repair	□ New	Construction	□ Recomple	ete	⊠ Other
☐ Final Abandonment Notice	☐ Change Plans	🗖 Plug	and Abandon	☐ Tempora	rily Abandon	Change to Original PD
	Convert to Injection	Plug	Back	■ Water Di	sposal	
13. Describe Proposed or Completed Op If the proposal is to deepen direction: Attach the Bond under which the wo following completion of the involved testing has been completed. Final Al determined that the site is ready for f	ally or recomplete horizontally, rk will be performed or provide I operations. If the operation re candonment Notices must be fil inal inspection.	give subsurface the Bond No. or sults in a multipl ed only after all	locations and measure file with BLM/BIA completion or recorequirements, including	red and true vert . Required subs mpletion in a ne ing reclamation,	ical depths of all perting equent reports must be we interval, a Form 316 have been completed	tient markers and zones. filed within 30 days 60-4 must be filed once
XTO Permian Operating, LLC original APD:	respectiony requests per	mission to ma	ike the following	changes to ti	ne	
Change formation from Jen	nings Bone Spring, West	(Oil) to Purple	e Sage; Wolfcam	ıp (Gas).		
2. Change casing/cement from	n a 3-string design to a 4-	string design.				
Attachments: C102 & supplement Drilling Program			See	COAS	REC	EVED
Multibowl Diagram/BOP/CK/F	H					3 2019
14. I hereby certify that the foregoing is	Electronic Submission #	AN OPERATI	IG,LLC, sent to th	ne Carisbad		TIESIAO.C.D.
Name (Printed/Typed) KELLY KA	ARDOS	-//	Title REGUL	ATORY COC	RDINATOR	···
Signature (Electronic S	Submission)		Date 06/10/20	019	PPROV	ED
	//THIS SPACE FO	R FEDERA	L OR STATE	OFFICE US	E	
	16/11/11	M)	Pali	. T		[6/H]19
Approved Dy /IA - /	W XI L / . I	10 1	i Tida 1 // Tidal /	11110 L	-r u b x \ D A	L Date ''

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)

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Office

pw10-25-19

<u>District I.</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
<u>District II</u>
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

<u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

UL or lot no.

Н

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☑ AMENDED REPORT

County

EDDY

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015- 45491	² Pool Code 98220	PURPLE SAGE; WOLFCAMP			1001	
⁴ Property Code		⁵ Property Name	⁶ Well Number			
	POK	907H				
⁷ OGRID No.		8 Operator Name	⁹ Elevation			
373075	XTO PER	XTO PERMIAN OPERATING, LLC.				
	10	Surface Location				

Feet from the

Range

31 E

Lot Idn

Section Township

25 S

28

2,310 NORTH 690

North/South line

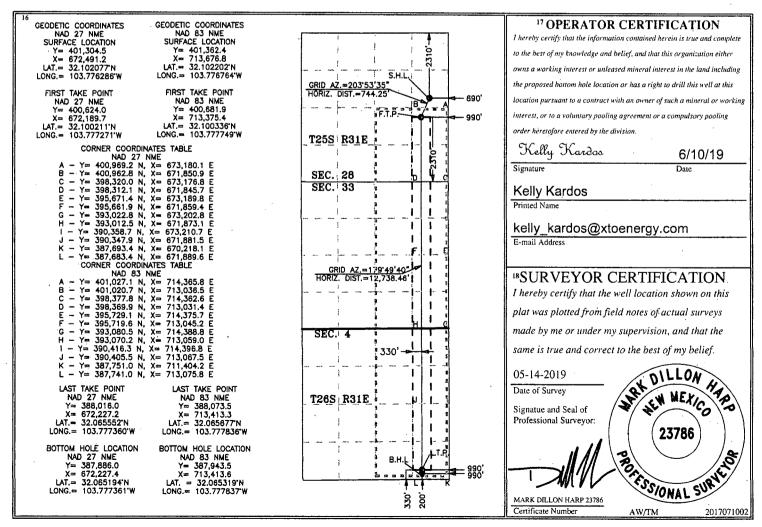
Feet from the

East/West line

EAST

			" Bott	om Hol	e Location If	Different From	Surface	· · · · · · · · · · · · · · · · · · ·	3
UL or lot no. P.	Section 4	Township 26 S	Range 31 E	Lot Idn	Feet from the	North/South line SOUTH	Feet from the 990	East/West line EAST	County EDDY
12 Dedicated Acres	13 Joint o	r Infill ¹⁴ (Consolidation Co	ode 15 Oro	ler No. 70				

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

XTO Energy Inc.

Poker Lake Unit 28 BS 907H

Projected TD: 25942' MD / 12650' TVD

SHL: 2310' FNL & 690' FEL, Section 28, T25S, R31E BHL: 200' FSL & 990' FEL, Section 4, T26S, R31E

Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	949'	Water
- Top of Salt	1312'	Water
Base of Salt	4048'	Water
Delaware	4262'	Water
Bone Spring	8204'	Water/Oil/Gas
Wolfcamp	11567'	Water/Oil/Gas
Wolfcamp A	11725'.	Water/Oil/Gas
Wolfcamp E	12698'	Water/Oil/Gas
Target/Land Curve	12650'	Water/Oil/Gas

^{***} Hydrocarbons @ Brushy Canyon

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 18-5/8 inch casing @ 1130' (182' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13-3/8 inch casing at 4150' and circulating cement to surface. 9-5/8 inch intermediate casing will be set at 11650' and cemented into the 13-3/8 inch casing shoe. An 8-3/4 inch curve and lateral hole will be drilled to TD, where 5-1/2 inch casing will be set and cemented back up to the 9-5/8 inch casing shoe.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade .	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' 1130'	18-5/8"	87.5	STC	J-55	New	1.75	1.59	7.63
17-1/2"	0' 4150'	13-3/8"	68	STC	J-55	New	1.17	1.49	2.39
12-1/4"	0' – 11650'	9-5/8"	40	, LTC	HCL-80	New	1.06	1.41	1.80
8-3/4"	0' – 25942'	5-1/2"	20	втс	P-110	New	1.33	1.35	1.82

- · XTO requests to not utilize centralizers in the curve and lateral
- · 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.
- 13-3/8" & 9-5/8" Collapse analyzed using 50% evacuation based on regional experience.
- · 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- · Test on 2M Annular & Casing will be limited to 70% burst of the casing or 1500 psi, whichver is less

Wellhead:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.
- Permanent Wellhead GE RSH Multibowl System
- A. Starting Head: 13-5/8" 10M top flange x 13-3/8" SOW bottom
 - Tubing Head: 13-5/8" 10M bottom flange x 7" 15M top flange
 - Wellhead will be installed by manufacturer's representatives.
 - Manufacturer will monitor welding process to ensure appropriate temperature of seal.
 - · Operator will test the 9-5/8" casing per BLM Onshore Order 2
 - · Wellhead manufacturer representative will not be present for BOP test plug installation

^{***} Groundwater depth 40' (per NM State Engineers Office).

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1130'	24"	FW/Native	8.4-8.8	35-40	NC
1130' - 4150'	17-1/2"	Brine	9.8-10.2	30-32	ŅC
4150' to 11650'	12-1/4"	FW/Cut Brine	8.7-10.0	30-32	NC
11650' to 25942'	8-3/4"	FW / Cut Brine / Polymer	12.2 - 12.5	29-32	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.

Spud with fresh water/native mud. Drill out from under 18-5/8" surface casing with brine solution. A 9.8ppg-10.2ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

7. Auxiliary Well Control and Monitoring Equipment

- A A Kelly cock will be in the drill string at all times.
- B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
- C. H2S monitors will be on location when drilling below the 13-3/8" casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Open hole logging will include quad combo.

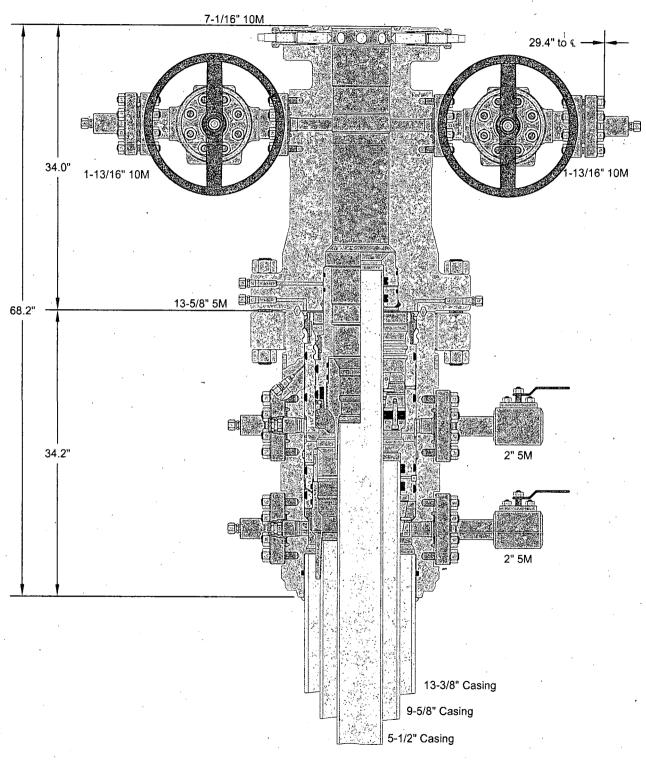
9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 160 to 180 F is anticipated. No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid. The maximum anticipated bottom hole pressure for this well is 8223 psi.

10. Anticipated Starting Date and Duration of Operations

Road and location construction will begin after Santa Fe and BLM have approved the APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 40 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.





ALL DIMENSIONS ARE APPROXIMATE

This drawing is the property of GE Oil & Gas Pressure Control LP and is considered confidential. Unless otherwise approved in writing.

13-3/8" x 9-5/8" x 5-1/2" 10M RSH-2 Wellhead

Assembly, With T-EBS-F Tubing Head

Assembly, With T-EBS-F Tubing Head

This drawing is the property of GE Oil & Gas Pressure Control LP.

XTO ENERGY, INC.

DRAWN

VJK

16FEB17

APPRV

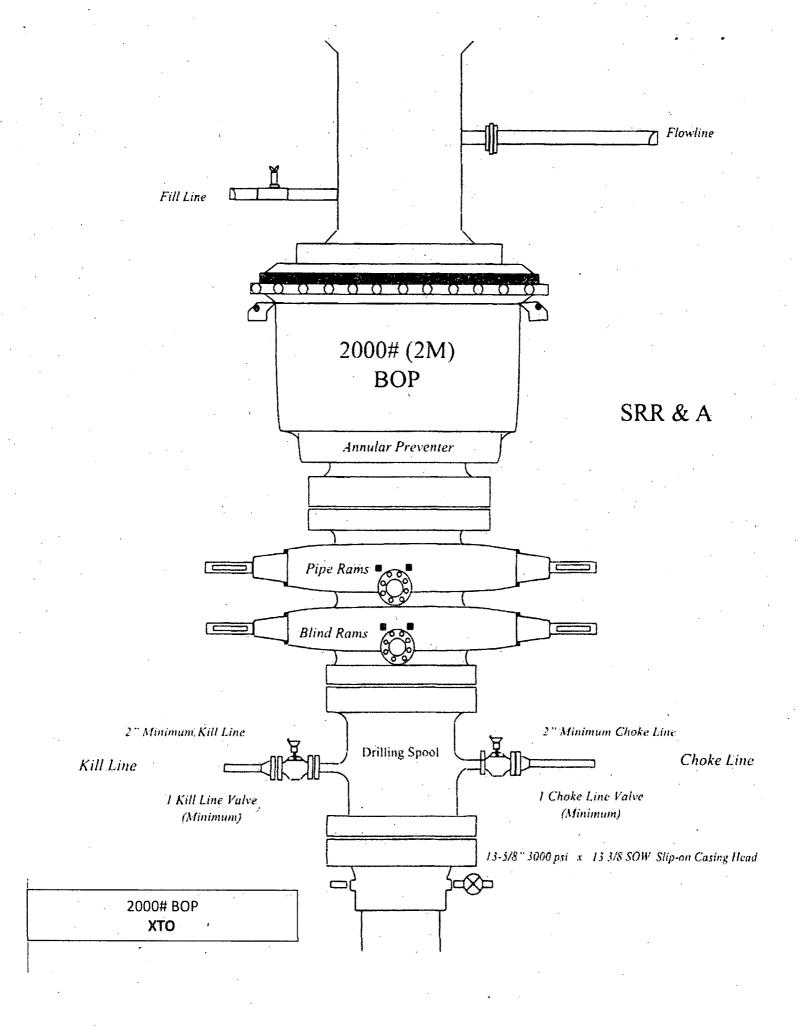
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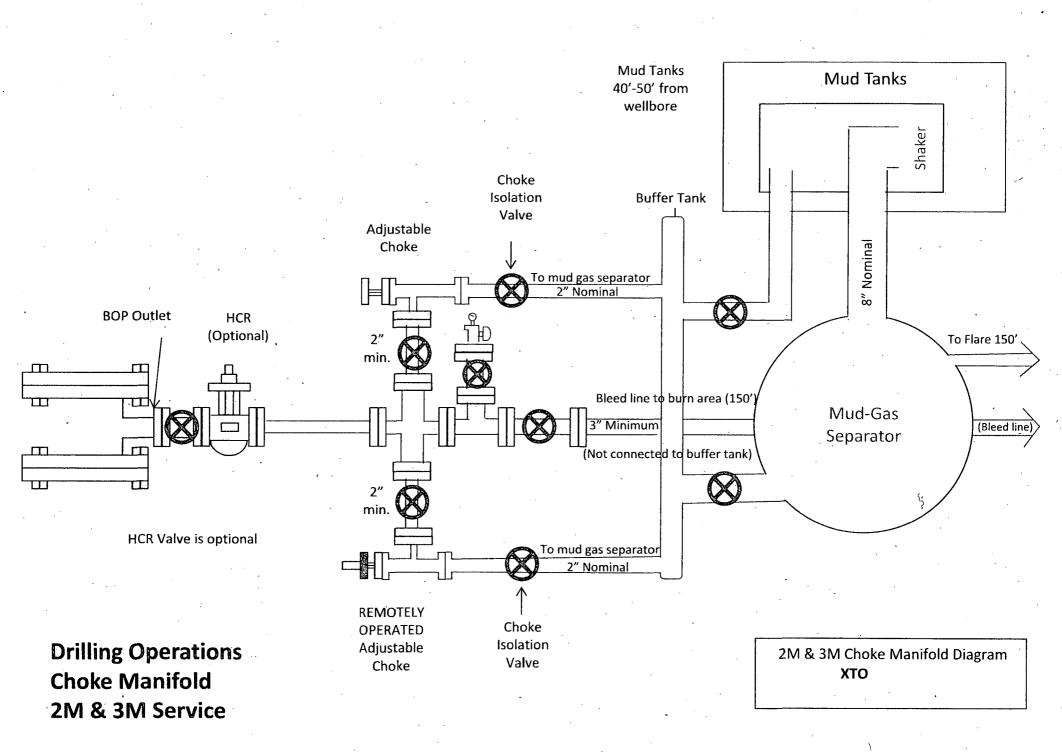
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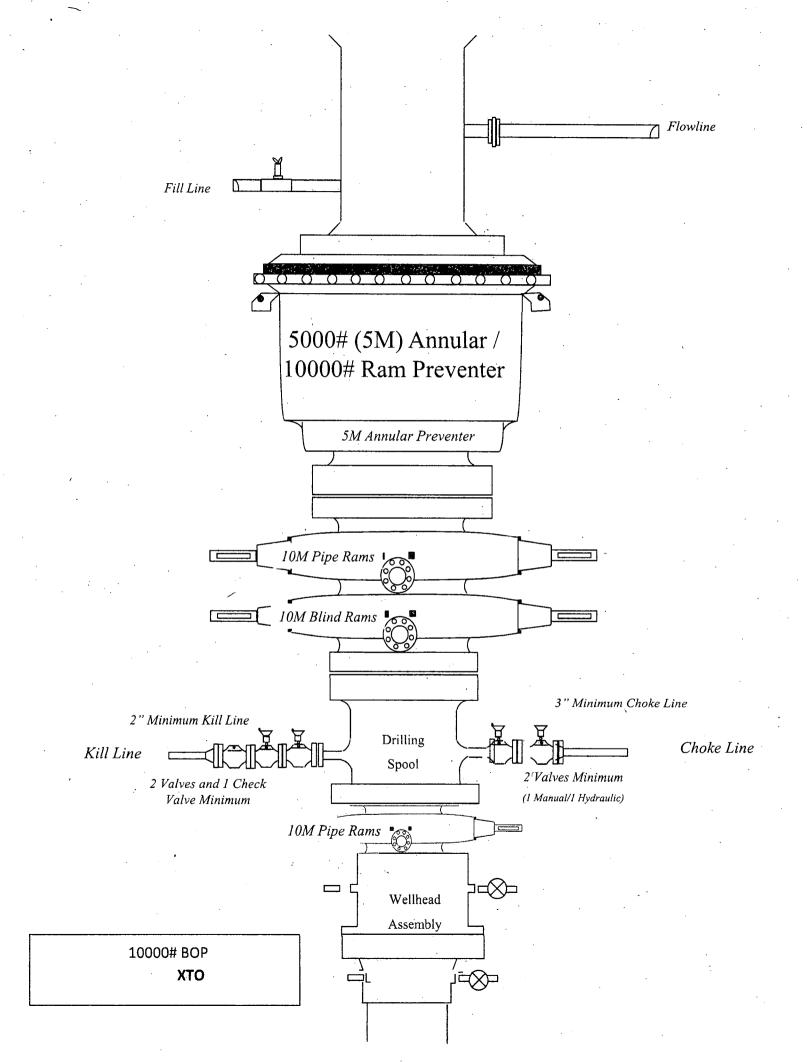
FOR REFERENCE ONLY

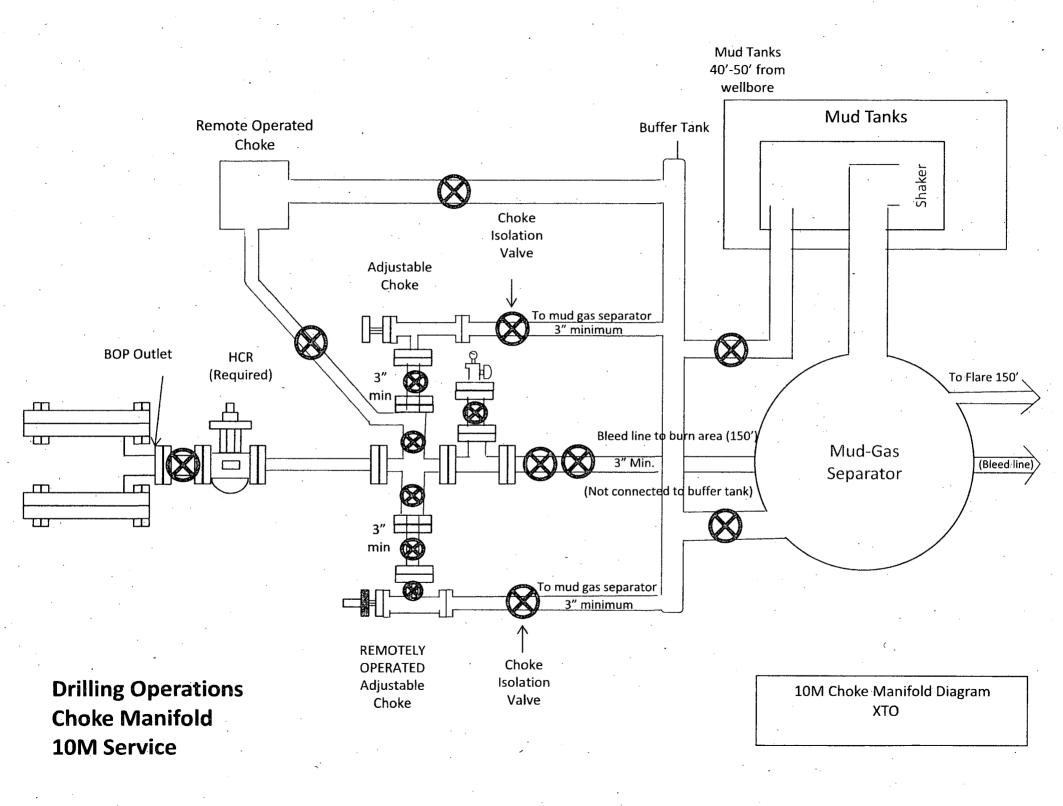
DRAWING NO.

10012842









10,000 PSI Annular BOP Variance Request

XTO Energy/XTO Permian Op. request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOPL).

1. Component and Preventer Compatibility Tables

The tables below outline the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

8-1/2" Production Hole Section 10M psi Requirement									
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP				
Drillpipe	5.000" or	Annular	5M	Upper 3.5"-5.5" VBR	10M				
	4.500"			Lower 3.5"-5.5" VBR	10M				
HWDP	5.000" or	Annular	5M	Upper 3.5"-5.5" VBR	10M				
	4.500"			Lower 3.5"-5.5" VBR	10M				
Jars	6.500"	Annular	5M	- ~	-				
DCs and MWD tools	6.500"-8.000"	Annular	5M	-	-				
Mud Motor	6.750"-8.000"	Annular	5M	-	-				
Production Casing	5-1/2"	Annular	5M	•					
Open-Hole	-	Blind Rams	10M	-	_				

2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the XTO Energy/Permian Operating drilling supervisor's office on location and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 70% of its RWP.

General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
- 8. Regroup and identify forward plan

9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Tripping

- 1. Sound alarm (alert crew)
- 2. Stab full-opening safety valve & close
- 3. Space out drill string
- 4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure While Running Production Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full-opening safety valve and close
- 3. Space out string
- 4. Shut-in well (uppermost applicable BOP, typically annular preventer, first. HCR & choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
 - a. SIDPP & SICP
 - b. Pit gain
 - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams (HCR & choke will already be in the closed position)
- 3. Confirm shut-in
- 4. Notify toolpusher/company representative
- 5. Read and record the following:
 - a. SICP
 - b. Pit gain
 - c. Time
- 6. Regroup and identify forward plan

General Procedures While Pulling BHA Through Stack

- 1. PRIOR to pulling last joint of drillpipe through stack:
 - a. Perform flow check. If flowing, continue to (b).
 - b. Sound alarm (alert crew)
 - c. Stab full-opening safety valve and close
 - d. Space out drill string with tool joint just beneath the upper variable bore rams
 - e. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - f. Confirm shut-in
 - g. Notify toolpusher/company representative
 - h. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - i. Regroup and identify forward plan
- 2. With BHA in the stack and compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. Stab crossover and full-opening safety valve and close
 - c. Space out drill string with upset just beneath the upper variable bore rams
 - d. Shut-in using upper variable bore rams (HCR & choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify toolpusher/company representative
 - g. Read and record the following:
 - i. SIDPP & SICP

- ii. Pit gain
- iii. Time
- h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combination immediately available:
 - a. Sound alarm (alert crew)
 - b. If possible, pull string clear of the stack and follow "Open Hole" procedure.
 - c. If impossible to pull string clear of the stack:
 - d. Stab crossover, make up one joint/stand of drillpipe and full-opening safety valve and close
 - e. Space out drill string with tooljoint just beneath the upper variable bore ram
 - f. Shut-in using upper variable bore ram (HCR & choke will already be in the closed position)
 - g. Confirm shut-in
 - h. Notify toolpusher/company representative
 - i. Read and record the following:
 - i. SIDPP & SICP
 - ii. Pit gain
 - iii. Time
 - j. Regroup and identify forward plan



GATES E & 5 NORTH AMERICA, INC

DU-TEX

134 44TH STREET

CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807

FAX:

361-887-0812

EMAIL: crpe&s@gates.com

WEB:

www.gates.com

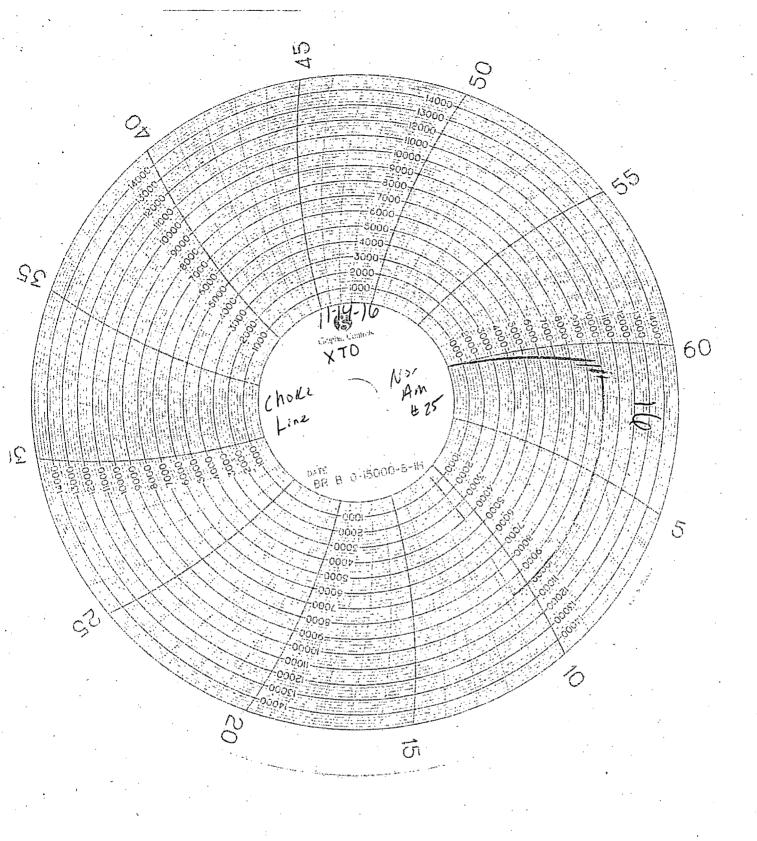
GRADE D PRESSURE TEST CERTIFICATE

	•				
Customer : Customer Ref. : Invace No. :	AUSTIN DISTRIBUTING PENDING 201709	Test Date: Hose Serial No.: Created By:	6/8/2014 D-060814-1 NORI4A		
Product Description:		FD3.042.0841/16.5KFLGE/E	LE		
End Fitting 1 :	4 1/16 in.5K FLG	Fort Serious 2.			
Gates Part No. :	4774-6001	End Fitting 2 :	ৰ 1/16 in.5K FLG		
Working Pressure :	5,000 PSI	Assembly Code :	L33090011513D-060814-1		
	3,000 7 31	Test Pressure :	7,500 PSI		

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality: QUALITY Technical Supervisor: **PRODUCTION** Date: : 6/8/2014 Date: 6/8/2014 Signature : Signature :

Form PTC - 01 Rev.0.2



 μ_{OOH} MOSE LD. 289% LENGTH 424 END 1 END 2 41/16 516 PM 7.500 1.5. 2000

Schlumberger

XTO Energy PLU 28 BS 907H Rev3 JP 03May19 Proposal Geodetic Report



(Def Plan)

Report Date: Client:

Field: Structure / Slot:

Well:

Borehole UWI / API# Survey Name:

Survey Date: Tort / AHD / DDI / ERD Ratio: Coordinate Reference System:

Location Lat / Long: Location Grid N/E Y/X: CRS Grid Convergence Angle:

Grid Scale Factor: Version / Patch:

May 03, 2019 - 09:13 AM XTO Energy

NM Eddy County (NAD 27)

XTO Energy PLU 28 Big Sinks 907H / New Slot PLU 28 BS 907H

PLU 28 BS 907H

Unknown / Unknown XTO Energy PLU 28 BS 907H Rev3 JP 03May19 April 30, 2019

97.676 ° / 13838.976 ft / 6.440 / 1.088 NAD27 New Mexico State Plane, Eastern Zone, US Feet

N 32° 6' 7.48280", W 103° 46' 34.63335" N 401305.000 ftUS, E 672491.000 ftUS 0.2960 °

0.99994317 2.10.760.0

Survey / DLS Computation: Vertical Section Azimuth: Vertical Section Origin:

TVD Reference Datum: TVD Reference Elevation: Seabed / Ground Elevation: Magnetic Declination:

Total Gravity Field Strength:
Gravity Model:

Total Magnetic Field Strength: Magnetic Dip Angle: Declination Date: Magnetic Declination Model:

North Reference: Grid Convergence Used: Total Corr Mag North->Grid

North: Local Coord Referenced To:

Minimum Curvature / Lubinski

179.830 * (Grid North) 0.000 ft, 0.000 ft RKB

3369,000 ft above MSL 3337.000 ft above MSL 6.688 °

998.4235mgn (9.80665 Based) GARM

47808.207 nT 59.728 * May 03, 2019 HDGM 2019 Grid North • 0.2960 * 6.3915 "

Well Head

Comments	MD (ft)	Incl (°)	Azim Grid	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	· DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S º ' ")	Longitude (E/W * ' ")
SHL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	401305.00		32 6 7.48 V	
Build 1.5° DLS	3300.00	` 0.00	288.26	3300.00	0.00	0.00	0.00	0.00	401305.00		32 6 7.48 V	
Hold	3545.71	3.69	288.26	3545.54	-2.50	2.48	-7.50	1.50	401307.48		32 6 7.51 V	
Drop 1.5° DLS	8264.39	3.69	288.26	8254.46	-98.40	97.52	-295.56	0.00	401402.52		32 6 8.46 V	
Hold	8510,10	0.00	288.26	8500.00	-100.90	100.00	-303.06	. 1.50	401404.99		32 6 8.49 V	
KOP, Build 8° DLS	12012.91	0.00	288.26	12002.81	-100.90	100.00	-303.06	0.00	401404.99		32 6 8.49 V	
Landing Point	13141.71	90.30	179.83	12719.00	619.10	-620.00	300.98	8.00	400685.04	672190.04 N	32 6 1.36 V	V 103 46 38.17
PLU 28 BS 907H - BHL	25941.74	90.30	179.83	12651.00	13418.95	-13419.79	-264.02	0.00	387886.00		32 3 54.70 V	

Survey Type:

Def Plan

Survey Error Model: Survey Program:

ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Description	Part '	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size Casi (in)	ing Diameter (in)	Inclination (deg)	Survey Tool Type	Borehole / Survey
,	1	0.000	32.000	1/100,000	30.000	30.000		NAL_MWD_IFR1-Depth Only	PLU 28 BS 907H / XTO Energy PLU 28 BS 907H Rev3 JP
	1	32.000	25941.738	1/100.000	30.000	30.000	•	NAL_MWD_IFR1	PLU 28 BS 907H / XTO Energy PLU 28 BS 907H Rev3 JP

Scillmuch 1011

Borehole:

Well:

PLU 28 BS 907H

Gravity & Magnetic Parameters

Model:

HDGM 2019

Dip: 5

59.728°

Date:

03-May-2019

MagDec:

6.688°

FS:

47808.207nT

Gravity FS:

998.423mgn (9.80665 |

Critical Point

1000

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO Permian Operating, LLC

LEASE NO.: NMLC-0062140

WELL NAME & NO.: Poker Lake Unit 28 BS 907H

SURFACE HOLE FOOTAGE: 2310' FNL & 0690' FEL

BOTTOM HOLE FOOTAGE | 0200' FSL & 0990' FEL Sec. 04, T. 26 S., R 31 E.

LOCATION: | Section 28, T. 25 S., R 31 E., NMPM

COUNTY: | Eddy County, New Mexico

Commercial Well Determination

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

Unit Wells

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

A. DRILLING OPERATIONS REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

⊠ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Delaware formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.
- 2. 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. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.

- 3. 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 is located, this does not include the dog house or stairway area.
- 4. 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.

B. CASING

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.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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.

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.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Medium Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Red beds, Rustler, and Delaware.
Abnormal pressures may be encountered upon penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

- 1. The 18-5/8 inch surface casing shall be set at approximately 1130 feet (in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet above the salt) and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
 - 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.

13-3/8' 1st Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the 13-3/8 inch 1st intermediate casing is:

Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

9-5/8" 2nd Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

3. The minimum required fill of cement behind the 9-5/8 inch 2^{nd} intermediate casing is:

Cement to surface. If cement does not circulate see B.1.a, c-d above. Excess calculates to 23% - Additional cement may be required.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required through the curve and a minimum of one every other joint.

- 4. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 5. 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.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.
- 2. Variance approved to use flex line from BOP to choke manifold. 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. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) psi.
- 4. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8 1st intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 1st intermediate casing shoe shall be 10,000 (10M) 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. Operator shall perform the 9-5/8" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.
 - 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.

Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi.)

10M 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.

- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - a. The tests shall be done by an independent service company utilizing a test plug **not** a **cup** or **J-packer**.

- b. 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.
- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.
- e. 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.
- f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. 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.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. 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.

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