Form 3160-5
(June 2015)

Rec'd 06/22/2020 - NMOCD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMLC063875A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
891000303X

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
POKER LAKE UNIT 27 BD 156H

2. Name of Operator
XTO PERMIAN OPERATING LLC
Contact: KELLY KARDOS
E-Mail: kelly_kardos@xtoenergy.com

9. API Well No.
30-015-46253-00-X1

3a. Address
6401 HOLIDAY HILL ROAD BLDG 5
MIDLAND, TX 79707

3b. Phone No. (include area code)
Ph: 432-620-4374

10. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 27 T25S R30E SWNE 2510FNL 1918FEL
32.101585 N Lat, 103.866623 W Lon

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

XTO Permian Operating, LLC, requests permission to make the following changes to the original APD:

Casing/Cement design per the attached drilling program.

XTO also requests the following variances:

XTO requests to use a 5000 psi annular BOP with a 10,000 psi BOP stack. Also a variance is requested to test the 5M annular to 70% of working pressure at 3500 psi

Approval to utilize a spudder rig to pre-set surface casing per the attached Description of Operations.

Accepted - KMS NMOCD

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #519628 verified by the BLM Well Information System
For XTO PERMIAN OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 06/21/2020 (20PP3211SE)

Name *(Printed/Typed)* KELLY KARDOS — Title REGULATORY COORDINATOR

Signature (Electronic Submission) — Date 06/19/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By JENNIFER SANCHEZ — Title PETROLEUM ENGINEER — Date 06/22/2020

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.

Office Carlsbad

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)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #519628 that would not fit on the form

32. Additional remarks, continued

Batch drill this well if necessary. In doing so, XTO will set each casing string and ensure that the well is cemented properly and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per GE recommendations, XTO will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

ONLY test broken pressure seals on the BOP equipment per the attached procedure.

A variance is requested to cement offline for the surface and intermediate casing strings.

Attachments:
Drilling Program
5M10MBOP / 10MCM
Wild Well Control Plan
Direction Drill Plan
Multibowl Diagram
Spudder Rig Description of Operations
BOP Break Test Procedure

Revisions to Operator-Submitted EC Data for Sundry Notice #519628

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMLC063875A	NMLC063875A
Agreement:	NMNM71016X	891000303X (NMNM71016X)
Operator:	XTO PERMIAN OPERATING, LLC 6401 HOLIDAY HILL RD BLDG 5 MIDLAND, TX 79707 Ph: 432-620-4374	XTO PERMIAN OPERATING LLC 6401 HOLIDAY HILL ROAD BLDG 5 MIDLAND, TX 79707 Ph: 432.683 2277
Admin Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374
Tech Contact:	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374	KELLY KARDOS REGULATORY COORDINATOR E-Mail: kelly_kardos@xtoenergy.com Ph: 432-620-4374
Location: State: County:	 NM EDDY	 NM EDDY
Field/Pool:	PURPLE SAGE WOLFCAMP	PURPLE SAGE-WOLFCAMP (GAS)
Well/Facility:	POKER LAKE UNIT 27 BD 156H Sec 27 T25S R30E Mer NMP SWNE 2510FNL 1918FEL	POKER LAKE UNIT 27 BD 156H Sec 27 T25S R30E SWNE 2510FNL 1918FEL 32.101585 N Lat, 103.866623 W Lon

PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO Permian Operating, LLC**
LEASE NO.:	**NMLC-0063875A**
WELL NAME & NO.:	**Poker Lake Unit 27 BD 156H**
SURFACE HOLE FOOTAGE:	**2510' FNL & 1918' FEL**
BOTTOM HOLE FOOTAGE	**0200' FSL & 1650' FEL Sec. 34, T. 25 S., R 30 E.**
LOCATION:	**Section 27, T. 25 S., R 30 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☑ Unit

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 in the 3rd Bone Spring and all subsequent formations.

A. HYDROGEN SULFIDE

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

B. CASING

1. The **11-3/4** inch surface casing shall be set at approximately **1160** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

    - Cement as proposed. Report Echo meter results on subsequent sundry.

3. The minimum required fill of cement behind the **5-1/2 X 5** inch production casing is:

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 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 approved to use a 5M annular. The annular must be tested to 70% working pressure (3500 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 OOGO2.III.A.2.i must be followed.

BOP Break Testing Variance

- Shelll testing is not approved for any portion of the hole with a MASP of 5000 psi or greater.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer prior to the commencement of any BOP Break Testing operations.
- A full BOP test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOP test will be required.

D. SPECIAL REQUIREMENTS

Unit Wells

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

Commercial Well Determination

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

GENERAL REQUIREMENTS

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

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. 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.

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

5. 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.

6. 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.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

    c. 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.

    d. The results of the test shall be reported to the appropriate BLM office.

e. 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.

f. 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.

g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 06222020

Poker Lake Unit 27 BD 156H
Projected TD: 19892' MD / 11090' TVD
SHL: 2510' FNL & 1918' FEL , Section 27, T25S, R30E
BHL: 200' FSL & 1650' FEL , Section 34, T25S, R30E
Eddy County, NM

Casing Design

The surface fresh water sands will be protected by setting 11-3/4" casing @ 1240' (50' above the salt) and circulating cement back to surface. The 7-5/8" intermediate casing will be set at 11190' and bring TOC back to surface. A 6-3/4 inch curve and lateral hole will be drilled to MD/TD and 5-1/2" x 5-0" casing will be set at TD and cemented back 300' into the 7-5/8" casing shoe.

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
14-3/4"	0' – 1240'	11-3/4"	54	BTC	J-55	New	1.23	3.69	12.69
9-7/8"	0' – 11190'	7-5/8"	29.7	BTC	HCL-80	New	1.29	1.97	2.06
6-3/4"	0' – 11090'	5-1/2"	23	BTC	P-110	New	1.21	1.87	2.84
6-3/4"	11090' - 19892'	5-0"	18	BTC	P-110	New	1.16	1.60	2.15

XTO requests to not utilize centralizers in the curve and lateral
7-5/8" 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 Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

WELLHEAD:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 11-3/4" SOW bottom
B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 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 7-5/8" casing per Onshore Order 2.
Wellhead manufacturer representative may not be present for BOP test plug installation

Cement Program

Surface Casing:
Lead: 430 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 190 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Intermediate Casing:

1st Stage

Optional Lead: 740 sxs NeoCem (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
Tail: 950 sxs Halcem - Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

2nd Stage

Tail: 1280 sxs Halcem-Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 5.29 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1150 psi

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6375') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. The final cement top will be verified by Echo-meter.

XTO 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.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In the event cement is not circulated to surface on the first stage, whether intentionally or unintentionally, XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per wellhead manufacturer procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Production Casing:
Lead: 20 sxs VersaCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water)
Tail: 820 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 7.20 gal/sx water)
Compressives: 12-hr = 800 psi 24 hr = 1500psi

Mud Circulation Program

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1240'	14-3/4"	FW / Native	8.4-8.8	35-40	NC
1240' - 11190'	9-7/8"	Brine / Cut Brine / Direct Emuslion	8.5-9.7	30-32	NC
11190' to 19892'	6-3/4"	Cut Brine / WBM / OBM	13-14	32-36	NC

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

XTO Energy Inc.
Poker Lake Unit 27 Brushy Draw 156H
Projected TD: 19892' MD / 11090' TVD
SHL: 2510' FNL & 1918' FEL , Section 27, T25S, R30E
BHL: 200' FSL & 1650' FEL , Section 34, T25S, R30E
Eddy County, NM

1. Geologic Name of Surface Formation

A. Permian

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

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	895'	Water
Top of Salt	1290'	Water
Base of Salt	3692'	Water
Delaware	3910'	Water
Brushy Canyon	6375'	Water/Oil/Gas
Bone Spring	7700'	Water
1st Bone Spring Ss	8642'	Water/Oil/Gas
2nd Bone Spring Ss	9494'	Water/Oil/Gas
3rd Bone Spring Ss	10631'	Water/Oil/Gas
Wolfcamp	11021'	Water/Oil/Gas
Wolfcamp A	11156'	Water/Oil/Gas
Wolfcamp D	11947'	Water/Oil/Gas
Target/Land Curve	12017'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon
*** Groundwater depth 40' (per NM State Engineers Office).

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 11-3/4" casing @ 1240' (50' above the salt) and circulating cement back to surface. The 7-5/8" intermediate casing will be set at 11190' and bring TOC back to surface. A 6-3/4 inch curve and lateral hole will be drilled to MD/TD and 5-1/2" x 5-0" casing will be set at TD and cemented back 300' into the 7-5/8" casing shoe.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
14-3/4"	0' – 1240'	11-3/4"	54	BTC	J-55	New	1.23	3.69	12.69
9-7/8"	0' – 11190'	7-5/8"	29.7	BTC	HCL-80	New	1.29	1.97	2.06
6-3/4"	0' – 11090'	5-1/2"	23	BTC	P-110	New	1.21	1.87	2.84
6-3/4"	11090' - 19892'	5-0"	18	BTC	P-110	New	1.16	1.60	2.15

· XTO requests to not utilize centralizers in the curve and lateral
· 7-5/8" 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 Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 11-3/4" SOW bottom
B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 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 7-5/8" casing per BLM Onshore Order 2
· Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 11-3/4", 54 New J-55, BTC casing to be set at +/- 1240'

Lead: 430 sxs Halcem-C + 2% CaCl (mixed at 12.8 ppg, 1.87 ft3/sx, 10.13 gal/sx water)

Tail: 190 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1500 psi
TOC: Surface

Intermediate Casing: 7-5/8", 29.7 New HCL-80, BTC casing to be set at +/- 11190'
1st Stage
Optional Lead: 740 sxs NeoCem (mixed at 10.5 ppg, 2.77 ft3/sx, 15.59 gal/sx water)
TOC: Surface

Tail: 950 sxs Halcem - Class C (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1150psi
TOC: Brushy Canyon (6375')

2nd Stage
Tail: 1280 sxs Halcem-Class C (mixed at 14.8 ppg, 1.33 ft3/sx, 5.29 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1150 psi
TOC: Surface

XTO requests to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brush Canyon (6375') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 1,500 sack of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. The final cement top will be verified by Echo-meter.

XTO 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.

XTO will report to the BLM the volume of fluid (limited to 5 bbls) used to flush intermediate casing valves following backside cementing procedures.

XTO requests to pump an Optional Lead if well conditions dictate in an attempt to bring cement to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In the event cement is not circulated to surface on the first stage, whether intentionally or unintentionally, XTO requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediation is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure first stage cement job is cemented properly and the well is static with floats holding and no pressure on the csg annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per wellhead manufacturer procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

Production Casing: 5-1/2", 23 New P-110, BTC x 5-0", 18 New P-110, BTC casing to be set at +/- 19892'
Lead: 20 sxs VersaCem (mixed at 11.5 ppg, 2.69 ft3/sx, 15.00 gal/sx water)

Tail: 820 sxs VersaCem (mixed at 13.2 ppg, 1.51 ft3/sx, 7.20 gal/sx water)
Compressives 12-hr = 800 psi 24 hr = 1500 psi
TOC: 300' inside previous shoe

5. Pressure Control Equipment

Once the permanent WH is installed on the 11-3/4" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M 3-Ram BOP. MASP should not exceed 5792 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M). Also a variance is requested to test the 5M annular to 70% of working pressure at 3500 psi.

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 70% of the working pressure. When nippling up on the 11-3/4", 10M bradenhead and flange, the BOP test will be limited to 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a

certification and pressure test chart. The manufacturer does not require anchors.

XTO requests a variance to be able to batch drill this well if necessary. In doing so, XTO will set each casing string and ensure that the well is cemented properly and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a 10K TA cap as per wellhead manufacturer recommendations, XTO will contact the BLM on each rig skid on the pad. Once surface and intermediate strings are all completed, XTO will begin drilling the production hole on each of the wells.

A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. Based on discussions with the BLM on February 27th 2020, we will request permission to **ONLY** retest broken pressure seals if the following conditions are met: 1. After a full BOP test is conducted on the first well on the pad (First well will be the deepest Intermediate) 2. When skidding to drill an intermediate section does not penetrate into the Wolfcamp 3. Full BOP test will be required prior to drilling the production hole

A variance is requested to cement offline for the surface and intermediate casing strings.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1240'	14-3/4"	FW / Native	8.4-8.8	35-40	NC
1240' - 11190'	9-7/8"	Brine / Cut Brine / Direct Emuslion	8.5-9.7	30-32	NC
11190' to 19892'	6-3/4"	Cut Brine / WBM / OBM	13-14	32-36	NC

The necessary mud products for weight addition and fluid loss control will be on location at all times.
Spud with fresh water/native mud and set 11-3/4" surface casing, isolating the fresh water aquifer. Drill out from under 11-3/4" surface casing with a brine/oil direct emulsion mud system. 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 11-3/4" casing.

8. Logging, Coring and Testing Program

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

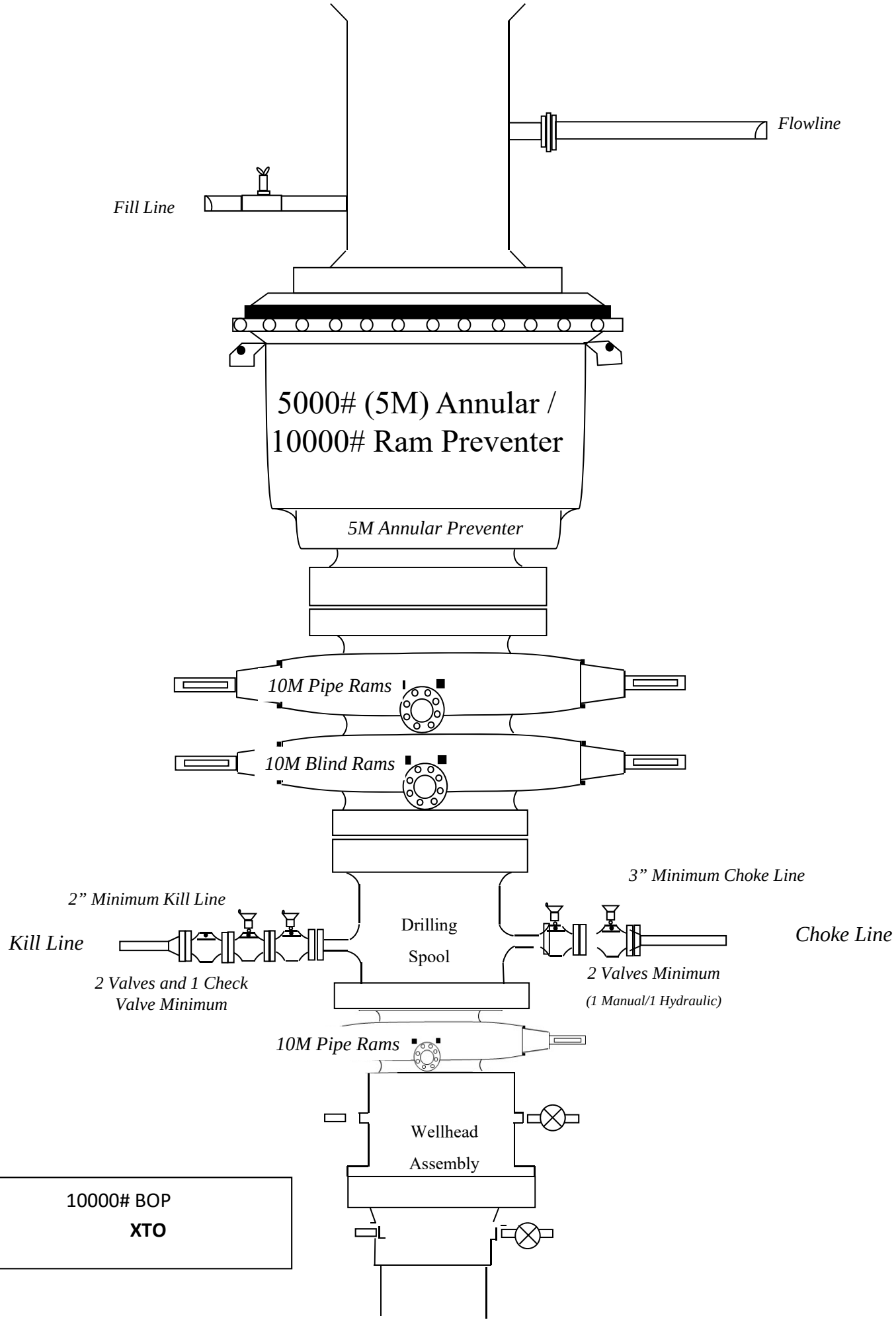
Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

None Anticipated. BHT of 155 to 175 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 8436 psi.

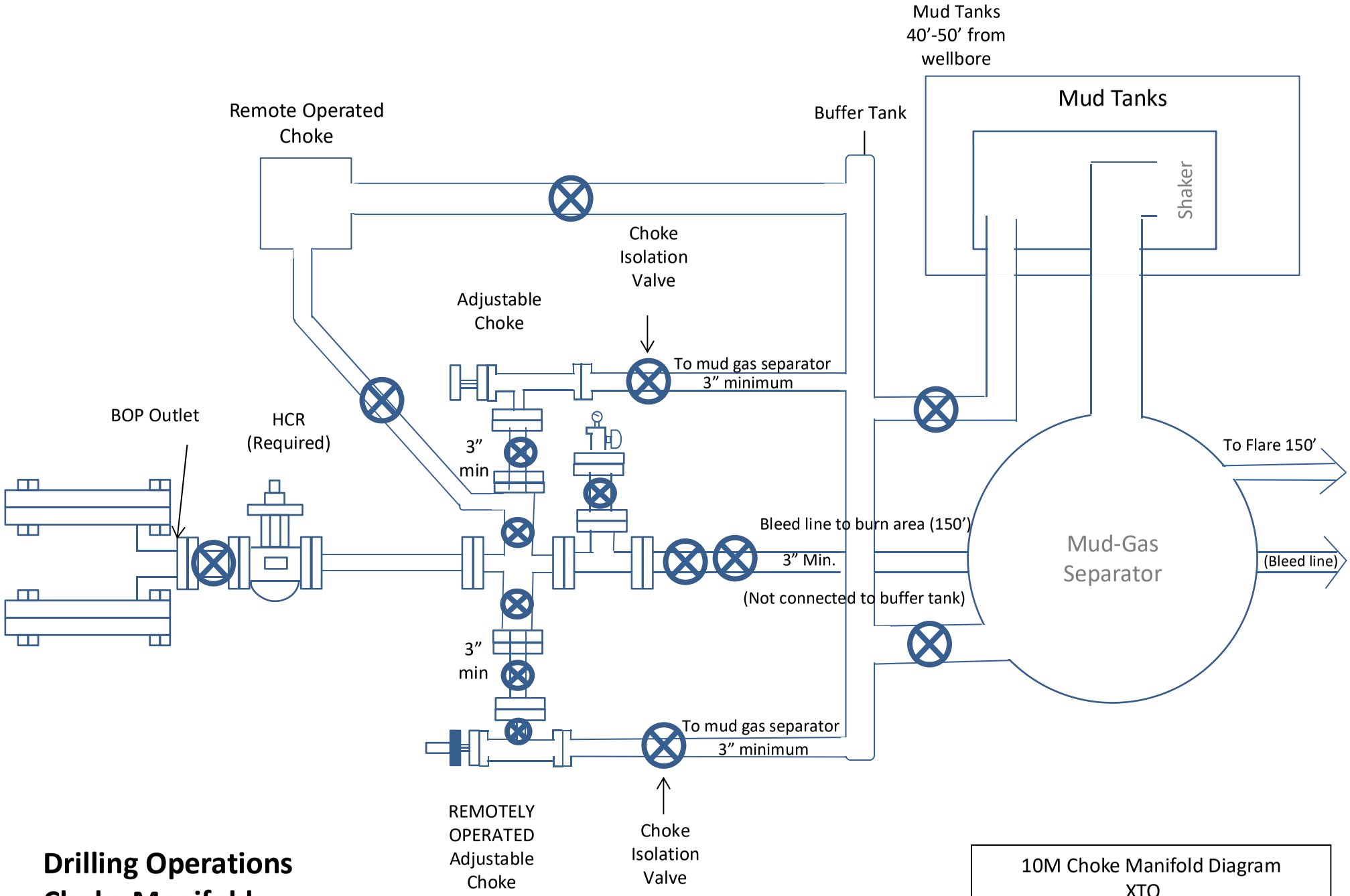
10. Anticipated Starting Date and Duration of Operations

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 45 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.



10000# BOP

XTO



Drilling Operations
Choke Manifold
10M Service

10M Choke Manifold Diagram
XTO

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 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 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.

<u>General Procedure While Drilling</u>

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

Schlumberger

XTO Poker Lake Unit 27 BD 156H Rev1 LP 15Jun20 Proposal Geodetic Report

(Def Plan)

Report Date:	June 15, 2020 - 05:31 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	XTO Energy	**Vertical Section Azimuth:**	178.039 ° (Grid North)
Field:	NM Eddy County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	XTO Poker Lake Unit 27 BD 156H / New Slot	**TVD Reference Datum:**	RKB
Well:	XTO Poker Lake Unit 27 BD 156H	**TVD Reference Elevation:**	3310.000 ft above MSL
Borehole:	XTO Poker Lake Unit 27 BD 156H	**Seabed / Ground Elevation:**	3287.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.612 °
Survey Name:	XTO Poker Lake Unit 27 BD 156H Rev1 LP 15Jun20	**Total Gravity Field Strength:**	998.4273mgn (9.80665 Based)
Survey Date:	June 11, 2020	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	96.999 ° / 8465.944 ft / 6.133 / 0.704	**Total Magnetic Field Strength:**	47720.006 nT
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.727 °
Location Lat / Long:	N 32° 6' 5.26070", W 103° 51' 58.10339"	**Declination Date:**	June 11, 2020
Location Grid N/E Y/X:	N 400948.300 ftUS, E 644668.500 ftUS	**Magnetic Declination Model:**	HDGM 2020
CRS Grid Convergence Angle:	0.2483 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99993306	**Grid Convergence Used:**	0.2483 °
Version / Patch:	2.10.811.0	**Total Corr Mag North->Grid North:**	6.3640 °
		Local Coord Referenced To:	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 ° ' ")	Longitude (E/W ° ' ")
Surface	0.00	0.00	124.08	0.00	0.00	0.00	0.00	N/A	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	100.00	0.00	54.89	100.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	200.00	0.00	54.89	200.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	300.00	0.00	54.89	300.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	400.00	0.00	54.89	400.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	500.00	0.00	54.89	500.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	600.00	0.00	54.89	600.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	700.00	0.00	54.89	700.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	800.00	0.00	54.89	800.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
RSLR	*895.00*	*0.00*	*54.89*	*895.00*	*0.00*	*0.00*	*0.00*	*0.00*	*400948.30*	*644668.50*	*N 32 6 5.26*	*W 103 51 58.10*
	900.00	0.00	54.89	900.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
Magenta Dolomite	*977.00*	*0.00*	*54.89*	*977.00*	*0.00*	*0.00*	*0.00*	*0.00*	*400948.30*	*644668.50*	*N 32 6 5.26*	*W 103 51 58.10*
	1000.00	0.00	54.89	1000.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	1100.00	0.00	54.89	1100.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	1200.00	0.00	54.89	1200.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
11.75in Casing	*1250.00*	*0.00*	*54.89*	*1250.00*	*0.00*	*0.00*	*0.00*	*0.00*	*400948.30*	*644668.50*	*N 32 6 5.26*	*W 103 51 58.10*
Salado (Top Salt)	*1290.00*	*0.00*	*54.89*	*1290.00*	*0.00*	*0.00*	*0.00*	*0.00*	*400948.30*	*644668.50*	*N 32 6 5.26*	*W 103 51 58.10*
	1300.00	0.00	54.89	1300.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	1400.00	0.00	54.89	1400.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
Nudge, Build 1.5°/100' DLS	1500.00	0.00	54.89	1500.00	0.00	0.00	0.00	0.00	400948.30	644668.50	N 32 6 5.26	W 103 51 58.10
	1600.00	1.50	54.89	1599.99	-0.72	0.75	1.07	1.50	400949.05	644669.57	N 32 6 5.27	W 103 51 58.09
	1700.00	3.00	54.89	1699.91	-2.86	3.01	4.28	1.50	400951.31	644672.78	N 32 6 5.29	W 103 51 58.05
Hold	1733.30	3.50	54.89	1733.15	-3.89	4.10	5.83	1.50	400952.40	644674.33	N 32 6 5.30	W 103 51 58.04
	1800.00	3.50	54.89	1799.73	-6.12	6.44	9.16	0.00	400954.74	644677.66	N 32 6 5.32	W 103 51 58.00
	1900.00	3.50	54.89	1899.54	-9.46	9.95	14.15	0.00	400958.25	644682.65	N 32 6 5.36	W 103 51 57.94
	2000.00	3.50	54.89	1999.36	-12.80	13.46	19.14	0.00	400961.76	644687.64	N 32 6 5.39	W 103 51 57.88
	2100.00	3.50	54.89	2099.17	-16.13	16.97	24.14	0.00	400965.27	644692.64	N 32 6 5.43	W 103 51 57.82
	2200.00	3.50	54.89	2198.98	-19.47	20.48	29.13	0.00	400968.78	644697.63	N 32 6 5.46	W 103 51 57.76
CSTL	*2229.07*	*3.50*	*54.89*	*2228.00*	*-20.44*	*21.50*	*30.58*	*0.00*	*400969.80*	*644699.08*	*N 32 6 5.47*	*W 103 51 57.75*
	2300.00	3.50	54.89	2298.80	-22.81	23.99	34.12	0.00	400972.29	644702.62	N 32 6 5.50	W 103 51 57.71
	2400.00	3.50	54.89	2398.61	-26.14	27.50	39.12	0.00	400975.80	644707.62	N 32 6 5.53	W 103 51 57.65
	2500.00	3.50	54.89	2498.43	-29.48	31.01	44.11	0.00	400979.31	644712.61	N 32 6 5.57	W 103 51 57.59
	2600.00	3.50	54.89	2598.24	-32.82	34.52	49.11	0.00	400982.82	644717.60	N 32 6 5.60	W 103 51 57.53
	2700.00	3.50	54.89	2698.05	-36.16	38.03	54.10	0.00	400986.33	644722.59	N 32 6 5.63	W 103 51 57.47
	2800.00	3.50	54.89	2797.87	-39.49	41.54	59.09	0.00	400989.84	644727.59	N 32 6 5.67	W 103 51 57.41
	2900.00	3.50	54.89	2897.68	-42.83	45.05	64.09	0.00	400993.35	644732.58	N 32 6 5.70	W 103 51 57.36
	3000.00	3.50	54.89	2997.49	-46.17	48.56	69.08	0.00	400996.86	644737.57	N 32 6 5.74	W 103 51 57.30
	3100.00	3.50	54.89	3097.31	-49.51	52.07	74.07	0.00	401000.37	644742.57	N 32 6 5.77	W 103 51 57.24
	3200.00	3.50	54.89	3197.12	-52.84	55.58	79.07	0.00	401003.88	644747.56	N 32 6 5.81	W 103 51 57.18
	3300.00	3.50	54.89	3296.93	-56.18	59.09	84.06	0.00	401007.39	644752.55	N 32 6 5.84	W 103 51 57.12
	3400.00	3.50	54.89	3396.75	-59.52	62.60	89.05	0.00	401010.90	644757.55	N 32 6 5.88	W 103 51 57.07
	3500.00	3.50	54.89	3496.56	-62.86	66.11	94.05	0.00	401014.41	644762.54	N 32 6 5.91	W 103 51 57.01
	3600.00	3.50	54.89	3596.37	-66.19	69.62	99.04	0.00	401017.92	644767.53	N 32 6 5.95	W 103 51 56.95
Salt_B	*3695.80*	*3.50*	*54.89*	*3692.00*	*-69.39*	*72.99*	*103.82*	*0.00*	*401021.28*	*644772.32*	*N 32 6 5.98*	*W 103 51 56.89*
	3700.00	3.50	54.89	3696.19	-69.53	73.13	104.03	0.00	401021.43	644772.53	N 32 6 5.98	W 103 51 56.89
	3800.00	3.50	54.89	3796.00	-72.87	76.64	109.03	0.00	401024.94	644777.52	N 32 6 6.01	W 103 51 56.83
	3900.00	3.50	54.89	3895.81	-76.21	80.15	114.02	0.00	401028.45	644782.51	N 32 6 6.05	W 103 51 56.77
DLWR	*3914.21*	*3.50*	*54.89*	*3910.00*	*-76.68*	*80.65*	*114.73*	*0.00*	*401028.95*	*644783.22*	*N 32 6 6.05*	*W 103 51 56.77*
	4000.00	3.50	54.89	3995.63	-79.54	83.66	119.01	0.00	401031.96	644787.51	N 32 6 6.08	W 103 51 56.72
	4100.00	3.50	54.89	4095.44	-82.88	87.18	124.01	0.00	401035.47	644792.50	N 32 6 6.12	W 103 51 56.66
	4200.00	3.50	54.89	4195.26	-86.22	90.69	129.00	0.00	401038.98	644797.49	N 32 6 6.15	W 103 51 56.60
	4300.00	3.50	54.89	4295.07	-89.56	94.20	133.99	0.00	401042.49	644802.48	N 32 6 6.19	W 103 51 56.54
	4400.00	3.50	54.89	4394.88	-92.89	97.71	138.99	0.00	401046.00	644807.48	N 32 6 6.22	W 103 51 56.48
	4500.00	3.50	54.89	4494.70	-96.23	101.22	143.98	0.00	401049.51	644812.47	N 32 6 6.26	W 103 51 56.42
	4600.00	3.50	54.89	4594.51	-99.57	104.73	148.97	0.00	401053.02	644817.46	N 32 6 6.29	W 103 51 56.37
	4700.00	3.50	54.89	4694.32	-102.90	108.24	153.97	0.00	401056.53	644822.46	N 32 6 6.33	W 103 51 56.31
	4800.00	3.50	54.89	4794.14	-106.24	111.75	158.96	0.00	401060.04	644827.45	N 32 6 6.36	W 103 51 56.25
CRCN	*4839.94*	*3.50*	*54.89*	*4834.00*	*-107.57*	*113.15*	*160.96*	*0.00*	*401061.44*	*644829.44*	*N 32 6 6.37*	*W 103 51 56.23*
	4900.00	3.50	54.89	4893.95	-109.58	115.26	163.95	0.00	401063.55	644832.44	N 32 6 6.39	W 103 51 56.19
	5000.00	3.50	54.89	4993.76	-112.92	118.77	168.95	0.00	401067.06	644837.44	N 32 6 6.43	W 103 51 56.13
	5100.00	3.50	54.89	5093.58	-116.25	122.28	173.94	0.00	401070.57	644842.43	N 32 6 6.46	W 103 51 56.08
	5200.00	3.50	54.89	5193.39	-119.59	125.79	178.94	0.00	401074.08	644847.42	N 32 6 6.50	W 103 51 56.02
	5300.00	3.50	54.89	5293.20	-122.93	129.30	183.93	0.00	401077.59	644852.42	N 32 6 6.53	W 103 51 55.96
	5400.00	3.50	54.89	5393.02	-126.27	132.81	188.92	0.00	401081.10	644857.41	N 32 6 6.57	W 103 51 55.90
	5500.00	3.50	54.89	5492.83	-129.60	136.32	193.92	0.00	401084.61	644862.40	N 32 6 6.60	W 103 51 55.84
	5600.00	3.50	54.89	5592.65	-132.94	139.83	198.91	0.00	401088.12	644867.40	N 32 6 6.64	W 103 51 55.78
	5700.00	3.50	54.89	5692.46	-136.28	143.34	203.90	0.00	401091.63	644872.39	N 32 6 6.67	W 103 51 55.73
	5800.00	3.50	54.89	5792.27	-139.62	146.85	208.90	0.00	401095.14	644877.38	N 32 6 6.70	W 103 51 55.67
	5900.00	3.50	54.89	5892.09	-142.95	150.36	213.89	0.00	401098.65	644882.37	N 32 6 6.74	W 103 51 55.61
	6000.00	3.50	54.89	5991.90	-146.29	153.87	218.88	0.00	401102.16	644887.37	N 32 6 6.77	W 103 51 55.55
	6100.00	3.50	54.89	6091.71	-149.63	157.38	223.88	0.00	401105.67	644892.36	N 32 6 6.81	W 103 51 55.49
	6200.00	3.50	54.89	6191.53	-152.97	160.89	228.87	0.00	401109.18	644897.35	N 32 6 6.84	W 103 51 55.43
	6300.00	3.50	54.89	6291.34	-156.30	164.40	233.86	0.00	401112.69	644902.35	N 32 6 6.88	W 103 51 55.38
BYCN	*6383.82*	*3.50*	*54.89*	*6375.00*	*-159.10*	*167.34*	*238.05*	*0.00*	*401115.63*	*644906.53*	*N 32 6 6.91*	*W 103 51 55.33*
	6400.00	3.50	54.89	6391.15	-159.64	167.91	238.86	0.00	401116.20	644907.34	N 32 6 6.91	W 103 51 55.32
	6500.00	3.50	54.89	6490.97	-162.98	171.42	243.85	0.00	401119.71	644912.33	N 32 6 6.95	W 103 51 55.26

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	6600.00	3.50	54.89	6590.78	-166.32	174.93	248.84	0.00	401123.22	644917.33	N 32 6 6.98	W 103 51 55.20
	6700.00	3.50	54.89	6690.59	-169.65	178.44	253.84	0.00	401126.73	644922.32	N 32 6 7.02	W 103 51 55.14
	6800.00	3.50	54.89	6790.41	-172.99	181.95	258.83	0.00	401130.24	644927.31	N 32 6 7.05	W 103 51 55.09
Drop 1.5°/100' DLS	6866.95	3.50	54.89	6857.23	-175.22	184.30	262.17	0.00	401132.59	644930.66	N 32 6 7.07	W 103 51 55.05
	6900.00	3.00	54.89	6890.23	-176.25	185.38	263.71	1.50	401133.67	644932.19	N 32 6 7.08	W 103 51 55.03
	7000.00	1.50	54.89	6990.15	-178.40	187.64	266.92	1.50	401135.93	644935.41	N 32 6 7.11	W 103 51 54.99
	7100.00	0.00	54.89	7090.14	-179.12	188.40	268.00	1.50	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
Hold	7100.24	0.00	54.89	7090.38	-179.12	188.40	268.00	1.50	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7200.00	0.00	54.89	7190.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7300.00	0.00	54.89	7290.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7400.00	0.00	54.89	7390.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7500.00	0.00	54.89	7490.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7600.00	0.00	54.89	7590.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7700.00	0.00	54.89	7690.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG	*7709.86*	*0.00*	*54.89*	*7700.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
BSPG_AVLN_SS	*7728.86*	*0.00*	*54.89*	*7719.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
BSPG_U_AVLN_SH	*7743.86*	*0.00*	*54.89*	*7734.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	7800.00	0.00	54.89	7790.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	7900.00	0.00	54.89	7890.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8000.00	0.00	54.89	7990.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8100.00	0.00	54.89	8090.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG_L_AVLN_SH	*8140.86*	*0.00*	*54.89*	*8131.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	8200.00	0.00	54.89	8190.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8300.00	0.00	54.89	8290.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8400.00	0.00	54.89	8390.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8500.00	0.00	54.89	8490.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8600.00	0.00	54.89	8590.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG1	*8651.86*	*0.00*	*54.89*	*8642.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	8700.00	0.00	54.89	8690.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8800.00	0.00	54.89	8790.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	8900.00	0.00	54.89	8890.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9000.00	0.00	54.89	8990.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG2_LM	*9044.86*	*0.00*	*54.89*	*9035.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	9100.00	0.00	54.89	9090.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9200.00	0.00	54.89	9190.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9300.00	0.00	54.89	9290.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9400.00	0.00	54.89	9390.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9500.00	0.00	54.89	9490.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG2	*9503.86*	*0.00*	*54.89*	*9494.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	9600.00	0.00	54.89	9590.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9700.00	0.00	54.89	9690.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	9800.00	0.00	54.89	9790.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG3_LM	*9845.86*	*0.00*	*54.89*	*9836.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	9900.00	0.00	54.89	9890.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10000.00	0.00	54.89	9990.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10100.00	0.00	54.89	10090.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10200.00	0.00	54.89	10190.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG_HRKY	*10213.86*	*0.00*	*54.89*	*10204.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	10300.00	0.00	54.89	10290.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10400.00	0.00	54.89	10390.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10500.00	0.00	54.89	10490.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10600.00	0.00	54.89	10590.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
BSPG3	*10640.86*	*0.00*	*54.89*	*10631.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	10700.00	0.00	54.89	10690.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10800.00	0.00	54.89	10790.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	10900.00	0.00	54.89	10890.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	11000.00	0.00	54.89	10990.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
WFMP	*11030.86*	*0.00*	*54.89*	*11021.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
WFMP_X	*11059.86*	*0.00*	*54.89*	*11050.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	11100.00	0.00	54.89	11090.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
WFMP_Y	*11142.86*	*0.00*	*54.89*	*11133.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
WFMP_A 7.625in Casing	*11165.86*	*0.00*	*54.89*	*11156.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	11200.00	0.00	54.89	11190.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
WFMP_A_LOWER	*11244.86*	*0.00*	*54.89*	*11235.00*	*-179.12*	*188.40*	*268.00*	*0.00*	*401136.69*	*644936.48*	*N 32 6 7.11*	*W 103 51 54.98*
	11300.00	0.00	54.89	11290.14	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
KOP, Build 9°/100' DLS	11390.24	0.00	54.89	11380.38	-179.12	188.40	268.00	0.00	401136.69	644936.48	N 32 6 7.11	W 103 51 54.98
	11400.00	0.88	179.97	11390.14	-179.04	188.33	268.00	9.00	401136.61	644936.48	N 32 6 7.11	W 103 51 54.98
	11500.00	9.88	179.97	11489.59	-169.69	178.96	268.00	9.00	401127.25	644936.49	N 32 6 7.02	W 103 51 54.98
WFMP_B	*11543.33*	*13.78*	*179.97*	*11532.00*	*-160.81*	*170.08*	*268.01*	*9.00*	*401118.37*	*644936.49*	*N 32 6 6.93*	*W 103 51 54.98*
	11600.00	18.88	179.97	11586.36	-144.89	154.16	268.02	9.00	401102.44	644936.50	N 32 6 6.77	W 103 51 54.98
	11700.00	27.88	179.97	11678.06	-105.28	114.52	268.04	9.00	401062.81	644936.52	N 32 6 6.38	W 103 51 54.98
	11800.00	36.88	179.97	11762.43	-51.81	61.02	268.07	9.00	401009.32	644936.55	N 32 6 5.85	W 103 51 54.98
	11900.00	45.88	179.97	11837.38	14.19	-5.01	268.10	9.00	400943.29	644936.58	N 32 6 5.20	W 103 51 54.99
	12000.00	54.88	179.97	11901.09	91.09	-81.96	268.14	9.00	400866.34	644936.62	N 32 6 4.44	W 103 51 54.99
WFMP_D	*12088.90*	*62.88*	*179.97*	*11947.00*	*167.09*	*-158.00*	*268.18*	*9.00*	*400790.31*	*644936.66*	*N 32 6 3.69*	*W 103 51 54.99*
	12100.00	63.88	179.97	11951.98	177.01	-167.93	268.19	9.00	400780.38	644936.67	N 32 6 3.59	W 103 51 54.99
	12200.00	72.88	179.97	11988.79	269.82	-260.80	268.24	9.00	400687.52	644936.72	N 32 6 2.67	W 103 51 55.00
	12300.00	81.88	179.97	12010.61	367.25	-358.28	268.29	9.00	400590.05	644936.77	N 32 6 1.70	W 103 51 55.00
Landing Point	12390.24	90.00	179.97	12017.00	457.14	-448.22	268.33	9.00	400500.11	644936.81	N 32 6 0.81	W 103 51 55.01
Hold to TD	12390.26	90.00	179.97	12017.00	457.16	-448.24	268.33	2.00	400500.09	644936.81	N 32 6 0.81	W 103 51 55.01
	12400.00	90.00	179.97	12017.00	466.89	-457.98	268.34	0.00	400490.35	644936.82	N 32 6 0.72	W 103 51 55.01
	12500.00	90.00	179.97	12017.00	566.84	-557.98	268.39	0.00	400390.36	644936.87	N 32 5 59.73	W 103 51 55.01
	12600.00	90.00	179.97	12017.00	666.78	-657.98	268.44	0.00	400290.37	644936.92	N 32 5 58.74	W 103 51 55.02
	12700.00	90.00	179.97	12017.00	766.72	-757.98	268.49	0.00	400190.37	644936.98	N 32 5 57.75	W 103 51 55.02
	12800.00	90.00	179.97	12017.00	866.66	-857.98	268.55	0.00	400090.38	644937.03	N 32 5 56.76	W 103 51 55.02
	12900.00	90.00	179.97	12017.00	966.61	-957.98	268.60	0.00	399990.39	644937.08	N 32 5 55.77	W 103 51 55.03
	13000.00	90.00	179.97	12017.00	1066.55	-1057.98	268.65	0.00	399890.40	644937.13	N 32 5 54.78	W 103 51 55.03
	13100.00	90.00	179.97	12017.00	1166.49	-1157.98	268.70	0.00	399790.40	644937.18	N 32 5 53.79	W 103 51 55.04
	13200.00	90.00	179.97	12017.00	1266.44	-1257.98	268.75	0.00	399690.41	644937.23	N 32 5 52.80	W 103 51 55.04
	13300.00	90.00	179.97	12017.00	1366.38	-1357.98	268.80	0.00	399590.42	644937.29	N 32 5 51.81	W 103 51 55.05
	13400.00	90.00	179.97	12017.00	1466.32	-1457.98	268.86	0.00	399490.42	644937.34	N 32 5 50.82	W 103 51 55.05
	13500.00	90.00	179.97	12017.00	1566.27	-1557.98	268.91	0.00	399390.43	644937.39	N 32 5 49.83	W 103 51 55.06
	13600.00	90.00	179.97	12017.00	1666.21	-1657.98	268.96	0.00	399290.44	644937.44	N 32 5 48.84	W 103 51 55.06
	13700.00	90.00	179.97	12017.00	1766.15	-1757.98	269.01	0.00	399190.44	644937.49	N 32 5 47.85	W 103 51 55.06
	13800.00	90.00	179.97	12017.00	1866.10	-1857.98	269.06	0.00	399090.45	644937.54	N 32 5 46.86	W 103 51 55.07
	13900.00	90.00	179.97	12017.00	1966.04	-1957.98	269.12	0.00	398990.46	644937.60	N 32 5 45.87	W 103 51 55.07
	14000.00	90.00	179.97	12017.00	2065.98	-2057.98	269.17	0.00	398890.46	644937.65	N 32 5 44.88	W 103 51 55.08
	14100.00	90.00	179.97	12017.00	2165.93	-2157.98	269.22	0.00	398790.47	644937.70	N 32 5 43.89	W 103 51 55.08
	14200.00	90.00	179.97	12017.00	2265.87	-2257.98	269.27	0.00	398690.48	644937.75	N 32 5 42.91	W 103 51 55.09
	14300.00	90.00	179.97	12017.00	2365.81	-2357.98	269.32	0.00	398590.49	644937.80	N 32 5 41.92	W 103 51 55.09
	14400.00	90.00	179.97	12017.00	2465.76	-2457.98	269.37	0.00	398490.49	644937.86	N 32 5 40.93	W 103 51 55.10
	14500.00	90.00	179.97	12017.00	2565.70	-2557.98	269.43	0.00	398390.50	644937.91	N 32 5 39.94	W 103 51 55.10

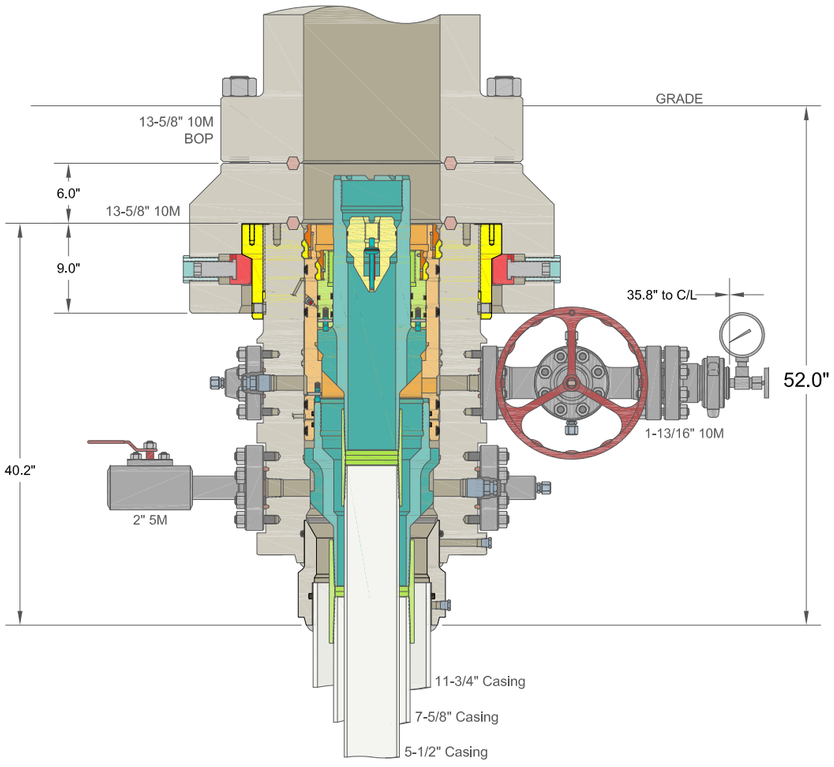
Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	14600.00	90.00	179.97	12017.00	2665.64	-2657.98	269.48	0.00	398290.51	644937.96	N 32 5 38.95	W 103 51 55.10
	14700.00	90.00	179.97	12017.00	2765.59	-2757.98	269.53	0.00	398190.51	644938.01	N 32 5 37.96	W 103 51 55.11
	14800.00	90.00	179.97	12017.00	2865.53	-2857.98	269.58	0.00	398090.52	644938.06	N 32 5 36.97	W 103 51 55.11
	14900.00	90.00	179.97	12017.00	2965.47	-2957.98	269.63	0.00	397990.53	644938.11	N 32 5 35.98	W 103 51 55.12
	15000.00	90.00	179.97	12017.00	3065.42	-3057.98	269.69	0.00	397890.53	644938.17	N 32 5 34.99	W 103 51 55.12
	15100.00	90.00	179.97	12017.00	3165.36	-3157.98	269.74	0.00	397790.54	644938.22	N 32 5 34.00	W 103 51 55.13
	15200.00	90.00	179.97	12017.00	3265.30	-3257.98	269.79	0.00	397690.55	644938.27	N 32 5 33.01	W 103 51 55.13
	15300.00	90.00	179.97	12017.00	3365.24	-3357.98	269.84	0.00	397590.55	644938.32	N 32 5 32.02	W 103 51 55.14
	15400.00	90.00	179.97	12017.00	3465.19	-3457.98	269.89	0.00	397490.56	644938.37	N 32 5 31.03	W 103 51 55.14
	15500.00	90.00	179.97	12017.00	3565.13	-3557.98	269.94	0.00	397390.57	644938.43	N 32 5 30.04	W 103 51 55.14
	15600.00	90.00	179.97	12017.00	3665.07	-3657.98	270.00	0.00	397290.58	644938.48	N 32 5 29.05	W 103 51 55.15
	15700.00	90.00	179.97	12017.00	3765.02	-3757.98	270.05	0.00	397190.58	644938.53	N 32 5 28.06	W 103 51 55.15
	15800.00	90.00	179.97	12017.00	3864.96	-3857.98	270.10	0.00	397090.59	644938.58	N 32 5 27.07	W 103 51 55.16
	15900.00	90.00	179.97	12017.00	3964.90	-3957.98	270.15	0.00	396990.60	644938.63	N 32 5 26.08	W 103 51 55.16
	16000.00	90.00	179.97	12017.00	4064.85	-4057.98	270.20	0.00	396890.60	644938.68	N 32 5 25.09	W 103 51 55.17
	16100.00	90.00	179.97	12017.00	4164.79	-4157.98	270.25	0.00	396790.61	644938.74	N 32 5 24.10	W 103 51 55.17
	16200.00	90.00	179.97	12017.00	4264.73	-4257.98	270.31	0.00	396690.62	644938.79	N 32 5 23.11	W 103 51 55.18
	16300.00	90.00	179.97	12017.00	4364.68	-4357.98	270.36	0.00	396590.62	644938.84	N 32 5 22.12	W 103 51 55.18
	16400.00	90.00	179.97	12017.00	4464.62	-4457.98	270.41	0.00	396490.63	644938.89	N 32 5 21.13	W 103 51 55.18
	16500.00	90.00	179.97	12017.00	4564.56	-4557.98	270.46	0.00	396390.64	644938.94	N 32 5 20.15	W 103 51 55.19
	16600.00	90.00	179.97	12017.00	4664.51	-4657.98	270.51	0.00	396290.64	644939.00	N 32 5 19.16	W 103 51 55.19
	16700.00	90.00	179.97	12017.00	4764.45	-4757.98	270.57	0.00	396190.65	644939.05	N 32 5 18.17	W 103 51 55.20
	16800.00	90.00	179.97	12017.00	4864.39	-4857.98	270.62	0.00	396090.66	644939.10	N 32 5 17.18	W 103 51 55.20
	16900.00	90.00	179.97	12017.00	4964.34	-4957.98	270.67	0.00	395990.66	644939.15	N 32 5 16.19	W 103 51 55.21
	17000.00	90.00	179.97	12017.00	5064.28	-5057.98	270.72	0.00	395890.67	644939.20	N 32 5 15.20	W 103 51 55.21
	17100.00	90.00	179.97	12017.00	5164.22	-5157.98	270.77	0.00	395790.68	644939.25	N 32 5 14.21	W 103 51 55.22
	17200.00	90.00	179.97	12017.00	5264.17	-5257.98	270.82	0.00	395690.69	644939.31	N 32 5 13.22	W 103 51 55.22
	17300.00	90.00	179.97	12017.00	5364.11	-5357.98	270.88	0.00	395590.69	644939.36	N 32 5 12.23	W 103 51 55.22
	17400.00	90.00	179.97	12017.00	5464.05	-5457.98	270.93	0.00	395490.70	644939.41	N 32 5 11.24	W 103 51 55.23
	17500.00	90.00	179.97	12017.00	5563.99	-5557.98	270.98	0.00	395390.71	644939.46	N 32 5 10.25	W 103 51 55.23
	17600.00	90.00	179.97	12017.00	5663.94	-5657.98	271.03	0.00	395290.71	644939.51	N 32 5 9.26	W 103 51 55.24
	17700.00	90.00	179.97	12017.00	5763.88	-5757.98	271.08	0.00	395190.72	644939.56	N 32 5 8.27	W 103 51 55.24
	17800.00	90.00	179.97	12017.00	5863.82	-5857.98	271.14	0.00	395090.73	644939.62	N 32 5 7.28	W 103 51 55.25
	17900.00	90.00	179.97	12017.00	5963.77	-5957.98	271.19	0.00	394990.73	644939.67	N 32 5 6.29	W 103 51 55.25
	18000.00	90.00	179.97	12017.00	6063.71	-6057.98	271.24	0.00	394890.74	644939.72	N 32 5 5.30	W 103 51 55.26
	18100.00	90.00	179.97	12017.00	6163.65	-6157.98	271.29	0.00	394790.75	644939.77	N 32 5 4.31	W 103 51 55.26
	18200.00	90.00	179.97	12017.00	6263.60	-6257.98	271.34	0.00	394690.75	644939.82	N 32 5 3.32	W 103 51 55.26
	18300.00	90.00	179.97	12017.00	6363.54	-6357.98	271.39	0.00	394590.76	644939.88	N 32 5 2.33	W 103 51 55.27
	18400.00	90.00	179.97	12017.00	6463.48	-6457.98	271.45	0.00	394490.77	644939.93	N 32 5 1.34	W 103 51 55.27
	18500.00	90.00	179.97	12017.00	6563.43	-6557.98	271.50	0.00	394390.78	644939.98	N 32 5 0.35	W 103 51 55.28
	18600.00	90.00	179.97	12017.00	6663.37	-6657.98	271.55	0.00	394290.78	644940.03	N 32 4 59.36	W 103 51 55.28
	18700.00	90.00	179.97	12017.00	6763.31	-6757.98	271.60	0.00	394190.79	644940.08	N 32 4 58.37	W 103 51 55.29
	18800.00	90.00	179.97	12017.00	6863.26	-6857.98	271.65	0.00	394090.80	644940.13	N 32 4 57.39	W 103 51 55.29
	18900.00	90.00	179.97	12017.00	6963.20	-6957.98	271.70	0.00	393990.80	644940.19	N 32 4 56.40	W 103 51 55.30
	19000.00	90.00	179.97	12017.00	7063.14	-7057.98	271.76	0.00	393890.81	644940.24	N 32 4 55.41	W 103 51 55.30
	19100.00	90.00	179.97	12017.00	7163.09	-7157.98	271.81	0.00	393790.82	644940.29	N 32 4 54.42	W 103 51 55.30
	19200.00	90.00	179.97	12017.00	7263.03	-7257.98	271.86	0.00	393690.82	644940.34	N 32 4 53.43	W 103 51 55.31
	19300.00	90.00	179.97	12017.00	7362.97	-7357.98	271.91	0.00	393590.83	644940.39	N 32 4 52.44	W 103 51 55.31
	19400.00	90.00	179.97	12017.00	7462.92	-7457.98	271.96	0.00	393490.84	644940.45	N 32 4 51.45	W 103 51 55.32
	19500.00	90.00	179.97	12017.00	7562.86	-7557.98	272.02	0.00	393390.84	644940.50	N 32 4 50.46	W 103 51 55.32
	19600.00	90.00	179.97	12017.00	7662.80	-7657.98	272.07	0.00	393290.85	644940.55	N 32 4 49.47	W 103 51 55.33
	19700.00	90.00	179.97	12017.00	7762.74	-7757.98	272.12	0.00	393190.86	644940.60	N 32 4 48.48	W 103 51 55.33
	19800.00	90.00	179.97	12017.00	7862.69	-7857.98	272.17	0.00	393090.87	644940.65	N 32 4 47.49	W 103 51 55.34
LP (WFMP_D) XTO Poker Lake Unit 27 BD 156H - BHL	19891.97	90.00	179.97	12017.00	7954.61	-7949.95	272.22	0.00	392998.90	644940.70	N 32 4 46.58	W 103 51 55.34

Survey Type: Def Plan

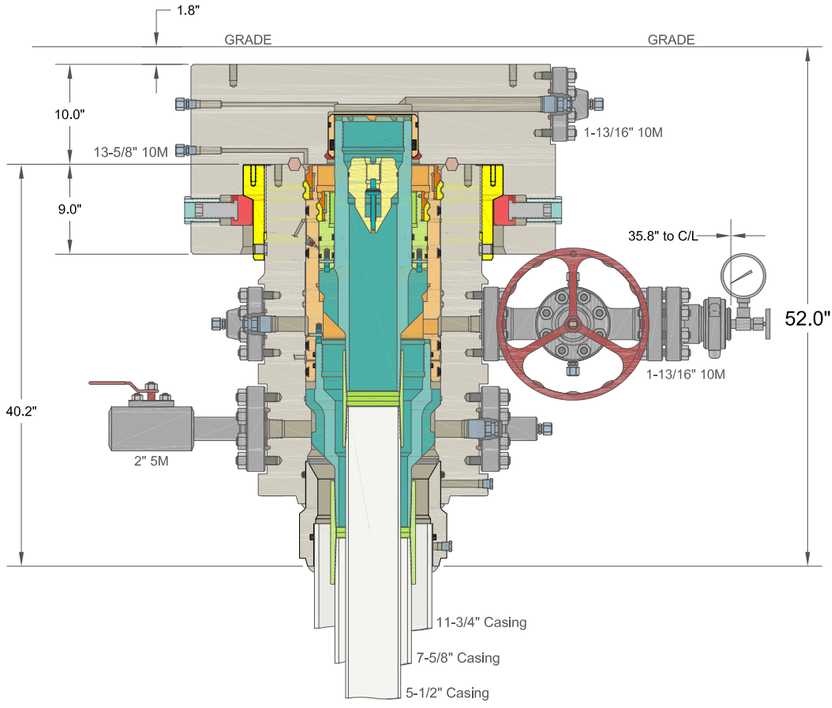
Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

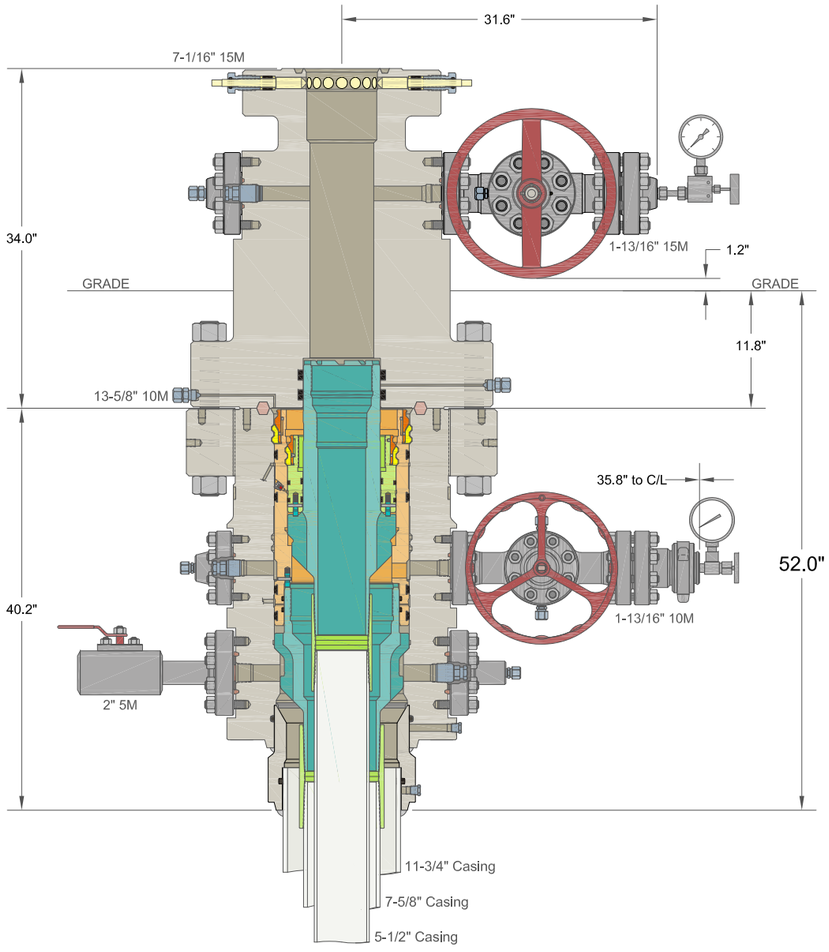
Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	23.000	1/100.000	14.750	11.750		NAL_MWD_1.0_DEG-Depth Only	XTO Poker Lake Unit 27 BD 156H / XTO Poker Lake Unit 27 BD 156H Rev1 LP 15Jun20
	1	23.000	1250.000	1/100.000	14.750	11.750		NAL_MWD_1.0_DEG	XTO Poker Lake Unit 27 BD 156H / XTO Poker Lake Unit 27 BD
	1	1250.000	11390.000	1/100.000	9.875	7.625		NAL_MWD_1.0_DEG	XTO Poker Lake Unit 27 BD 156H / XTO Poker Lake Unit 27 BD
	1	11390.000	19891.972	1/100.000	6.750	5.500		NAL_MWD_IFR1+MS	XTO Poker Lake Unit 27 BD 156H / XTO Poker Lake Unit 27 BD



DRILLING



SKID



COMPLETION

ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC		XTO ENERGY INC POKER LAKE, NM	
30" x 11-3/4" x 7-5/8" x 5-1/2" MBU-3T-SF SOW Wellhead System With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And 7-5/8" & 5-1/2" Fluted Mandrel Casing Hangers	DRAWN	DLE	09DEC19
	APPRV		
	DRAWING NO.	ODE0003261	

XTO respectfully requests approval to utilize a spudder rig to pre-set surface casing.

Description of Operations:

1. Spudder rig will move in to drill the surface hole and pre-set surface casing on the well.
    a. 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).
    b. The spudder rig will utilize fresh water-based mud to drill the surface hole to TD. Solids control will be handled entirely on a closed loop basis. No earth pits will be used.
2. The wellhead will be installed and tested as soon as the surface casing is cut off and WOC time has been reached.
3. A blind flange at the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wing valves.
    a. A means for intervention will be maintained while the drilling rig is not over the well.
4. Spudder rig operations are expected to take 2-3 days per well on the pad.
5. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
6. Drilling Operations will begin with a larger rig and a BOP stack equal to or greater than the pressure rating that was permitted will be nippled up and tested on the wellhead before drilling operations resume on each well.
    a. The larger rig will move back onto the location within 180 days from the point at which the wells are secured and the spudder rig is moved off location.
    b. The BLM will be notified 24 hours before the larger rig moves back on the pre-set locations
7. XTO will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
8. Once the rig is removed, XTO will secure the wellhead area by placing a guard rail around the cellar area.

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 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	5.000" or 4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 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.

<u>General Procedure While Drilling</u>

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