



U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3
- Operator Certification Report
- Application Report
- Application Attachments
 - Well Plat: 1 file(s)
- Drilling Plan Report
- Drilling Plan Attachments
 - Blowout Prevention Choke Diagram Attachment: 1 file(s)
 - Blowout Prevention BOP Diagram Attachment: 1 file(s)
 - Casing Taperd String Specs: 2 file(s)
 - Casing Design Assumptions and Worksheet(s): 3 file(s)
 - Hydrogen sulfide drilling operations plan: 2 file(s)
 - Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
 - Other Variances: 6 file(s)
- SUPO Report
- SUPO Attachments
 - Existing Road Map: 1 file(s)
 - New Road Map: 1 file(s)
 - Attach Well map: 1 file(s)
 - Production Facilities map: 2 file(s)
 - Water source and transportation map: 1 file(s)
 - Well Site Layout Diagram: 2 file(s)
 - Recontouring attachment: 3 file(s)
 - Other SUPO Attachment: 1 file(s)
- PWD Report
- PWD Attachments
 - None

- Bond Report
- Bond Attachments
 - None

Form 3160-3
(June 2015)

***Please refer to approved NOI appended to this application for the most current well design**

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator		8. Lease Name and Well No. SHADY PINES 24 36 FEDERAL COM
3a. Address	3b. Phone No. (include area code)	9. API Well No. 30-015-58110
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
17. Spacing Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM. |

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title		
Office		

Application approval 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.
Conditions of approval, if any, are attached.

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.



(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

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

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

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

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

The BLM connects this information to a new evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

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

Additional Operator Remarks

Location of Well

0. SHL: SWSE / 432 FSL / 1521 FEL / TWSP: 26S / RANGE: 29E / SECTION: 24 / LAT: 32.02148 / LONG: -103.93412 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 330 FNL / 1170 FEL / TWSP: 26S / RANGE: 29E / SECTION: 25 / LAT: 32.01944 / LONG: -103.932987 (TVD: 10227 feet, MD: 10600 feet)

BHL: LOT 1 / 200 FSL / 1170 FEL / TWSP: 26S / RANGE: 29E / SECTION: 36 / LAT: 32.000662 / LONG: -103.932968 (TVD: 10192 feet, MD: 17405 feet)

BLM Point of Contact

Name: PRISCILLA PEREZ

Title: Legal Instruments Examiner

Phone: (575) 234-5934

Email: PPEREZ@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	XTO Permian Operating, LLC.
LEASE NO.:	NMNM017225A
COUNTY:	Eddy

Wells:

Shady Pines 24-36 #71H: PAD A – A1

Surface Hole Location: 2,498' FEL & 426' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 1,980' FEL & 50' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #72H: PAD C – A1

Surface Hole Location: 707' FEL & 557' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 720' FEL & 50' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #101H: PAD A – B1

Surface Hole Location: 2,498' FEL & 396' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 1,485' FEL & 50' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #102H: PAD B – A1

Surface Hole Location: 1,521' FEL & 432' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 1,170' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #103H: PAD C – B1

Surface Hole Location: 707' FEL & 526' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 330' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #121H: PAD A – C1

Surface Hole Location: 2,498' FEL & 366' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 990' FEL & 50' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #122H: PAD B – B1

Surface Hole Location: 1,521' FEL & 401' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 1,590' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #123H: PAD C – C1

Surface Hole Location: 708' FEL & 496' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 750' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #131H: PAD A – D1

Surface Hole Location: 2,498' FEL & 336' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 490' FEL & 50' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #132H: PAD B – C1

Surface Hole Location: 1,521' FEL & 371' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 1,170' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #133H: PAD C – D1

Surface Hole Location: 707' FEL & 466' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 330' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #161H: PAD A – A2

Surface Hole Location: 2,397' FEL & 420' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 2,310' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #162H: PAD A – B2

Surface Hole Location: 2,397' FEL & 390' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 1,650' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #163H: PAD B – A2

Surface Hole Location: 1,421' FEL & 425' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 990' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Shady Pines 24-36 #164H: PAD B – B2

Surface Hole Location: 1,421' FEL & 395' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: 330' FEL & 200' FSL, Section 36, T. 26 S. R. 29 E.

Future Well 1: PAD A – C2

Surface Hole Location: 2,398' FEL & 360' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 2: PAD A – D2

Surface Hole Location: 2,398' FEL & 330' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 3: PAD B – D1

Surface Hole Location: 1,521' FEL & 342' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 4: PAD B – C2

Surface Hole Location: 1,421' FEL & 365' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 5: PAD B – D2

Surface Hole Location: 1,421' FEL & 336' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 6: PAD C – A2

Surface Hole Location: 607' FEL & 550' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 7: PAD C – B2

Surface Hole Location: 607' FEL & 520' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 8: PAD C – C2

Surface Hole Location: 607' FEL & 490' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

Future Well 9: PAD C – D2

Surface Hole Location: 608' FEL & 460' FSL, Section 24, T. 26 S. R. 29 E.

Bottom Hole Location: To Be Determined

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
- Noxious Weeds**
- Special Requirements**
 - Watershed
 - Cave/Karst
 - Range
 - Texas Hornshell Mussel
 - VRM IV
- Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- Road Section Diagram**
- Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
- Interim Reclamation**
- Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 6 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Watershed:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The topsoil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

The pads will also be armored to improve their integrity and reduce erosion from overland flow and the four small drainages near the pads described in the proposed action.

BURIED/SURFACE LINE(S):

When crossing ephemeral drainages, the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Cave/Karst:**Construction Mitigation**

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Buried Pipeline/Cable Construction:

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

Powerline Construction:

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.
- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

Surface Flowlines Installation:

- Flowlines will be routed around sinkholes and other karst features to minimize the possibility of leaks/spills from entering the karst drainage system.

Drilling Mitigation

Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

Production Mitigation

In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation

The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM’s approval.

Plugging and Abandonment Mitigation

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

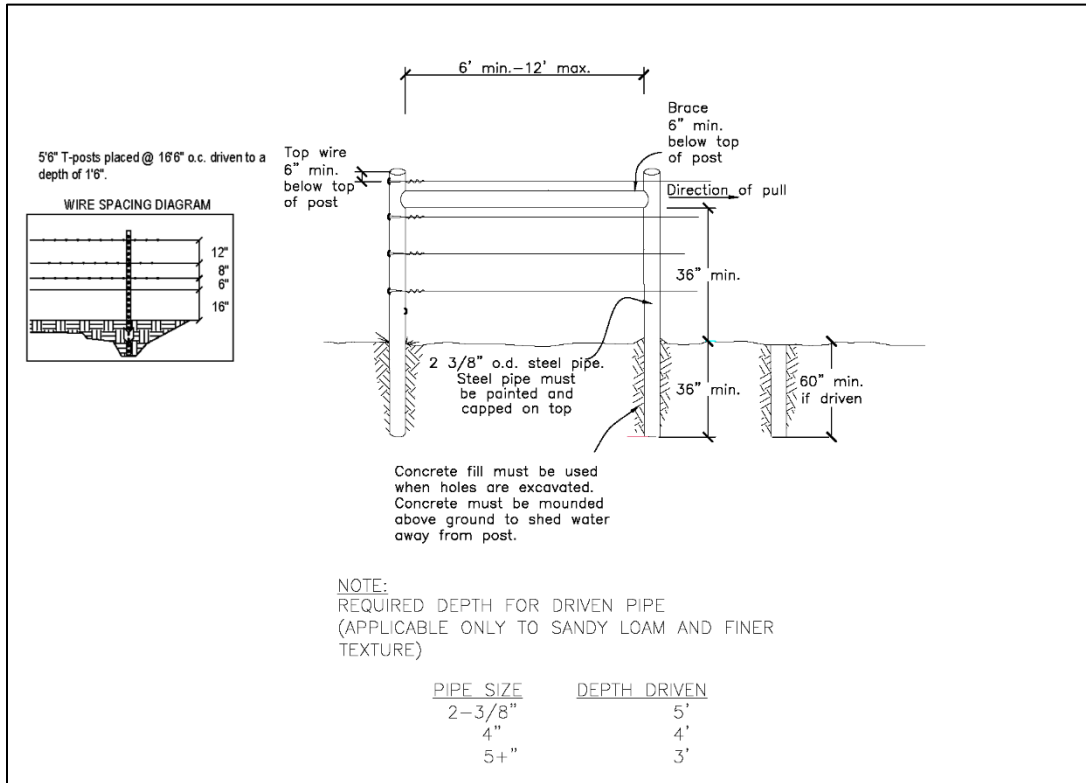
Range:

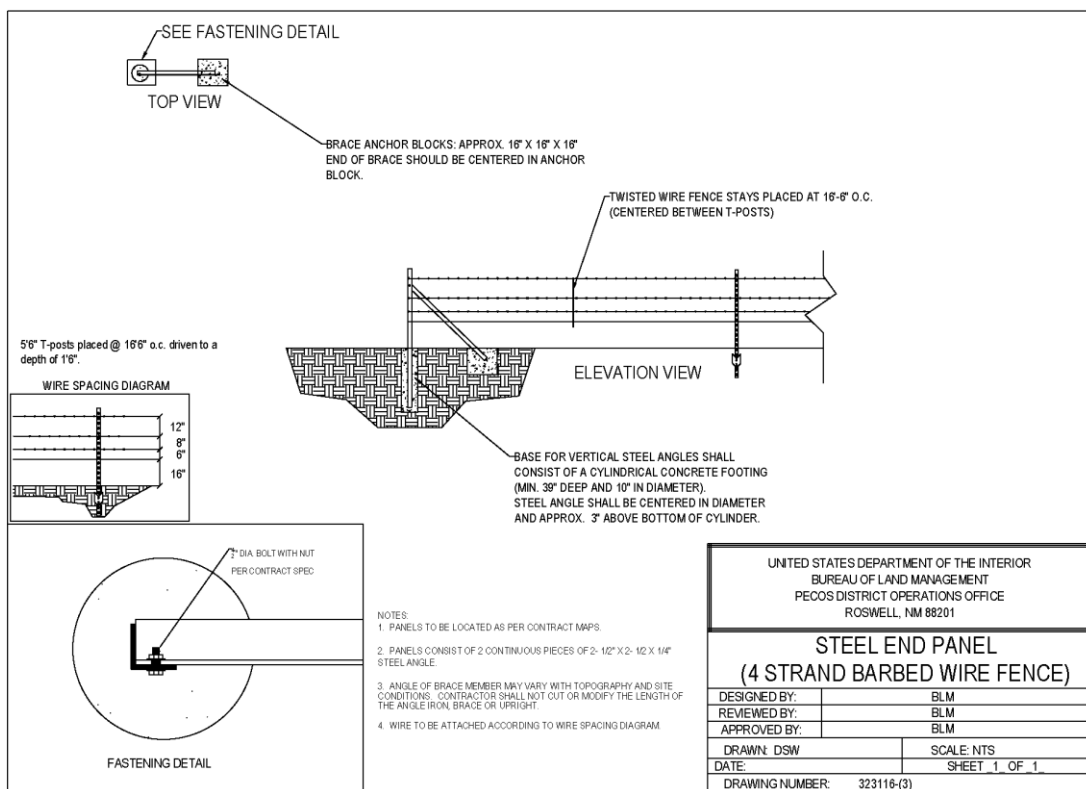
Cattleguards

Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement

Where entry granted across a fence line, the fence must be H-braced or angle iron braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall consult the private surface landowner or the grazing allotment holder prior to cutting any fence(s).





Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Wildlife:

Oil and Gas Zone D - CCA Boundary requirements.

- Implement erosion control measures in accordance with the Reasonable and Prudent Practices for Stabilization ("RAPPS")
- Comply with SPCC requirements in accordance with 40 CFR Part 112
- Comply with the United States Army Corp of Engineers (USACE) Nationwide 12 General Permit, where applicable
- Utilize technologies (like underground borings for pipelines), where feasible
- Educate personnel, agents, contractors, and subcontractors about the requirements of conservation measures, COAs, Stips and provide direction in accordance with the Permit.

Desert Heronries Proposed ACEC:

Surface disturbance will not be allowed within up to 200 meters of active heronries or by delaying activity for up to 120 days, or a combination of both.

Exhaust noise from engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VRM IV:

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

VI. CONSTRUCTION**A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)**Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS**Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

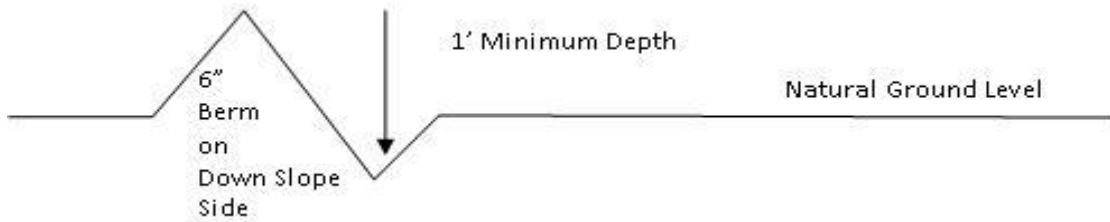
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

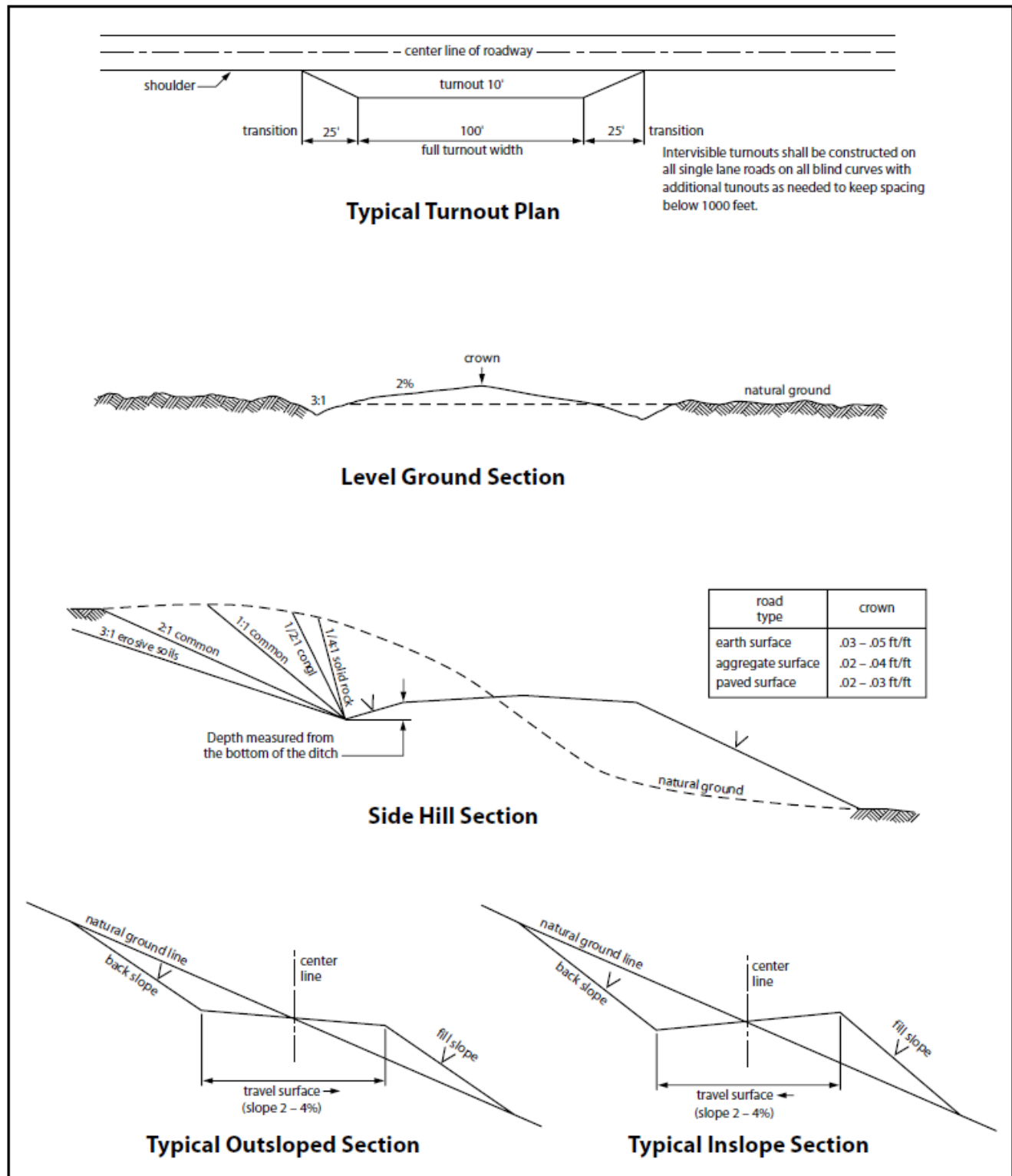


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, siting values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the

Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- Seed Mixture 1
- Seed Mixture 2
- Seed Mixture 2/LPC
- Seed Mixture 3
- Seed Mixture 4
- Seed Mixture Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.

- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

21. Special Stipulations:

Karst:

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the Grant and attachments, including stipulations, survey plat(s) and/or map(s), shall be on location during construction. BLM personnel may request to review a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, Holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC § 2601 *et seq.* (1982) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant (see 40 CFR, Part 702-799 and in particular, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193). Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. Holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. § 9601, *et seq.* or the

Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et seq.*) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way Holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way Holder on the Right-of-Way. This provision applies without regard to whether a release is caused by Holder, its agent, or unrelated third parties.

4. Holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. Holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of Holder including, but not limited to: construction, operation, maintenance, and termination of the facility;
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing
 - (2) Earth-disturbing and earth-moving work
 - (3) Blasting
 - (4) Vandalism and sabotage;

c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of Holder, regardless of fault. Upon failure of Holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he/she deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of Holder. Such action by the Authorized Officer shall not relieve Holder of any responsibility as provided herein.

6. All construction and maintenance activity shall be confined to the authorized right-of-way width of **30** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline shall be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline shall be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity shall be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation shall be allowed unless approved in writing by the Authorized Officer.

8. Holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline shall be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 6 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 16 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

16. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

17. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

18. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

19. Surface pipelines shall be less than or equal to 4 inches and a working pressure below 125 psi.

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that

are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 11 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

11. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

12. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

13. Special Stipulations:

For reclamation remove poles, lines, transformer, etc. and dispose of properly.
Fill in any holes from the poles removed.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 3, for Shallow Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass (<i>Setaria macrostachya</i>)	1.0
Green Sprangletop (<i>Leptochloa dubia</i>)	2.0
Sideoats Grama (<i>Bouteloua curtipendula</i>)	5.0

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

*Please refer to approved NOI appended to this application for the most current well design

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO Energy Incorporated
WELL NAME & NO.:	Shady Pines 24-36 102H
LOCATION:	Sec 24-26S-29E-NMP
COUNTY:	Eddy County, New Mexico

COA

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input checked="" type="checkbox"/> Unit

Break Testing	<input checked="" type="radio"/> Yes	<input type="radio"/> No
---------------	--------------------------------------	--------------------------

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Brushy Draw Pool** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **9-5/8** inch surface casing shall be set at approximately 850 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. *Surface casing set depth per BLM geologist.*
 - 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 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 or potash.**
 - ❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
- Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

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 **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Unit Wells

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

Commercial Well Determination

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

BOPE Break Testing Variance (Note: For 5M BOPE or less)

- BOPE Break Testing is ONLY permitted for 5M BOPE or less.
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- 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 BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required.
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.

GENERAL REQUIREMENTS

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

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

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

Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for

the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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



Operator Certification Data Report

06/11/2024

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

Operator

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME:

Signed on: 10/27/2021

Title:

Street Address:

City:

State:

Zip:

Phone:

Email address:

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



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

Application Data

06/11/2024

APD ID: 10400081276

Submission Date: 11/01/2021

Highlighted data reflects the most recent changes
[Show Final Text](#)

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400081276

Tie to previous NOS?

Submission Date: 11/01/2021

BLM Office: Carlsbad

User: STEPHANIE RABADUE

Title: Regulatory Coordinator

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM17225A

Lease Acres:

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? N

Permitting Agent? NO

APD Operator: XTO ENERGY INCORPORATED

Operator letter of

Operator Info

Operator Organization Name: XTO ENERGY INCORPORATED

Operator Address: 222777 SPRINGSWOODS VILLAGE PKWY

Zip: 77389

Operator PO Box:

Operator City: SPRING

State: TX

Operator Phone: (817)870-2800

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: SHADY PINES 24-36

Well Number: 102H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: PURPLE SAGE

Pool Name: WOLFCAMP (GAS)

Operator Name: XTO ENERGY INCORPORATED
Well Name: SHADY PINES 24-36 **Well Number:** 102H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** Shady Pines **Number:** 2

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town: **Distance to nearest well:** 0 FT **Distance to lease line:** 432 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: Shady_Pines_102H_C102_20211027055819.pdf

Well work start Date: 12/31/2021 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	432	FSL	1521	FEL	26S	29E	24	Aliquot SWSE	32.02148	-103.93412	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC061581	3006	0	0	N
KOP Leg #1	432	FSL	1521	FEL	26S	29E	24	Aliquot SWSE	32.02148	-103.93412	EDD Y	NEW MEXICO	NEW MEXICO	F	NMLC061581	1006	2000	2000	N
PPP Leg #1-1	330	FNL	1170	FEL	26S	29E	25	Aliquot NENE	32.01944	-103.932987	EDD Y	NEW MEXICO	NEW MEXICO	F	NMNM17225A	-7221	10600	10227	Y

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

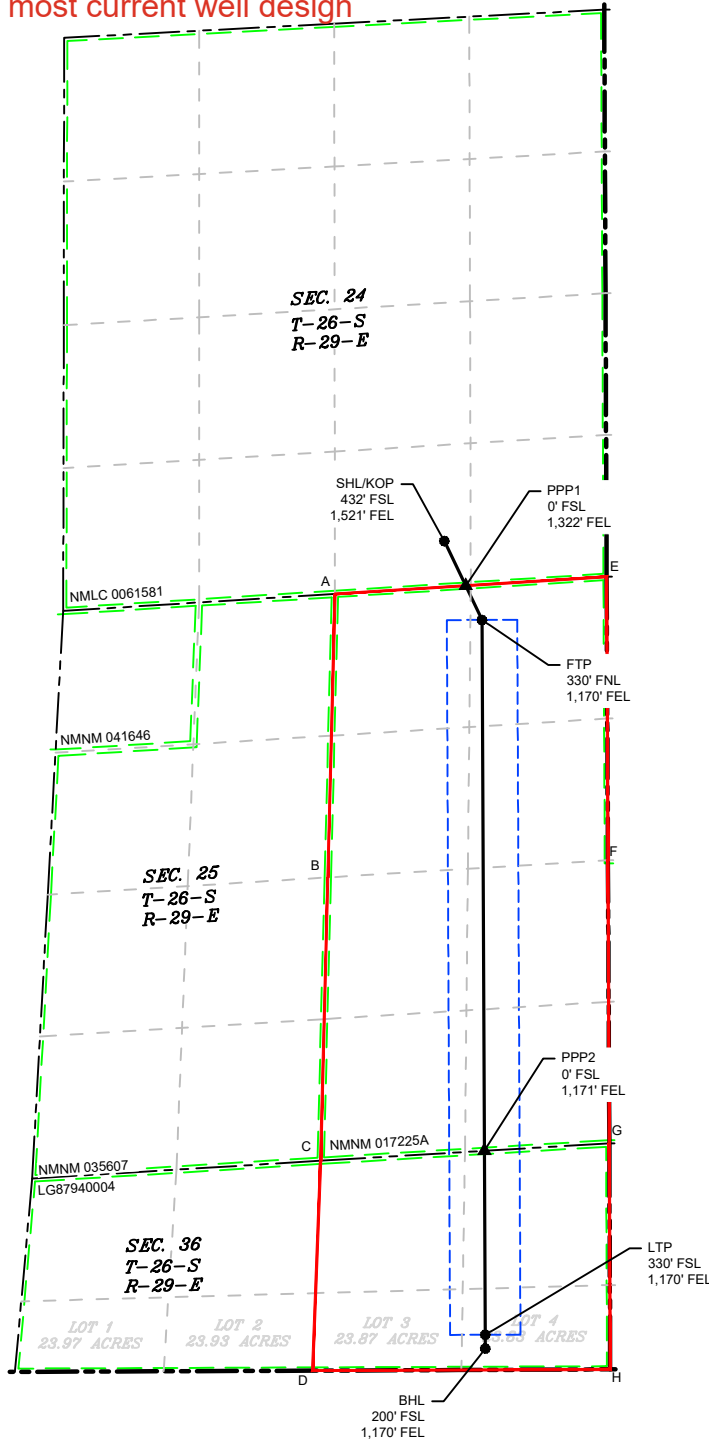
Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
EXIT Leg #1	330	FSL	1170	FEL	26S	29E	36	Lot 1	32.001019	-103.932969	EDD Y	NEW MEXICO	NEW MEXICO	S	STATE	-7186	17300	10192	Y
BHL Leg #1	200	FSL	1170	FEL	26S	29E	36	Lot 1	32.000662	-103.932968	EDD Y	NEW MEXICO	NEW MEXICO	S	STATE	-7186	17405	10192	Y

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated areage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well Locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be accepted.

***Please refer to approved NOI appended to this application for the most current well design**



LEGEND

- SECTION LINE
- TOWNSHIP LINE
- DEDICATED ACREAGE
- 330' BUFFER
- MINERAL LEASE
- WELL BORE
- ▲ PPP
- WELL

WELL COORDINATE TABLE								
WELL	NAD 83 NME X	NAD 83 NME Y	NAD 83 LAT	NAD 83 LON	NAD 27 NME X	NAD 27 NME Y	NAD 27 LAT	NAD 27 LON
SHL/KOP	665,060.5	371,781.7	32.021480	-103.934120	623,874.9	371,724.2	32.021354	-103.933639
FTP	665,414.4	371,040.9	32.019440	-103.932987	624,228.7	370,983.5	32.019314	-103.932506
LTP	665,444.9	364,340.1	32.001019	-103.932968	624,259.0	364,282.9	32.000894	-103.932488
BHL	665,445.4	364,210.1	32.000662	-103.932968	624,259.5	364,152.9	32.000536	-103.932488
PPP1	665,261.0	371,361.9	32.020324	-103.933478	624,075.4	371,304.5	32.020198	-103.932997
PPP2	665,437.1	366,063.6	32.005757	-103.932973	624,251.2	366,006.3	32.005632	-103.932493

CORNER COORDINATE TABLE				
CORNER	NAD 83 NME X	NAD 83 NME Y	NAD 27 NME X	NAD 27 NME Y
A	664,035.5	371,284.6	622,849.8	371,227.2
B	663,968.5	368,627.2	622,782.9	368,569.8
C	663,901.7	365,971.1	622,715.9	365,913.8
D	663,825.5	364,003.8	622,639.7	363,946.6
E	666,582.7	371,445.3	625,397.0	371,387.8
F	666,595.1	368,788.5	625,409.4	368,731.1
G	666,607.6	366,134.1	625,421.7	366,076.8
H	666,616.2	364,016.1	625,430.3	363,958.9

D:\618.013 XTO Energy - NM\016 Ross Draw Unit - Eddy\01 - Shady Pines 24-36\Wells\05 102H\DWG\OLD\APD 102H C-102.dwg



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

Drilling Plan Data Report

06/11/2024

APD ID: 10400081276

Submission Date: 11/01/2021

Highlighted data reflects the most recent changes

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Show Final Text

*Please refer to approved NOI appended to this application for the most current well design

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
9681434	QUATERNARY	3006	0	0	ALLUVIUM	USEABLE WATER	Y
9681435	RUSTLER	2490	516	516	ANHYDRITE, SANDSTONE	USEABLE WATER	N
9681436	TOP SALT	1647	1359	1359	SALT	NONE	N
9681440	BASE OF SALT	16	2990	2990	SALT	NONE	N
9681437	DELAWARE	-159	3165	3165	ANHYDRITE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
9681438	BONE SPRING	-3910	6916	6916	LIMESTONE, SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
9681439	WOLFCAMP	-7112	10118	10118	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL, OTHER : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 10192

Equipment: Once the permanent WH is installed on the 9-5/8" casing, the blow out preventer equipment (BOP) will consist of a 13-5/8 minimum 5M Hydriil and a 13-5/8 minimum 5M 3-Ram BOP. MASP should not exceed 3751 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.

Requesting Variance? YES

Variance request: 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 GE 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

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

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 according to attached offline cementing supporting documentation. Permanent Wellhead – Multibowl System A. Starting Head: 13-5/8” 10M top flange x 9-5/8” 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

Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 70% of the working pressure. When nipping up on the 9-5/8", 5M bradenhead and flange, the BOP test will be limited to 5000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

Choke Diagram Attachment:

Shady_Pines_5MCM_20210617072835.pdf

BOP Diagram Attachment:

Shady_Pines_5MBOP_20210617072843.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	12.25	9.625	NEW	API	N	0	1259	0	1259	3005	1746	1259	J-55	40	BUTT	4.51	1.46	DRY	12.51	DRY	12.51
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	9495	0	9495	2976	-6490	9495	HCL-80	29.7	OTHER - Liberty FJ	2.11	1.83	DRY	2.49	DRY	2.49
3	PRODUCTION	6.75	5.0	NEW	API	Y	0	17405	0	10192	2976	-7187	17405	P-110	18	OTHER - Semi-Premium	2.24	1.16	DRY	6.55	DRY	6.55

Casing Attachments

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Shady_Pines_102H_csg_20211027055502.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Shady_Pines_102H_csg_20211027055432.pdf

Casing Design Assumptions and Worksheet(s):

Shady_Pines_102H_csg_20211027055436.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Shady_Pines_102H_csg_20211027055541.pdf

Casing Design Assumptions and Worksheet(s):

Shady_Pines_102H_csg_20211027055555.pdf

Section 4 - Cement

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1259	320	1.35	12.8	318.65	100	HalCem-C	2% CaCl
SURFACE	Tail		0	1259	130	1.35	14.8	175.5	100	HalCem-C	2% CaCl
INTERMEDIATE	Lead		0	9495	510	2.77	10.5	1412.7	100	NeoCem - See attachment for additional cement details.	None
INTERMEDIATE	Tail		0	9495	1040	1.35	14.8	1404	100	HalCem-C - See attachment for additional cement details.	None
PRODUCTION	Lead		9145	17405	1000	1.51	13.2	1510	100	VersaCem	None

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for weight addition and fluid loss control will be on location at all times.

Describe the mud monitoring system utilized: Spud with fresh water/native mud and set 9-5/8" surface casing, isolating the fresh water aquifer. Drill out from under 9-5/8 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.

Circulating Medium Table

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1259	SPUD MUD	8.4	8.8							
1259	9495	OTHER : Brine / Cut Bring / Direct Emulsion	8.5	10.2							
9495	1740 5	OTHER : Cut Brine / WBM / OBM	10.3	12.3							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

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

Open hole logging will not be done on this well.

List of open and cased hole logs run in the well:

CEMENT BOND LOG, DIRECTIONAL SURVEY, GAMMA RAY LOG,

Coring operation description for the well:

No coring will be performed on this well.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5458

Anticipated Surface Pressure: 3208

Anticipated Bottom Hole Temperature(F): 165

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

Shady_Pines_H2S_Dia_20210617074244.pdf

Shady_Pines_H2S_Plan_20210617074250.pdf

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Shady_Pines_102H_DD_20211027055722.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Other Variance attachment:

Shady_Pines_BOP_BTV_20210617074333.pdf

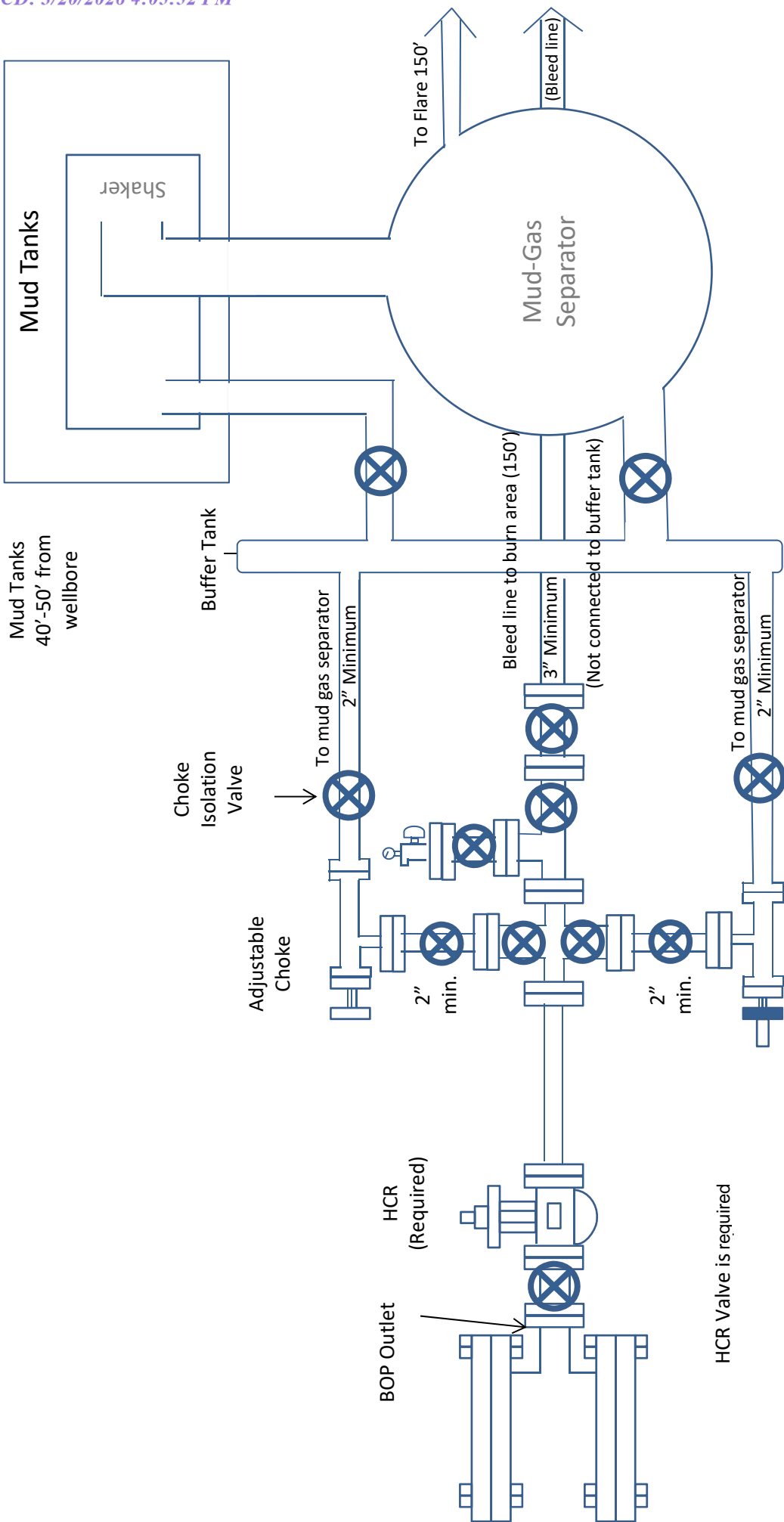
Shady_Pines_Batch_20210617074325.pdf

Shady_Pines_FH_20210617074340.pdf

Shady_Pines_MBD_20210617074433.pdf

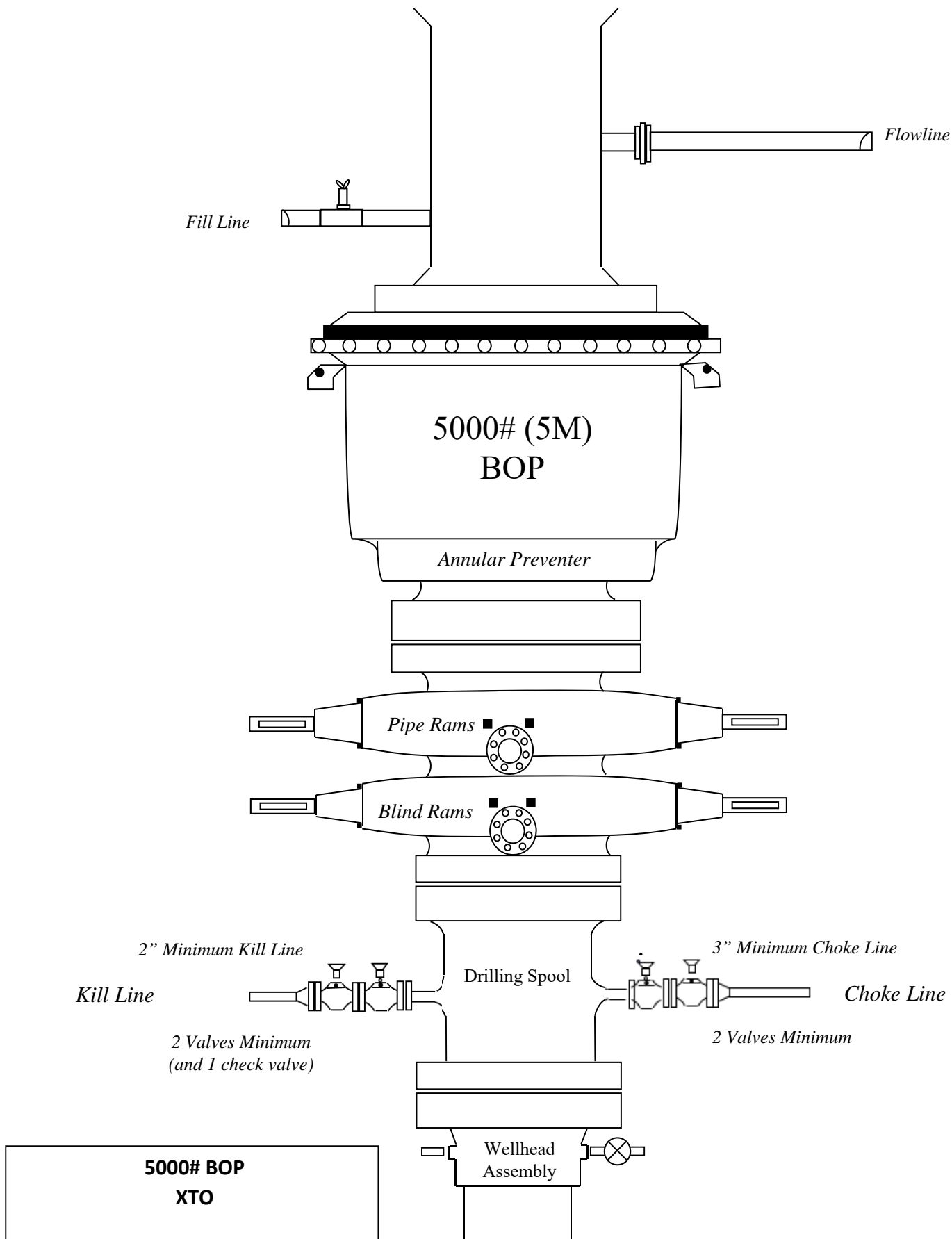
Shady_Pines_OLCV_20210617074351.pdf

Shady_Pines_102H_cmt_20211027055727.pdf



5M Choke Manifold Diagram XTO

Drilling Operations Choke Manifold 5M Service



*Please refer to approved NOI appended to this application for the most current well design

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
12-1/4"	0' – 1259'	9-5/8"	40	BTC	J-55	New	1.46	4.51	12.51
8-3/4"	0' – 4000'	7-5/8"	29.7	Liberty FJ	HPP-110	New	2.86	3.60	2.25
8-3/4"	4000' – 9495'	7-5/8"	29.7	Liberty FJ	HCL-80	New	1.83	2.11	2.49
6-3/4"	0' – 9395'	5-1/2"	20	Semi-Premium	P-110	New	1.26	2.01	1.90
6-3/4"	9395' – 12400'	5-1/2"	20	Semi-Flush	P-110	New	1.26	1.52	4.31
6-3/4"	12400' - 17405'	5"	18	Semi-Premium	P-110	New	1.16	2.24	6.55

- 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
- Request to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

- A. Starting Head: 13-5/8" 10M top flange x 9-5/8" 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

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
12-1/4"	0' – 1259'	9-5/8"	40	BTC	J-55	New	1.46	4.51	12.51
8-3/4"	0' – 4000'	7-5/8"	29.7	Liberty FJ	HPP-110	New	2.86	3.60	2.25
8-3/4"	4000' – 9495'	7-5/8"	29.7	Liberty FJ	HCL-80	New	1.83	2.11	2.49
6-3/4"	0' – 9395'	5-1/2"	20	Semi-Premium	P-110	New	1.26	2.01	1.90
6-3/4"	9395' – 12400'	5-1/2"	20	Semi-Flush	P-110	New	1.26	1.52	4.31
6-3/4"	12400' - 17405'	5"	18	Semi-Premium	P-110	New	1.16	2.24	6.55

- 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
- Request to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

- A. Starting Head: 13-5/8" 10M top flange x 9-5/8" 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

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
12-1/4"	0' – 1259'	9-5/8"	40	BTC	J-55	New	1.46	4.51	12.51
8-3/4"	0' – 4000'	7-5/8"	29.7	Liberty FJ	HPP-110	New	2.86	3.60	2.25
8-3/4"	4000' – 9495'	7-5/8"	29.7	Liberty FJ	HCL-80	New	1.83	2.11	2.49
6-3/4"	0' – 9395'	5-1/2"	20	Semi-Premium	P-110	New	1.26	2.01	1.90
6-3/4"	9395' – 12400'	5-1/2"	20	Semi-Flush	P-110	New	1.26	1.52	4.31
6-3/4"	12400' - 17405'	5"	18	Semi-Premium	P-110	New	1.16	2.24	6.55

- 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
- Request to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

- A. Starting Head: 13-5/8" 10M top flange x 9-5/8" 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

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
12-1/4"	0' – 1259'	9-5/8"	40	BTC	J-55	New	1.46	4.51	12.51
8-3/4"	0' – 4000'	7-5/8"	29.7	Liberty FJ	HPP-110	New	2.86	3.60	2.25
8-3/4"	4000' – 9495'	7-5/8"	29.7	Liberty FJ	HCL-80	New	1.83	2.11	2.49
6-3/4"	0' – 9395'	5-1/2"	20	Semi-Premium	P-110	New	1.26	2.01	1.90
6-3/4"	9395' – 12400'	5-1/2"	20	Semi-Flush	P-110	New	1.26	1.52	4.31
6-3/4"	12400' - 17405'	5"	18	Semi-Premium	P-110	New	1.16	2.24	6.55

- 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
- Request to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

- A. Starting Head: 13-5/8" 10M top flange x 9-5/8" 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

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
12-1/4"	0' – 1259'	9-5/8"	40	BTC	J-55	New	1.46	4.51	12.51
8-3/4"	0' – 4000'	7-5/8"	29.7	Liberty FJ	HPP-110	New	2.86	3.60	2.25
8-3/4"	4000' – 9495'	7-5/8"	29.7	Liberty FJ	HCL-80	New	1.83	2.11	2.49
6-3/4"	0' – 9395'	5-1/2"	20	Semi-Premium	P-110	New	1.26	2.01	1.90
6-3/4"	9395' – 12400'	5-1/2"	20	Semi-Flush	P-110	New	1.26	1.52	4.31
6-3/4"	12400' - 17405'	5"	18	Semi-Premium	P-110	New	1.16	2.24	6.55

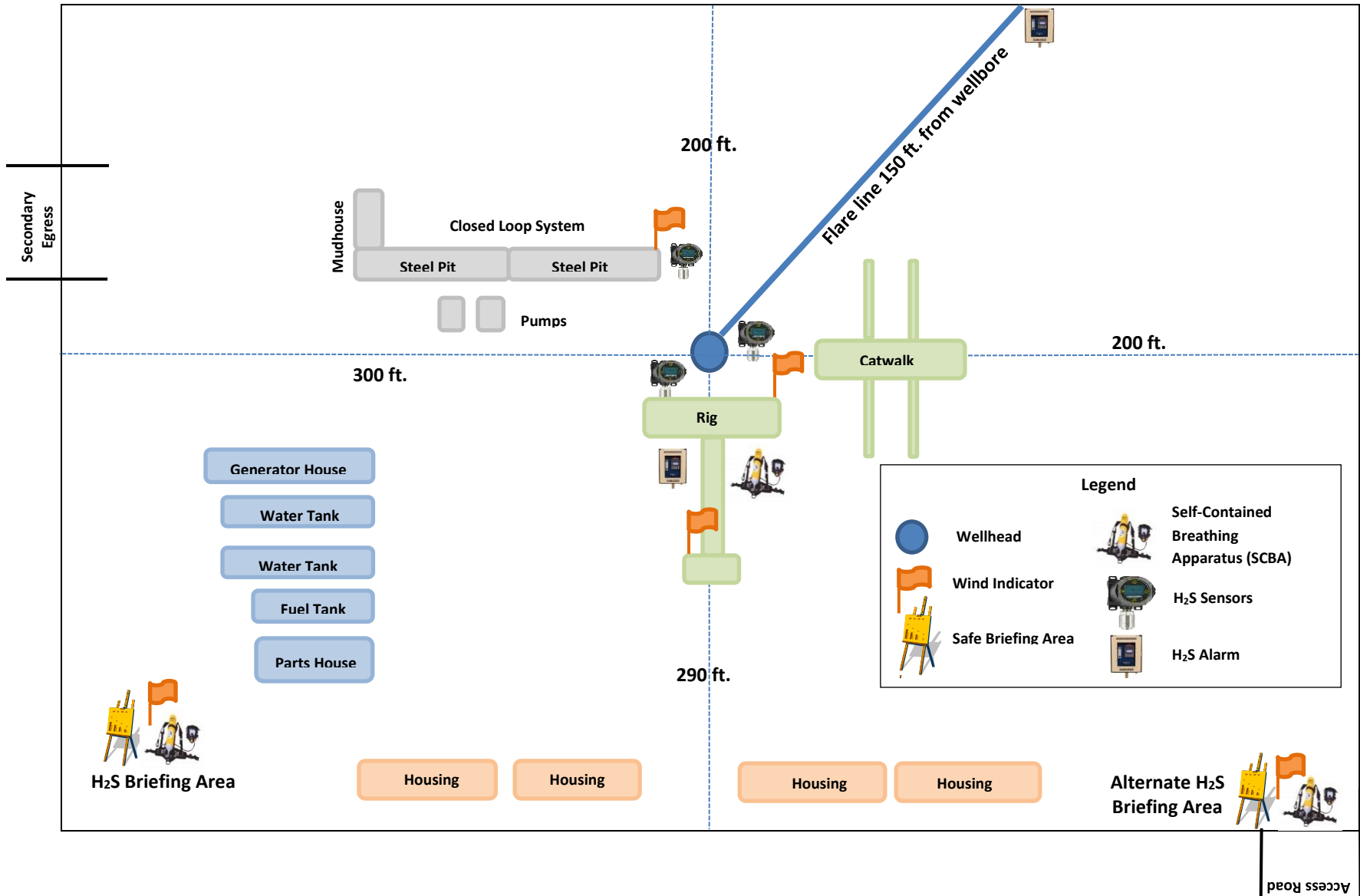
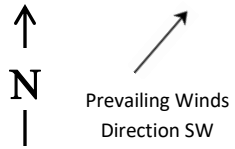
- XTO requests to not utilize centralizers in the curve and lateral
- 7-5/8" Collapse analyzed using 50% evacuation based on regional experience
- 5-1/2" Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- Request to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

- A. Starting Head: 13-5/8" 10M top flange x 9-5/8" 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

H2S Briefing Areas and Alarm Locations





HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H₂S, and
 - o Measures for protection against the gas,
 - o Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

All XTO location personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

CARLSBAD OFFICE – EDDY & LEA COUNTIES

3104 E. Greene St., Carlsbad, NM 88220
Carlsbad, NM

575-887-7329

XTO PERSONNEL:

Kendall Decker, Drilling Manager	903-521-6477
Milton Turman, Drilling Superintendent	817-524-5107
Jeff Raines, Construction Foreman	432-557-3159
Toady Sanders, EH & S Manager	903-520-1601
Wes McSpadden, Production Foreman	575-441-1147

SHERIFF DEPARTMENTS:

Eddy County	575-887-7551
Lea County	575-396-3611

NEW MEXICO STATE POLICE:

575-392-5588

FIRE DEPARTMENTS:

Carlsbad	911
Eunice	575-885-2111
Hobbs	575-394-2111
Jal	575-397-9308
Lovington	575-395-2221
	575-396-2359

HOSPITALS:

Carlsbad Medical Emergency	911
Eunice Medical Emergency	575-885-2111
Hobbs Medical Emergency	575-394-2112
Jal Medical Emergency	575-397-9308
Lovington Medical Emergency	575-395-2221
	575-396-2359

AGENT NOTIFICATIONS:

For Lea County:

Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

For Eddy County:

Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283



XTO Energy

Eddy County, NM (NAD-27)

Shady Pines 24-36

#102H

OH

Plan: PERMIT

Standard Planning Report

11 July, 2019

*Please refer to approved NOI appended to this application for the most current well design



Project: Eddy County, NM (NAD-27)
 Site: Shady Pines 24-36
 Well: #102H
 Wellbore: OH
 Design: PERMIT

PROJECT DETAILS: Eddy County, NM (NAD-27)
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level

WELL DETAILS: #102H

		Rig Name:			
		RKB = 22' @ 3028.00usft			
		Ground Level:		3006.00	
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	371724.20	623874.70	32.0213542	-103.9336394

DESIGN TARGET DETAILS

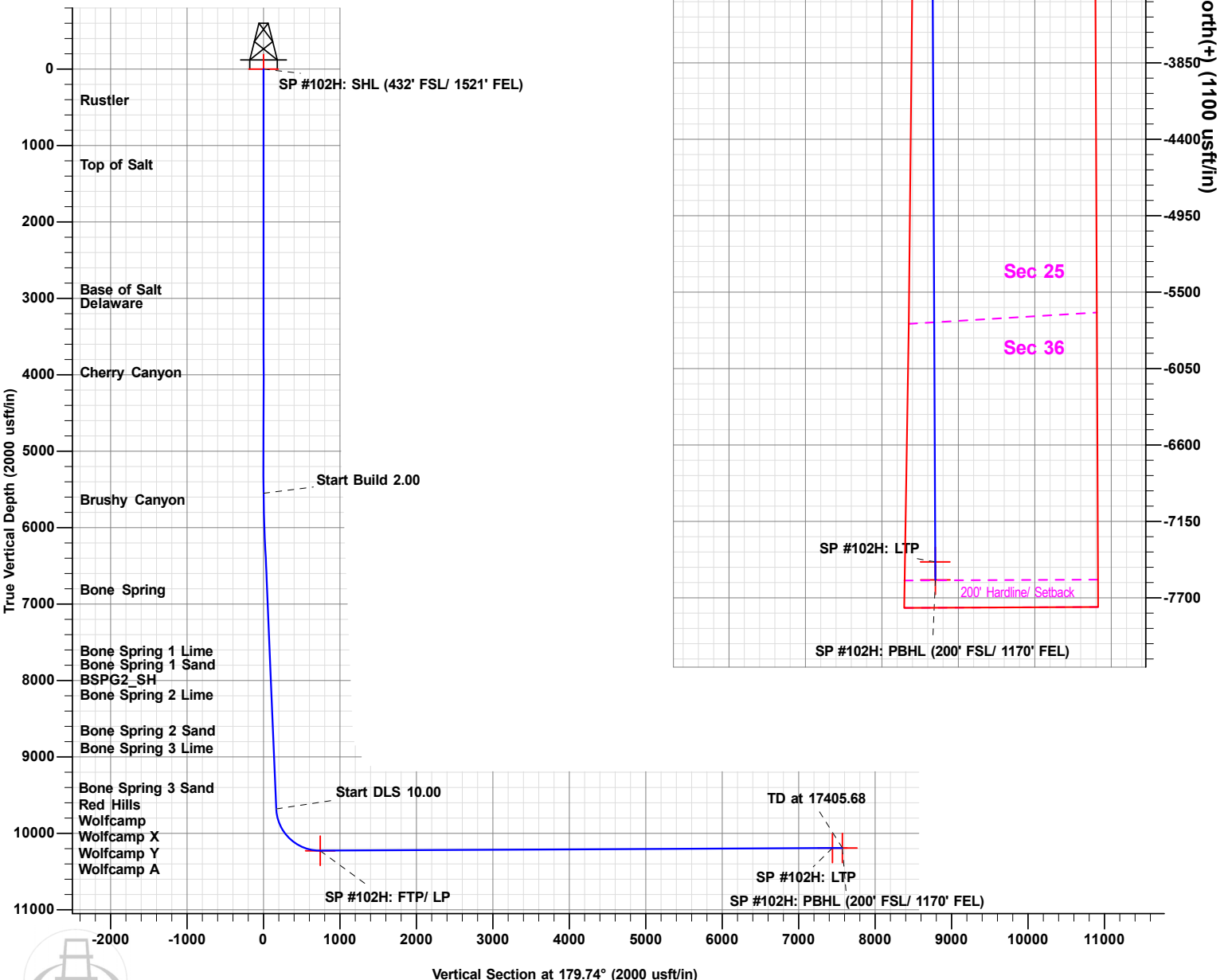
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SP #102H: SHL (432' FSL/ 1521' FEL)	0.00	0.00	0.00	371724.20	623874.70	32.0213542	-103.9336394	Point
SP #102H: PBHL (200' FSL/ 1170' FEL)	10192.23	-7571.40	384.70	364152.80	624259.40	32.0005363	-103.9324888	Point
SP #102H: LTP	10192.91	-7441.40	384.20	364282.80	624258.90	32.0008937	-103.9324888	Point
SP #102H: FTP/ LP	10228.00	-740.70	353.90	370983.50	624228.60	32.0193144	-103.9325064	Point

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5550.02	0.00	0.00	5550.00	0.00	0.00	0.00	0.00	0.00
3	5800.02	5.00	118.17	5799.71	-5.15	9.61	2.00	118.17	5.19
4	9695.60	5.00	118.17	9680.46	-165.44	308.95	0.00	0.00	166.84
5	10574.81	90.30	179.74	10228.00	-740.70	353.90	10.00	61.64	742.30
6	17275.67	90.30	179.74	10192.91	-7441.40	384.11	0.00	0.00	7443.07
7	17405.68	90.30	179.74	10192.23	-7571.40	384.70	0.00	0.00	7573.07

FORMATION TOP DETAILS

TVDPath	Formation
516.00	Rustler
1359.00	Top of Salt
2990.00	Base of Salt
3165.00	Delaware
4071.00	Cherry Canyon
5738.00	Brushy Canyon
6916.00	Bone Spring
7799.00	Bone Spring 1 Lime
7892.00	Bone Spring 1 Sand
8136.00	BSPG2_SH
8289.00	Bone Spring 2 Lime
8759.00	Bone Spring 2 Sand
8987.00	Bone Spring 3 Lime
9772.00	Bone Spring 3 Sand
10027.00	Red Hills
10118.00	Wolfcamp
10142.00	Wolfcamp X
10219.00	Wolfcamp Y
10228.00	LP



Vertical Section at 179.74° (2000 usft/in)

The customer should only rely on this document after independently verifying all paths, targets, coordinates, lease and hard lines represented.
 Released to Imaging: 4/23/2026 3:06:01 PM

Plan: PERMIT (#102H/OH)

Created By: Prototype Well Planning, LLC Date: 12:33, July 11 2019

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

AMENDED REPORT

***Please refer to approved NOI appended to this application for the most current well design**
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name SHADY PINES 24-36			⁶ Well Number 102H
⁷ OGRID No. 005380		⁸ Operator Name XTO ENERGY, INC.			⁹ Elevation 3,006'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	24	26 S	29 E		432	SOUTH	1,521	EAST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	36	26 S	29 E		200	SOUTH	1,170	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

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.

SEC 19 GEODETIC COORDINATES SURFACE LOCATION
NAD 27 NME
Y= 371,724.2
X= 623,874.7
LAT.= 32.021354°N
LONG.= 103.933639°W

GEODETIC COORDINATES SURFACE LOCATION
NAD 83 NME
Y= 371,781.7
X= 665,060.5
LAT.= 32.021480°N
LONG.= 103.934120°W

FIRST TAKE POINT
NAD 27 NME
Y= 370,983.5
X= 624,228.6
LAT.= 32.019314°N
LONG.= 103.932507°W

FIRST TAKE POINT
NAD 83 NME
Y= 371,040.9
X= 665,414.4
LAT.= 32.019440°N
LONG.= 103.932987°W

CORNER COORDINATES TABLE
NAD 27 NME
A - Y= 371,387.5 N, X= 625,396.6 E
B - Y= 371,307.5 N, X= 624,123.2 E
C - Y= 368,731.0 N, X= 625,409.1 E
D - Y= 368,650.3 N, X= 624,095.8 E
E - Y= 366,076.6 N, X= 625,420.9 E
F - Y= 365,995.2 N, X= 624,068.3 E
G - Y= 363,957.7 N, X= 625,430.2 E
H - Y= 363,951.8 N, X= 624,034.8 E

CORNER COORDINATES TABLE
NAD 83 NME
A - Y= 371,444.9 N, X= 666,582.5 E
B - Y= 371,364.9 N, X= 665,309.0 E
C - Y= 368,788.4 N, X= 666,595.0 E
D - Y= 368,707.7 N, X= 665,281.7 E
E - Y= 366,133.9 N, X= 666,606.9 E
F - Y= 366,052.5 N, X= 665,254.3 E
G - Y= 364,015.0 N, X= 666,616.3 E
H - Y= 364,009.1 N, X= 665,220.9 E

LOT ACREAGE TABLE
LOT 1 - 24.10 ACRES
LOT 2 - 24.30 ACRES
LOT 3 - 24.50 ACRES
LOT 4 - 24.70 ACRES

LOT 1
LOT 2
LOT 3

NEW MEXICO TEXAS

LAST TAKE POINT
NAD 27 NME
Y= 364,282.8
X= 624,258.9
LAT.= 32.000894°N
LONG.= 103.932489°W

LAST TAKE POINT
NAD 83 NME
Y= 364,340.1
X= 665,444.9
LAT.= 32.001019°N
LONG.= 103.932969°W

BOTTOM HOLE LOCATION
NAD 27 NME
Y= 364,152.8
X= 624,259.4
LAT.= 32.000536°N
LONG.= 103.932489°W

BOTTOM HOLE LOCATION
NAD 83 NME
Y= 364,210.1
X= 665,445.4
LAT.= 32.000662°N
LONG.= 103.932968°W

¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____

Printed Name _____

E-mail Address _____

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

06-19-2019
Date of Survey

Signature and Seal of Professional Surveyor: _____

PRELIMINARY, THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT

MARK DILLON HARP 23786
Certificate Number LM 2019061753



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Project	Eddy County, NM (NAD-27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Shady Pines 24-36				
Site Position:		Northing:	371,627.50 usft	Latitude:	32.0210983
From:	Map	Easting:	622,897.90 usft	Longitude:	-103.9367922
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well	#102H					
Well Position	+N/-S	96.70 usft	Northing:	371,724.20 usft	Latitude:	32.0213542
	+E/-W	976.80 usft	Easting:	623,874.70 usft	Longitude:	-103.9336394
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,006.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	07/10/19	6.88	59.79	47,571

Design	PERMIT			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.74

Plan Sections											
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
5,550.00	0.00	0.00	5,550.00	0.00	0.00	0.00	0.00	0.00	0.00		
5,800.03	5.00	118.17	5,799.71	-5.15	9.61	2.00	2.00	0.00	118.17		
9,695.60	5.00	118.17	9,680.46	-165.44	308.95	0.00	0.00	0.00	0.00		
10,574.81	90.30	179.74	10,228.00	-740.70	353.90	10.00	9.70	7.00	61.64	SP #102H: FTP/ LF	
17,275.67	90.30	179.74	10,192.91	-7,441.40	384.11	0.00	0.00	0.00	0.00	SP #102H: LTP	
17,405.68	90.30	179.74	10,192.23	-7,571.40	384.70	0.00	0.00	0.00	0.00	SP #102H: PBHL (z	



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
516.00	0.00	0.00	516.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,359.00	0.00	0.00	1,359.00	0.00	0.00	0.00	0.00	0.00	0.00
Top of Salt									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,990.00	0.00	0.00	2,990.00	0.00	0.00	0.00	0.00	0.00	0.00
Base of Salt									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,165.00	0.00	0.00	3,165.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware									
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,071.00	0.00	0.00	4,071.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon									
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,550.00	0.00	0.00	5,550.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	1.00	118.17	5,600.00	-0.21	0.38	0.21	2.00	2.00	0.00
5,700.00	3.00	118.17	5,699.93	-1.85	3.46	1.87	2.00	2.00	0.00
5,738.14	3.76	118.17	5,738.00	-2.92	5.44	2.94	2.00	2.00	0.00
Brushy Canyon									
5,800.03	5.00	118.17	5,799.71	-5.15	9.61	5.19	2.00	2.00	0.00
5,900.00	5.00	118.17	5,899.30	-9.26	17.29	9.34	0.00	0.00	0.00
6,000.00	5.00	118.17	5,998.92	-13.38	24.98	13.49	0.00	0.00	0.00
6,100.00	5.00	118.17	6,098.54	-17.49	32.66	17.64	0.00	0.00	0.00
6,200.00	5.00	118.17	6,198.16	-21.61	40.35	21.79	0.00	0.00	0.00
6,300.00	5.00	118.17	6,297.78	-25.72	48.03	25.94	0.00	0.00	0.00
6,400.00	5.00	118.17	6,397.40	-29.83	55.71	30.09	0.00	0.00	0.00
6,500.00	5.00	118.17	6,497.02	-33.95	63.40	34.24	0.00	0.00	0.00
6,600.00	5.00	118.17	6,596.64	-38.06	71.08	38.39	0.00	0.00	0.00
6,700.00	5.00	118.17	6,696.26	-42.18	78.77	42.54	0.00	0.00	0.00
6,800.00	5.00	118.17	6,795.88	-46.29	86.45	46.69	0.00	0.00	0.00
6,900.00	5.00	118.17	6,895.50	-50.41	94.14	50.84	0.00	0.00	0.00
6,920.58	5.00	118.17	6,916.00	-51.26	95.72	51.69	0.00	0.00	0.00
Bone Spring									
7,000.00	5.00	118.17	6,995.12	-54.52	101.82	54.98	0.00	0.00	0.00
7,100.00	5.00	118.17	7,094.74	-58.64	109.50	59.13	0.00	0.00	0.00
7,200.00	5.00	118.17	7,194.35	-62.75	117.19	63.28	0.00	0.00	0.00
7,300.00	5.00	118.17	7,293.97	-66.87	124.87	67.43	0.00	0.00	0.00
7,400.00	5.00	118.17	7,393.59	-70.98	132.56	71.58	0.00	0.00	0.00
7,500.00	5.00	118.17	7,493.21	-75.10	140.24	75.73	0.00	0.00	0.00
7,600.00	5.00	118.17	7,592.83	-79.21	147.92	79.88	0.00	0.00	0.00
7,700.00	5.00	118.17	7,692.45	-83.33	155.61	84.03	0.00	0.00	0.00
7,800.00	5.00	118.17	7,792.07	-87.44	163.29	88.18	0.00	0.00	0.00
7,806.96	5.00	118.17	7,799.00	-87.73	163.83	88.47	0.00	0.00	0.00
Bone Spring 1 Lime									
7,900.00	5.00	118.17	7,891.69	-91.56	170.98	92.33	0.00	0.00	0.00
7,900.31	5.00	118.17	7,892.00	-91.57	171.00	92.34	0.00	0.00	0.00
Bone Spring 1 Sand									
8,000.00	5.00	118.17	7,991.31	-95.67	178.66	96.48	0.00	0.00	0.00
8,100.00	5.00	118.17	8,090.93	-99.79	186.34	100.63	0.00	0.00	0.00
8,145.24	5.00	118.17	8,136.00	-101.65	189.82	102.51	0.00	0.00	0.00
BSPG2_SH									
8,200.00	5.00	118.17	8,190.55	-103.90	194.03	104.78	0.00	0.00	0.00
8,298.83	5.00	118.17	8,289.00	-107.97	201.62	108.88	0.00	0.00	0.00
Bone Spring 2 Lime									
8,300.00	5.00	118.17	8,290.17	-108.02	201.71	108.93	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,400.00	5.00	118.17	8,389.79	-112.13	209.40	113.08	0.00	0.00	0.00
8,500.00	5.00	118.17	8,489.41	-116.25	217.08	117.23	0.00	0.00	0.00
8,600.00	5.00	118.17	8,589.03	-120.36	224.76	121.38	0.00	0.00	0.00
8,700.00	5.00	118.17	8,688.65	-124.47	232.45	125.53	0.00	0.00	0.00
8,770.62	5.00	118.17	8,759.00	-127.38	237.88	128.46	0.00	0.00	0.00
Bone Spring 2 Sand									
8,800.00	5.00	118.17	8,788.26	-128.59	240.13	129.68	0.00	0.00	0.00
8,900.00	5.00	118.17	8,887.88	-132.70	247.82	133.83	0.00	0.00	0.00
8,999.49	5.00	118.17	8,987.00	-136.80	255.46	137.96	0.00	0.00	0.00
Bone Spring 3 Lime									
9,000.00	5.00	118.17	8,987.50	-136.82	255.50	137.98	0.00	0.00	0.00
9,100.00	5.00	118.17	9,087.12	-140.93	263.18	142.13	0.00	0.00	0.00
9,200.00	5.00	118.17	9,186.74	-145.05	270.87	146.28	0.00	0.00	0.00
9,300.00	5.00	118.17	9,286.36	-149.16	278.55	150.43	0.00	0.00	0.00
9,400.00	5.00	118.17	9,385.98	-153.28	286.24	154.58	0.00	0.00	0.00
9,500.00	5.00	118.17	9,485.60	-157.39	293.92	158.72	0.00	0.00	0.00
9,600.00	5.00	118.17	9,585.22	-161.51	301.61	162.87	0.00	0.00	0.00
9,695.60	5.00	118.17	9,680.46	-165.44	308.95	166.84	0.00	0.00	0.00
9,700.00	5.22	122.42	9,684.84	-165.64	309.29	167.04	10.00	5.08	96.74
9,750.00	8.97	150.53	9,734.46	-170.25	313.13	171.67	10.00	7.48	56.22
9,788.21	12.43	159.30	9,772.00	-176.70	316.05	178.13	10.00	9.08	22.93
Bone Spring 3 Sand									
9,800.00	13.54	161.09	9,783.49	-179.19	316.95	180.63	10.00	9.40	15.22
9,850.00	18.34	166.30	9,831.56	-192.38	320.71	193.83	10.00	9.59	10.41
9,900.00	23.22	169.39	9,878.29	-209.72	324.39	211.19	10.00	9.76	6.18
9,950.00	28.14	171.45	9,923.34	-231.08	327.96	232.56	10.00	9.84	4.12
10,000.00	33.08	172.94	9,966.36	-256.29	331.39	257.79	10.00	9.89	2.98
10,050.00	38.04	174.08	10,007.03	-285.17	334.66	286.69	10.00	9.91	2.28
10,075.82	40.60	174.57	10,027.00	-301.45	336.28	302.98	10.00	9.93	1.91
Red Hills									
10,100.00	43.00	174.99	10,045.03	-317.50	337.74	319.03	10.00	9.93	1.73
10,150.00	47.97	175.74	10,080.07	-353.03	340.62	354.57	10.00	9.94	1.51
10,200.00	52.95	176.39	10,111.89	-391.48	343.25	393.04	10.00	9.95	1.29
10,210.26	53.97	176.51	10,118.00	-399.71	343.76	401.27	10.00	9.95	1.19
Wolfcamp									
10,250.00	57.93	176.96	10,140.25	-432.58	345.64	434.14	10.00	9.96	1.12
10,253.32	58.26	176.99	10,142.00	-435.39	345.78	436.95	10.00	9.96	1.06
Wolfcamp X									
10,300.00	62.91	177.46	10,164.92	-475.99	347.75	477.57	10.00	9.96	1.01
10,350.00	67.89	177.93	10,185.73	-521.40	349.57	522.98	10.00	9.96	0.93
10,400.00	72.87	178.36	10,202.52	-568.46	351.09	570.05	10.00	9.97	0.87
10,450.00	77.86	178.77	10,215.15	-616.81	352.30	618.40	10.00	9.97	0.82
10,469.92	79.84	178.93	10,219.00	-636.35	352.70	637.94	10.00	9.97	0.80
Wolfcamp Y									
10,500.00	82.84	179.16	10,223.53	-666.08	353.19	667.67	10.00	9.97	0.79
10,550.00	87.83	179.55	10,227.59	-715.89	353.75	717.49	10.00	9.97	0.77
10,568.80	89.70	179.70	10,228.00	-734.68	353.87	736.28	10.00	9.97	0.77
LP									
10,574.81	90.30	179.74	10,228.00	-740.70	353.90	742.30	10.00	9.97	0.77
10,600.00	90.30	179.74	10,227.87	-765.89	354.01	767.48	0.00	0.00	0.00
10,700.00	90.30	179.74	10,227.34	-865.88	354.46	867.48	0.00	0.00	0.00
10,800.00	90.30	179.74	10,226.82	-965.88	354.92	967.48	0.00	0.00	0.00
10,900.00	90.30	179.74	10,226.30	-1,065.88	355.37	1,067.48	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,000.00	90.30	179.74	10,225.77	-1,165.88	355.82	1,167.48	0.00	0.00	0.00	
11,100.00	90.30	179.74	10,225.25	-1,265.87	356.27	1,267.48	0.00	0.00	0.00	
11,200.00	90.30	179.74	10,224.73	-1,365.87	356.72	1,367.48	0.00	0.00	0.00	
11,300.00	90.30	179.74	10,224.20	-1,465.87	357.17	1,467.47	0.00	0.00	0.00	
11,400.00	90.30	179.74	10,223.68	-1,565.87	357.62	1,567.47	0.00	0.00	0.00	
11,500.00	90.30	179.74	10,223.16	-1,665.86	358.07	1,667.47	0.00	0.00	0.00	
11,600.00	90.30	179.74	10,222.63	-1,765.86	358.52	1,767.47	0.00	0.00	0.00	
11,700.00	90.30	179.74	10,222.11	-1,865.86	358.97	1,867.47	0.00	0.00	0.00	
11,800.00	90.30	179.74	10,221.59	-1,965.86	359.42	1,967.47	0.00	0.00	0.00	
11,900.00	90.30	179.74	10,221.06	-2,065.85	359.88	2,067.47	0.00	0.00	0.00	
12,000.00	90.30	179.74	10,220.54	-2,165.85	360.33	2,167.46	0.00	0.00	0.00	
12,100.00	90.30	179.74	10,220.01	-2,265.85	360.78	2,267.46	0.00	0.00	0.00	
12,200.00	90.30	179.74	10,219.49	-2,365.85	361.23	2,367.46	0.00	0.00	0.00	
12,300.00	90.30	179.74	10,218.97	-2,465.84	361.68	2,467.46	0.00	0.00	0.00	
12,400.00	90.30	179.74	10,218.44	-2,565.84	362.13	2,567.46	0.00	0.00	0.00	
12,500.00	90.30	179.74	10,217.92	-2,665.84	362.58	2,667.46	0.00	0.00	0.00	
12,600.00	90.30	179.74	10,217.40	-2,765.84	363.03	2,767.46	0.00	0.00	0.00	
12,700.00	90.30	179.74	10,216.87	-2,865.84	363.48	2,867.46	0.00	0.00	0.00	
12,800.00	90.30	179.74	10,216.35	-2,965.83	363.93	2,967.45	0.00	0.00	0.00	
12,900.00	90.30	179.74	10,215.83	-3,065.83	364.38	3,067.45	0.00	0.00	0.00	
13,000.00	90.30	179.74	10,215.30	-3,165.83	364.84	3,167.45	0.00	0.00	0.00	
13,100.00	90.30	179.74	10,214.78	-3,265.83	365.29	3,267.45	0.00	0.00	0.00	
13,200.00	90.30	179.74	10,214.25	-3,365.82	365.74	3,367.45	0.00	0.00	0.00	
13,300.00	90.30	179.74	10,213.73	-3,465.82	366.19	3,467.45	0.00	0.00	0.00	
13,400.00	90.30	179.74	10,213.21	-3,565.82	366.64	3,567.45	0.00	0.00	0.00	
13,500.00	90.30	179.74	10,212.68	-3,665.82	367.09	3,667.44	0.00	0.00	0.00	
13,600.00	90.30	179.74	10,212.16	-3,765.81	367.54	3,767.44	0.00	0.00	0.00	
13,700.00	90.30	179.74	10,211.64	-3,865.81	367.99	3,867.44	0.00	0.00	0.00	
13,800.00	90.30	179.74	10,211.11	-3,965.81	368.44	3,967.44	0.00	0.00	0.00	
13,900.00	90.30	179.74	10,210.59	-4,065.81	368.89	4,067.44	0.00	0.00	0.00	
14,000.00	90.30	179.74	10,210.07	-4,165.80	369.34	4,167.44	0.00	0.00	0.00	
14,100.00	90.30	179.74	10,209.54	-4,265.80	369.79	4,267.44	0.00	0.00	0.00	
14,200.00	90.30	179.74	10,209.02	-4,365.80	370.25	4,367.43	0.00	0.00	0.00	
14,300.00	90.30	179.74	10,208.50	-4,465.80	370.70	4,467.43	0.00	0.00	0.00	
14,400.00	90.30	179.74	10,207.97	-4,565.79	371.15	4,567.43	0.00	0.00	0.00	
14,500.00	90.30	179.74	10,207.45	-4,665.79	371.60	4,667.43	0.00	0.00	0.00	
14,600.00	90.30	179.74	10,206.92	-4,765.79	372.05	4,767.43	0.00	0.00	0.00	
14,700.00	90.30	179.74	10,206.40	-4,865.79	372.50	4,867.43	0.00	0.00	0.00	
14,800.00	90.30	179.74	10,205.88	-4,965.79	372.95	4,967.43	0.00	0.00	0.00	
14,900.00	90.30	179.74	10,205.35	-5,065.78	373.40	5,067.43	0.00	0.00	0.00	
15,000.00	90.30	179.74	10,204.83	-5,165.78	373.85	5,167.42	0.00	0.00	0.00	
15,100.00	90.30	179.74	10,204.31	-5,265.78	374.30	5,267.42	0.00	0.00	0.00	
15,200.00	90.30	179.74	10,203.78	-5,365.78	374.75	5,367.42	0.00	0.00	0.00	
15,300.00	90.30	179.74	10,203.26	-5,465.77	375.21	5,467.42	0.00	0.00	0.00	
15,400.00	90.30	179.74	10,202.74	-5,565.77	375.66	5,567.42	0.00	0.00	0.00	
15,500.00	90.30	179.74	10,202.21	-5,665.77	376.11	5,667.42	0.00	0.00	0.00	
15,600.00	90.30	179.74	10,201.69	-5,765.77	376.56	5,767.42	0.00	0.00	0.00	
15,700.00	90.30	179.74	10,201.16	-5,865.76	377.01	5,867.41	0.00	0.00	0.00	
15,800.00	90.30	179.74	10,200.64	-5,965.76	377.46	5,967.41	0.00	0.00	0.00	
15,900.00	90.30	179.74	10,200.12	-6,065.76	377.91	6,067.41	0.00	0.00	0.00	
16,000.00	90.30	179.74	10,199.59	-6,165.76	378.36	6,167.41	0.00	0.00	0.00	
16,100.00	90.30	179.74	10,199.07	-6,265.75	378.81	6,267.41	0.00	0.00	0.00	
16,200.00	90.30	179.74	10,198.55	-6,365.75	379.26	6,367.41	0.00	0.00	0.00	
16,300.00	90.30	179.74	10,198.02	-6,465.75	379.71	6,467.41	0.00	0.00	0.00	



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
16,400.00	90.30	179.74	10,197.50	-6,565.75	380.17	6,567.40	0.00	0.00	0.00	
16,500.00	90.30	179.74	10,196.98	-6,665.74	380.62	6,667.40	0.00	0.00	0.00	
16,600.00	90.30	179.74	10,196.45	-6,765.74	381.07	6,767.40	0.00	0.00	0.00	
16,700.00	90.30	179.74	10,195.93	-6,865.74	381.52	6,867.40	0.00	0.00	0.00	
16,800.00	90.30	179.74	10,195.41	-6,965.74	381.97	6,967.40	0.00	0.00	0.00	
16,900.00	90.30	179.74	10,194.88	-7,065.74	382.42	7,067.40	0.00	0.00	0.00	
17,000.00	90.30	179.74	10,194.36	-7,165.73	382.87	7,167.40	0.00	0.00	0.00	
17,100.00	90.30	179.74	10,193.83	-7,265.73	383.32	7,267.39	0.00	0.00	0.00	
17,200.00	90.30	179.74	10,193.31	-7,365.73	383.77	7,367.39	0.00	0.00	0.00	
17,275.67	90.30	179.74	10,192.91	-7,441.40	384.11	7,443.07	0.00	0.00	0.00	
17,300.00	90.30	179.74	10,192.79	-7,465.73	384.22	7,467.39	0.00	0.00	0.00	
17,405.68	90.30	179.74	10,192.23	-7,571.40	384.70	7,573.07	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
SP #102H: SHL (432' - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	371,724.20	623,874.70	32.0213542	-103.9336394	
SP #102H: PBHL (200' - plan hits target center - Point	0.00	0.01	10,192.23	-7,571.40	384.70	364,152.80	624,259.40	32.0005363	-103.9324888	
SP #102H: LTP - plan misses target center by 0.09usft at 17275.67usft MD (10192.91 TVD, -7441.40 N, 384.11 E) - Point	0.00	0.01	10,192.91	-7,441.40	384.20	364,282.80	624,258.90	32.0008937	-103.9324888	
SP #102H: FTP/ LP - plan hits target center - Point	0.00	0.01	10,228.00	-740.70	353.90	370,983.50	624,228.60	32.0193144	-103.9325064	



Planning Report

Database:	EDM 5000.1.13 Single User Db	Local Co-ordinate Reference:	Well #102H
Company:	XTO Energy	TVD Reference:	RKB = 22' @ 3028.00usft
Project:	Eddy County, NM (NAD-27)	MD Reference:	RKB = 22' @ 3028.00usft
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	#102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
516.00	516.00	Rustler			
1,359.00	1,359.00	Top of Salt			
2,990.00	2,990.00	Base of Salt			
3,165.00	3,165.00	Delaware			
4,071.00	4,071.00	Cherry Canyon			
5,738.14	5,738.00	Brushy Canyon			
6,920.58	6,916.00	Bone Spring			
7,806.96	7,799.00	Bone Spring 1 Lime			
7,900.31	7,892.00	Bone Spring 1 Sand			
8,145.24	8,136.00	BSPG2_SH			
8,298.83	8,289.00	Bone Spring 2 Lime			
8,770.62	8,759.00	Bone Spring 2 Sand			
8,999.49	8,987.00	Bone Spring 3 Lime			
9,788.21	9,772.00	Bone Spring 3 Sand			
10,075.82	10,027.00	Red Hills			
10,210.26	10,118.00	Wolfcamp			
10,253.32	10,142.00	Wolfcamp X			
10,469.92	10,219.00	Wolfcamp Y			
10,568.80	10,228.00	LP			

Subject: Request for a Variance Allowing break Testing of the Blowout Preventer Equipment (BOPE)

XTO Energy requests a variance to ONLY test broken pressure seals on the BOPE and function test BOP when skidding a drilling rig between multiple wells on a pad.

Background

Onshore Oil and Gas Order (OOGO) No. 2, Drilling Operations, Sections III.A.2.i.iv.B states that the BOP test must be performed whenever any seal subject to test pressure is broken. The current interpretation of the Bureau of Land Management (BLM) requires a complete BOP test and not just a test of the affected component. OOGO No. 2, Section I.D.2 states, "Some situation may exist either on a well-by-well basis or field-wide basis whereby it is commonly accepted practice to vary a particular minimum standard(s) established in this order. This situation can be resolved by requesting a variance...". XTO Energy feels the break testing the BOPE is such a situation. Therefore, as per OOGO No. 2, Section IV., XTO Energy submits this request for the variance.

Supporting Documentation

OOGO No. 2 became effective on December 19, 1988 and has remained the standard for regulating BLM onshore drilling operations for over 30 years. During this time there have been significant changes in drilling technology. BLM continues to use the variance request process to allow for the use of modern technology and acceptable engineering practices that have arisen since OOGO No. 2 was originally released. The XTO Energy drilling rig fleet has many modern upgrades that allow the intact BOP stack to be moved between well slots on a multi-well pad, as well as, wellhead designs that incorporate quick connects facilitating release of the BOP from the wellhead without breaking any BOP stack components apart. These technologies have been used extensively offshore, and other regulators, API, and many operators around the world have endorsed break testing as safe and reliable.



Figure 1: Winch System attached to BOP Stack



Figure 2: BOP Winch System

American Petroleum Institute (API) standards, specification and recommended practices are considered the industry standard and are consistently utilized and referenced by the industry. OOGO No. 2 recognizes API recommended Practices (RP) 53 in its original development. API Standard 53, *Well Control Equipment Systems for Drilling Wells* (Fifth Edition, December 2018, Annex C, Table C.4) recognizes break testing as an acceptable practice. Specifically, API Standard 53, Section 5.3.7.1 states “A pressure test of the pressure containing component shall be performed following the disconnection or repair, limited to the affected component.” See Table C.4 below for reference.

62 API STANDARD 53			
Table C.4—Initial Pressure Testing, Surface BOP Stacks			
Component to be Pressure Tested	Pressure Test—Low Pressure ^{ac} psig (MPa)	Pressure Test—High Pressure ^{ac}	
		Change Out of Component, Elastomer, or Ring Gasket	No Change Out of Component, Elastomer, or Ring Gasket
Annular preventer ^b	250 to 350 (1.72 to 2.41)	RWP of annular preventer	MASP or 70% annular RWP, whichever is lower.
Fixed pipe, variable bore, blind, and BSR preventers ^{bd}	250 to 350 (1.72 to 2.41)	RWP of ram preventer or wellhead system, whichever is lower	ITP
Choke and kill line and BOP side outlet valves below ram preventers (both sides)	250 to 350 (1.72 to 2.41)	RWP of side outlet valve or wellhead system, whichever is lower	ITP
Choke manifold—upstream of chokes ^e	250 to 350 (1.72 to 2.41)	RWP of ram preventers or wellhead system, whichever is lower	ITP
Choke manifold—downstream of chokes ^e	250 to 350 (1.72 to 2.41)	RWP of valve(s), line(s), or MASP for the well program, whichever is lower	
Kelly, kelly valves, drill pipe safety valves, IBOPs	250 to 350 (1.72 to 2.41)	MASP for the well program	
^a Pressure test evaluation periods shall be a minimum of five minutes. No visible leaks. The pressure shall remain stable during the evaluation period. The pressure shall not decrease below the intended test pressure. ^b Annular(s) and VBR(s) shall be pressure tested on the largest and smallest OD drill pipe to be used in well program. ^c For pad drilling operations, moving from one wellhead to another within the 21 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken. ^d For surface offshore operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented during the initial test. For land operations, the ram BOPs shall be pressure tested with the ram locks engaged and the closing and locking pressure vented at commissioning and annually. ^e Adjustable chokes are not required to be full sealing devices. Pressure testing against a closed choke is not required.			

The Bureau of Safety and Environmental Enforcement (BSEE), Department of Interior, has also utilized the API standards, specification and best practices in the development of its offshore oil and gas regulations and incorporates them by reference within its regulations.

Break testing has been approved by the BLM in the past with other operators based on the detailed information provided in this document.

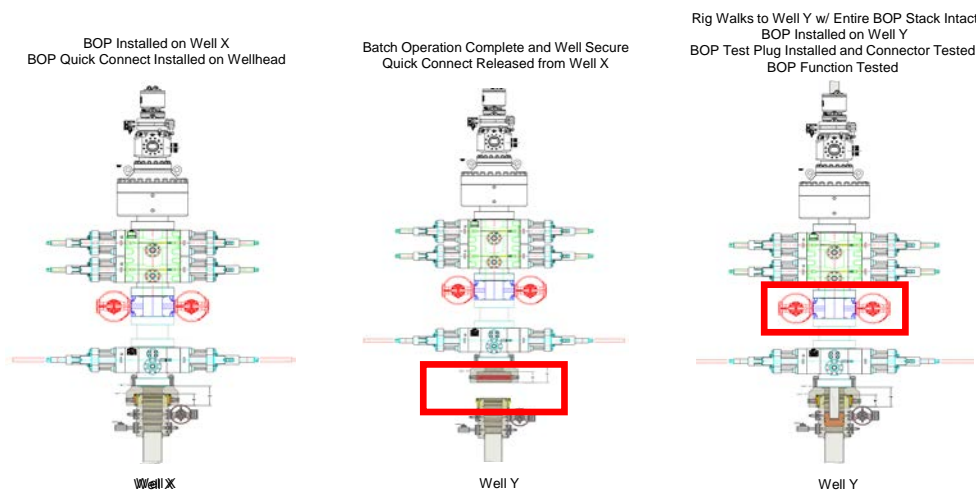
XTO Energy feels break testing and our current procedures meet the intent of OOGO No. 2 and often exceed it. There has been no evidence that break testing results in more components failing than seen on full BOP tests. XTO Energy's internal standards requires complete BOPE tests more often than that of OOGO No. 2 (Every 21 days). In addition to function testing the annular, pipe rams and blind rams after each BOP nipple up, XTO Energy performs a choke drill with the rig crew prior to drilling out every casing shoe. This is additional training for the rig crew that exceeds the requirements of the OOGO No.2.

Procedures

1. XTO Energy will use this document for our break testing plan for New Mexico Delaware basin. The summary below will be referenced in the APD or Sundry Notice and receive approval prior to implementing this variance.
2. XTO Energy will perform BOP break testing on multi-wells pads where multiple intermediate sections can be drilled and cased within the 21-day BOP test window.
 - a. A full BOP test will be conducted on the first well on the pad.
 - b. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
 - i. Our Lower WC targets set the intermediate casing shoe no deeper than the Wolfcamp B.
 - ii. Our Upper WC targets set the intermediate casing shoe shallower than the Wolfcamp B.
 - c. A Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
 - d. A full BOP test will be required prior to drilling any production hole.
3. After performing a complete BOP test on the first well, the intermediate hole section will be drilled and cased, two breaks would be made on the BOP equipment.
 - a. Between the HCV valve and choke line connection
 - b. Between the BOP quick connect and the wellhead
4. The BOP is then lifted and removed from the wellhead by a hydraulic system.
5. After skidding to the next well, the BOP is moved to the wellhead by the same hydraulic system and installed.
6. The connections mentioned in 3a and 3b will then be reconnected.
7. Install test plug into the wellhead using test joint or drill pipe.
8. A shell test is performed against the upper pipe rams testing the two breaks.
9. The shell test will consist of a 250 psi low test and a high test to the value submitted in the APD or Sundry (e.g. 5,000 psi or 10,000psi).
10. Function test will be performed on the following components: lower pipe rams, blind rams, and annular.

11. For a multi-well pad the same two breaks on the BOP would be made and on the next wells and steps 4 through 10 would be repeated.
12. A second break test would only be done if the intermediate hole section being drilled could not be completed within the 21 day BOP test window.

Note: Picture below highlights BOP components that will be tested during batch operations



Summary

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.

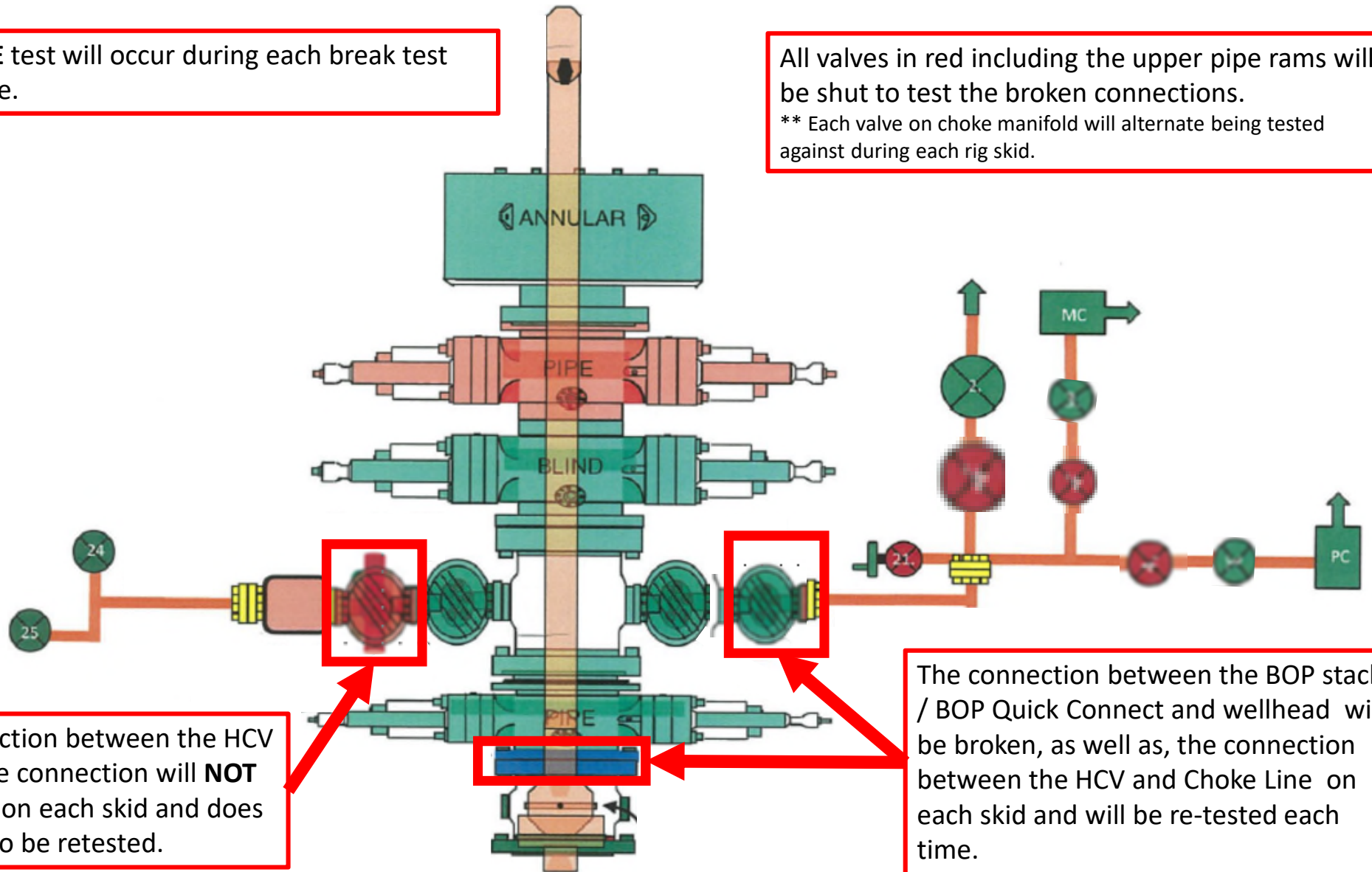
The BOP will be secured by a hydraulic carrier or cradle. The BLM will be contacted if a Well Control event occurs prior to the commencement of a BOPE Break Testing operation.

Based on discussions with the BLM on February 27th 2020 and the supporting documentation submitted to the BLM, 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.
2. The first intermediate hole section drilled on the pad will be the deepest. All of the remaining hole sections will be the same depth or shallower.
3. Full BOP test will be required if the intermediate hole section being drilled has a MASP over 5M.
4. Full BOP test will be required prior to drilling the production hole.

Only **ONE** test will occur during each break test procedure.

All valves in red including the upper pipe rams will be shut to test the broken connections.
** Each valve on choke manifold will alternate being tested against during each rig skid.



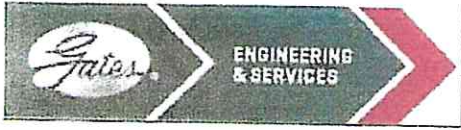
The connection between the HCV and kill line connection will **NOT** be broken on each skid and does not need to be retested.

The connection between the BOP stack / BOP Quick Connect and wellhead will be broken, as well as, the connection between the HCV and Choke Line on each skid and will be re-tested each time.

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 nipped 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.



GATES E & S 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 :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No.:	D-060814-1
Invoice No. :	201709	Created By:	NORMA

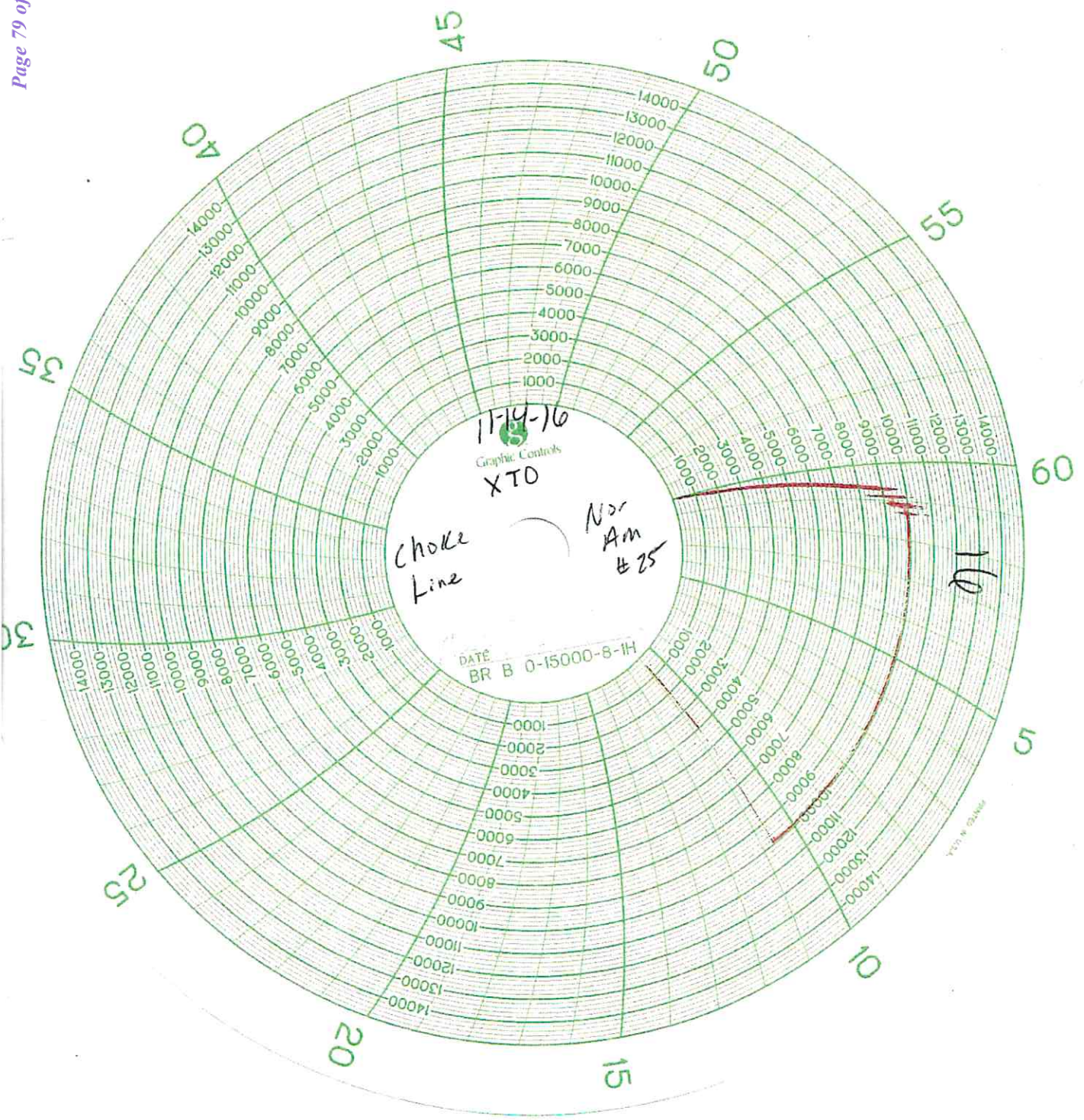
Product Description: FD3.042.0R41/16.5KFLGE/E LE

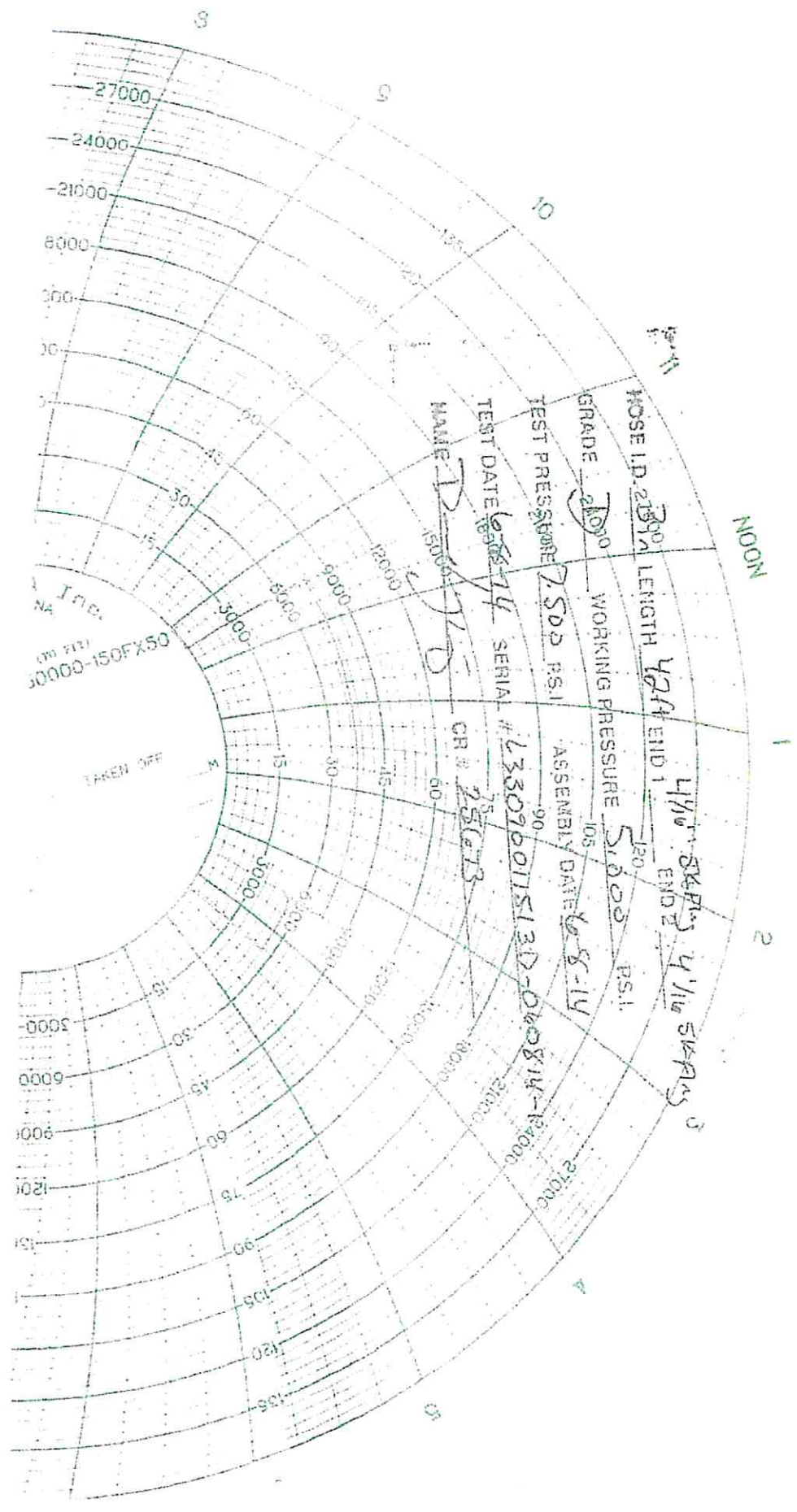
End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L33090011513D-060814-1
Working Pressure :	5,000 PSI	Test Pressure :	7,500 PSI

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 :	<i>[Signature]</i>	Signature :	<i>[Signature]</i>

Form PTC - 01 Rev.0 2





XTO Permian Operating, LLC Offline Cementing Variance Request

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

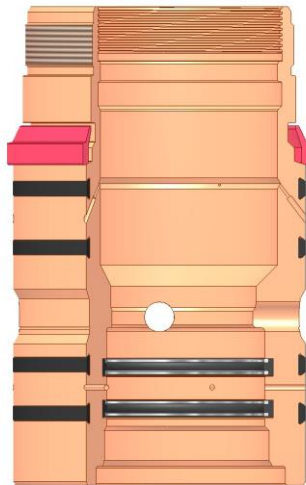
1. Cement Program

No changes to the cement program will take place for offline cementing.

2. Offline Cementing Procedure

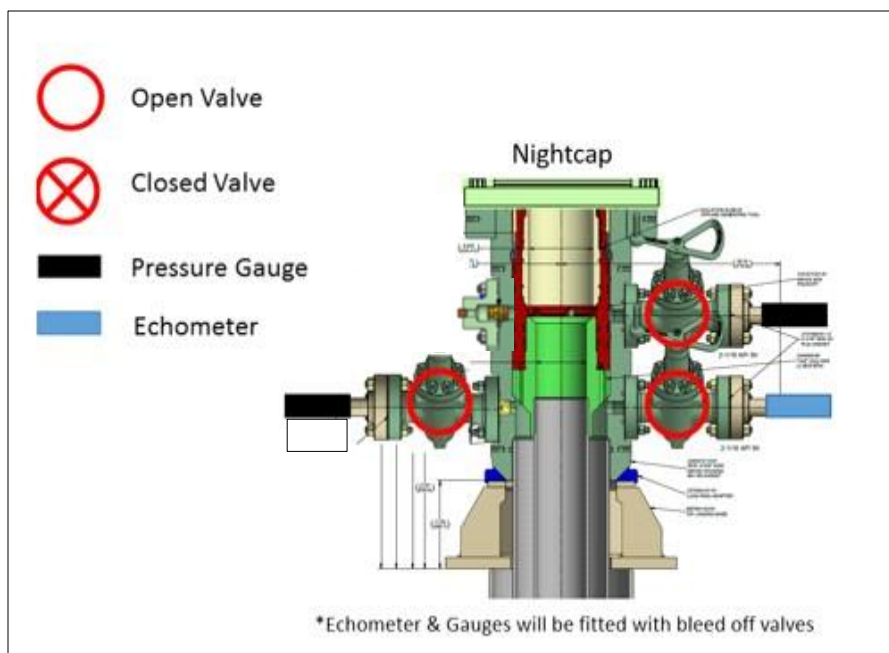
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
 - a. If any barrier fails to test, the BOP stack will not be nipped down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



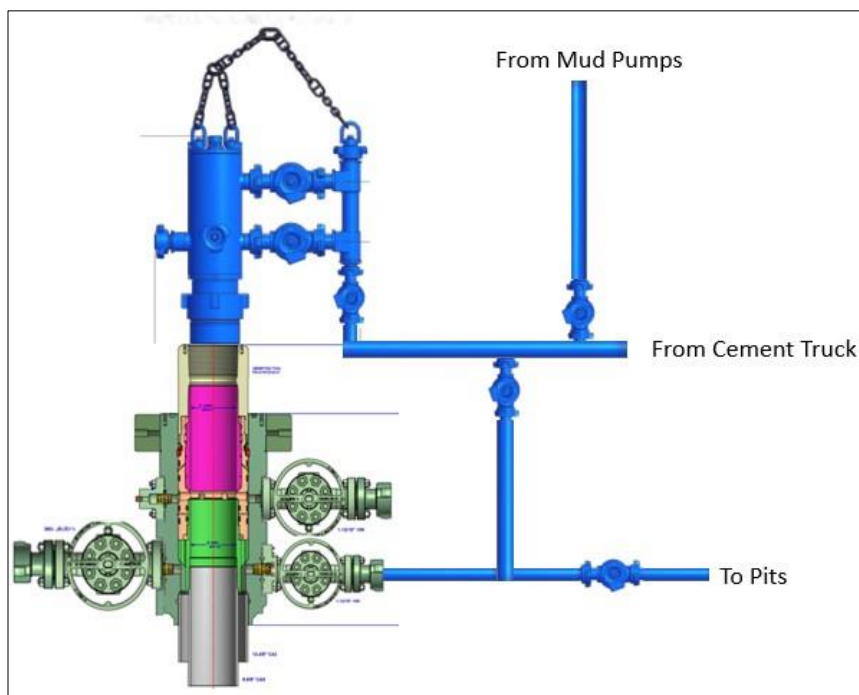
Annular packoff with both external and internal seals

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nipping up for further remediation.
 - a. Well Control Plan
 - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
 - ii. Rig pumps or a 3rd party pump will be tied into the upper casing valve to pump down the casing ID
 - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
 - v. Well will be confirmed static
 - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment

XTO Permian Operating, LLC Offline Cementing Variance Request

Wellhead diagram during offline cementing operations

10. Circulate bottoms up with cement truck
 - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
 - b. Max anticipated time before circulating with cement truck is 6 hrs
11. Perform cement job taking returns from the annulus wellhead valve
12. Confirm well is static and floats are holding after cement job
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

Cement Variance Request

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 Brushy Canyon (5738') and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. If cement is not visually confirmed to circulate to surface, the final cement top after the second stage job will be verified by Echo-meter. 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. If cement is still unable to circulate to surface, another Echo-meter run will be performed for cement top verification.

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 GE procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.



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

SUPO Data Report

06/11/2024

APD ID: 10400081276

Submission Date: 11/01/2021

Highlighted data reflects the most recent changes

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

[Show Final Text](#)

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Shady_Pines_102H_road_20211027055113.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? YES

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Shady_Pines_Road_20211004100920.pdf

New road type: RESOURCE

Length: 2605.97 Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.

New road access plan or profile prepared? N

New road access plan

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.

Access other construction information:

Access miscellaneous information: A. From the intersection of US Hwy 285 S and Whitehorn Road, go East on Whitehorn Rd for approximately 10.9 miles, arriving at the proposed road. The location is to the East. Transportation maps identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, Topographical and Access Road Map.

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: LOW WATER

Drainage Control comments: The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

Road Drainage Control Structures (DCS) description: The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Shady_Pines_1_Mile_20210617055710.pdf

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. No additional production facilities are requested for the Shady Pines 24-36 project area. All wells drilled and completed will flow to the approved and existing Ross Draw 25N CTB (NWNE-25-26S-29E). A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. Buried & Surface Flowlines. In the event the Shady Pines 24-36 wells are found productive, forty-eight (48) 10in. or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas, frac water, gas lift, fuel gas, and produced water are requested to the existing Ross Draw 25N battery. If XTO decides to run surface lines, forty-eight (48) 4in. or less composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and produced water will be required to the Ross Draw 25N facility. The proposed corridor for flowlines: 2909.98ft long, 30ft. wide. Total Acreage Associated with Flowlines: 2 Acres. Midstream Tie-In. No midstream tie-in connections are requested to the proposed Outrider facilities. Any 3P takeaway will be permitted separately. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. Flare. A flare is not requested nor required with this project. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as shale green that reduce the visual impacts of the built environment. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1.5 times the capacity of the largest tank and away from cut or fill areas. Electrical. All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 5086.82ft or .96 miles of electrical will be run from the anticipated tie-in point with a request for 30 ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area.

Production Facilities map:

Shady_Pines_FL_20211004101006.pdf

Shady_Pines_OHE_20211004101011.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: FW; Section 27-25S-30E

Water source use type:

- DUST CONTROL
- SURFACE CASING
- INTERMEDIATE/PRODUCTION CASING
- STIMULATION

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Water source transport method: PIPELINE
TRUCKING

Source land ownership: COMMERCIAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 2000000

Source volume (acre-feet): 257.78619266

Source volume (gal): 84000000

Water source type: OTHER

Describe type: FW; Section 6-25S-29E

Water source use type: DUST CONTROL
INTERMEDIATE/PRODUCTION
CASING
STIMULATION

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE
TRUCKING

Source land ownership: COMMERCIAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 2000000

Source volume (acre-feet): 257.78619266

Source volume (gal): 84000000

Water source and transportation

Shady_Pines_102H_wtr_20211027055134.pdf

Water source comments: The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 7 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location. Water for drilling, completion and dust control will be purchased from the following company: Texas Pacific Water Resources Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO Energy, Inc. from Section 27, T25S-R30E, Eddy County, NM. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, NM. Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

New water well? N

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6 rolled and compacted caliche. A. Anticipated Caliche Locations: a. Pit 1: Federal Caliche Pit, Section 17-T25S-R30E b. Pit 2: Federal Caliche Pit, Section 34-T25S-R29E

Construction Materials source location

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel Mud Pits

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

Safe containment description: The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: R360 Environmental Solutions 4507 W Carlsbad Hwy, Hobbs, NM 88240

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 250 gallons

Waste disposal frequency : Weekly

Safe containment description: Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL FACILITY

Disposal type description:

Disposal location description: A licensed 3rd Party contractor will be used to haul and dispose of human waste.

Operator Name: XTO ENERGY INCORPORATED	
Well Name: SHADY PINES 24-36	Well Number: 102H

Waste type: GARBAGE

Waste content description: Garbage

Amount of waste: 250 pounds

Waste disposal frequency : Weekly

Safe containment description: All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approve sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location. Debris. Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: A licensed 3rd party contractor will be used to haul and dispose of human waste

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Cuttings. The well will be drilled utilizing a closed-loop mud system. Drill cutting will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site. Drilling fluids. These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility. Produced fluids. water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. oil produced during operations will be stored in tanks until sold.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

Shady_Pines_102H_RL_20211027055152.pdf

Shady_Pines_102H_layout_20211027055156.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Shady Pines

Multiple Well Pad Number: 2

Recontouring

Shady_Pines_IR1_20210617060413.pdf

Shady_Pines_IR2_20210617060422.pdf

Shady_Pines_IR3_20210617060431.pdf

Drainage/Erosion control construction: All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches

Drainage/Erosion control reclamation: Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gulying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

Well pad proposed disturbance (acres): 16.26	Well pad interim reclamation (acres): 1.65	Well pad long term disturbance (acres): 15.21
Road proposed disturbance (acres): 1.79	Road interim reclamation (acres): 0	Road long term disturbance (acres): 1.79
Powerline proposed disturbance (acres): 3.5	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 3.5
Pipeline proposed disturbance (acres): 2	Pipeline interim reclamation (acres): 2	Pipeline long term disturbance (acres): 0
Other proposed disturbance (acres): 0	Other interim reclamation (acres): 0	Other long term disturbance (acres): 0
Total proposed disturbance: 23.55	Total interim reclamation: 3.65	Total long term disturbance: 20.5

Operator Name: XTO ENERGY INCORPORATED**Well Name:** SHADY PINES 24-36**Well Number:** 102H**Disturbance Comments:**

Reconstruction method: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

Topsoil redistribution: The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

Soil treatment: A self-sustaining, vigorous, diverse, native (or otherwise approved) plant community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

Existing Vegetation at the well pad: According to the Natural Resources Conservation Services online database, the project area soil is Pajarito-Dune land complex, loamy sand, 0-3 percent slopes. This soil supports grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout. The project area is in a low area of deep sands amongst low to medium height dunes with some gravel and outcrops. Vegetation such as fourwing saltbrush, snakeweed and desert sage was viewed in the project area.

Existing Vegetation at the well pad

Existing Vegetation Community at the road: According to the Natural Resources Conservation Services online database, the project area soil is Pajarito-Dune land complex, loamy sand, 0-3 percent slopes. This soil supports grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout. The project area is in a low area of deep sands amongst low to medium height dunes with some gravel and outcrops. Vegetation such as fourwing saltbrush, snakeweed and desert sage was viewed in the project area.

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: According to the Natural Resources Conservation Services online database, the project area soil is Pajarito-Dune land complex, loamy sand, 0-3 percent slopes. This soil supports grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout. The project area is in a low area of deep sands amongst low to medium height dunes with some gravel and outcrops. Vegetation such as fourwing saltbrush, snakeweed and desert sage was viewed in the project area.

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: According to the Natural Resources Conservation Services online database, the project area soil is Pajarito-Dune land complex, loamy sand, 0-3 percent slopes. This soil supports grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout. The project area is in a low area of deep sands amongst low to medium height dunes with some gravel and outcrops. Vegetation such as fourwing saltbrush, snakeweed and desert sage was viewed in the project area.

Existing Vegetation Community at other disturbances**Non native seed used?** N**Non native seed description:****Seedling transplant description:****Will seedlings be transplanted for this project?** N**Seedling transplant description**

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

[Seed](#)

[Seed Table](#)

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation

[Operator Contact/Responsible Official](#)

First Name: James

Last Name: Scott

Phone: (432)488-9955

Email: james.scott@exxonmobil.com

Seedbed prep: Seedbed Preparation: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.

Seed BMP: If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

Seed method: : Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: Weed control for all phases will be through the use of approved pesticides and herbicides according to applicable State, Federal and local laws.

Weed treatment plan

Monitoring plan description: Monitoring of invasive and noxious weeds will be visual and as-needed. If it is determined additional methods are required to monitor invasive and noxious weeds, appropriate BLM authorities will be contacted with a plan of action for approval prior to implementation.

Monitoring plan

Success standards: 100% compliance with applicable regulations.

Pit closure description: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: XTO ENERGY INCORPORATED	
Well Name: SHADY PINES 24-36	Well Number: 102H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: OTHER

Describe: Electric Line

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other

Right of Way needed? Y

Use APD as ROW? Y

ROW Type(s): 281001 ROW - ROADS,285003 ROW – POWER TRANS,289001 ROW- O&G Well Pad,FLPMA (Powerline)

ROW

SUPO Additional Information:

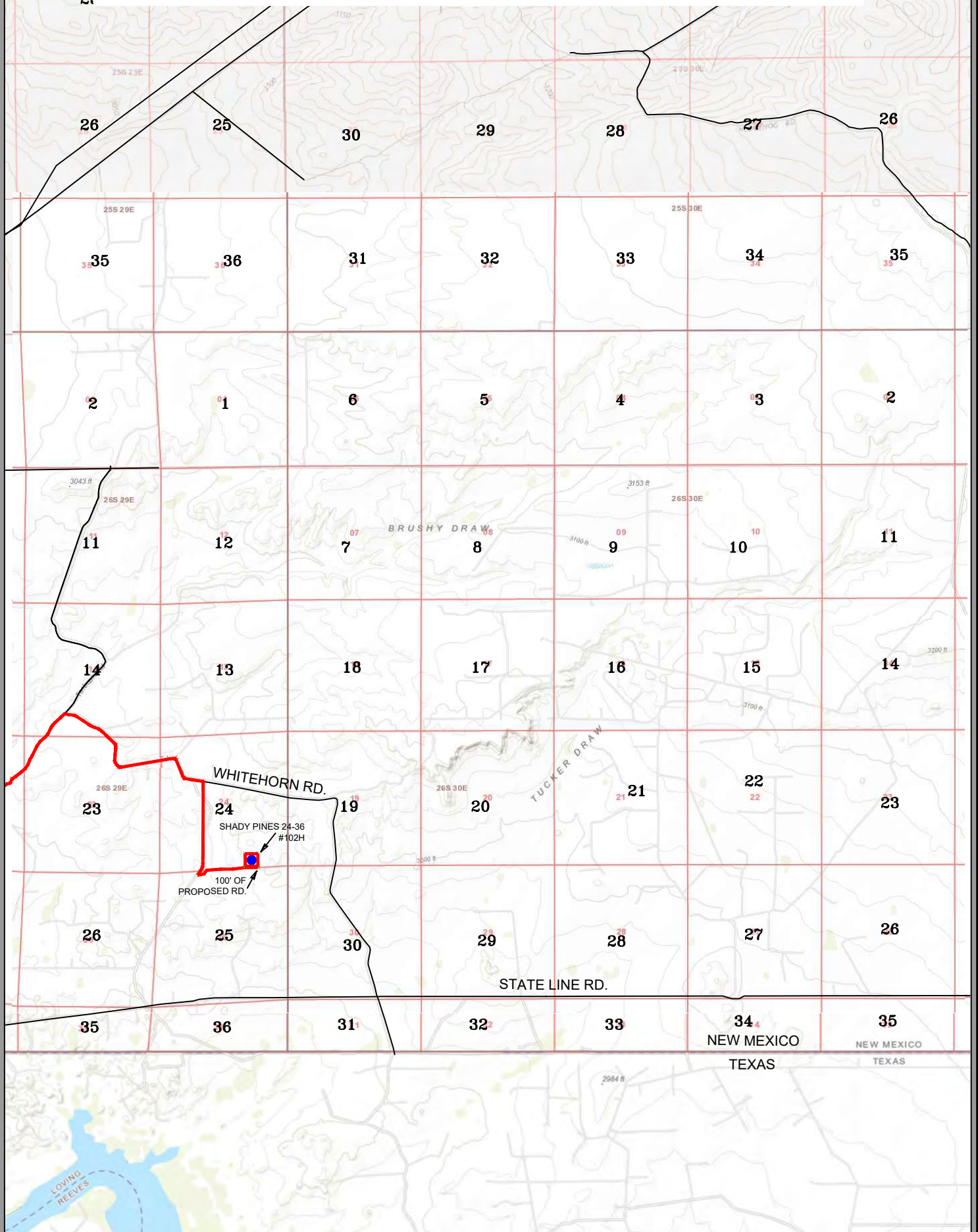
Use a previously conducted onsite? Y

Previous Onsite information: Onsite: Colleen Cepero-Rios, Bureau of Land Management Natural Resource Specialist in attendance, on November 17, 2019

Other SUPO

Shady_Pines_SUPO_20211004102220.pdf

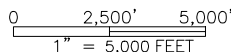
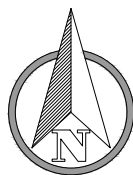
TOPOGRAPHICAL AND ACCESS ROAD MAP



DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF US HIGHWAY 285 S AND WHITEHORN RD, GO EAST ON WHITEHORN RD FOR APPROX. 10.9 MILES, ARRIVING AT THE PROPOSED ROAD AND THE LOCATION IS TO THE EAST.

SHADY PINES 24-36 #102H
LOCATED 1,521 FEET FROM THE EAST LINE
AND 432 FEET FROM THE SOUTH LINE OF
SECTION 24, TOWNSHIP 26 SOUTH, RANGE 29
EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO



550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

DATE:	06-20-19	PROJECT NO:	2019061753
DRAWN BY:	AR	SCALE:	1" = 5,000'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	1

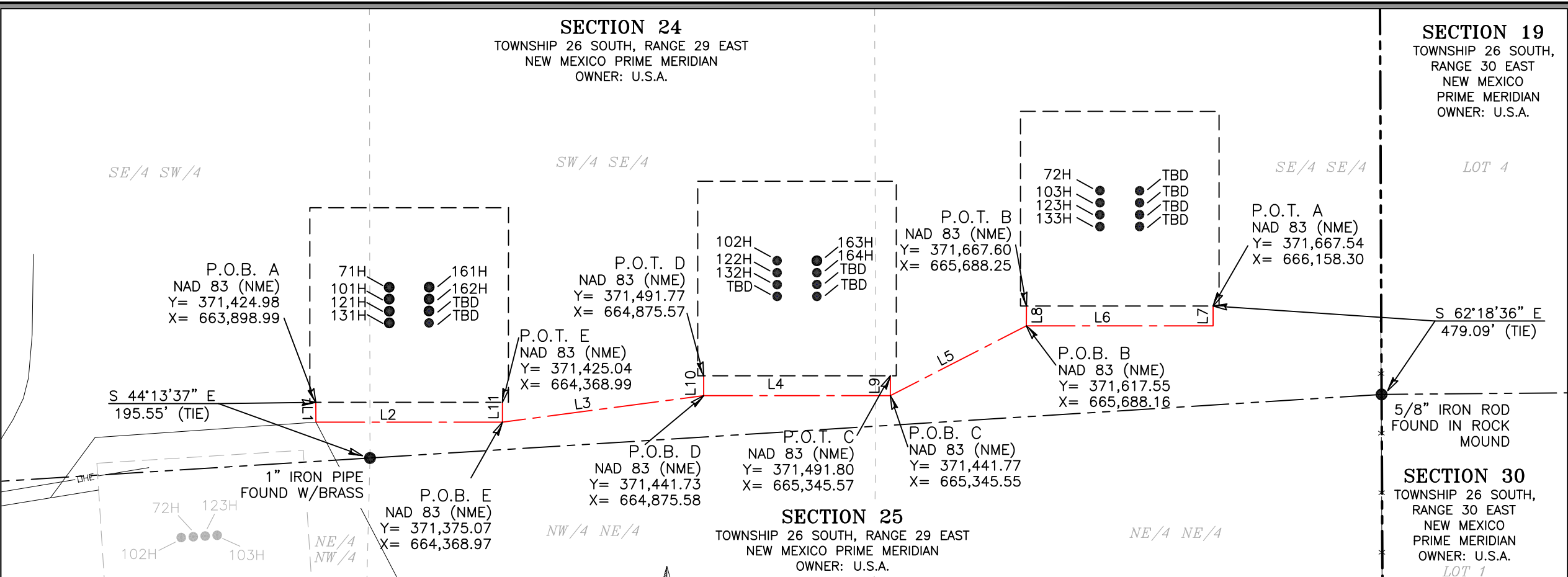
© COPYRIGHT 2016 - ALL RIGHTS RESERVED

SECTION 24
TOWNSHIP 26 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

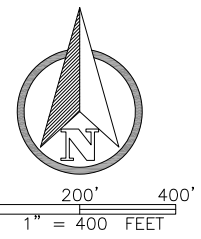
SECTION 19
TOWNSHIP 26 SOUTH, RANGE 30 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

SECTION 30
TOWNSHIP 26 SOUTH, RANGE 30 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

SECTION 25
TOWNSHIP 26 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.



I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



LEGEND

---	SECTION LINE
---	EXISTING ROAD
---DHE---	EXISTING OVERHEAD ELECTRIC
---	PROPOSED PAD
---	PROPOSED ACCESS ROAD CENTERLINE
●	P.O.B.
●	P.O.T.
●	FOUND MONUMENT AS NOTED

MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

DATE: 9/28/2021
DRAWN BY: JC
CHECKED BY: AI
FIELD CREW: CB
PROJECT NO: 2019051361
SCALE: 1" = 400'
SHEET: 1 OF 2
REVISION: NO

PLAT OF:
A PROPOSED CENTERLINE OF
AN ACCESS ROAD FOR:
XTO ENERGY, INC.
SHADY PINES 24-36
SITUATED IN SECTION 24,
TOWNSHIP 26 SOUTH, RANGE 29 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO



- GENERAL NOTES**
- BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.
 - LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

SHADY PINES 25-36 PROPOSED CENTERLINE OF ACCESS ROAD DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 2,605.97 FEET, 157.94 RODS, OR 0.49 MILES IN LENGTH CROSSING SECTION 24, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE OF SURVEY, COMPRISING OF 1.76 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

SE/SW SECTION 24 = 186.02 FEET = 11.27 RODS = 0.13 OF AN ACRE
SW/SE SECTION 24 = 1,377.87 FEET = 83.51 RODS = 0.93 OF AN ACRE
SE/SE SECTION 24 = 1,042.08 FEET = 63.16 RODS = 0.70 OF AN ACRE

LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	S 00°18'59" E	50.01'
L2	N 89°59'17" E	469.70'
L3	N 82°30'12" E	510.98'
L4	N 89°59'45" E	469.97'
L5	N 62°50'21" E	385.08'
L6	S 89°59'25" E	470.07'
L7	N 00°05'34" E	50.07'

LINE TABLE "B"

L8	N 00°06'36" E	50.04'
----	---------------	--------

LINE TABLE "C"

L9	N 00°01'39" E	50.03'
----	---------------	--------

LINE TABLE "D"

L10	N 00°00'21" W	50.04'
-----	---------------	--------

LINE TABLE "E"

L11	N 00°01'51" E	49.98'
-----	---------------	--------

TOTAL LENGTH = 2,605.97 FEET
OR 154.94 RODS

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

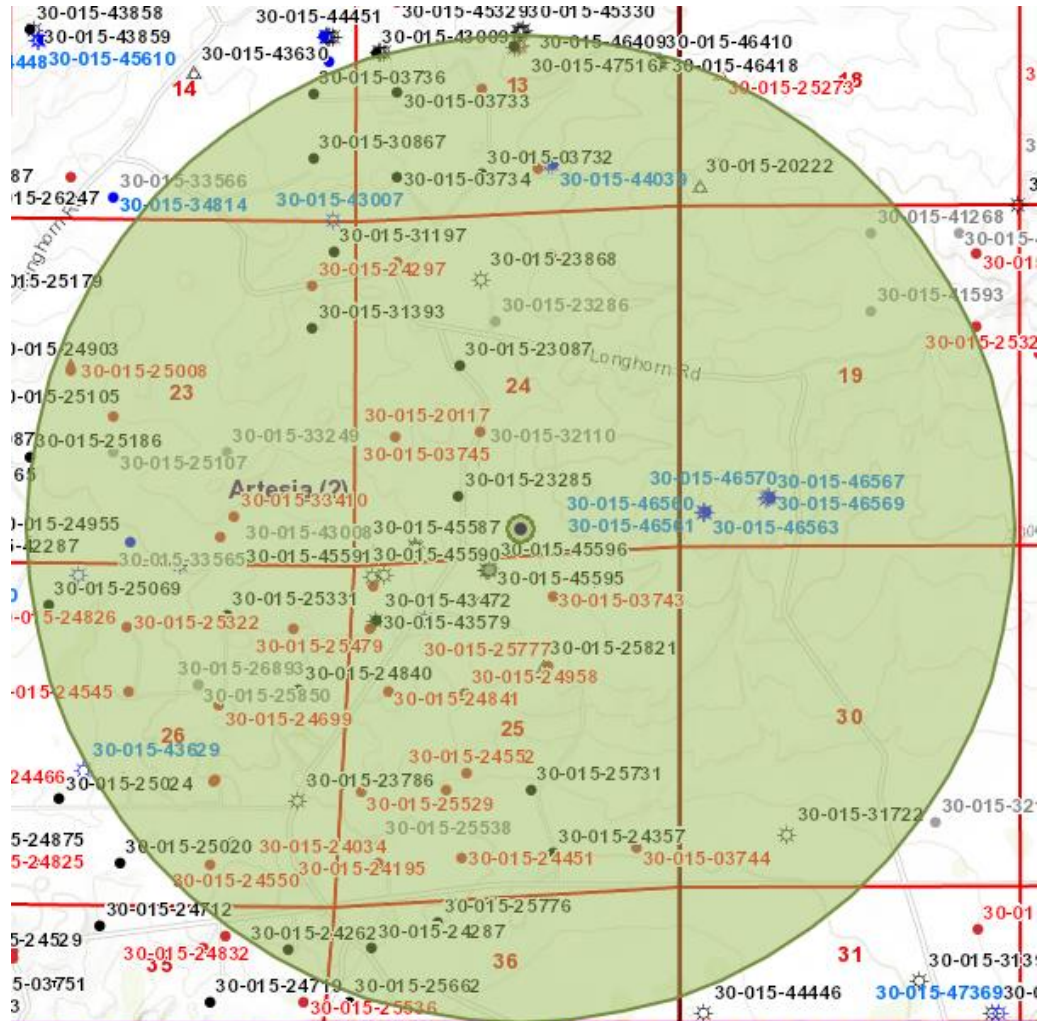
FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

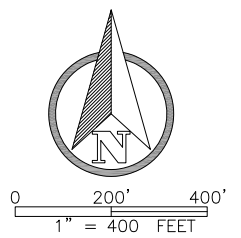
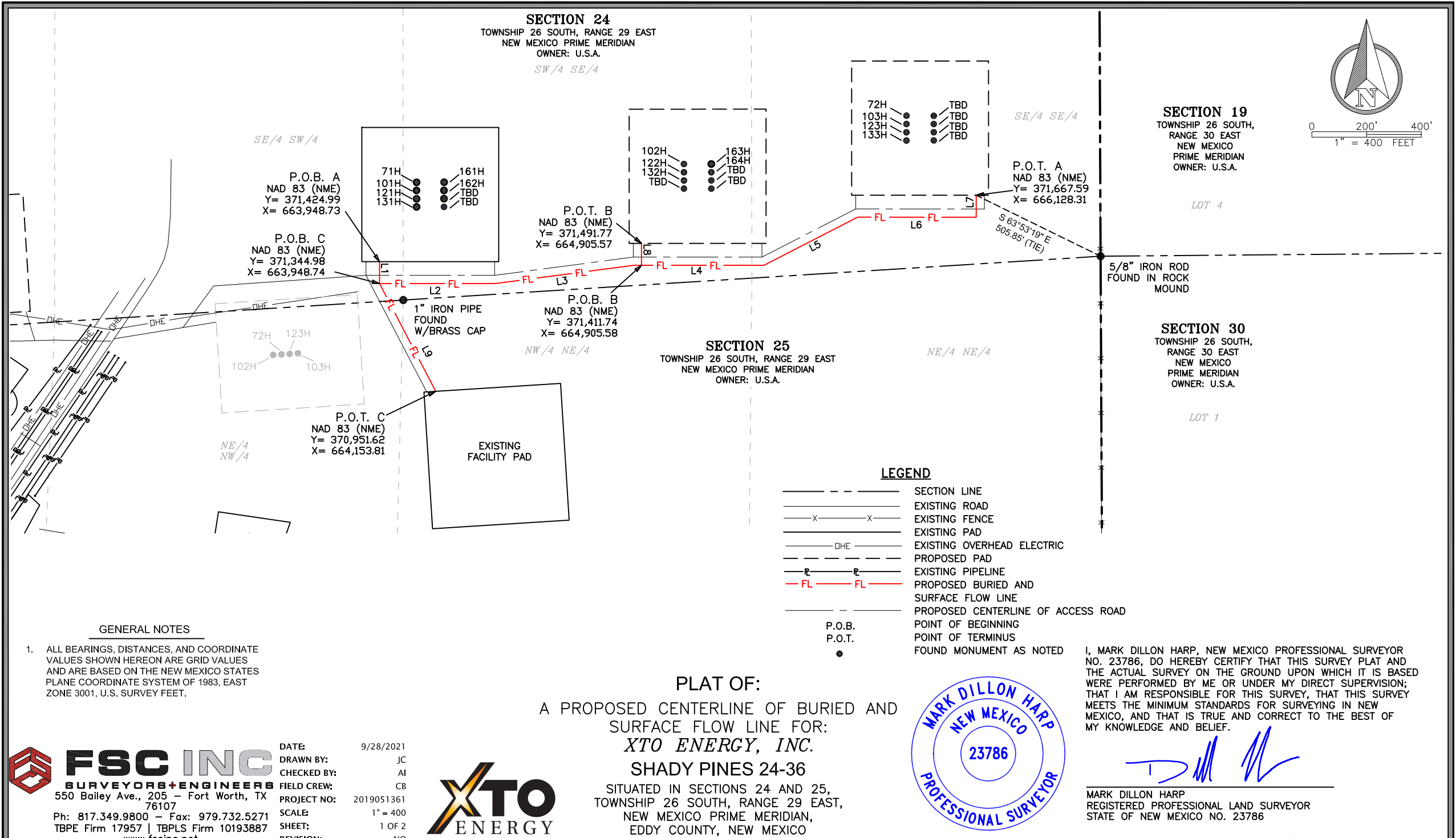
DATE: 9-28-2021
DRAWN BY: JC
CHECKED BY: AI
FIELD CREW: CB
PROJECT NO: 2019051361
SCALE:
SHEET: 2 OF 2
REVISION: NONE

PLAT OF:
A PROPOSED CENTERLINE OF
AN ACCESS ROAD FOR:
XTO ENERGY, INC.
SHADY PINES 25-36
SITUATED IN SECTION 24,
TOWNSHIP 26 SOUTH, RANGE 29 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO



Shady Pines 24-36 Federal 1-Mile Radius Map





LEGEND

- SECTION LINE
- EXISTING ROAD
- x-x- EXISTING FENCE
- EXISTING PAD
- DHE- EXISTING OVERHEAD ELECTRIC
- PROPOSED PAD
- E-E- EXISTING PIPELINE
- FL-FL- PROPOSED BURIED AND SURFACE FLOW LINE
- PROPOSED CENTERLINE OF ACCESS ROAD
- P.O.B.
- P.O.T.
- FOUND MONUMENT AS NOTED

GENERAL NOTES

1. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES SHOWN HEREON ARE GRID VALUES AND ARE BASED ON THE NEW MEXICO STATES PLANE COORDINATE SYSTEM OF 1983, EAST ZONE 3001, U.S. SURVEY FEET.

PLAT OF:

A PROPOSED CENTERLINE OF BURIED AND SURFACE FLOW LINE FOR:
XTO ENERGY, INC.
SHADY PINES 24-36

SITUATED IN SECTIONS 24 AND 25,
TOWNSHIP 26 SOUTH, RANGE 29 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO



I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

DATE: 9/28/2021
DRAWN BY: JC
CHECKED BY: AI
FIELD CREW: CB
PROJECT NO: 2019051361
SCALE: 1" = 400
SHEET: 1 OF 2
REVISION: NO



SHADY PINES 25-36 PROPOSED CENTERLINE OF BURIED AND SURFACE FLOW LINE DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 2,909.98 FEET, 176.36 RODS, OR 0.55 MILES IN LENGTH CROSSING SECTIONS 24 AND 25, TOWNSHIP 26 SOUTH, RANGE 29 EAST, AND SECTION 25, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 1.98 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

SE/SW SECTION 24 = 238.20 FEET = 14.44 RODS = 0.15 OF AN ACRE
SW/SE SECTION 24 = 1,357.91 FEET = 82.30 RODS = 0.92 OF AN ACRE
SE/SE SECTION 24 = 941.88 FEET = 57.08 RODS = 0.65 OF AN ACRE
NE/NW SECTION 25 = 110.32 FEET = 6.68 RODS = 0.08 OF AN ACRE
NW/NE SECTION 25 = 261.67 FEET = 15.86 RODS = 0.18 OF AN ACRE

LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	S 00°00'29" E	80.01'
L2	N 89°59'17" E	422.20'
L3	N 82°30'12" E	510.97'
L4	N 89°59'45" E	475.25'
L5	N 62°50'21" E	385.07'
L6	S 89°59'25" E	432.77'
L7	N 00°05'34" E	80.06'

LINE TABLE "B"

L8	N 00°00'21" W	80.04'
----	---------------	--------

LINE TABLE "C"

L9	S 27°32'08" E	443.61'
----	---------------	---------

TOTAL LENGTH = 2,909.98 FEET
OR 176.36 RODS

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



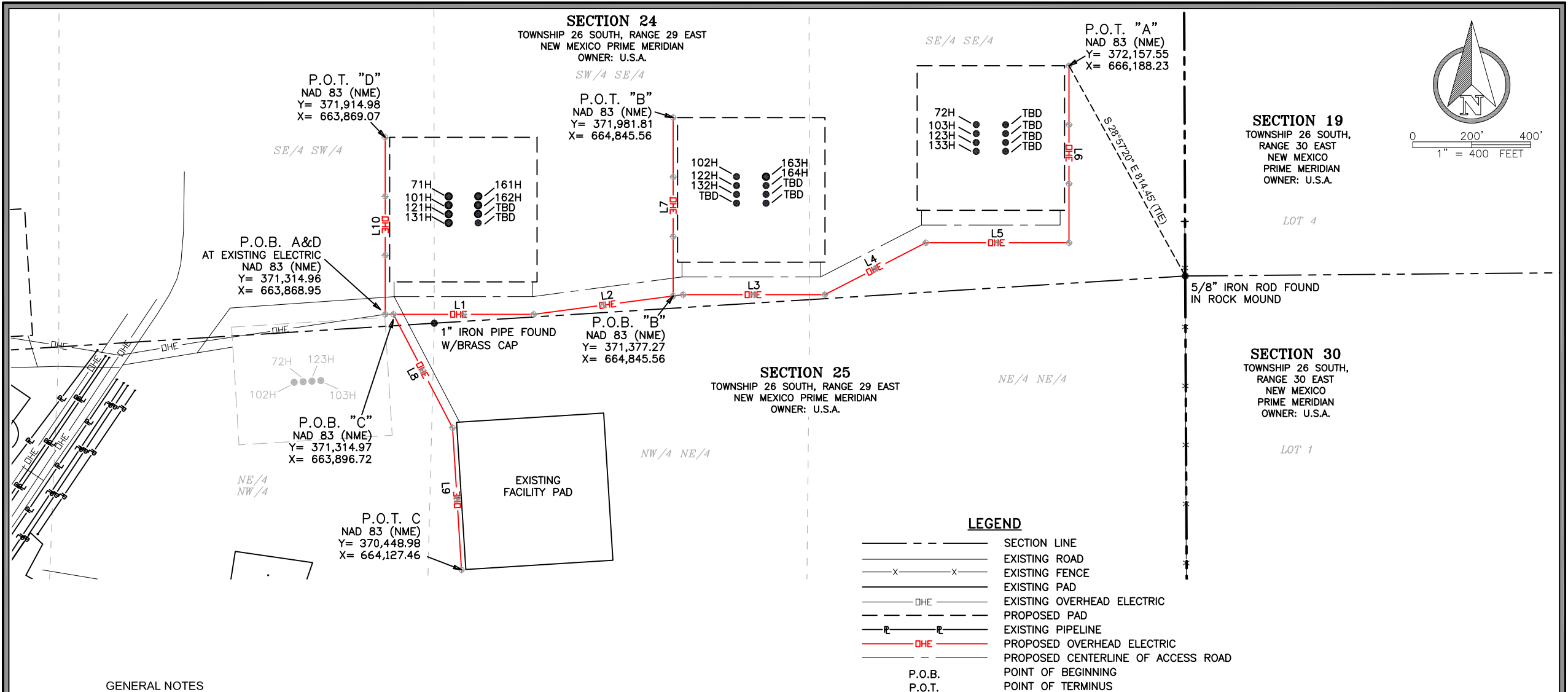
MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

PLAT OF:
A PROPOSED CENTERLINE OF BURIED AND SURFACE FLOW LINE FOR:
XTO ENERGY, INC.
SHADY PINES 25-36
SITUATED IN SECTIONS 24 AND 25,
TOWNSHIP 26 SOUTH, RANGE 29 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

DATE: 9-28-2021
DRAWN BY: JC
CHECKED BY: AI
FIELD CREW: CB
PROJECT NO: 2019051361
SCALE:
SHEET: 2 OF 2
REVISION: NONE





GENERAL NOTES

- ALL BEARINGS, DISTANCES, AND COORDINATE VALUES SHOWN HEREON ARE GRID VALUES AND ARE BASED ON THE NEW MEXICO STATES PLANE COORDINATE SYSTEM OF 1983, EAST ZONE 3001, U.S. SURVEY FEET.

FSC INC
SURVEYORS+ENGINEERS
 550 Bailey Ave., 205 - Fort Worth, TX 76107
 Ph: 817.349.9800 - Fax: 979.732.5271
 TBPE Firm 17957 | TBPLS Firm 10193887
 www.fscinc.net

DATE: 9-28-2021
 DRAWN BY: JC
 CHECKED BY: AI
 FIELD CREW: CB
 PROJECT NO: 2019051361
 SCALE: 1" = 400'
 SHEET: 1 OF 2
 REVISION: NO



PLAT OF:
 A PROPOSED CENTERLINE OF
 OVERHEAD ELECTRIC LINES FOR:
XTO ENERGY, INC.
SHADY PINES 24-36
 SITUATED IN SECTIONS 24 AND 25,
 TOWNSHIP 26 SOUTH, RANGE 29 EAST,
 NEW MEXICO PRIME MERIDIAN,
 EDDY COUNTY, NEW MEXICO



I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

[Signature]
 MARK DILLON HARP
 REGISTERED PROFESSIONAL LAND SURVEYOR
 STATE OF NEW MEXICO NO. 23786

SHADY PINES 25-36 PROPOSED CENTERLINE OF OVERHEAD ELECTRIC LINE DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 5,086.82 FEET, 308.29 RODS, OR 0.96 MILES IN LENGTH CROSSING SECTIONS 24 AND 25, TOWNSHIP 26 SOUTH, RANGE 29 EAST, AND SECTION 25, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE SURVEY, COMPRISING OF 3.48 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

SE/SW SECTION 24 = 808.85 FEET = 49.02 RODS = 0.55 OF AN ACRE
SW/SE SECTION 24 = 1,882.47 FEET = 114.09 RODS = 1.27 ACRES
SE/SE SECTION 24 = 1,521.89 FEET = 92.24 RODS = 1.05 ACRES
NE/NW SECTION 25 = 245.29 FEET = 14.86 RODS = 0.17 OF AN ACRE
NW/NE SECTION 25 = 628.32 FEET = 38.08 RODS = 0.44 OF AN ACRE

LINE TABLE "A"

LINE	BEARING	DISTANCE
L1	N 89°59'17" E	503.95'
L2	N 82°30'12" E	510.97'
L3	N 89°59'45" E	480.53'
L4	N 62°50'21" E	385.07'
L5	S 89°59'25" E	485.61'
L6	N 00°00'10" W	600.08'

LINE TABLE "B"

L7	N 00°00'01" E	604.54'
----	---------------	---------

LINE TABLE "C"

L8	S 27°32'08" E	433.62'
L9	S 03°35'54" E	482.43'

LINE TABLE "D"

L10	N 00°00'41" E	600.02'
-----	---------------	---------

TOTAL LENGTH = 5,086.82 FEET
OR 308.29 RODS

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



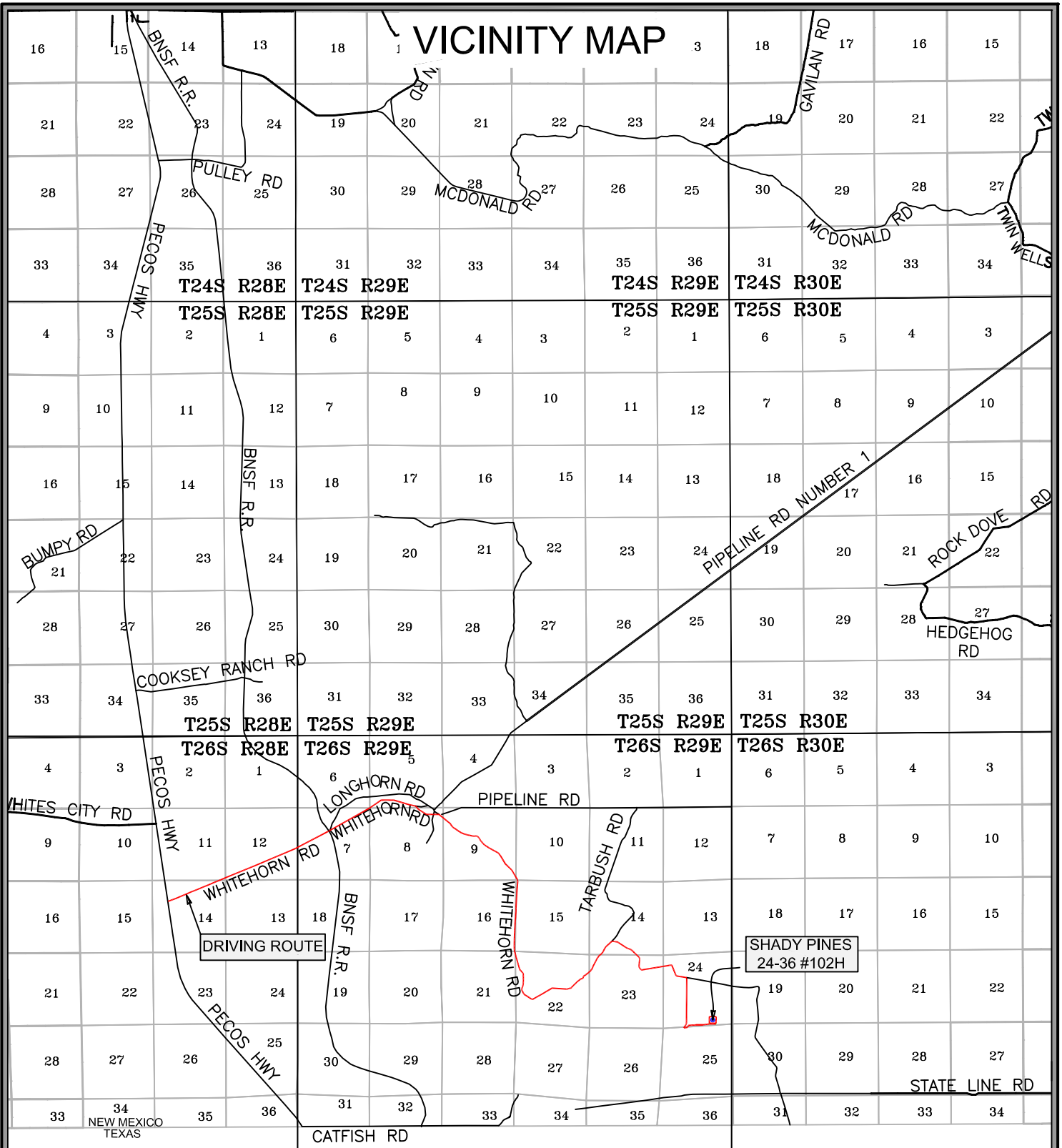
MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

FSC INC
SURVEYORS+ENGINEERS
550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

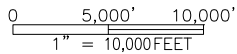
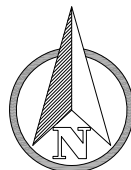
DATE: 9-28-2021
DRAWN BY: JC
CHECKED BY: AI
FIELD CREW: CB
PROJECT NO: 2019051361
SCALE:
SHEET: 2 OF 2
REVISION: NONE

PLAT OF:
A PROPOSED CENTERLINE OF OVERHEAD
ELECTRIC LINES FOR:
XTO ENERGY, INC.
SHADY PINES 25-36
SITUATED IN SECTIONS 24 AND 25,
TOWNSHIP 26 SOUTH, RANGE 29 EAST,
NEW MEXICO PRIME MERIDIAN,
EDDY COUNTY, NEW MEXICO





SHADY PINES 24-36 #102H
 LOCATED 1,521 FEET FROM THE EAST LINE
 AND 432 FEET FROM THE SOUTH LINE OF
 SECTION 24, TOWNSHIP 26 SOUTH, RANGE 29
 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO



FSC INC
 SURVEYORS+ENGINEERS

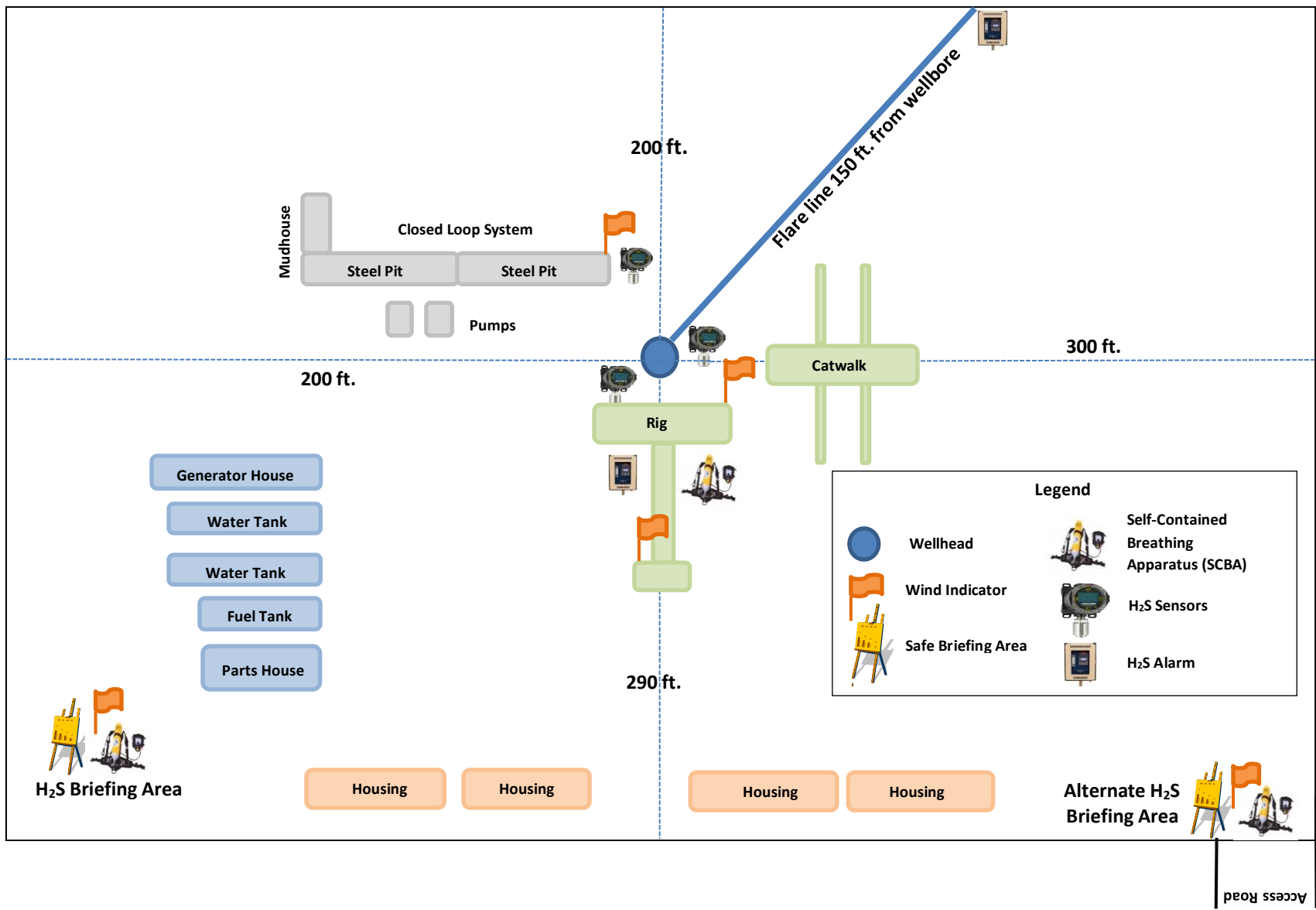
550 Bailey Ave., 205 - Fort Worth, TX 76107
 Ph: 817.349.9800 - Fax: 979.732.5271
 TBPE Firm 17957 | TBPLS Firm 10193887
 www.fscinc.net

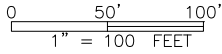
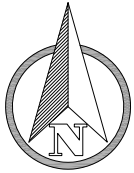


DATE: 06-20-2019
 DRAWN BY: AR
 CHECKED BY: DH
 FIELD CREW: RE/DL
 PROJECT NO: 2019061753
 SCALE: 1" = 10,000'
 SHEET: 1 OF 1
 REVISION: NONE

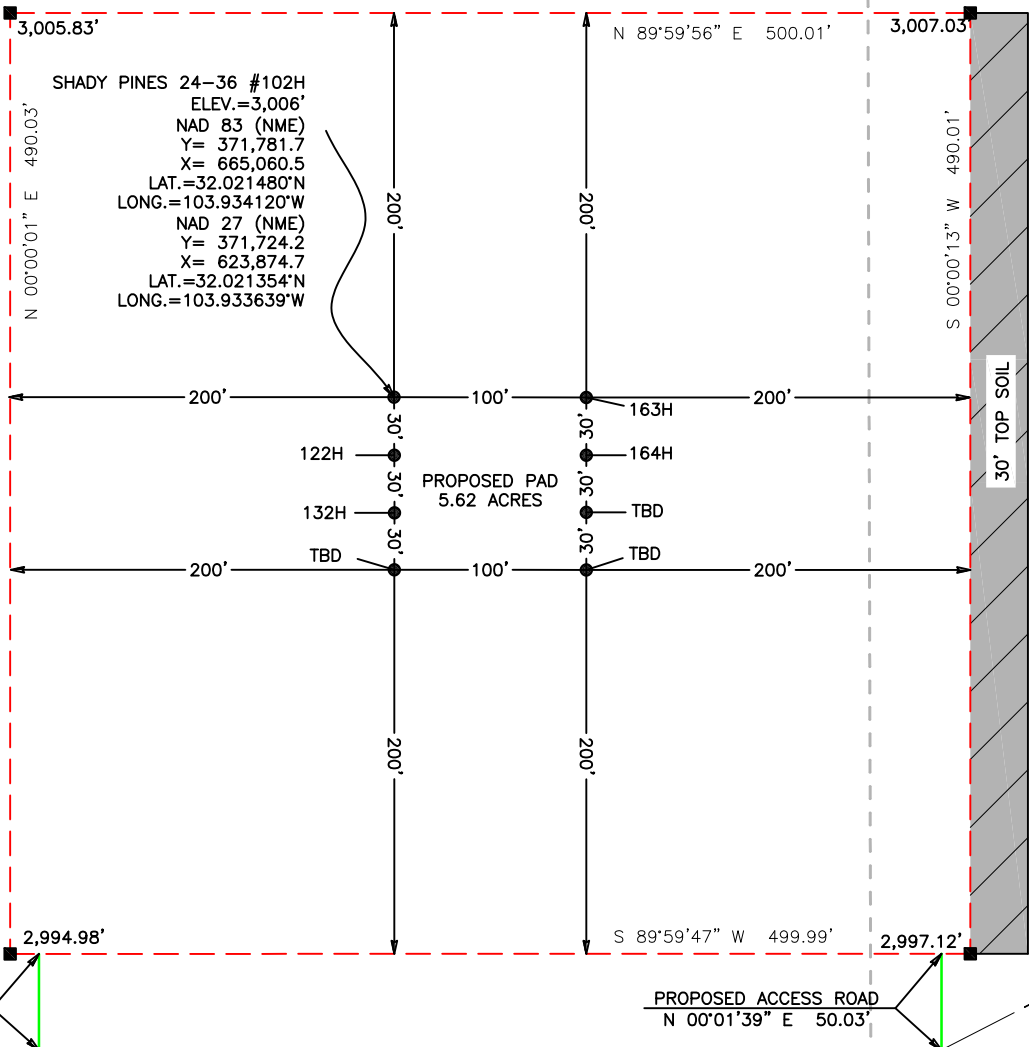


Rig Plat Layout





SECTION 24
TOWNSHIP 26 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.



SHADY PINES 24-36 #102H
ELEV.=3,006'
NAD 83 (NME)
Y= 371,781.7
X= 665,060.5
LAT.=32.021480°N
LONG.=103.934120°W
NAD 27 (NME)
Y= 371,724.2
X= 623,874.7
LAT.=32.021354°N
LONG.=103.933639°W

PROPOSED PAD
5.62 ACRES

30' TOP SOIL

SW/4 SE/4

SE/4 SE/4

PROPOSED ACCESS ROAD
N 00°00'21" W 50.04'

PROPOSED ACCESS ROAD
N 00°01'39" E 50.03'

PROPOSED ROAD AS DESCRIBED
ON SEPARATE PLAT

LEGEND

- - - PROPOSED PAD
- - - PROPOSED ACCESS ROAD
- - - SECTION LINE

SECTION 25
TOWNSHIP 26 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.



NOTE:

- 1). SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF US HIGHWAY 285 S AND WHITEHORN RD, GO EAST ON WHITEHORN RD FOR APPROX. 10.9 MILES, ARRIVING AT THE PROPOSED ROAD AND THE LOCATION IS TO THE EAST.



550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
TBPE Firm 17957 | TBPLS Firm 10193887
www.fscinc.net

© COPYRIGHT 2016 - ALL RIGHTS RESERVED

XTO ENERGY, INC.

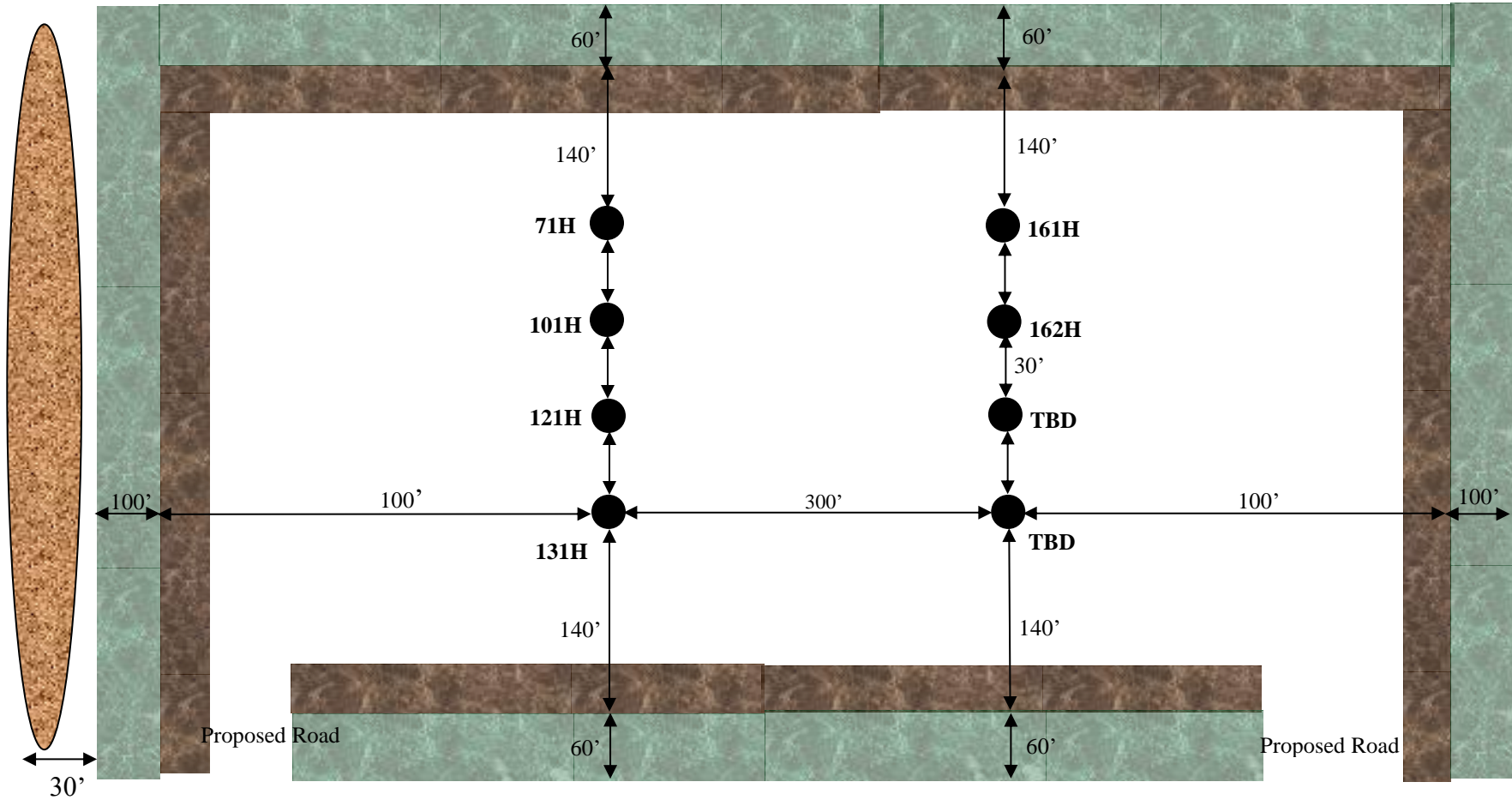
WELL SITE PLAN

SHADY PINES 24-36 #102H
LOCATED 1,521 FEET FROM THE EAST LINE
AND 432 FEET FROM THE SOUTH LINE OF
SECTION 24, TOWNSHIP 26 SOUTH, RANGE 29
EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

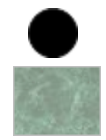
DATE:	6-20-19	PROJECT NO:	2019061753
DRAWN BY:	AR	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE/DL	REVISION:	NO

Interim Reclamation Diagram

Shady Pines 24-36: 71H, 101H, 121H, 131H, 161H, 162H



LEGEND



Wellbore

Interim Reclamation



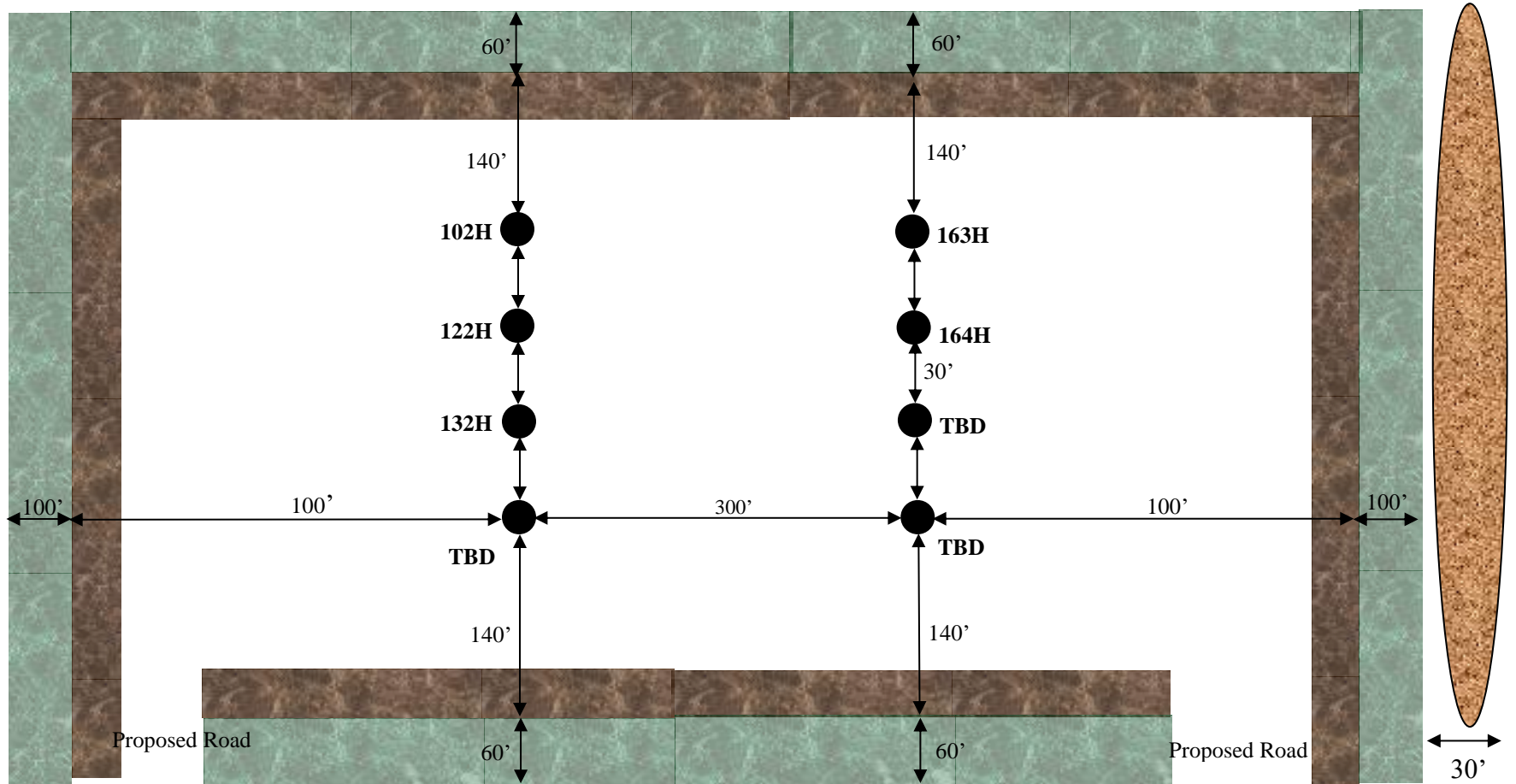
Ditch & Berm



Topsoil

Interim Reclamation Diagram

Shady Pines 24-36: 102H, 122H 132H, 163H, 164H



LEGEND



Wellbore

Interim Reclamation

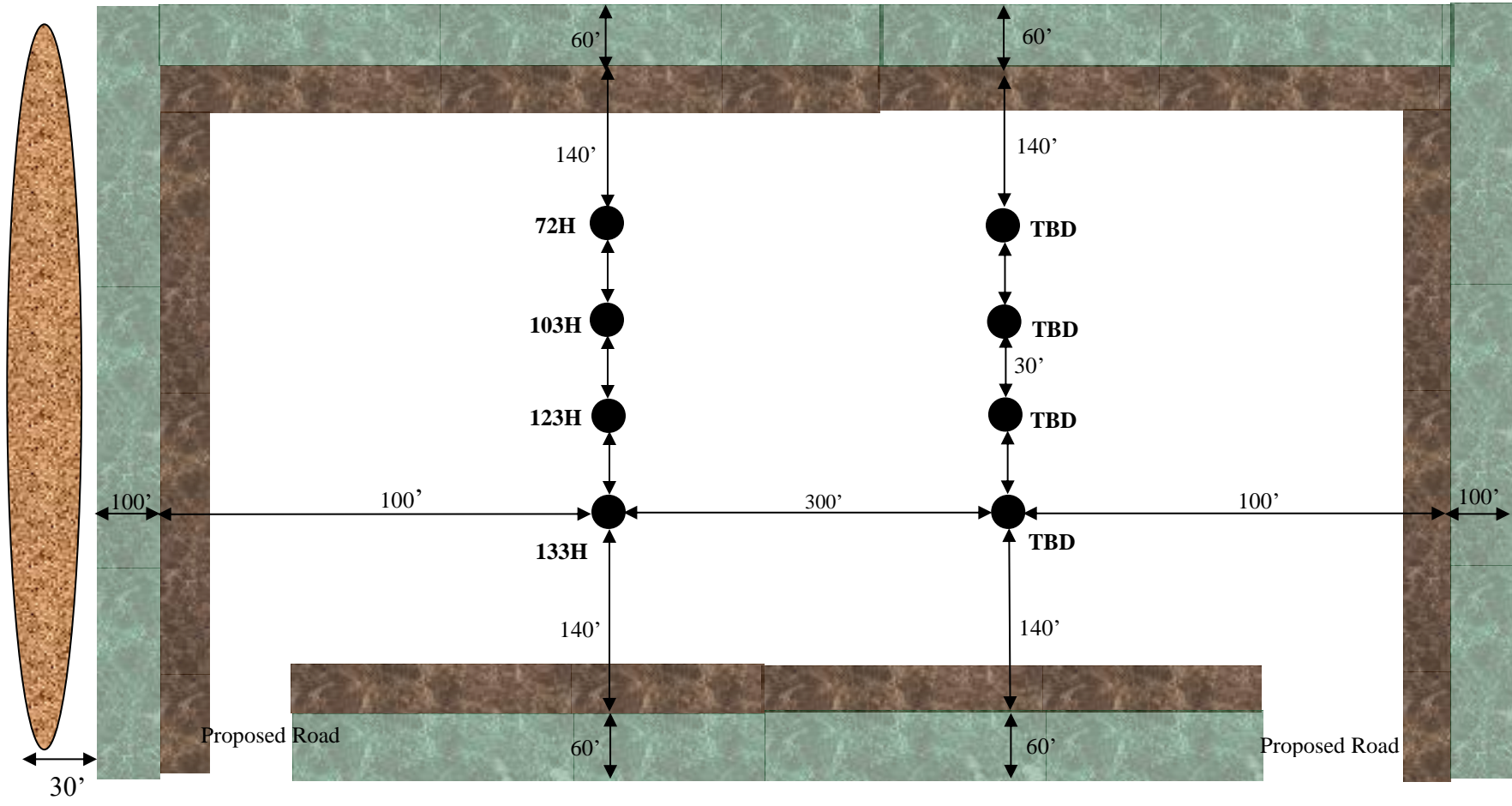


Ditch & Berm





Topsoil

Interim Reclamation Diagram
Shady Pines 24-36: 72H, 103H, 123H, 133H



LEGEND



-  Wellbore
-  Interim Reclamation

-  Ditch & Berm
-  Topsoil

Well Site Locations

The results of Shady Pines 24-36 Development Program will develop economic quantities of oil and gas in the 'Shady Pines 24-36' development area with multiple primary formations targeted. Well locations are determined based on cross-section variations and details. Locations will be selected to minimize the likelihood of encountering faults and/or drilling hazards while still targeting suitably productive zones.

If drilling results in an unproductive well, the well will be plugged and abandoned as soon as practical after the conclusion of production testing. Productive wells may be shut-in temporarily for BLM authorization for production activities and facilities.

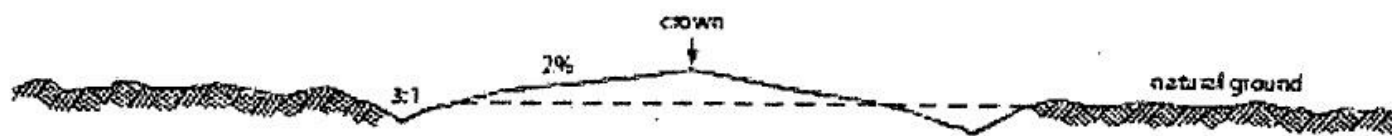
Surface Use Plan

1. Existing Roads

- A. From the intersection of US Hwy 285 S and Whitehorn Road, go East on Whitehorn Rd for approximately 10.9 miles, arriving at the proposed road. The location is to the East. Transportation maps identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Topographical and Access Road Map.'
- B. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Vicinity Map.' All equipment and vehicles will be confined to the routes shown on the 'Vicinity Map' as provided by FSC, Inc. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.

2. New or Upgraded Access Roads

- A. **New Roads.** There is a total of approximately 2605.97ft or .49 miles of proposed and staked access roads in the Shady Pines 24-36 lease area.
- B. **Well Pads.** The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. The lease flow diagram shows the location of proposed roads that will need to be constructed to access the well pads.
- C. **Anticipated Traffic.** After well completion, travel to each well site will include one lease operator truck and two oil trucks per day until the Central Tank Batteries are completed. Upon completion of the Central Tank Batteries, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the Central Tank Batteries only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
- D. **Routing.** All equipment and vehicles will be confined to the travel routes laid out in the vicinity map provided by FSC, Inc. unless otherwise approved by the BLM and applied for by XTO Energy, Inc.
- E. **Road Dimensions.** The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



Level Ground Section

- F. **Surface Material.** Surface material will be native caliche. The average grade of all roads will be approximately 3%.
- G. **Fence Cuts:** No.
- H. **Fences:** No.
- I. **Cattle Guards:** No.
- J. **Turnouts:** No.
- K. **Culverts:** No.
- L. **Cuts and Fills:** Not significant.
- M. **Topsoil.** Approximately 6 inches of topsoil (root zone) will be stripped from the proposed access road prior to any further construction activity. The topsoil that was stripped will be spread along the edge of the road and within the ditch. The topsoil will be seeded with the proper seed mix designated by the BLM.
- N. **Maintenance.** The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along with access road route.
- O. **Drainage.** The access road and associated drainage structures will be constructed and maintained in accordance with road guidelines contained in the joint BLM/USFS publication: Surface Operating Standards for Oil and Gas Exploration and Development, The Gold Book, Fourth Edition and/or BLM Manual Section 9113 concerning road construction standards on projects subject to federal jurisdiction.

3. Location of Existing Wells

- A. See attached 1-mile radius well map.

4. Ancillary Facilities

- A. **Ancillary Facilities.** No off-pad ancillary facilities are planned during the exploration phase including, but not limited to: campsites, airstrips or staging areas.

5. Location of Proposed Production Facilities

- A. **Production Facilities.** No additional production facilities are requested for the Shady Pines 24-36 project area. All wells drilled and completed will flow to the approved and existing Ross Draw 25N CTB (NWNE-25-26S-29E). A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment.
- B. **Buried & Surface Flowlines.** In the event the Shady Pines 24-36 wells are found productive, forty-eight (48) 10in. or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas, frac water, gas lift, fuel gas, and produced water are requested to the existing Ross Draw 25N battery. If XTO decides to run surface lines, forty-eight (48) 4in. or less composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and produced water will be required to the Ross Draw 25N facility. The proposed corridor for flowlines: 2909.98ft long, 30ft. wide. Total Acreage Associated with Flowlines: 2 Acres.
- C. **Midstream Tie-In.** No midstream tie-in connections are requested to the proposed Outrider facilities. Any 3P takeaway will be permitted separately.
- D. **Disposal Facilities.** Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7.
- E. **Flare.** A flare is not requested nor required with this project.
- F. **Aboveground Structures.** All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment.

- G. **Containment Berms.** Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas.
- H. **Electrical.** All lines will be primary 12,740 volt to properly run expected production equipment. Approx. 5086.82ft or .96 miles of electrical will be run from the anticipated tie-in point with a request for 30' ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area.

6. Location and Types of Water Supply

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 7 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location.

Water for drilling, completion and dust control will be purchased from the following company:
Texas Pacific Water Resources

Water for drilling, completion and dust control will be supplied by Texas Pacific Water Resources for sale to XTO Energy, Inc. from Section 27, T25S-R30E, Eddy County, NM. In the event that Texas Pacific Water Resources does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, NM.

Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation.

Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.

7. Construction Activities

Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche.

A. Anticipated Caliche Locations:

- a. Pit 1: Federal Caliche Pit, Section 17-T25S-R30E
- b. Pit 2: Federal Caliche Pit, Section 34-T25S-R29E

8. Methods for Handling Waste

- **Cuttings.** The well will be drilled utilizing a closed-loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.
- **Drilling Fluids.** These will be contained in steel mud pits and then taken to a NMOCD approved commercial disposal facility.

- **Produced Fluids.** Water produced from the well during completion will be held temporarily in steel tanks and then taken to a NMOCD approved commercial disposal facility. Oil produced during operations will be stored in tanks until sold.
- **Sewage.** Portable, self-contained toilets will be provided for human waste disposal. Upon completion of drilling and completion activities, or as required, the toilet holding tanks will be pumped and the contents thereof disposed of in an approved sewage disposal facility. All state and local laws and regulations pertaining to the disposal of human and solid waste will be complied with. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- **Garbage and Other Waste Materials.** All garbage, junk and non-flammable waste materials will be contained in a self-contained, portable dumpster or trash cage, to prevent scattering and will be removed and deposited in an approved sanitary landfill. Immediately after drilling all debris and other waste materials on and around the well location not contained in the trash cage will be cleaned up and removed from the location. No potentially adverse materials or substances will be left on the location.
- **Debris.** Immediately after removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned and removed from the well location. No potential adverse materials or substances will be left on location.
- **Hazardous Materials.**
 - i. All drilling wastes identified as hazardous substances by the Comprehensive Environmental Response Compensation Liability Act (CERCLA) removed from the location and not reused at another drilling location will be disposed of at a hazardous waste facility approved by the U.S. Environmental Protection Agency (EPA).
 - ii. XTO Energy, Inc. and its contractors will comply with all applicable Federal, State and local laws and regulations, existing or hereafter enacted promulgated, with regard to any hazardous material, as defined in this paragraph, that will be used, produced, transported or stored on the oil and gas lease. "Hazardous material" means any substance, pollutant or contaminant that is listed as hazardous under the CERCLA of 1980, as amended, 42 U.S.C 9601 et seq., and its regulation. The definition of hazardous substances under CERCLA includes any "hazardous waste" as defined in the RCRA of 1976, as amended, 42 U.S.C. 6901 et seq., and its regulations. The term hazardous material also includes any nuclear or nuclear by-product material as defined by the Atomic Energy Act of 1954, as amended, 42 U.C.S. 2011 et seq. The term does not include petroleum, including crude oil or any fraction thereof that is not otherwise specifically listed or designated as a hazardous substance under CERCLA Section 101 (14) U.S.C. 9601 (14) nor does the term include natural gas.
 - iii. No hazardous substances or wastes will be stored on the location after completion of the well.
 - iv. Chemicals brought to location will be on the Toxic Substance Control Act (TSCA) approved inventory list.
 - v. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL) 3A will be reported to the BLM Carlsbad Field Office. Major events will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days.

9. Well Site Layout

- A. **Rig Plat Diagrams:** There are 3 multi-well pads in the Shady Pines 24-36 lease anticipated. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads are attached as agreed to with Colleen Cepero-Rios, BLM Natural Resource Specialist, during onsite on June 25, 2020. From West to East:
 1. Pad 1 is a 8-well pad expected to be 500ftx490ft.
 2. Pad 2 is a 8-well pad expected to be 500ftx490ft.
 3. Pad 3 is a 8-well pad expected to be 500ftx490ft.

- B. **Closed-Loop System:** There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.
- C. **V-Door Orientation:** These wells were staked with a North v-door orientation as agreed upon with Colleen Cepero-Rios, BLM Natural Resource Specialist, present at on-site inspection.
- D. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad and topsoil storage areas).

10. Plans for Surface Reclamation:

XTO Energy, Inc. requests a variance from interim reclamation until all drilling and completion activities have been finished on the pads as these are multi-well pads where drilling and completion will be consecutive with the other wells on the pad. Once activities are completed, XTO Energy, Inc. will coordinate interim reclamation with the appropriate BLM personnel or use the following plan:

Non-Commercial Well (Not Productive), Interim & Final Reclamation:

Definition: Reclamation includes disturbed areas where the original landform and a natural vegetative community will be restored and it is anticipated the site will not be disturbed for future development.

Reclamation Standards:

The portions of the pad not essential to production facilities or space required for workover operations will be reclaimed and seeded as per BLM requirements for interim reclamation. (See Interim Reclamation plats attached).

All equipment and trash will be removed, and the surfacing material will be removed from the well pad and road and transported to the original caliche pit or used to maintain other roads. The location will then be ripped and seeded.

The original stock piled topsoil will be spread over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pads, production facilities, roads, pipelines, and utility corridors as close as possible to the original topography. The location will then be ripped and seeded

A self-sustaining, vigorous, diverse, native (or otherwise approved) plant community will be established on the site with a density sufficient to control erosion and invasion by non-native plants and to re-establish wildlife habitat or forage production. At a minimum, the established plant community will consist of species included in the seed mix and/or desirable species occurring in the surrounding natural vegetation.

Erosion features are equal to or less than surrounding area and erosion control is sufficient so that water naturally infiltrates into the soil and gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

The site will be free of State-or County-listed noxious weeds, oil field debris and equipment, and contaminated soil. Invasive and non-native weeds will be controlled.

Seeding:

- **Seedbed Preparation:** Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.

- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used.
- If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

11. Surface Ownership

- A. 100% of the Shady Pines 24-36 project area surface is under the administrative jurisdiction of the Bureau of Land Management.
- B. The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

12. Other Information

Surveying

- **Well Sites**. Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by FSC, Inc, a registered professional land surveyor. Center stake surveys with access roads have been completed on State and Federal lands with Colleen Cepero-Rios, Bureau of Land Management Natural Resource Specialist in attendance, on November 17, 2019.
- **Cultural Resources – Archaeology**: A Class III Cultural Resources Examination has been completed on the Midstream Tie-In by Boone Archaeological Services and the results will be forwarded to the BLM Office. A PA payment has been made for the well pads, CTBs, OHE & flowlines & access road.
- **Dwellings and Structures**. There are no dwellings or structures within 2 miles of this location.

Soils and Vegetation

- a. **Environmental Setting**. According to the Natural Resources Conservation Service's online database, the project area soil is Pajarito-Dune land complex, loamy sand, 0-3 percent slopes. This soil supports grassland dominated by black grama, dropseeds, and bluestems. Shrubs, such as sand sage, shinnery oak, and mesquite are dispersed throughout. The project area is in a low area of deep sands amongst low to medium height dunes with some gravel and outcrops. Vegetation such as fourwing saltbrush, snakeweed and desert sage was viewed in the project area.
- **Traffic**. No truck traffic will be operated during periods or in areas of saturated ground when surface rutting could occur. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.
- **Water**. There is no permanent or live water in the immediate or within the project area.

13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: UTB000138

Operator's Representatives:

The XTO Energy, Inc. representatives for ensuring compliance of the surface use plan are listed below:

Surface:

Jimie Scott
Construction Lead

XTO Energy, Incorporated
6401 Holiday Hill Road, Bldg 5
Midland, Texas 79707
james.scott@exxonmobil.com



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

PWD Data Report

06/11/2024

APD ID: 10400081276

Submission Date: 11/01/2021

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: XTO ENERGY INCORPORATED	Well Number: 102H
Well Name: SHADY PINES 24-36	

Lined pit Monitor description:

Lined pit Monitor

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

Do you propose to put the produced water to beneficial use?

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



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

Bond Info Data

06/11/2024

APD ID: 10400081276

Submission Date: 11/01/2021

Highlighted data reflects the most recent changes
[Show Final Text](#)

Operator Name: XTO ENERGY INCORPORATED

Well Name: SHADY PINES 24-36

Well Number: 102H

Well Type: CONVENTIONAL GAS WELL

Well Work Type: Drill

Bond

Federal/Indian APD: FED

BLM Bond number:

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

Well Name: SHADY PINES 24-36

Well Location: T26S / R29E / SEC 24 / SWSE / 32.02148 / -103.93412

County or Parish/State: EDDY / NM

Well Number: 102H

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMNM17225A

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: XTO ENERGY INCORPORATED

Notice of Intent

Sundry ID: 2896026

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 03/19/2026

Time Sundry Submitted: 10:36

Date proposed operation will begin: 02/20/2026

Procedure Description: *** Name Change Sundry *** Shady Pines 24-36 102H APD ID: 10400081276 XTO Energy Inc., respectfully requests approval to change the name of this well from "Shady Pines 24-36 102H" to "Shady Pines 24-36 Federal Com 102H". C102 reflecting the new well name is attached. APD ID for this well is 10400081276.

NOI Attachments

Procedure Description

Final_C102___Shady_Pines_24_36_Federal_Com_102H_20260319103345.pdf

Well Name: SHADY PINES 24-36

Well Location: T26S / R29E / SEC 24 / SWSE / 32.02148 / -103.93412

County or Parish/State: EDDY / NM

Well Number: 102H

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMNM17225A

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: XTO ENERGY INCORPORATED

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SRINIVAS LAGHUVARAPU

Signed on: MAR 19, 2026 10:35 AM

Name: XTO ENERGY INCORPORATED

Title: REGULATORY ANALYST

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING

State: TX

Phone: (720) 539-1673

Email address: SRINIVAS.N.LAGHUVARAPU@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: MARIAH HUGHES

BLM POC Title: Land Law Examiner

BLM POC Phone: 5752345972

BLM POC Email Address: MHUGHES@BLM.GOV

Disposition: Approved

Disposition Date: 03/19/2026

Signature: CODY LAYTON ASSISTANT FIELD MANAGER

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

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.

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

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

1. Type of Well

Oil Well Gas Well Other

8. Well Name and No. **SHADY PINES 24 36 FEDERAL COM**

2. Name of Operator

9. API Well No.
30-015-58110

3a. Address

3b. Phone No. (include area code)

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

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION				
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off	
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity	
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other	
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon		
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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 recomplate 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 perfonned 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 detennined that the site is ready for final inspection.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by

Title

Date

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

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Location of Well

0. SHL: SWSE / 432 FSL / 1521 FEL / TWSP: 26S / RANGE: 29E / SECTION: 24 / LAT: 32.02148 / LONG: -103.93412 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 330 FNL / 1170 FEL / TWSP: 26S / RANGE: 29E / SECTION: 25 / LAT: 32.01944 / LONG: -103.932987 (TVD: 10227 feet, MD: 10600 feet)

BHL: LOT 1 / 200 FSL / 1170 FEL / TWSP: 26S / RANGE: 29E / SECTION: 36 / LAT: 32.000662 / LONG: -103.932968 (TVD: 10192 feet, MD: 17405 feet)

Santa Fe Main Office Phone: (505) 476-3441 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	C-102 Revised July, 09 2024 Submit Electronically via OCD permitting
	<p style="color: red; text-align: center;">*Please refer to approved NOI appended to this application for the most current well design</p>	Submittal Type: <input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION

API Number 30-015-	Pool Code 98220	Pool Name PURPLE SAGE;WOLFCAMP (GAS)
Property Code 333301	Property Name SHADY PINES 24-36 FEDERAL COM	Well Number 102H
OGRID No. 373075	Operator Name XTO ENERGY, INC.	Ground Level Elevation 2,980'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	24	26S	29E		391 FSL	2,398 FEL	32.021224	-103.936950	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	36	26S	29E	3	50 FSL	2,212 FEL	32.000250	-103.936330	EDDY

Dedicated Acres 447.70	Infill or Defining Well INFILL	Defining Well API 30-015-50012	Overlapping Spacing Unit (Y/N) N	Consolidation Code C
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	24	26S	29E		45 FSL	2,412 FEL	32.020269	-103.936993	EDDY

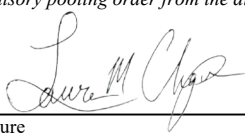
First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	25	26S	29E		330 FNL	2,336 FEL	32.019249	-103.936749	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	36	26S	29E	3	100 FSL	2,212 FEL	32.000387	-103.936330	EDDY

Unitized Area or Area of Interest	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 2,980'
-----------------------------------	--	-----------------------------------

<p>OPERATOR CERTIFICATIONS</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.</i></p> <p><i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i></p> <p> Signature _____ Date 2/18/2026</p> <p>Laura Chapman Printed Name _____</p> <p>laura.m.chapman@exxonmobil.com Email Address _____</p>	<p>SURVEYOR CERTIFICATIONS</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i></p> <p> Signature and Seal of Professional Surveyor _____</p> <p></p> <p>MARK DILLON HARP 23786 Certificate Number _____ Date of Survey 2/9/2026</p>
--	--

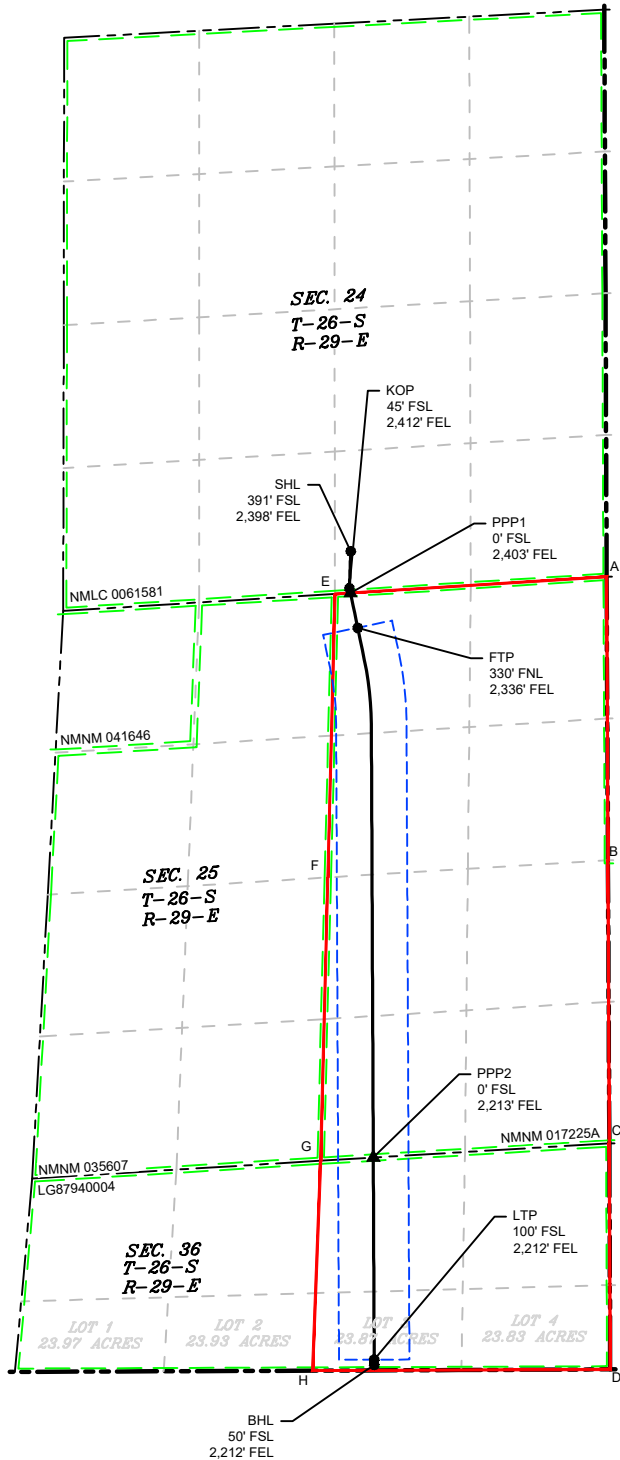
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.013 XTO Energy - NM\016 Ross Draw Unit - Eddy\01 - Shady Pines 24- 36\Wells\05 102H\DWG\102H C-102.dwg

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated areage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well Locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be accepted.



LEGEND

- SECTION LINE
- TOWNSHIP LINE
- DEDICATED ACREAGE
- 330' BUFFER
- MINERAL LEASE
- WELL BORE
- ▲ PPP
- WELL

WELL COORDINATE TABLE								
WELL	NAD 83 NME X	NAD 83 NME Y	NAD 83 LAT	NAD 83 LON	NAD 27 NME X	NAD 27 NME Y	NAD 27 LAT	NAD 27 LON
SHL	664,183.7	371,685.4	32.021224	-103.936950	622,998.1	371,627.9	32.021098	-103.936469
KOP	664,171.6	371,338.1	32.020269	-103.936993	622,986.0	371,280.6	32.020144	-103.936512
FTP	664,248.5	370,967.4	32.019249	-103.936749	623,062.9	370,910.0	32.019124	-103.936268
LTP	664,403.7	364,106.3	32.000387	-103.936330	623,217.8	364,049.0	32.000262	-103.935850
BHL	664,403.8	364,056.5	32.000250	-103.936330	623,218.0	363,999.3	32.000125	-103.935850
PPP1	664,180.8	371,293.8	32.020147	-103.936964	622,995.2	371,236.3	32.020022	-103.936483
PPP2	664,395.2	366,000.9	32.005595	-103.936335	623,209.4	365,943.6	32.005470	-103.935855

CORNER COORDINATE TABLE				
CORNER	NAD 83 NME X	NAD 83 NME Y	NAD 27 NME X	NAD 27 NME Y
A	666,582.7	371,445.3	625,397.0	371,387.8
B	666,595.1	368,788.5	625,409.4	368,731.1
C	666,607.6	366,134.1	625,421.7	366,076.8
D	666,616.2	364,016.1	625,430.3	363,958.9
E	664,035.5	371,284.6	622,849.8	371,227.2
F	663,968.5	368,627.2	622,782.9	368,569.8
G	663,901.7	365,971.1	622,715.9	365,913.8
H	663,825.5	364,003.8	622,639.7	363,946.6

G:\618.013 XTO Energy - NM\016 Ross Draw Unit - Eddy\01 - Shady Pines 24-36\Wells\05 102H\DWG\102H C-102.dwg
 Released to Imaging: 4/23/2026 3:06:01 PM

Well Name	Well Number	US Well Number	Lease Number	Case Number	Operator
SHADY PINES 24-	133H		NMNM17225A	NMNM17225A	XTO ENERGY
SHADY PINES 24-	102H		NMNM17225A	NMNM17225A	XTO ENERGY
SHADY PINES 24-	164H		NMNM17225A	NMNM17225A	XTO ENERGY
SHADY PINES 24-	72H		NMNM17225A	NMNM17225A	XTO ENERGY
SHADY PINES 24-	123H		NMNM17225A	NMNM17225A	XTO ENERGY

Notice of Intent

Sundry ID: 2827731

Type of Submission: Notice of Intent

Type of Action: APD Extension

Date Sundry Submitted: 12/16/2024

Time Sundry Submitted: 02:27

Date proposed operation will begin: 12/23/2024

Procedure Description: XTO Energy Incorporated respectfully requests 2-year APD extensions for the following wells - 1. Shady Pines 24-36 102H 2. Shady Pined 24-36 164H 3. Shady Pines 24-36 123H 4. Shady Pines 24-36 133H 5. Shady Pines 24-36 72H These wells are located on multi-well pads designed for efficient mineral development. The additional time requested will allow for proper evaluation of completions data on existing wells to enable prudent oil & gas mineral development of multiple zones through reservoir delineation (stacking, spacing & well count) to maximize production and minimize surface disturbance. The original approved permits expire 12/21/2024.

Conditions of Approval

Additional

CONDITIONS_OF_APPROVAL_FOR_APD_EXTENSION__20250116110645.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SRINIVAS LAGHUVARAPU

Signed on: DEC 16, 2024 02:25 PM

Name: XTO ENERGY INCORPORATED

Title: REGULATORY ANALYST

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING

State: TX

Phone: (720) 539-1673

Email address: SRINIVAS.N.LAGHUVARAPU@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CODY LAYTON

BLM POC Phone: 5752345959

Disposition: Approved

Signature: Cody R. Layton

BLM POC Title: Assistant Field Manager Lands & Minerals

BLM POC Email Address: clayton@blm.gov

Disposition Date: 01/17/2025

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

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.
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
2. Name of Operator		7. If Unit of CA/Agreement, Name and/or No.
3a. Address	3b. Phone No. (include area code)	8. Well Name and No.
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)		9. API Well No.
		10. Field and Pool or Exploratory Area
		11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title
Signature	Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Batch Well Data

SHADY PINES 24-36 102H, US Well Number: null, Case Number: NMNM17225A, Lease Number: NMNM17225A,
Operator:XTO ENERGY INCORPORATED

SHADY PINES 24-36 164H, US Well Number: null, Case Number: NMNM17225A, Lease Number: NMNM17225A,
Operator:XTO ENERGY INCORPORATED

SHADY PINES 24-36 123H, US Well Number: null, Case Number: NMNM17225A, Lease Number: NMNM17225A,
Operator:XTO ENERGY INCORPORATED

SHADY PINES 24-36 133H, US Well Number: null, Case Number: NMNM17225A, Lease Number: NMNM17225A,
Operator:XTO ENERGY INCORPORATED

SHADY PINES 24-36 72H, US Well Number: null, Case Number: NMNM17225A, Lease Number: NMNM17225A,
Operator:XTO ENERGY INCORPORATED

CONDITIONS OF APPROVAL FOR APD EXTENSION

The Approved Application for Permit to Drill (AAPD) expires if only conductor or surface casing has been set, and the well is not being diligently drilled at the expiration date of the extension.

The APD extension is granted for a 2-year period, not exceed 4 years from the approval of the APD.

Well Name: SHADY PINES 24-36	Well Location: T26S / R29E / SEC 24 / SWSE / 32.02148 / -103.93412	County or Parish/State: EDDY / NM
Well Number: 102H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM17225A	Unit or CA Name:	Unit or CA Number:
US Well Number:	Operator: XTO ENERGY INCORPORATED	

Notice of Intent

Sundry ID: 2890081

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 01/12/2026

Time Sundry Submitted: 06:21

Date proposed operation will begin: 02/25/2026

Procedure Description: Shady Pines 24-36 102H APD ID: 10400081276 XTO Energy, Inc., respectfully requests approval to make the following changes to the approved APD. Changes include SHL, KOP, FTP, LTP, BHL, Proposed Total Depth, Dedicated Acres, Casing Design, Cement Program and Mud Circulation System. FROM: TO: SHL: 432 FSL & 1521 FEL OF SECTION 24-T26S-R29E 391 FSL & 2398 FEL OF SECTION 24-T26S-R29E KOP: 432 FSL & 1521 FEL OF SECTION 24-T26S-R29E 45 FSL & 2412 FEL OF SECTION 24-T26S-R29E FTP: 330 FNL & 1170 FEL OF SECTION 25-T26S-R29E 330 FNL & 2336 FEL OF SECTION 25-T26S-R29E LTP: 330 FSL & 1170 FEL OF SECTION 36-T26S-R29E 100 FSL & 2212 FEL OF SECTION 36-T26S-R29E BHL: 200 FSL & 1170 FEL OF SECTION 36-T26S-R29E 50 FSL & 2212 FEL OF SECTION 36-T26S-R29E The proposed total depth is changing from 17405' MD/ 10192' TVD to 18211' MD/11190' TVD. The Dedicated Acreage is changing from 480 to 447.70. The well is moving from Shady Pines pad B to Shady Pines pad A. No new surface disturbance. See attached drilling program for the updated casing design, cement program and the mud circulation system.

NOI Attachments

Procedure Description

Shady_Pines_24_36_102H_SUNDRY_ATTACHMENTS_20260222121742.pdf

Well Name: SHADY PINES 24-36

Well Location: T26S / R29E / SEC 24 / SWSE / 32.02148 / -103.93412

County or Parish/State: EDDY / NM

Well Number: 102H

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMNM17225A

Unit or CA Name:

Unit or CA Number:

US Well Number:

Operator: XTO ENERGY INCORPORATED

Conditions of Approval

Additional

Shady_Pines_24_36_102H_COA_20260311103202.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SRINIVAS LAGHUVARAPU

Signed on: FEB 22, 2026 12:19 PM

Name: XTO ENERGY INCORPORATED

Title: REGULATORY ANALYST

Street Address: 22777 SPRINGWOODS VILLAGE PARKWAY

City: SPRING

State: TX

Phone: (720) 539-1673

Email address: SRINIVAS.N.LAGHUVARAPU@EXXONMOBIL.COM

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: CWALLS@BLM.GOV

Disposition: Approved

Disposition Date: 03/16/2026

Signature: Chris Walls

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

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.

5. Lease Serial No.
6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other
2. Name of Operator
3a. Address
3b. Phone No. (include area code)
4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

7. If Unit of CA/Agreement, Name and/or No.
8. Well Name and No. SHADY PINES 24 36 FEDERAL COM
9. API Well No. 30-015-58110
10. Field and Pool or Exploratory Area PURPLE SAGE-WOLFCAMP (GAS)
11. Country or Parish, State

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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.)

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)	Title
Signature	Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
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	

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

GENERAL INSTRUCTIONS

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

SPECIFIC INSTRUCTIONS

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

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

NOTICES

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

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

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

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

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

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

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

Response to this request is mandatory.

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

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

Additional Information

Additional Remarks

BHL: 200 FSL & 1170 FEL OF SECTION 36-T26S-R29E 50 FSL & 2212 FEL OF SECTION 36-T26S-R29E

The proposed total depth is changing from 17405 MD/ 10192 TVD to 18211 MD/11190 TVD.

The Dedicated Acreage is changing from 480 to 447.70.

The well is moving from Shady Pines pad B to Shady Pines pad A.

No new surface disturbance.

See attached drilling program for the updated casing design, cement program and the mud circulation system.

Location of Well

0. SHL: SWSE / 432 FSL / 1521 FEL / TWSP: 26S / RANGE: 29E / SECTION: 24 / LAT: 32.02148 / LONG: -103.93412 (TVD: 0 feet, MD: 0 feet)

PPP: NENE / 330 FNL / 1170 FEL / TWSP: 26S / RANGE: 29E / SECTION: 25 / LAT: 32.01944 / LONG: -103.932987 (TVD: 10227 feet, MD: 10600 feet)

BHL: LOT 1 / 200 FSL / 1170 FEL / TWSP: 26S / RANGE: 29E / SECTION: 36 / LAT: 32.000662 / LONG: -103.932968 (TVD: 10192 feet, MD: 17405 feet)

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO
WELL NAME & NO.: Shady Pines 24-36 102H
LOCATION: 24-26S-29E- NMP
COUNTY: Eddy County, New Mexico

*Changes approved through engineering via **Sundry 2890081** on 3/11/2026. Any previous COAs not addressed within the updated COAs still apply.*

Create COAs

H₂S Present	Cave / Karst Medium	Waste Prevention Rule Waste Minimization Plan
Potash None	R-111-Q Design 	
Wellhead Multibowl <input checked="" type="checkbox"/> Flex Hose <input checked="" type="checkbox"/> Break Testing	Casing 4-String Well <input type="checkbox"/> Liner <input checked="" type="checkbox"/> Fluid Filled <input type="checkbox"/> Casing Clearance	
	Cementing <input type="checkbox"/> DV Tool <input checked="" type="checkbox"/> Bradenhead <input type="checkbox"/> Echometer <input checked="" type="checkbox"/> Offline Cement <input type="checkbox"/> Open Annulus <input type="checkbox"/> Pilot Hole	
Special Requirements <input type="checkbox"/> Capitan Reef <input type="checkbox"/> Water Disposal <input type="checkbox"/> COM <input checked="" type="checkbox"/> Unit		

A. HYDROGEN SULFIDE

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

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **350** feet (a minimum of **70'** into the Rustler Anhydrite, above the salt, and below usable fresh water) 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 (including 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 **9-5/8** 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 the presence of cave/karst, Capitan Reef, or potash features.
 3. The minimum required fill of cement behind the **7-5/8** inch 2nd Intermediate casing is at least **200 feet** into previous casing string. Operator shall use one of the approved methods for cement verification located in the **General Requirements, Section A.1**.
 - **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry** due to the presence of cave/karst, Capitan Reef, or potash features.

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

- a. **First stage:** Operator will cement with intent to reach the top of the **Brushy Canyon**. **Excess calculates to 0.1%. Additional cement maybe required.**
- b. **Second stage:** Operator to squeeze and top-out. Cement to meet requirements listed for this casing string. If cement does not circulate see B.1.a, c-d above.

Operator has proposed to pump down **Intermediate 1 X Intermediate 2** annulus. Submit results to the BLM. If cement does not tie back into the previous casing shoe, a third stage remediation BH may be performed. The appropriate BLM office shall be notified.

- Operator shall run a CBL from TD of the **Surface** casing to tieback requirements after the second stage BH to verify TOC.
4. The minimum required fill of cement behind the **5-1/2** inch production casing is at least **200 feet** into previous casing string. Operator shall use one of the approved methods for cement verification located in the **General Requirements, Section A.1**.

C. PRESSURE CONTROL

1. Operator has proposed a multi-bowl wellhead assembly. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172 must be followed.
2. 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).
3. Break testing has been approved for this well ONLY on those intervals utilizing a 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP.)** If in the event break testing is not utilized, then a full BOPE test would be conducted.
 - a. Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation. **BOPE Break Testing is NOT permitted to drill the production hole section.**
 - b. While in transfer between wells, BOPE shall be secured by the hydraulic carrier or cradle.
 - c. A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
 - d. As a minimum, a full BOPE test shall be performed at 21-day intervals.
 - e. In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per **43 CFR 3172**. Any well control event while drilling require notification to the BLM Petroleum Engineer (**575-706-2779**) prior to the commencement of any BOPE Break Testing operations.

D. SPECIAL REQUIREMENT(S)

Unit Wells:

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

Commercial Well Determination:

A commercial well determination shall be submitted after production has been established for at least six months. **(This is not necessary for secondary recovery unit wells)**

Offline Cementing

Offline cementing has been approved for **all hole sections, excluding production**. Contact the BLM prior to the commencement of any offline cementing procedure.

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)

For multi-well pads, notifications for the following operations may be made together going from one well to the next. This does NOT apply to notifications for wells in the R111Q potash area:

- Casing run
- Offline cementing
- Break testing

Contact Eddy County Petroleum Engineering Inspection Staff:

Email or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220; [BLM NM CFO DrillingNotifications@BLM.GOV](mailto:BLM_NM_CFO_DrillingNotifications@BLM.GOV); (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 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
 - i. Notify the BLM when moving in and removing the Spudder Rig.
 - ii. 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.
 - iii. BOP/BOPE test to be conducted per **43 CFR 3172** as soon as 2nd Rig is rigged up on swell.
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 always be operational 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 doghouse or stairway area.
3. For intervals in which cement to surface is required, cement to surface should be verified with a visual check and density or pH check to differentiate cement from spacer and drilling mud. The results should be documented in the driller's log and daily reports.

A. CASING & CEMENT

1. The current acceptable methods of cement verification are as follows:
 - i. Observing cement circulated to surface,
 - ii. Cement Bond Log (CBL),
 - iii. Temperature log within 8-10 hours after completing the cement job,
 - iv. Echometer (if a second-stage bradenhead is being utilized and operator was granted approval prior to operations.)
2. 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.
3. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends of both lead and tail cement, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
5. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Well specific cement details must be onsite prior to pumping the cement for each casing string.
6. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
7. 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.
8. If hard band 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.

9. Whenever a casing string is cemented in the R-111-Q potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR 3172**.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - i. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - ii. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - iii. Manufacturer representative shall install the test plug for the initial BOP test.
 - iv. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
 - v. If the cement does not circulate and one-inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - i. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

- lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- ii. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (This only applies to single stage cement jobs, prior to the cement setting up.)
 - iii. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for 8 hours or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - iv. 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 -our clock.
 - v. The results of the test shall be reported to the appropriate BLM office.
 - vi. 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.
 - vii. 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.
 - viii. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created because 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.

Approved by Zota Stevens on 3/11/2026
zstevens@blm.gov / 575-234-5998

Santa Fe Main Office Phone: (505) 476-3441 General Information Phone: (505) 629-6116 Online Phone Directory Visit: https://www.emnrd.nm.gov/ocd/contact-us/	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONVERSION DIVISION	C-102 Revised July, 09 2024 Submit Electronically via OCD permitting
	Submittal Type:	<input type="checkbox"/> Initial Submittal <input checked="" type="checkbox"/> Amended Report <input type="checkbox"/> As Drilled

WELL LOCATION INFORMATION

API Number 30-015-58110	Pool Code 98220	Pool Name PURPLE SAGE;WOLFCAMP (GAS)
Property Code 333301 339087	Property Name SHADY PINES 24-36 SHADY PINES 24 36 FEDERAL COM	Well Number 102H
OGRID No. 373075	Operator Name XTO ENERGY, INC.	Ground Level Elevation 2,980'
Surface Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal		Mineral Owner: <input type="checkbox"/> State <input type="checkbox"/> Fee <input type="checkbox"/> Tribal <input checked="" type="checkbox"/> Federal

Surface Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	24	26S	29E		391 FSL	2,398 FEL	32.021224	-103.936950	EDDY

Bottom Hole Location

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	36	26S	29E	3	50 FSL	2,212 FEL	32.000250	-103.936330	EDDY

Dedicated Acres 447.70	Infill or Defining Well INFILL	Defining Well API 30-015-50012	Overlapping Spacing Unit (Y/N) N	Consolidation Code C
Order Numbers.			Well Setbacks are under Common Ownership: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
O	24	26S	29E		45 FSL	2,412 FEL	32.020269	-103.936993	EDDY


First Take Point (FTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
B	25	26S	29E		330 FNL	2,336 FEL	32.019249	-103.936749	EDDY

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Ft. from N/S	Ft. from E/W	Latitude	Longitude	County
	36	26S	29E	3	100 FSL	2,212 FEL	32.000387	-103.936330	EDDY

Unitized Area or Area of Interest	Spacing Unit Type : <input checked="" type="checkbox"/> Horizontal <input type="checkbox"/> Vertical	Ground Elevation 2,980'
-----------------------------------	--	-----------------------------------

<p>OPERATOR CERTIFICATIONS</p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and, if the well is vertical or directional well, that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this at this location pursuant to a contract with an owner of a working interest or unleased mineral interest, or a voluntary pooling agreement or a compulsory pooling order of heretofore entered by the division.</i></p> <p><i>If this well is a horizontal well, I further certify that this organization has received the consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or information) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division.</i></p> <p> Signature _____ Date 2/18/2026</p> <p>Laura Chapman Printed Name _____</p> <p>laura.m.chapman@exxonmobil.com Email Address _____</p>	<p>SURVEYOR CERTIFICATIONS</p> <p><i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief</i></p> <p> Signature and Seal of Professional Surveyor _____</p> <p></p> <p>MARK DILLON HARP 23786 Certificate Number _____ Date of Survey 2/9/2026</p>
--	--

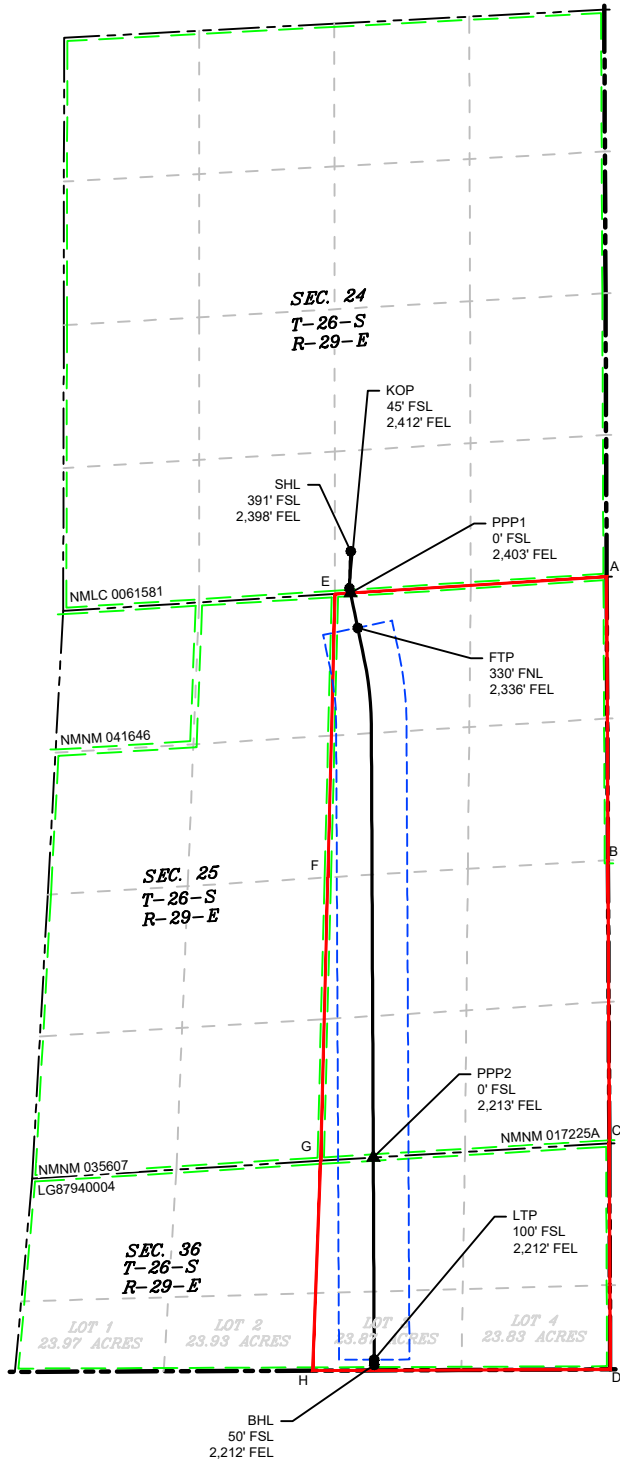
Note: No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

P:\618.013 XTO Energy - NM\016 Ross Draw Unit - Eddy\01 - Shady Pines 24 - 36\Wells\05 102H\DWG\102H C-102.dwg

ACREAGE DEDICATION PLATS

This grid represents a standard section. You may superimpose a non-standard section, or larger area, over this grid. Operators must outline the dedicated areage in a red box, clearly show the well surface location and bottom hole location, if it is directionally drilled, with the dimensions from the section lines in the cardinal directions. If this is a horizontal wellbore show on this plat the location of the First Take Point and Last Take Point, and the point within the completed interval (other than the First Take Point or Last Take Point) that is closest to any outer boundary of the tract.

Surveyors shall use the latest United States government survey or dependent resurvey. Well Locations will be in reference to the New Mexico Principal Meridian. If the land is not surveyed, contact the OCD Engineering Bureau. Independent subdivision surveys will not be accepted.



LEGEND

- SECTION LINE
- TOWNSHIP LINE
- DEDICATED ACREAGE
- 330' BUFFER
- MINERAL LEASE
- WELL BORE
- ▲ PPP
- WELL

WELL COORDINATE TABLE								
WELL	NAD 83 NME X	NAD 83 NME Y	NAD 83 LAT	NAD 83 LON	NAD 27 NME X	NAD 27 NME Y	NAD 27 LAT	NAD 27 LON
SHL	664,183.7	371,685.4	32.021224	-103.936950	622,998.1	371,627.9	32.021098	-103.936469
KOP	664,171.6	371,338.1	32.020269	-103.936993	622,986.0	371,280.6	32.020144	-103.936512
FTP	664,248.5	370,967.4	32.019249	-103.936749	623,062.9	370,910.0	32.019124	-103.936268
LTP	664,403.7	364,106.3	32.000387	-103.936330	623,217.8	364,049.0	32.000262	-103.935850
BHL	664,403.8	364,056.5	32.000250	-103.936330	623,218.0	363,999.3	32.000125	-103.935850
PPP1	664,180.8	371,293.8	32.020147	-103.936964	622,995.2	371,236.3	32.020022	-103.936483
PPP2	664,395.2	366,000.9	32.005595	-103.936335	623,209.4	365,943.6	32.005470	-103.935855

CORNER COORDINATE TABLE				
CORNER	NAD 83 NME X	NAD 83 NME Y	NAD 27 NME X	NAD 27 NME Y
A	666,582.7	371,445.3	625,397.0	371,387.8
B	666,595.1	368,788.5	625,409.4	368,731.1
C	666,607.6	366,134.1	625,421.7	366,076.8
D	666,616.2	364,016.1	625,430.3	363,958.9
E	664,035.5	371,284.6	622,849.8	371,227.2
F	663,968.5	368,627.2	622,782.9	368,569.8
G	663,901.7	365,971.1	622,715.9	365,913.8
H	663,825.5	364,003.8	622,639.7	363,946.6

G:\618.013 XTO Energy - NM\016 Ross Draw Unit - Eddy\01 - Shady Pines 24-36\Wells\05 102H\DWG\102H C-102.dwg
 Released to Imaging: 4/23/2026 3:06:01 PM

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

ExxonMobil
Shady Pines 24-36 102H
Projected TD: 18211' MD / 11190' TVD
SHL: 391' FSL & 2398' FEL , Section 24, T26S, R29E
BHL: 50' FSL & 2212' FEL , Section 36, T26S, R29E
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	310'	Water
Salado	570'	Water
Top of Salt	600'	Water
Castile	1382'	Water
Base of Salt	2969'	Water
Delaware	3145'	Water
Cherry Canyon	4050'	Water/Oil/Gas
Brushy Canyon	5738'	Water/Oil/Gas
Basal Brushy Canyon	6715'	Water/Oil/Gas
Bone Spring Lm.	6940'	Water/Oil/Gas
Avalon	7066'	Water/Oil/Gas
Lower Avalon	7500'	Water/Oil/Gas
1st Bone Spring Lime	7650'	Water/Oil/Gas
1st Bone Spring Sand	7890'	Water/Oil/Gas
2nd Bone Spring Shale	8176'	Water/Oil/Gas
2nd Bone Spring Lime	8328'	Water/Oil/Gas
2nd Bone Spring Sand	8497'	Water/Oil/Gas
2nd Bone Spring A Sand	8752'	Water/Oil/Gas
2nd Bone Spring B Sand	8900'	Water/Oil/Gas
3rd Bone Spring Lime	8994'	Water/Oil/Gas
Harkey	9317'	Water/Oil/Gas
Mid 3rd Bone Shale Lime	9567'	Water/Oil/Gas
3rd Bone Spring Sand	9770'	Water/Oil/Gas
Wolfcamp	10113'	Water/Oil/Gas
Wolfcamp X	10144'	Water/Oil/Gas
Wolfcamp D	11111'	Water/Oil/Gas
Wolfcamp D Landing	11190'	Water/Oil/Gas
Wolfcamp F	11452'	Water/Oil/Gas

Section 2 Summary:

*** Deepest Expected Groundwater Depth: 40' (per NM State Engineers Office).

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13-3/8" inch casing at 575' and circulating cement back to surface.

3. Primary Casing Design
Primary Design:

Hole Size (in.)	MD	Casing TVD	OD Csg	Weight	Grade	Collar	New/Used	SF Burst	SF Collapse	SF Tension
17.5"	0' – 575'	575'	13-3/8"	54.5	J55	BTC	New	15.53	9.07	6.71
12.25"	0' – 3069'	3045'	9-5/8"	40	J55	BTC	New	4.20	3.90	3.33
8.75"	0' – 3169'	3144'	7-5/8"	29.7	P110-ICY	Tenaris Wedge 511	New	6.24	10.81	2.99
8.75"	3169' – 10352'	10324'	7-5/8"	29.7	L80-IC	Tenaris Wedge 511	New	1.84	3.81	2.12
6.75"	0' – 10252'	10224'	5-1/2"	20	P110-ICY	Tenaris Wedge 441	New	1.18	2.78	2.60
6.75"	10252' – 18211'	11190'	5-1/2"	20	P110-ICY	Tenaris Wedge 441	New	1.18	2.54	2.60

Section 3 Summary:

XTO will keep casing fluid filled to meet BLM's collapse requirement.
 The planned kick off point is located at: 10502' MD / 10474' TVD.

Wellhead:

A multi-bowl wellhead system will be utilized. The well design chosen is: 4-String Slim Potash (Non-Capitan Reef) (Figure D)

Wellhead will be installed by manufacturer's representatives.

Manufacturer will monitor welding process to ensure appropriate temperature of seal.

4. Cement Program

Primary Cementing								
Hole Section	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	TOC (ft)	Casing Setting Depth (MD)	Excess (%)	Slurry Description
Surface 1	Lead	181	12.4	2.11	0	575	100%	Surface 1 Class C Lead Cement
Surface 1	Tail	313	14.8	1.33	275	575	100%	Surface 1 Class C Tail Cement
Intermediate 1	Lead	644	12.9	2.02	0	3,069	50%	Intermediate 1 Class C Lead Cement
Intermediate 1	Tail	97	14.8	1.45	2769	3,069	50%	Intermediate 1 Class C Tail Cement
Intermediate 2	Lead							
Intermediate 2	Tail	320	14.8	1.45	5738	10,352	0%	Intermediate 2 Class C Tail Cement
Production 1	Lead							
Production 1	Tail	577	13.2	1.44	9852	18,211	25%	Production 1 Class C Tail Cement
Breadenhead Cementing								
Casing	Slurry Type	No. Sacks	Density (ppg)	Yield (ft3/sack)	Cemented Interval	Excess (%)	Slurry Description	
Intermediate 2	Bradenhead Squeeze	297	14.8	1.45	2569 - 5738'	35%	Intermediate Class C Bradenhead Squeeze Cement	

Section 4 Summary:

*Bradenhead Squeeze 2nd Stage Offline

5. Pressure Control Equipment

Section 5 Summary:

Once the permanent WH is installed on the casing, the blow out preventer equipment (BOP) will consist of a minimum 5M Hydril and a minimum 10M triple Ram BOP.

All BOP testing will be done by an independent service company. Operator will Test as per 43CFR-3172.

No break testing will be done if intermediate casing point penetrates the Wolfcamp

Requested Variances

4A) Offline Cementing Variance

XOM requests the option to perform offline cement and bradenhead jobs (if needed) SURFACE and INTERMEDIATE casing strings where batch drilling is approved.

XOM will ensure well is static with no pressure on the csg annulus, as with all other casing strings where batch drilling operations occur before moving off the rig.

Offline cement operations will then be conducted after the rig is moved off the current well to the next well in the batch sequence. The TA cap will also be installed when applicable per wellhead manufacturer's procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling ops.

5A) Flex Hose Variance

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.

5B) 10M Annular Variance

XOM requests a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables attached 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 BOP).

8A) Open Hole Logging Variance

Open hole logging will not be done on this well.

10A) Spudder Rig Variance

XOM requests the option to utilize a spudder rig (Atlas Copco RD20 or Equivalent) to set and cement surface casing.

10B) Batch Drilling Variance

XOM requests a variance to be able to batch drill this well. In doing so, XOM will set casing and ensure that the well is cemented properly (unless approval is given for offline cementing) and the well is static. XOM will contact the BLM to skid the rig to drill the remaining wells on the pad. Once surface and intermediate strings are all completed, XOM will begin drilling the production hole on each of the wells.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW	Viscosity	Fluid Loss	Comments
			(ppg)	(sec/qt)	(cc)	
0' – 575'	17.5"	FW/Native	8.3 – 8.7	35-40	NC	Fresh Water or Native Water
575' – 3069'	12.25"	BDE/OBM or FW/Brine	9.5 - 10	30-32	NC	Fluid type will be based upon on well conditions. A fully saturated system will be used across the salt interval.
3069' – 10352'	8.75"	BDE/OBM or FW/Brine	9.5 - 10	30-32	NC	Fluid type will be based upon on well conditions.
10352' – 18211'	6.75"	OBM / Cut Brine	9.5 - 12.5	50-60	NC - 20	OBM or Cut Brine depending on Well Conditions

Section 6 Summary:

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

Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. An EDR (Electronic Drilling Recorder) 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

Section 7 Summary:

A Kelly cock will be in the drill string at all times.

A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.

H2S monitors will be on location when drilling below the 13-3/8" casing.

8. Logging, Coring and Testing Program

Section 8 Summary:

Open hole logging will not be done on this well.

9. Abnormal Pressures and Temperatures / Potential Hazards

Section 9 Summary:

The estimated bottom hole temperature of 176F to 196F. 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 is possible throughout the well.

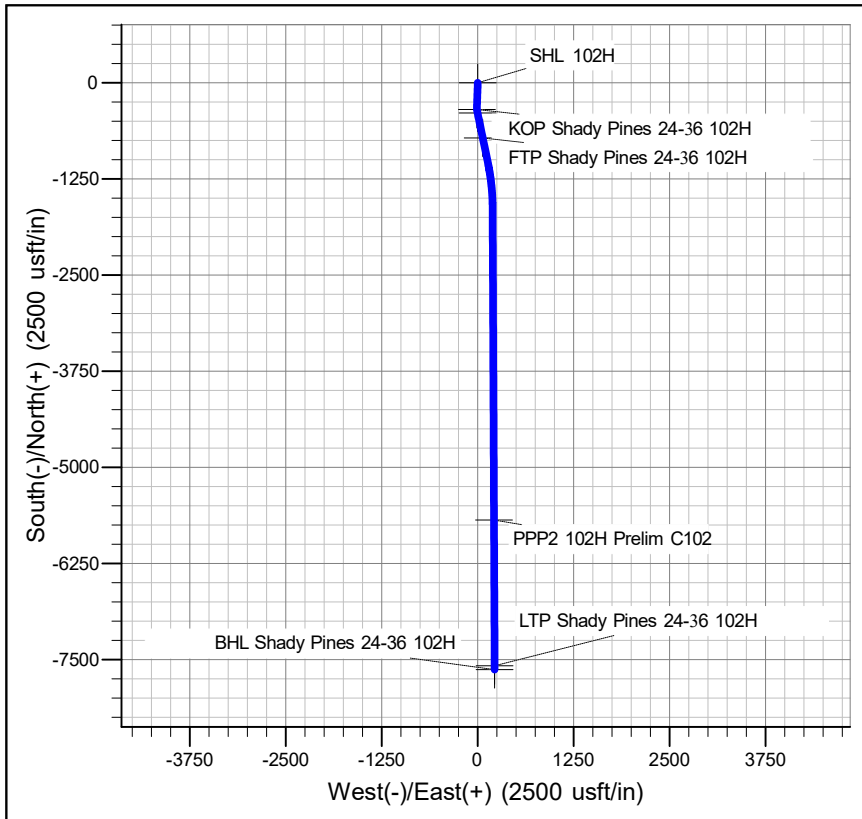
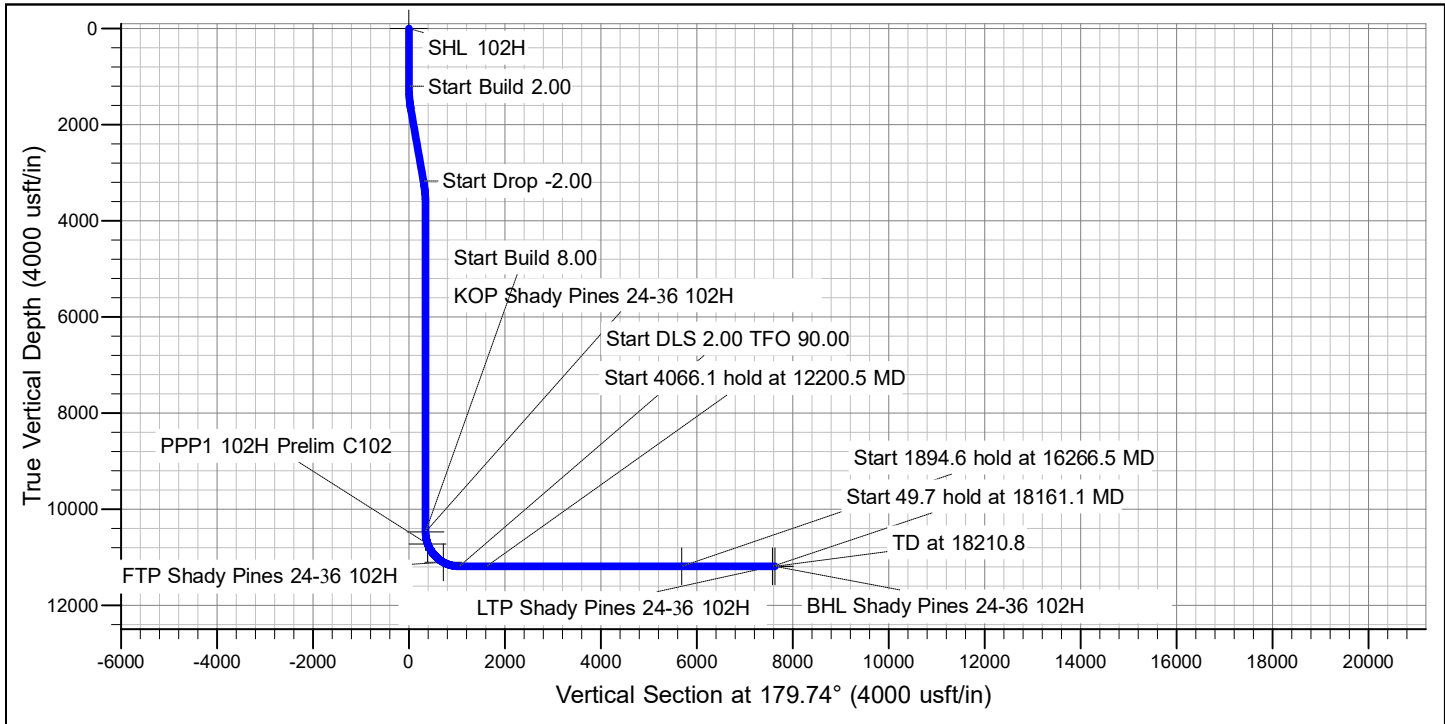
10. Anticipated Starting Date and Duration of Operations

Section 10 Summary:

Anticipated spud date will be after BLM approval. Move in operations and drilling is expected to take 40 days.



Site: Shady Pines 24-36
 Well: Shady Pines 24-36102H
 Wellbore: OH
 Design: Plan 0 - Sundry



FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
310.0	310.0	Rustler
570.0	570.0	Salado
600.0	600.0	Top of Salt
1382.0	1382.1	Castile
2969.0	2991.2	Base of Salt
3145.0	3169.9	Delaware
4050.0	4077.9	Cherry Canyon
5738.0	5765.9	Brushy Canyon
6715.0	6742.9	Basal Brushy Canyon
6940.0	6967.9	Bone Spring Lm.
7066.0	7093.9	Avalon
7500.0	7527.9	Lower Avalon
7650.0	7677.9	1st Bone Spring Lime
7890.0	7917.9	1st Bone Spring Sand
8176.0	8203.9	2nd Bone Spring Shale
8328.0	8355.9	2nd Bone Spring Lime
8497.0	8524.9	2nd Bone Spring Sand
8752.0	8779.9	2nd Bone Spring A Sand
8900.0	8927.9	2nd Bone Spring B Sand
8994.0	9021.9	3rd Bone Spring Lime
9317.0	9344.9	Harkey
9567.0	9594.9	Mid 3rd Bone Shale Lime
9770.0	9797.9	3rd Bone Spring Sand
10113.0	10140.9	Wolfcamp
10144.0	10171.9	Wolfcamp X
10252.0	10279.9	Wolfcamp A
10631.0	10660.1	Wolfcamp B
10881.0	10934.8	Wolfcamp C
11111.0	11287.1	Wolfcamp D
11190.0	11626.7	Wolfcamp D Landing

ROC

Long Lead - Shady Pines

Shady Pines 24-36

Shady Pines 24-36 102H

OH

Plan: Plan 0 - Sundry

Standard Planning Report

13 February, 2026

Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Project	Long Lead - Shady Pines		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Shady Pines 24-36				
Site Position:		Northing:	371,627.91 usft	Latitude:	32° 1' 15.954 N
From:	Map	Easting:	622,998.10 usft	Longitude:	103° 56' 11.288 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well						
Well Position	+N/-S	0.0 usft	Northing:	371,627.88 usft	Latitude:	32° 1' 15.954 N
	+E/-W	0.0 usft	Easting:	622,998.10 usft	Longitude:	103° 56' 11.288 W
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	2,980.0 usft
Grid Convergence:	0.21 °					

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/4/2025	6.21	59.52	46,910.19914816

Design	Plan 0 - Sundry			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.74

Plan Survey Tool Program	Date	2/10/2026		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,210.9 Plan 0 - Sundry (OH)	XOM_R2OWSG MWD+IFR1+	
			OWSG MWD + IFR1 + Multi-St	

Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,700.0	10.00	182.00	1,697.5	-43.5	-1.5	2.00	2.00	0.00	182.00	
3,200.0	10.00	182.00	3,174.7	-303.8	-10.6	0.00	0.00	0.00	0.00	
3,700.0	0.00	0.00	3,672.1	-347.3	-12.1	2.00	-2.00	0.00	180.00	
10,501.7	0.00	0.00	10,473.8	-347.3	-12.1	0.00	0.00	0.00	0.00	
11,626.7	90.00	168.27	11,190.0	-1,048.5	133.5	8.00	8.00	0.00	168.27	
12,200.5	90.00	179.75	11,190.0	-1,618.3	193.3	2.00	0.00	2.00	90.00	
16,266.5	90.00	179.75	11,190.0	-5,684.3	211.3	0.00	0.00	0.00	0.00	PPP2 102H Prelim C'
18,161.1	90.00	179.75	11,190.0	-7,578.9	219.7	0.00	0.00	0.00	0.00	LTP Shady Pines 24-
18,210.8	90.00	179.75	11,190.0	-7,628.6	219.9	0.00	0.00	0.00	0.00	BHL Shady Pines 24-

Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	2.00	182.00	1,300.0	-1.7	-0.1	1.7	2.00	2.00	0.00
1,400.0	4.00	182.00	1,399.8	-7.0	-0.2	7.0	2.00	2.00	0.00
1,500.0	6.00	182.00	1,499.5	-15.7	-0.5	15.7	2.00	2.00	0.00
1,600.0	8.00	182.00	1,598.7	-27.9	-1.0	27.9	2.00	2.00	0.00
1,700.0	10.00	182.00	1,697.5	-43.5	-1.5	43.5	2.00	2.00	0.00
1,800.0	10.00	182.00	1,795.9	-60.9	-2.1	60.8	0.00	0.00	-0.00
1,900.0	10.00	182.00	1,894.4	-78.2	-2.7	78.2	0.00	0.00	0.00
2,000.0	10.00	182.00	1,992.9	-95.6	-3.3	95.5	0.00	0.00	0.00
2,100.0	10.00	182.00	2,091.4	-112.9	-3.9	112.9	0.00	0.00	0.00
2,200.0	10.00	182.00	2,189.9	-130.3	-4.5	130.2	0.00	0.00	0.00
2,300.0	10.00	182.00	2,288.4	-147.6	-5.2	147.6	0.00	0.00	0.00
2,400.0	10.00	182.00	2,386.8	-165.0	-5.8	164.9	0.00	0.00	0.00
2,500.0	10.00	182.00	2,485.3	-182.3	-6.4	182.3	0.00	0.00	0.00
2,600.0	10.00	182.00	2,583.8	-199.7	-7.0	199.7	0.00	0.00	0.00
2,700.0	10.00	182.00	2,682.3	-217.0	-7.6	217.0	0.00	0.00	0.00
2,800.0	10.00	182.00	2,780.8	-234.4	-8.2	234.4	0.00	0.00	0.00
2,900.0	10.00	182.00	2,879.2	-251.7	-8.8	251.7	0.00	0.00	0.00
3,000.0	10.00	182.00	2,977.7	-269.1	-9.4	269.1	0.00	0.00	0.00
3,100.0	10.00	182.00	3,076.2	-286.5	-10.0	286.4	0.00	0.00	0.00
3,200.0	10.00	182.00	3,174.7	-303.8	-10.6	303.8	0.00	0.00	0.00
3,300.0	8.00	182.00	3,273.4	-319.4	-11.2	319.4	2.00	-2.00	0.00
3,400.0	6.00	182.00	3,372.7	-331.6	-11.6	331.6	2.00	-2.00	0.00
3,500.0	4.00	182.00	3,472.3	-340.3	-11.9	340.3	2.00	-2.00	0.00
3,600.0	2.00	182.00	3,572.2	-345.6	-12.1	345.5	2.00	-2.00	0.00
3,700.0	0.00	0.00	3,672.1	-347.3	-12.1	347.2	2.00	-2.00	0.00
3,800.0	0.00	0.00	3,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00
3,900.0	0.00	0.00	3,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,000.0	0.00	0.00	3,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,100.0	0.00	0.00	4,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,200.0	0.00	0.00	4,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,300.0	0.00	0.00	4,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,400.0	0.00	0.00	4,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,500.0	0.00	0.00	4,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,600.0	0.00	0.00	4,572.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,700.0	0.00	0.00	4,672.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,800.0	0.00	0.00	4,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00
4,900.0	0.00	0.00	4,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00
5,000.0	0.00	0.00	4,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00
5,100.0	0.00	0.00	5,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00
5,200.0	0.00	0.00	5,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00
5,300.0	0.00	0.00	5,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,400.0	0.00	0.00	5,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,572.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,672.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,572.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,672.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,572.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,672.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,200.0	0.00	0.00	8,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,300.0	0.00	0.00	8,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,400.0	0.00	0.00	8,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,500.0	0.00	0.00	8,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,600.0	0.00	0.00	8,572.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,700.0	0.00	0.00	8,672.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,800.0	0.00	0.00	8,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
8,900.0	0.00	0.00	8,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,000.0	0.00	0.00	8,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,100.0	0.00	0.00	9,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,200.0	0.00	0.00	9,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,300.0	0.00	0.00	9,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,400.0	0.00	0.00	9,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,500.0	0.00	0.00	9,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,600.0	0.00	0.00	9,572.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,700.0	0.00	0.00	9,672.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,800.0	0.00	0.00	9,772.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
9,900.0	0.00	0.00	9,872.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,000.0	0.00	0.00	9,972.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,100.0	0.00	0.00	10,072.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,200.0	0.00	0.00	10,172.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,300.0	0.00	0.00	10,272.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,400.0	0.00	0.00	10,372.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,500.0	0.00	0.00	10,472.1	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,501.7	0.00	0.00	10,473.8	-347.3	-12.1	347.2	0.00	0.00	0.00	
10,600.0	7.87	168.27	10,571.8	-353.9	-10.8	353.9	8.00	8.00	0.00	

Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,700.0	15.87	168.27	10,669.6	-374.0	-6.6	374.0	8.00	8.00	0.00
10,800.0	23.87	168.27	10,763.6	-407.3	0.3	407.3	8.00	8.00	0.00
10,900.0	31.87	168.27	10,851.9	-453.0	9.8	453.0	8.00	8.00	0.00
11,000.0	39.87	168.27	10,932.9	-510.3	21.7	510.4	8.00	8.00	0.00
11,100.0	47.87	168.27	11,004.9	-578.1	35.8	578.3	8.00	8.00	0.00
11,200.0	55.87	168.27	11,066.6	-655.1	51.8	655.3	8.00	8.00	0.00
11,300.0	63.87	168.27	11,116.8	-739.7	69.3	740.0	8.00	8.00	0.00
11,400.0	71.87	168.27	11,154.4	-830.3	88.2	830.7	8.00	8.00	0.00
11,500.0	79.87	168.27	11,178.8	-925.2	107.9	925.7	8.00	8.00	0.00
11,600.0	87.87	168.27	11,189.5	-1,022.5	128.1	1,023.0	8.00	8.00	0.00
11,626.7	90.00	168.27	11,190.0	-1,048.5	133.5	1,049.1	8.00	8.00	0.00
11,700.0	90.00	169.74	11,190.0	-1,120.5	147.5	1,121.2	2.00	0.00	2.00
11,800.0	90.00	171.74	11,190.0	-1,219.2	163.6	1,219.9	2.00	0.00	2.00
11,900.0	90.00	173.74	11,190.0	-1,318.4	176.2	1,319.2	2.00	0.00	2.00
12,000.0	90.00	175.74	11,190.0	-1,418.0	185.4	1,418.8	2.00	0.00	2.00
12,100.0	90.00	177.74	11,190.0	-1,517.8	191.1	1,518.7	2.00	0.00	2.00
12,200.0	90.00	179.74	11,190.0	-1,617.8	193.3	1,618.6	2.00	0.00	2.00
12,200.5	90.00	179.75	11,190.0	-1,618.3	193.3	1,619.1	2.00	0.00	2.00
12,300.0	90.00	179.75	11,190.0	-1,717.8	193.7	1,718.6	0.00	0.00	0.00
12,400.0	90.00	179.75	11,190.0	-1,817.8	194.2	1,818.6	0.00	0.00	0.00
12,500.0	90.00	179.75	11,190.0	-1,917.8	194.6	1,918.6	0.00	0.00	0.00
12,600.0	90.00	179.75	11,190.0	-2,017.8	195.0	2,018.6	0.00	0.00	0.00
12,700.0	90.00	179.75	11,190.0	-2,117.8	195.5	2,118.6	0.00	0.00	0.00
12,800.0	90.00	179.75	11,190.0	-2,217.8	195.9	2,218.6	0.00	0.00	0.00
12,900.0	90.00	179.75	11,190.0	-2,317.8	196.4	2,318.6	0.00	0.00	0.00
13,000.0	90.00	179.75	11,190.0	-2,417.8	196.8	2,418.6	0.00	0.00	0.00
13,100.0	90.00	179.75	11,190.0	-2,517.8	197.3	2,518.6	0.00	0.00	0.00
13,200.0	90.00	179.75	11,190.0	-2,617.8	197.7	2,618.6	0.00	0.00	0.00
13,300.0	90.00	179.75	11,190.0	-2,717.8	198.1	2,718.6	0.00	0.00	0.00
13,400.0	90.00	179.75	11,190.0	-2,817.8	198.6	2,818.6	0.00	0.00	0.00
13,500.0	90.00	179.75	11,190.0	-2,917.8	199.0	2,918.6	0.00	0.00	0.00
13,600.0	90.00	179.75	11,190.0	-3,017.8	199.5	3,018.6	0.00	0.00	0.00
13,700.0	90.00	179.75	11,190.0	-3,117.8	199.9	3,118.6	0.00	0.00	0.00
13,800.0	90.00	179.75	11,190.0	-3,217.8	200.4	3,218.6	0.00	0.00	0.00
13,900.0	90.00	179.75	11,190.0	-3,317.8	200.8	3,318.6	0.00	0.00	0.00
14,000.0	90.00	179.75	11,190.0	-3,417.8	201.3	3,418.6	0.00	0.00	0.00
14,100.0	90.00	179.75	11,190.0	-3,517.8	201.7	3,518.6	0.00	0.00	0.00
14,200.0	90.00	179.75	11,190.0	-3,617.8	202.1	3,618.6	0.00	0.00	0.00
14,300.0	90.00	179.75	11,190.0	-3,717.8	202.6	3,718.6	0.00	0.00	0.00
14,400.0	90.00	179.75	11,190.0	-3,817.8	203.0	3,818.6	0.00	0.00	0.00
14,500.0	90.00	179.75	11,190.0	-3,917.8	203.5	3,918.6	0.00	0.00	0.00
14,600.0	90.00	179.75	11,190.0	-4,017.8	203.9	4,018.6	0.00	0.00	0.00
14,700.0	90.00	179.75	11,190.0	-4,117.8	204.4	4,118.6	0.00	0.00	0.00
14,800.0	90.00	179.75	11,190.0	-4,217.8	204.8	4,218.6	0.00	0.00	0.00
14,900.0	90.00	179.75	11,190.0	-4,317.8	205.2	4,318.6	0.00	0.00	0.00
15,000.0	90.00	179.75	11,190.0	-4,417.8	205.7	4,418.6	0.00	0.00	0.00
15,100.0	90.00	179.75	11,190.0	-4,517.8	206.1	4,518.6	0.00	0.00	0.00
15,200.0	90.00	179.75	11,190.0	-4,617.8	206.6	4,618.6	0.00	0.00	0.00
15,300.0	90.00	179.75	11,190.0	-4,717.8	207.0	4,718.6	0.00	0.00	0.00
15,400.0	90.00	179.75	11,190.0	-4,817.8	207.5	4,818.6	0.00	0.00	0.00
15,500.0	90.00	179.75	11,190.0	-4,917.8	207.9	4,918.6	0.00	0.00	0.00
15,600.0	90.00	179.75	11,190.0	-5,017.8	208.3	5,018.6	0.00	0.00	0.00
15,700.0	90.00	179.75	11,190.0	-5,117.8	208.8	5,118.6	0.00	0.00	0.00
15,800.0	90.00	179.75	11,190.0	-5,217.8	209.2	5,218.6	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,900.0	90.00	179.75	11,190.0	-5,317.8	209.7	5,318.6	0.00	0.00	0.00
16,000.0	90.00	179.75	11,190.0	-5,417.8	210.1	5,418.6	0.00	0.00	0.00
16,100.0	90.00	179.75	11,190.0	-5,517.8	210.6	5,518.6	0.00	0.00	0.00
16,200.0	90.00	179.75	11,190.0	-5,617.8	211.0	5,618.6	0.00	0.00	0.00
16,266.5	90.00	179.75	11,190.0	-5,684.3	211.3	5,685.2	0.00	0.00	0.00
16,300.0	90.00	179.75	11,190.0	-5,717.8	211.4	5,718.6	0.00	0.00	0.00
16,400.0	90.00	179.75	11,190.0	-5,817.8	211.9	5,818.6	0.00	0.00	0.00
16,500.0	90.00	179.75	11,190.0	-5,917.8	212.3	5,918.6	0.00	0.00	0.00
16,600.0	90.00	179.75	11,190.0	-6,017.8	212.8	6,018.6	0.00	0.00	0.00
16,700.0	90.00	179.75	11,190.0	-6,117.8	213.2	6,118.6	0.00	0.00	0.00
16,800.0	90.00	179.75	11,190.0	-6,217.8	213.7	6,218.6	0.00	0.00	0.00
16,900.0	90.00	179.75	11,190.0	-6,317.8	214.1	6,318.6	0.00	0.00	0.00
17,000.0	90.00	179.75	11,190.0	-6,417.8	214.6	6,418.6	0.00	0.00	0.00
17,100.0	90.00	179.75	11,190.0	-6,517.8	215.0	6,518.6	0.00	0.00	0.00
17,200.0	90.00	179.75	11,190.0	-6,617.8	215.4	6,618.6	0.00	0.00	0.00
17,300.0	90.00	179.75	11,190.0	-6,717.8	215.9	6,718.6	0.00	0.00	0.00
17,400.0	90.00	179.75	11,190.0	-6,817.7	216.3	6,818.6	0.00	0.00	0.00
17,500.0	90.00	179.75	11,190.0	-6,917.7	216.8	6,918.6	0.00	0.00	0.00
17,600.0	90.00	179.75	11,190.0	-7,017.7	217.2	7,018.6	0.00	0.00	0.00
17,700.0	90.00	179.75	11,190.0	-7,117.7	217.7	7,118.6	0.00	0.00	0.00
17,800.0	90.00	179.75	11,190.0	-7,217.7	218.1	7,218.6	0.00	0.00	0.00
17,900.0	90.00	179.75	11,190.0	-7,317.7	218.5	7,318.6	0.00	0.00	0.00
18,000.0	90.00	179.75	11,190.0	-7,417.7	219.0	7,418.6	0.00	0.00	0.00
18,100.0	90.00	179.75	11,190.0	-7,517.7	219.4	7,518.6	0.00	0.00	0.00
18,161.1	90.00	179.75	11,190.0	-7,578.9	219.7	7,579.8	0.00	0.00	0.00
18,200.0	90.00	179.75	11,190.0	-7,617.7	219.9	7,618.6	0.00	0.00	0.00
18,210.8	90.00	179.75	11,190.0	-7,628.6	219.9	7,629.5	0.00	0.00	0.00

Planning Report

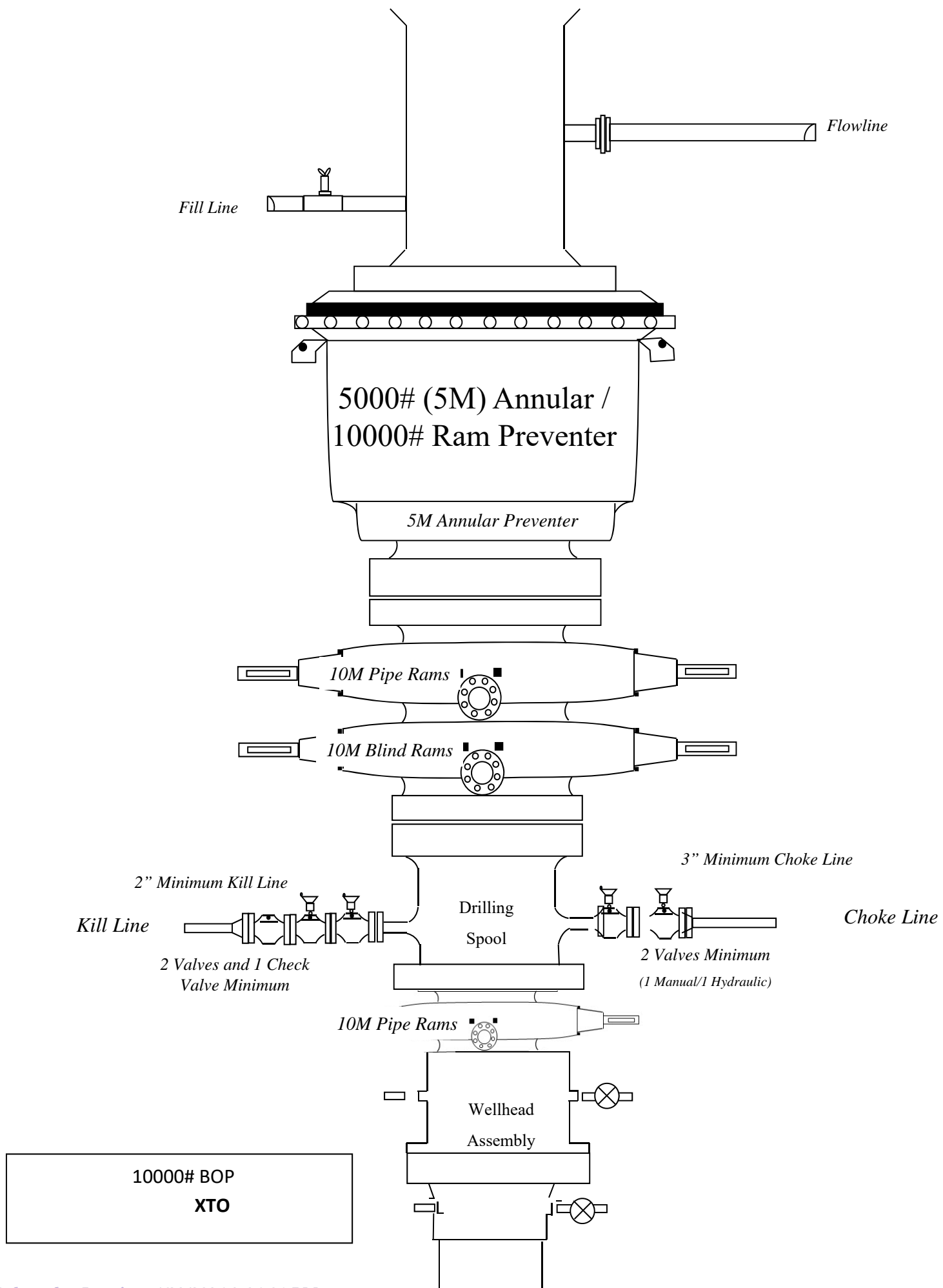
Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SHL 102H - plan hits target center - Rectangle (sides W20.0 H20.0 D0.0)	0.00	0.00	0.0	0.0	0.0	371,627.90	622,998.10	32° 1' 15.954 N	103° 56' 11.288 W
KOP - plan hits target center - Point	45.00	348.27	10,473.8	-347.3	-12.1	371,280.60	622,986.00	32° 1' 12.517 N	103° 56' 11.444 W
PPP1 - plan hits target center - Point	0.00	0.00	10,724.3	-391.6	-2.9	371,236.30	622,995.20	32° 1' 12.079 N	103° 56' 11.339 W
FTP - plan hits target center - Point	0.00	0.00	11,105.4	-717.9	64.8	370,910.00	623,062.90	32° 1' 8.847 N	103° 56' 10.566 W
LTP - plan hits target center - Point	0.00	0.00	11,190.0	-7,578.9	219.7	364,049.00	623,217.80	32° 0' 0.942 N	103° 56' 9.060 W
BHL - plan hits target center - Point	0.00	0.00	11,190.0	-7,628.6	219.9	363,999.30	623,218.00	32° 0' 0.450 N	103° 56' 9.060 W
PPP2 - plan hits target center - Point	0.00	0.00	11,190.0	-5,684.3	211.3	365,943.60	623,209.40	32° 0' 19.692 N	103° 56' 9.077 W

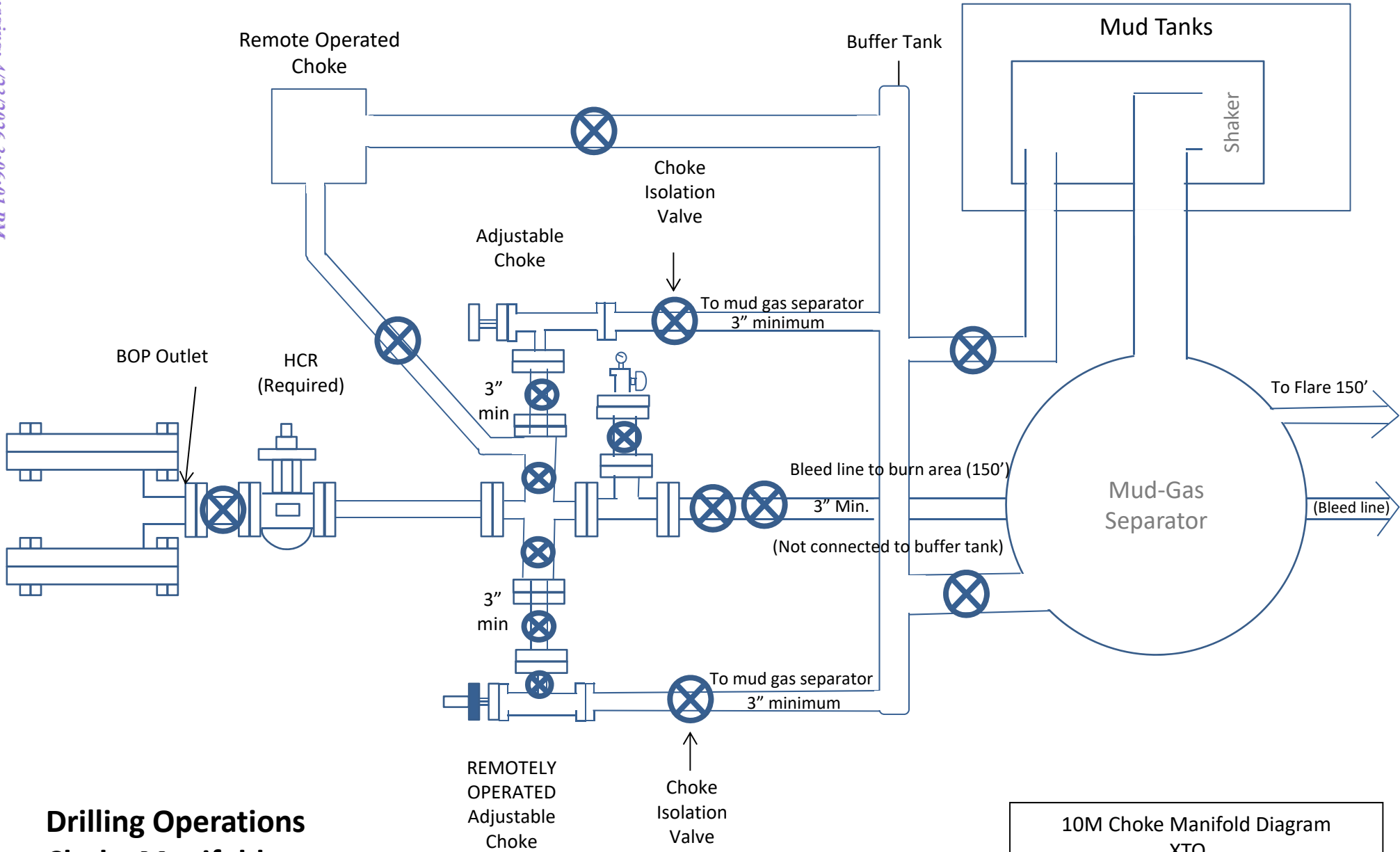
Planning Report

Database:	EDM 5000.18 Single User Db	Local Co-ordinate Reference:	
Company:	ROC	TVD Reference:	RKB32' @ 3012.0usft (TBD)
Project:	Long Lead - Shady Pines	MD Reference:	RKB32' @ 3012.0usft (TBD)
Site:	Shady Pines 24-36	North Reference:	Grid
Well:	Shady Pines 24-36 102H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 0 - Sundry		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
310.0	310.0	Rustler		0.00		
570.0	570.0	Salado		0.00		
600.0	600.0	Top of Salt		0.00		
1,382.1	1,382.0	Castile		0.00		
2,991.2	2,969.0	Base of Salt		0.00		
3,169.9	3,145.0	Delaware		0.00		
4,077.9	4,050.0	Cherry Canyon		0.00		
5,765.9	5,738.0	Brushy Canyon		0.00		
6,742.9	6,715.0	Basal Brushy Canyon		0.00		
6,967.9	6,940.0	Bone Spring Lm.		0.00		
7,093.9	7,066.0	Avalon		0.00		
7,527.9	7,500.0	Lower Avalon		0.00		
7,677.9	7,650.0	1st Bone Spring Lime		0.00		
7,917.9	7,890.0	1st Bone Spring Sand		0.00		
8,203.9	8,176.0	2nd Bone Spring Shale		0.00		
8,355.9	8,328.0	2nd Bone Spring Lime		0.00		
8,524.9	8,497.0	2nd Bone Spring Sand		0.00		
8,779.9	8,752.0	2nd Bone Spring A Sand		0.00		
8,927.9	8,900.0	2nd Bone Spring B Sand		0.00		
9,021.9	8,994.0	3rd Bone Spring Lime		0.00		
9,344.9	9,317.0	Harkey		0.00		
9,594.9	9,567.0	Mid 3rd Bone Shale Lime		0.00		
9,797.9	9,770.0	3rd Bone Spring Sand		0.00		
10,140.9	10,113.0	Wolfcamp		0.00		
10,171.9	10,144.0	Wolfcamp X		0.00		
10,279.9	10,252.0	Wolfcamp A		0.00		
10,660.1	10,631.0	Wolfcamp B		0.00		
10,934.8	10,881.0	Wolfcamp C		0.00		
11,287.1	11,111.0	Wolfcamp D		0.00		
11,626.7	11,190.0	Wolfcamp D Landing		0.00		

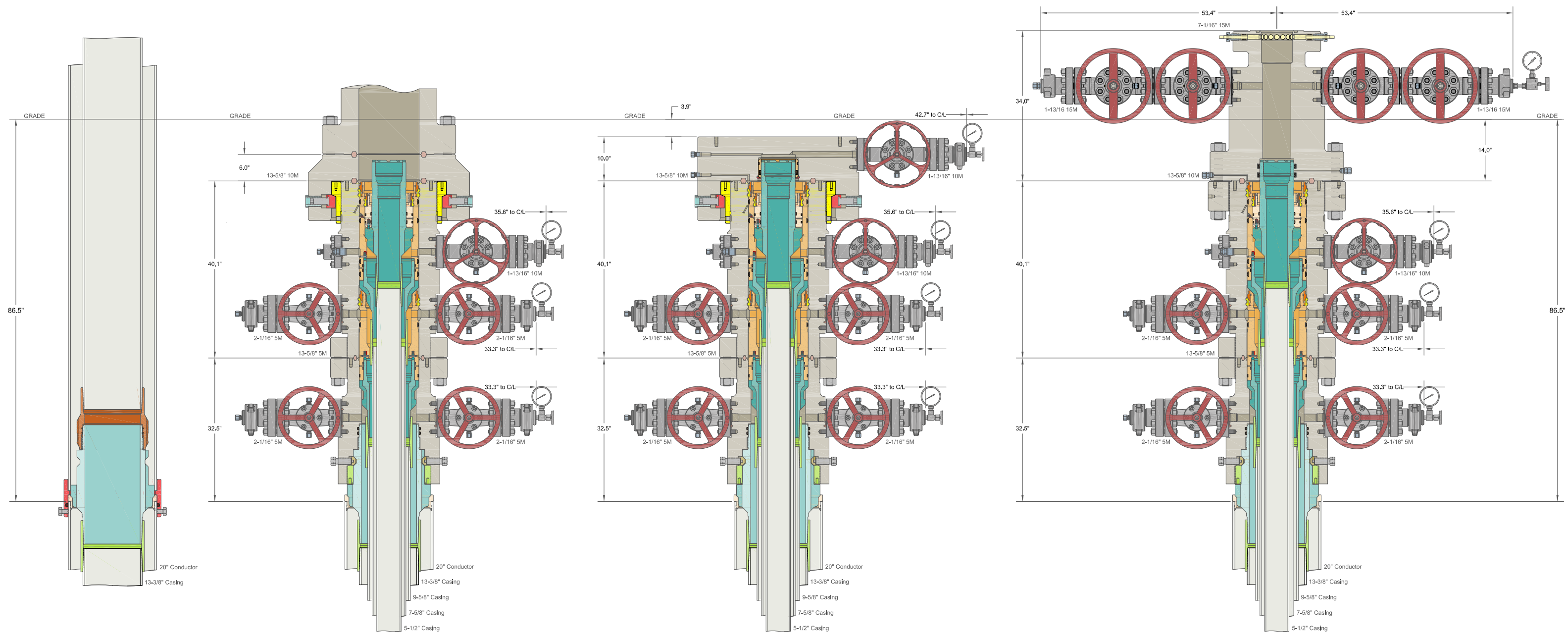


Bleed line will discharge 100' from wellhead for non-H2S situations and 150' from wellhead for H2S situations.



**Drilling Operations
Choke Manifold
10M Service**

10M Choke Manifold Diagram
XTO



<p align="center">CACTUS WELLHEAD LLC</p> <p align="center">(20") x 13-3/8" x 9-5/8" x 7-5/8" x 5-1/2" MBU-4T-CFL-R-DBLO With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS-SB Tubing Head And Drilling & Skid Configurations</p>		<p align="center">ALL DIMENSIONS APPROXIMATE</p>	
		<p align="center">XTO ENERGY INC DELAWARE BASIN</p>	
DRAWN	VJK	31MAR22	
APPRV			
DRAWING NO.		SDT-3301	

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 nipped up and tested on the wellhead before drilling operations resume on each well.
 - a. The larger rig will move back onto the location within 90 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/Permian 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.

12-1/4" Intermediate 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	8.000"-9.625"	Annular	5M	-	-
Intermediate Casing	9.625"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

8-3/4" 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	7"	Annular	5M	-	-
Open-Hole	-	Blind Rams	10M	-	-

6-1/8" Lateral Hole Section 10M psi Requirement					
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP
Drillpipe	4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
HWDP	4.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
DCs and MWD tools	4.750"-5.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Mud Motor	4.750"-5.500"	Annular	5M	Upper 3.5"-5.5" VBR Lower 3.5"-5.5" VBR	10M 10M
Production Casing	4.500"	Annular	5M	Upper 3.5"-5.5" VBR Upper 3.5"-5.5" VBR	10M 10M
Open-Hole	-	Blind Rams	10M	-	-

VBR = Variable Bore Ram

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 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



BLACK GOLD®

GATES ENGINEERING & SERVICES NORTH AMERICA
7603 Prairie Oak Dr.
Houston, TX. 77086

PHONE: +1 (281) 602-4100
FAX: +1 (281) 602-4147
EMAIL: gesna.quality@gates.com
WEB: www.gates.com/oilandgas

*NEW CHOKE HOSE
INSTALLED 02-10-2024*

CERTIFICATE OF CONFORMANCE

This is to verify that the items detailed below meet the requirements of the Customer's Purchase Order referenced herein, and are in Conformance with applicable specifications, and that Records of Required Tests are on file and subject to examination. The following items were inspected and hydrostatically tested at **Gates Engineering & Services North America** facilities in Houston, TX, USA.

CUSTOMER:	NABORS DRILLING TECHNOLOGIES USA DBA NABORS DRILLING USA
CUSTOMER P.O.#:	15582803 (TAG NABORS PO #15582803 SN 74621 ASSET 66-1531)
CUSTOMER P/N:	IMR RETEST SN 74621 ASSET #66-1531
PART DESCRIPTION:	RETEST OF CUSTOMER 3" X 45 FT 16C CHOKE & KILL HOSE ASSEMBLY C/W 4 1/16" 10K FLANGES
SALES ORDER #:	529480
QUANTITY:	1
SERIAL #:	74621 H3-012524-1

SIGNATURE: *F. OSMOS*

TITLE: QUALITY ASSURANCE

DATE: 1/25/2024



H3-15/16

1/25/2024 11:48:06 AM

TEST REPORT

CUSTOMER

Company: Nabors Industries Inc.
 Production description: 74621/66-1531
 Sales order #: 529480
 Customer reference: FG1213

TEST OBJECT

Serial number: H3-012524-1
 Lot number:
 Description: 74621/66-1531
 Hose ID: 3" 16C CK
 Part number:

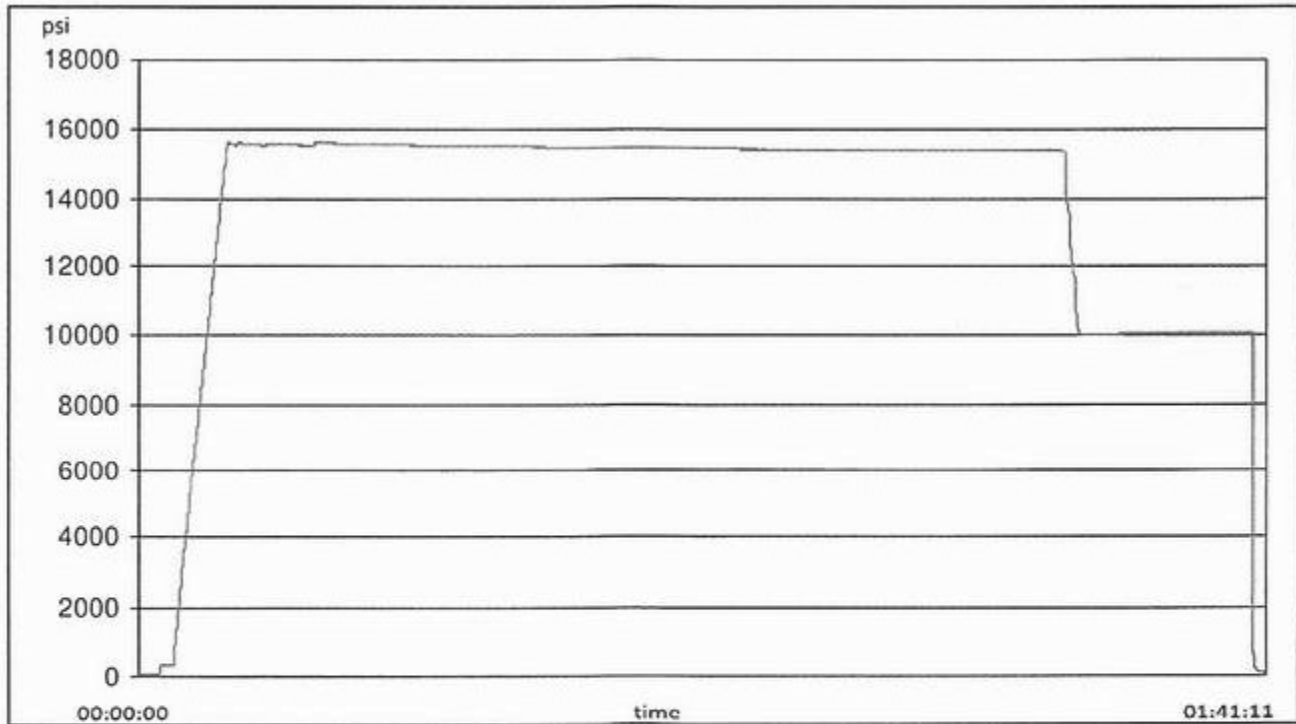
TEST INFORMATION

Test procedure: GTS-04-053
 Test pressure: 15000.00 psi
 Test pressure hold: 3600.00 sec
 Work pressure: 10000.00 psi
 Work pressure hold: 900.00 sec
 Length difference: 0.00 %
 Length difference: 0.00 inch

Fitting 1: 3.0 x 4-1/16 10K
 Part number:
 Description:
 Fitting 2: 3.0 x 4-1/16 10K
 Part number:
 Description:

Visual check:
 Pressure test result: PASS
 Length measurement result: Length: 45 feet

Test operator: Travis





H3-15/16

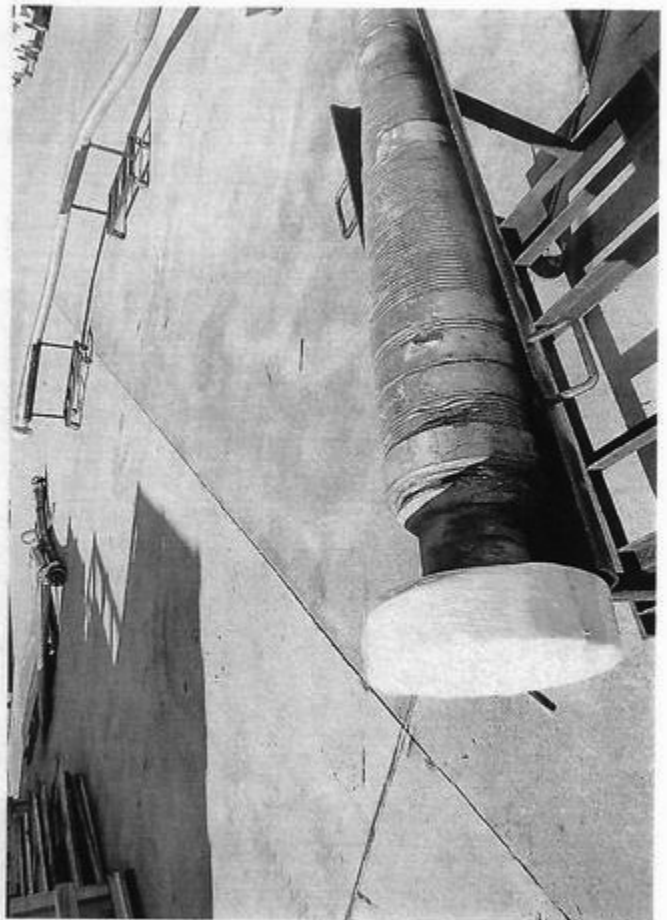
1/25/2024 11:48:06 AM

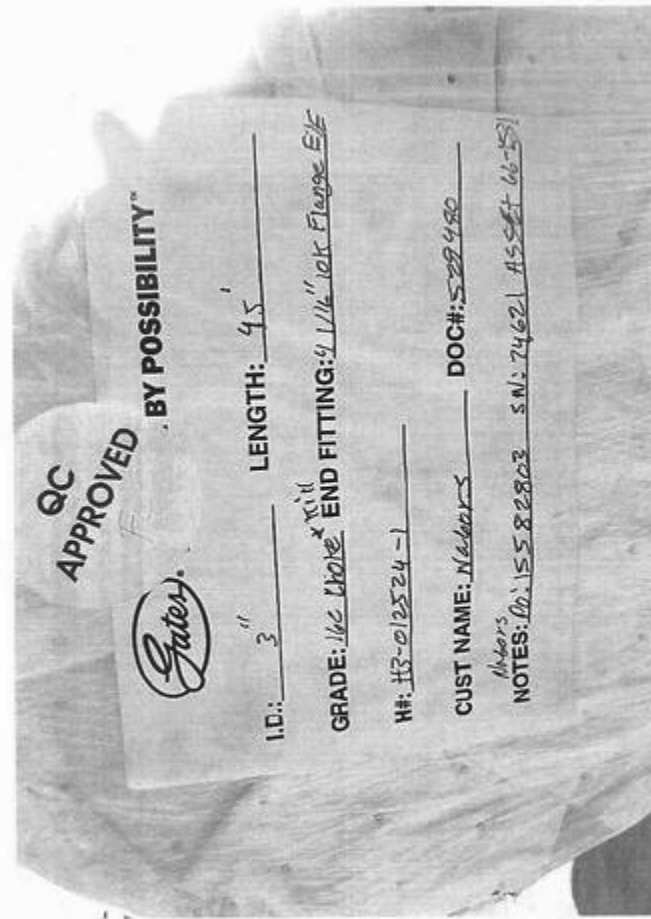
TEST REPORT

GAUGE TRACEABILITY

Description	Serial number	Calibration date	Calibration due date
S-25-A-W	110D3PHO	2023-06-06	2024-06-06
S-25-A-W	110IQWDG	2023-05-16	2024-05-16

Comment





XTO Permian Operating, LLC Offline Cementing Variance Request

XTO requests the option to cement the surface and intermediate casing strings offline as a prudent batch drilling efficiency of acreage development.

1. Cement Program

No changes to the cement program will take place for offline cementing.

2. Offline Cementing Procedure

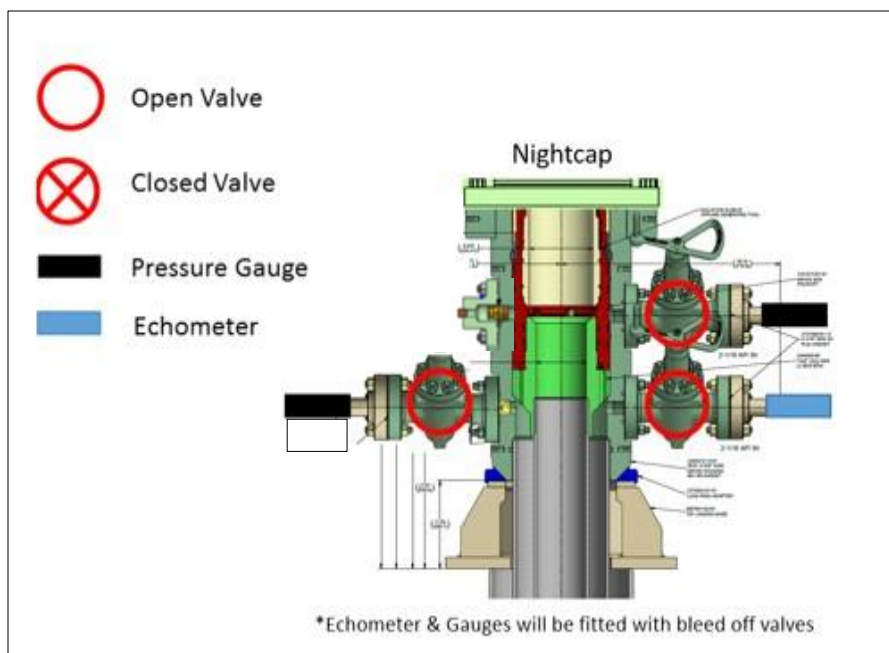
The operational sequence will be as follows. If a well control event occurs, the BLM will be contacted for approval prior to conducting offline cementing operations.

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe)
2. Land casing with mandrel
3. Fill pipe with kill weight fluid, do not circulate through floats and confirm well is static
4. Set annular packoff shown below and pressure test to confirm integrity of the seal. Pressure ratings of wellhead components and valves is 5,000 psi.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange.
 - a. If any barrier fails to test, the BOP stack will not be nipped down until after the cement job is completed with cement 500ft above the highest formation capable of flow with kill weight mud above or after it has achieved 50-psi compressive strength if kill weight fluid cannot be verified.



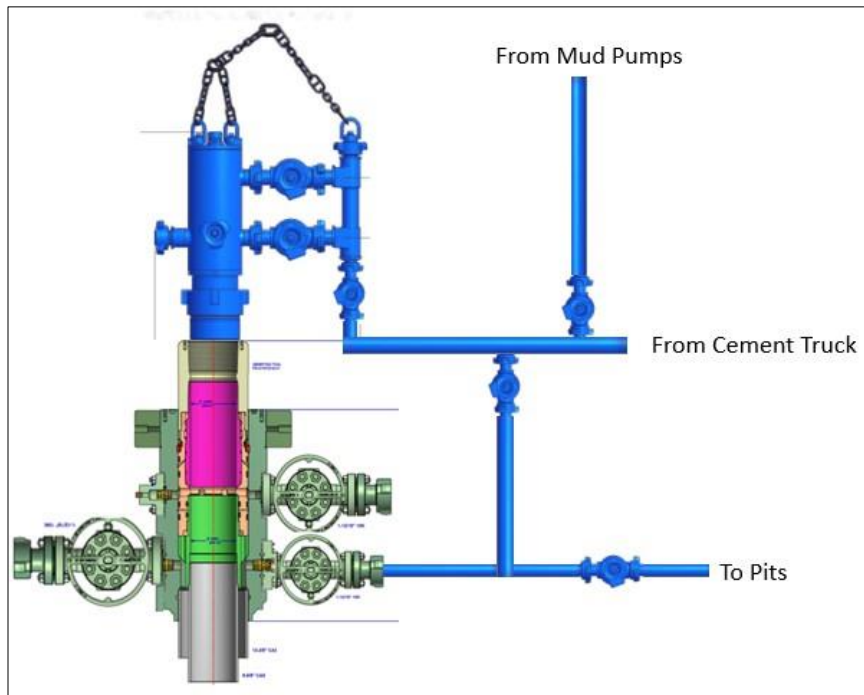
Annular packoff with both external and internal seals

XTO Permian Operating, LLC Offline Cementing Variance Request



Wellhead diagram during skidding operations

6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange, flange will not be removed and offline cementing operations will not commence until well is under control. If well is not static, casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing or nipping up for further remediation.
 - a. Well Control Plan
 - i. The Drillers Method will be the primary well control method to regain control of the wellbore prior to cementing, if wellbore conditions do not permit the drillers method other methods of well control may be used
 - ii. Rig pumps or a 3rd party pump will be tied into the upper casing valve to pump down the casing ID
 - iii. A high pressure return line will be rigged up to lower casing valve and run to choke manifold to control annular pressure
 - iv. Once influx is circulated out of the hole, kill weight mud will be circulated
 - v. Well will be confirmed static
 - vi. Once confirmed static, cap flange will be removed to allow for offline cementing operations to commence
8. Install offline cement tool
9. Rig up cement equipment

XTO Permian Operating, LLC Offline Cementing Variance Request

Wellhead diagram during offline cementing operations

10. Circulate bottoms up with cement truck
 - a. If gas is present on bottoms up, well will be shut in and returns rerouted through gas buster to handle entrained gas
 - b. Max anticipated time before circulating with cement truck is 6 hrs
11. Perform cement job taking returns from the annulus wellhead valve
12. Confirm well is static and floats are holding after cement job
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.



TenarisHydril Wedge 511



Coupling	Pipe Body
Grade: L80-IC	Grade: L80-IC
Body: Red	1st Band: Red
1st Band: Brown	2nd Band: Brown
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7.625 in.	Wall Thickness	0.375 in.	Grade	L80-IC
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.625 in.	Wall Thickness	0.375 in.	Body Yield Strength	683 x1000 lb
Nominal Weight	29.70 lb/ft	Plain End Weight	29.06 lb/ft	Min. Internal Yield Pressure	6890 psi
Drift	6.750 in.	OD Tolerance	API	SMYS	80,000 psi
Nominal ID	6.875 in.			Collapse Pressure	5900 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.625 in.	Tension Efficiency	61.10 %	Minimum	5900 ft-lb
Connection ID	6.787 in.	Joint Yield Strength	417 x1000 lb	Optimum	7100 ft-lb
Make-up Loss	3.704 in.	Internal Pressure Capacity	6890 psi	Maximum	10,300 ft-lb
Threads per inch	3.28	Compression Efficiency	73.80 %		
Connection OD Option	Regular	Compression Strength	504 x1000 lb	Operation Limit Torques	
		Max. Allowable Bending	29.33 °/100 ft	Operating Torque	35,000 ft-lb
		External Pressure Capacity	5900 psi	Yield Torque	52,000 ft-lb

Notes

For the latest performance data, always visit our website: www.tenaris.com
 For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information—if any—provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com. ©Tenaris 2024. All rights reserved.



TenarisHydril Wedge 511



Coupling	Pipe Body
Grade: P110-ICY	Grade: P110-ICY
Body: White	1st Band: White
1st Band: Pale Green	2nd Band: Pale Green
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	7.625 in.	Wall Thickness	0.375 in.	Grade	P110-ICY
Min. Wall Thickness	90.00 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	7.625 in.	Wall Thickness	0.375 in.	Body Yield Strength	1068 x1000 lb
Nominal Weight	29.70 lb/ft	Plain End Weight	29.06 lb/ft	Min. Internal Yield Pressure	11,070 psi
Drift	6.750 in.	OD Tolerance	API	SMYS	125,000 psi
Nominal ID	6.875 in.			Collapse Pressure	7360 psi

Connection Data

Geometry		Performance		Make-Up Torques	
Connection OD	7.625 in.	Tension Efficiency	61.10 %	Minimum	5900 ft-lb
Connection ID	6.787 in.	Joint Yield Strength	653 x1000 lb	Optimum	7100 ft-lb
Make-up Loss	3.704 in.	Internal Pressure Capacity	11,070 psi	Maximum	10,300 ft-lb
Threads per inch	3.28	Compression Efficiency	73.80 %		
Connection OD Option	Regular	Compression Strength	788 x1000 lb	Operation Limit Torques	
		Max. Allowable Bending	45.83 °/100 ft	Operating Torque	55,000 ft-lb
		External Pressure Capacity	7360 psi	Yield Torque	82,000 ft-lb

Notes

For the latest performance data, always visit our website: www.tenaris.com
 For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information—if any—provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com. ©Tenaris 2025. All rights reserved.



TenarisHydril Wedge 441®



Coupling	Pipe Body
Grade: P110-ICY	Grade: P110-ICY
Body: White	1st Band: White
1st Band: Pale Green	2nd Band: Pale Green
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-ICY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Type	Casing
Connection OD Option	REGULAR				

Pipe Body Data

Geometry				Performance	
Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Body Yield Strength	729 x1000 lb
Nominal Weight	20.00 lb/ft	Plain End Weight	19.83 lb/ft	Min. Internal Yield Pressure	14,360 psi
Drift	4.653 in.	OD Tolerance	API	SMYS	125,000 psi
Nominal ID	4.778 in.			Collapse Pressure	12,300 psi

Connection Data

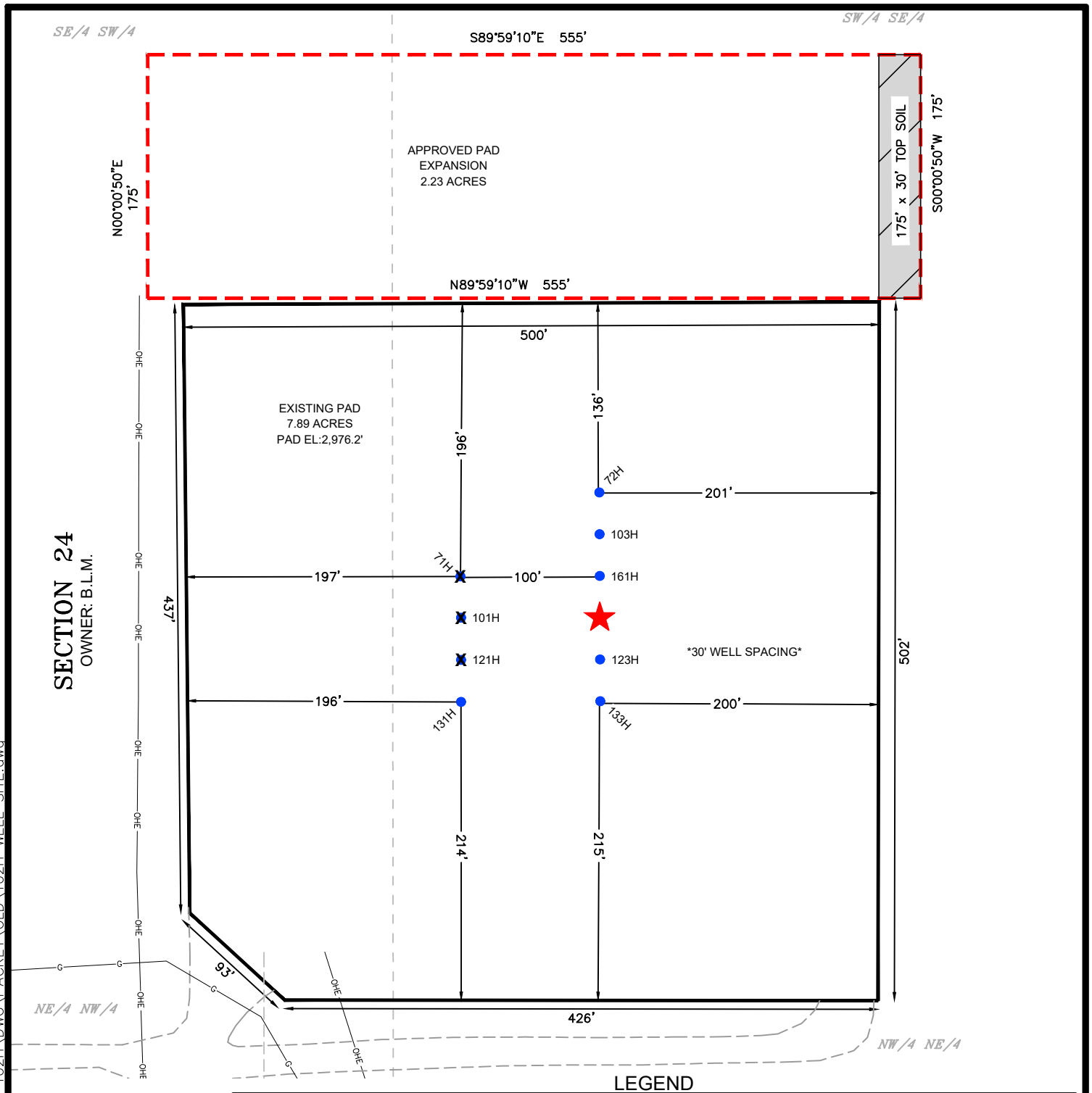
Geometry		Performance		Make-Up Torques	
Connection OD	5.852 in.	Tension Efficiency	81.50 %	Minimum	15,000 ft-lb
Coupling Length	8.714 in.	Joint Yield Strength	594 x1000 lb	Optimum	16,000 ft-lb
Connection ID	4.778 in.	Internal Pressure Capacity	14,360 psi	Maximum	19,200 ft-lb
Make-up Loss	3.780 in.	Compression Efficiency	81.50 %	Operation Limit Torques	
Threads per inch	3.40	Compression Strength	594 x1000 lb	Operating Torque	36,000 ft-lb
Connection OD Option	Regular	Max. Allowable Bending	84.76 °/100 ft	Yield Torque	42,000 ft-lb
		External Pressure Capacity	12,300 psi	Buck-On	
				Minimum	19,200 ft-lb
				Maximum	20,700 ft-lb

Notes

This connection is fully interchangeable with:
 Wedge 441® - 5.5 in. - 0.304 (17.00) in. (lb/ft)
 Wedge 461® - 5.5 in. - 0.304 (17.00) / 0.361 (20.00) / 0.415 (23.00) in. (lb/ft)
 Connections with Dopeless® Technology are fully compatible with the same connection in its doped version

For the latest performance data, always visit our website: www.tenaris.com
 For further information on concepts indicated in this datasheet, download the Datasheet Manual from www.tenaris.com

Tenaris has issued this document for general information only, and the information in this document, including, without limitation, any pictures, drawings or designs ("Information") is not intended to constitute professional or any other type of advice or recommendation and is provided on an "as is" basis. No warranty is given. Tenaris has not independently verified any information –if any- provided by the user in connection with, or for the purpose of, the Information contained hereunder. The use of the Information is at user's own risk and Tenaris does not assume any responsibility or liability of any kind for any loss, damage or injury resulting from, or in connection with any Information contained hereunder or any use thereof. The Information in this document is subject to change or modification without notice. Tenaris's products and services are subject to Tenaris's standard terms and conditions or otherwise to the terms resulting from the respective contracts of sale or services, as the case may be, between petitioner and Tenaris. For more complete information please contact a Tenaris's representative or visit our website at www.tenaris.com. ©Tenaris 2025. All rights reserved.



SECTION 24
OWNER: B.L.M.

SECTION 25
OWNER: B.L.M.

TOWNSHIP 26 SOUTH,
RANGE 29 EAST
N.M.P.M.

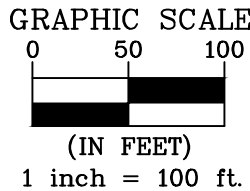
	SECTION LINE		EXISTING ROAD
	APPROVED PAD EXPANSION		EXISTING OVERHEAD ELECTRIC
	TBD WELL LOCATION		EXISTING PAD
	PERMITTED WELL LOCATION		FEATURE WELL LOCATION
	DENOTES LOCATION HAS BEEN DRILLED		

GENERAL NOTES

- BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATES SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983.
- LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATA (NAD83).
- REFER TO TOPOGRAPHICAL AND ACCESS ROAD MAP FOR PROPOSED ROAD LOCATION.

I, MARK DILLON HARP, NEW MEXICO PROFESSIONAL SURVEYOR NO. 23786, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

MARK DILLON HARP
NEW MEXICO PROFESSIONAL LAND SURVEYOR
NO. 23786



FEATURE WELL LOCATION DETAIL

SHADY PINES 24-36 #102H
391' FSL & 2,398' FEL
ELEV. = 2,980'
NAD 83 (NME)
Y = 371,685.4
X = 664,183.7
LAT. = 32.021224°N
LONG. = 103.936950°W
NAD 27 (NME)
Y = 371,627.9
X = 622,998.1
LAT. = 32.021098°N
LONG. = 103.936469°W



505 Pecan Street, Suite 201, Fort Worth, TX 76102
ph: 882.882.4570 manhard.com

Texas Board of Professional Engineers & Land Surveyors Reg. No. F-10194754 (Surv), F-22053 (Eng)

© 2026 MANHARD CONSULTING ALL RIGHTS RESERVED

**A WELL SITE PLAN FOR XTO ENERGY, INC.
SHADY PINES EXISTING PAD "A"**

PAD CENTER IS LOCATED 380 FEET FROM THE SOUTH LINE AND 2,444 FEET FROM THE EAST LINE OF SECTION 24, TOWNSHIP 26 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

CHECKED BY: DB	DATE: 1/9/26	SCALE: 1" = 100'	PROJECT NO.: 618.013016.01-05
DRAWN BY: AI	FIELD CREW: RD	REVISION NO.: NO	SHEET: 1 OF 1

P:\618.013_XTO_Energy - NM\016_Ross_Draw_Unit - Eddy\01 - Shady Pines 24-36\Wells\05_102H\DWG_PACKET\OLD\102H_WELL_SITE.dwg

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 565322

ACKNOWLEDGMENTS

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 565322
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals will be added to the completion or recompletion of this well.
-------------------------------------	--

Sante Fe Main Office
Phone: (505) 476-3441

General Information
Phone: (505) 629-6116

Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 565322

CONDITIONS

Operator: XTO ENERGY, INC 3617 North Big Spring Street Midland, TX 79705	OGRID: 5380
	Action Number: 565322
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
slaghuvarapu	Cement is required to circulate on both surface and intermediate1 strings of casing.	3/20/2026
jeffrey.harrison	If the method of isolation was not by circulation, a CBL must be performed; if strata isolation is not achieved, then remediation will be required before further operations.	4/21/2026
jeffrey.harrison	File As Drilled C-102 and a directional Survey with C-104 completion packet.	4/21/2026
jeffrey.harrison	Notify the OCD 24 hours prior to casing & cement.	4/21/2026
jeffrey.harrison	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.	4/21/2026
jeffrey.harrison	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.	4/21/2026
jeffrey.harrison	All logs run on the well must be submitted to NMOCD.	4/21/2026