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Form 3160-3
(June 2015)

NOV 25 2019

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DISTRICT OFFICE - ARTESIA O.C.D.

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMLC0069876	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No. BIG EDDY / NMNM068294X	
8. Lease Name and Well No. BIG EDDY UNIT 17 FEDERAL SWD 1 326984	
9. API Well No. 373075 30-015-46612	
3a. Address 6401 Holiday Hill Road, Bldg 5 Midland TX 79707	3b. Phone No. (include area code) (432)682-8873
10. Field and Pool, or Exploratory SWD; DEVONIAN-SILURIAN	
11. Sec., T. R. M. or Blk. and Survey or Area SEC 17 / T22S / R29E / NMP	
14. Distance in miles and direction from nearest town or post office* 13.2 miles	
12. County or Parish EDDY	
13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 229 feet	16. No of acres in lease 2240
17. Spacing Unit dedicated to this well 0	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 7923 feet	19. Proposed Depth 14975 feet / 14975 feet
20. BLM/BIA Bond No. in file FED: COB000050	
21. Elevations (Show whether DF, KDB, RT, GL. etc.) 3323 feet	22. Approximate date work will start* 06/01/2019
23. Estimated duration 90 days	
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 (Electronic Submission)	Name (Printed/Typed) Stephanie Rabadue / Ph: (432)620-6714	Date 01/17/2019
Title Regulatory Coordinator		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Christopher Walls / Ph: (575)234-2234	Date 11/20/2019
Title Petroleum Engineer		
Office CARLSBAD		

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.

APPROVED WITH CONDITIONS
Approval Date: 11/20/2019

RW.

*(Instructions on page 2)

1-28-2020

(Continued 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 1: 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 an 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

1. SHL: NWNE / 1091 FNL / 1958 FEL / TWSP: 22S / RANGE: 29E / SECTION: 17 / LAT: 32.397031 / LONG: -104.00394 (TVD: 0 feet, MD: 0 feet)

PPP: (TVD: 0 feet, MD: 0 feet)

BHL: NWNE / 1091 FNL / 1958 FEL / TWSP: 22S / RANGE: 29E / SECTION: 17 / LAT: 32.397031 / LONG: -104.00394 (TVD: 14975 feet, MD: 14975 feet)

BLM Point of Contact

Name: Tenille Ortiz

Title: Legal Instruments Examiner

Phone: 5752342224

Email: tortiz@blm.gov

Approval Date: 11/20/2019

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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.

Approval Date: 11/20/2019

(Form 3160-3, page 4)

**PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	XTO Permian Operating, LLC
LEASE NO.:	NMLC0069876
WELL NAME & NO.:	Big Eddy Unit 17 Federal SWD 1
SURFACE HOLE FOOTAGE:	1091' FNL & 1958' FEL
LOCATION:	Section 17, T. 22 S., R 29 E., NMPM
COUNTY:	County, New Mexico

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

A. HYDROGEN SULFIDE

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

B. CASING

1. The **18-5/8** inch surface casing shall be set at approximately **290** feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - 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 **24 hours in the Potash Area** 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 **13-3/8** inch intermediate casing, which shall be set at approximately **3100** feet, 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 and 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.
 - ❖ In Secretary Potash 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 **9-5/8** inch intermediate casing is:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. **DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe.** The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool:
 - Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**
4. The minimum required fill of cement behind the 7 inch production casing is:
 - Cement should tie-back at least **500 feet** into previous casing string. Operator shall provide method of verification.
 5. The well will be open hole from 14,240'-14,975'.

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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.
3. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 13-3/8" 1st intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8" 1st intermediate casing shoe shall be **10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 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.

Well Completion

A NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:

- 1. Properly evaluate the injection zone utilizing open hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.**
- 2. Restrict the injection fluid to the approved formation.**

If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.

GENERAL REQUIREMENTS

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

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

Eddy County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
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. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
4. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
5. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be

tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

6. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

B. PRESSURE CONTROL

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

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

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

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

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

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JAM 101519

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

**Environmental Assessment DOI-BLM-NM-P020-2020-0000-EA
XTO Permian Operating LLC
Big Eddy Unit 17 Federal SWD #1
Lease Number NMLC0069876**

Big Eddy Unit 17 Federal SWD #1:

Surface Hole Location: Sec. 17, T. 22 S., R. 29 E., 1091' FNL & 1958' FEL

Bottom Hole Location: Sec. 17, T. 22 S., R. 29 E., 1091' FNL & 1958' FWL

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
 - VRM
- 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 and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator 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 shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

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 top soil 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.

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 2013).

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the 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 .

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.

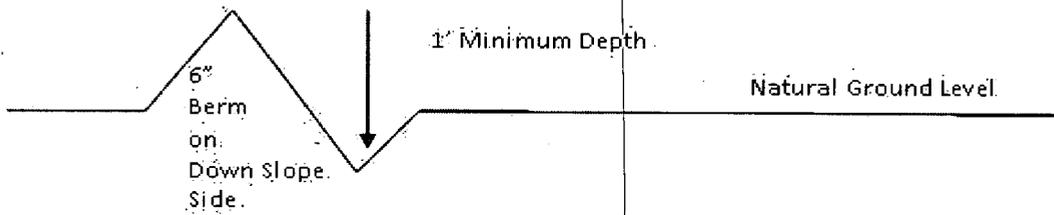
Turnouts

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 out-sloping and in-sloping, leadoff 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.



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 %);

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route 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 cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

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

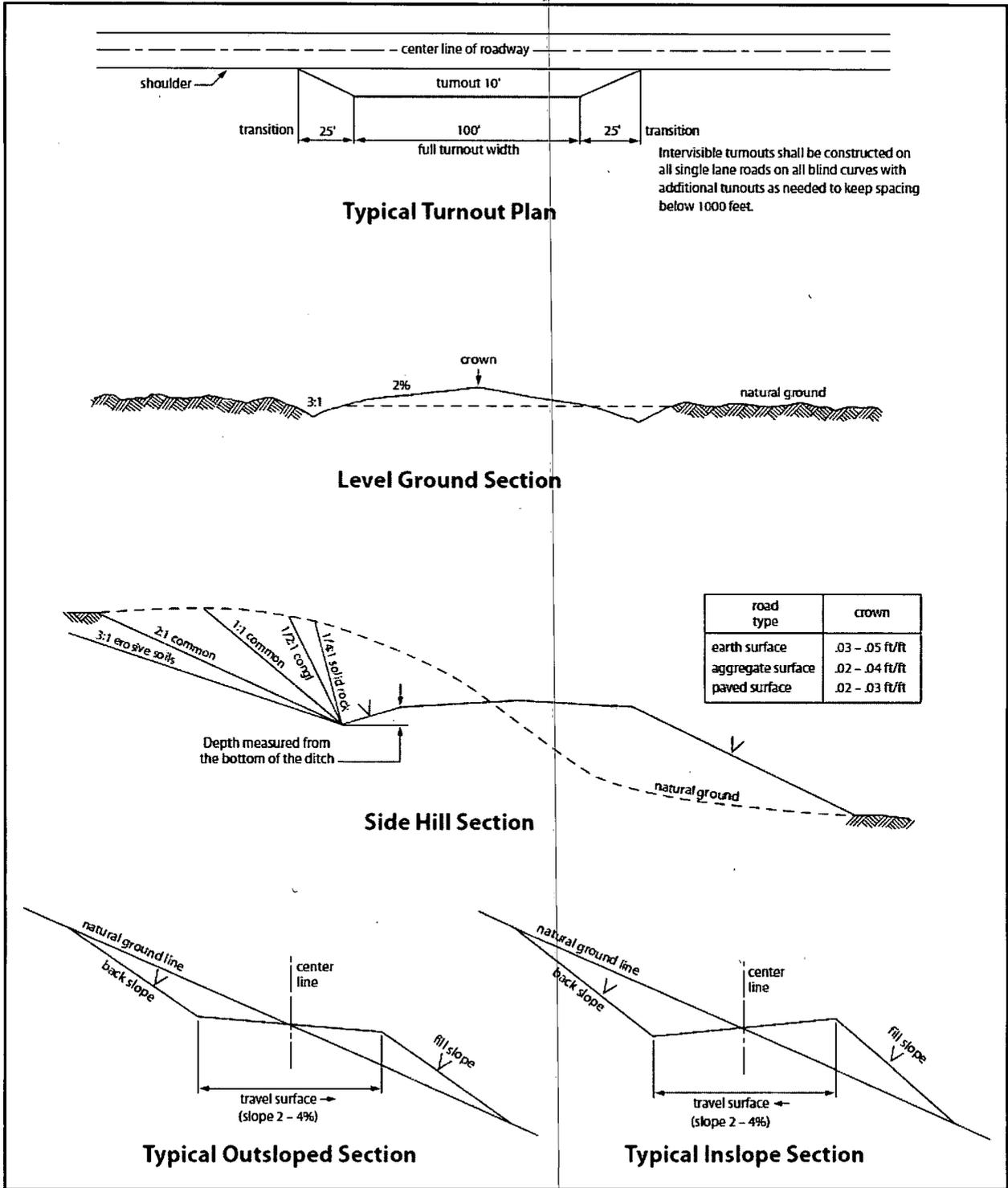


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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, 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.

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.

- | | |
|--|--|
| <input type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input checked="" type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> 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.

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).

Seed Mixture 2, for Sandy 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>
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sand love grass (<i>Eragrostis trichodes</i>)	1.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

*Pounds of pure live seed:

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



Operator Certification

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: Stephanie Rabadue

Signed on: 05/17/2018

Title: Regulatory Coordinator

Street Address:

City:

State:

Zip:

Phone: (432)620-6714

Email address: stephanie_rabadue@xtoenergy.com

Field Representative

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:



APD ID: 10400037736

Submission Date: 01/17/2019

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

[Show Final Text](#)

Well Type: INJECTION - DISPOSAL

Well Work Type: Drill

Section 1 - General

APD ID: 10400037736

Tie to previous NOS? N

Submission Date: 01/17/2019

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: NMLC0069876

Lease Acres: 2240

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? YES

Federal or Indian agreement: FEDERAL

Agreement number: NMNM068294X

Agreement name:

Keep application confidential? NO

Permitting Agent? NO

APD Operator: XTO PERMIAN OPERATING LLC

Operator letter of designation:

Operator Info

Operator Organization Name: XTO PERMIAN OPERATING LLC

Operator Address: 6401 Holiday Hill Road, Bldg 5

Zip: 79707

Operator PO Box:

Operator City: Midland

State: TX

Operator Phone: (432)682-8873

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: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: SWD; DEVONIAN- Pool Name: SILURIAN

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

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

Describe other minerals: Produced Water

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: SINGLE WELL Multiple Well Pad Name: Number:

Well Class: VERTICAL Number of Legs: 1

Well Work Type: Drill

Well Type: INJECTION - DISPOSAL

Describe Well Type:

Well sub-Type: INJECTION - DISPOSAL

Describe sub-type:

Distance to town: 13.2 Miles Distance to nearest well: 7923 FT Distance to lease line: 229 FT

Reservoir well spacing assigned acres Measurement: 0 Acres

Well plat: BEU_17_Fed_1_C102_20190108061011.pdf

Well work start Date: 06/01/2019 Duration: 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 Vertical Datum: NAVD88

Survey number: Reference Datum:

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
SHL Leg #1	109 1	FNL	195 8	FEL	22S	29E	17	Aliquot NWNE 1	32.39703 1	- 104.0039 4	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 069876 3	332 3	0	0	
BHL Leg #1	109 1	FNL	195 8	FEL	22S	29E	17	Aliquot NWNE 1	32.39703 1	- 104.0039 4	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMLC0 069876 3	- 116 52	149 75	149 75	



APD ID: 10400037736

Submission Date: 01/17/2019

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

[Show Final Text](#)

Well Type: INJECTION - DISPOSAL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3323	0	0	OTHER : Quaternary	NONE	N
2	RUSTLER	2124	1564	1564	SILTSTONE	USEABLE WATER	N
3	TOP SALT	1773	1915	1915	SALT	POTASH	N
4	BASE OF SALT	529	3159	3159	SALT	POTASH	N
5	DELAWARE	-1946	5634	5634	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
6	BONE SPRING	-4984	8672	8672	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
7	BONE SPRING 1ST	-5978	9666	9666	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
8	BONE SPRING 2ND	-6808	10496	10496	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
9	BONE SPRING 3RD	-7425	11113	11113	SANDSTONE	OTHER,NATURAL GAS,CO2,OIL : Produced Water	N
10	CISCO-CANYON	-7813	11136	11136	SHALE	OTHER,NATURAL GAS,OIL : Produced Water	N
11	WOLFCAMP	-7740	11428	11428	LIMESTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
12	STRAWN	-8375	11698	11698	LIMESTONE	OTHER,NATURAL GAS,OIL : produced water	N
13	ATOKA-MORROW	-8604	11927	11927	SHALE,SANDSTONE	OTHER,NATURAL GAS,OIL : produced water	N
14	BARNETT	-9880	13203	13203	SHALE	OTHER,NATURAL GAS,OIL : Produced Water	N
15	MISSISSIPPIAN	-10195	13518	13518	LIMESTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
16	WOODFORD	-10766	14089	14089	SHALE	OTHER,NATURAL GAS,OIL : Produced Water	N
17	DEVONIAN	-10908	14231	14231	DOLOMITE	NONE	Y
18	FUSSELMAN	-11175	14498	14498	DOLOMITE	NONE	Y

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M

Rating Depth: 14975

Equipment: Once WH is installed on 13-3/8 inch casing, the blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 5M Annular and a 13-5/8" minimum 10M Double Ram BOP. MASP should not exceed 5979 psi. In any instance where 10M BOP is required by BLM, XTO requests 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).

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. In any instance where 10M BOP is required by BLM, XTO requests 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).

Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up on the 13-5/8" 10M bradenhead and flange, the BOP test will be limited to 10000 psi. When nipping up on the 9-5/8", the BOP will be tested to a minimum of 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

Choke Diagram Attachment:

BEU_17_Fed_1_10MCM_20190117094539.pdf

BOP Diagram Attachment:

BEU_17_Fed_1_5M10MBOP_20190117094547.pdf

Pressure Rating (PSI): 2M

Rating Depth: 290

Equipment: The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 2M Hydril and a 13-5/8" minimum 2M Double Ram BOP.

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.

Testing Procedure: All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nipping up, the BOP test will be limited to 2,000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 2M BOP diagram is attached. Blind rams will be function tested each trip, pipe rams will be function tested each day.

Choke Diagram Attachment:

BEU_17_Fed_1_2MCM_20191007061254.pdf

BOP Diagram Attachment:

BEU_17_Fed_1_2MBOP_20191007061303.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

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	24	18.625	NEW	API	N	0	290	0	290			290	J-55	87.5	BUTT	4.86	2.39	DRY	52.37	DRY	52.37
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	3030	0	3030			3030	J-55	68	BUTT	1.21	1.17	DRY	5.53	DRY	5.53
3	PRODUCTION	12.25	9.625	NEW	API	N	0	10400	0	10400			10400	L-80	53.5	LT&C	1.26	1.33	DRY	1.88	DRY	1.88
4	LINER	8.5	7.0	NEW	API	N	10000	14250	10000	14250			4250	HCP-110	32	BUTT	1.3	2.33	DRY	4.23	DRY	4.23
5	OPEN HOLE	6					14240	14975					735									

Casing Attachments

Casing ID: 1 String Type: SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_17_Fed_1_Csg_20190117094915.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_17_Fed_1_Csg_20190117094924.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_17_Fed_1_Csg_20190117094931.pdf

Casing ID: 4 **String Type:** LINER

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BEU_17_Fed_1_Csg_20190117094940.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Casing Attachments

Casing ID: 5 String Type: OPEN HOLE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	290	530	1.36	14.8	720.8	100	C	2% CaCL
INTERMEDIATE	Lead		0	3030	1820	1.92	12.8	3499.86	100	Poz/C	None
INTERMEDIATE	Tail				520	1.33	14.8	691.6	100	C	2% CaCl
PRODUCTION	Lead	3233	0	3233	900	1.9	12.9	1710	100	Poz/C	2% CaCl
PRODUCTION	Tail				250	1.25	14.8	312.5	100	C	2% CaCl
PRODUCTION	Lead	3233	3233	1040 0	1820	1.92	12.8	3494	100	Poz/C	None
PRODUCTION	Tail				520	1.33	14.8	691.6	100	C	2% CaCl
LINER	Lead		1000 0	1425 0	470	1.47	13.2	689.9 6	100	C	None
OPEN HOLE	Lead		1424 0	1497 5	0	0	0	0	0	None	None - Open Hole

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

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 a fluid loss control will be on location at all times.

Describe the mud monitoring system utilized: A Pason or Totco will be used to detect changes in loss or gain of mud volume.

Circulating Medium Table

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
3030	1040 0	OTHER : Cut Brine	9.3	9.7							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 hrs to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.
0	290	OTHER : FW/Native	8.4	9							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 hrs to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.
290	3030	OTHER : Brine	9.8	10.3							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 hrs to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

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
											loop system.
1400 0	1425 0	OTHER : Cut Brine/Polymer	12	12.3							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 hrs to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.
1425 0	1794 5	OTHER : Fresh Water	8.4	8.8							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 hrs to determine: density, viscosity, strength, filtration and pH as necessary. Solids control equipment will be used to operate as a closed loop system.

Section 6 - Test, Logging, Coring

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

Mud Logging Unit (2 Man) below 13-3/8" casing. Open hole logging and rotary side wall cores will be conducted in intermediate and production hole sections. Logs that may be run include Triple Combo, Dipole Sonic, FMI, NMR, and Rotary SWC.

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

CBL,CNL,DS,EL,GR,MUDLOG

Coring operation description for the well:

Rotary side wall core.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6852

Anticipated Surface Pressure: 3557.5

Anticipated Bottom Hole Temperature(F): 190

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

Describe:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

BEU_17_Fed_1_H2S_Dia_20190117094509.pdf

BEU_17_Fed_1_H2S_Plan_20190117094518.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Other proposed operations facets description:

There are no wells within 1/2 mile of the proposed well. See 'Other Facets attachments' attached map. See also 1-Mile Existing Wells map in the Surface Use Plan of Operations. BLM was notified and provided copy of NMOCD submitted disposal permit via certified mail: 7018 1130 0001 5531 6297 April 8, 2019.

Other proposed operations facets attachment:

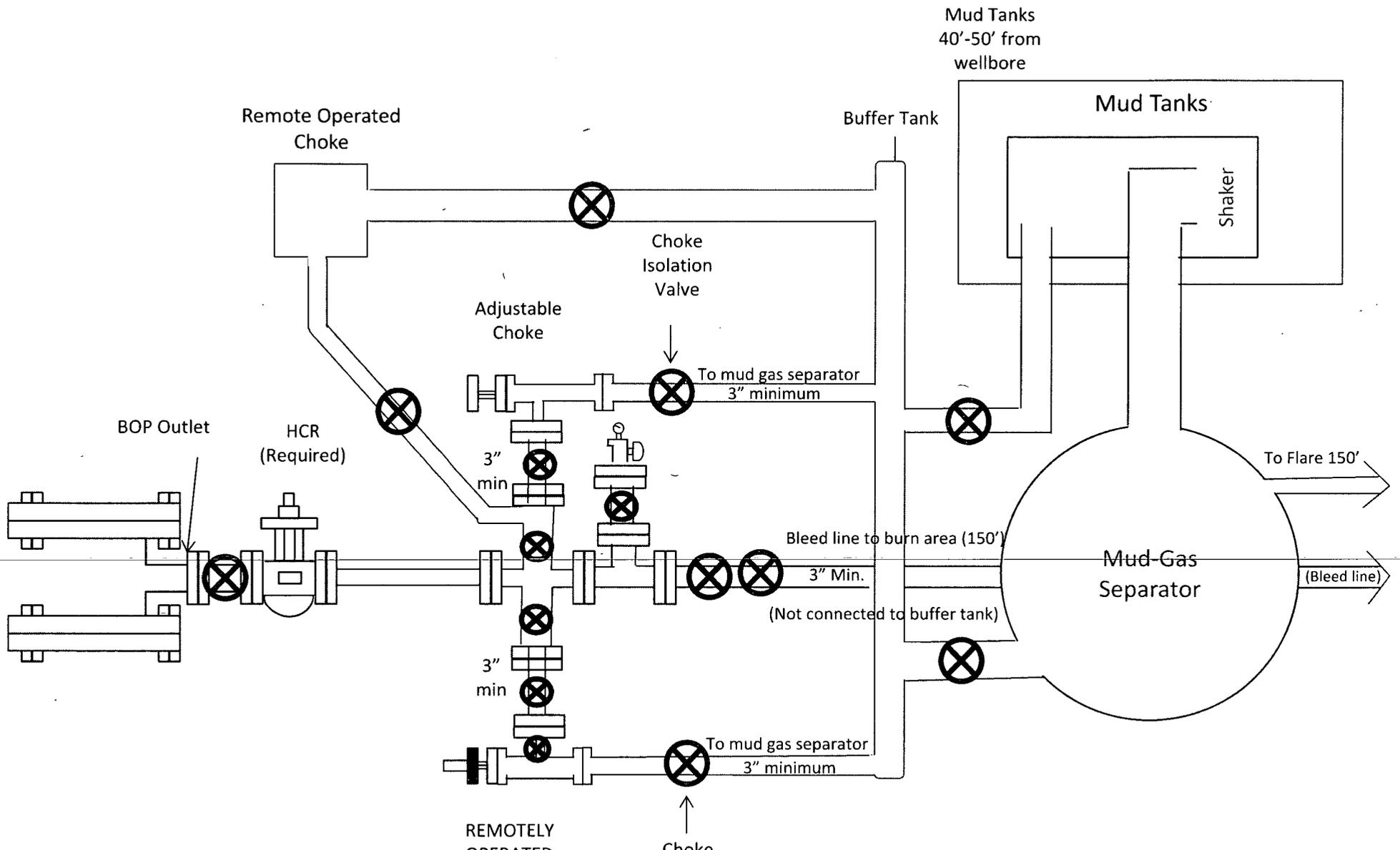
BEU_17_Fed_1_1_2_Mile_Map_20191008183427.pdf

Other Variance attachment:

BEU_17_Fed_1_FH_20190108061824.pdf

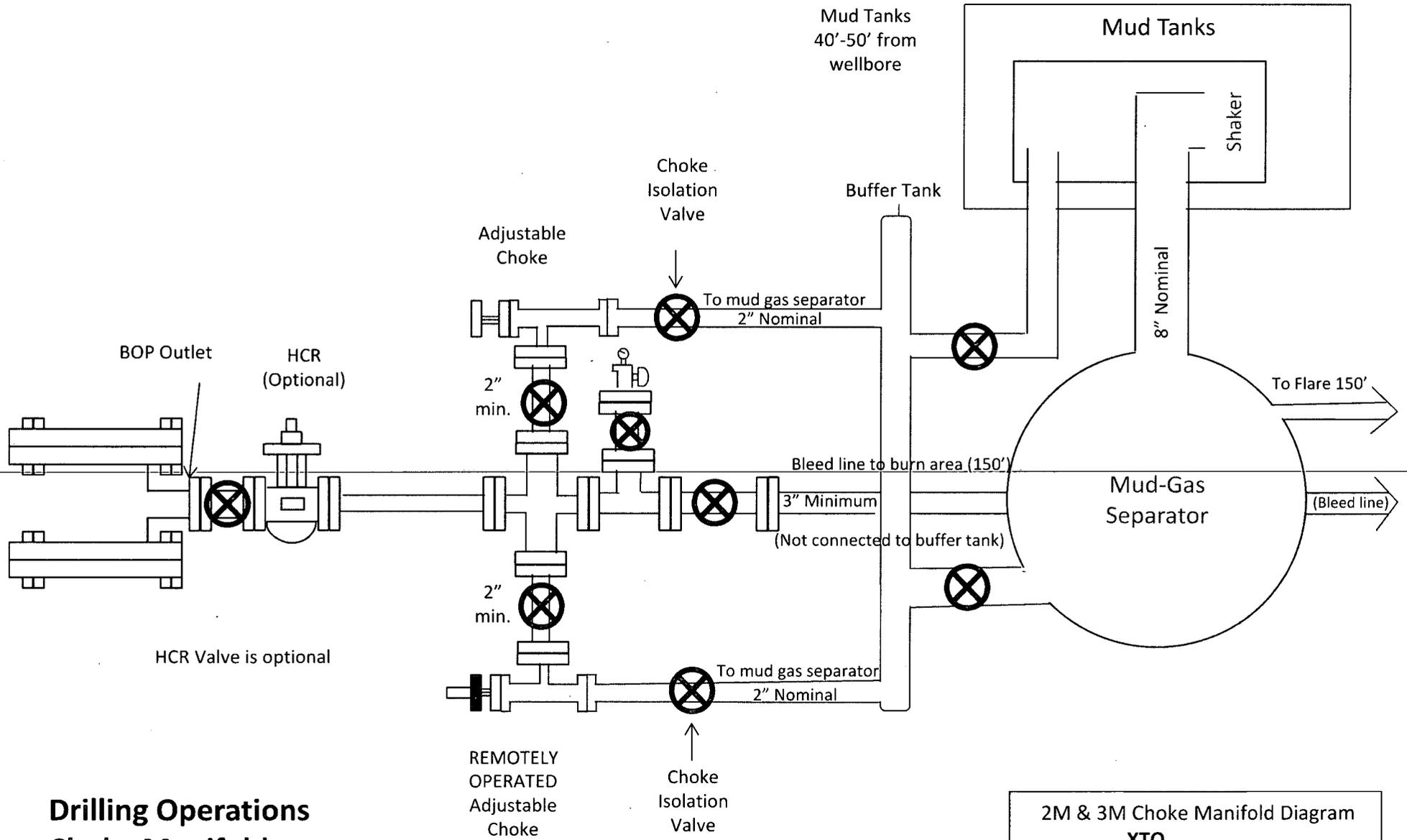
BEU_17_Fed_1_WWC_20190108061831.pdf

BEU_17_Fed_1_MBS_20191007061204.pdf



**Drilling Operations
Choke Manifold
10M Service**

10M Choke Manifold Diagram
XTO



Mud Tanks
40'-50' from
wellbore

Mud Tanks

Shaker

Buffer Tank

Choke
Isolation
Valve

Adjustable
Choke

BOP Outlet

HCR
(Optional)

To mud gas separator
2" Nominal

2" min.

To Flare 150'

Bleed line to burn area (150')

Mud-Gas
Separator

(Bleed line)

3" Minimum
(Not connected to buffer tank)

2" min.

HCR Valve is optional

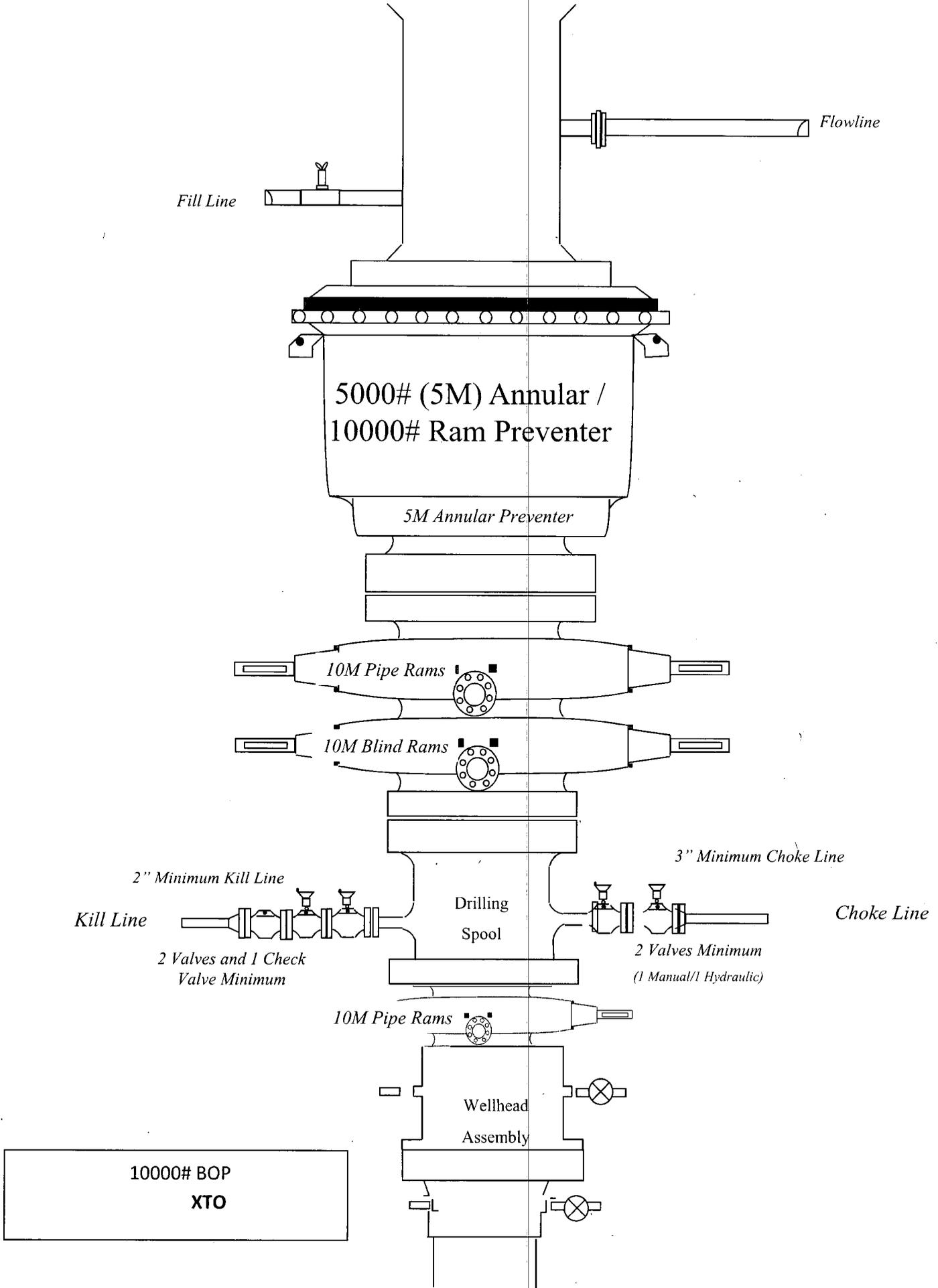
To mud gas separator
2" Nominal

REMOTELY
OPERATED
Adjustable
Choke

Choke
Isolation
Valve

2M & 3M Choke Manifold Diagram
XTO

**Drilling Operations
Choke Manifold
2M & 3M Service**



Fill Line

Flowline

2000# (2M)
BOP

SRR & A

Annular Preventer

Pipe Rams

Blind Rams

2" Minimum Kill Line

2" Minimum Choke Line

Kill Line

Drilling Spool

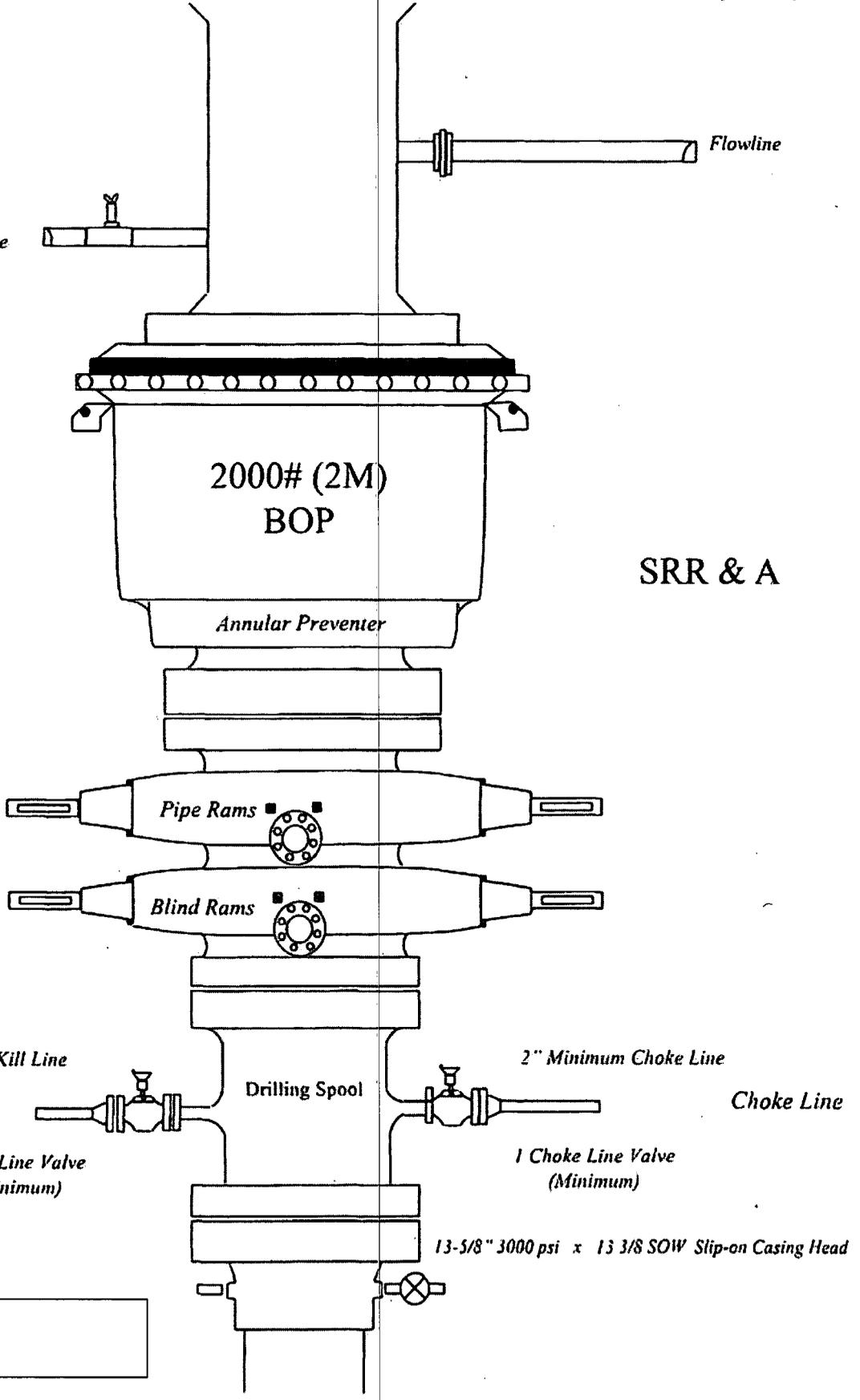
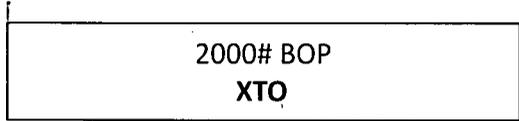
Choke Line

1 Kill Line Valve
(Minimum)

1 Choke Line Valve
(Minimum)

13-5/8" 3000 psi x 13 3/8 SOW Slip-on Casing Head

2000# BOP
XTO



Casing Design										
Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burat	SF Collapae	SF Tension	
24"	0' – 290'	18-5/8"	87.5	BTC	J-55	New	2.39	4.86	52.37	
17-1/2"	0' – 3030'	13-3/8"	68	BTC	J-55	New	1.17	1.21	5.53	
12-1/4"	0' – 10400'	9-5/8"	53.5	LTC	L-80	New	1.33	1.26	1.88	
8-1/2"	10000' – 14250'	7"	32	BTC	HCP-110	New	2.33	1.30	4.23	
6"	14240' – 14975'	Open hole								

WELLHEAD:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.

A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom

B. Tubing Head: 13-5/8" 5M bottom flange x 11" 10M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Manufacturer will witness installation of test plug for initial test.
- Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

Casing Design										
Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension	
24"	0' - 290'	18-5/8"	87.5	BTC	J-55	New	2.39	4.86	52.37	
17-1/2"	0' - 3030'	13-3/8"	68	BTC	J-55	New	1.17	1.21	5.53	
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Casing Design									
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6"	14240' - 14975'	Open hole							

WELLHEAD:

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A. Starting Head: 13-5/8" 5M top flange x 13-3/8" SOW bottom

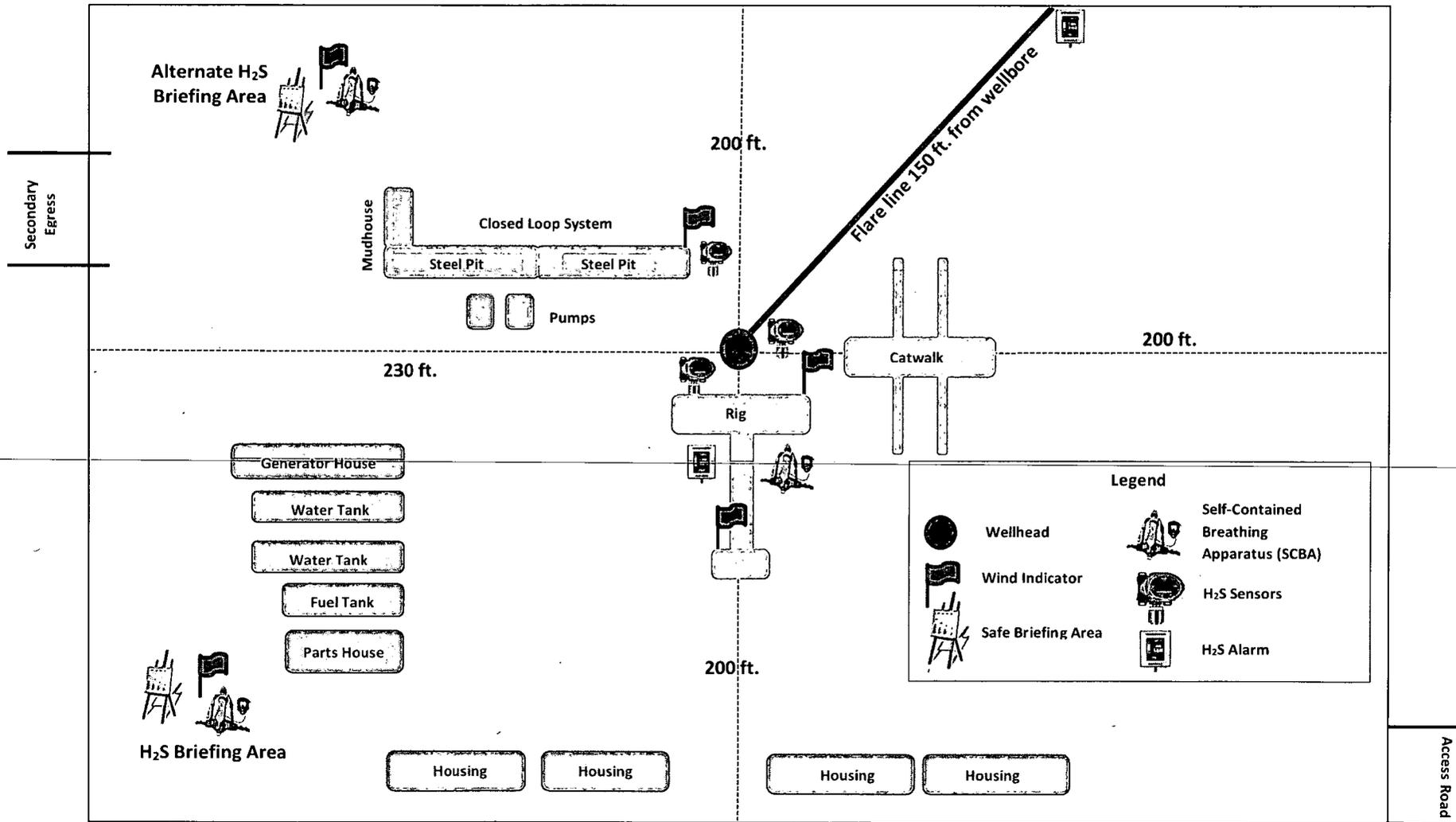
B. Tubing Head: 13-5/8" 5M bottom flange x 11" 10M top flange

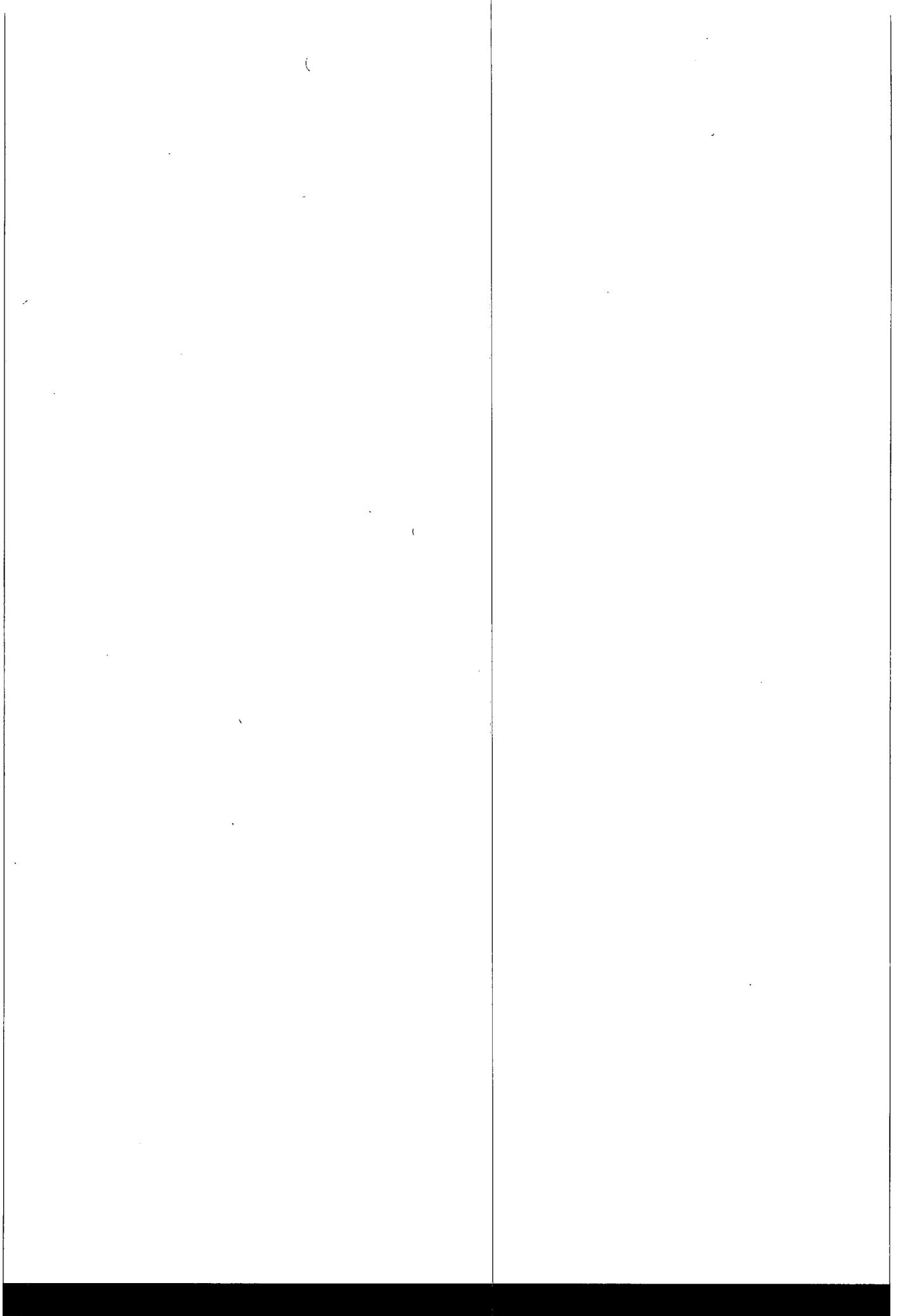
- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Manufacturer will witness installation of test plug for initial test.
- Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.



Prevailing Winds
Direction SW

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:

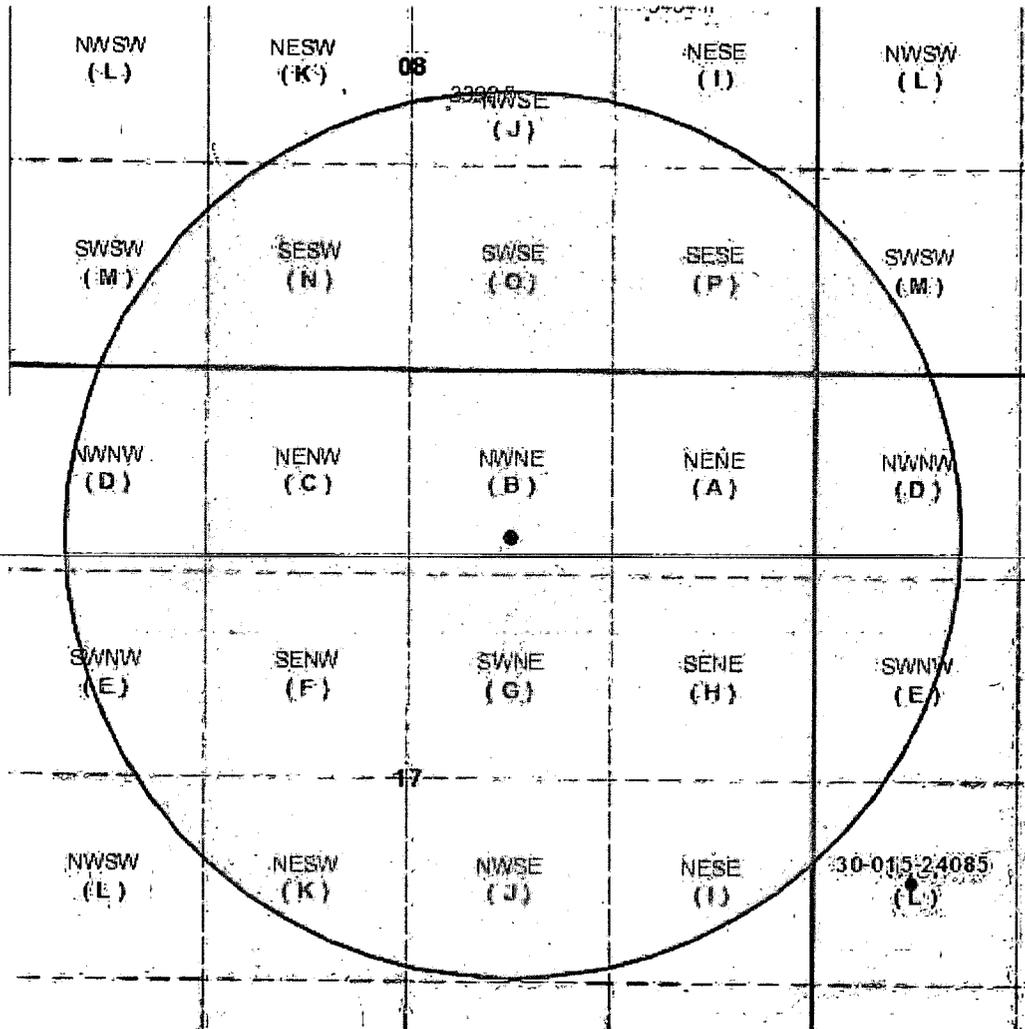
For Lea County:

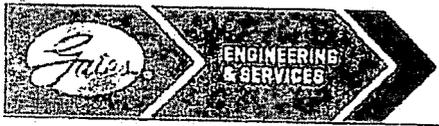
Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161

For Eddy County:

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

Big Eddy Unit 17 Federal SWD #1
 No Wells Exist Within a ½ Mile Radius of Well Location





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
 Customer Ref. : PENDING
 Invoice No. : 201709

Test Date: 6/8/2014
 Hose Serial No.: D-060814-1
 Created By: NORMA

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

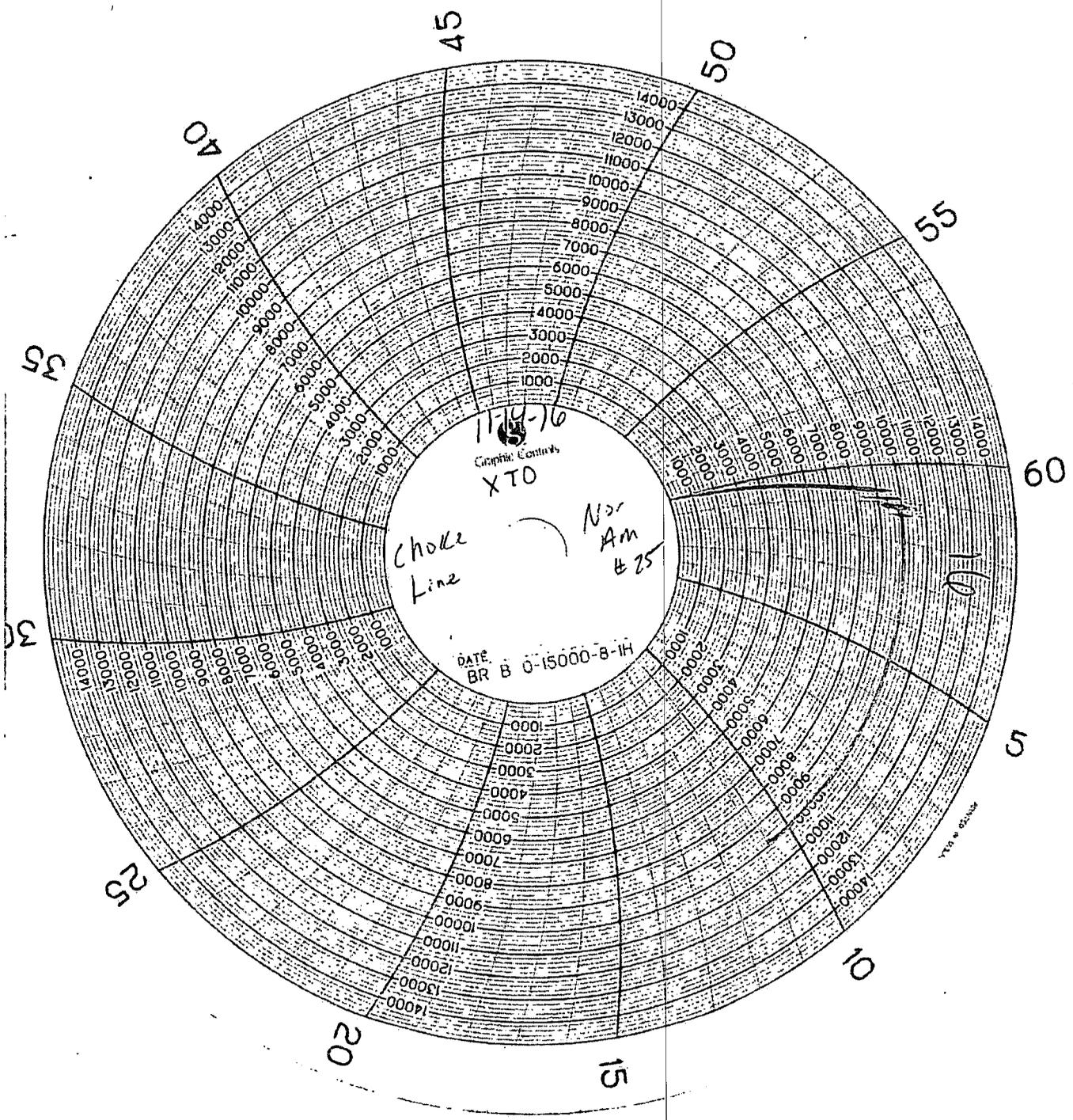
End Fitting 1 : 4 1/16 in. SK FLG
 Gates Part No. : 4774-6001
 Working Pressure : 5,000 PSI

End Fitting 2 : 4 1/16 in. SK FLG
 Assembly Code : L33090011513D-060814-1
 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
 Date: 6/8/2014
 Signature: *[Signature]*

Technical Supervisor: PRODUCTION
 Date: 6/8/2014
 Signature: *[Signature]*



11/4-76
Graphic Controls
XTO
Choke Line
N 25
Am
E 25

DATE BR B 0-15000-8-14

YTS & ASSOC

NOON

1

2

HOSE I.D. 2 1/2"

LENGTH 42ft

END 1

4 1/2" S&P

END 2

4 1/2" S&P

3

GRADE 24000

WORKING PRESSURE 5000 PS.I.

PS.I.

TEST PRESSURE 7500 PS.I.

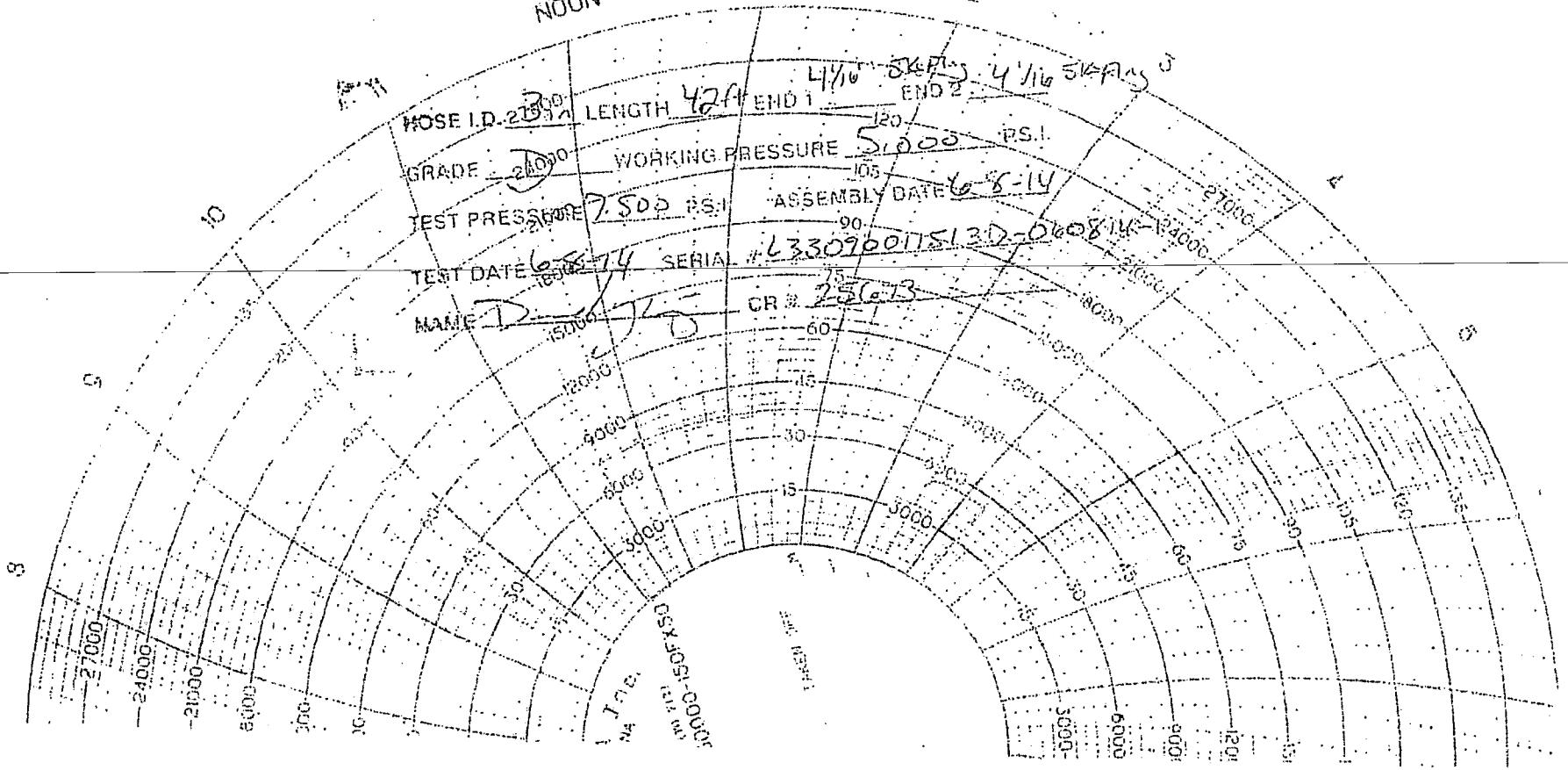
ASSEMBLY DATE 6-8-14

TEST DATE 6-8-14

SERIAL # L33096011513D-060814-14000

NAME D. J. O.

CR # 2503



CR # 2503

TYPE

10,000 PSI Annular BOP Variance Request

Mewbourne Oil Company 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 Mewbourne Oil Company 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.

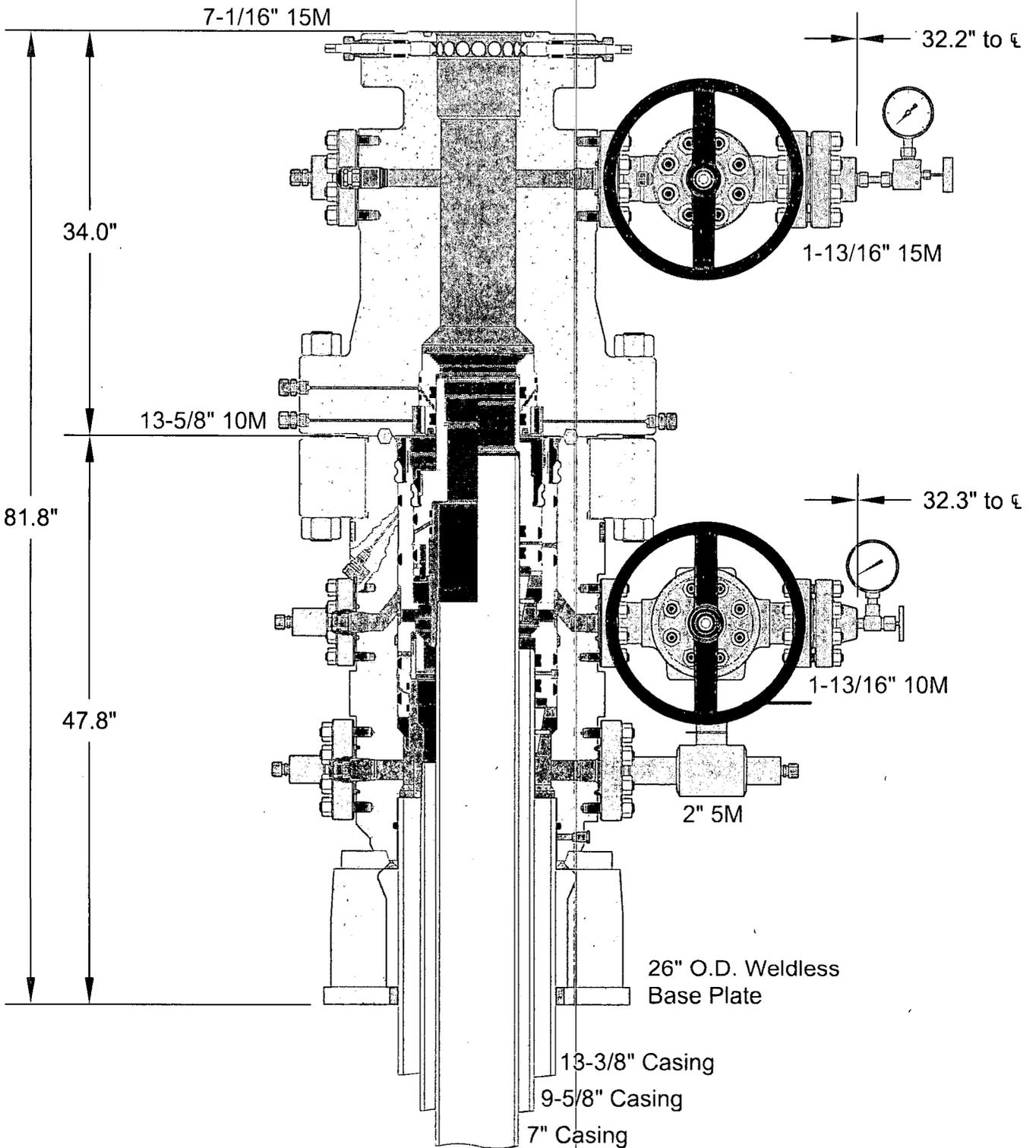
General Procedure With No Pipe In Hole (Open Hole)

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



Pressure Control

13-3/8" x 9-5/8" x 7" 15M RSH-2 Wellhead Assembly, With T-EBS-F-HP Tubing Head



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DRAWN BY:	VJK	DRAWING NO.	HP180197
REVIEWED BY:		Rev.	NC Sht. 1 of 1
APPROVED BY:		DATE:	31OCT18

ALL DIMENSIONS ARE APPROXIMATE, NOT FOR MANUFACTURING USE.

XTO ENERGY, INC.



APD ID: 10400037736

Submission Date: 01/17/2019

Highlighted data reflects the most recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

[Show Final Text](#)

Well Type: INJECTION - DISPOSAL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

BEU_17_Fed_1_ERoad_20190117104416.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

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:

BEU_17_Fed_1_Road_20190117104547.pdf

New road type: LOCAL,RESOURCE

Length: 26983.9 Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 3

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 20

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? NO

New road access plan attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Access road engineering design? NO

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Native 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: 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.

Access miscellaneous information: The Sophia 32-20 Fed area is accessed from the intersection of Pecos Highway (285) and Whitehorn Rd. Go Northeast on Whitehorn Rd and go approximately 3.3 miles. Turn left to stay on Whitehorn Rd and go approximately 0.6 miles. Turn right and go approximately 0.5 miles. Take slight right and go approximately 0.3 miles. Turn left and go approximately 1.2 miles. Continue onto Whitehorn Road and go approximately 0.8 miles. Turn left and go approximately 1.0 miles. Turn left onto State Line Rd and go approximately 2.1 miles. Turn right on lease road and go approximately 0.2 miles to an existing pad, the proposed location is to the Southwest. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Vicinity Map.'

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

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: No DCS were identified at onsite. DCS will be applied for as-needed and be 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:

BEU_17_Fed_1_1_Mile_20190108061418.pdf

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. There is one (1) – 200'x430' [1.97acre] salt water disposal facility associated with the well, located adjacent to the well pad, in Section 17-22S-29E. Only the area necessary to maintain facilities will be disturbed. A 3160-5 sundry notification will be submitted after construction possessing a site-security diagram and layout of the facility with associated equipment. Flowlines. One (1) 8" composite flexpipe or steel flowline with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be buried within proposed lease road corridors from the BEU 17 Fed SWD facility to the proposed well water will be disposed of. There will be no additional surface disturbance associated with the flowline. The distance of proposed flowline will be 300.37' or less based on the location of the well pad in conjunction with the facility location. A plat of the proposed flowline route for the lease is attached. Gas & Oil Pipeline. No gas pipeline is required for this application. 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. No flare is required for this application. 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 ½ times the capacity of the largest tank and away from cut or fill areas. Electrical. No additional OHE is required for the Big Eddy Unit 17 Fed SWD 1. Electrical is not included in this request.

Production Facilities map:

BEU_17_Fed_1_Fac_20190108061445.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: 27-25S-30e

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

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE
TRUCKING

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 35000

Source volume (acre-feet): 4.511258

Source volume (gal): 1470000

Water source type: OTHER

Describe type: 6-25S-29E

Water source use type: SURFACE CASING
STIMULATION
INTERMEDIATE/PRODUCTION CASING

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 35000

Source volume (acre-feet): 4.511258

Source volume (gal): 1470000

Water source and transportation map:

BEU_17_Fed_1_Wtr_20190108062648.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 Permian Operating, LLC. from Section 27, T25S-R30E, Eddy County, New Mexico. 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, New Mexico. 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.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

New water well? NO

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: Pit 1: Federal Caliche Pit, Section 27-20S-31E Pit 2: Federal Caliche Pit, Section 5-21S-30E

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

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 and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: R360 Environmental Solutions, 4507 W Carlsbad HWY, Hobbs, NM 88240, 575-393-1079

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Waste type: DRILLING

Waste content description: Fluids

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

Disposal type description:

Disposal location description: R360 Environmental Solutions, 4507 W Carlsbad HWY, Hobbs, NM 88240, 575-393-1079

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

Disposal type description:

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

Waste type: GARBAGE

Waste content description: Garbage, junk and non-flammable waste materials

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.

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 safely dispose garbage, junk and non-flammable waste materials.

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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? YES

Description of cuttings location Drill cuttings will be held in roll-off style mud boxes and taken to a New Mexico Oil Conservation Division (NMOCD) approved disposal site.

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

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

BEU_17_Fed_1_Well_20190108061552.pdf

Comments: Multi-Well Pad

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name:

Multiple Well Pad Number:

Recontouring attachment:

BEU_17_Fed_1_Int_Rec_20190108061607.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 gullying, headcutting, slumping, and deep or excessive rills (greater than 3 inches) are not observed.

Well pad proposed disturbance (acres): 0	Well pad interim reclamation (acres): 0	Well pad long term disturbance (acres): 13.55
Road proposed disturbance (acres): 0	Road interim reclamation (acres): 0	Road long term disturbance (acres): 1.21
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 0	Pipeline interim reclamation (acres): 0	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: 0	Total interim reclamation: 0	Total long term disturbance: 14.76

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: The Berino component makes up 60 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan piedmonts, uplands. The parent material consists of mixed alluvium and/or eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R042XC003NM Loamy Sand ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Existing Vegetation at the well pad attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Existing Vegetation Community at the road: The Berino component makes up 60 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan piedmonts, uplands. The parent material consists of mixed alluvium and/or eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R042XC003NM Loamy Sand ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: The Berino component makes up 60 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan piedmonts, uplands. The parent material consists of mixed alluvium and/or eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R042XC003NM Loamy Sand ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: The Berino component makes up 60 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan piedmonts, uplands. The parent material consists of mixed alluvium and/or eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R042XC003NM Loamy Sand ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre
-----------	-------------

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Jeff

Last Name: Raines

Phone: (432)620-4349

Email: jeffrey_raines@xtoenergy.com

Seedbed prep: 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: 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? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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 attachment:

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 attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

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 mud system will meet the NMOCD requirements 19.15.17.

Pit closure attachment:

Section 11 - Surface Ownership

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: Flowline

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:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: OTHER

Describe: Drill Island

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:

Section 12 - Other Information

Right of Way needed? YES

Use APD as ROW? YES

ROW Type(s): 281001 ROW, - ROADS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW-O&G Well Pad,FLPMA (Powerline)

ROW Applications

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: PRESENT AT ON-SITE: Jeff Robertson, BLM NRS Jimie Scott, Construction Foreman FSC, Inc., Surveyors 600 x 430' pad including facilities. 400x430' drilling pad v-door North, TS South, Downsize: S, E, and N. Road into the NE corner. 200x430' facilities pad on the East of drilling pad.

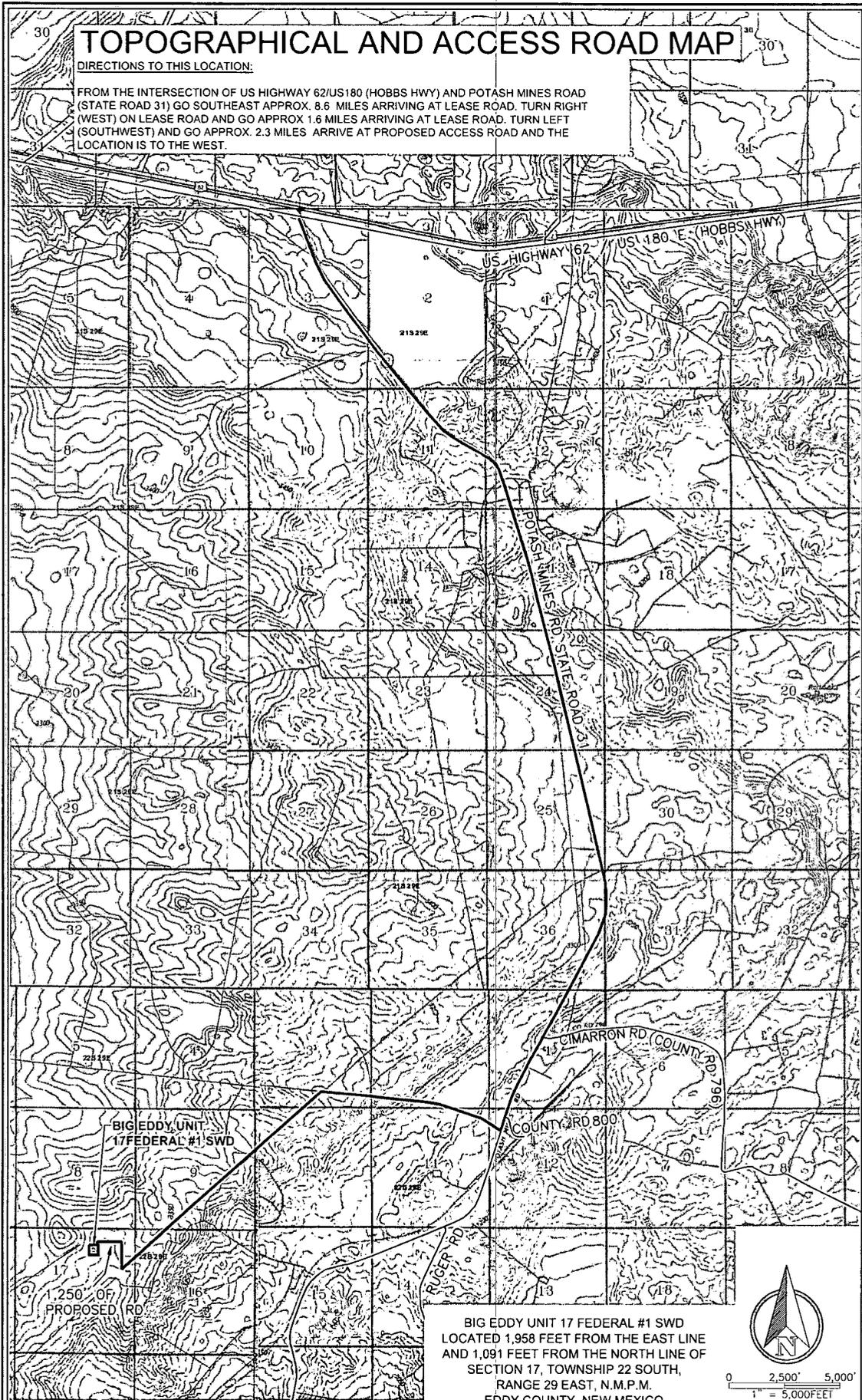
Other SUPO Attachment

BEU_17_Fed_1_SUPO_20190117104602.pdf

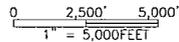
TOPOGRAPHICAL AND ACCESS ROAD MAP

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF US HIGHWAY 62/US180 (HOBBS HWY) AND POTASH MINES ROAD (STATE ROAD 31) GO SOUTHEAST APPROX. 8.6 MILES ARRIVING AT LEASE ROAD. TURN RIGHT (WEST) ON LEASE ROAD AND GO APPROX. 1.6 MILES ARRIVING AT LEASE ROAD. TURN LEFT (SOUTHWEST) AND GO APPROX. 2.3 MILES ARRIVE AT PROPOSED ACCESS ROAD AND THE LOCATION IS TO THE WEST.



BIG EDDY UNIT 17 FEDERAL #1 SWD
 LOCATED 1,958 FEET FROM THE EAST LINE
 AND 1,091 FEET FROM THE NORTH LINE OF
 SECTION 17, TOWNSHIP 22 SOUTH,
 RANGE 29 EAST, N.M.P.M.
 EDDY COUNTY, NEW MEXICO



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DATE:	12-26-2018	PROJECT NO:	2018082024
DRAWN BY:	TM	SCALE:	1" = 5,000'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	0

27 26 OWNER: U.S.A.

2" FOUND
IRON PIPE W/
BRASS CAP

P.O.B.
AT EXISTING ROAD
NAD 83 (NME)
Y = 525,170.88
X = 655,334.80

1" FOUND
IRON PIPE W/
BRASS CAP

34

S 37°10'14" W
48.73' (TIE)

NE/4 NE/4

NW/4 NW/4

NE/4 NW/4



0 250' 500'
1" = 500 FEET

SE/4 NE/4

SECTION 35
TOWNSHIP 21 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.



SE/4 NW/4

SW/4 NW/4

1" FOUND IRON PIPE
W/ BRASS CAP

NE/4 SE/4

NW/4 SW/4

NE/4 SW/4



LEGEND

- DHE EXISTING OVERHEAD ELECTRIC
- SECTION LINE
- PROPOSED ROAD
- EXISTING ROAD
- EXISTING PIPELINE
- EXISTING FENCE

- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- FOUND MONUMENT AS NOTED
- ⊙ POWER POLE
- ← GUY ANCHOR

MATCHLINE SEE PAGE 2

GENERAL NOTES

1. BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.
 2. LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).
- 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:
PROPOSED CENTERLINE
OF ACCESS ROADS FOR:
XTO PERMIAN OPERATING, LLC.
BIG EDDY UNIT DI 36
STRING OF PEARLS

SITUATED IN
SECTIONS 26, 34, AND 35, TOWNSHIP 21 SOUTH, RANGE
29 EAST, AND SECTIONS 3, 4, 9, 8, AND 17, TOWNSHIP
22 SOUTH, RANGE 29 EAST, NEW MEXICO PRIME
MERIDIAN, EDDY COUNTY, NEW MEXICO



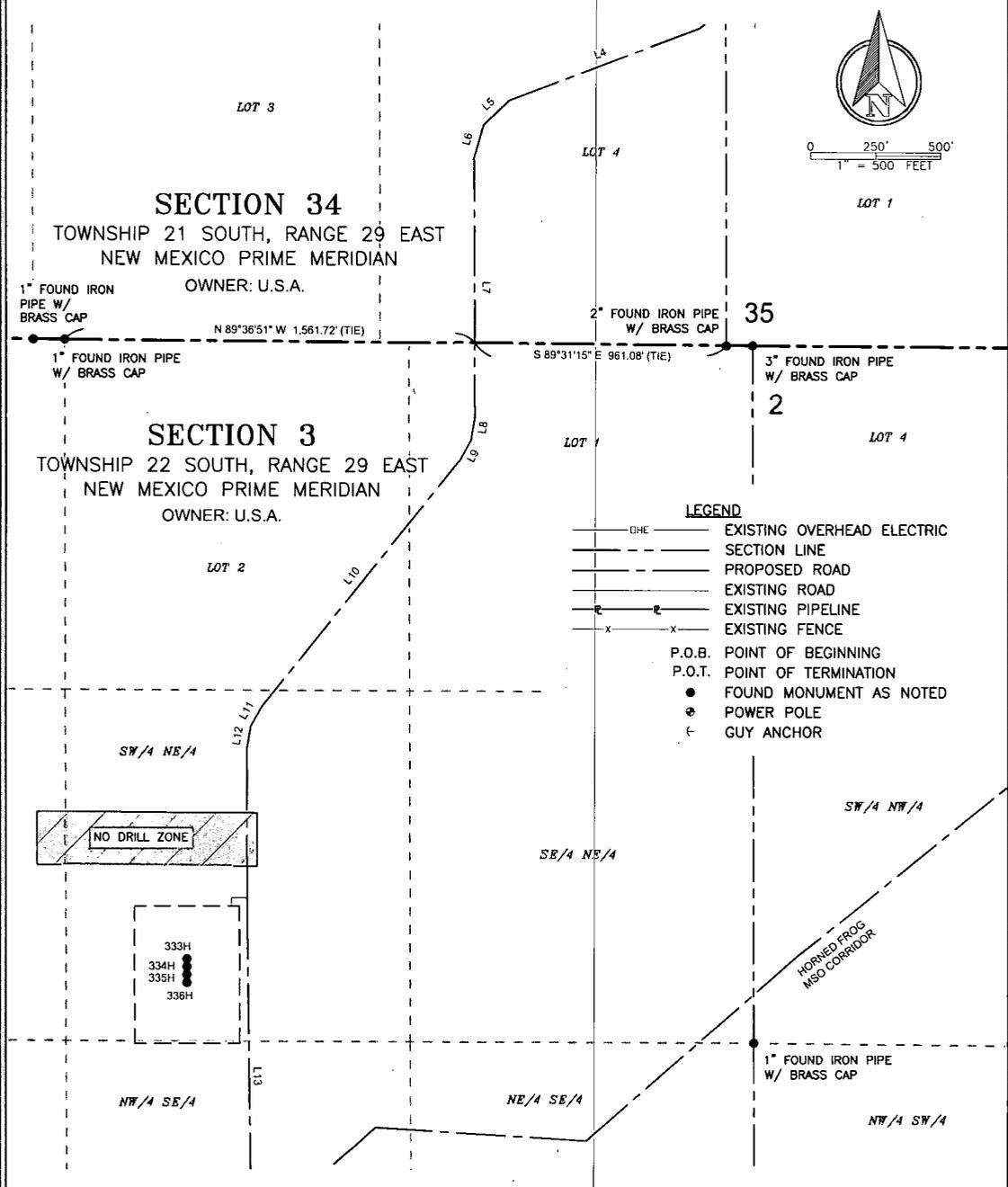
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DATE: 1-17-2019 PROJECT NO: 201808204
DRAWN BY: AI SCALE: 1" = 500'
CHECKED BY: DH SHEET: 1 OF 6
FIELD CREW: RE/KN REVISION: NO

MATCHLINE SEE PAGE 1



0 250' 500'
1" = 500 FEET



LEGEND

- DHE EXISTING OVERHEAD ELECTRIC
- SECTION LINE
- PROPOSED ROAD
- EXISTING ROAD
- EXISTING PIPELINE
- EXISTING FENCE
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- FOUND MONUMENT AS NOTED
- POWER POLE
- GUY ANCHOR

NO DRILL ZONE

333H
334H
335H
336H

HORNED FROG
MSO CORRIDOR

MATCHLINE SEE PAGE 3

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[Signature]

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STATE OF NEW MEXICO NO. 23786

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PROPOSED CENTERLINE
OF ACCESS ROADS FOR:
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STRING OF PEARLS
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 22 SOUTH, RANGE 29 EAST, NEW MEXICO PRIME
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DATE:	1-17-2019	PROJECT NO:	2018082024
DRAWN BY:	AJ	SCALE:	1" = 500'
CHECKED BY:	DH	SHEET:	2 OF 6
FIELD CREW:	RE/KN	REVISION:	NO

MATCHLINE SEE PAGE 3

NE/4
SE/4



NW/4 SW/4

NE/4 SW/4

NW/4 SE/4

0 250' 500'
1" = 500' FEET

SECTION 3
TOWNSHIP 22 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

SE/4
SE/4

SE/4 SW/4

SW/4 SE/4

SW/4 SW/4

L15

L14

L16

1" FOUND IRON PIPE
W/ BRASS CAP

N 29°41'37" E
309.96' (TIE)

4

9

1" IRON PIPE W/
BRASS CAP FOUND
IN ROCK MOUND

426H

NE/4
NE/4

NW/4 NW/4

NE/4 NW/4

NW/4 NE/4

SECTION 10

TOWNSHIP 22 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

SE/4
NE/4

SW/4 NW/4

LEGEND

- DHE EXISTING OVERHEAD ELECTRIC
- SECTION LINE
- PROPOSED ROAD
- EXISTING ROAD
- EXISTING PIPELINE
- EXISTING FENCE
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINATION
- FOUND MONUMENT AS NOTED
- POWER POLE
- GUY ANCHOR

MATCHLINE SEE PAGE 4

GENERAL NOTES

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- LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

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



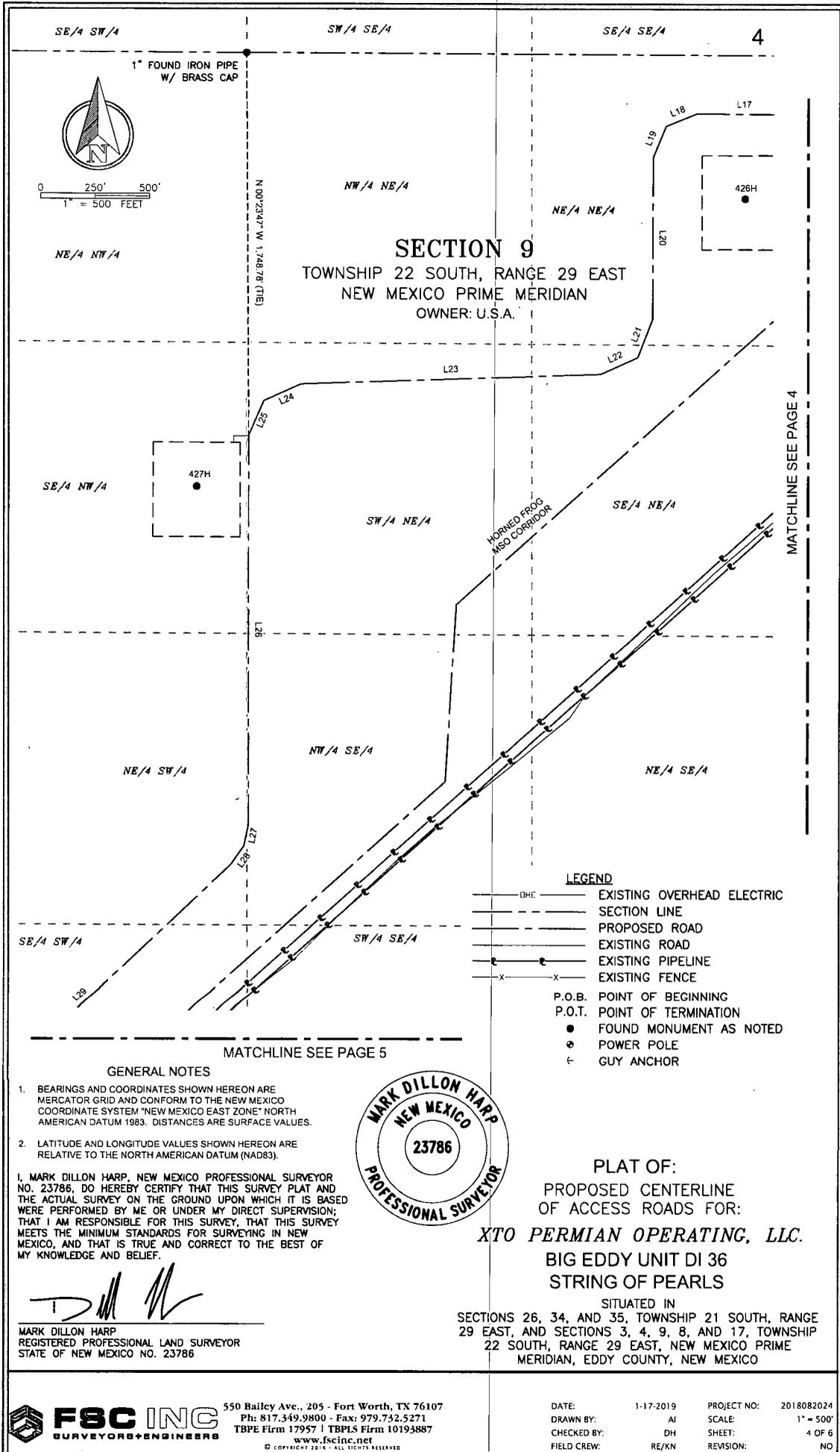
PLAT OF:
PROPOSED CENTERLINE
OF ACCESS ROADS FOR:
XTO PERMIAN OPERATING, LLC.
BIG EDDY UNIT DI 36
STRING OF PEARLS

SITUATED IN
SECTIONS 26, 34, AND 35, TOWNSHIP 21 SOUTH, RANGE
29 EAST, AND SECTIONS 3, 4, 9, 8, AND 17, TOWNSHIP
22 SOUTH, RANGE 29 EAST, NEW MEXICO PRIME
MERIDIAN, EDDY COUNTY, NEW MEXICO



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DATE: 1-17-2019 PROJECT NO: 2018082024
DRAWN BY: AH SCALE: 1" = 500'
CHECKED BY: DH SHEET: 3 OF 6
FIELD CREW: RE/KN REVISION: NO



SECTION 9
 TOWNSHIP 22 SOUTH, RANGE 29 EAST
 NEW MEXICO PRIME MERIDIAN
 OWNER: U.S.A.

- LEGEND**
- DHE — EXISTING OVERHEAD ELECTRIC
 - SECTION LINE
 - PROPOSED ROAD
 - EXISTING ROAD
 - EXISTING PIPELINE
 - X — EXISTING FENCE
 - P.O.B. POINT OF BEGINNING
 - P.O.T. POINT OF TERMINATION
 - FOUND MONUMENT AS NOTED
 - ⊕ POWER POLE
 - ⊖ GUY ANCHOR

GENERAL NOTES

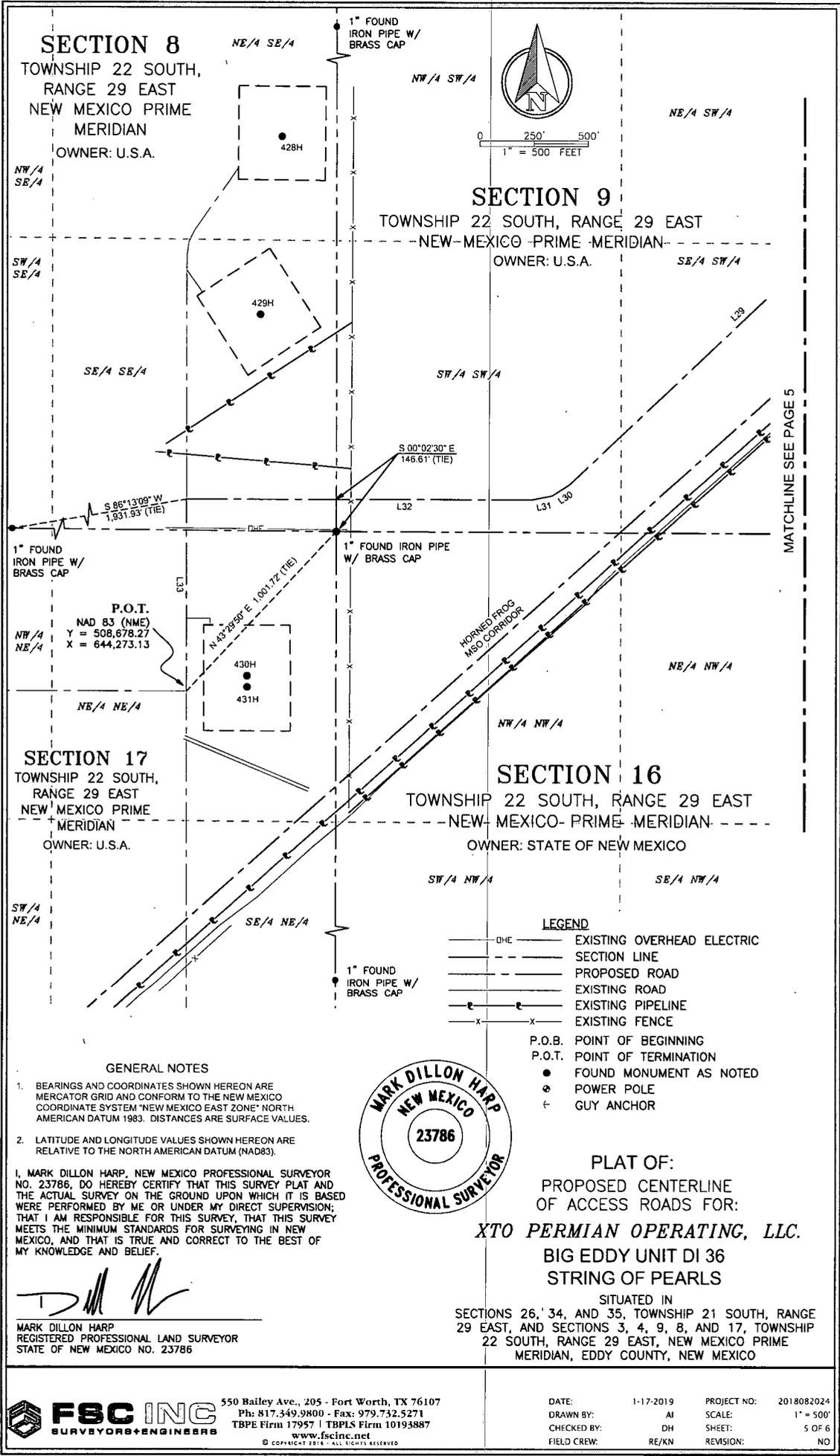
- BEARINGS AND COORDINATES SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM 'NEW MEXICO EAST ZONE' NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.
- LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

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



PLAT OF:
 PROPOSED CENTERLINE
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 MERIDIAN, EDDY COUNTY, NEW MEXICO



SECTION 8
 TOWNSHIP 22 SOUTH,
 RANGE 29 EAST
 NEW MEXICO PRIME
 MERIDIAN
 OWNER: U.S.A.

SECTION 9
 TOWNSHIP 22 SOUTH, RANGE 29 EAST
 NEW-MEXICO-PRIME-MERIDIAN
 OWNER: U.S.A.

SECTION 17
 TOWNSHIP 22 SOUTH,
 RANGE 29 EAST
 NEW MEXICO PRIME
 MERIDIAN
 OWNER: U.S.A.

SECTION 16
 TOWNSHIP 22 SOUTH, RANGE 29 EAST
 NEW-MEXICO-PRIME-MERIDIAN
 OWNER: STATE OF NEW MEXICO

P.O.T.
 NAD 83 (NME)
 Y = 508,678.27
 X = 644,273.13

- LEGEND**
- DHE — EXISTING OVERHEAD ELECTRIC
 - - - SECTION LINE
 - PROPOSED ROAD
 - EXISTING ROAD
 - EXISTING PIPELINE
 - x-x- EXISTING FENCE
 - P.O.B. POINT OF BEGINNING
 - P.O.T. POINT OF TERMINATION
 - FOUND MONUMENT AS NOTED
 - POWER POLE
 - ← GUY ANCHOR

GENERAL NOTES

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DATE: 1-17-2019 PROJECT NO: 2018082024
 DRAWN BY: AH SCALE: 1" = 500'
 CHECKED BY: DH SHEET: 5 OF 6
 FIELD CREW: RE/KN REVISION: NO

LINE TABLE

L1	S 00°10'44"	E	3837.77'
L2	S 17°13'40"	W	119.52'
L3	S 52°01'33"	W	119.49'
L4	S 69°23'28"	W	772.72'
L5	S 46°43'57"	W	135.32'
L6	S 15°40'24"	W	135.18'
L7	S 00°12'58"	E	977.31'
L8	S 09°27'27"	W	84.69'
L9	S 29°09'11"	W	85.20'
L10	S 38°54'14"	W	1201.60'
L11	S 29°17'02"	W	84.71'
L12	S 09°35'12"	W	84.73'
L13	S 00°37'42"	E	3090.60'
L14	N 82°23'03"	W	516.56'
L15	N 83°58'45"	W	2994.31'
L16	S 00°05'14"	E	1301.11'
L17	N 89°42'47"	W	395.04'
L18	S 67°36'18"	W	153.43'
L19	S 22°31'26"	W	153.66'
L20	S 00°03'47"	E	736.55'
L21	S 21°54'03"	W	187.66'
L22	S 65°59'59"	W	187.28'
L23	S 88°01'27"	W	137.48'
L24	S 65°59'13"	W	187.38'
L25	S 23°38'00"	W	175.29'
L26	S 00°05'05"	E	1765.66'
L27	S 11°49'42"	W	101.52'
L28	S 35°19'44"	W	101.86'
L29	S 47°01'02"	W	2019.32'
L30	S 57°37'24"	W	93.03'
L31	S 79°13'34"	W	93.17'
L32	S 89°57'46"	W	1591.94'
L33	S 00°02'21"	E	872.82'

TOTAL LENGTH = 25,733.91 FEET
OR 1,559.63 RODS

BIG EDDY UNIT DI 36 STRING OF PEARLS PROPOSED ACCESS ROADS DESCRIPTION:

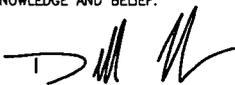
SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 25,733.91 FEET, 1,559.63 RODS, OR 4.87 MILES IN LENGTH CROSSING SECTIONS 26, 35, AND 34 TOWNSHIP 21 SOUTH, RANGE 29 EAST, AND SECTIONS 3, 4, 9, 8, AND 17, TOWNSHIP 22 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET RIGHT AND 15.0 FEET LEFT OF THE ABOVE PLATTED CENTERLINE OF ROAD SURVEY, COMPRISING OF 17.74 ACRES AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

SW/4 SW/4 SECTION 26 = 38.78 FEET = 2.35 RODS = 0.03 OF AN ACRE
 NW/4 NW/4 SECTION 35 = 1,320.20 FEET = 80.01 RODS = 0.91 OF AN ACRE
 SW/4 NW/4 SECTION 35 = 1,320.20 FEET = 80.01 RODS = 0.91 OF AN ACRE
 NW/4 SW/4 SECTION 35 = 1,255.48 FEET = 76.09 RODS = 0.86 OF AN ACRE
 NE/4 SE/4 SECTION 34 = 100.24 FEET = 6.08 RODS = 0.07 OF AN ACRE
 LOT 4 SECTION 34 = 1,781.14 FEET = 107.95 RODS = 1.23 ACRES
 LOT 1 SECTION 3 = 759.68 FEET = 46.04 RODS = 0.52 OF AN ACRE
 LOT 2 SECTION 3 = 812.62 FEET = 49.25 RODS = 0.56 OF AN ACRE
 SW/4 NE/4 SECTION 3 = 1,352.33 FEET = 81.96 RODS = 0.93 OF AN ACRE
 NW/4 SE/4 SECTION 3 = 1,322.70 FEET = 80.16 RODS = 0.91 OF AN ACRE
 SW/4 SE/4 SECTION 3 = 1,386.17 FEET = 84.13 RODS = 0.96 OF AN ACRE
 SE/4 SW/4 SECTION 3 = 1,317.12 FEET = 79.83 RODS = 0.91 OF AN ACRE
 SW/4 SW/4 SECTION 3 = 1,317.01 FEET = 79.82 RODS = 0.91 OF AN ACRE
 SE/4 SE/4 SECTION 4 = 1,185.32 FEET = 71.84 RODS = 0.82 OF AN ACRE
 NE/4 NE/4 SECTION 9 = 1,834.42 FEET = 111.17 RODS = 1.26 ACRES
 SE/4 NE/4 SECTION 9 = 565.99 FEET = 34.30 RODS = 0.39 OF AN ACRE
 SW/4 NE/4 SECTION 9 = 2,322.76 FEET = 140.77 RODS = 1.46 ACRES
 SE/4 NW/4 SECTION 9 = (EASEMENT ONLY) 0.14 OF AN ACRE
 NW/4 SE/4 SECTION 9 = 903.64 FEET = 54.77 RODS = 0.49 OF AN ACRE
 NE/4 SW/4 SECTION 9 = 567.58 FEET = 34.40 RODS = 0.53 OF AN ACRE
 SE/4 SW/4 SECTION 9 = 1,289.80 FEET = 78.17 RODS = 0.89 OF AN ACRE
 SW/4 SW/4 SECTION 9 = 1,415.93 FEET = 85.81 RODS = 0.98 OF AN ACRE
 SE/4 SE/4 SECTION 8 = 831.22 FEET = 50.38 RODS = 0.57 OF AN ACRE
 NE/4 NE/4 SECTION 17 = 731.60 FEET = 44.34 RODS = 0.50 OF AN ACRE

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. DISTANCES ARE SURFACE VALUES.
- LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).

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

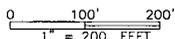


PLAT OF:
 PROPOSED CENTERLINE
 OF ACCESS ROADS FOR:
XTO PERMIAN OPERATING, LLC.
 BIG EDDY UNIT DI 36
 STRING OF PEARLS
 SITUATED IN
 SECTIONS 26, 34, AND 35, TOWNSHIP 21 SOUTH, RANGE
 29 EAST, AND SECTIONS 3, 4, 9, 8, AND 17, TOWNSHIP
 22 SOUTH, RANGE 29 EAST, NEW MEXICO PRIME
 MERIDIAN, EDDY COUNTY, NEW MEXICO



550 Bailey Ave., 205 - Fort Worth, TX 76107
 Ph: 817.349.9800 - Fax: 979.732.5271
 TBPE Firm 17957 | TBPLS Firm 10193887
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DATE: 1-17-2019 PROJECT NO: 201802024
 DRAWN BY: AI SCALE: 1" = 500'
 CHECKED BY: DH SHEET: 6 OF 6
 FIELD CREW: RE/KN REVISION: NO



LINE TABLE

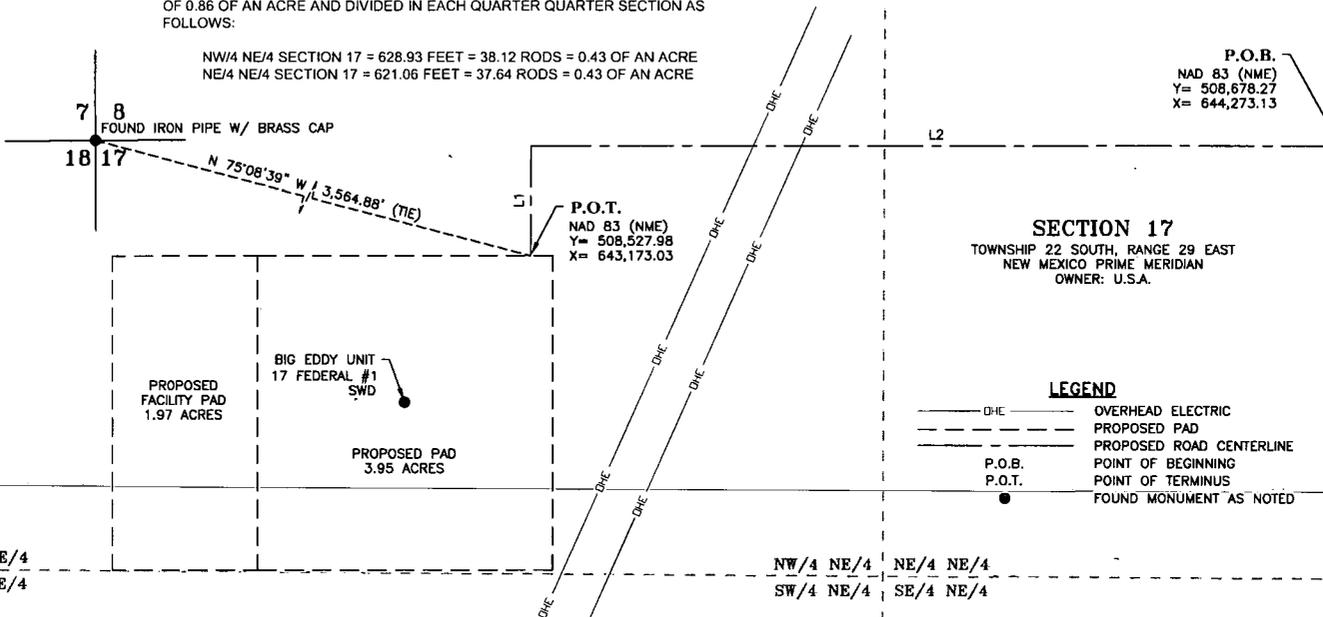
LINE	BEARING	DISTANCE
L1	S 00°01'32" W	149.96'
L2	S 89°59'00" W	1,100.03'

TOTAL LENGTH = 1,249.99 FEET
OR 75.76 RODS

BIG EDDY UNIT 17 FEDERAL #1 SWD PROPOSED ACCESS ROAD DESCRIPTION:

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 1,249.99 FEET, 75.76 RODS, OR 0.24 OF A MILE IN LENGTH CROSSING SECTION 17, TOWNSHIP 22 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 ROAD SURVEY, COMPRISING OF 0.86 OF AN ACRE AND DIVIDED IN EACH QUARTER QUARTER SECTION AS FOLLOWS:

NW/4 NE/4 SECTION 17 = 628.93 FEET = 38.12 RODS = 0.43 OF AN ACRE
NE/4 NE/4 SECTION 17 = 621.06 FEET = 37.64 RODS = 0.43 OF AN ACRE



PROPOSED ROAD AS DESCRIBED ON SEPARATE PLAT

P.O.B.
NAD 83 (NME)
Y= 508,678.27
X= 644,273.13

SECTION 17
TOWNSHIP 22 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.

LEGEND

- DHE OVERHEAD ELECTRIC
- PROPOSED PAD
- PROPOSED ROAD CENTERLINE
- P.O.B. POINT OF BEGINNING
- P.O.T. POINT OF TERMINUS
- FOUND MONUMENT "AS NOTED"

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. DISTANCES ARE SURFACE VALUES.
- LATITUDE AND LONGITUDE VALUES SHOWN HEREON ARE RELATIVE TO THE NORTH AMERICAN DATUM (NAD83).



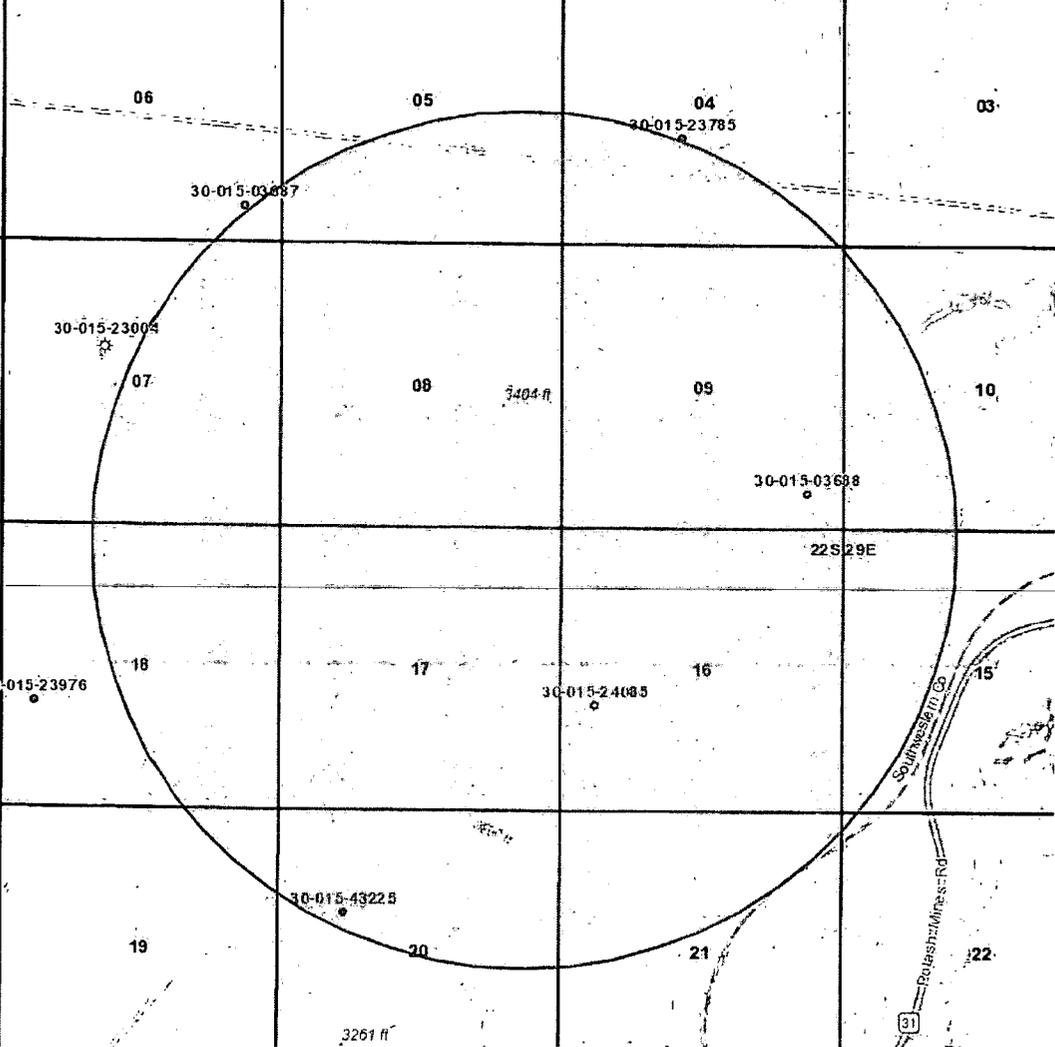
PLAT OF:
PROPOSED CENTERLINE OF
ACCESS ROAD FOR:
XTO PERMIAN OPERATING, LLC.
BIG EDDY UNIT 17 FEDERAL #1 SWD
SITUATED IN SECTION 17, TOWNSHIP 22 SOUTH,
RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

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

DATE:	1-17-2019	PROJECT NO:	2018082024
DRAWN BY:	TM/AI	SCALE:	1" = 200'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	1

Big Eddy Unit 17 Federal SWD #1
1-Mile Radius Map



SECTION 17

TOWNSHIP 22 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.



0 100' 200'
1" = 200 FEET

7 8
FOUND IRON PIPE
W/ BRASS CAP
18 17

N 72°21'55" W
3,017.65' (TIE)

P.O.B.
NAD 83 (NME)
Y= 508,527.78
X= 842,803.15

N 89°59'23" E
199.96'

PROPOSED
FACILITY PAD
1.97 ACRES

N 00°00'59" W 430.00'

+
CENTER OF PAD-
2,258' FEL &
1,108' FNL
SECTION 17
T-22-S,
R-29-E

BIG EDDY UNIT
17 FEDERAL #1
SWD

PROPOSED PAD
3.95 ACRES

S 00°01'02" E 429.97'

NE/4 NW/4 NW/4 NE/4
SE/4 NW/4 SW/4 NE/4

S 89°58'55" W
199.96'

NW/4 NE/4 NE/4 NE/4
SW/4 NE/4 SE/4 NE/4

BIG EDDY UNIT 17 FEDERAL #1 SWD PROPOSED FACILITY PAD DESCRIPTION:

Description of a proposed facility pad totaling 1.97 acres and being situated in Section 17, Township 22 South, Range 29 East, New Mexico Prime Meridian, Eddy County, New Mexico and being more particularly described as follows:

BEGINNING at the northwest corner of the proposed facility pad from which an iron pipe with a brass cap found, being the northwest corner of said Section 17, bears N 72°21'55" W a distance of 3,017.65 feet;

THENCE over and across said Section 17, the following courses and distances:

N 89°59'23" E, a distance of 199.96 feet to a point;

S 00°01'02" E, a distance of 429.97 feet to a point;

S 89°58'55" W, a distance of 199.96 feet to a point;

N 00°00'59" W, a distance of 430.00 feet to the POINT OF BEGINNING containing a total of 1.97 acres, more or less.

Said pad is divided in each quarter-quarter section as follows:

NW/4 NE/4 Section 26 = 1.97 ACRES

LEGEND

---	SECTION LINE
-DNE-	OVERHEAD ELECTRIC
---	PROPOSED PAD
+	P.O.B.
●	P.O.T.
●	FOUND MONUMENT AS NOTED

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. DISTANCES ARE SURFACE VALUES.
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MARK DILLON HARP
REGISTERED PROFESSIONAL LAND SURVEYOR
STATE OF NEW MEXICO NO. 23786

PLAT OF:
PROPOSED FACILITY PAD FOR:
XTO PERMIAN OPERATING, LLC.
BIG EDDY UNIT 17 FEDERAL #1 SWD

SITUATED IN SECTION 17, TOWNSHIP 22 SOUTH,
RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

DATE: 1-3-2019 PROJECT NO: 201808204
DRAWN BY: TM SCALE: 1" = 200'
CHECKED BY: DH SHEET: 1 OF 1
FIELD CREW: RE REVISION: 0



550 Bailey Ave., 205 - Fort Worth, TX 76107
Ph: 817.349.9800 - Fax: 979.732.5271
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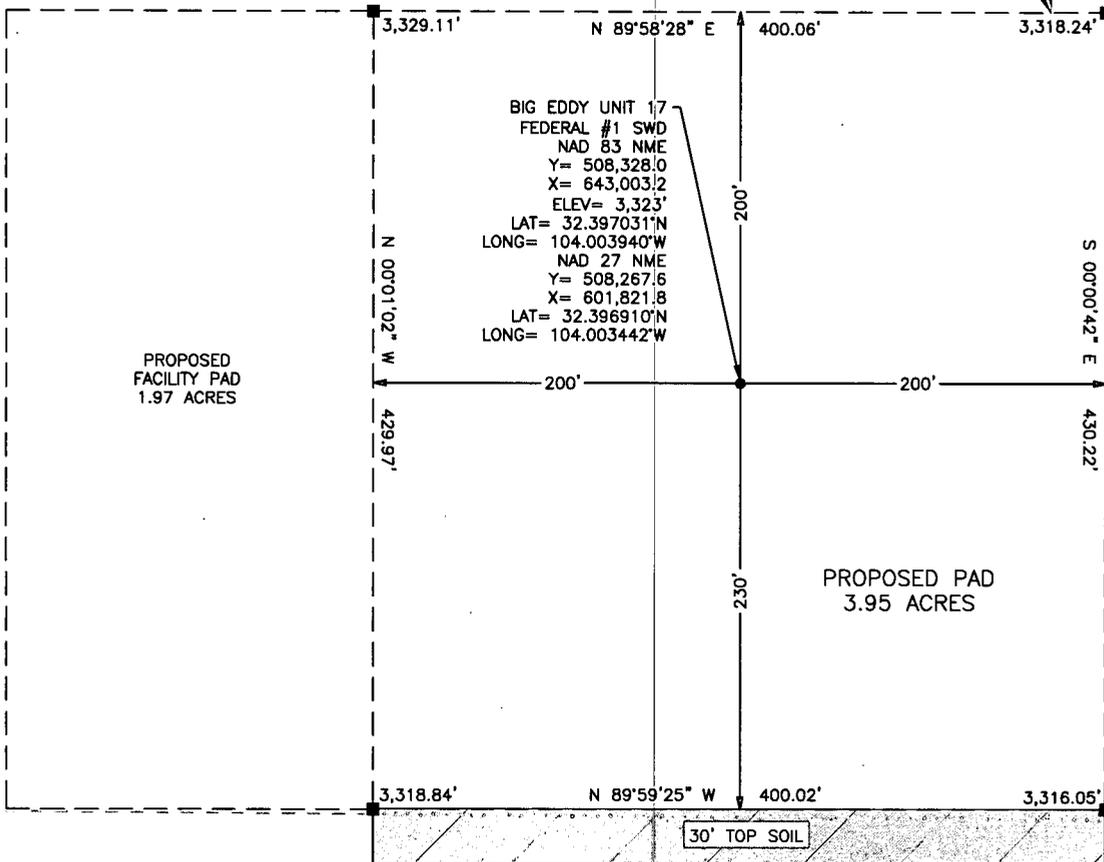
0 50' 100'
1" = 100 FEET

SECTION 17

TOWNSHIP 22 SOUTH, RANGE 29 EAST
NEW MEXICO PRIME MERIDIAN
OWNER: U.S.A.
NW/4 NE/4

PROPOSED ROAD
AS DESCRIBED ON
SEPARATE PLAT

PROPOSED ACCESS ROAD
N 00°01'32" E 149.96'



BIG EDDY UNIT 17
FEDERAL #1 SWD
NAD 83 NME
Y= 508,328.0
X= 643,003.2
ELEV= 3,323'
LAT= 32.397031°N
LONG= 104.003940°W
NAD 27 NME
Y= 508,267.6
X= 601,821.8
LAT= 32.396910°N
LONG= 104.003442°W

PROPOSED
FACILITY PAD
1.97 ACRES

PROPOSED PAD
3.95 ACRES

NW/4 NE/4

LEGEND

- PROPOSED PAD
- - - PROPOSED ROAD
- DNE — OVERHEAD ELECTRIC

NOTE:

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

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF US HIGHWAY 62/US180 (HOBBS HWY) AND POTASH MINES ROAD (STATE ROAD 31) GO SOUTHEAST APPROX. 8.6 MILES ARRIVING AT LEASE ROAD. TURN RIGHT (WEST) ON LEASE ROAD AND GO APPROX 1.6 MILES ARRIVING AT LEASE ROAD. TURN LEFT (SOUTHWEST) AND GO APPROX. 2.3 MILES ARRIVE AT PROPOSED ACCESS ROAD AND THE LOCATION IS TO THE WEST.

**XTO PERMIAN
OPERATING, LLC**

WELL SITE PLAN

BIG EDDY UNIT 17 FEDERAL #1 SWD
LOCATED 1,958 FEET FROM THE EAST LINE
AND 1,091 FEET FROM THE NORTH LINE OF
SECTION 17, TOWNSHIP 22 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
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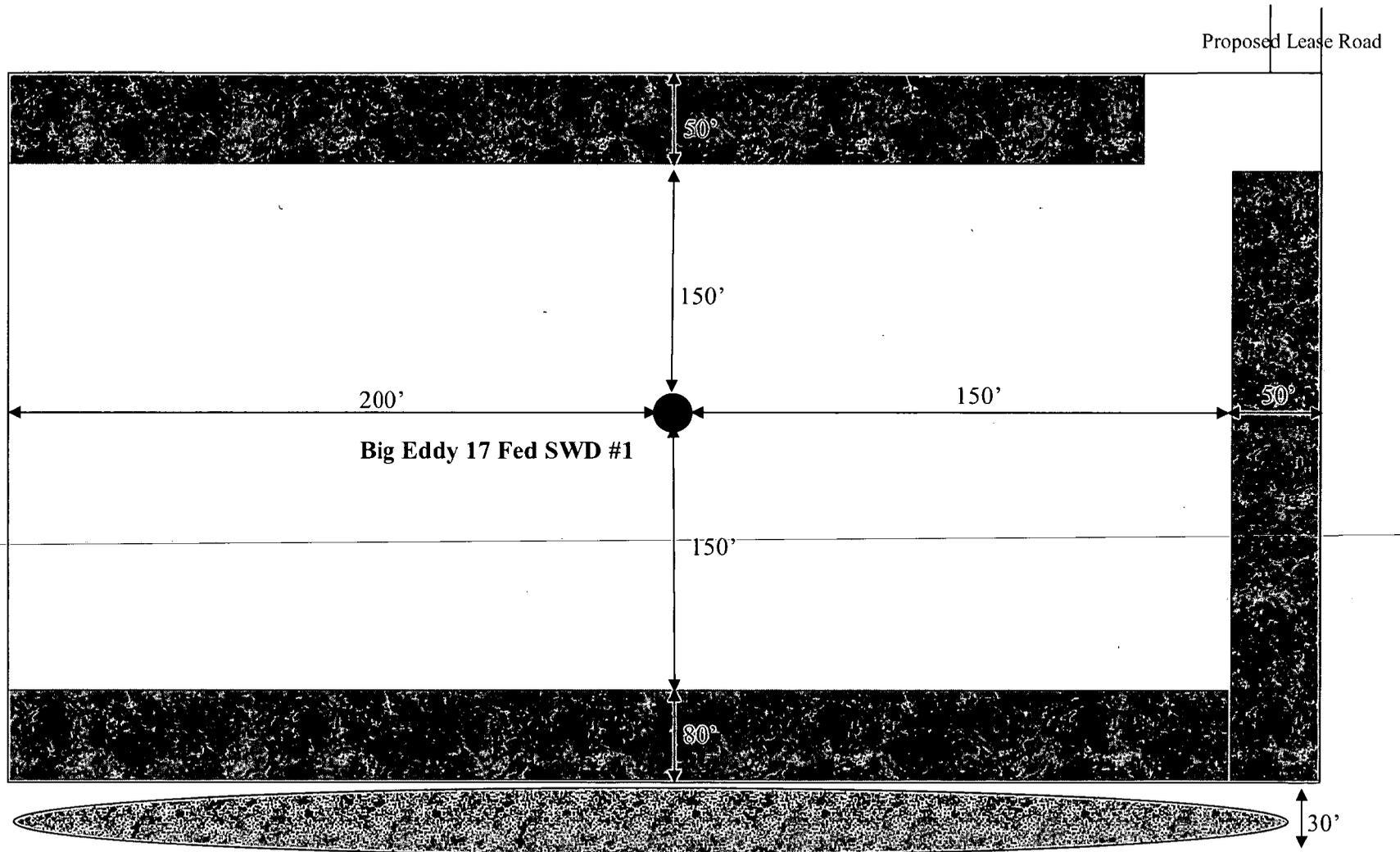
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DATE:	12-26-2018	PROJECT NO:	2018082024
DRAWN BY:	TM	SCALE:	1" = 100'
CHECKED BY:	DH	SHEET:	1 OF 1
FIELD CREW:	RE	REVISION:	0

Interim Reclamation Diagram

Big Eddy Unit 17 Fed SWD #1

V-Door North



LEGEND



Wellbore

Interim Reclamation



Ditch & Berm



Topsoil



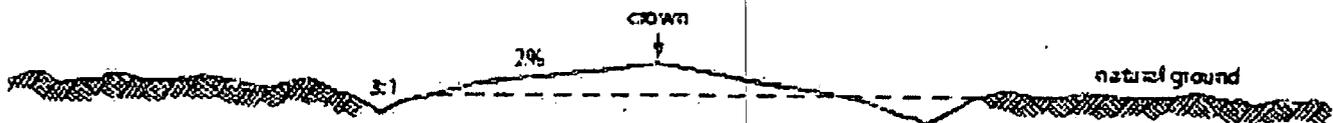
Surface Use Plan

1. Existing Roads

- A. The Big Eddy Unit 17 Federal SWD #1 is accessed from the intersection of US Highway 62/180 (Hobbs Hwy) and Potash Mines Road (State Road 31). Go Southeast approximately 8.6 miles arriving at the lease road. Turn right (west) on the lease road and go approximately 1.6 miles, arriving at a lease road. Turn left (southwest) and go approximately 2.3 miles. Arrive at proposed access road. The location is to the West. Transportation Plan identifying existing roads that will be used to access the project area is included from FSC, Inc. marked as, 'Topographic and Access Road Map.'
- B. There is an existing access road to the proposed Ross Draw 25 Federal locations. 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 26,983.9' or 5.11 miles of proposed and staked access roads to the Big Eddy Unit 17 Federal SWD #1 location.
- B. **Well Pads.** The well pad 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 Battery (CTB) is completed. Upon completion of the Central Tank Battery, 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 Battery 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 Permian Operating, LLC.
- E. **Road Dimensions.** The maximum width of the driving surface of new roads will be 20 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.** There is one (1) – 200'x430' [1.97acre] salt water disposal facility associated with the well, located adjacent to the well pad, in Section 17-22S-29E. Only the area necessary to maintain facilities will be disturbed. A 3160-5 sundry notification will be submitted after construction possessing a site-security diagram and layout of the facility with associated equipment.
- B. **Flowlines.** One (1) 8" composite flexpipe or steel flowline with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be buried within proposed lease road corridors from the BEU 17 Fed SWD facility to the proposed well water will be disposed of. There will be no additional surface disturbance associated with the flowline. The distance of proposed flowline will be 300.37' or less based on the location of the well pad in conjunction with the facility location. A plat of the proposed flowline route for the lease is attached.
- C. **Gas & Oil Pipeline.** No gas pipeline is required for this application.
- 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.** No flare is required for this application.
- 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.** No additional OHE is required for the Big Eddy Unit 17 Fed SWD 1. Electrical is not included in this request.

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 Permian Operating, LLC. from Section 27, T25S-R30E, Eddy County, New Mexico. 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, New Mexico.

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 ~1.5bbls 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.

7. Construction Activities

- A. 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.
- B. 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.
- C. Anticipated Caliche Locations:
 - a. Pit 1: Federal Caliche Pit, Section 27-20S-31E
 - b. Pit 2: Federal Caliche Pit, Section 5-21S-30E

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 Permian Operating, LLC. 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 is one (1) well pad associated with the Big Eddy Unit 17 Fed SWD #1. This will allow enough space for cuts and fills, topsoil storage, and storm water control. A well list is attached to this application. The well pad is expected to be 430'x400' with the proposed facility pad, located directly adjacent to the well pad, expected to be 200'x430'.
- 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 v-door orientation of North as agreed upon with Jeff Robertson, BLM Natural Resource Specialist present at on-site inspection.
- D. A 600' x 600' area has been staked and flagged around each well pad. A plat for the well has been attached.
- E. 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:

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.

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 surface project area 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 Jeff Robertson, Bureau of Land Management Natural Resource Specialist, in attendance.
- **Cultural Resources – Archaeology**: A Class III Cultural Resources Examination has been completed on all wells by Boone Archaeological Services and the results will be forwarded to the BLM Office.

- **Dwellings and Structures.** There are no dwellings or structures within 2 miles of this location.

Soils and Vegetation

Environmental Setting. The Berino component makes up 60 percent of the map unit. Slopes are 0 to 3 percent. This component is on fan piedmonts, uplands. The parent material consists of mixed alluvium and/or eolian sands. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R042XC003NM Loamy Sand ecological site. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 1 within 30 inches of the soil surface.

- **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: UTB0000138

Operator's Representatives:

The XTO Permian Operating, LLC. representative 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
432-488-9955
james_scott@xtoenergy.com

Onsite Notes:

600 x 430' pad including facilities. 400x430' drilling pad v-door North, TS South, Downsize: S, E, and N. Road into the NE corner. 200x430' facilities pad on the East of drilling pad.



APD ID: 10400037736

Submission Date: 01/17/2019

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Well Type: INJECTION - DISPOSAL

Well Work Type: Drill

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

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 specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Lined pit Monitor description:

Lined pit Monitor attachment:

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 attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

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 specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

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 evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

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 attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

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 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



APD ID: 10400037736

Submission Date: 01/17/2019

Highlighted data
reflects the most
recent changes

Operator Name: XTO PERMIAN OPERATING LLC

Well Name: BIG EDDY UNIT 17 FEDERAL SWD

Well Number: 1

[Show Final Text](#)

Well Type: INJECTION - DISPOSAL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number: COB000050

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 attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: