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Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM055929

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.
CORRAL CANYON 5-32 FEDERAL 108H
327082

2. Name of Operator
XTO ENERGY INCORPORATED

9. API Well No.
30-015-46665

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
2277 Springwoods Village Parkway Spring TX 77389	(432)620-6700	PURPLE SAGE WOLFCAMP GAS

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface NENE / 170 FNL / 690 FEL / LAT 32.151451 / LONG -104.000269
At proposed prod. zone NESE / 2440 FSL / 330 FEL / LAT 32.173181 / LONG -103.999146

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 8 / T25S / R29E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
8 miles	EDDY	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
170 feet	639.33	480

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
0 feet	9925 feet / 17677 feet	FED: UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
2941 feet	10/01/2019	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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Stephanie Rabadue / Ph: (432)620-6714	08/13/2019

Title
Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	01/22/2020

Title	Office
Assistant Field Manager Lands & Minerals	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: 01/22/2020

(Continued on page 2)

*(Instructions on page 2)

RMP 1-31-2020

INSTRUCTIONS

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

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

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

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, 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 directionany 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 wen 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 win 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 conects this information to anow 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

1. SHL: NENE / 170 FNL / 690 FEL / TWSP: 25S / RANGE: 29E / SECTION: 8 / LAT: 32.151451 / LONG: -104.000269 (TVD: 0 feet, MD: 0 feet)
   PPP: SESE / 330 FSL / 330 FEL / TWSP: 25S / RANGE: 29E / SECTION: 5 / LAT: 32.1528149 / LONG: -103.999107 (TVD: 9925 feet, MD: 10300 feet)
   BHL: NESE / 2440 FSL / 330 FEL / TWSP: 24S / RANGE: 29E / SECTION: 32 / LAT: 32.173181 / LONG: -103.999146 (TVD: 9925 feet, MD: 17677 feet)

BLM Point of Contact

Name:

Title:

Phone:

Email:

Approval Date: 01/22/2020

Review and Appeal Rights

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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**XTO Energy, Inc.**
LEASE NO.:	**NMNM-055929**
WELL NAME & NO.:	**Corral Canyon 5-32 Federal 128H**
SURFACE HOLE FOOTAGE:	**0170' FNL & 0690' FEL**
BOTTOM HOLE FOOTAGE	**2440' FSL & 0330' FEL Sec. 32, T. 24 S., R. 29 E.**
LOCATION:	**Section 08, T. 25 S., R. 29 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

COA

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

Operator will use a 5M multibowl after setting surface casing as this is only a 3 string well. The 2M system is an error in this permit.

A. HYDROGEN SULFIDE

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.

Medium Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler, Red Beds, and Delaware.

D. SPECIAL REQUIREMENT (S)

Operator to add "COM" to the well name.

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Anticollision report must be run due to the GULF 5 FEDERAL 1 (30-015-25312)

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

3. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

5. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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

B. PRESSURE CONTROL

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

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

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

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

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

    b. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer.

    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 010820

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME: XTO Energy Incorporated
LEASE NO.: NMNM055929
LOCATION: Section 8, T.25 S., R.29 E., NMPM
COUNTY: Eddy County, New Mexico

Corral Canyon 5-32 Federal 167H
Surface Hole Location: 170' FNL & 780' FEL, Section 8, T. 25 S., R. 29 E.
Bottom Hole Location: 2440' FSL & 990' FEL, Section 32, T. 24 S, R 29 E.

Corral Canyon 5-32 Federal 107H
Surface Hole Location: 170' FSL & 750' FEL, Section 8, T. 25 S., R. 29 E.
Bottom Hole Location: 2440' FSL & 1170' FEL, Section 32, T. 24 S, R 29 E.

Corral Canyon 5-32 Federal 127H
Surface Hole Location: 170' FNL & 720' FEL, Section 8, T. 25 S., R. 29 E.
Bottom Hole Location: 2440' FSL & 750' FEL, Section 32, T. 24 S, R 29 E.

Corral Canyon 5-32 Federal 108H
Surface Hole Location: 170' FNL & 690' FEL, Section 8, T. 25 S., R. 29 E.
Bottom Hole Location: 2440' FSL & 330' FEL, Section 32, T. 24 S, R 29 E

Corral Canyon 5-32 Federal 168H
Surface Hole Location: 170' FNL & 660' FEL, Section 8, T. 25 S., R. 29 E.
Bottom Hole Location: 2440' FSL & 330' FEL, Section 32, T. 24 S, R 29 E

Approval Date: 01/22/2020

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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

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.

I. 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.)

II. 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.

III. 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.

IV. SPECIAL REQUIREMENT(S)

Wildlife:

Oil and Gas and Associated Infrastructure Mitigation Measures for Zone D – CCA Boundary Requirements:

- Provide CEHMM with the permit, lease grant, or other authorization form BLM, if applicable.
- Provide CEHMM with plats or other electronic media describing the new surface disturbance for the project.

Hydrology:

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.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

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

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production:

Construction:

General Construction:

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

- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

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

Tank Battery Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- All tank battery locations and facilities will be lined and bermed.
- The liner should be at least 20 mil in thickness and installed with a 4 oz. felt backing, or equivalent, to prevent tears or punctures.
- Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Road Construction:

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

Powerline Construction:

- Smaller powerlines will be routed around sinkholes and other karst features to

avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems.

- Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- Special restoration stipulations or realignment may be required if subsurface voids are encountered.

Leak Detection System:

- A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present.
- A leak detection plan will be submitted to BLM that incorporates an automatic shut off system (see below) to minimize the effects of an undesirable event that could negatively sensitive cave/karst resources.
- Well heads, pipelines (surface and buried), storage tanks, and all supporting equipment should be monitored regularly after installation to promptly identify and fix leaks.

Automatic Shut-off Systems:

- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and groundwater concerns:

Closed Loop System:

- A closed loop system using steel tanks will be utilized during drilling – no pits
- All fluids and cuttings will be hauled off-site and disposed of properly at an authorized site

Rotary Drilling with Fresh Water:

- Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

- The kick off point for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

- ALL lost circulation zones between surface and the base of the cave occurrence zone will be logged and reported in the drilling report.
- If a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, regardless of the type of

drilling machinery used, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

- Additional plugging conditions of approval may be required upon well abandonment in high and medium karst potential occurrence zones.
- The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

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

V. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

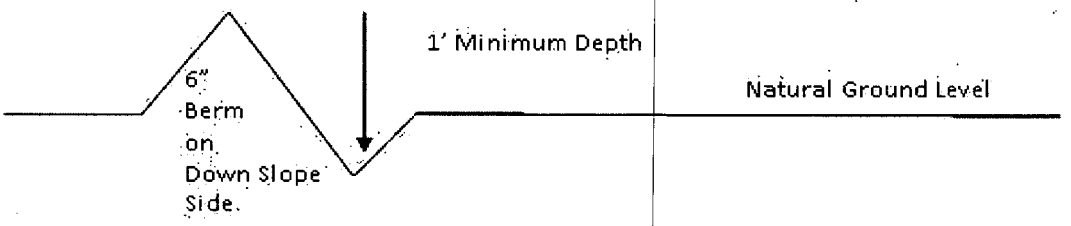
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

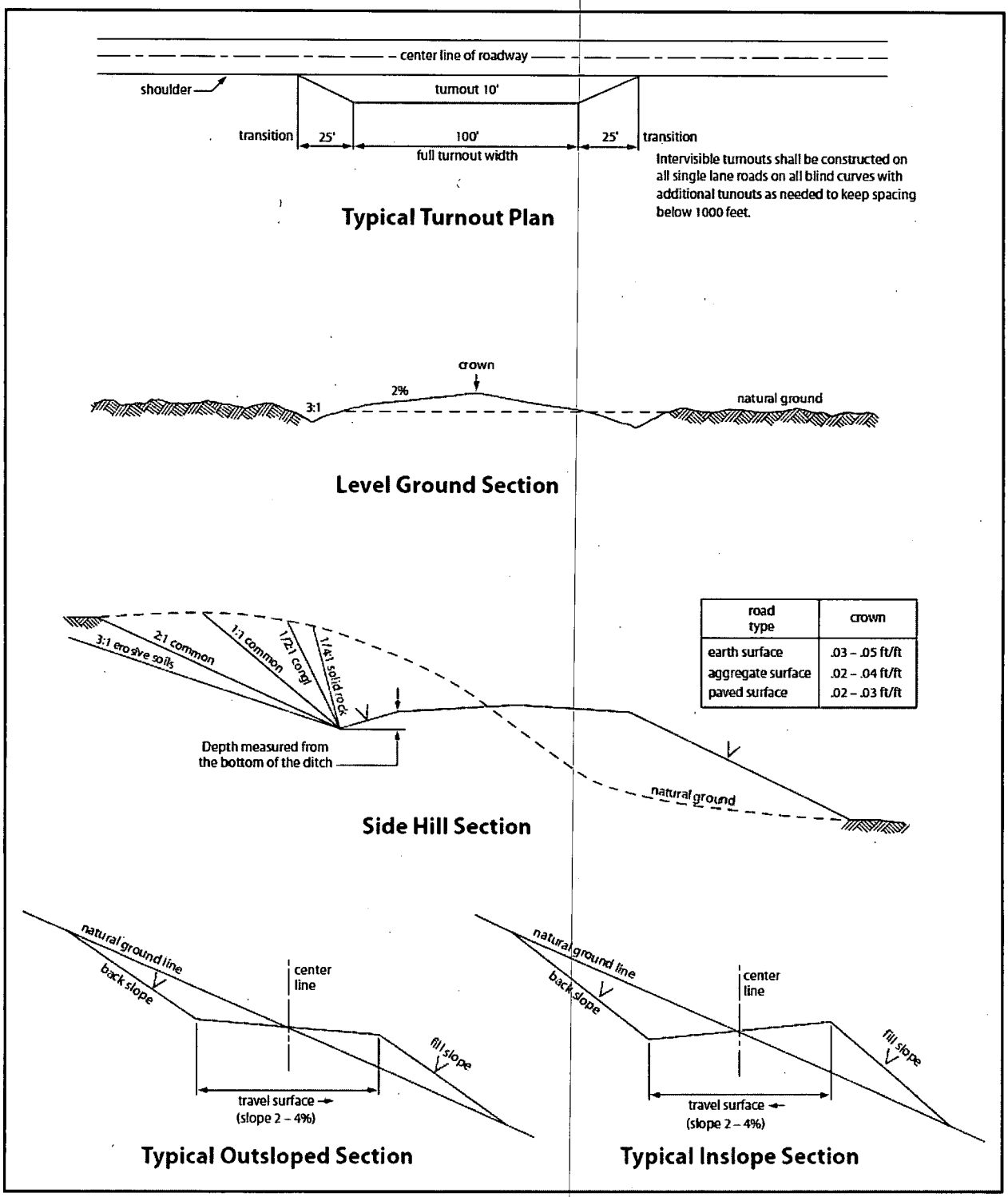


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VI. 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. OVERHEAD ELECTRIC LINES

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 and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. 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 proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

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

VII. 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).

VIII. 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:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

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

Operator Certification Data Report

01/24/2020

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:

AFMSS

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

Application Data Report

01/24/2020

APD ID: 10400045679
Submission Date: 08/13/2019
Operator Name: XTO ENERGY INCORPORATED
Well Name: CORRAL CANYON 5-32 FEDERAL
Well Number: 108H
Well Type: CONVENTIONAL GAS WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400045679
Tie to previous NOS? N
Submission Date: 08/13/2019
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: NMNM055929
Lease Acres: 639.33
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? NO
Permitting Agent? NO
APD Operator: XTO ENERGY INCORPORATED
Operator letter of designation:

Operator Info

Operator Organization Name: XTO ENERGY INCORPORATED
Operator Address: 2277 Springwoods Village Parkway
Zip: 77389
Operator PO Box:
Operator City: Spring
State: TX
Operator Phone: (432)620-6700
Operator Internet Address: Richard_redus@xtoenergy.com

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: CORRAL CANYON 5-32 FEDERAL
Well Number: 108H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: PURPLE SAGE WOLFCAMP GAS
Pool Name:
Is the proposed well in an area containing other mineral resources? USEABLE WATER,OTHER,NATURAL GAS,OIL

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

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

Describe other minerals: Produced Water

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** CC 5-32 Fed **Number:** 4

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

Well Work Type: Drill

Well Type: CONVENTIONAL GAS WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town: 8 Miles **Distance to nearest well:** 0 FT **Distance to lease line:** 170 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: CC_5_32_108H_C102_20190809104142.pdf

Well work start Date: 10/01/2019 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

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

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	170	FNL	690	FEL	25S	29E	8	Aliquot NENE	32.151451	-104.000269	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 055929	2941	0	0	N
KOP Leg #1	170	FNL	690	FEL	25S	29E	8	Aliquot NENE	32.151451	-104.000269	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 055929	-2619	5560	5560	N
PPP Leg #1-1	330	FSL	330	FEL	25S	29E	5	Aliquot SESE	32.152814 9	-103.999107	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 015302	-6984	10300	9925	Y

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
EXIT Leg #1	2310	FSL	330	FEL	24S	29E	32	Aliquot NESE	32.172824	-103.999146	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-6984	17547	9925	Y
BHL Leg #1	2440	FSL	330	FEL	24S	29E	32	Aliquot NESE	32.173181	-103.999146	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-6984	17677	9925	Y

APD ID: 10400045679 **Submission Date:** 08/13/2019

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
511881	PERMIAN	2941	0	0	OTHER : Quaternary	NONE	N
511882	RUSTLER	2619	322	322	SILTSTONE	USEABLE WATER	N
511879	TOP SALT	2254	687	687	SALT	NONE	N
511876	BASE OF SALT	341	2600	2600	SALT	NONE	N
511883	DELAWARE	138	2803	2803	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
511884	BONE SPRING	-3615	6556	6556	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
511880	BONE SPRING 1ST	-4563	7504	7504	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
511877	BONE SPRING 2ND	-4779	7720	7720	SANDSTONE	NATURAL GAS, OIL, OTHER : Produced Water	N
511886	BONE SPRING 3RD	-5621	8562	8562	SANDSTONE	NATURAL GAS, OIL, OTHER, USEABLE WATER : produced water	N
511887	WOLFCAMP	-6781	9722	9722	SHALE	NATURAL GAS, OIL, OTHER, USEABLE WATER : produced water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M **Rating Depth:** 530

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 manufacturers 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 nippling up, the BOP test will be limited to 3,000 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.

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Choke Diagram Attachment:

CC_5_32_2MCM_20190809103423.pdf

BOP Diagram Attachment:

CC_5_32_2MBOP_20190809103429.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 9925

Equipment: The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 5M 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. XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint. Permanent Wellhead – GE RSH Multibowl System 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 7-1/16" 10M top flange Wellhead will be installed by manufacturer's representatives. Manufacturer will monitor welding process to ensure appropriate temperature of seal. Operator will test the 9-5/8" casing per BLM Onshore Order 2 Wellhead Manufacturer representative will not be present for BOP test plug installation

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 nippling up on the 13-5/8 5M bradenhead and flange, the BOP test will be limited to 5000 psi. When nippling up on the 9-5/8, the BOP will be tested to a minimum of 3000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 5M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

Choke Diagram Attachment:

CC_5_32_5MCM_20190809103349.pdf

BOP Diagram Attachment:

CC_5_32_5MBOP_20190809103356.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	530	0	530	2941	2411	530	J-55	54.5	ST&C	4.66	1.36	DRY	23.37	DRY	23.37
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	6710	0	6710		-3769	6710	J-55	40	LT&C	1.26	1.14	DRY	2.71	DRY	2.71
3	PRODUCTION	8.75	5.5	NEW	API	N	0	17677	0	9925		-6984	17677	P-110	17	BUTT	1.33	1.01	DRY	2.51	DRY	2.51

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CC_5_32_108H_Csg_20190809104555.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CC_5_32_108H_Csg_20190809104609.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CC_5_32_108H_Csg_20190809104639.pdf

Section 4 - Cement

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	530	540	1.35	14.8	729	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead	630	0	630	540	1.35	14.8	729	100	Halcem-C	2% CaCl
INTERMEDIATE	Lead		630	6710	1900	1.88	12.9	3572	100	HalCem-C	2% CaCl
INTERMEDIATE	Tail				470	1.33	14.8	625.1	100	Halcem-C	2% CaCl
PRODUCTION	Lead		0	17677	310	2.69	11.5	833.9	30	NeoCem	None
PRODUCTION	Tail		0		2330	1.61	13.2	3751.3	30	VersaCem	None

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: The necessary mud products for weight addition 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
6710	9925	OIL-BASED MUD	10.7	11							A Pason or Totco will be used to detect changes in loss or

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
											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	530	OTHER : FW/Native	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.
530	6710	OTHER : Brine/Gel Sweeps	9.5	10.2							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) on below intermediate casing. Catch 20' samples fr/6710' to TD

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

CEMENT BOND LOG,COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MUD LOG/GEOLOGIC LITHOLOGY LOG,

Coring operation description for the well:

No coring will take place on this well.

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5522 **Anticipated Surface Pressure:** 3338

Anticipated Bottom Hole Temperature(F): 150

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

CC_5_32_H2S_P4_20190809104726.pdf
CC_5_32_H2S_Plan_20190809104758.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

CC_5_32_108H_DD_20190809104812.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

CC_5_32_108H_GCP_20190809104820.pdf

Other Variance attachment:

CC_5_32_5.5MBS_20190809103751.pdf
CC_5_32_FH_20190809103758.pdf

Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 530'	13-3/8"	54.5	STC	J-55	New	1.36	4.66	23.37
12-1/4"	0' – 6710'	9-5/8"	40	LTC	J-55	New	1.14	1.26	2.71
8-3/4"	0' – 17677'	5-1/2"	17	BTC	P-110	New	1.01	1.33	2.51

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

WELLHEAD:

Permanent Wellhead – GE RSH Multibowl System

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 7-1/16" 10M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
17-1/2"	0' – 530'	13-3/8"	54.5	STC	J-55	New	1.36	4.66	23.37
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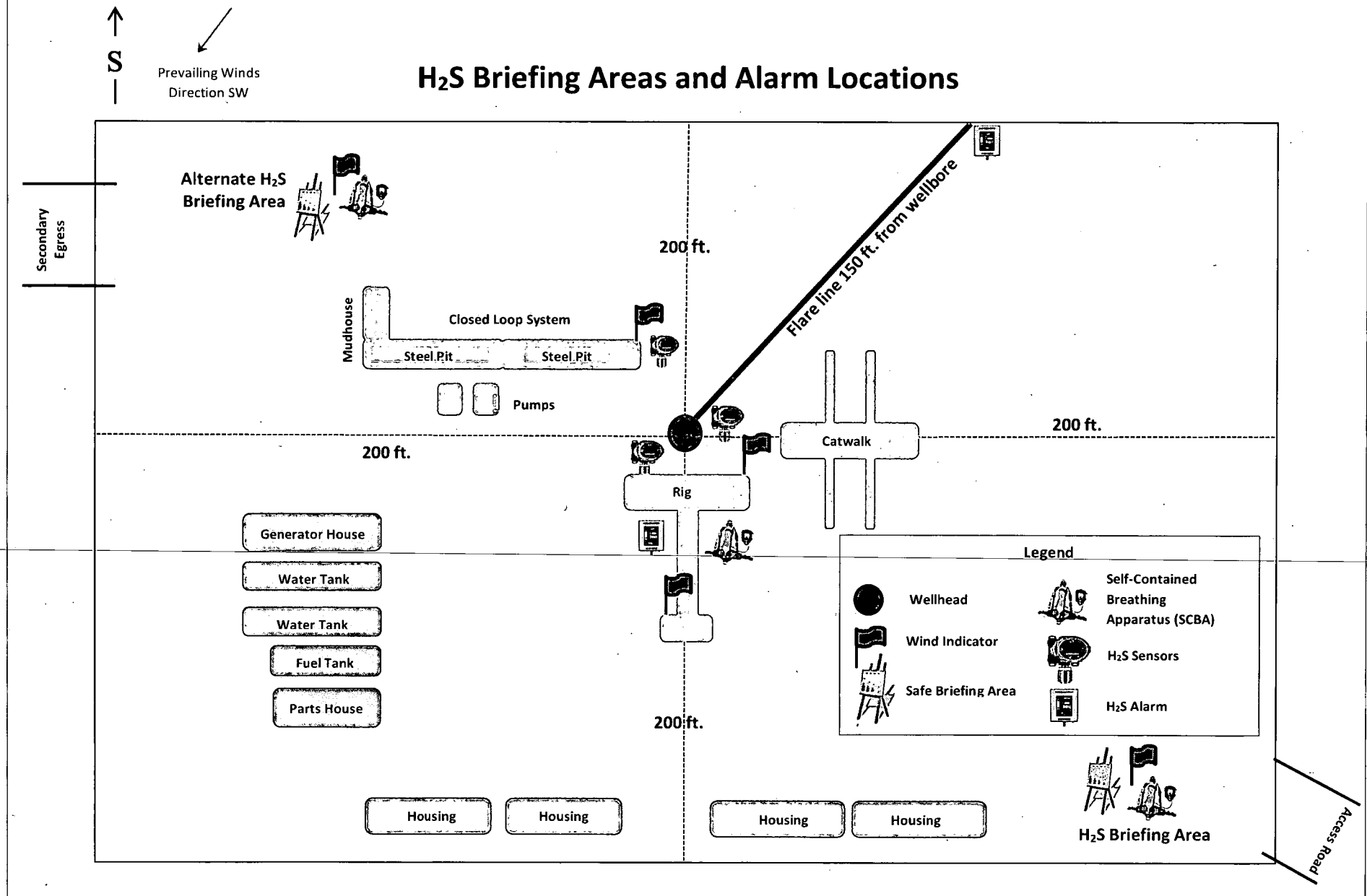
H_2S Briefing Areas and Alarm Locations



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 H_2S, 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 H_2S 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 H_2S, 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 (SO_2). 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 H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = I	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:	911
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS:	911
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS:	
For Lea County:	
Bureau of Land Management – Hobbs	575-393-3612
New Mexico Oil Conservation Division – Hobbs	575-393-6161
For Eddy County:	
Bureau of Land Management - Carlsbad	575-234-5972
New Mexico Oil Conservation Division - Artesia	575-748-1283

XTO Energy

Eddy County, NM (NAD-27)
Corral Canyon 5-32 Fed
#108H

OH

Plan: PERMIT

Standard Planning Report

20 May, 2019

XTO ENERGY

Project: Eddy County, NM (NAD-27)
Site: Corral Canyon 5-32 Fed
Well: #108H
Wellbore: OH
Design: PERMIT

PROJECT DETAILS: Eddy County, NM (NAD-27)

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: #108H

Rig Name:
Ref GL @ 2941.00usft
Ground Level: 2941.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	418934.00	603229.60	32.1513268	-103.9997808

DESIGN TARGET DETAILS

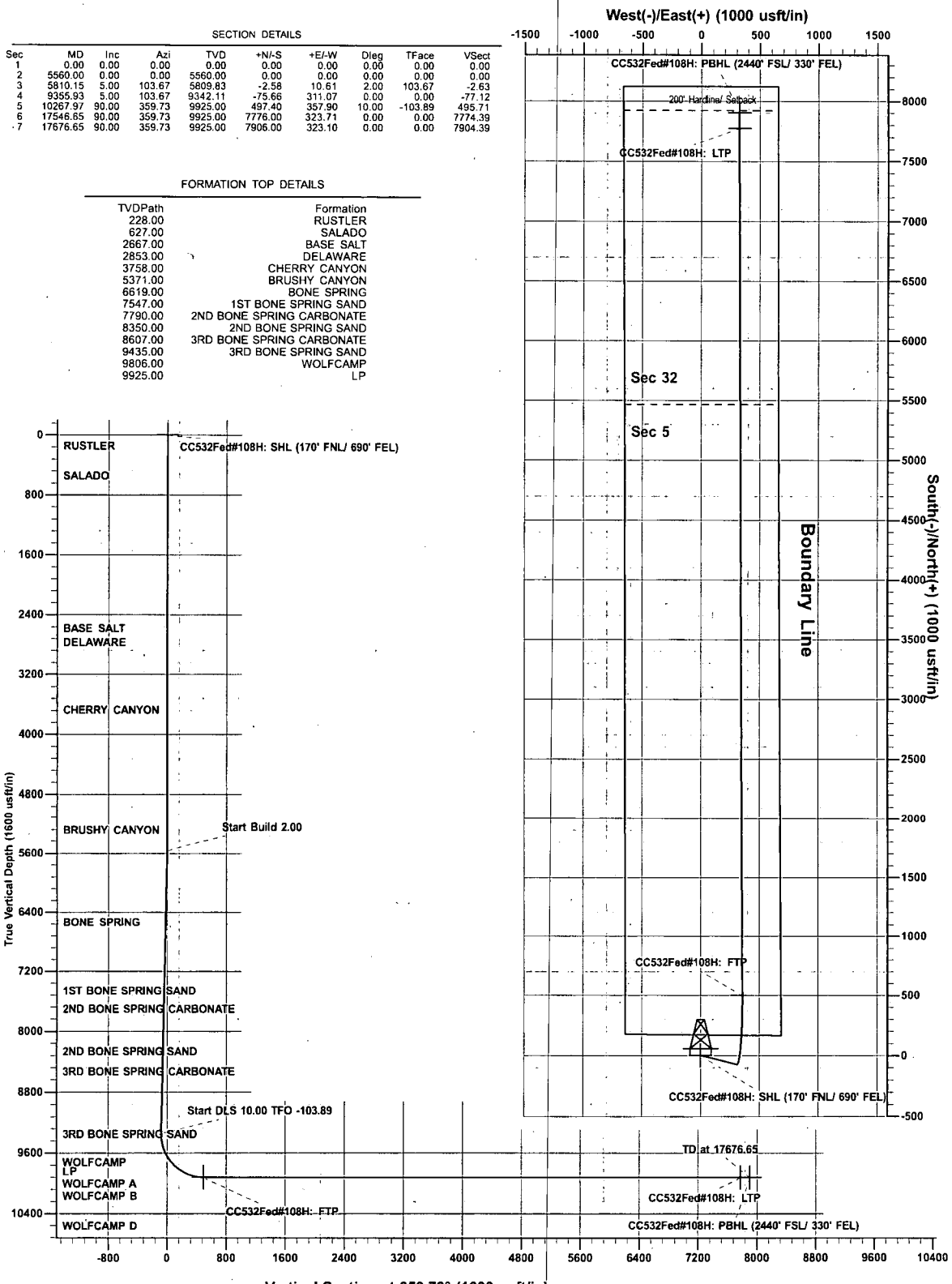
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
CC532Fed#108H: SHL (170' FNL/ 690' FEL)	0.00	0.00	0.00	418934.00	603229.60	32.1513268	-103.9997808
CC532Fed#108H: FTP	9925.00	497.40	357.90	419431.40	603587.50	32.1526911	-103.9986193
CC532Fed#108H: LTP	9925.00	7776.00	323.60	426710.00	603553.20	32.1727001	-103.9986570
CC532Fed#108H: PBHL (2440' FSL/ 330' FEL)	9925.00	7906.00	323.10	426840.00	603552.70	32.1730574	-103.9986574

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5560.00	0.00	0.00	5560.00	0.00	0.00	0.00	0.00	0.00
3	5810.15	5.00	103.67	5809.83	-2.58	10.61	2.00	103.67	-2.63
4	9355.93	5.00	103.67	9342.11	-75.66	311.07	0.00	0.00	-77.12
5	10267.97	90.00	359.73	9925.00	497.40	357.90	10.00	-103.89	495.71
6	17546.65	90.00	359.73	9925.00	7776.00	323.71	0.00	0.00	7774.39
7	17676.65	90.00	359.73	9925.00	7906.00	323.10	0.00	0.00	7904.39

FORMATION TOP DETAILS

TVDPath	Formation
228.00	RUSTLER
627.00	SALADO
2667.00	BASE SALT
2853.00	DELAWARE
3758.00	CHERRY CANYON
5371.00	BRUSHY CANYON
6619.00	BONE SPRING
7547.00	1ST BONE SPRING SAND
7790.00	2ND BONE SPRING CARBONATE
8350.00	2ND BONE SPRING SAND
8607.00	3RD BONE SPRING CARBONATE
9435.00	3RD BONE SPRING SAND
9806.00	WOLFCAMP
9925.00	LP



Plan: PERMIT (#108H/OH)

Created By: Matthew May Date: 9:18, May 20 2019

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

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015-		

[4] Property Code	[5] Property Name	[6] Well Number
	CORRAL CANYON 5-32 FED	108H

[7] OGRID No.	[8] Operator Name	[9] Elevation
	XTO ENERGY, INC.	2,941'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	25 S	29 E		170	NORTH	690	EAST	EDDY

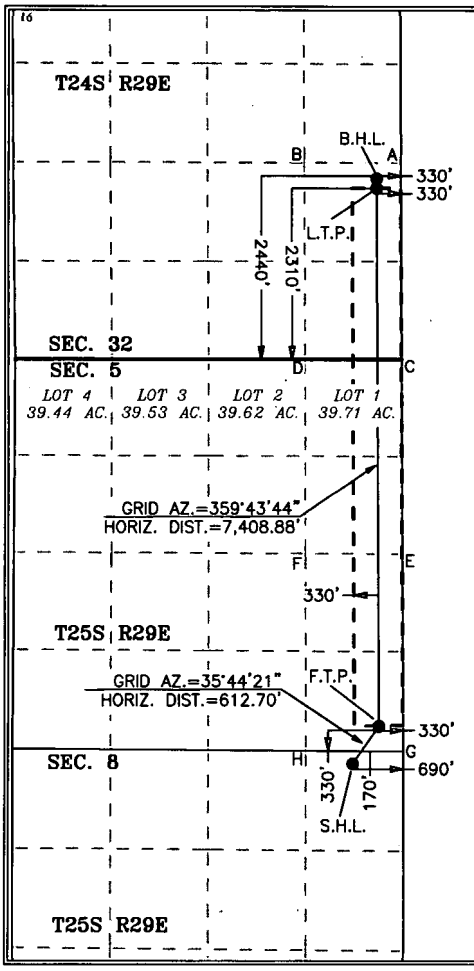
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	32	24 S	29 E		2,440	SOUTH	330	EAST	EDDY

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

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

[16]



GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y= 418,934.0
X= 603,229.6
LAT.= 32.151327°N
LONG.= 103.999781°W

GEODETIC COORDINATES
NAD 83 NME
SURFACE LOCATION
Y= 418,992.5
X= 644,413.7
LAT.= 32.151451°N
LONG.= 104.000269°W

FIRST TAKE POINT
NAD 27 NME
Y= 419,431.4
X= 603,587.5
LAT.= 32.152691°N
LONG.= 103.998619°W

FIRST TAKE POINT
NAD 83 NME
Y= 419,489.9
X= 644,771.6
LAT.= 32.152815°N
LONG.= 103.999107°W

CORNER COORDINATES TABLE
NAD 27 NME
A - Y= 427,054.7 N, X= 603,881.9 E
B - Y= 427,056.8 N, X= 602,565.7 E
C - Y= 424,400.2 N, X= 603,891.7 E
D - Y= 424,399.7 N, X= 602,578.5 E
E - Y= 421,752.6 N, X= 603,906.0 E
F - Y= 421,758.9 N, X= 602,585.1 E
G - Y= 419,098.9 N, X= 603,919.2 E
H - Y= 419,108.8 N, X= 602,591.0 E

CORNER COORDINATES TABLE
NAD 83 NME
A - Y= 427,113.4 N, X= 645,065.8 E
B - Y= 427,115.5 N, X= 643,749.6 E
C - Y= 424,458.8 N, X= 645,075.7 E
D - Y= 424,458.3 N, X= 643,762.5 E
E - Y= 421,811.2 N, X= 645,090.1 E
F - Y= 421,817.5 N, X= 643,769.1 E
G - Y= 419,157.4 N, X= 645,103.3 E
H - Y= 419,167.3 N, X= 643,775.1 E

LAST TAKE POINT
NAD 27 NME
Y= 426,710.0
X= 603,553.2
LAT.= 32.172700°N
LONG.= 103.998657°W

LAST TAKE POINT
NAD 83 NME
Y= 426,768.7
X= 644,737.1
LAT.= 32.172824°N
LONG.= 103.999146°W

BOTTOM HOLE LOCATION
NAD 27 NME
Y= 426,840.0
X= 603,552.7
LAT.= 32.173057°N
LONG.= 103.998657°W

BOTTOM HOLE LOCATION
NAD 83 NME
Y= 426,898.7
X= 644,736.6
LAT.= 32.173181°N
LONG.= 103.999146°W

[17] OPERATOR CERTIFICATION

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

Signature Date

Printed Name

E-mail Address

[18] SURVEYOR CERTIFICATION

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

4-22-2019
Date of Survey

Signatue and Seal of Professional Surveyor:

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

MARK DILLON HARP 23786
Certificate Number AI 2017091553

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #108H
Company:	XTO Energy	**TVD Reference:**	Ref GL @ 2941.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	Ref GL @ 2941.00usft
Site:	Corral Canyon 5-32 Fed	**North Reference:**	Grid
Well:	#108H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Project Eddy County, NM (NAD-27)

Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Corral Canyon 5-32 Fed

Site Position:		**Northing:**	418,934.50 usft	**Latitude:**	32.1513287
From:	Map	**Easting:**	603,169.70 usft	**Longitude:**	-103.9999743
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.18 °

Well #108H

Well Position	**+N/-S**	-0.50 usft	**Northing:**	418,934.00 usft	**Latitude:**	32.1513268
	+E/-W	59.90 usft	**Easting:**	603,229.60 usft	**Longitude:**	-103.9997807
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	2,941.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	05/20/19	6.94	59.90	47,656

Design PERMIT

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.73

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,560.00	0.00	0.00	5,560.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,810.15	5.00	103.67	5,809.83	-2.58	10.61	2.00	2.00	0.00	103.67	
9,355.93	5.00	103.67	9,342.11	-75.66	311.07	0.00	0.00	0.00	0.00	
10,267.97	90.00	359.73	9,925.00	497.40	357.90	10.00	9.32	-11.40	-103.89	CC532Fed#108H: F
17,546.65	90.00	359.73	9,925.00	7,776.00	323.71	0.00	0.00	0.00	0.00	CC532Fed#108H: L
17,676.65	90.00	359.73	9,925.00	7,906.00	323.10	0.00	0.00	0.00	0.00	CC532Fed#108H: F

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #108H
Company:	XTO Energy	**TVD Reference:**	Ref GL @ 2941.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	Ref GL @ 2941.00usft
Site:	Corral Canyon 5-32 Fed	**North Reference:**	Grid
Well:	#108H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
228.00	0.00	0.00	228.00	0.00	0.00	0.00	0.00	0.00	0.00
RUSTLER									
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
627.00	0.00	0.00	627.00	0.00	0.00	0.00	0.00	0.00	0.00
SALADO									
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,667.00	0.00	0.00	2,667.00	0.00	0.00	0.00	0.00	0.00	0.00
BASE SALT									
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,853.00	0.00	0.00	2,853.00	0.00	0.00	0.00	0.00	0.00	0.00
DELAWARE									
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,758.00	0.00	0.00	3,758.00	0.00	0.00	0.00	0.00	0.00	0.00
CHERRY CANYON									
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #108H
Company:	XTO Energy	**TVD Reference:**	Ref GL @ 2941.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	Ref GL @ 2941.00usft
Site:	Corral Canyon 5-32 Fed	**North Reference:**	Grid
Well:	#108H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,371.00	0.00	0.00	5,371.00	0.00	0.00	0.00	0.00	0.00	0.00
BRUSHY CANYON									
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,560.00	0.00	0.00	5,560.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.80	103.67	5,600.00	-0.07	0.27	-0.07	2.00	2.00	0.00
5,700.00	2.80	103.67	5,699.94	-0.81	3.32	-0.82	2.00	2.00	0.00
5,800.00	4.80	103.67	5,799.72	-2.37	9.76	-2.42	2.00	2.00	0.00
5,810.15	5.00	103.67	5,809.83	-2.58	10.61	-2.63	2.00	2.00	0.00
5,900.00	5.00	103.67	5,899.34	-4.43	18.22	-4.52	0.00	0.00	0.00
6,000.00	5.00	103.67	5,998.96	-6.49	26.69	-6.62	0.00	0.00	0.00
6,100.00	5.00	103.67	6,098.58	-8.55	35.17	-8.72	0.00	0.00	0.00
6,200.00	5.00	103.67	6,198.20	-10.61	43.64	-10.82	0.00	0.00	0.00
6,300.00	5.00	103.67	6,297.82	-12.68	52.11	-12.92	0.00	0.00	0.00
6,400.00	5.00	103.67	6,397.44	-14.74	60.59	-15.02	0.00	0.00	0.00
6,500.00	5.00	103.67	6,497.05	-16.80	69.06	-17.12	0.00	0.00	0.00
6,600.00	5.00	103.67	6,596.67	-18.86	77.54	-19.22	0.00	0.00	0.00
6,622.41	5.00	103.67	6,619.00	-19.32	79.43	-19.69	0.00	0.00	0.00
BONE SPRING									
6,700.00	5.00	103.67	6,696.29	-20.92	86.01	-21.32	0.00	0.00	0.00
6,800.00	5.00	103.67	6,795.91	-22.98	94.48	-23.43	0.00	0.00	0.00
6,900.00	5.00	103.67	6,895.53	-25.04	102.96	-25.53	0.00	0.00	0.00
7,000.00	5.00	103.67	6,995.15	-27.10	111.43	-27.63	0.00	0.00	0.00
7,100.00	5.00	103.67	7,094.77	-29.16	119.90	-29.73	0.00	0.00	0.00
7,200.00	5.00	103.67	7,194.39	-31.22	128.38	-31.83	0.00	0.00	0.00
7,300.00	5.00	103.67	7,294.01	-33.29	136.85	-33.93	0.00	0.00	0.00
7,400.00	5.00	103.67	7,393.63	-35.35	145.33	-36.03	0.00	0.00	0.00
7,500.00	5.00	103.67	7,493.24	-37.41	153.80	-38.13	0.00	0.00	0.00
7,553.96	5.00	103.67	7,547.00	-38.52	158.37	-39.27	0.00	0.00	0.00
1ST BONE SPRING SAND									
7,600.00	5.00	103.67	7,592.86	-39.47	162.27	-40.23	0.00	0.00	0.00
7,700.00	5.00	103.67	7,692.48	-41.53	170.75	-42.33	0.00	0.00	0.00
7,797.89	5.00	103.67	7,790.00	-43.55	179.04	-44.39	0.00	0.00	0.00
2ND BONE SPRING CARBONATE									
7,800.00	5.00	103.67	7,792.10	-43.59	179.22	-44.43	0.00	0.00	0.00
7,900.00	5.00	103.67	7,891.72	-45.65	187.69	-46.54	0.00	0.00	0.00
8,000.00	5.00	103.67	7,991.34	-47.71	196.17	-48.64	0.00	0.00	0.00
8,100.00	5.00	103.67	8,090.96	-49.77	204.64	-50.74	0.00	0.00	0.00
8,200.00	5.00	103.67	8,190.58	-51.83	213.12	-52.84	0.00	0.00	0.00
8,300.00	5.00	103.67	8,290.20	-53.89	221.59	-54.94	0.00	0.00	0.00
8,360.03	5.00	103.67	8,350.00	-55.13	226.68	-56.20	0.00	0.00	0.00
2ND BONE SPRING SAND									
8,400.00	5.00	103.67	8,389.82	-55.96	230.06	-57.04	0.00	0.00	0.00

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #108H
Company:	XTO Energy	**TVD Reference:**	Ref GL @ 2941.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	Ref GL @ 2941.00usft
Site:	Corral Canyon 5-32 Fed	**North Reference:**	Grid
Well:	#108H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500.00	5.00	103.67	8,489.43	-58.02	238.54	-59.14	0.00	0.00	0.00
8,600.00	5.00	103.67	8,589.05	-60.08	247.01	-61.24	0.00	0.00	0.00
8,618.02	5.00	103.67	8,607.00	-60.45	248.54	-61.62	0.00	0.00	0.00
3RD BONE SPRING CARBONATE									
8,700.00	5.00	103.67	8,688.67	-62.14	255.48	-63.34	0.00	0.00	0.00
8,800.00	5.00	103.67	8,788.29	-64.20	263.96	-65.44	0.00	0.00	0.00
8,900.00	5.00	103.67	8,887.91	-66.26	272.43	-67.54	0.00	0.00	0.00
9,000.00	5.00	103.67	8,987.53	-68.32	280.91	-69.64	0.00	0.00	0.00
9,100.00	5.00	103.67	9,087.15	-70.38	289.38	-71.75	0.00	0.00	0.00
9,200.00	5.00	103.67	9,186.77	-72.44	297.85	-73.85	0.00	0.00	0.00
9,300.00	5.00	103.67	9,286.39	-74.50	306.33	-75.95	0.00	0.00	0.00
9,355.93	5.00	103.67	9,342.11	-75.66	311.07	-77.12	0.00	0.00	0.00
9,400.00	5.82	56.27	9,386.00	-74.87	314.79	-76.35	10.00	1.84	-107.57
9,449.44	9.48	30.33	9,435.00	-69.97	318.93	-71.47	10.00	7.40	-52.46
3RD BONE SPRING SAND									
9,450.00	9.52	30.16	9,435.56	-69.88	318.98	-71.39	10.00	8.58	-31.08
9,500.00	14.05	19.57	9,484.49	-60.58	323.09	-62.10	10.00	9.06	-21.16
9,550.00	18.82	14.17	9,532.44	-47.04	327.10	-48.58	10.00	9.53	-10.81
9,600.00	23.68	10.90	9,579.03	-29.35	330.98	-30.91	10.00	9.72	-6.53
9,650.00	28.58	8.70	9,623.91	-7.65	334.69	-9.23	10.00	9.81	-4.40
9,700.00	33.52	7.10	9,666.73	17.89	338.21	16.29	10.00	9.86	-3.20
9,750.00	38.46	5.87	9,707.17	47.07	341.51	45.46	10.00	9.90	-2.46
9,800.00	43.42	4.88	9,744.93	79.69	344.56	78.06	10.00	9.92	-1.98
9,850.00	48.39	4.06	9,779.71	115.47	347.35	113.84	10.00	9.93	-1.65
9,891.28	52.49	3.47	9,806.00	147.22	349.43	145.58	10.00	9.94	-1.43
WOLFCAMP									
9,900.00	53.36	3.35	9,811.26	154.17	349.85	152.52	10.00	9.94	-1.33
9,950.00	58.33	2.74	9,839.32	195.47	352.04	193.81	10.00	9.95	-1.24
10,000.00	63.31	2.18	9,863.69	239.07	353.90	237.40	10.00	9.95	-1.11
10,050.00	68.29	1.67	9,884.18	284.64	355.43	282.96	10.00	9.96	-1.02
10,100.00	73.27	1.19	9,900.64	331.82	356.61	330.13	10.00	9.96	-0.95
10,150.00	78.25	0.74	9,912.94	380.26	357.43	378.57	10.00	9.96	-0.90
10,200.00	83.23	0.31	9,920.99	429.59	357.88	427.90	10.00	9.96	-0.87
10,250.00	88.21	359.88	9,924.72	479.43	357.96	477.74	10.00	9.96	-0.85
10,267.97	90.00	359.73	9,925.00	497.40	357.90	495.71	10.00	9.96	-0.85
LP									
10,300.00	90.00	359.73	9,925.00	529.43	357.75	527.74	0.00	0.00	0.00
10,400.00	90.00	359.73	9,925.00	629.43	357.28	627.74	0.00	0.00	0.00
10,500.00	90.00	359.73	9,925.00	729.43	356.81	727.74	0.00	0.00	0.00
10,600.00	90.00	359.73	9,925.00	829.43	356.34	827.74	0.00	0.00	0.00
10,700.00	90.00	359.73	9,925.00	929.43	355.87	927.74	0.00	0.00	0.00
10,800.00	90.00	359.73	9,925.00	1,029.42	355.40	1,027.74	0.00	0.00	0.00
10,900.00	90.00	359.73	9,925.00	1,129.42	354.93	1,127.74	0.00	0.00	0.00
11,000.00	90.00	359.73	9,925.00	1,229.42	354.46	1,227.74	0.00	0.00	0.00
11,100.00	90.00	359.73	9,925.00	1,329.42	353.99	1,327.74	0.00	0.00	0.00
11,200.00	90.00	359.73	9,925.00	1,429.42	353.52	1,427.74	0.00	0.00	0.00
11,300.00	90.00	359.73	9,925.00	1,529.42	353.05	1,527.74	0.00	0.00	0.00
11,400.00	90.00	359.73	9,925.00	1,629.42	352.58	1,627.74	0.00	0.00	0.00
11,500.00	90.00	359.73	9,925.00	1,729.42	352.11	1,727.74	0.00	0.00	0.00
11,600.00	90.00	359.73	9,925.00	1,829.42	351.64	1,827.74	0.00	0.00	0.00
11,700.00	90.00	359.73	9,925.00	1,929.41	351.17	1,927.74	0.00	0.00	0.00
11,800.00	90.00	359.73	9,925.00	2,029.41	350.70	2,027.74	0.00	0.00	0.00
11,900.00	90.00	359.73	9,925.00	2,129.41	350.23	2,127.74	0.00	0.00	0.00

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #108H
Company:	XTO Energy	**TVD Reference:**	Ref GL @ 2941.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	Ref GL @ 2941.00usft
Site:	Corral Canyon 5-32 Fed	**North Reference:**	Grid
Well:	#108H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,000.00	90.00	359.73	9,925.00	2,229.41	349.76	2,227.74	0.00	0.00	0.00
12,100.00	90.00	359.73	9,925.00	2,329.41	349.29	2,327.74	0.00	0.00	0.00
12,200.00	90.00	359.73	9,925.00	2,429.41	348.82	2,427.74	0.00	0.00	0.00
12,300.00	90.00	359.73	9,925.00	2,529.41	348.36	2,527.74	0.00	0.00	0.00
12,400.00	90.00	359.73	9,925.00	2,629.41	347.89	2,627.74	0.00	0.00	0.00
12,500.00	90.00	359.73	9,925.00	2,729.41	347.42	2,727.74	0.00	0.00	0.00
12,600.00	90.00	359.73	9,925.00	2,829.40	346.95	2,827.74	0.00	0.00	0.00
12,700.00	90.00	359.73	9,925.00	2,929.40	346.48	2,927.74	0.00	0.00	0.00
12,800.00	90.00	359.73	9,925.00	3,029.40	346.01	3,027.74	0.00	0.00	0.00
12,900.00	90.00	359.73	9,925.00	3,129.40	345.54	3,127.74	0.00	0.00	0.00
13,000.00	90.00	359.73	9,925.00	3,229.40	345.07	3,227.74	0.00	0.00	0.00
13,100.00	90.00	359.73	9,925.00	3,329.40	344.60	3,327.74	0.00	0.00	0.00
13,200.00	90.00	359.73	9,925.00	3,429.40	344.13	3,427.74	0.00	0.00	0.00
13,300.00	90.00	359.73	9,925.00	3,529.40	343.66	3,527.74	0.00	0.00	0.00
13,400.00	90.00	359.73	9,925.00	3,629.40	343.19	3,627.74	0.00	0.00	0.00
13,500.00	90.00	359.73	9,925.00	3,729.39	342.72	3,727.74	0.00	0.00	0.00
13,600.00	90.00	359.73	9,925.00	3,829.39	342.25	3,827.74	0.00	0.00	0.00
13,700.00	90.00	359.73	9,925.00	3,929.39	341.78	3,927.74	0.00	0.00	0.00
13,800.00	90.00	359.73	9,925.00	4,029.39	341.31	4,027.74	0.00	0.00	0.00
13,900.00	90.00	359.73	9,925.00	4,129.39	340.84	4,127.74	0.00	0.00	0.00
14,000.00	90.00	359.73	9,925.00	4,229.39	340.37	4,227.74	0.00	0.00	0.00
14,100.00	90.00	359.73	9,925.00	4,329.39	339.90	4,327.74	0.00	0.00	0.00
14,200.00	90.00	359.73	9,925.00	4,429.39	339.43	4,427.74	0.00	0.00	0.00
14,300.00	90.00	359.73	9,925.00	4,529.39	338.96	4,527.74	0.00	0.00	0.00
14,400.00	90.00	359.73	9,925.00	4,629.38	338.49	4,627.74	0.00	0.00	0.00
14,500.00	90.00	359.73	9,925.00	4,729.38	338.02	4,727.74	0.00	0.00	0.00
14,600.00	90.00	359.73	9,925.00	4,829.38	337.55	4,827.74	0.00	0.00	0.00
14,700.00	90.00	359.73	9,925.00	4,929.38	337.08	4,927.74	0.00	0.00	0.00
14,800.00	90.00	359.73	9,925.00	5,029.38	336.61	5,027.74	0.00	0.00	0.00
14,900.00	90.00	359.73	9,925.00	5,129.38	336.14	5,127.74	0.00	0.00	0.00
15,000.00	90.00	359.73	9,925.00	5,229.38	335.67	5,227.74	0.00	0.00	0.00
15,100.00	90.00	359.73	9,925.00	5,329.38	335.20	5,327.74	0.00	0.00	0.00
15,200.00	90.00	359.73	9,925.00	5,429.38	334.73	5,427.74	0.00	0.00	0.00
15,300.00	90.00	359.73	9,925.00	5,529.37	334.26	5,527.74	0.00	0.00	0.00
15,400.00	90.00	359.73	9,925.00	5,629.37	333.79	5,627.74	0.00	0.00	0.00
15,500.00	90.00	359.73	9,925.00	5,729.37	333.32	5,727.74	0.00	0.00	0.00
15,600.00	90.00	359.73	9,925.00	5,829.37	332.85	5,827.74	0.00	0.00	0.00
15,700.00	90.00	359.73	9,925.00	5,929.37	332.38	5,927.74	0.00	0.00	0.00
15,800.00	90.00	359.73	9,925.00	6,029.37	331.92	6,027.74	0.00	0.00	0.00
15,900.00	90.00	359.73	9,925.00	6,129.37	331.45	6,127.74	0.00	0.00	0.00
16,000.00	90.00	359.73	9,925.00	6,229.37	330.98	6,227.74	0.00	0.00	0.00
16,100.00	90.00	359.73	9,925.00	6,329.37	330.51	6,327.74	0.00	0.00	0.00
16,200.00	90.00	359.73	9,925.00	6,429.36	330.04	6,427.74	0.00	0.00	0.00
16,300.00	90.00	359.73	9,925.00	6,529.36	329.57	6,527.74	0.00	0.00	0.00
16,400.00	90.00	359.73	9,925.00	6,629.36	329.10	6,627.74	0.00	0.00	0.00
16,500.00	90.00	359.73	9,925.00	6,729.36	328.63	6,727.74	0.00	0.00	0.00
16,600.00	90.00	359.73	9,925.00	6,829.36	328.16	6,827.74	0.00	0.00	0.00
16,700.00	90.00	359.73	9,925.00	6,929.36	327.69	6,927.74	0.00	0.00	0.00
16,800.00	90.00	359.73	9,925.00	7,029.36	327.22	7,027.74	0.00	0.00	0.00
16,900.00	90.00	359.73	9,925.00	7,129.36	326.75	7,127.74	0.00	0.00	0.00
17,000.00	90.00	359.73	9,925.00	7,229.36	326.28	7,227.74	0.00	0.00	0.00
17,100.00	90.00	359.73	9,925.00	7,329.35	325.81	7,327.74	0.00	0.00	0.00
17,200.00	90.00	359.73	9,925.00	7,429.35	325.34	7,427.74	0.00	0.00	0.00
17,300.00	90.00	359.73	9,925.00	7,529.35	324.87	7,527.74	0.00	0.00	0.00

Database:	EDM 5000.1.13 Single User Db	**Local Co-ordinate Reference:**	Well #108H
Company:	XTO Energy	**TVD Reference:**	Ref GL @ 2941.00usft
Project:	Eddy County, NM (NAD-27)	**MD Reference:**	Ref GL @ 2941.00usft
Site:	Corral Canyon 5-32 Fed	**North Reference:**	Grid
Well:	#108H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	PERMIT		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,400.00	90.00	359.73	9,925.00	7,629.35	324.40	7,627.74	0.00	0.00	0.00
17,500.00	90.00	359.73	9,925.00	7,729.35	323.93	7,727.74	0.00	0.00	0.00
17,546.65	90.00	359.73	9,925.00	7,776.00	323.71	7,774.39	0.00	0.00	0.00
17,600.00	90.00	359.73	9,925.00	7,829.35	323.46	7,827.74	0.00	0.00	0.00
17,676.65	90.00	359.73	9,925.00	7,906.00	323.10	7,904.39	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
CC532Fed#108H: SH - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	418,934.00	603,229.60	32.1513268	-103.9997807
CC532Fed#108H: LTI - plan misses target center by 0.11usft at 17546.65usft MD (9925.00 TVD, 7776.00 N, 323.71 E) - Point	0.00	0.00	9,925.00	7,776.00	323.60	426,710.00	603,553.20	32.1727001	-103.9986570
CC532Fed#108H: FT - plan hits target center - Point	0.00	0.00	9,925.00	497.40	357.90	419,431.40	603,587.50	32.1526911	-103.9986193
CC532Fed#108H: PB - plan hits target center - Point	0.00	0.00	9,925.00	7,906.00	323.10	426,840.00	603,552.70	32.1730574	-103.9986573

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
228.00	228.00	RUSTLER			
627.00	627.00	SALADO			
2,667.00	2,667.00	BASE SALT			
2,853.00	2,853.00	DELAWARE			
3,758.00	3,758.00	CHERRY CANYON			
5,371.00	5,371.00	BRUSHY CANYON			
6,622.41	6,619.00	BONE SPRING			
7,553.96	7,547.00	1ST BONE SPRING SAND			
7,797.89	7,790.00	2ND BONE SPRING CARBONATE			
8,360.03	8,350.00	2ND BONE SPRING SAND			
8,618.02	8,607.00	3RD BONE SPRING CARBONATE			
9,449.44	9,435.00	3RD BONE SPRING SAND			
9,891.28	9,806.00	WOLFCAMP			
10,267.97	9,925.00	LP			

APD ID: 10400045679 **Submission Date:** 08/13/2019

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Well Type: CONVENTIONAL GAS WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

CC_5_32_108H_Road_20190809104006.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:

CC_5_32_Road_20190809102331.pdf

New road type: LOCAL,RESOURCE

Length: 3462.36 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 3

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

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

New road access plan or profile prepared? N

New road access plan attachment:

Access road engineering design? N

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: A. The Corral Canyon 8-32 Federal & Corral Canyon 5-32 Federal development area is accessed from the intersection of highway 285 (Pecos Hwy) and Whitehorn Road. Go Northeast on Whitehorn Road approximately 2.4 miles. Turn slight left (Northeast) onto Longhorn Road and go approximately 1.8 miles. Turn left (Northeast) onto Pipeline Road Number 1 and go approximately 1.8 miles. Turn left (north) on lease road and go approximately 3.5 miles to a Y intersection. Keep left (east/Southeast) on lease road and go approximately .25 miles. Turn left (Southeast) on lease road and go approximately .5 miles, arriving at the proposed road. Location is to the West.
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:

CC_5_32_1_Mile_20190809102344.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. Two pads were staked with the BLM for construction and use as Central Tank Batteries (CTB). The Northern most facility is the Corral Canyon 8-32 Fed CTBN, is 400x450 located in Section 8-26S-29E NMPM, Eddy County, New Mexico. The Southernmost facility is the Corral Canyon 8-32 Fed CTBS, is 500x450, and is located in Section 8-26S-29E, NMPM, Eddy County, New Mexico. Centerpoint: 1650x1821FEL, 8-25S-29E. Plats of the proposed facilities are attached. Only the area necessary to maintain facilities will be disturbed. Due to air permitting timeframes and anticipated reserves, two facilities are anticipated to be necessary for full area development. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. Flowlines. In the event the Corral Canyon 8-32 wells are found productive, twenty (20) 8 or less buried composite flexpipe or steel flowlines with a maximum safety pressure rating of 1400psi (operating pressure: 750 psi) for transport of oil, gas and water will be required to the CC 8-32 CTB1 & CC 5-32 CTB1. If XTO Energy, Inc. decides to run surface lines, twenty (20) 4 or less buried composite flexpipe or steel flowlines with a max. safety psi rating of 750 (op. psi: 125psi) for transport of oil, gas and water will be required to the CC 8-32 CTB1 & CC 5-32 CTB1. An additional twenty (20) 10 or less buried high pressure lines with a maximum safety pressure rating of 1400psi (operating pressure: 750psi) for transport of gas for gas lift, fuel gas and water is requested to the CC 8-32 CTB1 & CC 5-32 CTB1. All proposed flowlines will be 4135.66 or less per well based on the location of the pad in conjunction with the facility location. No additional flowlines are requested for the Corral Canyon 5-32 wells. Flowlines will be requested via 3160-5 once XTO determines which battery production will be going to after surface commingling is assessed. Gas & Oil Pipeline. A gas purchaser has been identified and will be building separately to the Corral Canyon 8-32 & Corral Canyon 5-32 CTBs in this application. Disposal Facilities. Produced water will be piped from location to a 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. There will be 2 flares associated with the Corral Canyon 8-32 & 5-32 Federal project. The second flare stack will be associated with the Corral Canyon 8-32 CTBN, be 40x40, connected via a 133.17 buried steel flare line with a maximum safety pressure rating of 125psi (operating pressure: 25psi. A 30 ROW is requested for the flare line. The second flare stack will be associated with the Corral Canyon 8-32 CTBS, be 40x40, connected via a 130.03 buried steel flare line with a maximum safety pressure rating of 125psi (operating pressure: 25psi. A 30 ROW is requested for the flare line. Plat of the flare pad and line are attached. 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 times the capacity of the largest tank and away from cut or fill areas. Electrical. All lines will be primary 12,740 volt to properly run expected production equipment. 5942.76 of electrical will be run from the anticipated tie-in point with a request for 30 ROW construction and maintenance buffer. This distance is a max. approximation and may vary based on lease road corridors, varying elevations and terrain in the area. A plat of the proposed electrical is attached.

Production Facilities map:

CC_5_32_CTBN_20190809102401.pdf
CC_5_32_CTBS_20190809102408.pdf
CC_5_32_FL_20190809102414.pdf
CC_5_32_OHE_20190809102422.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Fresh Water 27-25S-30E

Water source use type: SURFACE CASING
INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE
TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: STATE

Water source volume (barrels): 200000 **Source volume (acre-feet):** 25.77861927

Source volume (gal): 8400000

Water source type: OTHER

Describe type: Fresh Water, Section 6-25S-29E

Water source use type: SURFACE CASING
INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE
TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 200000 **Source volume (acre-feet):** 25.77861927

Source volume (gal): 8400000

Water source type: null

Water source use type:

Source latitude: **Source longitude:**

Source datum:

Water source permit type: null

Water source transport method: null

Source land ownership:

Source transportation land ownership:

Water source volume (barrels): **Source volume (acre-feet):**

Source volume (gal):

Water source type: GW WELL

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:

CC_5_32_108H_Wtr_20190809104031.pdf

Water source comments:

New water well? N

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

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 17-T25S-R30E Pit 2: Federal Caliche Pit, Section 34-T25S-R29E

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 ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

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.

Reserve Pit

Reserve Pit being used? N

Temporary disposal of produced water into reserve pit? NO

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? 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?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

CC_5_32_108H_Well_20190809104055.pdf

Comments: Multi-Well Pad

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: CC 5-32 Fed

Multiple Well Pad Number: 4

Recontouring attachment:

CC_5_32_Fed_Int_Rec1_20190809102251.pdf
CC_5_32_Fed_Int_Rec2_20190809102257.pdf
CC_5_32_Fed_Int_Rec3_20190809102301.pdf
CC_5_32_Fed_Int_Rec4_20190809102307.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): 22.96
Road proposed disturbance (acres): 2.38
Powerline proposed disturbance (acres): 4.09
Pipeline proposed disturbance (acres): 2.85
Other proposed disturbance (acres): 9.48
Total proposed disturbance: 41.760000000000005

Well pad interim reclamation (acres): 7.88
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 7.88

Well pad long term disturbance (acres): 15.08
Road long term disturbance (acres): 2.38
Powerline long term disturbance (acres): 4.09
Pipeline long term disturbance (acres): 2.35
Other long term disturbance (acres): 9.48
Total long term disturbance: 33.38

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) plan 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: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Soil area is a combination of Pajarito-Dune land complex, loamy sand with 0-3% slopes, and Potter-Simona complex, shallow sandy soil with 5 to 25% slopes. These soils support grassland dominated by black grama throughout with dropseeds and bluestems more prevalent in the loamier areas. The areas with shallower soil have fewer shrubs and more litter cover with shrubs such as sand sage, shinnery oak and mesquite appearing as the soil presents more loam. Other vegetation such as creosote, mesquite, catclaw, snakeweed, and soapweed yucca grow within the area.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary	
Seed Type	**Pounds/Acre**

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

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? N

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:

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:

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: OTHER

Describe: CTB

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

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: OHE

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:**

Operator Name: XTO ENERGY INCORPORATED

Well Name: CORRAL CANYON 5-32 FEDERAL **Well Number:** 108H

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:

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? Y **Use APD as ROW?** Y

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

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: PRESENT AT ON-SITE: Bobby Ballard, BLM NRS Supervisor Fernano Banos, BLM NRS Jimie Scott, Construction Foreman FSC, Inc., Surveyors

Other SUPO Attachment

CC_5_32_SUPO_20191231101801.pdf