RECEIVED

RECEIVED

Form 3160-3
(June 2015)

JAN 03 2020

JAN 9 3

DISTRICT I-ARTESIA O.C.D.

DISTRICT I-ARTESIA O.C.D.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NMNM0556857

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.
NASH / NMNM070992X

8. Lease Name and Well No.
NASH UNIT
304H
303152

2. Name of Operator
XTO ENERGY INCORPORATED

9. API Well No.
30-015-46583

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory
2277 Springwoods Village Parkway Spring TX 77389	(432)620-6700	FORTY NINER RIDGE BONE SPRING 96526

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface LOT 4 / 470 FSL / 405 FWL / LAT 32.299031 / LONG -103.928342

At proposed prod. zone LOT 4 / 200 FNL / 330 FWL / LAT 32.340971 / LONG -103.928624

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 18 / T23S / R30E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
	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
480 feet	200.47	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
50 feet	10258 feet / 25714 feet	FED: UTB000138

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
3018 feet	05/01/2019	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	11/02/2018

Title
Regulatory Coordinator

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	09/30/2019

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: 09/30/2019

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

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

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

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

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the 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.

(Continued on page 3)

Additional Operator Remarks

Location of Well

1. SHL: LOT 4 / 470 FSL / 405 FWL / TWSP: 23S / RANGE: 30E / SECTION: 18 / LAT: 32.299031 / LONG: -103.928342 (TVD: 0 feet, MD: 0 feet)
   PPP: LOT 4 / 660 FSL / 330 FWL / TWSP: 23S / RANGE: 30E / SECTION: 18 / LAT: 32.299554 / LONG: -103.928586 (TVD: 10258 feet, MD: 10800 feet)
   PPP: LOT 2 / 1980 FNL / 330 FWL / TWSP: 23S / RANGE: 30E / SECTION: 18 / LAT: 32.30651 / LONG: -103.92759 (TVD: 10258 feet, MD: 12900 feet)
   BHL: LOT 4 / 200 FNL / 330 FWL / TWSP: 23S / RANGE: 30E / SECTION: 6 / LAT: 32.340971 / LONG: -103.928624 (TVD: 10258 feet, MD: 25714 feet)

BLM Point of Contact

Name: Tenille Ortiz
Title: Legal Instruments Examiner
Phone: 5752342224
Email: tortiz@blm.gov

Approval Date: 09/30/2019

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 Incorporated**
LEASE NO.:	**NMNM-0556857**
WELL NAME & NO.:	**Nash Unit 304H**
SURFACE HOLE FOOTAGE:	**0470' FSL & 0405' FWL**
BOTTOM HOLE FOOTAGE	**0200' FNL & 0330' FWL Sect. 06, T. 23 S., R 30 E.**
LOCATION:	**Section 18, T. 23 S., R 30 E., NMPM**
COUNTY:	**County, New Mexico**

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

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

A. DRILLING OPERATIONS REQUIREMENTS

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

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

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

1. **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.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

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

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

B. **CASING**

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

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

Wait on cement (WOC) for Potash Areas:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

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

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

R-111-P-Potash
High Cave/Karst
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler, Delaware, and Bone Spring Lime.

A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH.IF THE PRIMARY CEMENT JOB ON THE SURFACE CASING DOES NOT CIRCULATE, THEN THE NEXT TWO CASING STRINGS MUST BE CEMENTED TO SURFACE.

1. The **18-5/8** inch surface casing shall be set at approximately **385** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

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

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash. Excess calculates to negative 16% - Additional cement will be required.**

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

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

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

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

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

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

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

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

C. PRESSURE CONTROL

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

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.

    a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

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

    a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

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

c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

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

e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

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

E. 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 080719

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	XTO ENERGY INCORPORATED
LEASE NO.:	NMNM017056
WELL NAME & NO.:	201H- NASH UNIT
SURFACE HOLE FOOTAGE:	90'/N & 580'/E
BOTTOM HOLE FOOTAGE	1120'/S & 355'/E
LOCATION:	Section.19.,T23S., R.30E., NMP
COUNTY:	EDDY County, New Mexico

TABLE OF CONTENTS

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

Approval Date: 11/20/2018

Approval Date: 09/30/2019

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

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

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Cave/Karst Surface Mitigation

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

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

- 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. (Any 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 Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be 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.

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. Leak detection plan will be submitted to BLM for approval.

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 ground water concerns:

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:

Kick off 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 from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, 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:

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

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.

FLOWLINES (SURFACE):

- Flowlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize the possibility of leaks and spills from entering karst systems.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Hydrology:

The entire 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 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

AFMSS

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

Application Data Report
12/16/2019

APD ID: 10400035912
Submission Date: 11/02/2018
Operator Name: XTO ENERGY INCORPORATED
Well Name: NASH UNIT
Well Number: 304H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400035912
Tie to previous NOS?
Submission Date: 11/02/2018
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: NMNM0556857
Lease Acres: 200.47
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? YES
Federal or Indian agreement: FEDERAL
Agreement number: NMNM070992X
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: NASH UNIT
Well Number: 304H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: FORTY NINER RIDGE BONE SPRING
Pool Name:
Is the proposed well in an area containing other mineral resources? USEABLE WATER,POTASH

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,POTASH

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** NASH UNIT **Number:** 7

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: DELINEATION

Describe sub-type:

Distance to town: **Distance to nearest well:** 50 FT **Distance to lease line:** 480 FT

Reservoir well spacing assigned acres Measurement: 480 Acres

Well plat: Nash_Unit_304H_C102_20181102064638.pdf

Well work start Date: 05/01/2019 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce
SHL Leg #1	470	FSL	405	FWL	23S	30E	18	Lot 4	32.299031	-103.928342	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 0556857	3018	0	0	
KOP Leg #1	470	FSL	405	FWL	23S	30E	18	Lot 4	32.299031	-103.928342	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 0556857	-5182	8200	8200	
PPP Leg #1-1	1980	FNL	330	FWL	23S	30E	18	Lot 2	32.30651	-103.92759	EDDY	NEW MEXICO	NEW MEXICO	S	STATE	-7240	12900	10258	

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

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
PPP Leg #1-2	660	FSL	330	FWL	23S	30E	18	Lot 4	32.299554	-103.928586	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 0556857	-7240	10800	10258	
EXIT Leg #1	330	FNL	330	FWL	23S	30E	6	Lot 4	32.340614	-103.928624	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 019246	-7240	25600	10258	
BHL Leg #1	200	FNL	330	FWL	23S	30E	6	Lot 4	32.340971	-103.928624	EDDY	NEW MEXICO	NEW MEXICO	F	NMNM 019246	-7240	25714	10258	

APD ID: 10400035912 **Submission Date:** 11/02/2018

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	PERMIAN	3018	0	0	OTHER : Quaternary	NONE	N
2	RUSTLER	2739	281	281	SILTSTONE	USEABLE WATER	N
3	TOP SALT	2644	376	376	SALT	OTHER,POTASH : Produced Water	N
4	BASE OF SALT	-139	3159	3159	SALT	OTHER : Produced Water	N
5	DELAWARE	-365	3385	3385	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
6	CHERRY CANYON	-1220	4240	4240	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
7	BRUSHY CANYON	-2835	5855	5855	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
8	BONE SPRING	-4122	7142	7142	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
9	BONE SPRING 1ST	-5140	8160	8160	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	N
10	BONE SPRING 2ND	-5512	8532	8532	SANDSTONE	OTHER,NATURAL GAS,OIL : Produced Water	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 10258

Equipment: The blow out preventer equipment (BOP) for this well consists of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 3M 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.

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 3M BOP diagram is attached. Blind rams will be function tested each trip, pipe rams will be function tested each day.

Choke Diagram Attachment:

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Nash_Unit_3MCM_20180615214028.pdf

BOP Diagram Attachment:

Nash_Unit_3MBOP_20180615214038.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	20	18.625	NEW	API	N	0	385	0	385			385	H-40	87.5	ST&C	1.46	1.72	DRY	7.93	DRY	7.93
2	INTERMEDIATE	17.5	13.375	NEW	API	N	0	3350	0	3350			3350	J-55	68	BUTT	1.85	1.69	DRY	5	DRY	5
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	7100	0	7100			7100	J-55	40	LT&C	1.24	1.55	DRY	1.78	DRY	1.78
4	PRODUCTION	8.75	5.5	NEW	API	N	0	25714	0	10258			25714	P-110	17	BUTT	1.73	1.12	DRY	2.13	DRY	2.13

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Nash_Unit_304H_Csg_20181102064302.pdf

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Nash_Unit_304H_Csg_20181102064314.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Nash_Unit_304H_Csg_20181102064327.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Nash_Unit_304H_Csg_20181102064336.pdf

Section 4 - Cement

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	385	390	1.35	14.8	526.5	100	HalCem-C	2% CaCL
INTERMEDIATE	Lead		0	3350	880	1.92	12.8	1689.6	100	EconoCem	+ 5% salt + 5% Kol-Seal
INTERMEDIATE	Tail				235	1.33	14.8	312.55	100	HalCem-C	none
INTERMEDIATE	Lead		0	7100	1810	1.92	9.96	3475.2	100	EconoCem	+ 5% salt + 5% Kol-Seal
INTERMEDIATE	Tail				511	1.33	14.8	679.63	100	HalCem-C	none
PRODUCTION	Lead		0	25714	1050	2.81	11	2948.4	30	NeoCem	None
PRODUCTION	Tail				4130	1.4	13.2	5782	50	HalCem-H	+ 0.5% LAP-1 + 0.25% CFR-3 + 5 pps Kol-Seal + 0.25 pps D-air 5000

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: 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

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	385	OTHER : FW/Native	8.5	8.8							A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system
7100	10258	OIL-BASED MUD	8.7	9.2							
385	3350	OTHER : Brine/Gel Sweeps	9.8	10.2							
3350	7100	OTHER : OBM	8.7	9.2							

Section 6 - Test, Logging, Coring

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

Open hole logging to include Density/Neutron/PE/Dual Laterlog/Spectral Gamma from kick-off point to intermediate casing shoe.

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

CBL,CNL,DS,GR

Coring operation description for the well:

No coring will take place on this well.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4907 **Anticipated Surface Pressure:** 2907.42

Anticipated Bottom Hole Temperature(F): 160

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

Describe:

Potential loss of circulation through the Capitan Reef.

Contingency Plans geoharzards description:

The necessary mud products for weight addition and fluid loss control will be on location at all times.A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down

after mud up. Rig up solids control equipment to operate as a closed loop system. Lost circulation could occur but is not expected to be a serious problem in this area and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Nash_Unit_H2S_Plan_20180615214116.pdf

Nash_Unit_H2S_Dia_P2_20180615214125.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Nash_Unit_304H_DD_20181102064524.pdf

Other proposed operations facets description:

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.

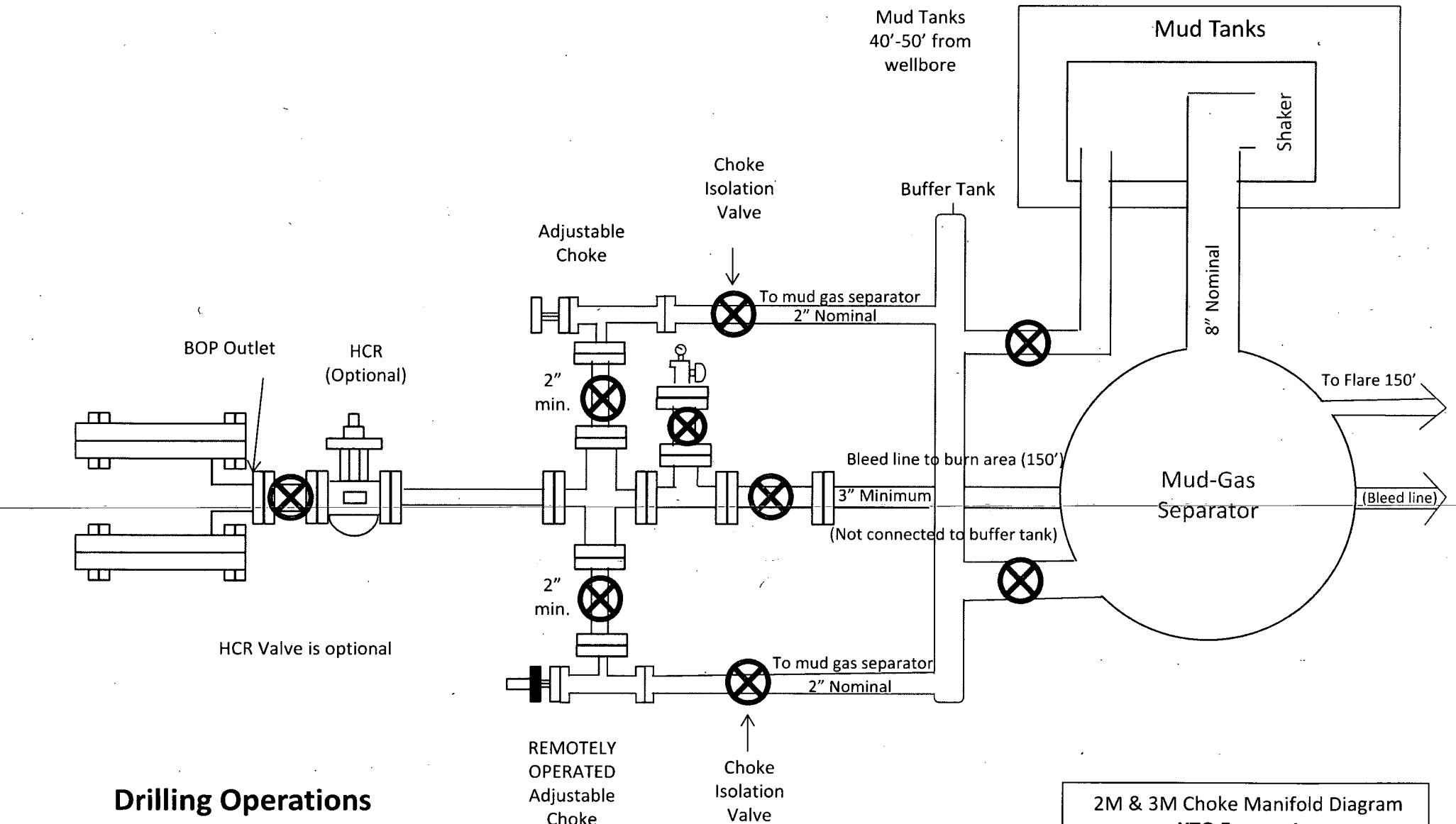
XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.

Other proposed operations facets attachment:

Nash_Unit_304H_GCP_20181102064534.pdf

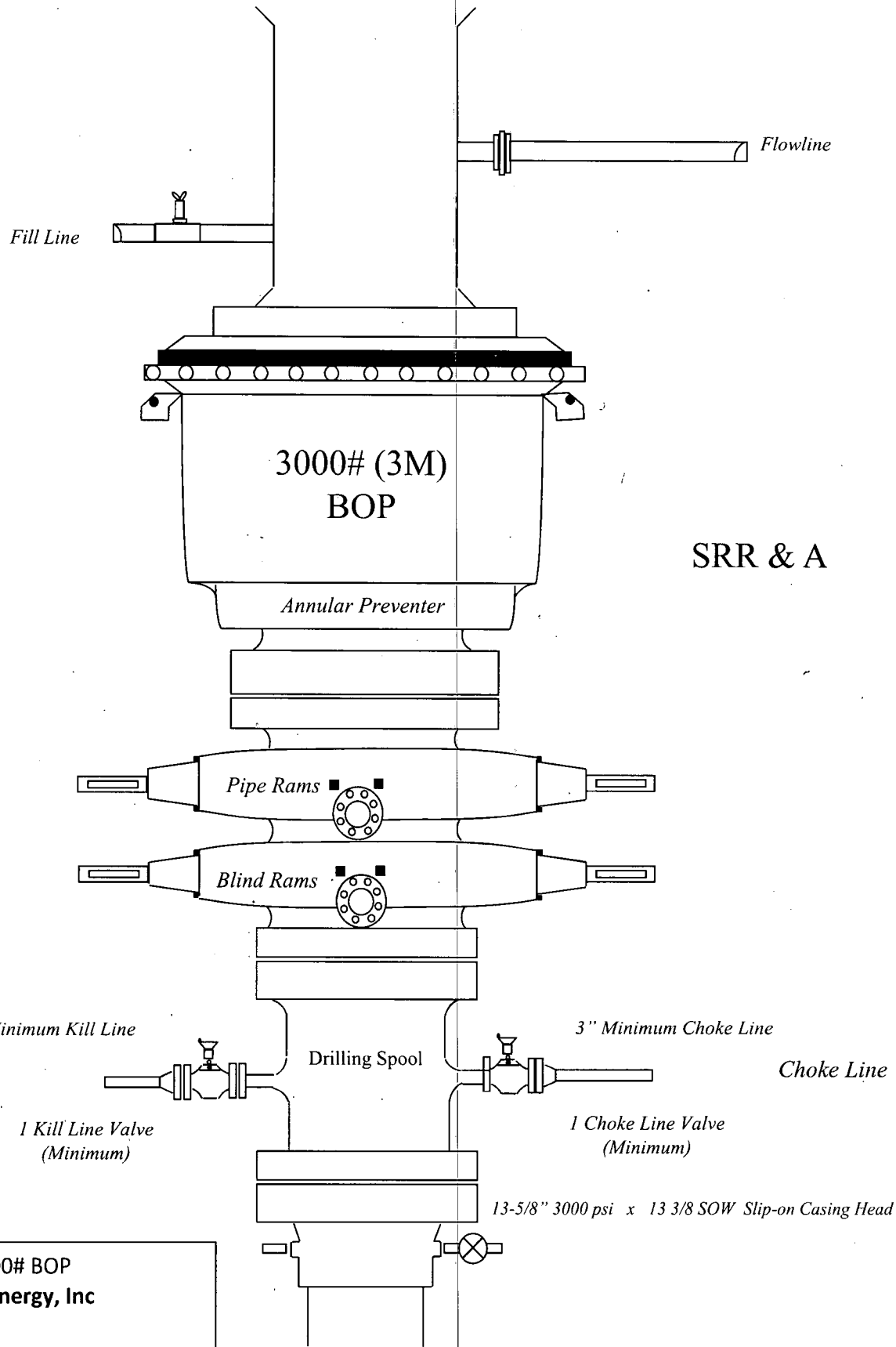
Other Variance attachment:

Nash_Unit_FH_20180615214401.pdf



Drilling Operations
Choke Manifold
2M & 3M Service

2M & 3M Choke Manifold Diagram
XTO Energy, Inc



SRR & A

3000# BOP
XTO Energy, Inc

XTO Energy Inc.
Nash Unit 203H
Projected TD: 25171' MD / 9051' TVD
SHL: 610' FNL & 1905' FEL, SECTION 19, T23S, R30E
BHL: 200' FNL & 1650' FEL, SECTION 6, T23S, R30E
Eddy County, NM

1. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	48#	STC	H-40	New	9.82	8.27	13.71
12-1/4"	0'–7100'	9-5/8"	36#	LTC	J-55	New	3.34	1.92	4.21
8-3/4"	0' – 25171'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

XTO Energy Inc.
Nash Unit 203H
Projected TD: 25171' MD / 9051' TVD
SHL: 610' FNL & 1905' FEL, SECTION 19, T23S, R30E
BHL: 200' FNL & 1650' FEL, SECTION 6, T23S, R30E
Eddy County, NM

1. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	48#	STC	H-40	New	9.82	8.27	13.71
12-1/4"	0'–7100'	9-5/8"	36#	LTC	J-55	New	3.34	1.92	4.21
8-3/4"	0' – 25171'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

XTO Energy Inc.
Nash Unit 202H
Projected TD: 21061' MD / 9312' TVD
SHL: 90' FNL & 630' FEL, SECTION 19, T23S, R30E
BHL: 1120' FSL & 990' FEL, SECTION 6, T23S, R30E
Eddy County, NM

1. CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	48#	STC	H-40	New	9.82	8.27	13.71
12-1/4"	0'–7100'	9-5/8"	36#	LTC	J-55	New	3.34	1.92	4.21
8-3/4"	0' – 21061'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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

XTO Energy Inc.
Nash Unit 207H
Projected TD: 24354' MD / 8918' TVD
SHL: 480' FSL & 1320' FWL, SECTION 18, T23S, R30E
BHL: 200' FNL & 990' FWL, SECTION 6, T23S, R30E
Eddy County, NM

CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0' – 3350'	13-3/8"	68	BTC	J-55	New	1.69	1.85	5.00
12-1/4"	0' – 7310'	9-5/8"	40	LTC	J-55	New	1.55	1.24	1.78
8-3/4"	0' – 24354'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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

XTO Energy Inc.
Nash Unit 208H
Projected TD: 24518' MD / 9089' TVD
SHL: 470' FSL & 455' FWL, SECTION 18, T23S, R30E
BHL: 200' FNL & 330' FWL, SECTION 6, T23S, R30E
Eddy County, NM

CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	68#	BTC	J-55	New	1.69	1.85	5
12-1/4"	0'–7100'	9-5/8"	40#	LTC	J-55	New	1.55	1.24	1.78
8-3/4"	0' – 24518'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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

XTO Energy Inc.
Nash Unit 304H
Projected TD: 25714' MD / 10258' TVD
SHL: 470' FSL & 405' FWL, SECTION 18, T23S, R30E
BHL: 200' FNL & 330' FWL, SECTION 6, T23S, R30E
Eddy County, NM

CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	68#	BTC	J-55	New	1.69	1.85	5
12-1/4"	0'–7100'	9-5/8"	40#	LTC	J-55	New	1.55	1.24	1.78
8-3/4"	0' – 25714'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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

XTO Energy Inc.
Nash Unit 304H
Projected TD: 25714' MD / 10258' TVD
SHL: 470' FSL & 405' FWL, SECTION 18, T23S, R30E
BHL: 200' FNL & 330' FWL, SECTION 6, T23S, R30E
Eddy County, NM

CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	68#	BTC	J-55	New	1.69	1.85	5
12-1/4"	0'–7100'	9-5/8"	40#	LTC	J-55	New	1.55	1.24	1.78
8-3/4"	0' – 25714'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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

XTO Energy Inc.
Nash Unit 304H
Projected TD: 25714' MD / 10258' TVD
SHL: 470' FSL & 405' FWL, SECTION 18, T23S, R30E
BHL: 200' FNL & 330' FWL, SECTION 6, T23S, R30E
Eddy County, NM

CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	68#	BTC	J-55	New	1.69	1.85	5
12-1/4"	0'–7100'	9-5/8"	40#	LTC	J-55	New	1.55	1.24	1.78
8-3/4"	0' – 25714'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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

XTO Energy Inc.
Nash Unit 304H
Projected TD: 25714' MD / 10258' TVD
SHL: 470' FSL & 405' FWL, SECTION 18, T23S, R30E
BHL: 200' FNL & 330' FWL, SECTION 6, T23S, R30E
Eddy County, NM

CASING PROGRAM:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
20"	0'-385'	18-5/8"	87.5#	STC	H-40	New	1.72	1.46	7.93
17-1/2"	0'–3350'	13-3/8"	68#	BTC	J-55	New	1.69	1.85	5
12-1/4"	0'–7100'	9-5/8"	40#	LTC	J-55	New	1.55	1.24	1.78
8-3/4"	0' – 25714'	5-1/2"	17#	BTC	P-110	New	1.12	1.73	2.13

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 2/3 evacuation used as per offset drilling data.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

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.
   - Manufacturer will witness installation of test plug for initial test.
   - Operator will test the 9-5/8" casing to 70% of casing burst before drilling out.

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
  - Detection of H_2S, and
  - Measures for protection against the gas,
  - 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

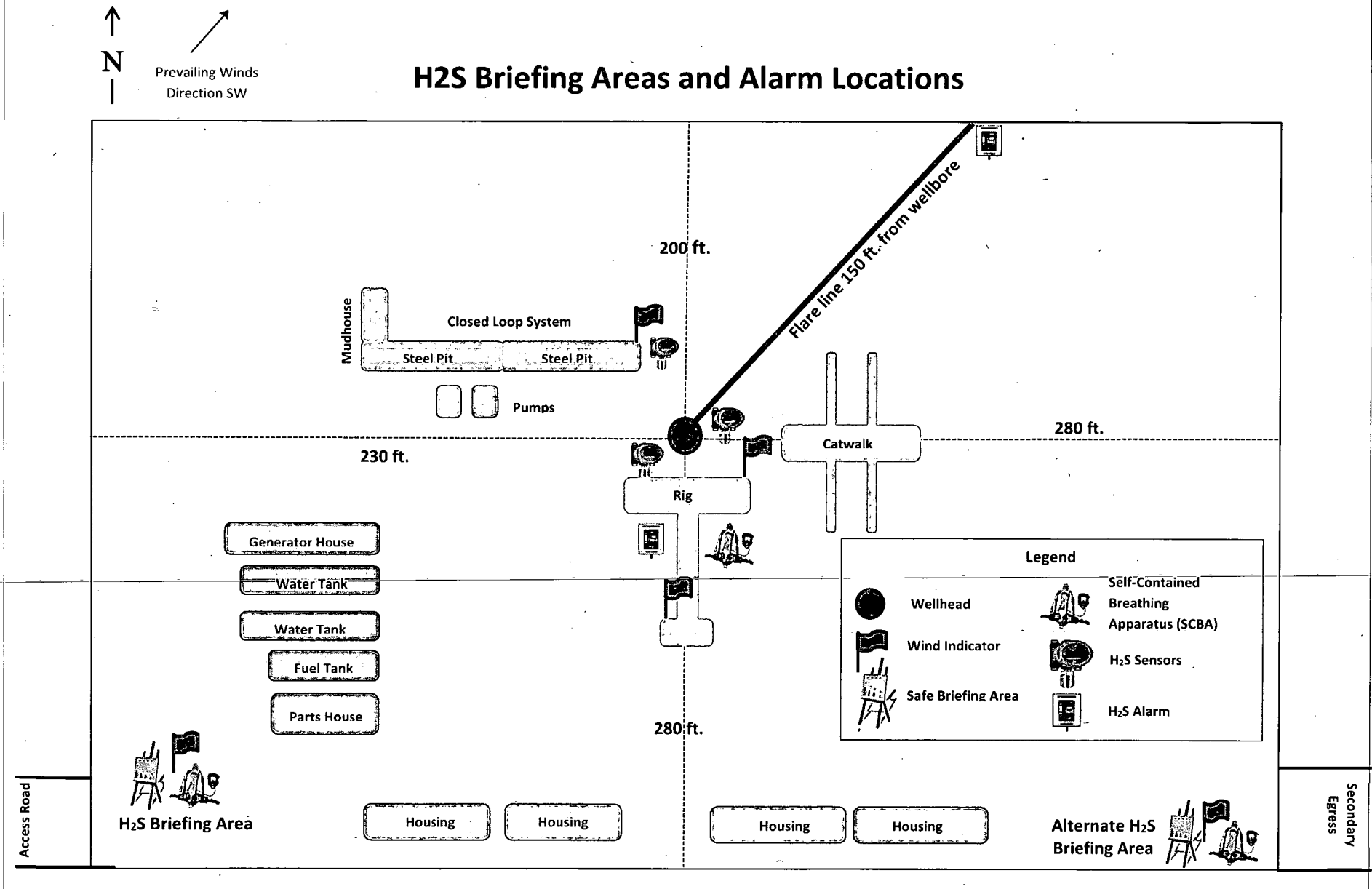
Contacting Authorities

XTO Energy, Inc. 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 Energy, Inc. 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

H2S Briefing Areas and Alarm Locations



XTO Energy Inc.

HALLIBURTON
Sperry Drilling

Project: Eddy County, NM (NAD27)
Site: Nash Unit
Well: Nash Unit 304H
Wellbore: Wellbore #1
Plan: Plan 1
Rig: KB (+25ft)

SURFACE LOCATION

US State Plane 1927 (Exact solution)
New Mexico East 3001
Elevation: GL3017+25ft @ 3043.00usft (KB (+25ft))

Northing	Easting	Latittude	Longitude
472696.90	625288.00	32° 17' 56.073 N	103° 55' 40.268 W

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

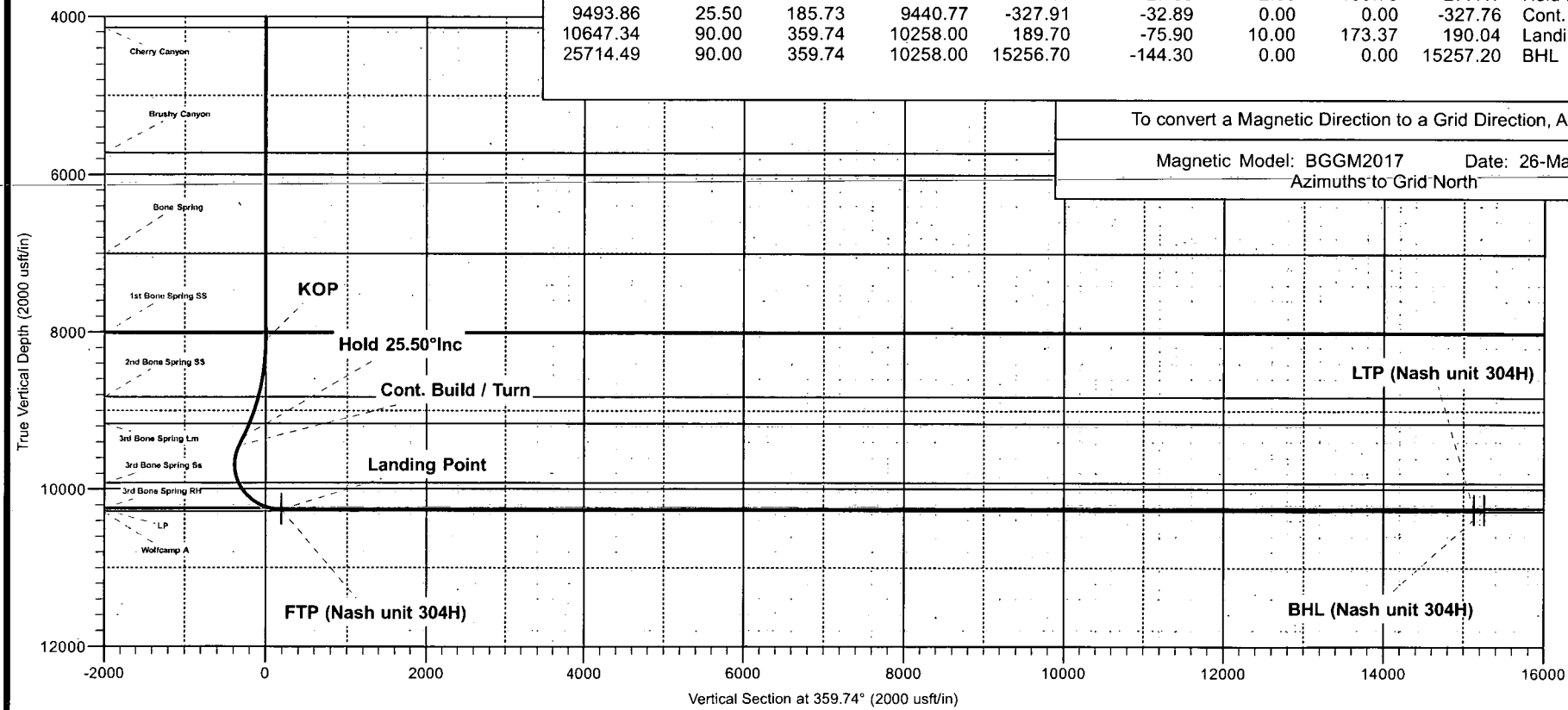
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL (Nash unit 304H)	10258.00	15256.70	-144.30	487953.60	625143.70	32° 20' 27.058 N	103° 55' 41.277 W
FTP (Nash unit 304H)	10258.00	189.70	-75.90	472886.60	625212.10	32° 17' 57.953 N	103° 55' 41.144 W
LTP (Nash unit 304H)	10258.00	15126.80	-143.70	487823.70	625144.30	32° 20' 25.773 N	103° 55' 41.275 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8101.59	0.00	0.00	8101.59	0.00	0.00	0.00	0.00	0.00	KOP
9376.41	25.50	185.73	9334.75	-277.60	-27.85	2.00	185.73	-277.47	Hold 25.50°Inc
9493.86	25.50	185.73	9440.77	-327.91	-32.89	0.00	0.00	-327.76	Cont. Build / Turn
10647.34	90.00	359.74	10258.00	189.70	-75.90	10.00	173.37	190.04	Landing Point
25714.49	90.00	359.74	10258.00	15256.70	-144.30	0.00	0.00	15257.20	BHL

To convert a Magnetic Direction to a Grid Direction, Add 6.98°

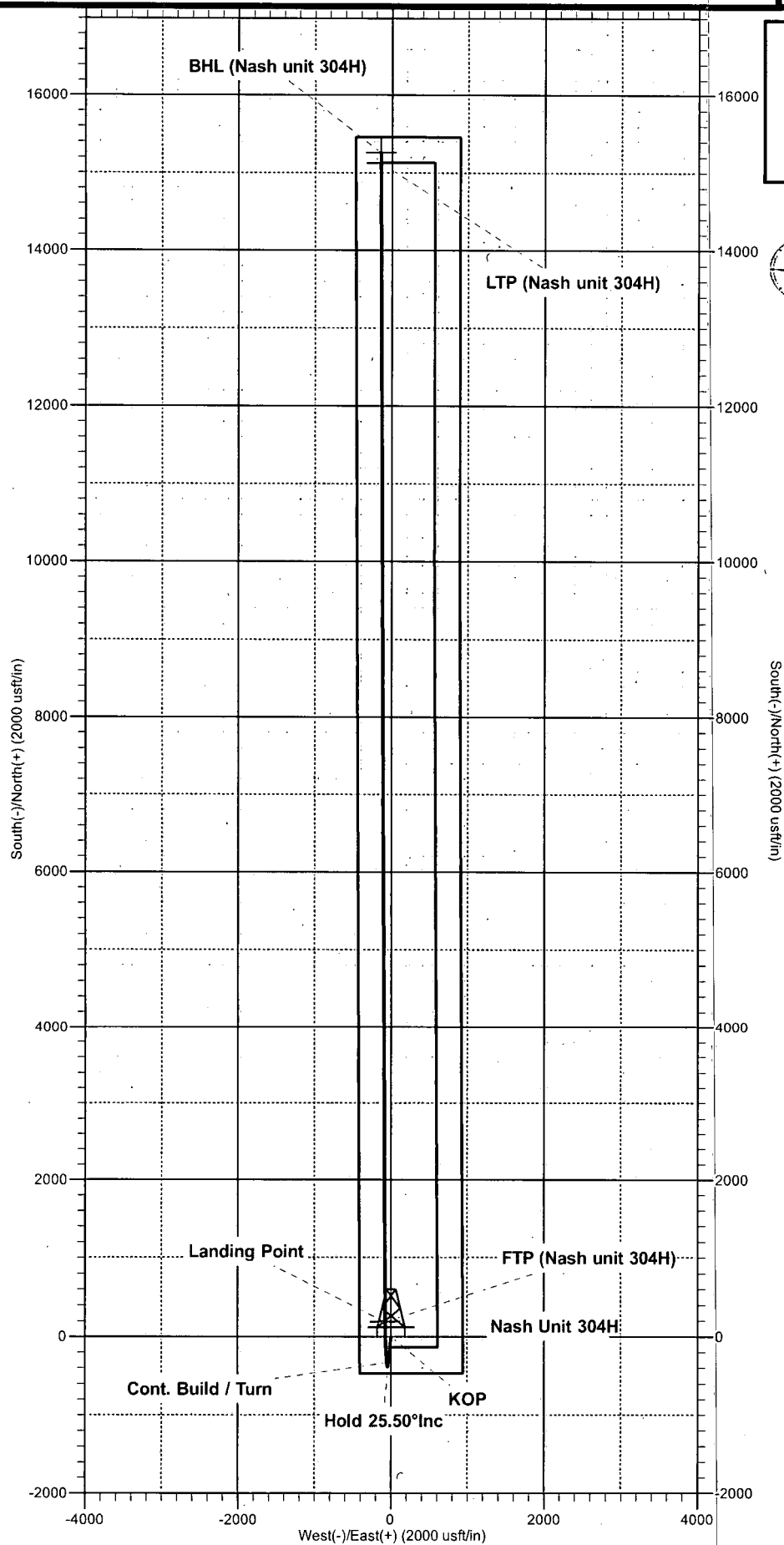
Magnetic Model: BGGM2017 Date: 26-May-17
Azimuths to Grid North



XTO Energy Inc.

HALLIBURTON | Sperry Drilling

Project: Eddy County, NM (NAD27)
Site: Nash Unit
Well: Nash Unit 304H
Wellbore: Wellbore #1
Plan: Plan 1
Rig: KB (+25ft)



XTO Energy Inc.

Eddy County, NM (NAD27)
Nash Unit
Nash Unit 304H

Wellbore #1

Plan: Plan 1

Sperry Drilling Services

Proposal Report

02 June, 2017

Well Coordinates: 472,696.90 N, 625,288.00 E (32° 17' 56.07" N, 103° 55' 40.27" W)
Ground Level: 3,018.00 usft

Local Coordinate Origin:	Centered on Well Nash Unit 304H
Viewing Datum:	GL3017+25ft @ 3043.00usft (KB (+25ft))
TVDs to System:	N
North Reference:	Grid
Unit System:	API US Survey Feet

Version: 5000.1 Build: 81

HALLIBURTON

Plan Report for Nash Unit 304H - Plan 1

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)	Toolface Azimuth (°)
0.00	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	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
202.00	0.00	0.00	202.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler										
278.00	0.00	0.00	278.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Top Salt										
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	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	0.00
900.00	0.00	0.00	900.00	0.00	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	0.00
1,100.00	0.00	0.00	1,100.00	0.00	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	0.00
1,300.00	0.00	0.00	1,300.00	0.00	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	0.00
1,500.00	0.00	0.00	1,500.00	0.00	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	0.00
1,700.00	0.00	0.00	1,700.00	0.00	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	0.00
1,900.00	0.00	0.00	1,900.00	0.00	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	0.00
2,100.00	0.00	0.00	2,100.00	0.00	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	0.00
2,300.00	0.00	0.00	2,300.00	0.00	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	0.00
2,500.00	0.00	0.00	2,500.00	0.00	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	0.00
2,700.00	0.00	0.00	2,700.00	0.00	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	0.00
2,900.00	0.00	0.00	2,900.00	0.00	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	0.00
3,032.00	0.00	0.00	3,032.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Salt										
3,100.00	0.00	0.00	3,100.00	0.00	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	0.00
3,256.00	0.00	0.00	3,256.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Delaware										
3,300.00	0.00	0.00	3,300.00	0.00	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	0.00
3,500.00	0.00	0.00	3,500.00	0.00	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	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	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	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,142.00	0.00	0.00	4,142.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cherry Canyon										
4,200.00	0.00	0.00	4,200.00	0.00	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	0.00
4,400.00	0.00	0.00	4,400.00	0.00	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	0.00
4,600.00	0.00	0.00	4,600.00	0.00	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	0.00

Plan Report for Nash Unit 304H - Plan 1

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)	Toolface Azimuth (°)
4,800.00	0.00	0.00	4,800.00	0.00	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	0.00
5,000.00	0.00	0.00	5,000.00	0.00	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	0.00
5,200.00	0.00	0.00	5,200.00	0.00	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	0.00
5,400.00	0.00	0.00	5,400.00	0.00	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	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,726.00	0.00	0.00	5,726.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Brushy Canyon										
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,008.00	0.00	0.00	7,008.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Bone Spring										
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8,026.00	0.00	0.00	8,026.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1st Bone Spring SS										
8,101.59	0.00	0.00	8,101.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP										
8,200.00	1.97	185.73	8,199.98	-1.68	-0.17	-1.68	2.00	2.00	0.00	185.73
8,300.00	3.97	185.73	8,299.84	-6.83	-0.69	-6.83	2.00	2.00	0.00	0.00
8,400.00	5.97	185.73	8,399.46	-15.45	-1.55	-15.44	2.00	2.00	0.00	0.00
8,500.00	7.97	185.73	8,498.72	-27.52	-2.76	-27.51	2.00	2.00	0.00	0.00
8,600.00	9.97	185.73	8,597.49	-43.03	-4.32	-43.01	2.00	2.00	0.00	0.00
8,700.00	11.97	185.73	8,695.66	-61.96	-6.22	-61.93	2.00	2.00	0.00	0.00
8,800.00	13.97	185.73	8,793.10	-84.29	-8.45	-84.25	2.00	2.00	0.00	0.00
8,840.15	14.77	185.73	8,832.00	-94.20	-9.45	-94.16	2.00	2.00	0.00	0.00
2nd Bone Spring SS										
8,900.00	15.97	185.73	8,889.70	-109.99	-11.03	-109.94	2.00	2.00	0.00	0.00
9,000.00	17.97	185.73	8,985.35	-139.02	-13.95	-138.96	2.00	2.00	0.00	0.00
9,100.00	19.97	185.73	9,079.91	-171.36	-17.19	-171.28	2.00	2.00	0.00	0.00
9,194.30	21.85	185.73	9,168.00	-204.85	-20.55	-204.76	2.00	2.00	0.00	0.00
3rd Bone Spring Lm										
9,200.00	21.97	185.73	9,173.28	-206.97	-20.76	-206.87	2.00	2.00	0.00	0.00
9,300.00	23.97	185.73	9,265.35	-245.79	-24.65	-245.68	2.00	2.00	0.00	0.00
9,376.41	25.50	185.73	9,334.75	-277.60	-27.85	-277.47	2.00	2.00	0.00	0.00
Hold 25.50°Inc										

Plan Report for Nash Unit 304H - Plan 1

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)	Toolface Azimuth (°)
9,400.00	25.50	185.73	9,356.04	-287.71	-28.86	-287.57	0.00	0.00	0.00	1.52
9,493.86	25.50	185.73	9,440.77	-327.91	-32.89	-327.76	0.00	0.00	0.00	0.00
Cont. Build / Turn										
9,500.00	24.89	185.90	9,446.32	-330.51	-33.16	-330.35	10.00	-9.93	2.74	173.37
9,550.00	19.93	187.63	9,492.53	-349.43	-35.37	-349.27	10.00	-9.91	3.46	173.22
9,600.00	15.00	190.44	9,540.21	-364.25	-37.67	-364.08	10.00	-9.86	5.63	171.62
9,650.00	10.14	195.89	9,589.00	-374.85	-40.05	-374.67	10.00	-9.72	10.91	168.93
9,700.00	5.52	210.71	9,638.52	-381.16	-42.49	-380.96	10.00	-9.23	29.62	163.60
9,750.00	2.86	275.08	9,688.41	-383.12	-44.96	-382.91	10.00	-5.32	128.75	148.92
9,800.00	5.99	331.41	9,738.27	-380.72	-47.45	-380.50	10.00	6.25	112.66	84.67
9,850.00	10.65	344.40	9,787.74	-373.97	-49.94	-373.74	10.00	9.33	25.98	28.46
9,900.00	15.52	349.42	9,836.43	-362.94	-52.42	-362.70	10.00	9.75	10.05	15.60
9,950.00	20.46	352.08	9,883.97	-347.70	-54.85	-347.45	10.00	9.87	5.31	10.70
9,993.37	24.76	353.55	9,924.00	-331.16	-56.92	-330.90	10.00	9.92	3.39	8.17
3rd Bone Spring Ss										
10,000.00	25.42	353.73	9,930.00	-328.37	-57.23	-328.10	10.00	9.93	2.76	6.81
10,050.00	30.39	354.87	9,974.17	-305.09	-59.53	-304.82	10.00	9.94	2.29	6.65
10,100.00	35.37	355.72	10,016.15	-278.05	-61.74	-277.77	10.00	9.96	1.70	5.64
10,150.00	40.35	356.38	10,055.62	-247.45	-63.85	-247.15	10.00	9.97	1.32	4.92
10,200.00	45.34	356.92	10,092.27	-213.51	-65.82	-213.21	10.00	9.97	1.08	4.40
10,250.00	50.32	357.37	10,125.82	-176.51	-67.66	-176.20	10.00	9.98	0.91	4.01
10,300.00	55.32	357.77	10,156.03	-136.72	-69.34	-136.41	10.00	9.98	0.78	3.70
10,350.00	60.31	358.11	10,182.66	-94.45	-70.86	-94.13	10.00	9.98	0.69	3.46
10,400.00	65.30	358.43	10,205.50	-50.01	-72.20	-49.69	10.00	9.98	0.63	3.28
10,450.00	70.29	358.72	10,224.39	-3.75	-73.35	-3.42	10.00	9.99	0.58	3.14
10,495.41	74.83	358.97	10,238.00	39.55	-74.22	39.89	10.00	9.99	0.55	3.03
3rd Bone Spring RH										
10,500.00	75.28	358.99	10,239.18	43.99	-74.30	44.32	10.00	9.99	0.53	2.95
10,550.00	80.28	359.25	10,249.76	92.83	-75.05	93.17	10.00	9.99	0.52	2.94
10,600.00	85.27	359.50	10,256.05	142.42	-75.59	142.76	10.00	9.99	0.51	2.89
10,647.34	90.00	359.74	10,258.00	189.70	-75.90	190.04	10.00	9.99	0.50	2.86
Landing Point - LP										
10,700.00	90.00	359.74	10,258.00	242.36	-76.14	242.70	0.00	0.00	0.00	0.00
10,800.00	90.00	359.74	10,258.00	342.36	-76.59	342.70	0.00	0.00	0.00	0.00
10,900.00	90.00	359.74	10,258.00	442.36	-77.05	442.70	0.00	0.00	0.00	0.00
11,000.00	90.00	359.74	10,258.00	542.36	-77.50	542.70	0.00	0.00	0.00	0.00
11,100.00	90.00	359.74	10,258.00	642.36	-77.95	642.70	0.00	0.00	0.00	0.00
11,200.00	90.00	359.74	10,258.00	742.36	-78.41	742.70	0.00	0.00	0.00	0.00
11,300.00	90.00	359.74	10,258.00	842.35	-78.86	842.70	0.00	0.00	0.00	0.00
11,400.00	90.00	359.74	10,258.00	942.35	-79.32	942.70	0.00	0.00	0.00	0.00
11,500.00	90.00	359.74	10,258.00	1,042.35	-79.77	1,042.70	0.00	0.00	0.00	0.00
11,600.00	90.00	359.74	10,258.00	1,142.35	-80.22	1,142.70	0.00	0.00	0.00	0.00
11,700.00	90.00	359.74	10,258.00	1,242.35	-80.68	1,242.70	0.00	0.00	0.00	0.00
11,800.00	90.00	359.74	10,258.00	1,342.35	-81.13	1,342.70	0.00	0.00	0.00	0.00
11,900.00	90.00	359.74	10,258.00	1,442.35	-81.59	1,442.70	0.00	0.00	0.00	0.00
12,000.00	90.00	359.74	10,258.00	1,542.35	-82.04	1,542.70	0.00	0.00	0.00	0.00
12,100.00	90.00	359.74	10,258.00	1,642.35	-82.49	1,642.70	0.00	0.00	0.00	0.00
12,200.00	90.00	359.74	10,258.00	1,742.35	-82.95	1,742.70	0.00	0.00	0.00	0.00
12,300.00	90.00	359.74	10,258.00	1,842.34	-83.40	1,842.70	0.00	0.00	0.00	0.00
12,400.00	90.00	359.74	10,258.00	1,942.34	-83.86	1,942.70	0.00	0.00	0.00	0.00
12,500.00	90.00	359.74	10,258.00	2,042.34	-84.31	2,042.70	0.00	0.00	0.00	0.00
12,600.00	90.00	359.74	10,258.00	2,142.34	-84.76	2,142.70	0.00	0.00	0.00	0.00
12,700.00	90.00	359.74	10,258.00	2,242.34	-85.22	2,242.70	0.00	0.00	0.00	0.00
12,800.00	90.00	359.74	10,258.00	2,342.34	-85.67	2,342.70	0.00	0.00	0.00	0.00
12,900.00	90.00	359.74	10,258.00	2,442.34	-86.13	2,442.70	0.00	0.00	0.00	0.00
13,000.00	90.00	359.74	10,258.00	2,542.34	-86.58	2,542.70	0.00	0.00	0.00	0.00
13,100.00	90.00	359.74	10,258.00	2,642.34	-87.03	2,642.70	0.00	0.00	0.00	0.00
13,200.00	90.00	359.74	10,258.00	2,742.34	-87.49	2,742.70	0.00	0.00	0.00	0.00
13,300.00	90.00	359.74	10,258.00	2,842.33	-87.94	2,842.70	0.00	0.00	0.00	0.00

Plan Report for Nash Unit 304H - Plan 1

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)	Toolface Azimuth (°)
13,400.00	90.00	359.74	10,258.00	2,942.33	-88.40	2,942.70	0.00	0.00	0.00	0.00
13,500.00	90.00	359.74	10,258.00	3,042.33	-88.85	3,042.70	0.00	0.00	0.00	0.00
13,600.00	90.00	359.74	10,258.00	3,142.33	-89.30	3,142.70	0.00	0.00	0.00	0.00
13,700.00	90.00	359.74	10,258.00	3,242.33	-89.76	3,242.70	0.00	0.00	0.00	0.00
13,800.00	90.00	359.74	10,258.00	3,342.33	-90.21	3,342.70	0.00	0.00	0.00	0.00
13,900.00	90.00	359.74	10,258.00	3,442.33	-90.67	3,442.70	0.00	0.00	0.00	0.00
14,000.00	90.00	359.74	10,258.00	3,542.33	-91.12	3,542.70	0.00	0.00	0.00	0.00
14,100.00	90.00	359.74	10,258.00	3,642.33	-91.57	3,642.70	0.00	0.00	0.00	0.00
14,200.00	90.00	359.74	10,258.00	3,742.33	-92.03	3,742.70	0.00	0.00	0.00	0.00
14,300.00	90.00	359.74	10,258.00	3,842.32	-92.48	3,842.70	0.00	0.00	0.00	0.00
14,400.00	90.00	359.74	10,258.00	3,942.32	-92.94	3,942.70	0.00	0.00	0.00	0.00
14,500.00	90.00	359.74	10,258.00	4,042.32	-93.39	4,042.70	0.00	0.00	0.00	0.00
14,600.00	90.00	359.74	10,258.00	4,142.32	-93.84	4,142.70	0.00	0.00	0.00	0.00
14,700.00	90.00	359.74	10,258.00	4,242.32	-94.30	4,242.70	0.00	0.00	0.00	0.00
14,800.00	90.00	359.74	10,258.00	4,342.32	-94.75	4,342.70	0.00	0.00	0.00	0.00
14,900.00	90.00	359.74	10,258.00	4,442.32	-95.21	4,442.70	0.00	0.00	0.00	0.00
15,000.00	90.00	359.74	10,258.00	4,542.32	-95.66	4,542.70	0.00	0.00	0.00	0.00
15,100.00	90.00	359.74	10,258.00	4,642.32	-96.11	4,642.70	0.00	0.00	0.00	0.00
15,200.00	90.00	359.74	10,258.00	4,742.31	-96.57	4,742.70	0.00	0.00	0.00	0.00
15,300.00	90.00	359.74	10,258.00	4,842.31	-97.02	4,842.70	0.00	0.00	0.00	0.00
15,400.00	90.00	359.74	10,258.00	4,942.31	-97.48	4,942.70	0.00	0.00	0.00	0.00
15,500.00	90.00	359.74	10,258.00	5,042.31	-97.93	5,042.70	0.00	0.00	0.00	0.00
15,600.00	90.00	359.74	10,258.00	5,142.31	-98.38	5,142.70	0.00	0.00	0.00	0.00
15,700.00	90.00	359.74	10,258.00	5,242.31	-98.84	5,242.70	0.00	0.00	0.00	0.00
15,800.00	90.00	359.74	10,258.00	5,342.31	-99.29	5,342.70	0.00	0.00	0.00	0.00
15,900.00	90.00	359.74	10,258.00	5,442.31	-99.75	5,442.70	0.00	0.00	0.00	0.00
16,000.00	90.00	359.74	10,258.00	5,542.31	-100.20	5,542.70	0.00	0.00	0.00	0.00
16,100.00	90.00	359.74	10,258.00	5,642.31	-100.65	5,642.70	0.00	0.00	0.00	0.00
16,200.00	90.00	359.74	10,258.00	5,742.30	-101.11	5,742.70	0.00	0.00	0.00	0.00
16,300.00	90.00	359.74	10,258.00	5,842.30	-101.56	5,842.70	0.00	0.00	0.00	0.00
16,400.00	90.00	359.74	10,258.00	5,942.30	-102.02	5,942.70	0.00	0.00	0.00	0.00
16,500.00	90.00	359.74	10,258.00	6,042.30	-102.47	6,042.70	0.00	0.00	0.00	0.00
16,600.00	90.00	359.74	10,258.00	6,142.30	-102.92	6,142.70	0.00	0.00	0.00	0.00
16,700.00	90.00	359.74	10,258.00	6,242.30	-103.38	6,242.70	0.00	0.00	0.00	0.00
16,800.00	90.00	359.74	10,258.00	6,342.30	-103.83	6,342.70	0.00	0.00	0.00	0.00
16,900.00	90.00	359.74	10,258.00	6,442.30	-104.29	6,442.70	0.00	0.00	0.00	0.00
17,000.00	90.00	359.74	10,258.00	6,542.30	-104.74	6,542.70	0.00	0.00	0.00	0.00
17,100.00	90.00	359.74	10,258.00	6,642.30	-105.19	6,642.70	0.00	0.00	0.00	0.00
17,200.00	90.00	359.74	10,258.00	6,742.29	-105.65	6,742.70	0.00	0.00	0.00	0.00
17,300.00	90.00	359.74	10,258.00	6,842.29	-106.10	6,842.70	0.00	0.00	0.00	0.00
17,400.00	90.00	359.74	10,258.00	6,942.29	-106.55	6,942.70	0.00	0.00	0.00	0.00
17,500.00	90.00	359.74	10,258.00	7,042.29	-107.01	7,042.70	0.00	0.00	0.00	0.00
17,600.00	90.00	359.74	10,258.00	7,142.29	-107.46	7,142.70	0.00	0.00	0.00	0.00
17,700.00	90.00	359.74	10,258.00	7,242.29	-107.92	7,242.70	0.00	0.00	0.00	0.00
17,800.00	90.00	359.74	10,258.00	7,342.29	-108.37	7,342.70	0.00	0.00	0.00	0.00
17,900.00	90.00	359.74	10,258.00	7,442.29	-108.82	7,442.70	0.00	0.00	0.00	0.00
18,000.00	90.00	359.74	10,258.00	7,542.29	-109.28	7,542.70	0.00	0.00	0.00	0.00
18,100.00	90.00	359.74	10,258.00	7,642.28	-109.73	7,642.70	0.00	0.00	0.00	0.00
18,200.00	90.00	359.74	10,258.00	7,742.28	-110.19	7,742.70	0.00	0.00	0.00	0.00
18,300.00	90.00	359.74	10,258.00	7,842.28	-110.64	7,842.70	0.00	0.00	0.00	0.00
18,400.00	90.00	359.74	10,258.00	7,942.28	-111.09	7,942.70	0.00	0.00	0.00	0.00
18,500.00	90.00	359.74	10,258.00	8,042.28	-111.55	8,042.70	0.00	0.00	0.00	0.00
18,600.00	90.00	359.74	10,258.00	8,142.28	-112.00	8,142.70	0.00	0.00	0.00	0.00
18,700.00	90.00	359.74	10,258.00	8,242.28	-112.46	8,242.70	0.00	0.00	0.00	0.00
18,800.00	90.00	359.74	10,258.00	8,342.28	-112.91	8,342.70	0.00	0.00	0.00	0.00
18,900.00	90.00	359.74	10,258.00	8,442.28	-113.36	8,442.70	0.00	0.00	0.00	0.00
19,000.00	90.00	359.74	10,258.00	8,542.28	-113.82	8,542.70	0.00	0.00	0.00	0.00
19,100.00	90.00	359.74	10,258.00	8,642.27	-114.27	8,642.70	0.00	0.00	0.00	0.00
19,200.00	90.00	359.74	10,258.00	8,742.27	-114.73	8,742.70	0.00	0.00	0.00	0.00
19,300.00	90.00	359.74	10,258.00	8,842.27	-115.18	8,842.70	0.00	0.00	0.00	0.00

Plan Report for Nash Unit 304H - Plan 1

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)	Toolface Azimuth (°)
19,400.00	90.00	359.74	10,258.00	8,942.27	-115.63	8,942.70	0.00	0.00	0.00	0.00
19,500.00	90.00	359.74	10,258.00	9,042.27	-116.09	9,042.70	0.00	0.00	0.00	0.00
19,600.00	90.00	359.74	10,258.00	9,142.27	-116.54	9,142.70	0.00	0.00	0.00	0.00
19,700.00	90.00	359.74	10,258.00	9,242.27	-117.00	9,242.70	0.00	0.00	0.00	0.00
19,800.00	90.00	359.74	10,258.00	9,342.27	-117.45	9,342.70	0.00	0.00	0.00	0.00
19,900.00	90.00	359.74	10,258.00	9,442.27	-117.90	9,442.70	0.00	0.00	0.00	0.00
20,000.00	90.00	359.74	10,258.00	9,542.27	-118.36	9,542.70	0.00	0.00	0.00	0.00
20,100.00	90.00	359.74	10,258.00	9,642.26	-118.81	9,642.70	0.00	0.00	0.00	0.00
20,200.00	90.00	359.74	10,258.00	9,742.26	-119.27	9,742.70	0.00	0.00	0.00	0.00
20,300.00	90.00	359.74	10,258.00	9,842.26	-119.72	9,842.70	0.00	0.00	0.00	0.00
20,400.00	90.00	359.74	10,258.00	9,942.26	-120.17	9,942.70	0.00	0.00	0.00	0.00
20,500.00	90.00	359.74	10,258.00	10,042.26	-120.63	10,042.70	0.00	0.00	0.00	0.00
20,600.00	90.00	359.74	10,258.00	10,142.26	-121.08	10,142.70	0.00	0.00	0.00	0.00
20,700.00	90.00	359.74	10,258.00	10,242.26	-121.54	10,242.70	0.00	0.00	0.00	0.00
20,800.00	90.00	359.74	10,258.00	10,342.26	-121.99	10,342.70	0.00	0.00	0.00	0.00
20,900.00	90.00	359.74	10,258.00	10,442.26	-122.44	10,442.70	0.00	0.00	0.00	0.00
21,000.00	90.00	359.74	10,258.00	10,542.26	-122.90	10,542.70	0.00	0.00	0.00	0.00
21,100.00	90.00	359.74	10,258.00	10,642.25	-123.35	10,642.70	0.00	0.00	0.00	0.00
21,200.00	90.00	359.74	10,258.00	10,742.25	-123.81	10,742.70	0.00	0.00	0.00	0.00
21,300.00	90.00	359.74	10,258.00	10,842.25	-124.26	10,842.70	0.00	0.00	0.00	0.00
21,400.00	90.00	359.74	10,258.00	10,942.25	-124.71	10,942.70	0.00	0.00	0.00	0.00
21,500.00	90.00	359.74	10,258.00	11,042.25	-125.17	11,042.70	0.00	0.00	0.00	0.00
21,600.00	90.00	359.74	10,258.00	11,142.25	-125.62	11,142.70	0.00	0.00	0.00	0.00
21,700.00	90.00	359.74	10,258.00	11,242.25	-126.08	11,242.70	0.00	0.00	0.00	0.00
21,800.00	90.00	359.74	10,258.00	11,342.25	-126.53	11,342.70	0.00	0.00	0.00	0.00
21,900.00	90.00	359.74	10,258.00	11,442.25	-126.98	11,442.70	0.00	0.00	0.00	0.00
22,000.00	90.00	359.74	10,258.00	11,542.24	-127.44	11,542.70	0.00	0.00	0.00	0.00
22,100.00	90.00	359.74	10,258.00	11,642.24	-127.89	11,642.70	0.00	0.00	0.00	0.00
22,200.00	90.00	359.74	10,258.00	11,742.24	-128.35	11,742.70	0.00	0.00	0.00	0.00
22,300.00	90.00	359.74	10,258.00	11,842.24	-128.80	11,842.70	0.00	0.00	0.00	0.00
22,400.00	90.00	359.74	10,258.00	11,942.24	-129.25	11,942.70	0.00	0.00	0.00	0.00
22,500.00	90.00	359.74	10,258.00	12,042.24	-129.71	12,042.70	0.00	0.00	0.00	0.00
22,600.00	90.00	359.74	10,258.00	12,142.24	-130.16	12,142.70	0.00	0.00	0.00	0.00
22,700.00	90.00	359.74	10,258.00	12,242.24	-130.62	12,242.70	0.00	0.00	0.00	0.00
22,800.00	90.00	359.74	10,258.00	12,342.24	-131.07	12,342.70	0.00	0.00	0.00	0.00
22,900.00	90.00	359.74	10,258.00	12,442.24	-131.52	12,442.70	0.00	0.00	0.00	0.00
23,000.00	90.00	359.74	10,258.00	12,542.23	-131.98	12,542.70	0.00	0.00	0.00	0.00
23,100.00	90.00	359.74	10,258.00	12,642.23	-132.43	12,642.70	0.00	0.00	0.00	0.00
23,200.00	90.00	359.74	10,258.00	12,742.23	-132.89	12,742.70	0.00	0.00	0.00	0.00
23,300.00	90.00	359.74	10,258.00	12,842.23	-133.34	12,842.70	0.00	0.00	0.00	0.00
23,400.00	90.00	359.74	10,258.00	12,942.23	-133.79	12,942.70	0.00	0.00	0.00	0.00
23,500.00	90.00	359.74	10,258.00	13,042.23	-134.25	13,042.70	0.00	0.00	0.00	0.00
23,600.00	90.00	359.74	10,258.00	13,142.23	-134.70	13,142.70	0.00	0.00	0.00	0.00
23,700.00	90.00	359.74	10,258.00	13,242.23	-135.15	13,242.70	0.00	0.00	0.00	0.00
23,800.00	90.00	359.74	10,258.00	13,342.23	-135.61	13,342.70	0.00	0.00	0.00	0.00
23,900.00	90.00	359.74	10,258.00	13,442.23	-136.06	13,442.70	0.00	0.00	0.00	0.00
24,000.00	90.00	359.74	10,258.00	13,542.22	-136.52	13,542.70	0.00	0.00	0.00	0.00
24,100.00	90.00	359.74	10,258.00	13,642.22	-136.97	13,642.70	0.00	0.00	0.00	0.00
24,200.00	90.00	359.74	10,258.00	13,742.22	-137.42	13,742.70	0.00	0.00	0.00	0.00
24,300.00	90.00	359.74	10,258.00	13,842.22	-137.88	13,842.70	0.00	0.00	0.00	0.00
24,400.00	90.00	359.74	10,258.00	13,942.22	-138.33	13,942.70	0.00	0.00	0.00	0.00
24,500.00	90.00	359.74	10,258.00	14,042.22	-138.79	14,042.70	0.00	0.00	0.00	0.00
24,600.00	90.00	359.74	10,258.00	14,142.22	-139.24	14,142.70	0.00	0.00	0.00	0.00
24,700.00	90.00	359.74	10,258.00	14,242.22	-139.69	14,242.70	0.00	0.00	0.00	0.00
24,800.00	90.00	359.74	10,258.00	14,342.22	-140.15	14,342.70	0.00	0.00	0.00	0.00
24,900.00	90.00	359.74	10,258.00	14,442.21	-140.60	14,442.70	0.00	0.00	0.00	0.00
25,000.00	90.00	359.74	10,258.00	14,542.21	-141.06	14,542.70	0.00	0.00	0.00	0.00
25,100.00	90.00	359.74	10,258.00	14,642.21	-141.51	14,642.70	0.00	0.00	0.00	0.00
25,200.00	90.00	359.74	10,258.00	14,742.21	-141.96	14,742.70	0.00	0.00	0.00	0.00
25,300.00	90.00	359.74	10,258.00	14,842.21	-142.42	14,842.70	0.00	0.00	0.00	0.00

Plan Report for Nash Unit 304H - Plan 1

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)	Toolface Azimuth (°)
25,400.00	90.00	359.74	10,258.00	14,942.21	-142.87	14,942.70	0.00	0.00	0.00	0.00
25,500.00	90.00	359.74	10,258.00	15,042.21	-143.33	15,042.70	0.00	0.00	0.00	0.00
25,600.00	90.00	359.74	10,258.00	15,142.21	-143.78	15,142.70	0.00	0.00	0.00	0.00
25,700.00	90.00	359.74	10,258.00	15,242.21	-144.23	15,242.70	0.00	0.00	0.00	0.00
25,714.49	90.00	359.74	10,258.00	15,256.70	-144.30	15,257.20	0.00	0.00	0.00	0.00
BHL										

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,101.59	8,101.59	0.00	0.00	KOP
9,376.41	9,334.75	-277.60	-27.85	Hold 25.50°Inc
9,493.86	9,440.77	-327.91	-32.89	Cont. Build / Turn
10,647.34	10,258.00	189.70	-75.90	Landing Point
25,714.49	10,258.00	15,256.70	-144.30	BHL

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.74	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	25,714.44	Plan 1	MWD+SC

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
202.00	202.00	Rustler		0.00	
278.00	278.00	Top Salt		0.00	
3,032.00	3,032.00	Base Salt		0.00	
3,256.00	3,256.00	Delaware		0.00	
4,142.00	4,142.00	Cherry Canyon		0.00	
5,726.00	5,726.00	Brushy Canyon		0.00	
7,008.00	7,008.00	Bone Spring		0.00	
8,026.00	8,026.00	1st Bone Spring SS		0.00	
8,840.15	8,832.00	2nd Bone Spring SS		0.00	
9,194.30	9,168.00	3rd Bone Spring Lm		0.00	
9,993.37	9,924.00	3rd Bone Spring Ss		0.00	
10,495.41	10,238.00	3rd Bone Spring RH		0.00	
10,647.34	10,258.00	LP		0.00	

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
FTP (Nash unit 304H)	10,258.00	189.70	-75.90	Point
LTP (Nash unit 304H)	10,258.00	15,126.80	-143.70	Point
BHL (Nash unit 304H)	10,258.00	15,256.70	-144.30	Point

Directional Difficulty Index

Average Dogleg over Survey:	0.55 °/100usft	Maximum Dogleg over Survey:	10.00 °/100usft at 10,647.34 usft
Net Tortousity applicable to Plans:	0.55 °/100usft	Directional Difficulty Index:	7.014

Audit Info

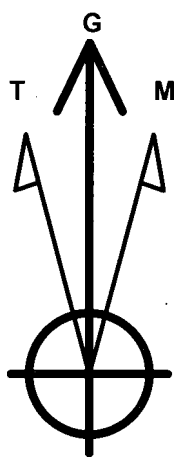
North Reference Sheet for Nash Unit - Nash Unit 304H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.
Vertical Depths are relative to GL3017+25ft @ 3043.00usft (KB (+25ft)). Northing and Easting are relative to Nash Unit 304H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866
Projection method is Transverse Mercator (Gauss-Kruger)
Central Meridian is -104.33°, Longitude Origin:0° 0' 0.000 E°, Latitude Origin:0° 0' 0.000 N°
False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 0.99992707

Grid Coordinates of Well: 472,696.90 usft N, 625,288.00 usft E
Geographical Coordinates of Well: 32° 17' 56.07" N, 103° 55' 40.27" W
Grid Convergence at Surface is: 0.22°

Based upon Minimum Curvature type calculations, at a Measured Depth of 25,714.49usft
the Bottom Hole Displacement is 15,257.38usft in the Direction of 359.46° (Grid).

Magnetic Convergence at surface is: -6.98° (26 May 2017, , BGGM2017)



Magnetic Model:	BGGM2017
Date:	26-May-17
Declination:	7.19°
Inclination/Dip:	60.05°
Field Strength:	48016

Grid North is 0.22° East of True North (Grid Convergence)
Magnetic North is 7.19° East of True North (Magnetic Declination)
Magnetic North is 6.98° East of Grid North (Magnetic Convergence)

To convert a True Direction to a Grid Direction, Subtract 0.22°
To convert a Magnetic Direction to a True Direction, Add 7.19° East
To convert a Magnetic Direction to a Grid Direction, Add 6.98°

GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe&s@gates.com
WEB: www.gates.com

GRADE D PRESSURE TEST CERTIFICATE

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

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

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

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

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

Form PTC - 01 Rev.0 2

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production Facilities. One 600' x 565' pad was staked with the BLM for construction and use as the Nash Unit 18 Central Tank Battery (CTB). The pad is located in Section 18-23S-30E, NMPM, Eddy County, New Mexico. A plat of the proposed facility is attached. Only the area necessary to maintain facilities will be disturbed. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment. Surface & Buried Flowlines. In the event the wells are found productive, 1 - 4" composite flexpipe or steel flowlines with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be laid on the surface within proposed lease road corridors from the proposed wells to Nash Unit 18 CTB where the oil, gas, and water will be metered and appropriately separated. High pressure gas lines will be buried beneath the surface flowlines per well pad within the proposed lease road corridors for gas lift. Oil will be hauled from the CTB location by truck following existing and proposed lease roads. The distance of proposed flowlines per well will be approximately 10,410' or less per well based on the location of the well pad in conjunction with the facility location. All flowlines will follow proposed lease road corridors. A plat of the proposed surface and buried flowline route for the lease is attached. Gas Pipeline. A gas purchaser has been identified and will be building to XTO Energy, Incorporated's CTB. Disposal Facilities. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7. Flare. There is 1 flare associated with the Nash Unit development project. The flare stack will be 50'x50', be located on the approved CTB pad, and will be sized and rated based on anticipated reserves and recovery of gas throughout the development area with 150' of distance between all facility equipment, road and well pad locations for safety purposes. Aboveground Structures. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment. Containment Berms. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas. Electrical. XTO Energy, Inc is not applying for electrical with this application. Electrical will be applied for via Right-of-Way with the Bureau of Land Management in conjunction with the New Mexico State Land Office.

Production Facilities map:

Nash_Unit_18_CTB_20180615094242.pdf

Nash_Unit_FL_20180615094251.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Fresh Water; Section 21-23S-30E

Water source use type: STIMULATION

SURFACE CASING

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): 335000 **Source volume (acre-feet):** 43.179188

Source volume (gal): 14070000

Water source type: OTHER

Describe type: Fresh Water; in Section 6, T25S-R29E

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

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT
PRIVATE CONTRACT
PRIVATE CONTRACT

Water source transport method: TRUCKING
TRUCKING
TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 335000 **Source volume (acre-feet):** 43.179188

Source volume (gal): 14070000

Water source and transportation map:

Nash_Unit_304H_Wtr_20181102064128.pdf

Water source comments: The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 13 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location. Water for drilling, completion and dust control will be purchased from the following company: Select Energy Services [Rockhouse Water] Water for drilling, completion and dust control will be supplied by Select Energy Services for sale to XTO Energy, inc.

from Section 21-23S-30E, Eddy County, New Mexico. In the event that Select Energy Services does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico. Anticipated water usage for drilling includes an estimated 35,000 barrels of water to drill a horizontal well in a combination of fresh water and brine as detailed in the mud program in the drilling plans. These volumes are calculated for ~1.5bbls per foot of hole drilled with excess to accommodate any lost circulation or wash out that may occur. Actual water volumes used during operations will depend on the depth of the well, length of horizontal sections, and the losses that may occur during the operation. Temporary water flowlines will be permitted via ROW approval letter and proper grants as-needed based on drilling and completion schedules as needed. Well completion is expected to require approximately 300,000 barrels of water per horizontal well. Actual water volumes used during operations will depend on the depth of the well and length of horizontal sections.
New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche. Anticipated Caliche Locations: Pit 1: State Caliche Pit 613-Eddy, Sec-2-24S-33E Pit 2: Federal Caliche Pit, Section 34-T23S-R29E
Construction Materials source location attachment:

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Fluid

Amount of waste: 500 barrels

Waste disposal frequency : One Time Only

Safe containment description: Steel mud pits

Safe containmant attachment:

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

Disposal type description:

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

Waste type: DRILLING

Waste content description: Cuttings

Amount of waste: 2100 pounds

Waste disposal frequency : One Time Only

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

Safe containmant attachment:

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

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 of human waste.

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

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 vendor will be contracted to haul and safely dispose of garbage, junk and non-flammable waste materials.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

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

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

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

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

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

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Nash_Unit_304H_Well_20181102064200.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: NASH UNIT

Multiple Well Pad Number: 7

Recontouring attachment:

Nash_Unit_Int_Rec_P3_20180615094543.pdf
Nash_Unit_Int_Rec_P1_20180615094527.pdf
Nash_Unit_Int_Rec_P6_20180615094551.pdf
Nash_Unit_Int_Rec_P2_20180615094535.pdf
Nash_Unit_Int_Rec_P7_20180615094559.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): 26.3
Road proposed disturbance (acres): 1.42
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0
Other proposed disturbance (acres): 0

Total proposed disturbance: 27.72

Well pad interim reclamation (acres): 11.92
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0

Total interim reclamation: 11.92

Well pad long term disturbance (acres): 14.38
Road long term disturbance (acres): 1.42
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0.826

Total long term disturbance: 16.626

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: • Environmental Setting. According to the Natural Resources Conservation Service online database, the project area soils consist of Reeves soils. These soils are associated with the Loamy ecological site (R042CX007NM) which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote. The current vegetative community consists of mesquite, creosote, soapweed yucca, broom snakeweed, javelin bush, and desert grasses and forbs. The project area lies on a heavily eroded and rocky terrain near a deep arroyo. The project area is situated approximately 1.6 miles of Remuda Basin and 7.2 miles east of the Pecos River.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: • Environmental Setting. According to the Natural Resources Conservation Service online database, the project area soils consist of Reeves soils. These soils are associated with the Loamy ecological site (R042CX007NM) which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote. The current vegetative community consists of mesquite, creosote, soapweed yucca, broom snakeweed, javelin bush, and desert grasses and forbs. The project area lies on a heavily eroded and rocky terrain near a deep arroyo. The project area is situated approximately 1.6 miles of Remuda Basin and 7.2 miles east of the Pecos River.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: • Environmental Setting. According to the Natural Resources Conservation Service online database, the project area soils consist of Reeves soils. These soils are associated with the Loamy ecological site (R042CX007NM) which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote. The current vegetative community consists of mesquite, creosote, soapweed yucca, broom snakeweed, javelin bush, and desert grasses and forbs. The project area lies on a heavily eroded and rocky terrain near a deep arroyo. The project area is situated approximately 1.6 miles of Remuda Basin and 7.2 miles east of the Pecos River.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: • Environmental Setting. According to the Natural Resources Conservation Service online database, the project area soils consist of Reeves soils. These soils are associated with the Loamy ecological site (R042CX007NM) which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote. The current vegetative community consists of mesquite, creosote, soapweed yucca, broom snakeweed, javelin bush, and desert grasses and forbs. The project area lies on a heavily eroded and rocky terrain near a deep arroyo. The project area is situated approximately 1.6 miles of Remuda Basin and 7.2 miles east of the Pecos River.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

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: (432)620-4349 **Email:** jeffrey_raines@xtoenergy.com

Seedbed prep: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.
Seed BMP: If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
Seed method: Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used. If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.
Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

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

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

Success standards: 100% compliance with applicable regulations.

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

Section 11 - Surface Ownership

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:**

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: NASH UNIT **Well Number:** 304H

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,STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND OFFICE

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

DOD Local Office:

NPS Local Office:

State Local Office: NEW MEXICO STATE LAND 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? NO **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Onsite performed by: Brooke Wilson. BLM Attendees: Brooke Wilson, Jim Goodbar, Jim Rutley, Chelsea Dugan

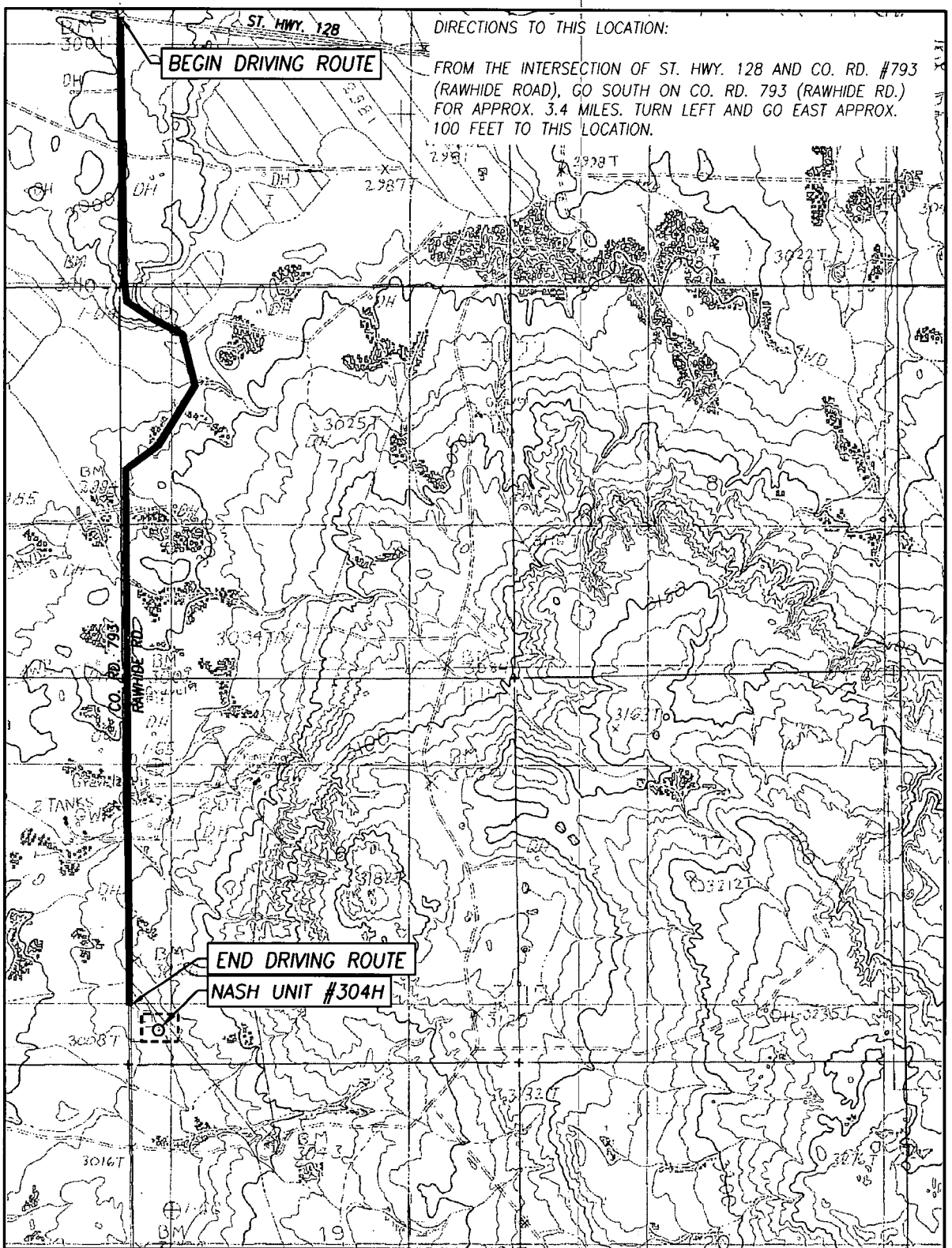
Other SUPO Attachment

Nash_Unit_SUPO_20180615095010.pdf

Nash_Unit_DI_20180615095021.pdf

Nash_Unit_List_20181101095448.pdf

TOPOGRAPHICAL AND ACCESS ROAD MAP

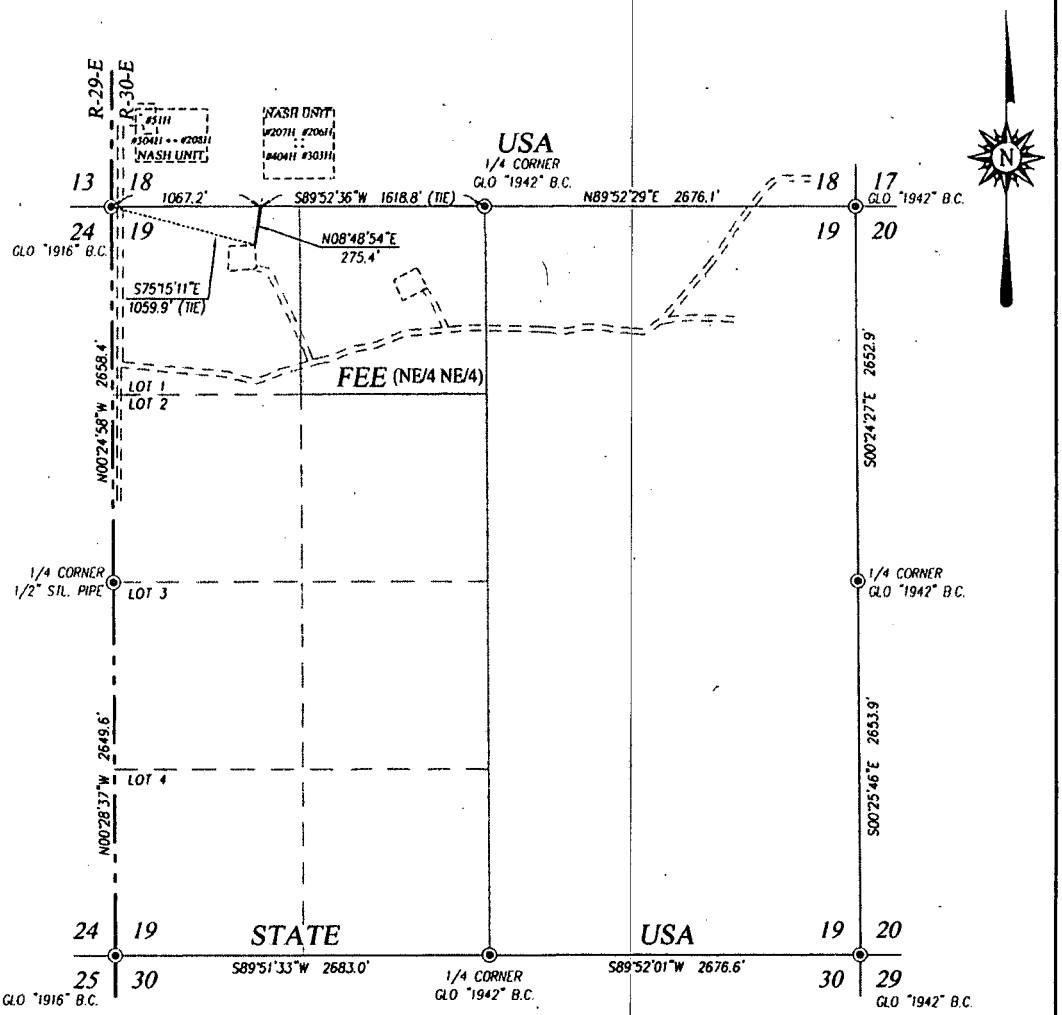


SEC. 18 TWP. 23-S RGE. 30-E
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 470' FSL & 405' FWL
ELEVATION 3018'
OPERATOR XTO ENERGY
LEASE NASH UNIT
U.S.G.S. TOPOGRAPHIC MAP
REMUDA BASIN, N.M. SURVEY N.M.P.M.

SCALE: 1" = 2000'

CONTOUR INTERVAL:
REMUDA BASIN, N.M. – 10'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000



DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 19, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT IN LOT 1, WHICH LIES S75°15'11"E 1059.9 FEET FROM THE NORTHWEST CORNER; THEN N08°48'54"E 275.4 FEET TO A POINT ON THE NORTH LINE, WHICH LIES S89°52'36"W 1618.8 FEET FROM THE NORTH QUARTER CORNER OF SAID SECTION 19.

SAID STRIP OF LAND BEING 275.4 FEET OR 16.69 RODS IN LENGTH, CONTAINING 0.190 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

LOT 1 16.69 RODS OR 0.190 ACRES

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON

DATE: 01/24/2018

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

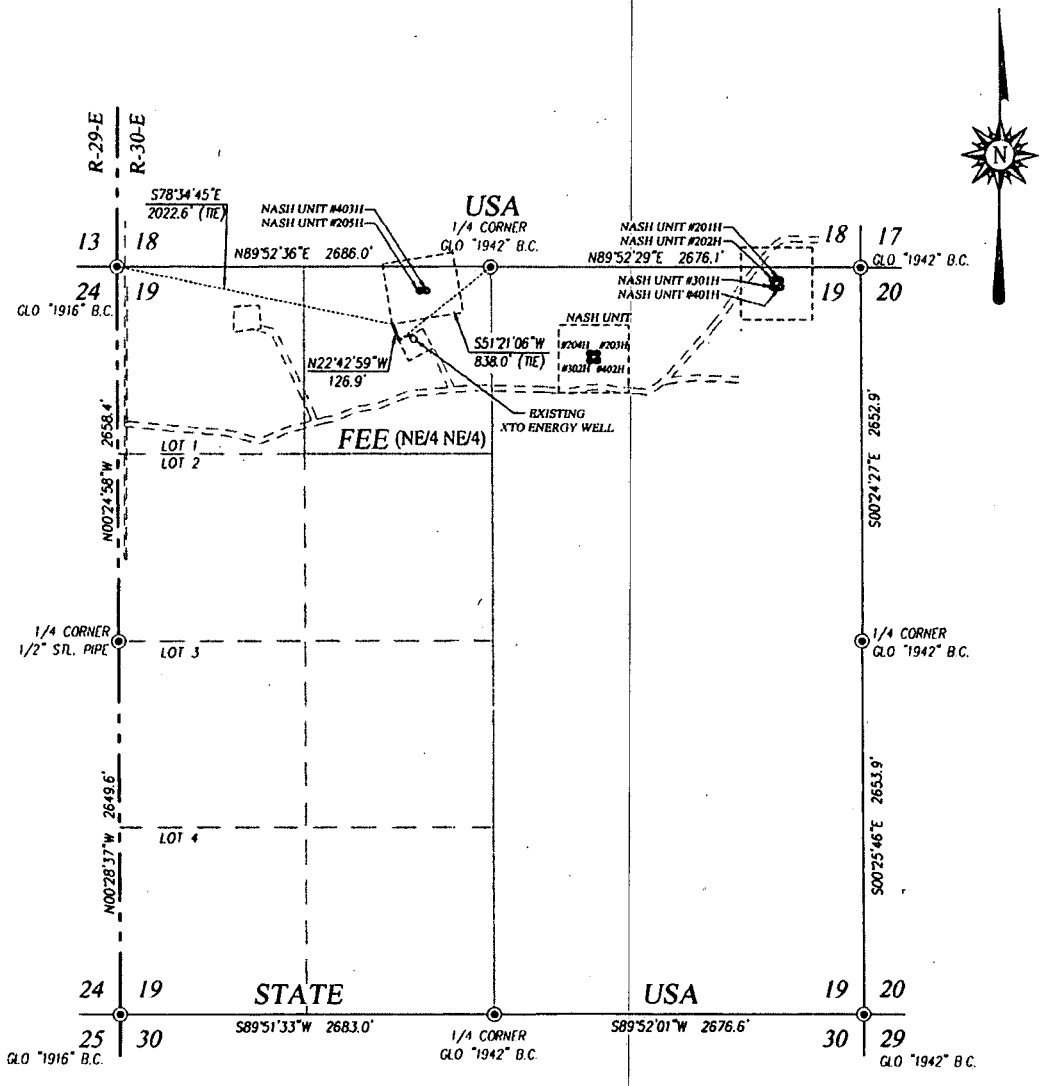
Scale: 1"=1000'

XTO ENERGY

SURVEY FOR AN ACCESS ROAD FOR
THE NASH UNIT #206H, #207H, #303H & #404H
CROSSING SECTION 19,
TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 3/09/17	CAD Date: 1/17/18	Drawn By: LSL
W.O. No.: 18130046	Rev: .	Rel. W.O.: 17110158	Sheet 1 of 1



DESCRIPTION

SURVEY FOR AN ACCESS ROAD CROSSING SECTION 19, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT IN THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER, WHICH LIES S51°21'06"W 838.0 FEET FROM THE NORTH QUARTER CORNER; THEN N22°42'59"W 126.9 FEET TO A POINT IN THE NORTHEAST QUARTER OF THE NORTHWEST QUARTER, WHICH LIES S78°34'45"E 2022.8 FEET FROM THE NORTHWEST CORNER.

TOTAL LENGTH EQUALS 126.9 FEET OR 7.69 RODS.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON

DATE: 01/24/2018

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

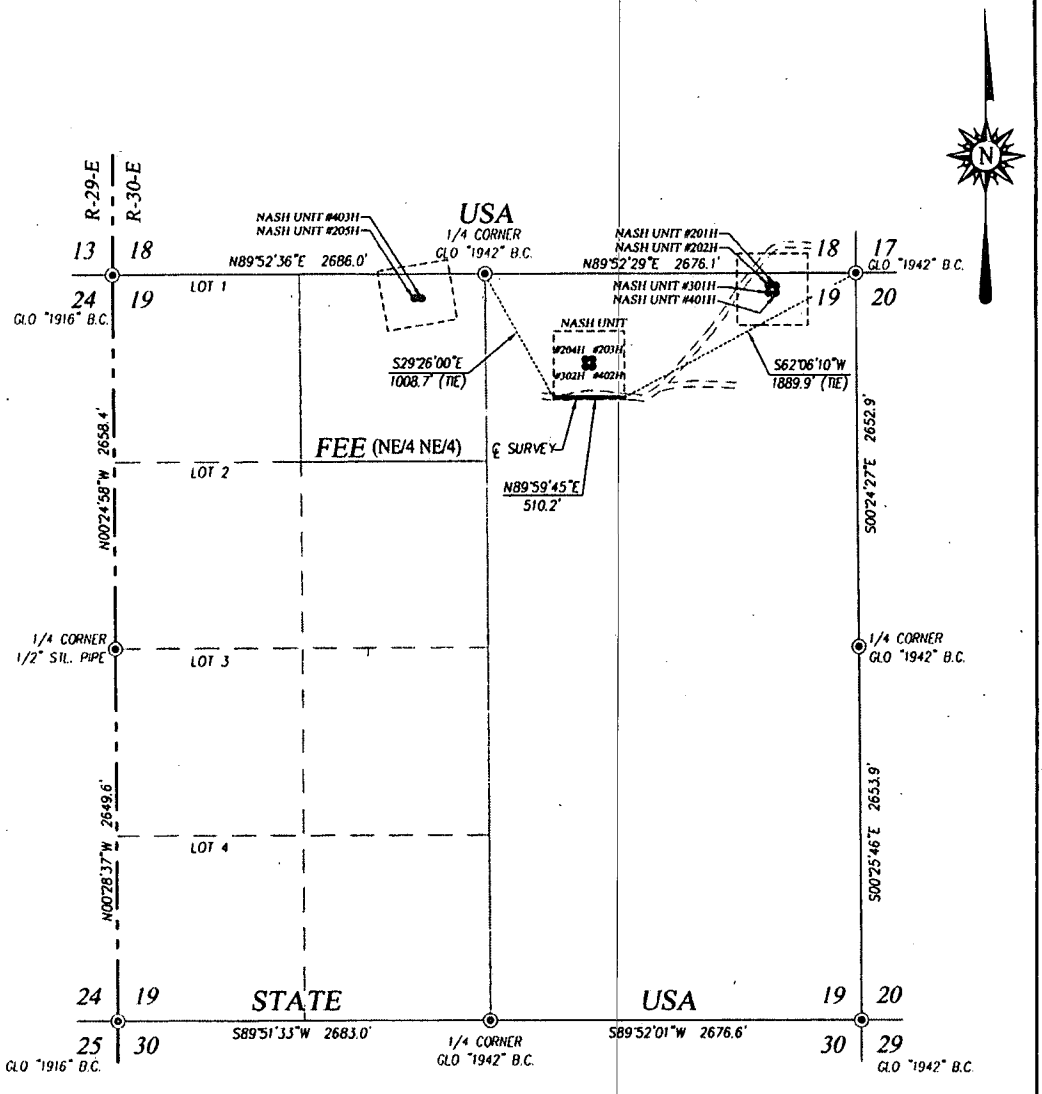
Scale: 1"=1000'

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

XTO ENERGY

SURVEY FOR AN ACCESS ROAD FOR THE NASH UNIT #205H & #403H CROSSING SECTION 19, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 3/09/17	CAD Date: 1/23/18	Drawn By: LSL	
W.O. No.: 18130046	Rev: .	Rel. W.O.: 17110158	Sheet 1 of 1



DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 510.2 FEET OR 0.097 MILES IN LENGTH CROSSING USA LAND IN SECTION 19, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 01/24/2019

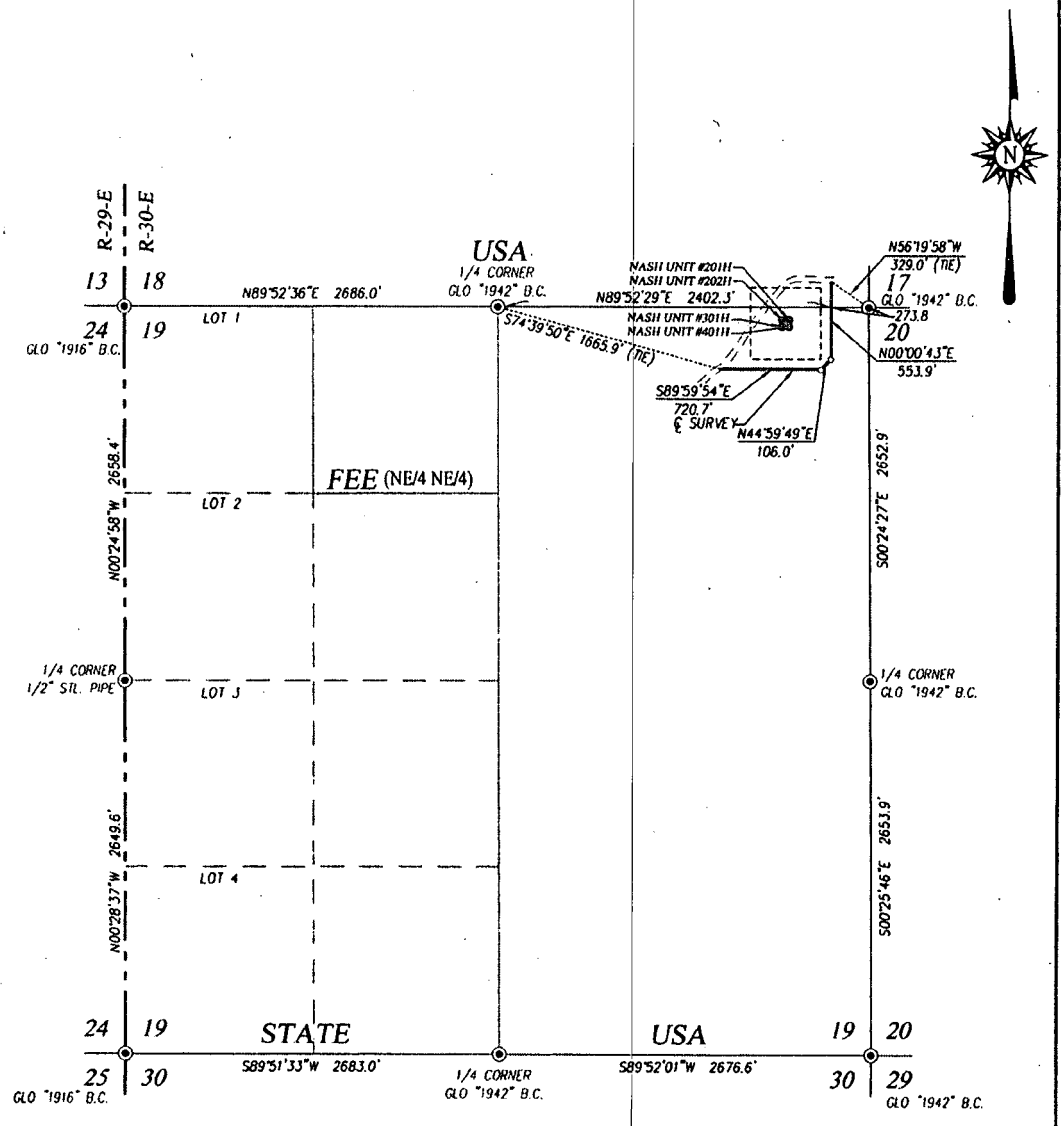
NEW MEXICO 3239 PROFESSIONAL SURVEYOR

XTO ENERGY

SURVEY FOR AN ACCESS ROAD FOR
THE NASH UNIT #203H, #204H, #302H & #402H
CROSSING SECTION 19,
TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Survey Date: 3/09/17	CAD Date: 1/17/18	Drawn By: LSL
W.O. No.: 18130046	Rev: .	Rel. W.O.: 17110158	Sheet 1 of 1

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000



DESCRIPTION

SURVEY OF A STRIP OF LAND 30.0 FEET WIDE AND 1380.6 FEET OR 0.261 MILES IN LENGTH CROSSING USA LAND IN SECTIONS 18 & 19, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO, AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON

DATE: 01/24/2018

LEGEND

⊙ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

PROVIDING SURVEYING SERVICES SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO HOBBS, N.M. 88240

(575) 393-3117 www.jwsc.biz

TBPLS# 10021000

XTO ENERGY

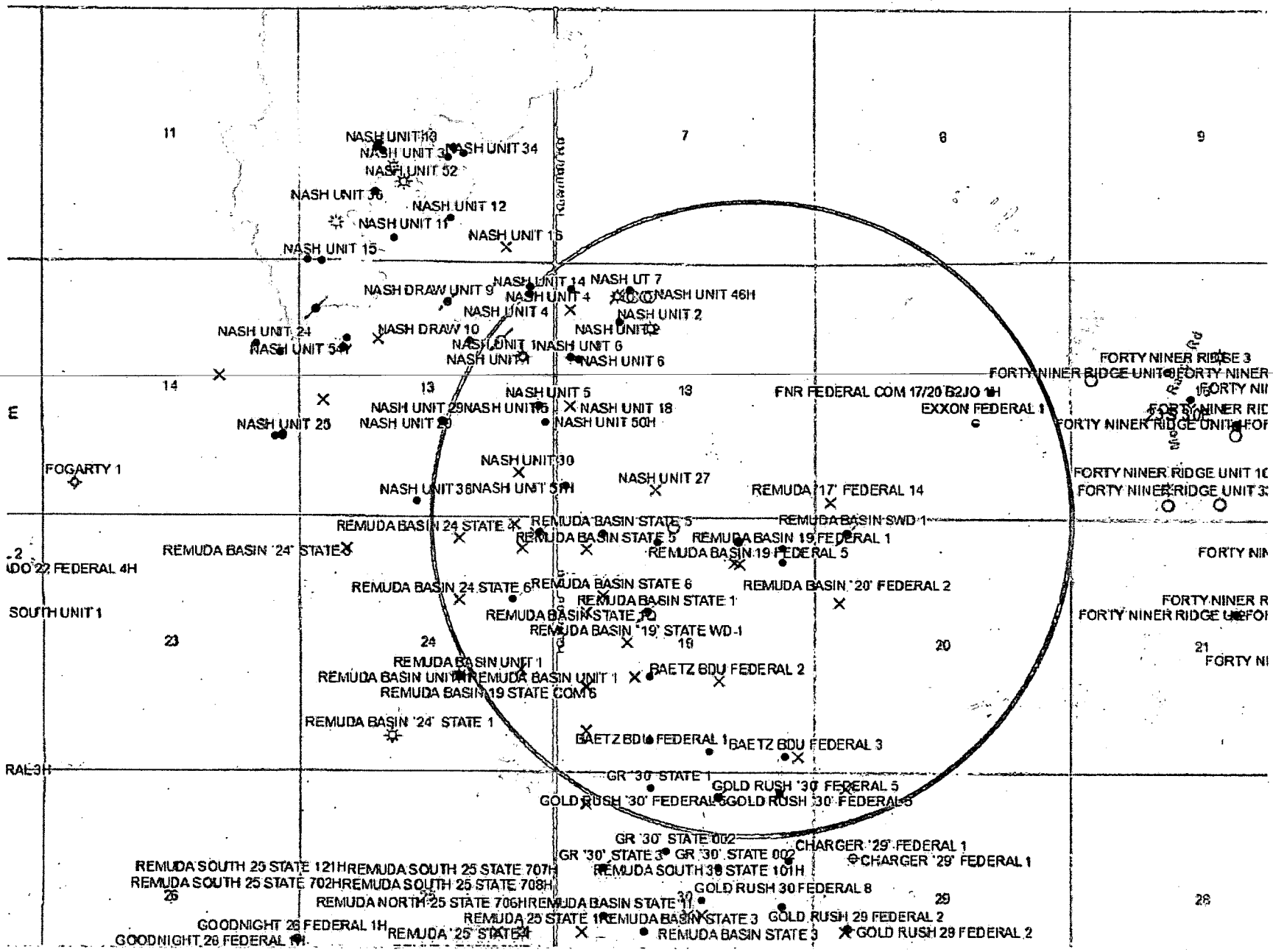
SURVEY FOR AN ACCESS ROAD CROSSING SECTION 18 & 19, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

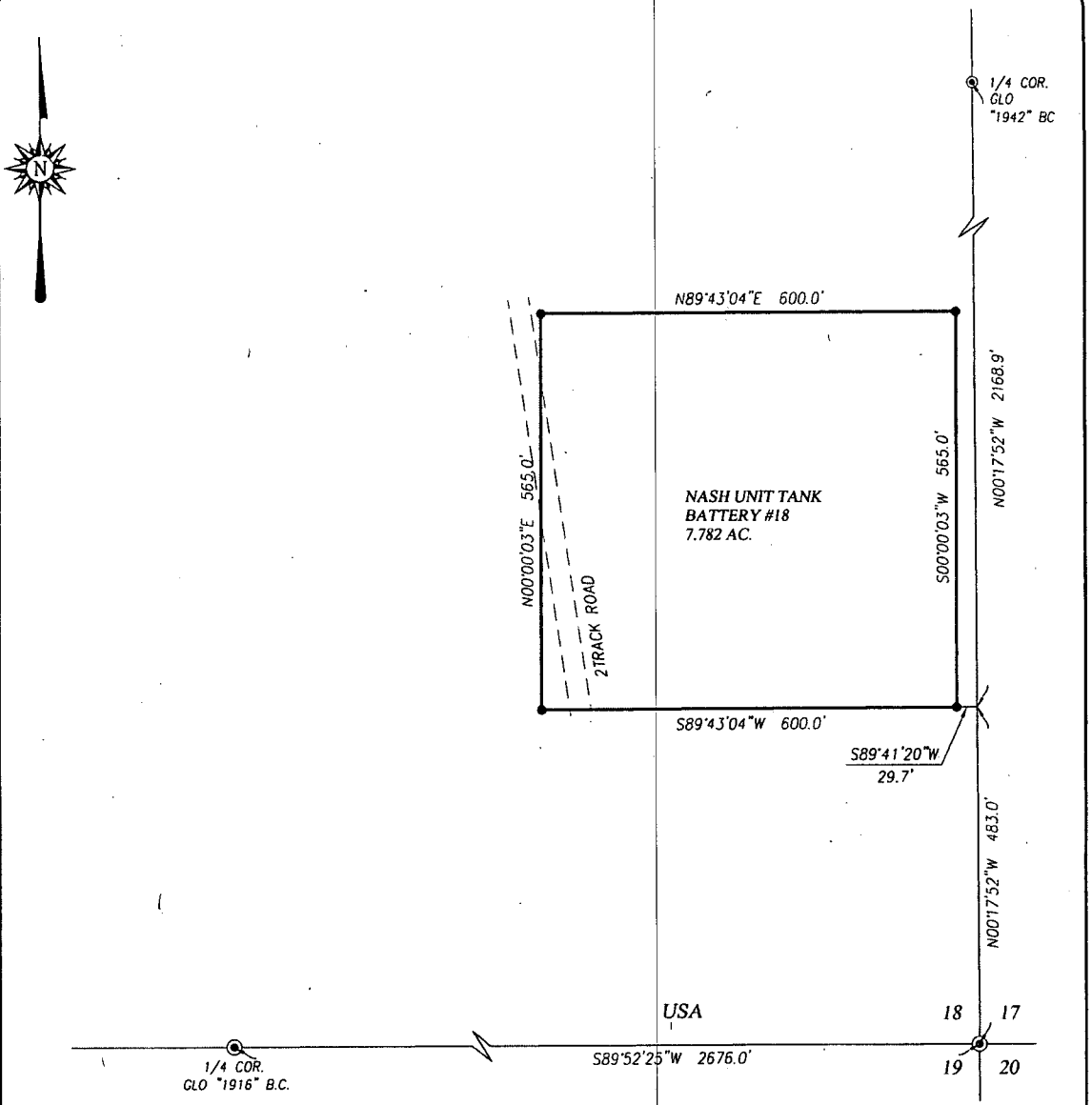
Survey Date: 3/09/17	CAD Date: 1/24/18	Drawn By: LSL
W.O. No.: 18130046	Rev: .	Rel. W.O.: 17110158	Sheet 1 of 1

© DRAFTING\Lorenzo\2018\XTO Energy\ACCESS ROAD\18130046 NASH UNITS WELLS IN SEC 19 T23S R30E EDDY CO

Nash Unit

1-Mile Radius Map





DESCRIPTION:

SURVEY FOR THE NASH UNIT TANK BATTERY #18 TRACT SITUATED IN THE SOUTHEAST QUARTER OF SECTION 18, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER WHICH LIES N00°17'52"W 483.0 FEET AND S89°41'20"W 29.7 FEET FROM THE SOUTHEAST CORNER; THEN S89°43'04"W 600.0 FEET; THEN N00°00'03"E 565.0 FEET; THEN N89°43'04"E 600.0 FEET; THEN S00°00'03"W 565.0 FEET TO THE POINT OF BEGINNING AND CONTAINING 7.782 ACRES MORE OR LESS.

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J. Eidson

DATE: 4/20/2018

STATE OF NEW MEXICO 3239 PROFESSIONAL SURVEYOR

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

100 0 100 200 Feet

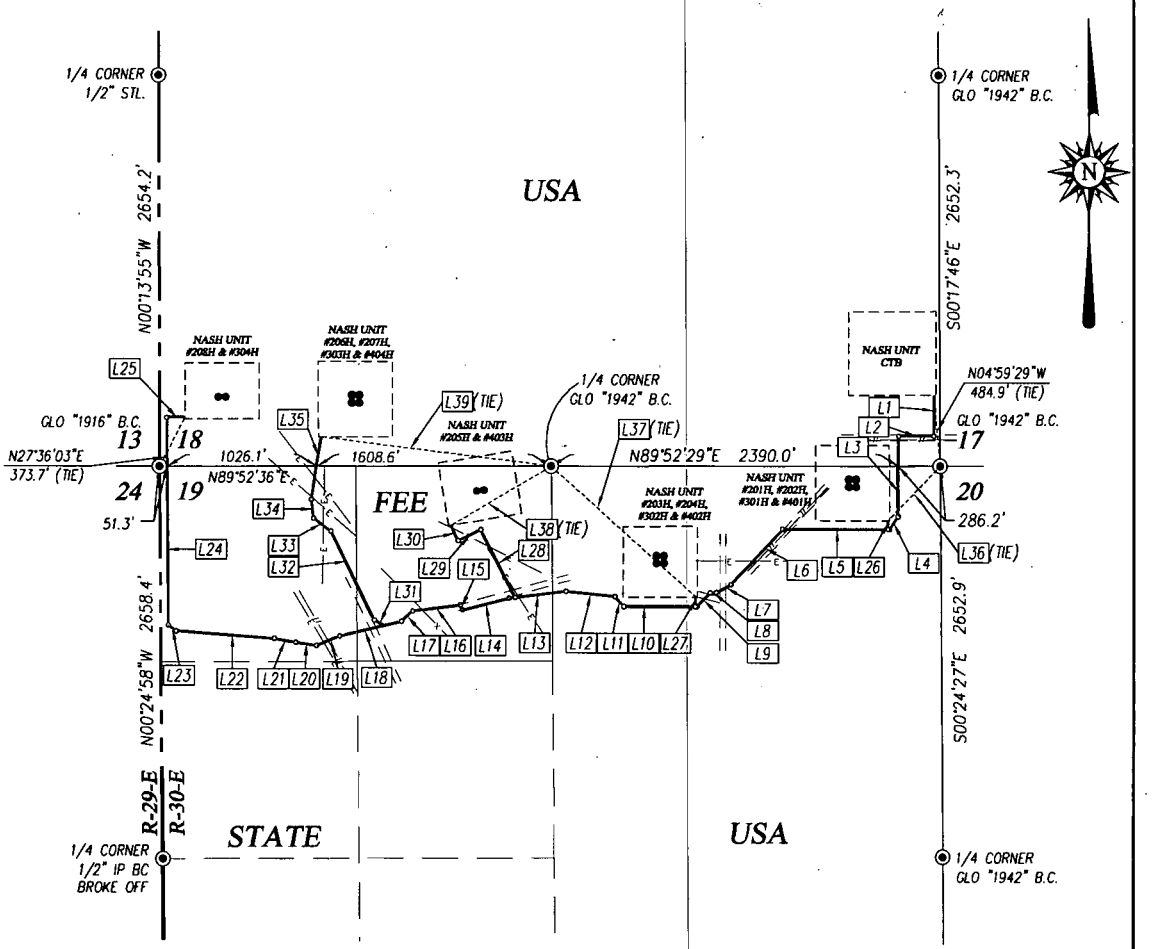
Scale: 1"=100'

XTO ENERGY

SURVEY FOR THE NASH UNIT TANK BATTERY #18
SITUATED IN THE SE/4 OF SECTION 18,
TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

Survey Date: 03/27/18	CAD Date: 04/13/18	Drawn By: LSL
W.O. No.: 18130432	Rev: .	Rel. W.O.:	Sheet 1 of 1

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000



LINE TABLE

LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE	LINE	BEARING	DISTANCE
L1	S00°00'32"W	276.8'	L14	S75°52'16"W	328.2'	L27	N03°25'17"E	60.1'
L2	N89°56'20"W	242.2'	L15	N25°07'34"W	37.2'	L28	N27°07'15"W	517.1'
L3	S00°28'41"W	550.7'	L16	S82°33'08"W	329.2'	L29	S64°02'01"W	172.2'
L4	S34°32'19"W	105.7'	L17	S47°25'02"W	104.2'	L30	N24°16'55"W	116.3'
L5	S89°59'03"W	737.2'	L18	S76°34'19"W	435.7'	L31	N62°42'32"W	78.5'
L6	S43°03'08"W	519.7'	L19	S68°09'08"W	170.3'	L32	N26°20'51"W	674.5'
L7	S62°37'11"W	110.6'	L20	N81°22'08"W	143.8'	L33	N53°08'59"W	147.6'
L8	S87°04'38"W	42.8'	L21	N79°47'40"W	150.3'	L34	N06°45'16"W	127.9'
L9	S44°18'37"W	132.5'	L22	N85°53'15"W	674.8'	L35	N08°49'41"E	432.8'
L10	S89°59'00"W	501.8'	L23	N53°54'20"W	69.0'	L36(TIE)	S44°03'11"W	516.5'
L11	N41°40'40"W	91.8'	L24	N00°28'02"W	1411.6'	L37(TIE)	S48°15'52"E	1334.3'
L12	N84°12'07"W	338.0'	L25	S89°55'20"E	124.6'	L38(TIE)	S59°28'48"W	793.2'
L13	S82°56'33"W	393.6'	L26	N00°32'34"W	60.1'	L39(TIE)	N82°52'36"W	1589.8'

NOTE

BEARINGS SHOWN HEREON ARE MERCATOR GRID AND CONFORM TO THE NEW MEXICO COORDINATE SYSTEM, "NEW MEXICO EAST ZONE" NORTH AMERICAN DATUM 1983. DISTANCES ARE SURFACE VALUES.

I, RONALD J. EIDSON, NEW MEXICO PROFESSIONAL SURVEYOR No. 3239, DO HEREBY CERTIFY THAT THIS SURVEY PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

RONALD J. EIDSON Ronald J Eidson

DATE: 05/08/2018

RONALD J. EIDSON 3239 PROFESSIONAL SURVEYOR NEW MEXICO

LEGEND

◉ DENOTES FOUND CORNER AS NOTED

1000 0 1000 2000 FEET

Scale: 1"=1000'

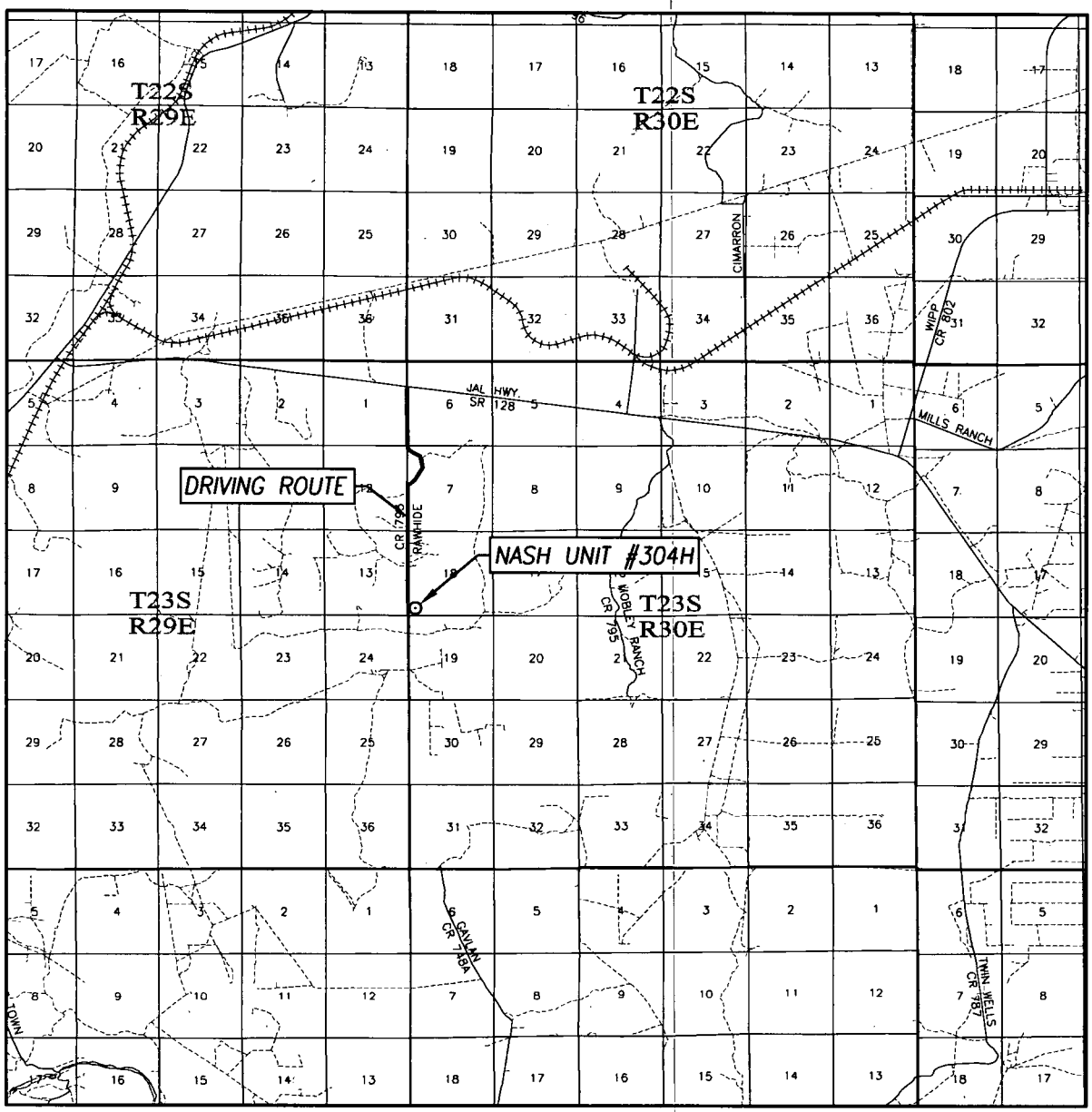
PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

XTO ENERGY

SURVEY FOR BURIED & SURFACE FLOWLINES TO THE NASH UNIT WELLS IN SECTIONS 18 & 19, TOWNSHIP 23 SOUTH, RANGE 29 EAST, N.M.P.M. EDDY COUNTY, NEW MEXICO

Survey Date: 04/10/18	CAD Date: 04/26/18	Drawn By: LSL
W.O. No.: 18110435	Rev: .05/08/18	Rel. W.O.:	Sheet 1 of 1

VICINITY MAP



SCALE: 1" = 2 MILES

DRIVING ROUTE: SEE TOPOGRAPHICAL AND ACCESS ROAD MAP

SEC. 18 TWP. 23-S RGE. 30-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 470' FSL & 405' FWL

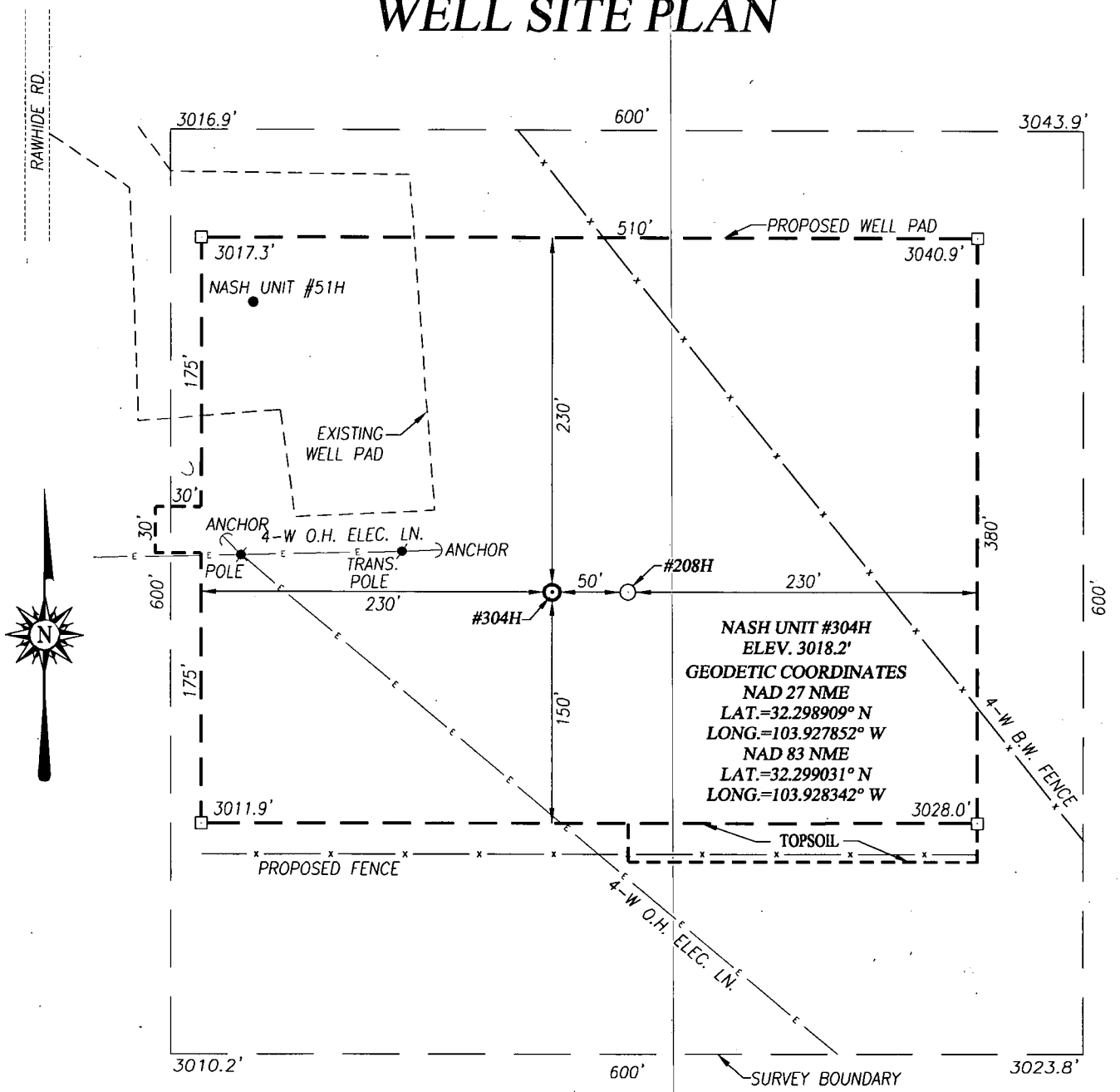
ELEVATION 3018'

OPERATOR XTO ENERGY

LEASE NASH UNIT

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

WELL SITE PLAN



NOTE:
SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO THIS LOCATION:

FROM THE INTERSECTION OF ST. HWY. 128 AND CO. RD. #793 (RAWHIDE ROAD), GO SOUTH ON CO. RD. 793 (RAWHIDE RD.) FOR APPROX. 3.4 MILES. TURN LEFT AND GO EAST APPROX. 100 FEET TO THIS LOCATION.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

XTO ENERGY

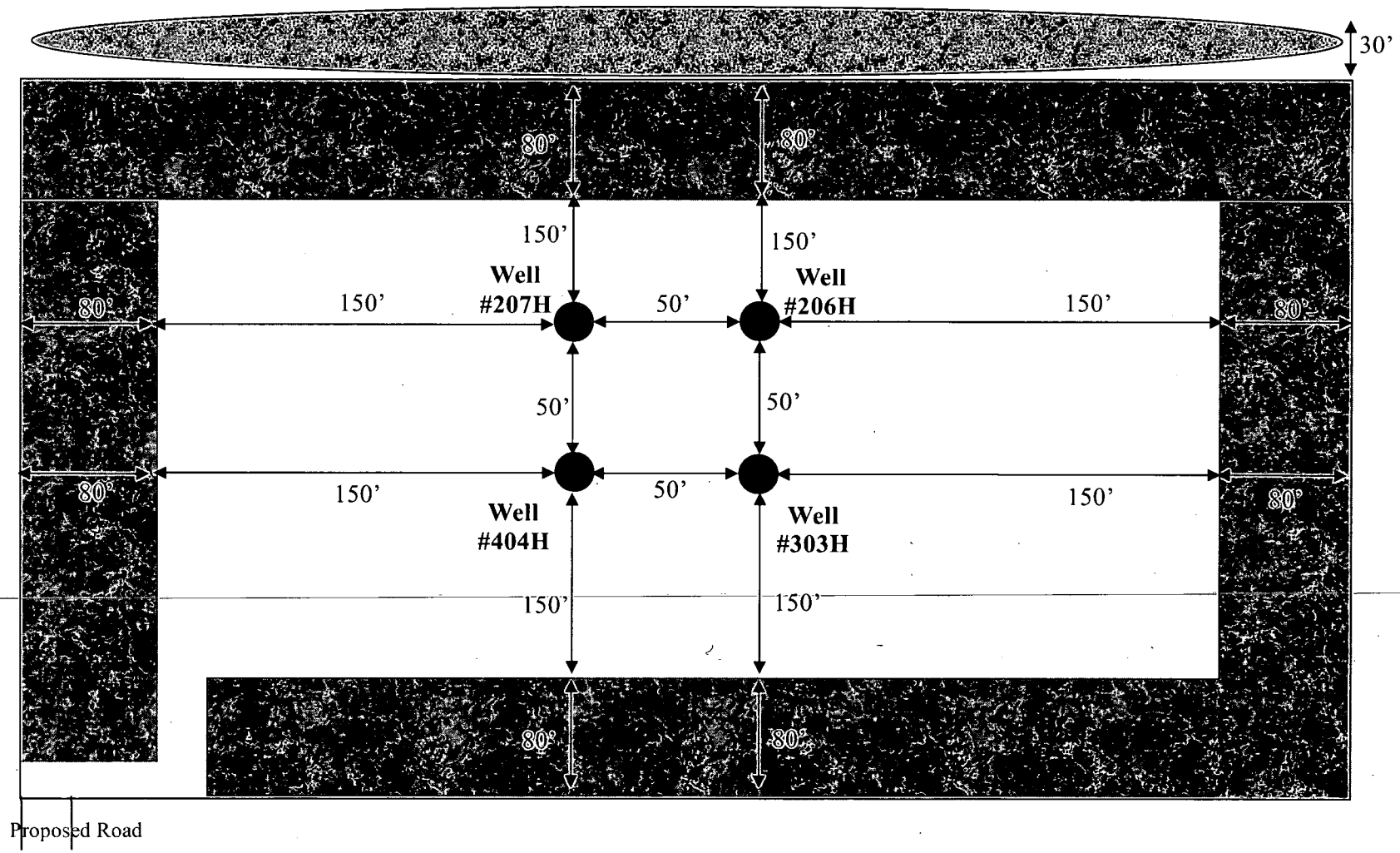
NASH UNIT #304H WELL
LOCATED 470 FEET FROM THE SOUTH LINE
AND 405 FEET FROM THE WEST LINE OF SECTION 18,
TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

Survey Date: 3/14/17	CAD Date: 3/31/17	Drawn By: ACK
W.O. No.: 16110974	Rev: .	Rel. W.O.:	Sheet 1 of 1

Interim Reclamation Diagram

Nash Unit #207H, 206H, 303H, 404H

V-Door East (All Wells)



N

LEGEND

Wellbore

Interim Reclamation

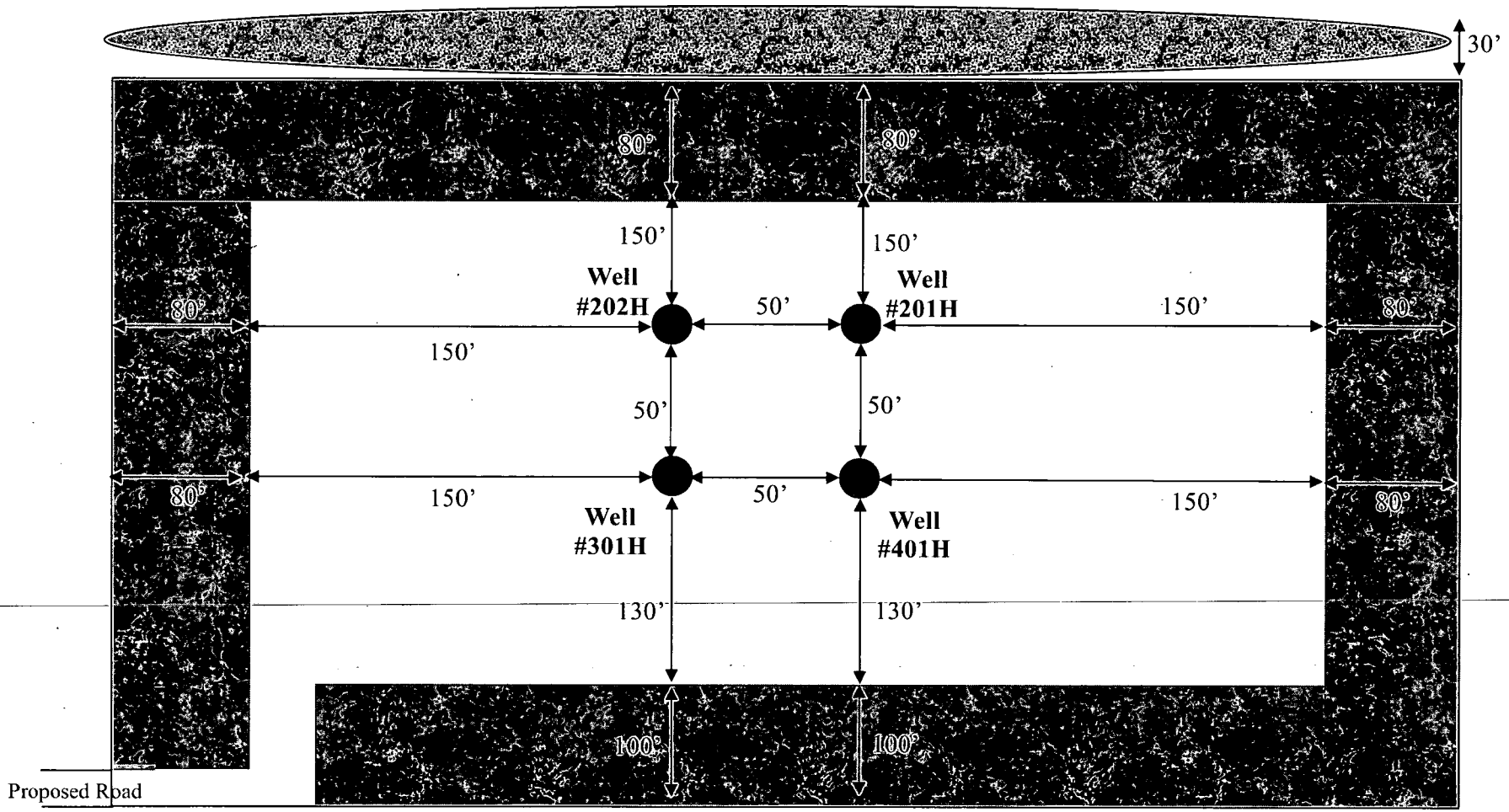
Ditch & Berm

Topsoil

Interim Reclamation Diagram

Nash Unit #201H, 202H, 301H, 401H

V-Door East (All Wells)



N

LEGEND

Wellbore

Interim Reclamation

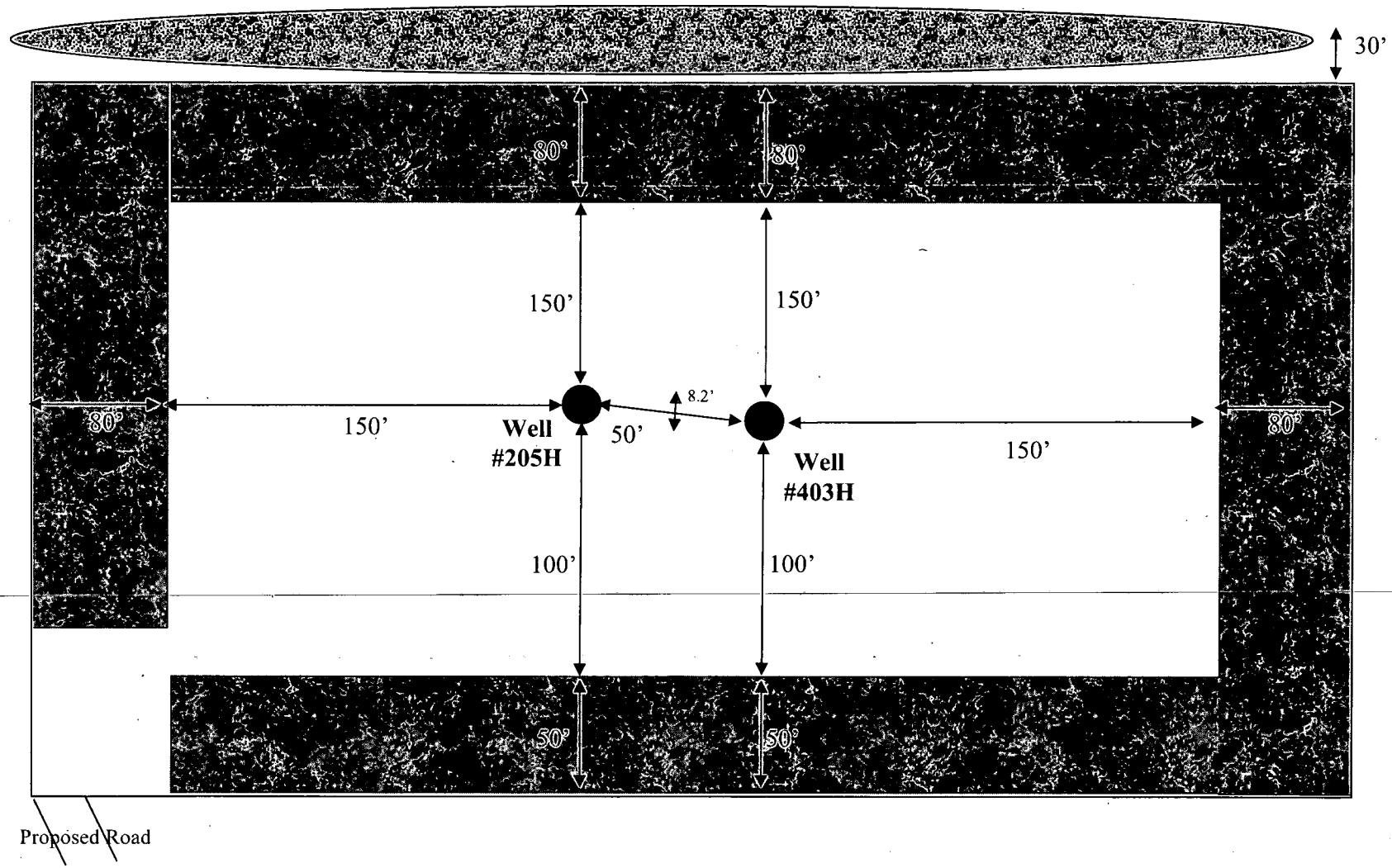
Ditch & Berm

Topsoil

Interim Reclamation Diagram

Nash Unit #205H, 403H

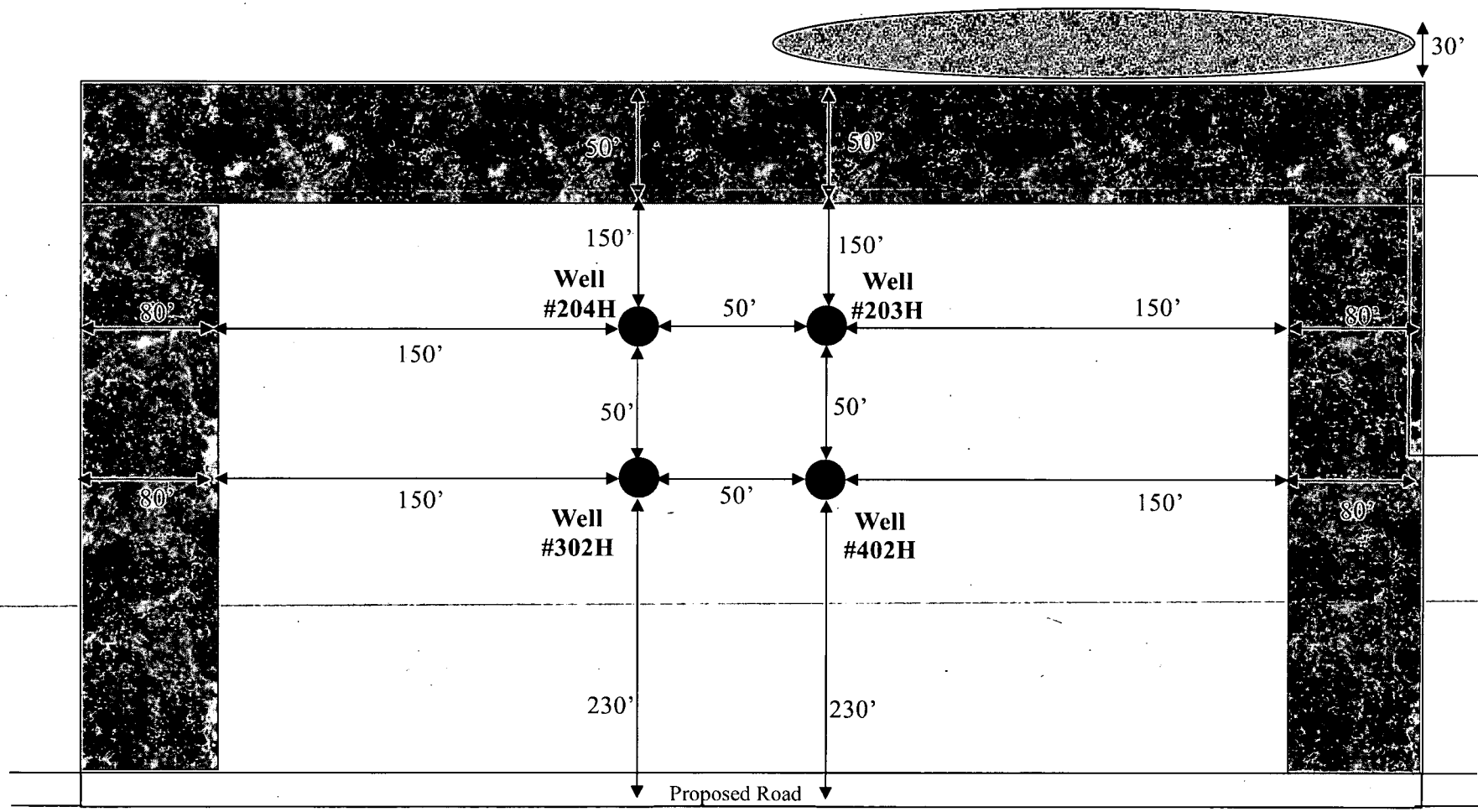
V-Door East (All Wells)



Interim Reclamation Diagram

Nash Unit #203H, 204H, 302H, 402H

V-Door East (All Wells)



N

Wellbore

Interim Reclamation

LEGEND

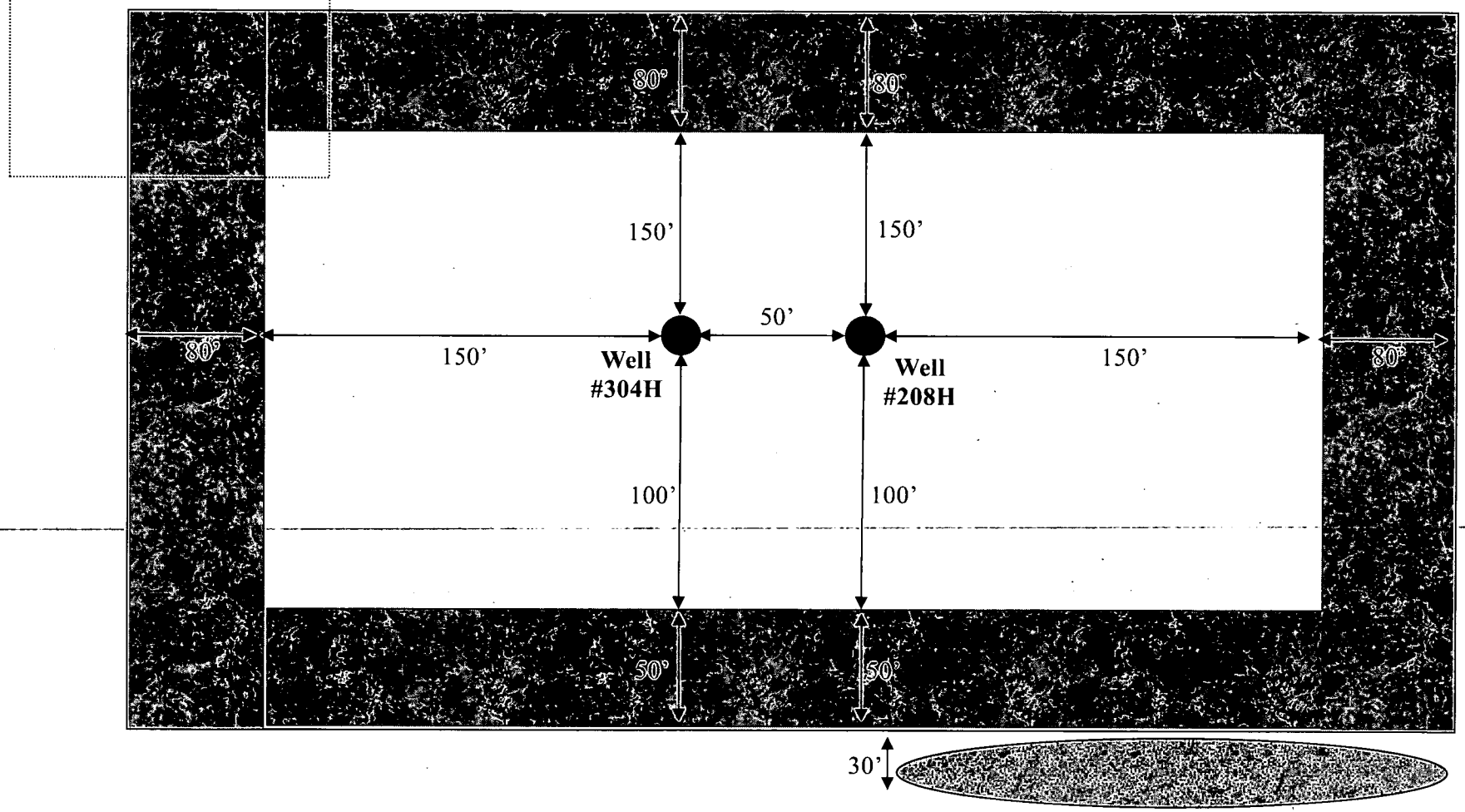
Ditch & Berm

Topsoil

Interim Reclamation Diagram

Nash Unit #208H, 304H

V-Door West (All Wells)



N

LEGEND

Wellbore

Interim Reclamation

Ditch & Berm

Topsoil

Well Site Locations

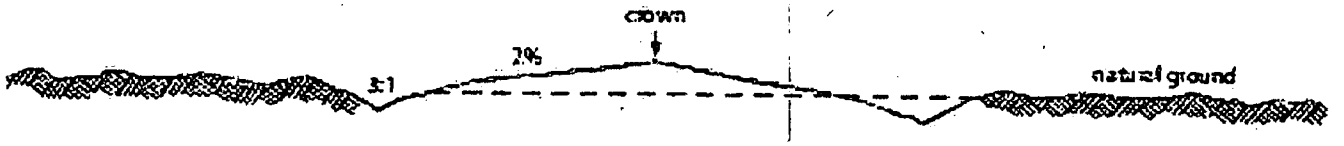
The results of the Nash Unit Development Program will develop economic quantities of oil and gas in the Nash Unit with multiple primary formations targeted. Well locations are determined based on cross-section variations and details. Locations will be selected to minimize the likelihood of encountering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

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

Surface Use Plan

1. **Existing Roads**
   A. Nash Unit is accessed from State Highway 128 and County Road #793 (Rawhide Road). Go South on County Road #793 (Rawhide Road) for approximately 3.4 miles. Turn right and go West approximately .1 miles to the location. Transportation Plan identifying existing roads that will be used to access the project area is included from John West Surveying marked as, 'Vicinity Map.'
   B. There are multiple existing access roads to the proposed Nash Unit well locations. All equipment and vehicles will be confined to the routes shown on the Vicinity Map as provided by John West Surveying. Maintenance of the access roads will continue until abandonment and reclamation of the well pads is completed.

2. **New or Upgraded Access Roads**
   A. **New Roads**. There is a total of approximately 2068.2' of proposed and staked new access roads in the Nash Unit development area to all proposed well pads.
   B. **Well Pads**. The well pads selected for development will determine which existing roads will be upgraded and which new roads will be built. The access road plats attached show the location of proposed roads that will need to be constructed to access the well pads. All existing 2-track roads will be upgraded.
   C. **Anticipated Traffic**. After well completion, travel to each well site will included one lease operator truck and two oil trucks per day until the Central Tank Battery is completed. Upon completion of the Central Tank Battery, one lease operator truck will continue to travel to each well site to monitor the working order of the wells and to check well equipment for proper operation. Two oil trucks will continue to travel to the Central Tank Battery only for oil hauling. Additional traffic will include one maintenance truck periodically throughout the year for pad upkeep and weed removal. Well service trips will include only the traffic necessary to work on the wells or provide chemical treatments periodically and as needed throughout the year.
   D. **Routing**. All equipment and vehicles will be confined to the travel routes laid out in the vicinity map provided by John West Surveying unless otherwise approved by the BLM and applied for by XTO Energy, Inc.
   E. **Road Dimensions**. The maximum width of the driving surface of new roads will be 14 feet. The roads will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.



Level Ground Section

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

3. Location of Existing Wells

A. See attached 1-mile radius well map.

4. Ancillary Facilities

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

5. Location of Proposed Production Facilities

A. **Production Facilities**. One 600' x 565' pad was staked with the BLM for construction and use as the Nash Unit 18 Central Tank Battery (CTB). The pad is located in Section 18-23S-30E, NMPM, Eddy County, New Mexico. A plat of the proposed facility is attached. Only the area necessary to maintain facilities will be disturbed. A 3160-5 sundry notification will be submitted after construction with a site-security diagram and layout of the facility with associated equipment.
B. **Surface & Buried Flowlines**. In the event the wells are found productive, 1 - 4" composite flexpipe or steel flowlines with a maximum safety pressure rating of 750psi (operating pressure: 125psi) will be laid on the surface within proposed lease road corridors from the proposed wells to Nash Unit 18 CTB where the oil, gas, and water will be metered and appropriately separated. High pressure gas lines will be buried beneath the surface flowlines per well pad within the proposed lease road corridors for gas lift. Oil will be hauled from the CTB location by truck following existing and proposed lease roads. The distance of proposed flowlines per well will be approximately 10,410' or less per well based on the location of the well pad in conjunction with the facility location. All flowlines will follow proposed lease road corridors. A plat of the proposed surface and buried flowline route for the lease is attached.

C. **Gas Pipeline**. A gas purchaser has been identified and will be building to XTO Energy, Incorporated's CTB.

D. **Disposal Facilities**. Produced water will be hauled from location to a commercial disposal facility as needed. Once wells are drilled and completed, a 3160-5 sundry notification will be submitted to BLM in compliance with Onshore Order 7.

E. **Flare**. There is 1 flare associated with the Nash Unit development project. The flare stack will be 50'x50', be located on the approved CTB pad, and will be sized and rated based on anticipated reserves and recovery of gas throughout the development area with 150' of distance between all facility equipment, road and well pad locations for safety purposes.

F. **Aboveground Structures**. All permanent (on site six months or longer) aboveground structures constructed or installed on location and not subject to safety requirements will be painted earth-tone colors such as 'shale green' that reduce the visual impacts of the built environment.

G. **Containment Berms**. Containment berms will be constructed completely around any production facilities designed to hold fluids. The containment berms will be constructed of compacted subsoil, be sufficiently impervious, hold 1 ½ times the capacity of the largest tank and away from cut or fill areas.

H. **Electrical**. XTO Energy, Inc is not applying for electrical with this application. Electrical will be applied for via Right-of-Way with the Bureau of Land Management in conjunction with the New Mexico State Land Office.

6. Location and Types of Water Supply

The well will be drilled using a combination of water mud systems as outlined in the Drilling Program. The water will be obtained from a 3rd party vendor and hauled to the anticipated pit in Section 13 by transport truck using the existing and proposed roads depicted in the attached exhibits. No water well will be drilled on the location.

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

Select Energy Services [Rockhouse Water]

Water for drilling, completion and dust control will be supplied by Select Energy Services for sale to XTO Energy, Inc. from Section 21-23S-R30E, Eddy County, New Mexico. In the event that Select Energy Services does not have the appropriate water for XTO at time of drilling and completion, then XTO water will come from Intrepid Potash Company with the location of the water being in Section 6, T25S-R29E, Eddy County, New Mexico.

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

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

7. Construction Activities

A. Construction, reclamation, and/or routine maintenance will not be conducted during periods when the soil conditions for construction could lead to impacts to the surrounding environment, or when watershed damage is likely to occur as a result of these activities.

B. Any construction material that may be required for surfacing of the drill pad and access road will be from a contractor having a permitted source of materials within the general area. No construction

materials will be removed from federal lands without prior approval from the appropriate surface management agency. All roads and well pads will be constructed of 6" rolled and compacted caliche.

C. Anticipated Caliche Locations:
   a. Pit 1: State Caliche Pit, 613-Eddy, Sec 2-24S-33E
   b. Pit 2: Federal Caliche Pit, Section 34-23S-29E

8. Methods for Handling Waste

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

9. Well Site Layout

A. **Rig Plat Diagrams**: There are 5 multi-well pads in the Nash Unit development area anticipated. This will allow enough space for cuts and fills, topsoil storage, and storm water control. Interim reclamation of these pads is anticipated after the drilling and completion of all wells on the pad. Well site layouts for all pads are attached. From West to East:

1. Pad 1 is a 2-well pad expected to be 510'x410'.
2. Pad 2 is a 4-well pad expected to be 540'x510'.
3. Pad 3 is a 2-well pad expected to be 510'x460'.
4. Pad 4 is a 4-well pad expected to be 510'x510'.
5. Pad 5 is a 4-well pad expected to be 540'x510'.

Closed-Loop System: There will be no reserve pit as each well will be drilled utilizing a closed loop mud system. The closed loop system will meet the NMOCD requirements 19.15.17.

B. **V-Door Orientation**: These wells were staked with multiple v-door orientations. The following list is from West to East in accordance to the staked section and as agreed upon with Brooke Wilson: BLM Natural Resource Specialist, Jim Goodbar: BLM Cave/Karst Specialist, Chelsie Dugan: BLM Hydrologist, and Jim Rutley: BLM Geologist present at on-site inspection.

1. Pad 1 has a V-Door Orientation of West.
2. Pad 2 has a V-Door Orientation of East.
3. Pad 3 has a V-Door Orientation of East.
4. Pad 4 has a V-Door Orientation of East.
5. Pad 5 has a V-Door Orientation of East.

C. A 600' x 600' area has been staked and flagged around each well pad. A plat for the well has been attached.

D. All equipment and vehicles will be confined to the approved disturbed areas of this APD (i.e., access road, well pad and topsoil storage areas).

E. **Hydrology Conditions**: All well pads will be lined and bermed on the fill side of the location as agreed upon with Brooke Wilson: BLM Natural Resource Specialist, Jim Goodbar: BLM Cave/Karst Specialist, Chelsie Dugan: BLM Hydrologist, and Jim Rutley: BLM Geologist present at on-site inspection.

1. *Nash Unit 203H, 204H, 302H, 402H*: Ditch needed around East side of pad to the North side to divert water.
2. *Nash Unit 205H, 403H*: Ditch needed around East side of pad to the South side to divert water.
3. *Nash Unit 206H, 207H, 303H, 404H*: Ditch needed around East side of pad to the South side to divert water.
4. *Nash Unit 208H, 304H*: Ditch needed around East side of pad to the South side to divert water.

F. **Well Pad Conditions**:

ii. *Nash Unit 206H, 207H, 303H, 404H:* Location will be fenced, per request of grazing lessee.

iii. *Nash Unit 208H, 304H*: Location requires fence cuts for building. Fence will be rebuilt around location and adjusted to the interim reclamation pad boundary.

10. Plans for Surface Reclamation:

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

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

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

Reclamation Standards:

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

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

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

A self-sustaining, vigorous, diverse, native (or otherwise approved) 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.

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

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

Seeding:

- Seedbed Preparation: Initial seedbed preparation will consist of recontouring to the appropriate interim or final reclamation standard. All compacted areas to be seeded will be ripped to a minimum depth of 18 inches with a minimum furrow spacing of 2 feet, followed by recontouring the surface and then evenly spreading the stockpiled topsoil. Prior to seeding, the seedbed will be scarified to a depth of no less than 4-6 inches. If the site is to be broadcast seeded, the surface will be left rough enough to trap seed and snow, control erosion, and increase water infiltration.
- If broadcast seeding is to be used and is delayed, final seedbed preparation will consist of contour cultivating to a depth of 4-6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- Seed Application. Seeding will be conducted no more than two weeks following completion of final seedbed preparation. A certified weed-free seed mix designed by the BLM to meet reclamation standards will be used.
- If the site is harrowed or dragged, seed will be covered by no more than 0.25 inch of soil.

11. Surface Ownership

A. Within the Nash Unit development project area:
   a. Approximately 75% of the surface is under the administrative jurisdiction of the Bureau of Land Management.
   b. Approximately 20% is located on Fee Land. A private, cooperative agreement has been made with the land owner, Mobley.
   c. Approximately 5% of the surface is under the administrative jurisdiction of New Mexico State Land.

B. The surface is multiple-use with the primary uses of the region for grazing and for the production of oil and gas.

12. Other Information

Surveying

- **Well Sites**. Well pad locations have been staked. Surveys of the proposed access roads and well pad locations have been completed by John West, a registered professional land surveyor. Center stake surveys with access roads have been completed on State and Federal lands with Brooke Wilson, Bureau of Land Management Natural Resource Specialist in attendance.

- **Cultural Resources – Archaeology**: A Class III Cultural Resources Examination has been completed on all wells by Boone Archaeological Services and the results will be forwarded to the BLM Office.

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

Soils and Vegetation

- **Environmental Setting**. According to the Natural Resources Conservation Service online database, the project area soils consist of Reeves soils. These soils are associated with the Loamy ecological site (R042CX007NM) which typically supports black and blue grama and tobosa grasslands with an even distribution of yucca, mesquite, American tarbush, cholla, and creosote. The current vegetative community consists of mesquite, creosote, soapweed yucca, broom snakeweed, javelin bush, and desert grasses and forbs. The project area lies on a heavily eroded and rocky terrain near a deep arroyo. The project area is situated approximately 1.6 miles of Remuda Basin and 7.2 miles east of the Pecos River.

- **Traffic**. No truck traffic will be operated during periods or in areas of saturated ground when surface rutting could occur. The access road will be constructed and maintained as necessary to prevent soil erosion and accommodate all-weather traffic. The road will be crowned and ditched with water turnouts installed as necessary to provide for proper drainage along the access road route.

- **Water**. There is no permanent or live water within the immediate project area.

13. Bond Coverage

Bond Coverage is Nationwide. Bond Number: UTB0000138

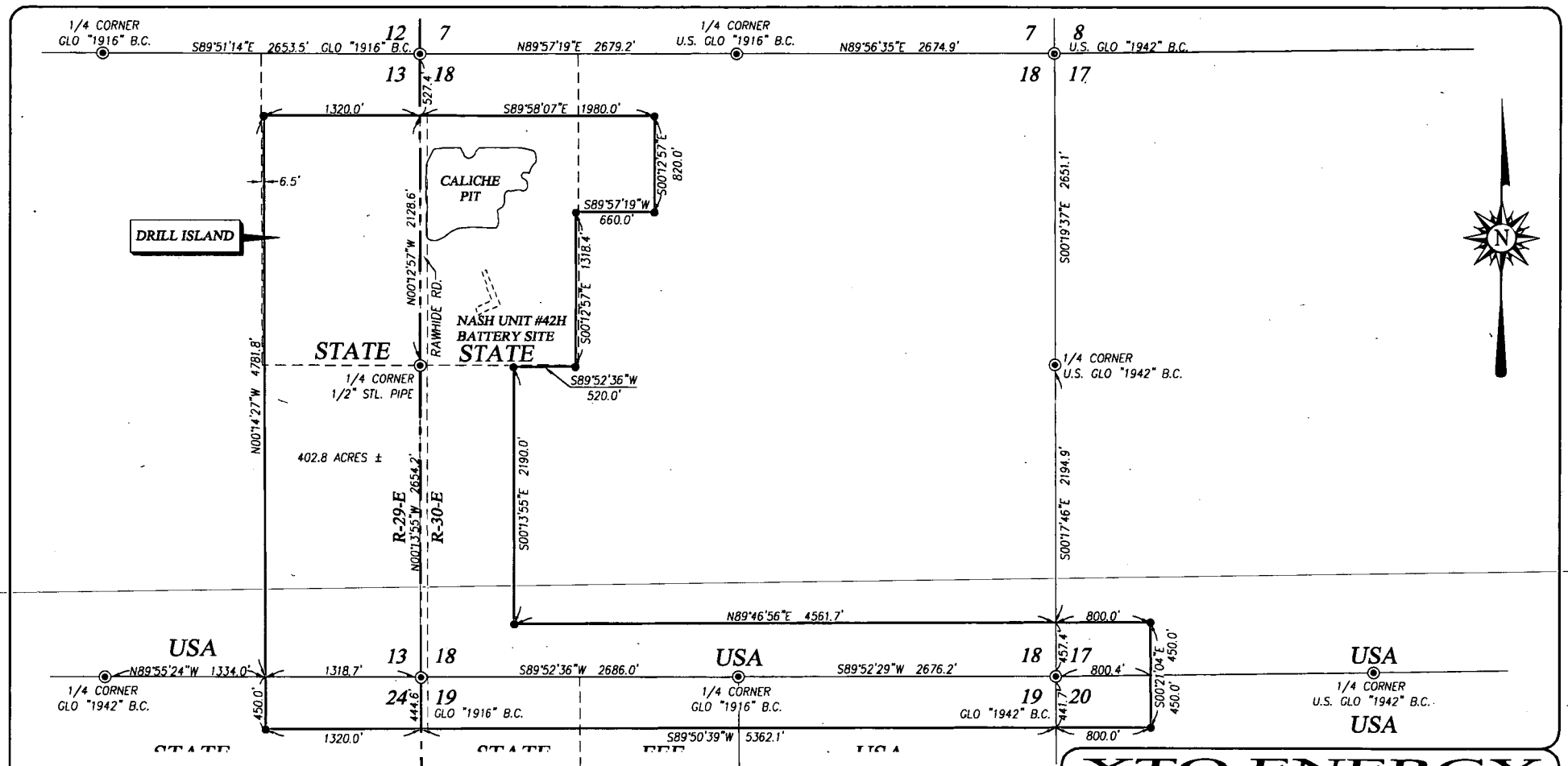
Operator's Representatives:

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

Surface:

Jimie Scott
Contract Construction Lead
XTO Energy, Incorporated
500 W. Illinois St., Suite 100
Midland, Texas 79701
432-488-9955
james_scott@xtoenergy.com

Jeff Raines
Construction Superintendent
XTO Energy, Incorporated
500 W. Illinois St., Suite 100
Midland, Texas 79701
432-620-4349
jeff_raines@xtoenergy.com



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

LEGEND:

◉ – DENOTES FOUND CORNER AS NOTED
● – DENOTES SET SPIKE NAIL W/ T-POST

XTO ENERGY

NASH UNIT LEASE DRILL ISLAND LOCATED IN SECTIONS 13 & 24, TOWNSHIP 23 SOUTH, RANGE 29 EAST AND SECTIONS 17, 18, 19 & 20, TOWNSHIP 23 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO

Survey Date: 12/21/16	CAD Date: 1/3/17	Drawn By: ACK
W.O. No.: 16111029	Rev: .	Rel. W.O.:	Sheet 1 of 1

Well Name	Pad [AFMSS2]	Notes	SHL Footages	SHL STR	BHL Footages	BHL STR	Flowline Distance
Nash Unit 201H	1	Onsited B. Wilson, J. Rutley, C. Dugan, J. Goodbar	90' FNL & 580' FEL	19-23S-30E	1120' FSL & 355' FEL	6-23S-30E	1175.4
Nash Unit 202H	1	Onsited B. Wilson, J. Rutley, C. Dugan, J. Goodbar	90' FNL & 630' FEL	19-23S-30E	1120' FSL & 990' FEL	6-23S-30E	1175.4
Nash Unit 301H	1	Onsited B. Wilson, J. Rutley, C. Dugan, J. Goodbar	140' FNL & 630' FEL	19-23S-30E	1120' FSL & 990' FEL	6-23S-30E	1175.4
Nash Unit 401H	1	Onsited B. Wilson, J. Rutley, C. Dugan, J. Goodbar	140' FNL & 580' FEL	19-23S-30E	1120' FSL & 355' FEL	6-23S-30E	1175.4
Nash Unit 203H	2	Same SUPO as 201H	610' FNL & 1905' FEL	19-23S-30E	200' FNL & 1650' FEL	6-23S-30E	2838.4
Nash Unit 204H	2	Same SUPO as 201H	610' FNL & 1955' FEL	19-23S-30E	200' FNL & 2310' FEL	6-23S-30E	2838.4
Nash Unit 302H	2	Same SUPO as 201H	660' FNL & 1955' FEL	19-23S-30E	200' FNL & 2310' FEL	6-23S-30E	2838.4
Nash Unit 402H	2	Same SUPO as 201H	660' FNL & 1905' FEL	19-23S-30E	200' FNL & 1650' FEL	6-23S-30E	2838.4
Nash Unit 206H	3	Same SUPO as 201H	480' FSL & 1370' FWL	18-23S-30E	200' FNL & 1650' FWL	6-23S-30E	6739.2
Nash Unit 207H	3	Same SUPO as 201H	480' FSL & 1320' FWL	18-23S-30E	200' FNL & 990' FWL	6-23S-30E	6739.2
Nash Unit 303H	3	Same SUPO as 201H	430' FSL & 1370' FWL	18-23S-30E	200' FNL & 1650' FWL	6-23S-30E	6739.2
Nash Unit 404H	3	Same SUPO as 201H	430' FSL & 1320' FWL	18-23S-30E	200' FNL & 990' FWL	6-23S-30E	6739.2
Nash Unit 209H	4	APD Not Submitted; Separate SUPO	395'FSL & 940'FEL	13-23S-29E	200'FNL & 330'FEL	1-23S-29E	N/A - Going to Different CTB
Nash Unit 210H	4	APD Not Submitted; Separate SUPO	395'FSL & 990'FEL	13-23S-29E	200'FNL & 900'FEL	1-23S-29E	N/A - Going to Different CTB
Nash Unit 305H	4	APD Not Submitted; Separate SUPO	345'FSL & 990'FEL	13-23S-29E	200'FNL & 990'FEL	1-23S-29E	N/A - Going to Different CTB
Nash Unit 405H	4	APD Not Submitted; Separate SUPO	345'FSL & 940'FEL	13-23S-29E	200'FNL & 330'FEL	1-23S-29E	N/A - Going to Different CTB
Nash Unit 205H	6	APD Not Submitted; Same SUPO as 201H	170' FNL & 2175' FWL	19-23S-30E	200' FNL & 2310' FWL	6-23S-30E	4849
Nash Unit 403H	6	APD Not Submitted; Same SUPO as 201H	170' FNL & 2225' FWL	19-23S-30E	200' FNL & 2310' FWL	6-23S-30E	4849
Nash Unit 208H	7	APD Not Submitted; Same SUPO as 201H	470' FSL & 455' FWL	18-23S-30E	200' FNL & 330' FWL	6-23S-30E	8022.3
Nsah Unit 304H	7	APD Not Submitted; Same SUPO as 201H	470' FSL & 405' FWL	18-23S-30E	200' FNL & 330' FWL	6-23S-30E	8022.3
Nash Unit 73H	N	Onsited P. Murphy 8.27.2015. APD Submitted: 9/15/2016	910'FNL & 2190'FEL	13-23S-29E	660'FNL & 200'FWL	14-23S-29E	
Nash Unit 3H	N	Re-Entry. Standalone SUPO.	1980.4' FSL & 1988.1 FWL	12-23S-29E	200' FNL & 380' FWL	1-23S-29E	1200' Proposed / GE Image

AFMSS

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

PWD Data Report

12/16/2019

APD ID: 10400035912 **Submission Date:** 11/02/2018

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT **Well Number:** 304H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

12/16/2019

APD ID: 10400035912

Submission Date: 11/02/2018

Operator Name: XTO ENERGY INCORPORATED

Well Name: NASH UNIT

Well Number: 304H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: UTB000138

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: