

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

SUNDRY NOTICES AND REPORTS ON WELLS

6CD Artesia

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

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

XTO Energy Inc.

3a. Address

200 N. Loraine, Ste. 800 Midland, TX 79701

3b. Phone No. (include area code)

432-620-6714

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

SHL: 2374' FSL & 1616' FWL, Sec 12, T-23S, R-29E, (K)

BHL: 2400' FNL & 690' FWL, Sec 1, T-23S, R-29E, (E)

5. Lease Serial No.

SHL-NM0556859-A BHL-NM10776

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

Nash Unit #40H

9. API Well No.

30-015-37166

10. Field and Pool, or Exploratory Area

Nash Draw - Brushy Canyon

11. County or Parish, State

Eddy County

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

TYPE OF SUBMISSION

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☒ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other

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

XTO Energy, Inc would like to fracture treat the remaining 42% of the Brushy Canyon lateral with 6 stage frac using JTTP technology. The remaining 42% of the well was proposed and approved in the original APD.

Please see attached procedure.

Accepted for record

NMOCD

10/31/2012

RECEIVED

OCT 30 2012

NMOCD ARTESIA

ACCEPTED FOR RECORD

OCT 28 2012

BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Stephanie Rabadue

Title

Regulatory Analyst

Date 09/18/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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

NASH UNIT #40H
JITP Frac Job
APRIL 26, 2012

ELEVATION: PBTD - 11459' MD, 6808' TVD KB - 3001.5'
TD - 11495' MD, 6808' TVD GL - 2983'

WELL DATA:

Surface Casing: 13-3/8", H-40. Set at 300'. Cemented with 260 sx.
Did not Circulate. 1" with 250 sx. Circ 8 sx

Inter. Csg#1: 9-5/8", 36 ppf, K-55 . Set at 3270'. Cemented with
1250 sx. Circulated.

Inter.Csg#2: 7" 26 ppf HCP-110 set @ 7296'. Cemented with 1000 sx.
Bradenhead squeeze 550 sx

Prod Liner: 4 1/2" 11.6# P-110 set from 7095' to 11474' with 15
swellpackers, 8 DeltaStim treating sleeves & 1 Delta Stim
Initiator Sleeve

PERFORATIONS:

OBJECTIVE: Fracture treat remaining 42% of Brushy Canyon Lateral from
7501' (1st Swell Paker) to 9135' (Deepest untreated Swell Packer)
with 6 stage frac using JITP (Just In Time Perforating) technology.

RECOMMENDED PROCEDURE

- 1) MIRU PU. NU 10k BOP.
- 2) POOH w/ Schlumberger sub pump (It has run for almost 2 years).
- 3) MI 2 3/8" WS.
- 4) Install 2 3/8" rams. RIH with CS & bit for 4 1/2" casing down to 9200'. POOH
- 5) RIH w/ 10k RBP for 4 1/2" casing down to 9100'. Set RBP @ 9100'. Circulate casing.
- 6) Close Pipe Rams & pressure test casing to 8000 psi.
- 7) Latch onto RBP. Open bypass and equalize pressure. Realize that the well will go on a vacuum and the fluid level could drop down to 3500'.
- 8) Release RBP and TOOH. LD WS & RBP.



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- 9) RU WL and 5K lubricator.
- 10) RU pump in "T" and have WL go in with the following: 2 ½" collar locator, 2 ½" 10' dummy gun, 2 ½" shorty setting tool, and 3.66" Smith Cooperhead CIBP.
- 11) Correlate to DV @ 5508' on BWWC CBL logged 17-Jan-2010.
- 12) Make sure tools are falling at a high speed prior to KOP. Starting pumping down at around 6650' (45 deg). Make sure tool is moving. Should pump down at around 6-10 BPM. Watch for top of liner at 7095' (80 deg). Be prepared to adjust rate to obtain good wireline speed (150 fpm).
- 13) Kick pumps out at 9100' (stay away from sleeve at 9270'). Realize that the well will go on a vacuum and that fluid will continue to fall to around 3500'.
- 14) POOH and note all data (pump rate, pressure, line speed, line tension (in and out)) to use during pump down of live guns and setting tool.
- 15) ND BOP. NU 10K well head and frac valve per equipment needed for JITP. Get with XTO Heber Springs, Arkansas district to determine correct hook up. Wellhead Assembly drawing is attached.
- 16) RDMO PU.
- 17) Load 10 working frac tanks with treated produced water. Make sure volume of water in frac tanks and offsite pit is above 12,500 bbls.
- 18) RU HESI (Frac & Wireline). Pressure test lines, frac head, upper frac valve and flow cross to 8500 psi. Capacity of 4 ½" 11.6 # is .6528 gal per ft Capacity of 7" 26 # is 1.607 gal per ft. RU Pump truck.

• Pumping Equipment/Materials:

- Discharge lines are minimum 10K psi WP, 15K psi test, anchored and tested to 8.5K psi.
- Flapper checks installed on the discharge line(s) close to the wellhead.
- Pressure relief "pop off" installed on the discharge line on the pump side of any check valves, set to 8,000 psi.
- Manual ball injectors tied into the discharge line downstream of check valve
 - To be loaded with 7/8", 1.1 SG RCN ball sealers.



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- Total number of balls loaded per JITP event = total number of planned perforations plus 4 extra balls for each zone to be balled out.
- Ball injector to be rigged up on "low" side of the JITP Frac head.

- Wireline Equipment/Materials

- Class I lubricator, 10K psi WP, dual hydraulic BOPs with 5/16" wireline rams
- Grease head with pressure control truck
- Dedicated pressure monitor in control truck to measure WHTP for JITP firings
- Perforating guns:
 - 2 1/2-inch OD HES Scalloped Guns, 60° phasing, Titan RTG-2511-422T Charges (11 gram charges, 0.32" EH, 31" TPP, 6 JSPF, 12 shots/gun)
- Sufficient number of guns and associated equipment available onsite to perforate all targeted zones plus extras as needed in the event of operational upsets
- Setting tool with 2 5/8" OD setting sleeve
- 3.66" CIBP (Brand & type to be determined) having 10K psi differential rating
- Note: Lubricator length, available crane size, reach of crane, and sections of lubricator available should be considered in determining how many zones to treat in one JITP event.

- 19) HESI run in hole with 7 guns w/ a Composite plug. Correlate to DV @ 5508' on BWWC CBL logged 17-Jan-2010. Make sure wireline truck has monitor showing instantaneous well head pressure. Also frac truck needs to see wireline information (depth, tension, speed).
- 20) Starting pumping down at around 6650' (45 deg). Make sure tool is moving. Use information in steps 6-8 to help with pump rate. Watch for top of liner at 7095' (80 deg).
- 21) Kick pumps out at 9100' (stay away from sleeve at 9270'). Pull up and set composite plug at 9050'. Pressure test plug to 1500 psi.
- 22) Pull guns up to position for Stage #1 (8997'). Hold 1000 psi on casing prior to shooting 1st gun. As soon as gun fires pull guns up to have sleeve just clear perfs.
- 23) Frac each of the 6 Brushy Canyon intervals with 74,000 gallons of pHaserFrac-R (23) carrying 75,000 lbs of 20/40 mesh Super LC Sand (CRC-20/40). Treat via 7" casing & 4 1/2" liner at 25 bpm with maximum WHTP of 7,500 psi. Set global "kick out" on frac pumps to 8,000 psi. Set Popoff at 8000 psi. Stage individual pump kick outs from 7,500



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psi to 8,000 psi. The anticipated wellhead treating pressure is 2000 psi. Frac the 6 stages using the attached HESI pump schedule. Maintain 500 psi on backside throughout entire frac job.

24) Follow HESI Pump schedule:

Frac #1 (8997') – 1000 gal treated produced water, 74000 gallons of pHaserFrac-R (23) containing 75000# 20/40 Super LC. Drop 12 - 7/8" balls. Flush with pHaserFrac. This volume is beginning of pad for Frac#2. Make sure guns are on depth for next frac (8722'). With 500 gallons remaining, slow rate down to 12 BPM and watch for ball action. When pressure increases 1200 psi, shoot gun and clear perf holes with sleeve.

Frac #2 (8722') – 74000 gal of pHaserFrac containing 75000# 20/40 Super LC. Drop 12 - 7/8" balls. Flush with pHaserFrac. This volume is beginning of pad for Frac#3. Make sure guns are on depth for next frac (8444'). With 500 gallons remaining, slow rate down to 12 BPM and watch for ball action. When pressure increases 1200 psi, shoot gun and clear perf holes with sleeve.

Frac #3 (8444') – 74000 gal of pHaserFrac containing 75000# 20/40 Super LC. Drop 12 - 7/8" balls. Flush with pHaserFrac. This volume is beginning of pad for Frac#3. Make sure guns are on depth for next frac (8168'). With 500 gallons remaining, slow rate down to 12 BPM and watch for ball action. When pressure increases 1200 psi, shoot gun and clear perf holes with sleeve.

Frac #4 (8168') – 74000 gal of pHaserFrac containing 75000# 20/40 Super LC. Drop 12 - 7/8" balls. Flush with pHaserFrac. This volume is beginning of pad for Frac#3. Make sure guns are on depth for next frac (7897'). With 500 gallons remaining, slow rate down to 12 BPM and watch for ball action. When pressure increases 1200 psi, shoot gun and clear perf holes with sleeve.

Frac #5 (7897') – 74000 gal of pHaserFrac containing 75000# 20/40 Super LC. Drop 12 - 7/8" balls. Flush with pHaserFrac. This volume is beginning of pad for Frac#3. Make sure guns are on depth for next frac (7628'). With 500 gallons remaining, slow rate down to 12 BPM and watch for ball action. When pressure increases 1200 psi, shoot gun and clear perf holes with sleeve.

Frac #6 (7628') – 74000 gallons of pHaserFrac containing 75000# 20/40 Super LC. Flush with treated produced water. Flush 1 bbl short of top perf. Obtain ISIP, 5 min, 10 min 15 min SI pressures.

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Note: If a “soft” ball out is encountered then drop an extra 4 balls on next stage.

Note: If CIBP gets stuck on dummy run then just set CIBP and POOH.

NOTE: XTO will provide 10 working frac tanks each loaded with 475-500 bbl of treated produced water for frac. Excess water will be transferred in from another location. Also due to the length of the treatment, light plants may be necessary.

All fracs attempt to get **25 BPM @ 7500 psi max treating pressure**. Pumping schedules are attached to procedure. After frac is complete, RD Halliburton, pump truck & leave well SI until all three wells on pad are completed.

- 25) Open well & flow to allow for testing and well cleanup. Wells are not expected to flow due to low BHP.
- 26) If well will not flow then MIRU PU & Air unit. Clean out 7/8” frac balls & sand down to CIBP @ 9050’. Drill out CIBP. Note that well has low BHP and to achieve circulation 2 air units will need to be used. Continue cleaning out to TD. Once clean then POOH & RD Air Unit..
- 27) RU Reda Schlumberger spooler and RIH w/ ESP similar to what was in hole prior to pulling. Land ESP as low as possible based on deviation survey and comments from Reda technical personnel.
- 28) ND BOP. NU WH. RDMO

David Luna

Sr. Operations Engineer