Form 3160-5 (A'pril 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED OMB NO. 1004-0137 Expires March 31, 2007

5. Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.				SHL-NM0556859-A BHL-NM10776 6. If Indian, Allottee or Tribe Name	
SUBMIT IN TRIPLICATE - Other instructions on reverse side				7. If Unit or CA/Agreement, Name and/or No. 891014168B	
1. Type of Well X Oil Well Gas Well Other 2 Name of Operator XTO Energy Inc.				Well Name and No. Nash Unit #41H 9. API Well No.	
3a. Address 200 N. Loraine, Ste. 800 Midland, 4. Location of Well (Footage, Sec., T., R., M., or Survey In SHL: 2456' FSL & 1674' FWL, Sec 12 BHL: 2358' FNL & 2341' FWL, Sec 1,		. 130-013-3/103			
12. CHECK APPROPRIATE	BOX(ES) TO INDI	CATE NATURE OF 1	NOTICE, REP		
TYPE OF SUBMISSION		TYF	·		
Subsequent Report Final Abandonment Notice 13 Describe Proposed or Completed Operation (clearly If the proposal is to deepen directionally or recomp Attach the Bond under which the work will be perfollowing completion of the involved operations. It testing has been completed. Final Abandonment If determined that the final site is ready for final inspec	plete horizontally, give sul rformed or provide the B of the operation results in Notices shall be filed only	s, including estimated startubsurface locations and measond No on file with BLM a multiple completion or re	Recomple Recomple Temporan Water Dis g date of any produced and true verse BIA. Required a	te ly Abandon posal oposed work and rtical depths of a subsequent repon new interval, a F	all pertinent markers and zones ts shall be filed within 30 day form 3160-4 shall be filed one
XTO Energy, Inc would like to fra Unit 41H with 9 stages frac using original APD.		- '	-	-	
Accepted for record NMOCD	PECEIN OCT 3 0 NMOCD AF	2012		OCT 28	MANAGEMENT
14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Stephanie Rabadue		Title Regulatory Analyst			
Stephanie Rabadio	Date 09/18/2012				
		RAL OR STATE OFF	ICE USE		
Approved by		Title		D	ate
Conditions of approval, if any, are attached. Approval o certify that the applicant holds legal or equitable title to which would entitle the applicant to conduct operations the	those rights in the subje-	rrant or Office ct lease		<u>, l</u> ,	



ELEVATION:

PBTD - 12340' MD, 6806' TVD

KB - 3000'

TD - 12365' MD, 6806' TVD

GL - 2983

WELL DATA:

Surface Casing:

13-3/8", H-40. Set at 305'. Cemented with 300 sx.

Did not Circulate. 1" with 83 sx. Circ 13 sx

Inter. Csg#1:

9-5/8", 36 ppf, K-55. Set at 3298'. Cemented with

1250 sx. Circulated.

Inter.Csg#2:

7" 26 ppf HCP-110 set @ 7350'. Cemented with 1000 sx.

Bradenhead squeeze 630 sx

Prod Liner:

4 1/2" 11.6# P-110 set from 7156' to 12365' with 18

swellpackers, 8 DeltaStim treating sleeves & 1 Delta Stim

Initiator Sleeve

PERFORATIONS:

OBJECTIVE:

Fracture treat remaining 50% of Brushy Canyon Lateral from 7545' (1st Swell Paker) to 10040' (Deepest untreated Swell Packer) with 9 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 (PH-6 or EUE)
- 4) Install 2 3/8" rams. RIH with CS & bit for 4 ½" casing down to 10100'. POOH
- 5) RIH w/ 10k RBP for 4 ½" casing down to 10000'. Set RBP @ 10000'. 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 @ 5513' on BWWC CBL logged 28-Mar-2010 (copy in WellView).
- 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 7156' (80 deg). Be prepared to adjust rate to obtain good wireline speed (150 fpm).
- 13) Kick pumps out at 10025' (stay away from sleeve at 10170'). Realize that the well will go on a vacuum and that fluid will continue to fall to around 3500'.
- 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. RDMO PU.
- 16) Load 10 working frac tanks with treated produced water. Make sure volume of water in frac tanks and offsite pit is above 17,500 bbls. Confirm water tests with HEI.
- 17) 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.
 - 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-2511-301 Charges (11 gram charges 0.41" EH, 18" TPP 6 JSPF, 12 shots/gun)
 - Sufficient number of guns and associated equipment available onsite to perforate all targeted zones <u>plus</u> 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.
- HESI run in hole with 10 guns w/a Composite plug. Correlate to DV @ 5513' on BWWC CBL logged 28-Mar-2010 (copy in WellView). Make sure wireline truck has monitor showing instantaneous well head pressure. Also frac truck needs to see wireline information (depth, tension, speed).
- 19) 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 7156' (80 deg).
- 20) Kick pumps out at 10025' (stay away from sleeve at 10170'). Pull up and set composite plug at 10000'. Pressure test plug to 1500 psi.
- Pull guns up to position for Stage #1 (9901'). Hold 1000 psi on casing prior to shooting 1st gun. As soon as gun fires pull guns up to have sleeve just clear perfs.
- Frac each of the 9 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 ½" liner at 25 bpm with maximum WHTP of 7,500 psi. Set global "kick out" on frac pumps to 8,000 psi. Stage individual pump kick outs from 7,500 psi to 8,000 psi. The anticipated wellhead treating pressure is 2000 psi. Frac the 9 stages using the attached HESI pump schedule. Maintain 500 psi on backside throughout entire frac job.



23) Follow HESI Pump schedule:

Frac #1 (9901') – 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 (9625'). 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 (9625') – 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 (9348'). 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 (9348') – 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 (9066'). 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 (9066') – 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 (8780'). 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 (8780') – 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 (8493'). 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 (8493') – 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 (8208'). 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 #7 (8208') – 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 (7938'). 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 #8 (7938') – 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 (7679'). 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 #9 (7679') – 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.

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.

- Open well & flow to allow for testing and well cleanup. Wells are not expected to flow due to low BHP.
- 25) If well will not flow then MIRU PU & Air unit. Clean out 7/8" frac balls & sand down to CIBP @ 10000'. 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...
- 26) 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.



27) ND BOP. NU WH RDMO.

David Luna

Sr. Operations Engineer