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Form 3160-5  
(February 2005)

MAY 13 2015

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

MAY 08 2015

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007**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.*

SUBMIT IN TRIPLICATE - Other instructions on page 2.

5. Lease Serial No.

CHNO-G-0207-1609

6. If Indian, Allottee or Tribe Name  
Navajo7. If Unit of CA/Agreement, Name and/or No.  
NMNM 133482X8. Well Name and No.  
NW Lybrook Unit #133H9. API Well No.  
30-045-3562310. Field and Pool or Exploratory Area  
Lybrook Unit NW HZ(oil)11. Country or Parish, State  
San Juan, NM

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator  
WPX Energy Production, LLC3a. Address  
PO Box 640 Aztec, NM 874103b. Phone No. (include area code)  
505-333-18084. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
SHL: 736' FSL & 2531' FEL SEC 36 T24N R8W  
BHL: 1580' FSL & 230' FWL SEC 35 T24N R8W

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	<b>CHANGE OF PLANS CEMENT</b>
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

WPX Energy is proposing a change to conventional cement slurry on the production casing liner for the above mentioned well. Attached is the updated Ops plan.

**CONDITIONS OF APPROVAL**

Adhere to previously issued stipulations

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)  
Marie E. Jaramillo

Title Permit Tech III

Signature

Date 5/8/15

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

William Tambekou

Petroleum

Title Engineer

Date 5-8-15

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 FFD

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.

(Instructions on page 2)

NMOCDAY



## WPX ENERGY

### Operations Plan

(Note: This procedure will be adjusted on site based upon actual conditions)

**DATE:** 5/6/15 **FIELD:** Lybrook Unit NW HZ (OIL)

**WELL NAME:** NW Lybrook UT #133H **SURFACE:** State

**SH Location:** SWSE Sec 36 -24N -08W **ELEVATION:** 6893' GR

**BH Location:** NWSW Sec 35 -24N -08W **MINERALS:** Indian Allotted  
San Juan CO., NM

**MEASURED DEPTH:** 13,752' **LEASE #:** NO-G-0207-1609

**I. GEOLOGY:** Surface formation – Nacimeinto

**A. FORMATION TOPS: ( KB)**

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1303	1295	Point Lookout	4267	4193
Kirtland	1343	1334	Mancos	4505	4427
Picture Cliffs	1852	1832	<b>Kickoff Point</b>	<b>4947</b>	4867
Lewis	2044	2020	Top Target	5604	5414
Chacra	2316	4321	<b>Landing Point</b>	<b>6012</b>	5534
Cliff House	3394	3340	Base Target	6012	5534
Menefee	3443	3388			
			TD	13753	5469

- B. MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD.
- C. LOGGING PROGRAM:** LWD GR from surface casing to TD.
- D. NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

**II. DRILLING**

- A. MUD PROGRAM:** LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 3/4" Directional Vertical hole, and the curve portion of the wellbore. A LSND (WBM) or (OBM) will be used to drill the lateral portion of well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses.
- B. BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes and 1500 psi (High) for 10 minutes**. Pressure test surface casing to **600 psi for 30 minutes** and intermediate casing to **1500 psi for 30 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

**NOTE:** Vertical portion of the well (8-3/4 in.) will be directionally drilled as per attached Directional Plan to +/- 4,947' (MD) / 4,867' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,012' (MD) / 5,534' (TVD). 7 in. csg will be set at this point. A 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 13,753' (MD) / 5,469' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,862 ft. to TD and cemented. Liner will be tied back to surface w / 4-1/2" Casing for stimulation / testing, then removed from the well.

### III. MATERIALS

#### A. CASING PROGRAM:

CASING TYPE	OH SIZE (IN)	DEPTH (MD) (FT)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12.25"	+/-320'	9.625"	36#	J-55
Intermediate	8.75"	6,012'	7"	23#	K-55
Prod. Liner	6.125"	5,862 - 13,753'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5,862'	4-1/2"	11.6#	N-80

#### B. FLOAT EQUIPMENT:

- SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
- INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
- PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + 1 RSI (Sliding Sleeve) positioned inside the 330ft Hard line. Centralizer program will be determined by Wellbore condition and when Lateral is evaluated by Geoscientists and Reservoir Engineers. Set seals on Liner Hanger. Test TOL to 1500 psi for 15 minutes.
- TIE-BACK CASING: None

#### C. CEMENTING:

*(Note: Volumes may be adjusted onsite due to actual conditions)*

- SURFACE: 5 bbl Fresh Water Spacer, 100 sx (160 cu.ft.) of 14.5 ppg Type I-II (Neat G) + 20% Fly Ash cement w/ 7.41 gal/sack mix water ratio @ 1.61 cu ft/sx yield. Calculated @ volume + 50% excess. WOC 12 hours. Test csg to 600psi. Total Volume: (160 cu-ft/100 sx/ Bbls). TOC at Surface.
- INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: +/- 700 sx Foamed 50/50 Poz Cement. 13.0 ppg + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft / 216.5 Bbls.) + TAIL: 100 sx 13.5 #/gal. + 0.2% Versaset + 0.15% HALAD-766 (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft / 22.8 Bbls.). + Fresh Water Displacement (1,362 cu-ft / +/- 242 Bbls) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk / (Vol: 117 cu-ft / 20.8 Bbls). Test Casing to 1500 PSI for 30 minutes. Total Cement Volume: (1050 sx / 1461 cu-ft / 260 bbls). Mix with +/- 84,000 SCF Nitrogen. TOC at surface.
- PRODUCTION LINER: **Spacer #1**:10 bbl (56.cu-ft) Water Spacer. **Spacer #2**: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III. **Spacer #3**: 10 bbl Water Spacer. **Lead Cement**: Extencem <sup>TM</sup> System. Yield 1.29 cu ft/sk, 13.5 ppg, (405 sx / 519.68 cu ft. / 92.6 bbls). **Tail Spacer**: 20 BBL of MMCR. **Displacement**: Displace w/ +/- 140 bbl Fr Water. Total Cement ( 520 cu ft / 92.6 bbls).

**IV. COMPLETION****A. CBL**

1. Run CCL for perforating.

**B. PRESSURE TEST**

1. Pressure test 4-1/2" casing to 4500 psi max, hold at 1500 psi for 30 minutes. Increase pressure to Open RSI sleeves.

**C. STIMULATION**

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N<sub>2</sub> for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs and flowback lateral.

**D. RUNNING TUBING**

1. Production Tubing: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN on top of bottom joint. Land tubing near Top of Liner point of curve (~5,800' MD).

- Although this horizontal well will be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2) NMAC, and 19.15.16.15 B(4) NMAC.

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**NOTE:**

Installation of RSI sleeves at Toe of Lateral.

**Proposed Operations:**

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-55 Intermediate casing (set at 6,094 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,944 ft. (MD) +/- 78 degree angle. TOC: +/- 5,644 ft. (MD).

After cementing and TOL clean up operations are complete, the TOL will be tested to 1500 psi (per BLM).

A 4-1/2" 11.6# N-80 tie-back string with seal assembly will be run and stung into the PBR of the liner hanger, tested to 1500 PSI and hung off at the surface.

After Stimulation and Testing operations are complete the 4-1/2" tie-back string will be removed from the well.

Note: Changes to formation tops, casing landing points, well TD and Directional Plan.