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Form 3160-5  
(February 2005)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmington Field Office  
Bureau of Land Management

MAR 21 2013

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.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMSF-078360
2. Name of Operator WPX Energy Production, LLC		6. If Indian, Allottee or Tribe Name RCUD MAR 26 '13
3a. Address PO Box 640    Aztec, NM 87410	3b. Phone No. (include area code) 505-333-1808	7. If Unit of CA/Agreement, Name and/or No. OIL CONS. DIV.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sur: 1236' FSL & 287' FWL, sec 19, T23N, R6W - BHL: 340' FSL & 340' FWL, Sec 24, T23N, R7W		8. Well Name and No. DIST. 3 Chaco 2306-19M #191H
		9. API Well No. 30-043-21139
		10. Field and Pool or Exploratory Area Lybrook Gallup
		11. Country or Parish, State Sandoval County, NM

**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 checked="" type="checkbox"/> Other 9-5/8" Casing design
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<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 recomplete 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 recompletion 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.)

Due to a setting depth of 4460' TVD for the 9-5/8", 36#, K-55, LT&C intermediate casing on this well, WPX plans to maintain a column of fluid at all times inside the casing. Attached is a casing design showing collapse factor with 8.33 ppg fresh water inside casing.

**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) Larry Higgins	Title Permit Supervisor
Signature <i>Larry Higgins</i>	Date 3/21/13

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by <i>Troy L. Solvers</i>	Title Petroleum Eng	Date 3/22/2013
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 FFO	

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)

NMOCDA

Well name:	<b>CHACO 2306-19M #191H</b>	
Operator:	<b>WPX Energy</b>	Project ID:
String type:	Intermediate	<b>CHACO HOR</b>
Location:	Lybrook	

**Design parameters:**

**Collapse**

Mud weight: 9.500 ppg  
 Internal fluid density: 8.330 ppg ✓

**Minimum design factors:**

**Collapse:**  
 Design factor 1.125

**Burst:**  
 Design factor 1.00

**Environment:**

H2S considered? No  
 Surface temperature: 75 °F  
 Bottom hole temperature: 137 °F  
 Temperature gradient: 1.40 °F/100ft  
 Minimum section length: 440 ft  
 Minimum Drift: 8.750 in

**Burst**

Max anticipated surface pressure: 176 psi  
 Internal gradient: 0.454 psi/ft  
 Calculated BHP: 2,201 psi  
 Annular backup: 8.33 ppg

**Tension:**  
 8 Round STC: 1.80 (J)  
 8 Round LTC: 1.80 (J)  
 Buttress: 1.60 (J)  
 Premium: 1.50 (J)  
 Body yield: 1.50 (B)

Non-directional string.

Tension is based on buoyed weight.  
 Neutral point: 3,833 ft

**Re subsequent strings:**

Next setting depth: 4,460 ft  
 Next mud weight: 9.500 ppg  
 Next setting BHP: 2,201 psi  
 Fracture mud wt: 10.000 ppg  
 Fracture depth: 4,460 ft  
 Injection pressure: 2,317 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	4460	9.625	36.00	K-55	LT&C	4460	4460	8.765	317.6
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	271	2020	7.452 ✓	271	3520	12.99	138	489	3.54 J

Prepared GCS  
 by: Williams Production

Date: March 20, 2013  
 Tulsa, Oklahoma

Larger Casing Program: CHACO 2306-19M #191-H

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 4460 ft, a mud weight of 9.5 ppg. An internal gradient of .433 psi/ft was used for collapse from TD to Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.