

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary-Designate

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date:

Application Type:

☐ P&A ☒ **Drilling/Casing Change** ☐ Recomplete/DHC
☒ Location Change ☐ Other: _____

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf. Owner	UL	Sec	Twp	N/S	Rng	W/E	Feet	NS	Ft	EW
30-039-31192-00-00	CHACO 2307 13L	175H	WPX ENERGY PRODUCTION, LLC	O	N	Rio Arriba	F	L	13	23	N	7	W	1494	S	60	W

Conditions of Approval:

Notify NMOCD 24hrs prior to beginning operations.
Hold C-104 for directional survey and "As Drilled" plat

SEP 20 2013

NMOCD Approved by Signature

Date

RECEIVED

Form 3160-5
(February 2005)

SEP 11 2013

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Farmington Field Office
Bureau of Land ManagementFORM 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.
NMSF-078360

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
Chaco 2307-13L #175H9. API Well No.
30-039-3119210. Field and Pool or Exploratory Area
Lybrook Gallup11. Country or Parish, State
Rio Arriba County, 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: 1494' FSL & 60' FWL SEC 13 23N 7W
BHL: 380' FSL & 230' FWL SEC 14 23N 7W

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 <u>CHANGE LINER</u>
	<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 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 Production, LLC, requests authorization to change the design of the production casing to a liner as per the attached updated Operations Plan.

Verbal approvals: Jim Lovato (BLM) 3:00 PM 9/10/13 Bill Hoppe (NMOCD) 9:30 AM 9/11/13

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SEP 16 2013

WPX

RCVD SEP 17 '13
OIL CONS. DIV.
DIST. 3

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

Name (Printed/Typed)

Heather Riley

Title Regulatory Spec Sr.

Signature

Date 9/11/13

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

William Tambekou

Title

Petroleum Engineer

Date

9/11/2013

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.

OPERATOR

NMOCD

A

WPX ENERGY

Operations Plan

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

DATE: 9/11/2013 **FIELD:** Lybrook Gallup
WELL NAME: Chaco 2307-13L #175H rev **SURFACE:** BLM
SH Location: NWSW of Sec 13 T23N R7W **ELEVATION:** 7,046' GR
County: Rio Arriba Co, NM
BH Location: SWSW Sec 14-23N-7W **MINERALS:** BLM
MEASURED DEPTH: 10,627 ft. **LEASE #:** BLM

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I. GEOLOGY: Surface formation -- San Jose

A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1,426	1,420	Point Lookout	4,462	4,289
Kirtland	1,775	1,758	Mancos	4,707	4,532
Pictured Cliffs	2,014	1,984	Kickoff Point	5,164	4,988
Lewis	2,281	2,234	Target Top	5,860	5,523
Chacra	2,444	2,386	Landing Point	6,048	5,550
Cliff House	3,634	3,497	Target Base	6,076	5,561
Menefee	3,972	3,772			
			TD	10,627	5,488

B. MUD LOGGING PROGRAM: Mudlogger on location from surface csg to TD.

C. LOGGING PROGRAM: MWD GR for curve and lateral.

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 8 3/4" Directional Intermediate hole. Will use WBM to drill the curve portion of well, and OBM 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 +/- 5,164' MD. Curve portion of wellbore will be drilled and landed at +/- 90 deg at +/- 6,076' (MD). 7 in. csg will be set at this point. A 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 10,627' (MD). Will run 4-1/2 in. Production Liner from +/- 5,893 ft. to TD and cement. Liner will be tied back to surface w / 4-1/2" Casing for stimulation, then removed from the well.

III. MATERIALS**A. CASING PROGRAM:**

<u>CASING TYPE</u>	<u>OH SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WEIGHT</u>	<u>GRADE</u>
Surface	12.25"	+/-400'	9.625"	36#	J-55
Intermediate	8.75"	6,076'	7"	23#	K-55
Prod. Liner	6.125"	5,893 - 10,626'	4.5"	11.6#	N-80
Tie-Back String	N/A	Surf. - 5,893'	4.5"	11.6#	N-80

B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (4) joints of Surface Casing.
2. 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', 2,500', 2,300', 2,000', 1,500', and 1,000'.
3. PRODUCTION CASING: Run 4-1/2" Liner with cement nose guide Float Shoe + 1 joint 4-1/2" csg.+ Float Collar. Centralizer program will be determined when Lateral is evaluated by Geoscientists and Reservoir Engineers.
4. TIE-BACK CASING: None

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1. SURFACE: 10 bbl Fr Water Spacer + 190 sx (222.3 cu.ft.) of "Premium Cement" + 2% Calcium Chloride Cement + 0.125# pps of Poly-E-Flake, 15.8 #/gal (1.17 cu ft./sk, Vol 39.58 Bbls.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 600psi. Total Volume: (222.3 cu-ft/190 sx/39.6 Bbls).
2. INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 sx Foamed 50/50 Poz Cement. 13.0 ppg (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft) + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 / TOTETANK + TAIL: 100 sx 13.5 #/gal. (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft) + 0.2% Versaset + 0.15% HALAD-766. + F. Water Displacement (1,511 cu-ft) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk (Vol: 117 cu-ft). Est TOC: Surface. Test Casing to 1500 PSI for 30 minutes. Total Volume: (2021 cu-ft/1050 sx/260 bbls).
3. PRODUCTION LINER: **STAGE 1**: 10 bbl (56 cu-ft) Fr Water Spacer. **STAGE 2**: 40 bbl 9.5 ppg (224.6 cu-ft) Tuned Spacer III + 0.5 gal/bbl Musol + 38.75 ppb Barite + 0.5 gal/bbl SEM-7. **STAGE 3**: 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement**: 50 / 50 Poz Premium + 0.2% Versaset + 0.2% Halad -766, Yield 1.43 cu ft/sk, 13.0 ppg, (10 sx / 14.3 cu ft. / 2.5 bbls). **STAGE 5**: 200 sx. Foamed Lead Cement: 50 / 50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.97 cu-ft/sk. 13.0 ppg (200 sx / 394 cu-ft. / 70.2 bbls.). **STAGE 6**: Tail Cement : 100 sx. 50/50 Poz Standard + 0.2% Versaset + 0.05% HALAD-766 + .05% SA-1015, Weight: 13.5 ppg (100 sx / Yield 1.28 cu ft/sk. / 128 cu ft. / 22.8 bbls) **STAGE 7**: Displace w/ +/- 137 bbl Fr Water. Total Cement (563.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,700 ft.

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IV. COMPLETION**A. LOGS**

1. Run CCL for perforating.

B. PRESSURE TEST

1. Pressure test 4-1/2" casing to 5000 psi max, hold at 1500 psi for 30 minutes.

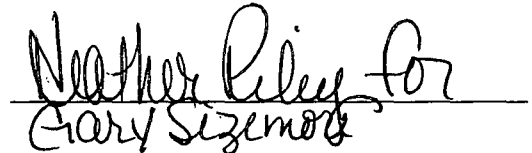
C. STIMULATION

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 N₂ for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs with Tubing and flowback lateral.

D. RUNNING TUBING

1. Production Tubing: Run 2-7/8", 6.5#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing at (~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.



The CHACO 2307 – 13L #175H was originally planned to run a full string of 4-1/2" 11.6# N-80 Production Casing from surface to TD:

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 6,043 ft. MD) with a Liner Hanger and pack-off assembly, then cemented to +/- 200 ft above the liner hanger. TOL will be +/- 5,893 ft. (MD) +/- 75 degree angle.

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.

The Drilling rig will be rigged down at this point and Completion operations will begin. After Stimulation operations are complete the 4-1/2" tie-back string will be removed from the well.

Verbal approvals:

Jim Lavato (BLM) 3:00 PM 9/10/13

Bill Hoppe (NMOCD) 9:30 AM 9/11/13