		to be a set of the set						
•	Form 3160-5 (February 2005)	UNITED STA DEPARTMENT OF TH BUREAU OF LAND M	HE INTERIOR	FEB 13	2015 5. Lease 5	FORM APPROVED OMB No. 1004-0137 Expires: March 31, 2007 Serial No.		
	SUNDRY NOTICES AND REPORTS ON WELLS					N0-G-1312-1797		
	Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.					6. If Indian, Allottee or Tribe Name 791-151		
	SUBMIT IN TRIPLICATE – Other instructions on page 2.					of CA/Agreement, Name and/or No.		
	1. Type of Well							
	Oil Well Gas Well Other					ame and No. O UT #347H		
	2. Name of Operator				9. API W	ell No.		
	WPX Energy Production, L 3a. Address	3b. Phone No. (include area code)		<u> </u>	30-043-21245 10. Field and Pool or Exploratory Area			
	PO Box 640 Aztec, N	505-333-1816			LYBROOK GL			
	4. Location of Well <i>(Footage,</i> SHL: 1371' FNL & 200' FEL: BHL: 1411' FNL & 240' FWL	ption)	n)		11. Country or Parish, State SANDOVAL, NM			
$\mathcal{Q}$	12. CHEC	CK THE APPROPRIATE BOX(	ES) TO INDICATE NA	TURE OF NOTIO	CE, REPORT OR	OTHER DATA		
R	TYPE OF SUBMISSION			TYPE OF ACT	ION			
	Notice of Intent	Acidize	Deepen		Production t/Resume)	Water Shut-Off		
		Alter Casing	Fracture Treat		Reclamation	Well Integrity		
		Casing Repair	New Constructio	n ·	Recomplete	CHANGE OF OPS PLANS		
	Subsequent Report	Change Plans	Plug and Abandon	n DAbar	Temporarily			
	Final Abandonment Notice	Convert to Injection	Plug Back		Water Disposal	<u></u>		
	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.)							
	WPX plans to adjust the surface depth from 400' to ~320' Attached is an updated Operational Plan.							
-		IDITIONS OF APPROVAL		D	ACTION D	PPROVAL OR ACCEPTANCE OF THIS DOES NOT RELIEVE THE LESSEE AND		
AC	there to previously issued stipulations		FEB 20 2015		AUTHORI	OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIO ON FEDERAL AND INDIAN LANDS		
-	14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) LACEY GRANILLO							
-								
-	Signature Date 2/11/15							
-	Approved by Petroleu				•			
					Engineer	Date 2-17-2015		
-	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) NMOCD~							

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# WPXENERGY.

# WPX ENERGY

#### **Operations Plan**

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

DATE:	11/20/2014	FIELD:	LYBROOK GALLUP
WELL NAME:	S Chaco UT 347H	SURFACE:	Indian Allotted
SH Location:	SENE Sec 2 -22N -07W	ELEVATION:	7034' GR
BH Location:	SWNW Sec 2 -22N -07W Sandoval CO., NM	MINERALS:	Indian Allotted
MEASURED DEPTH:	10,566	LEASE #:	N0-G-1312-1797

## I. <u>GEOLOGY:</u> Surface formation – Naciemiento

## A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1139	1135	Point Lookout	4141	4010
Kirtland	1296	1287	Mancos	4321	4182
Picture Cliffs	1642	1619	Kickoff Point	4660	4506
Lewis	1733	1706	Top Target	5598	5240
Chacra	. 1978	1941	Landing Point	5854	5288
Cliff House	3203	3113	Base Target	5854	5288
Menefee	3253	3160			
			TD	10566	5228

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. <u>MUD PROGRAM:</u> LSND mud (WBM) will be used to drill the 12-1/4" Surface hole, the 8 ¾" 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. <u>BOP TESTING:</u> 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 +/- 4,660' (MD) / 4,506' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 5,854' (MD) / 5,288' (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 +/- 10,566' (MD) / 5,228' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,704 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"	5,854'	7"	23#	K-55
Prod. Liner	6.125"	5,704 - 10,566'	4-1/2"	11.6#	N-80
Tie-Back String	N/A	Surf 5,704'	4-1/2"	11.6#	N-80

# B. FLOAT EQUIPMENT:

- 1. <u>SURFACE CASING</u>: 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.
- <u>PRODUCTION LINER</u>: 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.
- 4. <u>TIE-BACK CASING:</u> None

# C. CEMENTING:

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

- <u>SURFACE:</u> 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.
- 2. 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.
- <u>PRODUCTION LINER</u>: 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 +/- 5,644 ft.

# IV. COMPLETION

# A. <u>CBL</u>

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

## D. RUNNING TUBING

- 1. <u>Production Tubing:</u> 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.

#### 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.

The Drilling Rig will be rigged down at this point and Completion operations will begin. 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.