

Submit 3 Copies To Appropriate District  
Office  
District I  
825 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM  
87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
June 19, 2008

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-045-35439
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator WPX Energy Production, LLC.		6. State Oil & Gas Lease No. V09208
3. Address of Operator P.O. Box 640 - Aztec, NM 87410 - Phone 333-1808		7. Lease Name or Unit Agreement Name
4. Well Location Unit Letter <u>I</u> : <u>1491</u> feet from the <u>South</u> line and <u>248</u> feet from the <u>East</u> line Section <u>16</u> Township <u>23N</u> Range <u>8W</u> NMPM San Juan County		8. Well Number Lybrook 23-8-16 #201H
		9. OGRID Number 120782
		10. Pool name or Wildcat Nageezi Gallup / Basin Mancos
		11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6858' GR

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
OTHER:		OTHER:	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Due to change in plans WPX intends to change the mud plan and set an open hole whipstock on this well as per attached operation plan.

CONFIDENTIAL

RCVD FEB 14 '13  
OIL CONS. DIV.  
DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Larry Higgins TITLE: Permit Supervisor DATE: 2/14/13  
Type or print name : Larry Higgins E-mail address: [larry.higgins@wpxenergy.com](mailto:larry.higgins@wpxenergy.com) PHONE: (505) 333-1808  
**For State Use Only**

APPROVED BY: Chuck Perry TITLE: **SUPERVISOR DISTRICT #3** DATE: **FEB 20 2013**  
Conditions of Approval (if any): fy

**WPX ENERGY****Operations Plan***(Note: This procedure will be adjusted on site based upon actual conditions)*

**DATE:** 12/05/2012 **FIELD:** Nageezi Gallup

**WELL NAME:** Lybrook 23-8-16 #201H **SURFACE:** BLM

**S. LOCATION:** NESE Sec 16-23N-8W

**BH LOCATION:** NWSW Sec 16-23N-8W **MINERALS:** State  
San Juan, NM

**LEASE #** V09208

**MEASURED DEPTH:** 9,988' **ELEVATION:** 6,858' GR

**I. GEOLOGY:** Surface formation - Nacimiento**A. FORMATION TOPS:** ( KB)

Name	TVD	MD	Name	TVD	MD
Ojo Alamo	827	827	Point Lookout	3,839	3,839
Kirtland	962	962	Mancos	4,001	4,001
Fruitland	1,128	1,128	Kickoff Point	4,250	4,250
Pictured Cliffs	1,429	1,429	Target Top	4,969	5,250
Lewis	1,559	1,559	Landing Point	5,111	5,832
Cliff House	2,897	2,897	Target Base	5,109	5,752
Menefee	2,933	2,939	Pilot Hole TD	5,580	5,580
			TD	4,965	9,988

- B. MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD.
- C. LOGGING PROGRAM:** OH Wireline logs in pilot hole from TD to Surface Csg. LWD GR from KOP 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:** A water based LSND mud will be used to drill the 8-3/4 in. Pilot Hole and curve portion of the well. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Will convert to oil based mud to drill lateral after drilling curve into the Lower Mancos and running/cementing 7" casing.
- 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 2000 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **2000 psi (High) for 10 minutes**. Pressure test surface casing to **600psi 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:** Pilot Hole (8-3/4 in.) will be directionally / vertically drilled as per attached Directional Plan to +/- 5,580' (MD), evaluated, and plugged back to allow KOP at selected depth, +/- 4,250 (MD) to build Curve portion of wellbore to +/- 90 deg. at +/- 5,832 ft. (MD). 7 in. csg will be set at this point. 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 9,988 ft. (MD). 4-1/2 in. Production Casing will then be set to TD.

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

CASING TYPE	OH SIZE (IN)	DEPTH (MD)	CASING SIZE (IN)	WEIGHT(LB)	GRADE
Surface	12.25"	400'	9 5/8	36#	K-55
Intermediate	8.75"	5,832'	7	23#	J-55
Longstring	6.125"	9,988'	4 1/2	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) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft.
3. PRODUCTION CASING: 4-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Run one spiral type solid body centralizer on every 3rd joint in lateral and around curve.

**C. CEMENTING:**

*(Note: Actual volumes may be adjusted onsite as hole conditions dictate)*

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 39.6 bbls.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi. Total Volume: (222.3 cu-ft/190 sx/39.6 bbls).
2. PILOT HOLE PLUG BACK: Will set Open Hole Whipstock and cement in place with – Pumping about 200' of cement below and about 100' of cement above Whipstock. Use 75 sks of Premium G cement, 15.8#/Gal, yield of 1.15 cu ft/sack, and Vol of 15.3 Bbls (86.25 cu ft).
3. 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 / + 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. Total Volume: (2021cu-ft/1050 sx/260bbls). Test Casing to 1500 PSI for 30 minutes.
4. PRODUCTION CASING: **STAGE 1**: 10 bbl (56 cu-ft) Fr Water Spacer. **STAGE 2**: 20 bbl 10 ppg (112.3 cu-ft) Tuned Spacer III + 0.2 gal/bbl Musol + 59.8 ppb Barite. **STAGE 3**: 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement**: Standard Type V + .4% Halad-766 + .3% Halad R-344, Yield 1.19 cu ft/sk, 15.6 #/gal, (60 sx/71.4 cu ft.) **STAGE 5: 170 sx \** Foamed Lead Cement: 13.0 ppg (63.28 bbl / 355.3 cu-ft) 50/50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.43 cu-ft/sk. **STAGE 6**: Tail Cement : 150 sx 50/50 Poz Standard + 0.2% Versaset + 0.25% HALAD-766, Weight: 13.5 ppg (Yield 1.29 cu ft/sk. / 193.5 cu ft.) **STAGE 7**: Displace w/176.6 bbl Fr Water. Est TOC +/- 5,476 ft. Total Cement (620.2 cu ft /380 sx/110.4 bbls). Mix w/ +/- 75,000 SCF Nitrogen.

**IV. COMPLETION**

**A. CBL**

1. Run Cement Bond Log and ensure top of cement is above 7" casing shoe.

**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 N<sub>2</sub> for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs with CTU and flowback lateral.

**D. RUNNING TUBING**

1. Production Tubing: Run 2-3/8", 4.7#, N-80, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing at landing point of curve (~6,780' MD).
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