

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
**District III**  
1000 Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101  
Revised November 14, 2012

Energy Minerals and Natural Resources

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

RCVD DEC 6 '12  
OIL CONS. DIV.  
DIST. 3

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

|                                                                                               |                                     |                           |
|-----------------------------------------------------------------------------------------------|-------------------------------------|---------------------------|
| 1. Operator Name and Address<br>WPX Energy Production, LLC<br>P.O. Box 640<br>Aztec, NM 87410 |                                     | 2. OGRID Number<br>120782 |
| 3. API Number<br>30-045-35439                                                                 |                                     |                           |
| 4. Property Code<br>39581                                                                     | 5. Property Name<br>Lybrook 23-8-16 | 6. Well No.<br>201H       |

7. Surface Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County   |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|----------|
| I        | 16      | 23N      | 8W    |         | 1491      | South    | 248       | East     | San Juan |

8. Proposed Bottom Hole Location

| UL - Lot | Section | Township | Range | Lot Idn | Feet from | N/S Line | Feet From | E/W Line | County   |
|----------|---------|----------|-------|---------|-----------|----------|-----------|----------|----------|
| L        | 16      | 23N      | 8W    |         | 2300      | South    | 340       | West     | San Juan |

9. Pool Information

|                             |                    |
|-----------------------------|--------------------|
| Pool Name<br>Nageezi Gallup | Pool Code<br>47540 |
|-----------------------------|--------------------|

Additional Well Information

|                              |                                          |                                                  |                       |                                             |
|------------------------------|------------------------------------------|--------------------------------------------------|-----------------------|---------------------------------------------|
| 11. Work Type<br>N           | 12. Well Type<br>O                       | 13. Cable/Rotary<br>R                            | 14. Lease Type<br>S   | 15. Ground Level Elevation<br>6858'         |
| 16. Multiple<br>No           | 17. Proposed Depth<br>9988' MD/4965' TVD | 18. Formation<br>Gallup                          | 19. Contractor<br>AWS | 20. Spud Date<br>12/15/12                   |
| Depth to Ground water<br>52' |                                          | Distance from nearest fresh water well<br>>1000' |                       | Distance to nearest surface water<br>>1000' |

21. Proposed Casing and Cement Program

| Type | Hole Size | Casing Size | Casing Weight/ft | Setting Depth | Sacks of Cement | Estimated TOC |
|------|-----------|-------------|------------------|---------------|-----------------|---------------|
| K-55 | 12-1/4"   | 9-5/8"      | 36#              | 400'          | 190             | Surface       |
| J-55 | 8-3/4"    | 7"          | 23#              | 5832'         | 1050'           | Surface       |
| N-80 | 6-1/4"    | 4-1/2"      | 11.6#            | 9988'         | 380             | 5476'         |

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

| Type       | Working Pressure | Test Pressure | Manufacturer |
|------------|------------------|---------------|--------------|
| Double Ram | 3000#            | 2000#         |              |

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

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: *Larry Higgins*

Printed name: Larry Higgins

Title: Permit Supervisor

E-mail Address: larry.higgins@wpenergy.com

Date: 12/6/12

Phone: 333-1808

OIL CONSERVATION DIVISION

Approved By:

*Charles Harris*

Title: SUPERVISOR DISTRICT #3

Approved Date: 12-12-12

Expiration Date: DEC 12 2014

Conditions of Approval Attached

HOLD C-101 FOR NSL, NSP, DIR SURVEY

AS DRILLED C102

DEC 13 2012 ca

AV

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOC FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOC PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

District I  
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District IV  
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Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to  
Appropriate District Office

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                                    |                                              |                              |
|------------------------------------|----------------------------------------------|------------------------------|
| *API Number<br><b>30-045-35439</b> | *Pool Code<br>47540                          | *Pool Name<br>NAGEEZI GALLUP |
| *Property Code<br><b>39581</b>     | *Property Name<br>LYBROOK 23-8-16            | *Well Number<br>201H         |
| *GRID No.<br>120782                | *Operator Name<br>WPX ENERGY PRODUCTION, LLC | *Elevation<br>6858'          |

<sup>10</sup> Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| I             | 16      | 23N      | 8W    |         | 1491          | SOUTH            | 248           | EAST           | SAN JUAN |

<sup>11</sup> Bottom Hole Location If Different From Surface

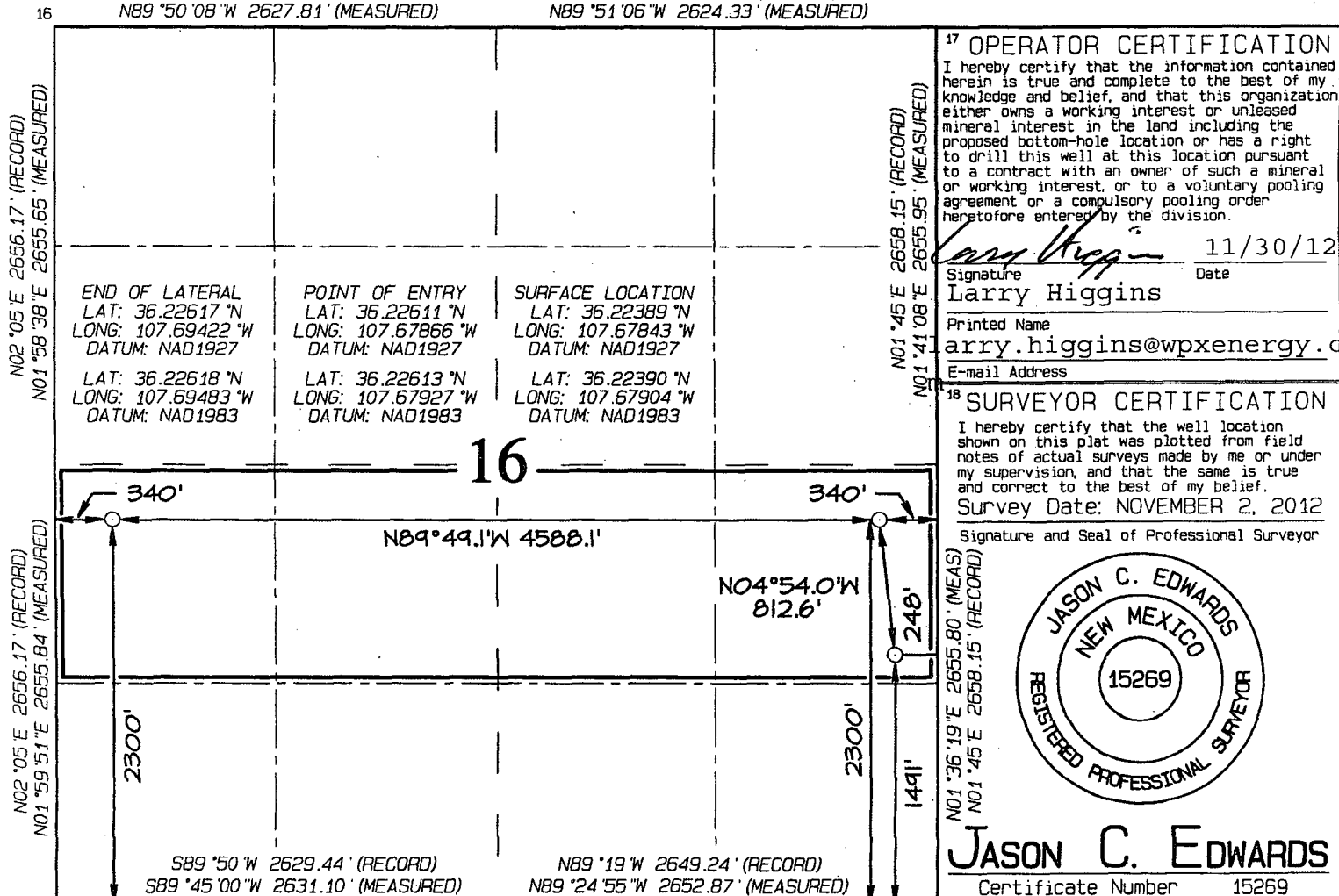
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| L             | 16      | 23N      | 8W    |         | 2300          | SOUTH            | 340           | WEST           | SAN JUAN |

|                                                          |                               |                                  |                         |
|----------------------------------------------------------|-------------------------------|----------------------------------|-------------------------|
| <sup>12</sup> Dedicated Acres<br>160.0 Acres - (N/2 S/2) | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No. |
|----------------------------------------------------------|-------------------------------|----------------------------------|-------------------------|

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N89°43'W 2627.13' (RECORD)  
N89°50'08"W 2627.81' (MEASURED)

N89°43'W 2627.13' (RECORD)  
N89°51'06"W 2624.33' (MEASURED)



**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  
San Juan, NM **MINERALS:** State

**MEASURED DEPTH:** 9,988' **LEASE #** V09208

**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, 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:** LSND mud will be used to drill the 8-3/4 in. Pilot Hole. LSND and OBM will be used to directionally drill to 8-3/4 in. intermediate casing point. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use synthetic or oil base invert emulsion fluid from KOP or intermediate casing point to TD.

**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:**

|              |  |        |  |       |  |       |  |       |      |
|--------------|--|--------|--|-------|--|-------|--|-------|------|
| Surface      |  | 12.25" |  | 400'  |  | 9 5/8 |  | 36#   | K-55 |
| Intermediate |  | 8.75"  |  | 5832' |  | 7     |  | 23#   | J-55 |
| Longstring   |  | 6.125" |  | 9988' |  | 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: Volumes may be adjusted onsite due to actual conditions)*

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: 3 STAGE CEMENT JOB: STAGE 1:** 33 bbl Fr Water Spacer (Mud Flush III) + 162 Sx Premium Cem, 15.8 #/gal (Yield 1.15 cu ft/sk / Vol: 186.3 cu-ft), .3% HR-5 retarder + .1% CFR-3 Dispersant. displace w/ Fr Water Est. TOC +/- 5,342 ft.. **STAGE 2:** 33 bbl Fr Water Spacer (Mud Flush III) + 200 sx Premium Cement. 15.8 #/gal (Yield 1.15 cu ft/sk / Vol: 230 cu-ft) + .2% HR-5 Retarder & .1% CFR-3 Dispersant displace w/ Fr Water Est. TOC +/- 4,634 ft. **STAGE 3:** 30 bbl Mud Flush III + 230 sx Premium Cement. 17 #/gal (Yield 1.0 cu-ft /sk / Vol: 230 cu-ft). +3% KCL Acc. + 0.2% HR-5 retarder. Est. TOC +/- 4,134 ft. Total Volume: (647 cu-ft/592 sx/115.2 bbls).
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**

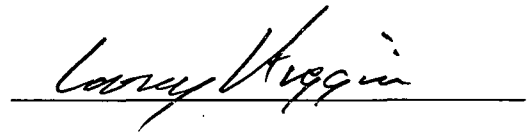
1. Pressure test 4-1/2" casing to 5000 psi max, hold at 1500 psi for 30 minutes.

**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.

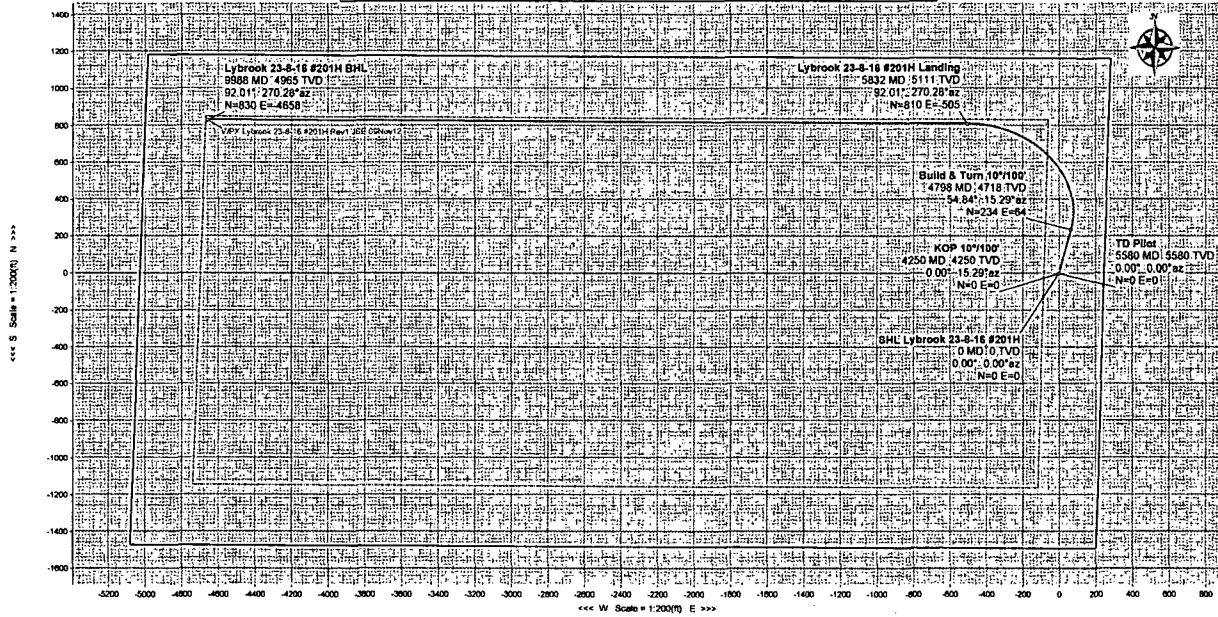
**D. RUNNING TUBING**

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).

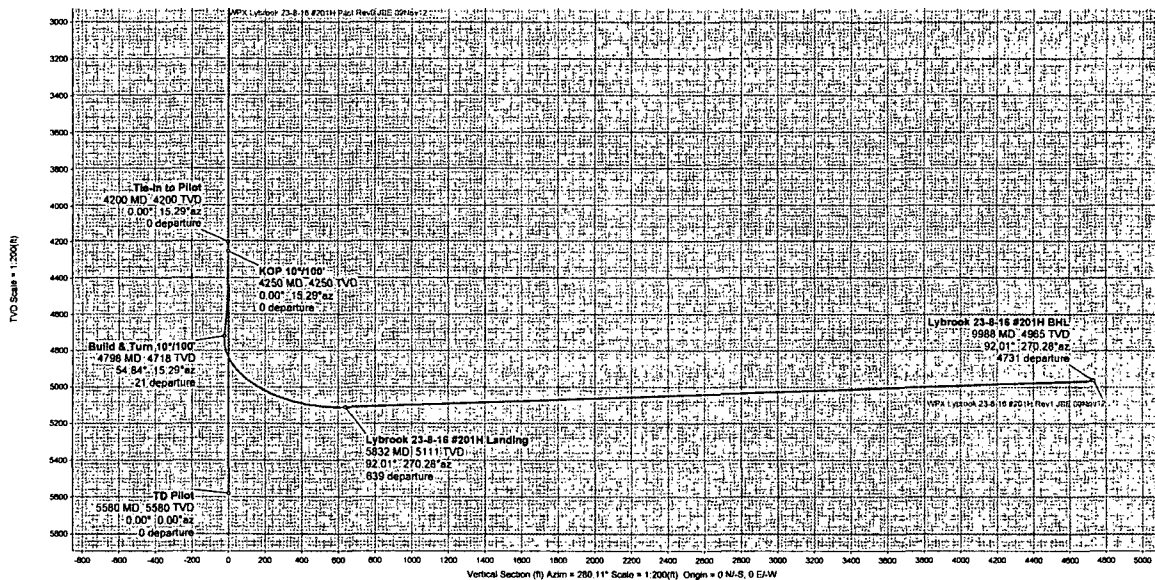
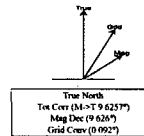
A handwritten signature in cursive script, reading "Larry Huggin", is written over a horizontal line.

|                     |                                                                                                                                                                                                                                                                                                                   |       |                          |           |                           |
|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------------------------|-----------|---------------------------|
| WELL                | Lybrook 23-8-16 #201H                                                                                                                                                                                                                                                                                             | FIELD | NM San Juan County NAD27 | STRUCTURE | WPX Lybrook 23-8-16 #201H |
| Magnetic Parameters | Model: KIR32010KIRF-11 Dip: 42.999° Date: November 09, 2012 Surface Location: Lat: N 16 13 26.054 Lon: W 107 40 43.348 Northing: 1909734 02 21.5 Grid Zone: 0 0927 Easting: 345499 70 8115 Scale: 1 m = 0.99991606<br>Aircell Name: Lybrook 23-8-16 #201H TVD Ref: KIR32010KIRF-11 Survey Date: November 09, 2012 |       |                          |           |                           |

| Name                      | TVD<br>(ft) | NS<br>(ft) | EW<br>(ft) | Latitude<br>(deg) | Longitude<br>(deg) | Shape |
|---------------------------|-------------|------------|------------|-------------------|--------------------|-------|
| Lybrook 23-8-16 #201H PP  | 5126.00     | 808.18     | -67.84     | N 36 13 33.996    | W 107 40 43.176    | POINT |
| Lybrook 23-8-16 #201H BHL | 4965.00     | 830.40     | -4657.62   | N 36 13 34.212    | W 107 41 39.192    | POINT |



Legend  
 Lybrook 23-8-16 #201H PP  
 Sec 16 T23N R08W South Half  
 Sec 16 T23N R08W South Half 330' HL  
 Lybrook 23-8-16 #201H BHL  
 WPX Lybrook 23-8-16 #201H Rev1 JBE 09Nov12  
 WPX Lybrook 23-8-16 #201H Pilot Rev0 JBE 09Nov12



Critical Points

| Comments                      | Survey<br>MD | Inclination<br>(deg) | Azimuth<br>(deg) | TVD<br>(ft) | VS<br>(ft) | NS<br>(ft) | EW<br>(ft) | Closure<br>(ft) | Closure<br>Azimuth<br>(deg) | DLS<br>(°/100ft) |
|-------------------------------|--------------|----------------------|------------------|-------------|------------|------------|------------|-----------------|-----------------------------|------------------|
| SHL Lybrook 23-8-16 #201H     | 0.00         | 0.00                 | 0.00             | 0.00        | 0.00       | 0.00       | 0.00       | 0.00            | 0.00                        |                  |
| Tie-In to Pilot               | 4200.00      | 0.00                 | 15.29            | 4200.00     | 0.00       | 0.00       | 0.00       | 0.00            | 0.00                        | 0.00             |
| KOP 10°/100'                  | 4250.00      | 0.00                 | 15.29            | 4250.00     | 0.00       | 0.00       | 0.00       | 0.00            | 0.00                        | 0.00             |
| Build & Turn 10°/100'         | 4798.40      | 54.84                | 15.29            | 4718.42     | -21.93     | 234.42     | 64.07      | 243.02          | 15.29                       | 10.00            |
| Lybrook 23-8-16 #201H Landing | 5832.40      | 92.01                | 270.28           | 5110.75     | 638.95     | 810.10     | -504.60    | 954.40          | 328.08                      | 10.00            |
| Lybrook 23-8-16 #201H BHL     | 9988.03      | 92.01                | 270.28           | 4965.00     | 4731.06    | 830.40     | -4657.62   | 4731.06         | 280.11                      | 0.00             |

Drawn By: [Signature]  
 Date Created: November 08, 2012 10:49:43 AM  
 Checked By: [Signature]  
 Checked Date: [Signature]  
 Approved By: [Signature]  
 Approved Date: [Signature]



# WPX Lybrook 23-8-16 #201H Rev1 JBE 09Nov12 Proposal Geodetic Report

(Non-Def Plan)

**Report Date:** November 09, 2012 - 01:38 PM  
**Client:** WPX Energy  
**Field:** NM San Juan County NAD27  
**Structure / Slot:** WPX Lybrook 23-8-16 #201H / Lybrook 23-8-16 #201H  
**Well:** Lybrook 23-8-16 #201H  
**Borehole:** ST01  
**UWI / API#:** Unknown / Unknown  
**Survey Name:** WPX Lybrook 23-8-16 #201H Rev1 JBE 09Nov12  
**Survey Date:** November 09, 2012  
**Tort / AHD / DDI / ERD Ratio:** 158.240 ° / 5328.773 ft / 6.217 / 1.043  
**Coordinate Reference System:** NAD27 New Mexico State Plane, Western Zone, US Feet  
**Location Lat / Long:** N 36° 13' 26.00400", W 107° 40' 42.34800"  
**Location Grid N/E Y/X:** N 1900774.024 ftUS, E 545689.699 ftUS  
**CRS Grid Convergence Angle:** 0.0915 °  
**Grid Scale Factor:** 0.99991906

**Survey / DLS Computation:** Minimum Curvature / Lubinski  
**Vertical Section Azimuth:** 280.109 ° (True North)  
**Vertical Section Origin:** 0.000 ft, 0.000 ft  
**TVD Reference Datum:** RKB  
**TVD Reference Elevation:** 6873.000 ft above MSL  
**Seabed / Ground Elevation:** 6858.000 ft above MSL  
**Magnetic Declination:** 9.626 °  
**Total Gravity Field Strength:** 999.1756 mgn (9.8 based)  
**Total Magnetic Field Strength:** 50307.665 nT  
**Magnetic Dip Angle:** 62.999 °  
**Declination Date:** November 09, 2012  
**Magnetic Declination Model:** IGRF2010/IGRF-11  
**North Reference:** True North  
**Grid Convergence Used:** 0.0000 °  
**Total Corr Mag North-True North:** 9.6257 °  
**Local Coord Referenced To:** Structure Reference Point

| Comments                      | MD<br>(ft) | Incl<br>(°) | Azim True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft) | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|-------------------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|--------------------|-------------------|-------------------------|--------------------------|
| SHL Lybrook 23-8-16 #201H     | 0.00       | 0.00        | 0.00             | 0.00        | 0.00         | 0.00       | 0.00       | N/A              | 1900774.02         | 545689.70         | N 36 13 26.00           | W 107 40 42.35           |
| Tie-In to Pilot               | 4200.00    | 0.00        | 15.29            | 4200.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02         | 545689.70         | N 36 13 26.00           | W 107 40 42.35           |
| KOP 10°/100'                  | 4250.00    | 0.00        | 15.29            | 4250.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02         | 545689.70         | N 36 13 26.00           | W 107 40 42.35           |
| Build & Turn 10°/100'         | 4798.40    | 54.84       | 15.29            | 4718.42     | -21.93       | 234.42     | 64.07      | 10.00            | 1901008.53         | 545753.39         | N 36 13 28.32           | W 107 40 41.57           |
| Lybrook 23-8-16 #201H Landing | 4798.40    | 54.84       | 15.29            | 4718.42     | -21.93       | 234.42     | 64.07      | 0.00             | 1901008.53         | 545753.39         | N 36 13 28.32           | W 107 40 41.57           |
| Lybrook 23-8-16 #201H BHL     | 5832.40    | 92.01       | 270.28           | 5110.75     | 638.95       | 810.10     | -504.60    | 10.00            | 1901583.25         | 545183.85         | N 36 13 34.02           | W 107 40 48.51           |
|                               | 9988.03    | 92.01       | 270.28           | 4965.00     | 4731.06      | 830.40     | -4657.62   | 0.00             | 1901596.91         | 541031.15         | N 36 13 34.21           | W 107 41 39.19           |

**Survey Type:** Non-Def Plan

**Survey Error Model:** ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
**Survey Program:**

| Description | MD From<br>(ft) | MD To<br>(ft) | EOU Freq<br>(ft) | Hole Size<br>(in) | Casing Diameter<br>(in) | Survey Tool Type       | Borehole / Survey                                        |
|-------------|-----------------|---------------|------------------|-------------------|-------------------------|------------------------|----------------------------------------------------------|
|             | 0.000           | 15.000        | 1/100.000        | 8.750             | 30.000                  | SLB_MWD-STD-Depth Only | Pilot / WPX Lybrook 23-8-16 #201H Pilot Rev0 JBE 09Nov12 |
|             | 15.000          | 4200.000      | 1/100.000        | 8.750             | 30.000                  | SLB_MWD-STD            | Pilot / WPX Lybrook 23-8-16 #201H Pilot Rev0 JBE 09Nov12 |
|             | 4200.000        | 9988.028      | 1/100.000        | 8.750             | 30.000                  | SLB_MWD-STD            | ST01 / WPX Lybrook 23-8-16 #201H Rev1 JBE 09Nov12        |



# WPX Lybrook 23-8-16 #201H Rev1 JBE 09Nov12 Proposal Geodetic Report



(Non-Def Plan)

Report Date: November 09, 2012 - 01:39 PM  
Client: WPX Energy  
Field: NM San Juan County NAD27  
Structure / Slot: WPX Lybrook 23-8-16 #201H / Lybrook 23-8-16 #201H  
Well: Lybrook 23-8-16 #201H  
Borehole: ST01  
UWI / API#: Unknown / Unknown  
Survey Name: WPX Lybrook 23-8-16 #201H Rev1 JBE 09Nov12  
Survey Date: November 09, 2012  
Tort / AHD / DDI / ERO Ratio: 158.240 \* / 5328.773 ft / 6.217 / 1.043  
Coordinate Reference System: NAD27 New Mexico State Plane, Western Zone, US Feet  
Location Lat / Long: N 36° 13' 26.00400", W 107° 40' 42.34800"  
Location Grid N/E Y/X: N 1900774.024 fUS, E 545689.699 fUS  
CRS Grid Convergence Angle: 0.0915 \*  
Grid Scale Factor: 0.99991906

Survey / DLS Computation: Minimum Curvature / Lubinski  
Vertical Section Azimuth: 280.109 \* (True North)  
Vertical Section Origin: 0.000 ft, 0.000 ft  
TVD Reference Datum: RKB  
TVD Reference Elevation: 6873.000 ft above MSL  
Seabed / Ground Elevation: 6858.000 ft above MSL  
Magnetic Declination: 9.626 \*  
Total Gravity Field Strength: 999.1756 mgn (9.8 based)  
Total Magnetic Field Strength: 50307.665 nT  
Magnetic Dip Angle: 62.999 \*  
Declination Date: November 09, 2012  
Magnetic Declination Model: IGRF2010/IGRF-11  
North Reference: True North  
Grid Convergence Used: 0.0000 \*  
Total Corr Mag North->True North: 9.6257 \*  
Local Coord Referenced To: Structure Reference Point

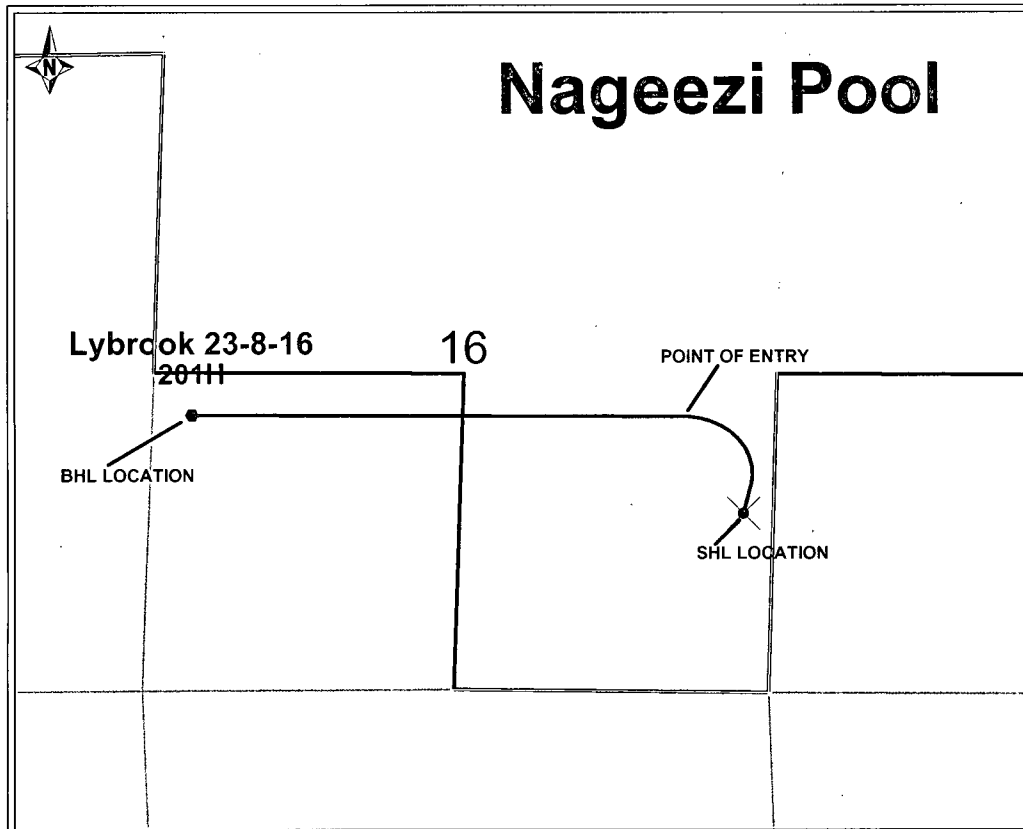
| Comments                         | MD<br>(ft) | Incl<br>(°) | Azim True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>(°/100ft) | Northing<br>(fUS) | Easting<br>(fUS) | Latitude<br>(N/S ° ' '') | Longitude<br>(E/W ° ' '') |
|----------------------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|-------------------|------------------|--------------------------|---------------------------|
| SHL Lybrook 23-8-16 #201H        | 0.00       | 0.00        | 0.00             | 0.00        | 0.00         | 0.00       | 0.00       | N/A              | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 100.00     | 0.00        | 15.29            | 100.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 200.00     | 0.00        | 15.29            | 200.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 300.00     | 0.00        | 15.29            | 300.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 400.00     | 0.00        | 15.29            | 400.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 500.00     | 0.00        | 15.29            | 500.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 600.00     | 0.00        | 15.29            | 600.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 700.00     | 0.00        | 15.29            | 700.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 800.00     | 0.00        | 15.29            | 800.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 900.00     | 0.00        | 15.29            | 900.00      | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1000.00    | 0.00        | 15.29            | 1000.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1100.00    | 0.00        | 15.29            | 1100.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1200.00    | 0.00        | 15.29            | 1200.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1300.00    | 0.00        | 15.29            | 1300.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1400.00    | 0.00        | 15.29            | 1400.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1500.00    | 0.00        | 15.29            | 1500.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1600.00    | 0.00        | 15.29            | 1600.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1700.00    | 0.00        | 15.29            | 1700.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1800.00    | 0.00        | 15.29            | 1800.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 1900.00    | 0.00        | 15.29            | 1900.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2000.00    | 0.00        | 15.29            | 2000.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2100.00    | 0.00        | 15.29            | 2100.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2200.00    | 0.00        | 15.29            | 2200.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2300.00    | 0.00        | 15.29            | 2300.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2400.00    | 0.00        | 15.29            | 2400.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2500.00    | 0.00        | 15.29            | 2500.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2600.00    | 0.00        | 15.29            | 2600.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2700.00    | 0.00        | 15.29            | 2700.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2800.00    | 0.00        | 15.29            | 2800.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 2900.00    | 0.00        | 15.29            | 2900.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3000.00    | 0.00        | 15.29            | 3000.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3100.00    | 0.00        | 15.29            | 3100.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3200.00    | 0.00        | 15.29            | 3200.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3300.00    | 0.00        | 15.29            | 3300.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3400.00    | 0.00        | 15.29            | 3400.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3500.00    | 0.00        | 15.29            | 3500.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3600.00    | 0.00        | 15.29            | 3600.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3700.00    | 0.00        | 15.29            | 3700.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3800.00    | 0.00        | 15.29            | 3800.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 3900.00    | 0.00        | 15.29            | 3900.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 4000.00    | 0.00        | 15.29            | 4000.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 4100.00    | 0.00        | 15.29            | 4100.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
| Tie-In to Pilot<br>KOP 10°/100'  | 4200.00    | 0.00        | 15.29            | 4200.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 4250.00    | 0.00        | 15.29            | 4250.00     | 0.00         | 0.00       | 0.00       | 0.00             | 1900774.02        | 545689.70        | N 36 13 26.00            | W 107 40 42.35            |
|                                  | 4300.00    | 5.00        | 15.29            | 4299.94     | -0.20        | 2.10       | 0.57       | 10.00            | 1900776.13        | 545690.27        | N 36 13 26.02            | W 107 40 42.34            |
|                                  | 4400.00    | 15.00       | 15.29            | 4398.29     | -1.76        | 18.83      | 5.15       | 10.00            | 1900792.88        | 545694.82        | N 36 13 26.19            | W 107 40 42.29            |
|                                  | 4500.00    | 25.00       | 15.29            | 4492.14     | -4.84        | 51.78      | 14.15      | 10.00            | 1900825.82        | 545703.77        | N 36 13 26.52            | W 107 40 42.18            |
|                                  | 4600.00    | 35.00       | 15.29            | 4578.64     | -9.35        | 99.95      | 27.32      | 10.00            | 1900874.01        | 545716.85        | N 36 13 26.99            | W 107 40 42.01            |
|                                  | 4700.00    | 45.00       | 15.29            | 4655.14     | -15.14       | 161.68     | 44.24      | 10.00            | 1900935.96        | 545733.68        | N 36 13 27.60            | W 107 40 41.81            |
| Build & Turn<br>10°/100'         | 4798.40    | 54.84       | 15.29            | 4718.42     | -21.93       | 234.42     | 64.07      | 10.00            | 1901008.53        | 545753.39        | N 36 13 28.32            | W 107 40 41.57            |
|                                  | 4798.40    | 54.84       | 15.29            | 4718.42     | -21.93       | 234.42     | 64.07      | 0.00             | 1901008.53        | 545753.39        | N 36 13 28.32            | W 107 40 41.57            |
|                                  | 4800.00    | 54.82       | 15.09            | 4719.34     | -22.04       | 235.68     | 64.41      | 10.00            | 1901009.79        | 545753.73        | N 36 13 28.33            | W 107 40 41.56            |
|                                  | 4900.00    | 54.22       | 2.83             | 4777.53     | -20.45       | 315.85     | 77.08      | 10.00            | 1901089.87        | 545766.27        | N 36 13 29.13            | W 107 40 41.41            |
|                                  | 5000.00    | 54.87       | 350.57           | 4835.68     | -1.58        | 396.91     | 72.37      | 10.00            | 1901171.02        | 545761.43        | N 36 13 29.93            | W 107 40 41.46            |
|                                  | 5100.00    | 56.72       | 338.68           | 4892.03     | 33.99        | 476.39     | 50.41      | 10.00            | 1901250.46        | 545739.35        | N 36 13 30.72            | W 107 40 41.73            |
|                                  | 5200.00    | 59.65       | 327.42           | 4944.87     | 85.17        | 551.88     | 11.88      | 10.00            | 1901325.88        | 545700.69        | N 36 13 31.46            | W 107 40 42.20            |
|                                  | 5300.00    | 63.48       | 316.90           | 4992.58     | 150.42       | 621.08     | -42.06     | 10.00            | 1901394.98        | 545646.65        | N 36 13 32.15            | W 107 40 42.86            |
|                                  | 5400.00    | 68.02       | 307.13           | 5033.73     | 227.75       | 681.89     | -109.77    | 10.00            | 1901455.68        | 545578.85        | N 36 13 32.75            | W 107 40 43.69            |
|                                  | 5500.00    | 73.11       | 297.99           | 5067.06     | 314.80       | 732.46     | -189.18    | 10.00            | 1901506.12        | 545499.36        | N 36 13 33.25            | W 107 40 44.66            |
|                                  | 5600.00    | 78.58       | 289.35           | 5091.55     | 408.95       | 771.25     | -277.89    | 10.00            | 1901544.77        | 545410.60        | N 36 13 33.63            | W 107 40 45.74            |
|                                  | 5700.00    | 84.29       | 281.05           | 5106.47     | 507.32       | 797.10     | -373.20    | 10.00            | 1901570.46        | 545315.25        | N 36 13 33.89            | W 107 40 46.90            |
|                                  | 5800.00    | 90.12       | 272.91           | 5111.36     | 606.92       | 809.20     | -472.22    | 10.00            | 1901582.40        | 545216.23        | N 36 13 34.01            | W 107 40 48.11            |
| Lybrook 23-8-16<br>#201H Landing | 5832.40    | 92.01       | 270.28           | 5110.75     | 638.95       | 810.10     | -504.60    | 10.00            | 1901583.25        | 545183.85        | N 36 13 34.02            | W 107 40 48.51            |
|                                  | 5900.00    | 92.01       | 270.28           | 5108.38     | 705.52       | 810.43     | -572.15    | 0.00             | 1901583.47        | 545116.30        | N 36 13 34.02            | W 107 40 49.33            |
|                                  | 6000.00    | 92.01       | 270.28           | 5104.88     | 803.99       | 810.92     | -672.09    | 0.00             | 1901583.80        | 545016.37        | N 36 13 34.02            | W 107 40 50.55            |
|                                  | 6100.00    | 92.01       | 270.28           | 5101.37     | 902.46       | 811.41     | -772.03    | 0.00             | 1901584.13        | 544916.44        | N 36 13 34.03            | W 107 40 51.77            |
|                                  | 6200.00    | 92.01       | 270.28           | 5097.86     | 1000.93      | 811.90     | -871.97    | 0.00             | 1901584.46        | 544816.51        | N 36 13 34.03            | W 107 40 52.99            |
|                                  | 6300.00    | 92.01       | 270.28           | 5094.35     | 1099.41      | 812.39     | -971.90    | 0.00             | 1901584.79        | 544716.58        | N 36 13 34.04            | W 107 40 54.21            |
|                                  | 6400.00    | 92.01       | 270.28           | 5090.85     | 1197.88      | 812.87     | -1071.84   | 0.00             | 1901585.12        | 544616.65        | N 36 13 34.04            | W 107 40 55.43            |
|                                  | 6500.00    | 92.01       | 270.28           | 5087.34     | 1296.35      | 813.36     | -1171.78   | 0.00             | 1901585.45        | 544516.72        | N 36 13 34.05            | W 107 40 56.65            |
|                                  | 6600.00    | 92.01       | 270.28           | 5083.83     | 1394.82      | 813.85     | -1271.72   | 0.00             | 1901585.77        | 544416.79        | N 36 13 34.05            | W 107 40 57.87            |
|                                  | 6700.00    | 92.01       | 270.28           | 5080.32     | 1493.29      | 814.34     | -1371.65   | 0.00             | 1901586.10        | 544316.86        | N 36 13 34.06            | W 107 40 59.09            |
|                                  | 6800.00    | 92.01       | 270.28           | 5076.82     | 1591.76      | 814.83     | -1471.59   | 0.00             | 1901586.43        | 544216.93        | N 36 13 34.06            | W 107 4                   |

| Comments                     | MD<br>(ft) | Incl<br>(°) | Azim True<br>(°) | TVD<br>(ft) | VSEC<br>(ft) | NS<br>(ft) | EW<br>(ft) | DLS<br>C/100ft | Northing<br>(ftUS) | Easting<br>(ftUS) | Latitude<br>N/S ° ' " | Longitude<br>E/W ° ' " |
|------------------------------|------------|-------------|------------------|-------------|--------------|------------|------------|----------------|--------------------|-------------------|-----------------------|------------------------|
|                              | 7200.00    | 92.01       | 270.28           | 5062.79     | 1985.65      | 816.78     | -1871.34   | 0.00           | 1901587.75         | 543817.21         | N 36 13 34.06         | W 107 41 5.19          |
|                              | 7300.00    | 92.01       | 270.28           | 5069.28     | 2084.12      | 817.27     | -1971.28   | 0.00           | 1901588.08         | 543717.28         | N 36 13 34.09         | W 107 41 6.41          |
|                              | 7400.00    | 92.01       | 270.28           | 5065.77     | 2182.59      | 817.76     | -2071.21   | 0.00           | 1901588.40         | 543617.35         | N 36 13 34.09         | W 107 41 7.63          |
|                              | 7500.00    | 92.01       | 270.28           | 5052.26     | 2281.06      | 818.25     | -2171.15   | 0.00           | 1901588.73         | 543517.42         | N 36 13 34.09         | W 107 41 8.85          |
|                              | 7600.00    | 92.01       | 270.28           | 5048.76     | 2379.54      | 818.73     | -2271.09   | 0.00           | 1901589.06         | 543417.49         | N 36 13 34.10         | W 107 41 10.07         |
|                              | 7700.00    | 92.01       | 270.28           | 5045.25     | 2478.01      | 819.22     | -2371.03   | 0.00           | 1901589.39         | 543317.57         | N 36 13 34.10         | W 107 41 11.29         |
|                              | 7800.00    | 92.01       | 270.28           | 5041.74     | 2576.48      | 819.71     | -2470.96   | 0.00           | 1901589.72         | 543217.64         | N 36 13 34.11         | W 107 41 12.50         |
|                              | 7900.00    | 92.01       | 270.28           | 5038.24     | 2674.95      | 820.20     | -2570.90   | 0.00           | 1901590.05         | 543117.71         | N 36 13 34.11         | W 107 41 13.72         |
|                              | 8000.00    | 92.01       | 270.28           | 5034.73     | 2773.42      | 820.69     | -2670.84   | 0.00           | 1901590.38         | 543017.78         | N 36 13 34.12         | W 107 41 14.94         |
|                              | 8100.00    | 92.01       | 270.28           | 5031.22     | 2871.89      | 821.18     | -2770.77   | 0.00           | 1901590.71         | 542917.85         | N 36 13 34.12         | W 107 41 16.16         |
|                              | 8200.00    | 92.01       | 270.28           | 5027.71     | 2970.37      | 821.67     | -2870.71   | 0.00           | 1901591.03         | 542817.92         | N 36 13 34.13         | W 107 41 17.38         |
|                              | 8300.00    | 92.01       | 270.28           | 5024.21     | 3068.84      | 822.15     | -2970.65   | 0.00           | 1901591.36         | 542717.99         | N 36 13 34.13         | W 107 41 18.60         |
|                              | 8400.00    | 92.01       | 270.28           | 5020.70     | 3167.31      | 822.64     | -3070.59   | 0.00           | 1901591.69         | 542618.06         | N 36 13 34.14         | W 107 41 19.82         |
|                              | 8500.00    | 92.01       | 270.28           | 5017.19     | 3265.78      | 823.13     | -3170.52   | 0.00           | 1901592.02         | 542518.13         | N 36 13 34.14         | W 107 41 21.04         |
|                              | 8600.00    | 92.01       | 270.28           | 5013.68     | 3364.25      | 823.62     | -3270.46   | 0.00           | 1901592.35         | 542418.20         | N 36 13 34.15         | W 107 41 22.26         |
|                              | 8700.00    | 92.01       | 270.28           | 5010.18     | 3462.72      | 824.11     | -3370.40   | 0.00           | 1901592.68         | 542318.27         | N 36 13 34.15         | W 107 41 23.48         |
|                              | 8800.00    | 92.01       | 270.28           | 5006.67     | 3561.19      | 824.60     | -3470.34   | 0.00           | 1901593.01         | 542218.34         | N 36 13 34.16         | W 107 41 24.70         |
|                              | 8900.00    | 92.01       | 270.28           | 5003.16     | 3659.67      | 825.08     | -3570.27   | 0.00           | 1901593.33         | 542118.41         | N 36 13 34.16         | W 107 41 25.92         |
|                              | 9000.00    | 92.01       | 270.28           | 4999.65     | 3758.14      | 825.57     | -3670.21   | 0.00           | 1901593.66         | 542018.48         | N 36 13 34.17         | W 107 41 27.14         |
|                              | 9100.00    | 92.01       | 270.28           | 4996.15     | 3856.61      | 826.06     | -3770.15   | 0.00           | 1901593.99         | 541918.55         | N 36 13 34.17         | W 107 41 28.36         |
|                              | 9200.00    | 92.01       | 270.28           | 4992.64     | 3955.08      | 826.55     | -3870.08   | 0.00           | 1901594.32         | 541818.62         | N 36 13 34.18         | W 107 41 29.58         |
|                              | 9300.00    | 92.01       | 270.28           | 4989.13     | 4053.55      | 827.04     | -3970.02   | 0.00           | 1901594.65         | 541718.69         | N 36 13 34.18         | W 107 41 30.80         |
|                              | 9400.00    | 92.01       | 270.28           | 4985.62     | 4152.02      | 827.53     | -4069.96   | 0.00           | 1901594.98         | 541618.76         | N 36 13 34.18         | W 107 41 32.02         |
|                              | 9500.00    | 92.01       | 270.28           | 4982.12     | 4250.50      | 828.01     | -4169.90   | 0.00           | 1901595.31         | 541518.83         | N 36 13 34.19         | W 107 41 33.24         |
|                              | 9600.00    | 92.01       | 270.28           | 4978.61     | 4348.97      | 828.50     | -4269.83   | 0.00           | 1901595.64         | 541418.90         | N 36 13 34.19         | W 107 41 34.46         |
|                              | 9700.00    | 92.01       | 270.28           | 4975.10     | 4447.44      | 828.99     | -4369.77   | 0.00           | 1901595.96         | 541318.97         | N 36 13 34.20         | W 107 41 35.68         |
|                              | 9800.00    | 92.01       | 270.28           | 4971.59     | 4545.91      | 829.48     | -4469.71   | 0.00           | 1901596.29         | 541219.04         | N 36 13 34.20         | W 107 41 36.90         |
|                              | 9900.00    | 92.01       | 270.28           | 4968.09     | 4644.38      | 829.97     | -4569.65   | 0.00           | 1901596.62         | 541119.11         | N 36 13 34.21         | W 107 41 38.12         |
| Lybrook 23-8-16<br>#201H BHL | 9988.03    | 92.01       | 270.28           | 4965.00     | 4731.06      | 830.40     | -4657.62   | 0.00           | 1901596.91         | 541031.15         | N 36 13 34.21         | W 107 41 39.19         |

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 \*\*\* 3-D 95.000% Confidence 2.7955 sigma  
Survey Program:

| Description | MD From<br>(ft) | MD To<br>(ft) | EOU Freq<br>(ft) | Hole Size<br>(in) | Casing Diameter<br>(in) | Survey Tool Type       | Borehole / Survey                                           |
|-------------|-----------------|---------------|------------------|-------------------|-------------------------|------------------------|-------------------------------------------------------------|
|             | 0.000           | 15.000        | 1/100.000        | 8.750             | 30.000                  | SLB_MWD-STD-Depth Only | Pilot / WPX Lybrook 23-8-16<br>#201H Pilot Rev0 JBE 09Nov12 |
|             | 15.000          | 4200.000      | 1/100.000        | 8.750             | 30.000                  | SLB_MWD-STD            | Pilot / WPX Lybrook 23-8-16<br>#201H Pilot Rev0 JBE 09Nov12 |
|             | 4200.000        | 9988.028      | 1/100.000        | 8.750             | 30.000                  | SLB_MWD-STD            | ST01 / WPX Lybrook 23-8-16<br>#201H Rev1 JBE 09Nov12        |



|                                                   |
|---------------------------------------------------|
| <b>WPXENERGY</b>                                  |
| SAN JUAN BASIN                                    |
| LYBROOK 23-8-16 #201H                             |
| 23N 8W SEC 16                                     |
| NAGEEZI POOL                                      |
| 0 1,200<br>FEET                                   |
| POSTED WELL DATA<br>Well Name<br>Well Number<br>① |
| SYMBOL HIGHLIGHT                                  |
| WELL SYMBOLS<br>MC LOCATIONS<br>Pilot well for HZ |
| By, VALERIE DUFFY                                 |
| November 21, 2012                                 |