

Submit 1 Copy To Appropriate District Office  
District I - (575) 393-6161  
1625 N. French Dr., Hobbs, NM 88240  
District II - (575) 748-1283  
811 S. First St., Artesia, NM 88210  
District III - (505) 334-6178  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV - (505) 476-3460  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
Revised August 1, 2011

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

|                                                                                                     |
|-----------------------------------------------------------------------------------------------------|
| WELL API NO.<br>30-043-21169                                                                        |
| 5. Indicate Type of Lease<br>STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> |
| 6. State Oil & Gas Lease No.<br>V09209                                                              |
| 7. Lease Name or Unit Agreement Name<br>Chaco 2206-02H                                              |
| 8. Well Number #226H                                                                                |
| 9. OGRID Number<br>120782                                                                           |
| 10. Pool name or Wildcat<br>Lybrook Gallup                                                          |

SUNDRY NOTICES AND REPORTS ON WELLS  
(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.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
WPX Energy Production, LLC

3. Address of Operator  
P. O. Box 640, Aztec, NM 87410 (505) 333-1808

4. Well Location

Unit Letter H 1686' feet from the North line and 328' feet from the East line  
Section 2 Township 22N Range 6W NMPM County Sandoval

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6949' GR

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

RCVD JAN 29 '14  
OIL CONS. DIV.  
DIST. 3

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 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

WPX plans to move surface location slightly and extend the lateral on this well to maximize the producing interval as per attached C-102, operation plan and directional plan. The plug back TD of this well will be the float collar which will be two joints up from landing depth. 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.

Hold C104  
for Directional Survey  
and "As Drilled" plat

Spud Date:

Rig Release Date:

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

SIGNATURE Larry Higgins TITLE Regulatory Specialist DATE 01/28/2014

Type or print name Larry Higgins E-mail address: larry.higgins@wpxenergy.com PHONE: (505) 333-1808  
For State Use Only

APPROVED BY: Charles Seru TITLE SUPERVISOR DISTRICT # 3 DATE FEB 05 2014  
Conditions of Approval (if any): AV

District I  
1625 N. French Drive, Hobbs, NM 88240  
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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

|                                         |                                                          |                                          |
|-----------------------------------------|----------------------------------------------------------|------------------------------------------|
| <sup>1</sup> API Number<br>30-043-21169 | <sup>2</sup> Pool Code<br>42289                          | <sup>3</sup> Pool Name<br>LYBROOK GALLUP |
| <sup>4</sup> Property Code<br>39908     | <sup>5</sup> Property Name<br>CHACO 2206-02H             | <sup>6</sup> Well Number<br>226H         |
| <sup>7</sup> OGRID No.<br>120782        | <sup>8</sup> Operator Name<br>WPX ENERGY PRODUCTION, LLC | <sup>9</sup> Elevation<br>6949'          |

<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   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| H             | 2       | 22N      | 6W    |         | 1686          | NORTH            | 328           | EAST           | SANDOVAL |

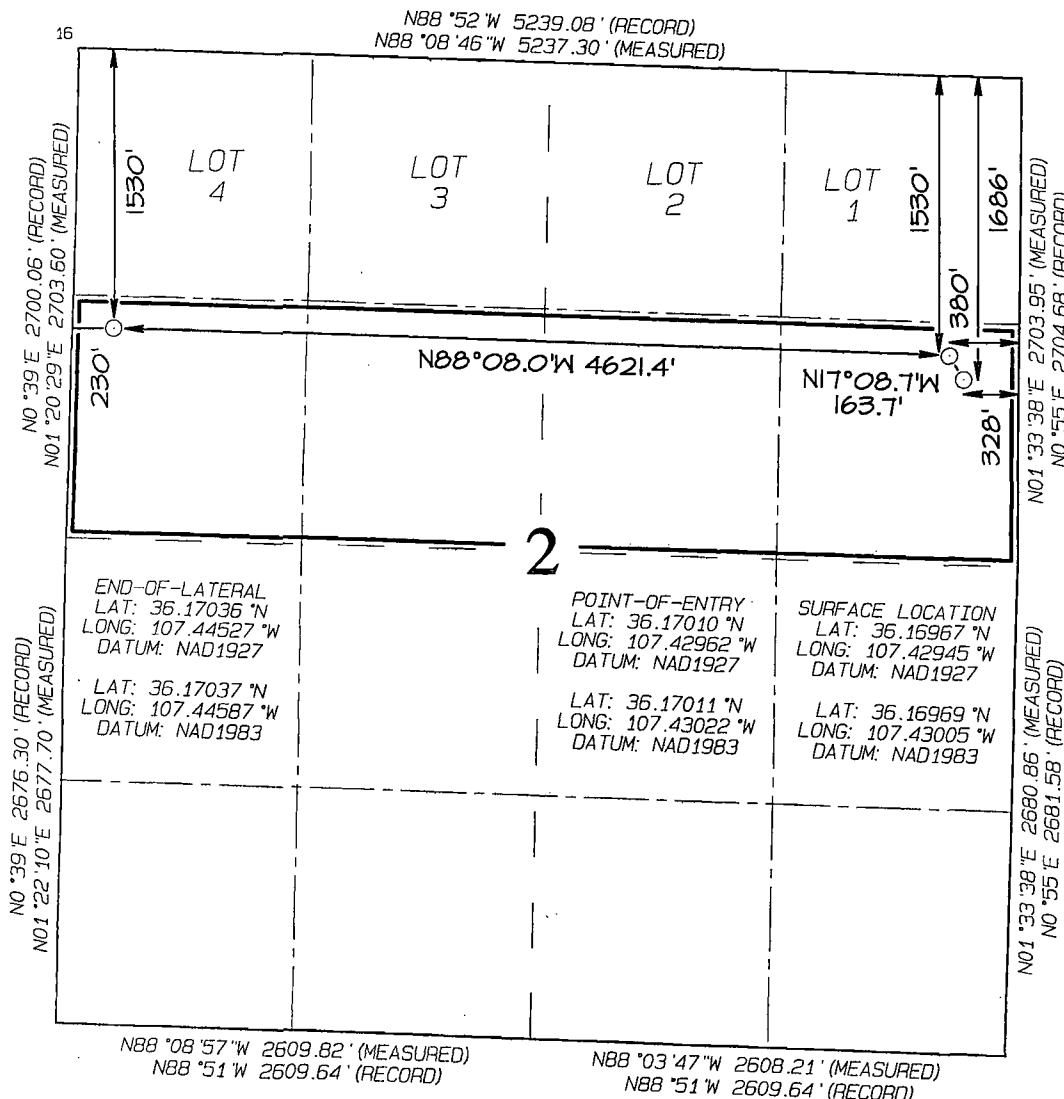
<sup>11</sup> Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County   |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| E             | 2       | 22N      | 6W    |         | 1530          | NORTH            | 230           | WEST           | SANDOVAL |

|                                                          |                               |                                  |                                                              |
|----------------------------------------------------------|-------------------------------|----------------------------------|--------------------------------------------------------------|
| <sup>12</sup> Dedicated Acres<br>160.0 Acres - (S/2 N/2) | <sup>13</sup> Joint or Infill | <sup>14</sup> Consolidation Code | <sup>15</sup> Order No.<br>RCVD JAN 29 '14<br>OIL CONS. DIV. |
|----------------------------------------------------------|-------------------------------|----------------------------------|--------------------------------------------------------------|

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

DIST. 3



<sup>17</sup> OPERATOR CERTIFICATION  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom-hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Larry Higgins Date 01/28/14  
Printed Name Larry Higgins  
E-mail Address larry.higgins@wpxenergy.com

<sup>18</sup> SURVEYOR CERTIFICATION  
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date Revised: JANUARY 27, 2014  
Date of Survey: JUNE 8, 2012  
Signature and Seal of Professional Surveyor



JASON C. EDWARDS  
Certificate Number 15269

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

**DATE:** 1/24/2014 **FIELD:** Lybrook (Gallup)

**WELL NAME:** Chaco 2206-02H #226H **SURFACE:** State

**SH Location:** SENE Sec 2-22N-06W **ELEVATION:** 6,949' GR

**BH Location:** SWNW Sec 2-22N-06W **MINERALS:** State  
Sandoval Co, NM

**MEASURED DEPTH:** 10,488' **LEASE #:** V09209

**I. GEOLOGY:** Surface formation – San Jose**A. FORMATION TOPS:** ( KB)

| Name            | MD    | TVD   | Name                 | MD            | TVD          |
|-----------------|-------|-------|----------------------|---------------|--------------|
| Ojo Alamo       | 1,308 | 1,301 | Point Lookout        | 4,156         | 4,099        |
| Kirtland        | 1,593 | 1,581 | Mancos               | 4,347         | 4,288        |
| Pictured Cliffs | 1,852 | 1,835 | <b>Kickoff Point</b> | <b>4,793</b>  | <b>4,734</b> |
| Lewis           | 1,967 | 1,948 | Target Top           | 5,605         | 5,352        |
| Chacra          | 2,286 | 2,262 | <b>Landing Point</b> | <b>5,866</b>  | <b>5,400</b> |
| Cliff House     | 3,416 | 3,372 | Target Base          | 5,866         | 5,400        |
| Menefee         | 3,448 | 3,403 |                      |               |              |
|                 |       |       | <b>TD</b>            | <b>10,488</b> | <b>5,311</b> |

**B. MUD LOGGING PROGRAM:** Mudlogger on location from surface csg to TD.**C. LOGGING PROGRAM:** LWD GR from surface casing to TD. LWD GR / E- Sonic will be run in 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 the 12-1/4" Surface hole, the 8 3/4" 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. 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 +/- 4,793' (MD) / 4,734' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 5,866' (MD) / 5,400' (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 +/- 10,488' (MD) / 5,311' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,716 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"       | 400'+            | 9.625"           | 36#        | J-55  |
| Intermediate    | 8.75"        | 5,866'           | 7"               | 23#        | K-55  |
| Prod. Liner     | 6.125"       | 5,716' - 10,488' | 4-1/2"           | 11.6#      | N-80  |
| Tie-Back String | N/A          | Surf. - 5,716'   | 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) 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.
3. PRODUCTION LINER: Run 4-1/2" Liner with cement nose guide Float Shoe + 2jts. of 4-1/2" casing + Landing Collar + 4-1/2" pup joint + (2) RSI (Sliding Sleeves) 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. TIE-BACK CASING: None

#### 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 39.58 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). TOC at Surface.
2. INTERMEDIATE: 20 bbl (112 cu-ft) Mud Flush III spacer + Lead: 850 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.
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 ( 310 sx / 536.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,416 ft.

#### IV. COMPLETION

##### A. CBL

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

##### D. RUNNING TUBING

1. Production Tubing: 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.

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#### 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 5,866 ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,716 ft. (MD) +/- 78 degree angle. TOC: +/- 5,416 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.

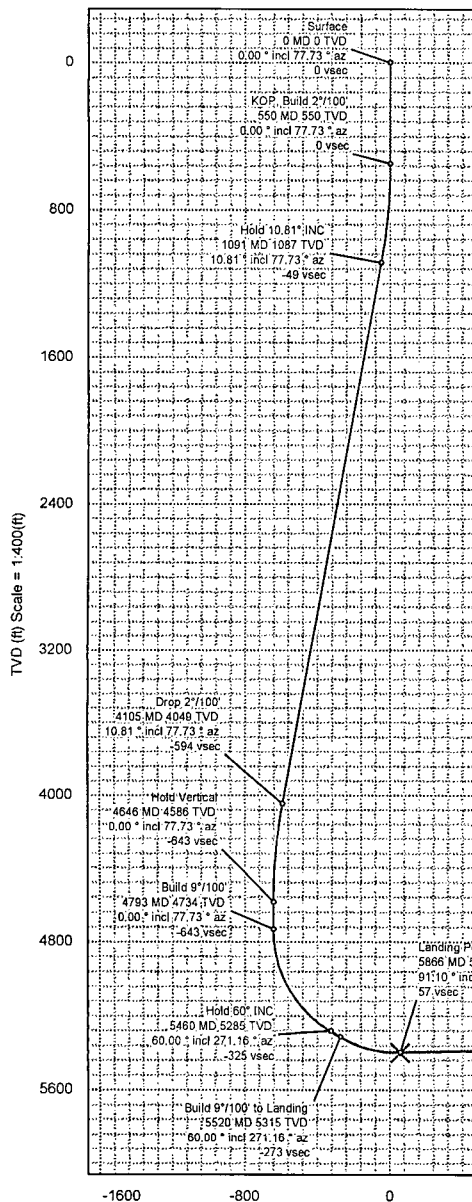
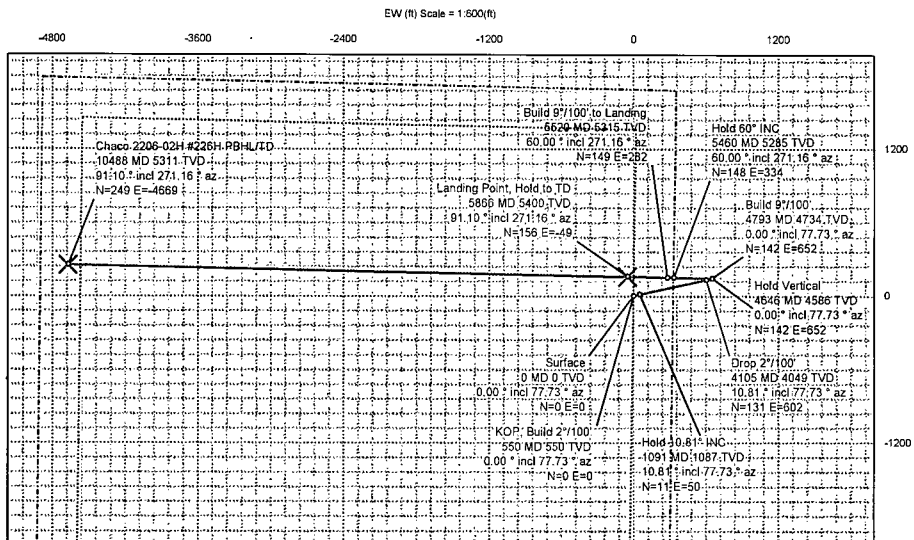
|               |                      |                          |              |
|---------------|----------------------|--------------------------|--------------|
| Borehole:     | Well:                | Field:                   | Structure:   |
| Original Hole | Chaco 2206-02H #226H | NM Sandoval County NAD27 | Sec 2-22N-6W |

|                                                                       |                                                                  |                                           |
|-----------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------|
| Gravity & Magnetic Parameters                                         | Surface Location                                                 | Miscellaneous                             |
| Model: BGGM 2013 Dip: 62.978° Date: 24-Jan-2014                       | NAD27 New Mexico State Plane, Central Zone, US Feet              | Slot: Chaco 2206-02H #226H                |
| MagDec: 9.413° FS: 50127.346nT Gravity FS: 998.913mgN (9.80665 Based) | Lat: N 36 10 10.81 Northing: 1883084.394ft Grid Conv: -0.6962°   | TVD Ref: RKB(8963ft above MSL)            |
|                                                                       | Lon: W 107 25 46.02 Easting: 151872.371RU Scale Fact: 1.00003869 | Plan: Chaco 2206-02H #226H R1 mdy 24Jan14 |

# Proposal



True North  
Tot Corr (M->T 9.413°)  
Mag Dec (9.413°)  
Grid Conv (-0.696°)



| Surface Location                  |               |                     |            |                         |         |                           |             |                       |
|-----------------------------------|---------------|---------------------|------------|-------------------------|---------|---------------------------|-------------|-----------------------|
| Northing: 1883084.394             |               | Easting: 151872.371 |            | Latitude: N 36 10 10.81 |         | Longitude: W 107 25 46.02 |             | VSec Azimuth: 273.057 |
| Target Description                |               | Grid Coord          |            |                         |         |                           | Local Coord |                       |
| Target Name                       | Latitude      | Longitude           | Northing   | Easting                 | TVD     | VSec                      | N(+)/S(-)   | E(+)/W(-)             |
| Chaco 2206-02H #226H PBHL/TD      | N 36 10 13.27 | W 107 26 42.96      | 1883390.49 | 147206.57               | 5311.00 | 4675.65                   | 249.37      | -4669.00              |
| Chaco 2206-02H #226H POE          | N 36 10 12.35 | W 107 25 46.61      | 1883241.01 | 151825.53               | 5400.00 | 56.99                     | 156.03      | -48.74                |
| Chaco 2206-02H #226H Section Line | N 36 10 10.78 | W 107 25 45.37      | 1883080.11 | 151925.46               | 6963.00 | -53.25                    | -3.64       | 53.13                 |
| Chaco 2206-02H #226H 330' Setback | N 36 10 10.78 | W 107 25 45.37      | 1883080.11 | 151925.46               | 6963.00 | -53.25                    | -3.64       | 53.13                 |
| Critical Points                   |               |                     |            |                         |         |                           |             |                       |
| Critical Point                    | MD            | INCL                | AZIM       | TVD                     | VSEC    | N(+)/S(-)                 | E(+)/W(-)   | DLS                   |
| Surface                           | 0.00          | 0.00                | 77.73      | 0.00                    | 0.00    | 0.00                      | 0.00        |                       |
| KOP, Build 2°/100'                | 550.00        | 0.00                | 77.73      | 550.00                  | 0.00    | 0.00                      | 0.00        | 0.00                  |
| Hold 10.81° INC                   | 1090.59       | 10.81               | 77.73      | 1087.39                 | -49.04  | 10.81                     | 49.69       | 2.00                  |
| Drop 2°/100'                      | 4105.33       | 10.81               | 77.73      | 4048.61                 | -594.43 | 131.04                    | 602.28      | 0.00                  |
| Hold Vertical                     | 4645.92       | 0.00                | 77.73      | 4586.00                 | -643.48 | 141.85                    | 651.97      | 2.00                  |
| Build 9°/100'                     | 4793.42       | 0.00                | 77.73      | 4733.50                 | -643.48 | 141.85                    | 651.97      | 0.00                  |
| Hold 60° INC                      | 5480.09       | 60.00               | 271.16     | 5284.83                 | -325.34 | 148.29                    | 333.73      | 9.00                  |
| Build 9°/100' to Landing          | 5520.09       | 60.00               | 271.16     | 5314.83                 | -273.41 | 149.35                    | 281.77      | 0.00                  |
| Landing Point, Hold to TD         | 5865.69       | 91.10               | 271.16     | 5400.00                 | 56.99   | 156.02                    | -48.73      | 9.00                  |
| Chaco 2206-02H #226H PBHL/TD      | 10487.75      | 91.10               | 271.16     | 5311.00                 | 4675.65 | 249.37                    | -4669.00    | 0.00                  |

Vertical Section (ft) Azim = 273.057° Scale = 1:400(ft) Origin = 0N-S, 0E-W



# Chaco 2206-02H #226H R1 mdv 24Jan14 Proposal Geodetic Report



(Def Plan)

Report Date: January 24, 2014 - 02:01 PM  
Client: WPX Energy  
Field: NM Sandoval County NAD27  
Structure / Slot: WPX Sec 2-22N-6W (Chaco 2206-02H #226H) / Chaco 2206-02H #226H  
Well: Chaco 2206-02H #226H  
Borehole: Original Hole  
UWI / API#: Unknown / Unknown  
Survey Name: Chaco 2206-02H #226H R1 mdv 24Jan14  
Survey Date: August 07, 2013  
Tort / AHD / DDI / ERD Ratio: 112.733 ° / 5989.279 ft / 6.118 / 1.109  
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet  
Location Lat / Long: N 36° 10' 10.81200", W 107° 25' 46.02000"  
Location Grid N/E Y/X: N 1883084.394 fUS, E 151872.371 fUS  
CRS Grid Convergence Angle: -0.6962 °  
Grid Scale Factor: 1.00003869  
Version / Patch: 2.7.1043.0  
Survey / DLS Computation: Minimum Curvature / Lubinski  
Vertical Section Azimuth: 273.057 ° (True North)  
Vertical Section Origin: 0.000 ft, 0.000 ft  
TVD Reference Datum: RKB  
TVD Reference Elevation: 6963.000 ft above MSL  
Seabed / Ground Elevation: 6949.000 ft above MSL  
Magnetic Declination: 9.413 °  
Total Gravity Field Strength: 998.9128mgn (9.80665 Based)  
Gravity Model: DOX  
Total Magnetic Field Strength: 50127.346 nT  
Magnetic Dip Angle: 62.978 °  
Declination Date: January 24, 2014  
Magnetic Declination Model: BGGM 2013  
North Reference: True North  
Grid Convergence Used: 0.0000 °  
Total Corr Mag North->True North: 9.4126 °  
Local Coord Referenced To: Well Head

| 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 ° ' ")     |
|------------------------------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|-------------------|------------------|------------------------------|------------------------------|
| Surface                      | 0.00       | 0.00        | 77.73            | 0.00        | 0.00         | 0.00       | 0.00       | 0.00             | N/A               | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
|                              | 100.00     | 0.00        | 77.73            | 100.00      | 0.00         | 0.00       | 0.00       | 0.00             | 0.00              | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
|                              | 200.00     | 0.00        | 77.73            | 200.00      | 0.00         | 0.00       | 0.00       | 0.00             | 0.00              | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
|                              | 300.00     | 0.00        | 77.73            | 300.00      | 0.00         | 0.00       | 0.00       | 0.00             | 0.00              | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
|                              | 400.00     | 0.00        | 77.73            | 400.00      | 0.00         | 0.00       | 0.00       | 0.00             | 0.00              | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
|                              | 500.00     | 0.00        | 77.73            | 500.00      | 0.00         | 0.00       | 0.00       | 0.00             | 0.00              | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
| KOP, Build<br>2°/100'        | 550.00     | 0.00        | 77.73            | 550.00      | 0.00         | 0.00       | 0.00       | 0.00             | 0.00              | 1883084.39       | 151872.37                    | N 36 10 10.81 W 107 25 46.02 |
|                              | 600.00     | 1.00        | 77.73            | 600.00      | -0.42        | 0.09       | 0.43       | 2.00             | 1883084.48        | 151872.80        | N 36 10 10.81 W 107 25 46.01 |                              |
|                              | 700.00     | 3.00        | 77.73            | 699.93      | -3.79        | 0.83       | 3.84       | 2.00             | 1883085.18        | 151876.22        | N 36 10 10.82 W 107 25 45.97 |                              |
|                              | 800.00     | 5.00        | 77.73            | 799.68      | -10.51       | 2.32       | 10.65      | 2.00             | 1883086.58        | 151883.05        | N 36 10 10.83 W 107 25 45.89 |                              |
|                              | 900.00     | 7.00        | 77.73            | 899.13      | -20.59       | 4.54       | 20.87      | 2.00             | 1883088.68        | 151893.29        | N 36 10 10.86 W 107 25 45.77 |                              |
|                              | 1000.00    | 9.00        | 77.73            | 998.15      | -34.02       | 7.50       | 34.46      | 2.00             | 1883091.47        | 151906.92        | N 36 10 10.89 W 107 25 45.60 |                              |
| Hold 10.81° INC              | 1090.59    | 10.81       | 77.73            | 1087.39     | -49.04       | 10.81      | 49.69      | 2.00             | 1883094.60        | 151922.19        | N 36 10 10.92 W 107 25 45.41 |                              |
|                              | 1100.00    | 10.81       | 77.73            | 1096.63     | -50.75       | 11.19      | 51.42      | 0.00             | 1883094.96        | 151923.92        | N 36 10 10.92 W 107 25 45.39 |                              |
|                              | 1200.00    | 10.81       | 77.73            | 1194.86     | -68.84       | 15.17      | 69.75      | 0.00             | 1883098.72        | 151942.30        | N 36 10 10.96 W 107 25 45.17 |                              |
|                              | 1300.00    | 10.81       | 77.73            | 1293.08     | -86.93       | 19.16      | 88.08      | 0.00             | 1883102.49        | 151960.68        | N 36 10 11.00 W 107 25 44.95 |                              |
|                              | 1400.00    | 10.81       | 77.73            | 1391.31     | -105.02      | 23.15      | 106.40     | 0.00             | 1883106.25        | 151979.05        | N 36 10 11.04 W 107 25 44.72 |                              |
|                              | 1500.00    | 10.81       | 77.73            | 1489.53     | -123.11      | 27.14      | 124.73     | 0.00             | 1883110.02        | 151997.43        | N 36 10 11.08 W 107 25 44.50 |                              |
|                              | 1600.00    | 10.81       | 77.73            | 1587.75     | -141.20      | 31.13      | 143.06     | 0.00             | 1883113.78        | 152015.81        | N 36 10 11.12 W 107 25 44.28 |                              |
|                              | 1700.00    | 10.81       | 77.73            | 1685.98     | -159.29      | 35.11      | 161.39     | 0.00             | 1883117.55        | 152034.18        | N 36 10 11.16 W 107 25 44.05 |                              |
|                              | 1800.00    | 10.81       | 77.73            | 1784.20     | -177.38      | 39.10      | 179.72     | 0.00             | 1883121.31        | 152052.56        | N 36 10 11.20 W 107 25 43.83 |                              |
|                              | 1900.00    | 10.81       | 77.73            | 1882.43     | -195.47      | 43.09      | 198.05     | 0.00             | 1883125.08        | 152070.94        | N 36 10 11.24 W 107 25 43.60 |                              |
|                              | 2000.00    | 10.81       | 77.73            | 1980.65     | -213.56      | 47.08      | 216.38     | 0.00             | 1883128.84        | 152089.32        | N 36 10 11.28 W 107 25 43.38 |                              |
|                              | 2100.00    | 10.81       | 77.73            | 2078.88     | -231.65      | 51.07      | 234.71     | 0.00             | 1883132.61        | 152107.69        | N 36 10 11.32 W 107 25 43.16 |                              |
|                              | 2200.00    | 10.81       | 77.73            | 2177.10     | -249.74      | 55.05      | 253.04     | 0.00             | 1883136.37        | 152126.07        | N 36 10 11.36 W 107 25 42.93 |                              |
|                              | 2300.00    | 10.81       | 77.73            | 2275.33     | -267.84      | 59.04      | 271.37     | 0.00             | 1883140.14        | 152144.45        | N 36 10 11.40 W 107 25 42.71 |                              |
|                              | 2400.00    | 10.81       | 77.73            | 2373.55     | -285.93      | 63.03      | 289.70     | 0.00             | 1883143.90        | 152162.83        | N 36 10 11.44 W 107 25 42.49 |                              |
|                              | 2500.00    | 10.81       | 77.73            | 2471.78     | -304.02      | 67.02      | 308.03     | 0.00             | 1883147.67        | 152181.20        | N 36 10 11.47 W 107 25 42.26 |                              |
|                              | 2600.00    | 10.81       | 77.73            | 2570.00     | -322.11      | 71.01      | 326.36     | 0.00             | 1883151.43        | 152199.58        | N 36 10 11.51 W 107 25 42.04 |                              |
|                              | 2700.00    | 10.81       | 77.73            | 2668.23     | -340.20      | 74.99      | 344.69     | 0.00             | 1883155.20        | 152217.96        | N 36 10 11.55 W 107 25 41.82 |                              |
|                              | 2800.00    | 10.81       | 77.73            | 2766.45     | -358.29      | 78.98      | 363.02     | 0.00             | 1883158.96        | 152236.33        | N 36 10 11.59 W 107 25 41.59 |                              |
|                              | 2900.00    | 10.81       | 77.73            | 2864.68     | -376.38      | 82.97      | 381.35     | 0.00             | 1883162.73        | 152254.71        | N 36 10 11.63 W 107 25 41.37 |                              |
|                              | 3000.00    | 10.81       | 77.73            | 2962.90     | -394.47      | 86.96      | 399.68     | 0.00             | 1883166.49        | 152273.09        | N 36 10 11.67 W 107 25 41.15 |                              |
|                              | 3100.00    | 10.81       | 77.73            | 3061.13     | -412.56      | 90.95      | 418.01     | 0.00             | 1883170.26        | 152291.47        | N 36 10 11.71 W 107 25 40.92 |                              |
|                              | 3200.00    | 10.81       | 77.73            | 3159.35     | -430.65      | 94.93      | 436.34     | 0.00             | 1883174.02        | 152309.84        | N 36 10 11.75 W 107 25 40.70 |                              |
|                              | 3300.00    | 10.81       | 77.73            | 3257.58     | -448.74      | 98.92      | 454.67     | 0.00             | 1883177.79        | 152328.22        | N 36 10 11.79 W 107 25 40.47 |                              |
|                              | 3400.00    | 10.81       | 77.73            | 3355.80     | -466.83      | 102.91     | 472.99     | 0.00             | 1883181.55        | 152346.60        | N 36 10 11.83 W 107 25 40.25 |                              |
|                              | 3500.00    | 10.81       | 77.73            | 3454.03     | -484.92      | 106.90     | 491.32     | 0.00             | 1883185.32        | 152364.98        | N 36 10 11.87 W 107 25 40.03 |                              |
|                              | 3600.00    | 10.81       | 77.73            | 3552.25     | -503.01      | 110.89     | 509.65     | 0.00             | 1883189.08        | 152383.35        | N 36 10 11.91 W 107 25 39.80 |                              |
|                              | 3700.00    | 10.81       | 77.73            | 3650.48     | -521.11      | 114.87     | 527.98     | 0.00             | 1883192.85        | 152401.73        | N 36 10 11.95 W 107 25 39.58 |                              |
|                              | 3800.00    | 10.81       | 77.73            | 3748.70     | -539.20      | 118.86     | 546.31     | 0.00             | 1883196.61        | 152420.11        | N 36 10 11.99 W 107 25 39.36 |                              |
|                              | 3900.00    | 10.81       | 77.73            | 3846.93     | -557.29      | 122.85     | 564.64     | 0.00             | 1883200.38        | 152438.48        | N 36 10 12.03 W 107 25 39.13 |                              |
|                              | 4000.00    | 10.81       | 77.73            | 3945.15     | -575.38      | 126.84     | 582.97     | 0.00             | 1883204.14        | 152456.86        | N 36 10 12.07 W 107 25 38.91 |                              |
|                              | 4100.00    | 10.81       | 77.73            | 4043.38     | -593.47      | 130.83     | 601.30     | 0.00             | 1883207.91        | 152475.24        | N 36 10 12.11 W 107 25 38.69 |                              |
| Drop 2°/100'                 | 4105.33    | 10.81       | 77.73            | 4048.61     | -594.43      | 131.04     | 602.28     | 0.00             | 1883208.11        | 152476.22        | N 36 10 12.11 W 107 25 38.67 |                              |
|                              | 4200.00    | 8.92        | 77.73            | 4141.88     | -610.07      | 134.49     | 618.13     | 2.00             | 1883211.37        | 152492.11        | N 36 10 12.14 W 107 25 38.48 |                              |
|                              | 4300.00    | 6.92        | 77.73            | 4240.92     | -623.36      | 137.42     | 631.59     | 2.00             | 1883214.13        | 152505.60        | N 36 10 12.17 W 107 25 38.32 |                              |
|                              | 4400.00    | 4.92        | 77.73            | 4340.38     | -633.30      | 139.61     | 641.66     | 2.00             | 1883216.20        | 152515.71        | N 36 10 12.19 W 107 25 38.19 |                              |
|                              | 4500.00    | 2.92        | 77.73            | 4440.14     | -639.89      | 141.06     | 648.34     | 2.00             | 1883217.57        | 152522.40        | N 36 10 12.21 W 107 25 38.11 |                              |
|                              | 4600.00    | 0.92        | 77.73            | 4540.08     | -643.12      | 141.77     | 651.61     | 2.00             | 1883218.24        | 152525.68        | N 36 10 12.21 W 107 25 38.07 |                              |
| Hold Vertical                | 4645.92    | 0.00        | 77.73            | 4586.00     | -643.48      | 141.85     | 651.97     | 2.00             | 1883218.32        | 152526.04        | N 36 10 12.21 W 107 25 38.07 |                              |
|                              | 4700.00    | 0.00        | 77.73            | 4640.08     | -643.48      | 141.85     | 651.97     | 0.00             | 1883218.32        | 152526.04        | N 36 10 12.21 W 107 25 38.07 |                              |
| Build 9°/100'                | 4793.42    | 0.00        | 77.73            | 4733.50     | -643.48      | 141.85     | 651.97     | 0.00             | 1883218.32        | 152526.04        | N 36 10 12.21 W 107 25 38.07 |                              |
|                              | 4800.00    | 0.59        | 271.16           | 4740.08     | -643.44      | 141.85     | 651.94     | 9.00             | 1883218.32        | 152526.01        | N 36 10 12.21 W 107 25 38.07 |                              |
|                              | 4900.00    | 9.59        | 271.16           | 4839.58     | -634.58      | 142.03     | 643.07     | 9.00             | 1883218.61        | 152517.14        | N 36 10 12.22 W 107 25 38.18 |                              |
|                              | 5000.00    | 18.59       | 271.16           | 4936.47     | -610.27      | 142.52     | 618.75     | 9.00             | 1883219.39        | 152492.83        | N 36 10 12.22 W 107 25 38.47 |                              |
|                              | 5100.00    | 27.59       | 271.16           | 5028.37     | -571.11      | 143.32     | 579.58     | 9.00             | 1883220.66        | 152453.67        | N 36 10 12.23 W 107 25 38.95 |                              |
|                              | 5200.00    | 36.59       | 271.16           | 5113.00     | -518.07      | 144.39     | 526.52     | 9.00             | 1883222.38        | 152400.62        | N 36 10 12.24 W 107 25 39.60 |                              |
|                              | 5300.00    | 45.59       | 271.16           | 5188.29     | -452.44      | 145.72     | 460.87     | 9.00             | 1883224.51        | 152335.00        | N 36 10 12.25 W 107 25 40.40 |                              |
|                              | 5400.00    | 54.59       | 271.16           | 5252.38     | -375.86      | 147.27     | 384.26     | 9.00             | 1883226.99        | 152258.40        | N 36 10 12.27 W 107 25 41.33 |                              |
| Hold 60° INC                 | 5460.09    | 60.00       | 271.16           | 5284.83     | -325.34      | 148.29     | 333.73     | 9.00             | 1883228.63        | 152207.89        | N 36 10 12.28 W 107 25 41.95 |                              |
|                              | 5500.00    | 60.00       | 271.16           | 5304.79     | -290.79      | 148.99     | 299.17     | 0.00             | 1883229.75        | 152173.34        | N 36 10 12.29 W 107 25 42.37 |                              |
| Build 9°/100' to<br>Landina  | 5520.09    | 60.00       | 271.16           | 5314.83     | -273.41      | 149.35     | 281.77     | 0.00             | 1883230.31        | 152155.95        | N 36 10 12.29 W 107 25 42.58 |                              |
|                              | 5600.00    | 67.19       | 271.16           | 5350.34     | -201.92      | 150.79     | 210.26     | 9.00             | 1883232.63        | 152084.45        | N 36 10 12.30 W 107 25 43.46 |                              |
|                              | 5700.00    | 76.19       | 271.16           | 5381.72     | -107.13      | 152.71     | 115.44     | 9.00             | 1883235.70        | 151989.66        | N 36 10 12.32 W 107 25 44.61 |                              |
|                              | 5800.00    | 85.19       | 271.16           | 5397.88     | -8.60        | 154.70     | 16.88      | 9.00             | 1883238.88        | 151891.13        | N 36 10 12.34 W 107 25 45.81 |                              |
| Landing Point,<br>Hold to TD | 5865.69    | 91.10       | 271.16           | 5400.00     | 56.99        | 156.02     | -48.73     | 9.00             | 1883241.00        | 151825.53        | N 36 10 12.35 W 107 25 46.61 |                              |
|                              | 5900.00    | 91.10       | 271.16           | 5399.34     | 91.27        | 156.71     | -83.03     | 0.00             | 1883242.11        | 151791.24        | N 36 10 12.36 W 107 25 47.03 |                              |
|                              | 6000.00    | 91.10       | 271.16           | 5397.41     | 191.20       | 158.73     | -182.99    | 0.00             | 1883245.34        | 151691.31        | N 36 10 12.38 W 107 25 48.25 |                              |
|                              | 6100.00    | 91.10       | 271.16           | 5395.49     | 291.13       | 160.75     | -282.96    | 0.00             | 1883248.57        | 151591.38        | N 36 10 12.40 W 107 25 49.47 |                              |
|                              | 6200.00    | 91.10       | 271.16           | 5393.56     | 391.05       | 162.76     | -382.92    | 0.00             | 1883251.80        | 151491.45        | N 36 10 12.42 W 107 25 50.69 |                              |
|                              | 6300.00    | 91.10       | 271.16           | 5391.63     | 490.98       | 164.78     | -482.88    | 0.00             | 1883255.03        |                  |                              |                              |

| 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>(RUS) | Easting<br>(RUS) | Latitude<br>(N/S ° ' ") | Longitude<br>(E/W ° ' ") |
|----------|------------|-------------|------------------|-------------|--------------|------------|------------|------------------|-------------------|------------------|-------------------------|--------------------------|
|          | 6600.00    | 91.10       | 271.16           | 5385.85     | 790.76       | 170.83     | -782.76    | 0.00             | 1883264.73        | 151091.71        | N 36 10 12.50           | W 107 25 55.57           |
|          | 6700.00    | 91.10       | 271.16           | 5383.93     | 890.68       | 172.84     | -862.72    | 0.00             | 1883267.96        | 150991.78        | N 36 10 12.52           | W 107 25 56.79           |
|          | 6800.00    | 91.10       | 271.16           | 5382.00     | 990.61       | 174.86     | -962.68    | 0.00             | 1883271.19        | 150891.85        | N 36 10 12.54           | W 107 25 58.00           |
|          | 6900.00    | 91.10       | 271.16           | 5380.08     | 1090.54      | 176.88     | -1062.64   | 0.00             | 1883274.42        | 150791.92        | N 36 10 12.56           | W 107 25 59.22           |
|          | 7000.00    | 91.10       | 271.16           | 5378.15     | 1190.46      | 178.89     | -1162.61   | 0.00             | 1883277.65        | 150691.98        | N 36 10 12.58           | W 107 26 0.44            |
|          | 7100.00    | 91.10       | 271.16           | 5376.22     | 1290.39      | 180.91     | -1262.57   | 0.00             | 1883280.88        | 150592.05        | N 36 10 12.60           | W 107 26 1.66            |
|          | 7200.00    | 91.10       | 271.16           | 5374.30     | 1390.32      | 182.93     | -1362.53   | 0.00             | 1883284.12        | 150492.12        | N 36 10 12.62           | W 107 26 2.88            |
|          | 7300.00    | 91.10       | 271.16           | 5372.37     | 1490.24      | 184.95     | -1462.49   | 0.00             | 1883287.35        | 150392.18        | N 36 10 12.64           | W 107 26 4.10            |
|          | 7400.00    | 91.10       | 271.16           | 5370.45     | 1590.17      | 186.97     | -1562.45   | 0.00             | 1883290.58        | 150292.25        | N 36 10 12.66           | W 107 26 5.32            |
|          | 7500.00    | 91.10       | 271.16           | 5368.52     | 1690.10      | 188.98     | -1662.41   | 0.00             | 1883293.81        | 150192.32        | N 36 10 12.68           | W 107 26 6.54            |
|          | 7600.00    | 91.10       | 271.16           | 5366.59     | 1790.02      | 191.00     | -1762.37   | 0.00             | 1883297.05        | 150092.39        | N 36 10 12.70           | W 107 26 7.76            |
|          | 7700.00    | 91.10       | 271.16           | 5364.67     | 1889.95      | 193.02     | -1862.33   | 0.00             | 1883300.28        | 149992.45        | N 36 10 12.72           | W 107 26 8.98            |
|          | 7800.00    | 91.10       | 271.16           | 5362.74     | 1989.87      | 195.04     | -1962.29   | 0.00             | 1883303.51        | 149892.52        | N 36 10 12.74           | W 107 26 10.20           |
|          | 7900.00    | 91.10       | 271.16           | 5360.82     | 2089.80      | 197.06     | -2062.26   | 0.00             | 1883306.75        | 149792.59        | N 36 10 12.76           | W 107 26 11.41           |
|          | 8000.00    | 91.10       | 271.16           | 5358.89     | 2189.73      | 199.08     | -2162.22   | 0.00             | 1883309.98        | 149692.65        | N 36 10 12.78           | W 107 26 12.63           |
|          | 8100.00    | 91.10       | 271.16           | 5356.96     | 2289.65      | 201.10     | -2262.18   | 0.00             | 1883313.21        | 149592.72        | N 36 10 12.80           | W 107 26 13.85           |
|          | 8200.00    | 91.10       | 271.16           | 5355.04     | 2389.58      | 203.12     | -2362.14   | 0.00             | 1883316.45        | 149492.79        | N 36 10 12.82           | W 107 26 15.07           |
|          | 8300.00    | 91.10       | 271.16           | 5353.11     | 2489.51      | 205.14     | -2462.10   | 0.00             | 1883319.68        | 149392.86        | N 36 10 12.84           | W 107 26 16.29           |
|          | 8400.00    | 91.10       | 271.16           | 5351.19     | 2589.43      | 207.16     | -2562.06   | 0.00             | 1883322.92        | 149292.92        | N 36 10 12.86           | W 107 26 17.51           |
|          | 8500.00    | 91.10       | 271.16           | 5349.26     | 2689.36      | 209.18     | -2662.02   | 0.00             | 1883326.15        | 149192.99        | N 36 10 12.88           | W 107 26 18.73           |
|          | 8600.00    | 91.10       | 271.16           | 5347.34     | 2789.29      | 211.20     | -2761.98   | 0.00             | 1883329.39        | 149093.06        | N 36 10 12.90           | W 107 26 19.95           |
|          | 8700.00    | 91.10       | 271.16           | 5345.41     | 2889.21      | 213.22     | -2861.94   | 0.00             | 1883332.62        | 148993.12        | N 36 10 12.92           | W 107 26 21.17           |
|          | 8800.00    | 91.10       | 271.16           | 5343.49     | 2989.14      | 215.24     | -2961.90   | 0.00             | 1883335.86        | 148893.19        | N 36 10 12.94           | W 107 26 22.39           |
|          | 8900.00    | 91.10       | 271.16           | 5341.56     | 3089.07      | 217.26     | -3061.87   | 0.00             | 1883339.09        | 148793.26        | N 36 10 12.96           | W 107 26 23.61           |
|          | 9000.00    | 91.10       | 271.16           | 5339.64     | 3188.99      | 219.28     | -3161.83   | 0.00             | 1883342.33        | 148693.33        | N 36 10 12.98           | W 107 26 24.83           |
|          | 9100.00    | 91.10       | 271.16           | 5337.71     | 3288.92      | 221.30     | -3261.79   | 0.00             | 1883345.56        | 148593.39        | N 36 10 13.00           | W 107 26 26.04           |
|          | 9200.00    | 91.10       | 271.16           | 5335.79     | 3388.85      | 223.32     | -3361.75   | 0.00             | 1883348.80        | 148493.46        | N 36 10 13.02           | W 107 26 27.26           |
|          | 9300.00    | 91.10       | 271.16           | 5333.86     | 3488.77      | 225.34     | -3461.71   | 0.00             | 1883352.03        | 148393.53        | N 36 10 13.04           | W 107 26 28.48           |
|          | 9400.00    | 91.10       | 271.16           | 5331.94     | 3588.70      | 227.37     | -3561.67   | 0.00             | 1883355.27        | 148293.60        | N 36 10 13.06           | W 107 26 29.70           |
|          | 9500.00    | 91.10       | 271.16           | 5330.01     | 3688.63      | 229.39     | -3661.63   | 0.00             | 1883358.51        | 148193.66        | N 36 10 13.08           | W 107 26 30.92           |
|          | 9600.00    | 91.10       | 271.16           | 5328.09     | 3788.55      | 231.41     | -3761.59   | 0.00             | 1883361.74        | 148093.73        | N 36 10 13.10           | W 107 26 32.14           |
|          | 9700.00    | 91.10       | 271.16           | 5326.16     | 3888.48      | 233.43     | -3861.55   | 0.00             | 1883364.98        | 147993.80        | N 36 10 13.12           | W 107 26 33.36           |
|          | 9800.00    | 91.10       | 271.16           | 5324.24     | 3988.41      | 235.46     | -3961.51   | 0.00             | 1883368.22        | 147893.86        | N 36 10 13.14           | W 107 26 34.58           |
|          | 9900.00    | 91.10       | 271.16           | 5322.31     | 4088.33      | 237.48     | -4061.48   | 0.00             | 1883371.45        | 147793.93        | N 36 10 13.16           | W 107 26 35.80           |
|          | 10000.00   | 91.10       | 271.16           | 5320.39     | 4188.26      | 239.50     | -4161.44   | 0.00             | 1883374.69        | 147694.00        | N 36 10 13.18           | W 107 26 37.02           |
|          | 10100.00   | 91.10       | 271.16           | 5318.46     | 4288.19      | 241.52     | -4261.40   | 0.00             | 1883377.93        | 147594.07        | N 36 10 13.20           | W 107 26 38.24           |
|          | 10200.00   | 91.10       | 271.16           | 5316.54     | 4388.11      | 243.55     | -4361.36   | 0.00             | 1883381.17        | 147494.13        | N 36 10 13.22           | W 107 26 39.45           |
|          | 10300.00   | 91.10       | 271.16           | 5314.61     | 4488.04      | 245.57     | -4461.32   | 0.00             | 1883384.40        | 147394.20        | N 36 10 13.24           | W 107 26 40.67           |
|          | 10400.00   | 91.10       | 271.16           | 5312.69     | 4587.97      | 247.59     | -4561.28   | 0.00             | 1883387.64        | 147294.27        | N 36 10 13.26           | W 107 26 41.89           |

Chaco 2206-02H  
#226H PBH/UTD

10487.75 91.10 271.16 5311.00 4675.65 249.37 -4669.00 0.00 1883390.48 147206.57 N 36 10 13.27 W 107 26 42.96

Survey Type: Def Plan

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

Survey Program:

| Description | Part | 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                                      |
|-------------|------|-----------------|---------------|------------------|-------------------|-------------------------|------------------------|--------------------------------------------------------|
|             | 1    | 0.000           | 14.000        | 1/100.000        | 30.000            | 30.000                  | SLB_MWD-STD-Depth Only | Original Hole / Chaco 2206-02H<br>#226H R1 mdv 24Jan14 |
|             | 1    | 14.000          | 10487.753     | 1/100.000        | 30.000            | 30.000                  | SLB_MWD-STD            | Original Hole / Chaco 2206-02H<br>#226H R1 mdv 24Jan14 |