

State of New Mexico  
Energy, Minerals and Natural Resources Department

Susana Martinez  
Governor

David Martin  
Cabinet Secretary

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

Jami Bailey, Division Director  
Oil Conservation Division



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

Operator Signature Date: July 16, 2014

Well information:

| API WELL #         | Well Name      | Well # | Operator Name              | Type | Stat | County     | Surf_Owner | UL | Sec | Twp | N/S | Rng | W/E |
|--------------------|----------------|--------|----------------------------|------|------|------------|------------|----|-----|-----|-----|-----|-----|
| 30-039-31212-00-00 | CHACO 2306 07L | 182H   | WPX ENERGY PRODUCTION, LLC | O    | N    | Rio Arriba | F          | L  | 7   | 23  | N   | 6   | W   |

Application Type:

☐ P&A    ☒ Drilling/Casing Change    ☐ Recomplete/DHC  
☒ Location Change    ☒ Other: Project area

Conditions of Approval:

Notify NMOCD 24hrs prior to beginning operations

Hold C104 for NSL, NSP, direction survey, as drilled plat, project area may need to be altered depending on location of perforations

NMOCD Approved by Signature

7-17-14  
Date

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL 16 2014

FORM APPROVED  
OMB No. 1004-0137  
Expires: March 31, 2007

**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an  
abandoned well. Use Form 3160-3 (APD) for such proposals.**

5. Lease Serial No.  
NMSF-078362 NMSF-078359

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.  
NMNM 132829(CA)

8. Well Name and No.  
Chaco 2306-07L #182H

9. API Well No.  
30-039-31212

10. Field and Pool or Exploratory Area  
Lybrook Gallup

11. Country or Parish, State  
Rio Arriba County, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator  
WPX Energy Production, LLC

3a. Address  
PO Box 640 Aztec, NM 87410

3b. Phone No. (include area code)  
505-333-1808

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sur: 1957 FSL & 301' FWL, sec 7, T23N, R6W - BHL: 1419' FNL & 114' FEL, Sec 11, T23N, R7W

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

| TYPE OF SUBMISSION                                   | TYPE OF ACTION                                |                                           |                                                    |                                                           |
|------------------------------------------------------|-----------------------------------------------|-------------------------------------------|----------------------------------------------------|-----------------------------------------------------------|
| <input checked="" type="checkbox"/> Notice of Intent | <input type="checkbox"/> Acidize              | <input type="checkbox"/> Deepen           | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Water Shut-Off                   |
| <input type="checkbox"/> Subsequent Report           | <input type="checkbox"/> Alter Casing         | <input type="checkbox"/> Fracture Treat   | <input type="checkbox"/> Reclamation               | <input type="checkbox"/> Well Integrity                   |
| <input type="checkbox"/> Final Abandonment Notice    | <input type="checkbox"/> Casing Repair        | <input type="checkbox"/> New Construction | <input type="checkbox"/> Recomplete                | <input checked="" type="checkbox"/> Other Realign lateral |
|                                                      | <input type="checkbox"/> Change Plans         | <input type="checkbox"/> Plug and Abandon | <input type="checkbox"/> Temporarily Abandon       |                                                           |
|                                                      | <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Plug Back        | <input type="checkbox"/> Water Disposal            |                                                           |

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

WPX plans to plans to realign the lateral on this well as per attached C-102, operations plan and directional plan. 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. This well will be in Northeast Chaco Communitized Area, NMNM-132829CA.

CONDITIONS OF APPROVAL

OIL CONS. DIV DIST. 3

Adhere to previously issued stipulations

JUL 23 2014

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

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

Name (Printed/Typed)

Larry Higgins

Title Regulatory Specialist

Signature

Date 7/16/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

William Tambekou

Petroleum  
Title Engineer

Date 7/17/2014

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office FFO

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCDF

District I  
1625 N. French Drive, Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

District II  
811 S. First Street, 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 Drive, Santa Fe, NM 87505  
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

OIL CONS. DIV DIST. 3

☐ AMENDED REPORT

JUL 23 2014

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

JUL 16 2014

|                            |                                             |                             |
|----------------------------|---------------------------------------------|-----------------------------|
| API Number<br>30-039-31212 | Pool Code<br>42289                          | Pool Name<br>LYBROOK GALLUP |
| Property Code              | Property Name<br>CHACO 2306-07L             | Well Number<br>182H         |
| GRID No.<br>120782         | Operator Name<br>WPX ENERGY PRODUCTION, LLC | Elevation<br>6950'          |

10 Surface Location

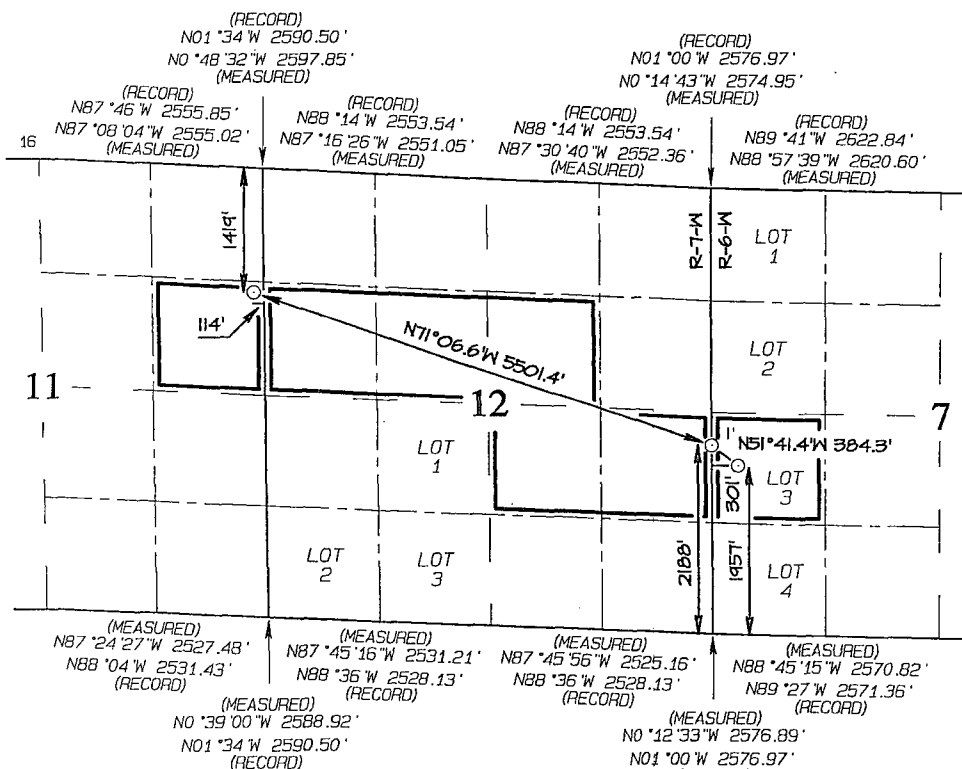
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| L             | 7       | 23N      | 6W    | 3       | 1957          | SOUTH            | 301           | WEST           | RIO ARriba |

11 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     |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| H             | 11      | 23N      | 7W    |         | 1419          | NORTH            | 114           | EAST           | RIO ARriba |

|                                                                                                 |                    |                       |              |
|-------------------------------------------------------------------------------------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres<br>280.54 NW/4 SW/4 (7) SE/4 NE/4 (11)<br>N/2 SE/4, SW/4 NE/4, S/2 NW/4 (12) | 13 Joint or Infill | 14 Consolidation Code | 15 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



END-OF-LATERAL  
1419' FNL 114' FEL  
SECTION 11, T23N, R7W  
LAT: 36.24305°N  
LONG: 107.53602°W  
DATUM: NAD1927

LAT: 36.24307°N  
LONG: 107.53663°W  
DATUM: NAD1983

POINT-OF-ENTRY  
2188' FSL 1' FWL  
SECTION 7, T23N, R6W  
LAT: 36.23835°N  
LONG: 107.51830°W  
DATUM: NAD1927

LAT: 36.23836°N  
LONG: 107.51890°W  
DATUM: NAD1983

SURFACE LOCATION  
1957' FSL 301' FWL  
SECTION 7, T23N, R6W  
LAT: 36.23771°N  
LONG: 107.51727°W  
DATUM: NAD1927

LAT: 36.23772°N  
LONG: 107.51787°W  
DATUM: NAD1983

17 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: 7/16/14

Printed Name: Larry Higgins

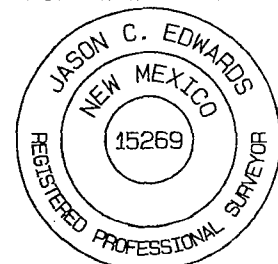
E-mail Address: larry.higgins@wpxenergy.com

18 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: JULY 14, 2014  
Survey Date: OCTOBER 1, 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:** 6/27/2014 **FIELD:** Lybrook (Gallup)

**WELL NAME:** Chaco 2306-07L #182H **SURFACE:** BLM

**SH Location:** NWSW Sec 7-23N-6W **ELEVATION:** 6,950' GR

**BH Location:** SENE Sec 11-23N-7W  
Rio Arriba Co, NM **MINERALS:** BLM

**MEASURED DEPTH:** 11,505' **LEASE #:** NMSF 078362

**I. GEOLOGY:** Surface formation – San Jose

**A. FORMATION TOPS: ( KB)**

| Name            | MD    | TVD   | Name                 | MD            | TVD          |
|-----------------|-------|-------|----------------------|---------------|--------------|
| Ojo Alamo       | 1,546 | 1,542 | Point Lookout        | 4,294         | 4,276        |
| Kirtland        | 1,719 | 1,714 | Mancos               | 4,509         | 4,491        |
| Pictured Cliffs | 2,002 | 1,995 | <b>Kickoff Point</b> | <b>4,930</b>  | <b>4,912</b> |
| Lewis           | 2,109 | 2,102 | Target Top           | 5,666         | 5,497        |
| Chacra          | 2,440 | 2,431 | <b>Landing Point</b> | <b>6,003</b>  | <b>5,579</b> |
| Cliff House     | 3,524 | 3,519 | Target Base          | 6,003         | 5,579        |
| Menefee         | 3,574 | 3,559 |                      |               |              |
|                 |       |       | <b>TD</b>            | <b>11,505</b> | <b>5,472</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, the curve portion of the wellbore. 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 +/- 4,931 (MD) / 4,912' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,003' (MD) / 5,579' (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 +/- 11,505' (MD) / 5,472' (TVD). Will run 4-1/2 in. Production Liner from +/- 5,853 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 5/8            | 36#        | J-55  |
| Intermediate    | 8.75"        | 6,003'           | 7                | 23#        | K-55  |
| Prod. Liner     | 6.125"       | 5,853' - 11,505' | 4-1/2"           | 11.6#      | N-80  |
| Tie-Back String | N/A          | Surf. - 5,846'   | 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 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).
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 ( 536.3 cu ft / 95.5 bbls). Mix Foamed Cement w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 5,553 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. 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 (~5,900' MD).
- Although this horizontal well will be drilled past the applicable setbacks, an unorthodox location application is not required because the completed interval in this well, as defined by 19.15.16.7 B(1) NMAC, will be entirely within the applicable setbacks. This approach complies with all applicable rules, including 19.15.16.14 A(3) NMAC, 19.15.16.14 B(2) NMAC, 19.15.16.15 B(2) NMAC, and 19.15.16.15 B(4) NMAC.
- 

#### NOTE:

Installation of RSI sleeves at Toe of Lateral.

##### **Proposed Operations:**

A 4-1/2" 11.6# N-80 Liner will be run to TD and landed +/- 150 ft. into the 7" 23# K-55 Intermediate casing (set at 6,003ft. MD) with a Liner Hanger and pack-off assembly then cemented to +/- 300 ft above the liner hanger. TOL will be +/- 5,853 ft. (MD) +/- 78 degree angle. TOC: +/- 5,553 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

Well Name: Chaco 2306-07L #182H  
 Surface Location: Chaco 2307-07L  
 NAD 1927 (NADCON CONUS) , US State Plane 1927 (Exact solution) , New Mexico Central 3002  
 Ground Elevation: 6950.00  
 +N/-S +E/-W Northing Easting Latitude Longitude Slot  
 0.00 0.00 1908179.84 126273.72 36.23771 -107.51727  
 WELL @ 6964.00usft (Original Well Elev)



Azimuths to True North  
 Magnetic North: 9.36°  
 Magnetic Field  
 Strength: 50176.1snT  
 Dip Angle: 63.00°  
 Date: 6/24/2014  
 Model: IGRF2010

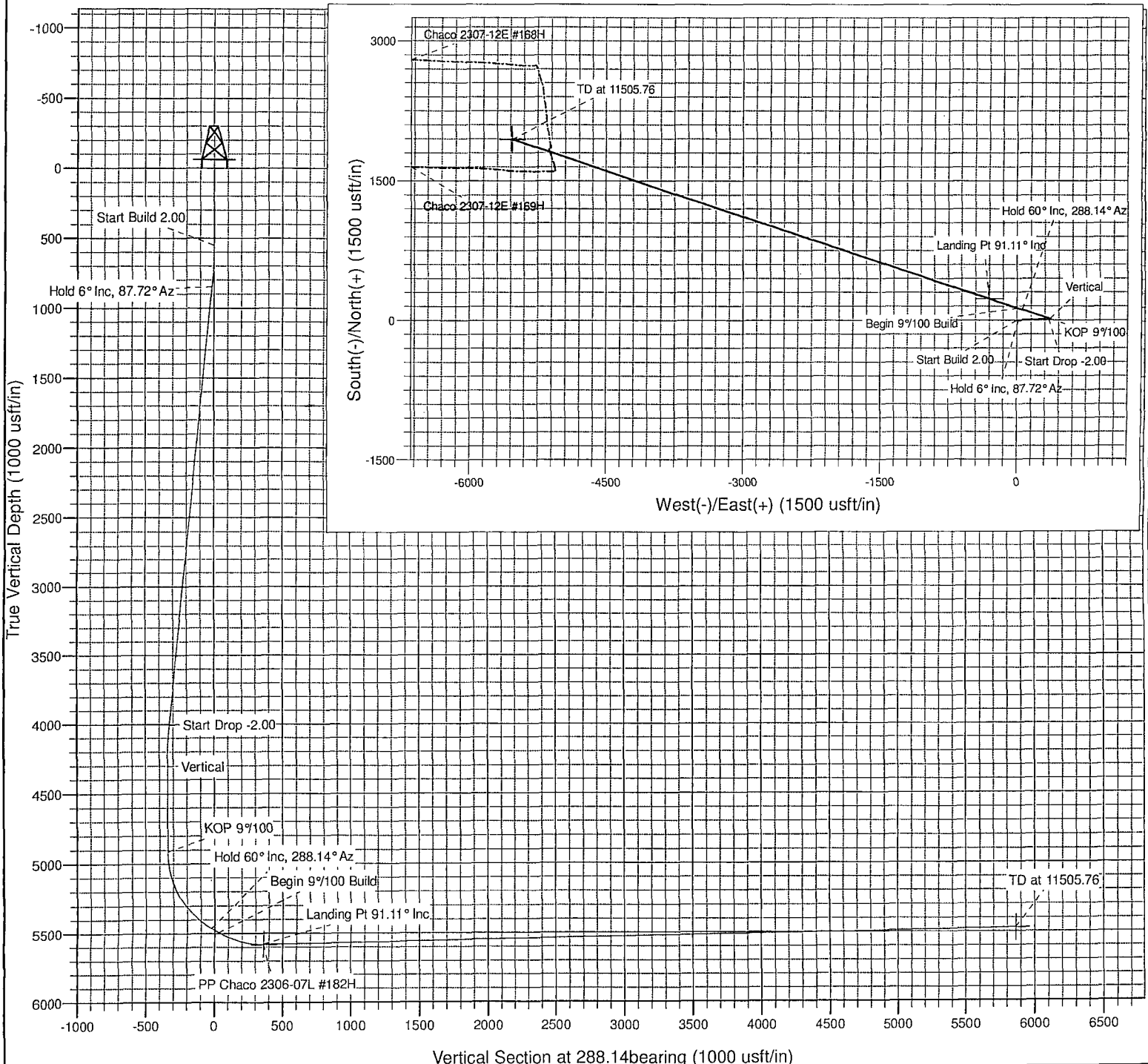
Project: SJ 07-23N-06W  
 Site: Chaco 2307-07L  
 Well: Chaco 2306-07L #182H  
 Design #1 25Jun14 kjs

## ANNOTATIONS

| TVD     | MD       | Inc   | Azi    | +N/-S   | +E/-W    | Vsect   | Departure | Annotation               |
|---------|----------|-------|--------|---------|----------|---------|-----------|--------------------------|
| 550.00  | 550.00   | 0.00  | 0.00   | 0.00    | 0.00     | 0.00    | 0.00      | Start Build 2.00         |
| 849.45  | 850.00   | 6.00  | 87.72  | 0.62    | 15.68    | -14.71  | 15.69     | Hold 6° Inc, 87.72° Az   |
| 4005.66 | 4023.59  | 6.00  | 87.72  | 13.82   | 347.15   | -325.59 | 347.42    | Start Drop -2.00         |
| 4305.11 | 4323.59  | 0.00  | 0.00   | 14.44   | 362.83   | -340.30 | 363.12    | Vertical                 |
| 4912.50 | 4930.98  | 0.00  | 0.00   | 14.44   | 362.83   | -340.30 | 363.12    | KOP 9°/100               |
| 5463.83 | 5597.65  | 60.00 | 288.14 | 113.54  | 60.34    | -21.99  | 681.43    | Hold 60° Inc, 288.14° Az |
| 5493.83 | 5657.65  | 60.00 | 288.14 | 129.72  | 10.96    | 29.97   | 733.39    | Begin 9°/100 Build       |
| 5579.00 | 6003.36  | 91.11 | 288.14 | 232.68  | -303.29  | 360.66  | 1064.08   | Landing Pt 91.11° Inc    |
| 5472.02 | 11504.76 | 91.11 | 288.14 | 1945.17 | -5530.27 | 5861.02 | 6564.44   | TD at 11505.76           |

## DESIGN TARGET DETAILS

| Name                                                                                         | TVD     | +N/-S   | +E/-W    | Northing   | Easting   | Latitude | Longitude  | Shape |
|----------------------------------------------------------------------------------------------|---------|---------|----------|------------|-----------|----------|------------|-------|
| TD / PBHL Chaco 2306-07L #182H                                                               | 5472.00 | 1945.48 | -5531.22 | 1910197.48 | 120768.41 | 36.24305 | -107.53602 | Point |
| PP Chaco 2306-07L #182H                                                                      | 5579.00 | 232.68  | -303.29  | 1908416.47 | 125973.50 | 36.23835 | -107.51830 | Point |
| - plan hits target center                                                                    |         |         |          |            |           |          |            |       |
| - plan misses target center by 0.01usft at 6003.36usft MD (5579.00 TVD, 232.68 N, -303.29 E) |         |         |          |            |           |          |            |       |





## **SAN JUAN BASIN**

**SJ 07-23N-06W**

**Chaco 2307-07L**

**Chaco 2306-07L #182H**

**Wellbore #1**

**Plan: Design #1 25Jun14 kjs**

## **Standard Planning Report - Geographic**

**26 June, 2014**

**Planning Report - Geographic**

|                  |                       |                                     |                                         |
|------------------|-----------------------|-------------------------------------|-----------------------------------------|
| <b>Database:</b> | COMPASS-PICEANCE      | <b>Local Co-ordinate Reference:</b> | Well Chaco 2306-07L #182H               |
| <b>Company:</b>  | SAN JUAN BASIN        | <b>TVD Reference:</b>               | WELL @ 6964.00usft (Original Well Elev) |
| <b>Project:</b>  | SJ 07-23N-06W         | <b>MD Reference:</b>                | WELL @ 6964.00usft (Original Well Elev) |
| <b>Site:</b>     | Chaco 2307-07L        | <b>North Reference:</b>             | True                                    |
| <b>Well:</b>     | Chaco 2306-07L #182H  | <b>Survey Calculation Method:</b>   | Minimum Curvature                       |
| <b>Wellbore:</b> | Wellbore #1           |                                     |                                         |
| <b>Design:</b>   | Design #1 25Jun14 kjs |                                     |                                         |

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | SJ 07-23N-06W, Rio Arriba County, NM |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico Central 3002              |                      |                |

|                              |                |                     |                   |                                  |
|------------------------------|----------------|---------------------|-------------------|----------------------------------|
| <b>Site</b>                  | Chaco 2307-07L |                     |                   |                                  |
| <b>Site Position:</b>        |                | <b>Northing:</b>    | 1,908,201.69 usft | <b>Latitude:</b> 36.23777        |
| <b>From:</b>                 | Lat/Long       | <b>Easting:</b>     | 126,274.01 usft   | <b>Longitude:</b> -107.51727     |
| <b>Position Uncertainty:</b> | 0.00 usft      | <b>Slot Radius:</b> | 13.200 in         | <b>Grid Convergence:</b> -0.75 ° |

|                             |                      |           |                            |                   |
|-----------------------------|----------------------|-----------|----------------------------|-------------------|
| <b>Well</b>                 | Chaco 2306-07L #182H |           |                            |                   |
| <b>Well Position</b>        | +N/-S                | 0.00 usft | <b>Northing:</b>           | 1,908,179.84 usft |
|                             | +E/-W                | 0.00 usft | <b>Easting:</b>            | 126,273.72 usft   |
| <b>Position Uncertainty</b> | 0.00 usft            |           | <b>Wellhead Elevation:</b> | 0.00 usft         |
|                             |                      |           | <b>Ground Level:</b>       | 6,950.00 usft     |

|                  |                   |                    |                            |                          |                                |
|------------------|-------------------|--------------------|----------------------------|--------------------------|--------------------------------|
| <b>Wellbore</b>  | Wellbore #1       |                    |                            |                          |                                |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination<br/>(°)</b> | <b>Dip Angle<br/>(°)</b> | <b>Field Strength<br/>(nT)</b> |
|                  | IGRF2010          | 6/24/2014          | 9.36                       | 63.00                    | 50,176                         |

|                          |                                    |                         |                         |                                |
|--------------------------|------------------------------------|-------------------------|-------------------------|--------------------------------|
| <b>Design</b>            | Design #1 25Jun14 kjs              |                         |                         |                                |
| <b>Audit Notes:</b>      |                                    |                         |                         |                                |
| <b>Version:</b>          | <b>Phase:</b>                      | PLAN                    | <b>Tie On Depth:</b>    | 0.00                           |
| <b>Vertical Section:</b> | <b>Depth From (TVD)<br/>(usft)</b> | <b>+N/-S<br/>(usft)</b> | <b>+E/-W<br/>(usft)</b> | <b>Direction<br/>(bearing)</b> |
|                          | 0.00                               | 0.00                    | 0.00                    | 288.14                         |

| Plan Sections               |                    |                      |                             |                 |                 |                               |                              |                             |            |                      |
|-----------------------------|--------------------|----------------------|-----------------------------|-----------------|-----------------|-------------------------------|------------------------------|-----------------------------|------------|----------------------|
| Measured<br>Depth<br>(usft) | Inclination<br>(°) | Azimuth<br>(bearing) | Vertical<br>Depth<br>(usft) | +N/-S<br>(usft) | +E/-W<br>(usft) | Dogleg<br>Rate<br>(°/100usft) | Build<br>Rate<br>(°/100usft) | Turn<br>Rate<br>(°/100usft) | TFO<br>(°) | Target               |
| 0.00                        | 0.00               | 0.00                 | 0.00                        | 0.00            | 0.00            | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 550.00                      | 0.00               | 0.00                 | 550.00                      | 0.00            | 0.00            | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 850.00                      | 6.00               | 87.72                | 849.45                      | 0.62            | 15.68           | 2.00                          | 2.00                         | 0.00                        | 87.72      |                      |
| 4,023.59                    | 6.00               | 87.72                | 4,005.65                    | 13.82           | 347.15          | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 4,323.59                    | 0.00               | 0.00                 | 4,305.10                    | 14.44           | 362.83          | 2.00                          | -2.00                        | 0.00                        | 180.00     |                      |
| 4,930.98                    | 0.00               | 0.00                 | 4,912.50                    | 14.44           | 362.83          | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 5,597.65                    | 60.00              | 288.14               | 5,463.83                    | 113.54          | 60.34           | 9.00                          | 9.00                         | 0.00                        | 288.14     |                      |
| 5,657.65                    | 60.00              | 288.14               | 5,493.83                    | 129.72          | 10.96           | 0.00                          | 0.00                         | 0.00                        | 0.00       |                      |
| 6,003.36                    | 91.11              | 288.14               | 5,579.00                    | 232.68          | -303.29         | 9.00                          | 9.00                         | 0.00                        | 0.00       |                      |
| 11,505.76                   | 91.11              | 288.14               | 5,472.00                    | 1,945.48        | -5,531.22       | 0.00                          | 0.00                         | 0.00                        | 0.00       | TD / PBHL Chaco 2306 |



WPX

## Planning Report - Geographic

Database: COMPASS-PICEANCE  
Company: SAN JUAN BASIN  
Project: SJ 07-23N-06W  
Site: Chaco 2307-07L  
Well: Chaco 2306-07L #182H  
Wellbore: Wellbore #1  
Design: Design #1 25Jun14 kjs

Local Co-ordinate Reference: Well Chaco 2306-07L #182H  
TVD Reference: WELL @ 6964.00usft (Original Well Elev)  
MD Reference: WELL @ 6964.00usft (Original Well Elev)  
North Reference: True  
Survey Calculation Method: Minimum Curvature

## Planned Survey

| Measured Depth (usft)                                  | Inclination (°) | Azimuth (bearing) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude  |
|--------------------------------------------------------|-----------------|-------------------|-----------------------|--------------|--------------|---------------------|--------------------|----------|------------|
| 0.00                                                   | 0.00            | 0.00              | 0.00                  | 0.00         | 0.00         | 1,908,179.84        | 126,273.72         | 36.23771 | -107.51727 |
| 200.00                                                 | 0.00            | 0.00              | 200.00                | 0.00         | 0.00         | 1,908,179.84        | 126,273.72         | 36.23771 | -107.51727 |
| 400.00                                                 | 0.00            | 0.00              | 400.00                | 0.00         | 0.00         | 1,908,179.84        | 126,273.72         | 36.23771 | -107.51727 |
| 550.00                                                 | 0.00            | 0.00              | 550.00                | 0.00         | 0.00         | 1,908,179.84        | 126,273.72         | 36.23771 | -107.51727 |
| <b>Start Build 2.00</b>                                |                 |                   |                       |              |              |                     |                    |          |            |
| 600.00                                                 | 1.00            | 87.72             | 600.00                | 0.02         | 0.44         | 1,908,179.85        | 126,274.16         | 36.23771 | -107.51727 |
| 800.00                                                 | 5.00            | 87.72             | 799.68                | 0.43         | 10.89        | 1,908,180.13        | 126,284.62         | 36.23771 | -107.51724 |
| 850.00                                                 | 6.00            | 87.72             | 849.45                | 0.62         | 15.68        | 1,908,180.26        | 126,289.41         | 36.23771 | -107.51722 |
| <b>Hold 6° Inc, 87.72° Az</b>                          |                 |                   |                       |              |              |                     |                    |          |            |
| 1,000.00                                               | 6.00            | 87.72             | 998.63                | 1.25         | 31.35        | 1,908,180.68        | 126,305.08         | 36.23771 | -107.51717 |
| 1,200.00                                               | 6.00            | 87.72             | 1,197.53              | 2.08         | 52.24        | 1,908,181.24        | 126,325.98         | 36.23772 | -107.51710 |
| 1,400.00                                               | 6.00            | 87.72             | 1,396.44              | 2.91         | 73.13        | 1,908,181.80        | 126,346.88         | 36.23772 | -107.51702 |
| 1,600.00                                               | 6.00            | 87.72             | 1,595.34              | 3.74         | 94.02        | 1,908,182.36        | 126,367.78         | 36.23772 | -107.51695 |
| 1,800.00                                               | 6.00            | 87.72             | 1,794.25              | 4.57         | 114.90       | 1,908,182.91        | 126,388.68         | 36.23772 | -107.51688 |
| 2,000.00                                               | 6.00            | 87.72             | 1,993.15              | 5.40         | 135.79       | 1,908,183.47        | 126,409.58         | 36.23773 | -107.51681 |
| 2,200.00                                               | 6.00            | 87.72             | 2,192.06              | 6.24         | 156.68       | 1,908,184.03        | 126,430.47         | 36.23773 | -107.51674 |
| 2,400.00                                               | 6.00            | 87.72             | 2,390.96              | 7.07         | 177.57       | 1,908,184.59        | 126,451.37         | 36.23773 | -107.51667 |
| 2,600.00                                               | 6.00            | 87.72             | 2,589.87              | 7.90         | 198.46       | 1,908,185.15        | 126,472.27         | 36.23773 | -107.51660 |
| 2,800.00                                               | 6.00            | 87.72             | 2,788.77              | 8.73         | 219.35       | 1,908,185.70        | 126,493.17         | 36.23773 | -107.51653 |
| 3,000.00                                               | 6.00            | 87.72             | 2,987.67              | 9.56         | 240.24       | 1,908,186.26        | 126,514.07         | 36.23774 | -107.51646 |
| 3,200.00                                               | 6.00            | 87.72             | 3,186.58              | 10.39        | 261.13       | 1,908,186.82        | 126,534.96         | 36.23774 | -107.51639 |
| 3,400.00                                               | 6.00            | 87.72             | 3,385.48              | 11.22        | 282.02       | 1,908,187.38        | 126,555.86         | 36.23774 | -107.51632 |
| 3,600.00                                               | 6.00            | 87.72             | 3,584.39              | 12.06        | 302.91       | 1,908,187.94        | 126,576.76         | 36.23774 | -107.51625 |
| 3,800.00                                               | 6.00            | 87.72             | 3,783.29              | 12.89        | 323.80       | 1,908,188.49        | 126,597.66         | 36.23775 | -107.51617 |
| 4,000.00                                               | 6.00            | 87.72             | 3,982.20              | 13.72        | 344.69       | 1,908,189.05        | 126,618.56         | 36.23775 | -107.51610 |
| 4,023.59                                               | 6.00            | 87.72             | 4,005.66              | 13.82        | 347.15       | 1,908,189.12        | 126,621.02         | 36.23775 | -107.51610 |
| <b>Start Drop -2.00</b>                                |                 |                   |                       |              |              |                     |                    |          |            |
| 4,200.00                                               | 2.47            | 87.72             | 4,181.56              | 14.33        | 360.17       | 1,908,189.47        | 126,634.05         | 36.23775 | -107.51605 |
| 4,323.59                                               | 0.00            | 0.00              | 4,305.11              | 14.44        | 362.83       | 1,908,189.54        | 126,636.71         | 36.23775 | -107.51604 |
| <b>Vertical</b>                                        |                 |                   |                       |              |              |                     |                    |          |            |
| 4,400.00                                               | 0.00            | 0.00              | 4,381.52              | 14.44        | 362.83       | 1,908,189.54        | 126,636.71         | 36.23775 | -107.51604 |
| 4,600.00                                               | 0.00            | 0.00              | 4,581.52              | 14.44        | 362.83       | 1,908,189.54        | 126,636.71         | 36.23775 | -107.51604 |
| 4,800.00                                               | 0.00            | 0.00              | 4,781.52              | 14.44        | 362.83       | 1,908,189.54        | 126,636.71         | 36.23775 | -107.51604 |
| 4,930.98                                               | 0.00            | 0.00              | 4,912.50              | 14.44        | 362.83       | 1,908,189.54        | 126,636.71         | 36.23775 | -107.51604 |
| <b>KOP 9°/100</b>                                      |                 |                   |                       |              |              |                     |                    |          |            |
| 5,000.00                                               | 6.21            | 288.14            | 4,981.38              | 15.60        | 359.28       | 1,908,190.75        | 126,633.17         | 36.23775 | -107.51605 |
| 5,200.00                                               | 24.21           | 288.14            | 5,173.58              | 31.87        | 309.61       | 1,908,207.67        | 126,583.73         | 36.23780 | -107.51622 |
| 5,400.00                                               | 42.21           | 288.14            | 5,340.23              | 65.84        | 205.94       | 1,908,242.99        | 126,480.51         | 36.23789 | -107.51657 |
| 5,597.65                                               | 60.00           | 288.14            | 5,463.83              | 113.54       | 60.34        | 1,908,292.59        | 126,335.54         | 36.23802 | -107.51707 |
| <b>Hold 60° Inc, 288.14° Az</b>                        |                 |                   |                       |              |              |                     |                    |          |            |
| 5,600.00                                               | 60.00           | 288.14            | 5,465.01              | 114.18       | 58.40        | 1,908,293.25        | 126,333.62         | 36.23802 | -107.51707 |
| 5,657.65                                               | 60.00           | 288.14            | 5,493.83              | 129.72       | 10.96        | 1,908,309.41        | 126,286.38         | 36.23807 | -107.51724 |
| <b>Begin 9°/100 Build</b>                              |                 |                   |                       |              |              |                     |                    |          |            |
| 5,800.00                                               | 72.81           | 288.14            | 5,550.69              | 170.25       | -112.75      | 1,908,351.55        | 126,163.21         | 36.23818 | -107.51765 |
| 6,000.00                                               | 90.81           | 288.14            | 5,579.06              | 231.63       | -300.10      | 1,908,415.38        | 125,976.68         | 36.23835 | -107.51829 |
| 6,003.36                                               | 91.11           | 288.14            | 5,579.00              | 232.68       | -303.29      | 1,908,416.47        | 125,973.50         | 36.23835 | -107.51830 |
| <b>Landing Pt 91.11° Inc - PP Chaco 2306-07L #182H</b> |                 |                   |                       |              |              |                     |                    |          |            |
| 6,200.00                                               | 91.11           | 288.14            | 5,575.18              | 293.89       | -490.12      | 1,908,480.11        | 125,787.49         | 36.23852 | -107.51893 |
| 6,400.00                                               | 91.11           | 288.14            | 5,571.29              | 356.14       | -680.15      | 1,908,544.85        | 125,598.29         | 36.23869 | -107.51958 |
| 6,600.00                                               | 91.11           | 288.14            | 5,567.40              | 418.40       | -870.17      | 1,908,609.59        | 125,409.10         | 36.23886 | -107.52022 |
| 6,800.00                                               | 91.11           | 288.14            | 5,563.51              | 480.66       | -1,060.19    | 1,908,674.32        | 125,219.91         | 36.23903 | -107.52087 |
| 7,000.00                                               | 91.11           | 288.14            | 5,559.62              | 542.91       | -1,250.22    | 1,908,739.06        | 125,030.71         | 36.23920 | -107.52151 |
| 7,200.00                                               | 91.11           | 288.14            | 5,555.73              | 605.17       | -1,440.24    | 1,908,803.80        | 124,841.52         | 36.23937 | -107.52216 |
| 7,400.00                                               | 91.11           | 288.14            | 5,551.84              | 667.43       | -1,630.26    | 1,908,868.53        | 124,652.33         | 36.23954 | -107.52280 |



# WPX Planning Report - Geographic

|           |                       |                              |                                         |
|-----------|-----------------------|------------------------------|-----------------------------------------|
| Database: | COMPASS-PICEANCE      | Local Co-ordinate Reference: | Well Chaco 2306-07L #182H               |
| Company:  | SAN JUAN BASIN        | TVD Reference:               | WELL @ 6964.00usft (Original Well Elev) |
| Project:  | SJ 07-23N-06W         | MD Reference:                | WELL @ 6964.00usft (Original Well Elev) |
| Site:     | Chaco 2307-07L        | North Reference:             | True                                    |
| Well:     | Chaco 2306-07L #182H  | Survey Calculation Method:   | Minimum Curvature                       |
| Wellbore: | Wellbore #1           |                              |                                         |
| Design:   | Design #1 25Jun14 kjs |                              |                                         |

## Planned Survey

| Measured Depth (usft)          | Inclination (°) | Azimuth (bearing) | Vertical Depth (usft) | +N/-S (usft) | +E/-W (usft) | Map Northing (usft) | Map Easting (usft) | Latitude | Longitude  |
|--------------------------------|-----------------|-------------------|-----------------------|--------------|--------------|---------------------|--------------------|----------|------------|
| 7,600.00                       | 91.11           | 288.14            | 5,547.95              | 729.68       | -1,820.29    | 1,908,933.27        | 124,463.13         | 36.23972 | -107.52344 |
| 7,800.00                       | 91.11           | 288.14            | 5,544.06              | 791.94       | -2,010.31    | 1,908,998.00        | 124,273.94         | 36.23989 | -107.52409 |
| 8,000.00                       | 91.11           | 288.14            | 5,540.17              | 854.20       | -2,200.33    | 1,909,062.74        | 124,084.75         | 36.24006 | -107.52473 |
| 8,200.00                       | 91.11           | 288.14            | 5,536.28              | 916.45       | -2,390.36    | 1,909,127.48        | 123,895.55         | 36.24023 | -107.52538 |
| 8,400.00                       | 91.11           | 288.14            | 5,532.39              | 978.71       | -2,580.38    | 1,909,192.21        | 123,706.36         | 36.24040 | -107.52602 |
| 8,600.00                       | 91.11           | 288.14            | 5,528.51              | 1,040.97     | -2,770.41    | 1,909,256.95        | 123,517.17         | 36.24057 | -107.52667 |
| 8,800.00                       | 91.11           | 288.14            | 5,524.62              | 1,103.22     | -2,960.43    | 1,909,321.68        | 123,327.97         | 36.24074 | -107.52731 |
| 9,000.00                       | 91.11           | 288.14            | 5,520.73              | 1,165.48     | -3,150.45    | 1,909,386.42        | 123,138.78         | 36.24091 | -107.52795 |
| 9,200.00                       | 91.11           | 288.14            | 5,516.84              | 1,227.74     | -3,340.48    | 1,909,451.16        | 122,949.59         | 36.24108 | -107.52860 |
| 9,400.00                       | 91.11           | 288.14            | 5,512.95              | 1,289.99     | -3,530.50    | 1,909,515.89        | 122,760.39         | 36.24125 | -107.52924 |
| 9,600.00                       | 91.11           | 288.14            | 5,509.06              | 1,352.25     | -3,720.52    | 1,909,580.63        | 122,571.20         | 36.24142 | -107.52989 |
| 9,800.00                       | 91.11           | 288.14            | 5,505.17              | 1,414.51     | -3,910.55    | 1,909,645.37        | 122,382.01         | 36.24160 | -107.53053 |
| 10,000.00                      | 91.11           | 288.14            | 5,501.28              | 1,476.76     | -4,100.57    | 1,909,710.10        | 122,192.81         | 36.24177 | -107.53118 |
| 10,200.00                      | 91.11           | 288.14            | 5,497.39              | 1,539.02     | -4,290.60    | 1,909,774.84        | 122,003.62         | 36.24194 | -107.53182 |
| 10,400.00                      | 91.11           | 288.14            | 5,493.50              | 1,601.28     | -4,480.62    | 1,909,839.57        | 121,814.43         | 36.24211 | -107.53246 |
| 10,600.00                      | 91.11           | 288.14            | 5,489.61              | 1,663.53     | -4,670.64    | 1,909,904.31        | 121,625.23         | 36.24228 | -107.53311 |
| 10,800.00                      | 91.11           | 288.14            | 5,485.72              | 1,725.79     | -4,860.67    | 1,909,969.05        | 121,436.04         | 36.24245 | -107.53375 |
| 11,000.00                      | 91.11           | 288.14            | 5,481.84              | 1,788.05     | -5,050.69    | 1,910,033.78        | 121,246.85         | 36.24262 | -107.53440 |
| 11,200.00                      | 91.11           | 288.14            | 5,477.95              | 1,850.30     | -5,240.71    | 1,910,098.52        | 121,057.65         | 36.24279 | -107.53504 |
| 11,400.00                      | 91.11           | 288.14            | 5,474.06              | 1,912.56     | -5,430.74    | 1,910,163.25        | 120,868.46         | 36.24296 | -107.53569 |
| 11,505.75                      | 91.11           | 288.14            | 5,472.00              | 1,945.48     | -5,531.21    | 1,910,197.48        | 120,768.42         | 36.24305 | -107.53603 |
| TD at 11505.76                 |                 |                   |                       |              |              |                     |                    |          |            |
| 11,505.76                      | 91.11           | 288.14            | 5,472.00              | 1,945.48     | -5,531.22    | 1,910,197.49        | 120,768.41         | 36.24305 | -107.53603 |
| TD / PBHL Chaco 2306-07L #182H |                 |                   |                       |              |              |                     |                    |          |            |

## Design Targets

| Target Name                                                                                  | Dip Angle (°) | Dip Dir. (bearing) | TVD (usft) | +N/-S (usft) | +E/-W (usft) | Northing (usft) | Easting (usft) | Latitude | Longitude  |
|----------------------------------------------------------------------------------------------|---------------|--------------------|------------|--------------|--------------|-----------------|----------------|----------|------------|
| - hit/miss target                                                                            |               |                    |            |              |              |                 |                |          |            |
| - Shape                                                                                      |               |                    |            |              |              |                 |                |          |            |
| TD / PBHL Chaco 2306-                                                                        | 0.00          | 360.00             | 5,472.00   | 1,945.48     | -5,531.22    | 1,910,197.49    | 120,768.41     | 36.24305 | -107.53603 |
| - plan hits target center                                                                    |               |                    |            |              |              |                 |                |          |            |
| - Point                                                                                      |               |                    |            |              |              |                 |                |          |            |
| PP Chaco 2306-07L #18                                                                        | 0.00          | 0.00               | 5,579.00   | 232.68       | -303.29      | 1,908,416.47    | 125,973.51     | 36.23835 | -107.51830 |
| - plan misses target center by 0.01usft at 6003.36usft MD (5579.00 TVD, 232.68 N, -303.29 E) |               |                    |            |              |              |                 |                |          |            |
| - Point                                                                                      |               |                    |            |              |              |                 |                |          |            |

## Plan Annotations

| Measured Depth (usft) | Vertical Depth (usft) | Local Coordinates |              | Comment                  |
|-----------------------|-----------------------|-------------------|--------------|--------------------------|
|                       |                       | +N/-S (usft)      | +E/-W (usft) |                          |
| 550.00                | 550.00                | 0.00              | 0.00         | Start Build 2.00         |
| 850.00                | 849.45                | 0.62              | 15.68        | Hold 6° Inc, 87.72° Az   |
| 4,023.59              | 4,005.66              | 13.82             | 347.15       | Start Drop -2.00         |
| 4,323.59              | 4,305.11              | 14.44             | 362.83       | Vertical                 |
| 4,930.98              | 4,912.50              | 14.44             | 362.83       | KOP 9°/100               |
| 5,597.65              | 5,463.83              | 113.54            | 60.34        | Hold 60° Inc, 288.14° Az |
| 5,657.65              | 5,493.83              | 129.72            | 10.96        | Begin 9°/100 Build       |
| 6,003.36              | 5,579.00              | 232.68            | -303.29      | Landing Pt 91.11° Inc    |
| 11,505.75             | 5,472.00              | 1,945.48          | -5,531.21    | TD at 11505.76           |