

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

State of New Mexico

Form C-101
Revised November 14, 2012

Energy Minerals and Natural Resources

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

RCVD MAY 15 '13

OIL CONS. DIV.
DIST. 3

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

1. Operator Name and Address WPX Energy Production, LLC P.O. Box 640 Aztec, NM 87410		2. OGRID Number 120782	
3. API Number 30-043-21147		4. Well No. 228H	
5. Property Code 39910		6. Property Name Chaco 2206-02P	

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	2	22N	6W		577	South	805	East	Sandoval

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	2	22N	6W		329	South	382	West	Sandoval

9. Pool Information

Pool Name	Pool Code
Lybrook Gallup	42289

Additional Well Information

11. Work Type N	12. Well Type O	13. Cable/Rotary R	14. Lease Type S	15. Ground Level Elevation 6944'
16. Multiple No	17. Proposed Depth 9,619' MD / 5,272' TVD	18. Formation Gallup	19. Contractor AWS	20. Spud Date 06/01/13
Depth to Ground water +/- 50'		Distance from nearest fresh water well >1000'		Distance to nearest surface water >1000'

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
K-55	12-1/4"	9-5/8"	36#	400'	190	Surface
J-55	8-3/4"	7"	23#	5,744'	1050	Surface
N-80	6-1/8"	4-1/2"	11.6#	9,619'	458	4600'

Casing/Cement Program: Additional Comments

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

22. Proposed Blowout Prevention Program

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

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: *Larry Higgins*

Printed name: Larry Higgins

Hold C104

Title: Permit Supervisor
for Directional Survey
and "As Drilled" plat

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

Date: 05/07/13

Phone: 333-1808

OIL CONSERVATION DIVISION

Approved By:

Charles H. ...

Title: SUPERVISOR DISTRICT # 3

Approved Date: MAY 20 2013 Expiration Date: MAY 20 2015

Conditions of Approval Attached

MAY 20 2013 ca

fy

PRIOR TO CASING & CEMENT

Hold C104
for Directional Survey
and "As Drilled" plat

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State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 1, 2011

Submit one copy to
Appropriate District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-043-21147		*Pool Code 42289	*Pool Name LYBROOK GALLUP
*Property Code 39910	*Property Name CHACO 2206-02P		*Well Number 228H
*GRID No. 120782	*Operator Name WPX ENERGY PRODUCTION, LLC		*Elevation 6944'

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
P	2	22N	6W		577	SOUTH	805	EAST	SANDOVAL

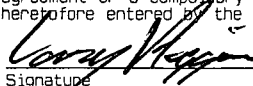
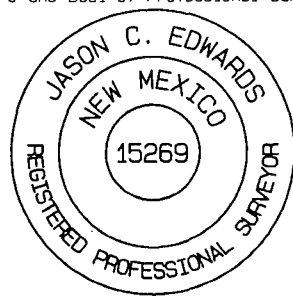
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	2	22N	6W		329	SOUTH	382	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres - (S/2 S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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

16

NO 39°E 2700.06' (RECORD) NO 120°29'E 2703.60' (MEASURED)	LOT 4	LOT 3	LOT 2	LOT 1	NO 55°E 2704.68' (RECORD) NO 1°33'38"E 2703.95' (MEASURED)	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 Date 5/2/13 Larry Higgins Printed Name larry.higgins@wpxenergy.com E-mail Address
	END OF LATERAL LAT: 36.16067°N LONG: 107.44489°W DATUM: NAD1927 LAT: 36.16069°N LONG: 107.44549°W DATUM: NAD1983		POINT OF ENTRY LAT: 36.16058°N LONG: 107.43177°W DATUM: NAD1927 LAT: 36.16059°N LONG: 107.43237°W DATUM: NAD1983	SURFACE LOCATION LAT: 36.16113°N LONG: 107.43122°W DATUM: NAD1927 LAT: 36.16114°N LONG: 107.43182°W DATUM: NAD1983		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: APRIL 29, 2013 Date of Survey: JUNE 8, 2012 Signature and Seal of Professional Surveyor  JASON C. EDWARDS Certificate Number 15269

NO 39°E 2676.30' (RECORD)
NO 1°22'10"E 2677.70' (MEASURED)

382'
329'

539°48.4'W 255.6'

805'
963'

376'
577'

N88°48.2'W 3874.0'

N88°08'57"W 2609.82' (MEASURED)
N88°51'W 2609.64' (RECORD)

N88°03'47"W 2608.21' (MEASURED)
N88°51'W 2609.64' (RECORD)

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

DATE: 4/09/2013 **FIELD:** Wildcat

WELL NAME: Chaco 2206-02P #228H **SURFACE:** State

SH Location: SESE of Sec 2 T22N R6W **ELEVATION:** 6,944' GR
County: Sandoval Co, NM

BH Location: SWSW Sec 2 T22N R6W **MINERALS:** STATE
Sandoval Co, NM

MEASURED DEPTH: 9619' **LEASE #:** STATE

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

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1,262	1,262	Point Lookout	4,130	4,079
Kirtland	1,548	1,548	Mancos	4,303	4,252
Pictured Cliffs	1,816	1,816	Kickoff Point	4,832	4,782
Lewis	1,923	1,922	Target Top	5,517	5,313
Chacra	2,240	2,235	Landing Point	5,744	5,654
Cliff House	3,364	3,323	Target Base	5,744	5,654
Menefee	3,388	3,346			
			TD	9,619	5,272

B. MUD LOGGING PROGRAM: Mudlogger on location from surface csg to TD.**C. LOGGING PROGRAM:** MWD GR for curve and 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 8 ¾" vertical Pilot Hole. Will use WBM to drill the curve portion of well, and OBM 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 **1800 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 vertically/directionally drilled as per attached Directional Plan to +/- 4,832' MD. Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 5,744' (MD). 7 in. csg will be set at this point. A 6-1/8" Lateral will be drilled as per the attached Directional Plan to +/- 9,619' (MD). Will run 4-1/2 in. Production Casing to TD and Cement.

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

<u>CASING TYPE</u>	<u>OH SIZE</u>	<u>DEPTH (MD)</u>	<u>CASING SIZE</u>	<u>WEIGHT(LB)</u>	<u>GRADE</u>
Surface	12.25"	400'	9 5/8	36#	K-55
Intermediate	8.75"	5,744'	7	23#	J-55
Longstring	6.125"	9,619'	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'. Run (1) centralizer at 2,700', 2,500', 2,300', 2,000', 1,500', and 1,000'.
3. PRODUCTION CASING: Run 4-1/2" casing with cement nose guide Float Shoe + 10' bottom joint of 4-1/2" csg + Float Collar + 10' joint of 4-1/2" csg + landing collar for Alpha Sleeve plug + 1jt 4-1/2" csg + Alpha Sleeve. Centralizer program will be determined when Lateral is evaluated by Geoscientists and Reservoir Engineers.

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 (Yield :1.43 cu-ft/ sk. / Vol: 1216 cu-ft) + 0.1% Halad 766 + 0.2% Versaset + 1.5% Chem-Foamer 760 / TOTETANK + TAIL: 100 sx 13.5 #/gal. (Yield: 1.28 cu-ft / sk / Vol: 128 cu-ft) + 0.2% Versaset + 0.15% HALAD-766. + F. Water Displacement (1,511 cu-ft) + 100 sx Top-Out Cement Premium: Yield: (1.17 cu-ft/ sk (Vol: 117 cu-ft). Est TOC: Surface. Test Casing to 1500 PSI for 30 minutes. Total Volume: (2021 cu-ft/1050 sx/260 bbls).
3. PRODUCTION CASING: **STAGE 1**: 10 bbl (56 cu-ft) Fr Water Spacer. **STAGE 2**: 20 bbl 10 ppg (112.3 cu-ft) Tuned Spacer III + 0.2 gal/bbl Musol + 59.8 ppb Barite. **STAGE 3**: 10 bbl Fr Water Spacer. **STAGE 4: Lead Cement**: Standard Type V + .4% Halad-766 + .3% Halad R-344, Yield 1.19 cu ft/sk, 15.6 #/gal, (60 sx/71.4 cu ft.) **STAGE 5**: Foamed Lead Cement: 248 sx 13.0 ppg (63.28 bbl / 355.3 cu-ft) 50/50 Poz Standard + 0.2% Versaset + 0.2% HALAD-766 + 1.5% Chem-Foamer 760. Yield 1.43 cu-ft/sk. **STAGE 6**: Tail Cement : 150 sx 50/50 Poz Standard + 0.2% Versaset + 0.25% HALAD-766, Weight: 13.5 ppg (Yield 1.29 cu ft/sk. / 193.5 cu ft.) **STAGE 7**: Displace w/176.6 bbl Fr Water. Total Cement (620.2 cu ft / 110.4 bbls). Mix w/ +/- 75,000 SCF Nitrogen. Est. TOC +/- 4,600 ft. Total Volume: (620.2 cu-ft/458 sx/110.4 bbls).

IV. COMPLETION**A. CBL**

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

B. PRESSURE TEST

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

C. STIMULATION

1. Stimulate with approximately 2,805,000# 20/40 mesh sand and 340,000# 16/30 mesh sand in 619,113 gallons water with 42,696 mscf N₂ for 17 stages.
2. Isolate stages with flow through frac plug.
3. Drill out frac plugs with CTU and flowback lateral.

D. RUNNING TUBING

1. Production Tubing: Run 2-3/8", 4.7#, N-80, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing at landing point of curve (~5,744' MD).
-



WPX Chaco 2206-02P #228H Rev0 JBE 02Apr13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: April 02, 2013 - 12:00 PM
Client: WPX Energy
Field: NM Sandoval County NAD27
Structure / Slot: WPX Chaco 2206-02P #228H / Chaco 2206-02P #228H
Well: Chaco 2206-02P #228H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: WPX Chaco 2206-02P #228H Rev0 JBE 02Apr13
Survey Date: April 02, 2013
Tort / AHD / DDI / ERD Ratio: 121.592 ° / 4929.156 ft / 6.032 / 0.921
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 36° 9' 40.06800", W 107° 25' 52.39200"
Location Grid N/E Y/X: N 1879981.963 ftUS, E 151312.086 ftUS
CRS Grid Convergence Angle: -0.6971 °
Grid Scale Factor: 1.00003913

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 268.361 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6958.000 ft above MSL
Seabed / Ground Elevation: 6944.000 ft above MSL
Magnetic Declination: 9.518 °
Total Gravity Field Strength: 999.1619 mgn (9.8 based)
Total Magnetic Field Strength: 50200.901 nT
Magnetic Dip Angle: 62.960 °
Declination Date: April 02, 2013
Magnetic Declination Model: BGGM 2012
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5175 °
Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
SHL Chaco 2206-02P #228H	0.00	0.00	116.34	0.00	0.00	0.00	0.00	N/A	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	100.00	0.00	116.34	100.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	200.00	0.00	116.34	200.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	300.00	0.00	116.34	300.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	400.00	0.00	116.34	400.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	500.00	0.00	116.34	500.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	600.00	0.00	116.34	600.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	700.00	0.00	116.34	700.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	800.00	0.00	116.34	800.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	900.00	0.00	116.34	900.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1000.00	0.00	116.34	1000.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1100.00	0.00	116.34	1100.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1200.00	0.00	116.34	1200.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1300.00	0.00	116.34	1300.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1400.00	0.00	116.34	1400.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
Nudge 1.5°/100'	1500.00	0.00	116.34	1500.00	0.00	0.00	0.00	0.00	1879981.96	151312.09	N 36 9 40.07	W 107 25 52.39
	1600.00	1.50	116.34	1599.99	-1.16	-0.58	1.17	1.50	1879981.37	151313.25	N 36 9 40.06	W 107 25 52.38
	1700.00	3.00	116.34	1699.91	-4.62	-2.32	4.69	1.50	1879979.58	151316.75	N 36 9 40.05	W 107 25 52.33
	1800.00	4.50	116.34	1799.69	-10.40	-5.22	10.55	1.50	1879976.61	151322.57	N 36 9 40.02	W 107 25 52.26
	1900.00	6.00	116.34	1899.27	-18.48	-9.28	18.75	1.50	1879972.45	151330.72	N 36 9 39.98	W 107 25 52.16
	2000.00	7.50	116.34	1998.57	-28.86	-14.50	29.28	1.50	1879967.11	151341.19	N 36 9 39.92	W 107 25 52.03
	2100.00	9.00	116.34	2097.54	-41.53	-20.87	42.14	1.50	1879960.58	151353.97	N 36 9 39.86	W 107 25 51.88
	2200.00	10.50	116.34	2196.09	-56.48	-28.38	57.32	1.50	1879952.89	151369.06	N 36 9 39.79	W 107 25 51.69
	2300.00	12.00	116.34	2294.16	-73.71	-37.04	74.80	1.50	1879944.02	151386.44	N 36 9 39.70	W 107 25 51.48
	2400.00	13.50	116.34	2391.70	-93.20	-46.83	94.58	1.50	1879933.98	151406.09	N 36 9 39.60	W 107 25 51.24
	2500.00	15.00	116.34	2488.62	-114.94	-57.75	116.64	1.50	1879922.79	151428.02	N 36 9 39.50	W 107 25 50.97
Hold 15.2° Tangent	2512.74	15.19	116.34	2500.91	-117.87	-59.22	119.61	1.50	1879921.29	151430.97	N 36 9 39.48	W 107 25 50.93
	2600.00	15.19	116.34	2585.13	-138.06	-69.37	140.10	0.00	1879910.89	151451.34	N 36 9 39.38	W 107 25 50.68

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' '')	Longitude (E/W ° ' '')
Drop 1.5°/100'	2700.00	15.19	116.34	2681.63	-161.20	-81.00	163.59	0.00	1879898.98	151474.68	N 36 9 39.27	W 107 25 50.40
	2800.00	15.19	116.34	2778.14	-184.34	-92.63	187.07	0.00	1879887.07	151498.02	N 36 9 39.15	W 107 25 50.11
	2900.00	15.19	116.34	2874.64	-207.48	-104.25	210.55	0.00	1879875.15	151521.36	N 36 9 39.04	W 107 25 49.82
	3000.00	15.19	116.34	2971.15	-230.63	-115.88	234.04	0.00	1879863.24	151544.70	N 36 9 38.92	W 107 25 49.54
	3100.00	15.19	116.34	3067.66	-253.77	-127.51	257.52	0.00	1879851.33	151568.04	N 36 9 38.81	W 107 25 49.25
	3200.00	15.19	116.34	3164.16	-276.91	-139.13	281.00	0.00	1879839.41	151591.38	N 36 9 38.69	W 107 25 48.97
	3288.00	15.19	116.34	3249.09	-297.27	-149.37	301.67	0.00	1879828.93	151611.92	N 36 9 38.59	W 107 25 48.71
	3300.00	15.01	116.34	3260.67	-300.03	-150.75	304.47	1.50	1879827.51	151614.71	N 36 9 38.58	W 107 25 48.68
	3400.00	13.51	116.34	3357.59	-321.79	-161.68	326.54	1.50	1879816.31	151636.65	N 36 9 38.47	W 107 25 48.41
	3500.00	12.01	116.34	3455.12	-341.29	-171.49	346.34	1.50	1879806.27	151656.32	N 36 9 38.37	W 107 25 48.17
	3600.00	10.51	116.34	3553.19	-358.54	-180.15	363.84	1.50	1879797.39	151673.72	N 36 9 38.29	W 107 25 47.96
	3700.00	9.01	116.34	3651.74	-373.51	-187.67	379.03	1.50	1879789.69	151688.82	N 36 9 38.21	W 107 25 47.77
	3800.00	7.51	116.34	3750.70	-386.20	-194.05	391.91	1.50	1879783.15	151701.62	N 36 9 38.15	W 107 25 47.61
	3900.00	6.01	116.34	3850.00	-396.59	-199.27	402.46	1.50	1879777.80	151712.10	N 36 9 38.10	W 107 25 47.48
	4000.00	4.51	116.34	3949.57	-404.69	-203.34	410.67	1.50	1879773.63	151720.27	N 36 9 38.06	W 107 25 47.38
	4100.00	3.01	116.34	4049.36	-410.48	-206.25	416.55	1.50	1879770.65	151726.11	N 36 9 38.03	W 107 25 47.31
	4200.00	1.51	116.34	4149.27	-413.97	-208.00	420.09	1.50	1879768.86	151729.63	N 36 9 38.01	W 107 25 47.27
	4300.00	0.01	116.34	4249.26	-415.14	-208.59	421.28	1.50	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4300.74	0.00	116.34	4250.00	-415.14	-208.59	421.28	1.50	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
Hold Vertical	4400.00	0.00	116.34	4349.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4500.00	0.00	116.34	4449.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4600.00	0.00	116.34	4549.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4700.00	0.00	116.34	4649.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4800.00	0.00	116.34	4749.26	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4831.73	0.00	116.34	4781.00	-415.14	-208.59	421.28	0.00	1879768.25	151730.81	N 36 9 38.01	W 107 25 47.25
	4900.00	6.83	271.20	4849.10	-411.08	-208.51	417.22	10.00	1879768.39	151726.75	N 36 9 38.01	W 107 25 47.30
	5000.00	16.83	271.20	4946.85	-390.64	-208.08	396.75	10.00	1879769.06	151706.29	N 36 9 38.01	W 107 25 47.55
	5100.00	26.83	271.20	5039.57	-353.55	-207.30	359.63	10.00	1879770.29	151669.18	N 36 9 38.02	W 107 25 48.01
	5200.00	36.83	271.20	5124.42	-300.95	-206.20	306.97	10.00	1879772.03	151616.54	N 36 9 38.03	W 107 25 48.65
KOP 10°/100'	5300.00	46.83	271.20	5198.85	-234.43	-204.81	240.38	10.00	1879774.23	151549.97	N 36 9 38.04	W 107 25 49.46
	5400.00	56.83	271.20	5260.57	-156.01	-203.17	161.88	10.00	1879776.83	151471.49	N 36 9 38.06	W 107 25 50.42
	5500.00	66.83	271.20	5307.73	-68.07	-201.34	73.86	10.00	1879779.74	151383.50	N 36 9 38.08	W 107 25 51.49
	5600.00	76.83	271.20	5338.88	26.70	-199.35	-21.01	10.00	1879782.87	151288.65	N 36 9 38.10	W 107 25 52.65
	5700.00	86.83	271.20	5353.07	125.44	-197.29	-119.85	10.00	1879786.14	151189.84	N 36 9 38.12	W 107 25 53.85
	5743.83	91.21	271.20	5353.83	169.20	-196.37	-163.65	10.00	1879787.59	151146.05	N 36 9 38.13	W 107 25 54.39
	5800.00	91.21	271.20	5352.64	225.29	-195.20	-219.80	0.00	1879789.44	151089.92	N 36 9 38.14	W 107 25 55.07
	5900.00	91.21	271.20	5350.53	325.14	-193.11	-319.75	0.00	1879792.75	150990.00	N 36 9 38.16	W 107 25 56.29
	6000.00	91.21	271.20	5348.42	425.00	-191.03	-419.71	0.00	1879796.05	150890.07	N 36 9 38.18	W 107 25 57.51
	6100.00	91.21	271.20	5346.30	524.85	-188.94	-519.66	0.00	1879799.35	150790.14	N 36 9 38.20	W 107 25 58.73
Chaco #228H Landing	6200.00	91.21	271.20	5344.19	624.71	-186.85	-619.62	0.00	1879802.66	150690.22	N 36 9 38.22	W 107 25 59.95
	6300.00	91.21	271.20	5342.08	724.56	-184.76	-719.57	0.00	1879805.96	150590.29	N 36 9 38.24	W 107 26 1.17
	6400.00	91.21	271.20	5339.97	824.42	-182.68	-819.53	0.00	1879809.26	150490.36	N 36 9 38.26	W 107 26 2.39
	6500.00	91.21	271.20	5337.86	924.27	-180.59	-919.49	0.00	1879812.57	150390.44	N 36 9 38.28	W 107 26 3.60
	6600.00	91.21	271.20	5335.75	1024.13	-178.50	-1019.44	0.00	1879815.87	150290.51	N 36 9 38.30	W 107 26 4.82
	6700.00	91.21	271.20	5333.63	1123.99	-176.41	-1119.40	0.00	1879819.18	150190.58	N 36 9 38.32	W 107 26 6.04
	6800.00	91.21	271.20	5331.52	1223.84	-174.33	-1219.35	0.00	1879822.48	150090.66	N 36 9 38.34	W 107 26 7.26
	6900.00	91.21	271.20	5329.41	1323.70	-172.24	-1319.31	0.00	1879825.78	149990.73	N 36 9 38.36	W 107 26 8.48
	7000.00	91.21	271.20	5327.30	1423.55	-170.15	-1419.27	0.00	1879829.09	149890.80	N 36 9 38.39	W 107 26 9.70
	7100.00	91.21	271.20	5325.19	1523.41	-168.06	-1519.22	0.00	1879832.39	149790.88	N 36 9 38.41	W 107 26 10.92
	7200.00	91.21	271.20	5323.08	1623.26	-165.97	-1619.18	0.00	1879835.69	149690.95	N 36 9 38.43	W 107 26 12.14
	7300.00	91.21	271.20	5320.96	1723.12	-163.89	-1719.13	0.00	1879839.00	149591.02	N 36 9 38.45	W 107 26 13.36
	7400.00	91.21	271.20	5318.85	1822.97	-161.80	-1819.09	0.00	1879842.30	149491.10	N 36 9 38.47	W 107 26 14.57
	7500.00	91.21	271.20	5316.74	1922.83	-159.71	-1919.05	0.00	1879845.60	149391.17	N 36 9 38.49	W 107 26 15.79
	7600.00	91.21	271.20	5314.63	2022.68	-157.62	-2019.00	0.00	1879848.91	149291.24	N 36 9 38.51	W 107 26 17.01
	7700.00	91.21	271.20	5312.52	2122.54	-155.54	-2118.96	0.00	1879852.21	149191.31	N 36 9 38.53	W 107 26 18.23
	7800.00	91.21	271.20	5310.41	2222.39	-153.45	-2218.91	0.00	1879855.52	149091.39	N 36 9 38.55	W 107 26 19.45
	7900.00	91.21	271.20	5308.29	2322.25	-151.36	-2318.87	0.00	1879858.82	148991.46	N 36 9 38.57	W 107 26 20.67
	8000.00	91.21	271.20	5306.18	2422.10	-149.27	-2418.82	0.00	1879862.12	148891.53	N 36 9 38.59	W 107 26 21.89

Comments	MD (ft)	Incl (°)	Azim True (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	8100.00	91.21	271.20	5304.07	2521.96	-147.19	-2518.78	0.00	1879865.43	148791.61	N 36 9 38.61	W 107 26 23.11
	8200.00	91.21	271.20	5301.96	2621.81	-145.10	-2618.74	0.00	1879868.73	148691.68	N 36 9 38.63	W 107 26 24.33
	8300.00	91.21	271.20	5299.85	2721.67	-143.01	-2718.69	0.00	1879872.03	148591.75	N 36 9 38.65	W 107 26 25.54
	8400.00	91.21	271.20	5297.74	2821.53	-140.92	-2818.65	0.00	1879875.34	148491.83	N 36 9 38.67	W 107 26 26.76
	8500.00	91.21	271.20	5295.62	2921.38	-138.84	-2918.60	0.00	1879878.64	148391.90	N 36 9 38.69	W 107 26 27.98
	8600.00	91.21	271.20	5293.51	3021.24	-136.75	-3018.56	0.00	1879881.94	148291.97	N 36 9 38.71	W 107 26 29.20
	8700.00	91.21	271.20	5291.40	3121.09	-134.66	-3118.52	0.00	1879885.25	148192.05	N 36 9 38.73	W 107 26 30.42
	8800.00	91.21	271.20	5289.29	3220.95	-132.57	-3218.47	0.00	1879888.55	148092.12	N 36 9 38.76	W 107 26 31.64
	8900.00	91.21	271.20	5287.18	3320.80	-130.48	-3318.43	0.00	1879891.86	147992.19	N 36 9 38.78	W 107 26 32.86
	9000.00	91.21	271.20	5285.07	3420.66	-128.40	-3418.38	0.00	1879895.16	147892.27	N 36 9 38.80	W 107 26 34.08
	9100.00	91.21	271.20	5282.95	3520.51	-126.31	-3518.34	0.00	1879898.46	147792.34	N 36 9 38.82	W 107 26 35.30
	9200.00	91.21	271.20	5280.84	3620.37	-124.22	-3618.30	0.00	1879901.77	147692.41	N 36 9 38.84	W 107 26 36.51
	9300.00	91.21	271.20	5278.73	3720.22	-122.13	-3718.25	0.00	1879905.07	147592.49	N 36 9 38.86	W 107 26 37.73
	9400.00	91.21	271.20	5276.62	3820.08	-120.05	-3818.21	0.00	1879908.37	147492.56	N 36 9 38.88	W 107 26 38.95
	9500.00	91.21	271.20	5274.51	3919.93	-117.96	-3918.16	0.00	1879911.68	147392.63	N 36 9 38.90	W 107 26 40.17
	9600.00	91.21	271.20	5272.39	4019.79	-115.87	-4018.12	0.00	1879914.98	147292.71	N 36 9 38.92	W 107 26 41.39
Chaco #228H PBHL	9618.71	91.21	271.20	5272.00	4038.47	-115.48	-4036.82	0.00	1879915.60	147274.01	N 36 9 38.92	W 107 26 41.62

Survey Type: Non-Def Plan

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

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	14.000	1/100.000	30.000	30.000	SLB_UNKNOWN-Depth Only	Original Borehole / WPX Chaco 2206-02P #228H Rev0 JBE
	14.000	9618.705	1/100.000	30.000	30.000	SLB_UNKNOWN	Original Borehole / WPX Chaco 2206-02P #228H Rev0 JBE

WPX ENERGY

WPX Energy

PATHFINDER
A Schlumberger Company

WELL	Chaco 2206-02P #228H	FIELD	NM Sandoval County NAD27	STRUCTURE	AWS #980
Map/Project Parameters	Model: ROOM 2012 Dip: 82.46° Mag Dec: 9.518°	Date: April 02, 2013 PS: 90284.647	Surface Location Lat: N 36 14 49.868 Lon: W 107 25 52.792 NAD27 New Mexico State Plane, Central Zone, U.S. Feet JEP9981 16 EUS Datum: 10/11/99 B015 Grid Zone: 18E05 Scale Factor: 0.9999713	Map/Structure Site: Chaco 2206-02P #228H Elev: 8000.000000 TVD Ref: 8330.000000 (NAD 83) Srvy Date: April 02, 2013	

KB: 14' Rev0

