

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 23 '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 30.045.359774
⁴ Property Code 399310	⁵ Property Name Chaco 2408-36P	⁶ Well No. 143H

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	36	24N	8W		782	South	244	East	San Juan

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	36	24N	8W		2255	South	380	West	San Juan

⁹ Pool Information

Pool Name Lybrook Gallup	Pool Code 42289
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Additional Well Information

¹¹ Work Type N	¹² Well Type O	¹³ Cable/Rotary R	¹⁴ Lease Type S	¹⁵ Ground Level Elevation 6922'
¹⁶ Multiple No	¹⁷ Proposed Depth 10,426' MD / 5,466' TVD	¹⁸ Formation Gallup	¹⁹ Contractor AWS	²⁰ Spud Date 07/01/13
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
J-55	12-1/4"	9-5/8"	36#	400'	190	Surface
K-55	8-3/4"	7"	23#	6,202'	1050	Surface
N-80	6-1/8"	4-1/2"	11.6#	10,426'	458	4,900'

Casing/Cement Program: Additional Comments

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD 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

Title: Permit Supervisor

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

Date: 05/21/13

Phone: 333-1808

OIL CONSERVATION DIVISION

Approved By: *Charles Bern*

Title: SUPERVISOR DISTRICT 03

Approved Date: JUN 05 2013 Expiration Date: JUN 05 2015

Conditions of Approval Attached

JUN 06 2013

PV

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

Hold C104
for Directional Survey
and "As Drilled" plat

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OIL CONSERVATION DIVISION

1220 South St. Francis Drive
Santa Fe, NM 87505

Submit one copy to
Appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35474		² Pool Code 42289	³ Pool Name LYBROOK GALLUP
⁴ Property Code 39936	⁵ Property Name CHACO 2408-36P		⁶ Well Number 143H
⁷ OGRID No. 120782	⁸ Operator Name WPX ENERGY PRODUCTION, LLC		⁹ Elevation 6922'

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	36	24N	8W		782	SOUTH	244	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

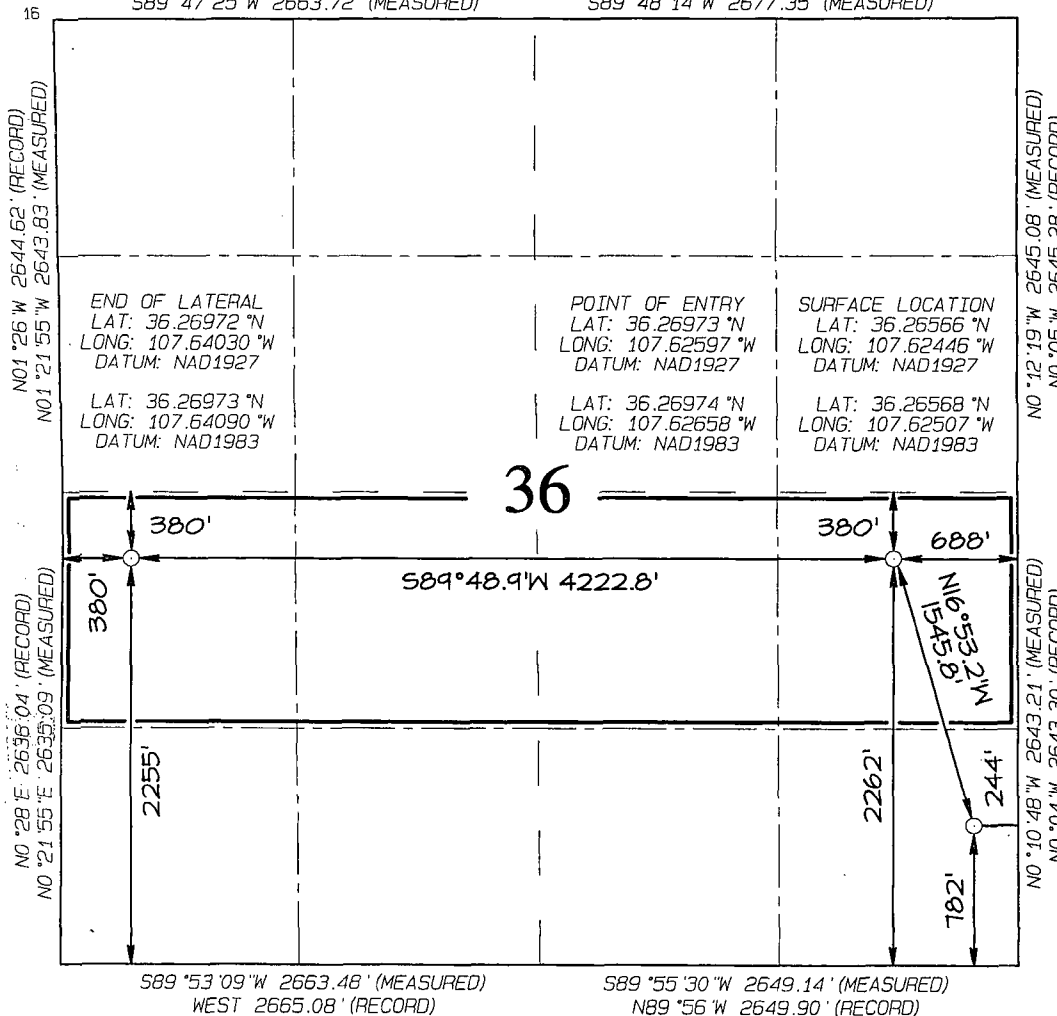
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	36	24N	8W		2255	SOUTH	380	WEST	SAN JUAN

¹² Dedicated Acres	160.0 Acres - (N/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

S89°52'W 2673.66' (RECORD)
S89°47'25"W 2663.72' (MEASURED)

S89°52'W 2673.66' (RECORD)
S89°48'14"W 2677.35' (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 Larry Higgins Date 5/21/13

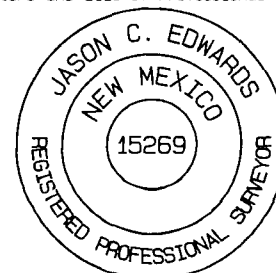
Larry Higgins
Printed Name
larry.higgins@wpxenergy.com
E-mail Address

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: MAY 17, 2013
Date of Survey: JULY 6, 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: 5/10/2013 **FIELD:** Lybrook Gallup

WELL NAME: Chaco 2408-36P #143H **SURFACE:** STATE

SH Location: SESE of Sec 36 T24N R8W **ELEVATION:** 6,922' GR

County: San Juan Co, NM

BH Location: NWSW Sec 36-24N-8W **MINERALS:** STATE

MEASURED DEPTH: 10,426' **LEASE #:** STATE

I. GEOLOGY: Surface formation – Nacimiento

A. FORMATION TOPS: (KB)

Name	MD	TVD	Name	MD	TVD
Ojo Alamo	1,205	1,202	Point Lookout	4,538	4,240
Kirtland	1,358	1,351	Mancos	4,802	4,498
Pictured Cliffs	1,990	1,942	Kickoff Point	5,289	4,983
Lewis	2,124	2,061	Target Top	5,932	5,498
Chacra	4,961	4,656	Landing Point	6,202	5,556
Cliff House	3,625	3,399	Target Base	6,202	5,556
Menefee	3,660	3,430			
			TD	10,426	5,466

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 3/4" Directional Vertical Hole and the curve portion of the wellbore. (OBM) will be used to drill the lateral portion of the 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 directionally drilled as per attached Directional Plan to +/- 5,289' (MD) / 4,983' (TVD). Curve portion of wellbore will be drilled and landed at +/- 90 deg. at +/- 6,202' (MD) / 5,556' (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 +/- 10,426' (MD). Will run 4-1/2 in. Production Casing from surface 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</u>	<u>GRADE</u>
Surface	12.25"	+/- 400'	9.625"	36#	J-55
Intermediate	8.75"	6,202'	7"	23#	K-55
Longstring	6.125"	10,426'	4.5"	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', 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 + 1jt. of 4-1/2" casing + Float Collar. Centralizer program will be determined by Wellbore condition and 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 +/- 4,900 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 near landing point of curve (~5500' MD).
-



WPX Chaco 2408-36P #143H Rev1 JBE 06May13 Proposal Geodetic Report

(Non-Def Plan)

Report Date: May 06, 2013 - 01:02 PM
Client: WPX Energy
Field: NM San Juan County NAD27
Structure / Slot: WPX Chaco 2408-36P #143H / Chaco 2408-36P #143H
Well: Chaco 2408-36P #143H
Borehole: Original Borehole
UWI / API#: Unknown / Unknown
Survey Name: WPX Chaco 2408-36P #143H Rev1 JBE 06May13
Survey Date: May 06, 2013
Tort / AHD / DDI / ERD Ratio: 145.136 ° / 6296.653 ft / 6.234 / 1.133
Coordinate Reference System: NAD27 New Mexico State Plane, Western Zone, US Feet
Location Lat / Long: N 36° 15' 56.37600", W 107° 37' 28.05600"
Location Grid N/E Y/X: N 1916008.762 ftUS, E 561575.732 ftUS
CRS Grid Convergence Angle: 0.1236 °
Grid Scale Factor: 0.99992101

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 287.552 ° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 6936.000 ft above MSL
Seabed / Ground Elevation: 6922.000 ft above MSL
Magnetic Declination: 9.582 °
Total Gravity Field Strength: 999.1732 mgn (9.8 based)
Total Magnetic Field Strength: 50242.190 nT
Magnetic Dip Angle: 63.046 °
Declination Date: May 06, 2013
Magnetic Declination Model: BGGM 2013
North Reference: True North
Grid Convergence Used: 0.0000 °
Total Corr Mag North->True North: 9.5822 °
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 2408-36P #143H	0.00	0.00	5.40	0.00	0.00	0.00	0.00	N/A	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	100.00	0.00	5.40	100.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	200.00	0.00	5.40	200.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	300.00	0.00	5.40	300.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	400.00	0.00	5.40	400.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	500.00	0.00	5.40	500.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	600.00	0.00	5.40	600.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
Nudge 2°/100'	650.00	0.00	5.40	650.00	0.00	0.00	0.00	0.00	1916008.76	561575.73	N 36 15 56.38	W 107 37 28.06
	700.00	1.00	5.40	700.00	0.09	0.43	0.04	2.00	1916009.20	561575.77	N 36 15 56.38	W 107 37 28.06
	800.00	3.00	5.40	799.93	0.83	3.91	0.37	2.00	1916012.67	561576.09	N 36 15 56.41	W 107 37 28.05
	900.00	5.00	5.40	899.68	2.30	10.85	1.03	2.00	1916019.62	561576.73	N 36 15 56.48	W 107 37 28.04
	1000.00	7.00	5.40	999.13	4.50	21.26	2.01	2.00	1916030.02	561577.69	N 36 15 56.59	W 107 37 28.03
	1100.00	9.00	5.40	1098.15	7.43	35.11	3.32	2.00	1916043.88	561578.97	N 36 15 56.72	W 107 37 28.02
	1200.00	11.00	5.40	1196.63	11.08	52.40	4.95	2.00	1916061.17	561580.57	N 36 15 56.89	W 107 37 28.00
	1300.00	13.00	5.40	1294.44	15.46	73.10	6.91	2.00	1916081.87	561582.48	N 36 15 57.10	W 107 37 27.97
	1400.00	15.00	5.40	1391.46	20.55	97.18	9.18	2.00	1916105.96	561584.70	N 36 15 57.34	W 107 37 27.94
	1500.00	17.00	5.40	1487.58	26.36	124.62	11.77	2.00	1916133.40	561587.24	N 36 15 57.61	W 107 37 27.91
	1600.00	19.00	5.40	1582.68	32.86	155.39	14.68	2.00	1916164.17	561590.08	N 36 15 57.91	W 107 37 27.88
	1700.00	21.00	5.40	1676.65	40.06	189.43	17.90	2.00	1916198.22	561593.22	N 36 15 58.25	W 107 37 27.84
	1800.00	23.00	5.40	1769.36	47.95	226.73	21.42	2.00	1916235.52	561596.66	N 36 15 58.62	W 107 37 27.79
	1900.00	25.00	5.40	1860.71	56.51	267.22	25.25	2.00	1916276.01	561600.40	N 36 15 59.02	W 107 37 27.75
Hold 26.9° Tangent	1997.68	26.95	5.40	1948.52	65.52	309.81	29.27	2.00	1916318.61	561604.33	N 36 15 59.44	W 107 37 27.70
	2000.00	26.95	5.40	1950.59	65.74	310.86	29.37	0.00	1916319.66	561604.43	N 36 15 59.45	W 107 37 27.70
	2100.00	26.95	5.40	2039.72	75.29	355.98	33.63	0.00	1916364.79	561608.60	N 36 15 59.90	W 107 37 27.65
	2200.00	26.95	5.40	2128.86	84.83	401.11	37.90	0.00	1916409.92	561612.76	N 36 16 0.34	W 107 37 27.59
	2300.00	26.95	5.40	2218.00	94.37	446.24	42.16	0.00	1916455.05	561616.93	N 36 16 0.79	W 107 37 27.54
	2400.00	26.95	5.40	2307.14	103.92	491.36	46.43	0.00	1916500.18	561621.09	N 36 16 1.24	W 107 37 27.49
	2500.00	26.95	5.40	2396.27	113.46	536.49	50.69	0.00	1916545.31	561625.26	N 36 16 1.68	W 107 37 27.44

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 ° ' ")
	2600.00	26.95	5.40	2485.41	123.01	581.61	54.95	0.00	1916590.45	561629.43	N 36 16 2.13	W 107 37 27.38
	2700.00	26.95	5.40	2574.55	132.55	626.74	59.22	0.00	1916635.58	561633.59	N 36 16 2.57	W 107 37 27.33
	2800.00	26.95	5.40	2663.69	142.09	671.87	63.48	0.00	1916680.71	561637.76	N 36 16 3.02	W 107 37 27.28
	2900.00	26.95	5.40	2752.82	151.64	716.99	67.74	0.00	1916725.84	561641.92	N 36 16 3.47	W 107 37 27.23
	3000.00	26.95	5.40	2841.96	161.18	762.12	72.01	0.00	1916770.97	561646.09	N 36 16 3.91	W 107 37 27.18
	3100.00	26.95	5.40	2931.10	170.72	807.24	76.27	0.00	1916816.10	561650.26	N 36 16 4.36	W 107 37 27.12
	3200.00	26.95	5.40	3020.24	180.27	852.37	80.53	0.00	1916861.23	561654.42	N 36 16 4.80	W 107 37 27.07
	3300.00	26.95	5.40	3109.37	189.81	897.50	84.80	0.00	1916906.37	561658.59	N 36 16 5.25	W 107 37 27.02
	3400.00	26.95	5.40	3198.51	199.36	942.62	89.06	0.00	1916951.50	561662.75	N 36 16 5.70	W 107 37 26.97
	3500.00	26.95	5.40	3287.65	208.90	987.75	93.33	0.00	1916996.63	561666.92	N 36 16 6.14	W 107 37 26.92
	3600.00	26.95	5.40	3376.79	218.44	1032.87	97.59	0.00	1917041.76	561671.09	N 36 16 6.59	W 107 37 26.86
	3700.00	26.95	5.40	3465.92	227.99	1078.00	101.85	0.00	1917086.89	561675.25	N 36 16 7.04	W 107 37 26.81
	3800.00	26.95	5.40	3555.06	237.53	1123.13	106.12	0.00	1917132.02	561679.42	N 36 16 7.48	W 107 37 26.76
	3900.00	26.95	5.40	3644.20	247.07	1168.25	110.38	0.00	1917177.15	561683.58	N 36 16 7.93	W 107 37 26.71
Drop 2°/100'	3908.17	26.95	5.40	3651.48	247.85	1171.94	110.73	0.00	1917180.84	561683.92	N 36 16 7.97	W 107 37 26.70
	4000.00	25.12	5.40	3733.99	256.34	1212.06	114.52	2.00	1917220.97	561687.63	N 36 16 8.36	W 107 37 26.66
	4100.00	23.12	5.40	3825.25	264.94	1252.74	118.36	2.00	1917261.65	561691.38	N 36 16 8.76	W 107 37 26.61
	4200.00	21.12	5.40	3917.89	272.87	1290.22	121.90	2.00	1917299.14	561694.84	N 36 16 9.13	W 107 37 26.57
	4300.00	19.12	5.40	4011.79	280.11	1324.46	125.14	2.00	1917333.38	561698.00	N 36 16 9.47	W 107 37 26.53
	4400.00	17.12	5.40	4106.82	286.66	1355.42	128.06	2.00	1917364.34	561700.86	N 36 16 9.78	W 107 37 26.49
	4500.00	15.12	5.40	4202.89	292.50	1383.05	130.67	2.00	1917391.98	561703.41	N 36 16 10.05	W 107 37 26.46
	4600.00	13.12	5.40	4299.86	297.64	1407.34	132.97	2.00	1917416.27	561705.66	N 36 16 10.29	W 107 37 26.43
	4700.00	11.12	5.40	4397.63	302.06	1428.23	134.94	2.00	1917437.17	561707.58	N 36 16 10.50	W 107 37 26.41
	4800.00	9.12	5.40	4496.07	305.76	1445.72	136.60	2.00	1917454.66	561709.20	N 36 16 10.67	W 107 37 26.39
	4900.00	7.12	5.40	4595.06	308.73	1459.78	137.92	2.00	1917468.71	561710.50	N 36 16 10.81	W 107 37 26.37
	5000.00	5.12	5.40	4694.49	310.97	1470.38	138.93	2.00	1917479.32	561711.48	N 36 16 10.92	W 107 37 26.36
	5100.00	3.12	5.40	4794.23	312.48	1477.53	139.60	2.00	1917486.47	561712.14	N 36 16 10.99	W 107 37 26.35
Vertical	5200.00	1.12	5.40	4894.15	313.26	1481.21	139.95	2.00	1917490.15	561712.48	N 36 16 11.02	W 107 37 26.35
KOP 10°/100'	5255.85	0.00	5.40	4950.00	313.38	1481.75	140.00	2.00	1917490.69	561712.53	N 36 16 11.03	W 107 37 26.35
	5289.35	0.00	5.40	4983.50	313.38	1481.75	140.00	0.00	1917490.69	561712.53	N 36 16 11.03	W 107 37 26.35
	5300.00	1.06	269.94	4994.15	313.47	1481.75	139.90	10.00	1917490.69	561712.43	N 36 16 11.03	W 107 37 26.35
	5400.00	11.06	269.94	5093.46	323.53	1481.74	129.35	10.00	1917490.66	561701.88	N 36 16 11.03	W 107 37 26.48
	5500.00	21.06	269.94	5189.44	349.87	1481.71	101.71	10.00	1917490.57	561674.24	N 36 16 11.03	W 107 37 26.81
	5600.00	31.06	269.94	5279.15	391.70	1481.66	57.83	10.00	1917490.43	561630.36	N 36 16 11.03	W 107 37 27.35
	5700.00	41.06	269.94	5359.88	447.74	1481.60	-0.97	10.00	1917490.24	561571.57	N 36 16 11.03	W 107 37 28.07
	5800.00	51.06	269.94	5429.18	516.29	1481.53	-72.89	10.00	1917490.01	561499.66	N 36 16 11.03	W 107 37 28.95
	5900.00	61.06	269.94	5484.93	595.26	1481.44	-155.75	10.00	1917489.74	561416.80	N 36 16 11.03	W 107 37 29.96
	6000.00	71.06	269.94	5525.45	682.27	1481.34	-247.03	10.00	1917489.45	561325.52	N 36 16 11.02	W 107 37 31.07
	6100.00	81.06	269.94	5549.50	774.66	1481.24	-343.97	10.00	1917489.14	561228.60	N 36 16 11.02	W 107 37 32.26
	6200.00	91.06	269.94	5556.36	869.63	1481.14	-443.61	10.00	1917488.82	561128.97	N 36 16 11.02	W 107 37 33.47
Chaco 2408-36P #143H Landing	6201.60	91.23	269.94	5556.33	871.15	1481.14	-445.21	10.00	1917488.82	561127.37	N 36 16 11.02	W 107 37 33.49
	6300.00	91.23	269.94	5554.22	964.92	1481.03	-543.58	0.00	1917488.50	561029.00	N 36 16 11.02	W 107 37 34.69
	6400.00	91.23	269.94	5552.09	1060.21	1480.93	-643.56	0.00	1917488.18	560929.03	N 36 16 11.02	W 107 37 35.91
	6500.00	91.23	269.94	5549.95	1155.50	1480.82	-743.54	0.00	1917487.86	560829.06	N 36 16 11.02	W 107 37 37.14
	6600.00	91.23	269.94	5547.81	1250.79	1480.72	-843.51	0.00	1917487.54	560729.10	N 36 16 11.02	W 107 37 38.36
	6700.00	91.23	269.94	5545.67	1346.08	1480.61	-943.49	0.00	1917487.22	560629.13	N 36 16 11.02	W 107 37 39.58
	6800.00	91.23	269.94	5543.53	1441.37	1480.51	-1043.47	0.00	1917486.90	560529.16	N 36 16 11.02	W 107 37 40.80
	6900.00	91.23	269.94	5541.40	1536.66	1480.40	-1143.45	0.00	1917486.58	560429.19	N 36 16 11.02	W 107 37 42.02
	7000.00	91.23	269.94	5539.26	1631.95	1480.30	-1243.42	0.00	1917486.25	560329.22	N 36 16 11.01	W 107 37 43.24
	7100.00	91.23	269.94	5537.12	1727.24	1480.19	-1343.40	0.00	1917485.93	560229.25	N 36 16 11.01	W 107 37 44.46
	7200.00	91.23	269.94	5534.98	1822.53	1480.08	-1443.38	0.00	1917485.61	560129.28	N 36 16 11.01	W 107 37 45.68
	7300.00	91.23	269.94	5532.84	1917.82	1479.98	-1543.35	0.00	1917485.29	560029.32	N 36 16 11.01	W 107 37 46.90
	7400.00	91.23	269.94	5530.70	2013.11	1479.87	-1643.33	0.00	1917484.97	559929.35	N 36 16 11.01	W 107 37 48.12
	7500.00	91.23	269.94	5528.57	2108.40	1479.77	-1743.31	0.00	1917484.65	559829.38	N 36 16 11.01	W 107 37 49.34
	7600.00	91.23	269.94	5526.43	2203.69	1479.66	-1843.29	0.00	1917484.32	559729.41	N 36 16 11.01	W 107 37 50.56
	7700.00	91.23	269.94	5524.29	2298.98	1479.55	-1943.26	0.00	1917484.00	559629.44	N 36 16 11.01	W 107 37 51.79
	7800.00	91.23	269.94	5522.15	2394.27	1479.45	-2043.24	0.00	1917483.68	559529.47	N 36 16 11.01	W 107 37 53.01
	7900.00	91.23	269.94	5520.01	2489.56	1479.34	-2143.22	0.00	1917483.36	559429.50	N 36 16 11.00	W 107 37 54.23

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 ° ' ")
	8000.00	91.23	269.94	5517.88	2584.85	1479.23	-2243.19	0.00	1917483.03	559329.54	N 36 16 11.00	W 107 37 55.45
	8100.00	91.23	269.94	5515.74	2680.14	1479.12	-2343.17	0.00	1917482.71	559229.57	N 36 16 11.00	W 107 37 56.67
	8200.00	91.23	269.94	5513.60	2775.43	1479.02	-2443.15	0.00	1917482.39	559129.60	N 36 16 11.00	W 107 37 57.89
	8300.00	91.23	269.94	5511.46	2870.72	1478.91	-2543.12	0.00	1917482.06	559029.63	N 36 16 11.00	W 107 37 59.11
	8400.00	91.23	269.94	5509.32	2966.01	1478.80	-2643.10	0.00	1917481.74	558929.66	N 36 16 11.00	W 107 38 0.33
	8500.00	91.23	269.94	5507.18	3061.30	1478.69	-2743.08	0.00	1917481.42	558829.69	N 36 16 11.00	W 107 38 1.55
	8600.00	91.23	269.94	5505.05	3156.59	1478.59	-2843.06	0.00	1917481.09	558729.73	N 36 16 11.00	W 107 38 2.77
	8700.00	91.23	269.94	5502.91	3251.88	1478.48	-2943.03	0.00	1917480.77	558629.76	N 36 16 10.99	W 107 38 3.99
	8800.00	91.23	269.94	5500.77	3347.17	1478.37	-3043.01	0.00	1917480.45	558529.79	N 36 16 10.99	W 107 38 5.22
	8900.00	91.23	269.94	5498.63	3442.46	1478.26	-3142.99	0.00	1917480.12	558429.82	N 36 16 10.99	W 107 38 6.44
	9000.00	91.23	269.94	5496.49	3537.75	1478.15	-3242.96	0.00	1917479.80	558329.85	N 36 16 10.99	W 107 38 7.66
	9100.00	91.23	269.94	5494.35	3633.04	1478.04	-3342.94	0.00	1917479.47	558229.88	N 36 16 10.99	W 107 38 8.88
	9200.00	91.23	269.94	5492.21	3728.33	1477.93	-3442.92	0.00	1917479.15	558129.91	N 36 16 10.99	W 107 38 10.10
	9300.00	91.23	269.94	5490.08	3823.62	1477.82	-3542.90	0.00	1917478.82	558029.95	N 36 16 10.99	W 107 38 11.32
	9400.00	91.23	269.94	5487.94	3918.91	1477.72	-3642.87	0.00	1917478.50	557929.98	N 36 16 10.99	W 107 38 12.54
	9500.00	91.23	269.94	5485.80	4014.20	1477.61	-3742.85	0.00	1917478.17	557830.01	N 36 16 10.99	W 107 38 13.76
	9600.00	91.23	269.94	5483.66	4109.49	1477.50	-3842.83	0.00	1917477.85	557730.04	N 36 16 10.98	W 107 38 14.98
	9700.00	91.23	269.94	5481.52	4204.78	1477.39	-3942.80	0.00	1917477.52	557630.07	N 36 16 10.98	W 107 38 16.20
	9800.00	91.23	269.94	5479.38	4300.07	1477.28	-4042.78	0.00	1917477.20	557530.10	N 36 16 10.98	W 107 38 17.42
	9900.00	91.23	269.94	5477.24	4395.36	1477.17	-4142.76	0.00	1917476.87	557430.13	N 36 16 10.98	W 107 38 18.64
	10000.00	91.23	269.94	5475.10	4490.65	1477.06	-4242.73	0.00	1917476.55	557330.17	N 36 16 10.98	W 107 38 19.87
	10100.00	91.23	269.94	5472.97	4585.94	1476.95	-4342.71	0.00	1917476.22	557230.20	N 36 16 10.98	W 107 38 21.09
	10200.00	91.23	269.94	5470.83	4681.23	1476.84	-4442.69	0.00	1917475.90	557130.23	N 36 16 10.98	W 107 38 22.31
	10300.00	91.23	269.94	5468.69	4776.51	1476.73	-4542.67	0.00	1917475.57	557030.26	N 36 16 10.98	W 107 38 23.53
	10400.00	91.23	269.94	5466.55	4871.80	1476.62	-4642.64	0.00	1917475.24	556930.29	N 36 16 10.97	W 107 38 24.75
Chaco 2408-36P #143H PBHL	10425.66	91.23	269.94	5466.00	4896.26	1476.59	-4668.30	0.00	1917475.16	556904.64	N 36 16 10.97	W 107 38 25.06

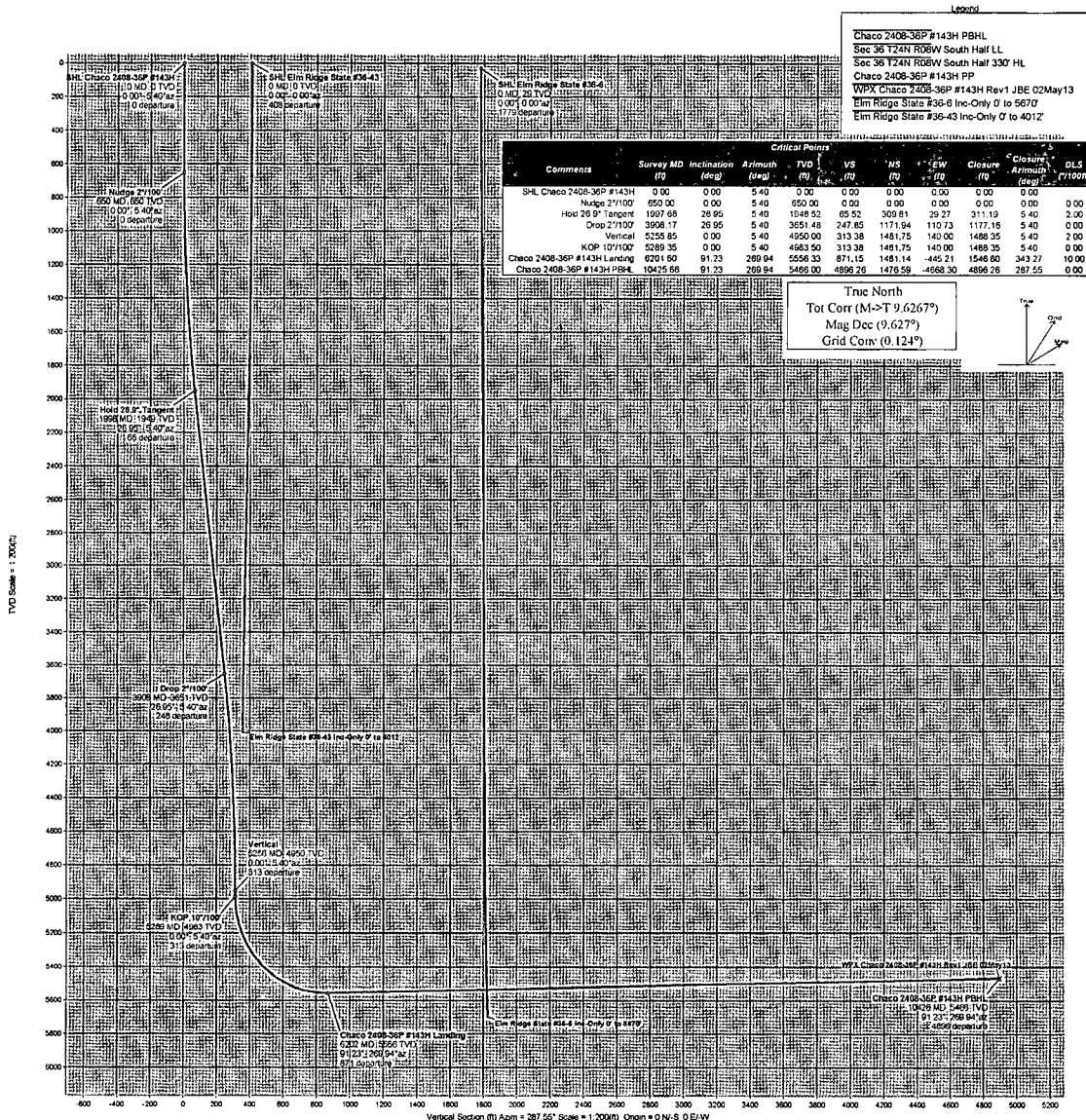
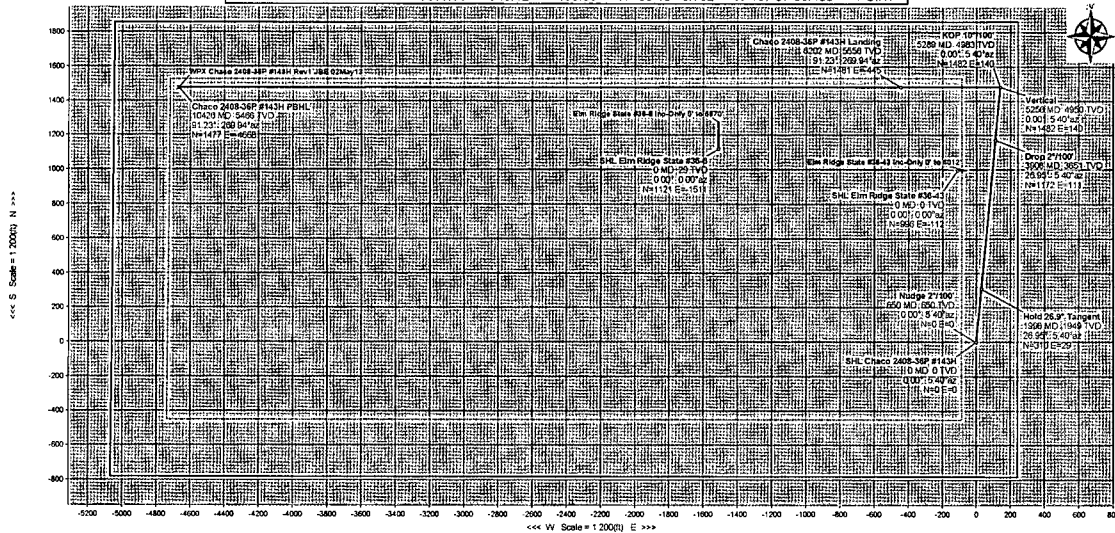
Survey Type: Non-Def Plan

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	8.750	7.000	SLB_MWD-STD-Depth Only	Original Borehole / WPX Chaco 2408-36P #143H Rev1 JBE
	14.000	6201.600	1/100.000	8.750	7.000	SLB_MWD-STD	Original Borehole / WPX Chaco 2408-36P #143H Rev1 JBE
	6201.600	10425.664	1/100.000	6.125	4.500	SLB_MWD-STD	Original Borehole / WPX Chaco 2408-36P #143H Rev1 JBE

WELL	Chaco 2408-36P #143H	FIELD	NM San Juan County NAD27	STRUCTURE	AWS #980
Magnetic Parameters	Chaco 2408-36P #143H Survey Date: 02/05/2013 Date: February 04, 2013 Time: 08:27 Survey Location: N 34 13 14.374 Easting: 174562.74123 Northing: 341773.71808 Scale: 1:2000 Survey Date: 02/05/2013 Survey Location: N 34 13 14.374 Easting: 174562.74123 Northing: 341773.71808 Scale: 1:2000 Survey Date: 02/05/2013				

Name	TVD (ft)	NS (ft)	EW (ft)	Latitude (deg)	Longitude (deg)	Shape
Chaco 2408-36P #143H PBHL	5466.00	1476.59	-4668.30	N 36 16 10.974	W 107 38 25.062	POINT
Chaco 2408-36P #143H PP	5566.00	946.12	-199.00	N 36 16 5.732	W 107 37 30.486	POINT



Chaco 2408-36P #143H PBHL
Sec 36 T24N R66W South Half LL
Sec 36 T24N R66W South Half 330' HL
Chaco 2408-36P #143H PP
WPX Chaco 2408-36P #143H Rev1 JBE 02May13
Elm Ridge State #36-6 Inc-Only 0' to 5670'
Elm Ridge State #36-43 Inc-Only 0' to 4012'

Comments	Survey MD (ft)	Inclination (deg)	Arithmetic (deg)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	Closure (ft)	Closure Arithmetic (deg)	GLS Pr100m
SHL Chaco 2408-36P #143H	0.00	0.00	5.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nudge 2'1100'	650.00	0.00	5.40	650.00	0.00	0.00	0.00	0.00	0.00	0.00
Hold 26 9' Tangent	1997.68	26.95	5.40	1848.52	65.52	309.81	29.27	311.19	5.40	2.00
Drop 2'1100'	3998.17	26.95	5.40	3651.48	247.65	1171.94	110.73	1177.15	5.40	0.00
Vertical	5255.85	0.00	5.40	4550.00	313.38	1481.75	140.00	1488.35	5.40	2.00
KOP 10'1100'	5289.35	0.00	5.40	4583.50	313.38	1481.75	140.00	1488.35	5.40	0.00
Chaco 2408-36P #143H Landing	6701.60	91.23	269.94	5556.33	871.15	1481.14	-445.21	1546.60	343.27	10.00
Chaco 2408-36P #143H PBHL	10475.68	91.23	269.94	5466.00	4990.29	1478.59	-4568.30	4896.26	287.55	0.00

True North
Tot Corr (M-T 9.6267°)
Mag Dec (9.627°)
Grid Corr (0.124°)



Drawn By: [Name]
Date: [Date]
Checked By: [Name]
Date: [Date]
Approved By: [Name]
Date: [Date]