

2/12/2014 DATE	SUSPENSE	44m ENGINEER	2/13/2014 LOGGED IN	NSL TYPE	PMAM1404443150 APP NO.
-------------------	----------	-----------------	------------------------	-------------	---------------------------

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Heather Riley
Print or Type Name

Signature

Regulatory Team Lead
Title

2/11/2014
Date

Heather.riley@wpenergy.com
e-mail Address

Chaco 2206-161 #223H, API #30-043-21166

NSL
- WPX ENERGY
Production, LLC
120782
Well
Chaco 2206 -
16 I #223H
30-043-21166
Pool
- Lybrook
Gallup
42289

2014 FEB 12 P 2:45

RECEIVED OGD

Sent via Overnight Delivery

February 11, 2014

Jami Bailey
Division Director
NEW MEXICO OIL CONSERVATION DIVISION
1220 South Saint Francis Drive
Santa Fe, NM 87505

Re: Request for Administrative Approval for Non-Standard Lybrook Gallup Lateral
Chaco 2206-161 #223H
API#: 30-043-21166
Sec. 16, T22N, R6W

Dear Ms. Bailey:

WPX Energy Production, LLC ("WPX"), pursuant to the provisions of Division Rule 19.15.15.13, hereby seeks administrative approval of an unorthodox location for the Lybrook Gallup (42289) formation in the Chaco 2206-161 #223H. This is a horizontal well with a surface location of 1480' FSL and 290' FEL, Section 16, T22N, R6W and an end of lateral location of 1530' FSL & 280' FWL, Section 16, T22N, R6W. See attached plat.

This location is governed by statewide Rule 15.9.A [19.15.15.9.A NMAC], which provides for 40-acre units, with wells located at least 330 feet from a unit outer boundary. Initially the Lybrook Gallup Pool was set up with Special Pool Rules under Order No. R-2267 but these rules were later abolished with Order No. R-2267-B. The new Special Rules for Horizontal Wells under Division Rule 19.15.16.15(B)(3) also apply and state no internal setbacks are required within a project area. Given these setback requirements, the producing interval in the lateral is encroaching the S/2 of the S/2 of Section 16, T22N, R6W in that it is approximately 193' from the unit boundary.

The spacing for the subject well is the N/2 of the S/2 of section 16 consisting of 4 consecutive parcels containing 40 acres more or less and totaling 160 acres. The spacing unit being encroached upon is the S/2 of the S/2 of Section 16 also consisting of 4 consecutive parcels containing 160 acres. All of Section 16 is operated by WPX and ownership is 100% WPX therefore no affected owner letters are required pursuant to NMOCD rules.

WPXENERGY.

Please note that the maximum perforation range for the lateral will from 5,708' MD to 10,037 MD which are legal as to the east and west lines.

EAST LINE EXPLANATION: Referring to the plat, the Point of Entry is at 580' from the east line of Section 16 which correlates with approximately 5,706' MD. The top perforation is at 5,708' which is 2' past the Point of Entry so the distance from the east line for the perforation is 582'.

WEST LINE EXPLANATION: Our end of lateral is shown at 280' from the west line, which correlates to 10,088 MD. The deepest perforation would be the lower port in a RSI tool which would be set no deeper than 10,037' which correlates to 331' from the west line.

Should you have any questions or concerns, please don't hesitate to contact me.

Sincerely,


Heather Riley
Regulatory Team Lead

Enc.: C-102

District I
1325 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-043-21166	Pool Code 42289	Pool Name LYBROOK GALLUP
Property Code	Property Name CHACO 2205-16I	Well Number 223H
OGRID No. 120782	Operator Name WPX ENERGY PRODUCTION, LLC	Elevation 7194'

¹⁰ Surface Location

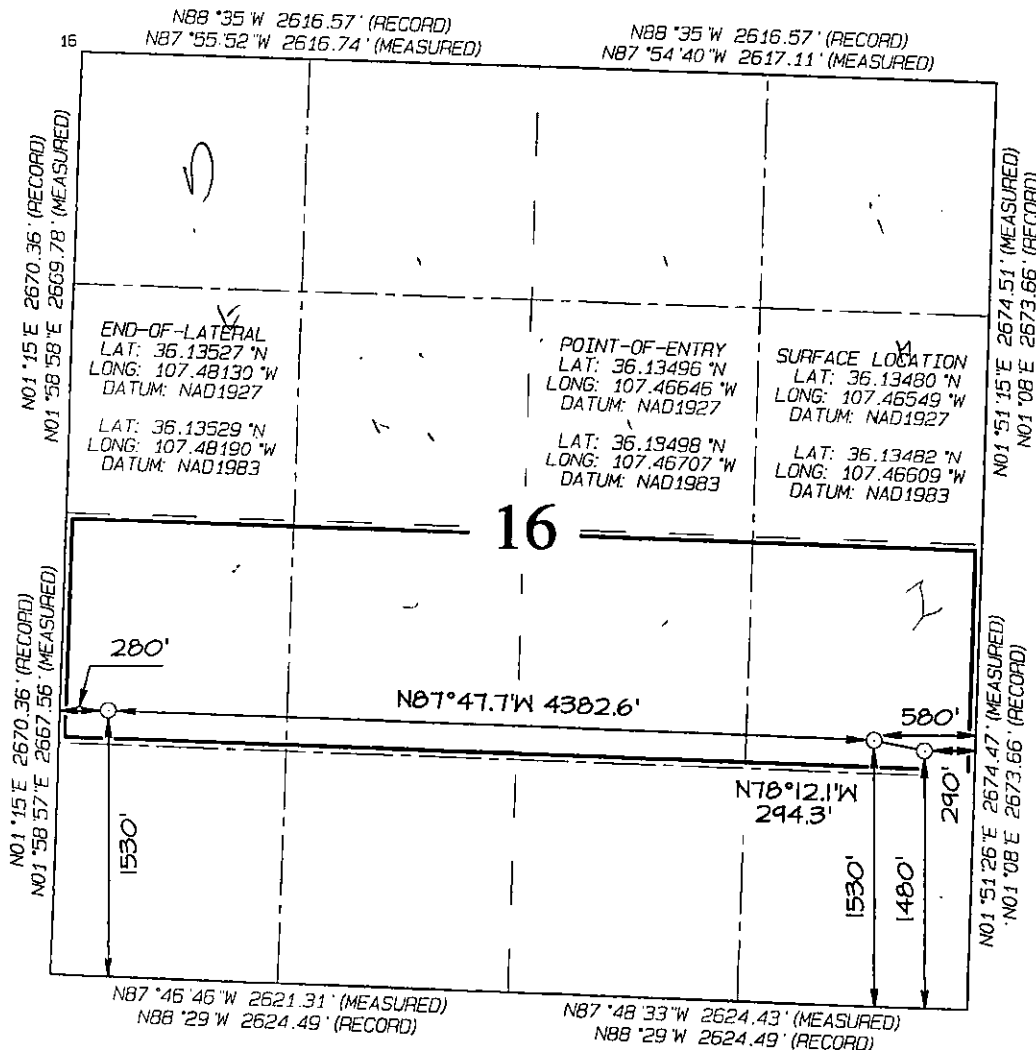
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	16	22N	6W		1480	SOUTH	290	EAST	SANDOVAL

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
L	16	22N	6W		1530	SOUTH	280	WEST	SANDOVAL

¹² Dedicated Acres 160.0 Acres - (N/2 S/2)	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



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.

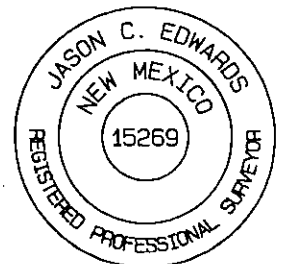
Signature _____ Date _____
Printed Name
Larry Higgins
larry.higgins@wpxenergy.com
E-mail Address

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: AUGUST 20, 2013
Date of Survey: JUNE 21, 2012

Signature and Seal of Professional Surveyor



JASON C. EDWARDS

Certificate Number 15269

WELL	Chaco 2206-161 #223H	FIELD	NM Sandoval County NAD27	STRUCTURE	Sec 16-22N-6W
Magnetic Parameters	Model: BGM 2013	Dip: 62.954°	Date: August 05, 2013	Surface Location	NAD27 New Mexico State Plane, Central Zone, US Feet
	Mag Dec: 9.474°		FB: 50156.9inT	Lat: N 36 8 5.280	Long: W 107 27 55.764
				North: 1870522.01 BUS	Grid Conv: -0.717°
				East: 141075.40 BUS	Scale Fact: 1.00004742
				Miscellaneous	Sk: Chaco 2206-161 #223H
					Plan: RD mty 5Aug13
					TVD Ref: RKB(2081' above MSL)
					Srv Date: August 05, 2013

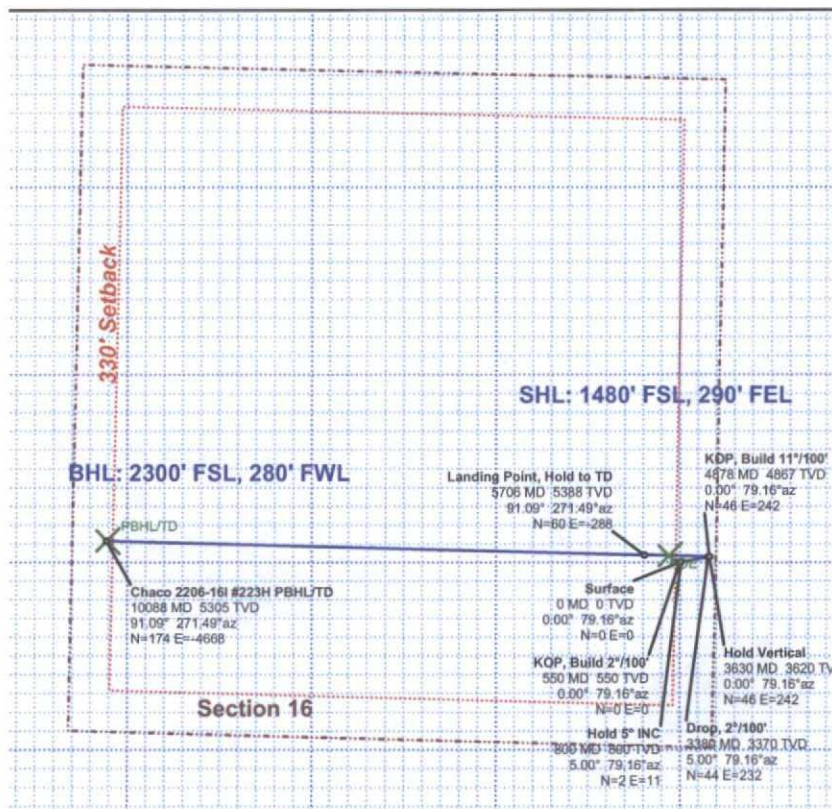
Proposal



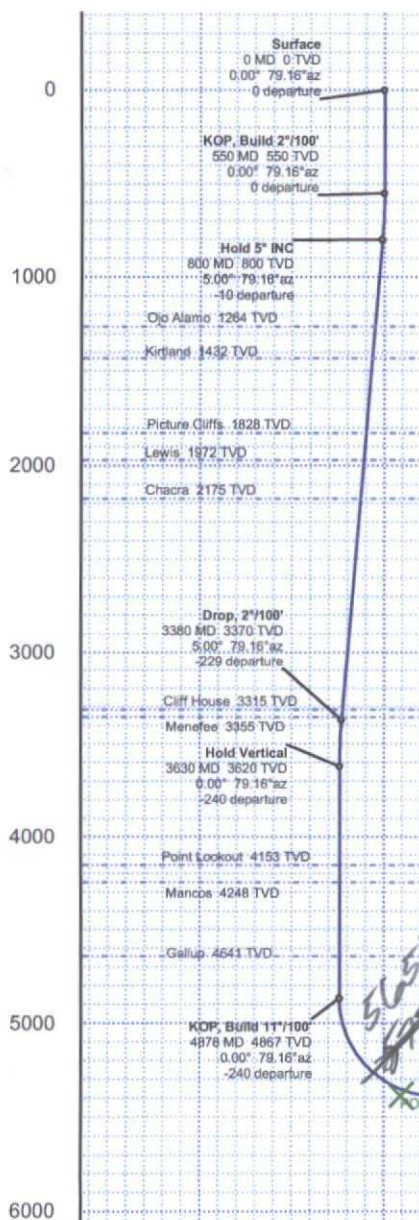
True North
Tot Corr (M→T) 9.4741°
Mag Dec (9.474°)
Grid Conv (-0.717°)



<<< W Scale = 1:1500(ft) E >>>
-4500 -3000 -1500 0



TVD Scale = 1:1000(ft)



Critical Point	MD	INCL	AZIM	TVD	YSEC	N(+) / S(-)	E(+) / W(-)	DLS
Surface	0.00	0.00	79.16	0.00	0.00	0.00	0.00	
KOP, Build 2°/100'	550.00	0.00	79.16	550.00	0.00	0.00	0.00	0.00
Hold 5° INC	800.22	5.00	79.16	799.91	-10.64	2.05	10.73	2.00
Drop, 2°/100'	3380.25	5.00	79.16	3370.09	-229.96	44.39	231.77	0.00
Hold Vertical	3630.47	0.00	79.16	3620.00	-240.60	46.44	242.50	2.00
KOP, Build 11°/100'	4877.69	0.00	79.16	4867.22	-240.60	46.44	242.50	0.00
Landing Point, Hold to TD	5705.74	91.09	271.49	5388.00	290.10	60.23	-288.06	11.00
Chaco 2206-161 #223H PBHL/TD	10088.07	91.09	271.49	5305.00	4671.36	174.06	-4668.12	0.00

-1000 0 1000 2000 3000 4000 5000
Vertical Section (ft) Azim = 272.14° Scale = 1:1000(ft) Origin = 0 N/-S, 0 E/-W

<<< S Scale = 1:1500(ft) N >>>



Chaco 2206-161 #223H R0 mdv 5Aug13 Proposal Geodetic Report

(Def Plan)



Report Date: August 06, 2013 - 12:49 PM
Client: WPX Energy
Field: NM Sandoval County NAD27
Structure / Slot: WPX Sec 16-22N-8W (Chaco 2206-161 #223H) / Chaco 2206-161 #223H
Well: Chaco 2206-161 #223H
Borehole: Original Hole
UWI / API#: Unknown / Unknown
Survey Name: Chaco 2206-161 #223H R0 mdv 5Aug13
Survey Date: August 05, 2013
Tort / AMD / DDI / ERD Ratio: 101.094' / 5159.185 ft / 5.990 / 0.958
Coordinate Reference System: NAD27 New Mexico State Plane, Central Zone, US Feet
Location Lat / Long: N 38° 6' 5.28000", W 107° 27' 55.78400"
Location Grid N/E Y/X: N 1870522.013 NUS, E 141075.492 NUS
CRS Grid Convergence Angle: -0.7168°
Grid Scale Factor: 1.00004742

Survey / DLS Computation: Minimum Curvature / Lubinski
Vertical Section Azimuth: 272.135° (True North)
Vertical Section Origin: 0.000 ft, 0.000 ft
TVD Reference Datum: RKB
TVD Reference Elevation: 7208.000 ft above MSL
Seabed / Ground Elevation: 7194.000 ft above MSL
Magnetic Declination: 0.474°
Total Gravity Field Strength: 898.4580 mgn (9.80665 Based)
Total Magnetic Field Strength: 50156.878 nT
Magnetic Dip Angle: 82.954°
Declination Date: August 05, 2013
Magnetic Declination Model: BGGM 2013
North Reference: True North
Grid Convergence Used: 0.0000°
Total Corr Mag North-True North: 9.4741°
Local Coord Referenced To: Well Head

Comments	MD	Incl	Azim True	TVD	VSEC	NS	EW	DLS	Northing	Easting	Latitude	Longitude
	(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft/100ft)	(ft)	(ft)	(N/S ° ' ")	(E/W ° ' ")
Surface	0.00	0.00	79.18	0.00	0.00	0.00	0.00	N/A	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
	100.00	0.00	79.18	100.00	0.00	0.00	0.00	0.00	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
	200.00	0.00	79.18	200.00	0.00	0.00	0.00	0.00	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
	300.00	0.00	79.18	300.00	0.00	0.00	0.00	0.00	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
	400.00	0.00	79.18	400.00	0.00	0.00	0.00	0.00	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
	500.00	0.00	79.18	500.00	0.00	0.00	0.00	0.00	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
KOP, Build 2"/100'	550.00	0.00	79.18	550.00	0.00	0.00	0.00	0.00	1870522.01	141075.40	N 38° 6' 5.28"	W 107° 27' 55.78"
	600.00	1.00	79.18	600.00	-0.43	0.08	0.43	2.00	1870522.09	141075.83	N 38° 6' 5.28"	W 107° 27' 55.78"
	700.00	3.00	79.18	699.93	-3.63	0.74	3.88	2.00	1870522.70	141076.27	N 38° 6' 5.28"	W 107° 27' 55.72"
	800.00	5.00	79.18	799.68	-10.62	2.05	10.71	2.00	1870523.93	141086.13	N 38° 6' 5.30"	W 107° 27' 55.83"
Hold 5" INC	800.22	5.00	79.18	799.91	-10.84	2.05	10.73	2.00	1870523.93	141086.15	N 38° 6' 5.30"	W 107° 27' 55.83"
	900.00	5.00	79.18	899.30	-19.12	3.89	19.27	0.00	1870526.48	141094.72	N 38° 6' 5.32"	W 107° 27' 55.53"
	1000.00	5.00	79.18	998.92	-27.82	5.33	27.84	0.00	1870527.00	141103.31	N 38° 6' 5.33"	W 107° 27' 55.42"
	1100.00	5.00	79.18	1098.54	-38.12	6.67	38.41	0.00	1870528.53	141111.90	N 38° 6' 5.35"	W 107° 27' 55.32"
	1200.00	5.00	79.18	1198.16	-44.63	8.61	44.96	0.00	1870530.06	141120.49	N 38° 6' 5.37"	W 107° 27' 55.22"
	1300.00	5.00	79.18	1287.78	-53.13	10.25	53.55	0.00	1870531.80	141129.07	N 38° 6' 5.40"	W 107° 27' 55.11"
	1400.00	5.00	79.18	1387.40	-61.63	11.89	62.11	0.00	1870533.13	141137.66	N 38° 6' 5.41"	W 107° 27' 55.01"
	1500.00	5.00	79.18	1497.01	-70.13	13.54	70.68	0.00	1870534.66	141146.25	N 38° 6' 5.41"	W 107° 27' 54.90"
	1600.00	5.00	79.18	1596.63	-78.63	15.18	79.25	0.00	1870536.20	141154.84	N 38° 6' 5.43"	W 107° 27' 54.80"
	1700.00	5.00	79.18	1696.25	-87.13	16.82	87.82	0.00	1870537.73	141163.43	N 38° 6' 5.45"	W 107° 27' 54.69"
	1800.00	5.00	79.18	1795.87	-95.63	18.46	96.38	0.00	1870539.26	141172.01	N 38° 6' 5.46"	W 107° 27' 54.59"
	1900.00	5.00	79.18	1895.49	-104.13	20.10	104.95	0.00	1870540.80	141180.60	N 38° 6' 5.46"	W 107° 27' 54.48"
	2000.00	5.00	79.18	1995.11	-112.63	21.74	113.52	0.00	1870542.33	141189.19	N 38° 6' 5.49"	W 107° 27' 54.38"
	2100.00	5.00	79.18	2094.73	-121.13	23.38	122.09	0.00	1870543.87	141197.78	N 38° 6' 5.51"	W 107° 27' 54.28"
	2200.00	5.00	79.18	2194.35	-129.63	25.02	130.65	0.00	1870545.40	141206.37	N 38° 6' 5.53"	W 107° 27' 54.17"
	2300.00	5.00	79.18	2293.98	-138.13	26.66	139.22	0.00	1870546.93	141214.95	N 38° 6' 5.54"	W 107° 27' 54.07"
	2400.00	5.00	79.18	2393.68	-146.63	28.30	147.79	0.00	1870548.47	141223.54	N 38° 6' 5.56"	W 107° 27' 53.96"
	2500.00	5.00	79.18	2493.20	-155.13	29.94	156.36	0.00	1870550.00	141232.13	N 38° 6' 5.58"	W 107° 27' 53.86"
	2600.00	5.00	79.18	2592.82	-163.63	31.58	164.92	0.00	1870551.53	141240.72	N 38° 6' 5.59"	W 107° 27' 53.75"
	2700.00	5.00	79.18	2692.44	-172.13	33.22	173.49	0.00	1870553.07	141249.30	N 38° 6' 5.61"	W 107° 27' 53.65"
	2800.00	5.00	79.18	2792.06	-180.63	34.87	182.06	0.00	1870554.60	141257.89	N 38° 6' 5.62"	W 107° 27' 53.54"
	2900.00	5.00	79.18	2891.68	-189.14	36.51	190.63	0.00	1870556.13	141266.48	N 38° 6' 5.64"	W 107° 27' 53.44"
	3000.00	5.00	79.18	2991.30	-197.64	38.15	199.20	0.00	1870557.67	141275.07	N 38° 6' 5.68"	W 107° 27' 53.34"
	3100.00	5.00	79.18	3090.91	-206.14	39.79	207.76	0.00	1870559.20	141283.66	N 38° 6' 5.67"	W 107° 27' 53.23"
	3200.00	5.00	79.18	3190.53	-214.64	41.43	216.33	0.00	1870560.73	141292.24	N 38° 6' 5.69"	W 107° 27' 53.13"
Drop, 2"/100'	3300.00	5.00	79.18	3290.15	-223.14	43.07	224.90	0.00	1870562.27	141300.83	N 38° 6' 5.71"	W 107° 27' 53.02"
	3380.25	5.00	79.18	3370.09	-229.98	44.39	231.77	0.00	1870563.80	141307.72	N 38° 6' 5.72"	W 107° 27' 52.94"
	3400.00	4.81	79.18	3369.78	-231.57	44.70	233.40	2.00	1870563.79	141309.35	N 38° 6' 5.72"	W 107° 27' 52.92"
	3500.00	2.61	79.18	3489.57	-237.71	45.88	239.58	2.00	1870564.90	141315.55	N 38° 6' 5.73"	W 107° 27' 52.84"
	3600.00	0.81	79.18	3589.53	-240.44	46.41	242.34	2.00	1870565.39	141318.32	N 38° 6' 5.74"	W 107° 27' 52.81"
Hold Vertical	3630.47	0.00	79.18	3620.00	-240.80	46.44	242.50	2.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	3700.00	0.00	79.18	3699.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	3800.00	0.00	79.18	3798.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	3900.00	0.00	79.18	3898.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4000.00	0.00	79.18	3998.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4100.00	0.00	79.18	4098.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4200.00	0.00	79.18	4198.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4300.00	0.00	79.18	4298.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4400.00	0.00	79.18	4398.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4500.00	0.00	79.18	4498.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4600.00	0.00	79.18	4598.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4700.00	0.00	79.18	4698.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4800.00	0.00	79.18	4798.53	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
KOP, Build 11"/100'	4877.89	0.00	79.18	4867.22	-240.80	46.44	242.50	0.00	1870565.42	141318.48	N 38° 6' 5.74"	W 107° 27' 52.81"
	4900.00	2.45	271.49	4889.52	-240.12	46.45	242.02	11.00	1870565.44	141318.00	N 38° 6' 5.74"	W 107° 27' 52.81"
	5000.00	13.45	271.49	4988.41	-226.31	48.81	228.21	11.00	1870565.97	141304.19	N 38° 6' 5.74"	W 107° 27' 52.98"
	5100.00	24.45	271.49	5087.30	-193.88	47.65	195.79	11.00	1870567.22	141271.78	N 38° 6' 5.75"	W 107° 27' 53.38"
	5200.00	35.45	271.49	5186.19	-144.03	48.95	145.95	11.00	1870569.13	141221.96	N 38° 6' 5.76"	W 107° 27' 53.98"
	5300.00	46.45	271.49	5284.78	-76.59	50.65	80.53	11.00	1870571.05	141158.57	N 38° 6' 5.78"	W 107° 27' 54.78"
	5400.00	57.45	271.49	5308.29	0.04	52.69	1.93	11.00	1870574.68	141077.99	N 38° 6' 5.80"	W 107° 27' 55.74"
	5500.00	68.45	271.49	5351.89	68.96	55.00	-88.97	11.00	1870578.10	140989.12	N 38° 6' 5.82"	W 107° 27' 56.82"
	5600.00	79.45	271.49	5379.29	184.91	57.50	-182.89	11.00	1870581.80	140893.23	N 38° 6' 5.85"	W 107° 27' 57.99"
	5700.00	90.45	271.49	5388.07	284.36	60.08	-282.32	11.00	1870585.62	140793.84	N 38° 6' 5.87"	W 107° 27' 59.21"
Landing Point, Hold to TD	5705.74	91.09	271.49	5388.00	290.10	60.23	-288.06	11.00	1870585.64	140788.11	N 38° 6' 5.88"	W 107° 27' 59.28"
	5800.00	91.09	271.49	5388.21	384.34	62.88	-382.27	0.00	1870589.47	140693.93	N 38° 6' 5.90"	W 107° 28' 0.42"
	5900.00	91.09	271.49	5384.32	484.31	65.27	-482.22	0.00	1870593.32	140594.02	N 38° 6' 5.93"	W 107° 28' 1.64"
	6000.00	91.09	271.49	5382.42	584.29	67.87	-582.17	0.00	1870597.17	140494.11	N 38° 6' 5.95"	W 107° 28' 2.86"
	6100.00	91.09	271.49	5380.53	684.27	70.47	-682.11	0.00	1870601.02	140394.19	N 38° 6' 5.98"	W 107° 28' 4.08"
	6200.00	91.09	271.49	5378.64	784.24	73.07	-782.06	0.00	1870604.86	140294.28	N 38° 6' 6.00"	W 107° 28' 5.30"
	6300.00	91.09	271.49	5376.74	884.22	75.67	-882.01	0.00	1870608.71	140		

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 ° ° °)
	7100.00	91.09	271.49	5361.59	1684.02	98.45	-1681.80	0.00	1870839.49	139395.07	N 36 8 6.23	W 107 28 16.28
	7200.00	91.09	271.49	5359.70	1784.00	99.04	-1781.54	0.00	1870843.34	139295.16	N 36 8 6.28	W 107 28 17.48
	7300.00	91.09	271.49	5357.80	1883.97	101.84	-1881.49	0.00	1870847.19	139193.24	N 36 8 6.28	W 107 28 18.70
	7400.00	91.09	271.49	5355.91	1983.95	104.24	-1981.44	0.00	1870851.04	139093.33	N 36 8 6.31	W 107 28 19.92
	7500.00	91.09	271.49	5354.02	2083.93	106.84	-2081.39	0.00	1870854.89	138993.42	N 36 8 6.34	W 107 28 21.14
	7600.00	91.09	271.49	5352.12	2183.90	109.43	-2181.34	0.00	1870858.73	138893.50	N 36 8 6.38	W 107 28 22.36
	7700.00	91.09	271.49	5350.23	2283.88	112.03	-2281.29	0.00	1870862.58	138793.59	N 36 8 6.39	W 107 28 23.57
	7800.00	91.09	271.49	5348.33	2383.85	114.63	-2381.23	0.00	1870866.43	138693.68	N 36 8 6.41	W 107 28 24.79
	7900.00	91.09	271.49	5346.44	2483.83	117.23	-2481.18	0.00	1870870.28	138593.77	N 36 8 6.44	W 107 28 26.01
	8000.00	91.09	271.49	5344.55	2583.80	119.82	-2581.13	0.00	1870874.13	138493.85	N 36 8 6.46	W 107 28 27.23
	8100.00	91.09	271.49	5342.65	2683.78	122.42	-2681.08	0.00	1870877.97	138393.94	N 36 8 6.49	W 107 28 28.45
	8200.00	91.09	271.49	5340.76	2783.76	125.02	-2781.03	0.00	1870881.82	138293.03	N 36 8 6.51	W 107 28 29.67
	8300.00	91.09	271.49	5338.88	2883.73	127.62	-2880.98	0.00	1870885.67	138193.12	N 36 8 6.54	W 107 28 30.88
	8400.00	91.09	271.49	5336.97	2983.71	130.21	-2980.92	0.00	1870889.52	138093.20	N 36 8 6.57	W 107 28 32.10
	8500.00	91.09	271.49	5335.08	3083.68	132.81	-3080.87	0.00	1870893.37	137993.29	N 36 8 6.59	W 107 28 33.32
	8600.00	91.09	271.49	5333.18	3183.66	135.41	-3180.82	0.00	1870897.21	137893.38	N 36 8 6.62	W 107 28 34.54
	8700.00	91.09	271.49	5331.29	3283.63	138.01	-3280.77	0.00	1870901.06	137793.47	N 36 8 6.64	W 107 28 35.76
	8800.00	91.09	271.49	5329.39	3383.61	140.60	-3380.72	0.00	1870904.91	137693.55	N 36 8 6.67	W 107 28 36.98
	8900.00	91.09	271.49	5327.50	3483.59	143.20	-3480.67	0.00	1870908.76	137593.64	N 36 8 6.69	W 107 28 38.19
	9000.00	91.09	271.49	5325.61	3583.56	145.80	-3580.61	0.00	1870912.61	137493.73	N 36 8 6.72	W 107 28 39.41
	9100.00	91.09	271.49	5323.71	3683.54	148.40	-3680.56	0.00	1870916.45	137393.82	N 36 8 6.75	W 107 28 40.63
	9200.00	91.09	271.49	5321.82	3783.51	150.99	-3780.51	0.00	1870920.30	137293.90	N 36 8 6.77	W 107 28 41.85
	9300.00	91.09	271.49	5319.93	3883.49	153.59	-3880.46	0.00	1870924.15	137193.99	N 36 8 6.80	W 107 28 43.07
	9400.00	91.09	271.49	5318.03	3983.46	156.19	-3980.41	0.00	1870928.00	137094.08	N 36 8 6.82	W 107 28 44.29
	9500.00	91.09	271.49	5316.14	4083.44	158.79	-4080.36	0.00	1870931.85	136994.17	N 36 8 6.85	W 107 28 45.51
	9600.00	91.09	271.49	5314.24	4183.41	161.39	-4180.30	0.00	1870935.69	136894.25	N 36 8 6.87	W 107 28 46.72
	9700.00	91.09	271.49	5312.35	4283.39	163.98	-4280.25	0.00	1870939.54	136794.34	N 36 8 6.90	W 107 28 47.94
	9800.00	91.09	271.49	5310.46	4383.37	166.58	-4380.20	0.00	1870943.39	136694.43	N 36 8 6.92	W 107 28 49.16
	9900.00	91.09	271.49	5308.56	4483.34	169.18	-4480.15	0.00	1870947.24	136594.52	N 36 8 6.95	W 107 28 50.38
	10000.00	91.09	271.49	5306.67	4583.32	171.78	-4580.10	0.00	1870951.09	136494.60	N 36 8 6.98	W 107 28 51.60
Chaco 2206-161 #223H PBH/LTD	10088.07	91.09	271.49	5305.00	4671.36	174.08	-4668.12	0.00	1870754.47	136409.61	N 36 8 7.00	W 107 28 52.67

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7055 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 Hole / Chaco 2206-161 #223H R0 mdv 5Aug13
	14.000	10088.068	1/100.000	30.000	30.000	SLB_UNKNOWN	Original Hole / Chaco 2206-161 #223H R0 mdv 5Aug13

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 ° ' '')
	6700.00	90.99	271.16	5369.77	975.25	-930.19	-821.60	0.00	1882142.47	151033.13	N 36 10 1.40	W 107 25 56.11
	6800.00	90.99	271.16	5368.04	1073.23	-928.15	-921.77	0.00	1882145.71	150933.19	N 36 10 1.42	W 107 25 57.33
	6900.00	90.99	271.16	5366.31	1171.21	-926.12	-1021.73	0.00	1882148.96	150833.26	N 36 10 1.44	W 107 25 58.55
	7000.00	90.99	271.16	5364.57	1269.19	-924.09	-1121.70	0.00	1882152.20	150733.32	N 36 10 1.46	W 107 25 59.77
	7100.00	90.99	271.16	5362.84	1367.17	-922.06	-1221.66	0.00	1882155.45	150633.38	N 36 10 1.48	W 107 26 0.99
	7200.00	90.99	271.16	5361.11	1465.15	-920.03	-1321.62	0.00	1882158.69	150533.45	N 36 10 1.50	W 107 26 2.21
	7300.00	90.99	271.16	5359.37	1563.13	-918.00	-1421.59	0.00	1882161.93	150433.51	N 36 10 1.52	W 107 26 3.43
	7400.00	90.99	271.16	5357.64	1661.11	-915.97	-1521.55	0.00	1882165.18	150333.58	N 36 10 1.54	W 107 26 4.65
	7500.00	90.99	271.16	5355.91	1759.09	-913.94	-1621.52	0.00	1882168.42	150233.64	N 36 10 1.56	W 107 26 5.87
	7600.00	90.99	271.16	5354.17	1857.07	-911.91	-1721.48	0.00	1882171.67	150133.70	N 36 10 1.58	W 107 26 7.09
	7700.00	90.99	271.16	5352.44	1955.06	-909.88	-1821.45	0.00	1882174.91	150033.77	N 36 10 1.60	W 107 26 8.31
	7800.00	90.99	271.16	5350.71	2053.04	-907.85	-1921.41	0.00	1882178.15	149933.83	N 36 10 1.62	W 107 26 9.52
	7900.00	90.99	271.16	5348.97	2151.02	-905.82	-2021.38	0.00	1882181.39	149833.90	N 36 10 1.64	W 107 26 10.74
	8000.00	90.99	271.16	5347.24	2249.00	-903.80	-2121.34	0.00	1882184.64	149733.96	N 36 10 1.66	W 107 26 11.96
	8100.00	90.99	271.16	5345.51	2346.98	-901.77	-2221.30	0.00	1882187.88	149634.02	N 36 10 1.68	W 107 26 13.18
	8200.00	90.99	271.16	5343.78	2444.96	-899.74	-2321.27	0.00	1882191.12	149534.09	N 36 10 1.70	W 107 26 14.40
	8300.00	90.99	271.16	5342.04	2542.94	-897.71	-2421.23	0.00	1882194.36	149434.15	N 36 10 1.72	W 107 26 15.62
	8400.00	90.99	271.16	5340.31	2640.93	-895.69	-2521.20	0.00	1882197.61	149334.21	N 36 10 1.74	W 107 26 16.84
	8500.00	90.99	271.16	5338.58	2738.91	-893.66	-2621.16	0.00	1882200.85	149234.28	N 36 10 1.76	W 107 26 18.06
	8600.00	90.99	271.16	5336.85	2836.89	-891.63	-2721.13	0.00	1882204.09	149134.34	N 36 10 1.78	W 107 26 19.28
	8700.00	90.99	271.16	5335.12	2934.87	-889.61	-2821.09	0.00	1882207.33	149034.41	N 36 10 1.80	W 107 26 20.50
	8800.00	90.99	271.16	5333.38	3032.85	-887.58	-2921.06	0.00	1882210.57	148934.47	N 36 10 1.82	W 107 26 21.72
	8900.00	90.99	271.16	5331.65	3130.83	-885.55	-3021.02	0.00	1882213.81	148834.53	N 36 10 1.84	W 107 26 22.93
	9000.00	90.99	271.16	5329.92	3228.82	-883.53	-3120.98	0.00	1882217.05	148734.60	N 36 10 1.86	W 107 26 24.15
	9100.00	90.99	271.16	5328.19	3326.80	-881.50	-3220.95	0.00	1882220.29	148634.66	N 36 10 1.88	W 107 26 25.37
	9200.00	90.99	271.16	5326.46	3424.78	-879.48	-3320.91	0.00	1882223.53	148534.73	N 36 10 1.90	W 107 26 26.59
	9300.00	90.99	271.16	5324.73	3522.76	-877.45	-3420.88	0.00	1882226.77	148434.79	N 36 10 1.92	W 107 26 27.81
	9400.00	90.99	271.16	5322.99	3620.74	-875.42	-3520.84	0.00	1882230.01	148334.85	N 36 10 1.94	W 107 26 29.03
	9500.00	90.99	271.16	5321.26	3718.72	-873.40	-3620.81	0.00	1882233.25	148234.92	N 36 10 1.96	W 107 26 30.25
	9600.00	90.99	271.16	5319.53	3816.71	-871.37	-3720.77	0.00	1882236.49	148134.98	N 36 10 1.98	W 107 26 31.47
	9700.00	90.99	271.16	5317.80	3914.69	-869.35	-3820.74	0.00	1882239.73	148035.04	N 36 10 2.00	W 107 26 32.69
	9800.00	90.99	271.16	5316.07	4012.67	-867.33	-3920.70	0.00	1882242.97	147935.11	N 36 10 2.02	W 107 26 33.91
	9900.00	90.99	271.16	5314.34	4110.65	-865.30	-4020.68	0.00	1882246.21	147835.17	N 36 10 2.04	W 107 26 35.13
	10000.00	90.99	271.16	5312.61	4208.63	-863.28	-4120.63	0.00	1882249.45	147735.24	N 36 10 2.06	W 107 26 36.34
	10100.00	90.99	271.16	5310.88	4306.62	-861.25	-4220.59	0.00	1882252.69	147635.30	N 36 10 2.08	W 107 26 37.56
	10200.00	90.99	271.16	5309.15	4404.60	-859.23	-4320.56	0.00	1882255.92	147535.36	N 36 10 2.10	W 107 26 38.78
	10300.00	90.99	271.16	5307.42	4502.58	-857.21	-4420.52	0.00	1882259.16	147435.43	N 36 10 2.12	W 107 26 40.00
	10400.00	90.99	271.16	5305.69	4600.56	-855.19	-4520.49	0.00	1882262.40	147335.49	N 36 10 2.14	W 107 26 41.22
	10500.00	90.99	271.16	5303.96	4698.55	-853.16	-4620.45	0.00	1882265.64	147235.55	N 36 10 2.16	W 107 26 42.44
Chaco 2206-02H #272H BHL	10555.31	90.99	271.16	5303.00	4752.74	-852.04	-4675.74	0.00	1882267.43	147180.28	N 36 10 2.17	W 107 26 43.11

Survey Type: Def Plan

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

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	14.000	1/100.000	30.000	30.000	SLB_MWD-STD-Depth Only	Original Hole / Chaco 2206-02H #272H R1 mdv 27Jan14
	1	14.000	10555.307	1/100.000	30.000	30.000	SLB_MWD-STD	Original Hole / Chaco 2206-02H #272H R1 mdv 27Jan14