



PHOENIX
TECHNOLOGY SERVICES

Legend Natural Gas iV, LP

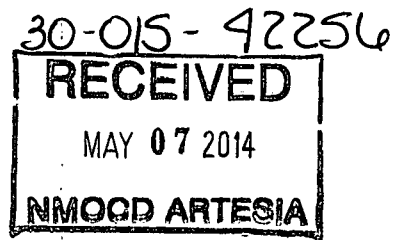
Eddy County, NM (Nad27)

Sec 5 T25S R 28E

Colt State Com 3H

Wellbore #1

Plan: Plan#1 033114



Standard Planning Report

01 April, 2014



PHOENIX
TECHNOLOGY SERVICES



WELL DETAILS

-N/S	+E/W	North	Ground Level	3038.00	Latitude	Longitude
0.00	0.00	424033.80	Easting	567714.40	32° 9' 56.14770 N	104° 6' 52.20745 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	-N/S	+E/W	Dleg	TFace	Vsect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		Begin 2.5°/100' Build
2	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00		Hold 11.23° Inc. 90.0 Azm
3	1543.27	11.23	90.00	1546.39	0.00	43.89	2.50	90.00	10.27		Begin 2.5°/100' Drop
4	6959.16	11.23	90.00	6954.99	0.00	1078.13	0.00	0.00	252.35		Begin Vertical Hold
5	7520.74	0.00	0.00	7412.58	0.00	1133.00	2.00	180.00	265.20		KOP, 12°/100' Build
6	7820.74	0.00	0.00	7512.58	0.00	1133.00	0.00	0.00	265.20		LP, Hold 89.18° Inc
7	8363.90	89.18	179.99	7990.00	-470.63	1133.09	12.00	179.99	722.78	BHL Colt State Com 3H	
8	10121.85	89.18	179.99	8015.15	-2228.39	1133.43	0.00	0.00	2431.79	T1 Colt State Com 3H	Begin 2°/100' Build
9	10181.05	90.36	179.99	8015.39	-2287.59	1133.44	2.00	0.00	2489.34		Hold 90.36° Inc
10	12603.30	90.36	179.99	8000.00	-4709.80	1133.90	0.00	0.00	4944.37	BHL Colt State Com 3H	TD at 12603.30

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Blipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well Colt State Com 3H, Grid North

Latitude: 32° 9' 56.14770 N
Longitude: 104° 6' 52.20745 W

Grid East: 567714.40
Grid North: 424033.80
Scale Factor: 1.000

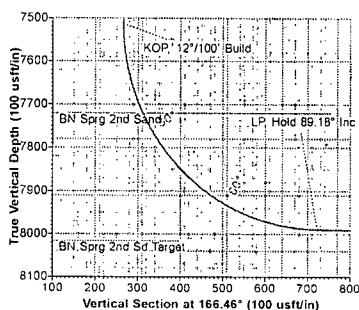
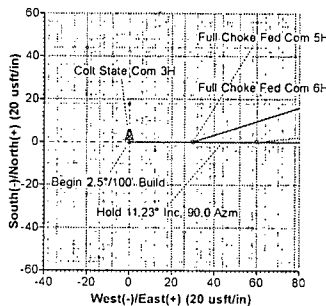
Geomagnetic Model: IGRF2010_14
Sample Date: 31-Mar-14
Magnetic Declination: 7.43°
Dip Angle from Horizontal: 59.97°
Magnetic Field Strength: 48246

To convert a Magnetic Direction to a Grid Direction, Add 7.37°
To convert a Magnetic Direction to a True Direction, Add 7.49° East
To convert a True Direction to a Grid Direction, Subtract 0.12°

DESIGN TARGET DETAILS

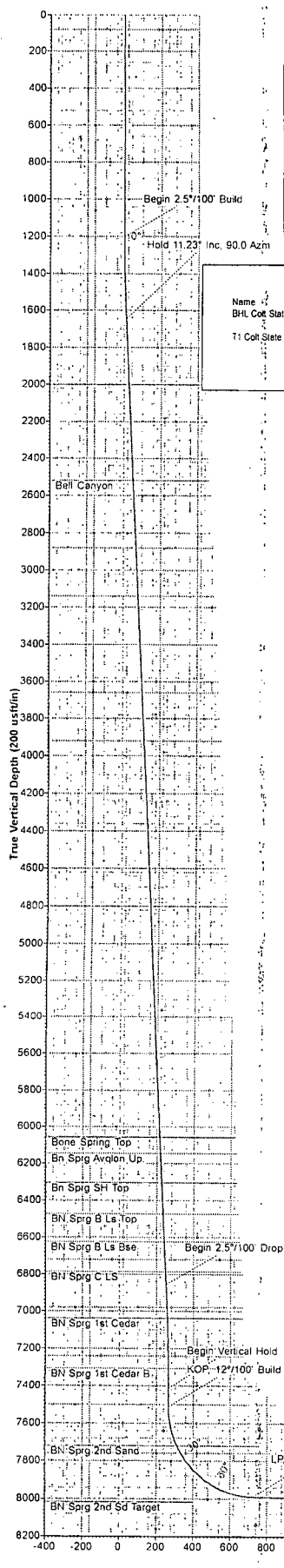
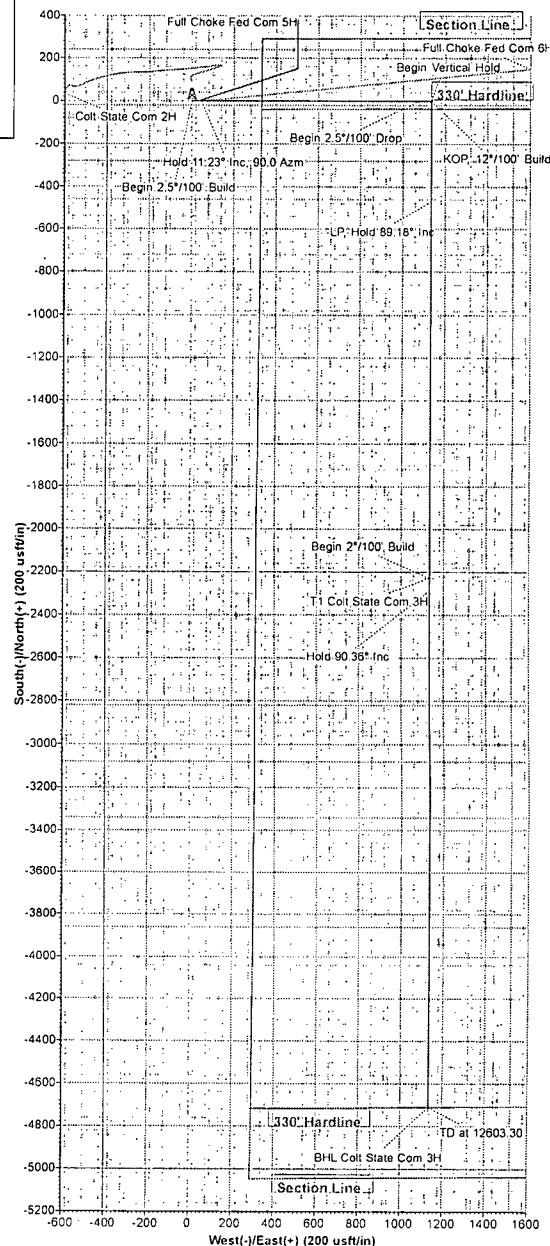
Name	TVD	-N/S	+E/W	North	Easting	Latitude	Longitude	Shape
BHL Colt State Com 3H	8000.00	-4709.80	1133.90	419324.00	568848.30	32° 9' 56.1458 N	104° 6' 39.12893 W	Point
T1 Colt State Com 3H	8015.00	-2228.39	1133.43	421805.41	568847.83	32° 9' 34.07165 N	104° 6' 39.07475 W	Point

- plan hits target center
- plan misses target center by 0.15ust at 10121.84ust MD (8015.15 TVD, -2228.39 N, 1133.43 E)



FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DpDr
2519.00	2538.91	Bell Canyon	0.00	
6057.00	6145.99	Bone Spring Top	0.00	
6145.00	6236.73	Bn Sprg Avqion Up	0.00	
6305.00	6398.84	Bn Sprg SH Top	0.00	
6473.00	6570.12	Bn Sprg B Ls Top	0.00	
6624.00	6724.07	Bn Sprg B Ls Bse	0.00	
6788.00	6889.23	Bn Sprg C Ls	0.00	
7038.00	7145.08	Bn Sprg 1st Cedar	0.00	
7308.00	7415.13	Bn Sprg 1st Cedar B	0.00	
7721.00	7836.42	Bn Sprg 2nd Sand	0.00	



Vertical Section at 166.46° (200 usft/in)



Database:	Compass 5000 GCR DB	Local Co-ordinate Reference:	Well Colt State Com 3H
Company:	Legend Natural Gas IV, LP	TVD Reference:	WELL @ 3061.00usft (TBD)
Project:	Eddy County, NM (Nad27)	MD Reference:	WELL @ 3061.00usft (TBD)
Site:	Sec.5 T25S R 28E	North Reference:	Grid
Well:	Colt State Com 3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan#1 033114		

Project:	Eddy County, NM (Nad27)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site						Sec 5 T25S R 28E					
Site Position:		Northing:		424,033.80 usft		Latitude:		32° 9' 56.14770 N			
From:		Map		Easting:		567,714.40 usft		Longitude:		104° 6' 52.20746 W	
Position Uncertainty:		0.00 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.12 °	

Well:	Colt State Com 3H					
Well Position	+N/-S	0.00 usft	Northing:	424,033.80 usft	Latitude:	32° 9' 56.14770 N
	+E/-W	0.00 usft	Easting:	567,714.40 usft	Longitude:	104° 6' 52.20746 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,036.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	3/31/2014	7.49	59.97	48,246

Design	Plan#1 033114			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	166.46

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,649.27	11.23	90.00	1,646.39	0.00	43.89	2.50	2.50	0.00	90.00	
6,959.16	11.23	90.00	6,854.59	0.00	1,078.13	0.00	0.00	0.00	0.00	
7,520.74	0.00	0.00	7,412.58	0.00	1,133.00	2.00	-2.00	0.00	180.00	
7,620.74	0.00	0.00	7,512.58	0.00	1,133.00	0.00	0.00	0.00	0.00	
8,363.90	89.18	179.99	7,990.00	-470.63	1,133.09	12.00	12.00	0.00	179.99	BHL Colt State Com 3
10,121.85	89.18	179.99	8,015.15	-2,228.39	1,133.43	0.00	0.00	0.00	0.00	T1 Colt State Com 3H
10,181.05	90.36	179.99	8,015.39	-2,287.59	1,133.44	2.00	2.00	0.00	0.00	
12,603.30	90.36	179.99	8,000.00	-4,709.80	1,133.90	0.00	0.00	0.00	0.00	BHL Colt State Com 3



Database: Compass 5000 GCR DB
Company: Legend Natural Gas IV, LP
Project: Eddy County, NM (Nad27)
Site: Sec 5 T25S R 28E
Well: Colt State Com 3H
Wellbore: Wellbore #1
Design: Plan#1 033114

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well Colt State Com 3H
WELL @ 3061.00usft (TBD)
WELL @ 3061.00usft (TBD)
Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin 2.5°/100' Build									
1,300.00	2.50	90.00	1,299.97	0.00	2.18	0.51	2.50	2.50	0.00
1,400.00	5.00	90.00	1,399.75	0.00	8.72	2.04	2.50	2.50	0.00
1,500.00	7.50	90.00	1,499.14	0.00	19.61	4.59	2.50	2.50	0.00
1,600.00	10.00	90.00	1,597.97	0.00	34.82	8.15	2.50	2.50	0.00
1,649.27	11.23	90.00	1,646.39	0.00	43.89	10.27	2.50	2.50	0.00
Hold 11.23° Inc, 90.0° Azm									
1,700.00	11.23	90.00	1,696.16	0.00	53.78	12.59	0.00	0.00	0.00
1,800.00	11.23	90.00	1,794.24	0.00	73.25	17.15	0.00	0.00	0.00
1,900.00	11.23	90.00	1,892.33	0.00	92.73	21.71	0.00	0.00	0.00
2,000.00	11.23	90.00	1,990.41	0.00	112.21	26.26	0.00	0.00	0.00
2,100.00	11.23	90.00	2,088.50	0.00	131.69	30.82	0.00	0.00	0.00
2,200.00	11.23	90.00	2,186.58	0.00	151.16	35.38	0.00	0.00	0.00
2,300.00	11.23	90.00	2,284.67	0.00	170.64	39.94	0.00	0.00	0.00
2,400.00	11.23	90.00	2,382.75	0.00	190.12	44.50	0.00	0.00	0.00
2,500.00	11.23	90.00	2,480.83	0.00	209.60	49.06	0.00	0.00	0.00
2,538.91	11.23	90.00	2,519.00	0.00	217.18	50.83	0.00	0.00	0.00
Bell Canyon									
2,600.00	11.23	90.00	2,578.92	0.00	229.07	53.62	0.00	0.00	0.00
2,700.00	11.23	90.00	2,677.00	0.00	248.55	58.18	0.00	0.00	0.00
2,800.00	11.23	90.00	2,775.09	0.00	268.03	62.74	0.00	0.00	0.00
2,900.00	11.23	90.00	2,873.17	0.00	287.51	67.30	0.00	0.00	0.00
3,000.00	11.23	90.00	2,971.26	0.00	306.98	71.85	0.00	0.00	0.00
3,100.00	11.23	90.00	3,069.34	0.00	326.46	76.41	0.00	0.00	0.00
3,200.00	11.23	90.00	3,167.43	0.00	345.94	80.97	0.00	0.00	0.00
3,300.00	11.23	90.00	3,265.51	0.00	365.42	85.53	0.00	0.00	0.00
3,400.00	11.23	90.00	3,363.60	0.00	384.89	90.09	0.00	0.00	0.00
3,500.00	11.23	90.00	3,461.68	0.00	404.37	94.65	0.00	0.00	0.00
3,600.00	11.23	90.00	3,559.77	0.00	423.85	99.21	0.00	0.00	0.00
3,700.00	11.23	90.00	3,657.85	0.00	443.33	103.77	0.00	0.00	0.00
3,800.00	11.23	90.00	3,755.94	0.00	462.81	108.33	0.00	0.00	0.00
3,900.00	11.23	90.00	3,854.02	0.00	482.28	112.89	0.00	0.00	0.00
4,000.00	11.23	90.00	3,952.11	0.00	501.76	117.44	0.00	0.00	0.00
4,100.00	11.23	90.00	4,050.19	0.00	521.24	122.00	0.00	0.00	0.00
4,200.00	11.23	90.00	4,148.28	0.00	540.72	126.56	0.00	0.00	0.00
4,300.00	11.23	90.00	4,246.36	0.00	560.19	131.12	0.00	0.00	0.00
4,400.00	11.23	90.00	4,344.45	0.00	579.67	135.68	0.00	0.00	0.00
4,500.00	11.23	90.00	4,442.53	0.00	599.15	140.24	0.00	0.00	0.00
4,600.00	11.23	90.00	4,540.62	0.00	618.63	144.80	0.00	0.00	0.00
4,700.00	11.23	90.00	4,638.70	0.00	638.10	149.36	0.00	0.00	0.00



Database: Compass 5000 GCR DB
Company: Legend Natural Gas IV, LP
Project: Eddy County, NM (Nad27)
Site: Sec 5 T25S R 28E
Well: Colt State Com 3H
Wellbore: Wellbore #1
Design: Plan#1 033114

Local Co-ordinate Reference: Well Colt State Com 3H
TVD Reference: WELL @ 3061.00usft (TBD)
MD Reference: WELL @ 3061.00usft (TBD)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	11.23	90.00	4,736.78	0.00	657.58	153.92	0.00	0.00	0.00
4,900.00	11.23	90.00	4,834.87	0.00	677.06	158.48	0.00	0.00	0.00
5,000.00	11.23	90.00	4,932.95	0.00	696.54	163.04	0.00	0.00	0.00
5,100.00	11.23	90.00	5,031.04	0.00	716.01	167.59	0.00	0.00	0.00
5,200.00	11.23	90.00	5,129.12	0.00	735.49	172.15	0.00	0.00	0.00
5,300.00	11.23	90.00	5,227.21	0.00	754.97	176.71	0.00	0.00	0.00
5,400.00	11.23	90.00	5,325.29	0.00	774.45	181.27	0.00	0.00	0.00
5,500.00	11.23	90.00	5,423.38	0.00	793.92	185.83	0.00	0.00	0.00
5,600.00	11.23	90.00	5,521.46	0.00	813.40	190.39	0.00	0.00	0.00
5,700.00	11.23	90.00	5,619.55	0.00	832.88	194.95	0.00	0.00	0.00
5,800.00	11.23	90.00	5,717.63	0.00	852.36	199.51	0.00	0.00	0.00
5,900.00	11.23	90.00	5,815.72	0.00	871.83	204.07	0.00	0.00	0.00
6,000.00	11.23	90.00	5,913.80	0.00	891.31	208.63	0.00	0.00	0.00
6,100.00	11.23	90.00	6,011.89	0.00	910.79	213.18	0.00	0.00	0.00
6,145.99	11.23	90.00	6,057.00	0.00	919.75	215.28	0.00	0.00	0.00
Bone Spring Top									
6,200.00	11.23	90.00	6,109.97	0.00	930.27	217.74	0.00	0.00	0.00
6,236.73	11.23	90.00	6,146.00	0.00	937.42	219.42	0.00	0.00	0.00
Bn Sprg Avqlon Up									
6,300.00	11.23	90.00	6,208.06	0.00	949.75	222.30	0.00	0.00	0.00
6,398.84	11.23	90.00	6,305.00	0.00	969.00	226.81	0.00	0.00	0.00
Bn Sprg SH Top									
6,400.00	11.23	90.00	6,306.14	0.00	969.22	226.86	0.00	0.00	0.00
6,500.00	11.23	90.00	6,404.23	0.00	988.70	231.42	0.00	0.00	0.00
6,570.12	11.23	90.00	6,473.00	0.00	1,002.36	234.62	0.00	0.00	0.00
BN Sprg B Ls Top									
6,600.00	11.23	90.00	6,502.31	0.00	1,008.18	235.98	0.00	0.00	0.00
6,700.00	11.23	90.00	6,600.40	0.00	1,027.66	240.54	0.00	0.00	0.00
6,724.07	11.23	90.00	6,624.00	0.00	1,032.34	241.64	0.00	0.00	0.00
BN Sprg B Ls Bse									
6,800.00	11.23	90.00	6,698.48	0.00	1,047.13	245.10	0.00	0.00	0.00
6,889.23	11.23	90.00	6,786.00	0.00	1,064.51	249.17	0.00	0.00	0.00
BN Sprg C LS									
6,900.00	11.23	90.00	6,796.56	0.00	1,066.61	249.66	0.00	0.00	0.00
6,959.16	11.23	90.00	6,854.59	0.00	1,078.13	252.35	0.00	0.00	0.00
Begin 2.5°/100' Drop									
7,000.00	10.41	90.00	6,894.71	0.00	1,085.80	254.15	2.00	-2.00	0.00
7,100.00	8.41	90.00	6,993.35	0.00	1,102.16	257.98	2.00	-2.00	0.00
7,145.08	7.51	90.00	7,038.00	0.00	1,108.41	259.44	2.00	-2.00	0.00
BN Sprg 1st Cedar									
7,200.00	6.41	90.00	7,092.51	0.00	1,115.06	261.00	2.00	-2.00	0.00
7,300.00	4.41	90.00	7,192.06	0.00	1,124.50	263.21	2.00	-2.00	0.00
7,400.00	2.41	90.00	7,291.88	0.00	1,130.46	264.60	2.00	-2.00	0.00
7,416.13	2.09	90.00	7,308.00	0.00	1,131.09	264.75	2.00	-2.00	0.00
BN Sprg 1st Cedar B									
7,500.00	0.41	90.00	7,391.84	0.00	1,132.92	265.18	2.00	-2.00	0.00
7,520.74	0.00	0.00	7,412.58	0.00	1,133.00	265.20	2.00	-2.00	0.00
Begin Vertical Hold									
7,600.00	0.00	0.00	7,491.84	0.00	1,133.00	265.20	0.00	0.00	0.00
7,620.74	0.00	0.00	7,512.58	0.00	1,133.00	265.20	0.00	0.00	0.00
KOP, 12°/100' Build									
7,700.00	9.51	179.99	7,591.48	-6.56	1,133.00	271.58	12.00	12.00	0.00
7,800.00	21.51	179.99	7,687.66	-33.26	1,133.01	297.53	12.00	12.00	0.00

Database: Compass 5000 GCR DB
 Company: Legend Natural Gas IV, LP
 Project: Eddy County, NM (Nad27)
 Site: Sec 5 T25S R 28E
 Well: Colt State Com 3H
 Wellbore: Wellbore #1
 Design: Plan#1 033114

Local Co-ordinate Reference: Well Colt State Com 3H
 TVD Reference: WELL @ 3061.00usft (TBD)
 MD Reference: WELL @ 3061.00usft (TBD)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,836.42	25.88	179.99	7,721.00	-47.89	1,133.01	311.76	12.00	12.00	0.00
BN Sprg 2nd Sand									
7,900.00	33.51	179.99	7,776.19	-79.37	1,133.02	342.36	12.00	12.00	0.00
8,000.00	45.51	179.99	7,853.20	-142.87	1,133.03	404.11	12.00	12.00	0.00
8,100.00	57.51	179.99	7,915.32	-221.00	1,133.04	480.07	12.00	12.00	0.00
8,200.00	69.51	179.99	7,959.84	-310.34	1,133.06	566.93	12.00	12.00	0.00
8,300.00	81.51	179.99	7,984.81	-406.99	1,133.08	660.89	12.00	12.00	0.00
8,363.90	89.18	179.99	7,990.00	-470.63	1,133.09	722.78	12.00	12.00	0.00
LP, Hold 89.18° Inc									
8,400.00	89.18	179.99	7,990.51	-506.72	1,133.10	757.87	0.00	0.00	0.00
8,500.00	89.18	179.99	7,991.94	-606.71	1,133.12	855.08	0.00	0.00	0.00
8,600.00	89.18	179.99	7,993.37	-706.70	1,133.14	952.30	0.00	0.00	0.00
8,700.00	89.18	179.99	7,994.81	-806.69	1,133.15	1,049.52	0.00	0.00	0.00
8,800.00	89.18	179.99	7,996.24	-906.68	1,133.17	1,146.73	0.00	0.00	0.00
8,900.00	89.18	179.99	7,997.67	-1,006.67	1,133.19	1,243.95	0.00	0.00	0.00
9,000.00	89.18	179.99	7,999.10	-1,106.66	1,133.21	1,341.17	0.00	0.00	0.00
9,100.00	89.18	179.99	8,000.53	-1,206.65	1,133.23	1,438.38	0.00	0.00	0.00
9,200.00	89.18	179.99	8,001.96	-1,306.64	1,133.25	1,535.60	0.00	0.00	0.00
9,300.00	89.18	179.99	8,003.39	-1,406.63	1,133.27	1,632.82	0.00	0.00	0.00
9,400.00	89.18	179.99	8,004.82	-1,506.62	1,133.29	1,730.03	0.00	0.00	0.00
9,500.00	89.18	179.99	8,006.26	-1,606.61	1,133.31	1,827.25	0.00	0.00	0.00
9,600.00	89.18	179.99	8,007.69	-1,706.60	1,133.33	1,924.47	0.00	0.00	0.00
9,700.00	89.18	179.99	8,009.12	-1,806.59	1,133.35	2,021.68	0.00	0.00	0.00
9,800.00	89.18	179.99	8,010.55	-1,906.58	1,133.36	2,118.90	0.00	0.00	0.00
9,900.00	89.18	179.99	8,011.98	-2,006.57	1,133.38	2,216.11	0.00	0.00	0.00
10,000.00	89.18	179.99	8,013.41	-2,106.56	1,133.40	2,313.33	0.00	0.00	0.00
10,100.00	89.18	179.99	8,014.84	-2,206.55	1,133.42	2,410.55	0.00	0.00	0.00
10,121.85	89.18	179.99	8,015.15	-2,228.39	1,133.43	2,431.79	0.00	0.00	0.00
Begin 2°/100' Build									
10,181.05	90.36	179.99	8,015.39	-2,287.59	1,133.44	2,489.34	2.00	2.00	0.00
Hold 90.36° Inc									
10,200.00	90.36	179.99	8,015.27	-2,306.55	1,133.44	2,507.77	0.00	0.00	0.00
10,300.00	90.36	179.99	8,014.63	-2,406.54	1,133.46	2,605.00	0.00	0.00	0.00
10,400.00	90.36	179.99	8,014.00	-2,506.54	1,133.48	2,702.22	0.00	0.00	0.00
10,500.00	90.36	179.99	8,013.36	-2,606.54	1,133.50	2,799.44	0.00	0.00	0.00
10,600.00	90.36	179.99	8,012.73	-2,706.54	1,133.52	2,896.67	0.00	0.00	0.00
10,700.00	90.36	179.99	8,012.09	-2,806.54	1,133.54	2,993.89	0.00	0.00	0.00
10,800.00	90.36	179.99	8,011.46	-2,906.53	1,133.56	3,091.12	0.00	0.00	0.00
10,900.00	90.36	179.99	8,010.82	-3,006.53	1,133.57	3,188.34	0.00	0.00	0.00
11,000.00	90.36	179.99	8,010.19	-3,106.53	1,133.59	3,285.57	0.00	0.00	0.00
11,100.00	90.36	179.99	8,009.55	-3,206.53	1,133.61	3,382.79	0.00	0.00	0.00
11,200.00	90.36	179.99	8,008.92	-3,306.53	1,133.63	3,480.02	0.00	0.00	0.00
11,300.00	90.36	179.99	8,008.28	-3,406.52	1,133.65	3,577.24	0.00	0.00	0.00
11,400.00	90.36	179.99	8,007.65	-3,506.52	1,133.67	3,674.47	0.00	0.00	0.00
11,500.00	90.36	179.99	8,007.01	-3,606.52	1,133.69	3,771.69	0.00	0.00	0.00
11,600.00	90.36	179.99	8,006.37	-3,706.52	1,133.71	3,868.91	0.00	0.00	0.00
11,700.00	90.36	179.99	8,005.74	-3,806.51	1,133.73	3,966.14	0.00	0.00	0.00
11,800.00	90.36	179.99	8,005.10	-3,906.51	1,133.75	4,063.36	0.00	0.00	0.00
11,900.00	90.36	179.99	8,004.47	-4,006.51	1,133.77	4,160.59	0.00	0.00	0.00
12,000.00	90.36	179.99	8,003.83	-4,106.51	1,133.78	4,257.81	0.00	0.00	0.00
12,100.00	90.36	179.99	8,003.20	-4,206.51	1,133.80	4,355.04	0.00	0.00	0.00
12,200.00	90.36	179.99	8,002.56	-4,306.50	1,133.82	4,452.26	0.00	0.00	0.00
12,300.00	90.36	179.99	8,001.93	-4,406.50	1,133.84	4,549.49	0.00	0.00	0.00

Database: Compass 5000 GCR DB
 Company: Legend Natural Gas IV, LP
 Project: Eddy County, NM (Nad27)
 Site: Sec 5 T25S R 28E
 Well: Colt State Com 3H
 Wellbore: Wellbore #1
 Design: Plan#1 033114

Local Co-ordinate Reference: Well Colt State Com 3H
 TVD Reference: WELL @ 3061.00usft (TBD)
 MD Reference: WELL @ 3061.00usft (TBD)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,400.00	90.36	179.99	8,001.29	-4,506.50	1,133.86	4,646.71	0.00	0.00	0.00
12,500.00	90.36	179.99	8,000.66	-4,606.50	1,133.88	4,743.94	0.00	0.00	0.00
12,600.00	90.36	179.99	8,000.02	-4,706.50	1,133.90	4,841.16	0.00	0.00	0.00
12,603.30	90.36	179.99	8,000.00	-4,709.80	1,133.90	4,844.37	0.00	0.00	0.00

TD at 12603.30

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
BHL Colt State Com 3H	0.00	0.00	8,000.00	-4,709.80	1,133.90	419,324.00	568,848.30	32° 9' 9.51458 N	104° 6' 39.12893 W
- plan hits target center									
- Point									
T1 Colt State Com 3H	0.00	0.00	8,015.00	-2,228.39	1,133.43	421,805.41	568,847.83	32° 9' 34.07165 N	104° 6' 39.07475 W
- plan misses target center by 0.15usft at 10121.84usft MD (8015.15 TVD, -2228.39 N, 1133.43 E)									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,538.91	2,519.00	Bell Canyon		0.00	
6,145.99	6,057.00	Bone Spring Top		0.00	
6,236.73	6,146.00	Bn Sprg Avqlon Up.		0.00	
6,398.84	6,305.00	Bn Sprg SH Top		0.00	
6,570.12	6,473.00	BN Sprg B Ls Top		0.00	
6,724.07	6,624.00	BN Sprg B Ls Bse		0.00	
6,889.23	6,786.00	BN Sprg C LS		0.00	
7,145.08	7,038.00	BN Sprg 1st Cedar		0.00	
7,416.13	7,308.00	BN Sprg 1st Cedar B		0.00	
7,836.42	7,721.00	BN Sprg 2nd Sand		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,200.00	1,200.00	0.00	0.00	Begin 2.5°/100' Build
1,649.27	1,646.39	0.00	43.89	Hold 11.23° Inc, 90.0 Azm
6,959.16	6,854.59	0.00	1,078.13	Begin 2.5°/100' Drop
7,520.74	7,412.58	0.00	1,133.00	Begin Vertical Hold
7,620.74	7,512.58	0.00	1,133.00	KOP, 12°/100' Build
8,363.90	7,990.00	-470.63	1,133.09	LP, Hold 89.18° Inc
10,121.85	8,015.15	-2,228.39	1,133.43	Begin 2°/100' Build
10,181.05	8,015.39	-2,287.59	1,133.44	Hold 90.36° Inc
12,603.30	8,000.00	-4,709.80	1,133.90	TD at 12603.30