

PATRIOT DRILLING, LLC

OPERATOR: Nadel & Gussman HEYCO. LLC.
WELL/LEASE: Wabash 20 Com # 1-H
COUNTY: Eddy Co., New Mexico
Sec. 20, T18S, R26E

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
348	1/2	1,811	2 3/4
605	3/4	1,976	1 3/4
837	1	2,008	2 3/4
1,304	1 3/4		

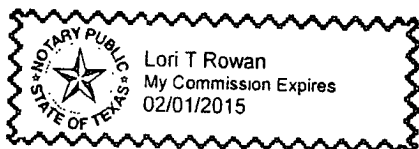
Patriot Drilling, LLC

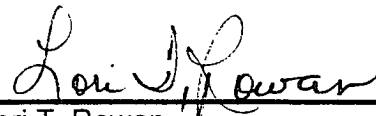


M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 9th day of January 2012, by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015





Lori T. Rowan
Notary Public for Ector Co., Texas

Nadel & Gussman HEYCO, LLC

Eddy County, New Mexico

Sec 20, T18-S, R26E

Wabash 20 Com #1H

Wellbore #1

Survey: MWD

DDC Survey Report

04 January, 2012



DDC Survey Report



Company: Nadel & Gussman HEYCO, LLC
Project: Eddy County, New Mexico
Site: Sec 20, T18-S, R26E
Well: Wabash 20 Com #1H
Wellbore: Wellbore #1
Design: Wellbore #1

Local Co-ordinate Reference: Well Wabash 20 Com #1H
TVD Reference: WELL @ 3398.0usft (Patriot #1)
MD Reference: WELL @ 3398.0usft (Patriot #1)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)
5,039.0	89.80	270.30	2,509.3	22.0	-2,727.4	2,727.3	0.32	-0.32	0.00
5,070.0	90.30	269.90	2,509.2	22.1	-2,758.4	2,758.3	2.07	1.61	-1.29
5,102.0	90.60	269.70	2,509.0	22.0	-2,790.4	2,790.3	1.13	0.94	-0.63
5,133.0	89.90	269.50	2,508.8	21.7	-2,821.4	2,821.3	2.35	-2.26	-0.65
5,162.0	89.60	269.60	2,509.0	21.5	-2,850.4	2,850.3	1.09	-1.03	0.34
5,194.0	91.10	269.20	2,508.8	21.2	-2,882.4	2,882.3	4.85	4.69	-1.25
5,225.0	91.60	269.10	2,508.0	20.7	-2,913.4	2,913.2	1.64	1.61	-0.32
5,255.0	91.60	269.00	2,507.2	20.2	-2,943.4	2,943.2	0.33	0.00	-0.33
5,287.0	91.30	268.90	2,506.4	19.6	-2,975.4	2,975.2	0.99	-0.94	-0.31
5,318.0	91.10	268.80	2,505.7	19.0	-3,006.4	3,006.2	0.72	-0.65	-0.32
5,348.0	91.20	268.90	2,505.1	18.4	-3,036.4	3,036.2	0.47	0.33	0.33
5,380.0	91.30	268.90	2,504.4	17.8	-3,068.4	3,068.2	0.31	0.31	0.00
5,411.0	91.30	269.10	2,503.7	17.3	-3,099.3	3,099.2	0.64	0.00	0.65
5,441.0	91.30	268.90	2,503.1	16.7	-3,129.3	3,129.2	0.67	0.00	-0.67
5,473.0	91.00	269.10	2,502.4	16.2	-3,161.3	3,161.2	1.13	-0.94	0.63
5,504.0	91.20	269.10	2,501.8	15.7	-3,192.3	3,192.2	0.65	0.65	0.00
5,534.0	91.30	269.20	2,501.2	15.2	-3,222.3	3,222.1	0.47	0.33	0.33
5,566.0	91.20	269.50	2,500.5	14.9	-3,254.3	3,254.1	0.99	-0.31	0.94
5,596.0	91.20	269.20	2,499.8	14.5	-3,284.3	3,284.1	1.00	0.00	-1.00
5,627.0	90.90	269.40	2,499.3	14.2	-3,315.3	3,315.1	1.16	-0.97	0.65
5,658.0	90.60	269.40	2,498.9	13.8	-3,346.3	3,346.1	0.97	-0.97	0.00
5,689.0	90.50	269.40	2,498.6	13.5	-3,377.3	3,377.1	0.32	-0.32	0.00
5,721.0	91.30	269.00	2,498.1	13.1	-3,409.3	3,409.1	2.80	2.50	-1.25
5,752.0	91.40	269.00	2,497.3	12.5	-3,440.2	3,440.1	0.32	0.32	0.00
5,783.0	91.20	268.80	2,496.6	11.9	-3,471.2	3,471.1	0.91	-0.65	-0.65
5,814.0	91.10	268.80	2,496.0	11.3	-3,502.2	3,502.1	0.32	-0.32	0.00
5,846.0	91.00	268.80	2,495.4	10.6	-3,534.2	3,534.1	0.31	-0.31	0.00
5,876.0	91.20	268.50	2,494.8	9.9	-3,564.2	3,564.1	1.20	0.67	-1.00
5,907.0	90.60	268.40	2,494.4	9.1	-3,595.2	3,595.1	1.96	-1.94	-0.32
5,939.0	90.20	268.40	2,494.1	8.2	-3,627.2	3,627.0	1.25	-1.25	0.00
5,970.0	90.00	268.50	2,494.1	7.3	-3,658.2	3,658.0	0.72	-0.65	0.32
6,002.0	89.60	268.70	2,494.2	6.5	-3,690.1	3,690.0	1.40	-1.25	0.63
6,033.0	89.20	268.60	2,494.5	5.8	-3,721.1	3,721.0	1.33	-1.29	-0.32
6,065.0	89.40	268.90	2,494.9	5.1	-3,753.1	3,753.0	1.13	0.63	0.94
6,097.0	89.20	269.00	2,495.3	4.5	-3,785.1	3,785.0	0.70	-0.63	0.31
6,128.0	89.50	268.60	2,495.7	3.9	-3,816.1	3,816.0	1.61	0.97	-1.29
6,159.0	89.60	268.70	2,495.9	3.2	-3,847.1	3,847.0	0.46	0.32	0.32
6,191.0	91.10	269.20	2,495.7	2.6	-3,879.1	3,879.0	4.94	4.69	1.56
6,222.0	91.40	269.60	2,495.0	2.2	-3,910.1	3,910.0	1.61	0.97	1.29
6,254.0	91.30	269.50	2,494.3	2.0	-3,942.1	3,942.0	0.44	-0.31	-0.31
6,286.0	90.80	269.30	2,493.7	1.7	-3,974.1	3,974.0	1.68	-1.56	-0.63
6,317.0	90.90	269.30	2,493.2	1.3	-4,005.1	4,005.0	0.32	0.32	0.00
6,349.0	91.30	269.60	2,492.6	1.0	-4,037.1	4,037.0	1.56	1.25	0.94
6,380.0	91.40	269.60	2,491.9	0.8	-4,068.0	4,068.0	0.32	0.32	0.00

DDC
Survey Report



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6,412.0	91.00	269.50	2,491.2	0.5	-4,100.0	4,100.0	1.29	-1.25	-0.31
6,443.0	90.80	269.60	2,490.7	0.3	-4,131.0	4,130.9	0.72	-0.65	0.32
6,475.0	90.80	269.80	2,490.3	0.1	-4,163.0	4,162.9	0.62	0.00	0.63
6,507.0	90.70	269.50	2,489.9	-0.1	-4,195.0	4,194.9	0.99	-0.31	-0.94
6,538.0	90.30	269.50	2,489.6	-0.4	-4,226.0	4,225.9	1.29	-1.29	0.00
6,570.0	90.40	269.30	2,489.4	-0.7	-4,258.0	4,257.9	0.70	0.31	-0.63
6,602.0	89.80	269.40	2,489.3	-1.1	-4,290.0	4,289.9	1.90	-1.88	0.31
6,632.0	89.60	269.20	2,489.5	-1.4	-4,320.0	4,319.9	0.94	-0.67	-0.67
6,663.0	89.60	269.00	2,489.7	-1.9	-4,351.0	4,350.9	0.65	0.00	-0.65
6,695.0	89.60	269.10	2,489.9	-2.5	-4,383.0	4,382.9	0.31	0.00	0.31
6,726.0	89.70	268.90	2,490.1	-3.0	-4,414.0	4,413.9	0.72	0.32	-0.65
6,758.0	89.40	268.80	2,490.4	-3.6	-4,446.0	4,445.9	0.99	-0.94	-0.31
6,790.0	88.80	268.40	2,490.9	-4.4	-4,478.0	4,477.9	2.25	-1.88	-1.25
6,820.0	88.80	268.20	2,491.5	-5.3	-4,508.0	4,507.9	0.67	0.00	-0.67
TD @ 6875' MD / 2493' TVD									
6,875.0	88.80	268.20	2,492.7	-7.0	-4,562.9	4,562.9	0.00	0.00	0.00

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,930.0	1,929.7	27.0	-5.7	Tie In
6,875.0	2,492.7	-7.0	-4,562.9	TD @ 6875' MD / 2493' TVD

Checked By: _____ Approved By: _____ Date: _____