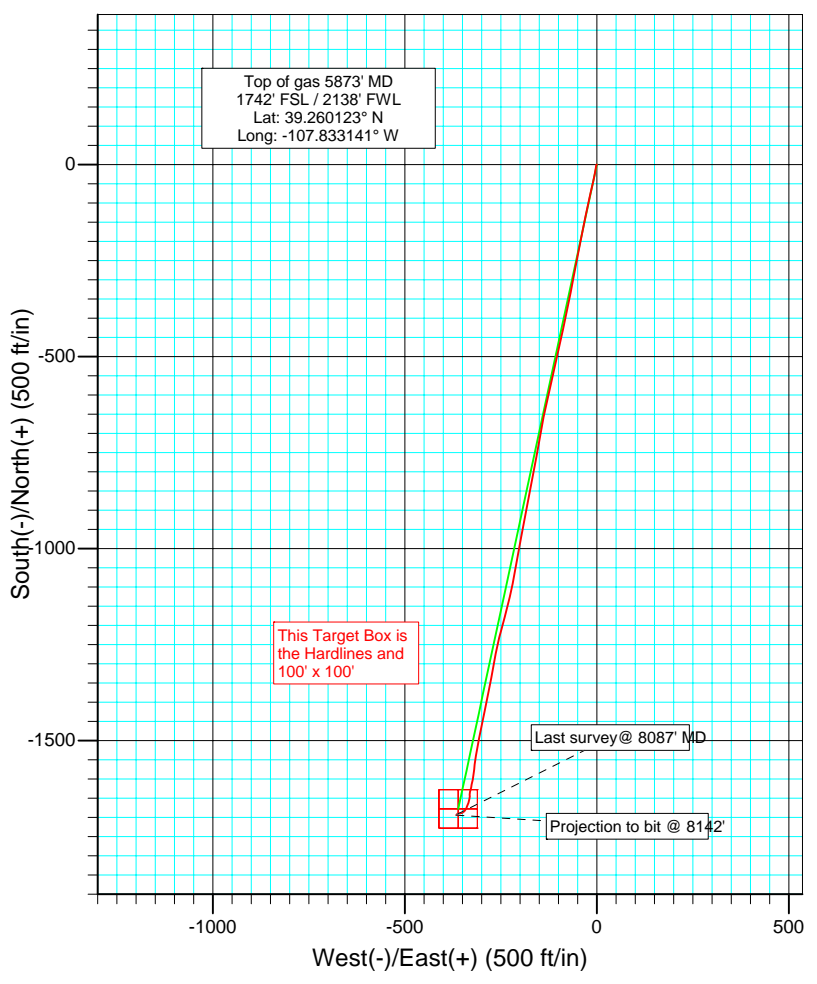
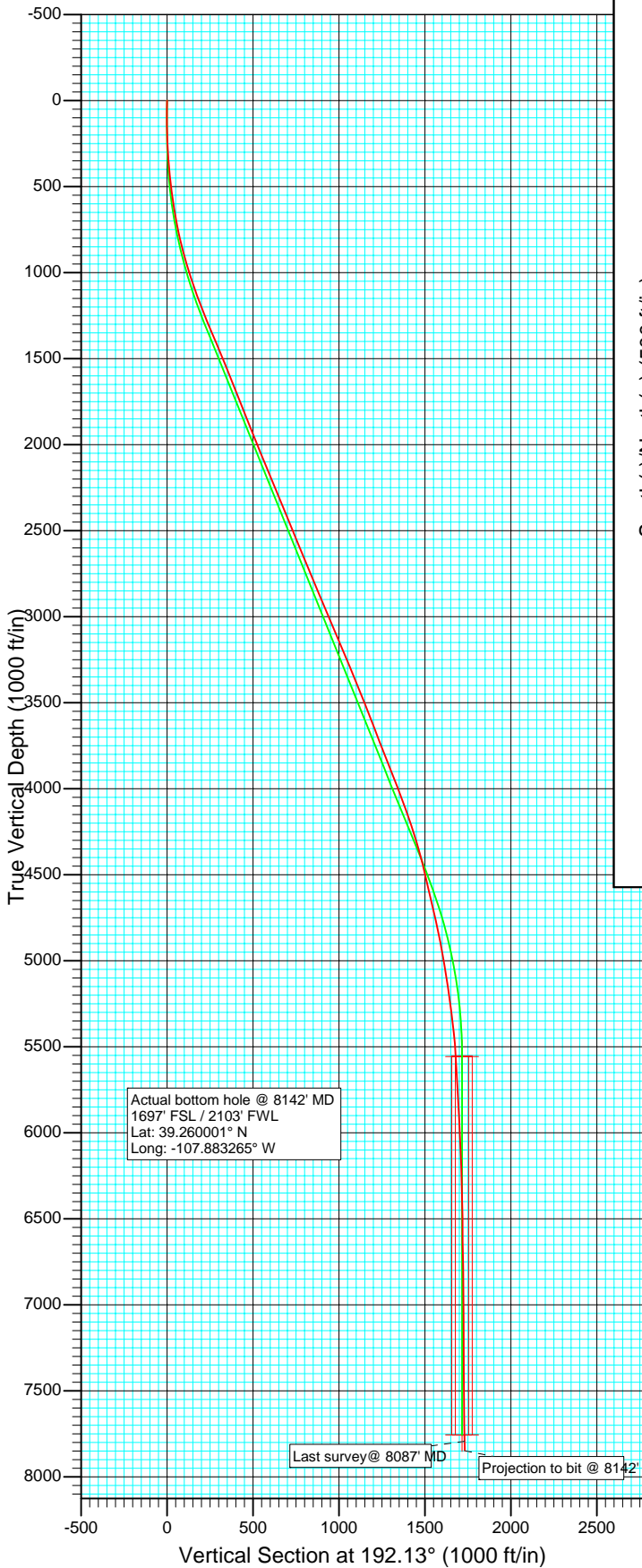




Project: Brush Creek  
 Site: SENW Sec 24  
 Well: Nichols 24-11  
 Wellbore: DD  
 Design: Final Survey



Azimuths to True North  
 Magnetic North: 10.75°

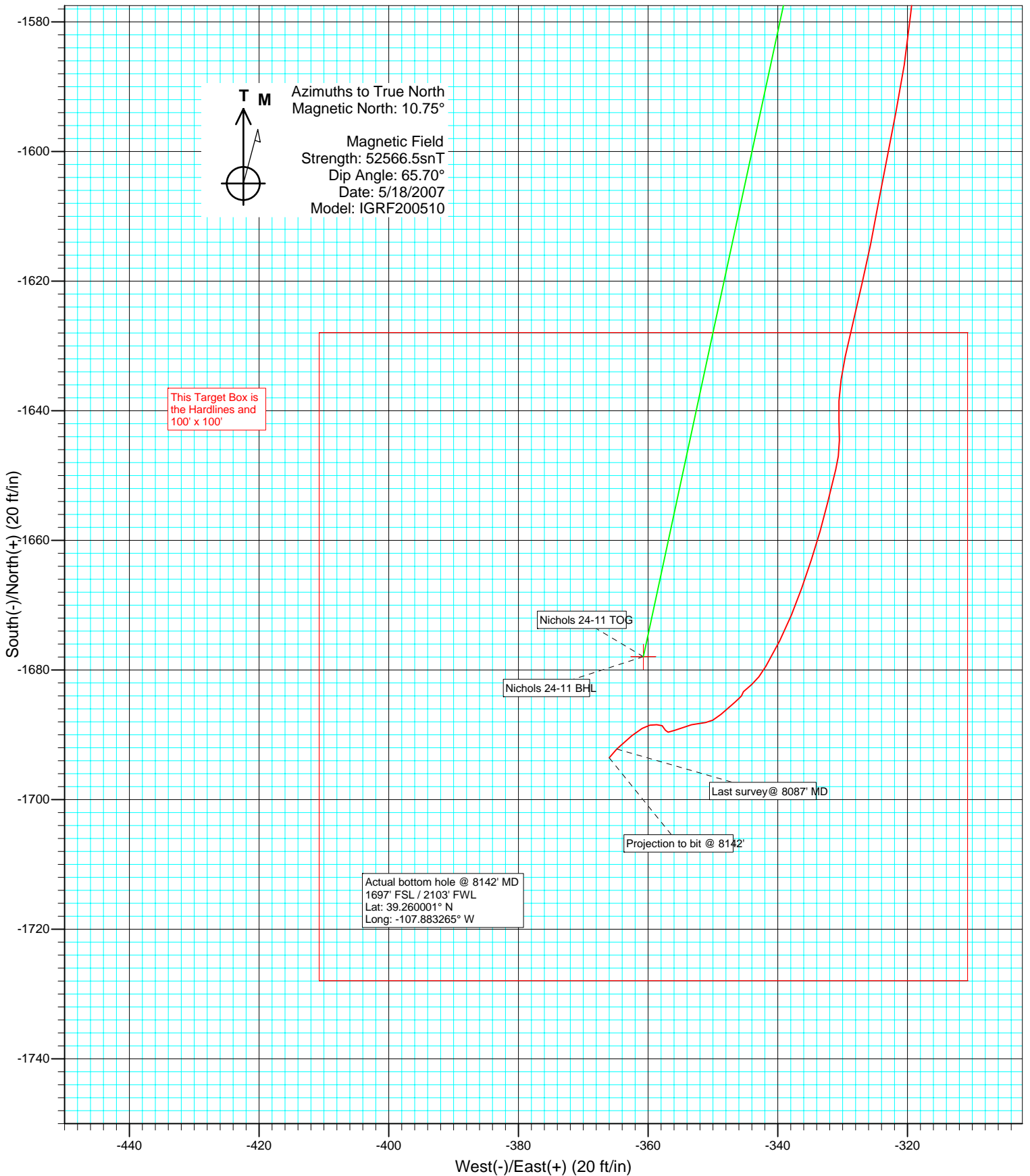
Magnetic Field  
 Strength: 52566.5snT  
 Dip Angle: 65.70°  
 Date: 5/18/2007  
 Model: IGRF200510

DESIGN DETAILS: DD  
 75219; JS  
 Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)

Target	Azimuth	Origin	Type	N/S	E/W	TVD
Nichols 24-11 BHL	192.13		Slot	0.0	0.0	0.0



Project: Brush Creek  
Site: SENW Sec 24  
Well: Nichols 24-11  
Wellbore: DD  
Design: DD



# Cathedral Energy Services

## Survey Report

<b>Company:</b> Laramie Energy, LLC (Now Plains Exp.)	<b>Local Co-ordinate Reference:</b> Well Nichols 24-11
<b>Project:</b> Brush Creek	<b>TVD Reference:</b> Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)
<b>Site:</b> SENW Sec 24	<b>MD Reference:</b> Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)
<b>Well:</b> Nichols 24-11	<b>North Reference:</b> True
<b>Wellbore:</b> DD	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> DD	<b>Database:</b> EDM 2003.16 US Multi User Db

<b>Project</b> Brush Creek		
<b>Map System:</b> US State Plane 1983	<b>System Datum:</b> Mean Sea Level	
<b>Geo Datum:</b> North American Datum 1983		
<b>Map Zone:</b> Colorado Central Zone		

<b>Site</b> SENW Sec 24				
<b>Site Position:</b>	<b>Northing:</b> 1,529,792.15 ft	<b>Latitude:</b> 39.264752		
<b>From:</b> Lat/Long	<b>Easting:</b> 2,339,874.11 ft	<b>Longitude:</b> -107.831805		
<b>Position Uncertainty:</b> 0.0 ft	<b>Slot Radius:</b> "	<b>Grid Convergence:</b> -1.47 °		

<b>Well</b> Nichols 24-11				
<b>Well Position</b>	<b>+N/-S</b> 0.0 ft	<b>Northing:</b> 1,529,756.58 ft	<b>Latitude:</b> 39.264651	
	<b>+E/-W</b> 0.0 ft	<b>Easting:</b> 2,339,825.90 ft	<b>Longitude:</b> -107.831972	
<b>Position Uncertainty</b>	0.0 ft	<b>Wellhead Elevation:</b> ft	<b>Ground Level:</b> 7,139.0 ft	

<b>Wellbore</b> DD					
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	5/18/2007	10.75	65.70	52,567

<b>Design</b> DD				
<b>Audit Notes:</b>				
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b>		
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	192.13

<b>Survey Program</b>		<b>Date</b> 6/21/2007
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>
94.0	8,142.0	Survey #1 (DD)
		<b>Tool Name</b> Geolink MWD
		<b>Description</b> Geolink MWD

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
94.0	0.60	332.00	94.0	0.4	-0.2	-0.4	0.64	0.64	0.64	
187.0	1.50	194.00	187.0	-0.3	-0.8	0.5	2.14	2.14	0.97	
280.0	3.00	191.00	279.9	-3.9	-1.5	4.1	1.62	1.62	1.61	
372.0	4.90	189.00	371.7	-10.1	-2.6	10.4	2.07	2.07	2.07	
464.0	6.10	190.30	463.3	-18.8	-4.1	19.3	1.31	1.31	1.30	
557.0	8.00	192.30	555.6	-30.0	-6.3	30.7	2.06	2.06	2.04	
649.0	9.40	192.90	646.5	-43.6	-9.4	44.6	1.52	1.52	1.52	
741.0	11.30	191.50	737.0	-59.7	-12.9	61.1	2.08	2.08	2.07	
833.0	13.80	192.40	826.8	-79.3	-17.0	81.1	2.73	2.73	2.72	
927.0	15.60	192.40	917.7	-102.6	-22.1	105.0	1.91	1.91	1.91	
1,023.0	17.60	192.70	1,009.7	-129.4	-28.1	132.4	2.09	2.09	2.08	
1,118.0	19.40	191.20	1,099.8	-158.9	-34.3	162.5	1.96	1.96	1.89	

# Cathedral Energy Services

## Survey Report

<b>Company:</b>	Laramie Energy, LLC (Now Plains Exp.)	<b>Local Co-ordinate Reference:</b>	Well Nichols 24-11
<b>Project:</b>	Brush Creek	<b>TVD Reference:</b>	Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)
<b>Site:</b>	SENW Sec 24	<b>MD Reference:</b>	Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)
<b>Well:</b>	Nichols 24-11	<b>North Reference:</b>	True
<b>Wellbore:</b>	DD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	DD	<b>Database:</b>	EDM 2003.16 US Multi User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
1,214.0	21.00	191.20	1,189.9	-191.4	-40.8	195.7	1.67	1.67	1.67	
1,310.0	22.10	190.50	1,279.2	-226.0	-47.4	230.9	1.18	1.18	1.15	
1,386.0	23.30	191.10	1,349.3	-254.8	-52.9	260.2	1.61	1.61	1.58	
1,468.0	23.20	190.70	1,424.6	-286.6	-59.0	292.6	0.23	0.23	-0.12	
1,563.0	22.60	190.70	1,512.1	-322.9	-65.9	329.5	0.63	0.63	-0.63	
1,659.0	21.50	190.70	1,601.1	-358.3	-72.6	365.6	1.15	1.15	-1.15	
1,754.0	21.50	192.30	1,689.5	-392.4	-79.5	400.4	0.62	0.62	0.00	
1,850.0	21.50	192.80	1,778.8	-426.8	-87.1	435.6	0.19	0.19	0.00	
1,946.0	22.10	193.70	1,868.0	-461.5	-95.3	471.2	0.72	0.72	0.62	
2,041.0	22.00	191.70	1,956.0	-496.3	-103.2	506.9	0.80	0.80	-0.11	
2,137.0	22.70	191.50	2,044.8	-532.0	-110.5	543.4	0.73	0.73	0.73	
2,233.0	21.90	192.10	2,133.6	-567.7	-117.9	579.8	0.87	0.87	-0.83	
2,328.0	22.30	193.50	2,221.6	-602.5	-125.9	615.5	0.70	0.70	0.42	
2,424.0	22.80	193.00	2,310.3	-638.4	-134.3	652.3	0.56	0.56	0.52	
2,520.0	23.00	189.90	2,398.7	-675.0	-141.7	689.7	1.27	1.27	0.21	
2,615.0	22.10	190.40	2,486.5	-710.8	-148.1	726.1	0.97	0.97	-0.95	
2,711.0	22.30	189.30	2,575.4	-746.6	-154.3	762.3	0.48	0.48	0.21	
2,807.0	22.40	190.80	2,664.1	-782.5	-160.7	798.8	0.60	0.60	0.10	
2,902.0	23.20	191.40	2,751.7	-818.6	-167.8	835.6	0.88	0.88	0.84	
2,998.0	22.40	191.20	2,840.2	-855.1	-175.1	872.8	0.84	0.84	-0.83	
3,094.0	23.30	191.20	2,928.7	-891.7	-182.3	910.1	0.94	0.94	0.94	
3,189.0	22.40	190.70	3,016.2	-927.9	-189.3	947.0	0.97	0.97	-0.95	
3,285.0	23.30	189.80	3,104.7	-964.6	-196.0	984.2	1.01	1.01	0.94	
3,381.0	23.00	189.60	3,193.0	-1,001.8	-202.3	1,021.9	0.32	0.32	-0.31	
3,476.0	22.90	190.90	3,280.4	-1,038.2	-208.9	1,059.0	0.54	0.54	-0.11	
3,572.0	21.90	190.00	3,369.2	-1,074.2	-215.6	1,095.5	1.10	1.10	-1.04	
3,668.0	22.10	193.30	3,458.2	-1,109.4	-222.8	1,131.5	1.30	1.30	0.21	
3,763.0	20.70	193.60	3,546.7	-1,143.1	-230.9	1,166.1	1.48	1.48	-1.47	
3,859.0	21.70	194.40	3,636.2	-1,176.8	-239.3	1,200.8	1.08	1.08	1.04	
3,955.0	21.00	194.60	3,725.6	-1,210.7	-248.0	1,235.7	0.73	0.73	-0.73	
4,050.0	21.10	194.50	3,814.2	-1,243.7	-256.6	1,269.8	0.11	0.11	0.11	
4,146.0	21.70	189.90	3,903.6	-1,277.9	-264.0	1,304.8	1.86	1.86	0.62	
4,242.0	22.20	190.60	3,992.7	-1,313.2	-270.4	1,340.7	0.59	0.59	0.52	
4,337.0	20.20	190.80	4,081.2	-1,347.0	-276.7	1,375.0	2.11	2.11	-2.11	
4,433.0	18.60	191.30	4,171.8	-1,378.3	-282.9	1,406.9	1.68	1.68	-1.67	
4,529.0	17.40	191.70	4,263.1	-1,407.3	-288.8	1,436.6	1.26	1.26	-1.25	
4,624.0	15.80	190.50	4,354.1	-1,434.0	-294.0	1,463.7	1.72	1.72	-1.68	
4,720.0	13.70	191.30	4,446.9	-1,458.0	-298.6	1,488.2	2.20	2.20	-2.19	
4,816.0	12.90	192.90	4,540.4	-1,479.6	-303.2	1,510.2	0.92	0.92	-0.83	
4,912.0	14.10	191.00	4,633.7	-1,501.5	-307.9	1,532.6	1.33	1.33	1.25	
5,007.0	12.40	190.00	4,726.2	-1,522.9	-311.8	1,554.4	1.81	1.81	-1.79	
5,103.0	12.00	189.10	4,820.0	-1,542.9	-315.2	1,574.7	0.46	0.46	-0.42	
5,199.0	11.00	186.10	4,914.1	-1,561.9	-317.8	1,593.7	1.21	1.21	-1.04	
5,294.0	9.70	185.70	5,007.5	-1,578.8	-319.5	1,610.7	1.37	1.37	-1.37	
5,390.0	8.70	191.70	5,102.3	-1,594.0	-321.8	1,626.0	1.44	1.44	-1.04	
5,486.0	8.20	190.00	5,197.3	-1,607.8	-324.5	1,640.1	0.58	0.58	-0.52	
5,581.0	7.20	193.20	5,291.4	-1,620.3	-327.0	1,652.8	1.14	1.14	-1.05	
5,677.0	6.70	192.60	5,386.7	-1,631.6	-329.6	1,664.5	0.53	0.53	-0.52	
5,773.0	5.40	176.80	5,482.2	-1,641.6	-330.6	1,674.4	2.19	2.19	-1.35	
5,873.0	3.30	195.40	5,581.9	-1,649.1	-331.1	1,681.8	2.50	2.50	-2.10	
5,969.0	2.90	192.00	5,677.7	-1,654.1	-332.3	1,687.0	0.46	0.46	-0.42	
6,064.0	2.70	197.40	5,772.6	-1,658.6	-333.5	1,691.6	0.35	0.35	-0.21	
6,160.0	2.80	197.30	5,868.5	-1,663.0	-334.8	1,696.2	0.10	0.10	0.10	

# Cathedral Energy Services

## Survey Report

<b>Company:</b> Laramie Energy, LLC (Now Plains Exp.)	<b>Local Co-ordinate Reference:</b> Well Nichols 24-11
<b>Project:</b> Brush Creek	<b>TVD Reference:</b> Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)
<b>Site:</b> SENW Sec 24	<b>MD Reference:</b> Nichols 24-11 KBE @ 7157.0ft (Grey Wolf 18)
<b>Well:</b> Nichols 24-11	<b>North Reference:</b> True
<b>Wellbore:</b> DD	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> DD	<b>Database:</b> EDM 2003.16 US Multi User Db

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Formations / Comments
6,256.0	2.70	200.20	5,964.4	-1,667.4	-336.3	1,700.8	0.18	0.18	-0.10	
6,351.0	2.60	201.60	6,059.3	-1,671.5	-337.9	1,705.1	0.13	0.13	-0.11	
6,447.0	2.70	207.10	6,155.2	-1,675.5	-339.7	1,709.5	0.28	0.28	0.10	
6,543.0	2.60	209.80	6,251.1	-1,679.4	-341.8	1,713.7	0.17	0.17	-0.10	
6,638.0	1.80	229.40	6,346.0	-1,682.2	-344.0	1,717.0	1.14	1.14	-0.84	
6,734.0	0.20	227.20	6,442.0	-1,683.3	-345.3	1,718.3	1.67	1.67	-1.67	
6,830.0	0.20	184.20	6,538.0	-1,683.6	-345.4	1,718.6	0.15	0.15	0.00	
6,925.0	0.30	218.70	6,633.0	-1,684.0	-345.6	1,719.0	0.19	0.19	0.11	
7,021.0	1.30	226.30	6,729.0	-1,684.9	-346.5	1,720.1	1.05	1.05	1.04	
7,117.0	2.20	230.30	6,825.0	-1,686.9	-348.7	1,722.5	0.95	0.95	0.94	
7,213.0	1.10	266.20	6,920.9	-1,688.1	-351.1	1,724.2	1.52	1.52	-1.15	
7,308.0	1.60	257.50	7,015.9	-1,688.4	-353.3	1,725.0	0.57	0.57	0.53	
7,404.0	1.70	246.60	7,111.9	-1,689.3	-355.9	1,726.4	0.34	0.34	0.10	
7,500.0	0.70	349.10	7,207.8	-1,689.3	-357.3	1,726.7	2.06	2.06	-1.04	
7,595.0	0.50	287.30	7,302.8	-1,688.6	-357.8	1,726.1	0.67	0.67	-0.21	
7,691.0	0.50	273.50	7,398.8	-1,688.4	-358.6	1,726.1	0.13	0.13	0.00	
7,787.0	0.80	262.10	7,494.8	-1,688.5	-359.7	1,726.4	0.34	0.34	0.31	
7,882.0	0.80	233.30	7,589.8	-1,689.0	-360.9	1,727.1	0.42	0.42	0.00	
7,978.0	1.50	235.00	7,685.8	-1,690.1	-362.5	1,728.6	0.73	0.73	0.73	
8,087.0	1.80	223.50	7,794.8	-1,692.2	-364.8	1,731.1	0.41	0.41	0.28	Last survey@ 8087' MD
8,142.0	1.95	217.70	7,849.7	-1,693.5	-366.0	1,732.6	0.44	0.44	0.27	Projection to bit @ 8142'

Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
Nichols 24-11 BHL - hit/miss target - Shape	0.00	0.00	7,757.0	-1,677.9	-360.7	1,528,088.45	2,339,422.23	39.260044	-107.833246	
- actual wellpath misses by 13.8ft at 8048.9ft MD (7756.7 TVD, -1691.4 N, -364.0 E)										
- Rectangle (sides W100.0 H100.0 D0.0)										
Nichols 24-11 TOG - actual wellpath misses by 42.6ft at 5850.5ft MD (5559.4 TVD, -1647.7 N, -330.8 E)	0.00	0.00	5,557.0	-1,677.9	-360.7	1,528,088.45	2,339,422.23	39.260044	-107.833246	
- Point										

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment	
8,087.0	7,794.8	-1,692.2	-364.8	Last survey@ 8087' MD	
8,142.0	7,849.7	-1,693.5	-366.0	Projection to bit @ 8142'	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_