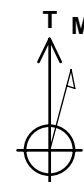
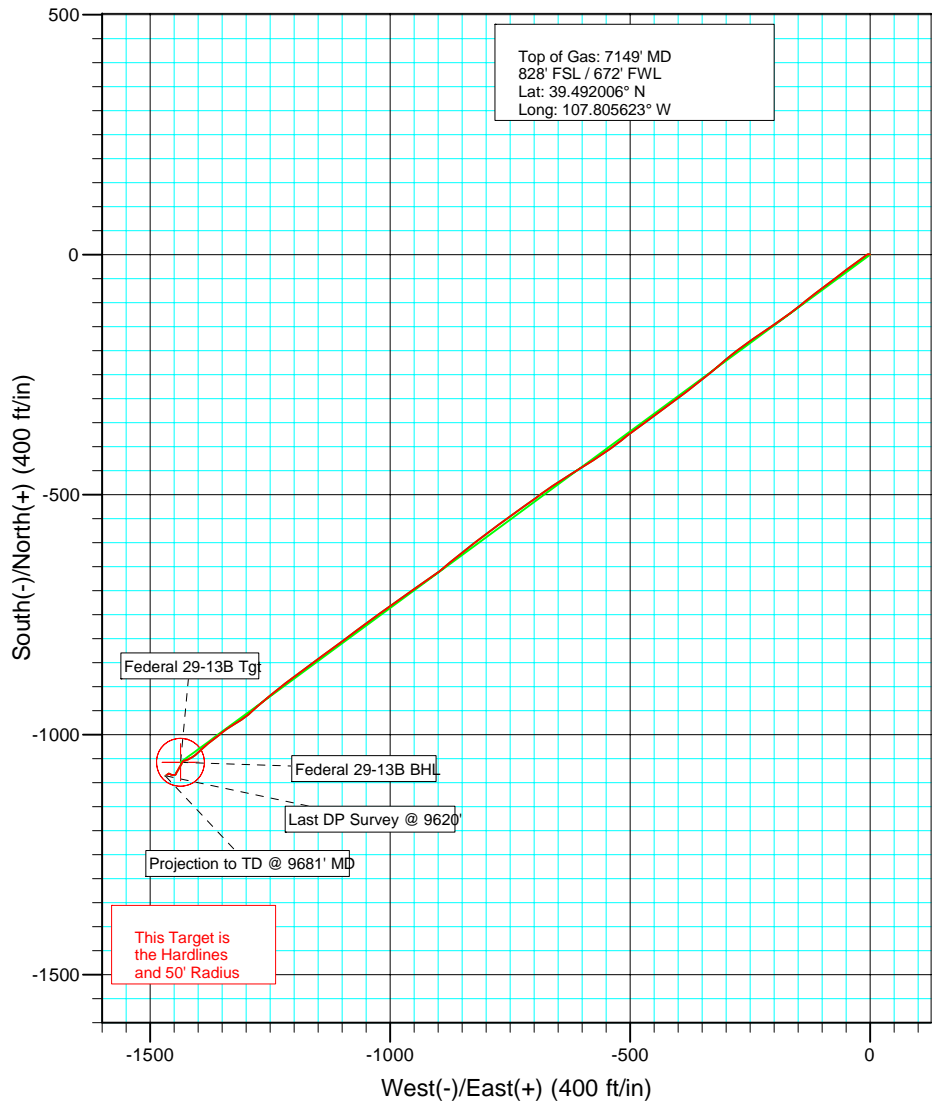
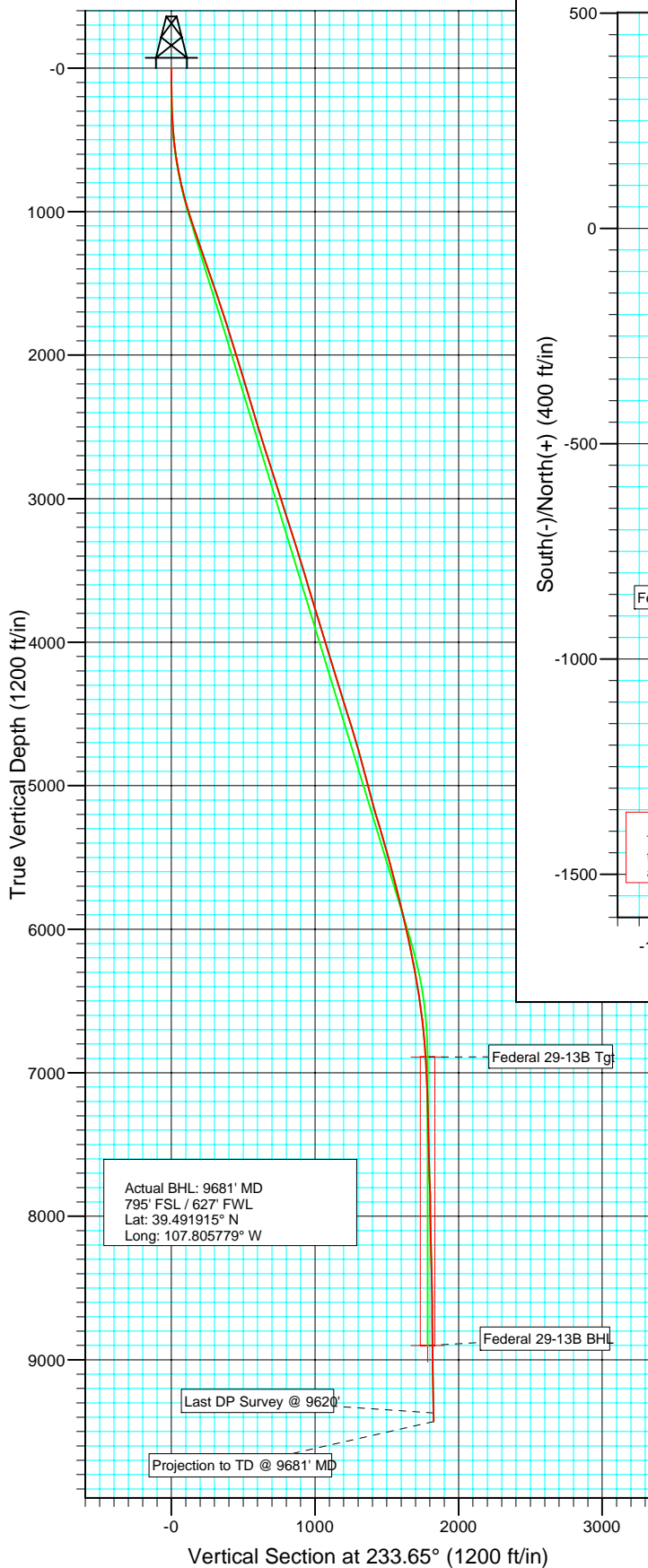




Project: Helmer Gulch
Site: NESW Sec 29-T6S-R93W
Well: Federal 29-13B
Wellbore: DD
Design: DD



Azimuths to True North
Magnetic North: 10.60°

Magnetic Field
Strength: 52575.3nT
Dip Angle: 65.86°
Date: 9/12/2008
Model: IGRF200510

DESIGN DETAILS: DD

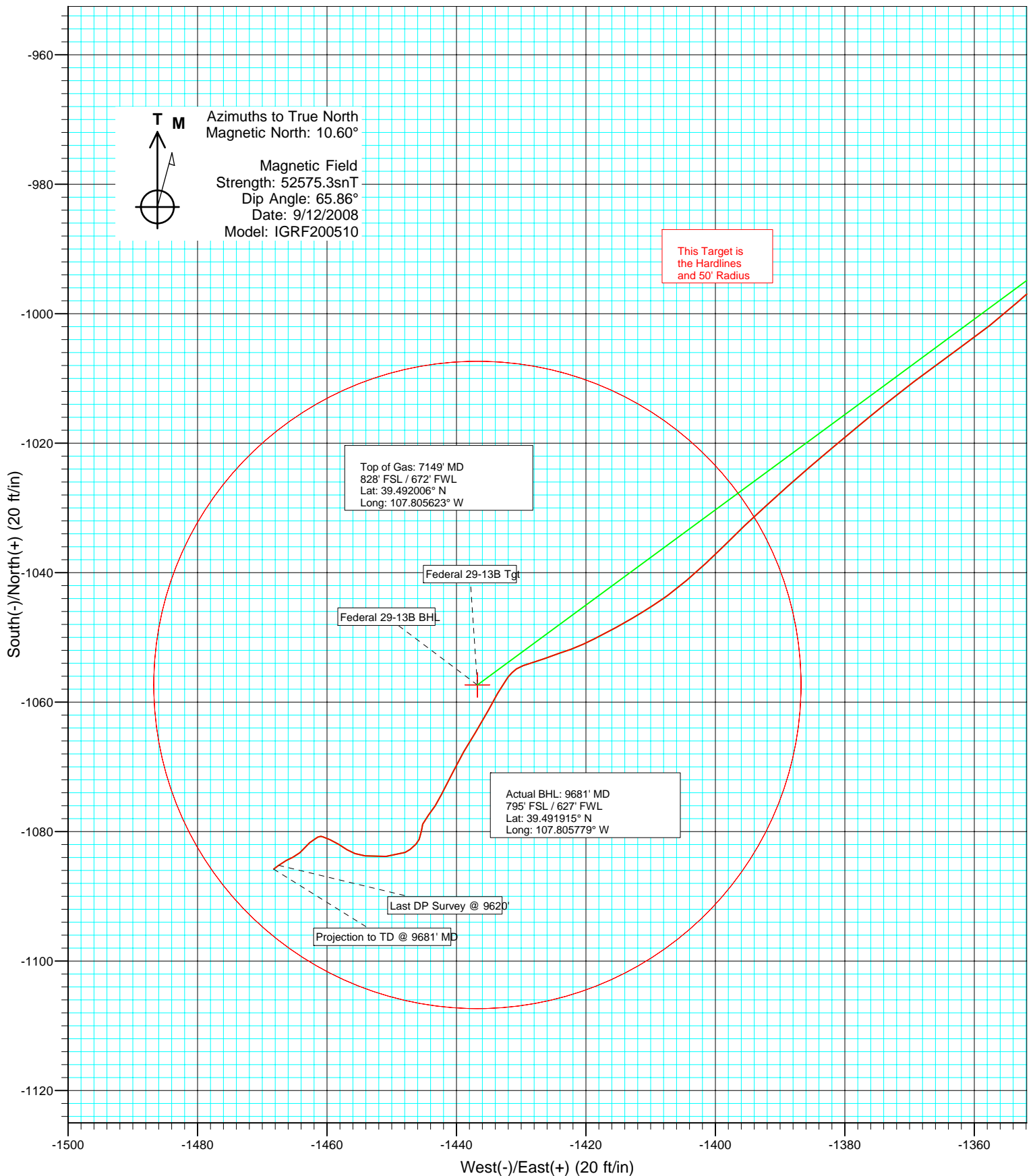
Job # 85514; JS

Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)

Target	Azimuth	Origin Type	N/S	E/W	TVD
No Target (Freehand)	233.65	Slot	0.0	0.0	0.0



Project: Helmer Gulch
Site: NESW Sec 29-T6S-R93W
Well: Federal 29-13B
Wellbore: DD
Design: DD



Survey Report

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Project	Helmer Gulch		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		NESW Sec 29-T6S-R93W			
Site Position:		Northing:	1,613,367.24 ft	Latitude:	39.494904
From:	Lat/Long	Easting:	2,350,855.40 ft	Longitude:	-107.800506
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.45 °

Well	Federal 29-13B					
Well Position	+N/-S	0.0 ft	Northing:	1,613,364.82 ft	Latitude:	39.494896
	+E/-W	0.0 ft	Easting:	2,350,835.58 ft	Longitude:	-107.800576
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,204.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/12/2008	10.60	65.86	52,575

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.0	0.0	0.0	233.65	

Survey Program	Date	10/9/2008			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
146.0	9,681.0	Survey #1 (DD)	Geolink MWD	Geolink MWD	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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		
146.0	1.10	315.10	146.0	1.0	-1.0	0.2	0.75	0.75		
177.0	1.10	299.00	177.0	1.3	-1.5	0.4	0.99	0.00		
207.0	1.50	275.30	207.0	1.5	-2.1	0.8	2.21	1.33		
238.0	1.70	261.40	238.0	1.5	-3.0	1.5	1.40	0.65		
269.0	2.10	253.40	268.9	1.3	-4.0	2.4	1.55	1.29		
299.0	2.50	247.20	298.9	0.9	-5.1	3.6	1.57	1.33		
330.0	2.90	239.60	329.9	0.2	-6.4	5.0	1.73	1.29		
361.0	3.30	237.50	360.8	-0.7	-7.8	6.7	1.34	1.29		
391.0	3.90	234.50	390.8	-1.7	-9.4	8.6	2.10	2.00		
422.0	4.30	233.80	421.7	-3.0	-11.2	10.8	1.30	1.29		
453.0	4.80	231.40	452.6	-4.5	-13.1	13.3	1.73	1.61		
484.0	5.30	231.60	483.5	-6.2	-15.3	16.0	1.61	1.61		

Survey Report

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 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)	Build Rate (°/100ft)	Formations / Comments
514.0	5.80	233.20	513.3	-8.0	-17.6	18.9	1.74	1.67	
545.0	6.50	232.90	544.2	-10.0	-20.2	22.2	2.26	2.26	
576.0	7.40	233.60	574.9	-12.2	-23.2	26.0	2.92	2.90	
607.0	8.20	235.20	605.7	-14.7	-26.6	30.2	2.67	2.58	
637.0	8.90	233.10	635.3	-17.3	-30.3	34.6	2.55	2.33	
668.0	9.50	233.80	665.9	-20.3	-34.2	39.6	1.97	1.94	
699.0	10.20	233.50	696.5	-23.4	-38.5	44.9	2.26	2.26	
730.0	10.90	233.00	726.9	-26.8	-43.1	50.6	2.28	2.26	
760.0	11.80	232.90	756.4	-30.4	-47.8	56.5	3.00	3.00	
791.0	12.30	233.80	786.7	-34.2	-53.0	62.9	1.72	1.61	
822.0	12.90	232.40	816.9	-38.3	-58.4	69.7	2.17	1.94	
853.0	13.60	232.40	847.1	-42.6	-64.0	76.8	2.26	2.26	
883.0	14.20	232.30	876.2	-47.0	-69.7	84.0	2.00	2.00	
914.0	15.10	233.70	906.2	-51.7	-76.0	91.8	3.12	2.90	
945.0	15.90	233.70	936.1	-56.6	-82.6	100.1	2.58	2.58	
976.0	16.80	233.10	965.8	-61.8	-89.6	108.9	2.95	2.90	
1,037.0	18.00	232.30	1,024.0	-72.9	-104.2	127.1	2.01	1.97	
1,068.0	18.20	232.50	1,053.5	-78.8	-111.8	136.7	0.68	0.65	
1,129.0	18.50	231.90	1,111.4	-90.5	-127.0	155.9	0.58	0.49	
1,160.0	18.70	233.10	1,140.8	-96.6	-134.8	165.8	1.39	0.65	
1,222.0	18.60	231.70	1,199.5	-108.7	-150.5	185.6	0.74	-0.16	
1,315.0	18.90	232.20	1,287.6	-127.1	-174.1	215.5	0.37	0.32	
1,410.0	19.40	235.80	1,377.3	-145.4	-199.3	246.7	1.35	0.53	
1,441.0	19.30	235.60	1,406.6	-151.2	-207.7	256.9	0.39	-0.32	
1,482.0	19.50	236.90	1,445.3	-158.7	-219.1	270.5	1.16	0.49	
1,564.0	19.10	236.40	1,522.6	-173.6	-241.7	297.6	0.53	-0.49	
1,657.0	18.40	232.30	1,610.7	-191.0	-266.0	327.5	1.60	-0.75	
1,749.0	18.00	230.60	1,698.1	-208.9	-288.5	356.2	0.72	-0.43	
1,841.0	17.70	230.90	1,785.7	-226.8	-310.3	384.3	0.34	-0.33	
1,938.0	17.30	230.60	1,878.2	-245.2	-332.9	413.5	0.42	-0.41	
2,030.0	16.90	229.40	1,966.1	-262.6	-353.6	440.5	0.58	-0.43	
2,122.0	17.10	232.00	2,054.1	-279.6	-374.4	467.3	0.85	0.22	
2,215.0	17.10	235.20	2,143.0	-295.9	-396.4	494.7	1.01	0.00	
2,309.0	17.20	232.30	2,232.8	-312.2	-418.8	522.4	0.92	0.11	
2,403.0	16.90	234.00	2,322.7	-328.8	-440.8	549.9	0.62	-0.32	
2,497.0	16.50	233.30	2,412.7	-344.8	-462.6	576.9	0.48	-0.43	
2,591.0	16.60	235.00	2,502.8	-360.5	-484.3	603.7	0.53	0.11	
2,684.0	18.10	232.10	2,591.6	-377.0	-506.6	631.4	1.86	1.61	
2,780.0	17.50	231.70	2,683.0	-395.1	-529.7	660.8	0.64	-0.62	
2,876.0	18.30	234.70	2,774.4	-412.7	-553.3	690.3	1.27	0.83	
2,967.0	17.70	237.70	2,860.9	-428.4	-576.6	718.3	1.21	-0.66	
3,063.0	18.00	238.50	2,952.3	-443.9	-601.6	747.7	0.40	0.31	
3,158.0	17.10	239.30	3,042.9	-458.7	-626.2	776.2	0.98	-0.95	
3,254.0	17.70	235.00	3,134.5	-474.3	-650.2	804.8	1.48	0.62	
3,349.0	17.40	235.00	3,225.1	-490.7	-673.7	833.5	0.32	-0.32	
3,445.0	17.10	234.30	3,316.7	-507.2	-696.9	861.9	0.38	-0.31	
3,540.0	17.90	234.50	3,407.3	-523.8	-720.2	890.5	0.84	0.84	
3,636.0	17.50	235.00	3,498.8	-540.7	-744.0	919.7	0.45	-0.42	
3,731.0	16.20	233.80	3,589.7	-556.7	-766.4	947.2	1.42	-1.37	
3,827.0	17.50	232.70	3,681.6	-573.4	-788.7	975.0	1.39	1.35	
3,922.0	16.90	233.00	3,772.3	-590.3	-811.1	1,003.1	0.64	-0.63	
4,018.0	16.10	232.40	3,864.4	-606.8	-832.8	1,030.4	0.85	-0.83	
4,113.0	16.80	231.00	3,955.5	-623.5	-853.9	1,057.3	0.85	0.74	

Survey Report

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 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)	Build Rate (°/100ft)	Formations / Comments
4,209.0	17.30	229.40	4,047.3	-641.5	-875.5	1,085.4	0.71	0.52	
4,304.0	17.70	232.00	4,137.9	-659.6	-897.6	1,113.9	0.92	0.42	
4,400.0	16.70	236.00	4,229.6	-676.3	-920.5	1,142.3	1.61	-1.04	
4,495.0	16.80	234.20	4,320.6	-692.0	-943.0	1,169.6	0.56	0.11	
4,591.0	17.20	236.40	4,412.4	-708.0	-966.1	1,197.7	0.79	0.42	
4,686.0	17.50	234.30	4,503.0	-724.1	-989.4	1,226.0	0.73	0.32	
4,782.0	17.20	234.30	4,594.7	-740.8	-1,012.6	1,254.6	0.31	-0.31	
4,877.0	16.80	233.80	4,685.5	-757.1	-1,035.1	1,282.4	0.45	-0.42	
4,972.0	16.00	232.30	4,776.7	-773.2	-1,056.5	1,309.2	0.95	-0.84	
5,068.0	15.40	233.80	4,869.1	-788.8	-1,077.3	1,335.2	0.75	-0.62	
5,131.0	13.80	234.50	4,930.0	-798.1	-1,090.1	1,351.1	2.56	-2.54	
5,163.0	13.60	233.40	4,961.1	-802.6	-1,096.3	1,358.6	1.03	-0.62	
5,195.0	14.10	233.30	4,992.2	-807.1	-1,102.4	1,366.3	1.56	1.56	
5,291.0	15.50	231.70	5,085.0	-822.1	-1,121.9	1,390.8	1.52	1.46	
5,386.0	15.60	237.40	5,176.5	-836.8	-1,142.6	1,416.3	1.61	0.11	
5,482.0	17.70	233.30	5,268.5	-852.5	-1,165.2	1,443.7	2.51	2.19	
5,577.0	16.40	231.40	5,359.3	-869.5	-1,187.2	1,471.6	1.49	-1.37	
5,639.0	15.10	233.80	5,419.0	-879.7	-1,200.6	1,488.4	2.34	-2.10	
5,671.0	14.90	232.30	5,449.9	-884.7	-1,207.2	1,496.7	1.36	-0.62	
5,734.0	15.30	232.40	5,510.7	-894.7	-1,220.2	1,513.1	0.64	0.63	
5,766.0	15.30	231.60	5,541.6	-899.9	-1,226.9	1,521.5	0.66	0.00	
5,798.0	14.90	230.90	5,572.5	-905.2	-1,233.4	1,529.9	1.37	-1.25	
5,862.0	14.90	232.00	5,634.4	-915.4	-1,246.2	1,546.3	0.44	0.00	
5,925.0	14.70	229.70	5,695.3	-925.6	-1,258.7	1,562.4	0.99	-0.32	
5,989.0	14.30	230.20	5,757.2	-935.9	-1,271.0	1,578.4	0.65	-0.62	
6,053.0	13.80	226.80	5,819.3	-946.2	-1,282.6	1,593.8	1.51	-0.78	
6,116.0	12.10	229.70	5,880.7	-955.6	-1,293.1	1,607.9	2.89	-2.70	
6,180.0	12.50	230.20	5,943.2	-964.4	-1,303.6	1,621.5	0.65	0.62	
6,243.0	13.80	240.80	6,004.6	-972.4	-1,315.4	1,635.7	4.34	2.06	
6,307.0	12.10	237.50	6,067.0	-979.7	-1,327.7	1,650.0	2.90	-2.66	
6,339.0	11.80	236.40	6,098.3	-983.3	-1,333.2	1,656.6	1.18	-0.94	
6,371.0	11.70	235.70	6,129.6	-987.0	-1,338.6	1,663.1	0.54	-0.31	
6,403.0	11.50	234.00	6,160.9	-990.7	-1,343.9	1,669.6	1.24	-0.62	
6,434.0	11.20	231.20	6,191.3	-994.4	-1,348.7	1,675.7	2.02	-0.97	
6,466.0	10.20	228.40	6,222.8	-998.2	-1,353.3	1,681.6	3.52	-3.12	
6,498.0	10.20	231.70	6,254.3	-1,001.8	-1,357.6	1,687.3	1.83	0.00	
6,530.0	10.90	234.80	6,285.7	-1,005.3	-1,362.3	1,693.1	2.82	2.19	
6,576.0	10.70	232.50	6,330.9	-1,010.4	-1,369.3	1,701.7	1.03	-0.43	
6,608.0	10.40	231.30	6,362.4	-1,014.1	-1,373.9	1,707.6	1.16	-0.94	
6,640.0	9.30	229.80	6,393.9	-1,017.5	-1,378.1	1,713.0	3.53	-3.44	
6,671.0	8.70	230.60	6,424.5	-1,020.6	-1,381.8	1,717.9	1.98	-1.94	
6,703.0	8.30	229.20	6,456.2	-1,023.7	-1,385.4	1,722.6	1.41	-1.25	
6,735.0	8.30	228.00	6,487.8	-1,026.7	-1,388.9	1,727.2	0.54	0.00	
6,767.0	8.00	227.70	6,519.5	-1,029.8	-1,392.3	1,731.7	0.95	-0.94	
6,799.0	7.80	226.70	6,551.2	-1,032.8	-1,395.5	1,736.1	0.76	-0.62	
6,831.0	7.50	224.70	6,582.9	-1,035.7	-1,398.6	1,740.3	1.25	-0.94	
6,862.0	7.40	227.20	6,613.7	-1,038.5	-1,401.4	1,744.3	1.09	-0.32	
6,894.0	7.00	229.80	6,645.4	-1,041.2	-1,404.4	1,748.3	1.61	-1.25	
6,958.0	5.90	238.10	6,709.0	-1,045.5	-1,410.2	1,755.5	2.25	-1.72	
6,990.0	5.70	240.00	6,740.8	-1,047.1	-1,413.0	1,758.7	0.87	-0.62	
7,022.0	5.40	240.80	6,772.7	-1,048.6	-1,415.7	1,761.8	0.97	-0.94	
7,053.0	4.90	243.80	6,803.6	-1,049.9	-1,418.1	1,764.5	1.83	-1.61	
7,085.0	4.00	244.50	6,835.5	-1,051.0	-1,420.4	1,766.9	2.82	-2.81	

Survey Report

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 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)	Build Rate (°/100ft)	Formations / Comments
7,117.0	3.60	250.40	6,867.4	-1,051.8	-1,422.3	1,769.0	1.75	-1.25	
7,149.0	3.70	251.90	6,899.3	-1,052.5	-1,424.3	1,770.9	0.43	0.31	
7,185.0	3.50	248.20	6,935.3	-1,053.3	-1,426.4	1,773.1	0.85	-0.56	
7,217.0	3.30	254.60	6,967.2	-1,053.9	-1,428.2	1,774.9	1.34	-0.62	
7,248.0	2.50	250.10	6,998.2	-1,054.3	-1,429.7	1,776.4	2.68	-2.58	
7,280.0	1.80	234.30	7,030.2	-1,054.9	-1,430.7	1,777.6	2.85	-2.19	
7,312.0	1.50	222.50	7,062.1	-1,055.5	-1,431.4	1,778.5	1.41	-0.94	
7,344.0	1.80	222.60	7,094.1	-1,056.2	-1,432.0	1,779.4	0.94	0.94	
7,439.0	1.80	202.60	7,189.1	-1,058.6	-1,433.6	1,782.1	0.66	0.00	
7,535.0	1.80	215.20	7,285.0	-1,061.3	-1,435.1	1,784.9	0.41	0.00	
7,630.0	1.80	205.10	7,380.0	-1,063.8	-1,436.6	1,787.6	0.33	0.00	
7,662.0	2.00	212.70	7,412.0	-1,064.7	-1,437.1	1,788.5	1.00	0.63	
7,757.0	2.10	210.40	7,506.9	-1,067.6	-1,438.9	1,791.7	0.14	0.11	
7,853.0	1.80	204.80	7,602.8	-1,070.5	-1,440.4	1,794.6	0.37	-0.31	
7,948.0	1.90	209.20	7,697.8	-1,073.3	-1,441.8	1,797.4	0.18	0.11	
7,980.0	2.00	206.50	7,729.8	-1,074.2	-1,442.3	1,798.3	0.42	0.31	
8,044.0	1.70	212.70	7,793.7	-1,076.0	-1,443.3	1,800.2	0.56	-0.47	
8,105.0	1.50	218.60	7,854.7	-1,077.4	-1,444.3	1,801.8	0.42	-0.33	
8,200.0	0.60	196.30	7,949.7	-1,078.9	-1,445.2	1,803.4	1.02	-0.95	
8,295.0	0.70	187.20	8,044.7	-1,079.9	-1,445.4	1,804.2	0.15	0.11	
8,391.0	0.90	201.40	8,140.7	-1,081.2	-1,445.8	1,805.3	0.29	0.21	
8,486.0	1.70	232.50	8,235.7	-1,082.7	-1,447.2	1,807.3	1.09	0.84	
8,519.0	1.50	246.70	8,268.6	-1,083.2	-1,447.9	1,808.2	1.34	-0.61	
8,613.0	2.20	265.80	8,362.6	-1,083.8	-1,450.9	1,811.0	0.98	0.74	
8,709.0	1.70	279.00	8,458.5	-1,083.7	-1,454.1	1,813.5	0.70	-0.52	
8,772.0	1.20	288.30	8,521.5	-1,083.4	-1,455.7	1,814.5	0.87	-0.79	
8,836.0	1.30	302.20	8,585.5	-1,082.8	-1,456.9	1,815.2	0.50	0.16	
8,900.0	1.40	303.20	8,649.5	-1,082.0	-1,458.2	1,815.7	0.16	0.16	
8,964.0	1.40	292.40	8,713.5	-1,081.3	-1,459.6	1,816.4	0.41	0.00	
9,027.0	0.70	292.40	8,776.5	-1,080.8	-1,460.6	1,817.0	1.11	-1.11	
9,059.0	0.50	270.40	8,808.5	-1,080.7	-1,460.9	1,817.2	0.94	-0.62	
9,122.0	0.40	241.50	8,871.5	-1,080.8	-1,461.4	1,817.7	0.39	-0.16	
9,186.0	0.60	231.60	8,935.5	-1,081.2	-1,461.9	1,818.2	0.34	0.31	
9,281.0	0.60	237.20	9,030.5	-1,081.7	-1,462.7	1,819.2	0.06	0.00	
9,377.0	1.20	217.90	9,126.4	-1,082.8	-1,463.7	1,820.7	0.69	0.62	
9,409.0	1.20	232.00	9,158.4	-1,083.3	-1,464.2	1,821.3	0.92	0.00	
9,472.0	1.10	243.20	9,221.4	-1,083.9	-1,465.2	1,822.6	0.39	-0.16	
9,536.0	1.00	242.90	9,285.4	-1,084.5	-1,466.3	1,823.8	0.16	-0.16	
9,620.0	0.90	233.30	9,369.4	-1,085.2	-1,467.5	1,825.1	0.22	-0.12	Last DP Survey @ 9620'
9,681.0	0.90	233.30	9,430.4	-1,085.8	-1,468.2	1,826.1	0.00	0.00	Projection to TD @ 9681' MD

Survey Report

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Federal 29-13B BHL	0.00	0.00	8,900.0	-1,057.3	-1,436.8	1,612,344.20	2,349,372.50	39.491993	-107.805667
- survey misses target center by 34.3ft at 9150.2ft MD (8899.7 TVD, -1081.0 N, -1461.6 E)									
- Circle (radius 50.0)									
Federal 29-13B Tgt	0.00	0.00	6,890.0	-1,057.3	-1,436.8	1,612,344.20	2,349,372.50	39.491993	-107.805667
- survey misses target center by 14.0ft at 7140.5ft MD (6890.9 TVD, -1052.3 N, -1423.7 E)									
- Point									

Survey Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment	
9,620.0	9,369.4	-1,085.2	-1,467.5	Last DP Survey @ 9620'	
9,681.0	9,430.4	-1,085.8	-1,468.2	Projection to TD @ 9681' MD	

Checked By: _____ Approved By: _____ Date: _____

Survey Report - Geographic

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Project	Helmer Gulch		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site		NESW Sec 29-T6S-R93W			
Site Position:		Northing:	1,613,367.24 ft	Latitude:	39.494904
From:	Lat/Long	Easting:	2,350,855.40 ft	Longitude:	-107.800506
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.45 °

Well		Federal 29-13B				
Well Position	+N/-S	0.0 ft	Northing:	1,613,364.82 ft	Latitude:	39.494896
	+E/-W	0.0 ft	Easting:	2,350,835.58 ft	Longitude:	-107.800576
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,204.0 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/12/2008	10.60	65.86	52,575

Design	DD				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	233.65	

Survey Program	Date	10/9/2008			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
146.0	9,681.0	Survey #1 (DD)	Geolink MWD	Geolink MWD	

Survey Report - Geographic

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,613,364.82	2,350,835.58	39.494896	-107.800576
146.0	1.10	315.10	146.0	1.0	-1.0	1,613,365.84	2,350,834.61	39.494899	-107.800580
177.0	1.10	299.00	177.0	1.3	-1.5	1,613,366.20	2,350,834.15	39.494900	-107.800581
207.0	1.50	275.30	207.0	1.5	-2.1	1,613,366.40	2,350,833.51	39.494900	-107.800583
238.0	1.70	261.40	238.0	1.5	-3.0	1,613,366.39	2,350,832.65	39.494900	-107.800586
269.0	2.10	253.40	268.9	1.3	-4.0	1,613,366.18	2,350,831.65	39.494899	-107.800590
299.0	2.50	247.20	298.9	0.9	-5.1	1,613,365.80	2,350,830.51	39.494898	-107.800594
330.0	2.90	239.60	329.9	0.2	-6.4	1,613,365.17	2,350,829.19	39.494897	-107.800599
361.0	3.30	237.50	360.8	-0.7	-7.8	1,613,364.33	2,350,827.74	39.494894	-107.800604
391.0	3.90	234.50	390.8	-1.7	-9.4	1,613,363.32	2,350,826.16	39.494891	-107.800609
422.0	4.30	233.80	421.7	-3.0	-11.2	1,613,362.06	2,350,824.33	39.494888	-107.800616
453.0	4.80	231.40	452.6	-4.5	-13.1	1,613,360.62	2,350,822.34	39.494884	-107.800623
484.0	5.30	231.60	483.5	-6.2	-15.3	1,613,358.97	2,350,820.16	39.494879	-107.800630
514.0	5.80	233.20	513.3	-8.0	-17.6	1,613,357.26	2,350,817.82	39.494874	-107.800638
545.0	6.50	232.90	544.2	-10.0	-20.2	1,613,355.34	2,350,815.12	39.494869	-107.800648
576.0	7.40	233.60	574.9	-12.2	-23.2	1,613,353.17	2,350,812.05	39.494862	-107.800658
607.0	8.20	235.20	605.7	-14.7	-26.6	1,613,350.81	2,350,808.57	39.494856	-107.800670
637.0	8.90	233.10	635.3	-17.3	-30.3	1,613,348.29	2,350,804.89	39.494848	-107.800683
668.0	9.50	233.80	665.9	-20.3	-34.2	1,613,345.44	2,350,800.84	39.494840	-107.800697
699.0	10.20	233.50	696.5	-23.4	-38.5	1,613,342.41	2,350,796.49	39.494832	-107.800712
730.0	10.90	233.00	726.9	-26.8	-43.1	1,613,339.12	2,350,791.86	39.494822	-107.800729
760.0	11.80	232.90	756.4	-30.4	-47.8	1,613,335.69	2,350,787.06	39.494813	-107.800745
791.0	12.30	233.80	786.7	-34.2	-53.0	1,613,331.96	2,350,781.77	39.494802	-107.800764
822.0	12.90	232.40	816.9	-38.3	-58.4	1,613,328.04	2,350,776.26	39.494791	-107.800783
853.0	13.60	232.40	847.1	-42.6	-64.0	1,613,323.84	2,350,770.52	39.494779	-107.800803
883.0	14.20	232.30	876.2	-47.0	-69.7	1,613,319.59	2,350,764.71	39.494767	-107.800823
914.0	15.10	233.70	906.2	-51.7	-76.0	1,613,315.03	2,350,758.33	39.494754	-107.800845
945.0	15.90	233.70	936.1	-56.6	-82.6	1,613,310.30	2,350,751.53	39.494740	-107.800869
976.0	16.80	233.10	965.8	-61.8	-89.6	1,613,305.27	2,350,744.39	39.494726	-107.800894
1,037.0	18.00	232.30	1,024.0	-72.9	-104.2	1,613,294.59	2,350,729.61	39.494696	-107.800945
1,068.0	18.20	232.50	1,053.5	-78.8	-111.8	1,613,288.91	2,350,721.83	39.494680	-107.800972
1,129.0	18.50	231.90	1,111.4	-90.5	-127.0	1,613,277.52	2,350,706.37	39.494647	-107.801026
1,160.0	18.70	233.10	1,140.8	-96.6	-134.8	1,613,271.70	2,350,698.37	39.494631	-107.801054
1,222.0	18.60	231.70	1,199.5	-108.7	-150.5	1,613,260.01	2,350,682.36	39.494598	-107.801109
1,315.0	18.90	232.20	1,287.6	-127.1	-174.1	1,613,242.19	2,350,658.36	39.494547	-107.801193
1,410.0	19.40	235.80	1,377.3	-145.4	-199.3	1,613,224.53	2,350,632.70	39.494497	-107.801282
1,441.0	19.30	235.60	1,406.6	-151.2	-207.7	1,613,218.96	2,350,624.07	39.494481	-107.801312
1,482.0	19.50	236.90	1,445.3	-158.7	-219.1	1,613,211.69	2,350,612.56	39.494460	-107.801352
1,564.0	19.10	236.40	1,522.6	-173.6	-241.7	1,613,197.37	2,350,589.55	39.494419	-107.801432
1,657.0	18.40	232.30	1,610.7	-191.0	-266.0	1,613,180.59	2,350,564.83	39.494372	-107.801519
1,749.0	18.00	230.60	1,698.1	-208.9	-288.5	1,613,163.26	2,350,541.91	39.494322	-107.801598
1,841.0	17.70	230.90	1,785.7	-226.8	-310.3	1,613,145.98	2,350,519.63	39.494273	-107.801676
1,938.0	17.30	230.60	1,878.2	-245.2	-332.9	1,613,128.10	2,350,496.58	39.494223	-107.801756
2,030.0	16.90	229.40	1,966.1	-262.6	-353.6	1,613,111.25	2,350,475.42	39.494175	-107.801829
2,122.0	17.10	232.00	2,054.1	-279.6	-374.4	1,613,094.75	2,350,454.19	39.494128	-107.801903
2,215.0	17.10	235.20	2,143.0	-295.9	-396.4	1,613,079.09	2,350,431.78	39.494084	-107.801981
2,309.0	17.20	232.30	2,232.8	-312.2	-418.8	1,613,063.27	2,350,409.03	39.494039	-107.802060
2,403.0	16.90	234.00	2,322.7	-328.8	-440.8	1,613,047.31	2,350,386.56	39.493993	-107.802138
2,497.0	16.50	233.30	2,412.7	-344.8	-462.6	1,613,031.86	2,350,364.41	39.493949	-107.802215
2,591.0	16.60	235.00	2,502.8	-360.5	-484.3	1,613,016.73	2,350,342.32	39.493906	-107.802292
2,684.0	18.10	232.10	2,591.6	-377.0	-506.6	1,613,000.80	2,350,319.62	39.493861	-107.802371
2,780.0	17.50	231.70	2,683.0	-395.1	-529.7	1,612,983.29	2,350,296.08	39.493811	-107.802453
2,876.0	18.30	234.70	2,774.4	-412.7	-553.3	1,612,966.24	2,350,272.01	39.493763	-107.802537
2,967.0	17.70	237.70	2,860.9	-428.4	-576.6	1,612,951.19	2,350,248.27	39.493720	-107.802619
3,063.0	18.00	238.50	2,952.3	-443.9	-601.6	1,612,936.27	2,350,222.90	39.493677	-107.802708

Survey Report - Geographic

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude	
3,158.0	17.10	239.30	3,042.9	-458.7	-626.2	1,612,922.10	2,350,198.01	39.493637	-107.802795	
3,254.0	17.70	235.00	3,134.5	-474.3	-650.2	1,612,907.14	2,350,173.53	39.493594	-107.802880	
3,349.0	17.40	235.00	3,225.1	-490.7	-673.7	1,612,891.31	2,350,149.65	39.493549	-107.802963	
3,445.0	17.10	234.30	3,316.7	-507.2	-696.9	1,612,875.43	2,350,126.03	39.493503	-107.803046	
3,540.0	17.90	234.50	3,407.3	-523.8	-720.2	1,612,859.40	2,350,102.38	39.493458	-107.803128	
3,636.0	17.50	235.00	3,498.8	-540.7	-744.0	1,612,843.16	2,350,078.13	39.493412	-107.803212	
3,731.0	16.20	233.80	3,589.7	-556.7	-766.4	1,612,827.71	2,350,055.34	39.493368	-107.803292	
3,827.0	17.50	232.70	3,681.6	-573.4	-788.7	1,612,811.62	2,350,032.63	39.493322	-107.803371	
3,922.0	16.90	233.00	3,772.3	-590.3	-811.1	1,612,795.23	2,350,009.82	39.493275	-107.803450	
4,018.0	16.10	232.40	3,864.4	-606.8	-832.8	1,612,779.27	2,349,987.72	39.493230	-107.803527	
4,113.0	16.80	231.00	3,955.5	-623.5	-853.9	1,612,763.13	2,349,966.20	39.493184	-107.803602	
4,209.0	17.30	229.40	4,047.3	-641.5	-875.5	1,612,745.66	2,349,944.13	39.493135	-107.803678	
4,304.0	17.70	232.00	4,137.9	-659.6	-897.6	1,612,728.14	2,349,921.57	39.493085	-107.803757	
4,400.0	16.70	236.00	4,229.6	-676.3	-920.5	1,612,712.03	2,349,898.22	39.493039	-107.803838	
4,495.0	16.80	234.20	4,320.6	-692.0	-943.0	1,612,696.94	2,349,875.38	39.492996	-107.803917	
4,591.0	17.20	236.40	4,412.4	-708.0	-966.1	1,612,681.56	2,349,851.91	39.492952	-107.803999	
4,686.0	17.50	234.30	4,503.0	-724.1	-989.4	1,612,666.04	2,349,828.21	39.492908	-107.804082	
4,782.0	17.20	234.30	4,594.7	-740.8	-1,012.6	1,612,649.93	2,349,804.54	39.492862	-107.804164	
4,877.0	16.80	233.80	4,685.5	-757.1	-1,035.1	1,612,634.20	2,349,781.65	39.492817	-107.804244	
4,972.0	16.00	232.30	4,776.7	-773.2	-1,056.5	1,612,618.64	2,349,759.81	39.492773	-107.804320	
5,068.0	15.40	233.80	4,869.1	-788.8	-1,077.3	1,612,603.55	2,349,738.67	39.492730	-107.804393	
5,131.0	13.80	234.50	4,930.0	-798.1	-1,090.1	1,612,594.57	2,349,725.57	39.492705	-107.804439	
5,163.0	13.60	233.40	4,961.1	-802.6	-1,096.3	1,612,590.27	2,349,719.33	39.492693	-107.804461	
5,195.0	14.10	233.30	4,992.2	-807.1	-1,102.4	1,612,585.85	2,349,713.07	39.492680	-107.804482	
5,291.0	15.50	231.70	5,085.0	-822.1	-1,121.9	1,612,571.41	2,349,693.26	39.492639	-107.804551	
5,386.0	15.60	237.40	5,176.5	-836.8	-1,142.6	1,612,557.19	2,349,672.16	39.492598	-107.804625	
5,482.0	17.70	233.30	5,268.5	-852.5	-1,165.2	1,612,542.09	2,349,649.20	39.492555	-107.804705	
5,577.0	16.40	231.40	5,359.3	-869.5	-1,187.2	1,612,525.65	2,349,626.71	39.492509	-107.804783	
5,639.0	15.10	233.80	5,419.0	-879.7	-1,200.6	1,612,515.76	2,349,613.10	39.492481	-107.804830	
5,671.0	14.90	232.30	5,449.9	-884.7	-1,207.2	1,612,510.96	2,349,606.36	39.492467	-107.804854	
5,734.0	15.30	232.40	5,510.7	-894.7	-1,220.2	1,612,501.26	2,349,593.11	39.492439	-107.804900	
5,766.0	15.30	231.60	5,541.6	-899.9	-1,226.9	1,612,496.24	2,349,586.33	39.492425	-107.804923	
5,798.0	14.90	230.90	5,572.5	-905.2	-1,233.4	1,612,491.18	2,349,579.70	39.492411	-107.804946	
5,862.0	14.90	232.00	5,634.4	-915.4	-1,246.2	1,612,481.26	2,349,566.57	39.492383	-107.804992	
5,925.0	14.70	229.70	5,695.3	-925.6	-1,258.7	1,612,471.42	2,349,553.84	39.492355	-107.805036	
5,989.0	14.30	230.20	5,757.2	-935.9	-1,271.0	1,612,461.42	2,349,541.32	39.492326	-107.805080	
6,053.0	13.80	226.80	5,819.3	-946.2	-1,282.6	1,612,451.44	2,349,529.42	39.492298	-107.805121	
6,116.0	12.10	229.70	5,880.7	-955.6	-1,293.1	1,612,442.29	2,349,518.67	39.492272	-107.805158	
6,180.0	12.50	230.20	5,943.2	-964.4	-1,303.6	1,612,433.79	2,349,508.02	39.492248	-107.805195	
6,243.0	13.80	240.80	6,004.6	-972.4	-1,315.4	1,612,426.06	2,349,496.02	39.492226	-107.805237	
6,307.0	12.10	237.50	6,067.0	-979.7	-1,327.7	1,612,419.04	2,349,483.52	39.492206	-107.805280	
6,339.0	11.80	236.40	6,098.3	-983.3	-1,333.2	1,612,415.57	2,349,477.87	39.492196	-107.805300	
6,371.0	11.70	235.70	6,129.6	-987.0	-1,338.6	1,612,412.07	2,349,472.38	39.492186	-107.805319	
6,403.0	11.50	234.00	6,160.9	-990.7	-1,343.9	1,612,408.50	2,349,467.02	39.492176	-107.805338	
6,434.0	11.20	231.20	6,191.3	-994.4	-1,348.7	1,612,404.92	2,349,462.09	39.492166	-107.805355	
6,466.0	10.20	228.40	6,222.8	-998.2	-1,353.3	1,612,401.21	2,349,457.45	39.492155	-107.805371	
6,498.0	10.20	231.70	6,254.3	-1,001.8	-1,357.6	1,612,397.68	2,349,453.02	39.492145	-107.805387	
6,530.0	10.90	234.80	6,285.7	-1,005.3	-1,362.3	1,612,394.30	2,349,448.23	39.492136	-107.805403	
6,576.0	10.70	232.50	6,330.9	-1,010.4	-1,369.3	1,612,389.37	2,349,441.16	39.492122	-107.805428	
6,608.0	10.40	231.30	6,362.4	-1,014.1	-1,373.9	1,612,385.88	2,349,436.46	39.492112	-107.805444	
6,640.0	9.30	229.80	6,393.9	-1,017.5	-1,378.1	1,612,382.51	2,349,432.15	39.492102	-107.805459	
6,671.0	8.70	230.60	6,424.5	-1,020.6	-1,381.8	1,612,379.50	2,349,428.34	39.492094	-107.805472	
6,703.0	8.30	229.20	6,456.2	-1,023.7	-1,385.4	1,612,376.55	2,349,424.65	39.492085	-107.805485	
6,735.0	8.30	228.00	6,487.8	-1,026.7	-1,388.9	1,612,373.58	2,349,421.11	39.492077	-107.805497	
6,767.0	8.00	227.70	6,519.5	-1,029.8	-1,392.3	1,612,370.62	2,349,417.67	39.492069	-107.805509	

Survey Report - Geographic

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
6,799.0	7.80	226.70	6,551.2	-1,032.8	-1,395.5	1,612,367.72	2,349,414.37	39.492060	-107.805521
6,831.0	7.50	224.70	6,582.9	-1,035.7	-1,398.6	1,612,364.82	2,349,411.24	39.492052	-107.805532
6,862.0	7.40	227.20	6,613.7	-1,038.5	-1,401.4	1,612,362.10	2,349,408.29	39.492045	-107.805542
6,894.0	7.00	229.80	6,645.4	-1,041.2	-1,404.4	1,612,359.52	2,349,405.22	39.492037	-107.805552
6,958.0	5.90	238.10	6,709.0	-1,045.5	-1,410.2	1,612,355.41	2,349,399.34	39.492026	-107.805573
6,990.0	5.70	240.00	6,740.8	-1,047.1	-1,413.0	1,612,353.82	2,349,396.53	39.492021	-107.805583
7,022.0	5.40	240.80	6,772.7	-1,048.6	-1,415.7	1,612,352.36	2,349,393.80	39.492017	-107.805592
7,053.0	4.90	243.80	6,803.6	-1,049.9	-1,418.1	1,612,351.13	2,349,391.31	39.492013	-107.805601
7,085.0	4.00	244.50	6,835.5	-1,051.0	-1,420.4	1,612,350.10	2,349,389.05	39.492010	-107.805609
7,117.0	3.60	250.40	6,867.4	-1,051.8	-1,422.3	1,612,349.33	2,349,387.07	39.492008	-107.805616
7,149.0	3.70	251.90	6,899.3	-1,052.5	-1,424.3	1,612,348.72	2,349,385.13	39.492006	-107.805623
7,185.0	3.50	248.20	6,935.3	-1,053.3	-1,426.4	1,612,348.01	2,349,382.98	39.492004	-107.805630
7,217.0	3.30	254.60	6,967.2	-1,053.9	-1,428.2	1,612,347.45	2,349,381.17	39.492003	-107.805637
7,248.0	2.50	250.10	6,998.2	-1,054.3	-1,429.7	1,612,347.02	2,349,379.67	39.492001	-107.805642
7,280.0	1.80	234.30	7,030.2	-1,054.9	-1,430.7	1,612,346.51	2,349,378.59	39.492000	-107.805646
7,312.0	1.50	222.50	7,062.1	-1,055.5	-1,431.4	1,612,345.93	2,349,377.88	39.491998	-107.805648
7,344.0	1.80	222.60	7,094.1	-1,056.2	-1,432.0	1,612,345.27	2,349,377.24	39.491996	-107.805650
7,439.0	1.80	202.60	7,189.1	-1,058.6	-1,433.6	1,612,342.83	2,349,375.60	39.491989	-107.805656
7,535.0	1.80	215.20	7,285.0	-1,061.3	-1,435.1	1,612,340.25	2,349,374.08	39.491982	-107.805661
7,630.0	1.80	205.10	7,380.0	-1,063.8	-1,436.6	1,612,337.71	2,349,372.53	39.491975	-107.805666
7,662.0	2.00	212.70	7,412.0	-1,064.7	-1,437.1	1,612,336.80	2,349,371.99	39.491973	-107.805668
7,757.0	2.10	210.40	7,506.9	-1,067.6	-1,438.9	1,612,333.95	2,349,370.14	39.491965	-107.805674
7,853.0	1.80	204.80	7,602.8	-1,070.5	-1,440.4	1,612,331.11	2,349,368.54	39.491957	-107.805680
7,948.0	1.90	209.20	7,697.8	-1,073.3	-1,441.8	1,612,328.41	2,349,367.08	39.491949	-107.805685
7,980.0	2.00	206.50	7,729.8	-1,074.2	-1,442.3	1,612,327.46	2,349,366.55	39.491947	-107.805687
8,044.0	1.70	212.70	7,793.7	-1,076.0	-1,443.3	1,612,325.69	2,349,365.49	39.491942	-107.805690
8,105.0	1.50	218.60	7,854.7	-1,077.4	-1,444.3	1,612,324.33	2,349,364.47	39.491938	-107.805694
8,200.0	0.60	196.30	7,949.7	-1,078.9	-1,445.2	1,612,322.90	2,349,363.52	39.491934	-107.805697
8,295.0	0.70	187.20	8,044.7	-1,079.9	-1,445.4	1,612,321.86	2,349,363.28	39.491931	-107.805698
8,391.0	0.90	201.40	8,140.7	-1,081.2	-1,445.8	1,612,320.58	2,349,362.90	39.491928	-107.805699
8,486.0	1.70	232.50	8,235.7	-1,082.7	-1,447.2	1,612,319.07	2,349,361.47	39.491923	-107.805704
8,519.0	1.50	246.70	8,268.6	-1,083.2	-1,447.9	1,612,318.62	2,349,360.67	39.491922	-107.805707
8,613.0	2.20	265.80	8,362.6	-1,083.8	-1,450.9	1,612,318.07	2,349,357.73	39.491920	-107.805717
8,709.0	1.70	279.00	8,458.5	-1,083.7	-1,454.1	1,612,318.24	2,349,354.49	39.491921	-107.805728
8,772.0	1.20	288.30	8,521.5	-1,083.4	-1,455.7	1,612,318.64	2,349,352.95	39.491921	-107.805734
8,836.0	1.30	302.20	8,585.5	-1,082.8	-1,456.9	1,612,319.26	2,349,351.71	39.491923	-107.805738
8,900.0	1.40	303.20	8,649.5	-1,082.0	-1,458.2	1,612,320.11	2,349,350.47	39.491925	-107.805743
8,964.0	1.40	292.40	8,713.5	-1,081.3	-1,459.6	1,612,320.87	2,349,349.11	39.491927	-107.805748
9,027.0	0.70	292.40	8,776.5	-1,080.8	-1,460.6	1,612,321.34	2,349,348.05	39.491929	-107.805752
9,059.0	0.50	270.40	8,808.5	-1,080.7	-1,460.9	1,612,321.42	2,349,347.73	39.491929	-107.805753
9,122.0	0.40	241.50	8,871.5	-1,080.8	-1,461.4	1,612,321.33	2,349,347.26	39.491928	-107.805754
9,186.0	0.60	231.60	8,935.5	-1,081.2	-1,461.9	1,612,321.03	2,349,346.80	39.491928	-107.805756
9,281.0	0.60	237.20	9,030.5	-1,081.7	-1,462.7	1,612,320.47	2,349,345.97	39.491926	-107.805759
9,377.0	1.20	217.90	9,126.4	-1,082.8	-1,463.7	1,612,319.43	2,349,344.91	39.491923	-107.805763
9,409.0	1.20	232.00	9,158.4	-1,083.3	-1,464.2	1,612,318.97	2,349,344.43	39.491922	-107.805764
9,472.0	1.10	243.20	9,221.4	-1,083.9	-1,465.2	1,612,318.32	2,349,343.35	39.491920	-107.805768
9,536.0	1.00	242.90	9,285.4	-1,084.5	-1,466.3	1,612,317.82	2,349,342.29	39.491918	-107.805772
9,620.0	0.90	233.30	9,369.4	-1,085.2	-1,467.5	1,612,317.12	2,349,341.09	39.491916	-107.805776
Last DP Survey @ 9620'									
9,681.0	0.90	233.30	9,430.4	-1,085.8	-1,468.2	1,612,316.56	2,349,340.31	39.491915	-107.805779
Projection to TD @ 9681' MD									

Survey Report - Geographic

Company:	Laramie Energy II, LLC.	Local Co-ordinate Reference:	Well Federal 29-13B
Project:	Helmer Gulch	TVD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Site:	NESW Sec 29-T6S-R93W	MD Reference:	Federal 29-13B KBE @ 6225.0ft (Grey Wolf 708)
Well:	Federal 29-13B	North Reference:	True
Wellbore:	DD	Survey Calculation Method:	Minimum Curvature
Design:	DD	Database:	EDM 2003.21 US Multi User DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Federal 29-13B BHL	0.00	0.00	8,900.0	-1,057.3	-1,436.8	1,612,344.20	2,349,372.50	39.491993	-107.805667
- survey misses target center by 34.3ft at 9150.2ft MD (8899.7 TVD, -1081.0 N, -1461.6 E)									
- Circle (radius 50.0)									
Federal 29-13B Tgt	0.00	0.00	6,890.0	-1,057.3	-1,436.8	1,612,344.20	2,349,372.50	39.491993	-107.805667
- survey misses target center by 14.0ft at 7140.5ft MD (6890.9 TVD, -1052.3 N, -1423.7 E)									
- Point									

Survey Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
(ft)	(ft)	(ft)	(ft)		
9,620.0	9,369.4	-1,085.2	-1,467.5	Last DP Survey @ 9620'	
9,681.0	9,430.4	-1,085.8	-1,468.2	Projection to TD @ 9681' MD	

Checked By: _____	Approved By: _____	Date: _____
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