



Laramie Energy, LLC

Mesa County, CO

Laramie 0993-29-01

Laramie 29-01 0993-20-15E

OH

Design #1

KLX Anticollision Report

23 August, 2023





Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference	Design #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 1,000.0 usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma		

Survey Tool Program	Date	8/23/2023		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	8,396.7	Design #1 (OH)	OWSG (REV5) MWD HD	OWSG MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Laramie 0993-29-01						
Laramie 29-01 0993-20-11E - OH - Design #1	200.0	200.0	64.2	61.8	25.997	CC, ES
Laramie 29-01 0993-20-11E - OH - Design #1	600.0	587.3	90.1	81.9	10.954	SF
Laramie 29-01 0993-20-12E - OH - Design #1	205.6	205.6	48.1	45.6	19.081	CC
Laramie 29-01 0993-20-12E - OH - Design #1	300.0	299.5	48.2	44.9	14.672	ES
Laramie 29-01 0993-20-12E - OH - Design #1	1,100.0	1,071.4	110.3	96.8	8.205	SF
Laramie 29-01 0993-20-13E - OH - Design #1	213.0	213.0	32.1	29.5	12.357	CC
Laramie 29-01 0993-20-13E - OH - Design #1	300.0	299.9	32.1	28.7	9.483	ES
Laramie 29-01 0993-20-13E - OH - Design #1	600.0	595.0	46.4	38.9	6.141	SF
Laramie 29-01 0993-20-14E - OH - Design #1	303.8	303.8	15.9	12.5	4.567	CC
Laramie 29-01 0993-20-14E - OH - Design #1	400.0	399.7	16.4	12.3	4.033	ES
Laramie 29-01 0993-20-14E - OH - Design #1	600.0	598.2	22.4	15.0	3.049	SF
Laramie 29-01 0993-20-16E - OH - Design #1	400.0	400.0	15.9	11.7	3.755	CC, ES
Laramie 29-01 0993-20-16E - OH - Design #1	800.0	802.1	24.0	14.8	2.589	SF
Laramie 29-01 0993-20-17E - OH - Design #1	825.4	828.8	23.4	16.3	3.304	CC
Laramie 29-01 0993-20-17E - OH - Design #1	900.0	903.8	23.9	15.8	2.954	ES
Laramie 29-01 0993-20-17E - OH - Design #1	1,000.0	1,004.1	26.2	16.9	2.822	SF
Laramie 29-01 0993-20-18E - OH - Design #1	709.3	712.7	40.2	34.3	6.863	CC
Laramie 29-01 0993-20-18E - OH - Design #1	800.0	804.1	41.1	33.9	5.723	ES
Laramie 29-01 0993-20-18E - OH - Design #1	1,000.0	1,004.7	50.2	40.0	4.891	SF
Laramie 29-01 Fed 0993-21-11W - OH - Design #1	200.0	200.0	56.2	53.7	22.728	CC
Laramie 29-01 Fed 0993-21-11W - OH - Design #1	300.0	299.5	56.5	53.2	17.285	ES
Laramie 29-01 Fed 0993-21-11W - OH - Design #1	700.0	688.3	81.6	73.2	9.662	SF
Laramie 29-01 Fed 0993-21-12W - OH - Design #1	200.0	200.0	40.1	37.6	16.217	CC
Laramie 29-01 Fed 0993-21-12W - OH - Design #1	300.0	299.7	40.5	36.9	11.516	ES
Laramie 29-01 Fed 0993-21-12W - OH - Design #1	600.0	594.1	56.6	49.0	7.440	SF
Laramie 29-01 Fed 0993-21-13W - OH - Design #1	271.7	271.8	24.0	20.8	7.435	CC
Laramie 29-01 Fed 0993-21-13W - OH - Design #1	300.0	300.0	24.0	20.6	6.942	ES
Laramie 29-01 Fed 0993-21-13W - OH - Design #1	500.0	498.3	30.2	24.2	4.993	SF
Laramie 29-01 Fed 0993-21-14W - OH - Design #1	296.7	296.8	8.0	4.8	2.481	Level 1, CC
Laramie 29-01 Fed 0993-21-14W - OH - Design #1	300.0	300.0	8.0	4.8	2.464	Level 1, ES
Laramie 29-01 Fed 0993-21-14W - OH - Design #1	400.0	399.7	9.7	5.2	2.127	Level 1, SF
Laramie 29-01 Fed 0993-21-15W - OH - Design #1	200.8	200.8	8.1	5.6	3.262	CC
Laramie 29-01 Fed 0993-21-15W - OH - Design #1	300.0	299.9	8.3	5.1	2.581	ES
Laramie 29-01 Fed 0993-21-15W - OH - Design #1	400.0	399.6	10.8	6.2	2.351	Level 1, SF
Laramie 29-01 Fed 0993-21-16W - OH - Design #1	200.0	200.0	24.0	21.5	9.720	CC
Laramie 29-01 Fed 0993-21-16W - OH - Design #1	300.0	299.7	24.4	21.2	7.480	ES
Laramie 29-01 Fed 0993-21-16W - OH - Design #1	500.0	497.6	34.4	28.3	5.636	SF

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



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Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Laramie 0993-29-01						
Laramie 29-01 Fed 0993-21-17W - OH - Design #1	200.0	200.0	40.0	37.5	16.174	CC
Laramie 29-01 Fed 0993-21-17W - OH - Design #1	300.0	299.4	40.5	37.2	12.345	ES
Laramie 29-01 Fed 0993-21-17W - OH - Design #1	600.0	592.7	66.2	57.9	7.933	SF
Laramie 29-01 Fed 0993-21-18W - OH - Design #1	200.0	200.0	55.9	53.4	22.626	CC, ES
Laramie 29-01 Fed 0993-21-18W - OH - Design #1	600.0	589.5	86.1	77.5	10.035	SF

Offset Design												Offset Site Error:	0.0 usft	
Laramie 0993-29-01 - Laramie 29-01 0993-20-11E - OH - Design #1												Offset Well Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard														
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-46.67	44.1	-46.7	64.2					
100.0	100.0	100.0	100.0	0.4	0.4	-46.67	44.1	-46.7	64.2	63.4		81.087		
200.0	200.0	200.0	200.0	1.2	1.2	-46.67	44.1	-46.7	64.2	61.8		25.997	CC, ES	
300.0	300.0	297.9	297.9	1.7	2.4	-45.46	46.2	-46.9	65.8	62.0		17.086		
400.0	400.0	395.4	395.2	2.1	3.9	-42.18	52.4	-47.4	70.8	65.4		12.964		
500.0	500.0	491.8	491.0	2.4	4.9	57.13	62.1	-49.3	79.2	72.5		11.762		
600.0	599.8	587.3	585.6	3.7	5.7	62.49	74.9	-53.7	90.1	81.9		10.954	SF	
700.0	699.4	681.9	678.6	4.2	6.4	62.06	90.5	-60.6	103.9	94.7		11.236		
800.0	798.5	775.8	770.3	4.6	7.1	54.28	109.0	-69.8	119.1	108.5		11.329		
900.0	897.1	869.4	860.6	5.4	7.8	50.27	130.2	-81.3	134.7	122.7		11.300		
1,000.0	995.0	962.5	949.6	6.1	8.4	48.16	154.1	-95.1	150.5	137.4		11.464		
1,100.0	1,092.0	1,055.3	1,037.0	6.9	9.0	47.04	180.7	-111.2	166.5	152.3		11.717		
1,200.0	1,187.9	1,147.6	1,122.7	7.6	9.6	46.47	209.8	-129.5	182.4	167.2		11.985		
1,300.0	1,282.6	1,239.7	1,206.7	8.3	10.2	46.20	241.4	-149.9	198.4	182.1		12.224		
1,400.0	1,375.8	1,331.3	1,288.8	8.9	10.8	46.11	275.4	-172.4	214.1	196.9		12.425		
1,500.0	1,467.4	1,422.7	1,368.9	9.6	11.3	46.14	311.8	-196.9	229.7	211.5		12.577		
1,600.0	1,557.2	1,513.8	1,447.0	10.2	11.8	46.25	350.4	-223.4	245.1	225.8		12.675		
1,700.0	1,645.2	1,604.6	1,523.0	10.5	12.3	46.82	391.3	-251.8	260.6	240.4		12.874		
1,800.0	1,733.0	1,695.0	1,596.6	10.9	12.8	47.41	434.1	-282.0	278.8	257.5		13.124		
1,900.0	1,820.8	1,792.7	1,675.0	11.3	13.1	47.73	481.6	-315.7	298.5	276.1		13.345		
2,000.0	1,908.6	1,890.7	1,753.7	11.7	13.5	48.01	529.3	-349.5	318.2	294.6		13.497		
2,100.0	1,996.4	1,988.7	1,832.4	12.1	13.9	48.25	577.0	-383.3	337.9	313.0		13.603		
2,200.0	2,084.2	2,086.8	1,911.1	12.6	14.5	48.47	624.7	-417.1	357.6	331.4		13.680		
2,300.0	2,172.0	2,184.8	1,989.8	13.2	15.2	48.67	672.4	-450.9	377.3	349.8		13.724		
2,400.0	2,259.8	2,282.8	2,068.5	13.9	16.2	48.85	720.1	-484.7	397.0	368.1		13.749		
2,500.0	2,347.6	2,380.9	2,147.2	14.7	17.2	49.01	767.7	-518.6	416.7	386.4		13.759		
2,600.0	2,435.4	2,478.9	2,225.9	15.5	18.2	49.16	815.4	-552.4	436.4	404.7		13.757		
2,700.0	2,523.2	2,576.9	2,304.6	16.4	19.3	49.29	863.1	-586.2	456.1	423.0		13.746		
2,800.0	2,611.0	2,674.9	2,383.3	17.2	20.4	49.41	910.8	-620.0	475.9	441.2		13.728		
2,900.0	2,698.8	2,773.0	2,462.0	18.1	21.4	49.53	958.5	-653.8	495.6	459.4		13.705		
3,000.0	2,786.6	2,871.0	2,540.7	19.0	22.5	49.63	1,006.2	-687.6	515.3	477.7		13.679		
3,100.0	2,874.4	2,969.0	2,619.3	19.9	23.6	49.73	1,053.8	-721.4	535.1	495.9		13.650		
3,200.0	2,962.2	3,067.1	2,698.0	20.7	24.7	49.82	1,101.5	-755.2	554.8	514.1		13.619		
3,300.0	3,050.0	3,165.1	2,776.7	21.6	25.8	49.90	1,149.2	-789.0	574.5	532.2		13.587		
3,400.0	3,137.8	3,263.1	2,855.4	22.5	26.9	49.98	1,196.9	-822.9	594.3	550.4		13.554		
3,500.0	3,225.6	3,361.2	2,934.1	23.4	28.0	50.05	1,244.6	-856.7	614.0	568.6		13.521		
3,600.0	3,313.3	3,459.2	3,012.8	24.3	29.1	50.12	1,292.3	-890.5	633.7	586.7		13.487		
3,700.0	3,401.1	3,557.2	3,091.5	25.2	30.2	50.18	1,339.9	-924.3	653.5	604.9		13.455		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



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Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft	
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
3,800.0	3,488.9	3,655.2	3,170.2	26.1	31.3	50.24	1,387.6	-958.1	673.2	623.0	13.422			
3,900.0	3,576.7	3,753.3	3,248.9	27.0	32.4	50.30	1,435.3	-991.9	692.9	641.2	13.390			
4,000.0	3,664.5	3,851.3	3,327.6	27.9	33.6	50.35	1,483.0	-1,025.7	712.7	659.3	13.359			
4,100.0	3,752.3	3,949.3	3,406.3	28.8	34.7	50.41	1,530.7	-1,059.5	732.4	677.5	13.328			
4,200.0	3,840.1	4,047.4	3,485.0	29.7	35.8	50.45	1,578.4	-1,093.3	752.2	695.6	13.298			
4,300.0	3,927.9	4,145.4	3,563.7	30.6	36.9	50.50	1,626.0	-1,127.2	771.9	713.7	13.268			
4,400.0	4,015.7	4,243.4	3,642.4	31.5	38.0	50.54	1,673.7	-1,161.0	791.6	731.8	13.240			
4,500.0	4,103.5	4,341.5	3,721.1	32.4	39.1	50.58	1,721.4	-1,194.8	811.4	750.0	13.212			
4,600.0	4,191.3	4,439.5	3,799.8	33.3	40.2	50.62	1,769.1	-1,228.6	831.1	768.1	13.185			
4,700.0	4,279.1	4,537.5	3,878.5	34.3	41.3	50.66	1,816.8	-1,262.4	850.9	786.2	13.159			
4,800.0	4,366.9	4,635.6	3,957.2	35.2	42.5	50.70	1,864.5	-1,296.2	870.6	804.3	13.133			
4,900.0	4,454.7	4,733.6	4,035.9	36.1	43.6	50.73	1,912.1	-1,330.0	890.3	822.4	13.109			
5,000.0	4,542.5	4,831.6	4,114.6	37.0	44.7	50.76	1,959.8	-1,363.8	910.1	840.5	13.084			
5,100.0	4,630.3	4,929.6	4,193.3	37.9	45.8	50.80	2,007.5	-1,397.6	929.8	858.6	13.061			
5,200.0	4,718.1	5,027.7	4,272.0	38.8	46.9	50.83	2,055.2	-1,431.5	949.6	876.7	13.038			
5,300.0	4,805.9	5,125.7	4,350.7	39.7	48.0	50.85	2,102.9	-1,465.3	969.3	894.9	13.016			
5,400.0	4,893.7	5,223.7	4,429.4	40.6	49.2	50.88	2,150.6	-1,499.1	989.1	913.0	12.995			
5,500.0	4,981.5	5,321.8	4,508.0	41.5	50.3	50.99	2,198.2	-1,532.9	1,008.9	931.1	12.977			
5,600.0	5,070.8	5,419.3	4,586.4	42.4	51.4	51.31	2,245.7	-1,566.5	1,030.6	951.3	12.998			
5,700.0	5,161.9	5,516.2	4,664.1	43.1	52.5	51.50	2,292.8	-1,599.9	1,054.9	974.2	13.074			
5,800.0	5,254.8	5,629.8	4,755.7	43.8	53.8	51.50	2,347.8	-1,638.9	1,081.7	999.5	13.153			
5,900.0	5,349.1	5,785.5	4,885.5	44.4	55.4	51.28	2,417.8	-1,688.6	1,107.3	1,022.9	13.128			
6,000.0	5,444.9	5,945.1	5,024.3	44.9	56.8	51.08	2,482.0	-1,734.1	1,130.2	1,044.0	13.114			
6,100.0	5,541.8	6,108.4	5,171.6	45.4	58.1	50.91	2,539.3	-1,774.7	1,150.3	1,062.6	13.113			
6,200.0	5,639.6	6,274.9	5,326.7	45.7	59.2	50.75	2,588.8	-1,809.8	1,167.5	1,078.6	13.131			
6,300.0	5,738.3	6,444.4	5,488.5	46.0	60.0	50.61	2,629.6	-1,838.8	1,181.5	1,091.8	13.167			
6,400.0	5,837.6	6,616.2	5,656.0	46.2	60.7	50.49	2,660.9	-1,861.0	1,192.3	1,102.2	13.224			
6,500.0	5,937.3	6,789.9	5,827.7	46.3	61.1	50.40	2,682.1	-1,876.0	1,199.8	1,109.6	13.303			
6,600.0	6,037.3	6,964.8	6,002.1	46.4	61.3	50.32	2,692.6	-1,883.4	1,203.9	1,114.1	13.410			
6,700.0	6,137.3	7,100.0	6,137.3	46.4	61.4	-0.22	2,693.8	-1,884.3	1,204.5	1,115.1	13.478			
6,800.0	6,237.3	7,200.0	6,237.3	46.4	61.4	-0.22	2,693.8	-1,884.3	1,204.5	1,115.1	13.471			
6,900.0	6,337.3	7,300.0	6,337.3	46.4	61.4	-0.22	2,693.8	-1,884.3	1,204.5	1,115.0	13.463			
7,000.0	6,437.3	7,400.0	6,437.3	46.5	61.4	-0.22	2,693.8	-1,884.3	1,204.5	1,115.0	13.455			
7,100.0	6,537.3	7,500.0	6,537.3	46.5	61.4	-0.22	2,693.8	-1,884.3	1,204.5	1,114.9	13.447			
7,200.0	6,637.3	7,600.0	6,637.3	46.5	61.4	-0.22	2,693.8	-1,884.3	1,204.5	1,114.8	13.438			
7,300.0	6,737.3	7,700.0	6,737.3	46.5	61.5	-0.22	2,693.8	-1,884.3	1,204.5	1,114.8	13.430			
7,400.0	6,837.3	7,800.0	6,837.3	46.6	61.5	-0.22	2,693.8	-1,884.3	1,204.5	1,114.7	13.422			
7,500.0	6,937.3	7,900.0	6,937.3	46.6	61.5	-0.22	2,693.8	-1,884.3	1,204.5	1,114.7	13.414			
7,600.0	7,037.3	8,000.0	7,037.3	46.6	61.5	-0.22	2,693.8	-1,884.3	1,204.5	1,114.6	13.406			
7,700.0	7,137.3	8,100.0	7,137.3	46.6	61.5	-0.22	2,693.8	-1,884.3	1,204.5	1,114.6	13.398			
7,800.0	7,237.3	8,200.0	7,237.3	46.7	61.5	-0.22	2,693.8	-1,884.3	1,204.5	1,114.5	13.390			
7,900.0	7,337.3	8,300.0	7,337.3	46.7	61.6	-0.22	2,693.8	-1,884.3	1,204.5	1,114.5	13.381			
8,000.0	7,437.3	8,400.0	7,437.3	46.7	61.6	-0.22	2,693.8	-1,884.3	1,204.5	1,114.4	13.373			
8,100.0	7,537.3	8,500.0	7,537.3	46.7	61.6	-0.22	2,693.8	-1,884.3	1,204.5	1,114.4	13.365			
8,200.0	7,637.3	8,600.0	7,637.3	46.8	61.6	-0.22	2,693.8	-1,884.3	1,204.5	1,114.3	13.356			
8,300.0	7,737.3	8,700.0	7,737.3	46.8	61.6	-0.22	2,693.8	-1,884.3	1,204.5	1,114.2	13.348			
8,396.7	7,834.0	8,796.7	7,834.0	46.8	61.6	-0.22	2,693.8	-1,884.3	1,204.5	1,114.2	13.340			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-46.42	33.1	-34.8	48.1				
100.0	100.0	100.0	100.0	0.4	0.4	-46.42	33.1	-34.8	48.1	47.3	60.696		
200.0	200.0	200.0	200.0	1.2	1.2	-46.42	33.1	-34.8	48.1	45.6	19.460		
205.6	205.6	205.6	205.6	1.3	1.3	-46.42	33.1	-34.8	48.1	45.6	19.081	CC	
300.0	300.0	299.5	299.5	1.7	1.6	-46.48	33.2	-34.9	48.2	44.9	14.672	ES	
400.0	400.0	397.5	397.5	2.1	2.6	-47.88	34.3	-37.9	51.2	46.5	11.027		
500.0	500.0	495.2	494.8	2.4	3.4	45.21	36.8	-44.7	57.3	51.6	10.116		
600.0	599.8	592.4	591.4	3.7	4.0	46.59	42.2	-54.2	64.5	57.5	9.246		
700.0	699.4	689.1	687.0	4.2	4.9	44.66	50.9	-65.9	73.0	64.9	9.015		
800.0	798.5	785.3	781.5	4.6	5.8	36.47	63.0	-79.6	82.0	72.6	8.777		
900.0	897.1	881.1	874.7	5.4	6.6	32.58	78.3	-95.4	91.2	80.4	8.430		
1,000.0	995.0	976.5	966.5	6.1	7.3	30.97	96.9	-113.1	100.6	88.4	8.258		
1,100.0	1,092.0	1,071.4	1,056.9	6.9	8.0	30.59	118.6	-132.7	110.3	96.8	8.205	SF	
1,200.0	1,187.9	1,166.0	1,145.6	7.6	8.7	30.92	143.4	-154.2	120.1	105.5	8.223		
1,300.0	1,282.6	1,260.3	1,232.6	8.3	9.3	31.65	171.1	-177.6	130.1	114.4	8.284		
1,400.0	1,375.8	1,354.1	1,317.7	8.9	9.9	32.64	201.8	-202.6	140.2	123.5	8.370		
1,500.0	1,467.4	1,447.6	1,400.8	9.6	10.5	33.78	235.2	-229.4	150.6	132.8	8.469		
1,600.0	1,557.2	1,540.8	1,481.7	10.2	11.1	35.02	271.4	-257.8	161.1	142.3	8.568		
1,700.0	1,645.2	1,633.5	1,560.5	10.5	11.6	36.67	310.3	-287.7	172.2	152.7	8.799		
1,800.0	1,733.0	1,726.8	1,637.6	10.9	12.1	38.22	352.0	-319.4	186.8	166.4	9.150		
1,900.0	1,820.8	1,825.4	1,718.4	11.3	12.4	39.47	397.1	-353.5	202.7	181.3	9.477		
2,000.0	1,908.6	1,924.0	1,799.2	11.7	12.8	40.55	442.2	-387.6	218.7	196.3	9.734		
2,100.0	1,996.4	2,022.7	1,880.1	12.1	13.2	41.47	487.3	-421.7	234.8	211.2	9.936		
2,200.0	2,084.2	2,121.3	1,960.9	12.6	13.7	42.28	532.4	-455.8	251.0	226.1	10.094		
2,300.0	2,172.0	2,219.9	2,041.7	13.2	14.4	42.99	577.5	-489.9	267.1	241.0	10.215		
2,400.0	2,259.8	2,318.6	2,122.5	13.9	15.4	43.62	622.6	-524.0	283.4	255.9	10.309		
2,500.0	2,347.6	2,417.2	2,203.3	14.7	16.4	44.18	667.7	-558.1	299.6	270.7	10.380		
2,600.0	2,435.4	2,515.8	2,284.1	15.5	17.4	44.68	712.8	-592.2	315.9	285.6	10.433		
2,700.0	2,523.2	2,614.5	2,365.0	16.4	18.5	45.13	757.9	-626.3	332.2	300.5	10.473		
2,800.0	2,611.0	2,713.1	2,445.8	17.2	19.5	45.55	803.0	-660.4	348.5	315.3	10.502		
2,900.0	2,698.8	2,811.7	2,526.6	18.1	20.6	45.92	848.1	-694.5	364.8	330.1	10.521		
3,000.0	2,786.6	2,910.4	2,607.4	19.0	21.6	46.26	893.2	-728.6	381.1	345.0	10.534		
3,100.0	2,874.4	3,009.0	2,688.2	19.9	22.7	46.58	938.3	-762.7	397.5	359.8	10.542		
3,200.0	2,962.2	3,107.6	2,769.1	20.7	23.7	46.87	983.4	-796.8	413.9	374.6	10.545		
3,300.0	3,050.0	3,206.2	2,849.9	21.6	24.8	47.13	1,028.5	-830.8	430.2	389.4	10.545		
3,400.0	3,137.8	3,304.9	2,930.7	22.5	25.9	47.38	1,073.6	-864.9	446.6	404.2	10.542		
3,500.0	3,225.6	3,403.5	3,011.5	23.4	26.9	47.61	1,118.7	-899.0	463.0	419.1	10.537		
3,600.0	3,313.3	3,502.1	3,092.3	24.3	28.0	47.83	1,163.8	-933.1	479.4	433.9	10.531		
3,700.0	3,401.1	3,600.8	3,173.1	25.2	29.1	48.03	1,208.9	-967.2	495.8	448.7	10.523		
3,800.0	3,488.9	3,699.4	3,254.0	26.1	30.1	48.21	1,254.0	-1,001.3	512.2	463.5	10.514		
3,900.0	3,576.7	3,798.0	3,334.8	27.0	31.2	48.39	1,299.1	-1,035.4	528.6	478.3	10.505		
4,000.0	3,664.5	3,896.7	3,415.6	27.9	32.3	48.55	1,344.2	-1,069.5	545.0	493.1	10.495		
4,100.0	3,752.3	3,995.3	3,496.4	28.8	33.4	48.71	1,389.3	-1,103.6	561.5	507.9	10.485		
4,200.0	3,840.1	4,093.9	3,577.2	29.7	34.4	48.86	1,434.4	-1,137.7	577.9	522.7	10.474		
4,300.0	3,927.9	4,192.6	3,658.1	30.6	35.5	49.00	1,479.5	-1,171.8	594.3	537.5	10.463		
4,400.0	4,015.7	4,291.2	3,738.9	31.5	36.6	49.13	1,524.6	-1,205.9	610.7	552.3	10.452		
4,500.0	4,103.5	4,389.8	3,819.7	32.4	37.7	49.25	1,569.7	-1,240.0	627.2	567.1	10.442		
4,600.0	4,191.3	4,488.5	3,900.5	33.3	38.7	49.37	1,614.8	-1,274.1	643.6	581.9	10.431		
4,700.0	4,279.1	4,587.1	3,981.3	34.3	39.8	49.48	1,659.9	-1,308.2	660.0	596.7	10.420		
4,800.0	4,366.9	4,685.7	4,062.1	35.2	40.9	49.59	1,705.0	-1,342.3	676.5	611.5	10.409		
4,900.0	4,454.7	4,784.3	4,143.0	36.1	42.0	49.69	1,750.1	-1,376.4	692.9	626.3	10.399		
5,000.0	4,542.5	4,883.0	4,223.8	37.0	43.1	49.79	1,795.2	-1,410.5	709.4	641.1	10.389		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Laramie 0993-29-01 - Laramie 29-01 0993-20-12E - OH - Design #1 **Offset Site Error:** 0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	4,981.6	4,304.6	37.9	44.1	49.88	1,840.3	-1,444.6	725.8	655.9	10.379	
5,200.0	4,718.1	5,080.2	4,385.4	38.8	45.2	49.97	1,885.4	-1,478.7	742.3	670.7	10.369	
5,300.0	4,805.9	5,178.9	4,466.2	39.7	46.3	50.05	1,930.5	-1,512.8	758.7	685.5	10.359	
5,400.0	4,893.7	5,277.5	4,547.0	40.6	47.4	50.13	1,975.6	-1,546.9	775.2	700.3	10.349	
5,500.0	4,981.5	5,376.1	4,627.9	41.5	48.4	50.28	2,020.7	-1,581.0	791.7	715.1	10.342	
5,600.0	5,070.8	5,474.4	4,708.4	42.4	49.5	50.54	2,065.7	-1,614.9	810.1	732.0	10.374	
5,700.0	5,161.9	5,583.2	4,797.7	43.1	50.7	50.59	2,115.2	-1,652.4	831.1	751.4	10.429	
5,800.0	5,254.8	5,720.6	4,913.9	43.8	52.1	50.50	2,173.7	-1,696.6	851.4	769.8	10.427	
5,900.0	5,349.1	5,860.2	5,036.2	44.4	53.3	50.42	2,227.4	-1,737.2	869.8	786.4	10.427	
6,000.0	5,444.9	6,001.7	5,164.1	44.9	54.4	50.34	2,275.6	-1,773.6	886.2	801.3	10.435	
6,100.0	5,541.8	6,145.0	5,297.2	45.4	55.4	50.28	2,317.9	-1,805.7	900.5	814.3	10.452	
6,200.0	5,639.6	6,290.0	5,434.9	45.7	56.1	50.21	2,353.9	-1,832.8	912.6	825.5	10.477	
6,300.0	5,738.3	6,436.2	5,576.5	46.0	56.8	50.15	2,383.1	-1,854.9	922.4	834.7	10.511	
6,400.0	5,837.6	6,583.6	5,721.3	46.2	57.2	50.10	2,405.2	-1,871.6	929.9	841.8	10.555	
6,500.0	5,937.3	6,731.9	5,868.3	46.3	57.5	50.04	2,419.8	-1,882.7	935.1	847.0	10.611	
6,600.0	6,037.3	6,880.7	6,016.8	46.4	57.7	49.99	2,426.9	-1,888.0	937.9	850.1	10.679	
6,700.0	6,137.3	7,001.1	6,137.3	46.4	57.7	-0.55	2,427.6	-1,888.6	938.3	850.7	10.718	
6,800.0	6,237.3	7,101.1	6,237.3	46.4	57.7	-0.55	2,427.6	-1,888.6	938.3	850.7	10.711	
6,900.0	6,337.3	7,201.1	6,337.3	46.4	57.8	-0.55	2,427.6	-1,888.6	938.3	850.6	10.705	
7,000.0	6,437.3	7,301.1	6,437.3	46.5	57.8	-0.55	2,427.6	-1,888.6	938.3	850.6	10.698	
7,100.0	6,537.3	7,401.1	6,537.3	46.5	57.8	-0.55	2,427.6	-1,888.6	938.3	850.5	10.692	
7,200.0	6,637.3	7,501.1	6,637.3	46.5	57.8	-0.55	2,427.6	-1,888.6	938.3	850.5	10.685	
7,300.0	6,737.3	7,601.1	6,737.3	46.5	57.8	-0.55	2,427.6	-1,888.6	938.3	850.4	10.678	
7,400.0	6,837.3	7,701.1	6,837.3	46.6	57.8	-0.55	2,427.6	-1,888.6	938.3	850.3	10.672	
7,500.0	6,937.3	7,801.1	6,937.3	46.6	57.9	-0.55	2,427.6	-1,888.6	938.3	850.3	10.665	
7,600.0	7,037.3	7,901.1	7,037.3	46.6	57.9	-0.55	2,427.6	-1,888.6	938.3	850.2	10.658	
7,700.0	7,137.3	8,001.1	7,137.3	46.6	57.9	-0.55	2,427.6	-1,888.6	938.3	850.2	10.651	
7,800.0	7,237.3	8,101.1	7,237.3	46.7	57.9	-0.55	2,427.6	-1,888.6	938.3	850.1	10.645	
7,900.0	7,337.3	8,201.1	7,337.3	46.7	57.9	-0.55	2,427.6	-1,888.6	938.3	850.1	10.638	
8,000.0	7,437.3	8,301.1	7,437.3	46.7	57.9	-0.55	2,427.6	-1,888.6	938.3	850.0	10.631	
8,100.0	7,537.3	8,401.1	7,537.3	46.7	58.0	-0.55	2,427.6	-1,888.6	938.3	850.0	10.624	
8,200.0	7,637.3	8,501.1	7,637.3	46.8	58.0	-0.55	2,427.6	-1,888.6	938.3	849.9	10.617	
8,300.0	7,737.3	8,601.1	7,737.3	46.8	58.0	-0.55	2,427.6	-1,888.6	938.3	849.8	10.610	
8,396.7	7,834.0	8,697.8	7,834.0	46.8	58.0	-0.55	2,427.6	-1,888.6	938.3	849.8	10.604	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft	
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-46.63	22.0	-23.3	32.1					
100.0	100.0	100.0	100.0	0.4	0.4	-46.63	22.0	-23.3	32.1	31.3	40.467			
200.0	200.0	200.0	200.0	1.2	1.2	-46.63	22.0	-23.3	32.1	29.6	12.974			
213.0	213.0	213.0	213.0	1.3	1.3	-46.63	22.0	-23.3	32.1	29.5	12.357 CC			
300.0	300.0	299.9	299.9	1.7	1.6	-46.65	22.0	-23.3	32.1	28.7	9.483 ES			
400.0	400.0	398.5	398.5	2.1	2.5	-48.46	22.8	-25.7	34.4	29.9	7.530			
500.0	500.0	496.9	496.6	2.4	4.0	43.83	24.9	-32.2	39.9	33.7	6.441			
600.0	599.8	595.0	594.1	3.7	4.6	43.60	28.3	-42.5	46.4	38.9	6.141 SF			
700.0	699.4	692.6	690.6	4.2	5.0	40.76	34.6	-55.5	53.8	45.6	6.560			
800.0	798.5	789.8	786.2	4.6	5.8	32.04	44.4	-70.7	61.5	52.2	6.595			
900.0	897.1	886.7	880.6	5.4	6.5	27.76	57.4	-88.0	69.3	58.5	6.424			
1,000.0	995.0	983.3	973.7	6.1	7.3	25.86	73.8	-107.3	77.1	64.9	6.333			
1,100.0	1,092.0	1,079.5	1,065.5	6.9	7.9	25.29	93.4	-128.6	84.9	71.5	6.306			
1,200.0	1,187.9	1,175.3	1,155.6	7.6	8.6	25.51	116.2	-151.9	92.9	78.2	6.323			
1,300.0	1,282.6	1,270.9	1,244.1	8.3	9.2	26.20	142.1	-177.1	100.9	85.1	6.370			
1,400.0	1,375.8	1,366.1	1,330.7	8.9	9.8	27.21	171.0	-204.1	109.0	92.1	6.436			
1,500.0	1,467.4	1,461.0	1,415.3	9.6	10.4	28.43	202.9	-232.8	117.3	99.3	6.514			
1,600.0	1,557.2	1,555.6	1,497.8	10.2	11.0	29.77	237.6	-263.3	125.6	106.6	6.596			
1,700.0	1,645.2	1,650.0	1,578.3	10.5	11.4	31.55	275.2	-295.4	134.6	114.9	6.840			
1,800.0	1,733.0	1,749.4	1,662.0	10.9	11.8	33.49	316.0	-330.0	145.1	124.6	7.088			
1,900.0	1,820.8	1,848.7	1,745.7	11.3	12.1	35.17	356.9	-364.6	155.7	134.3	7.279			
2,000.0	1,908.6	1,948.0	1,829.3	11.7	12.5	36.63	397.8	-399.2	166.4	144.0	7.424			
2,100.0	1,996.4	2,047.4	1,913.0	12.1	13.0	37.92	438.7	-433.8	177.2	153.7	7.533			
2,200.0	2,084.2	2,146.7	1,996.6	12.6	13.6	39.06	479.6	-468.4	188.1	163.4	7.612			
2,300.0	2,172.0	2,246.1	2,080.3	13.2	14.3	40.07	520.5	-503.0	199.1	173.1	7.665			
2,400.0	2,259.8	2,345.4	2,163.9	13.9	15.2	40.98	561.4	-537.6	210.1	182.8	7.702			
2,500.0	2,347.6	2,444.7	2,247.6	14.7	16.2	41.79	602.3	-572.2	221.2	192.6	7.724			
2,600.0	2,435.4	2,544.1	2,331.3	15.5	17.1	42.53	643.2	-606.8	232.3	202.3	7.735			
2,700.0	2,523.2	2,643.4	2,414.9	16.4	18.1	43.21	684.1	-641.4	243.4	212.0	7.737			
2,800.0	2,611.0	2,742.8	2,498.6	17.2	19.1	43.82	724.9	-676.1	254.6	221.7	7.734			
2,900.0	2,698.8	2,842.1	2,582.2	18.1	20.1	44.38	765.8	-710.7	265.8	231.4	7.725			
3,000.0	2,786.6	2,941.4	2,665.9	19.0	21.1	44.89	806.7	-745.3	277.0	241.1	7.714			
3,100.0	2,874.4	3,040.8	2,749.6	19.9	22.0	45.37	847.6	-779.9	288.3	250.8	7.699			
3,200.0	2,962.2	3,140.1	2,833.2	20.7	23.0	45.81	888.5	-814.5	299.5	260.6	7.683			
3,300.0	3,050.0	3,239.4	2,916.9	21.6	24.0	46.22	929.4	-849.1	310.8	270.3	7.666			
3,400.0	3,137.8	3,338.8	3,000.5	22.5	25.1	46.60	970.3	-883.7	322.1	280.0	7.648			
3,500.0	3,225.6	3,438.1	3,084.2	23.4	26.1	46.95	1,011.2	-918.3	333.4	289.7	7.630			
3,600.0	3,313.3	3,537.5	3,167.8	24.3	27.1	47.28	1,052.1	-952.9	344.7	299.4	7.611			
3,700.0	3,401.1	3,636.8	3,251.5	25.2	28.1	47.59	1,092.9	-987.5	356.1	309.2	7.592			
3,800.0	3,488.9	3,736.1	3,335.2	26.1	29.1	47.88	1,133.8	-1,022.1	367.4	318.9	7.574			
3,900.0	3,576.7	3,835.5	3,418.8	27.0	30.1	48.16	1,174.7	-1,056.7	378.7	328.6	7.555			
4,000.0	3,664.5	3,934.8	3,502.5	27.9	31.1	48.41	1,215.6	-1,091.3	390.1	338.3	7.537			
4,100.0	3,752.3	4,034.2	3,586.1	28.8	32.1	48.65	1,256.5	-1,125.9	401.5	348.1	7.520			
4,200.0	3,840.1	4,133.5	3,669.8	29.7	33.1	48.88	1,297.4	-1,160.5	412.8	357.8	7.503			
4,300.0	3,927.9	4,232.8	3,753.4	30.6	34.2	49.10	1,338.3	-1,195.1	424.2	367.5	7.486			
4,400.0	4,015.7	4,332.2	3,837.1	31.5	35.2	49.31	1,379.2	-1,229.7	435.6	377.3	7.470			
4,500.0	4,103.5	4,431.5	3,920.8	32.4	36.2	49.50	1,420.1	-1,264.3	447.0	387.0	7.454			
4,600.0	4,191.3	4,530.9	4,004.4	33.3	37.2	49.69	1,460.9	-1,299.0	458.3	396.7	7.439			
4,700.0	4,279.1	4,630.2	4,088.1	34.3	38.2	49.86	1,501.8	-1,333.6	469.7	406.5	7.424			
4,800.0	4,366.9	4,729.5	4,171.7	35.2	39.2	50.03	1,542.7	-1,368.2	481.1	416.2	7.409			
4,900.0	4,454.7	4,828.9	4,255.4	36.1	40.2	50.19	1,583.6	-1,402.8	492.5	425.9	7.395			
5,000.0	4,542.5	4,928.2	4,339.1	37.0	41.3	50.35	1,624.5	-1,437.4	503.9	435.7	7.382			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Laramie 0993-29-01 - Laramie 29-01 0993-20-13E - OH - Design #1 **Offset Site Error:** 0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	5,027.5	4,422.7	37.9	42.3	50.49	1,665.4	-1,472.0	515.4	445.4	7.369	
5,200.0	4,718.1	5,126.9	4,506.4	38.8	43.3	50.63	1,706.3	-1,506.6	526.8	455.2	7.356	
5,300.0	4,805.9	5,226.2	4,590.0	39.7	44.3	50.77	1,747.2	-1,541.2	538.2	464.9	7.344	
5,400.0	4,893.7	5,325.6	4,673.7	40.6	45.3	50.89	1,788.1	-1,575.8	549.6	474.6	7.332	
5,500.0	4,981.5	5,424.9	4,757.3	41.5	46.4	51.06	1,828.9	-1,610.4	561.1	484.5	7.323	
5,600.0	5,070.8	5,524.7	4,841.4	42.4	47.4	51.19	1,870.0	-1,645.2	574.5	496.3	7.349	
5,700.0	5,161.9	5,646.7	4,945.9	43.1	48.6	51.13	1,918.0	-1,685.8	588.5	508.5	7.356	
5,800.0	5,254.8	5,769.7	5,054.6	43.8	49.6	51.08	1,962.0	-1,723.0	601.3	519.6	7.362	
5,900.0	5,349.1	5,893.6	5,167.0	44.4	50.6	51.03	2,001.8	-1,756.7	612.9	529.7	7.371	
6,000.0	5,444.9	6,018.4	5,282.9	44.9	51.4	50.98	2,037.0	-1,786.5	623.1	538.7	7.384	
6,100.0	5,541.8	6,143.9	5,401.8	45.4	52.1	50.94	2,067.6	-1,812.4	632.0	546.6	7.400	
6,200.0	5,639.6	6,270.0	5,523.4	45.7	52.7	50.89	2,093.3	-1,834.2	639.4	553.3	7.420	
6,300.0	5,738.3	6,396.8	5,647.1	46.0	53.2	50.85	2,114.0	-1,851.6	645.5	558.8	7.442	
6,400.0	5,837.6	6,523.9	5,772.7	46.2	53.5	50.81	2,129.4	-1,864.7	650.1	563.1	7.469	
6,500.0	5,937.3	6,651.4	5,899.5	46.3	53.7	50.76	2,139.5	-1,873.2	653.3	566.2	7.500	
6,600.0	6,037.3	6,779.2	6,027.0	46.4	53.8	50.71	2,144.2	-1,877.2	655.0	568.1	7.536	
6,700.0	6,137.3	6,889.4	6,137.3	46.4	53.9	0.18	2,144.6	-1,877.5	655.2	568.5	7.553	
6,800.0	6,237.3	6,989.4	6,237.3	46.4	53.9	0.18	2,144.6	-1,877.5	655.2	568.4	7.548	
6,900.0	6,337.3	7,089.4	6,337.3	46.4	53.9	0.18	2,144.6	-1,877.5	655.2	568.4	7.544	
7,000.0	6,437.3	7,189.4	6,437.3	46.5	53.9	0.18	2,144.6	-1,877.5	655.2	568.3	7.539	
7,100.0	6,537.3	7,289.4	6,537.3	46.5	53.9	0.18	2,144.6	-1,877.5	655.2	568.3	7.534	
7,200.0	6,637.3	7,389.4	6,637.3	46.5	53.9	0.18	2,144.6	-1,877.5	655.2	568.2	7.529	
7,300.0	6,737.3	7,489.4	6,737.3	46.5	54.0	0.18	2,144.6	-1,877.5	655.2	568.2	7.525	
7,400.0	6,837.3	7,589.4	6,837.3	46.6	54.0	0.18	2,144.6	-1,877.5	655.2	568.1	7.520	
7,500.0	6,937.3	7,689.4	6,937.3	46.6	54.0	0.18	2,144.6	-1,877.5	655.2	568.0	7.515	
7,600.0	7,037.3	7,789.4	7,037.3	46.6	54.0	0.18	2,144.6	-1,877.5	655.2	568.0	7.510	
7,700.0	7,137.3	7,889.4	7,137.3	46.6	54.0	0.18	2,144.6	-1,877.5	655.2	567.9	7.505	
7,800.0	7,237.3	7,989.4	7,237.3	46.7	54.1	0.18	2,144.6	-1,877.5	655.2	567.9	7.500	
7,900.0	7,337.3	8,089.4	7,337.3	46.7	54.1	0.18	2,144.6	-1,877.5	655.2	567.8	7.496	
8,000.0	7,437.3	8,189.4	7,437.3	46.7	54.1	0.18	2,144.6	-1,877.5	655.2	567.8	7.491	
8,100.0	7,537.3	8,289.4	7,537.3	46.7	54.1	0.18	2,144.6	-1,877.5	655.2	567.7	7.486	
8,200.0	7,637.3	8,389.4	7,637.3	46.8	54.1	0.18	2,144.6	-1,877.5	655.2	567.6	7.481	
8,300.0	7,737.3	8,489.4	7,737.3	46.8	54.2	0.18	2,144.6	-1,877.5	655.2	567.6	7.476	
8,396.7	7,834.0	8,586.1	7,834.0	46.8	54.2	0.18	2,144.6	-1,877.5	655.2	567.5	7.471	



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft	
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-46.72	10.9	-11.6	15.9					
100.0	100.0	100.0	100.0	0.4	0.4	-46.72	10.9	-11.6	15.9	15.2	20.131			
200.0	200.0	200.0	200.0	1.2	1.2	-46.72	10.9	-11.6	15.9	13.5	6.454			
300.0	300.0	300.0	300.0	1.7	1.7	-46.72	10.9	-11.6	15.9	12.5	4.596			
303.8	303.8	303.8	303.8	1.7	1.7	-46.72	10.9	-11.6	15.9	12.5	4.567	CC		
400.0	400.0	399.7	399.7	2.1	1.9	-47.89	11.0	-12.1	16.4	12.3	4.033	ES		
500.0	500.0	499.0	498.9	2.4	3.1	41.94	11.4	-16.4	19.1	13.8	3.615			
600.0	599.8	598.2	597.7	3.7	4.4	39.50	12.1	-25.0	22.4	15.0	3.049	SF		
700.0	699.4	697.2	695.9	4.2	4.7	34.28	13.9	-37.4	26.1	18.2	3.300			
800.0	798.5	795.9	793.4	4.6	5.3	24.42	19.1	-52.2	29.9	21.1	3.371			
900.0	897.1	894.5	890.1	5.4	6.0	19.47	27.6	-69.5	33.6	23.3	3.249			
1,000.0	995.0	993.0	985.8	6.1	6.7	17.25	39.5	-89.1	37.3	25.5	3.154			
1,100.0	1,092.0	1,091.2	1,080.3	6.9	7.4	16.63	54.8	-111.0	40.9	27.7	3.094			
1,200.0	1,187.9	1,189.3	1,173.6	7.6	8.1	17.01	73.4	-135.2	44.5	30.0	3.062			
1,300.0	1,282.6	1,287.2	1,265.3	8.3	8.7	18.04	95.2	-161.6	48.1	32.4	3.052			
1,400.0	1,375.8	1,385.0	1,355.4	8.9	9.3	19.51	120.3	-190.1	51.8	34.9	3.060			
1,500.0	1,467.4	1,482.6	1,443.7	9.6	10.0	21.30	148.4	-220.6	55.6	37.5	3.081			
1,600.0	1,557.2	1,580.1	1,530.1	10.2	10.5	23.30	179.7	-253.2	59.4	40.3	3.113			
1,700.0	1,645.2	1,677.9	1,614.9	10.5	11.0	25.75	214.0	-287.8	63.8	44.1	3.246			
1,800.0	1,733.0	1,777.8	1,700.8	10.9	11.3	28.23	250.0	-323.8	69.0	48.6	3.389			
1,900.0	1,820.8	1,877.6	1,786.7	11.3	11.7	30.36	286.0	-359.7	74.3	53.1	3.505			
2,000.0	1,908.6	1,977.4	1,872.6	11.7	12.1	32.20	322.0	-395.7	79.7	57.6	3.597			
2,100.0	1,996.4	2,077.2	1,958.5	12.1	12.6	33.81	358.0	-431.6	85.2	62.0	3.670			
2,200.0	2,084.2	2,177.1	2,044.3	12.6	13.2	35.22	394.0	-467.6	90.7	66.4	3.724			
2,300.0	2,172.0	2,276.9	2,130.2	13.2	13.9	36.47	429.9	-503.6	96.3	70.8	3.768			
2,400.0	2,259.8	2,376.7	2,216.1	13.9	14.7	37.58	465.9	-539.5	101.9	75.1	3.800			
2,500.0	2,347.6	2,476.5	2,302.0	14.7	15.6	38.58	501.9	-575.5	107.6	79.5	3.823			
2,600.0	2,435.4	2,576.3	2,387.9	15.5	16.4	39.47	537.9	-611.4	113.3	83.8	3.840			
2,700.0	2,523.2	2,676.2	2,473.8	16.4	17.4	40.28	573.9	-647.4	119.0	88.1	3.851			
2,800.0	2,611.0	2,776.0	2,559.7	17.2	18.3	41.02	609.8	-683.3	124.7	92.4	3.858			
2,900.0	2,698.8	2,875.8	2,645.6	18.1	19.2	41.69	645.8	-719.3	130.5	96.7	3.861			
3,000.0	2,786.6	2,975.6	2,731.5	19.0	20.1	42.30	681.8	-755.2	136.3	101.0	3.863			
3,100.0	2,874.4	3,075.5	2,817.4	19.9	21.1	42.87	717.8	-791.2	142.1	105.3	3.862			
3,200.0	2,962.2	3,175.3	2,903.3	20.7	22.0	43.39	753.8	-827.1	147.9	109.6	3.860			
3,300.0	3,050.0	3,275.1	2,989.2	21.6	23.0	43.87	789.8	-863.1	153.7	113.8	3.857			
3,400.0	3,137.8	3,374.9	3,075.1	22.5	23.9	44.31	825.7	-899.0	159.5	118.1	3.853			
3,500.0	3,225.6	3,474.8	3,160.9	23.4	24.9	44.73	861.7	-935.0	165.3	122.4	3.848			
3,600.0	3,313.3	3,574.6	3,246.8	24.3	25.8	45.11	897.7	-970.9	171.2	126.6	3.843			
3,700.0	3,401.1	3,674.4	3,332.7	25.2	26.8	45.47	933.7	-1,006.9	177.0	130.9	3.838			
3,800.0	3,488.9	3,774.2	3,418.6	26.1	27.7	45.81	969.7	-1,042.8	182.9	135.1	3.832			
3,900.0	3,576.7	3,874.0	3,504.5	27.0	28.7	46.13	1,005.6	-1,078.8	188.7	139.4	3.826			
4,000.0	3,664.5	3,973.9	3,590.4	27.9	29.6	46.42	1,041.6	-1,114.7	194.6	143.6	3.821			
4,100.0	3,752.3	4,073.7	3,676.3	28.8	30.6	46.70	1,077.6	-1,150.7	200.4	147.9	3.815			
4,200.0	3,840.1	4,173.5	3,762.2	29.7	31.6	46.97	1,113.6	-1,186.6	206.3	152.2	3.809			
4,300.0	3,927.9	4,273.3	3,848.1	30.6	32.5	47.22	1,149.6	-1,222.6	212.2	156.4	3.804			
4,400.0	4,015.7	4,373.2	3,934.0	31.5	33.5	47.45	1,185.6	-1,258.5	218.1	160.7	3.798			
4,500.0	4,103.5	4,473.0	4,019.9	32.4	34.4	47.68	1,221.5	-1,294.5	224.0	164.9	3.793			
4,600.0	4,191.3	4,572.8	4,105.8	33.3	35.4	47.89	1,257.5	-1,330.4	229.8	169.1	3.787			
4,700.0	4,279.1	4,672.6	4,191.7	34.3	36.4	48.09	1,293.5	-1,366.4	235.7	173.4	3.782			
4,800.0	4,366.9	4,772.5	4,277.5	35.2	37.3	48.28	1,329.5	-1,402.3	241.6	177.6	3.777			
4,900.0	4,454.7	4,872.3	4,363.4	36.1	38.3	48.46	1,365.5	-1,438.3	247.5	181.9	3.772			
5,000.0	4,542.5	4,972.1	4,449.3	37.0	39.3	48.64	1,401.5	-1,474.2	253.4	186.1	3.767			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Laramie 0993-29-01 - Laramie 29-01 0993-20-14E - OH - Design #1 **Offset Site Error:** 0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	5,071.9	4,535.2	37.9	40.2	48.80	1,437.4	-1,510.2	259.3	190.4	3.762	
5,200.0	4,718.1	5,171.7	4,621.1	38.8	41.2	48.96	1,473.4	-1,546.1	265.2	194.6	3.758	
5,300.0	4,805.9	5,271.6	4,707.0	39.7	42.2	49.11	1,509.4	-1,582.1	271.1	198.9	3.753	
5,400.0	4,893.7	5,371.4	4,792.9	40.6	43.1	49.26	1,545.4	-1,618.0	277.0	203.1	3.749	
5,500.0	4,981.5	5,471.2	4,878.8	41.5	44.1	49.41	1,581.4	-1,654.0	283.0	207.5	3.746	
5,600.0	5,070.8	5,578.7	4,972.1	42.4	45.1	49.39	1,619.1	-1,691.7	289.9	212.7	3.755	
5,700.0	5,161.9	5,688.5	5,069.8	43.1	46.0	49.36	1,654.5	-1,727.1	296.3	217.5	3.759	
5,800.0	5,254.8	5,798.6	5,170.1	43.8	46.9	49.33	1,686.6	-1,759.2	302.1	221.9	3.764	
5,900.0	5,349.1	5,909.0	5,272.8	44.4	47.6	49.30	1,715.4	-1,787.9	307.4	225.9	3.771	
6,000.0	5,444.9	6,019.7	5,377.5	44.9	48.2	49.27	1,740.7	-1,813.1	312.0	229.4	3.778	
6,100.0	5,541.8	6,130.5	5,484.0	45.4	48.8	49.25	1,762.4	-1,834.8	315.9	232.5	3.787	
6,200.0	5,639.6	6,241.6	5,592.1	45.7	49.2	49.22	1,780.4	-1,852.9	319.3	235.1	3.796	
6,300.0	5,738.3	6,352.8	5,701.4	46.0	49.6	49.19	1,794.8	-1,867.2	321.9	237.3	3.805	
6,400.0	5,837.6	6,464.1	5,811.7	46.2	49.8	49.16	1,805.4	-1,877.8	324.0	239.1	3.816	
6,500.0	5,937.3	6,575.5	5,922.7	46.3	50.0	49.12	1,812.2	-1,884.6	325.3	240.3	3.828	
6,600.0	6,037.3	6,687.0	6,034.1	46.4	50.1	49.09	1,815.2	-1,887.6	326.0	241.1	3.841	
6,700.0	6,137.3	6,790.2	6,137.3	46.4	50.1	-1.44	1,815.3	-1,887.7	326.1	241.3	3.845	
6,800.0	6,237.3	6,890.2	6,237.3	46.4	50.1	-1.44	1,815.3	-1,887.7	326.1	241.2	3.843	
6,900.0	6,337.3	6,990.2	6,337.3	46.4	50.1	-1.44	1,815.3	-1,887.7	326.1	241.2	3.840	
7,000.0	6,437.3	7,090.2	6,437.3	46.5	50.2	-1.44	1,815.3	-1,887.7	326.1	241.1	3.838	
7,100.0	6,537.3	7,190.2	6,537.3	46.5	50.2	-1.44	1,815.3	-1,887.7	326.1	241.1	3.835	
7,200.0	6,637.3	7,290.2	6,637.3	46.5	50.2	-1.44	1,815.3	-1,887.7	326.1	241.0	3.833	
7,300.0	6,737.3	7,390.2	6,737.3	46.5	50.2	-1.44	1,815.3	-1,887.7	326.1	240.9	3.830	
7,400.0	6,837.3	7,490.2	6,837.3	46.6	50.2	-1.44	1,815.3	-1,887.7	326.1	240.9	3.828	
7,500.0	6,937.3	7,590.2	6,937.3	46.6	50.3	-1.44	1,815.3	-1,887.7	326.1	240.8	3.825	
7,600.0	7,037.3	7,690.2	7,037.3	46.6	50.3	-1.44	1,815.3	-1,887.7	326.1	240.8	3.823	
7,700.0	7,137.3	7,790.2	7,137.3	46.6	50.3	-1.44	1,815.3	-1,887.7	326.1	240.7	3.820	
7,800.0	7,237.3	7,890.2	7,237.3	46.7	50.3	-1.44	1,815.3	-1,887.7	326.1	240.7	3.817	
7,900.0	7,337.3	7,990.2	7,337.3	46.7	50.4	-1.44	1,815.3	-1,887.7	326.1	240.6	3.815	
8,000.0	7,437.3	8,090.2	7,437.3	46.7	50.4	-1.44	1,815.3	-1,887.7	326.1	240.5	3.812	
8,100.0	7,537.3	8,190.2	7,537.3	46.7	50.4	-1.44	1,815.3	-1,887.7	326.1	240.5	3.810	
8,200.0	7,637.3	8,290.2	7,637.3	46.8	50.4	-1.44	1,815.3	-1,887.7	326.1	240.4	3.807	
8,300.0	7,737.3	8,390.2	7,737.3	46.8	50.4	-1.44	1,815.3	-1,887.7	326.1	240.4	3.804	
8,396.7	7,834.0	8,487.0	7,834.0	46.8	50.5	-1.44	1,815.3	-1,887.7	326.1	240.3	3.802	



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	133.25	-10.9	11.6	15.9				
100.0	100.0	100.0	100.0	0.4	0.4	133.25	-10.9	11.6	15.9	15.1	20.122		
200.0	200.0	200.0	200.0	1.2	1.2	133.25	-10.9	11.6	15.9	13.5	6.451		
300.0	300.0	300.0	300.0	1.7	1.7	133.25	-10.9	11.6	15.9	12.5	4.594		
400.0	400.0	400.0	400.0	2.1	2.1	133.25	-10.9	11.6	15.9	11.7	3.755	CC, ES	
500.0	500.0	500.0	500.0	2.4	2.5	-134.86	-10.9	11.6	16.8	12.0	3.479		
600.0	599.8	600.6	600.5	3.7	3.1	-142.24	-10.9	9.4	19.1	12.8	3.009		
700.0	699.4	701.3	701.0	4.2	4.4	-154.31	-10.9	2.8	21.5	13.5	2.684		
800.0	798.5	802.1	801.3	4.6	5.4	-164.90	-10.9	-8.3	24.0	14.8	2.589	SF	
900.0	897.1	903.1	901.1	5.4	5.7	-165.73	-9.9	-23.3	26.9	16.9	2.688		
1,000.0	995.0	1,004.3	1,000.5	6.1	6.3	-164.59	-5.7	-41.6	30.1	18.9	2.703		
1,100.0	1,092.0	1,105.6	1,099.3	6.9	6.9	-162.58	1.5	-62.9	33.4	21.1	2.717		
1,200.0	1,187.9	1,207.0	1,197.2	7.6	7.6	-160.18	11.9	-87.3	37.0	23.6	2.757		
1,300.0	1,282.6	1,308.6	1,294.0	8.3	8.3	-157.61	25.4	-114.9	40.7	26.3	2.817		
1,400.0	1,375.8	1,410.3	1,389.6	8.9	8.9	-155.01	42.0	-145.4	44.7	29.2	2.888		
1,500.0	1,467.4	1,512.2	1,483.7	9.6	9.6	-152.42	61.7	-178.9	48.9	32.4	2.966		
1,600.0	1,557.2	1,614.1	1,576.2	10.2	10.1	-149.90	84.5	-215.3	53.2	35.8	3.050		
1,700.0	1,645.2	1,714.4	1,665.9	10.5	10.5	-147.57	108.9	-253.0	58.6	40.5	3.240		
1,800.0	1,733.0	1,814.2	1,755.1	10.9	10.8	-145.48	133.2	-290.6	64.5	45.6	3.411		
1,900.0	1,820.8	1,914.0	1,844.3	11.3	11.1	-143.74	157.5	-328.1	70.4	50.6	3.547		
2,000.0	1,908.6	2,013.8	1,933.5	11.7	11.5	-142.27	181.8	-365.7	76.5	55.5	3.654		
2,100.0	1,996.4	2,113.6	2,022.7	12.1	11.9	-141.01	206.2	-403.3	82.5	60.4	3.738		
2,200.0	2,084.2	2,213.4	2,111.9	12.6	12.4	-139.93	230.5	-440.9	88.6	65.3	3.803		
2,300.0	2,172.0	2,313.2	2,201.1	13.2	12.9	-138.99	254.8	-478.4	94.7	70.1	3.854		
2,400.0	2,259.8	2,413.0	2,290.3	13.9	13.5	-138.16	279.1	-516.0	100.9	75.0	3.894		
2,500.0	2,347.6	2,512.8	2,379.5	14.7	14.1	-137.43	303.5	-553.6	107.0	79.8	3.925		
2,600.0	2,435.4	2,612.6	2,468.7	15.5	14.8	-136.78	327.8	-591.2	113.2	84.5	3.949		
2,700.0	2,523.2	2,712.4	2,557.9	16.4	15.6	-136.19	352.1	-628.7	119.4	89.3	3.967		
2,800.0	2,611.0	2,812.2	2,647.1	17.2	16.3	-135.66	376.4	-666.3	125.6	94.0	3.981		
2,900.0	2,698.8	2,912.0	2,736.3	18.1	17.1	-135.19	400.8	-703.9	131.8	98.8	3.992		
3,000.0	2,786.6	3,011.8	2,825.5	19.0	17.9	-134.75	425.1	-741.5	138.0	103.5	4.000		
3,100.0	2,874.4	3,111.6	2,914.7	19.9	18.8	-134.35	449.4	-779.0	144.3	108.2	4.006		
3,200.0	2,962.2	3,211.4	3,003.9	20.7	19.6	-133.99	473.8	-816.6	150.5	113.0	4.010		
3,300.0	3,050.0	3,311.2	3,093.1	21.6	20.4	-133.65	498.1	-854.2	156.7	117.7	4.013		
3,400.0	3,137.8	3,411.0	3,182.3	22.5	21.2	-133.34	522.4	-891.8	163.0	122.4	4.015		
3,500.0	3,225.6	3,510.8	3,271.5	23.4	22.1	-133.06	546.7	-929.3	169.2	127.1	4.016		
3,600.0	3,313.3	3,610.6	3,360.7	24.3	22.9	-132.79	571.1	-966.9	175.5	131.8	4.017		
3,700.0	3,401.1	3,710.4	3,449.9	25.2	23.7	-132.54	595.4	-1,004.5	181.7	136.5	4.017		
3,800.0	3,488.9	3,810.2	3,539.1	26.1	24.6	-132.31	619.7	-1,042.0	188.0	141.2	4.016		
3,900.0	3,576.7	3,910.0	3,628.3	27.0	25.4	-132.09	644.0	-1,079.6	194.2	145.9	4.015		
4,000.0	3,664.5	4,009.8	3,717.5	27.9	26.2	-131.89	668.4	-1,117.2	200.5	150.6	4.014		
4,100.0	3,752.3	4,109.6	3,806.7	28.8	27.1	-131.70	692.7	-1,154.8	206.8	155.2	4.012		
4,200.0	3,840.1	4,209.4	3,895.9	29.7	27.9	-131.52	717.0	-1,192.3	213.0	159.9	4.011		
4,300.0	3,927.9	4,309.2	3,985.1	30.6	28.8	-131.35	741.3	-1,229.9	219.3	164.6	4.009		
4,400.0	4,015.7	4,409.0	4,074.3	31.5	29.6	-131.19	765.7	-1,267.5	225.6	169.3	4.007		
4,500.0	4,103.5	4,508.8	4,163.5	32.4	30.5	-131.04	790.0	-1,305.1	231.9	174.0	4.005		
4,600.0	4,191.3	4,608.6	4,252.7	33.3	31.3	-130.90	814.3	-1,342.6	238.1	178.6	4.003		
4,700.0	4,279.1	4,708.4	4,341.9	34.3	32.2	-130.76	838.6	-1,380.2	244.4	183.3	4.001		
4,800.0	4,366.9	4,808.2	4,431.1	35.2	33.0	-130.63	863.0	-1,417.8	250.7	188.0	3.999		
4,900.0	4,454.7	4,908.0	4,520.3	36.1	33.9	-130.51	887.3	-1,455.4	257.0	192.7	3.997		
5,000.0	4,542.5	5,007.8	4,609.5	37.0	34.7	-130.39	911.6	-1,492.9	263.2	197.4	3.995		
5,100.0	4,630.3	5,107.7	4,698.7	37.9	35.6	-130.28	936.0	-1,530.5	269.5	202.0	3.993		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
5,200.0	4,718.1	5,207.5	4,787.9	38.8	36.4	-130.17	960.3	-1,568.1	275.8	206.7	3.991		
5,300.0	4,805.9	5,307.3	4,877.1	39.7	37.3	-130.07	984.6	-1,605.7	282.1	211.4	3.989		
5,400.0	4,893.7	5,407.1	4,966.3	40.6	38.1	-129.97	1,008.9	-1,643.2	288.4	216.1	3.987		
5,500.0	4,981.5	5,504.4	5,053.4	41.5	38.9	-129.94	1,032.5	-1,679.7	294.7	220.9	3.990		
5,600.0	5,070.8	5,600.0	5,140.3	42.4	39.7	-130.07	1,054.1	-1,713.1	301.0	225.7	3.995		
5,700.0	5,161.9	5,690.3	5,223.9	43.1	40.3	-130.19	1,072.7	-1,741.8	306.7	230.1	4.002		
5,800.0	5,254.8	5,783.1	5,311.2	43.8	40.9	-130.30	1,090.0	-1,768.4	311.9	234.1	4.008		
5,900.0	5,349.1	5,875.9	5,399.5	44.4	41.4	-130.40	1,105.2	-1,792.0	316.5	237.7	4.015		
6,000.0	5,444.9	5,968.6	5,488.9	44.9	41.8	-130.50	1,118.6	-1,812.5	320.6	240.8	4.021		
6,100.0	5,541.8	6,061.2	5,579.2	45.4	42.2	-130.59	1,129.9	-1,830.1	324.1	243.6	4.028		
6,200.0	5,639.6	6,153.8	5,670.1	45.7	42.5	-130.67	1,139.2	-1,844.5	327.0	245.9	4.034		
6,300.0	5,738.3	6,246.3	5,761.6	46.0	42.7	-130.74	1,146.6	-1,855.8	329.3	247.8	4.040		
6,400.0	5,837.6	6,338.8	5,853.6	46.2	42.9	-130.81	1,151.9	-1,864.0	331.1	249.3	4.046		
6,500.0	5,937.3	6,431.2	5,945.8	46.3	43.0	-130.87	1,155.2	-1,869.1	332.3	250.3	4.052		
6,600.0	6,037.3	6,523.7	6,038.2	46.4	43.1	-130.93	1,156.4	-1,871.1	333.0	250.9	4.059		
6,700.0	6,137.3	6,622.7	6,137.3	46.4	43.1	178.54	1,156.5	-1,871.1	333.0	251.0	4.059		
6,800.0	6,237.3	6,722.7	6,237.3	46.4	43.1	178.54	1,156.5	-1,871.1	333.0	250.9	4.056		
6,900.0	6,337.3	6,822.7	6,337.3	46.4	43.1	178.54	1,156.5	-1,871.1	333.0	250.9	4.054		
7,000.0	6,437.3	6,922.7	6,437.3	46.5	43.2	178.54	1,156.5	-1,871.1	333.0	250.8	4.051		
7,100.0	6,537.3	7,022.7	6,537.3	46.5	43.2	178.54	1,156.5	-1,871.1	333.0	250.7	4.048		
7,200.0	6,637.3	7,122.7	6,637.3	46.5	43.2	178.54	1,156.5	-1,871.1	333.0	250.7	4.045		
7,300.0	6,737.3	7,222.7	6,737.3	46.5	43.2	178.54	1,156.5	-1,871.1	333.0	250.6	4.042		
7,400.0	6,837.3	7,322.7	6,837.3	46.6	43.3	178.54	1,156.5	-1,871.1	333.0	250.6	4.039		
7,500.0	6,937.3	7,422.7	6,937.3	46.6	43.3	178.54	1,156.5	-1,871.1	333.0	250.5	4.036		
7,600.0	7,037.3	7,522.7	7,037.3	46.6	43.3	178.54	1,156.5	-1,871.1	333.0	250.4	4.034		
7,700.0	7,137.3	7,622.7	7,137.3	46.6	43.3	178.54	1,156.5	-1,871.1	333.0	250.4	4.031		
7,800.0	7,237.3	7,722.7	7,237.3	46.7	43.4	178.54	1,156.5	-1,871.1	333.0	250.3	4.028		
7,900.0	7,337.3	7,822.7	7,337.3	46.7	43.4	178.54	1,156.5	-1,871.1	333.0	250.3	4.025		
8,000.0	7,437.3	7,922.7	7,437.3	46.7	43.4	178.54	1,156.5	-1,871.1	333.0	250.2	4.022		
8,100.0	7,537.3	8,022.7	7,537.3	46.7	43.5	178.54	1,156.5	-1,871.1	333.0	250.1	4.019		
8,200.0	7,637.3	8,122.7	7,637.3	46.8	43.5	178.54	1,156.5	-1,871.1	333.0	250.1	4.016		
8,300.0	7,737.3	8,222.7	7,737.3	46.8	43.5	178.54	1,156.5	-1,871.1	333.0	250.0	4.013		
8,396.7	7,834.0	8,319.4	7,834.0	46.8	43.5	178.54	1,156.5	-1,871.1	333.0	250.0	4.010		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	133.27	-21.9	23.2	31.9				
100.0	100.0	100.0	100.0	0.4	0.4	133.27	-21.9	23.2	31.9	31.1	40.253		
200.0	200.0	200.0	200.0	1.2	1.2	133.27	-21.9	23.2	31.9	29.4	12.905		
300.0	300.0	300.0	300.0	1.7	1.7	133.27	-21.9	23.2	31.9	28.4	9.191		
400.0	400.0	400.7	400.7	2.1	2.1	134.99	-22.0	22.0	31.1	26.9	7.500		
500.0	500.0	501.4	501.2	2.4	3.5	-123.42	-22.4	16.5	28.5	23.5	5.638		
600.0	599.8	601.9	601.2	3.7	4.7	-115.35	-23.3	6.6	26.3	20.4	4.448		
700.0	699.4	702.5	700.8	4.2	5.0	-112.45	-24.1	-7.5	24.5	18.6	4.153		
800.0	798.5	803.2	800.0	4.6	5.6	-113.83	-22.4	-25.2	23.4	16.7	3.472		
825.4	823.6	828.8	825.0	4.8	5.8	-112.91	-21.5	-30.2	23.4	16.3	3.304	CC	
900.0	897.1	903.8	898.2	5.4	6.3	-108.42	-18.0	-46.3	23.9	15.8	2.954	ES	
1,000.0	995.0	1,004.1	995.3	6.1	7.0	-100.51	-11.0	-70.6	26.2	16.9	2.822	SF	
1,100.0	1,092.0	1,104.2	1,091.0	6.9	7.7	-93.09	-1.3	-98.2	30.3	19.8	2.897		
1,200.0	1,187.9	1,204.1	1,185.2	7.6	8.4	-87.32	11.0	-129.0	36.0	24.3	3.076		
1,300.0	1,282.6	1,303.8	1,277.8	8.3	9.1	-83.21	25.9	-162.8	43.1	30.1	3.310		
1,400.0	1,375.8	1,403.4	1,369.0	8.9	9.4	-81.36	42.7	-199.1	51.1	36.9	3.611		
1,500.0	1,467.4	1,503.0	1,460.1	9.6	9.7	-84.01	59.8	-235.6	59.6	44.5	3.964		
1,600.0	1,557.2	1,602.4	1,551.0	10.2	10.1	-89.62	76.8	-272.1	68.7	52.9	4.344		
1,700.0	1,645.2	1,701.6	1,641.7	10.5	10.4	-96.32	93.8	-308.4	79.2	62.5	4.740		
1,800.0	1,733.0	1,800.6	1,732.2	10.9	10.8	-101.51	110.7	-344.7	90.7	72.8	5.067		
1,900.0	1,820.8	1,899.6	1,822.8	11.3	11.2	-105.52	127.7	-381.0	102.7	83.5	5.341		
2,000.0	1,908.6	1,998.7	1,913.4	11.7	11.6	-108.68	144.6	-417.3	115.2	94.5	5.578		
2,100.0	1,996.4	2,097.7	2,004.0	12.1	12.1	-111.22	161.6	-453.6	127.9	105.8	5.788		
2,200.0	2,084.2	2,196.8	2,094.6	12.6	12.6	-113.30	178.5	-489.9	140.8	117.2	5.976		
2,300.0	2,172.0	2,295.8	2,185.2	13.2	13.1	-115.02	195.4	-526.2	153.9	128.8	6.145		
2,400.0	2,259.8	2,394.9	2,275.7	13.9	13.7	-116.48	212.4	-562.5	167.1	140.5	6.299		
2,500.0	2,347.6	2,493.9	2,366.3	14.7	14.3	-117.72	229.3	-598.8	180.3	152.3	6.438		
2,600.0	2,435.4	2,593.0	2,456.9	15.5	14.9	-118.79	246.3	-635.1	193.7	164.2	6.566		
2,700.0	2,523.2	2,692.0	2,547.5	16.4	15.6	-119.73	263.2	-671.4	207.1	176.1	6.683		
2,800.0	2,611.0	2,791.0	2,638.1	17.2	16.3	-120.55	280.2	-707.7	220.5	188.1	6.790		
2,900.0	2,698.8	2,890.1	2,728.6	18.1	17.1	-121.27	297.1	-744.0	234.0	200.1	6.889		
3,000.0	2,786.6	2,989.1	2,819.2	19.0	17.8	-121.92	314.1	-780.3	247.6	212.1	6.980		
3,100.0	2,874.4	3,088.2	2,909.8	19.9	18.5	-122.50	331.0	-816.6	261.1	224.2	7.065		
3,200.0	2,962.2	3,187.2	3,000.4	20.7	19.2	-123.02	348.0	-852.8	274.7	236.2	7.144		
3,300.0	3,050.0	3,286.3	3,091.0	21.6	20.0	-123.49	364.9	-889.1	288.3	248.3	7.216		
3,400.0	3,137.8	3,385.3	3,181.6	22.5	20.7	-123.92	381.9	-925.4	301.9	260.5	7.285		
3,500.0	3,225.6	3,484.4	3,272.1	23.4	21.5	-124.32	398.8	-961.7	315.5	272.6	7.348		
3,600.0	3,313.3	3,583.4	3,362.7	24.3	22.2	-124.68	415.8	-998.0	329.2	284.7	7.407		
3,700.0	3,401.1	3,682.4	3,453.3	25.2	22.9	-125.01	432.7	-1,034.3	342.8	296.9	7.463		
3,800.0	3,488.9	3,781.5	3,543.9	26.1	23.7	-125.32	449.7	-1,070.6	356.5	309.1	7.516		
3,900.0	3,576.7	3,880.5	3,634.5	27.0	24.4	-125.60	466.6	-1,106.9	370.2	321.2	7.565		
4,000.0	3,664.5	3,979.6	3,725.1	27.9	25.2	-125.86	483.6	-1,143.2	383.9	333.4	7.611		
4,100.0	3,752.3	4,078.6	3,815.6	28.8	25.9	-126.11	500.5	-1,179.5	397.5	345.6	7.655		
4,200.0	3,840.1	4,177.7	3,906.2	29.7	26.7	-126.34	517.5	-1,215.8	411.2	357.8	7.696		
4,300.0	3,927.9	4,276.7	3,996.8	30.6	27.4	-126.55	534.4	-1,252.1	424.9	370.0	7.735		
4,400.0	4,015.7	4,375.8	4,087.4	31.5	28.2	-126.75	551.4	-1,288.4	438.7	382.2	7.772		
4,500.0	4,103.5	4,474.8	4,178.0	32.4	28.9	-126.94	568.3	-1,324.7	452.4	394.4	7.808		
4,600.0	4,191.3	4,573.8	4,268.5	33.3	29.7	-127.12	585.2	-1,361.0	466.1	406.6	7.841		
4,700.0	4,279.1	4,672.9	4,359.1	34.3	30.5	-127.29	602.2	-1,397.3	479.8	418.9	7.873		
4,800.0	4,366.9	4,771.9	4,449.7	35.2	31.2	-127.45	619.1	-1,433.6	493.5	431.1	7.903		
4,900.0	4,454.7	4,871.0	4,540.3	36.1	32.0	-127.60	636.1	-1,469.9	507.3	443.3	7.932		
5,000.0	4,542.5	4,970.0	4,630.9	37.0	32.7	-127.74	653.0	-1,506.2	521.0	455.5	7.959		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
5,100.0	4,630.3	5,069.1	4,721.5	37.9	33.5	-127.87	670.0	-1,542.5	534.7	467.8	7.986		
5,200.0	4,718.1	5,168.1	4,812.0	38.8	34.2	-128.00	686.9	-1,578.8	548.5	480.0	8.011		
5,300.0	4,805.9	5,267.2	4,902.6	39.7	35.0	-128.12	703.9	-1,615.1	562.2	492.2	8.035		
5,400.0	4,893.7	5,366.2	4,993.2	40.6	35.7	-128.24	720.8	-1,651.4	576.0	504.5	8.058		
5,500.0	4,981.5	5,465.2	5,083.8	41.5	36.5	-128.40	737.8	-1,687.7	589.6	516.7	8.080		
5,600.0	5,070.8	5,558.0	5,168.9	42.4	37.2	-128.58	753.4	-1,721.0	601.8	527.4	8.090		
5,700.0	5,161.9	5,647.2	5,252.1	43.1	37.8	-128.74	767.1	-1,750.4	612.8	537.1	8.098		
5,800.0	5,254.8	5,736.5	5,336.4	43.8	38.3	-128.88	779.4	-1,776.8	622.8	545.9	8.107		
5,900.0	5,349.1	5,825.7	5,421.8	44.4	38.8	-129.01	790.3	-1,800.1	631.6	553.8	8.115		
6,000.0	5,444.9	5,914.9	5,508.1	44.9	39.2	-129.13	799.8	-1,820.5	639.4	560.7	8.124		
6,100.0	5,541.8	6,000.0	5,591.2	45.4	39.5	-129.25	807.5	-1,837.1	646.1	566.7	8.138		
6,200.0	5,639.6	6,093.2	5,682.9	45.7	39.8	-129.34	814.5	-1,852.0	651.7	571.6	8.140		
6,300.0	5,738.3	6,182.3	5,771.2	46.0	40.0	-129.43	819.7	-1,863.1	656.2	575.6	8.147		
6,400.0	5,837.6	6,271.4	5,859.9	46.2	40.2	-129.51	823.4	-1,871.1	659.5	578.6	8.153		
6,500.0	5,937.3	6,360.4	5,948.8	46.3	40.3	-129.58	825.7	-1,875.9	661.7	580.6	8.158		
6,600.0	6,037.3	6,449.5	6,037.8	46.4	40.3	-129.64	826.5	-1,877.6	662.8	581.6	8.164		
6,700.0	6,137.3	6,549.0	6,137.3	46.4	40.4	179.83	826.5	-1,877.6	662.9	581.7	8.161		
6,800.0	6,237.3	6,649.0	6,237.3	46.4	40.4	179.83	826.5	-1,877.6	662.9	581.6	8.155		
6,900.0	6,337.3	6,749.0	6,337.3	46.4	40.4	179.83	826.5	-1,877.6	662.9	581.5	8.150		
7,000.0	6,437.3	6,849.0	6,437.3	46.5	40.4	179.83	826.5	-1,877.6	662.9	581.5	8.144		
7,100.0	6,537.3	6,949.0	6,537.3	46.5	40.5	179.83	826.5	-1,877.6	662.9	581.4	8.138		
7,200.0	6,637.3	7,049.0	6,637.3	46.5	40.5	179.83	826.5	-1,877.6	662.9	581.4	8.132		
7,300.0	6,737.3	7,149.0	6,737.3	46.5	40.5	179.83	826.5	-1,877.6	662.9	581.3	8.126		
7,400.0	6,837.3	7,249.0	6,837.3	46.6	40.6	179.83	826.5	-1,877.6	662.9	581.2	8.121		
7,500.0	6,937.3	7,349.0	6,937.3	46.6	40.6	179.83	826.5	-1,877.6	662.9	581.2	8.115		
7,600.0	7,037.3	7,449.0	7,037.3	46.6	40.6	179.83	826.5	-1,877.6	662.9	581.1	8.109		
7,700.0	7,137.3	7,549.0	7,137.3	46.6	40.6	179.83	826.5	-1,877.6	662.9	581.1	8.103		
7,800.0	7,237.3	7,649.0	7,237.3	46.7	40.7	179.83	826.5	-1,877.6	662.9	581.0	8.097		
7,900.0	7,337.3	7,749.0	7,337.3	46.7	40.7	179.83	826.5	-1,877.6	662.9	581.0	8.091		
8,000.0	7,437.3	7,849.0	7,437.3	46.7	40.7	179.83	826.5	-1,877.6	662.9	580.9	8.085		
8,100.0	7,537.3	7,949.0	7,537.3	46.7	40.8	179.83	826.5	-1,877.6	662.9	580.8	8.079		
8,200.0	7,637.3	8,049.0	7,637.3	46.8	40.8	179.83	826.5	-1,877.6	662.9	580.8	8.073		
8,300.0	7,737.3	8,149.0	7,737.3	46.8	40.8	179.83	826.5	-1,877.6	662.9	580.7	8.067		
8,309.2	7,746.5	8,158.2	7,746.5	46.8	40.8	179.83	826.5	-1,877.6	662.9	580.7	8.067		
8,396.7	7,834.0	8,228.7	7,817.0	46.8	40.8	179.83	826.5	-1,877.6	663.1	581.2	8.094		



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	133.25	-32.8	34.8	47.8				
100.0	100.0	100.0	100.0	0.4	0.4	133.25	-32.8	34.8	47.8	47.0	60.385		
200.0	200.0	200.0	200.0	1.2	1.2	133.25	-32.8	34.8	47.8	45.4	19.360		
300.0	300.0	300.6	300.6	1.7	1.5	133.81	-32.9	34.3	47.5	44.3	14.729		
400.0	400.0	401.6	401.5	2.1	2.9	138.49	-33.8	29.9	45.2	40.9	10.529		
500.0	500.0	502.1	501.6	2.4	4.3	-117.39	-35.7	21.3	42.1	37.2	8.570		
600.0	599.8	602.3	600.9	3.7	5.3	-106.78	-38.4	8.4	40.7	35.3	7.548		
700.0	699.4	703.3	700.4	4.2	5.7	-102.35	-40.6	-8.6	40.2	34.5	7.012		
709.3	708.6	712.7	709.6	4.2	5.7	-102.80	-40.7	-10.4	40.2	34.3	6.863	CC	
800.0	798.5	804.1	799.1	4.6	6.3	-103.68	-40.4	-29.2	41.1	33.9	5.723	ES	
900.0	897.1	904.6	896.6	5.4	7.0	-100.24	-37.8	-53.4	44.4	35.6	5.026		
1,000.0	995.0	1,004.7	992.7	6.1	7.6	-95.46	-32.8	-81.0	50.2	40.0	4.891	SF	
1,100.0	1,092.0	1,104.5	1,087.2	6.9	8.3	-91.03	-25.4	-111.9	58.2	46.7	5.066		
1,200.0	1,187.9	1,203.9	1,180.1	7.6	8.9	-87.47	-15.7	-146.0	68.1	55.5	5.385		
1,300.0	1,282.6	1,303.1	1,271.9	8.3	9.2	-86.02	-4.7	-182.1	79.5	65.8	5.823		
1,400.0	1,375.8	1,402.4	1,363.7	8.9	9.5	-87.60	6.4	-218.2	91.7	77.2	6.322		
1,500.0	1,467.4	1,501.4	1,455.2	9.6	9.9	-91.13	17.5	-254.2	104.8	89.5	6.842		
1,600.0	1,557.2	1,600.0	1,546.4	10.2	10.3	-95.84	28.5	-290.1	119.3	103.1	7.356		
1,700.0	1,645.2	1,698.1	1,637.2	10.5	10.6	-100.81	39.4	-325.8	135.5	118.3	7.871		
1,800.0	1,733.0	1,796.2	1,727.8	10.9	11.0	-104.71	50.4	-361.5	152.7	134.3	8.296		
1,900.0	1,820.8	1,894.2	1,818.5	11.3	11.4	-107.81	61.3	-397.1	170.5	150.8	8.654		
2,000.0	1,908.6	1,992.2	1,909.1	11.7	11.9	-110.33	72.3	-432.8	188.6	167.6	8.963		
2,100.0	1,996.4	2,090.2	1,999.8	12.1	12.3	-112.40	83.2	-468.4	207.1	184.6	9.236		
2,200.0	2,084.2	2,188.3	2,090.5	12.6	12.8	-114.14	94.2	-504.1	225.7	201.9	9.478		
2,300.0	2,172.0	2,286.3	2,181.1	13.2	13.3	-115.61	105.2	-539.8	244.5	219.3	9.695		
2,400.0	2,259.8	2,384.3	2,271.8	13.9	13.8	-116.87	116.1	-575.4	263.5	236.9	9.890		
2,500.0	2,347.6	2,482.4	2,362.4	14.7	14.4	-117.96	127.1	-611.1	282.6	254.5	10.067		
2,600.0	2,435.4	2,580.4	2,453.1	15.5	15.0	-118.91	138.0	-646.7	301.7	272.2	10.228		
2,700.0	2,523.2	2,678.4	2,543.7	16.4	15.6	-119.75	149.0	-682.4	320.9	290.0	10.375		
2,800.0	2,611.0	2,776.5	2,634.4	17.2	16.2	-120.50	159.9	-718.1	340.2	307.9	10.510		
2,900.0	2,698.8	2,874.5	2,725.1	18.1	16.9	-121.16	170.9	-753.7	359.6	325.8	10.634		
3,000.0	2,786.6	2,972.5	2,815.7	19.0	17.6	-121.76	181.8	-789.4	378.9	343.7	10.748		
3,100.0	2,874.4	3,070.6	2,906.4	19.9	18.2	-122.30	192.8	-825.0	398.4	361.7	10.853		
3,200.0	2,962.2	3,168.6	2,997.0	20.7	18.9	-122.78	203.7	-860.7	417.8	379.6	10.951		
3,300.0	3,050.0	3,266.6	3,087.7	21.6	19.6	-123.23	214.7	-896.4	437.3	397.7	11.042		
3,400.0	3,137.8	3,364.7	3,178.3	22.5	20.3	-123.64	225.6	-932.0	456.8	415.7	11.127		
3,500.0	3,225.6	3,462.7	3,269.0	23.4	20.9	-124.01	236.6	-967.7	476.3	433.8	11.205		
3,600.0	3,313.3	3,560.7	3,359.7	24.3	21.6	-124.36	247.5	-1,003.3	495.8	451.8	11.279		
3,700.0	3,401.1	3,658.8	3,450.3	25.2	22.3	-124.67	258.5	-1,039.0	515.3	469.9	11.348		
3,800.0	3,488.9	3,756.8	3,541.0	26.1	23.0	-124.97	269.4	-1,074.7	534.9	488.0	11.413		
3,900.0	3,576.7	3,854.8	3,631.6	27.0	23.7	-125.24	280.4	-1,110.3	554.5	506.2	11.474		
4,000.0	3,664.5	3,952.9	3,722.3	27.9	24.4	-125.50	291.3	-1,146.0	574.1	524.3	11.532		
4,100.0	3,752.3	4,050.9	3,812.9	28.8	25.1	-125.74	302.3	-1,181.6	593.7	542.4	11.586		
4,200.0	3,840.1	4,148.9	3,903.6	29.7	25.8	-125.96	313.2	-1,217.3	613.3	560.6	11.638		
4,300.0	3,927.9	4,247.0	3,994.3	30.6	26.5	-126.17	324.2	-1,253.0	632.9	578.7	11.686		
4,400.0	4,015.7	4,345.0	4,084.9	31.5	27.2	-126.37	335.1	-1,288.6	652.5	596.9	11.732		
4,500.0	4,103.5	4,443.0	4,175.6	32.4	27.8	-126.55	346.1	-1,324.3	672.1	615.0	11.776		
4,600.0	4,191.3	4,541.1	4,266.2	33.3	28.5	-126.73	357.0	-1,360.0	691.8	633.2	11.817		
4,700.0	4,279.1	4,639.1	4,356.9	34.3	29.2	-126.89	368.0	-1,395.6	711.4	651.4	11.857		
4,800.0	4,366.9	4,737.1	4,447.6	35.2	29.9	-127.05	378.9	-1,431.3	731.0	669.6	11.894		
4,900.0	4,454.7	4,835.2	4,538.2	36.1	30.6	-127.20	389.9	-1,466.9	750.7	687.8	11.930		
5,000.0	4,542.5	4,933.2	4,628.9	37.0	31.3	-127.34	400.8	-1,502.6	770.3	706.0	11.964		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	5,031.2	4,719.5	37.9	32.0	-127.47	411.8	-1,538.3	790.0	724.2	11.997	
5,200.0	4,718.1	5,129.3	4,810.2	38.8	32.7	-127.60	422.7	-1,573.9	809.7	742.3	12.028	
5,300.0	4,805.9	5,227.3	4,900.8	39.7	33.4	-127.72	433.7	-1,609.6	829.3	760.6	12.058	
5,400.0	4,893.7	5,325.3	4,991.5	40.6	34.1	-127.84	444.6	-1,645.2	849.0	778.8	12.086	
5,500.0	4,981.5	5,423.4	5,082.2	41.5	34.8	-128.03	455.6	-1,680.9	868.6	796.9	12.114	
5,600.0	5,070.8	5,520.5	5,172.0	42.4	35.5	-128.33	466.4	-1,716.2	886.4	813.2	12.116	
5,700.0	5,161.9	5,608.8	5,254.4	43.1	36.1	-128.53	475.7	-1,746.4	902.2	827.8	12.121	
5,800.0	5,254.8	5,700.0	5,340.8	43.8	36.7	-128.70	484.3	-1,774.5	916.5	840.9	12.119	
5,900.0	5,349.1	5,785.7	5,423.0	44.4	37.1	-128.87	491.5	-1,797.8	929.2	852.6	12.131	
6,000.0	5,444.9	5,874.3	5,508.8	44.9	37.5	-129.02	497.9	-1,818.8	940.3	862.9	12.136	
6,100.0	5,541.8	5,963.0	5,595.5	45.4	37.8	-129.16	503.4	-1,836.6	949.9	871.7	12.141	
6,200.0	5,639.6	6,051.8	5,682.9	45.7	38.1	-129.28	507.9	-1,851.2	957.9	879.0	12.145	
6,300.0	5,738.3	6,140.6	5,770.9	46.0	38.3	-129.39	511.4	-1,862.6	964.2	884.8	12.148	
6,400.0	5,837.6	6,229.4	5,859.4	46.2	38.5	-129.48	513.8	-1,870.7	968.9	889.2	12.149	
6,500.0	5,937.3	6,318.3	5,948.1	46.3	38.6	-129.56	515.3	-1,875.5	972.0	892.0	12.147	
6,600.0	6,037.3	6,407.5	6,037.3	46.4	38.6	-129.62	515.8	-1,877.1	973.5	893.3	12.140	
6,700.0	6,137.3	6,507.5	6,137.3	46.4	38.7	179.85	515.8	-1,877.1	973.6	893.3	12.128	
6,800.0	6,237.3	6,607.5	6,237.3	46.4	38.7	179.85	515.8	-1,877.1	973.6	893.2	12.119	
6,900.0	6,337.3	6,707.5	6,337.3	46.4	38.8	179.85	515.8	-1,877.1	973.6	893.2	12.111	
7,000.0	6,437.3	6,807.5	6,437.3	46.5	38.8	179.85	515.8	-1,877.1	973.6	893.1	12.102	
7,100.0	6,537.3	6,907.5	6,537.3	46.5	38.8	179.85	515.8	-1,877.1	973.6	893.1	12.094	
7,200.0	6,637.3	7,007.5	6,637.3	46.5	38.8	179.85	515.8	-1,877.1	973.6	893.0	12.085	
7,300.0	6,737.3	7,107.5	6,737.3	46.5	38.9	179.85	515.8	-1,877.1	973.6	892.9	12.076	
7,400.0	6,837.3	7,207.5	6,837.3	46.6	38.9	179.85	515.8	-1,877.1	973.6	892.9	12.068	
7,500.0	6,937.3	7,307.5	6,937.3	46.6	38.9	179.85	515.8	-1,877.1	973.6	892.8	12.059	
7,600.0	7,037.3	7,407.5	7,037.3	46.6	39.0	179.85	515.8	-1,877.1	973.6	892.8	12.050	
7,700.0	7,137.3	7,507.5	7,137.3	46.6	39.0	179.85	515.8	-1,877.1	973.6	892.7	12.041	
7,800.0	7,237.3	7,607.5	7,237.3	46.7	39.0	179.85	515.8	-1,877.1	973.6	892.6	12.032	
7,900.0	7,337.3	7,707.5	7,337.3	46.7	39.0	179.85	515.8	-1,877.1	973.6	892.6	12.024	
8,000.0	7,437.3	7,807.5	7,437.3	46.7	39.1	179.85	515.8	-1,877.1	973.6	892.5	12.015	
8,100.0	7,537.3	7,907.5	7,537.3	46.7	39.1	179.85	515.8	-1,877.1	973.6	892.5	12.006	
8,200.0	7,637.3	8,007.5	7,637.3	46.8	39.1	179.85	515.8	-1,877.1	973.6	892.4	11.997	
8,300.0	7,737.3	8,107.5	7,737.3	46.8	39.2	179.85	515.8	-1,877.1	973.6	892.3	11.988	
8,396.7	7,834.0	8,204.2	7,834.0	46.8	39.2	179.85	515.8	-1,877.1	973.6	892.3	11.979	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-46.56	38.6	-40.8	56.2				
100.0	100.0	100.0	100.0	0.4	0.4	-46.56	38.6	-40.8	56.2	55.4	70.891		
200.0	200.0	200.0	200.0	1.2	1.2	-46.56	38.6	-40.8	56.2	53.7	22.728	CC	
300.0	300.0	299.5	299.5	1.7	1.7	-45.37	39.7	-40.2	56.5	53.2	17.285	ES	
400.0	400.0	398.6	398.5	2.1	3.3	-40.25	44.3	-37.5	58.1	53.8	13.661		
500.0	500.0	497.0	496.4	2.4	4.5	64.00	52.6	-32.8	61.6	56.2	11.567		
600.0	599.8	593.8	592.2	3.7	5.5	77.85	64.4	-26.1	68.2	61.3	9.858		
700.0	699.4	688.3	685.2	4.2	6.4	86.71	79.2	-17.7	81.6	73.2	9.662	SF	
800.0	798.5	780.6	775.2	4.6	7.1	86.85	96.9	-7.6	101.3	91.0	9.839		
900.0	897.1	870.6	862.1	5.4	7.8	88.99	117.1	3.9	126.5	114.5	10.585		
1,000.0	995.0	958.2	945.8	6.1	8.4	91.45	139.7	16.7	156.8	143.7	11.948		
1,100.0	1,092.0	1,043.2	1,025.9	6.9	9.0	93.63	164.2	30.6	191.9	177.9	13.702		
1,200.0	1,187.9	1,125.4	1,102.4	7.6	9.6	95.40	190.4	45.5	231.3	216.6	15.678		
1,300.0	1,282.6	1,200.0	1,170.9	8.3	10.0	96.49	216.2	60.2	274.8	259.5	17.890		
1,400.0	1,375.8	1,281.4	1,244.4	8.9	10.5	97.72	246.6	77.5	322.0	305.8	19.897		
1,500.0	1,467.4	1,355.1	1,309.9	9.6	11.0	98.36	276.0	94.2	372.7	355.8	22.048		
1,600.0	1,557.2	1,426.0	1,371.8	10.2	11.4	98.71	306.0	111.2	426.6	409.0	24.179		
1,700.0	1,645.2	1,500.0	1,435.2	10.5	11.8	100.18	339.0	130.0	483.5	465.1	26.150		
1,800.0	1,733.0	1,563.5	1,488.7	10.9	12.1	102.05	368.8	147.0	543.1	524.0	28.450		
1,900.0	1,820.8	1,637.3	1,550.2	11.3	12.3	103.79	404.2	167.1	604.2	584.3	30.391		
2,000.0	1,908.6	1,715.0	1,615.1	11.7	12.6	105.30	441.5	188.3	665.6	644.8	32.005		
2,100.0	1,996.4	1,792.8	1,680.0	12.1	12.8	106.56	478.8	209.5	727.3	705.5	33.421		
2,200.0	2,084.2	1,870.6	1,744.9	12.6	13.1	107.63	516.0	230.7	789.2	766.4	34.671		
2,300.0	2,172.0	1,948.3	1,809.7	13.2	13.4	108.55	553.3	251.9	851.2	827.4	35.776		
2,400.0	2,259.8	2,026.1	1,874.6	13.9	13.6	109.34	590.6	273.0	913.3	888.5	36.754		
2,500.0	2,347.6	2,103.9	1,939.5	14.7	13.9	110.03	627.9	294.2	975.5	949.6	37.620		
2,600.0	2,435.4	2,181.6	2,004.4	15.5	14.2	110.64	665.1	315.4	1,037.8	1,010.8	38.392		
2,700.0	2,523.2	2,259.4	2,069.2	16.4	14.5	111.19	702.4	336.6	1,100.2	1,072.1	39.086		
2,800.0	2,611.0	2,337.2	2,134.1	17.2	14.9	111.67	739.7	357.8	1,162.6	1,133.3	39.684		
2,900.0	2,698.8	2,414.9	2,199.0	18.1	15.6	112.11	777.0	379.0	1,225.1	1,194.6	40.238		
3,000.0	2,786.6	2,492.7	2,263.9	19.0	16.3	112.50	814.2	400.2	1,287.6	1,256.0	40.735		
3,100.0	2,874.4	2,570.4	2,328.7	19.9	17.0	112.86	851.5	421.4	1,350.1	1,317.4	41.181		
3,200.0	2,962.2	2,648.2	2,393.6	20.7	17.7	113.18	888.8	442.6	1,412.7	1,378.7	41.586		
3,300.0	3,050.0	2,726.0	2,458.5	21.6	18.5	113.48	926.0	463.8	1,475.3	1,440.1	41.953		
3,400.0	3,137.8	2,803.7	2,523.4	22.5	19.2	113.76	963.3	485.0	1,537.9	1,501.6	42.288		
3,500.0	3,225.6	2,881.5	2,588.2	23.4	19.9	114.01	1,000.6	506.2	1,600.6	1,563.0	42.592		
3,600.0	3,313.3	2,959.3	2,653.1	24.3	20.7	114.24	1,037.9	527.4	1,663.2	1,624.4	42.870		
3,700.0	3,401.1	3,037.0	2,718.0	25.2	21.4	114.46	1,075.1	548.5	1,725.9	1,685.9	43.125		
3,800.0	3,488.9	3,114.8	2,782.9	26.1	22.1	114.66	1,112.4	569.7	1,788.6	1,747.3	43.360		
3,900.0	3,576.7	3,192.6	2,847.7	27.0	22.9	114.85	1,149.7	590.9	1,851.3	1,808.8	43.576		
4,000.0	3,664.5	3,270.3	2,912.6	27.9	23.6	115.03	1,187.0	612.1	1,914.0	1,870.3	43.775		
4,100.0	3,752.3	3,348.1	2,977.5	28.8	24.3	115.19	1,224.2	633.3	1,976.7	1,931.7	43.959		
4,200.0	3,840.1	3,425.8	3,042.4	29.7	25.1	115.35	1,261.5	654.5	2,039.4	1,993.2	44.130		
4,300.0	3,927.9	3,503.6	3,107.2	30.6	25.8	115.49	1,298.8	675.7	2,102.2	2,054.7	44.289		
4,400.0	4,015.7	3,581.4	3,172.1	31.5	26.6	115.63	1,336.1	696.9	2,164.9	2,116.2	44.436		
4,500.0	4,103.5	3,659.1	3,237.0	32.4	27.3	115.76	1,373.3	718.1	2,227.7	2,177.7	44.573		
4,600.0	4,191.3	3,736.9	3,301.9	33.3	28.0	115.88	1,410.6	739.3	2,290.4	2,239.2	44.702		
4,700.0	4,279.1	3,814.7	3,366.7	34.3	28.8	116.00	1,447.9	760.5	2,353.2	2,300.7	44.822		
4,800.0	4,366.9	3,892.4	3,431.6	35.2	29.5	116.11	1,485.2	781.7	2,416.0	2,362.2	44.934		
4,900.0	4,454.7	3,970.2	3,496.5	36.1	30.2	116.21	1,522.4	802.9	2,478.7	2,423.7	45.039		
5,000.0	4,542.5	4,047.9	3,561.4	37.0	31.0	116.31	1,559.7	824.0	2,541.5	2,485.2	45.137		
5,100.0	4,630.3	4,125.7	3,626.2	37.9	31.7	116.40	1,597.0	845.2	2,604.3	2,546.7	45.230		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,200.0	4,718.1	4,203.5	3,691.1	38.8	32.5	116.49	1,634.3	866.4	2,667.1	2,608.2	45.318	
5,300.0	4,805.9	4,281.2	3,756.0	39.7	33.2	116.58	1,671.5	887.6	2,729.9	2,669.8	45.400	
5,400.0	4,893.7	4,359.0	3,820.8	40.6	33.9	116.66	1,708.8	908.8	2,792.7	2,731.3	45.477	
5,500.0	4,981.5	4,436.8	3,885.8	41.5	34.7	117.14	1,746.1	930.0	2,855.4	2,792.8	45.554	
5,600.0	5,070.8	4,515.5	3,951.4	42.4	35.4	118.87	1,783.8	951.5	2,917.1	2,853.2	45.623	
5,700.0	5,161.9	4,595.4	4,018.1	43.1	36.2	120.41	1,822.1	973.2	2,977.1	2,911.9	45.682	
5,800.0	5,254.8	4,676.4	4,085.6	43.8	37.0	121.78	1,860.9	995.3	3,035.3	2,968.9	45.739	
5,900.0	5,349.1	4,758.3	4,153.9	44.4	37.7	122.97	1,900.2	1,017.6	3,091.7	3,024.2	45.796	
6,000.0	5,444.9	4,840.8	4,222.8	44.9	38.5	124.01	1,939.8	1,040.1	3,146.1	3,077.5	45.853	
6,100.0	5,541.8	4,924.0	4,292.2	45.4	39.3	124.90	1,979.6	1,062.8	3,198.6	3,128.9	45.912	
6,200.0	5,639.6	5,007.6	4,361.9	45.7	40.1	125.66	2,019.7	1,085.6	3,249.0	3,178.4	45.974	
6,300.0	5,738.3	5,091.4	4,431.9	46.0	40.9	126.30	2,059.9	1,108.4	3,297.4	3,225.8	46.040	
6,400.0	5,837.6	5,175.4	4,501.9	46.2	41.7	126.83	2,100.1	1,131.3	3,343.8	3,271.3	46.113	
6,500.0	5,937.3	5,259.3	4,571.9	46.3	42.5	127.26	2,140.3	1,154.2	3,388.1	3,314.7	46.194	
6,600.0	6,037.3	5,343.0	4,641.7	46.4	43.3	127.59	2,180.4	1,177.0	3,430.3	3,356.2	46.290	
6,700.0	6,137.3	5,426.4	4,711.3	46.4	44.1	76.64	2,220.4	1,199.7	3,471.3	3,396.5	46.445	
6,800.0	6,237.3	7,054.0	6,237.3	46.4	52.2	71.02	2,628.2	1,431.6	3,501.5	3,413.7	39.875	
6,900.0	6,337.3	7,154.0	6,337.3	46.4	52.2	71.02	2,628.2	1,431.6	3,501.5	3,413.7	39.857	
7,000.0	6,437.3	7,254.0	6,437.3	46.5	52.2	71.02	2,628.2	1,431.6	3,501.5	3,413.6	39.839	
7,100.0	6,537.3	7,354.0	6,537.3	46.5	52.2	71.02	2,628.2	1,431.6	3,501.5	3,413.6	39.821	
7,200.0	6,637.3	7,454.0	6,637.3	46.5	52.2	71.02	2,628.2	1,431.6	3,501.5	3,413.5	39.803	
7,300.0	6,737.3	7,554.0	6,737.3	46.5	52.3	71.02	2,628.2	1,431.6	3,501.5	3,413.5	39.785	
7,400.0	6,837.3	7,654.0	6,837.3	46.6	52.3	71.02	2,628.2	1,431.6	3,501.5	3,413.4	39.766	
7,500.0	6,937.3	7,754.0	6,937.3	46.6	52.3	71.02	2,628.2	1,431.6	3,501.5	3,413.4	39.748	
7,600.0	7,037.3	7,854.0	7,037.3	46.6	52.3	71.02	2,628.2	1,431.6	3,501.5	3,413.4	39.729	
7,700.0	7,137.3	7,954.0	7,137.3	46.6	52.3	71.02	2,628.2	1,431.6	3,501.5	3,413.3	39.710	
7,800.0	7,237.3	8,054.0	7,237.3	46.7	52.3	71.02	2,628.2	1,431.6	3,501.5	3,413.3	39.691	
7,900.0	7,337.3	8,154.0	7,337.3	46.7	52.4	71.02	2,628.2	1,431.6	3,501.5	3,413.2	39.672	
8,000.0	7,437.3	8,254.0	7,437.3	46.7	52.4	71.02	2,628.2	1,431.6	3,501.5	3,413.2	39.653	
8,100.0	7,537.3	8,354.0	7,537.3	46.7	52.4	71.02	2,628.2	1,431.6	3,501.5	3,413.2	39.634	
8,200.0	7,637.3	8,454.0	7,637.3	46.8	52.4	71.02	2,628.2	1,431.6	3,501.5	3,413.1	39.614	
8,300.0	7,737.3	8,554.0	7,737.3	46.8	52.4	71.02	2,628.2	1,431.6	3,501.5	3,413.1	39.595	
8,396.7	7,834.0	8,650.7	7,834.0	46.8	52.4	71.02	2,628.2	1,431.6	3,501.5	3,413.0	39.576	



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-46.66	27.5	-29.1	40.1				
100.0	100.0	100.0	100.0	0.4	0.4	-46.66	27.5	-29.1	40.1	39.3	50.582		
200.0	200.0	200.0	200.0	1.2	1.2	-46.66	27.5	-29.1	40.1	37.6	16.217	CC	
300.0	300.0	299.7	299.6	1.7	2.4	-43.63	29.3	-27.9	40.5	36.9	11.516	ES	
400.0	400.0	399.0	398.7	2.1	3.9	-35.03	34.6	-24.3	42.3	37.7	9.273		
500.0	500.0	497.4	496.6	2.4	5.0	73.49	43.4	-18.3	46.8	41.0	8.043		
600.0	599.8	594.1	592.1	3.7	5.9	90.92	55.4	-10.1	56.6	49.0	7.440	SF	
700.0	699.4	688.3	684.6	4.2	6.7	100.42	70.3	0.1	74.8	65.5	8.061		
800.0	798.5	780.1	773.9	4.6	7.5	99.32	87.8	12.1	99.5	88.5	9.048		
900.0	897.1	869.4	859.9	5.4	8.1	99.79	107.6	25.7	129.3	116.9	10.377		
1,000.0	995.0	956.0	942.3	6.1	8.7	100.71	129.5	40.6	164.0	150.4	12.123		
1,100.0	1,092.0	1,039.8	1,021.1	6.9	9.3	101.61	153.0	56.8	203.0	188.7	14.150		
1,200.0	1,187.9	1,120.6	1,096.0	7.6	9.8	102.35	178.0	73.9	246.3	231.2	16.337		
1,300.0	1,282.6	1,200.0	1,168.6	8.3	10.3	102.94	204.7	92.1	293.4	277.6	18.553		
1,400.0	1,375.8	1,273.0	1,234.2	8.9	10.7	103.15	231.0	110.1	344.2	327.7	20.894		
1,500.0	1,467.4	1,344.6	1,297.6	9.6	11.2	103.23	258.5	129.0	398.3	381.1	23.172		
1,600.0	1,557.2	1,414.3	1,358.3	10.2	11.6	103.14	286.8	148.3	455.7	437.7	25.401		
1,700.0	1,645.2	1,492.5	1,425.9	10.5	11.9	104.57	319.2	170.5	514.8	496.1	27.473		
1,800.0	1,733.0	1,570.6	1,493.4	10.9	12.1	106.88	351.6	192.6	574.7	555.1	29.401		
1,900.0	1,820.8	1,648.6	1,560.9	11.3	12.4	108.77	383.9	214.8	635.0	614.6	31.133		
2,000.0	1,908.6	1,726.7	1,628.4	11.7	12.7	110.34	416.3	236.9	695.8	674.5	32.683		
2,100.0	1,996.4	1,804.7	1,695.9	12.1	12.9	111.67	448.6	259.1	756.8	734.6	34.067		
2,200.0	2,084.2	1,882.8	1,763.4	12.6	13.2	112.80	481.0	281.2	818.1	794.9	35.301		
2,300.0	2,172.0	1,960.8	1,830.9	13.2	13.5	113.78	513.4	303.4	879.5	855.4	36.402		
2,400.0	2,259.8	2,038.9	1,898.4	13.9	13.8	114.63	545.7	325.5	941.1	915.9	37.387		
2,500.0	2,347.6	2,116.9	1,965.9	14.7	14.1	115.38	578.1	347.6	1,002.8	976.6	38.269		
2,600.0	2,435.4	2,195.0	2,033.4	15.5	14.4	116.04	610.4	369.8	1,064.6	1,037.3	39.059		
2,700.0	2,523.2	2,273.0	2,100.9	16.4	14.7	116.64	642.8	391.9	1,126.4	1,098.1	39.772		
2,800.0	2,611.0	2,351.1	2,168.3	17.2	15.0	117.17	675.1	414.1	1,188.4	1,159.0	40.418		
2,900.0	2,698.8	2,429.2	2,235.8	18.1	15.4	117.65	707.5	436.2	1,250.4	1,219.9	40.986		
3,000.0	2,786.6	2,507.2	2,303.3	19.0	16.0	118.08	739.8	458.3	1,312.4	1,280.8	41.515		
3,100.0	2,874.4	2,585.3	2,370.8	19.9	16.7	118.48	772.2	480.5	1,374.5	1,341.8	41.991		
3,200.0	2,962.2	2,663.3	2,438.3	20.7	17.3	118.84	804.5	502.6	1,436.6	1,402.8	42.426		
3,300.0	3,050.0	2,741.4	2,505.8	21.6	18.0	119.17	836.9	524.8	1,498.8	1,463.8	42.823		
3,400.0	3,137.8	2,819.4	2,573.3	22.5	18.7	119.47	869.2	546.9	1,561.0	1,524.8	43.187		
3,500.0	3,225.6	2,897.5	2,640.8	23.4	19.4	119.76	901.6	569.0	1,623.2	1,585.9	43.521		
3,600.0	3,313.3	2,975.5	2,708.3	24.3	20.0	120.02	933.9	591.2	1,685.4	1,646.9	43.828		
3,700.0	3,401.1	3,053.6	2,775.8	25.2	20.7	120.26	966.3	613.3	1,747.6	1,708.0	44.110		
3,800.0	3,488.9	3,131.6	2,843.3	26.1	21.4	120.49	998.6	635.5	1,809.9	1,769.1	44.371		
3,900.0	3,576.7	3,209.7	2,910.8	27.0	22.1	120.70	1,031.0	657.6	1,872.2	1,830.2	44.613		
4,000.0	3,664.5	3,287.7	2,978.3	27.9	22.7	120.90	1,063.4	679.7	1,934.5	1,891.4	44.837		
4,100.0	3,752.3	3,365.8	3,045.8	28.8	23.4	121.08	1,095.7	701.9	1,996.8	1,952.5	45.045		
4,200.0	3,840.1	3,443.8	3,113.3	29.7	24.1	121.25	1,128.1	724.0	2,059.1	2,013.6	45.239		
4,300.0	3,927.9	3,521.9	3,180.7	30.6	24.8	121.42	1,160.4	746.2	2,121.5	2,074.8	45.420		
4,400.0	4,015.7	3,599.9	3,248.2	31.5	25.4	121.57	1,192.8	768.3	2,183.8	2,135.9	45.589		
4,500.0	4,103.5	3,678.0	3,315.7	32.4	26.1	121.72	1,225.1	790.4	2,246.2	2,197.1	45.747		
4,600.0	4,191.3	3,756.1	3,383.2	33.3	26.8	121.86	1,257.5	812.6	2,308.5	2,258.2	45.895		
4,700.0	4,279.1	3,834.1	3,450.7	34.3	27.5	121.99	1,289.8	834.7	2,370.9	2,319.4	46.033		
4,800.0	4,366.9	3,912.2	3,518.2	35.2	28.2	122.11	1,322.2	856.9	2,433.3	2,380.6	46.164		
4,900.0	4,454.7	3,990.2	3,585.7	36.1	28.8	122.23	1,354.5	879.0	2,495.7	2,441.8	46.286		
5,000.0	4,542.5	4,068.3	3,653.2	37.0	29.5	122.34	1,386.9	901.1	2,558.1	2,502.9	46.402		
5,100.0	4,630.3	4,146.3	3,720.7	37.9	30.2	122.45	1,419.2	923.3	2,620.5	2,564.1	46.511		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
5,200.0	4,718.1	4,224.4	3,788.2	38.8	30.9	122.55	1,451.6	945.4	2,682.9	2,625.3	46.614		
5,300.0	4,805.9	4,302.4	3,855.7	39.7	31.6	122.65	1,483.9	967.6	2,745.3	2,686.5	46.711		
5,400.0	4,893.7	4,380.5	3,923.2	40.6	32.2	122.74	1,516.3	989.7	2,807.7	2,747.7	46.803		
5,500.0	4,981.5	4,458.6	3,990.7	41.5	32.9	123.20	1,548.7	1,011.9	2,870.1	2,808.9	46.894		
5,600.0	5,070.8	4,537.8	4,059.2	42.4	33.6	124.82	1,581.5	1,034.3	2,931.1	2,868.7	46.965		
5,700.0	5,161.9	4,618.4	4,128.9	43.1	34.3	126.24	1,614.9	1,057.2	2,990.2	2,926.5	47.009		
5,800.0	5,254.8	4,700.3	4,199.8	43.8	35.0	127.48	1,648.9	1,080.4	3,047.1	2,982.3	47.041		
5,900.0	5,349.1	4,783.4	4,271.6	44.4	35.8	128.56	1,683.3	1,104.0	3,101.9	3,036.0	47.062		
6,000.0	5,444.9	4,867.5	4,344.3	44.9	36.5	129.48	1,718.2	1,127.9	3,154.4	3,087.4	47.074		
6,100.0	5,541.8	4,952.4	4,417.7	45.4	37.2	130.26	1,753.3	1,151.9	3,204.7	3,136.6	47.077		
6,200.0	5,639.6	5,037.9	4,491.7	45.7	38.0	130.90	1,788.8	1,176.2	3,252.5	3,183.4	47.075		
6,300.0	5,738.3	5,124.0	4,566.1	46.0	38.7	131.43	1,824.5	1,200.6	3,298.0	3,227.9	47.070		
6,400.0	5,837.6	5,210.4	4,640.8	46.2	39.5	131.85	1,860.3	1,225.1	3,341.1	3,270.1	47.063		
6,500.0	5,937.3	5,296.9	4,715.6	46.3	40.3	132.16	1,896.2	1,249.7	3,381.7	3,309.9	47.058		
6,600.0	6,037.3	5,383.5	4,790.5	46.4	41.0	132.37	1,932.0	1,274.2	3,420.0	3,347.3	47.064		
6,700.0	6,137.3	5,470.0	4,865.3	46.4	41.8	81.44	1,967.9	1,298.8	3,456.7	3,383.4	47.143		
6,800.0	6,237.3	6,911.7	6,237.3	46.4	48.1	77.03	2,269.1	1,504.9	3,473.1	3,388.6	41.085		
6,900.0	6,337.3	7,011.7	6,337.3	46.4	48.1	77.03	2,269.1	1,504.9	3,473.1	3,388.6	41.065		
7,000.0	6,437.3	7,111.7	6,437.3	46.5	48.1	77.03	2,269.1	1,504.9	3,473.1	3,388.5	41.046		
7,100.0	6,537.3	7,211.7	6,537.3	46.5	48.1	77.03	2,269.1	1,504.9	3,473.1	3,388.5	41.026		
7,200.0	6,637.3	7,311.7	6,637.3	46.5	48.2	77.03	2,269.1	1,504.9	3,473.1	3,388.4	41.005		
7,300.0	6,737.3	7,411.7	6,737.3	46.5	48.2	77.03	2,269.1	1,504.9	3,473.1	3,388.4	40.985		
7,400.0	6,837.3	7,511.7	6,837.3	46.6	48.2	77.03	2,269.1	1,504.9	3,473.1	3,388.3	40.965		
7,500.0	6,937.3	7,611.7	6,937.3	46.6	48.2	77.03	2,269.1	1,504.9	3,473.1	3,388.3	40.944		
7,600.0	7,037.3	7,711.7	7,037.3	46.6	48.2	77.03	2,269.1	1,504.9	3,473.1	3,388.3	40.924		
7,700.0	7,137.3	7,811.7	7,137.3	46.6	48.3	77.03	2,269.1	1,504.9	3,473.1	3,388.2	40.903		
7,800.0	7,237.3	7,911.7	7,237.3	46.7	48.3	77.03	2,269.1	1,504.9	3,473.1	3,388.2	40.882		
7,900.0	7,337.3	8,011.7	7,337.3	46.7	48.3	77.03	2,269.1	1,504.9	3,473.1	3,388.1	40.861		
8,000.0	7,437.3	8,111.7	7,437.3	46.7	48.3	77.03	2,269.1	1,504.9	3,473.1	3,388.1	40.840		
8,100.0	7,537.3	8,211.7	7,537.3	46.7	48.3	77.03	2,269.1	1,504.9	3,473.1	3,388.0	40.819		
8,200.0	7,637.3	8,311.7	7,637.3	46.8	48.4	77.03	2,269.1	1,504.9	3,473.1	3,388.0	40.797		
8,300.0	7,737.3	8,411.7	7,737.3	46.8	48.4	77.03	2,269.1	1,504.9	3,473.1	3,388.0	40.776		
8,396.7	7,834.0	8,508.4	7,834.0	46.8	48.4	77.03	2,269.1	1,504.9	3,473.1	3,387.9	40.756		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft	
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	-46.96	16.4	-17.6	24.0					
100.0	100.0	100.0	100.0	0.4	0.4	-46.96	16.4	-17.6	24.0	23.2	30.327			
200.0	200.0	200.0	200.0	1.2	1.2	-46.96	16.4	-17.6	24.0	21.6	9.723			
271.7	271.7	271.8	271.7	1.6	2.0	-44.28	17.2	-16.8	24.0	20.8	7.435	CC		
300.0	300.0	300.0	300.0	1.7	2.3	-41.76	17.9	-16.0	24.0	20.6	6.942	ES		
400.0	400.0	399.6	399.3	2.1	3.9	-26.79	22.5	-11.3	25.2	20.7	5.612			
500.0	500.0	498.3	497.5	2.4	5.0	90.17	29.9	-3.7	30.2	24.2	4.993	SF		
600.0	599.8	595.2	593.2	3.7	5.9	112.57	40.1	6.8	43.4	35.1	5.272			
700.0	699.4	689.3	685.6	4.2	6.7	121.20	52.7	19.7	66.3	56.3	6.654			
800.0	798.5	780.7	774.5	4.6	7.5	117.77	67.5	34.8	95.6	84.2	8.357			
900.0	897.1	869.3	859.8	5.4	8.1	116.16	84.1	51.9	130.0	117.2	10.187			
1,000.0	995.0	954.8	941.2	6.1	8.7	115.40	102.4	70.6	169.2	155.4	12.273			
1,100.0	1,092.0	1,036.9	1,018.4	6.9	9.2	114.99	121.9	90.6	213.0	198.4	14.562			
1,200.0	1,187.9	1,115.5	1,091.4	7.6	9.8	114.67	142.4	111.6	261.2	245.8	16.979			
1,300.0	1,282.6	1,190.6	1,160.1	8.3	10.2	114.31	163.6	133.3	313.4	297.3	19.466			
1,400.0	1,375.8	1,262.1	1,224.5	8.9	10.7	113.86	185.2	155.5	369.5	352.7	22.000			
1,500.0	1,467.4	1,330.0	1,284.8	9.6	11.1	113.29	207.0	177.9	429.2	411.7	24.558			
1,600.0	1,557.2	1,400.0	1,345.9	10.2	11.5	112.76	230.8	202.3	492.2	474.0	26.942			
1,700.0	1,645.2	1,459.1	1,396.7	10.5	11.7	113.21	251.8	223.8	558.1	539.5	29.889			
1,800.0	1,733.0	1,531.7	1,459.1	10.9	11.9	115.20	277.9	250.5	625.1	605.7	32.255			
1,900.0	1,820.8	1,604.4	1,521.4	11.3	12.1	116.81	303.9	277.3	692.4	672.2	34.391			
2,000.0	1,908.6	1,677.0	1,583.7	11.7	12.3	118.15	330.0	304.0	759.9	739.0	36.310			
2,100.0	1,996.4	1,749.7	1,646.0	12.1	12.6	119.28	356.0	330.7	827.6	805.9	38.043			
2,200.0	2,084.2	1,822.3	1,708.3	12.6	12.9	120.23	382.1	357.4	895.5	872.9	39.607			
2,300.0	2,172.0	1,894.9	1,770.7	13.2	13.1	121.06	408.2	384.1	963.5	940.0	41.016			
2,400.0	2,259.8	1,967.6	1,833.0	13.9	13.4	121.78	434.2	410.9	1,031.6	1,007.2	42.285			
2,500.0	2,347.6	2,040.2	1,895.3	14.7	13.7	122.41	460.3	437.6	1,099.8	1,074.5	43.432			
2,600.0	2,435.4	2,112.9	1,957.6	15.5	13.9	122.96	486.4	464.3	1,168.0	1,141.8	44.470			
2,700.0	2,523.2	2,185.5	2,019.9	16.4	14.2	123.46	512.4	491.0	1,236.3	1,209.1	45.410			
2,800.0	2,611.0	2,258.2	2,082.3	17.2	14.5	123.91	538.5	517.8	1,304.7	1,276.5	46.268			
2,900.0	2,698.8	2,330.8	2,144.6	18.1	15.0	124.31	564.6	544.5	1,373.1	1,343.9	47.035			
3,000.0	2,786.6	2,403.5	2,206.9	19.0	15.7	124.67	590.6	571.2	1,441.5	1,411.3	47.746			
3,100.0	2,874.4	2,476.1	2,269.2	19.9	16.3	125.00	616.7	597.9	1,509.9	1,478.7	48.391			
3,200.0	2,962.2	2,548.7	2,331.6	20.7	17.0	125.31	642.7	624.7	1,578.4	1,546.1	48.982			
3,300.0	3,050.0	2,621.4	2,393.9	21.6	17.7	125.58	668.8	651.4	1,646.9	1,613.6	49.525			
3,400.0	3,137.8	2,694.0	2,456.2	22.5	18.3	125.84	694.9	678.1	1,715.4	1,681.1	50.023			
3,500.0	3,225.6	2,766.7	2,518.5	23.4	19.0	126.07	720.9	704.8	1,783.9	1,748.5	50.482			
3,600.0	3,313.3	2,839.3	2,580.8	24.3	19.7	126.29	747.0	731.6	1,852.4	1,816.0	50.905			
3,700.0	3,401.1	2,912.0	2,643.2	25.2	20.3	126.49	773.1	758.3	1,921.0	1,883.5	51.297			
3,800.0	3,488.9	2,984.6	2,705.5	26.1	21.0	126.68	799.1	785.0	1,989.5	1,951.0	51.660			
3,900.0	3,576.7	3,057.3	2,767.8	27.0	21.7	126.86	825.2	811.7	2,058.1	2,018.5	51.996			
4,000.0	3,664.5	3,129.9	2,830.1	27.9	22.4	127.03	851.2	838.5	2,126.7	2,086.0	52.309			
4,100.0	3,752.3	3,202.6	2,892.4	28.8	23.0	127.18	877.3	865.2	2,195.3	2,153.5	52.601			
4,200.0	3,840.1	3,275.2	2,954.8	29.7	23.7	127.33	903.4	891.9	2,263.9	2,221.0	52.872			
4,300.0	3,927.9	3,347.8	3,017.1	30.6	24.4	127.46	929.4	918.6	2,332.5	2,288.6	53.126			
4,400.0	4,015.7	3,420.5	3,079.4	31.5	25.0	127.59	955.5	945.3	2,401.1	2,356.1	53.363			
4,500.0	4,103.5	3,493.1	3,141.7	32.4	25.7	127.71	981.6	972.1	2,469.7	2,423.6	53.585			
4,600.0	4,191.3	3,565.8	3,204.0	33.3	26.4	127.83	1,007.6	998.8	2,538.3	2,491.1	53.794			
4,700.0	4,279.1	3,638.4	3,266.4	34.3	27.1	127.94	1,033.7	1,025.5	2,607.0	2,558.7	53.989			
4,800.0	4,366.9	3,711.1	3,328.7	35.2	27.7	128.04	1,059.8	1,052.2	2,675.6	2,626.2	54.174			
4,900.0	4,454.7	3,783.7	3,391.0	36.1	28.4	128.14	1,085.8	1,079.0	2,744.2	2,693.7	54.347			
5,000.0	4,542.5	3,856.4	3,453.3	37.0	29.1	128.23	1,111.9	1,105.7	2,812.9	2,761.3	54.510			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-13W - OH - Design #1 **Offset Site Error:** 0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	3,929.0	3,515.6	37.9	29.8	128.32	1,137.9	1,132.4	2,881.5	2,828.8	54.665	
5,200.0	4,718.1	4,001.7	3,578.0	38.8	30.4	128.41	1,164.0	1,159.1	2,950.2	2,896.3	54.811	
5,300.0	4,805.9	4,074.3	3,640.3	39.7	31.1	128.49	1,190.1	1,185.9	3,018.8	2,963.9	54.948	
5,400.0	4,893.7	4,146.9	3,702.6	40.6	31.8	128.57	1,216.1	1,212.6	3,087.5	3,031.4	55.079	
5,500.0	4,981.5	4,219.6	3,765.0	41.5	32.5	129.05	1,242.2	1,239.3	3,156.1	3,098.9	55.206	
5,600.0	5,070.8	4,293.7	3,828.5	42.4	33.2	130.80	1,268.8	1,266.6	3,223.3	3,165.0	55.301	
5,700.0	5,161.9	4,369.6	3,893.6	43.1	33.9	132.34	1,296.0	1,294.5	3,288.3	3,228.9	55.350	
5,800.0	5,254.8	4,447.2	3,960.2	43.8	34.6	133.68	1,323.8	1,323.0	3,351.1	3,290.6	55.375	
5,900.0	5,349.1	4,526.3	4,028.0	44.4	35.3	134.84	1,352.2	1,352.1	3,411.6	3,349.9	55.378	
6,000.0	5,444.9	4,606.8	4,097.1	44.9	36.1	135.84	1,381.1	1,381.7	3,469.6	3,406.9	55.363	
6,100.0	5,541.8	4,688.5	4,167.2	45.4	36.8	136.70	1,410.4	1,411.8	3,525.0	3,461.3	55.331	
6,200.0	5,639.6	4,771.4	4,238.3	45.7	37.6	137.42	1,440.2	1,442.3	3,577.9	3,513.2	55.286	
6,300.0	5,738.3	4,855.1	4,310.1	46.0	38.4	138.01	1,470.2	1,473.1	3,628.2	3,562.5	55.231	
6,400.0	5,837.6	4,939.6	4,382.6	46.2	39.2	138.50	1,500.5	1,504.2	3,675.7	3,609.1	55.169	
6,500.0	5,937.3	5,024.8	4,455.7	46.3	40.0	138.88	1,531.1	1,535.5	3,720.6	3,653.1	55.106	
6,600.0	6,037.3	5,110.3	4,529.1	46.4	40.7	139.16	1,561.8	1,567.0	3,762.7	3,694.4	55.054	
6,700.0	6,137.3	5,196.1	4,602.7	46.4	41.5	88.30	1,592.5	1,598.5	3,803.0	3,734.0	55.113	
6,800.0	6,237.3	5,281.9	4,676.3	46.4	42.3	87.81	1,623.3	1,630.1	3,843.5	3,773.8	55.177	
6,900.0	6,337.3	7,045.3	6,337.3	46.4	50.9	83.04	1,959.9	1,975.2	3,883.4	3,799.8	46.441	
7,000.0	6,437.3	7,145.3	6,437.3	46.5	51.0	83.04	1,959.9	1,975.2	3,883.4	3,799.7	46.418	
7,100.0	6,537.3	7,245.3	6,537.3	46.5	51.0	83.04	1,959.9	1,975.2	3,883.4	3,799.7	46.395	
7,200.0	6,637.3	7,345.3	6,637.3	46.5	51.0	83.04	1,959.9	1,975.2	3,883.4	3,799.7	46.372	
7,300.0	6,737.3	7,445.3	6,737.3	46.5	51.0	83.04	1,959.9	1,975.2	3,883.4	3,799.6	46.348	
7,400.0	6,837.3	7,545.3	6,837.3	46.6	51.0	83.04	1,959.9	1,975.2	3,883.4	3,799.6	46.325	
7,500.0	6,937.3	7,645.3	6,937.3	46.6	51.1	83.04	1,959.9	1,975.2	3,883.4	3,799.5	46.301	
7,600.0	7,037.3	7,745.3	7,037.3	46.6	51.1	83.04	1,959.9	1,975.2	3,883.4	3,799.5	46.278	
7,700.0	7,137.3	7,845.3	7,137.3	46.6	51.1	83.04	1,959.9	1,975.2	3,883.4	3,799.4	46.254	
7,800.0	7,237.3	7,945.3	7,237.3	46.7	51.1	83.04	1,959.9	1,975.2	3,883.4	3,799.4	46.230	
7,900.0	7,337.3	8,045.3	7,337.3	46.7	51.1	83.04	1,959.9	1,975.2	3,883.4	3,799.4	46.206	
8,000.0	7,437.3	8,145.3	7,437.3	46.7	51.2	83.04	1,959.9	1,975.2	3,883.4	3,799.3	46.182	
8,100.0	7,537.3	8,245.3	7,537.3	46.7	51.2	83.04	1,959.9	1,975.2	3,883.4	3,799.3	46.157	
8,200.0	7,637.3	8,345.3	7,637.3	46.8	51.2	83.04	1,959.9	1,975.2	3,883.4	3,799.2	46.133	
8,300.0	7,737.3	8,445.3	7,737.3	46.8	51.2	83.04	1,959.9	1,975.2	3,883.4	3,799.2	46.108	
8,396.7	7,834.0	8,542.1	7,834.0	46.8	51.2	83.04	1,959.9	1,975.2	3,883.4	3,799.1	46.085	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-47.44	5.5	-5.9	8.1				
100.0	100.0	100.0	100.0	0.4	0.4	-47.44	5.5	-5.9	8.1	7.3	10.196		
200.0	200.0	200.0	200.0	1.2	1.2	-47.44	5.5	-5.9	8.1	5.6	3.269		
296.7	296.7	296.8	296.7	1.7	1.7	-39.45	6.2	-5.1	8.0	4.8	2.481	Level 1, CC	
300.0	300.0	300.0	300.0	1.7	1.7	-38.70	6.2	-5.0	8.0	4.8	2.464	Level 1, ES	
400.0	400.0	399.7	399.6	2.1	3.3	-4.76	9.7	-0.8	9.7	5.2	2.127	Level 1, SF	
500.0	500.0	498.7	498.0	2.4	4.6	121.11	15.8	6.7	17.9	11.3	2.715		
600.0	599.8	595.8	594.2	3.7	5.5	137.98	24.5	17.2	35.0	26.3	4.006		
700.0	699.4	690.3	687.1	4.2	6.4	139.71	35.4	30.4	60.6	50.5	5.976		
800.0	798.5	782.1	776.6	4.6	7.1	132.03	48.3	46.1	91.7	80.3	8.073		
900.0	897.1	870.8	862.3	5.4	7.8	127.84	62.9	63.9	127.6	115.0	10.128		
1,000.0	995.0	956.3	944.0	6.1	8.4	125.40	79.0	83.4	168.4	154.7	12.342		
1,100.0	1,092.0	1,038.3	1,021.4	6.9	9.0	123.82	96.2	104.3	213.7	199.2	14.716		
1,200.0	1,187.9	1,116.7	1,094.4	7.6	9.5	122.84	114.3	126.3	263.4	248.1	17.203		
1,300.0	1,282.6	1,191.3	1,162.9	8.3	10.0	121.63	133.0	149.0	317.4	301.3	19.762		
1,400.0	1,375.8	1,262.1	1,227.1	8.9	10.4	120.67	152.0	172.2	375.3	358.5	22.375		
1,500.0	1,467.4	1,329.0	1,286.8	9.6	10.8	119.67	171.2	195.5	436.9	419.5	25.101		
1,600.0	1,557.2	1,396.9	1,346.6	10.2	11.0	118.75	191.6	220.3	501.7	483.7	27.869		
1,700.0	1,645.2	1,469.9	1,410.7	10.5	11.2	119.45	213.8	247.2	568.3	549.7	30.482		
1,800.0	1,733.0	1,542.6	1,474.5	10.9	11.5	121.27	235.9	274.1	635.4	616.1	32.868		
1,900.0	1,820.8	1,615.3	1,538.4	11.3	11.7	122.76	258.0	300.9	702.8	682.8	35.030		
2,000.0	1,908.6	1,688.0	1,602.2	11.7	12.0	123.99	280.1	327.8	770.5	749.6	36.989		
2,100.0	1,996.4	1,760.7	1,666.1	12.1	12.2	125.02	302.2	354.6	838.3	816.6	38.762		
2,200.0	2,084.2	1,833.4	1,730.0	12.6	12.5	125.91	324.3	381.5	906.2	883.7	40.368		
2,300.0	2,172.0	1,906.1	1,793.8	13.2	12.8	126.67	346.3	408.3	974.2	950.9	41.825		
2,400.0	2,259.8	1,978.8	1,857.7	13.9	13.0	127.33	368.4	435.2	1,042.3	1,018.2	43.140		
2,500.0	2,347.6	2,051.6	1,921.5	14.7	13.3	127.92	390.5	462.0	1,110.5	1,085.5	44.334		
2,600.0	2,435.4	2,124.3	1,985.4	15.5	13.6	128.44	412.6	488.9	1,178.7	1,152.8	45.420		
2,700.0	2,523.2	2,197.0	2,049.3	16.4	13.9	128.90	434.7	515.7	1,247.0	1,220.1	46.409		
2,800.0	2,611.0	2,269.7	2,113.1	17.2	14.2	129.31	456.8	542.6	1,315.3	1,287.5	47.306		
2,900.0	2,698.8	2,342.4	2,177.0	18.1	14.5	129.68	478.9	569.4	1,383.7	1,354.9	48.123		
3,000.0	2,786.6	2,415.1	2,240.8	19.0	15.1	130.02	501.0	596.3	1,452.1	1,422.3	48.882		
3,100.0	2,874.4	2,487.8	2,304.7	19.9	15.7	130.33	523.1	623.1	1,520.5	1,489.8	49.571		
3,200.0	2,962.2	2,560.5	2,368.6	20.7	16.3	130.61	545.2	650.0	1,588.9	1,557.2	50.203		
3,300.0	3,050.0	2,633.2	2,432.4	21.6	16.9	130.87	567.3	676.8	1,657.3	1,624.7	50.785		
3,400.0	3,137.8	2,706.0	2,496.3	22.5	17.5	131.11	589.4	703.7	1,725.8	1,692.2	51.322		
3,500.0	3,225.6	2,778.7	2,560.1	23.4	18.2	131.33	611.5	730.5	1,794.3	1,759.6	51.818		
3,600.0	3,313.3	2,851.4	2,624.0	24.3	18.8	131.53	633.5	757.4	1,862.7	1,827.1	52.276		
3,700.0	3,401.1	2,924.1	2,687.8	25.2	19.4	131.72	655.6	784.2	1,931.2	1,894.6	52.702		
3,800.0	3,488.9	2,996.8	2,751.7	26.1	20.1	131.90	677.7	811.1	1,999.8	1,962.1	53.098		
3,900.0	3,576.7	3,069.5	2,815.6	27.0	20.7	132.06	699.8	837.9	2,068.3	2,029.6	53.465		
4,000.0	3,664.5	3,142.2	2,879.4	27.9	21.3	132.22	721.9	864.8	2,136.8	2,097.1	53.807		
4,100.0	3,752.3	3,214.9	2,943.3	28.8	21.9	132.36	744.0	891.6	2,205.3	2,164.6	54.127		
4,200.0	3,840.1	3,287.6	3,007.1	29.7	22.6	132.50	766.1	918.4	2,273.9	2,232.1	54.426		
4,300.0	3,927.9	3,360.4	3,071.0	30.6	23.2	132.62	788.2	945.3	2,342.4	2,299.6	54.706		
4,400.0	4,015.7	3,433.1	3,134.9	31.5	23.8	132.74	810.3	972.1	2,411.0	2,367.1	54.968		
4,500.0	4,103.5	3,505.8	3,198.7	32.4	24.5	132.86	832.4	999.0	2,479.5	2,434.6	55.215		
4,600.0	4,191.3	3,578.5	3,262.6	33.3	25.1	132.97	854.5	1,025.8	2,548.1	2,502.2	55.446		
4,700.0	4,279.1	3,651.2	3,326.4	34.3	25.7	133.07	876.6	1,052.7	2,616.7	2,569.7	55.664		
4,800.0	4,366.9	3,723.9	3,390.3	35.2	26.3	133.17	898.7	1,079.5	2,685.3	2,637.2	55.869		
4,900.0	4,454.7	3,796.6	3,454.2	36.1	27.0	133.26	920.7	1,106.4	2,753.8	2,704.7	56.063		
5,000.0	4,542.5	3,869.3	3,518.0	37.0	27.6	133.35	942.8	1,133.2	2,822.4	2,772.2	56.245		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-14W - OH - Design #1 **Offset Site Error:** 0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	3,942.0	3,581.9	37.9	28.2	133.43	964.9	1,160.1	2,891.0	2,839.8	56.418	
5,200.0	4,718.1	4,014.8	3,645.7	38.8	28.9	133.51	987.0	1,186.9	2,959.6	2,907.3	56.581	
5,300.0	4,805.9	4,087.5	3,709.6	39.7	29.5	133.59	1,009.1	1,213.8	3,028.2	2,974.8	56.736	
5,400.0	4,893.7	4,160.2	3,773.5	40.6	30.1	133.66	1,031.2	1,240.6	3,096.8	3,042.3	56.883	
5,500.0	4,981.5	4,232.9	3,837.4	41.5	30.8	134.10	1,053.3	1,267.5	3,165.3	3,109.8	57.027	
5,600.0	5,070.8	4,307.2	3,902.6	42.4	31.4	135.71	1,075.9	1,294.9	3,232.3	3,175.7	57.125	
5,700.0	5,161.9	4,383.5	3,969.6	43.1	32.1	137.12	1,099.1	1,323.1	3,296.9	3,239.2	57.161	
5,800.0	5,254.8	4,461.6	4,038.2	43.8	32.8	138.33	1,122.8	1,351.9	3,359.0	3,300.3	57.162	
5,900.0	5,349.1	4,541.4	4,108.3	44.4	33.4	139.37	1,147.1	1,381.4	3,418.6	3,358.8	57.132	
6,000.0	5,444.9	4,622.9	4,179.8	44.9	34.2	140.26	1,171.8	1,411.5	3,475.6	3,414.7	57.074	
6,100.0	5,541.8	4,705.7	4,252.6	45.4	34.9	141.01	1,197.0	1,442.1	3,529.7	3,467.8	56.993	
6,200.0	5,639.6	4,789.8	4,326.4	45.7	35.6	141.63	1,222.5	1,473.1	3,581.1	3,518.2	56.891	
6,300.0	5,738.3	4,875.0	4,401.2	46.0	36.4	142.14	1,248.4	1,504.6	3,629.6	3,565.7	56.772	
6,400.0	5,837.6	4,961.1	4,476.9	46.2	37.1	142.54	1,274.6	1,536.4	3,675.2	3,610.3	56.640	
6,500.0	5,937.3	5,048.0	4,553.2	46.3	37.9	142.84	1,301.0	1,568.5	3,717.8	3,652.0	56.503	
6,600.0	6,037.3	5,135.5	4,630.0	46.4	38.6	143.05	1,327.5	1,600.8	3,757.5	3,690.8	56.375	
6,700.0	6,137.3	5,223.3	4,707.1	46.4	39.4	92.20	1,354.2	1,633.2	3,795.1	3,727.8	56.383	
6,800.0	6,237.3	5,311.1	4,784.3	46.4	40.2	91.75	1,380.9	1,665.6	3,832.9	3,764.9	56.395	
6,900.0	6,337.3	5,398.9	4,861.5	46.4	41.0	91.30	1,407.6	1,698.0	3,869.9	3,799.9	56.407	
7,000.0	6,437.3	5,487.1	4,938.7	46.5	41.8	90.85	1,434.3	1,730.1	3,906.9	3,834.9	56.419	
7,100.0	6,537.3	5,575.3	5,015.9	46.5	42.6	90.40	1,461.0	1,762.2	3,943.9	3,869.9	56.431	
7,200.0	6,637.3	5,663.5	5,093.1	46.5	43.4	90.00	1,487.7	1,794.3	3,980.9	3,904.9	56.443	
7,300.0	6,737.3	5,751.7	5,170.3	46.5	44.2	89.60	1,514.4	1,826.4	4,017.9	3,940.9	56.455	
7,400.0	6,837.3	5,839.9	5,247.5	46.6	45.0	89.20	1,541.1	1,858.5	4,054.9	3,976.9	56.467	
7,500.0	6,937.3	5,928.1	5,324.7	46.6	45.8	88.80	1,567.8	1,890.6	4,091.9	4,012.9	56.479	
7,600.0	7,037.3	6,016.3	5,401.9	46.6	46.6	88.40	1,594.5	1,922.7	4,128.9	4,048.9	56.491	
7,700.0	7,137.3	6,104.5	5,479.1	46.6	47.4	88.00	1,621.2	1,954.8	4,165.9	4,084.9	56.503	
7,800.0	7,237.3	6,192.7	5,556.3	46.7	48.2	87.60	1,647.9	1,986.9	4,202.9	4,120.9	56.515	
7,900.0	7,337.3	6,280.9	5,633.5	46.7	49.0	87.20	1,674.6	2,019.0	4,239.9	4,156.9	56.527	
8,000.0	7,437.3	6,369.1	5,710.7	46.7	49.8	86.80	1,701.3	2,051.1	4,276.9	4,192.9	56.539	
8,100.0	7,537.3	6,457.3	5,787.9	46.7	50.6	86.40	1,728.0	2,083.2	4,313.9	4,228.9	56.551	
8,200.0	7,637.3	6,545.5	5,865.1	46.8	51.4	86.00	1,754.7	2,115.3	4,350.9	4,264.9	56.563	
8,300.0	7,737.3	6,633.7	5,942.3	46.8	52.2	85.60	1,781.4	2,147.4	4,387.9	4,300.9	56.575	
8,396.7	7,834.0	6,721.9	6,019.5	46.8	53.0	85.20	1,808.1	2,179.5	4,424.9	4,336.9	56.587	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	132.56	-5.5	5.9	8.1				
100.0	100.0	100.0	100.0	0.4	0.4	132.56	-5.5	5.9	8.1	7.3	10.196		
200.0	200.0	200.0	200.0	1.2	1.2	132.56	-5.5	5.9	8.1	5.6	3.269		
200.8	200.8	200.8	200.8	1.2	1.2	132.56	-5.5	5.9	8.1	5.6	3.262 CC		
300.0	300.0	299.9	299.9	1.7	1.6	127.28	-5.0	6.6	8.3	5.1	2.581 ES		
400.0	400.0	399.6	399.5	2.1	3.0	102.58	-2.4	10.6	10.8	6.2	2.351 Level 1, SF		
500.0	500.0	498.5	498.0	2.4	4.4	176.73	2.7	18.0	19.6	13.1	3.016		
600.0	599.8	595.7	594.3	3.7	5.4	168.29	9.9	28.8	37.4	28.5	4.231		
700.0	699.4	690.3	687.4	4.2	6.3	159.12	19.2	42.5	63.4	53.3	6.250		
800.0	798.5	782.0	776.9	4.6	7.0	146.27	30.2	58.8	95.3	84.0	8.453		
900.0	897.1	870.6	862.7	5.4	7.7	139.24	42.8	77.4	132.3	119.8	10.572		
1,000.0	995.0	955.8	944.2	6.1	8.3	135.05	56.5	97.9	174.3	160.7	12.822		
1,100.0	1,092.0	1,037.3	1,021.3	6.9	8.9	132.29	71.3	119.8	221.0	206.5	15.222		
1,200.0	1,187.9	1,115.0	1,093.9	7.6	9.4	130.27	86.8	142.7	272.4	257.0	17.741		
1,300.0	1,282.6	1,188.7	1,161.9	8.3	9.9	128.64	102.8	166.4	328.0	311.9	20.345		
1,400.0	1,375.8	1,258.4	1,225.2	8.9	10.3	127.19	119.0	190.5	387.8	371.0	23.086		
1,500.0	1,467.4	1,330.4	1,289.9	9.6	10.5	125.99	136.7	216.7	451.0	433.6	25.850		
1,600.0	1,557.2	1,405.1	1,356.9	10.2	10.8	125.09	155.1	244.0	516.2	498.0	28.471		
1,700.0	1,645.2	1,478.1	1,422.4	10.5	11.0	125.64	173.2	270.7	582.9	564.1	31.075		
1,800.0	1,733.0	1,550.9	1,487.7	10.9	11.2	127.31	191.1	297.4	650.1	630.7	33.478		
1,900.0	1,820.8	1,623.6	1,553.0	11.3	11.5	128.67	209.1	324.0	717.6	697.5	35.670		
2,000.0	1,908.6	1,696.4	1,618.3	11.7	11.7	129.80	227.1	350.6	785.3	764.5	37.670		
2,100.0	1,996.4	1,769.2	1,683.6	12.1	12.0	130.76	245.0	377.2	853.2	831.6	39.485		
2,200.0	2,084.2	1,842.0	1,748.9	12.6	12.3	131.58	263.0	403.9	921.1	898.7	41.140		
2,300.0	2,172.0	1,914.7	1,814.2	13.2	12.6	132.28	281.0	430.5	989.1	966.0	42.649		
2,400.0	2,259.8	1,987.5	1,879.5	13.9	12.8	132.90	298.9	457.1	1,057.3	1,033.2	44.022		
2,500.0	2,347.6	2,060.3	1,944.8	14.7	13.1	133.44	316.9	483.8	1,125.4	1,100.6	45.271		
2,600.0	2,435.4	2,133.0	2,010.1	15.5	13.4	133.93	334.9	510.4	1,193.6	1,167.9	46.414		
2,700.0	2,523.2	2,205.8	2,075.4	16.4	13.7	134.36	352.8	537.0	1,261.9	1,235.3	47.460		
2,800.0	2,611.0	2,278.6	2,140.7	17.2	14.0	134.74	370.8	563.7	1,330.2	1,302.7	48.415		
2,900.0	2,698.8	2,351.3	2,206.0	18.1	14.3	135.09	388.8	590.3	1,398.5	1,370.1	49.290		
3,000.0	2,786.6	2,424.1	2,271.3	19.0	14.6	135.41	406.7	616.9	1,466.8	1,437.6	50.092		
3,100.0	2,874.4	2,496.9	2,336.6	19.9	15.1	135.70	424.7	643.6	1,535.2	1,505.0	50.840		
3,200.0	2,962.2	2,569.7	2,401.9	20.7	15.6	135.96	442.7	670.2	1,603.6	1,572.5	51.539		
3,300.0	3,050.0	2,642.4	2,467.2	21.6	16.2	136.20	460.6	696.8	1,672.0	1,639.9	52.158		
3,400.0	3,137.8	2,715.2	2,532.5	22.5	16.7	136.43	478.6	723.4	1,740.4	1,707.4	52.741		
3,500.0	3,225.6	2,788.0	2,597.8	23.4	17.3	136.63	496.6	750.1	1,808.8	1,774.9	53.283		
3,600.0	3,313.3	2,860.7	2,663.0	24.3	17.9	136.83	514.5	776.7	1,877.3	1,842.4	53.786		
3,700.0	3,401.1	2,933.5	2,728.3	25.2	18.5	137.00	532.5	803.3	1,945.7	1,909.9	54.254		
3,800.0	3,488.9	3,006.3	2,793.6	26.1	19.1	137.17	550.5	830.0	2,014.2	1,977.4	54.690		
3,900.0	3,576.7	3,079.0	2,858.9	27.0	19.6	137.32	568.4	856.6	2,082.7	2,044.9	55.096		
4,000.0	3,664.5	3,151.8	2,924.2	27.9	20.2	137.47	586.4	883.2	2,151.2	2,112.4	55.476		
4,100.0	3,752.3	3,224.6	2,989.5	28.8	20.8	137.61	604.4	909.9	2,219.6	2,179.9	55.831		
4,200.0	3,840.1	3,297.4	3,054.8	29.7	21.4	137.74	622.3	936.5	2,288.1	2,247.4	56.165		
4,300.0	3,927.9	3,370.1	3,120.1	30.6	22.0	137.86	640.3	963.1	2,356.6	2,314.9	56.477		
4,400.0	4,015.7	3,442.9	3,185.4	31.5	22.6	137.97	658.3	989.8	2,425.1	2,382.4	56.771		
4,500.0	4,103.5	3,515.7	3,250.7	32.4	23.1	138.08	676.2	1,016.4	2,493.6	2,449.9	57.047		
4,600.0	4,191.3	3,588.4	3,316.0	33.3	23.7	138.18	694.2	1,043.0	2,562.1	2,517.4	57.307		
4,700.0	4,279.1	3,661.2	3,381.3	34.3	24.3	138.28	712.2	1,069.6	2,630.7	2,584.9	57.552		
4,800.0	4,366.9	3,734.0	3,446.6	35.2	24.9	138.37	730.1	1,096.3	2,699.2	2,652.5	57.784		
4,900.0	4,454.7	3,806.7	3,511.9	36.1	25.5	138.46	748.1	1,122.9	2,767.7	2,720.0	58.003		
5,000.0	4,542.5	3,879.5	3,577.2	37.0	26.1	138.54	766.1	1,149.5	2,836.2	2,787.5	58.210		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-15W - OH - Design #1 **Offset Site Error:** 0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard **Offset Well Error:** 0.0 usft

Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,100.0	4,630.3	3,952.3	3,642.5	37.9	26.6	138.62	784.0	1,176.2	2,904.8	2,855.0	58.406	
5,200.0	4,718.1	4,025.1	3,707.8	38.8	27.2	138.69	802.0	1,202.8	2,973.3	2,922.5	58.592	
5,300.0	4,805.9	4,097.8	3,773.1	39.7	27.8	138.77	820.0	1,229.4	3,041.8	2,990.1	58.768	
5,400.0	4,893.7	4,170.6	3,838.4	40.6	28.4	138.84	837.9	1,256.1	3,110.4	3,057.6	58.936	
5,500.0	4,981.5	4,243.4	3,903.7	41.5	29.0	139.24	855.9	1,282.7	3,178.8	3,125.0	59.099	
5,600.0	5,070.8	4,317.9	3,970.5	42.4	29.6	140.70	874.3	1,309.9	3,245.6	3,190.8	59.205	
5,700.0	5,161.9	4,394.5	4,039.2	43.1	30.2	141.96	893.2	1,338.0	3,309.8	3,253.9	59.228	
5,800.0	5,254.8	4,473.1	4,109.8	43.8	30.8	143.04	912.6	1,366.8	3,371.4	3,314.4	59.206	
5,900.0	5,349.1	4,553.7	4,182.1	44.4	31.5	143.96	932.5	1,396.2	3,430.2	3,372.2	59.143	
6,000.0	5,444.9	4,635.9	4,255.9	44.9	32.2	144.74	952.8	1,426.4	3,486.1	3,427.0	59.043	
6,100.0	5,541.8	4,719.8	4,331.1	45.4	32.8	145.40	973.5	1,457.0	3,539.0	3,479.0	58.912	
6,200.0	5,639.6	4,805.0	4,407.6	45.7	33.5	145.93	994.6	1,488.2	3,589.0	3,527.9	58.752	
6,300.0	5,738.3	4,891.5	4,485.3	46.0	34.2	146.35	1,015.9	1,519.9	3,635.8	3,573.7	58.568	
6,400.0	5,837.6	4,979.2	4,563.9	46.2	34.9	146.68	1,037.6	1,552.0	3,679.5	3,616.5	58.367	
6,500.0	5,937.3	5,067.7	4,643.3	46.3	35.6	146.91	1,059.4	1,584.4	3,720.1	3,656.1	58.156	
6,600.0	6,037.3	5,157.0	4,723.4	46.4	36.4	147.06	1,081.5	1,617.0	3,757.4	3,692.6	57.953	
6,700.0	6,137.3	5,246.7	4,803.9	46.4	37.1	96.24	1,103.6	1,649.9	3,792.6	3,727.1	57.913	
6,800.0	6,237.3	5,336.4	4,884.4	46.4	37.8	95.83	1,125.8	1,682.7	3,827.8	3,761.7	57.879	
6,900.0	6,337.3	5,426.1	4,965.9	46.4	38.5	95.42	1,148.1	1,716.0	3,861.3	3,796.2	57.845	
7,000.0	6,437.3	5,515.8	5,047.4	46.5	39.2	95.01	1,170.4	1,749.2	3,894.8	3,830.7	57.811	
7,100.0	6,537.3	5,605.5	5,128.9	46.5	39.9	94.60	1,192.7	1,782.4	3,928.3	3,865.2	57.777	
7,200.0	6,637.3	5,695.2	5,210.4	46.5	40.6	94.19	1,215.0	1,815.6	3,961.8	3,900.7	57.743	
7,300.0	6,737.3	5,784.9	5,291.9	46.5	41.3	93.78	1,237.3	1,848.8	3,995.3	3,935.2	57.709	
7,400.0	6,837.3	5,874.6	5,373.4	46.6	42.0	93.37	1,259.6	1,882.0	4,028.8	3,970.7	57.675	
7,500.0	6,937.3	5,964.3	5,454.9	46.6	42.7	92.96	1,281.9	1,915.2	4,062.3	4,006.2	57.641	
7,600.0	7,037.3	6,054.0	5,536.4	46.6	43.4	92.55	1,304.2	1,948.4	4,095.8	4,041.7	57.607	
7,700.0	7,137.3	6,143.7	5,617.9	46.6	44.1	92.14	1,326.5	1,981.6	4,129.3	4,077.2	57.573	
7,800.0	7,237.3	6,233.4	5,699.4	46.7	44.8	91.73	1,348.8	2,014.8	4,162.8	4,112.7	57.539	
7,900.0	7,337.3	6,323.1	5,780.9	46.7	45.5	91.32	1,371.1	2,048.0	4,196.3	4,148.2	57.505	
8,000.0	7,437.3	6,412.8	5,862.4	46.7	46.2	90.91	1,393.4	2,081.2	4,229.8	4,183.7	57.471	
8,100.0	7,537.3	6,502.5	5,943.9	46.7	46.9	90.50	1,415.7	2,114.4	4,263.3	4,219.2	57.437	
8,200.0	7,637.3	6,592.2	6,025.4	46.8	47.6	90.09	1,438.0	2,147.6	4,296.8	4,254.7	57.403	
8,300.0	7,737.3	6,681.9	6,106.9	46.8	48.3	89.68	1,460.3	2,180.8	4,330.3	4,290.2	57.369	
8,396.7	7,834.0	6,771.6	6,188.4	46.8	49.0	89.27	1,482.6	2,214.0	4,363.8	4,325.7	57.335	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft	
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft	
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning		
0.0	0.0	0.0	0.0	0.0	0.0	133.02	-16.4	17.6	24.0					
100.0	100.0	100.0	100.0	0.4	0.4	133.02	-16.4	17.6	24.0	23.2	30.318			
200.0	200.0	200.0	200.0	1.2	1.2	133.02	-16.4	17.6	24.0	21.5	9.720	CC		
300.0	300.0	299.7	299.7	1.7	1.7	130.33	-15.8	18.6	24.4	21.2	7.480	ES		
400.0	400.0	399.1	398.9	2.1	3.3	119.66	-13.3	23.4	27.0	22.5	5.976			
500.0	500.0	497.6	497.0	2.4	4.5	-160.05	-8.9	31.9	34.4	28.3	5.636	SF		
600.0	599.8	594.3	592.7	3.7	5.5	-172.51	-2.7	43.9	51.1	42.5	5.918			
700.0	699.4	688.2	685.1	4.2	6.4	173.83	5.1	58.9	76.9	66.8	7.597			
800.0	798.5	779.2	773.8	4.6	7.1	157.88	14.4	76.7	109.6	98.3	9.697			
900.0	897.1	866.8	858.5	5.4	7.8	148.85	24.8	96.8	148.0	135.5	11.766			
1,000.0	995.0	950.8	938.8	6.1	8.4	143.33	36.2	118.7	191.8	178.1	13.996			
1,100.0	1,092.0	1,030.9	1,014.4	6.9	8.9	139.64	48.3	142.0	240.6	225.9	16.396			
1,200.0	1,187.9	1,107.0	1,085.4	7.6	9.4	136.95	60.9	166.3	294.2	278.6	18.942			
1,300.0	1,282.6	1,178.8	1,151.5	8.3	9.8	134.81	73.9	191.1	352.2	335.9	21.668			
1,400.0	1,375.8	1,255.8	1,221.8	8.9	10.1	133.21	88.4	219.0	413.6	396.7	24.439			
1,500.0	1,467.4	1,332.4	1,291.7	9.6	10.3	132.00	102.8	246.7	477.0	459.4	27.091			
1,600.0	1,557.2	1,407.0	1,359.8	10.2	10.5	131.00	116.8	273.8	542.3	524.0	29.621			
1,700.0	1,645.2	1,479.8	1,426.3	10.5	10.8	131.42	130.5	300.1	609.5	590.5	32.214			
1,800.0	1,733.0	1,552.3	1,492.5	10.9	11.0	132.96	144.2	326.4	677.1	657.6	34.627			
1,900.0	1,820.8	1,624.8	1,558.6	11.3	11.3	134.23	157.9	352.7	745.0	724.8	36.839			
2,000.0	1,908.6	1,697.3	1,624.8	11.7	11.6	135.28	171.5	378.9	813.1	792.2	38.869			
2,100.0	1,996.4	1,769.8	1,691.0	12.1	11.8	136.18	185.2	405.2	881.3	859.6	40.723			
2,200.0	2,084.2	1,842.3	1,757.1	12.6	12.1	136.95	198.8	431.4	949.5	927.2	42.422			
2,300.0	2,172.0	1,914.7	1,823.3	13.2	12.4	137.62	212.5	457.7	1,017.9	994.8	43.979			
2,400.0	2,259.8	1,987.2	1,889.5	13.9	12.7	138.21	226.1	484.0	1,086.3	1,062.4	45.405			
2,500.0	2,347.6	2,059.7	1,955.7	14.7	13.0	138.72	239.8	510.2	1,154.8	1,130.1	46.709			
2,600.0	2,435.4	2,132.2	2,021.8	15.5	13.3	139.18	253.4	536.5	1,223.4	1,197.8	47.908			
2,700.0	2,523.2	2,204.7	2,088.0	16.4	13.6	139.59	267.1	562.7	1,291.9	1,265.6	49.012			
2,800.0	2,611.0	2,277.2	2,154.2	17.2	13.9	139.96	280.7	589.0	1,360.5	1,333.3	50.025			
2,900.0	2,698.8	2,349.7	2,220.4	18.1	14.2	140.30	294.4	615.3	1,429.1	1,401.1	50.958			
3,000.0	2,786.6	2,422.2	2,286.5	19.0	14.5	140.60	308.1	641.5	1,497.8	1,468.9	51.821			
3,100.0	2,874.4	2,494.7	2,352.7	19.9	14.8	140.88	321.7	667.8	1,566.5	1,536.7	52.620			
3,200.0	2,962.2	2,567.2	2,418.9	20.7	15.2	141.13	335.4	694.0	1,635.2	1,604.5	53.354			
3,300.0	3,050.0	2,639.7	2,485.1	21.6	15.6	141.37	349.0	720.3	1,703.9	1,672.3	54.035			
3,400.0	3,137.8	2,712.1	2,551.2	22.5	16.1	141.58	362.7	746.6	1,772.6	1,740.2	54.681			
3,500.0	3,225.6	2,784.6	2,617.4	23.4	16.6	141.78	376.3	772.8	1,841.3	1,808.0	55.273			
3,600.0	3,313.3	2,857.1	2,683.6	24.3	17.2	141.97	390.0	799.1	1,910.1	1,875.8	55.823			
3,700.0	3,401.1	2,929.6	2,749.7	25.2	17.7	142.14	403.6	825.4	1,978.8	1,943.7	56.337			
3,800.0	3,488.9	3,002.1	2,815.9	26.1	18.2	142.30	417.3	851.6	2,047.6	2,011.5	56.817			
3,900.0	3,576.7	3,074.6	2,882.1	27.0	18.8	142.45	430.9	877.9	2,116.3	2,079.4	57.267			
4,000.0	3,664.5	3,147.1	2,948.3	27.9	19.3	142.60	444.6	904.1	2,185.1	2,147.2	57.688			
4,100.0	3,752.3	3,219.6	3,014.4	28.8	19.9	142.73	458.3	930.4	2,253.9	2,215.1	58.084			
4,200.0	3,840.1	3,292.1	3,080.6	29.7	20.4	142.85	471.9	956.7	2,322.7	2,283.0	58.455			
4,300.0	3,927.9	3,364.6	3,146.8	30.6	20.9	142.97	485.6	982.9	2,391.5	2,350.8	58.805			
4,400.0	4,015.7	3,437.1	3,213.0	31.5	21.5	143.08	499.2	1,009.2	2,460.3	2,418.7	59.134			
4,500.0	4,103.5	3,509.6	3,279.1	32.4	22.0	143.19	512.9	1,035.4	2,529.1	2,486.5	59.444			
4,600.0	4,191.3	3,582.0	3,345.3	33.3	22.5	143.29	526.5	1,061.7	2,597.9	2,554.4	59.737			
4,700.0	4,279.1	3,654.5	3,411.5	34.3	23.1	143.38	540.2	1,088.0	2,666.7	2,622.3	60.014			
4,800.0	4,366.9	3,727.0	3,477.7	35.2	23.6	143.47	553.8	1,114.2	2,735.5	2,690.1	60.276			
4,900.0	4,454.7	3,799.5	3,543.8	36.1	24.2	143.56	567.5	1,140.5	2,804.3	2,758.0	60.524			
5,000.0	4,542.5	3,872.0	3,610.0	37.0	24.7	143.64	581.1	1,166.7	2,873.2	2,825.9	60.759			
5,100.0	4,630.3	3,944.5	3,676.2	37.9	25.3	143.71	594.8	1,193.0	2,942.0	2,893.7	60.982			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
5,200.0	4,718.1	4,017.0	3,742.3	38.8	25.8	143.79	608.5	1,219.3	3,010.8	2,961.6	61.194		
5,300.0	4,805.9	4,089.5	3,808.5	39.7	26.3	143.86	622.1	1,245.5	3,079.6	3,029.5	61.396		
5,400.0	4,893.7	4,162.0	3,874.7	40.6	26.9	143.93	635.8	1,271.8	3,148.5	3,097.4	61.587		
5,500.0	4,981.5	4,234.5	3,940.9	41.5	27.4	144.30	649.4	1,298.1	3,217.2	3,165.2	61.774		
5,600.0	5,070.8	4,308.8	4,008.7	42.4	28.0	145.61	663.4	1,325.0	3,284.2	3,231.1	61.889		
5,700.0	5,161.9	4,385.4	4,078.7	43.1	28.5	146.74	677.9	1,352.7	3,348.4	3,294.3	61.901		
5,800.0	5,254.8	4,464.2	4,150.6	43.8	29.1	147.70	692.7	1,381.3	3,409.8	3,354.7	61.857		
5,900.0	5,349.1	4,545.1	4,224.4	44.4	29.7	148.52	707.9	1,410.6	3,468.3	3,412.1	61.763		
6,000.0	5,444.9	4,627.9	4,300.0	44.9	30.4	149.21	723.5	1,440.6	3,523.7	3,466.5	61.623		
6,100.0	5,541.8	4,712.4	4,377.1	45.4	31.0	149.78	739.4	1,471.2	3,575.9	3,517.7	61.443		
6,200.0	5,639.6	4,798.5	4,455.7	45.7	31.6	150.24	755.7	1,502.4	3,625.0	3,565.8	61.227		
6,300.0	5,738.3	4,886.0	4,535.6	46.0	32.3	150.60	772.1	1,534.1	3,670.8	3,610.6	60.981		
6,400.0	5,837.6	4,974.7	4,616.6	46.2	33.0	150.88	788.9	1,566.2	3,713.3	3,652.1	60.713		
6,500.0	5,937.3	5,064.5	4,698.6	46.3	33.6	151.06	805.8	1,598.7	3,752.3	3,690.3	60.430		
6,600.0	6,037.3	5,155.3	4,781.4	46.4	34.3	151.17	822.9	1,631.6	3,788.0	3,725.0	60.156		
6,700.0	6,137.3	5,246.5	4,864.7	46.4	35.0	100.38	840.1	1,664.7	3,821.3	3,757.7	60.077		
6,800.0	6,237.3	5,337.8	4,948.1	46.4	35.7	100.02	857.3	1,697.7	3,854.7	3,790.5	60.006		
6,900.0	6,337.3	5,429.1	5,031.4	46.4	36.4	97.29	874.5	1,730.6	3,887.9	3,823.2	59.935		
7,000.0	6,437.3	5,520.4	5,114.7	46.5	37.1	97.29	891.7	1,763.5	3,921.1	3,855.9	59.864		
7,100.0	6,537.3	5,611.7	5,198.0	46.5	37.8	97.29	908.9	1,796.4	3,954.2	3,888.6	59.793		
7,200.0	6,637.3	5,703.0	5,281.3	46.5	38.5	97.29	926.1	1,829.3	3,987.3	3,921.3	59.722		
7,300.0	6,737.3	5,794.3	5,364.6	46.5	39.2	97.29	943.3	1,862.2	4,020.4	3,954.4	59.651		
7,400.0	6,837.3	5,885.6	5,447.9	46.6	39.9	97.29	960.5	1,895.1	4,053.5	3,987.5	59.580		
7,500.0	6,937.3	5,976.9	5,531.2	46.6	40.6	97.29	977.7	1,928.0	4,086.6	4,020.6	59.509		
7,600.0	7,037.3	6,068.2	5,614.5	46.6	41.3	97.29	994.9	1,960.9	4,119.7	4,053.7	59.438		
7,700.0	7,137.3	6,159.5	5,697.8	46.6	42.0	97.29	1,012.1	1,993.8	4,152.8	4,086.8	59.367		
7,800.0	7,237.3	6,250.8	5,781.1	46.7	42.7	97.29	1,029.3	2,026.7	4,185.9	4,119.9	59.296		
7,900.0	7,337.3	6,342.1	5,864.4	46.7	43.4	97.29	1,046.5	2,059.6	4,219.0	4,153.0	59.225		
8,000.0	7,437.3	6,433.4	5,947.7	46.7	44.1	97.29	1,063.7	2,092.5	4,252.1	4,186.1	59.154		
8,100.0	7,537.3	6,524.7	6,031.0	46.7	44.8	97.29	1,080.9	2,125.4	4,285.2	4,219.2	59.083		
8,200.0	7,637.3	6,616.0	6,114.3	46.8	45.5	97.29	1,098.1	2,158.3	4,318.3	4,252.3	59.012		
8,300.0	7,737.3	6,707.3	6,197.6	46.8	46.2	97.29	1,115.3	2,191.2	4,351.4	4,285.4	58.941		
8,396.7	7,834.0	6,798.6	6,280.9	46.8	46.9	97.29	1,132.5	2,224.1	4,384.5	4,318.5	58.870		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	133.12	-27.3	29.2	40.0				
100.0	100.0	100.0	100.0	0.4	0.4	133.12	-27.3	29.2	40.0	39.2	50.449		
200.0	200.0	200.0	200.0	1.2	1.2	133.12	-27.3	29.2	40.0	37.5	16.174	CC	
300.0	300.0	299.4	299.4	1.7	1.7	131.60	-26.9	30.3	40.5	37.2	12.345	ES	
400.0	400.0	398.3	398.1	2.1	3.3	125.37	-25.1	35.3	43.4	38.8	9.538		
500.0	500.0	496.4	495.8	2.4	4.5	-149.38	-21.8	44.3	50.6	44.6	8.482		
600.0	599.8	592.7	591.1	3.7	5.5	-160.04	-17.2	56.8	66.2	57.9	7.933	SF	
700.0	699.4	686.1	683.0	4.2	6.3	-174.42	-11.5	72.6	91.0	81.1	9.171		
800.0	798.5	776.5	771.2	4.6	7.1	168.26	-4.7	91.2	123.6	112.4	11.044		
900.0	897.1	863.4	855.2	5.4	7.8	158.07	2.9	112.2	162.6	150.0	12.970		
1,000.0	995.0	946.5	934.7	6.1	8.4	151.68	11.2	135.0	207.4	193.7	15.116		
1,100.0	1,092.0	1,025.5	1,009.3	6.9	8.9	147.34	20.0	159.2	257.6	242.8	17.471		
1,200.0	1,187.9	1,100.0	1,078.9	7.6	9.4	144.16	29.1	184.2	312.8	297.1	19.998		
1,300.0	1,282.6	1,177.6	1,150.7	8.3	9.6	141.78	39.2	211.9	372.1	355.8	22.839		
1,400.0	1,375.8	1,256.0	1,223.1	8.9	9.8	140.04	49.5	240.0	433.7	416.7	25.522		
1,500.0	1,467.4	1,332.4	1,293.7	9.6	10.1	138.67	59.4	267.4	497.6	479.9	28.113		
1,600.0	1,557.2	1,406.6	1,362.3	10.2	10.3	137.54	69.1	294.0	563.6	545.2	30.622		
1,700.0	1,645.2	1,478.8	1,429.1	10.5	10.6	137.78	78.5	319.9	631.7	612.7	33.257		
1,800.0	1,733.0	1,550.7	1,495.5	10.9	10.8	139.15	87.9	345.7	700.2	680.6	35.731		
1,900.0	1,820.8	1,622.5	1,562.0	11.3	11.1	140.27	97.3	371.4	768.9	748.7	38.008		
2,000.0	1,908.6	1,694.4	1,628.4	11.7	11.3	141.21	106.7	397.2	837.8	816.9	40.107		
2,100.0	1,996.4	1,766.3	1,694.9	12.1	11.6	142.01	116.1	423.0	906.7	885.1	42.034		
2,200.0	2,084.2	1,838.2	1,761.3	12.6	11.9	142.70	125.5	448.7	975.7	953.5	43.809		
2,300.0	2,172.0	1,910.1	1,827.7	13.2	12.2	143.30	134.8	474.5	1,044.8	1,021.8	45.444		
2,400.0	2,259.8	1,982.0	1,894.2	13.9	12.4	143.82	144.2	500.3	1,114.0	1,090.3	46.946		
2,500.0	2,347.6	2,053.8	1,960.6	14.7	12.7	144.29	153.6	526.0	1,183.2	1,158.7	48.329		
2,600.0	2,435.4	2,125.7	2,027.1	15.5	13.0	144.70	163.0	551.8	1,252.4	1,227.2	49.605		
2,700.0	2,523.2	2,197.6	2,093.5	16.4	13.3	145.07	172.4	577.6	1,321.7	1,295.6	50.785		
2,800.0	2,611.0	2,269.5	2,160.0	17.2	13.6	145.41	181.8	603.3	1,390.9	1,364.1	51.872		
2,900.0	2,698.8	2,341.4	2,226.4	18.1	14.0	145.71	191.1	629.1	1,460.2	1,432.6	52.878		
3,000.0	2,786.6	2,413.3	2,292.9	19.0	14.3	145.98	200.5	654.9	1,529.6	1,501.1	53.813		
3,100.0	2,874.4	2,485.1	2,359.3	19.9	14.6	146.23	209.9	680.7	1,598.9	1,569.7	54.678		
3,200.0	2,962.2	2,557.0	2,425.8	20.7	14.9	146.46	219.3	706.4	1,668.3	1,638.2	55.482		
3,300.0	3,050.0	2,628.9	2,492.2	21.6	15.2	146.68	228.7	732.2	1,737.6	1,706.7	56.230		
3,400.0	3,137.8	2,700.8	2,558.7	22.5	15.6	146.87	238.1	758.0	1,807.0	1,775.3	56.930		
3,500.0	3,225.6	2,772.7	2,625.1	23.4	16.0	147.05	247.4	783.7	1,876.4	1,843.8	57.578		
3,600.0	3,313.3	2,844.6	2,691.6	24.3	16.4	147.22	256.8	809.5	1,945.8	1,912.4	58.173		
3,700.0	3,401.1	2,916.4	2,758.0	25.2	16.9	147.38	266.2	835.3	2,015.2	1,980.9	58.761		
3,800.0	3,488.9	2,988.3	2,824.4	26.1	17.4	147.53	275.6	861.0	2,084.6	2,049.5	59.293		
3,900.0	3,576.7	3,060.2	2,890.9	27.0	17.9	147.66	285.0	886.8	2,154.1	2,118.0	59.792		
4,000.0	3,664.5	3,132.1	2,957.3	27.9	18.4	147.79	294.3	912.6	2,223.5	2,186.6	60.261		
4,100.0	3,752.3	3,204.0	3,023.8	28.8	18.9	147.91	303.7	938.3	2,292.9	2,255.1	60.703		
4,200.0	3,840.1	3,275.9	3,090.2	29.7	19.4	148.03	313.1	964.1	2,362.4	2,323.7	61.119		
4,300.0	3,927.9	3,347.7	3,156.7	30.6	19.9	148.13	322.5	989.9	2,431.8	2,392.3	61.511		
4,400.0	4,015.7	3,419.6	3,223.1	31.5	20.4	148.24	331.9	1,015.6	2,501.2	2,460.8	61.881		
4,500.0	4,103.5	3,491.5	3,289.6	32.4	20.9	148.33	341.3	1,041.4	2,570.7	2,529.4	62.230		
4,600.0	4,191.3	3,563.4	3,356.0	33.3	21.4	148.42	350.6	1,067.2	2,640.2	2,598.0	62.561		
4,700.0	4,279.1	3,635.3	3,422.5	34.3	21.9	148.51	360.0	1,092.9	2,709.6	2,666.5	62.874		
4,800.0	4,366.9	3,707.1	3,488.9	35.2	22.4	148.59	369.4	1,118.7	2,779.1	2,735.1	63.170		
4,900.0	4,454.7	3,779.0	3,555.4	36.1	22.9	148.67	378.8	1,144.5	2,848.5	2,803.6	63.451		
5,000.0	4,542.5	3,850.9	3,621.8	37.0	23.4	148.74	388.2	1,170.2	2,918.0	2,872.2	63.718		
5,100.0	4,630.3	3,922.8	3,688.3	37.9	23.9	148.81	397.6	1,196.0	2,987.5	2,940.8	63.972		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
5,200.0	4,718.1	3,994.7	3,754.7	38.8	24.4	148.88	406.9	1,221.8	3,056.9	3,009.3	64.213		
5,300.0	4,805.9	4,066.6	3,821.1	39.7	24.9	148.95	416.3	1,247.5	3,126.4	3,077.9	64.442		
5,400.0	4,893.7	4,138.4	3,887.6	40.6	25.4	149.01	425.7	1,273.3	3,195.9	3,146.5	64.661		
5,500.0	4,981.5	4,210.4	3,954.1	41.5	25.9	149.34	435.1	1,299.1	3,265.3	3,215.0	64.874		
5,600.0	5,070.8	4,284.2	4,022.3	42.4	26.4	150.50	444.7	1,325.5	3,332.8	3,281.5	65.001		
5,700.0	5,161.9	4,360.4	4,092.8	43.1	27.0	151.50	454.7	1,352.9	3,397.4	3,345.2	65.003		
5,800.0	5,254.8	4,439.1	4,165.5	43.8	27.5	152.35	464.9	1,381.1	3,459.1	3,405.8	64.938		
5,900.0	5,349.1	4,519.9	4,240.2	44.4	28.1	153.07	475.5	1,410.1	3,517.7	3,463.4	64.813		
6,000.0	5,444.9	4,602.8	4,316.8	44.9	28.7	153.67	486.3	1,439.8	3,573.1	3,517.8	64.633		
6,100.0	5,541.8	4,687.6	4,395.2	45.4	29.3	154.16	497.4	1,470.2	3,625.2	3,568.9	64.405		
6,200.0	5,639.6	4,774.1	4,475.2	45.7	29.9	154.56	508.7	1,501.2	3,674.0	3,616.7	64.135		
6,300.0	5,738.3	4,862.2	4,556.6	46.0	30.5	154.87	520.2	1,532.7	3,719.3	3,661.1	63.828		
6,400.0	5,837.6	4,951.7	4,639.3	46.2	31.1	155.10	531.9	1,564.8	3,761.2	3,701.9	63.494		
6,500.0	5,937.3	5,042.4	4,723.2	46.3	31.8	155.25	543.7	1,597.3	3,799.5	3,739.3	63.143		
6,600.0	6,037.3	5,134.2	4,808.0	46.4	32.4	155.34	555.7	1,630.2	3,834.2	3,773.1	62.801		
6,700.0	6,137.3	5,226.6	4,893.5	46.4	33.1	104.58	567.7	1,663.4	3,866.4	3,804.7	62.694		
6,800.0	6,237.3	5,319.1	4,978.9	46.4	33.7	104.27	579.8	1,696.5	3,898.6	3,836.3	62.595		
6,900.0	6,337.3	5,411.5	5,063.3	46.4	34.3	103.96	592.1	1,729.7	3,930.8	3,868.2	62.496		
7,000.0	6,437.3	5,504.9	5,148.7	46.5	34.9	103.65	604.5	1,762.6	3,962.9	3,900.1	62.397		
7,100.0	6,537.3	5,598.3	5,236.1	46.5	35.5	103.34	616.9	1,795.5	3,995.0	3,931.4	62.298		
7,200.0	6,637.3	5,691.7	5,323.5	46.5	36.1	103.03	629.3	1,828.4	4,027.1	3,962.7	62.199		
7,300.0	6,737.3	5,785.1	5,410.9	46.5	36.7	102.72	641.7	1,861.3	4,059.2	3,994.0	62.100		
7,400.0	6,837.3	5,878.5	5,498.3	46.6	37.3	102.41	654.1	1,894.2	4,091.3	4,025.3	62.001		
7,500.0	6,937.3	5,971.9	5,585.7	46.6	37.9	102.10	666.5	1,927.1	4,123.4	4,056.6	61.902		
7,600.0	7,037.3	6,065.3	5,673.1	46.6	38.5	101.79	678.9	1,960.0	4,155.5	4,087.9	61.803		
7,700.0	7,137.3	6,158.7	5,760.5	46.6	39.1	101.48	691.3	1,992.9	4,187.6	4,119.2	61.704		
7,800.0	7,237.3	6,252.1	5,847.9	46.7	39.7	101.17	703.7	2,025.8	4,219.7	4,150.5	61.605		
7,900.0	7,337.3	6,345.5	5,935.3	46.7	40.3	100.86	716.1	2,058.7	4,251.8	4,181.8	61.506		
8,000.0	7,437.3	6,438.9	6,022.7	46.7	40.9	100.55	728.5	2,091.6	4,283.9	4,213.1	61.407		
8,100.0	7,537.3	6,532.3	6,110.1	46.7	41.5	100.24	740.9	2,124.5	4,316.0	4,244.4	61.308		
8,200.0	7,637.3	6,625.7	6,197.5	46.8	42.1	99.93	753.3	2,157.4	4,348.1	4,275.7	61.209		
8,300.0	7,737.3	6,719.1	6,284.9	46.8	42.7	99.62	765.7	2,190.3	4,380.2	4,307.0	61.110		
8,396.7	7,834.0	6,812.5	6,372.3	46.8	43.3	99.31	778.1	2,223.2	4,412.3	4,338.3	61.011		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	133.16	-38.2	40.8	55.9				
100.0	100.0	100.0	100.0	0.4	0.4	133.16	-38.2	40.8	55.9	55.1	70.571		
200.0	200.0	200.0	200.0	1.2	1.2	133.16	-38.2	40.8	55.9	53.4	22.626	CC, ES	
300.0	300.0	298.6	298.6	1.7	2.2	131.40	-37.8	42.8	57.1	53.6	16.119		
400.0	400.0	396.8	396.6	2.1	3.8	126.58	-36.4	49.0	61.1	56.1	12.209		
500.0	500.0	494.2	493.4	2.4	4.9	-145.52	-34.1	59.2	69.6	63.2	10.935		
600.0	599.8	589.5	587.6	3.7	5.9	-153.77	-31.0	73.0	86.1	77.5	10.035	SF	
700.0	699.4	682.0	678.4	4.2	6.6	-167.12	-27.1	90.0	111.4	101.3	11.030		
800.0	798.5	771.2	765.3	4.6	7.3	175.52	-22.6	109.8	144.8	133.4	12.732		
900.0	897.1	856.8	847.8	5.4	8.0	164.97	-17.7	131.9	185.0	172.3	14.530		
1,000.0	995.0	938.3	925.6	6.1	8.6	158.17	-12.3	155.8	231.4	217.5	16.601		
1,100.0	1,092.0	1,015.5	998.4	6.9	9.0	153.48	-6.6	180.8	283.4	268.4	18.980		
1,200.0	1,187.9	1,093.4	1,071.1	7.6	9.3	150.06	-0.5	208.1	340.2	324.5	21.736		
1,300.0	1,282.6	1,173.6	1,145.8	8.3	9.5	147.59	6.0	236.5	399.8	383.4	24.386		
1,400.0	1,375.8	1,251.8	1,218.6	8.9	9.7	145.73	12.2	264.2	461.8	444.7	26.969		
1,500.0	1,467.4	1,327.7	1,289.4	9.6	10.0	144.26	18.3	291.1	526.3	508.4	29.492		
1,600.0	1,557.2	1,401.4	1,358.1	10.2	10.2	143.01	24.2	317.2	593.2	574.6	31.963		
1,700.0	1,645.2	1,472.9	1,424.7	10.5	10.5	143.12	29.9	342.5	662.1	643.0	34.612		
1,800.0	1,733.0	1,544.0	1,491.0	10.9	10.7	144.32	35.6	367.7	731.6	711.9	37.118		
1,900.0	1,820.8	1,615.2	1,557.3	11.3	11.0	145.32	41.3	392.9	801.2	780.9	39.434		
2,000.0	1,908.6	1,686.3	1,623.6	11.7	11.2	146.17	46.9	418.1	870.9	849.9	41.573		
2,100.0	1,996.4	1,757.5	1,689.9	12.1	11.5	146.89	52.6	443.3	940.6	919.0	43.547		
2,200.0	2,084.2	1,828.7	1,756.2	12.6	11.8	147.51	58.3	468.4	1,010.5	988.2	45.372		
2,300.0	2,172.0	1,899.8	1,822.5	13.2	12.1	148.05	64.0	493.6	1,080.4	1,057.4	47.060		
2,400.0	2,259.8	1,971.0	1,888.8	13.9	12.4	148.53	69.7	518.8	1,150.3	1,126.7	48.615		
2,500.0	2,347.6	2,042.1	1,955.1	14.7	12.6	148.95	75.4	544.0	1,220.3	1,195.9	50.054		
2,600.0	2,435.4	2,113.3	2,021.4	15.5	12.9	149.33	81.1	569.2	1,290.3	1,265.2	51.388		
2,700.0	2,523.2	2,184.5	2,087.8	16.4	13.2	149.66	86.8	594.4	1,360.4	1,334.5	52.621		
2,800.0	2,611.0	2,255.6	2,154.1	17.2	13.6	149.97	92.4	619.6	1,430.4	1,403.8	53.764		
2,900.0	2,698.8	2,326.8	2,220.4	18.1	13.9	150.25	98.1	644.8	1,500.5	1,473.1	54.827		
3,000.0	2,786.6	2,397.9	2,286.7	19.0	14.2	150.50	103.8	670.0	1,570.6	1,542.4	55.816		
3,100.0	2,874.4	2,469.1	2,353.0	19.9	14.5	150.73	109.5	695.2	1,640.7	1,611.8	56.733		
3,200.0	2,962.2	2,540.3	2,419.3	20.7	14.8	150.94	115.2	720.4	1,710.8	1,681.1	57.589		
3,300.0	3,050.0	2,611.4	2,485.6	21.6	15.1	151.14	120.9	745.6	1,780.9	1,750.4	58.389		
3,400.0	3,137.8	2,682.6	2,551.9	22.5	15.5	151.32	126.6	770.8	1,851.1	1,819.8	59.135		
3,500.0	3,225.6	2,753.7	2,618.2	23.4	15.8	151.48	132.3	795.9	1,921.2	1,889.1	59.833		
3,600.0	3,313.3	2,824.9	2,684.5	24.3	16.1	151.64	137.9	821.1	1,991.4	1,958.5	60.487		
3,700.0	3,401.1	2,896.1	2,750.8	25.2	16.5	151.79	143.6	846.3	2,061.5	2,027.8	61.101		
3,800.0	3,488.9	2,967.2	2,817.1	26.1	16.9	151.92	149.3	871.5	2,131.7	2,097.1	61.675		
3,900.0	3,576.7	3,038.4	2,883.4	27.0	17.4	152.05	155.0	896.7	2,201.9	2,166.5	62.216		
4,000.0	3,664.5	3,109.5	2,949.8	27.9	17.8	152.17	160.7	921.9	2,272.1	2,235.8	62.723		
4,100.0	3,752.3	3,180.7	3,016.1	28.8	18.3	152.28	166.4	947.1	2,342.2	2,305.2	63.204		
4,200.0	3,840.1	3,251.9	3,082.4	29.7	18.8	152.39	172.1	972.3	2,412.4	2,374.5	63.664		
4,300.0	3,927.9	3,323.0	3,148.7	30.6	19.3	152.48	177.8	997.5	2,482.6	2,443.9	64.088		
4,400.0	4,015.7	3,394.2	3,215.0	31.5	19.7	152.58	183.4	1,022.7	2,552.8	2,513.2	64.492		
4,500.0	4,103.5	3,465.3	3,281.3	32.4	20.2	152.67	189.1	1,047.9	2,623.0	2,582.6	64.874		
4,600.0	4,191.3	3,536.5	3,347.6	33.3	20.7	152.75	194.8	1,073.1	2,693.2	2,651.9	65.236		
4,700.0	4,279.1	3,607.7	3,413.9	34.3	21.2	152.83	200.5	1,098.3	2,763.4	2,721.3	65.579		
4,800.0	4,366.9	3,678.8	3,480.2	35.2	21.6	152.91	206.2	1,123.5	2,833.6	2,790.6	65.904		
4,900.0	4,454.7	3,750.0	3,546.5	36.1	22.1	152.98	211.9	1,148.6	2,903.9	2,860.0	66.213		
5,000.0	4,542.5	3,821.1	3,612.8	37.0	22.6	153.05	217.6	1,173.8	2,974.1	2,929.4	66.507		
5,100.0	4,630.3	3,892.3	3,679.1	37.9	23.1	153.12	223.3	1,199.0	3,044.3	2,998.7	66.787		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Anticollision Report



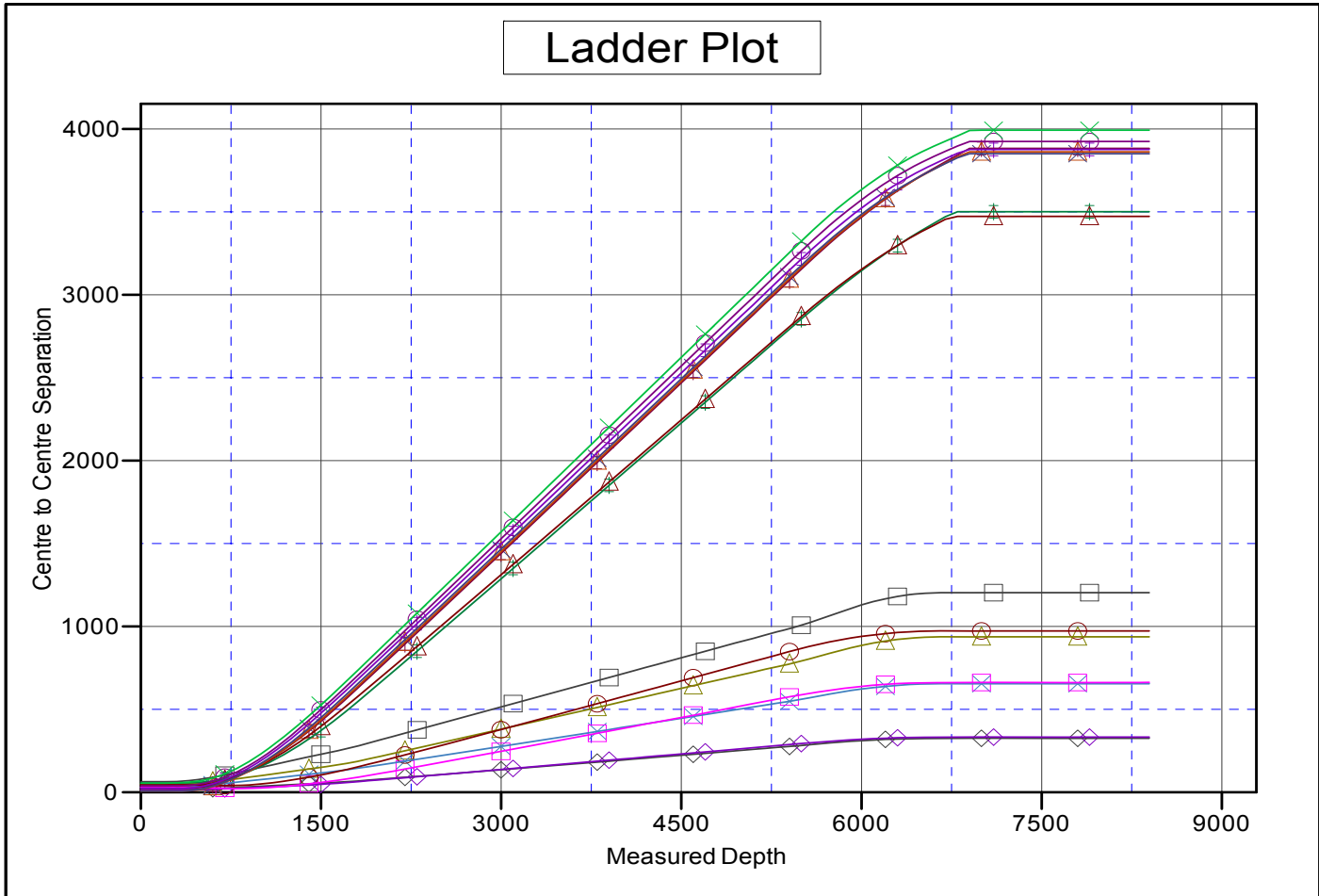
Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard											Offset Well Error:	0.0 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Reference (usft)	Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore +N-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
5,200.0	4,718.1	3,963.5	3,745.4	38.8	23.5	153.18	228.9	1,224.2	3,114.5	3,068.1	67.053	
5,300.0	4,805.9	4,034.6	3,811.8	39.7	24.0	153.24	234.6	1,249.4	3,184.7	3,137.4	67.306	
5,400.0	4,893.7	4,105.8	3,878.1	40.6	24.5	153.30	240.3	1,274.6	3,254.9	3,206.8	67.548	
5,500.0	4,981.5	4,177.0	3,944.4	41.5	25.0	153.60	246.0	1,299.8	3,325.1	3,276.0	67.784	
5,600.0	5,070.8	4,250.2	4,012.6	42.4	25.4	154.63	251.9	1,325.7	3,393.3	3,343.3	67.920	
5,700.0	5,161.9	4,325.9	4,083.2	43.1	26.0	155.52	257.9	1,352.5	3,458.5	3,407.6	67.914	
5,800.0	5,254.8	4,404.2	4,156.1	43.8	26.5	156.27	264.2	1,380.3	3,520.7	3,468.8	67.833	
5,900.0	5,349.1	4,484.8	4,231.2	44.4	27.0	156.90	270.6	1,408.8	3,579.7	3,526.8	67.682	
6,000.0	5,444.9	4,567.5	4,308.3	44.9	27.6	157.43	277.2	1,438.1	3,635.4	3,581.5	67.470	
6,100.0	5,541.8	4,652.3	4,387.4	45.4	28.1	157.87	284.0	1,468.1	3,687.8	3,632.9	67.203	
6,200.0	5,639.6	4,739.0	4,468.1	45.7	28.7	158.22	290.9	1,498.8	3,736.7	3,680.8	66.887	
6,300.0	5,738.3	4,827.4	4,550.4	46.0	29.3	158.49	298.0	1,530.1	3,782.0	3,725.2	66.532	
6,400.0	5,837.6	4,917.3	4,634.2	46.2	29.9	158.69	305.2	1,561.9	3,823.8	3,765.9	66.145	
6,500.0	5,937.3	5,008.5	4,719.2	46.3	30.5	158.83	312.5	1,594.2	3,861.8	3,803.1	65.738	
6,600.0	6,037.3	5,100.9	4,805.4	46.4	31.1	158.90	319.9	1,626.9	3,896.2	3,836.5	65.344	
6,700.0	6,137.3	5,194.1	4,892.2	46.4	31.8	108.18	327.3	1,659.9	3,927.9	3,867.7	65.218	
6,800.0	6,237.3	5,287.3	4,979.0	46.4	32.4	107.91	334.7	1,692.9	3,959.6	3,898.8	65.102	
6,900.0	6,337.3	5,380.5	5,065.8	46.4	33.0	107.65	342.2	1,725.9	3,991.5	3,930.0	64.987	
7,000.0	6,437.3	5,473.7	5,152.6	46.5	33.5	107.40	349.7	1,759.2	4,023.4	4,001.5	64.872	
7,100.0	6,537.3	5,567.5	5,240.4	46.5	34.0	107.15	357.2	1,792.9	4,055.3	4,033.4	64.757	
7,200.0	6,637.3	5,662.3	5,329.2	46.5	34.5	106.90	364.7	1,827.0	4,087.2	4,065.3	64.642	
7,300.0	6,737.3	5,757.5	5,419.0	46.5	35.0	106.65	372.2	1,861.5	4,119.1	4,097.2	64.527	
7,400.0	6,837.3	5,853.7	5,509.8	46.6	35.5	106.40	379.7	1,896.4	4,151.0	4,129.1	64.412	
7,500.0	6,937.3	5,950.9	5,601.6	46.6	36.0	106.15	387.2	1,931.7	4,182.9	4,161.0	64.297	
7,600.0	7,037.3	6,049.1	5,694.4	46.6	36.5	105.90	394.7	1,967.4	4,214.8	4,192.9	64.182	
7,700.0	7,137.3	6,147.3	5,788.2	46.6	37.0	105.65	402.2	1,999.9	4,246.7	4,224.8	64.067	
7,800.0	7,237.3	6,246.5	5,883.0	46.7	37.5	105.40	409.7	2,032.9	4,278.6	4,256.7	63.952	
7,900.0	7,337.3	6,346.7	5,978.8	46.7	38.0	105.15	417.2	2,066.4	4,310.5	4,288.6	63.837	
8,000.0	7,437.3	6,447.9	6,075.6	46.7	38.5	104.90	424.7	2,100.4	4,342.4	4,320.5	63.722	
8,100.0	7,537.3	6,549.1	6,173.4	46.7	39.0	104.65	432.2	2,134.9	4,374.3	4,352.4	63.607	
8,200.0	7,637.3	6,651.3	6,272.2	46.8	39.5	104.40	439.7	2,169.9	4,406.2	4,384.3	63.492	
8,300.0	7,737.3	6,754.5	6,372.0	46.8	40.0	104.15	447.2	2,205.4	4,438.1	4,416.2	63.377	
8,396.7	7,834.0	6,858.7	6,472.8	46.8	38.0	105.90	395.3	1,960.9	3,993.3	3,921.2	55.421	



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=30' @ 7493.0usft (TBD) Coordinates are relative to: Laramie 29-01 0993-20-15E - Slot A-9
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Central Zone
 Central Meridian is -105.500000 Grid Convergence at Surface is: -1.44°



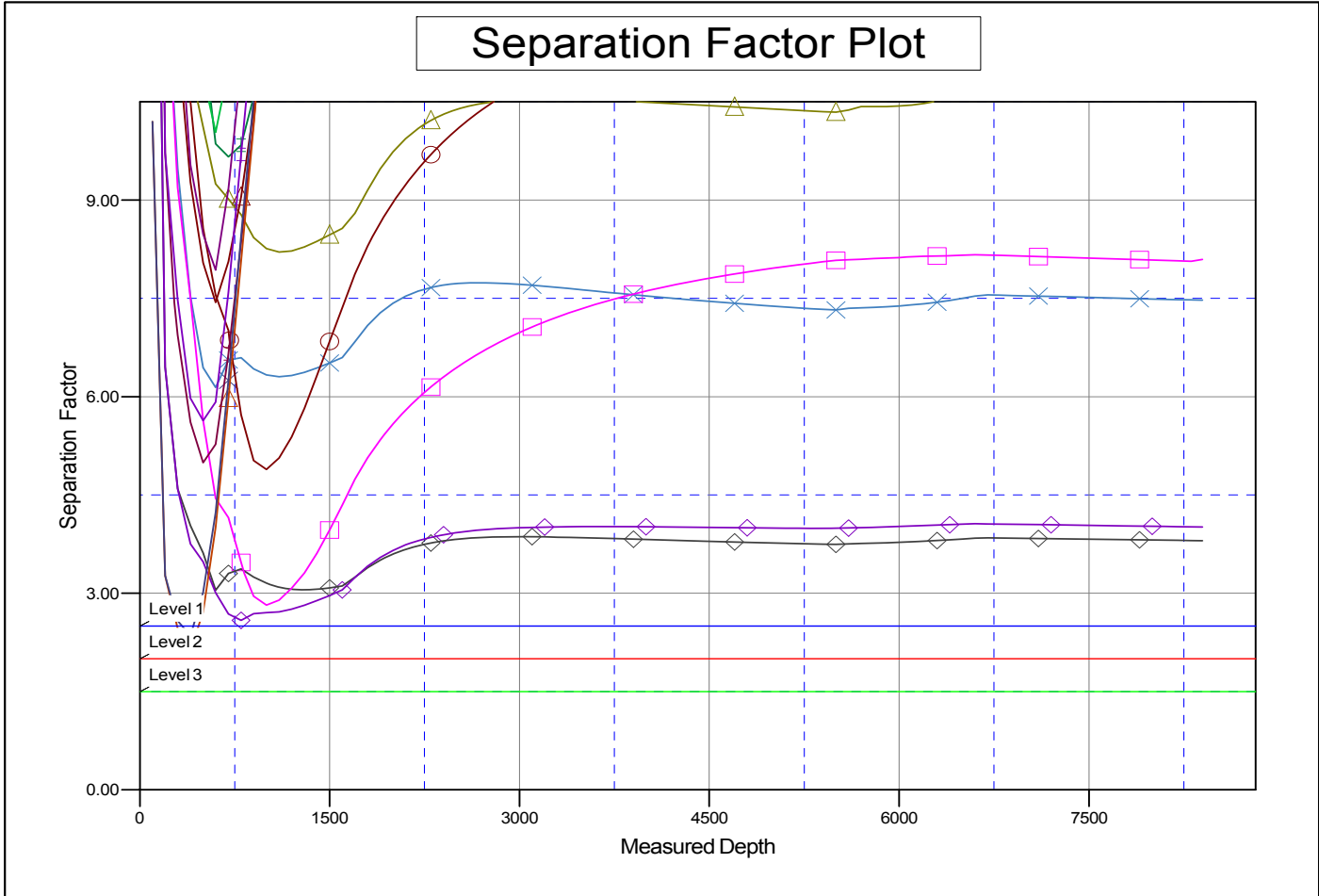
LEGEND

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|-------------------------------------|---|------------------------------------|
| 29-01 0993-20-11E, OH, Design #1 V0 | Laramie 29-01 0993-20-17E, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-14W, OH, |
| 29-01 0993-20-12E, OH, Design #1 V0 | Laramie 29-01 0993-20-18E, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-15W, OH, |
| 29-01 0993-20-13E, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-11W, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-16W, OH, |
| 29-01 0993-20-14E, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-12W, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-17W, OH, |
| 29-01 0993-20-16E, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-13W, OH, Design #1 V0 | Laramie 29-01 Fed 0993-21-18W, OH, |



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 0993-20-15E - Slot A-9
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 0993-20-15E	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Design #1	Offset TVD Reference:	Offset Datum

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 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1983, Colorado Central Zone
 Central Meridian is -105.500000 Grid Convergence at Surface is: -1.44°



LEGEND

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|-------------------------------------|---|--------------------------------------|
| 29-01 0993-20-11E, OH, Design #1 V0 | □ Laramie 29-01 0993-20-17E, OH, Design #1 V0 | ▲ Laramie 29-01 Fed 0993-21-14W, OH, |
| 29-01 0993-20-12E, OH, Design #1 V0 | ○ Laramie 29-01 0993-20-18E, OH, Design #1 V0 | ✕ Laramie 29-01 Fed 0993-21-15W, OH, |
| 29-01 0993-20-13E, OH, Design #1 V0 | ◆ Laramie 29-01 Fed 0993-21-11W, OH, Design #1 V0 | ◇ Laramie 29-01 Fed 0993-21-16W, OH, |
| 29-01 0993-20-14E, OH, Design #1 V0 | △ Laramie 29-01 Fed 0993-21-12W, OH, Design #1 V0 | ⊖ Laramie 29-01 Fed 0993-21-17W, OH, |
| 29-01 0993-20-16E, OH, Design #1 V0 | ✦ Laramie 29-01 Fed 0993-21-13W, OH, Design #1 V0 | ✱ Laramie 29-01 Fed 0993-21-18W, OH, |