



Laramie Energy, LLC

Mesa County, CO

Laramie 0993-29-01

Laramie 29-01 Fed 0993-21-16W

OH

Design #2

KLX Anticollision Report

08 May, 2025





Anticollision Report



Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Reference	Design #2		
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	5/8/2025		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	8,339.4	Design #2 (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 #2	200.0	200.0	60.0	57.2	21.207	CC, ES
Laramie 29-01 0993-20-11E - OH - Design #2	500.0	491.5	80.0	72.6	10.911	SF
Laramie 29-01 0993-20-12E - OH - Design #2	200.0	200.0	60.8	58.0	21.500	CC, ES
Laramie 29-01 0993-20-12E - OH - Design #2	500.0	490.6	83.1	75.4	10.764	SF
Laramie 29-01 0993-20-13E - OH - Design #2	200.0	200.0	51.0	48.2	18.024	CC, ES
Laramie 29-01 0993-20-13E - OH - Design #2	500.0	492.5	71.2	64.5	10.527	SF
Laramie 29-01 0993-20-14E - OH - Design #2	210.0	210.0	41.2	38.3	14.201	CC
Laramie 29-01 0993-20-14E - OH - Design #2	300.0	299.4	41.5	38.0	11.747	ES
Laramie 29-01 0993-20-14E - OH - Design #2	500.0	494.3	58.4	51.0	7.848	SF
Laramie 29-01 0993-20-15E - OH - Design #2	300.0	300.0	31.6	27.9	8.463	CC, ES
Laramie 29-01 0993-20-15E - OH - Design #2	500.0	495.9	45.4	38.0	6.140	SF
Laramie 29-01 0993-20-16E - OH - Design #2	210.0	210.0	14.1	11.2	4.873	CC
Laramie 29-01 0993-20-16E - OH - Design #2	300.0	299.8	14.5	11.0	4.112	ES
Laramie 29-01 0993-20-16E - OH - Design #2	400.0	398.8	20.3	14.9	3.767	SF
Laramie 29-01 0993-20-17E - OH - Design #2	300.0	300.0	10.0	6.3	2.679	CC, ES
Laramie 29-01 0993-20-17E - OH - Design #2	400.0	399.7	13.0	8.1	2.678	SF
Laramie 29-01 0993-20-18E - OH - Design #2	300.0	300.0	22.4	18.6	5.986	CC
Laramie 29-01 0993-20-18E - OH - Design #2	400.0	400.1	22.6	18.3	5.245	ES
Laramie 29-01 0993-20-18E - OH - Design #2	500.0	499.5	25.5	19.8	4.501	SF
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	200.0	200.0	50.0	47.2	17.675	CC
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	300.0	299.5	50.4	46.7	13.612	ES
Laramie 29-01 Fed 0993-21-11W - OH - Design #2	600.0	596.3	65.5	59.1	10.226	SF
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	200.0	200.0	40.0	37.2	14.141	CC
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	300.0	299.7	40.4	36.6	10.697	ES
Laramie 29-01 Fed 0993-21-12W - OH - Design #2	600.0	597.0	54.4	47.9	8.335	SF
Laramie 29-01 Fed 0993-21-13W - OH - Design #2	299.4	299.4	30.0	26.4	8.448	CC
Laramie 29-01 Fed 0993-21-13W - OH - Design #2	300.0	300.0	30.0	26.4	8.438	ES
Laramie 29-01 Fed 0993-21-13W - OH - Design #2	600.0	599.1	37.3	31.4	6.329	SF
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	311.1	311.2	19.8	16.0	5.223	CC, ES
Laramie 29-01 Fed 0993-21-14W - OH - Design #2	700.0	698.5	30.9	23.2	4.042	SF
Laramie 29-01 Fed 0993-21-15W - OH - Design #2	337.9	337.9	9.8	5.9	2.536	CC
Laramie 29-01 Fed 0993-21-15W - OH - Design #2	400.0	400.0	10.0	5.8	2.384	Level 1, ES
Laramie 29-01 Fed 0993-21-15W - OH - Design #2	700.0	699.4	15.6	8.0	2.042	Level 1, SF
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	210.0	210.0	10.0	7.1	3.451	CC
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	300.0	299.9	10.3	6.8	2.933	ES
Laramie 29-01 Fed 0993-21-17W - OH - Design #2	600.0	598.7	16.4	8.3	2.021	Level 1, SF

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



Anticollision Report



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Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Summary						
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 0993-21-18W - OH - Design #2	205.6	205.6	20.0	17.1	6.956	CC
Laramie 29-01 Fed 0993-21-18W - OH - Design #2	300.0	299.9	20.1	16.5	5.630	ES
Laramie 29-01 Fed 0993-21-18W - OH - Design #2	600.0	598.1	26.4	19.5	3.816	SF

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)	Distance Between Ellipses (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-46.74	41.1	-43.7	60.0				
100.0	100.0	100.0	100.0	0.8	0.8	-46.74	41.1	-43.7	60.0	58.4	37.874		
200.0	200.0	200.0	200.0	1.4	1.4	-46.74	41.1	-43.7	60.0	57.2	21.207	CC, ES	
300.0	300.0	297.7	297.6	1.9	2.5	-45.88	43.1	-44.4	61.9	57.7	14.721		
400.0	400.0	395.0	394.7	2.7	3.9	-107.96	48.9	-46.5	68.4	62.5	11.621		
500.0	499.7	491.5	490.7	4.1	5.0	-108.88	58.5	-50.0	80.0	72.6	10.911	SF	
600.0	599.1	586.7	584.9	5.2	5.9	-110.65	71.7	-54.8	96.8	88.2	11.314		
700.0	698.0	679.8	676.4	6.1	6.7	-112.81	87.9	-61.2	119.0	109.3	12.335		
800.0	796.0	770.5	764.7	7.0	7.4	-115.16	106.4	-69.8	146.9	136.3	13.769		
900.0	893.2	858.2	849.3	7.7	8.0	-117.30	126.8	-80.2	180.6	169.0	15.487		
1,000.0	989.2	942.7	930.0	8.4	8.6	-119.06	148.7	-92.3	220.0	207.4	17.422		
1,100.0	1,083.9	1,023.5	1,006.3	9.1	9.1	-120.41	171.8	-105.7	264.7	251.2	19.528		
1,200.0	1,177.0	1,100.0	1,077.6	9.7	9.6	-121.34	195.4	-120.0	314.7	300.2	21.783		
1,300.0	1,268.6	1,173.7	1,145.4	10.2	10.0	-122.20	219.9	-135.2	369.4	354.1	24.207		
1,400.0	1,359.6	1,243.7	1,209.0	10.5	10.4	-123.68	244.7	-151.1	427.3	411.3	26.719		
1,500.0	1,450.5	1,311.3	1,269.4	10.8	10.8	-124.66	270.0	-167.6	487.6	470.9	29.180		
1,600.0	1,541.5	1,376.4	1,326.8	11.1	11.2	-125.31	295.6	-184.6	550.0	532.5	31.575		
1,700.0	1,632.4	1,439.0	1,381.2	11.5	11.6	-125.72	321.4	-201.9	614.2	596.1	33.907		
1,800.0	1,723.4	1,500.0	1,433.3	11.8	11.9	-125.96	347.5	-219.8	680.3	661.5	36.160		
1,900.0	1,814.3	1,557.2	1,481.4	12.2	12.2	-126.08	373.0	-237.4	748.0	728.6	38.408		
2,000.0	1,905.3	1,612.8	1,527.4	12.6	12.5	-126.12	398.6	-255.3	817.3	797.2	40.608		
2,100.0	1,996.3	1,666.2	1,570.9	13.0	12.8	-126.09	424.0	-273.2	888.1	867.4	42.826		
2,200.0	2,087.2	1,729.0	1,621.3	13.4	13.0	-126.00	454.5	-294.9	960.0	938.5	44.709		
2,300.0	2,178.2	1,798.4	1,676.9	13.8	13.3	-125.92	488.2	-318.9	1,032.0	1,009.7	46.243		
2,400.0	2,269.1	1,867.8	1,732.6	14.2	13.5	-125.85	522.0	-343.0	1,104.0	1,080.8	47.632		
2,500.0	2,360.1	1,937.2	1,788.3	14.7	13.8	-125.79	555.8	-367.0	1,176.0	1,151.9	48.889		
2,600.0	2,451.0	2,006.6	1,843.9	15.1	14.1	-125.73	589.6	-391.0	1,248.0	1,223.1	50.028		
2,700.0	2,542.0	2,076.0	1,899.6	15.8	14.4	-125.68	623.4	-415.0	1,320.0	1,294.1	51.032		
2,800.0	2,633.0	2,145.4	1,955.2	16.5	14.9	-125.64	657.1	-439.0	1,392.0	1,365.2	51.938		
2,900.0	2,723.9	2,214.8	2,010.9	17.2	15.5	-125.60	690.9	-463.0	1,464.0	1,436.3	52.798		
3,000.0	2,814.9	2,284.2	2,066.5	18.0	16.2	-125.56	724.7	-487.1	1,536.0	1,507.3	53.566		
3,100.0	2,905.8	2,353.6	2,122.2	18.8	16.9	-125.53	758.5	-511.1	1,608.0	1,578.4	54.265		
3,200.0	2,996.8	2,423.0	2,177.9	19.5	17.6	-125.50	792.3	-535.1	1,680.0	1,649.4	54.909		
3,300.0	3,087.7	2,492.4	2,233.5	20.3	18.4	-125.47	826.0	-559.1	1,752.0	1,720.4	55.498		
3,400.0	3,178.7	2,561.8	2,289.2	21.0	19.2	-125.44	859.8	-583.1	1,824.0	1,791.5	56.035		
3,500.0	3,269.7	2,631.1	2,344.8	21.8	19.9	-125.42	893.6	-607.2	1,896.0	1,862.5	56.533		
3,600.0	3,360.6	2,700.5	2,400.5	22.5	20.7	-125.40	927.4	-631.2	1,968.0	1,933.5	56.993		
3,700.0	3,451.6	2,769.9	2,456.1	23.3	21.5	-125.38	961.2	-655.2	2,040.0	2,004.5	57.414		
3,800.0	3,542.5	2,839.3	2,511.8	24.1	22.2	-125.36	994.9	-679.2	2,112.0	2,075.5	57.805		

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



Anticollision Report



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Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
3,900.0	3,633.5	2,908.7	2,567.4	24.8	23.0	-125.34	1,028.7	-703.2	2,184.0	2,146.5	58.169		
4,000.0	3,724.4	2,978.1	2,623.1	25.6	23.8	-125.32	1,062.5	-727.3	2,256.0	2,217.5	58.506		
4,100.0	3,815.4	3,047.5	2,678.8	26.3	24.6	-125.31	1,096.3	-751.3	2,328.0	2,288.4	58.819		
4,200.0	3,906.4	3,116.9	2,734.4	27.1	25.4	-125.29	1,130.0	-775.3	2,400.0	2,359.4	59.111		
4,300.0	3,997.3	3,186.3	2,790.1	27.9	26.2	-125.28	1,163.8	-799.3	2,472.0	2,430.4	59.384		
4,400.0	4,088.3	3,255.7	2,845.7	28.6	26.9	-125.27	1,197.6	-823.3	2,544.0	2,501.4	59.638		
4,500.0	4,179.2	3,325.1	2,901.4	29.4	27.7	-125.25	1,231.4	-847.3	2,616.0	2,572.3	59.877		
4,600.0	4,270.2	3,394.5	2,957.0	30.2	28.5	-125.24	1,265.2	-871.4	2,688.0	2,643.3	60.100		
4,700.0	4,361.1	3,463.9	3,012.7	30.9	29.3	-125.23	1,298.9	-895.4	2,760.0	2,714.3	60.309		
4,800.0	4,452.1	3,533.3	3,068.3	31.7	30.1	-125.22	1,332.7	-919.4	2,832.0	2,785.2	60.506		
4,900.0	4,543.1	3,602.7	3,124.0	32.4	30.9	-125.21	1,366.5	-943.4	2,904.0	2,856.2	60.691		
5,000.0	4,634.0	3,672.1	3,179.7	33.2	31.7	-125.20	1,400.3	-967.4	2,976.0	2,927.1	60.864		
5,100.0	4,725.0	3,741.4	3,235.3	34.0	32.4	-125.19	1,434.1	-991.5	3,048.0	2,998.1	61.028		
5,200.0	4,815.9	3,810.8	3,291.0	34.7	33.2	-125.18	1,467.8	-1,015.5	3,120.0	3,069.0	61.183		
5,300.0	4,906.9	3,880.2	3,346.6	35.5	34.0	-125.17	1,501.6	-1,039.5	3,192.0	3,140.0	61.329		
5,400.0	4,997.8	3,949.6	3,402.3	36.3	34.8	-125.17	1,535.4	-1,063.5	3,264.0	3,210.9	61.467		
5,500.0	5,088.8	4,019.0	3,457.9	37.0	35.6	-125.16	1,569.2	-1,087.5	3,336.1	3,281.9	61.597		
5,600.0	5,179.8	4,088.4	3,513.6	37.8	36.4	-125.52	1,603.0	-1,111.6	3,408.0	3,352.8	61.725		
5,700.0	5,271.9	4,159.0	3,570.2	38.5	37.2	-127.48	1,637.3	-1,136.0	3,478.8	3,422.5	61.829		
5,800.0	5,365.7	4,231.2	3,628.1	39.1	38.0	-129.20	1,672.5	-1,161.0	3,547.7	3,490.4	61.904		
5,900.0	5,460.8	4,304.9	3,687.2	39.7	38.9	-130.72	1,708.4	-1,186.5	3,614.6	3,556.3	61.968		
6,000.0	5,557.3	4,380.0	3,747.4	40.1	39.7	-132.05	1,744.9	-1,212.5	3,679.4	3,620.1	62.025		
6,100.0	5,654.7	4,456.3	3,808.6	40.5	40.6	-133.22	1,782.0	-1,238.9	3,742.0	3,681.7	62.076		
6,200.0	5,753.1	4,533.6	3,870.7	40.8	41.5	-134.22	1,819.7	-1,265.7	3,802.3	3,741.1	62.125		
6,300.0	5,852.2	4,611.9	3,933.4	41.1	42.4	-135.09	1,857.8	-1,292.7	3,860.3	3,798.2	62.175		
6,400.0	5,951.7	4,690.9	3,996.8	41.3	43.3	-135.83	1,896.3	-1,320.1	3,915.9	3,852.9	62.230		
6,500.0	6,051.6	4,770.6	4,060.7	41.4	44.2	-136.45	1,935.0	-1,347.7	3,969.0	3,905.3	62.297		
6,600.0	6,151.6	4,850.7	4,125.0	41.4	45.1	-73.80	1,974.0	-1,375.4	4,019.9	3,955.5	62.483		
6,700.0	6,251.6	4,930.9	4,189.3	41.4	46.0	-73.31	2,013.1	-1,403.2	4,070.4	4,005.5	62.686		
6,800.0	6,351.6	5,011.1	4,253.6	41.4	46.9	-72.84	2,052.1	-1,430.9	4,121.2	4,055.7	62.888		
6,900.0	6,451.6	5,091.3	4,318.0	41.5	47.8	-72.37	2,091.2	-1,458.7	4,172.2	4,106.1	63.091		
7,000.0	6,551.6	5,171.5	4,382.2	41.5	48.7	-66.23	2,130.3	-1,486.5	4,223.2	4,157.1	63.293		
7,100.0	6,651.6	5,251.7	4,446.4	41.5	49.6	-66.23	2,169.4	-1,514.3	4,274.2	4,208.1	63.495		
7,200.0	6,751.6	5,331.9	4,510.6	41.5	50.5	-66.23	2,208.5	-1,542.1	4,325.2	4,259.1	63.697		
7,300.0	6,851.6	5,412.1	4,574.8	41.6	51.4	-66.23	2,247.6	-1,569.9	4,376.2	4,310.1	63.899		
7,400.0	6,951.6	5,492.3	4,639.0	41.6	52.3	-66.23	2,286.7	-1,597.7	4,427.2	4,361.1	64.101		
7,500.0	7,051.6	5,572.5	4,703.2	41.6	53.2	-66.23	2,325.8	-1,625.5	4,478.2	4,412.1	64.303		
7,600.0	7,151.6	5,652.7	4,767.4	41.6	54.1	-66.23	2,364.9	-1,653.3	4,529.2	4,463.1	64.505		
7,700.0	7,251.6	5,732.9	4,831.6	41.7	55.0	-66.23	2,404.0	-1,681.1	4,580.2	4,514.1	64.707		
7,800.0	7,351.6	5,813.1	4,895.8	41.7	55.9	-66.23	2,443.1	-1,708.9	4,631.2	4,565.1	64.909		
7,900.0	7,451.6	5,893.3	4,960.0	41.7	56.8	-66.23	2,482.2	-1,736.7	4,682.2	4,616.1	65.111		
8,000.0	7,551.6	5,973.5	5,024.2	41.8	57.7	-66.23	2,521.3	-1,764.5	4,733.2	4,667.1	65.313		
8,100.0	7,651.6	6,053.7	5,088.4	41.8	58.6	-66.23	2,560.4	-1,792.3	4,784.2	4,718.1	65.515		
8,200.0	7,751.6	6,133.9	5,152.6	41.8	59.5	-66.23	2,599.5	-1,820.1	4,835.2	4,769.1	65.717		
8,300.0	7,851.6	6,214.1	5,216.8	41.8	60.4	-66.23	2,638.6	-1,847.9	4,886.2	4,820.1	65.919		
8,339.4	7,891.0	6,243.5	5,246.2	41.8	60.9	-66.23	2,667.0	-1,875.7	4,937.2	4,871.1	66.121		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-56.20	33.8	-50.5	60.8			
100.0	100.0	100.0	100.0	0.8	0.8	-56.20	33.8	-50.5	60.8	59.2	38.398	
200.0	200.0	200.0	200.0	1.4	1.4	-56.20	33.8	-50.5	60.8	58.0	21.500	CC, ES
300.0	300.0	297.5	297.5	1.9	2.4	-55.59	35.5	-51.8	62.8	58.6	14.878	
400.0	400.0	394.6	394.3	2.7	3.9	-118.22	40.4	-55.6	69.9	63.9	11.601	
500.0	499.7	490.6	489.9	4.1	5.0	-119.62	48.4	-61.8	83.1	75.4	10.764	SF
600.0	599.1	585.1	583.3	5.2	5.9	-121.67	59.4	-70.2	102.4	93.2	11.192	
700.0	698.0	677.4	674.0	6.1	6.7	-123.70	73.1	-80.7	127.8	117.4	12.262	
800.0	796.0	767.1	761.4	7.0	7.4	-125.41	89.2	-93.1	159.2	147.6	13.749	
900.0	893.2	853.8	845.0	7.7	8.0	-126.71	107.3	-107.0	196.5	183.8	15.534	
1,000.0	989.2	937.1	924.4	8.4	8.6	-127.61	127.0	-122.2	239.3	225.6	17.542	
1,100.0	1,083.9	1,016.7	999.5	9.1	9.1	-128.17	148.0	-138.3	287.4	272.8	19.721	
1,200.0	1,177.0	1,092.5	1,070.1	9.7	9.6	-128.42	169.9	-155.1	340.4	325.0	22.031	
1,300.0	1,268.6	1,164.3	1,136.1	10.2	10.1	-128.65	192.3	-172.4	398.1	381.9	24.548	
1,400.0	1,359.6	1,233.1	1,198.5	10.5	10.5	-129.62	215.3	-190.1	458.6	441.8	27.149	
1,500.0	1,450.5	1,300.0	1,258.2	10.8	10.9	-130.20	239.1	-208.4	521.2	503.6	29.671	
1,600.0	1,541.5	1,363.8	1,314.4	11.1	11.3	-130.51	263.1	-226.8	585.4	567.2	32.133	
1,700.0	1,632.4	1,425.7	1,368.1	11.5	11.6	-130.64	287.5	-245.6	651.4	632.5	34.515	
1,800.0	1,723.4	1,485.2	1,418.9	11.8	12.0	-130.65	312.1	-264.5	719.0	699.4	36.832	
1,900.0	1,814.3	1,542.6	1,467.1	12.2	12.2	-130.56	336.8	-283.5	788.0	767.9	39.215	
2,000.0	1,905.3	1,607.7	1,521.0	12.6	12.4	-130.40	365.6	-305.7	858.2	837.4	41.330	
2,100.0	1,996.3	1,678.8	1,579.9	13.0	12.7	-130.24	397.3	-330.0	928.4	906.9	43.090	
2,200.0	2,087.2	1,749.9	1,638.8	13.4	12.9	-130.10	428.9	-354.3	998.7	976.4	44.671	
2,300.0	2,178.2	1,821.0	1,697.7	13.8	13.1	-129.99	460.5	-378.6	1,069.0	1,045.8	46.096	
2,400.0	2,269.1	1,892.1	1,756.5	14.2	13.4	-129.88	492.1	-402.9	1,139.3	1,115.3	47.382	
2,500.0	2,360.1	1,963.2	1,815.4	14.7	13.6	-129.79	523.7	-427.2	1,209.6	1,184.7	48.548	
2,600.0	2,451.0	2,034.3	1,874.3	15.1	13.9	-129.71	555.3	-451.5	1,279.9	1,254.1	49.608	
2,700.0	2,542.0	2,105.4	1,933.1	15.8	14.2	-129.64	587.0	-475.8	1,350.2	1,323.5	50.566	
2,800.0	2,633.0	2,176.5	1,992.0	16.5	14.6	-129.57	618.6	-500.1	1,420.5	1,392.9	51.405	
2,900.0	2,723.9	2,247.6	2,050.9	17.2	15.3	-129.51	650.2	-524.4	1,490.8	1,462.3	52.209	
3,000.0	2,814.9	2,318.7	2,109.8	18.0	16.1	-129.46	681.8	-548.7	1,561.1	1,531.7	52.943	
3,100.0	2,905.8	2,389.8	2,168.6	18.8	16.8	-129.41	713.4	-573.0	1,631.5	1,601.0	53.607	
3,200.0	2,996.8	2,461.0	2,227.5	19.5	17.5	-129.37	745.0	-597.4	1,701.8	1,670.4	54.213	
3,300.0	3,087.7	2,532.1	2,286.4	20.3	18.3	-129.32	776.6	-621.7	1,772.1	1,739.7	54.773	
3,400.0	3,178.7	2,603.2	2,345.2	21.0	19.0	-129.29	808.3	-646.0	1,842.4	1,809.0	55.289	
3,500.0	3,269.7	2,674.3	2,404.1	21.8	19.8	-129.25	839.9	-670.3	1,912.7	1,878.4	55.761	
3,600.0	3,360.6	2,745.4	2,463.0	22.5	20.5	-129.22	871.5	-694.6	1,983.0	1,947.7	56.198	
3,700.0	3,451.6	2,816.5	2,521.9	23.3	21.3	-129.19	903.1	-718.9	2,053.3	2,017.0	56.604	
3,800.0	3,542.5	2,887.6	2,580.7	24.1	22.0	-129.16	934.7	-743.2	2,123.6	2,086.3	56.979	
3,900.0	3,633.5	2,958.7	2,639.6	24.8	22.8	-129.13	966.3	-767.5	2,193.9	2,155.6	57.327	
4,000.0	3,724.4	3,029.8	2,698.5	25.6	23.5	-129.10	997.9	-791.8	2,264.2	2,224.9	57.651	
4,100.0	3,815.4	3,100.9	2,757.3	26.3	24.3	-129.08	1,029.6	-816.1	2,334.5	2,294.2	57.953	
4,200.0	3,906.4	3,172.0	2,816.2	27.1	25.0	-129.06	1,061.2	-840.4	2,404.8	2,363.5	58.233	
4,300.0	3,997.3	3,243.1	2,875.1	27.9	25.8	-129.04	1,092.8	-864.7	2,475.1	2,432.8	58.496	
4,400.0	4,088.3	3,314.2	2,934.0	28.6	26.6	-129.02	1,124.4	-889.0	2,545.5	2,502.1	58.742	
4,500.0	4,179.2	3,385.3	2,992.8	29.4	27.3	-129.00	1,156.0	-913.4	2,615.8	2,571.4	58.971	
4,600.0	4,270.2	3,456.5	3,051.7	30.2	28.1	-128.98	1,187.6	-937.7	2,686.1	2,640.7	59.186	
4,700.0	4,361.1	3,527.6	3,110.6	30.9	28.8	-128.96	1,219.3	-962.0	2,756.4	2,710.0	59.389	
4,800.0	4,452.1	3,598.7	3,169.4	31.7	29.6	-128.95	1,250.9	-986.3	2,826.7	2,779.2	59.579	
4,900.0	4,543.1	3,669.8	3,228.3	32.4	30.3	-128.93	1,282.5	-1,010.6	2,897.0	2,848.5	59.757	
5,000.0	4,634.0	3,740.9	3,287.2	33.2	31.1	-128.92	1,314.1	-1,034.9	2,967.3	2,917.8	59.926	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 Centre +N/-S (usft)	Centre +E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning	
5,100.0	4,725.0	3,812.0	3,346.1	34.0	31.8	-128.90	1,345.7	-1,059.2	3,037.6	2,987.1	60.085		
5,200.0	4,815.9	3,883.1	3,404.9	34.7	32.6	-128.89	1,377.3	-1,083.5	3,107.9	3,056.3	60.234		
5,300.0	4,906.9	3,954.2	3,463.8	35.5	33.4	-128.88	1,408.9	-1,107.8	3,178.2	3,125.6	60.375		
5,400.0	4,997.8	4,025.3	3,522.7	36.3	34.1	-128.87	1,440.6	-1,132.1	3,248.5	3,194.9	60.509		
5,500.0	5,088.8	4,096.4	3,581.6	37.0	34.9	-128.85	1,472.2	-1,156.4	3,318.9	3,264.1	60.636		
5,600.0	5,179.8	4,167.6	3,640.4	37.8	35.6	-129.18	1,503.8	-1,180.8	3,389.1	3,333.4	60.760		
5,700.0	5,271.9	4,239.9	3,700.4	38.5	36.4	-130.94	1,536.0	-1,205.5	3,458.1	3,401.3	60.853		
5,800.0	5,365.7	4,314.0	3,761.7	39.1	37.2	-132.48	1,568.9	-1,230.8	3,525.0	3,467.1	60.906		
5,900.0	5,460.8	4,389.7	3,824.4	39.7	38.0	-133.84	1,602.6	-1,256.7	3,589.6	3,530.7	60.942		
6,000.0	5,557.3	4,466.9	3,888.3	40.1	38.8	-135.01	1,636.9	-1,283.1	3,652.0	3,592.1	60.963		
6,100.0	5,654.7	4,545.3	3,953.2	40.5	39.7	-136.03	1,671.8	-1,309.9	3,712.0	3,651.1	60.974		
6,200.0	5,753.1	4,624.9	4,019.1	40.8	40.5	-136.90	1,707.2	-1,337.1	3,769.5	3,707.7	60.977		
6,300.0	5,852.2	4,705.6	4,085.9	41.1	41.4	-137.63	1,743.0	-1,364.7	3,824.5	3,761.8	60.976		
6,400.0	5,951.7	4,787.1	4,153.3	41.3	42.2	-138.25	1,779.2	-1,392.5	3,876.9	3,813.3	60.975		
6,500.0	6,051.6	4,869.2	4,221.4	41.4	43.1	-138.76	1,815.8	-1,420.6	3,926.7	3,862.3	60.983		
6,600.0	6,151.6	4,951.9	4,289.8	41.4	44.0	-76.04	1,852.5	-1,448.9	3,974.0	3,909.0	61.116		
6,700.0	6,251.6	5,034.7	4,358.4	41.4	44.9	-75.57	1,889.3	-1,477.2	4,021.0	3,955.4	61.270		
6,800.0	6,351.6	5,117.5	4,426.9	41.4	45.8	-75.11	1,926.2	-1,505.5	4,068.2	4,002.0	61.423		
6,900.0	6,451.6	7,297.6	6,451.6	41.5	57.6	-69.65	2,435.7	-1,897.3	4,112.4	4,030.0	49.939		
7,000.0	6,551.6	7,397.6	6,551.6	41.5	57.7	-69.65	2,435.7	-1,897.3	4,112.4	4,030.0	49.913		
7,100.0	6,651.6	7,497.6	6,651.6	41.5	57.7	-69.65	2,435.7	-1,897.3	4,112.4	4,029.9	49.887		
7,200.0	6,751.6	7,597.6	6,751.6	41.5	57.7	-69.65	2,435.7	-1,897.3	4,112.4	4,029.9	49.860		
7,300.0	6,851.6	7,697.6	6,851.6	41.6	57.7	-69.65	2,435.7	-1,897.3	4,112.4	4,029.9	49.834		
7,400.0	6,951.6	7,797.6	6,951.6	41.6	57.7	-69.65	2,435.7	-1,897.3	4,112.4	4,029.8	49.807		
7,500.0	7,051.6	7,897.6	7,051.6	41.6	57.8	-69.65	2,435.7	-1,897.3	4,112.4	4,029.8	49.780		
7,600.0	7,151.6	7,997.6	7,151.6	41.6	57.8	-69.65	2,435.7	-1,897.3	4,112.4	4,029.7	49.753		
7,700.0	7,251.6	8,097.6	7,251.6	41.7	57.8	-69.65	2,435.7	-1,897.3	4,112.4	4,029.7	49.726		
7,800.0	7,351.6	8,197.6	7,351.6	41.7	57.8	-69.65	2,435.7	-1,897.3	4,112.4	4,029.6	49.699		
7,900.0	7,451.6	8,297.6	7,451.6	41.7	57.8	-69.65	2,435.7	-1,897.3	4,112.4	4,029.6	49.672		
8,000.0	7,551.6	8,397.6	7,551.6	41.8	57.8	-69.65	2,435.7	-1,897.3	4,112.4	4,029.5	49.644		
8,100.0	7,651.6	8,497.6	7,651.6	41.8	57.9	-69.65	2,435.7	-1,897.3	4,112.4	4,029.5	49.616		
8,200.0	7,751.6	8,597.6	7,751.6	41.8	57.9	-69.65	2,435.7	-1,897.3	4,112.4	4,029.5	49.589		
8,300.0	7,851.6	8,697.6	7,851.6	41.8	57.9	-69.65	2,435.7	-1,897.3	4,112.4	4,029.4	49.561		
8,339.4	7,891.0	8,737.0	7,891.0	41.8	57.9	-69.65	2,435.7	-1,897.3	4,112.4	4,029.4	49.552		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Laramie 0993-29-01 - Laramie 29-01 0993-20-13E - OH - Design #2		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 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	-58.06	27.0	-43.3	51.0					
100.0	100.0	100.0	100.0	0.8	0.8	-58.06	27.0	-43.3	51.0	49.4	32.190			
200.0	200.0	200.0	200.0	1.4	1.4	-58.06	27.0	-43.3	51.0	48.2	18.024	CC, ES		
300.0	300.0	298.5	298.5	1.9	1.8	-58.33	27.3	-44.2	52.0	48.4	14.240			
400.0	400.0	396.0	395.8	2.7	3.2	-123.99	28.8	-49.0	58.2	52.7	10.614			
500.0	499.7	492.5	491.9	4.1	3.6	-128.93	32.1	-57.2	71.2	64.5	10.527	SF		
600.0	599.1	587.5	586.2	5.2	4.3	-132.76	38.3	-67.7	91.0	82.7	10.887			
700.0	698.0	680.5	677.8	6.1	5.2	-135.27	47.5	-80.2	117.3	107.4	11.799			
800.0	796.0	770.9	766.3	7.0	6.0	-136.76	59.4	-94.3	149.8	138.4	13.218			
900.0	893.2	858.3	851.2	7.7	6.7	-137.56	73.6	-109.9	188.1	175.5	14.983			
1,000.0	989.2	942.4	932.0	8.4	7.4	-137.87	89.8	-126.6	231.9	218.3	16.988			
1,100.0	1,083.9	1,022.9	1,008.5	9.1	8.0	-137.85	107.5	-144.2	281.1	266.4	19.171			
1,200.0	1,177.0	1,100.0	1,080.9	9.7	8.5	-137.58	126.6	-162.4	335.1	319.5	21.476			
1,300.0	1,268.6	1,172.3	1,148.0	10.2	9.0	-137.31	146.3	-180.8	393.8	377.4	24.033			
1,400.0	1,359.6	1,242.2	1,212.1	10.5	9.5	-137.75	167.0	-199.6	455.0	438.0	26.680			
1,500.0	1,450.5	1,309.9	1,273.3	10.8	9.9	-137.87	188.6	-219.0	518.0	500.3	29.241			
1,600.0	1,541.5	1,375.4	1,331.6	11.1	10.3	-137.78	210.9	-238.6	582.5	564.1	31.710			
1,700.0	1,632.4	1,438.7	1,387.2	11.5	10.7	-137.56	233.7	-258.5	648.5	629.4	34.095			
1,800.0	1,723.4	1,500.0	1,440.2	11.8	11.1	-137.26	257.1	-278.5	715.9	696.2	36.400			
1,900.0	1,814.3	1,561.9	1,492.9	12.2	11.3	-136.88	281.8	-299.6	784.6	764.4	38.792			
2,000.0	1,905.3	1,634.1	1,554.1	12.6	11.5	-136.47	311.0	-324.3	853.7	832.8	40.736			
2,100.0	1,996.3	1,706.2	1,615.2	13.0	11.8	-136.12	340.1	-349.0	922.9	901.2	42.490			
2,200.0	2,087.2	1,778.3	1,676.4	13.4	12.0	-135.82	369.3	-373.7	992.1	969.6	44.062			
2,300.0	2,178.2	1,850.4	1,737.6	13.8	12.3	-135.56	398.5	-398.5	1,061.3	1,037.9	45.487			
2,400.0	2,269.1	1,922.5	1,798.7	14.2	12.6	-135.33	427.6	-423.2	1,130.5	1,106.3	46.781			
2,500.0	2,360.1	1,994.7	1,859.9	14.7	12.9	-135.13	456.8	-447.9	1,199.7	1,174.7	47.952			
2,600.0	2,451.0	2,066.8	1,921.0	15.1	13.3	-134.95	485.9	-472.7	1,268.9	1,243.0	49.021			
2,700.0	2,542.0	2,138.9	1,982.2	15.8	13.8	-134.78	515.1	-497.4	1,338.1	1,311.3	49.969			
2,800.0	2,633.0	2,211.0	2,043.3	16.5	14.3	-134.64	544.3	-522.1	1,407.3	1,379.7	50.863			
2,900.0	2,723.9	2,283.1	2,104.5	17.2	15.0	-134.51	573.4	-546.9	1,476.6	1,448.0	51.667			
3,000.0	2,814.9	2,355.3	2,165.6	18.0	15.7	-134.38	602.6	-571.6	1,545.8	1,516.3	52.404			
3,100.0	2,905.8	2,427.4	2,226.8	18.8	16.3	-134.27	631.7	-596.3	1,615.0	1,584.6	53.082			
3,200.0	2,996.8	2,499.5	2,287.9	19.5	17.0	-134.17	660.9	-621.0	1,684.3	1,652.9	53.705			
3,300.0	3,087.7	2,571.6	2,349.1	20.3	17.7	-134.08	690.1	-645.8	1,753.5	1,721.2	54.273			
3,400.0	3,178.7	2,643.7	2,410.2	21.0	18.4	-133.99	719.2	-670.5	1,822.8	1,789.5	54.799			
3,500.0	3,269.7	2,715.9	2,471.4	21.8	19.2	-133.91	748.4	-695.2	1,892.0	1,857.8	55.286			
3,600.0	3,360.6	2,788.0	2,532.5	22.5	19.9	-133.84	777.5	-720.0	1,961.3	1,926.1	55.736			
3,700.0	3,451.6	2,860.1	2,593.7	23.3	20.6	-133.77	806.7	-744.7	2,030.5	1,994.3	56.151			
3,800.0	3,542.5	2,932.2	2,654.8	24.1	21.3	-133.71	835.9	-769.4	2,099.8	2,062.6	56.538			
3,900.0	3,633.5	3,004.4	2,716.0	24.8	22.0	-133.65	865.0	-794.2	2,169.0	2,130.9	56.898			
4,000.0	3,724.4	3,076.5	2,777.1	25.6	22.7	-133.59	894.2	-818.9	2,238.3	2,199.1	57.231			
4,100.0	3,815.4	3,148.6	2,838.3	26.3	23.4	-133.54	923.3	-843.6	2,307.5	2,267.4	57.543			
4,200.0	3,906.4	3,220.7	2,899.4	27.1	24.1	-133.49	952.5	-868.4	2,376.8	2,335.7	57.834			
4,300.0	3,997.3	3,292.8	2,960.6	27.9	24.9	-133.44	981.7	-893.1	2,446.0	2,403.9	58.106			
4,400.0	4,088.3	3,365.0	3,021.7	28.6	25.6	-133.39	1,010.8	-917.8	2,515.3	2,472.2	58.360			
4,500.0	4,179.2	3,437.1	3,082.9	29.4	26.3	-133.35	1,040.0	-942.5	2,584.5	2,540.4	58.599			
4,600.0	4,270.2	3,509.2	3,144.1	30.2	27.0	-133.31	1,069.1	-967.3	2,653.8	2,608.7	58.823			
4,700.0	4,361.1	3,581.3	3,205.2	30.9	27.7	-133.27	1,098.3	-992.0	2,723.1	2,676.9	59.033			
4,800.0	4,452.1	3,653.4	3,266.4	31.7	28.5	-133.24	1,127.5	-1,016.7	2,792.3	2,745.2	59.231			
4,900.0	4,543.1	3,725.6	3,327.5	32.4	29.2	-133.20	1,156.6	-1,041.5	2,861.6	2,813.4	59.418			
5,000.0	4,634.0	3,797.7	3,388.7	33.2	29.9	-133.17	1,185.8	-1,066.2	2,930.8	2,881.7	59.593			

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,725.0	3,869.8	3,449.8	34.0	30.6	-133.14	1,214.9	-1,090.9	3,000.1	2,949.9	59.759		
5,200.0	4,815.9	3,941.9	3,511.0	34.7	31.4	-133.11	1,244.1	-1,115.7	3,069.4	3,018.1	59.915		
5,300.0	4,906.9	4,014.1	3,572.1	35.5	32.1	-133.08	1,273.3	-1,140.4	3,138.6	3,086.4	60.063		
5,400.0	4,997.8	4,086.2	3,633.3	36.3	32.8	-133.05	1,302.4	-1,165.1	3,207.9	3,154.6	60.203		
5,500.0	5,088.8	4,158.3	3,694.4	37.0	33.5	-133.03	1,331.6	-1,189.8	3,277.2	3,222.8	60.336		
5,600.0	5,179.8	4,230.4	3,755.6	37.8	34.2	-133.31	1,360.7	-1,214.6	3,346.4	3,291.0	60.466		
5,700.0	5,271.9	4,303.9	3,817.9	38.5	35.0	-134.89	1,390.4	-1,239.8	3,414.2	3,357.8	60.556		
5,800.0	5,365.7	4,379.2	3,881.7	39.1	35.7	-136.27	1,420.9	-1,265.6	3,479.6	3,422.2	60.593		
5,900.0	5,460.8	4,456.2	3,947.0	39.7	36.5	-137.46	1,452.0	-1,292.0	3,542.7	3,484.3	60.606		
6,000.0	5,557.3	4,534.8	4,013.6	40.1	37.3	-138.49	1,483.8	-1,318.9	3,603.3	3,543.9	60.597		
6,100.0	5,654.7	4,614.7	4,081.5	40.5	38.1	-139.37	1,516.1	-1,346.4	3,661.4	3,600.9	60.571		
6,200.0	5,753.1	4,696.0	4,150.3	40.8	38.9	-140.11	1,549.0	-1,374.2	3,716.7	3,655.3	60.531		
6,300.0	5,852.2	4,778.3	4,220.2	41.1	39.7	-140.73	1,582.3	-1,402.4	3,769.4	3,707.1	60.482		
6,400.0	5,951.7	4,861.6	4,290.8	41.3	40.6	-141.24	1,615.9	-1,431.0	3,819.3	3,756.1	60.428		
6,500.0	6,051.6	4,945.7	4,362.1	41.4	41.4	-141.64	1,649.9	-1,459.8	3,866.4	3,802.4	60.381		
6,600.0	6,151.6	5,030.4	4,433.9	41.4	42.3	-78.86	1,684.2	-1,488.9	3,910.8	3,846.2	60.469		
6,700.0	6,251.6	5,115.2	4,505.8	41.4	43.1	-78.41	1,718.4	-1,517.9	3,954.9	3,889.6	60.583		
6,800.0	6,351.6	5,199.9	4,577.7	41.4	44.0	-77.97	1,752.7	-1,547.0	3,999.1	3,933.2	60.697		
6,900.0	6,451.6	7,189.9	6,451.6	41.5	53.7	-73.38	2,152.7	-1,886.3	4,012.2	3,931.9	49.999		
7,000.0	6,551.6	7,289.9	6,551.6	41.5	53.7	-73.38	2,152.7	-1,886.3	4,012.2	3,931.9	49.972		
7,100.0	6,651.6	7,389.9	6,651.6	41.5	53.7	-73.38	2,152.7	-1,886.3	4,012.2	3,931.8	49.944		
7,200.0	6,751.6	7,489.9	6,751.6	41.5	53.7	-73.38	2,152.7	-1,886.3	4,012.2	3,931.8	49.917		
7,300.0	6,851.6	7,589.9	6,851.6	41.6	53.7	-73.38	2,152.7	-1,886.3	4,012.2	3,931.7	49.889		
7,400.0	6,951.6	7,689.9	6,951.6	41.6	53.8	-73.38	2,152.7	-1,886.3	4,012.2	3,931.7	49.861		
7,500.0	7,051.6	7,789.9	7,051.6	41.6	53.8	-73.38	2,152.7	-1,886.3	4,012.2	3,931.6	49.833		
7,600.0	7,151.6	7,889.9	7,151.6	41.6	53.8	-73.38	2,152.7	-1,886.3	4,012.2	3,931.6	49.805		
7,700.0	7,251.6	7,989.9	7,251.6	41.7	53.8	-73.38	2,152.7	-1,886.3	4,012.2	3,931.5	49.776		
7,800.0	7,351.6	8,089.9	7,351.6	41.7	53.8	-73.38	2,152.7	-1,886.3	4,012.2	3,931.5	49.748		
7,900.0	7,451.6	8,189.9	7,451.6	41.7	53.9	-73.38	2,152.7	-1,886.3	4,012.2	3,931.5	49.719		
8,000.0	7,551.6	8,289.9	7,551.6	41.8	53.9	-73.38	2,152.7	-1,886.3	4,012.2	3,931.4	49.690		
8,100.0	7,651.6	8,389.9	7,651.6	41.8	53.9	-73.38	2,152.7	-1,886.3	4,012.2	3,931.4	49.661		
8,200.0	7,751.6	8,489.9	7,751.6	41.8	53.9	-73.38	2,152.7	-1,886.3	4,012.2	3,931.3	49.632		
8,265.8	7,817.4	8,555.7	7,817.4	41.8	53.9	-73.38	2,152.7	-1,886.3	4,012.2	3,931.3	49.613		
8,300.0	7,851.6	8,587.4	7,849.0	41.8	53.9	-73.38	2,152.7	-1,886.3	4,012.2	3,931.3	49.603		
8,339.4	7,891.0	8,587.4	7,849.0	41.8	53.9	-73.38	2,152.7	-1,886.3	4,012.4	3,931.4	49.579		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-60.78	20.1	-36.0	41.2			
100.0	100.0	100.0	100.0	0.8	0.8	-60.78	20.1	-36.0	41.2	39.7	26.035	
200.0	200.0	200.0	200.0	1.4	1.4	-60.78	20.1	-36.0	41.2	38.4	14.578	
210.0	210.0	210.0	210.0	1.5	1.4	-60.78	20.1	-36.0	41.2	38.3	14.201 CC	
300.0	300.0	299.4	299.4	1.9	1.7	-60.84	20.2	-36.2	41.5	38.0	11.747 ES	
400.0	400.0	397.4	397.3	2.7	2.8	-126.47	21.4	-39.6	46.4	41.3	9.098	
500.0	499.7	494.3	493.9	4.1	4.1	-132.14	24.1	-46.8	58.4	51.0	7.848 SF	
600.0	599.1	589.6	588.5	5.2	4.5	-137.48	28.2	-57.4	78.0	69.3	8.941	
700.0	698.0	682.9	680.7	6.1	5.1	-140.69	35.0	-70.4	104.6	94.5	10.387	
800.0	796.0	773.6	769.7	7.0	5.8	-142.33	44.4	-85.2	137.5	126.1	12.012	
900.0	893.2	861.3	855.0	7.7	6.5	-143.06	56.1	-101.6	176.5	163.8	13.898	
1,000.0	989.2	945.6	936.2	8.4	7.2	-143.23	69.8	-119.2	221.1	207.3	16.006	
1,100.0	1,083.9	1,026.0	1,013.0	9.1	7.8	-143.05	85.1	-137.8	271.1	256.3	18.280	
1,200.0	1,177.0	1,100.0	1,082.8	9.7	8.3	-142.60	101.0	-156.3	326.1	310.4	20.751	
1,300.0	1,268.6	1,175.0	1,152.8	10.2	8.8	-142.21	119.0	-176.4	385.8	369.2	23.327	
1,400.0	1,359.6	1,244.5	1,216.9	10.5	9.3	-142.46	137.3	-196.3	448.1	430.9	26.077	
1,500.0	1,450.5	1,311.8	1,278.1	10.8	9.7	-142.43	156.4	-216.7	512.0	494.1	28.736	
1,600.0	1,541.5	1,376.8	1,336.4	11.1	10.2	-142.22	176.3	-237.4	577.4	558.9	31.303	
1,700.0	1,632.4	1,439.6	1,392.0	11.5	10.5	-141.91	196.8	-258.4	644.2	625.2	33.853	
1,800.0	1,723.4	1,504.4	1,448.5	11.8	10.8	-141.50	219.0	-280.9	712.4	692.8	36.316	
1,900.0	1,814.3	1,577.2	1,511.8	12.2	11.0	-141.09	244.3	-306.4	780.9	760.6	38.451	
2,000.0	1,905.3	1,649.9	1,575.0	12.6	11.3	-140.75	269.6	-331.8	849.4	828.3	40.393	
2,100.0	1,996.3	1,722.7	1,638.3	13.0	11.5	-140.46	295.0	-357.3	917.9	896.1	42.161	
2,200.0	2,087.2	1,795.4	1,701.6	13.4	11.8	-140.20	320.3	-382.8	986.4	963.9	43.768	
2,300.0	2,178.2	1,868.2	1,764.8	13.8	12.1	-139.98	345.6	-408.3	1,055.0	1,031.7	45.224	
2,400.0	2,269.1	1,941.0	1,828.1	14.2	12.4	-139.79	370.9	-433.8	1,123.5	1,099.4	46.551	
2,500.0	2,360.1	2,013.7	1,891.4	14.7	12.7	-139.62	396.2	-459.3	1,192.1	1,167.1	47.763	
2,600.0	2,451.0	2,086.5	1,954.7	15.1	13.1	-139.47	421.5	-484.7	1,260.7	1,234.9	48.866	
2,700.0	2,542.0	2,159.2	2,017.9	15.8	13.5	-139.33	446.8	-510.2	1,329.2	1,302.6	49.874	
2,800.0	2,633.0	2,232.0	2,081.2	16.5	14.0	-139.21	472.1	-535.7	1,397.8	1,370.3	50.790	
2,900.0	2,723.9	2,304.7	2,144.5	17.2	14.5	-139.10	497.4	-561.2	1,466.4	1,438.0	51.640	
3,000.0	2,814.9	2,377.5	2,207.8	18.0	15.1	-139.00	522.7	-586.7	1,534.9	1,505.7	52.414	
3,100.0	2,905.8	2,450.2	2,271.0	18.8	15.8	-138.90	548.0	-612.2	1,603.5	1,573.3	53.128	
3,200.0	2,996.8	2,523.0	2,334.3	19.5	16.4	-138.82	573.3	-637.6	1,672.1	1,641.0	53.787	
3,300.0	3,087.7	2,595.8	2,397.6	20.3	17.1	-138.74	598.6	-663.1	1,740.7	1,708.7	54.395	
3,400.0	3,178.7	2,668.5	2,460.9	21.0	17.7	-138.67	623.9	-688.6	1,809.3	1,776.3	54.955	
3,500.0	3,269.7	2,741.3	2,524.1	21.8	18.4	-138.60	649.3	-714.1	1,877.9	1,844.0	55.475	
3,600.0	3,360.6	2,814.0	2,587.4	22.5	19.0	-138.54	674.6	-739.6	1,946.4	1,911.7	55.958	
3,700.0	3,451.6	2,886.8	2,650.7	23.3	19.7	-138.48	699.9	-765.1	2,015.0	1,979.3	56.405	
3,800.0	3,542.5	2,959.5	2,714.0	24.1	20.4	-138.42	725.2	-790.5	2,083.6	2,047.0	56.821	
3,900.0	3,633.5	3,032.3	2,777.2	24.8	21.1	-138.37	750.5	-816.0	2,152.2	2,114.6	57.210	
4,000.0	3,724.4	3,105.1	2,840.5	25.6	21.7	-138.33	775.8	-841.5	2,220.8	2,182.2	57.573	
4,100.0	3,815.4	3,177.8	2,903.8	26.3	22.4	-138.28	801.1	-867.0	2,289.4	2,249.9	57.911	
4,200.0	3,906.4	3,250.6	2,967.1	27.1	23.1	-138.24	826.4	-892.5	2,358.0	2,317.5	58.227	
4,300.0	3,997.3	3,323.3	3,030.3	27.9	23.7	-138.20	851.7	-918.0	2,426.6	2,385.1	58.524	
4,400.0	4,088.3	3,396.1	3,093.6	28.6	24.4	-138.16	877.0	-943.4	2,495.2	2,452.7	58.803	
4,500.0	4,179.2	3,468.8	3,156.9	29.4	25.1	-138.12	902.3	-968.9	2,563.8	2,520.4	59.064	
4,600.0	4,270.2	3,541.6	3,220.1	30.2	25.8	-138.09	927.6	-994.4	2,632.4	2,588.0	59.310	
4,700.0	4,361.1	3,614.3	3,283.4	30.9	26.4	-138.06	952.9	-1,019.9	2,701.0	2,655.6	59.541	
4,800.0	4,452.1	3,687.1	3,346.7	31.7	27.1	-138.03	978.3	-1,045.4	2,769.6	2,723.2	59.759	
4,900.0	4,543.1	3,759.9	3,410.0	32.4	27.8	-138.00	1,003.6	-1,070.9	2,838.1	2,790.8	59.965	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,000.0	4,634.0	3,832.6	3,473.2	33.2	28.5	-137.97	1,028.9	-1,096.3	2,906.7	2,858.4	60.159		
5,100.0	4,725.0	3,905.4	3,536.5	34.0	29.2	-137.94	1,054.2	-1,121.8	2,975.3	2,926.0	60.343		
5,200.0	4,815.9	3,978.1	3,599.8	34.7	29.8	-137.92	1,079.5	-1,147.3	3,043.9	2,993.6	60.517		
5,300.0	4,906.9	4,050.9	3,663.1	35.5	30.5	-137.90	1,104.8	-1,172.8	3,112.5	3,061.2	60.681		
5,400.0	4,997.8	4,123.6	3,726.3	36.3	31.2	-137.87	1,130.1	-1,198.3	3,181.1	3,128.8	60.837		
5,500.0	5,088.8	4,196.4	3,789.6	37.0	31.9	-137.85	1,155.4	-1,223.8	3,249.7	3,196.4	60.985		
5,600.0	5,179.8	4,269.2	3,852.9	37.8	32.5	-138.11	1,180.7	-1,249.3	3,318.3	3,264.0	61.130		
5,700.0	5,271.9	4,343.4	3,917.4	38.5	33.2	-139.53	1,206.5	-1,275.2	3,385.3	3,330.0	61.224		
5,800.0	5,365.7	4,419.6	3,983.7	39.1	33.9	-140.75	1,233.0	-1,301.9	3,449.7	3,393.4	61.247		
5,900.0	5,460.8	4,497.7	4,051.6	39.7	34.7	-141.81	1,260.2	-1,329.3	3,511.6	3,454.3	61.235		
6,000.0	5,557.3	4,577.5	4,121.0	40.1	35.4	-142.71	1,288.0	-1,357.2	3,570.8	3,512.4	61.192		
6,100.0	5,654.7	4,658.9	4,191.8	40.5	36.2	-143.46	1,316.3	-1,385.7	3,627.2	3,567.8	61.124		
6,200.0	5,753.1	4,741.7	4,263.8	40.8	37.0	-144.10	1,345.1	-1,414.7	3,680.7	3,620.4	61.033		
6,300.0	5,852.2	4,825.7	4,336.9	41.1	37.7	-144.61	1,374.3	-1,444.2	3,731.3	3,670.0	60.927		
6,400.0	5,951.7	4,910.9	4,411.0	41.3	38.5	-145.03	1,403.9	-1,474.0	3,778.9	3,716.8	60.810		
6,500.0	6,051.6	4,997.0	4,485.8	41.4	39.3	-145.34	1,433.9	-1,504.2	3,823.5	3,760.5	60.695		
6,600.0	6,151.6	5,083.8	4,561.3	41.4	40.2	-82.52	1,464.1	-1,534.6	3,865.2	3,801.6	60.733		
6,700.0	6,251.6	5,170.8	4,637.0	41.4	41.0	-82.10	1,494.3	-1,565.0	3,906.4	3,842.2	60.803		
6,800.0	6,351.6	5,257.7	4,712.7	41.4	41.7	-81.68	1,524.5	-1,595.4	3,947.7	3,882.8	60.873		
6,900.0	6,451.6	5,344.6	4,788.6	41.5	42.4	-81.26	1,554.7	-1,625.8	3,988.9	3,923.4	60.943		
7,000.0	6,551.6	5,431.5	4,864.5	41.5	43.1	-80.84	1,584.9	-1,656.2	4,030.1	3,964.0	61.013		
7,100.0	6,651.6	5,518.4	4,940.4	41.5	43.8	-80.42	1,615.1	-1,686.6	4,071.2	3,999.6	61.083		
7,200.0	6,751.6	5,605.3	5,019.3	41.5	44.5	-80.00	1,645.3	-1,717.0	4,112.3	4,035.2	61.153		
7,300.0	6,851.6	5,692.2	5,098.2	41.6	45.2	-79.58	1,675.5	-1,747.4	4,153.4	4,070.8	61.223		
7,400.0	6,951.6	5,779.1	5,177.1	41.6	45.9	-79.16	1,705.7	-1,777.8	4,194.5	4,106.4	61.293		
7,500.0	7,051.6	5,866.0	5,256.0	41.6	46.6	-78.74	1,735.9	-1,808.2	4,235.6	4,142.0	61.363		
7,600.0	7,151.6	5,952.9	5,334.9	41.6	47.3	-78.32	1,766.1	-1,838.6	4,276.7	4,177.6	61.433		
7,700.0	7,251.6	6,039.8	5,413.8	41.7	48.0	-77.90	1,796.3	-1,869.0	4,317.8	4,213.2	61.503		
7,800.0	7,351.6	6,126.7	5,492.7	41.7	48.7	-77.48	1,826.5	-1,899.4	4,358.9	4,248.8	61.573		
7,900.0	7,451.6	6,213.6	5,571.6	41.7	49.4	-77.06	1,856.7	-1,929.8	4,399.0	4,284.4	61.643		
8,000.0	7,551.6	6,300.5	5,650.5	41.8	50.1	-76.64	1,886.9	-1,960.2	4,440.1	4,320.0	61.713		
8,100.0	7,651.6	6,387.4	5,729.4	41.8	50.8	-76.22	1,917.1	-1,990.6	4,481.2	4,355.6	61.783		
8,200.0	7,751.6	6,474.3	5,808.3	41.8	51.5	-75.80	1,947.3	-2,021.0	4,522.3	4,391.2	61.853		
8,300.0	7,851.6	6,561.2	5,887.2	41.8	52.2	-75.38	1,977.5	-2,051.4	4,563.4	4,426.8	61.923		
8,339.4	7,891.0	6,599.9	5,926.1	41.8	52.9	-74.96	1,999.9	-2,077.8	4,599.0	4,462.4	62.000		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-65.18	13.3	-28.7	31.6				
100.0	100.0	100.0	100.0	0.8	0.8	-65.18	13.3	-28.7	31.6	30.0	19.956		
200.0	200.0	200.0	200.0	1.4	1.4	-65.18	13.3	-28.7	31.6	28.8	11.174		
300.0	300.0	300.0	300.0	1.9	1.9	-65.18	13.3	-28.7	31.6	27.9	8.463	CC, ES	
400.0	400.0	398.7	398.7	2.7	2.3	-131.37	13.5	-30.1	34.4	29.8	7.393		
500.0	499.7	495.9	495.7	4.1	3.9	-138.85	14.6	-36.2	45.4	38.0	6.140	SF	
600.0	599.1	591.7	590.8	5.2	5.2	-145.37	16.5	-47.0	65.4	55.7	6.755		
700.0	698.0	684.5	682.5	6.1	5.6	-148.91	20.2	-60.9	93.3	82.4	8.552		
800.0	796.0	775.5	771.9	7.0	6.2	-150.24	26.6	-76.9	127.5	115.3	10.454		
900.0	893.2	863.4	857.5	7.7	6.8	-150.50	35.3	-94.4	167.7	154.3	12.523		
1,000.0	989.2	947.7	939.0	8.4	7.4	-150.22	46.1	-113.2	213.6	199.1	14.760		
1,100.0	1,083.9	1,028.2	1,016.0	9.1	7.9	-149.64	58.6	-132.9	264.7	249.3	17.140		
1,200.0	1,177.0	1,104.6	1,088.4	9.7	8.4	-148.89	72.4	-153.2	320.9	304.6	19.637		
1,300.0	1,268.6	1,176.9	1,156.1	10.2	8.9	-148.18	87.2	-173.7	381.8	364.8	22.362		
1,400.0	1,359.6	1,246.2	1,220.2	10.5	9.3	-148.10	102.9	-194.7	445.2	427.6	25.198		
1,500.0	1,450.5	1,313.3	1,281.6	10.8	9.7	-147.82	119.6	-216.2	510.1	491.9	27.942		
1,600.0	1,541.5	1,378.1	1,340.1	11.1	10.1	-147.40	137.0	-237.9	576.4	557.6	30.594		
1,700.0	1,632.4	1,445.5	1,400.2	11.5	10.4	-146.89	156.4	-261.5	644.0	624.6	33.212		
1,800.0	1,723.4	1,518.9	1,465.5	11.8	10.6	-146.41	177.7	-287.4	711.7	691.7	35.567		
1,900.0	1,814.3	1,592.3	1,530.8	12.2	10.9	-146.02	199.1	-313.3	779.6	758.9	37.729		
2,000.0	1,905.3	1,665.7	1,596.1	12.6	11.1	-145.68	220.4	-339.2	847.4	826.1	39.700		
2,100.0	1,996.3	1,739.1	1,661.4	13.0	11.4	-145.40	241.7	-365.0	915.2	893.2	41.505		
2,200.0	2,087.2	1,812.5	1,726.6	13.4	11.7	-145.15	263.1	-390.9	983.1	960.3	43.159		
2,300.0	2,178.2	1,885.9	1,791.9	13.8	12.0	-144.94	284.4	-416.8	1,051.0	1,027.4	44.670		
2,400.0	2,269.1	1,959.3	1,857.2	14.2	12.3	-144.75	305.7	-442.7	1,118.8	1,094.5	46.051		
2,500.0	2,360.1	2,032.7	1,922.5	14.7	12.6	-144.59	327.1	-468.5	1,186.7	1,161.6	47.318		
2,600.0	2,451.0	2,106.1	1,987.8	15.1	13.0	-144.44	348.4	-494.4	1,254.6	1,228.7	48.483		
2,700.0	2,542.0	2,179.5	2,053.1	15.8	13.4	-144.31	369.7	-520.3	1,322.5	1,295.8	49.548		
2,800.0	2,633.0	2,252.9	2,118.3	16.5	13.8	-144.19	391.0	-546.1	1,390.4	1,362.9	50.528		
2,900.0	2,723.9	2,326.2	2,183.6	17.2	14.3	-144.08	412.4	-572.0	1,458.3	1,429.9	51.433		
3,000.0	2,814.9	2,399.6	2,248.9	18.0	14.9	-143.98	433.7	-597.9	1,526.2	1,497.0	52.267		
3,100.0	2,905.8	2,473.0	2,314.2	18.8	15.4	-143.89	455.0	-623.8	1,594.1	1,564.0	53.035		
3,200.0	2,996.8	2,546.4	2,379.5	19.5	16.0	-143.81	476.4	-649.6	1,662.0	1,631.1	53.746		
3,300.0	3,087.7	2,619.8	2,444.8	20.3	16.6	-143.73	497.7	-675.5	1,729.9	1,698.1	54.405		
3,400.0	3,178.7	2,693.2	2,510.0	21.0	17.2	-143.66	519.0	-701.4	1,797.8	1,765.1	55.017		
3,500.0	3,269.7	2,766.6	2,575.3	21.8	17.8	-143.59	540.4	-727.3	1,865.7	1,832.1	55.583		
3,600.0	3,360.6	2,840.0	2,640.6	22.5	18.4	-143.53	561.7	-753.1	1,933.6	1,899.1	56.111		
3,700.0	3,451.6	2,913.4	2,705.9	23.3	19.0	-143.47	583.0	-779.0	2,001.5	1,966.1	56.604		
3,800.0	3,542.5	2,986.8	2,771.2	24.1	19.6	-143.42	604.3	-804.9	2,069.4	2,033.2	57.063		
3,900.0	3,633.5	3,060.2	2,836.5	24.8	20.2	-143.37	625.7	-830.8	2,137.3	2,100.2	57.491		
4,000.0	3,724.4	3,133.6	2,901.8	25.6	20.9	-143.32	647.0	-856.6	2,205.2	2,167.1	57.892		
4,100.0	3,815.4	3,207.0	2,967.0	26.3	21.5	-143.28	668.3	-882.5	2,273.1	2,234.1	58.268		
4,200.0	3,906.4	3,280.3	3,032.3	27.1	22.1	-143.24	689.7	-908.4	2,341.1	2,301.1	58.620		
4,300.0	3,997.3	3,353.7	3,097.6	27.9	22.7	-143.20	711.0	-934.3	2,409.0	2,368.1	58.950		
4,400.0	4,088.3	3,427.1	3,162.9	28.6	23.3	-143.16	732.3	-960.1	2,476.9	2,435.1	59.261		
4,500.0	4,179.2	3,500.5	3,228.2	29.4	24.0	-143.13	753.7	-986.0	2,544.8	2,502.1	59.554		
4,600.0	4,270.2	3,573.9	3,293.5	30.2	24.6	-143.09	775.0	-1,011.9	2,612.7	2,569.0	59.829		
4,700.0	4,361.1	3,647.3	3,358.7	30.9	25.2	-143.06	796.3	-1,037.7	2,680.6	2,636.0	60.089		
4,800.0	4,452.1	3,720.7	3,424.0	31.7	25.8	-143.03	817.6	-1,063.6	2,748.5	2,703.0	60.334		
4,900.0	4,543.1	3,794.1	3,489.3	32.4	26.5	-143.00	839.0	-1,089.5	2,816.5	2,770.0	60.566		
5,000.0	4,634.0	3,867.5	3,554.6	33.2	27.1	-142.98	860.3	-1,115.4	2,884.4	2,836.9	60.785		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,725.0	3,940.9	3,619.9	34.0	27.7	-142.95	881.6	-1,141.2	2,952.3	2,903.9	60.993		
5,200.0	4,815.9	4,014.3	3,685.2	34.7	28.3	-142.93	903.0	-1,167.1	3,020.2	2,970.9	61.189		
5,300.0	4,906.9	4,087.7	3,750.4	35.5	29.0	-142.90	924.3	-1,193.0	3,088.1	3,037.8	61.376		
5,400.0	4,997.8	4,161.0	3,815.7	36.3	29.6	-142.88	945.6	-1,218.9	3,156.0	3,104.8	61.553		
5,500.0	5,088.8	4,234.4	3,881.0	37.0	30.2	-142.86	967.0	-1,244.7	3,224.0	3,171.7	61.721		
5,600.0	5,179.8	4,307.9	3,946.3	37.8	30.9	-143.08	988.3	-1,270.6	3,291.8	3,238.6	61.885		
5,700.0	5,271.9	4,382.8	4,013.0	38.5	31.5	-144.33	1,010.1	-1,297.0	3,358.0	3,303.8	61.987		
5,800.0	5,365.7	4,459.9	4,081.6	39.1	32.2	-145.40	1,032.5	-1,324.2	3,421.5	3,366.3	61.998		
5,900.0	5,460.8	4,539.0	4,151.9	39.7	32.8	-146.31	1,055.5	-1,352.1	3,482.1	3,425.9	61.966		
6,000.0	5,557.3	4,620.0	4,224.0	40.1	33.5	-147.07	1,079.0	-1,380.7	3,539.9	3,482.7	61.893		
6,100.0	5,654.7	4,702.7	4,297.5	40.5	34.2	-147.72	1,103.0	-1,409.8	3,594.6	3,536.5	61.786		
6,200.0	5,753.1	4,786.9	4,372.5	40.8	35.0	-148.24	1,127.5	-1,439.5	3,646.4	3,587.2	61.649		
6,300.0	5,852.2	4,872.6	4,448.6	41.1	35.7	-148.66	1,152.4	-1,469.7	3,694.9	3,634.8	61.488		
6,400.0	5,951.7	4,959.4	4,525.9	41.3	36.4	-148.99	1,177.7	-1,500.3	3,740.3	3,679.3	61.312		
6,500.0	6,051.6	5,047.4	4,604.1	41.4	37.2	-149.22	1,203.2	-1,531.3	3,782.4	3,720.5	61.134		
6,600.0	6,151.6	5,136.1	4,683.1	41.4	38.0	-86.37	1,229.0	-1,562.6	3,821.5	3,759.0	61.128		
6,700.0	6,251.6	5,225.1	4,762.2	41.4	38.7	-85.98	1,254.9	-1,594.0	3,860.0	3,796.9	61.160		
6,800.0	6,351.6	5,314.0	4,841.3	41.4	39.4	-85.59	1,280.8	-1,625.3	3,898.1	3,834.0	61.192		
6,900.0	6,451.6	5,402.9	4,920.4	41.5	40.1	-85.20	1,306.7	-1,656.6	3,936.2	3,871.1	61.224		
7,000.0	6,551.6	5,491.8	5,000.0	41.5	40.8	-84.81	1,332.6	-1,687.9	3,974.3	3,908.2	61.256		
7,100.0	6,651.6	5,580.7	5,080.0	41.5	41.5	-84.42	1,358.5	-1,719.2	4,012.4	3,945.3	61.288		
7,200.0	6,751.6	5,669.6	5,160.0	41.5	42.2	-84.03	1,384.4	-1,750.5	4,050.5	3,982.4	61.320		
7,300.0	6,851.6	5,758.5	5,240.0	41.6	42.9	-83.64	1,410.3	-1,781.8	4,088.6	3,999.5	61.352		
7,400.0	6,951.6	5,847.4	5,320.0	41.6	43.6	-83.25	1,436.2	-1,813.1	4,126.7	4,036.6	61.384		
7,500.0	7,051.6	5,936.3	5,400.0	41.6	44.3	-82.86	1,462.1	-1,844.4	4,164.8	4,073.7	61.416		
7,600.0	7,151.6	6,025.2	5,480.0	41.6	45.0	-82.47	1,488.0	-1,875.7	4,202.9	4,110.8	61.448		
7,700.0	7,251.6	6,114.1	5,560.0	41.7	45.7	-82.08	1,513.9	-1,907.0	4,241.0	4,147.9	61.480		
7,800.0	7,351.6	6,203.0	5,640.0	41.7	46.4	-81.69	1,539.8	-1,938.3	4,279.1	4,185.0	61.512		
7,900.0	7,451.6	6,291.9	5,720.0	41.7	47.1	-81.30	1,565.7	-1,969.6	4,317.2	4,222.1	61.544		
8,000.0	7,551.6	6,380.8	5,800.0	41.8	47.8	-80.91	1,591.6	-1,999.9	4,355.3	4,259.2	61.576		
8,100.0	7,651.6	6,469.7	5,880.0	41.8	48.5	-80.52	1,617.5	-2,031.2	4,393.4	4,296.3	61.608		
8,200.0	7,751.6	6,558.6	5,960.0	41.8	49.2	-80.13	1,643.4	-2,062.5	4,431.5	4,333.4	61.640		
8,209.6	7,761.1	6,568.1	5,970.0	41.8	49.2	-80.13	1,643.4	-2,062.5	4,431.5	4,333.4	61.640		
8,300.0	7,851.6	6,647.5	6,040.0	41.8	49.9	-79.74	1,669.3	-2,093.8	4,469.6	4,370.5	61.672		
8,339.4	7,891.0	6,686.9	6,080.0	41.8	50.6	-79.35	1,695.2	-2,125.1	4,507.7	4,407.6	61.704		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-91.76	-0.4	-14.1	14.1			
100.0	100.0	100.0	100.0	0.8	0.8	-91.76	-0.4	-14.1	14.1	12.6	8.926	
200.0	200.0	200.0	200.0	1.4	1.4	-91.76	-0.4	-14.1	14.1	11.3	4.998	
210.0	210.0	210.0	210.0	1.5	1.4	-91.76	-0.4	-14.1	14.1	11.2	4.873	CC
300.0	300.0	299.8	299.8	1.9	1.7	-91.60	-0.4	-14.5	14.5	11.0	4.112	ES
400.0	400.0	398.8	398.7	2.7	2.8	-155.75	-0.1	-18.3	20.3	14.9	3.767	SF
500.0	499.7	496.7	496.3	4.1	4.2	-158.18	0.6	-26.3	34.4	26.3	4.266	
600.0	599.1	592.4	591.3	5.2	4.9	-159.76	1.7	-38.1	56.6	46.8	5.819	
700.0	698.0	686.3	683.9	6.1	5.3	-159.71	4.5	-52.8	85.7	74.8	7.851	
800.0	796.0	777.2	773.1	7.0	6.0	-158.75	9.8	-69.7	121.2	108.9	9.903	
900.0	893.2	864.8	858.3	7.7	6.6	-157.54	17.2	-88.3	162.6	149.2	12.097	
1,000.0	989.2	948.5	939.1	8.4	7.2	-156.31	26.5	-108.2	209.8	195.3	14.446	
1,100.0	1,083.9	1,028.1	1,015.2	9.1	7.8	-155.08	37.3	-129.1	262.5	247.0	16.927	
1,200.0	1,177.0	1,100.0	1,083.1	9.7	8.3	-153.90	48.6	-149.6	320.4	304.1	19.604	
1,300.0	1,268.6	1,174.1	1,152.5	10.2	8.8	-152.84	61.9	-172.2	383.0	365.9	22.347	
1,400.0	1,359.6	1,241.8	1,215.0	10.5	9.2	-152.46	75.4	-194.3	448.2	430.5	25.263	
1,500.0	1,450.5	1,307.1	1,274.6	10.8	9.7	-151.97	89.7	-216.7	514.8	496.5	28.066	
1,600.0	1,541.5	1,380.8	1,341.5	11.1	10.0	-151.43	106.5	-242.8	582.2	563.3	30.690	
1,700.0	1,632.4	1,454.6	1,408.5	11.5	10.3	-151.00	123.4	-268.9	649.6	630.1	33.178	
1,800.0	1,723.4	1,528.4	1,475.4	11.8	10.5	-150.66	140.3	-295.0	717.1	696.9	35.499	
1,900.0	1,814.3	1,602.2	1,542.3	12.2	10.8	-150.37	157.1	-321.0	784.5	763.7	37.636	
2,000.0	1,905.3	1,676.0	1,609.3	12.6	11.0	-150.13	174.0	-347.1	851.9	830.4	39.594	
2,100.0	1,996.3	1,749.8	1,676.2	13.0	11.3	-149.92	190.8	-373.2	919.4	897.2	41.395	
2,200.0	2,087.2	1,823.6	1,743.2	13.4	11.6	-149.74	207.7	-399.2	986.9	963.9	43.053	
2,300.0	2,178.2	1,897.4	1,810.1	13.8	11.9	-149.59	224.5	-425.3	1,054.3	1,030.7	44.579	
2,400.0	2,269.1	1,971.1	1,877.0	14.2	12.2	-149.45	241.4	-451.4	1,121.8	1,097.4	45.978	
2,500.0	2,360.1	2,044.9	1,944.0	14.7	12.5	-149.33	258.2	-477.5	1,189.3	1,164.1	47.268	
2,600.0	2,451.0	2,118.7	2,010.9	15.1	12.9	-149.22	275.1	-503.5	1,256.7	1,230.8	48.456	
2,700.0	2,542.0	2,192.5	2,077.8	15.8	13.2	-149.12	291.9	-529.6	1,324.2	1,297.5	49.561	
2,800.0	2,633.0	2,266.3	2,144.8	16.5	13.6	-149.03	308.8	-555.7	1,391.7	1,364.2	50.576	
2,900.0	2,723.9	2,340.1	2,211.7	17.2	14.0	-148.95	325.6	-581.7	1,459.2	1,430.8	51.514	
3,000.0	2,814.9	2,413.9	2,278.7	18.0	14.5	-148.88	342.5	-607.8	1,526.6	1,497.5	52.385	
3,100.0	2,905.8	2,487.7	2,345.6	18.8	15.0	-148.81	359.3	-633.9	1,594.1	1,564.1	53.192	
3,200.0	2,996.8	2,561.4	2,412.5	19.5	15.5	-148.75	376.2	-660.0	1,661.6	1,630.8	53.941	
3,300.0	3,087.7	2,635.2	2,479.5	20.3	16.0	-148.70	393.0	-686.0	1,729.1	1,697.4	54.639	
3,400.0	3,178.7	2,709.0	2,546.4	21.0	16.6	-148.64	409.9	-712.1	1,796.6	1,764.1	55.290	
3,500.0	3,269.7	2,782.8	2,613.4	21.8	17.1	-148.60	426.7	-738.2	1,864.0	1,830.7	55.896	
3,600.0	3,360.6	2,856.6	2,680.3	22.5	17.7	-148.55	443.6	-764.3	1,931.5	1,897.3	56.462	
3,700.0	3,451.6	2,930.4	2,747.2	23.3	18.2	-148.51	460.4	-790.3	1,999.0	1,963.9	56.992	
3,800.0	3,542.5	3,004.2	2,814.2	24.1	18.8	-148.47	477.3	-816.4	2,066.5	2,030.6	57.488	
3,900.0	3,633.5	3,078.0	2,881.1	24.8	19.4	-148.43	494.1	-842.5	2,134.0	2,097.2	57.953	
4,000.0	3,724.4	3,151.7	2,948.1	25.6	19.9	-148.40	511.0	-868.5	2,201.5	2,163.8	58.390	
4,100.0	3,815.4	3,225.5	3,015.0	26.3	20.5	-148.37	527.8	-894.6	2,269.0	2,230.4	58.800	
4,200.0	3,906.4	3,299.3	3,081.9	27.1	21.1	-148.34	544.7	-920.7	2,336.4	2,297.0	59.187	
4,300.0	3,997.3	3,373.1	3,148.9	27.9	21.7	-148.31	561.5	-946.8	2,403.9	2,363.6	59.551	
4,400.0	4,088.3	3,446.9	3,215.8	28.6	22.2	-148.28	578.4	-972.8	2,471.4	2,430.2	59.894	
4,500.0	4,179.2	3,520.7	3,282.8	29.4	22.8	-148.25	595.2	-998.9	2,538.9	2,496.8	60.218	
4,600.0	4,270.2	3,594.5	3,349.7	30.2	23.4	-148.23	612.1	-1,025.0	2,606.4	2,563.3	60.524	
4,700.0	4,361.1	3,668.3	3,416.6	30.9	24.0	-148.21	628.9	-1,051.1	2,673.9	2,629.9	60.813	
4,800.0	4,452.1	3,742.1	3,483.6	31.7	24.5	-148.18	645.8	-1,077.1	2,741.4	2,696.5	61.088	
4,900.0	4,543.1	3,815.8	3,550.5	32.4	25.1	-148.16	662.6	-1,103.2	2,808.9	2,763.1	61.348	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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)	Distance Between Ellipses (usft)	Separation Factor	Warning	
5,000.0	4,634.0	3,889.6	3,617.5	33.2	25.7	-148.14	679.5	-1,129.3	2,876.4	2,829.7	61.594		
5,100.0	4,725.0	3,963.4	3,684.4	34.0	26.3	-148.12	696.4	-1,155.3	2,943.8	2,896.2	61.828		
5,200.0	4,815.9	4,037.2	3,751.3	34.7	26.9	-148.11	713.2	-1,181.4	3,011.3	2,962.8	62.051		
5,300.0	4,906.9	4,111.0	3,818.3	35.5	27.4	-148.09	730.1	-1,207.5	3,078.8	3,029.4	62.262		
5,400.0	4,997.8	4,184.8	3,885.2	36.3	28.0	-148.07	746.9	-1,233.6	3,146.3	3,095.9	62.463		
5,500.0	5,088.8	4,258.6	3,952.1	37.0	28.6	-148.06	763.8	-1,259.6	3,213.8	3,162.5	62.655		
5,600.0	5,179.8	4,332.4	4,019.1	37.8	29.2	-148.25	780.6	-1,285.7	3,281.3	3,229.0	62.842		
5,700.0	5,271.9	4,407.8	4,087.5	38.5	29.8	-149.33	797.8	-1,312.4	3,346.9	3,293.7	62.954		
5,800.0	5,365.7	4,485.6	4,158.1	39.1	30.4	-150.24	815.6	-1,339.8	3,409.6	3,355.4	62.957		
5,900.0	5,460.8	4,565.5	4,230.6	39.7	31.0	-151.02	833.8	-1,368.1	3,469.3	3,414.2	62.905		
6,000.0	5,557.3	4,647.4	4,304.9	40.1	31.7	-151.67	852.6	-1,397.0	3,526.0	3,469.9	62.804		
6,100.0	5,654.7	4,731.1	4,380.8	40.5	32.3	-152.21	871.7	-1,426.6	3,579.5	3,522.4	62.659		
6,200.0	5,753.1	4,816.6	4,458.4	40.8	33.0	-152.64	891.2	-1,456.8	3,629.7	3,571.6	62.477		
6,300.0	5,852.2	4,903.6	4,537.3	41.1	33.7	-152.98	911.1	-1,487.5	3,676.6	3,617.6	62.265		
6,400.0	5,951.7	4,991.9	4,617.4	41.3	34.4	-153.23	931.2	-1,518.8	3,720.1	3,660.2	62.030		
6,500.0	6,051.6	5,081.5	4,698.7	41.4	35.1	-153.41	951.7	-1,550.4	3,760.2	3,699.3	61.790		
6,600.0	6,151.6	5,172.0	4,780.8	41.4	35.8	-90.54	972.4	-1,582.4	3,797.0	3,735.5	61.742		
6,700.0	6,251.6	5,262.7	4,863.1	41.4	36.5	-90.20	993.1	-1,614.4	3,833.1	3,771.1	61.741		
6,800.0	6,351.6	6,805.0	6,351.6	41.4	42.5	-87.63	1,164.6	-1,879.8	3,841.5	3,768.5	52.646		
6,900.0	6,451.6	6,905.0	6,451.6	41.5	42.5	-87.63	1,164.6	-1,879.8	3,841.5	3,768.5	52.611		
7,000.0	6,551.6	7,005.0	6,551.6	41.5	42.5	-87.63	1,164.6	-1,879.8	3,841.5	3,768.4	52.576		
7,100.0	6,651.6	7,105.0	6,651.6	41.5	42.5	-87.63	1,164.6	-1,879.8	3,841.5	3,768.4	52.541		
7,200.0	6,751.6	7,205.0	6,751.6	41.5	42.6	-87.63	1,164.6	-1,879.8	3,841.5	3,768.3	52.506		
7,300.0	6,851.6	7,305.0	6,851.6	41.6	42.6	-87.63	1,164.6	-1,879.8	3,841.5	3,768.3	52.470		
7,400.0	6,951.6	7,405.0	6,951.6	41.6	42.6	-87.63	1,164.6	-1,879.8	3,841.5	3,768.2	52.435		
7,500.0	7,051.6	7,505.0	7,051.6	41.6	42.6	-87.63	1,164.6	-1,879.8	3,841.5	3,768.2	52.399		
7,600.0	7,151.6	7,605.0	7,151.6	41.6	42.7	-87.63	1,164.6	-1,879.8	3,841.5	3,768.1	52.363		
7,700.0	7,251.6	7,705.0	7,251.6	41.7	42.7	-87.63	1,164.6	-1,879.8	3,841.5	3,768.1	52.327		
7,800.0	7,351.6	7,805.0	7,351.6	41.7	42.7	-87.63	1,164.6	-1,879.8	3,841.5	3,768.0	52.291		
7,900.0	7,451.6	7,905.0	7,451.6	41.7	42.8	-87.63	1,164.6	-1,879.8	3,841.5	3,768.0	52.254		
8,000.0	7,551.6	8,005.0	7,551.6	41.8	42.8	-87.63	1,164.6	-1,879.8	3,841.5	3,767.9	52.217		
8,100.0	7,651.6	8,105.0	7,651.6	41.8	42.8	-87.63	1,164.6	-1,879.8	3,841.5	3,767.9	52.180		
8,200.0	7,751.6	8,205.0	7,751.6	41.8	42.8	-87.63	1,164.6	-1,879.8	3,841.5	3,767.8	52.143		
8,300.0	7,851.6	8,305.0	7,851.6	41.8	42.9	-87.63	1,164.6	-1,879.8	3,841.5	3,767.8	52.106		
8,339.4	7,891.0	8,344.4	7,891.0	41.8	42.9	-87.63	1,164.6	-1,879.8	3,841.5	3,767.7	52.095		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-136.72	-7.3	-6.9	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-136.72	-7.3	-6.9	10.0	8.4	6.316	
200.0	200.0	200.0	200.0	1.4	1.4	-136.72	-7.3	-6.9	10.0	7.2	3.537	
300.0	300.0	300.0	300.0	1.9	1.9	-136.72	-7.3	-6.9	10.0	6.3	2.679	CC, ES
400.0	400.0	399.7	399.6	2.7	2.2	167.57	-7.3	-8.1	13.0	8.1	2.678	SF
500.0	499.7	498.3	498.1	4.1	3.5	179.14	-7.3	-13.4	24.0	16.6	3.229	
600.0	599.1	595.0	594.4	5.2	4.7	-174.71	-7.3	-22.7	43.6	34.0	4.529	
700.0	698.0	688.8	687.3	6.1	5.6	-171.66	-7.3	-35.7	71.4	60.0	6.268	
800.0	796.0	780.0	777.0	7.0	6.0	-169.75	-6.9	-51.7	106.6	94.2	8.579	
900.0	893.2	868.3	863.4	7.7	6.4	-167.80	-4.4	-69.9	148.0	134.5	10.955	
1,000.0	989.2	952.8	945.5	8.4	6.9	-165.96	0.1	-89.6	195.2	180.6	13.378	
1,100.0	1,083.9	1,033.1	1,022.8	9.1	7.5	-164.26	6.2	-110.4	247.9	232.3	15.890	
1,200.0	1,177.0	1,109.0	1,095.2	9.7	8.0	-162.69	13.7	-132.0	305.8	289.3	18.514	
1,300.0	1,268.6	1,180.3	1,162.5	10.2	8.4	-161.34	22.2	-153.8	368.7	351.4	21.385	
1,400.0	1,359.6	1,248.5	1,226.2	10.5	8.9	-160.53	31.6	-176.2	434.0	416.2	24.386	
1,500.0	1,450.5	1,314.3	1,287.0	10.8	9.2	-159.70	41.9	-199.1	500.8	482.5	27.360	
1,600.0	1,541.5	1,385.6	1,352.4	11.1	9.5	-158.85	54.0	-224.8	568.6	549.8	30.272	
1,700.0	1,632.4	1,458.8	1,419.5	11.5	9.7	-158.15	66.5	-251.3	636.5	617.2	32.920	
1,800.0	1,723.4	1,532.1	1,486.7	11.8	9.9	-157.59	78.9	-277.8	704.4	684.5	35.369	
1,900.0	1,814.3	1,605.3	1,553.8	12.2	10.2	-157.13	91.3	-304.3	772.4	751.9	37.633	
2,000.0	1,905.3	1,678.5	1,621.0	12.6	10.5	-156.74	103.8	-330.8	840.3	819.2	39.716	
2,100.0	1,996.3	1,751.8	1,688.1	13.0	10.8	-156.41	116.2	-357.2	908.3	886.5	41.640	
2,200.0	2,087.2	1,825.0	1,755.2	13.4	11.0	-156.12	128.7	-383.7	976.3	953.9	43.417	
2,300.0	2,178.2	1,898.3	1,822.4	13.8	11.3	-155.87	141.1	-410.2	1,044.4	1,021.2	45.059	
2,400.0	2,269.1	1,971.5	1,889.5	14.2	11.6	-155.66	153.6	-436.7	1,112.4	1,088.5	46.562	
2,500.0	2,360.1	2,044.7	1,956.6	14.7	12.0	-155.47	166.0	-463.2	1,180.4	1,155.8	47.973	
2,600.0	2,451.0	2,118.0	2,023.8	15.1	12.3	-155.29	178.4	-489.7	1,248.5	1,223.1	49.262	
2,700.0	2,542.0	2,191.2	2,090.9	15.8	12.7	-155.14	190.9	-516.2	1,316.5	1,290.4	50.459	
2,800.0	2,633.0	2,264.4	2,158.1	16.5	13.0	-155.00	203.3	-542.6	1,384.5	1,357.7	51.566	
2,900.0	2,723.9	2,337.7	2,225.2	17.2	13.4	-154.88	215.8	-569.1	1,452.6	1,425.0	52.594	
3,000.0	2,814.9	2,410.9	2,292.3	18.0	13.8	-154.76	228.2	-595.6	1,520.7	1,492.3	53.550	
3,100.0	2,905.8	2,484.2	2,359.5	18.8	14.3	-154.66	240.7	-622.1	1,588.7	1,559.5	54.437	
3,200.0	2,996.8	2,557.4	2,426.6	19.5	14.7	-154.56	253.1	-648.6	1,656.8	1,626.8	55.263	
3,300.0	3,087.7	2,630.6	2,493.7	20.3	15.2	-154.47	265.5	-675.1	1,724.8	1,694.1	56.034	
3,400.0	3,178.7	2,703.9	2,560.9	21.0	15.7	-154.39	278.0	-701.6	1,792.9	1,761.3	56.753	
3,500.0	3,269.7	2,777.1	2,628.0	21.8	16.2	-154.31	290.4	-728.0	1,861.0	1,828.6	57.425	
3,600.0	3,360.6	2,850.3	2,695.2	22.5	16.7	-154.24	302.9	-754.5	1,929.0	1,895.8	58.053	
3,700.0	3,451.6	2,923.6	2,762.3	23.3	17.3	-154.18	315.3	-781.0	1,997.1	1,963.0	58.643	
3,800.0	3,542.5	2,996.8	2,829.4	24.1	17.8	-154.12	327.8	-807.5	2,065.2	2,030.3	59.195	
3,900.0	3,633.5	3,070.1	2,896.6	24.8	18.3	-154.06	340.2	-834.0	2,133.3	2,097.5	59.714	
4,000.0	3,724.4	3,143.3	2,963.7	25.6	18.8	-154.01	352.6	-860.5	2,201.3	2,164.8	60.201	
4,100.0	3,815.4	3,216.5	3,030.8	26.3	19.4	-153.96	365.1	-886.9	2,269.4	2,232.0	60.661	
4,200.0	3,906.4	3,289.8	3,098.0	27.1	19.9	-153.91	377.5	-913.4	2,337.5	2,299.2	61.093	
4,300.0	3,997.3	3,363.0	3,165.1	27.9	20.4	-153.86	390.0	-939.9	2,405.6	2,366.4	61.501	
4,400.0	4,088.3	3,436.2	3,232.3	28.6	21.0	-153.82	402.4	-966.4	2,473.6	2,433.7	61.886	
4,500.0	4,179.2	3,509.5	3,299.4	29.4	21.5	-153.78	414.9	-992.9	2,541.7	2,500.9	62.250	
4,600.0	4,270.2	3,582.7	3,366.5	30.2	22.1	-153.74	427.3	-1,019.4	2,609.8	2,568.1	62.595	
4,700.0	4,361.1	3,656.0	3,433.7	30.9	22.6	-153.71	439.8	-1,045.9	2,677.9	2,635.3	62.921	
4,800.0	4,452.1	3,729.2	3,500.8	31.7	23.1	-153.67	452.2	-1,072.3	2,745.9	2,702.5	63.230	
4,900.0	4,543.1	3,802.4	3,567.9	32.4	23.7	-153.64	464.6	-1,098.8	2,814.0	2,769.7	63.523	
5,000.0	4,634.0	3,875.7	3,635.1	33.2	24.2	-153.61	477.1	-1,125.3	2,882.1	2,836.9	63.802	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,725.0	3,948.9	3,702.2	34.0	24.8	-153.58	489.5	-1,151.8	2,950.2	2,904.1	64.066		
5,200.0	4,815.9	4,022.1	3,769.4	34.7	25.3	-153.55	502.0	-1,178.3	3,018.3	2,971.3	64.318		
5,300.0	4,906.9	4,095.4	3,836.5	35.5	25.9	-153.52	514.4	-1,204.8	3,086.4	3,038.5	64.557		
5,400.0	4,997.8	4,168.6	3,903.6	36.3	26.4	-153.50	526.9	-1,231.3	3,154.4	3,105.7	64.785		
5,500.0	5,088.8	4,241.9	3,970.8	37.0	27.0	-153.47	539.3	-1,257.7	3,222.5	3,172.9	65.002		
5,600.0	5,179.8	4,315.1	4,037.9	37.8	27.5	-153.63	551.7	-1,284.2	3,290.6	3,240.1	65.215		
5,700.0	5,271.9	4,390.1	4,106.7	38.5	28.1	-154.54	564.5	-1,311.4	3,356.7	3,305.3	65.338		
5,800.0	5,365.7	4,467.6	4,177.7	39.1	28.6	-155.31	577.6	-1,339.4	3,419.8	3,367.4	65.330		
5,900.0	5,460.8	4,547.3	4,250.8	39.7	29.2	-155.96	591.2	-1,368.2	3,479.8	3,426.4	65.257		
6,000.0	5,557.3	4,629.2	4,325.9	40.1	29.9	-156.49	605.1	-1,397.8	3,536.6	3,482.2	65.125		
6,100.0	5,654.7	4,713.2	4,402.8	40.5	30.5	-156.94	619.4	-1,428.2	3,590.0	3,534.7	64.940		
6,200.0	5,753.1	4,798.9	4,481.5	40.8	31.1	-157.29	633.9	-1,459.2	3,640.1	3,583.8	64.711		
6,300.0	5,852.2	4,886.4	4,561.6	41.1	31.8	-157.56	648.8	-1,490.8	3,686.6	3,629.4	64.444		
6,400.0	5,951.7	4,975.4	4,643.2	41.3	32.4	-157.76	663.9	-1,523.0	3,729.7	3,671.5	64.151		
6,500.0	6,051.6	5,065.7	4,726.0	41.4	33.1	-157.89	679.3	-1,555.7	3,769.1	3,710.1	63.849		
6,600.0	6,151.6	5,157.2	4,809.8	41.4	33.8	-95.00	694.8	-1,588.7	3,805.1	3,745.4	63.770		
6,700.0	6,251.6	5,248.8	4,893.9	41.4	34.5	-94.71	710.4	-1,621.9	3,840.4	3,780.2	63.746		
6,800.0	6,351.6	5,340.4	4,978.7	41.4	35.2	-94.42	726.0	-1,655.1	3,875.7	3,815.5	63.722		
6,900.0	6,451.6	5,432.0	5,063.5	41.5	35.9	-94.13	741.6	-1,688.4	3,911.0	3,850.8	63.698		
7,000.0	6,551.6	5,523.6	5,148.3	41.5	36.6	-93.84	757.2	-1,721.6	3,946.3	3,886.1	63.674		
7,100.0	6,651.6	5,615.2	5,233.1	41.5	37.3	-93.55	772.8	-1,754.9	3,981.6	3,921.4	63.650		
7,200.0	6,751.6	5,706.8	5,317.9	41.5	38.0	-93.26	788.4	-1,788.2	4,016.9	3,956.7	63.626		
7,300.0	6,851.6	5,798.4	5,402.7	41.6	38.7	-92.97	804.0	-1,821.4	4,052.2	3,992.0	63.602		
7,400.0	6,951.6	5,890.0	5,487.5	41.6	39.4	-92.68	819.6	-1,854.7	4,087.5	4,027.3	63.578		
7,500.0	7,051.6	5,981.6	5,572.3	41.6	40.1	-92.39	835.2	-1,888.0	4,122.8	4,062.6	63.554		
7,600.0	7,151.6	6,073.2	5,657.1	41.6	40.8	-92.10	850.8	-1,921.2	4,158.1	4,097.9	63.530		
7,700.0	7,251.6	6,164.8	5,741.9	41.7	41.5	-91.81	866.4	-1,954.5	4,193.4	4,133.2	63.506		
7,800.0	7,351.6	6,256.4	5,826.7	41.7	42.2	-91.52	882.0	-1,987.8	4,228.7	4,168.5	63.482		
7,900.0	7,451.6	6,348.0	5,911.5	41.7	42.9	-91.23	897.6	-2,021.0	4,264.0	4,203.8	63.458		
8,000.0	7,551.6	6,439.6	5,996.3	41.8	43.6	-90.94	913.2	-2,054.3	4,299.3	4,239.1	63.434		
8,100.0	7,651.6	6,531.2	6,081.1	41.8	44.3	-90.65	928.8	-2,087.6	4,334.6	4,274.4	63.410		
8,200.0	7,751.6	6,622.8	6,165.9	41.8	45.0	-90.36	944.4	-2,120.9	4,369.9	4,309.7	63.386		
8,210.0	7,761.6	6,632.4	6,175.5	41.8	45.1	-90.34	947.2	-2,124.1	4,373.1	4,312.9	63.383		
8,300.0	7,851.6	6,714.4	6,250.3	41.8	45.8	-90.05	962.8	-2,157.4	4,408.4	4,348.0	63.359		
8,339.4	7,891.0	6,753.8	6,289.7	41.8	46.5	-89.76	978.4	-2,190.7	4,443.7	4,383.3	63.335		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	159.86	-21.0	7.7	22.4			
100.0	100.0	100.0	100.0	0.8	0.8	159.86	-21.0	7.7	22.4	20.8	14.115	
200.0	200.0	200.0	200.0	1.4	1.4	159.86	-21.0	7.7	22.4	19.5	7.903	
300.0	300.0	300.0	300.0	1.9	1.9	159.86	-21.0	7.7	22.4	18.6	5.986	CC
400.0	400.0	400.1	400.1	2.7	2.1	103.84	-21.0	7.2	22.6	18.3	5.245	ES
500.0	499.7	499.5	499.4	4.1	3.2	128.20	-21.0	2.8	25.5	19.8	4.501	SF
600.0	599.1	597.1	596.6	5.2	4.5	154.36	-21.0	-5.6	37.9	29.6	4.561	
700.0	698.0	691.9	690.6	6.1	5.4	169.88	-21.0	-17.8	61.6	50.9	5.762	
800.0	796.0	783.5	780.9	7.0	5.8	177.76	-20.9	-33.1	94.6	82.6	7.851	
900.0	893.2	871.9	867.5	7.7	6.2	-177.15	-19.4	-51.1	135.0	121.8	10.199	
1,000.0	989.2	956.1	949.3	8.4	6.8	-173.56	-16.5	-70.9	182.0	167.6	12.645	
1,100.0	1,083.9	1,035.7	1,025.9	9.1	7.4	-170.86	-12.4	-91.9	235.1	219.6	15.211	
1,200.0	1,177.0	1,110.3	1,097.0	9.7	7.9	-168.70	-7.4	-113.8	293.9	277.5	17.921	
1,300.0	1,268.6	1,179.9	1,162.7	10.2	8.4	-166.96	-1.6	-136.0	357.9	340.7	20.893	
1,400.0	1,359.6	1,245.9	1,224.4	10.5	8.8	-165.81	4.7	-158.7	424.7	407.0	24.097	
1,500.0	1,450.5	1,314.0	1,287.4	10.8	9.1	-164.73	12.1	-183.5	492.9	474.8	27.244	
1,600.0	1,541.5	1,386.6	1,354.4	11.1	9.3	-163.83	20.1	-210.1	561.4	542.8	30.163	
1,700.0	1,632.4	1,459.1	1,421.5	11.5	9.5	-163.12	28.1	-236.7	630.0	610.9	32.875	
1,800.0	1,723.4	1,531.7	1,488.5	11.8	9.8	-162.55	36.1	-263.3	698.7	678.9	35.396	
1,900.0	1,814.3	1,604.3	1,555.6	12.2	10.0	-162.08	44.1	-289.9	767.3	747.0	37.737	
2,000.0	1,905.3	1,676.9	1,622.6	12.6	10.3	-161.69	52.1	-316.5	836.0	815.1	39.900	
2,100.0	1,996.3	1,749.4	1,689.7	13.0	10.6	-161.35	60.1	-343.1	904.7	883.1	41.903	
2,200.0	2,087.2	1,822.0	1,756.7	13.4	10.8	-161.07	68.1	-369.7	973.4	951.2	43.761	
2,300.0	2,178.2	1,894.6	1,823.8	13.8	11.1	-160.82	76.1	-396.3	1,042.2	1,019.2	45.482	
2,400.0	2,269.1	1,967.1	1,890.8	14.2	11.4	-160.60	84.1	-422.9	1,110.9	1,087.3	47.072	
2,500.0	2,360.1	2,039.7	1,957.9	14.7	11.7	-160.41	92.1	-449.5	1,179.6	1,155.3	48.545	
2,600.0	2,451.0	2,112.3	2,024.9	15.1	12.0	-160.24	100.1	-476.1	1,248.4	1,223.4	49.921	
2,700.0	2,542.0	2,184.9	2,091.9	15.8	12.4	-160.09	108.1	-502.7	1,317.1	1,291.4	51.197	
2,800.0	2,633.0	2,257.4	2,159.0	16.5	12.7	-159.95	116.1	-529.3	1,385.9	1,359.4	52.374	
2,900.0	2,723.9	2,330.0	2,226.0	17.2	13.0	-159.82	124.1	-555.9	1,454.7	1,427.4	53.473	
3,000.0	2,814.9	2,402.6	2,293.1	18.0	13.4	-159.71	132.1	-582.5	1,523.4	1,495.5	54.498	
3,100.0	2,905.8	2,475.1	2,360.1	18.8	13.7	-159.61	140.1	-609.1	1,592.2	1,563.5	55.453	
3,200.0	2,996.8	2,547.7	2,427.2	19.5	14.1	-159.51	148.1	-635.7	1,661.0	1,631.5	56.344	
3,300.0	3,087.7	2,620.3	2,494.2	20.3	14.5	-159.42	156.1	-662.3	1,729.7	1,699.5	57.178	
3,400.0	3,178.7	2,692.9	2,561.3	21.0	15.0	-159.34	164.1	-688.9	1,798.5	1,767.5	57.958	
3,500.0	3,269.7	2,765.4	2,628.3	21.8	15.4	-159.27	172.1	-715.5	1,867.3	1,835.5	58.689	
3,600.0	3,360.6	2,838.0	2,695.4	22.5	15.9	-159.20	180.1	-742.1	1,936.1	1,903.5	59.374	
3,700.0	3,451.6	2,910.6	2,762.4	23.3	16.4	-159.13	188.1	-768.7	2,004.8	1,971.4	60.018	
3,800.0	3,542.5	2,983.2	2,829.5	24.1	16.9	-159.07	196.1	-795.3	2,073.6	2,039.4	60.623	
3,900.0	3,633.5	3,055.7	2,896.5	24.8	17.4	-159.01	204.1	-821.9	2,142.4	2,107.4	61.193	
4,000.0	3,724.4	3,128.3	2,963.5	25.6	18.0	-158.96	212.1	-848.5	2,211.2	2,175.4	61.729	
4,100.0	3,815.4	3,200.9	3,030.6	26.3	18.5	-158.91	220.1	-875.1	2,280.0	2,243.3	62.236	
4,200.0	3,906.4	3,273.4	3,097.6	27.1	19.0	-158.86	228.1	-901.7	2,348.8	2,311.3	62.713	
4,300.0	3,997.3	3,346.0	3,164.7	27.9	19.5	-158.82	236.1	-928.3	2,417.5	2,379.3	63.165	
4,400.0	4,088.3	3,418.6	3,231.7	28.6	20.0	-158.78	244.1	-954.9	2,486.3	2,447.2	63.592	
4,500.0	4,179.2	3,491.2	3,298.8	29.4	20.5	-158.74	252.1	-981.5	2,555.1	2,515.2	63.997	
4,600.0	4,270.2	3,563.7	3,365.8	30.2	21.0	-158.70	260.1	-1,008.1	2,623.9	2,583.1	64.380	
4,700.0	4,361.1	3,636.3	3,432.9	30.9	21.6	-158.67	268.1	-1,034.7	2,692.7	2,651.1	64.744	
4,800.0	4,452.1	3,708.9	3,499.9	31.7	22.1	-158.63	276.1	-1,061.3	2,761.5	2,719.1	65.089	
4,900.0	4,543.1	3,781.4	3,567.0	32.4	22.6	-158.60	284.1	-1,087.9	2,830.3	2,787.0	65.417	
5,000.0	4,634.0	3,854.0	3,634.0	33.2	23.1	-158.57	292.1	-1,114.5	2,899.1	2,855.0	65.729	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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)	Distance Between Ellipses (usft)	Separation Factor	Warning	
5,100.0	4,725.0	3,926.6	3,701.0	34.0	23.6	-158.54	300.0	-1,141.1	2,967.8	2,922.9	66.026		
5,200.0	4,815.9	3,999.2	3,768.1	34.7	24.2	-158.51	308.0	-1,167.7	3,036.6	2,990.8	66.309		
5,300.0	4,906.9	4,071.7	3,835.1	35.5	24.7	-158.48	316.0	-1,194.3	3,105.4	3,058.8	66.578		
5,400.0	4,997.8	4,144.3	3,902.2	36.3	25.2	-158.46	324.0	-1,220.9	3,174.2	3,126.7	66.835		
5,500.0	5,088.8	4,216.9	3,969.2	37.0	25.7	-158.43	332.0	-1,247.5	3,243.0	3,194.7	67.081		
5,600.0	5,179.8	4,289.5	4,036.3	37.8	26.2	-158.56	340.0	-1,274.1	3,311.8	3,262.6	67.320		
5,700.0	5,271.9	4,363.9	4,105.1	38.5	26.8	-159.32	348.2	-1,301.4	3,378.5	3,328.4	67.458		
5,800.0	5,365.7	4,440.9	4,176.2	39.1	27.3	-159.96	356.7	-1,329.6	3,442.2	3,391.2	67.447		
5,900.0	5,460.8	4,520.4	4,249.6	39.7	27.9	-160.50	365.5	-1,358.7	3,502.7	3,450.7	67.361		
6,000.0	5,557.3	4,602.2	4,325.2	40.1	28.5	-160.94	374.5	-1,388.7	3,559.8	3,506.8	67.206		
6,100.0	5,654.7	4,686.1	4,402.7	40.5	29.1	-161.30	383.7	-1,419.5	3,613.5	3,559.6	66.992		
6,200.0	5,753.1	4,772.0	4,482.1	40.8	29.7	-161.58	393.2	-1,451.0	3,663.8	3,608.9	66.725		
6,300.0	5,852.2	4,859.7	4,563.1	41.1	30.4	-161.80	402.9	-1,483.1	3,710.4	3,654.5	66.416		
6,400.0	5,951.7	4,949.1	4,645.7	41.3	31.0	-161.96	412.7	-1,515.9	3,753.4	3,696.6	66.075		
6,500.0	6,051.6	5,040.0	4,729.7	41.4	31.7	-162.06	422.8	-1,549.2	3,792.6	3,734.9	65.723		
6,600.0	6,151.6	5,132.1	4,814.8	41.4	32.3	-99.18	432.9	-1,583.0	3,828.3	3,770.0	65.621		
6,700.0	6,251.6	5,224.5	4,900.1	41.4	33.0	-98.94	443.1	-1,616.9	3,863.3	3,804.4	65.583		
6,800.0	6,351.6	5,317.0	4,985.2	41.4	33.4	-97.14	453.9	-1,651.8	3,898.2	3,830.7	65.501		
6,900.0	6,451.6	5,409.5	5,070.3	41.5	33.8	-97.14	463.9	-1,686.8	3,933.2	3,857.0	65.419		
7,000.0	6,551.6	5,502.0	5,155.4	41.5	34.2	-97.14	473.9	-1,721.8	3,968.2	3,883.3	65.337		
7,100.0	6,651.6	5,594.5	5,240.5	41.5	34.6	-97.14	483.9	-1,756.8	4,003.2	3,909.6	65.255		
7,200.0	6,751.6	5,687.0	5,325.6	41.5	35.0	-97.14	493.9	-1,791.8	4,038.2	3,935.9	65.173		
7,300.0	6,851.6	5,779.5	5,410.7	41.6	35.4	-97.14	503.9	-1,826.8	4,073.2	3,962.2	65.091		
7,400.0	6,951.6	5,872.0	5,495.8	41.6	35.8	-97.14	513.9	-1,861.8	4,108.2	3,988.5	65.009		
7,500.0	7,051.6	5,964.5	5,580.9	41.6	36.2	-97.14	523.9	-1,896.8	4,143.2	4,014.8	64.927		
7,600.0	7,151.6	6,057.0	5,666.0	41.6	36.6	-97.14	533.9	-1,931.8	4,178.2	4,041.1	64.845		
7,700.0	7,251.6	6,149.5	5,751.1	41.7	37.0	-97.14	543.9	-1,966.8	4,213.2	4,067.4	64.763		
7,800.0	7,351.6	6,242.0	5,836.2	41.7	37.4	-97.14	553.9	-2,001.8	4,248.2	4,093.7	64.681		
7,900.0	7,451.6	6,334.5	5,921.3	41.7	37.8	-97.14	563.9	-2,036.8	4,283.2	4,120.0	64.599		
8,000.0	7,551.6	6,427.0	6,006.4	41.8	38.2	-97.14	573.9	-2,071.8	4,318.2	4,146.3	64.517		
8,100.0	7,651.6	6,519.5	6,091.5	41.8	38.6	-97.14	583.9	-2,106.8	4,353.2	4,172.6	64.435		
8,200.0	7,751.6	6,612.0	6,176.6	41.8	39.0	-97.14	593.9	-2,141.8	4,388.2	4,198.9	64.353		
8,300.0	7,851.6	6,704.5	6,261.7	41.8	39.4	-97.14	603.9	-2,176.8	4,423.2	4,225.2	64.271		
8,339.4	7,891.0	6,744.0	6,301.8	41.8	39.8	-97.14	613.9	-2,211.8	4,458.2	4,251.5	64.189		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-46.75	34.3	-36.4	50.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.75	34.3	-36.4	50.0	48.4	31.567	
200.0	200.0	200.0	200.0	1.4	1.4	-46.75	34.3	-36.4	50.0	47.2	17.675	CC
300.0	300.0	299.5	299.5	1.9	2.1	-45.03	35.6	-35.7	50.4	46.7	13.612	ES
400.0	400.0	398.7	398.6	2.7	3.6	-103.96	40.7	-32.8	52.8	48.2	11.512	
500.0	499.7	497.7	497.0	4.1	4.8	-100.66	49.5	-27.9	57.9	52.3	10.446	
600.0	599.1	596.3	594.5	5.2	5.8	-98.19	61.9	-20.9	65.5	59.1	10.226	SF
700.0	698.0	694.5	691.0	6.1	6.6	-96.53	77.8	-12.0	75.7	68.5	10.468	
800.0	796.0	792.1	786.0	7.0	7.4	-95.52	97.3	-1.1	88.3	80.3	10.990	
900.0	893.2	889.1	879.4	7.7	8.1	-94.96	120.1	11.7	103.2	94.4	11.675	
1,000.0	989.2	985.4	971.0	8.4	8.8	-94.70	146.2	26.3	120.4	110.8	12.440	
1,100.0	1,083.9	1,081.1	1,060.6	9.1	9.4	-94.62	175.3	42.7	139.9	129.3	13.221	
1,200.0	1,177.0	1,175.9	1,148.0	9.7	10.0	-94.62	207.4	60.7	161.5	150.0	13.970	
1,300.0	1,268.6	1,269.9	1,233.1	10.2	10.6	-94.76	242.3	80.2	185.3	172.7	14.698	
1,400.0	1,359.6	1,363.1	1,315.7	10.5	11.1	-94.67	279.9	101.3	210.9	197.1	15.278	
1,500.0	1,450.5	1,455.3	1,395.6	10.8	11.7	-93.76	319.9	123.8	238.2	223.1	15.787	
1,600.0	1,541.5	1,546.1	1,472.5	11.1	12.1	-92.32	362.1	147.4	267.4	251.0	16.314	
1,700.0	1,632.4	1,640.7	1,551.5	11.5	12.4	-90.73	407.5	172.9	297.7	279.9	16.752	
1,800.0	1,723.4	1,735.7	1,630.8	11.8	12.7	-89.43	453.2	198.5	328.2	309.0	17.110	
1,900.0	1,814.3	1,830.7	1,710.0	12.2	13.0	-88.34	498.8	224.1	358.9	338.3	17.413	
2,000.0	1,905.3	1,925.7	1,789.3	12.6	13.4	-87.43	544.5	249.7	389.6	367.6	17.676	
2,100.0	1,996.3	2,020.7	1,868.6	13.0	13.7	-86.65	590.1	275.3	420.4	397.0	17.906	
2,200.0	2,087.2	2,115.7	1,947.8	13.4	14.1	-85.98	635.8	300.9	451.3	426.4	18.108	
2,300.0	2,178.2	2,210.7	2,027.1	13.8	14.4	-85.39	681.4	326.5	482.2	455.9	18.284	
2,400.0	2,269.1	2,305.7	2,106.4	14.2	14.8	-84.88	727.1	352.1	513.2	485.4	18.446	
2,500.0	2,360.1	2,400.7	2,185.6	14.7	15.5	-84.42	772.7	377.7	544.2	514.9	18.589	
2,600.0	2,451.0	2,495.6	2,264.9	15.1	16.4	-84.01	818.4	403.3	575.2	544.5	18.716	
2,700.0	2,542.0	2,590.6	2,344.2	15.8	17.3	-83.64	864.0	428.9	606.3	574.1	18.830	
2,800.0	2,633.0	2,685.6	2,423.4	16.5	18.2	-83.31	909.7	454.5	637.4	603.7	18.933	
2,900.0	2,723.9	2,780.6	2,502.7	17.2	19.1	-83.01	955.3	480.1	668.5	633.3	19.027	
3,000.0	2,814.9	2,875.6	2,582.0	18.0	20.0	-82.74	1,001.0	505.7	699.6	663.0	19.112	
3,100.0	2,905.8	2,970.6	2,661.2	18.8	20.9	-82.49	1,046.6	531.3	730.7	692.6	19.189	
3,200.0	2,996.8	3,065.6	2,740.5	19.5	21.8	-82.26	1,092.3	556.9	761.8	722.3	19.261	
3,300.0	3,087.7	3,160.6	2,819.8	20.3	22.7	-82.05	1,137.9	582.5	793.0	751.9	19.326	
3,400.0	3,178.7	3,255.5	2,899.1	21.0	23.6	-81.85	1,183.6	608.1	824.1	781.6	19.386	
3,500.0	3,269.7	3,350.5	2,978.3	21.8	24.5	-81.67	1,229.3	633.7	855.3	811.3	19.442	
3,600.0	3,360.6	3,445.5	3,057.6	22.5	25.3	-81.50	1,274.9	659.3	886.4	841.0	19.493	
3,700.0	3,451.6	3,540.5	3,136.9	23.3	26.2	-81.34	1,320.6	684.9	917.6	870.6	19.541	
3,800.0	3,542.5	3,635.5	3,216.1	24.1	27.1	-81.20	1,366.2	710.5	948.8	900.3	19.586	
3,900.0	3,633.5	3,730.5	3,295.4	24.8	28.0	-81.06	1,411.9	736.1	980.0	930.0	19.627	
4,000.0	3,724.4	3,825.5	3,374.7	25.6	28.9	-80.93	1,457.5	761.7	1,011.2	959.7	19.666	
4,100.0	3,815.4	3,920.5	3,453.9	26.3	29.8	-80.81	1,503.2	787.3	1,042.3	989.4	19.702	
4,200.0	3,906.4	4,015.5	3,533.2	27.1	30.7	-80.70	1,548.8	812.9	1,073.5	1,019.1	19.736	
4,300.0	3,997.3	4,110.4	3,612.5	27.9	31.6	-80.59	1,594.5	838.5	1,104.7	1,048.9	19.768	
4,400.0	4,088.3	4,205.4	3,691.7	28.6	32.5	-80.49	1,640.1	864.1	1,135.9	1,078.6	19.797	
4,500.0	4,179.2	4,300.4	3,771.0	29.4	33.5	-80.39	1,685.8	889.7	1,167.1	1,108.3	19.826	
4,600.0	4,270.2	4,395.4	3,850.3	30.2	34.4	-80.30	1,731.4	915.3	1,198.4	1,138.0	19.852	
4,700.0	4,361.1	4,490.4	3,929.5	30.9	35.3	-80.21	1,777.1	940.9	1,229.6	1,167.7	19.877	
4,800.0	4,452.1	4,585.4	4,008.8	31.7	36.2	-80.13	1,822.7	966.5	1,260.8	1,197.4	19.901	
4,900.0	4,543.1	4,680.4	4,088.1	32.4	37.1	-80.05	1,868.4	992.1	1,292.0	1,227.2	19.923	
5,000.0	4,634.0	4,775.4	4,167.3	33.2	38.0	-79.97	1,914.0	1,017.7	1,323.2	1,256.9	19.945	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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)	Distance Between Ellipses (usft)	Separation Factor	Warning		
5,100.0	4,725.0	4,870.3	4,246.6	34.0	38.9	-79.90	1,959.7	1,043.3	1,354.4	1,286.6	19.965			
5,200.0	4,815.9	4,965.3	4,325.9	34.7	39.8	-79.83	2,005.3	1,068.9	1,385.7	1,316.3	19.984			
5,300.0	4,906.9	5,060.3	4,405.1	35.5	40.7	-79.77	2,051.0	1,094.5	1,416.9	1,346.0	20.002			
5,400.0	4,997.8	5,155.3	4,484.4	36.3	41.6	-79.71	2,096.6	1,120.1	1,448.1	1,375.8	20.020			
5,500.0	5,088.8	5,250.3	4,563.7	37.0	42.5	-79.65	2,142.3	1,145.7	1,479.3	1,405.5	20.036			
5,600.0	5,179.8	5,345.3	4,642.9	37.8	43.4	-79.73	2,187.9	1,171.3	1,510.6	1,435.3	20.054			
5,700.0	5,271.9	5,440.0	4,722.0	38.5	44.3	-80.39	2,233.4	1,196.9	1,542.3	1,465.6	20.095			
5,800.0	5,365.7	5,534.2	4,800.6	39.1	45.2	-80.91	2,278.7	1,222.3	1,574.7	1,496.7	20.174			
5,900.0	5,460.8	5,660.0	4,906.1	39.7	46.4	-81.15	2,338.4	1,255.7	1,607.5	1,527.8	20.154			
6,000.0	5,557.3	5,837.9	5,061.0	40.1	47.9	-81.12	2,414.7	1,298.5	1,637.2	1,555.1	19.951			
6,100.0	5,654.7	6,022.4	5,228.2	40.5	49.2	-81.08	2,482.5	1,336.5	1,662.5	1,578.4	19.781			
6,200.0	5,753.1	6,212.8	5,406.9	40.8	50.3	-81.05	2,540.0	1,368.8	1,683.2	1,597.6	19.651			
6,300.0	5,852.2	6,408.3	5,595.2	41.1	51.2	-81.02	2,585.3	1,394.2	1,699.2	1,612.3	19.569			
6,400.0	5,951.7	6,607.5	5,791.1	41.3	51.8	-81.00	2,616.9	1,411.9	1,710.0	1,622.5	19.535			
6,500.0	6,051.6	6,809.2	5,991.7	41.4	52.2	-81.00	2,633.7	1,421.3	1,715.7	1,628.0	19.555			
6,600.0	6,151.6	6,969.1	6,151.6	41.4	52.2	-18.18	2,636.4	1,422.8	1,716.6	1,629.0	19.598			
6,700.0	6,251.6	7,069.1	6,251.6	41.4	52.2	-18.18	2,636.4	1,422.8	1,716.6	1,629.0	19.588			
6,800.0	6,351.6	7,169.1	6,351.6	41.4	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.9	19.577			
6,900.0	6,451.6	7,269.1	6,451.6	41.5	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.9	19.566			
7,000.0	6,551.6	7,369.1	6,551.6	41.5	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.8	19.555			
7,100.0	6,651.6	7,469.1	6,651.6	41.5	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.8	19.544			
7,200.0	6,751.6	7,569.1	6,751.6	41.5	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.7	19.532			
7,300.0	6,851.6	7,669.1	6,851.6	41.6	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.7	19.521			
7,400.0	6,951.6	7,769.1	6,951.6	41.6	52.3	-18.18	2,636.4	1,422.8	1,716.6	1,628.6	19.510			
7,500.0	7,051.6	7,869.1	7,051.6	41.6	52.4	-18.18	2,636.4	1,422.8	1,716.6	1,628.6	19.498			
7,600.0	7,151.6	7,969.1	7,151.6	41.6	52.4	-18.18	2,636.4	1,422.8	1,716.6	1,628.5	19.487			
7,700.0	7,251.6	8,069.1	7,251.6	41.7	52.4	-18.18	2,636.4	1,422.8	1,716.6	1,628.5	19.475			
7,800.0	7,351.6	8,169.1	7,351.6	41.7	52.4	-18.18	2,636.4	1,422.8	1,716.6	1,628.4	19.464			
7,900.0	7,451.6	8,269.1	7,451.6	41.7	52.4	-18.18	2,636.4	1,422.8	1,716.6	1,628.4	19.452			
8,000.0	7,551.6	8,369.1	7,551.6	41.8	52.4	-18.18	2,636.4	1,422.8	1,716.6	1,628.3	19.441			
8,100.0	7,651.6	8,469.1	7,651.6	41.8	52.5	-18.18	2,636.4	1,422.8	1,716.6	1,628.3	19.429			
8,200.0	7,751.6	8,569.1	7,751.6	41.8	52.5	-18.18	2,636.4	1,422.8	1,716.6	1,628.2	19.417			
8,300.0	7,851.6	8,669.1	7,851.6	41.8	52.5	-18.18	2,636.4	1,422.8	1,716.6	1,628.1	19.405			
8,339.4	7,891.0	8,708.5	7,891.0	41.8	52.5	-18.18	2,636.4	1,422.8	1,716.6	1,628.1	19.402			

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-12W - OH - Design #2											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	-46.74	27.4	-29.1	40.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.74	27.4	-29.1	40.0	38.4	25.255	
200.0	200.0	200.0	200.0	1.4	1.4	-46.74	27.4	-29.1	40.0	37.2	14.141	CC
300.0	300.0	299.7	299.6	1.9	2.5	-43.71	29.2	-27.9	40.4	36.6	10.697	ES
400.0	400.0	399.1	398.8	2.7	4.0	-100.75	34.6	-24.3	42.6	37.9	9.123	
500.0	499.7	498.2	497.4	4.1	5.1	-95.95	43.5	-18.3	47.3	41.7	8.419	
600.0	599.1	597.0	595.0	5.2	6.0	-92.49	55.8	-9.9	54.4	47.9	8.335	SF
700.0	698.0	695.4	691.6	6.1	6.8	-90.27	71.6	0.8	63.6	56.2	8.609	
800.0	796.0	793.4	786.8	7.0	7.6	-88.99	90.6	13.7	74.9	66.7	9.111	
900.0	893.2	890.8	880.4	7.7	8.3	-88.37	112.9	28.8	88.2	79.2	9.751	
1,000.0	989.2	987.6	972.2	8.4	9.0	-88.16	138.3	46.1	103.4	93.6	10.460	
1,100.0	1,083.9	1,083.9	1,062.2	9.1	9.6	-88.20	166.8	65.3	120.5	109.8	11.179	
1,200.0	1,177.0	1,179.5	1,150.0	9.7	10.2	-88.37	198.1	86.5	139.5	127.7	11.866	
1,300.0	1,268.6	1,274.4	1,235.5	10.2	10.8	-88.68	232.1	109.6	160.2	147.5	12.525	
1,400.0	1,359.6	1,368.6	1,318.7	10.5	11.3	-88.58	268.7	134.5	182.8	168.8	13.022	
1,500.0	1,450.5	1,464.2	1,401.4	10.8	11.8	-87.69	308.3	161.3	206.9	191.6	13.453	
1,600.0	1,541.5	1,561.2	1,485.2	11.1	12.1	-86.89	348.6	188.6	231.2	214.5	13.816	
1,700.0	1,632.4	1,658.1	1,569.1	11.5	12.4	-86.25	388.9	216.0	255.6	237.5	14.121	
1,800.0	1,723.4	1,755.1	1,652.9	11.8	12.8	-85.72	429.3	243.3	280.0	260.5	14.370	
1,900.0	1,814.3	1,852.0	1,736.7	12.2	13.1	-85.27	469.6	270.6	304.3	283.5	14.576	
2,000.0	1,905.3	1,949.0	1,820.5	12.6	13.5	-84.90	509.9	298.0	328.7	306.5	14.749	
2,100.0	1,996.3	2,045.9	1,904.3	13.0	13.8	-84.57	550.3	325.3	353.2	329.4	14.894	
2,200.0	2,087.2	2,142.9	1,988.2	13.4	14.2	-84.28	590.6	352.7	377.6	352.4	15.018	
2,300.0	2,178.2	2,239.9	2,072.0	13.8	14.6	-84.03	630.9	380.0	402.0	375.4	15.123	
2,400.0	2,269.1	2,336.8	2,155.8	14.2	15.0	-83.81	671.3	407.4	426.5	398.4	15.210	
2,500.0	2,360.1	2,433.8	2,239.6	14.7	15.4	-83.61	711.6	434.7	450.9	421.4	15.303	
2,600.0	2,451.0	2,530.7	2,323.4	15.1	16.2	-83.44	751.9	462.1	475.3	444.4	15.369	
2,700.0	2,542.0	2,627.7	2,407.3	15.8	17.0	-83.28	792.3	489.4	499.8	467.4	15.428	
2,800.0	2,633.0	2,724.6	2,491.1	16.5	17.9	-83.13	832.6	516.8	524.2	490.4	15.481	
2,900.0	2,723.9	2,821.6	2,574.9	17.2	18.7	-83.00	873.0	544.1	548.7	513.4	15.528	
3,000.0	2,814.9	2,918.5	2,658.7	18.0	19.5	-82.88	913.3	571.5	573.2	536.3	15.570	
3,100.0	2,905.8	3,015.5	2,742.5	18.8	20.4	-82.77	953.6	598.8	597.6	559.3	15.608	
3,200.0	2,996.8	3,112.5	2,826.4	19.5	21.2	-82.67	994.0	626.1	622.1	582.3	15.642	
3,300.0	3,087.7	3,209.4	2,910.2	20.3	22.1	-82.57	1,034.3	653.5	646.6	605.3	15.672	
3,400.0	3,178.7	3,306.4	2,994.0	21.0	22.9	-82.48	1,074.6	680.8	671.0	628.3	15.700	
3,500.0	3,269.7	3,403.3	3,077.8	21.8	23.7	-82.40	1,115.0	708.2	695.5	651.3	15.724	
3,600.0	3,360.6	3,500.3	3,161.6	22.5	24.6	-82.33	1,155.3	735.5	720.0	674.2	15.747	
3,700.0	3,451.6	3,597.2	3,245.5	23.3	25.4	-82.26	1,195.6	762.9	744.4	697.2	15.768	
3,800.0	3,542.5	3,694.2	3,329.3	24.1	26.3	-82.19	1,236.0	790.2	768.9	720.2	15.787	
3,900.0	3,633.5	3,791.1	3,413.1	24.8	27.1	-82.13	1,276.3	817.6	793.4	743.2	15.804	
4,000.0	3,724.4	3,888.1	3,496.9	25.6	28.0	-82.07	1,316.6	844.9	817.8	766.1	15.820	
4,100.0	3,815.4	3,985.1	3,580.7	26.3	28.8	-82.01	1,357.0	872.3	842.3	789.1	15.834	
4,200.0	3,906.4	4,082.0	3,664.6	27.1	29.7	-81.96	1,397.3	899.6	866.8	812.1	15.848	
4,300.0	3,997.3	4,179.0	3,748.4	27.9	30.5	-81.91	1,437.6	926.9	891.3	835.1	15.860	
4,400.0	4,088.3	4,275.9	3,832.2	28.6	31.3	-81.87	1,478.0	954.3	915.7	858.0	15.872	
4,500.0	4,179.2	4,372.9	3,916.0	29.4	32.2	-81.82	1,518.3	981.6	940.2	881.0	15.883	
4,600.0	4,270.2	4,469.8	3,999.8	30.2	33.0	-81.78	1,558.6	1,009.0	964.7	904.0	15.893	
4,700.0	4,361.1	4,566.8	4,083.7	30.9	33.9	-81.74	1,599.0	1,036.3	989.2	927.0	15.902	
4,800.0	4,452.1	4,663.7	4,167.5	31.7	34.7	-81.70	1,639.3	1,063.7	1,013.7	949.9	15.911	
4,900.0	4,543.1	4,760.7	4,251.3	32.4	35.6	-81.67	1,679.6	1,091.0	1,038.1	972.9	15.919	
5,000.0	4,634.0	4,857.7	4,335.1	33.2	36.4	-81.63	1,720.0	1,118.4	1,062.6	995.9	15.926	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-12W - OH - Design #2												Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,100.0	4,725.0	4,954.6	4,418.9	34.0	37.3	-81.60	1,760.3	1,145.7	1,087.1	1,018.9	15.933		
5,200.0	4,815.9	5,051.6	4,502.8	34.7	38.1	-81.57	1,800.7	1,173.1	1,111.6	1,041.8	15.940		
5,300.0	4,906.9	5,148.5	4,586.6	35.5	39.0	-81.54	1,841.0	1,200.4	1,136.0	1,064.8	15.946		
5,400.0	4,997.8	5,245.5	4,670.4	36.3	39.8	-81.51	1,881.3	1,227.7	1,160.5	1,087.8	15.952		
5,500.0	5,088.8	5,342.4	4,754.2	37.0	40.7	-81.48	1,921.7	1,255.1	1,185.0	1,110.7	15.958		
5,600.0	5,179.8	5,439.4	4,838.0	37.8	41.5	-81.56	1,962.0	1,282.4	1,209.5	1,133.7	15.965		
5,700.0	5,271.9	5,536.2	4,921.7	38.5	42.3	-82.03	2,002.3	1,309.7	1,234.4	1,157.2	15.991		
5,800.0	5,365.7	5,656.7	5,026.6	39.1	43.4	-82.26	2,051.5	1,343.1	1,259.4	1,180.5	15.966		
5,900.0	5,460.8	5,799.0	5,153.9	39.7	44.5	-82.39	2,103.9	1,378.7	1,282.0	1,201.2	15.884		
6,000.0	5,557.3	5,943.8	5,287.3	40.1	45.4	-82.49	2,150.5	1,410.3	1,301.6	1,219.3	15.816		
6,100.0	5,654.7	6,091.0	5,426.3	40.5	46.3	-82.58	2,190.6	1,437.4	1,318.2	1,234.6	15.761		
6,200.0	5,753.1	6,240.1	5,569.9	40.8	46.9	-82.66	2,223.6	1,459.8	1,331.7	1,247.0	15.722		
6,300.0	5,852.2	6,390.9	5,717.5	41.1	47.5	-82.71	2,249.1	1,477.1	1,342.0	1,256.5	15.698		
6,400.0	5,951.7	6,542.8	5,867.9	41.3	47.8	-82.76	2,266.6	1,488.9	1,349.0	1,263.0	15.692		
6,500.0	6,051.6	6,695.5	6,020.2	41.4	48.0	-82.78	2,275.8	1,495.2	1,352.6	1,266.5	15.700		
6,600.0	6,151.6	6,826.9	6,151.6	41.4	48.1	-19.97	2,277.3	1,496.2	1,353.2	1,267.1	15.715		
6,700.0	6,251.6	6,926.9	6,251.6	41.4	48.1	-19.97	2,277.3	1,496.2	1,353.2	1,267.0	15.706		
6,800.0	6,351.6	7,026.9	6,351.6	41.4	48.1	-19.97	2,277.3	1,496.2	1,353.2	1,267.0	15.697		
6,900.0	6,451.6	7,126.9	6,451.6	41.5	48.2	-19.97	2,277.3	1,496.2	1,353.2	1,266.9	15.687		
7,000.0	6,551.6	7,226.9	6,551.6	41.5	48.2	-19.97	2,277.3	1,496.2	1,353.2	1,266.9	15.678		
7,100.0	6,651.6	7,326.9	6,651.6	41.5	48.2	-19.97	2,277.3	1,496.2	1,353.2	1,266.8	15.669		
7,200.0	6,751.6	7,426.9	6,751.6	41.5	48.2	-19.97	2,277.3	1,496.2	1,353.2	1,266.8	15.660		
7,300.0	6,851.6	7,526.9	6,851.6	41.6	48.2	-19.97	2,277.3	1,496.2	1,353.2	1,266.7	15.650		
7,400.0	6,951.6	7,626.9	6,951.6	41.6	48.3	-19.97	2,277.3	1,496.2	1,353.2	1,266.7	15.641		
7,500.0	7,051.6	7,726.9	7,051.6	41.6	48.3	-19.97	2,277.3	1,496.2	1,353.2	1,266.6	15.631		
7,600.0	7,151.6	7,826.9	7,151.6	41.6	48.3	-19.97	2,277.3	1,496.2	1,353.2	1,266.6	15.622		
7,700.0	7,251.6	7,926.9	7,251.6	41.7	48.3	-19.97	2,277.3	1,496.2	1,353.2	1,266.5	15.612		
7,800.0	7,351.6	8,026.9	7,351.6	41.7	48.3	-19.97	2,277.3	1,496.2	1,353.2	1,266.5	15.603		
7,900.0	7,451.6	8,126.9	7,451.6	41.7	48.3	-19.97	2,277.3	1,496.2	1,353.2	1,266.4	15.593		
8,000.0	7,551.6	8,226.9	7,551.6	41.8	48.4	-19.97	2,277.3	1,496.2	1,353.2	1,266.4	15.584		
8,100.0	7,651.6	8,326.9	7,651.6	41.8	48.4	-19.97	2,277.3	1,496.2	1,353.2	1,266.3	15.574		
8,200.0	7,751.6	8,426.9	7,751.6	41.8	48.4	-19.97	2,277.3	1,496.2	1,353.2	1,266.3	15.564		
8,300.0	7,851.6	8,526.9	7,851.6	41.8	48.4	-19.97	2,277.3	1,496.2	1,353.2	1,266.2	15.555		
8,304.7	7,856.2	8,531.6	7,856.2	41.8	48.4	-19.97	2,277.3	1,496.2	1,353.2	1,266.2	15.554		
8,339.4	7,891.0	8,561.3	7,886.0	41.8	48.4	-19.97	2,277.3	1,496.2	1,353.2	1,266.2	15.547		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-13W - OH - Design #2											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	-46.72	20.6	-21.8	30.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.72	20.6	-21.8	30.0	28.4	18.930	
200.0	200.0	200.0	200.0	1.4	1.4	-46.72	20.6	-21.8	30.0	27.2	10.600	
299.4	299.4	299.4	299.4	1.9	1.9	-44.42	21.4	-21.0	30.0	26.4	8.448	CC
300.0	300.0	300.0	300.0	1.9	1.9	-44.38	21.4	-21.0	30.0	26.4	8.438	ES
400.0	400.0	399.9	399.7	2.7	3.4	-100.91	25.2	-17.1	30.8	26.5	7.187	
500.0	499.7	499.6	498.9	4.1	4.6	-95.14	32.1	-10.1	33.3	28.2	6.550	
600.0	599.1	599.1	597.4	5.2	5.6	-90.49	41.9	-0.1	37.3	31.4	6.329	SF
700.0	698.0	698.3	695.0	6.1	6.5	-87.10	54.6	13.0	42.8	36.1	6.336	
800.0	796.0	797.4	791.5	7.0	7.3	-84.83	70.3	29.0	49.7	42.0	6.500	
900.0	893.2	896.2	886.6	7.7	8.0	-83.42	88.8	47.9	57.8	49.2	6.770	
1,000.0	989.2	994.7	980.3	8.4	8.7	-82.63	110.1	69.6	67.1	57.6	7.100	
1,100.0	1,083.9	1,092.9	1,072.3	9.1	9.4	-82.26	134.2	94.2	77.5	67.1	7.450	
1,200.0	1,177.0	1,190.7	1,162.4	9.7	10.0	-82.16	160.8	121.4	89.1	77.7	7.789	
1,300.0	1,268.6	1,288.3	1,250.6	10.2	10.6	-82.26	190.1	151.2	101.9	89.3	8.121	
1,400.0	1,359.6	1,385.4	1,336.5	10.5	11.2	-81.36	221.8	183.6	116.1	102.2	8.351	
1,500.0	1,450.5	1,482.1	1,420.0	10.8	11.6	-79.04	255.8	218.3	132.1	116.7	8.591	
1,600.0	1,541.5	1,580.5	1,504.3	11.1	11.9	-76.66	291.3	254.6	149.0	132.1	8.806	
1,700.0	1,632.4	1,678.9	1,588.5	11.5	12.2	-74.76	326.9	290.9	166.2	147.7	9.006	
1,800.0	1,723.4	1,777.3	1,672.8	11.8	12.6	-73.22	362.5	327.2	183.5	163.5	9.192	
1,900.0	1,814.3	1,875.6	1,757.0	12.2	12.9	-71.95	398.0	363.5	200.8	179.4	9.365	
2,000.0	1,905.3	1,974.0	1,841.3	12.6	13.3	-70.88	433.6	399.8	218.3	195.4	9.523	
2,100.0	1,996.3	2,072.4	1,925.5	13.0	13.7	-69.96	469.1	436.1	235.9	211.5	9.668	
2,200.0	2,087.2	2,170.8	2,009.8	13.4	14.0	-69.18	504.7	472.4	253.4	227.6	9.799	
2,300.0	2,178.2	2,269.2	2,094.0	13.8	14.4	-68.49	540.2	508.7	271.1	243.7	9.916	
2,400.0	2,269.1	2,367.6	2,178.3	14.2	15.1	-67.89	575.8	545.0	288.7	260.0	10.039	
2,500.0	2,360.1	2,466.0	2,262.5	14.7	16.1	-67.36	611.3	581.3	306.4	276.2	10.132	
2,600.0	2,451.0	2,564.3	2,346.8	15.1	17.0	-66.89	646.9	617.6	324.1	292.4	10.224	
2,700.0	2,542.0	2,662.7	2,431.0	15.8	17.9	-66.46	682.5	653.9	341.9	308.7	10.308	
2,800.0	2,633.0	2,761.1	2,515.3	16.5	18.8	-66.08	718.0	690.2	359.6	325.0	10.385	
2,900.0	2,723.9	2,859.5	2,599.5	17.2	19.7	-65.73	753.6	726.5	377.4	341.3	10.456	
3,000.0	2,814.9	2,957.9	2,683.8	18.0	20.6	-65.42	789.1	762.8	395.1	357.6	10.522	
3,100.0	2,905.8	3,056.3	2,768.0	18.8	21.5	-65.13	824.7	799.1	412.9	373.9	10.582	
3,200.0	2,996.8	3,154.7	2,852.3	19.5	22.4	-64.86	860.2	835.4	430.7	390.2	10.638	
3,300.0	3,087.7	3,253.0	2,936.5	20.3	23.4	-64.62	895.8	871.7	448.5	406.5	10.691	
3,400.0	3,178.7	3,351.4	3,020.8	21.0	24.3	-64.40	931.3	908.0	466.3	422.9	10.739	
3,500.0	3,269.7	3,449.8	3,105.0	21.8	25.2	-64.19	966.9	944.3	484.1	439.2	10.784	
3,600.0	3,360.6	3,548.2	3,189.3	22.5	26.1	-63.99	1,002.4	980.6	501.9	455.6	10.826	
3,700.0	3,451.6	3,646.6	3,273.5	23.3	27.0	-63.81	1,038.0	1,016.9	519.8	471.9	10.866	
3,800.0	3,542.5	3,745.0	3,357.8	24.1	27.9	-63.64	1,073.6	1,053.2	537.6	488.3	10.903	
3,900.0	3,633.5	3,843.4	3,442.0	24.8	28.9	-63.49	1,109.1	1,089.5	555.4	504.6	10.938	
4,000.0	3,724.4	3,941.7	3,526.3	25.6	29.8	-63.34	1,144.7	1,125.8	573.3	521.0	10.970	
4,100.0	3,815.4	4,040.1	3,610.5	26.3	30.7	-63.20	1,180.2	1,162.1	591.1	537.4	11.001	
4,200.0	3,906.4	4,138.5	3,694.8	27.1	31.6	-63.07	1,215.8	1,198.4	608.9	553.7	11.030	
4,300.0	3,997.3	4,236.9	3,779.0	27.9	32.5	-62.95	1,251.3	1,234.7	626.8	570.1	11.057	
4,400.0	4,088.3	4,335.3	3,863.3	28.6	33.4	-62.83	1,286.9	1,271.0	644.6	586.5	11.083	
4,500.0	4,179.2	4,433.7	3,947.5	29.4	34.4	-62.72	1,322.4	1,307.3	662.5	602.8	11.108	
4,600.0	4,270.2	4,532.1	4,031.8	30.2	35.3	-62.62	1,358.0	1,343.6	680.3	619.2	11.131	
4,700.0	4,361.1	4,630.5	4,116.0	30.9	36.2	-62.52	1,393.5	1,379.9	698.2	635.6	11.153	
4,800.0	4,452.1	4,728.8	4,200.3	31.7	37.1	-62.42	1,429.1	1,416.2	716.1	652.0	11.174	
4,900.0	4,543.1	4,827.2	4,284.5	32.4	38.0	-62.33	1,464.7	1,452.5	733.9	668.3	11.194	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-13W - OH - Design #2												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 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	
5,000.0	4,634.0	4,925.6	4,368.8	33.2	39.0	-62.25	1,500.2	1,488.8	751.8	684.7	11.213		
5,100.0	4,725.0	5,024.0	4,453.0	34.0	39.9	-62.17	1,535.8	1,525.1	769.6	701.1	11.231		
5,200.0	4,815.9	5,122.4	4,537.3	34.7	40.8	-62.09	1,571.3	1,561.4	787.5	717.5	11.248		
5,300.0	4,906.9	5,220.8	4,621.5	35.5	41.7	-62.01	1,606.9	1,597.7	805.4	733.9	11.264		
5,400.0	4,997.8	5,319.2	4,705.8	36.3	42.7	-61.94	1,642.4	1,634.0	823.2	750.2	11.280		
5,500.0	5,088.8	5,417.5	4,790.0	37.0	43.6	-61.88	1,678.0	1,670.3	841.1	766.6	11.295		
5,600.0	5,179.8	5,515.9	4,874.2	37.8	44.5	-61.88	1,713.5	1,706.6	859.0	783.1	11.311		
5,700.0	5,271.9	5,625.3	4,968.1	38.5	45.5	-62.05	1,752.8	1,746.7	878.0	800.5	11.326		
5,800.0	5,365.7	5,759.6	5,086.3	39.1	46.6	-62.11	1,797.4	1,792.3	896.1	816.7	11.290		
5,900.0	5,460.8	5,895.6	5,209.6	39.7	47.7	-62.16	1,837.6	1,833.3	912.1	831.1	11.260		
6,000.0	5,557.3	6,033.1	5,337.4	40.1	48.6	-62.21	1,873.0	1,869.4	926.0	843.6	11.240		
6,100.0	5,654.7	6,171.9	5,469.4	40.5	49.3	-62.25	1,903.1	1,900.2	937.7	854.2	11.230		
6,200.0	5,753.1	6,311.9	5,604.8	40.8	49.9	-62.28	1,927.8	1,925.4	947.3	862.9	11.228		
6,300.0	5,852.2	6,452.8	5,743.0	41.1	50.4	-62.31	1,946.8	1,944.8	954.6	869.6	11.238		
6,400.0	5,951.7	6,594.3	5,883.3	41.3	50.7	-62.32	1,959.9	1,958.1	959.6	874.3	11.256		
6,500.0	6,051.6	6,736.3	6,024.9	41.4	50.9	-62.34	1,966.8	1,965.2	962.2	877.0	11.288		
6,600.0	6,151.6	6,863.0	6,151.6	41.4	50.9	0.48	1,968.1	1,966.5	962.7	877.6	11.317		
6,700.0	6,251.6	6,963.0	6,251.6	41.4	50.9	0.48	1,968.1	1,966.5	962.7	877.5	11.310		
6,800.0	6,351.6	7,063.0	6,351.6	41.4	51.0	0.48	1,968.1	1,966.5	962.7	877.5	11.303		
6,900.0	6,451.6	7,163.0	6,451.6	41.5	51.0	0.48	1,968.1	1,966.5	962.7	877.4	11.296		
7,000.0	6,551.6	7,263.0	6,551.6	41.5	51.0	0.48	1,968.1	1,966.5	962.7	877.4	11.289		
7,100.0	6,651.6	7,363.0	6,651.6	41.5	51.0	0.48	1,968.1	1,966.5	962.7	877.3	11.282		
7,200.0	6,751.6	7,463.0	6,751.6	41.5	51.0	0.48	1,968.1	1,966.5	962.7	877.3	11.274		
7,300.0	6,851.6	7,563.0	6,851.6	41.6	51.0	0.48	1,968.1	1,966.5	962.7	877.2	11.267		
7,400.0	6,951.6	7,663.0	6,951.6	41.6	51.1	0.48	1,968.1	1,966.5	962.7	877.2	11.260		
7,500.0	7,051.6	7,763.0	7,051.6	41.6	51.1	0.48	1,968.1	1,966.5	962.7	877.1	11.252		
7,600.0	7,151.6	7,863.0	7,151.6	41.6	51.1	0.48	1,968.1	1,966.5	962.7	877.1	11.245		
7,700.0	7,251.6	7,963.0	7,251.6	41.7	51.1	0.48	1,968.1	1,966.5	962.7	877.0	11.238		
7,800.0	7,351.6	8,063.0	7,351.6	41.7	51.1	0.48	1,968.1	1,966.5	962.7	876.9	11.230		
7,900.0	7,451.6	8,163.0	7,451.6	41.7	51.2	0.48	1,968.1	1,966.5	962.7	876.9	11.223		
8,000.0	7,551.6	8,263.0	7,551.6	41.8	51.2	0.48	1,968.1	1,966.5	962.7	876.8	11.215		
8,100.0	7,651.6	8,363.0	7,651.6	41.8	51.2	0.48	1,968.1	1,966.5	962.7	876.8	11.208		
8,200.0	7,751.6	8,463.0	7,751.6	41.8	51.2	0.48	1,968.1	1,966.5	962.7	876.7	11.200		
8,300.0	7,851.6	8,563.0	7,851.6	41.8	51.2	0.48	1,968.1	1,966.5	962.7	876.7	11.193		
8,339.4	7,891.0	8,602.4	7,891.0	41.8	51.3	0.48	1,968.1	1,966.5	962.7	876.6	11.190		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	-46.74	13.7	-14.6	20.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.74	13.7	-14.6	20.0	18.4	12.619	
200.0	200.0	200.0	200.0	1.4	1.4	-46.74	13.7	-14.6	20.0	17.2	7.066	
300.0	300.0	300.1	300.0	1.9	2.1	-42.22	14.7	-13.3	19.9	16.2	5.396	
311.1	311.1	311.2	311.1	1.9	2.3	-103.86	15.0	-13.0	19.8	16.0	5.223	CC, ES
400.0	400.0	400.0	399.8	2.7	3.6	-94.41	18.4	-8.8	20.5	16.1	4.642	
500.0	499.7	499.7	498.9	4.1	4.8	-85.19	24.9	-0.9	22.7	17.3	4.252	
600.0	599.1	599.2	597.4	5.2	5.8	-78.39	34.1	10.2	26.2	19.8	4.061	
700.0	698.0	698.5	694.9	6.1	6.6	-73.92	46.0	24.7	30.9	23.2	4.042	SF
800.0	796.0	797.6	791.4	7.0	7.4	-71.25	60.5	42.3	36.5	27.7	4.158	
900.0	893.2	896.5	886.5	7.7	8.1	-69.84	77.6	63.1	42.9	33.1	4.368	
1,000.0	989.2	995.2	980.2	8.4	8.8	-69.27	97.3	87.0	50.2	39.3	4.633	
1,100.0	1,083.9	1,093.6	1,072.2	9.1	9.5	-69.23	119.4	113.9	58.2	46.4	4.925	
1,200.0	1,177.0	1,191.8	1,162.5	9.7	10.1	-69.53	144.0	143.8	66.9	54.1	5.221	
1,300.0	1,268.6	1,289.8	1,250.8	10.2	10.7	-70.03	170.9	176.5	76.4	62.6	5.527	
1,400.0	1,359.6	1,388.0	1,337.5	10.5	11.1	-69.21	200.2	212.0	87.5	72.4	5.823	
1,500.0	1,450.5	1,487.3	1,424.8	10.8	11.4	-68.11	230.3	248.6	99.1	82.7	6.060	
1,600.0	1,541.5	1,586.6	1,512.1	11.1	11.7	-67.24	260.4	285.2	110.7	93.0	6.257	
1,700.0	1,632.4	1,685.9	1,599.4	11.5	12.0	-66.53	290.5	321.8	122.3	103.3	6.424	
1,800.0	1,723.4	1,785.2	1,686.6	11.8	12.4	-65.95	320.6	358.4	134.0	113.6	6.567	
1,900.0	1,814.3	1,884.5	1,773.9	12.2	12.8	-65.46	350.7	395.0	145.6	123.9	6.690	
2,000.0	1,905.3	1,983.8	1,861.2	12.6	13.1	-65.04	380.8	431.6	157.3	134.2	6.796	
2,100.0	1,996.3	2,083.1	1,948.5	13.0	13.5	-64.68	410.9	468.2	169.0	144.5	6.887	
2,200.0	2,087.2	2,182.4	2,035.7	13.4	13.9	-64.37	441.0	504.8	180.7	154.8	6.967	
2,300.0	2,178.2	2,281.7	2,123.0	13.8	14.3	-64.09	471.1	541.4	192.4	165.1	7.037	
2,400.0	2,269.1	2,381.1	2,210.3	14.2	14.9	-63.85	501.3	578.0	204.1	175.3	7.099	
2,500.0	2,360.1	2,480.4	2,297.6	14.7	15.7	-63.63	531.4	614.6	215.8	185.6	7.154	
2,600.0	2,451.0	2,579.7	2,384.8	15.1	16.5	-63.44	561.5	651.1	227.5	195.9	7.202	
2,700.0	2,542.0	2,679.0	2,472.1	15.8	17.4	-63.26	591.6	687.7	239.2	206.2	7.245	
2,800.0	2,633.0	2,778.3	2,559.4	16.5	18.2	-63.10	621.7	724.3	250.9	216.5	7.283	
2,900.0	2,723.9	2,877.6	2,646.7	17.2	19.1	-62.96	651.8	760.9	262.6	226.7	7.318	
3,000.0	2,814.9	2,976.9	2,733.9	18.0	20.0	-62.82	681.9	797.5	274.3	237.0	7.349	
3,100.0	2,905.8	3,076.2	2,821.2	18.8	20.8	-62.70	712.0	834.1	286.1	247.3	7.378	
3,200.0	2,996.8	3,175.5	2,908.5	19.5	21.7	-62.59	742.1	870.7	297.8	257.6	7.403	
3,300.0	3,087.7	3,274.8	2,995.8	20.3	22.5	-62.49	772.2	907.3	309.5	267.8	7.427	
3,400.0	3,178.7	3,374.2	3,083.0	21.0	23.4	-62.39	802.4	943.9	321.2	278.1	7.448	
3,500.0	3,269.7	3,473.5	3,170.3	21.8	24.2	-62.30	832.5	980.5	332.9	288.4	7.468	
3,600.0	3,360.6	3,572.8	3,257.6	22.5	25.1	-62.22	862.6	1,017.1	344.7	298.6	7.486	
3,700.0	3,451.6	3,672.1	3,344.9	23.3	26.0	-62.14	892.7	1,053.7	356.4	308.9	7.503	
3,800.0	3,542.5	3,771.4	3,432.1	24.1	26.8	-62.07	922.8	1,090.2	368.1	319.1	7.518	
3,900.0	3,633.5	3,870.7	3,519.4	24.8	27.7	-62.00	952.9	1,126.8	379.8	329.4	7.533	
4,000.0	3,724.4	3,970.0	3,606.7	25.6	28.5	-61.93	983.0	1,163.4	391.5	339.6	7.546	
4,100.0	3,815.4	4,069.3	3,694.0	26.3	29.4	-61.87	1,013.1	1,200.0	403.3	349.9	7.558	
4,200.0	3,906.4	4,168.6	3,781.2	27.1	30.3	-61.82	1,043.2	1,236.6	415.0	360.2	7.570	
4,300.0	3,997.3	4,267.9	3,868.5	27.9	31.1	-61.76	1,073.3	1,273.2	426.7	370.4	7.581	
4,400.0	4,088.3	4,367.3	3,955.8	28.6	32.0	-61.71	1,103.4	1,309.8	438.4	380.7	7.591	
4,500.0	4,179.2	4,466.6	4,043.1	29.4	32.8	-61.66	1,133.6	1,346.4	450.1	390.9	7.600	
4,600.0	4,270.2	4,565.9	4,130.3	30.2	33.7	-61.62	1,163.7	1,383.0	461.9	401.2	7.609	
4,700.0	4,361.1	4,665.2	4,217.6	30.9	34.6	-61.57	1,193.8	1,419.6	473.6	411.4	7.617	
4,800.0	4,452.1	4,764.5	4,304.9	31.7	35.4	-61.53	1,223.9	1,456.2	485.3	421.7	7.625	
4,900.0	4,543.1	4,863.8	4,392.1	32.4	36.3	-61.49	1,254.0	1,492.8	497.0	431.9	7.632	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-14W - OH - Design #2											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		Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance		Separation Factor	Warning
				Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)		
5,000.0	4,634.0	4,963.1	4,479.4	33.2	37.1	-61.45	1,284.1	1,529.4	508.8	442.2	7.639	
5,100.0	4,725.0	5,062.4	4,566.7	34.0	38.0	-61.42	1,314.2	1,565.9	520.5	452.4	7.646	
5,200.0	4,815.9	5,161.7	4,654.0	34.7	38.9	-61.38	1,344.3	1,602.5	532.2	462.7	7.652	
5,300.0	4,906.9	5,261.0	4,741.2	35.5	39.7	-61.35	1,374.4	1,639.1	543.9	472.9	7.658	
5,400.0	4,997.8	5,360.3	4,828.5	36.3	40.6	-61.32	1,404.5	1,675.7	555.7	483.2	7.663	
5,500.0	5,088.8	5,459.7	4,915.8	37.0	41.5	-61.29	1,434.7	1,712.3	567.4	493.4	7.669	
5,600.0	5,179.8	5,559.0	5,003.1	37.8	42.3	-61.30	1,464.8	1,748.9	579.2	503.7	7.675	
5,700.0	5,271.9	5,673.6	5,104.7	38.5	43.3	-61.38	1,498.4	1,789.8	591.3	514.2	7.670	
5,800.0	5,365.7	5,792.9	5,213.2	39.1	44.2	-61.44	1,530.1	1,828.3	602.2	523.6	7.656	
5,900.0	5,460.8	5,913.0	5,324.7	39.7	45.0	-61.50	1,558.2	1,862.5	611.9	531.9	7.647	
6,000.0	5,557.3	6,033.5	5,438.9	40.1	45.6	-61.55	1,582.8	1,892.3	620.3	539.1	7.642	
6,100.0	5,654.7	6,154.6	5,555.5	40.5	46.2	-61.59	1,603.5	1,917.5	627.4	545.3	7.640	
6,200.0	5,753.1	6,276.1	5,674.0	40.8	46.7	-61.63	1,620.4	1,938.0	633.1	550.3	7.643	
6,300.0	5,852.2	6,398.0	5,794.2	41.1	47.0	-61.65	1,633.2	1,953.6	637.4	554.1	7.648	
6,400.0	5,951.7	6,520.1	5,915.5	41.3	47.2	-61.67	1,642.0	1,964.3	640.4	556.8	7.658	
6,500.0	6,051.6	6,642.3	6,037.5	41.4	47.4	-61.69	1,646.7	1,970.0	642.0	558.3	7.672	
6,600.0	6,151.6	6,756.4	6,151.6	41.4	47.4	1.13	1,647.6	1,971.1	642.2	558.7	7.684	
6,700.0	6,251.6	6,856.4	6,251.6	41.4	47.4	1.13	1,647.6	1,971.1	642.2	558.6	7.679	
6,800.0	6,351.6	6,956.4	6,351.6	41.4	47.5	1.13	1,647.6	1,971.1	642.2	558.6	7.674	
6,900.0	6,451.6	7,056.4	6,451.6	41.5	47.5	1.13	1,647.6	1,971.1	642.2	558.5	7.669	
7,000.0	6,551.6	7,156.4	6,551.6	41.5	47.5	1.13	1,647.6	1,971.1	642.2	558.4	7.664	
7,100.0	6,651.6	7,256.4	6,651.6	41.5	47.5	1.13	1,647.6	1,971.1	642.2	558.4	7.659	
7,200.0	6,751.6	7,356.4	6,751.6	41.5	47.6	1.13	1,647.6	1,971.1	642.2	558.3	7.654	
7,300.0	6,851.6	7,456.4	6,851.6	41.6	47.6	1.13	1,647.6	1,971.1	642.2	558.3	7.649	
7,400.0	6,951.6	7,556.4	6,951.6	41.6	47.6	1.13	1,647.6	1,971.1	642.2	558.2	7.644	
7,500.0	7,051.6	7,656.4	7,051.6	41.6	47.6	1.13	1,647.6	1,971.1	642.2	558.2	7.639	
7,600.0	7,151.6	7,756.4	7,151.6	41.6	47.6	1.13	1,647.6	1,971.1	642.2	558.1	7.633	
7,700.0	7,251.6	7,856.4	7,251.6	41.7	47.7	1.13	1,647.6	1,971.1	642.2	558.0	7.628	
7,800.0	7,351.6	7,956.4	7,351.6	41.7	47.7	1.13	1,647.6	1,971.1	642.2	558.0	7.623	
7,900.0	7,451.6	8,056.4	7,451.6	41.7	47.7	1.13	1,647.6	1,971.1	642.2	557.9	7.618	
8,000.0	7,551.6	8,156.4	7,551.6	41.8	47.7	1.13	1,647.6	1,971.1	642.2	557.9	7.613	
8,100.0	7,651.6	8,256.4	7,651.6	41.8	47.8	1.13	1,647.6	1,971.1	642.2	557.8	7.607	
8,200.0	7,751.6	8,356.4	7,751.6	41.8	47.8	1.13	1,647.6	1,971.1	642.2	557.8	7.602	
8,300.0	7,851.6	8,456.4	7,851.6	41.8	47.8	1.13	1,647.6	1,971.1	642.2	557.7	7.597	
8,325.9	7,877.5	8,482.4	7,877.5	41.8	47.8	1.13	1,647.6	1,971.1	642.2	557.7	7.596	
8,339.4	7,891.0	8,494.9	7,890.0	41.8	47.8	1.13	1,647.6	1,971.1	642.2	557.7	7.593	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-15W - OH - Design #2											Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard												
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Separation Factor	Warning
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)		
0.0	0.0	0.0	0.0	0.0	0.0	-46.76	6.8	-7.3	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	-46.76	6.8	-7.3	10.0	8.4	6.312	
200.0	200.0	200.0	200.0	1.4	1.4	-46.76	6.8	-7.3	10.0	7.2	3.534	
300.0	300.0	300.0	300.0	1.9	1.7	-43.68	7.2	-6.8	9.9	6.4	2.831	
337.9	337.9	337.9	337.9	2.1	2.1	-101.69	7.8	-5.9	9.8	5.9	2.536	CC
400.0	400.0	400.0	399.9	2.7	3.0	-93.75	9.6	-3.2	10.0	5.8	2.384	Level 1, ES
500.0	499.7	500.0	499.5	4.1	4.3	-82.38	14.4	4.0	11.1	6.0	2.178	Level 1
600.0	599.1	599.7	598.4	5.2	5.4	-74.11	21.7	14.8	13.0	6.7	2.061	Level 1
700.0	698.0	699.4	696.6	6.1	6.3	-68.86	31.3	29.2	15.6	8.0	2.042	Level 1, SF
800.0	796.0	799.0	793.8	7.0	7.1	-65.85	43.3	47.1	18.7	9.8	2.105	Level 1
900.0	893.2	898.5	889.9	7.7	7.9	-64.35	57.6	68.4	22.2	12.2	2.222	Level 1
1,000.0	989.2	997.8	984.6	8.4	8.6	-63.82	74.2	93.1	26.2	15.2	2.372	Level 1
1,100.0	1,083.9	1,097.1	1,077.9	9.1	9.3	-63.89	93.1	121.2	30.6	18.5	2.538	
1,200.0	1,177.0	1,196.2	1,169.6	9.7	9.9	-64.34	114.1	152.6	35.4	22.3	2.708	
1,300.0	1,268.6	1,295.2	1,259.4	10.2	10.5	-64.95	137.4	187.2	40.6	26.5	2.887	
1,400.0	1,359.6	1,395.0	1,348.8	10.5	10.9	-64.60	162.0	223.9	46.4	31.1	3.043	
1,500.0	1,450.5	1,494.8	1,438.4	10.8	11.2	-64.32	186.6	260.6	52.2	35.8	3.178	
1,600.0	1,541.5	1,594.7	1,527.9	11.1	11.6	-64.10	211.2	297.3	58.0	40.4	3.287	
1,700.0	1,632.4	1,694.5	1,617.4	11.5	11.9	-63.92	235.8	334.0	63.9	44.9	3.376	
1,800.0	1,723.4	1,794.3	1,706.9	11.8	12.3	-63.77	260.5	370.7	69.7	49.5	3.450	
1,900.0	1,814.3	1,894.2	1,796.4	12.2	12.6	-63.64	285.1	407.4	75.5	54.0	3.510	
2,000.0	1,905.3	1,994.0	1,885.9	12.6	13.0	-63.53	309.7	444.1	81.3	58.5	3.561	
2,100.0	1,996.3	2,093.8	1,975.5	13.0	13.4	-63.44	334.3	480.8	87.2	63.0	3.603	
2,200.0	2,087.2	2,193.6	2,065.0	13.4	13.8	-63.35	358.9	517.5	93.0	67.4	3.639	
2,300.0	2,178.2	2,293.5	2,154.5	13.8	14.2	-63.28	383.6	554.2	98.8	71.9	3.669	
2,400.0	2,269.1	2,393.3	2,244.0	14.2	14.7	-63.22	408.2	590.8	104.7	76.3	3.695	
2,500.0	2,360.1	2,493.1	2,333.5	14.7	15.1	-63.16	432.8	627.5	110.5	80.8	3.718	
2,600.0	2,451.0	2,593.0	2,423.1	15.1	15.8	-63.11	457.4	664.2	116.3	85.2	3.738	
2,700.0	2,542.0	2,692.8	2,512.6	15.8	16.6	-63.06	482.0	700.9	122.1	89.6	3.754	
2,800.0	2,633.0	2,792.6	2,602.1	16.5	17.4	-63.02	506.7	737.6	128.0	94.0	3.769	
2,900.0	2,723.9	2,892.5	2,691.6	17.2	18.1	-62.98	531.3	774.3	133.8	98.4	3.782	
3,000.0	2,814.9	2,992.3	2,781.1	18.0	18.9	-62.94	555.9	811.0	139.6	102.8	3.794	
3,100.0	2,905.8	3,092.1	2,870.6	18.8	19.7	-62.91	580.5	847.7	145.5	107.2	3.804	
3,200.0	2,996.8	3,191.9	2,960.2	19.5	20.5	-62.88	605.2	884.4	151.3	111.6	3.813	
3,300.0	3,087.7	3,291.8	3,049.7	20.3	21.3	-62.85	629.8	921.1	157.1	116.0	3.821	
3,400.0	3,178.7	3,391.6	3,139.2	21.0	22.2	-62.82	654.4	957.8	162.9	120.4	3.829	
3,500.0	3,269.7	3,491.4	3,228.7	21.8	23.0	-62.80	679.0	994.5	168.8	124.8	3.835	
3,600.0	3,360.6	3,591.3	3,318.2	22.5	23.8	-62.78	703.6	1,031.2	174.6	129.1	3.841	
3,700.0	3,451.6	3,691.1	3,407.7	23.3	24.6	-62.75	728.3	1,067.9	180.4	133.5	3.847	
3,800.0	3,542.5	3,790.9	3,497.3	24.1	25.4	-62.73	752.9	1,104.6	186.3	137.9	3.851	
3,900.0	3,633.5	3,890.8	3,586.8	24.8	26.2	-62.72	777.5	1,141.3	192.1	142.3	3.856	
4,000.0	3,724.4	3,990.6	3,676.3	25.6	27.0	-62.70	802.1	1,178.0	197.9	146.6	3.860	
4,100.0	3,815.4	4,090.4	3,765.8	26.3	27.8	-62.68	826.7	1,214.7	203.7	151.0	3.864	
4,200.0	3,906.4	4,190.2	3,855.3	27.1	28.6	-62.67	851.4	1,251.3	209.6	155.4	3.867	
4,300.0	3,997.3	4,290.1	3,944.8	27.9	29.4	-62.65	876.0	1,288.0	215.4	159.7	3.870	
4,400.0	4,088.3	4,389.9	4,034.4	28.6	30.2	-62.64	900.6	1,324.7	221.2	164.1	3.873	
4,500.0	4,179.2	4,489.7	4,123.9	29.4	31.0	-62.62	925.2	1,361.4	227.1	168.5	3.876	
4,600.0	4,270.2	4,589.6	4,213.4	30.2	31.8	-62.61	949.9	1,398.1	232.9	172.8	3.878	
4,700.0	4,361.1	4,689.4	4,302.9	30.9	32.6	-62.60	974.5	1,434.8	238.7	177.2	3.880	
4,800.0	4,452.1	4,789.2	4,392.4	31.7	33.4	-62.59	999.1	1,471.5	244.5	181.6	3.882	
4,900.0	4,543.1	4,889.1	4,481.9	32.4	34.2	-62.58	1,023.7	1,508.2	250.4	185.9	3.884	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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)	Distance Between Ellipses (usft)	Separation Factor	Warning		
5,000.0	4,634.0	4,988.9	4,571.5	33.2	35.0	-62.57	1,048.3	1,544.9	256.2	190.3	3.886			
5,100.0	4,725.0	5,088.7	4,661.0	34.0	35.8	-62.56	1,073.0	1,581.6	262.0	194.6	3.888			
5,200.0	4,815.9	5,188.5	4,750.5	34.7	36.7	-62.55	1,097.6	1,618.3	267.9	199.0	3.889			
5,300.0	4,906.9	5,288.4	4,840.0	35.5	37.5	-62.54	1,122.2	1,655.0	273.7	203.3	3.891			
5,400.0	4,997.8	5,388.2	4,929.5	36.3	38.3	-62.53	1,146.8	1,691.7	279.5	207.7	3.892			
5,500.0	5,088.8	5,488.0	5,019.1	37.0	39.1	-62.52	1,171.4	1,728.4	285.3	212.1	3.893			
5,600.0	5,179.8	5,588.4	5,109.0	37.8	39.9	-62.52	1,196.2	1,765.2	291.2	216.4	3.895			
5,700.0	5,271.9	5,695.8	5,206.6	38.5	40.7	-62.56	1,221.3	1,802.6	296.9	220.7	3.893			
5,800.0	5,365.7	5,803.5	5,306.4	39.1	41.4	-62.59	1,243.8	1,836.2	302.1	224.4	3.890			
5,900.0	5,460.8	5,911.4	5,408.1	39.7	42.1	-62.62	1,263.7	1,865.9	306.6	227.8	3.889			
6,000.0	5,557.3	6,019.4	5,511.6	40.1	42.6	-62.64	1,281.0	1,891.6	310.5	230.7	3.889			
6,100.0	5,654.7	6,127.5	5,616.5	40.5	43.1	-62.66	1,295.5	1,913.3	313.8	233.2	3.890			
6,200.0	5,753.1	6,235.8	5,722.7	40.8	43.4	-62.67	1,307.3	1,930.8	316.5	235.2	3.892			
6,300.0	5,852.2	6,344.2	5,829.9	41.1	43.7	-62.68	1,316.3	1,944.2	318.6	236.8	3.894			
6,400.0	5,951.7	6,452.6	5,937.7	41.3	43.9	-62.68	1,322.4	1,953.4	320.0	237.9	3.898			
6,500.0	6,051.6	6,561.1	6,046.0	41.4	44.0	-62.68	1,325.7	1,958.3	320.7	238.5	3.902			
6,600.0	6,151.6	6,666.6	6,151.6	41.4	44.1	0.15	1,326.3	1,959.2	320.9	238.7	3.906			
6,700.0	6,251.6	6,766.6	6,251.6	41.4	44.1	0.15	1,326.3	1,959.2	320.9	238.7	3.903			
6,800.0	6,351.6	6,866.6	6,351.6	41.4	44.1	0.15	1,326.3	1,959.2	320.9	238.6	3.901			
6,900.0	6,451.6	6,966.6	6,451.6	41.5	44.1	0.15	1,326.3	1,959.2	320.9	238.6	3.898			
7,000.0	6,551.6	7,066.6	6,551.6	41.5	44.1	0.15	1,326.3	1,959.2	320.9	238.5	3.895			
7,100.0	6,651.6	7,166.6	6,651.6	41.5	44.2	0.15	1,326.3	1,959.2	320.9	238.4	3.893			
7,200.0	6,751.6	7,266.6	6,751.6	41.5	44.2	0.15	1,326.3	1,959.2	320.9	238.4	3.890			
7,300.0	6,851.6	7,366.6	6,851.6	41.6	44.2	0.15	1,326.3	1,959.2	320.9	238.3	3.887			
7,400.0	6,951.6	7,466.6	6,951.6	41.6	44.2	0.15	1,326.3	1,959.2	320.9	238.3	3.885			
7,500.0	7,051.6	7,566.6	7,051.6	41.6	44.3	0.15	1,326.3	1,959.2	320.9	238.2	3.882			
7,600.0	7,151.6	7,666.6	7,151.6	41.6	44.3	0.15	1,326.3	1,959.2	320.9	238.2	3.879			
7,700.0	7,251.6	7,766.6	7,251.6	41.7	44.3	0.15	1,326.3	1,959.2	320.9	238.1	3.877			
7,800.0	7,351.6	7,866.6	7,351.6	41.7	44.3	0.15	1,326.3	1,959.2	320.9	238.0	3.874			
7,900.0	7,451.6	7,966.6	7,451.6	41.7	44.4	0.15	1,326.3	1,959.2	320.9	238.0	3.871			
8,000.0	7,551.6	8,066.6	7,551.6	41.8	44.4	0.15	1,326.3	1,959.2	320.9	237.9	3.868			
8,100.0	7,651.6	8,166.6	7,651.6	41.8	44.4	0.15	1,326.3	1,959.2	320.9	237.9	3.866			
8,200.0	7,751.6	8,266.6	7,751.6	41.8	44.4	0.15	1,326.3	1,959.2	320.9	237.8	3.863			
8,300.0	7,851.6	8,366.6	7,851.6	41.8	44.5	0.15	1,326.3	1,959.2	320.9	237.7	3.860			
8,339.4	7,891.0	8,406.0	7,891.0	41.8	44.5	0.15	1,326.3	1,959.2	320.9	237.7	3.859			

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-17W - OH - Design #2											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	133.32	-6.9	7.3	10.0			
100.0	100.0	100.0	100.0	0.8	0.8	133.32	-6.9	7.3	10.0	8.4	6.312	
200.0	200.0	200.0	200.0	1.4	1.4	133.32	-6.9	7.3	10.0	7.2	3.534	
210.0	210.0	210.0	210.0	1.5	1.4	133.32	-6.9	7.3	10.0	7.1	3.451 CC	
300.0	300.0	299.9	299.9	1.9	1.7	130.62	-6.7	7.8	10.3	6.8	2.933 ES	
400.0	400.0	399.6	399.5	2.7	3.0	59.17	-5.2	11.9	11.7	7.0	2.498 Level 1	
500.0	499.7	499.2	498.7	4.1	4.3	54.19	-2.3	20.0	13.8	7.3	2.115 Level 1	
600.0	599.1	598.7	597.4	5.2	5.4	51.95	2.0	32.2	16.4	8.3	2.021 Level 1, SF	
700.0	698.0	698.1	695.3	6.1	6.3	51.51	7.8	48.4	19.4	10.0	2.057 Level 1	
800.0	796.0	797.4	792.2	7.0	7.1	52.17	14.9	68.6	22.9	12.3	2.167 Level 1	
900.0	893.2	896.6	888.0	7.7	7.9	53.48	23.5	92.6	26.7	15.2	2.324 Level 1	
1,000.0	989.2	995.6	982.5	8.4	8.6	55.14	33.4	120.6	30.9	18.6	2.512	
1,100.0	1,083.9	1,094.6	1,075.6	9.1	9.2	56.95	44.7	152.3	35.6	22.5	2.719	
1,200.0	1,177.0	1,193.8	1,167.5	9.7	9.6	59.16	57.2	187.5	40.5	26.9	2.968	
1,300.0	1,268.6	1,293.6	1,259.6	10.2	9.9	64.93	70.1	223.8	44.0	30.3	3.204	
1,400.0	1,359.6	1,393.4	1,351.7	10.5	10.2	71.52	82.9	260.0	47.4	33.5	3.392	
1,500.0	1,450.5	1,493.2	1,443.8	10.8	10.5	77.17	95.8	296.2	51.4	36.7	3.508	
1,600.0	1,541.5	1,593.0	1,535.9	11.1	10.9	81.98	108.7	332.4	55.8	40.1	3.568	
1,700.0	1,632.4	1,692.9	1,628.0	11.5	11.2	86.07	121.5	368.6	60.5	43.6	3.595	
1,800.0	1,723.4	1,792.7	1,720.2	11.8	11.6	89.56	134.4	404.8	65.4	47.3	3.608	
1,900.0	1,814.3	1,892.5	1,812.3	12.2	12.0	92.54	147.3	441.0	70.6	51.1	3.616	
2,000.0	1,905.3	1,992.3	1,904.4	12.6	12.4	95.11	160.1	477.2	75.9	55.0	3.624	
2,100.0	1,996.3	2,092.1	1,996.5	13.0	12.8	97.34	173.0	513.5	81.4	59.0	3.634	
2,200.0	2,087.2	2,191.9	2,088.6	13.4	13.2	99.29	185.9	549.7	87.0	63.1	3.645	
2,300.0	2,178.2	2,291.7	2,180.7	13.8	13.6	101.00	198.7	585.9	92.6	67.3	3.659	
2,400.0	2,269.1	2,391.5	2,272.8	14.2	14.1	102.51	211.6	622.1	98.4	71.6	3.673	
2,500.0	2,360.1	2,491.3	2,364.9	14.7	14.5	103.85	224.5	658.3	104.2	75.9	3.689	
2,600.0	2,451.0	2,591.1	2,457.0	15.1	15.0	105.06	237.3	694.5	110.0	80.3	3.706	
2,700.0	2,542.0	2,690.9	2,549.1	15.8	15.5	106.14	250.2	730.7	115.9	84.8	3.723	
2,800.0	2,633.0	2,790.7	2,641.2	16.5	16.0	107.11	263.1	766.9	121.9	89.3	3.740	
2,900.0	2,723.9	2,890.5	2,733.3	17.2	16.7	108.00	275.9	803.1	127.8	93.8	3.758	
3,000.0	2,814.9	2,990.3	2,825.5	18.0	17.4	108.80	288.8	839.4	133.8	98.4	3.774	
3,100.0	2,905.8	3,090.1	2,917.6	18.8	18.1	109.54	301.7	875.6	139.8	102.9	3.791	
3,200.0	2,996.8	3,189.9	3,009.7	19.5	18.8	110.22	314.5	911.8	145.9	107.6	3.807	
3,300.0	3,087.7	3,289.7	3,101.8	20.3	19.5	110.84	327.4	948.0	151.9	112.2	3.823	
3,400.0	3,178.7	3,389.5	3,193.9	21.0	20.2	111.41	340.3	984.2	158.0	116.8	3.839	
3,500.0	3,269.7	3,489.3	3,286.0	21.8	20.9	111.94	353.1	1,020.4	164.1	121.5	3.853	
3,600.0	3,360.6	3,589.1	3,378.1	22.5	21.6	112.44	366.0	1,056.6	170.2	126.2	3.868	
3,700.0	3,451.6	3,688.9	3,470.2	23.3	22.3	112.90	378.9	1,092.8	176.3	130.9	3.882	
3,800.0	3,542.5	3,788.7	3,562.3	24.1	23.0	113.33	391.7	1,129.0	182.4	135.6	3.895	
3,900.0	3,633.5	3,888.5	3,654.4	24.8	23.7	113.73	404.6	1,165.2	188.5	140.3	3.908	
4,000.0	3,724.4	3,988.3	3,746.5	25.6	24.4	114.10	417.5	1,201.5	194.7	145.0	3.921	
4,100.0	3,815.4	4,088.1	3,838.6	26.3	25.1	114.46	430.3	1,237.7	200.8	149.8	3.933	
4,200.0	3,906.4	4,187.9	3,930.8	27.1	25.8	114.79	443.2	1,273.9	207.0	154.5	3.944	
4,300.0	3,997.3	4,287.7	4,022.9	27.9	26.6	115.10	456.1	1,310.1	213.1	159.3	3.956	
4,400.0	4,088.3	4,387.5	4,115.0	28.6	27.3	115.39	468.9	1,346.3	219.3	164.0	3.966	
4,500.0	4,179.2	4,487.3	4,207.1	29.4	28.0	115.67	481.8	1,382.5	225.5	168.8	3.977	
4,600.0	4,270.2	4,587.2	4,299.2	30.2	28.7	115.94	494.7	1,418.7	231.7	173.5	3.987	
4,700.0	4,361.1	4,687.0	4,391.3	30.9	29.4	116.19	507.5	1,454.9	237.8	178.3	3.997	
4,800.0	4,452.1	4,786.8	4,483.4	31.7	30.1	116.43	520.4	1,491.1	244.0	183.1	4.006	
4,900.0	4,543.1	4,886.6	4,575.5	32.4	30.8	116.65	533.3	1,527.4	250.2	187.9	4.015	

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-17W - OH - Design #2												Offset Well Error:	0.0 usft
Survey Program: 0-OWSG (REV5) MWD HDGM Standard													
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore +N/-S (usft)	Centre +E/-W (usft)	Distance		Separation Factor	Warning	
		Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)				Between Centres (usft)	Between Ellipses (usft)			
5,000.0	4,634.0	4,986.4	4,667.6	33.2	31.5	116.87	546.1	1,563.6	256.4	192.7	4.024		
5,100.0	4,725.0	5,086.2	4,759.7	34.0	32.2	117.07	559.0	1,599.8	262.6	197.5	4.032		
5,200.0	4,815.9	5,186.0	4,851.8	34.7	32.9	117.27	571.9	1,636.0	268.8	202.3	4.040		
5,300.0	4,906.9	5,285.8	4,943.9	35.5	33.6	117.45	584.7	1,672.2	275.0	207.1	4.048		
5,400.0	4,997.8	5,385.6	5,036.1	36.3	34.4	117.63	597.6	1,708.4	281.2	211.9	4.055		
5,500.0	5,088.8	5,485.4	5,128.2	37.0	35.1	117.80	610.5	1,744.6	287.4	216.7	4.063		
5,600.0	5,179.8	5,585.2	5,220.3	37.8	35.8	117.98	623.3	1,780.8	293.6	221.5	4.070		
5,700.0	5,271.9	5,681.2	5,309.5	38.5	36.5	118.03	635.2	1,814.4	299.0	225.5	4.067		
5,800.0	5,365.7	5,776.6	5,399.4	39.1	37.1	118.08	645.8	1,844.2	303.8	229.1	4.066		
5,900.0	5,460.8	5,872.0	5,490.7	39.7	37.6	118.12	655.2	1,870.5	308.0	232.3	4.066		
6,000.0	5,557.3	5,967.4	5,582.9	40.1	38.0	118.16	663.2	1,893.2	311.7	235.0	4.066		
6,100.0	5,654.7	6,062.7	5,676.1	40.5	38.4	118.20	670.0	1,912.2	314.8	237.4	4.067		
6,200.0	5,753.1	6,158.0	5,770.0	40.8	38.6	118.22	675.5	1,927.6	317.3	239.3	4.067		
6,300.0	5,852.2	6,253.3	5,864.5	41.1	38.9	118.25	679.6	1,939.2	319.2	240.7	4.068		
6,400.0	5,951.7	6,348.6	5,959.4	41.3	39.0	118.26	682.4	1,947.2	320.5	241.7	4.068		
6,500.0	6,051.6	6,443.9	6,054.6	41.4	39.1	118.28	683.9	1,951.4	321.2	242.2	4.067		
6,600.0	6,151.6	6,540.9	6,151.6	41.4	39.2	-178.89	684.2	1,952.2	321.3	242.2	4.064		
6,700.0	6,251.6	6,640.9	6,251.6	41.4	39.2	-178.89	684.2	1,952.2	321.3	242.2	4.061		
6,800.0	6,351.6	6,740.9	6,351.6	41.4	39.3	-178.89	684.2	1,952.2	321.3	242.1	4.058		
6,900.0	6,451.6	6,840.9	6,451.6	41.5	39.3	-178.89	684.2	1,952.2	321.3	242.1	4.055		
7,000.0	6,551.6	6,940.9	6,551.6	41.5	39.3	-178.89	684.2	1,952.2	321.3	242.0	4.052		
7,100.0	6,651.6	7,040.9	6,651.6	41.5	39.4	-178.89	684.2	1,952.2	321.3	241.9	4.049		
7,200.0	6,751.6	7,140.9	6,751.6	41.5	39.4	-178.89	684.2	1,952.2	321.3	241.9	4.046		
7,300.0	6,851.6	7,240.9	6,851.6	41.6	39.4	-178.89	684.2	1,952.2	321.3	241.8	4.043		
7,400.0	6,951.6	7,340.9	6,951.6	41.6	39.4	-178.89	684.2	1,952.2	321.3	241.8	4.040		
7,500.0	7,051.6	7,440.9	7,051.6	41.6	39.5	-178.89	684.2	1,952.2	321.3	241.7	4.037		
7,600.0	7,151.6	7,540.9	7,151.6	41.6	39.5	-178.89	684.2	1,952.2	321.3	241.7	4.034		
7,700.0	7,251.6	7,640.9	7,251.6	41.7	39.5	-178.89	684.2	1,952.2	321.3	241.6	4.031		
7,800.0	7,351.6	7,740.9	7,351.6	41.7	39.6	-178.89	684.2	1,952.2	321.3	241.5	4.028		
7,900.0	7,451.6	7,840.9	7,451.6	41.7	39.6	-178.89	684.2	1,952.2	321.3	241.5	4.025		
8,000.0	7,551.6	7,940.9	7,551.6	41.8	39.6	-178.89	684.2	1,952.2	321.3	241.4	4.022		
8,100.0	7,651.6	8,040.9	7,651.6	41.8	39.6	-178.89	684.2	1,952.2	321.3	241.4	4.019		
8,200.0	7,751.6	8,140.9	7,751.6	41.8	39.7	-178.89	684.2	1,952.2	321.3	241.3	4.016		
8,300.0	7,851.6	8,240.9	7,851.6	41.8	39.7	-178.89	684.2	1,952.2	321.3	241.2	4.013		
8,339.4	7,891.0	8,280.3	7,891.0	41.8	39.7	-178.89	684.2	1,952.2	321.3	241.2	4.012		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	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 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	133.30	-13.7	14.5	20.0				
100.0	100.0	100.0	100.0	0.8	0.8	133.30	-13.7	14.5	20.0	18.4	12.619		
200.0	200.0	200.0	200.0	1.4	1.4	133.30	-13.7	14.5	20.0	17.2	7.066		
205.6	205.6	205.6	205.6	1.4	1.4	133.30	-13.7	14.5	20.0	17.1	6.956	CC	
300.0	300.0	299.9	299.9	1.9	1.7	132.98	-13.7	14.7	20.1	16.5	5.630	ES	
400.0	400.0	399.3	399.3	2.7	2.7	68.46	-13.0	17.8	21.2	16.6	4.656		
500.0	499.7	498.7	498.4	4.1	4.2	68.38	-11.4	25.2	23.3	17.4	3.955		
600.0	599.1	598.1	597.0	5.2	5.2	69.53	-8.9	36.8	26.4	19.5	3.816	SF	
700.0	698.0	697.3	694.9	6.1	6.2	71.40	-5.5	52.5	30.5	22.8	3.954		
800.0	796.0	796.4	791.9	7.0	7.0	73.58	-1.3	72.3	35.7	27.3	4.258		
900.0	893.2	895.3	887.8	7.7	7.7	75.78	3.9	96.1	41.9	32.9	4.662		
1,000.0	989.2	994.2	982.4	8.4	8.5	77.83	9.8	124.0	49.1	39.5	5.110		
1,100.0	1,083.9	1,092.8	1,075.6	9.1	9.1	79.67	16.7	155.7	57.4	47.1	5.559		
1,200.0	1,177.0	1,191.8	1,167.7	9.7	9.5	81.64	24.3	191.0	66.6	55.6	6.042		
1,300.0	1,268.6	1,291.2	1,260.0	10.2	9.7	85.90	32.0	227.1	75.7	64.0	6.450		
1,400.0	1,359.6	1,390.6	1,352.3	10.5	10.0	90.36	39.8	263.2	85.2	72.4	6.677		
1,500.0	1,450.5	1,489.9	1,444.5	10.8	10.4	93.93	47.6	299.2	95.0	81.1	6.806		
1,600.0	1,541.5	1,589.3	1,536.8	11.1	10.7	96.81	55.3	335.3	105.2	89.9	6.888		
1,700.0	1,632.4	1,688.6	1,629.0	11.5	11.1	99.19	63.1	371.3	115.6	98.9	6.949		
1,800.0	1,723.4	1,788.0	1,721.3	11.8	11.5	101.17	70.9	407.4	126.1	108.1	6.999		
1,900.0	1,814.3	1,887.4	1,813.6	12.2	11.8	102.84	78.6	443.5	136.8	117.4	7.045		
2,000.0	1,905.3	1,986.7	1,905.8	12.6	12.2	104.27	86.4	479.5	147.6	126.7	7.087		
2,100.0	1,996.3	2,086.1	1,998.1	13.0	12.6	105.51	94.1	515.6	158.4	136.2	7.127		
2,200.0	2,087.2	2,185.4	2,090.3	13.4	13.0	106.58	101.9	551.6	169.3	145.7	7.165		
2,300.0	2,178.2	2,284.8	2,182.6	13.8	13.5	107.53	109.7	587.7	180.3	155.2	7.200		
2,400.0	2,269.1	2,384.1	2,274.8	14.2	13.9	108.37	117.4	623.7	191.3	164.8	7.234		
2,500.0	2,360.1	2,483.5	2,367.1	14.7	14.3	109.11	125.2	659.8	202.3	174.5	7.266		
2,600.0	2,451.0	2,582.8	2,459.4	15.1	14.8	109.78	133.0	695.9	213.4	184.1	7.297		
2,700.0	2,542.0	2,682.2	2,551.6	15.8	15.2	110.39	140.7	731.9	224.5	193.8	7.325		
2,800.0	2,633.0	2,781.6	2,643.9	16.5	15.7	110.93	148.5	768.0	235.6	203.5	7.352		
2,900.0	2,723.9	2,880.9	2,736.1	17.2	16.2	111.43	156.2	804.0	246.7	213.3	7.378		
3,000.0	2,814.9	2,980.3	2,828.4	18.0	16.8	111.89	164.0	840.1	257.9	223.0	7.402		
3,100.0	2,905.8	3,079.6	2,920.6	18.8	17.5	112.30	171.8	876.1	269.0	232.8	7.425		
3,200.0	2,996.8	3,179.0	3,012.9	19.5	18.2	112.69	179.5	912.2	280.2	242.6	7.446		
3,300.0	3,087.7	3,278.3	3,105.2	20.3	18.9	113.04	187.3	948.3	291.4	252.4	7.466		
3,400.0	3,178.7	3,377.7	3,197.4	21.0	19.5	113.37	195.0	984.3	302.6	262.2	7.486		
3,500.0	3,269.7	3,477.1	3,289.7	21.8	20.2	113.67	202.8	1,020.4	313.8	272.0	7.504		
3,600.0	3,360.6	3,576.4	3,381.9	22.5	20.9	113.96	210.6	1,056.4	325.1	281.8	7.521		
3,700.0	3,451.6	3,675.8	3,474.2	23.3	21.6	114.22	218.3	1,092.5	336.3	291.7	7.537		
3,800.0	3,542.5	3,775.1	3,566.4	24.1	22.3	114.47	226.1	1,128.5	347.5	301.5	7.553		
3,900.0	3,633.5	3,874.5	3,658.7	24.8	22.9	114.70	233.9	1,164.6	358.8	311.3	7.568		
4,000.0	3,724.4	3,973.8	3,751.0	25.6	23.6	114.92	241.6	1,200.7	370.0	321.2	7.582		
4,100.0	3,815.4	4,073.2	3,843.2	26.3	24.3	115.12	249.4	1,236.7	381.3	331.1	7.595		
4,200.0	3,906.4	4,172.5	3,935.5	27.1	25.0	115.31	257.1	1,272.8	392.5	340.9	7.608		
4,300.0	3,997.3	4,271.9	4,027.7	27.9	25.7	115.50	264.9	1,308.8	403.8	350.8	7.620		
4,400.0	4,088.3	4,371.3	4,120.0	28.6	26.3	115.67	272.7	1,344.9	415.0	360.6	7.631		
4,500.0	4,179.2	4,470.6	4,212.2	29.4	27.0	115.83	280.4	1,380.9	426.3	370.5	7.642		
4,600.0	4,270.2	4,570.0	4,304.5	30.2	27.7	115.99	288.2	1,417.0	437.6	380.4	7.653		
4,700.0	4,361.1	4,669.3	4,396.8	30.9	28.4	116.14	295.9	1,453.0	448.8	390.3	7.663		
4,800.0	4,452.1	4,768.7	4,489.0	31.7	29.1	116.28	303.7	1,489.1	460.1	400.1	7.672		
4,900.0	4,543.1	4,868.0	4,581.3	32.4	29.8	116.41	311.5	1,525.2	471.4	410.0	7.682		

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 Fed 0993-21-16W - Slot A7
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 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Offset Design											Offset Site Error:	0.0 usft
Laramie 0993-29-01 - Laramie 29-01 Fed 0993-21-18W - OH - Design #2											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
5,000.0	4,634.0	4,967.4	4,673.5	33.2	30.4	116.54	319.2	1,561.2	482.7	419.9	7.690	
5,100.0	4,725.0	5,066.8	4,765.8	34.0	31.1	116.66	327.0	1,597.3	494.0	429.8	7.699	
5,200.0	4,815.9	5,166.1	4,858.0	34.7	31.8	116.77	334.8	1,633.3	505.2	439.7	7.707	
5,300.0	4,906.9	5,265.5	4,950.3	35.5	32.5	116.88	342.5	1,669.4	516.5	449.6	7.715	
5,400.0	4,997.8	5,364.8	5,042.5	36.3	33.2	116.99	350.3	1,705.4	527.8	459.5	7.722	
5,500.0	5,088.8	5,464.2	5,134.8	37.0	33.9	117.09	358.0	1,741.5	539.1	469.4	7.730	
5,600.0	5,179.8	5,563.5	5,227.1	37.8	34.6	117.23	365.8	1,777.6	550.4	479.2	7.737	
5,700.0	5,271.9	5,659.9	5,316.8	38.5	35.2	117.35	373.2	1,811.9	560.5	488.0	7.736	
5,800.0	5,365.7	5,754.1	5,405.8	39.1	35.8	117.44	379.7	1,842.2	569.5	495.8	7.734	
5,900.0	5,460.8	5,848.5	5,496.1	39.7	36.3	117.51	385.5	1,868.9	577.4	502.7	7.733	
6,000.0	5,557.3	5,942.8	5,587.4	40.1	36.7	117.58	390.4	1,892.0	584.2	508.7	7.732	
6,100.0	5,654.7	6,037.3	5,679.7	40.5	37.0	117.64	394.6	1,911.4	590.0	513.6	7.731	
6,200.0	5,753.1	6,131.7	5,772.8	40.8	37.3	117.68	398.0	1,927.1	594.6	517.7	7.729	
6,300.0	5,852.2	6,226.2	5,866.5	41.1	37.5	117.72	400.6	1,939.0	598.1	520.7	7.727	
6,400.0	5,951.7	6,320.7	5,960.6	41.3	37.7	117.74	402.3	1,947.1	600.6	522.8	7.724	
6,500.0	6,051.6	6,415.2	6,055.1	41.4	37.8	117.76	403.2	1,951.4	601.8	523.9	7.719	
6,600.0	6,151.6	6,511.8	6,151.6	41.4	37.8	-179.41	403.4	1,952.2	602.1	524.1	7.716	
6,700.0	6,251.6	6,611.8	6,251.6	41.4	37.9	-179.41	403.4	1,952.2	602.1	524.0	7.711	
6,800.0	6,351.6	6,711.8	6,351.6	41.4	37.9	-179.41	403.4	1,952.2	602.1	523.9	7.705	
6,900.0	6,451.6	6,811.8	6,451.6	41.5	37.9	-179.41	403.4	1,952.2	602.1	523.9	7.699	
7,000.0	6,551.6	6,911.8	6,551.6	41.5	38.0	-179.41	403.4	1,952.2	602.1	523.8	7.694	
7,100.0	6,651.6	7,011.8	6,651.6	41.5	38.0	-179.41	403.4	1,952.2	602.1	523.8	7.688	
7,200.0	6,751.6	7,111.8	6,751.6	41.5	38.0	-179.41	403.4	1,952.2	602.1	523.7	7.682	
7,300.0	6,851.6	7,211.8	6,851.6	41.6	38.0	-179.41	403.4	1,952.2	602.1	523.7	7.677	
7,400.0	6,951.6	7,311.8	6,951.6	41.6	38.1	-179.41	403.4	1,952.2	602.1	523.6	7.671	
7,500.0	7,051.6	7,411.8	7,051.6	41.6	38.1	-179.41	403.4	1,952.2	602.1	523.5	7.665	
7,600.0	7,151.6	7,511.8	7,151.6	41.6	38.1	-179.41	403.4	1,952.2	602.1	523.5	7.659	
7,700.0	7,251.6	7,611.8	7,251.6	41.7	38.2	-179.41	403.4	1,952.2	602.1	523.4	7.654	
7,800.0	7,351.6	7,711.8	7,351.6	41.7	38.2	-179.41	403.4	1,952.2	602.1	523.4	7.648	
7,900.0	7,451.6	7,811.8	7,451.6	41.7	38.2	-179.41	403.4	1,952.2	602.1	523.3	7.642	
8,000.0	7,551.6	7,911.8	7,551.6	41.8	38.3	-179.41	403.4	1,952.2	602.1	523.2	7.636	
8,100.0	7,651.6	8,011.8	7,651.6	41.8	38.3	-179.41	403.4	1,952.2	602.1	523.2	7.630	
8,200.0	7,751.6	8,111.8	7,751.6	41.8	38.3	-179.41	403.4	1,952.2	602.1	523.1	7.624	
8,300.0	7,851.6	8,211.8	7,851.6	41.8	38.3	-179.41	403.4	1,952.2	602.1	523.1	7.619	
8,325.9	7,877.5	8,237.7	7,877.5	41.8	38.3	-179.41	403.4	1,952.2	602.1	523.0	7.618	
8,339.4	7,891.0	8,250.2	7,890.0	41.8	38.3	-179.41	403.4	1,952.2	602.1	523.1	7.618	

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

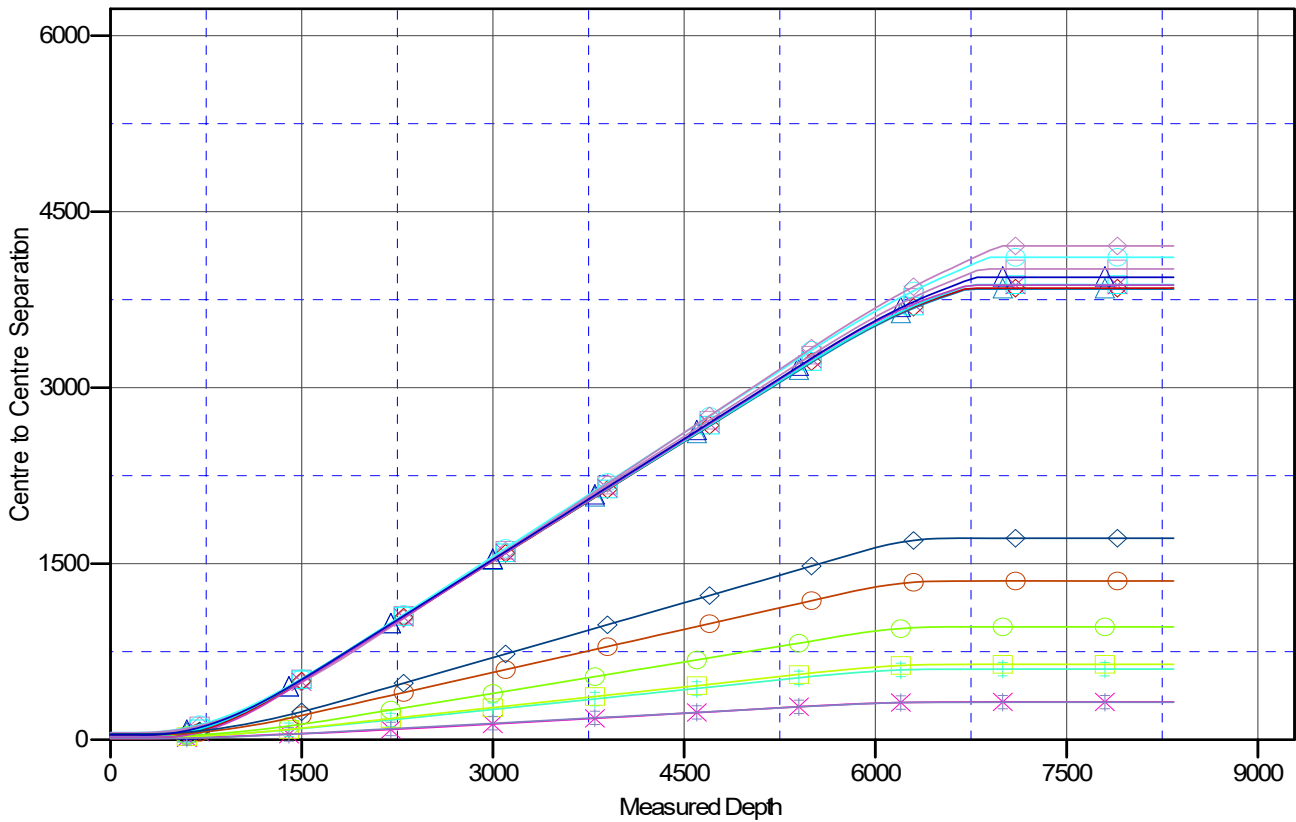


Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-16W - Slot A7
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=30' @ 7493.0usft (TBD)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: Laramie 29-01 Fed 0993-21-16W - Slot A7
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.44°

Ladder Plot



LEGEND

- | | | |
|---|---|---|
| ■ Laramie 29-01 0993-20-13E, OH, Design#2 V0 | ■ Laramie 29-01 Fed 0993-21-18W, OH, Design #2 V0 | ■ Laramie 29-01 0993-20-18E, OH, Design#2 V0 |
| ■ Laramie 29-01 0993-20-12E, OH, Design#2 V0 | ■ Laramie 29-01 Fed 0993-21-14W, OH, Design #2 V0 | ■ Laramie 29-01 Fed 0993-21-12W, OH, Design #2 V0 |
| ■ Laramie 29-01 Fed 0993-21-17W, OH, Design #2 V0 | ■ Laramie 29-01 Fed 0993-21-13W, OH, Design #2 V0 | ■ Laramie 29-01 Fed 0993-21-11W, OH, Design #2 V0 |
| ■ Laramie 29-01 0993-20-16E, OH, Design#2 V0 | ■ Laramie 29-01 0993-20-17E, OH, Design#2 V0 | ■ Laramie 29-01 0993-20-14E, OH, Design#2 V0 |
| ■ Laramie 29-01 0993-20-11E, OH, Design#2 V0 | ■ Laramie 29-01 0993-20-15E, OH, Design#2 V0 | ■ Laramie 29-01 Fed 0993-21-15W, OH, Design #2 V0 |

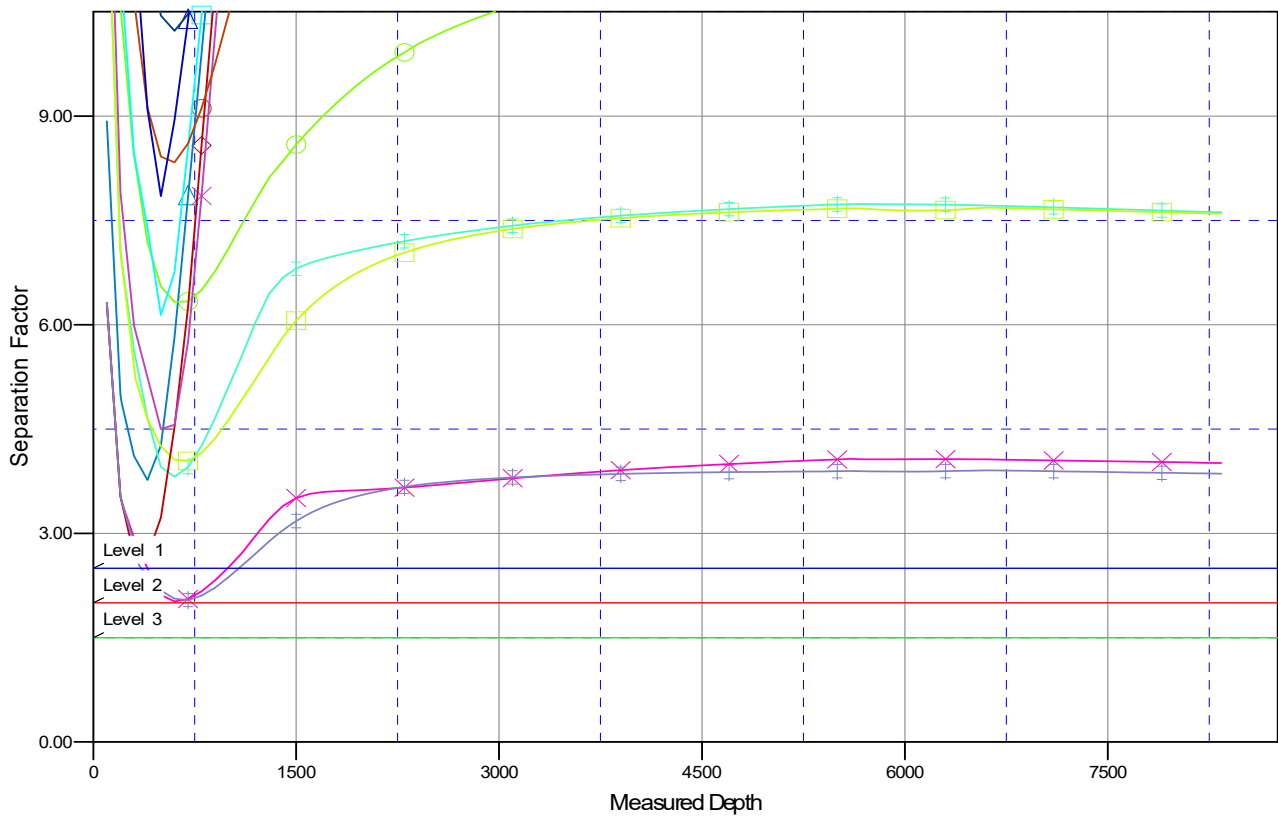


Company:	Laramie Energy, LLC	Local Co-ordinate Reference:	Well Laramie 29-01 Fed 0993-21-16W - Slot A7
Project:	Mesa County, CO	TVD Reference:	RKB=30' @ 7493.0usft (TBD)
Reference Site:	Laramie 0993-29-01	MD Reference:	RKB=30' @ 7493.0usft (TBD)
Site Error:	0.0 usft	North Reference:	True
Reference Well:	Laramie 29-01 Fed 0993-21-16W	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	KLXDirectional-AD
Reference Design:	Design #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB=30' @ 7493.0usft (TBD)
 Offset Depths are relative to Offset Datum
 Central Meridian is -105.500000

Coordinates are relative to: Laramie 29-01 Fed 0993-21-16W - Slot A7
 Coordinate System is US State Plane 1983, Colorado Central Zone
 Grid Convergence at Surface is: -1.44°

Separation Factor Plot



LEGEND

- Laramie 29-01 0993-20-13E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-18W, OH, Design#2 V0
- Laramie 29-01 0993-20-18E, OH, Design#2 V0
- Laramie 29-01 0993-20-12E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-14W, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-12W, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-17W, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-13W, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-11W, OH, Design#2 V0
- Laramie 29-01 0993-20-16E, OH, Design#2 V0
- Laramie 29-01 0993-20-17E, OH, Design#2 V0
- Laramie 29-01 0993-20-14E, OH, Design#2 V0
- Laramie 29-01 0993-20-11E, OH, Design#2 V0
- Laramie 29-01 0993-20-15E, OH, Design#2 V0
- Laramie 29-01 Fed 0993-21-15W, OH, Design#2 V0