

Devon Energy

Lea County, NM (NAD-83)

Thistle Unit Sec 22-27 Trac Pad

Thistle Unit 127H

OH

Plan #2

Anticollision Report

20 September, 2017

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	9/20/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	10,515.06	Plan #2 (OH)	LEAM MWD+HDGM	MWD+HDGM	
10,515.06	17,483.72	Plan #2 (OH)	MWD+IFR1+MS	MWD + IFR1 + Multi-Station Correction	

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						
Thistle Unit						
62H - OH - OH	14,691.52	10,044.40	1,110.84	1,038.95	15.453	CC
62H - OH - OH	14,700.00	10,044.79	1,110.87	1,038.91	15.438	ES
62H - OH - OH	14,800.00	10,049.37	1,116.11	1,043.35	15.339	SF
63H - OH - OH	14,271.87	6,929.00	3,186.73	3,147.42	81.062	CC
63H - OH - OH	14,300.00	6,929.00	3,186.85	3,147.38	80.740	ES
63H - OH - OH	15,400.00	6,929.00	3,380.52	3,335.34	74.828	SF
63H - ST 1 - ST 1	14,402.04	10,095.32	205.32	165.01	5.093	CC, ES, SF
64H - OH - OH	14,764.16	10,182.60	1,008.10	946.10	16.258	CC, ES
64H - OH - OH	14,900.00	10,184.52	1,017.21	953.71	16.018	SF
72H - OH - OH	15,168.58	15,490.00	1,098.96	993.38	10.409	CC, ES
72H - OH - OH	15,200.00	15,478.64	1,099.35	993.58	10.394	SF
Thistle Unit (Offsets)						
56H - OH - OH	14,726.39	10,102.95	94.72	35.47	1.599	CC, ES, SF
57H - OH - OH	14,644.88	10,036.90	946.07	887.73	16.218	CC, ES
57H - OH - OH	17,484.18	13,761.08	1,690.77	1,580.40	15.320	SF
58H - OH - OH	14,626.27	10,066.50	833.34	774.79	14.233	CC, ES
58H - OH - OH	14,700.00	10,066.25	836.59	777.74	14.215	SF
Thistle Unit Sec 22-27 Trac Pad						
Thistle Unit 110H - OH - Plan #2	3,921.40	3,815.52	2,186.37	2,169.39	128.756	CC
Thistle Unit 110H - OH - Plan #2	17,484.18	17,195.33	2,220.08	2,037.35	12.149	ES, SF
Thistle Unit 115H - OH - Plan #2	2,203.33	2,203.33	59.97	50.34	6.229	CC
Thistle Unit 115H - OH - Plan #2	2,300.00	2,299.48	60.19	50.13	5.987	ES
Thistle Unit 115H - OH - Plan #2	17,484.18	17,109.02	764.32	592.00	4.435	SF
Thistle Unit 116H - OH - Plan #2	3,500.00	3,500.10	29.99	14.53	1.940	CC, ES
Thistle Unit 116H - OH - Plan #2	9,444.80	9,461.05	73.51	32.51	1.793	SF
Thistle Unit 128H - OH - Plan #2	2,500.00	2,499.90	119.97	109.01	10.946	CC, ES
Thistle Unit 128H - OH - Plan #2	17,484.18	17,562.40	686.00	502.74	3.743	SF
Thistle Unit 162H - OH - Plan #2	2,916.63	2,916.73	30.01	17.18	2.338	CC
Thistle Unit 162H - OH - Plan #2	3,000.00	3,000.00	30.01	16.80	2.272	ES
Thistle Unit 162H - OH - Plan #2	3,100.00	3,099.57	30.88	17.24	2.264	SF
Thistle Unit 165H - OH - Plan #2	3,500.00	3,499.90	89.96	74.51	5.821	CC, ES
Thistle Unit 165H - OH - Plan #2	17,484.18	17,075.18	736.13	590.05	5.039	SF

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

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Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 62H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 85-ISCWSA-GYRO-3, 1447-LEAM_MWD, 15750-Project													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-173.72	-4,455.10	-490.14	4,482.03					
100.00	100.00	59.96	59.96	0.09	0.06	-173.72	-4,455.24	-490.05	4,482.15	4,482.02	0.13	N/A		
200.00	200.00	161.98	161.98	0.31	0.20	-173.73	-4,455.78	-489.76	4,482.64	4,482.14	0.50	8,952.691		
300.00	300.00	274.80	274.80	0.54	0.39	-173.72	-4,456.02	-490.00	4,482.88	4,481.96	0.92	4,861.321		
400.00	400.00	389.79	389.79	0.76	0.59	-173.72	-4,455.85	-490.67	4,482.79	4,481.45	1.35	3,323.930		
500.00	500.00	499.74	499.73	0.99	0.78	-173.71	-4,455.37	-491.33	4,482.43	4,480.66	1.77	2,538.667		
600.00	600.00	613.88	613.87	1.21	0.98	-173.70	-4,454.60	-491.97	4,481.82	4,479.63	2.19	2,045.638		
700.00	700.00	721.66	721.64	1.43	1.17	-173.69	-4,453.61	-492.38	4,480.95	4,478.34	2.60	1,720.616		
800.00	800.00	822.29	822.27	1.66	1.34	-173.69	-4,452.60	-492.48	4,479.96	4,476.96	3.00	1,491.181		
900.00	900.00	914.60	914.57	1.88	1.50	-173.69	-4,451.80	-492.56	4,479.11	4,475.72	3.39	1,321.586		
1,000.00	1,000.00	1,022.49	1,022.46	2.11	1.69	-173.69	-4,450.85	-492.40	4,478.21	4,474.41	3.80	1,177.539		
1,100.00	1,100.00	1,128.71	1,128.67	2.33	1.88	-173.69	-4,449.78	-492.01	4,477.18	4,472.96	4.21	1,062.505		
1,200.00	1,200.00	1,235.04	1,235.00	2.56	2.06	-173.69	-4,448.56	-491.57	4,475.99	4,471.37	4.62	967.821		
1,300.00	1,300.00	1,334.38	1,334.33	2.78	2.24	-173.70	-4,447.34	-491.16	4,474.72	4,469.70	5.02	890.817		
1,400.00	1,400.00	1,416.00	1,415.94	3.01	2.38	-173.70	-4,446.45	-490.86	4,473.62	4,468.23	5.39	830.039		
1,500.00	1,500.00	1,489.29	1,489.23	3.23	2.42	-173.70	-4,445.99	-490.93	4,473.02	4,467.37	5.65	791.570		
1,522.38	1,522.38	1,501.34	1,501.28	3.28	2.42	-173.70	-4,445.97	-491.02	4,473.00	4,467.29	5.71	784.034		
1,600.00	1,600.00	1,550.87	1,550.80	3.46	2.45	-173.69	-4,446.04	-491.93	4,473.26	4,467.36	5.90	757.684		
1,700.00	1,700.00	1,614.24	1,614.11	3.68	2.50	-173.65	-4,446.39	-494.64	4,474.29	4,468.11	6.18	724.202		
1,800.00	1,800.00	1,668.00	1,667.75	3.91	2.56	-173.61	-4,446.99	-498.12	4,476.18	4,469.72	6.46	692.834		
1,900.00	1,900.00	1,713.23	1,712.81	4.13	2.62	-173.56	-4,448.02	-501.82	4,479.32	4,472.57	6.75	663.999		
2,000.00	2,000.00	1,763.00	1,762.37	4.36	2.70	-173.51	-4,449.60	-506.20	4,483.54	4,476.49	7.05	636.249		
2,100.00	2,100.00	1,817.08	1,816.16	4.58	2.80	-173.45	-4,451.94	-511.20	4,488.89	4,481.53	7.37	609.295		
2,200.00	2,200.00	1,904.38	1,902.96	4.81	2.98	-173.35	-4,456.27	-519.57	4,494.94	4,487.16	7.77	578.147		
2,300.00	2,300.00	2,005.48	2,003.47	5.03	3.23	-173.24	-4,461.38	-529.14	4,501.08	4,492.84	8.24	546.246		
2,400.00	2,400.00	2,102.27	2,099.71	5.26	3.50	-173.13	-4,466.26	-538.28	4,507.23	4,498.51	8.72	516.824		
2,500.00	2,500.00	2,205.03	2,201.86	5.48	3.80	-173.01	-4,471.43	-548.10	4,513.40	4,504.16	9.24	488.463		
2,600.00	2,600.00	2,310.22	2,306.45	5.71	4.14	-172.89	-4,476.62	-558.20	4,519.51	4,509.72	9.79	461.861		
2,700.00	2,700.00	2,423.38	2,418.99	5.93	4.51	-172.77	-4,481.91	-568.77	4,525.32	4,514.95	10.37	436.364		
2,800.00	2,800.00	2,522.73	2,517.81	6.15	4.84	-172.66	-4,486.53	-577.86	4,531.12	4,520.20	10.92	414.942		
2,900.00	2,900.00	2,625.96	2,620.50	6.38	5.20	-172.55	-4,491.21	-587.22	4,536.80	4,525.31	11.49	394.842		
3,000.00	3,000.00	2,755.77	2,749.66	6.60	5.66	-172.41	-4,496.89	-598.90	4,542.38	4,530.22	12.16	373.532		
3,100.00	3,100.00	2,859.08	2,852.49	6.83	6.03	-172.31	-4,500.80	-608.12	4,547.34	4,534.59	12.74	356.816		
3,200.00	3,200.00	2,975.17	2,968.07	7.05	6.44	-172.19	-4,504.98	-618.06	4,552.07	4,538.69	13.38	340.305		
3,300.00	3,300.00	3,055.43	3,048.02	7.28	6.73	-172.11	-4,508.03	-624.47	4,556.93	4,543.05	13.88	328.284		
3,400.00	3,400.00	3,184.08	3,176.08	7.50	7.20	-171.98	-4,512.43	-635.97	4,561.54	4,546.97	14.57	313.109		
3,500.00	3,500.00	3,297.46	3,288.92	7.73	7.62	-171.85	-4,515.97	-646.45	4,565.96	4,550.76	15.21	300.288		
3,600.00	3,600.00	3,397.35	3,388.36	7.94	7.99	-95.17	-4,518.75	-655.43	4,570.08	4,554.30	15.78	289.574		
3,700.00	3,699.96	3,483.87	3,474.51	8.15	8.31	-95.06	-4,521.40	-663.09	4,574.65	4,558.34	16.30	280.625		
3,776.97	3,776.86	3,566.45	3,556.68	8.31	8.62	-94.98	-4,524.02	-670.76	4,578.40	4,561.63	16.76	273.100		
3,800.00	3,799.87	3,598.07	3,588.15	8.35	8.74	-94.96	-4,524.95	-673.69	4,579.48	4,562.55	16.93	270.500		
3,900.00	3,899.75	3,691.64	3,681.29	8.56	9.10	-94.92	-4,527.58	-682.37	4,584.05	4,566.57	17.48	262.185		
4,000.00	3,999.63	3,767.08	3,756.34	8.77	9.38	-94.88	-4,529.96	-689.57	4,589.02	4,571.05	17.97	255.330		
4,100.00	4,099.51	3,854.60	3,843.37	8.98	9.72	-94.83	-4,533.16	-698.17	4,594.51	4,576.00	18.51	248.218		
4,200.00	4,199.40	3,973.70	3,961.87	9.20	10.17	-94.77	-4,537.43	-709.35	4,599.88	4,580.71	19.17	239.960		
4,300.00	4,299.28	4,040.56	4,028.41	9.41	10.43	-94.74	-4,539.80	-715.48	4,605.23	4,585.60	19.63	234.607		
4,400.00	4,399.16	4,092.00	4,079.55	9.63	10.63	-94.71	-4,542.11	-720.48	4,611.56	4,591.53	20.03	230.238		
4,500.00	4,499.05	4,186.00	4,172.98	9.84	10.99	-94.67	-4,546.95	-729.68	4,618.54	4,597.95	20.60	224.219		
4,600.00	4,598.93	4,315.66	4,301.92	10.06	11.50	-94.61	-4,553.32	-741.71	4,625.20	4,603.90	21.31	217.084		
4,700.00	4,698.81	4,406.61	4,392.44	10.28	11.85	-94.57	-4,557.62	-749.46	4,631.59	4,609.73	21.86	211.868		
4,800.00	4,798.70	4,481.44	4,466.90	10.50	12.13	-94.55	-4,561.52	-755.69	4,638.41	4,616.06	22.35	207.518		
4,900.00	4,898.58	4,565.00	4,550.04	10.72	12.45	-94.52	-4,566.31	-762.56	4,645.73	4,622.85	22.88	203.072		

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Offset Design Thistle Unit - 62H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 85-ISCWSA-GYRO-3, 1447-LEAM_MWD, 15750-Project												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance									
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.00	4,998.46	4,667.18	4,651.68	10.94	12.85	-94.49	-4,572.28	-771.22	4,653.19	4,629.71	23.48	198.195	
5,100.00	5,098.35	4,754.00	4,738.03	11.16	13.19	-94.46	-4,577.25	-778.81	4,660.61	4,636.58	24.02	194.028	
5,200.00	5,198.23	4,849.00	4,832.53	11.38	13.55	-94.43	-4,583.06	-786.53	4,668.30	4,643.71	24.59	189.825	
5,300.00	5,298.11	4,914.57	4,897.77	11.60	13.81	-94.42	-4,587.51	-791.39	4,676.49	4,651.45	25.05	186.717	
5,400.00	5,398.00	5,154.99	5,136.96	11.82	14.74	-94.35	-4,600.84	-811.42	4,683.89	4,657.70	26.19	178.816	
5,500.00	5,497.88	5,261.23	5,242.79	12.05	15.14	-94.32	-4,605.04	-819.82	4,689.42	4,662.61	26.81	174.884	
5,600.00	5,597.76	5,367.03	5,348.08	12.27	15.55	-94.27	-4,608.71	-829.47	4,694.65	4,667.21	27.44	171.091	
5,700.00	5,697.65	5,451.16	5,431.64	12.50	15.89	-94.21	-4,611.45	-838.81	4,700.02	4,672.03	27.99	167.925	
5,800.00	5,797.53	5,537.89	5,517.61	12.72	16.24	-94.13	-4,614.37	-849.89	4,705.77	4,677.21	28.55	164.800	
5,900.00	5,897.41	5,631.65	5,610.52	12.95	16.62	-94.05	-4,617.66	-862.07	4,711.70	4,682.54	29.15	161.623	
6,000.00	5,997.30	5,711.39	5,689.51	13.17	16.95	-93.97	-4,620.56	-872.57	4,717.83	4,688.13	29.69	158.891	
6,100.00	6,097.18	5,771.00	5,748.58	13.40	17.20	-93.92	-4,623.15	-880.19	4,724.60	4,694.46	30.15	156.721	
6,200.00	6,197.06	5,830.63	5,807.66	13.63	17.44	-93.88	-4,626.29	-887.55	4,732.23	4,701.64	30.60	154.662	
6,300.00	6,296.94	5,906.09	5,882.45	13.85	17.75	-93.82	-4,631.09	-896.42	4,740.76	4,709.64	31.11	152.380	
6,400.00	6,396.83	6,009.81	5,985.40	14.08	18.17	-93.77	-4,637.91	-907.04	4,749.28	4,717.54	31.74	149.635	
6,500.00	6,496.71	6,111.37	6,086.27	14.31	18.58	-93.73	-4,644.79	-916.54	4,757.85	4,725.50	32.35	147.059	
6,600.00	6,596.59	15,729.99	11,082.50	14.54	85.38	-16.33	22.24	-1,587.24	4,733.94	4,683.57	50.36	93.999	
6,700.00	6,696.48	15,729.06	11,082.53	14.77	85.38	-16.38	21.31	-1,587.17	4,637.48	4,586.75	50.73	91.410	
6,800.00	6,796.36	15,728.14	11,082.55	14.99	85.38	-16.42	20.39	-1,587.09	4,541.18	4,490.06	51.12	88.835	
6,900.00	6,896.24	15,727.21	11,082.57	15.22	85.38	-16.46	19.46	-1,587.01	4,445.03	4,393.51	51.52	86.273	
7,000.00	6,996.13	15,726.28	11,082.59	15.45	85.37	-16.51	18.54	-1,586.93	4,349.07	4,297.12	51.94	83.726	
7,100.00	7,096.01	15,725.35	11,082.62	15.68	85.37	-16.55	17.62	-1,586.86	4,253.29	4,200.90	52.38	81.194	
7,200.00	7,195.89	15,724.43	11,082.64	15.91	85.37	-16.59	16.69	-1,586.78	4,157.70	4,104.86	52.84	78.678	
7,300.00	7,295.78	15,723.50	11,082.66	16.14	85.37	-16.64	15.77	-1,586.70	4,062.33	4,009.01	53.33	76.178	
7,400.00	7,395.66	15,722.57	11,082.69	16.37	85.37	-16.68	14.85	-1,586.62	3,967.19	3,913.36	53.83	73.697	
7,500.00	7,495.54	15,721.64	11,082.71	16.60	85.37	-16.72	13.92	-1,586.54	3,872.29	3,817.93	54.36	71.233	
7,600.00	7,595.43	15,720.72	11,082.73	16.83	85.37	-16.76	13.00	-1,586.47	3,777.66	3,722.74	54.92	68.789	
7,700.00	7,695.31	15,719.79	11,082.75	17.06	85.37	-16.81	12.08	-1,586.39	3,683.31	3,627.81	55.50	66.365	
7,800.00	7,795.19	15,718.86	11,082.78	17.29	85.37	-16.85	11.15	-1,586.31	3,589.26	3,533.15	56.11	63.963	
7,900.00	7,895.08	15,717.94	11,082.80	17.53	85.37	-16.89	10.23	-1,586.23	3,495.55	3,438.79	56.76	61.583	
7,947.18	7,942.20	15,717.50	11,082.81	17.63	85.37	-16.91	9.79	-1,586.20	3,451.46	3,394.38	57.08	60.468	
8,000.00	7,994.97	15,716.93	11,082.82	17.74	85.37	-16.55	9.23	-1,586.15	3,402.27	3,344.83	57.44	59.228	
8,100.00	8,094.92	15,715.44	11,082.86	17.93	85.37	-15.95	7.74	-1,586.03	3,309.96	3,251.79	58.18	56.896	
8,200.00	8,194.91	15,713.40	11,082.91	18.11	85.37	-15.43	5.71	-1,585.86	3,218.80	3,159.83	58.97	54.581	
8,224.15	8,219.06	15,712.83	11,082.92	18.15	85.37	-91.87	5.14	-1,585.81	3,196.97	3,137.80	59.18	54.026	
8,300.00	8,294.91	15,710.98	11,082.97	18.30	85.36	-91.94	3.30	-1,585.65	3,128.69	3,068.85	59.84	52.284	
8,400.00	8,394.91	15,708.53	11,083.03	18.52	85.36	-92.04	0.86	-1,585.45	3,039.22	2,978.45	60.77	50.012	
8,500.00	8,494.91	15,706.09	11,083.09	18.73	85.36	-92.15	-1.57	-1,585.24	2,950.43	2,888.67	61.76	47.776	
8,600.00	8,594.91	15,703.65	11,083.15	18.95	85.36	-92.25	-4.01	-1,585.04	2,862.37	2,799.57	62.80	45.578	
8,700.00	8,694.91	15,701.20	11,083.21	19.16	85.36	-92.35	-6.44	-1,584.83	2,775.12	2,711.21	63.91	43.420	
8,800.00	8,794.91	15,698.76	11,083.27	19.38	85.36	-92.45	-8.87	-1,584.63	2,688.75	2,623.66	65.10	41.304	
8,900.00	8,894.91	15,696.32	11,083.33	19.59	85.35	-92.55	-11.31	-1,584.43	2,603.36	2,537.01	66.35	39.234	
9,000.00	8,994.91	15,693.88	11,083.36	19.81	85.35	-92.61	-12.62	-1,584.32	2,519.05	2,451.35	67.70	37.212	
9,100.00	9,094.91	15,691.44	11,083.36	20.03	85.35	-92.61	-12.62	-1,584.32	2,435.92	2,366.79	69.13	35.239	
9,200.00	9,194.91	15,689.00	11,083.48	20.24	85.28	-92.81	-17.55	-1,583.91	2,354.09	2,283.49	70.60	33.343	
9,300.00	9,294.91	15,686.56	11,083.53	20.46	85.25	-92.89	-19.51	-1,583.74	2,273.72	2,201.52	72.21	31.489	
9,400.00	9,394.91	15,684.12	11,083.57	20.68	85.22	-92.98	-21.44	-1,583.59	2,194.96	2,121.05	73.91	29.696	
9,500.00	9,494.91	15,681.68	11,083.62	20.89	85.19	-93.06	-23.36	-1,583.43	2,118.00	2,042.27	75.73	27.968	
9,524.15	9,519.06	15,683.76	11,083.63	20.95	85.18	-93.07	-23.82	-1,583.39	2,099.70	2,023.52	76.18	27.561	
9,550.00	9,544.90	15,682.80	11,083.65	21.00	85.16	-90.26	-24.77	-1,583.31	2,080.24	2,003.57	76.67	27.133	
9,600.00	9,594.69	15,678.32	11,083.76	21.09	85.09	-95.64	-29.25	-1,582.96	2,043.03	1,965.45	77.57	26.337	
9,650.00	9,643.90	15,670.41	11,083.94	21.17	84.97	-100.58	-37.12	-1,582.34	2,006.65	1,928.21	78.44	25.582	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 62H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 85-ISCWSA-GYRO-3, 1447-LEAM_MWD, 15750-Project													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,700.00	9,692.17	15,659.18	11,084.19	21.26	84.80	105.02	-48.32	-1,581.49	1,971.37	1,892.11	79.26	24.873		
9,750.00	9,739.11	15,641.65	11,084.55	21.35	84.53	108.83	-65.80	-1,580.21	1,937.45	1,857.46	79.99	24.221		
9,800.00	9,784.38	15,607.97	11,085.15	21.43	84.01	111.75	-99.39	-1,577.72	1,905.03	1,824.49	80.54	23.654		
9,850.00	9,827.63	15,569.17	11,085.62	21.51	83.41	114.22	-138.06	-1,574.69	1,874.19	1,793.20	80.99	23.141		
9,900.00	9,868.53	15,535.05	11,085.86	21.60	82.89	116.54	-172.06	-1,571.93	1,845.08	1,763.64	81.44	22.657		
9,950.00	9,906.77	15,503.45	11,085.94	21.69	82.41	118.64	-203.57	-1,569.48	1,817.98	1,736.13	81.86	22.209		
10,000.00	9,942.06	15,469.01	11,085.88	21.78	81.88	120.41	-237.92	-1,566.96	1,793.07	1,710.87	82.20	21.814		
10,050.00	9,974.14	15,440.23	11,085.79	21.89	81.44	122.04	-266.63	-1,564.96	1,770.50	1,687.97	82.53	21.454		
10,100.00	10,002.75	15,412.48	11,085.91	22.01	81.02	123.43	-294.32	-1,563.13	1,750.57	1,667.78	82.79	21.143		
10,150.00	10,027.67	15,382.85	11,086.29	22.16	80.57	124.56	-323.89	-1,561.26	1,733.41	1,650.45	82.97	20.893		
10,200.00	10,048.73	15,344.57	11,087.10	22.33	79.99	125.39	-362.09	-1,558.96	1,719.08	1,636.10	82.98	20.717		
10,250.00	10,065.76	15,293.77	11,088.21	22.53	79.22	125.98	-412.78	-1,555.87	1,707.27	1,624.47	82.80	20.620		
10,300.00	10,078.62	15,243.88	11,089.25	22.75	78.47	126.48	-462.57	-1,552.76	1,697.94	1,615.39	82.55	20.569		
10,350.00	10,087.23	15,195.13	11,090.18	23.00	77.74	126.87	-511.21	-1,549.79	1,691.19	1,608.95	82.23	20.566		
10,400.00	10,091.51	15,148.22	11,090.98	23.27	77.04	127.16	-558.04	-1,547.05	1,687.08	1,605.22	81.86	20.608		
10,420.09	10,092.00	15,129.95	11,091.25	23.38	76.77	127.24	-576.28	-1,546.05	1,686.20	1,604.50	81.70	20.638		
10,500.00	10,092.57	15,055.00	11,092.17	23.88	75.66	127.32	-651.13	-1,542.32	1,683.76	1,602.71	81.05	20.773		
10,600.00	10,093.28	14,953.20	11,094.25	28.10	74.15	127.46	-752.75	-1,536.75	1,680.80	1,601.00	79.80	21.064		
10,700.00	10,093.98	14,847.36	11,095.85	28.19	72.60	127.58	-858.43	-1,530.99	1,677.55	1,599.14	78.41	21.395		
10,800.00	10,094.69	14,751.12	11,096.52	28.28	71.20	127.67	-954.54	-1,526.13	1,674.14	1,596.94	77.20	21.685		
10,900.00	10,095.40	14,650.87	11,097.44	28.37	69.75	127.76	-1,054.68	-1,521.45	1,671.14	1,595.15	75.99	21.992		
11,000.00	10,096.11	14,546.37	11,097.93	28.46	68.26	127.84	-1,159.05	-1,516.32	1,667.69	1,592.92	74.77	22.303		
11,100.00	10,096.82	14,448.87	11,097.92	28.55	66.88	127.90	-1,256.45	-1,511.94	1,664.29	1,590.59	73.70	22.583		
11,200.00	10,097.52	14,344.48	11,097.75	28.65	65.42	127.96	-1,360.74	-1,507.40	1,660.90	1,588.32	72.59	22.882		
11,300.00	10,098.23	14,235.22	11,097.12	28.74	63.90	128.01	-1,469.89	-1,502.34	1,657.04	1,585.58	71.47	23.187		
11,400.00	10,098.94	14,117.06	11,095.33	28.84	62.28	128.05	-1,587.88	-1,496.41	1,652.29	1,581.99	70.30	23.503		
11,500.00	10,099.65	14,009.59	11,093.04	28.94	60.81	128.07	-1,695.17	-1,490.57	1,646.85	1,577.55	69.30	23.765		
11,600.00	10,100.35	13,900.13	11,090.29	29.04	59.34	128.10	-1,804.40	-1,484.12	1,640.80	1,572.49	68.31	24.020		
11,700.00	10,101.06	13,798.46	11,087.96	29.14	57.98	128.14	-1,905.83	-1,477.48	1,634.38	1,566.95	67.43	24.238		
11,800.00	10,101.77	13,706.67	11,086.00	29.25	56.78	128.18	-1,997.41	-1,471.55	1,628.13	1,561.44	66.69	24.412		
11,900.00	10,102.48	13,609.10	11,083.76	29.35	55.52	128.20	-2,094.79	-1,466.09	1,622.45	1,556.50	65.95	24.601		
12,000.00	10,103.19	13,514.10	11,081.33	29.46	54.31	128.22	-2,189.62	-1,460.81	1,616.65	1,551.37	65.28	24.765		
12,100.00	10,103.89	13,422.96	11,079.11	29.57	53.18	128.22	-2,280.63	-1,456.45	1,611.51	1,546.81	64.69	24.910		
12,200.00	10,104.60	13,315.42	11,076.58	29.69	51.88	128.22	-2,388.01	-1,451.37	1,606.49	1,542.51	63.99	25.106		
12,300.00	10,105.31	13,227.52	11,074.70	29.80	50.83	128.24	-2,475.77	-1,446.72	1,601.19	1,537.69	63.50	25.216		
12,400.00	10,106.02	13,142.17	11,074.29	29.93	49.84	128.29	-2,561.01	-1,442.48	1,597.11	1,534.05	63.06	25.329		
12,500.00	10,106.72	13,058.56	11,073.93	30.06	48.89	128.33	-2,644.55	-1,438.94	1,593.68	1,531.01	62.68	25.427		
12,600.00	10,107.43	12,985.49	11,074.67	30.20	48.08	128.38	-2,717.57	-1,436.48	1,591.80	1,529.38	62.42	25.500		
12,667.42	10,107.91	12,934.79	11,075.57	30.30	47.54	128.41	-2,768.25	-1,435.33	1,591.44	1,529.18	62.27	25.559		
12,700.00	10,108.14	12,905.00	11,076.17	30.36	47.22	128.43	-2,798.03	-1,434.92	1,591.54	1,529.40	62.14	25.611		
12,800.00	10,108.85	12,795.85	11,077.81	30.54	46.09	128.46	-2,907.16	-1,433.55	1,591.64	1,529.97	61.68	25.807		
12,900.00	10,109.56	12,690.06	11,079.07	30.76	45.04	128.51	-3,012.92	-1,431.44	1,590.95	1,529.67	61.28	25.962		
13,000.00	10,110.26	12,597.40	11,080.67	31.04	44.15	128.57	-3,105.55	-1,429.37	1,590.41	1,529.37	61.03	26.058		
13,053.84	10,110.64	12,548.32	11,081.57	31.22	43.70	128.59	-3,154.61	-1,428.47	1,590.33	1,529.40	60.93	26.101		
13,100.00	10,110.97	12,501.17	11,082.37	31.39	43.27	128.62	-3,201.75	-1,427.78	1,590.35	1,529.54	60.81	26.151		
13,200.00	10,111.68	12,402.11	11,083.73	31.78	42.41	128.65	-3,300.78	-1,426.13	1,590.04	1,529.41	60.63	26.225		
13,200.19	10,111.68	12,401.97	11,083.73	31.78	42.41	128.65	-3,300.93	-1,426.13	1,590.04	1,529.41	60.63	26.225		
13,300.00	10,112.39	12,317.60	11,086.55	32.22	41.71	128.74	-3,385.23	-1,424.53	1,590.74	1,530.16	60.58	26.258		
13,400.00	10,113.09	12,197.98	11,090.72	32.69	40.77	128.89	-3,504.73	-1,421.29	1,590.91	1,530.60	60.31	26.377		
13,500.00	10,113.80	12,088.53	11,093.84	33.18	39.98	129.01	-3,614.08	-1,417.88	1,590.42	1,530.22	60.20	26.421		
13,600.00	10,114.51	9,994.17	9,949.11	33.69	33.80	82.14	-4,797.04	-1,274.94	1,556.60	1,492.87	63.73	24.424		
13,700.00	10,115.22	9,999.04	9,953.95	34.22	33.82	82.39	-4,797.23	-1,275.39	1,488.33	1,424.17	64.16	23.197		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 62H - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 85-ISCWSA-GYRO-3, 1447-LEAM_MWD, 15750-Project													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,800.00	10,115.93	10,003.83	9,958.72	34.75	33.84	82.64	-4,797.42	-1,275.83	1,423.80	1,359.15	64.65	22.022	
13,900.00	10,116.63	10,008.54	9,963.41	35.30	33.85	82.88	-4,797.60	-1,276.26	1,363.54	1,298.32	65.22	20.907	
14,000.00	10,117.34	10,013.18	9,968.02	35.85	33.87	83.12	-4,797.78	-1,276.69	1,308.14	1,242.27	65.87	19.860	
14,100.00	10,118.05	10,017.74	9,972.56	36.42	33.89	83.36	-4,797.95	-1,277.11	1,258.24	1,191.65	66.60	18.894	
14,200.00	10,118.76	10,022.23	9,977.03	36.99	33.91	83.59	-4,798.12	-1,277.52	1,214.53	1,147.13	67.40	18.019	
14,300.00	10,119.46	10,026.66	9,981.43	37.57	33.93	83.81	-4,798.28	-1,277.93	1,177.69	1,109.41	68.28	17.249	
14,400.00	10,120.17	10,031.13	9,985.88	38.16	33.94	84.05	-4,798.45	-1,278.35	1,148.38	1,079.18	69.20	16.595	
14,500.00	10,120.88	10,035.67	9,990.40	38.75	33.96	84.28	-4,798.61	-1,278.76	1,127.20	1,057.05	70.14	16.070	
14,600.00	10,121.59	10,040.22	9,994.93	39.35	33.98	84.51	-4,798.78	-1,279.18	1,114.60	1,043.52	71.08	15.682	
14,691.52	10,122.23	10,044.40	9,999.09	39.91	33.99	84.73	-4,798.93	-1,279.56	1,110.84	1,038.95	71.89	15.453 CC	
14,700.00	10,122.29	10,044.79	9,999.47	39.96	34.00	84.75	-4,798.95	-1,279.60	1,110.87	1,038.91	71.96	15.438 ES	
14,800.00	10,123.00	10,049.37	10,004.04	40.57	34.01	84.99	-4,799.12	-1,280.02	1,116.11	1,043.35	72.76	15.339 SF	
14,900.00	10,123.71	10,053.98	10,008.62	41.19	34.03	85.22	-4,799.29	-1,280.44	1,130.20	1,056.74	73.46	15.386	
15,000.00	10,124.42	10,058.60	10,013.21	41.81	34.05	85.46	-4,799.46	-1,280.86	1,152.80	1,078.76	74.03	15.571	
15,100.00	10,125.13	10,063.24	10,017.83	42.43	34.07	85.70	-4,799.64	-1,281.28	1,183.42	1,108.94	74.48	15.889	
15,200.00	10,125.83	10,067.89	10,022.46	43.07	34.09	85.94	-4,799.81	-1,281.70	1,221.48	1,146.66	74.81	16.327	
15,300.00	10,126.54	10,072.56	10,027.11	43.70	34.10	86.18	-4,799.98	-1,282.12	1,266.28	1,191.24	75.04	16.875	
15,400.00	10,127.25	10,077.25	10,031.78	44.34	34.12	86.42	-4,800.16	-1,282.55	1,317.16	1,241.98	75.18	17.521	
15,500.00	10,127.96	10,081.96	10,036.47	44.99	34.14	86.66	-4,800.34	-1,282.97	1,373.42	1,298.18	75.25	18.253	
15,600.00	10,128.66	10,086.69	10,041.17	45.63	34.16	86.91	-4,800.52	-1,283.39	1,434.45	1,359.19	75.26	19.060	
15,700.00	10,129.37	10,091.43	10,045.89	46.29	34.18	87.15	-4,800.69	-1,283.82	1,499.65	1,424.41	75.24	19.932	
15,800.00	10,130.08	10,096.20	10,050.63	46.94	34.20	87.40	-4,800.88	-1,284.24	1,568.51	1,493.32	75.19	20.861	
15,900.00	10,130.79	10,100.98	10,055.39	47.60	34.22	87.64	-4,801.06	-1,284.67	1,640.56	1,565.43	75.13	21.837	
16,000.00	10,131.50	10,105.78	10,060.17	48.26	34.23	87.89	-4,801.24	-1,285.09	1,715.40	1,640.35	75.06	22.855	
16,100.00	10,132.20	10,110.59	10,064.96	48.93	34.25	88.14	-4,801.42	-1,285.52	1,792.69	1,717.71	74.98	23.908	
16,200.00	10,132.91	10,115.43	10,069.78	49.59	34.27	88.38	-4,801.61	-1,285.95	1,872.12	1,797.21	74.91	24.991	
16,300.00	10,133.62	10,120.28	10,074.61	50.27	34.29	88.63	-4,801.79	-1,286.37	1,953.43	1,878.58	74.85	26.099	
16,400.00	10,134.33	10,123.00	10,077.31	50.94	34.30	88.77	-4,801.90	-1,286.61	2,036.39	1,961.62	74.77	27.234	
16,500.00	10,135.03	10,123.00	10,077.31	51.61	34.30	88.77	-4,801.90	-1,286.61	2,120.83	2,046.13	74.69	28.393	
16,600.00	10,135.74	10,123.00	10,077.31	52.29	34.30	88.77	-4,801.90	-1,286.61	2,206.56	2,131.94	74.62	29.569	
16,700.00	10,136.45	10,134.83	10,089.09	52.97	34.35	89.38	-4,802.35	-1,287.66	2,293.41	2,218.77	74.63	30.728	
16,800.00	10,137.16	10,138.16	10,092.41	53.66	34.36	89.55	-4,802.47	-1,287.96	2,381.30	2,306.70	74.60	31.920	
16,900.00	10,137.87	10,141.45	10,095.68	54.34	34.37	89.72	-4,802.59	-1,288.25	2,470.12	2,395.53	74.58	33.120	
17,000.00	10,138.57	10,144.70	10,098.91	55.03	34.39	89.88	-4,802.71	-1,288.54	2,559.75	2,485.18	74.57	34.328	
17,100.00	10,139.28	10,147.90	10,102.09	55.72	34.40	90.05	-4,802.83	-1,288.83	2,650.11	2,575.55	74.56	35.542	
17,200.00	10,139.99	10,151.05	10,105.24	56.41	34.41	90.21	-4,802.94	-1,289.12	2,741.14	2,666.58	74.57	36.761	
17,300.00	10,140.70	10,154.17	10,108.34	57.10	34.42	90.37	-4,803.05	-1,289.40	2,832.78	2,758.20	74.58	37.984	
17,400.00	10,141.40	10,157.25	10,111.40	57.80	34.44	90.52	-4,803.16	-1,289.69	2,924.95	2,850.35	74.60	39.210	
17,484.18	10,142.00	10,159.80	10,113.94	58.16	34.45	90.66	-4,803.25	-1,289.92	3,002.93	2,932.81	70.12	42.823	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 63H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100- VES GyroFlex V2												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-174.36	-4,454.82	-440.15	4,476.56				
100.00	100.00	64.50	64.50	0.09	0.04	-174.36	-4,454.92	-440.16	4,476.64	4,476.50	0.13	N/A	
200.00	200.00	153.15	153.15	0.31	0.13	-174.36	-4,455.34	-440.20	4,477.11	4,476.66	0.45	N/A	
300.00	300.00	244.44	244.44	0.54	0.23	-174.36	-4,455.93	-440.30	4,477.76	4,477.00	0.76	5,869.223	
400.00	400.00	340.09	340.08	0.76	0.29	-174.36	-4,456.75	-440.33	4,478.62	4,477.56	1.05	4,246.589	
500.00	500.00	448.66	448.65	0.99	0.36	-174.36	-4,457.58	-440.56	4,479.39	4,478.05	1.34	3,336.010	
600.00	600.00	563.73	563.72	1.21	0.42	-174.36	-4,458.17	-440.65	4,479.92	4,478.29	1.63	2,753.611	
700.00	700.00	678.32	678.31	1.43	0.47	-174.35	-4,458.33	-440.84	4,480.07	4,478.17	1.90	2,360.091	
771.68	771.68	750.29	750.28	1.60	0.49	-174.35	-4,458.30	-440.99	4,480.06	4,477.97	2.08	2,151.730	
800.00	800.00	777.45	777.44	1.66	0.50	-174.35	-4,458.29	-441.08	4,480.06	4,477.91	2.15	2,080.168	
900.00	900.00	879.63	879.62	1.88	0.54	-174.35	-4,458.28	-441.39	4,480.08	4,477.67	2.41	1,861.424	
1,000.00	1,000.00	988.09	988.08	2.11	0.56	-174.35	-4,458.16	-441.39	4,479.97	4,477.31	2.66	1,686.388	
1,100.00	1,100.00	1,100.84	1,100.82	2.33	0.58	-174.35	-4,457.81	-440.95	4,479.62	4,476.71	2.91	1,541.723	
1,200.00	1,200.00	1,210.33	1,210.31	2.56	0.60	-174.36	-4,457.20	-440.30	4,479.01	4,475.86	3.15	1,420.125	
1,300.00	1,300.00	1,312.66	1,312.64	2.78	0.62	-174.37	-4,456.52	-439.60	4,478.28	4,474.88	3.40	1,316.925	
1,400.00	1,400.00	1,413.41	1,413.38	3.01	0.64	-174.37	-4,455.79	-438.98	4,477.49	4,473.85	3.65	1,227.720	
1,500.00	1,500.00	1,505.28	1,505.25	3.23	0.66	-174.38	-4,455.20	-438.51	4,476.81	4,472.92	3.89	1,150.379	
1,600.00	1,600.00	1,603.60	1,603.56	3.46	0.68	-174.39	-4,454.70	-437.91	4,476.24	4,472.10	4.14	1,081.683	
1,700.00	1,700.00	1,732.01	1,731.97	3.68	0.71	-174.40	-4,453.87	-436.62	4,475.53	4,471.14	4.39	1,018.943	
1,800.00	1,800.00	1,877.95	1,877.87	3.91	0.75	-174.41	-4,451.15	-435.58	4,473.52	4,468.87	4.65	961.652	
1,900.00	1,900.00	1,978.89	1,978.79	4.13	0.77	-174.40	-4,448.85	-435.89	4,471.27	4,466.37	4.90	912.362	
2,000.00	2,000.00	2,065.65	2,065.53	4.36	0.79	-174.39	-4,446.92	-436.68	4,469.15	4,464.00	5.15	868.455	
2,100.00	2,100.00	2,143.34	2,143.19	4.58	0.81	-174.37	-4,445.45	-437.88	4,467.43	4,462.04	5.39	829.043	
2,200.00	2,200.00	2,200.00	2,199.83	4.81	0.82	-174.36	-4,444.64	-439.00	4,466.32	4,460.70	5.63	793.891	
2,286.49	2,286.49	2,265.25	2,265.07	5.00	0.83	-174.34	-4,444.17	-440.49	4,465.95	4,460.11	5.83	765.662	
2,300.00	2,300.00	2,273.29	2,273.11	5.03	0.83	-174.34	-4,444.16	-440.69	4,465.96	4,460.09	5.86	761.500	
2,400.00	2,400.00	2,336.42	2,336.21	5.26	0.85	-174.32	-4,444.36	-442.24	4,466.51	4,460.41	6.10	732.198	
2,500.00	2,500.00	2,400.00	2,399.77	5.48	0.86	-174.30	-4,445.07	-443.59	4,467.84	4,461.51	6.33	705.366	
2,600.00	2,600.00	2,487.62	2,487.37	5.71	0.87	-174.29	-4,446.58	-444.84	4,469.71	4,463.14	6.57	680.302	
2,700.00	2,700.00	2,582.97	2,582.70	5.93	0.88	-174.28	-4,448.56	-445.31	4,471.82	4,465.01	6.81	656.905	
2,800.00	2,800.00	2,684.00	2,683.71	6.15	0.90	-174.28	-4,450.71	-445.48	4,473.96	4,466.91	7.05	634.929	
2,900.00	2,900.00	2,799.73	2,799.41	6.38	0.92	-174.27	-4,452.89	-446.56	4,475.93	4,468.64	7.29	614.046	
3,000.00	3,000.00	2,997.67	2,997.31	6.60	0.95	-174.23	-4,454.34	-450.08	4,477.06	4,469.51	7.55	593.172	
3,100.00	3,100.00	3,177.50	3,177.09	6.83	0.99	-174.19	-4,451.42	-452.67	4,475.46	4,467.66	7.80	573.691	
3,200.00	3,200.00	3,261.79	3,261.36	7.05	1.01	-174.19	-4,449.58	-452.97	4,473.34	4,465.30	8.04	556.312	
3,300.00	3,300.00	3,349.98	3,349.54	7.28	1.02	-174.18	-4,448.13	-453.08	4,471.71	4,463.42	8.28	539.919	
3,400.00	3,400.00	3,449.98	3,449.52	7.50	1.04	-174.18	-4,446.54	-452.90	4,470.10	4,461.58	8.53	524.293	
3,500.00	3,500.00	3,543.37	3,542.91	7.73	1.06	-174.18	-4,445.11	-452.78	4,468.57	4,459.80	8.77	509.563	
3,600.00	3,600.00	3,637.08	3,636.60	7.94	1.08	-97.66	-4,443.86	-452.67	4,467.35	4,458.34	9.00	496.218	
3,700.00	3,699.96	3,748.02	3,747.54	8.15	1.10	-97.71	-4,442.37	-452.37	4,466.34	4,457.11	9.23	483.858	
3,776.97	3,776.86	3,835.37	3,834.88	8.31	1.12	-97.77	-4,440.89	-452.15	4,465.45	4,456.04	9.41	474.614	
3,800.00	3,799.87	3,857.86	3,857.36	8.35	1.12	-97.78	-4,440.49	-452.10	4,465.19	4,455.73	9.46	471.933	
3,900.00	3,899.75	3,969.80	3,969.28	8.56	1.15	-97.85	-4,438.44	-451.87	4,464.01	4,454.32	9.70	460.429	
4,000.00	3,999.63	4,055.79	4,055.25	8.77	1.17	-97.90	-4,436.75	-451.54	4,462.69	4,452.76	9.93	449.607	
4,100.00	4,099.51	4,138.66	4,138.11	8.98	1.18	-97.96	-4,435.59	-450.90	4,461.88	4,451.72	10.16	439.294	
4,200.00	4,199.40	4,244.91	4,244.35	9.20	1.21	-98.03	-4,434.18	-450.61	4,461.21	4,450.81	10.39	429.173	
4,300.00	4,299.28	4,345.85	4,345.28	9.41	1.23	-98.09	-4,432.56	-450.44	4,460.27	4,449.64	10.63	419.435	
4,400.00	4,399.16	4,430.10	4,429.52	9.63	1.25	-98.14	-4,431.46	-450.32	4,459.63	4,448.76	10.87	410.254	
4,500.00	4,499.05	4,521.27	4,520.68	9.84	1.27	-98.21	-4,430.57	-449.72	4,459.28	4,448.18	11.11	401.455	
4,600.00	4,598.93	4,624.39	4,623.79	10.06	1.29	-98.29	-4,429.66	-448.14	4,458.95	4,447.61	11.35	393.020	
4,700.00	4,698.81	4,716.43	4,715.81	10.28	1.30	-98.37	-4,428.90	-446.46	4,458.67	4,447.09	11.58	385.031	
4,731.96	4,730.74	4,741.39	4,740.76	10.35	1.31	-98.39	-4,428.75	-445.96	4,458.65	4,446.99	11.65	382.583	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 63H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100- VES GyroFlex V2												Offset Well Error:	0.00 usft
Reference	Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,800.00	4,798.70	4,800.00	4,799.36	10.50	1.32	-98.44	-4,428.56	-444.67	4,458.77	4,446.95	11.81	377.483	
4,900.00	4,898.58	4,876.33	4,875.66	10.72	1.32	-98.51	-4,428.62	-442.59	4,459.31	4,447.27	12.04	370.360	
5,000.00	4,998.46	4,973.77	4,973.04	10.94	1.34	-98.62	-4,429.02	-439.21	4,460.14	4,447.87	12.27	363.461	
5,100.00	5,098.35	5,091.76	5,090.93	11.16	1.35	-98.75	-4,429.34	-434.27	4,460.80	4,448.29	12.51	356.711	
5,200.00	5,198.23	5,203.73	5,202.79	11.38	1.37	-98.88	-4,429.22	-429.40	4,461.08	4,448.34	12.74	350.144	
5,300.00	5,298.11	5,300.00	5,298.98	11.60	1.38	-98.99	-4,428.91	-425.46	4,461.20	4,448.22	12.98	343.815	
5,400.00	5,398.00	5,375.51	5,374.44	11.82	1.39	-99.07	-4,428.88	-422.72	4,461.65	4,448.45	13.21	337.818	
5,500.00	5,497.88	5,479.69	5,478.58	12.05	1.41	-99.18	-4,429.26	-419.56	4,462.56	4,449.12	13.44	332.000	
5,600.00	5,597.76	5,577.54	5,576.38	12.27	1.42	-99.28	-4,429.41	-416.60	4,463.26	4,449.59	13.68	326.364	
5,700.00	5,697.65	5,673.34	5,672.14	12.50	1.44	-99.37	-4,429.66	-413.74	4,464.10	4,450.19	13.91	320.930	
5,800.00	5,797.53	5,766.51	5,765.26	12.72	1.46	-99.46	-4,429.99	-411.09	4,465.05	4,450.91	14.14	315.689	
5,900.00	5,897.41	5,868.13	5,866.84	12.95	1.47	-99.56	-4,430.48	-408.00	4,466.11	4,451.74	14.38	310.609	
6,000.00	5,997.30	5,977.90	5,976.57	13.17	1.49	-99.67	-4,430.79	-404.96	4,467.03	4,452.41	14.61	305.648	
6,100.00	6,097.18	6,100.00	6,098.62	13.40	1.52	-99.79	-4,430.58	-401.61	4,467.47	4,452.62	14.85	300.741	
6,200.00	6,197.06	6,176.05	6,174.64	13.63	1.53	-99.86	-4,430.43	-399.42	4,467.96	4,452.87	15.09	296.084	
6,300.00	6,296.94	6,300.00	6,298.54	13.85	1.56	-99.98	-4,430.53	-395.99	4,468.74	4,453.41	15.33	291.501	
6,400.00	6,396.83	6,929.00	6,914.46	14.08	1.77	-101.31	-4,394.05	-320.05	4,461.87	4,446.14	15.73	283.682	
6,500.00	6,496.71	6,929.00	6,914.46	14.31	1.77	-101.31	-4,394.05	-320.05	4,451.83	4,435.90	15.93	279.543	
6,600.00	6,596.59	6,929.00	6,914.46	14.54	1.77	-101.31	-4,394.05	-320.05	4,444.01	4,427.88	16.13	275.504	
6,700.00	6,696.48	6,929.00	6,914.46	14.77	1.77	-101.31	-4,394.05	-320.05	4,438.44	4,422.09	16.34	271.551	
6,800.00	6,796.36	6,929.00	6,914.46	14.99	1.77	-101.31	-4,394.05	-320.05	4,435.11	4,418.54	16.57	267.675	
6,897.59	6,893.84	6,929.00	6,914.46	15.22	1.77	-101.31	-4,394.05	-320.05	4,434.04	4,417.24	16.80	263.965	
6,900.00	6,896.24	6,929.00	6,914.46	15.22	1.77	-101.31	-4,394.05	-320.05	4,434.04	4,417.23	16.80	263.874	
7,000.00	6,996.13	6,929.00	6,914.46	15.45	1.77	-101.31	-4,394.05	-320.05	4,435.22	4,418.17	17.05	260.157	
7,100.00	7,096.01	6,929.00	6,914.46	15.68	1.77	-101.31	-4,394.05	-320.05	4,438.65	4,421.35	17.30	256.540	
7,200.00	7,195.89	6,929.00	6,914.46	15.91	1.77	-101.31	-4,394.05	-320.05	4,444.34	4,426.77	17.56	253.040	
7,300.00	7,295.78	6,929.00	6,914.46	16.14	1.77	-101.31	-4,394.05	-320.05	4,452.26	4,434.43	17.83	249.681	
7,400.00	7,395.66	6,929.00	6,914.46	16.37	1.77	-101.31	-4,394.05	-320.05	4,462.41	4,444.30	18.10	246.482	
7,500.00	7,495.54	6,929.00	6,914.46	16.60	1.77	-101.31	-4,394.05	-320.05	4,474.77	4,456.39	18.38	243.462	
7,600.00	7,595.43	6,929.00	6,914.46	16.83	1.77	-101.31	-4,394.05	-320.05	4,489.33	4,470.67	18.66	240.633	
7,700.00	7,695.31	6,929.00	6,914.46	17.06	1.77	-101.31	-4,394.05	-320.05	4,506.06	4,487.12	18.93	238.006	
7,800.00	7,795.19	6,929.00	6,914.46	17.29	1.77	-101.31	-4,394.05	-320.05	4,524.93	4,505.73	19.21	235.585	
7,900.00	7,895.08	6,929.00	6,914.46	17.53	1.77	-101.31	-4,394.05	-320.05	4,545.93	4,526.45	19.48	233.374	
7,947.18	7,942.20	6,929.00	6,914.46	17.63	1.77	-101.31	-4,394.05	-320.05	4,556.57	4,536.96	19.61	232.403	
8,000.00	7,994.97	6,929.00	6,914.46	17.74	1.77	-101.44	-4,394.05	-320.05	4,568.98	4,549.24	19.74	231.510	
8,100.00	8,094.92	6,929.00	6,914.46	17.93	1.77	-101.69	-4,394.05	-320.05	4,593.79	4,573.83	19.95	230.221	
8,200.00	8,194.91	6,929.00	6,914.46	18.11	1.77	-101.96	-4,394.05	-320.05	4,620.29	4,600.12	20.17	229.115	
8,224.15	8,219.06	6,929.00	6,914.46	18.15	1.77	-178.57	-4,394.05	-320.05	4,626.94	4,606.72	20.22	228.874	
8,300.00	8,294.91	6,929.00	6,914.46	18.30	1.77	-178.57	-4,394.05	-320.05	4,648.55	4,628.16	20.39	228.033	
8,400.00	8,394.91	6,929.00	6,914.46	18.52	1.77	-178.57	-4,394.05	-320.05	4,678.76	4,658.14	20.62	226.895	
8,500.00	8,494.91	6,929.00	6,914.46	18.73	1.77	-178.57	-4,394.05	-320.05	4,710.90	4,690.05	20.85	225.930	
8,600.00	8,594.91	6,929.00	6,914.46	18.95	1.77	-178.57	-4,394.05	-320.05	4,744.93	4,723.86	21.08	225.129	
8,700.00	8,694.91	6,929.00	6,914.46	19.16	1.77	-178.57	-4,394.05	-320.05	4,780.82	4,759.52	21.30	224.486	
8,800.00	8,794.91	6,929.00	6,914.46	19.38	1.77	-178.57	-4,394.05	-320.05	4,818.51	4,797.00	21.51	223.990	
8,900.00	8,894.91	6,929.00	6,914.46	19.59	1.77	-178.57	-4,394.05	-320.05	4,857.97	4,836.24	21.72	223.635	
9,000.00	8,994.91	6,929.00	6,914.46	19.81	1.77	-178.57	-4,394.05	-320.05	4,899.15	4,877.22	21.93	223.410	
9,100.00	9,094.91	6,929.00	6,914.46	20.03	1.77	-178.57	-4,394.05	-320.05	4,942.01	4,919.88	22.13	223.309	
9,200.00	9,194.91	6,929.00	6,914.46	20.24	1.77	-178.57	-4,394.05	-320.05	4,986.51	4,964.18	22.33	223.322	
9,300.00	9,294.91	6,929.00	6,914.46	20.46	1.77	-178.57	-4,394.05	-320.05	5,032.60	5,010.08	22.52	223.442	
9,400.00	9,394.91	6,929.00	6,914.46	20.68	1.77	-178.57	-4,394.05	-320.05	5,080.25	5,057.53	22.71	223.660	
9,500.00	9,494.91	6,929.00	6,914.46	20.89	1.77	-178.57	-4,394.05	-320.05	5,129.40	5,106.49	22.90	223.969	
9,524.15	9,519.06	6,929.00	6,914.46	20.95	1.77	-178.57	-4,394.05	-320.05	5,141.49	5,118.54	22.95	224.056	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 63H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100- VES GyroFlex V2													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,550.00	9,544.90	6,929.00	6,914.46	21.00	1.77	1.81	-4,394.05	-320.05	5,154.02	5,131.03	22.99	224.199		
9,600.00	9,594.69	6,929.00	6,914.46	21.09	1.77	1.73	-4,394.05	-320.05	5,175.60	5,152.54	23.06	224.465		
9,650.00	9,643.90	6,929.00	6,914.46	21.17	1.77	1.68	-4,394.05	-320.05	5,193.58	5,170.46	23.12	224.609		
9,700.00	9,692.17	6,929.00	6,914.46	21.26	1.77	1.63	-4,394.05	-320.05	5,207.87	5,184.69	23.19	224.613		
9,750.00	9,739.11	6,929.00	6,914.46	21.35	1.77	1.60	-4,394.05	-320.05	5,218.39	5,195.15	23.25	224.483		
9,800.00	9,784.38	6,929.00	6,914.46	21.43	1.77	1.58	-4,394.05	-320.05	5,225.08	5,201.78	23.30	224.221		
9,850.00	9,827.63	6,929.00	6,914.46	21.51	1.77	1.58	-4,394.05	-320.05	5,227.90	5,204.55	23.36	223.830		
9,900.00	9,868.53	6,929.00	6,914.46	21.60	1.77	1.58	-4,394.05	-320.05	5,226.85	5,203.44	23.41	223.312		
9,950.00	9,906.77	6,929.00	6,914.46	21.69	1.77	1.59	-4,394.05	-320.05	5,221.91	5,198.46	23.45	222.666		
10,000.00	9,942.06	6,929.00	6,914.46	21.78	1.77	1.62	-4,394.05	-320.05	5,213.13	5,189.63	23.49	221.894		
10,050.00	9,974.14	6,929.00	6,914.46	21.89	1.77	1.65	-4,394.05	-320.05	5,200.54	5,177.01	23.53	220.998		
10,100.00	10,002.75	6,929.00	6,914.46	22.01	1.77	1.70	-4,394.05	-320.05	5,184.23	5,160.66	23.57	219.979		
10,150.00	10,027.67	6,929.00	6,914.46	22.16	1.77	1.77	-4,394.05	-320.05	5,164.27	5,140.67	23.60	218.841		
10,200.00	10,048.73	6,929.00	6,914.46	22.33	1.77	1.85	-4,394.05	-320.05	5,140.77	5,117.15	23.63	217.589		
10,250.00	10,065.76	6,929.00	6,914.46	22.53	1.77	1.96	-4,394.05	-320.05	5,113.88	5,090.23	23.65	216.230		
10,300.00	10,078.62	6,929.00	6,914.46	22.75	1.77	2.09	-4,394.05	-320.05	5,083.73	5,060.06	23.67	214.772		
10,350.00	10,087.23	6,929.00	6,914.46	23.00	1.77	2.26	-4,394.05	-320.05	5,050.52	5,026.83	23.69	213.226		
10,400.00	10,091.51	6,929.00	6,914.46	23.27	1.77	2.48	-4,394.05	-320.05	5,014.41	4,990.72	23.70	211.600		
10,420.09	10,092.00	6,929.00	6,914.46	23.38	1.77	2.58	-4,394.05	-320.05	4,999.14	4,975.44	23.70	210.894		
10,500.00	10,092.57	6,929.00	6,914.46	23.88	1.77	2.58	-4,394.05	-320.05	4,937.84	4,914.14	23.70	208.330		
10,600.00	10,093.28	6,929.00	6,914.46	28.10	1.77	2.58	-4,394.05	-320.05	4,861.88	4,830.94	30.94	157.139		
10,700.00	10,093.98	6,929.00	6,914.46	28.19	1.77	2.58	-4,394.05	-320.05	4,786.81	4,755.88	30.92	154.799		
10,800.00	10,094.69	6,929.00	6,914.46	28.28	1.77	2.58	-4,394.05	-320.05	4,712.66	4,681.75	30.91	152.470		
10,900.00	10,095.40	6,929.00	6,914.46	28.37	1.77	2.58	-4,394.05	-320.05	4,639.48	4,608.58	30.90	150.154		
11,000.00	10,096.11	6,929.00	6,914.46	28.46	1.77	2.58	-4,394.05	-320.05	4,567.32	4,536.42	30.89	147.848		
11,100.00	10,096.82	6,929.00	6,914.46	28.55	1.77	2.58	-4,394.05	-320.05	4,496.22	4,465.33	30.89	145.553		
11,200.00	10,097.52	6,929.00	6,914.46	28.65	1.77	2.58	-4,394.05	-320.05	4,426.24	4,395.35	30.90	143.267		
11,300.00	10,098.23	6,929.00	6,914.46	28.74	1.77	2.58	-4,394.05	-320.05	4,357.44	4,326.53	30.91	140.989		
11,400.00	10,098.94	6,929.00	6,914.46	28.84	1.77	2.58	-4,394.05	-320.05	4,289.86	4,258.93	30.92	138.719		
11,500.00	10,099.65	6,929.00	6,914.46	28.94	1.77	2.58	-4,394.05	-320.05	4,223.57	4,192.61	30.95	136.456		
11,600.00	10,100.35	6,929.00	6,914.46	29.04	1.77	2.58	-4,394.05	-320.05	4,158.62	4,127.63	30.99	134.198		
11,700.00	10,101.06	6,929.00	6,914.46	29.14	1.77	2.58	-4,394.05	-320.05	4,095.09	4,064.05	31.04	131.944		
11,800.00	10,101.77	6,929.00	6,914.46	29.25	1.77	2.58	-4,394.05	-320.05	4,033.04	4,001.94	31.10	129.695		
11,900.00	10,102.48	6,929.00	6,914.46	29.35	1.77	2.58	-4,394.05	-320.05	3,972.53	3,941.36	31.17	127.448		
12,000.00	10,103.19	6,929.00	6,914.46	29.46	1.77	2.58	-4,394.05	-320.05	3,913.65	3,882.39	31.26	125.203		
12,100.00	10,103.89	6,929.00	6,914.46	29.57	1.77	2.58	-4,394.05	-320.05	3,856.46	3,825.09	31.36	122.961		
12,200.00	10,104.60	6,929.00	6,914.46	29.69	1.77	2.58	-4,394.05	-320.05	3,801.04	3,769.55	31.49	120.721		
12,300.00	10,105.31	6,929.00	6,914.46	29.80	1.77	2.58	-4,394.05	-320.05	3,747.47	3,715.84	31.63	118.485		
12,400.00	10,106.02	6,929.00	6,914.46	29.93	1.77	2.58	-4,394.05	-320.05	3,695.83	3,664.04	31.79	116.252		
12,500.00	10,106.72	6,929.00	6,914.46	30.06	1.77	2.58	-4,394.05	-320.05	3,646.20	3,614.22	31.98	114.025		
12,600.00	10,107.43	6,929.00	6,914.46	30.20	1.77	2.58	-4,394.05	-320.05	3,598.67	3,566.48	32.19	111.807		
12,700.00	10,108.14	6,929.00	6,914.46	30.36	1.77	2.58	-4,394.05	-320.05	3,553.31	3,520.89	32.42	109.600		
12,800.00	10,108.85	6,929.00	6,914.46	30.54	1.77	2.58	-4,394.05	-320.05	3,510.22	3,477.54	32.68	107.409		
12,900.00	10,109.56	6,929.00	6,914.46	30.76	1.77	2.58	-4,394.05	-320.05	3,469.48	3,436.51	32.97	105.238		
13,000.00	10,110.26	6,929.00	6,914.46	31.04	1.77	2.58	-4,394.05	-320.05	3,431.17	3,397.88	33.28	103.093		
13,100.00	10,110.97	6,929.00	6,914.46	31.39	1.77	2.58	-4,394.05	-320.05	3,395.37	3,361.74	33.62	100.981		
13,200.00	10,111.68	6,929.00	6,914.46	31.78	1.77	2.58	-4,394.05	-320.05	3,362.16	3,328.17	33.99	98.908		
13,300.00	10,112.39	6,929.00	6,914.46	32.22	1.77	2.58	-4,394.05	-320.05	3,331.63	3,297.24	34.39	96.881		
13,400.00	10,113.09	6,929.00	6,914.46	32.69	1.77	2.58	-4,394.05	-320.05	3,303.85	3,269.03	34.81	94.908		
13,500.00	10,113.80	6,929.00	6,914.46	33.18	1.77	2.58	-4,394.05	-320.05	3,278.87	3,243.62	35.26	92.996		
13,600.00	10,114.51	6,929.00	6,914.46	33.69	1.77	2.58	-4,394.05	-320.05	3,256.78	3,221.06	35.73	91.154		
13,700.00	10,115.22	6,929.00	6,914.46	34.22	1.77	2.58	-4,394.05	-320.05	3,237.63	3,201.41	36.22	89.388		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 63H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100- VES GyroFlex V2													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,800.00	10,115.93	6,929.00	6,914.46	34.75	1.77	2.58	-4,394.05	-320.05	3,221.47	3,184.74	36.73	87.706		
13,900.00	10,116.63	6,929.00	6,914.46	35.30	1.77	2.58	-4,394.05	-320.05	3,208.35	3,171.09	37.26	86.113		
14,000.00	10,117.34	6,929.00	6,914.46	35.85	1.77	2.58	-4,394.05	-320.05	3,198.30	3,160.51	37.80	84.616		
14,100.00	10,118.05	6,929.00	6,914.46	36.42	1.77	2.58	-4,394.05	-320.05	3,191.36	3,153.01	38.35	83.219		
14,200.00	10,118.76	6,929.00	6,914.46	36.99	1.77	2.58	-4,394.05	-320.05	3,187.54	3,148.63	38.91	81.926		
14,271.87	10,119.26	6,929.00	6,914.46	37.41	1.77	2.58	-4,394.05	-320.05	3,186.73	3,147.42	39.31	81.062 CC		
14,300.00	10,119.46	6,929.00	6,914.46	37.57	1.77	2.58	-4,394.05	-320.05	3,186.85	3,147.38	39.47	80.740 ES		
14,400.00	10,120.17	6,929.00	6,914.46	38.16	1.77	2.58	-4,394.05	-320.05	3,189.30	3,149.27	40.03	79.663		
14,500.00	10,120.88	6,929.00	6,914.46	38.75	1.77	2.58	-4,394.05	-320.05	3,194.88	3,154.29	40.60	78.696		
14,600.00	10,121.59	6,929.00	6,914.46	39.35	1.77	2.58	-4,394.05	-320.05	3,203.58	3,162.42	41.16	77.841		
14,700.00	10,122.29	6,929.00	6,914.46	39.96	1.77	2.58	-4,394.05	-320.05	3,215.36	3,173.65	41.71	77.096		
14,800.00	10,123.00	6,929.00	6,914.46	40.57	1.77	2.58	-4,394.05	-320.05	3,230.19	3,187.95	42.25	76.461		
14,900.00	10,123.71	6,929.00	6,914.46	41.19	1.77	2.58	-4,394.05	-320.05	3,248.04	3,205.27	42.78	75.933		
15,000.00	10,124.42	6,929.00	6,914.46	41.81	1.77	2.58	-4,394.05	-320.05	3,268.85	3,225.56	43.29	75.512		
15,100.00	10,125.13	6,929.00	6,914.46	42.43	1.77	2.58	-4,394.05	-320.05	3,292.57	3,248.78	43.79	75.193		
15,200.00	10,125.83	6,929.00	6,914.46	43.07	1.77	2.58	-4,394.05	-320.05	3,319.13	3,274.86	44.27	74.975		
15,300.00	10,126.54	6,929.00	6,914.46	43.70	1.77	2.58	-4,394.05	-320.05	3,348.47	3,303.74	44.73	74.855		
15,400.00	10,127.25	6,929.00	6,914.46	44.34	1.77	2.58	-4,394.05	-320.05	3,380.52	3,335.34	45.18	74.828 SF		
15,500.00	10,127.96	6,929.00	6,914.46	44.99	1.77	2.58	-4,394.05	-320.05	3,415.19	3,369.59	45.60	74.891		
15,600.00	10,128.66	6,929.00	6,914.46	45.63	1.77	2.58	-4,394.05	-320.05	3,452.41	3,406.41	46.01	75.040		
15,700.00	10,129.37	6,929.00	6,914.46	46.29	1.77	2.58	-4,394.05	-320.05	3,492.10	3,445.71	46.39	75.273		
15,800.00	10,130.08	6,929.00	6,914.46	46.94	1.77	2.58	-4,394.05	-320.05	3,534.18	3,487.42	46.76	75.584		
15,900.00	10,130.79	6,929.00	6,914.46	47.60	1.77	2.58	-4,394.05	-320.05	3,578.55	3,531.45	47.10	75.971		
16,000.00	10,131.50	6,929.00	6,914.46	48.26	1.77	2.58	-4,394.05	-320.05	3,625.14	3,577.71	47.43	76.429		
16,100.00	10,132.20	6,929.00	6,914.46	48.93	1.77	2.58	-4,394.05	-320.05	3,673.87	3,626.13	47.74	76.956		
16,200.00	10,132.91	6,929.00	6,914.46	49.59	1.77	2.58	-4,394.05	-320.05	3,724.64	3,676.60	48.03	77.547		
16,300.00	10,133.62	6,929.00	6,914.46	50.27	1.77	2.58	-4,394.05	-320.05	3,777.37	3,729.07	48.30	78.199		
16,400.00	10,134.33	6,929.00	6,914.46	50.94	1.77	2.58	-4,394.05	-320.05	3,831.99	3,783.43	48.56	78.908		
16,500.00	10,135.03	6,929.00	6,914.46	51.61	1.77	2.58	-4,394.05	-320.05	3,888.42	3,839.61	48.81	79.672		
16,600.00	10,135.74	6,929.00	6,914.46	52.29	1.77	2.58	-4,394.05	-320.05	3,946.57	3,897.54	49.03	80.488		
16,700.00	10,136.45	6,929.00	6,914.46	52.97	1.77	2.58	-4,394.05	-320.05	4,006.37	3,957.13	49.25	81.352		
16,800.00	10,137.16	6,929.00	6,914.46	53.66	1.77	2.58	-4,394.05	-320.05	4,067.76	4,018.31	49.45	82.262		
16,900.00	10,137.87	6,929.00	6,914.46	54.34	1.77	2.58	-4,394.05	-320.05	4,130.65	4,081.01	49.64	83.214		
17,000.00	10,138.57	6,929.00	6,914.46	55.03	1.77	2.58	-4,394.05	-320.05	4,194.99	4,145.17	49.82	84.207		
17,100.00	10,139.28	6,929.00	6,914.46	55.72	1.77	2.58	-4,394.05	-320.05	4,260.70	4,210.71	49.99	85.238		
17,200.00	10,139.99	6,929.00	6,914.46	56.41	1.77	2.58	-4,394.05	-320.05	4,327.72	4,277.58	50.14	86.304		
17,300.00	10,140.70	6,929.00	6,914.46	57.10	1.77	2.58	-4,394.05	-320.05	4,396.00	4,345.70	50.30	87.404		
17,400.00	10,141.40	6,929.00	6,914.46	57.80	1.77	2.58	-4,394.05	-320.05	4,465.47	4,415.03	50.44	88.535		
17,484.18	10,142.00	6,929.00	6,914.46	58.16	1.77	2.58	-4,394.05	-320.05	4,524.84	4,474.38	50.45	89.681		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Thistle Unit - 63H - ST 1 - ST 1												Offset Well Error:	0.00 usft
Survey Program: 100- VES GyroFlex V2, 6733- VES GyroFlex V2, 10621-LEAM_MWD, 14962-Project													
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-174.36	-4,454.82	-440.15	4,476.56				
100.00	100.00	64.50	64.50	0.09	0.04	-174.36	-4,454.92	-440.16	4,476.64	4,476.50	0.13	N/A	
200.00	200.00	153.15	153.15	0.31	0.13	-174.36	-4,455.34	-440.20	4,477.11	4,476.66	0.45	N/A	
300.00	300.00	244.44	244.44	0.54	0.23	-174.36	-4,455.93	-440.30	4,477.76	4,477.00	0.76	5,869.223	
400.00	400.00	340.09	340.08	0.76	0.29	-174.36	-4,456.75	-440.33	4,478.62	4,477.56	1.05	4,246.589	
500.00	500.00	448.66	448.65	0.99	0.36	-174.36	-4,457.58	-440.56	4,479.39	4,478.05	1.34	3,336.010	
600.00	600.00	563.73	563.72	1.21	0.42	-174.36	-4,458.17	-440.65	4,479.92	4,478.29	1.63	2,753.611	
700.00	700.00	678.32	678.31	1.43	0.47	-174.35	-4,458.33	-440.84	4,480.07	4,478.17	1.90	2,360.091	
771.68	771.68	750.29	750.28	1.60	0.49	-174.35	-4,458.30	-440.99	4,480.06	4,477.97	2.08	2,151.730	
800.00	800.00	777.45	777.44	1.66	0.50	-174.35	-4,458.29	-441.08	4,480.06	4,477.91	2.15	2,080.168	
900.00	900.00	879.63	879.62	1.88	0.54	-174.35	-4,458.28	-441.39	4,480.08	4,477.67	2.41	1,861.424	
1,000.00	1,000.00	988.09	988.08	2.11	0.56	-174.35	-4,458.16	-441.39	4,479.97	4,477.31	2.66	1,686.388	
1,100.00	1,100.00	1,100.84	1,100.82	2.33	0.58	-174.35	-4,457.81	-440.95	4,479.62	4,476.71	2.91	1,541.723	
1,200.00	1,200.00	1,210.33	1,210.31	2.56	0.60	-174.36	-4,457.20	-440.30	4,479.01	4,475.86	3.15	1,420.125	
1,300.00	1,300.00	1,312.66	1,312.64	2.78	0.62	-174.37	-4,456.52	-439.60	4,478.28	4,474.88	3.40	1,316.925	
1,400.00	1,400.00	1,413.41	1,413.38	3.01	0.64	-174.37	-4,455.79	-438.98	4,477.49	4,473.85	3.65	1,227.720	
1,500.00	1,500.00	1,505.28	1,505.25	3.23	0.66	-174.38	-4,455.20	-438.51	4,476.81	4,472.92	3.89	1,150.379	
1,600.00	1,600.00	1,603.60	1,603.56	3.46	0.68	-174.39	-4,454.70	-437.91	4,476.24	4,472.10	4.14	1,081.683	
1,700.00	1,700.00	1,732.01	1,731.97	3.68	0.71	-174.40	-4,453.87	-436.62	4,475.53	4,471.14	4.39	1,018.943	
1,800.00	1,800.00	1,877.95	1,877.87	3.91	0.75	-174.41	-4,451.15	-435.58	4,473.52	4,468.87	4.65	961.652	
1,900.00	1,900.00	1,978.89	1,978.79	4.13	0.77	-174.40	-4,448.85	-435.89	4,471.27	4,466.37	4.90	912.362	
2,000.00	2,000.00	2,065.65	2,065.53	4.36	0.79	-174.39	-4,446.92	-436.68	4,469.15	4,464.00	5.15	868.455	
2,100.00	2,100.00	2,143.34	2,143.19	4.58	0.81	-174.37	-4,445.45	-437.88	4,467.43	4,462.04	5.39	829.043	
2,200.00	2,200.00	2,200.00	2,199.83	4.81	0.82	-174.36	-4,444.64	-439.00	4,466.32	4,460.70	5.63	793.891	
2,286.49	2,286.49	2,265.25	2,265.07	5.00	0.83	-174.34	-4,444.17	-440.49	4,465.95	4,460.11	5.83	765.662	
2,300.00	2,300.00	2,273.29	2,273.11	5.03	0.83	-174.34	-4,444.16	-440.69	4,465.96	4,460.09	5.86	761.500	
2,400.00	2,400.00	2,336.42	2,336.21	5.26	0.85	-174.32	-4,444.36	-442.24	4,466.51	4,460.41	6.10	732.198	
2,500.00	2,500.00	2,400.00	2,399.77	5.48	0.86	-174.30	-4,445.07	-443.59	4,467.84	4,461.51	6.33	705.366	
2,600.00	2,600.00	2,487.62	2,487.37	5.71	0.87	-174.29	-4,446.58	-444.84	4,469.71	4,463.14	6.57	680.302	
2,700.00	2,700.00	2,582.97	2,582.70	5.93	0.88	-174.28	-4,448.56	-445.31	4,471.82	4,465.01	6.81	656.905	
2,800.00	2,800.00	2,684.00	2,683.71	6.15	0.90	-174.28	-4,450.71	-445.48	4,473.96	4,466.91	7.05	634.929	
2,900.00	2,900.00	2,799.73	2,799.41	6.38	0.92	-174.27	-4,452.89	-446.56	4,475.93	4,468.64	7.29	614.046	
3,000.00	3,000.00	2,997.67	2,997.31	6.60	0.95	-174.23	-4,454.34	-450.08	4,477.06	4,469.51	7.55	593.172	
3,100.00	3,100.00	3,177.50	3,177.09	6.83	0.99	-174.19	-4,451.42	-452.67	4,475.46	4,467.66	7.80	573.691	
3,200.00	3,200.00	3,261.79	3,261.36	7.05	1.01	-174.19	-4,449.58	-452.97	4,473.34	4,465.30	8.04	556.312	
3,300.00	3,300.00	3,349.98	3,349.54	7.28	1.02	-174.18	-4,448.13	-453.08	4,471.71	4,463.42	8.28	539.919	
3,400.00	3,400.00	3,449.98	3,449.52	7.50	1.04	-174.18	-4,446.54	-452.90	4,470.10	4,461.58	8.53	524.293	
3,500.00	3,500.00	3,543.37	3,542.91	7.73	1.06	-174.18	-4,445.11	-452.78	4,468.57	4,459.80	8.77	509.563	
3,600.00	3,600.00	3,637.08	3,636.60	7.94	1.08	-97.66	-4,443.86	-452.67	4,467.35	4,458.34	9.00	496.218	
3,700.00	3,699.96	3,748.02	3,747.54	8.15	1.10	-97.71	-4,442.37	-452.37	4,466.34	4,457.11	9.23	483.858	
3,776.97	3,776.86	3,835.37	3,834.88	8.31	1.12	-97.77	-4,440.89	-452.15	4,465.45	4,456.04	9.41	474.614	
3,800.00	3,799.87	3,857.86	3,857.36	8.35	1.12	-97.78	-4,440.49	-452.10	4,465.19	4,455.73	9.46	471.933	
3,900.00	3,899.75	3,969.80	3,969.28	8.56	1.15	-97.85	-4,438.44	-451.87	4,464.01	4,454.32	9.70	460.429	
4,000.00	3,999.63	4,055.79	4,055.25	8.77	1.17	-97.90	-4,436.75	-451.54	4,462.69	4,452.76	9.93	449.607	
4,100.00	4,099.51	4,138.66	4,138.11	8.98	1.18	-97.96	-4,435.59	-450.90	4,461.88	4,451.72	10.16	439.294	
4,200.00	4,199.40	4,244.91	4,244.35	9.20	1.21	-98.03	-4,434.18	-450.61	4,461.21	4,450.81	10.39	429.173	
4,300.00	4,299.28	4,345.85	4,345.28	9.41	1.23	-98.09	-4,432.56	-450.44	4,460.27	4,449.64	10.63	419.435	
4,400.00	4,399.16	4,430.10	4,429.52	9.63	1.25	-98.14	-4,431.46	-450.32	4,459.63	4,448.76	10.87	410.254	
4,500.00	4,499.05	4,521.27	4,520.68	9.84	1.27	-98.21	-4,430.57	-449.72	4,459.28	4,448.18	11.11	401.455	
4,600.00	4,598.93	4,624.39	4,623.79	10.06	1.29	-98.29	-4,429.66	-448.14	4,458.95	4,447.61	11.35	393.020	
4,700.00	4,698.81	4,716.43	4,715.81	10.28	1.30	-98.37	-4,428.90	-446.46	4,458.67	4,447.09	11.58	385.031	
4,731.96	4,730.74	4,741.39	4,740.76	10.35	1.31	-98.39	-4,428.75	-445.96	4,458.65	4,446.99	11.65	382.583	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 63H - ST 1 - ST 1													Offset Site Error: 0.00 usft	
Survey Program: 100- VES GyroFlex V2, 6733- VES GyroFlex V2, 10621-LEAM_MWD, 14962-Project													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,800.00	4,798.70	4,800.00	4,799.36	10.50	1.32	-98.44	-4,428.56	-444.67	4,458.77	4,446.95	11.81	377.483		
4,900.00	4,898.58	4,876.33	4,875.66	10.72	1.32	-98.51	-4,428.62	-442.59	4,459.31	4,447.27	12.04	370.360		
5,000.00	4,998.46	4,973.77	4,973.04	10.94	1.34	-98.62	-4,429.02	-439.21	4,460.14	4,447.87	12.27	363.461		
5,100.00	5,098.35	5,091.76	5,090.93	11.16	1.35	-98.75	-4,429.34	-434.27	4,460.80	4,448.29	12.51	356.711		
5,200.00	5,198.23	5,203.73	5,202.79	11.38	1.37	-98.88	-4,429.22	-429.40	4,461.08	4,448.34	12.74	350.144		
5,300.00	5,298.11	5,300.00	5,298.98	11.60	1.38	-98.99	-4,428.91	-425.46	4,461.20	4,448.22	12.98	343.815		
5,400.00	5,398.00	5,375.51	5,374.44	11.82	1.39	-99.07	-4,428.88	-422.72	4,461.65	4,448.45	13.21	337.818		
5,500.00	5,497.88	5,479.69	5,478.58	12.05	1.41	-99.18	-4,429.26	-419.56	4,462.56	4,449.12	13.44	332.000		
5,600.00	5,597.76	5,577.54	5,576.38	12.27	1.42	-99.28	-4,429.41	-416.60	4,463.26	4,449.59	13.68	326.364		
5,700.00	5,697.65	5,673.34	5,672.14	12.50	1.44	-99.37	-4,429.66	-413.74	4,464.10	4,450.19	13.91	320.930		
5,800.00	5,797.53	5,766.51	5,765.26	12.72	1.46	-99.46	-4,429.99	-411.09	4,465.05	4,450.91	14.14	315.689		
5,900.00	5,897.41	5,868.13	5,866.84	12.95	1.47	-99.56	-4,430.48	-408.00	4,466.11	4,451.74	14.38	310.609		
6,000.00	5,997.30	5,977.90	5,976.57	13.17	1.49	-99.67	-4,430.79	-404.96	4,467.03	4,452.41	14.61	305.648		
6,100.00	6,097.18	6,100.00	6,098.62	13.40	1.52	-99.79	-4,430.58	-401.61	4,467.47	4,452.62	14.85	300.741		
6,200.00	6,197.06	6,176.05	6,174.64	13.63	1.53	-99.86	-4,430.43	-399.42	4,467.96	4,452.87	15.09	296.084		
6,300.00	6,296.94	6,300.00	6,298.54	13.85	1.56	-99.98	-4,430.53	-395.99	4,468.74	4,453.41	15.33	291.501		
6,400.00	6,396.83	6,389.39	6,387.89	14.08	1.58	-100.07	-4,430.30	-393.53	4,469.16	4,453.59	15.57	287.076		
6,500.00	6,496.71	6,475.00	6,473.47	14.31	1.60	-100.15	-4,430.33	-391.20	4,469.88	4,454.08	15.80	282.825		
6,600.00	6,596.59	6,565.45	6,563.89	14.54	1.62	-100.23	-4,430.62	-388.88	4,470.90	4,454.86	16.04	278.723		
6,700.00	6,696.48	14,962.00	11,030.40	14.77	66.20	-114.22	-424.47	-251.97	4,380.76	4,340.81	39.95	109.663		
6,800.00	6,796.36	14,962.00	11,030.40	14.99	66.20	-114.22	-424.47	-251.97	4,281.47	4,241.34	40.13	106.687		
6,900.00	6,896.24	14,962.00	11,030.40	15.22	66.20	-114.22	-424.47	-251.97	4,182.22	4,141.90	40.32	103.728		
7,000.00	6,996.13	14,962.00	11,030.40	15.45	66.20	-114.22	-424.47	-251.97	4,083.01	4,042.50	40.51	100.786		
7,100.00	7,096.01	14,962.00	11,030.40	15.68	66.20	-114.22	-424.47	-251.97	3,983.83	3,943.13	40.71	97.862		
7,200.00	7,195.89	14,962.00	11,030.40	15.91	66.20	-114.22	-424.47	-251.97	3,884.70	3,843.79	40.91	94.958		
7,300.00	7,295.78	14,962.00	11,030.40	16.14	66.20	-114.22	-424.47	-251.97	3,785.61	3,744.50	41.12	92.072		
7,400.00	7,395.66	14,962.00	11,030.40	16.37	66.20	-114.22	-424.47	-251.97	3,686.58	3,645.25	41.33	89.207		
7,500.00	7,495.54	14,962.00	11,030.40	16.60	66.20	-114.22	-424.47	-251.97	3,587.59	3,546.05	41.54	86.362		
7,600.00	7,595.43	14,962.00	11,030.40	16.83	66.20	-114.22	-424.47	-251.97	3,488.66	3,446.90	41.76	83.539		
7,700.00	7,695.31	14,962.00	11,030.40	17.06	66.20	-114.22	-424.47	-251.97	3,389.80	3,347.82	41.99	80.737		
7,800.00	7,795.19	14,962.00	11,030.40	17.29	66.20	-114.22	-424.47	-251.97	3,291.01	3,248.79	42.22	77.957		
7,900.00	7,895.08	14,962.00	11,030.40	17.53	66.20	-114.22	-424.47	-251.97	3,192.29	3,149.84	42.45	75.200		
7,947.18	7,942.20	14,962.00	11,030.40	17.63	66.20	-114.22	-424.47	-251.97	3,145.74	3,103.18	42.56	73.908		
8,000.00	7,994.97	14,962.00	11,030.40	17.74	66.20	-111.29	-424.47	-251.97	3,093.63	3,050.94	42.69	72.467		
8,100.00	8,094.92	14,962.00	11,030.40	17.93	66.20	-105.56	-424.47	-251.97	2,994.98	2,952.04	42.93	69.761		
8,200.00	8,194.91	14,962.00	11,030.40	18.11	66.20	-99.70	-424.47	-251.97	2,896.33	2,853.15	43.18	67.079		
8,224.15	8,219.06	14,962.00	11,030.40	18.15	66.20	-174.82	-424.47	-251.97	2,872.52	2,829.28	43.24	66.435		
8,300.00	8,294.91	14,962.00	11,030.40	18.30	66.20	-174.82	-424.47	-251.97	2,797.74	2,754.31	43.43	64.421		
8,400.00	8,394.91	14,962.00	11,030.40	18.52	66.20	-174.82	-424.47	-251.97	2,699.26	2,655.57	43.69	61.785		
8,500.00	8,494.91	14,962.00	11,030.40	18.73	66.20	-174.82	-424.47	-251.97	2,600.89	2,556.93	43.95	59.176		
8,600.00	8,594.91	14,962.00	11,030.40	18.95	66.20	-174.82	-424.47	-251.97	2,502.65	2,458.42	44.22	56.592		
8,700.00	8,694.91	14,962.00	11,030.40	19.16	66.20	-174.82	-424.47	-251.97	2,404.55	2,360.05	44.50	54.036		
8,800.00	8,794.91	14,962.00	11,030.40	19.38	66.20	-174.82	-424.47	-251.97	2,306.62	2,261.83	44.78	51.506		
8,900.00	8,894.91	14,962.00	11,030.40	19.59	66.20	-174.82	-424.47	-251.97	2,208.87	2,163.80	45.07	49.005		
9,000.00	8,994.91	14,962.00	11,030.40	19.81	66.20	-174.82	-424.47	-251.97	2,111.33	2,065.96	45.37	46.533		
9,100.00	9,094.91	14,962.00	11,030.40	20.03	66.20	-174.82	-424.47	-251.97	2,014.04	1,968.36	45.68	44.090		
9,200.00	9,194.91	14,962.00	11,030.40	20.24	66.20	-174.82	-424.47	-251.97	1,917.02	1,871.03	46.00	41.679		
9,300.00	9,294.91	14,962.00	11,030.40	20.46	66.20	-174.82	-424.47	-251.97	1,820.33	1,774.01	46.32	39.299		
9,400.00	9,394.91	14,962.00	11,030.40	20.68	66.20	-174.82	-424.47	-251.97	1,724.01	1,677.36	46.65	36.954		
9,500.00	9,494.91	14,962.00	11,030.40	20.89	66.20	-174.82	-424.47	-251.97	1,628.14	1,581.15	47.00	34.644		
9,524.15	9,519.06	14,962.00	11,030.40	20.95	66.20	-174.82	-424.47	-251.97	1,605.07	1,557.99	47.08	34.091		
9,550.00	9,544.90	14,962.00	11,030.40	21.00	66.20	6.54	-424.47	-251.97	1,580.23	1,533.06	47.17	33.500		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 63H - ST 1 - ST 1													Offset Site Error: 0.00 usft	
Survey Program: 100- VES GyroFlex V2, 6733- VES GyroFlex V2, 10621-LEAM_MWD, 14962-Project													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,600.00	9,594.69	14,962.00	11,030.40	21.09	66.20	9.67	-424.47	-251.97	1,531.47	1,484.13	47.33	32.355		
9,650.00	9,643.90	14,962.00	11,030.40	21.17	66.20	18.05	-424.47	-251.97	1,481.98	1,434.50	47.48	31.214		
9,700.00	9,692.17	14,962.00	11,030.40	21.26	66.20	71.35	-424.47	-251.97	1,432.09	1,384.49	47.60	30.086		
9,750.00	9,739.11	14,962.00	11,030.40	21.35	66.20	156.52	-424.47	-251.97	1,382.16	1,334.47	47.70	28.978		
9,800.00	9,784.38	14,962.00	11,030.40	21.43	66.20	168.30	-424.47	-251.97	1,332.59	1,284.82	47.77	27.898		
9,850.00	9,827.63	14,962.00	11,030.40	21.51	66.20	172.12	-424.47	-251.97	1,283.81	1,236.00	47.81	26.854		
9,900.00	9,868.53	14,962.00	11,030.40	21.60	66.20	173.98	-424.47	-251.97	1,236.31	1,188.49	47.81	25.856		
9,950.00	9,906.77	14,962.00	11,030.40	21.69	66.20	175.06	-424.47	-251.97	1,190.62	1,142.84	47.79	24.915		
10,000.00	9,942.06	14,962.00	11,030.40	21.78	66.20	175.75	-424.47	-251.97	1,147.34	1,099.62	47.72	24.042		
10,050.00	9,974.14	14,962.00	11,030.40	21.89	66.20	176.23	-424.47	-251.97	1,107.09	1,059.47	47.62	23.248		
10,100.00	10,002.75	14,962.00	11,030.40	22.01	66.20	176.57	-424.47	-251.97	1,070.54	1,023.06	47.48	22.548		
10,150.00	10,027.67	14,962.00	11,030.40	22.16	66.20	176.81	-424.47	-251.97	1,038.37	991.07	47.30	21.953		
10,200.00	10,048.73	14,962.00	11,030.40	22.33	66.20	176.98	-424.47	-251.97	1,011.24	964.15	47.09	21.475		
10,250.00	10,065.76	14,962.00	11,030.40	22.53	66.20	177.11	-424.47	-251.97	989.80	942.95	46.85	21.125		
10,300.00	10,078.62	14,962.00	11,030.40	22.75	66.20	177.19	-424.47	-251.97	974.59	927.98	46.60	20.912		
10,350.00	10,087.23	14,930.51	11,030.07	23.00	66.19	177.08	-455.89	-254.06	965.49	918.96	46.54	20.748		
10,400.00	10,091.51	14,880.86	11,029.55	23.27	66.06	176.87	-505.42	-257.35	960.89	914.28	46.61	20.615		
10,420.09	10,092.00	14,860.75	11,029.33	23.38	65.73	176.78	-525.49	-258.65	960.26	913.75	46.51	20.644		
10,500.00	10,092.57	14,794.00	11,028.64	23.88	64.64	176.50	-592.11	-262.77	959.28	913.00	46.28	20.729		
10,535.33	10,092.82	14,758.28	11,028.49	24.60	64.05	176.35	-627.76	-265.09	959.04	912.97	46.07	20.819		
10,600.00	10,093.28	14,700.00	11,029.21	28.10	63.10	176.05	-685.84	-269.74	959.71	913.82	45.89	20.912		
10,700.00	10,093.98	14,594.23	11,030.39	28.19	61.38	175.51	-791.27	-278.12	960.80	915.61	45.18	21.264		
10,700.76	10,093.99	14,593.50	11,030.39	28.19	61.36	175.50	-792.00	-278.17	960.80	915.62	45.18	21.266		
10,800.00	10,094.69	14,510.00	11,030.79	28.28	60.00	175.15	-875.33	-283.40	961.23	916.24	44.99	21.367		
10,900.00	10,095.40	14,416.00	11,032.92	28.37	58.46	174.77	-969.11	-289.39	963.41	918.79	44.62	21.590		
11,000.00	10,096.11	14,318.09	11,036.06	28.46	56.86	174.33	-1,066.73	-296.30	966.64	922.41	44.23	21.854		
11,100.00	10,096.82	14,226.00	11,038.72	28.55	55.35	173.97	-1,158.60	-301.97	969.54	925.54	44.00	22.035		
11,200.00	10,097.52	14,132.00	11,042.57	28.65	53.82	173.62	-1,252.36	-307.46	973.61	929.85	43.76	22.248		
11,300.00	10,098.23	14,034.23	11,047.17	28.74	52.22	173.28	-1,349.85	-313.15	978.33	934.84	43.48	22.498		
11,400.00	10,098.94	13,940.26	11,051.62	28.84	50.68	172.98	-1,443.59	-318.05	983.04	939.73	43.31	22.696		
11,500.00	10,099.65	13,828.26	11,056.58	28.94	48.84	172.70	-1,555.39	-322.66	987.33	944.53	42.80	23.068		
11,600.00	10,100.35	13,716.26	11,060.73	29.04	46.99	172.45	-1,667.24	-326.50	990.89	948.56	42.33	23.411		
11,700.00	10,101.06	13,600.73	11,062.61	29.14	45.09	172.24	-1,782.72	-329.54	992.19	950.37	41.82	23.725		
11,800.00	10,101.77	13,507.24	11,064.09	29.25	43.55	172.10	-1,876.17	-331.35	993.43	951.66	41.77	23.786		
11,900.00	10,102.48	13,412.39	11,066.37	29.35	41.98	171.98	-1,970.98	-333.05	995.45	953.74	41.71	23.867		
12,000.00	10,103.19	13,294.62	11,068.63	29.46	40.04	171.80	-2,088.70	-335.55	997.10	955.83	41.27	24.161		
12,100.00	10,103.89	13,201.22	11,069.39	29.57	38.50	171.63	-2,182.07	-337.75	997.67	956.37	41.30	24.155		
12,200.00	10,104.60	13,105.73	11,071.01	29.69	36.93	171.50	-2,277.53	-339.53	999.02	957.70	41.32	24.180		
12,300.00	10,105.31	13,016.98	11,073.21	29.80	35.47	171.42	-2,366.25	-340.57	1,001.07	959.61	41.46	24.145		
12,400.00	10,106.02	12,917.88	11,076.58	29.93	33.83	171.39	-2,465.29	-340.77	1,003.87	962.43	41.45	24.221		
12,500.00	10,106.72	12,801.30	11,079.36	30.06	31.91	171.29	-2,581.82	-341.96	1,005.80	964.61	41.19	24.418		
12,600.00	10,107.43	12,701.09	11,080.76	30.20	30.26	171.13	-2,682.00	-344.11	1,006.91	965.68	41.23	24.419		
12,700.00	10,108.14	12,600.84	11,081.85	30.36	28.62	170.96	-2,782.22	-346.60	1,007.79	966.48	41.31	24.398		
12,800.00	10,108.85	12,515.83	11,083.58	30.54	27.22	170.83	-2,867.19	-348.44	1,009.57	967.95	41.62	24.258		
12,900.00	10,109.56	12,433.00	11,086.56	30.76	25.86	170.70	-2,949.93	-350.59	1,012.95	970.98	41.97	24.133		
13,000.00	10,110.26	12,315.52	11,089.83	31.04	23.94	170.42	-3,067.28	-355.00	1,015.64	973.74	41.89	24.243		
13,100.00	10,110.97	12,243.00	11,092.61	31.39	22.76	170.26	-3,139.69	-357.88	1,019.51	977.09	42.42	24.033		
13,200.00	10,111.68	12,120.28	11,097.96	31.78	20.76	170.02	-3,262.22	-362.04	1,023.86	981.51	42.35	24.177		
13,300.00	10,112.39	12,001.57	11,099.41	32.22	18.83	169.64	-3,380.76	-368.12	1,025.31	982.93	42.38	24.192		
13,400.00	10,113.09	10,044.78	10,042.08	32.69	5.35	74.45	-4,499.96	-379.31	1,021.59	985.44	36.16	28.255		
13,500.00	10,113.80	10,049.78	10,047.08	33.18	5.36	75.77	-4,500.18	-379.46	923.98	887.71	36.27	25.476		
13,600.00	10,114.51	10,054.79	10,052.08	33.69	5.36	77.11	-4,500.40	-379.60	826.90	790.52	36.38	22.726		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Thistle Unit - 63H - ST 1 - ST 1		Offset Site Error:		0.00 usft	
Survey Program: 100- VES GyroFlex V2, 6733- VES GyroFlex V2, 10621-LEAM_MWD, 14962-Project													Offset Well Error:		0.00 usft			
Reference		Offset		Semi Major Axis		Distance												
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning					
13,700.00	10,115.22	10,059.81	10,057.09	34.22	5.37	78.46	-4,500.62	-379.75	730.58	694.07	36.51	20.010						
13,800.00	10,115.93	10,064.84	10,062.12	34.75	5.37	79.83	-4,500.84	-379.90	635.35	598.70	36.65	17.334						
13,900.00	10,116.63	10,069.88	10,067.15	35.30	5.38	81.21	-4,501.06	-380.04	541.80	504.97	36.83	14.712						
14,000.00	10,117.34	10,074.93	10,072.19	35.85	5.38	82.60	-4,501.28	-380.19	450.97	413.90	37.07	12.164						
14,100.00	10,118.05	10,079.98	10,077.24	36.42	5.39	83.99	-4,501.50	-380.34	364.90	327.44	37.46	9.741						
14,200.00	10,118.76	10,085.05	10,082.30	36.99	5.39	85.40	-4,501.73	-380.49	287.87	249.75	38.12	7.551						
14,300.00	10,119.46	10,090.13	10,087.37	37.57	5.40	86.81	-4,501.95	-380.65	229.22	190.07	39.15	5.856						
14,400.00	10,120.17	10,095.21	10,092.45	38.16	5.40	88.23	-4,502.18	-380.80	205.33	165.04	40.29	5.097						
14,402.04	10,120.19	10,095.32	10,092.55	38.17	5.40	88.26	-4,502.18	-380.80	205.32	165.01	40.31	5.093	CC, ES, SF					
14,500.00	10,120.88	10,100.31	10,097.53	38.75	5.41	89.65	-4,502.40	-380.95	227.44	186.31	41.12	5.531						
14,600.00	10,121.59	10,105.39	10,102.61	39.35	5.41	91.06	-4,502.63	-381.10	285.03	244.21	40.82	6.983						
14,700.00	10,122.29	10,110.45	10,107.67	39.96	5.41	92.47	-4,502.85	-381.26	361.53	321.25	40.28	8.975						
14,800.00	10,123.00	10,115.51	10,112.71	40.57	5.42	93.87	-4,503.07	-381.41	447.34	407.44	39.90	11.212						
14,900.00	10,123.71	10,120.55	10,117.75	41.19	5.42	95.26	-4,503.30	-381.57	538.03	498.36	39.67	13.562						
15,000.00	10,124.42	10,125.58	10,122.77	41.81	5.43	96.63	-4,503.52	-381.72	631.49	591.94	39.55	15.966						
15,100.00	10,125.13	10,130.60	10,127.78	42.43	5.43	98.00	-4,503.74	-381.87	726.66	687.16	39.50	18.395						
15,200.00	10,125.83	10,135.60	10,132.78	43.07	5.44	99.35	-4,503.96	-382.03	822.95	783.45	39.50	20.834						
15,300.00	10,126.54	10,140.60	10,137.76	43.70	5.44	100.68	-4,504.18	-382.18	920.00	880.47	39.53	23.273						
15,400.00	10,127.25	10,145.58	10,142.74	44.34	5.45	102.00	-4,504.39	-382.34	1,017.60	978.02	39.58	25.708						
15,500.00	10,127.96	10,150.55	10,147.70	44.99	5.45	103.29	-4,504.61	-382.49	1,115.60	1,075.95	39.65	28.135						
15,600.00	10,128.66	10,155.50	10,152.65	45.63	5.46	104.57	-4,504.83	-382.64	1,213.91	1,174.17	39.73	30.551						
15,700.00	10,129.37	10,160.45	10,157.59	46.29	5.46	105.83	-4,505.04	-382.80	1,312.45	1,272.63	39.82	32.956						
15,800.00	10,130.08	10,165.38	10,162.51	46.94	5.47	107.07	-4,505.26	-382.95	1,411.18	1,371.26	39.92	35.348						
15,900.00	10,130.79	10,170.30	10,167.42	47.60	5.47	108.29	-4,505.47	-383.11	1,510.06	1,470.03	40.03	37.726						
16,000.00	10,131.50	10,175.21	10,172.32	48.26	5.48	109.49	-4,505.69	-383.26	1,609.07	1,568.93	40.14	40.090						
16,100.00	10,132.20	10,180.10	10,177.21	48.93	5.48	110.66	-4,505.90	-383.42	1,708.17	1,667.92	40.25	42.439						
16,200.00	10,132.91	10,184.99	10,182.09	49.59	5.49	111.82	-4,506.11	-383.57	1,807.36	1,766.99	40.37	44.773						
16,300.00	10,133.62	10,189.86	10,186.96	50.27	5.49	112.95	-4,506.32	-383.73	1,906.62	1,866.14	40.49	47.092						
16,400.00	10,134.33	10,194.79	10,191.88	50.94	5.50	114.07	-4,506.53	-383.89	2,005.95	1,965.34	40.61	49.396						
16,500.00	10,135.03	10,199.83	10,196.92	51.61	5.50	115.20	-4,506.75	-384.05	2,105.32	2,064.59	40.74	51.683						
16,600.00	10,135.74	10,204.89	10,201.96	52.29	5.50	116.30	-4,506.97	-384.21	2,204.74	2,163.88	40.86	53.955						
16,700.00	10,136.45	10,209.95	10,207.02	52.97	5.51	117.39	-4,507.19	-384.38	2,304.20	2,263.21	40.99	56.211						
16,800.00	10,137.16	10,215.02	10,212.08	53.66	5.51	118.45	-4,507.41	-384.54	2,403.70	2,362.57	41.12	58.451						
16,900.00	10,137.87	10,220.09	10,217.14	54.34	5.52	119.49	-4,507.63	-384.71	2,503.22	2,461.97	41.26	60.676						
17,000.00	10,138.57	10,225.17	10,222.22	55.03	5.52	120.52	-4,507.85	-384.87	2,602.77	2,561.38	41.39	62.884						
17,100.00	10,139.28	10,230.27	10,227.30	55.72	5.53	121.52	-4,508.07	-385.04	2,702.35	2,660.82	41.53	65.077						
17,200.00	10,139.99	10,235.36	10,232.39	56.41	5.53	122.50	-4,508.29	-385.21	2,801.94	2,760.28	41.66	67.255						
17,300.00	10,140.70	10,240.47	10,237.49	57.10	5.54	123.45	-4,508.51	-385.38	2,901.56	2,859.76	41.80	69.416						
17,400.00	10,141.40	10,245.58	10,242.60	57.80	5.54	124.39	-4,508.73	-385.55	3,001.19	2,959.25	41.94	71.562						
17,484.18	10,142.00	10,249.89	10,246.90	58.16	5.55	125.16	-4,508.92	-385.70	3,085.07	3,049.05	36.02	85.649						

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 64H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 62-ISCWSA-GYRO-3, 1483-LEAM MWD-ADJ, 15937-Project												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-174.99	-4,454.54	-390.22	4,471.65				
100.00	100.00	90.85	90.85	0.09	0.09	-174.99	-4,454.37	-390.40	4,471.46	4,471.29	0.17	N/A	
200.00	200.00	193.56	193.56	0.31	0.27	-174.99	-4,454.03	-390.83	4,471.17	4,470.59	0.57	7,793.637	
300.00	300.00	297.91	297.90	0.54	0.45	-174.98	-4,453.59	-391.39	4,470.79	4,469.81	0.98	4,557.309	
400.00	400.00	402.02	402.01	0.76	0.63	-174.97	-4,453.04	-392.04	4,470.32	4,468.93	1.39	3,220.562	
500.00	500.00	502.69	502.68	0.99	0.81	-174.96	-4,452.43	-392.80	4,469.78	4,467.99	1.79	2,498.645	
600.00	600.00	601.52	601.50	1.21	0.98	-174.95	-4,451.83	-393.77	4,469.26	4,467.08	2.19	2,044.107	
700.00	700.00	688.30	688.27	1.43	1.13	-174.93	-4,451.39	-394.76	4,468.87	4,466.31	2.56	1,743.927	
763.66	763.66	742.59	742.56	1.58	1.23	-174.92	-4,451.28	-395.46	4,468.81	4,466.01	2.80	1,595.759	
800.00	800.00	775.81	775.77	1.66	1.28	-174.92	-4,451.25	-395.93	4,468.82	4,465.88	2.94	1,519.959	
900.00	900.00	868.82	868.77	1.88	1.45	-174.90	-4,451.27	-397.40	4,468.98	4,465.65	3.33	1,343.187	
1,000.00	1,000.00	966.46	966.40	2.11	1.62	-174.88	-4,451.39	-398.91	4,469.25	4,465.53	3.72	1,200.721	
1,100.00	1,100.00	1,065.54	1,065.47	2.33	1.79	-174.86	-4,451.54	-400.43	4,469.53	4,465.42	4.12	1,084.936	
1,200.00	1,200.00	1,165.46	1,165.38	2.56	1.97	-174.84	-4,451.71	-401.94	4,469.84	4,465.32	4.52	989.207	
1,300.00	1,300.00	1,267.48	1,267.39	2.78	2.15	-174.82	-4,451.87	-403.47	4,470.13	4,465.21	4.92	908.322	
1,400.00	1,400.00	1,378.40	1,378.29	3.01	2.29	-174.80	-4,451.93	-404.96	4,470.31	4,465.02	5.29	844.623	
1,500.00	1,500.00	1,491.64	1,491.53	3.23	2.39	-174.79	-4,451.62	-406.03	4,470.11	4,464.50	5.61	796.134	
1,534.99	1,534.99	1,514.00	1,513.89	3.31	2.40	-174.79	-4,451.56	-406.19	4,470.06	4,464.36	5.70	784.559	
1,600.00	1,600.00	1,546.00	1,545.89	3.46	2.40	-174.79	-4,451.72	-406.21	4,470.34	4,464.48	5.85	763.990	
1,700.00	1,700.00	1,577.00	1,576.88	3.68	2.41	-174.79	-4,452.27	-405.82	4,471.89	4,465.80	6.09	734.822	
1,800.00	1,800.00	1,629.60	1,629.42	3.91	2.44	-174.82	-4,453.92	-404.04	4,474.70	4,468.37	6.33	706.736	
1,900.00	1,900.00	1,680.90	1,680.58	4.13	2.47	-174.86	-4,456.20	-400.93	4,478.59	4,472.01	6.58	680.366	
2,000.00	2,000.00	1,742.38	1,741.83	4.36	2.51	-174.91	-4,459.57	-396.91	4,483.47	4,476.63	6.85	654.952	
2,100.00	2,100.00	1,965.17	1,962.65	4.58	2.77	-175.26	-4,471.55	-370.92	4,488.41	4,481.09	7.33	612.638	
2,200.00	2,200.00	2,073.86	2,069.70	4.81	2.97	-175.50	-4,475.84	-352.59	4,491.03	4,483.28	7.75	579.459	
2,300.00	2,300.00	2,176.11	2,170.45	5.03	3.17	-175.72	-4,479.56	-335.55	4,493.42	4,485.24	8.18	549.443	
2,400.00	2,400.00	2,275.10	2,268.06	5.26	3.39	-175.92	-4,483.14	-319.48	4,495.88	4,487.25	8.62	521.396	
2,500.00	2,500.00	2,363.39	2,355.11	5.48	3.62	-176.11	-4,486.29	-305.13	4,498.36	4,489.29	9.07	496.017	
2,600.00	2,600.00	2,420.98	2,411.88	5.71	3.77	-176.23	-4,488.72	-295.72	4,501.55	4,492.11	9.44	476.619	
2,700.00	2,700.00	2,482.62	2,472.58	5.93	3.95	-176.36	-4,492.00	-285.52	4,505.79	4,495.95	9.84	458.087	
2,800.00	2,800.00	2,582.69	2,571.16	6.15	4.23	-176.57	-4,497.58	-269.26	4,510.42	4,500.08	10.34	436.222	
2,900.00	2,900.00	2,679.21	2,666.31	6.38	4.52	-176.77	-4,502.97	-253.94	4,515.13	4,504.29	10.84	416.469	
3,000.00	3,000.00	2,800.49	2,785.89	6.60	4.89	-177.02	-4,509.34	-234.74	4,519.57	4,508.14	11.43	395.536	
3,100.00	3,100.00	2,918.96	2,902.75	6.83	5.26	-177.26	-4,515.16	-216.16	4,523.76	4,511.75	12.01	376.680	
3,200.00	3,200.00	3,031.00	3,013.37	7.05	5.60	-177.48	-4,520.10	-199.12	4,527.51	4,514.93	12.57	360.087	
3,300.00	3,300.00	3,131.20	3,112.33	7.28	5.92	-177.67	-4,524.34	-183.93	4,531.14	4,518.04	13.10	345.780	
3,400.00	3,400.00	3,214.00	3,194.06	7.50	6.18	-177.83	-4,528.04	-171.20	4,535.04	4,521.46	13.58	333.869	
3,500.00	3,500.00	3,277.37	3,256.56	7.73	6.39	-177.96	-4,531.23	-161.28	4,539.55	4,525.54	14.01	324.127	
3,600.00	3,600.00	3,380.83	3,358.53	7.94	6.73	-101.59	-4,536.97	-144.73	4,544.80	4,530.25	14.55	312.297	
3,700.00	3,699.96	3,478.27	3,454.59	8.15	7.06	-101.76	-4,542.06	-129.17	4,550.15	4,535.08	15.07	301.917	
3,776.97	3,776.86	3,580.81	3,555.71	8.31	7.40	-101.98	-4,547.28	-113.02	4,554.48	4,538.91	15.56	292.662	
3,800.00	3,799.87	3,609.75	3,584.27	8.35	7.50	-102.05	-4,548.61	-108.49	4,555.70	4,540.00	15.70	290.111	
3,900.00	3,899.75	3,713.19	3,686.40	8.56	7.84	-102.31	-4,553.20	-92.76	4,560.90	4,544.66	16.24	280.842	
4,000.00	3,999.63	3,797.18	3,769.40	8.77	8.11	-102.52	-4,557.05	-80.51	4,566.34	4,549.63	16.71	273.273	
4,100.00	4,099.51	3,880.98	3,852.14	8.98	8.38	-102.73	-4,561.15	-67.88	4,572.17	4,554.99	17.18	266.103	
4,200.00	4,199.40	3,979.05	3,948.96	9.20	8.71	-102.97	-4,566.08	-53.04	4,578.22	4,560.52	17.71	258.567	
4,300.00	4,299.28	4,065.00	4,033.83	9.41	8.99	-103.18	-4,570.53	-40.26	4,584.49	4,566.30	18.19	252.057	
4,400.00	4,399.16	4,152.21	4,119.95	9.63	9.28	-103.39	-4,575.26	-27.38	4,591.09	4,572.41	18.68	245.841	
4,500.00	4,499.05	4,226.13	4,192.95	9.84	9.53	-103.57	-4,579.53	-16.50	4,598.12	4,579.00	19.12	240.503	
4,600.00	4,598.93	4,366.84	4,331.98	10.06	9.99	-103.90	-4,587.57	3.53	4,605.20	4,585.42	19.78	232.836	
4,700.00	4,698.81	4,456.46	4,420.65	10.28	10.28	-104.10	-4,592.23	15.73	4,611.80	4,591.54	20.26	227.580	
4,800.00	4,798.70	4,537.00	4,500.21	10.50	10.54	-104.30	-4,596.73	27.45	4,618.86	4,598.13	20.73	222.821	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 64H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 62-ISCWSA-GYRO-3, 1483-LEAM MWD-ADJ, 15937-Project												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,898.58	4,606.17	4,568.38	10.72	10.79	-104.47	-4,600.92	38.32	4,626.47	4,605.30	21.17	218.551	
5,000.00	4,998.46	4,723.76	4,684.22	10.94	11.20	-104.77	-4,608.18	57.21	4,634.35	4,612.57	21.78	212.761	
5,100.00	5,098.35	4,801.49	4,760.85	11.16	11.48	-104.96	-4,612.87	69.42	4,642.16	4,619.91	22.25	208.616	
5,200.00	5,198.23	4,865.81	4,824.15	11.38	11.72	-105.13	-4,617.08	80.01	4,650.59	4,627.90	22.68	205.029	
5,300.00	5,298.11	4,929.19	4,886.35	11.60	11.96	-105.30	-4,621.71	91.23	4,659.88	4,636.76	23.11	201.604	
5,400.00	5,398.00	5,009.34	4,964.92	11.82	12.27	-105.52	-4,627.93	105.82	4,669.77	4,646.15	23.62	197.710	
5,500.00	5,497.88	5,223.73	5,175.65	12.05	13.07	-106.09	-4,641.86	142.66	4,678.16	4,653.55	24.62	190.047	
5,600.00	5,597.76	5,329.06	5,279.61	12.27	13.43	-106.34	-4,647.67	158.54	4,685.87	4,660.69	25.18	186.117	
5,700.00	5,697.65	5,422.85	5,372.15	12.50	13.76	-106.57	-4,652.81	172.93	4,693.64	4,667.94	25.70	182.632	
5,800.00	5,797.53	5,519.52	5,467.35	12.72	14.11	-106.81	-4,658.13	188.89	4,701.61	4,675.36	26.24	179.150	
5,900.00	5,897.41	5,628.02	5,574.20	12.95	14.50	-107.08	-4,663.95	206.76	4,709.52	4,682.68	26.83	175.507	
6,000.00	5,997.30	5,731.08	5,675.69	13.17	14.87	-107.34	-4,669.27	223.86	4,717.32	4,689.92	27.40	172.155	
6,100.00	6,097.18	5,856.46	5,799.27	13.40	15.31	-107.65	-4,675.46	244.10	4,724.99	4,696.94	28.05	168.475	
6,200.00	6,197.06	5,937.90	5,879.56	13.63	15.60	-107.85	-4,679.30	257.21	4,732.51	4,703.97	28.53	165.871	
6,300.00	6,296.94	6,049.02	5,989.11	13.85	15.99	-108.13	-4,684.68	275.03	4,740.23	4,711.11	29.12	162.769	
6,400.00	6,396.83	6,136.61	6,075.46	14.08	16.30	-108.34	-4,688.82	289.12	4,747.93	4,718.30	29.63	160.242	
6,500.00	6,496.71	6,270.89	6,207.94	14.31	16.77	-108.66	-4,694.92	310.22	4,755.50	4,725.20	30.30	156.960	
6,600.00	6,596.59	15,937.00	11,089.45	14.54	82.96	167.61	57.23	1,071.53	4,673.57	4,626.54	47.02	99.391	
6,700.00	6,696.48	15,937.00	11,089.45	14.77	82.96	167.61	57.23	1,071.53	4,578.41	4,531.03	47.37	96.646	
6,800.00	6,796.36	15,937.00	11,089.45	14.99	82.96	167.61	57.23	1,071.53	4,483.46	4,435.72	47.74	93.913	
6,900.00	6,896.24	15,937.00	11,089.45	15.22	82.96	167.61	57.23	1,071.53	4,388.73	4,340.61	48.13	91.194	
7,000.00	6,996.13	15,937.00	11,089.45	15.45	82.96	167.61	57.23	1,071.53	4,294.25	4,245.72	48.53	88.488	
7,100.00	7,096.01	15,937.00	11,089.45	15.68	82.96	167.61	57.23	1,071.53	4,200.02	4,151.07	48.95	85.798	
7,200.00	7,195.89	15,937.00	11,089.45	15.91	82.96	167.61	57.23	1,071.53	4,106.06	4,056.66	49.40	83.123	
7,300.00	7,295.78	15,937.00	11,089.45	16.14	82.96	167.61	57.23	1,071.53	4,012.40	3,962.53	49.86	80.465	
7,400.00	7,395.66	15,937.00	11,089.45	16.37	82.96	167.61	57.23	1,071.53	3,919.05	3,868.69	50.36	77.825	
7,500.00	7,495.54	15,937.00	11,089.45	16.60	82.96	167.61	57.23	1,071.53	3,826.03	3,775.16	50.88	75.204	
7,600.00	7,595.43	15,937.00	11,089.45	16.83	82.96	167.61	57.23	1,071.53	3,733.38	3,681.95	51.42	72.602	
7,700.00	7,695.31	15,937.00	11,089.45	17.06	82.96	167.61	57.23	1,071.53	3,641.11	3,589.11	52.00	70.022	
7,800.00	7,795.19	15,937.00	11,089.45	17.29	82.96	167.61	57.23	1,071.53	3,549.26	3,496.65	52.61	67.464	
7,900.00	7,895.08	15,937.00	11,089.45	17.53	82.96	167.61	57.23	1,071.53	3,457.87	3,404.62	53.26	64.930	
7,947.18	7,942.20	15,937.00	11,089.45	17.63	82.96	167.61	57.23	1,071.53	3,414.92	3,361.35	53.57	63.743	
8,000.00	7,994.97	15,937.00	11,089.45	17.74	82.96	167.36	57.23	1,071.53	3,366.87	3,312.93	53.93	62.425	
8,100.00	8,094.92	15,937.00	11,089.45	17.93	82.96	166.87	57.23	1,071.53	3,275.74	3,221.12	54.63	59.966	
8,200.00	8,194.91	15,937.00	11,089.45	18.11	82.96	166.35	57.23	1,071.53	3,184.44	3,129.10	55.34	57.546	
8,224.15	8,219.06	15,937.00	11,089.45	18.15	82.96	89.68	57.23	1,071.53	3,162.36	3,106.85	55.51	56.966	
8,300.00	8,294.91	15,937.00	11,089.45	18.30	82.96	89.68	57.23	1,071.53	3,093.16	3,037.08	56.08	55.159	
8,400.00	8,394.91	15,937.00	11,089.45	18.52	82.96	89.68	57.23	1,071.53	3,002.42	2,945.55	56.87	52.797	
8,500.00	8,494.91	15,937.00	11,089.45	18.73	82.96	89.68	57.23	1,071.53	2,912.28	2,854.57	57.71	50.466	
8,600.00	8,594.91	15,937.00	11,089.45	18.95	82.96	89.68	57.23	1,071.53	2,822.81	2,764.21	58.60	48.168	
8,700.00	8,694.91	15,937.00	11,089.45	19.16	82.96	89.68	57.23	1,071.53	2,734.07	2,674.51	59.56	45.904	
8,800.00	8,794.91	15,937.00	11,089.45	19.38	82.96	89.68	57.23	1,071.53	2,646.13	2,585.55	60.58	43.678	
8,900.00	8,894.91	15,937.00	11,089.45	19.59	82.96	89.68	57.23	1,071.53	2,559.08	2,497.40	61.68	41.492	
9,000.00	8,994.91	15,937.00	11,089.45	19.81	82.96	89.68	57.23	1,071.53	2,473.00	2,410.16	62.85	39.349	
9,100.00	9,094.91	15,937.00	11,089.45	20.03	82.96	89.68	57.23	1,071.53	2,388.02	2,323.91	64.10	37.252	
9,200.00	9,194.91	15,937.00	11,089.45	20.24	82.96	89.68	57.23	1,071.53	2,304.23	2,238.78	65.45	35.205	
9,300.00	9,294.91	15,937.00	11,089.45	20.46	82.96	89.68	57.23	1,071.53	2,221.79	2,154.90	66.90	33.213	
9,400.00	9,394.91	15,937.00	11,089.45	20.68	82.96	89.68	57.23	1,071.53	2,140.85	2,072.41	68.44	31.279	
9,500.00	9,494.91	15,937.00	11,089.45	20.89	82.96	89.68	57.23	1,071.53	2,061.58	1,991.48	70.10	29.408	
9,524.15	9,519.06	15,937.00	11,089.45	20.95	82.96	89.68	57.23	1,071.53	2,042.71	1,972.19	70.52	28.966	
9,550.00	9,544.90	15,937.00	11,089.45	21.00	82.96	-93.09	57.23	1,071.53	2,022.64	1,951.67	70.97	28.502	
9,600.00	9,594.69	15,937.00	11,089.45	21.09	82.96	-99.00	57.23	1,071.53	1,984.35	1,912.56	71.80	27.639	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Thistle Unit - 64H - OH - OH												Offset Well Error:	0.00 usft
Survey Program: 62-ISCWSA-GYRO-3, 1483-LEAM MWD-ADJ, 15937-Project													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,650.00	9,643.90	15,937.00	11,089.45	21.17	82.96	-104.49	57.23	1,071.53	1,947.05	1,874.47	72.58	26.825	
9,700.00	9,692.17	15,937.00	11,089.45	21.26	82.96	-109.44	57.23	1,071.53	1,911.08	1,837.77	73.32	26.066	
9,750.00	9,739.11	15,937.00	11,089.45	21.35	82.96	-113.82	57.23	1,071.53	1,876.81	1,802.82	73.99	25.367	
9,800.00	9,784.38	15,922.05	11,089.95	21.43	82.92	-117.16	42.29	1,071.69	1,844.53	1,769.73	74.80	24.660	
9,850.00	9,827.63	15,895.58	11,090.83	21.51	82.85	-119.72	15.83	1,071.97	1,814.31	1,738.62	75.69	23.970	
9,900.00	9,868.53	15,865.51	11,091.82	21.60	82.78	-121.83	-14.22	1,072.28	1,786.32	1,709.79	76.53	23.340	
9,950.00	9,906.77	15,832.07	11,092.93	21.69	82.70	-123.55	-47.64	1,072.63	1,760.70	1,683.35	77.35	22.762	
10,000.00	9,942.06	15,794.67	11,094.17	21.78	82.48	-124.93	-85.01	1,073.02	1,737.56	1,659.51	78.05	22.262	
10,050.00	9,974.14	15,751.41	11,095.55	21.89	81.80	-125.98	-128.25	1,073.42	1,716.94	1,638.66	78.28	21.933	
10,100.00	10,002.75	15,710.00	11,096.81	22.01	81.15	-126.88	-169.64	1,073.74	1,698.87	1,620.45	78.42	21.663	
10,150.00	10,027.67	15,666.21	11,098.20	22.16	80.47	-127.58	-213.41	1,074.05	1,683.49	1,605.01	78.48	21.452	
10,200.00	10,048.73	15,624.33	11,099.69	22.33	79.82	-128.15	-255.27	1,074.34	1,670.94	1,592.50	78.44	21.303	
10,250.00	10,065.76	15,579.98	11,101.40	22.53	79.13	-128.56	-299.58	1,074.67	1,661.22	1,582.93	78.30	21.217	
10,300.00	10,078.62	15,534.28	11,103.21	22.75	78.41	-128.82	-345.24	1,075.09	1,654.34	1,576.27	78.07	21.191	
10,350.00	10,087.23	15,483.80	11,105.17	23.00	77.62	-128.96	-395.68	1,075.64	1,650.26	1,572.50	77.76	21.224	
10,400.00	10,091.51	15,431.32	11,106.96	23.27	76.81	-128.99	-448.12	1,076.31	1,648.85	1,571.48	77.37	21.312	
10,401.39	10,091.57	15,429.87	11,107.01	23.28	76.78	-128.99	-449.58	1,076.33	1,648.85	1,571.49	77.36	21.315	
10,420.09	10,092.00	15,411.93	11,107.57	23.38	76.51	-128.97	-467.50	1,076.60	1,649.04	1,571.85	77.19	21.362	
10,500.00	10,092.57	15,336.61	11,109.71	23.88	75.35	-129.00	-542.78	1,078.01	1,650.83	1,574.32	76.51	21.575	
10,600.00	10,093.28	15,244.48	11,112.27	28.10	73.93	-129.01	-634.85	1,080.24	1,653.44	1,577.87	75.57	21.879	
10,700.00	10,093.98	15,136.42	11,115.29	28.19	72.28	-129.04	-742.83	1,082.88	1,656.08	1,581.85	74.23	22.310	
10,800.00	10,094.69	15,030.46	11,118.30	28.28	70.69	-129.07	-848.73	1,084.71	1,658.20	1,585.26	72.94	22.735	
10,900.00	10,095.40	14,932.85	11,121.52	28.37	69.22	-129.13	-946.28	1,086.07	1,660.35	1,588.67	71.67	23.165	
11,000.00	10,096.11	14,823.00	11,124.66	28.46	67.57	-129.18	-1,056.08	1,087.56	1,662.18	1,591.76	70.42	23.604	
11,100.00	10,096.82	14,722.35	11,127.47	28.55	66.09	-129.23	-1,156.68	1,088.42	1,663.59	1,594.36	69.23	24.029	
11,200.00	10,097.52	14,630.05	11,130.38	28.65	64.76	-129.28	-1,248.93	1,089.33	1,665.34	1,597.24	68.11	24.452	
11,300.00	10,098.23	14,536.93	11,133.87	28.74	63.40	-129.35	-1,341.98	1,090.34	1,667.53	1,600.54	66.99	24.892	
11,400.00	10,098.94	14,416.23	11,138.12	28.84	61.63	-129.43	-1,462.60	1,091.81	1,669.77	1,603.96	65.81	25.372	
11,500.00	10,099.65	14,282.17	11,138.80	28.94	59.70	-129.42	-1,596.64	1,092.97	1,669.70	1,605.00	64.70	25.807	
11,600.00	10,100.35	14,183.14	11,137.88	29.04	58.33	-129.37	-1,695.66	1,093.81	1,668.75	1,604.99	63.75	26.175	
11,676.33	10,100.89	14,120.70	11,137.55	29.12	57.47	-129.35	-1,758.10	1,094.56	1,668.43	1,605.35	63.08	26.449	
11,700.00	10,101.06	14,104.00	11,137.51	29.14	57.25	-129.34	-1,774.80	1,094.84	1,668.46	1,605.58	62.88	26.535	
11,800.00	10,101.77	14,020.99	11,137.62	29.25	56.14	-129.30	-1,857.78	1,096.73	1,669.31	1,607.27	62.03	26.910	
11,900.00	10,102.48	13,926.62	11,138.68	29.35	54.87	-129.27	-1,952.12	1,099.14	1,670.97	1,609.80	61.17	27.317	
12,000.00	10,103.19	13,820.00	11,140.48	29.46	53.44	-129.27	-2,058.70	1,101.20	1,672.52	1,612.24	60.28	27.745	
12,100.00	10,103.89	13,721.91	11,141.68	29.57	52.15	-129.26	-2,156.77	1,103.26	1,673.90	1,614.45	59.46	28.153	
12,200.00	10,104.60	13,611.91	11,142.43	29.69	50.72	-129.22	-2,266.73	1,105.75	1,675.07	1,616.44	58.64	28.566	
12,300.00	10,105.31	13,512.57	11,142.46	29.80	49.49	-129.17	-2,366.05	1,108.02	1,675.84	1,617.93	57.92	28.936	
12,400.00	10,106.02	13,428.98	11,143.12	29.93	48.50	-129.14	-2,449.61	1,110.12	1,677.28	1,620.02	57.26	29.292	
12,500.00	10,106.72	13,339.60	11,144.60	30.06	47.43	-129.12	-2,538.93	1,112.74	1,679.57	1,622.97	56.60	29.674	
12,600.00	10,107.43	13,157.09	11,146.65	30.20	45.30	-129.11	-2,721.40	1,115.22	1,680.87	1,625.06	55.81	30.119	
12,700.00	10,108.14	13,065.00	11,147.23	30.36	44.28	-129.17	-2,813.46	1,113.20	1,678.56	1,623.32	55.24	30.387	
12,800.00	10,108.85	12,971.00	11,148.71	30.54	43.27	-129.25	-2,907.42	1,111.07	1,676.78	1,622.07	54.71	30.646	
12,900.00	10,109.56	12,891.30	11,150.77	30.76	42.43	-129.34	-2,987.08	1,109.60	1,675.95	1,621.72	54.23	30.907	
13,000.00	10,110.26	12,795.62	11,153.85	31.04	41.45	-129.44	-3,082.70	1,108.17	1,675.82	1,622.07	53.75	31.177	
13,100.00	10,110.97	12,694.43	11,156.97	31.39	40.48	-129.55	-3,183.83	1,106.82	1,675.73	1,622.37	53.37	31.401	
13,120.53	10,111.12	12,676.10	11,157.61	31.46	40.30	-129.58	-3,202.14	1,106.51	1,675.71	1,622.42	53.29	31.444	
13,200.00	10,111.68	12,609.54	11,160.21	31.78	39.68	-129.66	-3,268.65	1,105.57	1,676.02	1,623.00	53.02	31.610	
13,300.00	10,112.39	12,505.10	11,164.18	32.22	38.74	-129.79	-3,373.01	1,104.68	1,676.79	1,624.09	52.69	31.823	
13,400.00	10,113.09	12,411.17	11,166.90	32.69	37.96	-129.86	-3,466.90	1,104.47	1,677.45	1,624.97	52.48	31.963	
13,500.00	10,113.80	10,166.04	10,061.08	33.18	29.22	-87.69	-4,855.42	834.46	1,616.82	1,560.95	55.87	28.939	
13,600.00	10,114.51	10,167.27	10,062.31	33.69	29.22	-87.76	-4,855.42	834.49	1,539.91	1,483.98	55.92	27.535	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 64H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 62-ISCWSA-GYRO-3, 1483-LEAM MWD-ADJ, 15937-Project												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,700.00	10,115.22	10,168.51	10,063.55	34.22	29.22	-87.83	-4,855.43	834.52	1,465.78	1,409.78	56.00	26.172	
13,800.00	10,115.93	10,169.77	10,064.81	34.75	29.23	-87.91	-4,855.43	834.55	1,394.89	1,338.77	56.12	24.855	
13,900.00	10,116.63	10,171.04	10,066.08	35.30	29.23	-87.98	-4,855.44	834.58	1,327.75	1,271.46	56.28	23.591	
14,000.00	10,117.34	10,172.33	10,067.37	35.85	29.23	-88.05	-4,855.44	834.62	1,264.95	1,208.44	56.51	22.385	
14,100.00	10,118.05	10,173.63	10,068.66	36.42	29.23	-88.12	-4,855.45	834.65	1,207.19	1,150.37	56.82	21.246	
14,200.00	10,118.76	10,174.94	10,069.97	36.99	29.23	-88.20	-4,855.46	834.68	1,155.20	1,097.97	57.23	20.185	
14,300.00	10,119.46	10,176.26	10,071.30	37.57	29.24	-88.27	-4,855.46	834.71	1,109.81	1,052.04	57.77	19.212	
14,400.00	10,120.17	10,177.60	10,072.64	38.16	29.24	-88.35	-4,855.47	834.75	1,071.85	1,013.40	58.45	18.339	
14,500.00	10,120.88	10,178.96	10,073.99	38.75	29.24	-88.43	-4,855.48	834.78	1,042.13	982.86	59.27	17.583	
14,600.00	10,121.59	10,180.33	10,075.36	39.35	29.24	-88.51	-4,855.48	834.81	1,021.38	961.15	60.23	16.957	
14,700.00	10,122.29	10,181.71	10,076.74	39.96	29.25	-88.58	-4,855.49	834.85	1,010.14	948.85	61.30	16.480	
14,764.16	10,122.75	10,182.60	10,077.64	40.35	29.25	-88.64	-4,855.50	834.87	1,008.10	946.10	62.01	16.258 CC, ES	
14,800.00	10,123.00	10,183.11	10,078.14	40.57	29.25	-88.66	-4,855.50	834.88	1,008.74	946.33	62.41	16.164	
14,900.00	10,123.71	10,184.52	10,079.55	41.19	29.25	-88.74	-4,855.51	834.91	1,017.21	953.71	63.50	16.018 SF	
15,000.00	10,124.42	10,185.95	10,080.98	41.81	29.25	-88.83	-4,855.51	834.95	1,035.32	970.80	64.52	16.046	
15,100.00	10,125.13	10,187.39	10,082.43	42.43	29.25	-88.91	-4,855.52	834.98	1,062.56	997.14	65.42	16.242	
15,200.00	10,125.83	10,188.86	10,083.89	43.07	29.26	-88.99	-4,855.53	835.01	1,098.27	1,032.09	66.18	16.596	
15,300.00	10,126.54	10,190.33	10,085.36	43.70	29.26	-89.07	-4,855.54	835.05	1,141.64	1,074.86	66.78	17.095	
15,400.00	10,127.25	10,191.83	10,086.86	44.34	29.26	-89.16	-4,855.55	835.08	1,191.84	1,124.60	67.25	17.723	
15,500.00	10,127.96	10,193.34	10,088.37	44.99	29.26	-89.25	-4,855.56	835.12	1,248.05	1,180.46	67.60	18.464	
15,600.00	10,128.66	10,194.87	10,089.90	45.63	29.27	-89.33	-4,855.56	835.15	1,309.49	1,241.65	67.84	19.302	
15,700.00	10,129.37	10,196.41	10,091.44	46.29	29.27	-89.42	-4,855.57	835.19	1,375.47	1,307.45	68.01	20.223	
15,800.00	10,130.08	10,197.97	10,093.00	46.94	29.27	-89.51	-4,855.58	835.22	1,445.35	1,377.22	68.13	21.215	
15,900.00	10,130.79	10,199.56	10,094.58	47.60	29.27	-89.60	-4,855.59	835.26	1,518.61	1,450.41	68.20	22.268	
16,000.00	10,131.50	10,201.15	10,096.18	48.26	29.28	-89.69	-4,855.60	835.29	1,594.77	1,526.53	68.24	23.371	
16,100.00	10,132.20	10,202.77	10,097.80	48.93	29.28	-89.78	-4,855.61	835.33	1,673.44	1,605.18	68.26	24.516	
16,200.00	10,132.91	10,204.41	10,099.44	49.59	29.28	-89.87	-4,855.62	835.36	1,754.29	1,686.02	68.27	25.697	
16,300.00	10,133.62	10,206.07	10,101.09	50.27	29.29	-89.97	-4,855.63	835.40	1,837.02	1,768.75	68.27	26.909	
16,400.00	10,134.33	10,207.74	10,102.77	50.94	29.29	-90.06	-4,855.64	835.43	1,921.39	1,853.12	68.27	28.146	
16,500.00	10,135.03	10,209.44	10,104.47	51.61	29.29	-90.16	-4,855.66	835.47	2,007.20	1,938.93	68.26	29.403	
16,600.00	10,135.74	10,211.16	10,106.18	52.29	29.29	-90.26	-4,855.67	835.51	2,094.26	2,026.00	68.26	30.679	
16,700.00	10,136.45	10,212.89	10,107.92	52.97	29.30	-90.36	-4,855.68	835.54	2,182.44	2,114.17	68.27	31.969	
16,800.00	10,137.16	10,214.65	10,109.68	53.66	29.30	-90.46	-4,855.69	835.58	2,271.59	2,203.31	68.28	33.271	
16,900.00	10,137.87	10,216.43	10,111.46	54.34	29.30	-90.56	-4,855.70	835.61	2,361.61	2,293.32	68.29	34.583	
17,000.00	10,138.57	10,218.24	10,113.26	55.03	29.31	-90.66	-4,855.72	835.65	2,452.40	2,384.09	68.31	35.903	
17,100.00	10,139.28	10,220.06	10,115.08	55.72	29.31	-90.76	-4,855.73	835.69	2,543.88	2,475.55	68.33	37.229	
17,200.00	10,139.99	10,221.91	10,116.93	56.41	29.31	-90.87	-4,855.74	835.72	2,635.98	2,567.62	68.36	38.561	
17,300.00	10,140.70	10,223.68	10,118.70	57.10	29.31	-90.97	-4,855.75	835.76	2,728.64	2,660.24	68.39	39.896	
17,400.00	10,141.40	10,225.32	10,120.35	57.80	29.32	-91.06	-4,855.77	835.79	2,821.79	2,753.36	68.43	41.235	
17,484.18	10,142.00	10,226.72	10,121.75	58.16	29.32	-91.14	-4,855.78	835.82	2,900.57	2,836.75	63.81	45.453	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 72H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 62- VES GyroFlex V2, 10428-LEAM MWD+HDGM, 15490-Project												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-175.35	-9,903.25	-805.39	9,936.04				
100.00	100.00	85.03	85.03	0.09	0.07	-175.35	-9,903.06	-805.70	9,935.82	9,935.67	0.15	N/A	
200.00	200.00	175.34	175.33	0.31	0.19	-175.34	-9,902.77	-806.36	9,935.56	9,935.07	0.49	N/A	
296.14	296.14	251.75	251.74	0.53	0.25	-175.34	-9,902.64	-806.98	9,935.47	9,934.71	0.76	N/A	
300.00	300.00	251.75	251.74	0.54	0.25	-175.34	-9,902.64	-806.98	9,935.47	9,934.70	0.77	N/A	
400.00	400.00	346.52	346.51	0.76	0.31	-175.34	-9,902.63	-807.78	9,935.52	9,934.47	1.05	9,459.836	
500.00	500.00	416.27	416.26	0.99	0.34	-175.33	-9,902.75	-808.37	9,935.77	9,934.46	1.31	7,597.521	
600.00	600.00	501.27	501.26	1.21	0.39	-175.33	-9,903.13	-808.98	9,936.27	9,934.70	1.57	6,333.703	
700.00	700.00	591.62	591.61	1.43	0.43	-175.33	-9,903.63	-809.44	9,936.86	9,935.03	1.83	5,432.899	
800.00	800.00	732.59	732.57	1.66	0.49	-175.32	-9,904.30	-809.99	9,937.40	9,935.29	2.10	4,721.698	
900.00	900.00	835.24	835.22	1.88	0.53	-175.32	-9,904.49	-810.30	9,937.60	9,935.23	2.36	4,203.016	
1,000.00	1,000.00	915.14	915.12	2.11	0.56	-175.32	-9,904.70	-810.41	9,937.88	9,935.27	2.62	3,797.363	
1,100.00	1,100.00	996.86	996.84	2.33	0.59	-175.32	-9,905.10	-810.36	9,938.36	9,935.49	2.87	3,462.331	
1,200.00	1,200.00	1,109.04	1,109.01	2.56	0.61	-175.33	-9,905.75	-809.91	9,938.92	9,935.79	3.13	3,173.195	
1,300.00	1,300.00	1,206.18	1,206.15	2.78	0.63	-175.33	-9,906.28	-809.24	9,939.41	9,936.02	3.39	2,934.766	
1,400.00	1,400.00	1,313.66	1,313.63	3.01	0.66	-175.33	-9,906.82	-808.61	9,939.85	9,936.21	3.64	2,727.867	
1,500.00	1,500.00	1,405.50	1,405.47	3.23	0.68	-175.34	-9,907.28	-808.15	9,940.31	9,936.41	3.90	2,551.183	
1,600.00	1,600.00	1,496.94	1,496.90	3.46	0.70	-175.34	-9,907.84	-807.55	9,940.87	9,936.72	4.15	2,396.407	
1,700.00	1,700.00	1,622.75	1,622.71	3.68	0.73	-175.35	-9,908.51	-806.76	9,941.35	9,936.94	4.41	2,255.200	
1,800.00	1,800.00	1,733.27	1,733.22	3.91	0.76	-175.35	-9,908.81	-806.28	9,941.58	9,936.92	4.66	2,132.302	
1,900.00	1,900.00	1,817.74	1,817.69	4.13	0.78	-175.35	-9,909.07	-805.98	9,941.86	9,936.95	4.91	2,024.567	
2,000.00	2,000.00	1,903.18	1,903.14	4.36	0.80	-175.35	-9,909.50	-805.68	9,942.34	9,937.18	5.16	1,926.595	
2,100.00	2,100.00	2,042.56	2,042.51	4.58	0.84	-175.35	-9,910.12	-805.29	9,942.79	9,937.37	5.43	1,832.730	
2,200.00	2,200.00	2,137.42	2,137.37	4.81	0.87	-175.36	-9,910.26	-805.13	9,942.93	9,937.25	5.68	1,751.897	
2,300.00	2,300.00	2,261.45	2,261.40	5.03	0.90	-175.36	-9,910.34	-804.96	9,942.98	9,937.06	5.92	1,678.833	
2,400.00	2,400.00	2,363.60	2,363.55	5.26	0.90	-175.36	-9,910.29	-804.95	9,942.93	9,936.78	6.15	1,615.648	
2,500.00	2,500.00	2,486.34	2,486.29	5.48	0.91	-175.36	-9,910.05	-805.13	9,942.75	9,936.36	6.39	1,557.157	
2,600.00	2,600.00	2,591.26	2,591.21	5.71	0.91	-175.35	-9,909.63	-805.49	9,942.38	9,935.76	6.62	1,502.631	
2,700.00	2,700.00	15,490.00	10,980.34	5.93	101.62	-171.34	-5,265.40	-801.83	9,882.75	9,842.59	40.15	246.117	
2,800.00	2,800.00	15,490.00	10,980.34	6.15	101.62	-171.34	-5,265.40	-801.83	9,798.66	9,758.46	40.20	243.748	
2,900.00	2,900.00	15,490.00	10,980.34	6.38	101.62	-171.34	-5,265.40	-801.83	9,714.87	9,674.62	40.25	241.355	
3,000.00	3,000.00	15,490.00	10,980.34	6.60	101.62	-171.34	-5,265.40	-801.83	9,631.40	9,591.09	40.31	238.943	
3,100.00	3,100.00	15,490.00	10,980.34	6.83	101.62	-171.34	-5,265.40	-801.83	9,548.24	9,507.87	40.37	236.514	
3,200.00	3,200.00	15,490.00	10,980.34	7.05	101.62	-171.34	-5,265.40	-801.83	9,465.41	9,424.97	40.44	234.072	
3,300.00	3,300.00	15,490.00	10,980.34	7.28	101.62	-171.34	-5,265.40	-801.83	9,382.91	9,342.40	40.51	231.620	
3,400.00	3,400.00	15,490.00	10,980.34	7.50	101.62	-171.34	-5,265.40	-801.83	9,300.75	9,260.17	40.59	229.160	
3,500.00	3,500.00	15,490.00	10,980.34	7.73	101.62	-171.34	-5,265.40	-801.83	9,218.95	9,178.29	40.67	226.695	
3,600.00	3,600.00	15,490.00	10,980.34	7.94	101.62	-96.19	-5,265.40	-801.83	9,137.56	9,096.82	40.74	224.272	
3,700.00	3,699.96	15,490.00	10,980.34	8.15	101.62	-97.56	-5,265.40	-801.83	9,056.65	9,015.84	40.81	221.900	
3,776.97	3,776.86	15,490.00	10,980.34	8.31	101.62	-98.59	-5,265.40	-801.83	8,994.73	8,953.86	40.87	220.087	
3,800.00	3,799.87	15,490.00	10,980.34	8.35	101.62	-98.59	-5,265.40	-801.83	8,976.26	8,935.37	40.89	219.547	
3,900.00	3,899.75	15,490.00	10,980.34	8.56	101.62	-98.59	-5,265.40	-801.83	8,896.31	8,855.35	40.96	217.193	
4,000.00	3,999.63	15,490.00	10,980.34	8.77	101.62	-98.59	-5,265.40	-801.83	8,816.77	8,775.73	41.04	214.841	
4,100.00	4,099.51	15,490.00	10,980.34	8.98	101.62	-98.59	-5,265.40	-801.83	8,737.65	8,696.53	41.12	212.494	
4,200.00	4,199.40	15,490.00	10,980.34	9.20	101.62	-98.59	-5,265.40	-801.83	8,658.96	8,617.76	41.20	210.155	
4,300.00	4,299.28	15,490.00	10,980.34	9.41	101.62	-98.59	-5,265.40	-801.83	8,580.71	8,539.43	41.29	207.825	
4,400.00	4,399.16	15,490.00	10,980.34	9.63	101.62	-98.59	-5,265.40	-801.83	8,502.93	8,461.55	41.38	205.505	
4,500.00	4,499.05	15,490.00	10,980.34	9.84	101.62	-98.59	-5,265.40	-801.83	8,425.61	8,384.14	41.46	203.198	
4,600.00	4,598.93	15,490.00	10,980.34	10.06	101.62	-98.59	-5,265.40	-801.83	8,348.77	8,307.21	41.56	200.906	
4,700.00	4,698.81	15,490.00	10,980.34	10.28	101.62	-98.59	-5,265.40	-801.83	8,272.43	8,230.78	41.65	198.630	
4,800.00	4,798.70	15,490.00	10,980.34	10.50	101.62	-98.59	-5,265.40	-801.83	8,196.59	8,154.85	41.74	196.371	
4,900.00	4,898.58	15,490.00	10,980.34	10.72	101.62	-98.59	-5,265.40	-801.83	8,121.28	8,079.45	41.83	194.130	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 72H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 62- VES GyroFlex V2, 10428-LEAM MWD+HDGM, 15490-Project													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,998.46	15,490.00	10,980.34	10.94	101.62	-98.59	-5,265.40	-801.83	8,046.51	8,004.58	41.93	191.911		
5,100.00	5,098.35	15,490.00	10,980.34	11.16	101.62	-98.59	-5,265.40	-801.83	7,972.29	7,930.27	42.02	189.712		
5,200.00	5,198.23	15,490.00	10,980.34	11.38	101.62	-98.59	-5,265.40	-801.83	7,898.64	7,856.52	42.12	187.537		
5,300.00	5,298.11	15,490.00	10,980.34	11.60	101.62	-98.59	-5,265.40	-801.83	7,825.57	7,783.36	42.21	185.386		
5,400.00	5,398.00	15,490.00	10,980.34	11.82	101.62	-98.59	-5,265.40	-801.83	7,753.11	7,710.80	42.31	183.260		
5,500.00	5,497.88	15,490.00	10,980.34	12.05	101.62	-98.59	-5,265.40	-801.83	7,681.26	7,638.86	42.40	181.160		
5,600.00	5,597.76	15,490.00	10,980.34	12.27	101.62	-98.59	-5,265.40	-801.83	7,610.05	7,567.56	42.49	179.088		
5,700.00	5,697.65	15,490.00	10,980.34	12.50	101.62	-98.59	-5,265.40	-801.83	7,539.49	7,496.91	42.59	177.045		
5,800.00	5,797.53	15,490.00	10,980.34	12.72	101.62	-98.59	-5,265.40	-801.83	7,469.61	7,426.93	42.68	175.032		
5,900.00	5,897.41	15,490.00	10,980.34	12.95	101.62	-98.59	-5,265.40	-801.83	7,400.41	7,357.65	42.76	173.049		
6,000.00	5,997.30	15,490.00	10,980.34	13.17	101.62	-98.59	-5,265.40	-801.83	7,331.93	7,289.08	42.85	171.099		
6,100.00	6,097.18	15,490.00	10,980.34	13.40	101.62	-98.59	-5,265.40	-801.83	7,264.18	7,221.24	42.94	169.181		
6,200.00	6,197.06	15,490.00	10,980.34	13.63	101.62	-98.59	-5,265.40	-801.83	7,197.18	7,154.16	43.02	167.297		
6,300.00	6,296.94	15,490.00	10,980.34	13.85	101.62	-98.59	-5,265.40	-801.83	7,130.95	7,087.85	43.10	165.448		
6,400.00	6,396.83	15,490.00	10,980.34	14.08	101.62	-98.59	-5,265.40	-801.83	7,065.52	7,022.34	43.18	163.635		
6,500.00	6,496.71	15,490.00	10,980.34	14.31	101.62	-98.59	-5,265.40	-801.83	7,000.91	6,957.65	43.25	161.858		
6,600.00	6,596.59	15,490.00	10,980.34	14.54	101.62	-98.59	-5,265.40	-801.83	6,937.13	6,893.80	43.32	160.120		
6,700.00	6,696.48	15,490.00	10,980.34	14.77	101.62	-98.59	-5,265.40	-801.83	6,874.22	6,830.82	43.39	158.420		
6,800.00	6,796.36	15,490.00	10,980.34	14.99	101.62	-98.59	-5,265.40	-801.83	6,812.19	6,768.73	43.46	156.760		
6,900.00	6,896.24	15,490.00	10,980.34	15.22	101.62	-98.59	-5,265.40	-801.83	6,751.08	6,707.56	43.52	155.141		
7,000.00	6,996.13	15,490.00	10,980.34	15.45	101.62	-98.59	-5,265.40	-801.83	6,690.90	6,647.33	43.57	153.563		
7,100.00	7,096.01	15,490.00	10,980.34	15.68	101.62	-98.59	-5,265.40	-801.83	6,631.68	6,588.06	43.62	152.029		
7,200.00	7,195.89	15,490.00	10,980.34	15.91	101.62	-98.59	-5,265.40	-801.83	6,573.46	6,529.79	43.67	150.537		
7,300.00	7,295.78	15,490.00	10,980.34	16.14	101.62	-98.59	-5,265.40	-801.83	6,516.24	6,472.54	43.71	149.091		
7,400.00	7,395.66	15,490.00	10,980.34	16.37	101.62	-98.59	-5,265.40	-801.83	6,460.07	6,416.33	43.74	147.690		
7,500.00	7,495.54	15,490.00	10,980.34	16.60	101.62	-98.59	-5,265.40	-801.83	6,404.97	6,361.20	43.77	146.335		
7,600.00	7,595.43	15,490.00	10,980.34	16.83	101.62	-98.59	-5,265.40	-801.83	6,350.96	6,307.17	43.79	145.028		
7,700.00	7,695.31	15,490.00	10,980.34	17.06	101.62	-98.59	-5,265.40	-801.83	6,298.08	6,254.27	43.81	143.769		
7,800.00	7,795.19	15,490.00	10,980.34	17.29	101.62	-98.59	-5,265.40	-801.83	6,246.35	6,202.53	43.82	142.560		
7,900.00	7,895.08	15,490.00	10,980.34	17.53	101.62	-98.59	-5,265.40	-801.83	6,195.80	6,151.98	43.82	141.401		
7,947.18	7,942.20	15,490.00	10,980.34	17.63	101.62	-98.59	-5,265.40	-801.83	6,172.37	6,128.56	43.82	140.872		
8,000.00	7,994.97	15,490.00	10,980.34	17.74	101.62	-98.29	-5,265.40	-801.83	6,146.44	6,102.63	43.80	140.324		
8,100.00	8,094.92	15,490.00	10,980.34	17.93	101.62	-97.75	-5,265.40	-801.83	6,098.11	6,054.36	43.75	139.371		
8,200.00	8,194.91	15,490.00	10,980.34	18.11	101.62	-97.22	-5,265.40	-801.83	6,050.85	6,007.15	43.70	138.449		
8,224.15	8,219.06	15,490.00	10,980.34	18.15	101.62	-173.64	-5,265.40	-801.83	6,039.60	5,995.91	43.69	138.231		
8,300.00	8,294.91	15,490.00	10,980.34	18.30	101.62	-173.64	-5,265.40	-801.83	6,004.74	5,961.08	43.66	137.526		
8,400.00	8,394.91	15,490.00	10,980.34	18.52	101.62	-173.64	-5,265.40	-801.83	5,959.94	5,916.31	43.63	136.595		
8,500.00	8,494.91	15,490.00	10,980.34	18.73	101.62	-173.64	-5,265.40	-801.83	5,916.50	5,872.90	43.59	135.717		
8,600.00	8,594.91	15,490.00	10,980.34	18.95	101.62	-173.64	-5,265.40	-801.83	5,874.44	5,830.89	43.55	134.893		
8,700.00	8,694.91	15,490.00	10,980.34	19.16	101.62	-173.64	-5,265.40	-801.83	5,833.78	5,790.29	43.50	134.123		
8,800.00	8,794.91	15,490.00	10,980.34	19.38	101.62	-173.64	-5,265.40	-801.83	5,794.57	5,751.14	43.43	133.408		
8,900.00	8,894.91	15,490.00	10,980.34	19.59	101.62	-173.64	-5,265.40	-801.83	5,756.83	5,713.46	43.37	132.749		
9,000.00	8,994.91	15,490.00	10,980.34	19.81	101.62	-173.64	-5,265.40	-801.83	5,720.59	5,677.30	43.29	132.146		
9,100.00	9,094.91	15,490.00	10,980.34	20.03	101.62	-173.64	-5,265.40	-801.83	5,685.87	5,642.67	43.21	131.598		
9,200.00	9,194.91	15,490.00	10,980.34	20.24	101.62	-173.64	-5,265.40	-801.83	5,652.72	5,609.60	43.12	131.108		
9,300.00	9,294.91	15,490.00	10,980.34	20.46	101.62	-173.64	-5,265.40	-801.83	5,621.14	5,578.12	43.02	130.674		
9,400.00	9,394.91	15,490.00	10,980.34	20.68	101.62	-173.64	-5,265.40	-801.83	5,591.18	5,548.27	42.91	130.296		
9,500.00	9,494.91	15,490.00	10,980.34	20.89	101.62	-173.64	-5,265.40	-801.83	5,562.85	5,520.05	42.80	129.974		
9,524.15	9,519.06	15,490.00	10,980.34	20.95	101.62	-173.64	-5,265.40	-801.83	5,556.26	5,513.49	42.77	129.905		
9,550.00	9,544.90	15,490.00	10,980.34	21.00	101.62	6.88	-5,265.40	-801.83	5,548.75	5,506.01	42.74	129.829		
9,600.00	9,594.69	15,490.00	10,980.34	21.09	101.62	7.10	-5,265.40	-801.83	5,531.43	5,488.76	42.67	129.628		
9,650.00	9,643.90	15,490.00	10,980.34	21.17	101.62	7.39	-5,265.40	-801.83	5,510.50	5,467.89	42.61	129.321		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 72H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 62- VES GyroFlex V2, 10428-LEAM MWD+HDGM, 15490-Project													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,700.00	9,692.17	15,490.00	10,980.34	21.26	101.62	7.76	-5,265.40	-801.83	5,486.07	5,443.52	42.56	128.915		
9,750.00	9,739.11	15,490.00	10,980.34	21.35	101.62	8.23	-5,265.40	-801.83	5,458.29	5,415.79	42.51	128.412		
9,800.00	9,784.38	15,490.00	10,980.34	21.43	101.62	8.81	-5,265.40	-801.83	5,427.32	5,384.86	42.46	127.814		
9,850.00	9,827.63	15,490.00	10,980.34	21.51	101.62	9.55	-5,265.40	-801.83	5,393.34	5,350.92	42.43	127.124		
9,900.00	9,868.53	15,490.00	10,980.34	21.60	101.62	10.50	-5,265.40	-801.83	5,356.56	5,314.17	42.40	126.345		
9,950.00	9,906.77	15,490.00	10,980.34	21.69	101.62	11.73	-5,265.40	-801.83	5,317.20	5,274.82	42.37	125.482		
10,000.00	9,942.06	15,490.00	10,980.34	21.78	101.62	13.38	-5,265.40	-801.83	5,275.50	5,233.14	42.36	124.537		
10,050.00	9,974.14	15,490.00	10,980.34	21.89	101.62	15.65	-5,265.40	-801.83	5,231.73	5,189.38	42.36	123.517		
10,100.00	10,002.75	15,490.00	10,980.34	22.01	101.62	18.94	-5,265.40	-801.83	5,186.18	5,143.82	42.36	122.427		
10,150.00	10,027.67	15,490.00	10,980.34	22.16	101.62	24.02	-5,265.40	-801.83	5,139.15	5,096.78	42.38	121.272		
10,200.00	10,048.73	15,490.00	10,980.34	22.33	101.62	32.61	-5,265.40	-801.83	5,090.96	5,048.56	42.40	120.060		
10,250.00	10,065.76	15,490.00	10,980.34	22.53	101.62	48.74	-5,265.40	-801.83	5,041.96	4,999.51	42.44	118.796		
10,300.00	10,078.62	15,490.00	10,980.34	22.75	101.62	79.15	-5,265.40	-801.83	4,992.48	4,949.99	42.49	117.489		
10,350.00	10,087.23	15,490.00	10,980.34	23.00	101.62	116.04	-5,265.40	-801.83	4,942.92	4,900.36	42.56	116.144		
10,400.00	10,091.51	15,490.00	10,980.34	23.27	101.62	139.19	-5,265.40	-801.83	4,893.63	4,850.99	42.64	114.770		
10,420.09	10,092.00	15,490.00	10,980.34	23.38	101.62	144.90	-5,265.40	-801.83	4,873.99	4,831.32	42.67	114.213		
10,500.00	10,092.57	15,490.00	10,980.34	23.88	101.62	144.90	-5,265.40	-801.83	4,796.18	4,753.34	42.83	111.970		
10,600.00	10,093.28	15,490.00	10,980.34	28.10	101.62	144.90	-5,265.40	-801.83	4,698.89	4,651.19	47.70	98.506		
10,700.00	10,093.98	15,490.00	10,980.34	28.19	101.62	144.90	-5,265.40	-801.83	4,601.73	4,553.75	47.98	95.919		
10,800.00	10,094.69	15,490.00	10,980.34	28.28	101.62	144.90	-5,265.40	-801.83	4,504.68	4,456.42	48.26	93.341		
10,900.00	10,095.40	15,490.00	10,980.34	28.37	101.62	144.90	-5,265.40	-801.83	4,407.77	4,359.21	48.56	90.772		
11,000.00	10,096.11	15,490.00	10,980.34	28.46	101.62	144.90	-5,265.40	-801.83	4,311.00	4,262.13	48.87	88.214		
11,100.00	10,096.82	15,490.00	10,980.34	28.55	101.62	144.90	-5,265.40	-801.83	4,214.38	4,165.19	49.20	85.666		
11,200.00	10,097.52	15,490.00	10,980.34	28.65	101.62	144.90	-5,265.40	-801.83	4,117.92	4,068.39	49.54	83.129		
11,300.00	10,098.23	15,490.00	10,980.34	28.74	101.62	144.90	-5,265.40	-801.83	4,021.64	3,971.75	49.89	80.604		
11,400.00	10,098.94	15,490.00	10,980.34	28.84	101.62	144.90	-5,265.40	-801.83	3,925.54	3,875.27	50.27	78.091		
11,500.00	10,099.65	15,490.00	10,980.34	28.94	101.62	144.90	-5,265.40	-801.83	3,829.64	3,778.98	50.66	75.591		
11,600.00	10,100.35	15,490.00	10,980.34	29.04	101.62	144.90	-5,265.40	-801.83	3,733.96	3,682.88	51.08	73.105		
11,700.00	10,101.06	15,490.00	10,980.34	29.14	101.62	144.90	-5,265.40	-801.83	3,638.51	3,586.99	51.51	70.632		
11,800.00	10,101.77	15,490.00	10,980.34	29.25	101.62	144.90	-5,265.40	-801.83	3,543.30	3,491.33	51.97	68.175		
11,900.00	10,102.48	15,490.00	10,980.34	29.35	101.62	144.90	-5,265.40	-801.83	3,448.38	3,395.92	52.46	65.734		
12,000.00	10,103.19	15,490.00	10,980.34	29.46	101.62	144.90	-5,265.40	-801.83	3,353.74	3,300.77	52.97	63.310		
12,100.00	10,103.89	15,490.00	10,980.34	29.57	101.62	144.90	-5,265.40	-801.83	3,259.43	3,205.91	53.52	60.903		
12,200.00	10,104.60	15,490.00	10,980.34	29.69	101.62	144.90	-5,265.40	-801.83	3,165.46	3,111.37	54.10	58.516		
12,300.00	10,105.31	15,490.00	10,980.34	29.80	101.62	144.90	-5,265.40	-801.83	3,071.88	3,017.17	54.71	56.149		
12,400.00	10,106.02	15,490.00	10,980.34	29.93	101.62	144.90	-5,265.40	-801.83	2,978.71	2,923.35	55.36	53.804		
12,500.00	10,106.72	15,490.00	10,980.34	30.06	101.62	144.90	-5,265.40	-801.83	2,886.00	2,829.94	56.06	51.482		
12,600.00	10,107.43	15,490.00	10,980.34	30.20	101.62	144.90	-5,265.40	-801.83	2,793.79	2,736.99	56.80	49.185		
12,700.00	10,108.14	15,490.00	10,980.34	30.36	101.62	144.90	-5,265.40	-801.83	2,702.14	2,644.55	57.60	46.915		
12,800.00	10,108.85	15,490.00	10,980.34	30.54	101.62	144.90	-5,265.40	-801.83	2,611.10	2,552.65	58.45	44.673		
12,900.00	10,109.56	15,490.00	10,980.34	30.76	101.62	144.90	-5,265.40	-801.83	2,520.74	2,461.38	59.36	42.462		
13,000.00	10,110.26	15,490.00	10,980.34	31.04	101.62	144.90	-5,265.40	-801.83	2,431.14	2,370.79	60.35	40.285		
13,100.00	10,110.97	15,490.00	10,980.34	31.39	101.62	144.90	-5,265.40	-801.83	2,342.37	2,280.96	61.41	38.143		
13,200.00	10,111.68	15,490.00	10,980.34	31.78	101.62	144.90	-5,265.40	-801.83	2,254.55	2,192.00	62.56	36.041		
13,300.00	10,112.39	15,490.00	10,980.34	32.22	101.62	144.90	-5,265.40	-801.83	2,167.78	2,103.99	63.79	33.981		
13,400.00	10,113.09	15,490.00	10,980.34	32.69	101.62	144.90	-5,265.40	-801.83	2,082.20	2,017.07	65.13	31.968		
13,500.00	10,113.80	15,490.00	10,980.34	33.18	101.62	144.90	-5,265.40	-801.83	1,997.96	1,931.37	66.59	30.004		
13,600.00	10,114.51	15,490.00	10,980.34	33.69	101.62	144.90	-5,265.40	-801.83	1,915.24	1,847.07	68.17	28.095		
13,700.00	10,115.22	15,490.00	10,980.34	34.22	101.62	144.90	-5,265.40	-801.83	1,834.24	1,764.35	69.89	26.246		
13,800.00	10,115.93	15,490.00	10,980.34	34.75	101.62	144.90	-5,265.40	-801.83	1,755.19	1,683.44	71.75	24.463		
13,900.00	10,116.63	15,490.00	10,980.34	35.30	101.62	144.90	-5,265.40	-801.83	1,678.39	1,604.62	73.77	22.751		
14,000.00	10,117.34	15,490.00	10,980.34	35.85	101.62	144.90	-5,265.40	-801.83	1,604.14	1,528.18	75.97	21.117		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit - 72H - OH - OH												Offset Site Error: 0.00 usft	
Survey Program: 62- VES GyroFlex V2, 10428-LEAM MWD+HDGM, 15490-Project												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
14,100.00	10,118.05	15,490.00	10,980.34	36.42	101.62	144.90	-5,265.40	-801.83	1,532.83	1,454.49	78.33	19.568	
14,200.00	10,118.76	15,490.00	10,980.34	36.99	101.62	144.90	-5,265.40	-801.83	1,464.87	1,383.99	80.88	18.113	
14,300.00	10,119.46	15,490.00	10,980.34	37.57	101.62	144.90	-5,265.40	-801.83	1,400.76	1,317.17	83.59	16.758	
14,400.00	10,120.17	15,490.00	10,980.34	38.16	101.62	144.90	-5,265.40	-801.83	1,341.05	1,254.61	86.44	15.514	
14,500.00	10,120.88	15,490.00	10,980.34	38.75	101.62	144.90	-5,265.40	-801.83	1,286.35	1,196.94	89.41	14.387	
14,600.00	10,121.59	15,490.00	10,980.34	39.35	101.62	144.90	-5,265.40	-801.83	1,237.33	1,144.90	92.43	13.387	
14,700.00	10,122.29	15,490.00	10,980.34	39.96	101.62	144.90	-5,265.40	-801.83	1,194.68	1,099.27	95.41	12.521	
14,800.00	10,123.00	15,490.00	10,980.34	40.57	101.62	144.90	-5,265.40	-801.83	1,159.12	1,060.86	98.26	11.797	
14,900.00	10,123.71	15,490.00	10,980.34	41.19	101.62	144.90	-5,265.40	-801.83	1,131.30	1,030.45	100.85	11.218	
15,000.00	10,124.42	15,490.00	10,980.34	41.81	101.62	144.90	-5,265.40	-801.83	1,111.81	1,008.76	103.05	10.789	
15,100.00	10,125.13	15,490.00	10,980.34	42.43	101.62	144.90	-5,265.40	-801.83	1,101.09	996.35	104.75	10.512	
15,168.58	10,125.61	15,490.00	10,980.34	42.87	101.62	144.90	-5,265.40	-801.83	1,098.96	993.38	105.57	10.409 CC, ES	
15,200.00	10,125.83	15,478.64	10,980.93	43.07	101.62	144.93	-5,276.74	-801.38	1,099.35	993.58	105.77	10.394 SF	
15,300.00	10,126.54	15,361.00	10,986.47	43.70	99.92	145.26	-5,394.14	-796.28	1,100.60	995.80	104.80	10.502	
15,400.00	10,127.25	15,263.45	10,990.22	44.34	97.97	145.51	-5,491.50	-791.73	1,100.95	996.96	103.99	10.587	
15,500.00	10,127.96	15,167.43	10,994.25	44.99	96.06	145.77	-5,587.33	-787.17	1,101.57	998.33	103.24	10.670	
15,600.00	10,128.66	15,074.88	10,998.61	45.63	94.02	146.03	-5,679.69	-783.08	1,102.81	1,000.35	102.46	10.763	
15,700.00	10,129.37	14,974.33	11,003.39	46.29	91.70	146.29	-5,780.04	-779.00	1,104.33	1,002.84	101.49	10.881	
15,800.00	10,130.08	14,868.82	11,008.00	46.94	89.28	146.54	-5,885.37	-775.06	1,105.72	1,005.25	100.47	11.005	
15,900.00	10,130.79	14,766.29	11,011.08	47.60	86.99	146.72	-5,987.81	-771.74	1,106.26	1,006.64	99.62	11.104	
16,000.00	10,131.50	14,674.07	11,013.88	48.26	84.98	146.82	-6,079.97	-770.01	1,107.57	1,008.49	99.08	11.178	
16,100.00	10,132.20	14,573.75	11,016.94	48.93	83.00	146.93	-6,180.23	-768.26	1,108.98	1,010.49	98.49	11.260	
16,200.00	10,132.91	14,476.84	11,020.29	49.59	81.12	147.06	-6,277.05	-766.28	1,110.57	1,012.60	97.96	11.336	
16,300.00	10,133.62	14,375.71	11,024.07	50.27	78.88	147.21	-6,378.09	-764.12	1,112.36	1,015.12	97.24	11.440	
16,400.00	10,134.33	14,271.38	11,027.58	50.94	76.55	147.36	-6,482.34	-761.77	1,113.77	1,017.32	96.45	11.548	
16,500.00	10,135.03	14,166.37	11,030.38	51.61	74.38	147.46	-6,587.29	-759.83	1,114.82	1,019.04	95.78	11.639	
16,600.00	10,135.74	14,055.47	11,033.28	52.29	71.98	147.64	-6,698.10	-756.43	1,115.19	1,020.27	94.92	11.749	
16,700.00	10,136.45	13,954.84	11,035.91	52.97	69.85	147.84	-6,798.61	-752.22	1,114.96	1,020.71	94.25	11.830	
16,748.30	10,136.79	13,908.93	11,037.17	53.30	68.95	147.93	-6,844.46	-750.30	1,114.90	1,020.89	94.01	11.859	
16,800.00	10,137.16	13,859.00	11,038.67	53.66	67.97	148.04	-6,894.32	-748.21	1,114.96	1,021.22	93.74	11.894	
16,900.00	10,137.87	13,746.19	11,041.87	54.34	65.50	148.32	-7,006.94	-742.47	1,114.47	1,021.67	92.80	12.010	
17,000.00	10,138.57	13,648.20	11,044.44	55.03	63.32	148.57	-7,104.74	-737.07	1,113.60	1,021.46	92.14	12.086	
17,100.00	10,139.28	13,551.82	11,046.98	55.72	61.28	148.82	-7,200.96	-732.01	1,112.90	1,021.31	91.58	12.152	
17,147.06	10,139.61	13,509.73	11,048.18	56.04	60.44	148.91	-7,242.98	-730.01	1,112.79	1,021.38	91.41	12.173	
17,200.00	10,139.99	13,461.82	11,049.67	56.41	59.45	149.02	-7,290.83	-727.97	1,112.92	1,021.71	91.21	12.202	
17,300.00	10,140.70	13,356.97	11,053.22	57.10	57.17	149.24	-7,395.54	-723.92	1,113.63	1,023.09	90.53	12.301	
17,400.00	10,141.40	13,237.40	11,054.67	57.80	54.59	149.46	-7,514.97	-718.46	1,111.98	1,022.34	89.64	12.405	
17,484.18	10,142.00	13,149.30	11,055.50	58.16	52.74	149.60	-7,602.99	-714.67	1,110.64	1,021.71	88.93	12.489	

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 56H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 83-ISCWSA-GYRO-3, 1470-MWD-ISCWSA, 15982-Project													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-174.74	-4,754.76	-437.70	4,774.91					
100.00	100.00	76.93	76.93	0.09	0.06	-174.74	-4,754.75	-437.92	4,774.87	4,774.74	0.13	N/A		
200.00	200.00	183.01	183.00	0.31	0.23	-174.73	-4,754.64	-438.67	4,774.84	4,774.30	0.54	8,902.287		
300.00	300.00	289.46	289.45	0.54	0.41	-174.72	-4,754.39	-439.52	4,774.67	4,773.73	0.95	5,040.025		
400.00	400.00	392.44	392.43	0.76	0.60	-174.71	-4,754.00	-440.33	4,774.37	4,773.02	1.35	3,531.201		
500.00	500.00	490.52	490.51	0.99	0.77	-174.70	-4,753.67	-441.08	4,774.11	4,772.36	1.75	2,731.261		
600.00	600.00	597.59	597.57	1.21	0.95	-174.69	-4,753.26	-441.89	4,773.80	4,771.64	2.16	2,209.996		
700.00	700.00	692.98	692.96	1.43	1.12	-174.68	-4,752.81	-442.54	4,773.39	4,770.84	2.55	1,870.966		
800.00	800.00	786.04	786.01	1.66	1.28	-174.67	-4,752.54	-443.13	4,773.17	4,770.23	2.94	1,624.399		
900.00	900.00	884.25	884.23	1.88	1.46	-174.67	-4,752.37	-443.59	4,773.03	4,769.70	3.33	1,431.343		
1,000.00	1,000.00	985.28	985.26	2.11	1.63	-174.66	-4,752.20	-443.94	4,772.89	4,769.16	3.74	1,277.586		
1,100.00	1,100.00	1,085.21	1,085.18	2.33	1.81	-174.66	-4,752.02	-444.22	4,772.74	4,768.61	4.14	1,154.177		
1,200.00	1,200.00	1,191.46	1,191.43	2.56	2.00	-174.66	-4,751.77	-444.48	4,772.54	4,767.99	4.55	1,049.896		
1,300.00	1,300.00	1,292.35	1,292.32	2.78	2.14	-174.65	-4,751.47	-444.72	4,772.26	4,767.34	4.92	970.825		
1,400.00	1,400.00	1,396.04	1,396.01	3.01	2.24	-174.65	-4,751.10	-444.92	4,771.92	4,766.68	5.24	911.129		
1,500.00	1,500.00	1,498.29	1,498.26	3.23	2.32	-174.65	-4,750.68	-444.95	4,771.51	4,765.97	5.54	861.160		
1,600.00	1,600.00	1,608.82	1,608.78	3.46	2.36	-174.68	-4,750.38	-442.75	4,771.06	4,765.25	5.81	820.939		
1,700.00	1,700.00	1,716.11	1,715.85	3.68	2.43	-174.75	-4,750.09	-436.39	4,770.24	4,764.13	6.11	781.017		
1,800.00	1,800.00	1,802.81	1,802.16	3.91	2.51	-174.85	-4,750.25	-428.20	4,769.57	4,763.16	6.42	743.460		
1,900.00	1,900.00	1,886.35	1,885.24	4.13	2.61	-174.95	-4,750.76	-419.45	4,769.25	4,762.51	6.74	708.042		
2,000.00	2,000.00	2,145.07	2,142.12	4.36	3.01	-175.32	-4,749.22	-388.94	4,767.94	4,760.58	7.36	647.627		
2,100.00	2,100.00	2,223.00	2,219.34	4.58	3.17	-175.44	-4,747.44	-378.60	4,764.61	4,756.86	7.74	615.318		
2,200.00	2,200.00	2,291.06	2,286.92	4.81	3.29	-175.54	-4,746.22	-370.56	4,761.91	4,753.82	8.09	588.460		
2,300.00	2,300.00	2,357.30	2,352.85	5.03	3.41	-175.61	-4,745.45	-364.35	4,760.00	4,751.57	8.43	564.584		
2,400.00	2,400.00	2,427.02	2,422.41	5.26	3.52	-175.67	-4,744.94	-359.60	4,758.75	4,749.98	8.77	542.578		
2,500.00	2,500.00	2,507.00	2,502.32	5.48	3.65	-175.70	-4,744.72	-356.42	4,758.15	4,749.03	9.13	521.340		
2,566.98	2,566.98	2,549.77	2,545.08	5.63	3.71	-175.71	-4,744.74	-355.60	4,758.05	4,748.71	9.34	509.479		
2,600.00	2,600.00	2,576.60	2,571.92	5.71	3.75	-175.72	-4,744.78	-355.32	4,758.07	4,748.62	9.45	503.396		
2,700.00	2,700.00	2,667.61	2,662.92	5.93	3.88	-175.72	-4,745.01	-355.37	4,758.32	4,748.52	9.81	485.255		
2,800.00	2,800.00	2,790.40	2,785.71	6.15	4.06	-175.71	-4,745.14	-356.03	4,758.48	4,748.27	10.21	466.029		
2,900.00	2,900.00	2,890.52	2,885.83	6.38	4.22	-175.71	-4,744.96	-356.26	4,758.32	4,747.73	10.60	449.077		
3,000.00	3,000.00	2,991.58	2,986.89	6.60	4.38	-175.71	-4,744.79	-356.28	4,758.16	4,747.18	10.98	433.238		
3,100.00	3,100.00	3,098.51	3,093.82	6.83	4.56	-175.70	-4,744.48	-356.65	4,757.90	4,746.51	11.38	418.028		
3,200.00	3,200.00	3,205.38	3,200.68	7.05	4.73	-175.69	-4,744.01	-357.34	4,757.51	4,745.72	11.78	403.768		
3,300.00	3,300.00	3,308.96	3,304.26	7.28	4.91	-175.69	-4,743.41	-357.84	4,756.96	4,744.77	12.18	390.400		
3,400.00	3,400.00	3,402.67	3,397.97	7.50	5.07	-175.68	-4,742.91	-358.18	4,756.46	4,743.89	12.57	378.332		
3,500.00	3,500.00	3,500.73	3,496.03	7.73	5.25	-175.68	-4,742.54	-358.48	4,756.10	4,743.13	12.97	366.707		
3,600.00	3,600.00	3,597.79	3,593.09	7.94	5.42	-99.14	-4,742.15	-358.62	4,755.86	4,742.50	13.36	356.040		
3,608.22	3,608.21	3,605.28	3,600.58	7.96	5.43	-99.14	-4,742.13	-358.64	4,755.85	4,742.47	13.39	355.235		
3,700.00	3,699.96	3,703.33	3,698.63	8.15	5.61	-99.17	-4,741.80	-358.91	4,755.97	4,742.21	13.75	345.817		
3,776.97	3,776.86	3,778.75	3,774.04	8.31	5.75	-99.20	-4,741.44	-359.00	4,756.12	4,742.07	14.05	338.515		
3,800.00	3,799.87	3,799.12	3,794.42	8.35	5.79	-99.22	-4,741.36	-359.02	4,756.21	4,742.07	14.14	336.477		
3,900.00	3,899.75	3,906.24	3,901.54	8.56	5.99	-99.27	-4,740.96	-359.20	4,756.63	4,742.08	14.54	327.103		
4,000.00	3,999.63	3,993.99	3,989.28	8.77	6.15	-99.32	-4,740.58	-359.38	4,757.00	4,742.08	14.91	318.948		
4,100.00	4,099.51	4,092.95	4,088.24	8.98	6.33	-99.38	-4,740.37	-359.64	4,757.59	4,742.28	15.31	310.711		
4,200.00	4,199.40	4,176.81	4,172.11	9.20	6.49	-99.42	-4,740.28	-359.83	4,758.29	4,742.61	15.68	303.407		
4,300.00	4,299.28	4,271.36	4,266.65	9.41	6.67	-99.47	-4,740.45	-360.42	4,759.31	4,743.24	16.07	296.098		
4,400.00	4,399.16	4,372.23	4,367.52	9.63	6.86	-99.52	-4,740.63	-360.89	4,760.32	4,743.84	16.48	288.852		
4,500.00	4,499.05	4,457.64	4,452.92	9.84	7.03	-99.58	-4,740.93	-360.47	4,761.44	4,744.58	16.86	282.342		
4,600.00	4,598.93	4,548.76	4,544.04	10.06	7.21	-99.64	-4,741.61	-359.30	4,762.90	4,745.64	17.26	275.880		
4,700.00	4,698.81	4,649.57	4,644.83	10.28	7.41	-99.72	-4,742.41	-357.64	4,764.40	4,746.71	17.69	269.363		
4,800.00	4,798.70	4,743.44	4,738.68	10.50	7.61	-99.80	-4,743.20	-355.85	4,765.94	4,747.84	18.10	263.328		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 56H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 83-ISCWSA-GYRO-3, 1470-MWD-ISCWSA, 15982-Project												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.00	4,898.58	4,833.13	4,828.34	10.72	7.79	-99.87	-4,744.13	-353.83	4,767.67	4,749.16	18.50	257.649	
5,000.00	4,998.46	4,922.54	4,917.70	10.94	7.98	-99.96	-4,745.31	-351.11	4,769.63	4,750.71	18.91	252.184	
5,100.00	5,098.35	5,017.17	5,012.28	11.16	8.18	-100.05	-4,746.72	-348.28	4,771.78	4,752.45	19.33	246.855	
5,200.00	5,198.23	5,128.25	5,123.34	11.38	8.40	-100.13	-4,748.22	-346.89	4,773.91	4,754.14	19.77	241.442	
5,300.00	5,298.11	5,247.05	5,242.13	11.60	8.63	-100.21	-4,749.37	-345.75	4,775.67	4,755.44	20.23	236.055	
5,400.00	5,398.00	5,342.89	5,337.96	11.82	8.82	-100.28	-4,750.10	-344.77	4,777.25	4,756.60	20.65	231.378	
5,500.00	5,497.88	5,428.42	5,423.48	12.05	9.00	-100.34	-4,750.96	-343.77	4,779.05	4,758.01	21.04	227.091	
5,600.00	5,597.76	5,517.11	5,512.15	12.27	9.18	-100.40	-4,752.12	-342.51	4,781.16	4,759.71	21.45	222.890	
5,700.00	5,697.65	5,617.12	5,612.14	12.50	9.38	-100.48	-4,753.56	-341.12	4,783.40	4,761.52	21.88	218.635	
5,800.00	5,797.53	5,717.93	5,712.94	12.72	9.59	-100.55	-4,754.94	-339.93	4,785.59	4,763.28	22.31	214.526	
5,900.00	5,897.41	5,832.47	5,827.46	12.95	9.83	-100.64	-4,756.38	-338.30	4,787.67	4,764.90	22.77	210.249	
6,000.00	5,997.30	5,935.63	5,930.60	13.17	10.04	-100.72	-4,757.46	-336.69	4,789.54	4,766.33	23.21	206.374	
6,100.00	6,097.18	6,037.35	6,032.31	13.40	10.24	-100.79	-4,758.45	-335.17	4,791.35	4,767.71	23.64	202.664	
6,200.00	6,197.06	6,132.26	6,127.20	13.63	10.44	-100.86	-4,759.41	-333.76	4,793.21	4,769.14	24.06	199.204	
6,300.00	6,296.94	6,232.70	6,227.62	13.85	10.64	-100.94	-4,760.53	-332.24	4,795.17	4,770.67	24.49	195.769	
6,400.00	6,396.83	6,362.26	6,357.16	14.08	10.91	-101.04	-4,761.49	-330.34	4,796.77	4,771.78	24.99	191.954	
6,500.00	6,496.71	6,474.78	6,469.67	14.31	11.14	-101.12	-4,761.77	-328.72	4,797.88	4,772.43	25.45	188.514	
6,600.00	6,596.59	6,579.99	6,574.86	14.54	11.36	-101.20	-4,761.90	-326.96	4,798.87	4,772.97	25.90	185.291	
6,700.00	6,696.48	6,685.17	6,680.02	14.77	11.58	-101.28	-4,761.92	-324.92	4,799.76	4,773.41	26.35	182.171	
6,800.00	6,796.36	6,791.05	6,785.88	14.99	11.80	-101.37	-4,761.82	-322.62	4,800.54	4,773.74	26.80	179.142	
6,900.00	6,896.24	6,904.74	6,899.55	15.22	12.04	-101.46	-4,761.48	-320.44	4,801.13	4,773.87	27.26	176.121	
7,000.00	6,996.13	7,020.87	7,015.66	15.45	12.28	-101.55	-4,760.75	-318.36	4,801.40	4,773.67	27.73	173.164	
7,100.00	7,096.01	7,121.34	7,116.10	15.68	12.49	-101.63	-4,759.93	-316.48	4,801.50	4,773.33	28.17	170.454	
7,200.00	7,195.89	7,221.47	7,216.21	15.91	12.70	-101.71	-4,759.12	-314.33	4,801.60	4,772.99	28.61	167.830	
7,300.00	7,295.78	7,297.00	7,291.72	16.14	12.86	-101.77	-4,758.51	-312.53	4,801.76	4,772.76	29.00	165.580	
7,400.00	7,395.66	7,402.30	7,396.98	16.37	13.08	-101.87	-4,757.87	-309.82	4,802.06	4,772.60	29.45	163.032	
7,500.00	7,495.54	7,486.82	7,481.47	16.60	13.27	-101.94	-4,757.66	-307.53	4,802.73	4,772.87	29.87	160.813	
7,600.00	7,595.43	7,571.32	7,565.93	16.83	13.45	-102.02	-4,757.72	-305.13	4,803.73	4,773.46	30.28	158.664	
7,700.00	7,695.31	7,683.00	7,677.56	17.06	13.68	-102.12	-4,758.21	-301.79	4,805.15	4,774.41	30.75	156.288	
7,800.00	7,795.19	7,737.30	7,731.84	17.29	13.80	-102.17	-4,758.64	-300.09	4,806.74	4,775.65	31.09	154.604	
7,900.00	7,895.08	7,817.39	7,811.87	17.53	13.97	-102.25	-4,759.55	-297.47	4,808.83	4,777.34	31.49	152.703	
7,947.18	7,942.20	7,872.00	7,866.45	17.63	14.09	-102.30	-4,760.36	-295.60	4,810.00	4,778.29	31.72	151.650	
8,000.00	7,994.97	7,897.32	7,891.74	17.74	14.14	-102.34	-4,760.79	-294.72	4,811.30	4,779.42	31.88	150.923	
8,100.00	8,094.92	7,977.02	7,971.39	17.93	14.31	-102.42	-4,762.35	-291.93	4,813.85	4,781.60	32.24	149.294	
8,200.00	8,194.91	8,057.76	8,052.05	18.11	14.49	-102.49	-4,764.27	-289.09	4,816.45	4,783.84	32.61	147.684	
8,224.15	8,219.06	8,080.92	8,075.19	18.15	14.54	-179.06	-4,764.87	-288.25	4,817.07	4,784.36	32.71	147.275	
8,300.00	8,294.91	8,153.67	8,147.86	18.30	14.70	-179.09	-4,766.78	-285.47	4,819.01	4,786.00	33.02	145.948	
8,400.00	8,394.91	8,249.53	8,243.60	18.52	14.91	-179.14	-4,769.37	-281.41	4,821.65	4,788.21	33.45	144.161	
8,500.00	8,494.91	8,338.00	8,331.94	18.73	15.11	-179.19	-4,771.88	-277.33	4,824.43	4,790.56	33.87	142.456	
8,600.00	8,594.91	8,425.35	8,419.15	18.95	15.30	-179.24	-4,774.63	-273.19	4,827.51	4,793.23	34.28	140.807	
8,700.00	8,694.91	8,521.00	8,514.64	19.16	15.51	-179.29	-4,777.78	-268.67	4,830.74	4,796.03	34.71	139.167	
8,800.00	8,794.91	8,616.64	8,610.13	19.38	15.72	-179.35	-4,781.01	-264.21	4,834.07	4,798.93	35.14	137.567	
8,900.00	8,894.91	8,704.05	8,697.39	19.59	15.92	-179.39	-4,784.06	-260.19	4,837.52	4,801.97	35.56	136.048	
9,000.00	8,994.91	8,782.29	8,775.48	19.81	16.09	-179.44	-4,787.11	-256.57	4,841.38	4,805.41	35.96	134.616	
9,100.00	9,094.91	8,860.49	8,853.52	20.03	16.26	-179.48	-4,790.51	-252.94	4,845.68	4,809.31	36.37	133.226	
9,200.00	9,194.91	8,938.66	8,931.52	20.24	16.44	-179.52	-4,794.25	-249.30	4,850.44	4,813.66	36.78	131.875	
9,300.00	9,294.91	9,021.14	9,013.80	20.46	16.62	-179.57	-4,798.57	-245.45	4,855.63	4,818.44	37.19	130.549	
9,400.00	9,394.91	9,103.87	9,123.28	20.68	16.86	-179.62	-4,804.35	-241.04	4,860.87	4,823.24	37.63	129.160	
9,500.00	9,494.91	9,240.70	9,232.92	20.89	17.10	-179.66	-4,809.90	-237.79	4,865.91	4,827.83	38.07	127.800	
9,524.15	9,519.06	9,267.23	9,259.42	20.95	17.16	-179.67	-4,811.20	-237.17	4,867.09	4,828.91	38.18	127.476	
9,550.00	9,544.90	9,431.50	9,423.57	21.00	17.48	0.74	-4,816.68	-235.94	4,867.18	4,828.74	38.44	126.615	
9,600.00	9,594.69	9,506.90	9,498.96	21.09	17.63	0.75	-4,818.01	-236.86	4,863.64	4,824.96	38.68	125.754	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Thistle Unit (Offsets) - 56H - OH - OH		Offset Site Error:		0.00 usft	
Survey Program: 83-ISCWSA-GYRO-3, 1470-MWD-ISCWSA, 15982-Project													Offset Well Error:		0.00 usft			
Reference		Offset		Semi Major Axis		Distance								Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor						
9,650.00	9,643.90	9,581.41	9,573.44	21.17	17.77	0.79	-4,818.94	-238.61	4,855.51	4,816.60	38.91	124.792						
9,700.00	9,692.17	9,654.33	9,646.32	21.26	17.91	0.84	-4,819.47	-241.11	4,842.86	4,803.73	39.14	123.744						
9,750.00	9,739.11	9,725.01	9,716.92	21.35	18.04	0.91	-4,819.62	-244.30	4,825.81	4,786.46	39.36	122.619						
9,800.00	9,784.38	9,762.00	9,753.86	21.43	18.11	0.98	-4,819.56	-246.26	4,804.59	4,765.08	39.51	121.610						
9,850.00	9,827.63	9,762.00	9,753.86	21.51	18.11	1.03	-4,819.56	-246.26	4,779.81	4,740.22	39.58	120.751						
9,900.00	9,868.53	9,827.71	9,819.46	21.60	18.23	1.16	-4,819.64	-250.01	4,750.98	4,711.20	39.78	119.433						
9,950.00	9,906.77	9,851.90	9,843.61	21.69	18.28	1.28	-4,819.80	-251.44	4,719.08	4,679.19	39.89	118.298						
10,000.00	9,942.06	9,874.36	9,866.03	21.78	18.32	1.42	-4,820.01	-252.79	4,684.05	4,644.05	39.99	117.119						
10,050.00	9,974.14	9,894.93	9,886.56	21.89	18.36	1.61	-4,820.27	-254.04	4,646.13	4,606.04	40.09	115.901						
10,100.00	10,002.75	9,913.44	9,905.04	22.01	18.39	1.85	-4,820.54	-255.18	4,605.59	4,565.42	40.17	114.654						
10,150.00	10,027.67	9,929.76	9,921.31	22.16	18.42	2.18	-4,820.81	-256.20	4,562.72	4,522.48	40.24	113.384						
10,200.00	10,048.73	9,943.73	9,935.25	22.33	18.45	2.66	-4,821.07	-257.08	4,517.81	4,477.51	40.30	112.101						
10,250.00	10,065.76	9,955.23	9,946.73	22.53	18.47	3.38	-4,821.30	-257.81	4,471.19	4,430.84	40.35	110.810						
10,300.00	10,078.62	9,964.16	9,955.64	22.75	18.49	4.64	-4,821.50	-258.39	4,423.20	4,382.81	40.39	109.520						
10,350.00	10,087.23	9,970.41	9,961.88	23.00	18.50	7.31	-4,821.64	-258.79	4,374.18	4,333.77	40.41	108.237						
10,400.00	10,091.51	9,973.92	9,965.38	23.27	18.51	16.68	-4,821.72	-259.02	4,324.51	4,284.08	40.43	106.968						
10,420.09	10,092.00	9,974.54	9,965.99	23.38	18.51	32.53	-4,821.73	-259.06	4,304.45	4,264.01	40.43	106.462						
10,500.00	10,092.57	9,976.10	9,967.56	23.88	18.51	32.87	-4,821.77	-259.16	4,224.59	4,184.15	40.44	104.467						
10,600.00	10,093.28	9,978.09	9,969.54	28.10	18.51	33.30	-4,821.82	-259.29	4,124.66	4,078.09	46.58	88.557						
10,700.00	10,093.98	9,980.12	9,971.56	28.19	18.52	33.75	-4,821.86	-259.42	4,024.74	3,978.07	46.67	86.239						
10,800.00	10,094.69	9,982.18	9,973.61	28.28	18.52	34.22	-4,821.91	-259.55	3,924.81	3,878.05	46.76	83.928						
10,900.00	10,095.40	9,984.27	9,975.70	28.37	18.52	34.70	-4,821.96	-259.69	3,824.89	3,778.03	46.86	81.625						
11,000.00	10,096.11	9,986.39	9,977.82	28.46	18.53	35.21	-4,822.02	-259.83	3,724.97	3,678.01	46.96	79.329						
11,100.00	10,096.82	9,988.56	9,979.98	28.55	18.53	35.73	-4,822.07	-259.97	3,625.05	3,578.00	47.05	77.041						
11,200.00	10,097.52	9,990.76	9,982.17	28.65	18.54	36.28	-4,822.13	-260.11	3,525.14	3,477.98	47.15	74.758						
11,300.00	10,098.23	9,992.99	9,984.41	28.74	18.54	36.85	-4,822.18	-260.26	3,425.23	3,377.97	47.26	72.482						
11,400.00	10,098.94	9,995.27	9,986.68	28.84	18.54	37.44	-4,822.24	-260.41	3,325.32	3,277.96	47.36	70.214						
11,500.00	10,099.65	9,997.59	9,988.99	28.94	18.55	38.05	-4,822.30	-260.56	3,225.41	3,177.95	47.46	67.954						
11,600.00	10,100.35	9,999.94	9,991.34	29.04	18.55	38.70	-4,822.36	-260.71	3,125.51	3,077.94	47.57	65.703						
11,700.00	10,101.06	10,002.34	9,993.73	29.14	18.56	39.37	-4,822.43	-260.87	3,025.61	2,977.94	47.68	63.460						
11,800.00	10,101.77	10,004.79	9,996.17	29.25	18.56	40.07	-4,822.49	-261.03	2,925.72	2,877.93	47.79	61.226						
11,900.00	10,102.48	10,007.28	9,998.65	29.35	18.57	40.80	-4,822.56	-261.20	2,825.83	2,777.94	47.89	59.001						
12,000.00	10,103.19	10,009.81	10,001.18	29.46	18.57	41.57	-4,822.63	-261.36	2,725.95	2,677.94	48.00	56.785						
12,100.00	10,103.89	10,012.39	10,003.75	29.57	18.58	42.37	-4,822.70	-261.53	2,626.07	2,577.95	48.12	54.578						
12,200.00	10,104.60	10,015.02	10,006.37	29.69	18.58	43.21	-4,822.78	-261.71	2,526.20	2,477.97	48.23	52.380						
12,300.00	10,105.31	10,017.70	10,009.05	29.80	18.59	44.10	-4,822.85	-261.89	2,426.33	2,377.99	48.34	50.191						
12,400.00	10,106.02	10,020.43	10,011.77	29.93	18.59	45.02	-4,822.93	-262.07	2,326.47	2,278.02	48.46	48.012						
12,500.00	10,106.72	10,023.21	10,014.54	30.06	18.60	45.99	-4,823.01	-262.25	2,226.62	2,178.05	48.57	45.841						
12,600.00	10,107.43	10,026.04	10,017.37	30.20	18.60	47.01	-4,823.10	-262.44	2,126.78	2,078.09	48.69	43.681						
12,700.00	10,108.14	10,028.94	10,020.26	30.36	18.61	48.07	-4,823.18	-262.64	2,026.95	1,978.15	48.81	41.530						
12,800.00	10,108.85	10,031.89	10,023.20	30.54	18.61	49.20	-4,823.27	-262.83	1,927.14	1,878.21	48.93	39.388						
12,900.00	10,109.56	10,034.89	10,026.20	30.76	18.62	50.38	-4,823.36	-263.04	1,827.33	1,778.28	49.05	37.256						
13,000.00	10,110.26	10,037.96	10,029.26	31.04	18.62	51.62	-4,823.46	-263.24	1,727.54	1,678.37	49.17	35.134						
13,100.00	10,110.97	10,041.09	10,032.38	31.39	18.63	52.93	-4,823.56	-263.45	1,627.77	1,578.48	49.29	33.023						
13,200.00	10,111.68	10,044.29	10,035.57	31.78	18.64	54.30	-4,823.66	-263.67	1,528.03	1,478.61	49.42	30.921						
13,300.00	10,112.39	10,047.55	10,038.82	32.22	18.64	55.75	-4,823.76	-263.89	1,428.31	1,378.76	49.54	28.829						
13,400.00	10,113.09	10,050.89	10,042.15	32.69	18.65	57.27	-4,823.87	-264.12	1,328.62	1,278.95	49.67	26.748						
13,500.00	10,113.80	10,054.29	10,045.54	33.18	18.65	58.88	-4,823.98	-264.35	1,228.97	1,179.17	49.80	24.677						
13,600.00	10,114.51	10,057.77	10,049.00	33.69	18.66	60.56	-4,824.10	-264.59	1,129.38	1,079.44	49.94	22.617						
13,700.00	10,115.22	10,061.32	10,052.55	34.22	18.67	62.34	-4,824.22	-264.83	1,029.84	979.77	50.07	20.568						
13,800.00	10,115.93	10,064.95	10,056.17	34.75	18.67	64.20	-4,824.34	-265.08	930.40	880.19	50.21	18.530						
13,900.00	10,116.63	10,068.60	10,075.16	35.30	18.71	74.74	-4,825.02	-266.39	831.22	781.06	50.16	16.571						

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 56H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 83-ISCWSA-GYRO-3, 1470-MWD-ISCWSA, 15982-Project													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	10,117.34	10,084.00	10,075.16	35.85	18.71	74.74	-4,825.02	-266.39	731.99	681.66	50.33	14.543		
14,100.00	10,118.05	10,084.00	10,075.16	36.42	18.71	74.74	-4,825.02	-266.39	633.00	582.46	50.54	12.524		
14,200.00	10,118.76	10,084.00	10,075.16	36.99	18.71	74.74	-4,825.02	-266.39	534.39	483.59	50.80	10.520		
14,300.00	10,119.46	10,084.41	10,075.57	37.57	18.71	74.98	-4,825.04	-266.42	436.41	385.29	51.12	8.537		
14,400.00	10,120.17	10,088.90	10,080.05	38.16	18.72	77.62	-4,825.20	-266.73	339.58	288.11	51.47	6.598		
14,500.00	10,120.88	10,093.30	10,084.43	38.75	18.73	80.24	-4,825.36	-267.03	245.22	193.09	52.13	4.704		
14,600.00	10,121.59	10,097.62	10,088.74	39.35	18.73	82.83	-4,825.52	-267.33	157.86	103.97	53.89	2.929		
14,700.00	10,122.29	10,101.85	10,092.96	39.96	18.74	85.38	-4,825.67	-267.62	98.32	39.83	58.49	1.681		
14,726.39	10,122.48	10,102.95	10,094.06	40.12	18.75	86.05	-4,825.70	-267.69	94.72	35.47	59.25	1.599	CC, ES, SF	
14,800.00	10,123.00	10,106.00	10,097.10	40.57	18.75	87.89	-4,825.81	-267.90	119.92	62.83	57.09	2.100		
14,900.00	10,123.71	10,110.07	10,101.16	41.19	18.76	90.34	-4,825.95	-268.18	197.64	143.56	54.08	3.654		
15,000.00	10,124.42	10,114.07	10,105.14	41.81	18.77	92.74	-4,826.09	-268.45	289.32	236.28	53.04	5.454		
15,100.00	10,125.13	10,117.99	10,109.04	42.43	18.77	95.06	-4,826.22	-268.72	385.12	332.45	52.67	7.312		
15,200.00	10,125.83	10,121.83	10,112.88	43.07	18.78	97.31	-4,826.35	-268.98	482.60	430.06	52.55	9.185		
15,300.00	10,126.54	10,125.61	10,116.64	43.70	18.79	99.49	-4,826.47	-269.24	580.91	528.39	52.53	11.060		
15,400.00	10,127.25	10,129.31	10,120.34	44.34	18.80	101.59	-4,826.59	-269.49	679.69	627.13	52.56	12.931		
15,500.00	10,127.96	10,132.95	10,123.97	44.99	18.80	103.61	-4,826.71	-269.73	778.77	726.14	52.63	14.797		
15,600.00	10,128.66	10,136.52	10,127.53	45.63	18.81	105.55	-4,826.82	-269.97	878.03	825.32	52.71	16.656		
15,700.00	10,129.37	10,140.03	10,131.03	46.29	18.82	107.42	-4,826.94	-270.21	977.44	924.62	52.81	18.507		
15,800.00	10,130.08	10,143.48	10,134.47	46.94	18.82	109.20	-4,827.04	-270.44	1,076.94	1,024.02	52.92	20.349		
15,900.00	10,130.79	12,095.91	11,275.43	47.60	30.23	173.58	-5,975.96	-295.99	1,174.14	1,120.93	53.21	22.067		
16,000.00	10,131.50	12,210.06	11,277.38	48.26	31.71	173.76	-6,090.01	-291.69	1,174.80	1,120.22	54.58	21.526		
16,100.00	10,132.20	12,320.64	11,278.16	48.93	33.24	173.93	-6,200.50	-287.31	1,174.44	1,118.47	55.97	20.984		
16,200.00	10,132.91	12,424.98	11,278.16	49.59	34.73	174.11	-6,304.74	-282.81	1,173.36	1,115.99	57.37	20.452		
16,300.00	10,133.62	12,512.44	11,278.38	50.27	35.95	174.27	-6,392.11	-278.81	1,172.55	1,113.77	58.78	19.949		
16,305.25	10,133.66	12,516.68	11,278.43	50.30	36.01	174.28	-6,396.34	-278.60	1,172.55	1,113.70	58.85	19.924		
16,400.00	10,134.33	12,606.77	11,279.93	50.94	37.26	174.49	-6,486.29	-273.65	1,173.00	1,112.82	60.18	19.491		
16,500.00	10,135.03	12,719.11	11,281.15	51.61	38.91	174.74	-6,598.46	-267.70	1,172.96	1,111.36	61.60	19.042		
16,560.66	10,135.46	12,772.30	11,281.43	52.03	39.69	174.85	-6,651.58	-265.04	1,172.62	1,110.16	62.46	18.774		
16,600.00	10,135.74	12,801.55	11,281.87	52.29	40.11	174.91	-6,680.80	-263.65	1,172.80	1,109.78	63.01	18.612		
16,700.00	10,136.45	12,898.91	11,284.31	52.97	41.52	175.10	-6,778.03	-259.22	1,174.25	1,109.80	64.44	18.222		
16,800.00	10,137.16	12,994.99	11,286.27	53.66	42.94	175.29	-6,873.98	-254.67	1,175.26	1,109.39	65.87	17.842		
16,900.00	10,137.87	13,099.25	11,288.91	54.34	44.49	175.50	-6,978.09	-249.78	1,176.77	1,109.45	67.31	17.482		
17,000.00	10,138.57	13,213.61	11,290.61	55.03	46.30	175.71	-7,092.31	-244.53	1,177.25	1,108.48	68.77	17.119		
17,100.00	10,139.28	13,321.49	11,291.18	55.72	48.04	175.91	-7,200.08	-239.74	1,176.80	1,106.57	70.23	16.757		
17,200.00	10,139.99	13,432.32	11,290.90	56.41	49.84	176.11	-7,310.80	-234.70	1,175.58	1,103.89	71.69	16.398		
17,300.00	10,140.70	13,534.35	11,289.80	57.10	51.49	176.32	-7,412.69	-229.46	1,173.49	1,100.35	73.14	16.044		
17,400.00	10,141.40	13,617.53	11,289.61	57.80	52.78	176.52	-7,495.73	-224.69	1,172.27	1,097.70	74.57	15.720		
17,422.73	10,141.57	13,635.22	11,289.75	57.90	53.04	176.56	-7,513.40	-223.76	1,172.22	1,097.42	74.80	15.670		
17,484.18	10,142.00	13,687.00	11,290.55	58.16	53.81	176.66	-7,565.12	-221.48	1,172.59	1,097.16	75.43	15.546		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 57H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 172- VES GyroFlex V2, 1519-MWD-ISCWSA, 16135-Project												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-175.34	-4,754.51	-387.74	4,770.35				
100.00	100.00	61.35	61.35	0.09	0.05	-175.34	-4,754.61	-387.80	4,770.43	4,770.29	0.13	N/A	
200.00	200.00	140.51	140.51	0.31	0.11	-175.33	-4,755.03	-388.04	4,770.98	4,770.56	0.42	N/A	
300.00	300.00	228.78	228.77	0.54	0.19	-175.33	-4,755.83	-388.47	4,771.92	4,771.20	0.72	6,634.700	
400.00	400.00	333.60	333.59	0.76	0.26	-175.33	-4,756.86	-388.89	4,772.93	4,771.91	1.02	4,670.283	
500.00	500.00	441.26	441.24	0.99	0.33	-175.32	-4,757.73	-389.22	4,773.76	4,772.45	1.31	3,641.372	
600.00	600.00	544.85	544.83	1.21	0.38	-175.32	-4,758.47	-389.39	4,774.49	4,772.91	1.58	3,016.940	
700.00	700.00	651.78	651.76	1.43	0.43	-175.32	-4,759.11	-389.58	4,775.10	4,773.23	1.86	2,566.399	
800.00	800.00	752.88	752.86	1.66	0.48	-175.32	-4,759.61	-389.70	4,775.60	4,773.47	2.13	2,239.016	
900.00	900.00	849.93	849.90	1.88	0.52	-175.32	-4,760.13	-389.83	4,776.15	4,773.75	2.40	1,988.941	
1,000.00	1,000.00	956.56	956.53	2.11	0.57	-175.32	-4,760.72	-389.92	4,776.70	4,774.03	2.67	1,787.518	
1,100.00	1,100.00	1,059.10	1,059.07	2.33	0.61	-175.32	-4,761.11	-389.80	4,777.08	4,774.14	2.94	1,625.062	
1,200.00	1,200.00	1,154.03	1,154.00	2.56	0.65	-175.32	-4,761.53	-389.66	4,777.51	4,774.31	3.20	1,491.594	
1,300.00	1,300.00	1,269.72	1,269.69	2.78	0.69	-175.32	-4,761.99	-389.51	4,777.90	4,774.43	3.47	1,375.799	
1,400.00	1,400.00	1,371.95	1,371.92	3.01	0.73	-175.33	-4,762.13	-389.40	4,778.03	4,774.30	3.73	1,279.556	
1,500.00	1,500.00	1,469.52	1,469.49	3.23	0.75	-175.33	-4,762.27	-389.32	4,778.17	4,774.18	3.98	1,199.433	
1,600.00	1,600.00	1,607.16	1,607.13	3.46	0.81	-175.32	-4,762.14	-389.87	4,778.17	4,773.89	4.27	1,118.586	
1,675.24	1,675.24	1,652.77	1,652.74	3.63	0.85	-175.31	-4,761.92	-390.40	4,777.90	4,773.42	4.48	1,066.380	
1,700.00	1,700.00	1,666.20	1,666.17	3.68	0.87	-175.31	-4,761.92	-390.56	4,777.93	4,773.38	4.55	1,050.344	
1,800.00	1,800.00	1,709.00	1,708.96	3.91	0.91	-175.31	-4,762.14	-391.07	4,778.67	4,773.85	4.82	992.071	
1,900.00	1,900.00	1,757.21	1,757.16	4.13	0.97	-175.30	-4,762.96	-391.47	4,780.54	4,775.43	5.11	936.387	
2,000.00	2,000.00	1,804.00	1,803.93	4.36	1.04	-175.30	-4,764.49	-391.50	4,783.70	4,778.31	5.39	887.697	
2,100.00	2,100.00	1,836.11	1,836.00	4.58	1.09	-175.30	-4,765.95	-391.43	4,788.09	4,782.43	5.66	845.459	
2,200.00	2,200.00	1,899.00	1,898.77	4.81	1.19	-175.31	-4,769.77	-391.52	4,793.92	4,787.94	5.99	800.962	
2,300.00	2,300.00	1,921.00	1,921.00	5.03	1.23	-175.31	-4,771.37	-391.63	4,800.69	4,794.44	6.25	768.609	
2,400.00	2,400.00	1,994.00	1,993.48	5.26	1.38	-175.30	-4,777.15	-392.49	4,808.60	4,802.00	6.60	728.622	
2,500.00	2,500.00	2,051.58	2,050.83	5.48	1.53	-175.29	-4,782.07	-393.80	4,817.19	4,810.26	6.93	694.875	
2,600.00	2,600.00	2,671.50	2,667.01	5.71	3.28	-174.65	-4,803.02	-450.06	4,824.89	4,816.08	8.81	547.675	
2,700.00	2,700.00	2,749.00	2,744.14	5.93	3.46	-174.56	-4,801.09	-457.44	4,823.30	4,814.05	9.24	521.732	
2,800.00	2,800.00	2,843.00	2,837.76	6.15	3.69	-174.46	-4,799.06	-465.62	4,821.97	4,812.25	9.72	496.010	
2,900.00	2,900.00	2,919.20	2,913.64	6.38	3.90	-174.38	-4,797.60	-472.40	4,820.93	4,810.77	10.17	474.188	
3,000.00	3,000.00	3,006.74	3,000.74	6.60	4.15	-174.27	-4,796.23	-481.10	4,820.36	4,809.70	10.65	452.464	
3,100.00	3,100.00	3,089.80	3,083.40	6.83	4.39	-174.18	-4,795.15	-489.10	4,820.03	4,808.91	11.12	433.332	
3,128.47	3,128.47	3,112.46	3,105.97	6.89	4.45	-174.15	-4,794.93	-491.09	4,820.01	4,808.76	11.25	428.323	
3,200.00	3,200.00	3,180.64	3,173.90	7.05	4.65	-174.08	-4,794.37	-497.00	4,820.06	4,808.44	11.62	414.937	
3,300.00	3,300.00	3,270.70	3,263.54	7.28	4.93	-173.98	-4,793.58	-505.64	4,820.20	4,808.08	12.12	397.678	
3,400.00	3,400.00	3,370.85	3,362.99	7.50	5.24	-173.86	-4,792.92	-515.55	4,820.59	4,807.93	12.66	380.805	
3,500.00	3,500.00	3,474.83	3,466.77	7.73	5.53	-173.75	-4,792.15	-524.68	4,820.80	4,807.61	13.19	365.488	
3,600.00	3,600.00	3,577.39	3,568.97	7.94	5.83	-97.11	-4,791.43	-533.22	4,821.12	4,807.42	13.70	351.794	
3,700.00	3,699.96	3,702.90	3,693.96	8.15	6.21	-97.01	-4,790.08	-544.51	4,821.38	4,807.09	14.29	337.400	
3,776.97	3,776.86	3,782.26	3,773.04	8.31	6.43	-96.97	-4,789.04	-551.13	4,821.49	4,806.81	14.68	328.400	
3,800.00	3,799.87	3,788.00	3,778.76	8.35	6.45	-96.97	-4,788.97	-551.59	4,821.57	4,806.82	14.75	326.955	
3,900.00	3,899.75	3,882.00	3,872.44	8.56	6.72	-96.93	-4,788.07	-559.34	4,822.15	4,806.92	15.23	316.642	
4,000.00	3,999.63	3,946.20	3,936.36	8.77	6.92	-96.89	-4,787.78	-565.33	4,823.29	4,807.64	15.64	308.326	
4,100.00	4,099.51	4,020.49	4,010.23	8.98	7.17	-96.84	-4,787.71	-573.16	4,824.98	4,808.89	16.10	299.722	
4,200.00	4,199.40	4,117.19	4,106.39	9.20	7.49	-96.78	-4,788.07	-583.30	4,827.14	4,810.51	16.63	290.303	
4,300.00	4,299.28	4,235.09	4,223.79	9.41	7.85	-96.72	-4,788.22	-594.22	4,828.90	4,811.69	17.20	280.677	
4,400.00	4,399.16	4,362.21	4,350.49	9.63	8.22	-96.67	-4,788.09	-604.52	4,830.32	4,812.52	17.79	271.479	
4,500.00	4,499.05	4,462.42	4,450.27	9.84	8.53	-96.62	-4,787.50	-613.78	4,831.39	4,813.07	18.32	263.720	
4,600.00	4,598.93	4,547.70	4,535.17	10.06	8.80	-96.57	-4,787.15	-621.77	4,832.66	4,813.85	18.81	256.981	
4,700.00	4,698.81	4,657.48	4,644.47	10.28	9.14	-96.51	-4,786.81	-632.00	4,834.03	4,814.66	19.37	249.617	
4,800.00	4,798.70	4,765.63	4,752.21	10.50	9.46	-96.46	-4,786.05	-641.46	4,834.92	4,815.01	19.91	242.846	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 57H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 172- VES GyroFlex V2, 1519-MWD-ISCWSA, 16135-Project												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,898.58	4,827.00	4,813.42	10.72	9.63	-96.45	-4,786.04	-645.79	4,836.33	4,816.03	20.30	238.246	
5,000.00	4,998.46	4,921.00	4,907.26	10.94	9.87	-96.44	-4,786.69	-651.17	4,838.25	4,817.49	20.75	233.119	
5,100.00	5,098.35	4,997.51	4,983.70	11.16	10.04	-96.44	-4,787.64	-654.36	4,840.52	4,819.38	21.14	228.941	
5,200.00	5,198.23	5,147.82	5,133.96	11.38	10.33	-96.49	-4,789.41	-657.59	4,842.52	4,820.86	21.66	223.596	
5,300.00	5,298.11	5,271.95	5,258.08	11.60	10.56	-96.54	-4,789.90	-659.69	4,843.65	4,821.54	22.11	219.092	
5,400.00	5,398.00	5,492.74	5,478.58	11.82	11.06	-96.55	-4,787.16	-669.17	4,843.70	4,820.86	22.84	212.085	
5,500.00	5,497.88	5,622.62	5,607.79	12.05	11.47	-96.47	-4,782.61	-681.49	4,841.93	4,818.46	23.47	206.297	
5,600.00	5,597.76	5,711.24	5,695.72	12.27	11.78	-96.40	-4,778.94	-691.81	4,839.80	4,815.79	24.01	201.569	
5,700.00	5,697.65	5,800.74	5,784.51	12.50	12.10	-96.31	-4,775.48	-702.62	4,837.97	4,813.41	24.56	196.968	
5,800.00	5,797.53	5,876.94	5,860.11	12.72	12.37	-96.25	-4,772.75	-711.75	4,836.45	4,811.39	25.06	192.977	
5,900.00	5,897.41	5,962.44	5,944.99	12.95	12.67	-96.17	-4,770.20	-721.68	4,835.46	4,809.87	25.59	188.940	
6,000.00	5,997.30	6,066.02	6,047.82	13.17	13.03	-96.09	-4,767.08	-733.69	4,834.46	4,808.28	26.18	184.637	
6,100.00	6,097.18	6,154.51	6,135.72	13.40	13.34	-96.02	-4,764.52	-743.59	4,833.54	4,806.82	26.72	180.896	
6,200.00	6,197.06	6,237.39	6,218.05	13.63	13.62	-95.95	-4,762.41	-752.88	4,832.97	4,805.74	27.23	177.470	
6,300.00	6,296.94	6,436.24	6,415.27	13.85	14.34	-95.77	-4,754.73	-776.69	4,830.88	4,802.70	28.18	171.457	
6,400.00	6,396.83	6,487.00	6,465.51	14.08	14.55	-95.72	-4,752.76	-783.63	4,829.14	4,800.53	28.61	168.765	
6,500.00	6,496.71	6,570.59	6,548.29	14.31	14.87	-95.63	-4,750.09	-794.86	4,828.21	4,799.04	29.17	165.513	
6,600.00	6,596.59	6,660.90	6,637.72	14.54	15.23	-95.53	-4,747.07	-807.07	4,827.22	4,797.47	29.76	162.222	
6,700.00	6,696.48	6,780.76	6,756.47	14.77	15.69	-95.41	-4,743.06	-822.87	4,826.19	4,795.75	30.45	158.513	
6,800.00	6,796.36	6,865.00	6,840.03	14.99	16.00	-95.33	-4,740.23	-833.21	4,825.05	4,794.06	30.99	155.704	
6,900.00	6,896.24	6,934.16	6,908.68	15.22	16.25	-95.27	-4,738.28	-841.39	4,824.41	4,792.93	31.47	153.288	
6,939.31	6,935.51	6,960.00	6,934.32	15.31	16.35	-95.25	-4,737.69	-844.46	4,824.35	4,792.69	31.66	152.390	
7,000.00	6,996.13	6,997.76	6,971.81	15.45	16.49	-95.21	-4,736.96	-848.96	4,824.50	4,792.56	31.94	151.061	
7,100.00	7,096.01	7,054.00	7,027.64	15.68	16.70	-95.16	-4,736.21	-855.69	4,825.37	4,793.00	32.37	149.051	
7,200.00	7,195.89	7,124.49	7,097.64	15.91	16.95	-95.11	-4,735.82	-863.99	4,826.99	4,794.13	32.86	146.899	
7,300.00	7,295.78	7,258.40	7,230.74	16.14	17.42	-95.01	-4,735.47	-878.60	4,828.79	4,795.23	33.56	143.891	
7,400.00	7,395.66	7,337.97	7,309.78	16.37	17.70	-94.95	-4,734.99	-887.72	4,830.31	4,796.24	34.07	141.794	
7,500.00	7,495.54	7,443.99	7,415.12	16.60	18.08	-94.87	-4,734.54	-899.71	4,831.98	4,797.31	34.67	139.370	
7,600.00	7,595.43	7,546.22	7,516.83	16.83	18.42	-94.80	-4,734.14	-910.03	4,833.52	4,798.28	35.24	137.160	
7,700.00	7,695.31	7,621.00	7,591.25	17.06	18.66	-94.76	-4,734.04	-917.38	4,835.29	4,799.57	35.71	135.388	
7,800.00	7,795.19	7,688.06	7,657.99	17.29	18.88	-94.72	-4,734.36	-923.93	4,837.67	4,801.51	36.16	133.779	
7,900.00	7,895.08	7,764.99	7,734.58	17.53	19.13	-94.68	-4,735.36	-931.06	4,840.74	4,804.12	36.63	132.154	
7,947.18	7,942.20	7,810.00	7,779.44	17.63	19.26	-94.67	-4,736.14	-934.62	4,842.30	4,805.43	36.87	131.318	
8,000.00	7,994.97	7,855.94	7,825.25	17.74	19.39	-94.67	-4,737.02	-937.99	4,844.08	4,806.97	37.11	130.525	
8,100.00	8,094.82	7,980.62	7,949.54	17.93	19.75	-94.64	-4,739.23	-947.48	4,847.28	4,809.63	37.65	128.31	
8,200.00	8,194.91	8,075.09	8,043.69	18.11	20.03	-94.59	-4,740.42	-955.31	4,849.91	4,811.80	38.11	127.267	
8,224.15	8,219.06	8,096.56	8,065.08	18.15	20.09	-171.13	-4,740.73	-957.02	4,850.56	4,812.35	38.21	126.934	
8,300.00	8,294.91	8,174.53	8,142.82	18.30	20.31	-171.06	-4,741.92	-962.93	4,852.60	4,814.02	38.58	125.765	
8,400.00	8,394.91	8,315.16	8,283.05	18.52	20.70	-170.94	-4,743.31	-973.42	4,854.70	4,815.51	39.19	123.864	
8,500.00	8,494.91	8,415.62	8,383.25	18.73	20.98	-170.86	-4,744.11	-980.63	4,856.63	4,816.94	39.68	122.382	
8,600.00	8,594.91	8,517.71	8,485.10	18.95	21.26	-170.78	-4,744.75	-987.58	4,858.34	4,818.16	40.18	120.920	
8,700.00	8,694.91	8,608.16	8,575.24	19.16	21.52	-170.69	-4,745.31	-995.02	4,860.27	4,819.62	40.65	119.560	
8,800.00	8,794.91	8,706.51	8,673.25	19.38	21.82	-170.60	-4,745.97	-1,003.18	4,862.29	4,821.13	41.16	118.137	
8,900.00	8,894.91	8,806.46	8,772.88	19.59	22.11	-170.51	-4,746.71	-1,011.16	4,864.34	4,822.67	41.67	116.742	
9,000.00	8,994.91	8,934.43	8,900.37	19.81	22.49	-170.38	-4,747.25	-1,022.17	4,866.21	4,823.95	42.26	115.143	
9,100.00	9,094.91	9,014.46	8,980.13	20.03	22.73	-170.30	-4,747.46	-1,028.73	4,867.87	4,825.16	42.71	113.975	
9,200.00	9,194.91	9,112.45	9,077.78	20.24	23.02	-170.21	-4,748.03	-1,036.85	4,869.85	4,826.63	43.22	112.682	
9,300.00	9,294.91	9,199.47	9,164.43	20.46	23.29	-170.12	-4,748.44	-1,044.88	4,871.90	4,828.20	43.70	111.488	
9,400.00	9,394.91	9,304.89	9,269.47	20.68	23.61	-170.02	-4,749.25	-1,053.83	4,874.13	4,829.90	44.23	110.188	
9,500.00	9,494.91	9,397.47	9,361.81	20.89	23.87	-169.94	-4,750.11	-1,060.45	4,876.29	4,831.59	44.71	109.075	
9,524.15	9,519.06	9,421.19	9,385.48	20.95	23.94	-169.93	-4,750.40	-1,061.90	4,876.85	4,832.02	44.82	108.806	
9,550.00	9,544.90	9,453.87	9,418.09	21.00	24.02	10.52	-4,750.78	-1,063.90	4,876.84	4,831.89	44.96	108.477	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 57H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 172- VES GyroFlex V2, 1519-MWD-ISCWSA, 16135-Project													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,600.00	9,594.69	9,516.82	9,480.91	21.09	24.19	10.64	-4,751.33	-1,067.95	4,873.49	4,828.28	45.21	107.801		
9,650.00	9,643.90	9,613.44	9,577.29	21.17	24.44	10.91	-4,751.54	-1,074.72	4,865.63	4,820.08	45.55	106.811		
9,700.00	9,692.17	9,668.30	9,631.98	21.26	24.60	11.24	-4,751.18	-1,079.00	4,853.20	4,807.41	45.79	105.980		
9,750.00	9,739.11	9,708.94	9,672.45	21.35	24.72	11.66	-4,750.85	-1,082.69	4,836.74	4,790.74	45.99	105.163		
9,800.00	9,784.38	9,746.70	9,710.03	21.43	24.84	12.22	-4,750.53	-1,086.45	4,816.38	4,770.19	46.18	104.293		
9,850.00	9,827.63	9,781.69	9,744.86	21.51	24.95	12.91	-4,750.33	-1,089.75	4,792.28	4,745.93	46.36	103.376		
9,900.00	9,868.53	9,823.00	9,786.01	21.60	25.08	13.81	-4,750.23	-1,093.33	4,764.65	4,718.10	46.55	102.357		
9,950.00	9,906.77	9,842.48	9,805.43	21.69	25.14	14.86	-4,750.23	-1,094.97	4,733.65	4,686.99	46.66	101.441		
10,000.00	9,942.06	9,866.79	9,829.64	21.78	25.21	16.22	-4,750.26	-1,097.11	4,699.58	4,652.79	46.79	100.445		
10,050.00	9,974.14	9,888.94	9,851.69	21.89	25.28	17.96	-4,750.32	-1,099.15	4,662.65	4,615.76	46.90	99.423		
10,100.00	10,002.75	9,917.00	9,879.62	22.01	25.37	20.28	-4,750.44	-1,101.86	4,623.16	4,576.14	47.02	98.325		
10,150.00	10,027.67	9,928.40	9,890.97	22.16	25.41	23.22	-4,750.50	-1,103.00	4,581.33	4,534.25	47.08	97.304		
10,200.00	10,048.73	9,946.80	9,909.27	22.33	25.47	27.34	-4,750.60	-1,104.86	4,537.50	4,490.34	47.16	96.208		
10,250.00	10,065.76	9,961.72	9,924.11	22.53	25.52	33.14	-4,750.68	-1,106.41	4,491.98	4,444.75	47.23	95.118		
10,300.00	10,078.62	9,973.06	9,935.39	22.75	25.56	41.60	-4,750.74	-1,107.60	4,445.11	4,397.84	47.27	94.038		
10,350.00	10,087.23	9,980.72	9,943.00	23.00	25.58	54.16	-4,750.79	-1,108.41	4,397.24	4,349.94	47.29	92.975		
10,400.00	10,091.51	9,984.65	9,946.91	23.27	25.60	72.16	-4,750.81	-1,108.83	4,348.73	4,301.42	47.30	91.933		
10,420.09	10,092.00	9,985.16	9,947.42	23.38	25.60	80.77	-4,750.81	-1,108.88	4,329.14	4,281.83	47.30	91.520		
10,500.00	10,092.57	9,986.01	9,948.26	23.88	25.60	80.82	-4,750.82	-1,108.97	4,251.20	4,203.91	47.29	89.893		
10,600.00	10,093.28	9,987.06	9,949.31	28.10	25.60	80.88	-4,750.82	-1,109.08	4,153.77	4,100.61	53.17	78.127		
10,700.00	10,093.98	9,988.12	9,950.36	28.19	25.61	80.95	-4,750.83	-1,109.20	4,056.47	4,003.24	53.23	76.200		
10,800.00	10,094.69	9,989.18	9,951.42	28.28	25.61	81.01	-4,750.84	-1,109.31	3,959.31	3,906.00	53.30	74.280		
10,900.00	10,095.40	9,990.24	9,952.48	28.37	25.61	81.08	-4,750.84	-1,109.43	3,862.28	3,808.91	53.37	72.367		
11,000.00	10,096.11	9,991.31	9,953.53	28.46	25.62	81.14	-4,750.85	-1,109.54	3,765.42	3,711.98	53.44	70.462		
11,100.00	10,096.82	9,992.38	9,954.59	28.55	25.62	81.20	-4,750.85	-1,109.65	3,668.72	3,615.21	53.51	68.565		
11,200.00	10,097.52	9,993.44	9,955.65	28.65	25.63	81.27	-4,750.86	-1,109.77	3,572.20	3,518.63	53.57	66.677		
11,300.00	10,098.23	9,994.51	9,956.72	28.74	25.63	81.33	-4,750.87	-1,109.88	3,475.88	3,422.24	53.64	64.797		
11,400.00	10,098.94	9,995.58	9,957.78	28.84	25.63	81.40	-4,750.87	-1,110.00	3,379.77	3,326.06	53.71	62.925		
11,500.00	10,099.65	9,996.66	9,958.85	28.94	25.64	81.46	-4,750.88	-1,110.12	3,283.89	3,230.12	53.78	61.063		
11,600.00	10,100.35	9,997.73	9,959.92	29.04	25.64	81.53	-4,750.89	-1,110.23	3,188.27	3,134.43	53.85	59.211		
11,700.00	10,101.06	9,998.81	9,960.99	29.14	25.64	81.59	-4,750.89	-1,110.35	3,092.93	3,039.01	53.91	57.369		
11,800.00	10,101.77	9,999.89	9,962.06	29.25	25.65	81.66	-4,750.90	-1,110.47	2,997.88	2,943.90	53.98	55.537		
11,900.00	10,102.48	10,000.97	9,963.14	29.35	25.65	81.72	-4,750.91	-1,110.58	2,903.17	2,849.12	54.05	53.716		
12,000.00	10,103.19	10,002.05	9,964.21	29.46	25.65	81.79	-4,750.91	-1,110.70	2,808.83	2,754.71	54.11	51.907		
12,100.00	10,103.89	10,003.14	9,965.29	29.57	25.66	81.86	-4,750.92	-1,110.82	2,714.88	2,660.71	54.18	50.109		
12,200.00	10,104.60	10,004.22	9,966.37	29.69	25.66	81.92	-4,750.93	-1,110.94	2,621.39	2,567.15	54.24	48.325		
12,300.00	10,105.31	10,005.31	9,967.45	29.80	25.66	81.99	-4,750.93	-1,111.06	2,528.40	2,474.09	54.31	46.555		
12,400.00	10,106.02	10,011.00	9,973.11	29.93	25.68	82.33	-4,750.97	-1,111.68	2,435.96	2,381.58	54.38	44.793		
12,500.00	10,106.72	10,011.00	9,973.11	30.06	25.68	82.33	-4,750.97	-1,111.68	2,344.14	2,289.69	54.45	43.054		
12,600.00	10,107.43	10,011.00	9,973.11	30.20	25.68	82.33	-4,750.97	-1,111.68	2,253.01	2,198.50	54.51	41.332		
12,700.00	10,108.14	10,011.00	9,973.11	30.36	25.68	82.33	-4,750.97	-1,111.68	2,162.67	2,108.09	54.57	39.628		
12,800.00	10,108.85	10,011.00	9,973.11	30.54	25.68	82.33	-4,750.97	-1,111.68	2,073.21	2,018.57	54.64	37.943		
12,900.00	10,109.56	10,012.69	9,974.78	30.76	25.69	82.43	-4,750.98	-1,111.86	1,984.76	1,930.05	54.71	36.278		
13,000.00	10,110.26	10,014.69	9,976.77	31.04	25.70	82.55	-4,750.99	-1,112.08	1,897.46	1,842.68	54.78	34.637		
13,100.00	10,110.97	10,016.58	9,978.65	31.39	25.70	82.67	-4,751.00	-1,112.29	1,811.47	1,756.61	54.86	33.022		
13,200.00	10,111.68	10,018.38	9,980.44	31.78	25.71	82.78	-4,751.01	-1,112.48	1,726.99	1,672.05	54.94	31.436		
13,300.00	10,112.39	10,020.09	9,982.14	32.22	25.71	82.88	-4,751.02	-1,112.67	1,644.25	1,589.23	55.02	29.884		
13,400.00	10,113.09	10,021.71	9,983.76	32.69	25.72	82.98	-4,751.02	-1,112.85	1,563.52	1,508.41	55.12	28.368		
13,500.00	10,113.80	10,023.26	9,985.30	33.18	25.72	83.07	-4,751.03	-1,113.01	1,485.14	1,429.93	55.22	26.895		
13,600.00	10,114.51	10,024.74	9,986.77	33.69	25.73	83.16	-4,751.04	-1,113.17	1,409.50	1,354.17	55.34	25.471		
13,700.00	10,115.22	10,026.15	9,988.17	34.22	25.73	83.25	-4,751.04	-1,113.33	1,337.07	1,281.60	55.47	24.104		
13,800.00	10,115.93	10,027.50	9,989.51	34.75	25.74	83.33	-4,751.05	-1,113.47	1,268.38	1,212.76	55.63	22.802		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 57H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 172- VES GyroFlex V2, 1519-MWD-ISCWSA, 16135-Project												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
13,900.00	10,116.63	10,028.79	9,990.80	35.30	25.74	83.41	-4,751.05	-1,113.61	1,204.09	1,148.29	55.80	21.577	
14,000.00	10,117.34	10,030.03	9,992.02	35.85	25.75	83.48	-4,751.05	-1,113.74	1,144.93	1,088.92	56.01	20.442	
14,100.00	10,118.05	10,031.21	9,993.20	36.42	25.75	83.55	-4,751.06	-1,113.87	1,091.74	1,035.50	56.25	19.409	
14,200.00	10,118.76	10,032.35	9,994.33	36.99	25.75	83.62	-4,751.06	-1,113.99	1,045.44	988.91	56.52	18.496	
14,300.00	10,119.46	10,033.44	9,995.42	37.57	25.76	83.69	-4,751.06	-1,114.11	1,006.96	950.12	56.84	17.716	
14,400.00	10,120.17	10,034.49	9,996.46	38.16	25.76	83.75	-4,751.07	-1,114.22	977.24	920.04	57.20	17.085	
14,500.00	10,120.88	10,035.50	9,997.47	38.75	25.76	83.81	-4,751.07	-1,114.33	957.09	899.49	57.61	16.614	
14,600.00	10,121.59	10,036.47	9,998.43	39.35	25.77	83.87	-4,751.07	-1,114.43	947.13	889.03	58.10	16.303	
14,644.88	10,121.90	10,036.90	9,998.85	39.62	25.77	83.90	-4,751.07	-1,114.48	946.07	887.73	58.33	16.218 CC, ES	
14,700.00	10,122.29	10,037.41	9,999.36	39.96	25.77	83.93	-4,751.07	-1,114.53	947.67	889.04	58.63	16.162	
14,800.00	10,123.00	10,038.31	10,000.26	40.57	25.77	83.98	-4,751.07	-1,114.63	958.70	899.50	59.20	16.194	
14,900.00	10,123.71	10,039.18	10,001.12	41.19	25.78	84.04	-4,751.08	-1,114.72	979.86	920.09	59.77	16.393	
15,000.00	10,124.42	10,040.02	10,001.96	41.81	25.78	84.09	-4,751.08	-1,114.81	1,010.52	950.20	60.32	16.753	
15,100.00	10,125.13	10,040.83	10,002.76	42.43	25.78	84.14	-4,751.08	-1,114.89	1,049.84	989.02	60.82	17.262	
15,200.00	10,125.83	10,041.61	10,003.54	43.07	25.78	84.18	-4,751.08	-1,114.98	1,096.90	1,035.64	61.25	17.908	
15,300.00	10,126.54	10,042.37	10,004.30	43.70	25.79	84.23	-4,751.08	-1,115.06	1,150.74	1,089.12	61.62	18.675	
15,400.00	10,127.25	10,043.10	10,005.02	44.34	25.79	84.27	-4,751.08	-1,115.13	1,210.46	1,148.54	61.92	19.548	
15,500.00	10,127.96	10,043.81	10,005.73	44.99	25.79	84.32	-4,751.08	-1,115.21	1,275.24	1,213.07	62.17	20.511	
15,600.00	10,128.66	10,044.50	10,006.41	45.63	25.79	84.36	-4,751.08	-1,115.28	1,344.34	1,281.96	62.37	21.553	
15,700.00	10,129.37	10,045.16	10,007.07	46.29	25.80	84.40	-4,751.08	-1,115.35	1,417.13	1,354.59	62.54	22.660	
15,800.00	10,130.08	10,045.81	10,007.71	46.94	25.80	84.44	-4,751.08	-1,115.42	1,493.07	1,430.40	62.68	23.821	
15,900.00	10,130.79	10,046.43	10,008.34	47.60	25.80	84.48	-4,751.08	-1,115.48	1,571.71	1,508.92	62.80	25.029	
16,000.00	10,131.50	12,247.00	11,264.72	48.26	45.10	135.84	-5,978.19	-1,287.95	1,616.72	1,542.77	73.95	21.863	
16,100.00	10,132.20	12,368.26	11,265.67	48.93	47.52	135.55	-6,098.96	-1,298.71	1,623.50	1,547.09	76.41	21.248	
16,200.00	10,132.91	12,476.63	11,265.81	49.59	49.79	135.29	-6,206.98	-1,307.37	1,629.21	1,550.30	78.91	20.646	
16,300.00	10,133.62	12,607.24	11,267.72	50.27	52.33	135.11	-6,337.36	-1,314.80	1,634.39	1,553.14	81.25	20.115	
16,400.00	10,134.33	12,704.09	11,269.97	50.94	54.24	135.06	-6,434.14	-1,317.63	1,638.12	1,554.57	83.55	19.606	
16,500.00	10,135.03	12,795.96	11,273.36	51.61	56.01	135.06	-6,525.92	-1,319.66	1,642.31	1,556.52	85.79	19.143	
16,600.00	10,135.74	12,915.79	11,276.90	52.29	58.56	135.04	-6,645.67	-1,322.15	1,645.83	1,557.59	88.24	18.651	
16,700.00	10,136.45	12,994.00	11,279.10	52.97	60.20	135.00	-6,723.80	-1,324.83	1,650.15	1,559.53	90.62	18.210	
16,800.00	10,137.16	13,091.27	11,282.03	53.66	62.29	134.94	-6,820.93	-1,329.00	1,655.32	1,562.26	93.06	17.788	
16,900.00	10,137.87	13,218.36	11,282.38	54.34	65.46	134.75	-6,947.86	-1,335.24	1,658.97	1,563.00	95.96	17.288	
17,000.00	10,138.57	13,313.36	11,281.31	55.03	67.78	134.57	-7,042.72	-1,340.35	1,662.04	1,563.33	98.71	16.838	
17,100.00	10,139.28	13,395.33	11,281.60	55.72	69.58	134.45	-7,124.58	-1,344.50	1,665.93	1,564.71	101.22	16.459	
17,200.00	10,139.99	13,465.00	11,283.29	56.41	71.00	134.39	-7,194.16	-1,347.70	1,671.05	1,567.49	103.56	16.136	
17,300.00	10,140.70	13,536.47	11,286.78	57.10	72.45	134.37	-7,265.46	-1,351.00	1,677.91	1,572.05	105.85	15.852	
17,400.00	10,141.40	13,658.63	11,294.13	57.80	75.17	134.36	-7,387.25	-1,357.10	1,685.82	1,577.45	108.37	15.556	
17,484.18	10,142.00	13,761.08	11,296.98	58.16	77.76	134.26	-7,489.50	-1,362.73	1,690.77	1,580.40	110.36	15.320 SF	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 58H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 1629-MWD-ISCWSA, 16290-Project													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	1,535.00	1,534.97	0.00	0.00	-175.98	-4,756.97	-334.65	5,016.68					
100.00	100.00	1,535.00	1,534.97	0.09	0.00	-175.98	-4,756.97	-334.65	4,986.54	4,985.17	1.37	3,640.883		
200.00	200.00	1,535.00	1,534.97	0.31	0.00	-175.98	-4,756.97	-334.65	4,958.23	4,956.94	1.29	3,845.568		
300.00	300.00	1,535.00	1,534.97	0.54	0.00	-175.98	-4,756.97	-334.65	4,931.78	4,930.53	1.26	3,927.935		
400.00	400.00	1,535.00	1,534.97	0.76	0.00	-175.98	-4,756.97	-334.65	4,907.23	4,905.96	1.27	3,856.472		
500.00	500.00	1,535.00	1,534.97	0.99	0.00	-175.98	-4,756.97	-334.65	4,884.61	4,883.27	1.34	3,649.553		
600.00	600.00	1,535.00	1,534.97	1.21	0.00	-175.98	-4,756.97	-334.65	4,863.94	4,862.49	1.45	3,361.792		
700.00	700.00	1,535.00	1,534.97	1.43	0.00	-175.98	-4,756.97	-334.65	4,845.24	4,843.65	1.59	3,049.242		
800.00	800.00	1,535.00	1,534.97	1.66	0.00	-175.98	-4,756.97	-334.65	4,828.54	4,826.79	1.76	2,748.864		
900.00	900.00	1,535.00	1,534.97	1.88	0.00	-175.98	-4,756.97	-334.65	4,813.86	4,811.92	1.94	2,477.991		
1,000.00	1,000.00	1,535.00	1,534.97	2.11	0.00	-175.98	-4,756.97	-334.65	4,801.22	4,799.08	2.14	2,241.431		
1,100.00	1,100.00	1,535.00	1,534.97	2.33	0.00	-175.98	-4,756.97	-334.65	4,790.64	4,788.29	2.35	2,037.829		
1,200.00	1,200.00	1,535.00	1,534.97	2.56	0.00	-175.98	-4,756.97	-334.65	4,782.12	4,779.55	2.57	1,863.468		
1,300.00	1,300.00	1,535.00	1,534.97	2.78	0.00	-175.98	-4,756.97	-334.65	4,775.68	4,772.90	2.79	1,714.120		
1,400.00	1,400.00	1,535.00	1,534.97	3.01	0.00	-175.98	-4,756.97	-334.65	4,771.33	4,768.32	3.01	1,585.828		
1,500.00	1,500.00	1,535.00	1,534.97	3.23	0.00	-175.98	-4,756.97	-334.65	4,769.08	4,765.84	3.23	1,475.157		
1,600.00	1,600.00	1,642.14	1,642.01	3.46	0.18	-176.03	-4,756.27	-330.21	4,768.16	4,764.55	3.61	1,321.266		
1,700.00	1,700.00	1,753.02	1,752.49	3.68	0.45	-176.14	-4,755.30	-320.94	4,766.71	4,762.58	4.13	1,154.204		
1,800.00	1,800.00	1,857.26	1,856.12	3.91	0.74	-176.27	-4,754.28	-309.70	4,765.01	4,760.36	4.65	1,025.395		
1,900.00	1,900.00	1,952.51	1,950.80	4.13	1.00	-176.40	-4,753.48	-299.37	4,763.47	4,758.34	5.13	928.694		
2,000.00	2,000.00	2,071.29	2,068.76	4.36	1.35	-176.56	-4,752.34	-285.47	4,761.78	4,756.08	5.70	834.761		
2,100.00	2,100.00	2,194.00	2,190.32	4.58	1.74	-176.76	-4,750.68	-268.86	4,759.62	4,753.31	6.31	754.139		
2,200.00	2,200.00	2,289.00	2,284.48	4.81	2.01	-176.91	-4,749.18	-256.29	4,757.29	4,750.48	6.81	698.397		
2,300.00	2,300.00	2,354.46	2,349.40	5.03	2.20	-177.01	-4,748.38	-248.00	4,755.40	4,748.18	7.22	658.329		
2,400.00	2,400.00	2,430.46	2,424.83	5.26	2.42	-177.12	-4,747.96	-238.67	4,754.20	4,746.53	7.67	620.127		
2,500.00	2,500.00	2,525.53	2,519.22	5.48	2.69	-177.26	-4,747.69	-227.32	4,753.31	4,745.15	8.16	582.259		
2,600.00	2,600.00	2,641.46	2,634.42	5.71	3.02	-177.41	-4,747.13	-214.38	4,752.31	4,743.59	8.71	545.422		
2,700.00	2,700.00	2,733.06	2,725.52	5.93	3.27	-177.53	-4,746.47	-204.83	4,751.14	4,741.95	9.19	516.990		
2,800.00	2,800.00	2,826.11	2,818.11	6.15	3.52	-177.64	-4,746.03	-195.58	4,750.23	4,740.56	9.67	491.408		
2,900.00	2,900.00	2,935.27	2,926.76	6.38	3.81	-177.77	-4,745.45	-185.07	4,749.32	4,739.13	10.18	466.365		
3,000.00	3,000.00	3,005.86	2,996.91	6.60	4.01	-177.86	-4,745.18	-177.23	4,748.53	4,737.92	10.61	447.597		
3,057.45	3,057.45	3,044.00	3,034.75	6.73	4.12	-177.92	-4,745.29	-172.45	4,748.42	4,737.57	10.85	437.729		
3,100.00	3,100.00	3,080.63	3,071.07	6.83	4.23	-177.98	-4,745.49	-167.68	4,748.46	4,737.40	11.06	429.525		
3,200.00	3,200.00	3,174.17	3,163.84	7.05	4.52	-178.12	-4,746.11	-155.73	4,748.68	4,737.12	11.56	410.650		
3,300.00	3,300.00	3,282.12	3,270.99	7.28	4.84	-178.28	-4,746.80	-142.63	4,748.95	4,736.84	12.11	392.142		
3,400.00	3,400.00	3,402.27	3,390.34	7.50	5.19	-178.45	-4,747.11	-128.79	4,748.87	4,736.19	12.68	374.395		
3,500.00	3,500.00	3,522.92	3,510.31	7.73	5.52	-178.60	-4,746.83	-116.04	4,748.36	4,735.12	13.25	358.419		
3,600.00	3,600.00	3,610.00	3,596.95	7.94	5.76	-102.17	-4,746.58	-107.30	4,748.02	4,734.32	13.70	346.614		
3,601.86	3,601.85	3,610.00	3,596.95	7.95	5.76	-102.17	-4,746.58	-107.30	4,748.02	4,734.31	13.70	346.518		
3,700.00	3,699.96	3,680.15	3,666.70	8.15	5.95	-102.28	-4,746.69	-99.82	4,748.49	4,734.40	14.10	336.865		
3,776.97	3,776.86	3,739.33	3,725.48	8.31	6.12	-102.38	-4,747.08	-92.91	4,749.51	4,735.09	14.42	329.290		
3,800.00	3,799.87	3,757.97	3,743.97	8.35	6.18	-102.42	-4,747.24	-90.64	4,749.90	4,735.37	14.53	327.003		
3,900.00	3,899.75	3,863.53	3,848.67	8.56	6.49	-102.64	-4,748.26	-77.21	4,751.73	4,736.68	15.05	315.776		
4,000.00	3,999.63	3,962.30	3,946.67	8.77	6.78	-102.84	-4,748.94	-64.93	4,753.34	4,737.79	15.55	305.643		
4,100.00	4,099.51	4,059.73	4,043.43	8.98	7.07	-103.04	-4,749.70	-53.53	4,755.11	4,739.07	16.05	296.312		
4,200.00	4,199.40	4,158.71	4,141.64	9.20	7.36	-103.24	-4,750.46	-41.30	4,756.93	4,740.38	16.55	287.387		
4,300.00	4,299.28	4,258.67	4,240.72	9.41	7.66	-103.45	-4,751.22	-28.09	4,758.80	4,741.72	17.07	278.774		
4,400.00	4,399.16	4,363.99	4,345.16	9.63	7.98	-103.68	-4,751.93	-14.43	4,760.64	4,743.04	17.61	270.398		
4,500.00	4,499.05	4,437.57	4,418.16	9.84	8.20	-103.83	-4,752.56	-5.27	4,762.73	4,744.69	18.04	263.990		
4,600.00	4,598.93	4,533.60	4,513.46	10.06	8.49	-104.03	-4,753.73	6.54	4,765.24	4,746.69	18.54	256.971		
4,700.00	4,698.81	4,707.31	4,685.89	10.28	9.00	-104.37	-4,754.24	27.51	4,766.82	4,747.54	19.28	247.295		
4,800.00	4,798.70	4,794.82	4,772.71	10.50	9.26	-104.55	-4,753.89	38.48	4,767.86	4,748.11	19.76	241.350		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 58H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 1629-MWD-ISCWSA, 16290-Project													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,900.00	4,898.58	4,891.29	4,868.38	10.72	9.55	-104.76	-4,753.87	50.88	4,769.33	4,749.06	20.27	235.337		
5,000.00	4,998.46	5,015.10	4,991.11	10.94	9.93	-105.02	-4,753.35	67.14	4,770.49	4,749.62	20.87	228.632		
5,100.00	5,098.35	5,120.00	5,095.22	11.16	10.24	-105.23	-4,752.47	79.97	4,771.25	4,749.86	21.40	222.973		
5,200.00	5,198.23	5,217.52	5,192.18	11.38	10.51	-105.41	-4,751.81	90.39	4,772.21	4,750.32	21.89	218.023		
5,300.00	5,298.11	5,313.00	5,287.22	11.60	10.77	-105.58	-4,750.95	99.55	4,772.96	4,750.59	22.37	213.386		
5,400.00	5,398.00	5,375.93	5,349.82	11.82	10.94	-105.69	-4,750.64	105.87	4,774.24	4,751.48	22.76	209.735		
5,500.00	5,497.88	5,438.74	5,412.20	12.05	11.12	-105.81	-4,751.00	113.28	4,776.56	4,753.40	23.16	206.221		
5,600.00	5,597.76	5,529.74	5,502.51	12.27	11.39	-105.99	-4,751.84	124.38	4,779.35	4,755.70	23.65	202.076		
5,700.00	5,697.65	5,631.92	5,603.92	12.50	11.69	-106.20	-4,752.73	136.94	4,782.16	4,757.98	24.18	197.799		
5,800.00	5,797.53	5,825.69	5,796.17	12.72	12.27	-106.59	-4,752.90	161.06	4,784.46	4,759.48	24.98	191.518		
5,900.00	5,897.41	5,933.70	5,903.30	12.95	12.59	-106.82	-4,751.43	174.75	4,785.20	4,759.67	25.53	187.418		
6,000.00	5,997.30	6,050.54	6,019.21	13.17	12.95	-107.06	-4,749.79	189.41	4,785.98	4,759.87	26.11	183.313		
6,100.00	6,097.18	6,142.58	6,110.49	13.40	13.22	-107.25	-4,748.20	201.07	4,786.50	4,759.89	26.61	179.867		
6,200.00	6,197.06	6,234.45	6,201.63	13.63	13.50	-107.44	-4,746.83	212.56	4,787.30	4,760.19	27.11	176.584		
6,300.00	6,296.94	6,320.46	6,287.05	13.85	13.75	-107.60	-4,745.74	222.51	4,788.32	4,760.73	27.59	173.580		
6,400.00	6,396.83	6,424.53	6,390.50	14.08	14.04	-107.80	-4,744.67	233.83	4,789.56	4,761.46	28.11	170.413		
6,500.00	6,496.71	6,499.42	6,464.93	14.31	14.25	-107.94	-4,743.89	242.02	4,790.89	4,762.35	28.55	167.829		
6,600.00	6,596.59	6,575.24	6,540.16	14.54	14.48	-108.09	-4,743.54	251.49	4,792.90	4,763.91	29.00	165.297		
6,700.00	6,696.48	6,666.58	6,630.69	14.77	14.75	-108.29	-4,743.24	263.60	4,795.20	4,765.70	29.50	162.552		
6,800.00	6,796.36	6,756.89	6,720.24	14.99	15.03	-108.47	-4,743.15	275.35	4,797.76	4,767.76	30.00	159.913		
6,900.00	6,896.24	6,858.48	6,820.90	15.22	15.34	-108.69	-4,743.03	288.97	4,800.41	4,769.87	30.54	157.184		
7,000.00	6,996.13	6,956.43	6,918.12	15.45	15.64	-108.89	-4,742.98	300.93	4,803.06	4,772.01	31.06	154.649		
7,100.00	7,096.01	7,046.89	7,008.01	15.68	15.89	-109.06	-4,743.11	311.12	4,805.89	4,774.34	31.54	152.358		
7,200.00	7,195.89	7,134.16	7,094.76	15.91	16.14	-109.22	-4,743.45	320.58	4,808.96	4,776.94	32.01	150.212		
7,300.00	7,295.78	7,352.69	7,311.86	16.14	16.77	-109.63	-4,742.38	345.39	4,811.61	4,778.75	32.87	146.392		
7,400.00	7,395.66	7,453.20	7,411.59	16.37	17.06	-109.83	-4,740.11	357.64	4,812.32	4,778.93	33.39	144.111		
7,500.00	7,495.54	7,543.80	7,501.55	16.60	17.33	-110.01	-4,738.29	368.28	4,813.29	4,779.40	33.89	142.038		
7,600.00	7,595.43	7,629.56	7,586.73	16.83	17.58	-110.17	-4,736.73	378.08	4,814.47	4,780.11	34.36	140.101		
7,700.00	7,695.31	7,721.35	7,677.93	17.06	17.84	-110.34	-4,735.38	388.44	4,816.01	4,781.16	34.86	138.173		
7,800.00	7,795.19	7,811.85	7,767.92	17.29	18.09	-110.51	-4,734.13	397.94	4,817.62	4,782.29	35.33	136.346		
7,900.00	7,895.08	7,892.45	7,848.18	17.53	18.30	-110.64	-4,733.47	405.31	4,819.64	4,783.86	35.78	134.707		
7,947.18	7,942.20	7,932.83	7,888.35	17.63	18.41	-110.71	-4,733.18	409.39	4,820.72	4,784.72	35.99	133.928		
8,000.00	7,994.97	7,980.06	7,935.28	17.74	18.54	-110.80	-4,732.84	414.67	4,821.91	4,785.68	36.23	133.082		
8,100.00	8,094.92	8,052.00	8,006.77	17.93	18.75	-110.94	-4,732.38	422.67	4,823.88	4,787.27	36.61	131.748		
8,200.00	8,194.91	8,108.99	8,063.37	18.11	18.92	-111.05	-4,732.39	429.34	4,826.01	4,789.06	36.96	130.590		
8,224.15	8,219.06	8,120.08	8,074.37	18.15	18.95	-112.38	-4,732.47	430.73	4,826.61	4,789.58	37.03	130.347		
8,300.00	8,294.91	8,162.13	8,116.05	18.30	19.07	-112.32	-4,732.98	436.27	4,828.84	4,791.54	37.30	129.474		
8,400.00	8,394.91	8,252.71	8,205.85	18.52	19.35	-112.18	-4,734.43	448.04	4,832.20	4,794.42	37.78	127.903		
8,500.00	8,494.91	8,473.90	8,425.18	18.73	20.03	-111.85	-4,735.61	476.55	4,834.69	4,796.02	38.68	124.996		
8,600.00	8,594.91	8,561.15	8,511.67	18.95	20.30	-111.71	-4,734.91	487.98	4,835.78	4,796.62	39.16	123.489		
8,700.00	8,694.91	8,643.32	8,593.19	19.16	20.55	-111.59	-4,734.58	498.37	4,837.23	4,797.61	39.62	122.087		
8,800.00	8,794.91	8,844.27	8,792.58	19.38	21.15	-111.30	-4,732.73	523.21	4,838.50	4,798.06	40.44	119.656		
8,900.00	8,894.91	8,951.51	8,898.96	19.59	21.47	-111.14	-4,730.06	536.46	4,837.91	4,796.94	40.97	118.077		
9,000.00	8,994.91	9,039.01	8,985.84	19.81	21.73	-111.01	-4,728.08	546.64	4,837.48	4,796.04	41.45	116.719		
9,100.00	9,094.91	9,128.61	9,074.88	20.03	21.98	-110.89	-4,726.39	556.49	4,837.34	4,795.43	41.92	115.404		
9,158.77	9,153.69	9,185.00	9,130.99	20.15	22.14	-110.83	-4,725.47	562.09	4,837.33	4,795.13	42.20	114.630		
9,200.00	9,194.91	9,213.87	9,159.71	20.24	22.22	-110.79	-4,725.05	564.92	4,837.38	4,795.01	42.37	114.176		
9,300.00	9,294.91	9,279.00	9,224.45	20.46	22.40	-110.71	-4,724.27	572.02	4,837.96	4,795.20	42.76	113.139		
9,400.00	9,394.91	9,374.00	9,318.87	20.68	22.67	-110.59	-4,723.56	582.49	4,839.03	4,795.79	43.24	111.907		
9,500.00	9,494.91	9,500.90	9,445.04	20.89	23.02	-110.43	-4,722.06	595.97	4,839.55	4,795.74	43.81	110.467		
9,524.15	9,519.06	9,515.36	9,459.40	20.95	23.06	-110.41	-4,721.88	597.62	4,839.71	4,795.81	43.90	110.237		
9,550.00	9,544.90	9,530.82	9,474.76	21.00	23.11	-9.20	-4,721.71	599.42	4,839.36	4,795.37	44.00	109.994		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 58H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 1629-MWD-ISCWSA, 16290-Project													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,600.00	9,594.69	9,562.00	9,505.71	21.09	23.19	-9.31	-4,721.45	603.18	4,835.58	4,791.41	44.17	109.469		
9,650.00	9,643.90	9,607.86	9,551.23	21.17	23.33	-9.53	-4,721.16	608.75	4,827.65	4,783.26	44.40	108.741		
9,700.00	9,692.17	9,655.20	9,598.24	21.26	23.47	-9.83	-4,720.90	614.27	4,815.52	4,770.90	44.62	107.917		
9,750.00	9,739.11	9,718.10	9,660.78	21.35	23.64	-10.26	-4,720.58	620.97	4,799.22	4,754.33	44.89	106.920		
9,800.00	9,784.38	9,766.31	9,708.79	21.43	23.77	-10.78	-4,720.30	625.44	4,778.80	4,733.70	45.10	105.953		
9,850.00	9,827.63	9,797.88	9,740.23	21.51	23.85	-11.39	-4,720.20	628.27	4,754.64	4,709.37	45.27	105.033		
9,900.00	9,868.53	9,827.82	9,770.05	21.60	23.93	-12.16	-4,720.16	630.94	4,726.93	4,681.51	45.43	104.060		
9,950.00	9,906.77	9,858.94	9,801.05	21.69	24.01	-13.13	-4,720.20	633.72	4,695.88	4,650.30	45.58	103.020		
10,000.00	9,942.06	9,892.81	9,834.78	21.78	24.10	-14.40	-4,720.25	636.82	4,661.65	4,615.91	45.74	101.910		
10,050.00	9,974.14	9,923.57	9,865.40	21.89	24.18	-16.02	-4,720.28	639.73	4,624.50	4,578.61	45.89	100.771		
10,100.00	10,002.75	9,963.76	9,905.39	22.01	24.28	-18.24	-4,720.28	643.67	4,584.69	4,538.63	46.06	99.531		
10,150.00	10,027.67	10,014.52	9,955.89	22.16	24.42	-21.39	-4,719.99	648.82	4,542.41	4,496.15	46.26	98.192		
10,200.00	10,048.73	10,044.27	9,985.48	22.33	24.50	-25.60	-4,719.67	651.94	4,498.04	4,451.64	46.40	96.946		
10,250.00	10,065.76	10,058.82	9,999.94	22.53	24.54	-31.50	-4,719.50	653.51	4,452.01	4,405.53	46.49	95.764		
10,300.00	10,078.62	10,069.69	10,010.74	22.75	24.57	-40.39	-4,719.38	654.70	4,404.70	4,358.13	46.57	94.588		
10,350.00	10,087.23	10,076.79	10,017.80	23.00	24.59	-54.20	-4,719.30	655.48	4,356.44	4,309.81	46.63	93.424		
10,400.00	10,091.51	10,080.09	10,021.08	23.27	24.60	-74.78	-4,719.26	655.85	4,307.61	4,260.93	46.68	92.278		
10,420.09	10,092.00	10,080.34	10,021.32	23.38	24.60	-84.65	-4,719.26	655.88	4,287.91	4,241.22	46.70	91.823		
10,500.00	10,092.57	10,080.08	10,021.06	23.88	24.60	-84.63	-4,719.26	655.85	4,209.56	4,162.80	46.76	90.027		
10,600.00	10,093.28	10,079.75	10,020.74	28.10	24.60	-84.61	-4,719.26	655.81	4,111.59	4,058.98	52.60	78.162		
10,700.00	10,093.98	10,079.42	10,020.41	28.19	24.60	-84.58	-4,719.27	655.78	4,013.71	3,961.03	52.68	76.189		
10,800.00	10,094.69	10,079.10	10,020.09	28.28	24.60	-84.56	-4,719.27	655.74	3,915.95	3,863.19	52.76	74.223		
10,900.00	10,095.40	10,078.77	10,019.77	28.37	24.60	-84.54	-4,719.27	655.70	3,818.30	3,765.46	52.84	72.264		
11,000.00	10,096.11	10,078.44	10,019.44	28.46	24.60	-84.52	-4,719.28	655.67	3,720.77	3,667.86	52.92	70.313		
11,100.00	10,096.82	10,078.12	10,019.12	28.55	24.59	-84.49	-4,719.28	655.63	3,623.38	3,570.39	53.00	68.368		
11,200.00	10,097.52	10,077.79	10,018.79	28.65	24.59	-84.47	-4,719.28	655.59	3,526.14	3,473.06	53.08	66.432		
11,300.00	10,098.23	10,077.46	10,018.47	28.74	24.59	-84.45	-4,719.29	655.56	3,429.05	3,375.89	53.16	64.503		
11,400.00	10,098.94	10,077.13	10,018.14	28.84	24.59	-84.43	-4,719.29	655.52	3,332.14	3,278.90	53.24	62.583		
11,500.00	10,099.65	10,076.81	10,017.81	28.94	24.59	-84.40	-4,719.30	655.48	3,235.42	3,182.09	53.33	60.672		
11,600.00	10,100.35	10,076.48	10,017.49	29.04	24.59	-84.38	-4,719.30	655.45	3,138.90	3,085.49	53.41	58.769		
11,700.00	10,101.06	10,076.15	10,017.16	29.14	24.59	-84.36	-4,719.30	655.41	3,042.60	2,989.11	53.50	56.876		
11,800.00	10,101.77	10,075.82	10,016.84	29.25	24.59	-84.34	-4,719.31	655.38	2,946.55	2,892.97	53.58	54.993		
11,900.00	10,102.48	10,075.50	10,016.51	29.35	24.59	-84.31	-4,719.31	655.34	2,850.78	2,797.11	53.67	53.119		
12,000.00	10,103.19	10,075.17	10,016.19	29.46	24.59	-84.29	-4,719.32	655.30	2,755.30	2,701.55	53.75	51.257		
12,100.00	10,103.89	10,074.84	10,015.86	29.57	24.58	-84.27	-4,719.32	655.27	2,660.16	2,606.31	53.84	49.406		
12,200.00	10,104.60	10,074.51	10,015.53	29.69	24.58	-84.25	-4,719.32	655.23	2,565.38	2,511.45	53.93	47.567		
12,300.00	10,105.31	10,074.18	10,015.21	29.80	24.58	-84.22	-4,719.33	655.19	2,471.02	2,417.00	54.02	45.740		
12,400.00	10,106.02	10,073.85	10,014.88	29.93	24.58	-84.20	-4,719.33	655.16	2,377.12	2,323.00	54.11	43.927		
12,500.00	10,106.72	10,073.52	10,014.55	30.06	24.58	-84.18	-4,719.33	655.12	2,283.73	2,229.52	54.21	42.129		
12,600.00	10,107.43	10,073.20	10,014.23	30.20	24.58	-84.16	-4,719.34	655.08	2,190.93	2,136.63	54.30	40.346		
12,700.00	10,108.14	10,072.87	10,013.90	30.36	24.58	-84.13	-4,719.34	655.05	2,098.79	2,044.39	54.40	38.579		
12,800.00	10,108.85	10,072.54	10,013.57	30.54	24.58	-84.11	-4,719.35	655.01	2,007.41	1,952.91	54.50	36.831		
12,900.00	10,109.56	10,072.21	10,013.24	30.76	24.58	-84.09	-4,719.35	654.97	1,916.88	1,862.28	54.61	35.103		
13,000.00	10,110.26	10,071.88	10,012.92	31.04	24.58	-84.07	-4,719.35	654.94	1,827.34	1,772.63	54.71	33.398		
13,100.00	10,110.97	10,071.55	10,012.59	31.39	24.58	-84.04	-4,719.36	654.90	1,738.95	1,684.12	54.83	31.716		
13,200.00	10,111.68	10,071.22	10,012.26	31.78	24.57	-84.02	-4,719.36	654.87	1,651.87	1,596.93	54.95	30.063		
13,300.00	10,112.39	10,070.89	10,011.93	32.22	24.57	-84.00	-4,719.36	654.83	1,566.34	1,511.27	55.08	28.440		
13,400.00	10,113.09	10,070.56	10,011.60	32.69	24.57	-83.97	-4,719.37	654.79	1,482.63	1,427.41	55.21	26.853		
13,500.00	10,113.80	10,070.23	10,011.28	33.18	24.57	-83.95	-4,719.37	654.76	1,401.05	1,345.69	55.36	25.308		
13,600.00	10,114.51	10,069.90	10,010.95	33.69	24.57	-83.93	-4,719.38	654.72	1,322.00	1,266.47	55.52	23.810		
13,700.00	10,115.22	10,069.57	10,010.62	34.22	24.57	-83.91	-4,719.38	654.68	1,245.96	1,190.26	55.70	22.368		
13,800.00	10,115.93	10,069.23	10,010.29	34.75	24.57	-83.88	-4,719.38	654.65	1,173.53	1,117.63	55.90	20.992		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit (Offsets) - 58H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 1629-MWD-ISCWSA, 16290-Project													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	10,116.63	10,068.90	10,009.96	35.30	24.57	-83.86	-4,719.39	654.61	1,105.41	1,049.28	56.13	19.695		
14,000.00	10,117.34	10,068.57	10,009.63	35.85	24.57	-83.84	-4,719.39	654.57	1,042.43	986.06	56.38	18.491		
14,100.00	10,118.05	10,068.24	10,009.30	36.42	24.57	-83.82	-4,719.40	654.54	985.60	928.95	56.65	17.398		
14,200.00	10,118.76	10,067.91	10,008.97	36.99	24.57	-83.79	-4,719.40	654.50	936.03	879.08	56.96	16.434		
14,300.00	10,119.46	10,067.58	10,008.64	37.57	24.56	-83.77	-4,719.40	654.46	894.93	837.64	57.29	15.621		
14,400.00	10,120.17	10,067.25	10,008.31	38.16	24.56	-83.75	-4,719.41	654.43	863.51	805.86	57.65	14.978		
14,500.00	10,120.88	10,066.91	10,007.98	38.75	24.56	-83.72	-4,719.41	654.39	842.85	784.81	58.04	14.522		
14,600.00	10,121.59	10,066.58	10,007.65	39.35	24.56	-83.70	-4,719.41	654.36	833.75	775.31	58.44	14.266		
14,626.27	10,121.77	10,066.50	10,007.57	39.51	24.56	-83.70	-4,719.42	654.35	833.34	774.79	58.55	14.233 CC, ES		
14,700.00	10,122.29	10,066.25	10,007.32	39.96	24.56	-83.68	-4,719.42	654.32	836.59	777.74	58.85	14.215 SF		
14,800.00	10,123.00	10,065.92	10,006.99	40.57	24.56	-83.66	-4,719.42	654.28	851.25	791.97	59.28	14.359		
14,900.00	10,123.71	10,065.59	10,006.66	41.19	24.56	-83.63	-4,719.43	654.25	877.14	817.43	59.72	14.688		
15,000.00	10,124.42	10,065.25	10,006.33	41.81	24.56	-83.61	-4,719.43	654.21	913.30	853.21	60.09	15.199		
15,100.00	10,125.13	10,064.92	10,006.00	42.43	24.56	-83.59	-4,719.43	654.17	958.58	898.18	60.39	15.872		
15,200.00	10,125.83	10,064.59	10,005.67	43.07	24.56	-83.56	-4,719.44	654.14	1,011.74	951.11	60.63	16.687		
15,300.00	10,126.54	10,064.25	10,005.34	43.70	24.56	-83.54	-4,719.44	654.10	1,071.61	1,010.80	60.81	17.622		
15,400.00	10,127.25	10,063.92	10,005.01	44.34	24.55	-83.52	-4,719.45	654.06	1,137.14	1,076.20	60.95	18.658		
15,500.00	10,127.96	10,063.59	10,004.68	44.99	24.55	-83.50	-4,719.45	654.03	1,207.41	1,146.36	61.05	19.777		
15,600.00	10,128.66	10,063.25	10,004.35	45.63	24.55	-83.47	-4,719.45	653.99	1,281.63	1,220.50	61.13	20.964		
15,700.00	10,129.37	10,062.92	10,004.01	46.29	24.55	-83.45	-4,719.46	653.95	1,359.16	1,297.96	61.20	22.207		
15,800.00	10,130.08	10,062.59	10,003.68	46.94	24.55	-83.43	-4,719.46	653.92	1,439.47	1,378.20	61.26	23.496		
15,900.00	10,130.79	10,062.25	10,003.35	47.60	24.55	-83.40	-4,719.46	653.88	1,522.11	1,460.78	61.32	24.821		
16,000.00	10,131.50	10,061.92	10,003.02	48.26	24.55	-83.38	-4,719.47	653.85	1,606.72	1,545.34	61.38	26.176		
16,100.00	10,132.20	12,582.85	11,243.02	48.93	40.72	-132.31	-6,132.82	1,082.25	1,685.26	1,614.36	70.90	23.771		
16,200.00	10,132.91	12,665.14	11,244.18	49.59	41.64	-132.25	-6,215.01	1,086.13	1,688.68	1,615.97	72.71	23.225		
16,300.00	10,133.62	12,765.11	11,246.72	50.27	42.78	-132.21	-6,314.86	1,090.46	1,692.57	1,618.07	74.50	22.719		
16,400.00	10,134.33	12,860.01	11,249.95	50.94	43.89	-132.21	-6,409.62	1,094.23	1,696.77	1,620.46	76.32	22.233		
16,500.00	10,135.03	13,010.36	11,254.83	51.61	45.72	-132.27	-6,559.87	1,096.75	1,699.02	1,620.96	78.06	21.765		
16,600.00	10,135.74	13,167.25	11,255.56	52.29	47.70	-132.27	-6,716.74	1,097.29	1,698.55	1,618.71	79.84	21.275		
16,700.00	10,136.45	13,260.27	11,254.17	52.97	48.91	-132.24	-6,809.75	1,096.95	1,696.28	1,614.50	81.78	20.741		
16,791.30	10,137.10	13,323.00	11,254.14	53.60	49.72	-132.24	-6,872.48	1,097.21	1,695.57	1,611.97	83.60	20.283		
16,800.00	10,137.16	13,323.00	11,254.14	53.66	49.72	-132.24	-6,872.48	1,097.21	1,695.59	1,611.81	83.78	20.238		
16,900.00	10,137.87	13,389.81	11,255.74	54.34	50.59	-132.26	-6,939.26	1,097.88	1,696.97	1,611.24	85.73	19.794		
17,000.00	10,138.57	13,472.34	11,259.98	55.03	51.66	-132.35	-7,021.68	1,098.81	1,700.20	1,612.58	87.62	19.404		
17,100.00	10,139.28	13,599.77	11,266.53	55.72	53.37	-132.49	-7,148.93	1,099.71	1,703.25	1,613.81	89.44	19.043		
17,200.00	10,139.99	13,712.13	11,269.59	56.41	54.94	-132.54	-7,261.25	1,100.62	1,704.65	1,613.29	91.37	18.657		
17,300.00	10,140.70	13,811.28	11,270.81	57.10	56.34	-132.52	-7,360.36	1,102.78	1,706.07	1,612.72	93.36	18.275		
17,400.00	10,141.40	13,933.95	11,270.02	57.80	58.12	-132.45	-7,483.01	1,104.98	1,705.79	1,610.43	95.36	17.888		
17,407.86	10,141.46	13,939.84	11,269.97	57.83	58.20	-132.45	-7,488.90	1,105.10	1,705.78	1,610.29	95.49	17.863		
17,484.18	10,142.00	14,003.20	11,269.60	58.16	59.13	-132.40	-7,552.24	1,106.78	1,706.18	1,609.36	96.81	17.624		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 110H - OH - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDM												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-90.32	-12.38	-2,189.64	2,189.68				
100.00	100.00	98.20	98.20	0.09	0.08	-90.32	-12.38	-2,189.64	2,189.68	2,189.50	0.17	N/A	
200.00	200.00	198.20	198.20	0.31	0.31	-90.32	-12.38	-2,189.64	2,189.68	2,189.06	0.62	3,546.420	
300.00	300.00	298.20	298.20	0.54	0.53	-90.32	-12.38	-2,189.64	2,189.68	2,188.61	1.07	2,052.247	
400.00	400.00	398.20	398.20	0.76	0.76	-90.32	-12.38	-2,189.64	2,189.68	2,188.16	1.52	1,443.904	
500.00	500.00	498.20	498.20	0.99	0.98	-90.32	-12.38	-2,189.64	2,189.68	2,187.71	1.97	1,113.755	
600.00	600.00	598.20	598.20	1.21	1.21	-90.32	-12.38	-2,189.64	2,189.68	2,187.26	2.42	906.487	
700.00	700.00	698.20	698.20	1.43	1.43	-90.32	-12.38	-2,189.64	2,189.68	2,186.81	2.87	764.260	
800.00	800.00	798.20	798.20	1.66	1.66	-90.32	-12.38	-2,189.64	2,189.68	2,186.36	3.31	660.610	
900.00	900.00	898.20	898.20	1.88	1.88	-90.32	-12.38	-2,189.64	2,189.68	2,185.91	3.76	581.717	
1,000.00	1,000.00	998.20	998.20	2.11	2.10	-90.32	-12.38	-2,189.64	2,189.68	2,185.46	4.21	519.657	
1,100.00	1,100.00	1,098.20	1,098.20	2.33	2.33	-90.32	-12.38	-2,189.64	2,189.68	2,185.01	4.66	469.563	
1,200.00	1,200.00	1,198.20	1,198.20	2.56	2.55	-90.32	-12.38	-2,189.64	2,189.68	2,184.56	5.11	428.277	
1,300.00	1,300.00	1,298.20	1,298.20	2.78	2.78	-90.32	-12.38	-2,189.64	2,189.68	2,184.11	5.56	393.665	
1,400.00	1,400.00	1,398.20	1,398.20	3.01	3.00	-90.32	-12.38	-2,189.64	2,189.68	2,183.66	6.01	364.228	
1,500.00	1,500.00	1,498.20	1,498.20	3.23	3.23	-90.32	-12.38	-2,189.64	2,189.68	2,183.21	6.46	338.888	
1,600.00	1,600.00	1,598.20	1,598.20	3.46	3.45	-90.32	-12.38	-2,189.64	2,189.68	2,182.76	6.91	316.845	
1,700.00	1,700.00	1,698.20	1,698.20	3.68	3.68	-90.32	-12.38	-2,189.64	2,189.68	2,182.31	7.36	297.493	
1,800.00	1,800.00	1,798.20	1,798.20	3.91	3.90	-90.32	-12.38	-2,189.64	2,189.68	2,181.87	7.81	280.370	
1,900.00	1,900.00	1,898.20	1,898.20	4.13	4.13	-90.32	-12.38	-2,189.64	2,189.68	2,181.42	8.26	265.111	
2,000.00	2,000.00	1,998.20	1,998.20	4.36	4.35	-90.32	-12.38	-2,189.64	2,189.68	2,180.97	8.71	251.426	
2,100.00	2,100.00	2,098.20	2,098.20	4.58	4.58	-90.32	-12.38	-2,189.64	2,189.68	2,180.52	9.16	239.086	
2,200.00	2,200.00	2,198.20	2,198.20	4.81	4.80	-90.32	-12.38	-2,189.64	2,189.68	2,180.07	9.61	227.899	
2,300.00	2,300.00	2,298.20	2,298.20	5.03	5.03	-90.32	-12.38	-2,189.64	2,189.68	2,179.62	10.06	217.713	
2,400.00	2,400.00	2,398.20	2,398.20	5.26	5.25	-90.32	-12.38	-2,189.64	2,189.68	2,179.17	10.51	208.399	
2,500.00	2,500.00	2,498.20	2,498.20	5.48	5.48	-90.32	-12.38	-2,189.64	2,189.68	2,178.72	10.96	199.849	
2,600.00	2,600.00	2,598.20	2,598.20	5.71	5.70	-90.32	-12.38	-2,189.64	2,189.68	2,178.27	11.41	191.972	
2,700.00	2,700.00	2,698.20	2,698.20	5.93	5.93	-90.32	-12.38	-2,189.64	2,189.68	2,177.82	11.86	184.693	
2,800.00	2,800.00	2,798.20	2,798.20	6.15	6.15	-90.32	-12.38	-2,189.64	2,189.68	2,177.37	12.31	177.946	
2,900.00	2,900.00	2,898.20	2,898.20	6.38	6.38	-90.32	-12.38	-2,189.64	2,189.68	2,176.92	12.75	171.675	
3,000.00	3,000.00	2,998.20	2,998.20	6.60	6.60	-90.32	-12.38	-2,189.64	2,189.68	2,176.47	13.20	165.830	
3,100.00	3,100.00	3,098.20	3,098.20	6.83	6.82	-90.32	-12.38	-2,189.64	2,189.68	2,176.02	13.65	160.370	
3,200.00	3,200.00	3,198.20	3,198.20	7.05	7.05	-90.32	-12.38	-2,189.64	2,189.68	2,175.57	14.10	155.259	
3,300.00	3,300.00	3,298.20	3,298.20	7.28	7.27	-90.32	-12.38	-2,189.64	2,189.68	2,175.12	14.55	150.463	
3,400.00	3,400.00	3,398.20	3,398.20	7.50	7.50	-90.32	-12.38	-2,189.64	2,189.68	2,174.67	15.00	145.954	
3,500.00	3,500.00	3,498.20	3,498.20	7.73	7.72	-90.32	-12.38	-2,189.64	2,189.68	2,174.22	15.45	141.708	
3,600.00	3,600.00	3,573.84	3,573.84	7.94	7.89	-13.78	-12.14	-2,190.05	2,189.37	2,173.54	15.83	138.313	
3,700.00	3,699.96	3,649.03	3,649.01	8.15	8.05	-13.77	-11.41	-2,191.32	2,188.51	2,172.32	16.19	135.181	
3,776.97	3,776.86	3,700.00	3,699.96	8.31	8.16	-13.77	-10.64	-2,192.66	2,187.48	2,171.03	16.45	132.988	
3,800.00	3,799.87	3,724.22	3,724.17	8.35	8.21	-13.76	-10.19	-2,193.44	2,187.13	2,170.58	16.55	132.175	
3,900.00	3,899.75	3,800.00	3,799.86	8.56	8.37	-13.74	-8.46	-2,196.44	2,186.38	2,169.48	16.91	129.329	
3,921.40	3,921.13	3,815.52	3,815.36	8.61	8.40	-13.73	-8.04	-2,197.16	2,186.37	2,169.39	16.98	128.756 CC	
4,000.00	3,999.63	3,874.61	3,874.35	8.77	8.53	-13.70	-6.26	-2,200.24	2,186.77	2,169.51	17.26	126.691	
4,100.00	4,099.51	3,954.12	3,953.64	8.98	8.70	-13.65	-3.40	-2,205.20	2,188.27	2,170.64	17.63	124.139	
4,200.00	4,199.40	4,054.06	4,053.30	9.20	8.92	-13.58	0.40	-2,211.79	2,190.16	2,172.12	18.05	121.345	
4,300.00	4,299.28	4,154.01	4,152.96	9.41	9.15	-13.51	4.20	-2,218.38	2,192.06	2,173.59	18.47	118.665	
4,400.00	4,399.16	4,253.96	4,252.61	9.63	9.37	-13.44	8.00	-2,224.97	2,193.96	2,175.06	18.90	116.094	
4,500.00	4,499.05	4,353.90	4,352.27	9.84	9.59	-13.37	11.80	-2,231.56	2,195.86	2,176.54	19.33	113.626	
4,600.00	4,598.93	4,453.85	4,451.92	10.06	9.82	-13.30	15.61	-2,238.15	2,197.77	2,178.01	19.75	111.256	
4,700.00	4,698.81	4,553.79	4,551.58	10.28	10.04	-13.23	19.41	-2,244.74	2,199.68	2,179.49	20.18	108.979	
4,800.00	4,798.70	4,653.74	4,651.24	10.50	10.27	-13.16	23.21	-2,251.33	2,201.59	2,180.97	20.62	106.790	
4,900.00	4,898.58	4,753.69	4,750.89	10.72	10.50	-13.09	27.01	-2,257.92	2,203.51	2,182.46	21.05	104.685	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 110H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,998.46	4,853.63	4,850.55	10.94	10.73	-13.02	30.81	-2,264.51	2,205.42	2,183.94	21.48	102.659		
5,100.00	5,098.35	4,953.58	4,950.20	11.16	10.97	-12.95	34.62	-2,271.10	2,207.35	2,185.43	21.92	100.707		
5,200.00	5,198.23	5,053.52	5,049.86	11.38	11.20	-12.89	38.42	-2,277.69	2,209.27	2,186.92	22.35	98.827		
5,300.00	5,298.11	5,153.47	5,149.52	11.60	11.43	-12.82	42.22	-2,284.28	2,211.20	2,188.41	22.79	97.015		
5,400.00	5,398.00	5,253.42	5,249.17	11.82	11.67	-12.75	46.02	-2,290.87	2,213.13	2,189.90	23.23	95.268		
5,500.00	5,497.88	5,353.36	5,348.83	12.05	11.90	-12.68	49.83	-2,297.46	2,215.07	2,191.40	23.67	93.582		
5,600.00	5,597.76	5,453.31	5,448.48	12.27	12.14	-12.61	53.63	-2,304.05	2,217.01	2,192.90	24.11	91.954		
5,700.00	5,697.65	5,553.25	5,548.14	12.50	12.38	-12.54	57.43	-2,310.64	2,218.95	2,194.40	24.55	90.381		
5,800.00	5,797.53	5,653.20	5,647.80	12.72	12.61	-12.47	61.23	-2,317.23	2,220.89	2,195.90	24.99	88.862		
5,900.00	5,897.41	5,753.15	5,747.45	12.95	12.85	-12.41	65.03	-2,323.82	2,222.84	2,197.40	25.44	87.393		
6,000.00	5,997.30	5,853.09	5,847.11	13.17	13.09	-12.34	68.84	-2,330.41	2,224.79	2,198.91	25.88	85.972		
6,100.00	6,097.18	5,953.04	5,946.76	13.40	13.33	-12.27	72.64	-2,337.01	2,226.74	2,200.42	26.32	84.597		
6,200.00	6,197.06	6,052.98	6,046.42	13.63	13.57	-12.20	76.44	-2,343.60	2,228.70	2,201.93	26.77	83.266		
6,300.00	6,296.94	6,152.93	6,146.08	13.85	13.81	-12.13	80.24	-2,350.19	2,230.66	2,203.45	27.21	81.977		
6,400.00	6,396.83	6,252.88	6,245.73	14.08	14.05	-12.07	84.04	-2,356.78	2,232.62	2,204.97	27.66	80.727		
6,500.00	6,496.71	6,352.82	6,345.39	14.31	14.29	-12.00	87.85	-2,363.37	2,234.59	2,206.49	28.10	79.516		
6,600.00	6,596.59	6,452.77	6,445.04	14.54	14.54	-11.93	91.65	-2,369.96	2,236.56	2,208.01	28.55	78.342		
6,700.00	6,696.48	6,552.71	6,544.70	14.77	14.78	-11.86	95.45	-2,376.55	2,238.53	2,209.54	29.00	77.203		
6,800.00	6,796.36	6,652.66	6,644.36	14.99	15.02	-11.80	99.25	-2,383.14	2,240.51	2,211.07	29.44	76.097		
6,900.00	6,896.24	6,804.39	6,795.77	15.22	15.32	-11.72	104.04	-2,391.44	2,241.35	2,211.38	29.97	74.775		
7,000.00	6,996.13	6,956.94	6,948.22	15.45	15.60	-11.69	106.84	-2,396.29	2,239.85	2,209.37	30.48	73.484		
7,100.00	7,096.01	7,102.94	7,094.21	15.68	15.86	-11.71	107.62	-2,397.64	2,236.02	2,205.06	30.96	72.219		
7,200.00	7,195.89	7,202.82	7,194.09	15.91	16.08	-11.73	107.62	-2,397.64	2,231.29	2,199.89	31.40	71.056		
7,300.00	7,295.78	7,302.71	7,293.98	16.14	16.29	-11.76	107.62	-2,397.64	2,226.56	2,194.71	31.84	69.925		
7,400.00	7,395.66	7,402.59	7,393.86	16.37	16.51	-11.78	107.62	-2,397.64	2,221.83	2,189.54	32.28	68.824		
7,500.00	7,495.54	7,502.47	7,493.74	16.60	16.73	-11.81	107.62	-2,397.64	2,217.09	2,184.37	32.72	67.753		
7,600.00	7,595.43	7,602.36	7,593.63	16.83	16.94	-11.83	107.62	-2,397.64	2,212.36	2,179.20	33.16	66.709		
7,700.00	7,695.31	7,702.24	7,693.51	17.06	17.16	-11.86	107.62	-2,397.64	2,207.64	2,174.03	33.61	65.692		
7,800.00	7,795.19	7,802.12	7,793.39	17.29	17.38	-11.89	107.62	-2,397.64	2,202.91	2,168.86	34.05	64.700		
7,900.00	7,895.08	7,902.01	7,893.28	17.53	17.59	-11.91	107.62	-2,397.64	2,198.18	2,163.69	34.49	63.734		
7,947.18	7,942.20	7,949.13	7,940.40	17.63	17.70	-11.92	107.62	-2,397.64	2,195.95	2,161.25	34.70	63.287		
8,000.00	7,994.97	8,001.90	7,993.17	17.74	17.81	-11.93	107.62	-2,397.64	2,193.69	2,158.77	34.92	62.818		
8,100.00	8,094.92	8,101.85	8,093.12	17.93	18.03	-11.94	107.62	-2,397.64	2,190.71	2,155.39	35.32	62.017		
8,200.00	8,194.91	8,201.84	8,193.11	18.11	18.25	-11.95	107.62	-2,397.64	2,189.45	2,153.72	35.73	61.282		
8,224.15	8,219.06	8,225.99	8,217.26	18.15	18.30	-88.49	107.62	-2,397.64	2,189.40	2,153.57	35.82	61.114		
8,300.00	8,294.91	8,301.84	8,293.11	18.30	18.46	-88.49	107.62	-2,397.64	2,189.40	2,153.25	36.14	60.574		
8,400.00	8,394.91	8,401.84	8,393.11	18.52	18.68	-88.49	107.62	-2,397.64	2,189.40	2,152.82	36.58	59.849		
8,500.00	8,494.91	8,501.84	8,493.11	18.73	18.90	-88.49	107.62	-2,397.64	2,189.40	2,152.38	37.02	59.141		
8,600.00	8,594.91	8,601.84	8,593.11	18.95	19.12	-88.49	107.62	-2,397.64	2,189.40	2,151.94	37.46	58.449		
8,700.00	8,694.91	8,701.84	8,693.11	19.16	19.34	-88.49	107.62	-2,397.64	2,189.40	2,151.50	37.90	57.773		
8,800.00	8,794.91	8,801.84	8,793.11	19.38	19.56	-88.49	107.62	-2,397.64	2,189.40	2,151.06	38.34	57.111		
8,900.00	8,894.91	8,901.84	8,893.11	19.59	19.78	-88.49	107.62	-2,397.64	2,189.40	2,150.62	38.77	56.465		
9,000.00	8,994.91	9,001.84	8,993.11	19.81	20.00	-88.49	107.62	-2,397.64	2,189.40	2,150.18	39.21	55.832		
9,100.00	9,094.91	9,101.84	9,093.11	20.03	20.21	-88.49	107.62	-2,397.64	2,189.40	2,149.75	39.65	55.213		
9,200.00	9,194.91	9,201.10	9,198.33	20.24	20.43	-88.53	106.13	-2,397.63	2,189.35	2,149.27	40.09	54.612		
9,300.00	9,294.91	9,318.23	9,307.70	20.46	20.61	-89.02	87.46	-2,397.49	2,188.86	2,148.39	40.47	54.082		
9,400.00	9,394.91	9,418.84	9,401.96	20.68	20.75	-89.93	52.64	-2,397.24	2,188.26	2,147.43	40.83	53.599		
9,445.04	9,439.95	9,459.59	9,438.15	20.77	20.80	-90.42	33.93	-2,397.10	2,188.16	2,147.18	40.98	53.396		
9,500.00	9,494.91	9,505.23	9,479.99	20.89	20.86	-91.05	9.97	-2,396.92	2,188.35	2,147.19	41.16	53.164		
9,524.15	9,519.06	9,523.88	9,492.29	20.95	20.88	-91.33	-0.69	-2,396.84	2,188.57	2,147.33	41.24	53.067		
9,550.00	9,544.90	9,543.23	9,507.79	21.00	20.91	-88.77	-12.27	-2,396.76	2,188.92	2,147.60	41.32	52.975		
9,600.00	9,594.69	9,579.85	9,536.00	21.09	20.95	-88.13	-35.60	-2,396.59	2,189.85	2,148.39	41.46	52.818		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 110H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,650.00	9,643.90	9,615.52	9,562.01	21.17	21.00	87.50	-60.01	-2,396.41	2,191.09	2,149.50	41.60	52.677		
9,700.00	9,692.17	9,650.00	9,585.65	21.26	21.04	86.87	-85.09	-2,396.22	2,192.60	2,150.88	41.72	52.549		
9,750.00	9,739.11	9,684.57	9,607.80	21.35	21.09	86.25	-111.63	-2,396.03	2,194.34	2,152.48	41.86	52.422		
9,800.00	9,784.38	9,718.17	9,627.75	21.43	21.14	85.64	-138.65	-2,395.83	2,196.26	2,154.26	41.99	52.299		
9,850.00	9,827.63	9,750.00	9,645.17	21.51	21.19	85.06	-165.30	-2,395.64	2,198.31	2,156.18	42.13	52.181		
9,900.00	9,868.53	9,783.90	9,662.05	21.60	21.27	84.47	-194.68	-2,395.42	2,200.45	2,158.16	42.29	52.037		
9,950.00	9,906.77	9,816.16	9,676.49	21.69	21.35	83.92	-223.53	-2,395.21	2,202.62	2,160.17	42.45	51.885		
10,000.00	9,942.06	9,850.00	9,689.85	21.78	21.44	83.39	-254.61	-2,394.98	2,204.80	2,162.16	42.64	51.704		
10,050.00	9,974.14	9,879.75	9,700.07	21.89	21.55	82.92	-282.55	-2,394.77	2,206.93	2,164.09	42.85	51.505		
10,100.00	10,002.75	9,911.16	9,709.27	22.01	21.66	82.46	-312.57	-2,394.55	2,208.99	2,165.90	43.09	51.270		
10,150.00	10,027.67	9,950.00	9,718.35	22.16	21.82	82.00	-350.33	-2,394.28	2,210.94	2,167.55	43.38	50.961		
10,200.00	10,048.73	9,973.37	9,722.57	22.33	21.92	81.68	-373.32	-2,394.11	2,212.70	2,169.04	43.66	50.680		
10,250.00	10,065.76	10,000.00	9,726.24	22.53	22.05	81.38	-399.69	-2,393.91	2,214.30	2,170.32	43.98	50.350		
10,300.00	10,078.62	10,034.99	9,729.18	22.75	22.22	81.08	-434.54	-2,393.66	2,215.68	2,171.30	44.38	49.930		
10,350.00	10,087.23	10,067.28	9,730.02	23.00	22.39	80.84	-466.82	-2,393.42	2,216.83	2,172.04	44.79	49.489		
10,400.00	10,091.51	10,117.10	9,730.27	23.27	22.68	80.68	-516.64	-2,393.05	2,217.48	2,172.13	45.35	48.898		
10,420.09	10,092.00	10,137.19	9,730.37	23.38	22.81	80.66	-536.72	-2,392.91	2,217.55	2,171.96	45.59	48.642		
10,500.00	10,092.57	10,217.09	9,730.76	23.88	23.33	80.66	-616.63	-2,392.32	2,217.58	2,170.98	46.60	47.588		
10,600.00	10,093.28	10,317.09	9,731.25	28.10	24.06	80.65	-716.63	-2,391.59	2,217.61	2,169.93	47.68	46.512		
10,700.00	10,093.98	10,417.09	9,731.74	28.19	24.89	80.65	-816.62	-2,390.85	2,217.65	2,169.12	48.53	45.699		
10,800.00	10,094.69	10,517.09	9,732.23	28.28	25.79	80.64	-916.62	-2,390.12	2,217.68	2,168.20	49.48	44.823		
10,900.00	10,095.40	10,617.09	9,732.72	28.37	26.76	80.63	-1,016.61	-2,389.38	2,217.72	2,167.20	50.52	43.898		
11,000.00	10,096.11	10,717.09	9,733.21	28.46	27.79	80.63	-1,116.61	-2,388.65	2,217.75	2,166.10	51.65	42.940		
11,100.00	10,096.82	10,817.09	9,733.70	28.55	28.88	80.62	-1,216.60	-2,387.91	2,217.79	2,164.93	52.86	41.960		
11,200.00	10,097.52	10,917.09	9,734.19	28.65	30.02	80.62	-1,316.60	-2,387.18	2,217.82	2,163.69	54.13	40.968		
11,300.00	10,098.23	11,017.09	9,734.68	28.74	31.21	80.61	-1,416.60	-2,386.44	2,217.86	2,162.38	55.48	39.975		
11,400.00	10,098.94	11,117.09	9,735.17	28.84	32.43	80.61	-1,516.59	-2,385.71	2,217.89	2,161.00	56.89	38.986		
11,500.00	10,099.65	11,217.09	9,735.66	28.94	33.69	80.60	-1,616.59	-2,384.98	2,217.93	2,159.57	58.35	38.009		
11,600.00	10,100.35	11,317.09	9,736.16	29.04	34.98	80.60	-1,716.58	-2,384.24	2,217.96	2,158.09	59.87	37.047		
11,700.00	10,101.06	11,417.09	9,736.65	29.14	36.30	80.59	-1,816.58	-2,383.51	2,218.00	2,156.56	61.43	36.103		
11,800.00	10,101.77	11,517.09	9,737.14	29.25	37.64	80.58	-1,916.58	-2,382.77	2,218.03	2,154.99	63.04	35.182		
11,900.00	10,102.48	11,617.09	9,737.63	29.35	39.01	80.58	-2,016.57	-2,382.04	2,218.07	2,153.37	64.70	34.285		
12,000.00	10,103.19	11,717.09	9,738.12	29.46	40.39	80.57	-2,116.57	-2,381.30	2,218.10	2,151.72	66.39	33.413		
12,100.00	10,103.89	11,817.09	9,738.61	29.57	41.80	80.57	-2,216.56	-2,380.57	2,218.14	2,150.03	68.11	32.566		
12,200.00	10,104.60	11,917.09	9,739.10	29.69	43.22	80.56	-2,316.56	-2,379.83	2,218.17	2,148.30	69.87	31.747		
12,300.00	10,105.31	12,017.09	9,739.59	29.80	44.66	80.56	-2,416.56	-2,379.10	2,218.21	2,146.55	71.66	30.954		
12,400.00	10,106.02	12,117.09	9,740.08	29.93	46.11	80.55	-2,516.55	-2,378.37	2,218.25	2,144.76	73.48	30.187		
12,500.00	10,106.72	12,217.09	9,740.57	30.06	47.57	80.55	-2,616.55	-2,377.63	2,218.28	2,142.95	75.33	29.447		
12,600.00	10,107.43	12,317.09	9,741.06	30.20	49.04	80.54	-2,716.54	-2,376.90	2,218.32	2,141.11	77.20	28.733		
12,700.00	10,108.14	12,417.09	9,741.55	30.36	50.52	80.54	-2,816.54	-2,376.16	2,218.35	2,139.25	79.10	28.044		
12,800.00	10,108.85	12,517.09	9,742.04	30.54	52.02	80.53	-2,916.53	-2,375.43	2,218.39	2,137.36	81.02	27.380		
12,900.00	10,109.56	12,617.09	9,742.54	30.76	53.52	80.52	-3,016.53	-2,374.69	2,218.42	2,135.46	82.97	26.739		
13,000.00	10,110.26	12,717.09	9,743.03	31.04	55.03	80.52	-3,116.53	-2,373.96	2,218.46	2,133.53	84.93	26.122		
13,100.00	10,110.97	12,817.09	9,743.52	31.39	56.54	80.51	-3,216.52	-2,373.22	2,218.49	2,131.59	86.91	25.527		
13,200.00	10,111.68	12,917.09	9,744.01	31.78	58.07	80.51	-3,316.52	-2,372.49	2,218.53	2,129.62	88.91	24.953		
13,300.00	10,112.39	13,017.09	9,744.50	32.22	59.60	80.50	-3,416.51	-2,371.76	2,218.57	2,127.64	90.92	24.401		
13,400.00	10,113.09	13,117.09	9,744.99	32.69	61.13	80.50	-3,516.51	-2,371.02	2,218.60	2,125.65	92.95	23.868		
13,500.00	10,113.80	13,217.09	9,745.48	33.18	62.67	80.49	-3,616.51	-2,370.29	2,218.64	2,123.64	95.00	23.354		
13,600.00	10,114.51	13,317.09	9,745.97	33.69	64.22	80.49	-3,716.50	-2,369.55	2,218.67	2,121.61	97.06	22.859		
13,700.00	10,115.22	13,417.09	9,746.46	34.22	65.77	80.48	-3,816.50	-2,368.82	2,218.71	2,119.57	99.13	22.381		
13,800.00	10,115.93	13,517.09	9,746.95	34.75	67.32	80.47	-3,916.49	-2,368.08	2,218.74	2,117.52	101.22	21.920		
13,900.00	10,116.63	13,617.09	9,747.44	35.30	68.88	80.47	-4,016.49	-2,367.35	2,218.78	2,115.46	103.32	21.475		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 110H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
14,000.00	10,117.34	13,717.09	9,747.93	35.85	70.44	80.46	-4,116.48	-2,366.61	2,218.82	2,113.39	105.43	21.046		
14,100.00	10,118.05	13,817.09	9,748.42	36.42	72.00	80.46	-4,216.48	-2,365.88	2,218.85	2,111.30	107.55	20.631		
14,200.00	10,118.76	13,917.09	9,748.91	36.99	73.57	80.45	-4,316.48	-2,365.14	2,218.89	2,109.21	109.68	20.231		
14,300.00	10,119.46	14,017.09	9,749.41	37.57	75.14	80.45	-4,416.47	-2,364.41	2,218.92	2,107.10	111.82	19.844		
14,400.00	10,120.17	14,117.09	9,749.90	38.16	76.72	80.44	-4,516.47	-2,363.68	2,218.96	2,104.99	113.97	19.470		
14,500.00	10,120.88	14,217.08	9,750.39	38.75	78.29	80.44	-4,616.46	-2,362.94	2,219.00	2,102.87	116.13	19.108		
14,600.00	10,121.59	14,317.08	9,750.88	39.35	79.87	80.43	-4,716.46	-2,362.21	2,219.03	2,100.74	118.29	18.759		
14,700.00	10,122.29	14,417.08	9,751.37	39.96	81.46	80.42	-4,816.46	-2,361.47	2,219.07	2,098.60	120.47	18.421		
14,800.00	10,123.00	14,517.08	9,751.86	40.57	83.04	80.42	-4,916.45	-2,360.74	2,219.10	2,096.46	122.65	18.093		
14,900.00	10,123.71	14,617.08	9,752.35	41.19	84.63	80.41	-5,016.45	-2,360.00	2,219.14	2,094.30	124.84	17.776		
15,000.00	10,124.42	14,717.08	9,752.84	41.81	86.21	80.41	-5,116.44	-2,359.27	2,219.18	2,092.14	127.03	17.470		
15,100.00	10,125.13	14,817.08	9,753.33	42.43	87.80	80.40	-5,216.44	-2,358.53	2,219.21	2,089.98	129.23	17.172		
15,200.00	10,125.83	14,917.08	9,753.82	43.07	89.39	80.40	-5,316.44	-2,357.80	2,219.25	2,087.81	131.44	16.884		
15,300.00	10,126.54	15,017.08	9,754.31	43.70	90.99	80.39	-5,416.43	-2,357.07	2,219.28	2,085.63	133.65	16.605		
15,400.00	10,127.25	15,117.08	9,754.80	44.34	92.58	80.39	-5,516.43	-2,356.33	2,219.32	2,083.45	135.87	16.334		
15,500.00	10,127.96	15,217.08	9,755.29	44.99	94.18	80.38	-5,616.42	-2,355.60	2,219.36	2,081.26	138.10	16.071		
15,600.00	10,128.66	15,317.08	9,755.79	45.63	95.78	80.37	-5,716.42	-2,354.86	2,219.39	2,079.07	140.33	15.816		
15,700.00	10,129.37	15,417.08	9,756.28	46.29	97.38	80.37	-5,816.41	-2,354.13	2,219.43	2,076.87	142.56	15.568		
15,800.00	10,130.08	15,517.08	9,756.77	46.94	98.98	80.36	-5,916.41	-2,353.39	2,219.46	2,074.66	144.80	15.328		
15,900.00	10,130.79	15,617.08	9,757.26	47.60	100.58	80.36	-6,016.41	-2,352.66	2,219.50	2,072.46	147.04	15.094		
16,000.00	10,131.50	15,717.08	9,757.75	48.26	102.18	80.35	-6,116.40	-2,351.92	2,219.54	2,070.25	149.29	14.867		
16,100.00	10,132.20	15,817.08	9,758.24	48.93	103.78	80.35	-6,216.40	-2,351.19	2,219.57	2,068.03	151.54	14.647		
16,200.00	10,132.91	15,917.08	9,758.73	49.59	105.39	80.34	-6,316.39	-2,350.46	2,219.61	2,065.81	153.80	14.432		
16,300.00	10,133.62	16,017.08	9,759.22	50.27	107.00	80.34	-6,416.39	-2,349.72	2,219.64	2,063.59	156.06	14.223		
16,400.00	10,134.33	16,117.08	9,759.71	50.94	108.60	80.33	-6,516.39	-2,348.99	2,219.68	2,061.36	158.32	14.020		
16,500.00	10,135.03	16,217.08	9,760.20	51.61	110.21	80.33	-6,616.38	-2,348.25	2,219.72	2,059.13	160.58	13.823		
16,600.00	10,135.74	16,317.08	9,760.69	52.29	111.82	80.32	-6,716.38	-2,347.52	2,219.75	2,056.90	162.85	13.630		
16,700.00	10,136.45	16,417.08	9,761.18	52.97	113.43	80.31	-6,816.37	-2,346.78	2,219.79	2,054.66	165.13	13.443		
16,800.00	10,137.16	16,517.08	9,761.67	53.66	115.04	80.31	-6,916.37	-2,346.05	2,219.83	2,052.42	167.40	13.260		
16,900.00	10,137.87	16,617.08	9,762.16	54.34	116.65	80.30	-7,016.36	-2,345.31	2,219.86	2,050.18	169.68	13.083		
17,000.00	10,138.57	16,717.08	9,762.66	55.03	118.26	80.30	-7,116.36	-2,344.58	2,219.90	2,047.94	171.96	12.909		
17,100.00	10,139.28	16,817.08	9,763.15	55.72	119.88	80.29	-7,216.36	-2,343.84	2,219.94	2,045.69	174.25	12.740		
17,200.00	10,139.99	16,917.08	9,763.64	56.41	121.49	80.29	-7,316.35	-2,343.11	2,219.97	2,043.44	176.53	12.575		
17,300.00	10,140.70	17,017.08	9,764.13	57.10	123.10	80.28	-7,416.35	-2,342.38	2,220.01	2,041.19	178.82	12.415		
17,400.00	10,141.40	17,117.08	9,764.62	57.80	124.72	80.28	-7,516.34	-2,341.64	2,220.05	2,038.93	181.11	12.258		
17,400.01	10,141.40	17,117.09	9,764.62	57.80	124.72	80.28	-7,516.36	-2,341.64	2,220.05	2,038.93	181.11	12.258		
17,484.18	10,142.00	17,195.33	9,765.00	58.16	125.98	80.27	-7,594.60	-2,341.07	2,220.08	2,037.35	182.73	12.149 ES, SF		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 115H - OH - Plan #2		Offset Site Error: 0.00 usft	
Survey Program: O-LEAM MWD+HDGM															Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)					
0.00	0.00	0.00	0.00	0.00	0.00	-90.31	-0.32	-59.97	59.97							
100.00	100.00	100.00	100.00	0.09	0.09	-90.31	-0.32	-59.97	59.97	59.80	0.17	348.777				
200.00	200.00	200.00	200.00	0.31	0.31	-90.31	-0.32	-59.97	59.97	59.35	0.62	96.497				
300.00	300.00	300.00	300.00	0.54	0.54	-90.31	-0.32	-59.97	59.97	58.90	1.07	55.995				
400.00	400.00	400.00	400.00	0.76	0.76	-90.31	-0.32	-59.97	59.97	58.45	1.52	39.440				
500.00	500.00	500.00	500.00	0.99	0.99	-90.31	-0.32	-59.97	59.97	58.00	1.97	30.441				
600.00	600.00	600.00	600.00	1.21	1.21	-90.31	-0.32	-59.97	59.97	57.55	2.42	24.785				
700.00	700.00	700.00	700.00	1.43	1.43	-90.31	-0.32	-59.97	59.97	57.10	2.87	20.902				
800.00	800.00	800.00	800.00	1.66	1.66	-90.31	-0.32	-59.97	59.97	56.65	3.32	18.071				
900.00	900.00	900.00	900.00	1.88	1.88	-90.31	-0.32	-59.97	59.97	56.20	3.77	15.915				
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	-90.31	-0.32	-59.97	59.97	55.75	4.22	14.219				
1,100.00	1,100.00	1,100.00	1,100.00	2.33	2.33	-90.31	-0.32	-59.97	59.97	55.30	4.67	12.849				
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	-90.31	-0.32	-59.97	59.97	54.85	5.12	11.720				
1,300.00	1,300.00	1,300.00	1,300.00	2.78	2.78	-90.31	-0.32	-59.97	59.97	54.40	5.57	10.774				
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	-90.31	-0.32	-59.97	59.97	53.95	6.02	9.969				
1,500.00	1,500.00	1,500.00	1,500.00	3.23	3.23	-90.31	-0.32	-59.97	59.97	53.51	6.47	9.276				
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	-90.31	-0.32	-59.97	59.97	53.06	6.91	8.673				
1,700.00	1,700.00	1,700.00	1,700.00	3.68	3.68	-90.31	-0.32	-59.97	59.97	52.61	7.36	8.143				
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	-90.31	-0.32	-59.97	59.97	52.16	7.81	7.675				
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	-90.31	-0.32	-59.97	59.97	51.71	8.26	7.257				
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	-90.31	-0.32	-59.97	59.97	51.26	8.71	6.883				
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	-90.31	-0.32	-59.97	59.97	50.81	9.16	6.545				
2,200.00	2,200.00	2,200.00	2,200.00	4.81	4.81	-90.31	-0.32	-59.97	59.97	50.36	9.61	6.239				
2,203.33	2,203.33	2,203.33	2,203.33	4.81	4.81	-90.31	-0.32	-59.97	59.97	50.34	9.63	6.229 CC				
2,300.00	2,300.00	2,299.48	2,299.48	5.03	5.02	-90.30	-0.32	-60.18	60.19	50.13	10.05	5.987 ES				
2,400.00	2,400.00	2,398.41	2,398.40	5.26	5.22	-90.30	-0.32	-61.89	61.91	51.44	10.47	5.913				
2,500.00	2,500.00	2,497.26	2,497.18	5.48	5.42	-90.28	-0.32	-65.30	65.37	54.48	10.89	6.004				
2,600.00	2,600.00	2,595.95	2,595.74	5.71	5.62	-90.26	-0.32	-70.41	70.54	59.24	11.30	6.242				
2,700.00	2,700.00	2,694.45	2,694.00	5.93	5.83	-90.24	-0.32	-77.20	77.43	65.72	11.71	6.610				
2,800.00	2,800.00	2,792.67	2,791.86	6.15	6.04	-90.21	-0.32	-85.65	86.04	73.91	12.12	7.096				
2,900.00	2,900.00	2,890.58	2,889.25	6.38	6.25	-90.19	-0.32	-95.74	96.34	83.81	12.53	7.688				
3,000.00	3,000.00	2,988.12	2,986.08	6.60	6.48	-90.17	-0.32	-107.45	108.35	95.41	12.94	8.375				
3,100.00	3,100.00	3,085.85	3,082.90	6.83	6.71	-90.15	-0.32	-120.75	121.96	108.61	13.35	9.137				
3,200.00	3,200.00	3,184.86	3,180.94	7.05	6.96	-90.14	-0.32	-134.64	135.98	122.20	13.78	9.866				
3,300.00	3,300.00	3,283.88	3,278.97	7.28	7.21	-90.12	-0.32	-148.52	150.00	135.78	14.22	10.549				
3,400.00	3,400.00	3,382.89	3,377.00	7.50	7.46	-90.11	-0.32	-162.40	164.02	149.36	14.66	11.191				
3,500.00	3,500.00	3,481.90	3,475.04	7.73	7.72	-90.10	-0.32	-176.28	178.04	162.94	15.10	11.793				
3,600.00	3,600.00	3,581.03	3,573.19	7.94	7.98	-13.58	-0.32	-190.18	191.22	175.69	15.53	12.315				
3,700.00	3,699.96	3,680.36	3,671.54	8.15	8.25	-13.72	-0.32	-204.11	202.72	186.77	15.95	12.711				
3,776.97	3,776.86	3,756.94	3,747.36	8.31	8.46	-13.89	-0.32	-214.84	210.42	194.15	16.28	12.929				
3,800.00	3,799.87	3,779.87	3,770.06	8.35	8.53	-13.96	-0.32	-218.06	212.58	196.20	16.37	12.983				
3,900.00	3,899.75	3,879.42	3,868.63	8.56	8.80	-14.22	-0.32	-232.02	221.94	205.14	16.80	13.209				
4,000.00	3,999.63	3,978.98	3,967.21	8.77	9.08	-14.47	-0.32	-245.97	231.31	214.08	17.23	13.422				
4,100.00	4,099.51	4,078.53	4,065.78	8.98	9.36	-14.70	-0.32	-259.93	240.68	223.02	17.67	13.624				
4,200.00	4,199.40	4,178.09	4,164.35	9.20	9.65	-14.91	-0.32	-273.89	250.06	231.96	18.10	13.815				
4,300.00	4,299.28	4,277.65	4,262.92	9.41	9.93	-15.10	-0.32	-287.85	259.44	240.90	18.54	13.995				
4,400.00	4,399.16	4,377.20	4,361.50	9.63	10.22	-15.28	-0.32	-301.81	268.82	249.84	18.98	14.166				
4,500.00	4,499.05	4,476.76	4,460.07	9.84	10.51	-15.45	-0.32	-315.77	278.20	258.79	19.42	14.328				
4,600.00	4,598.93	4,576.31	4,558.64	10.06	10.80	-15.61	-0.32	-329.72	287.59	267.73	19.86	14.483				
4,700.00	4,698.81	4,675.87	4,657.21	10.28	11.10	-15.75	-0.32	-343.68	296.98	276.68	20.30	14.629				
4,800.00	4,798.70	4,775.42	4,755.78	10.50	11.39	-15.89	-0.32	-357.64	306.37	285.62	20.74	14.769				
4,900.00	4,898.58	4,874.98	4,854.36	10.72	11.69	-16.02	-0.32	-371.60	315.76	294.57	21.19	14.902				

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 115H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,998.46	4,974.53	4,952.93	10.94	11.99	-16.15	-0.32	-385.56	325.15	303.52	21.64	15.028		
5,100.00	5,098.35	5,074.09	5,051.50	11.16	12.28	-16.26	-0.32	-399.51	334.55	312.46	22.08	15.149		
5,200.00	5,198.23	5,173.65	5,150.07	11.38	12.58	-16.37	-0.32	-413.47	343.94	321.41	22.53	15.265		
5,300.00	5,298.11	5,273.20	5,248.64	11.60	12.89	-16.47	-0.32	-427.43	353.34	330.36	22.98	15.375		
5,400.00	5,398.00	5,372.76	5,347.22	11.82	13.19	-16.57	-0.32	-441.39	362.74	339.31	23.43	15.480		
5,500.00	5,497.88	5,472.31	5,445.79	12.05	13.49	-16.67	-0.32	-455.35	372.14	348.26	23.88	15.582		
5,600.00	5,597.76	5,571.87	5,544.36	12.27	13.79	-16.76	-0.32	-469.31	381.54	357.20	24.34	15.678		
5,700.00	5,697.65	5,671.42	5,642.93	12.50	14.10	-16.84	-0.32	-483.26	390.94	366.15	24.79	15.771		
5,800.00	5,797.53	5,770.98	5,741.51	12.72	14.40	-16.92	-0.32	-497.22	400.34	375.10	25.24	15.860		
5,900.00	5,897.41	5,870.53	5,840.08	12.95	14.71	-17.00	-0.32	-511.18	409.75	384.05	25.70	15.946		
6,000.00	5,997.30	5,970.09	5,938.65	13.17	15.01	-17.07	-0.32	-525.14	419.15	393.00	26.15	16.028		
6,100.00	6,097.18	6,069.64	6,037.22	13.40	15.32	-17.14	-0.32	-539.10	428.55	401.95	26.61	16.107		
6,200.00	6,197.06	6,169.20	6,135.79	13.63	15.63	-17.21	-0.32	-553.05	437.96	410.90	27.06	16.183		
6,300.00	6,296.94	6,268.76	6,234.37	13.85	15.93	-17.27	-0.32	-567.01	447.36	419.85	27.52	16.257		
6,400.00	6,396.83	6,368.31	6,332.94	14.08	16.24	-17.33	-0.32	-580.97	456.77	428.79	27.98	16.327		
6,500.00	6,496.71	6,467.87	6,431.51	14.31	16.55	-17.39	-0.32	-594.93	466.18	437.74	28.43	16.395		
6,600.00	6,596.59	6,567.42	6,530.08	14.54	16.86	-17.45	-0.32	-608.89	475.58	446.69	28.89	16.461		
6,700.00	6,696.48	6,666.98	6,628.65	14.77	17.17	-17.50	-0.32	-622.85	484.99	455.64	29.35	16.524		
6,800.00	6,796.36	6,766.53	6,727.23	14.99	17.48	-17.56	-0.32	-636.80	494.40	464.59	29.81	16.585		
6,900.00	6,896.24	6,866.09	6,825.80	15.22	17.79	-17.61	-0.32	-650.76	503.81	473.54	30.27	16.644		
7,000.00	6,996.13	6,965.64	6,924.37	15.45	18.10	-17.66	-0.32	-664.72	513.21	482.49	30.73	16.702		
7,100.00	7,096.01	7,065.20	7,022.94	15.68	18.41	-17.70	-0.32	-678.68	522.62	491.43	31.19	16.757		
7,200.00	7,195.89	7,164.75	7,121.51	15.91	18.72	-17.75	-0.32	-692.64	532.03	500.38	31.65	16.810		
7,300.00	7,295.78	7,264.31	7,220.09	16.14	19.03	-17.79	-0.32	-706.59	541.44	509.33	32.11	16.862		
7,400.00	7,395.66	7,363.87	7,318.66	16.37	19.35	-17.83	-0.32	-720.55	550.85	518.28	32.57	16.912		
7,500.00	7,495.54	7,463.42	7,417.23	16.60	19.66	-17.88	-0.32	-734.51	560.26	527.23	33.03	16.960		
7,600.00	7,595.43	7,562.98	7,515.80	16.83	19.97	-17.91	-0.32	-748.47	569.67	536.18	33.50	17.008		
7,700.00	7,695.31	7,662.53	7,614.38	17.06	20.28	-17.95	-0.32	-762.43	579.08	545.13	33.96	17.053		
7,800.00	7,795.19	7,762.09	7,712.95	17.29	20.60	-17.99	-0.32	-776.39	588.49	554.07	34.42	17.097		
7,900.00	7,895.08	7,861.64	7,811.52	17.53	20.91	-18.03	-0.32	-790.34	597.90	563.02	34.88	17.140		
7,947.18	7,942.20	7,908.61	7,858.02	17.63	21.06	-18.04	-0.32	-796.93	602.34	567.24	35.10	17.160		
8,000.00	7,994.97	7,961.18	7,910.07	17.74	21.22	-18.07	-0.32	-804.30	607.55	572.21	35.34	17.193		
8,100.00	8,094.92	8,060.56	8,008.47	17.93	21.54	-18.09	-0.32	-818.23	618.66	582.90	35.76	17.301		
8,200.00	8,194.91	8,168.32	8,115.24	18.11	21.82	-18.06	-0.32	-832.81	630.94	594.73	36.20	17.428		
8,224.15	8,219.06	8,195.25	8,141.96	18.15	21.88	-94.59	-0.32	-836.16	633.88	597.57	36.31	17.457		
8,300.00	8,294.91	8,280.02	8,226.17	18.30	22.07	-94.52	-0.32	-845.88	642.55	605.90	36.66	17.530		
8,400.00	8,394.91	8,392.18	8,337.79	18.52	22.31	-94.44	-0.32	-856.83	652.28	615.17	37.11	17.575		
8,500.00	8,494.91	8,504.72	8,449.99	18.73	22.53	-94.38	-0.32	-865.61	660.06	622.51	37.56	17.574		
8,600.00	8,594.91	8,617.58	8,562.65	18.95	22.74	-94.34	-0.32	-872.20	665.89	627.90	37.99	17.528		
8,700.00	8,694.91	8,730.64	8,675.63	19.16	22.94	-94.31	-0.32	-876.58	669.75	631.35	38.41	17.439		
8,800.00	8,794.91	8,843.84	8,788.81	19.38	23.13	-94.30	-0.32	-878.73	671.65	632.84	38.81	17.307		
8,900.00	8,894.91	8,949.95	8,894.91	19.59	23.31	-94.30	-0.32	-878.97	671.86	632.64	39.22	17.132		
9,000.00	8,994.91	9,049.95	8,994.91	19.81	23.48	-94.30	-0.32	-878.97	671.86	632.22	39.64	16.951		
9,100.00	9,094.91	9,149.95	9,094.91	20.03	23.66	-94.30	-0.32	-878.97	671.86	631.80	40.06	16.773		
9,109.61	9,104.52	9,159.56	9,104.52	20.05	23.68	-94.30	-0.32	-878.97	671.86	631.76	40.10	16.756		
9,200.00	9,194.91	9,245.87	9,190.77	20.24	23.82	-94.48	-2.48	-878.95	672.02	631.55	40.47	16.606		
9,300.00	9,294.91	9,335.82	9,279.41	20.46	23.97	-95.74	-17.28	-878.84	673.39	632.52	40.87	16.476		
9,400.00	9,394.91	9,419.30	9,358.66	20.68	24.10	-97.93	-43.25	-878.65	677.08	635.83	41.26	16.411		
9,500.00	9,494.91	9,493.91	9,425.64	20.89	24.23	-100.66	-76.00	-878.41	684.68	643.10	41.58	16.467		
9,524.15	9,519.06	9,510.48	9,439.91	20.95	24.26	-101.36	-84.43	-878.35	687.29	645.65	41.64	16.505		
9,550.00	9,544.90	9,527.84	9,454.58	21.00	24.29	-78.03	-93.71	-878.28	690.35	648.66	41.69	16.559		
9,600.00	9,594.69	9,560.98	9,481.77	21.09	24.35	-76.07	-112.64	-878.14	696.70	654.95	41.75	16.689		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 115H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,650.00	9,643.90	9,600.00	9,512.33	21.17	24.42	73.95	-136.89	-877.96	703.51	661.71	41.80	16.830		
9,700.00	9,692.17	9,625.83	9,531.62	21.26	24.47	72.39	-154.06	-877.83	710.50	668.76	41.73	17.025		
9,750.00	9,739.11	9,650.00	9,548.95	21.35	24.52	70.92	-170.91	-877.71	717.69	676.08	41.61	17.249		
9,800.00	9,784.38	9,689.17	9,575.49	21.43	24.60	69.10	-199.71	-877.49	724.73	683.14	41.59	17.426		
9,850.00	9,827.63	9,720.41	9,595.19	21.51	24.67	67.63	-223.94	-877.31	731.65	690.16	41.49	17.635		
9,900.00	9,868.53	9,750.00	9,612.62	21.60	24.74	66.32	-247.85	-877.14	738.29	696.92	41.37	17.845		
9,950.00	9,906.77	9,782.19	9,630.15	21.69	24.82	65.08	-274.84	-876.94	744.53	703.23	41.30	18.029		
10,000.00	9,942.06	9,812.80	9,645.39	21.78	24.90	64.00	-301.39	-876.74	750.27	709.04	41.23	18.196		
10,050.00	9,974.14	9,850.00	9,661.97	21.89	25.01	62.96	-334.68	-876.49	755.48	714.23	41.26	18.312		
10,100.00	10,002.75	9,873.61	9,671.36	22.01	25.09	62.26	-356.34	-876.33	759.94	718.71	41.22	18.434		
10,150.00	10,027.67	9,900.00	9,680.78	22.16	25.18	61.64	-380.99	-876.15	763.74	722.46	41.28	18.502		
10,200.00	10,048.73	9,934.01	9,691.24	22.33	25.30	61.09	-413.35	-875.91	766.75	725.29	41.46	18.494		
10,250.00	10,065.76	9,964.12	9,698.88	22.53	25.42	60.72	-442.46	-875.69	768.96	727.27	41.69	18.444		
10,300.00	10,078.62	10,000.00	9,705.97	22.75	25.57	60.47	-477.63	-875.43	770.37	728.34	42.03	18.329		
10,350.00	10,087.23	10,024.23	9,709.51	23.00	25.68	60.40	-501.59	-875.26	770.86	728.45	42.42	18.174		
10,400.00	10,091.51	10,050.00	9,712.16	23.27	25.80	60.45	-527.23	-875.07	770.55	727.65	42.90	17.962		
10,420.09	10,092.00	10,066.34	9,713.24	23.38	25.89	60.52	-543.53	-874.95	770.15	727.02	43.13	17.856		
10,464.25	10,092.32	10,093.47	9,714.00	23.66	26.03	60.56	-570.64	-874.74	769.68	726.03	43.65	17.633		
10,500.00	10,092.57	10,128.31	9,714.16	23.88	26.22	60.55	-605.49	-874.49	769.72	725.64	44.09	17.459		
10,600.00	10,093.28	10,228.31	9,714.62	28.10	26.84	60.54	-705.48	-873.75	769.84	724.76	45.08	17.076		
10,700.00	10,093.98	10,328.31	9,715.08	28.19	27.54	60.52	-805.48	-873.00	769.96	724.09	45.87	16.785		
10,800.00	10,094.69	10,428.31	9,715.53	28.28	28.33	60.50	-905.47	-872.26	770.08	723.33	46.75	16.472		
10,900.00	10,095.40	10,528.31	9,715.99	28.37	29.20	60.49	-1,005.47	-871.52	770.19	722.48	47.71	16.142		
11,000.00	10,096.11	10,628.31	9,716.45	28.46	30.13	60.47	-1,105.47	-870.78	770.31	721.56	48.76	15.799		
11,100.00	10,096.82	10,728.31	9,716.90	28.55	31.12	60.45	-1,205.46	-870.04	770.43	720.56	49.87	15.448		
11,200.00	10,097.52	10,828.31	9,717.36	28.65	32.17	60.44	-1,305.46	-869.30	770.55	719.49	51.05	15.093		
11,300.00	10,098.23	10,928.31	9,717.82	28.74	33.26	60.42	-1,405.45	-868.56	770.67	718.37	52.30	14.736		
11,400.00	10,098.94	11,028.31	9,718.27	28.84	34.40	60.40	-1,505.45	-867.82	770.78	717.18	53.60	14.381		
11,500.00	10,099.65	11,128.31	9,718.73	28.94	35.58	60.39	-1,605.45	-867.08	770.90	715.95	54.95	14.028		
11,600.00	10,100.35	11,228.31	9,719.19	29.04	36.80	60.37	-1,705.44	-866.34	771.02	714.66	56.36	13.680		
11,700.00	10,101.06	11,328.31	9,719.64	29.14	38.04	60.36	-1,805.44	-865.60	771.14	713.33	57.81	13.339		
11,800.00	10,101.77	11,428.31	9,720.10	29.25	39.32	60.34	-1,905.43	-864.85	771.26	711.95	59.31	13.005		
11,900.00	10,102.48	11,528.31	9,720.56	29.35	40.62	60.32	-2,005.43	-864.11	771.38	710.53	60.84	12.679		
12,000.00	10,103.19	11,628.31	9,721.02	29.46	41.95	60.31	-2,105.42	-863.37	771.49	709.08	62.41	12.361		
12,100.00	10,103.89	11,728.31	9,721.47	29.57	43.30	60.29	-2,205.42	-862.63	771.61	707.59	64.02	12.053		
12,200.00	10,104.60	11,828.31	9,721.93	29.69	44.66	60.27	-2,305.42	-861.89	771.73	706.07	65.66	11.754		
12,300.00	10,105.31	11,928.31	9,722.39	29.80	46.05	60.26	-2,405.41	-861.15	771.85	704.52	67.33	11.464		
12,400.00	10,106.02	12,028.31	9,722.84	29.93	47.45	60.24	-2,505.41	-860.41	771.97	702.94	69.03	11.184		
12,500.00	10,106.72	12,128.31	9,723.30	30.06	48.87	60.22	-2,605.40	-859.67	772.09	701.34	70.75	10.913		
12,600.00	10,107.43	12,228.30	9,723.76	30.20	50.30	60.21	-2,705.40	-858.93	772.21	699.70	72.50	10.651		
12,700.00	10,108.14	12,328.30	9,724.21	30.36	51.74	60.19	-2,805.40	-858.19	772.32	698.05	74.27	10.398		
12,800.00	10,108.85	12,428.30	9,724.67	30.54	53.19	60.17	-2,905.39	-857.45	772.44	696.37	76.07	10.154		
12,900.00	10,109.56	12,528.30	9,725.13	30.76	54.66	60.16	-3,005.39	-856.70	772.56	694.68	77.88	9.919		
13,000.00	10,110.26	12,628.30	9,725.59	31.04	56.13	60.14	-3,105.38	-855.96	772.68	692.96	79.72	9.693		
13,100.00	10,110.97	12,728.30	9,726.04	31.39	57.61	60.13	-3,205.38	-855.22	772.80	691.23	81.57	9.474		
13,200.00	10,111.68	12,828.30	9,726.50	31.78	59.10	60.11	-3,305.38	-854.48	772.92	689.48	83.44	9.263		
13,300.00	10,112.39	12,928.30	9,726.96	32.22	60.60	60.09	-3,405.37	-853.74	773.04	687.71	85.33	9.060		
13,400.00	10,113.09	13,028.30	9,727.41	32.69	62.11	60.08	-3,505.37	-853.00	773.16	685.93	87.23	8.864		
13,500.00	10,113.80	13,128.30	9,727.87	33.18	63.62	60.06	-3,605.36	-852.26	773.28	684.14	89.14	8.675		
13,600.00	10,114.51	13,228.30	9,728.33	33.69	65.14	60.04	-3,705.36	-851.52	773.40	682.33	91.07	8.492		
13,700.00	10,115.22	13,328.30	9,728.78	34.22	66.66	60.03	-3,805.36	-850.78	773.52	680.51	93.01	8.317		
13,800.00	10,115.93	13,428.30	9,729.24	34.75	68.19	60.01	-3,905.35	-850.04	773.64	678.68	94.96	8.147		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 115H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	10,116.63	13,528.30	9,729.70	35.30	69.73	59.99	-4,005.35	-849.30	773.76	676.83	96.92	7.983		
14,000.00	10,117.34	13,628.30	9,730.15	35.85	71.27	59.98	-4,105.34	-848.56	773.88	674.98	98.90	7.825		
14,100.00	10,118.05	13,728.30	9,730.61	36.42	72.81	59.96	-4,205.34	-847.81	774.00	673.12	100.88	7.672		
14,200.00	10,118.76	13,828.30	9,731.07	36.99	74.36	59.95	-4,305.33	-847.07	774.12	671.24	102.87	7.525		
14,300.00	10,119.46	13,928.30	9,731.53	37.57	75.91	59.93	-4,405.33	-846.33	774.24	669.36	104.87	7.383		
14,400.00	10,120.17	14,028.30	9,731.98	38.16	77.46	59.91	-4,505.33	-845.59	774.36	667.47	106.88	7.245		
14,500.00	10,120.88	14,128.30	9,732.44	38.75	79.02	59.90	-4,605.32	-844.85	774.48	665.57	108.90	7.112		
14,600.00	10,121.59	14,228.30	9,732.90	39.35	80.58	59.88	-4,705.32	-844.11	774.60	663.67	110.93	6.983		
14,700.00	10,122.29	14,328.30	9,733.35	39.96	82.15	59.86	-4,805.31	-843.37	774.72	661.76	112.96	6.858		
14,800.00	10,123.00	14,428.30	9,733.81	40.57	83.72	59.85	-4,905.31	-842.63	774.84	659.84	115.00	6.738		
14,900.00	10,123.71	14,532.45	9,734.63	41.19	85.16	59.85	-5,009.45	-841.86	774.80	657.89	116.91	6.628		
15,000.00	10,124.42	14,632.45	9,736.16	41.81	86.60	59.91	-5,109.44	-841.12	774.38	655.50	118.89	6.514		
15,100.00	10,125.13	14,732.44	9,737.68	42.43	88.18	59.96	-5,209.42	-840.38	773.97	652.98	120.98	6.397		
15,200.00	10,125.83	14,832.44	9,739.21	43.07	89.75	60.01	-5,309.40	-839.64	773.55	650.46	123.09	6.284		
15,300.00	10,126.54	14,932.44	9,740.74	43.70	91.33	60.06	-5,409.38	-838.90	773.14	647.94	125.20	6.175		
15,400.00	10,127.25	15,032.43	9,742.27	44.34	92.91	60.12	-5,509.37	-838.17	772.73	645.41	127.32	6.069		
15,500.00	10,127.96	15,132.43	9,743.80	44.99	94.50	60.17	-5,609.35	-837.43	772.32	642.87	129.45	5.966		
15,600.00	10,128.66	15,232.43	9,745.32	45.63	96.08	60.22	-5,709.33	-836.69	771.91	640.33	131.58	5.867		
15,700.00	10,129.37	15,332.42	9,746.85	46.29	97.67	60.27	-5,809.31	-835.95	771.50	637.78	133.71	5.770		
15,800.00	10,130.08	15,432.42	9,748.38	46.94	99.26	60.33	-5,909.29	-835.21	771.09	635.23	135.86	5.676		
15,900.00	10,130.79	15,532.42	9,749.91	47.60	100.85	60.38	-6,009.28	-834.48	770.68	632.68	138.00	5.585		
16,000.00	10,131.50	15,632.41	9,751.44	48.26	102.44	60.43	-6,109.26	-833.74	770.27	630.12	140.15	5.496		
16,100.00	10,132.20	15,732.41	9,752.96	48.93	104.03	60.48	-6,209.24	-833.00	769.86	627.55	142.31	5.410		
16,200.00	10,132.91	15,832.41	9,754.49	49.59	105.63	60.54	-6,309.22	-832.26	769.45	624.98	144.47	5.326		
16,300.00	10,133.62	15,932.40	9,756.02	50.27	107.22	60.59	-6,409.21	-831.52	769.05	622.41	146.63	5.245		
16,400.00	10,134.33	16,032.40	9,757.55	50.94	108.82	60.64	-6,509.19	-830.79	768.64	619.84	148.80	5.165		
16,500.00	10,135.03	16,132.39	9,759.08	51.61	110.42	60.70	-6,609.17	-830.05	768.24	617.26	150.98	5.088		
16,600.00	10,135.74	16,232.39	9,760.60	52.29	112.02	60.75	-6,709.15	-829.31	767.83	614.68	153.16	5.013		
16,700.00	10,136.45	16,332.39	9,762.13	52.97	113.62	60.80	-6,809.13	-828.57	767.43	612.09	155.34	4.940		
16,800.00	10,137.16	16,432.38	9,763.66	53.66	115.22	60.86	-6,909.12	-827.83	767.02	609.50	157.52	4.869		
16,900.00	10,137.87	16,532.38	9,765.19	54.34	116.82	60.91	-7,009.10	-827.10	766.62	606.91	159.71	4.800		
17,000.00	10,138.57	16,632.38	9,766.72	55.03	118.43	60.96	-7,109.08	-826.36	766.22	604.31	161.91	4.733		
17,100.00	10,139.28	16,732.37	9,768.24	55.72	120.03	61.02	-7,209.06	-825.62	765.82	601.72	164.10	4.667		
17,200.00	10,139.99	16,832.37	9,769.77	56.41	121.64	61.07	-7,309.05	-824.88	765.42	599.12	166.30	4.603		
17,300.00	10,140.70	16,932.37	9,771.30	57.10	123.24	61.12	-7,409.03	-824.14	765.02	596.51	168.50	4.540		
17,400.00	10,141.40	17,032.36	9,772.83	57.80	124.85	61.18	-7,509.01	-823.41	764.62	593.91	170.71	4.479		
17,477.49	10,141.95	17,109.02	9,774.00	58.13	126.08	61.22	-7,585.65	-822.84	764.31	592.12	172.19	4.439		
17,484.18	10,142.00	17,109.02	9,774.00	58.16	126.08	61.22	-7,585.65	-822.84	764.32	592.00	172.32	4.435 SF		

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 116H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	0.10	0.00	0.00	89.68	0.17	29.99	29.99					
100.00	100.00	100.10	100.10	0.09	0.09	89.68	0.17	29.99	29.99	29.82	0.17	174.190		
200.00	200.00	200.10	200.10	0.31	0.31	89.68	0.17	29.99	29.99	29.37	0.62	48.239		
300.00	300.00	300.10	300.10	0.54	0.54	89.68	0.17	29.99	29.99	28.92	1.07	27.996		
400.00	400.00	400.10	400.10	0.76	0.76	89.68	0.17	29.99	29.99	28.47	1.52	19.721		
500.00	500.00	500.10	500.10	0.99	0.99	89.68	0.17	29.99	29.99	28.02	1.97	15.221		
600.00	600.00	600.10	600.10	1.21	1.21	89.68	0.17	29.99	29.99	27.57	2.42	12.394		
700.00	700.00	700.10	700.10	1.43	1.43	89.68	0.17	29.99	29.99	27.12	2.87	10.452		
800.00	800.00	800.10	800.10	1.66	1.66	89.68	0.17	29.99	29.99	26.67	3.32	9.036		
900.00	900.00	900.10	900.10	1.88	1.88	89.68	0.17	29.99	29.99	26.22	3.77	7.958		
1,000.00	1,000.00	1,000.10	1,000.10	2.11	2.11	89.68	0.17	29.99	29.99	25.77	4.22	7.110		
1,100.00	1,100.00	1,100.10	1,100.10	2.33	2.33	89.68	0.17	29.99	29.99	25.32	4.67	6.425		
1,200.00	1,200.00	1,200.10	1,200.10	2.56	2.56	89.68	0.17	29.99	29.99	24.87	5.12	5.861		
1,300.00	1,300.00	1,300.10	1,300.10	2.78	2.78	89.68	0.17	29.99	29.99	24.42	5.57	5.388		
1,400.00	1,400.00	1,400.10	1,400.10	3.01	3.01	89.68	0.17	29.99	29.99	23.97	6.02	4.985		
1,500.00	1,500.00	1,500.10	1,500.10	3.23	3.23	89.68	0.17	29.99	29.99	23.52	6.47	4.638		
1,600.00	1,600.00	1,600.10	1,600.10	3.46	3.46	89.68	0.17	29.99	29.99	23.08	6.92	4.337		
1,700.00	1,700.00	1,700.10	1,700.10	3.68	3.68	89.68	0.17	29.99	29.99	22.63	7.36	4.072		
1,800.00	1,800.00	1,800.10	1,800.10	3.91	3.91	89.68	0.17	29.99	29.99	22.18	7.81	3.838		
1,900.00	1,900.00	1,900.10	1,900.10	4.13	4.13	89.68	0.17	29.99	29.99	21.73	8.26	3.629		
2,000.00	2,000.00	2,000.10	2,000.10	4.36	4.36	89.68	0.17	29.99	29.99	21.28	8.71	3.442		
2,100.00	2,100.00	2,100.10	2,100.10	4.58	4.58	89.68	0.17	29.99	29.99	20.83	9.16	3.273		
2,200.00	2,200.00	2,200.10	2,200.10	4.81	4.81	89.68	0.17	29.99	29.99	20.38	9.61	3.120		
2,300.00	2,300.00	2,300.10	2,300.10	5.03	5.03	89.68	0.17	29.99	29.99	19.93	10.06	2.981		
2,400.00	2,400.00	2,400.10	2,400.10	5.26	5.26	89.68	0.17	29.99	29.99	19.48	10.51	2.853		
2,500.00	2,500.00	2,500.10	2,500.10	5.48	5.48	89.68	0.17	29.99	29.99	19.03	10.96	2.736		
2,600.00	2,600.00	2,600.10	2,600.10	5.71	5.71	89.68	0.17	29.99	29.99	18.58	11.41	2.628		
2,700.00	2,700.00	2,700.10	2,700.10	5.93	5.93	89.68	0.17	29.99	29.99	18.13	11.86	2.529		
2,800.00	2,800.00	2,800.10	2,800.10	6.15	6.15	89.68	0.17	29.99	29.99	17.68	12.31	2.436		
2,900.00	2,900.00	2,900.10	2,900.10	6.38	6.38	89.68	0.17	29.99	29.99	17.23	12.76	2.351		
3,000.00	3,000.00	3,000.10	3,000.10	6.60	6.60	89.68	0.17	29.99	29.99	16.78	13.21	2.271		
3,100.00	3,100.00	3,100.10	3,100.10	6.83	6.83	89.68	0.17	29.99	29.99	16.33	13.66	2.196		
3,200.00	3,200.00	3,200.10	3,200.10	7.05	7.05	89.68	0.17	29.99	29.99	15.88	14.11	2.126		
3,300.00	3,300.00	3,300.10	3,300.10	7.28	7.28	89.68	0.17	29.99	29.99	15.43	14.56	2.060		
3,400.00	3,400.00	3,400.10	3,400.10	7.50	7.50	89.68	0.17	29.99	29.99	14.98	15.01	1.998		
3,500.00	3,500.00	3,500.10	3,500.10	7.73	7.73	89.68	0.17	29.99	29.99	14.53	15.46	1.940 CC, ES		
3,600.00	3,600.00	3,600.10	3,600.10	7.94	7.95	166.61	0.17	29.99	30.84	14.94	15.89	1.940		
3,700.00	3,699.96	3,700.06	3,700.06	8.15	8.18	167.64	0.17	29.99	33.39	17.07	16.32	2.046		
3,776.97	3,776.86	3,776.96	3,776.96	8.31	8.35	168.71	0.17	29.99	36.53	19.87	16.65	2.193		
3,800.00	3,799.87	3,799.97	3,799.97	8.35	8.40	169.04	0.17	29.99	37.62	20.87	16.75	2.246		
3,900.00	3,899.75	3,899.85	3,899.85	8.56	8.63	170.28	0.17	29.99	42.37	25.19	17.18	2.466		
4,000.00	3,999.63	3,999.73	3,999.73	8.77	8.85	171.27	0.17	29.99	47.14	29.53	17.61	2.677		
4,100.00	4,099.51	4,100.39	4,100.38	8.98	9.07	171.59	0.69	29.28	51.17	33.13	18.04	2.837		
4,200.00	4,199.40	4,201.15	4,201.11	9.20	9.29	170.90	2.24	27.13	53.70	35.24	18.45	2.910		
4,300.00	4,299.28	4,301.94	4,301.80	9.41	9.50	169.29	4.83	23.54	54.75	35.88	18.87	2.901		
4,400.00	4,399.16	4,402.70	4,402.37	9.63	9.72	166.68	8.46	18.53	54.40	35.12	19.28	2.821		
4,500.00	4,499.05	4,503.37	4,502.72	9.84	9.94	162.85	13.12	12.08	52.80	33.10	19.70	2.680		
4,600.00	4,598.93	4,603.84	4,602.72	10.06	10.17	157.43	18.79	4.23	50.20	30.07	20.12	2.494		
4,700.00	4,698.81	4,703.65	4,701.99	10.28	10.39	150.82	24.86	-4.16	47.61	27.04	20.57	2.315		
4,800.00	4,798.70	4,803.45	4,801.26	10.50	10.62	143.57	30.93	-12.56	45.73	24.71	21.03	2.175		
4,900.00	4,898.58	4,903.26	4,900.53	10.72	10.85	135.83	37.00	-20.96	44.64	23.15	21.49	2.077		
4,977.92	4,976.41	4,981.04	4,977.88	10.89	11.03	129.62	41.73	-27.50	44.38	22.53	21.86	2.031		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 116H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,998.46	5,003.07	4,999.80	10.94	11.08	127.86	43.07	-29.35	44.40	22.44	21.96	2.022		
5,100.00	5,098.35	5,102.88	5,099.06	11.16	11.32	119.96	49.14	-37.75	45.02	22.59	22.43	2.007		
5,200.00	5,198.23	5,202.68	5,198.33	11.38	11.55	112.41	55.21	-46.14	46.47	23.56	22.91	2.029		
5,300.00	5,298.11	5,302.49	5,297.60	11.60	11.79	105.43	61.28	-54.54	48.67	25.30	23.38	2.082		
5,400.00	5,398.00	5,402.30	5,396.87	11.82	12.03	99.13	67.35	-62.94	51.53	27.69	23.84	2.161		
5,500.00	5,497.88	5,502.11	5,496.14	12.05	12.27	93.55	73.41	-71.33	54.95	30.64	24.30	2.261		
5,600.00	5,597.76	5,601.91	5,595.40	12.27	12.51	88.67	79.48	-79.73	58.82	34.06	24.76	2.375		
5,700.00	5,697.65	5,701.72	5,694.67	12.50	12.76	84.41	85.55	-88.12	63.06	37.85	25.21	2.501		
5,800.00	5,797.53	5,801.53	5,793.94	12.72	13.00	80.71	91.62	-96.52	67.61	41.94	25.67	2.634		
5,900.00	5,897.41	5,901.33	5,893.21	12.95	13.25	77.48	97.69	-104.92	72.41	46.29	26.12	2.772		
6,000.00	5,997.30	6,001.38	5,992.72	13.17	13.49	74.70	103.73	-113.27	77.36	50.79	26.57	2.912		
6,100.00	6,097.18	6,102.13	6,093.06	13.40	13.69	72.95	109.05	-120.63	81.64	54.65	26.98	3.025		
6,200.00	6,197.06	6,203.01	6,193.68	13.63	13.88	72.28	113.34	-126.56	84.84	57.43	27.40	3.096		
6,300.00	6,296.94	6,303.96	6,294.47	13.85	14.08	72.54	116.59	-131.06	86.91	59.09	27.82	3.123		
6,400.00	6,396.83	6,404.92	6,395.36	14.08	14.26	73.69	118.80	-134.12	87.87	59.63	28.25	3.111		
6,500.00	6,496.71	6,505.82	6,496.24	14.31	14.45	75.73	119.97	-135.73	87.81	59.14	28.67	3.063		
6,600.00	6,596.59	6,606.28	6,596.69	14.54	14.64	78.65	120.17	-136.01	86.93	57.83	29.10	2.987		
6,700.00	6,696.48	6,706.16	6,696.58	14.77	14.85	81.80	120.17	-136.01	86.11	56.55	29.56	2.913		
6,800.00	6,796.36	6,806.05	6,796.46	14.99	15.07	85.00	120.17	-136.01	85.55	55.53	30.02	2.850		
6,900.00	6,896.24	6,905.93	6,896.34	15.22	15.29	88.23	120.17	-136.01	85.27	54.79	30.48	2.798		
6,954.51	6,950.69	6,960.37	6,950.79	15.35	15.41	90.00	120.17	-136.01	85.23	54.50	30.73	2.774		
7,000.00	6,996.13	7,005.81	6,996.23	15.45	15.51	91.48	120.17	-136.01	85.26	54.32	30.93	2.756		
7,100.00	7,096.01	7,105.70	7,096.11	15.68	15.73	94.71	120.17	-136.01	85.52	54.13	31.39	2.725		
7,200.00	7,195.89	7,205.58	7,195.99	15.91	15.95	97.91	120.17	-136.01	86.05	54.21	31.83	2.703		
7,300.00	7,295.78	7,305.46	7,295.88	16.14	16.16	101.07	120.17	-136.01	86.85	54.57	32.28	2.691		
7,400.00	7,395.66	7,405.34	7,395.76	16.37	16.38	104.16	120.17	-136.01	87.90	55.18	32.72	2.686		
7,500.00	7,495.54	7,505.23	7,495.64	16.60	16.60	107.17	120.17	-136.01	89.21	56.05	33.16	2.690		
7,600.00	7,595.43	7,605.11	7,595.53	16.83	16.82	110.08	120.17	-136.01	90.76	57.16	33.60	2.701		
7,700.00	7,695.31	7,704.99	7,695.41	17.06	17.04	112.89	120.17	-136.01	92.53	58.50	34.03	2.719		
7,800.00	7,795.19	7,804.88	7,795.29	17.29	17.26	115.59	120.17	-136.01	94.51	60.05	34.46	2.742		
7,900.00	7,895.08	7,904.76	7,895.18	17.53	17.48	118.17	120.17	-136.01	96.70	61.81	34.89	2.771		
7,947.18	7,942.20	7,951.88	7,942.30	17.63	17.59	119.34	120.17	-136.01	97.80	62.70	35.10	2.787		
8,000.00	7,994.97	8,004.65	7,995.07	17.74	17.70	120.52	120.17	-136.01	98.95	63.64	35.31	2.802		
8,100.00	8,094.92	8,104.61	8,095.02	17.93	17.92	122.02	120.17	-136.01	100.53	64.82	35.71	2.815		
8,200.00	8,194.91	8,204.60	8,195.01	18.11	18.14	122.65	120.17	-136.01	101.22	65.12	36.10	2.804		
8,224.15	8,219.06	8,228.74	8,219.16	18.15	18.20	46.13	120.17	-136.01	101.25	65.05	36.20	2.797		
8,300.00	8,294.91	8,304.60	8,295.01	18.30	18.36	46.13	120.17	-136.01	101.25	64.73	36.52	2.772		
8,400.00	8,394.91	8,404.60	8,395.01	18.52	18.58	46.13	120.17	-136.01	101.25	64.29	36.96	2.740		
8,500.00	8,494.91	8,504.60	8,495.01	18.73	18.80	46.13	120.17	-136.01	101.25	63.86	37.39	2.708		
8,600.00	8,594.91	8,604.60	8,595.01	18.95	19.03	46.13	120.17	-136.01	101.25	63.42	37.83	2.676		
8,700.00	8,694.91	8,704.60	8,695.01	19.16	19.25	46.13	120.17	-136.01	101.25	62.98	38.27	2.646		
8,800.00	8,794.91	8,804.60	8,795.01	19.38	19.47	46.13	120.17	-136.01	101.25	62.54	38.70	2.616		
8,900.00	8,894.91	8,904.60	8,895.01	19.59	19.69	46.13	120.17	-136.01	101.25	62.11	39.14	2.587		
9,000.00	8,994.91	9,004.60	8,995.01	19.81	19.91	46.13	120.17	-136.01	101.25	61.67	39.58	2.558		
9,100.00	9,094.91	9,104.60	9,095.01	20.03	20.13	46.13	120.17	-136.01	101.25	61.23	40.02	2.530		
9,200.00	9,194.91	9,208.57	9,198.96	20.24	20.35	46.52	119.22	-136.00	100.68	60.25	40.43	2.490		
9,300.00	9,294.91	9,319.35	9,308.26	20.46	20.52	54.46	102.24	-135.88	90.84	50.37	40.47	2.244		
9,400.00	9,394.91	9,420.24	9,403.29	20.68	20.67	75.66	68.75	-135.63	76.18	35.39	40.79	1.868		
9,444.80	9,439.71	9,461.05	9,439.81	20.77	20.72	89.58	50.54	-135.49	73.51	32.51	41.00	1.793 SF		
9,500.00	9,494.91	9,507.31	9,479.51	20.89	20.78	107.46	26.83	-135.32	78.78	38.31	40.47	1.946		
9,524.15	9,519.06	9,526.15	9,495.11	20.95	20.80	114.58	16.26	-135.24	84.60	44.72	39.88	2.121		
9,550.00	9,544.90	9,545.72	9,510.93	21.00	20.83	-57.58	4.76	-135.16	92.78	53.68	39.10	2.373		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 116H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance						Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,600.00	9,594.69	9,582.72	9,539.74	21.09	20.87	-46.12	-18.45	-134.98	111.93	74.42	37.51	2.984		
9,650.00	9,643.90	9,618.76	9,566.31	21.17	20.91	-37.85	-42.80	-134.80	133.32	97.33	35.99	3.705		
9,700.00	9,692.17	9,650.00	9,588.05	21.26	20.95	-32.29	-65.22	-134.64	155.51	121.36	34.15	4.553		
9,750.00	9,739.11	9,688.52	9,613.13	21.35	21.00	-27.42	-94.44	-134.42	177.51	144.23	33.28	5.334		
9,800.00	9,784.38	9,722.44	9,633.55	21.43	21.05	-24.06	-121.53	-134.22	199.04	166.99	32.05	6.210		
9,850.00	9,827.63	9,750.00	9,648.94	21.51	21.10	-21.72	-144.39	-134.05	219.87	189.46	30.41	7.230		
9,900.00	9,868.53	9,788.79	9,668.70	21.60	21.18	-19.41	-177.76	-133.80	239.47	209.66	29.81	8.034		
9,950.00	9,906.77	9,821.35	9,683.51	21.69	21.26	-17.78	-206.75	-133.59	258.02	229.22	28.80	8.959		
10,000.00	9,942.06	9,850.00	9,695.16	21.78	21.35	-16.53	-232.92	-133.40	275.36	247.69	27.67	9.952		
10,050.00	9,974.14	9,885.51	9,707.76	21.89	21.47	-15.37	-266.11	-133.15	291.29	264.23	27.06	10.765		
10,100.00	10,002.75	9,917.19	9,717.25	22.01	21.59	-14.49	-296.33	-132.93	305.85	279.50	26.35	11.607		
10,150.00	10,027.67	9,950.00	9,725.30	22.16	21.72	-13.75	-328.14	-132.69	318.96	293.14	25.82	12.355		
10,200.00	10,048.73	9,979.94	9,731.04	22.33	21.86	-13.17	-357.51	-132.47	330.55	305.23	25.33	13.052		
10,250.00	10,065.76	10,011.06	9,735.38	22.53	22.00	-12.69	-388.33	-132.25	340.62	315.58	25.03	13.608		
10,300.00	10,078.62	10,050.00	9,738.44	22.75	22.20	-12.26	-427.14	-131.96	349.25	324.25	24.99	13.973		
10,350.00	10,087.23	10,074.02	9,739.02	23.00	22.33	-12.01	-451.14	-131.78	355.99	331.08	24.92	14.287		
10,400.00	10,091.51	10,123.85	9,739.41	23.27	22.62	-11.80	-500.97	-131.41	359.81	334.69	25.12	14.326		
10,420.09	10,092.00	10,143.94	9,739.56	23.38	22.74	-11.78	-521.06	-131.26	360.14	334.93	25.21	14.287		
10,500.00	10,092.57	10,223.85	9,740.18	23.88	23.26	-11.79	-600.96	-130.67	360.09	334.48	25.61	14.061		
10,600.00	10,093.28	10,323.85	9,740.95	28.10	23.99	-11.79	-700.96	-129.93	360.03	333.97	26.07	13.812		
10,700.00	10,093.98	10,423.85	9,741.72	28.19	24.81	-11.79	-800.95	-129.19	359.97	333.50	26.47	13.599		
10,800.00	10,094.69	10,523.85	9,742.49	28.28	25.71	-11.79	-900.95	-128.45	359.91	332.95	26.96	13.351		
10,900.00	10,095.40	10,623.85	9,743.26	28.37	26.68	-11.80	-1,000.94	-127.71	359.85	332.33	27.52	13.075		
11,000.00	10,096.11	10,723.85	9,744.03	28.46	27.71	-11.80	-1,100.94	-126.97	359.79	331.63	28.16	12.776		
11,100.00	10,096.82	10,823.85	9,744.80	28.55	28.80	-11.80	-1,200.93	-126.23	359.73	330.86	28.87	12.460		
11,200.00	10,097.52	10,923.85	9,745.57	28.65	29.94	-11.81	-1,300.92	-125.49	359.67	330.02	29.65	12.132		
11,300.00	10,098.23	11,023.85	9,746.35	28.74	31.13	-11.81	-1,400.92	-124.75	359.61	329.13	30.48	11.797		
11,400.00	10,098.94	11,123.85	9,747.12	28.84	32.35	-11.81	-1,500.91	-124.01	359.55	328.17	31.37	11.460		
11,500.00	10,099.65	11,223.85	9,747.89	28.94	33.61	-11.82	-1,600.91	-123.27	359.49	327.17	32.32	11.124		
11,600.00	10,100.35	11,323.85	9,748.66	29.04	34.90	-11.82	-1,700.90	-122.53	359.43	326.12	33.31	10.791		
11,700.00	10,101.06	11,423.85	9,749.43	29.14	36.22	-11.82	-1,800.90	-121.79	359.36	325.02	34.34	10.464		
11,800.00	10,101.77	11,523.85	9,750.20	29.25	37.56	-11.82	-1,900.89	-121.05	359.30	323.89	35.42	10.144		
11,900.00	10,102.48	11,623.85	9,750.97	29.35	38.93	-11.83	-2,000.88	-120.31	359.24	322.71	36.53	9.834		
12,000.00	10,103.19	11,723.85	9,751.74	29.46	40.31	-11.83	-2,100.88	-119.57	359.18	321.51	37.68	9.534		
12,100.00	10,103.89	11,823.85	9,752.51	29.57	41.72	-11.83	-2,200.87	-118.83	359.12	320.27	38.85	9.243		
12,200.00	10,104.60	11,923.85	9,753.28	29.69	43.14	-11.84	-2,300.87	-118.09	359.06	319.01	40.06	8.964		
12,300.00	10,105.31	12,023.85	9,754.06	29.80	44.57	-11.84	-2,400.86	-117.35	359.00	317.72	41.28	8.696		
12,400.00	10,106.02	12,123.85	9,754.83	29.93	46.02	-11.84	-2,500.86	-116.61	358.94	316.40	42.54	8.438		
12,500.00	10,106.72	12,223.85	9,755.60	30.06	47.49	-11.85	-2,600.85	-115.86	358.88	315.07	43.81	8.191		
12,600.00	10,107.43	12,323.85	9,756.37	30.20	48.96	-11.85	-2,700.84	-115.12	358.82	313.71	45.11	7.955		
12,700.00	10,108.14	12,423.85	9,757.14	30.36	50.44	-11.85	-2,800.84	-114.38	358.76	312.34	46.42	7.729		
12,800.00	10,108.85	12,523.85	9,757.91	30.54	51.94	-11.85	-2,900.83	-113.64	358.70	310.95	47.74	7.513		
12,900.00	10,109.56	12,623.85	9,758.68	30.76	53.44	-11.86	-3,000.83	-112.90	358.64	309.55	49.09	7.306		
13,000.00	10,110.26	12,723.85	9,759.45	31.04	54.95	-11.86	-3,100.82	-112.16	358.58	308.13	50.44	7.108		
13,100.00	10,110.97	12,823.85	9,760.22	31.39	56.46	-11.86	-3,200.82	-111.42	358.52	306.70	51.81	6.919		
13,200.00	10,111.68	12,923.85	9,760.99	31.78	57.99	-11.87	-3,300.81	-110.68	358.45	305.26	53.20	6.738		
13,300.00	10,112.39	13,023.85	9,761.77	32.22	59.52	-11.87	-3,400.80	-109.94	358.39	303.81	54.59	6.565		
13,400.00	10,113.09	13,123.85	9,762.54	32.69	61.05	-11.87	-3,500.80	-109.20	358.33	302.34	55.99	6.400		
13,500.00	10,113.80	13,223.85	9,763.31	33.18	62.59	-11.88	-3,600.79	-108.46	358.27	300.87	57.40	6.241		
13,600.00	10,114.51	13,323.85	9,764.08	33.69	64.14	-11.88	-3,700.79	-107.72	358.21	299.39	58.82	6.090		
13,700.00	10,115.22	13,423.85	9,764.85	34.22	65.69	-11.88	-3,800.78	-106.98	358.15	297.90	60.25	5.944		
13,800.00	10,115.93	13,523.84	9,765.62	34.75	67.24	-11.88	-3,900.78	-106.24	358.09	296.40	61.69	5.805		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 116H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
13,900.00	10,116.63	13,623.84	9,766.39	35.30	68.80	-11.89	-4,000.77	-105.50	358.03	294.90	63.13	5.671		
14,000.00	10,117.34	13,723.84	9,767.16	35.85	70.36	-11.89	-4,100.76	-104.76	357.97	293.39	64.58	5.543		
14,100.00	10,118.05	13,823.84	9,767.93	36.42	71.93	-11.89	-4,200.76	-104.02	357.91	291.87	66.04	5.420		
14,200.00	10,118.76	13,923.84	9,768.70	36.99	73.50	-11.90	-4,300.75	-103.28	357.85	290.35	67.50	5.302		
14,300.00	10,119.46	14,023.84	9,769.48	37.57	75.07	-11.90	-4,400.75	-102.54	357.79	288.82	68.96	5.188		
14,400.00	10,120.17	14,123.84	9,770.25	38.16	76.64	-11.90	-4,500.74	-101.80	357.73	287.29	70.44	5.079		
14,500.00	10,120.88	14,223.84	9,771.02	38.75	78.22	-11.91	-4,600.74	-101.06	357.67	285.75	71.91	4.974		
14,600.00	10,121.59	14,323.84	9,771.79	39.35	79.80	-11.91	-4,700.73	-100.32	357.61	284.21	73.39	4.872		
14,700.00	10,122.29	14,423.84	9,772.56	39.96	81.38	-11.91	-4,800.72	-99.58	357.55	282.67	74.88	4.775		
14,800.00	10,123.00	14,523.84	9,773.33	40.57	82.96	-11.91	-4,900.72	-98.84	357.48	281.12	76.37	4.681		
14,900.00	10,123.71	14,623.84	9,774.10	41.19	84.55	-11.92	-5,000.71	-98.10	357.42	279.56	77.86	4.591		
15,000.00	10,124.42	14,723.84	9,774.87	41.81	86.14	-11.92	-5,100.71	-97.36	357.36	278.01	79.36	4.503		
15,100.00	10,125.13	14,823.84	9,775.64	42.43	87.73	-11.92	-5,200.70	-96.62	357.30	276.45	80.86	4.419		
15,200.00	10,125.83	14,923.84	9,776.41	43.07	89.32	-11.93	-5,300.69	-95.88	357.24	274.88	82.36	4.338		
15,300.00	10,126.54	15,023.84	9,777.19	43.70	90.91	-11.93	-5,400.69	-95.14	357.18	273.32	83.86	4.259		
15,400.00	10,127.25	15,123.84	9,777.96	44.34	92.51	-11.93	-5,500.68	-94.40	357.12	271.75	85.37	4.183		
15,500.00	10,127.96	15,223.84	9,778.73	44.99	94.10	-11.94	-5,600.68	-93.66	357.06	270.18	86.88	4.110		
15,600.00	10,128.66	15,323.84	9,779.50	45.63	95.70	-11.94	-5,700.67	-92.92	357.00	268.60	88.40	4.039		
15,700.00	10,129.37	15,423.84	9,780.27	46.29	97.30	-11.94	-5,800.67	-92.17	356.94	267.03	89.91	3.970		
15,800.00	10,130.08	15,523.84	9,781.04	46.94	98.90	-11.95	-5,900.66	-91.43	356.88	265.45	91.43	3.903		
15,900.00	10,130.79	15,623.84	9,781.81	47.60	100.50	-11.95	-6,000.65	-90.69	356.82	263.87	92.95	3.839		
16,000.00	10,131.50	15,723.84	9,782.58	48.26	102.11	-11.95	-6,100.65	-89.95	356.76	262.29	94.47	3.776		
16,100.00	10,132.20	15,823.84	9,783.35	48.93	103.71	-11.95	-6,200.64	-89.21	356.70	260.70	95.99	3.716		
16,200.00	10,132.91	15,923.84	9,784.12	49.59	105.32	-11.96	-6,300.64	-88.47	356.64	259.12	97.52	3.657		
16,300.00	10,133.62	16,023.84	9,784.90	50.27	106.92	-11.96	-6,400.63	-87.73	356.58	257.53	99.05	3.600		
16,400.00	10,134.33	16,123.84	9,785.67	50.94	108.53	-11.96	-6,500.63	-86.99	356.51	255.94	100.58	3.545		
16,500.00	10,135.03	16,223.84	9,786.44	51.61	110.14	-11.97	-6,600.62	-86.25	356.45	254.35	102.11	3.491		
16,600.00	10,135.74	16,323.84	9,787.21	52.29	111.75	-11.97	-6,700.61	-85.51	356.39	252.75	103.64	3.439		
16,700.00	10,136.45	16,423.84	9,787.98	52.97	113.36	-11.97	-6,800.61	-84.77	356.33	251.16	105.17	3.388		
16,800.00	10,137.16	16,523.84	9,788.75	53.66	114.97	-11.98	-6,900.60	-84.03	356.27	249.56	106.71	3.339		
16,900.00	10,137.87	16,623.84	9,789.52	54.34	116.58	-11.98	-7,000.60	-83.29	356.21	247.96	108.25	3.291		
17,000.00	10,138.57	16,723.84	9,790.29	55.03	118.19	-11.98	-7,100.59	-82.55	356.15	246.37	109.79	3.244		
17,100.00	10,139.28	16,823.84	9,791.06	55.72	119.80	-11.98	-7,200.59	-81.81	356.09	244.77	111.32	3.199		
17,200.00	10,139.99	16,923.84	9,791.83	56.41	121.42	-11.99	-7,300.58	-81.07	356.03	243.16	112.87	3.154		
17,300.00	10,140.70	17,023.84	9,792.60	57.10	123.03	-11.99	-7,400.57	-80.33	355.97	241.56	114.41	3.111		
17,400.00	10,141.40	17,123.84	9,793.38	57.80	124.65	-11.99	-7,500.57	-79.59	355.91	239.96	115.95	3.069		
17,478.94	10,141.96	17,202.79	9,793.98	58.14	125.92	-12.00	-7,579.51	-79.00	355.86	238.99	116.87	3.045		
17,484.18	10,142.00	17,204.81	9,794.00	58.16	125.96	-12.00	-7,581.53	-78.99	355.87	238.96	116.91	3.044		

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 128H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.67	0.70	119.97	119.97					
100.00	100.00	99.90	99.90	0.09	0.09	89.67	0.70	119.97	119.97	119.80	0.17	698.079		
200.00	200.00	199.90	199.90	0.31	0.31	89.67	0.70	119.97	119.97	119.35	0.62	193.113		
300.00	300.00	299.90	299.90	0.54	0.54	89.67	0.70	119.97	119.97	118.90	1.07	112.041		
400.00	400.00	399.90	399.90	0.76	0.76	89.67	0.70	119.97	119.97	118.45	1.52	78.912		
500.00	500.00	499.90	499.90	0.99	0.98	89.67	0.70	119.97	119.97	118.00	1.97	60.904		
600.00	600.00	599.90	599.90	1.21	1.21	89.67	0.70	119.97	119.97	117.55	2.42	49.588		
700.00	700.00	699.90	699.90	1.43	1.43	89.67	0.70	119.97	119.97	117.10	2.87	41.818		
800.00	800.00	799.90	799.90	1.66	1.66	89.67	0.70	119.97	119.97	116.65	3.32	36.153		
900.00	900.00	899.90	899.90	1.88	1.88	89.67	0.70	119.97	119.97	116.20	3.77	31.840		
1,000.00	1,000.00	999.90	999.90	2.11	2.11	89.67	0.70	119.97	119.97	115.75	4.22	28.446		
1,100.00	1,100.00	1,099.90	1,099.90	2.33	2.33	89.67	0.70	119.97	119.97	115.31	4.67	25.706		
1,200.00	1,200.00	1,199.90	1,199.90	2.56	2.56	89.67	0.70	119.97	119.97	114.86	5.12	23.448		
1,300.00	1,300.00	1,299.90	1,299.90	2.78	2.78	89.67	0.70	119.97	119.97	114.41	5.57	21.554		
1,400.00	1,400.00	1,399.90	1,399.90	3.01	3.01	89.67	0.70	119.97	119.97	113.96	6.02	19.943		
1,500.00	1,500.00	1,499.90	1,499.90	3.23	3.23	89.67	0.70	119.97	119.97	113.51	6.47	18.557		
1,600.00	1,600.00	1,599.90	1,599.90	3.46	3.46	89.67	0.70	119.97	119.97	113.06	6.91	17.350		
1,700.00	1,700.00	1,699.90	1,699.90	3.68	3.68	89.67	0.70	119.97	119.97	112.61	7.36	16.291		
1,800.00	1,800.00	1,799.90	1,799.90	3.91	3.91	89.67	0.70	119.97	119.97	112.16	7.81	15.354		
1,900.00	1,900.00	1,899.90	1,899.90	4.13	4.13	89.67	0.70	119.97	119.97	111.71	8.26	14.519		
2,000.00	2,000.00	1,999.90	1,999.90	4.36	4.36	89.67	0.70	119.97	119.97	111.26	8.71	13.770		
2,100.00	2,100.00	2,099.90	2,099.90	4.58	4.58	89.67	0.70	119.97	119.97	110.81	9.16	13.094		
2,200.00	2,200.00	2,199.90	2,199.90	4.81	4.81	89.67	0.70	119.97	119.97	110.36	9.61	12.482		
2,300.00	2,300.00	2,299.90	2,299.90	5.03	5.03	89.67	0.70	119.97	119.97	109.91	10.06	11.924		
2,400.00	2,400.00	2,399.90	2,399.90	5.26	5.26	89.67	0.70	119.97	119.97	109.46	10.51	11.414		
2,500.00	2,500.00	2,499.90	2,499.90	5.48	5.48	89.67	0.70	119.97	119.97	109.01	10.96	10.946 CC, ES		
2,600.00	2,600.00	2,597.89	2,597.88	5.71	5.69	89.58	0.89	120.79	120.81	109.41	11.39	10.603		
2,700.00	2,700.00	2,695.82	2,695.78	5.93	5.89	89.33	1.44	123.23	123.31	111.50	11.81	10.438		
2,800.00	2,800.00	2,793.63	2,793.51	6.15	6.09	88.93	2.37	127.30	127.49	115.26	12.23	10.424		
2,900.00	2,900.00	2,892.58	2,892.29	6.38	6.30	88.44	3.62	132.79	133.06	120.40	12.65	10.514		
3,000.00	3,000.00	2,992.41	2,991.95	6.60	6.51	87.97	4.91	138.46	138.78	125.69	13.09	10.605		
3,100.00	3,100.00	3,092.24	3,091.61	6.83	6.73	87.53	6.21	144.14	144.51	130.99	13.52	10.689		
3,200.00	3,200.00	3,192.07	3,191.27	7.05	6.94	87.13	7.50	149.81	150.24	136.29	13.95	10.768		
3,300.00	3,300.00	3,291.90	3,290.93	7.28	7.16	86.76	8.79	155.48	155.99	141.60	14.39	10.841		
3,400.00	3,400.00	3,391.73	3,390.60	7.50	7.38	86.42	10.09	161.16	161.74	146.91	14.82	10.910		
3,500.00	3,500.00	3,491.56	3,490.26	7.73	7.60	86.10	11.38	166.83	167.49	152.23	15.26	10.975		
3,600.00	3,600.00	3,591.34	3,589.86	7.94	7.82	162.41	12.67	172.50	174.08	158.40	15.69	11.096		
3,700.00	3,699.96	3,691.00	3,689.35	8.15	8.05	162.36	13.96	178.16	182.34	166.23	16.11	11.321		
3,776.97	3,776.86	3,767.60	3,765.83	8.31	8.22	162.42	14.96	182.52	189.82	173.39	16.43	11.554		
3,800.00	3,799.87	3,790.51	3,788.69	8.35	8.27	162.46	15.25	183.82	192.20	175.67	16.53	11.630		
3,900.00	3,899.75	3,889.97	3,887.99	8.56	8.50	162.62	16.54	189.47	202.56	185.61	16.95	11.954		
4,000.00	3,999.63	3,989.43	3,987.28	8.77	8.72	162.77	17.83	195.12	212.91	195.55	17.37	12.260		
4,100.00	4,099.51	4,088.89	4,086.57	8.98	8.95	162.90	19.12	200.78	223.27	205.48	17.79	12.551		
4,200.00	4,199.40	4,188.35	4,185.86	9.20	9.17	163.02	20.41	206.43	233.63	215.42	18.21	12.827		
4,300.00	4,299.28	4,287.81	4,285.15	9.41	9.40	163.13	21.69	212.08	243.99	225.35	18.64	13.090		
4,400.00	4,399.16	4,387.28	4,384.45	9.63	9.63	163.23	22.98	217.73	254.35	235.29	19.07	13.340		
4,500.00	4,499.05	4,486.74	4,483.74	9.84	9.86	163.32	24.27	223.38	264.71	245.22	19.49	13.579		
4,600.00	4,598.93	4,586.20	4,583.03	10.06	10.09	163.40	25.56	229.04	275.08	255.15	19.92	13.806		
4,700.00	4,698.81	4,685.66	4,682.32	10.28	10.32	163.48	26.85	234.69	285.44	265.08	20.35	14.024		
4,800.00	4,798.70	4,785.12	4,781.61	10.50	10.55	163.56	28.14	240.34	295.80	275.02	20.79	14.231		
4,900.00	4,898.58	4,884.58	4,880.90	10.72	10.78	163.62	29.42	245.99	306.17	284.95	21.22	14.430		
5,000.00	4,998.46	4,984.04	4,980.20	10.94	11.01	163.69	30.71	251.65	316.53	294.88	21.65	14.620		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 128H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,098.35	5,083.50	5,079.49	11.16	11.24	163.75	32.00	257.30	326.90	304.81	22.09	14.801		
5,200.00	5,198.23	5,182.96	5,178.78	11.38	11.48	163.81	33.29	262.95	337.26	314.74	22.52	14.976		
5,300.00	5,298.11	5,282.42	5,278.07	11.60	11.71	163.86	34.58	268.60	347.63	324.67	22.96	15.143		
5,400.00	5,398.00	5,381.88	5,377.36	11.82	11.94	163.91	35.87	274.26	357.99	334.60	23.39	15.304		
5,500.00	5,497.88	5,481.34	5,476.65	12.05	12.18	163.96	37.15	279.91	368.36	344.53	23.83	15.458		
5,600.00	5,597.76	5,580.81	5,575.95	12.27	12.41	164.00	38.44	285.56	378.72	354.46	24.27	15.607		
5,700.00	5,697.65	5,680.27	5,675.24	12.50	12.64	164.04	39.73	291.21	389.09	364.38	24.71	15.749		
5,800.00	5,797.53	5,779.73	5,774.53	12.72	12.88	164.08	41.02	296.87	399.46	374.31	25.14	15.887		
5,900.00	5,897.41	5,879.19	5,873.82	12.95	13.11	164.12	42.31	302.52	409.82	384.24	25.58	16.019		
6,000.00	5,997.30	5,978.65	5,973.11	13.17	13.35	164.16	43.59	308.17	420.19	394.17	26.02	16.147		
6,100.00	6,097.18	6,078.11	6,072.40	13.40	13.58	164.19	44.88	313.82	430.56	404.09	26.46	16.270		
6,200.00	6,197.06	6,177.57	6,171.70	13.63	13.82	164.22	46.17	319.48	440.92	414.02	26.90	16.389		
6,300.00	6,296.94	6,277.03	6,270.99	13.85	14.05	164.25	47.46	325.13	451.29	423.95	27.35	16.503		
6,400.00	6,396.83	6,376.49	6,370.28	14.08	14.29	164.28	48.75	330.78	461.66	433.87	27.79	16.614		
6,500.00	6,496.71	6,475.95	6,469.57	14.31	14.52	164.31	50.04	336.43	472.03	443.80	28.23	16.721		
6,600.00	6,596.59	6,575.41	6,568.86	14.54	14.76	164.34	51.32	342.09	482.39	453.72	28.67	16.825		
6,700.00	6,696.48	6,674.87	6,668.16	14.77	15.00	164.37	52.61	347.74	492.76	463.65	29.11	16.925		
6,800.00	6,796.36	6,774.34	6,767.45	14.99	15.23	164.39	53.90	353.39	503.13	473.57	29.56	17.022		
6,900.00	6,896.24	6,873.80	6,866.74	15.22	15.47	164.42	55.19	359.04	513.50	483.50	30.00	17.116		
7,000.00	6,996.13	6,973.26	6,966.03	15.45	15.71	164.44	56.48	364.70	523.87	493.42	30.45	17.207		
7,100.00	7,096.01	7,072.72	7,065.32	15.68	15.94	164.46	57.77	370.35	534.23	503.34	30.89	17.295		
7,200.00	7,195.89	7,172.18	7,164.61	15.91	16.18	164.48	59.05	376.00	544.60	513.27	31.33	17.380		
7,300.00	7,295.78	7,271.64	7,263.91	16.14	16.42	164.50	60.34	381.65	554.97	523.19	31.78	17.463		
7,400.00	7,395.66	7,371.10	7,363.20	16.37	16.65	164.52	61.63	387.31	565.34	533.12	32.22	17.544		
7,500.00	7,495.54	7,470.56	7,462.49	16.60	16.89	164.54	62.92	392.96	575.71	543.04	32.67	17.622		
7,600.00	7,595.43	7,570.02	7,561.78	16.83	17.13	164.56	64.21	398.61	586.08	552.96	33.12	17.698		
7,700.00	7,695.31	7,669.48	7,661.07	17.06	17.37	164.58	65.50	404.26	596.44	562.88	33.56	17.772		
7,800.00	7,795.19	7,768.94	7,760.36	17.29	17.61	164.59	66.78	409.91	606.81	572.81	34.01	17.844		
7,900.00	7,895.08	7,868.40	7,859.66	17.53	17.84	164.61	68.07	415.57	617.18	582.73	34.45	17.914		
7,947.18	7,942.20	7,915.33	7,906.50	17.63	17.96	164.62	68.68	418.23	622.07	587.41	34.66	17.946		
8,000.00	7,994.97	7,967.89	7,958.97	17.74	18.08	164.64	69.36	421.22	627.32	592.43	34.89	17.980		
8,100.00	8,094.92	8,067.51	8,058.43	17.93	18.32	164.63	70.65	426.88	635.96	600.67	35.30	18.017		
8,200.00	8,194.91	8,167.27	8,158.01	18.11	18.56	164.58	71.94	432.55	642.93	607.23	35.70	18.007		
8,224.15	8,219.06	8,191.37	8,182.07	18.15	18.62	88.02	72.26	433.92	644.36	608.56	35.80	17.997		
8,300.00	8,294.91	8,267.09	8,257.67	18.30	18.80	87.94	73.24	438.22	648.71	612.58	36.13	17.956		
8,400.00	8,394.91	8,366.92	8,357.33	18.52	19.04	87.85	74.53	443.90	654.43	617.86	36.57	17.896		
8,500.00	8,494.91	8,466.75	8,456.99	18.73	19.28	87.75	75.82	449.57	660.16	623.15	37.01	17.836		
8,600.00	8,594.91	8,566.58	8,556.65	18.95	19.51	87.66	77.12	455.25	665.89	628.44	37.46	17.778		
8,700.00	8,694.91	8,666.41	8,656.31	19.16	19.75	87.57	78.41	460.92	671.63	633.73	37.90	17.721		
8,800.00	8,794.91	8,778.09	8,767.84	19.38	19.97	87.49	79.65	466.38	676.57	638.22	38.35	17.642		
8,900.00	8,894.91	8,891.22	8,880.91	19.59	20.18	87.43	80.42	469.76	679.59	640.80	38.78	17.522		
9,000.00	8,994.91	9,004.44	8,994.13	19.81	20.38	87.41	80.70	470.97	680.66	641.45	39.21	17.361		
9,100.00	9,094.91	9,105.12	9,094.81	20.03	20.57	87.41	80.70	470.97	680.66	641.04	39.62	17.178		
9,200.00	9,194.91	9,205.12	9,194.81	20.24	20.78	87.41	80.70	470.97	680.66	640.61	40.05	16.993		
9,300.00	9,294.91	9,305.12	9,294.81	20.46	20.98	87.41	80.70	470.97	680.66	640.18	40.48	16.813		
9,400.00	9,394.91	9,405.12	9,394.81	20.68	21.19	87.41	80.70	470.97	680.66	639.75	40.92	16.636		
9,500.00	9,494.91	9,505.12	9,494.81	20.89	21.40	87.41	80.70	470.97	680.66	639.32	41.35	16.462		
9,524.15	9,519.06	9,529.27	9,518.96	20.95	21.45	87.41	80.70	470.97	680.66	639.21	41.45	16.421		
9,550.00	9,544.90	9,555.12	9,544.80	21.00	21.50	-92.21	80.70	470.97	680.68	639.13	41.56	16.379		
9,600.00	9,594.69	9,606.44	9,596.11	21.09	21.60	-92.52	79.96	470.98	680.84	639.09	41.75	16.309		
9,650.00	9,643.90	9,659.23	9,648.64	21.17	21.70	-92.85	74.87	471.01	681.03	639.10	41.92	16.245		
9,700.00	9,692.17	9,712.43	9,700.87	21.26	21.79	-93.16	64.86	471.09	681.22	639.13	42.09	16.185		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 128H - OH - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,750.00	9,739.11	9,766.00	9,752.30	21.35	21.88	-93.45	49.94	471.19	681.42	639.17	42.25	16.128		
9,800.00	9,784.38	9,819.92	9,802.44	21.43	21.97	-93.71	30.14	471.34	681.61	639.20	42.41	16.072		
9,850.00	9,827.63	9,874.17	9,850.76	21.51	22.05	-93.94	5.55	471.52	681.79	639.22	42.57	16.015		
9,900.00	9,868.53	9,928.69	9,896.78	21.60	22.14	-94.14	-23.66	471.73	681.95	639.21	42.74	15.954		
9,950.00	9,906.77	9,983.46	9,940.00	21.69	22.24	-94.30	-57.26	471.98	682.09	639.16	42.93	15.888		
10,000.00	9,942.06	10,038.43	9,979.95	21.78	22.33	-94.43	-94.98	472.25	682.21	639.06	43.14	15.813		
10,050.00	9,974.14	10,093.54	10,016.20	21.89	22.45	-94.52	-136.47	472.56	682.29	638.91	43.38	15.727		
10,100.00	10,002.75	10,148.75	10,048.35	22.01	22.57	-94.57	-181.33	472.88	682.34	638.67	43.66	15.627		
10,150.00	10,027.67	10,204.01	10,076.05	22.16	22.72	-94.59	-229.12	473.23	682.35	638.36	43.99	15.512		
10,200.00	10,048.73	10,259.26	10,099.02	22.33	22.90	-94.56	-279.34	473.60	682.32	637.96	44.36	15.381		
10,250.00	10,065.76	10,314.45	10,117.03	22.53	23.10	-94.50	-331.49	473.98	682.26	637.48	44.78	15.234		
10,300.00	10,078.62	10,369.53	10,129.92	22.75	23.34	-94.40	-385.01	474.37	682.17	636.91	45.26	15.072		
10,350.00	10,087.23	10,424.44	10,137.60	23.00	23.61	-94.26	-439.36	474.77	682.04	636.25	45.79	14.896		
10,400.00	10,091.51	10,479.14	10,140.05	23.27	23.90	-94.09	-493.99	475.17	681.89	635.53	46.36	14.709		
10,420.09	10,092.00	10,499.69	10,139.81	23.38	24.01	-94.03	-514.53	475.32	681.84	635.24	46.59	14.634		
10,500.00	10,092.57	10,579.58	10,138.80	23.88	24.51	-93.90	-594.41	475.90	681.72	634.12	47.60	14.322		
10,600.00	10,093.28	10,679.56	10,137.53	28.10	25.21	-93.73	-694.38	476.63	681.59	632.93	48.66	14.007		
10,700.00	10,093.98	10,779.54	10,136.26	28.19	25.99	-93.56	-794.35	477.36	681.46	631.97	49.49	13.770		
10,800.00	10,094.69	10,879.52	10,134.99	28.28	26.85	-93.40	-894.32	478.09	681.33	630.92	50.42	13.514		
10,900.00	10,095.40	10,979.51	10,133.73	28.37	27.78	-93.23	-994.29	478.82	681.22	629.77	51.44	13.242		
11,000.00	10,096.11	11,079.49	10,132.46	28.46	28.78	-93.07	-1,094.26	479.55	681.10	628.55	52.56	12.960		
11,100.00	10,096.82	11,179.47	10,131.19	28.55	29.83	-92.90	-1,194.23	480.28	681.00	627.25	53.75	12.670		
11,200.00	10,097.52	11,279.45	10,129.92	28.65	30.93	-92.74	-1,294.20	481.01	680.89	625.88	55.02	12.376		
11,300.00	10,098.23	11,379.43	10,128.65	28.74	32.08	-92.57	-1,394.17	481.74	680.80	624.44	56.35	12.081		
11,400.00	10,098.94	11,479.41	10,127.38	28.84	33.26	-92.40	-1,494.14	482.47	680.71	622.95	57.75	11.787		
11,500.00	10,099.65	11,579.39	10,126.12	28.94	34.49	-92.24	-1,594.11	483.20	680.62	621.41	59.21	11.495		
11,600.00	10,100.35	11,679.37	10,124.85	29.04	35.75	-92.07	-1,694.08	483.93	680.54	619.82	60.72	11.208		
11,700.00	10,101.06	11,779.35	10,123.58	29.14	37.04	-91.90	-1,794.05	484.66	680.47	618.19	62.28	10.925		
11,800.00	10,101.77	11,879.33	10,122.31	29.25	38.35	-91.74	-1,894.02	485.39	680.40	616.51	63.89	10.649		
11,900.00	10,102.48	11,979.31	10,121.04	29.35	39.69	-91.57	-1,993.99	486.12	680.34	614.80	65.54	10.380		
12,000.00	10,103.19	12,079.29	10,119.78	29.46	41.05	-91.41	-2,093.96	486.85	680.29	613.06	67.23	10.118		
12,100.00	10,103.89	12,179.27	10,118.51	29.57	42.43	-91.24	-2,193.93	487.58	680.24	611.28	68.96	9.864		
12,200.00	10,104.60	12,279.25	10,117.24	29.69	43.83	-91.07	-2,293.90	488.30	680.19	609.47	70.72	9.618		
12,300.00	10,105.31	12,379.23	10,115.97	29.80	45.24	-90.91	-2,393.87	489.03	680.15	607.64	72.52	9.379		
12,400.00	10,106.02	12,479.21	10,114.70	29.93	46.67	-90.74	-2,493.84	489.76	680.12	605.78	74.34	9.149		
12,500.00	10,106.72	12,579.19	10,113.44	30.06	48.11	-90.57	-2,593.81	490.49	680.10	603.90	76.19	8.926		
12,600.00	10,107.43	12,679.17	10,112.17	30.20	49.57	-90.41	-2,693.78	491.22	680.07	602.00	78.07	8.711		
12,700.00	10,108.14	12,779.15	10,110.90	30.36	51.03	-90.24	-2,793.75	491.95	680.06	600.08	79.98	8.503		
12,800.00	10,108.85	12,879.13	10,109.63	30.54	52.51	-90.07	-2,893.72	492.68	680.05	598.14	81.90	8.303		
12,900.00	10,109.56	12,979.11	10,108.36	30.76	53.99	-89.91	-2,993.69	493.41	680.04	596.19	83.85	8.110		
12,920.24	10,109.70	12,999.35	10,108.11	30.82	54.29	-89.87	-3,013.92	493.56	680.04	595.79	84.25	8.072		
13,000.00	10,110.26	13,079.10	10,107.09	31.04	55.49	-89.74	-3,093.66	494.14	680.05	594.23	85.82	7.924		
13,100.00	10,110.97	13,179.08	10,105.83	31.39	56.99	-89.58	-3,193.63	494.87	680.05	592.24	87.81	7.745		
13,200.00	10,111.68	13,279.06	10,104.56	31.78	58.50	-89.41	-3,293.60	495.60	680.07	590.25	89.82	7.572		
13,300.00	10,112.39	13,379.04	10,103.29	32.22	60.01	-89.24	-3,393.57	496.33	680.09	588.25	91.84	7.405		
13,400.00	10,113.09	13,479.02	10,102.02	32.69	61.54	-89.08	-3,493.54	497.06	680.11	586.23	93.88	7.245		
13,500.00	10,113.80	13,579.00	10,100.75	33.18	63.06	-88.91	-3,593.51	497.79	680.14	584.21	95.93	7.090		
13,600.00	10,114.51	13,678.98	10,099.49	33.69	64.60	-88.74	-3,693.48	498.52	680.18	582.18	98.00	6.941		
13,700.00	10,115.22	13,778.96	10,098.22	34.22	66.14	-88.58	-3,793.45	499.25	680.22	580.14	100.08	6.797		
13,800.00	10,115.93	13,878.94	10,096.95	34.75	67.68	-88.41	-3,893.42	499.98	680.27	578.10	102.17	6.658		
13,900.00	10,116.63	13,978.92	10,095.68	35.30	69.23	-88.24	-3,993.39	500.71	680.32	576.04	104.28	6.524		
14,000.00	10,117.34	14,078.90	10,094.41	35.85	70.78	-88.08	-4,093.36	501.44	680.38	573.99	106.39	6.395		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 128H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	10,118.05	14,178.88	10,093.15	36.42	72.33	-87.91	-4,193.33	502.17	680.44	571.93	108.52	6.270		
14,200.00	10,118.76	14,278.86	10,091.88	36.99	73.89	-87.74	-4,293.30	502.90	680.51	569.86	110.65	6.150		
14,300.00	10,119.46	14,378.84	10,090.61	37.57	75.45	-87.58	-4,393.26	503.63	680.59	567.79	112.80	6.034		
14,400.00	10,120.17	14,478.82	10,089.34	38.16	77.02	-87.41	-4,493.23	504.36	680.67	565.72	114.95	5.921		
14,500.00	10,120.88	14,578.80	10,088.07	38.75	78.59	-87.25	-4,593.20	505.09	680.76	563.65	117.11	5.813		
14,600.00	10,121.59	14,678.78	10,086.80	39.35	80.16	-87.08	-4,693.17	505.82	680.85	561.57	119.28	5.708		
14,700.00	10,122.29	14,778.76	10,085.54	39.96	81.73	-86.91	-4,793.14	506.55	680.95	559.49	121.46	5.606		
14,800.00	10,123.00	14,878.74	10,084.27	40.57	83.31	-86.75	-4,893.11	507.28	681.06	557.42	123.64	5.508		
14,900.00	10,123.71	14,978.72	10,083.00	41.19	84.89	-86.58	-4,993.08	508.01	681.17	555.34	125.83	5.413		
15,000.00	10,124.42	15,078.70	10,081.73	41.81	86.47	-86.42	-5,093.05	508.74	681.29	553.26	128.03	5.321		
15,100.00	10,125.13	15,178.69	10,080.46	42.43	88.05	-86.25	-5,193.02	509.47	681.41	551.18	130.23	5.232		
15,200.00	10,125.83	15,278.67	10,079.20	43.07	89.64	-86.08	-5,292.99	510.20	681.54	549.10	132.44	5.146		
15,300.00	10,126.54	15,378.65	10,077.93	43.70	91.23	-85.92	-5,392.96	510.93	681.67	547.02	134.65	5.063		
15,400.00	10,127.25	15,478.63	10,076.66	44.34	92.81	-85.75	-5,492.93	511.66	681.81	544.94	136.86	4.982		
15,500.00	10,127.96	15,578.61	10,075.39	44.99	94.40	-85.59	-5,592.90	512.39	681.95	542.87	139.08	4.903		
15,600.00	10,128.66	15,678.59	10,074.12	45.63	96.00	-85.42	-5,692.87	513.12	682.10	540.79	141.31	4.827		
15,700.00	10,129.37	15,778.57	10,072.85	46.29	97.59	-85.26	-5,792.84	513.85	682.26	538.72	143.54	4.753		
15,800.00	10,130.08	15,878.55	10,071.59	46.94	99.19	-85.09	-5,892.81	514.58	682.42	536.65	145.77	4.682		
15,900.00	10,130.79	15,978.53	10,070.32	47.60	100.78	-84.93	-5,992.78	515.31	682.59	534.58	148.00	4.612		
16,000.00	10,131.50	16,078.51	10,069.05	48.26	102.38	-84.76	-6,092.75	516.04	682.76	532.52	150.24	4.544		
16,100.00	10,132.20	16,178.49	10,067.78	48.93	103.98	-84.60	-6,192.72	516.77	682.94	530.46	152.48	4.479		
16,200.00	10,132.91	16,278.47	10,066.51	49.59	105.58	-84.43	-6,292.69	517.50	683.13	528.40	154.73	4.415		
16,300.00	10,133.62	16,378.45	10,065.25	50.27	107.18	-84.27	-6,392.66	518.23	683.32	526.34	156.98	4.353		
16,400.00	10,134.33	16,478.43	10,063.98	50.94	108.78	-84.10	-6,492.63	518.96	683.51	524.29	159.22	4.293		
16,500.00	10,135.03	16,578.41	10,062.71	51.61	110.39	-83.94	-6,592.60	519.69	683.71	522.24	161.48	4.234		
16,600.00	10,135.74	16,678.39	10,061.44	52.29	111.99	-83.77	-6,692.57	520.42	683.92	520.19	163.73	4.177		
16,700.00	10,136.45	16,778.37	10,060.17	52.97	113.60	-83.61	-6,792.54	521.15	684.13	518.15	165.98	4.122		
16,800.00	10,137.16	16,878.35	10,058.91	53.66	115.20	-83.44	-6,892.51	521.88	684.35	516.11	168.24	4.068		
16,900.00	10,137.87	16,978.33	10,057.64	54.34	116.81	-83.28	-6,992.48	522.61	684.58	514.08	170.50	4.015		
17,000.00	10,138.57	17,078.31	10,056.37	55.03	118.42	-83.11	-7,092.45	523.33	684.81	512.05	172.76	3.964		
17,100.00	10,139.28	17,178.29	10,055.10	55.72	120.03	-82.95	-7,192.42	524.06	685.04	510.02	175.02	3.914		
17,200.00	10,139.99	17,278.28	10,053.83	56.41	121.64	-82.79	-7,292.39	524.79	685.28	508.00	177.28	3.866		
17,300.00	10,140.70	17,378.26	10,052.56	57.10	123.25	-82.62	-7,392.36	525.52	685.53	505.98	179.54	3.818		
17,400.00	10,141.40	17,478.24	10,051.30	57.80	124.86	-82.46	-7,492.33	526.25	685.78	503.97	181.81	3.772		
17,484.18	10,142.00	17,562.40	10,050.23	58.16	125.99	-82.32	-7,576.48	526.87	686.00	502.74	183.26	3.743 SF		

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 162H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM, 9981-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.10	0.10	0.00	0.00	-90.27	-0.14	-30.01	30.01					
100.00	100.00	100.10	100.10	0.09	0.09	-90.27	-0.14	-30.01	30.01	29.84	0.17	174.305		
200.00	200.00	200.10	200.10	0.31	0.31	-90.27	-0.14	-30.01	30.01	29.39	0.62	48.271		
300.00	300.00	300.10	300.10	0.54	0.54	-90.27	-0.14	-30.01	30.01	28.94	1.07	28.015		
400.00	400.00	400.10	400.10	0.76	0.76	-90.27	-0.14	-30.01	30.01	28.49	1.52	19.734		
500.00	500.00	500.10	500.10	0.99	0.99	-90.27	-0.14	-30.01	30.01	28.04	1.97	15.231		
600.00	600.00	600.10	600.10	1.21	1.21	-90.27	-0.14	-30.01	30.01	27.59	2.42	12.402		
700.00	700.00	700.10	700.10	1.43	1.43	-90.27	-0.14	-30.01	30.01	27.14	2.87	10.459		
800.00	800.00	800.10	800.10	1.66	1.66	-90.27	-0.14	-30.01	30.01	26.69	3.32	9.042		
900.00	900.00	900.10	900.10	1.88	1.88	-90.27	-0.14	-30.01	30.01	26.24	3.77	7.964		
1,000.00	1,000.00	1,000.10	1,000.10	2.11	2.11	-90.27	-0.14	-30.01	30.01	25.79	4.22	7.115		
1,100.00	1,100.00	1,100.10	1,100.10	2.33	2.33	-90.27	-0.14	-30.01	30.01	25.34	4.67	6.430		
1,200.00	1,200.00	1,200.10	1,200.10	2.56	2.56	-90.27	-0.14	-30.01	30.01	24.89	5.12	5.865		
1,300.00	1,300.00	1,300.10	1,300.10	2.78	2.78	-90.27	-0.14	-30.01	30.01	24.44	5.57	5.391		
1,400.00	1,400.00	1,400.10	1,400.10	3.01	3.01	-90.27	-0.14	-30.01	30.01	23.99	6.02	4.988		
1,500.00	1,500.00	1,500.10	1,500.10	3.23	3.23	-90.27	-0.14	-30.01	30.01	23.54	6.47	4.642		
1,600.00	1,600.00	1,600.10	1,600.10	3.46	3.46	-90.27	-0.14	-30.01	30.01	23.10	6.92	4.340		
1,700.00	1,700.00	1,700.10	1,700.10	3.68	3.68	-90.27	-0.14	-30.01	30.01	22.65	7.36	4.075		
1,800.00	1,800.00	1,800.10	1,800.10	3.91	3.91	-90.27	-0.14	-30.01	30.01	22.20	7.81	3.840		
1,900.00	1,900.00	1,900.10	1,900.10	4.13	4.13	-90.27	-0.14	-30.01	30.01	21.75	8.26	3.632		
2,000.00	2,000.00	2,000.10	2,000.10	4.36	4.36	-90.27	-0.14	-30.01	30.01	21.30	8.71	3.444		
2,100.00	2,100.00	2,100.10	2,100.10	4.58	4.58	-90.27	-0.14	-30.01	30.01	20.85	9.16	3.275		
2,200.00	2,200.00	2,200.10	2,200.10	4.81	4.81	-90.27	-0.14	-30.01	30.01	20.40	9.61	3.122		
2,300.00	2,300.00	2,300.10	2,300.10	5.03	5.03	-90.27	-0.14	-30.01	30.01	19.95	10.06	2.983		
2,400.00	2,400.00	2,400.10	2,400.10	5.26	5.26	-90.27	-0.14	-30.01	30.01	19.50	10.51	2.855		
2,500.00	2,500.00	2,500.10	2,500.10	5.48	5.48	-90.27	-0.14	-30.01	30.01	19.05	10.96	2.738		
2,600.00	2,600.00	2,600.10	2,600.10	5.71	5.71	-90.27	-0.14	-30.01	30.01	18.60	11.41	2.630		
2,700.00	2,700.00	2,700.10	2,700.10	5.93	5.93	-90.27	-0.14	-30.01	30.01	18.15	11.86	2.530		
2,800.00	2,800.00	2,800.10	2,800.10	6.15	6.15	-90.27	-0.14	-30.01	30.01	17.70	12.31	2.438		
2,900.00	2,900.00	2,900.10	2,900.10	6.38	6.38	-90.27	-0.14	-30.01	30.01	17.25	12.76	2.352		
2,916.63	2,916.63	2,916.73	2,916.73	6.42	6.42	-90.27	-0.14	-30.01	30.01	17.18	12.83	2.338 CC		
3,000.00	3,000.00	3,000.00	3,000.00	6.60	6.60	-90.27	-0.14	-30.01	30.01	16.80	13.21	2.272 ES		
3,100.00	3,100.00	3,099.57	3,099.56	6.83	6.81	-90.26	-0.14	-30.88	30.88	17.24	13.64	2.264 SF		
3,200.00	3,200.00	3,198.98	3,198.94	7.05	7.01	-90.24	-0.14	-33.46	33.49	19.43	14.06	2.382		
3,300.00	3,300.00	3,298.27	3,298.13	7.28	7.21	-90.21	-0.14	-37.77	37.82	23.36	14.47	2.614		
3,400.00	3,400.00	3,397.38	3,397.06	7.50	7.41	-90.18	-0.14	-43.78	43.89	29.01	14.88	2.950		
3,500.00	3,500.00	3,496.25	3,495.63	7.73	7.62	-90.16	-0.14	-51.49	51.68	36.40	15.28	3.382		
3,600.00	3,600.00	3,595.64	3,594.61	7.94	7.83	-13.76	-0.14	-60.51	59.92	44.23	15.69	3.819		
3,700.00	3,699.96	3,695.42	3,693.97	8.15	8.05	-14.24	-0.14	-69.65	66.54	50.44	16.10	4.134		
3,776.97	3,776.86	3,772.28	3,770.51	8.31	8.22	-14.79	-0.14	-76.68	70.49	54.08	16.41	4.295		
3,800.00	3,799.87	3,795.29	3,793.42	8.35	8.27	-14.98	-0.14	-78.79	71.52	55.02	16.50	4.334		
3,900.00	3,899.75	3,895.18	3,892.89	8.56	8.49	-15.73	-0.14	-87.93	76.02	59.11	16.92	4.494		
4,000.00	3,999.63	3,995.08	3,992.37	8.77	8.72	-16.41	-0.14	-97.08	80.53	63.20	17.33	4.646		
4,100.00	4,099.51	4,094.97	4,091.84	8.98	8.94	-17.01	-0.14	-106.22	85.06	67.30	17.75	4.792		
4,200.00	4,199.40	4,194.87	4,191.32	9.20	9.17	-17.55	-0.14	-115.37	89.58	71.41	18.17	4.930		
4,300.00	4,299.28	4,294.76	4,290.79	9.41	9.41	-18.03	-0.14	-124.51	94.12	75.53	18.59	5.062		
4,400.00	4,399.16	4,394.65	4,390.27	9.63	9.64	-18.48	-0.14	-133.66	98.66	79.65	19.02	5.188		
4,500.00	4,499.05	4,494.55	4,489.74	9.84	9.88	-18.88	-0.14	-142.80	103.21	83.77	19.44	5.309		
4,600.00	4,598.93	4,594.44	4,589.22	10.06	10.11	-19.25	-0.14	-151.94	107.76	87.89	19.87	5.423		
4,700.00	4,698.81	4,694.34	4,688.69	10.28	10.35	-19.59	-0.14	-161.09	112.32	92.02	20.30	5.533		
4,800.00	4,798.70	4,794.23	4,788.17	10.50	10.59	-19.90	-0.14	-170.23	116.88	96.15	20.73	5.639		
4,900.00	4,898.58	4,894.12	4,887.64	10.72	10.84	-20.19	-0.14	-179.38	121.45	100.28	21.16	5.739		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 162H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM, 9981-MWD+IFR1+MS													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Warning								
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,000.00	4,998.46	4,994.02	4,987.12	10.94	11.08	-20.46	-0.14	-188.52	126.01	104.42	21.59	5.836		
5,100.00	5,098.35	5,093.91	5,086.59	11.16	11.32	-20.71	-0.14	-197.67	130.58	108.55	22.03	5.928		
5,200.00	5,198.23	5,193.81	5,186.06	11.38	11.57	-20.94	-0.14	-206.81	135.15	112.69	22.46	6.017		
5,300.00	5,298.11	5,293.70	5,285.54	11.60	11.81	-21.16	-0.14	-215.96	139.73	116.83	22.90	6.102		
5,400.00	5,398.00	5,393.59	5,385.01	11.82	12.06	-21.36	-0.14	-225.10	144.30	120.96	23.34	6.183		
5,500.00	5,497.88	5,493.49	5,484.49	12.05	12.31	-21.55	-0.14	-234.25	148.88	125.10	23.78	6.262		
5,600.00	5,597.76	5,593.38	5,583.96	12.27	12.56	-21.73	-0.14	-243.39	153.46	129.24	24.21	6.337		
5,700.00	5,697.65	5,693.28	5,683.44	12.50	12.81	-21.90	-0.14	-252.53	158.04	133.38	24.66	6.410		
5,800.00	5,797.53	5,793.17	5,782.91	12.72	13.06	-22.06	-0.14	-261.68	162.62	137.52	25.10	6.480		
5,900.00	5,897.41	5,893.06	5,882.39	12.95	13.31	-22.21	-0.14	-270.82	167.20	141.66	25.54	6.547		
6,000.00	5,997.30	5,992.96	5,981.86	13.17	13.56	-22.36	-0.14	-279.97	171.78	145.80	25.98	6.612		
6,100.00	6,097.18	6,092.85	6,081.34	13.40	13.82	-22.49	-0.14	-289.11	176.37	149.95	26.42	6.675		
6,200.00	6,197.06	6,192.75	6,180.81	13.63	14.07	-22.62	-0.14	-298.26	180.95	154.09	26.87	6.735		
6,300.00	6,296.94	6,292.64	6,280.28	13.85	14.33	-22.74	-0.14	-307.40	185.54	158.23	27.31	6.793		
6,400.00	6,396.83	6,392.53	6,379.76	14.08	14.58	-22.86	-0.14	-316.55	190.13	162.37	27.76	6.850		
6,500.00	6,496.71	6,492.43	6,479.23	14.31	14.84	-22.97	-0.14	-325.69	194.72	166.51	28.20	6.904		
6,600.00	6,596.59	6,592.32	6,578.71	14.54	15.09	-23.08	-0.14	-334.83	199.31	170.66	28.65	6.957		
6,700.00	6,696.48	6,692.22	6,678.18	14.77	15.35	-23.18	-0.14	-343.98	203.89	174.80	29.10	7.007		
6,800.00	6,796.36	6,792.11	6,777.66	14.99	15.60	-23.28	-0.14	-353.12	208.48	178.94	29.54	7.057		
6,900.00	6,896.24	6,892.00	6,877.13	15.22	15.86	-23.37	-0.14	-362.27	213.08	183.08	29.99	7.104		
7,000.00	6,996.13	6,991.90	6,976.61	15.45	16.12	-23.46	-0.14	-371.41	217.67	187.23	30.44	7.151		
7,100.00	7,096.01	7,091.79	7,076.08	15.68	16.38	-23.54	-0.14	-380.56	222.26	191.37	30.89	7.195		
7,200.00	7,195.89	7,191.69	7,175.56	15.91	16.63	-23.62	-0.14	-389.70	226.85	195.51	31.34	7.239		
7,300.00	7,295.78	7,291.58	7,275.03	16.14	16.89	-23.70	-0.14	-398.85	231.44	199.65	31.79	7.281		
7,400.00	7,395.66	7,391.47	7,374.50	16.37	17.15	-23.78	-0.14	-407.99	236.03	203.80	32.24	7.322		
7,500.00	7,495.54	7,491.37	7,473.98	16.60	17.41	-23.85	-0.14	-417.14	240.63	207.94	32.69	7.361		
7,600.00	7,595.43	7,591.26	7,573.45	16.83	17.67	-23.92	-0.14	-426.28	245.22	212.08	33.14	7.400		
7,700.00	7,695.31	7,691.16	7,672.93	17.06	17.93	-23.99	-0.14	-435.42	249.82	216.23	33.59	7.437		
7,800.00	7,795.19	7,791.05	7,772.40	17.29	18.19	-24.05	-0.14	-444.57	254.41	220.37	34.04	7.473		
7,900.00	7,895.08	7,890.94	7,871.88	17.53	18.45	-24.11	-0.14	-453.71	259.00	224.51	34.49	7.509		
7,947.18	7,942.20	7,938.07	7,918.81	17.63	18.57	-24.14	-0.14	-458.03	261.17	226.47	34.71	7.525		
8,000.00	7,994.97	7,990.83	7,971.34	17.74	18.71	-24.16	-0.14	-462.86	263.82	228.89	34.94	7.552		
8,100.00	8,094.92	8,090.63	8,070.73	17.93	18.97	-24.09	-0.14	-471.99	270.05	234.71	35.35	7.640		
8,200.00	8,194.91	8,190.32	8,169.99	18.11	19.23	-23.88	-0.14	-481.12	277.87	242.12	35.76	7.771		
8,224.15	8,219.06	8,214.37	8,193.94	18.15	19.30	-100.36	-0.14	-483.32	280.00	244.15	35.85	7.809		
8,300.00	8,294.91	8,292.32	8,271.59	18.30	19.48	-100.11	-0.14	-490.25	286.64	250.45	36.19	7.921		
8,400.00	8,394.91	8,392.29	8,376.27	18.52	19.70	-99.84	-0.14	-498.00	293.91	257.29	36.62	8.025		
8,500.00	8,494.91	8,502.51	8,481.32	18.73	19.90	-99.65	-0.14	-503.84	299.39	262.34	37.05	8.081		
8,600.00	8,594.91	8,607.90	8,586.64	18.95	20.09	-99.53	-0.14	-507.76	303.06	265.59	37.46	8.089		
8,700.00	8,694.91	8,713.41	8,692.13	19.16	20.28	-99.47	-0.14	-509.75	304.91	267.04	37.87	8.052		
8,800.00	8,794.91	8,816.29	8,795.01	19.38	20.47	-99.46	-0.14	-510.01	305.16	266.88	38.28	7.972		
8,900.00	8,894.91	8,916.29	8,895.01	19.59	20.67	-99.46	-0.14	-510.01	305.16	266.45	38.71	7.884		
9,000.00	8,994.91	9,016.29	8,995.01	19.81	20.87	-99.46	-0.14	-510.01	305.16	266.02	39.13	7.798		
9,006.95	9,001.86	9,023.24	9,001.96	19.83	20.88	-99.46	-0.14	-510.01	305.16	265.99	39.16	7.792		
9,100.00	9,094.91	9,112.50	9,091.18	20.03	21.06	-99.77	-1.84	-510.00	305.45	265.90	39.56	7.722		
9,200.00	9,194.91	9,200.00	9,177.57	20.24	21.21	-102.23	-15.20	-509.90	308.38	268.43	39.94	7.720		
9,300.00	9,294.91	9,286.03	9,259.55	20.46	21.37	-106.84	-40.99	-509.71	316.17	275.92	40.25	7.855		
9,400.00	9,394.91	9,361.01	9,327.17	20.68	21.51	-112.30	-73.26	-509.48	331.79	291.51	40.28	8.238		
9,500.00	9,494.91	9,426.43	9,382.29	20.89	21.64	-117.82	-108.43	-509.22	357.69	317.84	39.84	8.977		
9,524.15	9,519.06	9,440.82	9,393.86	20.95	21.67	-119.09	-116.99	-509.16	365.63	325.96	39.67	9.218		
9,550.00	9,544.90	9,450.00	9,401.12	21.00	21.69	59.70	-122.61	-509.12	374.66	335.37	39.29	9.536		
9,600.00	9,594.69	9,484.82	9,427.83	21.09	21.76	55.37	-144.95	-508.96	392.36	353.43	38.93	10.078		

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LEAM Drilling Systems LLC

Anticollision Report

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Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 162H - OH - Plan #2													Offset Well Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM, 9981-MWD+IFR1+MS														
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
9,650.00	9,643.90	9,513.50	9,448.77	21.17	21.83	51.90	-164.53	-508.82	410.33	371.97	38.36	10.698		
9,700.00	9,692.17	9,550.00	9,473.97	21.26	21.91	48.36	-190.93	-508.62	428.26	390.31	37.96	11.283		
9,750.00	9,739.11	9,570.21	9,487.18	21.35	21.96	46.03	-206.22	-508.51	445.52	408.44	37.07	12.018		
9,800.00	9,784.38	9,600.00	9,505.65	21.43	22.04	43.53	-229.59	-508.34	462.20	425.76	36.45	12.682		
9,850.00	9,827.63	9,626.26	9,520.91	21.51	22.11	41.47	-250.96	-508.19	477.99	442.26	35.73	13.378		
9,900.00	9,868.53	9,650.00	9,533.84	21.60	22.18	39.74	-270.86	-508.04	492.76	457.80	34.97	14.092		
9,950.00	9,906.77	9,681.83	9,549.87	21.69	22.29	38.04	-298.36	-507.84	506.29	471.83	34.46	14.692		
10,000.00	9,942.06	9,700.00	9,558.33	21.78	22.35	36.87	-314.43	-507.73	518.70	485.04	33.66	15.410		
10,050.00	9,974.14	9,737.04	9,573.98	21.89	22.48	35.55	-348.01	-507.48	529.41	496.03	33.38	15.859		
10,100.00	10,002.75	9,764.55	9,584.17	22.01	22.59	34.61	-373.55	-507.30	538.81	505.86	32.95	16.352		
10,150.00	10,027.67	9,800.00	9,595.48	22.16	22.75	33.76	-407.14	-507.05	546.79	514.03	32.75	16.695		
10,200.00	10,048.73	9,819.42	9,600.79	22.33	22.84	33.26	-425.82	-506.92	552.97	520.61	32.37	17.085		
10,250.00	10,065.76	9,850.00	9,607.86	22.53	22.99	32.81	-455.57	-506.70	557.66	525.39	32.28	17.278		
10,300.00	10,078.62	9,874.18	9,612.31	22.75	23.11	32.55	-479.32	-506.53	560.68	528.46	32.23	17.399		
10,350.00	10,087.23	9,900.00	9,615.96	23.00	23.25	32.43	-504.89	-506.34	562.06	529.73	32.33	17.385		
10,400.00	10,091.51	9,928.88	9,618.68	23.27	23.42	32.46	-533.63	-506.13	561.76	529.17	32.59	17.236		
10,420.09	10,092.00	9,950.00	9,619.74	23.38	23.55	32.53	-554.73	-505.98	561.34	528.58	32.76	17.133		
10,464.65	10,092.32	9,964.28	9,620.02	23.66	23.63	32.54	-569.00	-505.88	560.37	527.29	33.09	16.937		
10,500.00	10,092.57	9,990.86	9,619.82	23.88	25.70	32.52	-595.58	-505.68	560.78	527.43	33.35	16.816		
10,600.00	10,093.28	10,090.84	9,618.68	28.10	27.33	32.42	-695.55	-504.96	562.34	528.89	33.45	16.811		
10,700.00	10,093.98	10,190.83	9,617.53	28.19	27.41	32.32	-795.53	-504.23	563.91	530.40	33.51	16.830		
10,800.00	10,094.69	10,290.81	9,616.39	28.28	27.49	32.22	-895.50	-503.50	565.48	531.84	33.63	16.813		
10,900.00	10,095.40	10,390.79	9,615.25	28.37	27.57	32.12	-995.48	-502.78	567.05	533.21	33.83	16.760		
11,000.00	10,096.11	10,490.77	9,614.11	28.46	27.65	32.02	-1,095.45	-502.05	568.62	534.52	34.10	16.674		
11,100.00	10,096.82	10,590.76	9,612.97	28.55	27.74	31.92	-1,195.42	-501.33	570.19	535.75	34.44	16.556		
11,200.00	10,097.52	10,690.74	9,611.83	28.65	27.82	31.83	-1,295.40	-500.60	571.77	536.92	34.84	16.409		
11,300.00	10,098.23	10,790.72	9,610.68	28.74	27.92	31.73	-1,395.37	-499.87	573.34	538.03	35.31	16.236		
11,400.00	10,098.94	10,890.71	9,609.54	28.84	28.01	31.63	-1,495.34	-499.15	574.92	539.08	35.84	16.040		
11,500.00	10,099.65	10,990.69	9,608.40	28.94	28.11	31.54	-1,595.32	-498.42	576.50	540.07	36.43	15.824		
11,600.00	10,100.35	11,090.67	9,607.26	29.04	28.21	31.44	-1,695.29	-497.69	578.08	541.00	37.08	15.591		
11,700.00	10,101.06	11,190.65	9,606.12	29.14	28.31	31.35	-1,795.27	-496.97	579.67	541.89	37.78	15.344		
11,800.00	10,101.77	11,290.64	9,604.97	29.25	28.42	31.25	-1,895.24	-496.24	581.25	542.72	38.53	15.086		
11,900.00	10,102.48	11,390.62	9,603.83	29.35	28.54	31.16	-1,995.21	-495.51	582.84	543.51	39.33	14.821		
12,000.00	10,103.19	11,490.60	9,602.69	29.46	28.66	31.07	-2,095.19	-494.79	584.42	544.26	40.17	14.549		
12,100.00	10,103.89	11,590.59	9,601.55	29.57	28.79	30.97	-2,195.16	-494.06	586.01	544.96	41.05	14.275		
12,200.00	10,104.60	11,690.57	9,600.41	29.69	28.92	30.88	-2,295.13	-493.34	587.60	545.63	41.98	13.998		
12,300.00	10,105.31	11,790.55	9,599.26	29.80	29.07	30.79	-2,395.11	-492.61	589.20	546.26	42.94	13.722		
12,400.00	10,106.02	11,890.53	9,598.12	29.93	29.23	30.70	-2,495.08	-491.88	590.79	546.86	43.93	13.447		
12,500.00	10,106.72	11,990.52	9,596.98	30.06	29.40	30.61	-2,595.06	-491.16	592.39	547.42	44.96	13.175		
12,600.00	10,107.43	12,090.50	9,595.84	30.20	29.60	30.52	-2,695.03	-490.43	593.98	547.96	46.02	12.907		
12,700.00	10,108.14	12,190.48	9,594.70	30.36	29.82	30.43	-2,795.00	-489.70	595.58	548.48	47.11	12.644		
12,800.00	10,108.85	12,290.47	9,593.55	30.54	30.08	30.34	-2,894.98	-488.98	597.18	548.96	48.22	12.385		
12,900.00	10,109.56	12,390.45	9,592.41	30.76	30.37	30.25	-2,994.95	-488.25	598.78	549.43	49.35	12.132		
13,000.00	10,110.26	12,490.43	9,591.27	31.04	30.69	30.16	-3,094.92	-487.52	600.38	549.87	50.51	11.886		
13,100.00	10,110.97	12,590.41	9,590.13	31.39	31.06	30.07	-3,194.90	-486.80	601.99	550.29	51.69	11.645		
13,200.00	10,111.68	12,690.40	9,588.99	31.78	31.45	29.99	-3,294.87	-486.07	603.59	550.70	52.89	11.411		
13,300.00	10,112.39	12,790.38	9,587.84	32.22	31.88	29.90	-3,394.84	-485.34	605.20	551.09	54.11	11.184		
13,400.00	10,113.09	12,890.36	9,586.70	32.69	32.34	29.81	-3,494.82	-484.62	606.81	551.46	55.35	10.963		
13,500.00	10,113.80	12,990.35	9,585.56	33.18	32.82	29.73	-3,594.79	-483.89	608.42	551.82	56.60	10.749		
13,600.00	10,114.51	13,090.33	9,584.42	33.69	33.32	29.64	-3,694.77	-483.17	610.03	552.16	57.87	10.542		
13,700.00	10,115.22	13,190.31	9,583.28	34.22	33.83	29.56	-3,794.74	-482.44	611.64	552.49	59.15	10.340		
13,800.00	10,115.93	13,290.30	9,582.14	34.75	34.37	29.47	-3,894.71	-481.71	613.26	552.81	60.45	10.146		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 162H - OH - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM, 9981-MWD+IFR1+MS												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,900.00	10,116.63	13,390.28	9,580.99	35.30	34.91	29.39	-3,994.69	-480.99	614.87	553.12	61.75	9.957	
14,000.00	10,117.34	13,490.26	9,579.85	35.85	35.47	29.30	-4,094.66	-480.26	616.49	553.41	63.07	9.774	
14,100.00	10,118.05	13,590.24	9,578.71	36.42	36.03	29.22	-4,194.63	-479.53	618.10	553.70	64.40	9.598	
14,200.00	10,118.76	13,690.23	9,577.57	36.99	36.61	29.14	-4,294.61	-478.81	619.72	553.98	65.74	9.427	
14,300.00	10,119.46	13,790.21	9,576.43	37.57	37.19	29.05	-4,394.58	-478.08	621.34	554.25	67.09	9.261	
14,400.00	10,120.17	13,890.19	9,575.28	38.16	37.79	28.97	-4,494.56	-477.35	622.96	554.51	68.45	9.101	
14,500.00	10,120.88	13,990.18	9,574.14	38.75	38.39	28.89	-4,594.53	-476.63	624.59	554.77	69.82	8.946	
14,600.00	10,121.59	14,090.16	9,573.00	39.35	38.99	28.81	-4,694.50	-475.90	626.21	555.02	71.20	8.796	
14,700.00	10,122.29	14,190.14	9,571.86	39.96	39.61	28.73	-4,794.48	-475.18	627.84	555.26	72.58	8.650	
14,800.00	10,123.00	14,290.12	9,570.72	40.57	40.23	28.65	-4,894.45	-474.45	629.46	555.49	73.97	8.510	
14,900.00	10,123.71	14,390.11	9,569.57	41.19	40.85	28.57	-4,994.42	-473.72	631.09	555.72	75.37	8.374	
15,000.00	10,124.42	14,490.09	9,568.43	41.81	41.48	28.49	-5,094.40	-473.00	632.72	555.95	76.77	8.242	
15,100.00	10,125.13	14,590.07	9,567.29	42.43	42.12	28.41	-5,194.37	-472.27	634.35	556.17	78.18	8.114	
15,200.00	10,125.83	14,690.06	9,566.15	43.07	42.75	28.33	-5,294.35	-471.54	635.98	556.39	79.60	7.990	
15,300.00	10,126.54	14,790.04	9,565.01	43.70	43.40	28.25	-5,394.32	-470.82	637.61	556.60	81.02	7.870	
15,400.00	10,127.25	14,890.02	9,563.86	44.34	44.05	28.18	-5,494.29	-470.09	639.25	556.80	82.44	7.754	
15,500.00	10,127.96	14,990.00	9,562.72	44.99	44.70	28.10	-5,594.27	-469.36	640.88	557.01	83.88	7.641	
15,600.00	10,128.66	15,089.99	9,561.58	45.63	45.35	28.02	-5,694.24	-468.64	642.52	557.21	85.31	7.531	
15,700.00	10,129.37	15,189.97	9,560.44	46.29	46.01	27.94	-5,794.21	-467.91	644.16	557.40	86.75	7.425	
15,800.00	10,130.08	15,289.95	9,559.30	46.94	46.68	27.87	-5,894.19	-467.19	645.79	557.60	88.20	7.322	
15,900.00	10,130.79	15,389.94	9,558.16	47.60	47.34	27.79	-5,994.16	-466.46	647.43	557.79	89.65	7.222	
16,000.00	10,131.50	15,489.92	9,557.01	48.26	48.01	27.72	-6,094.14	-465.73	649.07	557.98	91.10	7.125	
16,100.00	10,132.20	15,589.90	9,555.87	48.93	48.68	27.64	-6,194.11	-465.01	650.72	558.16	92.56	7.031	
16,200.00	10,132.91	15,689.88	9,554.73	49.59	49.36	27.57	-6,294.08	-464.28	652.36	558.34	94.02	6.939	
16,300.00	10,133.62	15,789.87	9,553.59	50.27	50.04	27.49	-6,394.06	-463.55	654.00	558.52	95.48	6.850	
16,400.00	10,134.33	15,889.85	9,552.45	50.94	50.72	27.42	-6,494.03	-462.83	655.65	558.70	96.95	6.763	
16,500.00	10,135.03	15,989.83	9,551.30	51.61	51.40	27.34	-6,594.00	-462.10	657.29	558.88	98.42	6.679	
16,600.00	10,135.74	16,089.82	9,550.16	52.29	52.08	27.27	-6,693.98	-461.37	658.94	559.05	99.89	6.597	
16,700.00	10,136.45	16,189.80	9,549.02	52.97	52.77	27.20	-6,793.95	-460.65	660.59	559.23	101.36	6.517	
16,800.00	10,137.16	16,289.78	9,547.88	53.66	53.46	27.13	-6,893.93	-459.92	662.24	559.40	102.84	6.439	
16,900.00	10,137.87	16,389.76	9,546.74	54.34	54.15	27.05	-6,993.90	-459.19	663.89	559.57	104.32	6.364	
17,000.00	10,138.57	16,489.75	9,545.59	55.03	54.84	26.98	-7,093.87	-458.47	665.54	559.74	105.81	6.290	
17,100.00	10,139.28	16,589.73	9,544.45	55.72	55.54	26.91	-7,193.85	-457.74	667.19	559.90	107.29	6.219	
17,200.00	10,139.99	16,689.71	9,543.31	56.41	56.24	26.84	-7,293.82	-457.02	668.85	560.07	108.78	6.149	
17,300.00	10,140.70	16,789.70	9,542.17	57.10	56.94	26.77	-7,393.79	-456.29	670.50	560.23	110.27	6.081	
17,400.00	10,141.40	16,889.68	9,541.03	57.80	57.64	26.70	-7,493.77	-455.56	672.16	560.40	111.76	6.014	
17,484.18	10,142.00	16,973.85	9,540.07	58.16	58.23	26.64	-7,577.93	-454.95	673.55	560.78	112.77	5.973	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 165H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	89.64	0.56	89.96	89.96					
100.00	100.00	99.90	99.90	0.09	0.09	89.64	0.56	89.96	89.96	89.79	0.17	523.459		
200.00	200.00	199.90	199.90	0.31	0.31	89.64	0.56	89.96	89.96	89.34	0.62	144.807		
300.00	300.00	299.90	299.90	0.54	0.54	89.64	0.56	89.96	89.96	88.89	1.07	84.015		
400.00	400.00	399.90	399.90	0.76	0.76	89.64	0.56	89.96	89.96	88.44	1.52	59.173		
500.00	500.00	499.90	499.90	0.99	0.98	89.64	0.56	89.96	89.96	87.99	1.97	45.669		
600.00	600.00	599.90	599.90	1.21	1.21	89.64	0.56	89.96	89.96	87.54	2.42	37.184		
700.00	700.00	699.90	699.90	1.43	1.43	89.64	0.56	89.96	89.96	87.09	2.87	31.357		
800.00	800.00	799.90	799.90	1.66	1.66	89.64	0.56	89.96	89.96	86.64	3.32	27.110		
900.00	900.00	899.90	899.90	1.88	1.88	89.64	0.56	89.96	89.96	86.19	3.77	23.875		
1,000.00	1,000.00	999.90	999.90	2.11	2.11	89.64	0.56	89.96	89.96	85.74	4.22	21.331		
1,100.00	1,100.00	1,099.90	1,099.90	2.33	2.33	89.64	0.56	89.96	89.96	85.29	4.67	19.276		
1,200.00	1,200.00	1,199.90	1,199.90	2.56	2.56	89.64	0.56	89.96	89.96	84.85	5.12	17.582		
1,300.00	1,300.00	1,299.90	1,299.90	2.78	2.78	89.64	0.56	89.96	89.96	84.40	5.57	16.162		
1,400.00	1,400.00	1,399.90	1,399.90	3.01	3.01	89.64	0.56	89.96	89.96	83.95	6.02	14.955		
1,500.00	1,500.00	1,499.90	1,499.90	3.23	3.23	89.64	0.56	89.96	89.96	83.50	6.47	13.915		
1,600.00	1,600.00	1,599.90	1,599.90	3.46	3.46	89.64	0.56	89.96	89.96	83.05	6.91	13.010		
1,700.00	1,700.00	1,699.90	1,699.90	3.68	3.68	89.64	0.56	89.96	89.96	82.60	7.36	12.216		
1,800.00	1,800.00	1,799.90	1,799.90	3.91	3.91	89.64	0.56	89.96	89.96	82.15	7.81	11.513		
1,900.00	1,900.00	1,899.90	1,899.90	4.13	4.13	89.64	0.56	89.96	89.96	81.70	8.26	10.887		
2,000.00	2,000.00	1,999.90	1,999.90	4.36	4.36	89.64	0.56	89.96	89.96	81.25	8.71	10.325		
2,100.00	2,100.00	2,099.90	2,099.90	4.58	4.58	89.64	0.56	89.96	89.96	80.80	9.16	9.819		
2,200.00	2,200.00	2,199.90	2,199.90	4.81	4.81	89.64	0.56	89.96	89.96	80.35	9.61	9.359		
2,300.00	2,300.00	2,299.90	2,299.90	5.03	5.03	89.64	0.56	89.96	89.96	79.90	10.06	8.941		
2,400.00	2,400.00	2,399.90	2,399.90	5.26	5.26	89.64	0.56	89.96	89.96	79.45	10.51	8.559		
2,500.00	2,500.00	2,499.90	2,499.90	5.48	5.48	89.64	0.56	89.96	89.96	79.00	10.96	8.208		
2,600.00	2,600.00	2,599.90	2,599.90	5.71	5.70	89.64	0.56	89.96	89.96	78.55	11.41	7.884		
2,700.00	2,700.00	2,699.90	2,699.90	5.93	5.93	89.64	0.56	89.96	89.96	78.10	11.86	7.586		
2,800.00	2,800.00	2,799.90	2,799.90	6.15	6.15	89.64	0.56	89.96	89.96	77.65	12.31	7.309		
2,900.00	2,900.00	2,899.90	2,899.90	6.38	6.38	89.64	0.56	89.96	89.96	77.20	12.76	7.051		
3,000.00	3,000.00	2,999.90	2,999.90	6.60	6.60	89.64	0.56	89.96	89.96	76.75	13.21	6.811		
3,100.00	3,100.00	3,099.90	3,099.90	6.83	6.83	89.64	0.56	89.96	89.96	76.30	13.66	6.587		
3,200.00	3,200.00	3,199.90	3,199.90	7.05	7.05	89.64	0.56	89.96	89.96	75.85	14.11	6.377		
3,300.00	3,300.00	3,299.90	3,299.90	7.28	7.28	89.64	0.56	89.96	89.96	75.40	14.56	6.180		
3,400.00	3,400.00	3,399.90	3,399.90	7.50	7.50	89.64	0.56	89.96	89.96	74.96	15.01	5.995		
3,500.00	3,500.00	3,499.90	3,499.90	7.73	7.73	89.64	0.56	89.96	89.96	74.51	15.46	5.821 CC, ES		
3,600.00	3,600.00	3,598.66	3,598.65	7.94	7.94	165.99	1.09	90.62	91.49	75.60	15.88	5.760		
3,700.00	3,699.96	3,697.27	3,697.23	8.15	8.16	165.41	2.67	92.62	96.07	79.77	16.29	5.896		
3,776.97	3,776.86	3,772.98	3,772.88	8.31	8.32	164.78	4.61	95.05	101.68	85.07	16.61	6.122		
3,800.00	3,799.87	3,795.60	3,795.47	8.35	8.37	164.57	5.30	95.93	103.67	86.97	16.70	6.207		
3,900.00	3,899.75	3,894.32	3,894.02	8.56	8.58	163.47	8.89	100.45	113.04	95.92	17.11	6.606		
4,000.00	3,999.63	3,993.83	3,993.34	8.77	8.80	162.45	12.68	105.21	122.66	105.13	17.53	6.997		
4,100.00	4,099.51	4,093.35	4,092.67	8.98	9.02	161.59	16.46	109.97	132.32	114.36	17.95	7.370		
4,200.00	4,199.40	4,192.86	4,192.00	9.20	9.24	160.84	20.25	114.73	142.00	123.62	18.38	7.728		
4,300.00	4,299.28	4,292.37	4,291.33	9.41	9.46	160.19	24.03	119.50	151.70	132.90	18.80	8.069		
4,400.00	4,399.16	4,391.89	4,390.66	9.63	9.68	159.61	27.82	124.26	161.42	142.19	19.23	8.396		
4,500.00	4,499.05	4,491.40	4,489.99	9.84	9.91	159.10	31.60	129.02	171.16	151.50	19.65	8.708		
4,600.00	4,598.93	4,590.92	4,589.31	10.06	10.13	158.65	35.39	133.78	180.90	160.82	20.08	9.008		
4,700.00	4,698.81	4,690.43	4,688.64	10.28	10.36	158.24	39.17	138.55	190.66	170.14	20.51	9.294		
4,800.00	4,798.70	4,789.95	4,787.97	10.50	10.58	157.88	42.96	143.31	200.42	179.48	20.95	9.569		
4,900.00	4,898.58	4,889.46	4,887.30	10.72	10.81	157.54	46.74	148.07	210.20	188.82	21.38	9.832		
5,000.00	4,998.46	4,988.97	4,986.63	10.94	11.03	157.24	50.52	152.83	219.97	198.16	21.81	10.085		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 165H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,098.35	5,088.49	5,085.95	11.16	11.26	156.96	54.31	157.59	229.76	207.51	22.25	10.328		
5,200.00	5,198.23	5,188.00	5,185.28	11.38	11.49	156.71	58.09	162.36	239.55	216.87	22.68	10.561		
5,300.00	5,298.11	5,287.52	5,284.61	11.60	11.72	156.47	61.88	167.12	249.34	226.22	23.12	10.786		
5,400.00	5,398.00	5,387.03	5,383.94	11.82	11.95	156.25	65.66	171.88	259.14	235.58	23.55	11.001		
5,500.00	5,497.88	5,486.55	5,483.27	12.05	12.18	156.05	69.45	176.64	268.94	244.95	23.99	11.209		
5,600.00	5,597.76	5,586.06	5,582.60	12.27	12.41	155.86	73.23	181.41	278.74	254.31	24.43	11.409		
5,700.00	5,697.65	5,685.57	5,681.92	12.50	12.64	155.69	77.02	186.17	288.55	263.68	24.87	11.602		
5,800.00	5,797.53	5,785.09	5,781.25	12.72	12.87	155.53	80.80	190.93	298.36	273.05	25.31	11.788		
5,900.00	5,897.41	5,884.60	5,880.58	12.95	13.10	155.37	84.59	195.69	308.17	282.42	25.75	11.967		
6,000.00	5,997.30	5,984.12	5,979.91	13.17	13.33	155.23	88.37	200.46	317.98	291.79	26.19	12.140		
6,100.00	6,097.18	6,083.63	6,079.24	13.40	13.56	155.10	92.16	205.22	327.80	301.16	26.63	12.307		
6,200.00	6,197.06	6,183.14	6,178.56	13.63	13.80	154.97	95.94	209.98	337.62	310.54	27.08	12.469		
6,300.00	6,296.94	6,282.66	6,277.89	13.85	14.03	154.85	99.72	214.74	347.43	319.92	27.52	12.625		
6,400.00	6,396.83	6,382.17	6,377.22	14.08	14.26	154.74	103.51	219.50	357.25	329.29	27.96	12.776		
6,500.00	6,496.71	6,481.69	6,476.55	14.31	14.50	154.63	107.29	224.27	367.08	338.67	28.41	12.922		
6,600.00	6,596.59	6,581.20	6,575.88	14.54	14.73	154.53	111.08	229.03	376.90	348.05	28.85	13.064		
6,700.00	6,696.48	6,682.36	6,676.85	14.77	14.96	154.43	114.89	233.82	386.67	357.37	29.30	13.198		
6,800.00	6,796.36	6,788.47	6,782.84	14.99	15.16	154.43	118.00	237.74	395.24	365.51	29.73	13.294		
6,900.00	6,896.24	6,894.86	6,889.18	15.22	15.35	154.55	119.89	240.12	402.17	372.01	30.15	13.338		
7,000.00	6,996.13	7,001.44	6,995.76	15.45	15.54	154.80	120.56	240.96	407.43	376.87	30.57	13.330		
7,100.00	7,096.01	7,101.59	7,095.91	15.68	15.74	155.09	120.56	240.96	411.81	380.82	30.99	13.290		
7,200.00	7,195.89	7,201.48	7,195.79	15.91	15.95	155.37	120.56	240.96	416.20	384.77	31.43	13.243		
7,300.00	7,295.78	7,301.36	7,295.68	16.14	16.17	155.64	120.56	240.96	420.60	388.73	31.87	13.197		
7,400.00	7,395.66	7,401.24	7,395.56	16.37	16.39	155.91	120.56	240.96	425.00	392.69	32.31	13.153		
7,500.00	7,495.54	7,501.13	7,495.44	16.60	16.61	156.17	120.56	240.96	429.42	396.67	32.76	13.110		
7,600.00	7,595.43	7,601.01	7,595.33	16.83	16.83	156.43	120.56	240.96	433.85	400.65	33.20	13.068		
7,700.00	7,695.31	7,700.89	7,695.21	17.06	17.05	156.68	120.56	240.96	438.28	404.64	33.64	13.028		
7,800.00	7,795.19	7,800.77	7,795.09	17.29	17.27	156.93	120.56	240.96	442.72	408.64	34.09	12.989		
7,900.00	7,895.08	7,900.66	7,894.98	17.53	17.49	157.17	120.56	240.96	447.17	412.64	34.53	12.951		
7,947.18	7,942.20	7,947.78	7,942.10	17.63	17.59	157.28	120.56	240.96	449.28	414.54	34.74	12.933		
8,000.00	7,994.97	8,000.55	7,994.87	17.74	17.71	157.41	120.56	240.96	451.41	416.45	34.96	12.911		
8,100.00	8,094.92	8,100.50	8,094.82	17.93	17.93	157.56	120.56	240.96	454.22	418.85	35.37	12.843		
8,200.00	8,194.91	8,200.49	8,194.81	18.11	18.15	157.63	120.56	240.96	455.41	419.64	35.77	12.731		
8,224.15	8,219.06	8,224.64	8,218.96	18.15	18.20	81.09	120.56	240.96	455.46	419.59	35.87	12.698		
8,300.00	8,294.91	8,300.49	8,294.81	18.30	18.37	81.09	120.56	240.96	455.46	419.27	36.19	12.586		
8,400.00	8,394.91	8,400.49	8,394.81	18.52	18.59	81.09	120.56	240.96	455.46	418.83	36.63	12.435		
8,500.00	8,494.91	8,500.49	8,494.81	18.73	18.81	81.09	120.56	240.96	455.46	418.39	37.07	12.288		
8,600.00	8,594.91	8,600.49	8,594.81	18.95	19.03	81.09	120.56	240.96	455.46	417.95	37.51	12.144		
8,700.00	8,694.91	8,700.49	8,694.81	19.16	19.25	81.09	120.56	240.96	455.46	417.51	37.94	12.003		
8,800.00	8,794.91	8,800.49	8,794.81	19.38	19.47	81.09	120.56	240.96	455.46	417.07	38.38	11.866		
8,900.00	8,894.91	8,900.49	8,894.81	19.59	19.69	81.09	120.56	240.96	455.46	416.63	38.82	11.731		
9,000.00	8,994.91	9,000.49	8,994.81	19.81	19.91	81.09	120.56	240.96	455.46	416.19	39.26	11.600		
9,100.00	9,094.91	9,106.68	9,100.92	20.03	20.13	81.40	118.02	240.98	455.13	415.43	39.70	11.465		
9,200.00	9,194.91	9,215.60	9,207.74	20.24	20.30	83.97	97.57	241.13	452.82	412.75	40.07	11.301		
9,300.00	9,294.91	9,313.74	9,299.13	20.46	20.44	88.46	62.14	241.39	450.58	410.15	40.42	11.147		
9,321.54	9,316.45	9,333.09	9,316.35	20.51	20.46	89.58	53.33	241.46	450.47	409.97	40.49	11.124		
9,400.00	9,394.91	9,397.88	9,371.70	20.68	20.55	93.84	19.72	241.71	452.31	411.61	40.71	11.112		
9,500.00	9,494.91	9,467.95	9,426.87	20.89	20.64	99.24	-23.41	242.03	461.98	421.26	40.73	11.344		
9,524.15	9,519.06	9,482.92	9,437.95	20.95	20.66	100.48	-33.48	242.10	465.86	425.19	40.67	11.455		
9,550.00	9,544.90	9,500.00	9,450.26	21.00	20.68	-77.22	-45.32	242.19	470.62	430.03	40.59	11.596		
9,600.00	9,594.69	9,528.31	9,469.88	21.09	20.72	-73.96	-65.73	242.34	481.13	440.83	40.30	11.938		
9,650.00	9,643.90	9,557.72	9,489.15	21.17	20.77	-70.66	-87.93	242.50	493.05	453.10	39.95	12.342		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 165H - OH - Plan #2												Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.00	9,692.17	9,586.78	9,507.06	21.26	20.81	-67.48	-110.81	242.67	505.99	466.46	39.53	12.801	
9,750.00	9,739.11	9,615.56	9,523.63	21.35	20.87	-64.44	-134.34	242.85	519.59	480.53	39.05	13.304	
9,800.00	9,784.38	9,650.00	9,541.88	21.43	20.94	-61.29	-163.54	243.06	533.58	494.94	38.65	13.807	
9,850.00	9,827.63	9,672.42	9,552.80	21.51	21.00	-58.95	-183.12	243.21	547.54	509.50	38.04	14.395	
9,900.00	9,868.53	9,700.00	9,565.17	21.60	21.07	-56.55	-207.76	243.39	561.35	523.83	37.52	14.962	
9,950.00	9,906.77	9,728.56	9,576.72	21.69	21.17	-54.32	-233.88	243.58	574.74	537.70	37.04	15.515	
10,000.00	9,942.06	9,750.00	9,584.52	21.78	21.24	-52.53	-253.85	243.73	587.59	551.09	36.50	16.099	
10,050.00	9,974.14	9,784.17	9,595.40	21.89	21.37	-50.57	-286.23	243.97	599.55	563.36	36.20	16.563	
10,100.00	10,002.75	9,811.81	9,602.77	22.01	21.48	-49.02	-312.87	244.17	610.67	574.80	35.86	17.028	
10,150.00	10,027.67	9,850.00	9,610.83	22.16	21.64	-47.46	-350.19	244.44	620.90	585.19	35.72	17.383	
10,200.00	10,048.73	9,866.87	9,613.60	22.33	21.72	-46.52	-366.83	244.57	629.69	594.27	35.42	17.776	
10,250.00	10,065.76	9,900.00	9,617.59	22.53	21.88	-45.48	-399.72	244.81	637.47	602.09	35.38	18.019	
10,300.00	10,078.62	9,921.69	9,619.18	22.75	21.99	-44.78	-421.35	244.97	643.87	608.53	35.34	18.220	
10,350.00	10,087.23	9,950.00	9,620.01	23.00	22.14	-44.17	-449.64	245.18	648.97	613.52	35.44	18.310	
10,400.00	10,091.51	9,991.86	9,619.71	23.27	22.38	-43.72	-491.50	245.49	652.28	616.57	35.71	18.264	
10,420.09	10,092.00	10,011.94	9,619.54	23.38	22.51	-43.65	-511.58	245.64	652.76	616.89	35.87	18.196	
10,500.00	10,092.57	10,091.84	9,618.87	23.88	23.03	-43.57	-591.47	246.23	653.66	617.07	36.59	17.866	
10,600.00	10,093.28	10,191.83	9,618.02	28.10	23.76	-43.48	-691.45	246.97	654.79	617.50	37.29	17.561	
10,700.00	10,093.98	10,291.81	9,617.18	28.19	24.59	-43.38	-791.43	247.71	655.92	618.00	37.91	17.301	
10,800.00	10,094.69	10,391.80	9,616.34	28.28	25.49	-43.29	-891.41	248.45	657.05	618.42	38.63	17.010	
10,900.00	10,095.40	10,491.79	9,615.50	28.37	26.46	-43.20	-991.40	249.19	658.18	618.76	39.42	16.695	
11,000.00	10,096.11	10,591.78	9,614.66	28.46	27.50	-43.11	-1,091.38	249.93	659.32	619.02	40.30	16.361	
11,100.00	10,096.82	10,691.77	9,613.81	28.55	28.59	-43.02	-1,191.36	250.67	660.45	619.21	41.24	16.013	
11,200.00	10,097.52	10,791.75	9,612.97	28.65	29.73	-42.93	-1,291.34	251.41	661.59	619.33	42.26	15.657	
11,300.00	10,098.23	10,891.74	9,612.13	28.74	30.92	-42.83	-1,391.32	252.15	662.73	619.40	43.33	15.296	
11,400.00	10,098.94	10,991.73	9,611.29	28.84	32.15	-42.74	-1,491.30	252.89	663.87	619.41	44.46	14.933	
11,500.00	10,099.65	11,091.72	9,610.44	28.94	33.41	-42.65	-1,591.29	253.63	665.01	619.38	45.64	14.572	
11,600.00	10,100.35	11,191.71	9,609.60	29.04	34.71	-42.56	-1,691.27	254.37	666.16	619.29	46.87	14.214	
11,700.00	10,101.06	11,291.69	9,608.76	29.14	36.03	-42.47	-1,791.25	255.10	667.30	619.17	48.14	13.862	
11,800.00	10,101.77	11,391.68	9,607.92	29.25	37.37	-42.38	-1,891.23	255.84	668.45	619.00	49.45	13.517	
11,900.00	10,102.48	11,491.67	9,607.08	29.35	38.74	-42.30	-1,991.21	256.58	669.60	618.79	50.81	13.179	
12,000.00	10,103.19	11,591.66	9,606.23	29.46	40.13	-42.21	-2,091.19	257.32	670.75	618.56	52.20	12.851	
12,100.00	10,103.89	11,691.65	9,605.39	29.57	41.54	-42.12	-2,191.18	258.06	671.91	618.29	53.62	12.532	
12,200.00	10,104.60	11,791.63	9,604.55	29.69	42.97	-42.03	-2,291.16	258.80	673.06	617.99	55.07	12.223	
12,300.00	10,105.31	11,891.62	9,603.71	29.80	44.40	-41.94	-2,391.14	259.54	674.22	617.67	56.54	11.924	
12,400.00	10,106.02	11,991.61	9,602.86	29.93	45.86	-41.85	-2,491.12	260.28	675.37	617.33	58.05	11.635	
12,500.00	10,106.72	12,091.60	9,602.02	30.06	47.32	-41.77	-2,591.10	261.02	676.53	616.96	59.58	11.356	
12,600.00	10,107.43	12,191.59	9,601.18	30.20	48.80	-41.68	-2,691.08	261.76	677.69	616.57	61.12	11.087	
12,700.00	10,108.14	12,291.57	9,600.34	30.36	50.28	-41.59	-2,791.07	262.50	678.86	616.16	62.69	10.828	
12,800.00	10,108.85	12,391.56	9,599.50	30.54	51.78	-41.51	-2,891.05	263.24	680.02	615.74	64.28	10.579	
12,900.00	10,109.56	12,491.55	9,598.65	30.76	53.28	-41.42	-2,991.03	263.98	681.18	615.30	65.89	10.339	
13,000.00	10,110.26	12,591.54	9,597.81	31.04	54.79	-41.34	-3,091.01	264.72	682.35	614.84	67.51	10.108	
13,100.00	10,110.97	12,691.52	9,596.97	31.39	56.31	-41.25	-3,190.99	265.46	683.52	614.38	69.14	9.886	
13,200.00	10,111.68	12,791.51	9,596.13	31.78	57.84	-41.17	-3,290.97	266.20	684.69	613.90	70.79	9.672	
13,300.00	10,112.39	12,891.50	9,595.28	32.22	59.37	-41.08	-3,390.96	266.94	685.86	613.41	72.45	9.466	
13,400.00	10,113.09	12,991.49	9,594.44	32.69	60.90	-41.00	-3,490.94	267.68	687.03	612.91	74.12	9.269	
13,500.00	10,113.80	13,091.48	9,593.60	33.18	62.45	-40.91	-3,590.92	268.42	688.21	612.40	75.81	9.078	
13,600.00	10,114.51	13,191.46	9,592.76	33.69	63.99	-40.83	-3,690.90	269.16	689.38	611.88	77.50	8.895	
13,700.00	10,115.22	13,291.45	9,591.91	34.22	65.54	-40.74	-3,790.88	269.90	690.56	611.36	79.20	8.719	
13,800.00	10,115.93	13,391.44	9,591.07	34.75	67.10	-40.66	-3,890.86	270.64	691.74	610.83	80.91	8.549	
13,900.00	10,116.63	13,491.43	9,590.23	35.30	68.66	-40.58	-3,990.85	271.38	692.92	610.29	82.63	8.386	
14,000.00	10,117.34	13,591.42	9,589.39	35.85	70.22	-40.49	-4,090.83	272.12	694.10	609.75	84.36	8.228	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well Thistle Unit 127H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Reference Site:	Thistle Unit Sec 22-27 Trac Pad	MD Reference:	3713.2' GE + 23.5' KB @ 3736.70usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Thistle Unit Sec 22-27 Trac Pad - Thistle Unit 165H - OH - Plan #2													Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,100.00	10,118.05	13,691.40	9,588.55	36.42	71.79	-40.41	-4,190.81	272.86	695.28	609.20	86.09	8.076		
14,200.00	10,118.76	13,791.39	9,587.70	36.99	73.36	-40.33	-4,290.79	273.60	696.47	608.64	87.83	7.930		
14,300.00	10,119.46	13,891.38	9,586.86	37.57	74.93	-40.25	-4,390.77	274.34	697.66	608.09	89.57	7.789		
14,400.00	10,120.17	13,991.37	9,586.02	38.16	76.50	-40.17	-4,490.76	275.08	698.84	607.53	91.32	7.653		
14,500.00	10,120.88	14,091.36	9,585.18	38.75	78.08	-40.08	-4,590.74	275.82	700.03	606.96	93.07	7.521		
14,600.00	10,121.59	14,191.34	9,584.33	39.35	79.66	-40.00	-4,690.72	276.56	701.22	606.39	94.83	7.395		
14,700.00	10,122.29	14,291.33	9,583.49	39.96	81.24	-39.92	-4,790.70	277.30	702.41	605.82	96.59	7.272		
14,800.00	10,123.00	14,391.32	9,582.65	40.57	82.83	-39.84	-4,890.68	278.04	703.61	605.25	98.35	7.154		
14,900.00	10,123.71	14,491.31	9,581.81	41.19	84.42	-39.76	-4,990.66	278.78	704.80	604.68	100.12	7.039		
15,000.00	10,124.42	14,591.30	9,580.97	41.81	86.01	-39.68	-5,090.65	279.52	706.00	604.10	101.89	6.929		
15,100.00	10,125.13	14,691.28	9,580.12	42.43	87.60	-39.60	-5,190.63	280.26	707.19	603.53	103.67	6.822		
15,200.00	10,125.83	14,791.27	9,579.28	43.07	89.19	-39.52	-5,290.61	281.00	708.39	602.95	105.44	6.718		
15,300.00	10,126.54	14,891.26	9,578.44	43.70	90.78	-39.44	-5,390.59	281.74	709.59	602.37	107.22	6.618		
15,400.00	10,127.25	14,991.25	9,577.60	44.34	92.38	-39.36	-5,490.57	282.48	710.79	601.79	109.00	6.521		
15,500.00	10,127.96	15,091.24	9,576.75	44.99	93.97	-39.28	-5,590.55	283.21	712.00	601.21	110.79	6.427		
15,600.00	10,128.66	15,191.22	9,575.91	45.63	95.57	-39.21	-5,690.54	283.95	713.20	600.63	112.57	6.336		
15,700.00	10,129.37	15,291.21	9,575.07	46.29	97.17	-39.13	-5,790.52	284.69	714.41	600.05	114.36	6.247		
15,800.00	10,130.08	15,391.20	9,574.23	46.94	98.77	-39.05	-5,890.50	285.43	715.61	599.47	116.14	6.161		
15,900.00	10,130.79	15,491.19	9,573.39	47.60	100.38	-38.97	-5,990.48	286.17	716.82	598.89	117.93	6.078		
16,000.00	10,131.50	15,591.18	9,572.54	48.26	101.98	-38.89	-6,090.46	286.91	718.03	598.31	119.72	5.998		
16,100.00	10,132.20	15,691.16	9,571.70	48.93	103.58	-38.82	-6,190.44	287.65	719.24	597.73	121.51	5.919		
16,200.00	10,132.91	15,791.15	9,570.86	49.59	105.19	-38.74	-6,290.43	288.39	720.45	597.15	123.30	5.843		
16,300.00	10,133.62	15,891.14	9,570.02	50.27	106.80	-38.66	-6,390.41	289.13	721.67	596.57	125.09	5.769		
16,400.00	10,134.33	15,991.13	9,569.17	50.94	108.40	-38.59	-6,490.39	289.87	722.88	595.99	126.89	5.697		
16,500.00	10,135.03	16,091.12	9,568.33	51.61	110.01	-38.51	-6,590.37	290.61	724.10	595.42	128.68	5.627		
16,600.00	10,135.74	16,191.10	9,567.49	52.29	111.62	-38.44	-6,690.35	291.35	725.31	594.84	130.47	5.559		
16,700.00	10,136.45	16,291.09	9,566.65	52.97	113.23	-38.36	-6,790.33	292.09	726.53	594.27	132.27	5.493		
16,800.00	10,137.16	16,391.08	9,565.81	53.66	114.84	-38.28	-6,890.32	292.83	727.75	593.69	134.06	5.429		
16,900.00	10,137.87	16,491.07	9,564.96	54.34	116.45	-38.21	-6,990.30	293.57	728.97	593.12	135.85	5.366		
17,000.00	10,138.57	16,591.06	9,564.12	55.03	118.07	-38.13	-7,090.28	294.31	730.19	592.55	137.65	5.305		
17,100.00	10,139.28	16,691.04	9,563.28	55.72	119.68	-38.06	-7,190.26	295.05	731.42	591.98	139.44	5.245		
17,200.00	10,139.99	16,791.03	9,562.44	56.41	121.29	-37.99	-7,290.24	295.79	732.64	591.41	141.23	5.188		
17,300.00	10,140.70	16,891.02	9,561.59	57.10	122.91	-37.91	-7,390.22	296.53	733.87	590.84	143.02	5.131		
17,400.00	10,141.40	16,991.01	9,560.75	57.80	124.52	-37.84	-7,490.21	297.27	735.09	590.28	144.82	5.076		
17,484.18	10,142.00	17,075.18	9,560.04	58.16	125.88	-37.78	-7,574.37	297.89	736.13	590.05	146.08	5.039 SF		

LEAM Drilling Systems LLC

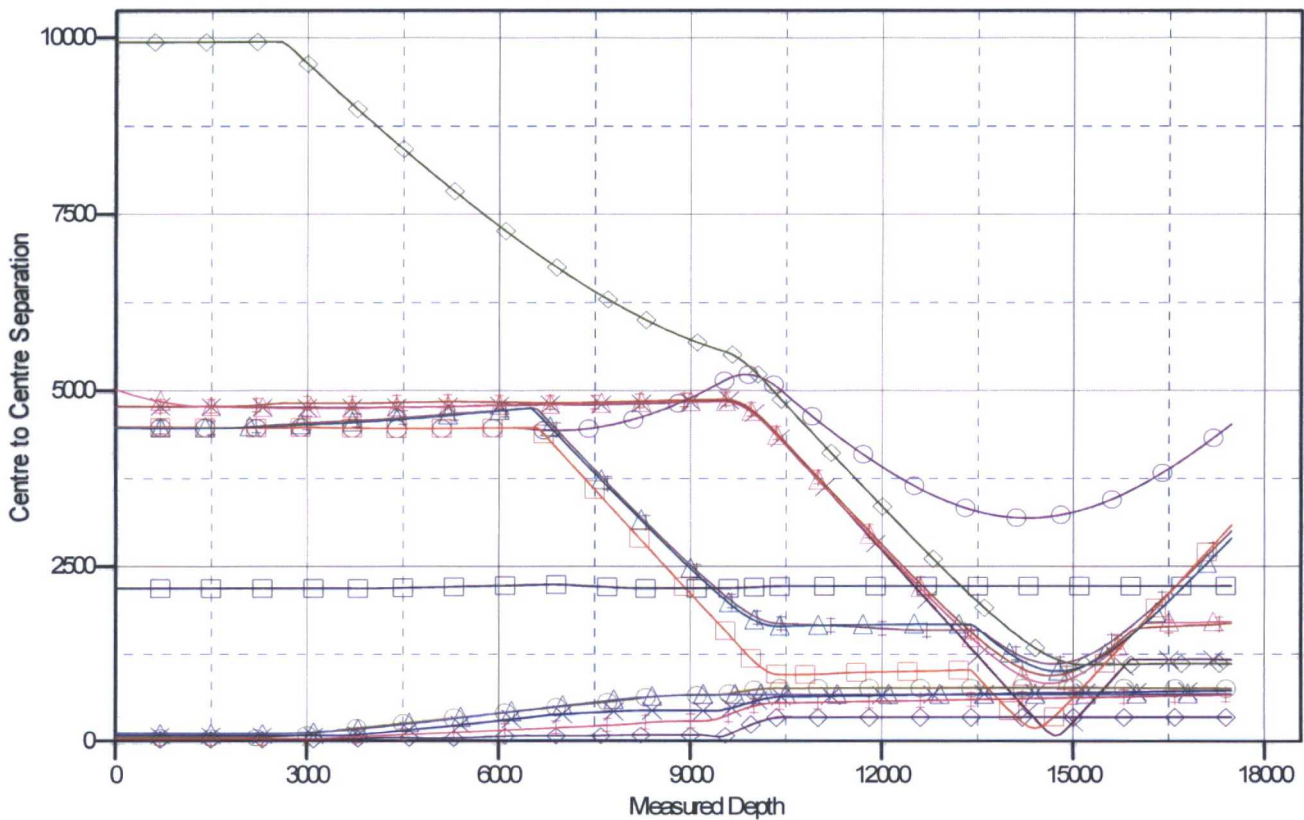
Anticollision Report

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Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Thistle Unit 127H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to 3713.2' GE + 23.5' KB @ 3736.70usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 19' 60.0000 W

Coordinates are relative to: Thistle Unit 127H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.41°

Ladder Plot



LEGEND

- | | | |
|------------------|-------------------------------------|-------------------------------------|
| ✱ 56H, OH, OH V0 | ⊖ 63H, OH, OH V0 | ◆ Thistle Unit 116H, OH, Plan #2 V0 |
| ✱ 57H, OH, OH V0 | ⊖ 63H, ST 1, ST 1 V0 | ▲ Thistle Unit 128H, OH, Plan #2 V0 |
| ✱ 58H, OH, OH V0 | ▲ 64H, OH, OH V0 | ✱ Thistle Unit 162H, OH, Plan #2 V0 |
| ◆ 72H, OH, OH V0 | ⊖ Thistle Unit 115H, OH, Plan #2 V0 | ✱ Thistle Unit 165H, OH, Plan #2 V0 |
| ✱ 62H, OH, OH V0 | ⊖ Thistle Unit 110H, OH, Plan #2 V0 | |

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

LEAM Drilling Systems LLC

Anticollision Report

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