

Devon Energy

Lea County, NM (NAD-83)
Fighting Okra 18-19 Fed
86H

OH
Plan #1

HOBBS OCD

NOV 06 2017

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Anticollision Report

13 September, 2017

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Reference	Plan #1		
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	9/13/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	22,181.55	Plan #1 (OH)	LEAM MWD+HDGM	MWD+HDGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Fighting Okra 18-19 Fed						
14H - OH - Plan #1	2,500.00	2,503.50	2,523.88	2,512.91	230.172	CC, ES
14H - OH - Plan #1	22,181.55	22,130.44	3,308.47	2,983.62	10.185	SF
15H - OH - Plan #1	2,500.00	2,497.20	1,642.94	1,631.99	150.026	CC, ES
15H - OH - Plan #1	22,181.55	22,279.35	1,959.71	1,634.67	6.029	SF
2H - OH - Plan #1	2,415.53	2,418.83	2,553.85	2,543.26	241.269	CC
2H - OH - Plan #1	2,500.00	2,500.00	2,553.85	2,542.89	233.072	ES
2H - OH - Plan #1	22,181.55	22,526.14	3,969.28	3,643.27	12.175	SF
3H - OH - Plan #1	2,500.00	2,504.50	2,463.97	2,453.00	224.662	CC
3H - OH - Plan #1	22,181.55	22,304.09	2,650.42	2,325.00	8.145	ES, SF
41H - OH - Plan #1	2,500.00	2,497.30	4,296.36	4,285.42	392.619	CC, ES
41H - OH - Plan #1	22,181.55	17,868.99	5,480.61	5,222.71	21.251	SF
4H - OH - Plan #1	10,491.00	10,634.75	1,257.73	1,210.16	26.444	CC
4H - OH - Plan #1	22,181.55	22,317.06	1,305.55	981.13	4.024	ES, SF
5H - OH - Plan #1	2,500.00	2,497.30	1,612.97	1,602.02	147.286	CC, ES
5H - OH - Plan #1	22,181.55	22,727.98	1,975.86	1,651.59	6.093	SF
6H - OH - Plan #1	2,500.00	2,501.30	75.77	64.81	6.913	CC
6H - OH - Plan #1	2,600.00	2,601.29	75.90	64.51	6.660	ES
6H - OH - Plan #1	22,181.55	22,744.87	691.31	384.45	2.253	SF
71H - OH - OH	796.53	788.18	3,881.56	3,878.44	1,244.087	CC
71H - OH - OH	800.00	790.32	3,881.56	3,878.43	1,239.301	ES
71H - OH - OH	22,181.55	22,192.81	4,528.79	4,220.37	14.684	SF
7H - OH - Plan #1	2,500.00	2,504.00	2,493.92	2,482.96	227.416	CC
7H - OH - Plan #1	22,181.55	22,822.80	2,669.55	2,344.72	8.218	ES, SF
84H - OH - Plan #1	5,953.90	5,952.35	39.77	13.66	1.523	CC
84H - OH - Plan #1	22,181.55	22,473.03	139.64	-14.74	0.905	Level 1, ES, SF
85H - OH - Plan #1	5,740.02	5,746.38	56.01	30.73	2.215	CC
85H - OH - Plan #1	5,900.00	5,906.15	56.60	30.43	2.163	ES
85H - OH - Plan #1	6,000.00	6,006.02	57.55	30.80	2.152	SF
8H - OH - Plan #1	10,656.30	10,812.46	1,301.81	1,252.39	26.347	CC
8H - OH - Plan #1	22,181.55	22,836.12	1,346.72	1,028.20	4.228	ES, SF
Fighting Okra Fed Com 1H (offset) - OH - OH	2,675.66	2,789.96	4,423.16	4,416.35	649.560	CC
Fighting Okra Fed Com 1H (offset) - OH - OH	9,440.74	11,889.53	4,449.86	4,370.90	56.350	ES
Fighting Okra Fed Com 1H (offset) - OH - OH	10,200.00	11,907.69	4,514.11	4,432.63	55.398	SF

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

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TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 14H - OH - Plan #1												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 +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	3.50	3.50	0.00	0.00	-87.74	99.68	-2,521.91	2,523.88				
100.00	100.00	103.50	103.50	0.08	0.09	-87.74	99.68	-2,521.91	2,523.88	2,523.70	0.18	N/A	
200.00	200.00	203.50	203.50	0.31	0.32	-87.74	99.68	-2,521.91	2,523.88	2,523.25	0.63	4,031.926	
300.00	300.00	303.50	303.50	0.53	0.54	-87.74	99.68	-2,521.91	2,523.88	2,522.80	1.08	2,346.691	
400.00	400.00	403.50	403.50	0.76	0.77	-87.74	99.68	-2,521.91	2,523.88	2,522.35	1.53	1,654.962	
500.00	500.00	503.50	503.50	0.98	0.99	-87.74	99.68	-2,521.91	2,523.88	2,521.90	1.97	1,278.192	
600.00	600.00	603.50	603.50	1.21	1.22	-87.74	99.68	-2,521.91	2,523.88	2,521.46	2.42	1,041.161	
700.00	700.00	703.50	703.50	1.43	1.44	-87.74	99.68	-2,521.91	2,523.88	2,521.01	2.87	878.288	
800.00	800.00	803.50	803.50	1.66	1.67	-87.74	99.68	-2,521.91	2,523.88	2,520.56	3.32	759.480	
900.00	900.00	903.50	903.50	1.88	1.89	-87.74	99.68	-2,521.91	2,523.88	2,520.11	3.77	668.985	
1,000.00	1,000.00	1,003.50	1,003.50	2.11	2.12	-87.74	99.68	-2,521.91	2,523.88	2,519.66	4.22	597.760	
1,100.00	1,100.00	1,103.50	1,103.50	2.33	2.34	-87.74	99.68	-2,521.91	2,523.88	2,519.21	4.67	540.241	
1,200.00	1,200.00	1,203.50	1,203.50	2.56	2.56	-87.74	99.68	-2,521.91	2,523.88	2,518.76	5.12	492.821	
1,300.00	1,300.00	1,303.50	1,303.50	2.78	2.79	-87.74	99.68	-2,521.91	2,523.88	2,518.31	5.57	453.053	
1,400.00	1,400.00	1,403.50	1,403.50	3.01	3.01	-87.74	99.68	-2,521.91	2,523.88	2,517.86	6.02	419.224	
1,500.00	1,500.00	1,503.50	1,503.50	3.23	3.24	-87.74	99.68	-2,521.91	2,523.88	2,517.41	6.47	390.096	
1,600.00	1,600.00	1,603.50	1,603.50	3.46	3.46	-87.74	99.68	-2,521.91	2,523.88	2,516.96	6.92	364.753	
1,700.00	1,700.00	1,703.50	1,703.50	3.68	3.69	-87.74	99.68	-2,521.91	2,523.88	2,516.51	7.37	342.502	
1,800.00	1,800.00	1,803.50	1,803.50	3.91	3.91	-87.74	99.68	-2,521.91	2,523.88	2,516.06	7.82	322.809	
1,900.00	1,900.00	1,903.50	1,903.50	4.13	4.14	-87.74	99.68	-2,521.91	2,523.88	2,515.61	8.27	305.258	
2,000.00	2,000.00	2,003.50	2,003.50	4.35	4.36	-87.74	99.68	-2,521.91	2,523.88	2,515.16	8.72	289.517	
2,100.00	2,100.00	2,103.50	2,103.50	4.58	4.59	-87.74	99.68	-2,521.91	2,523.88	2,514.71	9.17	275.320	
2,200.00	2,200.00	2,203.50	2,203.50	4.80	4.81	-87.74	99.68	-2,521.91	2,523.88	2,514.26	9.62	262.450	
2,300.00	2,300.00	2,303.50	2,303.50	5.03	5.04	-87.74	99.68	-2,521.91	2,523.88	2,513.81	10.07	250.729	
2,400.00	2,400.00	2,403.50	2,403.50	5.25	5.26	-87.74	99.68	-2,521.91	2,523.88	2,513.36	10.52	240.011	
2,500.00	2,500.00	2,503.50	2,503.50	5.48	5.49	-87.74	99.68	-2,521.91	2,523.88	2,512.91	10.97	230.172 CC, ES	
2,600.00	2,599.99	2,603.49	2,603.49	5.69	5.71	-172.27	99.68	-2,521.91	2,524.74	2,513.34	11.40	221.437	
2,700.00	2,699.96	2,703.46	2,703.46	5.89	5.94	-172.28	99.68	-2,521.91	2,527.34	2,515.51	11.83	213.702	
2,800.00	2,799.86	2,803.36	2,803.36	6.10	6.16	-172.29	99.68	-2,521.91	2,531.66	2,519.41	12.25	206.615	
2,900.00	2,899.68	2,903.18	2,903.18	6.30	6.38	-172.30	99.68	-2,521.91	2,537.71	2,525.03	12.68	200.117	
3,000.00	2,999.37	3,002.87	3,002.87	6.52	6.61	-172.31	99.68	-2,521.91	2,545.49	2,532.38	13.11	194.153	
3,031.43	3,030.67	3,034.17	3,034.17	6.58	6.68	-172.31	99.68	-2,521.91	2,548.29	2,535.04	13.25	192.376	
3,100.00	3,098.94	3,102.44	3,102.44	6.73	6.83	-172.33	99.68	-2,521.91	2,554.58	2,541.04	13.54	188.649	
3,200.00	3,198.51	3,202.01	3,202.01	6.96	7.06	-172.36	99.68	-2,521.91	2,563.76	2,549.79	13.97	183.480	
3,300.00	3,298.08	3,301.58	3,301.58	7.18	7.28	-172.39	99.68	-2,521.91	2,572.94	2,558.53	14.41	178.602	
3,400.00	3,397.65	3,401.15	3,401.15	7.41	7.50	-172.42	99.68	-2,521.91	2,582.12	2,567.28	14.84	173.991	
3,500.00	3,497.22	3,500.72	3,500.72	7.64	7.73	-172.44	99.68	-2,521.91	2,591.30	2,576.03	15.28	169.627	
3,600.00	3,596.79	3,600.29	3,600.29	7.87	7.95	-172.47	99.68	-2,521.91	2,600.49	2,584.77	15.71	165.493	
3,700.00	3,696.36	3,699.86	3,699.86	8.11	8.18	-172.50	99.68	-2,521.91	2,609.67	2,593.52	16.15	161.571	
3,800.00	3,795.93	3,799.43	3,799.43	8.34	8.40	-172.52	99.68	-2,521.91	2,618.85	2,602.26	16.59	157.846	
3,900.00	3,895.51	3,899.01	3,899.01	8.58	8.62	-172.55	99.68	-2,521.91	2,628.04	2,611.01	17.03	154.305	
4,000.00	3,995.08	3,998.58	3,998.58	8.82	8.85	-172.58	99.68	-2,521.91	2,637.22	2,619.75	17.47	150.935	
4,100.00	4,094.65	4,098.15	4,098.15	9.06	9.07	-172.60	99.68	-2,521.91	2,646.41	2,628.49	17.91	147.724	
4,200.00	4,194.22	4,197.72	4,197.72	9.31	9.29	-172.63	99.68	-2,521.91	2,655.59	2,637.23	18.36	144.661	
4,300.00	4,293.79	4,297.29	4,297.29	9.55	9.52	-172.65	99.68	-2,521.91	2,664.78	2,645.98	18.80	141.737	
4,400.00	4,393.36	4,396.86	4,396.86	9.80	9.74	-172.68	99.68	-2,521.91	2,673.97	2,654.72	19.24	138.944	
4,500.00	4,492.93	4,496.43	4,496.43	10.05	9.97	-172.70	99.68	-2,521.91	2,683.15	2,663.46	19.69	136.272	
4,600.00	4,592.50	4,596.00	4,596.00	10.30	10.19	-172.73	99.68	-2,521.91	2,692.34	2,672.21	20.14	133.714	
4,700.00	4,692.07	4,695.57	4,695.57	10.55	10.41	-172.75	99.68	-2,521.91	2,701.53	2,680.95	20.58	131.264	
4,800.00	4,791.64	4,795.14	4,795.14	10.80	10.64	-172.78	99.68	-2,521.91	2,710.72	2,689.69	21.03	128.914	
4,900.00	4,891.21	4,894.71	4,894.71	11.05	10.86	-172.80	99.68	-2,521.91	2,719.91	2,698.43	21.47	126.659	
5,000.00	4,990.78	4,994.28	4,994.28	11.30	11.08	-172.83	99.68	-2,521.91	2,729.10	2,707.17	21.92	124.494	

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Output errors are at: 2.00 sigma
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Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 14H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDCM													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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,090.35	5,093.85	5,093.85	11.55	11.31	-172.85	99.68	-2,521.91	2,738.29	2,715.92	22.37	122.413	
5,200.00	5,189.92	5,193.42	5,193.42	11.81	11.53	-172.87	99.68	-2,521.91	2,747.48	2,724.66	22.82	120.412	
5,300.00	5,289.49	5,292.99	5,292.99	12.06	11.76	-172.90	99.68	-2,521.91	2,756.67	2,733.40	23.27	118.486	
5,400.00	5,389.06	5,392.56	5,392.56	12.32	11.98	-172.92	99.68	-2,521.91	2,765.86	2,742.15	23.71	116.631	
5,500.00	5,488.63	5,492.13	5,492.13	12.57	12.20	-172.95	99.68	-2,521.91	2,775.05	2,750.89	24.16	114.843	
5,600.00	5,588.20	5,591.70	5,591.70	12.83	12.43	-172.97	99.68	-2,521.91	2,784.24	2,759.63	24.61	113.119	
5,700.00	5,687.77	5,691.27	5,691.27	13.09	12.65	-172.99	99.68	-2,521.91	2,793.44	2,768.37	25.06	111.456	
5,800.00	5,787.34	5,790.84	5,790.84	13.34	12.88	-173.02	99.68	-2,521.91	2,802.63	2,777.12	25.51	109.850	
5,900.00	5,886.91	5,890.41	5,890.41	13.60	13.10	-173.04	99.68	-2,521.91	2,811.83	2,785.86	25.96	108.299	
6,000.00	5,986.48	5,989.98	5,989.98	13.86	13.32	-173.06	99.68	-2,521.91	2,821.02	2,794.61	26.41	106.799	
6,100.00	6,086.05	6,089.55	6,089.55	14.12	13.55	-173.08	99.68	-2,521.91	2,830.21	2,803.35	26.87	105.349	
6,200.00	6,185.62	6,189.12	6,189.12	14.38	13.77	-173.11	99.68	-2,521.91	2,839.41	2,812.09	27.32	103.946	
6,300.00	6,285.19	6,288.69	6,288.69	14.64	13.99	-173.13	99.68	-2,521.91	2,848.61	2,820.84	27.77	102.588	
6,400.00	6,384.76	6,388.26	6,388.26	14.90	14.22	-173.15	99.68	-2,521.91	2,857.80	2,829.58	28.22	101.272	
6,500.00	6,484.33	6,487.83	6,487.83	15.16	14.44	-173.17	99.68	-2,521.91	2,867.00	2,838.33	28.67	99.998	
6,600.00	6,583.90	6,587.40	6,587.40	15.42	14.67	-173.20	99.68	-2,521.91	2,876.20	2,847.07	29.12	98.762	
6,700.00	6,683.47	6,686.97	6,686.97	15.68	14.89	-173.22	99.68	-2,521.91	2,885.39	2,855.82	29.57	97.563	
6,800.00	6,783.04	6,786.54	6,786.54	15.94	15.11	-173.24	99.68	-2,521.91	2,894.59	2,864.56	30.03	96.400	
6,900.00	6,882.61	6,886.11	6,886.11	16.20	15.34	-173.26	99.68	-2,521.91	2,903.79	2,873.31	30.48	95.271	
7,000.00	6,982.18	6,985.68	6,985.68	16.46	15.56	-173.28	99.68	-2,521.91	2,912.99	2,882.06	30.93	94.174	
7,100.00	7,081.75	7,085.25	7,085.25	16.72	15.78	-173.30	99.68	-2,521.91	2,922.19	2,890.80	31.38	93.109	
7,200.00	7,181.32	7,184.82	7,184.82	16.98	16.01	-173.32	99.68	-2,521.91	2,931.39	2,899.55	31.84	92.073	
7,300.00	7,280.89	7,284.39	7,284.39	17.25	16.23	-173.34	99.68	-2,521.91	2,940.59	2,908.29	32.29	91.066	
7,400.00	7,380.46	7,383.96	7,383.96	17.51	16.46	-173.37	99.68	-2,521.91	2,949.79	2,917.04	32.74	90.087	
7,500.00	7,480.03	7,483.53	7,483.53	17.77	16.68	-173.39	99.68	-2,521.91	2,958.99	2,925.79	33.20	89.134	
7,600.00	7,579.60	7,583.10	7,583.10	18.03	16.90	-173.41	99.68	-2,521.91	2,968.19	2,934.54	33.65	88.206	
7,700.00	7,679.17	7,682.67	7,682.67	18.30	17.13	-173.43	99.68	-2,521.91	2,977.39	2,943.28	34.10	87.303	
7,800.00	7,778.74	7,782.24	7,782.24	18.56	17.35	-173.45	99.68	-2,521.91	2,986.59	2,952.03	34.56	86.423	
7,900.00	7,878.31	7,881.81	7,881.81	18.82	17.58	-173.47	99.68	-2,521.91	2,995.79	2,960.78	35.01	85.566	
8,000.00	7,977.88	7,981.38	7,981.38	19.09	17.80	-173.49	99.68	-2,521.91	3,004.99	2,969.53	35.47	84.730	
8,100.00	8,077.45	8,080.95	8,080.95	19.35	18.02	-173.51	99.68	-2,521.91	3,014.20	2,978.28	35.92	83.915	
8,200.00	8,177.02	8,180.52	8,180.52	19.61	18.25	-173.53	99.68	-2,521.91	3,023.40	2,987.03	36.37	83.120	
8,300.00	8,276.59	8,280.09	8,280.09	19.88	18.47	-173.55	99.68	-2,521.91	3,032.60	2,995.78	36.83	82.345	
8,400.00	8,376.16	8,379.66	8,379.66	20.14	18.69	-173.57	99.68	-2,521.91	3,041.81	3,004.53	37.28	81.588	
8,500.00	8,475.73	8,479.23	8,479.23	20.41	18.92	-173.59	99.68	-2,521.91	3,051.01	3,013.28	37.74	80.850	
8,600.00	8,575.30	8,578.80	8,578.80	20.67	19.14	-173.61	99.68	-2,521.91	3,060.22	3,022.03	38.19	80.129	
8,700.00	8,674.87	8,678.37	8,678.37	20.94	19.37	-173.63	99.68	-2,521.91	3,069.42	3,030.78	38.65	79.424	
8,800.00	8,774.44	8,777.94	8,777.94	21.20	19.59	-173.64	99.68	-2,521.91	3,078.63	3,039.53	39.10	78.736	
8,900.00	8,874.01	8,877.51	8,877.51	21.47	19.81	-173.66	99.68	-2,521.91	3,087.83	3,048.28	39.56	78.064	
9,000.00	8,973.58	8,977.08	8,977.08	21.73	20.04	-173.68	99.68	-2,521.91	3,097.04	3,057.03	40.01	77.406	
9,100.00	9,073.15	9,076.65	9,076.65	22.00	20.26	-173.70	99.68	-2,521.91	3,106.24	3,065.78	40.47	76.763	
9,200.00	9,172.72	9,176.22	9,176.22	22.26	20.48	-173.72	99.68	-2,521.91	3,115.45	3,074.53	40.92	76.135	
9,300.00	9,272.29	9,275.79	9,275.79	22.53	20.71	-173.74	99.68	-2,521.91	3,124.66	3,083.28	41.38	75.520	
9,400.00	9,371.86	9,375.36	9,375.36	22.79	20.93	-173.76	99.68	-2,521.91	3,133.87	3,092.03	41.83	74.918	
9,500.00	9,471.43	9,474.93	9,474.93	23.06	21.16	-173.78	99.68	-2,521.91	3,143.07	3,100.79	42.29	74.329	
9,600.00	9,571.00	9,574.50	9,574.50	23.32	21.38	-173.79	99.68	-2,521.91	3,152.28	3,109.54	42.74	73.753	
9,700.00	9,670.57	9,674.07	9,674.07	23.59	21.60	-173.81	99.68	-2,521.91	3,161.49	3,118.29	43.20	73.188	
9,800.00	9,770.14	9,773.64	9,773.64	23.85	21.83	-173.83	99.68	-2,521.91	3,170.70	3,127.05	43.65	72.636	
9,900.00	9,869.72	9,873.22	9,873.22	24.12	22.05	-173.85	99.68	-2,521.91	3,179.91	3,135.80	44.11	72.094	
10,000.00	9,969.29	9,972.79	9,972.79	24.38	22.27	-173.87	99.68	-2,521.91	3,189.12	3,144.55	44.56	71.564	
10,100.00	10,068.86	10,072.36	10,072.36	24.65	22.50	-173.88	99.68	-2,521.91	3,198.33	3,153.31	45.02	71.044	
10,200.00	10,168.43	10,171.93	10,171.93	24.92	22.72	-173.90	99.68	-2,521.91	3,207.53	3,162.06	45.47	70.535	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 14H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,268.00	10,271.50	10,271.50	25.18	22.95	-173.92	99.68	-2,521.91	3,216.74	3,170.81	45.93	70.035	
10,400.00	10,367.57	10,371.07	10,371.07	25.45	23.17	-173.94	99.68	-2,521.91	3,225.96	3,179.57	46.39	69.545	
10,500.00	10,467.14	10,470.64	10,470.64	25.71	23.39	-173.95	99.68	-2,521.91	3,235.17	3,188.32	46.84	69.065	
10,600.00	10,566.71	10,570.21	10,570.21	25.98	23.62	-173.97	99.68	-2,521.91	3,244.38	3,197.08	47.30	68.594	
10,700.00	10,666.28	10,669.78	10,669.78	26.25	23.84	-173.99	99.68	-2,521.91	3,253.59	3,205.83	47.75	68.132	
10,800.00	10,765.85	10,769.35	10,769.35	26.51	24.07	-174.00	99.68	-2,521.91	3,262.80	3,214.59	48.21	67.678	
10,900.00	10,865.42	10,868.92	10,868.92	26.78	24.29	-174.02	99.68	-2,521.91	3,272.01	3,223.34	48.67	67.233	
11,004.37	10,969.33	10,972.83	10,972.83	27.06	24.52	-174.04	99.68	-2,521.91	3,281.63	3,232.48	49.14	66.777	
11,100.00	11,064.63	11,068.13	11,068.13	27.28	24.74	-174.06	99.68	-2,521.91	3,289.64	3,240.09	49.56	66.382	
11,200.00	11,164.40	11,167.90	11,167.90	27.47	24.96	-174.08	99.68	-2,521.91	3,296.34	3,246.37	49.96	65.974	
11,300.00	11,264.27	11,267.77	11,267.77	27.66	25.19	-174.10	99.68	-2,521.91	3,301.30	3,250.93	50.37	65.540	
11,400.00	11,364.22	11,367.72	11,367.72	27.83	25.41	-174.10	99.68	-2,521.91	3,304.52	3,253.75	50.77	65.083	
11,500.00	11,464.21	11,467.71	11,467.71	28.00	25.64	-174.11	99.68	-2,521.91	3,306.01	3,254.84	51.18	64.601	
11,535.79	11,500.00	11,503.50	11,503.50	28.06	25.72	-89.57	99.68	-2,521.91	3,306.12	3,254.80	51.32	64.421	
11,600.00	11,564.21	11,567.71	11,567.71	28.17	25.86	-89.57	99.68	-2,521.91	3,306.12	3,254.53	51.59	64.084	
11,700.00	11,664.21	11,667.71	11,667.71	28.36	26.08	-89.57	99.68	-2,521.91	3,306.12	3,254.10	52.02	63.556	
11,800.00	11,764.21	11,767.71	11,767.71	28.55	26.31	-89.57	99.68	-2,521.91	3,306.12	3,253.67	52.45	63.036	
11,900.00	11,864.21	11,867.71	11,867.71	28.74	26.53	-89.57	99.68	-2,521.91	3,306.12	3,253.24	52.88	62.524	
12,006.83	11,971.04	11,975.34	11,975.34	28.95	26.76	-89.60	97.97	-2,521.92	3,306.12	3,252.80	53.32	62.009	
12,032.76	11,996.96	12,001.58	12,001.40	29.00	26.80	90.36	95.34	-2,521.93	3,306.11	3,252.70	53.41	61.902	
12,050.00	12,014.17	12,018.98	12,018.64	29.03	26.83	90.34	92.94	-2,521.94	3,306.12	3,252.65	53.47	61.832	
12,100.00	12,063.80	12,069.22	12,067.88	29.11	26.91	90.27	83.10	-2,521.98	3,306.13	3,252.50	53.64	61.640	
12,150.00	12,112.72	12,119.11	12,115.75	29.19	26.99	90.20	69.09	-2,522.03	3,306.17	3,252.38	53.80	61.456	
12,200.00	12,160.57	12,168.66	12,161.91	29.27	27.07	90.12	51.11	-2,522.11	3,306.24	3,252.28	53.95	61.278	
12,250.00	12,206.97	12,217.89	12,206.05	29.35	27.15	90.05	29.36	-2,522.19	3,306.32	3,252.21	54.11	61.102	
12,300.00	12,251.58	12,266.80	12,247.91	29.43	27.22	89.98	4.09	-2,522.29	3,306.42	3,252.15	54.27	60.924	
12,350.00	12,294.05	12,315.41	12,287.22	29.50	27.29	89.90	-24.48	-2,522.41	3,306.54	3,252.11	54.44	60.741	
12,400.00	12,334.07	12,363.73	12,323.76	29.58	27.38	89.83	-56.08	-2,522.54	3,306.68	3,252.07	54.61	60.548	
12,450.00	12,371.32	12,411.79	12,357.33	29.66	27.48	89.76	-90.45	-2,522.67	3,306.84	3,252.04	54.80	60.340	
12,500.00	12,405.53	12,459.59	12,387.75	29.74	27.59	89.69	-127.30	-2,522.82	3,307.01	3,252.00	55.01	60.115	
12,550.00	12,436.43	12,507.16	12,414.87	29.83	27.71	89.62	-166.37	-2,522.98	3,307.19	3,251.95	55.24	59.867	
12,600.00	12,463.78	12,554.51	12,438.55	29.93	27.84	89.56	-207.36	-2,523.14	3,307.39	3,251.89	55.50	59.593	
12,650.00	12,487.39	12,601.67	12,458.70	30.04	27.98	89.49	-249.99	-2,523.31	3,307.59	3,251.81	55.78	59.293	
12,700.00	12,507.07	12,650.00	12,475.63	30.17	28.15	89.44	-295.23	-2,523.50	3,307.80	3,251.70	56.10	58.959	
12,750.00	12,522.67	12,695.49	12,488.04	30.31	28.32	89.38	-338.99	-2,523.67	3,308.01	3,251.57	56.44	58.607	
12,800.00	12,534.07	12,742.20	12,497.12	30.47	28.52	89.33	-384.78	-2,523.85	3,308.23	3,251.41	56.82	58.222	
12,850.00	12,541.18	12,795.27	12,502.88	30.65	28.75	89.29	-437.52	-2,524.03	3,308.41	3,251.15	57.26	57.777	
12,900.00	12,543.96	12,848.89	12,504.00	30.84	29.01	89.25	-491.12	-2,524.06	3,308.46	3,250.72	57.74	57.297	
12,906.83	12,544.00	12,855.72	12,504.00	30.87	29.04	89.25	-497.96	-2,524.06	3,308.47	3,250.66	57.81	57.232	
13,000.00	12,544.00	12,948.89	12,504.00	31.30	29.55	89.25	-591.12	-2,524.06	3,308.47	3,249.69	58.78	56.286	
13,100.00	12,544.00	13,048.89	12,504.00	31.84	30.17	89.25	-691.12	-2,524.06	3,308.47	3,248.50	59.97	55.168	
13,200.00	12,544.00	13,148.89	12,504.00	32.45	30.86	89.25	-791.12	-2,524.06	3,308.47	3,247.15	61.31	53.961	
13,300.00	12,544.00	13,248.89	12,504.00	33.13	31.62	89.25	-891.12	-2,524.06	3,308.47	3,245.67	62.80	52.686	
13,400.00	12,544.00	13,348.89	12,504.00	33.87	32.44	89.25	-991.12	-2,524.06	3,308.47	3,244.05	64.41	51.364	
13,500.00	12,544.00	13,448.89	12,504.00	34.68	33.33	89.25	-1,091.12	-2,524.06	3,308.47	3,242.32	66.15	50.015	
13,600.00	12,544.00	13,548.89	12,504.00	35.54	34.27	89.25	-1,191.12	-2,524.06	3,308.47	3,240.47	68.00	48.654	
13,700.00	12,544.00	13,648.89	12,504.00	36.46	35.26	89.25	-1,291.12	-2,524.06	3,308.47	3,238.51	69.95	47.295	
13,800.00	12,544.00	13,748.89	12,504.00	37.43	36.29	89.25	-1,391.12	-2,524.06	3,308.47	3,236.46	72.00	45.948	
13,900.00	12,544.00	13,848.89	12,504.00	38.44	37.37	89.25	-1,491.12	-2,524.06	3,308.47	3,234.32	74.14	44.624	
14,000.00	12,544.00	13,948.89	12,504.00	39.49	38.49	89.25	-1,591.12	-2,524.06	3,308.47	3,232.11	76.36	43.328	
14,100.00	12,544.00	14,048.89	12,504.00	40.59	39.65	89.25	-1,691.12	-2,524.06	3,308.47	3,229.82	78.65	42.066	
14,200.00	12,544.00	14,148.89	12,504.00	41.71	40.83	89.25	-1,791.12	-2,524.06	3,308.47	3,227.46	81.01	40.841	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 14H - OH - Plan #1												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)	
14,300.00	12,544.00	14,248.89	12,504.00	42.88	42.05	89.25	-1,891.12	-2,524.06	3,308.47	3,225.04	83.43	39.657
14,400.00	12,544.00	14,348.89	12,504.00	44.07	43.30	89.25	-1,991.12	-2,524.06	3,308.47	3,222.56	85.90	38.514
14,500.00	12,544.00	14,448.89	12,504.00	45.28	44.57	89.25	-2,091.12	-2,524.06	3,308.47	3,220.04	88.43	37.413
14,600.00	12,544.00	14,548.89	12,504.00	46.53	45.86	89.25	-2,191.12	-2,524.06	3,308.47	3,217.46	91.00	36.355
14,700.00	12,544.00	14,648.89	12,504.00	47.80	47.17	89.25	-2,291.12	-2,524.06	3,308.47	3,214.84	93.62	35.339
14,800.00	12,544.00	14,748.89	12,504.00	49.08	48.51	89.25	-2,391.12	-2,524.06	3,308.47	3,212.19	96.28	34.363
14,900.00	12,544.00	14,848.89	12,504.00	50.39	49.86	89.25	-2,491.12	-2,524.06	3,308.47	3,209.49	98.97	33.428
15,000.00	12,544.00	14,948.89	12,504.00	51.72	51.23	89.25	-2,591.12	-2,524.06	3,308.47	3,206.76	101.70	32.531
15,100.00	12,544.00	15,048.89	12,504.00	53.07	52.61	89.25	-2,691.12	-2,524.06	3,308.47	3,204.00	104.46	31.672
15,200.00	12,544.00	15,148.89	12,504.00	54.43	54.01	89.25	-2,791.12	-2,524.06	3,308.47	3,201.22	107.25	30.849
15,300.00	12,544.00	15,248.89	12,504.00	55.80	55.42	89.25	-2,891.12	-2,524.06	3,308.47	3,198.40	110.06	30.060
15,400.00	12,544.00	15,348.89	12,504.00	57.19	56.84	89.25	-2,991.12	-2,524.06	3,308.47	3,195.56	112.90	29.304
15,500.00	12,544.00	15,448.89	12,504.00	58.59	58.28	89.25	-3,091.12	-2,524.06	3,308.47	3,192.70	115.76	28.580
15,600.00	12,544.00	15,548.89	12,504.00	60.01	59.72	89.25	-3,191.12	-2,524.06	3,308.47	3,189.82	118.64	27.886
15,700.00	12,544.00	15,648.89	12,504.00	61.43	61.17	89.25	-3,291.12	-2,524.06	3,308.47	3,186.92	121.55	27.220
15,800.00	12,544.00	15,748.89	12,504.00	62.87	62.64	89.25	-3,391.12	-2,524.06	3,308.47	3,184.00	124.47	26.581
15,900.00	12,544.00	15,848.89	12,504.00	64.31	64.11	89.25	-3,491.12	-2,524.06	3,308.47	3,181.06	127.40	25.968
16,000.00	12,544.00	15,948.89	12,504.00	65.76	65.58	89.25	-3,591.12	-2,524.06	3,308.47	3,178.11	130.36	25.380
16,100.00	12,544.00	16,048.89	12,504.00	67.22	67.07	89.25	-3,691.12	-2,524.06	3,308.47	3,175.14	133.32	24.815
16,200.00	12,544.00	16,148.89	12,504.00	68.69	68.56	89.25	-3,791.12	-2,524.06	3,308.47	3,172.16	136.30	24.273
16,300.00	12,544.00	16,248.89	12,504.00	70.17	70.06	89.25	-3,891.12	-2,524.06	3,308.47	3,169.17	139.30	23.751
16,400.00	12,544.00	16,348.89	12,504.00	71.65	71.57	89.25	-3,991.12	-2,524.06	3,308.47	3,166.16	142.31	23.249
16,500.00	12,544.00	16,448.89	12,504.00	73.14	73.08	89.25	-4,091.12	-2,524.06	3,308.47	3,163.14	145.32	22.766
16,600.00	12,544.00	16,548.89	12,504.00	74.64	74.59	89.25	-4,191.12	-2,524.06	3,308.47	3,160.11	148.35	22.302
16,700.00	12,544.00	16,648.89	12,504.00	76.14	76.11	89.25	-4,291.12	-2,524.06	3,308.47	3,157.08	151.39	21.854
16,800.00	12,544.00	16,748.89	12,504.00	77.65	77.64	89.25	-4,391.12	-2,524.06	3,308.47	3,154.03	154.44	21.423
16,900.00	12,544.00	16,848.89	12,504.00	79.16	79.17	89.25	-4,491.12	-2,524.06	3,308.47	3,150.97	157.49	21.007
17,000.00	12,544.00	16,948.89	12,504.00	80.67	80.70	89.25	-4,591.12	-2,524.06	3,308.47	3,147.91	160.56	20.606
17,100.00	12,544.00	17,048.89	12,504.00	82.20	82.24	89.25	-4,691.12	-2,524.06	3,308.47	3,144.84	163.63	20.219
17,200.00	12,544.00	17,148.89	12,504.00	83.72	83.78	89.25	-4,791.12	-2,524.06	3,308.47	3,141.75	166.71	19.846
17,300.00	12,544.00	17,248.89	12,504.00	85.25	85.32	89.25	-4,891.12	-2,524.06	3,308.47	3,138.67	169.80	19.485
17,400.00	12,544.00	17,348.89	12,504.00	86.78	86.87	89.25	-4,991.12	-2,524.06	3,308.47	3,135.57	172.89	19.136
17,500.00	12,544.00	17,448.89	12,504.00	88.32	88.42	89.25	-5,091.12	-2,524.06	3,308.47	3,132.47	175.99	18.799
17,600.00	12,544.00	17,548.89	12,504.00	89.86	89.98	89.25	-5,191.12	-2,524.06	3,308.47	3,129.37	179.10	18.473
17,700.00	12,544.00	17,648.89	12,504.00	91.41	91.53	89.25	-5,291.12	-2,524.06	3,308.47	3,126.26	182.21	18.157
17,800.00	12,544.00	17,748.89	12,504.00	92.95	93.09	89.25	-5,391.12	-2,524.06	3,308.47	3,123.14	185.33	17.852
17,900.00	12,544.00	17,848.89	12,504.00	94.50	94.65	89.25	-5,491.12	-2,524.06	3,308.47	3,120.02	188.45	17.556
18,000.00	12,544.00	17,948.89	12,504.00	96.05	96.22	89.25	-5,591.12	-2,524.06	3,308.47	3,116.89	191.58	17.270
18,100.00	12,544.00	18,048.89	12,504.00	97.61	97.79	89.25	-5,691.12	-2,524.06	3,308.47	3,113.76	194.71	16.992
18,200.00	12,544.00	18,148.89	12,504.00	99.17	99.35	89.25	-5,791.12	-2,524.06	3,308.47	3,110.62	197.85	16.723
18,300.00	12,544.00	18,248.89	12,504.00	100.73	100.93	89.25	-5,891.12	-2,524.06	3,308.47	3,107.48	200.99	16.461
18,400.00	12,544.00	18,348.89	12,504.00	102.29	102.50	89.25	-5,991.12	-2,524.06	3,308.47	3,104.34	204.13	16.208
18,500.00	12,544.00	18,448.89	12,504.00	103.85	104.07	89.25	-6,091.12	-2,524.06	3,308.47	3,101.19	207.28	15.961
18,600.00	12,544.00	18,548.89	12,504.00	105.42	105.65	89.25	-6,191.12	-2,524.06	3,308.47	3,098.04	210.43	15.722
18,700.00	12,544.00	18,648.89	12,504.00	106.99	107.23	89.25	-6,291.12	-2,524.06	3,308.47	3,094.88	213.59	15.490
18,800.00	12,544.00	18,748.89	12,504.00	108.56	108.81	89.25	-6,391.12	-2,524.06	3,308.47	3,091.72	216.74	15.264
18,900.00	12,544.00	18,848.89	12,504.00	110.13	110.39	89.25	-6,491.12	-2,524.06	3,308.47	3,088.56	219.91	15.045
19,000.00	12,544.00	18,948.89	12,504.00	111.71	111.97	89.25	-6,591.12	-2,524.06	3,308.47	3,085.39	223.07	14.831
19,100.00	12,544.00	19,048.89	12,504.00	113.28	113.56	89.25	-6,691.12	-2,524.06	3,308.47	3,082.23	226.24	14.624
19,200.00	12,544.00	19,148.89	12,504.00	114.86	115.14	89.25	-6,791.12	-2,524.06	3,308.47	3,079.05	229.41	14.422
19,300.00	12,544.00	19,248.89	12,504.00	116.44	116.73	89.25	-6,891.12	-2,524.06	3,308.47	3,075.88	232.58	14.225
19,400.00	12,544.00	19,348.89	12,504.00	118.02	118.32	89.25	-6,991.12	-2,524.06	3,308.47	3,072.70	235.76	14.033

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 14H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,500.00	12,544.00	19,448.89	12,504.00	119.60	119.91	89.25	-7,091.12	-2,524.06	3,308.47	3,069.53	238.94	13.846	
19,600.00	12,544.00	19,548.89	12,504.00	121.19	121.50	89.25	-7,191.12	-2,524.06	3,308.47	3,066.34	242.12	13.665	
19,700.00	12,544.00	19,648.89	12,504.00	122.77	123.09	89.25	-7,291.12	-2,524.06	3,308.47	3,063.16	245.30	13.487	
19,800.00	12,544.00	19,748.89	12,504.00	124.36	124.68	89.25	-7,391.12	-2,524.06	3,308.47	3,059.98	248.49	13.314	
19,900.00	12,544.00	19,848.89	12,504.00	125.95	126.28	89.25	-7,491.12	-2,524.06	3,308.47	3,056.79	251.68	13.146	
20,000.00	12,544.00	19,948.89	12,504.00	127.53	127.87	89.25	-7,591.12	-2,524.06	3,308.47	3,053.60	254.87	12.981	
20,100.00	12,544.00	20,048.89	12,504.00	129.12	129.47	89.25	-7,691.12	-2,524.06	3,308.47	3,050.41	258.06	12.821	
20,200.00	12,544.00	20,148.89	12,504.00	130.72	131.07	89.25	-7,791.12	-2,524.06	3,308.47	3,047.21	261.25	12.664	
20,300.00	12,544.00	20,248.89	12,504.00	132.31	132.67	89.25	-7,891.12	-2,524.06	3,308.47	3,044.02	264.45	12.511	
20,400.00	12,544.00	20,348.89	12,504.00	133.90	134.26	89.25	-7,991.12	-2,524.06	3,308.47	3,040.82	267.65	12.361	
20,500.00	12,544.00	20,448.89	12,504.00	135.49	135.86	89.25	-8,091.12	-2,524.06	3,308.47	3,037.62	270.84	12.215	
20,600.00	12,544.00	20,548.89	12,504.00	137.09	137.46	89.25	-8,191.12	-2,524.06	3,308.47	3,034.42	274.05	12.073	
20,700.00	12,544.00	20,648.89	12,504.00	138.68	139.07	89.25	-8,291.12	-2,524.06	3,308.47	3,031.22	277.25	11.933	
20,800.00	12,544.00	20,748.89	12,504.00	140.28	140.67	89.25	-8,391.12	-2,524.06	3,308.47	3,028.02	280.45	11.797	
20,900.00	12,544.00	20,848.89	12,504.00	141.88	142.27	89.25	-8,491.12	-2,524.06	3,308.47	3,024.81	283.66	11.664	
21,000.00	12,544.00	20,948.89	12,504.00	143.48	143.87	89.25	-8,591.12	-2,524.06	3,308.47	3,021.60	286.86	11.533	
21,100.00	12,544.00	21,048.89	12,504.00	145.08	145.48	89.25	-8,691.12	-2,524.06	3,308.47	3,018.40	290.07	11.406	
21,200.00	12,544.00	21,148.89	12,504.00	146.68	147.08	89.25	-8,791.12	-2,524.06	3,308.47	3,015.19	293.28	11.281	
21,300.00	12,544.00	21,248.89	12,504.00	148.28	148.69	89.25	-8,891.12	-2,524.06	3,308.47	3,011.98	296.49	11.159	
21,400.00	12,544.00	21,348.89	12,504.00	149.88	150.30	89.25	-8,991.12	-2,524.06	3,308.47	3,008.76	299.70	11.039	
21,500.00	12,544.00	21,448.89	12,504.00	151.48	151.90	89.25	-9,091.12	-2,524.06	3,308.47	3,005.55	302.92	10.922	
21,600.00	12,544.00	21,548.89	12,504.00	153.08	153.51	89.25	-9,191.12	-2,524.06	3,308.47	3,002.34	306.13	10.807	
21,700.00	12,544.00	21,648.89	12,504.00	154.69	155.12	89.25	-9,291.12	-2,524.06	3,308.47	2,999.12	309.35	10.695	
21,800.00	12,544.00	21,748.89	12,504.00	156.29	156.73	89.25	-9,391.12	-2,524.06	3,308.47	2,995.90	312.56	10.585	
21,900.00	12,544.00	21,848.89	12,504.00	157.90	158.34	89.25	-9,491.12	-2,524.06	3,308.47	2,992.69	315.78	10.477	
22,000.00	12,544.00	21,948.89	12,504.00	159.50	159.94	89.25	-9,591.12	-2,524.06	3,308.47	2,989.47	319.00	10.371	
22,100.00	12,544.00	22,048.89	12,504.00	161.11	161.55	89.25	-9,691.12	-2,524.06	3,308.47	2,986.25	322.22	10.268	
22,181.55	12,544.00	22,130.44	12,504.00	162.42	162.87	89.25	-9,772.67	-2,524.06	3,308.47	2,983.62	324.84	10.185 SF	

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 15H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	-87.84	62.05	-1,641.77	1,642.94				
100.00	100.00	97.20	97.20	0.08	0.08	-87.84	62.05	-1,641.77	1,642.94	1,642.78	0.17	9,884.458	
200.00	200.00	197.20	197.20	0.31	0.30	-87.84	62.05	-1,641.77	1,642.94	1,642.33	0.61	2,685.365	
300.00	300.00	297.20	297.20	0.53	0.53	-87.84	62.05	-1,641.77	1,642.94	1,641.88	1.06	1,547.981	
400.00	400.00	397.20	397.20	0.76	0.75	-87.84	62.05	-1,641.77	1,642.94	1,641.43	1.51	1,087.409	
500.00	500.00	497.20	497.20	0.98	0.98	-87.84	62.05	-1,641.77	1,642.94	1,640.98	1.96	838.061	
600.00	600.00	597.20	597.20	1.21	1.20	-87.84	62.05	-1,641.77	1,642.94	1,640.53	2.41	681.735	
700.00	700.00	697.20	697.20	1.43	1.43	-87.84	62.05	-1,641.77	1,642.94	1,640.08	2.86	574.561	
800.00	800.00	797.20	797.20	1.66	1.65	-87.84	62.05	-1,641.77	1,642.94	1,639.63	3.31	496.506	
900.00	900.00	897.20	897.20	1.88	1.88	-87.84	62.05	-1,641.77	1,642.94	1,639.18	3.76	437.123	
1,000.00	1,000.00	997.20	997.20	2.11	2.10	-87.84	62.05	-1,641.77	1,642.94	1,638.73	4.21	390.427	
1,100.00	1,100.00	1,097.20	1,097.20	2.33	2.33	-87.84	62.05	-1,641.77	1,642.94	1,638.28	4.66	352.744	
1,200.00	1,200.00	1,197.20	1,197.20	2.56	2.55	-87.84	62.05	-1,641.77	1,642.94	1,637.84	5.11	321.696	
1,300.00	1,300.00	1,297.20	1,297.20	2.78	2.78	-87.84	62.05	-1,641.77	1,642.94	1,637.39	5.56	295.670	
1,400.00	1,400.00	1,397.20	1,397.20	3.01	3.00	-87.84	62.05	-1,641.77	1,642.94	1,636.94	6.01	273.541	
1,500.00	1,500.00	1,497.20	1,497.20	3.23	3.22	-87.84	62.05	-1,641.77	1,642.94	1,636.49	6.46	254.494	
1,600.00	1,600.00	1,597.20	1,597.20	3.46	3.45	-87.84	62.05	-1,641.77	1,642.94	1,636.04	6.91	237.926	
1,700.00	1,700.00	1,697.20	1,697.20	3.68	3.67	-87.84	62.05	-1,641.77	1,642.94	1,635.59	7.35	223.384	
1,800.00	1,800.00	1,797.20	1,797.20	3.91	3.90	-87.84	62.05	-1,641.77	1,642.94	1,635.14	7.80	210.517	
1,900.00	1,900.00	1,897.20	1,897.20	4.13	4.12	-87.84	62.05	-1,641.77	1,642.94	1,634.69	8.25	199.051	
2,000.00	2,000.00	1,997.20	1,997.20	4.35	4.35	-87.84	62.05	-1,641.77	1,642.94	1,634.24	8.70	188.770	
2,100.00	2,100.00	2,097.20	2,097.20	4.58	4.57	-87.84	62.05	-1,641.77	1,642.94	1,633.79	9.15	179.499	
2,200.00	2,200.00	2,197.20	2,197.20	4.80	4.80	-87.84	62.05	-1,641.77	1,642.94	1,633.34	9.60	171.096	
2,300.00	2,300.00	2,297.20	2,297.20	5.03	5.02	-87.84	62.05	-1,641.77	1,642.94	1,632.89	10.05	163.445	
2,400.00	2,400.00	2,397.20	2,397.20	5.25	5.25	-87.84	62.05	-1,641.77	1,642.94	1,632.44	10.50	156.448	
2,500.00	2,500.00	2,497.20	2,497.20	5.48	5.47	-87.84	62.05	-1,641.77	1,642.94	1,631.99	10.95	150.026	CC, ES
2,600.00	2,599.99	2,597.19	2,597.19	5.69	5.70	-172.37	62.05	-1,641.77	1,643.81	1,632.42	11.39	144.352	
2,700.00	2,699.96	2,697.16	2,697.16	5.89	5.92	-172.38	62.05	-1,641.77	1,646.40	1,634.59	11.81	139.380	
2,800.00	2,799.86	2,797.06	2,797.06	6.10	6.15	-172.40	62.05	-1,641.77	1,650.73	1,638.49	12.24	134.876	
2,900.00	2,899.68	2,896.88	2,896.88	6.30	6.37	-172.42	62.05	-1,641.77	1,656.78	1,644.11	12.67	130.795	
3,000.00	2,999.37	2,996.57	2,996.57	6.52	6.59	-172.44	62.05	-1,641.77	1,664.55	1,651.46	13.10	127.099	
3,031.43	3,030.67	3,027.87	3,027.87	6.58	6.67	-172.45	62.05	-1,641.77	1,667.36	1,654.12	13.23	126.007	
3,100.00	3,098.94	3,096.14	3,096.14	6.73	6.82	-172.48	62.05	-1,641.77	1,673.65	1,660.12	13.53	123.724	
3,200.00	3,198.51	3,195.71	3,195.71	6.96	7.04	-172.52	62.05	-1,641.77	1,682.84	1,668.88	13.96	120.557	
3,300.00	3,298.08	3,295.28	3,295.28	7.18	7.27	-172.56	62.05	-1,641.77	1,692.02	1,677.63	14.39	117.568	
3,400.00	3,397.65	3,394.85	3,394.85	7.41	7.49	-172.60	62.05	-1,641.77	1,701.20	1,686.38	14.83	114.742	
3,500.00	3,497.22	3,494.42	3,494.42	7.64	7.71	-172.64	62.05	-1,641.77	1,710.39	1,695.13	15.26	112.067	
3,600.00	3,596.79	3,593.99	3,593.99	7.87	7.94	-172.68	62.05	-1,641.77	1,719.58	1,703.88	15.70	109.531	
3,700.00	3,696.36	3,693.56	3,693.56	8.11	8.16	-172.72	62.05	-1,641.77	1,728.76	1,712.63	16.14	107.126	
3,800.00	3,795.93	3,793.13	3,793.13	8.34	8.39	-172.76	62.05	-1,641.77	1,737.95	1,721.38	16.58	104.842	
3,900.00	3,895.51	3,892.71	3,892.71	8.58	8.61	-172.80	62.05	-1,641.77	1,747.14	1,730.12	17.02	102.669	
4,000.00	3,995.08	3,992.28	3,992.28	8.82	8.83	-172.84	62.05	-1,641.77	1,756.33	1,738.87	17.46	100.601	
4,100.00	4,094.65	4,129.43	4,129.42	9.06	9.13	-172.87	62.50	-1,640.38	1,764.54	1,746.57	17.97	98.199	
4,200.00	4,194.22	4,270.20	4,270.10	9.31	9.42	-172.87	64.00	-1,635.71	1,770.46	1,751.99	18.47	95.859	
4,300.00	4,293.79	4,406.32	4,405.99	9.55	9.70	-172.84	66.46	-1,628.07	1,774.07	1,755.11	18.96	93.589	
4,400.00	4,393.36	4,506.28	4,505.71	9.80	9.92	-172.80	68.56	-1,621.53	1,776.79	1,757.40	19.38	91.660	
4,500.00	4,492.93	4,606.24	4,605.43	10.05	10.13	-172.76	70.67	-1,614.99	1,779.50	1,759.69	19.81	89.807	
4,600.00	4,592.50	4,706.19	4,705.14	10.30	10.35	-172.73	72.77	-1,608.44	1,782.22	1,761.97	20.25	88.025	
4,700.00	4,692.07	4,806.15	4,804.86	10.55	10.56	-172.69	74.88	-1,601.90	1,784.94	1,764.26	20.68	86.312	
4,800.00	4,791.64	4,906.11	4,904.58	10.80	10.78	-172.65	76.98	-1,595.35	1,787.66	1,766.54	21.11	84.664	
4,900.00	4,891.21	5,006.06	5,004.30	11.05	11.00	-172.62	79.09	-1,588.81	1,790.38	1,768.83	21.55	83.078	
5,000.00	4,990.78	5,106.02	5,104.02	11.30	11.22	-172.58	81.19	-1,582.27	1,793.10	1,771.11	21.99	81.550	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 15H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance				Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,090.35	5,205.98	5,203.74	11.55	11.45	-172.54	83.30	-1,575.72	1,795.82	1,773.39	22.43	80.077	
5,200.00	5,189.92	5,305.93	5,303.46	11.81	11.67	-172.51	85.40	-1,569.18	1,798.54	1,775.67	22.87	78.857	
5,300.00	5,289.49	5,405.89	5,403.18	12.06	11.89	-172.47	87.51	-1,562.64	1,801.26	1,777.96	23.31	77.288	
5,400.00	5,389.06	5,505.85	5,502.90	12.32	12.12	-172.44	89.61	-1,556.09	1,803.99	1,780.24	23.75	75.966	
5,500.00	5,488.63	5,605.80	5,602.62	12.57	12.35	-172.40	91.72	-1,549.55	1,806.71	1,782.52	24.19	74.690	
5,600.00	5,588.20	5,705.76	5,702.34	12.83	12.57	-172.37	93.82	-1,543.01	1,809.43	1,784.80	24.63	73.457	
5,700.00	5,687.77	5,805.72	5,802.06	13.09	12.80	-172.33	95.93	-1,536.46	1,812.16	1,787.08	25.08	72.265	
5,800.00	5,787.34	5,905.67	5,901.78	13.34	13.03	-172.29	98.03	-1,529.92	1,814.89	1,789.36	25.52	71.112	
5,900.00	5,886.91	6,005.63	6,001.50	13.60	13.26	-172.26	100.14	-1,523.38	1,817.61	1,791.65	25.97	69.997	
6,000.00	5,986.48	6,105.59	6,101.22	13.86	13.49	-172.22	102.24	-1,516.83	1,820.34	1,793.93	26.41	68.918	
6,100.00	6,086.05	6,205.54	6,200.94	14.12	13.72	-172.19	104.35	-1,510.29	1,823.07	1,796.21	26.86	67.873	
6,200.00	6,185.62	6,305.50	6,300.66	14.38	13.95	-172.15	106.45	-1,503.74	1,825.80	1,798.49	27.31	66.861	
6,300.00	6,285.19	6,405.46	6,400.38	14.64	14.18	-172.12	108.56	-1,497.20	1,828.53	1,800.77	27.76	65.879	
6,400.00	6,384.76	6,505.41	6,500.10	14.90	14.42	-172.08	110.66	-1,490.66	1,831.26	1,803.05	28.20	64.928	
6,500.00	6,484.33	6,605.37	6,599.82	15.16	14.65	-172.05	112.77	-1,484.11	1,833.99	1,805.33	28.65	64.005	
6,600.00	6,583.90	6,705.33	6,699.54	15.42	14.88	-172.02	114.87	-1,477.57	1,836.72	1,807.61	29.10	63.110	
6,700.00	6,683.47	6,805.28	6,799.26	15.68	15.12	-171.98	116.98	-1,471.03	1,839.45	1,809.90	29.55	62.241	
6,800.00	6,783.04	6,905.24	6,898.98	15.94	15.35	-171.95	119.08	-1,464.48	1,842.18	1,812.18	30.00	61.397	
6,900.00	6,882.61	7,005.20	6,998.70	16.20	15.59	-171.91	121.19	-1,457.94	1,844.92	1,814.46	30.46	60.577	
7,000.00	6,982.18	7,105.15	7,098.42	16.46	15.82	-171.88	123.30	-1,451.40	1,847.65	1,816.74	30.91	59.780	
7,100.00	7,081.75	7,205.11	7,198.14	16.72	16.06	-171.84	125.40	-1,444.85	1,850.38	1,819.02	31.36	59.005	
7,200.00	7,181.32	7,305.07	7,297.86	16.98	16.30	-171.81	127.51	-1,438.31	1,853.12	1,821.31	31.81	58.252	
7,300.00	7,280.89	7,405.02	7,397.58	17.25	16.53	-171.78	129.61	-1,431.77	1,855.86	1,823.59	32.27	57.519	
7,400.00	7,380.46	7,504.98	7,497.30	17.51	16.77	-171.74	131.72	-1,425.22	1,858.59	1,825.87	32.72	56.806	
7,500.00	7,480.03	7,604.94	7,597.02	17.77	17.01	-171.71	133.82	-1,418.68	1,861.33	1,828.16	33.17	56.111	
7,600.00	7,579.60	7,704.89	7,696.74	18.03	17.25	-171.68	135.93	-1,412.13	1,864.07	1,830.44	33.63	55.435	
7,700.00	7,679.17	7,804.85	7,796.46	18.30	17.49	-171.64	138.03	-1,405.59	1,866.81	1,832.73	34.08	54.777	
7,800.00	7,778.74	7,904.81	7,896.18	18.56	17.72	-171.61	140.14	-1,399.05	1,869.54	1,835.01	34.54	54.135	
7,900.00	7,878.31	8,004.76	7,995.90	18.82	17.96	-171.58	142.24	-1,392.50	1,872.28	1,837.29	34.99	53.509	
8,000.00	7,977.88	8,104.72	8,095.62	19.09	18.20	-171.54	144.35	-1,385.96	1,875.02	1,839.58	35.45	52.899	
8,100.00	8,077.45	8,204.68	8,195.34	19.35	18.44	-171.51	146.45	-1,379.42	1,877.77	1,841.86	35.90	52.304	
8,200.00	8,177.02	8,304.63	8,295.06	19.61	18.68	-171.48	148.56	-1,372.87	1,880.51	1,844.15	36.36	51.724	
8,300.00	8,276.59	8,404.59	8,394.78	19.88	18.92	-171.44	150.66	-1,366.33	1,883.25	1,846.44	36.81	51.157	
8,400.00	8,376.16	8,504.54	8,494.50	20.14	19.16	-171.41	152.77	-1,359.79	1,885.99	1,848.72	37.27	50.604	
8,500.00	8,475.73	8,604.50	8,594.22	20.41	19.40	-171.38	154.87	-1,353.24	1,888.74	1,851.01	37.73	50.064	
8,600.00	8,575.30	8,704.46	8,693.94	20.67	19.64	-171.35	156.98	-1,346.70	1,891.48	1,853.30	38.18	49.537	
8,700.00	8,674.87	8,804.41	8,793.66	20.94	19.88	-171.31	159.08	-1,340.16	1,894.22	1,855.58	38.64	49.022	
8,800.00	8,774.44	8,904.37	8,893.38	21.20	20.12	-171.28	161.19	-1,333.61	1,896.97	1,857.87	39.10	48.519	
8,900.00	8,874.01	9,004.33	8,993.10	21.47	20.36	-171.25	163.29	-1,327.07	1,899.72	1,860.16	39.56	48.027	
9,000.00	8,973.58	9,104.28	9,092.82	21.73	20.61	-171.22	165.40	-1,320.52	1,902.46	1,862.45	40.01	47.546	
9,100.00	9,073.15	9,204.24	9,192.54	22.00	20.85	-171.19	167.50	-1,313.98	1,905.21	1,864.74	40.47	47.076	
9,200.00	9,172.72	9,304.20	9,292.26	22.26	21.09	-171.15	169.61	-1,307.44	1,907.96	1,867.03	40.93	46.616	
9,300.00	9,272.29	9,404.15	9,391.98	22.53	21.33	-171.12	171.71	-1,300.89	1,910.71	1,869.32	41.39	46.166	
9,400.00	9,371.86	9,504.11	9,491.70	22.79	21.57	-171.09	173.82	-1,294.35	1,913.45	1,871.61	41.85	45.726	
9,500.00	9,471.43	9,604.07	9,591.42	23.06	21.82	-171.06	175.92	-1,287.81	1,916.20	1,873.90	42.31	45.295	
9,600.00	9,571.00	9,704.02	9,691.14	23.32	22.06	-171.03	178.03	-1,281.26	1,918.95	1,876.19	42.76	44.873	
9,700.00	9,670.57	9,803.98	9,790.86	23.59	22.30	-170.99	180.13	-1,274.72	1,921.70	1,878.48	43.22	44.460	
9,800.00	9,770.14	9,903.94	9,890.58	23.85	22.54	-170.96	182.24	-1,268.18	1,924.46	1,880.77	43.68	44.055	
9,900.00	9,869.72	10,003.89	9,990.30	24.12	22.79	-170.93	184.34	-1,261.63	1,927.21	1,883.07	44.14	43.659	
10,000.00	9,969.29	10,103.85	10,090.02	24.38	23.03	-170.90	186.45	-1,255.09	1,929.96	1,885.36	44.60	43.271	
10,100.00	10,068.86	10,203.81	10,189.74	24.65	23.27	-170.87	188.55	-1,248.55	1,932.71	1,887.65	45.06	42.890	
10,200.00	10,168.43	10,303.76	10,289.46	24.92	23.52	-170.84	190.66	-1,242.00	1,935.47	1,889.94	45.52	42.517	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 15H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (")	Distance				Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
10,300.00	10,268.00	10,403.72	10,389.18	25.18	23.76	-170.81	192.76	-1,235.46	1,938.22	1,892.24	45.98	42.152	
10,400.00	10,367.57	10,503.68	10,488.90	25.45	24.00	-170.78	194.87	-1,228.91	1,940.98	1,894.53	46.44	41.793	
10,500.00	10,467.14	10,603.63	10,588.62	25.71	24.25	-170.75	196.97	-1,222.37	1,943.73	1,896.83	46.90	41.442	
10,600.00	10,566.71	10,703.59	10,688.34	25.98	24.49	-170.71	199.08	-1,215.83	1,946.49	1,899.12	47.36	41.097	
10,700.00	10,666.28	10,803.55	10,788.06	26.25	24.73	-170.68	201.18	-1,209.28	1,949.24	1,901.42	47.82	40.758	
10,800.00	10,765.85	10,903.50	10,887.78	26.51	24.98	-170.65	203.29	-1,202.74	1,952.00	1,903.71	48.29	40.426	
10,900.00	10,865.42	11,003.46	10,987.50	26.78	25.22	-170.62	205.39	-1,196.20	1,954.76	1,906.01	48.75	40.101	
11,004.37	10,969.33	11,107.78	11,091.58	27.06	25.48	-170.59	207.59	-1,189.37	1,957.64	1,908.41	49.23	39.767	
11,100.00	11,064.63	11,183.82	11,167.46	27.28	25.65	-170.57	209.09	-1,184.70	1,959.89	1,910.30	49.59	39.520	
11,200.00	11,164.40	11,259.69	11,243.23	27.47	25.79	-170.56	210.29	-1,180.99	1,961.76	1,911.83	49.92	39.296	
11,300.00	11,264.27	11,335.56	11,319.04	27.66	25.93	-170.55	211.17	-1,178.23	1,963.13	1,912.89	50.24	39.074	
11,400.00	11,364.22	11,400.00	11,383.46	27.83	26.05	-170.54	211.69	-1,176.64	1,964.05	1,913.53	50.53	38.871	
11,500.00	11,464.21	11,487.27	11,470.72	28.00	26.20	-170.54	212.03	-1,175.58	1,964.40	1,913.54	50.85	38.628	
11,535.79	11,500.00	11,514.43	11,497.88	28.06	26.25	-86.00	212.05	-1,175.51	1,964.42	1,913.45	50.96	38.546	
11,558.17	11,522.38	11,536.13	11,519.58	28.10	26.29	-86.00	212.05	-1,175.51	1,964.42	1,913.37	51.05	38.481	
11,600.00	11,564.21	11,577.96	11,561.41	28.17	26.37	-86.00	212.05	-1,175.51	1,964.42	1,913.20	51.21	38.357	
11,700.00	11,664.21	11,677.96	11,661.41	28.36	26.57	-86.00	212.05	-1,175.51	1,964.42	1,912.79	51.63	38.050	
11,800.00	11,764.21	11,777.96	11,761.41	28.55	26.78	-86.00	212.05	-1,175.51	1,964.42	1,912.37	52.05	37.744	
11,900.00	11,864.21	11,877.96	11,861.41	28.74	26.99	-86.00	212.05	-1,175.51	1,964.42	1,911.95	52.46	37.444	
12,006.83	11,971.04	11,990.19	11,973.63	28.95	27.22	-86.01	211.60	-1,175.51	1,964.39	1,911.47	52.92	37.120	
12,050.00	12,014.17	12,046.67	12,029.87	29.03	27.32	93.92	206.60	-1,175.51	1,964.24	1,911.14	53.10	36.989	
12,100.00	12,063.80	12,111.56	12,093.50	29.11	27.42	93.80	194.06	-1,175.51	1,963.99	1,910.70	53.29	36.856	
12,150.00	12,112.72	12,175.66	12,154.56	29.19	27.51	93.65	174.68	-1,175.51	1,963.66	1,910.20	53.45	36.735	
12,200.00	12,160.57	12,238.78	12,212.22	29.27	27.60	93.46	149.06	-1,175.51	1,963.27	1,909.66	53.61	36.622	
12,250.00	12,206.97	12,300.78	12,265.77	29.35	27.68	93.23	117.87	-1,175.51	1,962.84	1,909.08	53.76	36.512	
12,300.00	12,251.58	12,361.55	12,314.68	29.43	27.75	92.99	81.86	-1,175.51	1,962.38	1,908.47	53.91	36.402	
12,350.00	12,294.05	12,421.01	12,358.59	29.50	27.82	92.71	41.81	-1,175.51	1,961.92	1,907.85	54.07	36.286	
12,400.00	12,334.07	12,479.12	12,397.28	29.58	27.89	92.42	-1.53	-1,175.51	1,961.46	1,907.22	54.24	36.161	
12,450.00	12,371.32	12,535.88	12,430.63	29.66	27.97	92.12	-47.42	-1,175.51	1,961.03	1,906.60	54.44	36.024	
12,500.00	12,405.53	12,591.28	12,458.65	29.74	28.06	91.80	-95.18	-1,175.51	1,960.65	1,905.99	54.66	35.872	
12,550.00	12,436.43	12,645.37	12,481.44	29.83	28.16	91.47	-144.21	-1,175.51	1,960.31	1,905.41	54.90	35.705	
12,600.00	12,463.78	12,698.18	12,499.14	29.93	28.28	91.13	-193.96	-1,175.51	1,960.04	1,904.86	55.18	35.523	
12,650.00	12,487.39	12,749.79	12,511.93	30.04	28.42	90.79	-243.94	-1,175.51	1,959.83	1,904.35	55.48	35.327	
12,700.00	12,507.07	12,800.25	12,520.05	30.17	28.58	90.45	-293.72	-1,175.51	1,959.69	1,903.89	55.81	35.117	
12,750.00	12,522.67	12,849.63	12,523.72	30.31	28.75	90.11	-342.95	-1,175.51	1,959.63	1,903.48	56.16	34.895	
12,766.07	12,526.79	12,865.29	12,523.99	30.36	28.81	90.00	-358.61	-1,175.51	1,959.63	1,903.35	56.28	34.821	
12,800.00	12,534.07	12,898.42	12,524.00	30.47	28.94	89.79	-391.74	-1,175.51	1,959.64	1,903.11	56.54	34.662	
12,850.00	12,541.18	12,947.90	12,524.00	30.65	29.16	89.58	-441.22	-1,175.51	1,959.68	1,902.72	56.97	34.400	
12,900.00	12,543.96	12,997.81	12,524.00	30.84	29.40	89.50	-491.12	-1,175.51	1,959.71	1,902.28	57.42	34.129	
12,906.83	12,544.00	13,004.64	12,524.00	30.87	29.43	89.50	-497.96	-1,175.51	1,959.71	1,902.22	57.49	34.089	
13,000.00	12,544.00	13,097.81	12,524.00	31.30	29.94	89.50	-591.12	-1,175.51	1,959.71	1,901.23	58.47	33.516	
13,100.00	12,544.00	13,197.81	12,524.00	31.84	30.56	89.50	-691.12	-1,175.51	1,959.71	1,900.02	59.68	32.835	
13,200.00	12,544.00	13,297.81	12,524.00	32.45	31.26	89.50	-791.12	-1,175.51	1,959.71	1,898.66	61.05	32.102	
13,300.00	12,544.00	13,397.81	12,524.00	33.13	32.02	89.50	-891.12	-1,175.51	1,959.71	1,897.16	62.55	31.331	
13,400.00	12,544.00	13,497.81	12,524.00	33.87	32.85	89.50	-991.12	-1,175.51	1,959.71	1,895.52	64.18	30.532	
13,500.00	12,544.00	13,597.81	12,524.00	34.68	33.74	89.50	-1,091.12	-1,175.51	1,959.71	1,893.76	65.94	29.719	
13,600.00	12,544.00	13,697.81	12,524.00	35.54	34.68	89.50	-1,191.12	-1,175.51	1,959.71	1,891.90	67.81	28.900	
13,700.00	12,544.00	13,797.81	12,524.00	36.46	35.67	89.50	-1,291.12	-1,175.51	1,959.71	1,889.92	69.78	28.083	
13,800.00	12,544.00	13,897.81	12,524.00	37.43	36.71	89.50	-1,391.12	-1,175.51	1,959.71	1,887.86	71.85	27.276	
13,900.00	12,544.00	13,997.81	12,524.00	38.44	37.79	89.50	-1,491.12	-1,175.51	1,959.71	1,885.70	74.00	26.482	
14,000.00	12,544.00	14,097.81	12,524.00	39.49	38.90	89.50	-1,591.12	-1,175.51	1,959.71	1,883.47	76.23	25.706	
14,100.00	12,544.00	14,197.81	12,524.00	40.59	40.06	89.50	-1,691.12	-1,175.51	1,959.71	1,881.17	78.54	24.952	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 15H - OH - Plan #1													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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,200.00	12,544.00	14,297.81	12,524.00	41.71	41.24	89.50	-1,791.12	-1,175.51	1,959.71	1,878.79	80.91	24.220	
14,300.00	12,544.00	14,397.81	12,524.00	42.88	42.46	89.50	-1,891.12	-1,175.51	1,959.71	1,876.36	83.34	23.514	
14,400.00	12,544.00	14,497.81	12,524.00	44.07	43.70	89.50	-1,991.12	-1,175.51	1,959.71	1,873.87	85.83	22.832	
14,500.00	12,544.00	14,597.81	12,524.00	45.28	44.97	89.50	-2,091.12	-1,175.51	1,959.71	1,871.34	88.37	22.176	
14,600.00	12,544.00	14,697.81	12,524.00	46.53	46.26	89.50	-2,191.12	-1,175.51	1,959.71	1,868.75	90.96	21.546	
14,700.00	12,544.00	14,797.81	12,524.00	47.80	47.58	89.50	-2,291.12	-1,175.51	1,959.71	1,866.12	93.58	20.941	
14,800.00	12,544.00	14,897.81	12,524.00	49.08	48.91	89.50	-2,391.12	-1,175.51	1,959.71	1,863.45	96.25	20.360	
14,900.00	12,544.00	14,997.81	12,524.00	50.39	50.26	89.50	-2,491.12	-1,175.51	1,959.71	1,860.75	98.95	19.804	
15,000.00	12,544.00	15,097.81	12,524.00	51.72	51.62	89.50	-2,591.12	-1,175.51	1,959.71	1,858.01	101.69	19.271	
15,100.00	12,544.00	15,197.81	12,524.00	53.07	53.00	89.50	-2,691.12	-1,175.51	1,959.71	1,855.25	104.46	18.761	
15,200.00	12,544.00	15,297.81	12,524.00	54.43	54.40	89.50	-2,791.12	-1,175.51	1,959.71	1,852.45	107.25	18.272	
15,300.00	12,544.00	15,397.81	12,524.00	55.80	55.81	89.50	-2,891.12	-1,175.51	1,959.71	1,849.63	110.08	17.803	
15,400.00	12,544.00	15,497.81	12,524.00	57.19	57.23	89.50	-2,991.12	-1,175.51	1,959.71	1,846.78	112.92	17.355	
15,500.00	12,544.00	15,597.81	12,524.00	58.59	58.66	89.50	-3,091.12	-1,175.51	1,959.71	1,843.92	115.79	16.925	
15,600.00	12,544.00	15,697.81	12,524.00	60.01	60.10	89.50	-3,191.12	-1,175.51	1,959.71	1,841.03	118.68	16.513	
15,700.00	12,544.00	15,797.81	12,524.00	61.43	61.55	89.50	-3,291.12	-1,175.51	1,959.71	1,838.12	121.59	16.118	
15,800.00	12,544.00	15,897.81	12,524.00	62.87	63.01	89.50	-3,391.12	-1,175.51	1,959.71	1,835.19	124.51	15.739	
15,900.00	12,544.00	15,997.81	12,524.00	64.31	64.48	89.50	-3,491.12	-1,175.51	1,959.71	1,832.25	127.46	15.376	
16,000.00	12,544.00	16,097.81	12,524.00	65.76	65.96	89.50	-3,591.12	-1,175.51	1,959.71	1,829.29	130.41	15.027	
16,100.00	12,544.00	16,197.81	12,524.00	67.22	67.44	89.50	-3,691.12	-1,175.51	1,959.71	1,826.32	133.39	14.692	
16,200.00	12,544.00	16,297.81	12,524.00	68.69	68.93	89.50	-3,791.12	-1,175.51	1,959.71	1,823.33	136.37	14.370	
16,300.00	12,544.00	16,397.81	12,524.00	70.17	70.43	89.50	-3,891.12	-1,175.51	1,959.71	1,820.33	139.37	14.061	
16,400.00	12,544.00	16,497.81	12,524.00	71.65	71.93	89.50	-3,991.12	-1,175.51	1,959.71	1,817.32	142.38	13.764	
16,500.00	12,544.00	16,597.81	12,524.00	73.14	73.44	89.50	-4,091.12	-1,175.51	1,959.71	1,814.30	145.40	13.478	
16,600.00	12,544.00	16,697.81	12,524.00	74.64	74.95	89.50	-4,191.12	-1,175.51	1,959.71	1,811.27	148.44	13.202	
16,700.00	12,544.00	16,797.81	12,524.00	76.14	76.47	89.50	-4,291.12	-1,175.51	1,959.71	1,808.23	151.48	12.937	
16,800.00	12,544.00	16,897.81	12,524.00	77.65	78.00	89.50	-4,391.12	-1,175.51	1,959.71	1,805.18	154.53	12.682	
16,900.00	12,544.00	16,997.81	12,524.00	79.16	79.52	89.50	-4,491.12	-1,175.51	1,959.71	1,802.12	157.59	12.436	
17,000.00	12,544.00	17,097.81	12,524.00	80.67	81.06	89.50	-4,591.12	-1,175.51	1,959.71	1,799.05	160.66	12.198	
17,100.00	12,544.00	17,197.81	12,524.00	82.20	82.59	89.50	-4,691.12	-1,175.51	1,959.71	1,795.97	163.73	11.969	
17,200.00	12,544.00	17,297.81	12,524.00	83.72	84.13	89.50	-4,791.12	-1,175.51	1,959.71	1,792.89	166.82	11.748	
17,300.00	12,544.00	17,397.81	12,524.00	85.25	85.67	89.50	-4,891.12	-1,175.51	1,959.71	1,789.80	169.91	11.534	
17,400.00	12,544.00	17,497.81	12,524.00	86.78	87.22	89.50	-4,991.12	-1,175.51	1,959.71	1,786.70	173.00	11.327	
17,500.00	12,544.00	17,597.81	12,524.00	88.32	88.77	89.50	-5,091.12	-1,175.51	1,959.71	1,783.60	176.11	11.128	
17,600.00	12,544.00	17,697.81	12,524.00	89.86	90.32	89.50	-5,191.12	-1,175.51	1,959.71	1,780.49	179.22	10.935	
17,700.00	12,544.00	17,797.81	12,524.00	91.41	91.88	89.50	-5,291.12	-1,175.51	1,959.71	1,777.37	182.33	10.748	
17,800.00	12,544.00	17,897.81	12,524.00	92.95	93.44	89.50	-5,391.12	-1,175.51	1,959.71	1,774.25	185.45	10.567	
17,900.00	12,544.00	17,997.81	12,524.00	94.50	95.00	89.50	-5,491.12	-1,175.51	1,959.71	1,771.13	188.58	10.392	
18,000.00	12,544.00	18,097.81	12,524.00	96.05	96.56	89.50	-5,591.12	-1,175.51	1,959.71	1,768.00	191.71	10.222	
18,100.00	12,544.00	18,197.81	12,524.00	97.61	98.13	89.50	-5,691.12	-1,175.51	1,959.71	1,764.87	194.84	10.058	
18,200.00	12,544.00	18,297.81	12,524.00	99.17	99.69	89.50	-5,791.12	-1,175.51	1,959.71	1,761.73	197.98	9.899	
18,300.00	12,544.00	18,397.81	12,524.00	100.73	101.26	89.50	-5,891.12	-1,175.51	1,959.71	1,758.58	201.12	9.744	
18,400.00	12,544.00	18,497.81	12,524.00	102.29	102.83	89.50	-5,991.12	-1,175.51	1,959.71	1,755.44	204.27	9.594	
18,500.00	12,544.00	18,597.81	12,524.00	103.85	104.41	89.50	-6,091.12	-1,175.51	1,959.71	1,752.29	207.42	9.448	
18,600.00	12,544.00	18,697.81	12,524.00	105.42	105.98	89.50	-6,191.12	-1,175.51	1,959.71	1,749.13	210.57	9.307	
18,700.00	12,544.00	18,797.81	12,524.00	106.99	107.56	89.50	-6,291.12	-1,175.51	1,959.71	1,745.98	213.73	9.169	
18,800.00	12,544.00	18,897.81	12,524.00	108.56	109.14	89.50	-6,391.12	-1,175.51	1,959.71	1,742.81	216.89	9.035	
18,900.00	12,544.00	18,997.81	12,524.00	110.13	110.72	89.50	-6,491.12	-1,175.51	1,959.71	1,739.65	220.06	8.906	
19,000.00	12,544.00	19,097.81	12,524.00	111.71	112.30	89.50	-6,591.12	-1,175.51	1,959.71	1,736.48	223.22	8.779	
19,100.00	12,544.00	19,197.81	12,524.00	113.28	113.89	89.50	-6,691.12	-1,175.51	1,959.71	1,733.31	226.39	8.656	
19,200.00	12,544.00	19,297.81	12,524.00	114.86	115.47	89.50	-6,791.12	-1,175.51	1,959.71	1,730.14	229.56	8.537	
19,300.00	12,544.00	19,397.81	12,524.00	116.44	117.06	89.50	-6,891.12	-1,175.51	1,959.71	1,726.97	232.74	8.420	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 15H - OH - Plan #1													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	
19,400.00	12,544.00	19,497.81	12,524.00	118.02	118.64	89.50	-6,991.12	-1,175.51	1,959.71	1,723.79	235.92	8.307	
19,500.00	12,544.00	19,597.81	12,524.00	119.60	120.23	89.50	-7,091.12	-1,175.51	1,959.71	1,720.61	239.10	8.196	
19,600.00	12,544.00	19,697.81	12,524.00	121.19	121.82	89.50	-7,191.12	-1,175.51	1,959.71	1,717.42	242.28	8.089	
19,700.00	12,544.00	19,797.81	12,524.00	122.77	123.42	89.50	-7,291.12	-1,175.51	1,959.71	1,714.24	245.47	7.984	
19,800.00	12,544.00	19,897.81	12,524.00	124.36	125.01	89.50	-7,391.12	-1,175.51	1,959.71	1,711.05	248.65	7.881	
19,900.00	12,544.00	19,997.81	12,524.00	125.95	126.60	89.50	-7,491.12	-1,175.51	1,959.71	1,707.86	251.84	7.781	
20,000.00	12,544.00	20,097.81	12,524.00	127.53	128.20	89.50	-7,591.12	-1,175.51	1,959.71	1,704.67	255.03	7.684	
20,100.00	12,544.00	20,197.81	12,524.00	129.12	129.79	89.50	-7,691.12	-1,175.51	1,959.71	1,701.48	258.23	7.589	
20,200.00	12,544.00	20,297.81	12,524.00	130.72	131.39	89.50	-7,791.12	-1,175.51	1,959.71	1,698.28	261.42	7.496	
20,300.00	12,544.00	20,397.81	12,524.00	132.31	132.98	89.50	-7,891.12	-1,175.51	1,959.71	1,695.09	264.62	7.406	
20,400.00	12,544.00	20,497.81	12,524.00	133.90	134.58	89.50	-7,991.12	-1,175.51	1,959.71	1,691.89	267.82	7.317	
20,500.00	12,544.00	20,597.81	12,524.00	135.49	136.18	89.50	-8,091.12	-1,175.51	1,959.71	1,688.69	271.02	7.231	
20,600.00	12,544.00	20,697.81	12,524.00	137.09	137.78	89.50	-8,191.12	-1,175.51	1,959.71	1,685.49	274.22	7.147	
20,700.00	12,544.00	20,797.81	12,524.00	138.68	139.38	89.50	-8,291.12	-1,175.51	1,959.71	1,682.28	277.42	7.064	
20,800.00	12,544.00	20,897.81	12,524.00	140.28	140.98	89.50	-8,391.12	-1,175.51	1,959.71	1,679.08	280.63	6.983	
20,900.00	12,544.00	20,997.81	12,524.00	141.88	142.59	89.50	-8,491.12	-1,175.51	1,959.71	1,675.87	283.83	6.904	
21,000.00	12,544.00	21,097.81	12,524.00	143.48	144.19	89.50	-8,591.12	-1,175.51	1,959.71	1,672.66	287.04	6.827	
21,100.00	12,544.00	21,197.81	12,524.00	145.08	145.79	89.50	-8,691.12	-1,175.51	1,959.71	1,669.46	290.25	6.752	
21,200.00	12,544.00	21,297.81	12,524.00	146.68	147.40	89.50	-8,791.12	-1,175.51	1,959.71	1,666.24	293.46	6.678	
21,300.00	12,544.00	21,397.81	12,524.00	148.28	149.00	89.50	-8,891.12	-1,175.51	1,959.71	1,663.03	296.67	6.606	
21,400.00	12,544.00	21,497.81	12,524.00	149.88	150.61	89.50	-8,991.12	-1,175.51	1,959.71	1,659.82	299.89	6.535	
21,500.00	12,544.00	21,597.81	12,524.00	151.48	152.21	89.50	-9,091.12	-1,175.51	1,959.71	1,656.61	303.10	6.466	
21,600.00	12,544.00	21,697.81	12,524.00	153.08	153.82	89.50	-9,191.12	-1,175.51	1,959.71	1,653.39	306.31	6.398	
21,700.00	12,544.00	21,797.81	12,524.00	154.69	155.43	89.50	-9,291.12	-1,175.51	1,959.71	1,650.17	309.53	6.331	
21,800.00	12,544.00	21,897.81	12,524.00	156.29	157.04	89.50	-9,391.12	-1,175.51	1,959.71	1,646.96	312.75	6.266	
21,900.00	12,544.00	21,997.81	12,524.00	157.90	158.65	89.50	-9,491.12	-1,175.51	1,959.71	1,643.74	315.97	6.202	
22,000.00	12,544.00	22,097.81	12,524.00	159.50	160.25	89.50	-9,591.12	-1,175.51	1,959.71	1,640.52	319.19	6.140	
22,100.00	12,544.00	22,197.81	12,524.00	161.11	161.86	89.50	-9,691.12	-1,175.51	1,959.71	1,637.30	322.41	6.078	
22,181.55	12,544.00	22,279.35	12,524.00	162.42	163.18	89.50	-9,772.67	-1,175.51	1,959.71	1,634.67	325.03	6.029 SF	

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 2H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	3.30	3.30	0.00	0.00	-87.77	99.43	-2,551.91	2,553.85				
100.00	100.00	103.30	103.30	0.08	0.09	-87.77	99.43	-2,551.91	2,553.85	2,553.67	0.18	N/A	
200.00	200.00	203.30	203.30	0.31	0.32	-87.77	99.43	-2,551.91	2,553.85	2,553.22	0.63	4,082.731	
300.00	300.00	303.30	303.30	0.53	0.54	-87.77	99.43	-2,551.91	2,553.85	2,552.77	1.08	2,375.547	
400.00	400.00	403.30	403.30	0.76	0.77	-87.77	99.43	-2,551.91	2,553.85	2,552.32	1.52	1,675.106	
500.00	500.00	503.30	503.30	0.98	0.99	-87.77	99.43	-2,551.91	2,553.85	2,551.87	1.97	1,293.663	
600.00	600.00	603.30	603.30	1.21	1.22	-87.77	99.43	-2,551.91	2,553.85	2,551.42	2.42	1,053.718	
700.00	700.00	703.30	703.30	1.43	1.44	-87.77	99.43	-2,551.91	2,553.85	2,550.97	2.87	888.856	
800.00	800.00	803.30	803.30	1.66	1.67	-87.77	99.43	-2,551.91	2,553.85	2,550.52	3.32	768.602	
900.00	900.00	903.30	903.30	1.88	1.89	-87.77	99.43	-2,551.91	2,553.85	2,550.07	3.77	677.009	
1,000.00	1,000.00	1,003.30	1,003.30	2.11	2.11	-87.77	99.43	-2,551.91	2,553.85	2,549.62	4.22	604.922	
1,100.00	1,100.00	1,103.30	1,103.30	2.33	2.34	-87.77	99.43	-2,551.91	2,553.85	2,549.18	4.67	546.708	
1,200.00	1,200.00	1,203.30	1,203.30	2.56	2.56	-87.77	99.43	-2,551.91	2,553.85	2,548.73	5.12	498.716	
1,300.00	1,300.00	1,303.30	1,303.30	2.78	2.79	-87.77	99.43	-2,551.91	2,553.85	2,548.28	5.57	458.469	
1,400.00	1,400.00	1,403.30	1,403.30	3.01	3.01	-87.77	99.43	-2,551.91	2,553.85	2,547.83	6.02	424.233	
1,500.00	1,500.00	1,503.30	1,503.30	3.23	3.24	-87.77	99.43	-2,551.91	2,553.85	2,547.38	6.47	394.755	
1,600.00	1,600.00	1,603.30	1,603.30	3.46	3.46	-87.77	99.43	-2,551.91	2,553.85	2,546.93	6.92	369.108	
1,700.00	1,700.00	1,703.30	1,703.30	3.68	3.69	-87.77	99.43	-2,551.91	2,553.85	2,546.48	7.37	346.589	
1,800.00	1,800.00	1,803.30	1,803.30	3.91	3.91	-87.77	99.43	-2,551.91	2,553.85	2,546.03	7.82	326.661	
1,900.00	1,900.00	1,903.30	1,903.30	4.13	4.14	-87.77	99.43	-2,551.91	2,553.85	2,545.58	8.27	308.899	
2,000.00	2,000.00	2,003.30	2,003.30	4.35	4.36	-87.77	99.43	-2,551.91	2,553.85	2,545.13	8.72	292.970	
2,100.00	2,100.00	2,103.30	2,103.30	4.58	4.59	-87.77	99.43	-2,551.91	2,553.85	2,544.68	9.17	278.602	
2,200.00	2,200.00	2,203.30	2,203.30	4.80	4.81	-87.77	99.43	-2,551.91	2,553.85	2,544.23	9.62	265.578	
2,300.00	2,300.00	2,303.30	2,303.30	5.03	5.04	-87.77	99.43	-2,551.91	2,553.85	2,543.78	10.07	253.718	
2,400.00	2,400.00	2,403.30	2,403.30	5.25	5.26	-87.77	99.43	-2,551.91	2,553.85	2,543.33	10.52	242.871	
2,415.53	2,415.53	2,418.83	2,418.83	5.29	5.30	-87.77	99.43	-2,551.91	2,553.85	2,543.26	10.59	241.269 CC	
2,500.00	2,500.00	2,500.00	2,500.00	5.48	5.48	-87.77	99.43	-2,551.91	2,553.85	2,542.89	10.96	233.072 ES	
2,600.00	2,599.99	2,572.50	2,572.50	5.69	5.63	-172.30	99.59	-2,552.34	2,555.33	2,544.01	11.32	225.648	
2,700.00	2,699.96	2,642.61	2,642.59	5.89	5.78	-172.29	100.04	-2,553.58	2,559.71	2,548.04	11.67	219.342	
2,800.00	2,799.86	2,700.00	2,699.96	6.10	5.90	-172.28	100.62	-2,555.19	2,567.03	2,555.04	11.99	214.180	
2,900.00	2,899.68	2,782.23	2,782.11	6.30	6.08	-172.26	101.81	-2,558.44	2,577.13	2,564.77	12.36	208.560	
3,000.00	2,999.37	2,851.59	2,851.37	6.52	6.22	-172.23	103.12	-2,562.04	2,590.15	2,577.45	12.70	203.949	
3,031.43	3,030.67	2,873.30	2,873.04	6.58	6.27	-172.22	103.59	-2,563.33	2,594.82	2,582.02	12.81	202.589	
3,100.00	3,098.94	2,920.58	2,920.20	6.73	6.37	-172.21	104.71	-2,566.41	2,605.61	2,592.57	13.04	199.788	
3,200.00	3,198.51	3,006.52	3,005.89	6.96	6.56	-172.19	106.99	-2,572.67	2,622.10	2,608.67	13.42	195.323	
3,300.00	3,298.08	3,105.13	3,104.19	7.18	6.78	-172.16	109.63	-2,579.94	2,638.69	2,624.85	13.84	190.651	
3,400.00	3,397.65	3,203.74	3,202.50	7.41	7.00	-172.14	112.27	-2,587.21	2,655.28	2,641.02	14.26	186.213	
3,500.00	3,497.22	3,302.35	3,300.80	7.64	7.22	-172.12	114.92	-2,594.48	2,671.88	2,657.19	14.68	181.997	
3,600.00	3,596.79	3,400.96	3,399.10	7.87	7.44	-172.09	117.56	-2,601.74	2,688.47	2,673.36	15.10	177.988	
3,700.00	3,696.36	3,499.56	3,497.41	8.11	7.67	-172.07	120.21	-2,609.01	2,705.06	2,689.53	15.53	174.174	
3,800.00	3,795.93	3,598.17	3,595.71	8.34	7.90	-172.05	122.85	-2,616.28	2,721.66	2,705.70	15.96	170.543	
3,900.00	3,895.51	3,696.78	3,694.02	8.58	8.12	-172.02	125.50	-2,623.54	2,738.25	2,721.86	16.39	167.082	
4,000.00	3,995.08	3,795.39	3,792.32	8.82	8.36	-172.00	128.14	-2,630.81	2,754.85	2,738.03	16.82	163.782	
4,100.00	4,094.65	3,893.99	3,890.62	9.06	8.59	-171.98	130.79	-2,638.08	2,771.44	2,754.19	17.25	160.633	
4,200.00	4,194.22	3,992.60	3,988.93	9.31	8.82	-171.96	133.43	-2,645.35	2,788.04	2,770.35	17.69	157.625	
4,300.00	4,293.79	4,091.21	4,087.23	9.55	9.05	-171.94	136.07	-2,652.61	2,804.64	2,786.51	18.12	154.749	
4,400.00	4,393.36	4,189.82	4,185.54	9.80	9.29	-171.91	138.72	-2,659.88	2,821.23	2,802.67	18.56	151.999	
4,500.00	4,492.93	4,288.42	4,283.84	10.05	9.53	-171.89	141.36	-2,667.15	2,837.83	2,818.83	19.00	149.365	
4,600.00	4,592.50	4,387.03	4,382.14	10.30	9.76	-171.87	144.01	-2,674.42	2,854.43	2,834.99	19.44	146.843	
4,700.00	4,692.07	4,485.64	4,480.45	10.55	10.00	-171.85	146.65	-2,681.68	2,871.03	2,851.15	19.88	144.424	
4,800.00	4,791.64	4,584.25	4,578.75	10.80	10.24	-171.83	149.30	-2,688.95	2,887.63	2,867.31	20.32	142.104	
4,900.00	4,891.21	4,682.85	4,677.05	11.05	10.48	-171.81	151.94	-2,696.22	2,904.22	2,883.46	20.76	139.876	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 2H - OH - Plan #1												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	
5,000.00	4,990.78	4,781.46	4,775.36	11.30	10.72	-171.79	154.59	-2,703.48	2,920.82	2,899.62	21.21	137.735	
5,100.00	5,090.35	4,880.07	4,873.66	11.55	10.96	-171.77	157.23	-2,710.75	2,937.42	2,915.77	21.65	135.678	
5,200.00	5,189.92	4,978.68	4,971.97	11.81	11.20	-171.75	159.87	-2,718.02	2,954.02	2,931.93	22.09	133.698	
5,300.00	5,289.49	5,077.29	5,070.27	12.06	11.44	-171.73	162.52	-2,725.29	2,970.62	2,948.08	22.54	131.792	
5,400.00	5,389.06	5,175.89	5,168.57	12.32	11.68	-171.71	165.16	-2,732.55	2,987.22	2,964.24	22.99	129.957	
5,500.00	5,488.63	5,274.50	5,266.88	12.57	11.93	-171.69	167.81	-2,739.82	3,003.83	2,980.39	23.43	128.188	
5,600.00	5,588.20	5,373.11	5,365.18	12.83	12.17	-171.68	170.45	-2,747.09	3,020.43	2,996.55	23.88	126.482	
5,700.00	5,687.77	5,471.72	5,463.49	13.09	12.41	-171.66	173.10	-2,754.36	3,037.03	3,012.70	24.33	124.836	
5,800.00	5,787.34	5,570.32	5,561.79	13.34	12.66	-171.64	175.74	-2,761.62	3,053.63	3,028.85	24.78	123.246	
5,900.00	5,886.91	5,668.93	5,660.09	13.60	12.90	-171.62	178.39	-2,768.89	3,070.23	3,045.01	25.23	121.711	
6,000.00	5,986.48	5,767.54	5,758.40	13.86	13.15	-171.60	181.03	-2,776.16	3,086.83	3,061.16	25.68	120.227	
6,100.00	6,086.05	5,866.15	5,856.70	14.12	13.39	-171.58	183.67	-2,783.42	3,103.44	3,077.31	26.13	118.792	
6,200.00	6,185.62	5,964.75	5,955.01	14.38	13.64	-171.57	186.32	-2,790.69	3,120.04	3,093.46	26.58	117.403	
6,300.00	6,285.19	6,063.36	6,053.31	14.64	13.88	-171.55	188.96	-2,797.96	3,136.64	3,109.62	27.03	116.060	
6,400.00	6,384.76	6,161.97	6,151.61	14.90	14.13	-171.53	191.61	-2,805.23	3,153.25	3,125.77	27.48	114.758	
6,500.00	6,484.33	6,260.58	6,249.92	15.16	14.37	-171.52	194.25	-2,812.49	3,169.85	3,141.92	27.93	113.497	
6,600.00	6,583.90	6,359.18	6,348.22	15.42	14.62	-171.50	196.90	-2,819.76	3,186.45	3,158.07	28.38	112.275	
6,700.00	6,683.47	6,457.79	6,446.53	15.68	14.87	-171.48	199.54	-2,827.03	3,203.06	3,174.22	28.83	111.089	
6,800.00	6,783.04	6,556.40	6,544.83	15.94	15.11	-171.47	202.19	-2,834.30	3,219.66	3,190.38	29.29	109.939	
6,900.00	6,882.61	6,655.01	6,643.13	16.20	15.36	-171.45	204.83	-2,841.56	3,236.27	3,206.53	29.74	108.823	
7,000.00	6,982.18	6,753.62	6,741.44	16.46	15.61	-171.43	207.47	-2,848.83	3,252.87	3,222.68	30.19	107.739	
7,100.00	7,081.75	6,852.22	6,839.74	16.72	15.86	-171.42	210.12	-2,856.10	3,269.48	3,238.83	30.65	106.686	
7,200.00	7,181.32	6,950.83	6,938.05	16.98	16.10	-171.40	212.76	-2,863.36	3,286.08	3,254.98	31.10	105.663	
7,300.00	7,280.89	7,049.44	7,036.35	17.25	16.35	-171.39	215.41	-2,870.63	3,302.69	3,271.14	31.55	104.668	
7,400.00	7,380.46	7,148.05	7,134.65	17.51	16.60	-171.37	218.05	-2,877.90	3,319.30	3,287.29	32.01	103.701	
7,500.00	7,480.03	7,246.65	7,232.96	17.77	16.85	-171.36	220.70	-2,885.17	3,335.90	3,303.44	32.46	102.759	
7,600.00	7,579.60	7,345.26	7,331.26	18.03	17.10	-171.34	223.34	-2,892.43	3,352.51	3,319.59	32.92	101.844	
7,700.00	7,679.17	7,443.87	7,429.56	18.30	17.34	-171.33	225.99	-2,899.70	3,369.11	3,335.74	33.37	100.952	
7,800.00	7,778.74	7,542.48	7,527.87	18.56	17.59	-171.31	228.63	-2,906.97	3,385.72	3,351.89	33.83	100.083	
7,900.00	7,878.31	7,641.08	7,626.17	18.82	17.84	-171.30	231.27	-2,914.24	3,402.33	3,368.04	34.28	99.237	
8,000.00	7,977.88	7,739.69	7,724.48	19.09	18.09	-171.28	233.92	-2,921.50	3,418.94	3,384.20	34.74	98.413	
8,100.00	8,077.45	7,838.30	7,822.78	19.35	18.34	-171.27	236.56	-2,928.77	3,435.54	3,400.35	35.20	97.609	
8,200.00	8,177.02	7,936.91	7,921.08	19.61	18.59	-171.25	239.21	-2,936.04	3,452.15	3,416.50	35.65	96.825	
8,300.00	8,276.59	8,035.51	8,019.39	19.88	18.84	-171.24	241.85	-2,943.31	3,468.76	3,432.65	36.11	96.061	
8,400.00	8,376.16	8,134.12	8,117.69	20.14	19.09	-171.23	244.50	-2,950.57	3,485.37	3,448.80	36.57	95.315	
8,500.00	8,475.73	8,232.73	8,216.00	20.41	19.34	-171.21	247.14	-2,957.84	3,501.98	3,464.95	37.02	94.587	
8,600.00	8,575.30	8,331.34	8,314.30	20.67	19.59	-171.20	249.79	-2,965.11	3,518.58	3,481.10	37.48	93.876	
8,700.00	8,674.87	8,429.95	8,412.60	20.94	19.84	-171.18	252.43	-2,972.37	3,535.19	3,497.25	37.94	93.182	
8,800.00	8,774.44	8,528.55	8,510.91	21.20	20.09	-171.17	255.07	-2,979.64	3,551.80	3,513.41	38.40	92.504	
8,900.00	8,874.01	8,627.16	8,609.21	21.47	20.34	-171.16	257.72	-2,986.91	3,568.41	3,529.56	38.85	91.842	
9,000.00	8,973.58	8,725.77	8,707.52	21.73	20.59	-171.14	260.36	-2,994.18	3,585.02	3,545.71	39.31	91.194	
9,100.00	9,073.15	8,824.38	8,805.82	22.00	20.84	-171.13	263.01	-3,001.44	3,601.63	3,561.86	39.77	90.561	
9,200.00	9,172.72	8,922.98	8,904.12	22.26	21.09	-171.12	265.65	-3,008.71	3,618.24	3,578.01	40.23	89.942	
9,300.00	9,272.29	9,021.59	9,002.43	22.53	21.34	-171.10	268.30	-3,015.98	3,634.85	3,594.16	40.69	89.337	
9,400.00	9,371.86	9,120.20	9,100.73	22.79	21.59	-171.09	270.94	-3,023.25	3,651.46	3,610.31	41.15	88.745	
9,500.00	9,471.43	9,218.81	9,199.04	23.06	21.84	-171.08	273.59	-3,030.51	3,668.07	3,626.47	41.60	88.165	
9,600.00	9,571.00	9,317.41	9,297.34	23.32	22.09	-171.07	276.23	-3,037.78	3,684.68	3,642.62	42.06	87.598	
9,700.00	9,670.57	9,416.02	9,395.64	23.59	22.34	-171.05	278.87	-3,045.05	3,701.29	3,658.77	42.52	87.043	
9,800.00	9,770.14	9,514.63	9,493.95	23.85	22.59	-171.04	281.52	-3,052.31	3,717.90	3,674.92	42.98	86.499	
9,900.00	9,869.72	9,613.24	9,592.25	24.12	22.84	-171.03	284.16	-3,059.58	3,734.51	3,691.07	43.44	85.967	
10,000.00	9,969.29	9,711.84	9,690.55	24.38	23.09	-171.02	286.81	-3,066.85	3,751.12	3,707.22	43.90	85.445	
10,100.00	10,068.86	9,810.45	9,788.86	24.65	23.34	-171.01	289.45	-3,074.12	3,767.74	3,723.37	44.36	84.934	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 2H - OH - Plan #1												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
10,200.00	10,168.43	9,909.06	9,887.16	24.92	23.59	-170.99	292.10	-3,081.38	3,784.35	3,739.53	44.82	84.433	
10,300.00	10,268.00	10,007.67	9,985.47	25.18	23.84	-170.98	294.74	-3,088.65	3,800.96	3,755.88	45.28	83.942	
10,400.00	10,367.57	10,106.27	10,083.77	25.45	24.09	-170.97	297.39	-3,095.92	3,817.57	3,771.83	45.74	83.460	
10,500.00	10,467.14	10,204.88	10,182.07	25.71	24.35	-170.96	300.03	-3,103.19	3,834.18	3,787.98	46.20	82.988	
10,600.00	10,566.71	10,303.49	10,280.38	25.98	24.60	-170.95	302.67	-3,110.45	3,850.79	3,804.13	46.66	82.525	
10,700.00	10,666.28	10,402.10	10,378.68	26.25	24.85	-170.94	305.32	-3,117.72	3,867.41	3,820.28	47.12	82.071	
10,800.00	10,765.85	10,500.71	10,476.99	26.51	25.10	-170.92	307.96	-3,124.99	3,884.02	3,836.43	47.58	81.625	
10,900.00	10,865.42	10,599.31	10,575.29	26.78	25.35	-170.91	310.61	-3,132.25	3,900.63	3,852.59	48.04	81.188	
11,004.37	10,969.33	10,702.23	10,677.89	27.06	25.61	-170.90	313.37	-3,139.84	3,917.97	3,869.44	48.53	80.740	
11,100.00	11,064.63	10,796.65	10,772.02	27.28	25.85	-170.91	315.90	-3,146.80	3,933.08	3,884.13	48.94	80.358	
11,200.00	11,164.40	10,895.64	10,870.71	27.47	26.11	-170.92	318.55	-3,154.09	3,947.21	3,897.85	49.36	79.970	
11,300.00	11,264.27	10,994.86	10,969.61	27.66	26.36	-170.92	321.22	-3,161.41	3,959.64	3,909.86	49.77	79.557	
11,400.00	11,364.22	11,130.24	11,104.60	27.83	26.68	-170.90	324.76	-3,171.14	3,970.27	3,920.00	50.26	78.989	
11,500.00	11,464.21	11,428.68	11,402.73	28.00	27.21	-170.87	329.15	-3,183.20	3,975.87	3,924.83	51.04	77.894	
11,535.79	11,500.00	11,529.25	11,503.30	28.06	27.38	-86.33	329.43	-3,183.98	3,976.25	3,924.96	51.29	77.524	
11,600.00	11,564.21	11,593.46	11,567.51	28.17	27.50	-86.33	329.43	-3,183.98	3,976.25	3,924.71	51.54	77.147	
11,700.00	11,664.21	11,693.46	11,667.51	28.36	27.70	-86.33	329.43	-3,183.98	3,976.25	3,924.30	51.95	76.536	
11,800.00	11,764.21	11,793.46	11,767.51	28.55	27.90	-86.33	329.43	-3,183.98	3,976.25	3,923.88	52.37	75.932	
11,900.00	11,864.21	11,893.46	11,867.51	28.74	28.10	-86.33	329.43	-3,183.98	3,976.25	3,923.47	52.78	75.337	
12,006.83	11,971.04	12,000.29	11,974.34	28.95	28.31	-86.33	329.43	-3,183.98	3,976.25	3,923.03	53.22	74.711	
12,050.00	12,014.17	12,043.42	12,017.47	29.03	28.40	93.68	329.43	-3,183.98	3,976.35	3,922.96	53.39	74.471	
12,100.00	12,063.80	12,093.05	12,067.10	29.11	28.50	93.73	329.43	-3,183.98	3,976.74	3,923.15	53.59	74.213	
12,150.00	12,112.72	12,182.06	12,155.80	29.19	28.64	93.86	323.13	-3,183.98	3,977.20	3,923.38	53.82	73.901	
12,200.00	12,160.57	12,276.65	12,247.77	29.27	28.77	93.92	301.49	-3,183.98	3,977.41	3,923.39	54.03	73.621	
12,250.00	12,206.97	12,371.79	12,335.42	29.35	28.87	93.90	264.79	-3,183.98	3,977.36	3,923.15	54.21	73.373	
12,300.00	12,251.58	12,465.66	12,414.79	29.43	28.95	93.81	214.86	-3,183.98	3,977.04	3,922.67	54.38	73.140	
12,350.00	12,294.05	12,556.67	12,482.97	29.50	29.02	93.65	154.71	-3,183.98	3,976.49	3,921.94	54.55	72.901	
12,400.00	12,334.07	12,643.61	12,538.43	29.58	29.09	93.43	87.88	-3,183.98	3,975.75	3,921.01	54.73	72.637	
12,450.00	12,371.32	12,725.75	12,580.98	29.66	29.16	93.17	17.70	-3,183.98	3,974.87	3,919.91	54.96	72.329	
12,500.00	12,405.53	12,802.82	12,611.41	29.74	29.26	92.89	-53.05	-3,183.98	3,973.91	3,918.70	55.21	71.979	
12,550.00	12,436.43	12,874.90	12,631.04	29.83	29.37	92.59	-122.35	-3,183.98	3,972.92	3,917.42	55.50	71.583	
12,600.00	12,463.78	12,942.26	12,641.39	29.93	29.52	92.29	-188.88	-3,183.98	3,971.96	3,916.14	55.82	71.151	
12,650.00	12,487.39	13,003.11	12,644.00	30.04	29.69	91.99	-249.64	-3,183.98	3,971.06	3,914.89	56.17	70.698	
12,700.00	12,507.07	13,049.05	12,644.00	30.17	29.85	91.80	-295.59	-3,183.98	3,970.35	3,913.84	56.51	70.260	
12,750.00	12,522.67	13,096.54	12,644.00	30.31	30.02	91.64	-343.08	-3,183.98	3,969.86	3,912.98	56.87	69.805	
12,800.00	12,534.07	13,145.21	12,644.00	30.47	30.23	91.51	-391.74	-3,183.98	3,969.53	3,912.24	57.29	69.288	
12,850.00	12,541.18	13,194.68	12,644.00	30.65	30.45	91.43	-441.22	-3,183.98	3,969.35	3,911.62	57.73	68.754	
12,900.00	12,543.96	13,244.59	12,644.00	30.84	30.70	91.40	-491.12	-3,183.98	3,969.28	3,911.05	58.23	68.169	
12,906.83	12,544.00	13,251.42	12,644.00	30.87	30.74	91.40	-497.96	-3,183.98	3,969.28	3,910.98	58.30	68.087	
13,000.00	12,544.00	13,344.59	12,644.00	31.30	31.27	91.40	-591.12	-3,183.98	3,969.28	3,909.96	59.32	66.919	
13,100.00	12,544.00	13,444.59	12,644.00	31.84	31.91	91.40	-691.12	-3,183.98	3,969.28	3,908.72	60.56	65.543	
13,200.00	12,544.00	13,544.59	12,644.00	32.45	32.62	91.40	-791.12	-3,183.98	3,969.28	3,907.33	61.95	64.071	
13,300.00	12,544.00	13,644.59	12,644.00	33.13	33.40	91.40	-891.12	-3,183.98	3,969.28	3,905.80	63.48	62.527	
13,400.00	12,544.00	13,744.59	12,644.00	33.87	34.24	91.40	-991.12	-3,183.98	3,969.28	3,904.14	65.14	60.935	
13,500.00	12,544.00	13,844.59	12,644.00	34.68	35.13	91.40	-1,091.12	-3,183.98	3,969.28	3,902.36	66.92	59.317	
13,600.00	12,544.00	13,944.59	12,644.00	35.54	36.08	91.40	-1,191.12	-3,183.98	3,969.28	3,900.48	68.80	57.691	
13,700.00	12,544.00	14,044.59	12,644.00	36.46	37.07	91.40	-1,291.12	-3,183.98	3,969.28	3,898.49	70.79	56.072	
13,800.00	12,544.00	14,144.59	12,644.00	37.43	38.11	91.40	-1,391.12	-3,183.98	3,969.28	3,896.41	72.87	54.472	
13,900.00	12,544.00	14,244.59	12,644.00	38.44	39.19	91.40	-1,491.12	-3,183.98	3,969.28	3,894.25	75.03	52.901	
14,000.00	12,544.00	14,344.59	12,644.00	39.49	40.31	91.40	-1,591.12	-3,183.98	3,969.28	3,892.00	77.27	51.366	
14,100.00	12,544.00	14,444.59	12,644.00	40.59	41.46	91.40	-1,691.12	-3,183.98	3,969.28	3,889.69	79.59	49.873	
14,200.00	12,544.00	14,544.59	12,644.00	41.71	42.64	91.40	-1,791.12	-3,183.98	3,969.28	3,887.31	81.97	48.426	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 2H - OH - Plan #1												Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				
14,300.00	12,544.00	14,644.59	12,644.00	42.88	43.85	91.40	-1,891.12	-3,183.98	3,969.28	3,884.87	84.40	47.027
14,400.00	12,544.00	14,744.59	12,644.00	44.07	45.09	91.40	-1,991.12	-3,183.98	3,969.28	3,882.38	86.90	45.679
14,500.00	12,544.00	14,844.59	12,644.00	45.28	46.35	91.40	-2,091.12	-3,183.98	3,969.28	3,879.84	89.44	44.380
14,600.00	12,544.00	14,944.59	12,644.00	46.53	47.64	91.40	-2,191.12	-3,183.98	3,969.28	3,877.25	92.03	43.132
14,700.00	12,544.00	15,044.59	12,644.00	47.80	48.94	91.40	-2,291.12	-3,183.98	3,969.28	3,874.62	94.66	41.933
14,800.00	12,544.00	15,144.59	12,644.00	49.08	50.27	91.40	-2,391.12	-3,183.98	3,969.28	3,871.95	97.33	40.783
14,900.00	12,544.00	15,244.59	12,644.00	50.39	51.61	91.40	-2,491.12	-3,183.98	3,969.28	3,869.25	100.03	39.681
15,000.00	12,544.00	15,344.59	12,644.00	51.72	52.97	91.40	-2,591.12	-3,183.98	3,969.28	3,866.51	102.77	38.624
15,100.00	12,544.00	15,444.59	12,644.00	53.07	54.35	91.40	-2,691.12	-3,183.98	3,969.28	3,863.74	105.54	37.611
15,200.00	12,544.00	15,544.59	12,644.00	54.43	55.74	91.40	-2,791.12	-3,183.98	3,969.28	3,860.95	108.33	36.640
15,300.00	12,544.00	15,644.59	12,644.00	55.80	57.14	91.40	-2,891.12	-3,183.98	3,969.28	3,858.13	111.15	35.710
15,400.00	12,544.00	15,744.59	12,644.00	57.19	58.55	91.40	-2,991.12	-3,183.98	3,969.28	3,855.28	114.00	34.819
15,500.00	12,544.00	15,844.59	12,644.00	58.59	59.98	91.40	-3,091.12	-3,183.98	3,969.28	3,852.41	116.86	33.965
15,600.00	12,544.00	15,944.59	12,644.00	60.01	61.41	91.40	-3,191.12	-3,183.98	3,969.28	3,849.53	119.75	33.146
15,700.00	12,544.00	16,044.59	12,644.00	61.43	62.86	91.40	-3,291.12	-3,183.98	3,969.28	3,846.62	122.66	32.360
15,800.00	12,544.00	16,144.59	12,644.00	62.87	64.31	91.40	-3,391.12	-3,183.98	3,969.28	3,843.69	125.58	31.607
15,900.00	12,544.00	16,244.59	12,644.00	64.31	65.77	91.40	-3,491.12	-3,183.98	3,969.28	3,840.75	128.53	30.883
16,000.00	12,544.00	16,344.59	12,644.00	65.76	67.24	91.40	-3,591.12	-3,183.98	3,969.28	3,837.80	131.48	30.189
16,100.00	12,544.00	16,444.59	12,644.00	67.22	68.72	91.40	-3,691.12	-3,183.98	3,969.28	3,834.82	134.45	29.522
16,200.00	12,544.00	16,544.59	12,644.00	68.69	70.20	91.40	-3,791.12	-3,183.98	3,969.28	3,831.84	137.44	28.881
16,300.00	12,544.00	16,644.59	12,644.00	70.17	71.70	91.40	-3,891.12	-3,183.98	3,969.28	3,828.84	140.44	28.264
16,400.00	12,544.00	16,744.59	12,644.00	71.65	73.19	91.40	-3,991.12	-3,183.98	3,969.28	3,825.83	143.44	27.671
16,500.00	12,544.00	16,844.59	12,644.00	73.14	74.70	91.40	-4,091.12	-3,183.98	3,969.28	3,822.81	146.46	27.101
16,600.00	12,544.00	16,944.59	12,644.00	74.64	76.20	91.40	-4,191.12	-3,183.98	3,969.28	3,819.78	149.50	26.551
16,700.00	12,544.00	17,044.59	12,644.00	76.14	77.72	91.40	-4,291.12	-3,183.98	3,969.28	3,816.74	152.54	26.022
16,800.00	12,544.00	17,144.59	12,644.00	77.65	79.24	91.40	-4,391.12	-3,183.98	3,969.28	3,813.69	155.59	25.512
16,900.00	12,544.00	17,244.59	12,644.00	79.16	80.76	91.40	-4,491.12	-3,183.98	3,969.28	3,810.63	158.64	25.020
17,000.00	12,544.00	17,344.59	12,644.00	80.67	82.29	91.40	-4,591.12	-3,183.98	3,969.28	3,807.57	161.71	24.546
17,100.00	12,544.00	17,444.59	12,644.00	82.20	83.82	91.40	-4,691.12	-3,183.98	3,969.28	3,804.49	164.78	24.088
17,200.00	12,544.00	17,544.59	12,644.00	83.72	85.35	91.40	-4,791.12	-3,183.98	3,969.28	3,801.41	167.87	23.646
17,300.00	12,544.00	17,644.59	12,644.00	85.25	86.89	91.40	-4,891.12	-3,183.98	3,969.28	3,798.32	170.95	23.218
17,400.00	12,544.00	17,744.59	12,644.00	86.78	88.43	91.40	-4,991.12	-3,183.98	3,969.28	3,795.23	174.05	22.805
17,500.00	12,544.00	17,844.59	12,644.00	88.32	89.98	91.40	-5,091.12	-3,183.98	3,969.28	3,792.13	177.15	22.406
17,600.00	12,544.00	17,944.59	12,644.00	89.86	91.53	91.40	-5,191.12	-3,183.98	3,969.28	3,789.02	180.26	22.020
17,700.00	12,544.00	18,044.59	12,644.00	91.41	93.08	91.40	-5,291.12	-3,183.98	3,969.28	3,785.91	183.37	21.646
17,800.00	12,544.00	18,144.59	12,644.00	92.95	94.63	91.40	-5,391.12	-3,183.98	3,969.28	3,782.79	186.49	21.284
17,900.00	12,544.00	18,244.59	12,644.00	94.50	96.19	91.40	-5,491.12	-3,183.98	3,969.28	3,779.67	189.61	20.934
18,000.00	12,544.00	18,344.59	12,644.00	96.05	97.75	91.40	-5,591.12	-3,183.98	3,969.28	3,776.54	192.74	20.594
18,100.00	12,544.00	18,444.59	12,644.00	97.61	99.31	91.40	-5,691.12	-3,183.98	3,969.28	3,773.41	195.87	20.265
18,200.00	12,544.00	18,544.59	12,644.00	99.17	100.88	91.40	-5,791.12	-3,183.98	3,969.28	3,770.27	199.01	19.945
18,300.00	12,544.00	18,644.59	12,644.00	100.73	102.44	91.40	-5,891.12	-3,183.98	3,969.28	3,767.13	202.15	19.635
18,400.00	12,544.00	18,744.59	12,644.00	102.29	104.01	91.40	-5,991.12	-3,183.98	3,969.28	3,763.98	205.30	19.334
18,500.00	12,544.00	18,844.59	12,644.00	103.85	105.58	91.40	-6,091.12	-3,183.98	3,969.28	3,760.83	208.44	19.042
18,600.00	12,544.00	18,944.59	12,644.00	105.42	107.15	91.40	-6,191.12	-3,183.98	3,969.28	3,757.68	211.60	18.759
18,700.00	12,544.00	19,044.59	12,644.00	106.99	108.73	91.40	-6,291.12	-3,183.98	3,969.28	3,754.53	214.75	18.483
18,800.00	12,544.00	19,144.59	12,644.00	108.56	110.30	91.40	-6,391.12	-3,183.98	3,969.28	3,751.37	217.91	18.215
18,900.00	12,544.00	19,244.59	12,644.00	110.13	111.88	91.40	-6,491.12	-3,183.98	3,969.28	3,748.20	221.07	17.954
19,000.00	12,544.00	19,344.59	12,644.00	111.71	113.46	91.40	-6,591.12	-3,183.98	3,969.28	3,745.04	224.24	17.701
19,100.00	12,544.00	19,444.59	12,644.00	113.28	115.04	91.40	-6,691.12	-3,183.98	3,969.28	3,741.87	227.41	17.454
19,200.00	12,544.00	19,544.59	12,644.00	114.86	116.62	91.40	-6,791.12	-3,183.98	3,969.28	3,738.70	230.58	17.214
19,300.00	12,544.00	19,644.59	12,644.00	116.44	118.21	91.40	-6,891.12	-3,183.98	3,969.28	3,735.52	233.75	16.981
19,400.00	12,544.00	19,744.59	12,644.00	118.02	119.79	91.40	-6,991.12	-3,183.98	3,969.28	3,732.35	236.93	16.753

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 2H - OH - Plan #1														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			
19,500.00	12,544.00	19,844.59	12,644.00	119.60	121.38	91.40	-7,091.12	-3,183.98	3,969.28	3,729.17	240.11	16.531			
19,600.00	12,544.00	19,944.59	12,644.00	121.19	122.96	91.40	-7,191.12	-3,183.98	3,969.28	3,725.99	243.29	16.315			
19,700.00	12,544.00	20,044.59	12,644.00	122.77	124.55	91.40	-7,291.12	-3,183.98	3,969.28	3,722.81	246.47	16.104			
19,800.00	12,544.00	20,144.59	12,644.00	124.36	126.14	91.40	-7,391.12	-3,183.98	3,969.28	3,719.62	249.66	15.899			
19,900.00	12,544.00	20,244.59	12,644.00	125.95	127.73	91.40	-7,491.12	-3,183.98	3,969.28	3,716.43	252.85	15.698			
20,000.00	12,544.00	20,344.59	12,644.00	127.53	129.33	91.40	-7,591.12	-3,183.98	3,969.28	3,713.24	256.04	15.503			
20,100.00	12,544.00	20,444.59	12,644.00	129.12	130.92	91.40	-7,691.12	-3,183.98	3,969.28	3,710.05	259.23	15.312			
20,200.00	12,544.00	20,544.59	12,644.00	130.72	132.51	91.40	-7,791.12	-3,183.98	3,969.28	3,706.86	262.42	15.126			
20,300.00	12,544.00	20,644.59	12,644.00	132.31	134.11	91.40	-7,891.12	-3,183.98	3,969.28	3,703.66	265.62	14.944			
20,400.00	12,544.00	20,744.59	12,644.00	133.90	135.70	91.40	-7,991.12	-3,183.98	3,969.28	3,700.46	268.81	14.766			
20,500.00	12,544.00	20,844.59	12,644.00	135.49	137.30	91.40	-8,091.12	-3,183.98	3,969.28	3,697.27	272.01	14.592			
20,600.00	12,544.00	20,944.59	12,644.00	137.09	138.90	91.40	-8,191.12	-3,183.98	3,969.28	3,694.07	275.21	14.423			
20,700.00	12,544.00	21,044.59	12,644.00	138.68	140.50	91.40	-8,291.12	-3,183.98	3,969.28	3,690.86	278.41	14.257			
20,800.00	12,544.00	21,144.59	12,644.00	140.28	142.10	91.40	-8,391.12	-3,183.98	3,969.28	3,687.66	281.62	14.095			
20,900.00	12,544.00	21,244.59	12,644.00	141.88	143.70	91.40	-8,491.12	-3,183.98	3,969.28	3,684.45	284.82	13.936			
21,000.00	12,544.00	21,344.59	12,644.00	143.48	145.30	91.40	-8,591.12	-3,183.98	3,969.28	3,681.25	288.03	13.781			
21,100.00	12,544.00	21,444.59	12,644.00	145.08	146.90	91.40	-8,691.12	-3,183.98	3,969.28	3,678.04	291.24	13.629			
21,200.00	12,544.00	21,544.59	12,644.00	146.68	148.50	91.40	-8,791.12	-3,183.98	3,969.28	3,674.83	294.45	13.480			
21,300.00	12,544.00	21,644.59	12,644.00	148.28	150.11	91.40	-8,891.12	-3,183.98	3,969.28	3,671.62	297.66	13.335			
21,400.00	12,544.00	21,744.59	12,644.00	149.88	151.71	91.40	-8,991.12	-3,183.98	3,969.28	3,668.41	300.87	13.193			
21,500.00	12,544.00	21,844.59	12,644.00	151.48	153.31	91.40	-9,091.12	-3,183.98	3,969.28	3,665.20	304.08	13.053			
21,600.00	12,544.00	21,944.59	12,644.00	153.08	154.92	91.40	-9,191.12	-3,183.98	3,969.28	3,661.98	307.30	12.917			
21,700.00	12,544.00	22,044.59	12,644.00	154.69	156.52	91.40	-9,291.12	-3,183.98	3,969.28	3,658.77	310.51	12.783			
21,800.00	12,544.00	22,144.59	12,644.00	156.29	158.13	91.40	-9,391.12	-3,183.98	3,969.28	3,655.55	313.73	12.652			
21,900.00	12,544.00	22,244.59	12,644.00	157.90	159.74	91.40	-9,491.12	-3,183.98	3,969.28	3,652.33	316.94	12.524			
22,000.00	12,544.00	22,344.59	12,644.00	159.50	161.34	91.40	-9,591.12	-3,183.98	3,969.28	3,649.12	320.16	12.398			
22,100.00	12,544.00	22,444.59	12,644.00	161.11	162.95	91.40	-9,691.12	-3,183.98	3,969.28	3,645.90	323.38	12.274			
22,181.55	12,544.00	22,526.14	12,644.00	162.42	164.26	91.40	-9,772.67	-3,183.98	3,969.28	3,643.27	326.01	12.175 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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 3H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	4.50	4.50	0.00	0.00	-87.67	100.18	-2,461.93	2,463.97				
100.00	100.00	104.50	104.50	0.08	0.09	-87.67	100.18	-2,461.93	2,463.97	2,463.79	0.18	N/A	
200.00	200.00	204.50	204.50	0.31	0.32	-87.67	100.18	-2,461.93	2,463.97	2,463.34	0.63	3,922.133	
300.00	300.00	304.50	304.50	0.53	0.54	-87.67	100.18	-2,461.93	2,463.97	2,462.89	1.08	2,286.207	
400.00	400.00	404.50	404.50	0.76	0.77	-87.67	100.18	-2,461.93	2,463.97	2,462.44	1.53	1,613.299	
500.00	500.00	504.50	504.50	0.98	0.99	-87.67	100.18	-2,461.93	2,463.97	2,461.99	1.98	1,246.431	
600.00	600.00	604.50	604.50	1.21	1.22	-87.67	100.18	-2,461.93	2,463.97	2,461.54	2.43	1,015.504	
700.00	700.00	704.50	704.50	1.43	1.44	-87.67	100.18	-2,461.93	2,463.97	2,461.09	2.88	856.769	
800.00	800.00	804.50	804.50	1.66	1.67	-87.67	100.18	-2,461.93	2,463.97	2,460.64	3.33	740.951	
900.00	900.00	904.50	904.50	1.88	1.89	-87.67	100.18	-2,461.93	2,463.97	2,460.19	3.77	652.716	
1,000.00	1,000.00	1,004.50	1,004.50	2.11	2.12	-87.67	100.18	-2,461.93	2,463.97	2,459.74	4.22	583.260	
1,100.00	1,100.00	1,104.50	1,104.50	2.33	2.34	-87.67	100.18	-2,461.93	2,463.97	2,459.29	4.67	527.164	
1,200.00	1,200.00	1,204.50	1,204.50	2.56	2.57	-87.67	100.18	-2,461.93	2,463.97	2,458.84	5.12	480.911	
1,300.00	1,300.00	1,304.50	1,304.50	2.78	2.79	-87.67	100.18	-2,461.93	2,463.97	2,458.39	5.57	442.120	
1,400.00	1,400.00	1,404.50	1,404.50	3.01	3.02	-87.67	100.18	-2,461.93	2,463.97	2,457.94	6.02	409.120	
1,500.00	1,500.00	1,504.50	1,504.50	3.23	3.24	-87.67	100.18	-2,461.93	2,463.97	2,457.50	6.47	380.704	
1,600.00	1,600.00	1,604.50	1,604.50	3.46	3.47	-87.67	100.18	-2,461.93	2,463.97	2,457.05	6.92	355.979	
1,700.00	1,700.00	1,704.50	1,704.50	3.68	3.69	-87.67	100.18	-2,461.93	2,463.97	2,456.60	7.37	334.269	
1,800.00	1,800.00	1,804.50	1,804.50	3.91	3.92	-87.67	100.18	-2,461.93	2,463.97	2,456.15	7.82	315.056	
1,900.00	1,900.00	1,904.50	1,904.50	4.13	4.14	-87.67	100.18	-2,461.93	2,463.97	2,455.70	8.27	297.931	
2,000.00	2,000.00	2,004.50	2,004.50	4.35	4.36	-87.67	100.18	-2,461.93	2,463.97	2,455.25	8.72	282.572	
2,100.00	2,100.00	2,104.50	2,104.50	4.58	4.59	-87.67	100.18	-2,461.93	2,463.97	2,454.80	9.17	268.718	
2,200.00	2,200.00	2,204.50	2,204.50	4.80	4.81	-87.67	100.18	-2,461.93	2,463.97	2,454.35	9.62	256.160	
2,300.00	2,300.00	2,304.50	2,304.50	5.03	5.04	-87.67	100.18	-2,461.93	2,463.97	2,453.90	10.07	244.723	
2,400.00	2,400.00	2,404.50	2,404.50	5.25	5.26	-87.67	100.18	-2,461.93	2,463.97	2,453.45	10.52	234.264	
2,500.00	2,500.00	2,504.50	2,504.50	5.48	5.49	-87.67	100.18	-2,461.93	2,463.97	2,453.00	10.97	224.662 CC	
2,600.00	2,599.99	2,604.49	2,604.49	5.69	5.71	-172.21	100.18	-2,461.93	2,464.83	2,453.43	11.40	216.140	
2,700.00	2,699.96	2,704.46	2,704.46	5.89	5.94	-172.21	100.18	-2,461.93	2,467.43	2,455.60	11.83	208.596	
2,800.00	2,799.86	2,804.36	2,804.36	6.10	6.16	-172.22	100.18	-2,461.93	2,471.75	2,459.49	12.26	201.688	
2,900.00	2,899.68	2,904.18	2,904.18	6.30	6.39	-172.23	100.18	-2,461.93	2,477.80	2,465.11	12.68	195.357	
3,000.00	2,999.37	3,006.82	3,006.82	6.52	6.62	-172.25	100.18	-2,461.93	2,485.57	2,472.45	13.12	189.469	
3,031.43	3,030.67	3,062.12	3,062.12	6.58	6.73	-172.26	100.18	-2,461.93	2,488.18	2,474.88	13.30	187.091	
3,100.00	3,098.94	3,183.05	3,183.05	6.73	6.98	-172.29	100.18	-2,459.01	2,493.01	2,479.33	13.68	182.259	
3,200.00	3,198.51	3,359.91	3,359.68	6.96	7.34	-172.33	100.18	-2,450.63	2,497.47	2,483.25	14.22	175.630	
3,300.00	3,298.08	3,500.38	3,499.76	7.18	7.63	-172.36	100.18	-2,440.29	2,499.19	2,484.49	14.70	170.034	
3,400.00	3,397.65	3,600.37	3,599.44	7.41	7.84	-172.39	100.18	-2,432.40	2,500.48	2,485.37	15.11	165.450	
3,500.00	3,497.22	3,700.36	3,699.11	7.64	8.05	-172.41	100.18	-2,424.50	2,501.78	2,486.25	15.53	161.081	
3,600.00	3,596.79	3,800.34	3,798.79	7.87	8.27	-172.43	100.18	-2,416.61	2,503.07	2,487.12	15.95	156.915	
3,700.00	3,696.36	3,900.33	3,898.46	8.11	8.49	-172.45	100.18	-2,408.71	2,504.37	2,488.00	16.37	152.940	
3,800.00	3,795.93	4,000.32	3,998.14	8.34	8.71	-172.47	100.18	-2,400.82	2,505.67	2,488.87	16.80	149.146	
3,900.00	3,895.51	4,100.31	4,097.81	8.58	8.93	-172.49	100.18	-2,392.92	2,506.96	2,489.74	17.23	145.521	
4,000.00	3,995.08	4,200.29	4,197.49	8.82	9.16	-172.51	100.18	-2,385.03	2,508.26	2,490.60	17.66	142.056	
4,100.00	4,094.65	4,300.28	4,297.16	9.06	9.39	-172.53	100.18	-2,377.13	2,509.56	2,491.47	18.09	138.742	
4,200.00	4,194.22	4,400.27	4,396.84	9.31	9.61	-172.56	100.18	-2,369.24	2,510.86	2,492.34	18.52	135.570	
4,300.00	4,293.79	4,500.25	4,496.51	9.55	9.84	-172.58	100.18	-2,361.35	2,512.15	2,493.20	18.96	132.532	
4,400.00	4,393.36	4,600.24	4,596.19	9.80	10.08	-172.60	100.18	-2,353.45	2,513.45	2,494.06	19.39	129.620	
4,500.00	4,492.93	4,700.23	4,695.86	10.05	10.31	-172.62	100.18	-2,345.56	2,514.75	2,494.92	19.83	126.828	
4,600.00	4,592.50	4,800.22	4,795.54	10.30	10.54	-172.64	100.18	-2,337.66	2,516.05	2,495.78	20.27	124.148	
4,700.00	4,692.07	4,900.20	4,895.21	10.55	10.78	-172.66	100.18	-2,329.77	2,517.35	2,496.64	20.71	121.575	
4,800.00	4,791.64	5,000.19	4,994.89	10.80	11.01	-172.68	100.18	-2,321.87	2,518.65	2,497.50	21.15	119.103	
4,900.00	4,891.21	5,100.18	5,094.56	11.05	11.25	-172.70	100.18	-2,313.98	2,519.95	2,498.36	21.59	116.726	
5,000.00	4,990.78	5,200.17	5,194.24	11.30	11.49	-172.72	100.18	-2,306.08	2,521.25	2,499.22	22.03	114.439	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 3H - OH - Plan #1													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)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,090.35	5,300.15	5,293.91	11.55	11.72	-172.74	100.18	-2,298.19	2,522.55	2,500.08	22.48	112.237	
5,200.00	5,189.92	5,400.14	5,393.59	11.81	11.96	-172.77	100.18	-2,290.30	2,523.85	2,500.93	22.92	110.117	
5,300.00	5,289.49	5,500.13	5,493.27	12.06	12.20	-172.79	100.18	-2,282.40	2,525.15	2,501.79	23.37	108.074	
5,400.00	5,389.06	5,600.12	5,592.94	12.32	12.45	-172.81	100.18	-2,274.51	2,526.46	2,502.64	23.81	106.103	
5,500.00	5,488.63	5,700.10	5,692.62	12.57	12.69	-172.83	100.18	-2,266.61	2,527.76	2,503.50	24.26	104.202	
5,600.00	5,588.20	5,800.09	5,792.29	12.83	12.93	-172.85	100.18	-2,258.72	2,529.06	2,504.35	24.71	102.367	
5,700.00	5,687.77	5,900.08	5,891.97	13.09	13.17	-172.87	100.18	-2,250.82	2,530.36	2,505.21	25.15	100.594	
5,800.00	5,787.34	6,000.06	5,991.64	13.34	13.41	-172.89	100.18	-2,242.93	2,531.67	2,506.06	25.60	98.882	
5,900.00	5,886.91	6,100.05	6,091.32	13.60	13.66	-172.91	100.18	-2,235.03	2,532.97	2,506.92	26.05	97.226	
6,000.00	5,986.48	6,200.04	6,190.99	13.86	13.90	-172.93	100.18	-2,227.14	2,534.27	2,507.77	26.50	95.624	
6,100.00	6,086.05	6,300.03	6,290.67	14.12	14.15	-172.95	100.18	-2,219.25	2,535.58	2,508.62	26.95	94.074	
6,200.00	6,185.62	6,400.01	6,390.34	14.38	14.39	-172.97	100.18	-2,211.35	2,536.88	2,509.48	27.40	92.573	
6,300.00	6,285.19	6,500.00	6,490.02	14.64	14.64	-172.99	100.18	-2,203.46	2,538.19	2,510.33	27.86	91.119	
6,400.00	6,384.76	6,599.99	6,589.69	14.90	14.89	-173.02	100.18	-2,195.56	2,539.49	2,511.18	28.31	89.710	
6,500.00	6,484.33	6,699.98	6,689.37	15.16	15.13	-173.04	100.18	-2,187.67	2,540.80	2,512.04	28.76	88.344	
6,600.00	6,583.90	6,799.96	6,789.04	15.42	15.38	-173.06	100.18	-2,179.77	2,542.10	2,512.89	29.21	87.019	
6,700.00	6,683.47	6,899.95	6,888.72	15.68	15.63	-173.08	100.18	-2,171.88	2,543.41	2,513.74	29.67	85.734	
6,800.00	6,783.04	6,999.94	6,988.39	15.94	15.87	-173.10	100.18	-2,163.98	2,544.72	2,514.60	30.12	84.486	
6,900.00	6,882.61	7,099.92	7,088.07	16.20	16.12	-173.12	100.18	-2,156.09	2,546.02	2,515.45	30.57	83.274	
7,000.00	6,982.18	7,199.91	7,187.74	16.46	16.37	-173.14	100.18	-2,148.20	2,547.33	2,516.30	31.03	82.096	
7,100.00	7,081.75	7,299.90	7,287.42	16.72	16.62	-173.16	100.18	-2,140.30	2,548.64	2,517.15	31.48	80.952	
7,200.00	7,181.32	7,399.89	7,387.09	16.98	16.87	-173.18	100.18	-2,132.41	2,549.95	2,518.01	31.94	79.840	
7,300.00	7,280.89	7,499.87	7,486.77	17.25	17.12	-173.20	100.18	-2,124.51	2,551.25	2,518.86	32.39	78.758	
7,400.00	7,380.46	7,599.86	7,586.44	17.51	17.37	-173.22	100.18	-2,116.62	2,552.56	2,519.71	32.85	77.705	
7,500.00	7,480.03	7,699.85	7,686.12	17.77	17.61	-173.24	100.18	-2,108.72	2,553.87	2,520.57	33.31	76.681	
7,600.00	7,579.60	7,799.84	7,785.79	18.03	17.86	-173.26	100.18	-2,100.83	2,555.18	2,521.42	33.76	75.684	
7,700.00	7,679.17	7,899.82	7,885.47	18.30	18.11	-173.28	100.18	-2,092.93	2,556.49	2,522.27	34.22	74.712	
7,800.00	7,778.74	7,999.81	7,985.14	18.56	18.37	-173.30	100.18	-2,085.04	2,557.80	2,523.13	34.67	73.766	
7,900.00	7,878.31	8,099.80	8,084.82	18.82	18.62	-173.32	100.18	-2,077.15	2,559.11	2,523.98	35.13	72.844	
8,000.00	7,977.88	8,199.78	8,184.49	19.09	18.87	-173.34	100.18	-2,069.25	2,560.42	2,524.83	35.59	71.945	
8,100.00	8,077.45	8,299.77	8,284.17	19.35	19.12	-173.36	100.18	-2,061.36	2,561.73	2,525.68	36.05	71.069	
8,200.00	8,177.02	8,399.76	8,383.84	19.61	19.37	-173.38	100.18	-2,053.46	2,563.04	2,526.54	36.50	70.214	
8,300.00	8,276.59	8,499.75	8,483.52	19.88	19.62	-173.41	100.18	-2,045.57	2,564.35	2,527.39	36.96	69.379	
8,400.00	8,376.16	8,599.73	8,583.19	20.14	19.87	-173.43	100.18	-2,037.67	2,565.66	2,528.25	37.42	68.565	
8,500.00	8,475.73	8,699.72	8,682.87	20.41	20.12	-173.45	100.18	-2,029.78	2,566.98	2,529.10	37.88	67.771	
8,600.00	8,575.30	8,799.71	8,782.54	20.67	20.37	-173.47	100.18	-2,021.88	2,568.29	2,529.95	38.34	66.995	
8,700.00	8,674.87	8,899.70	8,882.22	20.94	20.63	-173.49	100.18	-2,013.99	2,569.60	2,530.81	38.79	66.237	
8,800.00	8,774.44	8,999.68	8,981.89	21.20	20.88	-173.51	100.18	-2,006.10	2,570.91	2,531.68	39.25	65.496	
8,900.00	8,874.01	9,099.67	9,081.57	21.47	21.13	-173.53	100.18	-1,998.20	2,572.23	2,532.52	39.71	64.772	
9,000.00	8,973.58	9,199.66	9,181.25	21.73	21.38	-173.55	100.18	-1,990.31	2,573.54	2,533.37	40.17	64.065	
9,100.00	9,073.15	9,299.64	9,280.92	22.00	21.64	-173.57	100.18	-1,982.41	2,574.86	2,534.23	40.63	63.373	
9,200.00	9,172.72	9,399.63	9,380.60	22.26	21.89	-173.59	100.18	-1,974.52	2,576.17	2,535.08	41.09	62.697	
9,300.00	9,272.29	9,499.62	9,480.27	22.53	22.14	-173.61	100.18	-1,966.62	2,577.48	2,535.94	41.55	62.035	
9,400.00	9,371.86	9,599.61	9,579.95	22.79	22.39	-173.63	100.18	-1,958.73	2,578.80	2,536.79	42.01	61.387	
9,500.00	9,471.43	9,699.59	9,679.62	23.06	22.65	-173.65	100.18	-1,950.83	2,580.11	2,537.65	42.47	60.754	
9,600.00	9,571.00	9,799.58	9,779.30	23.32	22.90	-173.67	100.18	-1,942.94	2,581.43	2,538.50	42.93	60.134	
9,700.00	9,670.57	9,899.57	9,878.97	23.59	23.15	-173.69	100.18	-1,935.05	2,582.75	2,539.36	43.39	59.526	
9,800.00	9,770.14	9,999.56	9,978.65	23.85	23.41	-173.71	100.18	-1,927.15	2,584.06	2,540.21	43.85	58.932	
9,900.00	9,869.72	10,099.54	10,078.32	24.12	23.66	-173.73	100.18	-1,919.26	2,585.38	2,541.07	44.31	58.349	
10,000.00	9,969.29	10,199.53	10,178.00	24.38	23.91	-173.75	100.18	-1,911.36	2,586.70	2,541.93	44.77	57.779	
10,100.00	10,068.86	10,299.52	10,277.67	24.65	24.17	-173.77	100.18	-1,903.47	2,588.01	2,542.78	45.23	57.220	
10,200.00	10,168.43	10,399.50	10,377.35	24.92	24.42	-173.79	100.18	-1,895.57	2,589.33	2,543.64	45.69	56.672	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 3H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: O-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
10,300.00	10,268.00	10,499.49	10,477.02	25.18	24.67	-173.81	100.18	-1,887.68	2,590.65	2,544.50	46.15	56.134	
10,400.00	10,367.57	10,590.40	10,567.64	25.45	24.90	-173.82	100.18	-1,880.54	2,592.02	2,545.43	46.59	55.635	
10,500.00	10,467.14	10,659.22	10,636.30	25.71	25.04	-173.84	100.18	-1,875.75	2,594.29	2,547.33	46.96	55.247	
10,600.00	10,566.71	10,728.00	10,704.96	25.98	25.17	-173.85	100.18	-1,871.80	2,597.76	2,550.44	47.32	54.898	
10,700.00	10,666.28	10,800.00	10,776.89	26.25	25.30	-173.87	100.18	-1,868.55	2,602.43	2,554.74	47.68	54.577	
10,800.00	10,765.85	10,865.33	10,842.18	26.51	25.42	-173.88	100.18	-1,866.37	2,608.29	2,560.26	48.03	54.307	
10,900.00	10,865.42	10,933.84	10,910.68	26.78	25.54	-173.90	100.18	-1,864.90	2,615.35	2,566.98	48.37	54.064	
11,004.37	10,969.33	11,005.21	10,982.05	27.06	25.66	-173.91	100.18	-1,864.23	2,623.99	2,575.26	48.73	53.846	
11,100.00	11,064.63	11,092.29	11,069.13	27.28	25.82	-173.94	100.18	-1,864.20	2,631.97	2,582.87	49.10	53.607	
11,200.00	11,164.40	11,192.06	11,168.90	27.47	26.02	-173.96	100.18	-1,864.20	2,638.66	2,589.17	49.49	53.321	
11,300.00	11,264.27	11,291.93	11,268.77	27.66	26.22	-173.98	100.18	-1,864.20	2,643.62	2,593.74	49.88	53.005	
11,400.00	11,364.22	11,391.88	11,368.72	27.83	26.42	-173.99	100.18	-1,864.20	2,648.84	2,596.58	50.26	52.661	
11,500.00	11,464.21	11,491.87	11,468.71	28.00	26.61	-173.99	100.18	-1,864.20	2,648.33	2,597.68	50.65	52.291	
11,535.79	11,500.00	11,527.66	11,504.50	28.06	26.69	-89.46	100.18	-1,864.20	2,648.44	2,597.65	50.78	52.150	
11,600.00	11,564.21	11,591.87	11,568.71	28.17	26.81	-89.46	100.18	-1,864.20	2,648.44	2,597.40	51.04	51.886	
11,700.00	11,664.21	11,691.87	11,668.71	28.36	27.01	-89.46	100.18	-1,864.20	2,648.44	2,596.98	51.46	51.470	
11,800.00	11,764.21	11,791.87	11,768.71	28.55	27.21	-89.46	100.18	-1,864.20	2,648.44	2,596.57	51.87	51.060	
11,900.00	11,864.21	11,891.87	11,868.71	28.74	27.41	-89.46	100.18	-1,864.20	2,648.44	2,596.16	52.28	50.657	
12,006.83	11,971.04	11,998.70	11,975.54	28.95	27.63	-89.46	100.18	-1,864.20	2,648.44	2,595.72	52.72	50.232	
12,050.00	12,014.17	12,041.83	12,018.67	29.03	27.71	90.58	100.18	-1,864.20	2,648.46	2,595.56	52.90	50.067	
12,100.00	12,063.80	12,091.46	12,068.30	29.11	27.81	90.70	100.18	-1,864.20	2,648.52	2,595.43	53.09	49.887	
12,150.00	12,112.72	12,143.26	12,120.06	29.19	27.91	90.89	98.85	-1,864.20	2,648.65	2,595.37	53.28	49.711	
12,200.00	12,160.57	12,196.78	12,173.21	29.27	28.01	91.08	92.72	-1,864.20	2,648.80	2,595.34	53.47	49.542	
12,250.00	12,206.97	12,251.27	12,226.50	29.35	28.11	91.26	81.41	-1,864.20	2,648.98	2,595.33	53.65	49.377	
12,300.00	12,251.58	12,306.73	12,279.38	29.43	28.21	91.44	64.76	-1,864.20	2,649.17	2,595.34	53.83	49.213	
12,350.00	12,294.05	12,363.16	12,331.27	29.50	28.32	91.60	42.65	-1,864.20	2,649.38	2,595.36	54.02	49.046	
12,400.00	12,334.07	12,420.52	12,381.53	29.58	28.43	91.76	15.06	-1,864.20	2,649.59	2,595.37	54.21	48.873	
12,450.00	12,371.32	12,478.77	12,429.49	29.66	28.54	91.89	-17.96	-1,864.20	2,649.79	2,595.37	54.42	48.688	
12,500.00	12,405.53	12,537.85	12,474.46	29.74	28.66	92.02	-56.24	-1,864.20	2,649.98	2,595.33	54.66	48.485	
12,550.00	12,436.43	12,597.68	12,515.73	29.83	28.79	92.12	-99.52	-1,864.20	2,650.15	2,595.24	54.91	48.260	
12,600.00	12,463.78	12,658.15	12,552.63	29.93	28.93	92.21	-147.38	-1,864.20	2,650.30	2,595.09	55.21	48.005	
12,650.00	12,487.39	12,719.13	12,584.53	30.04	29.10	92.28	-199.32	-1,864.20	2,650.42	2,594.87	55.54	47.717	
12,700.00	12,507.07	12,780.50	12,610.88	30.17	29.28	92.32	-254.71	-1,864.20	2,650.50	2,594.57	55.92	47.394	
12,750.00	12,522.67	12,842.09	12,631.22	30.31	29.50	92.34	-312.82	-1,864.20	2,650.54	2,594.18	56.35	47.036	
12,800.00	12,534.07	12,903.76	12,645.22	30.47	29.74	92.34	-372.85	-1,864.20	2,650.53	2,593.71	56.83	46.642	
12,850.00	12,541.18	12,965.34	12,652.68	30.65	30.02	92.32	-433.95	-1,864.20	2,650.49	2,593.14	57.35	46.218	
12,900.00	12,543.96	13,022.55	12,654.00	30.84	30.30	92.28	-491.12	-1,864.20	2,650.42	2,592.54	57.88	45.791	
12,906.83	12,544.00	13,029.38	12,654.00	30.87	30.33	92.28	-497.96	-1,864.20	2,650.42	2,592.47	57.95	45.737	
13,000.00	12,544.00	13,122.55	12,654.00	31.30	30.84	92.28	-591.12	-1,864.20	2,650.42	2,591.47	58.95	44.959	
13,100.00	12,544.00	13,222.55	12,654.00	31.84	31.47	92.28	-691.12	-1,864.20	2,650.42	2,590.24	60.18	44.042	
13,200.00	12,544.00	13,322.55	12,654.00	32.45	32.16	92.28	-791.12	-1,864.20	2,650.42	2,588.86	61.56	43.056	
13,300.00	12,544.00	13,422.55	12,654.00	33.13	32.92	92.28	-891.12	-1,864.20	2,650.42	2,587.35	63.07	42.021	
13,400.00	12,544.00	13,522.55	12,654.00	33.87	33.74	92.28	-991.12	-1,864.20	2,650.42	2,585.70	64.72	40.952	
13,500.00	12,544.00	13,622.55	12,654.00	34.68	34.62	92.28	-1,091.12	-1,864.20	2,650.42	2,583.94	66.49	39.865	
13,600.00	12,544.00	13,722.55	12,654.00	35.54	35.55	92.28	-1,191.12	-1,864.20	2,650.42	2,582.06	68.36	38.771	
13,700.00	12,544.00	13,822.55	12,654.00	36.46	36.53	92.28	-1,291.12	-1,864.20	2,650.42	2,580.08	70.34	37.680	
13,800.00	12,544.00	13,922.55	12,654.00	37.43	37.56	92.28	-1,391.12	-1,864.20	2,650.42	2,578.01	72.41	36.602	
13,900.00	12,544.00	14,022.55	12,654.00	38.44	38.63	92.28	-1,491.12	-1,864.20	2,650.42	2,575.85	74.57	35.543	
14,000.00	12,544.00	14,122.55	12,654.00	39.49	39.73	92.28	-1,591.12	-1,864.20	2,650.42	2,573.62	76.80	34.509	
14,100.00	12,544.00	14,222.55	12,654.00	40.59	40.88	92.28	-1,691.12	-1,864.20	2,650.42	2,571.31	79.11	33.502	
14,200.00	12,544.00	14,322.55	12,654.00	41.71	42.05	92.28	-1,791.12	-1,864.20	2,650.42	2,568.94	81.48	32.527	
14,300.00	12,544.00	14,422.55	12,654.00	42.88	43.26	92.28	-1,891.12	-1,864.20	2,650.42	2,566.50	83.92	31.583	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 3H - OH - Plan #1												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
14,400.00	12,544.00	14,522.55	12,654.00	44.07	44.49	92.28	-1,991.12	-1,864.20	2,650.42	2,564.01	86.41	30.674	
14,500.00	12,544.00	14,622.55	12,654.00	45.28	45.75	92.28	-2,091.12	-1,864.20	2,650.42	2,561.48	88.94	29.798	
14,600.00	12,544.00	14,722.55	12,654.00	46.53	47.03	92.28	-2,191.12	-1,864.20	2,650.42	2,558.89	91.53	28.957	
14,700.00	12,544.00	14,822.55	12,654.00	47.80	48.33	92.28	-2,291.12	-1,864.20	2,650.42	2,556.26	94.16	28.149	
14,800.00	12,544.00	14,922.55	12,654.00	49.08	49.65	92.28	-2,391.12	-1,864.20	2,650.42	2,553.60	96.82	27.374	
14,900.00	12,544.00	15,022.55	12,654.00	50.39	50.99	92.28	-2,491.12	-1,864.20	2,650.42	2,550.90	99.53	26.631	
15,000.00	12,544.00	15,122.55	12,654.00	51.72	52.35	92.28	-2,591.12	-1,864.20	2,650.42	2,548.16	102.26	25.918	
15,100.00	12,544.00	15,222.55	12,654.00	53.07	53.72	92.28	-2,691.12	-1,864.20	2,650.42	2,545.40	105.03	25.236	
15,200.00	12,544.00	15,322.55	12,654.00	54.43	55.10	92.28	-2,791.12	-1,864.20	2,650.42	2,542.60	107.82	24.582	
15,300.00	12,544.00	15,422.55	12,654.00	55.80	56.50	92.28	-2,891.12	-1,864.20	2,650.42	2,539.78	110.64	23.956	
15,400.00	12,544.00	15,522.55	12,654.00	57.19	57.92	92.28	-2,991.12	-1,864.20	2,650.42	2,536.94	113.48	23.355	
15,500.00	12,544.00	15,622.55	12,654.00	58.59	59.34	92.28	-3,091.12	-1,864.20	2,650.42	2,534.07	116.35	22.780	
15,600.00	12,544.00	15,722.55	12,654.00	60.01	60.77	92.28	-3,191.12	-1,864.20	2,650.42	2,531.19	119.23	22.229	
15,700.00	12,544.00	15,822.55	12,654.00	61.43	62.22	92.28	-3,291.12	-1,864.20	2,650.42	2,528.28	122.14	21.700	
15,800.00	12,544.00	15,922.55	12,654.00	62.87	63.67	92.28	-3,391.12	-1,864.20	2,650.42	2,525.36	125.06	21.193	
15,900.00	12,544.00	16,022.55	12,654.00	64.31	65.13	92.28	-3,491.12	-1,864.20	2,650.42	2,522.42	128.00	20.706	
16,000.00	12,544.00	16,122.55	12,654.00	65.76	66.60	92.28	-3,591.12	-1,864.20	2,650.42	2,519.46	130.96	20.239	
16,100.00	12,544.00	16,222.55	12,654.00	67.22	68.08	92.28	-3,691.12	-1,864.20	2,650.42	2,516.49	133.93	19.790	
16,200.00	12,544.00	16,322.55	12,654.00	68.69	69.56	92.28	-3,791.12	-1,864.20	2,650.42	2,513.51	136.91	19.359	
16,300.00	12,544.00	16,422.55	12,654.00	70.17	71.05	92.28	-3,891.12	-1,864.20	2,650.42	2,510.51	139.91	18.944	
16,400.00	12,544.00	16,522.55	12,654.00	71.65	72.55	92.28	-3,991.12	-1,864.20	2,650.42	2,507.51	142.92	18.545	
16,500.00	12,544.00	16,622.55	12,654.00	73.14	74.05	92.28	-4,091.12	-1,864.20	2,650.42	2,504.49	145.93	18.162	
16,600.00	12,544.00	16,722.55	12,654.00	74.64	75.56	92.28	-4,191.12	-1,864.20	2,650.42	2,501.46	148.96	17.792	
16,700.00	12,544.00	16,822.55	12,654.00	76.14	77.07	92.28	-4,291.12	-1,864.20	2,650.42	2,498.42	152.00	17.437	
16,800.00	12,544.00	16,922.55	12,654.00	77.65	78.59	92.28	-4,391.12	-1,864.20	2,650.42	2,495.37	155.05	17.094	
16,900.00	12,544.00	17,022.55	12,654.00	79.16	80.11	92.28	-4,491.12	-1,864.20	2,650.42	2,492.31	158.11	16.763	
17,000.00	12,544.00	17,122.55	12,654.00	80.67	81.64	92.28	-4,591.12	-1,864.20	2,650.42	2,489.25	161.17	16.444	
17,100.00	12,544.00	17,222.55	12,654.00	82.20	83.17	92.28	-4,691.12	-1,864.20	2,650.42	2,486.17	164.25	16.137	
17,200.00	12,544.00	17,322.55	12,654.00	83.72	84.71	92.28	-4,791.12	-1,864.20	2,650.42	2,483.09	167.33	15.840	
17,300.00	12,544.00	17,422.55	12,654.00	85.25	86.25	92.28	-4,891.12	-1,864.20	2,650.42	2,480.00	170.42	15.553	
17,400.00	12,544.00	17,522.55	12,654.00	86.78	87.79	92.28	-4,991.12	-1,864.20	2,650.42	2,476.91	173.51	15.275	
17,500.00	12,544.00	17,622.55	12,654.00	88.32	89.33	92.28	-5,091.12	-1,864.20	2,650.42	2,473.81	176.61	15.007	
17,600.00	12,544.00	17,722.55	12,654.00	89.86	90.88	92.28	-5,191.12	-1,864.20	2,650.42	2,470.70	179.72	14.748	
17,700.00	12,544.00	17,822.55	12,654.00	91.41	92.43	92.28	-5,291.12	-1,864.20	2,650.42	2,467.59	182.83	14.497	
17,800.00	12,544.00	17,922.55	12,654.00	92.95	93.99	92.28	-5,391.12	-1,864.20	2,650.42	2,464.47	185.95	14.254	
17,900.00	12,544.00	18,022.55	12,654.00	94.50	95.54	92.28	-5,491.12	-1,864.20	2,650.42	2,461.35	189.07	14.018	
18,000.00	12,544.00	18,122.55	12,654.00	96.05	97.10	92.28	-5,591.12	-1,864.20	2,650.42	2,458.23	192.20	13.790	
18,100.00	12,544.00	18,222.55	12,654.00	97.61	98.67	92.28	-5,691.12	-1,864.20	2,650.42	2,455.09	195.33	13.569	
18,200.00	12,544.00	18,322.55	12,654.00	99.17	100.23	92.28	-5,791.12	-1,864.20	2,650.42	2,451.96	198.46	13.355	
18,300.00	12,544.00	18,422.55	12,654.00	100.73	101.80	92.28	-5,891.12	-1,864.20	2,650.42	2,448.82	201.60	13.147	
18,400.00	12,544.00	18,522.55	12,654.00	102.29	103.37	92.28	-5,991.12	-1,864.20	2,650.42	2,445.67	204.75	12.945	
18,500.00	12,544.00	18,622.55	12,654.00	103.85	104.94	92.28	-6,091.12	-1,864.20	2,650.42	2,442.53	207.89	12.749	
18,600.00	12,544.00	18,722.55	12,654.00	105.42	106.51	92.28	-6,191.12	-1,864.20	2,650.42	2,439.37	211.05	12.558	
18,700.00	12,544.00	18,822.55	12,654.00	106.99	108.08	92.28	-6,291.12	-1,864.20	2,650.42	2,436.22	214.20	12.374	
18,800.00	12,544.00	18,922.55	12,654.00	108.56	109.66	92.28	-6,391.12	-1,864.20	2,650.42	2,433.06	217.36	12.194	
18,900.00	12,544.00	19,022.55	12,654.00	110.13	111.24	92.28	-6,491.12	-1,864.20	2,650.42	2,429.90	220.52	12.019	
19,000.00	12,544.00	19,122.55	12,654.00	111.71	112.82	92.28	-6,591.12	-1,864.20	2,650.42	2,426.74	223.69	11.849	
19,100.00	12,544.00	19,222.55	12,654.00	113.28	114.40	92.28	-6,691.12	-1,864.20	2,650.42	2,423.57	226.85	11.683	
19,200.00	12,544.00	19,322.55	12,654.00	114.86	115.98	92.28	-6,791.12	-1,864.20	2,650.42	2,420.40	230.02	11.522	
19,300.00	12,544.00	19,422.55	12,654.00	116.44	117.56	92.28	-6,891.12	-1,864.20	2,650.42	2,417.23	233.20	11.366	
19,400.00	12,544.00	19,522.55	12,654.00	118.02	119.15	92.28	-6,991.12	-1,864.20	2,650.42	2,414.05	236.37	11.213	
19,500.00	12,544.00	19,622.55	12,654.00	119.60	120.73	92.28	-7,091.12	-1,864.20	2,650.42	2,410.87	239.55	11.064	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 3H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
19,600.00	12,544.00	19,722.55	12,654.00	121.19	122.32	92.28	-7,191.12	-1,864.20	2,650.42	2,407.69	10.919		
19,700.00	12,544.00	19,822.55	12,654.00	122.77	123.91	92.28	-7,291.12	-1,864.20	2,650.42	2,404.51	10.778		
19,800.00	12,544.00	19,922.55	12,654.00	124.36	125.50	92.28	-7,391.12	-1,864.20	2,650.42	2,401.33	10.640		
19,900.00	12,544.00	20,022.55	12,654.00	125.95	127.09	92.28	-7,491.12	-1,864.20	2,650.42	2,398.14	10.506		
20,000.00	12,544.00	20,122.55	12,654.00	127.53	128.68	92.28	-7,591.12	-1,864.20	2,650.42	2,394.95	10.375		
20,100.00	12,544.00	20,222.55	12,654.00	129.12	130.28	92.28	-7,691.12	-1,864.20	2,650.42	2,391.76	10.247		
20,200.00	12,544.00	20,322.55	12,654.00	130.72	131.87	92.28	-7,791.12	-1,864.20	2,650.42	2,388.57	10.122		
20,300.00	12,544.00	20,422.55	12,654.00	132.31	133.47	92.28	-7,891.12	-1,864.20	2,650.42	2,385.37	10.000		
20,400.00	12,544.00	20,522.55	12,654.00	133.90	135.06	92.28	-7,991.12	-1,864.20	2,650.42	2,382.18	9.881		
20,500.00	12,544.00	20,622.55	12,654.00	135.49	136.66	92.28	-8,091.12	-1,864.20	2,650.42	2,378.98	9.764		
20,600.00	12,544.00	20,722.55	12,654.00	137.09	138.26	92.28	-8,191.12	-1,864.20	2,650.42	2,375.78	9.650		
20,700.00	12,544.00	20,822.55	12,654.00	138.68	139.86	92.28	-8,291.12	-1,864.20	2,650.42	2,372.58	9.539		
20,800.00	12,544.00	20,922.55	12,654.00	140.28	141.46	92.28	-8,391.12	-1,864.20	2,650.42	2,369.38	9.431		
20,900.00	12,544.00	21,022.55	12,654.00	141.88	143.06	92.28	-8,491.12	-1,864.20	2,650.42	2,366.17	9.324		
21,000.00	12,544.00	21,122.55	12,654.00	143.48	144.66	92.28	-8,591.12	-1,864.20	2,650.42	2,362.97	9.220		
21,100.00	12,544.00	21,222.55	12,654.00	145.08	146.26	92.28	-8,691.12	-1,864.20	2,650.42	2,359.76	9.119		
21,200.00	12,544.00	21,322.55	12,654.00	146.68	147.86	92.28	-8,791.12	-1,864.20	2,650.42	2,356.55	9.019		
21,300.00	12,544.00	21,422.55	12,654.00	148.28	149.47	92.28	-8,891.12	-1,864.20	2,650.42	2,353.34	8.922		
21,400.00	12,544.00	21,522.55	12,654.00	149.88	151.07	92.28	-8,991.12	-1,864.20	2,650.42	2,350.13	8.826		
21,500.00	12,544.00	21,622.55	12,654.00	151.48	152.68	92.28	-9,091.12	-1,864.20	2,650.42	2,346.92	8.733		
21,600.00	12,544.00	21,722.55	12,654.00	153.08	154.28	92.28	-9,191.12	-1,864.20	2,650.42	2,343.71	8.641		
21,700.00	12,544.00	21,822.55	12,654.00	154.69	155.89	92.28	-9,291.12	-1,864.20	2,650.42	2,340.49	8.552		
21,800.00	12,544.00	21,922.55	12,654.00	156.29	157.49	92.28	-9,391.12	-1,864.20	2,650.42	2,337.28	8.464		
21,900.00	12,544.00	22,022.55	12,654.00	157.90	159.10	92.28	-9,491.12	-1,864.20	2,650.42	2,334.06	8.378		
22,000.00	12,544.00	22,122.55	12,654.00	159.50	160.71	92.28	-9,591.12	-1,864.20	2,650.42	2,330.84	8.294		
22,100.00	12,544.00	22,222.55	12,654.00	161.11	162.32	92.28	-9,691.12	-1,864.20	2,650.42	2,327.63	8.211		
22,181.55	12,544.00	22,304.09	12,654.00	162.42	163.63	92.28	-9,772.67	-1,864.20	2,650.42	2,325.00	8.145 ES, SF		

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 41H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.00	-115.67	-1,861.38	-3,872.21	4,296.37				
100.00	100.00	97.30	97.30	0.08	0.07	-115.67	-1,861.38	-3,872.21	4,296.36	4,296.21	0.16	N/A	
200.00	200.00	197.30	197.30	0.31	0.29	-115.67	-1,861.38	-3,872.21	4,296.36	4,295.76	0.60	7,117.789	
300.00	300.00	297.30	297.30	0.53	0.52	-115.67	-1,861.38	-3,872.21	4,296.36	4,295.31	1.05	4,079.570	
400.00	400.00	397.30	397.30	0.76	0.74	-115.67	-1,861.38	-3,872.21	4,296.36	4,294.86	1.50	2,859.147	
500.00	500.00	497.30	497.30	0.98	0.97	-115.67	-1,861.38	-3,872.21	4,296.36	4,294.41	1.95	2,200.774	
600.00	600.00	597.30	597.30	1.21	1.19	-115.67	-1,861.38	-3,872.21	4,296.36	4,293.96	2.40	1,788.857	
700.00	700.00	697.30	697.30	1.43	1.42	-115.67	-1,861.38	-3,872.21	4,296.36	4,293.51	2.85	1,506.825	
800.00	800.00	797.30	797.30	1.66	1.64	-115.67	-1,861.38	-3,872.21	4,296.36	4,293.06	3.30	1,301.612	
900.00	900.00	897.30	897.30	1.88	1.87	-115.67	-1,861.38	-3,872.21	4,296.36	4,292.61	3.75	1,145.595	
1,000.00	1,000.00	997.30	997.30	2.11	2.09	-115.67	-1,861.38	-3,872.21	4,296.36	4,292.16	4.20	1,022.977	
1,100.00	1,100.00	1,097.30	1,097.30	2.33	2.32	-115.67	-1,861.38	-3,872.21	4,296.36	4,291.71	4.65	924.069	
1,200.00	1,200.00	1,197.30	1,197.30	2.56	2.54	-115.67	-1,861.38	-3,872.21	4,296.36	4,291.27	5.10	842.601	
1,300.00	1,300.00	1,297.30	1,297.30	2.78	2.77	-115.67	-1,861.38	-3,872.21	4,296.36	4,290.82	5.55	774.334	
1,400.00	1,400.00	1,397.30	1,397.30	3.01	2.99	-115.67	-1,861.38	-3,872.21	4,296.36	4,290.37	6.00	716.300	
1,500.00	1,500.00	1,497.30	1,497.30	3.23	3.22	-115.67	-1,861.38	-3,872.21	4,296.36	4,289.92	6.45	666.359	
1,600.00	1,600.00	1,597.30	1,597.30	3.46	3.44	-115.67	-1,861.38	-3,872.21	4,296.36	4,289.47	6.90	622.927	
1,700.00	1,700.00	1,697.30	1,697.30	3.68	3.67	-115.67	-1,861.38	-3,872.21	4,296.36	4,289.02	7.35	584.811	
1,800.00	1,800.00	1,797.30	1,797.30	3.91	3.89	-115.67	-1,861.38	-3,872.21	4,296.36	4,288.57	7.80	551.090	
1,900.00	1,900.00	1,897.30	1,897.30	4.13	4.12	-115.67	-1,861.38	-3,872.21	4,296.36	4,288.12	8.25	521.046	
2,000.00	2,000.00	1,997.30	1,997.30	4.35	4.34	-115.67	-1,861.38	-3,872.21	4,296.36	4,287.67	8.70	494.108	
2,100.00	2,100.00	2,097.30	2,097.30	4.58	4.57	-115.67	-1,861.38	-3,872.21	4,296.36	4,287.22	9.14	469.819	
2,200.00	2,200.00	2,197.30	2,197.30	4.80	4.79	-115.67	-1,861.38	-3,872.21	4,296.36	4,286.77	9.59	447.806	
2,300.00	2,300.00	2,297.30	2,297.30	5.03	5.01	-115.67	-1,861.38	-3,872.21	4,296.36	4,286.32	10.04	427.764	
2,400.00	2,400.00	2,397.30	2,397.30	5.25	5.24	-115.67	-1,861.38	-3,872.21	4,296.36	4,285.87	10.49	409.438	
2,500.00	2,500.00	2,497.30	2,497.30	5.48	5.46	-115.67	-1,861.38	-3,872.21	4,296.36	4,285.42	10.94	392.619 CC, ES	
2,600.00	2,599.99	2,597.29	2,597.29	5.69	5.69	159.79	-1,861.38	-3,872.21	4,297.18	4,285.80	11.38	377.630	
2,700.00	2,699.96	2,697.26	2,697.26	5.89	5.91	159.79	-1,861.38	-3,872.21	4,299.64	4,287.84	11.80	364.237	
2,800.00	2,799.86	2,797.16	2,797.16	6.10	6.14	159.80	-1,861.38	-3,872.21	4,303.73	4,291.50	12.23	351.851	
2,900.00	2,899.68	2,896.98	2,896.98	6.30	6.36	159.81	-1,861.38	-3,872.21	4,309.46	4,296.80	12.66	340.379	
3,000.00	2,899.37	2,896.67	2,896.67	6.52	6.59	159.82	-1,861.38	-3,872.21	4,316.83	4,303.74	13.09	329.736	
3,031.43	3,030.67	3,027.97	3,027.97	6.58	6.66	159.82	-1,861.38	-3,872.21	4,319.48	4,306.26	13.23	326.540	
3,100.00	3,098.94	3,096.24	3,096.24	6.73	6.81	159.85	-1,861.38	-3,872.21	4,325.45	4,311.92	13.52	319.822	
3,200.00	3,198.51	3,195.81	3,195.81	6.96	7.03	159.89	-1,861.38	-3,872.21	4,334.15	4,320.19	13.96	310.505	
3,300.00	3,298.08	3,295.38	3,295.38	7.18	7.26	159.94	-1,861.38	-3,872.21	4,342.85	4,328.46	14.39	301.711	
3,400.00	3,397.65	3,394.95	3,394.95	7.41	7.48	159.98	-1,861.38	-3,872.21	4,351.56	4,336.73	14.83	293.401	
3,500.00	3,497.22	3,494.52	3,494.52	7.64	7.71	160.02	-1,861.38	-3,872.21	4,360.27	4,345.00	15.27	285.538	
3,600.00	3,596.79	3,594.09	3,594.09	7.87	7.93	160.06	-1,861.38	-3,872.21	4,368.98	4,353.27	15.71	278.091	
3,700.00	3,696.36	3,693.66	3,693.66	8.11	8.15	160.10	-1,861.38	-3,872.21	4,377.69	4,361.54	16.15	271.028	
3,800.00	3,795.93	3,793.23	3,793.23	8.34	8.38	160.14	-1,861.38	-3,872.21	4,386.40	4,369.81	16.59	264.322	
3,900.00	3,895.51	3,892.81	3,892.81	8.58	8.60	160.18	-1,861.38	-3,872.21	4,395.12	4,378.08	17.04	257.949	
4,000.00	3,995.08	3,992.38	3,992.38	8.82	8.82	160.23	-1,861.38	-3,872.21	4,403.84	4,386.35	17.48	251.885	
4,100.00	4,094.65	4,091.95	4,091.95	9.06	9.05	160.27	-1,861.38	-3,872.21	4,412.56	4,394.63	17.93	246.110	
4,200.00	4,194.22	4,191.52	4,191.52	9.31	9.27	160.31	-1,861.38	-3,872.21	4,421.28	4,402.91	18.38	240.603	
4,300.00	4,293.79	4,291.09	4,291.09	9.55	9.50	160.35	-1,861.38	-3,872.21	4,430.01	4,411.18	18.82	235.348	
4,400.00	4,393.36	4,390.66	4,390.66	9.80	9.72	160.39	-1,861.38	-3,872.21	4,438.74	4,419.46	19.27	230.329	
4,500.00	4,492.93	4,490.23	4,490.23	10.05	9.94	160.43	-1,861.38	-3,872.21	4,447.47	4,427.75	19.72	225.530	
4,600.00	4,592.50	4,589.80	4,589.80	10.30	10.23	160.46	-1,861.38	-3,872.21	4,456.20	4,436.03	20.17	220.797	
4,700.00	4,692.07	4,689.37	4,689.37	10.55	10.46	160.49	-1,861.38	-3,872.21	4,464.93	4,444.76	20.62	216.110	
4,800.00	4,791.64	4,788.94	4,788.94	10.80	10.69	160.52	-1,861.38	-3,872.21	4,473.66	4,453.49	21.07	211.461	
4,900.00	4,891.21	4,888.51	4,888.51	11.05	10.92	160.55	-1,861.38	-3,872.21	4,482.39	4,462.22	21.52	206.848	
5,000.00	4,990.78	4,988.08	4,988.08	11.30	11.16	160.58	-1,861.38	-3,872.21	4,491.12	4,470.95	21.97	202.280	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 41H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
5,100.00	5,090.35	5,330.64	5,325.50	11.55	11.86	161.75	-1,776.09	-3,872.84	4,471.79	4,448.81	22.98	194.589	
5,200.00	5,189.92	5,429.43	5,423.40	11.81	12.10	161.95	-1,762.91	-3,872.93	4,475.31	4,451.86	23.45	190.883	
5,300.00	5,289.49	5,528.22	5,521.31	12.06	12.34	162.14	-1,749.73	-3,873.03	4,478.87	4,454.96	23.91	187.301	
5,400.00	5,389.06	5,627.00	5,619.21	12.32	12.58	162.33	-1,736.55	-3,873.13	4,482.48	4,458.10	24.38	183.838	
5,500.00	5,488.63	5,725.79	5,717.12	12.57	12.83	162.52	-1,723.37	-3,873.22	4,486.15	4,461.29	24.86	180.491	
5,600.00	5,588.20	5,824.58	5,815.02	12.83	13.08	162.71	-1,710.18	-3,873.32	4,489.86	4,464.53	25.33	177.254	
5,700.00	5,687.77	5,923.37	5,912.93	13.09	13.33	162.90	-1,697.00	-3,873.42	4,493.63	4,467.82	25.81	174.123	
5,800.00	5,787.34	6,022.16	6,010.83	13.34	13.58	163.09	-1,683.82	-3,873.51	4,497.45	4,471.16	26.29	171.094	
5,900.00	5,886.91	6,120.95	6,108.74	13.60	13.83	163.28	-1,670.64	-3,873.61	4,501.31	4,474.55	26.77	168.162	
6,000.00	5,986.48	6,219.73	6,206.64	13.86	14.09	163.47	-1,657.46	-3,873.71	4,505.23	4,477.98	27.25	165.324	
6,100.00	6,086.05	6,318.52	6,304.55	14.12	14.35	163.66	-1,644.28	-3,873.80	4,509.20	4,481.46	27.74	162.577	
6,200.00	6,185.62	6,417.31	6,402.45	14.38	14.61	163.84	-1,631.10	-3,873.90	4,513.22	4,484.99	28.22	159.915	
6,300.00	6,285.19	6,516.10	6,500.36	14.64	14.87	164.03	-1,617.92	-3,874.00	4,517.28	4,488.57	28.71	157.337	
6,400.00	6,384.76	6,614.89	6,598.26	14.90	15.13	164.22	-1,604.74	-3,874.09	4,521.40	4,492.20	29.20	154.838	
6,500.00	6,484.33	6,713.68	6,696.17	15.16	15.40	164.41	-1,591.56	-3,874.19	4,525.57	4,495.87	29.69	152.416	
6,600.00	6,583.90	6,812.47	6,794.07	15.42	15.66	164.59	-1,578.37	-3,874.29	4,529.78	4,499.60	30.19	150.067	
6,700.00	6,683.47	6,911.25	6,891.98	15.68	15.93	164.78	-1,565.19	-3,874.38	4,534.04	4,503.37	30.68	147.789	
6,800.00	6,783.04	7,010.04	6,989.88	15.94	16.20	164.97	-1,552.01	-3,874.48	4,538.36	4,507.18	31.17	145.578	
6,900.00	6,882.61	7,108.83	7,087.79	16.20	16.47	165.15	-1,538.83	-3,874.58	4,542.72	4,511.05	31.67	143.432	
7,000.00	6,982.18	7,207.62	7,185.69	16.46	16.74	165.34	-1,525.65	-3,874.67	4,547.13	4,514.96	32.17	141.349	
7,100.00	7,081.75	7,306.41	7,283.60	16.72	17.01	165.52	-1,512.47	-3,874.77	4,551.59	4,518.92	32.67	139.326	
7,200.00	7,181.32	7,405.20	7,381.50	16.98	17.28	165.71	-1,499.29	-3,874.87	4,556.10	4,522.93	33.17	137.361	
7,300.00	7,280.89	7,503.98	7,479.41	17.25	17.56	165.89	-1,486.11	-3,874.96	4,560.66	4,526.99	33.67	135.452	
7,400.00	7,380.46	7,602.77	7,577.31	17.51	17.83	166.08	-1,472.93	-3,875.06	4,565.26	4,531.09	34.17	133.595	
7,500.00	7,480.03	7,701.56	7,675.22	17.77	18.10	166.26	-1,459.75	-3,875.16	4,569.91	4,535.24	34.68	131.791	
7,600.00	7,579.60	7,800.35	7,773.12	18.03	18.38	166.44	-1,446.56	-3,875.25	4,574.62	4,539.44	35.18	130.036	
7,700.00	7,679.17	7,899.14	7,871.03	18.30	18.66	166.63	-1,433.38	-3,875.35	4,579.36	4,543.68	35.68	128.328	
7,800.00	7,778.74	7,997.93	7,968.93	18.56	18.94	166.81	-1,420.20	-3,875.45	4,584.16	4,547.97	36.19	126.667	
7,900.00	7,878.31	8,096.72	8,066.84	18.82	19.21	166.99	-1,407.02	-3,875.54	4,589.00	4,552.31	36.70	125.050	
8,000.00	7,977.88	8,195.50	8,164.74	19.09	19.49	167.18	-1,393.84	-3,875.64	4,593.89	4,556.69	37.20	123.476	
8,100.00	8,077.45	8,294.29	8,262.65	19.35	19.77	167.36	-1,380.66	-3,875.74	4,598.83	4,561.12	37.71	121.942	
8,200.00	8,177.02	8,393.08	8,360.55	19.61	20.05	167.54	-1,367.48	-3,875.83	4,603.82	4,565.60	38.22	120.449	
8,300.00	8,276.59	8,491.87	8,458.46	19.88	20.33	167.72	-1,354.30	-3,875.93	4,608.85	4,570.12	38.73	118.993	
8,400.00	8,376.16	8,590.66	8,556.37	20.14	20.62	167.90	-1,341.12	-3,876.03	4,613.93	4,574.69	39.24	117.575	
8,500.00	8,475.73	8,689.45	8,654.27	20.41	20.90	168.08	-1,327.93	-3,876.12	4,619.05	4,579.30	39.75	116.192	
8,600.00	8,575.30	8,788.24	8,752.18	20.67	21.18	168.26	-1,314.75	-3,876.22	4,624.23	4,583.96	40.27	114.844	
8,700.00	8,674.87	8,887.02	8,850.08	20.94	21.46	168.44	-1,301.57	-3,876.32	4,629.44	4,588.67	40.78	113.529	
8,800.00	8,774.44	8,985.80	8,948.49	21.20	21.64	168.55	-1,293.18	-3,876.38	4,634.85	4,593.66	41.19	112.527	
8,900.00	8,874.01	9,084.59	9,046.30	21.47	21.74	168.61	-1,288.93	-3,876.41	4,641.48	4,599.96	41.52	111.793	
9,000.00	8,973.58	9,183.38	9,144.43	21.73	21.77	168.62	-1,288.46	-3,876.41	4,649.55	4,607.78	41.77	111.314	
9,100.00	9,073.15	9,282.17	9,242.28	22.00	21.82	168.62	-1,289.04	-3,876.41	4,659.14	4,617.11	42.03	110.845	
9,200.00	9,172.72	9,380.96	9,340.69	22.26	21.85	168.61	-1,291.15	-3,876.39	4,670.22	4,627.95	42.27	110.476	
9,300.00	9,272.29	9,479.75	9,439.27	22.53	21.87	168.58	-1,293.50	-3,876.38	4,682.80	4,640.31	42.49	110.202	
9,400.00	9,371.86	9,578.54	9,537.79	22.79	21.91	168.49	-1,302.29	-3,876.31	4,696.85	4,654.12	42.73	109.914	
9,500.00	9,471.43	9,677.33	9,636.58	23.06	21.91	168.49	-1,302.29	-3,876.31	4,712.42	4,669.52	42.90	109.848	
9,600.00	9,571.00	9,776.12	9,735.37	23.32	21.91	168.35	-1,315.33	-3,876.22	4,729.32	4,686.22	43.11	109.709	
9,700.00	9,670.57	9,874.91	9,834.16	23.59	21.91	168.27	-1,322.46	-3,876.16	4,747.81	4,704.54	43.27	109.718	
9,800.00	9,770.14	9,973.70	9,932.95	23.85	21.90	168.16	-1,332.53	-3,876.09	4,767.81	4,724.38	43.43	109.769	
9,900.00	9,869.72	10,072.49	10,031.74	24.12	21.89	168.05	-1,342.03	-3,876.02	4,789.32	4,745.74	43.58	109.900	
10,000.00	9,969.29	10,171.28	10,130.49	24.38	21.87	167.92	-1,353.75	-3,875.93	4,812.36	4,768.64	43.72	110.078	
10,100.00	10,068.86	10,270.07	10,229.28	24.65	21.86	167.80	-1,363.77	-3,875.86	4,836.92	4,793.08	43.84	110.330	
10,200.00	10,168.43	10,368.86	10,327.49	24.92	21.83	167.63	-1,378.84	-3,875.75	4,863.03	4,819.07	43.96	110.622	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design														Fighting Okra 18-19 Fed - 41H - OH - Plan #1		Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM MWD+HDGM														Offset Well Error: 0.00 usft			
Reference				Offset			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)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor					
10,300.00	10,268.00	9,350.00	9,294.95	25.18	21.83	167.63	-1,378.84	-3,875.75	4,890.72	4,846.66	44.06	111.008					
10,400.00	10,367.57	9,400.00	9,335.83	25.45	21.78	167.31	-1,407.60	-3,875.54	4,919.90	4,875.73	44.17	111.386					
10,500.00	10,467.14	9,400.00	9,335.83	25.71	21.78	167.31	-1,407.60	-3,875.54	4,950.49	4,906.24	44.25	111.868					
10,600.00	10,566.71	9,421.34	9,352.48	25.98	21.75	167.16	-1,420.93	-3,875.44	4,982.71	4,938.37	44.34	112.379					
10,700.00	10,666.28	9,450.00	9,374.05	26.25	21.72	166.95	-1,439.81	-3,875.30	5,016.51	4,972.08	44.42	112.927					
10,800.00	10,765.85	9,450.00	9,374.05	26.51	21.72	166.95	-1,439.81	-3,875.30	5,051.71	5,007.22	44.49	113.554					
10,900.00	10,865.42	9,470.34	9,388.77	26.78	21.69	166.79	-1,453.84	-3,875.20	5,088.44	5,043.88	44.56	114.200					
11,004.37	10,969.33	9,500.00	9,409.31	27.06	21.66	166.55	-1,475.23	-3,875.04	5,128.46	5,083.83	44.63	114.908					
11,100.00	11,064.63	9,500.00	9,409.31	27.28	21.66	166.64	-1,475.23	-3,875.04	5,165.64	5,120.99	44.66	115.674					
11,200.00	11,164.40	9,500.00	9,409.31	27.47	21.66	166.74	-1,475.23	-3,875.04	5,204.59	5,159.94	44.65	116.554					
11,300.00	11,264.27	9,524.89	9,425.68	27.66	21.63	166.62	-1,493.97	-3,874.91	5,243.31	5,198.64	44.66	117.398					
11,400.00	11,364.22	9,550.00	9,441.36	27.83	21.60	166.50	-1,513.59	-3,874.76	5,282.08	5,237.42	44.67	118.257					
11,500.00	11,464.21	9,550.00	9,441.36	28.00	21.60	166.60	-1,513.59	-3,874.76	5,320.59	5,275.95	44.65	119.168					
11,535.79	11,500.00	9,550.00	9,441.36	28.06	21.60	-108.83	-1,513.59	-3,874.76	5,334.39	5,289.75	44.64	119.493					
11,600.00	11,564.21	9,550.00	9,441.36	28.17	21.60	-108.83	-1,513.59	-3,874.76	5,359.46	5,314.82	44.64	120.061					
11,700.00	11,664.21	9,550.00	9,441.36	28.36	21.60	-108.83	-1,513.59	-3,874.76	5,399.80	5,355.16	44.64	120.955					
11,800.00	11,764.21	9,600.00	9,469.94	28.55	21.54	-109.28	-1,554.59	-3,874.46	5,441.44	5,396.75	44.69	121.760					
11,900.00	11,864.21	9,600.00	9,469.94	28.74	21.54	-109.28	-1,554.59	-3,874.46	5,484.30	5,439.60	44.70	122.705					
12,006.83	11,971.04	9,600.00	9,469.94	28.95	21.54	-109.28	-1,554.59	-3,874.46	5,531.72	5,487.02	44.70	123.747					
12,050.00	12,014.17	9,600.00	9,469.94	29.03	21.54	68.72	-1,554.59	-3,874.46	5,550.86	5,506.16	44.70	124.178					
12,100.00	12,063.80	9,600.00	9,469.94	29.11	21.54	66.56	-1,554.59	-3,874.46	5,572.03	5,527.33	44.70	124.667					
12,150.00	12,112.72	9,600.00	9,469.94	29.19	21.54	64.57	-1,554.59	-3,874.46	5,591.99	5,547.30	44.69	125.128					
12,200.00	12,160.57	9,600.00	9,469.94	29.27	21.54	62.78	-1,554.59	-3,874.46	5,610.60	5,565.91	44.69	125.556					
12,250.00	12,206.97	9,624.65	9,482.69	29.35	21.52	61.03	-1,575.69	-3,874.31	5,627.39	5,582.68	44.71	125.864					
12,300.00	12,251.58	9,650.00	9,494.84	29.43	21.50	59.51	-1,597.93	-3,874.14	5,642.94	5,598.20	44.74	126.138					
12,350.00	12,294.05	9,650.00	9,494.84	29.50	21.50	58.31	-1,597.93	-3,874.14	5,656.40	5,611.66	44.74	126.426					
12,400.00	12,334.07	9,650.00	9,494.84	29.58	21.50	57.29	-1,597.93	-3,874.14	5,668.06	5,623.31	44.75	126.659					
12,450.00	12,371.32	9,650.00	9,494.84	29.66	21.50	56.46	-1,597.93	-3,874.14	5,677.84	5,633.08	44.77	126.829					
12,500.00	12,405.53	9,650.00	9,494.84	29.74	21.50	55.80	-1,597.93	-3,874.14	5,685.68	5,640.89	44.79	126.932					
12,550.00	12,436.43	9,650.00	9,494.84	29.83	21.50	55.32	-1,597.93	-3,874.14	5,691.52	5,646.69	44.83	126.959					
12,600.00	12,463.78	9,673.60	9,505.25	29.93	21.49	54.99	-1,619.10	-3,873.99	5,694.99	5,650.08	44.91	126.811					
12,650.00	12,487.39	9,700.00	9,515.86	30.04	21.47	54.85	-1,643.28	-3,873.81	5,696.71	5,651.70	45.01	126.575					
12,700.00	12,507.07	9,700.00	9,515.86	30.17	21.47	54.91	-1,643.28	-3,873.81	5,695.94	5,650.86	45.09	126.333					
12,750.00	12,522.67	9,700.00	9,515.86	30.31	21.47	55.15	-1,643.28	-3,873.81	5,693.11	5,647.92	45.18	125.998					
12,800.00	12,534.07	9,700.00	9,515.86	30.47	21.47	55.55	-1,643.28	-3,873.81	5,688.23	5,642.93	45.30	125.569					
12,850.00	12,541.18	9,700.00	9,515.86	30.65	21.47	56.13	-1,643.28	-3,873.81	5,681.33	5,635.90	45.43	125.048					
12,900.00	12,543.96	9,700.00	9,515.86	30.84	21.47	56.88	-1,643.28	-3,873.81	5,672.46	5,626.87	45.59	124.436					
12,906.83	12,544.00	9,700.00	9,515.86	30.87	21.47	57.00	-1,643.28	-3,873.81	5,671.10	5,625.49	45.61	124.343					
13,000.00	12,544.00	9,750.00	9,532.86	31.30	21.46	57.14	-1,690.28	-3,873.47	5,652.61	5,606.59	46.02	122.836					
13,100.00	12,544.00	9,750.00	9,532.86	31.84	21.46	57.14	-1,690.28	-3,873.47	5,634.02	5,587.59	46.43	121.349					
13,200.00	12,544.00	9,750.00	9,532.86	32.45	21.46	57.14	-1,690.28	-3,873.47	5,617.14	5,570.25	46.90	119.780					
13,300.00	12,544.00	9,776.24	9,540.12	33.13	21.47	57.20	-1,715.50	-3,873.28	5,601.61	5,554.14	47.47	118.009					
13,400.00	12,544.00	9,800.00	9,545.69	33.87	21.47	57.25	-1,738.59	-3,873.11	5,587.68	5,539.60	48.09	116.202					
13,500.00	12,544.00	9,800.00	9,545.69	34.68	21.47	57.25	-1,738.59	-3,873.11	5,575.19	5,526.48	48.71	114.460					
13,600.00	12,544.00	9,822.32	9,550.04	35.54	21.49	57.29	-1,760.48	-3,872.95	5,564.18	5,514.75	49.43	112.575					
13,700.00	12,544.00	9,850.00	9,554.26	36.46	21.51	57.32	-1,787.83	-3,872.75	5,554.78	5,504.58	50.20	110.661					
13,800.00	12,544.00	9,850.00	9,554.26	37.43	21.51	57.32	-1,787.83	-3,872.75	5,546.73	5,495.78	50.95	108.875					
13,900.00	12,544.00	9,850.00	9,554.26	38.44	21.51	57.32	-1,787.83	-3,872.75	5,540.48	5,488.75	51.73	107.104					
14,000.00	12,544.00	9,900.00	9,558.51	39.49	21.56	57.36	-1,837.64	-3,872.38	5,535.42	5,482.74	52.67	105.093					
14,100.00	12,544.00	9,900.00	9,558.51	40.59	21.56	57.36	-1,837.64	-3,872.38	5,531.87	5,478.35	53.52	103.364					
14,200.00	12,544.00	9,923.75	9,559.00	41.71	21.60	57.36	-1,861.38	-3,872.21	5,529.96	5,475.51	54.45	101.553					
14,300.00	12,544.00	9,987.66	9,559.00	42.88	21.73	57.36	-1,925.29	-3,871.74	5,529.22	5,473.67	55.55	99.531					

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 41H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
14,400.00	12,544.00	10,087.66	9,559.00	44.07	22.02	57.35	-2,025.28	-3,871.01	5,528.61	5,471.73	56.87	97.212	
14,500.00	12,544.00	10,187.66	9,559.00	45.28	22.43	57.35	-2,125.28	-3,870.27	5,527.99	5,469.67	58.31	94.798	
14,600.00	12,544.00	10,287.65	9,559.00	46.53	22.95	57.35	-2,225.27	-3,869.54	5,527.37	5,467.50	59.87	92.321	
14,700.00	12,544.00	10,387.65	9,559.00	47.80	23.58	57.34	-2,325.27	-3,868.81	5,526.75	5,465.22	61.54	89.812	
14,800.00	12,544.00	10,487.65	9,559.00	49.08	24.29	57.34	-2,425.26	-3,868.07	5,526.13	5,462.83	63.30	87.297	
14,900.00	12,544.00	10,587.64	9,559.00	50.39	25.10	57.33	-2,525.26	-3,867.34	5,525.52	5,460.36	65.16	84.799	
15,000.00	12,544.00	10,687.64	9,559.00	51.72	25.98	57.33	-2,625.25	-3,866.60	5,524.90	5,457.80	67.10	82.338	
15,100.00	12,544.00	10,787.64	9,559.00	53.07	26.93	57.33	-2,725.24	-3,865.87	5,524.28	5,455.17	69.12	79.928	
15,200.00	12,544.00	10,887.64	9,559.00	54.43	27.95	57.32	-2,825.24	-3,865.14	5,523.66	5,452.46	71.20	77.580	
15,300.00	12,544.00	10,987.63	9,559.00	55.80	29.02	57.32	-2,925.23	-3,864.40	5,523.05	5,449.70	73.34	75.303	
15,400.00	12,544.00	11,087.63	9,559.00	57.19	30.14	57.31	-3,025.23	-3,863.67	5,522.43	5,446.88	75.54	73.101	
15,500.00	12,544.00	11,187.63	9,559.00	58.59	31.31	57.31	-3,125.22	-3,862.94	5,521.81	5,444.02	77.80	70.979	
15,600.00	12,544.00	11,287.63	9,559.00	60.01	32.52	57.31	-3,225.22	-3,862.20	5,521.19	5,441.10	80.09	68.937	
15,700.00	12,544.00	11,387.62	9,559.00	61.43	33.77	57.30	-3,325.21	-3,861.47	5,520.58	5,438.15	82.43	66.976	
15,800.00	12,544.00	11,487.62	9,559.00	62.87	35.04	57.30	-3,425.21	-3,860.73	5,519.96	5,435.16	84.80	65.095	
15,900.00	12,544.00	11,587.62	9,559.00	64.31	36.35	57.29	-3,525.20	-3,860.00	5,519.34	5,432.14	87.20	63.292	
16,000.00	12,544.00	11,687.62	9,559.00	65.76	37.68	57.29	-3,625.20	-3,859.27	5,518.72	5,429.08	89.64	61.565	
16,100.00	12,544.00	11,787.61	9,559.00	67.22	39.04	57.28	-3,725.19	-3,858.53	5,518.11	5,426.00	92.10	59.912	
16,200.00	12,544.00	11,887.61	9,559.00	68.69	40.41	57.28	-3,825.19	-3,857.80	5,517.49	5,422.90	94.59	58.330	
16,300.00	12,544.00	11,987.61	9,559.00	70.17	41.81	57.28	-3,925.18	-3,857.07	5,516.87	5,419.77	97.10	56.816	
16,400.00	12,544.00	12,087.60	9,559.00	71.65	43.22	57.27	-4,025.18	-3,856.33	5,516.25	5,416.62	99.63	55.366	
16,500.00	12,544.00	12,187.60	9,559.00	73.14	44.65	57.27	-4,125.17	-3,855.60	5,515.64	5,413.46	102.18	53.979	
16,600.00	12,544.00	12,287.60	9,559.00	74.64	46.09	57.26	-4,225.16	-3,854.87	5,515.02	5,410.27	104.75	52.650	
16,700.00	12,544.00	12,387.60	9,559.00	76.14	47.54	57.26	-4,325.16	-3,854.13	5,514.40	5,407.07	107.33	51.377	
16,800.00	12,544.00	12,487.59	9,559.00	77.65	49.01	57.26	-4,425.15	-3,853.40	5,513.79	5,403.86	109.93	50.157	
16,900.00	12,544.00	12,587.59	9,559.00	79.16	50.48	57.25	-4,525.15	-3,852.66	5,513.17	5,400.63	112.54	48.968	
17,000.00	12,544.00	12,687.59	9,559.00	80.67	51.97	57.25	-4,625.14	-3,851.93	5,512.55	5,397.39	115.16	47.867	
17,100.00	12,544.00	12,787.59	9,559.00	82.20	53.46	57.24	-4,725.14	-3,851.20	5,511.93	5,394.14	117.80	46.791	
17,200.00	12,544.00	12,887.58	9,559.00	83.72	54.96	57.24	-4,825.13	-3,850.46	5,511.32	5,390.87	120.44	45.758	
17,300.00	12,544.00	12,987.58	9,559.00	85.25	56.47	57.24	-4,925.13	-3,849.73	5,510.70	5,387.60	123.10	44.766	
17,400.00	12,544.00	13,087.58	9,559.00	86.78	57.99	57.23	-5,025.12	-3,849.00	5,510.08	5,384.32	125.76	43.813	
17,500.00	12,544.00	13,187.57	9,559.00	88.32	59.51	57.23	-5,125.12	-3,848.26	5,509.47	5,381.03	128.44	42.896	
17,600.00	12,544.00	13,287.57	9,559.00	89.86	61.04	57.22	-5,225.11	-3,847.53	5,508.85	5,377.73	131.12	42.014	
17,700.00	12,544.00	13,387.57	9,559.00	91.41	62.58	57.22	-5,325.11	-3,846.79	5,508.23	5,374.42	133.81	41.165	
17,800.00	12,544.00	13,487.57	9,559.00	92.95	64.11	57.21	-5,425.10	-3,846.06	5,507.62	5,371.11	136.50	40.348	
17,900.00	12,544.00	13,587.56	9,559.00	94.50	65.66	57.21	-5,525.09	-3,845.33	5,507.00	5,367.79	139.21	39.560	
18,000.00	12,544.00	13,687.56	9,559.00	96.05	67.21	57.21	-5,625.09	-3,844.59	5,506.38	5,364.47	141.91	38.801	
18,100.00	12,544.00	13,787.56	9,559.00	97.61	68.76	57.20	-5,725.08	-3,843.86	5,505.77	5,361.14	144.63	38.069	
18,200.00	12,544.00	13,887.56	9,559.00	99.17	70.32	57.20	-5,825.08	-3,843.13	5,505.15	5,357.80	147.35	37.362	
18,300.00	12,544.00	13,987.55	9,559.00	100.73	71.88	57.19	-5,925.07	-3,842.39	5,504.53	5,354.46	150.07	36.679	
18,400.00	12,544.00	14,087.55	9,559.00	102.29	73.44	57.19	-6,025.07	-3,841.66	5,503.91	5,351.11	152.80	36.020	
18,500.00	12,544.00	14,187.55	9,559.00	103.85	75.01	57.19	-6,125.06	-3,840.92	5,503.30	5,347.76	155.53	35.383	
18,600.00	12,544.00	14,287.55	9,559.00	105.42	76.57	57.18	-6,225.06	-3,840.19	5,502.68	5,344.41	158.27	34.767	
18,700.00	12,544.00	14,387.54	9,559.00	106.99	78.15	57.18	-6,325.05	-3,839.46	5,502.06	5,341.05	161.01	34.171	
18,800.00	12,544.00	14,487.54	9,559.00	108.56	79.72	57.17	-6,425.05	-3,838.72	5,501.45	5,337.69	163.76	33.595	
18,900.00	12,544.00	14,587.54	9,559.00	110.13	81.30	57.17	-6,525.04	-3,837.99	5,500.83	5,334.32	166.51	33.036	
19,000.00	12,544.00	14,687.53	9,559.00	111.71	82.88	57.16	-6,625.04	-3,837.26	5,500.22	5,330.95	169.26	32.495	
19,100.00	12,544.00	14,787.53	9,559.00	113.28	84.46	57.16	-6,725.03	-3,836.52	5,499.60	5,327.58	172.02	31.971	
19,200.00	12,544.00	14,887.53	9,559.00	114.86	86.04	57.16	-6,825.02	-3,835.79	5,498.98	5,324.21	174.78	31.463	
19,300.00	12,544.00	14,987.53	9,559.00	116.44	87.63	57.15	-6,925.02	-3,835.05	5,498.37	5,320.83	177.54	30.970	
19,400.00	12,544.00	15,087.52	9,559.00	118.02	89.22	57.15	-7,025.01	-3,834.32	5,497.75	5,317.45	180.30	30.492	
19,500.00	12,544.00	15,187.52	9,559.00	119.60	90.81	57.14	-7,125.01	-3,833.59	5,497.13	5,314.06	183.07	30.028	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 41H - OH - Plan #1													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	
19,600.00	12,544.00	15,287.52	9,559.00	121.19	92.40	57.14	-7,225.00	-3,832.85	5,496.52	5,310.68	185.84	29.577	
19,700.00	12,544.00	15,387.52	9,559.00	122.77	93.99	57.14	-7,325.00	-3,832.12	5,495.90	5,307.29	188.61	29.139	
19,800.00	12,544.00	15,487.51	9,559.00	124.36	95.58	57.13	-7,424.99	-3,831.39	5,495.28	5,303.90	191.38	28.713	
19,900.00	12,544.00	15,587.51	9,559.00	125.95	97.18	57.13	-7,524.99	-3,830.65	5,494.67	5,300.51	194.16	28.300	
20,000.00	12,544.00	15,687.51	9,559.00	127.53	98.77	57.12	-7,624.98	-3,829.92	5,494.05	5,297.11	196.94	27.897	
20,100.00	12,544.00	15,787.50	9,559.00	129.12	100.37	57.12	-7,724.98	-3,829.18	5,493.44	5,293.72	199.72	27.506	
20,200.00	12,544.00	15,887.50	9,559.00	130.72	101.97	57.11	-7,824.97	-3,828.45	5,492.82	5,290.32	202.50	27.125	
20,300.00	12,544.00	15,987.50	9,559.00	132.31	103.57	57.11	-7,924.97	-3,827.72	5,492.20	5,286.92	205.28	26.754	
20,400.00	12,544.00	16,087.50	9,559.00	133.90	105.17	57.11	-8,024.96	-3,826.98	5,491.59	5,283.52	208.07	26.393	
20,500.00	12,544.00	16,187.49	9,559.00	135.49	106.78	57.10	-8,124.95	-3,826.25	5,490.97	5,280.11	210.86	26.041	
20,600.00	12,544.00	16,287.49	9,559.00	137.09	108.38	57.10	-8,224.95	-3,825.52	5,490.35	5,276.71	213.64	25.699	
20,700.00	12,544.00	16,387.49	9,559.00	138.68	109.98	57.09	-8,324.94	-3,824.78	5,489.74	5,273.30	216.43	25.364	
20,800.00	12,544.00	16,487.49	9,559.00	140.28	111.59	57.09	-8,424.94	-3,824.05	5,489.12	5,269.90	219.23	25.039	
20,900.00	12,544.00	16,587.48	9,559.00	141.88	113.19	57.09	-8,524.93	-3,823.31	5,488.51	5,266.49	222.02	24.721	
21,000.00	12,544.00	16,687.48	9,559.00	143.48	114.80	57.08	-8,624.93	-3,822.58	5,487.89	5,263.08	224.81	24.411	
21,100.00	12,544.00	16,787.48	9,559.00	145.08	116.41	57.08	-8,724.92	-3,821.85	5,487.27	5,259.67	227.61	24.108	
21,200.00	12,544.00	16,887.48	9,559.00	146.68	118.02	57.07	-8,824.92	-3,821.11	5,486.66	5,256.25	230.40	23.813	
21,300.00	12,544.00	16,987.47	9,559.00	148.28	119.63	57.07	-8,924.91	-3,820.38	5,486.04	5,252.84	233.20	23.525	
21,400.00	12,544.00	17,087.47	9,559.00	149.88	121.24	57.07	-9,024.91	-3,819.65	5,485.43	5,249.43	236.00	23.243	
21,500.00	12,544.00	17,187.47	9,559.00	151.48	122.85	57.06	-9,124.90	-3,818.91	5,484.81	5,246.01	238.80	22.968	
21,600.00	12,544.00	17,287.46	9,559.00	153.08	124.46	57.06	-9,224.90	-3,818.18	5,484.20	5,242.60	241.60	22.699	
21,700.00	12,544.00	17,387.46	9,559.00	154.69	126.07	57.05	-9,324.89	-3,817.44	5,483.58	5,239.18	244.40	22.437	
21,800.00	12,544.00	17,487.46	9,559.00	156.29	127.69	57.05	-9,424.88	-3,816.71	5,482.96	5,235.76	247.20	22.180	
21,900.00	12,544.00	17,587.46	9,559.00	157.90	129.30	57.04	-9,524.88	-3,815.98	5,482.35	5,232.34	250.01	21.929	
22,000.00	12,544.00	17,687.45	9,559.00	159.50	130.91	57.04	-9,624.87	-3,815.24	5,481.73	5,228.92	252.81	21.683	
22,100.00	12,544.00	17,787.45	9,559.00	161.11	132.53	57.04	-9,724.87	-3,814.51	5,481.12	5,225.50	255.62	21.443	
22,181.55	12,544.00	17,868.99	9,559.00	162.42	133.85	57.03	-9,806.41	-3,813.91	5,480.61	5,222.71	257.90	21.251 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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 4H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
0.00	0.00	0.00	0.00	0.00	0.00	-87.68	62.30	-1,536.85	1,538.11				
100.00	100.00	97.30	97.30	0.08	0.08	-87.68	62.30	-1,536.85	1,538.11	1,537.95	0.17	9,249.077	
200.00	200.00	197.30	197.30	0.31	0.30	-87.68	62.30	-1,536.85	1,538.11	1,537.50	0.61	2,513.099	
300.00	300.00	297.30	297.30	0.53	0.53	-87.68	62.30	-1,536.85	1,538.11	1,537.05	1.06	1,448.903	
400.00	400.00	397.30	397.30	0.76	0.75	-87.68	62.30	-1,536.85	1,538.11	1,536.60	1.51	1,017.874	
500.00	500.00	497.30	497.30	0.98	0.98	-87.68	62.30	-1,536.85	1,538.11	1,536.15	1.96	784.497	
600.00	600.00	597.30	597.30	1.21	1.20	-87.68	62.30	-1,536.85	1,538.11	1,535.70	2.41	638.177	
700.00	700.00	697.30	697.30	1.43	1.43	-87.68	62.30	-1,536.85	1,538.11	1,535.25	2.86	537.858	
800.00	800.00	797.30	797.30	1.66	1.65	-87.68	62.30	-1,536.85	1,538.11	1,534.80	3.31	464.795	
900.00	900.00	897.30	897.30	1.88	1.88	-87.68	62.30	-1,536.85	1,538.11	1,534.35	3.76	409.207	
1,000.00	1,000.00	997.30	997.30	2.11	2.10	-87.68	62.30	-1,536.85	1,538.11	1,533.90	4.21	365.495	
1,100.00	1,100.00	1,097.30	1,097.30	2.33	2.33	-87.68	62.30	-1,536.85	1,538.11	1,533.45	4.66	330.221	
1,200.00	1,200.00	1,197.30	1,197.30	2.56	2.55	-87.68	62.30	-1,536.85	1,538.11	1,533.00	5.11	301.156	
1,300.00	1,300.00	1,297.30	1,297.30	2.78	2.78	-87.68	62.30	-1,536.85	1,538.11	1,532.56	5.56	276.794	
1,400.00	1,400.00	1,397.30	1,397.30	3.01	3.00	-87.68	62.30	-1,536.85	1,538.11	1,532.11	6.01	256.078	
1,500.00	1,500.00	1,497.30	1,497.30	3.23	3.22	-87.68	62.30	-1,536.85	1,538.11	1,531.66	6.46	238.247	
1,600.00	1,600.00	1,597.30	1,597.30	3.46	3.45	-87.68	62.30	-1,536.85	1,538.11	1,531.21	6.91	222.738	
1,700.00	1,700.00	1,697.30	1,697.30	3.68	3.67	-87.68	62.30	-1,536.85	1,538.11	1,530.76	7.36	209.124	
1,800.00	1,800.00	1,797.30	1,797.30	3.91	3.90	-87.68	62.30	-1,536.85	1,538.11	1,530.31	7.80	197.079	
1,900.00	1,900.00	1,897.30	1,897.30	4.13	4.12	-87.68	62.30	-1,536.85	1,538.11	1,529.86	8.25	186.346	
2,000.00	2,000.00	1,997.30	1,997.30	4.35	4.35	-87.68	62.30	-1,536.85	1,538.11	1,529.41	8.70	176.721	
2,100.00	2,100.00	2,097.30	2,097.30	4.58	4.57	-87.68	62.30	-1,536.85	1,538.11	1,528.96	9.15	168.042	
2,200.00	2,200.00	2,197.30	2,197.30	4.80	4.80	-87.68	62.30	-1,536.85	1,538.11	1,528.51	9.60	160.175	
2,300.00	2,300.00	2,297.30	2,297.30	5.03	5.02	-87.68	62.30	-1,536.85	1,538.11	1,528.06	10.05	153.012	
2,400.00	2,400.00	2,397.30	2,397.30	5.25	5.25	-87.68	62.30	-1,536.85	1,538.11	1,527.61	10.50	146.463	
2,500.00	2,500.00	2,497.30	2,497.30	5.48	5.47	-87.68	62.30	-1,536.85	1,538.11	1,527.16	10.95	140.451	
2,600.00	2,599.99	2,632.96	2,632.95	5.69	5.75	-172.22	62.30	-1,535.31	1,537.85	1,526.41	11.44	134.409	
2,700.00	2,699.96	2,769.59	2,769.49	5.89	6.03	-172.23	62.30	-1,530.51	1,536.93	1,525.03	11.90	129.118	
2,800.00	2,799.86	2,906.17	2,905.83	6.10	6.31	-172.25	62.30	-1,522.46	1,535.36	1,523.00	12.36	124.187	
2,900.00	2,899.68	3,042.66	3,041.85	6.30	6.60	-172.28	62.30	-1,511.17	1,533.14	1,520.32	12.82	119.574	
3,000.00	2,999.37	3,179.05	3,177.46	6.52	6.90	-172.32	62.30	-1,496.66	1,530.27	1,517.00	13.28	115.252	
3,031.43	3,030.67	3,221.89	3,219.98	6.58	7.00	-172.33	62.30	-1,491.43	1,529.24	1,515.82	13.42	113.950	
3,100.00	3,098.94	3,295.35	3,292.83	6.73	7.17	-172.35	62.30	-1,482.00	1,526.71	1,513.00	13.71	111.349	
3,200.00	3,198.51	3,395.28	3,391.93	6.96	7.40	-172.38	62.30	-1,469.12	1,522.99	1,508.86	14.13	107.780	
3,300.00	3,298.08	3,495.21	3,491.02	7.18	7.64	-172.40	62.30	-1,456.24	1,519.27	1,504.72	14.55	104.391	
3,400.00	3,397.65	3,595.13	3,590.12	7.41	7.89	-172.43	62.30	-1,443.37	1,515.55	1,500.57	14.98	101.172	
3,500.00	3,497.22	3,695.06	3,689.21	7.64	8.14	-172.46	62.30	-1,430.49	1,511.83	1,496.42	15.41	98.112	
3,600.00	3,596.79	3,794.99	3,788.31	7.87	8.40	-172.49	62.30	-1,417.61	1,508.12	1,492.27	15.84	95.203	
3,700.00	3,696.36	3,894.92	3,887.40	8.11	8.65	-172.52	62.30	-1,404.73	1,504.40	1,488.12	16.28	92.433	
3,800.00	3,795.93	3,994.85	3,986.50	8.34	8.91	-172.55	62.30	-1,391.86	1,500.68	1,483.97	16.71	89.795	
3,900.00	3,895.51	4,094.77	4,085.59	8.58	9.18	-172.58	62.30	-1,378.98	1,496.96	1,479.81	17.15	87.281	
4,000.00	3,995.08	4,194.70	4,184.69	8.82	9.44	-172.60	62.30	-1,366.10	1,493.25	1,475.66	17.59	84.882	
4,100.00	4,094.65	4,294.63	4,283.78	9.06	9.71	-172.63	62.30	-1,353.23	1,489.53	1,471.50	18.03	82.593	
4,200.00	4,194.22	4,394.56	4,382.88	9.31	9.98	-172.66	62.30	-1,340.35	1,485.82	1,467.34	18.48	80.406	
4,300.00	4,293.79	4,494.49	4,481.97	9.55	10.25	-172.69	62.30	-1,327.47	1,482.10	1,463.18	18.92	78.315	
4,400.00	4,393.36	4,594.41	4,581.07	9.80	10.53	-172.72	62.30	-1,314.59	1,478.39	1,459.01	19.37	76.315	
4,500.00	4,492.93	4,694.34	4,680.16	10.05	10.80	-172.75	62.30	-1,301.72	1,474.67	1,454.85	19.82	74.400	
4,600.00	4,592.50	4,794.27	4,779.26	10.30	11.08	-172.78	62.30	-1,288.84	1,470.96	1,450.69	20.27	72.565	
4,700.00	4,692.07	4,894.20	4,878.35	10.55	11.36	-172.81	62.30	-1,275.96	1,467.24	1,446.52	20.72	70.806	
4,800.00	4,791.64	4,994.13	4,977.45	10.80	11.64	-172.84	62.30	-1,263.09	1,463.53	1,442.36	21.17	69.118	
4,900.00	4,891.21	5,094.05	5,076.54	11.05	11.92	-172.87	62.30	-1,250.21	1,459.82	1,438.19	21.63	67.497	
5,000.00	4,990.78	5,193.98	5,175.64	11.30	12.21	-172.90	62.30	-1,237.33	1,456.10	1,434.02	22.08	65.941	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 4H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-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
5,100.00	5,090.35	5,293.91	5,274.73	11.55	12.49	-172.93	62.30	-1,224.45	1,452.39	1,429.85	22.54	64.444	
5,200.00	5,189.92	5,393.84	5,373.83	11.81	12.78	-172.96	62.30	-1,211.58	1,448.68	1,425.69	22.99	63.004	
5,300.00	5,289.49	5,493.77	5,472.92	12.06	13.06	-172.99	62.30	-1,198.70	1,444.97	1,421.52	23.45	61.618	
5,400.00	5,389.06	5,593.70	5,572.02	12.32	13.35	-173.02	62.30	-1,185.82	1,441.26	1,417.35	23.91	60.283	
5,500.00	5,488.63	5,693.62	5,671.11	12.57	13.64	-173.06	62.30	-1,172.95	1,437.55	1,413.18	24.37	58.997	
5,600.00	5,588.20	5,793.55	5,770.21	12.83	13.93	-173.09	62.30	-1,160.07	1,433.84	1,409.01	24.83	57.756	
5,700.00	5,687.77	5,893.48	5,869.30	13.09	14.22	-173.12	62.30	-1,147.19	1,430.13	1,404.84	25.29	56.560	
5,800.00	5,787.34	5,993.41	5,968.39	13.34	14.51	-173.15	62.30	-1,134.31	1,426.42	1,400.67	25.75	55.404	
5,900.00	5,886.91	6,093.34	6,067.49	13.60	14.80	-173.18	62.30	-1,121.44	1,422.71	1,396.50	26.21	54.288	
6,000.00	5,986.48	6,193.26	6,166.58	13.86	15.09	-173.21	62.30	-1,108.56	1,419.00	1,392.33	26.67	53.210	
6,100.00	6,086.05	6,293.19	6,265.68	14.12	15.38	-173.25	62.30	-1,095.68	1,415.29	1,388.16	27.13	52.167	
6,200.00	6,185.62	6,393.12	6,364.77	14.38	15.67	-173.28	62.30	-1,082.81	1,411.59	1,383.99	27.59	51.158	
6,300.00	6,285.19	6,493.05	6,463.87	14.64	15.97	-173.31	62.30	-1,069.93	1,407.88	1,379.82	28.06	50.182	
6,400.00	6,384.76	6,592.98	6,562.96	14.90	16.26	-173.34	62.30	-1,057.05	1,404.17	1,375.65	28.52	49.236	
6,500.00	6,484.33	6,692.90	6,662.06	15.16	16.56	-173.38	62.30	-1,044.18	1,400.47	1,371.48	28.98	48.320	
6,600.00	6,583.90	6,792.83	6,761.15	15.42	16.85	-173.41	62.30	-1,031.30	1,396.76	1,367.32	29.45	47.432	
6,700.00	6,683.47	6,892.76	6,860.25	15.68	17.14	-173.44	62.30	-1,018.42	1,393.06	1,363.15	29.91	46.572	
6,800.00	6,783.04	6,992.69	6,959.34	15.94	17.44	-173.48	62.30	-1,005.54	1,389.35	1,358.98	30.38	45.737	
6,900.00	6,882.61	7,092.62	7,058.44	16.20	17.74	-173.51	62.30	-992.67	1,385.65	1,354.81	30.84	44.926	
7,000.00	6,982.18	7,192.54	7,157.53	16.46	18.03	-173.54	62.30	-979.79	1,381.95	1,350.64	31.31	44.140	
7,100.00	7,081.75	7,292.47	7,256.63	16.72	18.33	-173.58	62.30	-966.91	1,378.24	1,346.47	31.77	43.376	
7,200.00	7,181.32	7,392.40	7,355.72	16.98	18.63	-173.61	62.30	-954.04	1,374.54	1,342.30	32.24	42.633	
7,300.00	7,280.89	7,492.33	7,454.82	17.25	18.92	-173.65	62.30	-941.16	1,370.84	1,338.13	32.71	41.912	
7,400.00	7,380.46	7,592.26	7,553.91	17.51	19.22	-173.68	62.30	-928.28	1,367.14	1,333.96	33.17	41.210	
7,500.00	7,480.03	7,692.18	7,653.01	17.77	19.52	-173.71	62.30	-915.40	1,363.43	1,329.79	33.64	40.528	
7,600.00	7,579.60	7,792.11	7,752.10	18.03	19.82	-173.75	62.30	-902.53	1,359.73	1,325.62	34.11	39.864	
7,700.00	7,679.17	7,892.04	7,851.20	18.30	20.11	-173.78	62.30	-889.65	1,356.03	1,321.46	34.58	39.218	
7,800.00	7,778.74	7,991.97	7,950.29	18.56	20.41	-173.82	62.30	-876.77	1,352.33	1,317.29	35.05	38.588	
7,900.00	7,878.31	8,091.90	8,049.39	18.82	20.71	-173.85	62.30	-863.90	1,348.63	1,313.12	35.51	37.975	
8,000.00	7,977.88	8,191.83	8,148.48	19.09	21.01	-173.89	62.30	-851.02	1,344.94	1,308.95	35.98	37.378	
8,100.00	8,077.45	8,291.75	8,247.58	19.35	21.31	-173.93	62.30	-838.14	1,341.24	1,304.79	36.45	36.796	
8,200.00	8,177.02	8,391.68	8,346.67	19.61	21.61	-173.96	62.30	-825.26	1,337.54	1,300.62	36.92	36.228	
8,300.00	8,276.59	8,491.61	8,445.77	19.88	21.91	-174.00	62.30	-812.39	1,333.84	1,296.45	37.39	35.675	
8,400.00	8,376.16	8,591.54	8,544.86	20.14	22.21	-174.03	62.30	-799.51	1,330.15	1,292.29	37.86	35.135	
8,500.00	8,475.73	8,691.47	8,643.96	20.41	22.51	-174.07	62.30	-786.63	1,326.45	1,288.12	38.33	34.608	
8,600.00	8,575.30	8,791.39	8,743.05	20.67	22.81	-174.11	62.30	-773.76	1,322.76	1,283.96	38.80	34.094	
8,700.00	8,674.87	8,891.32	8,842.15	20.94	23.11	-174.15	62.30	-760.88	1,319.06	1,279.79	39.27	33.592	
8,800.00	8,774.44	8,991.25	8,941.24	21.20	23.41	-174.18	62.30	-748.00	1,315.37	1,275.63	39.74	33.101	
8,900.00	8,874.01	9,091.18	9,040.34	21.47	23.71	-174.22	62.30	-735.12	1,311.67	1,271.46	40.21	32.622	
9,000.00	8,973.58	9,191.11	9,139.43	21.73	24.01	-174.26	62.30	-722.25	1,307.98	1,267.30	40.68	32.154	
9,100.00	9,073.15	9,291.03	9,238.53	22.00	24.31	-174.30	62.30	-709.37	1,304.29	1,263.14	41.15	31.697	
9,200.00	9,172.72	9,390.96	9,337.62	22.26	24.61	-174.33	62.30	-696.49	1,300.59	1,258.97	41.62	31.250	
9,300.00	9,272.29	9,490.89	9,436.72	22.53	24.91	-174.37	62.30	-683.62	1,296.90	1,254.81	42.09	30.812	
9,400.00	9,371.86	9,590.82	9,535.81	22.79	25.22	-174.41	62.30	-670.74	1,293.21	1,250.65	42.56	30.385	
9,500.00	9,471.43	9,690.75	9,634.91	23.06	25.52	-174.45	62.30	-657.86	1,289.52	1,246.49	43.03	29.966	
9,600.00	9,571.00	9,790.67	9,734.00	23.32	25.82	-174.49	62.30	-644.98	1,285.83	1,242.33	43.50	29.557	
9,700.00	9,670.57	9,890.60	9,833.10	23.59	26.12	-174.53	62.30	-632.11	1,282.14	1,238.17	43.98	29.156	
9,800.00	9,770.14	9,990.53	9,932.19	23.85	26.42	-174.57	62.30	-619.23	1,278.45	1,234.01	44.45	28.764	
9,900.00	9,869.72	10,090.46	10,031.29	24.12	26.72	-174.61	62.30	-606.35	1,274.77	1,229.85	44.92	28.380	
10,000.00	9,969.29	10,190.39	10,130.38	24.38	27.03	-174.65	62.30	-593.48	1,271.08	1,225.69	45.39	28.003	
10,100.00	10,068.86	10,290.31	10,229.48	24.65	27.33	-174.69	62.30	-580.60	1,267.39	1,221.53	45.86	27.635	
10,200.00	10,168.43	10,390.24	10,328.57	24.92	27.63	-174.73	62.30	-567.72	1,263.71	1,217.37	46.33	27.274	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 4H - OH - Plan #1											Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM MWD+HDGM											Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)		Minimum Separation (usft)
10,300.00	10,268.00	10,478.17	10,415.80	25.18	27.88	-174.76	62.30	-556.65	1,260.34	1,213.56	46.78	26.941
10,400.00	10,367.57	10,560.13	10,497.24	25.45	28.06	-174.80	62.30	-547.44	1,258.32	1,211.12	47.20	26.661
10,491.00	10,458.18	10,634.75	10,571.49	25.69	28.22	-174.83	62.30	-540.08	1,257.73	1,210.16	47.56	26.444 CC
10,500.00	10,467.14	10,642.13	10,578.84	25.71	28.24	-174.83	62.30	-539.40	1,257.73	1,210.13	47.60	26.424
10,600.00	10,566.71	10,724.12	10,660.54	25.98	28.40	-174.86	62.30	-532.53	1,258.58	1,210.58	47.99	26.225
10,700.00	10,666.28	10,800.00	10,736.24	26.25	28.55	-174.89	62.30	-527.21	1,260.87	1,212.50	48.37	26.070
10,800.00	10,765.85	10,887.95	10,824.05	26.51	28.72	-174.93	62.30	-522.30	1,264.56	1,215.80	48.76	25.937
10,900.00	10,865.42	10,969.73	10,905.76	26.78	28.86	-174.96	62.30	-518.94	1,269.69	1,220.57	49.12	25.847
11,004.37	10,969.33	11,054.94	10,990.93	27.06	29.00	-174.99	62.30	-516.69	1,276.57	1,227.07	49.50	25.789
11,100.00	11,064.63	11,132.90	11,068.89	27.28	29.13	-175.02	62.30	-515.73	1,283.43	1,233.62	49.82	25.763
11,200.00	11,164.40	11,225.71	11,161.70	27.47	29.28	-175.05	62.30	-515.65	1,290.03	1,239.87	50.17	25.715
11,300.00	11,264.27	11,325.58	11,261.57	27.66	29.45	-175.07	62.30	-515.65	1,295.00	1,244.45	50.55	25.620
11,400.00	11,364.22	11,425.53	11,361.52	27.83	29.63	-175.09	62.30	-515.65	1,298.23	1,247.30	50.92	25.493
11,500.00	11,464.21	11,525.52	11,461.51	28.00	29.81	-175.10	62.30	-515.65	1,299.72	1,248.42	51.30	25.335
11,535.79	11,500.00	11,561.31	11,497.30	28.06	29.87	-90.56	62.30	-515.65	1,299.83	1,248.39	51.44	25.270
11,600.00	11,564.21	11,625.52	11,561.51	28.17	29.99	-90.56	62.30	-515.65	1,299.83	1,248.14	51.69	25.146
11,700.00	11,664.21	11,725.52	11,661.51	28.36	30.16	-90.56	62.30	-515.65	1,299.83	1,247.74	52.10	24.950
11,800.00	11,764.21	11,825.52	11,761.51	28.55	30.34	-90.56	62.30	-515.65	1,299.83	1,247.33	52.50	24.758
11,900.00	11,864.21	11,925.52	11,861.51	28.74	30.52	-90.56	62.30	-515.65	1,299.83	1,246.92	52.91	24.568
12,006.83	11,971.04	12,032.35	11,968.34	28.95	30.72	-90.56	62.30	-515.65	1,299.83	1,246.49	53.34	24.367
12,050.00	12,014.17	12,075.47	12,011.47	29.03	30.79	89.51	62.30	-515.65	1,299.82	1,246.30	53.51	24.290
12,100.00	12,063.80	12,125.11	12,061.10	29.11	30.88	89.78	62.30	-515.65	1,299.78	1,246.08	53.70	24.204
12,127.69	12,091.01	12,152.32	12,088.31	29.15	30.93	90.00	62.30	-515.65	1,299.77	1,245.97	53.80	24.158
12,150.00	12,112.72	12,174.19	12,110.18	29.19	30.97	90.21	61.98	-515.65	1,299.78	1,245.90	53.88	24.122
12,200.00	12,160.57	12,223.91	12,159.73	29.27	31.05	90.67	58.17	-515.65	1,299.86	1,245.80	54.06	24.045
12,250.00	12,206.97	12,274.59	12,209.71	29.35	31.14	91.13	49.88	-515.65	1,300.04	1,245.80	54.24	23.970
12,300.00	12,251.58	12,326.30	12,259.75	29.43	31.22	91.59	36.90	-515.65	1,300.29	1,245.88	54.41	23.897
12,350.00	12,294.05	12,379.08	12,309.41	29.50	31.31	92.04	19.06	-515.65	1,300.63	1,246.04	54.59	23.825
12,400.00	12,334.07	12,432.97	12,358.19	29.58	31.40	92.48	-3.79	-515.65	1,301.04	1,246.27	54.77	23.753
12,450.00	12,371.32	12,488.01	12,405.57	29.66	31.49	92.91	-31.75	-515.65	1,301.51	1,246.54	54.97	23.678
12,500.00	12,405.53	12,544.20	12,450.95	29.74	31.59	93.32	-64.85	-515.65	1,302.03	1,246.85	55.18	23.598
12,550.00	12,436.43	12,601.54	12,493.69	29.83	31.70	93.70	-103.04	-515.65	1,302.57	1,247.16	55.41	23.509
12,600.00	12,463.78	12,660.02	12,533.13	29.93	31.81	94.06	-146.19	-515.65	1,303.12	1,247.45	55.67	23.408
12,650.00	12,487.39	12,719.58	12,568.56	30.04	31.94	94.39	-194.03	-515.65	1,303.66	1,247.69	55.97	23.291
12,700.00	12,507.07	12,780.15	12,599.31	30.17	32.09	94.67	-246.19	-515.65	1,304.17	1,247.84	56.32	23.155
12,750.00	12,522.67	12,841.64	12,624.71	30.31	32.25	94.92	-302.15	-515.65	1,304.63	1,247.89	56.73	22.997
12,800.00	12,534.07	12,903.92	12,644.18	30.47	32.45	95.12	-361.27	-515.65	1,305.01	1,247.81	57.20	22.815
12,850.00	12,541.18	12,966.83	12,657.22	30.65	32.67	95.27	-422.79	-515.65	1,305.31	1,247.58	57.74	22.608
12,900.00	12,543.96	13,030.21	12,663.46	30.84	32.92	95.37	-485.82	-515.65	1,305.51	1,247.18	58.33	22.381
12,906.83	12,544.00	13,038.89	12,663.77	30.87	32.96	95.38	-494.50	-515.65	1,305.53	1,247.12	58.42	22.349
13,000.00	12,544.00	13,135.52	12,664.00	31.30	33.41	95.39	-591.12	-515.65	1,305.55	1,246.11	59.44	21.965
13,100.00	12,544.00	13,235.52	12,664.00	31.84	33.95	95.39	-691.12	-515.65	1,305.55	1,244.91	60.64	21.530
13,200.00	12,544.00	13,335.52	12,664.00	32.45	34.55	95.39	-791.12	-515.65	1,305.55	1,243.56	61.99	21.061
13,300.00	12,544.00	13,435.52	12,664.00	33.13	35.23	95.39	-891.12	-515.65	1,305.55	1,242.07	63.48	20.568
13,400.00	12,544.00	13,535.52	12,664.00	33.87	35.96	95.39	-991.12	-515.65	1,305.55	1,240.46	65.09	20.057
13,500.00	12,544.00	13,635.52	12,664.00	34.68	36.76	95.39	-1,091.12	-515.65	1,305.55	1,238.72	66.83	19.536
13,600.00	12,544.00	13,735.52	12,664.00	35.54	37.61	95.39	-1,191.12	-515.65	1,305.55	1,236.87	68.68	19.010
13,700.00	12,544.00	13,835.52	12,664.00	36.46	38.51	95.39	-1,291.12	-515.65	1,305.55	1,234.92	70.63	18.486
13,800.00	12,544.00	13,935.52	12,664.00	37.43	39.46	95.39	-1,391.12	-515.65	1,305.55	1,232.88	72.67	17.966
13,900.00	12,544.00	14,035.52	12,664.00	38.44	40.45	95.39	-1,491.12	-515.65	1,305.55	1,230.75	74.80	17.454
14,000.00	12,544.00	14,135.52	12,664.00	39.49	41.49	95.39	-1,591.12	-515.65	1,305.55	1,228.54	77.01	16.954
14,100.00	12,544.00	14,235.52	12,664.00	40.59	42.56	95.39	-1,691.12	-515.65	1,305.55	1,226.26	79.29	16.466

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 4H - OH - Plan #1												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
14,200.00	12,544.00	14,335.52	12,664.00	41.71	43.67	95.39	-1,791.12	-515.65	1,305.55	1,223.92	81.63	15.993	
14,300.00	12,544.00	14,435.52	12,664.00	42.88	44.81	95.39	-1,891.12	-515.65	1,305.55	1,221.51	84.04	15.535	
14,400.00	12,544.00	14,535.52	12,664.00	44.07	45.98	95.39	-1,991.12	-515.65	1,305.55	1,219.04	86.50	15.092	
14,500.00	12,544.00	14,635.52	12,664.00	45.28	47.17	95.39	-2,091.12	-515.65	1,305.55	1,216.53	89.02	14.666	
14,600.00	12,544.00	14,735.52	12,664.00	46.53	48.40	95.39	-2,191.12	-515.65	1,305.55	1,213.97	91.58	14.256	
14,700.00	12,544.00	14,835.52	12,664.00	47.80	49.64	95.39	-2,291.12	-515.65	1,305.55	1,211.36	94.18	13.862	
14,800.00	12,544.00	14,935.52	12,664.00	49.08	50.91	95.39	-2,391.12	-515.65	1,305.55	1,208.72	96.83	13.483	
14,900.00	12,544.00	15,035.52	12,664.00	50.39	52.20	95.39	-2,491.12	-515.65	1,305.55	1,206.04	99.51	13.120	
15,000.00	12,544.00	15,135.52	12,664.00	51.72	53.51	95.39	-2,591.12	-515.65	1,305.55	1,203.33	102.22	12.772	
15,100.00	12,544.00	15,235.52	12,664.00	53.07	54.84	95.39	-2,691.12	-515.65	1,305.55	1,200.58	104.97	12.438	
15,200.00	12,544.00	15,335.52	12,664.00	54.43	56.18	95.39	-2,791.12	-515.65	1,305.55	1,197.81	107.74	12.118	
15,300.00	12,544.00	15,435.52	12,664.00	55.80	57.53	95.39	-2,891.12	-515.65	1,305.55	1,195.01	110.54	11.811	
15,400.00	12,544.00	15,535.52	12,664.00	57.19	58.91	95.39	-2,991.12	-515.65	1,305.55	1,192.19	113.36	11.516	
15,500.00	12,544.00	15,635.52	12,664.00	58.59	60.29	95.39	-3,091.12	-515.65	1,305.55	1,189.34	116.21	11.234	
15,600.00	12,544.00	15,735.52	12,664.00	60.01	61.69	95.39	-3,191.12	-515.65	1,305.55	1,186.47	119.08	10.964	
15,700.00	12,544.00	15,835.52	12,664.00	61.43	63.09	95.39	-3,291.12	-515.65	1,305.55	1,183.58	121.97	10.704	
15,800.00	12,544.00	15,935.52	12,664.00	62.87	64.51	95.39	-3,391.12	-515.65	1,305.55	1,180.68	124.87	10.455	
15,900.00	12,544.00	16,035.52	12,664.00	64.31	65.94	95.39	-3,491.12	-515.65	1,305.55	1,177.75	127.79	10.216	
16,000.00	12,544.00	16,135.52	12,664.00	65.76	67.38	95.39	-3,591.12	-515.65	1,305.55	1,174.82	130.73	9.986	
16,100.00	12,544.00	16,235.52	12,664.00	67.22	68.83	95.39	-3,691.12	-515.65	1,305.55	1,171.86	133.69	9.766	
16,200.00	12,544.00	16,335.52	12,664.00	68.69	70.28	95.39	-3,791.12	-515.65	1,305.55	1,168.90	136.65	9.554	
16,300.00	12,544.00	16,435.52	12,664.00	70.17	71.74	95.39	-3,891.12	-515.65	1,305.55	1,165.92	139.63	9.350	
16,400.00	12,544.00	16,535.52	12,664.00	71.65	73.21	95.39	-3,991.12	-515.65	1,305.55	1,162.92	142.62	9.154	
16,500.00	12,544.00	16,635.52	12,664.00	73.14	74.69	95.39	-4,091.12	-515.65	1,305.55	1,159.92	145.63	8.965	
16,600.00	12,544.00	16,735.52	12,664.00	74.64	76.17	95.39	-4,191.12	-515.65	1,305.55	1,156.91	148.64	8.783	
16,700.00	12,544.00	16,835.52	12,664.00	76.14	77.66	95.39	-4,291.12	-515.65	1,305.55	1,153.88	151.67	8.608	
16,800.00	12,544.00	16,935.52	12,664.00	77.65	79.16	95.39	-4,391.12	-515.65	1,305.55	1,150.85	154.70	8.439	
16,900.00	12,544.00	17,035.52	12,664.00	79.16	80.66	95.39	-4,491.12	-515.65	1,305.55	1,147.81	157.74	8.276	
17,000.00	12,544.00	17,135.52	12,664.00	80.67	82.16	95.39	-4,591.12	-515.65	1,305.55	1,144.75	160.79	8.119	
17,100.00	12,544.00	17,235.52	12,664.00	82.20	83.67	95.39	-4,691.12	-515.65	1,305.55	1,141.70	163.85	7.968	
17,200.00	12,544.00	17,335.52	12,664.00	83.72	85.19	95.39	-4,791.12	-515.65	1,305.55	1,138.63	166.92	7.821	
17,300.00	12,544.00	17,435.52	12,664.00	85.25	86.71	95.39	-4,891.12	-515.65	1,305.55	1,135.56	169.99	7.680	
17,400.00	12,544.00	17,535.52	12,664.00	86.78	88.23	95.39	-4,991.12	-515.65	1,305.55	1,132.47	173.07	7.543	
17,500.00	12,544.00	17,635.52	12,664.00	88.32	89.76	95.39	-5,091.12	-515.65	1,305.55	1,129.39	176.16	7.411	
17,600.00	12,544.00	17,735.52	12,664.00	89.86	91.29	95.39	-5,191.12	-515.65	1,305.55	1,126.30	179.25	7.283	
17,700.00	12,544.00	17,835.52	12,664.00	91.41	92.82	95.39	-5,291.12	-515.65	1,305.55	1,123.20	182.35	7.160	
17,800.00	12,544.00	17,935.52	12,664.00	92.95	94.36	95.39	-5,391.12	-515.65	1,305.55	1,120.09	185.46	7.040	
17,900.00	12,544.00	18,035.52	12,664.00	94.50	95.90	95.39	-5,491.12	-515.65	1,305.55	1,116.98	188.56	6.924	
18,000.00	12,544.00	18,135.52	12,664.00	96.05	97.45	95.39	-5,591.12	-515.65	1,305.55	1,113.87	191.68	6.811	
18,100.00	12,544.00	18,235.52	12,664.00	97.61	98.99	95.39	-5,691.12	-515.65	1,305.55	1,110.75	194.80	6.702	
18,200.00	12,544.00	18,335.52	12,664.00	99.17	100.54	95.39	-5,791.12	-515.65	1,305.55	1,107.63	197.92	6.596	
18,300.00	12,544.00	18,435.52	12,664.00	100.73	102.10	95.39	-5,891.12	-515.65	1,305.55	1,104.50	201.05	6.494	
18,400.00	12,544.00	18,535.52	12,664.00	102.29	103.65	95.39	-5,991.12	-515.65	1,305.55	1,101.37	204.18	6.394	
18,500.00	12,544.00	18,635.52	12,664.00	103.85	105.21	95.39	-6,091.12	-515.65	1,305.55	1,098.23	207.31	6.297	
18,600.00	12,544.00	18,735.52	12,664.00	105.42	106.77	95.39	-6,191.12	-515.65	1,305.55	1,095.09	210.45	6.203	
18,700.00	12,544.00	18,835.52	12,664.00	106.99	108.33	95.39	-6,291.12	-515.65	1,305.55	1,091.95	213.60	6.112	
18,800.00	12,544.00	18,935.52	12,664.00	108.56	109.89	95.39	-6,391.12	-515.65	1,305.55	1,088.81	216.74	6.023	
18,900.00	12,544.00	19,035.52	12,664.00	110.13	111.46	95.39	-6,491.12	-515.65	1,305.55	1,085.66	219.89	5.937	
19,000.00	12,544.00	19,135.52	12,664.00	111.71	113.03	95.39	-6,591.12	-515.65	1,305.55	1,082.50	223.04	5.853	
19,100.00	12,544.00	19,235.52	12,664.00	113.28	114.60	95.39	-6,691.12	-515.65	1,305.55	1,079.35	226.20	5.772	
19,200.00	12,544.00	19,335.52	12,664.00	114.86	116.17	95.39	-6,791.12	-515.65	1,305.55	1,076.19	229.36	5.692	
19,300.00	12,544.00	19,435.52	12,664.00	116.44	117.74	95.39	-6,891.12	-515.65	1,305.55	1,073.03	232.52	5.615	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 4H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
19,400.00	12,544.00	19,535.52	12,664.00	118.02	119.32	95.39	-6,991.12	-515.65	1,305.55	1,069.87	235.68	5.539	
19,500.00	12,544.00	19,635.52	12,664.00	119.60	120.89	95.39	-7,091.12	-515.65	1,305.55	1,066.70	238.85	5.466	
19,600.00	12,544.00	19,735.52	12,664.00	121.19	122.47	95.39	-7,191.12	-515.65	1,305.55	1,063.53	242.02	5.394	
19,700.00	12,544.00	19,835.52	12,664.00	122.77	124.05	95.39	-7,291.12	-515.65	1,305.55	1,060.36	245.19	5.325	
19,800.00	12,544.00	19,935.52	12,664.00	124.36	125.63	95.39	-7,391.12	-515.65	1,305.55	1,057.19	248.36	5.257	
19,900.00	12,544.00	20,035.52	12,664.00	125.95	127.21	95.39	-7,491.12	-515.65	1,305.55	1,054.01	251.54	5.190	
20,000.00	12,544.00	20,135.52	12,664.00	127.53	128.80	95.39	-7,591.12	-515.65	1,305.55	1,050.84	254.71	5.126	
20,100.00	12,544.00	20,235.52	12,664.00	129.12	130.38	95.39	-7,691.12	-515.65	1,305.55	1,047.66	257.89	5.062	
20,200.00	12,544.00	20,335.52	12,664.00	130.72	131.97	95.39	-7,791.12	-515.65	1,305.55	1,044.48	261.07	5.001	
20,300.00	12,544.00	20,435.52	12,664.00	132.31	133.56	95.39	-7,891.12	-515.65	1,305.55	1,041.29	264.26	4.940	
20,400.00	12,544.00	20,535.52	12,664.00	133.90	135.14	95.39	-7,991.12	-515.65	1,305.55	1,038.11	267.44	4.882	
20,500.00	12,544.00	20,635.52	12,664.00	135.49	136.73	95.39	-8,091.12	-515.65	1,305.55	1,034.92	270.63	4.824	
20,600.00	12,544.00	20,735.52	12,664.00	137.09	138.32	95.39	-8,191.12	-515.65	1,305.55	1,031.73	273.82	4.768	
20,700.00	12,544.00	20,835.52	12,664.00	138.68	139.91	95.39	-8,291.12	-515.65	1,305.55	1,028.54	277.01	4.713	
20,800.00	12,544.00	20,935.52	12,664.00	140.28	141.51	95.39	-8,391.12	-515.65	1,305.55	1,025.35	280.20	4.659	
20,900.00	12,544.00	21,035.52	12,664.00	141.88	143.10	95.39	-8,491.12	-515.65	1,305.55	1,022.16	283.39	4.607	
21,000.00	12,544.00	21,135.52	12,664.00	143.48	144.69	95.39	-8,591.12	-515.65	1,305.55	1,018.96	286.58	4.556	
21,100.00	12,544.00	21,235.52	12,664.00	145.08	146.29	95.39	-8,691.12	-515.65	1,305.55	1,015.77	289.78	4.505	
21,200.00	12,544.00	21,335.52	12,664.00	146.68	147.89	95.39	-8,791.12	-515.65	1,305.55	1,012.57	292.98	4.456	
21,300.00	12,544.00	21,435.52	12,664.00	148.28	149.48	95.39	-8,891.12	-515.65	1,305.55	1,009.37	296.18	4.408	
21,400.00	12,544.00	21,535.52	12,664.00	149.88	151.08	95.39	-8,991.12	-515.65	1,305.55	1,006.17	299.38	4.361	
21,500.00	12,544.00	21,635.52	12,664.00	151.48	152.68	95.39	-9,091.12	-515.65	1,305.55	1,002.97	302.58	4.315	
21,600.00	12,544.00	21,735.52	12,664.00	153.08	154.28	95.39	-9,191.12	-515.65	1,305.55	999.77	305.78	4.270	
21,700.00	12,544.00	21,835.52	12,664.00	154.69	155.88	95.39	-9,291.12	-515.65	1,305.55	996.57	308.98	4.225	
21,800.00	12,544.00	21,935.52	12,664.00	156.29	157.48	95.39	-9,391.12	-515.65	1,305.55	993.36	312.19	4.182	
21,900.00	12,544.00	22,035.52	12,664.00	157.90	159.08	95.39	-9,491.12	-515.65	1,305.55	990.16	315.39	4.139	
22,000.00	12,544.00	22,135.52	12,664.00	159.50	160.68	95.39	-9,591.12	-515.65	1,305.55	986.95	318.60	4.098	
22,100.00	12,544.00	22,235.52	12,664.00	161.11	162.28	95.39	-9,691.12	-515.65	1,305.55	983.74	321.81	4.057	
22,181.55	12,544.00	22,317.06	12,664.00	162.42	163.59	95.39	-9,772.67	-515.65	1,305.55	981.13	324.42	4.024 ES, SF	

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 5H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore +N/-S (usft)	Centre +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	-87.79	62.30	-1,611.77	1,612.98				
100.00	100.00	97.30	97.30	0.08	0.08	-87.79	62.30	-1,611.77	1,612.97	1,612.81	0.17	9,699.239	
200.00	200.00	197.30	197.30	0.31	0.30	-87.79	62.30	-1,611.77	1,612.97	1,612.36	0.61	2,635.414	
300.00	300.00	297.30	297.30	0.53	0.53	-87.79	62.30	-1,611.77	1,612.97	1,611.91	1.06	1,519.422	
400.00	400.00	397.30	397.30	0.76	0.75	-87.79	62.30	-1,611.77	1,612.97	1,611.46	1.51	1,067.415	
500.00	500.00	497.30	497.30	0.98	0.98	-87.79	62.30	-1,611.77	1,612.97	1,611.01	1.96	822.679	
600.00	600.00	597.30	597.30	1.21	1.20	-87.79	62.30	-1,611.77	1,612.97	1,610.56	2.41	669.237	
700.00	700.00	697.30	697.30	1.43	1.43	-87.79	62.30	-1,611.77	1,612.97	1,610.11	2.86	564.036	
800.00	800.00	797.30	797.30	1.66	1.65	-87.79	62.30	-1,611.77	1,612.97	1,609.66	3.31	487.417	
900.00	900.00	897.30	897.30	1.88	1.88	-87.79	62.30	-1,611.77	1,612.97	1,609.21	3.76	429.124	
1,000.00	1,000.00	997.30	997.30	2.11	2.10	-87.79	62.30	-1,611.77	1,612.97	1,608.77	4.21	383.284	
1,100.00	1,100.00	1,097.30	1,097.30	2.33	2.33	-87.79	62.30	-1,611.77	1,612.97	1,608.32	4.66	346.293	
1,200.00	1,200.00	1,197.30	1,197.30	2.56	2.55	-87.79	62.30	-1,611.77	1,612.97	1,607.87	5.11	315.814	
1,300.00	1,300.00	1,297.30	1,297.30	2.78	2.78	-87.79	62.30	-1,611.77	1,612.97	1,607.42	5.56	290.265	
1,400.00	1,400.00	1,397.30	1,397.30	3.01	3.00	-87.79	62.30	-1,611.77	1,612.97	1,606.97	6.01	268.541	
1,500.00	1,500.00	1,497.30	1,497.30	3.23	3.22	-87.79	62.30	-1,611.77	1,612.97	1,606.52	6.46	249.843	
1,600.00	1,600.00	1,597.30	1,597.30	3.46	3.45	-87.79	62.30	-1,611.77	1,612.97	1,606.07	6.91	233.579	
1,700.00	1,700.00	1,697.30	1,697.30	3.68	3.67	-87.79	62.30	-1,611.77	1,612.97	1,605.62	7.36	219.302	
1,800.00	1,800.00	1,797.30	1,797.30	3.91	3.90	-87.79	62.30	-1,611.77	1,612.97	1,605.17	7.80	206.671	
1,900.00	1,900.00	1,897.30	1,897.30	4.13	4.12	-87.79	62.30	-1,611.77	1,612.97	1,604.72	8.25	195.415	
2,000.00	2,000.00	1,997.30	1,997.30	4.35	4.35	-87.79	62.30	-1,611.77	1,612.97	1,604.27	8.70	185.322	
2,100.00	2,100.00	2,097.30	2,097.30	4.58	4.57	-87.79	62.30	-1,611.77	1,612.97	1,603.82	9.15	176.221	
2,200.00	2,200.00	2,197.30	2,197.30	4.80	4.80	-87.79	62.30	-1,611.77	1,612.97	1,603.37	9.60	167.971	
2,300.00	2,300.00	2,297.30	2,297.30	5.03	5.02	-87.79	62.30	-1,611.77	1,612.97	1,602.92	10.05	160.460	
2,400.00	2,400.00	2,397.30	2,397.30	5.25	5.25	-87.79	62.30	-1,611.77	1,612.97	1,602.47	10.50	153.591	
2,500.00	2,500.00	2,497.30	2,497.30	5.48	5.47	-87.79	62.30	-1,611.77	1,612.97	1,602.02	10.95	147.286 CC, ES	
2,600.00	2,599.99	2,597.29	2,597.29	5.69	5.70	-172.33	62.30	-1,611.77	1,613.84	1,602.45	11.39	141.718	
2,700.00	2,699.96	2,697.26	2,697.26	5.89	5.92	-172.33	62.30	-1,611.77	1,616.43	1,604.62	11.81	136.841	
2,800.00	2,799.86	2,797.16	2,797.16	6.10	6.15	-172.35	62.30	-1,611.77	1,620.76	1,608.52	12.24	132.424	
2,900.00	2,899.68	2,896.98	2,896.98	6.30	6.37	-172.37	62.30	-1,611.77	1,626.81	1,614.14	12.67	128.426	
3,000.00	2,999.37	2,996.67	2,996.67	6.52	6.60	-172.40	62.30	-1,611.77	1,634.58	1,621.49	13.10	124.808	
3,031.43	3,030.67	3,027.97	3,027.97	6.58	6.67	-172.41	62.30	-1,611.77	1,637.38	1,624.15	13.23	123.740	
3,100.00	3,098.94	3,096.24	3,096.24	6.73	6.82	-172.43	62.30	-1,611.77	1,643.68	1,630.15	13.53	121.506	
3,200.00	3,198.51	3,195.81	3,195.81	6.96	7.04	-172.48	62.30	-1,611.77	1,652.86	1,638.90	13.96	118.408	
3,300.00	3,298.08	3,295.38	3,295.38	7.18	7.27	-172.52	62.30	-1,611.77	1,662.05	1,647.65	14.39	115.483	
3,400.00	3,397.65	3,394.95	3,394.95	7.41	7.49	-172.56	62.30	-1,611.77	1,671.23	1,656.40	14.83	112.718	
3,500.00	3,497.22	3,494.52	3,494.52	7.64	7.71	-172.60	62.30	-1,611.77	1,680.41	1,665.15	15.26	110.101	
3,600.00	3,596.79	3,622.28	3,622.27	7.87	7.99	-172.63	63.08	-1,610.72	1,688.82	1,673.06	15.75	107.200	
3,700.00	3,696.36	3,752.01	3,751.93	8.11	8.27	-172.59	65.61	-1,607.33	1,695.46	1,679.22	16.24	104.398	
3,800.00	3,795.93	3,881.94	3,881.66	8.34	8.55	-172.49	69.90	-1,601.56	1,700.33	1,683.61	16.72	101.666	
3,900.00	3,895.51	3,992.46	3,991.88	8.58	8.80	-172.36	74.72	-1,595.10	1,703.81	1,686.64	17.17	99.205	
4,000.00	3,995.08	4,092.34	4,091.49	8.82	9.02	-172.25	79.17	-1,589.12	1,707.19	1,689.58	17.61	96.952	
4,100.00	4,094.65	4,192.23	4,191.09	9.06	9.24	-172.13	83.62	-1,583.15	1,710.57	1,692.53	18.04	94.797	
4,200.00	4,194.22	4,292.11	4,290.70	9.31	9.46	-172.02	88.07	-1,577.17	1,713.96	1,695.48	18.48	92.735	
4,300.00	4,293.79	4,391.99	4,390.30	9.55	9.69	-171.90	92.52	-1,571.20	1,717.36	1,698.44	18.92	90.761	
4,400.00	4,393.36	4,491.88	4,489.91	9.80	9.91	-171.79	96.98	-1,565.22	1,720.77	1,701.40	19.36	88.869	
4,500.00	4,492.93	4,591.76	4,589.51	10.05	10.14	-171.68	101.43	-1,559.25	1,724.18	1,704.37	19.81	87.056	
4,600.00	4,592.50	4,691.64	4,689.12	10.30	10.37	-171.56	105.88	-1,553.27	1,727.60	1,707.35	20.25	85.316	
4,700.00	4,692.07	4,791.53	4,788.72	10.55	10.60	-171.45	110.33	-1,547.30	1,731.02	1,710.33	20.69	83.645	
4,800.00	4,791.64	4,891.41	4,888.33	10.80	10.83	-171.34	114.78	-1,541.32	1,734.46	1,713.31	21.14	82.040	
4,900.00	4,891.21	4,991.29	4,987.93	11.05	11.06	-171.23	119.23	-1,535.35	1,737.89	1,716.30	21.59	80.498	
5,000.00	4,990.78	5,091.18	5,087.54	11.30	11.29	-171.12	123.69	-1,529.37	1,741.34	1,719.30	22.04	79.015	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 5H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
5,100.00	5,090.35	5,191.06	5,187.14	11.55	11.53	-171.01	128.14	-1,523.39	1,744.79	1,722.30	22.49	77.587	
5,200.00	5,189.92	5,290.95	5,286.75	11.81	11.76	-170.90	132.59	-1,517.42	1,748.25	1,725.31	22.94	76.212	
5,300.00	5,289.49	5,390.83	5,386.35	12.06	12.00	-170.79	137.04	-1,511.44	1,751.71	1,728.32	23.39	74.888	
5,400.00	5,389.06	5,490.71	5,485.96	12.32	12.23	-170.68	141.49	-1,505.47	1,755.18	1,731.34	23.84	73.611	
5,500.00	5,488.63	5,590.60	5,585.57	12.57	12.47	-170.57	145.94	-1,499.49	1,758.66	1,734.36	24.30	72.380	
5,600.00	5,588.20	5,690.48	5,685.17	12.83	12.70	-170.46	150.40	-1,493.52	1,762.15	1,737.39	24.75	71.191	
5,700.00	5,687.77	5,790.36	5,784.78	13.09	12.94	-170.35	154.85	-1,487.54	1,765.64	1,740.43	25.21	70.044	
5,800.00	5,787.34	5,890.25	5,884.38	13.34	13.18	-170.24	159.30	-1,481.57	1,769.13	1,743.47	25.66	68.935	
5,900.00	5,886.91	5,990.13	5,983.99	13.60	13.42	-170.14	163.75	-1,475.59	1,772.63	1,746.51	26.12	67.864	
6,000.00	5,986.48	6,090.01	6,083.59	13.86	13.66	-170.03	168.20	-1,469.61	1,776.14	1,749.56	26.58	66.827	
6,100.00	6,086.05	6,189.90	6,183.20	14.12	13.90	-169.92	172.65	-1,463.64	1,779.66	1,752.62	27.04	65.825	
6,200.00	6,185.62	6,289.78	6,282.80	14.38	14.14	-169.82	177.10	-1,457.66	1,783.18	1,755.68	27.50	64.855	
6,300.00	6,285.19	6,389.66	6,382.41	14.64	14.38	-169.71	181.56	-1,451.69	1,786.71	1,758.75	27.95	63.915	
6,400.00	6,384.76	6,489.55	6,482.01	14.90	14.62	-169.61	186.01	-1,445.71	1,790.24	1,761.82	28.41	63.004	
6,500.00	6,484.33	6,589.43	6,581.62	15.16	14.86	-169.50	190.46	-1,439.74	1,793.78	1,764.90	28.88	62.122	
6,600.00	6,583.90	6,689.32	6,681.22	15.42	15.10	-169.40	194.91	-1,433.76	1,797.32	1,767.99	29.34	61.266	
6,700.00	6,683.47	6,789.20	6,780.83	15.68	15.34	-169.29	199.36	-1,427.79	1,800.87	1,771.08	29.80	60.436	
6,800.00	6,783.04	6,889.08	6,880.43	15.94	15.59	-169.19	203.81	-1,421.81	1,804.43	1,774.17	30.26	59.631	
6,900.00	6,882.61	6,988.97	6,980.04	16.20	15.83	-169.09	208.27	-1,415.83	1,807.99	1,777.27	30.72	58.849	
7,000.00	6,982.18	7,088.85	7,079.64	16.46	16.07	-168.98	212.72	-1,409.86	1,811.56	1,780.38	31.19	58.090	
7,100.00	7,081.75	7,188.73	7,179.25	16.72	16.31	-168.88	217.17	-1,403.88	1,815.14	1,783.49	31.65	57.352	
7,200.00	7,181.32	7,288.62	7,278.85	16.98	16.56	-168.78	221.62	-1,397.91	1,818.72	1,786.60	32.11	56.634	
7,300.00	7,280.89	7,388.50	7,378.46	17.25	16.80	-168.68	226.07	-1,391.93	1,822.30	1,789.73	32.58	55.937	
7,400.00	7,380.46	7,488.38	7,478.07	17.51	17.05	-168.58	230.52	-1,385.96	1,825.89	1,792.85	33.04	55.259	
7,500.00	7,480.03	7,588.27	7,577.67	17.77	17.29	-168.47	234.98	-1,379.98	1,829.49	1,795.98	33.51	54.599	
7,600.00	7,579.60	7,688.15	7,677.28	18.03	17.53	-168.37	239.43	-1,374.01	1,833.10	1,799.12	33.97	53.957	
7,700.00	7,679.17	7,788.03	7,776.88	18.30	17.78	-168.27	243.88	-1,368.03	1,836.70	1,802.26	34.44	53.331	
7,800.00	7,778.74	7,887.92	7,876.49	18.56	18.02	-168.17	248.33	-1,362.06	1,840.32	1,805.41	34.91	52.722	
7,900.00	7,878.31	7,987.80	7,976.09	18.82	18.27	-168.08	252.78	-1,356.08	1,843.94	1,808.56	35.37	52.129	
8,000.00	7,977.88	8,087.69	8,075.70	19.09	18.52	-167.98	257.23	-1,350.10	1,847.56	1,811.72	35.84	51.551	
8,100.00	8,077.45	8,187.57	8,175.30	19.35	18.76	-167.88	261.68	-1,344.13	1,851.19	1,814.89	36.31	50.987	
8,200.00	8,177.02	8,287.45	8,274.91	19.61	19.01	-167.78	266.14	-1,338.15	1,854.83	1,818.05	36.78	50.437	
8,300.00	8,276.59	8,387.34	8,374.51	19.88	19.25	-167.68	270.59	-1,332.18	1,858.47	1,821.23	37.24	49.901	
8,400.00	8,376.16	8,487.22	8,474.12	20.14	19.50	-167.59	275.04	-1,326.20	1,862.12	1,824.41	37.71	49.378	
8,500.00	8,475.73	8,587.10	8,573.72	20.41	19.75	-167.49	279.49	-1,320.23	1,865.77	1,827.59	38.18	48.867	
8,600.00	8,575.30	8,686.99	8,673.33	20.67	19.99	-167.39	283.94	-1,314.25	1,869.43	1,830.78	38.65	48.369	
8,700.00	8,674.87	8,786.87	8,772.93	20.94	20.24	-167.30	288.39	-1,308.28	1,873.09	1,833.97	39.12	47.882	
8,800.00	8,774.44	8,886.75	8,872.54	21.20	20.48	-167.20	292.85	-1,302.30	1,876.76	1,837.17	39.59	47.407	
8,900.00	8,874.01	8,986.64	8,972.14	21.47	20.73	-167.10	297.30	-1,296.32	1,880.43	1,840.37	40.06	46.942	
9,000.00	8,973.58	9,086.52	9,071.75	21.73	20.98	-167.01	301.75	-1,290.35	1,884.11	1,843.58	40.53	46.489	
9,100.00	9,073.15	9,186.41	9,171.35	22.00	21.23	-166.91	306.20	-1,284.37	1,887.79	1,846.79	41.00	46.045	
9,200.00	9,172.72	9,286.29	9,270.96	22.26	21.47	-166.82	310.65	-1,278.40	1,891.48	1,850.01	41.47	45.611	
9,300.00	9,272.29	9,386.17	9,370.56	22.53	21.72	-166.73	315.10	-1,272.42	1,895.18	1,853.24	41.94	45.187	
9,400.00	9,371.86	9,486.06	9,470.17	22.79	21.97	-166.63	319.55	-1,266.45	1,898.88	1,856.46	42.41	44.772	
9,500.00	9,471.43	9,585.94	9,569.78	23.06	22.22	-166.54	324.01	-1,260.47	1,902.58	1,859.70	42.88	44.366	
9,600.00	9,571.00	9,685.82	9,669.38	23.32	22.46	-166.45	328.46	-1,254.50	1,906.29	1,862.93	43.36	43.969	
9,700.00	9,670.57	9,785.71	9,768.99	23.59	22.71	-166.35	332.91	-1,248.52	1,910.00	1,866.17	43.83	43.580	
9,800.00	9,770.14	9,885.59	9,868.59	23.85	22.96	-166.26	337.36	-1,242.54	1,913.72	1,869.42	44.30	43.200	
9,900.00	9,869.72	9,985.47	9,968.20	24.12	23.21	-166.17	341.81	-1,236.57	1,917.44	1,872.67	44.77	42.827	
10,000.00	9,969.29	10,085.36	10,067.80	24.38	23.46	-166.08	346.26	-1,230.59	1,921.17	1,875.93	45.24	42.462	
10,100.00	10,068.86	10,185.24	10,167.41	24.65	23.70	-165.99	350.72	-1,224.62	1,924.91	1,879.19	45.72	42.104	
10,200.00	10,168.43	10,285.12	10,267.01	24.92	23.95	-165.90	355.17	-1,218.64	1,928.65	1,882.45	46.19	41.754	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 5H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
10,300.00	10,268.00	10,385.01	10,366.62	25.18	24.20	-165.81	359.62	-1,212.67	1,932.39	1,885.72	46.66	41.410	
10,400.00	10,367.57	10,484.89	10,466.22	25.45	24.45	-165.72	364.07	-1,206.69	1,936.14	1,889.00	47.14	41.074	
10,500.00	10,467.14	10,584.78	10,565.83	25.71	24.70	-165.63	368.52	-1,200.72	1,939.89	1,892.28	47.61	40.744	
10,600.00	10,566.71	10,684.66	10,665.43	25.98	24.95	-165.54	372.97	-1,194.74	1,943.65	1,895.56	48.09	40.420	
10,700.00	10,666.28	10,784.54	10,765.04	26.25	25.20	-165.45	377.43	-1,188.77	1,947.41	1,898.85	48.56	40.103	
10,800.00	10,765.85	10,866.70	10,847.01	26.51	25.36	-165.39	380.80	-1,184.24	1,951.60	1,902.64	48.96	39.862	
10,900.00	10,865.42	10,947.38	10,927.56	26.78	25.51	-165.35	383.43	-1,180.71	1,956.76	1,907.42	49.34	39.657	
11,004.37	10,969.33	11,031.49	11,011.61	27.06	25.66	-165.34	385.45	-1,177.99	1,963.20	1,913.46	49.74	39.472	
11,100.00	11,064.63	11,100.00	11,080.09	27.28	25.78	-165.36	386.55	-1,176.52	1,969.29	1,919.23	50.05	39.346	
11,200.00	11,164.40	11,189.04	11,169.12	27.47	25.94	-165.39	387.25	-1,175.58	1,974.91	1,924.52	50.38	39.196	
11,300.00	11,264.27	11,281.50	11,261.57	27.66	26.10	-165.43	387.30	-1,175.51	1,979.66	1,928.93	50.73	39.020	
11,400.00	11,364.22	11,381.44	11,361.52	27.83	26.31	-165.47	387.30	-1,175.51	1,982.80	1,931.68	51.12	38.786	
11,500.00	11,464.21	11,481.43	11,461.51	28.00	26.52	-165.48	387.30	-1,175.51	1,984.25	1,932.74	51.51	38.522	
11,535.79	11,500.00	11,517.22	11,497.30	28.06	26.59	-80.95	387.30	-1,175.51	1,984.36	1,932.71	51.65	38.419	
11,600.00	11,564.21	11,581.43	11,561.51	28.17	26.73	-80.95	387.30	-1,175.51	1,984.36	1,932.45	51.91	38.225	
11,700.00	11,664.21	11,681.43	11,661.51	28.36	26.94	-80.95	387.30	-1,175.51	1,984.36	1,932.03	52.33	37.922	
11,800.00	11,764.21	11,781.43	11,761.51	28.55	27.14	-80.95	387.30	-1,175.51	1,984.36	1,931.62	52.74	37.623	
11,900.00	11,864.21	11,881.43	11,861.51	28.74	27.35	-80.95	387.30	-1,175.51	1,984.36	1,931.20	53.16	37.328	
12,006.83	11,971.04	11,988.26	11,968.34	28.95	27.58	-80.95	387.30	-1,175.51	1,984.36	1,930.75	53.61	37.017	
12,050.00	12,014.17	12,031.39	12,011.47	29.03	27.67	99.08	387.30	-1,175.51	1,984.62	1,930.83	53.78	36.901	
12,100.00	12,063.80	12,081.02	12,061.10	29.11	27.77	99.15	387.30	-1,175.51	1,985.56	1,931.59	53.98	36.785	
12,150.00	12,112.72	12,129.94	12,110.02	29.19	27.88	99.27	387.30	-1,175.51	1,987.24	1,933.07	54.17	36.686	
12,200.00	12,160.57	12,177.79	12,157.87	29.27	27.98	99.42	387.30	-1,175.51	1,989.69	1,935.34	54.36	36.605	
12,250.00	12,206.97	12,224.19	12,204.27	29.35	28.07	99.58	387.30	-1,175.51	1,992.99	1,938.46	54.54	36.545	
12,300.00	12,251.58	12,325.52	12,305.29	29.43	28.24	100.37	381.07	-1,175.51	1,996.83	1,942.04	54.79	36.446	
12,350.00	12,294.05	12,476.98	12,450.44	29.50	28.40	101.27	339.37	-1,175.51	1,999.51	1,944.56	54.95	36.390	
12,400.00	12,334.07	12,642.07	12,590.17	29.58	28.49	101.58	252.54	-1,175.51	2,000.38	1,945.43	54.95	36.404	
12,450.00	12,371.32	12,806.06	12,698.88	29.66	28.53	101.17	130.50	-1,175.51	1,999.24	1,944.27	54.97	36.372	
12,500.00	12,405.53	12,954.90	12,764.05	29.74	28.58	100.22	-2.85	-1,175.51	1,996.35	1,941.17	55.18	36.179	
12,550.00	12,436.43	13,082.15	12,790.98	29.83	28.74	99.04	-126.95	-1,175.51	1,992.27	1,936.67	55.60	35.834	
12,600.00	12,463.78	13,160.89	12,794.00	29.93	28.92	98.31	-205.58	-1,175.51	1,987.71	1,931.70	56.01	35.487	
12,650.00	12,487.39	13,204.94	12,794.00	30.04	29.05	98.10	-249.64	-1,175.51	1,983.89	1,927.56	56.33	35.221	
12,700.00	12,507.07	13,250.89	12,794.00	30.17	29.21	97.87	-295.59	-1,175.51	1,980.92	1,924.23	56.68	34.947	
12,750.00	12,522.67	13,298.38	12,794.00	30.31	29.39	97.67	-343.08	-1,175.51	1,978.70	1,921.64	57.06	34.680	
12,800.00	12,534.07	13,347.05	12,794.00	30.47	29.60	97.50	-391.74	-1,175.51	1,977.15	1,919.67	57.48	34.395	
12,850.00	12,541.18	13,396.52	12,794.00	30.65	29.83	97.39	-441.22	-1,175.51	1,976.22	1,918.29	57.93	34.116	
12,900.00	12,543.96	13,446.43	12,794.00	30.84	30.09	97.35	-491.12	-1,175.51	1,975.86	1,917.44	58.42	33.820	
12,906.83	12,544.00	13,453.26	12,794.00	30.87	30.12	97.35	-497.96	-1,175.51	1,975.86	1,917.36	58.49	33.780	
13,000.00	12,544.00	13,546.43	12,794.00	31.30	30.66	97.35	-591.12	-1,175.51	1,975.86	1,916.35	59.50	33.205	
13,100.00	12,544.00	13,646.43	12,794.00	31.84	31.30	97.35	-691.12	-1,175.51	1,975.86	1,915.11	60.74	32.529	
13,200.00	12,544.00	13,746.43	12,794.00	32.45	32.02	97.35	-791.12	-1,175.51	1,975.86	1,913.73	62.12	31.805	
13,300.00	12,544.00	13,846.43	12,794.00	33.13	32.80	97.35	-891.12	-1,175.51	1,975.86	1,912.21	63.64	31.047	
13,400.00	12,544.00	13,946.43	12,794.00	33.87	33.64	97.35	-991.12	-1,175.51	1,975.86	1,910.57	65.29	30.265	
13,500.00	12,544.00	14,046.43	12,794.00	34.68	34.54	97.35	-1,091.12	-1,175.51	1,975.86	1,908.81	67.05	29.469	
13,600.00	12,544.00	14,146.43	12,794.00	35.54	35.49	97.35	-1,191.12	-1,175.51	1,975.86	1,906.94	68.92	28.670	
13,700.00	12,544.00	14,246.43	12,794.00	36.46	36.49	97.35	-1,291.12	-1,175.51	1,975.86	1,904.97	70.89	27.874	
13,800.00	12,544.00	14,346.43	12,794.00	37.43	37.53	97.35	-1,391.12	-1,175.51	1,975.86	1,902.91	72.95	27.086	
13,900.00	12,544.00	14,446.43	12,794.00	38.44	38.61	97.35	-1,491.12	-1,175.51	1,975.86	1,900.76	75.09	26.312	
14,000.00	12,544.00	14,546.43	12,794.00	39.49	39.73	97.35	-1,591.12	-1,175.51	1,975.86	1,898.54	77.31	25.556	
14,100.00	12,544.00	14,646.43	12,794.00	40.59	40.89	97.35	-1,691.12	-1,175.51	1,975.86	1,896.25	79.61	24.820	
14,200.00	12,544.00	14,746.43	12,794.00	41.71	42.08	97.35	-1,791.12	-1,175.51	1,975.86	1,893.89	81.96	24.107	
14,300.00	12,544.00	14,846.43	12,794.00	42.88	43.29	97.35	-1,891.12	-1,175.51	1,975.86	1,891.48	84.38	23.416	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 5H - OH - Plan #1												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	
14,400.00	12,544.00	14,946.43	12,794.00	44.07	44.53	97.35	-1,991.12	-1,175.51	1,975.86	1,889.01	86.85	22.750	
14,500.00	12,544.00	15,046.43	12,794.00	45.28	45.80	97.35	-2,091.12	-1,175.51	1,975.86	1,886.49	89.37	22.109	
14,600.00	12,544.00	15,146.43	12,794.00	46.53	47.09	97.35	-2,191.12	-1,175.51	1,975.86	1,883.92	91.94	21.492	
14,700.00	12,544.00	15,246.43	12,794.00	47.80	48.40	97.35	-2,291.12	-1,175.51	1,975.86	1,881.31	94.54	20.899	
14,800.00	12,544.00	15,346.43	12,794.00	49.08	49.73	97.35	-2,391.12	-1,175.51	1,975.86	1,878.67	97.19	20.330	
14,900.00	12,544.00	15,446.43	12,794.00	50.39	51.08	97.35	-2,491.12	-1,175.51	1,975.86	1,875.98	99.87	19.784	
15,000.00	12,544.00	15,546.43	12,794.00	51.72	52.44	97.35	-2,591.12	-1,175.51	1,975.86	1,873.27	102.59	19.260	
15,100.00	12,544.00	15,646.43	12,794.00	53.07	53.82	97.35	-2,691.12	-1,175.51	1,975.86	1,870.52	105.33	18.759	
15,200.00	12,544.00	15,746.43	12,794.00	54.43	55.22	97.35	-2,791.12	-1,175.51	1,975.86	1,867.75	108.10	18.277	
15,300.00	12,544.00	15,846.43	12,794.00	55.80	56.62	97.35	-2,891.12	-1,175.51	1,975.86	1,864.95	110.90	17.816	
15,400.00	12,544.00	15,946.43	12,794.00	57.19	58.04	97.35	-2,991.12	-1,175.51	1,975.86	1,862.13	113.72	17.374	
15,500.00	12,544.00	16,046.43	12,794.00	58.59	59.47	97.35	-3,091.12	-1,175.51	1,975.86	1,859.29	116.57	16.950	
15,600.00	12,544.00	16,146.43	12,794.00	60.01	60.91	97.35	-3,191.12	-1,175.51	1,975.86	1,856.42	119.43	16.543	
15,700.00	12,544.00	16,246.43	12,794.00	61.43	62.36	97.35	-3,291.12	-1,175.51	1,975.86	1,853.54	122.32	16.153	
15,800.00	12,544.00	16,346.43	12,794.00	62.87	63.81	97.35	-3,391.12	-1,175.51	1,975.86	1,850.64	125.22	15.779	
15,900.00	12,544.00	16,446.43	12,794.00	64.31	65.28	97.35	-3,491.12	-1,175.51	1,975.86	1,847.72	128.14	15.420	
16,000.00	12,544.00	16,546.43	12,794.00	65.76	66.75	97.35	-3,591.12	-1,175.51	1,975.86	1,844.78	131.07	15.074	
16,100.00	12,544.00	16,646.43	12,794.00	67.22	68.23	97.35	-3,691.12	-1,175.51	1,975.86	1,841.83	134.02	14.743	
16,200.00	12,544.00	16,746.43	12,794.00	68.69	69.72	97.35	-3,791.12	-1,175.51	1,975.86	1,838.87	136.98	14.424	
16,300.00	12,544.00	16,846.43	12,794.00	70.17	71.22	97.35	-3,891.12	-1,175.51	1,975.86	1,835.90	139.96	14.117	
16,400.00	12,544.00	16,946.43	12,794.00	71.65	72.72	97.35	-3,991.12	-1,175.51	1,975.86	1,832.91	142.95	13.822	
16,500.00	12,544.00	17,046.43	12,794.00	73.14	74.22	97.35	-4,091.12	-1,175.51	1,975.86	1,829.91	145.94	13.539	
16,600.00	12,544.00	17,146.43	12,794.00	74.64	75.73	97.35	-4,191.12	-1,175.51	1,975.86	1,826.90	148.95	13.265	
16,700.00	12,544.00	17,246.43	12,794.00	76.14	77.25	97.35	-4,291.12	-1,175.51	1,975.86	1,823.89	151.97	13.002	
16,800.00	12,544.00	17,346.43	12,794.00	77.65	78.77	97.35	-4,391.12	-1,175.51	1,975.86	1,820.86	155.00	12.748	
16,900.00	12,544.00	17,446.43	12,794.00	79.16	80.30	97.35	-4,491.12	-1,175.51	1,975.86	1,817.82	158.03	12.503	
17,000.00	12,544.00	17,546.43	12,794.00	80.67	81.83	97.35	-4,591.12	-1,175.51	1,975.86	1,814.78	161.08	12.267	
17,100.00	12,544.00	17,646.43	12,794.00	82.20	83.36	97.35	-4,691.12	-1,175.51	1,975.86	1,811.73	164.13	12.038	
17,200.00	12,544.00	17,746.43	12,794.00	83.72	84.90	97.35	-4,791.12	-1,175.51	1,975.86	1,808.67	167.19	11.818	
17,300.00	12,544.00	17,846.43	12,794.00	85.25	86.44	97.35	-4,891.12	-1,175.51	1,975.86	1,805.60	170.26	11.605	
17,400.00	12,544.00	17,946.43	12,794.00	86.78	87.98	97.35	-4,991.12	-1,175.51	1,975.86	1,802.53	173.33	11.399	
17,500.00	12,544.00	18,046.43	12,794.00	88.32	89.53	97.35	-5,091.12	-1,175.51	1,975.86	1,799.45	176.41	11.200	
17,600.00	12,544.00	18,146.43	12,794.00	89.86	91.08	97.35	-5,191.12	-1,175.51	1,975.86	1,796.36	179.49	11.008	
17,700.00	12,544.00	18,246.43	12,794.00	91.41	92.64	97.35	-5,291.12	-1,175.51	1,975.86	1,793.27	182.58	10.822	
17,800.00	12,544.00	18,346.43	12,794.00	92.95	94.19	97.35	-5,391.12	-1,175.51	1,975.86	1,790.18	185.68	10.641	
17,900.00	12,544.00	18,446.43	12,794.00	94.50	95.75	97.35	-5,491.12	-1,175.51	1,975.86	1,787.07	188.78	10.466	
18,000.00	12,544.00	18,546.43	12,794.00	96.05	97.31	97.35	-5,591.12	-1,175.51	1,975.86	1,783.97	191.89	10.297	
18,100.00	12,544.00	18,646.43	12,794.00	97.61	98.88	97.35	-5,691.12	-1,175.51	1,975.86	1,780.86	195.00	10.133	
18,200.00	12,544.00	18,746.43	12,794.00	99.17	100.44	97.35	-5,791.12	-1,175.51	1,975.86	1,777.74	198.11	9.973	
18,300.00	12,544.00	18,846.43	12,794.00	100.73	102.01	97.35	-5,891.12	-1,175.51	1,975.86	1,774.62	201.23	9.819	
18,400.00	12,544.00	18,946.43	12,794.00	102.29	103.58	97.35	-5,991.12	-1,175.51	1,975.86	1,771.50	204.36	9.669	
18,500.00	12,544.00	19,046.43	12,794.00	103.85	105.15	97.35	-6,091.12	-1,175.51	1,975.86	1,768.37	207.48	9.523	
18,600.00	12,544.00	19,146.43	12,794.00	105.42	106.73	97.35	-6,191.12	-1,175.51	1,975.86	1,765.24	210.61	9.381	
18,700.00	12,544.00	19,246.43	12,794.00	106.99	108.30	97.35	-6,291.12	-1,175.51	1,975.86	1,762.11	213.75	9.244	
18,800.00	12,544.00	19,346.43	12,794.00	108.56	109.88	97.35	-6,391.12	-1,175.51	1,975.86	1,758.97	216.89	9.110	
18,900.00	12,544.00	19,446.43	12,794.00	110.13	111.46	97.35	-6,491.12	-1,175.51	1,975.86	1,755.83	220.03	8.980	
19,000.00	12,544.00	19,546.43	12,794.00	111.71	113.04	97.35	-6,591.12	-1,175.51	1,975.86	1,752.69	223.17	8.854	
19,100.00	12,544.00	19,646.43	12,794.00	113.28	114.62	97.35	-6,691.12	-1,175.51	1,975.86	1,749.54	226.32	8.730	
19,200.00	12,544.00	19,746.43	12,794.00	114.86	116.20	97.35	-6,791.12	-1,175.51	1,975.86	1,746.39	229.47	8.611	
19,300.00	12,544.00	19,846.43	12,794.00	116.44	117.79	97.35	-6,891.12	-1,175.51	1,975.86	1,743.24	232.62	8.494	
19,400.00	12,544.00	19,946.43	12,794.00	118.02	119.38	97.35	-6,991.12	-1,175.51	1,975.86	1,740.08	235.77	8.380	
19,500.00	12,544.00	20,046.43	12,794.00	119.60	120.96	97.35	-7,091.12	-1,175.51	1,975.86	1,736.92	238.93	8.270	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 5H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,600.00	12,544.00	20,146.43	12,794.00	121.19	122.55	97.35	-7,191.12	-1,175.51	1,975.86	1,733.76	242.09	8.162	
19,700.00	12,544.00	20,246.43	12,794.00	122.77	124.14	97.35	-7,291.12	-1,175.51	1,975.86	1,730.60	245.25	8.056	
19,800.00	12,544.00	20,346.43	12,794.00	124.36	125.73	97.35	-7,391.12	-1,175.51	1,975.86	1,727.44	248.42	7.954	
19,900.00	12,544.00	20,446.43	12,794.00	125.95	127.32	97.35	-7,491.12	-1,175.51	1,975.86	1,724.27	251.58	7.854	
20,000.00	12,544.00	20,546.43	12,794.00	127.53	128.92	97.35	-7,591.12	-1,175.51	1,975.86	1,721.10	254.75	7.756	
20,100.00	12,544.00	20,646.43	12,794.00	129.12	130.51	97.35	-7,691.12	-1,175.51	1,975.86	1,717.93	257.92	7.661	
20,200.00	12,544.00	20,746.43	12,794.00	130.72	132.11	97.35	-7,791.12	-1,175.51	1,975.86	1,714.76	261.10	7.568	
20,300.00	12,544.00	20,846.43	12,794.00	132.31	133.70	97.35	-7,891.12	-1,175.51	1,975.86	1,711.59	264.27	7.477	
20,400.00	12,544.00	20,946.43	12,794.00	133.90	135.30	97.35	-7,991.12	-1,175.51	1,975.86	1,708.41	267.45	7.388	
20,500.00	12,544.00	21,046.43	12,794.00	135.49	136.90	97.35	-8,091.12	-1,175.51	1,975.86	1,705.23	270.62	7.301	
20,600.00	12,544.00	21,146.43	12,794.00	137.09	138.50	97.35	-8,191.12	-1,175.51	1,975.86	1,702.05	273.80	7.216	
20,700.00	12,544.00	21,246.43	12,794.00	138.68	140.10	97.35	-8,291.12	-1,175.51	1,975.86	1,698.87	276.98	7.133	
20,800.00	12,544.00	21,346.43	12,794.00	140.28	141.70	97.35	-8,391.12	-1,175.51	1,975.86	1,695.69	280.17	7.052	
20,900.00	12,544.00	21,446.43	12,794.00	141.88	143.30	97.35	-8,491.12	-1,175.51	1,975.86	1,692.51	283.35	6.973	
21,000.00	12,544.00	21,546.43	12,794.00	143.48	144.90	97.35	-8,591.12	-1,175.51	1,975.86	1,689.32	286.53	6.896	
21,100.00	12,544.00	21,646.43	12,794.00	145.08	146.50	97.35	-8,691.12	-1,175.51	1,975.86	1,686.14	289.72	6.820	
21,200.00	12,544.00	21,746.43	12,794.00	146.68	148.11	97.35	-8,791.12	-1,175.51	1,975.86	1,682.95	292.91	6.746	
21,300.00	12,544.00	21,846.43	12,794.00	148.28	149.71	97.35	-8,891.12	-1,175.51	1,975.86	1,679.76	296.10	6.673	
21,400.00	12,544.00	21,946.43	12,794.00	149.88	151.32	97.35	-8,991.12	-1,175.51	1,975.86	1,676.57	299.29	6.602	
21,500.00	12,544.00	22,046.43	12,794.00	151.48	152.92	97.35	-9,091.12	-1,175.51	1,975.86	1,673.38	302.48	6.532	
21,600.00	12,544.00	22,146.43	12,794.00	153.08	154.53	97.35	-9,191.12	-1,175.51	1,975.86	1,670.18	305.67	6.464	
21,700.00	12,544.00	22,246.43	12,794.00	154.69	156.13	97.35	-9,291.12	-1,175.51	1,975.86	1,666.99	308.87	6.397	
21,800.00	12,544.00	22,346.43	12,794.00	156.29	157.74	97.35	-9,391.12	-1,175.51	1,975.86	1,663.79	312.06	6.332	
21,900.00	12,544.00	22,446.43	12,794.00	157.90	159.35	97.35	-9,491.12	-1,175.51	1,975.86	1,660.60	315.26	6.267	
22,000.00	12,544.00	22,546.43	12,794.00	159.50	160.96	97.35	-9,591.12	-1,175.51	1,975.86	1,657.40	318.46	6.204	
22,100.00	12,544.00	22,646.43	12,794.00	161.11	162.57	97.35	-9,691.12	-1,175.51	1,975.86	1,654.20	321.65	6.143	
22,181.55	12,544.00	22,727.98	12,794.00	162.42	163.88	97.35	-9,772.67	-1,175.51	1,975.86	1,651.59	324.26	6.093 SF	

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 6H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance				Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	1.30	1.30	0.00	0.00	-176.82	-75.65	-4.20	75.77				
100.00	100.00	101.30	101.30	0.08	0.09	-176.82	-75.65	-4.20	75.77	75.60	0.17	441.796	
200.00	200.00	201.30	201.30	0.31	0.31	-176.82	-75.65	-4.20	75.77	75.15	0.62	122.002	
300.00	300.00	301.30	301.30	0.53	0.54	-176.82	-75.65	-4.20	75.77	74.70	1.07	70.773	
400.00	400.00	401.30	401.30	0.76	0.76	-176.82	-75.65	-4.20	75.77	74.25	1.52	49.843	
500.00	500.00	501.30	501.30	0.98	0.99	-176.82	-75.65	-4.20	75.77	73.80	1.97	38.467	
600.00	600.00	601.30	601.30	1.21	1.21	-176.82	-75.65	-4.20	75.77	73.35	2.42	31.319	
700.00	700.00	701.30	701.30	1.43	1.44	-176.82	-75.65	-4.20	75.77	72.90	2.87	26.412	
800.00	800.00	801.30	801.30	1.66	1.66	-176.82	-75.65	-4.20	75.77	72.45	3.32	22.833	
900.00	900.00	901.30	901.30	1.88	1.89	-176.82	-75.65	-4.20	75.77	72.00	3.77	20.109	
1,000.00	1,000.00	1,001.30	1,001.30	2.11	2.11	-176.82	-75.65	-4.20	75.77	71.55	4.22	17.966	
1,100.00	1,100.00	1,101.30	1,101.30	2.33	2.33	-176.82	-75.65	-4.20	75.77	71.10	4.67	16.235	
1,200.00	1,200.00	1,201.30	1,201.30	2.56	2.56	-176.82	-75.65	-4.20	75.77	70.65	5.12	14.809	
1,300.00	1,300.00	1,301.30	1,301.30	2.78	2.78	-176.82	-75.65	-4.20	75.77	70.20	5.57	13.613	
1,400.00	1,400.00	1,401.30	1,401.30	3.01	3.01	-176.82	-75.65	-4.20	75.77	69.75	6.02	12.595	
1,500.00	1,500.00	1,501.30	1,501.30	3.23	3.23	-176.82	-75.65	-4.20	75.77	69.30	6.46	11.720	
1,600.00	1,600.00	1,601.30	1,601.30	3.46	3.46	-176.82	-75.65	-4.20	75.77	68.85	6.91	10.958	
1,700.00	1,700.00	1,701.30	1,701.30	3.68	3.68	-176.82	-75.65	-4.20	75.77	68.40	7.36	10.289	
1,800.00	1,800.00	1,801.30	1,801.30	3.91	3.91	-176.82	-75.65	-4.20	75.77	67.95	7.81	9.697	
1,900.00	1,900.00	1,901.30	1,901.30	4.13	4.13	-176.82	-75.65	-4.20	75.77	67.50	8.26	9.169	
2,000.00	2,000.00	2,001.30	2,001.30	4.35	4.36	-176.82	-75.65	-4.20	75.77	67.05	8.71	8.696	
2,100.00	2,100.00	2,101.30	2,101.30	4.58	4.58	-176.82	-75.65	-4.20	75.77	66.60	9.16	8.270	
2,200.00	2,200.00	2,201.30	2,201.30	4.80	4.81	-176.82	-75.65	-4.20	75.77	66.15	9.61	7.883	
2,300.00	2,300.00	2,301.30	2,301.30	5.03	5.03	-176.82	-75.65	-4.20	75.77	65.71	10.06	7.531	
2,400.00	2,400.00	2,401.30	2,401.30	5.25	5.26	-176.82	-75.65	-4.20	75.77	65.26	10.51	7.208	
2,500.00	2,500.00	2,501.30	2,501.30	5.48	5.48	-176.82	-75.65	-4.20	75.77	64.81	10.96	6.913 CC	
2,600.00	2,599.99	2,601.29	2,601.29	5.69	5.71	99.29	-75.65	-4.20	75.90	64.51	11.40	6.660 ES	
2,700.00	2,699.96	2,701.26	2,701.26	5.89	5.93	101.22	-75.65	-4.20	76.37	64.55	11.82	6.459	
2,800.00	2,799.86	2,801.16	2,801.16	6.10	6.16	104.38	-75.65	-4.20	77.34	65.08	12.25	6.312	
2,900.00	2,899.68	2,900.98	2,900.98	6.30	6.38	108.65	-75.65	-4.20	79.08	66.39	12.68	6.234	
3,000.00	2,999.37	3,000.67	3,000.67	6.52	6.60	113.81	-75.65	-4.20	81.93	68.81	13.12	6.245	
3,031.43	3,030.67	3,031.97	3,031.97	6.58	6.67	115.58	-75.65	-4.20	83.11	69.86	13.26	6.269	
3,100.00	3,098.94	3,100.24	3,100.24	6.73	6.83	119.38	-75.65	-4.20	86.06	72.50	13.56	6.347	
3,200.00	3,198.51	3,199.81	3,199.81	6.96	7.05	124.46	-75.65	-4.20	90.97	76.97	14.00	6.499	
3,300.00	3,298.08	3,299.38	3,299.38	7.18	7.28	128.98	-75.65	-4.20	96.53	82.09	14.44	6.685	
3,400.00	3,397.65	3,398.95	3,398.95	7.41	7.50	133.00	-75.65	-4.20	102.62	87.74	14.88	6.897	
3,500.00	3,497.22	3,498.52	3,498.52	7.64	7.72	136.55	-75.65	-4.20	109.16	93.84	15.32	7.125	
3,600.00	3,596.79	3,599.89	3,599.89	7.87	7.95	139.94	-74.82	-3.94	115.31	99.55	15.77	7.314	
3,700.00	3,696.36	3,701.35	3,701.31	8.11	8.18	143.40	-72.28	-3.13	120.29	104.08	16.21	7.423	
3,800.00	3,795.93	3,802.82	3,802.67	8.34	8.40	147.03	-68.02	-1.79	124.19	107.54	16.64	7.462	
3,900.00	3,895.51	3,904.09	3,903.76	8.58	8.63	150.91	-62.07	0.09	127.14	110.07	17.07	7.447	
4,000.00	3,995.08	4,003.68	4,003.10	8.82	8.85	154.75	-55.50	2.17	130.07	112.56	17.51	7.428	
4,100.00	4,094.65	4,103.26	4,102.44	9.06	9.08	158.41	-48.92	4.24	133.56	115.61	17.95	7.441	
4,200.00	4,194.22	4,202.84	4,201.79	9.31	9.30	161.87	-42.35	6.32	137.57	119.18	18.39	7.482	
4,300.00	4,293.79	4,302.42	4,301.13	9.55	9.53	165.13	-35.78	8.39	142.05	123.23	18.83	7.545	
4,400.00	4,393.36	4,402.00	4,400.47	9.80	9.75	168.18	-29.20	10.47	146.97	127.70	19.27	7.628	
4,500.00	4,492.93	4,501.58	4,499.82	10.05	9.98	171.02	-22.63	12.55	152.27	132.56	19.71	7.726	
4,600.00	4,592.50	4,601.17	4,599.16	10.30	10.21	173.67	-16.06	14.62	157.93	137.77	20.16	7.835	
4,700.00	4,692.07	4,700.75	4,698.50	10.55	10.44	176.13	-9.48	16.70	163.90	143.30	20.60	7.955	
4,800.00	4,791.64	4,800.33	4,797.84	10.80	10.67	178.42	-2.91	18.78	170.15	149.10	21.05	8.082	
4,900.00	4,891.21	4,899.91	4,897.19	11.05	10.90	-179.46	3.66	20.85	176.66	155.15	21.50	8.215	
5,000.00	4,990.78	4,999.49	4,996.53	11.30	11.13	-177.49	10.24	22.93	183.38	161.42	21.96	8.351	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 6H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
5,100.00	5,090.35	5,099.07	5,095.87	11.55	11.36	-175.66	16.81	25.01	190.31	167.90	22.42	8.490	
5,200.00	5,189.92	5,198.66	5,195.22	11.81	11.60	-173.97	23.38	27.08	197.42	174.55	22.87	8.631	
5,300.00	5,289.49	5,298.24	5,294.56	12.06	11.83	-172.39	29.96	29.16	204.69	181.36	23.33	8.772	
5,400.00	5,389.06	5,397.82	5,393.90	12.32	12.06	-170.92	36.53	31.24	212.11	188.31	23.80	8.914	
5,500.00	5,488.63	5,497.40	5,493.24	12.57	12.30	-169.55	43.10	33.31	219.65	195.39	24.26	9.054	
5,600.00	5,588.20	5,596.98	5,592.59	12.83	12.53	-168.27	49.68	35.39	227.31	202.59	24.72	9.194	
5,700.00	5,687.77	5,696.56	5,691.93	13.09	12.77	-167.07	56.25	37.46	235.08	209.89	25.19	9.332	
5,800.00	5,787.34	5,796.15	5,791.27	13.34	13.01	-165.95	62.83	39.54	242.94	217.28	25.66	9.468	
5,900.00	5,886.91	5,895.73	5,890.62	13.60	13.24	-164.91	69.40	41.62	250.89	224.76	26.13	9.602	
6,000.00	5,986.48	5,995.31	5,989.96	13.86	13.48	-163.92	75.97	43.69	258.91	232.31	26.60	9.734	
6,100.00	6,086.05	6,094.89	6,089.30	14.12	13.72	-163.00	82.55	45.77	267.01	239.94	27.07	9.864	
6,200.00	6,185.62	6,194.47	6,188.64	14.38	13.95	-162.13	89.12	47.85	275.17	247.63	27.54	9.991	
6,300.00	6,285.19	6,294.06	6,287.99	14.64	14.19	-161.31	95.69	49.92	283.40	255.38	28.02	10.115	
6,400.00	6,384.76	6,393.64	6,387.33	14.90	14.43	-160.54	102.27	52.00	291.67	263.18	28.49	10.238	
6,500.00	6,484.33	6,493.22	6,486.67	15.16	14.67	-159.81	108.84	54.08	300.00	271.03	28.97	10.357	
6,600.00	6,583.90	6,592.80	6,586.02	15.42	14.90	-159.12	115.41	56.15	308.37	278.93	29.44	10.474	
6,700.00	6,683.47	6,692.38	6,685.36	15.68	15.14	-158.46	121.99	58.23	316.79	286.87	29.92	10.588	
6,800.00	6,783.04	6,791.96	6,784.70	15.94	15.38	-157.84	128.56	60.30	325.24	294.85	30.40	10.700	
6,900.00	6,882.61	6,891.55	6,884.04	16.20	15.62	-157.25	135.13	62.38	333.73	302.86	30.87	10.810	
7,000.00	6,982.18	6,991.13	6,983.39	16.46	15.86	-156.69	141.71	64.46	342.25	310.90	31.35	10.916	
7,100.00	7,081.75	7,090.71	7,082.73	16.72	16.10	-156.16	148.28	66.53	350.81	318.98	31.83	11.021	
7,200.00	7,181.32	7,190.29	7,182.07	16.98	16.34	-155.65	154.86	68.61	359.39	327.08	32.31	11.123	
7,300.00	7,280.89	7,289.87	7,281.42	17.25	16.58	-155.17	161.43	70.69	368.00	335.21	32.79	11.223	
7,400.00	7,380.46	7,389.45	7,380.76	17.51	16.82	-154.71	168.00	72.76	376.63	343.36	33.27	11.320	
7,500.00	7,480.03	7,489.04	7,480.10	17.77	17.06	-154.27	174.58	74.84	385.29	351.54	33.75	11.415	
7,600.00	7,579.60	7,588.62	7,579.44	18.03	17.30	-153.85	181.15	76.92	393.97	359.73	34.23	11.508	
7,700.00	7,679.17	7,688.20	7,678.79	18.30	17.54	-153.44	187.72	78.99	402.67	367.95	34.72	11.599	
7,800.00	7,778.74	7,787.78	7,778.13	18.56	17.78	-153.06	194.30	81.07	411.39	376.19	35.20	11.687	
7,900.00	7,878.31	7,887.36	7,877.47	18.82	18.02	-152.69	200.87	83.15	420.12	384.44	35.68	11.774	
8,000.00	7,977.88	7,986.95	7,976.82	19.09	18.27	-152.33	207.44	85.22	428.87	392.71	36.17	11.859	
8,100.00	8,077.45	8,086.53	8,076.16	19.35	18.51	-151.99	214.02	87.30	437.64	400.99	36.65	11.942	
8,200.00	8,177.02	8,186.11	8,175.50	19.61	18.75	-151.66	220.59	89.37	446.43	409.29	37.13	12.023	
8,300.00	8,276.59	8,285.69	8,274.84	19.88	18.99	-151.35	227.16	91.45	455.22	417.61	37.62	12.102	
8,400.00	8,376.16	8,385.27	8,374.19	20.14	19.23	-151.05	233.74	93.53	464.03	425.93	38.10	12.179	
8,500.00	8,475.73	8,484.85	8,473.53	20.41	19.47	-150.75	240.31	95.60	472.86	434.27	38.59	12.255	
8,600.00	8,575.30	8,584.44	8,572.87	20.67	19.72	-150.47	246.88	97.68	481.69	442.62	39.07	12.329	
8,700.00	8,674.87	8,684.02	8,672.22	20.94	19.96	-150.20	253.46	99.76	490.54	450.98	39.56	12.401	
8,800.00	8,774.44	8,783.60	8,771.56	21.20	20.20	-149.94	260.03	101.83	499.39	459.35	40.04	12.472	
8,900.00	8,874.01	8,883.18	8,870.90	21.47	20.44	-149.69	266.61	103.91	508.26	467.73	40.53	12.541	
9,000.00	8,973.58	8,982.76	8,970.24	21.73	20.68	-149.45	273.18	105.99	517.13	476.12	41.01	12.609	
9,100.00	9,073.15	9,082.34	9,069.59	22.00	20.93	-149.21	279.75	108.06	526.02	484.52	41.50	12.675	
9,200.00	9,172.72	9,181.93	9,168.93	22.26	21.17	-148.98	286.33	110.14	534.91	492.92	41.99	12.740	
9,300.00	9,272.29	9,281.51	9,268.27	22.53	21.41	-148.76	292.90	112.21	543.81	501.34	42.47	12.804	
9,400.00	9,371.86	9,381.09	9,367.62	22.79	21.65	-148.55	299.47	114.29	552.72	509.76	42.96	12.866	
9,500.00	9,471.43	9,480.67	9,466.96	23.06	21.90	-148.34	306.05	116.37	561.63	518.19	43.45	12.927	
9,600.00	9,571.00	9,580.25	9,566.30	23.32	22.14	-148.14	312.62	118.44	570.56	526.62	43.93	12.987	
9,700.00	9,670.57	9,679.83	9,665.64	23.59	22.38	-147.95	319.19	120.52	579.48	535.06	44.42	13.045	
9,800.00	9,770.14	9,779.42	9,764.99	23.85	22.63	-147.76	325.77	122.60	588.42	543.51	44.91	13.103	
9,900.00	9,869.72	9,879.00	9,864.33	24.12	22.87	-147.58	332.34	124.67	597.36	551.97	45.40	13.159	
10,000.00	9,969.29	9,978.58	9,963.67	24.38	23.11	-147.41	338.91	126.75	606.31	560.43	45.88	13.214	
10,100.00	10,068.86	10,078.16	10,063.02	24.65	23.36	-147.23	345.49	128.83	615.26	568.89	46.37	13.268	
10,200.00	10,168.43	10,177.74	10,162.36	24.92	23.60	-147.07	352.06	130.90	624.22	577.36	46.86	13.321	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 6H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
10,300.00	10,268.00	10,277.33	10,261.70	25.18	23.84	-146.91	358.64	132.98	633.18	585.84	47.35	13.373	
10,400.00	10,367.57	10,376.91	10,361.04	25.45	24.09	-146.75	365.21	135.06	642.15	594.32	47.84	13.424	
10,500.00	10,467.14	10,476.49	10,460.39	25.71	24.33	-146.59	371.78	137.13	651.13	602.80	48.33	13.473	
10,600.00	10,566.71	10,576.07	10,559.73	25.98	24.57	-146.45	378.36	139.21	660.10	611.29	48.82	13.522	
10,700.00	10,666.28	10,676.87	10,660.31	26.25	24.80	-146.32	384.74	141.22	669.03	619.74	49.29	13.573	
10,800.00	10,765.85	10,776.69	10,762.00	26.51	25.00	-146.34	389.63	142.77	677.67	627.95	49.73	13.628	
10,900.00	10,865.42	10,880.53	10,863.78	26.78	25.18	-146.50	392.81	143.77	685.99	635.85	50.14	13.680	
11,004.37	10,969.33	10,986.76	10,970.00	27.06	25.36	-146.83	394.28	144.24	694.35	643.78	50.57	13.731	
11,100.00	11,064.63	11,082.69	11,065.93	27.28	25.53	-147.22	394.35	144.26	701.13	650.19	50.94	13.764	
11,200.00	11,164.40	11,182.46	11,165.70	27.47	25.74	-147.55	394.35	144.26	706.80	655.47	51.33	13.771	
11,300.00	11,264.27	11,282.34	11,265.57	27.66	25.95	-147.78	394.35	144.26	711.02	659.30	51.72	13.748	
11,400.00	11,364.22	11,382.28	11,365.52	27.83	26.17	-147.94	394.35	144.26	713.76	661.65	52.11	13.698	
11,500.00	11,464.21	11,482.27	11,465.51	28.00	26.38	-148.01	394.35	144.26	715.03	662.54	52.49	13.621	
11,535.79	11,500.00	11,518.06	11,501.30	28.06	26.46	-63.48	394.35	144.26	715.13	662.49	52.64	13.586	
11,600.00	11,564.21	11,582.27	11,565.51	28.17	26.59	-63.48	394.35	144.26	715.13	662.23	52.90	13.520	
11,700.00	11,664.21	11,682.27	11,665.51	28.36	26.81	-63.48	394.35	144.26	715.13	661.82	53.31	13.415	
11,800.00	11,764.21	11,782.27	11,765.51	28.55	27.02	-63.48	394.35	144.26	715.13	661.40	53.72	13.311	
11,900.00	11,864.21	11,882.27	11,865.51	28.74	27.24	-63.48	394.35	144.26	715.13	660.99	54.14	13.209	
12,006.83	11,971.04	11,989.10	11,972.34	28.95	27.47	-63.48	394.35	144.26	715.13	660.54	54.59	13.101	
12,050.00	12,014.17	12,032.23	12,015.47	29.03	27.56	116.57	394.35	144.26	715.85	661.09	54.76	13.072	
12,100.00	12,063.80	12,081.86	12,065.10	29.11	27.66	116.76	394.35	144.26	718.53	663.58	54.96	13.075	
12,150.00	12,112.72	12,130.78	12,114.02	29.19	27.77	117.05	394.35	144.26	723.25	668.10	55.15	13.114	
12,200.00	12,160.57	12,178.63	12,161.87	29.27	27.87	117.41	394.35	144.26	730.10	674.76	55.34	13.194	
12,250.00	12,206.97	12,225.04	12,208.27	29.35	27.97	117.80	394.35	144.26	739.23	683.71	55.52	13.315	
12,300.00	12,251.58	12,270.48	12,293.61	29.43	28.13	119.34	391.24	144.26	750.26	694.54	55.72	13.465	
12,350.00	12,294.05	12,312.06	12,317.13	29.50	28.25	121.85	353.65	144.26	758.50	703.11	55.40	13.692	
12,400.00	12,334.07	12,352.08	12,357.15	29.58	28.36	122.83	264.95	144.26	761.51	707.19	54.32	14.019	
12,450.00	12,371.32	12,389.33	12,394.40	29.66	28.47	121.86	134.91	144.26	758.54	705.40	53.15	14.272	
12,500.00	12,405.53	12,423.54	12,428.61	29.74	28.58	119.36	-7.27	144.26	750.33	697.64	52.69	14.239	
12,550.00	12,436.43	12,454.44	12,459.51	29.83	28.69	116.16	-136.92	144.26	738.50	685.40	53.10	13.908	
12,600.00	12,463.78	12,481.79	12,486.86	29.93	28.80	114.68	-205.58	144.26	725.48	671.74	53.75	13.498	
12,650.00	12,487.39	12,505.40	12,510.47	30.04	28.91	114.15	-249.64	144.26	714.66	660.37	54.29	13.163	
12,700.00	12,507.07	12,525.08	12,530.15	30.17	29.02	113.59	-295.59	144.26	706.12	651.30	54.82	12.881	
12,750.00	12,522.67	12,540.68	12,545.75	30.31	29.13	113.07	-343.08	144.26	699.66	644.34	55.32	12.647	
12,800.00	12,534.07	12,552.08	12,557.15	30.47	29.24	112.64	-391.74	144.26	695.13	639.31	55.82	12.453	
12,850.00	12,541.18	12,559.19	12,564.26	30.65	29.40	112.36	-441.22	144.26	692.38	636.09	56.29	12.299	
12,900.00	12,543.96	12,561.97	12,567.04	30.84	29.56	112.25	-491.12	144.26	691.32	634.56	56.76	12.180	
12,906.83	12,544.00	12,562.01	12,567.08	30.87	29.59	112.24	-497.96	144.26	691.31	634.49	56.82	12.166	
13,000.00	12,544.00	12,562.01	12,567.08	31.30	29.92	112.24	-591.12	144.26	691.31	633.58	57.73	11.975	
13,100.00	12,544.00	12,562.01	12,567.08	31.84	30.49	112.24	-691.12	144.26	691.31	632.47	58.84	11.749	
13,200.00	12,544.00	12,562.01	12,567.08	32.45	31.14	112.24	-791.12	144.26	691.31	631.22	60.09	11.505	
13,300.00	12,544.00	12,562.01	12,567.08	33.13	31.86	112.24	-891.12	144.26	691.31	629.84	61.47	11.247	
13,400.00	12,544.00	12,562.01	12,567.08	33.87	32.65	112.24	-991.12	144.26	691.31	628.34	62.97	10.979	
13,500.00	12,544.00	12,562.01	12,567.08	34.68	33.50	112.24	-1,091.12	144.26	691.31	626.73	64.58	10.705	
13,600.00	12,544.00	12,562.01	12,567.08	35.54	34.40	112.24	-1,191.12	144.26	691.31	625.02	66.29	10.428	
13,700.00	12,544.00	12,562.01	12,567.08	36.46	35.36	112.24	-1,291.12	144.26	691.31	623.21	68.10	10.151	
13,800.00	12,544.00	12,562.01	12,567.08	37.43	36.36	112.24	-1,391.12	144.26	691.31	621.31	70.00	9.876	
13,900.00	12,544.00	12,562.01	12,567.08	38.44	37.41	112.24	-1,491.12	144.26	691.31	619.33	71.98	9.604	
14,000.00	12,544.00	12,562.01	12,567.08	39.49	38.50	112.24	-1,591.12	144.26	691.31	617.28	74.03	9.338	
14,100.00	12,544.00	12,562.01	12,567.08	40.59	39.63	112.24	-1,691.12	144.26	691.31	615.15	76.16	9.077	
14,200.00	12,544.00	12,562.01	12,567.08	41.71	40.79	112.24	-1,791.12	144.26	691.31	612.97	78.34	8.824	
14,300.00	12,544.00	12,562.01	12,567.08	42.88	41.98	112.24	-1,891.12	144.26	691.31	610.72	80.59	8.578	

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LEAM Drilling Systems LLC

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 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 6H - OH - Plan #1													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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
14,400.00	12,544.00	14,963.32	12,807.00	44.07	43.20	112.24	-1,991.12	144.26	691.31	608.42	82.89	8.340		
14,500.00	12,544.00	15,063.32	12,807.00	45.28	44.45	112.24	-2,091.12	144.26	691.31	606.07	85.23	8.111		
14,600.00	12,544.00	15,163.32	12,807.00	46.53	45.72	112.24	-2,191.12	144.26	691.31	603.68	87.63	7.889		
14,700.00	12,544.00	15,263.32	12,807.00	47.80	47.02	112.24	-2,291.12	144.26	691.31	601.25	90.06	7.676		
14,800.00	12,544.00	15,363.32	12,807.00	49.08	48.33	112.24	-2,391.12	144.26	691.31	598.77	92.53	7.471		
14,900.00	12,544.00	15,463.32	12,807.00	50.39	49.67	112.24	-2,491.12	144.26	691.31	596.27	95.04	7.274		
15,000.00	12,544.00	15,563.32	12,807.00	51.72	51.02	112.24	-2,591.12	144.26	691.31	593.73	97.58	7.084		
15,100.00	12,544.00	15,663.32	12,807.00	53.07	52.39	112.24	-2,691.12	144.26	691.31	591.16	100.15	6.903		
15,200.00	12,544.00	15,763.32	12,807.00	54.43	53.77	112.24	-2,791.12	144.26	691.31	588.56	102.75	6.728		
15,300.00	12,544.00	15,863.32	12,807.00	55.80	55.17	112.24	-2,891.12	144.26	691.31	585.93	105.38	6.560		
15,400.00	12,544.00	15,963.32	12,807.00	57.19	56.58	112.24	-2,991.12	144.26	691.31	583.29	108.02	6.400		
15,500.00	12,544.00	16,063.32	12,807.00	58.59	58.00	112.24	-3,091.12	144.26	691.31	580.62	110.89	6.245		
15,600.00	12,544.00	16,163.32	12,807.00	60.01	59.43	112.24	-3,191.12	144.26	691.31	577.92	113.38	6.097		
15,700.00	12,544.00	16,263.32	12,807.00	61.43	60.87	112.24	-3,291.12	144.26	691.31	575.21	116.09	5.955		
15,800.00	12,544.00	16,363.32	12,807.00	62.87	62.32	112.24	-3,391.12	144.26	691.31	572.49	118.82	5.818		
15,900.00	12,544.00	16,463.32	12,807.00	64.31	63.78	112.24	-3,491.12	144.26	691.31	569.74	121.57	5.687		
16,000.00	12,544.00	16,563.32	12,807.00	65.76	65.25	112.24	-3,591.12	144.26	691.31	566.98	124.33	5.560		
16,100.00	12,544.00	16,663.32	12,807.00	67.22	66.73	112.24	-3,691.12	144.26	691.31	564.21	127.10	5.439		
16,200.00	12,544.00	16,763.32	12,807.00	68.69	68.21	112.24	-3,791.12	144.26	691.31	561.42	129.89	5.322		
16,300.00	12,544.00	16,863.32	12,807.00	70.17	69.70	112.24	-3,891.12	144.26	691.31	558.62	132.69	5.210		
16,400.00	12,544.00	16,963.32	12,807.00	71.65	71.20	112.24	-3,991.12	144.26	691.31	555.81	135.50	5.102		
16,500.00	12,544.00	17,063.32	12,807.00	73.14	72.70	112.24	-4,091.12	144.26	691.31	552.98	138.33	4.998		
16,600.00	12,544.00	17,163.32	12,807.00	74.64	74.21	112.24	-4,191.12	144.26	691.31	550.15	141.16	4.897		
16,700.00	12,544.00	17,263.32	12,807.00	76.14	75.73	112.24	-4,291.12	144.26	691.31	547.30	144.01	4.801		
16,800.00	12,544.00	17,363.32	12,807.00	77.65	77.24	112.24	-4,391.12	144.26	691.31	544.45	146.86	4.707		
16,900.00	12,544.00	17,463.32	12,807.00	79.16	78.77	112.24	-4,491.12	144.26	691.31	541.59	149.72	4.617		
17,000.00	12,544.00	17,563.32	12,807.00	80.67	80.29	112.24	-4,591.12	144.26	691.31	538.72	152.59	4.530		
17,100.00	12,544.00	17,663.32	12,807.00	82.20	81.83	112.24	-4,691.12	144.26	691.31	535.84	155.47	4.447		
17,200.00	12,544.00	17,763.32	12,807.00	83.72	83.36	112.24	-4,791.12	144.26	691.31	532.95	158.36	4.365		
17,300.00	12,544.00	17,863.32	12,807.00	85.25	84.90	112.24	-4,891.12	144.26	691.31	530.06	161.25	4.287		
17,400.00	12,544.00	17,963.32	12,807.00	86.78	86.44	112.24	-4,991.12	144.26	691.31	527.16	164.15	4.211		
17,500.00	12,544.00	18,063.32	12,807.00	88.32	87.99	112.24	-5,091.12	144.26	691.31	524.25	167.06	4.138		
17,600.00	12,544.00	18,163.32	12,807.00	89.86	89.54	112.24	-5,191.12	144.26	691.31	521.34	169.97	4.067		
17,700.00	12,544.00	18,263.32	12,807.00	91.41	91.09	112.24	-5,291.12	144.26	691.31	518.42	172.89	3.999		
17,800.00	12,544.00	18,363.32	12,807.00	92.95	92.65	112.24	-5,391.12	144.26	691.31	515.50	175.81	3.932		
17,900.00	12,544.00	18,463.32	12,807.00	94.50	94.20	112.24	-5,491.12	144.26	691.31	512.57	178.74	3.868		
18,000.00	12,544.00	18,563.32	12,807.00	96.05	95.76	112.24	-5,591.12	144.26	691.31	509.63	181.67	3.805		
18,100.00	12,544.00	18,663.32	12,807.00	97.61	97.33	112.24	-5,691.12	144.26	691.31	506.70	184.61	3.745		
18,200.00	12,544.00	18,763.32	12,807.00	99.17	98.89	112.24	-5,791.12	144.26	691.31	503.75	187.56	3.686		
18,300.00	12,544.00	18,863.32	12,807.00	100.73	100.46	112.24	-5,891.12	144.26	691.31	500.81	190.50	3.629		
18,400.00	12,544.00	18,963.32	12,807.00	102.29	102.03	112.24	-5,991.12	144.26	691.31	497.86	193.45	3.574		
18,500.00	12,544.00	19,063.32	12,807.00	103.85	103.60	112.24	-6,091.12	144.26	691.31	494.90	196.41	3.520		
18,600.00	12,544.00	19,163.32	12,807.00	105.42	105.17	112.24	-6,191.12	144.26	691.31	491.94	199.37	3.468		
18,700.00	12,544.00	19,263.32	12,807.00	106.99	106.75	112.24	-6,291.12	144.26	691.31	488.98	202.33	3.417		
18,800.00	12,544.00	19,363.32	12,807.00	108.56	108.32	112.24	-6,391.12	144.26	691.31	486.01	205.29	3.367		
18,900.00	12,544.00	19,463.32	12,807.00	110.13	109.90	112.24	-6,491.12	144.26	691.31	483.05	208.26	3.319		
19,000.00	12,544.00	19,563.32	12,807.00	111.71	111.48	112.24	-6,591.12	144.26	691.31	480.07	211.23	3.273		
19,100.00	12,544.00	19,663.32	12,807.00	113.28	113.06	112.24	-6,691.12	144.26	691.31	477.10	214.21	3.227		
19,200.00	12,544.00	19,763.32	12,807.00	114.86	114.65	112.24	-6,791.12	144.26	691.31	474.12	217.19	3.183		
19,300.00	12,544.00	19,863.32	12,807.00	116.44	116.23	112.24	-6,891.12	144.26	691.31	471.14	220.17	3.140		
19,400.00	12,544.00	19,963.32	12,807.00	118.02	117.82	112.24	-6,991.12	144.26	691.31	468.16	223.15	3.098		
19,500.00	12,544.00	20,063.32	12,807.00	119.60	119.41	112.24	-7,091.12	144.26	691.31	465.17	226.13	3.057		

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 6H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
19,600.00	12,544.00	20,163.32	12,807.00	121.19	120.99	112.24	-7,191.12	144.26	691.31	462.19	229.12	3.017	
19,700.00	12,544.00	20,263.32	12,807.00	122.77	122.58	112.24	-7,291.12	144.26	691.31	459.20	232.11	2.978	
19,800.00	12,544.00	20,363.32	12,807.00	124.36	124.17	112.24	-7,391.12	144.26	691.31	456.20	235.10	2.940	
19,900.00	12,544.00	20,463.32	12,807.00	125.95	125.77	112.24	-7,491.12	144.26	691.31	453.21	238.10	2.903	
20,000.00	12,544.00	20,563.32	12,807.00	127.53	127.36	112.24	-7,591.12	144.26	691.31	450.21	241.10	2.867	
20,100.00	12,544.00	20,663.32	12,807.00	129.12	128.95	112.24	-7,691.12	144.26	691.31	447.21	244.09	2.832	
20,200.00	12,544.00	20,763.32	12,807.00	130.72	130.55	112.24	-7,791.12	144.26	691.31	444.21	247.09	2.798	
20,300.00	12,544.00	20,863.32	12,807.00	132.31	132.14	112.24	-7,891.12	144.26	691.31	441.21	250.10	2.764	
20,400.00	12,544.00	20,963.32	12,807.00	133.90	133.74	112.24	-7,991.12	144.26	691.31	438.21	253.10	2.731	
20,500.00	12,544.00	21,063.32	12,807.00	135.49	135.34	112.24	-8,091.12	144.26	691.31	435.20	256.11	2.699	
20,600.00	12,544.00	21,163.32	12,807.00	137.09	136.94	112.24	-8,191.12	144.26	691.31	432.19	259.11	2.668	
20,700.00	12,544.00	21,263.32	12,807.00	138.68	138.54	112.24	-8,291.12	144.26	691.31	429.19	262.12	2.637	
20,800.00	12,544.00	21,363.32	12,807.00	140.28	140.14	112.24	-8,391.12	144.26	691.31	426.18	265.13	2.607	
20,900.00	12,544.00	21,463.32	12,807.00	141.88	141.74	112.24	-8,491.12	144.26	691.31	423.16	268.15	2.578	
21,000.00	12,544.00	21,563.32	12,807.00	143.48	143.34	112.24	-8,591.12	144.26	691.31	420.15	271.16	2.549	
21,100.00	12,544.00	21,663.32	12,807.00	145.08	144.94	112.24	-8,691.12	144.26	691.31	417.13	274.17	2.521	
21,200.00	12,544.00	21,763.32	12,807.00	146.68	146.55	112.24	-8,791.12	144.26	691.31	414.12	277.19	2.494	
21,300.00	12,544.00	21,863.32	12,807.00	148.28	148.15	112.24	-8,891.12	144.26	691.31	411.10	280.21	2.467	
21,400.00	12,544.00	21,963.32	12,807.00	149.88	149.76	112.24	-8,991.12	144.26	691.31	408.08	283.23	2.441	
21,500.00	12,544.00	22,063.32	12,807.00	151.48	151.36	112.24	-9,091.12	144.26	691.31	405.06	286.25	2.415	
21,600.00	12,544.00	22,163.32	12,807.00	153.08	152.97	112.24	-9,191.12	144.26	691.31	402.04	289.27	2.390	
21,700.00	12,544.00	22,263.32	12,807.00	154.69	154.57	112.24	-9,291.12	144.26	691.31	399.02	292.29	2.365	
21,800.00	12,544.00	22,363.32	12,807.00	156.29	156.18	112.24	-9,391.12	144.26	691.31	395.99	295.31	2.341	
21,900.00	12,544.00	22,463.32	12,807.00	157.90	157.79	112.24	-9,491.12	144.26	691.31	392.97	298.34	2.317	
22,000.00	12,544.00	22,563.32	12,807.00	159.50	159.40	112.24	-9,591.12	144.26	691.31	389.94	301.36	2.294	
22,100.00	12,544.00	22,663.32	12,807.00	161.11	161.00	112.24	-9,691.12	144.26	691.31	386.92	304.39	2.271	
22,181.55	12,544.00	22,744.87	12,807.00	162.42	162.32	112.24	-9,772.67	144.26	691.31	384.45	306.86	2.253 SF	

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 71H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 166-MWD-ISCWSA, 5236-LEAM MWD+HDGM, 22587-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)	Centre +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	-86.79	218.22	-3,887.61	3,893.74					
100.00	100.00	100.65	100.65	0.08	0.09	-86.79	217.99	-3,887.50	3,893.62	3,893.44	0.18	N/A		
200.00	200.00	256.11	256.10	0.31	0.35	-86.81	216.93	-3,886.44	3,893.02	3,892.35	0.67	5,811.311		
300.00	300.00	388.16	388.12	0.53	0.64	-86.82	216.07	-3,883.53	3,890.74	3,889.55	1.19	3,276.868		
400.00	400.00	495.58	495.49	0.76	0.88	-86.82	215.48	-3,880.74	3,888.11	3,886.47	1.64	2,365.342		
500.00	500.00	581.78	581.67	0.98	1.06	-86.83	214.83	-3,878.62	3,885.62	3,883.57	2.04	1,902.640		
600.00	600.00	665.00	664.87	1.21	1.24	-86.84	213.91	-3,876.88	3,883.47	3,881.04	2.44	1,594.532		
700.00	700.00	728.72	728.58	1.43	1.36	-86.85	213.16	-3,875.99	3,882.02	3,879.24	2.79	1,393.652		
796.53	796.53	788.18	788.03	1.65	1.48	-86.86	212.59	-3,875.74	3,881.56	3,878.44	3.12	1,244.087 CC		
800.00	800.00	790.32	790.17	1.66	1.48	-86.86	212.58	-3,875.74	3,881.56	3,878.43	3.13	1,239.301 ES		
900.00	900.00	864.00	863.85	1.88	1.63	-86.87	212.05	-3,876.23	3,882.12	3,878.62	3.50	1,108.211		
1,000.00	1,000.00	949.06	948.90	2.11	1.80	-86.87	211.73	-3,877.23	3,883.24	3,879.34	3.90	995.557		
1,100.00	1,100.00	1,045.70	1,045.54	2.33	2.00	-86.88	211.70	-3,878.31	3,884.36	3,880.04	4.32	898.179		
1,200.00	1,200.00	1,140.33	1,140.16	2.56	2.19	-86.87	211.93	-3,879.49	3,885.61	3,880.87	4.75	818.804		
1,300.00	1,300.00	1,243.63	1,243.45	2.78	2.41	-86.87	212.37	-3,880.80	3,886.91	3,881.72	5.19	749.204		
1,400.00	1,400.00	1,349.37	1,349.18	3.01	2.63	-86.86	212.89	-3,882.02	3,888.08	3,882.44	5.64	689.793		
1,500.00	1,500.00	1,465.35	1,465.16	3.23	2.88	-86.85	213.41	-3,883.02	3,888.96	3,882.86	6.11	636.558		
1,600.00	1,600.00	1,571.82	1,571.62	3.46	3.11	-86.85	213.76	-3,883.56	3,889.49	3,882.93	6.56	593.008		
1,700.00	1,700.00	1,667.09	1,666.89	3.68	3.30	-86.85	213.96	-3,884.10	3,890.06	3,883.08	6.98	557.219		
1,800.00	1,800.00	1,768.03	1,767.83	3.91	3.51	-86.85	214.07	-3,884.76	3,890.72	3,883.31	7.42	524.648		
1,900.00	1,900.00	1,874.95	1,874.75	4.13	3.73	-86.85	214.10	-3,885.31	3,891.24	3,883.38	7.86	494.845		
2,000.00	2,000.00	1,981.27	1,981.07	4.35	3.96	-86.85	214.04	-3,885.68	3,891.59	3,883.27	8.32	468.001		
2,100.00	2,100.00	2,087.34	2,087.14	4.58	4.19	-86.85	213.95	-3,885.89	3,891.78	3,883.01	8.77	443.822		
2,200.00	2,200.00	2,189.75	2,189.54	4.80	4.41	-86.85	213.85	-3,885.98	3,891.86	3,882.65	9.21	422.618		
2,300.00	2,300.00	2,292.03	2,291.83	5.03	4.62	-86.85	213.83	-3,886.00	3,891.88	3,882.23	9.65	403.375		
2,400.00	2,400.00	2,397.76	2,397.56	5.25	4.84	-86.85	213.98	-3,885.91	3,891.80	3,881.70	10.09	385.551		
2,500.00	2,500.00	2,506.10	2,505.89	5.48	5.07	-86.84	214.40	-3,885.62	3,891.56	3,881.01	10.55	368.961		
2,527.82	2,527.82	2,538.20	2,537.99	5.54	5.14	-171.38	214.56	-3,885.48	3,891.51	3,880.83	10.68	364.530		
2,600.00	2,599.99	2,621.51	2,621.30	5.69	5.32	-171.37	214.97	-3,884.93	3,891.85	3,880.85	11.01	353.562		
2,700.00	2,699.96	2,731.87	2,731.65	5.89	5.56	-171.36	215.59	-3,883.88	3,893.52	3,882.07	11.45	340.150		
2,800.00	2,799.86	2,839.26	2,839.04	6.10	5.79	-171.36	216.35	-3,882.63	3,896.71	3,884.82	11.88	327.963		
2,900.00	2,899.68	2,953.95	2,953.71	6.30	6.04	-171.35	217.24	-3,880.97	3,901.35	3,889.01	12.33	316.292		
3,000.00	2,999.37	3,076.07	3,075.81	6.52	6.31	-171.35	218.10	-3,878.67	3,907.28	3,894.47	12.81	305.121		
3,031.43	3,030.67	3,121.36	3,121.08	6.58	6.41	-171.35	218.46	-3,877.59	3,909.33	3,896.37	12.97	301.426		
3,100.00	3,098.94	3,220.22	3,219.89	6.73	6.63	-171.35	219.44	-3,874.64	3,913.62	3,900.29	13.33	293.695		
3,200.00	3,198.51	3,338.84	3,338.42	6.96	6.89	-171.36	220.73	-3,870.32	3,919.20	3,905.41	13.79	284.178		
3,300.00	3,298.08	3,448.70	3,448.19	7.18	7.13	-171.36	221.70	-3,865.91	3,924.40	3,910.16	14.24	275.642		
3,400.00	3,397.65	3,541.42	3,540.84	7.41	7.32	-171.36	222.44	-3,862.20	3,929.62	3,914.98	14.64	268.404		
3,500.00	3,497.22	3,639.56	3,638.90	7.64	7.53	-171.37	223.17	-3,858.44	3,935.00	3,919.94	15.06	261.348		
3,600.00	3,596.79	3,755.04	3,754.27	7.87	7.77	-171.38	224.10	-3,853.74	3,940.15	3,924.64	15.51	254.062		
3,700.00	3,696.36	3,858.04	3,857.18	8.11	7.99	-171.38	224.99	-3,849.24	3,945.00	3,929.06	15.94	247.523		
3,800.00	3,795.93	3,952.16	3,951.20	8.34	8.19	-171.39	225.81	-3,845.22	3,949.95	3,933.60	16.35	241.564		
3,900.00	3,895.51	4,044.04	4,043.01	8.58	8.38	-171.39	226.62	-3,841.44	3,955.06	3,938.30	16.76	236.012		
4,000.00	3,995.08	4,134.22	4,133.11	8.82	8.56	-171.39	227.55	-3,837.94	3,960.40	3,943.24	17.16	230.811		
4,100.00	4,094.65	4,222.48	4,221.31	9.06	8.75	-171.39	228.58	-3,834.73	3,966.00	3,948.45	17.56	225.887		
4,200.00	4,194.22	4,308.68	4,307.46	9.31	8.92	-171.39	229.47	-3,831.89	3,971.93	3,953.98	17.95	221.227		
4,300.00	4,293.79	4,397.86	4,396.60	9.55	9.11	-171.40	230.26	-3,829.25	3,978.20	3,959.84	18.36	216.702		
4,400.00	4,393.36	4,494.88	4,493.57	9.80	9.31	-171.40	231.19	-3,826.52	3,984.60	3,965.82	18.78	212.181		
4,500.00	4,492.93	4,596.71	4,595.36	10.05	9.52	-171.40	232.32	-3,823.69	3,991.05	3,971.84	19.21	207.737		
4,600.00	4,592.50	4,708.87	4,707.46	10.30	9.76	-171.41	233.32	-3,820.34	3,997.29	3,977.62	19.67	203.235		
4,700.00	4,692.07	4,833.49	4,832.01	10.55	10.04	-171.42	233.98	-3,816.12	4,003.11	3,982.96	20.15	198.669		
4,800.00	4,791.64	4,958.00	4,956.42	10.80	10.31	-171.44	234.12	-3,811.03	4,008.19	3,987.56	20.63	194.278		

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 71H - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 166-MWD-ISCWSA, 5236-LEAM MWD+HDGM, 22587-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,891.21	5,050.73	5,049.06	11.05	10.51	-171.46	234.00	-3,807.10	4,013.12	3,992.07	21.05	190.648	
5,000.00	4,990.78	5,142.03	5,140.29	11.30	10.69	-171.48	233.77	-3,803.41	4,018.24	3,996.79	21.45	187.291	
5,100.00	5,090.35	5,225.74	5,223.94	11.55	10.78	-171.49	233.67	-3,800.28	4,023.68	4,001.91	21.77	184.844	
5,200.00	5,189.92	5,307.82	5,305.97	11.81	10.80	-171.50	233.68	-3,797.56	4,029.53	4,007.53	22.01	183.102	
5,300.00	5,289.49	5,402.43	5,400.54	12.06	10.81	-171.52	233.65	-3,794.74	4,035.72	4,013.48	22.24	181.464	
5,400.00	5,389.06	5,508.01	5,506.08	12.32	10.83	-171.54	233.71	-3,791.55	4,041.87	4,019.40	22.48	179.820	
5,500.00	5,488.63	5,664.70	5,662.64	12.57	10.86	-171.56	233.86	-3,785.29	4,046.96	4,024.23	22.73	178.068	
5,600.00	5,588.20	5,797.67	5,795.45	12.83	10.90	-171.58	234.22	-3,778.92	4,051.41	4,028.43	22.98	176.294	
5,700.00	5,687.77	5,888.44	5,886.09	13.09	10.94	-171.59	234.19	-3,774.14	4,055.33	4,032.10	23.23	174.549	
5,800.00	5,787.34	6,070.94	6,068.24	13.34	11.02	-171.61	234.80	-3,762.80	4,058.25	4,034.74	23.51	172.629	
5,900.00	5,886.91	6,230.94	6,227.71	13.60	11.11	-171.63	235.22	-3,749.82	4,059.20	4,035.41	23.79	170.642	
6,000.00	5,986.48	6,318.42	6,314.86	13.86	11.17	-171.63	235.49	-3,742.37	4,059.88	4,035.82	24.06	168.745	
6,100.00	6,086.05	6,405.79	6,401.95	14.12	11.23	-171.64	235.69	-3,735.28	4,060.95	4,036.62	24.33	166.887	
6,200.00	6,185.62	6,507.26	6,503.10	14.38	11.30	-171.65	236.16	-3,727.15	4,062.14	4,037.52	24.62	165.018	
6,300.00	6,285.19	6,610.54	6,606.02	14.64	11.38	-171.65	236.91	-3,718.75	4,063.22	4,038.31	24.91	163.144	
6,400.00	6,384.76	6,719.44	6,714.55	14.90	11.47	-171.65	237.80	-3,709.80	4,064.23	4,039.03	25.20	161.268	
6,500.00	6,484.33	6,849.00	6,843.61	15.16	11.59	-171.65	239.01	-3,698.49	4,064.73	4,039.22	25.51	159.332	
6,600.00	6,583.90	6,943.38	6,937.60	15.42	11.68	-171.65	240.12	-3,689.93	4,064.89	4,039.08	25.81	157.491	
6,700.00	6,683.47	7,052.67	7,046.42	15.68	11.80	-171.64	241.58	-3,679.92	4,064.97	4,038.85	26.12	155.621	
6,800.00	6,783.04	7,134.59	7,128.00	15.94	11.88	-171.64	242.74	-3,672.55	4,065.22	4,038.80	26.42	153.865	
6,900.00	6,882.61	7,240.14	7,233.12	16.20	12.00	-171.63	244.34	-3,663.20	4,065.61	4,038.88	26.74	152.058	
7,000.00	6,982.18	7,339.04	7,331.61	16.46	12.11	-171.62	245.93	-3,654.38	4,065.95	4,038.90	27.06	150.282	
7,100.00	7,081.75	7,434.77	7,426.96	16.72	12.22	-171.61	247.33	-3,645.93	4,066.37	4,039.00	27.37	148.561	
7,200.00	7,181.32	7,533.94	7,525.74	16.98	12.34	-171.60	248.75	-3,637.23	4,066.85	4,039.16	27.69	146.847	
7,300.00	7,280.89	7,630.11	7,621.53	17.25	12.46	-171.59	250.23	-3,628.82	4,067.36	4,039.34	28.02	145.155	
7,400.00	7,380.46	7,720.12	7,711.20	17.51	12.58	-171.59	251.47	-3,621.14	4,068.07	4,039.73	28.34	143.535	
7,500.00	7,480.03	7,817.30	7,808.03	17.77	12.70	-171.58	252.61	-3,613.03	4,068.96	4,040.30	28.67	141.934	
7,600.00	7,579.60	7,920.09	7,910.45	18.03	12.83	-171.58	253.58	-3,604.37	4,069.76	4,040.76	29.00	140.325	
7,700.00	7,679.17	7,987.00	7,977.13	18.30	12.91	-171.58	254.15	-3,598.84	4,070.81	4,041.50	29.31	138.886	
7,800.00	7,778.74	8,082.00	8,071.87	18.56	13.04	-171.59	254.85	-3,591.75	4,072.56	4,042.91	29.64	137.382	
7,900.00	7,878.31	8,162.89	8,152.57	18.82	13.14	-171.60	255.04	-3,586.20	4,074.83	4,044.86	29.97	135.984	
8,000.00	7,977.88	8,399.49	8,388.27	19.09	13.48	-171.66	252.37	-3,566.08	4,075.52	4,045.09	30.43	133.933	
8,100.00	8,077.45	8,497.88	8,486.12	19.35	13.63	-171.71	250.04	-3,556.00	4,074.33	4,043.55	30.78	132.380	
8,200.00	8,177.02	8,579.82	8,567.63	19.61	13.76	-171.75	248.03	-3,547.89	4,073.47	4,042.36	31.11	130.923	
8,300.00	8,276.59	8,663.09	8,650.51	19.88	13.89	-171.78	246.19	-3,539.98	4,073.05	4,041.59	31.45	129.498	
8,358.50	8,334.84	8,712.53	8,699.73	20.03	13.97	-171.80	245.08	-3,535.44	4,072.98	4,041.33	31.65	128.680	
8,400.00	8,376.16	8,745.00	8,732.05	20.14	14.02	-171.82	244.32	-3,532.52	4,073.02	4,041.22	31.79	128.118	
8,500.00	8,475.73	8,815.52	8,802.29	20.41	14.13	-171.85	242.62	-3,526.52	4,073.57	4,041.45	32.12	126.829	
8,600.00	8,575.30	8,906.26	8,892.73	20.67	14.28	-171.89	240.54	-3,519.35	4,074.73	4,042.26	32.47	125.497	
8,700.00	8,674.87	8,999.87	8,986.02	20.94	14.42	-171.93	238.54	-3,511.99	4,075.95	4,043.13	32.82	124.177	
8,800.00	8,774.44	9,078.42	9,064.33	21.20	14.55	-171.97	236.70	-3,506.06	4,077.50	4,044.34	33.16	122.955	
8,900.00	8,874.01	9,161.26	9,146.96	21.47	14.68	-172.01	234.85	-3,500.33	4,079.65	4,046.14	33.51	121.754	
9,000.00	8,973.58	9,260.31	9,245.75	21.73	14.84	-172.05	232.75	-3,493.58	4,081.93	4,048.06	33.87	120.503	
9,100.00	9,073.15	9,346.63	9,331.86	22.00	14.98	-172.08	231.23	-3,487.78	4,084.33	4,050.11	34.23	119.330	
9,200.00	9,172.72	9,409.00	9,394.10	22.26	15.08	-172.11	230.27	-3,483.91	4,087.32	4,052.77	34.55	118.301	
9,300.00	9,272.29	9,504.00	9,488.95	22.53	15.23	-172.14	228.92	-3,478.70	4,090.96	4,056.05	34.92	117.168	
9,400.00	9,371.86	9,561.31	9,546.19	22.79	15.31	-172.16	228.15	-3,475.99	4,095.28	4,060.05	35.23	116.244	
9,500.00	9,471.43	9,629.94	9,614.76	23.06	15.42	-172.18	227.29	-3,473.22	4,100.38	4,064.82	35.56	115.312	
9,600.00	9,571.00	9,694.00	9,678.78	23.32	15.51	-172.20	226.56	-3,471.11	4,106.25	4,070.37	35.88	114.443	
9,700.00	9,670.57	9,770.56	9,755.31	23.59	15.63	-172.22	226.02	-3,469.11	4,112.82	4,076.60	36.22	113.550	
9,800.00	9,770.14	9,849.00	9,833.74	23.85	15.74	-172.24	225.94	-3,467.56	4,120.02	4,083.45	36.56	112.681	
9,900.00	9,869.72	9,917.43	9,902.16	24.12	15.84	-172.25	226.01	-3,466.56	4,127.77	4,090.88	36.89	111.892	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 71H - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 166-MWD-ISCWSA, 5236-LEAM MWD+HDGM, 22587-Project													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (')	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
10,000.00	9,969.29	9,978.00	9,962.73	24.38	15.92	-172.26	226.04	-3,466.25	4,136.44	4,099.24	37.20	111.183	
10,100.00	10,068.86	10,121.29	10,106.01	24.65	16.12	-172.27	226.67	-3,465.07	4,144.71	4,107.06	37.65	110.084	
10,200.00	10,168.43	10,285.48	10,270.16	24.92	16.36	-172.27	228.63	-3,462.11	4,152.22	4,114.09	38.13	108.891	
10,300.00	10,268.00	10,358.00	10,342.65	25.18	16.47	-172.27	229.63	-3,460.33	4,159.03	4,120.56	38.47	108.111	
10,400.00	10,367.57	10,432.15	10,416.78	25.45	16.58	-172.27	230.64	-3,458.99	4,166.48	4,127.66	38.81	107.348	
10,500.00	10,467.14	10,508.24	10,492.87	25.71	16.70	-172.27	231.45	-3,458.14	4,174.58	4,135.42	39.16	106.612	
10,600.00	10,566.71	10,572.60	10,557.22	25.98	16.79	-172.28	231.64	-3,457.79	4,183.28	4,143.80	39.48	105.962	
10,700.00	10,666.28	10,642.00	10,626.60	26.25	16.88	-172.31	230.32	-3,458.42	4,193.15	4,153.34	39.81	105.336	
10,800.00	10,765.85	10,676.35	10,660.92	26.51	16.93	-172.33	229.13	-3,459.14	4,203.99	4,163.92	40.07	104.907	
10,900.00	10,865.42	10,737.00	10,721.49	26.78	17.00	-172.38	226.57	-3,460.98	4,215.98	4,175.60	40.38	104.400	
11,004.37	10,969.33	10,814.49	10,798.82	27.06	17.10	-172.44	222.63	-3,463.94	4,229.31	4,188.58	40.73	103.837	
11,100.00	11,064.63	10,958.06	10,942.09	27.28	17.28	-172.59	214.77	-3,468.88	4,240.40	4,199.25	41.15	103.037	
11,200.00	11,164.40	11,052.25	11,036.11	27.47	17.40	-172.68	209.88	-3,471.56	4,249.74	4,208.27	41.48	102.459	
11,300.00	11,264.27	11,130.30	11,114.05	27.66	17.51	-172.74	206.65	-3,474.06	4,257.76	4,215.99	41.77	101.925	
11,400.00	11,364.22	11,211.00	11,194.69	27.83	17.62	-172.77	205.21	-3,476.99	4,264.54	4,222.47	42.07	101.359	
11,500.00	11,464.21	11,374.34	11,357.98	28.00	17.84	-172.78	205.75	-3,480.83	4,267.96	4,225.44	42.52	100.369	
11,535.79	11,500.00	11,401.00	11,384.63	28.06	17.88	-88.24	205.70	-3,481.48	4,268.94	4,226.31	42.63	100.147	
11,600.00	11,564.21	11,453.85	11,437.46	28.17	17.96	-88.25	205.65	-3,482.90	4,270.65	4,227.82	42.83	99.703	
11,700.00	11,664.21	11,542.70	11,526.27	28.36	18.08	-88.24	205.92	-3,485.48	4,273.56	4,230.39	43.18	98.980	
11,800.00	11,764.21	11,636.94	11,620.47	28.55	18.21	-88.26	205.11	-3,488.44	4,276.68	4,233.15	43.53	98.254	
11,900.00	11,864.21	11,733.22	11,716.68	28.74	18.35	-88.28	203.46	-3,491.57	4,279.88	4,236.00	43.88	97.533	
12,006.83	11,971.04	11,836.78	11,820.14	28.95	18.49	-88.32	200.86	-3,495.06	4,283.40	4,239.14	44.26	96.772	
12,050.00	12,014.17	11,883.80	11,867.12	29.03	18.56	91.54	199.40	-3,496.67	4,284.88	4,240.46	44.42	96.460	
12,100.00	12,063.80	11,975.08	11,958.30	29.11	18.69	91.49	196.33	-3,499.24	4,286.39	4,241.73	44.66	95.968	
12,150.00	12,112.72	12,019.48	12,002.67	29.19	18.75	91.45	194.81	-3,500.31	4,287.84	4,243.02	44.82	95.666	
12,200.00	12,160.57	12,065.00	12,048.15	29.27	18.82	91.44	193.30	-3,501.46	4,289.49	4,244.51	44.98	95.373	
12,250.00	12,206.97	12,102.93	12,086.04	29.35	18.88	91.43	192.08	-3,502.48	4,291.36	4,246.24	45.12	95.117	
12,300.00	12,251.58	12,141.25	12,124.33	29.43	18.94	91.43	190.89	-3,503.56	4,293.50	4,248.24	45.26	94.871	
12,350.00	12,294.05	12,176.00	12,159.06	29.50	18.99	91.41	189.86	-3,504.59	4,295.94	4,250.55	45.39	94.647	
12,400.00	12,334.07	12,207.11	12,190.13	29.58	19.04	91.37	188.89	-3,505.60	4,298.76	4,253.24	45.52	94.445	
12,450.00	12,371.32	12,236.27	12,219.26	29.66	19.08	91.30	187.93	-3,506.60	4,301.98	4,256.34	45.64	94.254	
12,500.00	12,405.53	12,271.47	12,254.42	29.74	19.14	91.26	186.69	-3,507.88	4,305.63	4,259.84	45.78	94.040	
12,550.00	12,436.43	12,319.31	12,302.17	29.83	19.21	91.35	184.44	-3,509.54	4,309.59	4,263.63	45.96	93.773	
12,600.00	12,463.78	12,347.00	12,329.74	29.93	19.25	91.20	182.12	-3,510.55	4,313.96	4,267.86	46.10	93.579	
12,650.00	12,487.39	12,374.11	12,356.56	30.04	19.29	91.00	178.30	-3,511.68	4,318.80	4,272.55	46.25	93.380	
12,700.00	12,507.07	12,379.00	12,361.36	30.17	19.30	90.52	177.43	-3,511.91	4,324.17	4,277.80	46.37	93.262	
12,750.00	12,522.67	12,396.04	12,378.01	30.31	19.33	90.12	173.96	-3,512.79	4,330.05	4,283.53	46.52	93.087	
12,800.00	12,534.07	12,410.00	12,391.55	30.47	19.35	89.63	170.65	-3,513.66	4,336.49	4,289.82	46.67	92.916	
12,850.00	12,541.18	12,410.00	12,391.55	30.65	19.35	88.94	170.65	-3,513.66	4,343.41	4,296.60	46.81	92.795	
12,900.00	12,543.96	12,410.00	12,391.55	30.84	19.35	88.19	170.65	-3,513.66	4,350.81	4,303.86	46.95	92.668	
12,906.83	12,544.00	12,419.24	12,400.44	30.87	19.36	88.20	168.24	-3,514.30	4,351.84	4,304.85	46.99	92.611	
13,000.00	12,544.00	13,380.86	12,799.59	31.30	23.70	93.48	-610.78	-3,563.00	4,355.18	4,302.43	52.75	82.556	
13,067.23	12,544.00	13,428.45	12,799.04	31.65	24.12	93.47	-658.36	-3,562.93	4,355.04	4,301.49	53.55	81.333	
13,100.00	12,544.00	13,452.19	12,798.68	31.84	24.34	93.46	-682.10	-3,562.98	4,355.07	4,301.12	53.95	80.732	
13,200.00	12,544.00	13,495.00	12,797.93	32.45	24.74	93.45	-724.90	-3,563.20	4,355.73	4,300.82	54.91	79.325	
13,300.00	12,544.00	13,566.51	12,797.45	33.13	25.38	93.45	-796.40	-3,564.21	4,357.24	4,301.02	56.22	77.497	
13,400.00	12,544.00	13,625.63	12,798.05	33.87	25.94	93.45	-855.49	-3,565.78	4,359.93	4,302.44	57.49	75.843	
13,500.00	12,544.00	13,685.00	12,798.09	34.68	26.51	93.45	-914.83	-3,567.84	4,363.44	4,304.62	58.82	74.186	
13,600.00	12,544.00	13,734.71	12,797.17	35.54	27.05	93.44	-964.47	-3,570.13	4,367.99	4,307.84	60.15	72.619	
13,700.00	12,544.00	13,971.00	12,792.59	36.46	29.52	93.37	-1,200.42	-3,579.48	4,372.11	4,308.21	63.90	68.422	
13,800.00	12,544.00	14,023.05	12,793.65	37.43	30.10	93.38	-1,252.45	-3,580.47	4,374.41	4,309.04	65.38	66.911	
13,900.00	12,544.00	14,066.00	12,794.08	38.44	30.58	93.39	-1,295.36	-3,582.22	4,378.36	4,311.60	66.76	65.584	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 71H - OH - OH														Offset Site Error: 0.00 usft
Survey Program: 166-MWD-ISCWSA, 5236-LEAM MWD+HDGM, 22587-Project														Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (')	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
14,000.00	12,544.00	14,391.73	12,791.83	39.49	34.47	93.35	-1,620.86	-3,590.27	4,381.99	4,309.65	72.34	60.571		
14,055.84	12,544.00	14,417.84	12,792.04	40.10	34.79	93.36	-1,646.97	-3,590.16	4,381.80	4,308.58	73.22	59.841		
14,100.00	12,544.00	14,447.00	12,792.32	40.59	35.14	93.36	-1,676.13	-3,590.26	4,381.94	4,307.90	74.04	59.182		
14,200.00	12,544.00	14,447.00	12,792.32	41.71	35.14	93.36	-1,676.13	-3,590.26	4,383.42	4,308.48	74.94	58.491		
14,300.00	12,544.00	14,487.21	12,792.68	42.88	35.64	93.36	-1,716.33	-3,591.19	4,386.35	4,309.89	76.46	57.366		
14,400.00	12,544.00	14,542.00	12,792.99	44.07	36.31	93.37	-1,771.00	-3,594.57	4,391.77	4,313.55	78.22	56.143		
14,500.00	12,544.00	14,882.21	12,798.55	45.28	40.71	93.44	-2,110.89	-3,598.20	4,390.25	4,305.66	84.59	51.899		
14,523.64	12,544.00	14,888.98	12,798.65	45.58	40.80	93.44	-2,117.66	-3,598.18	4,390.19	4,305.25	84.94	51.686		
14,600.00	12,544.00	14,923.00	12,798.71	46.53	41.26	93.44	-2,151.68	-3,598.48	4,390.67	4,304.42	86.26	50.903		
14,700.00	12,544.00	15,177.24	12,796.84	47.80	44.75	93.41	-2,405.84	-3,595.41	4,388.82	4,297.35	91.47	47.982		
14,800.00	12,544.00	15,321.06	12,793.70	49.08	46.77	93.38	-2,549.57	-3,591.63	4,386.23	4,291.30	94.93	46.206		
14,900.00	12,544.00	15,399.00	12,791.56	50.39	47.88	93.35	-2,627.43	-3,588.91	4,382.64	4,285.32	97.33	45.030		
15,000.00	12,544.00	15,448.52	12,789.13	51.72	48.60	93.32	-2,676.88	-3,587.66	4,379.97	4,280.69	99.28	44.118		
15,100.00	12,544.00	15,494.00	12,785.51	53.07	49.26	93.27	-2,722.21	-3,587.34	4,378.71	4,277.55	101.16	43.283		
15,182.75	12,544.00	15,545.87	12,780.95	54.19	49.97	93.21	-2,773.87	-3,587.50	4,378.51	4,275.57	102.94	42.534		
15,200.00	12,544.00	15,559.11	12,779.89	54.43	50.16	93.20	-2,787.07	-3,587.57	4,378.51	4,275.16	103.35	42.365		
15,300.00	12,544.00	15,684.00	12,773.50	55.80	51.84	93.12	-2,911.77	-3,587.83	4,378.48	4,271.96	106.51	41.107		
15,320.65	12,544.00	15,684.00	12,773.50	56.09	51.84	93.12	-2,911.77	-3,587.83	4,378.43	4,271.68	106.75	41.018		
15,400.00	12,544.00	15,718.21	12,772.84	57.19	52.32	93.11	-2,945.98	-3,587.94	4,378.73	4,270.53	108.20	40.468		
15,500.00	12,544.00	15,780.00	12,771.07	58.59	53.18	93.08	-3,007.72	-3,589.59	4,380.84	4,270.48	110.36	39.695		
15,600.00	12,544.00	15,917.79	12,773.09	60.01	55.11	93.11	-3,145.41	-3,592.47	4,383.28	4,269.41	113.86	38.496		
15,700.00	12,544.00	15,971.00	12,775.42	61.43	55.86	93.14	-3,198.57	-3,592.83	4,384.50	4,268.80	115.90	37.831		
15,800.00	12,544.00	16,035.10	12,777.88	62.87	56.78	93.17	-3,262.61	-3,593.88	4,386.59	4,268.45	118.14	37.129		
15,900.00	12,544.00	16,100.35	12,779.59	64.31	57.72	93.19	-3,327.80	-3,596.18	4,390.13	4,269.72	121.41	36.458		
16,000.00	12,544.00	16,207.90	12,781.32	65.76	59.27	93.21	-3,435.26	-3,599.81	4,393.58	4,270.11	123.47	35.584		
16,100.00	12,544.00	16,301.62	12,776.51	67.22	60.62	93.14	-3,528.77	-3,603.56	4,397.30	4,271.02	126.28	34.822		
16,200.00	12,544.00	16,383.91	12,772.06	68.69	61.78	93.08	-3,610.88	-3,606.85	4,401.03	4,272.17	128.86	34.154		
16,300.00	12,544.00	16,447.00	12,768.91	70.17	62.66	93.04	-3,673.81	-3,609.93	4,405.61	4,274.54	131.08	33.611		
16,400.00	12,544.00	16,527.91	12,765.50	71.65	63.78	92.99	-3,754.53	-3,614.37	4,410.85	4,277.23	133.61	33.013		
16,500.00	12,544.00	16,695.45	12,763.38	73.14	66.15	92.96	-3,921.86	-3,622.27	4,415.52	4,277.73	137.79	32.046		
16,600.00	12,544.00	16,787.70	12,763.73	74.64	67.50	92.96	-4,014.04	-3,625.69	4,419.26	4,278.65	140.61	31.428		
16,700.00	12,544.00	16,856.28	12,763.72	76.14	68.50	92.96	-4,082.55	-3,628.66	4,423.60	4,280.60	143.00	30.934		
16,800.00	12,544.00	16,922.00	12,763.27	77.65	69.47	92.95	-4,148.18	-3,632.06	4,428.71	4,283.38	145.34	30.472		
16,900.00	12,544.00	17,052.59	12,763.02	79.16	71.37	92.94	-4,278.59	-3,638.86	4,433.93	4,285.02	148.90	29.777		
17,000.00	12,544.00	17,159.36	12,762.52	80.67	72.91	92.93	-4,385.25	-3,643.73	4,438.45	4,286.44	152.01	29.199		
17,100.00	12,544.00	17,397.00	12,758.61	82.20	76.40	92.88	-4,622.67	-3,652.44	4,442.69	4,285.10	157.59	28.191		
17,200.00	12,544.00	17,457.58	12,758.63	83.72	77.31	92.88	-4,683.24	-3,653.40	4,444.44	4,284.54	159.89	27.796		
17,300.00	12,544.00	17,492.00	12,758.11	85.25	77.82	92.87	-4,717.64	-3,654.43	4,447.51	4,285.83	161.68	27.508		
17,400.00	12,544.00	17,563.43	12,756.47	86.78	78.89	92.85	-4,788.99	-3,657.34	4,451.55	4,287.38	164.16	27.117		
17,500.00	12,544.00	17,695.53	12,754.41	88.32	80.83	92.82	-4,920.94	-3,663.24	4,455.99	4,288.19	167.80	26.555		
17,600.00	12,544.00	17,778.00	12,754.28	89.86	82.03	92.81	-5,003.34	-3,666.40	4,459.85	4,289.38	170.47	26.162		
17,700.00	12,544.00	17,831.97	12,754.39	91.41	82.80	92.81	-5,057.25	-3,668.85	4,464.48	4,291.90	172.58	25.869		
17,800.00	12,544.00	17,873.00	12,754.61	92.95	83.38	92.82	-5,098.22	-3,671.21	4,470.32	4,295.90	174.42	25.630		
17,900.00	12,544.00	17,918.38	12,754.76	94.50	84.04	92.82	-5,143.49	-3,674.40	4,477.42	4,301.09	176.33	25.392		
18,000.00	12,544.00	17,968.00	12,754.53	96.05	84.76	92.81	-5,192.92	-3,678.66	4,485.86	4,307.55	178.31	25.158		
18,100.00	12,544.00	18,200.16	12,759.33	97.61	88.16	92.86	-5,424.43	-3,694.76	4,492.39	4,308.36	184.03	24.411		
18,200.00	12,544.00	18,254.00	12,758.85	99.17	88.95	92.85	-5,478.15	-3,698.37	4,498.95	4,312.81	186.14	24.170		
18,300.00	12,544.00	18,825.00	12,777.78	100.73	97.59	93.09	-6,048.23	-3,704.20	4,497.60	4,299.59	198.00	22.715		
18,400.00	12,544.00	18,878.85	12,777.65	102.29	98.40	93.09	-6,102.05	-3,702.42	4,494.44	4,294.13	200.31	22.438		
18,500.00	12,544.00	19,044.57	12,777.18	103.85	100.93	93.09	-6,267.65	-3,697.47	4,491.57	4,287.06	204.51	21.962		
18,600.00	12,544.00	19,110.00	12,778.03	105.42	101.93	93.10	-6,333.05	-3,695.58	4,488.50	4,281.47	207.03	21.680		
18,700.00	12,544.00	19,205.00	12,779.03	106.99	103.38	93.11	-6,428.01	-3,692.93	4,485.75	4,275.71	210.04	21.357		

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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Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 71H - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 166-MWD-ISCWSA, 5236-LEAM MWD+HDGM, 22587-Project													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
18,800.00	12,544.00	19,257.35	12,779.44	108.56	104.17	93.12	-6,480.33	-3,691.39	4,483.04	4,270.72	212.32	21.114	
18,900.00	12,544.00	19,491.00	12,780.53	110.13	107.75	93.14	-6,713.77	-3,682.76	4,479.13	4,261.47	217.66	20.578	
19,000.00	12,544.00	19,550.19	12,780.66	111.71	108.65	93.14	-6,772.86	-3,679.50	4,474.04	4,253.93	220.10	20.327	
19,100.00	12,544.00	19,586.00	12,780.36	113.28	109.20	93.14	-6,808.66	-3,678.37	4,470.74	4,248.61	222.14	20.126	
19,200.00	12,544.00	19,626.68	12,779.85	114.86	109.81	93.13	-6,849.33	-3,677.65	4,468.84	4,244.63	224.20	19.932	
19,300.00	12,544.00	19,873.00	12,779.18	116.44	113.57	93.13	-7,095.46	-3,670.72	4,466.17	4,236.39	229.78	19.436	
19,400.00	12,544.00	19,919.34	12,779.58	118.02	114.28	93.14	-7,141.71	-3,668.04	4,461.39	4,229.37	232.02	19.229	
19,500.00	12,544.00	19,968.00	12,778.60	119.60	115.03	93.13	-7,190.35	-3,667.65	4,459.51	4,225.24	234.27	19.036	
19,599.23	12,544.00	19,968.00	12,778.60	121.18	115.03	93.13	-7,190.35	-3,667.65	4,458.40	4,222.81	235.59	18.924	
19,600.00	12,544.00	19,968.00	12,778.60	121.19	115.03	93.13	-7,190.35	-3,667.65	4,458.40	4,222.80	235.60	18.924	
19,700.00	12,544.00	20,010.90	12,777.34	122.77	115.68	93.11	-7,233.22	-3,668.33	4,459.39	4,221.75	237.64	18.765	
19,800.00	12,544.00	20,111.41	12,775.68	124.36	117.20	93.09	-7,333.72	-3,669.57	4,460.53	4,219.77	240.76	18.527	
19,900.00	12,544.00	20,318.40	12,770.95	125.95	120.35	93.03	-7,540.63	-3,669.12	4,459.74	4,213.90	245.84	18.141	
20,000.00	12,544.00	20,375.12	12,769.96	127.53	121.19	93.01	-7,597.34	-3,668.81	4,459.11	4,210.95	248.16	17.969	
20,014.01	12,544.00	20,382.92	12,769.88	127.76	121.31	93.01	-7,605.14	-3,668.81	4,459.10	4,210.62	248.48	17.946	
20,100.00	12,544.00	20,443.00	12,769.73	129.12	122.19	93.01	-7,665.22	-3,669.14	4,459.49	4,208.85	250.64	17.792	
20,200.00	12,544.00	20,443.00	12,769.73	130.72	122.19	93.01	-7,665.22	-3,669.14	4,461.20	4,209.36	251.84	17.715	
20,300.00	12,544.00	20,491.14	12,769.96	132.31	122.89	93.01	-7,713.35	-3,670.35	4,464.18	4,210.30	253.88	17.584	
20,400.00	12,544.00	20,538.00	12,770.14	133.90	123.56	93.01	-7,760.13	-3,672.87	4,469.14	4,213.28	255.85	17.468	
20,500.00	12,544.00	20,556.07	12,770.18	135.49	123.83	93.01	-7,778.15	-3,674.12	4,475.37	4,218.17	257.19	17.401	
20,600.00	12,544.00	20,633.00	12,769.73	137.09	124.97	93.00	-7,854.87	-3,679.83	4,482.72	4,222.94	259.77	17.256	
20,700.00	12,544.00	21,058.49	12,759.24	138.68	131.36	92.86	-8,279.63	-3,699.30	4,489.02	4,219.55	269.46	16.659	
20,800.00	12,544.00	21,172.63	12,758.85	140.28	133.09	92.85	-8,393.76	-3,699.06	4,488.74	4,215.90	272.84	16.452	
20,900.00	12,544.00	21,299.00	12,759.09	141.88	135.00	92.86	-8,520.13	-3,698.83	4,488.62	4,212.20	276.42	16.238	
20,928.90	12,544.00	21,299.00	12,759.09	142.34	135.00	92.86	-8,520.13	-3,698.83	4,488.53	4,211.72	276.80	16.216	
21,000.00	12,544.00	21,333.69	12,759.16	143.48	135.53	92.86	-8,554.82	-3,698.85	4,488.70	4,210.34	278.35	16.126	
21,100.00	12,544.00	21,395.00	12,758.75	145.08	136.47	92.85	-8,616.11	-3,700.17	4,490.47	4,209.72	280.75	15.995	
21,200.00	12,544.00	21,491.29	12,758.43	146.68	137.94	92.84	-8,712.37	-3,702.68	4,493.03	4,209.22	283.81	15.831	
21,300.00	12,544.00	21,640.12	12,759.69	148.28	140.23	92.86	-8,861.19	-3,704.05	4,493.87	4,205.98	287.89	15.610	
21,400.00	12,544.00	21,775.00	12,761.57	149.88	142.31	92.88	-8,996.05	-3,704.40	4,494.21	4,202.54	291.67	15.409	
21,405.13	12,544.00	21,775.00	12,761.57	149.96	142.31	92.88	-8,996.05	-3,704.40	4,494.21	4,202.47	291.74	15.405	
21,500.00	12,544.00	21,816.87	12,762.50	151.48	142.95	92.90	-9,037.91	-3,704.52	4,494.69	4,200.97	293.72	15.303	
21,600.00	12,544.00	21,870.00	12,763.23	153.08	143.76	92.90	-9,091.02	-3,705.64	4,496.65	4,200.70	295.95	15.194	
21,700.00	12,544.00	21,899.80	12,763.50	154.69	144.20	92.91	-9,120.80	-3,706.67	4,499.80	4,202.14	297.65	15.118	
21,800.00	12,544.00	21,965.00	12,764.14	156.29	145.17	92.91	-9,185.93	-3,709.54	4,504.15	4,204.11	300.03	15.012	
21,900.00	12,544.00	22,008.21	12,764.59	157.90	145.81	92.92	-9,229.08	-3,711.88	4,509.45	4,207.53	301.92	14.936	
22,000.00	12,544.00	22,061.00	12,765.15	159.50	146.58	92.92	-9,281.76	-3,715.15	4,515.74	4,211.77	303.96	14.856	
22,100.00	12,544.00	22,156.00	12,766.22	161.11	147.96	92.93	-9,376.53	-3,721.69	4,522.67	4,215.76	306.91	14.736	
22,181.55	12,544.00	22,192.81	12,766.65	162.42	148.50	92.93	-9,413.24	-3,724.46	4,528.79	4,220.37	308.41	14.684 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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 7H - OH - Plan #1														Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM														Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (')	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
0.00	0.00	4.00	4.00	0.00	0.00	-87.70	99.93	-2,491.92	2,493.92					
100.00	100.00	104.00	104.00	0.08	0.09	-87.70	99.93	-2,491.92	2,493.92	2,493.75	0.18	N/A		
200.00	200.00	204.00	204.00	0.31	0.32	-87.70	99.93	-2,491.92	2,493.92	2,493.30	0.63	3,976.930		
300.00	300.00	304.00	304.00	0.53	0.54	-87.70	99.93	-2,491.92	2,493.92	2,492.85	1.08	2,316.417		
400.00	400.00	404.00	404.00	0.76	0.77	-87.70	99.93	-2,491.92	2,493.92	2,492.40	1.53	1,634.115		
500.00	500.00	504.00	504.00	0.98	0.99	-87.70	99.93	-2,491.92	2,493.92	2,491.95	1.98	1,262.302		
600.00	600.00	604.00	604.00	1.21	1.22	-87.70	99.93	-2,491.92	2,493.92	2,491.50	2.43	1,028.326		
700.00	700.00	704.00	704.00	1.43	1.44	-87.70	99.93	-2,491.92	2,493.92	2,491.05	2.87	867.525		
800.00	800.00	804.00	804.00	1.66	1.67	-87.70	99.93	-2,491.92	2,493.92	2,490.60	3.32	750.212		
900.00	900.00	904.00	904.00	1.88	1.89	-87.70	99.93	-2,491.92	2,493.92	2,490.15	3.77	660.848		
1,000.00	1,000.00	1,004.00	1,004.00	2.11	2.12	-87.70	99.93	-2,491.92	2,493.92	2,489.70	4.22	590.508		
1,100.00	1,100.00	1,104.00	1,104.00	2.33	2.34	-87.70	99.93	-2,491.92	2,493.92	2,489.25	4.67	533.701		
1,200.00	1,200.00	1,204.00	1,204.00	2.56	2.57	-87.70	99.93	-2,491.92	2,493.92	2,488.80	5.12	486.864		
1,300.00	1,300.00	1,304.00	1,304.00	2.78	2.79	-87.70	99.93	-2,491.92	2,493.92	2,488.35	5.57	447.585		
1,400.00	1,400.00	1,404.00	1,404.00	3.01	3.02	-87.70	99.93	-2,491.92	2,493.92	2,487.90	6.02	414.171		
1,500.00	1,500.00	1,504.00	1,504.00	3.23	3.24	-87.70	99.93	-2,491.92	2,493.92	2,487.45	6.47	385.399		
1,600.00	1,600.00	1,604.00	1,604.00	3.46	3.46	-87.70	99.93	-2,491.92	2,493.92	2,487.00	6.92	360.365		
1,700.00	1,700.00	1,704.00	1,704.00	3.68	3.69	-87.70	99.93	-2,491.92	2,493.92	2,486.55	7.37	338.385		
1,800.00	1,800.00	1,804.00	1,804.00	3.91	3.91	-87.70	99.93	-2,491.92	2,493.92	2,486.10	7.82	318.932		
1,900.00	1,900.00	1,904.00	1,904.00	4.13	4.14	-87.70	99.93	-2,491.92	2,493.92	2,485.65	8.27	301.594		
2,000.00	2,000.00	2,004.00	2,004.00	4.35	4.36	-87.70	99.93	-2,491.92	2,493.92	2,485.20	8.72	286.044		
2,100.00	2,100.00	2,104.00	2,104.00	4.58	4.59	-87.70	99.93	-2,491.92	2,493.92	2,484.75	9.17	272.019		
2,200.00	2,200.00	2,204.00	2,204.00	4.80	4.81	-87.70	99.93	-2,491.92	2,493.92	2,484.31	9.62	259.304		
2,300.00	2,300.00	2,304.00	2,304.00	5.03	5.04	-87.70	99.93	-2,491.92	2,493.92	2,483.86	10.07	247.726		
2,400.00	2,400.00	2,404.00	2,404.00	5.25	5.26	-87.70	99.93	-2,491.92	2,493.92	2,483.41	10.52	237.137		
2,500.00	2,500.00	2,504.00	2,504.00	5.48	5.49	-87.70	99.93	-2,491.92	2,493.92	2,482.96	10.97	227.416 CC		
2,600.00	2,599.99	2,603.99	2,603.99	5.69	5.71	-172.24	99.93	-2,491.92	2,494.79	2,483.38	11.40	218.788		
2,700.00	2,699.96	2,703.96	2,703.96	5.89	5.94	-172.25	99.93	-2,491.92	2,497.38	2,485.55	11.83	211.149		
2,800.00	2,799.86	2,803.86	2,803.86	6.10	6.16	-172.25	99.93	-2,491.92	2,501.70	2,489.45	12.25	204.151		
2,900.00	2,899.68	2,903.68	2,903.68	6.30	6.39	-172.26	99.93	-2,491.92	2,507.75	2,495.07	12.68	197.737		
3,000.00	2,999.37	3,003.37	3,003.37	6.52	6.61	-172.28	99.93	-2,491.92	2,515.53	2,502.42	13.11	191.852		
3,031.43	3,030.67	3,034.67	3,034.67	6.58	6.68	-172.28	99.93	-2,491.92	2,518.33	2,505.08	13.25	190.098		
3,100.00	3,098.94	3,102.94	3,102.94	6.73	6.83	-172.30	99.93	-2,491.92	2,524.62	2,511.08	13.54	186.421		
3,200.00	3,198.51	3,202.51	3,202.51	6.96	7.06	-172.33	99.93	-2,491.92	2,533.80	2,519.83	13.97	181.322		
3,300.00	3,298.08	3,302.08	3,302.08	7.18	7.28	-172.36	99.93	-2,491.92	2,542.98	2,528.57	14.41	176.508		
3,400.00	3,397.65	3,401.65	3,401.65	7.41	7.51	-172.39	99.93	-2,491.92	2,552.16	2,537.32	14.84	171.959		
3,500.00	3,497.22	3,502.05	3,502.05	7.64	7.73	-172.41	99.93	-2,491.92	2,561.34	2,546.06	15.28	167.635		
3,600.00	3,596.79	3,606.75	3,606.75	7.87	8.09	-172.43	100.94	-2,489.65	2,569.19	2,553.35	15.84	162.150		
3,700.00	3,696.36	3,836.03	3,835.84	8.11	8.44	-172.41	103.94	-2,482.92	2,574.43	2,558.03	16.40	157.018		
3,800.00	3,795.93	4,003.59	4,002.94	8.34	8.80	-172.33	108.94	-2,471.72	2,577.05	2,560.11	16.94	152.123		
3,900.00	3,895.51	4,121.90	4,120.73	8.58	9.06	-172.26	113.48	-2,461.55	2,577.74	2,560.34	17.40	148.142		
4,000.00	3,995.08	4,221.85	4,220.22	8.82	9.28	-172.19	117.37	-2,452.81	2,578.34	2,560.51	17.83	144.589		
4,100.00	4,094.65	4,321.81	4,319.72	9.06	9.51	-172.12	121.27	-2,444.08	2,578.94	2,560.68	18.27	141.188		
4,200.00	4,194.22	4,421.76	4,419.21	9.31	9.74	-172.06	125.17	-2,435.34	2,579.55	2,560.85	18.70	137.931		
4,300.00	4,293.79	4,521.71	4,518.71	9.55	9.97	-171.99	129.06	-2,426.61	2,580.16	2,561.02	19.14	134.808		
4,400.00	4,393.36	4,621.67	4,618.20	9.80	10.20	-171.92	132.96	-2,417.88	2,580.77	2,561.19	19.58	131.813		
4,500.00	4,492.93	4,721.62	4,717.69	10.05	10.43	-171.86	136.85	-2,409.14	2,581.39	2,561.37	20.02	128.940		
4,600.00	4,592.50	4,821.57	4,817.19	10.30	10.67	-171.79	140.75	-2,400.41	2,582.01	2,561.55	20.46	126.180		
4,700.00	4,692.07	4,921.53	4,916.68	10.55	10.90	-171.72	144.65	-2,391.67	2,582.63	2,561.73	20.91	123.530		
4,800.00	4,791.64	5,021.48	5,016.18	10.80	11.14	-171.66	148.54	-2,382.94	2,583.26	2,561.91	21.35	120.981		
4,900.00	4,891.21	5,121.43	5,115.67	11.05	11.38	-171.59	152.44	-2,374.20	2,583.89	2,562.09	21.80	118.530		
5,000.00	4,990.78	5,221.39	5,215.17	11.30	11.62	-171.53	156.33	-2,365.47	2,584.53	2,562.28	22.25	116.172		

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 7H - OH - Plan #1													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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,090.35	5,321.34	5,314.66	11.55	11.87	-171.46	160.23	-2,356.74	2,585.16	2,562.47	22.70	113.900		
5,200.00	5,189.92	5,421.29	5,414.16	11.81	12.11	-171.39	164.13	-2,348.00	2,585.80	2,562.66	23.15	111.712		
5,300.00	5,289.49	5,521.25	5,513.65	12.06	12.36	-171.33	168.02	-2,339.27	2,586.45	2,562.85	23.60	109.603		
5,400.00	5,389.06	5,621.20	5,613.15	12.32	12.60	-171.26	171.92	-2,330.53	2,587.10	2,563.05	24.05	107.568		
5,500.00	5,488.63	5,721.15	5,712.64	12.57	12.85	-171.20	175.81	-2,321.80	2,587.75	2,563.24	24.50	105.605		
5,600.00	5,588.20	5,821.11	5,812.14	12.83	13.10	-171.13	179.71	-2,313.06	2,588.40	2,563.44	24.96	103.709		
5,700.00	5,687.77	5,921.06	5,911.63	13.09	13.35	-171.06	183.61	-2,304.33	2,589.06	2,563.65	25.41	101.878		
5,800.00	5,787.34	6,021.01	6,011.13	13.34	13.60	-171.00	187.50	-2,295.60	2,589.72	2,563.85	25.87	100.108		
5,900.00	5,886.91	6,120.97	6,110.62	13.60	13.85	-170.93	191.40	-2,286.86	2,590.39	2,564.06	26.33	98.397		
6,000.00	5,986.48	6,220.92	6,210.12	13.86	14.10	-170.87	195.29	-2,278.13	2,591.06	2,564.27	26.78	96.741		
6,100.00	6,086.05	6,320.87	6,309.61	14.12	14.35	-170.80	199.19	-2,269.39	2,591.73	2,564.49	27.24	95.139		
6,200.00	6,185.62	6,420.83	6,409.11	14.38	14.60	-170.73	203.09	-2,260.66	2,592.40	2,564.70	27.70	93.588		
6,300.00	6,285.19	6,520.78	6,508.60	14.64	14.86	-170.67	206.98	-2,251.92	2,593.08	2,564.92	28.16	92.085		
6,400.00	6,384.76	6,620.73	6,608.10	14.90	15.11	-170.60	210.88	-2,243.19	2,593.77	2,565.15	28.62	90.629		
6,500.00	6,484.33	6,720.69	6,707.59	15.16	15.37	-170.54	214.77	-2,234.46	2,594.45	2,565.37	29.08	89.217		
6,600.00	6,583.90	6,820.64	6,807.08	15.42	15.62	-170.47	218.67	-2,225.72	2,595.14	2,565.60	29.54	87.847		
6,700.00	6,683.47	6,920.59	6,906.58	15.68	15.88	-170.41	222.57	-2,216.99	2,595.83	2,565.83	30.00	86.518		
6,800.00	6,783.04	7,020.55	7,006.07	15.94	16.13	-170.34	226.46	-2,208.25	2,596.53	2,566.06	30.47	85.228		
6,900.00	6,882.61	7,120.50	7,105.57	16.20	16.39	-170.27	230.36	-2,199.52	2,597.23	2,566.30	30.93	83.975		
7,000.00	6,982.18	7,220.45	7,205.06	16.46	16.65	-170.21	234.25	-2,190.78	2,597.93	2,566.54	31.39	82.758		
7,100.00	7,081.75	7,320.41	7,304.56	16.72	16.90	-170.14	238.15	-2,182.05	2,598.64	2,566.78	31.86	81.575		
7,200.00	7,181.32	7,420.36	7,404.05	16.98	17.16	-170.08	242.05	-2,173.31	2,599.35	2,567.03	32.32	80.426		
7,300.00	7,280.89	7,520.31	7,503.55	17.25	17.42	-170.01	245.94	-2,164.58	2,600.06	2,567.27	32.78	79.307		
7,400.00	7,380.46	7,620.27	7,603.04	17.51	17.68	-169.95	249.84	-2,155.85	2,600.78	2,567.53	33.25	78.219		
7,500.00	7,480.03	7,720.22	7,702.54	17.77	17.94	-169.88	253.73	-2,147.11	2,601.50	2,567.78	33.72	77.161		
7,600.00	7,579.60	7,820.17	7,802.03	18.03	18.20	-169.82	257.63	-2,138.38	2,602.22	2,568.04	34.18	76.130		
7,700.00	7,679.17	7,920.13	7,901.53	18.30	18.46	-169.75	261.53	-2,129.64	2,602.95	2,568.30	34.65	75.126		
7,800.00	7,778.74	8,020.08	8,001.02	18.56	18.72	-169.69	265.42	-2,120.91	2,603.67	2,568.56	35.11	74.148		
7,900.00	7,878.31	8,120.03	8,100.52	18.82	18.98	-169.62	269.32	-2,112.17	2,604.41	2,568.83	35.58	73.196		
8,000.00	7,977.88	8,219.99	8,200.01	19.09	19.24	-169.56	273.21	-2,103.44	2,605.14	2,569.10	36.05	72.267		
8,100.00	8,077.45	8,319.94	8,299.51	19.35	19.50	-169.49	277.11	-2,094.71	2,605.88	2,569.37	36.52	71.361		
8,200.00	8,177.02	8,419.90	8,399.00	19.61	19.76	-169.43	281.01	-2,085.97	2,606.63	2,569.64	36.98	70.478		
8,300.00	8,276.59	8,519.85	8,498.50	19.88	20.02	-169.36	284.90	-2,077.24	2,607.37	2,569.92	37.45	69.616		
8,400.00	8,376.16	8,619.80	8,597.99	20.14	20.28	-169.30	288.80	-2,068.50	2,608.12	2,570.20	37.92	68.775		
8,500.00	8,475.73	8,719.76	8,697.49	20.41	20.54	-169.23	292.69	-2,059.77	2,608.88	2,570.49	38.39	67.955		
8,600.00	8,575.30	8,819.71	8,796.98	20.67	20.81	-169.17	296.59	-2,051.03	2,609.64	2,570.77	38.86	67.153		
8,700.00	8,674.87	8,919.66	8,896.47	20.94	21.07	-169.10	300.49	-2,042.30	2,610.40	2,571.06	39.33	66.370		
8,800.00	8,774.44	9,019.62	8,995.97	21.20	21.33	-169.04	304.38	-2,033.57	2,611.16	2,571.36	39.80	65.606		
8,900.00	8,874.01	9,119.57	9,095.46	21.47	21.60	-168.97	308.28	-2,024.83	2,611.93	2,571.65	40.27	64.859		
9,000.00	8,973.58	9,219.52	9,194.96	21.73	21.86	-168.91	312.17	-2,016.10	2,612.70	2,571.95	40.74	64.128		
9,100.00	9,073.15	9,319.48	9,294.45	22.00	22.12	-168.84	316.07	-2,007.36	2,613.47	2,572.26	41.21	63.414		
9,200.00	9,172.72	9,419.43	9,393.95	22.26	22.38	-168.78	319.97	-1,998.63	2,614.25	2,572.56	41.68	62.716		
9,300.00	9,272.29	9,519.38	9,493.44	22.53	22.65	-168.71	323.86	-1,989.89	2,615.03	2,572.87	42.16	62.033		
9,400.00	9,371.86	9,619.34	9,592.94	22.79	22.91	-168.65	327.76	-1,981.16	2,615.81	2,573.18	42.63	61.365		
9,500.00	9,471.43	9,719.29	9,692.43	23.06	23.18	-168.58	331.66	-1,972.43	2,616.60	2,573.50	43.10	60.712		
9,600.00	9,571.00	9,819.24	9,791.93	23.32	23.44	-168.52	335.55	-1,963.69	2,617.39	2,573.82	43.57	60.072		
9,700.00	9,670.57	9,919.20	9,891.42	23.59	23.70	-168.45	339.45	-1,954.96	2,618.18	2,574.14	44.04	59.446		
9,800.00	9,770.14	10,019.15	9,990.92	23.85	23.97	-168.39	343.34	-1,946.22	2,618.98	2,574.46	44.52	58.832		
9,900.00	9,869.72	10,119.10	10,090.41	24.12	24.23	-168.32	347.24	-1,937.49	2,619.78	2,574.79	44.99	58.232		
10,000.00	9,969.29	10,219.06	10,189.91	24.38	24.50	-168.26	351.14	-1,928.75	2,620.58	2,575.12	45.46	57.643		
10,100.00	10,068.86	10,319.01	10,289.40	24.65	24.76	-168.20	355.03	-1,920.02	2,621.39	2,575.45	45.94	57.067		
10,200.00	10,168.43	10,418.96	10,388.90	24.92	25.03	-168.13	358.93	-1,911.29	2,622.20	2,575.79	46.41	56.502		

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 7H - OH - Plan #1													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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	10,268.00	10,518.92	10,488.39	25.18	25.29	-168.07	362.82	-1,902.55	2,623.01	2,576.13	46.88	55.948	
10,400.00	10,367.57	10,618.87	10,587.89	25.45	25.56	-168.00	366.72	-1,893.82	2,623.83	2,576.47	47.36	55.405	
10,500.00	10,467.14	10,700.00	10,668.65	25.71	25.77	-167.95	369.87	-1,886.75	2,624.74	2,576.95	47.79	54.923	
10,600.00	10,566.71	10,780.38	10,748.73	25.98	25.93	-167.91	372.68	-1,880.45	2,626.46	2,578.28	48.18	54.509	
10,700.00	10,666.28	10,852.05	10,820.21	26.25	26.07	-167.88	374.80	-1,875.71	2,629.29	2,580.73	48.56	54.146	
10,800.00	10,765.85	10,923.67	10,891.70	26.51	26.21	-167.86	376.55	-1,871.78	2,633.19	2,584.26	48.93	53.817	
10,900.00	10,865.42	11,000.00	10,967.95	26.78	26.35	-167.86	378.01	-1,868.49	2,638.17	2,588.87	49.30	53.510	
11,004.37	10,969.33	11,069.84	11,037.74	27.06	26.48	-167.86	378.99	-1,866.30	2,644.50	2,594.83	49.67	53.246	
11,100.00	11,064.63	11,138.13	11,106.02	27.28	26.60	-167.88	379.62	-1,864.90	2,650.54	2,600.57	49.98	53.033	
11,200.00	11,164.40	11,209.53	11,177.41	27.47	26.72	-167.91	379.91	-1,864.24	2,656.25	2,605.97	50.28	52.832	
11,300.00	11,264.27	11,300.39	11,268.27	27.66	26.88	-167.94	379.93	-1,864.20	2,661.07	2,610.45	50.63	52.563	
11,400.00	11,364.22	11,400.34	11,368.22	27.83	27.08	-167.96	379.93	-1,864.20	2,664.24	2,613.23	51.01	52.225	
11,500.00	11,464.21	11,500.32	11,468.21	28.00	27.28	-167.97	379.93	-1,864.20	2,665.71	2,614.31	51.40	51.862	
11,535.79	11,500.00	11,536.12	11,504.00	28.06	27.35	-83.43	379.93	-1,864.20	2,665.82	2,614.28	51.54	51.723	
11,600.00	11,564.21	11,600.32	11,568.21	28.17	27.48	-83.43	379.93	-1,864.20	2,665.82	2,614.02	51.80	51.464	
11,700.00	11,664.21	11,700.32	11,668.21	28.36	27.68	-83.43	379.93	-1,864.20	2,665.82	2,613.60	52.21	51.057	
11,800.00	11,764.21	11,800.32	11,768.21	28.55	27.88	-83.43	379.93	-1,864.20	2,665.82	2,613.19	52.63	50.655	
11,900.00	11,864.21	11,900.32	11,868.21	28.74	28.08	-83.43	379.93	-1,864.20	2,665.82	2,612.78	53.04	50.260	
12,006.83	11,971.04	12,007.16	11,975.04	28.95	28.30	-83.43	379.93	-1,864.20	2,665.82	2,612.33	53.48	49.843	
12,050.00	12,014.17	12,050.28	12,018.17	29.03	28.39	96.58	379.93	-1,864.20	2,666.00	2,612.34	53.66	49.684	
12,100.00	12,063.80	12,099.91	12,067.80	29.11	28.49	96.64	379.93	-1,864.20	2,666.69	2,612.84	53.85	49.518	
12,150.00	12,112.72	12,148.84	12,116.72	29.19	28.59	96.73	379.93	-1,864.20	2,667.91	2,613.87	54.04	49.365	
12,200.00	12,160.57	12,196.69	12,164.57	29.27	28.68	96.85	379.93	-1,864.20	2,669.70	2,615.47	54.23	49.229	
12,250.00	12,206.97	12,243.09	12,210.97	29.35	28.76	96.98	379.93	-1,864.20	2,672.11	2,617.70	54.41	49.109	
12,300.00	12,251.58	12,287.70	12,255.58	29.43	28.87	97.10	379.93	-1,864.20	2,675.20	2,620.62	54.59	49.007	
12,350.00	12,294.05	12,330.17	12,298.05	29.50	28.96	97.19	379.93	-1,864.20	2,679.06	2,624.30	54.76	48.924	
12,400.00	12,334.07	12,453.71	12,420.91	29.58	29.15	98.18	369.30	-1,864.20	2,683.32	2,628.27	55.05	48.743	
12,450.00	12,371.32	12,657.87	12,610.17	29.66	29.35	99.40	295.65	-1,864.20	2,686.25	2,631.02	55.24	48.632	
12,500.00	12,405.53	12,894.69	12,781.26	29.74	29.47	99.66	134.35	-1,864.20	2,686.78	2,631.44	55.33	48.556	
12,550.00	12,436.43	13,115.65	12,869.87	29.83	29.65	98.71	-66.57	-1,864.20	2,684.67	2,628.91	55.76	48.148	
12,600.00	12,463.78	13,255.71	12,884.00	29.93	29.93	97.70	-205.58	-1,864.20	2,680.83	2,624.47	56.36	47.569	
12,650.00	12,487.39	13,299.77	12,884.00	30.04	30.05	97.61	-249.64	-1,864.20	2,677.26	2,620.59	56.67	47.244	
12,700.00	12,507.07	13,345.72	12,884.00	30.17	30.20	97.50	-295.59	-1,864.20	2,674.45	2,617.42	57.03	46.897	
12,750.00	12,522.67	13,393.21	12,884.00	30.31	30.38	97.40	-343.08	-1,864.20	2,672.32	2,614.91	57.41	46.551	
12,800.00	12,534.07	13,441.87	12,884.00	30.47	30.58	97.31	-391.74	-1,864.20	2,670.82	2,612.98	57.84	46.178	
12,850.00	12,541.18	13,491.35	12,884.00	30.65	30.81	97.26	-441.22	-1,864.20	2,669.91	2,611.61	58.29	45.802	
12,900.00	12,543.96	13,541.25	12,884.00	30.84	31.06	97.23	-491.12	-1,864.20	2,669.55	2,610.76	58.79	45.405	
12,906.83	12,544.00	13,548.09	12,884.00	30.87	31.10	97.23	-497.96	-1,864.20	2,669.55	2,610.69	58.86	45.351	
13,000.00	12,544.00	13,641.25	12,884.00	31.30	31.62	97.23	-591.12	-1,864.20	2,669.55	2,609.65	59.89	44.571	
13,100.00	12,544.00	13,741.25	12,884.00	31.84	32.26	97.23	-691.12	-1,864.20	2,669.55	2,608.40	61.15	43.657	
13,200.00	12,544.00	13,841.25	12,884.00	32.45	32.97	97.23	-791.12	-1,864.20	2,669.55	2,607.00	62.55	42.682	
13,300.00	12,544.00	13,941.25	12,884.00	33.13	33.74	97.23	-891.12	-1,864.20	2,669.55	2,605.47	64.08	41.661	
13,400.00	12,544.00	14,041.25	12,884.00	33.87	34.58	97.23	-991.12	-1,864.20	2,669.55	2,603.82	65.73	40.611	
13,500.00	12,544.00	14,141.25	12,884.00	34.68	35.47	97.23	-1,091.12	-1,864.20	2,669.55	2,602.04	67.51	39.545	
13,600.00	12,544.00	14,241.25	12,884.00	35.54	36.41	97.23	-1,191.12	-1,864.20	2,669.55	2,600.16	69.39	38.474	
13,700.00	12,544.00	14,341.25	12,884.00	36.46	37.40	97.23	-1,291.12	-1,864.20	2,669.55	2,598.18	71.36	37.407	
13,800.00	12,544.00	14,441.25	12,884.00	37.43	38.44	97.23	-1,391.12	-1,864.20	2,669.55	2,596.12	73.43	36.353	
13,900.00	12,544.00	14,541.25	12,884.00	38.44	39.51	97.23	-1,491.12	-1,864.20	2,669.55	2,593.96	75.59	35.318	
14,000.00	12,544.00	14,641.25	12,884.00	39.49	40.62	97.23	-1,591.12	-1,864.20	2,669.55	2,591.74	77.81	34.307	
14,100.00	12,544.00	14,741.25	12,884.00	40.59	41.77	97.23	-1,691.12	-1,864.20	2,669.55	2,589.44	80.11	33.323	
14,200.00	12,544.00	14,841.25	12,884.00	41.71	42.95	97.23	-1,791.12	-1,864.20	2,669.55	2,587.08	82.47	32.369	
14,300.00	12,544.00	14,941.25	12,884.00	42.88	44.16	97.23	-1,891.12	-1,864.20	2,669.55	2,584.66	84.89	31.446	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 7H - OH - Plan #1													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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,400.00	12,544.00	15,041.25	12,884.00	44.07	45.39	97.23	-1,991.12	-1,864.20	2,669.55	2,582.18	87.37	30.555		
14,500.00	12,544.00	15,141.25	12,884.00	45.28	46.65	97.23	-2,091.12	-1,864.20	2,669.55	2,579.66	89.89	29.698		
14,600.00	12,544.00	15,241.25	12,884.00	46.53	47.93	97.23	-2,191.12	-1,864.20	2,669.55	2,577.09	92.46	28.873		
14,700.00	12,544.00	15,341.25	12,884.00	47.80	49.23	97.23	-2,291.12	-1,864.20	2,669.55	2,574.48	95.07	28.080		
14,800.00	12,544.00	15,441.25	12,884.00	49.08	50.55	97.23	-2,391.12	-1,864.20	2,669.55	2,571.83	97.72	27.319		
14,900.00	12,544.00	15,541.25	12,884.00	50.39	51.89	97.23	-2,491.12	-1,864.20	2,669.55	2,569.15	100.40	26.588		
15,000.00	12,544.00	15,641.25	12,884.00	51.72	53.25	97.23	-2,591.12	-1,864.20	2,669.55	2,566.43	103.12	25.888		
15,100.00	12,544.00	15,741.25	12,884.00	53.07	54.62	97.23	-2,691.12	-1,864.20	2,669.55	2,563.68	105.87	25.216		
15,200.00	12,544.00	15,841.25	12,884.00	54.43	56.00	97.23	-2,791.12	-1,864.20	2,669.55	2,560.91	108.64	24.572		
15,300.00	12,544.00	15,941.25	12,884.00	55.80	57.40	97.23	-2,891.12	-1,864.20	2,669.55	2,558.11	111.44	23.955		
15,400.00	12,544.00	16,041.25	12,884.00	57.19	58.81	97.23	-2,991.12	-1,864.20	2,669.55	2,555.29	114.26	23.363		
15,500.00	12,544.00	16,141.25	12,884.00	58.59	60.23	97.23	-3,091.12	-1,864.20	2,669.55	2,552.44	117.11	22.795		
15,600.00	12,544.00	16,241.25	12,884.00	60.01	61.67	97.23	-3,191.12	-1,864.20	2,669.55	2,549.57	119.98	22.251		
15,700.00	12,544.00	16,341.25	12,884.00	61.43	63.11	97.23	-3,291.12	-1,864.20	2,669.55	2,546.69	122.86	21.728		
15,800.00	12,544.00	16,441.25	12,884.00	62.87	64.56	97.23	-3,391.12	-1,864.20	2,669.55	2,543.79	125.76	21.227		
15,900.00	12,544.00	16,541.25	12,884.00	64.31	66.02	97.23	-3,491.12	-1,864.20	2,669.55	2,540.87	128.68	20.745		
16,000.00	12,544.00	16,641.25	12,884.00	65.76	67.49	97.23	-3,591.12	-1,864.20	2,669.55	2,537.93	131.62	20.283		
16,100.00	12,544.00	16,741.25	12,884.00	67.22	68.96	97.23	-3,691.12	-1,864.20	2,669.55	2,534.98	134.57	19.838		
16,200.00	12,544.00	16,841.25	12,884.00	68.69	70.44	97.23	-3,791.12	-1,864.20	2,669.55	2,532.02	137.53	19.411		
16,300.00	12,544.00	16,941.25	12,884.00	70.17	71.93	97.23	-3,891.12	-1,864.20	2,669.55	2,529.04	140.50	19.000		
16,400.00	12,544.00	17,041.25	12,884.00	71.65	73.43	97.23	-3,991.12	-1,864.20	2,669.55	2,526.06	143.49	18.604		
16,500.00	12,544.00	17,141.25	12,884.00	73.14	74.93	97.23	-4,091.12	-1,864.20	2,669.55	2,523.06	146.49	18.223		
16,600.00	12,544.00	17,241.25	12,884.00	74.64	76.43	97.23	-4,191.12	-1,864.20	2,669.55	2,520.05	149.50	17.857		
16,700.00	12,544.00	17,341.25	12,884.00	76.14	77.94	97.23	-4,291.12	-1,864.20	2,669.55	2,517.03	152.52	17.503		
16,800.00	12,544.00	17,441.25	12,884.00	77.65	79.46	97.23	-4,391.12	-1,864.20	2,669.55	2,514.00	155.55	17.163		
16,900.00	12,544.00	17,541.25	12,884.00	79.16	80.98	97.23	-4,491.12	-1,864.20	2,669.55	2,510.97	158.58	16.834		
17,000.00	12,544.00	17,641.25	12,884.00	80.67	82.51	97.23	-4,591.12	-1,864.20	2,669.55	2,507.92	161.63	16.517		
17,100.00	12,544.00	17,741.25	12,884.00	82.20	84.04	97.23	-4,691.12	-1,864.20	2,669.55	2,504.87	164.68	16.211		
17,200.00	12,544.00	17,841.25	12,884.00	83.72	85.57	97.23	-4,791.12	-1,864.20	2,669.55	2,501.81	167.74	15.915		
17,300.00	12,544.00	17,941.25	12,884.00	85.25	87.11	97.23	-4,891.12	-1,864.20	2,669.55	2,498.74	170.81	15.629		
17,400.00	12,544.00	18,041.25	12,884.00	86.78	88.65	97.23	-4,991.12	-1,864.20	2,669.55	2,495.67	173.88	15.353		
17,500.00	12,544.00	18,141.25	12,884.00	88.32	90.19	97.23	-5,091.12	-1,864.20	2,669.55	2,492.59	176.96	15.086		
17,600.00	12,544.00	18,241.25	12,884.00	89.86	91.74	97.23	-5,191.12	-1,864.20	2,669.55	2,489.51	180.04	14.827		
17,700.00	12,544.00	18,341.25	12,884.00	91.41	93.29	97.23	-5,291.12	-1,864.20	2,669.55	2,486.41	183.14	14.577		
17,800.00	12,544.00	18,441.25	12,884.00	92.95	94.84	97.23	-5,391.12	-1,864.20	2,669.55	2,483.32	186.23	14.335		
17,900.00	12,544.00	18,541.25	12,884.00	94.50	96.39	97.23	-5,491.12	-1,864.20	2,669.55	2,480.22	189.33	14.100		
18,000.00	12,544.00	18,641.25	12,884.00	96.05	97.95	97.23	-5,591.12	-1,864.20	2,669.55	2,477.11	192.44	13.872		
18,100.00	12,544.00	18,741.25	12,884.00	97.61	99.51	97.23	-5,691.12	-1,864.20	2,669.55	2,474.00	195.55	13.651		
18,200.00	12,544.00	18,841.25	12,884.00	99.17	101.07	97.23	-5,791.12	-1,864.20	2,669.55	2,470.88	198.67	13.437		
18,300.00	12,544.00	18,941.25	12,884.00	100.73	102.64	97.23	-5,891.12	-1,864.20	2,669.55	2,467.76	201.79	13.230		
18,400.00	12,544.00	19,041.25	12,884.00	102.29	104.21	97.23	-5,991.12	-1,864.20	2,669.55	2,464.64	204.91	13.028		
18,500.00	12,544.00	19,141.25	12,884.00	103.85	105.77	97.23	-6,091.12	-1,864.20	2,669.55	2,461.51	208.04	12.832		
18,600.00	12,544.00	19,241.25	12,884.00	105.42	107.35	97.23	-6,191.12	-1,864.20	2,669.55	2,458.38	211.17	12.642		
18,700.00	12,544.00	19,341.25	12,884.00	106.99	108.92	97.23	-6,291.12	-1,864.20	2,669.55	2,455.25	214.30	12.457		
18,800.00	12,544.00	19,441.25	12,884.00	108.56	110.49	97.23	-6,391.12	-1,864.20	2,669.55	2,452.11	217.44	12.277		
18,900.00	12,544.00	19,541.25	12,884.00	110.13	112.07	97.23	-6,491.12	-1,864.20	2,669.55	2,448.97	220.58	12.102		
19,000.00	12,544.00	19,641.25	12,884.00	111.71	113.65	97.23	-6,591.12	-1,864.20	2,669.55	2,445.82	223.73	11.932		
19,100.00	12,544.00	19,741.25	12,884.00	113.28	115.23	97.23	-6,691.12	-1,864.20	2,669.55	2,442.68	226.87	11.767		
19,200.00	12,544.00	19,841.25	12,884.00	114.86	116.81	97.23	-6,791.12	-1,864.20	2,669.55	2,439.53	230.02	11.606		
19,300.00	12,544.00	19,941.25	12,884.00	116.44	118.39	97.23	-6,891.12	-1,864.20	2,669.55	2,436.37	233.18	11.449		
19,400.00	12,544.00	20,041.25	12,884.00	118.02	119.97	97.23	-6,991.12	-1,864.20	2,669.55	2,433.22	236.33	11.296		
19,500.00	12,544.00	20,141.25	12,884.00	119.60	121.56	97.23	-7,091.12	-1,864.20	2,669.55	2,430.06	239.49	11.147		

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 7H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
19,600.00	12,544.00	20,241.25	12,884.00	121.19	123.15	97.23	-7,191.12	-1,864.20	2,669.55	2,426.90	11.002		
19,700.00	12,544.00	20,341.25	12,884.00	122.77	124.73	97.23	-7,291.12	-1,864.20	2,669.55	2,423.74	10.860		
19,800.00	12,544.00	20,441.25	12,884.00	124.36	126.32	97.23	-7,391.12	-1,864.20	2,669.55	2,420.57	10.722		
19,900.00	12,544.00	20,541.25	12,884.00	125.95	127.91	97.23	-7,491.12	-1,864.20	2,669.55	2,417.41	10.587		
20,000.00	12,544.00	20,641.25	12,884.00	127.53	129.50	97.23	-7,591.12	-1,864.20	2,669.55	2,414.24	10.456		
20,100.00	12,544.00	20,741.25	12,884.00	129.12	131.10	97.23	-7,691.12	-1,864.20	2,669.55	2,411.07	10.328		
20,200.00	12,544.00	20,841.25	12,884.00	130.72	132.69	97.23	-7,791.12	-1,864.20	2,669.55	2,407.89	10.203		
20,300.00	12,544.00	20,941.25	12,884.00	132.31	134.28	97.23	-7,891.12	-1,864.20	2,669.55	2,404.72	10.080		
20,400.00	12,544.00	21,041.25	12,884.00	133.90	135.88	97.23	-7,991.12	-1,864.20	2,669.55	2,401.54	9.961		
20,500.00	12,544.00	21,141.25	12,884.00	135.49	137.47	97.23	-8,091.12	-1,864.20	2,669.55	2,398.37	9.844		
20,600.00	12,544.00	21,241.25	12,884.00	137.09	139.07	97.23	-8,191.12	-1,864.20	2,669.55	2,395.19	9.730		
20,700.00	12,544.00	21,341.25	12,884.00	138.68	140.67	97.23	-8,291.12	-1,864.20	2,669.55	2,392.00	9.618		
20,800.00	12,544.00	21,441.25	12,884.00	140.28	142.27	97.23	-8,391.12	-1,864.20	2,669.55	2,388.82	9.509		
20,900.00	12,544.00	21,541.25	12,884.00	141.88	143.87	97.23	-8,491.12	-1,864.20	2,669.55	2,385.64	9.403		
21,000.00	12,544.00	21,641.25	12,884.00	143.48	145.47	97.23	-8,591.12	-1,864.20	2,669.55	2,382.45	9.298		
21,100.00	12,544.00	21,741.25	12,884.00	145.08	147.07	97.23	-8,691.12	-1,864.20	2,669.55	2,379.26	9.196		
21,200.00	12,544.00	21,841.25	12,884.00	146.68	148.67	97.23	-8,791.12	-1,864.20	2,669.55	2,376.08	9.096		
21,300.00	12,544.00	21,941.25	12,884.00	148.28	150.27	97.23	-8,891.12	-1,864.20	2,669.55	2,372.89	8.999		
21,400.00	12,544.00	22,041.25	12,884.00	149.88	151.88	97.23	-8,991.12	-1,864.20	2,669.55	2,369.70	8.903		
21,500.00	12,544.00	22,141.25	12,884.00	151.48	153.48	97.23	-9,091.12	-1,864.20	2,669.55	2,366.50	8.809		
21,600.00	12,544.00	22,241.25	12,884.00	153.08	155.08	97.23	-9,191.12	-1,864.20	2,669.55	2,363.31	8.717		
21,700.00	12,544.00	22,341.25	12,884.00	154.69	156.69	97.23	-9,291.12	-1,864.20	2,669.55	2,360.12	8.627		
21,800.00	12,544.00	22,441.25	12,884.00	156.29	158.30	97.23	-9,391.12	-1,864.20	2,669.55	2,356.92	8.539		
21,900.00	12,544.00	22,541.25	12,884.00	157.90	159.90	97.23	-9,491.12	-1,864.20	2,669.55	2,353.72	8.453		
22,000.00	12,544.00	22,641.25	12,884.00	159.50	161.51	97.23	-9,591.12	-1,864.20	2,669.55	2,350.53	8.368		
22,100.00	12,544.00	22,741.25	12,884.00	161.11	163.12	97.23	-9,691.12	-1,864.20	2,669.55	2,347.33	8.285		
22,181.55	12,544.00	22,822.80	12,884.00	162.42	164.43	97.23	-9,772.67	-1,864.20	2,669.55	2,344.72	8.218 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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 84H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-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)	Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.80	1.80	0.00	0.00	143.60	-75.65	55.78	93.99					
100.00	100.00	101.80	101.80	0.08	0.09	143.60	-75.65	55.78	93.99	93.82	0.17	544.496		
200.00	200.00	201.80	201.80	0.31	0.31	143.60	-75.65	55.78	93.99	93.37	0.62	151.074		
300.00	300.00	301.80	301.80	0.53	0.54	143.60	-75.65	55.78	93.99	92.92	1.07	87.704		
400.00	400.00	401.80	401.80	0.76	0.76	143.60	-75.65	55.78	93.99	92.47	1.52	61.787		
500.00	500.00	501.80	501.80	0.98	0.99	143.60	-75.65	55.78	93.99	92.02	1.97	47.693		
600.00	600.00	601.80	601.80	1.21	1.21	143.60	-75.65	55.78	93.99	91.57	2.42	38.835		
700.00	700.00	701.80	701.80	1.43	1.44	143.60	-75.65	55.78	93.99	91.12	2.87	32.752		
800.00	800.00	801.80	801.80	1.66	1.66	143.60	-75.65	55.78	93.99	90.67	3.32	28.316		
900.00	900.00	901.80	901.80	1.88	1.89	143.60	-75.65	55.78	93.99	90.22	3.77	24.939		
1,000.00	1,000.00	1,001.80	1,001.80	2.11	2.11	143.60	-75.65	55.78	93.99	89.77	4.22	22.281		
1,100.00	1,100.00	1,101.80	1,101.80	2.33	2.34	143.60	-75.65	55.78	93.99	89.32	4.67	20.135		
1,200.00	1,200.00	1,201.80	1,201.80	2.56	2.56	143.60	-75.65	55.78	93.99	88.87	5.12	18.367		
1,300.00	1,300.00	1,301.80	1,301.80	2.78	2.79	143.60	-75.65	55.78	93.99	88.42	5.57	16.884		
1,400.00	1,400.00	1,401.80	1,401.80	3.01	3.01	143.60	-75.65	55.78	93.99	87.97	6.02	15.622		
1,500.00	1,500.00	1,501.80	1,501.80	3.23	3.24	143.60	-75.65	55.78	93.99	87.53	6.47	14.536		
1,600.00	1,600.00	1,601.80	1,601.80	3.46	3.46	143.60	-75.65	55.78	93.99	87.08	6.92	13.591		
1,700.00	1,700.00	1,701.80	1,701.80	3.68	3.68	143.60	-75.65	55.78	93.99	86.63	7.37	12.762		
1,800.00	1,800.00	1,801.80	1,801.80	3.91	3.91	143.60	-75.65	55.78	93.99	86.18	7.81	12.028		
1,900.00	1,900.00	1,901.80	1,901.80	4.13	4.13	143.60	-75.65	55.78	93.99	85.73	8.26	11.373		
2,000.00	2,000.00	2,001.80	2,001.80	4.35	4.36	143.60	-75.65	55.78	93.99	85.28	8.71	10.787		
2,100.00	2,100.00	2,101.80	2,101.80	4.58	4.58	143.60	-75.65	55.78	93.99	84.83	9.16	10.257		
2,200.00	2,200.00	2,201.80	2,201.80	4.80	4.81	143.60	-75.65	55.78	93.99	84.38	9.61	9.778		
2,300.00	2,300.00	2,301.80	2,301.80	5.03	5.03	143.60	-75.65	55.78	93.99	83.93	10.06	9.341		
2,400.00	2,400.00	2,401.80	2,401.80	5.25	5.26	143.60	-75.65	55.78	93.99	83.48	10.51	8.941		
2,500.00	2,500.00	2,501.79	2,501.79	5.48	5.48	143.60	-75.65	55.78	93.99	83.03	10.96	8.575		
2,516.46	2,516.46	2,518.19	2,518.19	5.51	5.52	59.06	-75.64	55.81	93.99	82.95	11.03	8.520		
2,600.00	2,599.99	2,601.38	2,601.38	5.69	5.70	58.99	-75.32	56.61	93.77	82.38	11.39	8.234		
2,700.00	2,699.96	2,700.97	2,700.93	5.89	5.91	58.80	-74.33	59.05	93.08	81.29	11.80	7.891		
2,800.00	2,799.86	2,800.55	2,800.41	6.10	6.12	58.50	-72.71	63.09	91.94	79.73	12.21	7.531		
2,900.00	2,899.68	2,900.00	2,899.68	6.30	6.33	58.08	-70.44	68.73	90.34	77.72	12.62	7.156		
3,000.00	2,999.37	2,999.67	2,999.03	6.52	6.55	57.51	-67.52	75.98	88.29	75.24	13.05	6.767		
3,031.43	3,030.67	3,030.95	3,030.19	6.58	6.61	57.30	-66.48	78.59	87.55	74.37	13.18	6.642		
3,100.00	3,098.94	3,099.47	3,098.41	6.73	6.77	56.75	-64.08	84.55	85.92	72.44	13.48	6.375		
3,200.00	3,198.51	3,199.43	3,197.93	6.96	6.99	55.90	-60.58	93.25	83.57	69.65	13.92	6.005		
3,300.00	3,298.08	3,299.40	3,297.45	7.18	7.22	55.01	-57.08	101.94	81.23	66.87	14.36	5.657		
3,400.00	3,397.65	3,399.36	3,396.98	7.41	7.45	54.06	-53.58	110.64	78.91	64.11	14.81	5.330		
3,500.00	3,497.22	3,499.32	3,496.50	7.64	7.69	53.05	-50.08	119.34	76.62	61.36	15.26	5.022		
3,600.00	3,596.79	3,599.29	3,596.02	7.87	7.92	51.99	-46.58	128.04	74.35	58.64	15.71	4.733		
3,700.00	3,696.36	3,699.25	3,695.55	8.11	8.16	50.85	-43.09	136.74	72.11	55.95	16.16	4.461		
3,800.00	3,795.93	3,799.22	3,795.07	8.34	8.40	49.64	-39.59	145.44	69.90	53.28	16.62	4.206		
3,900.00	3,895.51	3,899.18	3,894.59	8.58	8.64	48.36	-36.09	154.14	67.72	50.64	17.08	3.966		
4,000.00	3,995.08	3,999.15	3,994.12	8.82	8.88	46.99	-32.59	162.84	65.58	48.05	17.54	3.740		
4,100.00	4,094.65	4,099.11	4,093.64	9.06	9.13	45.53	-29.09	171.54	63.48	45.49	17.99	3.528		
4,200.00	4,194.22	4,199.08	4,193.17	9.31	9.38	43.97	-25.59	180.24	61.42	42.97	18.45	3.329		
4,300.00	4,293.79	4,299.04	4,292.69	9.55	9.62	42.30	-22.09	188.94	59.41	40.51	18.90	3.143		
4,400.00	4,393.36	4,399.00	4,392.21	9.80	9.87	40.52	-18.59	197.64	57.46	38.10	19.36	2.968		
4,500.00	4,492.93	4,498.97	4,491.74	10.05	10.12	38.62	-15.09	206.34	55.56	35.76	19.81	2.805		
4,600.00	4,592.50	4,598.93	4,591.26	10.30	10.37	36.58	-11.59	215.03	53.73	33.48	20.25	2.653		
4,700.00	4,692.07	4,698.90	4,690.78	10.55	10.62	34.40	-8.10	223.73	51.98	31.28	20.70	2.511		
4,800.00	4,791.64	4,798.86	4,790.31	10.80	10.88	32.07	-4.60	232.43	50.30	29.16	21.14	2.380		
4,900.00	4,891.21	4,898.83	4,889.83	11.05	11.13	29.59	-1.10	241.13	48.71	27.14	21.57	2.258		

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 84H - OH - Plan #1														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			
5,000.00	4,990.78	4,998.79	4,989.36	11.30	11.38	26.95	2.40	249.83	47.22	25.22	22.00	2.146			
5,100.00	5,090.35	5,098.75	5,088.88	11.55	11.64	24.14	5.90	258.53	45.84	23.41	22.43	2.044			
5,200.00	5,189.92	5,198.72	5,188.40	11.81	11.89	21.16	9.40	267.23	44.57	21.72	22.85	1.950			
5,300.00	5,289.49	5,298.68	5,287.93	12.06	12.15	18.02	12.90	275.93	43.43	20.15	23.28	1.866			
5,400.00	5,389.06	5,398.65	5,387.45	12.32	12.40	14.72	16.40	284.63	42.43	18.73	23.70	1.791			
5,500.00	5,488.63	5,498.61	5,486.97	12.57	12.66	11.27	19.90	293.33	41.57	17.46	24.12	1.724			
5,600.00	5,588.20	5,598.58	5,586.50	12.83	12.92	7.69	23.40	302.03	40.88	16.33	24.54	1.665			
5,700.00	5,687.77	5,698.54	5,686.02	13.09	13.18	4.00	26.90	310.73	40.34	15.37	24.97	1.615			
5,800.00	5,787.34	5,798.51	5,785.54	13.34	13.43	0.23	30.39	319.43	39.98	14.57	25.41	1.573			
5,900.00	5,886.91	5,898.47	5,885.07	13.60	13.69	-3.60	33.89	328.12	39.80	13.93	25.86	1.539			
5,953.90	5,940.58	5,952.35	5,938.71	13.74	13.83	-5.67	35.78	332.81	39.77	13.66	26.11	1.523 CC			
6,000.00	5,986.48	5,998.43	5,984.59	13.86	13.95	-7.44	37.39	336.82	39.79	13.46	26.33	1.511			
6,100.00	6,086.05	6,098.40	6,084.12	14.12	14.21	-11.27	40.89	345.52	39.96	13.16	26.81	1.491 Level 3			
6,200.00	6,185.62	6,198.36	6,183.64	14.38	14.47	-15.04	44.39	354.22	40.31	13.01	27.30	1.477 Level 3			
6,300.00	6,285.19	6,298.33	6,283.16	14.64	14.73	-18.74	47.89	362.92	40.83	13.02	27.81	1.468 Level 3			
6,400.00	6,384.76	6,398.29	6,382.69	14.90	14.99	-22.33	51.39	371.62	41.51	13.18	28.33	1.465 Level 3			
6,500.00	6,484.33	6,498.26	6,482.21	15.16	15.25	-25.79	54.89	380.32	42.36	13.49	28.87	1.467 Level 3			
6,600.00	6,583.90	6,598.22	6,581.73	15.42	15.52	-29.10	58.39	389.02	43.35	13.94	29.41	1.474 Level 3			
6,700.00	6,683.47	6,698.18	6,681.26	15.68	15.78	-32.26	61.89	397.72	44.48	14.51	29.97	1.484 Level 3			
6,800.00	6,783.04	6,798.15	6,780.78	15.94	16.04	-35.25	65.38	406.42	45.73	15.20	30.53	1.498 Level 3			
6,900.00	6,882.61	6,898.11	6,880.30	16.20	16.30	-38.07	68.88	415.12	47.11	16.01	31.10	1.515			
7,000.00	6,982.18	6,998.08	6,979.83	16.46	16.56	-40.73	72.38	423.82	48.59	16.92	31.67	1.534			
7,100.00	7,081.75	7,098.04	7,079.35	16.72	16.83	-43.22	75.88	432.52	50.17	17.93	32.24	1.556			
7,200.00	7,181.32	7,198.01	7,178.88	16.98	17.09	-45.56	79.38	441.21	51.84	19.02	32.82	1.580			
7,300.00	7,280.89	7,297.97	7,278.40	17.25	17.35	-47.75	82.88	449.91	53.59	20.20	33.39	1.605			
7,400.00	7,380.46	7,397.94	7,377.92	17.51	17.61	-49.80	86.38	458.61	55.42	21.45	33.97	1.631			
7,500.00	7,480.03	7,497.90	7,477.45	17.77	17.88	-51.71	89.88	467.31	57.31	22.77	34.54	1.659			
7,600.00	7,579.60	7,597.86	7,576.97	18.03	18.14	-53.51	93.38	476.01	59.26	24.15	35.11	1.688			
7,700.00	7,679.17	7,697.83	7,676.49	18.30	18.40	-55.18	96.88	484.71	61.26	25.58	35.68	1.717			
7,800.00	7,778.74	7,797.79	7,776.02	18.56	18.67	-56.75	100.38	493.41	63.32	27.07	36.25	1.747			
7,900.00	7,878.31	7,897.76	7,875.54	18.82	18.93	-58.22	103.87	502.11	65.42	28.60	36.82	1.777			
8,000.00	7,977.88	7,997.72	7,975.06	19.09	19.20	-59.59	107.37	510.81	67.55	30.17	37.38	1.807			
8,100.00	8,077.45	8,097.69	8,074.59	19.35	19.46	-60.89	110.87	519.51	69.73	31.78	37.95	1.838			
8,200.00	8,177.02	8,197.65	8,174.11	19.61	19.72	-62.10	114.37	528.21	71.94	33.43	38.51	1.868			
8,300.00	8,276.59	8,297.61	8,273.64	19.88	19.99	-63.24	117.87	536.91	74.18	35.11	39.07	1.899			
8,400.00	8,376.16	8,397.58	8,373.16	20.14	20.25	-64.31	121.37	545.61	76.44	36.82	39.63	1.929			
8,500.00	8,475.73	8,497.54	8,472.68	20.41	20.52	-65.32	124.87	554.30	78.73	38.55	40.18	1.959			
8,600.00	8,575.30	8,597.51	8,572.21	20.67	20.78	-66.27	128.37	563.00	81.05	40.31	40.74	1.990			
8,700.00	8,674.87	8,697.47	8,671.73	20.94	21.05	-67.17	131.87	571.70	83.38	42.09	41.29	2.019			
8,800.00	8,774.44	8,797.44	8,771.25	21.20	21.31	-68.03	135.37	580.40	85.74	43.90	41.84	2.049			
8,900.00	8,874.01	8,897.40	8,870.78	21.47	21.58	-68.83	138.86	589.10	88.11	45.72	42.39	2.078			
9,000.00	8,973.58	8,997.37	8,970.30	21.73	21.84	-69.59	142.36	597.80	90.50	47.56	42.94	2.107			
9,100.00	9,073.15	9,097.33	9,069.82	22.00	22.11	-70.32	145.86	606.50	92.91	49.41	43.49	2.136			
9,200.00	9,172.72	9,197.29	9,169.35	22.26	22.37	-71.00	149.36	615.20	95.33	51.28	44.04	2.164			
9,300.00	9,272.29	9,297.26	9,268.87	22.53	22.64	-71.66	152.86	623.90	97.76	53.17	44.59	2.192			
9,400.00	9,371.86	9,397.22	9,368.40	22.79	22.91	-72.28	156.36	632.60	100.20	55.06	45.14	2.220			
9,500.00	9,471.43	9,497.19	9,467.92	23.06	23.17	-72.87	159.86	641.30	102.66	56.97	45.68	2.247			
9,600.00	9,571.00	9,597.15	9,567.44	23.32	23.44	-73.43	163.36	650.00	105.12	58.89	46.23	2.274			
9,700.00	9,670.57	9,697.12	9,666.97	23.59	23.70	-73.97	166.86	658.70	107.60	60.82	46.77	2.300			
9,800.00	9,770.14	9,797.08	9,766.49	23.85	23.97	-74.48	170.36	667.40	110.08	62.76	47.32	2.326			
9,900.00	9,869.72	9,897.04	9,866.01	24.12	24.24	-74.97	173.86	676.09	112.57	64.71	47.86	2.352			
10,000.00	9,969.29	9,997.01	9,965.54	24.38	24.50	-75.44	177.35	684.79	115.07	66.67	48.40	2.377			

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 84H - OH - Plan #1													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	
10,100.00	10,068.86	10,096.97	10,065.06	24.65	24.77	-75.89	180.85	693.49	117.58	68.64	48.95	2.402	
10,200.00	10,168.43	10,196.94	10,164.59	24.92	25.03	-76.32	184.35	702.19	120.10	70.61	49.49	2.427	
10,300.00	10,268.00	10,296.90	10,264.11	25.18	25.30	-76.74	187.85	710.89	122.62	72.59	50.03	2.451	
10,400.00	10,367.57	10,396.87	10,363.63	25.45	25.57	-77.13	191.35	719.59	125.15	74.58	50.57	2.475	
10,500.00	10,467.14	10,496.83	10,463.16	25.71	25.83	-77.51	194.85	728.29	127.68	76.57	51.11	2.498	
10,600.00	10,566.71	10,596.80	10,562.68	25.98	26.10	-77.88	198.35	736.99	130.22	78.57	51.65	2.521	
10,700.00	10,666.28	10,696.76	10,662.20	26.25	26.37	-78.23	201.85	745.69	132.76	80.57	52.19	2.544	
10,800.00	10,765.85	10,796.72	10,761.73	26.51	26.63	-78.57	205.35	754.39	135.31	82.58	52.73	2.566	
10,900.00	10,865.42	10,896.69	10,861.25	26.78	26.90	-78.90	208.85	763.09	137.86	84.59	53.27	2.588	
11,004.37	10,969.33	11,001.02	10,965.12	27.06	27.18	-79.22	212.50	772.17	140.53	86.70	53.84	2.610	
11,100.00	11,064.63	11,096.62	11,060.30	27.28	27.43	-79.23	215.84	780.49	143.13	88.82	54.31	2.636	
11,200.00	11,164.40	11,197.72	11,161.03	27.47	27.64	-78.86	219.07	788.50	145.78	91.10	54.89	2.666	
11,300.00	11,264.27	11,298.90	11,261.98	27.66	27.84	-78.44	221.63	794.86	147.97	92.92	55.04	2.688	
11,400.00	11,364.22	11,400.12	11,363.07	27.83	28.02	-77.97	223.52	799.57	149.68	94.30	55.38	2.703	
11,500.00	11,464.21	11,501.38	11,464.27	28.00	28.20	-77.45	224.75	802.63	150.92	95.22	55.70	2.710	
11,535.79	11,500.00	11,537.63	11,500.52	28.06	28.26	7.29	225.03	803.32	151.26	95.45	55.81	2.710	
11,600.00	11,564.21	11,602.68	11,565.56	28.17	28.37	7.54	225.31	804.02	151.62	95.61	56.02	2.707	
11,700.00	11,664.21	11,703.13	11,666.01	28.36	28.54	7.58	225.35	804.12	151.67	95.29	56.38	2.690	
11,800.00	11,764.21	11,803.13	11,766.01	28.55	28.74	7.58	225.35	804.12	151.67	94.91	56.77	2.672	
11,900.00	11,864.21	11,903.13	11,866.01	28.74	28.93	7.58	225.35	804.12	151.67	94.52	57.16	2.654	
12,006.83	11,971.04	12,009.96	11,972.84	28.95	29.14	7.58	225.35	804.12	151.67	94.10	57.57	2.635	
12,050.00	12,014.17	12,053.09	12,015.97	29.03	29.22	-172.48	225.35	804.12	153.29	95.55	57.74	2.655	
12,100.00	12,063.80	12,102.72	12,065.60	29.11	29.32	-172.69	225.35	804.12	159.17	101.23	57.94	2.747	
12,150.00	12,112.72	12,153.09	12,115.97	29.19	29.41	-173.02	225.33	804.12	169.31	111.18	58.14	2.912	
12,200.00	12,160.57	12,223.07	12,185.74	29.27	29.52	-173.50	220.46	804.12	180.36	122.36	58.00	3.110	
12,250.00	12,206.97	12,295.45	12,256.71	29.35	29.61	-173.86	206.52	804.12	189.61	132.27	57.34	3.307	
12,300.00	12,251.58	12,369.91	12,327.30	29.43	29.68	-174.12	182.97	804.12	196.85	140.70	56.15	3.506	
12,350.00	12,294.05	12,446.03	12,395.67	29.50	29.74	-174.30	149.65	804.12	201.92	147.45	54.47	3.707	
12,400.00	12,334.07	12,523.24	12,459.90	29.58	29.78	-174.39	106.90	804.12	204.68	152.29	52.39	3.907	
12,450.00	12,371.32	12,600.89	12,518.11	29.66	29.82	-174.40	55.60	804.12	205.05	155.01	50.04	4.098	
12,500.00	12,405.53	12,678.31	12,568.71	29.74	29.84	-174.33	-2.91	804.12	203.03	155.41	47.62	4.264	
12,550.00	12,436.43	12,754.83	12,610.54	29.83	29.87	-174.19	-66.92	804.12	198.66	153.32	45.34	4.382	
12,600.00	12,463.78	12,829.86	12,642.91	29.93	29.92	-173.95	-134.55	804.12	192.07	148.65	43.42	4.424	
12,650.00	12,487.39	12,902.92	12,665.69	30.04	29.99	-173.62	-203.91	804.12	183.42	141.38	42.03	4.364	
12,700.00	12,507.07	12,973.66	12,679.16	30.17	30.09	-173.18	-273.32	804.12	172.90	131.61	41.29	4.187	
12,750.00	12,522.67	13,041.88	12,683.96	30.31	30.22	-172.60	-341.33	804.12	160.76	119.54	41.22	3.900	
12,800.00	12,534.07	13,092.30	12,684.00	30.47	30.35	-172.18	-391.74	804.12	149.48	108.11	41.36	3.614	
12,850.00	12,541.18	13,141.77	12,684.00	30.65	30.50	-171.89	-441.22	804.12	142.43	100.93	41.50	3.432	
12,900.00	12,543.96	13,191.68	12,684.00	30.84	30.67	-171.77	-491.12	804.12	139.68	98.04	41.64	3.355	
12,906.83	12,544.00	13,198.51	12,684.00	30.87	30.69	-171.77	-497.96	804.12	139.64	97.99	41.65	3.352	
13,000.00	12,544.00	13,291.68	12,684.00	31.30	31.08	-171.77	-591.12	804.12	139.64	97.71	41.93	3.330	
13,100.00	12,544.00	13,391.68	12,684.00	31.84	31.58	-171.77	-691.12	804.12	139.64	97.36	42.28	3.303	
13,200.00	12,544.00	13,491.68	12,684.00	32.45	32.16	-171.77	-791.12	804.12	139.64	96.96	42.68	3.272	
13,300.00	12,544.00	13,591.68	12,684.00	33.13	32.81	-171.77	-891.12	804.12	139.64	96.52	43.12	3.238	
13,400.00	12,544.00	13,691.68	12,684.00	33.87	33.53	-171.77	-991.12	804.12	139.64	96.02	43.62	3.201	
13,500.00	12,544.00	13,791.68	12,684.00	34.68	34.32	-171.77	-1,091.12	804.12	139.64	95.47	44.17	3.162	
13,600.00	12,544.00	13,891.68	12,684.00	35.54	35.16	-171.77	-1,191.12	804.12	139.64	94.88	44.76	3.120	
13,700.00	12,544.00	13,991.68	12,684.00	36.46	36.06	-171.77	-1,291.12	804.12	139.64	94.25	45.39	3.076	
13,800.00	12,544.00	14,091.68	12,684.00	37.43	37.01	-171.77	-1,391.12	804.12	139.64	93.57	46.07	3.031	
13,900.00	12,544.00	14,191.68	12,684.00	38.44	38.01	-171.77	-1,491.12	804.12	139.64	92.86	46.78	2.985	
14,000.00	12,544.00	14,291.68	12,684.00	39.49	39.05	-171.77	-1,591.12	804.12	139.64	92.10	47.54	2.938	
14,100.00	12,544.00	14,391.68	12,684.00	40.59	40.13	-171.77	-1,691.12	804.12	139.64	91.31	48.33	2.890	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 84H - OH - Plan #1													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	
14,200.00	12,544.00	14,491.68	12,684.00	41.71	41.25	-171.77	-1,791.12	804.12	139.64	90.49	49.15	2.841	
14,300.00	12,544.00	14,591.68	12,684.00	42.88	42.40	-171.77	-1,891.12	804.12	139.64	89.63	50.01	2.792	
14,400.00	12,544.00	14,691.68	12,684.00	44.07	43.58	-171.77	-1,991.12	804.12	139.64	88.74	50.90	2.744	
14,500.00	12,544.00	14,791.68	12,684.00	45.28	44.79	-171.77	-2,091.12	804.12	139.64	87.82	51.82	2.695	
14,600.00	12,544.00	14,891.68	12,684.00	46.53	46.03	-171.77	-2,191.12	804.12	139.64	86.88	52.76	2.647	
14,700.00	12,544.00	14,991.68	12,684.00	47.80	47.29	-171.77	-2,291.12	804.12	139.64	85.90	53.74	2.599	
14,800.00	12,544.00	15,091.68	12,684.00	49.08	48.57	-171.77	-2,391.12	804.12	139.64	84.90	54.74	2.551	
14,900.00	12,544.00	15,191.68	12,684.00	50.39	49.88	-171.77	-2,491.12	804.12	139.64	83.88	55.76	2.504	
15,000.00	12,544.00	15,291.68	12,684.00	51.72	51.20	-171.77	-2,591.12	804.12	139.64	82.84	56.80	2.458	
15,100.00	12,544.00	15,391.68	12,684.00	53.07	52.54	-171.77	-2,691.12	804.12	139.64	81.77	57.87	2.413	
15,200.00	12,544.00	15,491.68	12,684.00	54.43	53.90	-171.77	-2,791.12	804.12	139.64	80.68	58.96	2.369	
15,300.00	12,544.00	15,591.68	12,684.00	55.80	55.27	-171.77	-2,891.12	804.12	139.64	79.58	60.06	2.325	
15,400.00	12,544.00	15,691.68	12,684.00	57.19	56.65	-171.77	-2,991.12	804.12	139.64	78.46	61.18	2.282	
15,500.00	12,544.00	15,791.68	12,684.00	58.59	58.05	-171.77	-3,091.12	804.12	139.64	77.31	62.32	2.241	
15,600.00	12,544.00	15,891.68	12,684.00	60.01	59.46	-171.77	-3,191.12	804.12	139.64	76.16	63.48	2.200	
15,700.00	12,544.00	15,991.68	12,684.00	61.43	60.88	-171.77	-3,291.12	804.12	139.64	74.99	64.65	2.160	
15,800.00	12,544.00	16,091.68	12,684.00	62.87	62.31	-171.77	-3,391.12	804.12	139.64	73.80	65.84	2.121	
15,900.00	12,544.00	16,191.68	12,684.00	64.31	63.75	-171.77	-3,491.12	804.12	139.64	72.60	67.04	2.083	
16,000.00	12,544.00	16,291.68	12,684.00	65.76	65.20	-171.77	-3,591.12	804.12	139.64	71.39	68.25	2.046	
16,100.00	12,544.00	16,391.68	12,684.00	67.22	66.66	-171.77	-3,691.12	804.12	139.64	70.16	69.48	2.010	
16,200.00	12,544.00	16,491.68	12,684.00	68.69	68.13	-171.77	-3,791.12	804.12	139.64	68.92	70.72	1.975	
16,300.00	12,544.00	16,591.68	12,684.00	70.17	69.60	-171.77	-3,891.12	804.12	139.64	67.68	71.96	1.940	
16,400.00	12,544.00	16,691.68	12,684.00	71.65	71.09	-171.77	-3,991.12	804.12	139.64	66.42	73.22	1.907	
16,500.00	12,544.00	16,791.68	12,684.00	73.14	72.57	-171.77	-4,091.12	804.12	139.64	65.15	74.49	1.875	
16,600.00	12,544.00	16,891.68	12,684.00	74.64	74.07	-171.77	-4,191.12	804.12	139.64	63.87	75.77	1.843	
16,700.00	12,544.00	16,991.68	12,684.00	76.14	75.57	-171.77	-4,291.12	804.12	139.64	62.58	77.06	1.812	
16,800.00	12,544.00	17,091.68	12,684.00	77.65	77.07	-171.77	-4,391.12	804.12	139.64	61.29	78.35	1.782	
16,900.00	12,544.00	17,191.68	12,684.00	79.16	78.58	-171.77	-4,491.12	804.12	139.64	59.98	79.66	1.753	
17,000.00	12,544.00	17,291.68	12,684.00	80.67	80.10	-171.77	-4,591.12	804.12	139.64	58.67	80.97	1.725	
17,100.00	12,544.00	17,391.68	12,684.00	82.20	81.62	-171.77	-4,691.12	804.12	139.64	57.35	82.29	1.697	
17,200.00	12,544.00	17,491.68	12,684.00	83.72	83.14	-171.77	-4,791.12	804.12	139.64	56.03	83.61	1.670	
17,300.00	12,544.00	17,591.68	12,684.00	85.25	84.67	-171.77	-4,891.12	804.12	139.64	54.70	84.94	1.644	
17,400.00	12,544.00	17,691.68	12,684.00	86.78	86.20	-171.77	-4,991.12	804.12	139.64	53.36	86.28	1.618	
17,500.00	12,544.00	17,791.68	12,684.00	88.32	87.74	-171.77	-5,091.12	804.12	139.64	52.01	87.63	1.594	
17,600.00	12,544.00	17,891.68	12,684.00	89.86	89.28	-171.77	-5,191.12	804.12	139.64	50.66	88.98	1.569	
17,700.00	12,544.00	17,991.68	12,684.00	91.41	90.82	-171.77	-5,291.12	804.12	139.64	49.30	90.34	1.546	
17,800.00	12,544.00	18,091.68	12,684.00	92.95	92.37	-171.77	-5,391.12	804.12	139.64	47.94	91.70	1.523	
17,900.00	12,544.00	18,191.68	12,684.00	94.50	93.92	-171.77	-5,491.12	804.12	139.64	46.58	93.06	1.500	
18,000.00	12,544.00	18,291.68	12,684.00	96.05	95.47	-171.77	-5,591.12	804.12	139.64	45.20	94.43	1.479 Level 3	
18,100.00	12,544.00	18,391.68	12,684.00	97.61	97.02	-171.77	-5,691.12	804.12	139.64	43.83	95.81	1.457 Level 3	
18,200.00	12,544.00	18,491.68	12,684.00	99.17	98.58	-171.77	-5,791.12	804.12	139.64	42.45	97.19	1.437 Level 3	
18,300.00	12,544.00	18,591.68	12,684.00	100.73	100.14	-171.77	-5,891.12	804.12	139.64	41.06	98.58	1.417 Level 3	
18,400.00	12,544.00	18,691.68	12,684.00	102.29	101.70	-171.77	-5,991.12	804.12	139.64	39.67	99.97	1.397 Level 3	
18,500.00	12,544.00	18,791.68	12,684.00	103.85	103.26	-171.77	-6,091.12	804.12	139.64	38.28	101.36	1.378 Level 3	
18,600.00	12,544.00	18,891.68	12,684.00	105.42	104.83	-171.77	-6,191.12	804.12	139.64	36.89	102.75	1.359 Level 3	
18,700.00	12,544.00	18,991.68	12,684.00	106.99	106.40	-171.77	-6,291.12	804.12	139.64	35.48	104.15	1.341 Level 3	
18,800.00	12,544.00	19,091.68	12,684.00	108.56	107.97	-171.77	-6,391.12	804.12	139.64	34.08	105.56	1.323 Level 3	
18,900.00	12,544.00	19,191.68	12,684.00	110.13	109.54	-171.77	-6,491.12	804.12	139.64	32.67	106.97	1.305 Level 3	
19,000.00	12,544.00	19,291.68	12,684.00	111.71	111.11	-171.77	-6,591.12	804.12	139.64	31.26	108.38	1.288 Level 3	
19,100.00	12,544.00	19,391.68	12,684.00	113.28	112.69	-171.77	-6,691.12	804.12	139.64	29.85	109.79	1.272 Level 3	
19,200.00	12,544.00	19,491.68	12,684.00	114.86	114.27	-171.77	-6,791.12	804.12	139.64	28.43	111.20	1.256 Level 3	
19,300.00	12,544.00	19,591.68	12,684.00	116.44	115.85	-171.77	-6,891.12	804.12	139.64	27.02	112.62	1.240 Level 2	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 84H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toothface (")	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
19,400.00	12,544.00	19,691.68	12,684.00	118.02	117.43	-171.77	-6,991.12	804.12	139.64	25.59	114.05	1.224 Level 2	
19,500.00	12,544.00	19,791.68	12,684.00	119.60	119.01	-171.77	-7,091.12	804.12	139.64	24.17	115.47	1.209 Level 2	
19,600.00	12,544.00	19,891.68	12,684.00	121.19	120.59	-171.77	-7,191.12	804.12	139.64	22.74	116.90	1.195 Level 2	
19,700.00	12,544.00	19,991.68	12,684.00	122.77	122.18	-171.77	-7,291.12	804.12	139.64	21.31	118.33	1.180 Level 2	
19,800.00	12,544.00	20,091.68	12,684.00	124.36	123.76	-171.77	-7,391.12	804.12	139.64	19.88	119.76	1.166 Level 2	
19,900.00	12,544.00	20,191.68	12,684.00	125.95	125.35	-171.77	-7,491.12	804.12	139.64	18.45	121.19	1.152 Level 2	
20,000.00	12,544.00	20,291.68	12,684.00	127.53	126.94	-171.77	-7,591.12	804.12	139.64	17.01	122.63	1.139 Level 2	
20,100.00	12,544.00	20,391.68	12,684.00	129.12	128.53	-171.77	-7,691.12	804.12	139.64	15.57	124.07	1.126 Level 2	
20,200.00	12,544.00	20,491.68	12,684.00	130.72	130.12	-171.77	-7,791.12	804.12	139.64	14.13	125.51	1.113 Level 2	
20,300.00	12,544.00	20,591.68	12,684.00	132.31	131.71	-171.77	-7,891.12	804.12	139.64	12.69	126.95	1.100 Level 2	
20,400.00	12,544.00	20,691.68	12,684.00	133.90	133.30	-171.77	-7,991.12	804.12	139.64	11.25	128.39	1.088 Level 2	
20,500.00	12,544.00	20,791.68	12,684.00	135.49	134.90	-171.77	-8,091.12	804.12	139.64	9.80	129.84	1.075 Level 2	
20,600.00	12,544.00	20,891.68	12,684.00	137.09	136.49	-171.77	-8,191.12	804.12	139.64	8.35	131.29	1.064 Level 2	
20,700.00	12,544.00	20,991.68	12,684.00	138.68	138.09	-171.77	-8,291.12	804.12	139.64	6.90	132.74	1.052 Level 2	
20,800.00	12,544.00	21,091.68	12,684.00	140.28	139.68	-171.77	-8,391.12	804.12	139.64	5.45	134.19	1.041 Level 2	
20,900.00	12,544.00	21,191.68	12,684.00	141.88	141.28	-171.77	-8,491.12	804.12	139.64	4.00	135.64	1.029 Level 2	
21,000.00	12,544.00	21,291.68	12,684.00	143.48	142.88	-171.77	-8,591.12	804.12	139.64	2.54	137.09	1.019 Level 2	
21,100.00	12,544.00	21,391.68	12,684.00	145.08	144.48	-171.77	-8,691.12	804.12	139.64	1.09	138.55	1.008 Level 2	
21,200.00	12,544.00	21,491.68	12,684.00	146.68	146.08	-171.77	-8,791.12	804.12	139.64	-0.37	140.01	0.997 Level 1	
21,300.00	12,544.00	21,591.68	12,684.00	148.28	147.68	-171.77	-8,891.12	804.12	139.64	-1.83	141.47	0.987 Level 1	
21,400.00	12,544.00	21,691.68	12,684.00	149.88	149.28	-171.77	-8,991.12	804.12	139.64	-3.29	142.93	0.977 Level 1	
21,500.00	12,544.00	21,791.68	12,684.00	151.48	150.88	-171.77	-9,091.12	804.12	139.64	-4.75	144.39	0.967 Level 1	
21,600.00	12,544.00	21,891.68	12,684.00	153.08	152.48	-171.77	-9,191.12	804.12	139.64	-6.21	145.85	0.957 Level 1	
21,700.00	12,544.00	21,991.68	12,684.00	154.69	154.09	-171.77	-9,291.12	804.12	139.64	-7.68	147.32	0.948 Level 1	
21,800.00	12,544.00	22,091.68	12,684.00	156.29	155.69	-171.77	-9,391.12	804.12	139.64	-9.14	148.78	0.939 Level 1	
21,900.00	12,544.00	22,191.68	12,684.00	157.90	157.29	-171.77	-9,491.12	804.12	139.64	-10.61	150.25	0.929 Level 1	
22,000.00	12,544.00	22,291.68	12,684.00	159.50	158.90	-171.77	-9,591.12	804.12	139.64	-12.08	151.72	0.920 Level 1	
22,100.00	12,544.00	22,391.68	12,684.00	161.11	160.51	-171.77	-9,691.12	804.12	139.64	-13.54	153.18	0.912 Level 1	
22,179.09	12,544.00	22,470.77	12,684.00	162.38	161.78	-171.77	-9,770.21	804.12	139.64	-14.71	154.35	0.905 Level 1	
22,181.55	12,544.00	22,473.03	12,684.00	162.42	161.81	-171.77	-9,772.48	804.12	139.64	-14.74	154.38	0.905 Level 1, 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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 85H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)				Between Centres (usft)	Between Ellipses (usft)
0.00	0.00	1.40	1.40	0.00	0.00	161.18	-75.65	25.79	79.93				
100.00	100.00	101.40	101.40	0.08	0.09	161.18	-75.65	25.79	79.93	0.17	465.435		
200.00	200.00	201.40	201.40	0.31	0.31	161.18	-75.65	25.79	79.93	0.62	128.652		
300.00	300.00	301.40	301.40	0.53	0.54	161.18	-75.65	25.79	79.93	1.07	74.642		
400.00	400.00	401.40	401.40	0.76	0.76	161.18	-75.65	25.79	79.93	1.52	52.571		
500.00	500.00	501.40	501.40	0.98	0.99	161.18	-75.65	25.79	79.93	1.97	40.574		
600.00	600.00	601.40	601.40	1.21	1.21	161.18	-75.65	25.79	79.93	2.42	33.035		
700.00	700.00	701.40	701.40	1.43	1.44	161.18	-75.65	25.79	79.93	2.87	27.859		
800.00	800.00	801.40	801.40	1.66	1.66	161.18	-75.65	25.79	79.93	3.32	24.085		
900.00	900.00	901.40	901.40	1.88	1.89	161.18	-75.65	25.79	79.93	3.77	21.212		
1,000.00	1,000.00	1,001.40	1,001.40	2.11	2.11	161.18	-75.65	25.79	79.93	4.22	18.951		
1,100.00	1,100.00	1,101.40	1,101.40	2.33	2.34	161.18	-75.65	25.79	79.93	4.67	17.125		
1,200.00	1,200.00	1,201.40	1,201.40	2.56	2.56	161.18	-75.65	25.79	79.93	5.12	15.621		
1,300.00	1,300.00	1,301.40	1,301.40	2.78	2.78	161.18	-75.65	25.79	79.93	5.57	14.359		
1,400.00	1,400.00	1,401.40	1,401.40	3.01	3.01	161.18	-75.65	25.79	79.93	6.02	13.286		
1,500.00	1,500.00	1,501.40	1,501.40	3.23	3.23	161.18	-75.65	25.79	79.93	6.47	12.362		
1,600.00	1,600.00	1,601.40	1,601.40	3.46	3.46	161.18	-75.65	25.79	79.93	6.91	11.559		
1,700.00	1,700.00	1,701.40	1,701.40	3.68	3.68	161.18	-75.65	25.79	79.93	7.36	10.853		
1,800.00	1,800.00	1,801.40	1,801.40	3.91	3.91	161.18	-75.65	25.79	79.93	7.81	10.229		
1,900.00	1,900.00	1,901.40	1,901.40	4.13	4.13	161.18	-75.65	25.79	79.93	8.26	9.672		
2,000.00	2,000.00	2,001.40	2,001.40	4.35	4.36	161.18	-75.65	25.79	79.93	8.71	9.173		
2,100.00	2,100.00	2,101.40	2,101.40	4.58	4.58	161.18	-75.65	25.79	79.93	9.16	8.723		
2,200.00	2,200.00	2,201.40	2,201.40	4.80	4.81	161.18	-75.65	25.79	79.93	9.61	8.315		
2,300.00	2,300.00	2,301.40	2,301.40	5.03	5.03	161.18	-75.65	25.79	79.93	10.06	7.944		
2,400.00	2,400.00	2,401.40	2,401.40	5.25	5.26	161.18	-75.65	25.79	79.93	10.51	7.604		
2,500.00	2,500.00	2,501.40	2,501.40	5.48	5.48	161.18	-75.65	25.79	79.93	10.96	7.292		
2,600.00	2,599.99	2,601.39	2,601.39	5.69	5.71	77.25	-75.65	25.79	79.73	11.40	6.995		
2,700.00	2,699.96	2,701.36	2,701.36	5.89	5.93	79.10	-75.65	25.79	79.19	11.82	6.698		
2,800.00	2,799.86	2,801.26	2,801.26	6.10	6.16	82.24	-75.65	25.79	78.48	12.25	6.406		
2,900.00	2,899.68	2,901.08	2,901.08	6.30	6.38	86.69	-75.65	25.79	77.89	12.68	6.141		
2,960.18	2,959.68	2,961.08	2,961.08	6.43	6.52	90.00	-75.65	25.79	77.76	12.95	6.006		
3,000.00	2,999.37	3,000.77	3,000.77	6.52	6.60	92.44	-75.65	25.79	77.83	13.12	5.932		
3,031.43	3,030.67	3,032.07	3,032.07	6.58	6.67	94.51	-75.65	25.79	78.01	13.26	5.883		
3,100.00	3,098.94	3,100.34	3,100.34	6.73	6.83	99.10	-75.65	25.79	78.76	13.56	5.807		
3,200.00	3,198.51	3,199.91	3,199.91	6.96	7.05	105.58	-75.65	25.79	80.75	14.01	5.765		
3,300.00	3,298.08	3,299.48	3,299.48	7.18	7.28	111.67	-75.65	25.79	83.73	14.45	5.793		
3,400.00	3,397.65	3,399.05	3,399.05	7.41	7.50	117.29	-75.65	25.79	87.58	14.90	5.879		
3,500.00	3,497.22	3,498.62	3,498.62	7.64	7.72	122.40	-75.65	25.79	92.21	15.34	6.010		
3,600.00	3,596.79	3,599.68	3,599.67	7.87	7.94	126.81	-75.22	26.54	96.75	15.78	6.130		
3,700.00	3,696.36	3,700.99	3,700.95	8.11	8.16	130.38	-73.88	28.84	100.20	16.22	6.179		
3,800.00	3,795.93	3,802.48	3,802.34	8.34	8.37	133.34	-71.65	32.70	102.36	16.64	6.150		
3,900.00	3,895.51	3,904.08	3,903.75	8.58	8.59	135.84	-68.51	38.11	103.11	17.07	6.040		
4,000.00	3,995.08	4,005.74	4,005.08	8.82	8.82	138.01	-64.47	45.09	102.35	17.49	5.851		
4,100.00	4,094.65	4,107.38	4,106.24	9.06	9.04	139.93	-59.52	53.62	100.03	17.91	5.584		
4,200.00	4,194.22	4,208.35	4,206.56	9.31	9.27	141.69	-53.78	63.53	96.21	18.34	5.247		
4,300.00	4,293.79	4,308.22	4,305.74	9.55	9.50	143.53	-47.92	73.65	92.12	18.77	4.907		
4,400.00	4,393.36	4,408.09	4,404.92	9.80	9.73	145.54	-42.05	83.78	88.15	19.21	4.588		
4,500.00	4,492.93	4,507.96	4,504.11	10.05	9.97	147.74	-36.18	93.90	84.29	19.65	4.290		
4,600.00	4,592.50	4,607.83	4,603.29	10.30	10.21	150.14	-30.32	104.02	80.56	20.08	4.011		
4,700.00	4,692.07	4,707.70	4,702.47	10.55	10.45	152.77	-24.45	114.14	76.99	20.52	3.753		
4,800.00	4,791.64	4,807.57	4,801.66	10.80	10.69	155.64	-18.59	124.27	73.60	20.95	3.513		
4,900.00	4,891.21	4,907.44	4,900.84	11.05	10.94	158.79	-12.72	134.39	70.41	21.38	3.293		

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 85H - OH - Plan #1													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
5,000.00	4,990.78	5,007.31	5,000.02	11.30	11.19	162.22	-6.86	144.51	67.45	45.64	21.81	3.093	
5,100.00	5,090.35	5,107.19	5,099.21	11.55	11.44	165.95	-0.99	154.63	64.76	42.52	22.24	2.912	
5,200.00	5,189.92	5,207.06	5,198.39	11.81	11.69	169.99	4.87	164.75	62.37	39.69	22.68	2.750	
5,300.00	5,289.49	5,306.93	5,297.57	12.06	11.94	174.33	10.74	174.88	60.30	37.18	23.13	2.608	
5,400.00	5,389.06	5,406.80	5,396.76	12.32	12.20	178.94	16.60	185.00	58.61	35.03	23.58	2.485	
5,500.00	5,488.63	5,506.67	5,495.94	12.57	12.46	-176.21	22.47	195.12	57.32	33.26	24.06	2.383	
5,600.00	5,588.20	5,606.54	5,595.12	12.83	12.71	-171.17	28.33	205.24	56.46	31.91	24.55	2.300	
5,700.00	5,687.77	5,706.41	5,694.31	13.09	12.98	-166.02	34.20	215.37	56.05	30.98	25.07	2.236	
5,740.02	5,727.62	5,746.38	5,734.00	13.19	13.08	-163.95	36.55	219.42	56.01	30.73	25.28	2.215 CC	
5,800.00	5,787.34	5,806.28	5,793.49	13.34	13.24	-160.84	40.06	225.49	56.09	30.49	25.61	2.190	
5,900.00	5,886.91	5,906.15	5,892.67	13.60	13.50	-155.70	45.93	235.61	56.60	30.43	26.17	2.163 ES	
6,000.00	5,986.48	6,006.02	5,991.86	13.86	13.76	-150.70	51.79	245.73	57.55	30.80	26.75	2.152 SF	
6,100.00	6,086.05	6,105.90	6,091.04	14.12	14.03	-145.89	57.66	255.85	58.92	31.58	27.34	2.155	
6,200.00	6,185.62	6,205.77	6,190.22	14.38	14.29	-141.33	63.53	265.98	60.69	32.75	27.94	2.172	
6,300.00	6,285.19	6,305.64	6,289.41	14.64	14.56	-137.05	69.39	276.10	62.82	34.28	28.54	2.201	
6,400.00	6,384.76	6,405.51	6,388.59	14.90	14.83	-133.08	75.26	286.22	65.28	36.13	29.14	2.240	
6,500.00	6,484.33	6,505.38	6,487.78	15.16	15.10	-129.41	81.12	296.34	68.02	38.28	29.74	2.287	
6,600.00	6,583.90	6,605.25	6,586.96	15.42	15.37	-126.03	86.99	306.47	71.03	40.89	30.34	2.341	
6,700.00	6,683.47	6,705.12	6,686.14	15.68	15.64	-122.94	92.85	316.59	74.26	43.34	30.92	2.401	
6,800.00	6,783.04	6,804.99	6,785.33	15.94	15.91	-120.12	98.72	326.71	77.69	46.18	31.51	2.466	
6,900.00	6,882.61	6,904.86	6,884.51	16.20	16.18	-117.53	104.58	336.83	81.29	49.21	32.08	2.534	
7,000.00	6,982.18	7,004.73	6,983.69	16.46	16.45	-115.18	110.45	346.95	85.05	52.39	32.66	2.604	
7,100.00	7,081.75	7,104.60	7,082.88	16.72	16.73	-113.02	116.31	357.08	88.93	55.71	33.22	2.677	
7,200.00	7,181.32	7,204.48	7,182.06	16.98	17.00	-111.05	122.18	367.20	92.93	59.15	33.78	2.751	
7,300.00	7,280.89	7,304.35	7,281.24	17.25	17.28	-109.24	128.04	377.32	97.03	62.69	34.34	2.826	
7,400.00	7,380.46	7,404.22	7,380.43	17.51	17.55	-107.58	133.91	387.44	101.22	66.33	34.89	2.901	
7,500.00	7,480.03	7,504.09	7,479.61	17.77	17.83	-106.05	139.77	397.57	105.49	70.04	35.45	2.976	
7,600.00	7,579.60	7,603.96	7,578.79	18.03	18.10	-104.64	145.64	407.69	109.83	73.83	35.99	3.051	
7,700.00	7,679.17	7,703.83	7,677.98	18.30	18.38	-103.34	151.50	417.81	114.23	77.69	36.54	3.126	
7,800.00	7,778.74	7,803.70	7,777.16	18.56	18.66	-102.14	157.37	427.93	118.68	81.60	37.08	3.200	
7,900.00	7,878.31	7,903.57	7,876.34	18.82	18.93	-101.02	163.23	438.05	123.18	85.55	37.63	3.274	
8,000.00	7,977.88	8,003.44	7,975.53	19.09	19.21	-99.99	169.10	448.18	127.73	89.56	38.17	3.346	
8,100.00	8,077.45	8,103.31	8,074.71	19.35	19.49	-99.02	174.97	458.30	132.31	93.60	38.71	3.418	
8,200.00	8,177.02	8,203.18	8,173.89	19.61	19.77	-98.12	180.83	468.42	136.93	97.68	39.25	3.489	
8,300.00	8,276.59	8,303.06	8,273.08	19.88	20.05	-97.28	186.70	478.54	141.58	101.79	39.78	3.559	
8,400.00	8,376.16	8,402.93	8,372.26	20.14	20.33	-96.49	192.56	488.67	146.26	105.94	40.32	3.627	
8,500.00	8,475.73	8,502.80	8,471.44	20.41	20.60	-95.75	198.43	498.79	150.96	110.10	40.86	3.695	
8,600.00	8,575.30	8,602.67	8,570.63	20.67	20.88	-95.06	204.29	508.91	155.69	114.30	41.39	3.761	
8,700.00	8,674.87	8,702.54	8,669.81	20.94	21.17	-94.40	210.16	519.03	160.44	118.51	41.93	3.827	
8,800.00	8,774.44	8,802.41	8,768.99	21.20	21.45	-93.79	216.02	529.15	165.21	122.74	42.46	3.891	
8,900.00	8,874.01	8,902.28	8,868.18	21.47	21.73	-93.21	221.89	539.28	169.99	127.00	43.00	3.954	
9,000.00	8,973.58	9,002.15	8,967.36	21.73	22.01	-92.66	227.75	549.40	174.80	131.27	43.53	4.015	
9,100.00	9,073.15	9,102.02	9,066.54	22.00	22.29	-92.14	233.62	559.52	179.62	135.55	44.07	4.076	
9,200.00	9,172.72	9,201.89	9,165.73	22.26	22.57	-91.65	239.48	569.64	184.45	139.85	44.60	4.136	
9,300.00	9,272.29	9,301.76	9,264.91	22.53	22.85	-91.18	245.35	579.77	189.30	144.16	45.13	4.194	
9,400.00	9,371.86	9,401.64	9,364.09	22.79	23.13	-90.73	251.21	589.89	194.15	148.48	45.67	4.251	
9,500.00	9,471.43	9,501.51	9,463.28	23.06	23.42	-90.31	257.08	600.01	199.02	152.82	46.20	4.308	
9,600.00	9,571.00	9,601.38	9,562.46	23.32	23.70	-89.91	262.94	610.13	203.90	157.16	46.74	4.363	
9,700.00	9,670.57	9,701.25	9,661.64	23.59	23.98	-89.53	268.81	620.25	208.79	161.52	47.27	4.417	
9,800.00	9,770.14	9,801.12	9,760.83	23.85	24.27	-89.16	274.68	630.38	213.69	165.88	47.80	4.470	
9,900.00	9,869.72	9,900.99	9,860.01	24.12	24.55	-88.81	280.54	640.50	218.59	170.25	48.34	4.522	
10,000.00	9,969.29	10,000.86	9,959.19	24.38	24.83	-88.48	286.41	650.62	223.51	174.63	48.87	4.573	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 85H - OH - Plan #1													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	
10,100.00	10,068.86	10,100.73	10,058.38	24.65	25.12	-88.16	292.27	660.74	228.43	179.02	49.40	4.624	
10,200.00	10,168.43	10,200.60	10,157.56	24.92	25.40	-87.85	298.14	670.87	233.35	183.41	49.94	4.673	
10,300.00	10,268.00	10,300.47	10,256.74	25.18	25.68	-87.56	304.00	680.99	238.29	187.81	50.47	4.721	
10,400.00	10,367.57	10,400.34	10,355.93	25.45	25.97	-87.28	309.87	691.11	243.23	192.22	51.01	4.769	
10,500.00	10,467.14	10,500.22	10,455.11	25.71	26.25	-87.01	315.73	701.23	248.17	196.63	51.54	4.815	
10,600.00	10,566.71	10,600.09	10,554.29	25.98	26.54	-86.75	321.60	711.35	253.12	201.05	52.07	4.861	
10,700.00	10,666.28	10,699.96	10,653.48	26.25	26.82	-86.50	327.46	721.48	258.08	205.47	52.61	4.906	
10,800.00	10,765.85	10,799.83	10,752.66	26.51	27.11	-86.26	333.33	731.60	263.04	209.90	53.14	4.950	
10,900.00	10,865.42	10,899.70	10,851.84	26.78	27.39	-86.03	339.19	741.72	268.00	214.33	53.68	4.993	
11,004.37	10,969.33	11,003.93	10,955.36	27.06	27.69	-85.79	345.31	752.29	273.19	218.96	54.23	5.037	
11,100.00	11,064.63	11,099.43	11,050.19	27.28	27.96	-85.47	350.92	761.96	278.01	223.30	54.71	5.082	
11,200.00	11,164.40	11,199.75	11,149.83	27.47	28.24	-84.81	356.80	772.10	283.19	228.05	55.14	5.136	
11,300.00	11,264.27	11,302.12	11,251.64	27.66	28.46	-84.01	362.16	781.36	287.98	232.46	55.51	5.188	
11,400.00	11,364.22	11,404.62	11,353.75	27.83	28.67	-83.20	366.62	789.06	292.09	236.23	55.86	5.229	
11,500.00	11,464.21	11,507.24	11,456.13	28.00	28.87	-82.36	370.17	795.18	295.55	239.36	56.18	5.260	
11,535.79	11,500.00	11,544.00	11,492.83	28.06	28.94	2.49	371.22	796.99	296.62	240.33	56.29	5.269	
11,600.00	11,564.21	11,609.99	11,558.75	28.17	29.06	3.00	372.80	799.72	298.29	241.79	56.50	5.279	
11,700.00	11,664.21	11,712.90	11,661.59	28.36	29.25	3.54	374.51	802.67	300.11	243.27	56.84	5.280	
11,800.00	11,764.21	11,815.89	11,764.57	28.55	29.42	3.79	375.30	804.03	300.96	243.77	57.19	5.262	
11,900.00	11,864.21	11,916.93	11,865.61	28.74	29.59	3.81	375.35	804.12	301.02	243.66	57.56	5.230	
12,006.83	11,971.04	12,023.76	11,972.44	28.95	29.80	3.81	375.35	804.12	301.02	243.04	57.97	5.193	
12,050.00	12,014.17	12,066.89	12,015.57	29.03	29.88	-176.20	375.35	804.12	302.64	244.50	58.14	5.206	
12,100.00	12,063.80	12,116.52	12,065.20	29.11	29.97	-176.23	375.35	804.12	308.56	250.23	58.32	5.290	
12,150.00	12,112.72	12,165.44	12,114.12	29.19	30.07	-176.29	375.35	804.12	318.77	260.26	58.51	5.448	
12,200.00	12,160.57	12,213.29	12,161.97	29.27	30.16	-176.35	375.35	804.12	333.21	274.50	58.70	5.676	
12,250.00	12,206.97	12,259.69	12,208.37	29.35	30.25	-176.42	375.35	804.12	351.75	292.87	58.88	5.974	
12,300.00	12,251.58	12,304.30	12,252.98	29.43	30.34	-176.49	375.35	804.12	374.27	315.20	59.06	6.337	
12,350.00	12,294.05	12,346.77	12,295.45	29.50	30.42	-176.54	375.35	804.12	400.58	341.35	59.23	6.763	
12,400.00	12,334.07	12,386.79	12,335.47	29.58	30.50	-176.56	375.35	804.12	430.50	371.11	59.39	7.249	
12,450.00	12,371.32	12,553.59	12,500.15	29.66	30.70	-177.17	352.81	804.12	459.31	401.09	58.22	7.889	
12,500.00	12,405.53	12,612.46	12,724.50	29.74	30.74	-177.57	228.11	804.12	474.93	423.11	51.82	9.165	
12,550.00	12,436.43	13,099.54	12,881.86	29.83	30.80	-177.46	-8.41	804.12	470.84	427.40	43.45	10.837	
12,600.00	12,463.78	13,300.33	12,914.00	29.93	30.64	-177.03	-205.58	804.12	449.26	407.39	41.87	10.730	
12,650.00	12,487.39	13,344.39	12,914.00	30.04	30.69	-177.01	-249.64	804.12	425.68	383.67	42.01	10.133	
12,700.00	12,507.07	13,390.34	12,914.00	30.17	30.76	-176.98	-295.59	804.12	406.02	363.88	42.15	9.634	
12,750.00	12,522.67	13,437.83	12,914.00	30.31	30.85	-176.95	-343.08	804.12	390.44	348.15	42.29	9.232	
12,800.00	12,534.07	13,486.50	12,914.00	30.47	30.97	-176.92	-391.74	804.12	379.06	336.62	42.44	8.932	
12,850.00	12,541.18	13,535.97	12,914.00	30.65	31.12	-176.90	-441.22	804.12	371.95	329.36	42.59	8.733	
12,900.00	12,543.96	13,585.88	12,914.00	30.84	31.29	-176.89	-491.12	804.12	369.18	326.44	42.75	8.636	
12,906.83	12,544.00	13,592.71	12,914.00	30.87	31.32	-176.89	-497.96	804.12	369.14	326.37	42.77	8.631	
13,000.00	12,544.00	13,685.88	12,914.00	31.30	31.71	-176.89	-591.12	804.12	369.14	326.05	43.09	8.566	
13,100.00	12,544.00	13,785.88	12,914.00	31.84	32.22	-176.89	-691.12	804.12	369.14	325.66	43.48	8.489	
13,200.00	12,544.00	13,885.88	12,914.00	32.45	32.81	-176.89	-791.12	804.12	369.14	325.22	43.92	8.404	
13,300.00	12,544.00	13,985.88	12,914.00	33.13	33.47	-176.89	-891.12	804.12	369.14	324.74	44.41	8.313	
13,400.00	12,544.00	14,085.88	12,914.00	33.87	34.20	-176.89	-991.12	804.12	369.14	324.21	44.93	8.216	
13,500.00	12,544.00	14,185.88	12,914.00	34.68	35.00	-176.89	-1,091.12	804.12	369.14	323.64	45.50	8.113	
13,600.00	12,544.00	14,285.88	12,914.00	35.54	35.85	-176.89	-1,191.12	804.12	369.14	323.03	46.11	8.006	
13,700.00	12,544.00	14,385.88	12,914.00	36.46	36.76	-176.89	-1,291.12	804.12	369.14	322.39	46.76	7.895	
13,800.00	12,544.00	14,485.88	12,914.00	37.43	37.72	-176.89	-1,391.12	804.12	369.14	321.70	47.44	7.781	
13,900.00	12,544.00	14,585.88	12,914.00	38.44	38.72	-176.89	-1,491.12	804.12	369.14	320.98	48.16	7.665	
14,000.00	12,544.00	14,685.88	12,914.00	39.49	39.76	-176.89	-1,591.12	804.12	369.14	320.23	48.91	7.547	
14,100.00	12,544.00	14,785.88	12,914.00	40.59	40.84	-176.89	-1,691.12	804.12	369.14	319.44	49.70	7.427	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 85H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
14,200.00	12,544.00	14,885.88	12,914.00	41.71	41.96	-176.89	-1,791.12	804.12	369.14	318.62	50.52	7.307	
14,300.00	12,544.00	14,985.88	12,914.00	42.88	43.11	-176.89	-1,891.12	804.12	369.14	317.78	51.37	7.187	
14,400.00	12,544.00	15,085.88	12,914.00	44.07	44.30	-176.89	-1,991.12	804.12	369.14	316.90	52.24	7.066	
14,500.00	12,544.00	15,185.88	12,914.00	45.28	45.51	-176.89	-2,091.12	804.12	369.14	316.00	53.14	6.946	
14,600.00	12,544.00	15,285.88	12,914.00	46.53	46.74	-176.89	-2,191.12	804.12	369.14	315.07	54.07	6.827	
14,700.00	12,544.00	15,385.88	12,914.00	47.80	48.00	-176.89	-2,291.12	804.12	369.14	314.12	55.02	6.709	
14,800.00	12,544.00	15,485.88	12,914.00	49.08	49.28	-176.89	-2,391.12	804.12	369.14	313.15	55.99	6.593	
14,900.00	12,544.00	15,585.88	12,914.00	50.39	50.58	-176.89	-2,491.12	804.12	369.14	312.15	56.99	6.477	
15,000.00	12,544.00	15,685.88	12,914.00	51.72	51.90	-176.89	-2,591.12	804.12	369.14	311.14	58.00	6.364	
15,100.00	12,544.00	15,785.88	12,914.00	53.07	53.24	-176.89	-2,691.12	804.12	369.14	310.10	59.04	6.252	
15,200.00	12,544.00	15,885.88	12,914.00	54.43	54.59	-176.89	-2,791.12	804.12	369.14	309.05	60.09	6.143	
15,300.00	12,544.00	15,985.88	12,914.00	55.80	55.96	-176.89	-2,891.12	804.12	369.14	307.98	61.16	6.035	
15,400.00	12,544.00	16,085.88	12,914.00	57.19	57.34	-176.89	-2,991.12	804.12	369.14	306.89	62.25	5.930	
15,500.00	12,544.00	16,185.88	12,914.00	58.59	58.74	-176.89	-3,091.12	804.12	369.14	305.79	63.36	5.826	
15,600.00	12,544.00	16,285.88	12,914.00	60.01	60.15	-176.89	-3,191.12	804.12	369.14	304.67	64.47	5.725	
15,700.00	12,544.00	16,385.88	12,914.00	61.43	61.56	-176.89	-3,291.12	804.12	369.14	303.54	65.61	5.627	
15,800.00	12,544.00	16,485.88	12,914.00	62.87	62.99	-176.89	-3,391.12	804.12	369.14	302.39	66.75	5.530	
15,900.00	12,544.00	16,585.88	12,914.00	64.31	64.43	-176.89	-3,491.12	804.12	369.14	301.23	67.91	5.436	
16,000.00	12,544.00	16,685.88	12,914.00	65.76	65.88	-176.89	-3,591.12	804.12	369.14	300.06	69.08	5.344	
16,100.00	12,544.00	16,785.88	12,914.00	67.22	67.33	-176.89	-3,691.12	804.12	369.14	298.88	70.26	5.254	
16,200.00	12,544.00	16,885.88	12,914.00	68.69	68.80	-176.89	-3,791.12	804.12	369.14	297.68	71.46	5.166	
16,300.00	12,544.00	16,985.88	12,914.00	70.17	70.27	-176.89	-3,891.12	804.12	369.14	296.48	72.66	5.080	
16,400.00	12,544.00	17,085.88	12,914.00	71.65	71.75	-176.89	-3,991.12	804.12	369.14	295.27	73.87	4.997	
16,500.00	12,544.00	17,185.88	12,914.00	73.14	73.23	-176.89	-4,091.12	804.12	369.14	294.04	75.10	4.916	
16,600.00	12,544.00	17,285.88	12,914.00	74.64	74.73	-176.89	-4,191.12	804.12	369.14	292.81	76.33	4.836	
16,700.00	12,544.00	17,385.88	12,914.00	76.14	76.22	-176.89	-4,291.12	804.12	369.14	291.57	77.57	4.759	
16,800.00	12,544.00	17,485.88	12,914.00	77.65	77.73	-176.89	-4,391.12	804.12	369.14	290.32	78.82	4.683	
16,900.00	12,544.00	17,585.88	12,914.00	79.16	79.23	-176.89	-4,491.12	804.12	369.14	289.07	80.07	4.610	
17,000.00	12,544.00	17,685.88	12,914.00	80.67	80.75	-176.89	-4,591.12	804.12	369.14	287.80	81.34	4.538	
17,100.00	12,544.00	17,785.88	12,914.00	82.20	82.26	-176.89	-4,691.12	804.12	369.14	286.53	82.61	4.469	
17,200.00	12,544.00	17,885.88	12,914.00	83.72	83.79	-176.89	-4,791.12	804.12	369.14	285.26	83.88	4.401	
17,300.00	12,544.00	17,985.88	12,914.00	85.25	85.31	-176.89	-4,891.12	804.12	369.14	283.97	85.17	4.334	
17,400.00	12,544.00	18,085.88	12,914.00	86.78	86.84	-176.89	-4,991.12	804.12	369.14	282.68	86.46	4.270	
17,500.00	12,544.00	18,185.88	12,914.00	88.32	88.38	-176.89	-5,091.12	804.12	369.14	281.39	87.75	4.207	
17,600.00	12,544.00	18,285.88	12,914.00	89.86	89.91	-176.89	-5,191.12	804.12	369.14	280.09	89.05	4.145	
17,700.00	12,544.00	18,385.88	12,914.00	91.41	91.45	-176.89	-5,291.12	804.12	369.14	278.78	90.36	4.085	
17,800.00	12,544.00	18,485.88	12,914.00	92.95	93.00	-176.89	-5,391.12	804.12	369.14	277.47	91.67	4.027	
17,900.00	12,544.00	18,585.88	12,914.00	94.50	94.54	-176.89	-5,491.12	804.12	369.14	276.15	92.99	3.970	
18,000.00	12,544.00	18,685.88	12,914.00	96.05	96.09	-176.89	-5,591.12	804.12	369.14	274.83	94.31	3.914	
18,100.00	12,544.00	18,785.88	12,914.00	97.61	97.65	-176.89	-5,691.12	804.12	369.14	273.51	95.64	3.860	
18,200.00	12,544.00	18,885.88	12,914.00	99.17	99.20	-176.89	-5,791.12	804.12	369.14	272.18	96.97	3.807	
18,300.00	12,544.00	18,985.88	12,914.00	100.73	100.76	-176.89	-5,891.12	804.12	369.14	270.84	98.30	3.755	
18,400.00	12,544.00	19,085.88	12,914.00	102.29	102.32	-176.89	-5,991.12	804.12	369.14	269.50	99.64	3.705	
18,500.00	12,544.00	19,185.88	12,914.00	103.85	103.88	-176.89	-6,091.12	804.12	369.14	268.16	100.98	3.656	
18,600.00	12,544.00	19,285.88	12,914.00	105.42	105.44	-176.89	-6,191.12	804.12	369.14	266.82	102.33	3.607	
18,700.00	12,544.00	19,385.88	12,914.00	106.99	107.01	-176.89	-6,291.12	804.12	369.14	265.47	103.68	3.561	
18,800.00	12,544.00	19,485.88	12,914.00	108.56	108.58	-176.89	-6,391.12	804.12	369.14	264.11	105.03	3.515	
18,900.00	12,544.00	19,585.88	12,914.00	110.13	110.15	-176.89	-6,491.12	804.12	369.14	262.76	106.38	3.470	
19,000.00	12,544.00	19,685.88	12,914.00	111.71	111.72	-176.89	-6,591.12	804.12	369.14	261.40	107.74	3.426	
19,100.00	12,544.00	19,785.88	12,914.00	113.28	113.30	-176.89	-6,691.12	804.12	369.14	260.04	109.11	3.383	
19,200.00	12,544.00	19,885.88	12,914.00	114.86	114.87	-176.89	-6,791.12	804.12	369.14	258.67	110.47	3.342	
19,300.00	12,544.00	19,985.88	12,914.00	116.44	116.45	-176.89	-6,891.12	804.12	369.14	257.30	111.84	3.301	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 85H - OH - Plan #1													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		
19,400.00	12,544.00	20,085.88	12,914.00	118.02	118.03	-176.89	-6,991.12	804.12	369.14	255.93	113.21	3.261		
19,500.00	12,544.00	20,185.88	12,914.00	119.60	119.61	-176.89	-7,091.12	804.12	369.14	254.56	114.58	3.222		
19,600.00	12,544.00	20,285.88	12,914.00	121.19	121.19	-176.89	-7,191.12	804.12	369.14	253.19	115.96	3.183		
19,700.00	12,544.00	20,385.88	12,914.00	122.77	122.77	-176.89	-7,291.12	804.12	369.14	251.81	117.33	3.146		
19,800.00	12,544.00	20,485.88	12,914.00	124.36	124.36	-176.89	-7,391.12	804.12	369.14	250.43	118.72	3.109		
19,900.00	12,544.00	20,585.88	12,914.00	125.95	125.94	-176.89	-7,491.12	804.12	369.14	249.04	120.10	3.074		
20,000.00	12,544.00	20,685.88	12,914.00	127.53	127.53	-176.89	-7,591.12	804.12	369.14	247.66	121.48	3.039		
20,100.00	12,544.00	20,785.88	12,914.00	129.12	129.12	-176.89	-7,691.12	804.12	369.14	246.27	122.87	3.004		
20,200.00	12,544.00	20,885.88	12,914.00	130.72	130.71	-176.89	-7,791.12	804.12	369.14	244.88	124.26	2.971		
20,300.00	12,544.00	20,985.88	12,914.00	132.31	132.30	-176.89	-7,891.12	804.12	369.14	243.49	125.65	2.938		
20,400.00	12,544.00	21,085.88	12,914.00	133.90	133.89	-176.89	-7,991.12	804.12	369.14	242.10	127.04	2.906		
20,500.00	12,544.00	21,185.88	12,914.00	135.49	135.48	-176.89	-8,091.12	804.12	369.14	240.71	128.44	2.874		
20,600.00	12,544.00	21,285.88	12,914.00	137.09	137.08	-176.89	-8,191.12	804.12	369.14	239.31	129.83	2.843		
20,700.00	12,544.00	21,385.88	12,914.00	138.68	138.67	-176.89	-8,291.12	804.12	369.14	237.91	131.23	2.813		
20,800.00	12,544.00	21,485.88	12,914.00	140.28	140.27	-176.89	-8,391.12	804.12	369.14	236.51	132.63	2.783		
20,900.00	12,544.00	21,585.88	12,914.00	141.88	141.86	-176.89	-8,491.12	804.12	369.14	235.11	134.03	2.754		
21,000.00	12,544.00	21,685.88	12,914.00	143.48	143.46	-176.89	-8,591.12	804.12	369.14	233.71	135.43	2.726		
21,100.00	12,544.00	21,785.88	12,914.00	145.08	145.06	-176.89	-8,691.12	804.12	369.14	232.30	136.84	2.698		
21,200.00	12,544.00	21,885.88	12,914.00	146.68	146.66	-176.89	-8,791.12	804.12	369.14	230.90	138.24	2.670		
21,300.00	12,544.00	21,985.88	12,914.00	148.28	148.25	-176.89	-8,891.12	804.12	369.14	229.49	139.65	2.643		
21,400.00	12,544.00	22,085.88	12,914.00	149.88	149.85	-176.89	-8,991.12	804.12	369.14	228.08	141.06	2.617		
21,500.00	12,544.00	22,185.88	12,914.00	151.48	151.46	-176.89	-9,091.12	804.12	369.14	226.67	142.47	2.591		
21,600.00	12,544.00	22,285.88	12,914.00	153.08	153.06	-176.89	-9,191.12	804.12	369.14	225.26	143.88	2.566		
21,700.00	12,544.00	22,385.88	12,914.00	154.69	154.66	-176.89	-9,291.12	804.12	369.14	223.85	145.30	2.541		
21,800.00	12,544.00	22,485.88	12,914.00	156.29	156.26	-176.89	-9,391.12	804.12	369.14	222.43	146.71	2.516		
21,900.00	12,544.00	22,585.88	12,914.00	157.90	157.87	-176.89	-9,491.12	804.12	369.14	221.02	148.12	2.492		
22,000.00	12,544.00	22,685.88	12,914.00	159.50	159.47	-176.89	-9,591.12	804.12	369.14	219.60	149.54	2.469		
22,100.00	12,544.00	22,785.88	12,914.00	161.11	161.08	-176.89	-9,691.12	804.12	369.14	218.18	150.96	2.445		
22,179.09	12,544.00	22,864.97	12,914.00	162.38	162.35	-176.89	-9,770.22	804.12	369.14	217.06	152.08	2.427		
22,181.55	12,544.00	22,867.23	12,914.00	162.42	162.38	-176.89	-9,772.48	804.12	369.14	217.03	152.11	2.427		

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 8H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-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 Tooface (")	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	-87.74	62.55	-1,581.78	1,583.02				
100.00	100.00	97.50	97.50	0.08	0.08	-87.74	62.55	-1,581.78	1,583.02	1,582.85	0.17	9,509.458	
200.00	200.00	197.50	197.50	0.31	0.30	-87.74	62.55	-1,581.78	1,583.02	1,582.40	0.61	2,584.568	
300.00	300.00	297.50	297.50	0.53	0.53	-87.74	62.55	-1,581.78	1,583.02	1,581.95	1.06	1,490.571	
400.00	400.00	397.50	397.50	0.76	0.75	-87.74	62.55	-1,581.78	1,583.02	1,581.50	1.51	1,047.279	
500.00	500.00	497.50	497.50	0.98	0.98	-87.74	62.55	-1,581.78	1,583.02	1,581.06	1.96	807.215	
600.00	600.00	597.50	597.50	1.21	1.20	-87.74	62.55	-1,581.78	1,583.02	1,580.61	2.41	656.685	
700.00	700.00	697.50	697.50	1.43	1.43	-87.74	62.55	-1,581.78	1,583.02	1,580.16	2.86	553.474	
800.00	800.00	797.50	797.50	1.66	1.65	-87.74	62.55	-1,581.78	1,583.02	1,579.71	3.31	478.299	
900.00	900.00	897.50	897.50	1.88	1.88	-87.74	62.55	-1,581.78	1,583.02	1,579.26	3.76	421.103	
1,000.00	1,000.00	997.50	997.50	2.11	2.10	-87.74	62.55	-1,581.78	1,583.02	1,578.81	4.21	376.126	
1,100.00	1,100.00	1,097.50	1,097.50	2.33	2.33	-87.74	62.55	-1,581.78	1,583.02	1,578.36	4.66	339.829	
1,200.00	1,200.00	1,197.50	1,197.50	2.56	2.55	-87.74	62.55	-1,581.78	1,583.02	1,577.91	5.11	309.921	
1,300.00	1,300.00	1,297.50	1,297.50	2.78	2.78	-87.74	62.55	-1,581.78	1,583.02	1,577.46	5.56	284.851	
1,400.00	1,400.00	1,397.50	1,397.50	3.01	3.00	-87.74	62.55	-1,581.78	1,583.02	1,577.01	6.01	263.534	
1,500.00	1,500.00	1,497.50	1,497.50	3.23	3.23	-87.74	62.55	-1,581.78	1,583.02	1,576.56	6.46	245.185	
1,600.00	1,600.00	1,597.50	1,597.50	3.46	3.45	-87.74	62.55	-1,581.78	1,583.02	1,576.11	6.91	229.225	
1,700.00	1,700.00	1,697.50	1,697.50	3.68	3.67	-87.74	62.55	-1,581.78	1,583.02	1,575.66	7.36	215.216	
1,800.00	1,800.00	1,797.50	1,797.50	3.91	3.90	-87.74	62.55	-1,581.78	1,583.02	1,575.21	7.81	202.821	
1,900.00	1,900.00	1,897.50	1,897.50	4.13	4.12	-87.74	62.55	-1,581.78	1,583.02	1,574.76	8.25	191.775	
2,000.00	2,000.00	1,997.50	1,997.50	4.35	4.35	-87.74	62.55	-1,581.78	1,583.02	1,574.31	8.70	181.871	
2,100.00	2,100.00	2,097.50	2,097.50	4.58	4.57	-87.74	62.55	-1,581.78	1,583.02	1,573.86	9.15	172.939	
2,200.00	2,200.00	2,197.50	2,197.50	4.80	4.80	-87.74	62.55	-1,581.78	1,583.02	1,573.41	9.60	164.844	
2,300.00	2,300.00	2,297.50	2,297.50	5.03	5.02	-87.74	62.55	-1,581.78	1,583.02	1,572.96	10.05	157.472	
2,400.00	2,400.00	2,397.50	2,397.50	5.25	5.25	-87.74	62.55	-1,581.78	1,583.02	1,572.51	10.50	150.732	
2,500.00	2,500.00	2,497.50	2,497.50	5.48	5.47	-87.74	62.55	-1,581.78	1,583.02	1,572.06	10.95	144.545	
2,600.00	2,599.99	2,597.49	2,597.49	5.69	5.70	-172.27	62.55	-1,581.78	1,583.88	1,572.49	11.39	139.082	
2,700.00	2,699.96	2,697.46	2,697.46	5.89	5.92	-172.28	62.55	-1,581.78	1,586.47	1,574.66	11.81	134.299	
2,800.00	2,799.86	2,797.36	2,797.36	6.10	6.15	-172.30	62.55	-1,581.78	1,590.80	1,578.56	12.24	129.972	
2,900.00	2,899.68	2,897.18	2,897.18	6.30	6.37	-172.32	62.55	-1,581.78	1,596.85	1,584.18	12.67	126.057	
3,000.00	2,999.37	2,996.87	2,996.87	6.52	6.60	-172.35	62.55	-1,581.78	1,604.62	1,591.53	13.10	122.516	
3,031.43	3,030.67	3,038.52	3,038.52	6.58	6.68	-172.36	62.58	-1,581.65	1,607.33	1,594.08	13.25	121.293	
3,100.00	3,098.94	3,132.08	3,132.07	6.73	6.88	-172.39	62.93	-1,580.31	1,612.65	1,599.07	13.59	118.689	
3,200.00	3,198.51	3,268.88	3,268.78	6.96	7.16	-172.40	64.13	-1,575.67	1,618.49	1,604.43	14.07	115.069	
3,300.00	3,298.08	3,405.97	3,405.63	7.18	7.45	-172.38	66.14	-1,567.86	1,622.04	1,607.50	14.54	111.547	
3,400.00	3,397.65	3,543.20	3,542.39	7.41	7.75	-172.32	68.98	-1,556.87	1,623.30	1,608.28	15.01	108.113	
3,500.00	3,497.22	3,680.41	3,678.81	7.64	8.05	-172.23	72.63	-1,542.71	1,622.26	1,606.78	15.48	104.768	
3,600.00	3,596.79	3,817.44	3,814.67	7.87	8.37	-172.11	77.09	-1,525.41	1,618.93	1,602.98	15.95	101.493	
3,700.00	3,696.36	3,923.30	3,919.40	8.11	8.63	-172.00	80.94	-1,510.48	1,614.13	1,597.74	16.39	98.498	
3,800.00	3,795.93	4,023.14	4,018.17	8.34	8.87	-171.89	84.58	-1,496.37	1,609.30	1,592.48	16.82	95.672	
3,900.00	3,895.51	4,122.98	4,116.94	8.58	9.12	-171.79	88.22	-1,482.25	1,604.48	1,587.22	17.26	92.972	
4,000.00	3,995.08	4,222.82	4,215.71	8.82	9.38	-171.68	91.86	-1,468.13	1,599.66	1,581.96	17.70	90.392	
4,100.00	4,094.65	4,322.66	4,314.48	9.06	9.64	-171.57	95.51	-1,454.01	1,594.84	1,576.71	18.14	87.926	
4,200.00	4,194.22	4,422.49	4,413.24	9.31	9.90	-171.46	99.15	-1,439.90	1,590.04	1,571.45	18.58	85.565	
4,300.00	4,293.79	4,522.33	4,512.01	9.55	10.17	-171.35	102.79	-1,425.78	1,585.24	1,566.21	19.03	83.306	
4,400.00	4,393.36	4,622.17	4,610.78	9.80	10.44	-171.24	106.43	-1,411.66	1,580.44	1,560.96	19.48	81.141	
4,500.00	4,492.93	4,722.01	4,709.55	10.05	10.71	-171.13	110.07	-1,397.54	1,575.65	1,555.72	19.93	79.067	
4,600.00	4,592.50	4,821.85	4,808.32	10.30	10.99	-171.02	113.71	-1,383.43	1,570.87	1,550.49	20.38	77.077	
4,700.00	4,692.07	4,921.69	4,907.09	10.55	11.27	-170.91	117.36	-1,369.31	1,566.09	1,545.25	20.83	75.167	
4,800.00	4,791.64	5,021.53	5,005.85	10.80	11.55	-170.79	121.00	-1,355.19	1,561.32	1,540.03	21.29	73.334	
4,900.00	4,891.21	5,121.36	5,104.62	11.05	11.83	-170.68	124.64	-1,341.07	1,556.55	1,534.80	21.75	71.573	
5,000.00	4,990.78	5,221.20	5,203.39	11.30	12.12	-170.57	128.28	-1,326.96	1,551.79	1,529.59	22.21	69.879	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 8H - OH - Plan #1													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	
5,100.00	5,090.35	5,321.04	5,302.16	11.55	12.41	-170.45	131.92	-1,312.84	1,547.04	1,524.37	22.67	68.250	
5,200.00	5,189.92	5,420.88	5,400.93	11.81	12.70	-170.34	135.56	-1,298.72	1,542.29	1,519.16	23.13	66.683	
5,300.00	5,289.49	5,520.72	5,499.70	12.06	12.99	-170.22	139.20	-1,284.60	1,537.55	1,513.96	23.59	65.173	
5,400.00	5,389.06	5,620.56	5,598.46	12.32	13.28	-170.10	142.85	-1,270.49	1,532.82	1,508.76	24.06	63.718	
5,500.00	5,488.63	5,720.40	5,697.23	12.57	13.58	-169.99	146.49	-1,256.37	1,528.09	1,503.57	24.52	62.316	
5,600.00	5,588.20	5,820.23	5,796.00	12.83	13.87	-169.87	150.13	-1,242.25	1,523.37	1,498.38	24.99	60.963	
5,700.00	5,687.77	5,920.07	5,894.77	13.09	14.17	-169.75	153.77	-1,228.13	1,518.65	1,493.20	25.46	59.658	
5,800.00	5,787.34	6,019.91	5,993.54	13.34	14.47	-169.63	157.41	-1,214.02	1,513.94	1,488.02	25.92	58.398	
5,900.00	5,886.91	6,119.75	6,092.31	13.60	14.77	-169.51	161.05	-1,199.90	1,509.24	1,482.85	26.39	57.180	
6,000.00	5,986.48	6,219.59	6,191.07	13.86	15.07	-169.38	164.70	-1,185.78	1,504.55	1,477.68	26.87	56.003	
6,100.00	6,086.05	6,319.43	6,289.84	14.12	15.37	-169.26	168.34	-1,171.66	1,499.86	1,472.52	27.34	54.865	
6,200.00	6,185.62	6,419.27	6,388.61	14.38	15.67	-169.14	171.98	-1,157.55	1,495.18	1,467.37	27.81	53.764	
6,300.00	6,285.19	6,519.11	6,487.38	14.64	15.97	-169.02	175.62	-1,143.43	1,490.50	1,462.22	28.28	52.699	
6,400.00	6,384.76	6,618.94	6,586.15	14.90	16.28	-168.89	179.26	-1,129.31	1,485.84	1,457.08	28.76	51.667	
6,500.00	6,484.33	6,718.78	6,684.92	15.16	16.58	-168.77	182.90	-1,115.19	1,481.18	1,451.94	29.23	50.667	
6,600.00	6,583.90	6,818.62	6,783.68	15.42	16.89	-168.64	186.54	-1,101.07	1,476.52	1,446.81	29.71	49.699	
6,700.00	6,683.47	6,918.46	6,882.45	15.68	17.20	-168.51	190.19	-1,086.96	1,471.88	1,441.69	30.19	48.759	
6,800.00	6,783.04	7,018.30	6,981.22	15.94	17.50	-168.38	193.83	-1,072.84	1,467.24	1,436.57	30.66	47.848	
6,900.00	6,882.61	7,118.14	7,079.99	16.20	17.81	-168.26	197.47	-1,058.72	1,462.61	1,431.47	31.14	46.964	
7,000.00	6,982.18	7,217.98	7,178.76	16.46	18.12	-168.13	201.11	-1,044.60	1,457.98	1,426.36	31.62	46.106	
7,100.00	7,081.75	7,317.81	7,277.53	16.72	18.43	-168.00	204.75	-1,030.49	1,453.37	1,421.27	32.10	45.273	
7,200.00	7,181.32	7,417.65	7,376.29	16.98	18.74	-167.87	208.39	-1,016.37	1,448.76	1,416.18	32.58	44.463	
7,300.00	7,280.89	7,517.49	7,475.06	17.25	19.05	-167.73	212.03	-1,002.25	1,444.16	1,411.09	33.07	43.676	
7,400.00	7,380.46	7,617.33	7,573.83	17.51	19.36	-167.60	215.68	-988.13	1,439.56	1,406.02	33.55	42.911	
7,500.00	7,480.03	7,717.17	7,672.60	17.77	19.67	-167.47	219.32	-974.02	1,434.98	1,400.95	34.03	42.167	
7,600.00	7,579.60	7,817.01	7,771.37	18.03	19.98	-167.33	222.96	-959.90	1,430.40	1,395.89	34.51	41.444	
7,700.00	7,679.17	7,916.85	7,870.14	18.30	20.29	-167.20	226.60	-945.78	1,425.83	1,390.83	35.00	40.739	
7,800.00	7,778.74	8,016.68	7,968.90	18.56	20.60	-167.06	230.24	-931.66	1,421.27	1,385.78	35.48	40.054	
7,900.00	7,878.31	8,116.52	8,067.67	18.82	20.92	-166.92	233.88	-917.55	1,416.72	1,380.75	35.97	39.386	
8,000.00	7,977.88	8,216.36	8,166.44	19.09	21.23	-166.79	237.53	-903.43	1,412.17	1,375.71	36.46	38.736	
8,100.00	8,077.45	8,316.20	8,265.21	19.35	21.54	-166.65	241.17	-889.31	1,407.63	1,370.69	36.94	38.102	
8,200.00	8,177.02	8,416.04	8,363.98	19.61	21.86	-166.51	244.81	-875.19	1,403.10	1,365.67	37.43	37.484	
8,300.00	8,276.59	8,515.88	8,462.75	19.88	22.17	-166.37	248.45	-861.08	1,398.58	1,360.66	37.92	36.882	
8,400.00	8,376.16	8,615.72	8,561.51	20.14	22.49	-166.23	252.09	-846.96	1,394.07	1,355.66	38.41	36.295	
8,500.00	8,475.73	8,715.56	8,660.28	20.41	22.80	-166.08	255.73	-832.84	1,389.57	1,350.67	38.90	35.722	
8,600.00	8,575.30	8,815.39	8,759.05	20.67	23.12	-165.94	259.37	-818.72	1,385.07	1,345.68	39.39	35.163	
8,700.00	8,674.87	8,915.23	8,857.82	20.94	23.43	-165.80	263.02	-804.61	1,380.58	1,340.70	39.88	34.617	
8,800.00	8,774.44	9,015.07	8,956.59	21.20	23.75	-165.65	266.66	-790.49	1,376.11	1,335.73	40.37	34.084	
8,900.00	8,874.01	9,114.91	9,055.36	21.47	24.06	-165.50	270.30	-776.37	1,371.64	1,330.77	40.87	33.564	
9,000.00	8,973.58	9,214.75	9,154.12	21.73	24.38	-165.36	273.94	-762.25	1,367.18	1,325.82	41.36	33.056	
9,100.00	9,073.15	9,314.59	9,252.89	22.00	24.70	-165.21	277.58	-748.14	1,362.73	1,320.87	41.85	32.559	
9,200.00	9,172.72	9,414.43	9,351.66	22.26	25.01	-165.06	281.22	-734.02	1,358.29	1,315.94	42.35	32.074	
9,300.00	9,272.29	9,514.26	9,450.43	22.53	25.33	-164.91	284.87	-719.90	1,353.85	1,311.01	42.84	31.600	
9,400.00	9,371.86	9,614.10	9,549.20	22.79	25.65	-164.76	288.51	-705.78	1,349.43	1,306.09	43.34	31.136	
9,500.00	9,471.43	9,713.94	9,647.97	23.06	25.96	-164.61	292.15	-691.67	1,345.02	1,301.18	43.84	30.683	
9,600.00	9,571.00	9,813.78	9,746.73	23.32	26.28	-164.45	295.79	-677.55	1,340.61	1,296.28	44.33	30.239	
9,700.00	9,670.57	9,913.62	9,845.50	23.59	26.60	-164.30	299.43	-663.43	1,336.22	1,291.39	44.83	29.805	
9,800.00	9,770.14	10,013.46	9,944.27	23.85	26.92	-164.14	303.07	-649.31	1,331.83	1,286.50	45.33	29.380	
9,900.00	9,869.72	10,113.30	10,043.04	24.12	27.24	-163.99	306.71	-635.20	1,327.46	1,281.63	45.83	28.965	
10,000.00	9,969.29	10,213.14	10,141.81	24.38	27.55	-163.83	310.36	-621.08	1,323.09	1,276.76	46.33	28.558	
10,100.00	10,068.86	10,312.97	10,240.58	24.65	27.87	-163.67	314.00	-606.96	1,318.74	1,271.91	46.83	28.159	
10,200.00	10,168.43	10,412.81	10,339.34	24.92	28.19	-163.51	317.64	-592.84	1,314.39	1,267.06	47.33	27.769	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 8H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,300.00	10,268.00	10,512.65	10,438.11	25.18	28.51	-163.35	321.28	-578.73	1,310.06	1,262.22	47.84	27.387	
10,400.00	10,367.57	10,600.00	10,524.57	25.45	28.76	-163.22	324.38	-566.69	1,306.10	1,257.79	48.31	27.036	
10,500.00	10,467.14	10,682.73	10,606.62	25.71	28.96	-163.11	327.03	-556.43	1,303.40	1,254.65	48.75	26.738	
10,600.00	10,566.71	10,765.72	10,689.07	25.98	29.14	-163.03	329.39	-547.28	1,302.01	1,252.84	49.17	26.477	
10,656.30	10,622.76	10,812.46	10,735.56	26.13	29.25	-162.99	330.59	-542.64	1,301.81	1,252.39	49.41	26.347 CC	
10,700.00	10,666.28	10,848.74	10,771.68	26.25	29.32	-162.97	331.45	-539.29	1,301.93	1,252.34	49.59	26.253	
10,800.00	10,765.85	10,931.77	10,854.41	26.51	29.49	-162.93	333.22	-532.45	1,303.15	1,253.16	50.00	26.065	
10,900.00	10,865.42	11,014.76	10,937.19	26.78	29.66	-162.92	334.68	-526.78	1,305.67	1,255.28	50.39	25.911	
11,004.37	10,969.33	11,100.00	11,022.30	27.06	29.81	-162.93	335.87	-522.17	1,309.70	1,258.91	50.79	25.787	
11,100.00	11,064.63	11,180.55	11,102.77	27.28	29.96	-162.96	336.70	-518.94	1,313.86	1,262.73	51.12	25.699	
11,200.00	11,164.40	11,263.37	11,185.56	27.47	30.09	-163.00	337.26	-516.76	1,317.85	1,266.41	51.44	25.619	
11,300.00	11,264.27	11,346.15	11,268.34	27.66	30.22	-163.05	337.53	-515.73	1,321.48	1,269.73	51.74	25.538	
11,400.00	11,364.22	11,439.53	11,361.72	27.83	30.38	-163.09	337.55	-515.65	1,324.48	1,272.40	52.09	25.428	
11,500.00	11,464.21	11,539.52	11,461.71	28.00	30.55	-163.11	337.55	-515.65	1,325.92	1,273.46	52.46	25.275	
11,535.79	11,500.00	11,575.31	11,497.50	28.06	30.62	-78.58	337.55	-515.65	1,326.02	1,273.43	52.59	25.212	
11,600.00	11,564.21	11,639.52	11,561.71	28.17	30.73	-78.58	337.55	-515.65	1,326.02	1,273.18	52.85	25.092	
11,700.00	11,664.21	11,739.52	11,661.71	28.36	30.91	-78.58	337.55	-515.65	1,326.02	1,272.78	53.25	24.903	
11,800.00	11,764.21	11,839.52	11,761.71	28.55	31.09	-78.58	337.55	-515.65	1,326.02	1,272.37	53.65	24.717	
11,900.00	11,864.21	11,939.52	11,861.71	28.74	31.27	-78.58	337.55	-515.65	1,326.02	1,271.97	54.05	24.533	
12,006.83	11,971.04	12,046.35	11,968.54	28.95	31.46	-78.58	337.55	-515.65	1,326.02	1,271.54	54.48	24.339	
12,050.00	12,014.17	12,089.48	12,011.67	29.03	31.54	101.46	337.55	-515.65	1,326.34	1,271.69	54.65	24.268	
12,100.00	12,063.80	12,139.11	12,061.30	29.11	31.63	101.59	337.55	-515.65	1,327.54	1,272.68	54.86	24.200	
12,150.00	12,112.72	12,188.03	12,110.22	29.19	31.71	101.80	337.55	-515.65	1,329.66	1,274.60	55.06	24.148	
12,200.00	12,160.57	12,235.88	12,158.07	29.27	31.80	102.08	337.55	-515.65	1,332.78	1,277.51	55.27	24.112	
12,250.00	12,206.97	12,282.29	12,204.47	29.35	31.89	102.39	337.55	-515.65	1,337.02	1,281.53	55.49	24.095	
12,300.00	12,251.58	12,326.89	12,249.08	29.43	31.97	102.70	337.55	-515.65	1,342.48	1,286.77	55.71	24.099	
12,350.00	12,294.05	12,369.37	12,291.55	29.50	32.04	102.96	337.55	-515.65	1,349.31	1,293.39	55.93	24.126	
12,400.00	12,334.07	12,432.20	12,354.37	29.58	32.15	103.71	336.58	-515.65	1,357.58	1,301.37	56.20	24.156	
12,450.00	12,371.32	12,578.47	12,497.72	29.66	32.32	106.08	309.63	-515.65	1,365.33	1,308.93	56.41	24.204	
12,500.00	12,405.53	12,763.48	12,661.55	29.74	32.46	108.07	225.39	-515.65	1,370.63	1,314.49	56.14	24.413	
12,550.00	12,436.43	12,974.78	12,804.77	29.83	32.55	108.64	71.66	-515.65	1,371.98	1,316.29	55.69	24.635	
12,600.00	12,463.78	13,178.79	12,881.46	29.93	32.72	107.39	-116.22	-515.65	1,368.92	1,312.98	55.94	24.472	
12,650.00	12,487.39	13,313.09	12,894.00	30.04	32.96	105.84	-249.64	-515.65	1,362.63	1,305.93	56.71	24.030	
12,700.00	12,507.07	13,359.03	12,894.00	30.17	33.07	105.66	-295.59	-515.65	1,356.86	1,299.74	57.11	23.757	
12,750.00	12,522.67	13,406.52	12,894.00	30.31	33.21	105.48	-343.08	-515.65	1,352.46	1,294.93	57.53	23.509	
12,800.00	12,534.07	13,455.19	12,894.00	30.47	33.36	105.32	-391.74	-515.65	1,349.35	1,291.37	57.98	23.271	
12,850.00	12,541.18	13,504.66	12,894.00	30.65	33.54	105.22	-441.22	-515.65	1,347.46	1,289.02	58.45	23.055	
12,900.00	12,543.96	13,554.57	12,894.00	30.84	33.74	105.17	-491.12	-515.65	1,346.73	1,287.79	58.95	22.847	
12,906.83	12,544.00	13,561.40	12,894.00	30.87	33.77	105.17	-497.96	-515.65	1,346.72	1,287.71	59.01	22.820	
13,000.00	12,544.00	13,654.57	12,894.00	31.30	34.20	105.17	-591.12	-515.65	1,346.72	1,286.70	60.02	22.438	
13,100.00	12,544.00	13,754.57	12,894.00	31.84	34.73	105.17	-691.12	-515.65	1,346.72	1,285.48	61.24	21.990	
13,200.00	12,544.00	13,854.57	12,894.00	32.45	35.34	105.17	-791.12	-515.65	1,346.72	1,284.12	62.60	21.513	
13,300.00	12,544.00	13,954.57	12,894.00	33.13	36.01	105.17	-891.12	-515.65	1,346.72	1,282.63	64.09	21.014	
13,400.00	12,544.00	14,054.57	12,894.00	33.87	36.75	105.17	-991.12	-515.65	1,346.72	1,281.02	65.70	20.499	
13,500.00	12,544.00	14,154.57	12,894.00	34.68	37.55	105.17	-1,091.12	-515.65	1,346.72	1,279.30	67.42	19.976	
13,600.00	12,544.00	14,254.57	12,894.00	35.54	38.40	105.17	-1,191.12	-515.65	1,346.72	1,277.48	69.24	19.450	
13,700.00	12,544.00	14,354.57	12,894.00	36.46	39.31	105.17	-1,291.12	-515.65	1,346.72	1,275.56	71.16	18.926	
13,800.00	12,544.00	14,454.57	12,894.00	37.43	40.26	105.17	-1,391.12	-515.65	1,346.72	1,273.56	73.17	18.407	
13,900.00	12,544.00	14,554.57	12,894.00	38.44	41.26	105.17	-1,491.12	-515.65	1,346.72	1,271.47	75.25	17.896	
14,000.00	12,544.00	14,654.57	12,894.00	39.49	42.29	105.17	-1,591.12	-515.65	1,346.72	1,269.31	77.41	17.396	
14,100.00	12,544.00	14,754.57	12,894.00	40.59	43.37	105.17	-1,691.12	-515.65	1,346.72	1,267.08	79.64	16.909	
14,200.00	12,544.00	14,854.57	12,894.00	41.71	44.48	105.17	-1,791.12	-515.65	1,346.72	1,264.78	81.94	16.436	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 8H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)					
14,300.00	12,544.00	14,954.57	12,894.00	42.88	45.62	105.17	-1,891.12	-515.65	1,346.72	1,262.43	15.978		
14,400.00	12,544.00	15,054.57	12,894.00	44.07	46.79	105.17	-1,991.12	-515.65	1,346.72	1,280.03	15.535		
14,500.00	12,544.00	15,154.57	12,894.00	45.28	47.99	105.17	-2,091.12	-515.65	1,346.72	1,257.58	15.107		
14,600.00	12,544.00	15,254.57	12,894.00	46.53	49.21	105.17	-2,191.12	-515.65	1,346.72	1,255.08	14.696		
14,700.00	12,544.00	15,354.57	12,894.00	47.80	50.46	105.17	-2,291.12	-515.65	1,346.72	1,252.54	14.300		
14,800.00	12,544.00	15,454.57	12,894.00	49.08	51.73	105.17	-2,391.12	-515.65	1,346.72	1,249.97	13.919		
14,900.00	12,544.00	15,554.57	12,894.00	50.39	53.02	105.17	-2,491.12	-515.65	1,346.72	1,247.36	13.553		
15,000.00	12,544.00	15,654.57	12,894.00	51.72	54.32	105.17	-2,591.12	-515.65	1,346.72	1,244.71	13.202		
15,100.00	12,544.00	15,754.57	12,894.00	53.07	55.65	105.17	-2,691.12	-515.65	1,346.72	1,242.04	12.865		
15,200.00	12,544.00	15,854.57	12,894.00	54.43	56.99	105.17	-2,791.12	-515.65	1,346.72	1,239.34	12.542		
15,300.00	12,544.00	15,954.57	12,894.00	55.80	58.34	105.17	-2,891.12	-515.65	1,346.72	1,236.62	12.231		
15,400.00	12,544.00	16,054.57	12,894.00	57.19	59.71	105.17	-2,991.12	-515.65	1,346.72	1,233.87	11.933		
15,500.00	12,544.00	16,154.57	12,894.00	58.59	61.10	105.17	-3,091.12	-515.65	1,346.72	1,231.10	11.647		
15,600.00	12,544.00	16,254.57	12,894.00	60.01	62.49	105.17	-3,191.12	-515.65	1,346.72	1,228.30	11.373		
15,700.00	12,544.00	16,354.57	12,894.00	61.43	63.90	105.17	-3,291.12	-515.65	1,346.72	1,225.49	11.109		
15,800.00	12,544.00	16,454.57	12,894.00	62.87	65.32	105.17	-3,391.12	-515.65	1,346.72	1,222.66	10.856		
15,900.00	12,544.00	16,554.57	12,894.00	64.31	66.74	105.17	-3,491.12	-515.65	1,346.72	1,219.82	10.612		
16,000.00	12,544.00	16,654.57	12,894.00	65.76	68.18	105.17	-3,591.12	-515.65	1,346.72	1,216.96	10.378		
16,100.00	12,544.00	16,754.57	12,894.00	67.22	69.63	105.17	-3,691.12	-515.65	1,346.72	1,214.08	10.153		
16,200.00	12,544.00	16,854.57	12,894.00	68.69	71.08	105.17	-3,791.12	-515.65	1,346.72	1,211.19	9.937		
16,300.00	12,544.00	16,954.57	12,894.00	70.17	72.54	105.17	-3,891.12	-515.65	1,346.72	1,208.29	9.729		
16,400.00	12,544.00	17,054.57	12,894.00	71.65	74.01	105.17	-3,991.12	-515.65	1,346.72	1,205.38	9.528		
16,500.00	12,544.00	17,154.57	12,894.00	73.14	75.48	105.17	-4,091.12	-515.65	1,346.72	1,202.45	9.335		
16,600.00	12,544.00	17,254.57	12,894.00	74.64	76.97	105.17	-4,191.12	-515.65	1,346.72	1,199.52	9.149		
16,700.00	12,544.00	17,354.57	12,894.00	76.14	78.45	105.17	-4,291.12	-515.65	1,346.72	1,196.57	8.969		
16,800.00	12,544.00	17,454.57	12,894.00	77.65	79.95	105.17	-4,391.12	-515.65	1,346.72	1,193.62	8.796		
16,900.00	12,544.00	17,554.57	12,894.00	79.16	81.44	105.17	-4,491.12	-515.65	1,346.72	1,190.66	8.629		
17,000.00	12,544.00	17,654.57	12,894.00	80.67	82.95	105.17	-4,591.12	-515.65	1,346.72	1,187.69	8.468		
17,100.00	12,544.00	17,754.57	12,894.00	82.20	84.46	105.17	-4,691.12	-515.65	1,346.72	1,184.71	8.312		
17,200.00	12,544.00	17,854.57	12,894.00	83.72	85.97	105.17	-4,791.12	-515.65	1,346.72	1,181.72	8.162		
17,300.00	12,544.00	17,954.57	12,894.00	85.25	87.49	105.17	-4,891.12	-515.65	1,346.72	1,178.73	8.016		
17,400.00	12,544.00	18,054.57	12,894.00	86.78	89.01	105.17	-4,991.12	-515.65	1,346.72	1,175.73	7.876		
17,500.00	12,544.00	18,154.57	12,894.00	88.32	90.54	105.17	-5,091.12	-515.65	1,346.72	1,172.72	7.740		
17,600.00	12,544.00	18,254.57	12,894.00	89.86	92.07	105.17	-5,191.12	-515.65	1,346.72	1,169.71	7.608		
17,700.00	12,544.00	18,354.57	12,894.00	91.41	93.60	105.17	-5,291.12	-515.65	1,346.72	1,166.69	7.480		
17,800.00	12,544.00	18,454.57	12,894.00	92.95	95.13	105.17	-5,391.12	-515.65	1,346.72	1,163.66	7.357		
17,900.00	12,544.00	18,554.57	12,894.00	94.50	96.67	105.17	-5,491.12	-515.65	1,346.72	1,160.63	7.237		
18,000.00	12,544.00	18,654.57	12,894.00	96.05	98.22	105.17	-5,591.12	-515.65	1,346.72	1,157.60	7.121		
18,100.00	12,544.00	18,754.57	12,894.00	97.61	99.76	105.17	-5,691.12	-515.65	1,346.72	1,154.56	7.008		
18,200.00	12,544.00	18,854.57	12,894.00	99.17	101.31	105.17	-5,791.12	-515.65	1,346.72	1,151.52	6.899		
18,300.00	12,544.00	18,954.57	12,894.00	100.73	102.86	105.17	-5,891.12	-515.65	1,346.72	1,148.47	6.793		
18,400.00	12,544.00	19,054.57	12,894.00	102.29	104.42	105.17	-5,991.12	-515.65	1,346.72	1,145.42	6.690		
18,500.00	12,544.00	19,154.57	12,894.00	103.85	105.97	105.17	-6,091.12	-515.65	1,346.72	1,142.36	6.590		
18,600.00	12,544.00	19,254.57	12,894.00	105.42	107.53	105.17	-6,191.12	-515.65	1,346.72	1,139.31	6.493		
18,700.00	12,544.00	19,354.57	12,894.00	106.99	109.09	105.17	-6,291.12	-515.65	1,346.72	1,136.24	6.398		
18,800.00	12,544.00	19,454.57	12,894.00	108.56	110.65	105.17	-6,391.12	-515.65	1,346.72	1,133.18	6.307		
18,900.00	12,544.00	19,554.57	12,894.00	110.13	112.22	105.17	-6,491.12	-515.65	1,346.72	1,130.11	6.217		
19,000.00	12,544.00	19,654.57	12,894.00	111.71	113.78	105.17	-6,591.12	-515.65	1,346.72	1,127.04	6.130		
19,100.00	12,544.00	19,754.57	12,894.00	113.28	115.35	105.17	-6,691.12	-515.65	1,346.72	1,123.96	6.046		
19,200.00	12,544.00	19,854.57	12,894.00	114.86	116.92	105.17	-6,791.12	-515.65	1,346.72	1,120.88	5.963		
19,300.00	12,544.00	19,954.57	12,894.00	116.44	118.50	105.17	-6,891.12	-515.65	1,346.72	1,117.80	5.883		
19,400.00	12,544.00	20,054.57	12,894.00	118.02	120.07	105.17	-6,991.12	-515.65	1,346.72	1,114.72	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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - 8H - OH - Plan #1														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			
19,500.00	12,544.00	20,154.57	12,894.00	119.60	121.64	105.17	-7,091.12	-515.65	1,346.72	1,111.63	235.09	5.729			
19,600.00	12,544.00	20,254.57	12,894.00	121.19	123.22	105.17	-7,191.12	-515.65	1,346.72	1,108.54	238.18	5.654			
19,700.00	12,544.00	20,354.57	12,894.00	122.77	124.80	105.17	-7,291.12	-515.65	1,346.72	1,105.45	241.27	5.582			
19,800.00	12,544.00	20,454.57	12,894.00	124.36	126.38	105.17	-7,391.12	-515.65	1,346.72	1,102.36	244.36	5.511			
19,900.00	12,544.00	20,554.57	12,894.00	125.95	127.96	105.17	-7,491.12	-515.65	1,346.72	1,099.27	247.46	5.442			
20,000.00	12,544.00	20,654.57	12,894.00	127.53	129.54	105.17	-7,591.12	-515.65	1,346.72	1,096.17	250.55	5.375			
20,100.00	12,544.00	20,754.57	12,894.00	129.12	131.13	105.17	-7,691.12	-515.65	1,346.72	1,093.07	253.65	5.309			
20,200.00	12,544.00	20,854.57	12,894.00	130.72	132.71	105.17	-7,791.12	-515.65	1,346.72	1,089.97	256.75	5.245			
20,300.00	12,544.00	20,954.57	12,894.00	132.31	134.30	105.17	-7,891.12	-515.65	1,346.72	1,086.86	259.86	5.183			
20,400.00	12,544.00	21,054.57	12,894.00	133.90	135.88	105.17	-7,991.12	-515.65	1,346.72	1,083.76	262.96	5.121			
20,500.00	12,544.00	21,154.57	12,894.00	135.49	137.47	105.17	-8,091.12	-515.65	1,346.72	1,080.65	266.07	5.062			
20,600.00	12,544.00	21,254.57	12,894.00	137.09	139.06	105.17	-8,191.12	-515.65	1,346.72	1,077.54	269.18	5.003			
20,700.00	12,544.00	21,354.57	12,894.00	138.68	140.65	105.17	-8,291.12	-515.65	1,346.72	1,074.43	272.29	4.946			
20,800.00	12,544.00	21,454.57	12,894.00	140.28	142.24	105.17	-8,391.12	-515.65	1,346.72	1,071.32	275.40	4.890			
20,900.00	12,544.00	21,554.57	12,894.00	141.88	143.84	105.17	-8,491.12	-515.65	1,346.72	1,068.21	278.51	4.835			
21,000.00	12,544.00	21,654.57	12,894.00	143.48	145.43	105.17	-8,591.12	-515.65	1,346.72	1,065.10	281.63	4.782			
21,100.00	12,544.00	21,754.57	12,894.00	145.08	147.02	105.17	-8,691.12	-515.65	1,346.72	1,061.98	284.74	4.730			
21,200.00	12,544.00	21,854.57	12,894.00	146.68	148.62	105.17	-8,791.12	-515.65	1,346.72	1,058.86	287.86	4.678			
21,300.00	12,544.00	21,954.57	12,894.00	148.28	150.22	105.17	-8,891.12	-515.65	1,346.72	1,055.74	290.98	4.628			
21,400.00	12,544.00	22,054.57	12,894.00	149.88	151.81	105.17	-8,991.12	-515.65	1,346.72	1,052.62	294.10	4.579			
21,500.00	12,544.00	22,154.57	12,894.00	151.48	153.41	105.17	-9,091.12	-515.65	1,346.72	1,049.50	297.22	4.531			
21,600.00	12,544.00	22,254.57	12,894.00	153.08	155.01	105.17	-9,191.12	-515.65	1,346.72	1,046.38	300.34	4.484			
21,700.00	12,544.00	22,354.57	12,894.00	154.69	156.61	105.17	-9,291.12	-515.65	1,346.72	1,043.26	303.46	4.438			
21,800.00	12,544.00	22,454.57	12,894.00	156.29	158.21	105.17	-9,391.12	-515.65	1,346.72	1,040.13	306.59	4.393			
21,900.00	12,544.00	22,554.57	12,894.00	157.90	159.81	105.17	-9,491.12	-515.65	1,346.72	1,037.01	309.71	4.348			
22,000.00	12,544.00	22,654.57	12,894.00	159.50	161.41	105.17	-9,591.12	-515.65	1,346.72	1,033.88	312.84	4.305			
22,100.00	12,544.00	22,754.57	12,894.00	161.11	163.01	105.17	-9,691.12	-515.65	1,346.72	1,030.75	315.97	4.262			
22,181.55	12,544.00	22,836.12	12,894.00	162.42	164.32	105.17	-9,772.67	-515.65	1,346.72	1,028.20	318.52	4.228 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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - Fighting Okra Fed Com 1H (offset) - OH - OH												Offset Site Error: 0.00 usft
Survey Program: 119- VES GyroFlex V2. 9389-MWD-ISCWSA												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)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	
0.00	0.00	0.00	0.00	0.00	0.00	-119.28	-2,170.54	-3,871.26	4,438.24			
100.00	100.00	112.18	112.18	0.08	0.08	-119.28	-2,170.52	-3,870.96	4,438.01	4,437.84	0.17	N/A
200.00	200.00	234.63	234.62	0.31	0.20	-119.29	-2,170.67	-3,869.82	4,437.26	4,436.75	0.52	8,591.373
300.00	300.00	353.04	353.02	0.53	0.29	-119.30	-2,170.81	-3,868.07	4,436.03	4,435.21	0.82	5,402.021
400.00	400.00	452.30	452.27	0.76	0.35	-119.31	-2,170.72	-3,866.45	4,434.56	4,433.46	1.10	4,032.203
500.00	500.00	544.81	544.77	0.98	0.40	-119.32	-2,170.81	-3,865.03	4,433.26	4,431.89	1.37	3,238.063
600.00	600.00	640.26	640.20	1.21	0.44	-119.33	-2,170.97	-3,863.65	4,432.08	4,430.45	1.64	2,708.054
700.00	700.00	742.11	742.05	1.43	0.49	-119.34	-2,171.11	-3,862.27	4,430.97	4,429.07	1.90	2,326.014
800.00	800.00	848.54	848.47	1.66	0.54	-119.35	-2,171.08	-3,860.76	4,429.73	4,427.55	2.17	2,037.679
900.00	900.00	946.32	946.24	1.88	0.58	-119.36	-2,171.12	-3,859.27	4,428.42	4,425.98	2.44	1,817.047
1,000.00	1,000.00	1,024.57	1,024.47	2.11	0.61	-119.37	-2,171.29	-3,858.21	4,427.35	4,424.66	2.69	1,646.387
1,100.00	1,100.00	1,113.24	1,113.15	2.33	0.65	-119.38	-2,171.78	-3,857.39	4,426.81	4,423.87	2.94	1,504.533
1,200.00	1,200.00	1,223.70	1,223.59	2.56	0.69	-119.39	-2,172.33	-3,856.29	4,426.18	4,422.98	3.20	1,382.648
1,300.00	1,300.00	1,334.09	1,333.97	2.78	0.74	-119.41	-2,172.96	-3,854.83	4,425.31	4,421.85	3.46	1,278.820
1,400.00	1,400.00	1,399.58	1,399.46	3.01	0.76	-119.42	-2,173.30	-3,854.11	4,424.65	4,420.95	3.70	1,195.641
1,422.23	1,422.23	1,412.66	1,412.53	3.06	0.76	-119.42	-2,173.40	-3,854.04	4,424.62	4,420.87	3.75	1,178.807
1,500.00	1,500.00	1,469.09	1,468.96	3.23	0.78	-119.43	-2,173.93	-3,853.97	4,424.87	4,420.93	3.94	1,123.569
1,600.00	1,600.00	1,576.52	1,576.39	3.46	0.81	-119.44	-2,175.08	-3,853.87	4,425.33	4,421.15	4.18	1,059.356
1,700.00	1,700.00	1,679.98	1,679.84	3.68	0.84	-119.46	-2,176.30	-3,853.39	4,425.50	4,421.08	4.42	1,001.584
1,800.00	1,800.00	1,773.43	1,773.28	3.91	0.86	-119.47	-2,177.49	-3,853.10	4,425.85	4,421.19	4.66	950.197
1,900.00	1,900.00	1,875.20	1,875.04	4.13	0.89	-119.49	-2,178.97	-3,852.70	4,426.22	4,421.32	4.90	903.734
2,000.00	2,000.00	1,985.99	1,985.83	4.35	0.93	-119.51	-2,180.09	-3,852.39	4,426.48	4,421.34	5.14	861.256
2,100.00	2,100.00	2,087.90	2,087.73	4.58	0.96	-119.52	-2,180.98	-3,851.94	4,426.53	4,421.14	5.38	822.568
2,200.00	2,200.00	2,190.72	2,190.54	4.80	1.00	-119.53	-2,182.08	-3,851.36	4,426.56	4,420.94	5.62	787.156
2,300.00	2,300.00	2,313.51	2,313.33	5.03	1.04	-119.55	-2,182.97	-3,850.41	4,426.23	4,420.36	5.87	753.621
2,400.00	2,400.00	2,409.55	2,409.36	5.25	1.07	-119.56	-2,183.25	-3,849.83	4,425.85	4,419.73	6.12	723.168
2,500.00	2,500.00	2,581.83	2,581.63	5.48	1.12	-119.57	-2,182.85	-3,847.67	4,424.67	4,418.28	6.39	692.501
2,600.00	2,599.99	2,687.15	2,686.92	5.69	1.16	155.90	-2,182.46	-3,845.35	4,423.38	4,416.75	6.63	667.163
2,675.66	2,675.63	2,789.96	2,789.69	5.84	1.19	155.90	-2,182.11	-3,842.61	4,423.16	4,416.35	6.81	649.560 CC
2,700.00	2,699.96	2,823.17	2,822.89	5.89	1.20	155.90	-2,182.10	-3,841.51	4,423.18	4,416.31	6.87	644.126
2,800.00	2,799.86	2,929.53	2,929.15	6.10	1.24	155.88	-2,182.86	-3,837.22	4,423.99	4,416.90	7.10	623.372
2,900.00	2,899.68	3,022.02	3,021.52	6.30	1.27	155.85	-2,184.75	-3,832.89	4,426.51	4,419.18	7.32	604.377
3,000.00	2,999.37	3,129.38	3,128.71	6.52	1.31	155.81	-2,187.59	-3,827.57	4,430.67	4,423.12	7.56	586.395
3,031.43	3,030.67	3,172.06	3,171.32	6.58	1.32	155.80	-2,188.59	-3,825.41	4,432.24	4,424.60	7.63	580.793
3,100.00	3,098.94	3,278.29	3,277.41	6.73	1.36	155.80	-2,189.90	-3,820.01	4,435.42	4,427.62	7.80	568.625
3,200.00	3,198.51	3,391.98	3,390.95	6.96	1.40	155.83	-2,189.70	-3,814.16	4,439.31	4,431.27	8.04	551.966
3,300.00	3,298.08	3,496.06	3,494.90	7.18	1.43	155.85	-2,188.88	-3,809.20	4,443.24	4,434.95	8.29	536.221
3,400.00	3,397.65	3,582.78	3,581.52	7.41	1.46	155.87	-2,188.59	-3,804.79	4,447.12	4,438.60	8.53	521.508
3,500.00	3,497.22	3,671.60	3,670.24	7.64	1.49	155.89	-2,188.29	-3,800.71	4,451.42	4,442.65	8.77	507.537
3,600.00	3,596.79	3,778.21	3,776.74	7.87	1.53	155.92	-2,187.73	-3,795.95	4,455.74	4,446.72	9.02	493.985
3,700.00	3,696.36	3,883.40	3,881.83	8.11	1.56	155.96	-2,186.10	-3,791.63	4,459.87	4,450.60	9.27	481.025
3,800.00	3,795.93	3,976.83	3,975.17	8.34	1.58	156.01	-2,183.78	-3,788.30	4,464.02	4,454.50	9.52	468.799
3,900.00	3,895.51	4,057.05	4,055.33	8.58	1.60	156.06	-2,181.71	-3,785.74	4,468.45	4,458.68	9.77	457.357
4,000.00	3,995.08	4,137.29	4,135.50	8.82	1.61	156.11	-2,179.22	-3,783.87	4,473.37	4,463.35	10.02	446.512
4,100.00	4,094.65	4,211.73	4,209.90	9.06	1.63	156.16	-2,177.11	-3,782.37	4,478.72	4,468.46	10.27	436.280
4,200.00	4,194.22	4,281.11	4,279.26	9.31	1.64	156.20	-2,175.79	-3,781.26	4,484.85	4,474.33	10.51	426.635
4,300.00	4,293.79	4,368.19	4,366.32	9.55	1.66	156.25	-2,174.67	-3,780.05	4,491.48	4,480.71	10.77	417.227
4,400.00	4,393.36	4,543.33	4,541.39	9.80	1.71	156.33	-2,172.65	-3,775.54	4,497.05	4,486.00	11.05	407.125
4,500.00	4,492.93	4,659.51	4,657.45	10.05	1.75	156.35	-2,172.69	-3,770.37	4,501.65	4,490.34	11.31	398.136
4,600.00	4,592.50	4,754.11	4,751.92	10.30	1.79	156.35	-2,173.98	-3,765.56	4,506.35	4,494.79	11.56	389.847
4,700.00	4,692.07	4,801.93	4,799.67	10.55	1.80	156.35	-2,175.02	-3,763.36	4,511.77	4,499.97	11.80	382.395
4,800.00	4,791.64	4,868.28	4,865.96	10.80	1.83	156.35	-2,176.61	-3,760.86	4,518.10	4,506.06	12.04	375.217

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - Fighting Okra Fed Com 1H (offset) - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 119- VES GyroFlex V2, 9389-MWD-ISCWSA													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	4,891.21	4,967.13	4,964.73	11.05	1.86	156.35	-2,178.93	-3,757.54	4,524.80	4,512.51	12.29	368.178	
5,000.00	4,990.78	5,079.22	5,076.74	11.30	1.90	156.36	-2,180.93	-3,753.80	4,531.23	4,518.69	12.54	361.254	
5,100.00	5,090.35	5,168.01	5,165.47	11.55	1.93	156.36	-2,182.47	-3,750.88	4,537.70	4,524.91	12.79	354.722	
5,200.00	5,189.92	5,265.65	5,263.06	11.81	1.96	156.38	-2,183.82	-3,748.22	4,544.48	4,531.43	13.04	348.383	
5,300.00	5,289.49	5,366.18	5,363.54	12.06	2.00	156.40	-2,184.57	-3,744.88	4,550.84	4,537.53	13.31	342.006	
5,400.00	5,389.06	5,460.03	5,457.36	12.32	2.03	156.42	-2,184.98	-3,742.85	4,557.24	4,543.68	13.56	336.200	
5,500.00	5,488.63	5,533.62	5,530.92	12.57	2.05	156.43	-2,186.08	-3,741.17	4,564.43	4,550.63	13.80	330.705	
5,600.00	5,588.20	5,656.10	5,653.36	12.83	2.10	156.46	-2,187.23	-3,738.48	4,571.44	4,557.38	14.06	325.094	
5,700.00	5,687.77	5,737.46	5,734.71	13.09	2.12	156.48	-2,187.66	-3,736.79	4,578.40	4,564.09	14.31	319.889	
5,800.00	5,787.34	5,806.61	5,803.84	13.34	2.15	156.50	-2,188.71	-3,735.54	4,586.04	4,571.48	14.56	315.032	
5,900.00	5,886.91	5,907.30	5,904.50	13.60	2.18	156.52	-2,190.39	-3,733.96	4,593.97	4,579.17	14.80	310.319	
6,000.00	5,986.48	6,020.30	6,017.48	13.86	2.21	156.54	-2,191.89	-3,732.20	4,601.75	4,586.70	15.06	305.657	
6,100.00	6,086.05	6,127.79	6,124.93	14.12	2.25	156.56	-2,193.47	-3,730.08	4,609.23	4,593.93	15.31	301.111	
6,200.00	6,185.62	6,207.66	6,204.78	14.38	2.27	156.57	-2,194.74	-3,728.51	4,616.81	4,601.26	15.55	296.850	
6,300.00	6,285.19	6,276.50	6,273.60	14.64	2.29	156.58	-2,196.14	-3,727.56	4,625.07	4,609.27	15.79	292.837	
6,400.00	6,384.76	6,398.47	6,395.55	14.90	2.33	156.61	-2,198.00	-3,726.23	4,633.34	4,617.30	16.04	288.831	
6,500.00	6,484.33	6,502.63	6,499.69	15.16	2.36	156.64	-2,199.05	-3,725.01	4,641.31	4,625.02	16.29	284.896	
6,600.00	6,583.90	6,590.46	6,587.51	15.42	2.39	156.66	-2,200.29	-3,723.88	4,649.37	4,632.83	16.54	281.155	
6,700.00	6,683.47	6,687.66	6,684.69	15.68	2.42	156.68	-2,201.79	-3,722.91	4,657.74	4,640.96	16.78	277.551	
6,800.00	6,783.04	6,807.57	6,804.59	15.94	2.46	156.72	-2,202.92	-3,721.60	4,665.74	4,648.71	17.03	273.894	
6,900.00	6,882.61	6,887.12	6,884.13	16.20	2.48	156.74	-2,203.56	-3,720.74	4,673.72	4,656.44	17.28	270.448	
7,000.00	6,982.18	6,953.18	6,950.18	16.46	2.50	156.75	-2,204.71	-3,720.18	4,682.33	4,664.81	17.52	267.227	
7,100.00	7,081.75	7,024.51	7,021.50	16.72	2.51	156.77	-2,206.05	-3,720.23	4,691.75	4,674.00	17.76	264.225	
7,200.00	7,181.32	7,144.11	7,141.08	16.98	2.52	156.81	-2,207.80	-3,720.55	4,701.22	4,683.24	17.98	261.427	
7,300.00	7,280.89	7,263.76	7,260.72	17.25	2.54	156.85	-2,209.11	-3,720.69	4,710.40	4,692.19	18.21	258.618	
7,400.00	7,380.46	7,372.14	7,369.10	17.51	2.57	156.88	-2,210.38	-3,719.90	4,718.83	4,700.37	18.45	255.711	
7,500.00	7,480.03	7,492.12	7,489.07	17.77	2.60	156.92	-2,211.21	-3,719.38	4,727.33	4,708.63	18.70	252.791	
7,600.00	7,579.60	7,592.11	7,589.05	18.03	2.64	156.95	-2,211.80	-3,718.33	4,735.21	4,716.26	18.95	249.815	
7,700.00	7,679.17	7,686.71	7,683.64	18.30	2.67	156.98	-2,212.84	-3,717.34	4,743.34	4,724.14	19.20	247.012	
7,800.00	7,778.74	11,842.00	9,811.74	18.56	57.10	-175.58	-20.36	-3,815.32	4,742.45	4,674.35	68.10	69.638	
7,900.00	7,878.31	11,842.00	9,811.74	18.82	57.10	-175.58	-20.36	-3,815.32	4,708.83	4,639.96	68.87	68.374	
8,000.00	7,977.88	11,842.00	9,811.74	19.09	57.10	-175.58	-20.36	-3,815.32	4,677.11	4,607.49	69.62	67.180	
8,100.00	8,077.45	11,842.00	9,811.74	19.35	57.10	-175.58	-20.36	-3,815.32	4,647.32	4,576.96	70.36	66.055	
8,200.00	8,177.02	11,842.00	9,811.74	19.61	57.10	-175.58	-20.36	-3,815.32	4,619.50	4,548.43	71.07	64.998	
8,300.00	8,276.59	11,862.56	9,812.40	19.88	57.58	-175.32	0.19	-3,815.28	4,593.62	4,521.38	72.23	63.594	
8,400.00	8,376.16	11,864.91	9,812.47	20.14	57.64	-175.28	2.54	-3,815.28	4,569.83	4,496.87	72.96	62.631	
8,500.00	8,475.73	11,867.26	9,812.55	20.41	57.70	-175.25	4.89	-3,815.28	4,548.12	4,474.45	73.67	61.733	
8,600.00	8,575.30	11,869.62	9,812.62	20.67	57.75	-175.22	7.24	-3,815.28	4,528.51	4,454.16	74.36	60.901	
8,700.00	8,674.87	11,871.97	9,812.70	20.94	57.81	-175.19	9.60	-3,815.28	4,511.04	4,436.02	75.02	60.133	
8,800.00	8,774.44	11,874.33	9,812.78	21.20	57.86	-175.16	11.96	-3,815.29	4,495.71	4,420.06	75.65	59.429	
8,900.00	8,874.01	11,876.70	9,812.86	21.47	57.92	-175.13	14.32	-3,815.29	4,482.57	4,406.32	76.25	58.786	
9,000.00	8,973.58	11,879.06	9,812.93	21.73	57.97	-175.10	16.69	-3,815.30	4,471.62	4,394.79	76.82	58.205	
9,100.00	9,073.15	11,881.43	9,813.01	22.00	58.03	-175.07	19.06	-3,815.30	4,462.88	4,385.51	77.37	57.685	
9,200.00	9,172.72	11,883.80	9,813.09	22.26	58.09	-175.04	21.43	-3,815.31	4,456.37	4,378.49	77.88	57.224	
9,300.00	9,272.29	11,886.18	9,813.17	22.53	58.14	-175.01	23.80	-3,815.32	4,452.09	4,373.73	78.35	56.821	
9,400.00	9,371.86	11,888.56	9,813.24	22.79	58.20	-174.98	26.18	-3,815.33	4,450.05	4,371.25	78.80	56.475	
9,440.74	9,412.42	11,889.53	9,813.28	22.90	58.22	-174.97	27.15	-3,815.33	4,449.86	4,370.90	78.97	56.350 ES	
9,500.00	9,471.43	11,890.94	9,813.32	23.06	58.26	-174.95	28.56	-3,815.34	4,450.26	4,371.05	79.21	56.186	
9,600.00	9,571.00	11,893.32	9,813.40	23.32	58.31	-174.92	30.94	-3,815.35	4,452.71	4,373.13	79.58	55.952	
9,700.00	9,670.57	11,895.71	9,813.48	23.59	58.37	-174.89	33.32	-3,815.36	4,457.40	4,377.48	79.92	55.772	
9,800.00	9,770.14	11,898.10	9,813.56	23.85	58.43	-174.86	35.71	-3,815.37	4,464.33	4,384.10	80.23	55.645	
9,900.00	9,869.72	11,900.49	9,813.64	24.12	58.48	-174.83	38.11	-3,815.39	4,473.48	4,392.98	80.50	55.571	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - Fighting Okra Fed Com 1H (offset) - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 119- VES GyroFlex V2, 9389-MWD-ISCWSA													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	Warning
10,000.00	9,969.29	11,902.89	9,813.72	24.38	58.54	-174.80	40.50	-3,815.40	4,484.84	4,404.09	80.75	55.542	
10,100.00	10,068.86	11,905.29	9,813.80	24.65	58.59	-174.77	42.90	-3,815.42	4,498.39	4,417.26	81.13	55.445	
10,200.00	10,168.43	11,907.69	9,813.88	24.92	58.65	-174.73	45.30	-3,815.43	4,514.11	4,432.63	81.48	55.398 SF	
10,300.00	10,268.00	11,910.09	9,813.96	25.18	58.71	-174.70	47.70	-3,815.45	4,531.99	4,450.18	81.80	55.401	
10,400.00	10,367.57	11,912.50	9,814.04	25.45	58.77	-174.67	50.11	-3,815.47	4,551.99	4,469.90	82.09	55.451	
10,500.00	10,467.14	11,914.91	9,814.12	25.71	58.82	-174.64	52.52	-3,815.49	4,574.08	4,491.74	82.34	55.548	
10,600.00	10,566.71	11,936.00	9,814.84	25.98	59.32	-174.37	73.59	-3,815.70	4,598.31	4,515.31	83.00	55.403	
10,700.00	10,666.28	11,936.00	9,814.84	26.25	59.32	-174.37	73.59	-3,815.70	4,624.49	4,541.36	83.14	55.625	
10,800.00	10,765.85	11,936.00	9,814.84	26.51	59.32	-174.37	73.59	-3,815.70	4,652.68	4,569.43	83.25	55.890	
10,900.00	10,865.42	11,936.00	9,814.84	26.78	59.32	-174.37	73.59	-3,815.70	4,682.83	4,599.50	83.33	56.195	
11,004.37	10,969.33	11,936.00	9,814.84	27.06	59.32	-174.37	73.59	-3,815.70	4,716.35	4,632.96	83.39	56.556	
11,100.00	11,064.63	11,936.00	9,814.84	27.28	59.32	-174.40	73.59	-3,815.70	4,748.13	4,664.72	83.40	56.930	
11,200.00	11,164.40	11,936.00	9,814.84	27.47	59.32	-174.44	73.59	-3,815.70	4,781.59	4,698.22	83.37	57.354	
11,300.00	11,264.27	11,936.00	9,814.84	27.66	59.32	-174.47	73.59	-3,815.70	4,815.26	4,731.95	83.31	57.799	
11,400.00	11,364.22	11,936.00	9,814.84	27.83	59.32	-174.51	73.59	-3,815.70	4,849.15	4,765.92	83.23	58.263	
11,500.00	11,464.21	11,936.00	9,814.84	28.00	59.32	-174.54	73.59	-3,815.70	4,883.22	4,800.09	83.13	58.745	
11,535.79	11,500.00	11,936.00	9,814.84	28.06	59.32	-90.02	73.59	-3,815.70	4,895.46	4,812.37	83.08	58.922	
11,600.00	11,564.21	11,936.00	9,814.84	28.17	59.32	-90.02	73.59	-3,815.70	4,917.80	4,834.79	83.01	59.240	
11,700.00	11,664.21	11,936.00	9,814.84	28.36	59.32	-90.02	73.59	-3,815.70	4,954.06	4,871.16	82.90	59.758	
11,800.00	11,764.21	11,936.00	9,814.84	28.55	59.32	-90.02	73.59	-3,815.70	4,992.06	4,909.28	82.77	60.309	
11,900.00	11,864.21	11,936.00	9,814.84	28.74	59.32	-90.02	73.59	-3,815.70	5,031.76	4,949.12	82.63	60.892	
12,006.83	11,971.04	11,936.00	9,814.84	28.95	59.32	-90.02	73.59	-3,815.70	5,076.00	4,993.53	82.47	61.548	
12,050.00	12,014.17	11,936.00	9,814.84	29.03	59.32	87.95	73.59	-3,815.70	5,094.39	5,011.99	82.40	61.826	
12,100.00	12,063.80	11,936.00	9,814.84	29.11	59.32	85.57	73.59	-3,815.70	5,115.92	5,033.62	82.30	62.160	
12,150.00	12,112.72	11,936.00	9,814.84	29.19	59.32	83.18	73.59	-3,815.70	5,137.55	5,055.35	82.20	62.501	
12,200.00	12,160.57	11,936.00	9,814.84	29.27	59.32	80.82	73.59	-3,815.70	5,159.10	5,077.01	82.09	62.845	
12,250.00	12,206.97	11,936.00	9,814.84	29.35	59.32	78.50	73.59	-3,815.70	5,180.42	5,098.44	81.98	63.190	
12,300.00	12,251.58	11,910.72	9,813.98	29.43	58.72	75.99	48.33	-3,815.45	5,201.25	5,119.90	81.34	63.943	
12,350.00	12,294.05	11,895.95	9,813.49	29.50	58.37	73.70	33.57	-3,815.36	5,221.47	5,140.55	80.93	64.521	
12,400.00	12,334.07	11,878.98	9,812.93	29.58	57.97	71.53	16.60	-3,815.30	5,240.90	5,160.43	80.47	65.126	
12,450.00	12,371.32	11,842.00	9,811.74	29.66	57.10	69.35	-20.36	-3,815.32	5,259.41	5,179.79	79.62	66.058	
12,500.00	12,405.53	11,842.00	9,811.74	29.74	57.10	67.64	-20.36	-3,815.32	5,276.67	5,197.13	79.53	66.345	
12,550.00	12,436.43	11,818.14	9,810.98	29.83	56.51	65.93	-44.21	-3,815.46	5,292.69	5,213.73	78.95	67.036	
12,600.00	12,463.78	11,795.64	9,810.27	29.93	55.96	64.41	-66.70	-3,815.68	5,307.28	5,228.86	78.42	67.677	
12,650.00	12,487.39	11,771.85	9,809.51	30.04	55.37	63.08	-90.47	-3,816.02	5,320.32	5,242.44	77.88	68.314	
12,700.00	12,507.07	11,529.31	9,806.25	30.17	49.61	61.19	-332.94	-3,817.34	5,330.76	5,257.78	72.98	73.045	
12,750.00	12,522.67	11,492.52	9,806.81	30.31	48.79	60.41	-369.72	-3,817.41	5,338.36	5,266.04	72.32	73.815	
12,800.00	12,534.07	11,453.17	9,807.43	30.47	47.92	59.85	-409.07	-3,817.60	5,343.96	5,272.31	71.64	74.591	
12,850.00	12,541.18	11,404.35	9,808.22	30.65	46.87	59.49	-457.88	-3,817.89	5,347.42	5,276.58	70.84	75.490	
12,900.00	12,543.96	11,366.00	9,808.87	30.84	46.04	59.37	-496.23	-3,818.14	5,348.69	5,278.45	70.25	76.143	
12,906.83	12,544.00	11,366.00	9,808.87	30.87	46.04	59.37	-496.23	-3,818.14	5,348.71	5,278.45	70.26	76.127	
13,000.00	12,544.00	11,320.04	9,809.60	31.30	44.89	59.38	-542.17	-3,818.73	5,349.08	5,279.53	69.54	76.918	
13,100.00	12,544.00	11,272.00	9,810.25	31.84	43.69	59.39	-590.20	-3,819.98	5,350.55	5,281.69	68.86	77.704	
13,200.00	12,544.00	11,188.99	9,810.55	32.45	41.62	59.40	-673.17	-3,822.27	5,352.72	5,285.21	67.51	79.291	
13,300.00	12,544.00	10,930.45	9,813.68	33.13	36.07	59.46	-931.64	-3,826.29	5,353.44	5,290.05	63.39	84.454	
13,400.00	12,544.00	10,644.65	9,826.53	33.87	29.02	59.57	-1,217.12	-3,825.85	5,351.16	5,293.03	58.13	92.057	
13,500.00	12,544.00	10,326.00	9,841.80	34.68	21.65	59.63	-1,535.03	-3,811.40	5,344.66	5,291.94	52.72	101.376	
13,600.00	12,544.00	10,232.00	9,845.65	35.54	18.88	59.63	-1,628.71	-3,804.68	5,336.42	5,285.31	51.11	104.404	
13,700.00	12,544.00	10,114.00	9,845.69	36.46	15.63	59.57	-1,746.05	-3,792.84	5,327.68	5,278.52	49.16	108.374	
13,800.00	12,544.00	10,083.00	9,842.81	37.43	14.71	59.52	-1,776.55	-3,788.20	5,319.66	5,270.51	49.15	108.229	
13,900.00	12,544.00	10,069.21	9,840.82	38.44	14.30	59.49	-1,790.03	-3,786.04	5,313.24	5,263.65	49.59	107.144	
14,000.00	12,544.00	10,051.00	9,837.56	39.49	13.76	59.44	-1,807.71	-3,783.16	5,308.42	5,258.47	49.95	106.274	

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
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 86H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - Fighting Okra Fed Com 1H (offset) - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 119- VES GyroFlex V2, 9389-MWD-ISCWSA													Offset Well Error: 0.00 usft
Reference	Vertical	Offset	Vertical	Semi Major Axis		Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
14,100.00	12,544.00	10,051.00	9,837.56	40.59	13.76	59.44	-1,807.71	-3,783.16	5,305.28	5,254.51	50.77	104.502	
14,200.00	12,544.00	10,019.00	9,830.11	41.71	12.83	59.34	-1,838.42	-3,778.20	5,303.73	5,252.88	50.86	104.289	
14,247.30	12,544.00	10,019.00	9,830.11	42.26	12.83	59.34	-1,838.42	-3,778.20	5,303.52	5,252.26	51.26	103.458	
14,300.00	12,544.00	10,019.00	9,830.11	42.88	12.83	59.34	-1,838.42	-3,778.20	5,303.78	5,252.07	51.71	102.566	
14,400.00	12,544.00	10,004.62	9,826.05	44.07	12.43	59.29	-1,852.05	-3,776.04	5,305.57	5,253.32	52.25	101.538	
14,500.00	12,544.00	9,988.00	9,820.81	45.28	11.95	59.23	-1,867.63	-3,773.62	5,309.04	5,256.29	52.76	100.635	
14,600.00	12,544.00	9,988.00	9,820.81	46.53	11.95	59.23	-1,867.63	-3,773.62	5,314.19	5,260.55	53.64	99.066	
14,700.00	12,544.00	9,957.00	9,809.50	47.80	11.10	59.10	-1,896.17	-3,769.30	5,321.10	5,267.24	53.86	98.794	
14,800.00	12,544.00	9,957.00	9,809.50	49.08	11.10	59.10	-1,896.17	-3,769.30	5,329.46	5,274.70	54.76	97.325	
14,900.00	12,544.00	9,957.00	9,809.50	50.39	11.10	59.10	-1,896.17	-3,769.30	5,339.68	5,284.02	55.66	95.939	
15,000.00	12,544.00	9,925.00	9,795.77	51.72	10.24	58.95	-1,924.76	-3,765.15	5,351.58	5,295.69	55.89	95.746	
15,100.00	12,544.00	9,925.00	9,795.77	53.07	10.24	58.95	-1,924.76	-3,765.15	5,364.95	5,308.16	56.79	94.468	
15,200.00	12,544.00	9,925.00	9,795.77	54.43	10.24	58.95	-1,924.76	-3,765.15	5,380.15	5,322.47	57.68	93.273	
15,300.00	12,544.00	9,894.00	9,780.62	55.80	9.45	58.79	-1,951.53	-3,761.36	5,396.94	5,338.97	57.97	93.104	
15,400.00	12,544.00	9,894.00	9,780.62	57.19	9.45	58.79	-1,951.53	-3,761.36	5,415.25	5,356.40	58.85	92.022	
15,500.00	12,544.00	9,894.00	9,780.62	58.59	9.45	58.79	-1,951.53	-3,761.36	5,435.33	5,375.61	59.72	91.019	
15,600.00	12,544.00	9,862.00	9,763.25	60.01	8.67	58.61	-1,978.16	-3,757.76	5,456.99	5,396.98	60.00	90.942	
15,700.00	12,544.00	9,862.00	9,763.25	61.43	8.67	58.61	-1,978.16	-3,757.76	5,480.08	5,419.23	60.86	90.049	
15,800.00	12,544.00	9,862.00	9,763.25	62.87	8.67	58.61	-1,978.16	-3,757.76	5,504.90	5,443.20	61.69	89.229	
15,900.00	12,544.00	9,847.04	9,754.57	64.31	8.32	58.52	-1,990.25	-3,756.25	5,531.23	5,468.95	62.27	88.821	
16,000.00	12,544.00	9,831.00	9,744.93	65.76	7.96	58.43	-2,002.99	-3,754.78	5,559.17	5,496.35	62.83	88.486	
16,100.00	12,544.00	9,831.00	9,744.93	67.22	7.96	58.43	-2,002.99	-3,754.78	5,588.56	5,524.94	63.62	87.839	
16,200.00	12,544.00	9,831.00	9,744.93	68.69	7.96	58.43	-2,002.99	-3,754.78	5,619.58	5,555.18	64.40	87.258	
16,300.00	12,544.00	9,799.00	9,724.71	70.17	7.25	58.23	-2,027.66	-3,752.25	5,651.99	5,587.29	64.69	87.368	
16,400.00	12,544.00	9,799.00	9,724.71	71.65	7.25	58.23	-2,027.66	-3,752.25	5,685.74	5,620.30	65.44	86.879	
16,500.00	12,544.00	9,799.00	9,724.71	73.14	7.25	58.23	-2,027.66	-3,752.25	5,721.04	5,654.86	66.18	86.449	
16,600.00	12,544.00	9,768.00	9,704.02	74.64	6.60	58.03	-2,050.61	-3,749.91	5,757.58	5,691.09	66.48	86.604	
16,700.00	12,544.00	9,768.00	9,704.02	76.14	6.60	58.03	-2,050.61	-3,749.91	5,795.50	5,728.31	67.19	86.260	
16,800.00	12,544.00	9,737.00	9,682.19	77.65	6.01	57.81	-2,072.46	-3,747.23	5,834.71	5,767.20	67.51	86.426	
16,900.00	12,544.00	9,737.00	9,682.19	79.16	6.01	57.81	-2,072.46	-3,747.23	5,875.17	5,806.98	68.19	86.164	
17,000.00	12,544.00	9,705.00	9,658.67	80.67	5.45	57.58	-2,093.91	-3,744.02	5,916.87	5,848.35	68.52	86.352	
17,100.00	12,544.00	9,689.52	9,647.06	82.20	5.19	57.47	-2,104.01	-3,742.33	5,959.70	5,890.68	69.02	86.342	
17,200.00	12,544.00	9,673.00	9,634.53	83.72	4.93	57.34	-2,114.62	-3,740.47	6,003.68	5,934.17	69.51	86.371	
17,300.00	12,544.00	9,673.00	9,634.53	85.25	4.93	57.34	-2,114.62	-3,740.47	6,048.93	5,978.80	70.13	86.258	
17,400.00	12,544.00	9,642.00	9,610.48	86.78	4.49	57.11	-2,133.86	-3,736.98	6,095.33	6,024.84	70.49	86.473	
17,500.00	12,544.00	9,642.00	9,610.48	88.32	4.49	57.11	-2,133.86	-3,736.98	6,142.84	6,071.77	71.07	86.429	
17,600.00	12,544.00	9,642.00	9,610.48	89.86	4.49	57.11	-2,133.86	-3,736.98	6,191.60	6,119.96	71.64	86.424	
17,700.00	12,544.00	9,642.00	9,610.48	91.41	4.49	57.11	-2,133.86	-3,736.98	6,241.59	6,169.39	72.19	86.459	
17,800.00	12,544.00	9,625.29	9,597.14	92.95	4.31	56.98	-2,143.75	-3,735.15	6,292.55	6,219.92	72.63	86.642	
17,900.00	12,544.00	9,610.00	9,584.67	94.50	4.16	56.86	-2,152.45	-3,733.52	6,344.77	6,271.71	73.06	86.842	
18,000.00	12,544.00	9,610.00	9,584.67	96.05	4.16	56.86	-2,152.45	-3,733.52	6,397.96	6,324.39	73.57	86.970	
18,100.00	12,544.00	9,610.00	9,584.67	97.61	4.16	56.86	-2,152.45	-3,733.52	6,452.26	6,378.20	74.05	87.131	
18,200.00	12,544.00	9,610.00	9,584.67	99.17	4.16	56.86	-2,152.45	-3,733.52	6,507.64	6,433.11	74.52	87.323	
18,300.00	12,544.00	9,610.00	9,584.67	100.73	4.16	56.86	-2,152.45	-3,733.52	6,564.08	6,489.10	74.98	87.546	
18,400.00	12,544.00	9,578.00	9,557.86	102.29	3.95	56.60	-2,169.61	-3,730.32	6,621.43	6,546.13	75.30	87.935	
18,500.00	12,544.00	9,578.00	9,557.86	103.85	3.95	56.60	-2,169.61	-3,730.32	6,679.64	6,603.91	75.73	88.204	
18,600.00	12,544.00	9,578.00	9,557.86	105.42	3.95	56.60	-2,169.61	-3,730.32	6,738.84	6,662.69	76.14	88.501	
18,700.00	12,544.00	9,578.00	9,557.86	106.99	3.95	56.60	-2,169.61	-3,730.32	6,798.99	6,722.44	76.54	88.824	
18,800.00	12,544.00	9,578.00	9,557.86	108.56	3.95	56.60	-2,169.61	-3,730.32	6,860.07	6,783.14	76.93	89.171	
18,900.00	12,544.00	9,564.10	9,545.95	110.13	3.89	56.49	-2,176.65	-3,729.01	6,921.94	6,844.67	77.27	89.577	
19,000.00	12,544.00	9,547.00	9,531.12	111.71	3.82	56.35	-2,185.02	-3,727.42	6,984.76	6,907.16	77.60	90.010	
19,100.00	12,544.00	9,547.00	9,531.12	113.28	3.82	56.35	-2,185.02	-3,727.42	7,048.27	6,970.32	77.95	90.419	

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
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Offset Design Fighting Okra 18-19 Fed - Fighting Okra Fed Com 1H (offset) - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 119- VES GyroFlex V2, 9389-MWD-ISCWSA												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
19,200.00	12,544.00	9,547.00	9,531.12	114.86	3.82	56.35	-2,185.02	-3,727.42	7,112.62	7,034.33	78.29	90.849	
19,300.00	12,544.00	9,547.00	9,531.12	116.44	3.82	56.35	-2,185.02	-3,727.42	7,177.78	7,099.16	78.62	91.300	
19,400.00	12,544.00	9,547.00	9,531.12	118.02	3.82	56.35	-2,185.02	-3,727.42	7,243.74	7,164.81	78.93	91.770	
19,500.00	12,544.00	9,547.00	9,531.12	119.60	3.82	56.35	-2,185.02	-3,727.42	7,310.47	7,231.23	79.24	92.259	
19,600.00	12,544.00	9,530.75	9,516.84	121.19	3.77	56.22	-2,192.64	-3,725.99	7,377.74	7,298.22	79.52	92.780	
19,700.00	12,544.00	9,516.00	9,503.71	122.77	3.73	56.09	-2,199.26	-3,724.81	7,445.94	7,366.15	79.79	93.316	
19,800.00	12,544.00	9,516.00	9,503.71	124.36	3.73	56.09	-2,199.26	-3,724.81	7,514.68	7,434.61	80.07	93.852	
19,900.00	12,544.00	9,516.00	9,503.71	125.95	3.73	56.09	-2,199.26	-3,724.81	7,584.11	7,503.78	80.34	94.404	
20,000.00	12,544.00	9,516.00	9,503.71	127.53	3.73	56.09	-2,199.26	-3,724.81	7,654.22	7,573.63	80.60	94.971	
20,100.00	12,544.00	9,516.00	9,503.71	129.12	3.73	56.09	-2,199.26	-3,724.81	7,724.99	7,644.15	80.84	95.554	
20,200.00	12,544.00	9,516.00	9,503.71	130.72	3.73	56.09	-2,199.26	-3,724.81	7,796.40	7,715.32	81.08	96.151	
20,300.00	12,544.00	9,516.00	9,503.71	132.31	3.73	56.09	-2,199.26	-3,724.81	7,868.44	7,787.12	81.32	96.762	
20,400.00	12,544.00	9,516.00	9,503.71	133.90	3.73	56.09	-2,199.26	-3,724.81	7,941.07	7,859.53	81.54	97.386	
20,500.00	12,544.00	9,516.00	9,503.71	135.49	3.73	56.09	-2,199.26	-3,724.81	8,014.30	7,932.54	81.76	98.023	
20,600.00	12,544.00	9,500.78	9,489.98	137.09	3.69	55.97	-2,205.75	-3,723.74	8,087.86	8,005.88	81.98	98.662	
20,700.00	12,544.00	9,484.00	9,474.63	138.68	3.65	55.83	-2,212.46	-3,722.79	8,162.35	8,080.17	82.19	99.316	
20,800.00	12,544.00	9,484.00	9,474.63	140.28	3.65	55.83	-2,212.46	-3,722.79	8,237.09	8,154.71	82.38	99.984	
20,900.00	12,544.00	9,484.00	9,474.63	141.88	3.65	55.83	-2,212.46	-3,722.79	8,312.37	8,229.79	82.58	100.663	
21,000.00	12,544.00	9,484.00	9,474.63	143.48	3.65	55.83	-2,212.46	-3,722.79	8,388.16	8,305.40	82.76	101.353	
21,100.00	12,544.00	9,484.00	9,474.63	145.08	3.65	55.83	-2,212.46	-3,722.79	8,464.45	8,381.51	82.94	102.053	
21,200.00	12,544.00	9,484.00	9,474.63	146.68	3.65	55.83	-2,212.46	-3,722.79	8,541.23	8,458.12	83.12	102.763	
21,300.00	12,544.00	9,484.00	9,474.63	148.28	3.65	55.83	-2,212.46	-3,722.79	8,618.49	8,535.21	83.29	103.482	
21,400.00	12,544.00	9,484.00	9,474.63	149.88	3.65	55.83	-2,212.46	-3,722.79	8,696.21	8,612.76	83.45	104.210	
21,500.00	12,544.00	9,484.00	9,474.63	151.48	3.65	55.83	-2,212.46	-3,722.79	8,774.39	8,690.78	83.61	104.947	
21,600.00	12,544.00	9,484.00	9,474.63	153.08	3.65	55.83	-2,212.46	-3,722.79	8,853.00	8,769.24	83.76	105.692	
21,700.00	12,544.00	9,484.00	9,474.63	154.69	3.65	55.83	-2,212.46	-3,722.79	8,932.04	8,848.13	83.91	106.446	
21,800.00	12,544.00	9,484.00	9,474.63	156.29	3.65	55.83	-2,212.46	-3,722.79	9,011.50	8,927.44	84.06	107.207	
21,900.00	12,544.00	9,484.00	9,474.63	157.90	3.65	55.83	-2,212.46	-3,722.79	9,091.36	9,007.16	84.20	107.975	
22,000.00	12,544.00	9,468.23	9,460.03	159.50	3.63	55.70	-2,218.36	-3,722.07	9,171.40	9,087.04	84.36	108.720	
22,100.00	12,544.00	9,453.00	9,445.78	161.11	3.61	55.57	-2,223.70	-3,721.48	9,252.12	9,167.61	84.51	109.475	
22,181.55	12,544.00	9,453.00	9,445.78	162.42	3.61	55.57	-2,223.70	-3,721.48	9,318.06	9,233.44	84.62	110.116	

LEAM Drilling Systems LLC

Anticollision Report

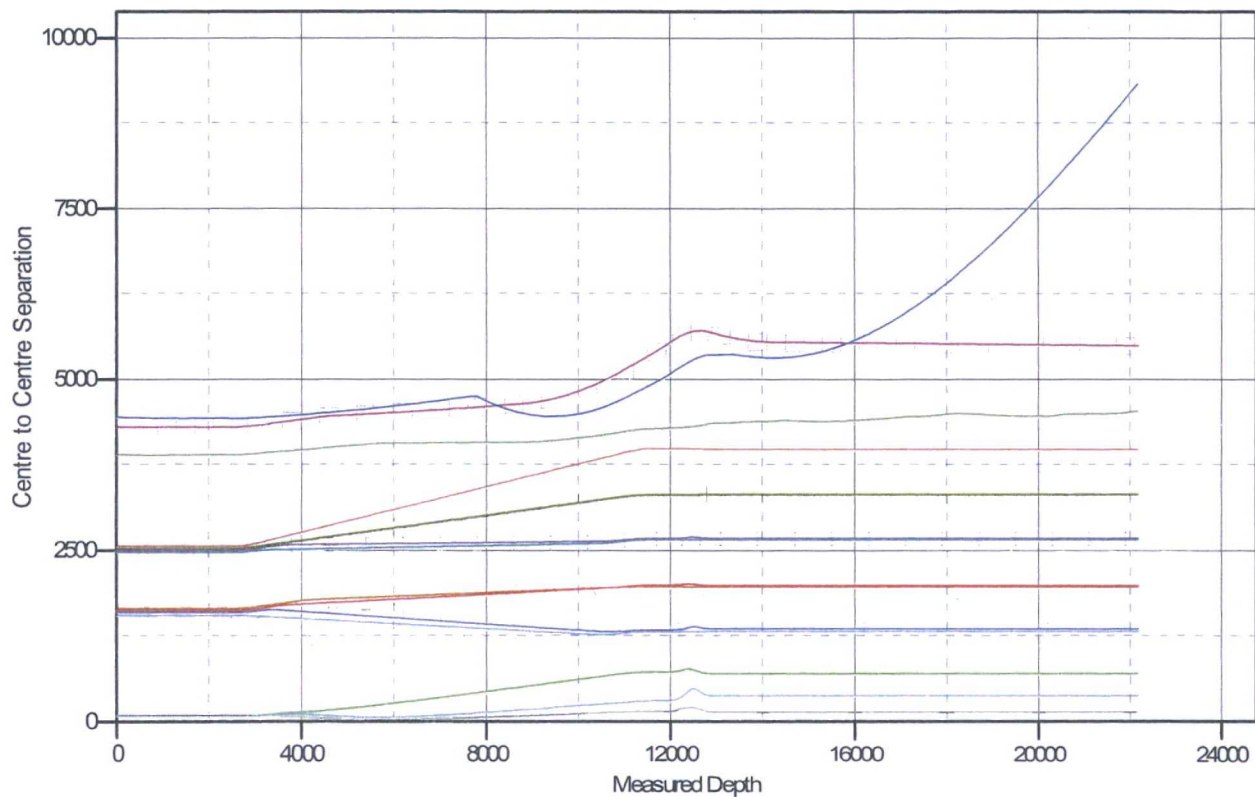
Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 86H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 86H
 TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 MD Reference: 3367.7' GE + 25' KB @ 3392.70usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Multi User Db
 Offset TVD Reference: Offset Datum

Reference Depths are relative to 3367.7' GE + 25' KB @ 3392.70usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 19' 60.0000 W

Coordinates are relative to: 86H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

- | | | |
|---------------------|---------------------|--|
| 2H, OH, Plan #1 V0 | 14H, OH, Plan #1 V0 | 3H, OH, Plan #1 V0 |
| 15H, OH, Plan #1 V0 | 84H, OH, Plan #1 V0 | 4H, OH, Plan #1 V0 |
| 8H, OH, Plan #1 V0 | 5H, OH, Plan #1 V0 | Fighting Okra Fed Com 1H (offset), OH, OH V0 |
| 7H, OH, Plan #1 V0 | 6H, OH, Plan #1 V0 | 71H, OH, OH V0 |
| 41H, OH, Plan #1 V0 | 85H, OH, Plan #1 V0 | |

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

LEAM Drilling Systems LLC

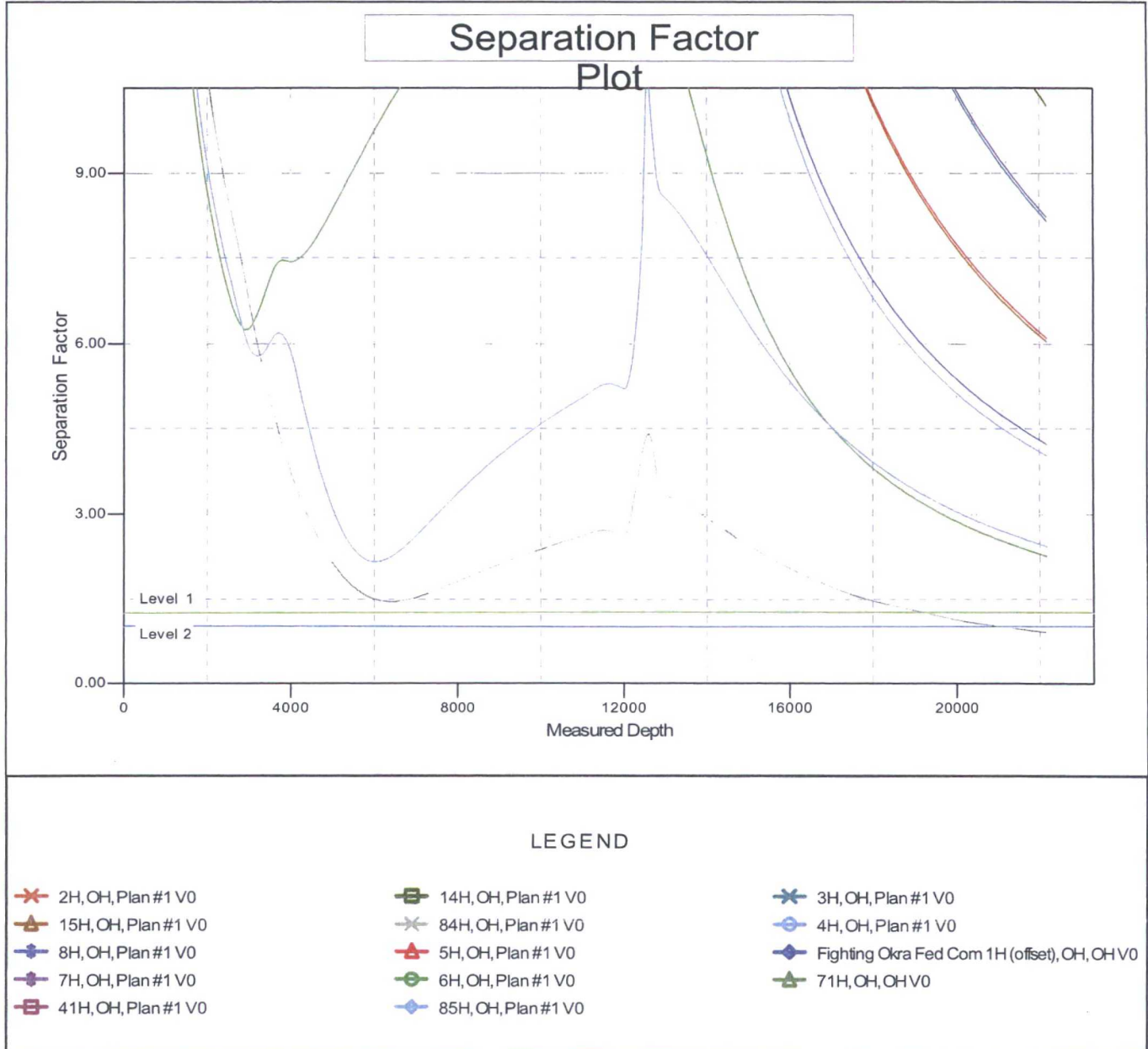
Anticollision Report

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TVD Reference: 3367.7' GE + 25' KB @ 3392.70usft
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