

Devon Energy

Lea County, NM (NAD-83)

Fighting Okra 18-19 Fed

84H

OH

Plan #1

HOBBS OCD
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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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 9,999.98 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Elliptical Conic
Casing Method:	Not applied

Survey Tool Program	Date	9/13/2017
From (usft)	To (usft)	Survey (Wellbore)
0.00	22,473.03	Plan #1 (OH)
	Tool Name	Description
	LEAM MWD+HDGM	MWD+HDGM

Summary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance		Separation	Warning
			Between Centres (usft)	Between Ellipses (usft)	Factor	
Fighting Okra 18-19 Fed						
14H - OH - Plan #1	2,500.00	2,501.70	2,583.65	2,572.68	235.709	CC, ES
14H - OH - Plan #1	22,473.03	22,130.25	3,333.14	3,009.30	10.293	SF
15H - OH - Plan #1	2,500.00	2,495.40	1,703.13	1,692.18	155.579	CC
15H - OH - Plan #1	22,473.03	22,279.16	1,985.72	1,662.30	6.140	ES, SF
2H - OH - Plan #1	2,416.16	2,417.66	2,613.56	2,602.98	246.939	CC
2H - OH - Plan #1	2,500.00	2,500.00	2,613.56	2,602.60	238.521	ES
2H - OH - Plan #1	22,473.03	22,525.95	3,988.32	3,662.81	12.253	SF
3H - OH - Plan #1	2,500.00	2,502.70	2,523.84	2,512.88	230.206	CC
3H - OH - Plan #1	22,473.03	22,303.90	2,668.52	2,343.71	8.216	ES, SF
41H - OH - Plan #1	2,500.00	2,495.50	4,314.85	4,303.91	394.454	CC, ES
41H - OH - Plan #1	22,473.03	17,868.95	5,573.59	5,318.22	21.826	SF
4H - OH - Plan #1	10,502.94	10,643.54	1,280.25	1,232.29	26.697	CC
4H - OH - Plan #1	22,473.03	22,316.87	1,319.86	995.52	4.069	ES, SF
5H - OH - Plan #1	2,500.00	2,495.50	1,673.25	1,662.30	152.847	CC
5H - OH - Plan #1	22,473.03	22,727.79	1,982.94	1,657.85	6.100	ES, SF
6H - OH - Plan #1	2,500.00	2,499.50	59.98	49.02	5.475	CC, ES
6H - OH - Plan #1	22,473.03	22,744.68	671.32	351.22	2.097	SF
71H - OH - OH	799.30	789.15	3,942.07	3,938.94	1,260.263	CC
71H - OH - OH	800.00	789.58	3,942.07	3,938.94	1,259.284	ES
71H - OH - OH	22,473.03	22,192.68	4,543.76	4,235.64	14.747	SF
7H - OH - Plan #1	2,500.00	2,502.20	2,553.74	2,542.78	232.957	CC
7H - OH - Plan #1	22,473.03	22,822.61	2,675.64	2,350.28	8.224	ES, SF
85H - OH - Plan #1	2,500.00	2,499.60	29.99	19.03	2.737	CC, ES
85H - OH - Plan #1	22,473.03	22,867.23	230.40	77.24	1.504	SF
86H - OH - Plan #1	5,952.35	5,953.90	39.77	13.66	1.523	CC
86H - OH - Plan #1	22,473.03	22,181.36	139.64	-14.74	0.905	Level 1, ES, SF
8H - OH - Plan #1	10,723.64	10,869.64	1,296.45	1,246.67	26.046	CC
8H - OH - Plan #1	22,473.03	22,835.93	1,337.06	1,014.15	4.141	ES, SF
Fighting Okra Fed Com 1H (offset) - OH - OH	2,650.47	2,754.93	4,435.52	4,428.76	655.837	CC
Fighting Okra Fed Com 1H (offset) - OH - OH	9,500.00	11,956.42	4,472.19	4,391.11	55.159	ES
Fighting Okra Fed Com 1H (offset) - OH - OH	10,300.00	11,995.39	4,549.21	4,464.93	53.978	SF

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

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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: O-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	1.70	1.70	0.00	0.00	-86.11	175.33	-2,577.69	2,583.65					
100.00	100.00	101.70	101.70	0.08	0.09	-86.11	175.33	-2,577.69	2,583.65	2,583.47	0.17	N/A		
200.00	200.00	201.70	201.70	0.31	0.31	-86.11	175.33	-2,577.69	2,583.65	2,583.02	0.62	4,154.254		
300.00	300.00	301.70	301.70	0.53	0.54	-86.11	175.33	-2,577.69	2,583.65	2,582.57	1.07	2,411.332		
400.00	400.00	401.70	401.70	0.76	0.76	-86.11	175.33	-2,577.69	2,583.65	2,582.13	1.52	1,698.659		
500.00	500.00	501.70	501.70	0.98	0.99	-86.11	175.33	-2,577.69	2,583.65	2,581.68	1.97	1,311.147		
600.00	600.00	601.70	601.70	1.21	1.21	-86.11	175.33	-2,577.69	2,583.65	2,581.23	2.42	1,067.598		
700.00	700.00	701.70	701.70	1.43	1.44	-86.11	175.33	-2,577.69	2,583.65	2,580.78	2.87	900.354		
800.00	800.00	801.70	801.70	1.66	1.66	-86.11	175.33	-2,577.69	2,583.65	2,580.33	3.32	778.413		
900.00	900.00	901.70	901.70	1.88	1.89	-86.11	175.33	-2,577.69	2,583.65	2,579.88	3.77	685.562		
1,000.00	1,000.00	1,001.70	1,001.70	2.11	2.11	-86.11	175.33	-2,577.69	2,583.65	2,579.43	4.22	612.502		
1,100.00	1,100.00	1,101.70	1,101.70	2.33	2.34	-86.11	175.33	-2,577.69	2,583.65	2,578.98	4.67	553.514		
1,200.00	1,200.00	1,201.70	1,201.70	2.56	2.56	-86.11	175.33	-2,577.69	2,583.65	2,578.53	5.12	504.890		
1,300.00	1,300.00	1,301.70	1,301.70	2.78	2.79	-86.11	175.33	-2,577.69	2,583.65	2,578.08	5.57	464.119		
1,400.00	1,400.00	1,401.70	1,401.70	3.01	3.01	-86.11	175.33	-2,577.69	2,583.65	2,577.63	6.02	429.440		
1,500.00	1,500.00	1,501.70	1,501.70	3.23	3.23	-86.11	175.33	-2,577.69	2,583.65	2,577.18	6.47	399.584		
1,600.00	1,600.00	1,601.70	1,601.70	3.46	3.46	-86.11	175.33	-2,577.69	2,583.65	2,576.73	6.92	373.609		
1,700.00	1,700.00	1,701.70	1,701.70	3.68	3.68	-86.11	175.33	-2,577.69	2,583.65	2,576.28	7.36	350.805		
1,800.00	1,800.00	1,801.70	1,801.70	3.91	3.91	-86.11	175.33	-2,577.69	2,583.65	2,575.83	7.81	330.625		
1,900.00	1,900.00	1,901.70	1,901.70	4.13	4.13	-86.11	175.33	-2,577.69	2,583.65	2,575.38	8.26	312.640		
2,000.00	2,000.00	2,001.70	2,001.70	4.35	4.36	-86.11	175.33	-2,577.69	2,583.65	2,574.93	8.71	296.511		
2,100.00	2,100.00	2,101.70	2,101.70	4.58	4.58	-86.11	175.33	-2,577.69	2,583.65	2,574.48	9.16	281.964		
2,200.00	2,200.00	2,201.70	2,201.70	4.80	4.81	-86.11	175.33	-2,577.69	2,583.65	2,574.03	9.61	268.778		
2,300.00	2,300.00	2,301.70	2,301.70	5.03	5.03	-86.11	175.33	-2,577.69	2,583.65	2,573.58	10.06	256.770		
2,400.00	2,400.00	2,401.70	2,401.70	5.25	5.26	-86.11	175.33	-2,577.69	2,583.65	2,573.13	10.51	245.789		
2,500.00	2,500.00	2,501.70	2,501.70	5.48	5.48	-86.11	175.33	-2,577.69	2,583.65	2,572.68	10.96	235.709 CC, ES		
2,600.00	2,599.99	2,601.69	2,601.69	5.69	5.71	-154.20	175.33	-2,577.69	2,584.43	2,573.03	11.40	226.674		
2,700.00	2,699.96	2,701.66	2,701.66	5.90	5.93	-154.22	175.33	-2,577.69	2,586.79	2,574.95	11.83	218.593		
2,800.00	2,799.86	2,801.56	2,801.56	6.11	6.16	-154.24	175.33	-2,577.69	2,590.72	2,578.45	12.27	211.191		
2,900.00	2,899.68	2,901.38	2,901.38	6.33	6.38	-154.28	175.33	-2,577.69	2,596.22	2,583.52	12.70	204.400		
3,000.00	2,999.37	3,001.07	3,001.07	6.55	6.60	-154.32	175.33	-2,577.69	2,603.29	2,590.15	13.14	198.159		
3,038.22	3,037.43	3,039.13	3,039.13	6.63	6.69	-154.34	175.33	-2,577.69	2,606.41	2,593.11	13.30	195.904		
3,100.00	3,098.94	3,100.64	3,100.64	6.77	6.83	-154.40	175.33	-2,577.69	2,611.64	2,598.07	13.57	192.396		
3,200.00	3,198.50	3,200.20	3,200.20	6.99	7.05	-154.48	175.33	-2,577.69	2,620.11	2,606.10	14.01	186.990		
3,300.00	3,298.05	3,299.75	3,299.75	7.22	7.28	-154.57	175.33	-2,577.69	2,628.58	2,614.13	14.45	181.892		
3,400.00	3,397.61	3,399.31	3,399.31	7.45	7.50	-154.66	175.33	-2,577.69	2,637.07	2,622.17	14.89	177.079		
3,500.00	3,497.17	3,498.87	3,498.87	7.69	7.72	-154.75	175.33	-2,577.69	2,645.55	2,630.22	15.33	172.528		
3,600.00	3,596.73	3,598.43	3,598.43	7.92	7.95	-154.83	175.33	-2,577.69	2,654.05	2,638.27	15.78	168.220		
3,700.00	3,696.29	3,697.99	3,697.99	8.16	8.17	-154.92	175.33	-2,577.69	2,662.55	2,646.32	16.22	164.137		
3,800.00	3,795.85	3,797.55	3,797.55	8.40	8.40	-155.00	175.33	-2,577.69	2,671.05	2,654.38	16.67	160.263		
3,900.00	3,895.41	3,897.11	3,897.11	8.64	8.62	-155.09	175.33	-2,577.69	2,679.56	2,662.45	17.11	156.582		
4,000.00	3,994.97	3,996.67	3,996.67	8.89	8.84	-155.17	175.33	-2,577.69	2,688.08	2,670.52	17.56	153.081		
4,100.00	4,094.53	4,096.23	4,096.23	9.13	9.07	-155.26	175.33	-2,577.69	2,696.60	2,678.59	18.01	149.748		
4,200.00	4,194.09	4,195.79	4,195.79	9.38	9.29	-155.34	175.33	-2,577.69	2,705.13	2,686.67	18.46	146.572		
4,300.00	4,293.65	4,295.35	4,295.35	9.63	9.51	-155.42	175.33	-2,577.69	2,713.66	2,694.76	18.91	143.541		
4,400.00	4,393.20	4,394.90	4,394.90	9.87	9.74	-155.50	175.33	-2,577.69	2,722.20	2,702.85	19.35	140.647		
4,500.00	4,492.76	4,494.46	4,494.46	10.12	9.96	-155.59	175.33	-2,577.69	2,730.75	2,710.94	19.81	137.881		
4,600.00	4,592.32	4,594.02	4,594.02	10.37	10.19	-155.67	175.33	-2,577.69	2,739.30	2,719.04	20.26	135.235		
4,700.00	4,691.88	4,693.58	4,693.58	10.63	10.41	-155.75	175.33	-2,577.69	2,747.85	2,727.15	20.71	132.702		
4,800.00	4,791.44	4,793.14	4,793.14	10.88	10.63	-155.83	175.33	-2,577.69	2,756.41	2,735.26	21.16	130.273		
4,900.00	4,891.00	4,892.70	4,892.70	11.13	10.86	-155.91	175.33	-2,577.69	2,764.98	2,743.37	21.61	127.945		
5,000.00	4,990.56	4,992.26	4,992.26	11.39	11.08	-155.99	175.33	-2,577.69	2,773.55	2,751.49	22.06	125.709		

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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)				Between Centres (usft)	Between Ellipses (usft)	
5,100.00	5,090.12	5,091.82	5,091.82	11.64	11.30	-156.06	175.33	-2,577.69	2,782.13	2,759.61	22.52	123.562		
5,200.00	5,189.68	5,191.38	5,191.38	11.90	11.53	-156.14	175.33	-2,577.69	2,790.71	2,767.74	22.97	121.498		
5,300.00	5,289.24	5,290.94	5,290.94	12.15	11.75	-156.22	175.33	-2,577.69	2,799.30	2,775.88	23.42	119.513		
5,400.00	5,388.80	5,390.50	5,390.50	12.41	11.98	-156.30	175.33	-2,577.69	2,807.89	2,784.01	23.88	117.601		
5,500.00	5,488.36	5,490.06	5,490.06	12.66	12.20	-156.37	175.33	-2,577.69	2,816.49	2,792.16	24.33	115.760		
5,600.00	5,587.91	5,589.61	5,589.61	12.92	12.42	-156.45	175.33	-2,577.69	2,825.09	2,800.31	24.78	113.986		
5,700.00	5,687.47	5,689.17	5,689.17	13.18	12.65	-156.53	175.33	-2,577.69	2,833.70	2,808.46	25.24	112.274		
5,800.00	5,787.03	5,788.73	5,788.73	13.44	12.87	-156.60	175.33	-2,577.69	2,842.31	2,816.62	25.69	110.623		
5,900.00	5,886.59	5,888.29	5,888.29	13.70	13.09	-156.68	175.33	-2,577.69	2,850.93	2,824.78	26.15	109.028		
6,000.00	5,986.15	5,987.85	5,987.85	13.96	13.32	-156.75	175.33	-2,577.69	2,859.55	2,832.94	26.60	107.487		
6,100.00	6,085.71	6,087.41	6,087.41	14.22	13.54	-156.82	175.33	-2,577.69	2,868.17	2,841.11	27.06	105.997		
6,200.00	6,185.27	6,186.97	6,186.97	14.48	13.77	-156.90	175.33	-2,577.69	2,876.81	2,849.29	27.51	104.556		
6,300.00	6,284.83	6,286.53	6,286.53	14.74	13.99	-156.97	175.33	-2,577.69	2,885.44	2,857.47	27.97	103.161		
6,400.00	6,384.39	6,386.09	6,386.09	15.00	14.21	-157.04	175.33	-2,577.69	2,894.08	2,865.66	28.43	101.811		
6,500.00	6,483.95	6,485.65	6,485.65	15.26	14.44	-157.12	175.33	-2,577.69	2,902.73	2,873.84	28.88	100.503		
6,600.00	6,583.51	6,585.21	6,585.21	15.52	14.66	-157.19	175.33	-2,577.69	2,911.38	2,882.04	29.34	99.236		
6,700.00	6,683.06	6,684.76	6,684.76	15.78	14.88	-157.26	175.33	-2,577.69	2,920.03	2,890.24	29.79	98.007		
6,800.00	6,782.62	6,784.32	6,784.32	16.04	15.11	-157.33	175.33	-2,577.69	2,928.69	2,898.44	30.25	96.815		
6,900.00	6,882.18	6,883.88	6,883.88	16.31	15.33	-157.40	175.33	-2,577.69	2,937.35	2,906.65	30.71	95.658		
7,000.00	6,981.74	6,983.44	6,983.44	16.57	15.56	-157.47	175.33	-2,577.69	2,946.02	2,914.86	31.16	94.535		
7,100.00	7,081.30	7,083.00	7,083.00	16.83	15.78	-157.54	175.33	-2,577.69	2,954.69	2,923.07	31.62	93.444		
7,200.00	7,180.86	7,182.56	7,182.56	17.09	16.00	-157.61	175.33	-2,577.69	2,963.37	2,931.29	32.08	92.384		
7,300.00	7,280.42	7,282.12	7,282.12	17.36	16.23	-157.68	175.33	-2,577.69	2,972.05	2,939.51	32.53	91.353		
7,400.00	7,379.98	7,381.68	7,381.68	17.62	16.45	-157.75	175.33	-2,577.69	2,980.73	2,947.74	32.99	90.351		
7,500.00	7,479.54	7,481.24	7,481.24	17.88	16.67	-157.81	175.33	-2,577.69	2,989.42	2,955.97	33.45	89.377		
7,600.00	7,579.10	7,580.80	7,580.80	18.15	16.90	-157.88	175.33	-2,577.69	2,998.11	2,964.21	33.90	88.428		
7,700.00	7,678.66	7,680.36	7,680.36	18.41	17.12	-157.95	175.33	-2,577.69	3,006.81	2,972.45	34.36	87.505		
7,800.00	7,778.21	7,779.91	7,779.91	18.67	17.35	-158.02	175.33	-2,577.69	3,015.51	2,980.69	34.82	86.606		
7,900.00	7,877.77	7,879.47	7,879.47	18.94	17.57	-158.08	175.33	-2,577.69	3,024.22	2,988.94	35.28	85.730		
8,000.00	7,977.33	7,979.03	7,979.03	19.20	17.79	-158.15	175.33	-2,577.69	3,032.93	2,997.19	35.73	84.876		
8,100.00	8,076.89	8,078.59	8,078.59	19.47	18.02	-158.21	175.33	-2,577.69	3,041.64	3,005.45	36.19	84.044		
8,200.00	8,176.45	8,178.15	8,178.15	19.73	18.24	-158.28	175.33	-2,577.69	3,050.36	3,013.71	36.65	83.233		
8,300.00	8,276.01	8,277.71	8,277.71	20.00	18.47	-158.34	175.33	-2,577.69	3,059.08	3,021.97	37.11	82.442		
8,400.00	8,375.57	8,377.27	8,377.27	20.26	18.69	-158.41	175.33	-2,577.69	3,067.80	3,030.24	37.56	81.670		
8,500.00	8,475.13	8,476.83	8,476.83	20.52	18.91	-158.47	175.33	-2,577.69	3,076.53	3,038.51	38.02	80.917		
8,600.00	8,574.69	8,576.39	8,576.39	20.79	19.14	-158.54	175.33	-2,577.69	3,085.27	3,046.79	38.48	80.181		
8,700.00	8,674.25	8,675.95	8,675.95	21.05	19.36	-158.60	175.33	-2,577.69	3,094.00	3,055.07	38.94	79.463		
8,800.00	8,773.81	8,775.51	8,775.51	21.32	19.58	-158.66	175.33	-2,577.69	3,102.74	3,063.35	39.39	78.761		
8,900.00	8,873.37	8,875.07	8,875.07	21.59	19.81	-158.73	175.33	-2,577.69	3,111.49	3,071.63	39.85	78.076		
9,000.00	8,972.92	8,974.62	8,974.62	21.85	20.03	-158.79	175.33	-2,577.69	3,120.23	3,079.92	40.31	77.406		
9,100.00	9,072.48	9,074.18	9,074.18	22.12	20.26	-158.85	175.33	-2,577.69	3,128.99	3,088.22	40.77	76.751		
9,200.00	9,172.04	9,173.74	9,173.74	22.38	20.48	-158.91	175.33	-2,577.69	3,137.74	3,096.51	41.23	76.111		
9,300.00	9,271.60	9,273.30	9,273.30	22.65	20.70	-158.97	175.33	-2,577.69	3,146.50	3,104.81	41.68	75.485		
9,400.00	9,371.16	9,372.86	9,372.86	22.91	20.93	-159.04	175.33	-2,577.69	3,155.26	3,113.12	42.14	74.873		
9,500.00	9,470.72	9,472.42	9,472.42	23.18	21.15	-159.10	175.33	-2,577.69	3,164.03	3,121.43	42.60	74.273		
9,600.00	9,570.28	9,571.98	9,571.98	23.45	21.37	-159.16	175.33	-2,577.69	3,172.80	3,129.74	43.06	73.687		
9,700.00	9,669.84	9,671.54	9,671.54	23.71	21.60	-159.22	175.33	-2,577.69	3,181.57	3,138.05	43.52	73.113		
9,800.00	9,769.40	9,771.10	9,771.10	23.98	21.82	-159.28	175.33	-2,577.69	3,190.34	3,146.37	43.97	72.550		
9,900.00	9,868.96	9,870.66	9,870.66	24.24	22.05	-159.34	175.33	-2,577.69	3,199.12	3,154.69	44.43	72.000		
10,000.00	9,968.52	9,970.22	9,970.22	24.51	22.27	-159.39	175.33	-2,577.69	3,207.91	3,163.02	44.89	71.461		
10,100.00	10,068.07	10,069.77	10,069.77	24.78	22.49	-159.45	175.33	-2,577.69	3,216.69	3,171.34	45.35	70.932		
10,200.00	10,167.63	10,169.33	10,169.33	25.04	22.72	-159.51	175.33	-2,577.69	3,225.48	3,179.68	45.81	70.414		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)	Separation Factor			
10,300.00	10,267.19	10,268.89	10,268.89	25.31	22.94	-159.57	175.33	-2,577.69	3,234.28	3,188.01	46.27	69.907			
10,400.00	10,366.75	10,368.45	10,368.45	25.58	23.16	-159.63	175.33	-2,577.69	3,243.07	3,196.35	46.72	69.410			
10,500.00	10,466.31	10,468.01	10,468.01	25.84	23.39	-159.69	175.33	-2,577.69	3,251.87	3,204.69	47.18	68.922			
10,600.00	10,565.87	10,567.57	10,567.57	26.11	23.61	-159.74	175.33	-2,577.69	3,260.67	3,213.03	47.64	68.443			
10,700.00	10,665.43	10,667.13	10,667.13	26.38	23.84	-159.80	175.33	-2,577.69	3,269.48	3,221.38	48.10	67.974			
10,800.00	10,764.99	10,766.69	10,766.69	26.64	24.06	-159.86	175.33	-2,577.69	3,278.29	3,229.73	48.56	67.514			
10,900.00	10,864.55	10,866.25	10,866.25	26.91	24.28	-159.91	175.33	-2,577.69	3,287.10	3,238.09	49.02	67.062			
11,000.00	10,964.11	10,965.81	10,965.81	27.18	24.51	-159.97	175.33	-2,577.69	3,295.92	3,246.44	49.47	66.619			
11,098.90	11,062.57	11,064.27	11,064.27	27.44	24.73	-160.02	175.33	-2,577.69	3,304.64	3,254.71	49.93	66.188			
11,100.00	11,063.67	11,065.37	11,065.37	27.44	24.73	-160.02	175.33	-2,577.69	3,304.74	3,254.80	49.93	66.184			
11,200.00	11,163.30	11,165.00	11,165.00	27.64	24.95	-160.10	175.33	-2,577.69	3,312.72	3,262.38	50.34	65.803			
11,300.00	11,263.07	11,264.77	11,264.77	27.84	25.18	-160.16	175.33	-2,577.69	3,319.07	3,268.32	50.75	65.399			
11,400.00	11,362.95	11,364.65	11,364.65	28.02	25.40	-160.21	175.33	-2,577.69	3,323.79	3,272.63	51.16	64.974			
11,500.00	11,462.89	11,464.59	11,464.59	28.20	25.63	-160.24	175.33	-2,577.69	3,326.86	3,275.30	51.56	64.527			
11,600.00	11,562.88	11,564.58	11,564.58	28.36	25.85	-160.25	175.33	-2,577.69	3,328.29	3,276.33	51.96	64.059			
11,637.12	11,600.00	11,601.70	11,601.70	28.42	25.94	-92.16	175.33	-2,577.69	3,328.40	3,276.30	52.11	63.878			
11,700.00	11,662.88	11,664.58	11,664.58	28.54	26.08	-92.16	175.33	-2,577.69	3,328.40	3,276.04	52.37	63.558			
11,800.00	11,762.88	11,764.58	11,764.58	28.73	26.30	-92.16	175.33	-2,577.69	3,328.40	3,275.60	52.80	63.039			
11,900.00	11,862.88	11,864.58	11,864.58	28.92	26.53	-92.16	175.33	-2,577.69	3,328.40	3,275.17	53.23	62.528			
11,909.90	11,872.78	11,874.48	11,874.48	28.94	26.55	-92.16	175.33	-2,577.69	3,328.40	3,275.13	53.27	62.477			
12,000.00	11,962.88	11,958.01	11,958.00	29.12	26.73	-92.17	174.70	-2,577.69	3,328.44	3,274.80	53.64	62.057			
12,100.00	12,062.88	12,037.27	12,036.66	29.31	26.86	-92.33	165.51	-2,577.73	3,328.95	3,274.98	53.96	61.693			
12,148.16	12,111.04	12,074.21	12,072.72	29.41	26.92	-92.47	157.54	-2,577.76	3,329.43	3,275.32	54.11	61.530			
12,150.00	12,112.88	12,075.60	12,074.07	29.41	26.92	87.52	157.19	-2,577.76	3,329.46	3,275.34	54.12	61.524			
12,200.00	12,162.81	12,113.15	12,110.10	29.49	26.98	87.31	146.63	-2,577.81	3,330.06	3,275.81	54.25	61.383			
12,250.00	12,212.34	12,150.00	12,144.71	29.56	27.04	87.11	134.00	-2,577.86	3,330.67	3,276.29	54.37	61.256			
12,300.00	12,261.11	12,187.19	12,178.75	29.62	27.10	86.93	119.02	-2,577.92	3,331.26	3,276.77	54.49	61.139			
12,350.00	12,308.73	12,223.78	12,211.21	29.67	27.16	86.77	102.16	-2,577.98	3,331.83	3,277.23	54.59	61.031			
12,400.00	12,354.85	12,260.13	12,242.33	29.71	27.21	86.62	83.39	-2,578.06	3,332.36	3,277.66	54.69	60.931			
12,450.00	12,399.11	12,300.00	12,275.02	29.75	27.27	86.49	60.58	-2,578.15	3,332.84	3,278.05	54.79	60.826			
12,500.00	12,441.18	12,332.28	12,300.28	29.77	27.32	86.40	40.48	-2,578.23	3,333.27	3,278.39	54.88	60.736			
12,550.00	12,480.74	12,368.17	12,326.98	29.80	27.39	86.31	16.52	-2,578.33	3,333.64	3,278.66	54.98	60.635			
12,600.00	12,517.48	12,400.00	12,349.37	29.82	27.45	86.26	-6.11	-2,578.42	3,333.95	3,278.88	55.07	60.539			
12,650.00	12,551.13	12,439.72	12,375.48	29.83	27.54	86.22	-36.02	-2,578.54	3,334.17	3,278.98	55.19	60.407			
12,700.00	12,581.43	12,475.45	12,397.15	29.85	27.63	86.20	-64.43	-2,578.65	3,334.33	3,279.01	55.32	60.272			
12,750.00	12,608.15	12,511.20	12,417.02	29.87	27.72	86.21	-94.14	-2,578.77	3,334.41	3,278.95	55.46	60.120			
12,800.00	12,631.09	12,550.00	12,436.44	29.90	27.82	86.24	-127.72	-2,578.91	3,334.42	3,278.79	55.63	59.937			
12,850.00	12,650.07	12,582.89	12,451.09	29.93	27.93	86.29	-157.16	-2,579.02	3,334.36	3,278.55	55.81	59.749			
12,900.00	12,664.95	12,618.89	12,465.17	29.98	28.04	86.37	-190.29	-2,579.16	3,334.22	3,278.21	56.01	59.527			
12,950.00	12,675.61	12,650.00	12,475.63	30.05	28.15	86.45	-219.58	-2,579.28	3,334.03	3,277.81	56.22	59.303			
13,000.00	12,681.98	12,691.42	12,487.07	30.13	28.31	86.58	-259.38	-2,579.44	3,333.77	3,277.27	56.50	59.006			
13,048.16	12,684.00	12,726.66	12,494.52	30.24	28.45	86.71	-293.82	-2,579.57	3,333.47	3,276.70	56.77	58.718			
13,100.00	12,684.00	12,766.56	12,500.37	30.37	28.62	86.81	-333.27	-2,579.73	3,333.24	3,276.14	57.10	58.377			
13,174.43	12,684.00	12,831.64	12,504.00	30.61	28.92	86.88	-398.22	-2,579.84	3,333.14	3,275.46	57.67	57.794			
13,200.00	12,684.00	12,857.21	12,504.00	30.70	29.05	86.88	-423.80	-2,579.84	3,333.14	3,275.24	57.90	57.569			
13,300.00	12,684.00	12,957.21	12,504.00	31.12	29.60	86.88	-523.80	-2,579.84	3,333.14	3,274.23	58.91	56.585			
13,400.00	12,684.00	13,057.21	12,504.00	31.62	30.22	86.88	-623.80	-2,579.84	3,333.14	3,273.07	60.07	55.490			
13,500.00	12,684.00	13,157.21	12,504.00	32.21	30.92	86.88	-723.80	-2,579.84	3,333.14	3,271.75	61.38	54.302			
13,600.00	12,684.00	13,257.21	12,504.00	32.87	31.69	86.88	-823.80	-2,579.84	3,333.14	3,270.30	62.84	53.044			
13,700.00	12,684.00	13,357.21	12,504.00	33.59	32.51	86.88	-923.80	-2,579.84	3,333.14	3,268.71	64.43	51.736			
13,800.00	12,684.00	13,457.21	12,504.00	34.38	33.40	86.88	-1,023.80	-2,579.84	3,333.14	3,267.00	66.14	50.397			
13,900.00	12,684.00	13,557.21	12,504.00	35.23	34.35	86.88	-1,123.80	-2,579.84	3,333.14	3,265.17	67.96	49.044			

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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)	Separation Factor		
14,000.00	12,684.00	13,657.21	12,504.00	36.14	35.34	86.88	-1,223.80	-2,579.84	3,333.14	3,263.24	69.89	47.689		
14,100.00	12,684.00	13,757.21	12,504.00	37.10	36.38	86.88	-1,323.80	-2,579.84	3,333.14	3,261.22	71.92	46.345		
14,200.00	12,684.00	13,857.21	12,504.00	38.10	37.47	86.88	-1,423.80	-2,579.84	3,333.14	3,259.10	74.04	45.021		
14,300.00	12,684.00	13,957.21	12,504.00	39.14	38.59	86.88	-1,523.80	-2,579.84	3,333.14	3,256.90	76.23	43.723		
14,400.00	12,684.00	14,057.21	12,504.00	40.23	39.75	86.88	-1,623.80	-2,579.84	3,333.14	3,254.63	78.50	42.459		
14,500.00	12,684.00	14,157.21	12,504.00	41.35	40.94	86.88	-1,723.80	-2,579.84	3,333.14	3,252.29	80.84	41.230		
14,600.00	12,684.00	14,257.21	12,504.00	42.50	42.15	86.88	-1,823.80	-2,579.84	3,333.14	3,249.89	83.24	40.041		
14,700.00	12,684.00	14,357.21	12,504.00	43.68	43.40	86.88	-1,923.80	-2,579.84	3,333.14	3,247.43	85.70	38.892		
14,800.00	12,684.00	14,457.21	12,504.00	44.90	44.67	86.88	-2,023.80	-2,579.84	3,333.14	3,244.92	88.21	37.785		
14,900.00	12,684.00	14,557.21	12,504.00	46.13	45.97	86.88	-2,123.80	-2,579.84	3,333.14	3,242.36	90.77	36.720		
15,000.00	12,684.00	14,657.21	12,504.00	47.40	47.28	86.88	-2,223.80	-2,579.84	3,333.14	3,239.76	93.38	35.696		
15,100.00	12,684.00	14,757.21	12,504.00	48.68	48.62	86.88	-2,323.80	-2,579.84	3,333.14	3,237.12	96.02	34.713		
15,200.00	12,684.00	14,857.21	12,504.00	49.99	49.97	86.88	-2,423.80	-2,579.84	3,333.14	3,234.44	98.70	33.771		
15,300.00	12,684.00	14,957.21	12,504.00	51.31	51.34	86.88	-2,523.80	-2,579.84	3,333.14	3,231.72	101.41	32.866		
15,400.00	12,684.00	15,057.21	12,504.00	52.65	52.73	86.88	-2,623.80	-2,579.84	3,333.14	3,228.97	104.16	32.000		
15,500.00	12,684.00	15,157.21	12,504.00	54.01	54.13	86.88	-2,723.80	-2,579.84	3,333.14	3,226.20	106.94	31.169		
15,600.00	12,684.00	15,257.21	12,504.00	55.38	55.54	86.88	-2,823.80	-2,579.84	3,333.14	3,223.40	109.74	30.373		
15,700.00	12,684.00	15,357.21	12,504.00	56.77	56.96	86.88	-2,923.80	-2,579.84	3,333.14	3,220.57	112.57	29.610		
15,800.00	12,684.00	15,457.21	12,504.00	58.17	58.40	86.88	-3,023.80	-2,579.84	3,333.14	3,217.72	115.42	28.879		
15,900.00	12,684.00	15,557.21	12,504.00	59.58	59.84	86.88	-3,123.80	-2,579.84	3,333.14	3,214.85	118.29	28.178		
16,000.00	12,684.00	15,657.21	12,504.00	61.00	61.29	86.88	-3,223.80	-2,579.84	3,333.14	3,211.95	121.18	27.505		
16,100.00	12,684.00	15,757.21	12,504.00	62.43	62.76	86.88	-3,323.80	-2,579.84	3,333.14	3,209.04	124.09	26.860		
16,200.00	12,684.00	15,857.21	12,504.00	63.87	64.23	86.88	-3,423.80	-2,579.84	3,333.14	3,206.12	127.02	26.241		
16,300.00	12,684.00	15,957.21	12,504.00	65.32	65.71	86.88	-3,523.80	-2,579.84	3,333.14	3,203.17	129.96	25.647		
16,400.00	12,684.00	16,057.21	12,504.00	66.78	67.19	86.88	-3,623.80	-2,579.84	3,333.14	3,200.21	132.92	25.076		
16,500.00	12,684.00	16,157.21	12,504.00	68.25	68.69	86.88	-3,723.80	-2,579.84	3,333.14	3,197.24	135.90	24.527		
16,600.00	12,684.00	16,257.21	12,504.00	69.73	70.19	86.88	-3,823.80	-2,579.84	3,333.14	3,194.25	138.88	24.000		
16,700.00	12,684.00	16,357.21	12,504.00	71.21	71.69	86.88	-3,923.80	-2,579.84	3,333.14	3,191.26	141.88	23.493		
16,800.00	12,684.00	16,457.21	12,504.00	72.70	73.20	86.88	-4,023.80	-2,579.84	3,333.14	3,188.25	144.89	23.005		
16,900.00	12,684.00	16,557.21	12,504.00	74.19	74.72	86.88	-4,123.80	-2,579.84	3,333.14	3,185.23	147.91	22.535		
17,000.00	12,684.00	16,657.21	12,504.00	75.69	76.24	86.88	-4,223.80	-2,579.84	3,333.14	3,182.19	150.94	22.082		
17,100.00	12,684.00	16,757.21	12,504.00	77.20	77.76	86.88	-4,323.80	-2,579.84	3,333.14	3,179.15	153.98	21.646		
17,200.00	12,684.00	16,857.21	12,504.00	78.71	79.29	86.88	-4,423.80	-2,579.84	3,333.14	3,176.11	157.03	21.226		
17,300.00	12,684.00	16,957.21	12,504.00	80.22	80.83	86.88	-4,523.80	-2,579.84	3,333.14	3,173.05	160.09	20.821		
17,400.00	12,684.00	17,057.21	12,504.00	81.74	82.37	86.88	-4,623.80	-2,579.84	3,333.14	3,169.98	163.15	20.429		
17,500.00	12,684.00	17,157.21	12,504.00	83.27	83.91	86.88	-4,723.80	-2,579.84	3,333.14	3,166.91	166.23	20.052		
17,600.00	12,684.00	17,257.21	12,504.00	84.80	85.45	86.88	-4,823.80	-2,579.84	3,333.14	3,163.83	169.31	19.687		
17,700.00	12,684.00	17,357.21	12,504.00	86.33	87.00	86.88	-4,923.80	-2,579.84	3,333.14	3,160.74	172.40	19.334		
17,800.00	12,684.00	17,457.21	12,504.00	87.87	88.55	86.88	-5,023.80	-2,579.84	3,333.14	3,157.65	175.49	18.993		
17,900.00	12,684.00	17,557.21	12,504.00	89.41	90.11	86.88	-5,123.80	-2,579.84	3,333.14	3,154.55	178.59	18.664		
18,000.00	12,684.00	17,657.21	12,504.00	90.95	91.66	86.88	-5,223.80	-2,579.84	3,333.14	3,151.44	181.70	18.345		
18,100.00	12,684.00	17,757.21	12,504.00	92.50	93.22	86.88	-5,323.80	-2,579.84	3,333.14	3,148.33	184.81	18.036		
18,200.00	12,684.00	17,857.21	12,504.00	94.04	94.78	86.88	-5,423.80	-2,579.84	3,333.14	3,145.21	187.92	17.737		
18,300.00	12,684.00	17,957.21	12,504.00	95.60	96.35	86.88	-5,523.80	-2,579.84	3,333.14	3,142.09	191.04	17.447		
18,400.00	12,684.00	18,057.21	12,504.00	97.15	97.92	86.88	-5,623.80	-2,579.84	3,333.14	3,138.97	194.17	17.166		
18,500.00	12,684.00	18,157.21	12,504.00	98.71	99.48	86.88	-5,723.80	-2,579.84	3,333.14	3,135.83	197.30	16.894		
18,600.00	12,684.00	18,257.21	12,504.00	100.27	101.06	86.88	-5,823.80	-2,579.84	3,333.14	3,132.70	200.44	16.629		
18,700.00	12,684.00	18,357.21	12,504.00	101.83	102.63	86.88	-5,923.80	-2,579.84	3,333.14	3,129.56	203.57	16.373		
18,800.00	12,684.00	18,457.21	12,504.00	103.39	104.20	86.88	-6,023.80	-2,579.84	3,333.14	3,126.42	206.72	16.124		
18,900.00	12,684.00	18,557.21	12,504.00	104.96	105.78	86.88	-6,123.80	-2,579.84	3,333.14	3,123.27	209.86	15.882		
19,000.00	12,684.00	18,657.21	12,504.00	106.53	107.36	86.88	-6,223.80	-2,579.84	3,333.14	3,120.12	213.01	15.647		
19,100.00	12,684.00	18,757.21	12,504.00	108.10	108.94	86.88	-6,323.80	-2,579.84	3,333.14	3,116.97	216.17	15.419		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)	Separation Factor		
19,200.00	12,684.00	18,857.21	12,504.00	109.67	110.52	86.88	-6,423.80	-2,579.84	3,333.14	3,113.81	219.32	15.197		
19,300.00	12,684.00	18,957.21	12,504.00	111.25	112.10	86.88	-6,523.80	-2,579.84	3,333.14	3,110.65	222.48	14.981		
19,400.00	12,684.00	19,057.21	12,504.00	112.82	113.69	86.88	-6,623.80	-2,579.84	3,333.14	3,107.49	225.65	14.771		
19,500.00	12,684.00	19,157.21	12,504.00	114.40	115.27	86.88	-6,723.80	-2,579.84	3,333.14	3,104.32	228.81	14.567		
19,600.00	12,684.00	19,257.21	12,504.00	115.98	116.86	86.88	-6,823.80	-2,579.84	3,333.14	3,101.15	231.98	14.368		
19,700.00	12,684.00	19,357.21	12,504.00	117.56	118.45	86.88	-6,923.80	-2,579.84	3,333.14	3,097.98	235.15	14.174		
19,800.00	12,684.00	19,457.21	12,504.00	119.14	120.04	86.88	-7,023.80	-2,579.84	3,333.14	3,094.81	238.33	13.966		
19,900.00	12,684.00	19,557.21	12,504.00	120.72	121.63	86.88	-7,123.80	-2,579.84	3,333.14	3,091.63	241.50	13.802		
20,000.00	12,684.00	19,657.21	12,504.00	122.31	123.22	86.88	-7,223.80	-2,579.84	3,333.14	3,088.46	244.68	13.622		
20,100.00	12,684.00	19,757.21	12,504.00	123.89	124.82	86.88	-7,323.80	-2,579.84	3,333.14	3,085.27	247.86	13.448		
20,200.00	12,684.00	19,857.21	12,504.00	125.48	126.41	86.88	-7,423.80	-2,579.84	3,333.14	3,082.09	251.04	13.277		
20,300.00	12,684.00	19,957.21	12,504.00	127.07	128.01	86.88	-7,523.80	-2,579.84	3,333.14	3,078.91	254.23	13.111		
20,400.00	12,684.00	20,057.21	12,504.00	128.66	129.60	86.88	-7,623.80	-2,579.84	3,333.14	3,075.72	257.42	12.948		
20,500.00	12,684.00	20,157.21	12,504.00	130.25	131.20	86.88	-7,723.80	-2,579.84	3,333.14	3,072.53	260.61	12.790		
20,600.00	12,684.00	20,257.21	12,504.00	131.84	132.80	86.88	-7,823.80	-2,579.84	3,333.14	3,069.34	263.80	12.635		
20,700.00	12,684.00	20,357.21	12,504.00	133.43	134.40	86.88	-7,923.80	-2,579.84	3,333.14	3,066.15	266.99	12.484		
20,800.00	12,684.00	20,457.21	12,504.00	135.03	136.00	86.88	-8,023.80	-2,579.84	3,333.14	3,062.95	270.18	12.337		
20,900.00	12,684.00	20,557.21	12,504.00	136.62	137.60	86.88	-8,123.80	-2,579.84	3,333.14	3,059.76	273.38	12.192		
21,000.00	12,684.00	20,657.21	12,504.00	138.22	139.20	86.88	-8,223.80	-2,579.84	3,333.14	3,056.56	276.58	12.051		
21,100.00	12,684.00	20,757.21	12,504.00	139.82	140.80	86.88	-8,323.80	-2,579.84	3,333.14	3,053.36	279.78	11.914		
21,200.00	12,684.00	20,857.21	12,504.00	141.41	142.40	86.88	-8,423.80	-2,579.84	3,333.14	3,050.16	282.98	11.779		
21,300.00	12,684.00	20,957.21	12,504.00	143.01	144.01	86.88	-8,523.80	-2,579.84	3,333.14	3,046.96	286.18	11.647		
21,400.00	12,684.00	21,057.21	12,504.00	144.61	145.61	86.88	-8,623.80	-2,579.84	3,333.14	3,043.76	289.38	11.518		
21,500.00	12,684.00	21,157.21	12,504.00	146.21	147.22	86.88	-8,723.80	-2,579.84	3,333.14	3,040.55	292.59	11.392		
21,600.00	12,684.00	21,257.21	12,504.00	147.81	148.82	86.88	-8,823.80	-2,579.84	3,333.14	3,037.34	295.79	11.269		
21,700.00	12,684.00	21,357.21	12,504.00	149.41	150.43	86.88	-8,923.80	-2,579.84	3,333.14	3,034.14	299.00	11.148		
21,800.00	12,684.00	21,457.21	12,504.00	151.01	152.04	86.88	-9,023.80	-2,579.84	3,333.14	3,030.93	302.21	11.029		
21,900.00	12,684.00	21,557.21	12,504.00	152.62	153.64	86.88	-9,123.80	-2,579.84	3,333.14	3,027.72	305.42	10.913		
22,000.00	12,684.00	21,657.21	12,504.00	154.22	155.25	86.88	-9,223.80	-2,579.84	3,333.14	3,024.51	308.63	10.800		
22,100.00	12,684.00	21,757.21	12,504.00	155.82	156.86	86.88	-9,323.80	-2,579.84	3,333.14	3,021.30	311.84	10.689		
22,200.00	12,684.00	21,857.21	12,504.00	157.43	158.47	86.88	-9,423.80	-2,579.84	3,333.14	3,018.08	315.05	10.580		
22,300.00	12,684.00	21,957.21	12,504.00	159.03	160.08	86.88	-9,523.80	-2,579.84	3,333.14	3,014.87	318.27	10.473		
22,400.00	12,684.00	22,057.21	12,504.00	160.64	161.69	86.88	-9,623.80	-2,579.84	3,333.14	3,011.65	321.48	10.368		
22,473.03	12,684.00	22,130.25	12,504.00	161.81	162.87	86.88	-9,696.83	-2,579.84	3,333.14	3,009.30	323.83	10.293 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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	-85.36	137.70	-1,697.55	1,703.13				
100.00	100.00	95.40	95.40	0.08	0.08	-85.36	137.70	-1,697.55	1,703.13	1,702.96	0.16	N/A	
200.00	200.00	195.40	195.40	0.31	0.30	-85.36	137.70	-1,697.55	1,703.13	1,702.52	0.61	2,802.265	
300.00	300.00	295.40	295.40	0.53	0.52	-85.36	137.70	-1,697.55	1,703.13	1,702.07	1.06	1,610.826	
400.00	400.00	395.40	395.40	0.76	0.75	-85.36	137.70	-1,697.55	1,703.13	1,701.62	1.51	1,130.269	
500.00	500.00	495.40	495.40	0.98	0.97	-85.36	137.70	-1,697.55	1,703.13	1,701.17	1.96	870.557	
600.00	600.00	595.40	595.40	1.21	1.20	-85.36	137.70	-1,697.55	1,703.13	1,700.72	2.41	707.897	
700.00	700.00	695.40	695.40	1.43	1.42	-85.36	137.70	-1,697.55	1,703.13	1,700.27	2.86	596.452	
800.00	800.00	795.40	795.40	1.66	1.65	-85.36	137.70	-1,697.55	1,703.13	1,699.82	3.30	515.324	
900.00	900.00	895.40	895.40	1.88	1.87	-85.36	137.70	-1,697.55	1,703.13	1,699.37	3.75	453.623	
1,000.00	1,000.00	995.40	995.40	2.11	2.10	-85.36	137.70	-1,697.55	1,703.13	1,698.92	4.20	405.118	
1,100.00	1,100.00	1,095.40	1,095.40	2.33	2.32	-85.36	137.70	-1,697.55	1,703.13	1,698.47	4.65	365.984	
1,200.00	1,200.00	1,195.40	1,195.40	2.56	2.55	-85.36	137.70	-1,697.55	1,703.13	1,698.02	5.10	333.744	
1,300.00	1,300.00	1,295.40	1,295.40	2.78	2.77	-85.36	137.70	-1,697.55	1,703.13	1,697.57	5.55	306.725	
1,400.00	1,400.00	1,395.40	1,395.40	3.01	3.00	-85.36	137.70	-1,697.55	1,703.13	1,697.12	6.00	283.753	
1,500.00	1,500.00	1,495.40	1,495.40	3.23	3.22	-85.36	137.70	-1,697.55	1,703.13	1,696.67	6.45	263.982	
1,600.00	1,600.00	1,595.40	1,595.40	3.46	3.45	-85.36	137.70	-1,697.55	1,703.13	1,696.22	6.90	246.786	
1,700.00	1,700.00	1,695.40	1,695.40	3.68	3.67	-85.36	137.70	-1,697.55	1,703.13	1,695.78	7.35	231.694	
1,800.00	1,800.00	1,795.40	1,795.40	3.91	3.89	-85.36	137.70	-1,697.55	1,703.13	1,695.33	7.80	218.342	
1,900.00	1,900.00	1,895.40	1,895.40	4.13	4.12	-85.36	137.70	-1,697.55	1,703.13	1,694.88	8.25	206.444	
2,000.00	2,000.00	1,995.40	1,995.40	4.35	4.34	-85.36	137.70	-1,697.55	1,703.13	1,694.43	8.70	195.776	
2,100.00	2,100.00	2,095.40	2,095.40	4.58	4.57	-85.36	137.70	-1,697.55	1,703.13	1,693.98	9.15	186.157	
2,200.00	2,200.00	2,195.40	2,195.40	4.80	4.79	-85.36	137.70	-1,697.55	1,703.13	1,693.53	9.60	177.438	
2,300.00	2,300.00	2,295.40	2,295.40	5.03	5.02	-85.36	137.70	-1,697.55	1,703.13	1,693.08	10.05	169.500	
2,400.00	2,400.00	2,395.40	2,395.40	5.25	5.24	-85.36	137.70	-1,697.55	1,703.13	1,692.63	10.50	162.241	
2,500.00	2,500.00	2,495.40	2,495.40	5.48	5.47	-85.36	137.70	-1,697.55	1,703.13	1,692.18	10.95	155.579 CC	
2,600.00	2,599.99	2,595.39	2,595.39	5.69	5.69	-153.46	137.70	-1,697.55	1,703.91	1,692.52	11.39	149.631	
2,700.00	2,699.96	2,695.36	2,695.36	5.90	5.92	-153.49	137.70	-1,697.55	1,706.25	1,694.43	11.82	144.357	
2,800.00	2,799.86	2,795.26	2,795.26	6.11	6.14	-153.54	137.70	-1,697.55	1,710.15	1,697.90	12.25	139.570	
2,900.00	2,899.68	2,895.08	2,895.08	6.33	6.37	-153.60	137.70	-1,697.55	1,715.62	1,702.93	12.69	135.221	
3,000.00	2,999.37	2,994.77	2,994.77	6.55	6.59	-153.69	137.70	-1,697.55	1,722.66	1,709.53	13.12	131.268	
3,038.22	3,037.43	3,032.83	3,032.83	6.63	6.68	-153.73	137.70	-1,697.55	1,725.76	1,712.47	13.29	129.850	
3,100.00	3,098.94	3,094.34	3,094.34	6.77	6.81	-153.81	137.70	-1,697.55	1,730.96	1,717.40	13.56	127.650	
3,200.00	3,198.50	3,193.90	3,193.90	6.99	7.04	-153.95	137.70	-1,697.55	1,739.39	1,725.39	14.00	124.260	
3,300.00	3,298.05	3,293.45	3,293.45	7.22	7.26	-154.08	137.70	-1,697.55	1,747.83	1,733.39	14.44	121.063	
3,400.00	3,397.61	3,393.01	3,393.01	7.45	7.49	-154.22	137.70	-1,697.55	1,756.28	1,741.40	14.88	118.044	
3,500.00	3,497.17	3,492.57	3,492.57	7.69	7.71	-154.35	137.70	-1,697.55	1,764.74	1,749.42	15.32	115.190	
3,600.00	3,596.73	3,592.13	3,592.13	7.92	7.93	-154.48	137.70	-1,697.55	1,773.20	1,757.44	15.76	112.489	
3,700.00	3,696.29	3,691.69	3,691.69	8.16	8.16	-154.61	137.70	-1,697.55	1,781.68	1,765.47	16.21	109.928	
3,800.00	3,795.85	3,791.25	3,791.25	8.40	8.38	-154.74	137.70	-1,697.55	1,790.16	1,773.51	16.65	107.499	
3,900.00	3,895.41	3,890.81	3,890.81	8.64	8.60	-154.86	137.70	-1,697.55	1,798.66	1,781.56	17.10	105.191	
4,000.00	3,994.97	3,990.37	3,990.37	8.89	8.83	-154.99	137.70	-1,697.55	1,807.16	1,789.62	17.55	102.996	
4,100.00	4,094.53	4,127.79	4,127.78	9.13	9.12	-155.15	138.14	-1,696.19	1,814.74	1,796.67	18.06	100.466	
4,200.00	4,194.09	4,269.74	4,269.64	9.38	9.42	-155.27	139.64	-1,691.51	1,820.02	1,801.45	18.57	98.002	
4,300.00	4,293.65	4,406.75	4,406.41	9.63	9.70	-155.35	142.12	-1,683.82	1,823.00	1,803.94	19.06	95.621	
4,400.00	4,393.20	4,506.72	4,506.14	9.87	9.92	-155.40	144.22	-1,677.28	1,825.10	1,805.60	19.50	93.599	
4,500.00	4,492.76	4,606.69	4,605.87	10.12	10.13	-155.44	146.33	-1,670.74	1,827.19	1,807.26	19.93	91.658	
4,600.00	4,592.32	4,706.65	4,705.60	10.37	10.35	-155.49	148.43	-1,664.19	1,829.29	1,808.92	20.37	89.793	
4,700.00	4,691.88	4,806.62	4,805.33	10.63	10.56	-155.54	150.54	-1,657.65	1,831.39	1,810.58	20.81	88.000	
4,800.00	4,791.44	4,906.59	4,905.06	10.88	10.78	-155.58	152.64	-1,651.10	1,833.49	1,812.24	21.25	86.277	
4,900.00	4,891.00	5,006.55	5,004.79	11.13	11.00	-155.63	154.75	-1,644.56	1,835.59	1,813.90	21.69	84.619	
5,000.00	4,990.56	5,106.52	5,104.52	11.39	11.22	-155.68	156.85	-1,638.01	1,837.69	1,815.56	22.13	83.022	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
5,100.00	5,090.12	5,206.49	5,204.25	11.64	11.45	-155.72	158.96	-1,631.47	1,839.80	1,817.22	22.58	81.484		
5,200.00	5,189.68	5,306.45	5,303.98	11.90	11.67	-155.77	161.06	-1,624.93	1,841.90	1,818.88	23.02	80.002		
5,300.00	5,289.24	5,406.42	5,403.71	12.15	11.90	-155.81	163.17	-1,618.38	1,844.01	1,820.54	23.47	78.573		
5,400.00	5,388.80	5,506.39	5,503.44	12.41	12.12	-155.86	165.27	-1,611.84	1,846.11	1,822.20	23.92	77.195		
5,500.00	5,488.36	5,606.35	5,603.17	12.66	12.35	-155.91	167.38	-1,605.29	1,848.22	1,823.86	24.36	75.864		
5,600.00	5,587.91	5,706.32	5,702.90	12.92	12.57	-155.95	169.49	-1,598.75	1,850.33	1,825.52	24.81	74.579		
5,700.00	5,687.47	5,806.29	5,802.63	13.18	12.80	-156.00	171.59	-1,592.21	1,852.44	1,827.18	25.26	73.337		
5,800.00	5,787.03	5,906.25	5,902.36	13.44	13.03	-156.04	173.70	-1,585.66	1,854.55	1,828.84	25.71	72.137		
5,900.00	5,886.59	6,006.22	6,002.09	13.70	13.26	-156.09	175.80	-1,579.12	1,856.67	1,830.51	26.16	70.976		
6,000.00	5,986.15	6,106.19	6,101.82	13.96	13.49	-156.13	177.91	-1,572.57	1,858.78	1,832.17	26.61	69.853		
6,100.00	6,085.71	6,206.16	6,201.56	14.22	13.72	-156.18	180.01	-1,566.03	1,860.90	1,833.83	27.06	68.766		
6,200.00	6,185.27	6,306.12	6,301.29	14.48	13.95	-156.22	182.12	-1,559.48	1,863.01	1,835.50	27.51	67.713		
6,300.00	6,284.83	6,406.09	6,401.02	14.74	14.19	-156.27	184.22	-1,552.94	1,865.13	1,837.16	27.97	66.693		
6,400.00	6,384.39	6,506.06	6,500.75	15.00	14.42	-156.31	186.33	-1,546.40	1,867.25	1,838.83	28.42	65.704		
6,500.00	6,483.95	6,606.02	6,600.48	15.26	14.65	-156.36	188.43	-1,539.85	1,869.37	1,840.50	28.87	64.746		
6,600.00	6,583.51	6,705.99	6,700.21	15.52	14.89	-156.40	190.54	-1,533.31	1,871.49	1,842.16	29.33	63.816		
6,700.00	6,683.06	6,805.96	6,799.94	15.78	15.12	-156.45	192.64	-1,526.76	1,873.61	1,843.83	29.78	62.913		
6,800.00	6,782.62	6,905.92	6,899.67	16.04	15.36	-156.49	194.75	-1,520.22	1,875.73	1,845.50	30.24	62.037		
6,900.00	6,882.18	7,005.89	6,999.40	16.31	15.59	-156.54	196.85	-1,513.67	1,877.86	1,847.17	30.69	61.186		
7,000.00	6,981.74	7,105.86	7,099.13	16.57	15.83	-156.58	198.96	-1,507.13	1,879.98	1,848.84	31.15	60.359		
7,100.00	7,081.30	7,205.82	7,198.86	16.83	16.06	-156.63	201.07	-1,500.59	1,882.11	1,850.51	31.60	59.555		
7,200.00	7,180.86	7,305.79	7,298.59	17.09	16.30	-156.67	203.17	-1,494.04	1,884.24	1,852.18	32.06	58.774		
7,300.00	7,280.42	7,405.76	7,398.32	17.36	16.54	-156.71	205.28	-1,487.50	1,886.37	1,853.85	32.52	58.014		
7,400.00	7,379.98	7,505.72	7,498.05	17.62	16.77	-156.76	207.38	-1,480.95	1,888.50	1,855.53	32.97	57.274		
7,500.00	7,479.54	7,605.69	7,597.78	17.88	17.01	-156.80	209.49	-1,474.41	1,890.63	1,857.20	33.43	56.554		
7,600.00	7,579.10	7,705.66	7,697.51	18.15	17.25	-156.85	211.59	-1,467.86	1,892.76	1,858.87	33.89	55.854		
7,700.00	7,678.66	7,805.62	7,797.24	18.41	17.49	-156.89	213.70	-1,461.32	1,894.90	1,860.55	34.35	55.171		
7,800.00	7,778.21	7,905.59	7,896.97	18.67	17.73	-156.93	215.80	-1,454.78	1,897.03	1,862.23	34.80	54.506		
7,900.00	7,877.77	8,005.56	7,996.70	18.94	17.96	-156.98	217.91	-1,448.23	1,899.17	1,863.90	35.26	53.858		
8,000.00	7,977.33	8,105.53	8,096.43	19.20	18.20	-157.02	220.01	-1,441.69	1,901.30	1,865.58	35.72	53.227		
8,100.00	8,076.89	8,205.49	8,196.16	19.47	18.44	-157.06	222.12	-1,435.14	1,903.44	1,867.26	36.18	52.611		
8,200.00	8,176.45	8,305.46	8,295.89	19.73	18.68	-157.11	224.22	-1,428.60	1,905.58	1,868.94	36.64	52.010		
8,300.00	8,276.01	8,405.43	8,395.62	20.00	18.92	-157.15	226.33	-1,422.05	1,907.72	1,870.62	37.10	51.424		
8,400.00	8,375.57	8,505.39	8,495.35	20.26	19.16	-157.19	228.43	-1,415.51	1,909.86	1,872.30	37.56	50.852		
8,500.00	8,475.13	8,605.36	8,595.08	20.52	19.40	-157.24	230.54	-1,408.97	1,912.00	1,873.98	38.02	50.293		
8,600.00	8,574.69	8,705.33	8,694.81	20.79	19.64	-157.28	232.65	-1,402.42	1,914.14	1,875.67	38.48	49.748		
8,700.00	8,674.25	8,805.29	8,794.54	21.05	19.88	-157.32	234.75	-1,395.88	1,916.29	1,877.35	38.94	49.215		
8,800.00	8,773.81	8,905.26	8,894.27	21.32	20.13	-157.36	236.86	-1,389.33	1,918.43	1,879.04	39.40	48.695		
8,900.00	8,873.37	9,005.23	8,994.00	21.59	20.37	-157.41	238.96	-1,382.79	1,920.58	1,880.72	39.86	48.186		
9,000.00	8,972.92	9,105.19	9,093.73	21.85	20.61	-157.45	241.07	-1,376.25	1,922.73	1,882.41	40.32	47.689		
9,100.00	9,072.48	9,205.16	9,193.46	22.12	20.85	-157.49	243.17	-1,369.70	1,924.88	1,884.10	40.78	47.203		
9,200.00	9,172.04	9,305.13	9,293.19	22.38	21.09	-157.53	245.28	-1,363.16	1,927.02	1,885.79	41.24	46.728		
9,300.00	9,271.60	9,405.09	9,392.92	22.65	21.33	-157.58	247.38	-1,356.61	1,929.18	1,887.48	41.70	46.263		
9,400.00	9,371.16	9,505.06	9,492.65	22.91	21.58	-157.62	249.49	-1,350.07	1,931.33	1,889.17	42.16	45.808		
9,500.00	9,470.72	9,605.03	9,592.38	23.18	21.82	-157.66	251.59	-1,343.52	1,933.48	1,890.86	42.62	45.363		
9,600.00	9,570.28	9,704.99	9,692.11	23.45	22.06	-157.70	253.70	-1,336.98	1,935.63	1,892.55	43.08	44.927		
9,700.00	9,669.84	9,804.96	9,791.84	23.71	22.30	-157.74	255.80	-1,330.44	1,937.79	1,894.24	43.55	44.501		
9,800.00	9,769.40	9,904.93	9,891.57	23.98	22.55	-157.78	257.91	-1,323.89	1,939.94	1,895.94	44.01	44.083		
9,900.00	9,868.96	10,004.90	9,991.30	24.24	22.79	-157.83	260.01	-1,317.35	1,942.10	1,897.63	44.47	43.674		
10,000.00	9,968.52	10,104.86	10,091.03	24.51	23.03	-157.87	262.12	-1,310.80	1,944.26	1,899.33	44.93	43.273		
10,100.00	10,068.07	10,204.83	10,190.76	24.78	23.28	-157.91	264.23	-1,304.26	1,946.42	1,901.02	45.39	42.880		
10,200.00	10,167.63	10,304.80	10,290.49	25.04	23.52	-157.95	266.33	-1,297.71	1,948.58	1,902.72	45.85	42.496		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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: D-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	
10,300.00	10,267.19	10,404.76	10,390.22	25.31	23.76	-157.99	268.44	-1,291.17	1,950.74	1,904.42	46.32	42.118	
10,400.00	10,366.75	10,504.73	10,489.95	25.58	24.01	-158.03	270.54	-1,284.63	1,952.90	1,906.12	46.78	41.749	
10,500.00	10,466.31	10,604.70	10,589.68	25.84	24.25	-158.07	272.65	-1,278.08	1,955.06	1,907.82	47.24	41.386	
10,600.00	10,565.87	10,704.66	10,689.41	26.11	24.49	-158.11	274.75	-1,271.54	1,957.22	1,909.52	47.70	41.030	
10,700.00	10,665.43	10,804.63	10,789.14	26.38	24.74	-158.15	276.86	-1,264.99	1,959.39	1,911.23	48.16	40.681	
10,800.00	10,764.99	10,904.60	10,888.87	26.64	24.98	-158.20	278.96	-1,258.45	1,961.56	1,912.93	48.63	40.339	
10,900.00	10,864.55	11,004.56	10,988.60	26.91	25.23	-158.24	281.07	-1,251.90	1,963.72	1,914.63	49.09	40.003	
11,000.00	10,964.11	11,104.53	11,088.33	27.18	25.47	-158.28	283.17	-1,245.36	1,965.89	1,916.34	49.55	39.674	
11,098.90	11,062.57	11,183.37	11,167.01	27.44	25.65	-158.31	284.73	-1,240.51	1,968.45	1,918.49	49.96	39.403	
11,100.00	11,063.67	11,184.20	11,167.84	27.44	25.65	-158.31	284.75	-1,240.46	1,968.48	1,918.52	49.96	39.401	
11,200.00	11,163.30	11,259.47	11,243.01	27.64	25.79	-158.36	285.93	-1,236.78	1,971.48	1,921.19	50.29	39.201	
11,300.00	11,263.07	11,334.72	11,318.21	27.84	25.93	-158.40	286.82	-1,234.04	1,974.11	1,923.50	50.61	39.006	
11,400.00	11,362.95	11,400.00	11,383.46	28.02	26.05	-158.43	287.34	-1,232.42	1,976.40	1,925.50	50.90	38.829	
11,500.00	11,462.89	11,485.18	11,468.63	28.20	26.20	-158.45	287.67	-1,231.37	1,978.26	1,927.03	51.22	38.620	
11,600.00	11,562.88	11,574.83	11,558.28	28.36	26.36	-158.47	287.70	-1,231.29	1,979.56	1,928.00	51.56	38.390	
11,637.12	11,600.00	11,611.95	11,595.40	28.42	26.44	-90.38	287.70	-1,231.29	1,979.67	1,927.97	51.70	38.288	
11,700.00	11,662.88	11,674.83	11,658.28	28.54	26.57	-90.38	287.70	-1,231.29	1,979.67	1,927.71	51.96	38.100	
11,800.00	11,762.88	11,774.83	11,758.28	28.73	26.78	-90.38	287.70	-1,231.29	1,979.67	1,927.29	52.38	37.794	
11,900.00	11,862.88	11,874.83	11,858.28	28.92	26.98	-90.38	287.70	-1,231.29	1,979.67	1,926.87	52.80	37.493	
11,914.07	11,876.95	11,888.90	11,872.35	28.95	27.01	-90.38	287.70	-1,231.29	1,979.67	1,926.81	52.86	37.451	
12,000.00	11,962.88	11,974.66	11,958.11	29.12	27.19	-90.39	287.66	-1,231.29	1,979.68	1,926.46	53.22	37.198	
12,100.00	12,062.88	12,071.25	12,054.14	29.31	27.36	-90.66	278.35	-1,231.29	1,979.76	1,926.18	53.58	36.948	
12,148.16	12,111.04	12,116.05	12,097.84	29.41	27.43	-90.94	268.57	-1,231.29	1,979.91	1,926.18	53.74	36.844	
12,150.00	12,112.88	12,117.73	12,099.47	29.41	27.43	89.05	268.14	-1,231.29	1,979.92	1,926.18	53.74	36.840	
12,200.00	12,162.81	12,162.93	12,142.62	29.49	27.49	88.69	254.72	-1,231.29	1,980.18	1,926.30	53.88	36.753	
12,250.00	12,212.34	12,207.34	12,183.86	29.56	27.56	88.35	238.26	-1,231.29	1,980.50	1,926.50	54.00	36.677	
12,300.00	12,261.11	12,250.00	12,222.15	29.62	27.61	88.02	219.50	-1,231.29	1,980.88	1,926.78	54.11	36.612	
12,350.00	12,308.73	12,294.08	12,260.15	29.67	27.67	87.70	197.17	-1,231.29	1,981.31	1,927.10	54.20	36.553	
12,400.00	12,354.85	12,336.54	12,295.01	29.71	27.72	87.39	172.96	-1,231.29	1,981.77	1,927.47	54.30	36.500	
12,450.00	12,399.11	12,378.47	12,327.60	29.75	27.77	87.11	146.58	-1,231.29	1,982.25	1,927.87	54.38	36.452	
12,500.00	12,441.18	12,419.93	12,357.84	29.77	27.82	86.84	118.22	-1,231.29	1,982.73	1,928.27	54.47	36.403	
12,550.00	12,480.74	12,460.98	12,385.68	29.80	27.87	86.60	88.07	-1,231.29	1,983.22	1,928.66	54.55	36.353	
12,600.00	12,517.48	12,500.00	12,410.07	29.82	27.92	86.38	57.63	-1,231.29	1,983.69	1,929.04	54.64	36.302	
12,650.00	12,551.13	12,542.04	12,433.97	29.83	27.98	86.17	23.06	-1,231.29	1,984.13	1,929.38	54.75	36.239	
12,700.00	12,581.43	12,582.13	12,454.35	29.85	28.04	86.00	-11.46	-1,231.29	1,984.53	1,929.67	54.87	36.168	
12,750.00	12,608.15	12,622.00	12,472.16	29.87	28.11	85.84	-47.12	-1,231.29	1,984.89	1,929.89	55.00	36.088	
12,800.00	12,631.09	12,661.67	12,487.39	29.90	28.19	85.72	-83.74	-1,231.29	1,985.20	1,930.05	55.15	35.994	
12,850.00	12,650.07	12,700.00	12,499.66	29.93	28.28	85.62	-120.05	-1,231.29	1,985.44	1,930.12	55.32	35.891	
12,900.00	12,664.95	12,740.62	12,509.99	29.98	28.39	85.55	-159.32	-1,231.29	1,985.62	1,930.10	55.52	35.764	
12,950.00	12,675.61	12,779.96	12,517.31	30.05	28.51	85.51	-197.97	-1,231.29	1,985.73	1,929.99	55.74	35.625	
13,000.00	12,681.98	12,819.27	12,521.96	30.13	28.64	85.50	-236.99	-1,231.29	1,985.75	1,929.78	55.98	35.470	
13,048.16	12,684.00	12,857.13	12,523.90	30.24	28.78	85.51	-274.80	-1,231.29	1,985.73	1,929.49	56.24	35.308	
13,063.34	12,684.00	12,869.47	12,524.00	30.27	28.83	85.51	-287.14	-1,231.29	1,985.72	1,929.39	56.33	35.252	
13,100.00	12,684.00	12,906.13	12,524.00	30.37	28.98	85.51	-323.80	-1,231.29	1,985.72	1,929.13	56.59	35.087	
13,200.00	12,684.00	13,006.13	12,524.00	30.70	29.44	85.51	-423.80	-1,231.29	1,985.72	1,928.28	57.44	34.573	
13,300.00	12,684.00	13,106.13	12,524.00	31.12	29.99	85.51	-523.80	-1,231.29	1,985.72	1,927.27	58.45	33.974	
13,400.00	12,684.00	13,206.13	12,524.00	31.62	30.62	85.51	-623.80	-1,231.29	1,985.72	1,926.10	59.62	33.306	
13,500.00	12,684.00	13,306.13	12,524.00	32.21	31.32	85.51	-723.80	-1,231.29	1,985.72	1,924.77	60.95	32.582	
13,600.00	12,684.00	13,406.13	12,524.00	32.87	32.09	85.51	-823.80	-1,231.29	1,985.72	1,923.31	62.41	31.816	
13,700.00	12,684.00	13,506.13	12,524.00	33.59	32.92	85.51	-923.80	-1,231.29	1,985.72	1,921.71	64.01	31.021	
13,800.00	12,684.00	13,606.13	12,524.00	34.38	33.81	85.51	-1,023.80	-1,231.29	1,985.72	1,919.98	65.74	30.208	
13,900.00	12,684.00	13,706.13	12,524.00	35.23	34.76	85.51	-1,123.80	-1,231.29	1,985.72	1,918.15	67.57	29.387	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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: O-LEAM MWD+HDGM													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,000.00	12,684.00	13,806.13	12,524.00	36.14	35.76	85.51	-1,223.80	-1,231.29	1,985.72	1,916.21	69.51	28.567		
14,100.00	12,684.00	13,906.13	12,524.00	37.10	36.80	85.51	-1,323.80	-1,231.29	1,985.72	1,914.17	71.55	27.754		
14,200.00	12,684.00	14,006.13	12,524.00	38.10	37.88	85.51	-1,423.80	-1,231.29	1,985.72	1,912.05	73.67	26.953		
14,300.00	12,684.00	14,106.13	12,524.00	39.14	39.00	85.51	-1,523.80	-1,231.29	1,985.72	1,909.84	75.88	26.170		
14,400.00	12,684.00	14,206.13	12,524.00	40.23	40.16	85.51	-1,623.80	-1,231.29	1,985.72	1,907.56	78.16	25.407		
14,500.00	12,684.00	14,306.13	12,524.00	41.35	41.34	85.51	-1,723.80	-1,231.29	1,985.72	1,905.22	80.50	24.666		
14,600.00	12,684.00	14,406.13	12,524.00	42.50	42.56	85.51	-1,823.80	-1,231.29	1,985.72	1,902.81	82.91	23.950		
14,700.00	12,684.00	14,506.13	12,524.00	43.68	43.81	85.51	-1,923.80	-1,231.29	1,985.72	1,900.34	85.38	23.258		
14,800.00	12,684.00	14,606.13	12,524.00	44.90	45.08	85.51	-2,023.80	-1,231.29	1,985.72	1,897.83	87.89	22.592		
14,900.00	12,684.00	14,706.13	12,524.00	46.13	46.37	85.51	-2,123.80	-1,231.29	1,985.72	1,895.26	90.46	21.952		
15,000.00	12,684.00	14,806.13	12,524.00	47.40	47.69	85.51	-2,223.80	-1,231.29	1,985.72	1,892.65	93.07	21.337		
15,100.00	12,684.00	14,906.13	12,524.00	48.68	49.02	85.51	-2,323.80	-1,231.29	1,985.72	1,890.01	95.71	20.746		
15,200.00	12,684.00	15,006.13	12,524.00	49.99	50.37	85.51	-2,423.80	-1,231.29	1,985.72	1,887.32	98.40	20.180		
15,300.00	12,684.00	15,106.13	12,524.00	51.31	51.74	85.51	-2,523.80	-1,231.29	1,985.72	1,884.60	101.12	19.638		
15,400.00	12,684.00	15,206.13	12,524.00	52.65	53.12	85.51	-2,623.80	-1,231.29	1,985.72	1,881.85	103.87	19.118		
15,500.00	12,684.00	15,306.13	12,524.00	54.01	54.52	85.51	-2,723.80	-1,231.29	1,985.72	1,879.07	106.65	18.620		
15,600.00	12,684.00	15,406.13	12,524.00	55.38	55.92	85.51	-2,823.80	-1,231.29	1,985.72	1,876.27	109.45	18.142		
15,700.00	12,684.00	15,506.13	12,524.00	56.77	57.35	85.51	-2,923.80	-1,231.29	1,985.72	1,873.44	112.28	17.685		
15,800.00	12,684.00	15,606.13	12,524.00	58.17	58.78	85.51	-3,023.80	-1,231.29	1,985.72	1,870.59	115.13	17.247		
15,900.00	12,684.00	15,706.13	12,524.00	59.58	60.22	85.51	-3,123.80	-1,231.29	1,985.72	1,867.71	118.01	16.827		
16,000.00	12,684.00	15,806.13	12,524.00	61.00	61.67	85.51	-3,223.80	-1,231.29	1,985.72	1,864.82	120.90	16.424		
16,100.00	12,684.00	15,906.13	12,524.00	62.43	63.13	85.51	-3,323.80	-1,231.29	1,985.72	1,861.91	123.81	16.038		
16,200.00	12,684.00	16,006.13	12,524.00	63.87	64.60	85.51	-3,423.80	-1,231.29	1,985.72	1,858.98	126.74	15.667		
16,300.00	12,684.00	16,106.13	12,524.00	65.32	66.08	85.51	-3,523.80	-1,231.29	1,985.72	1,856.03	129.69	15.312		
16,400.00	12,684.00	16,206.13	12,524.00	66.78	67.56	85.51	-3,623.80	-1,231.29	1,985.72	1,853.07	132.65	14.970		
16,500.00	12,684.00	16,306.13	12,524.00	68.25	69.06	85.51	-3,723.80	-1,231.29	1,985.72	1,850.10	135.62	14.642		
16,600.00	12,684.00	16,406.13	12,524.00	69.73	70.55	85.51	-3,823.80	-1,231.29	1,985.72	1,847.11	138.61	14.326		
16,700.00	12,684.00	16,506.13	12,524.00	71.21	72.06	85.51	-3,923.80	-1,231.29	1,985.72	1,844.12	141.60	14.023		
16,800.00	12,684.00	16,606.13	12,524.00	72.70	73.57	85.51	-4,023.80	-1,231.29	1,985.72	1,841.11	144.61	13.731		
16,900.00	12,684.00	16,706.13	12,524.00	74.19	75.08	85.51	-4,123.80	-1,231.29	1,985.72	1,838.09	147.63	13.450		
17,000.00	12,684.00	16,806.13	12,524.00	75.69	76.60	85.51	-4,223.80	-1,231.29	1,985.72	1,835.06	150.67	13.180		
17,100.00	12,684.00	16,906.13	12,524.00	77.20	78.12	85.51	-4,323.80	-1,231.29	1,985.72	1,832.02	153.70	12.919		
17,200.00	12,684.00	17,006.13	12,524.00	78.71	79.65	85.51	-4,423.80	-1,231.29	1,985.72	1,828.97	156.75	12.668		
17,300.00	12,684.00	17,106.13	12,524.00	80.22	81.18	85.51	-4,523.80	-1,231.29	1,985.72	1,825.91	159.81	12.425		
17,400.00	12,684.00	17,206.13	12,524.00	81.74	82.72	85.51	-4,623.80	-1,231.29	1,985.72	1,822.84	162.88	12.192		
17,500.00	12,684.00	17,306.13	12,524.00	83.27	84.26	85.51	-4,723.80	-1,231.29	1,985.72	1,819.77	165.95	11.966		
17,600.00	12,684.00	17,406.13	12,524.00	84.80	85.80	85.51	-4,823.80	-1,231.29	1,985.72	1,816.69	169.03	11.748		
17,700.00	12,684.00	17,506.13	12,524.00	86.33	87.35	85.51	-4,923.80	-1,231.29	1,985.72	1,813.61	172.11	11.537		
17,800.00	12,684.00	17,606.13	12,524.00	87.87	88.90	85.51	-5,023.80	-1,231.29	1,985.72	1,810.51	175.21	11.334		
17,900.00	12,684.00	17,706.13	12,524.00	89.41	90.45	85.51	-5,123.80	-1,231.29	1,985.72	1,807.42	178.30	11.137		
18,000.00	12,684.00	17,806.13	12,524.00	90.95	92.01	85.51	-5,223.80	-1,231.29	1,985.72	1,804.31	181.41	10.946		
18,100.00	12,684.00	17,906.13	12,524.00	92.50	93.57	85.51	-5,323.80	-1,231.29	1,985.72	1,801.20	184.52	10.762		
18,200.00	12,684.00	18,006.13	12,524.00	94.04	95.13	85.51	-5,423.80	-1,231.29	1,985.72	1,798.09	187.63	10.583		
18,300.00	12,684.00	18,106.13	12,524.00	95.60	96.69	85.51	-5,523.80	-1,231.29	1,985.72	1,794.97	190.75	10.410		
18,400.00	12,684.00	18,206.13	12,524.00	97.15	98.26	85.51	-5,623.80	-1,231.29	1,985.72	1,791.84	193.88	10.242		
18,500.00	12,684.00	18,306.13	12,524.00	98.71	99.82	85.51	-5,723.80	-1,231.29	1,985.72	1,788.72	197.01	10.080		
18,600.00	12,684.00	18,406.13	12,524.00	100.27	101.39	85.51	-5,823.80	-1,231.29	1,985.72	1,785.58	200.14	9.922		
18,700.00	12,684.00	18,506.13	12,524.00	101.83	102.97	85.51	-5,923.80	-1,231.29	1,985.72	1,782.45	203.27	9.769		
18,800.00	12,684.00	18,606.13	12,524.00	103.39	104.54	85.51	-6,023.80	-1,231.29	1,985.72	1,779.30	206.42	9.620		
18,900.00	12,684.00	18,706.13	12,524.00	104.96	106.11	85.51	-6,123.80	-1,231.29	1,985.72	1,776.16	209.56	9.476		
19,000.00	12,684.00	18,806.13	12,524.00	106.53	107.69	85.51	-6,223.80	-1,231.29	1,985.72	1,773.01	212.71	9.335		
19,100.00	12,684.00	18,906.13	12,524.00	108.10	109.27	85.51	-6,323.80	-1,231.29	1,985.72	1,769.86	215.86	9.199		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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	
19,200.00	12,684.00	19,006.13	12,524.00	109.67	110.85	85.51	-6,423.80	-1,231.29	1,985.72	1,766.71	219.01	9.067	
19,300.00	12,684.00	19,106.13	12,524.00	111.25	112.43	85.51	-6,523.80	-1,231.29	1,985.72	1,763.55	222.17	8.938	
19,400.00	12,684.00	19,206.13	12,524.00	112.82	114.02	85.51	-6,623.80	-1,231.29	1,985.72	1,760.39	225.33	8.812	
19,500.00	12,684.00	19,306.13	12,524.00	114.40	115.60	85.51	-6,723.80	-1,231.29	1,985.72	1,757.23	228.49	8.690	
19,600.00	12,684.00	19,406.13	12,524.00	115.98	117.19	85.51	-6,823.80	-1,231.29	1,985.72	1,754.06	231.66	8.572	
19,700.00	12,684.00	19,506.13	12,524.00	117.56	118.78	85.51	-6,923.80	-1,231.29	1,985.72	1,750.89	234.83	8.456	
19,800.00	12,684.00	19,606.13	12,524.00	119.14	120.37	85.51	-7,023.80	-1,231.29	1,985.72	1,747.72	238.00	8.343	
19,900.00	12,684.00	19,706.13	12,524.00	120.72	121.96	85.51	-7,123.80	-1,231.29	1,985.72	1,744.55	241.17	8.234	
20,000.00	12,684.00	19,806.13	12,524.00	122.31	123.55	85.51	-7,223.80	-1,231.29	1,985.72	1,741.37	244.35	8.127	
20,100.00	12,684.00	19,906.13	12,524.00	123.89	125.14	85.51	-7,323.80	-1,231.29	1,985.72	1,738.19	247.53	8.022	
20,200.00	12,684.00	20,006.13	12,524.00	125.48	126.73	85.51	-7,423.80	-1,231.29	1,985.72	1,735.01	250.71	7.920	
20,300.00	12,684.00	20,106.13	12,524.00	127.07	128.33	85.51	-7,523.80	-1,231.29	1,985.72	1,731.83	253.89	7.821	
20,400.00	12,684.00	20,206.13	12,524.00	128.66	129.92	85.51	-7,623.80	-1,231.29	1,985.72	1,728.65	257.07	7.724	
20,500.00	12,684.00	20,306.13	12,524.00	130.25	131.52	85.51	-7,723.80	-1,231.29	1,985.72	1,725.46	260.26	7.630	
20,600.00	12,684.00	20,406.13	12,524.00	131.84	133.12	85.51	-7,823.80	-1,231.29	1,985.72	1,722.27	263.45	7.537	
20,700.00	12,684.00	20,506.13	12,524.00	133.43	134.72	85.51	-7,923.80	-1,231.29	1,985.72	1,719.08	266.64	7.447	
20,800.00	12,684.00	20,606.13	12,524.00	135.03	136.32	85.51	-8,023.80	-1,231.29	1,985.72	1,715.89	269.83	7.359	
20,900.00	12,684.00	20,706.13	12,524.00	136.62	137.92	85.51	-8,123.80	-1,231.29	1,985.72	1,712.70	273.02	7.273	
21,000.00	12,684.00	20,806.13	12,524.00	138.22	139.52	85.51	-8,223.80	-1,231.29	1,985.72	1,709.51	276.21	7.189	
21,100.00	12,684.00	20,906.13	12,524.00	139.82	141.12	85.51	-8,323.80	-1,231.29	1,985.72	1,706.31	279.41	7.107	
21,200.00	12,684.00	21,006.13	12,524.00	141.41	142.72	85.51	-8,423.80	-1,231.29	1,985.72	1,703.11	282.61	7.026	
21,300.00	12,684.00	21,106.13	12,524.00	143.01	144.32	85.51	-8,523.80	-1,231.29	1,985.72	1,699.91	285.81	6.948	
21,400.00	12,684.00	21,206.13	12,524.00	144.61	145.93	85.51	-8,623.80	-1,231.29	1,985.72	1,696.71	289.01	6.871	
21,500.00	12,684.00	21,306.13	12,524.00	146.21	147.53	85.51	-8,723.80	-1,231.29	1,985.72	1,693.51	292.21	6.796	
21,600.00	12,684.00	21,406.13	12,524.00	147.81	149.14	85.51	-8,823.80	-1,231.29	1,985.72	1,690.31	295.41	6.722	
21,700.00	12,684.00	21,506.13	12,524.00	149.41	150.74	85.51	-8,923.80	-1,231.29	1,985.72	1,687.10	298.62	6.650	
21,800.00	12,684.00	21,606.13	12,524.00	151.01	152.35	85.51	-9,023.80	-1,231.29	1,985.72	1,683.90	301.82	6.579	
21,900.00	12,684.00	21,706.13	12,524.00	152.62	153.96	85.51	-9,123.80	-1,231.29	1,985.72	1,680.69	305.03	6.510	
22,000.00	12,684.00	21,806.13	12,524.00	154.22	155.56	85.51	-9,223.80	-1,231.29	1,985.72	1,677.48	308.24	6.442	
22,100.00	12,684.00	21,906.13	12,524.00	155.82	157.17	85.51	-9,323.80	-1,231.29	1,985.72	1,674.28	311.44	6.376	
22,200.00	12,684.00	22,006.13	12,524.00	157.43	158.78	85.51	-9,423.80	-1,231.29	1,985.72	1,671.07	314.65	6.311	
22,300.00	12,684.00	22,106.13	12,524.00	159.03	160.39	85.51	-9,523.80	-1,231.29	1,985.72	1,667.85	317.87	6.247	
22,400.00	12,684.00	22,206.13	12,524.00	160.64	162.00	85.51	-9,623.80	-1,231.29	1,985.72	1,664.64	321.08	6.185	
22,473.03	12,684.00	22,279.16	12,524.00	161.81	163.17	85.51	-9,696.83	-1,231.29	1,985.72	1,662.30	323.42	6.140 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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	
0.00	0.00	1.50	1.50	0.00	0.00	-86.16	175.08	-2,607.69	2,613.56				
100.00	100.00	101.50	101.50	0.08	0.09	-86.16	175.08	-2,607.69	2,613.56	2,613.39	0.17	N/A	
200.00	200.00	201.50	201.50	0.31	0.31	-86.16	175.08	-2,607.69	2,613.56	2,612.94	0.62	4,205.394	
300.00	300.00	301.50	301.50	0.53	0.54	-86.16	175.08	-2,607.69	2,613.56	2,612.49	1.07	2,440.276	
400.00	400.00	401.50	401.50	0.76	0.76	-86.16	175.08	-2,607.69	2,613.56	2,612.04	1.52	1,718.835	
500.00	500.00	501.50	501.50	0.98	0.99	-86.16	175.08	-2,607.69	2,613.56	2,611.59	1.97	1,326.630	
600.00	600.00	601.50	601.50	1.21	1.21	-86.16	175.08	-2,607.69	2,613.56	2,611.14	2.42	1,080.159	
700.00	700.00	701.50	701.50	1.43	1.44	-86.16	175.08	-2,607.69	2,613.56	2,610.69	2.87	910.922	
800.00	800.00	801.50	801.50	1.66	1.66	-86.16	175.08	-2,607.69	2,613.56	2,610.24	3.32	787.532	
900.00	900.00	901.50	901.50	1.88	1.89	-86.16	175.08	-2,607.69	2,613.56	2,609.79	3.77	693.583	
1,000.00	1,000.00	1,001.50	1,001.50	2.11	2.11	-86.16	175.08	-2,607.69	2,613.56	2,609.34	4.22	619.660	
1,100.00	1,100.00	1,101.50	1,101.50	2.33	2.34	-86.16	175.08	-2,607.69	2,613.56	2,608.89	4.67	559.977	
1,200.00	1,200.00	1,201.50	1,201.50	2.56	2.56	-86.16	175.08	-2,607.69	2,613.56	2,608.44	5.12	510.780	
1,300.00	1,300.00	1,301.50	1,301.50	2.78	2.78	-86.16	175.08	-2,607.69	2,613.56	2,607.99	5.57	469.530	
1,400.00	1,400.00	1,401.50	1,401.50	3.01	3.01	-86.16	175.08	-2,607.69	2,613.56	2,607.55	6.02	434.445	
1,500.00	1,500.00	1,501.50	1,501.50	3.23	3.23	-86.16	175.08	-2,607.69	2,613.56	2,607.10	6.47	404.238	
1,600.00	1,600.00	1,601.50	1,601.50	3.46	3.46	-86.16	175.08	-2,607.69	2,613.56	2,606.65	6.91	377.959	
1,700.00	1,700.00	1,701.50	1,701.50	3.68	3.68	-86.16	175.08	-2,607.69	2,613.56	2,606.20	7.36	354.888	
1,800.00	1,800.00	1,801.50	1,801.50	3.91	3.91	-86.16	175.08	-2,607.69	2,613.56	2,605.75	7.81	334.472	
1,900.00	1,900.00	1,901.50	1,901.50	4.13	4.13	-86.16	175.08	-2,607.69	2,613.56	2,605.30	8.26	316.277	
2,000.00	2,000.00	2,001.50	2,001.50	4.35	4.36	-86.16	175.08	-2,607.69	2,613.56	2,604.85	8.71	299.959	
2,100.00	2,100.00	2,101.50	2,101.50	4.58	4.58	-86.16	175.08	-2,607.69	2,613.56	2,604.40	9.16	285.243	
2,200.00	2,200.00	2,201.50	2,201.50	4.80	4.81	-86.16	175.08	-2,607.69	2,613.56	2,603.95	9.61	271.903	
2,300.00	2,300.00	2,301.50	2,301.50	5.03	5.03	-86.16	175.08	-2,607.69	2,613.56	2,603.50	10.06	259.755	
2,400.00	2,400.00	2,401.50	2,401.50	5.25	5.26	-86.16	175.08	-2,607.69	2,613.56	2,603.05	10.51	248.646	
2,416.16	2,416.16	2,417.66	2,417.66	5.29	5.29	-86.16	175.08	-2,607.69	2,613.56	2,602.98	10.58	246.939 CC	
2,500.00	2,500.00	2,500.00	2,500.00	5.48	5.48	-86.16	175.08	-2,607.69	2,613.56	2,602.60	10.96	238.521 ES	
2,600.00	2,599.99	2,570.56	2,570.56	5.69	5.63	-154.24	175.23	-2,608.10	2,614.95	2,603.62	11.32	230.916	
2,700.00	2,699.96	2,640.01	2,640.00	5.90	5.78	-154.24	175.66	-2,609.30	2,619.07	2,607.39	11.68	224.312	
2,800.00	2,799.86	2,700.00	2,699.96	6.11	5.90	-154.22	176.27	-2,610.97	2,625.95	2,613.94	12.00	218.754	
2,900.00	2,899.68	2,778.38	2,778.27	6.33	6.07	-154.20	177.39	-2,614.04	2,635.50	2,623.12	12.37	212.997	
3,000.00	2,999.37	2,847.16	2,846.95	6.55	6.21	-154.18	178.68	-2,617.57	2,647.78	2,635.06	12.72	208.135	
3,036.22	3,037.43	2,873.36	2,873.09	6.63	6.27	-154.17	179.24	-2,619.12	2,653.19	2,640.34	12.85	206.397	
3,100.00	3,098.94	2,915.61	2,915.25	6.77	6.36	-154.19	180.23	-2,621.85	2,662.47	2,649.40	13.07	203.732	
3,200.00	3,198.50	2,999.06	2,998.45	6.99	6.54	-154.22	182.44	-2,627.90	2,678.26	2,664.81	13.45	199.110	
3,300.00	3,298.05	3,097.77	3,096.85	7.22	6.76	-154.26	185.08	-2,635.18	2,694.20	2,680.32	13.87	194.193	
3,400.00	3,397.61	3,196.47	3,195.25	7.45	6.98	-154.30	187.73	-2,642.45	2,710.13	2,695.83	14.30	189.531	
3,500.00	3,497.17	3,295.18	3,293.65	7.69	7.20	-154.34	190.38	-2,649.73	2,726.07	2,711.34	14.73	185.106	
3,600.00	3,596.73	3,393.88	3,392.05	7.92	7.43	-154.38	193.02	-2,657.00	2,742.01	2,726.85	15.16	180.904	
3,700.00	3,696.29	3,492.59	3,490.45	8.16	7.65	-154.42	195.67	-2,664.28	2,757.95	2,742.36	15.59	176.909	
3,800.00	3,795.85	3,591.29	3,588.85	8.40	7.88	-154.45	198.32	-2,671.55	2,773.89	2,757.86	16.02	173.109	
3,900.00	3,895.41	3,690.00	3,687.25	8.64	8.11	-154.49	200.96	-2,678.82	2,789.83	2,773.37	16.46	169.491	
4,000.00	3,994.97	3,788.70	3,785.66	8.89	8.34	-154.53	203.61	-2,686.10	2,805.77	2,788.87	16.90	166.044	
4,100.00	4,094.53	3,887.41	3,884.06	9.13	8.57	-154.56	206.26	-2,693.37	2,821.72	2,804.38	17.34	162.756	
4,200.00	4,194.09	3,986.11	3,982.46	9.38	8.80	-154.60	208.91	-2,700.65	2,837.66	2,819.88	17.78	159.618	
4,300.00	4,293.65	4,084.82	4,080.86	9.63	9.04	-154.64	211.55	-2,707.92	2,853.61	2,835.39	18.22	156.621	
4,400.00	4,393.20	4,183.52	4,179.26	9.87	9.27	-154.67	214.20	-2,715.20	2,869.56	2,850.89	18.66	153.756	
4,500.00	4,492.76	4,282.23	4,277.66	10.12	9.51	-154.71	216.85	-2,722.47	2,885.50	2,866.40	19.11	151.014	
4,600.00	4,592.32	4,380.93	4,376.06	10.37	9.75	-154.74	219.49	-2,729.75	2,901.45	2,881.90	19.55	148.389	
4,700.00	4,691.88	4,479.64	4,474.46	10.63	9.99	-154.77	222.14	-2,737.02	2,917.40	2,897.40	20.00	145.874	
4,800.00	4,791.44	4,578.34	4,572.86	10.88	10.22	-154.81	224.79	-2,744.29	2,933.36	2,912.91	20.45	143.462	
4,900.00	4,891.00	4,677.05	4,671.26	11.13	10.46	-154.84	227.44	-2,751.57	2,949.31	2,928.41	20.90	141.148	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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	4,990.56	4,775.75	4,769.67	11.39	10.70	-154.87	230.08	-2,758.84	2,965.26	2,943.92	21.34	138.926	
5,100.00	5,090.12	4,874.46	4,868.07	11.64	10.95	-154.91	232.73	-2,766.12	2,981.22	2,959.42	21.79	136.790	
5,200.00	5,189.68	4,973.16	4,966.47	11.90	11.19	-154.94	235.38	-2,773.39	2,997.17	2,974.93	22.24	134.737	
5,300.00	5,289.24	5,071.87	5,064.87	12.15	11.43	-154.97	238.02	-2,780.67	3,013.13	2,990.43	22.70	132.761	
5,400.00	5,388.80	5,170.57	5,163.27	12.41	11.67	-155.00	240.67	-2,787.94	3,029.08	3,005.94	23.15	130.858	
5,500.00	5,488.36	5,269.28	5,261.67	12.66	11.91	-155.03	243.32	-2,795.22	3,045.04	3,021.44	23.60	129.025	
5,600.00	5,587.91	5,367.98	5,360.07	12.92	12.16	-155.06	245.96	-2,802.49	3,061.00	3,036.95	24.05	127.258	
5,700.00	5,687.47	5,466.69	5,458.47	13.18	12.40	-155.09	248.61	-2,809.76	3,076.96	3,052.45	24.51	125.554	
5,800.00	5,787.03	5,565.39	5,556.87	13.44	12.64	-155.12	251.26	-2,817.04	3,092.92	3,067.96	24.96	123.908	
5,900.00	5,886.59	5,664.10	5,655.27	13.70	12.89	-155.15	253.91	-2,824.31	3,108.88	3,083.47	25.42	122.320	
6,000.00	5,986.15	5,762.80	5,753.68	13.96	13.13	-155.18	256.55	-2,831.59	3,124.84	3,098.97	25.87	120.785	
6,100.00	6,085.71	5,861.51	5,852.08	14.22	13.38	-155.21	259.20	-2,838.86	3,140.81	3,114.48	26.33	119.301	
6,200.00	6,185.27	5,960.21	5,950.48	14.48	13.62	-155.24	261.85	-2,846.14	3,156.77	3,129.99	26.78	117.866	
6,300.00	6,284.83	6,058.92	6,048.88	14.74	13.87	-155.27	264.49	-2,853.41	3,172.74	3,145.50	27.24	116.477	
6,400.00	6,384.39	6,157.62	6,147.28	15.00	14.12	-155.30	267.14	-2,860.69	3,188.70	3,161.01	27.70	115.133	
6,500.00	6,483.95	6,256.33	6,245.68	15.26	14.36	-155.33	269.79	-2,867.96	3,204.67	3,176.51	28.15	113.830	
6,600.00	6,583.51	6,355.03	6,344.08	15.52	14.61	-155.36	272.44	-2,875.24	3,220.63	3,192.02	28.61	112.568	
6,700.00	6,683.06	6,453.74	6,442.48	15.78	14.86	-155.38	275.08	-2,882.51	3,236.60	3,207.53	29.07	111.344	
6,800.00	6,782.62	6,552.44	6,540.88	16.04	15.10	-155.41	277.73	-2,889.78	3,252.57	3,223.04	29.53	110.157	
6,900.00	6,882.18	6,651.15	6,639.28	16.31	15.35	-155.44	280.38	-2,897.06	3,268.54	3,238.55	29.99	109.005	
7,000.00	6,981.74	6,749.85	6,737.68	16.57	15.60	-155.47	283.02	-2,904.33	3,284.51	3,254.06	30.44	107.887	
7,100.00	7,081.30	6,848.56	6,836.09	16.83	15.85	-155.49	285.67	-2,911.61	3,300.48	3,269.58	30.90	106.801	
7,200.00	7,180.86	6,947.26	6,934.49	17.09	16.09	-155.52	288.32	-2,918.88	3,316.45	3,285.09	31.36	105.746	
7,300.00	7,280.42	7,045.97	7,032.89	17.36	16.34	-155.54	290.96	-2,926.16	3,332.42	3,300.60	31.82	104.721	
7,400.00	7,379.98	7,144.67	7,131.29	17.62	16.59	-155.57	293.61	-2,933.43	3,348.39	3,316.11	32.28	103.723	
7,500.00	7,479.54	7,243.38	7,229.69	17.88	16.84	-155.60	296.26	-2,940.71	3,364.37	3,331.63	32.74	102.754	
7,600.00	7,579.10	7,342.08	7,328.09	18.15	17.09	-155.62	298.91	-2,947.98	3,380.34	3,347.14	33.20	101.810	
7,700.00	7,678.66	7,440.79	7,426.49	18.41	17.34	-155.65	301.55	-2,955.25	3,396.32	3,362.65	33.66	100.891	
7,800.00	7,778.21	7,539.49	7,524.89	18.67	17.59	-155.67	304.20	-2,962.53	3,412.29	3,378.17	34.12	99.997	
7,900.00	7,877.77	7,638.20	7,623.29	18.94	17.83	-155.70	306.85	-2,969.80	3,428.27	3,393.68	34.59	99.126	
8,000.00	7,977.33	7,736.90	7,721.69	19.20	18.08	-155.72	309.49	-2,977.08	3,444.24	3,409.20	35.05	98.277	
8,100.00	8,076.89	7,835.61	7,820.10	19.47	18.33	-155.74	312.14	-2,984.35	3,460.22	3,424.71	35.51	97.450	
8,200.00	8,176.45	7,934.31	7,918.50	19.73	18.58	-155.77	314.79	-2,991.63	3,476.20	3,440.23	35.97	96.643	
8,300.00	8,276.01	8,033.02	8,016.90	20.00	18.83	-155.79	317.44	-2,998.90	3,492.18	3,455.74	36.43	95.856	
8,400.00	8,375.57	8,131.72	8,115.30	20.26	19.08	-155.81	320.08	-3,006.18	3,508.15	3,471.26	36.89	95.089	
8,500.00	8,475.13	8,230.43	8,213.70	20.52	19.33	-155.84	322.73	-3,013.45	3,524.13	3,486.78	37.36	94.340	
8,600.00	8,574.69	8,329.13	8,312.10	20.79	19.58	-155.86	325.38	-3,020.72	3,540.11	3,502.29	37.82	93.609	
8,700.00	8,674.25	8,427.84	8,410.50	21.05	19.83	-155.88	328.02	-3,028.00	3,556.09	3,517.81	38.28	92.895	
8,800.00	8,773.81	8,526.54	8,508.90	21.32	20.08	-155.91	330.67	-3,035.27	3,572.07	3,533.33	38.74	92.198	
8,900.00	8,873.37	8,625.25	8,607.30	21.59	20.33	-155.93	333.32	-3,042.55	3,588.06	3,548.85	39.21	91.516	
9,000.00	8,972.92	8,723.95	8,705.70	21.85	20.58	-155.95	335.96	-3,049.82	3,604.04	3,564.37	39.67	90.851	
9,100.00	9,072.48	8,822.66	8,804.10	22.12	20.83	-155.97	338.61	-3,057.10	3,620.02	3,579.89	40.13	90.200	
9,200.00	9,172.04	8,921.36	8,902.51	22.38	21.08	-156.00	341.26	-3,064.37	3,636.00	3,595.41	40.60	89.564	
9,300.00	9,271.60	9,020.07	9,000.91	22.65	21.33	-156.02	343.91	-3,071.65	3,651.99	3,610.93	41.06	88.942	
9,400.00	9,371.16	9,118.77	9,099.31	22.91	21.58	-156.04	346.55	-3,078.92	3,667.97	3,626.45	41.52	88.334	
9,500.00	9,470.72	9,217.48	9,197.71	23.18	21.83	-156.06	349.20	-3,086.19	3,683.96	3,641.97	41.99	87.738	
9,600.00	9,570.28	9,316.18	9,296.11	23.45	22.08	-156.08	351.85	-3,093.47	3,699.94	3,657.49	42.45	87.156	
9,700.00	9,669.84	9,414.89	9,394.51	23.71	22.34	-156.10	354.49	-3,100.74	3,715.93	3,673.01	42.92	86.585	
9,800.00	9,769.40	9,513.59	9,492.91	23.98	22.59	-156.12	357.14	-3,108.02	3,731.91	3,688.53	43.38	86.027	
9,900.00	9,868.96	9,612.30	9,591.31	24.24	22.84	-156.14	359.79	-3,115.29	3,747.90	3,704.05	43.85	85.480	
10,000.00	9,968.52	9,711.00	9,689.71	24.51	23.09	-156.16	362.44	-3,122.57	3,763.88	3,719.58	44.31	84.945	
10,100.00	10,068.07	9,809.71	9,788.11	24.78	23.34	-156.18	365.08	-3,129.84	3,779.87	3,735.10	44.77	84.420	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
10,200.00	10,167.63	9,908.41	9,886.52	25.04	23.59	-156.20	367.73	-3,137.12	3,795.86	3,750.62	45.24	83.906		
10,300.00	10,267.19	10,007.12	9,984.92	25.31	23.84	-156.22	370.38	-3,144.39	3,811.85	3,766.14	45.70	83.402		
10,400.00	10,366.75	10,105.82	10,083.32	25.58	24.09	-156.24	373.02	-3,151.66	3,827.84	3,781.67	46.17	82.908		
10,500.00	10,466.31	10,204.53	10,181.72	25.84	24.34	-156.26	375.67	-3,158.94	3,843.83	3,797.19	46.64	82.423		
10,600.00	10,565.87	10,303.23	10,280.12	26.11	24.60	-156.28	378.32	-3,166.21	3,859.82	3,812.72	47.10	81.948		
10,700.00	10,665.43	10,401.94	10,378.52	26.38	24.85	-156.30	380.96	-3,173.49	3,875.81	3,828.24	47.57	81.482		
10,800.00	10,764.99	10,500.64	10,476.92	26.64	25.10	-156.32	383.61	-3,180.76	3,891.80	3,843.76	48.03	81.025		
10,900.00	10,864.55	10,599.35	10,575.32	26.91	25.35	-156.34	386.26	-3,188.04	3,907.79	3,859.29	48.50	80.577		
11,000.00	10,964.11	10,698.05	10,673.72	27.18	25.60	-156.36	388.91	-3,195.31	3,923.78	3,874.81	48.96	80.136		
11,098.90	11,062.57	10,795.67	10,771.04	27.44	25.85	-156.38	391.52	-3,202.51	3,939.59	3,890.17	49.42	79.709		
11,100.00	11,063.67	10,796.76	10,772.12	27.44	25.85	-156.38	391.55	-3,202.59	3,939.77	3,890.34	49.43	79.705		
11,200.00	11,163.30	10,895.59	10,870.65	27.64	26.11	-156.45	394.20	-3,209.87	3,954.95	3,905.11	49.85	79.340		
11,300.00	11,263.07	10,994.66	10,969.42	27.84	26.36	-156.51	396.86	-3,217.17	3,968.56	3,918.29	50.26	78.954		
11,400.00	11,362.95	11,128.29	11,102.66	28.02	26.67	-156.55	400.36	-3,226.80	3,980.49	3,929.74	50.76	78.424		
11,500.00	11,462.89	11,421.21	11,395.26	28.20	27.20	-156.57	404.75	-3,238.86	3,987.64	3,936.12	51.53	77.392		
11,600.00	11,562.88	11,590.33	11,564.38	28.36	27.49	-156.59	405.08	-3,239.76	3,989.35	3,937.33	52.01	76.696		
11,637.12	11,600.00	11,627.45	11,601.50	28.42	27.57	-88.51	405.08	-3,239.76	3,989.46	3,937.30	52.16	76.491		
11,700.00	11,662.88	11,690.33	11,664.38	28.54	27.69	-88.51	405.08	-3,239.76	3,989.46	3,937.05	52.41	76.123		
11,800.00	11,762.88	11,790.33	11,764.38	28.73	27.89	-88.51	405.08	-3,239.76	3,989.46	3,936.64	52.82	75.526		
11,900.00	11,862.88	11,890.33	11,864.38	28.92	28.09	-88.51	405.08	-3,239.76	3,989.46	3,936.22	53.24	74.937		
12,000.00	11,962.88	11,990.33	11,964.38	29.12	28.29	-88.51	405.08	-3,239.76	3,989.46	3,935.81	53.65	74.357		
12,100.00	12,062.88	12,090.33	12,064.38	29.31	28.49	-88.51	405.08	-3,239.76	3,989.46	3,935.39	54.07	73.785		
12,148.16	12,111.04	12,147.57	12,121.55	29.41	28.59	-88.54	402.85	-3,239.76	3,989.41	3,935.14	54.27	73.511		
12,150.00	12,112.88	12,149.80	12,123.78	29.41	28.59	91.46	402.85	-3,239.76	3,989.41	3,935.13	54.28	73.501		
12,200.00	12,162.81	12,210.05	12,183.36	29.49	28.68	91.39	393.96	-3,239.76	3,989.28	3,934.83	54.45	73.265		
12,250.00	12,212.34	12,269.51	12,240.96	29.56	28.76	91.30	379.30	-3,239.76	3,989.15	3,934.55	54.60	73.063		
12,300.00	12,261.11	12,328.11	12,295.94	29.62	28.82	91.21	359.10	-3,239.76	3,989.00	3,934.28	54.73	72.891		
12,350.00	12,308.73	12,385.77	12,347.74	29.67	28.88	91.10	333.83	-3,239.76	3,988.86	3,934.02	54.83	72.745		
12,400.00	12,354.85	12,442.45	12,395.94	29.71	28.93	90.99	304.05	-3,239.76	3,988.71	3,933.78	54.93	72.618		
12,450.00	12,399.11	12,498.13	12,440.20	29.75	28.98	90.87	270.30	-3,239.76	3,988.57	3,933.56	55.01	72.502		
12,500.00	12,441.18	12,552.79	12,480.26	29.77	29.02	90.74	233.15	-3,239.76	3,988.45	3,933.35	55.10	72.389		
12,550.00	12,480.74	12,606.43	12,515.96	29.80	29.06	90.61	193.13	-3,239.76	3,988.34	3,933.15	55.19	72.272		
12,600.00	12,517.48	12,659.09	12,547.21	29.82	29.10	90.48	150.78	-3,239.76	3,988.24	3,932.96	55.28	72.143		
12,650.00	12,551.13	12,710.79	12,573.99	29.83	29.15	90.34	106.58	-3,239.76	3,988.17	3,932.78	55.39	71.996		
12,700.00	12,581.43	12,761.55	12,596.30	29.85	29.20	90.21	60.99	-3,239.76	3,988.13	3,932.60	55.53	71.825		
12,750.00	12,608.15	12,811.43	12,614.21	29.87	29.27	90.07	14.46	-3,239.76	3,988.10	3,932.42	55.68	71.627		
12,774.66	12,619.95	12,835.72	12,621.45	29.88	29.30	90.00	-8.73	-3,239.76	3,988.10	3,932.33	55.77	71.516		
12,800.00	12,631.09	12,860.47	12,627.81	29.90	29.35	89.93	-32.64	-3,239.76	3,988.10	3,932.25	55.86	71.399		
12,850.00	12,650.07	12,908.72	12,637.21	29.93	29.44	89.80	-79.95	-3,239.76	3,988.13	3,932.06	56.06	71.138		
12,900.00	12,664.95	12,956.23	12,642.55	29.98	29.56	89.66	-127.15	-3,239.76	3,988.17	3,931.88	56.29	70.845		
12,950.00	12,675.81	13,003.39	12,644.00	30.05	29.70	89.53	-174.28	-3,239.76	3,988.24	3,931.68	56.56	70.517		
13,000.00	12,681.98	13,052.97	12,644.00	30.13	29.86	89.43	-223.85	-3,239.76	3,988.30	3,931.42	56.87	70.129		
13,048.16	12,684.00	13,101.07	12,644.00	30.24	30.04	89.40	-271.96	-3,239.76	3,988.32	3,931.13	57.19	69.738		
13,100.00	12,684.00	13,152.91	12,644.00	30.37	30.26	89.40	-323.80	-3,239.76	3,988.32	3,930.72	57.60	69.244		
13,200.00	12,684.00	13,252.91	12,644.00	30.70	30.75	89.40	-423.80	-3,239.76	3,988.32	3,929.82	58.50	68.182		
13,300.00	12,684.00	13,352.91	12,644.00	31.12	31.32	89.40	-523.80	-3,239.76	3,988.32	3,928.76	59.56	66.965		
13,400.00	12,684.00	13,452.91	12,644.00	31.62	31.97	89.40	-623.80	-3,239.76	3,988.32	3,927.54	60.78	65.620		
13,500.00	12,684.00	13,552.91	12,644.00	32.21	32.68	89.40	-723.80	-3,239.76	3,988.32	3,926.17	62.15	64.175		
13,600.00	12,684.00	13,652.91	12,644.00	32.87	33.46	89.40	-823.80	-3,239.76	3,988.32	3,924.66	63.65	62.656		
13,700.00	12,684.00	13,752.91	12,644.00	33.59	34.31	89.40	-923.80	-3,239.76	3,988.32	3,923.03	65.29	61.086		
13,800.00	12,684.00	13,852.91	12,644.00	34.38	35.21	89.40	-1,023.80	-3,239.76	3,988.32	3,921.27	67.05	59.487		
13,900.00	12,684.00	13,952.91	12,644.00	35.23	36.16	89.40	-1,123.80	-3,239.76	3,988.32	3,919.40	68.91	57.876		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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	
14,000.00	12,684.00	14,052.91	12,644.00	36.14	37.16	89.40	-1,223.80	-3,239.76	3,988.32	3,917.44	70.88	56.269	
14,100.00	12,684.00	14,152.91	12,644.00	37.10	38.20	89.40	-1,323.80	-3,239.76	3,988.32	3,915.38	72.94	54.679	
14,200.00	12,684.00	14,252.91	12,644.00	38.10	39.28	89.40	-1,423.80	-3,239.76	3,988.32	3,913.23	75.09	53.116	
14,300.00	12,684.00	14,352.91	12,644.00	39.14	40.40	89.40	-1,523.80	-3,239.76	3,988.32	3,911.00	77.31	51.587	
14,400.00	12,684.00	14,452.91	12,644.00	40.23	41.55	89.40	-1,623.80	-3,239.76	3,988.32	3,908.71	79.61	50.098	
14,500.00	12,684.00	14,552.91	12,644.00	41.35	42.74	89.40	-1,723.80	-3,239.76	3,988.32	3,906.34	81.97	48.654	
14,600.00	12,684.00	14,652.91	12,644.00	42.50	43.95	89.40	-1,823.80	-3,239.76	3,988.32	3,903.92	84.40	47.256	
14,700.00	12,684.00	14,752.91	12,644.00	43.68	45.19	89.40	-1,923.80	-3,239.76	3,988.32	3,901.44	86.88	45.907	
14,800.00	12,684.00	14,852.91	12,644.00	44.90	46.46	89.40	-2,023.80	-3,239.76	3,988.32	3,898.91	89.41	44.608	
14,900.00	12,684.00	14,952.91	12,644.00	46.13	47.75	89.40	-2,123.80	-3,239.76	3,988.32	3,896.33	91.98	43.358	
15,000.00	12,684.00	15,052.91	12,644.00	47.40	49.05	89.40	-2,223.80	-3,239.76	3,988.32	3,893.71	94.60	42.158	
15,100.00	12,684.00	15,152.91	12,644.00	48.68	50.38	89.40	-2,323.80	-3,239.76	3,988.32	3,891.05	97.26	41.005	
15,200.00	12,684.00	15,252.91	12,644.00	49.99	51.73	89.40	-2,423.80	-3,239.76	3,988.32	3,888.36	99.96	39.900	
15,300.00	12,684.00	15,352.91	12,644.00	51.31	53.09	89.40	-2,523.80	-3,239.76	3,988.32	3,885.63	102.69	38.839	
15,400.00	12,684.00	15,452.91	12,644.00	52.65	54.46	89.40	-2,623.80	-3,239.76	3,988.32	3,882.87	105.45	37.823	
15,500.00	12,684.00	15,552.91	12,644.00	54.01	55.85	89.40	-2,723.80	-3,239.76	3,988.32	3,880.08	108.24	36.849	
15,600.00	12,684.00	15,652.91	12,644.00	55.38	57.25	89.40	-2,823.80	-3,239.76	3,988.32	3,877.27	111.05	35.915	
15,700.00	12,684.00	15,752.91	12,644.00	56.77	58.67	89.40	-2,923.80	-3,239.76	3,988.32	3,874.43	113.89	35.020	
15,800.00	12,684.00	15,852.91	12,644.00	58.17	60.09	89.40	-3,023.80	-3,239.76	3,988.32	3,871.57	116.75	34.162	
15,900.00	12,684.00	15,952.91	12,644.00	59.58	61.53	89.40	-3,123.80	-3,239.76	3,988.32	3,868.69	119.63	33.339	
16,000.00	12,684.00	16,052.91	12,644.00	61.00	62.98	89.40	-3,223.80	-3,239.76	3,988.32	3,865.78	122.53	32.549	
16,100.00	12,684.00	16,152.91	12,644.00	62.43	64.43	89.40	-3,323.80	-3,239.76	3,988.32	3,862.87	125.45	31.792	
16,200.00	12,684.00	16,252.91	12,644.00	63.87	65.89	89.40	-3,423.80	-3,239.76	3,988.32	3,859.93	128.39	31.065	
16,300.00	12,684.00	16,352.91	12,644.00	65.32	67.36	89.40	-3,523.80	-3,239.76	3,988.32	3,856.98	131.34	30.367	
16,400.00	12,684.00	16,452.91	12,644.00	66.78	68.84	89.40	-3,623.80	-3,239.76	3,988.32	3,854.01	134.31	29.696	
16,500.00	12,684.00	16,552.91	12,644.00	68.25	70.33	89.40	-3,723.80	-3,239.76	3,988.32	3,851.03	137.29	29.051	
16,600.00	12,684.00	16,652.91	12,644.00	69.73	71.82	89.40	-3,823.80	-3,239.76	3,988.32	3,848.04	140.28	28.431	
16,700.00	12,684.00	16,752.91	12,644.00	71.21	73.32	89.40	-3,923.80	-3,239.76	3,988.32	3,845.03	143.28	27.835	
16,800.00	12,684.00	16,852.91	12,644.00	72.70	74.82	89.40	-4,023.80	-3,239.76	3,988.32	3,842.01	146.30	27.261	
16,900.00	12,684.00	16,952.91	12,644.00	74.19	76.33	89.40	-4,123.80	-3,239.76	3,988.32	3,838.99	149.33	26.708	
17,000.00	12,684.00	17,052.91	12,644.00	75.69	77.84	89.40	-4,223.80	-3,239.76	3,988.32	3,835.95	152.37	26.176	
17,100.00	12,684.00	17,152.91	12,644.00	77.20	79.36	89.40	-4,323.80	-3,239.76	3,988.32	3,832.90	155.41	25.663	
17,200.00	12,684.00	17,252.91	12,644.00	78.71	80.89	89.40	-4,423.80	-3,239.76	3,988.32	3,829.85	158.47	25.168	
17,300.00	12,684.00	17,352.91	12,644.00	80.22	82.41	89.40	-4,523.80	-3,239.76	3,988.32	3,826.78	161.53	24.691	
17,400.00	12,684.00	17,452.91	12,644.00	81.74	83.95	89.40	-4,623.80	-3,239.76	3,988.32	3,823.71	164.60	24.230	
17,500.00	12,684.00	17,552.91	12,644.00	83.27	85.48	89.40	-4,723.80	-3,239.76	3,988.32	3,820.63	167.68	23.785	
17,600.00	12,684.00	17,652.91	12,644.00	84.80	87.02	89.40	-4,823.80	-3,239.76	3,988.32	3,817.55	170.77	23.355	
17,700.00	12,684.00	17,752.91	12,644.00	86.33	88.56	89.40	-4,923.80	-3,239.76	3,988.32	3,814.45	173.86	22.940	
17,800.00	12,684.00	17,852.91	12,644.00	87.87	90.11	89.40	-5,023.80	-3,239.76	3,988.32	3,811.36	176.96	22.538	
17,900.00	12,684.00	17,952.91	12,644.00	89.41	91.66	89.40	-5,123.80	-3,239.76	3,988.32	3,808.25	180.07	22.149	
18,000.00	12,684.00	18,052.91	12,644.00	90.95	93.21	89.40	-5,223.80	-3,239.76	3,988.32	3,805.14	183.18	21.773	
18,100.00	12,684.00	18,152.91	12,644.00	92.50	94.76	89.40	-5,323.80	-3,239.76	3,988.32	3,802.02	186.29	21.409	
18,200.00	12,684.00	18,252.91	12,644.00	94.04	96.32	89.40	-5,423.80	-3,239.76	3,988.32	3,798.90	189.41	21.056	
18,300.00	12,684.00	18,352.91	12,644.00	95.60	97.88	89.40	-5,523.80	-3,239.76	3,988.32	3,795.78	192.54	20.714	
18,400.00	12,684.00	18,452.91	12,644.00	97.15	99.44	89.40	-5,623.80	-3,239.76	3,988.32	3,792.64	195.67	20.383	
18,500.00	12,684.00	18,552.91	12,644.00	98.71	101.01	89.40	-5,723.80	-3,239.76	3,988.32	3,789.51	198.81	20.061	
18,600.00	12,684.00	18,652.91	12,644.00	100.27	102.57	89.40	-5,823.80	-3,239.76	3,988.32	3,786.37	201.95	19.749	
18,700.00	12,684.00	18,752.91	12,644.00	101.83	104.14	89.40	-5,923.80	-3,239.76	3,988.32	3,783.23	205.09	19.447	
18,800.00	12,684.00	18,852.91	12,644.00	103.39	105.71	89.40	-6,023.80	-3,239.76	3,988.32	3,780.08	208.24	19.153	
18,900.00	12,684.00	18,952.91	12,644.00	104.96	107.28	89.40	-6,123.80	-3,239.76	3,988.32	3,776.93	211.39	18.867	
19,000.00	12,684.00	19,052.91	12,644.00	106.53	108.86	89.40	-6,223.80	-3,239.76	3,988.32	3,773.77	214.54	18.590	
19,100.00	12,684.00	19,152.91	12,644.00	108.10	110.43	89.40	-6,323.80	-3,239.76	3,988.32	3,770.61	217.70	18.320	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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							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		
19,200.00	12,684.00	19,252.91	12,644.00	109.67	112.01	89.40	-6,423.80	-3,239.76	3,988.32	3,767.45	220.86	18.058		
19,300.00	12,684.00	19,352.91	12,644.00	111.25	113.59	89.40	-6,523.80	-3,239.76	3,988.32	3,764.29	224.03	17.803		
19,400.00	12,684.00	19,452.91	12,644.00	112.82	115.17	89.40	-6,623.80	-3,239.76	3,988.32	3,761.12	227.19	17.555		
19,500.00	12,684.00	19,552.91	12,644.00	114.40	116.75	89.40	-6,723.80	-3,239.76	3,988.32	3,757.95	230.36	17.313		
19,600.00	12,684.00	19,652.91	12,644.00	115.98	118.34	89.40	-6,823.80	-3,239.76	3,988.32	3,754.78	233.54	17.078		
19,700.00	12,684.00	19,752.91	12,644.00	117.56	119.92	89.40	-6,923.80	-3,239.76	3,988.32	3,751.60	236.71	16.849		
19,800.00	12,684.00	19,852.91	12,644.00	119.14	121.51	89.40	-7,023.80	-3,239.76	3,988.32	3,748.43	239.89	16.626		
19,900.00	12,684.00	19,952.91	12,644.00	120.72	123.10	89.40	-7,123.80	-3,239.76	3,988.32	3,745.25	243.07	16.408		
20,000.00	12,684.00	20,052.91	12,644.00	122.31	124.68	89.40	-7,223.80	-3,239.76	3,988.32	3,742.06	246.25	16.196		
20,100.00	12,684.00	20,152.91	12,644.00	123.89	126.27	89.40	-7,323.80	-3,239.76	3,988.32	3,738.88	249.44	15.989		
20,200.00	12,684.00	20,252.91	12,644.00	125.48	127.87	89.40	-7,423.80	-3,239.76	3,988.32	3,735.69	252.63	15.787		
20,300.00	12,684.00	20,352.91	12,644.00	127.07	129.46	89.40	-7,523.80	-3,239.76	3,988.32	3,732.50	255.81	15.591		
20,400.00	12,684.00	20,452.91	12,644.00	128.66	131.05	89.40	-7,623.80	-3,239.76	3,988.32	3,729.31	259.01	15.399		
20,500.00	12,684.00	20,552.91	12,644.00	130.25	132.65	89.40	-7,723.80	-3,239.76	3,988.32	3,726.12	262.20	15.211		
20,600.00	12,684.00	20,652.91	12,644.00	131.84	134.24	89.40	-7,823.80	-3,239.76	3,988.32	3,722.92	265.39	15.028		
20,700.00	12,684.00	20,752.91	12,644.00	133.43	135.84	89.40	-7,923.80	-3,239.76	3,988.32	3,719.73	268.59	14.849		
20,800.00	12,684.00	20,852.91	12,644.00	135.03	137.43	89.40	-8,023.80	-3,239.76	3,988.32	3,716.53	271.79	14.674		
20,900.00	12,684.00	20,952.91	12,644.00	136.62	139.03	89.40	-8,123.80	-3,239.76	3,988.32	3,713.33	274.99	14.504		
21,000.00	12,684.00	21,052.91	12,644.00	138.22	140.63	89.40	-8,223.80	-3,239.76	3,988.32	3,710.13	278.19	14.337		
21,100.00	12,684.00	21,152.91	12,644.00	139.82	142.23	89.40	-8,323.80	-3,239.76	3,988.32	3,706.92	281.39	14.173		
21,200.00	12,684.00	21,252.91	12,644.00	141.41	143.83	89.40	-8,423.80	-3,239.76	3,988.32	3,703.72	284.60	14.014		
21,300.00	12,684.00	21,352.91	12,644.00	143.01	145.43	89.40	-8,523.80	-3,239.76	3,988.32	3,700.51	287.80	13.858		
21,400.00	12,684.00	21,452.91	12,644.00	144.61	147.03	89.40	-8,623.80	-3,239.76	3,988.32	3,697.30	291.01	13.705		
21,500.00	12,684.00	21,552.91	12,644.00	146.21	148.64	89.40	-8,723.80	-3,239.76	3,988.32	3,694.10	294.22	13.556		
21,600.00	12,684.00	21,652.91	12,644.00	147.81	150.24	89.40	-8,823.80	-3,239.76	3,988.32	3,690.89	297.43	13.409		
21,700.00	12,684.00	21,752.91	12,644.00	149.41	151.84	89.40	-8,923.80	-3,239.76	3,988.32	3,687.67	300.64	13.266		
21,800.00	12,684.00	21,852.91	12,644.00	151.01	153.45	89.40	-9,023.80	-3,239.76	3,988.32	3,684.46	303.85	13.126		
21,900.00	12,684.00	21,952.91	12,644.00	152.62	155.05	89.40	-9,123.80	-3,239.76	3,988.32	3,681.25	307.07	12.988		
22,000.00	12,684.00	22,052.91	12,644.00	154.22	156.66	89.40	-9,223.80	-3,239.76	3,988.32	3,678.03	310.28	12.854		
22,100.00	12,684.00	22,152.91	12,644.00	155.82	158.26	89.40	-9,323.80	-3,239.76	3,988.32	3,674.82	313.50	12.722		
22,200.00	12,684.00	22,252.91	12,644.00	157.43	159.87	89.40	-9,423.80	-3,239.76	3,988.32	3,671.60	316.72	12.593		
22,300.00	12,684.00	22,352.91	12,644.00	159.03	161.48	89.40	-9,523.80	-3,239.76	3,988.32	3,668.38	319.93	12.466		
22,400.00	12,684.00	22,452.91	12,644.00	160.64	163.09	89.40	-9,623.80	-3,239.76	3,988.32	3,665.16	323.15	12.342		
22,473.03	12,684.00	22,525.95	12,644.00	161.81	164.26	89.40	-9,696.83	-3,239.76	3,988.32	3,662.81	325.50	12.253 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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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 (°)	Offset Wellbore Centre		Distance			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)	Minimum Separation (usft)		
0.00	0.00	2.70	2.70	0.00	0.00	-86.01	175.83	-2,517.71	2,523.84				
100.00	100.00	102.70	102.70	0.08	0.09	-86.01	175.83	-2,517.71	2,523.84	2,523.67	0.17	N/A	
200.00	200.00	202.70	202.70	0.31	0.32	-86.01	175.83	-2,517.71	2,523.84	2,523.22	0.62	4,043.482	
300.00	300.00	302.70	302.70	0.53	0.54	-86.01	175.83	-2,517.71	2,523.84	2,522.77	1.07	2,350.586	
400.00	400.00	402.70	402.70	0.76	0.76	-86.01	175.83	-2,517.71	2,523.84	2,522.32	1.52	1,656.891	
500.00	500.00	502.70	502.70	0.98	0.99	-86.01	175.83	-2,517.71	2,523.84	2,521.87	1.97	1,279.338	
600.00	600.00	602.70	602.70	1.21	1.21	-86.01	175.83	-2,517.71	2,523.84	2,521.42	2.42	1,041.918	
700.00	700.00	702.70	702.70	1.43	1.44	-86.01	175.83	-2,517.71	2,523.84	2,520.97	2.87	878.825	
800.00	800.00	802.70	802.70	1.66	1.66	-86.01	175.83	-2,517.71	2,523.84	2,520.52	3.32	759.880	
900.00	900.00	902.70	902.70	1.88	1.89	-86.01	175.83	-2,517.71	2,523.84	2,520.07	3.77	669.294	
1,000.00	1,000.00	1,002.70	1,002.70	2.11	2.11	-86.01	175.83	-2,517.71	2,523.84	2,519.62	4.22	598.006	
1,100.00	1,100.00	1,102.70	1,102.70	2.33	2.34	-86.01	175.83	-2,517.71	2,523.84	2,519.17	4.67	540.441	
1,200.00	1,200.00	1,202.70	1,202.70	2.56	2.56	-86.01	175.83	-2,517.71	2,523.84	2,518.72	5.12	492.986	
1,300.00	1,300.00	1,302.70	1,302.70	2.78	2.79	-86.01	175.83	-2,517.71	2,523.84	2,518.27	5.57	453.193	
1,400.00	1,400.00	1,402.70	1,402.70	3.01	3.01	-86.01	175.83	-2,517.71	2,523.84	2,517.82	6.02	419.343	
1,500.00	1,500.00	1,502.70	1,502.70	3.23	3.24	-86.01	175.83	-2,517.71	2,523.84	2,517.37	6.47	390.199	
1,600.00	1,600.00	1,602.70	1,602.70	3.46	3.46	-86.01	175.83	-2,517.71	2,523.84	2,516.92	6.92	364.842	
1,700.00	1,700.00	1,702.70	1,702.70	3.68	3.69	-86.01	175.83	-2,517.71	2,523.84	2,516.48	7.37	342.580	
1,800.00	1,800.00	1,802.70	1,802.70	3.91	3.91	-86.01	175.83	-2,517.71	2,523.84	2,516.03	7.82	322.879	
1,900.00	1,900.00	1,902.70	1,902.70	4.13	4.14	-86.01	175.83	-2,517.71	2,523.84	2,515.58	8.27	305.320	
2,000.00	2,000.00	2,002.70	2,002.70	4.35	4.36	-86.01	175.83	-2,517.71	2,523.84	2,515.13	8.72	289.573	
2,100.00	2,100.00	2,102.70	2,102.70	4.58	4.59	-86.01	175.83	-2,517.71	2,523.84	2,514.68	9.17	275.370	
2,200.00	2,200.00	2,202.70	2,202.70	4.80	4.81	-86.01	175.83	-2,517.71	2,523.84	2,514.23	9.61	262.495	
2,300.00	2,300.00	2,302.70	2,302.70	5.03	5.04	-86.01	175.83	-2,517.71	2,523.84	2,513.78	10.06	250.771	
2,400.00	2,400.00	2,402.70	2,402.70	5.25	5.26	-86.01	175.83	-2,517.71	2,523.84	2,513.33	10.51	240.049	
2,500.00	2,500.00	2,502.70	2,502.70	5.48	5.48	-86.01	175.83	-2,517.71	2,523.84	2,512.88	10.96	230.206 CC	
2,600.00	2,599.99	2,602.69	2,602.69	5.69	5.71	-154.10	175.83	-2,517.71	2,524.63	2,513.22	11.40	221.385	
2,700.00	2,699.96	2,702.66	2,702.66	5.90	5.93	-154.11	175.83	-2,517.71	2,526.98	2,515.15	11.84	213.499	
2,800.00	2,799.86	2,802.56	2,802.56	6.11	6.16	-154.14	175.83	-2,517.71	2,530.91	2,518.64	12.27	206.277	
2,900.00	2,899.68	2,902.38	2,902.38	6.33	6.38	-154.18	175.83	-2,517.71	2,536.40	2,523.70	12.70	199.655	
3,000.00	2,999.37	3,003.71	3,003.71	6.55	6.61	-154.22	175.83	-2,517.71	2,543.47	2,530.33	13.14	193.526	
3,038.22	3,037.43	3,072.11	3,072.11	6.63	6.75	-154.27	175.83	-2,517.26	2,546.34	2,532.97	13.37	190.494	
3,100.00	3,098.94	3,182.89	3,182.85	6.77	6.98	-154.37	175.83	-2,514.79	2,550.19	2,536.48	13.71	185.942	
3,200.00	3,198.50	3,362.66	3,362.42	6.99	7.34	-154.52	175.83	-2,506.24	2,553.92	2,539.65	14.27	178.994	
3,300.00	3,298.05	3,502.72	3,502.09	7.22	7.63	-154.63	175.83	-2,495.89	2,554.91	2,540.15	14.75	173.190	
3,400.00	3,397.61	3,602.66	3,601.72	7.45	7.84	-154.71	175.83	-2,488.00	2,555.51	2,540.33	15.17	168.425	
3,500.00	3,497.17	3,702.59	3,701.34	7.69	8.06	-154.79	175.83	-2,480.11	2,556.11	2,540.51	15.60	163.886	
3,600.00	3,596.73	3,802.53	3,800.96	7.92	8.27	-154.87	175.83	-2,472.21	2,556.72	2,540.70	16.02	159.563	
3,700.00	3,696.29	3,902.46	3,900.59	8.16	8.49	-154.95	175.83	-2,464.32	2,557.34	2,540.88	16.45	155.441	
3,800.00	3,795.85	4,002.40	4,000.21	8.40	8.72	-155.03	175.83	-2,456.43	2,557.96	2,541.07	16.88	151.509	
3,900.00	3,895.41	4,102.33	4,099.83	8.64	8.94	-155.11	175.83	-2,448.54	2,558.58	2,541.26	17.32	147.756	
4,000.00	3,994.97	4,202.27	4,199.46	8.89	9.16	-155.19	175.83	-2,440.65	2,559.21	2,541.46	17.75	144.171	
4,100.00	4,094.53	4,302.20	4,299.08	9.13	9.39	-155.27	175.83	-2,432.76	2,559.84	2,541.66	18.19	140.745	
4,200.00	4,194.09	4,402.14	4,398.70	9.38	9.62	-155.35	175.83	-2,424.87	2,560.48	2,541.86	18.63	137.467	
4,300.00	4,293.65	4,502.08	4,498.33	9.63	9.85	-155.43	175.83	-2,416.98	2,561.13	2,542.06	19.07	134.330	
4,400.00	4,393.20	4,602.01	4,597.95	9.87	10.08	-155.50	175.83	-2,409.09	2,561.78	2,542.27	19.51	131.325	
4,500.00	4,492.76	4,701.95	4,697.58	10.12	10.31	-155.58	175.83	-2,401.20	2,562.43	2,542.48	19.95	128.445	
4,600.00	4,592.32	4,801.88	4,797.20	10.37	10.55	-155.66	175.83	-2,393.31	2,563.09	2,542.70	20.39	125.683	
4,700.00	4,691.88	4,901.82	4,896.82	10.63	10.78	-155.74	175.83	-2,385.42	2,563.75	2,542.91	20.84	123.032	
4,800.00	4,791.44	5,001.75	4,996.45	10.88	11.02	-155.82	175.83	-2,377.53	2,564.42	2,543.14	21.28	120.486	
4,900.00	4,891.00	5,101.69	5,096.07	11.13	11.25	-155.90	175.83	-2,369.64	2,565.09	2,543.36	21.73	118.040	
5,000.00	4,990.56	5,201.62	5,195.69	11.39	11.49	-155.98	175.83	-2,361.75	2,565.77	2,543.59	22.18	115.687	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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	
5,100.00	5,090.12	5,301.56	5,295.32	11.64	11.73	-156.06	175.83	-2,353.86	2,566.46	2,543.83	22.63	113.423	
5,200.00	5,189.68	5,401.49	5,394.94	11.90	11.97	-156.14	175.83	-2,345.97	2,567.14	2,544.07	23.08	111.244	
5,300.00	5,289.24	5,501.43	5,494.56	12.15	12.21	-156.21	175.83	-2,338.08	2,567.84	2,544.31	23.53	109.145	
5,400.00	5,388.80	5,601.36	5,594.19	12.41	12.45	-156.29	175.83	-2,330.19	2,568.53	2,544.56	23.98	107.121	
5,500.00	5,488.36	5,701.30	5,693.81	12.66	12.69	-156.37	175.83	-2,322.30	2,569.24	2,544.81	24.43	105.170	
5,600.00	5,587.91	5,801.24	5,793.43	12.92	12.93	-156.45	175.83	-2,314.41	2,569.94	2,545.06	24.88	103.287	
5,700.00	5,687.47	5,901.17	5,893.06	13.18	13.17	-156.53	175.83	-2,306.52	2,570.66	2,545.32	25.33	101.469	
5,800.00	5,787.03	6,001.11	5,992.68	13.44	13.42	-156.61	175.83	-2,298.63	2,571.37	2,545.58	25.79	99.713	
5,900.00	5,886.59	6,101.04	6,092.30	13.70	13.66	-156.69	175.83	-2,290.74	2,572.09	2,545.85	26.24	98.015	
6,000.00	5,986.15	6,200.98	6,191.93	13.96	13.91	-156.76	175.83	-2,282.85	2,572.82	2,546.12	26.70	96.374	
6,100.00	6,085.71	6,300.91	6,291.55	14.22	14.15	-156.84	175.83	-2,274.96	2,573.55	2,546.40	27.15	94.786	
6,200.00	6,185.27	6,400.85	6,391.17	14.48	14.40	-156.92	175.83	-2,267.07	2,574.29	2,546.68	27.61	93.250	
6,300.00	6,284.83	6,500.78	6,490.80	14.74	14.64	-157.00	175.83	-2,259.17	2,575.03	2,546.97	28.06	91.761	
6,400.00	6,384.39	6,600.72	6,590.42	15.00	14.89	-157.08	175.83	-2,251.28	2,575.77	2,547.26	28.52	90.320	
6,500.00	6,483.95	6,700.65	6,690.04	15.26	15.13	-157.15	175.83	-2,243.39	2,576.53	2,547.55	28.97	88.922	
6,600.00	6,583.51	6,800.59	6,789.67	15.52	15.38	-157.23	175.83	-2,235.50	2,577.28	2,547.85	29.43	87.568	
6,700.00	6,683.06	6,900.52	6,889.29	15.78	15.63	-157.31	175.83	-2,227.61	2,578.04	2,548.15	29.89	86.253	
6,800.00	6,782.62	7,000.46	6,988.91	16.04	15.87	-157.39	175.83	-2,219.72	2,578.81	2,548.46	30.35	84.978	
6,900.00	6,882.18	7,100.40	7,088.54	16.31	16.12	-157.47	175.83	-2,211.83	2,579.58	2,548.77	30.80	83.740	
7,000.00	6,981.74	7,200.33	7,188.16	16.57	16.37	-157.54	175.83	-2,203.94	2,580.35	2,549.09	31.26	82.537	
7,100.00	7,081.30	7,300.27	7,287.78	16.83	16.62	-157.62	175.83	-2,196.05	2,581.13	2,549.41	31.72	81.369	
7,200.00	7,180.86	7,400.20	7,387.41	17.09	16.87	-157.70	175.83	-2,188.16	2,581.91	2,549.73	32.18	80.233	
7,300.00	7,280.42	7,500.14	7,487.03	17.36	17.12	-157.78	175.83	-2,180.27	2,582.70	2,550.06	32.64	79.129	
7,400.00	7,379.98	7,600.07	7,586.65	17.62	17.37	-157.86	175.83	-2,172.38	2,583.50	2,550.40	33.10	78.055	
7,500.00	7,479.54	7,700.01	7,686.28	17.88	17.62	-157.93	175.83	-2,164.49	2,584.29	2,550.74	33.56	77.010	
7,600.00	7,579.10	7,799.94	7,785.90	18.15	17.87	-158.01	175.83	-2,156.60	2,585.10	2,551.08	34.02	75.993	
7,700.00	7,678.66	7,899.88	7,885.52	18.41	18.11	-158.09	175.83	-2,148.71	2,585.90	2,551.43	34.48	75.002	
7,800.00	7,778.21	7,999.81	7,985.15	18.67	18.37	-158.17	175.83	-2,140.82	2,586.72	2,551.78	34.94	74.038	
7,900.00	7,877.77	8,099.75	8,084.77	18.94	18.62	-158.24	175.83	-2,132.93	2,587.53	2,552.14	35.40	73.098	
8,000.00	7,977.33	8,199.69	8,184.40	19.20	18.87	-158.32	175.83	-2,125.04	2,588.36	2,552.50	35.86	72.182	
8,100.00	8,076.89	8,299.62	8,284.02	19.47	19.12	-158.40	175.83	-2,117.15	2,589.18	2,552.86	36.32	71.290	
8,200.00	8,176.45	8,399.56	8,383.64	19.73	19.37	-158.48	175.83	-2,109.26	2,590.01	2,553.23	36.78	70.419	
8,300.00	8,276.01	8,499.49	8,483.27	20.00	19.62	-158.55	175.83	-2,101.37	2,590.85	2,553.61	37.24	69.570	
8,400.00	8,375.57	8,599.43	8,582.89	20.26	19.87	-158.63	175.83	-2,093.48	2,591.69	2,553.99	37.70	68.741	
8,500.00	8,475.13	8,699.36	8,682.51	20.52	20.12	-158.71	175.83	-2,085.59	2,592.54	2,554.37	38.16	67.932	
8,600.00	8,574.69	8,799.30	8,782.14	20.79	20.37	-158.78	175.83	-2,077.70	2,593.39	2,554.76	38.63	67.143	
8,700.00	8,674.25	8,899.23	8,881.76	21.05	20.62	-158.86	175.83	-2,069.81	2,594.24	2,555.16	39.09	66.372	
8,800.00	8,773.81	8,999.17	8,981.38	21.32	20.88	-158.94	175.83	-2,061.92	2,595.10	2,555.55	39.55	65.618	
8,900.00	8,873.37	9,099.10	9,081.01	21.59	21.13	-159.02	175.83	-2,054.03	2,595.97	2,555.96	40.01	64.883	
9,000.00	8,972.92	9,199.04	9,180.63	21.85	21.38	-159.09	175.83	-2,046.14	2,596.84	2,556.36	40.47	64.163	
9,100.00	9,072.48	9,298.97	9,280.25	22.12	21.63	-159.17	175.83	-2,038.24	2,597.71	2,556.77	40.93	63.460	
9,200.00	9,172.04	9,398.91	9,379.88	22.38	21.89	-159.25	175.83	-2,030.35	2,598.59	2,557.19	41.40	62.773	
9,300.00	9,271.60	9,498.85	9,479.50	22.65	22.14	-159.32	175.83	-2,022.46	2,599.47	2,557.61	41.86	62.101	
9,400.00	9,371.16	9,598.78	9,579.12	22.91	22.39	-159.40	175.83	-2,014.57	2,600.36	2,558.04	42.32	61.443	
9,500.00	9,470.72	9,698.72	9,678.75	23.18	22.64	-159.48	175.83	-2,006.68	2,601.25	2,558.47	42.78	60.800	
9,600.00	9,570.28	9,798.65	9,778.37	23.45	22.90	-159.55	175.83	-1,998.79	2,602.15	2,558.90	43.25	60.170	
9,700.00	9,669.84	9,898.59	9,877.99	23.71	23.15	-159.63	175.83	-1,990.90	2,603.05	2,559.34	43.71	59.554	
9,800.00	9,769.40	9,998.52	9,977.62	23.98	23.40	-159.71	175.83	-1,983.01	2,603.96	2,559.78	44.17	58.951	
9,900.00	9,868.96	10,098.46	10,077.24	24.24	23.66	-159.78	175.83	-1,975.12	2,604.87	2,560.23	44.63	58.360	
10,000.00	9,968.52	10,198.39	10,176.86	24.51	23.91	-159.86	175.83	-1,967.23	2,605.78	2,560.68	45.10	57.781	
10,100.00	10,068.07	10,298.33	10,276.49	24.78	24.16	-159.93	175.83	-1,959.34	2,606.70	2,561.14	45.56	57.214	
10,200.00	10,167.63	10,398.26	10,376.11	25.04	24.42	-160.01	175.83	-1,951.45	2,607.63	2,561.60	46.02	56.658	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)				Between Centres (usft)	Between Ellipses (usft)	
10,300.00	10,267.19	10,498.20	10,475.73	25.31	24.67	-160.09	175.83	-1,943.56	2,608.56	2,562.07		46.49	56.114	
10,400.00	10,366.75	10,589.43	10,566.68	25.58	24.90	-160.16	175.83	-1,936.39	2,609.54	2,562.61		46.93	55.606	
10,500.00	10,466.31	10,658.09	10,635.18	25.84	25.03	-160.21	175.83	-1,931.61	2,611.41	2,564.11		47.30	55.208	
10,600.00	10,565.87	10,726.72	10,703.69	26.11	25.16	-160.26	175.83	-1,927.65	2,614.48	2,566.81		47.67	54.850	
10,700.00	10,665.43	10,800.00	10,776.89	26.38	25.30	-160.31	175.83	-1,924.33	2,618.76	2,570.72		48.03	54.519	
10,800.00	10,764.99	10,863.77	10,840.63	26.64	25.42	-160.36	175.83	-1,922.20	2,624.22	2,575.84		48.38	54.242	
10,900.00	10,864.55	10,932.16	10,909.00	26.91	25.54	-160.41	175.83	-1,920.70	2,630.88	2,582.15		48.73	53.990	
11,000.00	10,964.11	11,000.00	10,976.84	27.18	25.65	-160.45	175.83	-1,920.03	2,638.73	2,589.66		49.07	53.773	
11,098.90	11,062.57	11,088.43	11,065.27	27.44	25.82	-160.52	175.83	-1,919.98	2,647.42	2,597.94		49.47	53.514	
11,100.00	11,063.67	11,089.53	11,066.37	27.44	25.82	-160.52	175.83	-1,919.98	2,647.51	2,598.04		49.48	53.511	
11,200.00	11,163.30	11,189.17	11,166.00	27.64	26.01	-160.60	175.83	-1,919.98	2,655.52	2,605.66		49.87	53.252	
11,300.00	11,263.07	11,288.94	11,265.77	27.84	26.21	-160.67	175.83	-1,919.98	2,661.89	2,611.64		50.26	52.965	
11,400.00	11,362.95	11,388.81	11,365.65	28.02	26.41	-160.72	175.83	-1,919.98	2,666.62	2,615.98		50.64	52.653	
11,500.00	11,462.89	11,488.75	11,465.59	28.20	26.61	-160.76	175.83	-1,919.98	2,669.71	2,618.68		51.03	52.317	
11,600.00	11,562.88	11,588.74	11,565.58	28.36	26.81	-160.77	175.83	-1,919.98	2,671.14	2,619.73		51.41	51.956	
11,637.12	11,600.00	11,625.86	11,602.70	28.42	26.88	-92.69	175.83	-1,919.98	2,671.25	2,619.70		51.55	51.814	
11,700.00	11,662.88	11,688.74	11,665.58	28.54	27.01	-92.69	175.83	-1,919.98	2,671.25	2,619.45		51.81	51.562	
11,800.00	11,762.88	11,788.74	11,765.58	28.73	27.21	-92.69	175.83	-1,919.98	2,671.25	2,619.03		52.22	51.152	
11,900.00	11,862.88	11,888.74	11,865.58	28.92	27.41	-92.69	175.83	-1,919.98	2,671.25	2,618.62		52.64	50.748	
12,000.00	11,962.88	11,988.74	11,965.58	29.12	27.61	-92.69	175.83	-1,919.98	2,671.25	2,618.20		53.05	50.351	
12,100.00	12,062.88	12,088.74	12,065.58	29.31	27.81	-92.69	175.83	-1,919.98	2,671.25	2,617.78		53.47	49.958	
12,148.16	12,111.04	12,131.02	12,107.85	29.41	27.89	-92.70	175.20	-1,919.98	2,671.29	2,617.64		53.65	49.789	
12,150.00	12,112.88	12,132.53	12,109.35	29.41	27.89	87.30	175.13	-1,919.98	2,671.29	2,617.64		53.66	49.783	
12,200.00	12,162.81	12,173.42	12,150.09	29.49	27.97	87.26	171.65	-1,919.98	2,671.39	2,617.57		53.82	49.638	
12,250.00	12,212.34	12,214.25	12,190.41	29.56	28.04	87.23	165.29	-1,919.98	2,671.44	2,617.47		53.96	49.504	
12,300.00	12,261.11	12,255.04	12,230.14	29.62	28.12	87.22	156.09	-1,919.98	2,671.45	2,617.35		54.10	49.379	
12,350.00	12,308.73	12,300.00	12,273.05	29.67	28.20	87.24	142.70	-1,919.98	2,671.43	2,617.19		54.24	49.252	
12,400.00	12,354.85	12,336.68	12,307.19	29.71	28.27	87.26	129.31	-1,919.98	2,671.37	2,617.02		54.35	49.149	
12,450.00	12,399.11	12,377.59	12,344.17	29.75	28.35	87.31	111.83	-1,919.98	2,671.27	2,616.80		54.47	49.041	
12,500.00	12,441.18	12,418.62	12,379.91	29.77	28.42	87.37	91.70	-1,919.98	2,671.14	2,616.55		54.59	48.934	
12,550.00	12,480.74	12,459.80	12,414.25	29.80	28.50	87.46	68.98	-1,919.98	2,670.97	2,616.27		54.71	48.825	
12,600.00	12,517.48	12,500.00	12,446.10	29.82	28.58	87.55	44.47	-1,919.98	2,670.78	2,615.95		54.83	48.714	
12,650.00	12,551.13	12,542.77	12,478.02	29.83	28.67	87.67	16.02	-1,919.98	2,670.56	2,615.60		54.96	48.588	
12,700.00	12,581.43	12,584.64	12,507.12	29.85	28.76	87.79	-14.07	-1,919.98	2,670.33	2,615.22		55.11	48.453	
12,750.00	12,608.15	12,626.82	12,534.14	29.87	28.86	87.94	-46.44	-1,919.98	2,670.08	2,614.81		55.28	48.303	
12,800.00	12,631.09	12,669.36	12,558.91	29.90	28.96	88.09	-81.02	-1,919.98	2,669.83	2,614.37		55.46	48.137	
12,850.00	12,650.07	12,712.30	12,581.23	29.93	29.08	88.26	-117.69	-1,919.98	2,669.58	2,613.90		55.67	47.950	
12,900.00	12,664.95	12,755.69	12,600.94	29.98	29.21	88.45	-156.34	-1,919.98	2,669.33	2,613.42		55.91	47.743	
12,950.00	12,675.61	12,800.00	12,617.99	30.05	29.35	88.64	-197.22	-1,919.98	2,669.10	2,612.92		56.18	47.510	
13,000.00	12,681.98	12,844.04	12,631.76	30.13	29.51	88.84	-239.04	-1,919.98	2,668.89	2,612.41		56.48	47.256	
13,048.16	12,684.00	12,887.43	12,642.14	30.24	29.68	89.04	-281.17	-1,919.98	2,668.71	2,611.91		56.80	46.987	
13,100.00	12,684.00	12,935.17	12,649.84	30.37	29.88	89.21	-328.26	-1,919.98	2,668.58	2,611.40		57.18	46.672	
13,200.00	12,684.00	13,030.87	12,654.00	30.70	30.34	89.30	-423.80	-1,919.98	2,668.52	2,610.48		58.04	45.979	
13,300.00	12,684.00	13,130.87	12,654.00	31.12	30.89	89.30	-523.80	-1,919.98	2,668.52	2,609.45		59.07	45.172	
13,400.00	12,684.00	13,230.87	12,654.00	31.62	31.52	89.30	-623.80	-1,919.98	2,668.52	2,608.25		60.27	44.275	
13,500.00	12,684.00	13,330.87	12,654.00	32.21	32.22	89.30	-723.80	-1,919.98	2,668.52	2,606.90		61.62	43.308	
13,600.00	12,684.00	13,430.87	12,654.00	32.87	32.98	89.30	-823.80	-1,919.98	2,668.52	2,605.42		63.10	42.288	
13,700.00	12,684.00	13,530.87	12,654.00	33.59	33.81	89.30	-923.80	-1,919.98	2,668.52	2,603.80		64.72	41.231	
13,800.00	12,684.00	13,630.87	12,654.00	34.38	34.69	89.30	-1,023.80	-1,919.98	2,668.52	2,602.06		66.46	40.152	
13,900.00	12,684.00	13,730.87	12,654.00	35.23	35.63	89.30	-1,123.80	-1,919.98	2,668.52	2,600.21		68.31	39.063	
14,000.00	12,684.00	13,830.87	12,654.00	36.14	36.62	89.30	-1,223.80	-1,919.98	2,668.52	2,598.25		70.27	37.977	
14,100.00	12,684.00	13,930.87	12,654.00	37.10	37.65	89.30	-1,323.80	-1,919.98	2,668.52	2,596.20		72.32	36.900	

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

LEAM Drilling Systems LLC

Anticollision Report

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Well Error: 0.00 usft
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Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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North Reference: Grid
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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 - 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	
14,200.00	12,684.00	14,030.87	12,654.00	38.10	38.72	89.30	-1,423.80	-1,919.98	2,668.52	2,594.07	74.45	35.841	
14,300.00	12,684.00	14,130.87	12,654.00	39.14	39.83	89.30	-1,523.80	-1,919.98	2,668.52	2,591.85	76.67	34.805	
14,400.00	12,684.00	14,230.87	12,654.00	40.23	40.97	89.30	-1,623.80	-1,919.98	2,668.52	2,589.56	78.96	33.796	
14,500.00	12,684.00	14,330.87	12,654.00	41.35	42.15	89.30	-1,723.80	-1,919.98	2,668.52	2,587.20	81.32	32.816	
14,600.00	12,684.00	14,430.87	12,654.00	42.50	43.36	89.30	-1,823.80	-1,919.98	2,668.52	2,584.79	83.74	31.869	
14,700.00	12,684.00	14,530.87	12,654.00	43.68	44.59	89.30	-1,923.80	-1,919.98	2,668.52	2,582.31	86.21	30.954	
14,800.00	12,684.00	14,630.87	12,654.00	44.90	45.85	89.30	-2,023.80	-1,919.98	2,668.52	2,579.79	88.74	30.073	
14,900.00	12,684.00	14,730.87	12,654.00	46.13	47.14	89.30	-2,123.80	-1,919.98	2,668.52	2,577.21	91.31	29.225	
15,000.00	12,684.00	14,830.87	12,654.00	47.40	48.44	89.30	-2,223.80	-1,919.98	2,668.52	2,574.60	93.92	28.411	
15,100.00	12,684.00	14,930.87	12,654.00	48.68	49.76	89.30	-2,323.80	-1,919.98	2,668.52	2,571.94	96.58	27.630	
15,200.00	12,684.00	15,030.87	12,654.00	49.99	51.10	89.30	-2,423.80	-1,919.98	2,668.52	2,569.25	99.27	26.881	
15,300.00	12,684.00	15,130.87	12,654.00	51.31	52.46	89.30	-2,523.80	-1,919.98	2,668.52	2,566.52	102.00	26.162	
15,400.00	12,684.00	15,230.87	12,654.00	52.65	53.83	89.30	-2,623.80	-1,919.98	2,668.52	2,563.76	104.76	25.474	
15,500.00	12,684.00	15,330.87	12,654.00	54.01	55.22	89.30	-2,723.80	-1,919.98	2,668.52	2,560.98	107.54	24.814	
15,600.00	12,684.00	15,430.87	12,654.00	55.38	56.62	89.30	-2,823.80	-1,919.98	2,668.52	2,558.17	110.35	24.181	
15,700.00	12,684.00	15,530.87	12,654.00	56.77	58.03	89.30	-2,923.80	-1,919.98	2,668.52	2,555.33	113.19	23.575	
15,800.00	12,684.00	15,630.87	12,654.00	58.17	59.46	89.30	-3,023.80	-1,919.98	2,668.52	2,552.47	116.05	22.994	
15,900.00	12,684.00	15,730.87	12,654.00	59.58	60.89	89.30	-3,123.80	-1,919.98	2,668.52	2,549.59	118.93	22.437	
16,000.00	12,684.00	15,830.87	12,654.00	61.00	62.34	89.30	-3,223.80	-1,919.98	2,668.52	2,546.69	121.83	21.903	
16,100.00	12,684.00	15,930.87	12,654.00	62.43	63.79	89.30	-3,323.80	-1,919.98	2,668.52	2,543.77	124.75	21.391	
16,200.00	12,684.00	16,030.87	12,654.00	63.87	65.25	89.30	-3,423.80	-1,919.98	2,668.52	2,540.83	127.69	20.899	
16,300.00	12,684.00	16,130.87	12,654.00	65.32	66.72	89.30	-3,523.80	-1,919.98	2,668.52	2,537.88	130.64	20.427	
16,400.00	12,684.00	16,230.87	12,654.00	66.78	68.20	89.30	-3,623.80	-1,919.98	2,668.52	2,534.92	133.60	19.973	
16,500.00	12,684.00	16,330.87	12,654.00	68.25	69.69	89.30	-3,723.80	-1,919.98	2,668.52	2,531.94	136.58	19.538	
16,600.00	12,684.00	16,430.87	12,654.00	69.73	71.18	89.30	-3,823.80	-1,919.98	2,668.52	2,528.94	139.58	19.119	
16,700.00	12,684.00	16,530.87	12,654.00	71.21	72.67	89.30	-3,923.80	-1,919.98	2,668.52	2,525.94	142.58	18.716	
16,800.00	12,684.00	16,630.87	12,654.00	72.70	74.18	89.30	-4,023.80	-1,919.98	2,668.52	2,522.92	145.60	18.328	
16,900.00	12,684.00	16,730.87	12,654.00	74.19	75.69	89.30	-4,123.80	-1,919.98	2,668.52	2,519.89	148.63	17.955	
17,000.00	12,684.00	16,830.87	12,654.00	75.69	77.20	89.30	-4,223.80	-1,919.98	2,668.52	2,516.86	151.66	17.595	
17,100.00	12,684.00	16,930.87	12,654.00	77.20	78.72	89.30	-4,323.80	-1,919.98	2,668.52	2,513.81	154.71	17.249	
17,200.00	12,684.00	17,030.87	12,654.00	78.71	80.24	89.30	-4,423.80	-1,919.98	2,668.52	2,510.76	157.76	16.915	
17,300.00	12,684.00	17,130.87	12,654.00	80.22	81.77	89.30	-4,523.80	-1,919.98	2,668.52	2,507.69	160.83	16.592	
17,400.00	12,684.00	17,230.87	12,654.00	81.74	83.30	89.30	-4,623.80	-1,919.98	2,668.52	2,504.62	163.90	16.281	
17,500.00	12,684.00	17,330.87	12,654.00	83.27	84.84	89.30	-4,723.80	-1,919.98	2,668.52	2,501.54	166.98	15.981	
17,600.00	12,684.00	17,430.87	12,654.00	84.80	86.37	89.30	-4,823.80	-1,919.98	2,668.52	2,498.45	170.07	15.691	
17,700.00	12,684.00	17,530.87	12,654.00	86.33	87.92	89.30	-4,923.80	-1,919.98	2,668.52	2,495.36	173.16	15.411	
17,800.00	12,684.00	17,630.87	12,654.00	87.87	89.46	89.30	-5,023.80	-1,919.98	2,668.52	2,492.26	176.26	15.140	
17,900.00	12,684.00	17,730.87	12,654.00	89.41	91.01	89.30	-5,123.80	-1,919.98	2,668.52	2,489.16	179.36	14.878	
18,000.00	12,684.00	17,830.87	12,654.00	90.95	92.56	89.30	-5,223.80	-1,919.98	2,668.52	2,486.05	182.47	14.624	
18,100.00	12,684.00	17,930.87	12,654.00	92.50	94.12	89.30	-5,323.80	-1,919.98	2,668.52	2,482.93	185.59	14.379	
18,200.00	12,684.00	18,030.87	12,654.00	94.04	95.67	89.30	-5,423.80	-1,919.98	2,668.52	2,479.81	188.71	14.141	
18,300.00	12,684.00	18,130.87	12,654.00	95.60	97.23	89.30	-5,523.80	-1,919.98	2,668.52	2,476.68	191.84	13.910	
18,400.00	12,684.00	18,230.87	12,654.00	97.15	98.80	89.30	-5,623.80	-1,919.98	2,668.52	2,473.55	194.97	13.687	
18,500.00	12,684.00	18,330.87	12,654.00	98.71	100.36	89.30	-5,723.80	-1,919.98	2,668.52	2,470.41	198.11	13.470	
18,600.00	12,684.00	18,430.87	12,654.00	100.27	101.93	89.30	-5,823.80	-1,919.98	2,668.52	2,467.28	201.25	13.260	
18,700.00	12,684.00	18,530.87	12,654.00	101.83	103.50	89.30	-5,923.80	-1,919.98	2,668.52	2,464.13	204.39	13.056	
18,800.00	12,684.00	18,630.87	12,654.00	103.39	105.07	89.30	-6,023.80	-1,919.98	2,668.52	2,460.98	207.54	12.858	
18,900.00	12,684.00	18,730.87	12,654.00	104.96	106.64	89.30	-6,123.80	-1,919.98	2,668.52	2,457.83	210.69	12.666	
19,000.00	12,684.00	18,830.87	12,654.00	106.53	108.21	89.30	-6,223.80	-1,919.98	2,668.52	2,454.68	213.84	12.479	
19,100.00	12,684.00	18,930.87	12,654.00	108.10	109.79	89.30	-6,323.80	-1,919.98	2,668.52	2,451.52	217.00	12.297	
19,200.00	12,684.00	19,030.87	12,654.00	109.67	111.37	89.30	-6,423.80	-1,919.98	2,668.52	2,448.36	220.16	12.121	
19,300.00	12,684.00	19,130.87	12,654.00	111.25	112.95	89.30	-6,523.80	-1,919.98	2,668.52	2,445.19	223.33	11.949	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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							
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
19,400.00	12,684.00	19,230.87	12,654.00	112.82	114.53	89.30	-6,623.80	-1,919.98	2,668.52	2,442.03	226.50	11.782	
19,500.00	12,684.00	19,330.87	12,654.00	114.40	116.11	89.30	-6,723.80	-1,919.98	2,668.52	2,438.86	229.67	11.619	
19,600.00	12,684.00	19,430.87	12,654.00	115.98	117.69	89.30	-6,823.80	-1,919.98	2,668.52	2,435.68	232.84	11.461	
19,700.00	12,684.00	19,530.87	12,654.00	117.56	119.28	89.30	-6,923.80	-1,919.98	2,668.52	2,432.51	236.01	11.307	
19,800.00	12,684.00	19,630.87	12,654.00	119.14	120.87	89.30	-7,023.80	-1,919.98	2,668.52	2,429.33	239.19	11.156	
19,900.00	12,684.00	19,730.87	12,654.00	120.72	122.45	89.30	-7,123.80	-1,919.98	2,668.52	2,426.15	242.37	11.010	
20,000.00	12,684.00	19,830.87	12,654.00	122.31	124.04	89.30	-7,223.80	-1,919.98	2,668.52	2,422.96	245.56	10.867	
20,100.00	12,684.00	19,930.87	12,654.00	123.89	125.63	89.30	-7,323.80	-1,919.98	2,668.52	2,419.78	248.74	10.728	
20,200.00	12,684.00	20,030.87	12,654.00	125.48	127.22	89.30	-7,423.80	-1,919.98	2,668.52	2,416.59	251.93	10.592	
20,300.00	12,684.00	20,130.87	12,654.00	127.07	128.82	89.30	-7,523.80	-1,919.98	2,668.52	2,413.40	255.12	10.460	
20,400.00	12,684.00	20,230.87	12,654.00	128.66	130.41	89.30	-7,623.80	-1,919.98	2,668.52	2,410.21	258.31	10.331	
20,500.00	12,684.00	20,330.87	12,654.00	130.25	132.00	89.30	-7,723.80	-1,919.98	2,668.52	2,407.02	261.50	10.205	
20,600.00	12,684.00	20,430.87	12,654.00	131.84	133.60	89.30	-7,823.80	-1,919.98	2,668.52	2,403.82	264.70	10.081	
20,700.00	12,684.00	20,530.87	12,654.00	133.43	135.20	89.30	-7,923.80	-1,919.98	2,668.52	2,400.63	267.89	9.961	
20,800.00	12,684.00	20,630.87	12,654.00	135.03	136.79	89.30	-8,023.80	-1,919.98	2,668.52	2,397.43	271.09	9.844	
20,900.00	12,684.00	20,730.87	12,654.00	136.62	138.39	89.30	-8,123.80	-1,919.98	2,668.52	2,394.23	274.29	9.729	
21,000.00	12,684.00	20,830.87	12,654.00	138.22	139.99	89.30	-8,223.80	-1,919.98	2,668.52	2,391.03	277.49	9.616	
21,100.00	12,684.00	20,930.87	12,654.00	139.82	141.59	89.30	-8,323.80	-1,919.98	2,668.52	2,387.82	280.70	9.507	
21,200.00	12,684.00	21,030.87	12,654.00	141.41	143.19	89.30	-8,423.80	-1,919.98	2,668.52	2,384.62	283.90	9.399	
21,300.00	12,684.00	21,130.87	12,654.00	143.01	144.79	89.30	-8,523.80	-1,919.98	2,668.52	2,381.41	287.11	9.294	
21,400.00	12,684.00	21,230.87	12,654.00	144.61	146.39	89.30	-8,623.80	-1,919.98	2,668.52	2,378.20	290.32	9.192	
21,500.00	12,684.00	21,330.87	12,654.00	146.21	148.00	89.30	-8,723.80	-1,919.98	2,668.52	2,375.00	293.53	9.091	
21,600.00	12,684.00	21,430.87	12,654.00	147.81	149.60	89.30	-8,823.80	-1,919.98	2,668.52	2,371.78	296.74	8.993	
21,700.00	12,684.00	21,530.87	12,654.00	149.41	151.20	89.30	-8,923.80	-1,919.98	2,668.52	2,368.57	299.95	8.897	
21,800.00	12,684.00	21,630.87	12,654.00	151.01	152.81	89.30	-9,023.80	-1,919.98	2,668.52	2,365.36	303.16	8.802	
21,900.00	12,684.00	21,730.87	12,654.00	152.62	154.41	89.30	-9,123.80	-1,919.98	2,668.52	2,362.15	306.37	8.710	
22,000.00	12,684.00	21,830.87	12,654.00	154.22	156.02	89.30	-9,223.80	-1,919.98	2,668.52	2,358.93	309.59	8.620	
22,100.00	12,684.00	21,930.87	12,654.00	155.82	157.63	89.30	-9,323.80	-1,919.98	2,668.52	2,355.72	312.80	8.531	
22,200.00	12,684.00	22,030.87	12,654.00	157.43	159.23	89.30	-9,423.80	-1,919.98	2,668.52	2,352.50	316.02	8.444	
22,300.00	12,684.00	22,130.87	12,654.00	159.03	160.84	89.30	-9,523.80	-1,919.98	2,668.52	2,349.28	319.24	8.359	
22,400.00	12,684.00	22,230.87	12,654.00	160.64	162.45	89.30	-9,623.80	-1,919.98	2,668.52	2,346.06	322.46	8.276	
22,473.03	12,684.00	22,303.90	12,654.00	161.81	163.62	89.30	-9,696.83	-1,919.98	2,668.52	2,343.71	324.81	8.216 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
0.00	0.00	0.00	0.00	0.00	0.00	-114.45	-1.785.73	-3.927.99	4,314.85					
100.00	100.00	95.50	95.50	0.08	0.07	-114.45	-1.785.73	-3.927.99	4,314.85	4,314.69	0.16	N/A		
200.00	200.00	195.50	195.50	0.31	0.29	-114.45	-1.785.73	-3.927.99	4,314.85	4,314.25	0.60	7,196.652		
300.00	300.00	295.50	295.50	0.53	0.52	-114.45	-1.785.73	-3.927.99	4,314.85	4,313.80	1.05	4,112.924		
400.00	400.00	395.50	395.50	0.76	0.74	-114.45	-1.785.73	-3.927.99	4,314.85	4,313.35	1.50	2,879.201		
500.00	500.00	495.50	495.50	0.98	0.96	-114.45	-1.785.73	-3.927.99	4,314.85	4,312.90	1.95	2,214.834		
600.00	600.00	595.50	595.50	1.21	1.19	-114.45	-1.785.73	-3.927.99	4,314.85	4,312.45	2.40	1,799.585		
700.00	700.00	695.50	695.50	1.43	1.41	-114.45	-1.785.73	-3.927.99	4,314.85	4,312.00	2.85	1,515.459		
800.00	800.00	795.50	795.50	1.66	1.64	-114.45	-1.785.73	-3.927.99	4,314.85	4,311.55	3.30	1,308.817		
900.00	900.00	895.50	895.50	1.88	1.86	-114.45	-1.785.73	-3.927.99	4,314.85	4,311.10	3.75	1,151.767		
1,000.00	1,000.00	995.50	995.50	2.11	2.09	-114.45	-1.785.73	-3.927.99	4,314.85	4,310.66	4.20	1,028.369		
1,100.00	1,100.00	1,095.50	1,095.50	2.33	2.31	-114.45	-1.785.73	-3.927.99	4,314.85	4,310.21	4.65	928.853		
1,200.00	1,200.00	1,195.50	1,195.50	2.56	2.54	-114.45	-1.785.73	-3.927.99	4,314.85	4,309.76	5.09	846.899		
1,300.00	1,300.00	1,295.50	1,295.50	2.78	2.76	-114.45	-1.785.73	-3.927.99	4,314.85	4,309.31	5.54	778.234		
1,400.00	1,400.00	1,395.50	1,395.50	3.01	2.99	-114.45	-1.785.73	-3.927.99	4,314.85	4,308.86	5.99	719.868		
1,500.00	1,500.00	1,495.50	1,495.50	3.23	3.21	-114.45	-1.785.73	-3.927.99	4,314.85	4,308.41	6.44	669.646		
1,600.00	1,600.00	1,595.50	1,595.50	3.46	3.44	-114.45	-1.785.73	-3.927.99	4,314.85	4,307.96	6.89	625.975		
1,700.00	1,700.00	1,695.50	1,695.50	3.68	3.66	-114.45	-1.785.73	-3.927.99	4,314.85	4,307.51	7.34	587.651		
1,800.00	1,800.00	1,795.50	1,795.50	3.91	3.89	-114.45	-1.785.73	-3.927.99	4,314.85	4,307.06	7.79	553.749		
1,900.00	1,900.00	1,895.50	1,895.50	4.13	4.11	-114.45	-1.785.73	-3.927.99	4,314.85	4,306.61	8.24	523.545		
2,000.00	2,000.00	1,995.50	1,995.50	4.35	4.34	-114.45	-1.785.73	-3.927.99	4,314.85	4,306.16	8.69	496.465		
2,100.00	2,100.00	2,095.50	2,095.50	4.58	4.56	-114.45	-1.785.73	-3.927.99	4,314.85	4,305.71	9.14	472.050		
2,200.00	2,200.00	2,195.50	2,195.50	4.80	4.79	-114.45	-1.785.73	-3.927.99	4,314.85	4,305.26	9.59	449.923		
2,300.00	2,300.00	2,295.50	2,295.50	5.03	5.01	-114.45	-1.785.73	-3.927.99	4,314.85	4,304.81	10.04	429.777		
2,400.00	2,400.00	2,395.50	2,395.50	5.25	5.24	-114.45	-1.785.73	-3.927.99	4,314.85	4,304.36	10.49	411.359		
2,500.00	2,500.00	2,495.50	2,495.50	5.48	5.46	-114.45	-1.785.73	-3.927.99	4,314.85	4,303.91	10.94	394.454 CC, ES		
2,600.00	2,599.99	2,595.49	2,595.49	5.69	5.68	177.46	-1.785.73	-3.927.99	4,315.72	4,304.34	11.38	379.292		
2,700.00	2,699.96	2,695.46	2,695.46	5.90	5.91	177.46	-1.785.73	-3.927.99	4,318.34	4,306.53	11.81	365.593		
2,800.00	2,799.86	2,795.36	2,795.36	6.11	6.13	177.46	-1.785.73	-3.927.99	4,322.70	4,310.45	12.25	352.996		
2,900.00	2,899.68	2,895.18	2,895.18	6.33	6.36	177.47	-1.785.73	-3.927.99	4,328.79	4,316.11	12.68	341.369		
3,000.00	2,999.37	2,994.87	2,994.87	6.55	6.58	177.47	-1.785.73	-3.927.99	4,336.63	4,323.52	13.12	330.620		
3,038.22	3,037.43	3,032.93	3,032.93	6.63	6.67	177.47	-1.785.73	-3.927.99	4,340.09	4,326.80	13.28	326.716		
3,100.00	3,098.94	3,094.44	3,094.44	6.77	6.81	177.47	-1.785.73	-3.927.99	4,345.88	4,332.32	13.55	320.644		
3,200.00	3,198.50	3,194.00	3,194.00	6.99	7.03	177.48	-1.785.73	-3.927.99	4,355.25	4,341.26	13.99	311.295		
3,300.00	3,298.05	3,293.55	3,293.55	7.22	7.25	177.48	-1.785.73	-3.927.99	4,364.62	4,350.19	14.43	302.486		
3,400.00	3,397.61	3,393.11	3,393.11	7.45	7.48	177.49	-1.785.73	-3.927.99	4,373.99	4,359.12	14.87	294.173		
3,500.00	3,497.17	3,492.67	3,492.67	7.69	7.70	177.49	-1.785.73	-3.927.99	4,383.36	4,368.05	15.31	286.318		
3,600.00	3,596.73	3,592.23	3,592.23	7.92	7.93	177.50	-1.785.73	-3.927.99	4,392.73	4,376.98	15.75	278.884		
3,700.00	3,696.29	3,691.79	3,691.79	8.16	8.15	177.50	-1.785.73	-3.927.99	4,402.10	4,385.91	16.19	271.841		
3,800.00	3,795.85	3,791.35	3,791.35	8.40	8.37	177.51	-1.785.73	-3.927.99	4,411.47	4,394.84	16.64	265.160		
3,900.00	3,895.41	3,890.91	3,890.91	8.64	8.60	177.51	-1.785.73	-3.927.99	4,420.84	4,403.76	17.08	258.813		
4,000.00	3,994.97	3,990.47	3,990.47	8.89	8.82	177.52	-1.785.73	-3.927.99	4,430.22	4,412.69	17.53	252.778		
4,100.00	4,094.53	4,090.03	4,090.03	9.13	9.04	177.52	-1.785.73	-3.927.99	4,439.59	4,421.62	17.97	247.033		
4,200.00	4,194.09	4,189.59	4,189.59	9.38	9.27	177.53	-1.785.73	-3.927.99	4,448.96	4,430.54	18.42	241.558		
4,300.00	4,293.65	4,289.15	4,289.15	9.63	9.49	177.53	-1.785.73	-3.927.99	4,458.33	4,439.46	18.86	236.334		
4,400.00	4,393.20	4,388.70	4,388.70	9.87	9.72	177.54	-1.785.73	-3.927.99	4,467.70	4,448.39	19.31	231.346		
4,500.00	4,492.76	4,488.26	4,488.26	10.12	9.94	177.54	-1.785.73	-3.927.99	4,477.07	4,457.31	19.76	226.578		
4,600.00	4,592.32	4,740.19	4,739.91	10.37	10.51	177.68	-1,775.67	-3,928.06	4,484.95	4,464.40	20.55	218.291		
4,700.00	4,691.88	4,930.12	4,928.56	10.63	10.93	177.94	-1,753.88	-3,928.22	4,489.48	4,468.29	21.19	211.915		
4,800.00	4,791.44	5,029.25	5,026.80	10.88	11.15	178.10	-1,740.65	-3,928.32	4,493.50	4,471.87	21.64	207.679		
4,900.00	4,891.00	5,128.38	5,125.04	11.13	11.38	178.26	-1,727.43	-3,928.42	4,497.57	4,475.48	22.09	203.585		
5,000.00	4,990.56	5,227.51	5,223.28	11.39	11.61	178.42	-1,714.20	-3,928.51	4,501.67	4,479.12	22.55	199.629		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 Centro +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,090.12	5,326.63	5,321.53	11.64	11.85	178.57	-1,700.97	-3,928.61	4,505.80	4,482.79	23.01	195.805		
5,200.00	5,189.68	5,425.76	5,419.77	11.90	12.09	178.73	-1,687.75	-3,928.71	4,509.97	4,486.50	23.48	192.110		
5,300.00	5,289.24	5,524.89	5,518.01	12.15	12.33	178.89	-1,674.52	-3,928.81	4,514.18	4,490.23	23.94	188.537		
5,400.00	5,388.80	5,624.01	5,616.25	12.41	12.57	179.05	-1,661.30	-3,928.90	4,518.41	4,494.00	24.41	185.083		
5,500.00	5,488.36	5,723.14	5,714.49	12.66	12.82	179.20	-1,648.07	-3,929.00	4,522.69	4,497.80	24.89	181.742		
5,600.00	5,587.91	5,822.27	5,812.73	12.92	13.07	179.36	-1,634.84	-3,929.10	4,526.99	4,501.63	25.36	178.510		
5,700.00	5,687.47	5,921.40	5,910.97	13.18	13.32	179.52	-1,621.62	-3,929.19	4,531.33	4,505.50	25.84	175.382		
5,800.00	5,787.03	6,020.52	6,009.21	13.44	13.57	179.67	-1,608.39	-3,929.29	4,535.71	4,509.39	26.32	172.356		
5,900.00	5,886.59	6,119.65	6,107.45	13.70	13.83	179.83	-1,595.16	-3,929.39	4,540.12	4,513.32	26.80	169.426		
6,000.00	5,986.15	6,218.78	6,205.69	13.96	14.09	179.98	-1,581.94	-3,929.49	4,544.56	4,517.28	27.28	166.589		
6,100.00	6,085.71	6,317.91	6,303.94	14.22	14.35	-179.86	-1,568.71	-3,929.58	4,549.04	4,521.27	27.77	163.840		
6,200.00	6,185.27	6,417.03	6,402.18	14.48	14.61	-179.71	-1,555.49	-3,929.68	4,553.55	4,525.30	28.25	161.178		
6,300.00	6,284.83	6,516.16	6,500.42	14.74	14.87	-179.55	-1,542.26	-3,929.78	4,558.10	4,529.36	28.74	158.597		
6,400.00	6,384.39	6,615.29	6,598.66	15.00	15.13	-179.40	-1,529.03	-3,929.87	4,562.67	4,533.44	29.23	156.095		
6,500.00	6,483.95	6,714.42	6,696.90	15.26	15.40	-179.24	-1,515.81	-3,929.97	4,567.29	4,537.56	29.72	153.669		
6,600.00	6,583.51	6,813.54	6,795.14	15.52	15.67	-179.09	-1,502.58	-3,930.07	4,571.93	4,541.72	30.21	151.315		
6,700.00	6,683.06	6,912.67	6,893.38	15.78	15.93	-178.94	-1,489.35	-3,930.16	4,576.61	4,545.90	30.71	149.031		
6,800.00	6,782.62	7,011.80	6,991.62	16.04	16.20	-178.78	-1,476.13	-3,930.26	4,581.32	4,550.11	31.20	146.814		
6,900.00	6,882.18	7,110.93	7,089.86	16.31	16.47	-178.63	-1,462.90	-3,930.36	4,586.06	4,554.36	31.70	144.662		
7,000.00	6,981.74	7,210.05	7,188.10	16.57	16.74	-178.48	-1,449.68	-3,930.46	4,590.84	4,558.64	32.20	142.572		
7,100.00	7,081.30	7,309.18	7,286.35	16.83	17.02	-178.33	-1,436.45	-3,930.55	4,595.65	4,562.95	32.70	140.541		
7,200.00	7,180.86	7,408.31	7,384.59	17.09	17.29	-178.17	-1,423.22	-3,930.65	4,600.49	4,567.29	33.20	138.567		
7,300.00	7,280.42	7,507.44	7,482.83	17.36	17.56	-178.02	-1,410.00	-3,930.75	4,605.37	4,571.67	33.70	136.649		
7,400.00	7,379.98	7,606.56	7,581.07	17.62	17.84	-177.87	-1,396.77	-3,930.84	4,610.28	4,576.07	34.21	134.783		
7,500.00	7,479.54	7,705.69	7,679.31	17.88	18.12	-177.72	-1,383.54	-3,930.94	4,615.22	4,580.51	34.71	132.969		
7,600.00	7,579.10	7,804.82	7,777.55	18.15	18.39	-177.57	-1,370.32	-3,931.04	4,620.19	4,584.98	35.21	131.204		
7,700.00	7,678.66	7,903.94	7,875.79	18.41	18.67	-177.42	-1,357.09	-3,931.14	4,625.20	4,589.48	35.72	129.486		
7,800.00	7,778.21	8,003.07	7,974.03	18.67	18.95	-177.27	-1,343.87	-3,931.23	4,630.23	4,594.01	36.23	127.814		
7,900.00	7,877.77	8,102.20	8,072.27	18.94	19.23	-177.12	-1,330.64	-3,931.33	4,635.30	4,598.57	36.73	126.186		
8,000.00	7,977.33	8,201.33	8,170.52	19.20	19.51	-176.97	-1,317.41	-3,931.43	4,640.40	4,603.16	37.24	124.600		
8,100.00	8,076.89	8,300.45	8,268.76	19.47	19.79	-176.82	-1,304.19	-3,931.52	4,645.54	4,607.79	37.75	123.055		
8,200.00	8,176.45	8,399.58	8,367.00	19.73	20.07	-176.67	-1,290.96	-3,931.62	4,650.70	4,612.44	38.26	121.549		
8,300.00	8,276.01	8,498.71	8,465.24	20.00	20.35	-176.53	-1,277.73	-3,931.72	4,655.90	4,617.13	38.77	120.081		
8,400.00	8,375.57	8,597.84	8,563.48	20.26	20.64	-176.38	-1,264.51	-3,931.81	4,661.13	4,621.84	39.28	118.650		
8,500.00	8,475.13	8,696.96	8,661.72	20.52	20.92	-176.23	-1,251.28	-3,931.91	4,666.39	4,626.59	39.80	117.255		
8,600.00	8,574.69	8,796.09	8,759.96	20.79	21.20	-176.08	-1,238.06	-3,932.01	4,671.68	4,631.37	40.31	115.893		
8,700.00	8,674.25	8,895.22	8,858.20	21.05	21.49	-175.94	-1,224.83	-3,932.11	4,677.00	4,636.17	40.82	114.565		
8,800.00	8,773.81	8,995.00	8,912.49	21.32	21.64	-175.86	-1,217.53	-3,932.16	4,682.56	4,641.35	41.21	113.623		
8,900.00	8,873.37	9,095.00	8,962.30	21.59	21.74	-175.81	-1,213.28	-3,932.19	4,689.39	4,647.85	41.54	112.887		
9,000.00	8,972.92	9,018.63	8,980.92	21.85	21.77	-175.81	-1,212.81	-3,932.19	4,697.69	4,655.91	41.79	112.415		
9,100.00	9,072.48	9,050.00	9,012.28	22.12	21.82	-175.82	-1,213.39	-3,932.19	4,707.53	4,665.48	42.05	111.947		
9,200.00	9,172.04	9,076.18	9,038.40	22.38	21.85	-175.84	-1,215.18	-3,932.18	4,718.86	4,676.58	42.29	111.595		
9,300.00	9,271.60	9,100.00	9,062.07	22.65	21.87	-175.87	-1,217.85	-3,932.16	4,731.69	4,689.19	42.51	111.313		
9,400.00	9,371.16	9,150.00	9,111.27	22.91	21.91	-175.98	-1,226.64	-3,932.09	4,746.12	4,703.37	42.74	111.035		
9,500.00	9,470.72	9,150.00	9,111.27	23.18	21.91	-175.98	-1,226.64	-3,932.09	4,761.84	4,718.93	42.91	110.971		
9,600.00	9,570.28	9,200.00	9,159.52	23.45	21.91	-176.13	-1,239.68	-3,932.00	4,779.20	4,736.08	43.12	110.846		
9,700.00	9,669.84	9,200.00	9,159.52	23.71	21.91	-176.13	-1,239.68	-3,932.00	4,797.99	4,754.73	43.26	110.904		
9,800.00	9,769.40	9,250.00	9,206.46	23.98	21.90	-176.34	-1,256.88	-3,931.87	4,818.34	4,774.90	43.44	110.924		
9,900.00	9,868.96	9,250.00	9,206.46	24.24	21.90	-176.34	-1,256.88	-3,931.87	4,840.17	4,796.60	43.57	111.097		
10,000.00	9,968.52	9,300.00	9,251.71	24.51	21.87	-176.58	-1,278.10	-3,931.71	4,863.60	4,819.88	43.72	111.254		
10,100.00	10,068.07	9,300.00	9,251.71	24.78	21.87	-176.58	-1,278.10	-3,931.71	4,888.41	4,844.58	43.83	111.536		
10,200.00	10,167.63	9,327.02	9,275.34	25.04	21.85	-176.74	-1,291.19	-3,931.62	4,914.82	4,870.88	43.94	111.844		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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: O-LEAM MWD+HDGM														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Hightside Tooface (°)	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)					
10,300.00	10,267.19	9,350.00	9,294.95	25.31	21.83	-176.88	-1,303.19	-3,931.53	4,942.79	4,898.74	44.05	112.206			
10,400.00	10,366.75	9,350.00	9,294.95	25.58	21.83	-176.88	-1,303.19	-3,931.53	4,972.39	4,928.25	44.14	112.653			
10,500.00	10,466.31	9,400.00	9,335.83	25.84	21.78	-177.21	-1,331.95	-3,931.32	5,003.38	4,959.14	44.24	113.093			
10,600.00	10,565.87	9,400.00	9,335.83	26.11	21.78	-177.21	-1,331.95	-3,931.32	5,035.81	4,991.49	44.32	113.631			
10,700.00	10,665.43	9,400.00	9,335.83	26.38	21.78	-177.21	-1,331.95	-3,931.32	5,070.00	5,025.82	44.39	114.227			
10,800.00	10,764.99	9,450.00	9,374.05	26.64	21.72	-177.58	-1,364.16	-3,931.08	5,105.47	5,061.00	44.47	114.805			
10,900.00	10,864.55	9,450.00	9,374.05	26.91	21.72	-177.58	-1,364.16	-3,931.08	5,142.37	5,097.84	44.53	115.480			
11,000.00	10,964.11	9,450.00	9,374.05	27.18	21.72	-177.58	-1,364.16	-3,931.08	5,180.94	5,136.36	44.58	116.204			
11,098.90	11,062.57	9,477.78	9,394.02	27.44	21.68	-177.80	-1,383.46	-3,930.94	5,220.31	5,175.67	44.65	116.920			
11,100.00	11,063.67	9,477.92	9,394.12	27.44	21.68	-177.80	-1,383.56	-3,930.94	5,220.76	5,176.11	44.65	116.929			
11,200.00	11,163.30	9,500.00	9,409.31	27.64	21.66	-178.00	-1,399.58	-3,930.82	5,261.34	5,216.67	44.66	117.801			
11,300.00	11,263.07	9,500.00	9,409.31	27.84	21.66	-178.01	-1,399.58	-3,930.82	5,301.67	5,257.01	44.66	118.713			
11,400.00	11,362.95	9,500.00	9,409.31	28.02	21.66	-178.03	-1,399.58	-3,930.82	5,341.99	5,297.34	44.65	119.639			
11,500.00	11,462.89	9,526.86	9,426.95	28.20	21.62	-178.26	-1,419.84	-3,930.67	5,381.90	5,337.25	44.65	120.525			
11,600.00	11,562.88	9,550.00	9,441.36	28.36	21.60	-178.47	-1,437.94	-3,930.54	5,421.85	5,377.20	44.65	121.429			
11,637.12	11,600.00	9,550.00	9,441.36	28.42	21.60	-110.39	-1,437.94	-3,930.54	5,436.56	5,391.91	44.64	121.776			
11,700.00	11,662.88	9,550.00	9,441.36	28.54	21.60	-110.39	-1,437.94	-3,930.54	5,461.78	5,417.13	44.64	122.342			
11,800.00	11,762.88	9,550.00	9,441.36	28.73	21.60	-110.39	-1,437.94	-3,930.54	5,503.13	5,458.47	44.66	123.236			
11,900.00	11,862.88	9,550.00	9,441.36	28.92	21.60	-110.39	-1,437.94	-3,930.54	5,545.97	5,501.31	44.67	124.163			
12,000.00	11,962.88	9,577.51	9,457.53	29.12	21.57	-110.63	-1,460.19	-3,930.38	5,589.85	5,545.15	44.70	125.049			
12,100.00	12,062.88	9,600.00	9,469.94	29.31	21.54	-110.83	-1,478.94	-3,930.24	5,635.36	5,590.63	44.73	125.979			
12,148.16	12,111.04	9,600.00	9,469.94	29.41	21.54	-110.83	-1,478.94	-3,930.24	5,657.65	5,612.91	44.74	126.454			
12,150.00	12,112.88	9,600.00	9,469.94	29.41	21.54	69.08	-1,478.94	-3,930.24	5,658.50	5,613.76	44.74	126.473			
12,200.00	12,162.81	9,600.00	9,469.94	29.49	21.54	66.72	-1,478.94	-3,930.24	5,681.22	5,636.49	44.73	127.002			
12,250.00	12,212.34	9,600.00	9,469.94	29.56	21.54	64.54	-1,478.94	-3,930.24	5,702.75	5,658.03	44.72	127.520			
12,300.00	12,261.11	9,600.00	9,469.94	29.62	21.54	62.57	-1,478.94	-3,930.24	5,722.94	5,678.24	44.70	128.023			
12,350.00	12,308.73	9,600.00	9,469.94	29.67	21.54	60.79	-1,478.94	-3,930.24	5,741.65	5,696.97	44.68	128.504			
12,400.00	12,354.85	9,600.00	9,469.94	29.71	21.54	59.22	-1,478.94	-3,930.24	5,758.75	5,714.09	44.66	128.960			
12,450.00	12,399.11	9,622.90	9,481.81	29.75	21.52	57.74	-1,498.52	-3,930.10	5,773.81	5,729.16	44.65	129.313			
12,500.00	12,441.18	9,650.00	9,494.84	29.77	21.50	56.47	-1,522.28	-3,929.92	5,787.42	5,742.77	44.65	129.626			
12,550.00	12,480.74	9,650.00	9,494.84	29.80	21.50	55.52	-1,522.28	-3,929.92	5,798.66	5,754.03	44.62	129.952			
12,600.00	12,517.48	9,650.00	9,494.84	29.82	21.50	54.74	-1,522.28	-3,929.92	5,807.89	5,763.29	44.60	130.223			
12,650.00	12,551.13	9,650.00	9,494.84	29.83	21.50	54.16	-1,522.28	-3,929.92	5,815.06	5,770.48	44.58	130.432			
12,700.00	12,581.43	9,650.00	9,494.84	29.85	21.50	53.74	-1,522.28	-3,929.92	5,820.12	5,775.55	44.57	130.570			
12,750.00	12,608.15	9,650.00	9,494.84	29.87	21.50	53.51	-1,522.28	-3,929.92	5,823.04	5,778.46	44.58	130.631			
12,800.00	12,631.09	9,650.00	9,494.84	29.90	21.50	53.45	-1,522.28	-3,929.92	5,823.79	5,779.20	44.59	130.607			
12,850.00	12,650.07	9,677.99	9,507.09	29.93	21.49	53.58	-1,547.44	-3,929.74	5,821.90	5,777.25	44.65	130.386			
12,900.00	12,664.95	9,700.00	9,515.86	29.98	21.47	53.92	-1,567.63	-3,929.59	5,818.19	5,773.47	44.72	130.101			
12,950.00	12,675.61	9,700.00	9,515.86	30.05	21.47	54.42	-1,567.63	-3,929.59	5,812.06	5,767.28	44.78	129.784			
13,000.00	12,681.98	9,700.00	9,515.86	30.13	21.47	55.10	-1,567.63	-3,929.59	5,803.84	5,758.98	44.86	129.369			
13,048.16	12,684.00	9,700.00	9,515.86	30.24	21.47	55.93	-1,567.63	-3,929.59	5,794.00	5,749.04	44.96	128.877			
13,100.00	12,684.00	9,700.00	9,515.86	30.37	21.47	55.93	-1,567.63	-3,929.59	5,782.62	5,737.55	45.08	128.286			
13,200.00	12,684.00	9,726.05	9,525.23	30.70	21.47	56.01	-1,591.93	-3,929.41	5,761.54	5,716.15	45.39	126.939			
13,300.00	12,684.00	9,750.00	9,532.86	31.12	21.46	56.07	-1,614.63	-3,929.25	5,742.05	5,696.29	45.76	125.483			
13,400.00	12,684.00	9,750.00	9,532.86	31.62	21.46	56.07	-1,614.63	-3,929.25	5,723.89	5,677.73	46.16	124.003			
13,500.00	12,684.00	9,750.00	9,532.86	32.21	21.46	56.07	-1,614.63	-3,929.25	5,707.43	5,660.81	46.62	122.432			
13,600.00	12,684.00	9,800.00	9,545.69	32.87	21.47	56.18	-1,662.94	-3,928.89	5,692.22	5,645.01	47.22	120.558			
13,700.00	12,684.00	9,800.00	9,545.69	33.59	21.47	56.18	-1,662.94	-3,928.89	5,678.34	5,630.56	47.78	118.832			
13,800.00	12,684.00	9,800.00	9,545.69	34.36	21.47	56.18	-1,662.94	-3,928.89	5,666.19	5,617.79	48.40	117.060			
13,900.00	12,684.00	9,827.31	9,550.90	35.23	21.49	56.22	-1,689.75	-3,928.69	5,655.36	5,606.23	49.12	115.123			
14,000.00	12,684.00	9,850.00	9,554.26	36.14	21.51	56.25	-1,712.18	-3,928.53	5,646.13	5,596.25	49.88	113.197			
14,100.00	12,684.00	9,850.00	9,554.26	37.10	21.51	56.25	-1,712.18	-3,928.53	5,638.36	5,587.73	50.63	111.363			

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 Tooface (')	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
14,200.00	12,684.00	9,873.06	9,556.76	38.10	21.53	56.27	-1,735.11	-3,928.36	5,632.05	5,580.58	51.47	109.423			
14,300.00	12,684.00	9,900.00	9,558.51	39.14	21.56	56.28	-1,761.99	-3,928.16	5,627.34	5,574.99	52.35	107.492			
14,400.00	12,684.00	9,900.00	9,558.51	40.23	21.56	56.28	-1,761.99	-3,928.16	5,624.00	5,570.80	53.20	105.706			
14,500.00	12,684.00	9,923.75	9,559.00	41.35	21.60	56.28	-1,785.73	-3,927.99	5,622.22	5,568.08	54.14	103.844			
14,600.00	12,684.00	9,996.13	9,559.00	42.50	21.74	56.28	-1,858.11	-3,927.46	5,621.55	5,566.29	55.25	101.740			
14,700.00	12,684.00	10,096.13	9,559.00	43.68	22.05	56.28	-1,958.10	-3,926.73	5,620.94	5,564.38	56.56	99.380			
14,800.00	12,684.00	10,196.13	9,559.00	44.90	22.47	56.27	-2,058.10	-3,925.99	5,620.33	5,562.34	57.99	96.923			
14,900.00	12,684.00	10,296.12	9,559.00	46.13	23.00	56.27	-2,158.09	-3,925.26	5,619.72	5,560.18	59.53	94.401			
15,000.00	12,684.00	10,396.12	9,559.00	47.40	23.63	56.27	-2,258.09	-3,924.52	5,619.11	5,557.92	61.18	91.845			
15,100.00	12,684.00	10,496.12	9,559.00	48.68	24.36	56.26	-2,358.08	-3,923.79	5,618.50	5,555.57	62.93	89.283			
15,200.00	12,684.00	10,596.11	9,559.00	49.99	25.17	56.26	-2,458.08	-3,923.06	5,617.88	5,553.12	64.77	86.740			
15,300.00	12,684.00	10,696.11	9,559.00	51.31	26.05	56.25	-2,558.07	-3,922.32	5,617.27	5,550.59	66.69	84.232			
15,400.00	12,684.00	10,796.11	9,559.00	52.65	27.01	56.25	-2,658.06	-3,921.59	5,616.66	5,547.98	68.68	81.777			
15,500.00	12,684.00	10,896.11	9,559.00	54.01	28.03	56.24	-2,758.06	-3,920.86	5,616.05	5,545.31	70.75	79.384			
15,600.00	12,684.00	10,996.10	9,559.00	55.38	29.11	56.24	-2,858.05	-3,920.12	5,615.44	5,542.58	72.87	77.063			
15,700.00	12,684.00	11,096.10	9,559.00	56.77	30.24	56.24	-2,958.05	-3,919.39	5,614.83	5,539.79	75.05	74.819			
15,800.00	12,684.00	11,196.10	9,559.00	58.17	31.41	56.23	-3,058.04	-3,918.65	5,614.22	5,536.95	77.27	72.655			
15,900.00	12,684.00	11,296.10	9,559.00	59.58	32.62	56.23	-3,158.04	-3,917.92	5,613.61	5,534.07	79.54	70.573			
16,000.00	12,684.00	11,396.09	9,559.00	61.00	33.87	56.22	-3,258.03	-3,917.19	5,613.00	5,531.15	81.86	68.572			
16,100.00	12,684.00	11,496.09	9,559.00	62.43	35.15	56.22	-3,358.03	-3,916.45	5,612.39	5,528.19	84.20	66.653			
16,200.00	12,684.00	11,596.09	9,559.00	63.87	36.46	56.22	-3,458.02	-3,915.72	5,611.78	5,525.20	86.58	64.813			
16,300.00	12,684.00	11,696.08	9,559.00	65.32	37.79	56.21	-3,558.02	-3,914.99	5,611.18	5,522.18	88.99	63.051			
16,400.00	12,684.00	11,796.08	9,559.00	66.78	39.15	56.21	-3,658.01	-3,914.25	5,610.57	5,519.13	91.43	61.364			
16,500.00	12,684.00	11,896.08	9,559.00	68.25	40.53	56.20	-3,758.01	-3,913.52	5,609.96	5,516.06	93.89	59.748			
16,600.00	12,684.00	11,996.08	9,559.00	69.73	41.93	56.20	-3,858.00	-3,912.78	5,609.35	5,512.97	96.38	58.202			
16,700.00	12,684.00	12,096.07	9,559.00	71.21	43.34	56.19	-3,957.99	-3,912.05	5,608.74	5,509.85	98.88	56.721			
16,800.00	12,684.00	12,196.07	9,559.00	72.70	44.77	56.19	-4,057.99	-3,911.32	5,608.13	5,506.72	101.41	55.304			
16,900.00	12,684.00	12,296.07	9,559.00	74.19	46.21	56.19	-4,157.98	-3,910.58	5,607.52	5,503.57	103.95	53.946			
17,000.00	12,684.00	12,396.07	9,559.00	75.69	47.66	56.18	-4,257.98	-3,909.85	5,606.91	5,500.40	106.50	52.646			
17,100.00	12,684.00	12,496.06	9,559.00	77.20	49.13	56.18	-4,357.97	-3,909.12	5,606.30	5,497.22	109.07	51.399			
17,200.00	12,684.00	12,596.06	9,559.00	78.71	50.61	56.17	-4,457.97	-3,908.38	5,605.69	5,494.03	111.66	50.204			
17,300.00	12,684.00	12,696.06	9,559.00	80.22	52.09	56.17	-4,557.96	-3,907.65	5,605.08	5,490.82	114.25	49.058			
17,400.00	12,684.00	12,796.06	9,559.00	81.74	53.59	56.17	-4,657.96	-3,906.91	5,604.47	5,487.61	116.86	47.958			
17,500.00	12,684.00	12,896.05	9,559.00	83.27	55.09	56.16	-4,757.95	-3,906.18	5,603.86	5,484.38	119.48	46.901			
17,600.00	12,684.00	12,996.05	9,559.00	84.80	56.60	56.16	-4,857.95	-3,905.45	5,603.25	5,481.14	122.11	45.887			
17,700.00	12,684.00	13,096.05	9,559.00	86.33	58.12	56.15	-4,957.94	-3,904.71	5,602.64	5,477.89	124.75	44.911			
17,800.00	12,684.00	13,196.04	9,559.00	87.87	59.64	56.15	-5,057.94	-3,903.98	5,602.03	5,474.64	127.39	43.974			
17,900.00	12,684.00	13,296.04	9,559.00	89.41	61.17	56.14	-5,157.93	-3,903.25	5,601.42	5,471.37	130.05	43.072			
18,000.00	12,684.00	13,396.04	9,559.00	90.95	62.71	56.14	-5,257.92	-3,902.51	5,600.81	5,468.10	132.71	42.203			
18,100.00	12,684.00	13,496.04	9,559.00	92.50	64.25	56.14	-5,357.92	-3,901.78	5,600.20	5,464.82	135.38	41.367			
18,200.00	12,684.00	13,596.03	9,559.00	94.04	65.79	56.13	-5,457.91	-3,901.04	5,599.59	5,461.54	138.06	40.561			
18,300.00	12,684.00	13,696.03	9,559.00	95.60	67.34	56.13	-5,557.91	-3,900.31	5,598.98	5,458.25	140.74	39.783			
18,400.00	12,684.00	13,796.03	9,559.00	97.15	68.89	56.12	-5,657.90	-3,899.58	5,598.38	5,454.95	143.42	39.034			
18,500.00	12,684.00	13,896.03	9,559.00	98.71	70.45	56.12	-5,757.90	-3,898.84	5,597.77	5,451.65	146.12	38.310			
18,600.00	12,684.00	13,996.02	9,559.00	100.27	72.01	56.12	-5,857.89	-3,898.11	5,597.16	5,448.34	148.81	37.612			
18,700.00	12,684.00	14,096.02	9,559.00	101.83	73.57	56.11	-5,957.89	-3,897.38	5,596.55	5,445.03	151.52	36.937			
18,800.00	12,684.00	14,196.02	9,559.00	103.39	75.14	56.11	-6,057.88	-3,896.64	5,595.94	5,441.72	154.22	36.285			
18,900.00	12,684.00	14,296.01	9,559.00	104.96	76.71	56.10	-6,157.88	-3,895.91	5,595.33	5,438.40	156.93	35.654			
19,000.00	12,684.00	14,396.01	9,559.00	106.53	78.28	56.10	-6,257.87	-3,895.17	5,594.72	5,435.07	159.65	35.044			
19,100.00	12,684.00	14,496.01	9,559.00	108.10	79.85	56.09	-6,357.87	-3,894.44	5,594.11	5,431.74	162.37	34.453			
19,200.00	12,684.00	14,596.01	9,559.00	109.67	81.43	56.09	-6,457.86	-3,893.71	5,593.50	5,428.41	165.09	33.882			
19,300.00	12,684.00	14,696.00	9,559.00	111.25	83.01	56.09	-6,557.85	-3,892.97	5,592.89	5,425.08	167.82	33.328			

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
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Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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: O-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)							
19,400.00	12,684.00	14,796.00	9,559.00	112.82	84.59	56.08	-6,657.85	-3,892.24	5,592.28	5,421.74	170.54	32.791			
19,500.00	12,684.00	14,896.00	9,559.00	114.40	86.18	56.08	-6,757.84	-3,891.51	5,591.68	5,418.40	173.28	32.270			
19,600.00	12,684.00	14,996.00	9,559.00	115.98	87.76	56.07	-6,857.84	-3,890.77	5,591.07	5,415.06	176.01	31.765			
19,700.00	12,684.00	15,095.99	9,559.00	117.56	89.35	56.07	-6,957.83	-3,890.04	5,590.46	5,411.71	178.75	31.275			
19,800.00	12,684.00	15,195.99	9,559.00	119.14	90.94	56.06	-7,057.83	-3,889.30	5,589.85	5,408.36	181.49	30.800			
19,900.00	12,684.00	15,295.99	9,559.00	120.72	92.53	56.06	-7,157.82	-3,888.57	5,589.24	5,405.01	184.23	30.338			
20,000.00	12,684.00	15,395.99	9,559.00	122.31	94.12	56.06	-7,257.82	-3,887.84	5,588.63	5,401.66	186.98	29.889			
20,100.00	12,684.00	15,495.98	9,559.00	123.89	95.72	56.05	-7,357.81	-3,887.10	5,588.02	5,398.30	189.72	29.453			
20,200.00	12,684.00	15,595.98	9,559.00	125.48	97.31	56.05	-7,457.81	-3,886.37	5,587.41	5,394.94	192.47	29.029			
20,300.00	12,684.00	15,695.98	9,559.00	127.07	98.91	56.04	-7,557.80	-3,885.64	5,586.81	5,391.58	195.23	28.617			
20,400.00	12,684.00	15,795.97	9,559.00	128.66	100.51	56.04	-7,657.80	-3,884.90	5,586.20	5,388.22	197.98	28.216			
20,500.00	12,684.00	15,895.97	9,559.00	130.25	102.11	56.04	-7,757.79	-3,884.17	5,585.59	5,384.86	200.73	27.826			
20,600.00	12,684.00	15,995.97	9,559.00	131.84	103.71	56.03	-7,857.78	-3,883.43	5,584.98	5,381.49	203.49	27.446			
20,700.00	12,684.00	16,095.97	9,559.00	133.43	105.31	56.03	-7,957.78	-3,882.70	5,584.37	5,378.12	206.25	27.076			
20,800.00	12,684.00	16,195.96	9,559.00	135.03	106.91	56.02	-8,057.77	-3,881.97	5,583.76	5,374.75	209.01	26.715			
20,900.00	12,684.00	16,295.96	9,559.00	136.62	108.51	56.02	-8,157.77	-3,881.23	5,583.15	5,371.38	211.77	26.364			
21,000.00	12,684.00	16,395.96	9,559.00	138.22	110.12	56.01	-8,257.76	-3,880.50	5,582.55	5,368.01	214.53	26.022			
21,100.00	12,684.00	16,495.96	9,559.00	139.82	111.72	56.01	-8,357.76	-3,879.77	5,581.94	5,364.64	217.30	25.688			
21,200.00	12,684.00	16,595.95	9,559.00	141.41	113.33	56.01	-8,457.75	-3,879.03	5,581.33	5,361.27	220.06	25.362			
21,300.00	12,684.00	16,695.95	9,559.00	143.01	114.94	56.00	-8,557.75	-3,878.30	5,580.72	5,357.89	222.83	25.045			
21,400.00	12,684.00	16,795.95	9,559.00	144.61	116.55	56.00	-8,657.74	-3,877.56	5,580.11	5,354.51	225.60	24.735			
21,500.00	12,684.00	16,895.94	9,559.00	146.21	118.16	55.99	-8,757.74	-3,876.83	5,579.50	5,351.14	228.37	24.432			
21,600.00	12,684.00	16,995.94	9,559.00	147.81	119.76	55.99	-8,857.73	-3,876.10	5,578.90	5,347.76	231.14	24.136			
21,700.00	12,684.00	17,095.94	9,559.00	149.41	121.37	55.98	-8,957.73	-3,875.36	5,578.29	5,344.38	233.91	23.848			
21,800.00	12,684.00	17,195.94	9,559.00	151.01	122.99	55.98	-9,057.72	-3,874.63	5,577.68	5,341.00	236.68	23.566			
21,900.00	12,684.00	17,295.93	9,559.00	152.62	124.60	55.98	-9,157.71	-3,873.90	5,577.07	5,337.61	239.46	23.290			
22,000.00	12,684.00	17,395.93	9,559.00	154.22	126.21	55.97	-9,257.71	-3,873.16	5,576.46	5,334.23	242.23	23.021			
22,100.00	12,684.00	17,495.93	9,559.00	155.82	127.82	55.97	-9,357.70	-3,872.43	5,575.86	5,330.85	245.01	22.758			
22,200.00	12,684.00	17,595.93	9,559.00	157.43	129.44	55.96	-9,457.70	-3,871.69	5,575.25	5,327.46	247.79	22.500			
22,300.00	12,684.00	17,695.92	9,559.00	159.03	131.05	55.96	-9,557.69	-3,870.96	5,574.64	5,324.08	250.56	22.249			
22,400.00	12,684.00	17,795.92	9,559.00	160.64	132.66	55.96	-9,657.69	-3,870.23	5,574.03	5,320.69	253.34	22.002			
22,473.03	12,684.00	17,868.95	9,559.00	161.81	133.84	55.95	-9,730.72	-3,869.69	5,573.59	5,318.22	255.37	21.826 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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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	-85.05	137.95	-1,592.63	1,598.60				
100.00	100.00	95.50	95.50	0.08	0.08	-85.05	137.95	-1,592.63	1,598.59	1,598.43	0.16	9,701.272	
200.00	200.00	195.50	195.50	0.31	0.30	-85.05	137.95	-1,592.63	1,598.59	1,597.99	0.61	2,629.298	
300.00	300.00	295.50	295.50	0.53	0.52	-85.05	137.95	-1,592.63	1,598.59	1,597.54	1.06	1,511.637	
400.00	400.00	395.50	395.50	0.76	0.75	-85.05	137.95	-1,592.63	1,598.59	1,597.09	1.51	1,060.739	
500.00	500.00	495.50	495.50	0.98	0.97	-85.05	137.95	-1,592.63	1,598.59	1,596.64	1.96	817.031	
600.00	600.00	595.50	595.50	1.21	1.20	-85.05	137.95	-1,592.63	1,598.59	1,596.19	2.41	664.386	
700.00	700.00	695.50	695.50	1.43	1.42	-85.05	137.95	-1,592.63	1,598.59	1,595.74	2.86	559.800	
800.00	800.00	795.50	795.50	1.66	1.65	-85.05	137.95	-1,592.63	1,598.59	1,595.29	3.31	483.662	
900.00	900.00	895.50	895.50	1.88	1.87	-85.05	137.95	-1,592.63	1,598.59	1,594.84	3.75	425.756	
1,000.00	1,000.00	995.50	995.50	2.11	2.10	-85.05	137.95	-1,592.63	1,598.59	1,594.39	4.20	380.233	
1,100.00	1,100.00	1,095.50	1,095.50	2.33	2.32	-85.05	137.95	-1,592.63	1,598.59	1,593.94	4.65	343.504	
1,200.00	1,200.00	1,195.50	1,195.50	2.56	2.55	-85.05	137.95	-1,592.63	1,598.59	1,593.49	5.10	313.246	
1,300.00	1,300.00	1,295.50	1,295.50	2.78	2.77	-85.05	137.95	-1,592.63	1,598.59	1,593.04	5.55	287.887	
1,400.00	1,400.00	1,395.50	1,395.50	3.01	3.00	-85.05	137.95	-1,592.63	1,598.59	1,592.59	6.00	266.327	
1,500.00	1,500.00	1,495.50	1,495.50	3.23	3.22	-85.05	137.95	-1,592.63	1,598.59	1,592.14	6.45	247.771	
1,600.00	1,600.00	1,595.50	1,595.50	3.46	3.45	-85.05	137.95	-1,592.63	1,598.59	1,591.69	6.90	231.632	
1,700.00	1,700.00	1,695.50	1,695.50	3.68	3.67	-85.05	137.95	-1,592.63	1,598.59	1,591.24	7.35	217.467	
1,800.00	1,800.00	1,795.50	1,795.50	3.91	3.90	-85.05	137.95	-1,592.63	1,598.59	1,590.79	7.80	204.935	
1,900.00	1,900.00	1,895.50	1,895.50	4.13	4.12	-85.05	137.95	-1,592.63	1,598.59	1,590.34	8.25	193.768	
2,000.00	2,000.00	1,995.50	1,995.50	4.35	4.34	-85.05	137.95	-1,592.63	1,598.59	1,589.89	8.70	183.755	
2,100.00	2,100.00	2,095.50	2,095.50	4.58	4.57	-85.05	137.95	-1,592.63	1,598.59	1,589.44	9.15	174.727	
2,200.00	2,200.00	2,195.50	2,195.50	4.80	4.79	-85.05	137.95	-1,592.63	1,598.59	1,588.99	9.60	166.544	
2,300.00	2,300.00	2,295.50	2,295.50	5.03	5.02	-85.05	137.95	-1,592.63	1,598.59	1,588.55	10.05	159.093	
2,400.00	2,400.00	2,395.50	2,395.50	5.25	5.24	-85.05	137.95	-1,592.63	1,598.59	1,588.10	10.50	152.280	
2,500.00	2,500.00	2,495.50	2,495.50	5.48	5.47	-85.05	137.95	-1,592.63	1,598.59	1,587.65	10.95	146.027	
2,600.00	2,599.99	2,632.26	2,632.25	5.69	5.75	-153.15	137.95	-1,591.10	1,598.27	1,586.83	11.44	139.658	
2,700.00	2,699.96	2,770.72	2,770.62	5.90	6.03	-153.20	137.95	-1,586.24	1,597.11	1,585.19	11.92	134.020	
2,800.00	2,799.86	2,909.10	2,908.75	6.11	6.32	-153.29	137.95	-1,578.03	1,595.09	1,582.70	12.39	128.769	
2,900.00	2,899.68	3,047.36	3,046.52	6.33	6.61	-153.40	137.95	-1,566.51	1,592.23	1,579.38	12.86	123.857	
3,000.00	2,999.37	3,185.46	3,183.82	6.55	6.91	-153.55	137.95	-1,551.68	1,588.53	1,575.21	13.32	119.256	
3,038.22	3,037.43	3,238.19	3,236.15	6.63	7.03	-153.61	137.95	-1,545.14	1,586.90	1,573.40	13.50	117.572	
3,100.00	3,098.94	3,300.48	3,297.92	6.77	7.18	-153.68	137.95	-1,537.12	1,584.14	1,570.38	13.76	115.136	
3,200.00	3,198.50	3,400.33	3,396.94	6.99	7.42	-153.80	137.95	-1,524.25	1,579.68	1,565.49	14.18	111.367	
3,300.00	3,298.05	3,500.19	3,495.96	7.22	7.66	-153.91	137.95	-1,511.38	1,575.22	1,560.61	14.61	107.793	
3,400.00	3,397.61	3,600.04	3,594.98	7.45	7.90	-154.03	137.95	-1,498.51	1,570.77	1,555.73	15.05	104.401	
3,500.00	3,497.17	3,699.89	3,694.00	7.69	8.15	-154.15	137.95	-1,485.65	1,566.33	1,550.85	15.48	101.179	
3,600.00	3,596.73	3,799.74	3,793.01	7.92	8.41	-154.26	137.95	-1,472.78	1,561.89	1,545.97	15.92	98.118	
3,700.00	3,696.29	3,899.59	3,892.03	8.16	8.66	-154.38	137.95	-1,459.91	1,557.46	1,541.10	16.36	95.207	
3,800.00	3,795.85	3,999.44	3,991.05	8.40	8.92	-154.50	137.95	-1,447.05	1,553.04	1,536.24	16.80	92.437	
3,900.00	3,895.41	4,099.29	4,090.07	8.64	9.19	-154.62	137.95	-1,434.18	1,548.62	1,531.38	17.25	89.799	
4,000.00	3,994.97	4,199.14	4,189.09	8.89	9.45	-154.74	137.95	-1,421.31	1,544.21	1,526.52	17.69	87.284	
4,100.00	4,094.53	4,298.99	4,288.10	9.13	9.72	-154.86	137.95	-1,408.44	1,539.81	1,521.67	18.14	84.885	
4,200.00	4,194.09	4,398.84	4,387.12	9.38	9.99	-154.98	137.95	-1,395.58	1,535.41	1,516.82	18.59	82.595	
4,300.00	4,293.65	4,498.69	4,486.14	9.63	10.27	-155.10	137.95	-1,382.71	1,531.02	1,511.98	19.04	80.408	
4,400.00	4,393.20	4,598.54	4,585.16	9.87	10.54	-155.22	137.95	-1,369.84	1,526.64	1,507.15	19.49	78.316	
4,500.00	4,492.76	4,698.39	4,684.18	10.12	10.82	-155.35	137.95	-1,356.98	1,522.26	1,502.32	19.95	76.315	
4,600.00	4,592.32	4,798.24	4,783.19	10.37	11.09	-155.47	137.95	-1,344.11	1,517.89	1,497.49	20.40	74.399	
4,700.00	4,691.88	4,898.09	4,882.21	10.63	11.37	-155.60	137.95	-1,331.24	1,513.53	1,492.67	20.86	72.563	
4,800.00	4,791.44	4,997.94	4,981.23	10.88	11.65	-155.72	137.95	-1,318.37	1,509.18	1,487.86	21.32	70.802	
4,900.00	4,891.00	5,097.79	5,080.25	11.13	11.93	-155.85	137.95	-1,305.51	1,504.83	1,483.06	21.77	69.113	
5,000.00	4,990.56	5,197.64	5,179.26	11.39	12.22	-155.97	137.95	-1,292.64	1,500.49	1,478.26	22.23	67.491	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
5,100.00	5,090.12	5,297.49	5,278.28	11.64	12.50	-156.10	137.95	-1,279.77	1,496.16	1,473.47	22.69	65.932		
5,200.00	5,189.68	5,397.34	5,377.30	11.90	12.79	-156.23	137.95	-1,266.91	1,491.83	1,468.68	23.15	64.434		
5,300.00	5,289.24	5,497.19	5,476.32	12.15	13.07	-156.36	137.95	-1,254.04	1,487.52	1,463.90	23.61	62.992		
5,400.00	5,388.80	5,597.04	5,575.34	12.41	13.36	-156.49	137.95	-1,241.17	1,483.21	1,459.13	24.08	61.604		
5,500.00	5,488.36	5,696.89	5,674.35	12.66	13.65	-156.62	137.95	-1,228.30	1,478.91	1,454.37	24.54	60.267		
5,600.00	5,587.91	5,796.75	5,773.37	12.92	13.94	-156.75	137.95	-1,215.44	1,474.61	1,449.61	25.00	58.979		
5,700.00	5,687.47	5,896.60	5,872.39	13.18	14.23	-156.88	137.95	-1,202.57	1,470.32	1,444.86	25.47	57.736		
5,800.00	5,787.03	5,996.45	5,971.41	13.44	14.52	-157.02	137.95	-1,189.70	1,466.05	1,440.11	25.93	56.537		
5,900.00	5,886.59	6,096.30	6,070.43	13.70	14.81	-157.15	137.95	-1,176.84	1,461.77	1,435.38	26.40	55.379		
6,000.00	5,986.15	6,196.15	6,169.44	13.96	15.10	-157.28	137.95	-1,163.97	1,457.51	1,430.65	26.86	54.261		
6,100.00	6,085.71	6,296.00	6,268.46	14.22	15.39	-157.42	137.95	-1,151.10	1,453.26	1,425.93	27.33	53.181		
6,200.00	6,185.27	6,395.85	6,367.48	14.48	15.68	-157.55	137.95	-1,138.23	1,449.01	1,421.22	27.79	52.136		
6,300.00	6,284.83	6,495.70	6,466.50	14.74	15.98	-157.69	137.95	-1,125.37	1,444.77	1,416.51	28.26	51.125		
6,400.00	6,384.39	6,595.55	6,565.52	15.00	16.27	-157.83	137.95	-1,112.50	1,440.54	1,411.81	28.73	50.146		
6,500.00	6,483.95	6,695.40	6,664.53	15.26	16.56	-157.97	137.95	-1,099.63	1,436.32	1,407.13	29.19	49.199		
6,600.00	6,583.51	6,795.25	6,763.55	15.52	16.86	-158.11	137.95	-1,086.77	1,432.11	1,402.44	29.66	48.281		
6,700.00	6,683.06	6,895.10	6,862.57	15.78	17.15	-158.25	137.95	-1,073.90	1,427.90	1,397.77	30.13	47.391		
6,800.00	6,782.62	6,994.95	6,961.59	16.04	17.45	-158.39	137.95	-1,061.03	1,423.71	1,393.11	30.60	46.528		
6,900.00	6,882.18	7,094.80	7,060.61	16.31	17.74	-158.53	137.95	-1,048.17	1,419.52	1,388.45	31.07	45.691		
7,000.00	6,981.74	7,194.65	7,159.62	16.57	18.04	-158.67	137.95	-1,035.30	1,415.34	1,383.80	31.54	44.879		
7,100.00	7,081.30	7,294.50	7,258.64	16.83	18.33	-158.82	137.95	-1,022.43	1,411.17	1,379.16	32.01	44.091		
7,200.00	7,180.86	7,394.35	7,357.66	17.09	18.63	-158.96	137.95	-1,009.56	1,407.01	1,374.53	32.48	43.325		
7,300.00	7,280.42	7,494.20	7,456.68	17.36	18.93	-159.10	137.95	-996.70	1,402.85	1,369.91	32.95	42.581		
7,400.00	7,379.98	7,594.05	7,555.69	17.62	19.23	-159.25	137.95	-983.83	1,398.71	1,365.30	33.42	41.858		
7,500.00	7,479.54	7,693.90	7,654.71	17.88	19.52	-159.40	137.95	-970.96	1,394.58	1,360.69	33.89	41.155		
7,600.00	7,579.10	7,793.75	7,753.73	18.15	19.82	-159.54	137.95	-958.10	1,390.45	1,356.10	34.36	40.471		
7,700.00	7,678.66	7,893.60	7,852.75	18.41	20.12	-159.69	137.95	-945.23	1,386.34	1,351.51	34.83	39.806		
7,800.00	7,778.21	7,993.45	7,951.77	18.67	20.42	-159.84	137.95	-932.36	1,382.23	1,346.93	35.30	39.158		
7,900.00	7,877.77	8,093.31	8,050.78	18.94	20.72	-159.99	137.95	-919.49	1,378.13	1,342.36	35.77	38.528		
8,000.00	7,977.33	8,193.16	8,149.80	19.20	21.01	-160.14	137.95	-906.63	1,374.05	1,337.80	36.24	37.913		
8,100.00	8,076.89	8,293.01	8,248.82	19.47	21.31	-160.30	137.95	-893.76	1,369.97	1,333.26	36.71	37.315		
8,200.00	8,176.45	8,392.86	8,347.84	19.73	21.61	-160.45	137.95	-880.89	1,365.90	1,328.72	37.19	36.732		
8,300.00	8,276.01	8,492.71	8,446.86	20.00	21.91	-160.60	137.95	-868.03	1,361.84	1,324.18	37.66	36.164		
8,400.00	8,375.57	8,592.56	8,545.87	20.26	22.21	-160.76	137.95	-855.16	1,357.79	1,319.66	38.13	35.610		
8,500.00	8,475.13	8,692.41	8,644.89	20.52	22.51	-160.91	137.95	-842.29	1,353.76	1,315.15	38.60	35.069		
8,600.00	8,574.69	8,792.26	8,743.91	20.79	22.81	-161.07	137.95	-829.42	1,349.73	1,310.65	39.08	34.542		
8,700.00	8,674.25	8,892.11	8,842.93	21.05	23.11	-161.23	137.95	-816.56	1,345.71	1,306.16	39.55	34.027		
8,800.00	8,773.81	8,991.96	8,941.95	21.32	23.41	-161.39	137.95	-803.69	1,341.70	1,301.68	40.02	33.524		
8,900.00	8,873.37	9,091.81	9,040.96	21.59	23.71	-161.55	137.95	-790.82	1,337.70	1,297.21	40.50	33.034		
9,000.00	8,972.92	9,191.66	9,139.08	21.85	24.01	-161.71	137.95	-777.96	1,333.72	1,292.75	40.97	32.554		
9,100.00	9,072.48	9,291.51	9,239.00	22.12	24.31	-161.87	137.95	-765.09	1,329.74	1,288.30	41.44	32.086		
9,200.00	9,172.04	9,391.36	9,338.02	22.38	24.61	-162.03	137.95	-752.22	1,325.77	1,283.86	41.92	31.629		
9,300.00	9,271.60	9,491.21	9,437.04	22.65	24.92	-162.19	137.95	-739.35	1,321.82	1,279.43	42.39	31.182		
9,400.00	9,371.16	9,591.06	9,536.05	22.91	25.22	-162.36	137.95	-726.49	1,317.88	1,275.01	42.87	30.744		
9,500.00	9,470.72	9,690.91	9,635.07	23.18	25.52	-162.52	137.95	-713.62	1,313.94	1,270.60	43.34	30.317		
9,600.00	9,570.28	9,790.76	9,734.09	23.45	25.82	-162.69	137.95	-700.75	1,310.02	1,266.20	43.82	29.899		
9,700.00	9,669.84	9,890.61	9,833.11	23.71	26.12	-162.86	137.95	-687.89	1,306.11	1,261.82	44.29	29.490		
9,800.00	9,769.40	9,990.46	9,932.12	23.98	26.42	-163.03	137.95	-675.02	1,302.21	1,257.44	44.77	29.090		
9,900.00	9,868.96	10,090.31	10,031.14	24.24	26.72	-163.20	137.95	-662.15	1,298.32	1,253.08	45.24	28.698		
10,000.00	9,968.52	10,190.16	10,130.16	24.51	27.03	-163.37	137.95	-649.28	1,294.44	1,248.72	45.72	28.314		
10,100.00	10,068.07	10,290.02	10,229.18	24.78	27.33	-163.54	137.95	-636.42	1,290.58	1,244.38	46.19	27.939		
10,200.00	10,167.63	10,389.87	10,328.20	25.04	27.63	-163.71	137.95	-623.55	1,286.72	1,240.05	46.67	27.571		

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

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Fighting Okra 18-19 Fed
Site Error: 0.00 usft
Reference Well: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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: O-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	
10,300.00	10,267.19	10,477.67	10,415.30	25.31	27.87	-163.86	137.95	-612.49	1,283.19	1,236.07	47.12	27.232	
10,400.00	10,366.75	10,559.38	10,496.49	25.58	28.06	-164.00	137.95	-603.30	1,281.00	1,233.47	47.54	26.947	
10,500.00	10,466.31	10,641.14	10,577.85	25.84	28.24	-164.13	137.95	-595.27	1,280.25	1,232.30	47.94	26.704	
10,502.94	10,469.24	10,643.54	10,580.25	25.85	28.24	-164.13	137.95	-595.05	1,280.25	1,232.29	47.95	26.697 CC	
10,600.00	10,565.87	10,722.90	10,659.33	26.11	28.40	-164.25	137.95	-588.40	1,280.92	1,232.58	48.34	26.498	
10,700.00	10,665.43	10,800.00	10,736.24	26.38	28.55	-164.37	137.95	-582.99	1,283.03	1,234.31	48.72	26.335	
10,800.00	10,764.99	10,886.33	10,822.43	26.64	28.71	-164.49	137.95	-578.16	1,286.54	1,237.43	49.11	26.198	
10,900.00	10,864.55	10,967.92	10,903.95	26.91	28.86	-164.60	137.95	-574.79	1,291.49	1,242.01	49.48	26.102	
11,000.00	10,964.11	11,049.39	10,985.39	27.18	28.99	-164.70	137.95	-572.58	1,297.85	1,248.01	49.84	26.039	
11,098.90	11,062.57	11,129.82	11,065.81	27.44	29.12	-164.79	137.95	-571.53	1,305.53	1,255.33	50.19	26.009	
11,100.00	11,063.67	11,130.71	11,066.70	27.44	29.12	-164.79	137.95	-571.53	1,305.62	1,255.42	50.20	26.009	
11,200.00	11,163.30	11,222.81	11,158.80	27.64	29.27	-164.90	137.95	-571.43	1,313.70	1,263.15	50.55	25.989	
11,300.00	11,263.07	11,322.58	11,258.57	27.84	29.45	-165.00	137.95	-571.43	1,320.22	1,269.29	50.93	25.922	
11,400.00	11,362.95	11,422.46	11,358.45	28.02	29.63	-165.07	137.95	-571.43	1,325.06	1,273.75	51.31	25.825	
11,500.00	11,462.89	11,522.40	11,458.39	28.20	29.80	-165.11	137.95	-571.43	1,328.22	1,276.53	51.69	25.698	
11,600.00	11,562.88	11,622.39	11,558.38	28.36	29.98	-165.13	137.95	-571.43	1,329.69	1,277.63	52.06	25.541	
11,637.12	11,600.00	11,659.51	11,595.50	28.42	30.05	-97.04	137.95	-571.43	1,329.80	1,277.60	52.20	25.475	
11,700.00	11,662.88	11,722.39	11,658.38	28.54	30.16	-97.04	137.95	-571.43	1,329.80	1,277.36	52.45	25.355	
11,800.00	11,762.88	11,822.39	11,758.38	28.73	30.34	-97.04	137.95	-571.43	1,329.80	1,276.95	52.86	25.159	
11,900.00	11,862.88	11,922.39	11,858.38	28.92	30.52	-97.04	137.95	-571.43	1,329.80	1,276.54	53.26	24.966	
12,000.00	11,962.88	12,022.39	11,958.38	29.12	30.70	-97.04	137.95	-571.43	1,329.80	1,276.13	53.67	24.776	
12,100.00	12,062.88	12,122.39	12,058.38	29.31	30.88	-97.04	137.95	-571.43	1,329.80	1,275.72	54.08	24.588	
12,100.41	12,063.29	12,122.80	12,058.79	29.31	30.88	-97.04	137.95	-571.43	1,329.80	1,275.72	54.08	24.588	
12,148.16	12,111.04	12,167.11	12,103.10	29.41	30.96	-97.05	137.82	-571.43	1,329.82	1,275.56	54.27	24.505	
12,150.00	12,112.88	12,168.55	12,104.53	29.41	30.96	82.95	137.79	-571.43	1,329.83	1,275.55	54.27	24.502	
12,200.00	12,162.81	12,207.44	12,143.35	29.49	31.03	82.93	135.56	-571.43	1,329.89	1,275.47	54.42	24.438	
12,250.00	12,212.34	12,250.00	12,185.56	29.56	31.10	82.95	130.10	-571.43	1,329.85	1,275.28	54.57	24.371	
12,300.00	12,261.11	12,285.25	12,220.12	29.62	31.15	83.01	123.22	-571.43	1,329.67	1,274.99	54.68	24.318	
12,350.00	12,308.73	12,324.25	12,257.79	29.67	31.22	83.12	113.15	-571.43	1,329.38	1,274.59	54.79	24.261	
12,400.00	12,354.85	12,363.35	12,294.79	29.71	31.28	83.27	100.50	-571.43	1,328.99	1,274.08	54.91	24.205	
12,450.00	12,399.11	12,400.00	12,328.60	29.75	31.35	83.45	86.38	-571.43	1,328.50	1,273.49	55.00	24.154	
12,500.00	12,441.18	12,442.05	12,366.19	29.77	31.42	83.69	67.56	-571.43	1,327.91	1,272.79	55.12	24.091	
12,550.00	12,480.74	12,481.72	12,400.29	29.80	31.48	83.97	47.32	-571.43	1,327.25	1,272.02	55.23	24.031	
12,600.00	12,517.48	12,521.66	12,433.14	29.82	31.55	84.28	24.61	-571.43	1,326.53	1,271.18	55.35	23.967	
12,650.00	12,551.13	12,561.91	12,464.56	29.83	31.62	84.63	-0.54	-571.43	1,325.76	1,270.29	55.47	23.900	
12,700.00	12,581.43	12,600.00	12,492.60	29.85	31.70	84.99	-26.31	-571.43	1,324.97	1,269.37	55.60	23.832	
12,750.00	12,608.15	12,643.57	12,522.49	29.87	31.78	85.42	-58.00	-571.43	1,324.16	1,268.40	55.77	23.745	
12,800.00	12,631.09	12,685.08	12,548.64	29.90	31.87	85.87	-90.22	-571.43	1,323.37	1,267.43	55.94	23.656	
12,850.00	12,650.07	12,727.11	12,572.68	29.93	31.96	86.34	-124.69	-571.43	1,322.62	1,266.47	56.14	23.558	
12,900.00	12,664.95	12,769.74	12,594.42	29.98	32.06	86.83	-161.34	-571.43	1,321.91	1,265.54	56.37	23.451	
12,950.00	12,675.61	12,813.02	12,613.63	30.05	32.17	87.35	-200.11	-571.43	1,321.27	1,264.65	56.62	23.334	
13,000.00	12,681.98	12,857.03	12,630.12	30.13	32.30	87.89	-240.91	-571.43	1,320.73	1,263.82	56.91	23.206	
13,048.16	12,684.00	12,900.00	12,643.15	30.24	32.44	88.42	-281.84	-571.43	1,320.31	1,263.09	57.22	23.073	
13,100.00	12,684.00	12,948.03	12,654.03	30.37	32.60	88.89	-328.61	-571.43	1,320.02	1,262.42	57.60	22.917	
13,200.00	12,684.00	13,044.14	12,663.89	30.70	32.98	89.32	-424.09	-571.43	1,319.86	1,261.43	58.44	22.586	
13,237.53	12,684.00	13,081.37	12,664.00	30.85	33.15	89.33	-461.32	-571.43	1,319.86	1,261.06	58.80	22.447	
13,300.00	12,684.00	13,143.84	12,664.00	31.12	33.45	89.33	-523.80	-571.43	1,319.86	1,260.42	59.44	22.205	
13,400.00	12,684.00	13,243.84	12,664.00	31.62	33.99	89.33	-623.80	-571.43	1,319.86	1,259.26	60.60	21.781	
13,500.00	12,684.00	13,343.84	12,664.00	32.21	34.61	89.33	-723.80	-571.43	1,319.86	1,257.96	61.91	21.321	
13,600.00	12,684.00	13,443.84	12,664.00	32.87	35.29	89.33	-823.80	-571.43	1,319.86	1,256.51	63.35	20.833	
13,700.00	12,684.00	13,543.84	12,664.00	33.59	36.03	89.33	-923.80	-571.43	1,319.86	1,254.92	64.94	20.325	
13,800.00	12,684.00	13,643.84	12,664.00	34.38	36.83	89.33	-1,023.80	-571.43	1,319.86	1,253.22	66.64	19.805	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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)							
13,900.00	12,684.00	13,743.84	12,664.00	35.23	37.68	89.33	-1,123.80	-571.43	1,319.86	1,251.40	68.46	19.279			
14,000.00	12,684.00	13,843.84	12,664.00	36.14	38.59	89.33	-1,223.80	-571.43	1,319.86	1,249.48	70.38	18.752			
14,100.00	12,684.00	13,943.84	12,664.00	37.10	39.54	89.33	-1,323.80	-571.43	1,319.86	1,247.46	72.40	18.229			
14,200.00	12,684.00	14,043.84	12,664.00	38.10	40.54	89.33	-1,423.80	-571.43	1,319.86	1,245.35	74.51	17.713			
14,300.00	12,684.00	14,143.84	12,664.00	39.14	41.58	89.33	-1,523.80	-571.43	1,319.86	1,243.16	76.70	17.207			
14,400.00	12,684.00	14,243.84	12,664.00	40.23	42.65	89.33	-1,623.80	-571.43	1,319.86	1,240.89	78.97	16.714			
14,500.00	12,684.00	14,343.84	12,664.00	41.35	43.76	89.33	-1,723.80	-571.43	1,319.86	1,238.56	81.30	16.234			
14,600.00	12,684.00	14,443.84	12,664.00	42.50	44.90	89.33	-1,823.80	-571.43	1,319.86	1,236.16	83.70	15.770			
14,700.00	12,684.00	14,543.84	12,664.00	43.68	46.08	89.33	-1,923.80	-571.43	1,319.86	1,233.71	86.15	15.321			
14,800.00	12,684.00	14,643.84	12,664.00	44.90	47.28	89.33	-2,023.80	-571.43	1,319.86	1,231.21	88.66	14.887			
14,900.00	12,684.00	14,743.84	12,664.00	46.13	48.50	89.33	-2,123.80	-571.43	1,319.86	1,228.65	91.21	14.471			
15,000.00	12,684.00	14,843.84	12,664.00	47.40	49.75	89.33	-2,223.80	-571.43	1,319.86	1,226.05	93.81	14.070			
15,100.00	12,684.00	14,943.84	12,664.00	48.68	51.02	89.33	-2,323.80	-571.43	1,319.86	1,223.41	96.45	13.685			
15,200.00	12,684.00	15,043.84	12,664.00	49.99	52.31	89.33	-2,423.80	-571.43	1,319.86	1,220.74	99.13	13.315			
15,300.00	12,684.00	15,143.84	12,664.00	51.31	53.62	89.33	-2,523.80	-571.43	1,319.86	1,218.02	101.84	12.961			
15,400.00	12,684.00	15,243.84	12,664.00	52.65	54.95	89.33	-2,623.80	-571.43	1,319.86	1,215.28	104.58	12.621			
15,500.00	12,684.00	15,343.84	12,664.00	54.01	56.29	89.33	-2,723.80	-571.43	1,319.86	1,212.51	107.35	12.295			
15,600.00	12,684.00	15,443.84	12,664.00	55.38	57.65	89.33	-2,823.80	-571.43	1,319.86	1,209.71	110.15	11.982			
15,700.00	12,684.00	15,543.84	12,664.00	56.77	59.02	89.33	-2,923.80	-571.43	1,319.86	1,206.88	112.98	11.682			
15,800.00	12,684.00	15,643.84	12,664.00	58.17	60.41	89.33	-3,023.80	-571.43	1,319.86	1,204.03	115.83	11.395			
15,900.00	12,684.00	15,743.84	12,664.00	59.58	61.80	89.33	-3,123.80	-571.43	1,319.86	1,201.16	118.70	11.120			
16,000.00	12,684.00	15,843.84	12,664.00	61.00	63.21	89.33	-3,223.80	-571.43	1,319.86	1,198.27	121.59	10.855			
16,100.00	12,684.00	15,943.84	12,664.00	62.43	64.63	89.33	-3,323.80	-571.43	1,319.86	1,195.37	124.50	10.602			
16,200.00	12,684.00	16,043.84	12,664.00	63.87	66.06	89.33	-3,423.80	-571.43	1,319.86	1,192.44	127.42	10.358			
16,300.00	12,684.00	16,143.84	12,664.00	65.32	67.50	89.33	-3,523.80	-571.43	1,319.86	1,189.50	130.37	10.124			
16,400.00	12,684.00	16,243.84	12,664.00	66.78	68.95	89.33	-3,623.80	-571.43	1,319.86	1,186.54	133.32	9.900			
16,500.00	12,684.00	16,343.84	12,664.00	68.25	70.40	89.33	-3,723.80	-571.43	1,319.86	1,183.57	136.30	9.684			
16,600.00	12,684.00	16,443.84	12,664.00	69.73	71.87	89.33	-3,823.80	-571.43	1,319.86	1,180.58	139.28	9.476			
16,700.00	12,684.00	16,543.84	12,664.00	71.21	73.34	89.33	-3,923.80	-571.43	1,319.86	1,177.58	142.28	9.277			
16,800.00	12,684.00	16,643.84	12,664.00	72.70	74.81	89.33	-4,023.80	-571.43	1,319.86	1,174.57	145.29	9.084			
16,900.00	12,684.00	16,743.84	12,664.00	74.19	76.30	89.33	-4,123.80	-571.43	1,319.86	1,171.55	148.31	8.899			
17,000.00	12,684.00	16,843.84	12,664.00	75.69	77.79	89.33	-4,223.80	-571.43	1,319.86	1,168.52	151.34	8.721			
17,100.00	12,684.00	16,943.84	12,664.00	77.20	79.28	89.33	-4,323.80	-571.43	1,319.86	1,165.48	154.38	8.549			
17,200.00	12,684.00	17,043.84	12,664.00	78.71	80.78	89.33	-4,423.80	-571.43	1,319.86	1,162.43	157.43	8.384			
17,300.00	12,684.00	17,143.84	12,664.00	80.22	82.29	89.33	-4,523.80	-571.43	1,319.86	1,159.37	160.49	8.224			
17,400.00	12,684.00	17,243.84	12,664.00	81.74	83.80	89.33	-4,623.80	-571.43	1,319.86	1,156.31	163.55	8.070			
17,500.00	12,684.00	17,343.84	12,664.00	83.27	85.31	89.33	-4,723.80	-571.43	1,319.86	1,153.23	166.63	7.921			
17,600.00	12,684.00	17,443.84	12,664.00	84.80	86.83	89.33	-4,823.80	-571.43	1,319.86	1,150.15	169.71	7.777			
17,700.00	12,684.00	17,543.84	12,664.00	86.33	88.36	89.33	-4,923.80	-571.43	1,319.86	1,147.06	172.80	7.638			
17,800.00	12,684.00	17,643.84	12,664.00	87.87	89.89	89.33	-5,023.80	-571.43	1,319.86	1,143.97	175.89	7.504			
17,900.00	12,684.00	17,743.84	12,664.00	89.41	91.42	89.33	-5,123.80	-571.43	1,319.86	1,140.87	178.99	7.374			
18,000.00	12,684.00	17,843.84	12,664.00	90.95	92.95	89.33	-5,223.80	-571.43	1,319.86	1,137.76	182.10	7.248			
18,100.00	12,684.00	17,943.84	12,664.00	92.50	94.49	89.33	-5,323.80	-571.43	1,319.86	1,134.65	185.21	7.126			
18,200.00	12,684.00	18,043.84	12,664.00	94.04	96.03	89.33	-5,423.80	-571.43	1,319.86	1,131.53	188.33	7.008			
18,300.00	12,684.00	18,143.84	12,664.00	95.60	97.58	89.33	-5,523.80	-571.43	1,319.86	1,128.41	191.45	6.894			
18,400.00	12,684.00	18,243.84	12,664.00	97.15	99.12	89.33	-5,623.80	-571.43	1,319.86	1,125.28	194.58	6.783			
18,500.00	12,684.00	18,343.84	12,664.00	98.71	100.67	89.33	-5,723.80	-571.43	1,319.86	1,122.15	197.71	6.676			
18,600.00	12,684.00	18,443.84	12,664.00	100.27	102.23	89.33	-5,823.80	-571.43	1,319.86	1,119.01	200.85	6.571			
18,700.00	12,684.00	18,543.84	12,664.00	101.83	103.78	89.33	-5,923.80	-571.43	1,319.86	1,115.87	203.99	6.470			
18,800.00	12,684.00	18,643.84	12,664.00	103.39	105.34	89.33	-6,023.80	-571.43	1,319.86	1,112.73	207.13	6.372			
18,900.00	12,684.00	18,743.84	12,664.00	104.96	106.90	89.33	-6,123.80	-571.43	1,319.86	1,109.58	210.28	6.277			
19,000.00	12,684.00	18,843.84	12,664.00	106.53	108.46	89.33	-6,223.80	-571.43	1,319.86	1,106.43	213.43	6.184			

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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		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)						
19,100.00	12,684.00	18,943.84	12,664.00	108.10	110.02	89.33	-6,323.80	-571.43	1,319.86	1,103.27	216.59	6.094		
19,200.00	12,684.00	19,043.84	12,664.00	109.67	111.59	89.33	-6,423.80	-571.43	1,319.86	1,100.11	219.75	6.006		
19,300.00	12,684.00	19,143.84	12,664.00	111.25	113.16	89.33	-6,523.80	-571.43	1,319.86	1,096.95	222.91	5.921		
19,400.00	12,684.00	19,243.84	12,664.00	112.82	114.73	89.33	-6,623.80	-571.43	1,319.86	1,093.79	226.08	5.838		
19,500.00	12,684.00	19,343.84	12,664.00	114.40	116.30	89.33	-6,723.80	-571.43	1,319.86	1,090.62	229.24	5.757		
19,600.00	12,684.00	19,443.84	12,664.00	115.98	117.87	89.33	-6,823.80	-571.43	1,319.86	1,087.45	232.41	5.679		
19,700.00	12,684.00	19,543.84	12,664.00	117.56	119.45	89.33	-6,923.80	-571.43	1,319.86	1,084.27	235.59	5.602		
19,800.00	12,684.00	19,643.84	12,664.00	119.14	121.02	89.33	-7,023.80	-571.43	1,319.86	1,081.10	238.76	5.528		
19,900.00	12,684.00	19,743.84	12,664.00	120.72	122.60	89.33	-7,123.80	-571.43	1,319.86	1,077.92	241.94	5.455		
20,000.00	12,684.00	19,843.84	12,664.00	122.31	124.18	89.33	-7,223.80	-571.43	1,319.86	1,074.74	245.12	5.385		
20,100.00	12,684.00	19,943.84	12,664.00	123.89	125.76	89.33	-7,323.80	-571.43	1,319.86	1,071.56	248.30	5.315		
20,200.00	12,684.00	20,043.84	12,664.00	125.48	127.35	89.33	-7,423.80	-571.43	1,319.86	1,068.37	251.49	5.248		
20,300.00	12,684.00	20,143.84	12,664.00	127.07	128.93	89.33	-7,523.80	-571.43	1,319.86	1,065.18	254.68	5.182		
20,400.00	12,684.00	20,243.84	12,664.00	128.66	130.51	89.33	-7,623.80	-571.43	1,319.86	1,061.99	257.87	5.118		
20,500.00	12,684.00	20,343.84	12,664.00	130.25	132.10	89.33	-7,723.80	-571.43	1,319.86	1,058.80	261.06	5.056		
20,600.00	12,684.00	20,443.84	12,664.00	131.84	133.69	89.33	-7,823.80	-571.43	1,319.86	1,055.61	264.25	4.995		
20,700.00	12,684.00	20,543.84	12,664.00	133.43	135.28	89.33	-7,923.80	-571.43	1,319.86	1,052.41	267.45	4.935		
20,800.00	12,684.00	20,643.84	12,664.00	135.03	136.87	89.33	-8,023.80	-571.43	1,319.86	1,049.22	270.64	4.877		
20,900.00	12,684.00	20,743.84	12,664.00	136.62	138.46	89.33	-8,123.80	-571.43	1,319.86	1,046.02	273.84	4.820		
21,000.00	12,684.00	20,843.84	12,664.00	138.22	140.05	89.33	-8,223.80	-571.43	1,319.86	1,042.82	277.04	4.764		
21,100.00	12,684.00	20,943.84	12,664.00	139.82	141.64	89.33	-8,323.80	-571.43	1,319.86	1,039.62	280.24	4.710		
21,200.00	12,684.00	21,043.84	12,664.00	141.41	143.23	89.33	-8,423.80	-571.43	1,319.86	1,036.41	283.45	4.656		
21,300.00	12,684.00	21,143.84	12,664.00	143.01	144.83	89.33	-8,523.80	-571.43	1,319.86	1,033.21	286.65	4.604		
21,400.00	12,684.00	21,243.84	12,664.00	144.61	146.42	89.33	-8,623.80	-571.43	1,319.86	1,030.00	289.86	4.553		
21,500.00	12,684.00	21,343.84	12,664.00	146.21	148.02	89.33	-8,723.80	-571.43	1,319.86	1,026.80	293.06	4.504		
21,600.00	12,684.00	21,443.84	12,664.00	147.81	149.62	89.33	-8,823.80	-571.43	1,319.86	1,023.59	296.27	4.455		
21,700.00	12,684.00	21,543.84	12,664.00	149.41	151.21	89.33	-8,923.80	-571.43	1,319.86	1,020.38	299.48	4.407		
21,800.00	12,684.00	21,643.84	12,664.00	151.01	152.81	89.33	-9,023.80	-571.43	1,319.86	1,017.17	302.69	4.360		
21,900.00	12,684.00	21,743.84	12,664.00	152.62	154.41	89.33	-9,123.80	-571.43	1,319.86	1,013.95	305.91	4.315		
22,000.00	12,684.00	21,843.84	12,664.00	154.22	156.01	89.33	-9,223.80	-571.43	1,319.86	1,010.74	309.12	4.270		
22,100.00	12,684.00	21,943.84	12,664.00	155.82	157.61	89.33	-9,323.80	-571.43	1,319.86	1,007.53	312.34	4.226		
22,200.00	12,684.00	22,043.84	12,664.00	157.43	159.21	89.33	-9,423.80	-571.43	1,319.86	1,004.31	315.55	4.183		
22,300.00	12,684.00	22,143.84	12,664.00	159.03	160.81	89.33	-9,523.80	-571.43	1,319.86	1,001.09	318.77	4.140		
22,400.00	12,684.00	22,243.84	12,664.00	160.64	162.42	89.33	-9,623.80	-571.43	1,319.86	997.87	321.99	4.099		
22,473.03	12,684.00	22,316.87	12,664.00	161.81	163.59	89.33	-9,696.83	-571.43	1,319.86	995.52	324.34	4.069 ES, SF		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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
0.00	0.00	0.00	0.00	0.00	0.00	-85.27	137.95	-1,667.55	1,673.25				
100.00	100.00	95.50	95.50	0.08	0.08	-85.27	137.95	-1,667.55	1,673.25	1,673.08	0.16	N/A	
200.00	200.00	195.50	195.50	0.31	0.30	-85.27	137.95	-1,667.55	1,673.25	1,672.64	0.61	2,752.085	
300.00	300.00	295.50	295.50	0.53	0.52	-85.27	137.95	-1,667.55	1,673.25	1,672.19	1.06	1,582.230	
400.00	400.00	395.50	395.50	0.76	0.75	-85.27	137.95	-1,667.55	1,673.25	1,671.74	1.51	1,110.274	
500.00	500.00	495.50	495.50	0.98	0.97	-85.27	137.95	-1,667.55	1,673.25	1,671.29	1.96	855.186	
600.00	600.00	595.50	595.50	1.21	1.20	-85.27	137.95	-1,667.55	1,673.25	1,670.84	2.41	695.412	
700.00	700.00	695.50	695.50	1.43	1.42	-85.27	137.95	-1,667.55	1,673.25	1,670.39	2.86	585.942	
800.00	800.00	795.50	795.50	1.66	1.65	-85.27	137.95	-1,667.55	1,673.25	1,669.94	3.31	506.249	
900.00	900.00	895.50	895.50	1.88	1.87	-85.27	137.95	-1,667.55	1,673.25	1,669.49	3.75	445.638	
1,000.00	1,000.00	995.50	995.50	2.11	2.10	-85.27	137.95	-1,667.55	1,673.25	1,669.04	4.20	397.989	
1,100.00	1,100.00	1,095.50	1,095.50	2.33	2.32	-85.27	137.95	-1,667.55	1,673.25	1,668.59	4.65	359.546	
1,200.00	1,200.00	1,195.50	1,195.50	2.56	2.55	-85.27	137.95	-1,667.55	1,673.25	1,668.14	5.10	327.875	
1,300.00	1,300.00	1,295.50	1,295.50	2.78	2.77	-85.27	137.95	-1,667.55	1,673.25	1,667.69	5.55	301.331	
1,400.00	1,400.00	1,395.50	1,395.50	3.01	3.00	-85.27	137.95	-1,667.55	1,673.25	1,667.24	6.00	278.764	
1,500.00	1,500.00	1,495.50	1,495.50	3.23	3.22	-85.27	137.95	-1,667.55	1,673.25	1,666.79	6.45	259.341	
1,600.00	1,600.00	1,595.50	1,595.50	3.46	3.45	-85.27	137.95	-1,667.55	1,673.25	1,666.34	6.90	242.449	
1,700.00	1,700.00	1,695.50	1,695.50	3.68	3.67	-85.27	137.95	-1,667.55	1,673.25	1,665.90	7.35	227.622	
1,800.00	1,800.00	1,795.50	1,795.50	3.91	3.90	-85.27	137.95	-1,667.55	1,673.25	1,665.45	7.80	214.505	
1,900.00	1,900.00	1,895.50	1,895.50	4.13	4.12	-85.27	137.95	-1,667.55	1,673.25	1,665.00	8.25	202.817	
2,000.00	2,000.00	1,995.50	1,995.50	4.35	4.34	-85.27	137.95	-1,667.55	1,673.25	1,664.55	8.70	192.337	
2,100.00	2,100.00	2,095.50	2,095.50	4.58	4.57	-85.27	137.95	-1,667.55	1,673.25	1,664.10	9.15	182.886	
2,200.00	2,200.00	2,195.50	2,195.50	4.80	4.79	-85.27	137.95	-1,667.55	1,673.25	1,663.65	9.60	174.321	
2,300.00	2,300.00	2,295.50	2,295.50	5.03	5.02	-85.27	137.95	-1,667.55	1,673.25	1,663.20	10.05	166.523	
2,400.00	2,400.00	2,395.50	2,395.50	5.25	5.24	-85.27	137.95	-1,667.55	1,673.25	1,662.75	10.50	159.392	
2,500.00	2,500.00	2,495.50	2,495.50	5.48	5.47	-85.27	137.95	-1,667.55	1,673.25	1,662.30	10.95	152.847 CC	
2,600.00	2,599.99	2,595.49	2,595.49	5.69	5.69	-153.37	137.95	-1,667.55	1,674.03	1,662.64	11.39	147.004	
2,700.00	2,699.96	2,695.46	2,695.46	5.90	5.92	-153.40	137.95	-1,667.55	1,676.37	1,664.55	11.82	141.826	
2,800.00	2,799.86	2,795.36	2,795.36	6.11	6.14	-153.45	137.95	-1,667.55	1,680.27	1,668.02	12.25	137.128	
2,900.00	2,899.68	2,895.18	2,895.18	6.33	6.37	-153.52	137.95	-1,667.55	1,685.73	1,673.05	12.69	132.863	
3,000.00	2,999.37	2,994.87	2,994.87	6.55	6.59	-153.60	137.95	-1,667.55	1,692.76	1,679.64	13.12	128.987	
3,038.22	3,037.43	3,032.93	3,032.93	6.63	6.68	-153.64	137.95	-1,667.55	1,695.86	1,682.57	13.29	127.598	
3,100.00	3,098.94	3,094.44	3,094.44	6.77	6.81	-153.73	137.95	-1,667.55	1,701.06	1,687.50	13.56	125.443	
3,200.00	3,198.50	3,194.00	3,194.00	6.99	7.04	-153.87	137.95	-1,667.55	1,709.49	1,695.49	14.00	122.121	
3,300.00	3,298.05	3,293.55	3,293.55	7.22	7.26	-154.01	137.95	-1,667.55	1,717.92	1,703.48	14.44	118.989	
3,400.00	3,397.61	3,393.11	3,393.11	7.45	7.49	-154.14	137.95	-1,667.55	1,726.36	1,711.48	14.88	116.032	
3,500.00	3,497.17	3,492.67	3,492.67	7.69	7.71	-154.28	137.95	-1,667.55	1,734.81	1,719.49	15.32	113.235	
3,600.00	3,596.73	3,620.10	3,620.09	7.92	7.99	-154.42	138.70	-1,666.54	1,742.54	1,726.72	15.82	110.166	
3,700.00	3,696.29	3,750.14	3,750.06	8.16	8.27	-154.50	141.21	-1,663.17	1,748.55	1,732.24	16.31	107.202	
3,800.00	3,795.85	3,880.46	3,880.18	8.40	8.55	-154.53	145.49	-1,657.42	1,752.83	1,736.02	16.80	104.321	
3,900.00	3,895.41	3,991.48	3,990.91	8.64	8.79	-154.50	150.33	-1,650.94	1,755.72	1,738.46	17.26	101.725	
4,000.00	3,994.97	4,091.44	4,090.59	8.89	9.01	-154.48	154.78	-1,644.96	1,758.50	1,740.80	17.70	99.353	
4,100.00	4,094.53	4,191.40	4,190.27	9.13	9.24	-154.45	159.23	-1,638.98	1,761.28	1,743.14	18.14	97.084	
4,200.00	4,194.09	4,291.36	4,289.95	9.38	9.46	-154.42	163.69	-1,633.00	1,764.06	1,745.48	18.59	94.915	
4,300.00	4,293.65	4,391.32	4,389.63	9.63	9.68	-154.40	168.14	-1,627.02	1,766.84	1,747.81	19.03	92.838	
4,400.00	4,393.20	4,491.28	4,489.31	9.87	9.91	-154.37	172.60	-1,621.04	1,769.62	1,750.14	19.48	90.850	
4,500.00	4,492.76	4,591.23	4,588.99	10.12	10.14	-154.35	177.05	-1,615.06	1,772.40	1,752.48	19.93	88.943	
4,600.00	4,592.32	4,691.19	4,688.67	10.37	10.37	-154.32	181.51	-1,609.08	1,775.19	1,754.81	20.38	87.115	
4,700.00	4,691.88	4,791.15	4,788.35	10.63	10.60	-154.30	185.96	-1,603.10	1,777.97	1,757.14	20.83	85.361	
4,800.00	4,791.44	4,891.11	4,888.03	10.88	10.83	-154.27	190.42	-1,597.12	1,780.75	1,759.47	21.28	83.676	
4,900.00	4,891.00	4,991.07	4,987.71	11.13	11.06	-154.25	194.87	-1,591.14	1,783.53	1,761.80	21.74	82.057	
5,000.00	4,990.56	5,091.02	5,087.39	11.39	11.29	-154.22	199.33	-1,585.16	1,786.32	1,764.13	22.19	80.500	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
5,100.00	5,090.12	5,190.98	5,187.07	11.64	11.53	-154.20	203.78	-1,579.18	1,789.10	1,766.45	22.65	79.002		
5,200.00	5,189.68	5,290.94	5,286.75	11.90	11.76	-154.18	208.24	-1,573.20	1,791.88	1,768.78	23.10	77.561		
5,300.00	5,289.24	5,390.90	5,386.43	12.15	12.00	-154.15	212.69	-1,567.22	1,794.67	1,771.11	23.56	76.172		
5,400.00	5,388.80	5,490.86	5,486.11	12.41	12.23	-154.13	217.15	-1,561.24	1,797.45	1,773.43	24.02	74.833		
5,500.00	5,488.36	5,590.82	5,585.78	12.66	12.47	-154.10	221.60	-1,555.26	1,800.24	1,775.76	24.48	73.543		
5,600.00	5,587.91	5,690.77	5,685.46	12.92	12.70	-154.08	226.06	-1,549.28	1,803.02	1,778.08	24.94	72.297		
5,700.00	5,687.47	5,790.73	5,785.14	13.18	12.94	-154.05	230.51	-1,543.30	1,805.81	1,780.41	25.40	71.095		
5,800.00	5,787.03	5,890.69	5,884.82	13.44	13.18	-154.03	234.97	-1,537.32	1,808.59	1,782.73	25.86	69.933		
5,900.00	5,886.59	5,990.65	5,984.50	13.70	13.42	-154.01	239.42	-1,531.34	1,811.38	1,785.06	26.32	68.811		
6,000.00	5,986.15	6,090.61	6,084.18	13.96	13.66	-153.98	243.88	-1,525.36	1,814.17	1,787.38	26.79	67.726		
6,100.00	6,085.71	6,190.57	6,183.86	14.22	13.90	-153.96	248.33	-1,519.38	1,816.95	1,789.70	27.25	66.676		
6,200.00	6,185.27	6,290.52	6,283.54	14.48	14.14	-153.93	252.79	-1,513.40	1,819.74	1,792.03	27.71	65.660		
6,300.00	6,284.83	6,390.48	6,383.22	14.74	14.38	-153.91	257.24	-1,507.42	1,822.53	1,794.35	28.18	64.677		
6,400.00	6,384.39	6,490.44	6,482.90	15.00	14.62	-153.89	261.70	-1,501.44	1,825.32	1,796.67	28.64	63.724		
6,500.00	6,483.95	6,590.40	6,582.58	15.26	14.86	-153.86	266.15	-1,495.46	1,828.10	1,798.99	29.11	62.800		
6,600.00	6,583.51	6,690.36	6,682.26	15.52	15.10	-153.84	270.61	-1,489.48	1,830.89	1,801.32	29.58	61.905		
6,700.00	6,683.06	6,790.32	6,781.94	15.78	15.35	-153.82	275.06	-1,483.50	1,833.68	1,803.64	30.04	61.036		
6,800.00	6,782.62	6,890.27	6,881.62	16.04	15.59	-153.79	279.52	-1,477.52	1,836.47	1,805.96	30.51	60.193		
6,900.00	6,882.18	6,990.23	6,981.30	16.31	15.83	-153.77	283.97	-1,471.54	1,839.26	1,808.28	30.98	59.375		
7,000.00	6,981.74	7,090.19	7,080.98	16.57	16.07	-153.75	288.43	-1,465.56	1,842.05	1,810.60	31.44	58.580		
7,100.00	7,081.30	7,190.15	7,180.66	16.83	16.32	-153.72	292.88	-1,459.58	1,844.84	1,812.92	31.91	57.808		
7,200.00	7,180.86	7,290.11	7,280.34	17.09	16.56	-153.70	297.34	-1,453.60	1,847.63	1,815.25	32.38	57.058		
7,300.00	7,280.42	7,390.07	7,380.02	17.36	16.81	-153.68	301.79	-1,447.62	1,850.42	1,817.57	32.85	56.328		
7,400.00	7,379.98	7,490.02	7,479.70	17.62	17.05	-153.65	306.25	-1,441.64	1,853.21	1,819.89	33.32	55.619		
7,500.00	7,479.54	7,589.98	7,579.38	17.88	17.29	-153.63	310.70	-1,435.66	1,856.00	1,822.21	33.79	54.928		
7,600.00	7,579.10	7,689.94	7,679.06	18.15	17.54	-153.61	315.16	-1,429.68	1,858.79	1,824.53	34.26	54.256		
7,700.00	7,678.66	7,789.90	7,778.74	18.41	17.78	-153.59	319.61	-1,423.70	1,861.58	1,826.85	34.73	53.602		
7,800.00	7,778.21	7,889.86	7,878.42	18.67	18.03	-153.56	324.07	-1,417.72	1,864.37	1,829.17	35.20	52.965		
7,900.00	7,877.77	7,989.82	7,978.10	18.94	18.27	-153.54	328.52	-1,411.74	1,867.17	1,831.50	35.67	52.344		
8,000.00	7,977.33	8,089.77	8,077.78	19.20	18.52	-153.52	332.98	-1,405.76	1,869.96	1,833.82	36.14	51.739		
8,100.00	8,076.89	8,189.73	8,177.46	19.47	18.77	-153.50	337.43	-1,399.78	1,872.75	1,836.14	36.61	51.149		
8,200.00	8,176.45	8,289.69	8,277.14	19.73	19.01	-153.47	341.89	-1,393.80	1,875.54	1,838.46	37.09	50.574		
8,300.00	8,276.01	8,389.65	8,376.82	20.00	19.26	-153.45	346.34	-1,387.82	1,878.34	1,840.78	37.56	50.013		
8,400.00	8,375.57	8,489.61	8,476.50	20.26	19.50	-153.43	350.80	-1,381.84	1,881.13	1,843.10	38.03	49.465		
8,500.00	8,475.13	8,589.57	8,576.18	20.52	19.75	-153.41	355.25	-1,375.86	1,883.93	1,845.42	38.50	48.931		
8,600.00	8,574.69	8,689.52	8,675.86	20.79	20.00	-153.38	359.71	-1,369.88	1,886.72	1,847.75	38.97	48.410		
8,700.00	8,674.25	8,789.48	8,775.54	21.05	20.24	-153.36	364.16	-1,363.90	1,889.51	1,850.07	39.45	47.900		
8,800.00	8,773.81	8,889.44	8,875.22	21.32	20.49	-153.34	368.62	-1,357.92	1,892.31	1,852.39	39.92	47.403		
8,900.00	8,873.37	8,989.40	8,974.90	21.59	20.74	-153.32	373.07	-1,351.94	1,895.10	1,854.71	40.39	46.916		
9,000.00	8,972.92	9,089.36	9,074.58	21.85	20.99	-153.30	377.53	-1,345.96	1,897.90	1,857.03	40.87	46.441		
9,100.00	9,072.48	9,189.32	9,174.26	22.12	21.23	-153.27	381.98	-1,339.98	1,900.69	1,859.35	41.34	45.977		
9,200.00	9,172.04	9,289.27	9,273.94	22.38	21.48	-153.25	386.43	-1,334.00	1,903.49	1,861.68	41.81	45.523		
9,300.00	9,271.60	9,389.23	9,373.62	22.65	21.73	-153.23	390.89	-1,328.02	1,906.29	1,864.00	42.29	45.079		
9,400.00	9,371.16	9,489.19	9,473.30	22.91	21.98	-153.21	395.34	-1,322.04	1,909.08	1,866.32	42.76	44.644		
9,500.00	9,470.72	9,589.15	9,572.98	23.18	22.22	-153.19	399.80	-1,316.06	1,911.88	1,868.64	43.24	44.219		
9,600.00	9,570.28	9,689.11	9,672.66	23.45	22.47	-153.17	404.25	-1,310.08	1,914.68	1,870.96	43.71	43.803		
9,700.00	9,669.84	9,789.07	9,772.34	23.71	22.72	-153.15	408.71	-1,304.10	1,917.47	1,873.29	44.19	43.396		
9,800.00	9,769.40	9,889.02	9,872.02	23.98	22.97	-153.12	413.16	-1,298.12	1,920.27	1,875.61	44.66	42.997		
9,900.00	9,868.96	9,988.98	9,971.69	24.24	23.22	-153.10	417.62	-1,292.14	1,923.07	1,877.93	45.14	42.607		
10,000.00	9,968.52	10,088.94	10,071.37	24.51	23.46	-153.08	422.07	-1,286.16	1,925.87	1,880.26	45.61	42.224		
10,100.00	10,068.07	10,188.90	10,171.05	24.78	23.71	-153.06	426.53	-1,280.18	1,928.66	1,882.58	46.09	41.849		
10,200.00	10,167.63	10,288.86	10,270.73	25.04	23.96	-153.04	430.98	-1,274.20	1,931.46	1,884.90	46.56	41.482		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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	10,267.19	10,388.82	10,370.41	25.31	24.21	-153.02	435.44	-1,268.22	1,934.26	1,887.22	47.04	41.122	
10,400.00	10,366.75	10,488.77	10,470.09	25.58	24.46	-153.00	439.89	-1,262.24	1,937.06	1,889.55	47.51	40.769	
10,500.00	10,466.31	10,588.73	10,569.77	25.84	24.71	-152.98	444.35	-1,256.26	1,939.86	1,891.87	47.99	40.423	
10,600.00	10,565.87	10,688.69	10,669.45	26.11	24.96	-152.96	448.80	-1,250.28	1,942.66	1,894.19	48.46	40.084	
10,700.00	10,665.43	10,788.65	10,769.13	26.38	25.21	-152.93	453.26	-1,244.30	1,945.46	1,896.52	48.94	39.751	
10,800.00	10,764.99	10,869.09	10,849.39	26.64	25.36	-152.93	456.54	-1,239.90	1,948.74	1,899.41	49.34	39.499	
10,900.00	10,864.55	10,948.77	10,928.85	26.91	25.51	-152.94	459.12	-1,236.43	1,953.06	1,903.34	49.72	39.280	
11,000.00	10,964.11	11,028.35	11,008.46	27.18	25.66	-152.98	461.04	-1,233.86	1,958.42	1,908.32	50.10	39.090	
11,098.90	11,062.57	11,100.00	11,080.09	27.44	25.78	-153.03	462.20	-1,232.30	1,964.75	1,914.29	50.45	38.942	
11,100.00	11,063.67	11,100.00	11,080.09	27.44	25.78	-153.03	462.20	-1,232.30	1,964.83	1,914.37	50.45	38.942	
11,200.00	11,163.30	11,187.16	11,167.24	27.64	25.93	-153.14	462.89	-1,231.37	1,971.44	1,920.65	50.79	38.818	
11,300.00	11,263.07	11,278.50	11,258.57	27.84	26.10	-153.24	462.95	-1,231.29	1,977.38	1,926.25	51.13	38.670	
11,400.00	11,362.95	11,378.37	11,358.45	28.02	26.30	-153.33	462.95	-1,231.29	1,981.86	1,930.34	51.52	38.466	
11,500.00	11,462.89	11,478.31	11,458.39	28.20	26.51	-153.38	462.95	-1,231.29	1,984.78	1,932.87	51.91	38.235	
11,600.00	11,562.88	11,578.30	11,558.38	28.36	26.72	-153.41	462.95	-1,231.29	1,986.14	1,933.84	52.30	37.979	
11,637.12	11,600.00	11,615.42	11,595.50	28.42	26.80	-85.32	462.95	-1,231.29	1,986.24	1,933.80	52.44	37.876	
11,700.00	11,662.88	11,678.30	11,658.38	28.54	26.93	-85.32	462.95	-1,231.29	1,986.24	1,933.55	52.69	37.693	
11,800.00	11,762.88	11,778.30	11,758.38	28.73	27.14	-85.32	462.95	-1,231.29	1,986.24	1,933.13	53.11	37.397	
11,900.00	11,862.88	11,878.30	11,858.38	28.92	27.35	-85.32	462.95	-1,231.29	1,986.24	1,932.71	53.53	37.104	
12,000.00	11,962.88	11,978.30	11,958.38	29.12	27.56	-85.32	462.95	-1,231.29	1,986.24	1,932.29	53.95	36.816	
12,100.00	12,062.88	12,078.30	12,058.38	29.31	27.77	-85.32	462.95	-1,231.29	1,986.24	1,931.87	54.37	36.532	
12,148.16	12,111.04	12,126.46	12,106.54	29.41	27.87	-85.32	462.95	-1,231.29	1,986.24	1,931.67	54.57	36.397	
12,150.00	12,112.88	12,128.30	12,108.38	29.41	27.87	94.68	462.95	-1,231.29	1,986.24	1,931.66	54.58	36.392	
12,200.00	12,162.81	12,178.23	12,158.31	29.49	27.98	94.72	462.95	-1,231.29	1,986.44	1,931.66	54.77	36.267	
12,250.00	12,212.34	12,227.77	12,207.84	29.56	28.08	94.86	462.95	-1,231.29	1,987.00	1,932.04	54.96	36.155	
12,300.00	12,261.11	12,292.94	12,272.95	29.62	28.19	95.13	460.59	-1,231.29	1,987.83	1,932.68	55.15	36.047	
12,350.00	12,308.73	12,365.78	12,344.87	29.67	28.29	95.38	449.41	-1,231.29	1,988.54	1,933.24	55.30	35.961	
12,400.00	12,354.85	12,440.30	12,416.38	29.71	28.37	95.56	428.62	-1,231.29	1,989.08	1,933.68	55.40	35.903	
12,450.00	12,399.11	12,516.03	12,485.67	29.75	28.43	95.68	398.18	-1,231.29	1,989.42	1,933.96	55.47	35.866	
12,500.00	12,441.18	12,592.40	12,550.85	29.77	28.47	95.72	358.51	-1,231.29	1,989.54	1,934.04	55.51	35.844	
12,550.00	12,480.74	12,668.77	12,610.19	29.80	28.49	95.68	310.52	-1,231.29	1,989.43	1,933.90	55.53	35.825	
12,600.00	12,517.48	12,744.53	12,662.23	29.82	28.51	95.57	255.55	-1,231.29	1,989.10	1,933.53	55.56	35.799	
12,650.00	12,551.13	12,819.10	12,705.94	29.83	28.53	95.38	195.19	-1,231.29	1,988.56	1,932.94	55.62	35.752	
12,700.00	12,581.43	12,891.99	12,740.75	29.85	28.55	95.14	131.20	-1,231.29	1,987.85	1,932.14	55.71	35.679	
12,750.00	12,608.15	12,962.84	12,766.53	29.87	28.59	94.83	65.26	-1,231.29	1,987.01	1,931.15	55.86	35.573	
12,800.00	12,631.07	13,031.38	12,783.55	29.90	28.66	94.48	-1.09	-1,231.29	1,986.08	1,930.03	56.05	35.436	
12,850.00	12,650.07	13,097.48	12,792.35	29.93	28.77	94.10	-66.56	-1,231.29	1,985.10	1,928.82	56.28	35.272	
12,900.00	12,664.95	13,156.40	12,794.00	29.98	28.91	93.73	-125.44	-1,231.29	1,984.13	1,927.59	56.54	35.092	
12,950.00	12,675.61	13,205.23	12,794.00	30.05	29.05	93.50	-174.28	-1,231.29	1,983.44	1,926.64	56.80	34.920	
13,000.00	12,681.98	13,254.81	12,794.00	30.13	29.22	93.36	-223.85	-1,231.29	1,983.06	1,925.95	57.11	34.725	
13,048.16	12,684.00	13,302.91	12,794.00	30.24	29.41	93.31	-271.96	-1,231.29	1,982.94	1,925.51	57.42	34.531	
13,100.00	12,684.00	13,354.75	12,794.00	30.37	29.63	93.31	-323.80	-1,231.29	1,982.94	1,925.11	57.83	34.291	
13,200.00	12,684.00	13,454.75	12,794.00	30.70	30.13	93.31	-423.80	-1,231.29	1,982.94	1,924.22	58.71	33.773	
13,300.00	12,684.00	13,554.75	12,794.00	31.12	30.71	93.31	-523.80	-1,231.29	1,982.94	1,923.17	59.77	33.177	
13,400.00	12,684.00	13,654.75	12,794.00	31.62	31.36	93.31	-623.80	-1,231.29	1,982.94	1,921.96	60.98	32.519	
13,500.00	12,684.00	13,754.75	12,794.00	32.21	32.08	93.31	-723.80	-1,231.29	1,982.94	1,920.60	62.34	31.811	
13,600.00	12,684.00	13,854.75	12,794.00	32.87	32.87	93.31	-823.80	-1,231.29	1,982.94	1,919.11	63.83	31.065	
13,700.00	12,684.00	13,954.75	12,794.00	33.59	33.71	93.31	-923.80	-1,231.29	1,982.94	1,917.48	65.46	30.295	
13,800.00	12,684.00	14,054.75	12,794.00	34.38	34.61	93.31	-1,023.80	-1,231.29	1,982.94	1,915.74	67.20	29.508	
13,900.00	12,684.00	14,154.75	12,794.00	35.23	35.57	93.31	-1,123.80	-1,231.29	1,982.94	1,913.89	69.05	28.716	
14,000.00	12,684.00	14,254.75	12,794.00	36.14	36.57	93.31	-1,223.80	-1,231.29	1,982.94	1,911.93	71.01	27.925	
14,100.00	12,684.00	14,354.75	12,794.00	37.10	37.62	93.31	-1,323.80	-1,231.29	1,982.94	1,909.88	73.06	27.142	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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	
14,200.00	12,684.00	14,454.75	12,794.00	38.10	38.70	93.31	-1,423.80	-1,231.29	1,982.94	1,907.74	75.19	26.371	
14,300.00	12,684.00	14,554.75	12,794.00	39.14	39.83	93.31	-1,523.80	-1,231.29	1,982.94	1,905.53	77.41	25.616	
14,400.00	12,684.00	14,654.75	12,794.00	40.23	40.99	93.31	-1,623.80	-1,231.29	1,982.94	1,903.24	79.70	24.881	
14,500.00	12,684.00	14,754.75	12,794.00	41.35	42.16	93.31	-1,723.80	-1,231.29	1,982.94	1,900.89	82.05	24.168	
14,600.00	12,684.00	14,854.75	12,794.00	42.50	43.39	93.31	-1,823.80	-1,231.29	1,982.94	1,898.48	84.46	23.477	
14,700.00	12,684.00	14,954.75	12,794.00	43.68	44.64	93.31	-1,923.80	-1,231.29	1,982.94	1,896.01	86.93	22.810	
14,800.00	12,684.00	15,054.75	12,794.00	44.90	45.91	93.31	-2,023.80	-1,231.29	1,982.94	1,893.49	89.45	22.168	
14,900.00	12,684.00	15,154.75	12,794.00	46.13	47.20	93.31	-2,123.80	-1,231.29	1,982.94	1,890.92	92.02	21.549	
15,000.00	12,684.00	15,254.75	12,794.00	47.40	48.51	93.31	-2,223.80	-1,231.29	1,982.94	1,888.31	94.63	20.955	
15,100.00	12,684.00	15,354.75	12,794.00	48.68	49.84	93.31	-2,323.80	-1,231.29	1,982.94	1,885.66	97.28	20.384	
15,200.00	12,684.00	15,454.75	12,794.00	49.99	51.19	93.31	-2,423.80	-1,231.29	1,982.94	1,882.97	99.97	19.836	
15,300.00	12,684.00	15,554.75	12,794.00	51.31	52.56	93.31	-2,523.80	-1,231.29	1,982.94	1,880.25	102.69	19.311	
15,400.00	12,684.00	15,654.75	12,794.00	52.65	53.94	93.31	-2,623.80	-1,231.29	1,982.94	1,877.50	105.44	18.807	
15,500.00	12,684.00	15,754.75	12,794.00	54.01	55.33	93.31	-2,723.80	-1,231.29	1,982.94	1,874.72	108.22	18.324	
15,600.00	12,684.00	15,854.75	12,794.00	55.38	56.74	93.31	-2,823.80	-1,231.29	1,982.94	1,871.92	111.02	17.861	
15,700.00	12,684.00	15,954.75	12,794.00	56.77	58.16	93.31	-2,923.80	-1,231.29	1,982.94	1,869.09	113.85	17.417	
15,800.00	12,684.00	16,054.75	12,794.00	58.17	59.59	93.31	-3,023.80	-1,231.29	1,982.94	1,866.23	116.70	16.991	
15,900.00	12,684.00	16,154.75	12,794.00	59.58	61.03	93.31	-3,123.80	-1,231.29	1,982.94	1,863.36	119.58	16.583	
16,000.00	12,684.00	16,254.75	12,794.00	61.00	62.48	93.31	-3,223.80	-1,231.29	1,982.94	1,860.47	122.47	16.191	
16,100.00	12,684.00	16,354.75	12,794.00	62.43	63.94	93.31	-3,323.80	-1,231.29	1,982.94	1,857.55	125.38	15.815	
16,200.00	12,684.00	16,454.75	12,794.00	63.87	65.40	93.31	-3,423.80	-1,231.29	1,982.94	1,854.63	128.31	15.454	
16,300.00	12,684.00	16,554.75	12,794.00	65.32	66.88	93.31	-3,523.80	-1,231.29	1,982.94	1,851.68	131.26	15.107	
16,400.00	12,684.00	16,654.75	12,794.00	66.78	68.36	93.31	-3,623.80	-1,231.29	1,982.94	1,848.72	134.22	14.774	
16,500.00	12,684.00	16,754.75	12,794.00	68.25	69.85	93.31	-3,723.80	-1,231.29	1,982.94	1,845.75	137.19	14.454	
16,600.00	12,684.00	16,854.75	12,794.00	69.73	71.34	93.31	-3,823.80	-1,231.29	1,982.94	1,842.76	140.18	14.146	
16,700.00	12,684.00	16,954.75	12,794.00	71.21	72.84	93.31	-3,923.80	-1,231.29	1,982.94	1,839.76	143.18	13.850	
16,800.00	12,684.00	17,054.75	12,794.00	72.70	74.35	93.31	-4,023.80	-1,231.29	1,982.94	1,836.75	146.19	13.565	
16,900.00	12,684.00	17,154.75	12,794.00	74.19	75.86	93.31	-4,123.80	-1,231.29	1,982.94	1,833.73	149.21	13.290	
17,000.00	12,684.00	17,254.75	12,794.00	75.69	77.38	93.31	-4,223.80	-1,231.29	1,982.94	1,830.70	152.24	13.025	
17,100.00	12,684.00	17,354.75	12,794.00	77.20	78.90	93.31	-4,323.80	-1,231.29	1,982.94	1,827.66	155.28	12.770	
17,200.00	12,684.00	17,454.75	12,794.00	78.71	80.42	93.31	-4,423.80	-1,231.29	1,982.94	1,824.61	158.33	12.524	
17,300.00	12,684.00	17,554.75	12,794.00	80.22	81.95	93.31	-4,523.80	-1,231.29	1,982.94	1,821.56	161.38	12.287	
17,400.00	12,684.00	17,654.75	12,794.00	81.74	83.49	93.31	-4,623.80	-1,231.29	1,982.94	1,818.49	164.45	12.058	
17,500.00	12,684.00	17,754.75	12,794.00	83.27	85.03	93.31	-4,723.80	-1,231.29	1,982.94	1,815.42	167.52	11.837	
17,600.00	12,684.00	17,854.75	12,794.00	84.80	86.57	93.31	-4,823.80	-1,231.29	1,982.94	1,812.34	170.60	11.623	
17,700.00	12,684.00	17,954.75	12,794.00	86.33	88.11	93.31	-4,923.80	-1,231.29	1,982.94	1,809.25	173.69	11.417	
17,800.00	12,684.00	18,054.75	12,794.00	87.87	89.66	93.31	-5,023.80	-1,231.29	1,982.94	1,806.16	176.78	11.217	
17,900.00	12,684.00	18,154.75	12,794.00	89.41	91.21	93.31	-5,123.80	-1,231.29	1,982.94	1,803.06	179.88	11.024	
18,000.00	12,684.00	18,254.75	12,794.00	90.95	92.76	93.31	-5,223.80	-1,231.29	1,982.94	1,799.95	182.99	10.837	
18,100.00	12,684.00	18,354.75	12,794.00	92.50	94.32	93.31	-5,323.80	-1,231.29	1,982.94	1,796.84	186.10	10.655	
18,200.00	12,684.00	18,454.75	12,794.00	94.04	95.88	93.31	-5,423.80	-1,231.29	1,982.94	1,793.73	189.21	10.480	
18,300.00	12,684.00	18,554.75	12,794.00	95.60	97.44	93.31	-5,523.80	-1,231.29	1,982.94	1,790.61	192.33	10.310	
18,400.00	12,684.00	18,654.75	12,794.00	97.15	99.01	93.31	-5,623.80	-1,231.29	1,982.94	1,787.48	195.46	10.145	
18,500.00	12,684.00	18,754.75	12,794.00	98.71	100.57	93.31	-5,723.80	-1,231.29	1,982.94	1,784.35	198.59	9.985	
18,600.00	12,684.00	18,854.75	12,794.00	100.27	102.14	93.31	-5,823.80	-1,231.29	1,982.94	1,781.22	201.72	9.830	
18,700.00	12,684.00	18,954.75	12,794.00	101.83	103.71	93.31	-5,923.80	-1,231.29	1,982.94	1,778.08	204.86	9.679	
18,800.00	12,684.00	19,054.75	12,794.00	103.39	105.28	93.31	-6,023.80	-1,231.29	1,982.94	1,774.94	208.00	9.533	
18,900.00	12,684.00	19,154.75	12,794.00	104.96	106.86	93.31	-6,123.80	-1,231.29	1,982.94	1,771.79	211.15	9.391	
19,000.00	12,684.00	19,254.75	12,794.00	106.53	108.43	93.31	-6,223.80	-1,231.29	1,982.94	1,768.64	214.30	9.253	
19,100.00	12,684.00	19,354.75	12,794.00	108.10	110.01	93.31	-6,323.80	-1,231.29	1,982.94	1,765.49	217.45	9.119	
19,200.00	12,684.00	19,454.75	12,794.00	109.67	111.59	93.31	-6,423.80	-1,231.29	1,982.94	1,762.33	220.61	8.989	
19,300.00	12,684.00	19,554.75	12,794.00	111.25	113.17	93.31	-6,523.80	-1,231.29	1,982.94	1,759.17	223.77	8.862	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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)		+N/-S (usft)	+E/-W (usft)						
19,400.00	12,684.00	19,654.75	12,794.00	112.82	114.75	93.31	-6,623.80	-1,231.29	1,982.94	1,756.01	226.93	8.738		
19,500.00	12,684.00	19,754.75	12,794.00	114.40	116.34	93.31	-6,723.80	-1,231.29	1,982.94	1,752.85	230.09	8.618		
19,600.00	12,684.00	19,854.75	12,794.00	115.98	117.92	93.31	-6,823.80	-1,231.29	1,982.94	1,749.68	233.26	8.501		
19,700.00	12,684.00	19,954.75	12,794.00	117.56	119.51	93.31	-6,923.80	-1,231.29	1,982.94	1,746.51	236.43	8.387		
19,800.00	12,684.00	20,054.75	12,794.00	119.14	121.10	93.31	-7,023.80	-1,231.29	1,982.94	1,743.34	239.60	8.276		
19,900.00	12,684.00	20,154.75	12,794.00	120.72	122.68	93.31	-7,123.80	-1,231.29	1,982.94	1,740.16	242.78	8.168		
20,000.00	12,684.00	20,254.75	12,794.00	122.31	124.27	93.31	-7,223.80	-1,231.29	1,982.94	1,736.98	245.96	8.062		
20,100.00	12,684.00	20,354.75	12,794.00	123.89	125.87	93.31	-7,323.80	-1,231.29	1,982.94	1,733.80	249.14	7.959		
20,200.00	12,684.00	20,454.75	12,794.00	125.48	127.46	93.31	-7,423.80	-1,231.29	1,982.94	1,730.62	252.32	7.859		
20,300.00	12,684.00	20,554.75	12,794.00	127.07	129.05	93.31	-7,523.80	-1,231.29	1,982.94	1,727.44	255.50	7.761		
20,400.00	12,684.00	20,654.75	12,794.00	128.66	130.65	93.31	-7,623.80	-1,231.29	1,982.94	1,724.25	258.69	7.665		
20,500.00	12,684.00	20,754.75	12,794.00	130.25	132.24	93.31	-7,723.80	-1,231.29	1,982.94	1,721.06	261.88	7.572		
20,600.00	12,684.00	20,854.75	12,794.00	131.84	133.84	93.31	-7,823.80	-1,231.29	1,982.94	1,717.87	265.07	7.481		
20,700.00	12,684.00	20,954.75	12,794.00	133.43	135.43	93.31	-7,923.80	-1,231.29	1,982.94	1,714.68	268.26	7.392		
20,800.00	12,684.00	21,054.75	12,794.00	135.03	137.03	93.31	-8,023.80	-1,231.29	1,982.94	1,711.49	271.45	7.305		
20,900.00	12,684.00	21,154.75	12,794.00	136.62	138.63	93.31	-8,123.80	-1,231.29	1,982.94	1,708.29	274.65	7.220		
21,000.00	12,684.00	21,254.75	12,794.00	138.22	140.23	93.31	-8,223.80	-1,231.29	1,982.94	1,705.10	277.84	7.137		
21,100.00	12,684.00	21,354.75	12,794.00	139.82	141.83	93.31	-8,323.80	-1,231.29	1,982.94	1,701.90	281.04	7.056		
21,200.00	12,684.00	21,454.75	12,794.00	141.41	143.43	93.31	-8,423.80	-1,231.29	1,982.94	1,698.70	284.24	6.976		
21,300.00	12,684.00	21,554.75	12,794.00	143.01	145.03	93.31	-8,523.80	-1,231.29	1,982.94	1,695.50	287.44	6.899		
21,400.00	12,684.00	21,654.75	12,794.00	144.61	146.64	93.31	-8,623.80	-1,231.29	1,982.94	1,692.29	290.64	6.823		
21,500.00	12,684.00	21,754.75	12,794.00	146.21	148.24	93.31	-8,723.80	-1,231.29	1,982.94	1,689.09	293.85	6.748		
21,600.00	12,684.00	21,854.75	12,794.00	147.81	149.84	93.31	-8,823.80	-1,231.29	1,982.94	1,685.88	297.05	6.675		
21,700.00	12,684.00	21,954.75	12,794.00	149.41	151.45	93.31	-8,923.80	-1,231.29	1,982.94	1,682.68	300.26	6.604		
21,800.00	12,684.00	22,054.75	12,794.00	151.01	153.06	93.31	-9,023.80	-1,231.29	1,982.94	1,679.47	303.47	6.534		
21,900.00	12,684.00	22,154.75	12,794.00	152.62	154.66	93.31	-9,123.80	-1,231.29	1,982.94	1,676.26	306.68	6.466		
22,000.00	12,684.00	22,254.75	12,794.00	154.22	156.27	93.31	-9,223.80	-1,231.29	1,982.94	1,673.05	309.89	6.399		
22,100.00	12,684.00	22,354.75	12,794.00	155.82	157.87	93.31	-9,323.80	-1,231.29	1,982.94	1,669.84	313.10	6.333		
22,200.00	12,684.00	22,454.75	12,794.00	157.43	159.48	93.31	-9,423.80	-1,231.29	1,982.94	1,666.63	316.31	6.269		
22,300.00	12,684.00	22,554.75	12,794.00	159.03	161.09	93.31	-9,523.80	-1,231.29	1,982.94	1,663.41	319.52	6.206		
22,400.00	12,684.00	22,654.75	12,794.00	160.64	162.70	93.31	-9,623.80	-1,231.29	1,982.94	1,660.20	322.74	6.144		
22,473.03	12,684.00	22,727.79	12,794.00	161.81	163.87	93.31	-9,696.83	-1,231.29	1,982.94	1,657.85	325.09	6.100 ES, SF		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 84H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3369.5' GE + 25' KB @ 3394.50usft
Reference Site:	Fighting Okra 18-19 Fed	MD Reference:	3369.5' GE + 25' KB @ 3394.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	84H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	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 (°)	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	-90.00	0.00	-59.98	59.98						
100.00	100.00	99.50	99.50	0.08	0.08	-90.00	0.00	-59.98	59.98	59.81	0.17	356.698			
200.00	200.00	199.50	199.50	0.31	0.31	-90.00	0.00	-59.98	59.98	59.36	0.62	97.215			
300.00	300.00	299.50	299.50	0.53	0.53	-90.00	0.00	-59.98	59.98	58.91	1.07	56.239			
400.00	400.00	399.50	399.50	0.76	0.76	-90.00	0.00	-59.98	59.98	58.46	1.52	39.563			
500.00	500.00	499.50	499.50	0.98	0.98	-90.00	0.00	-59.98	59.98	58.01	1.97	30.515			
600.00	600.00	599.50	599.50	1.21	1.21	-90.00	0.00	-59.98	59.98	57.56	2.42	24.835			
700.00	700.00	699.50	699.50	1.43	1.43	-90.00	0.00	-59.98	59.98	57.12	2.86	20.938			
800.00	800.00	799.50	799.50	1.66	1.66	-90.00	0.00	-59.98	59.98	56.67	3.31	18.098			
900.00	900.00	899.50	899.50	1.88	1.88	-90.00	0.00	-59.98	59.98	56.22	3.76	15.936			
1,000.00	1,000.00	999.50	999.50	2.11	2.11	-90.00	0.00	-59.98	59.98	55.77	4.21	14.236			
1,100.00	1,100.00	1,099.50	1,099.50	2.33	2.33	-90.00	0.00	-59.98	59.98	55.32	4.66	12.864			
1,200.00	1,200.00	1,199.50	1,199.50	2.56	2.56	-90.00	0.00	-59.98	59.98	54.87	5.11	11.732			
1,300.00	1,300.00	1,299.50	1,299.50	2.78	2.78	-90.00	0.00	-59.98	59.98	54.42	5.56	10.784			
1,400.00	1,400.00	1,399.50	1,399.50	3.01	3.01	-90.00	0.00	-59.98	59.98	53.97	6.01	9.978			
1,500.00	1,500.00	1,499.50	1,499.50	3.23	3.23	-90.00	0.00	-59.98	59.98	53.52	6.46	9.284			
1,600.00	1,600.00	1,599.50	1,599.50	3.46	3.45	-90.00	0.00	-59.98	59.98	53.07	6.91	8.680			
1,700.00	1,700.00	1,699.50	1,699.50	3.68	3.68	-90.00	0.00	-59.98	59.98	52.62	7.36	8.149			
1,800.00	1,800.00	1,799.50	1,799.50	3.91	3.90	-90.00	0.00	-59.98	59.98	52.17	7.81	7.680			
1,900.00	1,900.00	1,899.50	1,899.50	4.13	4.13	-90.00	0.00	-59.98	59.98	51.72	8.26	7.262			
2,000.00	2,000.00	1,999.50	1,999.50	4.35	4.35	-90.00	0.00	-59.98	59.98	51.27	8.71	6.887			
2,100.00	2,100.00	2,099.50	2,099.50	4.58	4.58	-90.00	0.00	-59.98	59.98	50.82	9.16	6.549			
2,200.00	2,200.00	2,199.50	2,199.50	4.80	4.80	-90.00	0.00	-59.98	59.98	50.37	9.61	6.243			
2,300.00	2,300.00	2,299.50	2,299.50	5.03	5.03	-90.00	0.00	-59.98	59.98	49.92	10.06	5.964			
2,400.00	2,400.00	2,399.50	2,399.50	5.25	5.25	-90.00	0.00	-59.98	59.98	49.47	10.51	5.709			
2,500.00	2,500.00	2,499.50	2,499.50	5.48	5.48	-90.00	0.00	-59.98	59.98	49.02	10.96	5.475 CC, ES			
2,600.00	2,599.99	2,599.49	2,599.49	5.69	5.70	-158.39	0.00	-59.98	60.79	49.39	11.40	5.334			
2,700.00	2,699.96	2,699.46	2,699.46	5.90	5.93	-159.26	0.00	-59.98	63.23	51.40	11.83	5.346			
2,800.00	2,799.86	2,799.36	2,799.36	6.11	6.15	-160.56	0.00	-59.98	67.33	55.07	12.26	5.491			
2,900.00	2,899.68	2,899.18	2,899.18	6.33	6.38	-162.13	0.00	-59.98	73.11	60.42	12.70	5.759			
3,000.00	2,999.37	2,998.87	2,998.87	6.55	6.60	-163.82	0.00	-59.98	80.62	67.49	13.13	6.139			
3,038.22	3,037.43	3,036.93	3,036.93	6.63	6.69	-164.47	0.00	-59.98	83.95	70.65	13.30	6.312			
3,100.00	3,098.94	3,098.44	3,098.44	6.77	6.82	-165.46	0.00	-59.98	89.55	75.98	13.57	6.599			
3,200.00	3,198.50	3,198.00	3,198.00	6.99	7.05	-166.83	0.00	-59.98	98.66	84.65	14.01	7.044			
3,300.00	3,298.05	3,297.55	3,297.55	7.22	7.27	-167.97	0.00	-59.98	107.81	93.37	14.44	7.464			
3,400.00	3,397.61	3,397.11	3,397.11	7.45	7.50	-168.92	0.00	-59.98	117.00	102.12	14.88	7.862			
3,500.00	3,497.17	3,496.67	3,496.67	7.69	7.72	-169.74	0.00	-59.98	126.22	110.90	15.32	8.237			
3,600.00	3,596.73	3,597.37	3,597.37	7.92	7.94	-170.15	0.79	-59.73	135.06	119.29	15.77	8.566			
3,700.00	3,696.29	3,698.26	3,698.22	8.16	8.17	-169.89	3.27	-58.95	143.03	126.82	16.21	8.824			
3,800.00	3,795.85	3,799.23	3,799.10	8.40	8.40	-169.07	7.45	-57.63	150.16	133.51	16.65	9.018			
3,900.00	3,895.41	3,900.20	3,899.87	8.64	8.62	-167.74	13.32	-55.77	156.50	139.41	17.09	9.155			
4,000.00	3,994.97	3,999.93	3,999.36	8.89	8.85	-166.27	19.90	-53.69	162.56	145.02	17.54	9.268			
4,100.00	4,094.53	4,099.66	4,098.86	9.13	9.07	-164.91	26.49	-51.61	168.72	150.73	17.99	9.380			
4,200.00	4,194.09	4,199.39	4,198.35	9.38	9.29	-163.65	33.07	-49.53	174.97	156.53	18.44	9.490			
4,300.00	4,293.65	4,299.13	4,297.84	9.63	9.52	-162.47	39.66	-47.45	181.29	162.40	18.89	9.598			
4,400.00	4,393.20	4,398.86	4,397.34	9.87	9.75	-161.37	46.24	-45.37	187.69	168.35	19.34	9.703			
4,500.00	4,492.76	4,498.59	4,496.83	10.12	9.97	-160.35	52.82	-43.29	194.15	174.35	19.80	9.806			
4,600.00	4,592.32	4,598.33	4,596.33	10.37	10.20	-159.39	59.41	-41.22	200.67	180.41	20.26	9.907			
4,700.00	4,691.88	4,698.06	4,695.82	10.63	10.43	-158.49	65.99	-39.14	207.24	186.52	20.72	10.004			
4,800.00	4,791.44	4,797.79	4,795.31	10.88	10.66	-157.65	72.57	-37.06	213.86	192.68	21.18	10.099			
4,900.00	4,891.00	4,897.52	4,894.81	11.13	10.89	-156.85	79.16	-34.98	220.52	198.88	21.64	10.191			
5,000.00	4,990.56	4,997.26	4,994.30	11.39	11.13	-156.11	85.74	-32.90	227.22	205.12	22.10	10.280			

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		Between Centros (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 Centro +N/-S (usft)	+E/-W (usft)					
5,100.00	5,090.12	5,096.99	5,093.79	11.64	11.36	-155.40	92.32	-30.82	233.96	211.39	22.57	10.367	
5,200.00	5,189.68	5,196.72	5,193.29	11.90	11.59	-154.74	98.91	-28.74	240.73	217.70	23.04	10.450	
5,300.00	5,289.24	5,296.46	5,292.78	12.15	11.83	-154.11	105.49	-26.66	247.53	224.03	23.50	10.532	
5,400.00	5,388.80	5,396.19	5,392.27	12.41	12.06	-153.52	112.07	-24.58	254.36	230.39	23.97	10.610	
5,500.00	5,488.36	5,495.92	5,491.77	12.66	12.30	-152.96	118.66	-22.50	261.22	236.77	24.44	10.686	
5,600.00	5,587.91	5,595.65	5,591.26	12.92	12.53	-152.42	125.24	-20.42	268.10	243.18	24.92	10.760	
5,700.00	5,687.47	5,695.39	5,690.75	13.18	12.77	-151.92	131.82	-18.34	275.00	249.61	25.39	10.832	
5,800.00	5,787.03	5,795.12	5,790.25	13.44	13.00	-151.43	138.41	-16.26	281.92	256.06	25.86	10.901	
5,900.00	5,886.59	5,894.85	5,889.74	13.70	13.24	-150.98	144.99	-14.18	288.86	262.52	26.34	10.968	
6,000.00	5,986.15	5,994.58	5,989.23	13.96	13.48	-150.54	151.57	-12.10	295.82	269.01	26.81	11.033	
6,100.00	6,085.71	6,094.32	6,088.73	14.22	13.71	-150.12	158.16	-10.02	302.79	275.50	27.29	11.096	
6,200.00	6,185.27	6,194.05	6,188.22	14.48	13.95	-149.72	164.74	-7.94	309.78	282.02	27.77	11.157	
6,300.00	6,284.83	6,293.78	6,287.72	14.74	14.19	-149.34	171.33	-5.86	316.78	288.54	28.24	11.216	
6,400.00	6,384.39	6,393.52	6,387.21	15.00	14.43	-148.98	177.91	-3.78	323.80	295.08	28.72	11.274	
6,500.00	6,483.95	6,493.25	6,486.70	15.26	14.67	-148.63	184.49	-1.70	330.83	301.63	29.20	11.329	
6,600.00	6,583.51	6,592.98	6,586.20	15.52	14.90	-148.29	191.08	0.38	337.87	308.19	29.68	11.383	
6,700.00	6,683.06	6,692.71	6,685.69	15.78	15.14	-147.97	197.66	2.46	344.93	314.76	30.16	11.436	
6,800.00	6,782.62	6,792.45	6,785.18	16.04	15.38	-147.66	204.24	4.53	351.99	321.35	30.64	11.487	
6,900.00	6,882.18	6,892.18	6,884.68	16.31	15.62	-147.37	210.83	6.61	359.06	327.94	31.12	11.536	
7,000.00	6,981.74	6,991.91	6,984.17	16.57	15.86	-147.08	217.41	8.69	366.14	334.54	31.61	11.584	
7,100.00	7,081.30	7,091.65	7,083.66	16.83	16.10	-146.81	223.99	10.77	373.23	341.14	32.09	11.631	
7,200.00	7,180.86	7,191.38	7,183.16	17.09	16.34	-146.55	230.58	12.85	380.33	347.76	32.57	11.676	
7,300.00	7,280.42	7,291.11	7,282.65	17.36	16.58	-146.29	237.16	14.93	387.44	354.38	33.06	11.721	
7,400.00	7,379.98	7,390.84	7,382.14	17.62	16.82	-146.05	243.74	17.01	394.55	361.01	33.54	11.763	
7,500.00	7,479.54	7,490.58	7,481.64	17.88	17.06	-145.81	250.33	19.09	401.67	367.64	34.03	11.805	
7,600.00	7,579.10	7,590.31	7,581.13	18.15	17.31	-145.59	256.91	21.17	408.80	374.29	34.51	11.846	
7,700.00	7,678.66	7,690.04	7,680.62	18.41	17.55	-145.37	263.49	23.25	415.93	380.93	35.00	11.885	
7,800.00	7,778.21	7,789.77	7,780.12	18.67	17.79	-145.15	270.08	25.33	423.07	387.59	35.48	11.924	
7,900.00	7,877.77	7,889.51	7,879.61	18.94	18.03	-144.95	276.66	27.41	430.21	394.25	35.97	11.961	
8,000.00	7,977.33	7,989.24	7,979.11	19.20	18.27	-144.75	283.25	29.49	437.36	400.91	36.45	11.998	
8,100.00	8,076.89	8,088.97	8,078.60	19.47	18.51	-144.56	289.83	31.57	444.52	407.58	36.94	12.033	
8,200.00	8,176.45	8,188.71	8,178.09	19.73	18.75	-144.37	296.41	33.65	451.68	414.25	37.43	12.068	
8,300.00	8,276.01	8,288.44	8,277.59	20.00	19.00	-144.19	303.00	35.73	458.84	420.93	37.92	12.102	
8,400.00	8,375.57	8,388.17	8,377.08	20.26	19.24	-144.02	309.58	37.81	466.01	427.61	38.40	12.135	
8,500.00	8,475.13	8,487.90	8,476.57	20.52	19.48	-143.85	316.16	39.89	473.18	434.29	38.89	12.167	
8,600.00	8,574.69	8,587.64	8,576.07	20.79	19.72	-143.68	322.75	41.97	480.36	440.98	39.38	12.198	
8,700.00	8,674.25	8,687.37	8,675.56	21.05	19.97	-143.52	329.33	44.05	487.54	447.67	39.87	12.229	
8,800.00	8,773.81	8,787.10	8,775.05	21.32	20.21	-143.37	335.91	46.13	494.73	454.37	40.36	12.259	
8,900.00	8,873.37	8,886.84	8,874.55	21.59	20.45	-143.22	342.50	48.21	501.91	461.07	40.85	12.288	
9,000.00	8,972.92	8,986.57	8,974.04	21.85	20.69	-143.07	349.08	50.28	509.10	467.77	41.34	12.316	
9,100.00	9,072.48	9,086.30	9,073.53	22.12	20.94	-142.93	355.66	52.36	516.30	474.47	41.82	12.344	
9,200.00	9,172.04	9,186.03	9,173.03	22.38	21.18	-142.79	362.25	54.44	523.50	481.18	42.31	12.372	
9,300.00	9,271.60	9,285.77	9,272.52	22.65	21.42	-142.65	368.83	56.52	530.70	487.89	42.80	12.398	
9,400.00	9,371.16	9,385.50	9,372.01	22.91	21.67	-142.52	375.41	58.60	537.90	494.61	43.29	12.424	
9,500.00	9,470.72	9,485.23	9,471.51	23.18	21.91	-142.40	382.00	60.68	545.11	501.32	43.79	12.450	
9,600.00	9,570.28	9,584.96	9,571.00	23.45	22.15	-142.27	388.58	62.76	552.31	508.04	44.28	12.474	
9,700.00	9,669.84	9,684.70	9,670.50	23.71	22.40	-142.15	395.16	64.84	559.53	514.76	44.77	12.499	
9,800.00	9,769.40	9,784.43	9,769.99	23.98	22.64	-142.03	401.75	66.92	566.74	521.48	45.26	12.523	
9,900.00	9,868.96	9,884.16	9,869.48	24.24	22.88	-141.92	408.33	69.00	573.96	528.21	45.75	12.546	
10,000.00	9,968.52	9,983.90	9,968.98	24.51	23.13	-141.81	414.92	71.08	581.17	534.93	46.24	12.569	
10,100.00	10,068.07	10,083.63	10,068.47	24.78	23.37	-141.70	421.50	73.16	588.39	541.66	46.73	12.591	
10,200.00	10,167.63	10,183.36	10,167.96	25.04	23.61	-141.59	428.08	75.24	595.62	548.39	47.22	12.613	

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 84H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3369.5' GE + 25' KB @ 3394.50usft
Reference Site:	Fighting Okra 18-19 Fed	MD Reference:	3369.5' GE + 25' KB @ 3394.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	84H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD-HDGM												Offset Well Error:	0.00 usft
Fighting Okra 18-19 Fed - 6H - OH - Plan #1													
Reference	Offset	Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,300.00	10,267.19	10,283.09	10,267.46	25.31	23.86	-141.49	434.67	77.32	602.84	555.13	47.72	12.634	
10,400.00	10,366.75	10,382.83	10,366.95	25.58	24.10	-141.38	441.25	79.40	610.07	561.86	48.21	12.655	
10,500.00	10,466.31	10,482.56	10,466.44	25.84	24.35	-141.28	447.83	81.48	617.29	568.60	48.70	12.676	
10,600.00	10,565.87	10,582.29	10,565.94	26.11	24.59	-141.19	454.42	83.56	624.52	575.33	49.19	12.696	
10,700.00	10,665.43	10,681.94	10,665.37	26.38	24.81	-141.12	460.67	85.53	631.76	582.10	49.66	12.721	
10,800.00	10,764.99	10,781.54	10,764.84	26.64	25.00	-141.21	465.40	87.03	639.02	588.92	50.09	12.757	
10,900.00	10,864.55	10,881.07	10,864.32	26.91	25.18	-141.44	468.47	88.00	646.30	595.80	50.50	12.797	
11,000.00	10,964.11	10,980.47	10,963.71	27.18	25.35	-141.82	469.89	88.45	653.64	602.74	50.90	12.841	
11,098.90	11,062.57	11,078.83	11,062.07	27.44	25.52	-142.31	470.00	88.48	660.96	609.66	51.30	12.884	
11,100.00	11,063.67	11,079.93	11,063.17	27.44	25.53	-142.31	470.00	88.48	661.04	609.74	51.30	12.885	
11,200.00	11,163.30	11,179.57	11,162.80	27.64	25.73	-142.80	470.00	88.48	667.79	616.11	51.69	12.920	
11,300.00	11,263.07	11,279.34	11,262.57	27.84	25.95	-143.18	470.00	88.48	673.19	621.12	52.07	12.927	
11,400.00	11,362.95	11,379.21	11,362.45	28.02	26.16	-143.45	470.00	88.48	677.21	624.75	52.46	12.909	
11,500.00	11,462.89	11,479.16	11,462.39	28.20	26.37	-143.63	470.00	88.48	679.84	626.99	52.85	12.864	
11,600.00	11,562.88	11,579.14	11,562.38	28.36	26.59	-143.72	470.00	88.48	681.06	627.83	53.23	12.795	
11,637.12	11,600.00	11,616.26	11,599.50	28.42	26.67	-75.63	470.00	88.48	681.16	627.78	53.37	12.762	
11,700.00	11,662.88	11,679.14	11,662.38	28.54	26.80	-75.63	470.00	88.48	681.16	627.53	53.63	12.702	
11,800.00	11,762.88	11,779.14	11,762.38	28.73	27.02	-75.63	470.00	88.48	681.16	627.11	54.04	12.604	
11,900.00	11,862.88	11,879.14	11,862.38	28.92	27.23	-75.63	470.00	88.48	681.16	626.70	54.46	12.507	
12,000.00	11,962.88	11,979.14	11,962.38	29.12	27.44	-75.63	470.00	88.48	681.16	626.28	54.88	12.412	
12,100.00	12,062.88	12,079.14	12,062.38	29.31	27.66	-75.63	470.00	88.48	681.16	625.86	55.30	12.318	
12,148.16	12,111.04	12,127.30	12,110.54	29.41	27.76	-75.63	470.00	88.48	681.16	625.66	55.50	12.273	
12,150.00	12,112.88	12,129.14	12,112.38	29.41	27.77	104.37	470.00	88.48	681.16	625.65	55.51	12.272	
12,200.00	12,162.81	12,179.07	12,162.31	29.49	27.87	104.50	470.00	88.48	681.74	626.04	55.70	12.239	
12,250.00	12,212.34	12,228.61	12,211.84	29.56	27.98	104.87	470.00	88.48	683.45	627.56	55.89	12.228	
12,300.00	12,261.11	12,290.39	12,273.59	29.62	28.10	105.62	468.63	88.48	686.14	630.05	56.10	12.231	
12,350.00	12,308.73	12,364.55	12,347.04	29.67	28.19	106.42	458.75	88.48	688.58	632.37	56.21	12.249	
12,400.00	12,354.85	12,440.75	12,420.53	29.71	28.24	107.03	438.80	88.48	690.48	634.26	56.22	12.281	
12,450.00	12,399.11	12,518.46	12,492.07	29.75	28.27	107.43	408.61	88.48	691.73	635.59	56.13	12.323	
12,500.00	12,441.18	12,597.04	12,559.58	29.77	28.27	107.60	368.53	88.48	692.25	636.28	55.97	12.369	
12,550.00	12,480.74	12,675.75	12,621.09	29.80	28.25	107.52	319.51	88.48	692.02	636.25	55.77	12.410	
12,600.00	12,517.48	12,753.88	12,674.92	29.82	28.23	107.21	262.97	88.48	691.05	635.47	55.58	12.434	
12,650.00	12,551.13	12,830.74	12,719.90	29.83	28.20	106.68	200.72	88.48	689.39	633.94	55.45	12.432	
12,700.00	12,581.43	12,905.75	12,755.39	29.85	28.19	105.95	134.69	88.48	687.15	631.74	55.41	12.400	
12,750.00	12,608.15	12,978.48	12,781.28	29.87	28.20	105.05	66.78	88.48	684.44	628.96	55.48	12.336	
12,800.00	12,631.09	13,048.63	12,797.91	29.90	28.24	104.00	-1.33	88.48	681.41	625.75	55.66	12.243	
12,850.00	12,650.07	13,116.05	12,805.94	29.93	28.34	102.83	-68.23	88.48	678.20	622.28	55.92	12.127	
12,900.00	12,664.95	13,173.29	12,807.00	29.98	28.44	101.80	-125.44	88.48	675.08	618.86	56.22	12.007	
12,950.00	12,675.61	13,222.12	12,807.00	30.05	28.56	101.14	-174.28	88.48	672.91	616.40	56.51	11.907	
13,000.00	12,681.98	13,271.70	12,807.00	30.13	28.70	100.73	-223.85	88.48	671.69	614.88	56.81	11.824	
13,048.16	12,684.00	13,319.80	12,807.00	30.24	28.85	100.60	-271.96	88.48	671.32	614.21	57.11	11.756	
13,100.00	12,684.00	13,371.64	12,807.00	30.37	29.03	100.60	-323.80	88.48	671.32	613.86	57.46	11.683	
13,200.00	12,684.00	13,471.64	12,807.00	30.70	29.46	100.60	-423.80	88.48	671.32	613.05	58.27	11.521	
13,300.00	12,684.00	13,571.64	12,807.00	31.12	29.96	100.60	-523.80	88.48	671.32	612.07	59.24	11.331	
13,400.00	12,684.00	13,671.64	12,807.00	31.62	30.54	100.60	-623.80	88.48	671.32	610.94	60.38	11.119	
13,500.00	12,684.00	13,771.64	12,807.00	32.21	31.20	100.60	-723.80	88.48	671.32	609.66	61.66	10.888	
13,600.00	12,684.00	13,871.64	12,807.00	32.87	31.92	100.60	-823.80	88.48	671.32	608.24	63.07	10.643	
13,700.00	12,684.00	13,971.64	12,807.00	33.59	32.72	100.60	-923.80	88.48	671.32	606.70	64.62	10.388	
13,800.00	12,684.00	14,071.64	12,807.00	34.38	33.57	100.60	-1,023.80	88.48	671.32	605.03	66.29	10.127	
13,900.00	12,684.00	14,171.64	12,807.00	35.23	34.48	100.60	-1,123.80	88.48	671.32	603.25	68.07	9.862	
14,000.00	12,684.00	14,271.64	12,807.00	36.14	35.44	100.60	-1,223.80	88.48	671.32	601.36	69.96	9.596	
14,100.00	12,684.00	14,371.64	12,807.00	37.10	36.45	100.60	-1,323.80	88.48	671.32	599.38	71.94	9.332	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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	
14,200.00	12,684.00	14,471.64	12,807.00	38.10	37.50	100.60	-1,423.80	88.48	671.32	597.32	74.00	9.072		
14,300.00	12,684.00	14,571.64	12,807.00	39.14	38.59	100.60	-1,523.80	88.48	671.32	595.17	76.15	8.816		
14,400.00	12,684.00	14,671.64	12,807.00	40.23	39.72	100.60	-1,623.80	88.48	671.32	592.95	78.37	8.566		
14,500.00	12,684.00	14,771.64	12,807.00	41.35	40.88	100.60	-1,723.80	88.48	671.32	590.66	80.66	8.323		
14,600.00	12,684.00	14,871.64	12,807.00	42.50	42.08	100.60	-1,823.80	88.48	671.32	588.30	83.01	8.087		
14,700.00	12,684.00	14,971.64	12,807.00	43.68	43.30	100.60	-1,923.80	88.48	671.32	585.90	85.42	7.859		
14,800.00	12,684.00	15,071.64	12,807.00	44.90	44.55	100.60	-2,023.80	88.48	671.32	583.44	87.88	7.639		
14,900.00	12,684.00	15,171.64	12,807.00	46.13	45.83	100.60	-2,123.80	88.48	671.32	580.93	90.39	7.427		
15,000.00	12,684.00	15,271.64	12,807.00	47.40	47.13	100.60	-2,223.80	88.48	671.32	578.37	92.94	7.223		
15,100.00	12,684.00	15,371.64	12,807.00	48.68	48.44	100.60	-2,323.80	88.48	671.32	575.78	95.54	7.027		
15,200.00	12,684.00	15,471.64	12,807.00	49.99	49.78	100.60	-2,423.80	88.48	671.32	573.15	98.17	6.838		
15,300.00	12,684.00	15,571.64	12,807.00	51.31	51.13	100.60	-2,523.80	88.48	671.32	570.48	100.83	6.658		
15,400.00	12,684.00	15,671.64	12,807.00	52.65	52.50	100.60	-2,623.80	88.48	671.32	567.79	103.53	6.484		
15,500.00	12,684.00	15,771.64	12,807.00	54.01	53.89	100.60	-2,723.80	88.48	671.32	565.06	106.26	6.318		
15,600.00	12,684.00	15,871.64	12,807.00	55.38	55.28	100.60	-2,823.80	88.48	671.32	562.31	109.01	6.158		
15,700.00	12,684.00	15,971.64	12,807.00	56.77	56.69	100.60	-2,923.80	88.48	671.32	559.53	111.79	6.005		
15,800.00	12,684.00	16,071.64	12,807.00	58.17	58.12	100.60	-3,023.80	88.48	671.32	556.72	114.59	5.858		
15,900.00	12,684.00	16,171.64	12,807.00	59.58	59.55	100.60	-3,123.80	88.48	671.32	553.90	117.42	5.717		
16,000.00	12,684.00	16,271.64	12,807.00	61.00	60.99	100.60	-3,223.80	88.48	671.32	551.06	120.26	5.582		
16,100.00	12,684.00	16,371.64	12,807.00	62.43	62.44	100.60	-3,323.80	88.48	671.32	548.19	123.13	5.452		
16,200.00	12,684.00	16,471.64	12,807.00	63.87	63.91	100.60	-3,423.80	88.48	671.32	545.31	126.01	5.328		
16,300.00	12,684.00	16,571.64	12,807.00	65.32	65.38	100.60	-3,523.80	88.48	671.32	542.41	128.90	5.208		
16,400.00	12,684.00	16,671.64	12,807.00	66.78	66.85	100.60	-3,623.80	88.48	671.32	539.50	131.82	5.093		
16,500.00	12,684.00	16,771.64	12,807.00	68.25	68.34	100.60	-3,723.80	88.48	671.32	536.58	134.74	4.982		
16,600.00	12,684.00	16,871.64	12,807.00	69.73	69.83	100.60	-3,823.80	88.48	671.32	533.64	137.68	4.876		
16,700.00	12,684.00	16,971.64	12,807.00	71.21	71.33	100.60	-3,923.80	88.48	671.32	530.68	140.63	4.774		
16,800.00	12,684.00	17,071.64	12,807.00	72.70	72.83	100.60	-4,023.80	88.48	671.32	527.72	143.60	4.675		
16,900.00	12,684.00	17,171.64	12,807.00	74.19	74.34	100.60	-4,123.80	88.48	671.32	524.75	146.57	4.580		
17,000.00	12,684.00	17,271.64	12,807.00	75.69	75.85	100.60	-4,223.80	88.48	671.32	521.76	149.56	4.489		
17,100.00	12,684.00	17,371.64	12,807.00	77.20	77.37	100.60	-4,323.80	88.48	671.32	518.77	152.55	4.401		
17,200.00	12,684.00	17,471.64	12,807.00	78.71	78.89	100.60	-4,423.80	88.48	671.32	515.76	155.56	4.316		
17,300.00	12,684.00	17,571.64	12,807.00	80.22	80.42	100.60	-4,523.80	88.48	671.32	512.75	158.57	4.234		
17,400.00	12,684.00	17,671.64	12,807.00	81.74	81.95	100.60	-4,623.80	88.48	671.32	509.73	161.59	4.154		
17,500.00	12,684.00	17,771.64	12,807.00	83.27	83.49	100.60	-4,723.80	88.48	671.32	506.70	164.62	4.078		
17,600.00	12,684.00	17,871.64	12,807.00	84.80	85.03	100.60	-4,823.80	88.48	671.32	503.66	167.65	4.004		
17,700.00	12,684.00	17,971.64	12,807.00	86.33	86.57	100.60	-4,923.80	88.48	671.32	500.62	170.70	3.933		
17,800.00	12,684.00	18,071.64	12,807.00	87.87	88.12	100.60	-5,023.80	88.48	671.32	497.57	173.75	3.864		
17,900.00	12,684.00	18,171.64	12,807.00	89.41	89.67	100.60	-5,123.80	88.48	671.32	494.52	176.80	3.797		
18,000.00	12,684.00	18,271.64	12,807.00	90.95	91.22	100.60	-5,223.80	88.48	671.32	491.45	179.86	3.732		
18,100.00	12,684.00	18,371.64	12,807.00	92.50	92.78	100.60	-5,323.80	88.48	671.32	488.39	182.93	3.670		
18,200.00	12,684.00	18,471.64	12,807.00	94.04	94.33	100.60	-5,423.80	88.48	671.32	485.31	186.00	3.609		
18,300.00	12,684.00	18,571.64	12,807.00	95.60	95.89	100.60	-5,523.80	88.48	671.32	482.24	189.08	3.550		
18,400.00	12,684.00	18,671.64	12,807.00	97.15	97.46	100.60	-5,623.80	88.48	671.32	479.15	192.16	3.493		
18,500.00	12,684.00	18,771.64	12,807.00	98.71	99.02	100.60	-5,723.80	88.48	671.32	476.07	195.25	3.438		
18,600.00	12,684.00	18,871.64	12,807.00	100.27	100.59	100.60	-5,823.80	88.48	671.32	472.98	198.34	3.385		
18,700.00	12,684.00	18,971.64	12,807.00	101.83	102.16	100.60	-5,923.80	88.48	671.32	469.88	201.44	3.333		
18,800.00	12,684.00	19,071.64	12,807.00	103.39	103.73	100.60	-6,023.80	88.48	671.32	466.78	204.54	3.282		
18,900.00	12,684.00	19,171.64	12,807.00	104.96	105.30	100.60	-6,123.80	88.48	671.32	463.68	207.64	3.233		
19,000.00	12,684.00	19,271.64	12,807.00	106.53	106.88	100.60	-6,223.80	88.48	671.32	460.57	210.75	3.185		
19,100.00	12,684.00	19,371.64	12,807.00	108.10	108.46	100.60	-6,323.80	88.48	671.32	457.46	213.86	3.139		
19,200.00	12,684.00	19,471.64	12,807.00	109.67	110.03	100.60	-6,423.80	88.48	671.32	454.35	216.97	3.094		
19,300.00	12,684.00	19,571.64	12,807.00	111.25	111.61	100.60	-6,523.80	88.48	671.32	451.23	220.09	3.050		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	Devon Energy	Local Co-ordinate Reference:	Well 84H
Project:	Lea County, NM (NAD-83)	TVD Reference:	3369.5' GE + 25' KB @ 3394.50usft
Reference Site:	Fighting Okra 18-19 Fed	MD Reference:	3369.5' GE + 25' KB @ 3394.50usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	84H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Multi User Db
Reference Design:	Plan #1	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						Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset +N/-S (usft)	Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
19,400.00	12,684.00	19,671.64	12,807.00	112.82	113.20	100.60	-6,623.80	88.48	671.32	448.11	223.21	3.008			
19,500.00	12,684.00	19,771.64	12,807.00	114.40	114.78	100.60	-6,723.80	88.48	671.32	444.99	226.33	2.966			
19,600.00	12,684.00	19,871.64	12,807.00	115.98	116.36	100.60	-6,823.80	88.48	671.32	441.86	229.46	2.926			
19,700.00	12,684.00	19,971.64	12,807.00	117.56	117.95	100.60	-6,923.80	88.48	671.32	438.73	232.59	2.886			
19,800.00	12,684.00	20,071.64	12,807.00	119.14	119.54	100.60	-7,023.80	88.48	671.32	435.60	235.72	2.848			
19,900.00	12,684.00	20,171.64	12,807.00	120.72	121.13	100.60	-7,123.80	88.48	671.32	432.47	238.85	2.811			
20,000.00	12,684.00	20,271.64	12,807.00	122.31	122.72	100.60	-7,223.80	88.48	671.32	429.33	241.99	2.774			
20,100.00	12,684.00	20,371.64	12,807.00	123.89	124.31	100.60	-7,323.80	88.48	671.32	426.19	245.12	2.739			
20,200.00	12,684.00	20,471.64	12,807.00	125.48	125.90	100.60	-7,423.80	88.48	671.32	423.05	248.26	2.704			
20,300.00	12,684.00	20,571.64	12,807.00	127.07	127.49	100.60	-7,523.80	88.48	671.32	419.91	251.41	2.670			
20,400.00	12,684.00	20,671.64	12,807.00	128.66	129.09	100.60	-7,623.80	88.48	671.32	416.77	254.55	2.637			
20,500.00	12,684.00	20,771.64	12,807.00	130.25	130.68	100.60	-7,723.80	88.48	671.32	413.62	257.70	2.605			
20,600.00	12,684.00	20,871.64	12,807.00	131.84	132.28	100.60	-7,823.80	88.48	671.32	410.47	260.85	2.574			
20,700.00	12,684.00	20,971.64	12,807.00	133.43	133.87	100.60	-7,923.80	88.48	671.32	407.32	264.00	2.543			
20,800.00	12,684.00	21,071.64	12,807.00	135.03	135.47	100.60	-8,023.80	88.48	671.32	404.17	267.15	2.513			
20,900.00	12,684.00	21,171.64	12,807.00	136.62	137.07	100.60	-8,123.80	88.48	671.32	401.01	270.30	2.484			
21,000.00	12,684.00	21,271.64	12,807.00	138.22	138.67	100.60	-8,223.80	88.48	671.32	397.86	273.46	2.455			
21,100.00	12,684.00	21,371.64	12,807.00	139.82	140.27	100.60	-8,323.80	88.48	671.32	394.70	276.62	2.427			
21,200.00	12,684.00	21,471.64	12,807.00	141.41	141.87	100.60	-8,423.80	88.48	671.32	391.54	279.77	2.399			
21,300.00	12,684.00	21,571.64	12,807.00	143.01	143.47	100.60	-8,523.80	88.48	671.32	388.38	282.93	2.373			
21,400.00	12,684.00	21,671.64	12,807.00	144.61	145.08	100.60	-8,623.80	88.48	671.32	385.22	286.10	2.346			
21,500.00	12,684.00	21,771.64	12,807.00	146.21	146.68	100.60	-8,723.80	88.48	671.32	382.06	289.26	2.321			
21,600.00	12,684.00	21,871.64	12,807.00	147.81	148.28	100.60	-8,823.80	88.48	671.32	378.89	292.42	2.296			
21,700.00	12,684.00	21,971.64	12,807.00	149.41	149.89	100.60	-8,923.80	88.48	671.32	375.73	295.59	2.271			
21,800.00	12,684.00	22,071.64	12,807.00	151.01	151.49	100.60	-9,023.80	88.48	671.32	372.56	298.76	2.247			
21,900.00	12,684.00	22,171.64	12,807.00	152.62	153.10	100.60	-9,123.80	88.48	671.32	369.39	301.92	2.223			
22,000.00	12,684.00	22,271.64	12,807.00	154.22	154.71	100.60	-9,223.80	88.48	671.32	366.22	305.09	2.200			
22,100.00	12,684.00	22,371.64	12,807.00	155.82	156.31	100.60	-9,323.80	88.48	671.32	363.05	308.26	2.178			
22,200.00	12,684.00	22,471.64	12,807.00	157.43	157.92	100.60	-9,423.80	88.48	671.32	359.88	311.43	2.156			
22,300.00	12,684.00	22,571.64	12,807.00	159.03	159.53	100.60	-9,523.80	88.48	671.32	356.71	314.61	2.134			
22,400.00	12,684.00	22,671.64	12,807.00	160.64	161.14	100.60	-9,623.80	88.48	671.32	353.54	317.78	2.113			
22,473.03	12,684.00	22,744.68	12,807.00	161.81	162.31	100.60	-9,696.83	88.48	671.32	351.22	320.10	2.097 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	-85.74	293.87	-3,943.39	3,954.34				
100.00	100.00	99.17	99.17	0.08	0.09	-85.74	293.64	-3,943.29	3,954.22	3,954.04	0.18	N/A	
200.00	200.00	255.30	255.29	0.31	0.35	-85.76	292.58	-3,942.23	3,953.62	3,952.95	0.67	5,918.096	
300.00	300.00	388.18	388.14	0.53	0.64	-85.76	291.72	-3,939.31	3,951.32	3,950.14	1.19	3,327.810	
400.00	400.00	495.67	495.59	0.76	0.88	-85.77	291.13	-3,936.52	3,948.69	3,947.05	1.64	2,402.040	
500.00	500.00	581.93	581.82	0.98	1.06	-85.78	290.48	-3,934.40	3,946.18	3,944.14	2.04	1,932.082	
600.00	600.00	665.00	664.87	1.21	1.24	-85.79	289.56	-3,932.66	3,944.03	3,941.59	2.44	1,619.468	
700.00	700.00	728.42	728.27	1.43	1.36	-85.80	288.81	-3,931.77	3,942.55	3,939.77	2.78	1,415.772	
799.30	799.30	789.15	789.00	1.66	1.48	-85.81	288.24	-3,931.52	3,942.07	3,938.94	3.13	1,260.263 CC	
800.00	800.00	789.58	789.43	1.66	1.48	-85.81	288.23	-3,931.52	3,942.07	3,938.94	3.13	1,259.284 ES	
900.00	900.00	864.00	863.85	1.88	1.63	-85.82	287.70	-3,932.01	3,942.60	3,939.10	3.50	1,125.545	
1,000.00	1,000.00	946.66	946.50	2.11	1.80	-85.82	287.38	-3,932.98	3,943.71	3,939.81	3.90	1,012.367	
1,100.00	1,100.00	1,043.30	1,043.14	2.33	1.99	-85.82	287.35	-3,934.07	3,944.82	3,940.50	4.32	913.238	
1,200.00	1,200.00	1,137.68	1,137.51	2.56	2.19	-85.82	287.57	-3,935.23	3,946.07	3,941.33	4.74	832.527	
1,300.00	1,300.00	1,240.67	1,240.49	2.78	2.40	-85.82	288.01	-3,936.55	3,947.37	3,942.19	5.18	761.788	
1,400.00	1,400.00	1,346.14	1,345.95	3.01	2.63	-85.81	288.53	-3,937.76	3,948.56	3,942.93	5.63	701.390	
1,500.00	1,500.00	1,462.49	1,462.30	3.23	2.87	-85.80	289.05	-3,938.78	3,949.46	3,943.36	6.10	647.113	
1,600.00	1,600.00	1,569.65	1,569.45	3.46	3.10	-85.80	289.40	-3,939.33	3,950.00	3,943.45	6.55	602.651	
1,700.00	1,700.00	1,664.93	1,664.73	3.68	3.30	-85.80	289.61	-3,939.86	3,950.57	3,943.60	6.98	566.253	
1,800.00	1,800.00	1,765.69	1,765.49	3.91	3.51	-85.80	289.72	-3,940.52	3,951.23	3,943.82	7.41	533.162	
1,900.00	1,900.00	1,872.78	1,872.58	4.13	3.73	-85.80	289.75	-3,941.08	3,951.76	3,943.90	7.86	502.832	
2,000.00	2,000.00	1,979.26	1,979.05	4.35	3.96	-85.80	289.70	-3,941.46	3,952.10	3,943.79	8.31	475.530	
2,100.00	2,100.00	2,085.45	2,085.25	4.58	4.19	-85.80	289.60	-3,941.67	3,952.30	3,943.53	8.76	450.935	
2,200.00	2,200.00	2,187.92	2,187.72	4.80	4.40	-85.80	289.51	-3,941.75	3,952.37	3,943.17	9.21	429.369	
2,300.00	2,300.00	2,290.12	2,289.92	5.03	4.62	-85.80	289.48	-3,941.78	3,952.40	3,942.75	9.64	409.818	
2,400.00	2,400.00	2,395.75	2,395.54	5.25	4.84	-85.80	289.62	-3,941.69	3,952.32	3,942.23	10.09	391.712	
2,500.00	2,500.00	2,503.86	2,503.66	5.48	5.07	-85.79	290.04	-3,941.41	3,952.09	3,941.55	10.54	374.872	
2,530.14	2,530.14	2,538.71	2,538.51	5.54	5.14	-153.88	290.21	-3,941.25	3,952.04	3,941.36	10.68	369.951	
2,600.00	2,599.99	2,619.49	2,619.28	5.69	5.32	-153.88	290.61	-3,940.73	3,952.33	3,941.32	11.01	359.068	
2,700.00	2,699.96	2,730.07	2,729.85	5.90	5.56	-153.88	291.23	-3,939.68	3,953.77	3,942.32	11.45	345.189	
2,800.00	2,799.86	2,837.46	2,837.23	6.11	5.79	-153.88	291.99	-3,938.43	3,956.58	3,944.68	11.90	332.602	
2,900.00	2,899.68	2,952.29	2,952.05	6.33	6.04	-153.90	292.88	-3,936.78	3,960.68	3,948.33	12.36	320.558	
3,000.00	2,999.37	3,074.46	3,074.20	6.55	6.31	-153.92	293.74	-3,934.49	3,965.93	3,953.10	12.83	309.044	
3,038.22	3,037.43	3,129.74	3,129.45	6.63	6.43	-153.93	294.18	-3,933.15	3,968.14	3,955.10	13.03	304.428	
3,100.00	3,098.94	3,219.14	3,218.81	6.77	6.62	-153.97	295.08	-3,930.46	3,971.54	3,958.18	13.36	297.270	
3,200.00	3,198.50	3,338.37	3,337.96	6.99	6.89	-154.02	296.37	-3,926.12	3,976.43	3,962.59	13.83	287.448	
3,300.00	3,298.05	3,448.54	3,448.03	7.22	7.13	-154.07	297.35	-3,921.69	3,980.92	3,966.63	14.29	278.651	
3,400.00	3,397.61	3,541.19	3,540.60	7.45	7.32	-154.11	298.09	-3,917.99	3,985.43	3,970.74	14.70	271.194	
3,500.00	3,497.17	3,639.24	3,638.57	7.69	7.53	-154.15	298.82	-3,914.23	3,990.11	3,974.99	15.12	263.935	
3,600.00	3,596.73	3,754.88	3,754.12	7.92	7.77	-154.20	299.75	-3,909.53	3,994.56	3,978.99	15.58	256.452	
3,700.00	3,696.29	3,857.93	3,857.07	8.16	7.99	-154.24	300.64	-3,905.03	3,998.72	3,982.71	16.01	249.736	
3,800.00	3,795.85	3,951.97	3,951.02	8.40	8.19	-154.28	301.46	-3,901.01	4,002.97	3,986.54	16.43	243.617	
3,900.00	3,895.41	4,043.73	4,042.70	8.64	8.38	-154.32	302.27	-3,897.24	4,007.39	3,990.55	16.84	237.919	
4,000.00	3,994.97	4,133.73	4,132.62	8.89	8.56	-154.36	303.19	-3,893.74	4,012.05	3,994.80	17.25	232.583	
4,100.00	4,094.53	4,221.89	4,220.72	9.13	8.74	-154.39	304.22	-3,890.53	4,016.96	3,999.31	17.65	227.530	
4,200.00	4,194.09	4,308.00	4,306.78	9.38	8.92	-154.42	305.12	-3,887.69	4,022.20	4,004.15	18.06	222.749	
4,300.00	4,293.65	4,396.99	4,395.73	9.63	9.10	-154.46	305.90	-3,885.06	4,027.78	4,009.31	18.47	218.113	
4,400.00	4,393.20	4,493.92	4,492.62	9.87	9.31	-154.50	306.83	-3,882.32	4,033.50	4,014.61	18.89	213.487	
4,500.00	4,492.76	4,595.63	4,594.27	10.12	9.52	-154.54	307.96	-3,879.50	4,039.28	4,019.95	19.33	208.945	
4,600.00	4,592.32	4,708.05	4,706.64	10.37	9.76	-154.59	308.96	-3,876.15	4,044.83	4,025.04	19.79	204.344	
4,700.00	4,691.88	4,833.00	4,831.52	10.63	10.03	-154.65	309.63	-3,871.92	4,049.99	4,029.71	20.28	199.686	
4,800.00	4,791.44	4,957.97	4,956.39	10.88	10.31	-154.71	309.77	-3,866.81	4,054.39	4,033.62	20.77	195.208	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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 Centro +N/-S (usft)	+E/-W (usft)	Between Centras (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
4,900.00	4,891.00	5,050.61	5,048.94	11.13	10.51	-154.76	309.65	-3,862.89	4,058.65	4,037.46	21.19	191.502	
5,000.00	4,990.56	5,141.83	5,140.08	11.39	10.69	-154.82	309.42	-3,859.20	4,063.09	4,041.49	21.60	188.072	
5,100.00	5,090.12	5,225.33	5,223.52	11.64	10.78	-154.86	309.32	-3,856.08	4,067.86	4,045.94	21.92	185.554	
5,200.00	5,189.68	5,307.24	5,305.39	11.90	10.80	-154.90	309.33	-3,853.36	4,073.05	4,050.88	22.17	183.736	
5,300.00	5,289.24	5,401.63	5,399.74	12.15	10.81	-154.96	309.30	-3,850.54	4,078.57	4,056.17	22.41	182.031	
5,400.00	5,388.80	5,507.19	5,505.25	12.41	10.83	-155.01	309.36	-3,847.35	4,084.07	4,061.42	22.65	180.322	
5,500.00	5,488.36	5,604.50	5,602.43	12.66	10.86	-155.09	309.51	-3,841.08	4,088.51	4,065.61	22.90	178.512	
5,600.00	5,587.91	5,707.83	5,705.61	12.92	10.90	-155.16	309.87	-3,834.69	4,092.31	4,069.15	23.16	176.682	
5,700.00	5,687.47	5,808.41	5,806.06	13.18	10.94	-155.20	309.84	-3,829.92	4,095.58	4,072.16	23.42	174.879	
5,800.00	5,787.03	5,907.06	5,904.35	13.44	11.02	-155.29	310.46	-3,818.50	4,097.84	4,074.15	23.70	172.911	
5,900.00	5,886.59	6,002.14	6,000.20	13.70	11.11	-155.36	310.88	-3,805.50	4,098.14	4,074.16	23.98	170.879	
5,941.07	5,927.48	6,270.01	6,266.63	13.80	11.14	-155.38	310.98	-3,802.24	4,098.12	4,074.03	24.10	170.073	
6,000.00	5,986.15	6,319.34	6,315.79	13.96	11.17	-155.40	311.14	-3,798.08	4,098.18	4,073.92	24.26	168.932	
6,100.00	6,085.71	6,406.74	6,402.90	14.22	11.23	-155.44	311.35	-3,790.99	4,098.62	4,074.08	24.54	167.027	
6,200.00	6,185.27	6,508.31	6,504.14	14.48	11.30	-155.48	311.81	-3,782.84	4,099.17	4,074.34	24.83	165.113	
6,300.00	6,284.83	6,611.55	6,607.03	14.74	11.38	-155.52	312.57	-3,774.45	4,099.61	4,074.49	25.12	163.197	
6,400.00	6,384.39	6,720.70	6,715.81	15.00	11.47	-155.57	313.46	-3,765.48	4,099.98	4,074.56	25.42	161.280	
6,500.00	6,483.95	6,849.00	6,843.61	15.26	11.59	-155.61	314.66	-3,754.27	4,099.84	4,074.11	25.73	159.311	
6,600.00	6,583.51	6,944.90	6,939.12	15.52	11.68	-155.64	315.79	-3,745.57	4,099.37	4,073.34	26.04	157.429	
6,700.00	6,683.06	7,053.84	7,047.58	15.78	11.80	-155.67	317.25	-3,735.59	4,098.82	4,072.46	26.35	155.526	
6,800.00	6,782.62	7,135.93	7,129.33	16.04	11.88	-155.70	318.41	-3,728.21	4,098.44	4,071.79	26.66	153.733	
6,900.00	6,882.18	7,241.48	7,234.45	16.31	12.00	-155.73	320.02	-3,718.86	4,098.20	4,071.22	26.98	151.895	
7,000.00	6,981.74	7,340.28	7,332.85	16.57	12.11	-155.75	321.60	-3,710.05	4,097.91	4,070.61	27.30	150.088	
7,100.00	7,081.30	7,435.94	7,428.13	16.83	12.22	-155.78	323.00	-3,701.61	4,097.71	4,070.08	27.62	148.337	
7,200.00	7,180.86	7,535.12	7,526.92	17.09	12.34	-155.81	324.42	-3,692.91	4,097.55	4,069.60	27.95	146.594	
7,300.00	7,280.42	7,631.14	7,622.56	17.36	12.46	-155.84	325.90	-3,684.51	4,097.44	4,069.15	28.28	144.875	
7,315.93	7,296.28	7,645.29	7,636.65	17.40	12.48	-155.84	326.11	-3,683.29	4,097.43	4,069.10	28.33	144.610	
7,400.00	7,379.98	7,721.01	7,712.09	17.62	12.58	-155.86	327.13	-3,676.85	4,097.53	4,068.92	28.61	143.230	
7,500.00	7,479.54	7,818.19	7,808.93	17.88	12.70	-155.89	328.27	-3,668.74	4,097.80	4,068.86	28.94	141.603	
7,600.00	7,579.10	7,920.70	7,911.06	18.15	12.83	-155.93	329.24	-3,660.10	4,097.98	4,068.70	29.28	139.973	
7,700.00	7,678.66	7,987.00	7,977.13	18.41	12.91	-155.96	329.80	-3,654.62	4,098.41	4,068.82	29.59	138.510	
7,800.00	7,778.21	8,082.00	8,071.87	18.67	13.04	-155.99	330.50	-3,647.53	4,099.55	4,069.62	29.93	136.984	
7,900.00	7,877.77	8,162.44	8,152.12	18.94	13.14	-156.03	330.69	-3,642.01	4,101.22	4,070.97	30.25	135.565	
8,000.00	7,977.33	8,248.67	8,237.46	19.20	13.48	-156.18	328.04	-3,621.94	4,101.35	4,070.63	30.72	133.519	
8,100.00	8,076.89	8,496.98	8,485.22	19.47	13.63	-156.26	325.71	-3,611.87	4,099.60	4,068.53	31.07	131.951	
8,200.00	8,176.45	8,578.76	8,566.57	19.73	13.76	-156.33	323.71	-3,603.77	4,098.20	4,066.79	31.41	130.479	
8,300.00	8,276.01	8,661.94	8,649.36	20.00	13.89	-156.40	321.86	-3,595.87	4,097.22	4,065.47	31.75	129.039	
8,400.00	8,375.57	8,745.00	8,732.05	20.26	14.02	-156.46	319.97	-3,588.30	4,096.64	4,064.55	32.10	127.639	
8,448.40	8,423.75	8,778.90	8,765.81	20.39	14.08	-156.49	319.15	-3,585.35	4,096.55	4,064.30	32.26	127.001	
8,500.00	8,475.13	8,814.10	8,800.88	20.52	14.13	-156.52	318.30	-3,582.41	4,096.66	4,064.23	32.43	126.339	
8,600.00	8,574.69	8,904.13	8,890.60	20.79	14.27	-156.59	316.24	-3,575.29	4,097.28	4,064.50	32.78	124.996	
8,700.00	8,674.25	8,997.79	8,983.95	21.05	14.42	-156.67	314.23	-3,567.93	4,097.97	4,064.84	33.14	123.665	
8,800.00	8,773.81	9,076.55	9,062.47	21.32	14.55	-156.73	312.39	-3,561.98	4,099.00	4,065.51	33.48	122.428	
8,900.00	8,873.37	9,158.56	9,144.26	21.59	14.67	-156.80	310.56	-3,556.29	4,100.62	4,066.79	33.83	121.217	
9,000.00	8,972.92	9,257.80	9,243.24	21.85	14.83	-156.88	308.45	-3,549.54	4,102.39	4,068.19	34.20	119.956	
9,100.00	9,072.48	9,344.83	9,330.07	22.12	14.97	-156.94	306.91	-3,543.68	4,104.27	4,069.72	34.56	118.769	
9,200.00	9,172.04	9,409.00	9,394.10	22.38	15.08	-156.99	305.92	-3,539.69	4,106.72	4,071.84	34.89	117.718	
9,300.00	9,271.60	9,490.07	9,475.04	22.65	15.20	-157.04	304.76	-3,535.19	4,109.82	4,074.58	35.24	116.635	
9,400.00	9,371.16	9,559.36	9,544.24	22.91	15.31	-157.09	303.82	-3,531.86	4,113.63	4,078.06	35.57	115.644	
9,500.00	9,470.72	9,627.91	9,612.73	23.18	15.42	-157.14	302.97	-3,529.08	4,118.21	4,082.30	35.90	114.700	
9,600.00	9,570.28	9,694.00	9,678.78	23.45	15.51	-157.18	302.21	-3,526.89	4,123.54	4,087.31	36.23	113.807	
9,700.00	9,669.84	9,768.78	9,753.54	23.71	15.62	-157.23	301.68	-3,524.93	4,129.59	4,093.02	36.57	112.911	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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							
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,800.00	9,769.40	9,847.24	9,831.98	23.98	15.74	-157.27	301.59	-3,523.37	4,136.25	4,099.33	36.92	112.030	
9,900.00	9,868.96	9,916.08	9,900.81	24.24	15.84	-157.30	301.66	-3,522.35	4,143.46	4,106.21	37.25	111.226	
10,000.00	9,968.52	9,978.00	9,962.73	24.51	15.92	-157.33	301.69	-3,522.03	4,151.59	4,114.02	37.57	110.496	
10,100.00	10,068.07	10,120.09	10,104.81	24.78	16.12	-157.39	302.31	-3,520.86	4,159.36	4,121.34	38.02	109.401	
10,200.00	10,167.63	10,285.04	10,269.72	25.04	16.36	-157.45	304.28	-3,517.90	4,166.33	4,127.83	38.50	108.204	
10,300.00	10,267.19	10,358.00	10,342.65	25.31	16.47	-157.47	305.28	-3,516.11	4,172.58	4,133.74	38.85	107.410	
10,400.00	10,366.75	10,431.60	10,416.23	25.58	16.58	-157.49	306.29	-3,514.78	4,179.47	4,140.28	39.19	106.639	
10,500.00	10,466.31	10,507.03	10,491.65	25.84	16.69	-157.52	307.09	-3,513.93	4,187.03	4,147.49	39.54	105.896	
10,600.00	10,565.87	10,547.00	10,531.62	26.11	16.75	-157.53	307.32	-3,513.64	4,195.33	4,155.50	39.82	105.344	
10,700.00	10,665.43	10,642.00	10,626.60	26.38	16.88	-157.60	305.97	-3,514.20	4,204.58	4,164.38	40.20	104.594	
10,800.00	10,764.99	10,671.94	10,656.52	26.64	16.92	-157.63	304.94	-3,514.82	4,214.92	4,174.46	40.46	104.170	
10,900.00	10,864.55	10,737.00	10,721.49	26.91	17.00	-157.70	302.22	-3,516.76	4,226.48	4,185.69	40.78	103.635	
11,000.00	10,964.11	10,802.03	10,786.39	27.18	17.08	-157.77	298.95	-3,519.22	4,238.84	4,197.74	41.10	103.131	
11,098.90	11,062.57	10,945.58	10,929.63	27.44	17.26	-157.95	291.09	-3,524.30	4,250.98	4,209.42	41.56	102.294	
11,100.00	11,063.67	10,946.73	10,930.78	27.44	17.27	-157.95	291.03	-3,524.34	4,251.10	4,209.54	41.56	102.287	
11,200.00	11,163.30	11,044.12	11,027.99	27.64	17.39	-158.10	285.92	-3,527.10	4,261.82	4,219.93	41.89	101.734	
11,300.00	11,263.07	11,116.00	11,099.77	27.84	17.49	-158.20	282.80	-3,529.35	4,271.26	4,229.08	42.18	101.267	
11,400.00	11,362.95	11,211.00	11,194.69	28.02	17.62	-158.28	280.86	-3,532.77	4,279.51	4,237.00	42.51	100.678	
11,500.00	11,462.89	11,371.94	11,355.58	28.20	17.84	-158.33	281.40	-3,536.55	4,284.51	4,241.56	42.95	99.751	
11,600.00	11,562.86	11,450.86	11,434.47	28.36	17.95	-158.35	281.30	-3,538.59	4,288.49	4,245.25	43.25	99.166	
11,637.12	11,600.00	11,483.47	11,467.07	28.42	18.00	-90.26	281.40	-3,539.51	4,289.65	4,246.29	43.36	98.927	
11,700.00	11,662.88	11,539.15	11,522.73	28.54	18.08	-90.26	281.58	-3,541.15	4,291.50	4,247.93	43.57	98.498	
11,800.00	11,762.88	11,631.35	11,614.87	28.73	18.20	-90.27	280.84	-3,544.04	4,294.64	4,250.72	43.92	97.787	
11,900.00	11,862.88	11,726.72	11,710.18	28.92	18.34	-90.29	279.24	-3,547.13	4,297.89	4,253.62	44.27	97.078	
12,000.00	11,962.88	11,822.08	11,805.46	29.12	18.47	-90.32	276.93	-3,550.34	4,301.27	4,256.64	44.63	96.380	
12,100.00	12,062.88	11,964.11	11,947.35	29.31	18.67	-90.38	272.36	-3,554.76	4,304.48	4,259.41	45.07	95.507	
12,148.16	12,111.04	12,010.76	11,993.95	29.41	18.74	-90.40	270.76	-3,555.88	4,305.65	4,260.40	45.25	95.162	
12,150.00	12,112.88	12,012.42	11,995.61	29.41	18.74	89.59	270.70	-3,555.92	4,305.69	4,260.44	45.25	95.150	
12,200.00	12,162.81	12,057.58	12,040.74	29.49	18.81	89.48	269.19	-3,557.05	4,306.94	4,261.54	45.41	94.848	
12,250.00	12,212.34	12,100.34	12,083.46	29.56	18.88	89.40	267.81	-3,558.19	4,308.23	4,262.67	45.55	94.574	
12,300.00	12,261.11	12,142.10	12,125.18	29.62	18.94	89.38	266.52	-3,559.36	4,309.56	4,263.87	45.69	94.325	
12,350.00	12,308.73	12,180.32	12,163.36	29.67	19.00	89.37	265.38	-3,560.51	4,310.97	4,265.16	45.81	94.112	
12,400.00	12,354.85	12,215.46	12,198.47	29.71	19.05	89.39	264.27	-3,561.66	4,312.51	4,266.60	45.91	93.932	
12,450.00	12,399.11	12,255.00	12,237.96	29.75	19.11	89.45	262.95	-3,563.06	4,314.22	4,268.20	46.02	93.751	
12,500.00	12,441.18	12,303.45	12,286.34	29.77	19.18	89.59	260.92	-3,564.78	4,316.03	4,269.89	46.14	93.551	
12,550.00	12,480.74	12,336.38	12,319.18	29.80	19.23	89.65	258.82	-3,565.93	4,317.92	4,271.70	46.22	93.419	
12,600.00	12,517.48	12,359.86	12,342.49	29.82	19.27	89.61	256.18	-3,566.84	4,320.11	4,273.82	46.29	93.331	
12,650.00	12,551.13	12,379.00	12,361.36	29.83	19.30	89.51	253.08	-3,567.69	4,322.65	4,276.30	46.35	93.263	
12,700.00	12,581.43	12,391.06	12,373.16	29.85	19.32	89.32	250.69	-3,568.29	4,325.59	4,279.19	46.40	93.225	
12,750.00	12,608.15	12,410.00	12,391.55	29.87	19.35	89.16	246.30	-3,569.44	4,329.00	4,282.53	46.47	93.159	
12,800.00	12,631.09	12,410.00	12,391.55	29.90	19.35	88.79	246.30	-3,569.44	4,332.77	4,286.27	46.51	93.161	
12,850.00	12,650.07	12,421.08	12,402.21	29.93	19.37	88.48	243.39	-3,570.21	4,336.99	4,290.41	46.58	93.112	
12,900.00	12,664.95	12,430.25	12,409.99	29.98	19.38	88.12	240.80	-3,570.91	4,341.59	4,294.94	46.65	93.058	
12,950.00	12,675.61	12,442.00	12,422.14	30.05	19.40	87.75	237.24	-3,571.87	4,346.57	4,299.83	46.75	92.982	
13,000.00	12,681.98	12,451.55	12,431.14	30.13	19.41	87.33	234.17	-3,572.69	4,351.89	4,305.05	46.85	92.899	
13,048.16	12,684.00	12,466.41	12,445.06	30.24	19.43	86.97	229.13	-3,574.01	4,357.30	4,310.34	46.96	92.782	
13,100.00	12,684.00	12,482.67	12,460.14	30.37	19.46	87.17	223.25	-3,575.50	4,363.53	4,316.43	47.10	92.636	
13,200.00	12,684.00	13,107.55	12,793.81	30.70	21.61	91.58	261.97	-3,615.73	4,368.72	4,318.56	50.16	87.095	
13,300.00	12,684.00	13,400.00	12,799.42	31.12	23.86	91.65	-554.26	-3,618.73	4,368.98	4,315.90	53.08	82.312	
13,353.36	12,684.00	13,423.02	12,799.12	31.38	24.07	91.65	-577.28	-3,618.71	4,368.85	4,315.30	53.55	81.581	
13,400.00	12,684.00	13,456.53	12,798.61	31.62	24.38	91.64	-610.79	-3,618.78	4,368.92	4,314.82	54.11	80.748	
13,500.00	12,684.00	13,519.11	12,797.57	32.21	24.96	91.62	-673.36	-3,619.20	4,369.59	4,314.34	55.25	79.081	

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)
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Site Error: 0.00 usft
Reference Well: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor
13,600.00	12,684.00	13,590.00	12,797.68	32.87	25.60	91.63	-744.23	-3,620.55	4,371.37	4,314.83	56.54	77.313	
13,700.00	12,684.00	13,631.25	12,798.08	33.59	25.99	91.63	-785.46	-3,621.74	4,374.04	4,316.44	57.60	75.941	
13,800.00	12,684.00	13,685.00	12,798.09	34.38	26.51	91.63	-839.18	-3,623.62	4,377.62	4,318.78	58.85	74.391	
13,900.00	12,684.00	13,735.94	12,797.13	35.23	27.06	91.62	-890.06	-3,625.98	4,382.30	4,322.12	60.18	72.821	
14,000.00	12,684.00	13,971.00	12,792.59	36.14	29.52	91.55	-1,124.77	-3,635.26	4,386.33	4,322.47	63.86	68.685	
14,100.00	12,684.00	14,026.31	12,793.70	37.10	30.13	91.57	-1,180.06	-3,636.35	4,388.69	4,323.31	65.37	67.135	
14,200.00	12,684.00	14,066.00	12,794.08	38.10	30.58	91.57	-1,219.71	-3,638.00	4,392.73	4,326.03	66.70	65.857	
14,300.00	12,684.00	14,396.18	12,791.86	39.14	34.52	91.54	-1,549.66	-3,646.02	4,396.02	4,323.74	72.29	60.815	
14,348.61	12,684.00	14,418.92	12,792.05	39.67	34.80	91.54	-1,572.40	-3,645.94	4,395.88	4,322.83	73.05	60.177	
14,400.00	12,684.00	14,447.00	12,792.32	40.23	35.14	91.55	-1,600.48	-3,646.04	4,396.04	4,322.13	73.91	59.477	
14,500.00	12,684.00	14,447.00	12,792.32	41.35	35.14	91.55	-1,600.48	-3,646.04	4,397.71	4,322.89	74.82	58.781	
14,600.00	12,684.00	14,489.10	12,792.70	42.50	35.66	91.55	-1,642.56	-3,647.05	4,400.73	4,324.37	76.36	57.629	
14,700.00	12,684.00	14,828.00	12,796.72	43.68	39.98	91.60	-1,981.09	-3,655.17	4,405.60	4,323.07	82.53	53.380	
14,800.00	12,684.00	14,885.20	12,798.60	44.90	40.75	91.63	-2,038.24	-3,653.96	4,404.10	4,319.65	84.45	52.152	
14,809.00	12,684.00	14,887.71	12,798.63	45.01	40.78	91.63	-2,040.74	-3,653.96	4,404.08	4,319.50	84.58	52.070	
14,900.00	12,684.00	14,923.00	12,798.71	46.13	41.26	91.63	-2,076.03	-3,654.26	4,404.63	4,318.57	86.06	51.178	
15,000.00	12,684.00	15,180.57	12,796.79	47.40	44.79	91.60	-2,333.51	-3,651.10	4,402.53	4,311.24	91.29	48.226	
15,100.00	12,684.00	15,327.16	12,793.56	48.68	46.86	91.56	-2,480.02	-3,647.20	4,399.95	4,305.17	94.78	46.425	
15,200.00	12,684.00	15,399.00	12,791.56	49.99	47.88	91.54	-2,551.78	-3,644.69	4,396.48	4,299.41	97.07	45.291	
15,300.00	12,684.00	15,448.39	12,789.14	51.31	48.60	91.51	-2,601.09	-3,643.44	4,393.98	4,294.96	99.02	44.374	
15,400.00	12,684.00	15,494.00	12,785.51	52.65	49.26	91.46	-2,646.56	-3,643.12	4,392.94	4,292.03	100.91	43.533	
15,433.17	12,684.00	15,504.45	12,784.54	53.10	49.40	91.45	-2,656.96	-3,643.14	4,392.88	4,291.43	101.45	43.300	
15,500.00	12,684.00	15,557.00	12,780.05	54.01	50.13	91.39	-2,709.32	-3,643.34	4,392.99	4,289.93	103.06	42.625	
15,600.00	12,684.00	15,684.00	12,773.50	55.38	51.84	91.30	-2,836.12	-3,643.61	4,393.10	4,286.86	106.24	41.350	
15,612.33	12,684.00	15,684.00	12,773.50	55.55	51.84	91.30	-2,836.12	-3,643.61	4,393.09	4,286.70	106.38	41.295	
15,700.00	12,684.00	15,719.79	12,772.81	56.77	52.34	91.29	-2,871.91	-3,643.74	4,393.50	4,285.54	107.96	40.694	
15,800.00	12,684.00	15,780.00	12,771.07	58.17	53.18	91.27	-2,932.07	-3,645.37	4,395.75	4,285.65	110.10	39.926	
15,900.00	12,684.00	15,936.09	12,773.87	59.58	55.37	91.31	-3,088.05	-3,648.39	4,398.02	4,284.12	113.90	38.612	
16,000.00	12,684.00	16,000.13	12,776.65	61.00	56.28	91.34	-3,152.02	-3,648.91	4,399.04	4,282.90	116.15	37.875	
16,100.00	12,684.00	16,066.00	12,778.74	62.43	57.22	91.37	-3,217.83	-3,650.68	4,401.55	4,283.12	118.43	37.165	
16,200.00	12,684.00	16,116.66	12,780.00	63.87	57.95	91.38	-3,268.44	-3,652.53	4,404.90	4,284.44	120.45	36.570	
16,300.00	12,684.00	16,211.53	12,781.25	65.32	59.32	91.40	-3,363.23	-3,655.72	4,408.30	4,285.03	123.27	35.760	
16,400.00	12,684.00	16,300.91	12,776.55	66.78	60.61	91.34	-3,452.41	-3,659.32	4,412.19	4,286.19	126.00	35.018	
16,500.00	12,684.00	16,384.12	12,772.05	68.25	61.78	91.28	-3,535.44	-3,662.64	4,416.10	4,287.50	128.59	34.342	
16,600.00	12,684.00	16,447.00	12,768.91	69.73	62.66	91.24	-3,598.16	-3,665.71	4,420.84	4,290.03	130.81	33.796	
16,700.00	12,684.00	16,530.00	12,765.42	71.21	63.81	91.19	-3,680.97	-3,670.26	4,426.22	4,292.84	133.38	33.185	
16,800.00	12,684.00	16,708.64	12,763.42	72.70	66.34	91.16	-3,859.38	-3,678.54	4,430.84	4,293.10	137.74	32.167	
16,900.00	12,684.00	16,793.28	12,763.74	74.19	67.58	91.16	-3,943.96	-3,681.69	4,434.60	4,294.16	140.43	31.578	
17,000.00	12,684.00	16,860.71	12,763.71	75.69	68.57	91.16	-4,011.33	-3,684.66	4,439.00	4,296.19	142.80	31.084	
17,100.00	12,684.00	16,927.44	12,763.22	77.20	69.55	91.16	-4,077.96	-3,688.14	4,444.19	4,299.02	145.16	30.615	
17,200.00	12,684.00	17,063.86	12,763.02	78.71	71.53	91.15	-4,214.20	-3,695.18	4,449.36	4,300.53	148.83	29.896	
17,300.00	12,684.00	17,163.50	12,762.46	80.22	72.97	91.14	-4,313.74	-3,699.71	4,453.89	4,302.09	151.80	29.341	
17,400.00	12,684.00	17,397.00	12,758.61	81.74	76.40	91.09	-4,547.02	-3,708.22	4,458.03	4,300.75	157.27	28.345	
17,500.00	12,684.00	17,460.43	12,758.61	83.27	77.35	91.09	-4,610.44	-3,709.25	4,459.84	4,300.21	159.63	27.938	
17,600.00	12,684.00	17,492.00	12,758.11	84.80	77.82	91.08	-4,641.99	-3,710.21	4,463.05	4,301.67	161.38	27.656	
17,700.00	12,684.00	17,565.70	12,756.42	86.33	78.92	91.06	-4,715.61	-3,713.23	4,467.19	4,303.28	163.91	27.254	
17,800.00	12,684.00	17,702.64	12,754.39	87.87	80.93	91.03	-4,852.39	-3,719.29	4,471.65	4,304.02	167.63	26.676	
17,900.00	12,684.00	17,778.00	12,754.28	89.41	82.03	91.03	-4,927.69	-3,722.18	4,475.55	4,305.38	170.17	26.301	
18,000.00	12,684.00	17,835.59	12,754.40	90.95	82.85	91.03	-4,985.22	-3,724.82	4,480.24	4,307.89	172.35	25.995	
18,100.00	12,684.00	17,873.00	12,754.61	92.50	83.38	91.04	-5,022.57	-3,726.99	4,486.19	4,312.05	174.14	25.763	
18,200.00	12,684.00	17,921.08	12,754.76	94.04	84.08	91.04	-5,070.53	-3,730.39	4,493.37	4,317.26	176.11	25.514	
18,300.00	12,684.00	17,968.00	12,754.53	95.60	84.76	91.03	-5,117.27	-3,734.44	4,501.90	4,323.86	178.04	25.285	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
18,400.00	12,684.00	18,203.59	12,759.34	97.15	88.21	91.09	-5,352.20	-3,750.75	4,508.09	4,324.28	183.81	24.526		
18,500.00	12,684.00	18,254.00	12,758.85	98.71	88.95	91.08	-5,402.50	-3,754.15	4,514.75	4,328.88	185.86	24.291		
18,600.00	12,684.00	18,825.00	12,777.78	100.27	97.59	91.32	-5,972.58	-3,759.98	4,511.97	4,314.31	197.66	22.826		
18,700.00	12,684.00	18,881.77	12,777.62	101.83	98.45	91.32	-6,029.32	-3,758.13	4,508.91	4,308.88	200.02	22.542		
18,800.00	12,684.00	19,049.06	12,777.26	103.39	101.00	91.32	-6,196.49	-3,753.07	4,505.91	4,301.67	204.25	22.061		
18,900.00	12,684.00	19,110.00	12,778.03	104.96	101.93	91.33	-6,257.40	-3,751.36	4,502.89	4,296.19	206.70	21.785		
19,000.00	12,684.00	19,205.00	12,779.03	106.53	103.38	91.34	-6,352.36	-3,748.71	4,500.12	4,290.40	209.71	21.459		
19,100.00	12,684.00	19,260.96	12,779.45	108.10	104.23	91.35	-6,408.29	-3,747.10	4,497.48	4,285.42	212.06	21.208		
19,200.00	12,684.00	19,491.00	12,780.53	109.67	107.75	91.36	-6,638.12	-3,738.54	4,493.26	4,275.94	217.33	20.675		
19,300.00	12,684.00	19,552.85	12,780.64	111.25	108.69	91.37	-6,699.87	-3,735.17	4,488.24	4,268.42	219.82	20.418		
19,400.00	12,684.00	19,586.00	12,780.36	112.82	109.20	91.36	-6,733.01	-3,734.15	4,485.08	4,263.27	221.82	20.220		
19,500.00	12,684.00	19,629.85	12,779.81	114.40	109.86	91.36	-6,776.85	-3,733.40	4,483.30	4,259.36	223.95	20.019		
19,600.00	12,684.00	19,873.00	12,779.18	115.98	113.57	91.35	-7,019.81	-3,726.50	4,480.37	4,250.92	229.45	19.526		
19,700.00	12,684.00	19,920.80	12,779.57	117.56	114.30	91.36	-7,067.53	-3,723.77	4,475.68	4,243.95	231.72	19.315		
19,800.00	12,684.00	19,968.00	12,778.60	119.14	115.03	91.34	-7,114.70	-3,723.43	4,473.93	4,239.97	233.95	19.123		
19,890.91	12,684.00	19,968.00	12,778.60	120.58	115.03	91.34	-7,114.70	-3,723.43	4,473.00	4,237.82	235.19	19.019		
19,900.00	12,684.00	19,968.00	12,778.60	120.72	115.03	91.34	-7,114.70	-3,723.43	4,473.01	4,237.71	235.30	19.010		
20,000.00	12,684.00	20,017.68	12,777.18	122.31	115.78	91.33	-7,164.36	-3,724.21	4,474.14	4,236.66	237.48	18.840		
20,100.00	12,684.00	20,115.33	12,775.59	123.89	117.26	91.30	-7,261.99	-3,725.41	4,475.33	4,234.79	240.54	18.605		
20,200.00	12,684.00	20,321.82	12,770.89	125.48	120.40	91.24	-7,468.40	-3,724.87	4,474.49	4,228.90	245.59	18.219		
20,300.00	12,684.00	20,378.88	12,769.92	127.07	121.25	91.23	-7,525.46	-3,724.59	4,473.97	4,226.04	247.92	18.046		
20,303.83	12,684.00	20,381.05	12,769.90	127.13	121.28	91.23	-7,527.62	-3,724.59	4,473.97	4,225.96	248.01	18.039		
20,400.00	12,684.00	20,443.00	12,769.73	128.66	122.19	91.23	-7,589.57	-3,724.92	4,474.42	4,224.08	250.35	17.873		
20,500.00	12,684.00	20,443.00	12,769.73	130.25	122.19	91.23	-7,589.57	-3,724.92	4,476.31	4,224.75	251.56	17.795		
20,600.00	12,684.00	20,493.33	12,769.97	131.84	122.92	91.23	-7,639.88	-3,726.22	4,479.37	4,225.73	253.65	17.660		
20,700.00	12,684.00	20,538.00	12,770.14	133.43	123.56	91.23	-7,684.48	-3,728.65	4,484.42	4,228.83	255.59	17.545		
20,800.00	12,684.00	20,560.78	12,770.18	135.03	123.90	91.23	-7,707.21	-3,730.23	4,490.78	4,233.73	257.05	17.471		
20,900.00	12,684.00	20,633.00	12,769.73	136.62	124.97	91.23	-7,779.22	-3,735.61	4,498.19	4,238.66	259.53	17.332		
21,000.00	12,684.00	21,083.34	12,759.03	138.22	131.74	91.09	-8,228.82	-3,755.11	4,504.26	4,234.65	269.61	16.706		
21,100.00	12,684.00	21,178.83	12,758.84	139.82	133.19	91.08	-8,324.31	-3,754.84	4,503.99	4,231.34	272.65	16.519		
21,200.00	12,684.00	21,299.00	12,759.09	141.41	135.00	91.09	-8,444.48	-3,754.61	4,503.81	4,227.70	276.11	16.312		
21,220.69	12,684.00	21,299.00	12,759.09	141.74	135.00	91.09	-8,444.48	-3,754.61	4,503.76	4,227.37	276.39	16.295		
21,300.00	12,684.00	21,336.40	12,759.15	143.01	135.57	91.09	-8,481.88	-3,754.66	4,504.00	4,225.90	278.11	16.195		
21,400.00	12,684.00	21,395.00	12,758.75	144.61	136.47	91.08	-8,540.46	-3,755.95	4,505.87	4,225.41	280.46	16.066		
21,500.00	12,684.00	21,511.78	12,758.55	146.21	138.25	91.08	-8,657.21	-3,758.79	4,508.42	4,224.51	283.91	15.880		
21,600.00	12,684.00	21,648.79	12,759.76	147.81	140.36	91.09	-8,794.21	-3,759.89	4,509.15	4,221.40	287.75	15.670		
21,700.00	12,684.00	21,775.00	12,761.57	149.41	142.31	91.12	-8,920.40	-3,760.18	4,509.38	4,218.00	291.38	15.476		
21,800.00	12,684.00	21,820.78	12,762.58	151.01	143.01	91.13	-8,966.17	-3,760.35	4,509.93	4,216.42	293.51	15.365		
21,900.00	12,684.00	21,870.00	12,763.23	152.62	143.76	91.14	-9,015.37	-3,761.42	4,511.96	4,216.28	295.67	15.260		
22,000.00	12,684.00	21,904.43	12,763.54	154.22	144.27	91.14	-9,049.77	-3,762.63	4,515.22	4,217.73	297.48	15.178		
22,100.00	12,684.00	21,965.00	12,764.14	155.82	145.17	91.15	-9,110.28	-3,765.32	4,519.61	4,219.83	299.78	15.077		
22,200.00	12,684.00	22,013.16	12,764.64	157.43	145.88	91.15	-9,158.37	-3,767.95	4,524.99	4,223.22	301.78	14.995		
22,300.00	12,684.00	22,074.20	12,765.28	159.03	146.77	91.16	-9,219.28	-3,771.81	4,531.32	4,227.31	304.01	14.905		
22,400.00	12,684.00	22,156.00	12,766.22	160.64	147.96	91.17	-9,300.88	-3,777.47	4,538.26	4,231.58	306.68	14.798		
22,473.03	12,684.00	22,192.68	12,766.65	161.81	148.49	91.18	-9,337.45	-3,780.23	4,543.76	4,235.64	308.12	14.747 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 (°)	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	2.20	2.20	0.00	0.00	-86.06	175.58	-2,547.70	2,553.74				
100.00	100.00	102.20	102.20	0.08	0.09	-86.06	175.58	-2,547.70	2,553.74	2,553.57	0.17	N/A	
200.00	200.00	202.20	202.20	0.31	0.31	-86.06	175.58	-2,547.70	2,553.74	2,553.12	0.62	4,098.766	
300.00	300.00	302.20	302.20	0.53	0.54	-86.06	175.58	-2,547.70	2,553.74	2,552.67	1.07	2,380.927	
400.00	400.00	402.20	402.20	0.76	0.76	-86.06	175.58	-2,547.70	2,553.74	2,552.22	1.52	1,677.759	
500.00	500.00	502.20	502.20	0.98	0.99	-86.06	175.58	-2,547.70	2,553.74	2,551.77	1.97	1,295.233	
600.00	600.00	602.20	602.20	1.21	1.21	-86.06	175.58	-2,547.70	2,553.74	2,551.32	2.42	1,054.751	
700.00	700.00	702.20	702.20	1.43	1.44	-86.06	175.58	-2,547.70	2,553.74	2,550.87	2.87	889.585	
800.00	800.00	802.20	802.20	1.66	1.66	-86.06	175.58	-2,547.70	2,553.74	2,550.42	3.32	769.143	
900.00	900.00	902.20	902.20	1.88	1.89	-86.06	175.58	-2,547.70	2,553.74	2,549.97	3.77	677.426	
1,000.00	1,000.00	1,002.20	1,002.20	2.11	2.11	-86.06	175.58	-2,547.70	2,553.74	2,549.52	4.22	605.252	
1,100.00	1,100.00	1,102.20	1,102.20	2.33	2.34	-86.06	175.58	-2,547.70	2,553.74	2,549.07	4.67	546.976	
1,200.00	1,200.00	1,202.20	1,202.20	2.56	2.56	-86.06	175.58	-2,547.70	2,553.74	2,548.62	5.12	498.937	
1,300.00	1,300.00	1,302.20	1,302.20	2.78	2.79	-86.06	175.58	-2,547.70	2,553.74	2,548.18	5.57	458.654	
1,400.00	1,400.00	1,402.20	1,402.20	3.01	3.01	-86.06	175.58	-2,547.70	2,553.74	2,547.73	6.02	424.391	
1,500.00	1,500.00	1,502.20	1,502.20	3.23	3.24	-86.06	175.58	-2,547.70	2,553.74	2,547.28	6.47	394.890	
1,600.00	1,600.00	1,602.20	1,602.20	3.46	3.46	-86.06	175.58	-2,547.70	2,553.74	2,546.83	6.92	369.225	
1,700.00	1,700.00	1,702.20	1,702.20	3.68	3.69	-86.06	175.58	-2,547.70	2,553.74	2,546.38	7.37	346.692	
1,800.00	1,800.00	1,802.20	1,802.20	3.91	3.91	-86.06	175.58	-2,547.70	2,553.74	2,545.93	7.82	326.751	
1,900.00	1,900.00	1,902.20	1,902.20	4.13	4.14	-86.06	175.58	-2,547.70	2,553.74	2,545.48	8.27	308.979	
2,000.00	2,000.00	2,002.20	2,002.20	4.35	4.36	-86.06	175.58	-2,547.70	2,553.74	2,545.03	8.71	293.041	
2,100.00	2,100.00	2,102.20	2,102.20	4.58	4.58	-86.06	175.58	-2,547.70	2,553.74	2,544.58	9.16	278.666	
2,200.00	2,200.00	2,202.20	2,202.20	4.80	4.81	-86.06	175.58	-2,547.70	2,553.74	2,544.13	9.61	265.636	
2,300.00	2,300.00	2,302.20	2,302.20	5.03	5.03	-86.06	175.58	-2,547.70	2,553.74	2,543.68	10.06	253.770	
2,400.00	2,400.00	2,402.20	2,402.20	5.25	5.26	-86.06	175.58	-2,547.70	2,553.74	2,543.23	10.51	242.918	
2,500.00	2,500.00	2,502.20	2,502.20	5.48	5.48	-86.06	175.58	-2,547.70	2,553.74	2,542.78	10.96	232.957 CC	
2,600.00	2,599.99	2,602.19	2,602.19	5.69	5.71	-154.15	175.58	-2,547.70	2,554.53	2,543.13	11.40	224.029	
2,700.00	2,699.96	2,702.16	2,702.16	5.90	5.93	-154.17	175.58	-2,547.70	2,556.88	2,545.05	11.83	216.046	
2,800.00	2,799.86	2,802.06	2,802.06	6.11	6.16	-154.19	175.58	-2,547.70	2,560.81	2,548.54	12.27	208.734	
2,900.00	2,899.68	2,901.88	2,901.88	6.33	6.38	-154.23	175.58	-2,547.70	2,566.31	2,553.61	12.70	202.027	
3,000.00	2,999.37	3,001.57	3,001.57	6.55	6.61	-154.27	175.58	-2,547.70	2,573.38	2,560.24	13.14	195.866	
3,038.22	3,037.43	3,039.63	3,039.63	6.63	6.69	-154.29	175.58	-2,547.70	2,576.50	2,563.19	13.31	193.639	
3,100.00	3,098.94	3,101.14	3,101.14	6.77	6.83	-154.35	175.58	-2,547.70	2,581.73	2,568.15	13.58	190.176	
3,200.00	3,198.50	3,200.70	3,200.70	6.99	7.05	-154.44	175.58	-2,547.70	2,590.19	2,576.18	14.01	184.840	
3,300.00	3,298.05	3,300.25	3,300.25	7.22	7.28	-154.53	175.58	-2,547.70	2,598.66	2,584.21	14.45	179.808	
3,400.00	3,397.61	3,399.81	3,399.81	7.45	7.50	-154.62	175.58	-2,547.70	2,607.14	2,592.25	14.89	175.056	
3,500.00	3,497.17	3,499.37	3,499.37	7.69	7.72	-154.70	175.58	-2,547.70	2,615.63	2,600.29	15.34	170.564	
3,600.00	3,596.73	3,666.84	3,666.82	7.92	8.08	-154.83	176.57	-2,545.48	2,622.84	2,606.93	15.91	164.872	
3,700.00	3,696.29	3,835.38	3,835.19	8.16	8.44	-154.90	179.58	-2,538.74	2,627.44	2,610.98	16.47	159.548	
3,800.00	3,795.85	4,004.27	4,003.62	8.40	8.80	-154.92	184.61	-2,527.45	2,629.43	2,612.41	17.02	154.477	
3,900.00	3,895.41	4,122.55	4,121.38	8.64	9.06	-154.91	189.15	-2,517.27	2,629.51	2,612.02	17.49	150.366	
4,000.00	3,994.97	4,222.55	4,220.92	8.89	9.29	-154.91	193.05	-2,508.53	2,629.50	2,611.57	17.93	146.693	
4,100.00	4,094.53	4,322.55	4,320.46	9.13	9.51	-154.90	196.95	-2,499.79	2,629.48	2,611.12	18.36	143.179	
4,200.00	4,194.09	4,422.55	4,420.00	9.38	9.74	-154.89	200.85	-2,491.06	2,629.47	2,610.66	18.81	139.815	
4,300.00	4,293.65	4,522.55	4,519.54	9.63	9.97	-154.88	204.74	-2,482.32	2,629.45	2,610.20	19.25	136.592	
4,400.00	4,393.20	4,622.55	4,619.08	9.87	10.20	-154.87	208.64	-2,473.58	2,629.44	2,609.74	19.70	133.502	
4,500.00	4,492.76	4,722.55	4,718.62	10.12	10.43	-154.86	212.54	-2,464.84	2,629.42	2,609.28	20.14	130.539	
4,600.00	4,592.32	4,822.55	4,818.16	10.37	10.67	-154.85	216.44	-2,456.10	2,629.41	2,608.82	20.59	127.694	
4,700.00	4,691.88	4,922.55	4,917.70	10.63	10.91	-154.84	220.34	-2,447.36	2,629.40	2,608.35	21.04	124.963	
4,800.00	4,791.44	5,022.55	5,017.24	10.88	11.15	-154.84	224.23	-2,438.63	2,629.38	2,607.89	21.49	122.338	
4,900.00	4,891.00	5,122.55	5,116.78	11.13	11.39	-154.83	228.13	-2,429.89	2,629.37	2,607.42	21.95	119.814	
5,000.00	4,990.56	5,222.54	5,216.32	11.39	11.63	-154.82	232.03	-2,421.15	2,629.35	2,606.95	22.40	117.386	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
5,100.00	5,090.12	5,322.54	5,315.86	11.64	11.87	-154.81	235.93	-2,412.41	2,629.34	2,606.49	22.85	115.049		
5,200.00	5,189.68	5,422.54	5,415.40	11.90	12.11	-154.80	239.82	-2,403.67	2,629.33	2,606.02	23.31	112.798		
5,300.00	5,289.24	5,522.54	5,514.94	12.15	12.36	-154.79	243.72	-2,394.93	2,629.31	2,605.54	23.77	110.629		
5,400.00	5,388.80	5,622.54	5,614.48	12.41	12.61	-154.78	247.62	-2,386.20	2,629.30	2,605.07	24.22	108.538		
5,500.00	5,488.36	5,722.54	5,714.02	12.66	12.85	-154.77	251.52	-2,377.46	2,629.28	2,604.60	24.68	106.520		
5,600.00	5,587.91	5,822.54	5,813.56	12.92	13.10	-154.77	255.42	-2,368.72	2,629.27	2,604.13	25.14	104.572		
5,700.00	5,687.47	5,922.54	5,913.10	13.18	13.35	-154.76	259.31	-2,359.98	2,629.26	2,603.65	25.60	102.691		
5,800.00	5,787.03	6,022.54	6,012.64	13.44	13.60	-154.75	263.21	-2,351.24	2,629.24	2,603.18	26.06	100.874		
5,900.00	5,886.59	6,122.54	6,112.18	13.70	13.85	-154.74	267.11	-2,342.50	2,629.23	2,602.70	26.53	99.117		
6,000.00	5,986.15	6,222.54	6,211.72	13.96	14.10	-154.73	271.01	-2,333.77	2,629.22	2,602.23	26.99	97.418		
6,100.00	6,085.71	6,322.54	6,311.27	14.22	14.35	-154.72	274.91	-2,325.03	2,629.20	2,601.75	27.45	95.774		
6,200.00	6,185.27	6,422.54	6,410.81	14.48	14.61	-154.71	278.80	-2,316.29	2,629.19	2,601.27	27.92	94.182		
6,300.00	6,284.83	6,522.53	6,510.35	14.74	14.86	-154.71	282.70	-2,307.55	2,629.17	2,600.79	28.38	92.640		
6,400.00	6,384.39	6,622.53	6,609.89	15.00	15.12	-154.70	286.60	-2,298.81	2,629.16	2,600.32	28.85	91.147		
6,500.00	6,483.95	6,722.53	6,709.43	15.26	15.37	-154.69	290.50	-2,290.07	2,629.15	2,599.84	29.31	89.699		
6,600.00	6,583.51	6,822.53	6,808.97	15.52	15.63	-154.68	294.39	-2,281.34	2,629.14	2,599.36	29.78	88.295		
6,700.00	6,683.06	6,922.53	6,908.51	15.78	15.88	-154.67	298.29	-2,272.60	2,629.12	2,598.88	30.24	86.932		
6,800.00	6,782.62	7,022.53	7,008.05	16.04	16.14	-154.66	302.19	-2,263.86	2,629.11	2,598.40	30.71	85.610		
6,900.00	6,882.18	7,122.53	7,107.59	16.31	16.39	-154.65	306.09	-2,255.12	2,629.10	2,597.92	31.18	84.326		
7,000.00	6,981.74	7,222.53	7,207.13	16.57	16.65	-154.64	309.99	-2,246.38	2,629.08	2,597.44	31.65	83.079		
7,100.00	7,081.30	7,322.53	7,306.67	16.83	16.91	-154.64	313.88	-2,237.64	2,629.07	2,596.96	32.11	81.867		
7,200.00	7,180.86	7,422.53	7,406.21	17.09	17.17	-154.63	317.78	-2,228.91	2,629.06	2,596.48	32.58	80.689		
7,300.00	7,280.42	7,522.53	7,505.75	17.36	17.43	-154.62	321.68	-2,220.17	2,629.04	2,595.99	33.05	79.544		
7,400.00	7,379.98	7,622.53	7,605.29	17.62	17.68	-154.61	325.58	-2,211.43	2,629.03	2,595.51	33.52	78.430		
7,500.00	7,479.54	7,722.53	7,704.83	17.88	17.94	-154.60	329.47	-2,202.69	2,629.02	2,595.03	33.99	77.346		
7,600.00	7,579.10	7,822.52	7,804.37	18.15	18.20	-154.59	333.37	-2,193.95	2,629.01	2,594.55	34.46	76.290		
7,700.00	7,678.66	7,922.52	7,903.91	18.41	18.46	-154.58	337.27	-2,185.21	2,628.99	2,594.06	34.93	75.263		
7,800.00	7,778.21	8,022.52	8,003.45	18.67	18.72	-154.57	341.17	-2,176.48	2,628.98	2,593.58	35.40	74.262		
7,900.00	7,877.77	8,122.52	8,102.99	18.94	18.98	-154.57	345.07	-2,167.74	2,628.97	2,593.10	35.87	73.286		
8,000.00	7,977.33	8,222.52	8,202.53	19.20	19.24	-154.56	348.96	-2,159.00	2,628.96	2,592.61	36.34	72.336		
8,100.00	8,076.89	8,322.52	8,302.07	19.47	19.51	-154.55	352.86	-2,150.26	2,628.95	2,592.13	36.82	71.409		
8,200.00	8,176.45	8,422.52	8,401.61	19.73	19.77	-154.54	356.76	-2,141.52	2,628.93	2,591.65	37.29	70.505		
8,300.00	8,276.01	8,522.52	8,501.15	20.00	20.03	-154.53	360.66	-2,132.78	2,628.92	2,591.16	37.76	69.623		
8,400.00	8,375.57	8,622.52	8,600.69	20.26	20.29	-154.52	364.55	-2,124.05	2,628.91	2,590.68	38.23	68.763		
8,500.00	8,475.13	8,722.52	8,700.23	20.52	20.55	-154.51	368.45	-2,115.31	2,628.90	2,590.19	38.70	67.923		
8,600.00	8,574.69	8,822.52	8,799.78	20.79	20.81	-154.50	372.35	-2,106.57	2,628.88	2,589.71	39.18	67.103		
8,700.00	8,674.25	8,922.52	8,899.32	21.05	21.08	-154.50	376.25	-2,097.83	2,628.87	2,589.22	39.65	66.302		
8,800.00	8,773.81	9,022.51	8,998.86	21.32	21.34	-154.49	380.15	-2,089.09	2,628.86	2,588.74	40.12	65.520		
8,900.00	8,873.37	9,122.51	9,098.40	21.59	21.60	-154.48	384.04	-2,080.35	2,628.85	2,588.25	40.60	64.755		
9,000.00	8,972.92	9,222.51	9,197.94	21.85	21.87	-154.47	387.94	-2,071.62	2,628.84	2,587.77	41.07	64.008		
9,100.00	9,072.48	9,322.51	9,297.48	22.12	22.13	-154.46	391.84	-2,062.88	2,628.83	2,587.28	41.54	63.278		
9,200.00	9,172.04	9,422.51	9,397.02	22.38	22.39	-154.45	395.74	-2,054.14	2,628.81	2,586.80	42.02	62.564		
9,300.00	9,271.60	9,522.51	9,496.56	22.65	22.66	-154.44	399.63	-2,045.40	2,628.80	2,586.31	42.49	61.865		
9,400.00	9,371.16	9,622.51	9,596.10	22.91	22.92	-154.44	403.53	-2,036.66	2,628.79	2,585.82	42.97	61.182		
9,500.00	9,470.72	9,722.51	9,695.64	23.18	23.18	-154.43	407.43	-2,027.92	2,628.78	2,585.34	43.44	60.513		
9,600.00	9,570.28	9,822.51	9,795.18	23.45	23.45	-154.42	411.33	-2,019.19	2,628.77	2,584.85	43.92	59.859		
9,700.00	9,669.84	9,922.51	9,894.72	23.71	23.71	-154.41	415.23	-2,010.45	2,628.76	2,584.37	44.39	59.218		
9,800.00	9,769.40	10,022.51	9,994.26	23.98	23.98	-154.40	419.12	-2,001.71	2,628.75	2,583.88	44.87	58.591		
9,900.00	9,868.96	10,122.51	10,093.80	24.24	24.24	-154.39	423.02	-1,992.97	2,628.73	2,583.39	45.34	57.977		
10,000.00	9,968.52	10,222.51	10,193.34	24.51	24.51	-154.38	426.92	-1,984.23	2,628.72	2,582.91	45.82	57.375		
10,100.00	10,068.07	10,322.50	10,292.88	24.78	24.77	-154.37	430.82	-1,975.49	2,628.71	2,582.42	46.29	56.785		
10,200.00	10,167.63	10,422.50	10,392.42	25.04	25.04	-154.37	434.72	-1,966.76	2,628.70	2,581.93	46.77	56.208		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		Highside Toolface (°)	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor	
10,300.00	10,267.19	10,522.50	10,491.96	25.31	25.30	-154.36	438.61	-1,958.02	2,628.69	2,581.45	47.24	55.641	
10,400.00	10,366.75	10,622.50	10,591.50	25.58	25.57	-154.35	442.51	-1,949.28	2,628.68	2,580.96	47.72	55.086	
10,460.84	10,427.32	10,683.05	10,651.78	25.74	25.73	-154.34	444.87	-1,943.99	2,628.67	2,580.66	48.01	54.754	
10,500.00	10,466.31	10,700.00	10,668.65	25.84	25.77	-154.34	445.52	-1,942.53	2,628.79	2,580.64	48.15	54.599	
10,600.00	10,565.87	10,782.23	10,750.58	26.11	25.93	-154.34	448.39	-1,936.10	2,629.73	2,581.18	48.55	54.168	
10,700.00	10,665.43	10,853.33	10,821.48	26.38	26.07	-154.35	450.48	-1,931.41	2,631.80	2,582.87	48.93	53.792	
10,800.00	10,764.99	10,924.37	10,892.40	26.64	26.21	-154.37	452.21	-1,927.53	2,634.96	2,585.67	49.30	53.451	
10,900.00	10,864.55	11,000.00	10,967.95	26.91	26.35	-154.40	453.66	-1,924.27	2,639.23	2,589.56	49.67	53.134	
11,000.00	10,964.11	11,066.22	11,034.13	27.18	26.47	-154.44	454.60	-1,922.17	2,644.59	2,594.57	50.02	52.869	
11,098.90	11,062.57	11,136.21	11,104.10	27.44	26.59	-154.48	455.25	-1,920.71	2,650.97	2,600.60	50.37	52.629	
11,100.00	11,063.67	11,136.99	11,104.88	27.44	26.59	-154.49	455.26	-1,920.70	2,651.04	2,600.67	50.37	52.627	
11,200.00	11,163.30	11,207.68	11,175.56	27.64	26.71	-154.56	455.56	-1,920.03	2,657.79	2,607.12	50.67	52.449	
11,300.00	11,263.07	11,297.39	11,265.27	27.84	26.87	-154.64	455.58	-1,919.98	2,663.83	2,612.81	51.02	52.210	
11,400.00	11,362.95	11,397.26	11,365.15	28.02	27.07	-154.71	455.58	-1,919.98	2,668.36	2,616.95	51.41	51.903	
11,500.00	11,462.89	11,497.21	11,465.09	28.20	27.27	-154.75	455.58	-1,919.98	2,671.31	2,619.51	51.80	51.573	
11,600.00	11,562.88	11,597.20	11,565.08	28.38	27.47	-154.77	455.58	-1,919.98	2,672.69	2,620.51	52.18	51.221	
11,637.12	11,600.00	11,634.32	11,602.20	28.42	27.55	-86.68	455.58	-1,919.98	2,672.79	2,620.47	52.32	51.083	
11,700.00	11,662.88	11,697.20	11,665.08	28.54	27.68	-86.68	455.58	-1,919.98	2,672.79	2,620.22	52.58	50.837	
11,800.00	11,762.88	11,797.20	11,765.08	28.73	27.88	-86.68	455.58	-1,919.98	2,672.79	2,619.80	52.99	50.438	
11,900.00	11,862.88	11,897.20	11,865.08	28.92	28.08	-86.68	455.58	-1,919.98	2,672.79	2,619.39	53.41	50.045	
12,000.00	11,962.88	11,997.20	11,965.08	29.12	28.28	-86.68	455.58	-1,919.98	2,672.79	2,618.97	53.82	49.657	
12,100.00	12,062.88	12,097.20	12,065.08	29.31	28.48	-86.68	455.58	-1,919.98	2,672.79	2,618.55	54.24	49.275	
12,148.16	12,111.04	12,145.36	12,113.24	29.41	28.58	-86.68	455.58	-1,919.98	2,672.79	2,618.35	54.44	49.093	
12,150.00	12,112.88	12,147.20	12,115.08	29.41	28.58	93.32	455.58	-1,919.98	2,672.79	2,618.34	54.45	49.086	
12,200.00	12,162.81	12,197.13	12,165.01	29.49	28.69	93.35	455.58	-1,919.98	2,672.93	2,618.29	54.64	48.917	
12,250.00	12,212.34	12,246.66	12,214.54	29.56	28.79	93.45	455.58	-1,919.98	2,673.33	2,618.51	54.82	48.761	
12,300.00	12,261.11	12,295.43	12,263.31	29.62	28.89	93.61	455.58	-1,919.98	2,674.03	2,619.03	55.00	48.620	
12,350.00	12,308.73	12,343.05	12,310.93	29.67	28.98	93.82	455.58	-1,919.98	2,675.06	2,619.90	55.16	48.494	
12,400.00	12,354.85	12,415.21	12,382.90	29.71	29.10	94.20	451.06	-1,919.98	2,676.27	2,620.93	55.34	48.380	
12,450.00	12,399.11	12,491.56	12,457.79	29.75	29.20	94.56	436.47	-1,919.98	2,677.42	2,621.93	55.48	48.257	
12,500.00	12,441.18	12,571.89	12,533.74	29.77	29.28	94.87	410.53	-1,919.98	2,678.43	2,622.84	55.59	48.185	
12,550.00	12,480.74	12,655.78	12,608.38	29.80	29.35	95.11	372.39	-1,919.98	2,679.25	2,623.59	55.66	48.138	
12,600.00	12,517.48	12,742.47	12,678.80	29.82	29.40	95.29	321.98	-1,919.98	2,679.81	2,624.10	55.71	48.101	
12,650.00	12,551.13	12,830.90	12,741.98	29.83	29.44	95.37	260.21	-1,919.98	2,680.08	2,624.31	55.77	48.055	
12,700.00	12,581.43	12,919.83	12,795.16	29.85	29.48	95.35	189.06	-1,919.98	2,680.04	2,624.18	55.86	47.978	
12,750.00	12,608.15	13,007.90	12,836.37	29.87	29.54	95.25	111.32	-1,919.98	2,679.68	2,623.67	56.01	47.844	
12,800.00	12,631.09	13,093.91	12,864.67	29.90	29.62	95.05	30.19	-1,919.98	2,679.04	2,622.82	56.22	47.651	
12,850.00	12,650.07	13,176.87	12,880.17	29.93	29.75	94.79	-51.24	-1,919.98	2,678.17	2,621.66	56.51	47.395	
12,900.00	12,664.95	13,251.22	12,884.00	29.98	29.92	94.49	-125.44	-1,919.98	2,677.12	2,620.29	56.83	47.106	
12,950.00	12,675.61	13,300.06	12,884.00	30.05	30.05	94.35	-174.28	-1,919.98	2,676.27	2,619.17	57.10	46.868	
13,000.00	12,681.98	13,349.63	12,884.00	30.13	30.22	94.27	-223.85	-1,919.98	2,675.79	2,618.37	57.43	46.596	
13,048.16	12,684.00	13,397.74	12,884.00	30.24	30.40	94.24	-271.96	-1,919.98	2,675.64	2,617.89	57.75	46.330	
13,100.00	12,684.00	13,449.58	12,884.00	30.37	30.62	94.24	-323.80	-1,919.98	2,675.64	2,617.48	58.17	46.000	
13,200.00	12,684.00	13,549.58	12,884.00	30.70	31.10	94.24	-423.80	-1,919.98	2,675.64	2,616.57	59.08	45.292	
13,300.00	12,684.00	13,649.58	12,884.00	31.12	31.67	94.24	-523.80	-1,919.98	2,675.64	2,615.49	60.15	44.485	
13,400.00	12,684.00	13,749.58	12,884.00	31.62	32.32	94.24	-623.80	-1,919.98	2,675.64	2,614.27	61.37	43.595	
13,500.00	12,684.00	13,849.58	12,884.00	32.21	33.03	94.24	-723.80	-1,919.98	2,675.64	2,612.89	62.75	42.642	
13,600.00	12,684.00	13,949.58	12,884.00	32.87	33.81	94.24	-823.80	-1,919.98	2,675.64	2,611.39	64.26	41.640	
13,700.00	12,684.00	14,049.58	12,884.00	33.59	34.65	94.24	-923.80	-1,919.98	2,675.64	2,609.75	65.89	40.606	
13,800.00	12,684.00	14,149.58	12,884.00	34.38	35.55	94.24	-1,023.80	-1,919.98	2,675.64	2,608.00	67.65	39.554	
13,900.00	12,684.00	14,249.58	12,884.00	35.23	36.49	94.24	-1,123.80	-1,919.98	2,675.64	2,606.13	69.51	38.494	
14,000.00	12,684.00	14,349.58	12,884.00	36.14	37.49	94.24	-1,223.80	-1,919.98	2,675.64	2,604.17	71.47	37.436	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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)						
14,100.00	12,684.00	14,449.58	12,884.00	37.10	38.53	94.24	-1,323.80	-1,919.98	2,675.64	2,602.11	73.53	36.389		
14,200.00	12,684.00	14,549.58	12,884.00	38.10	39.60	94.24	-1,423.80	-1,919.98	2,675.64	2,599.97	75.67	35.360		
14,300.00	12,684.00	14,649.58	12,884.00	39.14	40.72	94.24	-1,523.80	-1,919.98	2,675.64	2,597.75	77.89	34.353		
14,400.00	12,684.00	14,749.58	12,884.00	40.23	41.87	94.24	-1,623.80	-1,919.98	2,675.64	2,595.46	80.18	33.372		
14,500.00	12,684.00	14,849.58	12,884.00	41.35	43.05	94.24	-1,723.80	-1,919.98	2,675.64	2,593.11	82.53	32.419		
14,600.00	12,684.00	14,949.58	12,884.00	42.50	44.26	94.24	-1,823.80	-1,919.98	2,675.64	2,590.69	84.95	31.497		
14,700.00	12,684.00	15,049.58	12,884.00	43.68	45.49	94.24	-1,923.80	-1,919.98	2,675.64	2,588.22	87.42	30.607		
14,800.00	12,684.00	15,149.58	12,884.00	44.90	46.75	94.24	-2,023.80	-1,919.98	2,675.64	2,585.70	89.94	29.749		
14,900.00	12,684.00	15,249.58	12,884.00	46.13	48.04	94.24	-2,123.80	-1,919.98	2,675.64	2,583.13	92.51	28.924		
15,000.00	12,684.00	15,349.58	12,884.00	47.40	49.34	94.24	-2,223.80	-1,919.98	2,675.64	2,580.52	95.12	28.130		
15,100.00	12,684.00	15,449.58	12,884.00	48.68	50.66	94.24	-2,323.80	-1,919.98	2,675.64	2,577.88	97.77	27.368		
15,200.00	12,684.00	15,549.58	12,884.00	49.99	52.00	94.24	-2,423.80	-1,919.98	2,675.64	2,575.19	100.45	26.636		
15,300.00	12,684.00	15,649.58	12,884.00	51.31	53.36	94.24	-2,523.80	-1,919.98	2,675.64	2,572.47	103.17	25.934		
15,400.00	12,684.00	15,749.58	12,884.00	52.65	54.73	94.24	-2,623.80	-1,919.98	2,675.64	2,569.72	105.92	25.261		
15,500.00	12,684.00	15,849.58	12,884.00	54.01	56.12	94.24	-2,723.80	-1,919.98	2,675.64	2,566.94	108.70	24.616		
15,600.00	12,684.00	15,949.58	12,884.00	55.38	57.52	94.24	-2,823.80	-1,919.98	2,675.64	2,564.14	111.50	23.997		
15,700.00	12,684.00	16,049.58	12,884.00	56.77	58.93	94.24	-2,923.80	-1,919.98	2,675.64	2,561.31	114.33	23.403		
15,800.00	12,684.00	16,149.58	12,884.00	58.17	60.35	94.24	-3,023.80	-1,919.98	2,675.64	2,558.46	117.18	22.834		
15,900.00	12,684.00	16,249.58	12,884.00	59.58	61.78	94.24	-3,123.80	-1,919.98	2,675.64	2,555.59	120.05	22.287		
16,000.00	12,684.00	16,349.58	12,884.00	61.00	63.23	94.24	-3,223.80	-1,919.98	2,675.64	2,552.70	122.94	21.763		
16,100.00	12,684.00	16,449.58	12,884.00	62.43	64.68	94.24	-3,323.80	-1,919.98	2,675.64	2,549.79	125.85	21.260		
16,200.00	12,684.00	16,549.58	12,884.00	63.87	66.14	94.24	-3,423.80	-1,919.98	2,675.64	2,546.86	128.78	20.777		
16,300.00	12,684.00	16,649.58	12,884.00	65.32	67.61	94.24	-3,523.80	-1,919.98	2,675.64	2,543.92	131.72	20.313		
16,400.00	12,684.00	16,749.58	12,884.00	66.78	69.08	94.24	-3,623.80	-1,919.98	2,675.64	2,540.96	134.68	19.867		
16,500.00	12,684.00	16,849.58	12,884.00	68.25	70.57	94.24	-3,723.80	-1,919.98	2,675.64	2,537.99	137.65	19.438		
16,600.00	12,684.00	16,949.58	12,884.00	69.73	72.06	94.24	-3,823.80	-1,919.98	2,675.64	2,535.01	140.63	19.026		
16,700.00	12,684.00	17,049.58	12,884.00	71.21	73.55	94.24	-3,923.80	-1,919.98	2,675.64	2,532.01	143.63	18.629		
16,800.00	12,684.00	17,149.58	12,884.00	72.70	75.05	94.24	-4,023.80	-1,919.98	2,675.64	2,529.01	146.63	18.247		
16,900.00	12,684.00	17,249.58	12,884.00	74.19	76.56	94.24	-4,123.80	-1,919.98	2,675.64	2,525.99	149.65	17.879		
17,000.00	12,684.00	17,349.58	12,884.00	75.69	78.07	94.24	-4,223.80	-1,919.98	2,675.64	2,522.96	152.68	17.524		
17,100.00	12,684.00	17,449.58	12,884.00	77.20	79.59	94.24	-4,323.80	-1,919.98	2,675.64	2,519.92	155.72	17.183		
17,200.00	12,684.00	17,549.58	12,884.00	78.71	81.11	94.24	-4,423.80	-1,919.98	2,675.64	2,516.88	158.76	16.853		
17,300.00	12,684.00	17,649.58	12,884.00	80.22	82.63	94.24	-4,523.80	-1,919.98	2,675.64	2,513.82	161.82	16.535		
17,400.00	12,684.00	17,749.58	12,884.00	81.74	84.16	94.24	-4,623.80	-1,919.98	2,675.64	2,510.76	164.88	16.228		
17,500.00	12,684.00	17,849.58	12,884.00	83.27	85.70	94.24	-4,723.80	-1,919.98	2,675.64	2,507.69	167.95	15.931		
17,600.00	12,684.00	17,949.58	12,884.00	84.80	87.23	94.24	-4,823.80	-1,919.98	2,675.64	2,504.61	171.03	15.645		
17,700.00	12,684.00	18,049.58	12,884.00	86.33	88.77	94.24	-4,923.80	-1,919.98	2,675.64	2,501.53	174.11	15.367		
17,800.00	12,684.00	18,149.58	12,884.00	87.87	90.32	94.24	-5,023.80	-1,919.98	2,675.64	2,498.44	177.20	15.099		
17,900.00	12,684.00	18,249.58	12,884.00	89.41	91.86	94.24	-5,123.80	-1,919.98	2,675.64	2,495.34	180.30	14.840		
18,000.00	12,684.00	18,349.58	12,884.00	90.95	93.41	94.24	-5,223.80	-1,919.98	2,675.64	2,492.24	183.40	14.589		
18,100.00	12,684.00	18,449.58	12,884.00	92.50	94.97	94.24	-5,323.80	-1,919.98	2,675.64	2,489.13	186.51	14.346		
18,200.00	12,684.00	18,549.58	12,884.00	94.04	96.52	94.24	-5,423.80	-1,919.98	2,675.64	2,486.02	189.62	14.111		
18,300.00	12,684.00	18,649.58	12,884.00	95.60	98.08	94.24	-5,523.80	-1,919.98	2,675.64	2,482.90	192.74	13.882		
18,400.00	12,684.00	18,749.58	12,884.00	97.15	99.64	94.24	-5,623.80	-1,919.98	2,675.64	2,479.78	195.86	13.661		
18,500.00	12,684.00	18,849.58	12,884.00	98.71	101.20	94.24	-5,723.80	-1,919.98	2,675.64	2,476.66	198.99	13.446		
18,600.00	12,684.00	18,949.58	12,884.00	100.27	102.77	94.24	-5,823.80	-1,919.98	2,675.64	2,473.52	202.12	13.236		
18,700.00	12,684.00	19,049.58	12,884.00	101.83	104.34	94.24	-5,923.80	-1,919.98	2,675.64	2,470.39	205.25	13.036		
18,800.00	12,684.00	19,149.58	12,884.00	103.39	105.91	94.24	-6,023.80	-1,919.98	2,675.64	2,467.25	208.39	12.840		
18,900.00	12,684.00	19,249.58	12,884.00	104.96	107.48	94.24	-6,123.80	-1,919.98	2,675.64	2,464.11	211.53	12.649		
19,000.00	12,684.00	19,349.58	12,884.00	106.53	109.05	94.24	-6,223.80	-1,919.98	2,675.64	2,460.96	214.68	12.463		
19,100.00	12,684.00	19,449.58	12,884.00	108.10	110.62	94.24	-6,323.80	-1,919.98	2,675.64	2,457.81	217.83	12.283		
19,200.00	12,684.00	19,549.58	12,884.00	109.67	112.20	94.24	-6,423.80	-1,919.98	2,675.64	2,454.66	220.98	12.108		

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
19,300.00	12,684.00	19,649.58	12,884.00	111.25	113.78	94.24	-6,523.80	-1,919.98	2,675.64	2,451.50	224.14	11.937			
19,400.00	12,684.00	19,749.58	12,884.00	112.82	115.36	94.24	-6,623.80	-1,919.98	2,675.64	2,448.34	227.30	11.772			
19,500.00	12,684.00	19,849.58	12,884.00	114.40	116.94	94.24	-6,723.80	-1,919.98	2,675.64	2,445.18	230.46	11.610			
19,600.00	12,684.00	19,949.58	12,884.00	115.98	118.52	94.24	-6,823.80	-1,919.98	2,675.64	2,442.02	233.62	11.453			
19,700.00	12,684.00	20,049.58	12,884.00	117.56	120.11	94.24	-6,923.80	-1,919.98	2,675.64	2,438.85	236.79	11.300			
19,800.00	12,684.00	20,149.58	12,884.00	119.14	121.69	94.24	-7,023.80	-1,919.98	2,675.64	2,435.68	239.96	11.150			
19,900.00	12,684.00	20,249.58	12,884.00	120.72	123.28	94.24	-7,123.80	-1,919.98	2,675.64	2,432.51	243.13	11.005			
20,000.00	12,684.00	20,349.58	12,884.00	122.31	124.87	94.24	-7,223.80	-1,919.98	2,675.64	2,429.33	246.31	10.863			
20,100.00	12,684.00	20,449.58	12,884.00	123.89	126.45	94.24	-7,323.80	-1,919.98	2,675.64	2,426.16	249.48	10.725			
20,200.00	12,684.00	20,549.58	12,884.00	125.48	128.05	94.24	-7,423.80	-1,919.98	2,675.64	2,422.98	252.66	10.590			
20,300.00	12,684.00	20,649.58	12,884.00	127.07	129.64	94.24	-7,523.80	-1,919.98	2,675.64	2,419.80	255.84	10.458			
20,400.00	12,684.00	20,749.58	12,884.00	128.66	131.23	94.24	-7,623.80	-1,919.98	2,675.64	2,416.61	259.03	10.330			
20,500.00	12,684.00	20,849.58	12,884.00	130.25	132.82	94.24	-7,723.80	-1,919.98	2,675.64	2,413.43	262.21	10.204			
20,600.00	12,684.00	20,949.58	12,884.00	131.84	134.42	94.24	-7,823.80	-1,919.98	2,675.64	2,410.24	265.40	10.082			
20,700.00	12,684.00	21,049.58	12,884.00	133.43	136.01	94.24	-7,923.80	-1,919.98	2,675.64	2,407.05	268.59	9.962			
20,800.00	12,684.00	21,149.58	12,884.00	135.03	137.61	94.24	-8,023.80	-1,919.98	2,675.64	2,403.86	271.78	9.845			
20,900.00	12,684.00	21,249.58	12,884.00	136.62	139.20	94.24	-8,123.80	-1,919.98	2,675.64	2,400.67	274.97	9.731			
21,000.00	12,684.00	21,349.58	12,884.00	138.22	140.80	94.24	-8,223.80	-1,919.98	2,675.64	2,397.48	278.16	9.619			
21,100.00	12,684.00	21,449.58	12,884.00	139.82	142.40	94.24	-8,323.80	-1,919.98	2,675.64	2,394.28	281.36	9.510			
21,200.00	12,684.00	21,549.58	12,884.00	141.41	144.00	94.24	-8,423.80	-1,919.98	2,675.64	2,391.09	284.56	9.403			
21,300.00	12,684.00	21,649.58	12,884.00	143.01	145.60	94.24	-8,523.80	-1,919.98	2,675.64	2,387.89	287.75	9.298			
21,400.00	12,684.00	21,749.58	12,884.00	144.61	147.20	94.24	-8,623.80	-1,919.98	2,675.64	2,384.69	290.95	9.196			
21,500.00	12,684.00	21,849.58	12,884.00	146.21	148.80	94.24	-8,723.80	-1,919.98	2,675.64	2,381.49	294.15	9.096			
21,600.00	12,684.00	21,949.58	12,884.00	147.81	150.41	94.24	-8,823.80	-1,919.98	2,675.64	2,378.28	297.36	8.998			
21,700.00	12,684.00	22,049.58	12,884.00	149.41	152.01	94.24	-8,923.80	-1,919.98	2,675.64	2,375.08	300.56	8.902			
21,800.00	12,684.00	22,149.58	12,884.00	151.01	153.61	94.24	-9,023.80	-1,919.98	2,675.64	2,371.88	303.77	8.808			
21,900.00	12,684.00	22,249.58	12,884.00	152.62	155.22	94.24	-9,123.80	-1,919.98	2,675.64	2,368.67	306.97	8.716			
22,000.00	12,684.00	22,349.58	12,884.00	154.22	156.82	94.24	-9,223.80	-1,919.98	2,675.64	2,365.46	310.18	8.626			
22,100.00	12,684.00	22,449.58	12,884.00	155.82	158.43	94.24	-9,323.80	-1,919.98	2,675.64	2,362.25	313.39	8.538			
22,200.00	12,684.00	22,549.58	12,884.00	157.43	160.04	94.24	-9,423.80	-1,919.98	2,675.64	2,359.05	316.60	8.451			
22,300.00	12,684.00	22,649.58	12,884.00	159.03	161.64	94.24	-9,523.80	-1,919.98	2,675.64	2,355.84	319.81	8.366			
22,400.00	12,684.00	22,749.58	12,884.00	160.64	163.25	94.24	-9,623.80	-1,919.98	2,675.64	2,352.62	323.02	8.283			
22,473.03	12,684.00	22,822.61	12,884.00	161.81	164.42	94.24	-9,696.83	-1,919.98	2,675.64	2,350.28	325.36	8.224 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 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	-90.00	0.00	-29.99	29.99					
100.00	100.00	99.60	99.60	0.08	0.08	-90.00	0.00	-29.99	29.99	29.82	0.17	178.260		
200.00	200.00	199.60	199.60	0.31	0.31	-90.00	0.00	-29.99	29.99	29.37	0.62	48.590		
300.00	300.00	299.60	299.60	0.53	0.53	-90.00	0.00	-29.99	29.99	28.92	1.07	28.114		
400.00	400.00	399.60	399.60	0.76	0.76	-90.00	0.00	-29.99	29.99	28.47	1.52	19.779		
500.00	500.00	499.60	499.60	0.98	0.98	-90.00	0.00	-29.99	29.99	28.02	1.97	15.256		
600.00	600.00	599.60	599.60	1.21	1.21	-90.00	0.00	-29.99	29.99	27.57	2.42	12.416		
700.00	700.00	699.60	699.60	1.43	1.43	-90.00	0.00	-29.99	29.99	27.13	2.86	10.468		
800.00	800.00	799.60	799.60	1.66	1.66	-90.00	0.00	-29.99	29.99	26.68	3.31	9.048		
900.00	900.00	899.60	899.60	1.88	1.88	-90.00	0.00	-29.99	29.99	26.23	3.76	7.968		
1,000.00	1,000.00	999.60	999.60	2.11	2.11	-90.00	0.00	-29.99	29.99	25.78	4.21	7.118		
1,100.00	1,100.00	1,099.60	1,099.60	2.33	2.33	-90.00	0.00	-29.99	29.99	25.33	4.66	6.431		
1,200.00	1,200.00	1,199.60	1,199.60	2.56	2.56	-90.00	0.00	-29.99	29.99	24.88	5.11	5.866		
1,300.00	1,300.00	1,299.60	1,299.60	2.78	2.78	-90.00	0.00	-29.99	29.99	24.43	5.56	5.392		
1,400.00	1,400.00	1,399.60	1,399.60	3.01	3.01	-90.00	0.00	-29.99	29.99	23.98	6.01	4.989		
1,500.00	1,500.00	1,499.60	1,499.60	3.23	3.23	-90.00	0.00	-29.99	29.99	23.53	6.46	4.642		
1,600.00	1,600.00	1,599.60	1,599.60	3.46	3.46	-90.00	0.00	-29.99	29.99	23.08	6.91	4.340		
1,700.00	1,700.00	1,699.60	1,699.60	3.68	3.68	-90.00	0.00	-29.99	29.99	22.63	7.36	4.075		
1,800.00	1,800.00	1,799.60	1,799.60	3.91	3.90	-90.00	0.00	-29.99	29.99	22.18	7.81	3.840		
1,900.00	1,900.00	1,899.60	1,899.60	4.13	4.13	-90.00	0.00	-29.99	29.99	21.73	8.26	3.631		
2,000.00	2,000.00	1,999.60	1,999.60	4.35	4.35	-90.00	0.00	-29.99	29.99	21.28	8.71	3.444		
2,100.00	2,100.00	2,099.60	2,099.60	4.58	4.58	-90.00	0.00	-29.99	29.99	20.83	9.16	3.275		
2,200.00	2,200.00	2,199.60	2,199.60	4.80	4.80	-90.00	0.00	-29.99	29.99	20.38	9.61	3.121		
2,300.00	2,300.00	2,299.60	2,299.60	5.03	5.03	-90.00	0.00	-29.99	29.99	19.93	10.06	2.982		
2,400.00	2,400.00	2,399.60	2,399.60	5.25	5.25	-90.00	0.00	-29.99	29.99	19.48	10.51	2.854		
2,500.00	2,500.00	2,499.60	2,499.60	5.48	5.48	-90.00	0.00	-29.99	29.99	19.03	10.96	2.737 CC, ES		
2,600.00	2,599.99	2,599.59	2,599.59	5.69	5.70	-158.69	0.00	-29.99	30.80	19.40	11.40	2.703		
2,700.00	2,699.96	2,699.56	2,699.56	5.90	5.93	-160.32	0.00	-29.99	33.25	21.42	11.83	2.811		
2,800.00	2,799.86	2,799.46	2,799.46	6.11	6.15	-162.56	0.00	-29.99	37.39	25.13	12.26	3.049		
2,900.00	2,899.68	2,899.28	2,899.28	6.33	6.38	-164.97	0.00	-29.99	43.25	30.56	12.70	3.407		
3,000.00	2,999.37	2,998.97	2,998.97	6.55	6.60	-167.24	0.00	-29.99	50.87	37.74	13.13	3.874		
3,038.22	3,037.43	3,037.03	3,037.03	6.63	6.69	-168.04	0.00	-29.99	54.25	40.95	13.30	4.079		
3,100.00	3,098.94	3,098.54	3,098.54	6.77	6.82	-169.19	0.00	-29.99	59.93	46.36	13.57	4.417		
3,200.00	3,198.50	3,198.10	3,198.10	6.99	7.05	-170.65	0.00	-29.99	69.17	55.16	14.01	4.939		
3,300.00	3,298.05	3,297.65	3,297.65	7.22	7.27	-171.76	0.00	-29.99	78.44	64.00	14.44	5.431		
3,400.00	3,397.61	3,397.21	3,397.21	7.45	7.50	-172.64	0.00	-29.99	87.74	72.85	14.88	5.895		
3,500.00	3,497.17	3,496.77	3,496.77	7.69	7.72	-173.35	0.00	-29.99	97.05	81.72	15.32	6.333		
3,600.00	3,596.73	3,596.33	3,596.33	7.92	7.94	-173.83	0.42	-29.26	105.57	89.81	15.76	6.698		
3,700.00	3,696.29	3,695.89	3,695.89	8.16	8.16	-174.02	1.75	-26.98	112.39	96.20	16.19	6.942		
3,800.00	3,795.85	3,801.58	3,801.44	8.40	8.37	-173.98	3.98	-23.12	117.49	100.87	16.62	7.071		
3,900.00	3,895.41	3,903.58	3,903.25	8.64	8.59	-173.72	7.12	-17.70	120.86	103.82	17.04	7.093		
4,000.00	3,994.97	4,005.66	4,005.01	8.89	8.82	-173.27	11.18	-10.70	122.52	105.06	17.46	7.017		
4,100.00	4,094.53	4,107.76	4,106.62	9.13	9.04	-172.60	16.15	-2.13	122.47	104.59	17.88	6.851		
4,200.00	4,194.09	4,209.06	4,207.26	9.38	9.27	-171.71	21.91	7.82	120.83	102.53	18.30	6.603		
4,300.00	4,293.65	4,309.02	4,306.54	9.63	9.50	-170.77	27.78	17.96	118.88	100.14	18.74	6.344		
4,400.00	4,393.20	4,408.98	4,405.81	9.87	9.73	-169.78	33.65	28.09	116.97	97.79	19.18	6.097		
4,500.00	4,492.76	4,508.94	4,505.08	10.12	9.97	-168.77	39.52	38.22	115.09	95.46	19.63	5.863		
4,600.00	4,592.32	4,608.90	4,604.36	10.37	10.21	-167.73	45.39	48.35	113.25	93.17	20.08	5.641		
4,700.00	4,691.88	4,708.87	4,703.63	10.63	10.45	-166.64	51.26	58.48	111.44	90.92	20.53	5.429		
4,800.00	4,791.44	4,808.83	4,802.90	10.88	10.69	-165.53	57.13	68.61	109.68	88.70	20.98	5.228		
4,900.00	4,891.00	4,908.79	4,902.18	11.13	10.94	-164.38	63.01	78.74	107.96	86.52	21.44	5.036		
5,000.00	4,990.56	5,008.75	5,001.45	11.39	11.19	-163.19	68.88	88.88	106.29	84.39	21.90	4.854		

CC - Min centre to center distance or coverage 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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 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)					
5,100.00	5,090.12	5,108.71	5,100.72	11.64	11.44	-161.96	74.75	99.01	104.66	82.30	22.36	4.681			
5,200.00	5,189.68	5,208.67	5,200.00	11.90	11.69	-160.70	80.62	109.14	103.08	80.26	22.82	4.516			
5,300.00	5,289.24	5,308.63	5,299.27	12.15	11.95	-159.40	86.49	119.27	101.55	78.26	23.29	4.359			
5,400.00	5,388.80	5,408.59	5,398.54	12.41	12.20	-158.05	92.36	129.40	100.08	76.31	23.77	4.211			
5,500.00	5,488.36	5,508.56	5,497.81	12.66	12.46	-156.67	98.23	139.53	98.67	74.42	24.25	4.069			
5,600.00	5,587.91	5,608.52	5,597.09	12.92	12.72	-155.25	104.10	149.66	97.31	72.58	24.73	3.935			
5,700.00	5,687.47	5,708.48	5,696.36	13.18	12.98	-153.79	109.97	159.80	96.01	70.79	25.22	3.807			
5,800.00	5,787.03	5,808.44	5,795.63	13.44	13.24	-152.30	115.84	169.93	94.78	69.07	25.71	3.686			
5,900.00	5,886.59	5,908.40	5,894.91	13.70	13.51	-150.76	121.71	180.06	93.62	67.40	26.21	3.571			
6,000.00	5,986.15	6,008.36	5,994.18	13.96	13.77	-149.18	127.58	190.19	92.52	65.80	26.72	3.463			
6,100.00	6,085.71	6,108.32	6,093.45	14.22	14.03	-147.57	133.45	200.32	91.50	64.27	27.23	3.360			
6,200.00	6,185.27	6,208.28	6,192.73	14.48	14.30	-145.93	139.32	210.45	90.55	62.80	27.75	3.263			
6,300.00	6,284.83	6,308.25	6,292.00	14.74	14.57	-144.25	145.19	220.58	89.67	61.40	28.27	3.172			
6,400.00	6,384.39	6,408.21	6,391.27	15.00	14.84	-142.54	151.06	230.71	88.88	60.08	28.80	3.086			
6,500.00	6,483.95	6,508.17	6,490.55	15.26	15.11	-140.80	156.93	240.85	88.16	58.83	29.34	3.005			
6,600.00	6,583.51	6,608.13	6,589.82	15.52	15.38	-139.03	162.81	250.98	87.53	57.65	29.88	2.929			
6,700.00	6,683.06	6,708.09	6,689.09	15.78	15.65	-137.24	168.68	261.11	86.98	56.55	30.43	2.858			
6,800.00	6,782.62	6,808.05	6,788.37	16.04	15.92	-135.43	174.55	271.24	86.52	55.54	30.99	2.792			
6,900.00	6,882.18	6,908.01	6,887.64	16.31	16.19	-133.60	180.42	281.37	86.15	54.60	31.55	2.731			
7,000.00	6,981.74	7,007.98	6,986.91	16.57	16.46	-131.76	186.29	291.50	85.86	53.75	32.12	2.674			
7,100.00	7,081.30	7,107.94	7,086.18	16.83	16.74	-129.90	192.16	301.63	85.67	52.98	32.69	2.621			
7,200.00	7,180.86	7,207.90	7,185.46	17.09	17.01	-128.04	198.03	311.77	85.56	52.29	33.27	2.572			
7,267.17	7,247.74	7,275.04	7,252.14	17.27	17.19	-126.79	201.97	318.57	85.54	51.88	33.66	2.542			
7,300.00	7,280.42	7,307.86	7,284.73	17.36	17.29	-126.18	203.90	321.90	85.54	51.70	33.85	2.527			
7,400.00	7,379.98	7,407.82	7,384.00	17.62	17.56	-124.32	209.77	332.03	85.62	51.19	34.43	2.487			
7,500.00	7,479.54	7,507.78	7,483.28	17.88	17.84	-122.46	215.64	342.16	85.78	50.76	35.02	2.450			
7,600.00	7,579.10	7,607.74	7,582.55	18.15	18.11	-120.61	221.51	352.29	86.04	50.43	35.61	2.416			
7,700.00	7,678.66	7,707.70	7,681.82	18.41	18.39	-118.78	227.38	362.42	86.38	50.18	36.20	2.386			
7,800.00	7,778.21	7,807.67	7,781.10	18.67	18.67	-116.96	233.25	372.55	86.81	50.02	36.80	2.359			
7,900.00	7,877.77	7,907.63	7,880.37	18.94	18.94	-115.16	239.12	382.69	87.33	49.94	37.39	2.336			
8,000.00	7,977.33	8,007.59	7,979.64	19.20	19.22	-113.39	244.99	392.82	87.94	49.95	37.98	2.315			
8,100.00	8,076.89	8,107.55	8,078.92	19.47	19.50	-111.64	250.86	402.95	88.62	50.05	38.57	2.297			
8,200.00	8,176.45	8,207.51	8,178.19	19.73	19.78	-109.92	256.73	413.08	89.39	50.23	39.17	2.282			
8,300.00	8,276.01	8,307.47	8,277.46	20.00	20.06	-108.23	262.61	423.21	90.24	50.48	39.76	2.270			
8,400.00	8,375.57	8,407.43	8,376.73	20.26	20.34	-106.57	268.48	433.34	91.16	50.82	40.34	2.260			
8,500.00	8,475.13	8,507.39	8,476.01	20.52	20.62	-104.95	274.35	443.47	92.16	51.24	40.93	2.252			
8,600.00	8,574.69	8,607.36	8,575.28	20.79	20.90	-103.36	280.22	453.61	93.23	51.73	41.51	2.246			
8,700.00	8,674.25	8,707.32	8,674.55	21.05	21.18	-101.81	286.09	463.74	94.37	52.29	42.09	2.242			
8,800.00	8,773.81	8,807.28	8,773.83	21.32	21.46	-100.30	291.96	473.87	95.58	52.92	42.66	2.240			
8,900.00	8,873.37	8,907.24	8,873.10	21.59	21.74	-98.83	297.83	484.00	96.86	53.62	43.23	2.240			
9,000.00	8,972.92	9,007.20	8,972.37	21.85	22.02	-97.39	303.70	494.13	98.19	54.39	43.80	2.242			
9,100.00	9,072.48	9,107.16	9,071.65	22.12	22.30	-96.00	309.57	504.26	99.59	55.22	44.37	2.245			
9,200.00	9,172.04	9,207.12	9,170.92	22.38	22.59	-94.64	315.44	514.39	101.04	56.11	44.93	2.249			
9,300.00	9,271.60	9,307.08	9,270.19	22.65	22.87	-93.33	321.31	524.52	102.55	57.06	45.49	2.255			
9,400.00	9,371.16	9,407.05	9,369.47	22.91	23.15	-92.05	327.18	534.66	104.11	58.07	46.04	2.261			
9,500.00	9,470.72	9,507.01	9,468.74	23.18	23.43	-90.81	333.05	544.79	105.72	59.13	46.59	2.269			
9,600.00	9,570.28	9,606.97	9,568.01	23.45	23.72	-89.61	338.92	554.92	107.38	60.24	47.14	2.278			
9,700.00	9,669.84	9,706.93	9,667.29	23.71	24.00	-88.45	344.79	565.05	109.08	61.40	47.68	2.288			
9,800.00	9,769.40	9,806.89	9,766.56	23.98	24.28	-87.32	350.66	575.18	110.83	62.61	48.22	2.298			
9,900.00	9,868.96	9,906.85	9,865.83	24.24	24.57	-86.22	356.53	585.31	112.62	63.86	48.76	2.310			
10,000.00	9,968.52	10,006.81	9,965.10	24.51	24.85	-85.17	362.41	595.44	114.45	65.15	49.30	2.322			
10,100.00	10,068.07	10,106.78	10,064.38	24.78	25.13	-84.14	368.28	605.58	116.32	66.49	49.83	2.334			

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		Hightside 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)						
10,200.00	10,167.63	10,206.74	10,163.65	25.04	25.42	-83.15	374.15	615.71	118.22	67.86	50.36	2.347		
10,300.00	10,267.19	10,306.70	10,262.92	25.31	25.70	-82.19	380.02	625.84	120.16	69.27	50.89	2.361		
10,400.00	10,366.75	10,406.66	10,362.20	25.58	25.99	-81.26	385.89	635.97	122.13	70.71	51.42	2.375		
10,500.00	10,466.31	10,506.62	10,461.47	25.84	26.27	-80.36	391.76	646.10	124.13	72.19	51.94	2.390		
10,600.00	10,565.87	10,606.58	10,560.74	26.11	26.55	-79.49	397.63	656.23	126.16	73.70	52.46	2.405		
10,700.00	10,665.43	10,706.54	10,660.02	26.38	26.84	-78.65	403.50	666.36	128.22	75.24	52.98	2.420		
10,800.00	10,764.99	10,806.50	10,759.29	26.64	27.12	-77.83	409.37	676.50	130.31	76.81	53.50	2.436		
10,900.00	10,864.55	10,906.47	10,858.56	26.91	27.41	-77.04	415.24	686.63	132.42	78.40	54.02	2.451		
11,000.00	10,964.11	11,006.43	10,957.84	27.18	27.69	-76.28	421.11	696.76	134.56	80.02	54.53	2.467		
11,098.90	11,062.57	11,105.29	11,056.02	27.44	27.98	-75.54	426.92	706.78	136.69	81.65	55.04	2.483		
11,100.00	11,063.67	11,106.39	11,057.11	27.44	27.98	-75.53	426.98	706.89	136.71	81.67	55.05	2.484		
11,200.00	11,163.30	11,206.60	11,156.64	27.64	28.26	-74.51	432.83	716.99	139.10	83.64	55.47	2.508		
11,300.00	11,263.07	11,307.54	11,257.04	27.84	28.47	-73.31	438.07	726.03	141.49	85.68	55.81	2.535		
11,400.00	11,362.95	11,408.55	11,357.67	28.02	28.68	-72.12	442.43	733.54	143.71	87.57	56.13	2.560		
11,500.00	11,462.89	11,509.63	11,458.51	28.20	28.88	-70.93	445.89	739.53	145.74	89.31	56.43	2.582		
11,600.00	11,562.88	11,610.78	11,559.53	28.36	29.07	-69.74	448.47	743.97	147.60	90.89	56.71	2.603		
11,637.12	11,600.00	11,648.34	11,597.06	28.42	29.13	-1.20	449.20	745.23	148.25	91.44	56.81	2.610		
11,700.00	11,662.88	11,712.00	11,660.69	28.54	29.24	-0.56	450.15	746.87	149.17	92.18	56.99	2.617		
11,800.00	11,762.88	11,813.30	11,761.98	28.73	29.41	-0.04	450.94	748.23	149.94	92.62	57.32	2.616		
11,900.00	11,862.88	11,913.80	11,862.48	28.92	29.58	0.01	451.00	748.34	150.00	92.32	57.68	2.600		
12,000.00	11,962.88	12,013.80	11,962.48	29.12	29.78	0.01	451.00	748.34	150.00	91.93	58.07	2.583		
12,100.00	12,062.88	12,113.80	12,062.48	29.31	29.97	0.01	451.00	748.34	150.00	91.53	58.47	2.566		
12,148.16	12,111.04	12,161.96	12,110.64	29.41	30.06	0.01	451.00	748.34	150.00	91.34	58.66	2.557		
12,150.00	12,112.88	12,163.80	12,112.48	29.41	30.07	180.00	451.00	748.34	150.00	91.34	58.66	2.557		
12,200.00	12,162.81	12,213.73	12,162.41	29.49	30.16	180.00	451.00	748.34	152.34	93.50	58.84	2.589		
12,250.00	12,212.34	12,263.26	12,211.94	29.56	30.26	180.00	451.00	748.34	159.03	100.00	59.02	2.694		
12,300.00	12,261.11	12,312.03	12,260.71	29.62	30.35	180.00	451.00	748.34	170.00	110.81	59.19	2.872		
12,350.00	12,308.73	12,359.65	12,308.33	29.67	30.44	180.00	451.00	748.34	185.19	125.83	59.36	3.120		
12,400.00	12,354.85	12,413.20	12,361.87	29.71	30.54	180.00	450.62	748.34	204.22	144.74	59.47	3.434		
12,450.00	12,399.11	12,487.19	12,435.43	29.75	30.64	180.00	443.17	748.34	222.90	163.79	59.11	3.771		
12,500.00	12,441.18	12,566.36	12,512.37	29.77	30.71	180.00	424.78	748.34	239.41	181.29	58.13	4.119		
12,550.00	12,480.74	12,650.69	12,590.71	29.80	30.75	180.00	393.74	748.34	253.29	196.82	56.47	4.486		
12,600.00	12,517.48	12,739.78	12,667.56	29.82	30.75	180.00	348.86	748.34	264.05	209.89	54.16	4.875		
12,650.00	12,551.13	12,832.71	12,739.30	29.83	30.73	180.00	289.95	748.34	271.28	219.92	51.37	5.281		
12,700.00	12,581.43	12,928.07	12,802.04	29.85	30.69	180.00	218.28	748.34	274.68	226.30	48.38	5.677		
12,750.00	12,608.15	13,024.09	12,852.33	29.87	30.63	180.00	136.62	748.34	274.08	228.44	45.63	6.006		
12,800.00	12,631.09	13,118.90	12,887.94	29.90	30.60	180.00	48.87	748.34	269.51	225.92	43.59	6.183		
12,850.00	12,650.07	13,210.80	12,908.20	29.93	30.59	180.00	-40.67	748.34	261.17	218.59	42.58	6.133		
12,900.00	12,664.95	13,295.85	12,914.00	29.98	30.64	180.00	-125.44	748.34	249.45	206.77	42.68	5.845		
12,950.00	12,675.61	13,344.68	12,914.00	30.05	30.69	180.00	-174.28	748.34	238.79	195.97	42.82	5.576		
13,000.00	12,681.98	13,394.26	12,914.00	30.13	30.77	180.00	-223.85	748.34	232.42	189.46	42.97	5.410		
13,048.16	12,684.00	13,442.36	12,914.00	30.24	30.86	180.00	-271.96	748.34	230.40	187.29	43.11	5.344		
13,100.00	12,684.00	13,494.20	12,914.00	30.37	31.00	180.00	-323.80	748.34	230.40	187.13	43.27	5.324		
13,200.00	12,684.00	13,594.20	12,914.00	30.70	31.33	180.00	-423.80	748.34	230.40	186.77	43.63	5.281		
13,300.00	12,684.00	13,694.20	12,914.00	31.12	31.75	180.00	-523.80	748.34	230.40	186.37	44.03	5.233		
13,400.00	12,684.00	13,794.20	12,914.00	31.62	32.26	180.00	-623.80	748.34	230.40	185.93	44.47	5.181		
13,500.00	12,684.00	13,894.20	12,914.00	32.21	32.86	180.00	-723.80	748.34	230.40	185.44	44.96	5.125		
13,600.00	12,684.00	13,994.20	12,914.00	32.87	33.53	180.00	-823.80	748.34	230.40	184.91	45.49	5.065		
13,700.00	12,684.00	14,094.20	12,914.00	33.59	34.26	180.00	-923.80	748.34	230.40	184.34	46.06	5.002		
13,800.00	12,684.00	14,194.20	12,914.00	34.38	35.07	180.00	-1,023.80	748.34	230.40	183.73	46.67	4.937		
13,900.00	12,684.00	14,294.20	12,914.00	35.23	35.92	180.00	-1,123.80	748.34	230.40	183.08	47.32	4.869		
14,000.00	12,684.00	14,394.20	12,914.00	36.14	36.84	180.00	-1,223.80	748.34	230.40	182.40	48.00	4.800		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 Toolface (°)	Offset Wellbore Centre		Distance				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)	Minimum Separation (usft)	Separation Factor	
14,100.00	12,684.00	14,494.20	12,914.00	37.10	37.80	180.00	-1,323.80	748.34	230.40	181.68	48.72	4.729	
14,200.00	12,684.00	14,594.20	12,914.00	38.10	38.80	180.00	-1,423.80	748.34	230.40	180.93	49.47	4.657	
14,300.00	12,684.00	14,694.20	12,914.00	39.14	39.85	180.00	-1,523.80	748.34	230.40	180.15	50.25	4.585	
14,400.00	12,684.00	14,794.20	12,914.00	40.23	40.94	180.00	-1,623.80	748.34	230.40	179.34	51.06	4.512	
14,500.00	12,684.00	14,894.20	12,914.00	41.35	42.06	180.00	-1,723.80	748.34	230.40	178.49	51.91	4.439	
14,600.00	12,684.00	14,994.20	12,914.00	42.50	43.21	180.00	-1,823.80	748.34	230.40	177.62	52.78	4.366	
14,700.00	12,684.00	15,094.20	12,914.00	43.68	44.39	180.00	-1,923.80	748.34	230.40	176.73	53.67	4.293	
14,800.00	12,684.00	15,194.20	12,914.00	44.90	45.61	180.00	-2,023.80	748.34	230.40	175.81	54.59	4.221	
14,900.00	12,684.00	15,294.20	12,914.00	46.13	46.84	180.00	-2,123.80	748.34	230.40	174.87	55.53	4.149	
15,000.00	12,684.00	15,394.20	12,914.00	47.40	48.10	180.00	-2,223.80	748.34	230.40	173.90	56.50	4.078	
15,100.00	12,684.00	15,494.20	12,914.00	48.68	49.39	180.00	-2,323.80	748.34	230.40	172.91	57.49	4.008	
15,200.00	12,684.00	15,594.20	12,914.00	49.99	50.69	180.00	-2,423.80	748.34	230.40	171.91	58.49	3.939	
15,300.00	12,684.00	15,694.20	12,914.00	51.31	52.01	180.00	-2,523.80	748.34	230.40	170.88	59.52	3.871	
15,400.00	12,684.00	15,794.20	12,914.00	52.65	53.35	180.00	-2,623.80	748.34	230.40	169.84	60.56	3.804	
15,500.00	12,684.00	15,894.20	12,914.00	54.01	54.71	180.00	-2,723.80	748.34	230.40	168.77	61.63	3.739	
15,600.00	12,684.00	15,994.20	12,914.00	55.38	56.08	180.00	-2,823.80	748.34	230.40	167.70	62.70	3.674	
15,700.00	12,684.00	16,094.20	12,914.00	56.77	57.46	180.00	-2,923.80	748.34	230.40	166.60	63.80	3.611	
15,800.00	12,684.00	16,194.20	12,914.00	58.17	58.85	180.00	-3,023.80	748.34	230.40	165.49	64.91	3.550	
15,900.00	12,684.00	16,294.20	12,914.00	59.58	60.26	180.00	-3,123.80	748.34	230.40	164.37	66.03	3.489	
16,000.00	12,684.00	16,394.20	12,914.00	61.00	61.68	180.00	-3,223.80	748.34	230.40	163.24	67.16	3.430	
16,100.00	12,684.00	16,494.20	12,914.00	62.43	63.11	180.00	-3,323.80	748.34	230.40	162.09	68.31	3.373	
16,200.00	12,684.00	16,594.20	12,914.00	63.87	64.55	180.00	-3,423.80	748.34	230.40	160.93	69.47	3.316	
16,300.00	12,684.00	16,694.20	12,914.00	65.32	66.00	180.00	-3,523.80	748.34	230.40	159.76	70.64	3.261	
16,400.00	12,684.00	16,794.20	12,914.00	66.78	67.46	180.00	-3,623.80	748.34	230.40	158.57	71.83	3.208	
16,500.00	12,684.00	16,894.20	12,914.00	68.25	68.92	180.00	-3,723.80	748.34	230.40	157.38	73.02	3.155	
16,600.00	12,684.00	16,994.20	12,914.00	69.73	70.39	180.00	-3,823.80	748.34	230.40	156.18	74.22	3.104	
16,700.00	12,684.00	17,094.20	12,914.00	71.21	71.87	180.00	-3,923.80	748.34	230.40	154.97	75.43	3.054	
16,800.00	12,684.00	17,194.20	12,914.00	72.70	73.36	180.00	-4,023.80	748.34	230.40	153.74	76.66	3.006	
16,900.00	12,684.00	17,294.20	12,914.00	74.19	74.85	180.00	-4,123.80	748.34	230.40	152.52	77.88	2.958	
17,000.00	12,684.00	17,394.20	12,914.00	75.69	76.35	180.00	-4,223.80	748.34	230.40	151.28	79.12	2.912	
17,100.00	12,684.00	17,494.20	12,914.00	77.20	77.85	180.00	-4,323.80	748.34	230.40	150.03	80.37	2.867	
17,200.00	12,684.00	17,594.20	12,914.00	78.71	79.36	180.00	-4,423.80	748.34	230.40	148.78	81.62	2.823	
17,300.00	12,684.00	17,694.20	12,914.00	80.22	80.87	180.00	-4,523.80	748.34	230.40	147.52	82.88	2.780	
17,400.00	12,684.00	17,794.20	12,914.00	81.74	82.39	180.00	-4,623.80	748.34	230.40	146.25	84.15	2.738	
17,500.00	12,684.00	17,894.20	12,914.00	83.27	83.91	180.00	-4,723.80	748.34	230.40	144.98	85.42	2.697	
17,600.00	12,684.00	17,994.20	12,914.00	84.80	85.44	180.00	-4,823.80	748.34	230.40	143.70	86.70	2.658	
17,700.00	12,684.00	18,094.20	12,914.00	86.33	86.97	180.00	-4,923.80	748.34	230.40	142.42	87.98	2.619	
17,800.00	12,684.00	18,194.20	12,914.00	87.87	88.50	180.00	-5,023.80	748.34	230.40	141.13	89.27	2.581	
17,900.00	12,684.00	18,294.20	12,914.00	89.41	90.04	180.00	-5,123.80	748.34	230.40	139.83	90.57	2.544	
18,000.00	12,684.00	18,394.20	12,914.00	90.95	91.58	180.00	-5,223.80	748.34	230.40	138.53	91.87	2.508	
18,100.00	12,684.00	18,494.20	12,914.00	92.50	93.13	180.00	-5,323.80	748.34	230.40	137.23	93.16	2.473	
18,200.00	12,684.00	18,594.20	12,914.00	94.04	94.67	180.00	-5,423.80	748.34	230.40	135.91	94.49	2.438	
18,300.00	12,684.00	18,694.20	12,914.00	95.60	96.22	180.00	-5,523.80	748.34	230.40	134.60	95.80	2.405	
18,400.00	12,684.00	18,794.20	12,914.00	97.15	97.77	180.00	-5,623.80	748.34	230.40	133.28	97.12	2.372	
18,500.00	12,684.00	18,894.20	12,914.00	98.71	99.33	180.00	-5,723.80	748.34	230.40	131.96	98.44	2.340	
18,600.00	12,684.00	18,994.20	12,914.00	100.27	100.89	180.00	-5,823.80	748.34	230.40	130.63	99.77	2.309	
18,700.00	12,684.00	19,094.20	12,914.00	101.83	102.45	180.00	-5,923.80	748.34	230.40	129.30	101.10	2.279	
18,800.00	12,684.00	19,194.20	12,914.00	103.39	104.01	180.00	-6,023.80	748.34	230.40	127.96	102.44	2.249	
18,900.00	12,684.00	19,294.20	12,914.00	104.96	105.58	180.00	-6,123.80	748.34	230.40	126.62	103.78	2.220	
19,000.00	12,684.00	19,394.20	12,914.00	106.53	107.14	180.00	-6,223.80	748.34	230.40	125.28	105.12	2.192	
19,100.00	12,684.00	19,494.20	12,914.00	108.10	108.71	180.00	-6,323.80	748.34	230.40	123.94	106.46	2.164	
19,200.00	12,684.00	19,594.20	12,914.00	109.67	110.28	180.00	-6,423.80	748.34	230.40	122.59	107.81	2.137	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
19,300.00	12,684.00	19,694.20	12,914.00	111.25	111.85	180.00	-6,523.80	748.34	230.40	121.24	109.16	2.111		
19,400.00	12,684.00	19,794.20	12,914.00	112.82	113.43	180.00	-6,623.80	748.34	230.40	119.88	110.52	2.085		
19,500.00	12,684.00	19,894.20	12,914.00	114.40	115.00	180.00	-6,723.80	748.34	230.40	118.52	111.88	2.059		
19,600.00	12,684.00	19,994.20	12,914.00	115.98	116.58	180.00	-6,823.80	748.34	230.40	117.16	113.24	2.035		
19,700.00	12,684.00	20,094.20	12,914.00	117.56	118.16	180.00	-6,923.80	748.34	230.40	115.80	114.60	2.010		
19,800.00	12,684.00	20,194.20	12,914.00	119.14	119.74	180.00	-7,023.80	748.34	230.40	114.44	115.96	1.987		
19,900.00	12,684.00	20,294.20	12,914.00	120.72	121.32	180.00	-7,123.80	748.34	230.40	113.07	117.33	1.964		
20,000.00	12,684.00	20,394.20	12,914.00	122.31	122.91	180.00	-7,223.80	748.34	230.40	111.70	118.70	1.941		
20,100.00	12,684.00	20,494.20	12,914.00	123.89	124.49	180.00	-7,323.80	748.34	230.40	110.33	120.07	1.919		
20,200.00	12,684.00	20,594.20	12,914.00	125.48	126.08	180.00	-7,423.80	748.34	230.40	108.95	121.45	1.897		
20,300.00	12,684.00	20,694.20	12,914.00	127.07	127.66	180.00	-7,523.80	748.34	230.40	107.57	122.83	1.876		
20,400.00	12,684.00	20,794.20	12,914.00	128.66	129.25	180.00	-7,623.80	748.34	230.40	106.19	124.21	1.855		
20,500.00	12,684.00	20,894.20	12,914.00	130.25	130.84	180.00	-7,723.80	748.34	230.40	104.81	125.59	1.835		
20,600.00	12,684.00	20,994.20	12,914.00	131.84	132.43	180.00	-7,823.80	748.34	230.40	103.43	126.97	1.815		
20,700.00	12,684.00	21,094.20	12,914.00	133.43	134.02	180.00	-7,923.80	748.34	230.40	102.05	128.35	1.795		
20,800.00	12,684.00	21,194.20	12,914.00	135.03	135.61	180.00	-8,023.80	748.34	230.40	100.66	129.74	1.776		
20,900.00	12,684.00	21,294.20	12,914.00	136.62	137.21	180.00	-8,123.80	748.34	230.40	99.27	131.13	1.757		
21,000.00	12,684.00	21,394.20	12,914.00	138.22	138.80	180.00	-8,223.80	748.34	230.40	97.88	132.52	1.739		
21,100.00	12,684.00	21,494.20	12,914.00	139.82	140.40	180.00	-8,323.80	748.34	230.40	96.49	133.91	1.721		
21,200.00	12,684.00	21,594.20	12,914.00	141.41	141.99	180.00	-8,423.80	748.34	230.40	95.10	135.30	1.703		
21,300.00	12,684.00	21,694.20	12,914.00	143.01	143.59	180.00	-8,523.80	748.34	230.40	93.70	136.70	1.685		
21,400.00	12,684.00	21,794.20	12,914.00	144.61	145.19	180.00	-8,623.80	748.34	230.40	92.31	138.09	1.668		
21,500.00	12,684.00	21,894.20	12,914.00	146.21	146.79	180.00	-8,723.80	748.34	230.40	90.91	139.49	1.652		
21,600.00	12,684.00	21,994.20	12,914.00	147.81	148.39	180.00	-8,823.80	748.34	230.40	89.51	140.89	1.635		
21,700.00	12,684.00	22,094.20	12,914.00	149.41	149.99	180.00	-8,923.80	748.34	230.40	88.11	142.29	1.619		
21,800.00	12,684.00	22,194.20	12,914.00	151.01	151.59	180.00	-9,023.80	748.34	230.40	86.71	143.69	1.603		
21,900.00	12,684.00	22,294.20	12,914.00	152.62	153.19	180.00	-9,123.80	748.34	230.40	85.31	145.09	1.588		
22,000.00	12,684.00	22,394.20	12,914.00	154.22	154.79	180.00	-9,223.80	748.34	230.40	83.90	146.50	1.573		
22,100.00	12,684.00	22,494.20	12,914.00	155.82	156.40	180.00	-9,323.80	748.34	230.40	82.50	147.90	1.558		
22,200.00	12,684.00	22,594.20	12,914.00	157.43	158.00	180.00	-9,423.80	748.34	230.40	81.09	149.31	1.543		
22,300.00	12,684.00	22,694.20	12,914.00	159.03	159.60	180.00	-9,523.80	748.34	230.40	79.68	150.72	1.529		
22,400.00	12,684.00	22,794.20	12,914.00	160.64	161.21	180.00	-9,623.80	748.34	230.40	78.27	152.13	1.515		
22,473.03	12,684.00	22,867.23	12,914.00	161.81	162.38	180.00	-9,696.83	748.34	230.40	77.24	153.16	1.504 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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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 - 86H - 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
0.00	0.00	0.00	0.00	0.00	0.00	-36.40	75.65	-55.78	94.01				
100.00	100.00	98.20	98.20	0.08	0.08	-36.40	75.65	-55.78	93.99	93.82	0.17	562.627	
200.00	200.00	198.20	198.20	0.31	0.31	-36.40	75.65	-55.78	93.99	93.38	0.61	153.065	
300.00	300.00	298.20	298.20	0.53	0.53	-36.40	75.65	-55.78	93.99	92.93	1.06	88.371	
400.00	400.00	398.20	398.20	0.76	0.75	-36.40	75.65	-55.78	93.99	92.48	1.51	62.117	
500.00	500.00	498.20	498.20	0.98	0.98	-36.40	75.65	-55.78	93.99	92.03	1.96	47.890	
600.00	600.00	598.20	598.20	1.21	1.20	-36.40	75.65	-55.78	93.99	91.58	2.41	38.965	
700.00	700.00	698.20	698.20	1.43	1.43	-36.40	75.65	-55.78	93.99	91.13	2.86	32.844	
800.00	800.00	798.20	798.20	1.66	1.65	-36.40	75.65	-55.78	93.99	90.68	3.31	28.385	
900.00	900.00	898.20	898.20	1.88	1.88	-36.40	75.65	-55.78	93.99	90.23	3.76	24.992	
1,000.00	1,000.00	998.20	998.20	2.11	2.10	-36.40	75.65	-55.78	93.99	89.78	4.21	22.324	
1,100.00	1,100.00	1,098.20	1,098.20	2.33	2.33	-36.40	75.65	-55.78	93.99	89.33	4.66	20.170	
1,200.00	1,200.00	1,198.20	1,198.20	2.56	2.55	-36.40	75.65	-55.78	93.99	88.88	5.11	18.396	
1,300.00	1,300.00	1,298.20	1,298.20	2.78	2.78	-36.40	75.65	-55.78	93.99	88.43	5.56	16.908	
1,400.00	1,400.00	1,398.20	1,398.20	3.01	3.00	-36.40	75.65	-55.78	93.99	87.98	6.01	15.643	
1,500.00	1,500.00	1,498.20	1,498.20	3.23	3.23	-36.40	75.65	-55.78	93.99	87.53	6.46	14.554	
1,600.00	1,600.00	1,598.20	1,598.20	3.46	3.45	-36.40	75.65	-55.78	93.99	87.08	6.91	13.607	
1,700.00	1,700.00	1,698.20	1,698.20	3.68	3.68	-36.40	75.65	-55.78	93.99	86.63	7.36	12.776	
1,800.00	1,800.00	1,798.20	1,798.20	3.91	3.90	-36.40	75.65	-55.78	93.99	86.18	7.81	12.040	
1,900.00	1,900.00	1,898.20	1,898.20	4.13	4.13	-36.40	75.65	-55.78	93.99	85.74	8.26	11.384	
2,000.00	2,000.00	1,998.20	1,998.20	4.35	4.35	-36.40	75.65	-55.78	93.99	85.29	8.71	10.797	
2,100.00	2,100.00	2,098.20	2,098.20	4.58	4.58	-36.40	75.65	-55.78	93.99	84.84	9.16	10.266	
2,200.00	2,200.00	2,198.20	2,198.20	4.80	4.80	-36.40	75.65	-55.78	93.99	84.39	9.60	9.786	
2,300.00	2,300.00	2,298.20	2,298.20	5.03	5.03	-36.40	75.65	-55.78	93.99	83.94	10.05	9.348	
2,400.00	2,400.00	2,398.20	2,398.20	5.25	5.25	-36.40	75.65	-55.78	93.99	83.49	10.50	8.948	
2,500.00	2,500.00	2,498.20	2,498.20	5.48	5.47	-36.40	75.65	-55.78	93.99	83.04	10.95	8.581	
2,600.00	2,599.99	2,599.03	2,599.03	5.69	5.69	-104.57	75.73	-54.93	93.77	82.39	11.38	8.238	
2,700.00	2,699.96	2,699.88	2,699.84	5.90	5.89	-104.76	75.98	-52.31	93.09	81.30	11.79	7.894	
2,800.00	2,799.86	2,800.72	2,800.58	6.11	6.10	-105.07	76.40	-47.93	91.94	79.73	12.20	7.533	
2,900.00	2,899.68	2,901.55	2,901.22	6.33	6.31	-105.52	76.99	-41.78	90.33	77.70	12.62	7.156	
3,000.00	2,999.37	3,002.36	3,001.72	6.55	6.52	-106.11	77.75	-33.87	88.26	75.21	13.04	6.766	
3,038.22	3,037.43	3,040.81	3,040.01	6.63	6.61	-106.38	78.08	-30.40	87.35	74.15	13.21	6.614	
3,100.00	3,098.94	3,102.57	3,101.50	6.77	6.74	-106.88	78.62	-24.71	85.89	72.41	13.47	6.374	
3,200.00	3,198.50	3,202.53	3,201.03	6.99	6.96	-107.73	79.50	-15.49	83.53	69.62	13.91	6.004	
3,300.00	3,298.05	3,302.49	3,300.57	7.22	7.19	-108.63	80.39	-6.27	81.19	66.84	14.35	5.656	
3,400.00	3,397.61	3,402.46	3,400.10	7.45	7.41	-109.58	81.27	2.94	78.88	64.08	14.80	5.329	
3,500.00	3,497.17	3,502.42	3,499.64	7.69	7.64	-110.59	82.15	12.16	76.59	61.33	15.25	5.022	
3,600.00	3,596.73	3,602.39	3,599.17	7.92	7.88	-111.65	83.03	21.38	74.32	58.61	15.70	4.732	
3,700.00	3,696.29	3,702.35	3,698.71	8.16	8.11	-112.79	83.91	30.59	72.08	55.92	16.16	4.461	
3,800.00	3,795.85	3,802.32	3,798.24	8.40	8.35	-114.00	84.79	39.81	69.87	53.25	16.61	4.205	
3,900.00	3,895.41	3,902.28	3,897.78	8.64	8.59	-115.28	85.67	49.03	67.69	50.62	17.07	3.965	
4,000.00	3,994.97	4,002.25	3,997.31	8.89	8.83	-116.65	86.56	58.24	65.55	48.02	17.53	3.740	
4,100.00	4,094.53	4,102.21	4,096.85	9.13	9.07	-118.12	87.44	67.46	63.45	45.46	17.99	3.528	
4,200.00	4,194.09	4,202.17	4,196.38	9.38	9.31	-119.68	88.32	76.68	61.39	42.95	18.44	3.329	
4,300.00	4,293.65	4,302.14	4,295.91	9.63	9.56	-121.35	89.20	85.89	59.38	40.49	18.90	3.143	
4,400.00	4,393.20	4,402.10	4,395.45	9.87	9.81	-123.13	90.08	95.11	57.43	38.08	19.35	2.968	
4,500.00	4,492.76	4,502.07	4,494.98	10.12	10.05	-125.04	90.96	104.33	55.53	35.74	19.80	2.805	
4,600.00	4,592.32	4,602.03	4,594.52	10.37	10.30	-127.08	91.85	113.54	53.71	33.46	20.25	2.653	
4,700.00	4,691.88	4,702.00	4,694.05	10.63	10.55	-129.26	92.73	122.76	51.95	31.26	20.69	2.511	
4,800.00	4,791.44	4,801.96	4,793.59	10.88	10.80	-131.59	93.61	131.98	50.27	29.14	21.13	2.379	
4,900.00	4,891.00	4,901.92	4,893.12	11.13	11.05	-134.07	94.49	141.19	48.69	27.12	21.56	2.258	
5,000.00	4,990.56	5,001.89	4,992.66	11.39	11.31	-136.72	95.37	150.41	47.20	25.20	22.00	2.146	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 - 86H - 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		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)					
5,100.00	5,090.12	5,101.85	5,092.19	11.64	11.56	-139.53	96.25	159.62	45.82	23.39	22.42	2.043	
5,200.00	5,189.68	5,201.82	5,191.73	11.90	11.81	-142.51	97.13	168.84	44.55	21.70	22.85	1.950	
5,300.00	5,289.24	5,301.78	5,291.26	12.15	12.07	-145.66	98.02	178.06	43.41	20.14	23.27	1.866	
5,400.00	5,388.80	5,401.75	5,390.80	12.41	12.32	-148.96	98.90	187.27	42.41	18.72	23.69	1.790	
5,500.00	5,488.36	5,501.71	5,490.33	12.66	12.58	-152.41	99.78	196.49	41.56	17.45	24.12	1.723	
5,600.00	5,587.91	5,601.68	5,589.87	12.92	12.83	-155.99	100.66	205.71	40.87	16.32	24.54	1.665	
5,700.00	5,687.47	5,701.64	5,689.40	13.18	13.09	-159.68	101.54	214.92	40.34	15.36	24.98	1.615	
5,800.00	5,787.03	5,801.60	5,788.94	13.44	13.35	-163.46	102.42	224.14	39.98	14.56	25.42	1.573	
5,900.00	5,886.59	5,901.57	5,888.47	13.70	13.60	-167.28	103.31	233.36	39.79	13.92	25.87	1.538	
5,952.35	5,938.71	5,953.90	5,940.58	13.83	13.74	-169.29	103.77	238.18	39.77	13.66	26.11	1.523 CC	
6,000.00	5,986.15	6,001.53	5,988.00	13.96	13.86	-171.12	104.19	242.57	39.79	13.45	26.34	1.511	
6,100.00	6,085.71	6,101.50	6,087.54	14.22	14.12	-174.95	105.07	251.79	39.96	13.15	26.82	1.490 Level 3	
6,200.00	6,185.27	6,201.46	6,187.07	14.48	14.38	-178.72	105.95	261.01	40.32	13.00	27.31	1.476 Level 3	
6,300.00	6,284.83	6,301.43	6,286.61	14.74	14.64	-177.58	106.83	270.22	40.84	13.02	27.82	1.468 Level 3	
6,400.00	6,384.39	6,401.39	6,386.14	15.00	14.90	-173.99	107.71	279.44	41.53	13.18	28.35	1.465 Level 3	
6,500.00	6,483.95	6,501.35	6,485.68	15.26	15.16	-170.54	108.59	288.66	42.37	13.49	28.88	1.467 Level 3	
6,600.00	6,583.51	6,601.32	6,585.21	15.52	15.42	-167.22	109.48	297.87	43.36	13.93	29.43	1.473 Level 3	
6,700.00	6,683.06	6,701.28	6,684.75	15.78	15.68	-164.07	110.36	307.09	44.49	14.51	29.99	1.484 Level 3	
6,800.00	6,782.62	6,801.25	6,784.28	16.04	15.94	-161.08	111.24	316.31	45.75	15.20	30.55	1.498 Level 3	
6,900.00	6,882.18	6,901.21	6,883.82	16.31	16.20	-158.26	112.12	325.52	47.13	16.01	31.12	1.514	
7,000.00	6,981.74	7,001.18	6,983.35	16.57	16.46	-155.61	113.00	334.74	48.61	16.92	31.69	1.534	
7,100.00	7,081.30	7,101.14	7,082.89	16.83	16.72	-153.12	113.88	343.95	50.20	17.93	32.27	1.556	
7,200.00	7,180.86	7,201.11	7,182.42	17.09	16.99	-150.78	114.77	353.17	51.87	19.03	32.84	1.579	
7,300.00	7,280.42	7,301.07	7,281.96	17.36	17.25	-148.59	115.65	362.39	53.62	20.21	33.42	1.605	
7,400.00	7,379.98	7,401.03	7,381.49	17.62	17.51	-146.55	116.53	371.60	55.45	21.46	33.99	1.631	
7,500.00	7,479.54	7,501.00	7,481.03	17.88	17.77	-144.63	117.41	380.82	57.34	22.77	34.56	1.659	
7,600.00	7,579.10	7,600.96	7,580.56	18.15	18.04	-142.84	118.29	390.04	59.29	24.15	35.14	1.687	
7,700.00	7,678.66	7,700.93	7,680.09	18.41	18.30	-141.17	119.17	399.25	61.30	25.59	35.71	1.717	
7,800.00	7,778.21	7,800.89	7,779.63	18.67	18.56	-139.60	120.05	408.47	63.35	27.08	36.27	1.746	
7,900.00	7,877.77	7,900.86	7,879.16	18.94	18.83	-138.14	120.94	417.69	65.45	28.61	36.84	1.777	
8,000.00	7,977.33	8,000.82	7,978.70	19.20	19.09	-136.76	121.82	426.90	67.59	30.18	37.40	1.807	
8,100.00	8,076.89	8,100.78	8,078.23	19.47	19.35	-135.47	122.70	436.12	69.76	31.80	37.97	1.837	
8,200.00	8,176.45	8,200.75	8,177.77	19.73	19.62	-134.26	123.58	445.34	71.97	33.44	38.53	1.868	
8,300.00	8,276.01	8,300.71	8,277.30	20.00	19.88	-133.12	124.46	454.55	74.21	35.12	39.09	1.899	
8,400.00	8,375.57	8,400.68	8,376.84	20.26	20.14	-132.05	125.34	463.77	76.48	36.83	39.65	1.929	
8,500.00	8,475.13	8,500.64	8,476.37	20.52	20.41	-131.04	126.23	472.99	78.77	38.57	40.20	1.959	
8,600.00	8,574.69	8,600.61	8,575.91	20.79	20.67	-130.09	127.11	482.20	81.08	40.33	40.76	1.989	
8,700.00	8,674.25	8,700.57	8,675.44	21.05	20.94	-129.19	127.99	491.42	83.42	42.11	41.31	2.019	
8,800.00	8,773.81	8,800.54	8,774.98	21.32	21.20	-128.34	128.87	500.64	85.78	43.91	41.86	2.049	
8,900.00	8,873.37	8,900.50	8,874.51	21.59	21.47	-127.53	129.75	509.85	88.15	45.74	42.41	2.078	
9,000.00	8,972.92	9,000.46	8,974.05	21.85	21.73	-126.77	130.63	519.07	90.54	47.58	42.96	2.107	
9,100.00	9,072.48	9,100.43	9,073.58	22.12	22.00	-126.05	131.52	528.29	92.94	49.43	43.51	2.136	
9,200.00	9,172.04	9,200.39	9,173.12	22.38	22.26	-125.36	132.40	537.50	95.36	51.30	44.06	2.164	
9,300.00	9,271.60	9,300.36	9,272.65	22.65	22.53	-124.71	133.28	546.72	97.80	53.19	44.61	2.192	
9,400.00	9,371.16	9,400.32	9,372.18	22.91	22.79	-124.09	134.16	555.93	100.24	55.09	45.15	2.220	
9,500.00	9,470.72	9,500.29	9,471.72	23.18	23.06	-123.50	135.04	565.15	102.69	56.99	45.70	2.247	
9,600.00	9,570.28	9,600.25	9,571.25	23.45	23.32	-122.94	135.92	574.37	105.16	58.92	46.25	2.274	
9,700.00	9,669.84	9,700.21	9,670.79	23.71	23.59	-122.40	136.80	583.58	107.64	60.85	46.79	2.300	
9,800.00	9,769.40	9,800.18	9,770.32	23.98	23.85	-121.89	137.69	592.80	110.12	62.79	47.33	2.326	
9,900.00	9,868.96	9,900.14	9,869.86	24.24	24.12	-121.40	138.57	602.02	112.61	64.74	47.88	2.352	
10,000.00	9,968.52	10,000.11	9,969.39	24.51	24.38	-120.93	139.45	611.23	115.11	66.69	48.42	2.377	
10,100.00	10,068.07	10,100.07	10,068.93	24.78	24.65	-120.48	140.33	620.45	117.62	68.66	48.96	2.402	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 - 86H - 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			Offset Wellbore Centre		Distance				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
10,200.00	10,167.63	10,200.04	10,168.46	25.04	24.92	120.05	141.21	629.67	120.14	70.63	49.50	2.427		
10,300.00	10,267.19	10,300.00	10,268.00	25.31	25.18	119.63	142.09	638.88	122.66	72.61	50.05	2.451		
10,400.00	10,366.75	10,399.97	10,367.53	25.58	25.45	119.24	142.98	648.10	125.19	74.60	50.59	2.475		
10,500.00	10,466.31	10,499.93	10,467.07	25.84	25.71	118.86	143.86	657.32	127.72	76.59	51.13	2.498		
10,600.00	10,565.87	10,599.89	10,566.60	26.11	25.98	118.49	144.74	666.53	130.26	78.59	51.67	2.521		
10,700.00	10,665.43	10,699.86	10,666.14	26.38	26.25	118.14	145.62	675.75	132.80	80.59	52.21	2.544		
10,800.00	10,764.99	10,799.82	10,765.67	26.64	26.51	117.80	146.50	684.97	135.35	82.60	52.75	2.566		
10,900.00	10,864.55	10,899.79	10,865.20	26.91	26.78	117.48	147.38	694.18	137.90	84.62	53.29	2.588		
11,000.00	10,964.11	10,999.75	10,964.74	27.18	27.05	117.16	148.26	703.40	140.46	86.63	53.83	2.609		
11,098.90	11,062.57	11,098.18	11,062.81	27.44	27.27	117.17	149.06	711.71	143.14	88.82	54.31	2.635		
11,100.00	11,063.67	11,099.28	11,063.91	27.44	27.28	117.17	149.07	711.80	143.17	88.85	54.32	2.636		
11,200.00	11,163.30	11,198.76	11,163.16	27.64	27.47	117.56	149.71	718.48	145.80	91.11	54.69	2.666		
11,300.00	11,263.07	11,298.23	11,262.50	27.84	27.65	117.99	150.18	723.44	147.96	92.92	55.04	2.688		
11,400.00	11,362.95	11,397.68	11,361.90	28.02	27.83	118.46	150.49	726.68	149.66	94.29	55.37	2.703		
11,500.00	11,462.89	11,497.11	11,461.31	28.20	27.99	118.99	150.64	728.21	150.90	95.21	55.69	2.710		
11,600.00	11,562.88	11,596.87	11,561.08	28.36	28.17	119.45	150.65	728.34	151.62	95.61	56.01	2.707		
11,637.12	11,600.00	11,633.99	11,598.20	28.42	28.24	-172.42	150.65	728.34	151.67	95.54	56.13	2.702		
11,700.00	11,662.88	11,696.87	11,661.08	28.54	28.36	-172.42	150.65	728.34	151.67	95.31	56.37	2.691		
11,800.00	11,762.88	11,796.87	11,761.08	28.73	28.55	-172.42	150.65	728.34	151.67	94.92	56.76	2.672		
11,900.00	11,862.88	11,896.87	11,861.08	28.92	28.74	-172.42	150.65	728.34	151.67	94.53	57.14	2.654		
12,000.00	11,962.88	11,996.87	11,961.08	29.12	28.93	-172.42	150.65	728.34	151.67	94.14	57.53	2.636		
12,100.00	12,062.88	12,077.79	12,041.82	29.31	29.07	-172.64	146.26	728.34	157.21	99.65	57.56	2.731		
12,148.16	12,111.04	12,115.00	12,078.57	29.41	29.13	-172.90	140.47	728.34	164.65	107.29	57.36	2.870		
12,150.00	12,112.88	12,116.41	12,079.95	29.41	29.14	7.09	140.20	728.34	165.00	107.64	57.35	2.877		
12,200.00	12,162.81	12,160.00	12,112.72	29.49	29.19	6.73	132.86	728.34	173.84	117.10	56.75	3.063		
12,250.00	12,212.34	12,192.20	12,153.19	29.56	29.26	6.39	120.93	728.34	181.51	125.01	56.50	3.212		
12,300.00	12,261.11	12,229.71	12,188.34	29.62	29.32	6.15	107.85	728.34	188.20	132.31	55.89	3.367		
12,350.00	12,308.73	12,267.02	12,222.37	29.67	29.37	5.95	92.58	728.34	193.80	138.64	55.17	3.513		
12,400.00	12,354.85	12,300.00	12,251.58	29.71	29.43	5.82	77.27	728.34	198.36	144.36	54.00	3.673		
12,450.00	12,399.11	12,341.18	12,286.73	29.75	29.49	5.70	55.83	728.34	201.69	148.26	53.43	3.775		
12,500.00	12,441.18	12,378.11	12,316.87	29.77	29.54	5.63	34.51	728.34	203.94	151.50	52.44	3.889		
12,550.00	12,480.74	12,414.99	12,345.54	29.80	29.60	5.60	11.32	728.34	205.06	153.67	51.39	3.990		
12,600.00	12,517.48	12,450.00	12,371.32	29.82	29.66	5.60	-12.36	728.34	205.05	154.93	50.12	4.091		
12,650.00	12,551.13	12,488.74	12,398.10	29.83	29.72	5.63	-40.34	728.34	203.88	154.70	49.18	4.146		
12,700.00	12,581.43	12,525.67	12,421.82	29.85	29.79	5.70	-68.64	728.34	201.58	153.53	48.05	4.195		
12,750.00	12,608.15	12,562.69	12,443.72	29.87	29.85	5.81	-98.49	728.34	198.15	151.21	46.95	4.221		
12,800.00	12,631.09	12,600.00	12,463.78	29.90	29.93	5.96	-129.93	728.34	193.61	147.72	45.89	4.219		
12,850.00	12,650.07	12,637.16	12,481.70	29.93	30.01	6.16	-162.48	728.34	187.96	143.10	44.87	4.189		
12,900.00	12,664.95	12,674.68	12,497.60	29.98	30.10	6.40	-196.45	728.34	181.24	137.29	43.95	4.124		
12,950.00	12,675.61	12,712.44	12,511.34	30.05	30.20	6.71	-231.62	728.34	173.45	130.31	43.15	4.020		
13,000.00	12,681.98	12,750.00	12,522.67	30.13	30.31	7.10	-267.43	728.34	164.64	122.19	42.45	3.878		
13,048.16	12,684.00	12,787.46	12,531.61	30.24	30.42	7.57	-303.79	728.34	155.21	113.21	42.00	3.696		
13,100.00	12,684.00	12,827.97	12,538.58	30.37	30.56	7.93	-343.69	728.34	146.36	104.70	41.67	3.513		
13,200.00	12,684.00	12,908.32	12,544.00	30.70	30.88	8.23	-423.80	728.34	139.64	97.98	41.66	3.352		
13,300.00	12,684.00	13,008.32	12,544.00	31.12	31.34	8.23	-523.80	728.34	139.64	97.68	41.96	3.328		
13,400.00	12,684.00	13,108.32	12,544.00	31.62	31.88	8.23	-623.80	728.34	139.64	97.33	42.31	3.301		
13,500.00	12,684.00	13,208.32	12,544.00	32.21	32.50	8.23	-723.80	728.34	139.64	96.93	42.71	3.269		
13,600.00	12,684.00	13,308.32	12,544.00	32.87	33.19	8.23	-823.80	728.34	139.64	96.48	43.16	3.235		
13,700.00	12,684.00	13,408.32	12,544.00	33.59	33.94	8.23	-923.80	728.34	139.64	95.97	43.67	3.198		
13,800.00	12,684.00	13,508.32	12,544.00	34.38	34.75	8.23	-1,023.80	728.34	139.64	95.42	44.21	3.158		
13,900.00	12,684.00	13,608.32	12,544.00	35.23	35.62	8.23	-1,123.80	728.34	139.64	94.83	44.81	3.116		
14,000.00	12,684.00	13,708.32	12,544.00	36.14	36.54	8.23	-1,223.80	728.34	139.64	94.19	45.45	3.073		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 - 86H - 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			
14,100.00	12,684.00	13,808.32	12,544.00	37.10	37.51	8.23	-1,323.80	728.34	139.64	93.51	46.13	3.027			
14,200.00	12,684.00	13,908.32	12,544.00	38.10	38.53	8.23	-1,423.80	728.34	139.64	92.80	46.84	2.981			
14,300.00	12,684.00	14,008.32	12,544.00	39.14	39.58	8.23	-1,523.80	728.34	139.64	92.04	47.60	2.934			
14,400.00	12,684.00	14,108.32	12,544.00	40.23	40.68	8.23	-1,623.80	728.34	139.64	91.25	48.39	2.885			
14,500.00	12,684.00	14,208.32	12,544.00	41.35	41.81	8.23	-1,723.80	728.34	139.64	90.42	49.22	2.837			
14,600.00	12,684.00	14,308.32	12,544.00	42.50	42.97	8.23	-1,823.80	728.34	139.64	89.56	50.08	2.788			
14,700.00	12,684.00	14,408.32	12,544.00	43.68	44.17	8.23	-1,923.80	728.34	139.64	88.67	50.97	2.739			
14,800.00	12,684.00	14,508.32	12,544.00	44.90	45.39	8.23	-2,023.80	728.34	139.64	87.75	51.89	2.691			
14,900.00	12,684.00	14,608.32	12,544.00	46.13	46.63	8.23	-2,123.80	728.34	139.64	86.80	52.84	2.643			
15,000.00	12,684.00	14,708.32	12,544.00	47.40	47.90	8.23	-2,223.80	728.34	139.64	85.82	53.82	2.595			
15,100.00	12,684.00	14,808.32	12,544.00	48.68	49.19	8.23	-2,323.80	728.34	139.64	84.82	54.82	2.547			
15,200.00	12,684.00	14,908.32	12,544.00	49.99	50.50	8.23	-2,423.80	728.34	139.64	83.80	55.84	2.501			
15,300.00	12,684.00	15,008.32	12,544.00	51.31	51.83	8.23	-2,523.80	728.34	139.64	82.75	56.89	2.455			
15,400.00	12,684.00	15,108.32	12,544.00	52.65	53.18	8.23	-2,623.80	728.34	139.64	81.68	57.96	2.409			
15,500.00	12,684.00	15,208.32	12,544.00	54.01	54.54	8.23	-2,723.80	728.34	139.64	80.59	59.05	2.365			
15,600.00	12,684.00	15,308.32	12,544.00	55.38	55.92	8.23	-2,823.80	728.34	139.64	79.49	60.15	2.321			
15,700.00	12,684.00	15,408.32	12,544.00	56.77	57.31	8.23	-2,923.80	728.34	139.64	78.36	61.28	2.279			
15,800.00	12,684.00	15,508.32	12,544.00	58.17	58.71	8.23	-3,023.80	728.34	139.64	77.22	62.42	2.237			
15,900.00	12,684.00	15,608.32	12,544.00	59.58	60.12	8.23	-3,123.80	728.34	139.64	76.06	63.58	2.196			
16,000.00	12,684.00	15,708.32	12,544.00	61.00	61.55	8.23	-3,223.80	728.34	139.64	74.89	64.75	2.157			
16,100.00	12,684.00	15,808.32	12,544.00	62.43	62.99	8.23	-3,323.80	728.34	139.64	73.70	65.94	2.118			
16,200.00	12,684.00	15,908.32	12,544.00	63.87	64.43	8.23	-3,423.80	728.34	139.64	72.50	67.14	2.080			
16,300.00	12,684.00	16,008.32	12,544.00	65.32	65.88	8.23	-3,523.80	728.34	139.64	71.28	68.36	2.043			
16,400.00	12,684.00	16,108.32	12,544.00	66.78	67.35	8.23	-3,623.80	728.34	139.64	70.06	69.58	2.007			
16,500.00	12,684.00	16,208.32	12,544.00	68.25	68.82	8.23	-3,723.80	728.34	139.64	68.82	70.82	1.972			
16,600.00	12,684.00	16,308.32	12,544.00	69.73	70.29	8.23	-3,823.80	728.34	139.64	67.57	72.07	1.938			
16,700.00	12,684.00	16,408.32	12,544.00	71.21	71.78	8.23	-3,923.80	728.34	139.64	66.31	73.33	1.904			
16,800.00	12,684.00	16,508.32	12,544.00	72.70	73.27	8.23	-4,023.80	728.34	139.64	65.04	74.60	1.872			
16,900.00	12,684.00	16,608.32	12,544.00	74.19	74.76	8.23	-4,123.80	728.34	139.64	63.76	75.88	1.840			
17,000.00	12,684.00	16,708.32	12,544.00	75.69	76.26	8.23	-4,223.80	728.34	139.64	62.48	77.16	1.810			
17,100.00	12,684.00	16,808.32	12,544.00	77.20	77.77	8.23	-4,323.80	728.34	139.64	61.18	78.46	1.780			
17,200.00	12,684.00	16,908.32	12,544.00	78.71	79.28	8.23	-4,423.80	728.34	139.64	59.87	79.76	1.751			
17,300.00	12,684.00	17,008.32	12,544.00	80.22	80.80	8.23	-4,523.80	728.34	139.64	58.56	81.08	1.722			
17,400.00	12,684.00	17,108.32	12,544.00	81.74	82.32	8.23	-4,623.80	728.34	139.64	57.24	82.40	1.695			
17,500.00	12,684.00	17,208.32	12,544.00	83.27	83.85	8.23	-4,723.80	728.34	139.64	55.92	83.72	1.668			
17,600.00	12,684.00	17,308.32	12,544.00	84.80	85.38	8.23	-4,823.80	728.34	139.64	54.58	85.06	1.642			
17,700.00	12,684.00	17,408.32	12,544.00	86.33	86.91	8.23	-4,923.80	728.34	139.64	53.24	86.39	1.616			
17,800.00	12,684.00	17,508.32	12,544.00	87.87	88.45	8.23	-5,023.80	728.34	139.64	51.90	87.74	1.592			
17,900.00	12,684.00	17,608.32	12,544.00	89.41	89.99	8.23	-5,123.80	728.34	139.64	50.55	89.09	1.567			
18,000.00	12,684.00	17,708.32	12,544.00	90.95	91.53	8.23	-5,223.80	728.34	139.64	49.19	90.45	1.544			
18,100.00	12,684.00	17,808.32	12,544.00	92.50	93.08	8.23	-5,323.80	728.34	139.64	47.83	91.81	1.521			
18,200.00	12,684.00	17,908.32	12,544.00	94.04	94.63	8.23	-5,423.80	728.34	139.64	46.46	93.18	1.499 Level 3			
18,300.00	12,684.00	18,008.32	12,544.00	95.60	96.18	8.23	-5,523.80	728.34	139.64	45.09	94.55	1.477 Level 3			
18,400.00	12,684.00	18,108.32	12,544.00	97.15	97.74	8.23	-5,623.80	728.34	139.64	43.71	95.93	1.456 Level 3			
18,500.00	12,684.00	18,208.32	12,544.00	98.71	99.30	8.23	-5,723.80	728.34	139.64	42.33	97.31	1.435 Level 3			
18,600.00	12,684.00	18,308.32	12,544.00	100.27	100.86	8.23	-5,823.80	728.34	139.64	40.95	98.69	1.415 Level 3			
18,700.00	12,684.00	18,408.32	12,544.00	101.83	102.42	8.23	-5,923.80	728.34	139.64	39.56	100.08	1.395 Level 3			
18,800.00	12,684.00	18,508.32	12,544.00	103.39	103.98	8.23	-6,023.80	728.34	139.64	38.17	101.47	1.376 Level 3			
18,900.00	12,684.00	18,608.32	12,544.00	104.96	105.55	8.23	-6,123.80	728.34	139.64	36.77	102.87	1.357 Level 3			
19,000.00	12,684.00	18,708.32	12,544.00	106.53	107.12	8.23	-6,223.80	728.34	139.64	35.37	104.27	1.339 Level 3			
19,100.00	12,684.00	18,808.32	12,544.00	108.10	108.69	8.23	-6,323.80	728.34	139.64	33.96	105.68	1.321 Level 3			
19,200.00	12,684.00	18,908.32	12,544.00	109.67	110.26	8.23	-6,423.80	728.34	139.64	32.56	107.08	1.304 Level 3			

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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 - 86H - 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				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)	Minimum Separation (usft)	Separation Factor			
19,300.00	12,684.00	19,008.32	12,544.00	111.25	111.84	8.23	-6,523.80	728.34	139.64	31.15	108.49	1.287	Level 3		
19,400.00	12,684.00	19,108.32	12,544.00	112.82	113.42	8.23	-6,623.80	728.34	139.64	29.73	109.91	1.271	Level 3		
19,500.00	12,684.00	19,208.32	12,544.00	114.40	114.99	8.23	-6,723.80	728.34	139.64	28.32	111.32	1.254	Level 3		
19,600.00	12,684.00	19,308.32	12,544.00	115.98	116.57	8.23	-6,823.80	728.34	139.64	26.90	112.74	1.239	Level 2		
19,700.00	12,684.00	19,408.32	12,544.00	117.56	118.15	8.23	-6,923.80	728.34	139.64	25.48	114.16	1.223	Level 2		
19,800.00	12,684.00	19,508.32	12,544.00	119.14	119.74	8.23	-7,023.80	728.34	139.64	24.05	115.59	1.208	Level 2		
19,900.00	12,684.00	19,608.32	12,544.00	120.72	121.32	8.23	-7,123.80	728.34	139.64	22.62	117.02	1.193	Level 2		
20,000.00	12,684.00	19,708.32	12,544.00	122.31	122.90	8.23	-7,223.80	728.34	139.64	21.19	118.45	1.179	Level 2		
20,100.00	12,684.00	19,808.32	12,544.00	123.89	124.49	8.23	-7,323.80	728.34	139.64	19.76	119.88	1.165	Level 2		
20,200.00	12,684.00	19,908.32	12,544.00	125.48	126.08	8.23	-7,423.80	728.34	139.64	18.33	121.31	1.151	Level 2		
20,300.00	12,684.00	20,008.32	12,544.00	127.07	127.67	8.23	-7,523.80	728.34	139.64	16.89	122.75	1.138	Level 2		
20,400.00	12,684.00	20,108.32	12,544.00	128.66	129.26	8.23	-7,623.80	728.34	139.64	15.45	124.19	1.124	Level 2		
20,500.00	12,684.00	20,208.32	12,544.00	130.25	130.85	8.23	-7,723.80	728.34	139.64	14.01	125.63	1.112	Level 2		
20,600.00	12,684.00	20,308.32	12,544.00	131.84	132.44	8.23	-7,823.80	728.34	139.64	12.57	127.07	1.099	Level 2		
20,700.00	12,684.00	20,408.32	12,544.00	133.43	134.03	8.23	-7,923.80	728.34	139.64	11.13	128.51	1.087	Level 2		
20,800.00	12,684.00	20,508.32	12,544.00	135.03	135.63	8.23	-8,023.80	728.34	139.64	9.68	129.96	1.074	Level 2		
20,900.00	12,684.00	20,608.32	12,544.00	136.62	137.22	8.23	-8,123.80	728.34	139.64	8.23	131.41	1.063	Level 2		
21,000.00	12,684.00	20,708.32	12,544.00	138.22	138.82	8.23	-8,223.80	728.34	139.64	6.78	132.86	1.051	Level 2		
21,100.00	12,684.00	20,808.32	12,544.00	139.82	140.41	8.23	-8,323.80	728.34	139.64	5.33	134.31	1.040	Level 2		
21,200.00	12,684.00	20,908.32	12,544.00	141.41	142.01	8.23	-8,423.80	728.34	139.64	3.88	135.76	1.029	Level 2		
21,300.00	12,684.00	21,008.32	12,544.00	143.01	143.61	8.23	-8,523.80	728.34	139.64	2.42	137.22	1.018	Level 2		
21,400.00	12,684.00	21,108.32	12,544.00	144.61	145.21	8.23	-8,623.80	728.34	139.64	0.97	138.67	1.007	Level 2		
21,500.00	12,684.00	21,208.32	12,544.00	146.21	146.81	8.23	-8,723.80	728.34	139.64	-0.49	140.13	0.997	Level 1		
21,600.00	12,684.00	21,308.32	12,544.00	147.81	148.41	8.23	-8,823.80	728.34	139.64	-1.95	141.59	0.986	Level 1		
21,700.00	12,684.00	21,408.32	12,544.00	149.41	150.01	8.23	-8,923.80	728.34	139.64	-3.41	143.05	0.976	Level 1		
21,800.00	12,684.00	21,508.32	12,544.00	151.01	151.61	8.23	-9,023.80	728.34	139.64	-4.87	144.51	0.966	Level 1		
21,900.00	12,684.00	21,608.32	12,544.00	152.62	153.22	8.23	-9,123.80	728.34	139.64	-6.33	145.97	0.957	Level 1		
22,000.00	12,684.00	21,708.32	12,544.00	154.22	154.82	8.23	-9,223.80	728.34	139.64	-7.80	147.44	0.947	Level 1		
22,100.00	12,684.00	21,808.32	12,544.00	155.82	156.42	8.23	-9,323.80	728.34	139.64	-9.26	148.90	0.938	Level 1		
22,200.00	12,684.00	21,908.32	12,544.00	157.43	158.03	8.23	-9,423.80	728.34	139.64	-10.73	150.37	0.929	Level 1		
22,300.00	12,684.00	22,008.32	12,544.00	159.03	159.63	8.23	-9,523.80	728.34	139.64	-12.20	151.84	0.920	Level 1		
22,400.00	12,684.00	22,108.32	12,544.00	160.64	161.24	8.23	-9,623.80	728.34	139.64	-13.67	153.31	0.911	Level 1		
22,473.03	12,684.00	22,181.36	12,544.00	161.81	162.41	8.23	-9,696.83	728.34	139.64	-14.74	154.38	0.905	Level 1, ES, SF		

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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	-85.18	138.20	-1,637.56	1,643.39				
100.00	100.00	95.70	95.70	0.08	0.08	-85.18	138.20	-1,637.56	1,643.38	1,643.22	0.16	9,962.882	
200.00	200.00	195.70	195.70	0.31	0.30	-85.18	138.20	-1,637.56	1,643.38	1,642.77	0.61	2,700.967	
300.00	300.00	295.70	295.70	0.53	0.52	-85.18	138.20	-1,637.56	1,643.38	1,642.32	1.06	1,553.329	
400.00	400.00	395.70	395.70	0.76	0.75	-85.18	138.20	-1,637.56	1,643.38	1,641.87	1.51	1,090.132	
500.00	500.00	495.70	495.70	0.98	0.97	-85.18	138.20	-1,637.56	1,643.38	1,641.42	1.96	839.729	
600.00	600.00	595.70	595.70	1.21	1.20	-85.18	138.20	-1,637.56	1,643.38	1,640.97	2.41	682.873	
700.00	700.00	695.70	695.70	1.43	1.42	-85.18	138.20	-1,637.56	1,643.38	1,640.53	2.86	575.393	
800.00	800.00	795.70	795.70	1.66	1.65	-85.18	138.20	-1,637.56	1,643.38	1,640.08	3.31	497.146	
900.00	900.00	895.70	895.70	1.88	1.87	-85.18	138.20	-1,637.56	1,643.38	1,639.63	3.76	437.632	
1,000.00	1,000.00	995.70	995.70	2.11	2.10	-85.18	138.20	-1,637.56	1,643.38	1,639.18	4.20	390.844	
1,100.00	1,100.00	1,095.70	1,095.70	2.33	2.32	-85.18	138.20	-1,637.56	1,643.38	1,638.73	4.65	353.094	
1,200.00	1,200.00	1,195.70	1,195.70	2.56	2.55	-85.18	138.20	-1,637.56	1,643.38	1,638.28	5.10	321.994	
1,300.00	1,300.00	1,295.70	1,295.70	2.78	2.77	-85.18	138.20	-1,637.56	1,643.38	1,637.83	5.55	295.929	
1,400.00	1,400.00	1,395.70	1,395.70	3.01	3.00	-85.18	138.20	-1,637.56	1,643.38	1,637.38	6.00	273.768	
1,500.00	1,500.00	1,495.70	1,495.70	3.23	3.22	-85.18	138.20	-1,637.56	1,643.38	1,636.93	6.45	254.695	
1,600.00	1,600.00	1,595.70	1,595.70	3.46	3.45	-85.18	138.20	-1,637.56	1,643.38	1,636.48	6.90	238.106	
1,700.00	1,700.00	1,695.70	1,695.70	3.68	3.67	-85.18	138.20	-1,637.56	1,643.38	1,636.03	7.35	223.546	
1,800.00	1,800.00	1,795.70	1,795.70	3.91	3.90	-85.18	138.20	-1,637.56	1,643.38	1,635.58	7.80	210.664	
1,900.00	1,900.00	1,895.70	1,895.70	4.13	4.12	-85.18	138.20	-1,637.56	1,643.38	1,635.13	8.25	199.186	
2,000.00	2,000.00	1,995.70	1,995.70	4.35	4.35	-85.18	138.20	-1,637.56	1,643.38	1,634.68	8.70	188.894	
2,100.00	2,100.00	2,095.70	2,095.70	4.58	4.57	-85.18	138.20	-1,637.56	1,643.38	1,634.23	9.15	179.613	
2,200.00	2,200.00	2,195.70	2,195.70	4.80	4.79	-85.18	138.20	-1,637.56	1,643.38	1,633.78	9.60	171.202	
2,300.00	2,300.00	2,295.70	2,295.70	5.03	5.02	-85.18	138.20	-1,637.56	1,643.38	1,633.33	10.05	163.543	
2,400.00	2,400.00	2,395.70	2,395.70	5.25	5.24	-85.18	138.20	-1,637.56	1,643.38	1,632.88	10.50	156.540	
2,500.00	2,500.00	2,495.70	2,495.70	5.48	5.47	-85.18	138.20	-1,637.56	1,643.38	1,632.43	10.95	150.112	
2,600.00	2,599.99	2,595.69	2,595.69	5.69	5.69	-153.28	138.20	-1,637.56	1,644.16	1,632.77	11.39	144.376	
2,700.00	2,699.96	2,695.66	2,695.66	5.90	5.92	-153.31	138.20	-1,637.56	1,646.50	1,634.68	11.82	139.294	
2,800.00	2,799.86	2,795.56	2,795.56	6.11	6.14	-153.36	138.20	-1,637.56	1,650.40	1,638.14	12.25	134.686	
2,900.00	2,899.68	2,895.38	2,895.38	6.33	6.37	-153.43	138.20	-1,637.56	1,655.86	1,643.17	12.69	130.504	
3,000.00	2,999.37	2,995.07	2,995.07	6.55	6.59	-153.52	138.20	-1,637.56	1,662.88	1,649.76	13.12	126.706	
3,038.22	3,037.43	3,045.70	3,045.70	6.63	6.70	-153.57	138.25	-1,637.38	1,665.86	1,652.54	13.31	125.121	
3,100.00	3,098.94	3,130.71	3,130.70	6.77	6.88	-153.68	138.57	-1,636.12	1,670.15	1,656.53	13.62	122.611	
3,200.00	3,198.50	3,268.67	3,268.57	6.99	7.16	-153.82	139.77	-1,631.46	1,675.28	1,661.17	14.11	118.743	
3,300.00	3,298.05	3,406.94	3,406.59	7.22	7.45	-153.93	141.81	-1,623.57	1,678.13	1,663.53	14.59	114.994	
3,400.00	3,397.61	3,545.35	3,544.53	7.45	7.75	-154.00	144.68	-1,612.45	1,678.69	1,663.62	15.08	111.353	
3,500.00	3,497.17	3,683.76	3,682.13	7.69	8.06	-154.03	148.38	-1,598.10	1,676.97	1,661.41	15.55	107.818	
3,600.00	3,596.73	3,821.98	3,819.17	7.92	8.38	-154.03	152.90	-1,580.56	1,672.95	1,656.93	16.03	104.368	
3,700.00	3,696.29	3,926.74	3,922.80	8.16	8.63	-154.01	156.72	-1,565.78	1,667.53	1,651.06	16.47	101.240	
3,800.00	3,795.85	4,026.59	4,021.58	8.40	8.88	-153.99	160.36	-1,551.65	1,662.08	1,645.17	16.91	98.284	
3,900.00	3,895.41	4,126.44	4,120.36	8.64	9.13	-153.97	164.00	-1,537.54	1,656.63	1,639.28	17.35	95.462	
4,000.00	3,994.97	4,226.29	4,219.14	8.89	9.39	-153.95	167.64	-1,523.42	1,651.19	1,633.39	17.80	92.767	
4,100.00	4,094.53	4,326.14	4,317.92	9.13	9.65	-153.93	171.28	-1,509.30	1,645.74	1,627.49	18.25	90.191	
4,200.00	4,194.09	4,425.99	4,416.70	9.38	9.91	-153.91	174.93	-1,495.18	1,640.29	1,621.60	18.70	87.727	
4,300.00	4,293.65	4,525.84	4,515.48	9.63	10.18	-153.89	178.57	-1,481.06	1,634.85	1,615.70	19.15	85.369	
4,400.00	4,393.20	4,625.69	4,614.26	9.87	10.45	-153.87	182.21	-1,466.94	1,629.40	1,609.80	19.60	83.112	
4,500.00	4,492.76	4,725.54	4,713.04	10.12	10.72	-153.85	185.85	-1,452.82	1,623.96	1,603.90	20.06	80.949	
4,600.00	4,592.32	4,825.39	4,811.82	10.37	11.00	-153.83	189.49	-1,438.71	1,618.51	1,597.99	20.52	78.876	
4,700.00	4,691.88	4,925.24	4,910.60	10.63	11.28	-153.81	193.13	-1,424.59	1,613.07	1,592.09	20.98	76.887	
4,800.00	4,791.44	5,025.09	5,009.38	10.88	11.56	-153.79	196.78	-1,410.47	1,607.62	1,586.18	21.44	74.978	
4,900.00	4,891.00	5,124.94	5,108.16	11.13	11.84	-153.77	200.42	-1,396.35	1,602.18	1,580.27	21.90	73.144	
5,000.00	4,990.56	5,224.79	5,206.94	11.39	12.13	-153.75	204.06	-1,382.23	1,596.73	1,574.36	22.37	71.382	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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	5,090.12	5,324.64	5,305.72	11.64	12.42	-153.73	207.70	-1,368.11	1,591.29	1,568.45	22.83	69.688	
5,200.00	5,189.68	5,424.49	5,404.50	11.90	12.71	-153.71	211.34	-1,353.99	1,585.85	1,562.54	23.30	68.058	
5,300.00	5,289.24	5,524.34	5,503.28	12.15	13.00	-153.69	214.99	-1,339.87	1,580.40	1,556.63	23.77	66.488	
5,400.00	5,388.80	5,624.19	5,602.06	12.41	13.29	-153.67	218.63	-1,325.75	1,574.96	1,550.72	24.24	64.976	
5,500.00	5,488.36	5,724.04	5,700.84	12.66	13.59	-153.65	222.27	-1,311.63	1,569.51	1,544.81	24.71	63.519	
5,600.00	5,587.91	5,823.89	5,799.62	12.92	13.88	-153.63	225.91	-1,297.51	1,564.07	1,538.89	25.18	62.114	
5,700.00	5,687.47	5,923.74	5,898.40	13.18	14.18	-153.60	229.55	-1,283.39	1,558.63	1,532.98	25.65	60.759	
5,800.00	5,787.03	6,023.59	5,997.17	13.44	14.48	-153.58	233.20	-1,269.28	1,553.19	1,527.06	26.13	59.450	
5,900.00	5,886.59	6,123.44	6,095.95	13.70	14.78	-153.56	236.84	-1,255.16	1,547.74	1,521.14	26.60	58.186	
6,000.00	5,986.15	6,223.29	6,194.73	13.96	15.08	-153.54	240.48	-1,241.04	1,542.30	1,515.23	27.07	56.965	
6,100.00	6,085.71	6,323.14	6,293.51	14.22	15.38	-153.52	244.12	-1,226.92	1,536.86	1,509.31	27.55	55.784	
6,200.00	6,185.27	6,422.99	6,392.29	14.48	15.68	-153.49	247.76	-1,212.80	1,531.42	1,503.39	28.03	54.642	
6,300.00	6,284.83	6,522.84	6,491.07	14.74	15.98	-153.47	251.41	-1,198.68	1,525.98	1,497.47	28.50	53.537	
6,400.00	6,384.39	6,622.69	6,589.85	15.00	16.29	-153.45	255.05	-1,184.56	1,520.53	1,491.55	28.98	52.467	
6,500.00	6,483.95	6,722.54	6,688.63	15.26	16.59	-153.43	258.69	-1,170.44	1,515.09	1,485.63	29.46	51.430	
6,600.00	6,583.51	6,822.39	6,787.41	15.52	16.90	-153.40	262.33	-1,156.32	1,509.65	1,479.71	29.94	50.425	
6,700.00	6,683.06	6,922.24	6,886.19	15.78	17.21	-153.38	265.97	-1,142.20	1,504.21	1,473.79	30.42	49.452	
6,800.00	6,782.62	7,022.09	6,984.97	16.04	17.51	-153.36	269.62	-1,128.08	1,498.77	1,467.87	30.90	48.507	
6,900.00	6,882.18	7,121.94	7,083.75	16.31	17.82	-153.33	273.26	-1,113.96	1,493.33	1,461.95	31.38	47.591	
7,000.00	6,981.74	7,221.79	7,182.53	16.57	18.13	-153.31	276.90	-1,099.85	1,487.89	1,456.03	31.86	46.701	
7,100.00	7,081.30	7,321.64	7,281.31	16.83	18.44	-153.29	280.54	-1,085.73	1,482.45	1,450.11	32.34	45.838	
7,200.00	7,180.86	7,421.49	7,380.09	17.09	18.75	-153.26	284.18	-1,071.61	1,477.01	1,444.19	32.82	44.999	
7,300.00	7,280.42	7,521.34	7,478.87	17.36	19.06	-153.24	287.83	-1,057.49	1,471.57	1,438.27	33.31	44.183	
7,400.00	7,379.98	7,621.19	7,577.65	17.62	19.37	-153.21	291.47	-1,043.37	1,466.13	1,432.34	33.79	43.390	
7,500.00	7,479.54	7,721.04	7,676.43	17.88	19.68	-153.19	295.11	-1,029.25	1,460.69	1,426.42	34.27	42.620	
7,600.00	7,579.10	7,820.89	7,775.21	18.15	19.99	-153.16	298.75	-1,015.13	1,455.26	1,420.50	34.76	41.870	
7,700.00	7,678.66	7,920.74	7,873.99	18.41	20.30	-153.14	302.39	-1,001.01	1,449.82	1,414.58	35.24	41.140	
7,800.00	7,778.21	8,020.59	7,972.77	18.67	20.62	-153.11	306.03	-986.89	1,444.38	1,408.65	35.73	40.429	
7,900.00	7,877.77	8,120.44	8,071.55	18.94	20.93	-153.09	309.68	-972.77	1,438.94	1,402.73	36.21	39.738	
8,000.00	7,977.33	8,220.29	8,170.33	19.20	21.24	-153.06	313.32	-958.65	1,433.51	1,396.81	36.70	39.064	
8,100.00	8,076.89	8,320.14	8,269.11	19.47	21.56	-153.04	316.96	-944.53	1,428.07	1,390.89	37.18	38.407	
8,200.00	8,176.45	8,419.99	8,367.89	19.73	21.87	-153.01	320.60	-930.42	1,422.63	1,384.96	37.67	37.767	
8,300.00	8,276.01	8,519.84	8,466.67	20.00	22.19	-152.99	324.24	-916.30	1,417.20	1,379.04	38.16	37.143	
8,400.00	8,375.57	8,619.69	8,565.45	20.26	22.50	-152.96	327.89	-902.18	1,411.76	1,373.12	38.64	36.534	
8,500.00	8,475.13	8,719.54	8,664.22	20.52	22.81	-152.93	331.53	-888.06	1,406.32	1,367.19	39.13	35.940	
8,600.00	8,574.69	8,819.39	8,763.00	20.79	23.13	-152.91	335.17	-873.94	1,400.89	1,361.27	39.62	35.360	
8,700.00	8,674.25	8,919.24	8,861.78	21.05	23.45	-152.88	338.81	-859.82	1,395.45	1,355.35	40.11	34.795	
8,800.00	8,773.81	9,019.09	8,960.56	21.32	23.76	-152.85	342.45	-845.70	1,390.02	1,349.42	40.59	34.242	
8,900.00	8,873.37	9,118.94	9,059.34	21.59	24.08	-152.83	346.10	-831.58	1,384.58	1,343.50	41.08	33.703	
9,000.00	8,972.92	9,218.79	9,158.12	21.85	24.39	-152.80	349.74	-817.46	1,379.15	1,337.58	41.57	33.176	
9,100.00	9,072.48	9,318.64	9,256.90	22.12	24.71	-152.77	353.38	-803.34	1,373.72	1,331.66	42.06	32.661	
9,200.00	9,172.04	9,418.49	9,355.68	22.38	25.03	-152.74	357.02	-789.22	1,368.28	1,325.73	42.55	32.157	
9,300.00	9,271.60	9,518.34	9,454.46	22.65	25.34	-152.71	360.66	-775.10	1,362.85	1,319.81	43.04	31.665	
9,400.00	9,371.16	9,618.19	9,553.24	22.91	25.66	-152.69	364.31	-760.99	1,357.42	1,313.89	43.53	31.184	
9,500.00	9,470.72	9,718.04	9,652.02	23.18	25.98	-152.66	367.95	-746.87	1,351.98	1,307.96	44.02	30.713	
9,600.00	9,570.28	9,817.89	9,750.80	23.45	26.30	-152.63	371.59	-732.75	1,346.55	1,302.04	44.51	30.253	
9,700.00	9,669.84	9,917.74	9,849.58	23.71	26.61	-152.60	375.23	-718.63	1,341.12	1,296.12	45.00	29.802	
9,800.00	9,769.40	10,017.59	9,948.36	23.98	26.93	-152.57	378.87	-704.51	1,335.69	1,290.20	45.49	29.361	
9,900.00	9,868.96	10,117.44	10,047.14	24.24	27.25	-152.54	382.52	-690.39	1,330.26	1,284.27	45.98	28.929	
10,000.00	9,968.52	10,217.29	10,145.92	24.51	27.57	-152.51	386.16	-676.27	1,324.83	1,278.35	46.47	28.506	
10,100.00	10,068.07	10,317.14	10,244.70	24.78	27.89	-152.48	389.80	-662.15	1,319.40	1,272.43	46.97	28.092	
10,200.00	10,167.63	10,416.99	10,343.48	25.04	28.20	-152.45	393.44	-648.03	1,313.97	1,266.51	47.46	27.686	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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	
10,300.00	10,267.19	10,516.84	10,442.26	25.31	28.52	-152.42	397.08	-633.91	1,308.54	1,260.58	47.95	27.289	
10,400.00	10,366.75	10,600.00	10,524.57	25.58	28.76	-152.40	400.03	-622.47	1,303.53	1,255.11	48.41	26.924	
10,500.00	10,466.31	10,685.24	10,609.11	25.84	28.96	-152.40	402.76	-611.91	1,299.83	1,250.98	48.85	26.610	
10,600.00	10,565.87	10,767.67	10,691.01	26.11	29.15	-152.41	405.09	-602.86	1,297.48	1,248.21	49.27	26.335	
10,700.00	10,665.43	10,850.14	10,773.07	26.38	29.33	-152.45	407.14	-594.94	1,296.48	1,246.80	49.68	26.097	
10,723.64	10,688.97	10,869.64	10,792.49	26.44	29.37	-152.46	407.57	-593.24	1,296.45	1,246.67	49.78	26.046 CC	
10,800.00	10,764.99	10,932.60	10,855.24	26.64	29.49	-152.50	408.88	-588.17	1,296.84	1,246.76	50.08	25.895	
10,900.00	10,864.55	11,015.03	10,937.46	26.91	29.66	-152.57	410.33	-582.55	1,298.55	1,248.08	50.47	25.729	
11,000.00	10,964.11	11,100.00	11,022.30	27.18	29.81	-152.66	411.52	-577.95	1,301.62	1,250.76	50.86	25.594	
11,098.90	11,062.57	11,178.74	11,100.97	27.44	29.95	-152.76	412.34	-574.78	1,305.98	1,254.76	51.22	25.500	
11,100.00	11,063.67	11,179.64	11,101.87	27.44	29.95	-152.76	412.34	-574.75	1,306.03	1,254.82	51.22	25.499	
11,200.00	11,163.30	11,261.81	11,184.00	27.64	30.09	-152.89	412.91	-572.57	1,311.02	1,259.49	51.53	25.442	
11,300.00	11,263.07	11,343.92	11,266.11	27.84	30.22	-153.00	413.17	-571.53	1,315.80	1,263.97	51.83	25.388	
11,400.00	11,362.95	11,436.46	11,358.65	28.02	30.37	-153.11	413.20	-571.43	1,320.15	1,267.98	52.17	25.305	
11,500.00	11,462.89	11,536.41	11,458.59	28.20	30.55	-153.19	413.20	-571.43	1,323.07	1,270.52	52.54	25.181	
11,600.00	11,562.88	11,636.39	11,558.58	28.36	30.73	-153.23	413.20	-571.43	1,324.42	1,271.51	52.91	25.029	
11,637.12	11,600.00	11,673.51	11,595.70	28.42	30.79	-85.14	413.20	-571.43	1,324.53	1,271.48	53.05	24.966	
11,700.00	11,662.88	11,736.39	11,658.58	28.54	30.90	-85.14	413.20	-571.43	1,324.53	1,271.23	53.30	24.850	
11,800.00	11,762.88	11,836.39	11,758.58	28.73	31.08	-85.14	413.20	-571.43	1,324.53	1,270.82	53.71	24.663	
11,900.00	11,862.88	11,936.39	11,858.58	28.92	31.26	-85.14	413.20	-571.43	1,324.53	1,270.42	54.11	24.478	
12,000.00	11,962.88	12,036.39	11,958.58	29.12	31.44	-85.14	413.20	-571.43	1,324.53	1,270.01	54.52	24.295	
12,100.00	12,062.88	12,136.39	12,058.58	29.31	31.62	-85.14	413.20	-571.43	1,324.53	1,269.60	54.93	24.115	
12,148.16	12,111.04	12,184.55	12,106.74	29.41	31.71	-85.14	413.20	-571.43	1,324.53	1,269.41	55.12	24.029	
12,150.00	12,112.88	12,186.39	12,108.58	29.41	31.71	94.86	413.20	-571.43	1,324.53	1,269.40	55.13	24.025	
12,200.00	12,162.81	12,236.32	12,158.51	29.49	31.80	94.94	413.20	-571.43	1,324.73	1,269.41	55.32	23.946	
12,250.00	12,212.34	12,285.86	12,208.04	29.56	31.89	95.17	413.20	-571.43	1,325.33	1,269.81	55.51	23.874	
12,300.00	12,261.11	12,334.62	12,256.81	29.62	31.98	95.52	413.20	-571.43	1,326.37	1,270.67	55.71	23.810	
12,350.00	12,308.73	12,382.24	12,304.43	29.67	32.07	95.98	413.20	-571.43	1,327.97	1,272.08	55.90	23.757	
12,400.00	12,354.85	12,440.39	12,362.54	29.71	32.16	96.68	411.69	-571.43	1,330.12	1,274.01	56.11	23.708	
12,450.00	12,399.11	12,507.86	12,429.39	29.75	32.25	97.45	402.86	-571.43	1,332.38	1,276.09	56.29	23.672	
12,500.00	12,441.18	12,579.06	12,498.29	29.77	32.32	98.18	385.09	-571.43	1,334.62	1,278.20	56.41	23.658	
12,550.00	12,480.74	12,654.04	12,567.87	29.80	32.39	98.84	357.31	-571.43	1,336.73	1,280.25	56.48	23.667	
12,600.00	12,517.48	12,732.63	12,636.26	29.82	32.44	99.42	318.70	-571.43	1,338.60	1,282.10	56.50	23.694	
12,650.00	12,551.13	12,814.45	12,701.14	29.83	32.49	99.88	268.97	-571.43	1,340.11	1,283.63	56.48	23.728	
12,700.00	12,581.43	12,898.80	12,759.92	29.85	32.52	100.21	208.57	-571.43	1,341.17	1,284.71	56.46	23.755	
12,750.00	12,608.15	12,984.77	12,810.05	29.87	32.56	100.37	138.83	-571.43	1,341.70	1,285.22	56.48	23.756	
12,800.00	12,631.09	13,071.25	12,849.38	29.90	32.61	100.36	61.90	-571.43	1,341.66	1,285.07	56.59	23.707	
12,850.00	12,650.07	13,157.08	12,876.55	29.93	32.70	100.18	-19.43	-571.43	1,341.06	1,284.25	56.81	23.604	
12,900.00	12,664.95	13,241.16	12,891.10	29.98	32.82	99.83	-102.16	-571.43	1,339.94	1,282.78	57.16	23.443	
12,950.00	12,675.61	13,313.37	12,894.00	30.05	32.96	99.44	-174.28	-571.43	1,338.43	1,280.87	57.55	23.255	
13,000.00	12,681.98	13,362.95	12,894.00	30.13	33.08	99.28	-223.85	-571.43	1,337.38	1,279.51	57.87	23.110	
13,048.16	12,684.00	13,411.05	12,894.00	30.24	33.22	99.22	-271.96	-571.43	1,337.06	1,278.86	58.20	22.975	
13,100.00	12,684.00	13,462.89	12,894.00	30.37	33.39	99.22	-323.80	-571.43	1,337.06	1,278.46	58.60	22.818	
13,200.00	12,684.00	13,562.89	12,894.00	30.70	33.77	99.22	-423.80	-571.43	1,337.06	1,277.57	59.49	22.477	
13,300.00	12,684.00	13,662.89	12,894.00	31.12	34.24	99.22	-523.80	-571.43	1,337.06	1,276.52	60.53	22.088	
13,400.00	12,684.00	13,762.89	12,894.00	31.62	34.78	99.22	-623.80	-571.43	1,337.06	1,275.32	61.73	21.658	
13,500.00	12,684.00	13,862.89	12,894.00	32.21	35.39	99.22	-723.80	-571.43	1,337.06	1,273.98	63.08	21.197	
13,600.00	12,684.00	13,962.89	12,894.00	32.87	36.07	99.22	-823.80	-571.43	1,337.06	1,272.50	64.56	20.712	
13,700.00	12,684.00	14,062.89	12,894.00	33.59	36.81	99.22	-923.80	-571.43	1,337.06	1,270.90	66.16	20.210	
13,800.00	12,684.00	14,162.89	12,894.00	34.38	37.62	99.22	-1,023.80	-571.43	1,337.06	1,269.18	67.88	19.697	
13,900.00	12,684.00	14,262.89	12,894.00	35.23	38.48	99.22	-1,123.80	-571.43	1,337.06	1,267.35	69.71	19.181	
14,000.00	12,684.00	14,362.89	12,894.00	36.14	39.38	99.22	-1,223.80	-571.43	1,337.06	1,265.42	71.64	18.665	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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: O-LEAM MWD-HDGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,100.00	12,684.00	14,462.89	12,894.00	37.10	40.34	99.22	-1,323.80	-571.43	1,337.06	1,263.40	73.65	18.153	
14,200.00	12,684.00	14,562.89	12,894.00	38.10	41.34	99.22	-1,423.80	-571.43	1,337.06	1,261.30	75.76	17.649	
14,300.00	12,684.00	14,662.89	12,894.00	39.14	42.38	99.22	-1,523.80	-571.43	1,337.06	1,259.12	77.94	17.155	
14,400.00	12,684.00	14,762.89	12,894.00	40.23	43.46	99.22	-1,623.80	-571.43	1,337.06	1,256.86	80.19	16.673	
14,500.00	12,684.00	14,862.89	12,894.00	41.35	44.57	99.22	-1,723.80	-571.43	1,337.06	1,254.54	82.51	16.204	
14,600.00	12,684.00	14,962.89	12,894.00	42.50	45.71	99.22	-1,823.80	-571.43	1,337.06	1,252.17	84.89	15.750	
14,700.00	12,684.00	15,062.89	12,894.00	43.68	46.89	99.22	-1,923.80	-571.43	1,337.06	1,249.73	87.32	15.311	
14,800.00	12,684.00	15,162.89	12,894.00	44.90	48.09	99.22	-2,023.80	-571.43	1,337.06	1,247.25	89.81	14.888	
14,900.00	12,684.00	15,262.89	12,894.00	46.13	49.31	99.22	-2,123.80	-571.43	1,337.06	1,244.72	92.34	14.480	
15,000.00	12,684.00	15,362.89	12,894.00	47.40	50.56	99.22	-2,223.80	-571.43	1,337.06	1,242.14	94.91	14.087	
15,100.00	12,684.00	15,462.89	12,894.00	48.68	51.83	99.22	-2,323.80	-571.43	1,337.06	1,239.53	97.53	13.710	
15,200.00	12,684.00	15,562.89	12,894.00	49.99	53.12	99.22	-2,423.80	-571.43	1,337.06	1,236.88	100.18	13.347	
15,300.00	12,684.00	15,662.89	12,894.00	51.31	54.43	99.22	-2,523.80	-571.43	1,337.06	1,234.20	102.86	12.999	
15,400.00	12,684.00	15,762.89	12,894.00	52.65	55.76	99.22	-2,623.80	-571.43	1,337.06	1,231.48	105.57	12.665	
15,500.00	12,684.00	15,862.89	12,894.00	54.01	57.10	99.22	-2,723.80	-571.43	1,337.06	1,228.74	108.32	12.344	
15,600.00	12,684.00	15,962.89	12,894.00	55.38	58.46	99.22	-2,823.80	-571.43	1,337.06	1,225.97	111.08	12.036	
15,700.00	12,684.00	16,062.89	12,894.00	56.77	59.83	99.22	-2,923.80	-571.43	1,337.06	1,223.18	113.88	11.741	
15,800.00	12,684.00	16,162.89	12,894.00	58.17	61.21	99.22	-3,023.80	-571.43	1,337.06	1,220.36	116.70	11.458	
15,900.00	12,684.00	16,262.89	12,894.00	59.58	62.61	99.22	-3,123.80	-571.43	1,337.06	1,217.52	119.53	11.186	
16,000.00	12,684.00	16,362.89	12,894.00	61.00	64.02	99.22	-3,223.80	-571.43	1,337.06	1,214.66	122.39	10.924	
16,100.00	12,684.00	16,462.89	12,894.00	62.43	65.44	99.22	-3,323.80	-571.43	1,337.06	1,211.79	125.27	10.674	
16,200.00	12,684.00	16,562.89	12,894.00	63.87	66.86	99.22	-3,423.80	-571.43	1,337.06	1,208.90	128.16	10.433	
16,300.00	12,684.00	16,662.89	12,894.00	65.32	68.30	99.22	-3,523.80	-571.43	1,337.06	1,205.99	131.07	10.201	
16,400.00	12,684.00	16,762.89	12,894.00	66.78	69.75	99.22	-3,623.80	-571.43	1,337.06	1,203.06	133.99	9.979	
16,500.00	12,684.00	16,862.89	12,894.00	68.25	71.20	99.22	-3,723.80	-571.43	1,337.06	1,200.12	136.93	9.764	
16,600.00	12,684.00	16,962.89	12,894.00	69.73	72.66	99.22	-3,823.80	-571.43	1,337.06	1,197.17	139.88	9.558	
16,700.00	12,684.00	17,062.89	12,894.00	71.21	74.13	99.22	-3,923.80	-571.43	1,337.06	1,194.21	142.85	9.360	
16,800.00	12,684.00	17,162.89	12,894.00	72.70	75.61	99.22	-4,023.80	-571.43	1,337.06	1,191.23	145.82	9.169	
16,900.00	12,684.00	17,262.89	12,894.00	74.19	77.09	99.22	-4,123.80	-571.43	1,337.06	1,188.25	148.81	8.985	
17,000.00	12,684.00	17,362.89	12,894.00	75.69	78.58	99.22	-4,223.80	-571.43	1,337.06	1,185.25	151.80	8.808	
17,100.00	12,684.00	17,462.89	12,894.00	77.20	80.07	99.22	-4,323.80	-571.43	1,337.06	1,182.25	154.81	8.637	
17,200.00	12,684.00	17,562.89	12,894.00	78.71	81.57	99.22	-4,423.80	-571.43	1,337.06	1,179.23	157.82	8.472	
17,300.00	12,684.00	17,662.89	12,894.00	80.22	83.07	99.22	-4,523.80	-571.43	1,337.06	1,176.21	160.85	8.313	
17,400.00	12,684.00	17,762.89	12,894.00	81.74	84.58	99.22	-4,623.80	-571.43	1,337.06	1,173.18	163.88	8.159	
17,500.00	12,684.00	17,862.89	12,894.00	83.27	86.10	99.22	-4,723.80	-571.43	1,337.06	1,170.14	166.92	8.010	
17,600.00	12,684.00	17,962.89	12,894.00	84.80	87.61	99.22	-4,823.80	-571.43	1,337.06	1,167.09	169.97	7.867	
17,700.00	12,684.00	18,062.89	12,894.00	86.33	89.14	99.22	-4,923.80	-571.43	1,337.06	1,164.04	173.02	7.728	
17,800.00	12,684.00	18,162.89	12,894.00	87.87	90.66	99.22	-5,023.80	-571.43	1,337.06	1,160.98	176.08	7.594	
17,900.00	12,684.00	18,262.89	12,894.00	89.41	92.19	99.22	-5,123.80	-571.43	1,337.06	1,157.91	179.14	7.464	
18,000.00	12,684.00	18,362.89	12,894.00	90.95	93.73	99.22	-5,223.80	-571.43	1,337.06	1,154.84	182.22	7.338	
18,100.00	12,684.00	18,462.89	12,894.00	92.50	95.26	99.22	-5,323.80	-571.43	1,337.06	1,151.76	185.29	7.216	
18,200.00	12,684.00	18,562.89	12,894.00	94.04	96.80	99.22	-5,423.80	-571.43	1,337.06	1,148.68	188.38	7.098	
18,300.00	12,684.00	18,662.89	12,894.00	95.60	98.35	99.22	-5,523.80	-571.43	1,337.06	1,145.59	191.46	6.983	
18,400.00	12,684.00	18,762.89	12,894.00	97.15	99.89	99.22	-5,623.80	-571.43	1,337.06	1,142.50	194.56	6.872	
18,500.00	12,684.00	18,862.89	12,894.00	98.71	101.44	99.22	-5,723.80	-571.43	1,337.06	1,139.40	197.65	6.765	
18,600.00	12,684.00	18,962.89	12,894.00	100.27	102.99	99.22	-5,823.80	-571.43	1,337.06	1,136.30	200.76	6.660	
18,700.00	12,684.00	19,062.89	12,894.00	101.83	104.54	99.22	-5,923.80	-571.43	1,337.06	1,133.19	203.86	6.559	
18,800.00	12,684.00	19,162.89	12,894.00	103.39	106.10	99.22	-6,023.80	-571.43	1,337.06	1,130.08	206.97	6.460	
18,900.00	12,684.00	19,262.89	12,894.00	104.96	107.66	99.22	-6,123.80	-571.43	1,337.06	1,126.97	210.08	6.364	
19,000.00	12,684.00	19,362.89	12,894.00	106.53	109.22	99.22	-6,223.80	-571.43	1,337.06	1,123.85	213.20	6.271	
19,100.00	12,684.00	19,462.89	12,894.00	108.10	110.78	99.22	-6,323.80	-571.43	1,337.06	1,120.73	216.32	6.181	
19,200.00	12,684.00	19,562.89	12,894.00	109.67	112.35	99.22	-6,423.80	-571.43	1,337.06	1,117.61	219.45	6.093	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		
19,300.00	12,684.00	19,662.89	12,894.00	111.25	113.91	99.22	-6,523.80	-571.43	1,337.06	1,114.48	222.57	6.007		
19,400.00	12,684.00	19,762.89	12,894.00	112.82	115.48	99.22	-6,623.80	-571.43	1,337.06	1,111.35	225.70	5.924		
19,500.00	12,684.00	19,862.89	12,894.00	114.40	117.05	99.22	-6,723.80	-571.43	1,337.06	1,108.22	228.84	5.843		
19,600.00	12,684.00	19,962.89	12,894.00	115.98	118.63	99.22	-6,823.80	-571.43	1,337.06	1,105.08	231.97	5.764		
19,700.00	12,684.00	20,062.89	12,894.00	117.56	120.20	99.22	-6,923.80	-571.43	1,337.06	1,101.95	235.11	5.687		
19,800.00	12,684.00	20,162.89	12,894.00	119.14	121.78	99.22	-7,023.80	-571.43	1,337.06	1,098.80	238.25	5.612		
19,900.00	12,684.00	20,262.89	12,894.00	120.72	123.35	99.22	-7,123.80	-571.43	1,337.06	1,095.66	241.39	5.539		
20,000.00	12,684.00	20,362.89	12,894.00	122.31	124.93	99.22	-7,223.80	-571.43	1,337.06	1,092.51	244.54	5.468		
20,100.00	12,684.00	20,462.89	12,894.00	123.89	126.51	99.22	-7,323.80	-571.43	1,337.06	1,089.37	247.69	5.398		
20,200.00	12,684.00	20,562.89	12,894.00	125.48	128.09	99.22	-7,423.80	-571.43	1,337.06	1,086.22	250.84	5.330		
20,300.00	12,684.00	20,662.89	12,894.00	127.07	129.67	99.22	-7,523.80	-571.43	1,337.06	1,083.06	253.99	5.264		
20,400.00	12,684.00	20,762.89	12,894.00	128.66	131.26	99.22	-7,623.80	-571.43	1,337.06	1,079.91	257.15	5.200		
20,500.00	12,684.00	20,862.89	12,894.00	130.25	132.84	99.22	-7,723.80	-571.43	1,337.06	1,076.75	260.30	5.137		
20,600.00	12,684.00	20,962.89	12,894.00	131.84	134.43	99.22	-7,823.80	-571.43	1,337.06	1,073.59	263.46	5.075		
20,700.00	12,684.00	21,062.89	12,894.00	133.43	136.02	99.22	-7,923.80	-571.43	1,337.06	1,070.43	266.62	5.015		
20,800.00	12,684.00	21,162.89	12,894.00	135.03	137.61	99.22	-8,023.80	-571.43	1,337.06	1,067.27	269.78	4.956		
20,900.00	12,684.00	21,262.89	12,894.00	136.62	139.19	99.22	-8,123.80	-571.43	1,337.06	1,064.11	272.95	4.899		
21,000.00	12,684.00	21,362.89	12,894.00	138.22	140.79	99.22	-8,223.80	-571.43	1,337.06	1,060.94	276.11	4.842		
21,100.00	12,684.00	21,462.89	12,894.00	139.82	142.38	99.22	-8,323.80	-571.43	1,337.06	1,057.77	279.28	4.787		
21,200.00	12,684.00	21,562.89	12,894.00	141.41	143.97	99.22	-8,423.80	-571.43	1,337.06	1,054.61	282.45	4.734		
21,300.00	12,684.00	21,662.89	12,894.00	143.01	145.56	99.22	-8,523.80	-571.43	1,337.06	1,051.44	285.62	4.681		
21,400.00	12,684.00	21,762.89	12,894.00	144.61	147.16	99.22	-8,623.80	-571.43	1,337.06	1,048.26	288.79	4.630		
21,500.00	12,684.00	21,862.89	12,894.00	146.21	148.75	99.22	-8,723.80	-571.43	1,337.06	1,045.09	291.96	4.580		
21,600.00	12,684.00	21,962.89	12,894.00	147.81	150.35	99.22	-8,823.80	-571.43	1,337.06	1,041.92	295.14	4.530		
21,700.00	12,684.00	22,062.89	12,894.00	149.41	151.95	99.22	-8,923.80	-571.43	1,337.06	1,038.74	298.31	4.482		
21,800.00	12,684.00	22,162.89	12,894.00	151.01	153.54	99.22	-9,023.80	-571.43	1,337.06	1,035.56	301.49	4.435		
21,900.00	12,684.00	22,262.89	12,894.00	152.62	155.14	99.22	-9,123.80	-571.43	1,337.06	1,032.39	304.67	4.389		
22,000.00	12,684.00	22,362.89	12,894.00	154.22	156.74	99.22	-9,223.80	-571.43	1,337.06	1,029.21	307.85	4.343		
22,100.00	12,684.00	22,462.89	12,894.00	155.82	158.34	99.22	-9,323.80	-571.43	1,337.06	1,026.03	311.03	4.299		
22,200.00	12,684.00	22,562.89	12,894.00	157.43	159.94	99.22	-9,423.80	-571.43	1,337.06	1,022.84	314.21	4.255		
22,300.00	12,684.00	22,662.89	12,894.00	159.03	161.54	99.22	-9,523.80	-571.43	1,337.06	1,019.66	317.39	4.213		
22,400.00	12,684.00	22,762.89	12,894.00	160.64	163.14	99.22	-9,623.80	-571.43	1,337.06	1,016.48	320.58	4.171		
22,473.03	12,684.00	22,835.93	12,894.00	161.81	164.31	99.22	-9,696.83	-571.43	1,337.06	1,014.15	322.90	4.141	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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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)	Offset Wellbore Centre +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	-118.08	-2,094.89	-3,927.04	4,450.88				
100.00	100.00	110.28	110.28	0.08	0.08	-118.08	-2,094.87	-3,926.75	4,450.65	4,450.49	0.16	N/A	
200.00	200.00	233.50	233.49	0.31	0.20	-118.09	-2,095.02	-3,925.62	4,449.90	4,449.38	0.52	8,625.238	
300.00	300.00	352.01	351.99	0.53	0.29	-118.10	-2,095.16	-3,923.87	4,448.65	4,447.83	0.82	5,418.682	
400.00	400.00	451.48	451.44	0.76	0.35	-118.11	-2,095.07	-3,922.24	4,447.17	4,446.07	1.10	4,043.106	
500.00	500.00	544.00	543.95	0.98	0.40	-118.12	-2,095.16	-3,920.82	4,445.85	4,444.48	1.37	3,246.432	
600.00	600.00	639.41	639.36	1.21	0.44	-118.13	-2,095.32	-3,919.44	4,444.65	4,443.02	1.64	2,714.808	
700.00	700.00	741.01	740.95	1.43	0.49	-118.14	-2,095.46	-3,918.06	4,443.53	4,441.62	1.91	2,331.766	
800.00	800.00	847.52	847.45	1.66	0.54	-118.15	-2,095.43	-3,916.56	4,442.27	4,440.09	2.17	2,042.524	
900.00	900.00	945.47	945.38	1.88	0.58	-118.16	-2,095.47	-3,915.07	4,440.94	4,438.50	2.44	1,821.202	
1,000.00	1,000.00	1,023.94	1,023.85	2.11	0.61	-118.17	-2,095.63	-3,914.00	4,439.85	4,437.16	2.69	1,650.026	
1,100.00	1,100.00	1,112.27	1,112.17	2.33	0.65	-118.18	-2,096.13	-3,913.18	4,439.29	4,436.34	2.94	1,507.846	
1,200.00	1,200.00	1,222.92	1,222.81	2.56	0.69	-118.19	-2,096.68	-3,912.08	4,438.65	4,435.44	3.20	1,385.578	
1,300.00	1,300.00	1,333.32	1,333.21	2.78	0.74	-118.21	-2,097.30	-3,910.62	4,437.75	4,434.29	3.46	1,281.455	
1,400.00	1,400.00	1,399.05	1,398.93	3.01	0.76	-118.21	-2,097.65	-3,909.89	4,437.06	4,433.36	3.70	1,198.072	
1,425.24	1,425.24	1,413.86	1,413.74	3.06	0.76	-118.22	-2,097.76	-3,909.81	4,437.03	4,433.27	3.76	1,178.969	
1,500.00	1,500.00	1,468.06	1,467.93	3.23	0.78	-118.22	-2,098.27	-3,909.75	4,437.26	4,433.32	3.94	1,125.877	
1,600.00	1,600.00	1,575.55	1,575.42	3.46	0.81	-118.24	-2,099.42	-3,909.66	4,437.70	4,433.52	4.18	1,061.557	
1,700.00	1,700.00	1,679.41	1,679.27	3.68	0.84	-118.25	-2,100.65	-3,909.18	4,437.85	4,433.42	4.42	1,003.658	
1,800.00	1,800.00	1,772.88	1,772.73	3.91	0.86	-118.27	-2,101.83	-3,908.89	4,438.17	4,433.51	4.66	952.173	
1,900.00	1,900.00	1,874.52	1,874.36	4.13	0.89	-118.29	-2,103.31	-3,908.48	4,438.51	4,433.60	4.90	905.631	
2,000.00	2,000.00	1,984.89	1,984.73	4.35	0.93	-118.30	-2,104.44	-3,908.17	4,438.75	4,433.60	5.14	863.088	
2,100.00	2,100.00	2,087.12	2,086.95	4.58	0.96	-118.31	-2,105.32	-3,907.72	4,438.77	4,433.39	5.38	824.315	
2,200.00	2,200.00	2,190.16	2,189.98	4.80	1.00	-118.33	-2,106.43	-3,907.14	4,438.78	4,433.16	5.63	788.823	
2,300.00	2,300.00	2,312.53	2,312.35	5.03	1.04	-118.35	-2,107.31	-3,906.20	4,438.44	4,432.56	5.88	755.210	
2,400.00	2,400.00	2,407.47	2,407.29	5.25	1.07	-118.35	-2,107.60	-3,905.62	4,438.04	4,431.91	6.12	724.703	
2,500.00	2,500.00	2,580.96	2,580.76	5.48	1.12	-118.36	-2,107.20	-3,903.47	4,436.88	4,430.48	6.39	693.886	
2,600.00	2,599.99	2,686.06	2,685.83	5.69	1.16	173.54	-2,106.82	-3,901.16	4,435.64	4,429.00	6.64	668.089	
2,650.47	2,650.45	2,754.93	2,754.68	5.80	1.18	173.54	-2,106.57	-3,899.42	4,435.52	4,428.76	6.76	655.837 CC	
2,700.00	2,699.96	2,823.50	2,823.22	5.90	1.20	173.53	-2,106.45	-3,897.28	4,435.63	4,428.75	6.88	644.302	
2,800.00	2,799.86	2,931.19	2,930.81	6.11	1.24	173.50	-2,107.23	-3,892.92	4,436.74	4,429.62	7.12	623.000	
2,900.00	2,899.68	3,024.47	3,023.97	6.33	1.27	173.45	-2,109.16	-3,888.55	4,439.67	4,432.31	7.35	603.632	
3,000.00	2,999.37	3,132.47	3,131.79	6.55	1.31	173.40	-2,112.01	-3,883.19	4,444.37	4,436.78	7.59	585.419	
3,038.22	3,037.43	3,185.89	3,185.13	6.63	1.33	173.37	-2,113.21	-3,880.49	4,446.52	4,438.83	7.69	578.540	
3,100.00	3,098.94	3,280.29	3,279.41	6.77	1.36	173.34	-2,114.26	-3,875.68	4,449.85	4,442.01	7.84	567.562	
3,200.00	3,198.50	3,392.26	3,391.23	6.99	1.40	173.33	-2,114.05	-3,869.93	4,454.55	4,446.47	8.09	550.925	
3,300.00	3,298.05	3,496.68	3,495.52	7.22	1.43	173.32	-2,113.23	-3,864.95	4,459.32	4,450.99	8.33	535.225	
3,400.00	3,397.61	3,583.16	3,581.90	7.45	1.46	173.31	-2,112.94	-3,860.55	4,464.03	4,455.46	8.57	520.604	
3,500.00	3,497.17	3,671.88	3,670.52	7.69	1.49	173.30	-2,112.64	-3,856.48	4,469.16	4,460.34	8.82	506.752	
3,600.00	3,596.73	3,778.07	3,776.61	7.92	1.53	173.29	-2,112.08	-3,851.74	4,474.31	4,465.24	9.07	493.342	
3,700.00	3,696.29	3,882.22	3,880.65	8.16	1.56	173.30	-2,110.48	-3,847.45	4,479.29	4,469.97	9.32	480.552	
3,800.00	3,795.85	3,975.63	3,973.97	8.40	1.58	173.31	-2,108.16	-3,844.12	4,484.30	4,474.73	9.57	468.496	
3,900.00	3,895.41	4,055.61	4,053.88	8.64	1.60	173.33	-2,106.10	-3,841.56	4,489.59	4,479.77	9.82	457.235	
4,000.00	3,994.97	4,135.48	4,133.69	8.89	1.61	173.36	-2,103.63	-3,839.69	4,495.37	4,485.30	10.07	446.576	
4,100.00	4,094.53	4,210.47	4,208.64	9.13	1.63	173.39	-2,101.49	-3,838.17	4,501.58	4,491.26	10.31	436.520	
4,200.00	4,194.09	4,281.11	4,279.26	9.38	1.64	173.40	-2,100.14	-3,837.04	4,508.54	4,497.98	10.56	427.040	
4,300.00	4,293.65	4,366.50	4,364.63	9.63	1.66	173.42	-2,099.04	-3,835.86	4,516.01	4,505.20	10.81	417.827	
4,400.00	4,393.20	4,452.82	4,450.87	9.87	1.71	173.44	-2,097.00	-3,831.34	4,522.43	4,511.35	11.09	407.866	
4,500.00	4,492.76	4,539.51	4,537.45	10.12	1.75	173.42	-2,097.04	-3,826.15	4,527.84	4,516.50	11.35	399.027	
4,600.00	4,592.32	4,754.11	4,751.92	10.37	1.79	173.39	-2,098.33	-3,821.34	4,533.34	4,521.75	11.60	390.894	
4,700.00	4,691.88	4,802.23	4,799.98	10.63	1.80	173.38	-2,099.38	-3,819.13	4,539.56	4,527.73	11.83	383.600	
4,800.00	4,791.44	4,868.39	4,866.07	10.88	1.83	173.35	-2,100.96	-3,816.63	4,546.69	4,534.61	12.07	376.575	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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		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)					
4,900.00	4,891.00	4,966.99	4,964.58	11.13	1.86	173.32	-2,103.27	-3,813.33	4,554.18	4,541.87	12.32	369.680	
5,000.00	4,990.56	5,078.99	5,076.50	11.39	1.90	173.29	-2,105.27	-3,809.59	4,561.42	4,548.85	12.57	362.892	
5,100.00	5,090.12	5,167.64	5,165.09	11.64	1.93	173.27	-2,106.82	-3,806.67	4,568.69	4,555.88	12.82	356.495	
5,200.00	5,189.68	5,264.56	5,261.97	11.90	1.96	173.25	-2,108.16	-3,804.03	4,576.28	4,563.22	13.06	350.289	
5,300.00	5,289.24	5,365.31	5,362.67	12.15	2.00	173.24	-2,108.91	-3,800.68	4,583.46	4,570.13	13.32	344.028	
5,400.00	5,388.80	5,459.46	5,456.79	12.41	2.03	173.23	-2,109.33	-3,798.64	4,590.66	4,577.10	13.57	338.342	
5,500.00	5,488.36	5,532.04	5,529.35	12.66	2.05	173.22	-2,110.41	-3,796.99	4,598.66	4,584.85	13.81	332.970	
5,600.00	5,587.91	5,654.86	5,652.13	12.92	2.10	173.21	-2,111.57	-3,794.29	4,606.48	4,592.42	14.07	327.462	
5,700.00	5,687.47	5,736.60	5,733.85	13.18	2.12	173.20	-2,112.01	-3,792.58	4,614.25	4,599.94	14.31	322.361	
5,800.00	5,787.03	5,805.12	5,802.35	13.44	2.15	173.20	-2,113.03	-3,791.34	4,622.69	4,608.13	14.55	317.611	
5,900.00	5,886.59	5,905.49	5,902.69	13.70	2.18	173.18	-2,114.71	-3,789.77	4,631.43	4,616.64	14.80	312.997	
6,000.00	5,986.15	6,018.45	6,015.62	13.96	2.21	173.17	-2,116.21	-3,788.01	4,640.03	4,624.98	15.04	308.425	
6,100.00	6,085.71	6,126.29	6,123.43	14.22	2.25	173.16	-2,117.80	-3,785.89	4,648.32	4,633.03	15.29	303.965	
6,200.00	6,185.27	6,206.52	6,203.64	14.48	2.27	173.14	-2,119.07	-3,784.31	4,656.70	4,641.16	15.53	299.792	
6,300.00	6,284.83	6,273.83	6,270.93	14.74	2.29	173.13	-2,120.43	-3,783.37	4,665.75	4,649.98	15.77	295.869	
6,400.00	6,384.39	6,396.23	6,393.30	15.00	2.33	173.12	-2,122.32	-3,782.03	4,674.84	4,658.82	16.01	291.940	
6,500.00	6,483.95	6,500.74	6,497.81	15.26	2.36	173.12	-2,123.38	-3,780.82	4,683.61	4,667.36	16.26	288.078	
6,600.00	6,583.51	6,588.73	6,585.77	15.52	2.39	173.11	-2,124.61	-3,779.68	4,692.47	4,675.97	16.50	284.409	
6,700.00	6,683.06	6,684.65	6,681.68	15.78	2.42	173.10	-2,126.10	-3,778.72	4,701.65	4,684.91	16.74	280.879	
6,800.00	6,782.62	6,805.33	6,802.35	16.04	2.46	173.10	-2,127.26	-3,777.40	4,710.46	4,693.48	16.99	277.284	
6,900.00	6,882.18	6,885.51	6,882.53	16.31	2.48	173.10	-2,127.89	-3,776.54	4,719.23	4,702.00	17.23	273.901	
7,000.00	6,981.74	6,951.50	6,948.50	16.57	2.50	173.09	-2,129.02	-3,775.97	4,728.63	4,711.17	17.47	270.743	
7,100.00	7,081.30	7,024.51	7,021.50	16.83	2.51	173.09	-2,130.40	-3,776.01	4,738.83	4,721.14	17.69	267.807	
7,200.00	7,180.86	7,141.55	7,138.53	17.09	2.52	173.09	-2,132.12	-3,776.33	4,749.11	4,731.20	17.92	265.062	
7,300.00	7,280.42	7,258.24	7,255.21	17.36	2.54	173.09	-2,133.39	-3,776.49	4,759.10	4,740.95	18.14	262.308	
7,400.00	7,379.98	7,370.04	7,367.00	17.62	2.57	173.09	-2,134.71	-3,775.69	4,768.33	4,749.95	18.38	259.453	
7,500.00	7,479.54	7,488.79	7,485.74	17.88	2.60	173.09	-2,135.55	-3,775.18	4,777.63	4,759.01	18.62	256.582	
7,600.00	7,579.10	7,592.11	7,589.05	18.15	2.64	173.09	-2,136.15	-3,774.11	4,786.31	4,767.44	18.87	253.644	
7,700.00	7,678.66	7,686.71	7,683.64	18.41	2.67	173.09	-2,137.19	-3,773.12	4,795.23	4,776.12	19.11	250.886	
7,800.00	7,778.21	11,882.74	9,813.05	18.67	58.06	-159.95	96.02	-3,871.09	4,770.81	4,701.58	69.23	68.909	
7,900.00	7,877.77	11,886.58	9,813.18	18.94	58.15	-159.90	99.85	-3,871.10	4,736.95	4,666.86	70.09	67.583	
8,000.00	7,977.33	11,890.43	9,813.31	19.20	58.24	-159.85	103.69	-3,871.11	4,704.97	4,634.03	70.93	66.328	
8,100.00	8,076.89	11,894.27	9,813.43	19.47	58.33	-159.80	107.54	-3,871.13	4,674.90	4,603.13	71.76	65.143	
8,200.00	8,176.45	11,898.13	9,813.56	19.73	58.43	-159.75	111.39	-3,871.15	4,646.78	4,574.21	72.58	64.027	
8,300.00	8,276.01	11,901.99	9,813.69	20.00	58.52	-159.70	115.25	-3,871.17	4,620.65	4,547.28	73.37	62.978	
8,400.00	8,375.57	11,905.85	9,813.82	20.26	58.61	-159.65	119.11	-3,871.20	4,596.55	4,522.40	74.14	61.997	
8,500.00	8,475.13	11,909.72	9,813.95	20.52	58.70	-159.60	122.98	-3,871.23	4,574.49	4,499.60	74.89	61.081	
8,600.00	8,574.69	11,913.60	9,814.08	20.79	58.79	-159.55	126.85	-3,871.26	4,554.52	4,478.90	75.62	60.229	
8,700.00	8,674.25	11,936.00	9,814.84	21.05	59.32	-159.27	149.24	-3,871.48	4,536.73	4,459.98	76.76	59.107	
8,800.00	8,773.81	11,936.00	9,814.84	21.32	59.32	-159.27	149.24	-3,871.48	4,520.99	4,443.64	77.34	58.455	
8,900.00	8,873.37	11,936.00	9,814.84	21.59	59.32	-159.27	149.24	-3,871.48	4,507.40	4,429.51	77.90	57.863	
9,000.00	8,972.92	11,936.00	9,814.84	21.85	59.32	-159.27	149.24	-3,871.48	4,496.00	4,417.58	78.42	57.330	
9,100.00	9,072.48	11,936.00	9,814.84	22.12	59.32	-159.27	149.24	-3,871.48	4,486.81	4,407.89	78.92	56.855	
9,200.00	9,172.04	11,937.65	9,814.89	22.38	59.36	-159.25	150.89	-3,871.50	4,479.82	4,400.40	79.42	56.408	
9,300.00	9,271.60	11,944.22	9,815.11	22.65	59.53	-159.16	157.46	-3,871.58	4,475.05	4,395.04	80.01	55.929	
9,400.00	9,371.16	11,950.47	9,815.31	22.91	59.68	-159.08	163.70	-3,871.65	4,472.51	4,391.94	80.57	55.513	
9,464.35	9,435.22	11,954.33	9,815.42	23.08	59.78	-159.03	167.56	-3,871.70	4,472.05	4,391.15	80.90	55.278	
9,500.00	9,470.72	11,956.42	9,815.48	23.18	59.83	-159.01	169.65	-3,871.72	4,472.19	4,391.11	81.08	55.159 ES	
9,600.00	9,570.28	11,962.09	9,815.64	23.45	59.97	-158.93	175.31	-3,871.80	4,474.10	4,392.55	81.55	54.864	
9,700.00	9,669.84	11,967.50	9,815.79	23.71	60.11	-158.86	180.72	-3,871.87	4,478.23	4,396.25	81.98	54.628	
9,800.00	9,769.40	11,972.67	9,815.92	23.98	60.24	-158.80	185.89	-3,871.93	4,484.58	4,402.22	82.36	54.448	
9,900.00	9,868.96	11,977.61	9,816.04	24.24	60.36	-158.74	190.83	-3,872.00	4,493.14	4,410.43	82.71	54.323	

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

LEAM Drilling Systems LLC

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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
10,000.00	9,968.52	11,982.34	9,816.15	24.51	60.48	-158.67	195.56	-3,872.06	4,503.91	4,420.85	83.05	54.230	
10,100.00	10,068.07	11,986.87	9,816.25	24.78	60.59	-158.62	200.09	-3,872.12	4,516.85	4,433.35	83.50	54.094	
10,200.00	10,167.63	11,991.22	9,816.33	25.04	60.70	-158.56	204.43	-3,872.18	4,531.96	4,448.05	83.91	54.011	
10,300.00	10,267.19	11,995.39	9,816.42	25.31	60.81	-158.51	208.60	-3,872.24	4,549.21	4,464.93	84.28	53.978 SF	
10,400.00	10,366.75	11,999.40	9,816.49	25.58	60.91	-158.46	212.61	-3,872.30	4,568.59	4,483.98	84.61	53.996	
10,500.00	10,466.31	12,003.25	9,816.56	25.84	61.00	-158.41	216.46	-3,872.35	4,590.05	4,505.15	84.91	54.061	
10,600.00	10,565.87	12,006.95	9,816.62	26.11	61.10	-158.36	220.16	-3,872.40	4,613.58	4,528.41	85.17	54.172	
10,700.00	10,665.43	12,010.52	9,816.67	26.38	61.19	-158.31	223.73	-3,872.46	4,639.14	4,553.75	85.39	54.328	
10,800.00	10,764.99	12,013.95	9,816.72	26.64	61.27	-158.27	227.16	-3,872.51	4,666.70	4,581.12	85.58	54.527	
10,900.00	10,864.55	12,031.00	9,816.93	26.91	61.70	-158.05	244.21	-3,872.76	4,696.26	4,610.18	86.08	54.556	
11,000.00	10,964.11	12,031.00	9,816.93	27.18	61.70	-158.05	244.21	-3,872.76	4,727.70	4,641.57	86.13	54.887	
11,098.90	11,062.57	12,031.00	9,816.93	27.44	61.70	-158.05	244.21	-3,872.76	4,760.66	4,674.50	86.16	55.252	
11,100.00	11,063.67	12,031.00	9,816.93	27.44	61.70	-158.05	244.21	-3,872.76	4,761.04	4,674.87	86.16	55.256	
11,200.00	11,163.30	12,031.00	9,816.93	27.64	61.70	-158.19	244.21	-3,872.76	4,795.45	4,709.33	86.12	55.681	
11,300.00	11,263.07	12,031.00	9,816.93	27.84	61.70	-158.33	244.21	-3,872.76	4,830.19	4,744.13	86.06	56.127	
11,400.00	11,362.95	12,031.00	9,816.93	28.02	61.70	-158.46	244.21	-3,872.76	4,865.21	4,779.25	85.97	56.594	
11,500.00	11,462.89	12,032.22	9,816.94	28.20	61.73	-158.59	245.43	-3,872.78	4,900.53	4,814.64	85.88	57.061	
11,600.00	11,562.88	12,033.70	9,816.95	28.36	61.77	-158.71	246.91	-3,872.80	4,936.10	4,850.32	85.78	57.542	
11,637.12	11,600.00	12,034.08	9,816.96	28.42	61.78	-90.67	247.28	-3,872.81	4,949.37	4,863.64	85.74	57.728	
11,700.00	11,662.88	12,034.63	9,816.96	28.54	61.80	-90.66	247.83	-3,872.82	4,972.22	4,886.56	85.66	58.046	
11,800.00	11,762.88	12,035.47	9,816.97	28.73	61.82	-90.65	248.67	-3,872.83	5,009.98	4,924.44	85.54	58.569	
11,900.00	11,862.88	12,036.27	9,816.97	28.92	61.84	-90.64	249.47	-3,872.84	5,049.43	4,964.03	85.40	59.124	
12,000.00	11,962.88	12,037.03	9,816.98	29.12	61.86	-90.63	250.24	-3,872.85	5,090.55	5,005.29	85.25	59.710	
12,100.00	12,062.88	12,037.77	9,816.99	29.31	61.88	-90.62	250.97	-3,872.86	5,133.28	5,048.18	85.09	60.325	
12,148.16	12,111.04	12,038.11	9,816.99	29.41	61.89	-90.62	251.31	-3,872.87	5,154.42	5,069.41	85.01	60.631	
12,150.00	12,112.88	12,038.12	9,816.99	29.41	61.89	89.29	251.32	-3,872.87	5,155.24	5,070.23	85.01	60.643	
12,200.00	12,162.81	12,031.00	9,816.93	29.49	61.70	86.72	244.21	-3,872.76	5,177.54	5,092.81	84.73	61.108	
12,250.00	12,212.34	12,031.00	9,816.93	29.56	61.70	84.21	244.21	-3,872.76	5,199.99	5,115.39	84.61	61.462	
12,300.00	12,261.11	12,031.00	9,816.93	29.62	61.70	81.72	244.21	-3,872.76	5,222.44	5,137.97	84.47	61.824	
12,350.00	12,308.73	12,031.00	9,816.93	29.67	61.70	79.27	244.21	-3,872.76	5,244.71	5,160.38	84.33	62.191	
12,400.00	12,354.85	12,006.96	9,816.62	29.71	61.10	76.62	220.17	-3,872.40	5,266.53	5,182.88	83.65	62.957	
12,450.00	12,399.11	11,994.73	9,816.40	29.75	60.79	74.22	207.94	-3,872.23	5,287.82	5,204.58	83.23	63.529	
12,500.00	12,441.18	11,980.58	9,816.11	29.77	60.44	71.92	193.80	-3,872.04	5,308.36	5,225.58	82.78	64.129	
12,550.00	12,480.74	11,964.65	9,815.71	29.80	60.04	69.77	177.87	-3,871.83	5,327.97	5,245.69	82.28	64.753	
12,600.00	12,517.48	11,936.00	9,814.84	29.82	59.32	67.68	149.24	-3,871.48	5,346.52	5,265.00	81.52	65.587	
12,650.00	12,551.13	11,936.00	9,814.84	29.83	59.32	65.99	149.24	-3,871.48	5,363.78	5,282.39	81.39	65.903	
12,700.00	12,581.43	11,904.04	9,813.76	29.85	58.57	64.26	117.30	-3,871.19	5,379.63	5,299.01	80.62	66.731	
12,750.00	12,608.15	11,879.47	9,812.95	29.87	57.98	62.79	92.75	-3,871.08	5,393.92	5,313.91	80.01	67.413	
12,800.00	12,631.09	11,842.00	9,811.74	29.90	57.10	61.46	55.29	-3,871.10	5,406.55	5,327.38	79.17	68.290	
12,850.00	12,650.07	11,842.00	9,811.74	29.93	57.10	60.49	55.29	-3,871.10	5,417.37	5,338.27	79.10	68.483	
12,900.00	12,664.95	11,801.70	9,810.46	29.98	56.11	59.58	15.02	-3,871.39	5,426.26	5,348.04	78.22	69.375	
12,950.00	12,675.61	11,775.12	9,809.61	30.05	55.45	58.92	-11.55	-3,871.74	5,433.21	5,355.57	77.64	69.979	
13,000.00	12,681.98	11,524.29	9,806.32	30.13	49.49	58.27	-262.31	-3,873.13	5,437.17	5,364.54	72.63	74.862	
13,048.16	12,684.00	11,487.17	9,806.89	30.24	48.87	58.20	-299.42	-3,873.21	5,437.94	5,365.95	71.99	75.539	
13,100.00	12,684.00	11,443.35	9,807.59	30.37	47.71	58.21	-343.24	-3,873.44	5,437.73	5,366.47	71.26	76.311	
13,196.78	12,684.00	11,366.00	9,808.87	30.69	46.04	58.22	-420.58	-3,873.92	5,437.43	5,367.38	70.05	77.623	
13,200.00	12,684.00	11,366.00	9,808.87	30.70	46.04	58.22	-420.58	-3,873.92	5,437.43	5,367.37	70.06	77.616	
13,300.00	12,684.00	11,315.94	9,809.66	31.12	44.79	58.23	-470.63	-3,874.59	5,437.85	5,368.58	69.27	78.502	
13,400.00	12,684.00	11,272.00	9,810.25	31.62	43.69	58.24	-514.55	-3,875.76	5,439.37	5,370.69	68.67	79.205	
13,500.00	12,684.00	11,182.08	9,810.51	32.21	41.45	58.26	-604.43	-3,878.21	5,441.52	5,374.34	67.18	80.995	
13,600.00	12,684.00	10,917.25	9,814.09	32.87	35.82	58.31	-869.19	-3,882.20	5,441.91	5,378.92	63.00	86.384	
13,700.00	12,684.00	10,630.76	9,827.15	33.59	28.64	58.43	-1,155.35	-3,881.32	5,439.06	5,381.44	57.62	94.394	

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: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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
13,800.00	12,684.00	10,296.82	9,843.35	34.38	20.79	58.48	-1,488.45	-3,865.12	5,431.75	5,379.94	51.81	104.831	
13,900.00	12,684.00	10,232.00	9,845.65	35.23	18.88	58.48	-1,553.06	-3,860.46	5,423.69	5,372.78	50.91	106.535	
14,000.00	12,684.00	10,114.00	9,845.69	36.14	15.63	58.41	-1,670.40	-3,848.62	5,415.01	5,366.06	48.96	110.605	
14,100.00	12,684.00	10,083.00	9,842.81	37.10	14.71	58.36	-1,700.90	-3,843.98	5,407.29	5,358.34	48.95	110.462	
14,200.00	12,684.00	10,083.00	9,842.81	38.10	14.71	58.36	-1,700.90	-3,843.98	5,401.24	5,351.52	49.72	108.629	
14,300.00	12,684.00	10,051.00	9,837.56	39.14	13.76	58.28	-1,732.06	-3,838.94	5,396.60	5,346.85	49.76	108.457	
14,400.00	12,684.00	10,051.00	9,837.56	40.23	13.76	58.28	-1,732.06	-3,838.94	5,393.67	5,343.09	50.58	106.634	
14,500.00	12,684.00	10,019.00	9,830.11	41.35	12.83	58.19	-1,762.77	-3,833.98	5,392.43	5,341.75	50.68	106.405	
14,538.98	12,684.00	10,019.00	9,830.11	41.79	12.83	58.19	-1,762.77	-3,833.98	5,392.29	5,341.27	51.02	105.696	
14,600.00	12,684.00	10,019.00	9,830.11	42.50	12.83	58.19	-1,762.77	-3,833.98	5,392.63	5,341.09	51.54	104.625	
14,700.00	12,684.00	10,019.00	9,830.11	43.68	12.83	58.19	-1,762.77	-3,833.98	5,394.69	5,342.27	52.42	102.914	
14,800.00	12,684.00	9,988.00	9,820.81	44.90	11.95	58.08	-1,791.98	-3,829.40	5,398.29	5,345.68	52.61	102.610	
14,900.00	12,684.00	9,988.00	9,820.81	46.13	11.95	58.08	-1,791.98	-3,829.40	5,403.51	5,350.00	53.51	100.981	
15,000.00	12,684.00	9,988.00	9,820.81	47.40	11.95	58.08	-1,791.98	-3,829.40	5,410.57	5,356.15	54.42	99.430	
15,100.00	12,684.00	9,957.00	9,809.50	48.68	11.10	57.95	-1,820.52	-3,825.08	5,419.06	5,364.40	54.66	99.147	
15,200.00	12,684.00	9,957.00	9,809.50	49.99	11.10	57.95	-1,820.52	-3,825.08	5,429.26	5,373.69	55.57	97.699	
15,300.00	12,684.00	9,957.00	9,809.50	51.31	11.10	57.95	-1,820.52	-3,825.08	5,441.28	5,384.80	56.48	96.333	
15,400.00	12,684.00	9,925.00	9,795.77	52.65	10.24	57.81	-1,849.11	-3,820.93	5,454.72	5,397.98	56.74	96.133	
15,500.00	12,684.00	9,925.00	9,795.77	54.01	10.24	57.81	-1,849.11	-3,820.93	5,469.82	5,412.16	57.65	94.877	
15,600.00	12,684.00	9,925.00	9,795.77	55.38	10.24	57.81	-1,849.11	-3,820.93	5,486.69	5,428.14	58.55	93.703	
15,700.00	12,684.00	9,894.00	9,780.62	56.77	9.45	57.65	-1,875.88	-3,817.14	5,504.97	5,446.11	58.86	93.530	
15,800.00	12,684.00	9,894.00	9,780.62	58.17	9.45	57.65	-1,875.88	-3,817.14	5,524.88	5,465.13	59.75	92.469	
15,900.00	12,684.00	9,894.00	9,780.62	59.58	9.45	57.65	-1,875.88	-3,817.14	5,546.52	5,485.89	60.63	91.484	
16,000.00	12,684.00	9,862.00	9,763.25	61.00	8.67	57.47	-1,902.51	-3,813.54	5,569.59	5,508.65	60.93	91.404	
16,100.00	12,684.00	9,862.00	9,763.25	62.43	8.67	57.47	-1,902.51	-3,813.54	5,594.16	5,532.36	61.79	90.528	
16,200.00	12,684.00	9,862.00	9,763.25	63.87	8.67	57.47	-1,902.51	-3,813.54	5,620.39	5,557.75	62.64	89.724	
16,300.00	12,684.00	9,846.28	9,754.12	65.32	8.31	57.38	-1,915.22	-3,811.96	5,648.08	5,584.86	63.22	89.339	
16,400.00	12,684.00	9,831.00	9,744.93	66.78	7.96	57.29	-1,927.34	-3,810.56	5,677.35	5,613.55	63.80	88.991	
16,500.00	12,684.00	9,831.00	9,744.93	68.25	7.96	57.29	-1,927.34	-3,810.56	5,708.02	5,643.42	64.60	88.357	
16,600.00	12,684.00	9,831.00	9,744.93	69.73	7.96	57.29	-1,927.34	-3,810.56	5,740.28	5,674.89	65.39	87.786	
16,700.00	12,684.00	9,799.00	9,724.71	71.21	7.25	57.10	-1,952.01	-3,808.03	5,773.90	5,708.20	65.70	87.889	
16,800.00	12,684.00	9,799.00	9,724.71	72.70	7.25	57.10	-1,952.01	-3,808.03	5,808.81	5,742.35	66.46	87.408	
16,900.00	12,684.00	9,799.00	9,724.71	74.19	7.25	57.10	-1,952.01	-3,808.03	5,845.22	5,778.02	67.20	86.985	
17,000.00	12,684.00	9,768.00	9,704.02	75.69	6.60	56.90	-1,974.96	-3,805.69	5,882.88	5,815.37	67.52	87.132	
17,100.00	12,684.00	9,768.00	9,704.02	77.20	6.60	56.90	-1,974.96	-3,805.69	5,921.83	5,853.60	68.23	86.793	
17,200.00	12,684.00	9,750.37	9,691.75	78.71	6.26	56.79	-1,987.55	-3,804.22	5,962.04	5,893.32	68.72	86.757	
17,300.00	12,684.00	9,737.00	9,682.19	80.22	6.01	56.69	-1,996.81	-3,803.01	6,003.53	5,934.28	69.25	86.689	
17,400.00	12,684.00	9,719.77	9,669.61	81.74	5.70	56.57	-2,008.47	-3,801.34	6,046.23	5,976.48	69.75	86.687	
17,500.00	12,684.00	9,705.00	9,658.67	83.27	5.45	56.47	-2,018.26	-3,799.80	6,090.05	6,019.79	70.26	86.681	
17,600.00	12,684.00	9,673.00	9,634.53	84.80	4.93	56.24	-2,038.97	-3,796.25	6,134.96	6,064.35	70.62	86.876	
17,700.00	12,684.00	9,673.00	9,634.53	86.33	4.93	56.24	-2,038.97	-3,796.25	6,181.00	6,109.76	71.24	86.760	
17,800.00	12,684.00	9,658.69	9,623.54	87.87	4.72	56.13	-2,047.98	-3,794.62	6,228.18	6,156.44	71.74	86.813	
17,900.00	12,684.00	9,642.00	9,610.48	89.41	4.49	56.01	-2,058.21	-3,792.76	6,276.57	6,204.36	72.22	86.914	
18,000.00	12,684.00	9,642.00	9,610.48	90.95	4.49	56.01	-2,058.21	-3,792.76	6,326.02	6,253.23	72.79	86.904	
18,100.00	12,684.00	9,642.00	9,610.48	92.50	4.49	56.01	-2,058.21	-3,792.76	6,376.65	6,303.29	73.35	86.932	
18,200.00	12,684.00	9,642.00	9,610.48	94.04	4.49	56.01	-2,058.21	-3,792.76	6,428.43	6,354.54	73.89	86.996	
18,300.00	12,684.00	9,610.00	9,584.67	95.60	4.16	55.77	-2,076.80	-3,789.30	6,481.26	6,407.01	74.25	87.292	
18,400.00	12,684.00	9,610.00	9,584.67	97.15	4.16	55.77	-2,076.80	-3,789.30	6,534.99	6,460.23	74.76	87.411	
18,500.00	12,684.00	9,610.00	9,584.67	98.71	4.16	55.77	-2,076.80	-3,789.30	6,589.80	6,514.54	75.26	87.561	
18,600.00	12,684.00	9,610.00	9,584.67	100.27	4.16	55.77	-2,076.80	-3,789.30	6,645.67	6,569.92	75.74	87.742	
18,700.00	12,684.00	9,610.00	9,584.67	101.83	4.16	55.77	-2,076.80	-3,789.30	6,702.56	6,626.35	76.21	87.953	
18,800.00	12,684.00	9,610.00	9,584.67	103.39	4.16	55.77	-2,076.80	-3,789.30	6,760.45	6,683.79	76.66	88.191	

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: 84H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
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
18,900.00	12,684.00	9,578.00	9,557.86	104.96	3.95	55.52	-2,093.96	-3,786.10	6,819.22	6,742.23	76.98	88.580	
19,000.00	12,684.00	9,578.00	9,557.86	106.53	3.95	55.52	-2,093.96	-3,786.10	6,878.79	6,801.38	77.41	88.862	
19,100.00	12,684.00	9,578.00	9,557.86	108.10	3.95	55.52	-2,093.96	-3,786.10	6,939.28	6,861.46	77.82	89.170	
19,200.00	12,684.00	9,578.00	9,557.86	109.67	3.95	55.52	-2,093.96	-3,786.10	7,000.69	6,922.47	78.22	89.501	
19,300.00	12,684.00	9,578.00	9,557.86	111.25	3.95	55.52	-2,093.96	-3,786.10	7,062.97	6,984.37	78.60	89.856	
19,400.00	12,684.00	9,578.00	9,557.86	112.82	3.95	55.52	-2,093.96	-3,786.10	7,126.12	7,047.14	78.97	90.233	
19,500.00	12,684.00	9,547.00	9,531.12	114.40	3.82	55.27	-2,109.37	-3,783.20	7,190.00	7,110.72	79.28	90.696	
19,600.00	12,684.00	9,547.00	9,531.12	115.98	3.82	55.27	-2,109.37	-3,783.20	7,254.59	7,174.96	79.63	91.107	
19,700.00	12,684.00	9,547.00	9,531.12	117.56	3.82	55.27	-2,109.37	-3,783.20	7,319.97	7,240.00	79.97	91.539	
19,800.00	12,684.00	9,547.00	9,531.12	119.14	3.82	55.27	-2,109.37	-3,783.20	7,386.12	7,305.83	80.29	91.990	
19,900.00	12,684.00	9,547.00	9,531.12	120.72	3.82	55.27	-2,109.37	-3,783.20	7,453.03	7,372.42	80.61	92.459	
20,000.00	12,684.00	9,547.00	9,531.12	122.31	3.82	55.27	-2,109.37	-3,783.20	7,520.67	7,439.76	80.92	92.945	
20,100.00	12,684.00	9,547.00	9,531.12	123.89	3.82	55.27	-2,109.37	-3,783.20	7,589.03	7,507.82	81.21	93.449	
20,200.00	12,684.00	9,516.00	9,503.71	125.48	3.73	55.02	-2,123.61	-3,780.59	7,657.97	7,576.49	81.48	93.988	
20,300.00	12,684.00	9,516.00	9,503.71	127.07	3.73	55.02	-2,123.61	-3,780.59	7,727.52	7,645.76	81.76	94.518	
20,400.00	12,684.00	9,516.00	9,503.71	128.66	3.73	55.02	-2,123.61	-3,780.59	7,797.73	7,715.70	82.03	95.064	
20,500.00	12,684.00	9,516.00	9,503.71	130.25	3.73	55.02	-2,123.61	-3,780.59	7,868.58	7,786.29	82.29	95.624	
20,600.00	12,684.00	9,516.00	9,503.71	131.84	3.73	55.02	-2,123.61	-3,780.59	7,940.06	7,857.52	82.54	96.198	
20,700.00	12,684.00	9,516.00	9,503.71	133.43	3.73	55.02	-2,123.61	-3,780.59	8,012.16	7,929.37	82.78	96.786	
20,800.00	12,684.00	9,516.00	9,503.71	135.03	3.73	55.02	-2,123.61	-3,780.59	8,084.84	8,001.82	83.02	97.387	
20,900.00	12,684.00	9,516.00	9,503.71	136.62	3.73	55.02	-2,123.61	-3,780.59	8,158.11	8,074.86	83.25	98.000	
21,000.00	12,684.00	9,516.00	9,503.71	138.22	3.73	55.02	-2,123.61	-3,780.59	8,231.94	8,148.47	83.47	98.625	
21,100.00	12,684.00	9,516.00	9,503.71	139.82	3.73	55.02	-2,123.61	-3,780.59	8,306.31	8,222.63	83.68	99.262	
21,200.00	12,684.00	9,500.59	9,489.81	141.41	3.69	54.90	-2,130.17	-3,779.50	8,380.97	8,297.07	83.90	99.895	
21,300.00	12,684.00	9,484.00	9,474.63	143.01	3.65	54.76	-2,136.81	-3,778.57	8,456.53	8,372.42	84.11	100.541	
21,400.00	12,684.00	9,484.00	9,474.63	144.61	3.65	54.76	-2,136.81	-3,778.57	8,532.31	8,448.00	84.31	101.206	
21,500.00	12,684.00	9,484.00	9,474.63	146.21	3.65	54.76	-2,136.81	-3,778.57	8,608.58	8,524.09	84.50	101.881	
21,600.00	12,684.00	9,484.00	9,474.63	147.81	3.65	54.76	-2,136.81	-3,778.57	8,685.34	8,600.66	84.68	102.565	
21,700.00	12,684.00	9,484.00	9,474.63	149.41	3.65	54.76	-2,136.81	-3,778.57	8,762.56	8,677.70	84.86	103.259	
21,800.00	12,684.00	9,484.00	9,474.63	151.01	3.65	54.76	-2,136.81	-3,778.57	8,840.24	8,755.21	85.03	103.961	
21,900.00	12,684.00	9,484.00	9,474.63	152.62	3.65	54.76	-2,136.81	-3,778.57	8,918.37	8,833.17	85.20	104.672	
22,000.00	12,684.00	9,484.00	9,474.63	154.22	3.65	54.76	-2,136.81	-3,778.57	8,996.93	8,911.56	85.37	105.392	
22,100.00	12,684.00	9,484.00	9,474.63	155.82	3.65	54.76	-2,136.81	-3,778.57	9,075.91	8,990.38	85.53	106.119	
22,200.00	12,684.00	9,484.00	9,474.63	157.43	3.65	54.76	-2,136.81	-3,778.57	9,155.30	9,069.62	85.68	106.853	
22,300.00	12,684.00	9,484.00	9,474.63	159.03	3.65	54.76	-2,136.81	-3,778.57	9,235.09	9,149.26	85.83	107.595	
22,400.00	12,684.00	9,484.00	9,474.63	160.64	3.65	54.76	-2,136.81	-3,778.57	9,315.27	9,229.29	85.98	108.344	
22,473.03	12,684.00	9,484.00	9,474.63	161.81	3.65	54.76	-2,136.81	-3,778.57	9,374.07	9,287.99	86.08	108.896	

LEAM Drilling Systems LLC

Anticollision Report

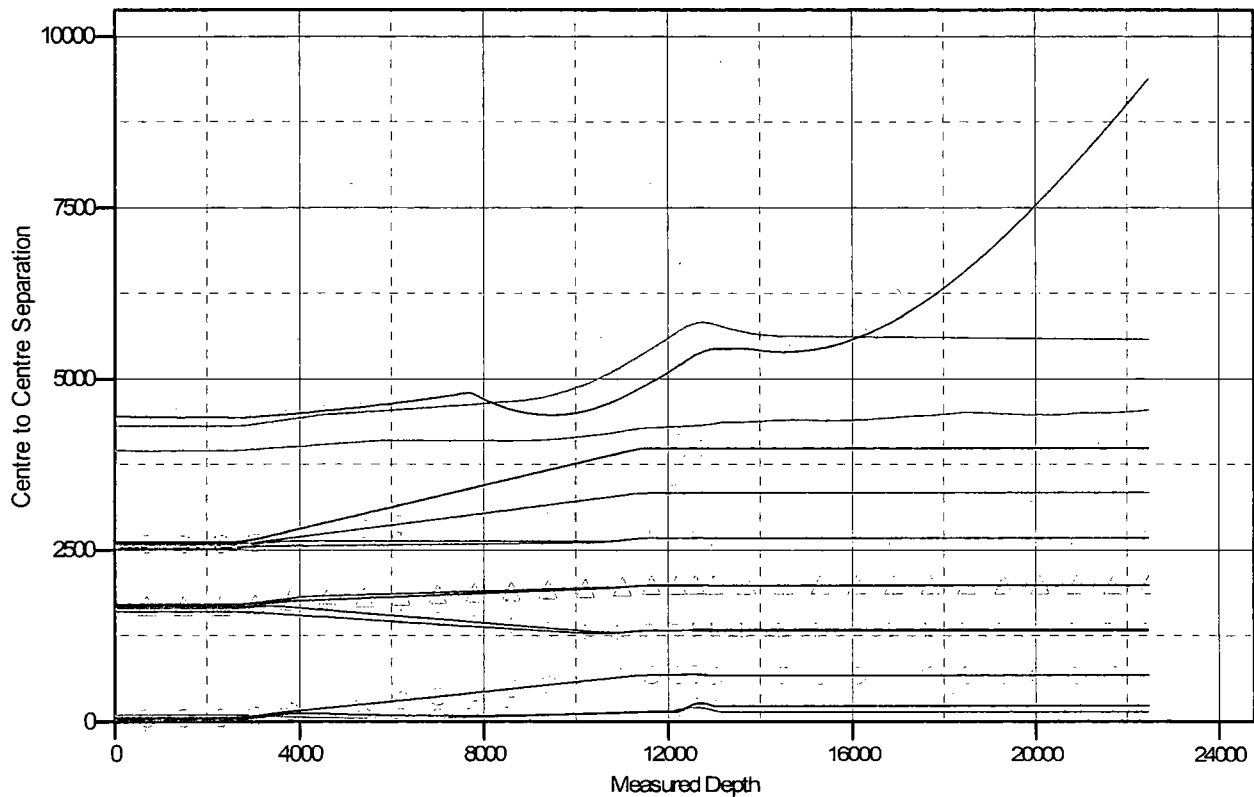
Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Reference Site: Fighting Okra 18-19 Fed
 Site Error: 0.00 usft
 Reference Well: 84H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 84H
 TVD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 MD Reference: 3369.5' GE + 25' KB @ 3394.50usft
 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 3369.5' GE + 25' KB @ 3394.50usft
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 19' 60.0000 W

Coordinates are relative to: 84H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

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|-----------------------|-----------------------|--|
| ✕ 2H, OH, Plan #1 V0 | ⊞ 41H, OH, Plan #1 V0 | ◆ 85H, OH, Plan #1 V0 |
| ▲ 15H, OH, Plan #1 V0 | ▲ 71H, OH, OH V0 | ✕ 3H, OH, Plan #1 V0 |
| ◆ 8H, OH, Plan #1 V0 | ▲ 5H, OH, Plan #1 V0 | ◆ 4H, OH, Plan #1 V0 |
| ◆ 7H, OH, Plan #1 V0 | ⊞ 14H, OH, Plan #1 V0 | ✕ Fighting Okra Fed Com 1H (offset), OH, OH V0 |
| ⊞ 86H, OH, Plan #1 V0 | ⊞ 6H, OH, Plan #1 V0 | |

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

LEAM Drilling Systems LLC

Anticollision Report

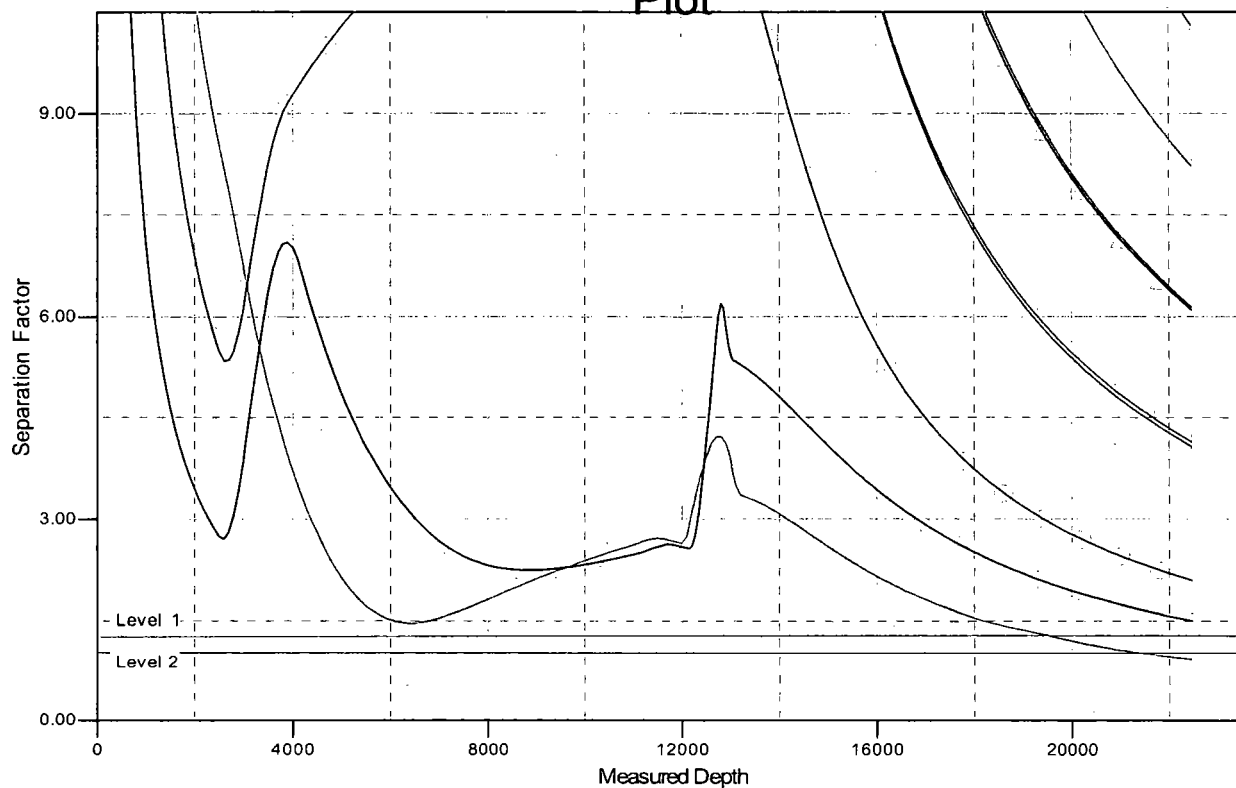
Company: Devon Energy
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Coordinates are relative to: 84H
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 Grid Convergence at Surface is: 0.44°

Separation Factor Plot



LEGEND

- | | | |
|-----------------------|-----------------------|--|
| ✱ 2H, OH, Plan #1 V0 | ⊠ 41H, OH, Plan #1 V0 | ⬢ 85H, OH, Plan #1 V0 |
| ⬢ 15H, OH, Plan #1 V0 | ⬢ 71H, OH, OH V0 | ✱ 3H, OH, Plan #1 V0 |
| ⬢ 8H, OH, Plan #1 V0 | ⬢ 5H, OH, Plan #1 V0 | ⬢ 4H, OH, Plan #1 V0 |
| ⬢ 7H, OH, Plan #1 V0 | ⬢ 14H, OH, Plan #1 V0 | ✱ Fighting Okra Fed Com 1H (offset), OH, OH V0 |
| ⬢ 86H, OH, Plan #1 V0 | ⬢ 6H, OH, Plan #1 V0 | |

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