

Devon Energy

Lea County, NM (NAD-83)

Seawolf 1-12 Fed

91H

OH

Plan #1

HOEBS OCD

APR 26 2017

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Anticollision Report

23 January, 2017

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Multi User Db
Offset TVD Reference: Offset Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	1/23/2017		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	22,695.28	Plan #1 (OH)	LEAM MWD+HDGM	MWD+HDGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Seawolf 1-12 Fed						
102H - OH - Plan #1	2,416.53	2,416.93	90.00	79.41	8.497	CC
102H - OH - Plan #1	3,000.00	2,992.81	90.31	77.32	6.952	ES
102H - OH - Plan #1	22,696.28	23,182.55	595.94	331.95	2.257	SF
81H - OH - Plan #1	3,039.95	3,038.01	22.79	9.53	1.718	CC, ES
81H - OH - Plan #1	22,696.28	22,572.17	492.18	182.10	1.587	SF
82H - OH - Plan #1	3,226.41	3,222.64	38.23	24.23	2.731	CC, ES
82H - OH - Plan #1	22,696.28	22,434.80	485.73	169.41	1.536	SF
92H - OH - Plan #1	2,500.00	2,499.60	119.99	109.03	10.943	CC
92H - OH - Plan #1	3,000.00	2,989.43	120.41	107.43	9.279	ES
92H - OH - Plan #1	22,696.28	22,787.99	900.09	567.59	2.707	SF

Offset Design Seawolf 1-12 Fed - 102H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD+HDGM														Offset Well Error:	0.00 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
0.00	0.00	0.40	0.40	0.00	0.00	89.57	0.67	90.00	90.00						
100.00	100.00	100.40	100.40	0.09	0.09	89.57	0.67	90.00	90.00	89.82	0.18	504.316			
200.00	200.00	200.40	200.40	0.31	0.31	89.57	0.67	90.00	90.00	89.37	0.63	143.317			
300.00	300.00	300.40	300.40	0.54	0.54	89.57	0.67	90.00	90.00	88.92	1.08	83.527			
400.00	400.00	400.40	400.40	0.76	0.76	89.57	0.67	90.00	90.00	88.48	1.53	58.938			
500.00	500.00	500.40	500.40	0.99	0.99	89.57	0.67	90.00	90.00	88.03	1.98	45.534			
600.00	600.00	600.40	600.40	1.21	1.21	89.57	0.67	90.00	90.00	87.58	2.43	37.097			
700.00	700.00	700.40	700.40	1.44	1.44	89.57	0.67	90.00	90.00	87.13	2.88	31.298			
800.00	800.00	800.40	800.40	1.66	1.66	89.57	0.67	90.00	90.00	86.68	3.33	27.067			
900.00	900.00	900.40	900.40	1.89	1.89	89.57	0.67	90.00	90.00	86.23	3.77	23.843			
1,000.00	1,000.00	1,000.40	1,000.40	2.11	2.11	89.57	0.67	90.00	90.00	85.78	4.22	21.306			
1,100.00	1,100.00	1,100.40	1,100.40	2.34	2.34	89.57	0.67	90.00	90.00	85.33	4.67	19.257			
1,200.00	1,200.00	1,200.40	1,200.40	2.56	2.56	89.57	0.67	90.00	90.00	84.88	5.12	17.567			
1,300.00	1,300.00	1,300.40	1,300.40	2.79	2.79	89.57	0.67	90.00	90.00	84.43	5.57	16.150			
1,400.00	1,400.00	1,400.40	1,400.40	3.01	3.01	89.57	0.67	90.00	90.00	83.98	6.02	14.945			
1,500.00	1,500.00	1,500.40	1,500.40	3.24	3.24	89.57	0.67	90.00	90.00	83.53	6.47	13.907			
1,600.00	1,600.00	1,600.40	1,600.40	3.46	3.46	89.57	0.67	90.00	90.00	83.08	6.92	13.003			

CC - Min centre to center distance or convergent 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 Seawolf 1-12 Fed - 102H - 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	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	+N/-S (usft)	+E/-W (usft)	(usft)	(usft)	(usft)			
1,700.00	1,700.00	1,700.40	1,700.40	3.69	3.69	89.57	0.67	90.00	90.00	82.63	7.37	12.210		
1,800.00	1,800.00	1,800.40	1,800.40	3.91	3.91	89.57	0.67	90.00	90.00	82.18	7.82	11.509		
1,900.00	1,900.00	1,900.40	1,900.40	4.13	4.14	89.57	0.67	90.00	90.00	81.73	8.27	10.883		
2,000.00	2,000.00	2,000.40	2,000.40	4.36	4.36	89.57	0.67	90.00	90.00	81.28	8.72	10.322		
2,100.00	2,100.00	2,100.40	2,100.40	4.58	4.59	89.57	0.67	90.00	90.00	80.83	9.17	9.816		
2,200.00	2,200.00	2,200.40	2,200.40	4.81	4.81	89.57	0.67	90.00	90.00	80.38	9.62	9.357		
2,300.00	2,300.00	2,300.40	2,300.40	5.03	5.03	89.57	0.67	90.00	90.00	79.93	10.07	8.939		
2,400.00	2,400.00	2,400.40	2,400.40	5.26	5.26	89.57	0.67	90.00	90.00	79.48	10.52	8.557		
2,416.53	2,416.53	2,416.93	2,416.93	5.30	5.30	89.57	0.67	90.00	90.00	79.41	10.59	8.497 CC		
2,500.00	2,500.00	2,500.00	2,500.00	5.48	5.48	89.57	0.67	90.00	90.00	79.04	10.97	8.207		
2,600.00	2,599.99	2,598.88	2,598.87	5.70	5.69	17.63	0.85	90.83	90.02	78.63	11.39	7.903		
2,700.00	2,699.96	2,697.36	2,697.32	5.91	5.90	17.80	1.38	93.32	90.06	78.27	11.79	7.637		
2,800.00	2,799.86	2,795.85	2,795.72	6.11	6.10	18.08	2.26	97.47	90.12	77.92	12.19	7.392		
2,900.00	2,899.68	2,894.33	2,894.02	6.33	6.31	18.48	3.49	103.27	90.20	77.61	12.59	7.164		
3,000.00	2,999.37	2,992.81	2,992.21	6.54	6.52	18.99	5.07	110.72	90.31	77.32	12.99	6.952 ES		
3,100.00	3,098.99	3,091.29	3,090.24	6.76	6.73	19.43	7.01	119.82	91.28	77.89	13.39	6.817		
3,200.00	3,198.60	3,190.34	3,188.69	6.99	6.96	19.63	9.28	130.49	93.79	79.99	13.80	6.797		
3,300.00	3,298.22	3,290.30	3,288.01	7.21	7.19	19.79	11.63	141.56	96.60	82.37	14.23	6.790		
3,400.00	3,397.84	3,390.26	3,387.32	7.44	7.42	19.93	13.98	152.63	99.40	84.75	14.66	6.782		
3,500.00	3,497.46	3,490.22	3,486.64	7.67	7.66	20.06	16.34	163.70	102.21	87.12	15.09	6.774		
3,600.00	3,597.08	3,590.18	3,585.96	7.91	7.90	20.19	18.69	174.77	105.02	89.49	15.53	6.764		
3,700.00	3,696.70	3,690.14	3,685.28	8.14	8.15	20.31	21.04	185.84	107.82	91.86	15.96	6.754		
3,800.00	3,796.32	3,790.10	3,784.59	8.38	8.40	20.43	23.39	196.90	110.63	94.23	16.40	6.744		
3,900.00	3,895.94	3,890.06	3,883.91	8.62	8.65	20.54	25.75	207.97	113.44	96.59	16.85	6.734		
4,000.00	3,995.56	3,990.02	3,983.23	8.86	8.90	20.64	28.10	219.04	116.25	98.96	17.29	6.723		
4,100.00	4,095.18	4,089.98	4,082.55	9.10	9.15	20.74	30.45	230.11	119.06	101.32	17.74	6.713		
4,200.00	4,194.80	4,189.94	4,181.87	9.34	9.41	20.84	32.80	241.18	121.87	103.68	18.18	6.702		
4,300.00	4,294.42	4,289.90	4,281.18	9.58	9.67	20.93	35.16	252.25	124.68	106.04	18.63	6.691		
4,400.00	4,394.04	4,389.86	4,380.50	9.83	9.93	21.01	37.51	263.32	127.49	108.40	19.08	6.680		
4,500.00	4,493.66	4,489.82	4,479.82	10.07	10.19	21.10	39.86	274.38	130.30	110.76	19.54	6.670		
4,600.00	4,593.28	4,589.78	4,579.14	10.32	10.45	21.17	42.21	285.45	133.11	113.12	19.99	6.659		
4,700.00	4,692.90	4,689.75	4,678.45	10.57	10.72	21.25	44.57	296.52	135.92	115.48	20.44	6.649		
4,800.00	4,792.52	4,789.71	4,777.77	10.81	10.98	21.32	46.92	307.59	138.73	117.83	20.90	6.638		
4,900.00	4,892.14	4,889.67	4,877.09	11.06	11.25	21.39	49.27	318.66	141.54	120.19	21.36	6.628		
5,000.00	4,991.76	4,989.63	4,976.41	11.31	11.52	21.46	51.63	329.73	144.35	122.54	21.81	6.618		
5,100.00	5,091.37	5,089.59	5,075.73	11.56	11.78	21.53	53.98	340.80	147.17	124.89	22.27	6.608		
5,200.00	5,190.99	5,189.55	5,175.04	11.81	12.05	21.59	56.33	351.86	149.98	127.25	22.73	6.598		
5,300.00	5,290.61	5,289.51	5,274.36	12.06	12.32	21.65	58.68	362.93	152.79	129.60	23.19	6.589		
5,400.00	5,390.23	5,389.47	5,373.68	12.31	12.60	21.71	61.04	374.00	155.60	131.95	23.65	6.579		
5,500.00	5,489.85	5,489.43	5,473.00	12.57	12.87	21.76	63.39	385.07	158.41	134.30	24.11	6.570		
5,600.00	5,589.47	5,589.39	5,572.31	12.82	13.14	21.81	65.74	396.14	161.23	136.65	24.57	6.561		
5,700.00	5,689.09	5,689.35	5,671.63	13.07	13.41	21.87	68.09	407.21	164.04	139.00	25.04	6.552		
5,800.00	5,788.71	5,789.31	5,770.95	13.33	13.69	21.92	70.45	418.27	166.85	141.35	25.50	6.543		
5,900.00	5,888.33	5,889.27	5,870.27	13.58	13.96	21.97	72.80	429.34	169.66	143.70	25.97	6.534		
6,000.00	5,987.95	5,989.23	5,969.59	13.83	14.24	22.01	75.15	440.41	172.48	146.05	26.43	6.526		
6,100.00	6,087.57	6,089.19	6,068.90	14.09	14.51	22.06	77.51	451.48	175.29	148.40	26.89	6.518		
6,200.00	6,187.19	6,189.15	6,168.22	14.34	14.79	22.10	79.86	462.55	178.10	150.74	27.36	6.510		
6,300.00	6,286.81	6,289.11	6,267.54	14.60	15.07	22.14	82.21	473.62	180.92	153.09	27.83	6.502		
6,400.00	6,386.43	6,389.07	6,366.86	14.85	15.34	22.19	84.56	484.69	183.73	155.44	28.29	6.494		
6,500.00	6,486.05	6,489.03	6,466.17	15.11	15.62	22.23	86.92	495.75	186.54	157.78	28.76	6.486		
6,600.00	6,585.67	6,588.99	6,565.49	15.37	15.90	22.26	89.27	506.82	189.36	160.13	29.23	6.479		
6,700.00	6,685.29	6,688.95	6,664.81	15.62	16.18	22.30	91.62	517.89	192.17	162.48	29.70	6.472		

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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	
6,800.00	6,784.91	6,788.91	6,764.13	15.88	16.46	22.34	93.97	528.96	194.99	164.82	30.16	6.464	
6,900.00	6,884.53	6,888.87	6,863.45	16.14	16.74	22.38	96.33	540.03	197.80	167.17	30.83	6.457	
7,000.00	6,984.14	6,988.83	6,962.76	16.39	17.02	22.41	98.68	551.10	200.61	169.51	31.10	6.450	
7,100.00	7,083.76	7,088.79	7,062.08	16.65	17.30	22.44	101.03	562.17	203.43	171.86	31.57	6.444	
7,200.00	7,183.38	7,188.75	7,161.40	16.91	17.58	22.48	103.38	573.23	206.24	174.20	32.04	6.437	
7,300.00	7,283.00	7,288.71	7,260.72	17.17	17.86	22.51	105.74	584.30	209.06	176.55	32.51	6.431	
7,400.00	7,382.62	7,388.67	7,360.03	17.42	18.14	22.54	108.09	595.37	211.87	178.89	32.98	6.424	
7,500.00	7,482.24	7,488.63	7,459.35	17.68	18.42	22.57	110.44	606.44	214.68	181.24	33.45	6.418	
7,600.00	7,581.86	7,588.59	7,558.67	17.94	18.70	22.60	112.80	617.51	217.50	183.58	33.92	6.412	
7,700.00	7,681.48	7,688.56	7,657.99	18.20	18.98	22.63	115.15	628.58	220.31	185.92	34.39	6.406	
7,800.00	7,781.10	7,788.52	7,757.31	18.46	19.26	22.66	117.50	639.65	223.13	188.27	34.86	6.400	
7,900.00	7,880.72	7,888.48	7,856.62	18.72	19.54	22.68	119.85	650.71	225.94	190.61	35.33	6.395	
8,000.00	7,980.34	7,988.44	7,955.94	18.97	19.82	22.71	122.21	661.78	228.76	192.95	35.81	6.389	
8,100.00	8,079.96	8,088.40	8,055.26	19.23	20.11	22.74	124.56	672.85	231.57	195.29	36.28	6.383	
8,200.00	8,179.58	8,188.36	8,154.58	19.49	20.39	22.76	126.91	683.92	234.39	197.64	36.75	6.378	
8,300.00	8,279.20	8,288.32	8,253.89	19.75	20.67	22.79	129.26	694.99	237.20	199.98	37.22	6.373	
8,400.00	8,378.82	8,388.28	8,353.21	20.01	20.95	22.81	131.62	706.06	240.02	202.32	37.69	6.368	
8,500.00	8,478.44	8,488.24	8,452.53	20.27	21.24	22.83	133.97	717.13	242.83	204.66	38.17	6.362	
8,600.00	8,578.06	8,588.20	8,551.85	20.53	21.52	22.86	136.32	728.19	245.65	207.01	38.64	6.357	
8,700.00	8,677.68	8,688.16	8,651.17	20.79	21.80	22.88	138.68	739.26	248.46	209.35	39.11	6.353	
8,800.00	8,777.30	8,788.12	8,750.48	21.05	22.09	22.90	141.03	750.33	251.27	211.69	39.58	6.348	
8,900.00	8,876.91	8,888.08	8,849.80	21.31	22.37	22.92	143.38	761.40	254.09	214.03	40.06	6.343	
9,000.00	8,976.53	8,988.04	8,949.12	21.57	22.65	22.94	145.73	772.47	256.90	216.37	40.53	6.338	
9,100.00	9,076.15	9,088.00	9,048.44	21.83	22.94	22.96	148.09	783.54	259.72	218.71	41.01	6.334	
9,200.00	9,175.77	9,187.96	9,147.75	22.09	23.22	22.98	150.44	794.61	262.53	221.06	41.48	6.329	
9,300.00	9,275.43	9,287.91	9,247.06	22.32	23.50	22.97	152.79	805.67	265.75	223.82	41.93	6.338	
9,400.00	9,375.15	9,387.83	9,346.34	22.52	23.79	22.89	155.14	816.74	269.77	227.42	42.35	6.370	
9,500.00	9,474.94	9,487.71	9,445.57	22.71	24.07	22.74	157.49	827.80	274.60	231.83	42.77	6.420	
9,600.00	9,574.78	9,587.54	9,544.77	22.90	24.36	22.53	159.84	838.85	280.23	237.04	43.19	6.489	
9,700.00	9,674.66	9,687.32	9,643.91	23.09	24.64	22.27	162.19	849.90	286.67	243.07	43.60	6.575	
9,800.00	9,774.59	9,787.05	9,742.99	23.27	24.92	21.95	164.54	860.94	293.92	249.92	44.01	6.679	
9,900.00	9,874.54	9,886.70	9,842.00	23.45	25.21	21.59	166.88	871.98	302.00	257.58	44.41	6.800	
10,000.00	9,974.51	9,986.28	9,940.94	23.63	25.49	21.20	169.23	883.00	310.89	266.08	44.81	6.937	
10,100.00	10,074.51	10,085.78	10,039.80	23.80	25.77	20.77	171.57	894.02	320.61	275.40	45.21	7.091	
10,200.00	10,174.50	10,185.18	10,138.56	23.97	26.06	92.31	173.91	905.03	331.17	285.56	45.62	7.260	
10,300.00	10,274.50	10,284.54	10,237.28	24.16	26.34	91.84	176.25	916.03	342.15	296.12	46.03	7.433	
10,400.00	10,374.50	10,383.90	10,336.00	24.36	26.62	91.41	178.59	927.03	353.16	306.70	46.46	7.601	
10,500.00	10,474.50	10,483.25	10,434.72	24.56	26.91	90.99	180.92	938.03	364.19	317.29	46.89	7.766	
10,600.00	10,574.50	10,584.02	10,534.85	24.76	27.18	90.60	183.28	949.11	375.15	327.82	47.33	7.927	
10,700.00	10,674.50	10,686.80	10,637.06	24.96	27.41	90.25	185.52	959.66	385.40	337.66	47.74	8.073	
10,800.00	10,774.50	10,789.76	10,739.55	25.16	27.62	89.94	187.58	969.33	394.79	346.64	48.14	8.200	
10,900.00	10,874.50	10,892.90	10,842.29	25.36	27.84	89.68	189.44	978.11	403.31	354.76	48.55	8.307	
11,000.00	10,974.50	10,996.19	10,945.27	25.56	28.05	89.45	191.12	985.99	410.96	362.00	48.95	8.395	
11,100.00	11,074.50	11,099.62	11,048.45	25.76	28.25	89.26	192.60	992.98	417.73	368.37	49.36	8.464	
11,200.00	11,174.50	11,203.17	11,151.81	25.97	28.45	89.09	193.90	999.06	423.62	373.87	49.76	8.514	
11,300.00	11,274.50	11,306.82	11,255.33	26.17	28.64	88.96	195.00	1,004.24	428.63	378.48	50.15	8.546	
11,400.00	11,374.50	11,410.56	11,358.98	26.37	28.83	88.85	196.90	1,008.50	432.75	382.20	50.55	8.561	
11,500.00	11,474.50	11,514.37	11,462.73	26.58	29.01	88.76	196.61	1,011.84	435.99	385.05	50.94	8.559	
11,600.00	11,574.50	11,618.24	11,566.57	26.78	29.19	88.70	197.13	1,014.27	438.34	387.00	51.33	8.539	
11,700.00	11,674.50	11,722.14	11,670.46	26.98	29.36	88.66	197.45	1,015.77	439.79	388.07	51.72	8.503	
11,800.00	11,774.50	11,826.06	11,774.38	27.19	29.53	88.65	197.57	1,016.36	440.36	388.25	52.11	8.451	
11,900.00	11,874.50	11,926.59	11,874.90	27.39	29.71	88.65	197.58	1,016.37	440.36	387.85	52.52	8.385	

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 102H - 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		
12,000.00	11,974.50	12,026.59	11,974.90	27.60	29.90	88.65	197.58	1,016.37	440.36	387.43	52.93	8.319		
12,100.00	12,074.50	12,126.59	12,074.90	27.80	30.08	88.65	197.58	1,016.37	440.36	387.01	53.35	8.254		
12,154.15	12,128.65	12,180.74	12,129.05	27.92	30.18	88.65	197.58	1,016.37	440.36	386.79	53.58	8.219		
12,200.00	12,174.46	12,226.54	12,174.86	28.00	30.27	-91.58	197.58	1,016.37	440.41	386.66	53.75	8.193		
12,250.00	12,224.06	12,276.14	12,224.46	28.08	30.36	-92.36	197.58	1,016.37	440.63	386.71	53.92	8.172		
12,300.00	12,272.93	12,325.02	12,273.33	28.15	30.45	-93.63	197.58	1,016.37	441.19	387.12	54.06	8.161		
12,350.00	12,320.71	12,372.80	12,321.11	28.22	30.54	-95.32	197.58	1,016.37	442.39	388.19	54.20	8.162		
12,400.00	12,367.03	12,419.11	12,367.43	28.28	30.63	-97.34	197.58	1,016.37	444.63	390.29	54.34	8.182		
12,450.00	12,411.53	12,463.62	12,411.93	28.34	30.71	-99.54	197.58	1,016.37	448.39	393.88	54.51	8.226		
12,500.00	12,453.88	12,505.97	12,454.28	28.39	30.79	-101.79	197.58	1,016.37	454.18	399.47	54.70	8.302		
12,550.00	12,493.76	12,545.84	12,494.16	28.44	30.87	-103.94	197.58	1,016.37	462.51	407.55	54.95	8.416		
12,600.00	12,530.85	12,582.94	12,531.25	28.49	30.94	-105.83	197.58	1,016.37	473.85	418.59	55.26	8.575		
12,650.00	12,564.89	12,616.97	12,565.29	28.54	31.00	-107.33	197.58	1,016.37	488.58	432.95	55.62	8.784		
12,700.00	12,595.60	12,658.57	12,606.88	28.59	31.08	-109.30	197.04	1,016.37	506.77	450.76	56.01	9.048		
12,750.00	12,622.76	12,717.37	12,665.38	28.65	31.17	-112.44	191.48	1,016.37	527.32	471.02	56.31	9.365		
12,800.00	12,646.16	12,786.94	12,733.43	28.72	31.27	-115.98	177.21	1,016.37	549.45	493.05	56.40	9.742		
12,850.00	12,665.63	12,872.78	12,814.22	28.80	31.37	-120.13	148.43	1,016.37	572.32	516.20	56.12	10.198		
12,900.00	12,681.00	12,983.71	12,910.67	28.90	31.48	-124.98	93.97	1,016.36	594.63	539.45	55.18	10.775		
12,950.00	12,692.17	13,132.40	13,020.10	29.01	31.62	-130.20	-6.07	1,016.36	614.26	560.97	53.30	11.525		
13,000.00	12,699.06	13,329.69	13,119.06	29.15	31.84	-134.49	-175.63	1,016.36	627.87	577.02	50.85	12.348		
13,051.12	12,701.60	13,541.10	13,155.00	29.32	32.32	-135.82	-382.75	1,016.35	631.67	581.93	49.74	12.698		
13,100.00	12,701.86	13,589.98	13,155.00	29.50	32.48	-135.80	-431.63	1,016.35	631.48	581.54	49.94	12.644		
13,200.00	12,702.39	13,689.97	13,155.00	29.93	32.87	-135.77	-531.63	1,016.34	631.10	580.66	50.44	12.511		
13,300.00	12,702.92	13,789.97	13,155.00	30.45	33.33	-135.74	-631.63	1,016.34	630.72	579.66	51.06	12.352		
13,400.00	12,703.45	13,889.97	13,155.00	31.05	33.87	-135.70	-731.62	1,016.34	630.34	578.54	51.80	12.170		
13,500.00	12,703.98	13,989.97	13,155.00	31.72	34.49	-135.67	-831.62	1,016.33	629.96	577.32	52.64	11.967		
13,600.00	12,704.51	14,089.97	13,155.00	32.46	35.17	-135.64	-931.62	1,016.33	629.58	575.99	53.59	11.748		
13,700.00	12,705.04	14,189.97	13,155.00	33.27	35.91	-135.60	-1,031.62	1,016.33	629.20	574.56	54.64	11.515		
13,800.00	12,705.56	14,289.97	13,155.00	34.14	36.72	-135.57	-1,131.62	1,016.32	628.82	573.03	55.79	11.271		
13,900.00	12,706.09	14,389.96	13,155.00	35.06	37.58	-135.54	-1,231.62	1,016.32	628.44	571.41	57.03	11.020		
14,000.00	12,706.62	14,489.96	13,155.00	36.03	38.49	-135.50	-1,331.62	1,016.32	628.06	569.71	58.35	10.764		
14,100.00	12,707.15	14,589.96	13,155.00	37.05	39.44	-135.47	-1,431.61	1,016.31	627.68	567.93	59.75	10.506		
14,200.00	12,707.68	14,689.96	13,155.00	38.11	40.44	-135.43	-1,531.61	1,016.31	627.30	566.08	61.22	10.246		
14,300.00	12,708.21	14,789.96	13,155.00	39.21	41.48	-135.40	-1,631.61	1,016.31	626.92	564.16	62.77	9.988		
14,400.00	12,708.74	14,889.96	13,155.00	40.34	42.56	-135.37	-1,731.61	1,016.30	626.54	562.17	64.37	9.733		
14,500.00	12,709.27	14,989.96	13,155.00	41.51	43.67	-135.33	-1,831.61	1,016.30	626.17	560.13	66.04	9.482		
14,600.00	12,709.79	15,089.95	13,155.00	42.71	44.82	-135.30	-1,931.61	1,016.30	625.79	558.03	67.76	9.235		
14,700.00	12,710.32	15,189.95	13,155.00	43.94	45.99	-135.27	-2,031.61	1,016.29	625.41	555.87	69.54	8.994		
14,800.00	12,710.85	15,289.95	13,155.00	45.20	47.20	-135.23	-2,131.60	1,016.29	625.03	553.67	71.36	8.759		
14,900.00	12,711.38	15,389.95	13,155.00	46.47	48.42	-135.20	-2,231.60	1,016.29	624.65	551.43	73.23	8.530		
15,000.00	12,711.91	15,489.95	13,155.00	47.77	49.67	-135.16	-2,331.60	1,016.28	624.28	549.14	75.13	8.309		
15,100.00	12,712.44	15,589.95	13,155.00	49.09	50.95	-135.13	-2,431.60	1,016.28	623.90	546.82	77.08	8.094		
15,200.00	12,712.97	15,689.95	13,155.00	50.43	52.24	-135.10	-2,531.60	1,016.27	623.52	544.46	79.07	7.886		
15,300.00	12,713.50	15,789.95	13,155.00	51.78	53.55	-135.06	-2,631.60	1,016.27	623.15	542.06	81.08	7.685		
15,400.00	12,714.02	15,889.94	13,155.00	53.15	54.88	-135.03	-2,731.60	1,016.27	622.77	539.64	83.13	7.491		
15,500.00	12,714.55	15,989.94	13,155.00	54.54	56.22	-134.99	-2,831.59	1,016.26	622.39	537.19	85.21	7.304		
15,600.00	12,715.08	16,089.94	13,155.00	55.94	57.58	-134.96	-2,931.59	1,016.26	622.02	534.70	87.31	7.124		
15,700.00	12,715.61	16,189.94	13,155.00	57.35	58.96	-134.92	-3,031.59	1,016.26	621.64	532.20	89.44	6.950		
15,800.00	12,716.14	16,289.94	13,155.00	58.77	60.34	-134.89	-3,131.59	1,016.25	621.27	529.67	91.60	6.783		
15,900.00	12,716.67	16,389.94	13,155.00	60.20	61.74	-134.86	-3,231.59	1,016.25	620.89	527.12	93.77	6.621		
16,000.00	12,717.20	16,489.94	13,155.00	61.65	63.15	-134.82	-3,331.59	1,016.25	620.52	524.54	95.97	6.466		
16,100.00	12,717.73	16,589.93	13,155.00	63.10	64.57	-134.79	-3,431.59	1,016.24	620.14	521.95	98.19	6.316		

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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 102H - 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
16,200.00	12,718.25	16,689.93	13,155.00	64.56	66.00	-134.75	-3,531.58	1,016.24	619.77	519.34	100.43	6.171	
16,300.00	12,718.78	16,789.93	13,155.00	66.03	67.44	-134.72	-3,631.58	1,016.24	619.39	516.71	102.68	6.032	
16,400.00	12,719.31	16,889.93	13,155.00	67.51	68.89	-134.68	-3,731.58	1,016.23	619.02	514.07	104.95	5.898	
16,500.00	12,719.84	16,989.93	13,155.00	68.99	70.35	-134.65	-3,831.58	1,016.23	618.64	511.41	107.24	5.769	
16,600.00	12,720.37	17,089.93	13,155.00	70.48	71.81	-134.61	-3,931.58	1,016.23	618.27	508.73	109.54	5.644	
16,700.00	12,720.90	17,189.93	13,155.00	71.98	73.28	-134.58	-4,031.58	1,016.22	617.90	506.04	111.85	5.524	
16,800.00	12,721.43	17,289.92	13,155.00	73.48	74.76	-134.54	-4,131.58	1,016.22	617.52	503.34	114.18	5.408	
16,900.00	12,721.96	17,389.92	13,155.00	74.99	76.25	-134.51	-4,231.57	1,016.22	617.15	500.62	116.53	5.296	
17,000.00	12,722.48	17,489.92	13,155.00	76.50	77.74	-134.48	-4,331.57	1,016.21	616.78	497.90	118.88	5.188	
17,100.00	12,723.01	17,589.92	13,155.00	78.02	79.23	-134.44	-4,431.57	1,016.21	616.40	495.16	121.25	5.084	
17,200.00	12,723.54	17,689.92	13,155.00	79.54	80.73	-134.41	-4,531.57	1,016.21	616.03	492.41	123.62	4.983	
17,300.00	12,724.07	17,789.92	13,155.00	81.07	82.24	-134.37	-4,631.57	1,016.20	615.66	489.65	126.01	4.886	
17,400.00	12,724.60	17,889.92	13,155.00	82.60	83.75	-134.34	-4,731.57	1,016.20	615.29	486.88	128.41	4.792	
17,500.00	12,725.13	17,989.91	13,155.00	84.14	85.27	-134.30	-4,831.57	1,016.20	614.92	484.10	130.81	4.701	
17,600.00	12,725.66	18,089.91	13,155.00	85.68	86.79	-134.27	-4,931.56	1,016.19	614.54	481.32	133.23	4.613	
17,700.00	12,726.19	18,189.91	13,155.00	87.22	88.31	-134.23	-5,031.56	1,016.19	614.17	478.52	135.65	4.527	
17,800.00	12,726.71	18,289.91	13,155.00	88.76	89.84	-134.20	-5,131.56	1,016.19	613.80	475.71	138.09	4.445	
17,900.00	12,727.24	18,389.91	13,155.00	90.31	91.37	-134.16	-5,231.56	1,016.18	613.43	472.90	140.53	4.365	
18,000.00	12,727.77	18,489.91	13,155.00	91.86	92.91	-134.12	-5,331.56	1,016.18	613.06	470.08	142.98	4.288	
18,100.00	12,728.30	18,589.91	13,155.00	93.42	94.45	-134.09	-5,431.56	1,016.18	612.69	467.25	145.44	4.213	
18,200.00	12,728.83	18,689.90	13,155.00	94.97	95.99	-134.05	-5,531.56	1,016.17	612.32	464.42	147.90	4.140	
18,300.00	12,729.36	18,789.90	13,155.00	96.53	97.53	-134.02	-5,631.56	1,016.17	611.95	461.58	150.37	4.070	
18,400.00	12,729.89	18,889.90	13,155.00	98.10	99.08	-133.98	-5,731.55	1,016.17	611.58	458.73	152.85	4.001	
18,500.00	12,730.42	18,989.90	13,155.00	99.66	100.63	-133.95	-5,831.55	1,016.16	611.21	455.87	155.34	3.935	
18,600.00	12,730.94	19,089.90	13,155.00	101.23	102.18	-133.91	-5,931.55	1,016.16	610.84	453.01	157.83	3.870	
18,700.00	12,731.47	19,189.90	13,155.00	102.80	103.74	-133.88	-6,031.55	1,016.16	610.47	450.15	160.33	3.808	
18,800.00	12,732.00	19,289.90	13,155.00	104.37	105.30	-133.84	-6,131.55	1,016.15	610.10	447.27	162.83	3.747	
18,900.00	12,732.53	19,389.89	13,155.00	105.94	106.86	-133.81	-6,231.55	1,016.15	609.74	444.40	165.34	3.688	
19,000.00	12,733.06	19,489.89	13,155.00	107.51	108.42	-133.77	-6,331.55	1,016.15	609.37	441.51	167.86	3.630	
19,100.00	12,733.59	19,589.89	13,155.00	109.09	109.98	-133.73	-6,431.54	1,016.14	609.00	438.62	170.38	3.574	
19,200.00	12,734.12	19,689.89	13,155.00	110.67	111.55	-133.70	-6,531.54	1,016.14	608.63	435.73	172.91	3.520	
19,300.00	12,734.65	19,789.89	13,155.00	112.25	113.12	-133.66	-6,631.54	1,016.14	608.26	432.83	175.44	3.467	
19,400.00	12,735.18	19,889.89	13,155.00	113.83	114.69	-133.63	-6,731.54	1,016.13	607.90	429.92	177.97	3.416	
19,500.00	12,735.70	19,989.89	13,155.00	115.41	116.26	-133.59	-6,831.54	1,016.13	607.53	427.01	180.52	3.366	
19,600.00	12,736.23	20,089.89	13,155.00	116.99	117.83	-133.55	-6,931.54	1,016.13	607.16	424.10	183.06	3.317	
19,700.00	12,736.76	20,189.88	13,155.00	118.58	119.41	-133.52	-7,031.54	1,016.12	606.80	421.18	185.62	3.269	
19,800.00	12,737.29	20,289.88	13,155.00	120.17	120.99	-133.48	-7,131.53	1,016.12	606.43	418.26	188.17	3.223	
19,900.00	12,737.82	20,389.88	13,155.00	121.75	122.56	-133.45	-7,231.53	1,016.12	606.07	415.33	190.73	3.178	
20,000.00	12,738.35	20,489.88	13,155.00	123.34	124.14	-133.41	-7,331.53	1,016.11	605.70	412.40	193.30	3.133	
20,100.00	12,738.88	20,589.88	13,155.00	124.93	125.72	-133.37	-7,431.53	1,016.11	605.33	409.46	195.87	3.090	
20,200.00	12,739.41	20,689.88	13,155.00	126.53	127.31	-133.34	-7,531.53	1,016.10	604.97	406.52	198.44	3.049	
20,300.00	12,739.93	20,789.88	13,155.00	128.12	128.89	-133.30	-7,631.53	1,016.10	604.60	403.58	201.02	3.008	
20,400.00	12,740.46	20,889.87	13,155.00	129.71	130.48	-133.27	-7,731.53	1,016.10	604.24	400.63	203.61	2.968	
20,500.00	12,740.99	20,989.87	13,155.00	131.31	132.06	-133.23	-7,831.52	1,016.09	603.87	397.68	206.19	2.929	
20,600.00	12,741.52	21,089.87	13,155.00	132.90	133.65	-133.19	-7,931.52	1,016.09	603.51	394.72	208.79	2.891	
20,700.00	12,742.05	21,189.87	13,155.00	134.50	135.24	-133.16	-8,031.52	1,016.09	603.15	391.76	211.38	2.853	
20,800.00	12,742.58	21,289.87	13,155.00	136.10	136.83	-133.12	-8,131.52	1,016.08	602.78	388.80	213.98	2.817	
20,900.00	12,743.11	21,389.87	13,155.00	137.69	138.42	-133.08	-8,231.52	1,016.08	602.42	385.83	216.58	2.781	
21,000.00	12,743.64	21,489.87	13,155.00	139.29	140.01	-133.05	-8,331.52	1,016.08	602.05	382.86	219.19	2.747	
21,100.00	12,744.16	21,589.86	13,155.00	140.89	141.60	-133.01	-8,431.52	1,016.07	601.69	379.89	221.80	2.713	
21,200.00	12,744.69	21,689.86	13,155.00	142.49	143.20	-132.97	-8,531.51	1,016.07	601.33	376.91	224.42	2.680	
21,300.00	12,745.22	21,789.86	13,155.00	144.09	144.79	-132.94	-8,631.51	1,016.07	600.97	373.93	227.03	2.647	

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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 102H - 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	
21,400.00	12,745.75	21,889.86	13,155.00	145.70	146.38	-132.90	-8,731.51	1,016.06	600.60	370.95	229.66	2.615	
21,500.00	12,746.28	21,989.86	13,155.00	147.30	147.98	-132.86	-8,831.51	1,016.06	600.24	367.96	232.28	2.584	
21,600.00	12,746.81	22,089.86	13,155.00	148.90	149.58	-132.83	-8,931.51	1,016.06	599.88	364.97	234.91	2.554	
21,700.00	12,747.34	22,189.86	13,155.00	150.51	151.18	-132.79	-9,031.51	1,016.05	599.52	361.98	237.54	2.524	
21,800.00	12,747.87	22,289.85	13,155.00	152.11	152.77	-132.75	-9,131.51	1,016.05	599.16	358.98	240.18	2.495	
21,900.00	12,748.39	22,389.85	13,155.00	153.72	154.37	-132.72	-9,231.50	1,016.05	598.79	355.98	242.82	2.466	
22,000.00	12,748.92	22,489.85	13,155.00	155.32	155.97	-132.68	-9,331.50	1,016.04	598.43	352.98	245.46	2.438	
22,100.00	12,749.45	22,589.85	13,155.00	156.93	157.57	-132.64	-9,431.50	1,016.04	598.07	349.97	248.10	2.411	
22,200.00	12,749.98	22,689.85	13,155.00	158.54	159.18	-132.61	-9,531.50	1,016.04	597.71	346.96	250.75	2.384	
22,300.00	12,750.51	22,789.85	13,155.00	160.14	160.78	-132.57	-9,631.50	1,016.03	597.35	343.95	253.41	2.357	
22,400.00	12,751.04	22,889.85	13,155.00	161.75	162.38	-132.53	-9,731.50	1,016.03	596.99	340.93	256.06	2.331	
22,500.00	12,751.57	22,989.84	13,155.00	163.36	163.98	-132.49	-9,831.50	1,016.03	596.63	337.91	258.72	2.306	
22,600.00	12,752.10	23,089.84	13,155.00	164.97	165.59	-132.46	-9,931.50	1,016.02	596.27	334.89	261.38	2.281	
22,689.96	12,752.57	23,179.80	13,155.00	166.42	167.03	-132.42	-10,021.46	1,016.02	595.95	332.17	263.78	2.259	
22,695.43	12,752.60	23,182.55	13,155.00	166.51	167.07	-132.42	-10,024.20	1,016.02	595.94	331.98	263.95	2.258	
22,696.28	12,752.60	23,182.55	13,155.00	166.52	167.07	-132.42	-10,024.20	1,016.02	595.94	331.95	263.98	2.257 SF	

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 81H - 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	89.66	0.18	30.02	30.02						
100.00	100.00	99.90	99.90	0.09	0.09	89.66	0.18	30.02	30.02	29.84	0.18	169.152			
200.00	200.00	199.90	199.90	0.31	0.31	89.66	0.18	30.02	30.02	29.39	0.63	47.889			
300.00	300.00	299.90	299.90	0.54	0.54	89.66	0.18	30.02	30.02	28.94	1.08	27.890			
400.00	400.00	399.90	399.90	0.76	0.76	89.66	0.18	30.02	30.02	28.49	1.53	19.674			
500.00	500.00	499.90	499.90	0.99	0.99	89.66	0.18	30.02	30.02	28.05	1.98	15.197			
600.00	600.00	599.90	599.90	1.21	1.21	89.66	0.18	30.02	30.02	27.60	2.43	12.380			
700.00	700.00	699.90	699.90	1.44	1.44	89.66	0.18	30.02	30.02	27.15	2.87	10.444			
800.00	800.00	799.90	799.90	1.66	1.66	89.66	0.18	30.02	30.02	26.70	3.32	9.031			
900.00	900.00	899.90	899.90	1.89	1.89	89.66	0.18	30.02	30.02	26.25	3.77	7.955			
1,000.00	1,000.00	999.90	999.90	2.11	2.11	89.66	0.18	30.02	30.02	25.80	4.22	7.109			
1,100.00	1,100.00	1,099.90	1,099.90	2.34	2.34	89.66	0.18	30.02	30.02	25.35	4.67	6.425			
1,200.00	1,200.00	1,199.90	1,199.90	2.56	2.56	89.66	0.18	30.02	30.02	24.90	5.12	5.861			
1,300.00	1,300.00	1,299.90	1,299.90	2.79	2.79	89.66	0.18	30.02	30.02	24.45	5.57	5.388			
1,400.00	1,400.00	1,399.90	1,399.90	3.01	3.01	89.66	0.18	30.02	30.02	24.00	6.02	4.986			
1,500.00	1,500.00	1,499.90	1,499.90	3.24	3.24	89.66	0.18	30.02	30.02	23.55	6.47	4.639			
1,600.00	1,600.00	1,599.90	1,599.90	3.46	3.46	89.66	0.18	30.02	30.02	23.10	6.92	4.338			
1,700.00	1,700.00	1,699.90	1,699.90	3.69	3.68	89.66	0.18	30.02	30.02	22.65	7.37	4.073			
1,800.00	1,800.00	1,799.90	1,799.90	3.91	3.91	89.66	0.18	30.02	30.02	22.20	7.82	3.839			
1,900.00	1,900.00	1,899.90	1,899.90	4.13	4.13	89.66	0.18	30.02	30.02	21.75	8.27	3.631			
2,000.00	2,000.00	1,999.90	1,999.90	4.36	4.36	89.66	0.18	30.02	30.02	21.30	8.72	3.443			
2,100.00	2,100.00	2,099.90	2,099.90	4.58	4.58	89.66	0.18	30.02	30.02	20.85	9.17	3.274			
2,200.00	2,200.00	2,199.90	2,199.90	4.81	4.81	89.66	0.18	30.02	30.02	20.40	9.62	3.121			
2,300.00	2,300.00	2,299.90	2,299.90	5.03	5.03	89.66	0.18	30.02	30.02	19.95	10.07	2.982			
2,400.00	2,400.00	2,399.90	2,399.90	5.26	5.26	89.66	0.18	30.02	30.02	19.50	10.52	2.855			
2,500.00	2,500.00	2,499.90	2,499.90	5.48	5.48	89.66	0.18	30.02	30.02	19.05	10.97	2.738			
2,600.00	2,599.99	2,599.66	2,599.65	5.70	5.71	16.67	0.96	30.41	29.59	18.18	11.40	2.595			
2,700.00	2,699.96	2,699.39	2,699.35	5.91	5.93	13.54	3.28	31.57	28.34	16.51	11.83	2.396			
2,800.00	2,799.86	2,799.07	2,798.93	6.11	6.15	7.70	7.16	33.51	26.48	14.23	12.25	2.162			
2,900.00	2,899.68	2,898.67	2,898.34	6.33	6.37	-1.81	12.58	36.22	24.42	11.75	12.67	1.927			
3,000.00	2,999.37	2,998.16	2,997.53	6.54	6.60	-15.97	19.54	39.70	22.94	9.86	13.09	1.753			
3,039.95	3,039.16	3,038.01	3,037.23	6.63	6.69	-22.68	22.64	41.25	22.79	9.53	13.26	1.718 CC, ES			
3,100.00	3,098.99	3,097.92	3,096.92	6.76	6.82	-32.71	27.31	43.58	23.14	9.62	13.52	1.711			
3,200.00	3,198.60	3,197.70	3,196.31	6.99	7.05	-47.92	35.08	47.47	25.20	11.23	13.97	1.803			
3,300.00	3,298.22	3,297.47	3,295.71	7.21	7.28	-60.13	42.86	51.36	28.73	14.29	14.44	1.990			
3,400.00	3,397.84	3,397.24	3,395.10	7.44	7.51	-69.36	50.63	55.24	33.25	18.35	14.90	2.231			
3,500.00	3,497.46	3,497.02	3,494.49	7.67	7.75	-76.25	58.40	59.13	38.43	23.06	15.37	2.500			
3,600.00	3,597.08	3,596.79	3,593.89	7.91	7.98	-81.45	66.18	63.02	44.02	28.18	15.84	2.779			
3,700.00	3,696.70	3,696.57	3,693.28	8.14	8.22	-85.46	73.95	66.90	49.90	33.59	16.31	3.059			
3,800.00	3,796.32	3,796.34	3,792.68	8.38	8.46	-88.61	81.72	70.79	55.97	39.18	16.79	3.334			
3,900.00	3,895.94	3,896.11	3,892.07	8.62	8.70	-91.14	89.49	74.68	62.17	44.91	17.26	3.602			
4,000.00	3,995.56	3,995.89	3,991.47	8.86	8.94	-93.20	97.27	78.56	68.47	50.73	17.74	3.860			
4,100.00	4,095.18	4,095.66	4,090.86	9.10	9.18	-94.92	105.04	82.45	74.85	56.63	18.22	4.108			
4,200.00	4,194.80	4,195.43	4,190.26	9.34	9.43	-96.37	112.81	86.34	81.28	62.58	18.70	4.347			
4,300.00	4,294.42	4,295.21	4,289.65	9.58	9.67	-97.60	120.59	90.22	87.76	68.58	19.18	4.575			
4,400.00	4,394.04	4,394.98	4,389.04	9.83	9.92	-98.66	128.36	94.11	94.27	74.60	19.67	4.793			
4,500.00	4,493.66	4,494.75	4,488.44	10.07	10.16	-99.59	136.13	98.00	100.81	80.66	20.15	5.003			
4,600.00	4,593.28	4,594.53	4,587.83	10.32	10.41	-100.40	143.91	101.88	107.37	86.73	20.64	5.203			
4,700.00	4,692.90	4,694.33	4,687.26	10.57	10.66	-101.12	151.68	105.77	113.95	92.83	21.13	5.394			
4,800.00	4,792.52	4,794.69	4,787.27	10.81	10.85	-101.96	159.06	109.46	120.28	98.72	21.56	5.578			
4,900.00	4,892.14	4,895.07	4,887.39	11.06	11.05	-103.05	165.66	112.76	126.17	104.16	22.00	5.734			
5,000.00	4,991.76	4,995.47	4,987.57	11.31	11.24	-104.38	171.48	115.67	131.64	109.20	22.44	5.867			

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 81H - 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	5,091.37	5,095.87	5,087.81	11.56	11.43	-105.91	176.51	118.18	136.75	113.87	22.87	5.978		
5,200.00	5,190.99	5,196.24	5,188.08	11.81	11.62	-107.65	180.75	120.30	141.53	118.23	23.31	6.072		
5,300.00	5,290.61	5,296.59	5,288.35	12.06	11.81	-109.58	184.21	122.03	146.06	122.32	23.74	6.153		
5,400.00	5,390.23	5,396.89	5,388.60	12.31	12.00	-111.70	186.88	123.37	150.39	126.22	24.17	6.223		
5,500.00	5,489.85	5,497.13	5,488.82	12.57	12.18	-114.00	188.76	124.31	154.59	130.00	24.59	6.287		
5,600.00	5,589.47	5,597.28	5,588.97	12.82	12.36	-116.47	189.86	124.86	158.74	133.74	25.01	6.348		
5,700.00	5,689.09	5,697.31	5,688.99	13.07	12.55	-119.09	190.18	125.02	162.93	137.51	25.42	6.410		
5,800.00	5,788.71	5,796.93	5,788.61	13.33	12.76	-121.70	190.18	125.02	167.35	141.49	25.86	6.472		
5,900.00	5,888.33	5,896.55	5,888.23	13.58	12.97	-124.16	190.18	125.02	172.10	145.81	26.29	6.545		
6,000.00	5,987.95	5,996.17	5,987.85	13.83	13.19	-126.49	190.18	125.02	177.15	150.42	26.73	6.627		
6,100.00	6,087.57	6,095.79	6,087.47	14.09	13.40	-128.68	190.18	125.02	182.48	155.32	27.16	6.718		
6,200.00	6,187.19	6,195.41	6,187.09	14.34	13.62	-130.75	190.18	125.02	188.07	160.47	27.60	6.815		
6,300.00	6,286.81	6,295.03	6,286.71	14.60	13.83	-132.70	190.18	125.02	193.88	165.85	28.03	6.917		
6,400.00	6,386.43	6,394.65	6,386.33	14.85	14.05	-134.53	190.18	125.02	199.90	171.44	28.46	7.024		
6,500.00	6,486.05	6,494.27	6,485.95	15.11	14.27	-136.25	190.18	125.02	206.12	177.23	28.89	7.134		
6,600.00	6,585.67	6,593.88	6,585.57	15.37	14.48	-137.88	190.18	125.02	212.51	183.19	29.33	7.247		
6,700.00	6,685.29	6,693.50	6,685.19	15.62	14.70	-139.40	190.18	125.02	219.07	189.31	29.76	7.362		
6,800.00	6,784.91	6,793.12	6,784.81	15.88	14.92	-140.84	190.18	125.02	225.77	195.58	30.19	7.478		
6,900.00	6,884.53	6,892.74	6,884.43	16.14	15.13	-142.20	190.18	125.02	232.60	201.98	30.62	7.596		
7,000.00	6,984.14	6,992.36	6,984.04	16.39	15.35	-143.47	190.18	125.02	239.56	208.50	31.06	7.713		
7,100.00	7,083.76	7,091.98	7,083.66	16.65	15.57	-144.67	190.18	125.02	246.62	215.13	31.49	7.832		
7,200.00	7,183.38	7,191.60	7,183.28	16.91	15.78	-145.81	190.18	125.02	253.79	221.87	31.93	7.949		
7,300.00	7,283.00	7,291.22	7,282.90	17.17	16.00	-146.89	190.18	125.02	261.06	228.69	32.36	8.067		
7,400.00	7,382.62	7,390.84	7,382.52	17.42	16.22	-147.90	190.18	125.02	268.41	235.61	32.80	8.184		
7,500.00	7,482.24	7,490.46	7,482.14	17.68	16.44	-148.86	190.18	125.02	275.84	242.60	33.23	8.300		
7,600.00	7,581.86	7,590.08	7,581.76	17.94	16.66	-149.77	190.18	125.02	283.34	249.67	33.67	8.415		
7,700.00	7,681.48	7,689.70	7,681.38	18.20	16.87	-150.64	190.18	125.02	290.91	256.80	34.11	8.529		
7,800.00	7,781.10	7,789.32	7,781.00	18.46	17.09	-151.46	190.18	125.02	298.54	263.99	34.55	8.641		
7,900.00	7,880.72	7,888.94	7,880.62	18.72	17.31	-152.23	190.18	125.02	306.23	271.25	34.99	8.752		
8,000.00	7,980.34	7,988.56	7,980.24	18.97	17.53	-152.97	190.18	125.02	313.98	278.55	35.43	8.862		
8,100.00	8,079.96	8,088.18	8,079.86	19.23	17.75	-153.68	190.18	125.02	321.77	285.90	35.87	8.971		
8,200.00	8,179.58	8,187.80	8,179.48	19.49	17.97	-154.35	190.18	125.02	329.61	293.30	36.31	9.078		
8,300.00	8,279.20	8,287.42	8,279.10	19.75	18.19	-154.99	190.18	125.02	337.50	300.74	36.75	9.183		
8,400.00	8,378.82	8,387.04	8,378.72	20.01	18.41	-155.60	190.18	125.02	345.42	308.22	37.20	9.287		
8,500.00	8,478.44	8,486.65	8,478.34	20.27	18.63	-156.18	190.18	125.02	353.38	315.74	37.64	9.389		
8,600.00	8,578.06	8,586.27	8,577.96	20.53	18.85	-156.74	190.18	125.02	361.38	323.29	38.08	9.490		
8,700.00	8,677.68	8,685.89	8,677.58	20.79	19.07	-157.28	190.18	125.02	369.40	330.88	38.53	9.589		
8,800.00	8,777.30	8,785.51	8,777.20	21.05	19.28	-157.79	190.18	125.02	377.46	338.49	38.97	9.686		
8,900.00	8,876.91	8,885.13	8,876.81	21.31	19.50	-158.28	190.18	125.02	385.55	346.13	39.41	9.782		
9,000.00	8,976.53	8,984.75	8,976.43	21.57	19.72	-158.74	190.18	125.02	393.66	353.80	39.86	9.876		
9,100.00	9,076.15	9,084.37	9,076.05	21.83	19.94	-159.20	190.18	125.02	401.80	361.50	40.30	9.969		
9,200.00	9,175.77	9,183.99	9,175.67	22.09	20.16	-159.63	190.18	125.02	409.96	369.21	40.75	10.060		
9,300.00	9,275.43	9,283.65	9,275.33	22.32	20.38	-160.04	190.18	125.02	417.74	376.57	41.17	10.146		
9,400.00	9,375.15	9,383.37	9,375.05	22.52	20.60	-160.39	190.18	125.02	424.72	383.14	41.58	10.216		
9,500.00	9,474.94	9,483.16	9,474.84	22.71	20.83	-160.69	190.18	125.02	430.88	388.91	41.98	10.265		
9,600.00	9,574.78	9,583.00	9,574.68	22.90	21.05	-160.95	190.18	125.02	436.24	393.86	42.38	10.294		
9,700.00	9,674.66	9,682.88	9,674.56	23.09	21.27	-161.16	190.18	125.02	440.78	398.00	42.78	10.303		
9,800.00	9,774.59	9,782.80	9,774.49	23.27	21.49	-161.33	190.18	125.02	444.50	401.31	43.18	10.293		
9,900.00	9,874.54	9,882.76	9,874.44	23.45	21.71	-161.46	190.18	125.02	447.39	403.81	43.58	10.265		
10,000.00	9,974.51	9,982.73	9,974.41	23.63	21.93	-161.55	190.18	125.02	449.46	405.47	43.99	10.218		
10,100.00	10,074.51	10,082.72	10,074.41	23.80	22.15	-161.60	190.18	125.02	450.70	406.31	44.39	10.154		
10,200.00	10,174.50	10,182.72	10,174.40	23.97	22.37	-89.62	190.18	125.02	451.12	406.32	44.79	10.072		

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 81H - 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)				
10,300.00	10,274.50	10,282.72	10,274.40	24.16	22.60	-89.62	190.18	125.02	451.12	405.91	45.21	9.978		
10,400.00	10,374.50	10,382.72	10,374.40	24.36	22.82	-89.62	190.18	125.02	451.12	405.47	45.64	9.884		
10,500.00	10,474.50	10,482.72	10,474.40	24.56	23.04	-89.62	190.18	125.02	451.12	405.04	46.07	9.791		
10,600.00	10,574.50	10,582.72	10,574.40	24.76	23.26	-89.62	190.18	125.02	451.12	404.61	46.51	9.700		
10,700.00	10,674.50	10,682.72	10,674.40	24.96	23.48	-89.62	190.18	125.02	451.12	404.18	46.94	9.611		
10,800.00	10,774.50	10,782.72	10,774.40	25.16	23.71	-89.62	190.18	125.02	451.12	403.74	47.37	9.523		
10,900.00	10,874.50	10,882.72	10,874.40	25.36	23.93	-89.62	190.18	125.02	451.12	403.31	47.80	9.437		
11,000.00	10,974.50	10,982.72	10,974.40	25.56	24.15	-89.62	190.18	125.02	451.12	402.88	48.24	9.352		
11,100.00	11,074.50	11,082.72	11,074.40	25.76	24.37	-89.62	190.18	125.02	451.12	402.44	48.67	9.269		
11,200.00	11,174.50	11,182.72	11,174.40	25.97	24.59	-89.62	190.18	125.02	451.12	402.01	49.10	9.187		
11,300.00	11,274.50	11,282.72	11,274.40	26.17	24.82	-89.62	190.18	125.02	451.12	401.58	49.54	9.106		
11,400.00	11,374.50	11,382.72	11,374.40	26.37	25.04	-89.62	190.18	125.02	451.12	401.14	49.97	9.027		
11,500.00	11,474.50	11,482.72	11,474.40	26.58	25.26	-89.62	190.18	125.02	451.12	400.71	50.41	8.949		
11,600.00	11,574.50	11,582.72	11,574.40	26.78	25.48	-89.62	190.18	125.02	451.12	400.27	50.84	8.873		
11,700.00	11,674.50	11,682.72	11,674.40	26.98	25.71	-89.62	190.18	125.02	451.12	399.84	51.28	8.797		
11,800.00	11,774.50	11,782.72	11,774.40	27.19	25.93	-89.62	190.18	125.02	451.12	399.40	51.71	8.723		
11,900.00	11,874.50	11,882.72	11,874.40	27.39	26.15	-89.62	190.18	125.02	451.12	398.97	52.15	8.650		
12,000.00	11,974.50	11,982.72	11,974.40	27.60	26.37	-89.62	190.18	125.02	451.12	398.53	52.59	8.579		
12,100.00	12,074.50	12,082.72	12,074.40	27.80	26.57	-89.62	187.55	125.02	451.11	398.12	52.99	8.513		
12,103.20	12,077.71	12,086.02	12,077.61	27.81	26.57	-90.00	187.23	125.02	451.11	398.10	53.00	8.511		
12,154.15	12,128.65	12,136.13	12,127.17	27.92	26.65	-90.92	179.98	125.02	451.17	398.00	53.17	8.486		
12,200.00	12,174.46	12,180.28	12,170.17	28.00	26.71	88.02	170.03	125.02	451.39	398.09	53.30	8.469		
12,250.00	12,224.06	12,227.74	12,215.39	28.08	26.77	86.88	155.67	125.02	451.80	398.39	53.41	8.459		
12,300.00	12,272.93	12,274.53	12,258.66	28.15	26.83	85.76	137.90	125.02	452.38	398.87	53.51	8.454		
12,350.00	12,320.71	12,320.70	12,299.80	28.22	26.88	84.69	116.96	125.01	453.11	399.51	53.60	8.453		
12,400.00	12,367.03	12,366.30	12,338.64	28.28	26.93	83.66	93.10	125.01	453.96	400.28	53.68	8.458		
12,450.00	12,411.53	12,411.37	12,375.05	28.34	26.98	82.68	66.55	125.01	454.91	401.17	53.74	8.465		
12,500.00	12,453.88	12,455.97	12,408.92	28.39	27.02	81.76	37.55	125.01	455.92	402.12	53.80	8.475		
12,550.00	12,493.76	12,500.00	12,440.04	28.44	27.07	80.90	6.42	125.01	456.97	403.12	53.85	8.486		
12,600.00	12,530.85	12,543.91	12,468.60	28.49	27.11	80.11	-26.92	125.00	458.04	404.13	53.91	8.497		
12,650.00	12,564.89	12,587.33	12,494.25	28.54	27.15	79.38	-61.94	125.00	459.08	405.12	53.97	8.507		
12,700.00	12,595.60	12,630.45	12,517.03	28.59	27.21	78.73	-98.54	125.00	460.09	406.05	54.04	8.514		
12,750.00	12,622.76	12,673.30	12,536.88	28.65	27.28	78.15	-136.50	124.99	461.02	406.90	54.13	8.517		
12,800.00	12,646.16	12,715.92	12,553.75	28.72	27.37	77.66	-175.63	124.99	461.87	407.63	54.24	8.516		
12,850.00	12,665.63	12,758.34	12,567.61	28.80	27.48	77.24	-215.72	124.99	462.60	408.23	54.37	8.508		
12,900.00	12,681.00	12,800.00	12,578.30	28.90	27.59	76.91	-255.97	124.98	463.21	408.68	54.53	8.495		
12,950.00	12,692.17	12,842.77	12,586.20	29.01	27.71	76.66	-297.99	124.98	463.67	408.94	54.73	8.471		
13,000.00	12,699.06	12,884.84	12,590.89	29.15	27.85	76.50	-339.79	124.98	463.98	409.01	54.97	8.441		
13,051.12	12,701.60	12,929.95	12,592.50	29.32	28.01	76.42	-384.86	124.97	464.14	408.88	55.25	8.400		
13,052.67	12,701.61	12,929.95	12,592.50	29.32	28.01	76.42	-384.86	124.97	464.13	408.88	55.25	8.400		
13,100.00	12,701.86	12,976.27	12,592.34	29.50	28.20	76.37	-431.18	124.97	464.24	408.64	55.59	8.351		
13,200.00	12,702.39	13,076.27	12,591.97	29.93	28.65	76.26	-531.17	124.96	464.45	408.01	56.44	8.229		
13,300.00	12,702.92	13,176.26	12,591.61	30.45	29.19	76.15	-631.17	124.95	464.67	407.22	57.45	8.088		
13,400.00	12,703.45	13,276.26	12,591.25	31.05	29.81	76.05	-731.16	124.95	464.90	406.28	58.61	7.932		
13,500.00	12,703.98	13,376.25	12,590.88	31.72	30.50	75.94	-831.16	124.94	465.12	405.20	59.92	7.762		
13,600.00	12,704.51	13,476.25	12,590.52	32.46	31.26	75.83	-931.16	124.93	465.34	403.98	61.36	7.583		
13,700.00	12,705.04	13,576.25	12,590.16	33.27	32.09	75.73	-1,031.15	124.92	465.57	402.64	62.93	7.398		
13,800.00	12,705.56	13,676.24	12,589.80	34.14	32.98	75.62	-1,131.15	124.91	465.80	401.18	64.62	7.208		
13,900.00	12,706.09	13,776.24	12,589.43	35.06	33.92	75.52	-1,231.14	124.90	466.03	399.61	66.41	7.017		
14,000.00	12,706.62	13,876.23	12,589.07	36.03	34.92	75.41	-1,331.14	124.90	466.26	397.95	68.31	6.826		
14,100.00	12,707.15	13,976.23	12,588.71	37.05	35.96	75.30	-1,431.13	124.89	466.49	396.21	70.29	6.637		
14,200.00	12,707.68	14,076.23	12,588.34	38.11	37.04	75.20	-1,531.13	124.88	466.73	394.38	72.35	6.451		

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 81H - 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	
14,300.00	12,708.21	14,176.22	12,587.98	39.21	38.17	75.09	-1,631.12	124.87	466.96	392.47	74.49	6.269	
14,400.00	12,708.74	14,276.22	12,587.62	40.34	39.33	74.99	-1,731.12	124.86	467.20	390.50	76.70	6.091	
14,500.00	12,709.27	14,376.21	12,587.26	41.51	40.52	74.88	-1,831.11	124.86	467.44	388.47	78.97	5.919	
14,600.00	12,709.79	14,476.21	12,586.89	42.71	41.74	74.78	-1,931.11	124.85	467.68	386.38	81.30	5.753	
14,700.00	12,710.32	14,576.21	12,586.53	43.94	42.99	74.67	-2,031.10	124.84	467.93	384.25	83.68	5.592	
14,800.00	12,710.85	14,676.20	12,586.17	45.20	44.26	74.57	-2,131.10	124.83	468.17	382.07	86.10	5.437	
14,900.00	12,711.38	14,776.20	12,585.80	46.47	45.56	74.46	-2,231.10	124.82	468.42	379.84	88.57	5.288	
15,000.00	12,711.91	14,876.19	12,585.44	47.77	46.88	74.36	-2,331.09	124.82	468.66	377.58	91.08	5.145	
15,100.00	12,712.44	14,976.19	12,585.08	49.09	48.22	74.25	-2,431.09	124.81	468.91	375.28	93.63	5.008	
15,200.00	12,712.97	15,076.19	12,584.72	50.43	49.57	74.15	-2,531.08	124.80	469.16	372.96	96.20	4.877	
15,300.00	12,713.50	15,176.18	12,584.35	51.78	50.95	74.04	-2,631.08	124.79	469.41	370.60	98.81	4.751	
15,400.00	12,714.02	15,276.18	12,583.99	53.15	52.33	73.94	-2,731.07	124.78	469.67	368.22	101.45	4.630	
15,500.00	12,714.55	15,376.17	12,583.63	54.54	53.73	73.84	-2,831.07	124.77	469.92	365.82	104.11	4.514	
15,600.00	12,715.08	15,476.17	12,583.26	55.94	55.15	73.73	-2,931.06	124.77	470.18	363.39	106.79	4.403	
15,700.00	12,715.61	15,576.17	12,582.90	57.35	56.57	73.63	-3,031.06	124.76	470.44	360.94	109.49	4.297	
15,800.00	12,716.14	15,676.16	12,582.54	58.77	58.01	73.52	-3,131.05	124.75	470.70	358.48	112.21	4.195	
15,900.00	12,716.67	15,776.16	12,582.17	60.20	59.46	73.42	-3,231.05	124.74	470.96	356.00	114.95	4.097	
16,000.00	12,717.20	15,876.15	12,581.81	61.65	60.91	73.32	-3,331.04	124.73	471.22	353.51	117.71	4.003	
16,100.00	12,717.73	15,976.15	12,581.45	63.10	62.38	73.21	-3,431.04	124.73	471.48	351.00	120.48	3.913	
16,200.00	12,718.25	16,076.15	12,581.09	64.56	63.85	73.11	-3,531.04	124.72	471.75	348.48	123.27	3.827	
16,300.00	12,718.78	16,176.14	12,580.72	66.03	65.33	73.01	-3,631.03	124.71	472.02	345.96	126.06	3.744	
16,400.00	12,719.31	16,276.14	12,580.36	67.51	66.82	72.90	-3,731.03	124.70	472.29	343.42	128.87	3.665	
16,500.00	12,719.84	16,376.13	12,580.00	68.99	68.31	72.80	-3,831.02	124.69	472.56	340.87	131.69	3.588	
16,600.00	12,720.37	16,476.13	12,579.63	70.48	69.82	72.70	-3,931.02	124.69	472.83	338.31	134.52	3.515	
16,700.00	12,720.90	16,576.13	12,579.27	71.98	71.32	72.59	-4,031.01	124.68	473.10	335.75	137.35	3.444	
16,800.00	12,721.43	16,676.12	12,578.91	73.48	72.83	72.49	-4,131.01	124.67	473.38	333.18	140.20	3.376	
16,900.00	12,721.96	16,776.12	12,578.55	74.99	74.35	72.39	-4,231.00	124.66	473.65	330.60	143.05	3.311	
17,000.00	12,722.48	16,876.11	12,578.18	76.50	75.87	72.29	-4,331.00	124.65	473.93	328.02	145.91	3.248	
17,100.00	12,723.01	16,976.11	12,577.82	78.02	77.40	72.18	-4,430.99	124.64	474.21	325.44	148.77	3.187	
17,200.00	12,723.54	17,076.11	12,577.46	79.54	78.93	72.08	-4,530.99	124.64	474.49	322.85	151.64	3.129	
17,300.00	12,724.07	17,176.10	12,577.09	81.07	80.47	71.98	-4,630.98	124.63	474.78	320.26	154.52	3.073	
17,400.00	12,724.60	17,276.10	12,576.73	82.60	82.01	71.88	-4,730.98	124.62	475.06	317.66	157.40	3.018	
17,500.00	12,725.13	17,376.10	12,576.37	84.14	83.55	71.78	-4,830.98	124.61	475.35	315.06	160.28	2.966	
17,600.00	12,725.66	17,476.09	12,576.01	85.68	85.10	71.67	-4,930.97	124.60	475.63	312.46	163.17	2.915	
17,700.00	12,726.19	17,576.09	12,575.64	87.22	86.65	71.57	-5,030.97	124.60	475.92	309.86	166.06	2.866	
17,800.00	12,726.71	17,676.08	12,575.28	88.76	88.20	71.47	-5,130.96	124.59	476.21	307.26	168.95	2.819	
17,900.00	12,727.24	17,776.08	12,574.92	90.31	89.75	71.37	-5,230.96	124.58	476.50	304.65	171.85	2.773	
18,000.00	12,727.77	17,876.08	12,574.55	91.86	91.31	71.27	-5,330.95	124.57	476.80	302.05	174.75	2.728	
18,100.00	12,728.30	17,976.07	12,574.19	93.42	92.87	71.17	-5,430.95	124.56	477.09	299.44	177.65	2.686	
18,200.00	12,728.83	18,076.07	12,573.83	94.97	94.43	71.07	-5,530.94	124.56	477.39	296.83	180.55	2.644	
18,300.00	12,729.36	18,176.06	12,573.46	96.53	96.00	70.97	-5,630.94	124.55	477.68	294.23	183.46	2.604	
18,400.00	12,729.89	18,276.06	12,573.10	98.10	97.57	70.86	-5,730.93	124.54	477.98	291.62	186.36	2.565	
18,500.00	12,730.42	18,376.06	12,572.74	99.66	99.14	70.76	-5,830.93	124.53	478.28	289.02	189.27	2.527	
18,600.00	12,730.94	18,476.05	12,572.38	101.23	100.71	70.66	-5,930.92	124.52	478.59	286.41	192.17	2.490	
18,700.00	12,731.47	18,576.05	12,572.01	102.80	102.28	70.56	-6,030.92	124.51	478.89	283.81	195.08	2.455	
18,800.00	12,732.00	18,676.04	12,571.65	104.37	103.86	70.46	-6,130.91	124.51	479.19	281.20	197.99	2.420	
18,900.00	12,732.53	18,776.04	12,571.29	105.94	105.44	70.36	-6,230.91	124.50	479.50	278.60	200.90	2.387	
19,000.00	12,733.06	18,876.04	12,570.92	107.51	107.02	70.26	-6,330.91	124.49	479.81	276.00	203.81	2.354	
19,100.00	12,733.59	18,976.03	12,570.56	109.09	108.60	70.16	-6,430.90	124.48	480.12	273.40	206.71	2.323	
19,200.00	12,734.12	19,076.03	12,570.20	110.67	110.18	70.06	-6,530.90	124.47	480.43	270.81	209.62	2.292	
19,300.00	12,734.65	19,176.02	12,569.84	112.25	111.76	69.96	-6,630.89	124.47	480.74	268.21	212.53	2.262	
19,400.00	12,735.18	19,276.02	12,569.47	113.83	113.35	69.86	-6,730.89	124.46	481.05	265.62	215.44	2.233	

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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 81H - OH - Plan #1														Offset Site Error: 0.00 usft	
Survey Program: 0-LEAM MWD+HDGM														Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis			Distance							Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor			
19,500.00	12,735.70	19,376.02	12,569.11	115.41	114.94	69.77	-6,830.88	124.45	481.37	263.03	218.34	2.205			
19,600.00	12,736.23	19,476.01	12,568.75	116.99	116.52	69.67	-6,930.88	124.44	481.69	260.44	221.25	2.177			
19,700.00	12,736.76	19,576.01	12,568.38	118.58	118.11	69.57	-7,030.87	124.43	482.00	257.85	224.15	2.150			
19,800.00	12,737.29	19,676.00	12,568.02	120.17	119.70	69.47	-7,130.87	124.43	482.32	255.27	227.06	2.124			
19,900.00	12,737.82	19,776.00	12,567.66	121.75	121.30	69.37	-7,230.86	124.42	482.64	252.69	229.96	2.099			
20,000.00	12,738.35	19,876.00	12,567.30	123.34	122.89	69.27	-7,330.86	124.41	482.97	250.11	232.86	2.074			
20,100.00	12,738.88	19,975.99	12,566.93	124.93	124.48	69.17	-7,430.85	124.40	483.29	247.53	235.76	2.050			
20,200.00	12,739.41	20,075.99	12,566.57	126.53	126.08	69.07	-7,530.85	124.39	483.61	244.96	238.66	2.026			
20,300.00	12,739.93	20,175.98	12,566.21	128.12	127.67	68.98	-7,630.85	124.38	483.94	242.39	241.55	2.003			
20,400.00	12,740.46	20,275.98	12,565.84	129.71	129.27	68.88	-7,730.84	124.38	484.27	239.82	244.45	1.981			
20,500.00	12,740.99	20,375.98	12,565.48	131.31	130.87	68.78	-7,830.84	124.37	484.60	237.25	247.34	1.959			
20,600.00	12,741.52	20,475.97	12,565.12	132.90	132.47	68.68	-7,930.83	124.36	484.93	234.69	250.24	1.938			
20,700.00	12,742.05	20,575.97	12,564.75	134.50	134.07	68.58	-8,030.83	124.35	485.26	232.14	253.13	1.917			
20,800.00	12,742.58	20,675.96	12,564.39	136.10	135.67	68.49	-8,130.82	124.34	485.60	229.58	256.01	1.897			
20,900.00	12,743.11	20,775.96	12,564.03	137.69	137.27	68.39	-8,230.82	124.34	485.93	227.03	258.90	1.877			
21,000.00	12,743.64	20,875.96	12,563.67	139.29	138.87	68.29	-8,330.81	124.33	486.27	224.48	261.78	1.858			
21,100.00	12,744.16	20,975.95	12,563.30	140.89	140.47	68.19	-8,430.81	124.32	486.60	221.94	264.67	1.839			
21,200.00	12,744.69	21,075.95	12,562.94	142.49	142.07	68.10	-8,530.80	124.31	486.94	219.40	267.55	1.820			
21,300.00	12,745.22	21,175.94	12,562.58	144.09	143.68	68.00	-8,630.80	124.30	487.28	216.86	270.42	1.802			
21,400.00	12,745.75	21,275.94	12,562.21	145.70	145.28	67.90	-8,730.79	124.30	487.63	214.33	273.30	1.784			
21,500.00	12,746.28	21,375.94	12,561.85	147.30	146.89	67.81	-8,830.79	124.29	487.97	211.80	276.17	1.767			
21,600.00	12,746.81	21,475.93	12,561.49	148.90	148.49	67.71	-8,930.79	124.28	488.31	209.27	279.04	1.750			
21,700.00	12,747.34	21,575.93	12,561.13	150.51	150.10	67.61	-9,030.78	124.27	488.66	206.75	281.91	1.733			
21,800.00	12,747.87	21,675.92	12,560.76	152.11	151.71	67.52	-9,130.78	124.26	489.01	204.23	284.78	1.717			
21,900.00	12,748.39	21,775.92	12,560.40	153.72	153.32	67.42	-9,230.77	124.25	489.36	201.72	287.64	1.701			
22,000.00	12,748.92	21,875.92	12,560.04	155.32	154.92	67.33	-9,330.77	124.25	489.71	199.21	290.50	1.686			
22,100.00	12,749.45	21,975.91	12,559.67	156.93	156.53	67.23	-9,430.76	124.24	490.06	196.70	293.36	1.671			
22,200.00	12,749.98	22,075.91	12,559.31	158.54	158.14	67.13	-9,530.76	124.23	490.41	194.20	296.21	1.656			
22,300.00	12,750.51	22,175.90	12,558.95	160.14	159.75	67.04	-9,630.75	124.22	490.77	191.70	299.07	1.641			
22,400.00	12,751.04	22,275.90	12,558.59	161.75	161.36	66.94	-9,730.75	124.21	491.12	189.21	301.92	1.627			
22,500.00	12,751.57	22,375.90	12,558.22	163.36	162.97	66.85	-9,830.74	124.21	491.48	186.72	304.76	1.613			
22,600.00	12,752.10	22,475.89	12,557.86	164.97	164.58	66.75	-9,930.74	124.20	491.84	184.23	307.61	1.599			
22,695.43	12,752.60	22,571.32	12,557.51	166.51	165.86	66.66	-10,026.17	124.19	492.18	182.12	310.07	1.587			
22,696.28	12,752.60	22,572.17	12,557.51	166.52	165.87	66.66	-10,027.01	124.19	492.18	182.10	310.08	1.587 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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 82H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-LEAM MWD+HDGM													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Distance		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	89.60	0.42	59.98	59.98				
100.00	100.00	100.00	100.00	0.09	0.09	89.60	0.42	59.98	59.98	59.80	0.18	337.799	
200.00	200.00	200.00	200.00	0.31	0.31	89.60	0.42	59.98	59.98	59.35	0.63	95.649	
300.00	300.00	300.00	300.00	0.54	0.54	89.60	0.42	59.98	59.98	58.90	1.08	55.712	
400.00	400.00	400.00	400.00	0.76	0.76	89.60	0.42	59.98	59.98	58.46	1.53	39.302	
500.00	500.00	500.00	500.00	0.99	0.99	89.60	0.42	59.98	59.98	58.01	1.98	30.360	
600.00	600.00	600.00	600.00	1.21	1.21	89.60	0.42	59.98	59.98	57.56	2.43	24.732	
700.00	700.00	700.00	700.00	1.44	1.44	89.60	0.42	59.98	59.98	57.11	2.87	20.865	
800.00	800.00	800.00	800.00	1.66	1.66	89.60	0.42	59.98	59.98	56.66	3.32	18.043	
900.00	900.00	900.00	900.00	1.89	1.89	89.60	0.42	59.98	59.98	56.21	3.77	15.894	
1,000.00	1,000.00	1,000.00	1,000.00	2.11	2.11	89.60	0.42	59.98	59.98	55.76	4.22	14.202	
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.60	0.42	59.98	59.98	55.31	4.67	12.836	
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	89.60	0.42	59.98	59.98	54.86	5.12	11.710	
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.60	0.42	59.98	59.98	54.41	5.57	10.765	
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	89.60	0.42	59.98	59.98	53.96	6.02	9.961	
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	89.60	0.42	59.98	59.98	53.51	6.47	9.269	
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	89.60	0.42	59.98	59.98	53.06	6.92	8.667	
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	89.60	0.42	59.98	59.98	52.61	7.37	8.139	
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	89.60	0.42	59.98	59.98	52.16	7.82	7.671	
1,900.00	1,900.00	1,900.00	1,900.00	4.13	4.13	89.60	0.42	59.98	59.98	51.71	8.27	7.254	
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	89.60	0.42	59.98	59.98	51.26	8.72	6.880	
2,100.00	2,100.00	2,100.00	2,100.00	4.58	4.58	89.60	0.42	59.98	59.98	50.81	9.17	6.542	
2,200.00	2,200.00	2,200.00	2,200.00	4.81	4.81	89.60	0.42	59.98	59.98	50.36	9.62	6.237	
2,300.00	2,300.00	2,300.00	2,300.00	5.03	5.03	89.60	0.42	59.98	59.98	49.91	10.07	5.958	
2,400.00	2,400.00	2,400.00	2,400.00	5.26	5.26	89.60	0.42	59.98	59.98	49.46	10.52	5.703	
2,500.00	2,500.00	2,500.00	2,500.00	5.48	5.48	89.60	0.42	59.98	59.98	49.02	10.97	5.470	
2,600.00	2,599.99	2,599.99	2,599.99	5.70	5.71	17.86	0.42	59.98	59.15	47.74	11.41	5.186	
2,700.00	2,699.96	2,699.96	2,699.96	5.91	5.93	18.68	0.42	59.98	56.66	44.83	11.84	4.787	
2,800.00	2,799.86	2,799.86	2,799.86	6.11	6.16	20.21	0.42	59.98	52.55	40.28	12.27	4.283	
2,900.00	2,899.68	2,898.86	2,898.85	6.33	6.37	22.70	0.42	60.83	47.73	35.04	12.68	3.763	
3,000.00	2,999.37	2,997.93	2,997.89	6.54	6.56	26.43	0.42	63.40	43.15	30.07	13.08	3.298	
3,100.00	3,098.99	3,097.11	3,096.98	6.76	6.76	31.09	0.42	67.68	39.74	26.26	13.49	2.947	
3,200.00	3,198.80	3,196.40	3,196.08	6.99	6.97	35.75	0.42	73.69	38.29	24.40	13.89	2.757	
3,226.41	3,224.92	3,222.64	3,222.25	7.05	7.02	36.89	0.42	75.56	38.23	24.23	14.00	2.731 CC, ES	
3,300.00	3,298.22	3,295.74	3,295.12	7.21	7.17	39.75	0.42	81.41	38.72	24.42	14.30	2.708	
3,400.00	3,397.84	3,395.06	3,393.99	7.44	7.39	42.60	0.42	90.85	40.90	26.20	14.71	2.781	
3,500.00	3,497.46	3,494.31	3,492.61	7.67	7.61	44.15	0.42	102.00	44.72	29.61	15.12	2.958	
3,600.00	3,597.08	3,594.16	3,591.72	7.91	7.83	44.95	0.42	114.16	49.43	33.88	15.55	3.178	
3,700.00	3,696.70	3,694.05	3,690.86	8.14	8.06	45.60	0.42	126.34	54.14	38.15	15.99	3.385	
3,800.00	3,796.32	3,793.93	3,790.00	8.38	8.30	46.15	0.42	138.51	58.86	42.42	16.44	3.581	
3,900.00	3,895.94	3,893.82	3,889.15	8.62	8.54	46.62	0.42	150.68	63.58	46.70	16.88	3.766	
4,000.00	3,995.56	3,993.71	3,988.29	8.86	8.78	47.03	0.42	162.86	68.31	50.98	17.33	3.941	
4,100.00	4,095.18	4,093.60	4,087.43	9.10	9.03	47.38	0.42	175.03	73.04	55.25	17.79	4.106	
4,200.00	4,194.80	4,193.48	4,186.57	9.34	9.28	47.69	0.42	187.20	77.78	59.53	18.25	4.263	
4,300.00	4,294.42	4,293.37	4,285.72	9.58	9.53	47.96	0.42	199.37	82.51	63.81	18.70	4.411	
4,400.00	4,394.04	4,393.26	4,384.86	9.83	9.79	48.20	0.42	211.55	87.25	68.08	19.17	4.552	
4,500.00	4,493.66	4,493.14	4,484.00	10.07	10.05	48.42	0.42	223.72	91.99	72.36	19.63	4.686	
4,600.00	4,593.28	4,593.03	4,583.14	10.32	10.31	48.62	0.42	235.89	96.73	76.63	20.10	4.813	
4,700.00	4,692.90	4,692.92	4,682.29	10.57	10.57	48.80	0.42	248.07	101.47	80.90	20.57	4.934	
4,800.00	4,792.52	4,792.80	4,781.43	10.81	10.83	48.96	0.42	260.24	106.21	85.17	21.04	5.049	
4,900.00	4,892.14	4,892.69	4,880.57	11.06	11.10	49.11	0.42	272.41	110.95	89.44	21.51	5.159	
5,000.00	4,991.76	4,992.58	4,979.71	11.31	11.37	49.25	0.42	284.59	115.69	93.71	21.98	5.263	

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LEAM Drilling Systems LLC

Anticollision Report

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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 Seawolf 1-12 Fed - 82H - 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	
5,100.00	5,091.37	5,092.47	5,078.86	11.56	11.63	49.37	0.42	296.76	120.44	97.98	22.46	5.363	
5,200.00	5,190.99	5,192.35	5,178.00	11.81	11.90	49.49	0.42	308.93	125.18	102.25	22.93	5.459	
5,300.00	5,290.61	5,292.24	5,277.14	12.06	12.18	49.60	0.42	321.11	129.93	106.51	23.41	5.550	
5,400.00	5,390.23	5,392.13	5,376.28	12.31	12.45	49.70	0.42	333.28	134.67	110.78	23.89	5.637	
5,500.00	5,489.85	5,492.01	5,475.43	12.57	12.72	49.79	0.42	345.45	139.42	115.05	24.37	5.721	
5,600.00	5,589.47	5,591.90	5,574.57	12.82	13.00	49.88	0.42	357.63	144.16	119.31	24.85	5.801	
5,700.00	5,689.09	5,691.79	5,673.71	13.07	13.27	49.96	0.42	369.80	148.91	123.57	25.33	5.878	
5,800.00	5,788.71	5,791.68	5,772.85	13.33	13.55	50.04	0.42	381.97	153.65	127.84	25.82	5.951	
5,900.00	5,888.33	5,891.56	5,872.00	13.58	13.83	50.11	0.42	394.15	158.40	132.10	26.30	6.022	
6,000.00	5,987.95	5,991.45	5,971.14	13.83	14.11	50.18	0.42	406.32	163.15	136.36	26.79	6.090	
6,100.00	6,087.57	6,091.34	6,070.28	14.09	14.39	50.24	0.42	418.49	167.89	140.62	27.27	6.156	
6,200.00	6,187.19	6,191.22	6,169.42	14.34	14.67	50.30	0.42	430.67	172.64	144.88	27.76	6.219	
6,300.00	6,286.81	6,291.11	6,268.57	14.60	14.95	50.36	0.42	442.84	177.39	149.14	28.25	6.279	
6,400.00	6,386.43	6,391.00	6,367.71	14.85	15.23	50.41	0.42	455.01	182.14	153.40	28.74	6.338	
6,500.00	6,486.05	6,490.89	6,466.85	15.11	15.51	50.46	0.42	467.18	186.88	157.66	29.23	6.394	
6,600.00	6,585.67	6,590.77	6,565.99	15.37	15.79	50.51	0.42	479.36	191.63	161.91	29.72	6.448	
6,700.00	6,685.29	6,690.66	6,665.14	15.62	16.08	50.56	0.42	491.53	196.38	166.17	30.21	6.501	
6,800.00	6,784.91	6,790.55	6,764.28	15.88	16.36	50.61	0.42	503.70	201.13	170.43	30.70	6.551	
6,900.00	6,884.53	6,890.43	6,863.42	16.14	16.65	50.65	0.42	515.88	205.88	174.68	31.19	6.600	
7,000.00	6,984.14	6,990.32	6,962.56	16.39	16.93	50.69	0.42	528.05	210.62	178.94	31.68	6.648	
7,100.00	7,083.76	7,090.21	7,061.71	16.65	17.22	50.73	0.42	540.22	215.37	183.20	32.18	6.693	
7,200.00	7,183.38	7,190.10	7,160.85	16.91	17.50	50.76	0.42	552.40	220.12	187.45	32.67	6.738	
7,300.00	7,283.00	7,289.98	7,259.99	17.17	17.79	50.80	0.42	564.57	224.87	191.71	33.16	6.781	
7,400.00	7,382.62	7,389.87	7,359.13	17.42	18.08	50.83	0.42	576.74	229.62	195.96	33.66	6.822	
7,500.00	7,482.24	7,489.76	7,458.28	17.68	18.36	50.87	0.42	588.92	234.37	200.21	34.15	6.862	
7,600.00	7,581.86	7,589.64	7,557.42	17.94	18.65	50.90	0.42	601.09	239.12	204.47	34.65	6.901	
7,700.00	7,681.48	7,689.53	7,656.56	18.20	18.94	50.93	0.42	613.26	243.86	208.72	35.14	6.939	
7,800.00	7,781.10	7,789.42	7,755.71	18.46	19.23	50.96	0.42	625.44	248.61	212.97	35.64	6.976	
7,900.00	7,880.72	7,889.30	7,854.85	18.72	19.52	50.98	0.42	637.61	253.36	217.23	36.14	7.011	
8,000.00	7,980.34	7,989.19	7,953.99	18.97	19.80	51.01	0.42	649.78	258.11	221.48	36.63	7.046	
8,100.00	8,079.96	8,089.08	8,053.13	19.23	20.09	51.04	0.42	661.96	262.86	225.73	37.13	7.080	
8,200.00	8,179.58	8,188.97	8,152.28	19.49	20.38	51.06	0.42	674.13	267.61	229.98	37.63	7.112	
8,300.00	8,279.20	8,288.85	8,251.42	19.75	20.67	51.09	0.42	686.30	272.36	234.23	38.12	7.144	
8,400.00	8,378.82	8,388.74	8,350.56	20.01	20.96	51.11	0.42	698.47	277.11	238.49	38.62	7.175	
8,500.00	8,478.44	8,488.63	8,449.70	20.27	21.25	51.13	0.42	710.65	281.86	242.74	39.12	7.205	
8,600.00	8,578.06	8,588.51	8,548.85	20.53	21.54	51.15	0.42	722.82	286.61	246.99	39.62	7.234	
8,700.00	8,677.68	8,688.40	8,647.99	20.79	21.83	51.17	0.42	734.99	291.36	251.24	40.12	7.263	
8,800.00	8,777.30	8,788.29	8,747.13	21.05	22.12	51.19	0.42	747.17	296.11	255.49	40.62	7.290	
8,900.00	8,876.91	8,888.18	8,846.27	21.31	22.42	51.21	0.42	759.34	300.85	259.74	41.12	7.317	
9,000.00	8,976.53	8,988.06	8,945.42	21.57	22.71	51.23	0.42	771.51	305.60	263.99	41.62	7.344	
9,100.00	9,076.15	9,087.95	9,044.56	21.83	23.00	51.25	0.42	783.69	310.35	268.24	42.12	7.369	
9,200.00	9,175.77	9,187.84	9,143.70	22.09	23.29	51.27	0.42	795.86	315.10	272.49	42.62	7.394	
9,300.00	9,275.43	9,287.71	9,242.83	22.32	23.58	51.25	0.42	808.03	320.13	277.04	43.09	7.430	
9,400.00	9,375.15	9,387.55	9,341.93	22.52	23.87	51.11	0.42	820.20	325.69	282.17	43.52	7.484	
9,500.00	9,474.94	9,487.35	9,440.98	22.71	24.16	50.86	0.42	832.36	331.82	287.87	43.95	7.551	
9,600.00	9,574.78	9,587.10	9,539.99	22.90	24.46	50.50	0.42	844.52	338.50	294.14	44.36	7.631	
9,700.00	9,674.66	9,686.80	9,638.94	23.09	24.75	50.06	0.42	856.67	345.75	300.99	44.76	7.724	
9,800.00	9,774.59	9,786.43	9,737.83	23.27	25.04	49.52	0.42	868.81	353.59	308.44	45.16	7.831	
9,900.00	9,874.54	9,885.99	9,836.65	23.45	25.33	48.91	0.42	880.94	362.04	316.50	45.54	7.950	
10,000.00	9,974.51	9,985.48	9,935.39	23.63	25.62	48.23	0.42	893.07	371.11	325.19	45.91	8.083	
10,100.00	10,074.51	10,084.87	10,034.05	23.80	25.92	47.49	0.42	905.18	380.82	334.54	46.28	8.228	
10,200.00	10,174.50	10,184.18	10,132.62	23.97	26.21	118.70	0.42	917.28	391.19	344.54	46.65	8.386	

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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 82H - 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		
10,300.00	10,274.50	10,283.43	10,231.13	24.16	26.50	117.87	0.42	929.38	401.94	354.92	47.02	8.548		
10,400.00	10,374.50	10,382.69	10,329.64	24.36	26.79	117.08	0.42	941.48	412.77	365.36	47.41	8.706		
10,500.00	10,474.50	10,485.27	10,431.51	24.56	27.03	116.33	0.42	953.54	423.29	375.50	47.79	8.857		
10,600.00	10,574.50	10,588.13	10,533.77	24.76	27.25	115.67	0.42	964.73	433.08	384.90	48.17	8.990		
10,700.00	10,674.50	10,691.19	10,636.31	24.96	27.47	115.09	0.42	975.01	442.10	393.54	48.56	9.105		
10,800.00	10,774.50	10,794.43	10,739.12	25.16	27.69	114.58	0.42	984.39	450.35	401.41	48.94	9.202		
10,900.00	10,874.50	10,897.83	10,842.18	25.36	27.91	114.14	0.42	992.85	457.81	408.48	49.33	9.281		
11,000.00	10,974.50	11,001.38	10,945.45	25.56	28.11	113.76	0.42	1,000.39	464.47	414.75	49.71	9.343		
11,100.00	11,074.50	11,105.05	11,048.91	25.76	28.32	113.44	0.42	1,007.01	470.32	420.21	50.10	9.387		
11,200.00	11,174.50	11,208.83	11,152.54	25.97	28.51	113.16	0.42	1,012.69	475.35	424.86	50.49	9.415		
11,300.00	11,274.50	11,312.71	11,256.31	26.17	28.71	112.94	0.42	1,017.44	479.56	428.68	50.88	9.426		
11,400.00	11,374.50	11,416.67	11,360.19	26.37	28.89	112.76	0.42	1,021.25	482.94	431.67	51.27	9.420		
11,500.00	11,474.50	11,520.69	11,464.17	26.58	29.08	112.63	0.42	1,024.12	485.48	433.83	51.65	9.399		
11,600.00	11,574.50	11,624.75	11,568.21	26.78	29.25	112.54	0.42	1,026.05	487.19	435.15	52.04	9.362		
11,700.00	11,674.50	11,728.83	11,672.29	26.98	29.43	112.50	0.42	1,027.04	488.07	435.64	52.43	9.309		
11,800.00	11,774.50	11,831.04	11,774.50	27.19	29.60	112.49	0.42	1,027.17	488.19	435.36	52.82	9.242		
11,900.00	11,874.50	11,931.04	11,874.50	27.39	29.78	112.49	0.42	1,027.17	488.19	434.95	53.23	9.170		
12,000.00	11,974.50	12,031.04	11,974.50	27.60	29.97	112.49	0.42	1,027.17	488.19	434.54	53.65	9.100		
12,006.21	11,980.72	12,037.26	11,980.72	27.61	29.98	112.49	0.42	1,027.17	488.19	434.52	53.67	9.096		
12,100.00	12,074.50	12,119.23	12,062.66	27.80	30.12	112.62	-0.71	1,027.17	488.77	434.71	54.05	9.042		
12,154.15	12,128.65	12,159.65	12,102.89	27.92	30.19	113.04	-4.68	1,027.17	490.84	436.57	54.26	9.045		
12,200.00	12,174.46	12,193.54	12,136.31	28.00	30.25	-66.30	-10.17	1,027.17	493.09	438.68	54.41	9.063		
12,250.00	12,224.06	12,230.32	12,172.17	28.08	30.31	-65.72	-18.37	1,027.17	495.15	440.64	54.51	9.084		
12,300.00	12,272.93	12,266.97	12,207.29	28.15	30.37	-65.27	-28.80	1,027.18	496.76	442.21	54.55	9.106		
12,350.00	12,320.71	12,300.00	12,238.32	28.22	30.43	-64.98	-40.12	1,027.18	497.93	443.41	54.52	9.133		
12,400.00	12,367.03	12,340.01	12,274.95	28.28	30.50	-64.79	-56.18	1,027.18	498.57	444.05	54.52	9.145		
12,450.00	12,411.53	12,376.47	12,307.28	28.34	30.56	-64.74	-73.02	1,027.18	498.73	444.28	54.45	9.159		
12,500.00	12,453.88	12,412.93	12,338.49	28.39	30.62	-64.84	-91.88	1,027.18	498.39	444.02	54.37	9.167		
12,550.00	12,493.76	12,450.00	12,368.91	28.44	30.69	-65.07	-113.05	1,027.18	497.54	443.25	54.29	9.165		
12,600.00	12,530.85	12,486.02	12,397.10	28.49	30.76	-65.43	-135.46	1,027.18	496.22	442.01	54.21	9.154		
12,650.00	12,564.89	12,522.72	12,424.32	28.54	30.82	-65.93	-160.06	1,027.19	494.43	440.27	54.16	9.129		
12,700.00	12,595.60	12,559.56	12,450.00	28.59	30.90	-66.56	-186.47	1,027.19	492.22	438.06	54.15	9.089		
12,750.00	12,622.76	12,600.00	12,476.17	28.65	30.98	-67.38	-217.29	1,027.19	489.63	435.39	54.23	9.028		
12,800.00	12,646.16	12,633.85	12,496.37	28.72	31.06	-68.23	-244.45	1,027.19	486.66	432.35	54.32	8.960		
12,850.00	12,665.63	12,671.39	12,516.83	28.80	31.14	-69.26	-275.91	1,027.20	483.43	428.92	54.51	8.869		
12,900.00	12,681.00	12,709.23	12,535.35	28.90	31.24	-70.42	-308.91	1,027.20	479.97	425.20	54.78	8.762		
12,950.00	12,692.17	12,750.00	12,552.80	29.01	31.35	-71.77	-345.74	1,027.20	476.38	421.24	55.14	8.640		
13,000.00	12,699.06	12,786.09	12,566.03	29.15	31.46	-73.11	-379.31	1,027.20	472.69	417.13	55.56	8.507		
13,051.12	12,701.60	12,826.09	12,578.20	29.32	31.59	-74.68	-417.41	1,027.21	468.94	412.87	56.08	8.363		
13,100.00	12,701.86	12,865.26	12,587.51	29.50	31.73	-75.76	-455.45	1,027.21	465.97	409.36	56.60	8.232		
13,200.00	12,702.39	12,950.00	12,598.64	29.93	32.07	-77.04	-539.38	1,027.22	462.94	405.21	57.72	8.020		
13,237.14	12,702.59	12,979.93	12,599.59	30.12	32.21	-77.14	-569.29	1,027.22	462.71	404.52	58.19	7.952		
13,300.00	12,702.92	13,041.94	12,599.44	30.45	32.50	-77.08	-631.30	1,027.23	462.82	403.93	58.89	7.859		
13,400.00	12,703.45	13,141.94	12,599.18	31.05	33.04	-76.99	-731.29	1,027.23	463.01	402.89	60.12	7.702		
13,500.00	12,703.98	13,241.93	12,598.92	31.72	33.66	-76.89	-831.29	1,027.24	463.19	401.70	61.49	7.533		
13,600.00	12,704.51	13,341.93	12,598.65	32.46	34.34	-76.80	-931.29	1,027.25	463.38	400.39	62.99	7.356		
13,700.00	12,705.04	13,441.93	12,598.39	33.27	35.09	-76.70	-1,031.28	1,027.26	463.57	398.96	64.62	7.174		
13,800.00	12,705.56	13,541.93	12,598.12	34.14	35.89	-76.60	-1,131.28	1,027.27	463.76	397.41	66.35	6.989		
13,900.00	12,706.09	13,641.92	12,597.86	35.06	36.75	-76.51	-1,231.28	1,027.28	463.96	395.76	68.20	6.803		
14,000.00	12,706.62	13,741.92	12,597.59	36.03	37.67	-76.41	-1,331.27	1,027.29	464.15	394.02	70.13	6.618		
14,100.00	12,707.15	13,841.92	12,597.33	37.05	38.63	-76.32	-1,431.27	1,027.29	464.35	392.19	72.16	6.435		
14,200.00	12,707.68	13,941.91	12,597.06	38.11	39.63	-76.23	-1,531.27	1,027.30	464.54	390.28	74.27	6.255		

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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 82H - 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	
14,300.00	12,708.21	14,041.91	12,596.80	39.21	40.68	-76.13	-1,631.26	1,027.31	464.74	388.29	76.45	6.079	
14,400.00	12,708.74	14,141.91	12,596.54	40.34	41.76	-76.04	-1,731.26	1,027.32	464.94	386.25	78.69	5.908	
14,500.00	12,709.27	14,241.90	12,596.27	41.51	42.88	-75.94	-1,831.26	1,027.33	465.14	384.14	81.00	5.742	
14,600.00	12,709.79	14,341.90	12,596.01	42.71	44.03	-75.85	-1,931.25	1,027.34	465.34	381.98	83.36	5.582	
14,700.00	12,710.32	14,441.90	12,595.74	43.94	45.21	-75.75	-2,031.25	1,027.34	465.55	379.77	85.78	5.427	
14,800.00	12,710.85	14,541.89	12,595.48	45.20	46.41	-75.66	-2,131.25	1,027.35	465.75	377.51	88.24	5.278	
14,900.00	12,711.38	14,641.89	12,595.21	46.47	47.65	-75.56	-2,231.24	1,027.36	465.96	375.21	90.74	5.135	
15,000.00	12,711.91	14,741.89	12,594.95	47.77	48.90	-75.47	-2,331.24	1,027.37	466.16	372.87	93.29	4.997	
15,100.00	12,712.44	14,841.88	12,594.68	49.09	50.18	-75.38	-2,431.24	1,027.38	466.37	370.50	95.87	4.865	
15,200.00	12,712.97	14,941.88	12,594.42	50.43	51.48	-75.28	-2,531.23	1,027.39	466.58	368.10	98.48	4.738	
15,300.00	12,713.50	15,041.88	12,594.15	51.78	52.80	-75.19	-2,631.23	1,027.40	466.79	365.67	101.12	4.616	
15,400.00	12,714.02	15,141.87	12,593.89	53.15	54.13	-75.09	-2,731.22	1,027.40	467.00	363.22	103.78	4.500	
15,500.00	12,714.55	15,241.87	12,593.63	54.54	55.48	-75.00	-2,831.22	1,027.41	467.22	360.74	106.48	4.388	
15,600.00	12,715.08	15,341.87	12,593.36	55.94	56.85	-74.91	-2,931.22	1,027.42	467.43	358.24	109.19	4.281	
15,700.00	12,715.61	15,441.87	12,593.10	57.35	58.22	-74.81	-3,031.21	1,027.43	467.65	355.72	111.93	4.178	
15,800.00	12,716.14	15,541.86	12,592.83	58.77	59.62	-74.72	-3,131.21	1,027.44	467.86	353.18	114.69	4.080	
15,900.00	12,716.67	15,641.86	12,592.57	60.20	61.02	-74.63	-3,231.21	1,027.45	468.08	350.62	117.46	3.985	
16,000.00	12,717.20	15,741.86	12,592.30	61.65	62.43	-74.53	-3,331.20	1,027.45	468.30	348.05	120.25	3.894	
16,100.00	12,717.73	15,841.85	12,592.04	63.10	63.86	-74.44	-3,431.20	1,027.46	468.52	345.47	123.05	3.807	
16,200.00	12,718.25	15,941.85	12,591.77	64.56	65.29	-74.35	-3,531.20	1,027.47	468.74	342.87	125.87	3.724	
16,300.00	12,718.78	16,041.85	12,591.51	66.03	66.74	-74.25	-3,631.19	1,027.48	468.96	340.26	128.70	3.644	
16,400.00	12,719.31	16,141.84	12,591.25	67.51	68.19	-74.16	-3,731.19	1,027.49	469.19	337.64	131.55	3.567	
16,500.00	12,719.84	16,241.84	12,590.98	68.99	69.65	-74.07	-3,831.19	1,027.50	469.41	335.01	134.40	3.493	
16,600.00	12,720.37	16,341.84	12,590.72	70.48	71.12	-73.97	-3,931.18	1,027.51	469.64	332.38	137.27	3.421	
16,700.00	12,720.90	16,441.83	12,590.45	71.98	72.60	-73.88	-4,031.18	1,027.51	469.87	329.73	140.14	3.353	
16,800.00	12,721.43	16,541.83	12,590.19	73.48	74.08	-73.79	-4,131.18	1,027.52	470.10	327.08	143.02	3.287	
16,900.00	12,721.96	16,641.83	12,589.92	74.99	75.57	-73.70	-4,231.17	1,027.53	470.33	324.42	145.91	3.223	
17,000.00	12,722.48	16,741.82	12,589.66	76.50	77.06	-73.60	-4,331.17	1,027.54	470.56	321.76	148.80	3.162	
17,100.00	12,723.01	16,841.82	12,589.39	78.02	78.56	-73.51	-4,431.17	1,027.55	470.79	319.09	151.71	3.103	
17,200.00	12,723.54	16,941.82	12,589.13	79.54	80.07	-73.42	-4,531.16	1,027.56	471.03	316.41	154.62	3.046	
17,300.00	12,724.07	17,041.81	12,588.86	81.07	81.58	-73.33	-4,631.16	1,027.56	471.26	313.73	157.53	2.992	
17,400.00	12,724.60	17,141.81	12,588.60	82.60	83.09	-73.24	-4,731.15	1,027.57	471.50	311.05	160.45	2.939	
17,500.00	12,725.13	17,241.81	12,588.34	84.14	84.61	-73.14	-4,831.15	1,027.58	471.74	308.36	163.37	2.887	
17,600.00	12,725.66	17,341.81	12,588.07	85.68	86.13	-73.05	-4,931.15	1,027.59	471.98	305.68	166.30	2.838	
17,700.00	12,726.19	17,441.80	12,587.81	87.22	87.66	-72.96	-5,031.14	1,027.60	472.22	302.98	169.23	2.790	
17,800.00	12,726.71	17,541.80	12,587.54	88.76	89.19	-72.87	-5,131.14	1,027.61	472.46	300.29	172.17	2.744	
17,900.00	12,727.24	17,641.80	12,587.28	90.31	90.73	-72.78	-5,231.14	1,027.61	472.70	297.59	175.11	2.700	
18,000.00	12,727.77	17,741.79	12,587.01	91.86	92.26	-72.69	-5,331.13	1,027.62	472.94	294.90	178.05	2.656	
18,100.00	12,728.30	17,841.79	12,586.75	93.42	93.80	-72.59	-5,431.13	1,027.63	473.19	292.20	180.99	2.614	
18,200.00	12,728.83	17,941.79	12,586.48	94.97	95.35	-72.50	-5,531.13	1,027.64	473.44	289.50	183.94	2.574	
18,300.00	12,729.36	18,041.78	12,586.22	96.53	96.90	-72.41	-5,631.12	1,027.65	473.68	286.80	186.88	2.535	
18,400.00	12,729.89	18,141.78	12,585.96	98.10	98.45	-72.32	-5,731.12	1,027.66	473.93	284.10	189.83	2.497	
18,500.00	12,730.42	18,241.78	12,585.69	99.66	100.00	-72.23	-5,831.12	1,027.67	474.18	281.40	192.79	2.460	
18,600.00	12,730.94	18,341.77	12,585.43	101.23	101.56	-72.14	-5,931.11	1,027.67	474.43	278.69	195.74	2.424	
18,700.00	12,731.47	18,441.77	12,585.16	102.80	103.11	-72.05	-6,031.11	1,027.68	474.68	275.99	198.69	2.389	
18,800.00	12,732.00	18,541.77	12,584.90	104.37	104.67	-71.96	-6,131.11	1,027.69	474.94	273.29	201.65	2.355	
18,900.00	12,732.53	18,641.76	12,584.63	105.94	106.24	-71.87	-6,231.10	1,027.70	475.19	270.59	204.60	2.323	
19,000.00	12,733.06	18,741.76	12,584.37	107.51	107.80	-71.78	-6,331.10	1,027.71	475.45	267.89	207.56	2.291	
19,100.00	12,733.59	18,841.76	12,584.10	109.09	109.37	-71.69	-6,431.10	1,027.72	475.70	265.19	210.51	2.260	
19,200.00	12,734.12	18,941.76	12,583.84	110.67	110.94	-71.60	-6,531.09	1,027.72	475.96	262.49	213.47	2.230	
19,300.00	12,734.65	19,041.75	12,583.57	112.25	112.51	-71.51	-6,631.09	1,027.73	476.22	259.79	216.43	2.200	
19,400.00	12,735.18	19,141.75	12,583.31	113.83	114.08	-71.41	-6,731.08	1,027.74	476.48	257.10	219.38	2.172	

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

LEAM Drilling Systems LLC

Anticollision Report

Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 82H - 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)					
19,500.00	12,735.70	19,241.75	12,583.05	115.41	115.65	-71.32	-6,831.08	1,027.75	476.74	254.40	222.34	2.144	
19,600.00	12,736.23	19,341.74	12,582.78	116.99	117.23	-71.24	-6,931.08	1,027.76	477.01	251.71	225.30	2.117	
19,700.00	12,736.76	19,441.74	12,582.52	118.58	118.80	-71.15	-7,031.07	1,027.77	477.27	249.02	228.25	2.091	
19,800.00	12,737.29	19,541.74	12,582.25	120.17	120.38	-71.06	-7,131.07	1,027.78	477.54	246.33	231.21	2.065	
19,900.00	12,737.82	19,641.73	12,581.99	121.75	121.96	-70.97	-7,231.07	1,027.78	477.80	243.64	234.16	2.040	
20,000.00	12,738.35	19,741.73	12,581.72	123.34	123.54	-70.88	-7,331.06	1,027.79	478.07	240.95	237.12	2.016	
20,100.00	12,738.88	19,841.73	12,581.46	124.93	125.13	-70.79	-7,431.06	1,027.80	478.34	238.27	240.07	1.992	
20,200.00	12,739.41	19,941.72	12,581.19	126.53	126.71	-70.70	-7,531.06	1,027.81	478.61	235.59	243.02	1.969	
20,300.00	12,739.93	20,041.72	12,580.93	128.12	128.30	-70.61	-7,631.05	1,027.82	478.88	232.91	245.97	1.947	
20,400.00	12,740.46	20,141.72	12,580.67	129.71	129.88	-70.52	-7,731.05	1,027.83	479.15	230.23	248.93	1.925	
20,500.00	12,740.99	20,241.71	12,580.40	131.31	131.47	-70.43	-7,831.05	1,027.83	479.43	227.55	251.87	1.903	
20,600.00	12,741.52	20,341.71	12,580.14	132.90	133.06	-70.34	-7,931.04	1,027.84	479.70	224.88	254.82	1.882	
20,700.00	12,742.05	20,441.71	12,579.87	134.50	134.65	-70.25	-8,031.04	1,027.85	479.98	222.21	257.77	1.862	
20,800.00	12,742.58	20,541.70	12,579.61	136.10	136.24	-70.16	-8,131.04	1,027.86	480.25	219.54	260.71	1.842	
20,900.00	12,743.11	20,641.70	12,579.34	137.69	137.83	-70.08	-8,231.03	1,027.87	480.53	216.87	263.66	1.823	
21,000.00	12,743.64	20,741.70	12,579.08	139.29	139.43	-69.99	-8,331.03	1,027.88	480.81	214.21	266.60	1.803	
21,100.00	12,744.16	20,841.70	12,578.81	140.89	141.02	-69.90	-8,431.03	1,027.89	481.09	211.55	269.54	1.785	
21,200.00	12,744.69	20,941.69	12,578.55	142.49	142.62	-69.81	-8,531.02	1,027.89	481.37	208.89	272.48	1.767	
21,300.00	12,745.22	21,041.69	12,578.29	144.09	144.21	-69.72	-8,631.02	1,027.90	481.65	206.23	275.42	1.749	
21,400.00	12,745.75	21,141.69	12,578.02	145.70	145.81	-69.63	-8,731.01	1,027.91	481.94	203.58	278.36	1.731	
21,500.00	12,746.28	21,241.68	12,577.76	147.30	147.41	-69.55	-8,831.01	1,027.92	482.22	200.93	281.29	1.714	
21,600.00	12,746.81	21,341.68	12,577.49	148.90	149.00	-69.46	-8,931.01	1,027.93	482.51	198.29	284.22	1.698	
21,700.00	12,747.34	21,441.68	12,577.23	150.51	150.60	-69.37	-9,031.00	1,027.94	482.80	195.64	287.15	1.681	
21,800.00	12,747.87	21,541.67	12,576.96	152.11	152.20	-69.28	-9,131.00	1,027.94	483.08	193.00	290.08	1.665	
21,900.00	12,748.39	21,641.67	12,576.70	153.72	153.80	-69.19	-9,231.00	1,027.95	483.37	190.37	293.01	1.650	
22,000.00	12,748.92	21,741.67	12,576.43	155.32	155.40	-69.11	-9,330.99	1,027.96	483.66	187.73	295.93	1.634	
22,100.00	12,749.45	21,841.66	12,576.17	156.93	157.01	-69.02	-9,430.99	1,027.97	483.95	185.10	298.85	1.619	
22,200.00	12,749.98	21,941.66	12,575.90	158.54	158.61	-68.93	-9,530.99	1,027.98	484.25	182.47	301.77	1.605	
22,300.00	12,750.51	22,041.66	12,575.64	160.14	160.21	-68.85	-9,630.98	1,027.99	484.54	179.85	304.69	1.590	
22,400.00	12,751.04	22,141.65	12,575.38	161.75	161.81	-68.76	-9,730.98	1,028.00	484.84	177.23	307.61	1.576	
22,500.00	12,751.57	22,241.65	12,575.11	163.36	163.42	-68.67	-9,830.98	1,028.00	485.13	174.61	310.52	1.562	
22,600.00	12,752.10	22,341.65	12,574.85	164.97	165.02	-68.58	-9,930.97	1,028.01	485.43	172.00	313.43	1.549	
22,695.43	12,752.60	22,434.80	12,574.60	166.51	166.52	-68.50	-10,024.12	1,028.02	485.72	169.44	316.28	1.536	
22,696.28	12,752.60	22,434.80	12,574.60	166.52	166.52	-68.50	-10,024.12	1,028.02	485.73	169.41	316.32	1.536 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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 92H - 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	89.58	0.87	119.99	119.99				
100.00	100.00	99.60	99.60	0.09	0.09	89.58	0.87	119.99	119.99	0.18	677.123		
200.00	200.00	199.60	199.60	0.31	0.31	89.58	0.87	119.99	119.99	0.63	191.622		
300.00	300.00	299.60	299.60	0.54	0.54	89.58	0.87	119.99	119.99	1.08	111.546		
400.00	400.00	399.60	399.60	0.76	0.76	89.58	0.87	119.99	119.99	1.53	78.670		
500.00	500.00	499.60	499.60	0.99	0.99	89.58	0.87	119.99	119.99	1.97	60.762		
600.00	600.00	599.60	599.60	1.21	1.21	89.58	0.87	119.99	119.99	2.42	49.495		
700.00	700.00	699.60	699.60	1.44	1.44	89.58	0.87	119.99	119.99	2.87	41.753		
800.00	800.00	799.60	799.60	1.66	1.66	89.58	0.87	119.99	119.99	3.32	36.106		
900.00	900.00	899.60	899.60	1.89	1.89	89.58	0.87	119.99	119.99	3.77	31.804		
1,000.00	1,000.00	999.60	999.60	2.11	2.11	89.58	0.87	119.99	119.99	4.22	28.418		
1,100.00	1,100.00	1,099.60	1,099.60	2.34	2.34	89.58	0.87	119.99	119.99	4.67	25.684		
1,200.00	1,200.00	1,199.60	1,199.60	2.56	2.56	89.58	0.87	119.99	119.99	5.12	23.429		
1,300.00	1,300.00	1,299.60	1,299.60	2.79	2.79	89.58	0.87	119.99	119.99	5.57	21.539		
1,400.00	1,400.00	1,399.60	1,399.60	3.01	3.01	89.58	0.87	119.99	119.99	6.02	19.930		
1,500.00	1,500.00	1,499.60	1,499.60	3.24	3.23	89.58	0.87	119.99	119.99	6.47	18.546		
1,600.00	1,600.00	1,599.60	1,599.60	3.46	3.46	89.58	0.87	119.99	119.99	6.92	17.341		
1,700.00	1,700.00	1,699.60	1,699.60	3.69	3.68	89.58	0.87	119.99	119.99	7.37	16.283		
1,800.00	1,800.00	1,799.60	1,799.60	3.91	3.91	89.58	0.87	119.99	119.99	7.82	15.347		
1,900.00	1,900.00	1,899.60	1,899.60	4.13	4.13	89.58	0.87	119.99	119.99	8.27	14.513		
2,000.00	2,000.00	1,999.60	1,999.60	4.36	4.36	89.58	0.87	119.99	119.99	8.72	13.764		
2,100.00	2,100.00	2,099.60	2,099.60	4.58	4.58	89.58	0.87	119.99	119.99	9.17	13.089		
2,200.00	2,200.00	2,199.60	2,199.60	4.81	4.81	89.58	0.87	119.99	119.99	9.62	12.477		
2,300.00	2,300.00	2,299.60	2,299.60	5.03	5.03	89.58	0.87	119.99	119.99	10.07	11.920		
2,400.00	2,400.00	2,399.60	2,399.60	5.26	5.26	89.58	0.87	119.99	119.99	10.52	11.411		
2,500.00	2,500.00	2,499.60	2,499.60	5.48	5.48	89.58	0.87	119.99	119.99	10.97	10.943 CC		
2,600.00	2,599.99	2,597.57	2,597.57	5.70	5.69	17.66	0.99	120.81	120.00	10.86	10.539		
2,700.00	2,699.96	2,695.54	2,695.50	5.91	5.89	17.87	1.33	123.29	120.04	10.86	10.186		
2,800.00	2,799.86	2,793.50	2,793.38	6.11	6.09	18.22	1.92	127.43	120.12	10.74	9.860		
2,900.00	2,899.68	2,891.47	2,891.16	6.33	6.29	18.71	2.73	133.23	120.24	10.66	9.558		
3,000.00	2,999.37	2,989.43	2,988.83	6.54	6.50	19.34	3.78	140.68	120.41	10.73	9.279 ES		
3,100.00	3,098.99	3,087.37	3,086.35	6.76	6.72	19.97	5.06	149.78	121.45	10.88	9.082		
3,200.00	3,198.60	3,185.27	3,183.64	6.99	6.94	20.45	6.57	160.52	124.19	110.42	9.020		
3,300.00	3,298.22	3,283.05	3,280.61	7.21	7.16	20.76	8.31	172.90	128.62	114.45	9.081		
3,400.00	3,397.84	3,380.66	3,377.20	7.44	7.40	20.92	10.27	186.88	134.72	120.16	9.253		
3,500.00	3,497.46	3,478.05	3,473.30	7.67	7.65	20.93	12.46	202.45	142.48	127.53	9.529		
3,600.00	3,597.08	3,577.11	3,570.87	7.91	7.91	20.86	14.85	219.45	151.41	136.03	9.846		
3,700.00	3,696.70	3,676.70	3,668.95	8.14	8.18	20.79	17.25	236.57	160.38	144.57	10.140		
3,800.00	3,796.32	3,776.30	3,767.03	8.38	8.46	20.73	19.66	253.70	169.36	153.10	10.416		
3,900.00	3,895.94	3,875.90	3,865.12	8.62	8.74	20.67	22.07	270.83	178.33	161.63	10.676		
4,000.00	3,895.56	3,875.49	3,863.20	8.86	9.03	20.62	24.48	287.95	187.30	170.15	10.920		
4,100.00	4,095.18	4,075.09	4,061.28	9.10	9.32	20.58	26.88	305.08	196.28	178.67	11.151		
4,200.00	4,194.80	4,174.69	4,159.37	9.34	9.62	20.54	29.29	322.21	205.25	187.20	11.368		
4,300.00	4,294.42	4,274.28	4,257.45	9.58	9.92	20.50	31.70	339.33	214.22	195.71	11.574		
4,400.00	4,394.04	4,373.88	4,355.53	9.83	10.23	20.46	34.10	356.46	223.20	204.23	11.769		
4,500.00	4,493.66	4,473.48	4,453.62	10.07	10.54	20.43	36.51	373.59	232.17	212.75	11.953		
4,600.00	4,593.28	4,573.07	4,551.70	10.32	10.85	20.40	38.92	390.71	241.14	221.26	12.128		
4,700.00	4,692.90	4,672.67	4,649.78	10.57	11.17	20.37	41.32	407.84	250.12	229.77	12.294		
4,800.00	4,792.52	4,772.27	4,747.87	10.81	11.48	20.35	43.73	424.96	259.09	238.28	12.451		
4,900.00	4,892.14	4,871.86	4,845.95	11.06	11.80	20.32	46.14	442.09	268.07	246.79	12.601		
5,000.00	4,991.76	4,971.46	4,944.03	11.31	12.13	20.30	48.55	459.22	277.04	255.30	12.744		
5,100.00	5,091.37	5,071.05	5,042.12	11.56	12.45	20.28	50.95	476.34	286.01	263.81	12.881		

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 92H - 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)					
5,200.00	5,190.99	5,170.65	5,140.20	11.81	12.78	20.26	53.36	493.47	294.99	272.31	22.67	13.011	
5,300.00	5,290.61	5,270.25	5,238.28	12.06	13.11	20.24	55.77	510.60	303.96	280.82	23.14	13.135	
5,400.00	5,390.23	5,369.84	5,336.37	12.31	13.44	20.23	58.17	527.72	312.94	289.32	23.61	13.253	
5,500.00	5,489.85	5,469.44	5,434.45	12.57	13.77	20.21	60.58	544.85	321.91	297.83	24.08	13.367	
5,600.00	5,589.47	5,569.04	5,532.53	12.82	14.10	20.19	62.99	561.98	330.88	306.33	24.55	13.476	
5,700.00	5,689.09	5,668.63	5,630.62	13.07	14.44	20.18	65.39	579.10	339.86	314.83	25.03	13.580	
5,800.00	5,788.71	5,768.23	5,728.70	13.33	14.77	20.16	67.80	596.23	348.83	323.33	25.50	13.680	
5,900.00	5,888.33	5,867.83	5,826.78	13.58	15.11	20.15	70.21	613.36	357.81	331.83	25.97	13.775	
6,000.00	5,987.95	5,967.42	5,924.87	13.83	15.45	20.14	72.61	630.48	366.78	340.33	26.45	13.867	
6,100.00	6,087.57	6,067.02	6,022.95	14.09	15.79	20.13	75.02	647.61	375.75	348.83	26.92	13.956	
6,200.00	6,187.19	6,166.62	6,121.03	14.34	16.13	20.11	77.43	664.73	384.73	357.33	27.40	14.041	
6,300.00	6,286.81	6,266.21	6,219.12	14.60	16.47	20.10	79.84	681.86	393.70	365.83	27.88	14.123	
6,400.00	6,386.43	6,365.81	6,317.20	14.85	16.81	20.09	82.24	698.99	402.68	374.32	28.35	14.202	
6,500.00	6,486.05	6,465.41	6,415.29	15.11	17.15	20.08	84.65	716.11	411.65	382.82	28.83	14.277	
6,600.00	6,585.67	6,565.00	6,513.37	15.37	17.50	20.07	87.06	733.24	420.63	391.31	29.31	14.351	
6,700.00	6,685.29	6,664.60	6,611.45	15.62	17.84	20.06	89.46	750.37	429.60	399.81	29.79	14.421	
6,800.00	6,784.91	6,764.19	6,709.54	15.88	18.19	20.06	91.87	767.49	438.57	408.31	30.27	14.489	
6,900.00	6,884.53	6,863.79	6,807.62	16.14	18.53	20.05	94.28	784.62	447.55	416.80	30.75	14.555	
7,000.00	6,984.14	6,963.39	6,905.70	16.39	18.88	20.04	96.68	801.75	456.52	425.29	31.23	14.619	
7,100.00	7,083.76	7,062.98	7,003.79	16.65	19.22	20.03	99.09	818.87	465.50	433.79	31.71	14.680	
7,200.00	7,183.38	7,162.58	7,101.87	16.91	19.57	20.02	101.50	836.00	474.47	442.28	32.19	14.740	
7,300.00	7,283.00	7,262.18	7,199.95	17.17	19.92	20.02	103.91	853.13	483.45	450.77	32.67	14.797	
7,400.00	7,382.62	7,361.77	7,298.04	17.42	20.26	20.01	106.31	870.25	492.42	459.27	33.15	14.853	
7,500.00	7,482.24	7,461.37	7,396.12	17.68	20.61	20.00	108.72	887.38	501.39	467.76	33.63	14.907	
7,600.00	7,581.86	7,560.97	7,494.20	17.94	20.96	20.00	111.13	904.50	510.37	476.25	34.12	14.959	
7,700.00	7,681.48	7,660.56	7,592.29	18.20	21.31	19.99	113.53	921.63	519.34	484.74	34.60	15.010	
7,800.00	7,781.10	7,760.16	7,690.37	18.46	21.66	19.98	115.94	938.76	528.32	493.23	35.08	15.059	
7,900.00	7,880.72	7,859.76	7,788.45	18.72	22.01	19.98	118.35	955.88	537.29	501.73	35.57	15.107	
8,000.00	7,980.34	7,959.35	7,886.54	18.97	22.36	19.97	120.75	973.01	546.27	510.22	36.05	15.153	
8,100.00	8,079.96	8,058.95	7,984.62	19.23	22.71	19.97	123.16	990.14	555.24	518.71	36.53	15.198	
8,200.00	8,179.58	8,158.55	8,082.70	19.49	23.06	19.96	125.57	1,007.26	564.21	527.20	37.02	15.242	
8,300.00	8,279.20	8,258.14	8,180.79	19.75	23.41	19.96	127.98	1,024.39	573.19	535.69	37.50	15.285	
8,400.00	8,378.82	8,357.74	8,278.87	20.01	23.76	19.95	130.38	1,041.52	582.16	544.18	37.99	15.326	
8,500.00	8,478.44	8,457.34	8,376.95	20.27	24.11	19.95	132.79	1,058.64	591.14	552.67	38.47	15.366	
8,600.00	8,578.06	8,556.93	8,475.04	20.53	24.47	19.94	135.20	1,075.77	600.11	561.16	38.96	15.405	
8,700.00	8,677.68	8,656.53	8,573.12	20.79	24.82	19.94	137.60	1,092.90	609.09	569.65	39.44	15.443	
8,800.00	8,777.30	8,756.12	8,671.20	21.05	25.17	19.93	140.01	1,110.02	618.06	578.13	39.93	15.480	
8,900.00	8,876.91	8,855.72	8,769.29	21.31	25.52	19.93	142.42	1,127.15	627.03	586.62	40.41	15.516	
9,000.00	8,976.53	8,955.32	8,867.37	21.57	25.88	19.92	144.82	1,144.27	636.01	595.11	40.90	15.551	
9,100.00	9,076.15	9,054.91	8,965.45	21.83	26.23	19.92	147.23	1,161.40	644.98	603.60	41.38	15.586	
9,200.00	9,175.77	9,154.51	9,063.54	22.09	26.58	19.92	149.64	1,178.53	653.96	612.09	41.87	15.619	
9,300.00	9,275.43	9,254.07	9,161.58	22.32	26.94	19.92	152.04	1,195.65	663.34	621.01	42.33	15.670	
9,400.00	9,375.15	9,353.55	9,259.55	22.52	27.29	19.89	154.45	1,212.75	673.54	630.77	42.77	15.748	
9,500.00	9,474.94	9,452.93	9,357.43	22.71	27.64	19.85	156.85	1,229.84	684.56	641.35	43.21	15.844	
9,600.00	9,574.78	9,552.23	9,455.21	22.90	27.99	19.78	159.25	1,246.92	696.39	652.75	43.64	15.957	
9,700.00	9,674.66	9,651.41	9,552.89	23.09	28.35	19.69	161.65	1,263.97	709.04	664.97	44.07	16.088	
9,800.00	9,774.59	9,750.49	9,650.46	23.27	28.70	19.58	164.04	1,281.01	722.51	678.00	44.50	16.235	
9,900.00	9,874.54	9,849.45	9,747.91	23.45	29.05	19.46	166.43	1,298.03	736.79	691.86	44.93	16.399	
10,000.00	9,974.51	9,953.00	9,849.94	23.63	29.37	19.32	168.90	1,315.61	751.68	706.32	45.36	16.572	
10,100.00	10,074.51	10,058.79	9,954.31	23.80	29.65	19.17	171.30	1,332.66	766.54	720.76	45.78	16.744	
10,200.00	10,174.50	10,164.73	10,059.00	23.97	29.92	19.01	173.57	1,348.79	781.31	735.11	46.20	16.913	
10,300.00	10,274.50	10,270.90	10,164.05	24.16	30.19	90.84	175.70	1,363.99	795.59	748.97	46.63	17.063	

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 92H - 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	
10,400.00	10,374.50	10,377.35	10,269.52	24.36	30.46	90.68	177.71	1,378.25	808.97	761.91	47.06	17.189	
10,500.00	10,474.50	10,484.06	10,375.37	24.56	30.71	90.53	179.58	1,391.58	821.45	773.95	47.50	17.295	
10,600.00	10,574.50	10,591.01	10,481.59	24.76	30.96	90.41	181.32	1,403.96	833.01	785.08	47.93	17.380	
10,700.00	10,674.50	10,698.19	10,588.15	24.96	31.20	90.29	182.93	1,415.38	843.66	795.30	48.36	17.447	
10,800.00	10,774.50	10,805.58	10,695.01	25.16	31.44	90.19	184.39	1,425.83	853.39	804.61	48.78	17.495	
10,900.00	10,874.50	10,913.15	10,802.16	25.36	31.66	90.10	185.73	1,435.31	862.19	812.99	49.20	17.524	
11,000.00	10,974.50	11,020.90	10,909.57	25.56	31.88	90.02	186.92	1,443.80	870.07	820.46	49.62	17.536	
11,100.00	11,074.50	11,128.80	11,017.20	25.76	32.10	89.95	187.97	1,451.30	877.03	827.00	50.03	17.530	
11,200.00	11,174.50	11,236.83	11,125.03	25.97	32.30	89.89	188.89	1,457.81	883.05	832.61	50.44	17.507	
11,300.00	11,274.50	11,344.98	11,233.04	26.17	32.50	89.84	189.66	1,463.31	888.14	837.30	50.84	17.468	
11,400.00	11,374.50	11,453.22	11,341.19	26.37	32.69	89.80	190.29	1,467.81	892.30	841.05	51.25	17.412	
11,500.00	11,474.50	11,561.54	11,449.45	26.58	32.87	89.77	190.78	1,471.30	895.52	843.88	51.64	17.341	
11,600.00	11,574.50	11,669.92	11,557.80	26.78	33.04	89.75	191.13	1,473.77	897.80	845.77	52.04	17.254	
11,700.00	11,674.50	11,778.33	11,666.20	26.98	33.21	89.74	191.34	1,475.23	899.15	846.73	52.43	17.151	
11,800.00	11,774.50	11,886.24	11,774.10	27.19	33.37	89.73	191.40	1,475.68	899.56	846.75	52.81	17.033	
11,900.00	11,874.50	11,986.24	11,874.10	27.39	33.53	89.73	191.40	1,475.68	899.56	846.34	53.22	16.902	
12,000.00	11,974.50	12,086.24	11,974.10	27.60	33.69	89.73	191.40	1,475.68	899.56	845.93	53.63	16.773	
12,100.00	12,074.50	12,186.24	12,074.10	27.80	33.86	89.73	191.40	1,475.68	899.56	845.52	54.04	16.645	
12,154.15	12,128.65	12,240.39	12,128.25	27.92	33.95	89.73	191.40	1,475.68	899.56	845.30	54.27	16.577	
12,200.00	12,174.46	12,286.54	12,174.38	28.00	34.02	-90.30	190.06	1,475.68	899.56	845.13	54.43	16.526	
12,250.00	12,224.06	12,336.97	12,224.48	28.08	34.08	-90.34	184.41	1,475.68	899.57	844.97	54.60	16.477	
12,300.00	12,272.93	12,387.46	12,273.93	28.15	34.15	-90.37	174.36	1,475.68	899.57	844.83	54.74	16.433	
12,350.00	12,320.71	12,437.99	12,322.36	28.22	34.20	-90.40	159.99	1,475.68	899.58	844.70	54.88	16.393	
12,400.00	12,367.03	12,488.56	12,369.36	28.28	34.26	-90.43	141.39	1,475.68	899.58	844.58	55.00	16.356	
12,450.00	12,411.53	12,539.16	12,414.58	28.34	34.30	-90.45	118.70	1,475.68	899.58	844.47	55.12	16.322	
12,500.00	12,453.88	12,589.80	12,457.65	28.39	34.35	-90.47	92.09	1,475.68	899.59	844.36	55.23	16.288	
12,550.00	12,493.76	12,640.47	12,498.22	28.44	34.39	-90.49	61.77	1,475.68	899.59	844.24	55.35	16.254	
12,600.00	12,530.85	12,691.16	12,535.97	28.49	34.43	-90.50	27.97	1,475.68	899.59	844.12	55.47	16.218	
12,650.00	12,564.89	12,741.86	12,570.59	28.54	34.47	-90.51	-9.05	1,475.68	899.60	843.99	55.60	16.179	
12,700.00	12,595.60	12,792.58	12,601.82	28.59	34.51	-90.52	-48.99	1,475.69	899.60	843.85	55.75	16.136	
12,750.00	12,622.76	12,843.30	12,629.39	28.65	34.56	-90.52	-91.54	1,475.69	899.60	843.68	55.92	16.086	
12,800.00	12,646.16	12,894.02	12,653.10	28.72	34.61	-90.52	-136.37	1,475.69	899.60	843.48	56.12	16.030	
12,850.00	12,665.63	12,944.73	12,672.75	28.80	34.68	-90.51	-183.10	1,475.69	899.60	843.26	56.34	15.966	
12,900.00	12,681.00	12,995.44	12,688.18	28.90	34.75	-90.50	-231.38	1,475.69	899.60	843.00	56.60	15.894	
12,950.00	12,692.17	13,046.12	12,699.29	29.01	34.85	-90.49	-280.82	1,475.69	899.60	842.71	56.89	15.814	
13,000.00	12,699.06	13,096.78	12,705.98	29.15	34.95	-90.47	-331.02	1,475.69	899.60	842.39	57.21	15.726	
13,048.15	12,701.58	13,145.53	12,708.21	29.31	35.08	-90.45	-379.69	1,475.70	899.60	842.06	57.54	15.634	
13,051.12	12,701.60	13,148.49	12,708.23	29.32	35.08	-90.45	-382.66	1,475.70	899.60	842.04	57.56	15.628	
13,100.00	12,701.86	13,197.37	12,708.55	29.50	35.23	-90.45	-431.54	1,475.70	899.60	841.66	57.94	15.526	
13,200.00	12,702.39	13,297.37	12,709.19	29.93	35.57	-90.46	-531.54	1,475.70	899.61	840.76	58.84	15.288	
13,300.00	12,702.92	13,397.37	12,709.83	30.45	35.99	-90.47	-631.54	1,475.70	899.61	839.70	59.91	15.016	
13,400.00	12,703.45	13,497.37	12,710.48	31.05	36.47	-90.47	-731.53	1,475.71	899.61	838.48	61.13	14.716	
13,500.00	12,703.98	13,597.37	12,711.12	31.72	37.03	-90.48	-831.53	1,475.71	899.62	837.12	62.50	14.394	
13,600.00	12,704.51	13,697.37	12,711.76	32.46	37.66	-90.49	-931.53	1,475.71	899.62	835.61	64.01	14.055	
13,700.00	12,705.04	13,797.37	12,712.40	33.27	38.34	-90.49	-1,031.53	1,475.72	899.63	833.98	65.64	13.705	
13,800.00	12,705.56	13,897.37	12,713.05	34.14	39.09	-90.50	-1,131.52	1,475.72	899.63	832.23	67.40	13.348	
13,900.00	12,706.09	13,997.37	12,713.69	35.06	39.89	-90.51	-1,231.52	1,475.72	899.64	830.37	69.26	12.989	
14,000.00	12,706.62	14,097.37	12,714.33	36.03	40.74	-90.52	-1,331.52	1,475.72	899.64	828.41	71.23	12.630	
14,100.00	12,707.15	14,197.37	12,714.98	37.05	41.64	-90.52	-1,431.52	1,475.73	899.64	826.36	73.29	12.276	
14,200.00	12,707.68	14,297.37	12,715.62	38.11	42.58	-90.53	-1,531.52	1,475.73	899.65	824.22	75.43	11.927	
14,300.00	12,708.21	14,397.37	12,716.26	39.21	43.57	-90.54	-1,631.51	1,475.73	899.65	822.00	77.65	11.586	
14,400.00	12,708.74	14,497.37	12,716.90	40.34	44.60	-90.55	-1,731.51	1,475.74	899.66	819.71	79.95	11.253	

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: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 Seawolf 1-12 Fed - 92H - 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)					
14,500.00	12,709.27	14,597.37	12,717.55	41.51	45.66	-90.55	-1,831.51	1,475.74	899.66	817.36	82.31	10.931	
14,600.00	12,709.79	14,697.37	12,718.19	42.71	46.75	-90.56	-1,931.51	1,475.74	899.67	814.94	84.73	10.619	
14,700.00	12,710.32	14,797.37	12,718.83	43.94	47.88	-90.57	-2,031.51	1,475.75	899.67	812.47	87.20	10.317	
14,800.00	12,710.85	14,897.37	12,719.48	45.20	49.03	-90.57	-2,131.50	1,475.75	899.67	809.95	89.73	10.027	
14,900.00	12,711.38	14,997.37	12,720.12	46.47	50.22	-90.58	-2,231.50	1,475.75	899.68	807.38	92.30	9.747	
15,000.00	12,711.91	15,097.37	12,720.76	47.77	51.42	-90.59	-2,331.50	1,475.75	899.68	804.77	94.91	9.479	
15,100.00	12,712.44	15,197.37	12,721.40	49.09	52.65	-90.60	-2,431.50	1,475.76	899.69	802.12	97.57	9.221	
15,200.00	12,712.97	15,297.37	12,722.05	50.43	53.91	-90.60	-2,531.49	1,475.76	899.69	799.43	100.26	8.974	
15,300.00	12,713.50	15,397.37	12,722.69	51.78	55.18	-90.61	-2,631.49	1,475.76	899.70	796.71	102.98	8.736	
15,400.00	12,714.02	15,497.37	12,723.33	53.15	56.47	-90.62	-2,731.49	1,475.77	899.70	793.96	105.74	8.509	
15,500.00	12,714.55	15,597.37	12,723.98	54.54	57.78	-90.63	-2,831.49	1,475.77	899.71	791.18	108.52	8.290	
15,600.00	12,715.08	15,697.37	12,724.62	55.94	59.10	-90.63	-2,931.49	1,475.77	899.71	788.38	111.33	8.081	
15,700.00	12,715.61	15,797.37	12,725.26	57.35	60.44	-90.64	-3,031.48	1,475.78	899.72	785.55	114.17	7.881	
15,800.00	12,716.14	15,897.37	12,725.91	58.77	61.80	-90.65	-3,131.48	1,475.78	899.72	782.70	117.02	7.688	
15,900.00	12,716.67	15,997.37	12,726.55	60.20	63.16	-90.65	-3,231.48	1,475.78	899.72	779.82	119.90	7.504	
16,000.00	12,717.20	16,097.37	12,727.19	61.65	64.54	-90.66	-3,331.48	1,475.79	899.73	776.93	122.80	7.327	
16,100.00	12,717.73	16,197.37	12,727.83	63.10	65.93	-90.67	-3,431.48	1,475.79	899.73	774.02	125.71	7.157	
16,200.00	12,718.25	16,297.37	12,728.48	64.56	67.34	-90.68	-3,531.47	1,475.79	899.74	771.09	128.64	6.994	
16,300.00	12,718.78	16,397.37	12,729.12	66.03	68.75	-90.68	-3,631.47	1,475.79	899.74	768.15	131.59	6.837	
16,400.00	12,719.31	16,497.37	12,729.76	67.51	70.17	-90.69	-3,731.47	1,475.80	899.75	765.19	134.56	6.687	
16,500.00	12,719.84	16,597.37	12,730.41	68.99	71.60	-90.70	-3,831.47	1,475.80	899.75	762.22	137.53	6.542	
16,600.00	12,720.37	16,697.37	12,731.05	70.48	73.04	-90.71	-3,931.47	1,475.80	899.76	759.24	140.52	6.403	
16,700.00	12,720.90	16,797.37	12,731.69	71.98	74.49	-90.71	-4,031.46	1,475.81	899.76	756.24	143.52	6.269	
16,800.00	12,721.43	16,897.37	12,732.33	73.48	75.94	-90.72	-4,131.46	1,475.81	899.77	753.23	146.54	6.140	
16,900.00	12,721.96	16,997.37	12,732.98	74.99	77.41	-90.73	-4,231.46	1,475.81	899.77	750.21	149.56	6.016	
17,000.00	12,722.48	17,097.37	12,733.62	76.50	78.88	-90.73	-4,331.46	1,475.82	899.78	747.18	152.59	5.897	
17,100.00	12,723.01	17,197.37	12,734.26	78.02	80.35	-90.74	-4,431.45	1,475.82	899.78	744.14	155.64	5.781	
17,200.00	12,723.54	17,297.37	12,734.91	79.54	81.83	-90.75	-4,531.45	1,475.82	899.79	741.10	158.69	5.670	
17,300.00	12,724.07	17,397.37	12,735.55	81.07	83.32	-90.76	-4,631.45	1,475.83	899.79	738.04	161.75	5.563	
17,400.00	12,724.60	17,497.37	12,736.19	82.60	84.81	-90.76	-4,731.45	1,475.83	899.80	734.98	164.82	5.459	
17,500.00	12,725.13	17,597.37	12,736.83	84.14	86.31	-90.77	-4,831.45	1,475.83	899.80	731.91	167.89	5.359	
17,600.00	12,725.66	17,697.37	12,737.48	85.68	87.81	-90.78	-4,931.44	1,475.83	899.80	728.83	170.98	5.263	
17,700.00	12,726.19	17,797.37	12,738.12	87.22	89.32	-90.79	-5,031.44	1,475.84	899.81	725.74	174.06	5.169	
17,800.00	12,726.71	17,897.37	12,738.76	88.76	90.83	-90.79	-5,131.44	1,475.84	899.81	722.65	177.16	5.079	
17,900.00	12,727.24	17,997.37	12,739.41	90.31	92.35	-90.80	-5,231.44	1,475.84	899.82	719.56	180.26	4.992	
18,000.00	12,727.77	18,097.37	12,740.05	91.86	93.87	-90.81	-5,331.44	1,475.85	899.82	716.45	183.37	4.907	
18,100.00	12,728.30	18,197.37	12,740.69	93.42	95.39	-90.81	-5,431.43	1,475.85	899.83	713.35	186.48	4.825	
18,200.00	12,728.83	18,297.37	12,741.33	94.97	96.92	-90.82	-5,531.43	1,475.85	899.83	710.23	189.60	4.746	
18,300.00	12,729.36	18,397.37	12,741.98	96.53	98.45	-90.83	-5,631.43	1,475.86	899.84	707.11	192.73	4.669	
18,400.00	12,729.89	18,497.37	12,742.62	98.10	99.98	-90.84	-5,731.43	1,475.86	899.84	703.99	195.85	4.594	
18,500.00	12,730.42	18,597.37	12,743.26	99.66	101.52	-90.84	-5,831.42	1,475.86	899.85	700.86	198.99	4.522	
18,600.00	12,730.94	18,697.37	12,743.91	101.23	103.06	-90.85	-5,931.42	1,475.86	899.85	697.73	202.12	4.452	
18,700.00	12,731.47	18,797.37	12,744.55	102.80	104.60	-90.86	-6,031.42	1,475.87	899.86	694.60	205.26	4.384	
18,800.00	12,732.00	18,897.37	12,745.19	104.37	106.15	-90.87	-6,131.42	1,475.87	899.86	691.46	208.41	4.318	
18,900.00	12,732.53	18,997.37	12,745.83	105.94	107.70	-90.87	-6,231.42	1,475.87	899.87	688.31	211.56	4.254	
19,000.00	12,733.06	19,097.37	12,746.48	107.51	109.25	-90.88	-6,331.41	1,475.88	899.87	685.17	214.71	4.191	
19,100.00	12,733.59	19,197.37	12,747.12	109.09	110.80	-90.89	-6,431.41	1,475.88	899.88	682.02	217.86	4.130	
19,200.00	12,734.12	19,297.37	12,747.76	110.67	112.36	-90.89	-6,531.41	1,475.88	899.88	678.86	221.02	4.071	
19,300.00	12,734.65	19,397.37	12,748.41	112.25	113.91	-90.90	-6,631.41	1,475.89	899.89	675.71	224.18	4.014	
19,400.00	12,735.18	19,497.37	12,749.05	113.83	115.47	-90.91	-6,731.41	1,475.89	899.89	672.55	227.35	3.958	
19,500.00	12,735.70	19,597.37	12,749.69	115.41	117.04	-90.92	-6,831.40	1,475.89	899.90	669.38	230.51	3.904	
19,600.00	12,736.23	19,697.37	12,750.33	116.99	118.60	-90.92	-6,931.40	1,475.90	899.90	666.22	233.68	3.851	

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: Seawolf 1-12 Fed
 Site Error: 0.00 usft
 Reference Well: 91H
 Well Error: 0.00 usft
 Reference Wellbore: OH
 Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
 TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
 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 Seawolf 1-12 Fed - 92H - 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)					
19,700.00	12,736.76	19,797.37	12,750.98	118.58	120.16	-90.93	-7,031.40	1,475.90	899.91	663.05	236.86	3.799	
19,800.00	12,737.29	19,897.37	12,751.62	120.17	121.73	-90.94	-7,131.40	1,475.90	899.92	659.88	240.03	3.749	
19,900.00	12,737.82	19,997.37	12,752.26	121.75	123.30	-90.95	-7,231.39	1,475.90	899.92	656.71	243.21	3.700	
20,000.00	12,738.35	20,097.37	12,752.91	123.34	124.87	-90.95	-7,331.39	1,475.91	899.93	653.54	246.39	3.652	
20,100.00	12,738.88	20,197.37	12,753.55	124.93	126.44	-90.96	-7,431.39	1,475.91	899.93	650.36	249.57	3.606	
20,200.00	12,739.41	20,297.37	12,754.19	126.53	128.02	-90.97	-7,531.39	1,475.91	899.94	647.18	252.76	3.560	
20,300.00	12,739.93	20,397.37	12,754.84	128.12	129.59	-90.97	-7,631.39	1,475.92	899.94	644.00	255.94	3.516	
20,400.00	12,740.46	20,497.37	12,755.48	129.71	131.17	-90.98	-7,731.38	1,475.92	899.95	640.81	259.13	3.473	
20,500.00	12,740.99	20,597.37	12,756.12	131.31	132.75	-90.99	-7,831.38	1,475.92	899.95	637.63	262.32	3.431	
20,600.00	12,741.52	20,697.37	12,756.76	132.90	134.33	-91.00	-7,931.38	1,475.93	899.96	634.44	265.51	3.389	
20,700.00	12,742.05	20,797.37	12,757.41	134.50	135.91	-91.00	-8,031.38	1,475.93	899.96	631.25	268.71	3.349	
20,800.00	12,742.58	20,897.37	12,758.05	136.10	137.49	-91.01	-8,131.38	1,475.93	899.97	628.06	271.90	3.310	
20,900.00	12,743.11	20,997.37	12,758.69	137.69	139.07	-91.02	-8,231.37	1,475.94	899.97	624.87	275.10	3.271	
21,000.00	12,743.64	21,097.37	12,759.34	139.29	140.66	-91.03	-8,331.37	1,475.94	899.98	621.68	278.30	3.234	
21,100.00	12,744.16	21,197.37	12,759.98	140.89	142.25	-91.03	-8,431.37	1,475.94	899.98	618.48	281.50	3.197	
21,200.00	12,744.69	21,297.37	12,760.62	142.49	143.83	-91.04	-8,531.37	1,475.94	899.99	615.29	284.70	3.161	
21,300.00	12,745.22	21,397.37	12,761.26	144.09	145.42	-91.05	-8,631.36	1,475.95	899.99	612.09	287.91	3.126	
21,400.00	12,745.75	21,497.37	12,761.91	145.70	147.01	-91.05	-8,731.36	1,475.95	900.00	608.89	291.11	3.092	
21,500.00	12,746.28	21,597.37	12,762.55	147.30	148.60	-91.06	-8,831.36	1,475.95	900.01	605.69	294.32	3.058	
21,600.00	12,746.81	21,697.37	12,763.19	148.90	150.19	-91.07	-8,931.36	1,475.96	900.01	602.49	297.52	3.025	
21,700.00	12,747.34	21,797.37	12,763.84	150.51	151.78	-91.08	-9,031.36	1,475.96	900.02	599.28	300.73	2.993	
21,800.00	12,747.87	21,897.37	12,764.48	152.11	153.37	-91.08	-9,131.35	1,475.96	900.02	596.08	303.94	2.961	
21,900.00	12,748.39	21,997.37	12,765.12	153.72	154.97	-91.09	-9,231.35	1,475.97	900.03	592.87	307.15	2.930	
22,000.00	12,748.92	22,097.37	12,765.76	155.32	156.56	-91.10	-9,331.35	1,475.97	900.03	589.67	310.37	2.900	
22,100.00	12,749.45	22,197.37	12,766.41	156.93	158.16	-91.10	-9,431.35	1,475.97	900.04	586.46	313.58	2.870	
22,200.00	12,749.98	22,297.37	12,767.05	158.54	159.75	-91.11	-9,531.35	1,475.98	900.04	583.25	316.79	2.841	
22,300.00	12,750.51	22,397.37	12,767.69	160.14	161.35	-91.12	-9,631.34	1,475.98	900.05	580.04	320.01	2.813	
22,400.00	12,751.04	22,497.37	12,768.34	161.75	162.95	-91.13	-9,731.34	1,475.98	900.05	576.83	323.23	2.785	
22,500.00	12,751.57	22,597.37	12,768.98	163.36	164.54	-91.13	-9,831.34	1,475.98	900.06	573.62	326.44	2.757	
22,600.00	12,752.10	22,697.37	12,769.62	164.97	166.14	-91.14	-9,931.34	1,475.99	900.07	570.40	329.66	2.730	
22,608.37	12,752.14	22,705.74	12,769.68	165.11	166.26	-91.14	-9,939.71	1,475.99	900.07	570.16	329.91	2.728	
22,695.43	12,752.60	22,787.99	12,770.20	166.51	167.31	-91.15	-10,021.96	1,475.99	900.08	567.62	332.47	2.707	
22,696.28	12,752.60	22,787.99	12,770.20	166.52	167.31	-91.15	-10,021.96	1,475.99	900.09	567.59	332.50	2.707 SF	

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

LEAM Drilling Systems LLC

Anticollision Report

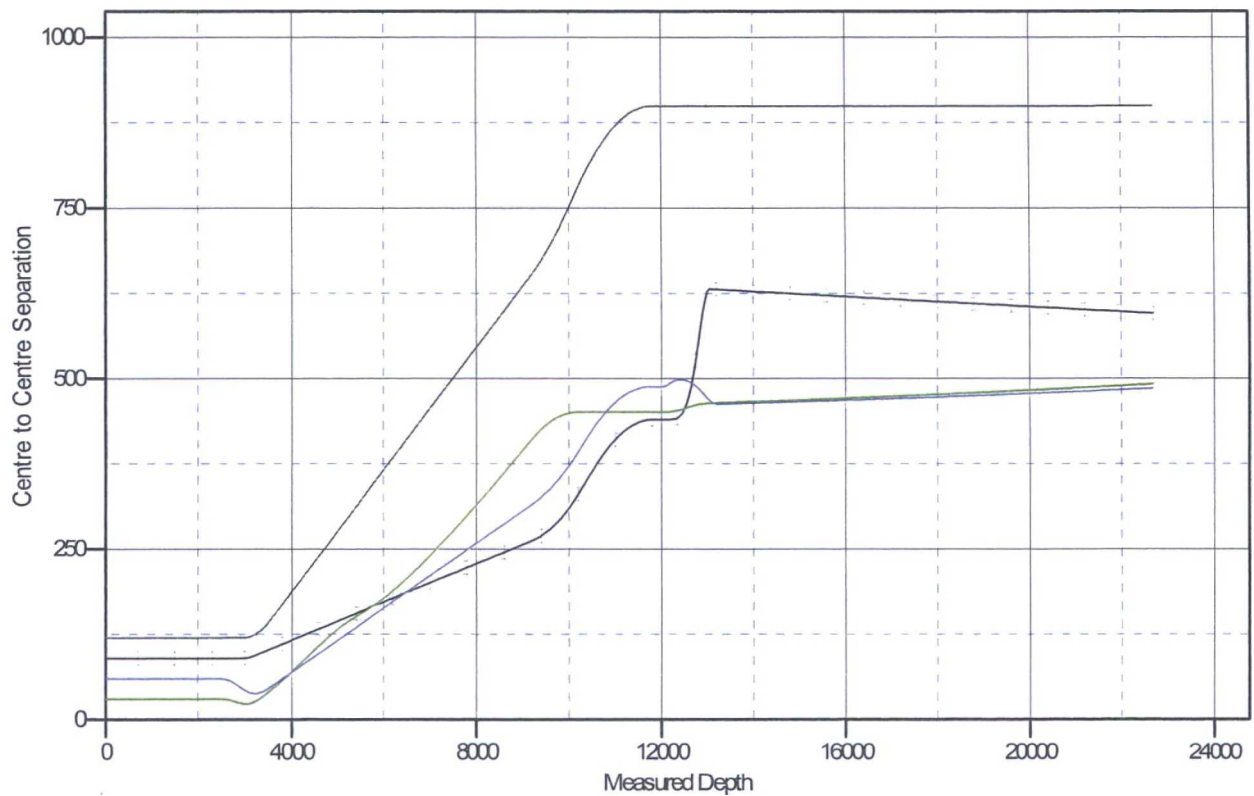
Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 3318.6' GE + 21' KB @ 3339.60usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 91H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.42°

Ladder Plot



LEGEND

102H, OH, Plan #1 V0 82H, OH, Plan #1 V0
81H, OH, Plan #1 V0 92H, OH, Plan #1 V0

LEAM Drilling Systems LLC

Anticollision Report

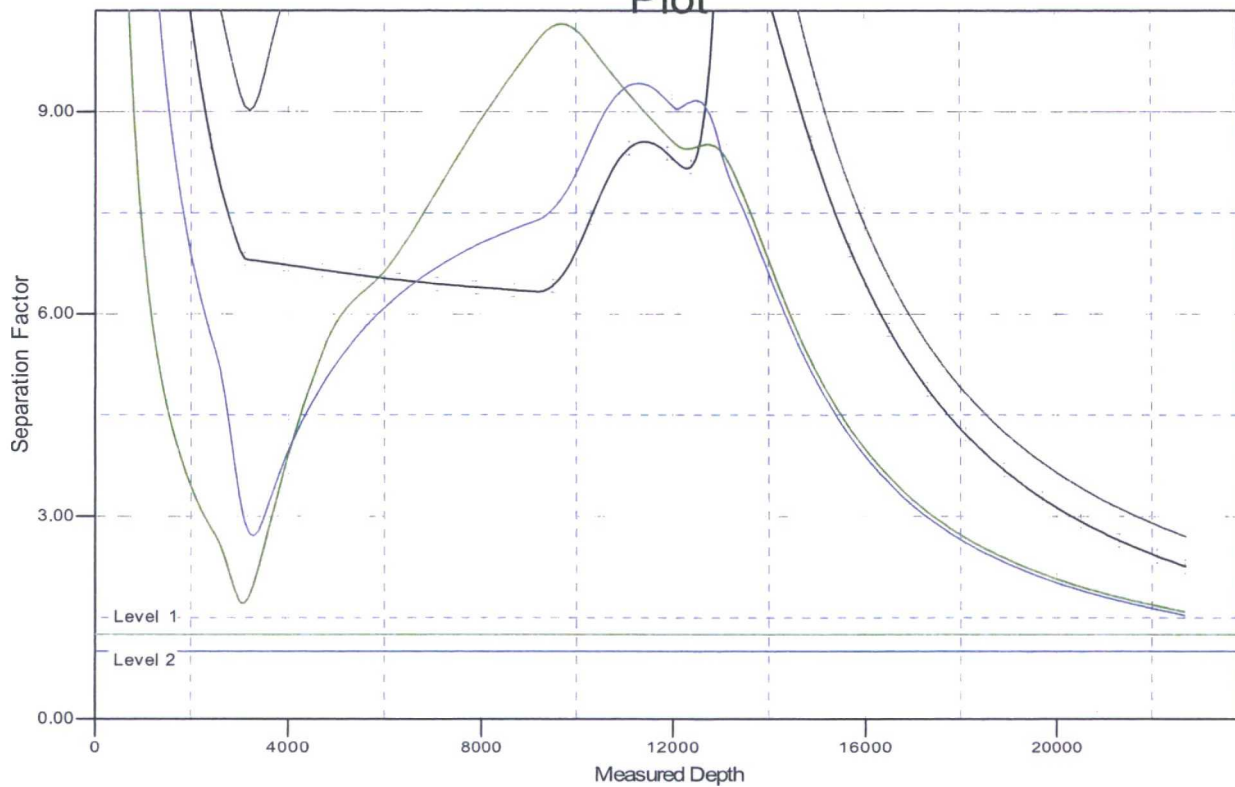
Company: Devon Energy
Project: Lea County, NM (NAD-83)
Reference Site: Seawolf 1-12 Fed
Site Error: 0.00 usft
Reference Well: 91H
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #1

Local Co-ordinate Reference: Well 91H
TVD Reference: 3318.6' GE + 21' KB @ 3339.60usft
MD Reference: 3318.6' GE + 21' KB @ 3339.60usft
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 3318.6' GE + 21' KB @ 3339.60usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: 91H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.42°

Separation Factor Plot



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