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APR 04 2016

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Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #45H

Lea Unit #45H

OH

Plan #2

Anticollision Report

07 February, 2016



APR 14 2016



TDS Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

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

Survey Tool Program		Date	2/7/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	15,536.35	Plan #2 (OH)	MWD	MWD - Standard	

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						
Lea Federal						
#21 - OH - OH	11,507.72	10,162.79	179.82	136.95	4.194	CC, ES, SF
#24 - OH - OH	15,119.55	10,160.26	205.20	91.40	1.803	CC, ES, SF
Lea Unit						
#1 - OH - OH	13,889.09	10,165.00	98.03	-111.99	0.467	Level 1, CC, ES, SF
#16 - OH - OH	13,755.96	10,169.08	129.87	39.44	1.436	Level 3, CC
#16 - OH - OH	13,757.00	10,169.09	129.87	39.43	1.436	Level 3, ES, SF
#30H - OH - OH	15,536.35	10,181.55	284.85	214.53	4.051	CC, ES, SF
SWD #2 - OH - OH	4,630.89	4,600.00	4,296.18	4,041.55	16.872	CC, ES
SWD #2 - OH - OH	4,700.00	4,600.00	4,296.73	4,041.98	16.866	SF
Lea Unit #44H						
Lea Unit #44H - OH - OH	7,836.77	7,836.34	27.65	-3.42	0.890	Level 1, CC
Lea Unit #44H - OH - OH	9,200.00	9,199.63	30.58	-5.92	0.838	Level 1, ES, SF
Lea Unit #46H						
Lea Unit #46H - OH - Plan #2	8,900.00	8,901.00	50.20	10.46	1.263	Level 3, CC, ES, SF

Offset Design										Lea Federal - #21 - OH - OH		Offset Site Error:		0.00 usft	
Survey Program:										100-Scientific Gyro, 9770-MWD		Offset Well Error:		0.00 usft	
Reference		Offset		Semi Major Axis		Distance									
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)			
0.00	0.00	0.00	0.00	0.00	0.00	175.63	-1,438.80	110.00	1,443.14						
100.00	100.00	91.77	91.77	0.09	0.08	175.62	-1,438.41	110.19	1,442.67	1,442.50		0.17	8,335.401		
200.00	200.00	192.03	192.02	0.32	0.21	175.60	-1,437.51	110.64	1,441.81	1,441.30		0.51	2,834.329		
300.00	300.00	292.27	292.26	0.54	0.34	175.58	-1,436.63	111.12	1,440.97	1,440.12		0.85	1,697.196		
400.00	400.00	391.76	391.74	0.77	0.47	175.55	-1,435.76	111.64	1,440.14	1,438.95		1.19	1,213.040		
500.00	500.00	489.97	489.95	0.99	0.60	175.54	-1,434.98	112.04	1,439.38	1,437.85		1.53	942.172		
600.00	600.00	585.51	585.49	1.22	0.71	175.53	-1,434.45	112.16	1,438.84	1,436.96		1.87	768.171		
700.00	700.00	684.95	684.93	1.44	0.81	175.53	-1,434.12	112.01	1,438.49	1,436.28		2.22	648.993		
800.00	800.00	785.48	785.45	1.67	0.89	175.55	-1,433.79	111.52	1,438.14	1,435.59		2.54	565.910		
900.00	900.00	885.85	885.82	1.89	0.97	175.58	-1,433.46	110.79	1,437.74	1,434.89		2.85	503.692		
1,000.00	1,000.00	983.15	983.12	2.12	1.04	175.61	-1,433.20	110.02	1,437.42	1,434.27		3.15	456.022		
1,100.00	1,100.00	1,082.41	1,082.38	2.34	1.11	175.64	-1,433.08	109.23	1,437.24	1,433.80		3.44	417.398		

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



TDS
Anticollision Report



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Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal - #21 - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100-Scientific Gyro, 9770-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance					Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)			
1,200.00	1,200.00	1,183.04	1,183.00	2.56	1.20	175.67	-1,432.96	108.40	1,437.06	1,433.32	3.73	384.756		
1,300.00	1,300.00	1,284.23	1,284.19	2.79	1.29	175.71	-1,432.77	107.57	1,436.81	1,432.78	4.03	356.235		
1,400.00	1,400.00	1,385.07	1,385.02	3.01	1.40	175.74	-1,432.51	106.70	1,436.49	1,432.15	4.34	331.255		
1,500.00	1,500.00	1,484.90	1,484.85	3.24	1.51	175.78	-1,432.23	105.73	1,436.14	1,431.50	4.64	309.653		
1,600.00	1,600.00	1,586.25	1,586.19	3.46	1.62	175.82	-1,431.93	104.62	1,435.76	1,430.82	4.94	290.604		
1,700.00	1,700.00	1,686.45	1,686.39	3.69	1.74	175.86	-1,431.56	103.59	1,435.32	1,430.07	5.25	273.518		
1,800.00	1,800.00	1,785.44	1,785.38	3.91	1.86	175.89	-1,431.20	102.87	1,434.90	1,429.34	5.56	257.912		
1,900.00	1,900.00	1,883.83	1,883.57	4.14	1.99	175.90	-1,430.92	102.52	1,434.59	1,428.70	5.89	243.573		
2,000.00	2,000.00	1,982.68	1,982.62	4.36	2.11	175.91	-1,430.72	102.39	1,434.38	1,428.15	6.23	230.284		
2,100.00	2,100.00	2,082.33	2,082.26	4.59	2.21	175.91	-1,430.55	102.40	1,434.21	1,427.63	6.58	218.041		
2,200.00	2,200.00	2,183.84	2,183.77	4.81	2.31	175.90	-1,430.34	102.45	1,434.01	1,427.08	6.93	206.985		
2,300.00	2,300.00	2,285.19	2,285.12	5.04	2.40	175.90	-1,430.01	102.63	1,433.70	1,426.43	7.27	197.194		
2,400.00	2,400.00	2,386.31	2,386.24	5.26	2.47	175.88	-1,429.58	103.02	1,433.30	1,425.70	7.60	188.571		
2,500.00	2,500.00	2,487.02	2,486.94	5.49	2.54	175.86	-1,429.08	103.55	1,432.84	1,424.91	7.93	180.749		
2,600.00	2,600.00	2,586.68	2,586.60	5.71	2.62	175.84	-1,428.57	104.02	1,432.36	1,424.11	8.25	173.519		
2,700.00	2,700.00	2,688.17	2,688.09	5.94	2.70	175.81	-1,428.01	104.65	1,431.86	1,423.28	8.58	166.905		
2,800.00	2,800.00	2,787.24	2,787.15	6.16	2.76	175.76	-1,427.38	105.88	1,431.32	1,422.43	8.89	161.085		
2,900.00	2,900.00	2,886.83	2,886.72	6.39	2.81	175.67	-1,426.73	108.05	1,430.84	1,421.66	9.18	155.893		
3,000.00	3,000.00	2,986.27	2,986.11	6.61	2.86	175.55	-1,426.06	111.03	1,430.39	1,420.92	9.47	151.119		
3,100.00	3,100.00	3,090.21	3,089.98	6.84	2.92	175.40	-1,425.20	114.77	1,429.85	1,420.09	9.76	146.570		
3,200.00	3,200.00	3,194.63	3,194.30	7.06	2.99	175.22	-1,423.96	118.99	1,428.99	1,418.95	10.05	142.195		
3,300.00	3,300.00	3,297.84	3,297.21	7.28	3.06	175.04	-1,422.44	123.41	1,427.89	1,417.54	10.35	138.011		
3,400.00	3,400.00	3,398.61	3,398.10	7.51	3.15	174.89	-1,420.87	127.00	1,426.65	1,416.00	10.65	133.986		
3,500.00	3,500.00	3,494.02	3,493.48	7.73	3.25	174.82	-1,419.66	128.71	1,425.54	1,414.58	10.97	130.008		
3,597.59	3,597.59	3,578.12	3,577.59	7.95	3.30	174.81	-1,419.22	128.86	1,425.06	1,413.82	11.24	126.770		
3,600.00	3,600.00	3,580.19	3,579.65	7.96	3.30	174.81	-1,419.22	128.85	1,425.06	1,413.81	11.25	126.694		
3,700.00	3,700.00	3,666.79	3,666.25	8.18	3.32	174.84	-1,419.71	128.31	1,425.56	1,414.07	11.49	124.033		
3,800.00	3,800.00	3,755.57	3,755.01	8.41	3.32	174.89	-1,421.05	127.11	1,426.95	1,415.22	11.72	121.707		
3,900.00	3,900.00	3,850.48	3,849.88	8.63	3.33	174.97	-1,423.14	125.25	1,428.96	1,417.00	11.96	119.488		
4,000.00	4,000.00	3,950.77	3,950.12	8.86	3.34	175.06	-1,425.45	123.16	1,431.07	1,418.87	12.20	117.320		
4,100.00	4,100.00	4,049.60	4,048.90	9.08	3.36	175.15	-1,427.70	121.10	1,433.16	1,420.72	12.44	115.210		
4,200.00	4,200.00	4,146.04	4,145.29	9.31	3.38	175.25	-1,430.10	118.85	1,435.45	1,422.77	12.68	113.175		
4,300.00	4,300.00	4,245.19	4,244.36	9.53	3.41	175.37	-1,432.83	116.07	1,437.96	1,425.03	12.93	111.190		
4,400.00	4,400.00	4,351.95	4,351.05	9.76	3.45	175.49	-1,435.52	113.19	1,440.27	1,427.08	13.19	109.198		
4,500.00	4,500.00	4,457.18	4,456.23	9.98	3.50	175.59	-1,437.56	110.79	1,442.02	1,428.57	13.45	107.217		
4,600.00	4,600.00	4,554.30	4,553.31	10.21	3.54	175.68	-1,439.36	108.72	1,443.71	1,430.00	13.71	105.328		
4,700.00	4,700.00	4,652.86	4,651.83	10.43	3.59	175.76	-1,441.45	106.76	1,445.68	1,431.71	13.96	103.522		
4,800.00	4,800.00	4,755.39	4,754.32	10.66	3.64	175.85	-1,443.52	104.71	1,447.54	1,433.31	14.23	101.741		
4,900.00	4,900.00	4,860.03	4,858.92	10.88	3.70	175.94	-1,445.39	102.67	1,449.18	1,434.69	14.50	99.972		
5,000.00	5,000.00	4,963.60	4,962.47	11.11	3.77	176.02	-1,446.87	100.70	1,450.48	1,435.71	14.77	98.217		
5,100.00	5,100.00	5,062.90	5,061.74	11.33	3.84	176.10	-1,448.20	98.79	1,451.68	1,436.64	15.04	96.519		
5,200.00	5,200.00	5,159.98	5,158.79	11.56	3.91	176.18	-1,449.64	96.86	1,453.03	1,437.72	15.31	94.896		
5,300.00	5,300.00	5,259.13	5,257.91	11.78	3.98	176.25	-1,451.27	95.16	1,454.56	1,438.97	15.58	93.338		
5,400.00	5,400.00	5,364.59	5,363.35	12.00	4.05	176.31	-1,452.83	93.72	1,455.95	1,440.09	15.86	91.797		
5,500.00	5,500.00	5,468.58	5,467.32	12.23	4.13	176.35	-1,453.90	92.65	1,456.91	1,440.77	16.14	90.270		
5,600.00	5,600.00	5,571.58	5,570.32	12.45	4.21	176.40	-1,454.77	91.61	1,457.69	1,441.27	16.42	88.772		
5,700.00	5,700.00	5,676.02	5,674.75	12.68	4.30	176.43	-1,455.36	90.89	1,458.21	1,441.50	16.70	87.292		
5,800.00	5,800.00	5,776.07	5,774.80	12.90	4.38	176.44	-1,455.70	90.57	1,458.53	1,441.54	16.99	85.869		
5,900.00	5,900.00	5,877.53	5,876.26	13.13	4.44	176.44	-1,456.04	90.52	1,458.86	1,441.59	17.27	84.493		
6,000.00	6,000.00	5,975.95	5,974.68	13.35	4.49	176.44	-1,456.32	90.55	1,459.14	1,441.59	17.55	83.155		
6,100.00	6,100.00	6,077.78	6,076.51	13.58	4.53	176.43	-1,456.65	90.80	1,459.48	1,441.64	17.84	81.830		
6,200.00	6,200.00	6,184.00	6,182.72	13.80	4.57	176.41	-1,456.66	91.33	1,459.53	1,441.39	18.13	80.491		

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



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Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal - #21 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-Scientific Gyro 9770-MWD													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)						
6,300.00	6,300.00	6,281.32	6,280.04	14.03	4.60	176.39	-1,456.48	91.99	1,459.38	1,440.95	18.43	79.201		
6,300.93	6,300.93	6,282.20	6,280.93	14.03	4.60	176.39	-1,456.48	91.99	1,459.38	1,440.95	18.43	79.190		
6,400.00	6,400.00	6,378.68	6,378.40	14.25	4.64	176.36	-1,456.50	92.76	1,459.45	1,440.73	18.72	77.966		
6,500.00	6,500.00	6,475.81	6,474.53	14.48	4.67	176.33	-1,456.67	93.50	1,459.67	1,440.67	19.01	76.791		
6,600.00	6,600.00	6,578.80	6,577.32	14.70	4.73	176.31	-1,456.99	93.90	1,460.02	1,440.72	19.30	75.842		
6,700.00	6,700.00	6,682.03	6,680.75	14.93	4.82	176.32	-1,457.06	93.72	1,460.07	1,440.47	19.60	74.503		
6,800.00	6,800.00	6,781.71	6,780.43	15.15	4.92	176.33	-1,457.02	93.49	1,460.01	1,440.12	19.89	73.395		
6,894.82	6,894.82	6,876.10	6,874.82	15.36	5.01	176.34	-1,457.02	93.32	1,460.00	1,439.83	20.17	72.379		
6,900.00	6,900.00	6,881.27	6,879.98	15.38	5.02	176.34	-1,457.02	93.31	1,460.00	1,439.81	20.19	72.324		
7,000.00	7,000.00	6,980.83	6,979.55	15.60	5.11	176.34	-1,457.05	93.09	1,460.02	1,439.54	20.48	71.287		
7,100.00	7,100.00	7,080.57	7,079.28	15.83	5.21	176.36	-1,457.12	92.59	1,460.06	1,439.28	20.77	70.281		
7,200.00	7,200.00	7,180.99	7,179.70	16.05	5.32	176.39	-1,457.20	91.85	1,460.10	1,439.03	21.07	69.300		
7,300.00	7,300.00	7,283.12	7,281.83	16.28	5.42	176.43	-1,457.21	91.01	1,460.05	1,438.69	21.37	68.337		
7,400.00	7,400.00	7,384.09	7,382.80	16.50	5.53	176.46	-1,457.11	90.04	1,459.89	1,438.23	21.66	67.396		
7,500.00	7,500.00	7,483.39	7,482.09	16.72	5.63	176.50	-1,456.99	89.04	1,459.71	1,437.76	21.96	66.483		
7,600.00	7,600.00	7,583.92	7,582.62	16.95	5.74	176.55	-1,456.91	87.95	1,459.56	1,437.31	22.25	65.593		
7,700.00	7,700.00	7,684.92	7,683.60	17.17	5.85	176.60	-1,456.77	86.55	1,459.35	1,436.80	22.55	64.723		
7,800.00	7,800.00	7,785.69	7,784.36	17.40	5.96	176.66	-1,456.59	84.96	1,459.07	1,436.23	22.84	63.873		
7,900.00	7,900.00	7,885.15	7,883.80	17.62	6.07	176.72	-1,456.40	83.37	1,458.79	1,435.65	23.14	63.046		
8,000.00	8,000.00	7,983.62	7,982.27	17.85	6.17	176.78	-1,456.27	81.90	1,458.58	1,435.14	23.43	62.246		
8,100.00	8,100.00	8,082.05	8,080.69	18.07	6.28	176.83	-1,456.24	80.68	1,458.47	1,434.75	23.73	61.471		
8,137.99	8,137.99	8,119.35	8,117.99	18.16	6.33	176.84	-1,456.25	80.29	1,458.47	1,434.63	23.84	61.184		
8,200.00	8,200.00	8,180.11	8,178.74	18.30	6.39	176.87	-1,456.31	79.67	1,458.49	1,434.47	24.02	60.722		
8,300.00	8,300.00	8,277.61	8,276.23	18.52	6.50	176.91	-1,456.53	78.70	1,458.66	1,434.35	24.31	60.001		
8,400.00	8,400.00	8,376.34	8,374.96	18.75	6.61	176.94	-1,456.89	77.80	1,458.97	1,434.37	24.60	59.302		
8,500.00	8,500.00	8,479.19	8,477.82	18.97	6.72	176.97	-1,457.20	77.25	1,459.25	1,434.35	24.90	58.611		
8,600.00	8,600.00	8,576.38	8,575.00	19.20	6.82	176.98	-1,457.41	76.99	1,459.45	1,434.26	25.19	57.942		
8,700.00	8,700.00	8,668.14	8,666.75	19.42	6.90	176.99	-1,457.97	76.67	1,460.04	1,434.57	25.47	57.314		
8,800.00	8,800.00	8,779.26	8,777.87	19.65	7.01	177.02	-1,458.84	76.02	1,460.82	1,435.04	25.78	56.671		
8,900.00	8,900.00	8,885.00	8,883.61	19.87	7.13	177.06	-1,458.74	75.01	1,460.67	1,434.60	26.08	56.017		
8,939.82	8,939.82	8,921.21	8,919.82	19.96	7.16	177.07	-1,458.69	74.58	1,460.60	1,434.41	26.19	55.768		
9,000.00	9,000.00	8,971.96	8,970.56	20.10	7.22	177.09	-1,458.88	74.14	1,460.79	1,434.43	26.36	55.416		
9,100.00	9,100.00	9,042.87	9,041.47	20.32	7.27	177.10	-1,459.90	73.91	1,462.28	1,435.65	26.63	54.911		
9,200.00	9,200.00	9,109.05	9,107.59	20.55	7.32	177.09	-1,462.46	74.28	1,466.13	1,439.24	26.89	54.529		
9,300.00	9,300.00	9,200.00	9,198.39	20.77	7.37	177.06	-1,467.49	75.42	1,471.69	1,444.52	27.17	54.161		
9,400.00	9,400.00	9,271.78	9,270.00	21.00	7.41	177.02	-1,472.35	76.63	1,478.44	1,451.01	27.43	53.898		
9,500.00	9,500.00	9,345.55	9,343.51	21.22	7.45	176.98	-1,478.33	78.09	1,486.87	1,458.99	27.69	53.698		
9,600.00	9,600.00	9,416.10	9,413.69	21.44	7.49	176.93	-1,485.42	79.73	1,496.83	1,468.90	27.93	53.589		
9,627.04	9,627.04	9,435.47	9,432.93	21.51	7.50	176.91	-1,487.60	80.22	1,499.90	1,471.90	28.00	53.572		
9,650.00	9,649.99	9,451.94	9,449.27	21.55	7.51	-1.90	-1,489.53	80.65	1,502.16	1,474.11	28.05	53.559		
9,700.00	9,699.80	9,500.00	9,496.94	21.63	7.54	-1.94	-1,495.54	81.97	1,504.30	1,476.14	28.16	53.414		
9,750.00	9,749.06	9,540.73	9,537.30	21.72	7.56	-2.01	-1,500.75	83.65	1,502.24	1,473.97	28.26	53.149		
9,800.00	9,797.39	9,601.60	9,597.56	21.80	7.59	-2.21	-1,508.04	88.03	1,495.57	1,467.16	28.41	52.647		
9,850.00	9,844.42	9,673.02	9,668.00	21.88	7.62	-2.64	-1,515.49	97.09	1,484.07	1,455.50	28.57	51.948		
9,900.00	9,889.79	9,724.42	9,718.32	21.96	7.76	-3.14	-1,520.10	106.47	1,467.94	1,439.27	28.67	51.198		
9,950.00	9,933.17	9,770.00	9,762.66	22.04	7.94	-3.74	-1,523.96	116.29	1,447.75	1,419.01	28.74	50.382		
10,000.00	9,974.21	9,809.39	9,800.77	22.14	7.95	-4.42	-1,527.23	125.72	1,423.76	1,394.95	28.81	49.421		
10,050.00	10,012.62	9,849.79	9,839.70	22.25	7.96	-5.28	-1,530.60	135.97	1,396.25	1,367.36	28.89	48.334		
10,100.00	10,048.09	9,895.37	9,883.68	22.38	7.98	-6.44	-1,534.23	147.41	1,365.17	1,336.19	28.98	47.101		
10,150.00	10,080.35	9,935.18	9,922.15	22.53	7.99	-7.79	-1,537.22	157.18	1,330.74	1,301.67	29.07	45.770		
10,200.00	10,109.17	9,974.82	9,960.51	22.71	8.01	-9.56	-1,540.04	166.77	1,293.27	1,264.10	29.17	44.336		
10,250.00	10,134.31	10,015.86	10,000.31	22.91	8.02	-12.03	-1,542.61	176.40	1,252.93	1,223.65	29.28	42.796		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal #21 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-Scientific Gyro 9770-MWD													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)	Offset Wellbore Centre E-W (usft)						
10,300.00	10,155.60	10,050.45	10,033.95	23.14	8.04	-15.32	-1,544.47	184.27	1,210.07	1,180.70	29.37	41.204		
10,350.00	10,172.86	10,072.86	10,055.77	23.40	8.05	-19.55	-1,545.56	189.24	1,165.16	1,135.73	29.43	39.589		
10,400.00	10,185.97	10,089.67	10,072.16	23.69	8.06	-25.70	-1,546.35	192.91	1,118.66	1,089.18	29.48	37.944		
10,450.00	10,194.83	10,101.91	10,084.09	24.01	8.06	-35.24	-1,546.92	195.56	1,070.93	1,041.41	29.52	36.275		
10,500.00	10,199.38	10,109.60	10,091.51	24.35	8.06	-50.68	-1,547.27	197.19	1,022.34	992.79	29.55	34.592		
10,527.04	10,200.00	10,111.67	10,093.82	24.55	8.07	-62.43	-1,547.37	197.65	995.83	966.27	29.57	33.679		
10,600.00	10,200.00	10,115.66	10,097.51	25.12	8.07	-63.62	-1,547.55	198.50	924.26	894.66	29.60	31.221		
10,700.00	10,200.00	10,121.08	10,102.79	25.99	8.07	-65.25	-1,547.80	199.65	826.53	796.85	29.67	27.854		
10,800.00	10,200.00	10,126.41	10,108.01	26.96	8.07	-66.88	-1,548.04	200.77	729.37	699.59	29.78	24.488		
10,900.00	10,200.00	10,131.70	10,113.17	28.02	8.08	-68.50	-1,548.28	201.89	633.06	603.09	29.97	21.125		
11,000.00	10,200.00	10,136.92	10,118.28	29.15	8.08	-70.13	-1,548.51	202.98	538.05	507.76	30.28	17.786		
11,100.00	10,200.00	10,142.09	10,123.33	30.35	8.08	-71.75	-1,548.74	204.06	445.17	414.30	30.86	14.424		
11,200.00	10,200.00	10,147.20	10,128.32	31.61	8.08	-73.36	-1,548.97	205.12	356.09	324.11	31.98	11.134		
11,300.00	10,200.00	10,152.35	10,133.35	32.93	8.09	-74.99	-1,549.19	206.18	274.56	240.32	34.24	8.019		
11,400.00	10,200.00	10,157.48	10,138.36	34.30	8.09	-76.62	-1,549.42	207.24	209.55	171.15	38.40	5.457		
11,500.00	10,200.00	10,162.42	10,143.20	35.70	8.09	-78.19	-1,549.63	208.25	179.99	137.27	42.72	4.214		
11,507.72	10,200.00	10,162.79	10,143.56	35.82	8.09	-78.31	-1,549.64	208.32	179.82	136.95	42.87	4.194 CC, ES, SF		
11,600.00	10,200.00	10,167.19	10,147.87	37.15	8.09	-79.71	-1,549.82	209.21	202.07	160.13	41.94	4.818		
11,700.00	10,200.00	10,171.80	10,152.38	38.63	8.10	-81.18	-1,550.01	210.14	263.12	224.56	38.55	6.825		
11,800.00	10,200.00	10,176.26	10,156.74	40.13	8.10	-82.59	-1,550.19	211.04	342.91	306.93	35.98	9.532		
11,900.00	10,200.00	10,180.57	10,160.96	41.67	8.10	-83.95	-1,550.36	211.89	431.16	396.78	34.38	12.541		
12,000.00	10,200.00	10,184.74	10,165.05	43.23	8.10	-85.27	-1,550.52	212.72	523.62	490.23	33.39	15.682		
12,100.00	10,200.00	10,188.78	10,169.01	44.81	8.11	-86.53	-1,550.67	213.52	618.41	585.66	32.75	18.884		
12,200.00	10,200.00	10,192.70	10,172.84	46.40	8.11	-87.75	-1,550.82	214.28	714.59	682.28	32.32	22.113		
12,300.00	10,200.00	10,196.49	10,176.56	48.02	8.11	-88.92	-1,550.96	215.02	811.68	779.67	32.01	25.356		
12,400.00	10,200.00	10,200.17	10,180.17	49.65	8.11	-90.05	-1,551.09	215.73	909.38	877.59	31.79	28.603		
12,500.00	10,200.00	10,203.74	10,183.67	51.29	8.11	-91.14	-1,551.22	216.42	1,007.52	975.89	31.63	31.851		
12,600.00	10,200.00	10,207.20	10,187.06	52.95	8.12	-92.19	-1,551.34	217.09	1,105.98	1,074.47	31.51	35.096		
12,700.00	10,200.00	10,210.56	10,190.36	54.62	8.12	-93.20	-1,551.46	217.73	1,204.68	1,173.26	31.42	38.337		
12,800.00	10,200.00	10,213.83	10,193.57	56.29	8.12	-94.17	-1,551.57	218.35	1,303.57	1,272.21	31.36	41.573		
12,900.00	10,200.00	10,217.00	10,196.68	57.98	8.12	-95.11	-1,551.67	218.95	1,402.61	1,371.30	31.31	44.802		
13,000.00	10,200.00	10,220.09	10,199.71	59.68	8.12	-96.01	-1,551.78	219.53	1,501.77	1,470.50	31.27	48.025		
13,100.00	10,200.00	10,223.09	10,202.66	61.38	8.12	-96.88	-1,551.87	220.10	1,601.03	1,569.78	31.25	51.240		
13,200.00	10,200.00	10,226.01	10,205.53	63.10	8.13	-97.72	-1,551.97	220.64	1,700.36	1,669.13	31.23	54.447		
13,300.00	10,200.00	10,228.85	10,208.32	64.82	8.13	-98.53	-1,552.06	221.17	1,799.77	1,768.55	31.22	57.647		
13,400.00	10,200.00	10,231.62	10,211.03	66.54	8.13	-99.31	-1,552.14	221.69	1,899.23	1,868.01	31.22	60.837		
13,500.00	10,200.00	10,244.00	10,223.20	68.27	8.14	-102.70	-1,552.51	223.95	1,998.77	1,967.52	31.25	63.963		
13,600.00	10,200.00	10,244.00	10,223.20	70.01	8.14	-102.70	-1,552.51	223.95	2,098.31	2,067.06	31.25	67.150		
13,700.00	10,200.00	10,244.00	10,223.20	71.75	8.14	-102.70	-1,552.51	223.95	2,197.89	2,166.64	31.25	70.328		
13,757.00	10,200.00	10,244.00	10,223.20	72.75	8.14	-102.70	-1,552.51	223.95	2,254.67	2,223.41	31.26	72.136		
13,800.00	10,200.00	10,244.00	10,223.20	73.46	8.14	-107.08	-1,552.51	223.95	2,297.54	2,266.28	31.26	73.497		
13,895.57	10,200.00	10,244.00	10,223.20	74.95	8.14	-151.65	-1,552.51	223.95	2,393.03	2,361.75	31.28	76.500		
13,900.00	10,200.00	10,244.00	10,223.20	75.02	8.14	-151.65	-1,552.51	223.95	2,397.46	2,366.17	31.28	76.637		
14,000.00	10,200.00	10,244.00	10,223.20	76.75	8.14	-151.65	-1,552.51	223.95	2,497.44	2,466.12	31.32	79.748		
14,100.00	10,200.00	10,244.00	10,223.20	78.48	8.14	-151.65	-1,552.51	223.95	2,597.42	2,566.07	31.35	82.848		
14,200.00	10,200.00	10,244.00	10,223.20	80.21	8.14	-151.65	-1,552.51	223.95	2,697.40	2,666.01	31.39	85.940		
14,300.00	10,200.00	10,244.00	10,223.20	81.95	8.14	-151.65	-1,552.51	223.95	2,797.39	2,765.96	31.42	89.021		
14,400.00	10,200.00	10,244.00	10,223.20	83.69	8.14	-151.65	-1,552.51	223.95	2,897.37	2,865.91	31.46	92.093		
14,500.00	10,200.00	10,244.00	10,223.20	85.43	8.14	-151.65	-1,552.51	223.95	2,997.36	2,965.86	31.50	95.154		
14,600.00	10,200.00	10,244.00	10,223.20	87.18	8.14	-151.65	-1,552.51	223.95	3,097.34	3,065.80	31.54	98.206		
14,700.00	10,200.00	10,255.64	10,234.64	88.93	8.14	-155.05	-1,552.84	226.06	3,197.30	3,165.69	31.61	101.148		
14,800.00	10,200.00	10,257.04	10,236.02	90.68	8.14	-155.37	-1,552.88	226.31	3,297.29	3,265.63	31.66	104.163		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal - #21 - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100-Scientific Gyro 9770-MWD													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		
14,900.00	10,200.00	10,258.42	10,237.37	92.44	8.14	-155.68	-1,552.91	226.55	3,397.27	3,365.57	31.70	107.167		
15,000.00	10,200.00	10,259.78	10,238.71	94.19	8.15	-155.97	-1,552.95	226.80	3,497.25	3,465.51	31.75	110.160		
15,100.00	10,200.00	10,261.12	10,240.03	95.95	8.15	-156.25	-1,552.99	227.04	3,597.24	3,565.44	31.79	113.142		
15,200.00	10,200.00	10,262.44	10,241.33	97.72	8.15	-156.51	-1,553.02	227.27	3,697.22	3,665.38	31.84	116.112		
15,300.00	10,200.00	10,263.74	10,242.61	99.48	8.15	-156.76	-1,553.06	227.50	3,797.20	3,765.31	31.89	119.070		
15,400.00	10,200.00	10,265.02	10,243.87	101.25	8.15	-157.00	-1,553.09	227.73	3,897.19	3,865.25	31.94	122.016		
15,500.00	10,200.00	10,266.29	10,245.12	103.01	8.15	-157.22	-1,553.13	227.96	3,997.17	3,965.18	31.99	124.950		
15,538.35	10,200.00	10,266.75	10,245.57	103.66	8.15	-157.30	-1,553.14	228.04	4,033.51	4,001.51	32.01	126.013		



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM:5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Lea Federal - #24 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3													Offset Well Error:	0.00 usft
Reference														
Offset														
Semi Major Axis														
Distance														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre -N-S (usft)	-E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-178.28	-5,100.70	-153.20	5,103.16					
100.00	100.00	48.90	48.90	0.09	0.05	-178.28	-5,100.75	-153.18	5,103.06	5,102.92	0.14	N/A		
200.00	200.00	177.45	177.45	0.32	0.23	-178.28	-5,100.93	-152.97	5,103.25	5,102.71	0.55	9,338.484		
300.00	300.00	263.47	263.46	0.54	0.38	-178.29	-5,100.62	-152.61	5,102.90	5,101.99	0.92	5,572.040		
315.63	315.63	274.83	274.63	0.58	0.40	-178.29	-5,100.61	-152.54	5,102.89	5,101.92	0.97	5,261.345		
400.00	400.00	356.90	356.90	0.77	0.55	-178.29	-5,100.73	-151.88	5,102.99	5,101.69	1.30	3,917.871		
466.76	466.76	425.77	425.76	0.92	0.68	-178.30	-5,100.72	-151.35	5,102.97	5,101.40	1.57	3,244.440		
500.00	500.00	454.55	454.54	0.99	0.73	-178.30	-5,100.74	-151.14	5,102.98	5,101.29	1.70	3,005.832		
600.00	600.00	544.05	544.04	1.22	0.90	-178.31	-5,100.95	-150.51	5,103.19	5,101.11	2.08	2,454.479		
700.00	700.00	637.36	637.35	1.44	1.07	-178.32	-5,101.30	-149.91	5,103.55	5,101.08	2.47	2,067.657		
800.00	800.00	738.23	738.21	1.87	1.26	-178.32	-5,101.78	-149.38	5,104.01	5,101.14	2.87	1,777.186		
900.00	900.00	853.81	853.79	1.89	1.47	-178.33	-5,102.10	-149.02	5,104.27	5,100.97	3.30	1,546.077		
1,000.00	1,000.00	972.22	972.20	2.12	1.68	-178.33	-5,102.01	-148.75	5,104.20	5,100.47	3.73	1,367.950		
1,100.00	1,100.00	1,062.77	1,062.75	2.34	1.83	-178.33	-5,101.80	-148.84	5,103.97	5,099.86	4.11	1,241.288		
1,120.72	1,120.72	1,079.74	1,079.73	2.39	1.86	-178.33	-5,101.79	-148.78	5,103.96	5,099.77	4.19	1,218.802		
1,200.00	1,200.00	1,145.20	1,145.18	2.56	1.98	-178.33	-5,101.89	-148.41	5,104.07	5,099.59	4.48	1,139.185		
1,300.00	1,300.00	1,257.55	1,257.53	2.79	2.18	-178.34	-5,102.26	-148.05	5,104.41	5,099.51	4.90	1,041.235		
1,400.00	1,400.00	1,372.01	1,371.99	3.01	2.36	-178.33	-5,101.99	-148.40	5,104.16	5,098.84	5.32	958.584		
1,500.00	1,500.00	1,462.97	1,462.95	3.24	2.51	-178.33	-5,101.82	-148.50	5,103.98	5,098.27	5.71	894.388		
1,535.37	1,535.37	1,494.41	1,494.39	3.32	2.56	-178.33	-5,101.81	-148.52	5,103.97	5,098.13	5.84	873.855		
1,600.00	1,600.00	1,558.26	1,558.24	3.46	2.67	-178.33	-5,101.81	-148.54	5,103.98	5,097.88	6.10	837.017		
1,700.00	1,700.00	1,665.73	1,665.71	3.69	2.86	-178.33	-5,101.78	-148.52	5,103.95	5,097.44	6.51	784.015		
1,800.00	1,800.00	1,762.71	1,762.69	3.91	3.02	-178.33	-5,101.64	-148.50	5,103.80	5,096.90	6.90	739.323		
1,840.98	1,840.98	1,800.00	1,799.98	4.01	3.09	-178.33	-5,101.63	-148.51	5,103.79	5,096.73	7.06	722.889		
1,900.00	1,900.00	1,856.67	1,856.65	4.14	3.18	-178.33	-5,101.64	-148.57	5,103.80	5,096.51	7.29	699.916		
2,000.00	2,000.00	1,968.71	1,968.69	4.36	3.37	-178.33	-5,101.62	-148.75	5,103.80	5,096.09	7.71	661.783		
2,100.00	2,100.00	2,063.21	2,063.19	4.59	3.53	-178.33	-5,101.42	-148.54	5,103.59	5,095.49	8.10	629.956		
2,126.92	2,126.92	2,085.94	2,085.92	4.65	3.58	-178.33	-5,101.42	-148.43	5,103.58	5,095.38	8.20	622.267		
2,200.00	2,200.00	2,143.85	2,143.82	4.81	3.68	-178.34	-5,101.50	-148.19	5,103.68	5,095.21	8.47	602.771		
2,300.00	2,300.00	2,230.95	2,230.93	5.04	3.83	-178.34	-5,101.94	-148.19	5,104.17	5,095.33	8.84	577.107		
2,400.00	2,400.00	2,346.22	2,346.19	5.26	4.04	-178.34	-5,102.44	-147.75	5,104.59	5,095.32	9.27	550.559		
2,500.00	2,500.00	2,454.62	2,454.59	5.49	4.23	-178.35	-5,102.58	-147.31	5,104.71	5,095.02	9.69	527.008		
2,600.00	2,600.00	2,559.51	2,559.48	5.71	4.41	-178.34	-5,102.64	-147.59	5,104.77	5,094.68	10.09	505.720		
2,700.00	2,700.00	2,674.35	2,674.32	5.94	4.61	-178.35	-5,102.49	-147.19	5,104.63	5,094.12	10.52	485.308		
2,775.96	2,775.96	2,735.17	2,735.14	6.11	4.72	-178.35	-5,102.34	-147.05	5,104.46	5,093.66	10.79	472.856		
2,800.00	2,800.00	2,750.80	2,750.77	6.16	4.75	-178.35	-5,102.35	-147.03	5,104.48	5,093.60	10.88	469.323		
2,900.00	2,900.00	2,846.00	2,845.97	6.39	4.92	-178.35	-5,102.78	-146.88	5,104.91	5,093.64	11.27	453.064		
3,000.00	3,000.00	2,991.49	2,991.45	6.61	5.18	-178.36	-5,102.41	-145.72	5,104.60	5,092.85	11.75	434.598		
3,100.00	3,100.00	3,098.24	3,098.20	6.84	5.37	-178.37	-5,101.67	-144.99	5,103.88	5,091.73	12.16	419.881		
3,200.00	3,200.00	3,200.00	3,199.95	7.06	5.55	-178.38	-5,100.85	-144.48	5,103.06	5,090.50	12.56	406.378		
3,281.41	3,281.41	3,240.46	3,240.41	7.24	5.62	-178.38	-5,100.67	-144.60	5,102.72	5,089.91	12.81	398.297		
3,300.00	3,300.00	3,249.30	3,249.25	7.28	5.63	-178.38	-5,100.68	-144.70	5,102.74	5,089.87	12.87	396.528		
3,400.00	3,400.00	3,300.00	3,299.94	7.51	5.72	-178.36	-5,101.02	-145.72	5,103.44	5,090.26	13.18	387.182		
3,500.00	3,500.00	3,368.53	3,368.43	7.73	5.83	-178.34	-5,102.01	-147.89	5,104.95	5,091.43	13.52	377.467		
3,600.00	3,600.00	3,455.96	3,455.78	7.96	5.98	-178.30	-5,103.63	-151.19	5,106.91	5,093.01	13.90	367.377		
3,700.00	3,700.00	3,558.34	3,558.06	8.18	6.15	-178.26	-5,105.57	-155.16	5,108.93	5,094.62	14.30	357.149		
3,800.00	3,800.00	3,671.83	3,671.45	8.41	6.34	-178.21	-5,107.56	-159.55	5,110.80	5,096.07	14.73	346.999		
3,900.00	3,900.00	3,778.85	3,778.39	8.63	6.52	-178.17	-5,109.17	-163.51	5,112.42	5,097.28	15.14	337.657		
4,000.00	4,000.00	3,878.58	3,878.04	8.86	6.69	-178.13	-5,110.62	-167.09	5,113.99	5,098.45	15.54	329.080		
4,100.00	4,100.00	3,979.56	3,978.95	9.08	6.87	-178.09	-5,112.09	-170.74	5,115.57	5,099.63	15.94	320.887		
4,200.00	4,200.00	4,089.50	4,088.81	9.31	7.06	-178.04	-5,113.59	-174.78	5,117.06	5,100.70	16.36	312.783		
4,300.00	4,300.00	4,173.30	4,172.55	9.53	7.20	-178.01	-5,114.75	-177.66	5,118.56	5,101.83	16.73	305.935		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM:5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal - #24 - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3												Offset Well Error:	0.00 usft
Reference													
Measured		Vertical		Measured		Vertical		Semi Major Axis		Distance		Warning	
Depth	Vertical	Depth	Vertical	Reference	Offset	Reference	Offset	Reference	Offset	Between	Between	Minimum	Separation
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	Toolface	Highside	Offset Wellbore Centre	Offset Wellbore Centre	Separation	Factor
								(°)		+N-S	+E-W	(usft)	
										(usft)	(usft)	(usft)	
4,400.00	4,400.00	4,270.44	4,269.62	9.76	7.37	-177.98	-5,116.36	-180.63	5,120.33	5,103.20	17.13	298.978	
4,500.00	4,500.00	4,400.00	4,399.12	9.98	7.60	-177.94	-5,118.16	-184.39	5,121.83	5,104.25	17.58	291.349	
4,600.00	4,600.00	4,490.75	4,489.83	10.21	7.76	-177.91	-5,119.20	-186.81	5,123.07	5,105.11	17.96	285.192	
4,700.00	4,700.00	4,580.84	4,579.90	10.43	7.92	-177.90	-5,120.47	-187.73	5,124.52	5,106.18	18.35	279.317	
4,800.00	4,800.00	4,664.04	4,663.09	10.66	8.06	-177.91	-5,121.91	-186.99	5,126.22	5,107.50	18.72	273.670	
4,900.00	4,900.00	4,747.85	4,746.87	10.88	8.21	-177.90	-5,123.59	-187.69	5,128.26	5,109.16	19.09	268.631	
5,000.00	5,000.00	4,842.89	4,841.89	11.11	8.38	-177.90	-5,125.75	-188.23	5,130.54	5,111.06	19.48	263.319	
5,100.00	5,100.00	4,950.98	4,949.94	11.33	8.58	-177.88	-5,128.09	-189.38	5,132.74	5,112.84	19.90	257.897	
5,200.00	5,200.00	5,061.00	5,059.93	11.56	8.77	-177.87	-5,130.28	-190.70	5,134.78	5,114.46	20.32	252.643	
5,300.00	5,300.00	5,176.06	5,174.97	11.78	8.98	-177.86	-5,132.30	-191.78	5,136.57	5,115.82	20.76	247.477	
5,400.00	5,400.00	5,278.40	5,277.30	12.00	9.16	-177.85	-5,133.89	-192.80	5,138.16	5,116.99	21.16	242.779	
5,500.00	5,500.00	5,403.59	5,402.47	12.23	9.39	-177.84	-5,135.58	-194.03	5,139.56	5,117.94	21.61	237.790	
5,600.00	5,600.00	5,527.98	5,526.84	12.45	9.61	-177.82	-5,136.61	-195.60	5,140.43	5,118.37	22.06	233.021	
5,700.00	5,700.00	5,654.19	5,653.04	12.68	9.83	-177.80	-5,136.99	-197.48	5,140.79	5,118.28	22.51	228.417	
5,800.00	5,800.00	5,772.72	5,771.56	12.90	10.04	-177.78	-5,136.82	-199.36	5,140.71	5,117.77	22.94	224.128	
5,888.86	5,888.86	5,849.04	5,847.86	13.10	10.18	-177.76	-5,136.62	-200.51	5,140.54	5,117.27	23.27	220.921	
5,900.00	5,900.00	5,857.40	5,856.23	13.13	10.19	-177.76	-5,136.62	-200.64	5,140.54	5,117.23	23.31	220.546	
6,000.00	6,000.00	5,946.72	5,945.53	13.35	10.35	-177.75	-5,136.79	-202.04	5,140.78	5,117.09	23.69	217.014	
6,100.00	6,100.00	6,043.49	6,042.29	13.58	10.52	-177.73	-5,136.96	-203.46	5,141.02	5,116.93	24.08	213.471	
6,200.00	6,200.00	6,129.85	6,128.64	13.80	10.68	-177.72	-5,137.32	-204.38	5,141.48	5,117.02	24.46	210.199	
6,300.00	6,300.00	6,221.00	6,219.79	14.03	10.84	-177.72	-5,137.97	-204.44	5,142.18	5,117.34	24.85	206.953	
6,400.00	6,400.00	6,397.47	6,396.26	14.25	11.15	-177.72	-5,138.49	-204.66	5,142.70	5,117.32	25.38	202.609	
6,492.59	6,492.59	6,452.80	6,451.59	14.46	11.25	-177.72	-5,138.29	-204.14	5,142.34	5,116.66	25.69	200.190	
6,500.00	6,500.00	6,457.06	6,455.85	14.48	11.25	-177.73	-5,138.29	-204.10	5,142.35	5,116.63	25.71	200.003	
6,600.00	6,600.00	6,526.15	6,524.93	14.70	11.37	-177.73	-5,138.65	-203.61	5,142.79	5,116.74	26.06	197.367	
6,700.00	6,700.00	6,627.76	6,626.54	14.93	11.56	-177.73	-5,139.28	-203.96	5,143.43	5,116.96	26.46	194.364	
6,800.00	6,800.00	6,728.36	6,727.13	15.15	11.74	-177.72	-5,139.90	-204.75	5,144.08	5,117.21	26.87	191.467	
6,900.00	6,900.00	6,883.85	6,882.62	15.38	12.01	-177.71	-5,140.26	-205.83	5,144.43	5,117.07	27.36	188.005	
6,985.49	6,985.49	6,945.72	6,944.49	15.57	12.12	-177.71	-5,140.02	-205.95	5,144.14	5,116.48	27.66	185.958	
7,000.00	7,000.00	6,954.16	6,952.93	15.60	12.14	-177.71	-5,140.03	-205.95	5,144.15	5,116.44	27.71	185.641	
7,100.00	7,100.00	7,021.21	7,019.98	15.83	12.25	-177.71	-5,140.39	-205.86	5,144.66	5,116.61	28.05	183.396	
7,200.00	7,200.00	7,121.60	7,120.36	16.05	12.43	-177.70	-5,141.14	-206.10	5,145.42	5,116.96	28.46	180.809	
7,300.00	7,300.00	7,224.86	7,223.62	16.28	12.62	-177.70	-5,141.90	-206.12	5,146.15	5,117.28	28.87	178.260	
7,400.00	7,400.00	7,332.48	7,331.23	16.50	12.81	-177.71	-5,142.56	-205.88	5,146.75	5,117.46	29.29	175.730	
7,500.00	7,500.00	7,430.64	7,429.39	16.72	12.99	-177.71	-5,143.06	-206.00	5,147.27	5,117.58	29.69	173.369	
7,600.00	7,600.00	7,521.74	7,520.50	16.95	13.16	-177.70	-5,143.69	-206.14	5,147.97	5,117.89	30.08	171.148	
7,700.00	7,700.00	7,625.25	7,624.00	17.17	13.34	-177.70	-5,144.38	-206.58	5,148.64	5,118.15	30.49	168.859	
7,800.00	7,800.00	7,718.88	7,717.63	17.40	13.51	-177.70	-5,145.10	-206.68	5,149.42	5,118.53	30.88	166.731	
7,900.00	7,900.00	7,812.91	7,811.65	17.62	13.79	-177.70	-5,145.82	-206.71	5,149.99	5,118.60	31.38	164.096	
8,000.00	8,000.00	7,978.47	7,977.22	17.85	13.96	-177.70	-5,145.36	-206.28	5,149.53	5,117.74	31.79	162.000	
8,100.00	8,100.00	8,078.73	8,077.47	18.07	14.13	-177.71	-5,145.06	-205.81	5,149.20	5,117.02	32.18	160.011	
8,200.00	8,200.00	8,184.22	8,182.96	18.30	14.30	-177.71	-5,144.63	-205.65	5,148.79	5,116.21	32.58	158.032	
8,299.22	8,299.22	8,259.48	8,258.22	18.52	14.43	-177.71	-5,144.41	-205.73	5,148.52	5,115.59	32.93	156.334	
8,300.00	8,300.00	8,260.03	8,258.77	18.52	14.43	-177.71	-5,144.41	-205.73	5,148.52	5,115.58	32.94	156.321	
8,400.00	8,400.00	8,369.31	8,368.05	18.75	14.62	-177.71	-5,144.52	-205.86	5,148.65	5,115.30	33.35	154.384	
8,500.00	8,500.00	8,468.44	8,467.18	18.97	14.82	-177.71	-5,144.02	-205.70	5,148.21	5,114.43	33.78	152.426	
8,600.00	8,600.00	8,592.39	8,591.13	19.20	15.00	-177.71	-5,143.41	-205.54	5,147.62	5,113.44	34.17	150.630	
8,693.48	8,693.48	8,653.75	8,652.48	19.41	15.10	-177.71	-5,143.21	-205.25	5,147.30	5,112.81	34.49	149.239	
8,700.00	8,700.00	8,657.81	8,656.55	19.42	15.11	-177.71	-5,143.21	-205.23	5,147.30	5,112.79	34.51	149.146	
8,800.00	8,800.00	8,763.20	8,761.94	19.65	15.29	-177.72	-5,143.50	-204.95	5,147.58	5,112.66	34.92	147.411	
8,900.00	8,900.00	8,865.74	8,864.48	19.87	15.47	-177.72	-5,143.23	-205.21	5,147.33	5,112.01	35.32	145.727	
8,928.91	8,928.91	8,889.17	8,887.90	19.94	15.51	-177.71	-5,143.22	-205.27	5,147.31	5,111.89	35.43	145.294	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal - #24 - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100-ISCWSA-GYRO-3													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)				
9,000.00	9,000.00	8,943.40	8,942.14	20.10	15.61	-177.71	-5,143.30	-205.40	5,147.42	5,111.74	35.68	144.258		
9,100.00	9,100.00	9,022.41	9,021.14	20.32	15.75	-177.71	-5,143.74	-205.56	5,147.98	5,111.94	36.05	142.812		
9,200.00	9,200.00	9,116.74	9,115.47	20.55	15.92	-177.71	-5,144.52	-205.39	5,148.81	5,112.36	36.44	141.290		
9,300.00	9,300.00	9,222.81	9,221.53	20.77	16.10	-177.72	-5,145.30	-204.97	5,149.52	5,112.66	36.86	139.717		
9,400.00	9,400.00	9,300.00	9,298.72	21.00	16.24	-177.72	-5,146.02	-204.64	5,150.44	5,113.22	37.22	138.380		
9,500.00	9,500.00	9,376.05	9,374.76	21.22	16.38	-177.73	-5,147.09	-203.94	5,151.82	5,114.24	37.58	137.090		
9,600.00	9,600.00	9,513.79	9,512.46	21.44	16.62	-177.76	-5,149.07	-201.11	5,153.20	5,115.15	38.05	135.430		
9,627.04	9,627.04	9,536.77	9,535.43	21.51	16.66	-177.77	-5,149.30	-200.58	5,153.46	5,115.31	38.15	135.078		
9,650.00	9,649.99	9,556.28	9,554.94	21.55	16.69	3.42	-5,149.52	-200.16	5,153.23	5,115.00	38.23	134.792		
9,700.00	9,699.80	9,600.00	9,598.64	21.63	16.77	3.43	-5,150.04	-199.33	5,149.62	5,111.23	38.39	134.134		
9,750.00	9,749.08	9,664.53	9,663.18	21.72	16.88	3.48	-5,150.75	-198.28	5,141.64	5,103.05	38.59	133.235		
9,800.00	9,797.39	9,730.76	9,729.38	21.80	17.00	3.56	-5,151.26	-197.28	5,129.24	5,090.45	38.79	132.225		
9,850.00	9,844.42	9,796.15	9,794.75	21.88	17.11	3.67	-5,151.53	-196.13	5,112.51	5,073.52	38.99	131.126		
9,900.00	9,889.79	9,850.78	9,849.38	21.96	17.20	3.83	-5,151.61	-195.05	5,091.61	5,052.45	39.16	130.007		
9,950.00	9,933.17	9,900.00	9,898.59	22.04	17.29	4.03	-5,151.61	-194.02	5,066.78	5,027.45	39.33	128.839		
10,000.00	9,974.21	9,934.66	9,933.24	22.14	17.35	4.29	-5,151.60	-193.34	5,038.27	4,998.81	39.46	127.682		
10,050.00	10,012.62	9,965.63	9,964.20	22.25	17.40	4.63	-5,151.65	-192.84	5,006.37	4,966.78	39.58	126.481		
10,100.00	10,048.09	10,000.00	9,998.57	22.38	17.46	5.07	-5,151.74	-192.40	4,971.29	4,931.59	39.71	125.205		
10,150.00	10,080.35	10,024.64	10,023.22	22.53	17.51	5.65	-5,151.83	-192.15	4,933.29	4,893.48	39.81	123.931		
10,200.00	10,109.17	10,052.81	10,051.38	22.71	17.55	6.43	-5,151.94	-191.90	4,892.62	4,852.71	39.91	122.597		
10,250.00	10,134.31	10,077.42	10,075.99	22.91	17.60	7.51	-5,152.03	-191.72	4,849.59	4,809.59	40.00	121.249		
10,300.00	10,155.60	10,098.29	10,096.86	23.14	17.63	9.08	-5,152.11	-191.59	4,804.53	4,764.45	40.07	119.897		
10,350.00	10,172.86	10,116.19	10,114.76	23.40	17.67	11.55	-5,152.18	-191.51	4,757.77	4,717.64	40.14	118.544		
10,400.00	10,185.97	10,129.90	10,128.46	23.69	17.69	15.87	-5,152.23	-191.47	4,709.68	4,669.50	40.18	117.203		
10,450.00	10,194.83	10,139.20	10,137.77	24.01	17.71	25.02	-5,152.26	-191.46	4,660.62	4,620.40	40.22	115.884		
10,500.00	10,199.36	10,144.05	10,142.62	24.35	17.72	52.04	-5,152.28	-191.45	4,610.96	4,570.72	40.24	114.591		
10,527.04	10,200.00	10,144.80	10,143.37	24.55	17.72	87.00	-5,152.28	-191.45	4,583.99	4,543.74	40.24	113.904		
10,600.00	10,200.00	10,145.06	10,143.63	25.12	17.72	87.05	-5,152.28	-191.45	4,511.19	4,470.93	40.25	112.070		
10,700.00	10,200.00	10,145.42	10,143.98	25.99	17.72	87.12	-5,152.28	-191.45	4,411.41	4,371.14	40.27	109.554		
10,800.00	10,200.00	10,145.77	10,144.34	26.96	17.72	87.19	-5,152.29	-191.45	4,311.64	4,271.36	40.28	107.035		
10,900.00	10,200.00	10,146.12	10,144.69	28.02	17.72	87.25	-5,152.29	-191.45	4,211.89	4,171.59	40.30	104.512		
11,000.00	10,200.00	10,146.47	10,145.04	29.15	17.72	87.32	-5,152.29	-191.45	4,112.15	4,071.83	40.32	101.985		
11,100.00	10,200.00	10,146.82	10,145.39	30.35	17.72	87.39	-5,152.29	-191.45	4,012.42	3,972.08	40.34	99.455		
11,200.00	10,200.00	10,147.17	10,145.74	31.61	17.72	87.46	-5,152.29	-191.45	3,912.70	3,872.33	40.37	96.921		
11,300.00	10,200.00	10,147.52	10,146.09	32.93	17.72	87.52	-5,152.29	-191.45	3,813.00	3,772.60	40.40	94.383		
11,400.00	10,200.00	10,147.87	10,146.44	34.30	17.72	87.59	-5,152.29	-191.45	3,713.32	3,672.89	40.43	91.843		
11,500.00	10,200.00	10,148.21	10,146.78	35.70	17.72	87.66	-5,152.29	-191.45	3,613.65	3,573.18	40.47	89.298		
11,600.00	10,200.00	10,148.56	10,147.13	37.15	17.72	87.72	-5,152.30	-191.45	3,514.00	3,473.50	40.51	86.750		
11,700.00	10,200.00	10,148.90	10,147.47	38.63	17.72	87.79	-5,152.30	-191.45	3,414.38	3,373.82	40.55	84.198		
11,800.00	10,200.00	10,149.25	10,147.82	40.13	17.72	87.85	-5,152.30	-191.45	3,314.77	3,274.17	40.60	81.641		
11,900.00	10,200.00	10,149.59	10,148.16	41.67	17.73	87.92	-5,152.30	-191.45	3,215.19	3,174.53	40.66	79.081		
12,000.00	10,200.00	10,149.93	10,148.50	43.23	17.73	87.99	-5,152.30	-191.45	3,115.64	3,074.92	40.72	76.517		
12,100.00	10,200.00	10,150.27	10,148.84	44.81	17.73	88.05	-5,152.30	-191.45	3,016.11	2,975.32	40.79	73.948		
12,200.00	10,200.00	10,150.61	10,149.18	46.40	17.73	88.12	-5,152.30	-191.45	2,916.62	2,875.76	40.86	71.374		
12,300.00	10,200.00	10,150.95	10,149.52	48.02	17.73	88.18	-5,152.30	-191.45	2,817.16	2,776.21	40.95	68.795		
12,400.00	10,200.00	10,151.29	10,149.86	49.65	17.73	88.25	-5,152.30	-191.45	2,717.75	2,676.70	41.05	66.210		
12,500.00	10,200.00	10,151.63	10,150.20	51.29	17.73	88.31	-5,152.31	-191.45	2,618.38	2,577.22	41.16	63.620		
12,600.00	10,200.00	10,151.97	10,150.54	52.95	17.73	88.38	-5,152.31	-191.45	2,519.05	2,477.77	41.28	61.023		
12,700.00	10,200.00	10,152.30	10,150.87	54.62	17.73	88.44	-5,152.31	-191.45	2,419.79	2,378.37	41.42	58.420		
12,800.00	10,200.00	10,152.64	10,151.21	56.29	17.73	88.50	-5,152.31	-191.45	2,320.58	2,279.00	41.58	55.809		
12,900.00	10,200.00	10,152.97	10,151.54	57.98	17.73	88.57	-5,152.31	-191.45	2,221.45	2,179.69	41.76	53.191		
13,000.00	10,200.00	10,153.30	10,151.87	59.68	17.73	88.63	-5,152.31	-191.45	2,122.40	2,080.43	41.97	50.564		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Federal - #24 - OH - OH										Offset Site Error: 0.00 usft			
Survey Program: 100-ISCWSA-GYRO-3										Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis		Highside Toolface	Offset Wellbore Centre		Distance		Minimum Separation	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)			
13,100.00	10,200.00	10,153.84	10,152.21	61.38	17.73	88.70	-5,152.31	-191.45	2,023.44	1,981.23	42.22	47.928	
13,200.00	10,200.00	10,153.97	10,152.54	63.10	17.73	88.76	-5,152.31	-191.45	1,924.59	1,882.09	42.50	45.282	
13,300.00	10,200.00	10,154.30	10,152.87	64.82	17.73	88.82	-5,152.31	-191.45	1,825.87	1,783.04	42.83	42.627	
13,400.00	10,200.00	10,154.63	10,153.20	66.54	17.73	88.89	-5,152.32	-191.45	1,727.29	1,684.07	43.22	39.961	
13,500.00	10,200.00	10,154.96	10,153.53	68.27	17.74	88.95	-5,152.32	-191.45	1,628.89	1,585.20	43.69	37.284	
13,600.00	10,200.00	10,155.29	10,153.85	70.01	17.74	89.01	-5,152.32	-191.45	1,530.69	1,486.45	44.24	34.598	
13,700.00	10,200.00	10,155.61	10,154.18	71.75	17.74	89.08	-5,152.32	-191.45	1,432.74	1,387.84	44.91	31.904	
13,757.00	10,200.00	10,155.80	10,154.37	72.75	17.74	89.11	-5,152.32	-191.45	1,377.05	1,331.70	45.35	30.365	
13,800.00	10,200.00	10,155.94	10,154.51	73.46	17.74	89.04	-5,152.32	-191.45	1,335.00	1,289.30	45.69	29.216	
13,895.57	10,200.00	10,156.25	10,154.82	74.95	17.74	88.83	-5,152.32	-191.45	1,241.05	1,194.64	46.41	26.739	
13,900.00	10,200.00	10,156.27	10,154.84	75.02	17.74	88.84	-5,152.32	-191.45	1,236.68	1,190.24	46.45	26.626	
14,000.00	10,200.00	10,156.60	10,155.17	76.75	17.74	88.93	-5,152.32	-191.45	1,138.19	1,090.91	47.28	24.075	
14,100.00	10,200.00	10,156.93	10,155.49	78.48	17.74	89.02	-5,152.32	-191.45	1,039.99	991.68	48.30	21.530	
14,200.00	10,200.00	10,157.25	10,155.82	80.21	17.74	89.11	-5,152.32	-191.45	942.16	892.56	49.60	18.997	
14,300.00	10,200.00	10,157.58	10,156.15	81.95	17.74	89.20	-5,152.33	-191.45	844.84	793.59	51.25	16.485	
14,400.00	10,200.00	10,157.91	10,156.48	83.69	17.74	89.30	-5,152.33	-191.45	748.23	694.82	53.42	14.008	
14,500.00	10,200.00	10,158.24	10,156.81	85.43	17.74	89.39	-5,152.33	-191.45	652.64	596.32	56.32	11.587	
14,600.00	10,200.00	10,158.56	10,157.13	87.18	17.74	89.48	-5,152.33	-191.45	558.60	498.26	60.34	9.257	
14,700.00	10,200.00	10,158.89	10,157.46	88.93	17.74	89.57	-5,152.33	-191.45	467.04	400.98	66.06	7.070	
14,800.00	10,200.00	10,159.22	10,157.79	90.68	17.74	89.66	-5,152.33	-191.45	379.76	305.37	74.39	5.105	
14,900.00	10,200.00	10,159.54	10,158.11	92.44	17.74	89.75	-5,152.33	-191.45	300.51	213.97	86.54	3.473	
15,000.00	10,200.00	10,159.87	10,158.44	94.19	17.74	89.84	-5,152.33	-191.45	237.49	135.21	102.28	2.322	
15,100.00	10,200.00	10,160.19	10,158.76	95.95	17.74	89.93	-5,152.33	-191.45	206.13	92.60	113.53	1.816	
15,119.55	10,200.00	10,160.26	10,158.83	96.30	17.74	89.95	-5,152.33	-191.45	205.20	91.40	113.81	1.803	CC, ES, SF
15,200.00	10,200.00	10,160.52	10,159.09	97.72	17.74	90.02	-5,152.34	-191.45	220.41	113.29	107.12	2.058	
15,300.00	10,200.00	10,160.84	10,159.41	99.48	17.75	90.12	-5,152.34	-191.46	273.26	182.52	90.75	3.011	
15,400.00	10,200.00	10,161.17	10,159.74	101.25	17.75	90.21	-5,152.34	-191.46	347.51	270.83	76.68	4.532	
15,500.00	10,200.00	10,161.49	10,160.06	103.01	17.75	90.30	-5,152.34	-191.46	432.26	365.31	66.96	6.456	
15,536.35	10,200.00	10,161.61	10,160.18	103.66	17.75	90.33	-5,152.34	-191.46	464.58	400.29	64.29	7.227	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design - Lea Unit - #1 - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 14735-INC													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		
0.00	0.00	0.00	0.00	0.00	0.00	-179.70	-3,929.41	-20.76	3,929.62					
100.00	100.00	65.00	65.00	0.09	0.87	-179.70	-3,929.41	-20.76	3,929.46	3,928.51	0.96	4,102.873		
200.00	200.00	165.00	165.00	0.32	2.20	-179.70	-3,929.41	-20.76	3,929.46	3,926.95	2.51	1,563.122		
300.00	300.00	265.00	265.00	0.54	3.53	-179.70	-3,929.41	-20.76	3,929.46	3,925.39	4.07	965.476		
400.00	400.00	365.00	365.00	0.77	4.86	-179.70	-3,929.41	-20.76	3,929.46	3,923.84	5.63	698.435		
500.00	500.00	465.00	465.00	0.99	6.19	-179.70	-3,929.41	-20.76	3,929.46	3,922.28	7.18	547.110		
600.00	600.00	565.00	565.00	1.22	7.52	-179.70	-3,929.41	-20.76	3,929.46	3,920.73	8.74	449.681		
700.00	700.00	665.00	665.00	1.44	8.85	-179.70	-3,929.41	-20.76	3,929.46	3,919.17	10.29	381.707		
800.00	800.00	765.00	765.00	1.67	10.19	-179.70	-3,929.41	-20.76	3,929.46	3,917.61	11.85	331.584		
900.00	900.00	865.00	865.00	1.89	11.52	-179.70	-3,929.41	-20.76	3,929.46	3,916.06	13.41	293.097		
1,000.00	1,000.00	965.00	965.00	2.12	12.85	-179.70	-3,929.41	-20.76	3,929.46	3,914.50	14.96	262.615		
1,100.00	1,100.00	1,065.00	1,065.00	2.34	14.18	-179.70	-3,929.41	-20.76	3,929.46	3,912.95	16.52	237.876		
1,200.00	1,200.00	1,165.00	1,165.00	2.56	15.51	-179.70	-3,929.41	-20.76	3,929.46	3,911.39	18.08	217.397		
1,300.00	1,300.00	1,265.00	1,265.00	2.79	16.84	-179.70	-3,929.41	-20.76	3,929.46	3,909.83	19.63	200.164		
1,400.00	1,400.00	1,365.00	1,365.00	3.01	18.17	-179.70	-3,929.41	-20.76	3,929.46	3,908.28	21.19	185.463		
1,500.00	1,500.00	1,465.00	1,465.00	3.24	19.50	-179.70	-3,929.41	-20.76	3,929.46	3,906.72	22.74	172.774		
1,600.00	1,600.00	1,565.00	1,565.00	3.46	20.84	-179.70	-3,929.41	-20.76	3,929.46	3,905.17	24.30	161.709		
1,700.00	1,700.00	1,665.00	1,665.00	3.69	22.17	-179.70	-3,929.41	-20.76	3,929.46	3,903.61	25.86	151.977		
1,800.00	1,800.00	1,765.00	1,765.00	3.91	23.50	-179.70	-3,929.41	-20.76	3,929.46	3,902.05	27.41	143.349		
1,900.00	1,900.00	1,865.00	1,865.00	4.14	24.83	-179.70	-3,929.41	-20.76	3,929.46	3,900.50	28.97	135.649		
2,000.00	2,000.00	1,965.00	1,965.00	4.36	26.16	-179.70	-3,929.41	-20.76	3,929.46	3,898.94	30.52	128.733		
2,100.00	2,100.00	2,065.00	2,065.00	4.59	27.49	-179.70	-3,929.41	-20.76	3,929.46	3,897.38	32.08	122.489		
2,200.00	2,200.00	2,165.00	2,165.00	4.81	28.82	-179.70	-3,929.41	-20.76	3,929.46	3,895.83	33.64	116.822		
2,300.00	2,300.00	2,265.00	2,265.00	5.04	30.16	-179.70	-3,929.41	-20.76	3,929.46	3,894.27	35.19	111.657		
2,400.00	2,400.00	2,365.00	2,365.00	5.26	31.49	-179.70	-3,929.41	-20.76	3,929.46	3,892.72	36.75	106.929		
2,500.00	2,500.00	2,465.00	2,465.00	5.49	32.82	-179.70	-3,929.41	-20.76	3,929.46	3,891.16	38.30	102.585		
2,600.00	2,600.00	2,565.00	2,565.00	5.71	34.15	-179.70	-3,929.41	-20.76	3,929.46	3,889.60	39.86	98.580		
2,700.00	2,700.00	2,665.00	2,665.00	5.94	35.48	-179.70	-3,929.41	-20.76	3,929.46	3,888.05	41.42	94.876		
2,800.00	2,800.00	2,765.00	2,765.00	6.16	36.81	-179.70	-3,929.41	-20.76	3,929.46	3,886.49	42.97	91.440		
2,900.00	2,900.00	2,865.00	2,865.00	6.39	38.14	-179.70	-3,929.41	-20.76	3,929.46	3,884.94	44.53	88.245		
3,000.00	3,000.00	2,965.00	2,965.00	6.61	39.47	-179.70	-3,929.41	-20.76	3,929.46	3,883.38	46.09	85.265		
3,100.00	3,100.00	3,065.00	3,065.00	6.84	40.81	-179.70	-3,929.41	-20.76	3,929.46	3,881.82	47.64	82.480		
3,200.00	3,200.00	3,165.00	3,165.00	7.06	42.14	-179.70	-3,929.41	-20.76	3,929.46	3,880.27	49.20	79.871		
3,300.00	3,300.00	3,265.00	3,265.00	7.28	43.47	-179.70	-3,929.41	-20.76	3,929.46	3,878.71	50.75	77.422		
3,400.00	3,400.00	3,365.00	3,365.00	7.51	44.80	-179.70	-3,929.41	-20.76	3,929.46	3,877.16	52.31	75.119		
3,500.00	3,500.00	3,465.00	3,465.00	7.73	46.13	-179.70	-3,929.41	-20.76	3,929.46	3,875.60	53.87	72.949		
3,600.00	3,600.00	3,565.00	3,565.00	7.96	47.46	-179.70	-3,929.41	-20.76	3,929.46	3,874.04	55.42	70.901		
3,700.00	3,700.00	3,665.00	3,665.00	8.18	48.79	-179.70	-3,929.41	-20.76	3,929.46	3,872.49	56.98	68.964		
3,800.00	3,800.00	3,765.00	3,765.00	8.41	50.13	-179.70	-3,929.41	-20.76	3,929.46	3,870.93	58.53	67.131		
3,900.00	3,900.00	3,865.00	3,865.00	8.63	51.46	-179.70	-3,929.41	-20.76	3,929.46	3,869.37	60.09	65.393		
4,000.00	4,000.00	3,965.00	3,965.00	8.86	52.79	-179.70	-3,929.41	-20.76	3,929.46	3,867.82	61.65	63.742		
4,100.00	4,100.00	4,065.00	4,065.00	9.08	54.12	-179.70	-3,929.41	-20.76	3,929.46	3,866.26	63.20	62.173		
4,200.00	4,200.00	4,165.00	4,165.00	9.31	55.45	-179.70	-3,929.41	-20.76	3,929.46	3,864.71	64.76	60.679		
4,300.00	4,300.00	4,265.00	4,265.00	9.53	56.78	-179.70	-3,929.41	-20.76	3,929.46	3,863.15	66.31	59.255		
4,400.00	4,400.00	4,365.00	4,365.00	9.76	58.11	-179.70	-3,929.41	-20.76	3,929.46	3,861.59	67.87	57.896		
4,500.00	4,500.00	4,465.00	4,465.00	9.98	59.45	-179.70	-3,929.41	-20.76	3,929.46	3,860.04	69.43	56.598		
4,600.00	4,600.00	4,565.00	4,565.00	10.21	60.78	-179.70	-3,929.41	-20.76	3,929.46	3,858.48	70.98	55.358		
4,700.00	4,700.00	4,665.00	4,665.00	10.43	62.11	-179.70	-3,929.41	-20.76	3,929.46	3,856.93	72.54	54.170		
4,800.00	4,800.00	4,765.00	4,765.00	10.66	63.44	-179.70	-3,929.41	-20.76	3,929.46	3,855.37	74.10	53.032		
4,900.00	4,900.00	4,865.00	4,865.00	10.88	64.77	-179.70	-3,929.41	-20.76	3,929.46	3,853.81	75.65	51.942		
5,000.00	5,000.00	4,965.00	4,965.00	11.11	66.10	-179.70	-3,929.41	-20.76	3,929.46	3,852.26	77.21	50.895		
5,100.00	5,100.00	5,065.00	5,065.00	11.33	67.43	-179.70	-3,929.41	-20.76	3,929.46	3,850.70	78.76	49.889		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 14735-INC													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,200.00	5,200.00	5,165.00	5,165.00	11.56	68.76	-179.70	-3,929.41	-20.76	3,929.46	3,849.15	80.32	48.923		
5,300.00	5,300.00	5,265.00	5,265.00	11.78	70.10	-179.70	-3,929.41	-20.76	3,929.46	3,847.59	81.88	47.993		
5,400.00	5,400.00	5,365.00	5,365.00	12.00	71.43	-179.70	-3,929.41	-20.76	3,929.46	3,846.03	83.43	47.098		
5,500.00	5,500.00	5,465.00	5,465.00	12.23	72.76	-179.70	-3,929.41	-20.76	3,929.46	3,844.48	84.99	46.235		
5,600.00	5,600.00	5,565.00	5,565.00	12.45	74.09	-179.70	-3,929.41	-20.76	3,929.46	3,842.92	86.54	45.404		
5,700.00	5,700.00	5,665.00	5,665.00	12.68	75.42	-179.70	-3,929.41	-20.76	3,929.46	3,841.36	88.10	44.602		
5,800.00	5,800.00	5,765.00	5,765.00	12.90	76.75	-179.70	-3,929.41	-20.76	3,929.46	3,839.81	89.66	43.828		
5,900.00	5,900.00	5,865.00	5,865.00	13.13	78.08	-179.70	-3,929.41	-20.76	3,929.46	3,838.25	91.21	43.080		
6,000.00	6,000.00	5,865.00	5,865.00	13.35	79.42	-179.70	-3,929.41	-20.76	3,929.46	3,836.70	92.77	42.358		
6,100.00	6,100.00	6,065.00	6,065.00	13.58	80.75	-179.70	-3,929.41	-20.76	3,929.46	3,835.14	94.32	41.659		
6,200.00	6,200.00	6,165.00	6,165.00	13.80	82.08	-179.70	-3,929.41	-20.76	3,929.46	3,833.58	95.88	40.983		
6,300.00	6,300.00	6,265.00	6,265.00	14.03	83.41	-179.70	-3,929.41	-20.76	3,929.46	3,832.03	97.44	40.328		
6,400.00	6,400.00	6,365.00	6,365.00	14.25	84.74	-179.70	-3,929.41	-20.76	3,929.46	3,830.47	98.99	39.694		
6,500.00	6,500.00	6,465.00	6,465.00	14.48	86.07	-179.70	-3,929.41	-20.76	3,929.46	3,828.92	100.55	39.080		
6,600.00	6,600.00	6,565.00	6,565.00	14.70	87.40	-179.70	-3,929.41	-20.76	3,929.46	3,827.36	102.11	38.484		
6,700.00	6,700.00	6,665.00	6,665.00	14.93	88.74	-179.70	-3,929.41	-20.76	3,929.46	3,825.80	103.66	37.907		
6,800.00	6,800.00	6,765.00	6,765.00	15.15	90.07	-179.70	-3,929.41	-20.76	3,929.46	3,824.25	105.22	37.346		
6,900.00	6,900.00	6,865.00	6,865.00	15.38	91.40	-179.70	-3,929.41	-20.76	3,929.46	3,822.69	106.77	36.802		
7,000.00	7,000.00	6,965.00	6,965.00	15.60	92.73	-179.70	-3,929.41	-20.76	3,929.46	3,821.13	108.33	36.273		
7,100.00	7,100.00	7,065.00	7,065.00	15.83	94.06	-179.70	-3,929.41	-20.76	3,929.46	3,819.58	109.89	35.759		
7,200.00	7,200.00	7,165.00	7,165.00	16.05	95.39	-179.70	-3,929.41	-20.76	3,929.46	3,818.02	111.44	35.260		
7,300.00	7,300.00	7,265.00	7,265.00	16.28	96.72	-179.70	-3,929.41	-20.76	3,929.46	3,816.47	113.00	34.775		
7,400.00	7,400.00	7,365.00	7,365.00	16.50	98.05	-179.70	-3,929.41	-20.76	3,929.46	3,814.91	114.55	34.302		
7,500.00	7,500.00	7,465.00	7,465.00	16.72	99.39	-179.70	-3,929.41	-20.76	3,929.46	3,813.35	116.11	33.842		
7,600.00	7,600.00	7,565.00	7,565.00	16.95	100.72	-179.70	-3,929.41	-20.76	3,929.46	3,811.80	117.67	33.395		
7,700.00	7,700.00	7,665.00	7,665.00	17.17	102.05	-179.70	-3,929.41	-20.76	3,929.46	3,810.24	119.22	32.959		
7,800.00	7,800.00	7,765.00	7,765.00	17.40	103.38	-179.70	-3,929.41	-20.76	3,929.46	3,808.69	120.78	32.534		
7,900.00	7,900.00	7,865.00	7,865.00	17.62	104.71	-179.70	-3,929.41	-20.76	3,929.46	3,807.13	122.34	32.120		
8,000.00	8,000.00	7,965.00	7,965.00	17.85	106.04	-179.70	-3,929.41	-20.76	3,929.46	3,805.57	123.89	31.717		
8,100.00	8,100.00	8,065.00	8,065.00	18.07	107.37	-179.70	-3,929.41	-20.76	3,929.46	3,804.02	125.45	31.324		
8,200.00	8,200.00	8,165.00	8,165.00	18.30	108.71	-179.70	-3,929.41	-20.76	3,929.46	3,802.46	127.00	30.940		
8,300.00	8,300.00	8,265.00	8,265.00	18.52	110.04	-179.70	-3,929.41	-20.76	3,929.46	3,800.91	128.56	30.565		
8,400.00	8,400.00	8,365.00	8,365.00	18.75	111.37	-179.70	-3,929.41	-20.76	3,929.46	3,799.35	130.12	30.200		
8,500.00	8,500.00	8,465.00	8,465.00	18.97	112.70	-179.70	-3,929.41	-20.76	3,929.46	3,797.79	131.67	29.843		
8,600.00	8,600.00	8,565.00	8,565.00	19.20	114.03	-179.70	-3,929.41	-20.76	3,929.46	3,796.24	133.23	29.494		
8,700.00	8,700.00	8,665.00	8,665.00	19.42	115.36	-179.70	-3,929.41	-20.76	3,929.46	3,794.68	134.78	29.154		
8,800.00	8,800.00	8,765.00	8,765.00	19.65	116.69	-179.70	-3,929.41	-20.76	3,929.46	3,793.12	136.34	28.821		
8,900.00	8,900.00	8,865.00	8,865.00	19.87	118.02	-179.70	-3,929.41	-20.76	3,929.46	3,791.57	137.90	28.496		
9,000.00	9,000.00	8,965.00	8,965.00	20.10	119.36	-179.70	-3,929.41	-20.76	3,929.46	3,790.01	139.45	28.178		
9,100.00	9,100.00	9,065.00	9,065.00	20.32	120.69	-179.70	-3,929.41	-20.76	3,929.46	3,788.46	141.01	27.867		
9,200.00	9,200.00	9,165.00	9,165.00	20.55	122.02	-179.70	-3,929.41	-20.76	3,929.46	3,786.90	142.56	27.563		
9,300.00	9,300.00	9,265.00	9,265.00	20.77	123.35	-179.70	-3,929.41	-20.76	3,929.46	3,785.34	144.12	27.265		
9,400.00	9,400.00	9,365.00	9,365.00	21.00	124.68	-179.70	-3,929.41	-20.76	3,929.46	3,783.79	145.68	26.974		
9,500.00	9,500.00	9,465.00	9,465.00	21.22	126.01	-179.70	-3,929.41	-20.76	3,929.46	3,782.23	147.23	26.689		
9,600.00	9,600.00	9,565.00	9,565.00	21.44	127.34	-179.70	-3,929.41	-20.76	3,929.46	3,780.68	148.79	26.410		
9,627.04	9,627.04	9,592.04	9,592.04	21.51	127.70	-179.70	-3,929.41	-20.76	3,929.46	3,780.25	149.21	26.335		
9,650.00	9,649.99	9,614.99	9,614.99	21.55	128.01	1.49	-3,929.41	-20.76	3,929.01	3,779.44	149.56	26.270		
9,700.00	9,699.80	9,664.80	9,664.80	21.63	128.67	1.51	-3,929.41	-20.76	3,924.83	3,774.52	150.31	26.112		
9,750.00	9,749.06	9,714.06	9,714.06	21.72	129.33	1.53	-3,929.41	-20.76	3,916.33	3,765.28	151.05	25.928		
9,800.00	9,797.39	9,762.39	9,762.39	21.80	129.97	1.57	-3,929.41	-20.76	3,903.57	3,751.79	151.77	25.719		
9,850.00	9,844.42	9,809.42	9,809.42	21.88	130.60	1.63	-3,929.41	-20.76	3,886.64	3,734.16	152.48	25.489		
9,900.00	9,889.79	9,854.79	9,854.79	21.96	131.20	1.71	-3,929.41	-20.76	3,865.69	3,712.52	153.17	25.238		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #1 - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 14735-INC												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)			
9,950.00	9,933.17	9,898.17	9,898.17	22.04	131.78	1.81	-3,929.41	-20.76	3,840.86	3,687.04	153.82	24.970	
10,000.00	9,974.21	9,939.21	9,939.21	22.14	132.33	1.93	-3,929.41	-20.76	3,812.35	3,657.90	154.44	24.685	
10,050.00	10,012.62	9,977.62	9,977.62	22.25	132.84	2.10	-3,929.41	-20.76	3,780.36	3,625.34	155.02	24.386	
10,100.00	10,048.09	10,013.09	10,013.09	22.38	133.31	2.31	-3,929.41	-20.76	3,745.16	3,589.60	155.56	24.076	
10,150.00	10,080.35	10,045.35	10,045.35	22.53	133.74	2.59	-3,929.41	-20.76	3,707.00	3,550.96	156.04	23.756	
10,200.00	10,109.17	10,074.17	10,074.17	22.71	134.12	2.96	-3,929.41	-20.76	3,666.17	3,509.69	156.48	23.429	
10,250.00	10,134.31	10,099.31	10,099.31	22.91	134.46	3.48	-3,929.41	-20.76	3,622.99	3,466.13	156.86	23.097	
10,300.00	10,155.60	10,120.60	10,120.60	23.14	134.74	4.24	-3,929.41	-20.76	3,577.78	3,420.61	157.18	22.763	
10,350.00	10,172.86	10,137.86	10,137.86	23.40	134.97	5.45	-3,929.41	-20.76	3,530.89	3,373.46	157.44	22.427	
10,400.00	10,185.97	10,150.97	10,150.97	23.69	135.15	7.62	-3,929.41	-20.76	3,482.68	3,325.04	157.64	22.093	
10,450.00	10,194.83	10,159.83	10,159.83	24.01	135.26	12.54	-3,929.41	-20.76	3,433.51	3,275.74	157.77	21.763	
10,500.00	10,199.36	10,164.36	10,164.36	24.35	135.32	32.68	-3,929.41	-20.76	3,383.75	3,225.91	157.84	21.438	
10,527.04	10,200.00	10,165.00	10,165.00	24.55	135.33	90.00	-3,929.41	-20.76	3,356.73	3,198.88	157.85	21.265	
10,600.00	10,200.00	10,165.00	10,165.00	25.12	135.33	90.00	-3,929.41	-20.76	3,263.81	3,125.95	157.86	20.802	
10,700.00	10,200.00	10,165.00	10,165.00	25.99	135.33	90.00	-3,929.41	-20.76	3,183.86	3,025.99	157.87	20.168	
10,800.00	10,200.00	10,165.00	10,165.00	26.96	135.33	90.00	-3,929.41	-20.76	3,083.91	2,926.03	157.88	19.534	
10,900.00	10,200.00	10,165.00	10,165.00	28.02	135.33	90.00	-3,929.41	-20.76	2,983.97	2,826.08	157.89	18.899	
11,000.00	10,200.00	10,165.00	10,165.00	29.15	135.33	90.00	-3,929.41	-20.76	2,884.03	2,726.13	157.90	18.265	
11,100.00	10,200.00	10,165.00	10,165.00	30.35	135.33	90.00	-3,929.41	-20.76	2,784.10	2,626.18	157.92	17.630	
11,200.00	10,200.00	10,165.00	10,165.00	31.61	135.33	90.00	-3,929.41	-20.76	2,684.17	2,526.23	157.93	16.996	
11,300.00	10,200.00	10,165.00	10,165.00	32.93	135.33	90.00	-3,929.41	-20.76	2,584.24	2,426.29	157.95	16.361	
11,400.00	10,200.00	10,165.00	10,165.00	34.30	135.33	90.00	-3,929.41	-20.76	2,484.32	2,326.35	157.97	15.727	
11,500.00	10,200.00	10,165.00	10,165.00	35.70	135.33	90.00	-3,929.41	-20.76	2,384.41	2,226.42	157.99	15.092	
11,600.00	10,200.00	10,165.00	10,165.00	37.15	135.33	90.00	-3,929.41	-20.76	2,284.51	2,126.49	158.02	14.457	
11,700.00	10,200.00	10,165.00	10,165.00	38.63	135.33	90.00	-3,929.41	-20.76	2,184.61	2,026.57	158.04	13.823	
11,800.00	10,200.00	10,165.00	10,165.00	40.13	135.33	90.00	-3,929.41	-20.76	2,084.73	1,926.66	158.07	13.189	
11,900.00	10,200.00	10,165.00	10,165.00	41.67	135.33	90.00	-3,929.41	-20.76	1,984.85	1,826.75	158.10	12.554	
12,000.00	10,200.00	10,165.00	10,165.00	43.23	135.33	90.00	-3,929.41	-20.76	1,884.99	1,726.86	158.14	11.920	
12,100.00	10,200.00	10,165.00	10,165.00	44.81	135.33	90.00	-3,929.41	-20.76	1,785.15	1,626.97	158.18	11.286	
12,200.00	10,200.00	10,165.00	10,165.00	46.40	135.33	90.00	-3,929.41	-20.76	1,685.33	1,527.10	158.23	10.651	
12,300.00	10,200.00	10,165.00	10,165.00	48.02	135.33	90.00	-3,929.41	-20.76	1,585.52	1,427.24	158.28	10.017	
12,400.00	10,200.00	10,165.00	10,165.00	49.65	135.33	90.00	-3,929.41	-20.76	1,485.74	1,327.40	158.34	9.383	
12,500.00	10,200.00	10,165.00	10,165.00	51.29	135.33	90.00	-3,929.41	-20.76	1,386.00	1,227.58	158.42	8.749	
12,600.00	10,200.00	10,165.00	10,165.00	52.95	135.33	90.00	-3,929.41	-20.76	1,286.29	1,127.79	158.50	8.115	
12,700.00	10,200.00	10,165.00	10,165.00	54.62	135.33	90.00	-3,929.41	-20.76	1,186.64	1,028.02	158.61	7.481	
12,800.00	10,200.00	10,165.00	10,165.00	56.29	135.33	90.00	-3,929.41	-20.76	1,087.04	928.29	158.75	6.847	
12,900.00	10,200.00	10,165.00	10,165.00	57.98	135.33	90.00	-3,929.41	-20.76	987.53	828.61	158.93	6.214	
13,000.00	10,200.00	10,165.00	10,165.00	59.68	135.33	90.00	-3,929.41	-20.76	888.13	728.97	159.16	5.580	
13,100.00	10,200.00	10,165.00	10,165.00	61.38	135.33	90.00	-3,929.41	-20.76	788.88	629.39	159.49	4.946	
13,200.00	10,200.00	10,165.00	10,165.00	63.10	135.33	90.00	-3,929.41	-20.76	689.85	529.89	159.96	4.313	
13,300.00	10,200.00	10,165.00	10,165.00	64.82	135.33	90.00	-3,929.41	-20.76	591.14	430.47	160.67	3.679	
13,400.00	10,200.00	10,165.00	10,165.00	66.54	135.33	90.00	-3,929.41	-20.76	492.96	331.14	161.82	3.046	
13,500.00	10,200.00	10,165.00	10,165.00	68.27	135.33	90.00	-3,929.41	-20.76	395.68	231.87	163.82	2.415	
13,600.00	10,200.00	10,165.00	10,165.00	70.01	135.33	90.00	-3,929.41	-20.76	300.20	132.55	167.65	1.791	
13,700.00	10,200.00	10,165.00	10,165.00	71.75	135.33	90.00	-3,929.41	-20.76	209.00	33.11	175.89	1.188 Level 2	
13,757.00	10,200.00	10,165.00	10,165.00	72.75	135.33	90.00	-3,929.41	-20.76	161.73	-23.04	184.77	0.875 Level 1	
13,800.00	10,200.00	10,165.00	10,165.00	73.46	135.33	90.00	-3,929.41	-20.76	130.91	-63.42	194.33	0.674 Level 1	
13,889.09	10,200.00	10,165.00	10,165.00	74.85	135.33	90.00	-3,929.41	-20.76	98.03	-111.99	210.02	0.467 Level 1, CC, ES, SF	
13,895.57	10,200.00	10,165.00	10,165.00	74.95	135.33	90.00	-3,929.41	-20.76	98.23	-111.44	209.67	0.468 Level 1	
13,900.00	10,200.00	10,165.00	10,165.00	75.02	135.33	90.00	-3,929.41	-20.76	98.61	-110.67	209.27	0.471 Level 1	
14,000.00	10,200.00	10,165.00	10,165.00	76.75	135.33	90.00	-3,929.41	-20.76	147.78	-37.86	185.64	0.796 Level 1	
14,100.00	10,200.00	10,165.00	10,165.00	78.48	135.33	90.00	-3,929.41	-20.76	232.28	61.30	170.98	1.359 Level 3	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design: Lea Unit - #1 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 14735-INC													Offset Well Error:	0.00 usft
Reference	Offset		Semi Major Axis		Distance		Minimum		Separation		Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
14,200.00	10,200.00	10,165.00	10,165.00	80.21	135.33	90.00	-3,929.41	-20.76	325.68	160.72	164.96	1.974		
14,300.00	10,200.00	10,165.00	10,165.00	81.95	135.33	90.00	-3,929.41	-20.76	422.12	259.88	162.24	2.602		
14,400.00	10,200.00	10,165.00	10,165.00	83.69	135.33	90.00	-3,929.41	-20.76	519.90	359.02	160.88	3.232		
14,500.00	10,200.00	10,165.00	10,165.00	85.43	135.33	90.00	-3,929.41	-20.76	618.40	458.25	160.15	3.861		
14,600.00	10,200.00	10,165.00	10,165.00	87.18	135.33	90.00	-3,929.41	-20.76	717.31	557.57	159.73	4.491		
14,700.00	10,200.00	10,165.00	10,165.00	88.93	135.33	90.00	-3,929.41	-20.76	816.48	656.99	159.49	5.119		
14,800.00	10,200.00	10,165.00	10,165.00	90.68	135.33	90.00	-3,929.41	-20.76	915.84	756.49	159.35	5.747		
14,900.00	10,200.00	10,165.00	10,165.00	92.44	135.33	90.00	-3,929.41	-20.76	1,015.32	856.05	159.27	6.375		
15,000.00	10,200.00	10,165.00	10,165.00	94.19	135.33	90.00	-3,929.41	-20.76	1,114.89	955.66	159.23	7.002		
15,100.00	10,200.00	10,165.00	10,165.00	95.95	135.33	90.00	-3,929.41	-20.76	1,214.54	1,055.32	159.22	7.628		
15,200.00	10,200.00	10,165.00	10,165.00	97.72	135.33	90.00	-3,929.41	-20.76	1,314.24	1,155.01	159.23	8.254		
15,300.00	10,200.00	10,165.00	10,165.00	99.48	135.33	90.00	-3,929.41	-20.76	1,413.98	1,254.73	159.25	8.879		
15,400.00	10,200.00	10,165.00	10,165.00	101.25	135.33	90.00	-3,929.41	-20.76	1,513.75	1,354.48	159.28	9.504		
15,500.00	10,200.00	10,165.00	10,165.00	103.01	135.33	90.00	-3,929.41	-20.76	1,613.56	1,454.24	159.31	10.128		
15,536.35	10,200.00	10,165.00	10,165.00	103.66	135.33	90.00	-3,929.41	-20.76	1,649.84	1,490.51	159.33	10.355		



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM:5000.1: Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 usft
Lea Unit - #16 - OH - OH												Offset Well Error:	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3													
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		N-S (usft)	E-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	0.00	0.00	0.00	-179.66	-3,729.41	-22.31	3,729.61				
100.00	100.00	57.37	57.37	0.09	0.06	-179.66	-3,729.50	-22.36	3,729.58	3,729.43	0.15	N/A	
200.00	200.00	150.57	150.57	0.32	0.19	-179.65	-3,729.93	-22.62	3,730.04	3,729.53	0.50	7,412.656	
300.00	300.00	250.32	250.32	0.54	0.38	-179.65	-3,730.39	-23.10	3,730.50	3,729.59	0.91	4,104.808	
400.00	400.00	343.19	343.19	0.77	0.55	-179.64	-3,730.90	-23.47	3,731.06	3,729.76	1.30	2,860.653	
500.00	500.00	431.03	431.02	0.99	0.71	-179.64	-3,731.63	-23.57	3,731.90	3,730.20	1.69	2,203.366	
600.00	600.00	519.84	519.82	1.22	0.88	-179.64	-3,732.69	-23.56	3,733.08	3,731.00	2.09	1,789.432	
700.00	700.00	623.98	623.95	1.44	1.07	-179.63	-3,734.03	-23.88	3,734.38	3,731.87	2.50	1,491.276	
800.00	800.00	738.14	738.11	1.67	1.29	-179.62	-3,735.13	-24.55	3,735.34	3,732.40	2.94	1,271.334	
900.00	900.00	837.62	837.58	1.89	1.47	-179.62	-3,735.91	-25.09	3,736.12	3,732.77	3.35	1,116.849	
1,000.00	1,000.00	932.66	932.61	2.12	1.65	-179.60	-3,736.78	-25.90	3,737.04	3,733.30	3.74	998.334	
1,100.00	1,100.00	1,038.94	1,038.88	2.34	1.85	-179.59	-3,737.75	-26.98	3,737.97	3,733.81	4.16	898.708	
1,200.00	1,200.00	1,152.33	1,152.27	2.56	2.06	-179.57	-3,738.42	-27.95	3,738.56	3,733.97	4.59	815.165	
1,300.00	1,300.00	1,253.82	1,253.76	2.79	2.25	-179.56	-3,738.79	-28.44	3,738.93	3,733.94	4.99	748.787	
1,400.00	1,400.00	1,347.96	1,347.90	3.01	2.42	-179.56	-3,739.23	-28.83	3,739.40	3,734.01	5.39	693.894	
1,500.00	1,500.00	1,444.10	1,444.03	3.24	2.60	-179.55	-3,739.83	-29.51	3,740.03	3,734.24	5.79	646.251	
1,600.00	1,600.00	1,541.74	1,541.66	3.46	2.79	-179.53	-3,740.47	-30.68	3,740.69	3,734.51	6.19	604.724	
1,700.00	1,700.00	1,624.20	1,624.11	3.69	2.94	-179.51	-3,741.15	-31.83	3,741.55	3,735.00	6.56	570.613	
1,800.00	1,800.00	1,700.00	1,699.87	3.91	3.08	-179.48	-3,742.48	-33.85	3,743.26	3,736.34	6.92	541.140	
1,900.00	1,900.00	1,776.77	1,776.56	4.14	3.23	-179.44	-3,744.29	-36.80	3,745.61	3,738.33	7.28	514.563	
2,000.00	2,000.00	1,918.13	1,917.78	4.36	3.49	-179.35	-3,747.03	-42.48	3,747.61	3,739.86	7.75	483.371	
2,100.00	2,100.00	2,031.65	2,031.23	4.59	3.70	-179.29	-3,748.23	-46.13	3,748.70	3,740.53	8.18	458.501	
2,200.00	2,200.00	2,129.20	2,128.74	4.81	3.88	-179.25	-3,749.24	-48.97	3,749.77	3,741.20	8.57	437.480	
2,300.00	2,300.00	2,236.46	2,235.95	5.04	4.08	-179.20	-3,750.23	-52.05	3,750.74	3,741.75	8.98	417.516	
2,400.00	2,400.00	2,347.45	2,346.90	5.26	4.28	-179.16	-3,751.02	-54.99	3,751.49	3,742.09	9.40	399.047	
2,500.00	2,500.00	2,455.11	2,454.53	5.49	4.48	-179.12	-3,751.45	-57.35	3,751.92	3,742.10	9.81	382.380	
2,600.00	2,600.00	2,557.57	2,556.97	5.71	4.67	-179.09	-3,751.78	-59.33	3,752.27	3,742.05	10.21	367.378	
2,700.00	2,700.00	2,667.85	2,667.24	5.94	4.87	-179.07	-3,751.98	-60.97	3,752.48	3,741.85	10.63	353.108	
2,800.00	2,800.00	2,775.52	2,774.91	6.16	5.05	-179.06	-3,751.88	-61.25	3,752.38	3,741.35	11.03	340.118	
2,900.00	2,900.00	2,901.44	2,900.82	6.39	5.24	-179.08	-3,751.31	-60.07	3,751.93	3,740.47	11.46	327.260	
3,000.00	3,000.00	3,013.83	3,013.20	6.61	5.40	-179.11	-3,750.18	-58.40	3,750.90	3,739.02	11.87	315.931	
3,100.00	3,100.00	3,121.50	3,120.84	6.84	5.56	-179.13	-3,748.83	-56.72	3,749.62	3,737.35	12.27	305.517	
3,200.00	3,200.00	3,233.63	3,232.95	7.06	5.73	-179.16	-3,747.09	-55.15	3,748.05	3,735.37	12.68	295.571	
3,300.00	3,300.00	3,333.72	3,333.01	7.28	5.88	-179.18	-3,745.33	-53.73	3,746.27	3,733.20	13.07	286.631	
3,400.00	3,400.00	3,422.11	3,421.38	7.51	6.02	-179.20	-3,743.97	-52.50	3,744.71	3,731.27	13.44	278.585	
3,500.00	3,500.00	3,511.94	3,511.19	7.73	6.16	-179.22	-3,742.85	-51.23	3,743.44	3,729.62	13.82	270.924	
3,600.00	3,600.00	3,607.14	3,606.38	7.96	6.31	-179.24	-3,741.85	-49.95	3,742.38	3,728.17	14.20	263.501	
3,700.00	3,700.00	3,712.59	3,711.82	8.18	6.48	-179.25	-3,740.76	-48.71	3,741.33	3,726.73	14.60	256.170	
3,800.00	3,800.00	3,835.53	3,834.74	8.41	6.68	-179.27	-3,738.87	-47.46	3,739.76	3,724.72	15.04	248.728	
3,900.00	3,900.00	3,932.62	3,931.81	8.63	6.84	-179.29	-3,737.18	-46.44	3,738.00	3,722.58	15.42	242.339	
4,000.00	4,000.00	4,025.20	4,024.37	8.86	6.99	-179.30	-3,735.73	-45.50	3,736.42	3,720.61	15.81	236.373	
4,100.00	4,100.00	4,115.60	4,114.76	9.08	7.14	-179.32	-3,734.46	-44.59	3,735.01	3,718.82	16.19	230.740	
4,200.00	4,200.00	4,200.00	4,199.15	9.31	7.28	-179.33	-3,733.77	-43.71	3,734.15	3,717.60	16.56	225.523	
4,300.00	4,300.00	4,281.21	4,280.36	9.53	7.42	-179.34	-3,733.49	-42.93	3,733.75	3,716.83	16.92	220.624	
4,400.00	4,400.00	4,375.07	4,374.21	9.76	7.57	-179.35	-3,733.27	-42.12	3,733.51	3,716.20	17.31	215.668	
4,472.59	4,472.59	4,442.05	4,441.19	9.92	7.69	-179.36	-3,733.23	-41.48	3,733.46	3,715.87	17.59	212.235	
4,500.00	4,500.00	4,467.16	4,466.30	9.98	7.73	-179.37	-3,733.24	-41.24	3,733.47	3,715.77	17.70	210.971	
4,600.00	4,600.00	4,563.79	4,562.93	10.21	7.89	-179.38	-3,733.37	-40.40	3,733.60	3,715.51	18.09	206.388	
4,700.00	4,700.00	4,664.54	4,663.67	10.43	8.07	-179.39	-3,733.53	-39.74	3,733.74	3,715.25	18.49	201.920	
4,800.00	4,800.00	4,765.00	4,764.13	10.66	8.24	-179.40	-3,733.66	-39.25	3,733.87	3,714.97	18.89	197.644	
4,900.00	4,900.00	4,864.41	4,863.54	10.88	8.41	-179.41	-3,733.79	-38.71	3,733.99	3,714.70	19.29	193.565	
5,000.00	5,000.00	4,948.99	4,948.12	11.11	8.56	-179.41	-3,734.01	-38.16	3,734.26	3,714.60	19.66	189.906	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM.5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #16 - OH - OH														Offset Site Error	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3														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	Offset	Offset Wellbore Centre +N-S (usft)	+E-W (usft)								
5,100.00	5,100.00	5,025.45	5,024.58	11.33	8.69	-179.42	-3,734.68	-37.70	3,735.13	3,715.10	20.02	186.545			
5,200.00	5,200.00	5,100.00	5,099.11	11.56	8.83	-179.43	-3,735.79	-37.46	3,736.62	3,716.24	20.38	183.365			
5,300.00	5,300.00	5,193.32	5,192.41	11.78	8.99	-179.43	-3,737.57	-37.35	3,738.54	3,717.77	20.77	180.010			
5,400.00	5,400.00	5,294.48	5,293.55	12.00	9.17	-179.43	-3,739.63	-37.24	3,740.57	3,719.40	21.17	176.658			
5,500.00	5,500.00	5,402.60	5,401.66	12.23	9.37	-179.43	-3,741.69	-37.15	3,742.47	3,720.88	21.59	173.320			
5,600.00	5,600.00	5,508.60	5,507.64	12.45	9.56	-179.43	-3,743.49	-37.14	3,744.17	3,722.16	22.01	170.126			
5,700.00	5,700.00	5,607.59	5,606.62	12.68	9.73	-179.43	-3,745.13	-37.56	3,745.83	3,723.42	22.41	167.145			
5,800.00	5,800.00	5,725.37	5,724.38	12.90	9.95	-179.41	-3,746.81	-38.49	3,747.26	3,724.42	22.85	164.013			
5,900.00	5,900.00	5,846.23	5,845.23	13.13	10.16	-179.39	-3,747.85	-39.71	3,748.14	3,724.85	23.29	160.948			
6,000.00	6,000.00	5,954.02	5,953.01	13.35	10.35	-179.37	-3,748.35	-41.02	3,748.61	3,724.91	23.70	158.150			
6,100.00	6,100.00	6,057.07	6,056.06	13.58	10.54	-179.35	-3,748.74	-42.21	3,749.00	3,724.89	24.11	155.503			
6,200.00	6,200.00	6,159.01	6,157.99	13.80	10.72	-179.34	-3,749.03	-43.27	3,749.29	3,724.78	24.51	152.953			
6,300.00	6,300.00	6,250.56	6,249.53	14.03	10.88	-179.33	-3,749.33	-44.06	3,749.64	3,724.74	24.90	150.594			
6,400.00	6,400.00	6,339.52	6,338.49	14.25	11.04	-179.32	-3,749.93	-44.71	3,750.32	3,725.04	25.28	148.341			
6,500.00	6,500.00	6,436.17	6,435.13	14.48	11.22	-179.30	-3,750.77	-45.62	3,751.19	3,725.52	25.68	146.081			
6,600.00	6,600.00	6,538.06	6,538.01	14.70	11.40	-179.29	-3,751.64	-46.71	3,752.05	3,725.97	26.09	143.828			
6,700.00	6,700.00	6,644.26	6,643.20	14.93	11.59	-179.27	-3,752.42	-47.83	3,752.81	3,726.31	26.50	141.620			
6,800.00	6,800.00	6,744.45	6,743.38	15.15	11.77	-179.26	-3,753.03	-48.79	3,753.44	3,726.53	26.90	139.523			
6,900.00	6,900.00	6,837.35	6,836.27	15.38	11.94	-179.24	-3,753.74	-49.59	3,754.20	3,726.91	27.29	137.555			
7,000.00	7,000.00	6,928.25	6,927.17	15.60	12.11	-179.23	-3,754.60	-50.30	3,755.17	3,727.49	27.68	135.664			
7,100.00	7,100.00	7,018.78	7,017.69	15.83	12.27	-179.23	-3,755.76	-50.63	3,756.44	3,728.37	28.07	133.836			
7,200.00	7,200.00	7,128.73	7,127.63	16.05	12.47	-179.21	-3,757.08	-51.57	3,757.65	3,729.16	28.49	131.890			
7,300.00	7,300.00	7,235.21	7,234.10	16.28	12.67	-179.20	-3,758.13	-52.78	3,758.66	3,729.75	28.91	130.029			
7,400.00	7,400.00	7,338.73	7,337.61	16.50	12.86	-179.18	-3,758.99	-53.98	3,759.50	3,730.19	29.32	128.242			
7,500.00	7,500.00	7,439.27	7,438.14	16.72	13.04	-179.16	-3,759.81	-55.15	3,760.33	3,730.61	29.72	126.526			
7,600.00	7,600.00	7,537.16	7,536.02	16.95	13.22	-179.14	-3,760.57	-56.22	3,761.13	3,731.01	30.12	124.875			
7,700.00	7,700.00	7,629.64	7,628.49	17.17	13.39	-179.13	-3,761.47	-57.26	3,762.12	3,731.61	30.51	123.311			
7,800.00	7,800.00	7,727.87	7,726.71	17.40	13.57	-179.11	-3,762.53	-58.38	3,763.21	3,732.30	30.91	121.748			
7,900.00	7,900.00	7,825.27	7,824.10	17.62	13.75	-179.09	-3,763.61	-59.54	3,764.34	3,733.03	31.31	120.230			
8,000.00	8,000.00	7,917.75	7,916.56	17.85	13.91	-179.08	-3,764.78	-60.63	3,765.63	3,733.93	31.70	118.789			
8,100.00	8,100.00	8,014.74	8,013.54	18.07	14.09	-179.06	-3,766.17	-61.73	3,767.08	3,734.98	32.10	117.356			
8,200.00	8,200.00	8,124.73	8,123.51	18.30	14.29	-179.04	-3,767.59	-62.86	3,768.39	3,735.86	32.52	115.867			
8,300.00	8,300.00	8,231.25	8,230.02	18.52	14.49	-179.03	-3,768.78	-63.84	3,769.52	3,736.58	32.94	114.432			
8,400.00	8,400.00	8,341.98	8,340.74	18.75	14.69	-179.02	-3,769.73	-64.37	3,770.38	3,737.02	33.37	112.997			
8,500.00	8,500.00	8,447.55	8,446.31	18.97	14.89	-179.02	-3,770.41	-64.71	3,771.03	3,737.25	33.78	111.622			
8,600.00	8,600.00	8,545.78	8,544.53	19.20	15.07	-179.02	-3,770.98	-64.78	3,771.62	3,737.43	34.19	110.321			
8,700.00	8,700.00	8,641.31	8,640.06	19.42	15.24	-179.02	-3,771.67	-64.36	3,772.33	3,737.75	34.59	109.073			
8,800.00	8,800.00	8,726.03	8,724.78	19.65	15.39	-179.03	-3,772.39	-63.73	3,773.18	3,738.22	34.96	107.921			
8,900.00	8,900.00	8,800.00	8,798.73	19.87	15.52	-179.05	-3,773.66	-62.85	3,774.83	3,739.51	35.32	106.878			
9,000.00	9,000.00	8,855.22	8,853.92	20.10	15.61	-179.06	-3,775.14	-61.75	3,777.39	3,741.75	35.64	105.990			
9,100.00	9,100.00	8,927.14	8,925.76	20.32	15.74	-179.10	-3,777.69	-59.49	3,780.86	3,744.87	35.99	105.053			
9,200.00	9,200.00	9,019.66	9,018.18	20.55	15.90	-179.13	-3,781.36	-57.14	3,784.79	3,748.40	36.38	104.032			
9,300.00	9,300.00	9,146.23	9,144.64	20.77	16.13	-179.17	-3,786.07	-55.15	3,788.50	3,751.66	36.84	102.837			
9,400.00	9,400.00	9,276.68	9,275.03	21.00	16.37	-179.19	-3,789.75	-53.73	3,791.28	3,753.97	37.31	101.626			
9,500.00	9,500.00	9,402.44	9,400.76	21.22	16.59	-179.20	-3,792.45	-52.63	3,793.42	3,756.66	37.76	100.453			
9,600.00	9,600.00	9,516.73	9,515.03	21.44	16.80	-179.21	-3,794.22	-52.17	3,794.96	3,756.76	38.20	99.349			
9,627.04	9,627.04	9,540.74	9,539.05	21.51	16.84	-179.21	-3,794.57	-52.12	3,795.35	3,757.05	38.30	99.087			
9,650.00	9,649.99	9,561.14	9,559.44	21.55	16.88	1.98	-3,794.88	-52.09	3,795.24	3,756.86	38.39	98.873			
9,700.00	9,699.80	9,607.63	9,605.93	21.63	16.97	1.99	-3,795.64	-52.02	3,791.88	3,753.33	38.55	98.353			
9,750.00	9,749.06	9,669.22	9,667.51	21.72	17.08	2.02	-3,796.56	-51.75	3,784.11	3,745.36	38.75	97.652			
9,800.00	9,797.39	9,720.92	9,719.20	21.80	17.17	2.06	-3,797.20	-51.28	3,771.95	3,733.02	38.93	96.892			
9,850.00	9,844.42	9,762.47	9,760.74	21.88	17.24	2.13	-3,797.76	-50.92	3,755.65	3,716.56	39.09	96.085			

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #16 - OH - OH												Offset Site Error: 0.00 usft	
Survey Program: 100-ISCWSA-GYRO-3												Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Distance							
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	-N-S (usft)	-E-W (usft)	(usft)	(usft)	(usft)		
9,900.00	9,889.79	9,803.06	9,801.32	21.96	17.32	2.22	-3,798.36	-50.60	3,735.37	3,696.13	39.24	95.193	
9,950.00	9,933.17	9,847.27	9,845.53	22.04	17.40	2.34	-3,799.03	-50.36	3,711.21	3,671.81	39.40	94.198	
10,000.00	9,974.21	9,889.18	9,887.44	22.14	17.47	2.50	-3,799.67	-50.27	3,683.32	3,643.78	39.55	93.136	
10,050.00	10,012.62	9,925.76	9,924.01	22.25	17.54	2.70	-3,800.22	-50.28	3,651.94	3,612.26	39.68	92.026	
10,100.00	10,048.09	9,958.72	9,956.96	22.38	17.60	2.96	-3,800.75	-50.28	3,617.32	3,577.51	39.81	90.870	
10,150.00	10,080.35	9,988.84	9,987.09	22.53	17.66	3.31	-3,801.26	-50.26	3,579.72	3,539.80	39.92	89.670	
10,200.00	10,109.17	10,021.87	10,020.11	22.71	17.72	3.77	-3,801.83	-50.23	3,539.40	3,499.37	40.03	88.410	
10,250.00	10,134.31	10,054.34	10,052.58	22.91	17.78	4.43	-3,802.33	-50.26	3,496.63	3,456.49	40.14	87.112	
10,300.00	10,155.80	10,081.81	10,080.04	23.14	17.83	5.38	-3,802.70	-50.33	3,451.72	3,411.50	40.23	85.803	
10,350.00	10,172.86	10,103.14	10,101.38	23.40	17.87	6.88	-3,802.96	-50.41	3,405.06	3,364.76	40.30	84.495	
10,400.00	10,185.97	10,116.28	10,114.51	23.69	17.89	8.46	-3,803.11	-50.48	3,357.02	3,316.68	40.35	83.204	
10,450.00	10,194.83	10,125.34	10,123.57	24.01	17.91	10.02	-3,803.22	-50.53	3,307.98	3,267.60	40.38	81.920	
10,500.00	10,199.36	10,130.27	10,128.50	24.35	17.92	11.87	-3,803.28	-50.56	3,258.29	3,217.89	40.40	80.649	
10,527.04	10,200.00	10,131.19	10,129.42	24.55	17.92	13.17	-3,803.29	-50.57	3,231.30	3,190.89	40.41	79.970	
10,600.00	10,200.00	10,132.02	10,130.25	25.12	17.92	15.51	-3,803.30	-50.57	3,158.40	3,117.99	40.41	78.149	
10,700.00	10,200.00	10,133.16	10,131.39	25.99	17.92	17.98	-3,803.31	-50.58	3,058.50	3,018.07	40.43	75.654	
10,800.00	10,200.00	10,134.31	10,132.54	26.96	17.92	20.45	-3,803.33	-50.59	2,958.60	2,918.15	40.44	73.158	
10,900.00	10,200.00	10,135.46	10,133.68	28.02	17.93	23.92	-3,803.34	-50.60	2,858.70	2,818.25	40.46	70.660	
11,000.00	10,200.00	10,136.60	10,134.83	29.15	17.93	27.40	-3,803.35	-50.60	2,758.82	2,718.34	40.47	68.162	
11,100.00	10,200.00	10,137.76	10,135.98	30.35	17.93	30.87	-3,803.37	-50.61	2,658.94	2,618.44	40.49	65.663	
11,200.00	10,200.00	10,138.91	10,137.14	31.61	17.93	34.35	-3,803.38	-50.62	2,559.07	2,518.55	40.52	63.163	
11,300.00	10,200.00	10,140.06	10,138.29	32.93	17.93	37.84	-3,803.40	-50.63	2,459.21	2,418.67	40.54	60.663	
11,400.00	10,200.00	10,141.22	10,139.45	34.30	17.94	41.33	-3,803.41	-50.64	2,359.36	2,318.80	40.57	58.163	
11,500.00	10,200.00	10,142.38	10,140.61	35.70	17.94	44.81	-3,803.42	-50.65	2,259.53	2,218.93	40.59	55.661	
11,600.00	10,200.00	10,143.54	10,141.77	37.15	17.94	48.31	-3,803.44	-50.65	2,159.71	2,119.08	40.63	53.160	
11,700.00	10,200.00	10,144.70	10,142.93	38.63	17.94	51.80	-3,803.45	-50.66	2,059.91	2,019.24	40.66	50.658	
11,800.00	10,200.00	10,145.87	10,144.10	40.13	17.95	55.30	-3,803.47	-50.67	1,960.12	1,919.42	40.70	48.155	
11,900.00	10,200.00	10,147.04	10,145.26	41.67	17.95	58.80	-3,803.48	-50.68	1,860.36	1,819.61	40.75	45.651	
12,000.00	10,200.00	10,148.21	10,146.43	43.23	17.95	62.30	-3,803.49	-50.69	1,760.63	1,719.82	40.81	43.147	
12,100.00	10,200.00	10,149.38	10,147.60	44.81	17.95	65.80	-3,803.51	-50.70	1,660.92	1,620.05	40.87	40.642	
12,200.00	10,200.00	10,150.55	10,148.78	46.40	17.95	69.31	-3,803.52	-50.71	1,561.25	1,520.31	40.94	38.135	
12,300.00	10,200.00	10,151.73	10,149.95	48.02	17.96	72.82	-3,803.54	-50.72	1,461.63	1,420.61	41.03	35.627	
12,400.00	10,200.00	10,152.90	10,151.13	49.65	17.96	76.33	-3,803.55	-50.73	1,362.06	1,320.93	41.13	33.116	
12,500.00	10,200.00	10,154.08	10,152.31	51.29	17.96	79.84	-3,803.57	-50.74	1,262.56	1,221.30	41.26	30.602	
12,600.00	10,200.00	10,155.26	10,153.49	52.95	17.96	83.36	-3,803.58	-50.75	1,163.14	1,121.73	41.42	28.084	
12,700.00	10,200.00	10,156.45	10,154.67	54.62	17.96	86.87	-3,803.60	-50.76	1,063.84	1,022.22	41.62	25.560	
12,800.00	10,200.00	10,157.63	10,155.86	56.29	17.97	90.39	-3,803.61	-50.77	964.67	922.78	41.89	23.030	
12,900.00	10,200.00	10,158.82	10,157.05	57.98	17.97	93.91	-3,803.62	-50.78	865.69	823.44	42.25	20.490	
13,000.00	10,200.00	10,160.01	10,158.24	59.68	17.97	97.44	-3,803.64	-50.79	766.98	724.22	42.75	17.939	
13,100.00	10,200.00	10,161.20	10,159.43	61.38	17.97	100.96	-3,803.65	-50.80	668.64	625.16	43.49	15.376	
13,200.00	10,200.00	10,162.40	10,160.62	63.10	17.98	104.48	-3,803.67	-50.81	570.88	526.28	44.60	12.800	
13,300.00	10,200.00	10,163.60	10,161.82	64.82	17.98	108.01	-3,803.68	-50.82	474.06	427.67	46.39	10.218	
13,400.00	10,200.00	10,164.79	10,163.02	66.54	17.98	111.54	-3,803.70	-50.84	378.88	329.42	49.47	7.660	
13,500.00	10,200.00	10,165.99	10,164.22	68.27	17.98	115.07	-3,803.71	-50.85	287.00	231.87	55.13	5.206	
13,600.00	10,200.00	10,167.20	10,165.42	70.01	17.98	118.60	-3,803.73	-50.86	202.94	136.77	66.17	3.067	
13,700.00	10,200.00	10,168.40	10,166.63	71.75	17.99	122.13	-3,803.74	-50.87	141.41	57.05	84.36	1.676	
13,755.96	10,200.00	10,169.08	10,167.30	72.73	17.99	125.66	-3,803.75	-50.88	129.87	39.44	90.43	1.436 Level 3, CC	
13,757.00	10,200.00	10,169.09	10,167.32	72.75	17.99	125.67	-3,803.75	-50.88	129.87	39.43	90.44	1.436 Level 3, ES, SF	
13,800.00	10,200.00	10,169.61	10,167.84	73.46	17.99	129.19	-3,803.76	-50.88	136.67	49.07	87.60	1.560	
13,895.57	10,200.00	10,170.81	10,169.04	74.95	17.99	132.71	-3,803.77	-50.89	187.19	116.50	70.69	2.648	
13,900.00	10,200.00	10,170.87	10,169.10	75.02	17.99	132.72	-3,803.77	-50.89	190.30	120.35	69.94	2.721	
14,000.00	10,200.00	10,172.15	10,170.38	76.75	17.99	136.24	-3,803.79	-50.91	270.38	213.05	57.34	4.716	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27-2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #16 - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		
14,100.00	10,200.00	10,173.44	10,171.67	78.48	18.00	91.30	-3,803.81	-50.92	360.55	309.78	50.78	7.101	
14,200.00	10,200.00	10,174.73	10,172.96	80.21	18.00	91.85	-3,803.82	-50.93	454.85	407.56	47.29	9.619	
14,300.00	10,200.00	10,176.02	10,174.25	81.95	18.00	92.40	-3,803.84	-50.95	551.16	505.84	45.31	12.163	
14,400.00	10,200.00	10,177.32	10,175.55	83.69	18.00	92.95	-3,803.85	-50.96	648.58	604.44	44.13	14.698	
14,500.00	10,200.00	10,178.62	10,176.85	85.43	18.01	93.50	-3,803.87	-50.97	746.68	703.28	43.40	17.206	
14,600.00	10,200.00	10,179.93	10,178.15	87.18	18.01	94.06	-3,803.89	-50.99	845.23	802.30	42.92	19.692	
14,700.00	10,200.00	10,181.24	10,179.46	88.93	18.01	94.61	-3,803.90	-51.00	944.08	901.46	42.61	22.156	
14,800.00	10,200.00	10,182.55	10,180.78	90.68	18.01	95.16	-3,803.92	-51.01	1,043.14	1,000.74	42.40	24.600	
14,900.00	10,200.00	10,183.87	10,182.09	92.44	18.02	95.72	-3,803.94	-51.03	1,142.37	1,100.10	42.27	27.028	
15,000.00	10,200.00	10,185.19	10,183.41	94.19	18.02	96.27	-3,803.95	-51.04	1,241.72	1,199.54	42.18	29.440	
15,100.00	10,200.00	10,186.52	10,184.74	95.95	18.02	96.83	-3,803.97	-51.06	1,341.17	1,299.04	42.12	31.839	
15,200.00	10,200.00	10,187.84	10,186.07	97.72	18.02	97.38	-3,803.99	-51.07	1,440.69	1,398.59	42.09	34.225	
15,300.00	10,200.00	10,189.18	10,187.40	99.48	18.03	97.94	-3,804.00	-51.09	1,540.27	1,498.19	42.08	36.599	
15,400.00	10,200.00	10,190.52	10,188.74	101.25	18.03	98.50	-3,804.02	-51.10	1,639.90	1,597.81	42.09	38.963	
15,500.00	10,200.00	10,191.86	10,190.08	103.01	18.03	99.05	-3,804.04	-51.12	1,739.58	1,697.47	42.10	41.317	
15,536.35	10,200.00	10,192.34	10,190.57	103.66	18.03	99.25	-3,804.04	-51.12	1,775.81	1,733.70	42.11	42.170	



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #30H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-Scientific Gyro 10462-MWD													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	178.82	-5,738.00	118.10	5,739.24					
100.00	100.00	68.36	68.36	0.09	0.05	178.82	-5,738.09	118.05	5,739.33	5,739.19	0.14	N/A		
200.00	200.00	155.14	155.14	0.32	0.14	178.82	-5,738.45	117.85	5,739.74	5,739.29	0.44	N/A		
300.00	300.00	249.35	249.35	0.54	0.26	178.83	-5,739.00	117.44	5,740.31	5,739.53	0.77	7,416.386		
400.00	400.00	357.43	357.42	0.77	0.40	178.83	-5,739.64	116.74	5,740.88	5,739.78	1.11	5,192.607		
500.00	500.00	472.88	472.86	0.99	0.54	178.84	-5,740.02	115.83	5,741.20	5,739.78	1.42	4,037.857		
600.00	600.00	566.07	566.05	1.22	0.65	178.85	-5,740.23	115.17	5,741.41	5,739.70	1.72	3,344.471		
700.00	700.00	663.80	663.58	1.44	0.78	178.86	-5,740.61	114.37	5,741.78	5,739.77	2.02	2,843.912		
800.00	800.00	760.64	760.61	1.67	0.90	178.87	-5,740.97	113.45	5,742.14	5,739.82	2.32	2,472.403		
900.00	900.00	858.77	858.74	1.89	1.03	178.88	-5,741.43	112.56	5,742.59	5,739.96	2.63	2,184.069		
1,000.00	1,000.00	951.47	951.43	2.12	1.15	178.89	-5,741.88	111.65	5,743.06	5,740.12	2.93	1,958.560		
1,100.00	1,100.00	1,050.18	1,050.13	2.34	1.28	178.90	-5,742.54	110.13	5,743.69	5,740.46	3.24	1,774.632		
1,200.00	1,200.00	1,144.79	1,144.72	2.56	1.40	178.92	-5,743.10	108.44	5,744.26	5,740.72	3.54	1,624.181		
1,300.00	1,300.00	1,225.65	1,225.57	2.79	1.51	178.93	-5,743.82	107.19	5,745.12	5,741.29	3.83	1,499.749		
1,400.00	1,400.00	1,311.97	1,311.88	3.01	1.62	178.94	-5,744.84	105.80	5,746.27	5,742.13	4.14	1,389.240		
1,500.00	1,500.00	1,414.26	1,414.14	3.24	1.75	178.96	-5,746.14	104.07	5,747.51	5,743.05	4.46	1,289.261		
1,600.00	1,600.00	1,519.74	1,519.60	3.46	1.89	178.98	-5,747.39	102.17	5,748.66	5,743.88	4.78	1,202.786		
1,700.00	1,700.00	1,618.51	1,618.34	3.69	2.02	179.00	-5,748.56	100.14	5,749.81	5,744.71	5.09	1,129.316		
1,800.00	1,800.00	1,745.64	1,745.44	3.91	2.18	179.03	-5,749.89	97.60	5,750.85	5,745.42	5.42	1,060.312		
1,900.00	1,900.00	1,880.28	1,880.07	4.14	2.36	179.04	-5,750.26	96.65	5,751.07	5,745.32	5.75	1,000.076		
2,000.00	2,000.00	1,983.02	1,982.81	4.36	2.49	179.04	-5,750.29	96.49	5,751.10	5,745.06	6.05	951.175		
2,100.00	2,100.00	2,083.57	2,083.36	4.59	2.62	179.04	-5,750.31	96.40	5,751.12	5,744.78	6.34	907.106		
2,200.00	2,200.00	2,193.91	2,193.70	4.81	2.67	179.04	-5,750.24	96.45	5,751.06	5,744.44	6.62	869.280		
2,300.00	2,300.00	2,318.98	2,318.77	5.04	2.62	179.03	-5,749.73	96.96	5,750.65	5,743.78	6.87	837.419		
2,400.00	2,400.00	2,421.71	2,421.49	5.26	2.59	179.03	-5,749.04	97.48	5,749.99	5,742.87	7.11	808.155		
2,500.00	2,500.00	2,510.21	2,509.99	5.49	2.57	179.03	-5,748.55	97.74	5,749.44	5,742.08	7.36	780.990		
2,600.00	2,600.00	2,607.11	2,606.89	5.71	2.55	179.02	-5,748.16	98.05	5,749.04	5,741.42	7.62	754.454		
2,700.00	2,700.00	2,744.03	2,743.80	5.94	2.53	179.01	-5,747.06	99.58	5,748.24	5,740.33	7.91	726.806		
2,800.00	2,800.00	2,886.01	2,885.75	6.16	2.51	178.99	-5,745.16	101.78	5,746.96	5,738.75	8.20	700.450		
2,900.00	2,900.00	2,984.70	2,984.41	6.39	2.51	178.97	-5,743.34	103.17	5,745.15	5,736.67	8.48	677.405		
3,000.00	3,000.00	3,088.29	3,087.98	6.61	2.52	178.96	-5,741.49	104.61	5,743.38	5,734.62	8.76	655.310		
3,100.00	3,100.00	3,198.30	3,197.95	6.84	2.54	178.94	-5,739.37	106.40	5,741.49	5,732.43	9.06	633.997		
3,200.00	3,200.00	3,286.75	3,286.38	7.06	2.56	178.92	-5,737.68	107.82	5,739.60	5,730.27	9.34	614.617		
3,300.00	3,300.00	3,370.30	3,369.91	7.28	2.59	178.91	-5,736.28	108.91	5,737.96	5,728.34	9.62	596.444		
3,400.00	3,400.00	3,448.32	3,447.92	7.51	2.62	178.90	-5,735.23	109.67	5,736.64	5,726.74	9.90	579.456		
3,500.00	3,500.00	3,524.36	3,523.95	7.73	2.65	178.90	-5,734.54	110.17	5,735.74	5,725.56	10.18	563.420		
3,600.00	3,600.00	3,602.46	3,602.04	7.96	2.68	178.90	-5,734.14	110.54	5,735.24	5,724.77	10.46	548.150		
3,700.00	3,700.00	3,700.00	3,699.59	8.18	2.73	178.89	-5,733.79	110.78	5,734.89	5,724.12	10.76	532.847		
3,800.00	3,800.00	3,791.69	3,791.27	8.41	2.81	178.89	-5,733.56	110.65	5,734.63	5,723.58	11.06	518.601		
3,900.00	3,900.00	3,899.17	3,898.75	8.63	2.92	178.90	-5,733.38	110.13	5,734.46	5,723.10	11.36	504.691		
4,000.00	4,000.00	3,991.21	3,990.79	8.86	3.02	178.91	-5,733.22	109.54	5,734.27	5,722.62	11.65	492.014		
4,071.21	4,071.21	4,055.63	4,055.21	9.02	3.09	178.91	-5,733.19	109.11	5,734.23	5,722.37	11.86	483.513		
4,100.00	4,100.00	4,081.61	4,081.19	9.08	3.11	178.91	-5,733.20	108.97	5,734.24	5,722.29	11.94	480.169		
4,200.00	4,200.00	4,191.28	4,190.86	9.31	3.23	178.92	-5,733.20	108.50	5,734.23	5,721.99	12.24	468.320		
4,300.00	4,300.00	4,300.00	4,299.58	9.53	3.35	178.92	-5,732.99	108.14	5,734.03	5,721.48	12.55	456.800		
4,400.00	4,400.00	4,389.30	4,388.87	9.76	3.45	178.92	-5,732.84	107.75	5,733.85	5,721.01	12.84	446.396		
4,430.06	4,430.06	4,413.32	4,412.90	9.82	3.48	178.92	-5,732.83	107.61	5,733.84	5,720.91	12.93	443.482		
4,500.00	4,500.00	4,465.00	4,464.57	9.98	3.53	178.93	-5,732.93	107.22	5,733.96	5,720.84	13.12	437.033		
4,600.00	4,600.00	4,553.18	4,552.75	10.21	3.62	178.94	-5,733.39	106.39	5,734.46	5,721.06	13.40	427.944		
4,700.00	4,700.00	4,664.01	4,663.58	10.43	3.73	178.95	-5,733.95	105.54	5,734.95	5,721.26	13.69	418.798		
4,800.00	4,800.00	4,757.85	4,757.41	10.66	3.83	178.95	-5,734.28	104.71	5,735.30	5,721.32	13.98	410.287		
4,900.00	4,900.00	4,849.47	4,849.03	10.88	3.92	178.96	-5,734.83	103.83	5,735.87	5,721.61	14.26	402.170		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #30H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100-Scientific Gyro 10462-MWD													Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/S (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)				
5,000.00	5,000.00	4,938.26	4,937.81	11.11	4.01	178.97	-5,735.42	103.14	5,736.53	5,721.98	14.54	394.430		
5,100.00	5,100.00	5,014.88	5,014.42	11.33	4.08	178.98	-5,736.20	102.46	5,737.54	5,722.72	14.82	387.207		
5,200.00	5,200.00	5,100.00	5,099.53	11.56	4.16	178.98	-5,737.44	101.81	5,738.97	5,723.87	15.10	380.108		
5,300.00	5,300.00	5,189.39	5,188.91	11.78	4.22	178.99	-5,738.94	101.41	5,740.62	5,725.24	15.38	373.154		
5,400.00	5,400.00	5,291.73	5,291.23	12.00	4.29	178.99	-5,740.62	101.20	5,742.26	5,726.58	15.68	366.167		
5,500.00	5,500.00	5,376.19	5,375.68	12.23	4.35	178.99	-5,742.09	101.10	5,744.00	5,728.03	15.97	359.691		
5,600.00	5,600.00	5,490.78	5,490.25	12.45	4.43	178.99	-5,744.18	101.16	5,745.84	5,729.55	16.28	352.866		
5,700.00	5,700.00	5,589.37	5,588.83	12.68	4.50	178.99	-5,745.78	101.21	5,747.46	5,730.88	16.59	346.495		
5,800.00	5,800.00	5,691.37	5,690.81	12.90	4.57	178.99	-5,747.46	101.30	5,749.11	5,732.21	16.90	340.248		
5,900.00	5,900.00	5,800.00	5,799.43	13.13	4.64	178.99	-5,749.13	101.73	5,750.65	5,733.43	17.21	334.059		
6,000.00	6,000.00	5,893.63	5,893.05	13.35	4.69	178.98	-5,750.54	102.22	5,752.17	5,734.65	17.52	328.311		
6,100.00	6,100.00	6,000.00	5,999.40	13.58	4.76	178.98	-5,752.12	102.89	5,753.66	5,735.82	17.84	322.523		
6,200.00	6,200.00	6,084.16	6,083.55	13.80	4.81	178.97	-5,753.42	103.42	5,755.23	5,737.09	18.14	317.273		
6,300.00	6,300.00	6,160.61	6,159.98	14.03	4.86	178.96	-5,754.90	103.99	5,757.17	5,738.74	18.43	312.321		
6,400.00	6,400.00	6,252.14	6,251.49	14.25	4.93	178.96	-5,757.00	104.56	5,759.47	5,740.73	18.74	307.284		
6,500.00	6,500.00	6,345.49	6,344.82	14.48	5.00	178.95	-5,759.13	105.39	5,761.77	5,742.72	19.06	302.362		
6,600.00	6,600.00	6,441.17	6,440.46	14.70	5.07	178.95	-5,761.55	106.02	5,764.31	5,744.94	19.37	297.552		
6,700.00	6,700.00	6,549.61	6,548.87	14.93	5.16	178.94	-5,764.08	106.80	5,766.66	5,746.95	19.70	292.664		
6,800.00	6,800.00	6,672.50	6,671.72	15.15	5.26	178.93	-5,766.85	107.34	5,768.94	5,748.89	20.05	287.685		
6,900.00	6,900.00	6,770.99	6,770.20	15.38	5.35	178.93	-5,768.68	107.81	5,770.81	5,750.43	20.38	283.195		
7,000.00	7,000.00	6,897.50	6,896.68	15.60	5.46	178.93	-5,770.99	108.22	5,772.67	5,751.94	20.73	278.415		
7,100.00	7,100.00	6,993.75	6,992.92	15.83	5.55	178.92	-5,772.47	108.41	5,774.21	5,753.15	21.06	274.183		
7,200.00	7,200.00	7,090.10	7,089.26	16.05	5.64	178.92	-5,774.01	108.78	5,775.82	5,754.43	21.39	270.079		
7,300.00	7,300.00	7,196.63	7,195.77	16.28	5.73	178.91	-5,775.70	109.51	5,777.41	5,755.69	21.72	265.983		
7,400.00	7,400.00	7,310.81	7,309.94	16.50	5.82	178.90	-5,777.27	110.66	5,778.80	5,756.74	22.06	261.951		
7,500.00	7,500.00	7,410.05	7,409.17	16.72	5.90	178.89	-5,778.53	111.55	5,780.09	5,757.70	22.39	258.209		
7,600.00	7,600.00	7,510.78	7,509.88	16.95	5.98	178.88	-5,779.82	112.54	5,781.39	5,758.68	22.71	254.557		
7,700.00	7,700.00	7,619.84	7,618.93	17.17	6.06	178.87	-5,781.04	113.57	5,782.52	5,759.48	23.05	250.915		
7,800.00	7,800.00	7,700.00	7,699.08	17.40	6.13	178.87	-5,782.10	114.29	5,783.85	5,760.50	23.35	247.685		
7,900.00	7,900.00	7,813.52	7,812.59	17.62	6.23	178.86	-5,783.63	115.29	5,785.22	5,761.53	23.70	244.152		
8,000.00	8,000.00	7,900.00	7,899.06	17.85	6.31	178.85	-5,784.72	115.83	5,786.50	5,762.49	24.01	240.987		
8,100.00	8,100.00	7,989.15	7,988.20	18.07	6.40	178.85	-5,786.03	116.32	5,787.99	5,763.66	24.33	237.858		
8,200.00	8,200.00	8,126.43	8,125.46	18.30	6.53	178.84	-5,787.79	117.12	5,789.27	5,764.56	24.71	234.301		
8,300.00	8,300.00	8,226.02	8,225.05	18.52	6.63	178.83	-5,788.84	117.83	5,790.34	5,765.31	25.04	231.262		
8,400.00	8,400.00	8,355.76	8,354.78	18.75	6.73	178.82	-5,789.78	118.87	5,791.07	5,765.68	25.39	228.108		
8,500.00	8,500.00	8,474.61	8,473.62	18.97	6.81	178.81	-5,790.15	119.91	5,791.41	5,765.70	25.71	225.280		
8,600.00	8,600.00	8,570.65	8,569.65	19.20	6.86	178.80	-5,790.30	120.81	5,791.58	5,765.58	26.00	222.736		
8,700.00	8,700.00	8,673.81	8,672.81	19.42	6.92	178.79	-5,790.54	121.91	5,791.84	5,765.53	26.30	220.212		
8,800.00	8,800.00	8,766.31	8,765.30	19.65	6.98	178.78	-5,790.73	122.85	5,792.06	5,765.46	26.59	217.795		
8,900.00	8,900.00	8,847.71	8,846.70	19.87	7.03	178.77	-5,791.08	123.91	5,792.52	5,765.64	26.88	215.480		
9,000.00	9,000.00	8,923.39	8,922.36	20.10	7.09	178.76	-5,791.68	125.44	5,793.36	5,766.20	27.17	213.242		
9,100.00	9,100.00	9,000.00	8,998.94	20.32	7.15	178.74	-5,792.66	127.32	5,794.68	5,767.22	27.46	211.044		
9,200.00	9,200.00	9,093.88	9,092.78	20.55	7.23	178.72	-5,794.09	129.74	5,796.26	5,768.49	27.77	208.759		
9,300.00	9,300.00	9,181.34	9,180.20	20.77	7.30	178.69	-5,795.50	132.09	5,797.93	5,769.87	28.07	206.570		
9,400.00	9,400.00	9,287.54	9,286.33	21.00	7.39	178.66	-5,797.31	135.29	5,799.71	5,771.32	28.39	204.314		
9,500.00	9,500.00	9,382.29	9,381.03	21.22	7.48	178.63	-5,798.86	138.20	5,801.42	5,772.73	28.69	202.185		
9,600.00	9,600.00	9,489.65	9,488.33	21.44	7.57	178.60	-5,800.65	141.27	5,803.16	5,774.14	29.01	200.011		
9,627.04	9,627.04	9,500.00	9,498.67	21.51	7.58	178.60	-5,800.81	141.54	5,803.63	5,774.54	29.08	199.551		
9,650.00	9,649.99	9,528.55	9,527.21	21.55	7.61	-0.21	-5,801.29	142.26	5,803.56	5,774.40	29.16	199.054		
9,700.00	9,699.80	9,563.58	9,562.22	21.63	7.64	-0.22	-5,801.96	143.09	5,800.36	5,771.09	29.27	198.156		
9,750.00	9,749.06	9,600.00	9,598.62	21.72	7.68	-0.24	-5,802.75	143.92	5,792.95	5,763.56	29.39	197.108		
9,800.00	9,797.39	9,637.64	9,636.25	21.80	7.72	-0.25	-5,803.65	144.75	5,781.37	5,751.85	29.51	195.906		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #30H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-Scientific Gyro, 10462-MWD													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)						
9,850.00	9,844.42	9,876.31	9,874.89	21.88	7.76	-0.27	-5,804.53	145.60	5,765.66	5,736.03	29.63	194.576		
9,900.00	9,889.79	9,923.34	9,921.89	21.96	7.80	-0.29	-5,805.87	146.62	5,745.93	5,716.17	29.76	193.075		
9,950.00	9,933.17	9,984.14	9,982.66	22.04	7.87	-0.32	-5,807.36	147.88	5,722.19	5,692.29	29.90	191.372		
10,000.00	9,974.21	9,938.63	9,937.13	22.14	7.93	-0.35	-5,808.55	148.95	5,694.59	5,664.55	30.03	189.626		
10,050.00	10,012.62	9,988.52	9,987.01	22.25	7.98	-0.39	-5,809.54	149.83	5,663.38	5,633.23	30.15	187.833		
10,100.00	10,048.09	9,939.88	9,938.34	22.38	8.03	-0.44	-5,810.45	150.67	5,628.81	5,598.54	30.27	185.971		
10,150.00	10,080.35	9,988.06	9,986.51	22.53	8.08	-0.51	-5,811.16	151.42	5,591.13	5,560.76	30.37	184.077		
10,200.00	10,109.17	10,023.30	10,021.74	22.71	8.12	-0.58	-5,811.62	151.94	5,550.68	5,520.22	30.46	182.227		
10,250.00	10,134.31	10,051.51	10,049.96	22.91	8.15	-0.69	-5,811.96	152.35	5,507.80	5,477.27	30.53	180.390		
10,300.00	10,155.60	10,075.48	10,073.92	23.14	8.17	-0.84	-5,812.25	152.68	5,462.84	5,432.24	30.59	178.559		
10,350.00	10,172.86	10,095.02	10,093.46	23.40	8.19	-1.08	-5,812.47	152.95	5,416.14	5,385.49	30.64	176.746		
10,400.00	10,185.97	10,108.39	10,106.82	23.69	8.20	-1.49	-5,812.62	153.13	5,368.06	5,337.38	30.68	174.965		
10,450.00	10,194.83	10,117.06	10,115.49	24.01	8.21	-2.40	-5,812.72	153.24	5,318.98	5,288.27	30.71	173.219		
10,500.00	10,199.36	10,121.77	10,120.21	24.35	8.22	-5.96	-5,812.78	153.30	5,269.26	5,238.54	30.72	171.514		
10,527.04	10,200.00	10,122.66	10,121.09	24.55	8.22	-27.36	-5,812.79	153.31	5,242.24	5,211.51	30.73	170.610		
10,600.00	10,200.00	10,123.46	10,121.89	25.12	8.22	-27.67	-5,812.80	153.31	5,169.28	5,138.55	30.73	168.201		
10,700.00	10,200.00	10,124.56	10,122.99	25.99	8.22	-28.10	-5,812.81	153.33	5,069.29	5,038.55	30.74	164.897		
10,800.00	10,200.00	10,125.67	10,124.10	26.96	8.22	-28.55	-5,812.82	153.34	4,969.30	4,938.55	30.75	161.591		
10,900.00	10,200.00	10,126.78	10,125.21	28.02	8.22	-29.01	-5,812.84	153.35	4,869.31	4,838.55	30.76	158.282		
11,000.00	10,200.00	10,127.89	10,126.32	29.15	8.23	-29.49	-5,812.85	153.36	4,769.32	4,738.55	30.78	154.971		
11,100.00	10,200.00	10,129.01	10,127.44	30.35	8.23	-29.98	-5,812.86	153.38	4,669.33	4,638.54	30.79	151.658		
11,200.00	10,200.00	10,130.13	10,128.56	31.61	8.23	-30.48	-5,812.87	153.39	4,569.34	4,538.54	30.80	148.343		
11,300.00	10,200.00	10,131.25	10,129.68	32.93	8.23	-31.01	-5,812.89	153.40	4,469.35	4,438.53	30.82	145.027		
11,400.00	10,200.00	10,132.38	10,130.81	34.30	8.23	-31.55	-5,812.90	153.41	4,369.36	4,338.53	30.83	141.709		
11,500.00	10,200.00	10,133.51	10,131.94	35.70	8.23	-32.11	-5,812.91	153.43	4,269.37	4,238.52	30.85	138.391		
11,600.00	10,200.00	10,134.65	10,133.08	37.15	8.23	-32.69	-5,812.93	153.44	4,169.38	4,138.51	30.87	135.072		
11,700.00	10,200.00	10,135.78	10,134.21	38.63	8.23	-33.29	-5,812.94	153.45	4,069.39	4,038.51	30.89	131.752		
11,800.00	10,200.00	10,136.93	10,135.36	40.13	8.24	-33.92	-5,812.96	153.46	3,969.40	3,938.50	30.91	128.433		
11,900.00	10,200.00	10,138.07	10,136.50	41.67	8.24	-34.56	-5,812.97	153.47	3,869.41	3,838.49	30.93	125.115		
12,000.00	10,200.00	10,139.22	10,137.65	43.23	8.24	-35.23	-5,812.98	153.48	3,769.43	3,738.48	30.95	121.797		
12,100.00	10,200.00	10,140.37	10,138.80	44.81	8.24	-35.92	-5,813.00	153.50	3,669.44	3,638.47	30.97	118.480		
12,200.00	10,200.00	10,141.53	10,139.96	46.40	8.24	-36.64	-5,813.01	153.51	3,569.45	3,538.45	30.99	115.164		
12,300.00	10,200.00	10,142.69	10,141.12	48.02	8.24	-37.38	-5,813.02	153.52	3,469.46	3,438.44	31.02	111.849		
12,400.00	10,200.00	10,143.85	10,142.28	49.65	8.24	-38.15	-5,813.04	153.53	3,369.47	3,338.43	31.04	108.537		
12,500.00	10,200.00	10,145.02	10,143.45	51.29	8.24	-38.96	-5,813.05	153.54	3,269.49	3,238.41	31.07	105.227		
12,600.00	10,200.00	10,146.19	10,144.62	52.95	8.25	-39.79	-5,813.07	153.55	3,169.50	3,138.40	31.10	101.919		
12,700.00	10,200.00	10,147.37	10,145.80	54.62	8.25	-40.65	-5,813.08	153.56	3,069.51	3,038.39	31.13	98.614		
12,800.00	10,200.00	10,148.55	10,146.98	56.29	8.25	-41.55	-5,813.10	153.58	2,969.53	2,938.37	31.16	95.311		
12,900.00	10,200.00	10,149.73	10,148.16	57.98	8.25	-42.49	-5,813.11	153.59	2,869.54	2,838.35	31.19	92.012		
13,000.00	10,200.00	10,150.92	10,149.34	59.68	8.25	-43.46	-5,813.12	153.60	2,769.55	2,738.34	31.22	88.717		
13,100.00	10,200.00	10,152.11	10,150.53	61.38	8.25	-44.47	-5,813.14	153.61	2,669.57	2,638.32	31.25	85.425		
13,200.00	10,200.00	10,153.30	10,151.73	63.10	8.25	-45.52	-5,813.15	153.62	2,569.59	2,538.30	31.28	82.137		
13,300.00	10,200.00	10,154.50	10,152.93	64.82	8.26	-46.61	-5,813.17	153.63	2,469.60	2,438.28	31.32	78.853		
13,400.00	10,200.00	10,155.70	10,154.13	66.54	8.26	-47.75	-5,813.18	153.64	2,369.62	2,338.26	31.35	75.574		
13,500.00	10,200.00	10,156.91	10,155.34	68.27	8.26	-48.93	-5,813.20	153.65	2,269.64	2,238.24	31.39	72.299		
13,600.00	10,200.00	10,158.12	10,156.55	70.01	8.26	-50.16	-5,813.21	153.66	2,169.66	2,138.23	31.43	69.030		
13,700.00	10,200.00	10,159.33	10,157.76	71.75	8.26	-51.43	-5,813.23	153.67	2,069.68	2,038.21	31.47	65.765		
13,757.00	10,200.00	10,160.03	10,158.45	72.75	8.26	-52.18	-5,813.24	153.68	2,012.69	1,981.19	31.49	63.907		
13,800.00	10,200.00	10,160.55	10,158.97	73.46	8.26	-72.15	-5,813.24	153.68	1,969.71	1,938.20	31.51	62.503		
13,895.57	10,200.00	10,161.68	10,160.11	74.95	8.26	-82.17	-5,813.26	153.69	1,874.37	1,842.79	31.57	59.367		
13,900.00	10,200.00	10,161.73	10,160.16	75.02	8.26	-82.18	-5,813.26	153.69	1,869.95	1,838.38	31.58	59.222		
14,000.00	10,200.00	10,162.90	10,161.33	76.75	8.26	-82.56	-5,813.27	153.70	1,770.42	1,738.76	31.66	55.923		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - #30H - OH - OH													Offset Site Error:	0.00 ush
Survey Program: 100-Scientific Gyro 10462-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
14,100.00	10,200.00	10,164.07	10,162.50	78.48	8.27	-82.94	-5,813.29	153.71	1,670.94	1,639.18	31.76	52.608		
14,200.00	10,200.00	10,165.25	10,163.68	80.21	8.27	-83.33	-5,813.30	153.72	1,571.52	1,539.63	31.89	49.274		
14,300.00	10,200.00	10,166.44	10,164.86	81.95	8.27	-83.71	-5,813.32	153.73	1,472.19	1,440.12	32.06	45.916		
14,400.00	10,200.00	10,167.63	10,166.05	83.69	8.27	-84.10	-5,813.33	153.74	1,372.94	1,340.66	32.28	42.531		
14,500.00	10,200.00	10,168.82	10,167.25	85.43	8.27	-84.48	-5,813.35	153.74	1,273.82	1,241.25	32.57	39.114		
14,600.00	10,200.00	10,170.03	10,168.45	87.18	8.27	-84.89	-5,813.36	153.75	1,174.84	1,141.90	32.95	35.659		
14,700.00	10,200.00	10,171.23	10,169.66	88.93	8.27	-85.28	-5,813.38	153.76	1,076.05	1,042.60	33.46	32.162		
14,800.00	10,200.00	10,172.44	10,170.87	90.68	8.27	-85.68	-5,813.39	153.77	977.51	943.35	34.16	28.619		
14,900.00	10,200.00	10,173.66	10,172.09	92.44	8.28	-86.08	-5,813.41	153.78	879.29	844.16	35.13	25.032		
15,000.00	10,200.00	10,174.89	10,173.31	94.19	8.28	-86.48	-5,813.42	153.79	781.52	745.02	36.50	21.410		
15,100.00	10,200.00	10,176.12	10,174.54	95.95	8.28	-86.88	-5,813.44	153.80	684.40	645.90	38.50	17.778		
15,200.00	10,200.00	10,177.35	10,175.78	97.72	8.28	-87.29	-5,813.45	153.81	588.23	546.78	41.46	14.189		
15,300.00	10,200.00	10,178.59	10,177.02	99.48	8.28	-87.70	-5,813.47	153.81	493.60	447.62	45.97	10.737		
15,400.00	10,200.00	10,179.84	10,178.26	101.25	8.28	-88.11	-5,813.49	153.82	401.56	348.48	53.08	7.566		
15,500.00	10,200.00	10,181.09	10,179.52	103.01	8.28	-88.52	-5,813.50	153.83	314.42	249.87	64.56	4.871		
15,536.35	10,200.00	10,181.55	10,179.97	103.66	8.28	-88.67	-5,813.51	153.83	284.85	214.53	70.32	4.051 CC, ES, SF		



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design - Lea Unit - SWD #2 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 505-INC													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)	Offset Wellbore Centre E-W (usft)						
0.00	0.00	0.00	0.00	0.00	0.00	-175.36	-4,287.23	-348.00	4,301.45					
100.00	100.00	68.60	68.60	0.09	1.03	-175.36	-4,287.23	-347.98	4,301.33	4,300.21	1.12	3,844.176		
200.00	200.00	168.90	168.90	0.32	2.53	-175.36	-4,287.23	-347.88	4,301.32	4,298.48	2.84	1,512.146		
300.00	300.00	269.20	269.19	0.54	4.03	-175.36	-4,287.23	-347.69	4,301.31	4,296.74	4.57	941.183		
400.00	400.00	369.49	369.48	0.77	5.53	-175.37	-4,287.23	-347.41	4,301.28	4,294.99	6.30	683.210		
500.00	500.00	469.79	469.78	0.99	7.03	-175.37	-4,287.23	-347.05	4,301.26	4,293.23	8.02	536.230		
600.00	600.00	570.88	570.88	1.22	10.47	-175.38	-4,287.23	-346.51	4,301.21	4,289.54	11.67	368.487		
700.00	700.00	672.40	672.39	1.44	14.95	-175.39	-4,287.23	-345.55	4,301.14	4,284.77	16.37	262.799		
800.00	800.00	773.91	773.89	1.67	19.43	-175.41	-4,287.24	-344.13	4,301.03	4,279.97	21.06	204.219		
900.00	900.00	875.41	875.37	1.89	23.91	-175.44	-4,287.24	-342.25	4,300.88	4,275.13	25.75	166.993		
1,000.00	1,000.00	975.55	975.49	2.12	28.72	-175.46	-4,287.24	-340.10	4,300.72	4,268.95	31.77	135.373		
1,100.00	1,100.00	1,075.27	1,075.19	2.34	35.95	-175.49	-4,287.24	-338.03	4,300.55	4,262.35	38.21	112.558		
1,200.00	1,200.00	1,174.99	1,174.89	2.56	42.18	-175.52	-4,287.25	-336.03	4,300.40	4,255.75	44.65	96.321		
1,300.00	1,300.00	1,274.71	1,274.59	2.79	48.41	-175.54	-4,287.25	-334.11	4,300.25	4,249.17	51.09	84.177		
1,400.00	1,400.00	1,374.44	1,374.30	3.01	54.64	-175.57	-4,287.25	-332.26	4,300.11	4,242.59	57.53	74.750		
1,500.00	1,500.00	1,474.16	1,474.01	3.24	60.68	-175.59	-4,287.25	-330.50	4,299.98	4,236.20	63.78	67.422		
1,600.00	1,600.00	1,573.86	1,573.69	3.46	65.92	-175.61	-4,287.26	-328.82	4,299.85	4,230.62	69.23	62.111		
1,700.00	1,700.00	1,673.56	1,673.38	3.69	71.16	-175.64	-4,287.26	-327.23	4,299.73	4,225.05	74.68	57.575		
1,800.00	1,800.00	1,773.26	1,773.07	3.91	76.39	-175.66	-4,287.26	-325.73	4,299.62	4,219.49	80.13	53.656		
1,900.00	1,900.00	1,872.96	1,872.76	4.14	81.63	-175.67	-4,287.26	-324.32	4,299.51	4,213.93	85.59	50.237		
2,000.00	2,000.00	1,972.76	1,972.55	4.36	86.65	-175.69	-4,287.27	-322.99	4,299.42	4,208.59	90.82	47.338		
2,100.00	2,100.00	2,072.75	2,072.53	4.59	91.19	-175.71	-4,287.27	-321.68	4,299.32	4,203.74	95.58	44.982		
2,200.00	2,200.00	2,172.74	2,172.52	4.81	95.73	-175.73	-4,287.27	-320.37	4,299.22	4,198.89	100.33	42.849		
2,300.00	2,300.00	2,272.73	2,272.50	5.04	100.27	-175.74	-4,287.27	-319.07	4,299.13	4,194.04	105.09	40.909		
2,400.00	2,400.00	2,372.72	2,372.48	5.26	104.81	-175.76	-4,287.27	-317.76	4,299.03	4,189.19	109.85	39.137		
2,500.00	2,500.00	2,472.91	2,472.66	5.49	109.81	-175.78	-4,287.27	-316.43	4,298.94	4,183.88	115.06	37.364		
2,600.00	2,600.00	2,573.47	2,573.21	5.71	115.69	-175.80	-4,287.28	-314.96	4,298.83	4,177.68	121.16	35.482		
2,700.00	2,700.00	2,674.03	2,673.76	5.94	121.58	-175.82	-4,287.28	-313.30	4,298.71	4,171.46	127.26	33.780		
2,800.00	2,800.00	2,774.59	2,774.29	6.16	127.46	-175.84	-4,287.28	-311.46	4,298.58	4,165.23	133.36	32.234		
2,900.00	2,900.00	2,875.13	2,874.82	6.39	133.35	-175.87	-4,287.28	-309.42	4,298.44	4,158.98	139.46	30.822		
3,000.00	3,000.00	2,975.82	2,975.48	6.61	141.30	-175.90	-4,287.29	-307.18	4,298.28	4,150.67	147.61	29.118		
3,100.00	3,100.00	3,076.58	3,076.21	6.84	150.38	-175.94	-4,287.29	-304.68	4,298.11	4,141.20	156.91	27.392		
3,200.00	3,200.00	3,177.32	3,176.91	7.06	159.47	-175.97	-4,287.29	-301.92	4,297.92	4,131.72	166.20	25.859		
3,300.00	3,300.00	3,278.05	3,277.60	7.28	168.55	-176.01	-4,287.30	-298.89	4,297.71	4,122.21	175.50	24.488		
3,400.00	3,400.00	3,378.76	3,378.25	7.51	177.64	-176.06	-4,287.30	-295.60	4,297.49	4,112.70	184.80	23.255		
3,500.00	3,500.00	3,478.12	3,477.55	7.73	186.18	-176.10	-4,287.31	-292.24	4,297.27	4,103.71	193.56	22.202		
3,600.00	3,600.00	3,576.81	3,576.20	7.96	194.45	-176.14	-4,287.31	-289.30	4,297.07	4,095.03	202.04	21.268		
3,700.00	3,700.00	3,675.52	3,674.88	8.18	202.73	-176.17	-4,287.32	-286.81	4,296.90	4,086.37	210.53	20.410		
3,800.00	3,800.00	3,774.25	3,773.59	8.41	211.00	-176.20	-4,287.32	-284.75	4,296.77	4,077.75	219.02	19.618		
3,900.00	3,900.00	3,873.58	3,872.90	8.63	216.07	-176.22	-4,287.32	-283.05	4,296.66	4,072.35	224.31	19.155		
4,000.00	4,000.00	3,973.12	3,972.43	8.86	220.00	-176.24	-4,287.32	-281.51	4,296.56	4,068.09	228.46	18.806		
4,100.00	4,100.00	4,072.66	4,071.96	9.08	223.94	-176.26	-4,287.32	-280.14	4,296.47	4,063.85	232.62	18.470		
4,200.00	4,200.00	4,172.20	4,171.50	9.31	227.87	-176.28	-4,287.33	-278.92	4,296.39	4,059.62	236.78	18.145		
4,300.00	4,300.00	4,271.76	4,271.05	9.53	231.80	-176.29	-4,287.33	-277.87	4,296.32	4,055.39	240.93	17.832		
4,400.00	4,400.00	4,371.31	4,370.60	9.76	235.74	-176.30	-4,287.33	-276.98	4,296.27	4,051.18	245.09	17.530		
4,500.00	4,500.00	4,470.87	4,470.15	9.98	239.67	-176.31	-4,287.33	-276.26	4,296.22	4,046.98	249.24	17.237		
4,600.00	4,600.00	4,570.42	4,569.71	10.21	243.60	-176.32	-4,287.33	-275.70	4,296.19	4,042.79	253.40	16.954		
4,630.89	4,630.89	4,600.00	4,599.28	10.28	244.77	-176.32	-4,287.33	-275.56	4,296.18	4,041.55	254.63	16.872 CC, ES		
4,700.00	4,700.00	4,600.00	4,599.28	10.43	244.77	-176.32	-4,287.33	-275.56	4,296.73	4,041.98	254.76	16.866 SF		
4,800.00	4,800.00	4,600.00	4,599.28	10.66	244.77	-176.32	-4,287.33	-275.56	4,299.50	4,044.69	254.82	16.873		
4,900.00	4,900.00	4,600.00	4,599.28	10.88	244.77	-176.32	-4,287.33	-275.56	4,304.60	4,049.86	254.74	16.898		
5,000.00	5,000.00	4,600.00	4,599.28	11.11	244.77	-176.32	-4,287.33	-275.56	4,312.01	4,057.48	254.53	16.941		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - SWD #2 - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 505-INC												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N-S (usft)	+E-W (usft)					
5,100.00	5,100.00	4,600.00	4,599.28	11.33	244.77	-176.32	-4,287.33	-275.56	4,321.71	4,067.53	254.18	17.003	
5,200.00	5,200.00	4,600.00	4,599.28	11.56	244.77	-176.32	-4,287.33	-275.56	4,333.71	4,080.01	253.70	17.082	
5,300.00	5,300.00	4,600.00	4,599.28	11.78	244.77	-176.32	-4,287.33	-275.56	4,347.97	4,094.88	253.09	17.179	
5,400.00	5,400.00	4,600.00	4,599.28	12.00	244.77	-176.32	-4,287.33	-275.56	4,364.48	4,112.12	252.36	17.295	
5,500.00	5,500.00	4,600.00	4,599.28	12.23	244.77	-176.32	-4,287.33	-275.56	4,383.21	4,131.70	251.50	17.428	
5,600.00	5,600.00	4,600.00	4,599.28	12.45	244.77	-176.32	-4,287.33	-275.56	4,404.13	4,153.59	250.53	17.579	
5,700.00	5,700.00	4,600.00	4,599.28	12.68	244.77	-176.32	-4,287.33	-275.56	4,427.21	4,177.76	249.45	17.748	
5,800.00	5,800.00	4,600.00	4,599.28	12.90	244.77	-176.32	-4,287.33	-275.56	4,452.41	4,204.15	248.26	17.935	
5,900.00	5,900.00	4,600.00	4,599.28	13.13	244.77	-176.32	-4,287.33	-275.56	4,479.71	4,232.74	246.97	18.139	
6,000.00	6,000.00	4,600.00	4,599.28	13.35	244.77	-176.32	-4,287.33	-275.56	4,509.06	4,263.48	245.58	18.361	
6,100.00	6,100.00	4,600.00	4,599.28	13.58	244.77	-176.32	-4,287.33	-275.56	4,540.42	4,296.32	244.10	18.600	
6,200.00	6,200.00	4,600.00	4,599.28	13.80	244.77	-176.32	-4,287.33	-275.56	4,573.76	4,331.22	242.54	18.857	
6,300.00	6,300.00	4,600.00	4,599.28	14.03	244.77	-176.32	-4,287.33	-275.56	4,609.02	4,368.12	240.91	19.132	
6,400.00	6,400.00	4,600.00	4,599.28	14.25	244.77	-176.32	-4,287.33	-275.56	4,646.17	4,406.97	239.20	19.424	
6,500.00	6,500.00	4,600.00	4,599.28	14.48	244.77	-176.32	-4,287.33	-275.56	4,685.16	4,447.74	237.42	19.733	
6,600.00	6,600.00	4,600.00	4,599.28	14.70	244.77	-176.32	-4,287.33	-275.56	4,725.95	4,490.35	235.59	20.060	
6,700.00	6,700.00	4,600.00	4,599.28	14.93	244.77	-176.32	-4,287.33	-275.56	4,768.48	4,534.77	233.71	20.404	
6,800.00	6,800.00	4,600.00	4,599.28	15.15	244.77	-176.32	-4,287.33	-275.56	4,812.71	4,580.94	231.77	20.765	
6,900.00	6,900.00	4,600.00	4,599.28	15.38	244.77	-176.32	-4,287.33	-275.56	4,858.60	4,628.80	229.80	21.143	
7,000.00	7,000.00	4,600.00	4,599.28	15.60	244.77	-176.32	-4,287.33	-275.56	4,906.10	4,678.31	227.79	21.538	
7,100.00	7,100.00	4,600.00	4,599.28	15.83	244.77	-176.32	-4,287.33	-275.56	4,955.17	4,729.42	225.75	21.950	
7,200.00	7,200.00	4,600.00	4,599.28	16.05	244.77	-176.32	-4,287.33	-275.56	5,005.75	4,782.06	223.68	22.379	
7,300.00	7,300.00	4,600.00	4,599.28	16.28	244.77	-176.32	-4,287.33	-275.56	5,057.80	4,836.20	221.60	22.824	
7,400.00	7,400.00	4,600.00	4,599.28	16.50	244.77	-176.32	-4,287.33	-275.56	5,111.28	4,891.79	219.49	23.287	
7,500.00	7,500.00	4,600.00	4,599.28	16.72	244.77	-176.32	-4,287.33	-275.56	5,166.14	4,948.76	217.38	23.766	
7,600.00	7,600.00	4,600.00	4,599.28	16.95	244.77	-176.32	-4,287.33	-275.56	5,222.34	5,007.09	215.25	24.262	
7,700.00	7,700.00	4,600.00	4,599.28	17.17	244.77	-176.32	-4,287.33	-275.56	5,279.83	5,066.71	213.12	24.774	
7,800.00	7,800.00	4,600.00	4,599.28	17.40	244.77	-176.32	-4,287.33	-275.56	5,338.58	5,127.59	210.99	25.302	
7,900.00	7,900.00	4,600.00	4,599.28	17.62	244.77	-176.32	-4,287.33	-275.56	5,398.54	5,189.68	208.87	25.847	
8,000.00	8,000.00	4,600.00	4,599.28	17.85	244.77	-176.32	-4,287.33	-275.56	5,459.68	5,252.93	206.74	26.408	
8,100.00	8,100.00	4,600.00	4,599.28	18.07	244.77	-176.32	-4,287.33	-275.56	5,521.95	5,317.32	204.63	26.985	
8,200.00	8,200.00	4,600.00	4,599.28	18.30	244.77	-176.32	-4,287.33	-275.56	5,585.31	5,382.79	202.53	27.578	
8,300.00	8,300.00	4,600.00	4,599.28	18.52	244.77	-176.32	-4,287.33	-275.56	5,649.74	5,449.30	200.44	28.187	
8,400.00	8,400.00	4,600.00	4,599.28	18.75	244.77	-176.32	-4,287.33	-275.56	5,715.19	5,516.82	198.37	28.811	
8,500.00	8,500.00	4,600.00	4,599.28	18.97	244.77	-176.32	-4,287.33	-275.56	5,781.63	5,585.32	196.31	29.452	
8,600.00	8,600.00	4,600.00	4,599.28	19.20	244.77	-176.32	-4,287.33	-275.56	5,849.02	5,654.75	194.27	30.107	
8,700.00	8,700.00	4,600.00	4,599.28	19.42	244.77	-176.32	-4,287.33	-275.56	5,917.34	5,725.08	192.26	30.778	
8,800.00	8,800.00	4,600.00	4,599.28	19.65	244.77	-176.32	-4,287.33	-275.56	5,986.54	5,796.28	190.26	31.465	
8,900.00	8,900.00	4,600.00	4,599.28	19.87	244.77	-176.32	-4,287.33	-275.56	6,056.61	5,868.32	188.29	32.166	
9,000.00	9,000.00	4,600.00	4,599.28	20.10	244.77	-176.32	-4,287.33	-275.56	6,127.51	5,941.16	186.34	32.883	
9,100.00	9,100.00	4,600.00	4,599.28	20.32	244.77	-176.32	-4,287.33	-275.56	6,199.21	6,014.78	184.42	33.614	
9,200.00	9,200.00	4,600.00	4,599.28	20.55	244.77	-176.32	-4,287.33	-275.56	6,271.68	6,089.15	182.53	34.360	
9,300.00	9,300.00	4,600.00	4,599.28	20.77	244.77	-176.32	-4,287.33	-275.56	6,344.90	6,164.24	180.66	35.120	
9,400.00	9,400.00	4,600.00	4,599.28	21.00	244.77	-176.32	-4,287.33	-275.56	6,418.85	6,240.03	178.82	35.895	
9,500.00	9,500.00	4,600.00	4,599.28	21.22	244.77	-176.32	-4,287.33	-275.56	6,493.49	6,316.48	177.01	36.684	
9,600.00	9,600.00	4,600.00	4,599.28	21.44	244.77	-176.32	-4,287.33	-275.56	6,568.81	6,393.58	175.23	37.486	
9,627.04	9,627.04	4,600.00	4,599.28	21.51	244.77	-176.32	-4,287.33	-275.56	6,589.29	6,414.53	174.76	37.706	
9,650.00	9,649.99	4,600.00	4,599.28	21.55	244.77	4.65	-4,287.33	-275.56	6,606.41	6,432.08	174.33	37.895	
9,700.00	9,699.80	4,600.00	4,599.28	21.63	244.77	4.27	-4,287.33	-275.56	6,641.64	6,468.30	173.34	38.315	
9,750.00	9,749.06	4,600.00	4,599.28	21.72	244.77	3.96	-4,287.33	-275.56	6,673.87	6,501.60	172.27	38.741	
9,800.00	9,797.39	4,600.00	4,599.28	21.80	244.77	3.73	-4,287.33	-275.56	6,702.89	6,531.77	171.12	39.171	
9,850.00	9,844.42	4,600.00	4,599.28	21.88	244.77	3.54	-4,287.33	-275.56	6,728.53	6,558.63	169.90	39.602	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit - SWD #2 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 505-INC													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)						
9,900.00	9,889.79	4,600.00	4,599.28	21.96	244.77	3.39	-4,287.33	-275.56	6,750.64	6,582.01	168.63	40.033		
9,950.00	9,933.17	4,600.00	4,599.28	22.04	244.77	3.27	-4,287.33	-275.56	6,769.07	6,601.78	167.30	40.461		
10,000.00	9,974.21	4,600.00	4,599.28	22.14	244.77	3.19	-4,287.33	-275.56	6,783.73	6,617.81	165.93	40.884		
10,050.00	10,012.62	4,600.00	4,599.28	22.25	244.77	3.12	-4,287.33	-275.56	6,794.52	6,630.00	164.52	41.300		
10,100.00	10,048.08	4,600.00	4,599.28	22.38	244.77	3.09	-4,287.33	-275.56	6,801.38	6,638.30	163.08	41.706		
10,150.00	10,080.35	4,600.00	4,599.28	22.53	244.77	3.07	-4,287.33	-275.56	6,804.27	6,642.64	161.63	42.098		
10,200.00	10,109.17	4,600.00	4,599.28	22.71	244.77	3.08	-4,287.33	-275.56	6,803.17	6,643.01	160.17	42.476		
10,250.00	10,134.31	4,600.00	4,599.28	22.91	244.77	3.11	-4,287.33	-275.56	6,798.09	6,639.39	158.70	42.835		
10,300.00	10,155.60	4,600.00	4,599.28	23.14	244.77	3.16	-4,287.33	-275.56	6,789.07	6,631.81	157.25	43.173		
10,350.00	10,172.86	4,600.00	4,599.28	23.40	244.77	3.23	-4,287.33	-275.56	6,776.14	6,620.32	155.82	43.488		
10,400.00	10,185.97	4,600.00	4,599.28	23.69	244.77	3.33	-4,287.33	-275.56	6,759.39	6,604.98	154.41	43.775		
10,450.00	10,194.83	4,600.00	4,599.28	24.01	244.77	3.46	-4,287.33	-275.56	6,738.92	6,585.88	153.04	44.033		
10,500.00	10,199.36	4,600.00	4,599.28	24.35	244.77	3.63	-4,287.33	-275.56	6,714.85	6,563.13	151.72	44.258		
10,527.04	10,200.00	4,600.00	4,599.28	24.55	244.77	3.75	-4,287.33	-275.56	6,700.39	6,549.35	151.03	44.364		
10,600.00	10,200.00	4,600.00	4,599.28	25.12	244.77	3.75	-4,287.33	-275.56	6,660.29	6,511.13	149.16	44.653		
10,700.00	10,200.00	4,600.00	4,599.28	25.99	244.77	3.75	-4,287.33	-275.56	6,606.25	6,459.69	146.55	45.078		
10,800.00	10,200.00	4,600.00	4,599.28	26.96	244.77	3.75	-4,287.33	-275.56	6,553.29	6,409.37	143.91	45.536		
10,900.00	10,200.00	4,600.00	4,599.28	28.02	244.77	3.75	-4,287.33	-275.56	6,501.43	6,360.19	141.24	46.030		
11,000.00	10,200.00	4,600.00	4,599.28	29.15	244.77	3.75	-4,287.33	-275.56	6,450.71	6,312.17	138.54	46.563		
11,100.00	10,200.00	4,600.00	4,599.28	30.35	244.77	3.75	-4,287.33	-275.56	6,401.15	6,265.35	135.80	47.136		
11,200.00	10,200.00	4,600.00	4,599.28	31.61	244.77	3.75	-4,287.33	-275.56	6,352.77	6,219.74	133.03	47.754		
11,300.00	10,200.00	4,600.00	4,599.28	32.93	244.77	3.75	-4,287.33	-275.56	6,305.62	6,175.39	130.23	48.420		
11,400.00	10,200.00	4,600.00	4,599.28	34.30	244.77	3.75	-4,287.33	-275.56	6,259.70	6,132.31	127.39	49.138		
11,500.00	10,200.00	4,600.00	4,599.28	35.70	244.77	3.75	-4,287.33	-275.56	6,215.05	6,090.53	124.52	49.912		
11,600.00	10,200.00	4,600.00	4,599.28	37.15	244.77	3.75	-4,287.33	-275.56	6,171.70	6,050.09	121.62	50.747		
11,700.00	10,200.00	4,600.00	4,599.28	38.63	244.77	3.75	-4,287.33	-275.56	6,129.68	6,011.00	118.68	51.649		
11,800.00	10,200.00	4,600.00	4,599.28	40.13	244.77	3.75	-4,287.33	-275.56	6,089.01	5,973.30	115.71	52.624		
11,900.00	10,200.00	4,600.00	4,599.28	41.67	244.77	3.75	-4,287.33	-275.56	6,049.72	5,937.02	112.70	53.679		
12,000.00	10,200.00	4,600.00	4,599.28	43.23	244.77	3.75	-4,287.33	-275.56	6,011.83	5,902.17	109.66	54.824		
12,100.00	10,200.00	4,600.00	4,599.28	44.81	244.77	3.75	-4,287.33	-275.56	5,975.38	5,868.80	106.58	56.065		
12,200.00	10,200.00	4,600.00	4,599.28	46.40	244.77	3.75	-4,287.33	-275.56	5,940.39	5,836.92	103.46	57.415		
12,300.00	10,200.00	4,600.00	4,599.28	48.02	244.77	3.75	-4,287.33	-275.56	5,906.88	5,806.57	100.31	58.885		
12,400.00	10,200.00	4,600.00	4,599.28	49.65	244.77	3.75	-4,287.33	-275.56	5,874.89	5,777.76	97.13	60.488		
12,500.00	10,200.00	4,600.00	4,599.28	51.29	244.77	3.75	-4,287.33	-275.56	5,844.43	5,750.53	93.90	62.240		
12,600.00	10,200.00	4,600.00	4,599.28	52.95	244.77	3.75	-4,287.33	-275.56	5,815.53	5,724.89	90.64	64.158		
12,700.00	10,200.00	4,600.00	4,599.28	54.62	244.77	3.75	-4,287.33	-275.56	5,788.22	5,700.87	87.35	66.265		
12,800.00	10,200.00	4,600.00	4,599.28	56.29	244.77	3.75	-4,287.33	-275.56	5,762.51	5,678.48	84.02	68.583		
12,900.00	10,200.00	4,600.00	4,599.28	57.98	244.77	3.75	-4,287.33	-275.56	5,738.43	5,657.76	80.66	71.141		
13,000.00	10,200.00	4,600.00	4,599.28	59.68	244.77	3.75	-4,287.33	-275.56	5,715.99	5,638.72	77.27	73.972		
13,100.00	10,200.00	4,600.00	4,599.28	61.38	244.77	3.75	-4,287.33	-275.56	5,695.23	5,621.38	73.85	77.115		
13,200.00	10,200.00	4,600.00	4,599.28	63.10	244.77	3.75	-4,287.33	-275.56	5,676.15	5,605.74	70.41	80.617		
13,300.00	10,200.00	4,600.00	4,599.28	64.82	244.77	3.75	-4,287.33	-275.56	5,658.77	5,591.83	66.94	84.532		
13,400.00	10,200.00	4,600.00	4,599.28	66.54	244.77	3.75	-4,287.33	-275.56	5,643.12	5,579.66	63.46	88.926		
13,500.00	10,200.00	4,600.00	4,599.28	68.27	244.77	3.75	-4,287.33	-275.56	5,629.19	5,569.23	59.96	93.877		
13,600.00	10,200.00	4,600.00	4,599.28	70.01	244.77	3.75	-4,287.33	-275.56	5,617.02	5,560.55	56.47	99.475		
13,700.00	10,200.00	4,600.00	4,599.28	71.75	244.77	3.75	-4,287.33	-275.56	5,606.59	5,553.61	52.98	105.823		
13,757.00	10,200.00	4,600.00	4,599.28	72.75	244.77	3.75	-4,287.33	-275.56	5,601.45	5,550.44	51.01	109.816		
13,800.00	10,200.00	4,600.00	4,599.28	73.46	244.77	3.64	-4,287.33	-275.56	5,597.91	5,548.38	49.53	113.029		
13,895.57	10,200.00	4,600.00	4,599.28	74.95	244.77	3.43	-4,287.33	-275.56	5,591.01	5,544.75	46.27	120.845		
13,900.00	10,200.00	4,600.00	4,599.28	75.02	244.77	3.43	-4,287.33	-275.56	5,590.73	5,544.61	46.12	121.230		
14,000.00	10,200.00	4,600.00	4,599.28	76.75	244.77	3.43	-4,287.33	-275.56	5,585.18	5,542.33	42.85	130.344		
14,100.00	10,200.00	4,600.00	4,599.28	78.48	244.77	3.43	-4,287.33	-275.56	5,581.42	5,541.45	39.97	139.643		

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design: Lea Unit - SWD #2 - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 505-INC												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)			
14,200.00	10,200.00	4,600.00	4,599.28	80.21	244.77	3.43	-4,287.33	-275.56	5,579.44	5,541.24	38.21	146.038	
14,260.05	10,200.00	4,600.00	4,599.28	81.25	244.77	3.43	-4,287.33	-275.56	5,579.12	5,540.79	38.33	145.571	
14,300.00	10,200.00	4,600.00	4,599.28	81.95	244.77	3.43	-4,287.33	-275.56	5,579.26	5,540.23	39.03	142.951	
14,400.00	10,200.00	4,600.00	4,599.28	83.69	244.77	3.43	-4,287.33	-275.56	5,580.88	5,538.55	42.32	131.868	
14,500.00	10,200.00	4,600.00	4,599.28	85.43	244.77	3.43	-4,287.33	-275.56	5,584.28	5,537.65	46.63	119.768	
14,600.00	10,200.00	4,600.00	4,599.28	87.18	244.77	3.43	-4,287.33	-275.56	5,589.47	5,538.19	51.28	109.002	
14,700.00	10,200.00	4,600.00	4,599.28	88.93	244.77	3.43	-4,287.33	-275.56	5,596.44	5,540.37	56.07	99.819	
14,800.00	10,200.00	4,600.00	4,599.28	90.68	244.77	3.43	-4,287.33	-275.56	5,605.19	5,544.28	60.91	92.031	
14,900.00	10,200.00	4,600.00	4,599.28	92.44	244.77	3.43	-4,287.33	-275.56	5,615.70	5,549.95	65.76	85.399	
15,000.00	10,200.00	4,600.00	4,599.28	94.19	244.77	3.43	-4,287.33	-275.56	5,627.98	5,557.37	70.60	79.713	
15,100.00	10,200.00	4,600.00	4,599.28	95.95	244.77	3.43	-4,287.33	-275.56	5,641.99	5,566.57	75.43	74.801	
15,200.00	10,200.00	4,600.00	4,599.28	97.72	244.77	3.43	-4,287.33	-275.56	5,657.75	5,577.53	80.22	70.529	
15,300.00	10,200.00	4,600.00	4,599.28	99.48	244.77	3.43	-4,287.33	-275.56	5,675.22	5,590.25	84.97	66.790	
15,400.00	10,200.00	4,600.00	4,599.28	101.25	244.77	3.43	-4,287.33	-275.56	5,694.39	5,604.71	89.68	63.497	
15,500.00	10,200.00	4,600.00	4,599.28	103.01	244.77	3.43	-4,287.33	-275.56	5,715.25	5,620.91	94.34	60.584	
15,536.35	10,200.00	4,600.00	4,599.28	103.66	244.77	3.43	-4,287.33	-275.56	5,723.24	5,627.23	96.02	59.607	

Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM:5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit #44H - Lea Unit #44H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3 10268-MWD														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	-90.46	-0.40	-49.90	49.91						
100.00	100.00	98.74	98.74	0.09	0.08	-90.41	-0.36	-50.16	50.16	49.99	0.17	296.244			
200.00	200.00	199.10	199.10	0.32	0.26	-89.99	0.01	-50.33	50.33	49.76	0.57	87.855			
234.15	234.15	233.15	233.15	0.39	0.32	-89.78	0.19	-50.30	50.30	49.59	0.71	71.212			
300.00	300.00	298.80	298.80	0.54	0.43	-89.68	0.28	-50.43	50.43	49.46	0.87	52.130			
400.00	400.00	399.18	399.18	0.77	0.60	-89.66	0.30	-50.45	50.45	49.09	1.37	36.861			
500.00	500.00	499.16	499.16	0.99	0.78	-89.47	0.46	-50.11	50.12	48.35	1.76	28.441			
600.00	600.00	599.06	599.06	1.22	0.95	-89.35	0.56	-49.90	49.90	47.74	2.16	23.092			
654.47	654.47	653.48	653.47	1.34	1.05	-89.32	0.59	-49.87	49.87	47.49	2.38	20.972			
700.00	700.00	698.96	698.95	1.44	1.13	-89.28	0.62	-49.89	49.89	47.33	2.56	19.494			
800.00	800.00	798.13	798.12	1.67	1.31	-89.12	0.77	-49.81	49.82	46.86	2.96	16.833			
900.00	900.00	899.18	899.17	1.89	1.49	-89.02	0.84	-49.51	49.52	46.16	3.36	14.729			
936.66	936.66	935.66	935.66	1.97	1.55	-89.03	0.83	-49.45	49.46	45.95	3.51	14.101			
1,000.00	1,000.00	998.70	998.70	2.12	1.66	-89.01	0.86	-49.64	49.65	45.89	3.76	13.208			
1,100.00	1,100.00	1,098.77	1,098.76	2.34	1.83	-89.01	0.86	-50.19	50.20	46.05	4.16	12.082			
1,200.00	1,200.00	1,199.22	1,199.22	2.56	2.00	-89.28	0.63	-50.23	50.23	45.67	4.56	11.025			
1,252.85	1,252.85	1,251.86	1,251.85	2.68	2.09	-89.42	0.51	-50.11	50.11	45.35	4.77	10.515			
1,300.00	1,300.00	1,298.81	1,298.80	2.79	2.17	-89.37	0.55	-50.20	50.21	45.25	4.95	10.135			
1,400.00	1,400.00	1,399.01	1,399.00	3.01	2.35	-88.95	0.93	-50.40	50.41	45.06	5.35	9.417			
1,401.70	1,401.70	1,400.71	1,400.70	3.02	2.35	-88.94	0.93	-50.40	50.41	45.05	5.36	9.405			
1,500.00	1,500.00	1,498.46	1,498.45	3.24	2.53	-88.83	1.04	-50.93	50.95	45.19	5.75	8.858			
1,600.00	1,600.00	1,599.07	1,599.06	3.46	2.70	-88.46	1.39	-51.43	51.45	45.30	6.15	8.362			
1,611.64	1,611.64	1,610.66	1,610.64	3.49	2.73	-88.33	1.50	-51.42	51.44	45.24	6.20	8.299			
1,700.00	1,700.00	1,698.51	1,698.49	3.69	2.88	-87.53	2.24	-51.83	51.88	45.33	6.55	7.919			
1,800.00	1,800.00	1,798.68	1,798.65	3.91	3.06	-87.01	2.75	-52.64	52.71	45.76	6.95	7.580			
1,900.00	1,900.00	1,898.97	1,898.94	4.14	3.25	-86.67	3.08	-53.01	53.10	45.74	7.36	7.218			
2,000.00	2,000.00	1,999.08	1,999.05	4.36	3.42	-86.61	3.14	-53.01	53.10	45.35	7.75	6.847			
2,100.00	2,100.00	2,099.05	2,099.02	4.59	3.59	-86.62	3.12	-52.94	53.03	44.88	8.15	6.505			
2,200.00	2,200.00	2,199.09	2,199.06	4.81	3.76	-86.61	3.13	-52.86	52.95	44.40	8.55	6.193			
2,300.00	2,300.00	2,299.14	2,299.11	5.04	3.93	-86.59	3.14	-52.69	52.79	43.84	8.95	5.899			
2,400.00	2,400.00	2,399.11	2,399.08	5.26	4.11	-86.70	3.03	-52.52	52.60	43.26	9.35	5.628			
2,500.00	2,500.00	2,499.31	2,499.28	5.49	4.28	-86.92	2.81	-52.19	52.26	42.52	9.75	5.362			
2,600.00	2,600.00	2,599.22	2,599.20	5.71	4.45	-87.22	2.51	-51.74	51.80	41.66	10.15	5.106			
2,700.00	2,700.00	2,699.44	2,699.40	5.94	4.62	-88.18	1.62	-51.19	51.22	40.68	10.55	4.857			
2,800.00	2,800.00	2,800.38	2,800.33	6.16	4.80	-87.91	1.81	-49.43	49.48	38.54	10.94	4.521			
2,900.00	2,900.00	2,900.66	2,900.54	6.39	4.97	-85.93	3.30	-46.33	46.48	35.13	11.34	4.097			
3,000.00	3,000.00	3,000.56	3,000.38	6.61	5.15	-83.73	4.72	-42.94	43.22	31.48	11.74	3.680			
3,100.00	3,100.00	3,100.50	3,100.26	6.84	5.33	-81.64	5.82	-39.61	40.06	27.91	12.15	3.298			
3,200.00	3,200.00	3,200.39	3,200.09	7.06	5.51	-79.44	6.78	-36.38	37.02	24.47	12.55	2.950			
3,300.00	3,300.00	3,300.00	3,299.64	7.28	5.69	-75.94	8.37	-33.42	34.46	21.51	12.95	2.661			
3,400.00	3,400.00	3,399.71	3,399.31	7.51	5.87	-71.59	10.40	-31.24	32.93	19.58	13.35	2.467			
3,500.00	3,500.00	3,499.80	3,499.38	7.73	6.05	-68.48	11.70	-29.66	31.88	18.13	13.75	2.319			
3,600.00	3,600.00	3,599.63	3,599.19	7.96	6.23	-66.59	12.31	-28.43	30.98	16.83	14.15	2.189			
3,700.00	3,700.00	3,699.60	3,699.16	8.18	6.41	-66.59	12.08	-27.90	30.40	15.85	14.55	2.089			
3,739.90	3,739.90	3,739.34	3,738.90	8.27	6.48	-67.05	11.81	-27.89	30.29	15.58	14.71	2.059			
3,800.00	3,800.00	3,799.19	3,798.75	8.41	6.58	-66.88	11.99	-28.08	30.53	15.59	14.95	2.043			
3,900.00	3,900.00	3,899.14	3,898.70	8.63	6.75	-66.23	12.66	-28.75	31.42	16.08	15.34	2.048			
4,000.00	4,000.00	3,999.67	3,999.23	8.86	6.92	-66.74	12.45	-28.98	31.54	15.80	15.74	2.004			
4,100.00	4,100.00	4,099.63	4,099.18	9.08	7.09	-67.90	11.62	-28.62	30.89	14.75	16.14	1.913			
4,170.44	4,170.44	4,169.90	4,169.44	9.24	7.21	-68.45	11.28	-28.54	30.69	14.26	16.43	1.868			
4,200.00	4,200.00	4,199.38	4,198.93	9.31	7.26	-68.51	11.25	-28.59	30.72	14.18	16.54	1.857			
4,300.00	4,300.00	4,299.41	4,298.96	9.53	7.44	-68.48	11.34	-28.75	30.91	13.97	16.94	1.825			

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit #44H - Lea Unit #44H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-ISCWSA-GYRO-3 10268-MWD													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre -N-S (usft)	-E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
4,400.00	4,400.00	4,399.48	4,399.03	9.76	7.61	-68.24	11.46	-28.73	30.93	13.59	17.34	1.784		
4,440.89	4,440.89	4,440.34	4,439.89	9.85	7.68	-68.16	11.50	-28.69	30.91	13.41	17.50	1.766		
4,500.00	4,500.00	4,499.41	4,498.96	9.98	7.79	-68.28	11.46	-28.75	30.95	13.21	17.74	1.745		
4,600.00	4,600.00	4,599.48	4,599.03	10.21	7.95	-69.11	11.04	-28.92	30.96	12.82	18.14	1.707		
4,700.00	4,700.00	4,699.48	4,699.03	10.43	8.13	-68.81	11.15	-28.77	30.86	12.32	18.54	1.665		
4,800.00	4,800.00	4,799.65	4,799.19	10.66	8.31	-68.41	11.22	-28.36	30.50	11.56	18.94	1.611		
4,864.04	4,864.04	4,863.50	4,863.04	10.80	8.42	-68.51	11.09	-28.19	30.29	11.10	19.19	1.578		
4,900.00	4,900.00	4,899.34	4,898.89	10.88	8.48	-68.03	11.36	-28.15	30.36	11.02	19.33	1.570		
5,000.00	5,000.00	4,999.42	4,998.96	11.11	8.65	-68.21	11.37	-28.43	30.62	10.88	19.73	1.551		
5,100.00	5,100.00	5,099.72	5,099.25	11.33	8.82	-70.04	10.34	-28.46	30.28	10.15	20.13	1.504		
5,156.76	5,156.76	5,156.23	5,155.76	11.46	8.92	-70.85	9.86	-28.38	30.04	9.68	20.36	1.476	Level 3	
5,200.00	5,200.00	5,199.28	5,198.81	11.56	8.99	-71.49	9.58	-28.62	30.18	9.65	20.53	1.470	Level 3	
5,300.00	5,300.00	5,299.18	5,298.71	11.78	9.17	-71.82	9.67	-29.43	30.98	10.05	20.93	1.480	Level 3	
5,400.00	5,400.00	5,399.78	5,399.30	12.00	9.34	-71.54	9.81	-29.38	30.98	9.65	21.33	1.452	Level 3	
5,500.00	5,500.00	5,499.55	5,499.07	12.23	9.52	-70.93	9.92	-28.70	30.37	8.64	21.73	1.398	Level 3	
5,520.39	5,520.39	5,519.87	5,519.39	12.28	9.55	-70.64	10.06	-28.63	30.35	8.53	21.81	1.391	Level 3	
5,600.00	5,600.00	5,599.21	5,598.73	12.45	9.69	-70.27	10.36	-28.90	30.70	8.57	22.13	1.387	Level 3	
5,700.00	5,700.00	5,699.35	5,698.87	12.68	9.86	-71.18	10.12	-29.68	31.36	8.83	22.53	1.392	Level 3	
5,800.00	5,800.00	5,799.42	5,798.93	12.90	10.03	-72.84	9.35	-30.26	31.68	8.75	22.93	1.382	Level 3	
5,900.00	5,900.00	5,899.26	5,898.76	13.13	10.20	-74.38	8.66	-30.97	32.16	8.83	23.32	1.379	Level 3	
6,000.00	6,000.00	5,999.63	5,999.14	13.35	10.38	-74.12	8.85	-31.09	32.32	8.60	23.72	1.362	Level 3	
6,100.00	6,100.00	6,099.78	6,099.28	13.58	10.56	-72.53	9.50	-30.21	31.67	7.55	24.12	1.313	Level 3	
6,200.00	6,200.00	6,199.75	6,199.24	13.80	10.73	-72.00	9.53	-29.32	30.83	6.31	24.52	1.257	Level 3	
6,300.00	6,300.00	6,299.71	6,299.20	14.03	10.91	-72.93	8.84	-28.78	30.11	5.18	24.93	1.208	Level 2	
6,341.76	6,341.76	6,341.27	6,340.76	14.12	10.98	-73.56	8.48	-28.74	29.97	4.87	25.09	1.194	Level 2	
6,400.00	6,400.00	6,399.23	6,398.72	14.25	11.08	-74.31	8.18	-29.11	30.24	4.91	25.32	1.194	Level 2	
6,500.00	6,500.00	6,499.84	6,499.32	14.48	11.25	-75.88	7.36	-29.26	30.18	4.45	25.72	1.173	Level 2	
6,600.00	6,600.00	6,599.76	6,599.23	14.70	11.43	-77.49	6.33	-28.55	29.24	3.12	26.13	1.119	Level 2	
6,649.76	6,649.76	6,649.29	6,648.76	14.81	11.51	-78.12	5.98	-28.42	29.05	2.72	26.32	1.103	Level 2	
6,700.00	6,700.00	6,699.29	6,698.76	14.93	11.60	-78.85	5.65	-28.70	29.25	2.73	26.52	1.103	Level 2	
6,800.00	6,800.00	6,799.48	6,798.94	15.15	11.77	-80.68	4.82	-29.37	29.76	2.84	26.92	1.105	Level 2	
6,900.00	6,900.00	6,899.41	6,898.87	15.38	11.95	-82.75	3.80	-29.85	30.09	2.77	27.32	1.101	Level 2	
7,000.00	7,000.00	6,999.56	6,999.01	15.60	12.12	-84.70	2.80	-30.17	30.30	2.58	27.72	1.093	Level 2	
7,100.00	7,100.00	7,099.86	7,099.31	15.83	12.30	-85.86	2.15	-29.70	29.78	1.66	28.12	1.059	Level 2	
7,158.45	7,158.45	7,158.01	7,157.45	15.96	12.40	-86.25	1.93	-29.42	29.48	1.13	28.35	1.040	Level 2	
7,200.00	7,200.00	7,199.34	7,198.78	16.05	12.47	-86.70	1.70	-29.58	29.63	1.11	28.52	1.039	Level 2	
7,300.00	7,300.00	7,299.82	7,299.26	16.28	12.65	-87.10	1.50	-29.53	29.57	0.65	28.92	1.022	Level 2	
7,376.21	7,376.21	7,375.76	7,375.21	16.45	12.78	-86.47	1.80	-29.17	29.23	0.00	29.22	1.000	Level 2	
7,400.00	7,400.00	7,399.48	7,398.92	16.50	12.82	-86.18	1.95	-29.20	29.26	-0.06	29.32	0.998	Level 1	
7,500.00	7,500.00	7,499.88	7,499.32	16.72	13.00	-85.37	2.33	-28.76	28.86	-0.86	29.72	0.971	Level 1	
7,579.53	7,579.53	7,579.09	7,578.53	16.90	13.13	-85.99	1.99	-28.34	28.41	-1.62	30.04	0.946	Level 1	
7,600.00	7,600.00	7,599.48	7,598.92	16.95	13.17	-86.41	1.78	-28.39	28.44	-1.68	30.12	0.944	Level 1	
7,700.00	7,700.00	7,699.79	7,699.22	17.17	13.35	-86.60	1.67	-28.15	28.20	-2.31	30.52	0.924	Level 1	
7,800.00	7,800.00	7,799.64	7,799.06	17.40	13.52	-86.86	1.52	-27.65	27.69	-3.23	30.92	0.896	Level 1	
7,836.77	7,836.77	7,836.34	7,835.77	17.48	13.59	-87.82	1.05	-27.63	27.65	-3.42	31.07	0.890	Level 1, CC	
7,900.00	7,900.00	7,899.47	7,898.89	17.62	13.70	-89.44	0.27	-27.77	27.77	-3.54	31.32	0.887	Level 1	
8,000.00	8,000.00	7,999.36	7,998.78	17.85	13.87	-91.44	-0.71	-28.36	28.37	-3.35	31.72	0.894	Level 1	
8,100.00	8,100.00	8,099.32	8,098.73	18.07	14.04	-92.83	-1.44	-29.19	29.22	-2.89	32.11	0.910	Level 1	
8,200.00	8,200.00	8,199.51	8,198.92	18.30	14.22	-92.38	-1.24	-29.80	29.83	-2.69	32.51	0.917	Level 1	
8,300.00	8,300.00	8,299.30	8,298.70	18.52	14.39	-91.15	-0.61	-30.46	30.47	-2.44	32.91	0.926	Level 1	
8,400.00	8,400.00	8,399.23	8,398.63	18.75	14.56	-90.99	-0.55	-31.56	31.56	-1.74	33.31	0.948	Level 1	
8,500.00	8,500.00	8,499.93	8,499.33	18.97	14.74	-90.98	-0.54	-31.65	31.65	-2.05	33.71	0.939	Level 1	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design												Lea Unit #44H - Lea Unit #44H - OH - OH		Offset Site Error: 0.00 usft	
Survey Program: 100-ISCWSA-GYRO-3, 10268-MWD												Offset Well Error: 0.00 usft			
Reference		Offset		Semi Major Axis			Distance		Between		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Centres (usft)	Ellipses (usft)					
8,583.80	8,583.80	8,583.41	8,582.80	19.16	14.88	-90.51	-0.28	-31.22	31.22	-2.82	34.04	0.917 Level 1			
8,600.00	8,600.00	8,599.55	8,598.94	19.20	14.91	-90.29	-0.16	-31.23	31.24	-2.87	34.11	0.916 Level 1			
8,700.00	8,700.00	8,699.64	8,699.02	19.42	15.08	-88.47	0.84	-31.29	31.30	-3.20	34.51	0.907 Level 1			
8,708.35	8,708.35	8,707.97	8,707.35	19.44	15.10	-88.27	0.94	-31.29	31.30	-3.24	34.54	0.906 Level 1			
8,800.00	8,800.00	8,799.33	8,798.69	19.65	15.26	-84.23	3.19	-31.56	31.72	-3.18	34.90	0.909 Level 1			
8,900.00	8,900.00	8,899.80	8,899.09	19.87	15.43	-78.05	6.65	-31.39	32.09	-3.22	35.30	0.909 Level 1			
9,000.00	9,000.00	9,000.00	8,999.26	20.10	15.61	-74.10	8.53	-29.96	31.15	-4.55	35.70	0.873 Level 1			
9,096.01	9,096.01	9,095.76	9,095.01	20.31	15.78	-73.58	8.58	-29.11	30.35	-5.74	36.09	0.841 Level 1			
9,100.00	9,100.00	9,099.72	9,098.98	20.32	15.78	-73.60	8.57	-29.12	30.35	-5.75	36.10	0.841 Level 1			
9,200.00	9,200.00	9,199.63	9,198.88	20.55	15.96	-74.45	8.20	-29.46	30.58	-5.92	36.50	0.838 Level 1, ES, SF			
9,300.00	9,300.00	9,299.55	9,298.80	20.77	16.13	-75.62	7.72	-30.12	31.09	-5.81	36.90	0.843 Level 1			
9,400.00	9,400.00	9,399.44	9,398.69	21.00	16.30	-76.31	7.55	-30.99	31.90	-5.40	37.30	0.855 Level 1			
9,500.00	9,500.00	9,499.97	9,499.21	21.22	16.48	-77.12	7.15	-31.25	32.06	-5.64	37.70	0.851 Level 1			
9,534.63	9,534.63	9,534.39	9,533.63	21.30	16.54	-77.59	6.87	-31.20	31.95	-5.89	37.84	0.844 Level 1			
9,600.00	9,600.00	9,599.36	9,598.60	21.44	16.65	-77.92	6.77	-31.63	32.35	-5.75	38.10	0.849 Level 1			
9,627.04	9,627.04	9,626.47	9,625.71	21.51	16.70	-78.00	6.79	-31.94	32.65	-5.55	38.20	0.855 Level 1			
9,650.00	9,649.99	9,649.49	9,648.73	21.55	16.74	103.75	6.72	-32.17	32.97	-5.32	38.29	0.861 Level 1			
9,700.00	9,699.80	9,699.50	9,698.73	21.63	16.83	109.53	6.29	-32.56	34.44	-4.02	38.46	0.896 Level 1			
9,750.00	9,749.06	9,748.96	9,748.19	21.72	16.91	120.68	5.90	-32.67	38.05	-0.58	38.62	0.985 Level 1			
9,800.00	9,797.39	9,797.31	9,796.54	21.80	17.00	134.03	5.99	-32.34	45.81	7.02	38.79	1.181 Level 2			
9,850.00	9,844.42	9,844.19	9,843.41	21.88	17.08	145.49	6.32	-31.83	59.04	20.08	38.96	1.515			
9,900.00	9,889.79	9,889.38	9,888.60	21.96	17.16	153.66	6.63	-31.37	77.64	38.52	39.12	1.985			
9,950.00	9,933.17	9,932.72	9,931.94	22.04	17.23	159.14	6.88	-31.08	101.01	61.74	39.27	2.572			
10,000.00	9,974.21	9,973.97	9,973.19	22.14	17.30	162.66	6.93	-31.12	128.52	89.10	39.42	3.261			
10,050.00	10,012.62	10,012.75	10,011.96	22.25	17.37	164.91	6.80	-31.45	159.71	120.15	39.55	4.038			
10,100.00	10,048.09	10,048.51	10,047.73	22.38	17.43	166.39	6.65	-31.72	194.26	154.58	39.68	4.896			
10,150.00	10,080.35	10,081.10	10,080.31	22.53	17.49	167.34	6.50	-31.86	231.89	192.09	39.80	5.827			
10,200.00	10,109.17	10,110.23	10,109.45	22.71	17.54	167.82	6.36	-31.91	272.27	232.38	39.90	6.824			
10,250.00	10,134.31	10,135.69	10,134.91	22.91	17.59	167.80	6.23	-31.95	315.09	275.11	39.99	7.880			
10,300.00	10,155.60	10,157.32	10,156.53	23.14	17.63	167.20	6.11	-31.99	360.01	319.94	40.06	8.986			
10,350.00	10,172.86	10,174.93	10,174.15	23.40	17.66	165.74	6.01	-32.02	406.66	366.53	40.13	10.135			
10,400.00	10,185.97	10,188.41	10,187.62	23.69	17.68	162.68	5.93	-32.05	454.68	414.51	40.17	11.318			
10,450.00	10,194.83	10,197.62	10,196.83	24.01	17.70	155.59	5.88	-32.07	503.71	463.51	40.21	12.528			
10,500.00	10,199.36	10,202.50	10,201.71	24.35	17.70	132.62	5.84	-32.08	553.37	513.15	40.22	13.757			
10,527.04	10,200.00	10,203.31	10,202.52	24.55	17.71	96.29	5.84	-32.08	580.35	540.12	40.23	14.426			
10,600.00	10,200.00	10,203.77	10,202.98	25.12	17.71	97.10	5.84	-32.09	653.21	612.98	40.24	16.235			
10,700.00	10,200.00	11,241.20	10,901.83	25.99	21.05	163.48	-580.16	-196.40	752.53	726.25	26.28	28.633			
10,800.00	10,200.00	11,384.68	10,918.70	26.96	22.50	161.08	-718.13	-231.82	772.30	744.68	27.62	27.965			
10,900.00	10,200.00	11,561.39	10,926.70	28.02	24.50	158.83	-891.68	-263.40	782.68	753.35	29.33	26.687			
11,000.00	10,200.00	11,676.12	10,929.40	29.15	25.83	157.94	-1,005.77	-275.11	789.42	758.59	30.83	25.602			
11,100.00	10,200.00	11,815.81	10,931.72	30.35	27.55	157.49	-1,145.32	-279.86	793.15	760.84	32.32	24.543			
11,200.00	10,200.00	11,925.46	10,930.70	31.61	29.00	157.26	-1,254.97	-280.66	793.37	759.63	33.75	23.510			
11,300.00	10,200.00	12,028.81	10,927.98	32.93	30.36	156.89	-1,358.25	-282.88	792.58	757.29	35.29	22.458			
11,400.00	10,200.00	12,128.31	10,925.52	34.30	31.65	156.52	-1,457.69	-285.32	792.10	755.20	36.89	21.470			
11,500.00	10,200.00	12,245.25	10,922.35	35.70	33.26	156.26	-1,574.58	-285.44	790.51	751.95	38.57	20.498			
11,600.00	10,200.00	12,343.97	10,919.34	37.15	34.65	156.24	-1,673.21	-282.44	787.34	747.26	40.08	19.646			
11,700.00	10,200.00	12,451.83	10,916.59	38.63	36.17	156.24	-1,780.97	-278.91	784.55	742.92	41.63	18.845			
11,800.00	10,200.00	12,536.76	10,913.90	40.13	37.38	156.19	-1,865.83	-276.81	781.55	738.36	43.19	18.097			
11,900.00	10,200.00	12,637.90	10,912.32	41.67	38.85	156.14	-1,966.93	-274.77	780.14	735.32	44.83	17.404			
11,981.34	10,200.00	12,704.37	10,911.14	42.94	39.83	156.07	-2,033.39	-273.86	779.12	732.97	46.15	16.883			
12,000.00	10,200.00	12,718.25	10,911.18	43.23	40.03	156.07	-2,047.27	-273.58	779.18	732.74	46.44	16.780			
12,100.00	10,200.00	12,812.05	10,913.05	44.81	41.45	156.16	-2,141.01	-271.07	780.72	732.72	48.00	16.266			

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County - NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit #44H - Lea Unit #44H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: 100-ISCWSA-GYRO-3 - 10268-MWD													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)				
12,200.00	10,200.00	12,930.40	10,914.26	46.40	43.32	156.30	-2,259.28	-267.04	781.14	731.49	49.65	15.732		
12,300.00	10,200.00	13,037.25	10,913.25	48.02	45.04	156.38	-2,366.06	-263.31	779.71	728.38	51.33	15.190		
12,400.00	10,200.00	13,140.01	10,911.12	49.65	46.68	156.38	-2,468.75	-260.21	777.43	724.36	53.07	14.650		
12,472.14	10,200.00	13,195.25	10,910.67	50.83	47.54	156.40	-2,523.97	-258.59	776.64	722.41	54.23	14.321		
12,500.00	10,200.00	13,221.00	10,910.93	51.29	47.94	156.42	-2,549.70	-257.79	776.78	722.10	54.68	14.206		
12,600.00	10,200.00	13,318.24	10,912.11	52.95	49.45	156.50	-2,646.90	-255.09	777.59	721.27	56.33	13.805		
12,700.00	10,200.00	13,424.03	10,912.38	54.62	51.19	156.52	-2,752.66	-252.84	777.80	719.69	58.11	13.385		
12,800.00	10,200.00	13,524.72	10,911.97	56.29	52.83	156.47	-2,853.33	-251.25	777.63	717.69	59.94	12.973		
12,900.00	10,200.00	13,624.86	10,911.58	57.98	54.45	156.43	-2,953.46	-249.57	777.43	715.67	61.77	12.587		
13,000.00	10,200.00	13,725.79	10,911.38	59.68	56.08	156.44	-3,054.37	-247.21	777.15	713.60	63.55	12.229		
13,088.82	10,200.00	13,811.98	10,911.46	61.19	57.48	156.51	-3,140.50	-244.54	776.87	711.80	65.07	11.939		
13,100.00	10,200.00	13,821.94	10,911.48	61.38	57.64	156.51	-3,150.47	-244.31	776.88	711.62	65.26	11.904		
13,200.00	10,200.00	13,917.75	10,911.56	63.10	59.19	156.41	-3,246.27	-243.86	777.58	710.41	67.17	11.576		
13,300.00	10,200.00	14,025.69	10,910.48	64.82	60.99	156.18	-3,354.21	-244.55	777.76	708.44	69.32	11.220		
13,376.45	10,200.00	14,099.82	10,909.14	66.14	62.23	155.99	-3,428.33	-245.20	777.42	706.47	70.85	10.957		
13,400.00	10,200.00	14,119.84	10,908.90	66.54	62.56	155.94	-3,448.34	-245.42	777.47	706.04	71.43	10.884		
13,500.00	10,200.00	14,217.54	10,908.50	68.27	64.15	155.70	-3,546.03	-246.71	778.47	704.91	73.57	10.582		
13,600.00	10,200.00	14,307.42	10,908.00	70.01	65.61	155.49	-3,635.90	-247.82	779.39	703.73	75.66	10.302		
13,700.00	10,200.00	14,404.21	10,909.60	71.75	67.20	155.32	-3,732.67	-249.13	782.30	704.55	77.75	10.062		
13,757.00	10,200.00	14,465.98	10,909.77	72.75	68.22	155.16	-3,794.42	-250.32	783.39	704.31	79.07	9.907		
13,800.00	10,200.00	14,505.19	10,910.03	73.46	68.87	155.08	-3,833.63	-250.90	784.08	704.16	79.93	9.810		
13,895.57	10,200.00	14,604.82	10,911.29	74.95	70.54	155.24	-3,933.25	-251.72	784.45	702.95	81.51	9.625		
13,900.00	10,200.00	14,609.80	10,911.32	75.02	70.62	155.26	-3,938.23	-251.76	784.40	702.82	81.57	9.616		
14,000.00	10,200.00	14,700.83	10,912.11	76.75	72.13	155.55	-4,029.25	-252.47	783.38	700.45	82.93	9.447		
14,007.54	10,200.00	14,707.25	10,912.24	76.88	72.24	155.57	-4,035.67	-252.51	783.37	700.35	83.02	9.436		
14,100.00	10,200.00	14,801.98	10,914.31	78.48	73.81	155.92	-4,130.38	-253.11	783.50	699.22	84.28	9.297		
14,200.00	10,200.00	14,916.00	10,914.94	80.21	75.76	156.25	-4,244.38	-254.43	782.38	696.52	85.86	9.113		
14,300.00	10,200.00	15,010.00	10,915.51	81.95	77.35	156.56	-4,338.38	-254.92	781.05	693.87	87.18	8.959		
14,400.00	10,200.00	15,109.13	10,917.06	83.69	79.02	156.98	-4,437.49	-254.40	780.23	691.85	88.38	8.828		
14,500.00	10,200.00	15,217.09	10,917.56	85.43	80.89	157.38	-4,545.45	-254.30	778.61	688.90	89.71	8.679		
14,600.00	10,200.00	15,324.47	10,916.54	87.18	82.75	157.71	-4,652.82	-254.61	775.86	684.73	91.12	8.514		
14,700.00	10,200.00	15,428.26	10,915.85	88.93	84.52	158.18	-4,766.60	-252.85	772.66	680.42	92.24	8.376		
14,800.00	10,200.00	15,539.57	10,913.95	90.68	86.45	158.68	-4,867.86	-250.65	768.44	675.08	93.37	8.230		
14,900.00	10,200.00	15,629.48	10,911.53	92.44	87.98	159.03	-4,957.73	-249.35	763.60	669.09	94.50	8.080		
15,000.00	10,200.00	15,706.82	10,911.74	94.19	89.26	159.42	-5,035.05	-247.87	761.35	665.97	95.37	7.983		
15,021.27	10,200.00	15,722.94	10,912.09	94.57	89.52	159.51	-5,051.17	-247.60	761.27	665.73	95.54	7.968		
15,100.00	10,200.00	15,790.15	10,914.53	95.95	90.61	159.88	-5,118.33	-246.72	762.13	665.99	96.14	7.927		
15,200.00	10,200.00	15,901.04	10,918.04	97.72	92.50	160.43	-5,229.15	-245.92	763.13	665.99	97.14	7.856		
15,300.00	10,200.00	16,002.33	10,919.33	99.48	94.24	160.82	-5,330.44	-246.14	762.67	664.41	98.26	7.762		
15,301.96	10,200.00	16,004.05	10,919.35	99.51	94.27	160.82	-5,332.15	-246.15	762.67	664.39	98.28	7.760		
15,400.00	10,200.00	16,103.59	10,921.29	101.25	95.94	161.19	-5,431.67	-246.74	763.02	663.64	99.38	7.678		
15,500.00	10,200.00	16,215.23	10,921.52	103.01	97.87	161.52	-5,543.31	-248.04	761.91	661.20	100.71	7.566		
15,536.35	10,200.00	16,251.55	10,921.33	103.66	98.50	161.61	-5,579.63	-248.55	761.29	660.12	101.18	7.524		

Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit #46H - Lea Unit #46H - OH - Plan #2														Offset Site Error:	0.00 usft
Survey Program: O-MWD														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)	Offset Wellbore Centre +E-W (usft)							
0.00	0.00	1.00	1.00	0.00	0.00	89.54	0.40	50.20	50.20	50.02	0.19	269.097			
100.00	100.00	101.00	101.00	0.09	0.09	89.54	0.40	50.20	50.20	49.57	0.64	78.922			
200.00	200.00	201.00	201.00	0.32	0.32	89.54	0.40	50.20	50.20	49.12	1.09	46.242			
300.00	300.00	301.00	301.00	0.54	0.54	89.54	0.40	50.20	50.20	48.67	1.54	32.701			
400.00	400.00	401.00	401.00	0.77	0.77	89.54	0.40	50.20	50.20	48.22	1.98	25.294			
500.00	500.00	501.00	501.00	0.99	0.99	89.54	0.40	50.20	50.20	47.77	2.43	20.623			
600.00	600.00	601.00	601.00	1.22	1.22	89.54	0.40	50.20	50.20	47.32	2.88	17.408			
700.00	700.00	701.00	701.00	1.44	1.44	89.54	0.40	50.20	50.20	46.87	3.33	15.061			
800.00	800.00	801.00	801.00	1.67	1.67	89.54	0.40	50.20	50.20	46.42	3.78	13.271			
900.00	900.00	901.00	901.00	1.89	1.89	89.54	0.40	50.20	50.20	45.97	4.23	11.861			
1,000.00	1,000.00	1,001.00	1,001.00	2.12	2.12	89.54	0.40	50.20	50.20	45.52	4.68	10.723			
1,100.00	1,100.00	1,101.00	1,101.00	2.34	2.34	89.54	0.40	50.20	50.20	45.07	5.13	9.783			
1,200.00	1,200.00	1,201.00	1,201.00	2.56	2.57	89.54	0.40	50.20	50.20	44.62	5.58	8.995			
1,300.00	1,300.00	1,301.00	1,301.00	2.79	2.79	89.54	0.40	50.20	50.20	44.17	6.03	8.325			
1,400.00	1,400.00	1,401.00	1,401.00	3.01	3.02	89.54	0.40	50.20	50.20	43.72	6.48	7.747			
1,500.00	1,500.00	1,501.00	1,501.00	3.24	3.24	89.54	0.40	50.20	50.20	43.27	6.93	7.245			
1,600.00	1,600.00	1,601.00	1,601.00	3.46	3.47	89.54	0.40	50.20	50.20	42.82	7.38	6.803			
1,700.00	1,700.00	1,701.00	1,701.00	3.69	3.69	89.54	0.40	50.20	50.20	42.37	7.83	6.413			
1,800.00	1,800.00	1,801.00	1,801.00	3.91	3.92	89.54	0.40	50.20	50.20	41.92	8.28	6.064			
1,900.00	1,900.00	1,901.00	1,901.00	4.14	4.14	89.54	0.40	50.20	50.20	41.47	8.73	5.752			
2,000.00	2,000.00	2,001.00	2,001.00	4.36	4.36	89.54	0.40	50.20	50.20	41.02	9.18	5.470			
2,100.00	2,100.00	2,101.00	2,101.00	4.59	4.59	89.54	0.40	50.20	50.20	40.57	9.63	5.215			
2,200.00	2,200.00	2,201.00	2,201.00	4.81	4.81	89.54	0.40	50.20	50.20	40.13	10.08	4.982			
2,300.00	2,300.00	2,301.00	2,301.00	5.04	5.04	89.54	0.40	50.20	50.20	39.68	10.53	4.769			
2,400.00	2,400.00	2,401.00	2,401.00	5.26	5.26	89.54	0.40	50.20	50.20	39.23	10.98	4.574			
2,500.00	2,500.00	2,501.00	2,501.00	5.49	5.49	89.54	0.40	50.20	50.20	38.78	11.42	4.394			
2,600.00	2,600.00	2,601.00	2,601.00	5.71	5.71	89.54	0.40	50.20	50.20	38.33	11.87	4.228			
2,700.00	2,700.00	2,701.00	2,701.00	5.94	5.94	89.54	0.40	50.20	50.20	37.88	12.32	4.074			
2,800.00	2,800.00	2,801.00	2,801.00	6.16	6.16	89.54	0.40	50.20	50.20	37.43	12.77	3.930			
2,900.00	2,900.00	2,901.00	2,901.00	6.39	6.39	89.54	0.40	50.20	50.20	36.98	13.22	3.797			
3,000.00	3,000.00	3,001.00	3,001.00	6.61	6.61	89.54	0.40	50.20	50.20	36.53	13.67	3.672			
3,100.00	3,100.00	3,101.00	3,101.00	6.84	6.84	89.54	0.40	50.20	50.20	36.08	14.12	3.555			
3,200.00	3,200.00	3,201.00	3,201.00	7.06	7.06	89.54	0.40	50.20	50.20	35.63	14.57	3.445			
3,300.00	3,300.00	3,301.00	3,301.00	7.28	7.29	89.54	0.40	50.20	50.20	35.18	15.02	3.342			
3,400.00	3,400.00	3,401.00	3,401.00	7.51	7.51	89.54	0.40	50.20	50.20	34.73	15.47	3.245			
3,500.00	3,500.00	3,501.00	3,501.00	7.73	7.74	89.54	0.40	50.20	50.20	34.28	15.92	3.153			
3,600.00	3,600.00	3,601.00	3,601.00	7.96	7.96	89.54	0.40	50.20	50.20	33.83	16.37	3.067			
3,700.00	3,700.00	3,701.00	3,701.00	8.18	8.19	89.54	0.40	50.20	50.20	33.38	16.82	2.985			
3,800.00	3,800.00	3,801.00	3,801.00	8.41	8.41	89.54	0.40	50.20	50.20	32.93	17.27	2.907			
3,900.00	3,900.00	3,901.00	3,901.00	8.63	8.64	89.54	0.40	50.20	50.20	32.48	17.72	2.833			
4,000.00	4,000.00	4,001.00	4,001.00	8.86	8.86	89.54	0.40	50.20	50.20	32.03	18.17	2.763			
4,100.00	4,100.00	4,101.00	4,101.00	9.08	9.09	89.54	0.40	50.20	50.20	31.58	18.62	2.696			
4,200.00	4,200.00	4,201.00	4,201.00	9.31	9.31	89.54	0.40	50.20	50.20	31.13	19.07	2.633			
4,300.00	4,300.00	4,301.00	4,301.00	9.53	9.53	89.54	0.40	50.20	50.20	30.69	19.52	2.572			
4,400.00	4,400.00	4,401.00	4,401.00	9.76	9.76	89.54	0.40	50.20	50.20	30.24	19.97	2.514			
4,500.00	4,500.00	4,501.00	4,501.00	9.98	9.98	89.54	0.40	50.20	50.20	29.79	20.42	2.459			
4,600.00	4,600.00	4,601.00	4,601.00	10.21	10.21	89.54	0.40	50.20	50.20	29.34	20.87	2.406			
4,700.00	4,700.00	4,701.00	4,701.00	10.43	10.43	89.54	0.40	50.20	50.20	28.89	21.31	2.355			
4,800.00	4,800.00	4,801.00	4,801.00	10.66	10.66	89.54	0.40	50.20	50.20	28.44	21.76	2.307			
4,900.00	4,900.00	4,901.00	4,901.00	10.88	10.88	89.54	0.40	50.20	50.20	27.99	22.21	2.260			
5,000.00	5,000.00	5,001.00	5,001.00	11.11	11.11	89.54	0.40	50.20	50.20	27.54	22.66	2.215			
5,100.00	5,100.00	5,101.00	5,101.00	11.33	11.33	89.54	0.40	50.20	50.20						

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

Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design: Lea Unit #46H - Lea Unit #46H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Semi Major Axis (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.00	5,200.00	5,201.00	5,201.00	11.56	11.56	89.54		0.40	50.20	50.20	27.09	23.11	2.172	
5,300.00	5,300.00	5,301.00	5,301.00	11.78	11.78	89.54		0.40	50.20	50.20	26.64	23.56	2.131	
5,400.00	5,400.00	5,401.00	5,401.00	12.00	12.01	89.54		0.40	50.20	50.20	26.19	24.01	2.091	
5,500.00	5,500.00	5,501.00	5,501.00	12.23	12.23	89.54		0.40	50.20	50.20	25.74	24.46	2.052	
5,600.00	5,600.00	5,601.00	5,601.00	12.45	12.46	89.54		0.40	50.20	50.20	25.29	24.91	2.015	
5,700.00	5,700.00	5,701.00	5,701.00	12.68	12.68	89.54		0.40	50.20	50.20	24.84	25.36	1.980	
5,800.00	5,800.00	5,801.00	5,801.00	12.90	12.91	89.54		0.40	50.20	50.20	24.39	25.81	1.945	
5,900.00	5,900.00	5,901.00	5,901.00	13.13	13.13	89.54		0.40	50.20	50.20	23.94	26.26	1.912	
6,000.00	6,000.00	6,001.00	6,001.00	13.35	13.36	89.54		0.40	50.20	50.20	23.49	26.71	1.880	
6,100.00	6,100.00	6,101.00	6,101.00	13.58	13.58	89.54		0.40	50.20	50.20	23.04	27.16	1.848	
6,200.00	6,200.00	6,201.00	6,201.00	13.80	13.81	89.54		0.40	50.20	50.20	22.59	27.61	1.818	
6,300.00	6,300.00	6,301.00	6,301.00	14.03	14.03	89.54		0.40	50.20	50.20	22.14	28.06	1.789	
6,400.00	6,400.00	6,401.00	6,401.00	14.25	14.25	89.54		0.40	50.20	50.20	21.69	28.51	1.761	
6,500.00	6,500.00	6,501.00	6,501.00	14.48	14.48	89.54		0.40	50.20	50.20	21.24	28.96	1.734	
6,600.00	6,600.00	6,601.00	6,601.00	14.70	14.70	89.54		0.40	50.20	50.20	20.80	29.41	1.707	
6,700.00	6,700.00	6,701.00	6,701.00	14.93	14.93	89.54		0.40	50.20	50.20	20.35	29.86	1.681	
6,800.00	6,800.00	6,801.00	6,801.00	15.15	15.15	89.54		0.40	50.20	50.20	19.90	30.31	1.657	
6,900.00	6,900.00	6,901.00	6,901.00	15.38	15.38	89.54		0.40	50.20	50.20	19.45	30.75	1.632	
7,000.00	7,000.00	7,001.00	7,001.00	15.60	15.60	89.54		0.40	50.20	50.20	19.00	31.20	1.609	
7,100.00	7,100.00	7,101.00	7,101.00	15.83	15.83	89.54		0.40	50.20	50.20	18.55	31.65	1.586	
7,200.00	7,200.00	7,201.00	7,201.00	16.05	16.05	89.54		0.40	50.20	50.20	18.10	32.10	1.564	
7,300.00	7,300.00	7,301.00	7,301.00	16.28	16.28	89.54		0.40	50.20	50.20	17.65	32.55	1.542	
7,400.00	7,400.00	7,401.00	7,401.00	16.50	16.50	89.54		0.40	50.20	50.20	17.20	33.00	1.521	
7,500.00	7,500.00	7,501.00	7,501.00	16.72	16.73	89.54		0.40	50.20	50.20	16.75	33.45	1.501	
7,600.00	7,600.00	7,601.00	7,601.00	16.95	16.95	89.54		0.40	50.20	50.20	16.30	33.90	1.481 Level 3	
7,700.00	7,700.00	7,701.00	7,701.00	17.17	17.18	89.54		0.40	50.20	50.20	15.85	34.35	1.461 Level 3	
7,800.00	7,800.00	7,801.00	7,801.00	17.40	17.40	89.54		0.40	50.20	50.20	15.40	34.80	1.443 Level 3	
7,900.00	7,900.00	7,901.00	7,901.00	17.62	17.63	89.54		0.40	50.20	50.20	14.95	35.25	1.424 Level 3	
8,000.00	8,000.00	8,001.00	8,001.00	17.85	17.85	89.54		0.40	50.20	50.20	14.50	35.70	1.406 Level 3	
8,100.00	8,100.00	8,101.00	8,101.00	18.07	18.08	89.54		0.40	50.20	50.20	14.05	36.15	1.389 Level 3	
8,200.00	8,200.00	8,201.00	8,201.00	18.30	18.30	89.54		0.40	50.20	50.20	13.60	36.60	1.372 Level 3	
8,300.00	8,300.00	8,301.00	8,301.00	18.52	18.53	89.54		0.40	50.20	50.20	13.15	37.05	1.355 Level 3	
8,400.00	8,400.00	8,401.00	8,401.00	18.75	18.75	89.54		0.40	50.20	50.20	12.70	37.50	1.339 Level 3	
8,500.00	8,500.00	8,501.00	8,501.00	18.97	18.97	89.54		0.40	50.20	50.20	12.25	37.95	1.323 Level 3	
8,600.00	8,600.00	8,601.00	8,601.00	19.20	19.20	89.54		0.40	50.20	50.20	11.80	38.40	1.307 Level 3	
8,700.00	8,700.00	8,701.00	8,701.00	19.42	19.42	89.54		0.40	50.20	50.20	11.36	38.85	1.292 Level 3	
8,800.00	8,800.00	8,801.00	8,801.00	19.65	19.65	89.54		0.40	50.20	50.20	10.91	39.30	1.278 Level 3	
8,900.00	8,900.00	8,901.00	8,901.00	19.87	19.87	89.54		0.40	50.20	50.20	10.46	39.75	1.263 Level 3, CC, ES, SF	
9,000.00	9,000.00	9,000.00	9,999.80	20.10	20.06	94.66		-4.16	51.04	51.22	11.08	40.14	1.276 Level 3	
9,100.00	9,100.00	9,093.56	9,091.22	20.32	20.22	113.07		-23.23	54.54	60.08	20.02	40.06	1.500 Level 3	
9,200.00	9,200.00	9,179.26	9,171.19	20.55	20.36	131.60		-53.32	60.06	85.67	46.98	38.69	2.214	
9,300.00	9,300.00	9,254.43	9,236.91	20.77	20.49	143.22		-89.12	66.63	128.42	91.87	36.55	3.513	
9,400.00	9,400.00	9,318.80	9,288.98	21.00	20.63	149.82		-126.28	73.45	184.09	149.75	34.34	5.360	
9,500.00	9,500.00	9,373.24	9,329.49	21.22	20.77	153.72		-162.02	80.01	249.14	216.82	32.31	7.710	
9,600.00	9,600.00	9,419.10	9,360.80	21.44	20.91	156.18		-194.96	86.05	321.10	290.57	30.53	10.516	
9,627.04	9,627.04	9,430.21	9,367.98	21.51	20.95	156.69		-203.30	87.59	341.51	311.42	30.10	11.347	
9,650.00	9,649.99	9,439.47	9,373.84	21.55	20.98	-20.78		-210.36	88.88	358.85	329.12	29.73	12.071	
9,700.00	9,699.80	9,450.00	9,380.35	21.63	21.02	-18.63		-218.49	90.37	395.69	367.43	28.26	14.003	
9,750.00	9,749.06	9,480.62	9,398.42	21.72	21.13	-16.60		-242.80	94.84	430.50	402.43	28.07	15.336	
9,800.00	9,797.39	9,500.00	9,409.17	21.80	21.21	-15.20		-258.66	97.75	463.81	436.66	27.15	17.086	
9,850.00	9,844.42	9,522.79	9,421.10	21.88	21.31	-14.09		-277.76	101.25	495.29	468.89	26.40	18.760	
9,900.00	9,889.79	9,550.00	9,434.31	21.96	21.44	-13.23		-301.15	105.54	524.95	499.09	25.86	20.296	

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



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM 5000.1 Single User.Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit #46H - Lea Unit #46H - OH - Plan #2														Offset Site Error:	0.00 usft
Survey Program: 0-MWD														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)							
9,950.00	9,933.17	9,565.70	9,441.42	22.04	21.52	-12.54	-314.92	108.07	552.54	527.77	24.76	22.313			
10,000.00	9,974.21	9,587.36	9,450.59	22.14	21.63	-12.00	-334.22	111.61	578.16	554.19	23.98	24.115			
10,050.00	10,012.62	9,600.00	9,455.60	22.25	21.70	-11.52	-345.63	113.71	601.86	579.01	22.85	26.334			
10,100.00	10,048.09	9,631.00	9,466.79	22.38	21.88	-11.26	-374.07	118.93	623.16	600.63	22.52	27.669			
10,150.00	10,080.35	9,650.00	9,472.88	22.53	21.99	-11.00	-391.77	122.18	642.44	620.67	21.78	29.501			
10,200.00	10,109.17	9,674.96	9,479.93	22.71	22.15	-10.87	-415.31	126.50	659.50	638.19	21.31	30.943			
10,250.00	10,134.31	9,700.00	9,485.97	22.91	22.32	-10.81	-439.21	130.88	674.36	653.44	20.92	32.234			
10,300.00	10,155.60	9,719.13	9,489.87	23.14	22.46	-10.75	-457.64	134.27	686.93	666.46	20.47	33.563			
10,350.00	10,172.86	9,750.00	9,494.83	23.40	22.68	-10.87	-487.60	139.76	697.35	676.95	20.40	34.185			
10,400.00	10,185.97	9,750.00	9,494.83	23.69	22.68	-10.72	-487.60	139.76	705.51	685.64	19.87	35.502			
10,450.00	10,194.83	9,785.62	9,498.50	24.01	22.96	-11.02	-522.45	146.16	710.93	690.82	20.10	35.362			
10,500.00	10,199.36	9,807.82	9,499.68	24.35	23.14	-11.22	-544.24	150.16	714.31	694.05	20.26	35.257			
10,527.04	10,200.00	9,827.04	9,500.00	24.55	23.30	-11.44	-563.14	153.63	715.25	694.79	20.46	34.959			
10,600.00	10,200.00	9,887.85	9,500.00	25.12	23.81	-12.13	-623.12	163.65	717.28	696.16	21.12	33.961			
10,700.00	10,200.00	9,996.27	9,500.00	25.99	24.78	-12.98	-730.73	176.77	719.47	697.28	22.19	32.417			
10,800.00	10,200.00	10,105.59	9,500.00	26.96	25.85	-13.35	-839.80	183.79	720.46	697.23	23.23	31.017			
10,900.00	10,200.00	10,210.21	9,500.00	28.02	26.97	-13.30	-944.41	185.35	720.32	696.15	24.17	29.802			
11,000.00	10,200.00	10,310.20	9,500.00	29.15	28.12	-13.20	-1,044.40	186.14	720.02	694.89	25.14	28.646			
11,100.00	10,200.00	10,410.19	9,500.00	30.35	29.34	-13.10	-1,144.39	186.93	719.73	693.57	26.16	27.510			
11,200.00	10,200.00	10,510.18	9,500.00	31.61	30.63	-13.00	-1,244.38	187.71	719.44	692.20	27.24	26.407			
11,300.00	10,200.00	10,610.17	9,500.00	32.93	31.96	-12.90	-1,344.36	188.50	719.15	690.78	28.37	25.346			
11,400.00	10,200.00	10,710.17	9,500.00	34.30	33.35	-12.80	-1,444.35	189.29	718.86	689.32	29.54	24.331			
11,500.00	10,200.00	10,810.16	9,500.00	35.70	34.77	-12.70	-1,544.34	190.07	718.58	687.83	30.75	23.368			
11,600.00	10,200.00	10,910.15	9,500.00	37.15	36.23	-12.60	-1,644.33	190.86	718.30	686.31	31.99	22.455			
11,700.00	10,200.00	11,010.14	9,500.00	38.63	37.73	-12.50	-1,744.32	191.65	718.02	684.76	33.25	21.592			
11,800.00	10,200.00	11,110.13	9,500.00	40.13	39.25	-12.40	-1,844.31	192.43	717.74	683.20	34.54	20.779			
11,900.00	10,200.00	11,210.12	9,500.00	41.67	40.80	-12.30	-1,944.30	193.22	717.46	681.61	35.85	20.014			
12,000.00	10,200.00	11,310.12	9,500.00	43.23	42.37	-12.20	-2,044.28	194.01	717.19	680.01	37.17	19.293			
12,100.00	10,200.00	11,410.11	9,500.00	44.81	43.96	-12.10	-2,144.27	194.79	716.92	678.40	38.51	18.614			
12,200.00	10,200.00	11,510.10	9,500.00	46.40	45.57	-11.99	-2,244.26	195.58	716.65	676.78	39.87	17.975			
12,300.00	10,200.00	11,610.09	9,500.00	48.02	47.19	-11.89	-2,344.25	196.37	716.38	675.15	41.23	17.374			
12,400.00	10,200.00	11,710.08	9,500.00	49.65	48.83	-11.79	-2,444.24	197.15	716.12	673.51	42.61	16.807			
12,500.00	10,200.00	11,810.07	9,500.00	51.29	50.49	-11.69	-2,544.23	197.94	715.85	671.86	43.99	16.273			
12,600.00	10,200.00	11,910.07	9,500.00	52.95	52.15	-11.59	-2,644.22	198.73	715.59	670.21	45.38	15.769			
12,700.00	10,200.00	12,010.06	9,500.00	54.62	53.83	-11.49	-2,744.20	199.51	715.33	668.56	46.78	15.293			
12,800.00	10,200.00	12,110.05	9,500.00	56.29	55.51	-11.39	-2,844.19	200.30	715.08	666.90	48.18	14.842			
12,900.00	10,200.00	12,210.04	9,500.00	57.98	57.21	-11.29	-2,944.18	201.09	714.82	665.24	49.58	14.416			
13,000.00	10,200.00	12,310.03	9,500.00	59.68	58.91	-11.18	-3,044.17	201.87	714.57	663.58	50.99	14.013			
13,100.00	10,200.00	12,410.02	9,500.00	61.38	60.62	-11.08	-3,144.16	202.66	714.32	661.92	52.41	13.631			
13,200.00	10,200.00	12,510.02	9,500.00	63.10	62.34	-10.98	-3,244.15	203.45	714.08	660.26	53.82	13.268			
13,300.00	10,200.00	12,610.01	9,500.00	64.82	64.06	-10.88	-3,344.14	204.23	713.83	658.59	55.24	12.923			
13,400.00	10,200.00	12,710.00	9,500.00	66.54	65.79	-10.78	-3,444.13	205.02	713.59	656.93	56.66	12.595			
13,500.00	10,200.00	12,809.99	9,500.00	68.27	67.53	-10.68	-3,544.11	205.81	713.35	655.27	58.08	12.283			
13,600.00	10,200.00	12,909.98	9,500.00	70.01	69.27	-10.57	-3,644.10	206.59	713.11	653.61	59.50	11.985			
13,700.00	10,200.00	13,009.97	9,500.00	71.75	71.01	-10.47	-3,744.09	207.38	712.88	651.96	60.92	11.702			
13,757.00	10,200.00	13,066.97	9,500.00	72.75	72.01	-10.41	-3,801.08	207.83	712.74	651.01	61.73	11.546			
13,781.84	10,200.00	13,091.61	9,500.00	73.15	72.44	-10.40	-3,825.73	208.02	712.71	650.62	62.09	11.479			
13,800.00	10,200.00	13,109.97	9,500.00	73.46	72.76	-10.41	-3,844.08	208.16	712.73	650.36	62.37	11.427			
13,895.57	10,200.00	13,205.47	9,500.00	74.95	74.43	-10.65	-3,939.58	208.92	713.34	649.28	64.05	11.137			
13,900.00	10,200.00	13,209.89	9,500.00	75.02	74.51	-10.67	-3,944.00	208.95	713.38	649.25	64.14	11.123			
14,000.00	10,200.00	13,309.72	9,500.00	76.75	76.26	-11.14	-4,043.82	209.74	714.51	648.39	66.12	10.806			
14,100.00	10,200.00	13,409.54	9,500.00	78.48	78.02	-11.61	-4,143.64	210.52	715.69	647.55	68.15	10.502			

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



TDS
Anticollision Report



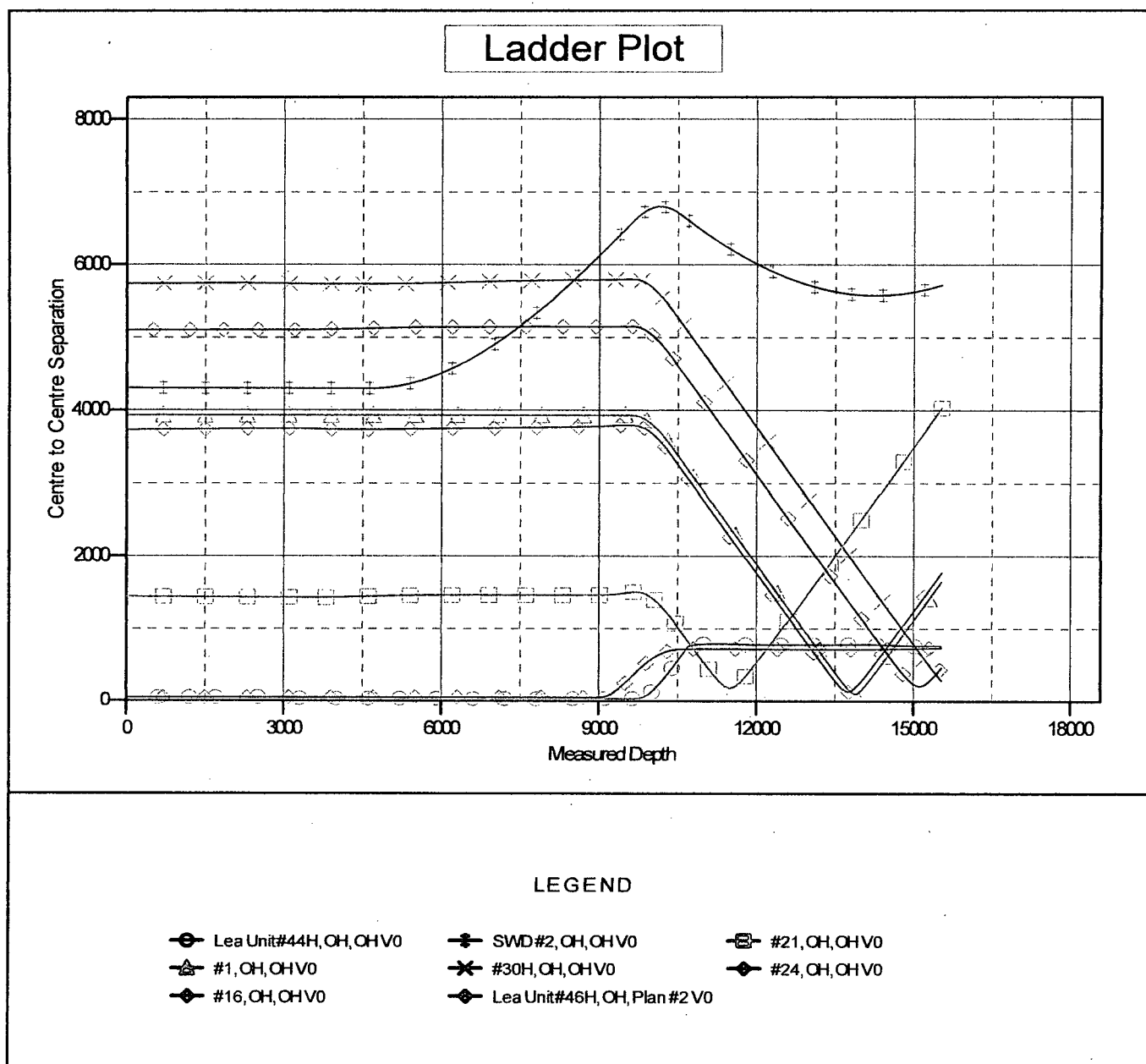
Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design Lea Unit #46H - Lea Unit #46H - OH - Plan #2												Offset Site Error:	0.00 usft
Survey Program: 0-MWD												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)			
14,200.00	10,200.00	13,509.36	9,500.00	80.21	79.78	-12.08	-4,243.46	211.31	716.92	646.71	70.21	10.212	
14,300.00	10,200.00	13,609.18	9,500.00	81.95	81.55	-12.54	-4,343.28	212.09	718.19	645.89	72.30	9.933	
14,400.00	10,200.00	13,709.00	9,500.00	83.69	83.31	-13.00	-4,443.10	212.88	719.51	645.07	74.44	9.666	
14,500.00	10,200.00	13,808.83	9,500.00	85.43	85.08	-13.46	-4,542.92	213.66	720.88	644.27	76.61	9.410	
14,600.00	10,200.00	13,908.65	9,500.00	87.18	86.85	-13.92	-4,642.74	214.45	722.29	643.47	78.82	9.164	
14,700.00	10,200.00	14,008.47	9,500.00	88.93	88.62	-14.38	-4,742.56	215.23	723.75	642.68	81.07	8.927	
14,800.00	10,200.00	14,108.29	9,500.00	90.68	90.40	-14.84	-4,842.38	216.02	725.26	641.90	83.36	8.701	
14,900.00	10,200.00	14,208.12	9,500.00	92.44	92.18	-15.29	-4,942.19	216.80	726.81	641.13	85.68	8.483	
15,000.00	10,200.00	14,307.94	9,500.00	94.19	93.96	-15.74	-5,042.01	217.59	728.41	640.37	88.04	8.274	
15,100.00	10,200.00	14,407.76	9,500.00	95.95	95.74	-16.19	-5,141.83	218.37	730.05	639.61	90.44	8.072	
15,200.00	10,200.00	14,507.58	9,500.00	97.72	97.52	-16.64	-5,241.65	219.16	731.74	638.87	92.87	7.879	
15,300.00	10,200.00	14,607.40	9,500.00	99.48	99.31	-17.08	-5,341.47	219.95	733.47	638.13	95.34	7.693	
15,400.00	10,200.00	14,707.23	9,500.00	101.25	101.09	-17.53	-5,441.29	220.73	735.25	637.40	97.85	7.514	
15,500.00	10,200.00	14,807.05	9,500.00	103.01	102.88	-17.97	-5,541.11	221.52	737.07	636.68	100.39	7.342	
15,536.35	10,200.00	14,843.14	9,500.00	103.66	103.53	-18.13	-5,577.20	221.80	737.74	636.42	101.32	7.281	

Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM.5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3691.00usft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

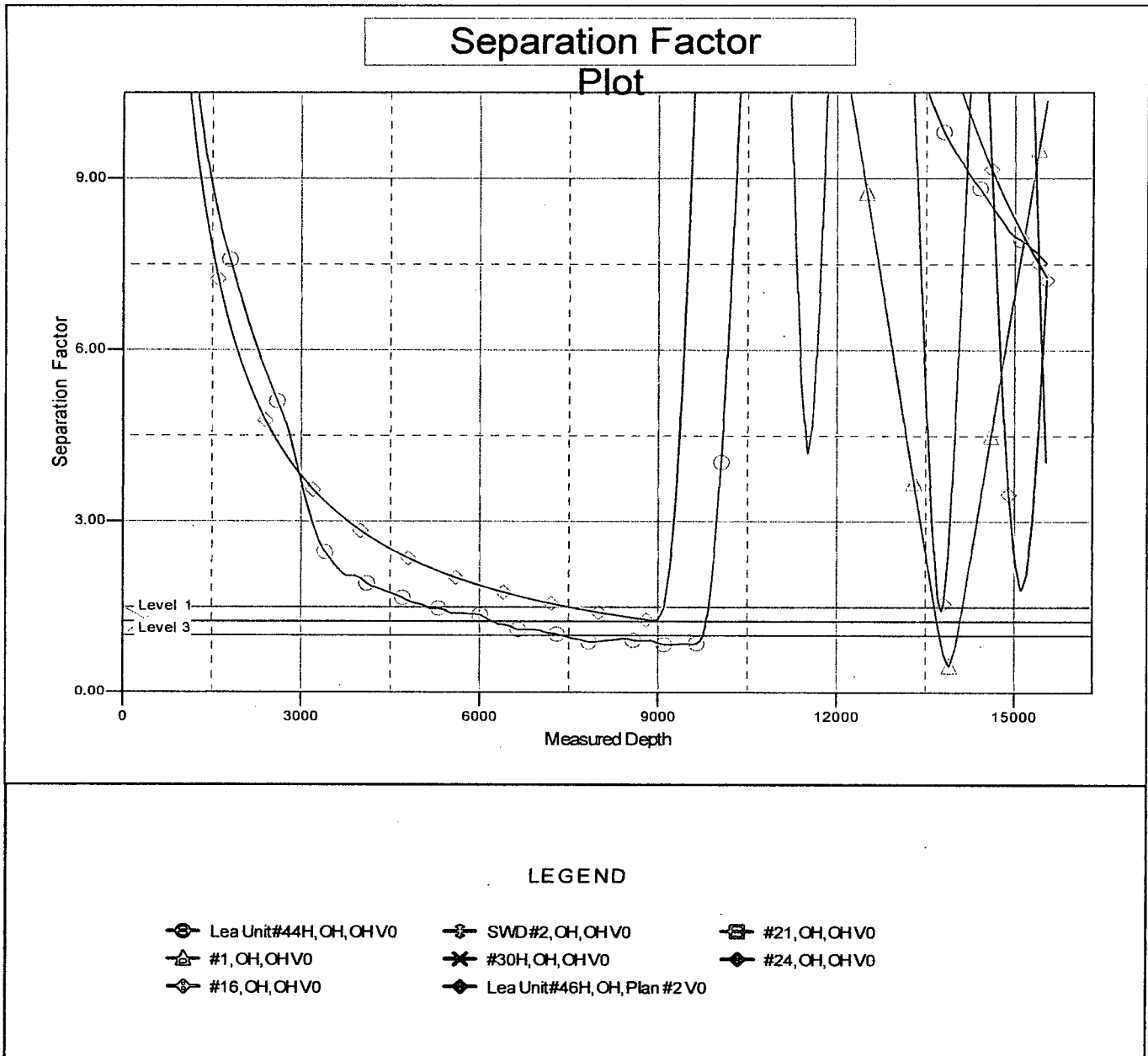
Coordinates are relative to: Lea Unit #45H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.44°



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #45H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3691.00usft (McVay 4)
Reference Site:	Lea Unit #45H	MD Reference:	KB @ 3691.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	EDM-5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3691.00usft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Lea Unit #45H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.44°





HOE-2000

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RECEIVED

Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #45H

Lea Unit #45H

OH

Plan: Plan #2

Standard Planning Report

07 February, 2016



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #45H
Company:	Legacy Reserves	TVD Reference:	KB @ 3691.00usft (McVay 4)
Project:	Lea County, NM (NAD-27 2015)	MD Reference:	KB @ 3691.00usft (McVay 4)
Site:	Lea Unit #45H	North Reference:	Grid
Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project:	Lea County, NM (NAD-27 2015)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site:	Lea Unit #45H		
Site Position:		Northing:	581,668.20 usft
From:	Map	Easting:	750,631.30 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in
		Latitude:	32° 35' 47.311 N
		Longitude:	103° 31' 10.311 W
		Grid Convergence:	0.44 °

Well	Lea Unit #45H					
Well Position	+N/-S	0.00 usft	Northing:	581,668.20 usft	Latitude:	32° 35' 47.311 N
	+E/-W	0.00 usft	Easting:	750,631.30 usft	Longitude:	103° 31' 10.311 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,673.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/18/2015	7.16	60.44	48,361

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	180.08

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,627.04	0.00	0.00	9,627.04	0.00	0.00	0.00	0.00	0.00	0.00	
10,527.04	90.00	178.81	10,200.00	-572.83	11.90	10.00	10.00	0.00	178.81	
13,757.00	90.00	178.81	10,200.00	-3,802.10	78.98	0.00	0.00	0.00	0.00	
13,895.57	90.00	182.97	10,200.00	-3,940.62	76.83	3.00	0.00	3.00	90.00	
15,536.35	90.00	182.97	10,200.00	-5,579.20	-8.10	0.00	0.00	0.00	0.00	BHL (LU #45H/OH)



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #45H
Company:	Legacy Reserves	TVD Reference:	KB @ 3691.00usft (McVay 4)
Project:	Lea County, NM (NAD-27, 2015)	MD Reference:	KB @ 3691.00usft (McVay 4)
Site:	Lea Unit #45H	North Reference:	Grd
Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #45H
Company:	Legacy Reserves	TVD Reference:	KB @ 3691.00usft (McVay 4)
Project:	Lea County, NM (NAD-27 2015)	MD Reference:	KB @ 3691.00usft (McVay 4)
Site:	Lea Unit #45H	North Reference:	Gnd
Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,627.04	0.00	0.00	9,627.04	0.00	0.00	0.00	0.00	0.00	0.00	
KOP - Start Build 10.00										
9,650.00	2.30	178.81	9,649.99	-0.46	0.01	0.46	10.00	10.00	0.00	
9,700.00	7.30	178.81	9,699.80	-4.64	0.10	4.64	10.00	10.00	0.00	
9,750.00	12.30	178.81	9,749.06	-13.14	0.27	13.14	10.00	10.00	0.00	
9,800.00	17.30	178.81	9,797.39	-25.90	0.54	25.90	10.00	10.00	0.00	
9,850.00	22.30	178.81	9,844.42	-42.83	0.89	42.83	10.00	10.00	0.00	
9,900.00	27.30	178.81	9,889.79	-63.79	1.32	63.78	10.00	10.00	0.00	
9,950.00	32.30	178.81	9,933.17	-88.62	1.84	88.62	10.00	10.00	0.00	
10,000.00	37.30	178.81	9,974.21	-117.14	2.43	117.13	10.00	10.00	0.00	

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #45H
Company:	Legacy Reserves	TVD Reference:	KB @ 3691.00usft (McVay 4)
Project:	Lea County, NM (NAD-27.2015)	MD Reference:	KB @ 3691.00usft (McVay 4)
Site:	Lea Unit #45H	North Reference:	Grid
Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,050.00	42.30	178.81	10,012.62	-149.12	3.10	149.12	10.00	10.00	0.00
10,100.00	47.30	178.81	10,048.09	-184.33	3.83	184.33	10.00	10.00	0.00
10,150.00	52.30	178.81	10,080.35	-222.50	4.62	222.49	10.00	10.00	0.00
10,200.00	57.30	178.81	10,109.17	-263.33	5.47	263.32	10.00	10.00	0.00
10,250.00	62.30	178.81	10,134.31	-306.52	6.37	306.51	10.00	10.00	0.00
10,300.00	67.30	178.81	10,155.60	-351.74	7.31	351.73	10.00	10.00	0.00
10,350.00	72.30	178.81	10,172.86	-398.64	8.28	398.62	10.00	10.00	0.00
10,400.00	77.30	178.81	10,185.97	-446.86	9.28	446.85	10.00	10.00	0.00
10,450.00	82.30	178.81	10,194.83	-496.04	10.30	496.03	10.00	10.00	0.00
10,500.00	87.30	178.81	10,199.36	-545.81	11.34	545.79	10.00	10.00	0.00
10,527.04	90.00	178.81	10,200.00	-572.83	11.90	572.82	10.00	10.00	0.00
EOC - Start 3229.96 hold at 10527.04 MD									
10,600.00	90.00	178.81	10,200.00	-645.78	13.41	645.76	0.00	0.00	0.00
10,700.00	90.00	178.81	10,200.00	-745.76	15.49	745.73	0.00	0.00	0.00
10,800.00	90.00	178.81	10,200.00	-845.74	17.57	845.71	0.00	0.00	0.00
10,900.00	90.00	178.81	10,200.00	-945.71	19.64	945.68	0.00	0.00	0.00
11,000.00	90.00	178.81	10,200.00	-1,045.69	21.72	1,045.66	0.00	0.00	0.00
11,100.00	90.00	178.81	10,200.00	-1,145.67	23.80	1,145.63	0.00	0.00	0.00
11,200.00	90.00	178.81	10,200.00	-1,245.65	25.88	1,245.61	0.00	0.00	0.00
11,300.00	90.00	178.81	10,200.00	-1,345.63	27.95	1,345.59	0.00	0.00	0.00
11,400.00	90.00	178.81	10,200.00	-1,445.61	30.03	1,445.56	0.00	0.00	0.00
11,500.00	90.00	178.81	10,200.00	-1,545.58	32.11	1,545.54	0.00	0.00	0.00
11,600.00	90.00	178.81	10,200.00	-1,645.56	34.18	1,645.51	0.00	0.00	0.00
11,700.00	90.00	178.81	10,200.00	-1,745.54	36.26	1,745.49	0.00	0.00	0.00
11,800.00	90.00	178.81	10,200.00	-1,845.52	38.34	1,845.46	0.00	0.00	0.00
11,900.00	90.00	178.81	10,200.00	-1,945.50	40.41	1,945.44	0.00	0.00	0.00
12,000.00	90.00	178.81	10,200.00	-2,045.48	42.49	2,045.41	0.00	0.00	0.00
12,100.00	90.00	178.81	10,200.00	-2,145.46	44.57	2,145.39	0.00	0.00	0.00
12,200.00	90.00	178.81	10,200.00	-2,245.43	46.64	2,245.36	0.00	0.00	0.00
12,300.00	90.00	178.81	10,200.00	-2,345.41	48.72	2,345.34	0.00	0.00	0.00
12,400.00	90.00	178.81	10,200.00	-2,445.39	50.80	2,445.31	0.00	0.00	0.00
12,500.00	90.00	178.81	10,200.00	-2,545.37	52.87	2,545.29	0.00	0.00	0.00
12,600.00	90.00	178.81	10,200.00	-2,645.35	54.95	2,645.26	0.00	0.00	0.00
12,700.00	90.00	178.81	10,200.00	-2,745.33	57.03	2,745.24	0.00	0.00	0.00
12,800.00	90.00	178.81	10,200.00	-2,845.30	59.10	2,845.22	0.00	0.00	0.00
12,900.00	90.00	178.81	10,200.00	-2,945.28	61.18	2,945.19	0.00	0.00	0.00
13,000.00	90.00	178.81	10,200.00	-3,045.26	63.26	3,045.17	0.00	0.00	0.00
13,100.00	90.00	178.81	10,200.00	-3,145.24	65.33	3,145.14	0.00	0.00	0.00
13,200.00	90.00	178.81	10,200.00	-3,245.22	67.41	3,245.12	0.00	0.00	0.00
13,300.00	90.00	178.81	10,200.00	-3,345.20	69.49	3,345.09	0.00	0.00	0.00
13,400.00	90.00	178.81	10,200.00	-3,445.17	71.56	3,445.07	0.00	0.00	0.00
13,500.00	90.00	178.81	10,200.00	-3,545.15	73.64	3,545.04	0.00	0.00	0.00
13,600.00	90.00	178.81	10,200.00	-3,645.13	75.72	3,645.02	0.00	0.00	0.00
13,700.00	90.00	178.81	10,200.00	-3,745.11	77.79	3,744.99	0.00	0.00	0.00
13,757.00	90.00	178.81	10,200.00	-3,802.10	78.98	3,801.98	0.00	0.00	0.00
TURN - Start DLS 3.00 TFO 90.00									
13,800.00	90.00	180.10	10,200.00	-3,845.09	79.39	3,844.98	3.00	0.00	3.00
13,895.57	90.00	182.97	10,200.00	-3,940.62	76.83	3,940.50	3.00	0.00	3.00
END TURN - Start 1640.78 hold at 13895.57 MD									
13,900.00	90.00	182.97	10,200.00	-3,945.04	76.60	3,944.93	0.00	0.00	0.00
14,000.00	90.00	182.97	10,200.00	-4,044.91	71.42	4,044.80	0.00	0.00	0.00
14,100.00	90.00	182.97	10,200.00	-4,144.78	66.25	4,144.68	0.00	0.00	0.00
14,200.00	90.00	182.97	10,200.00	-4,244.64	61.07	4,244.55	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #45H
Company:	Legacy Reserves	TVD Reference:	KB @ 3691.00usft (McVay 4)
Project:	Lea County, NM (NAD-27 2015)	MD Reference:	KB @ 3691.00usft (McVay 4)
Site:	Lea Unit #45H	North Reference:	Grid
Well:	Lea Unit #45H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,300.00	90.00	182.97	10,200.00	-4,344.51	55.90	4,344.42	0.00	0.00	0.00
14,400.00	90.00	182.97	10,200.00	-4,444.37	50.72	4,444.30	0.00	0.00	0.00
14,500.00	90.00	182.97	10,200.00	-4,544.24	45.54	4,544.17	0.00	0.00	0.00
14,600.00	90.00	182.97	10,200.00	-4,644.11	40.37	4,644.04	0.00	0.00	0.00
14,700.00	90.00	182.97	10,200.00	-4,743.97	35.19	4,743.92	0.00	0.00	0.00
14,800.00	90.00	182.97	10,200.00	-4,843.84	30.02	4,843.79	0.00	0.00	0.00
14,900.00	90.00	182.97	10,200.00	-4,943.70	24.84	4,943.66	0.00	0.00	0.00
15,000.00	90.00	182.97	10,200.00	-5,043.57	19.66	5,043.54	0.00	0.00	0.00
15,100.00	90.00	182.97	10,200.00	-5,143.44	14.49	5,143.41	0.00	0.00	0.00
15,200.00	90.00	182.97	10,200.00	-5,243.30	9.31	5,243.28	0.00	0.00	0.00
15,300.00	90.00	182.97	10,200.00	-5,343.17	4.13	5,343.16	0.00	0.00	0.00
15,400.00	90.00	182.97	10,200.00	-5,443.03	-1.04	5,443.03	0.00	0.00	0.00
15,500.00	90.00	182.97	10,200.00	-5,542.90	-6.22	5,542.90	0.00	0.00	0.00
15,536.35	90.00	182.97	10,200.00	-5,579.20	-8.10	5,579.21	0.00	0.00	0.00

TD at 15536.35

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
BHL (LU #45H/OH)	0.00	182.81	10,200.00	-5,579.20	-8.10	576,089.00	750,623.20	32° 34' 52.106 N	103° 31' 10.904 W
- plan hits target center									
- Rectangle (sides W80.00 H1,777.23 D30.00)									
EOC (LU #45H/OH Plan)	0.00	178.81	10,200.00	-572.83	11.90	581,095.37	750,643.20	32° 35' 41.642 N	103° 31' 10.223 W
- plan hits target center									
- Rectangle (sides W80.00 H3,229.16 D30.00)									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,627.04	9,627.04	0.00	0.00	KOP - Start Build 10.00
10,527.04	10,200.00	-572.83	11.90	EOC - Start 3229.96 hold at 10527.04 MD
13,757.00	10,200.00	-3,802.10	78.98	TURN - Start DLS 3.00 TFO 90.00
13,895.57	10,200.00	-3,940.62	76.83	END TURN - Start 1640.78 hold at 13895.57 MD
15,536.35	10,200.00	-5,579.20	-8.10	TD at 15536.35