



Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #47H

Lea Unit #47H

OH

Plan: Plan #2

Standard Planning Report

07 February, 2016



APR 14 2016



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #47H
Company:	Legacy Reserves	TVD Reference:	KB @ 3694.00usft (McVay 4)
Project:	Lea County NM (NAD-27 2015)	MD Reference:	KB @ 3694.00usft (McVay 4)
Site:	Lea Unit #47H	North Reference:	Grid
Well:	Lea Unit #47H	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 #47H			
Site Position:		Northing:	581,679.80 usft	Latitude: 32° 35' 47.317 N
From:	Map	Easting:	752,051.40 usft	Longitude: 103° 30' 53.711 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence: 0.44 °

Well	Lea Unit #47H			
Well Position	+N-S	0.00 usft	Northing:	581,679.80 usft
	+E-W	0.00 usft	Easting:	752,051.40 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level: 3,676.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2015	7/18/2015	(°)	(°)	(nT)
			7.16	60.44	48,362

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	181.12

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
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	180.55	10,200.00	-572.93	-5.50	10.00	10.00	0.00	180.55	
12,875.00	90.00	180.55	10,200.00	-2,920.78	-28.04	0.00	0.00	0.00	0.00	
12,914.83	90.00	181.74	10,200.00	-2,960.60	-28.84	3.00	0.00	3.00	90.00	
15,534.54	90.00	181.74	10,200.00	-5,579.10	-108.60	0.00	0.00	0.00	0.00	BHL (LU #47H/OH)



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #47H
Company:	Legacy Reserves	TVD Reference:	KB @ 3694.00usft (McVay 4)
Project:	Lea County, NM (NAD-27 2015)	MD Reference:	KB @ 3694.00usft (McVay 4)
Site:	Lea Unit #47H	North Reference:	Grid
Well:	Lea Unit #47H	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 #47H
Company:	Legacy Reserves	TVD Reference:	KB @ 3694.00usft (McVay 4)
Project:	Lea County NM (NAD-27 2015)	MD Reference:	KB @ 3694.00usft (McVay 4)
Site:	Lea Unit #47H	North Reference:	Grid
Well:	Lea Unit #47H	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	180.55	9,649.99	-0.46	0.00	0.46	10.00	10.00	0.00
9,700.00	7.30	180.55	9,699.80	-4.64	-0.04	4.64	10.00	10.00	0.00
9,750.00	12.30	180.55	9,749.06	-13.14	-0.13	13.14	10.00	10.00	0.00
9,800.00	17.30	180.55	9,797.39	-25.91	-0.25	25.91	10.00	10.00	0.00
9,850.00	22.30	180.55	9,844.42	-42.83	-0.41	42.83	10.00	10.00	0.00
9,900.00	27.30	180.55	9,889.79	-63.80	-0.61	63.80	10.00	10.00	0.00
9,950.00	32.30	180.55	9,933.17	-88.63	-0.85	88.63	10.00	10.00	0.00
10,000.00	37.30	180.55	9,974.21	-117.16	-1.12	117.16	10.00	10.00	0.00



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #47H
Company:	Legacy Reserves	TVD Reference:	KB @ 3694.00usft (McVay 4)
Project:	Lea County NM (NAD-27 2015)	MD Reference:	KB @ 3694.00usft (McVay 4)
Site:	Lea Unit #47H	North Reference:	Grid
Well:	Lea Unit #47H	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	180.55	10,012.62	-149.15	-1.43	149.15	10.00	10.00	0.00
10,100.00	47.30	180.55	10,048.09	-184.36	-1.77	184.36	10.00	10.00	0.00
10,150.00	52.30	180.55	10,080.35	-222.54	-2.14	222.54	10.00	10.00	0.00
10,200.00	57.30	180.55	10,109.17	-263.38	-2.53	263.38	10.00	10.00	0.00
10,250.00	62.30	180.55	10,134.31	-306.57	-2.94	306.57	10.00	10.00	0.00
10,300.00	67.30	180.55	10,155.60	-351.80	-3.38	351.80	10.00	10.00	0.00
10,350.00	72.30	180.55	10,172.86	-398.70	-3.83	398.70	10.00	10.00	0.00
10,400.00	77.30	180.55	10,185.97	-446.94	-4.29	446.93	10.00	10.00	0.00
10,450.00	82.30	180.55	10,194.83	-496.13	-4.76	496.13	10.00	10.00	0.00
10,500.00	87.30	180.55	10,199.36	-545.90	-5.24	545.90	10.00	10.00	0.00
10,527.04	90.00	180.55	10,200.00	-572.93	-5.50	572.93	10.00	10.00	0.00
EOC - Start 2347.96 hold at 10527.04 MD									
10,600.00	90.00	180.55	10,200.00	-645.89	-6.20	645.89	0.00	0.00	0.00
10,700.00	90.00	180.55	10,200.00	-745.88	-7.16	745.88	0.00	0.00	0.00
10,800.00	90.00	180.55	10,200.00	-845.88	-8.12	845.88	0.00	0.00	0.00
10,900.00	90.00	180.55	10,200.00	-945.87	-9.08	945.87	0.00	0.00	0.00
11,000.00	90.00	180.55	10,200.00	-1,045.87	-10.04	1,045.87	0.00	0.00	0.00
11,100.00	90.00	180.55	10,200.00	-1,145.87	-11.00	1,145.86	0.00	0.00	0.00
11,200.00	90.00	180.55	10,200.00	-1,245.86	-11.96	1,245.86	0.00	0.00	0.00
11,300.00	90.00	180.55	10,200.00	-1,345.86	-12.92	1,345.85	0.00	0.00	0.00
11,400.00	90.00	180.55	10,200.00	-1,445.85	-13.88	1,445.85	0.00	0.00	0.00
11,500.00	90.00	180.55	10,200.00	-1,545.85	-14.84	1,545.84	0.00	0.00	0.00
11,600.00	90.00	180.55	10,200.00	-1,645.84	-15.80	1,645.84	0.00	0.00	0.00
11,700.00	90.00	180.55	10,200.00	-1,745.84	-16.76	1,745.83	0.00	0.00	0.00
11,800.00	90.00	180.55	10,200.00	-1,845.83	-17.72	1,845.83	0.00	0.00	0.00
11,900.00	90.00	180.55	10,200.00	-1,945.83	-18.68	1,945.82	0.00	0.00	0.00
12,000.00	90.00	180.55	10,200.00	-2,045.82	-19.64	2,045.82	0.00	0.00	0.00
12,100.00	90.00	180.55	10,200.00	-2,145.82	-20.60	2,145.81	0.00	0.00	0.00
12,200.00	90.00	180.55	10,200.00	-2,245.81	-21.56	2,245.81	0.00	0.00	0.00
12,300.00	90.00	180.55	10,200.00	-2,345.81	-22.52	2,345.80	0.00	0.00	0.00
12,400.00	90.00	180.55	10,200.00	-2,445.81	-23.48	2,445.80	0.00	0.00	0.00
12,500.00	90.00	180.55	10,200.00	-2,545.80	-24.44	2,545.79	0.00	0.00	0.00
12,600.00	90.00	180.55	10,200.00	-2,645.80	-25.40	2,645.79	0.00	0.00	0.00
12,700.00	90.00	180.55	10,200.00	-2,745.79	-26.36	2,745.78	0.00	0.00	0.00
12,800.00	90.00	180.55	10,200.00	-2,845.79	-27.32	2,845.78	0.00	0.00	0.00
12,875.00	90.00	180.55	10,200.00	-2,920.78	-28.04	2,920.78	0.00	0.00	0.00
TURN - Start DLS 3.00 TFO 90.00									
12,900.00	90.00	181.30	10,200.00	-2,945.78	-28.44	2,945.78	3.00	0.00	3.00
12,914.83	90.00	181.74	10,200.00	-2,960.60	-28.84	2,960.60	3.00	0.00	3.00
END TURN - Start 2619.71 hold at 12914.83 MD									
13,000.00	90.00	181.74	10,200.00	-3,045.74	-31.43	3,045.77	0.00	0.00	0.00
13,100.00	90.00	181.74	10,200.00	-3,145.69	-34.47	3,145.76	0.00	0.00	0.00
13,200.00	90.00	181.74	10,200.00	-3,245.64	-37.52	3,245.76	0.00	0.00	0.00
13,300.00	90.00	181.74	10,200.00	-3,345.60	-40.56	3,345.75	0.00	0.00	0.00
13,400.00	90.00	181.74	10,200.00	-3,445.55	-43.61	3,445.75	0.00	0.00	0.00
13,500.00	90.00	181.74	10,200.00	-3,545.50	-46.65	3,545.74	0.00	0.00	0.00
13,600.00	90.00	181.74	10,200.00	-3,645.46	-49.70	3,645.73	0.00	0.00	0.00
13,700.00	90.00	181.74	10,200.00	-3,745.41	-52.74	3,745.73	0.00	0.00	0.00
13,800.00	90.00	181.74	10,200.00	-3,845.36	-55.79	3,845.72	0.00	0.00	0.00
13,900.00	90.00	181.74	10,200.00	-3,945.32	-58.83	3,945.72	0.00	0.00	0.00
14,000.00	90.00	181.74	10,200.00	-4,045.27	-61.88	4,045.71	0.00	0.00	0.00
14,100.00	90.00	181.74	10,200.00	-4,145.23	-64.92	4,145.70	0.00	0.00	0.00
14,200.00	90.00	181.74	10,200.00	-4,245.18	-67.97	4,245.70	0.00	0.00	0.00

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Lea Unit #47H
Company:	Legacy Reserves	TVD Reference:	KB @ 3694.00usft (McVay 4)
Project:	Lea County, NM (NAD-27,2015)	MD Reference:	KB @ 3694.00usft (McVay 4)
Site:	Lea Unit #47H	North Reference:	Grid
Well:	Lea Unit #47H	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	181.74	10,200.00	-4,345.13	-71.01	4,345.69	0.00	0.00	0.00
14,400.00	90.00	181.74	10,200.00	-4,445.09	-74.06	4,445.69	0.00	0.00	0.00
14,500.00	90.00	181.74	10,200.00	-4,545.04	-77.10	4,545.68	0.00	0.00	0.00
14,600.00	90.00	181.74	10,200.00	-4,644.99	-80.15	4,645.67	0.00	0.00	0.00
14,700.00	90.00	181.74	10,200.00	-4,744.95	-83.19	4,745.67	0.00	0.00	0.00
14,800.00	90.00	181.74	10,200.00	-4,844.90	-86.23	4,845.66	0.00	0.00	0.00
14,900.00	90.00	181.74	10,200.00	-4,944.85	-89.28	4,945.66	0.00	0.00	0.00
15,000.00	90.00	181.74	10,200.00	-5,044.81	-92.32	5,045.65	0.00	0.00	0.00
15,100.00	90.00	181.74	10,200.00	-5,144.76	-95.37	5,145.64	0.00	0.00	0.00
15,200.00	90.00	181.74	10,200.00	-5,244.72	-98.41	5,245.64	0.00	0.00	0.00
15,300.00	90.00	181.74	10,200.00	-5,344.67	-101.46	5,345.63	0.00	0.00	0.00
15,400.00	90.00	181.74	10,200.00	-5,444.62	-104.50	5,445.63	0.00	0.00	0.00
15,500.00	90.00	181.74	10,200.00	-5,544.58	-107.55	5,545.62	0.00	0.00	0.00
15,534.54	90.00	181.74	10,200.00	-5,579.10	-108.60	5,580.16	0.00	0.00	0.00
TD at 15534.54									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
#5 - hit/miss target - Shape	0.00	0.00	0.00	-3,918.37	1,206.02	577,761.43	753,257.42	32° 35' 8.454 N	103° 30' 39.969 W
- plan misses target center by 4099.77usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Circle (radius 150.00)									
#8 - plan misses target center by 1858.48usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)	0.00	0.00	0.00	-1,430.00	1,187.03	580,249.80	753,238.43	32° 35' 33.077 N	103° 30' 39.966 W
- Circle (radius 150.00)									
EOC (LU #47H/OH Plan - plan hits target center - Rectangle (sides W80.00 H2,347.85 D30.00)	0.00	180.55	10,200.00	-572.93	-5.50	581,106.87	752,045.90	32° 35' 41.649 N	103° 30' 53.827 W
BHL (LU #47H/OH) - plan hits target center - Rectangle (sides W80.00 H2,659.38 D30.00)	0.00	181.74	10,200.00	-5,579.10	-108.60	576,100.70	751,942.80	32° 34' 52.122 N	103° 30' 55.482 W

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	-572.93	-5.50	EOC - Start 2347.96 hold at 10527.04 MD
12,875.00	10,200.00	-2,920.78	-28.04	TURN - Start DLS 3.00 TFO 90.00
12,914.83	10,200.00	-2,960.60	-28.84	END TURN - Start 2619.71 hold at 12914.83 MD
15,534.54	10,200.00	-5,579.10	-108.60	TD at 15534.54



HOBBS OCD

APR 04 2016

RECEIVED

Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #47H

Lea Unit #47H

OH

Plan #2

Anticollision Report

07 February, 2016





TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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	15,534.54	Plan #2 (OH)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Lea Unit						
#2 - OH - OH	12,818.48	10,186.04	95.25	21.21	1.286	Level 3, CC, ES, SF
#33H - OH - OH	15,534.54	10,190.94	367.86	291.01	4.787	CC, ES, SF
#7 - OH - OH	15,144.27	9,404.00	778.90	720.58	13.356	CC, ES
#7 - OH - OH	15,200.00	9,404.00	780.89	722.29	13.326	SF
SWD #2 - OH - OH	4,633.93	4,600.00	4,621.26	4,380.78	19.217	CC, ES
SWD #2 - OH - OH	4,700.00	4,600.00	4,621.74	4,381.13	19.209	SF
Lea Unit #48H						
Lea Unit #48H - OH - Plan #2	8,905.47	8,905.47	50.00	10.23	1.257	Level 3, CC, ES
Lea Unit #48H - OH - Plan #2	9,000.00	8,999.35	50.41	10.26	1.256	Level 3, SF

Offset Design Lea Unit - #2 - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 100-ISCWSA-GYRO-3													Offset Well Error: 0.00 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface (°)	Offset Wellbore Centre	Distance	Minimum Separation	Separation Factor	Warning	
				(usft)	(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	-177.71	-177.71	-2,609.70	-104.40	2,611.85			
100.00	100.00	74.19	74.19	0.09	0.06	-177.71	-177.71	-2,609.81	-104.36	2,611.91	2,611.76	0.15	N/A
200.00	200.00	172.16	172.16	0.32	0.21	-177.71	-177.71	-2,610.19	-104.26	2,612.29	2,611.76	0.53	4,962.717
300.00	300.00	263.73	263.73	0.54	0.38	-177.71	-177.71	-2,610.63	-104.29	2,612.78	2,611.85	0.92	2,830.632
400.00	400.00	349.03	349.03	0.77	0.54	-177.71	-177.71	-2,611.44	-104.38	2,613.74	2,612.43	1.31	1,993.126
500.00	500.00	433.87	433.85	0.99	0.70	-177.71	-177.71	-2,612.77	-104.59	2,615.30	2,613.61	1.70	1,538.763
600.00	600.00	521.60	521.56	1.22	0.87	-177.70	-177.70	-2,614.58	-105.12	2,617.39	2,615.30	2.09	1,251.291
700.00	700.00	612.03	611.96	1.44	1.04	-177.68	-177.68	-2,616.81	-105.93	2,619.89	2,617.40	2.49	1,053.332
800.00	800.00	706.67	706.76	1.67	1.21	-177.67	-177.67	-2,619.42	-106.70	2,622.67	2,619.78	2.89	907.709
900.00	900.00	840.29	840.13	1.89	1.46	-177.66	-177.66	-2,622.89	-107.15	2,625.41	2,622.06	3.35	783.664
1,000.00	1,000.00	955.64	955.46	2.12	1.66	-177.70	-177.70	-2,623.66	-105.43	2,625.91	2,622.14	3.77	695.640
1,100.00	1,100.00	1,035.04	1,034.86	2.34	1.80	-177.70	-177.70	-2,624.85	-105.58	2,627.49	2,623.35	4.14	633.908
1,200.00	1,200.00	1,140.61	1,140.41	2.56	2.00	-177.69	-177.69	-2,626.68	-106.05	2,629.15	2,624.58	4.57	575.753
1,300.00	1,300.00	1,243.74	1,243.53	2.79	2.19	-177.68	-177.68	-2,628.25	-106.53	2,630.69	2,625.71	4.98	527.866
1,400.00	1,400.00	1,381.71	1,381.49	3.01	2.44	-177.66	-177.66	-2,629.56	-107.48	2,631.76	2,626.30	5.45	482.566
1,436.83	1,436.83	1,419.05	1,418.83	3.10	2.51	-177.65	-177.65	-2,629.49	-107.97	2,631.71	2,626.11	5.60	469.866
1,500.00	1,500.00	1,464.72	1,464.48	3.24	2.59	-177.64	-177.64	-2,629.62	-108.50	2,631.92	2,626.09	5.82	452.059
1,600.00	1,600.00	1,553.57	1,553.33	3.46	2.75	-177.62	-177.62	-2,630.52	-109.32	2,632.95	2,626.74	6.21	424.259

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #2 - 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 (usft)	Offset (usft)		Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)						
1,700.00	1,700.00	1,668.79	1,668.54	3.69	2.96	-177.60	-2,631.48	-110.46	2,633.84	2,627.20	6.64	396.861		
1,800.00	1,800.00	1,773.36	1,773.11	3.91	3.14	-177.57	-2,631.79	-111.55	2,634.17	2,627.12	7.05	373.903		
1,900.00	1,900.00	1,873.64	1,873.39	4.14	3.32	-177.57	-2,632.13	-111.70	2,634.51	2,627.07	7.45	353.777		
2,000.00	2,000.00	1,992.02	1,991.76	4.36	3.52	-177.59	-2,632.23	-110.85	2,634.58	2,626.71	7.87	334.744		
2,076.90	2,076.90	2,059.16	2,058.90	4.54	3.62	-177.60	-2,632.08	-110.34	2,634.40	2,626.24	8.15	323.044		
2,100.00	2,100.00	2,078.55	2,078.29	4.59	3.66	-177.60	-2,632.11	-110.17	2,634.42	2,626.18	8.24	319.745		
2,200.00	2,200.00	2,188.43	2,188.17	4.81	3.84	-177.61	-2,632.20	-109.83	2,634.49	2,625.85	8.65	304.636		
2,300.00	2,300.00	2,290.85	2,290.38	5.04	4.01	-177.60	-2,631.86	-110.49	2,634.19	2,625.15	9.04	291.422		
2,400.00	2,400.00	2,394.12	2,393.85	5.26	4.17	-177.59	-2,631.45	-110.71	2,633.81	2,624.38	9.43	279.332		
2,482.77	2,482.77	2,465.05	2,464.79	5.45	4.29	-177.59	-2,631.28	-110.66	2,633.61	2,623.87	9.73	270.547		
2,500.00	2,500.00	2,478.59	2,478.32	5.49	4.32	-177.59	-2,631.29	-110.69	2,633.62	2,623.82	9.80	268.801		
2,600.00	2,600.00	2,599.35	2,599.08	5.71	4.52	-177.59	-2,631.12	-110.71	2,633.50	2,623.28	10.22	257.565		
2,700.00	2,700.00	2,696.93	2,696.65	5.94	4.68	-177.61	-2,630.56	-109.95	2,632.90	2,622.29	10.61	248.180		
2,800.00	2,800.00	2,791.50	2,791.21	6.16	4.84	-177.64	-2,630.19	-108.40	2,632.44	2,621.45	10.99	239.467		
2,900.00	2,900.00	2,900.60	2,900.27	6.39	5.02	-177.70	-2,629.76	-105.62	2,631.95	2,620.54	11.40	230.815		
3,000.00	3,000.00	3,007.80	3,007.42	6.61	5.20	-177.77	-2,629.01	-102.19	2,631.12	2,619.31	11.81	222.801		
3,100.00	3,100.00	3,113.60	3,113.14	6.84	5.38	-177.86	-2,627.97	-98.42	2,630.00	2,617.79	12.21	215.338		
3,200.00	3,200.00	3,205.78	3,205.25	7.06	5.54	-177.93	-2,627.17	-94.95	2,628.98	2,616.39	12.60	208.723		
3,300.00	3,300.00	3,312.79	3,312.19	7.28	5.72	-178.02	-2,626.20	-90.99	2,627.94	2,614.94	13.00	202.109		
3,400.00	3,400.00	3,400.00	3,399.35	7.51	5.87	-178.08	-2,625.32	-88.20	2,626.86	2,613.48	13.38	196.376		
3,500.00	3,500.00	3,490.06	3,489.38	7.73	6.03	-178.12	-2,624.78	-85.98	2,626.20	2,612.44	13.76	190.909		
3,600.00	3,600.00	3,586.13	3,585.44	7.96	6.20	-178.16	-2,624.68	-84.15	2,626.03	2,611.88	14.15	185.622		
3,633.03	3,633.03	3,615.74	3,615.03	8.03	6.25	-178.18	-2,624.67	-83.61	2,626.00	2,611.73	14.27	183.985		
3,700.00	3,700.00	3,671.47	3,670.76	8.18	6.35	-178.20	-2,624.82	-82.64	2,626.14	2,611.62	14.52	180.853		
3,800.00	3,800.00	3,761.58	3,760.85	8.41	6.51	-178.23	-2,625.47	-81.11	2,626.80	2,611.90	14.90	176.250		
3,900.00	3,900.00	3,855.84	3,855.08	8.63	6.68	-178.27	-2,626.39	-79.16	2,627.72	2,612.43	15.29	171.804		
4,000.00	4,000.00	3,954.35	3,953.57	8.86	6.86	-178.33	-2,627.53	-76.83	2,628.81	2,613.12	15.69	167.509		
4,100.00	4,100.00	4,052.92	4,052.09	9.08	7.04	-178.38	-2,628.67	-74.20	2,629.89	2,613.80	16.09	163.426		
4,200.00	4,200.00	4,145.54	4,144.67	9.31	7.21	-178.44	-2,629.90	-71.68	2,631.14	2,614.66	16.48	159.651		
4,300.00	4,300.00	4,237.52	4,236.62	9.53	7.38	-178.48	-2,631.42	-69.84	2,632.74	2,615.87	16.87	156.073		
4,400.00	4,400.00	4,331.67	4,330.74	9.76	7.55	-178.52	-2,633.17	-68.15	2,634.55	2,617.29	17.26	152.626		
4,500.00	4,500.00	4,419.83	4,418.86	9.98	7.71	-178.55	-2,635.08	-66.58	2,636.68	2,619.04	17.64	149.445		
4,600.00	4,600.00	4,500.00	4,498.98	10.21	7.86	-178.59	-2,637.36	-64.96	2,639.47	2,621.46	18.01	146.561		
4,700.00	4,700.00	4,595.62	4,594.53	10.43	8.04	-178.64	-2,640.52	-62.71	2,642.71	2,624.31	18.41	143.581		
4,800.00	4,800.00	4,687.52	4,686.34	10.66	8.21	-178.69	-2,643.75	-60.49	2,646.17	2,627.38	18.79	140.793		
4,900.00	4,900.00	4,786.02	4,784.75	10.88	8.39	-178.73	-2,647.40	-58.50	2,649.83	2,630.63	19.20	138.029		
5,000.00	5,000.00	4,901.67	4,900.32	11.11	8.60	-178.77	-2,651.38	-56.88	2,653.24	2,633.61	19.64	135.122		
5,100.00	5,100.00	5,000.00	4,998.60	11.33	8.78	-178.80	-2,654.45	-55.65	2,656.34	2,636.30	20.04	132.556		
5,200.00	5,200.00	5,089.74	5,088.28	11.56	8.95	-178.83	-2,657.46	-54.49	2,659.67	2,639.24	20.43	130.211		
5,300.00	5,300.00	5,185.90	5,184.37	11.78	9.12	-178.85	-2,660.95	-53.58	2,663.28	2,642.45	20.83	127.886		
5,400.00	5,400.00	5,261.75	5,260.16	12.00	9.26	-178.85	-2,664.02	-53.29	2,667.33	2,646.15	21.18	125.919		
5,500.00	5,500.00	5,349.23	5,347.53	12.23	9.42	-178.85	-2,668.36	-53.66	2,672.29	2,650.72	21.56	123.923		
5,600.00	5,600.00	5,453.36	5,451.53	12.45	9.61	-178.83	-2,673.50	-54.54	2,677.23	2,655.25	21.98	121.797		
5,700.00	5,700.00	5,557.96	5,556.00	12.68	9.80	-178.81	-2,678.49	-55.53	2,682.03	2,659.63	22.40	119.737		
5,800.00	5,800.00	5,660.39	5,658.32	12.90	9.99	-178.79	-2,683.21	-56.48	2,686.66	2,663.84	22.81	117.769		
5,900.00	5,900.00	5,767.59	5,765.41	13.13	10.18	-178.78	-2,688.03	-57.45	2,691.17	2,667.94	23.24	115.814		
6,000.00	6,000.00	5,874.14	5,871.86	13.35	10.37	-178.75	-2,692.47	-58.52	2,695.35	2,671.70	23.66	113.922		
6,100.00	6,100.00	5,966.01	5,963.65	13.58	10.54	-178.74	-2,696.28	-59.42	2,699.53	2,675.48	24.05	112.241		
6,200.00	6,200.00	6,065.16	6,062.69	13.80	10.72	-178.72	-2,700.70	-60.47	2,704.01	2,679.55	24.46	110.556		
6,300.00	6,300.00	6,171.67	6,169.10	14.03	10.92	-178.70	-2,705.25	-61.57	2,708.30	2,683.42	24.88	108.849		
6,400.00	6,400.00	6,272.71	6,270.05	14.25	11.10	-178.68	-2,709.40	-62.33	2,712.42	2,687.13	25.29	107.240		
6,500.00	6,500.00	6,370.36	6,367.62	14.48	11.28	-178.67	-2,713.45	-62.84	2,716.59	2,690.89	25.70	105.714		

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #2 - 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														
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre N-S (usft)	Offset Wellbore Centre E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
6,800.00	6,800.00	6,470.02	6,467.19	14.70	11.46	-178.66	-2,717.65	-63.45	2,720.82	2,694.71	26.11	104.220		
6,700.00	6,700.00	6,565.00	6,562.08	14.93	11.64	-178.65	-2,721.70	-64.03	2,725.09	2,698.59	26.51	102.813		
6,800.00	6,800.00	6,666.00	6,662.98	15.15	11.82	-178.64	-2,726.17	-64.77	2,729.53	2,702.62	26.92	101.404		
6,900.00	6,900.00	6,766.60	6,763.48	15.38	12.01	-178.62	-2,730.49	-65.71	2,733.85	2,706.52	27.33	100.036		
7,000.00	7,000.00	6,860.58	6,857.36	15.60	12.18	-178.61	-2,734.62	-66.49	2,738.27	2,710.54	27.73	98.763		
7,100.00	7,100.00	6,958.19	6,954.86	15.83	12.36	-178.59	-2,739.13	-67.40	2,742.91	2,714.77	28.13	97.507		
7,200.00	7,200.00	7,058.30	7,054.87	16.05	12.55	-178.57	-2,743.73	-68.39	2,747.52	2,718.98	28.54	96.267		
7,300.00	7,300.00	7,155.30	7,151.76	16.28	12.72	-178.56	-2,748.23	-69.30	2,752.19	2,723.24	28.94	95.086		
7,400.00	7,400.00	7,254.39	7,250.73	16.50	12.91	-178.54	-2,752.94	-70.26	2,756.96	2,727.61	29.35	93.926		
7,500.00	7,500.00	7,348.55	7,344.78	16.72	13.08	-178.52	-2,757.44	-71.11	2,761.77	2,732.02	29.75	92.832		
7,600.00	7,600.00	7,446.91	7,443.00	16.95	13.26	-178.50	-2,762.44	-72.14	2,766.87	2,736.72	30.16	91.750		
7,700.00	7,700.00	7,550.57	7,546.55	17.17	13.46	-178.49	-2,767.47	-72.97	2,771.75	2,741.17	30.58	90.652		
7,800.00	7,800.00	7,646.32	7,642.17	17.40	13.63	-178.48	-2,772.21	-73.75	2,776.71	2,745.74	30.98	89.639		
7,900.00	7,900.00	7,743.88	7,739.60	17.62	13.81	-178.46	-2,777.15	-74.63	2,781.80	2,750.42	31.38	88.643		
8,000.00	8,000.00	7,842.41	7,838.00	17.85	14.00	-178.45	-2,782.20	-75.44	2,786.94	2,755.15	31.79	87.668		
8,100.00	8,100.00	7,936.92	7,932.38	18.07	14.17	-178.43	-2,787.11	-76.25	2,792.17	2,759.98	32.19	86.745		
8,200.00	8,200.00	8,031.23	8,026.54	18.30	14.35	-178.42	-2,792.30	-77.25	2,797.69	2,765.10	32.59	85.855		
8,300.00	8,300.00	8,140.71	8,135.85	18.52	14.55	-178.39	-2,798.20	-78.51	2,803.11	2,770.09	33.02	84.895		
8,400.00	8,400.00	8,255.37	8,250.38	18.75	14.76	-178.39	-2,803.86	-78.81	2,808.05	2,774.59	33.46	83.917		
8,500.00	8,500.00	8,377.48	8,372.35	18.97	14.99	-178.36	-2,809.11	-80.42	2,812.40	2,778.48	33.92	82.910		
8,600.00	8,600.00	8,506.84	8,501.63	19.20	15.23	-178.32	-2,813.42	-82.56	2,815.78	2,781.39	34.39	81.871		
8,700.00	8,700.00	8,623.14	8,617.87	19.42	15.44	-178.28	-2,816.30	-84.33	2,818.29	2,783.45	34.84	80.903		
8,800.00	8,800.00	8,724.81	8,719.51	19.65	15.62	-178.25	-2,818.51	-86.27	2,820.52	2,785.27	35.25	80.023		
8,900.00	8,900.00	8,824.10	8,818.76	19.87	15.80	-178.21	-2,820.67	-88.04	2,822.76	2,787.10	35.65	79.175		
9,000.00	9,000.00	8,921.73	8,916.34	20.10	15.98	-178.18	-2,822.80	-89.90	2,824.99	2,788.94	36.05	78.353		
9,100.00	9,100.00	9,011.69	9,006.26	20.32	16.14	-178.14	-2,825.04	-91.63	2,827.54	2,791.10	36.44	77.591		
9,200.00	9,200.00	9,122.56	9,117.08	20.55	16.35	-178.10	-2,827.66	-93.66	2,829.96	2,793.09	36.87	76.751		
9,300.00	9,300.00	9,217.26	9,211.73	20.77	16.52	-178.06	-2,829.85	-95.75	2,832.34	2,795.08	37.27	76.000		
9,400.00	9,400.00	9,310.34	9,304.75	21.00	16.69	-178.01	-2,832.18	-98.24	2,834.93	2,797.28	37.66	75.278		
9,500.00	9,500.00	9,400.00	9,394.34	21.22	16.85	-177.96	-2,834.74	-100.81	2,837.89	2,799.84	38.04	74.594		
9,600.00	9,600.00	9,494.29	9,488.54	21.44	17.02	-177.91	-2,837.69	-103.72	2,841.12	2,802.68	38.44	73.912		
9,627.04	9,627.04	9,518.14	9,512.36	21.51	17.06	-177.89	-2,838.46	-104.50	2,842.03	2,803.48	38.54	73.737		
9,650.00	9,649.99	9,537.84	9,532.04	21.55	17.10	1.57	-2,839.12	-105.13	2,842.36	2,803.74	38.62	73.594		
9,700.00	9,699.80	9,580.69	9,574.84	21.63	17.18	1.60	-2,840.63	-106.49	2,840.00	2,801.22	38.78	73.231		
9,750.00	9,749.06	9,624.68	9,618.78	21.72	17.26	1.65	-2,842.28	-107.85	2,833.41	2,794.47	38.94	72.756		
9,800.00	9,797.39	9,669.22	9,663.26	21.80	17.34	1.72	-2,844.03	-109.20	2,822.62	2,783.51	39.11	72.175		
9,850.00	9,844.42	9,714.31	9,708.30	21.88	17.42	1.81	-2,845.86	-110.53	2,807.68	2,768.40	39.27	71.493		
9,900.00	9,889.79	9,761.60	9,755.53	21.96	17.51	1.92	-2,847.79	-111.87	2,788.64	2,749.20	39.44	70.707		
9,950.00	9,933.17	9,807.16	9,801.03	22.04	17.59	2.05	-2,849.63	-113.10	2,765.64	2,726.04	39.60	69.839		
10,000.00	9,974.21	9,851.27	9,845.09	22.14	17.67	2.22	-2,851.39	-114.21	2,738.83	2,699.08	39.76	68.891		
10,050.00	10,012.62	9,892.73	9,886.51	22.25	17.75	2.42	-2,853.02	-115.19	2,708.43	2,668.52	39.90	67.877		
10,100.00	10,048.09	9,931.72	9,925.46	22.38	17.82	2.69	-2,854.53	-116.10	2,674.66	2,634.62	40.04	66.802		
10,150.00	10,080.35	9,967.48	9,961.18	22.53	17.89	3.03	-2,855.87	-117.00	2,637.78	2,597.62	40.16	65.676		
10,200.00	10,109.17	9,999.62	9,993.29	22.71	17.95	3.49	-2,857.06	-117.86	2,598.09	2,557.81	40.28	64.507		
10,250.00	10,134.31	10,028.06	10,021.71	22.91	18.00	4.11	-2,858.09	-118.64	2,555.89	2,515.51	40.38	63.304		
10,300.00	10,155.60	10,052.43	10,046.04	23.14	18.04	4.99	-2,858.95	-119.28	2,511.50	2,471.04	40.46	62.075		
10,350.00	10,172.86	10,072.53	10,066.13	23.39	18.08	6.32	-2,859.66	-119.81	2,465.28	2,424.75	40.53	60.828		
10,400.00	10,185.97	10,088.22	10,081.81	23.68	18.11	8.58	-2,860.20	-120.21	2,417.58	2,377.00	40.58	59.572		
10,450.00	10,194.83	10,099.41	10,092.99	24.00	18.13	13.09	-2,860.58	-120.49	2,368.77	2,328.15	40.62	58.313		
10,500.00	10,199.36	10,106.46	10,100.03	24.34	18.14	26.07	-2,860.82	-120.67	2,319.22	2,278.58	40.65	57.059		
10,527.04	10,200.00	10,108.23	10,101.80	24.53	18.15	49.30	-2,860.88	-120.71	2,292.25	2,251.60	40.65	56.384		
10,600.00	10,200.00	10,111.03	10,104.60	25.10	18.15	50.32	-2,860.98	-120.78	2,219.40	2,178.74	40.67	54.576		

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 #47H
Project:	Lea County, NM (NAD:27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #2 - 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)			
10,700.00	10,200.00	10,114.83	10,108.39	25.96	18.16	51.76	-2,861.11	-120.88	2,119.56	2,078.87	40.68	52.098	
10,800.00	10,200.00	10,118.59	10,112.14	26.93	18.17	53.24	-2,861.23	-120.97	2,019.72	1,979.01	40.70	49.620	
10,900.00	10,200.00	10,122.30	10,115.85	27.97	18.17	54.75	-2,861.35	-121.07	1,919.89	1,879.17	40.72	47.143	
11,000.00	10,200.00	10,125.97	10,119.52	29.10	18.18	56.30	-2,861.47	-121.16	1,820.07	1,779.33	40.75	44.667	
11,100.00	10,200.00	10,129.59	10,123.14	30.29	18.19	57.89	-2,861.59	-121.25	1,720.27	1,679.50	40.77	42.191	
11,200.00	10,200.00	10,133.18	10,126.73	31.55	18.19	59.51	-2,861.71	-121.34	1,620.49	1,579.69	40.80	39.716	
11,300.00	10,200.00	10,136.73	10,130.27	32.85	18.20	61.16	-2,861.82	-121.43	1,520.73	1,479.89	40.83	37.242	
11,400.00	10,200.00	10,140.23	10,133.77	34.21	18.21	62.85	-2,861.94	-121.52	1,420.99	1,380.12	40.87	34.768	
11,500.00	10,200.00	10,143.70	10,137.24	35.61	18.21	64.57	-2,862.05	-121.61	1,321.28	1,280.37	40.91	32.294	
11,600.00	10,200.00	10,147.13	10,140.66	37.04	18.22	66.31	-2,862.16	-121.70	1,221.62	1,180.65	40.96	29.821	
11,700.00	10,200.00	10,150.52	10,144.05	38.51	18.22	68.08	-2,862.26	-121.79	1,122.00	1,080.97	41.03	27.349	
11,800.00	10,200.00	10,153.87	10,147.40	40.01	18.23	69.87	-2,862.37	-121.87	1,022.44	981.34	41.10	24.876	
11,900.00	10,200.00	10,157.19	10,150.71	41.53	18.24	71.68	-2,862.47	-121.96	922.98	881.77	41.20	22.402	
12,000.00	10,200.00	10,160.47	10,153.99	43.08	18.24	73.50	-2,862.58	-122.04	823.62	782.29	41.33	19.926	
12,100.00	10,200.00	10,163.71	10,157.23	44.65	18.25	75.34	-2,862.68	-122.13	724.43	682.91	41.52	17.447	
12,200.00	10,200.00	10,166.92	10,160.44	46.24	18.25	77.18	-2,862.78	-122.21	625.49	583.69	41.80	14.964	
12,300.00	10,200.00	10,170.10	10,163.62	47.84	18.26	79.03	-2,862.87	-122.29	526.92	484.68	42.25	12.473	
12,400.00	10,200.00	10,173.24	10,166.75	49.46	18.27	80.87	-2,862.97	-122.37	429.00	385.97	43.02	9.971	
12,500.00	10,200.00	10,176.35	10,169.86	51.10	18.27	82.72	-2,863.06	-122.45	332.28	287.75	44.53	7.462	
12,600.00	10,200.00	10,179.43	10,172.94	52.74	18.28	84.55	-2,863.16	-122.53	238.25	190.37	47.88	4.976	
12,700.00	10,200.00	10,182.47	10,175.98	54.40	18.28	86.38	-2,863.25	-122.61	151.98	95.49	56.49	2.690	
12,800.00	10,200.00	10,185.48	10,178.99	56.07	18.29	88.19	-2,863.34	-122.69	97.02	24.13	72.89	1.331 Level 3	
12,818.48	10,200.00	10,186.04	10,179.54	56.38	18.29	88.52	-2,863.35	-122.71	95.25	21.21	74.04	1.286 Level 3, CC, ES, SF	
12,875.00	10,200.00	10,187.72	10,181.22	57.33	18.29	89.53	-2,863.40	-122.75	110.74	42.23	68.51	1.616	
12,900.00	10,200.00	10,188.47	10,181.97	57.73	18.29	89.98	-2,863.42	-122.77	125.22	60.97	64.25	1.949	
12,914.83	10,200.00	10,188.92	10,182.42	57.95	18.29	90.25	-2,863.44	-122.78	135.15	73.32	61.83	2.186	
13,000.00	10,200.00	10,191.47	10,184.97	59.31	18.30	91.76	-2,863.51	-122.85	203.89	151.75	52.14	3.911	
13,100.00	10,200.00	10,194.45	10,187.94	61.00	18.31	93.51	-2,863.60	-122.93	295.69	248.55	47.14	6.273	
13,200.00	10,200.00	10,197.39	10,190.88	62.70	18.31	95.23	-2,863.69	-123.00	391.51	346.59	44.92	8.716	
13,300.00	10,200.00	10,200.31	10,193.80	64.40	18.32	96.93	-2,863.77	-123.08	488.98	445.19	43.79	11.167	
13,400.00	10,200.00	10,203.33	10,196.82	66.11	18.32	98.67	-2,863.86	-123.16	587.29	544.14	43.16	13.608	
13,500.00	10,200.00	10,206.36	10,199.85	67.83	18.33	100.39	-2,863.95	-123.24	686.08	643.30	42.78	16.039	
13,600.00	10,200.00	10,209.41	10,202.89	69.55	18.33	102.11	-2,864.04	-123.32	785.16	742.62	42.54	18.459	
13,700.00	10,200.00	10,212.47	10,205.96	71.27	18.34	103.81	-2,864.13	-123.40	884.44	842.06	42.38	20.869	
13,800.00	10,200.00	10,215.56	10,209.04	73.01	18.34	105.49	-2,864.22	-123.48	983.85	941.57	42.28	23.270	
13,900.00	10,200.00	10,218.66	10,212.13	74.74	18.35	107.16	-2,864.31	-123.57	1,083.37	1,041.15	42.22	25.662	
14,000.00	10,200.00	10,221.78	10,215.25	76.48	18.36	108.80	-2,864.40	-123.65	1,182.95	1,140.78	42.18	28.047	
14,100.00	10,200.00	10,224.91	10,218.38	78.22	18.36	110.41	-2,864.49	-123.73	1,282.60	1,240.44	42.16	30.424	
14,200.00	10,200.00	10,228.07	10,221.54	79.97	18.37	112.00	-2,864.59	-123.82	1,382.29	1,340.14	42.15	32.794	
14,300.00	10,200.00	10,231.24	10,224.70	81.72	18.37	113.56	-2,864.68	-123.91	1,482.01	1,439.86	42.15	35.157	
14,400.00	10,200.00	10,234.43	10,227.89	83.47	18.38	115.09	-2,864.78	-123.99	1,581.77	1,539.60	42.17	37.512	
14,500.00	10,200.00	10,237.64	10,231.10	85.23	18.38	116.58	-2,864.87	-124.08	1,681.54	1,639.36	42.19	39.860	
14,600.00	10,200.00	10,240.86	10,234.32	86.98	18.39	118.05	-2,864.97	-124.17	1,781.34	1,739.13	42.21	42.202	
14,700.00	10,200.00	10,244.11	10,237.56	88.74	18.40	119.48	-2,865.07	-124.26	1,881.15	1,838.91	42.24	44.536	
14,800.00	10,200.00	10,247.37	10,240.83	90.51	18.40	120.88	-2,865.16	-124.35	1,980.98	1,938.71	42.27	46.863	
14,900.00	10,200.00	10,250.66	10,244.11	92.27	18.41	122.24	-2,865.26	-124.44	2,080.82	2,038.51	42.31	49.184	
15,000.00	10,200.00	10,253.96	10,247.41	94.04	18.41	123.57	-2,865.36	-124.53	2,180.66	2,138.32	42.35	51.496	
15,100.00	10,200.00	10,257.28	10,250.73	95.81	18.42	124.87	-2,865.46	-124.63	2,280.52	2,238.13	42.39	53.802	
15,200.00	10,200.00	10,260.62	10,254.06	97.58	18.43	126.13	-2,865.57	-124.72	2,380.38	2,337.95	42.43	56.101	
15,300.00	10,200.00	10,263.98	10,257.42	99.35	18.43	127.35	-2,865.67	-124.82	2,480.26	2,437.78	42.48	58.392	
15,400.00	10,200.00	10,267.36	10,260.80	101.13	18.44	128.54	-2,865.77	-124.91	2,580.13	2,537.61	42.52	60.675	
15,500.00	10,200.00	10,270.77	10,264.20	102.91	18.44	129.70	-2,865.88	-125.01	2,680.02	2,637.44	42.57	62.951	

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #2 - 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)		
15,534.54	10,200.00	10,271.95	10,265.38	103.52	18.45	130.09	-2,865.91	-125.04	2,714.52	2,671.93	42.59	63.736	



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #33H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100-VES-ISCNSA-GYRO-3: 5467-MWD												Offset Well Error:	0.00 usft
Reference													
Offset													
Semi Major Axis													
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Distance		Minimum	Separation	Warning
Depth	Depth	Depth	Depth			Toolface	+N-S	+E-W	Between	Between	Separation	Factor	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	Centres	Ellipses	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	-178.40	-6,064.70	-169.40	6,067.10				
100.00	100.00	68.73	68.73	0.09	0.05	-178.40	-6,064.76	-169.38	6,067.13	6,066.99	0.14	N/A	
200.00	200.00	151.15	151.15	0.32	0.17	-178.40	-6,065.01	-169.26	6,067.43	6,066.94	0.49	N/A	
300.00	300.00	245.41	245.41	0.54	0.35	-178.41	-6,065.57	-168.79	6,068.01	6,067.13	0.89	6,855.484	
400.00	400.00	346.26	346.26	0.77	0.54	-178.41	-6,066.08	-168.05	6,068.50	6,067.21	1.29	4,703.735	
500.00	500.00	438.54	438.52	0.99	0.71	-178.42	-6,066.68	-167.40	6,069.13	6,067.45	1.68	3,610.243	
600.00	600.00	540.96	540.94	1.22	0.90	-178.43	-6,067.37	-166.75	6,069.78	6,067.69	2.09	2,902.300	
700.00	700.00	648.22	648.20	1.44	1.10	-178.43	-6,068.01	-166.19	6,070.36	6,067.85	2.51	2,417.409	
800.00	800.00	751.88	751.86	1.67	1.30	-178.43	-6,068.48	-165.89	6,070.81	6,067.88	2.93	2,074.503	
900.00	900.00	860.33	860.30	1.89	1.49	-178.43	-6,068.94	-165.88	6,071.23	6,067.88	3.35	1,810.993	
1,000.00	1,000.00	961.52	961.50	2.12	1.67	-178.43	-6,069.19	-166.01	6,071.48	6,067.72	3.76	1,612.769	
1,100.00	1,100.00	1,052.08	1,052.05	2.34	1.83	-178.43	-6,069.51	-166.23	6,071.84	6,067.69	4.16	1,460.960	
1,200.00	1,200.00	1,152.64	1,152.61	2.56	2.01	-178.43	-6,069.99	-166.69	6,072.33	6,067.77	4.56	1,330.656	
1,300.00	1,300.00	1,265.24	1,265.21	2.79	2.20	-178.42	-6,070.34	-167.31	6,072.66	6,067.67	4.99	1,217.491	
1,400.00	1,400.00	1,377.76	1,377.73	3.01	2.39	-178.42	-6,070.46	-167.85	6,072.78	6,067.38	5.41	1,123.285	
1,500.00	1,500.00	1,518.99	1,518.95	3.24	2.63	-178.40	-6,069.96	-169.24	6,072.45	6,066.59	5.87	1,035.368	
1,600.00	1,600.00	1,617.03	1,616.96	3.46	2.79	-178.38	-6,069.25	-171.48	6,071.79	6,065.54	6.25	971.248	
1,700.00	1,700.00	1,700.00	1,699.90	3.69	2.93	-178.36	-6,068.77	-173.92	6,071.29	6,064.68	6.62	917.745	
1,800.00	1,800.00	1,782.52	1,782.38	3.91	3.08	-178.33	-6,068.52	-176.42	6,071.08	6,064.10	6.98	869.694	
1,900.00	1,900.00	1,902.22	1,902.03	4.14	3.29	-178.30	-6,068.23	-179.65	6,070.93	6,063.52	7.41	819.336	
2,000.00	2,000.00	2,012.37	2,012.15	4.36	3.48	-178.28	-6,067.64	-182.21	6,070.46	6,062.64	7.82	776.169	
2,100.00	2,100.00	2,122.24	2,121.98	4.59	3.67	-178.25	-6,066.88	-184.83	6,069.85	6,061.62	8.23	737.349	
2,200.00	2,200.00	2,234.06	2,233.77	4.81	3.87	-178.23	-6,065.88	-187.35	6,069.02	6,060.37	8.65	701.945	
2,300.00	2,300.00	2,335.61	2,335.30	5.04	4.05	-178.21	-6,064.87	-189.47	6,068.09	6,059.05	9.04	671.054	
2,400.00	2,400.00	2,438.29	2,437.96	5.26	4.23	-178.19	-6,063.87	-191.18	6,067.17	6,057.72	9.44	642.623	
2,500.00	2,500.00	2,545.47	2,545.12	5.49	4.42	-178.18	-6,062.70	-192.85	6,066.12	6,056.27	9.85	616.000	
2,600.00	2,600.00	2,655.54	2,655.17	5.71	4.61	-178.16	-6,061.39	-194.28	6,064.98	6,054.72	10.26	591.183	
2,700.00	2,700.00	2,774.17	2,773.78	5.94	4.82	-178.15	-6,059.68	-195.56	6,063.57	6,052.89	10.69	567.476	
2,800.00	2,800.00	2,958.55	2,958.11	6.16	5.13	-178.15	-6,055.42	-196.02	6,061.24	6,050.02	11.22	540.099	
2,900.00	2,900.00	3,092.43	3,091.92	6.39	5.36	-178.15	-6,051.11	-195.35	6,058.00	6,046.33	11.68	518.830	
3,000.00	3,000.00	3,203.51	3,202.92	6.61	5.55	-178.16	-6,047.12	-194.29	6,054.39	6,042.29	12.09	500.645	
3,100.00	3,100.00	3,311.22	3,310.55	6.84	5.73	-178.17	-6,043.09	-192.88	6,050.60	6,038.09	12.51	483.840	
3,200.00	3,200.00	3,400.00	3,399.26	7.06	5.88	-178.18	-6,039.84	-191.69	6,046.89	6,034.01	12.89	469.250	
3,300.00	3,300.00	3,476.23	3,475.44	7.28	6.01	-178.19	-6,037.27	-190.67	6,043.48	6,030.23	13.25	456.233	
3,400.00	3,400.00	3,554.67	3,553.84	7.51	6.15	-178.20	-6,034.89	-189.70	6,040.40	6,026.79	13.61	443.799	
3,500.00	3,500.00	3,637.56	3,636.69	7.73	6.29	-178.21	-6,032.66	-188.83	6,037.67	6,023.69	13.98	431.792	
3,600.00	3,600.00	3,729.95	3,729.05	7.96	6.45	-178.21	-6,030.34	-188.01	6,035.14	6,020.76	14.37	419.929	
3,700.00	3,700.00	3,827.72	3,826.79	8.18	6.62	-178.22	-6,027.94	-187.39	6,032.67	6,017.89	14.77	408.422	
3,800.00	3,800.00	3,922.14	3,921.18	8.41	6.79	-178.22	-6,025.68	-186.90	6,030.25	6,015.09	15.16	397.663	
3,900.00	3,900.00	4,012.70	4,011.72	8.63	6.95	-178.23	-6,023.63	-186.61	6,027.98	6,012.43	15.55	387.614	
4,000.00	4,000.00	4,100.00	4,098.99	8.86	7.11	-178.23	-6,021.69	-186.39	6,025.77	6,009.84	15.93	378.184	
4,100.00	4,100.00	4,184.52	4,183.50	9.08	7.26	-178.23	-6,020.01	-186.21	6,023.79	6,007.48	16.31	369.314	
4,200.00	4,200.00	4,271.44	4,270.41	9.31	7.41	-178.23	-6,018.62	-186.06	6,022.19	6,005.50	16.69	360.772	
4,300.00	4,300.00	4,398.68	4,397.63	9.53	7.64	-178.23	-6,016.51	-185.74	6,020.54	6,003.40	17.15	351.133	
4,400.00	4,400.00	4,473.36	4,472.29	9.76	7.78	-178.23	-6,015.19	-185.75	6,018.78	6,001.27	17.51	343.800	
4,500.00	4,500.00	4,571.38	4,570.30	9.98	7.96	-178.22	-6,013.74	-186.40	6,017.32	5,999.41	17.91	336.009	
4,600.00	4,600.00	4,683.35	4,682.25	10.21	8.16	-178.21	-6,011.89	-187.68	6,015.70	5,997.37	18.33	328.116	
4,700.00	4,700.00	4,810.98	4,809.84	10.43	8.39	-178.19	-6,009.35	-189.42	6,013.76	5,994.98	18.79	320.095	
4,800.00	4,800.00	4,926.79	4,925.60	10.66	8.61	-178.18	-6,006.63	-191.36	6,011.47	5,992.25	19.22	312.771	
4,900.00	4,900.00	5,034.84	5,033.60	10.88	8.81	-178.15	-6,003.78	-193.51	6,008.89	5,989.25	19.64	305.970	
5,000.00	5,000.00	5,121.59	5,120.29	11.11	8.97	-178.13	-6,001.58	-195.57	6,006.43	5,986.41	20.02	300.017	
5,100.00	5,100.00	15,600.00	10,904.07	11.33	89.67	-157.83	-918.26	-374.13	5,908.85	5,868.40	40.45	146.073	

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #33H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 100-VES-ISCWSA-GYRO-3, 5467-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)					
5,200.00	5,200.00	15,600.00	10,904.07	11.56	89.67	-157.83	-918.26	-374.13	5,810.30	5,769.76	40.53	143.344	
5,300.00	5,300.00	15,600.00	10,904.07	11.78	89.67	-157.83	-918.26	-374.13	5,711.79	5,671.17	40.62	140.609	
5,400.00	5,400.00	15,600.00	10,904.07	12.00	89.67	-157.83	-918.26	-374.13	5,613.33	5,572.62	40.71	137.870	
5,500.00	5,500.00	15,600.00	10,904.07	12.23	89.67	-157.83	-918.26	-374.13	5,514.94	5,474.12	40.81	135.128	
5,600.00	5,600.00	15,600.00	10,904.07	12.45	89.67	-157.83	-918.26	-374.13	5,416.59	5,375.68	40.92	132.383	
5,700.00	5,700.00	15,600.00	10,904.07	12.68	89.67	-157.83	-918.26	-374.13	5,318.32	5,277.29	41.02	129.637	
5,800.00	5,800.00	15,600.00	10,904.07	12.90	89.67	-157.83	-918.26	-374.13	5,220.10	5,178.96	41.14	126.890	
5,900.00	5,900.00	15,600.00	10,904.07	13.13	89.67	-157.83	-918.26	-374.13	5,121.96	5,080.70	41.26	124.144	
6,000.00	6,000.00	15,600.00	10,904.07	13.35	89.67	-157.83	-918.26	-374.13	5,023.89	4,982.50	41.38	121.399	
6,100.00	6,100.00	15,600.00	10,904.07	13.58	89.67	-157.83	-918.26	-374.13	4,925.89	4,884.38	41.51	118.655	
6,200.00	6,200.00	15,600.00	10,904.07	13.80	89.67	-157.83	-918.26	-374.13	4,827.98	4,786.33	41.65	115.916	
6,300.00	6,300.00	15,600.00	10,904.07	14.03	89.67	-157.83	-918.26	-374.13	4,730.16	4,688.37	41.79	113.180	
6,400.00	6,400.00	15,600.00	10,904.07	14.25	89.67	-157.83	-918.26	-374.13	4,632.43	4,590.49	41.94	110.449	
6,500.00	6,500.00	15,600.00	10,904.07	14.48	89.67	-157.83	-918.26	-374.13	4,534.80	4,492.70	42.10	107.723	
6,600.00	6,600.00	15,600.00	10,904.07	14.70	89.67	-157.83	-918.26	-374.13	4,437.27	4,395.01	42.26	105.005	
6,700.00	6,700.00	15,600.00	10,904.07	14.93	89.67	-157.83	-918.26	-374.13	4,339.86	4,297.43	42.43	102.294	
6,800.00	6,800.00	15,600.00	10,904.07	15.15	89.67	-157.83	-918.26	-374.13	4,242.56	4,199.96	42.60	99.591	
6,900.00	6,900.00	15,600.00	10,904.07	15.38	89.67	-157.83	-918.26	-374.13	4,145.40	4,102.62	42.78	96.897	
7,000.00	7,000.00	15,600.00	10,904.07	15.60	89.67	-157.83	-918.26	-374.13	4,048.37	4,005.40	42.97	94.214	
7,100.00	7,100.00	15,600.00	10,904.07	15.83	89.67	-157.83	-918.26	-374.13	3,951.49	3,908.33	43.17	91.541	
7,200.00	7,200.00	15,600.00	10,904.07	16.05	89.67	-157.83	-918.26	-374.13	3,854.78	3,811.40	43.37	88.880	
7,300.00	7,300.00	15,600.00	10,904.07	16.28	89.67	-157.83	-918.26	-374.13	3,758.23	3,714.65	43.58	86.232	
7,400.00	7,400.00	15,600.00	10,904.07	16.50	89.67	-157.83	-918.26	-374.13	3,661.87	3,618.06	43.80	83.597	
7,500.00	7,500.00	15,600.00	10,904.07	16.72	89.67	-157.83	-918.26	-374.13	3,565.70	3,521.67	44.03	80.976	
7,600.00	7,600.00	15,600.00	10,904.07	16.95	89.67	-157.83	-918.26	-374.13	3,469.76	3,425.49	44.27	78.371	
7,700.00	7,700.00	15,600.00	10,904.07	17.17	89.67	-157.83	-918.26	-374.13	3,374.05	3,329.53	44.52	75.781	
7,800.00	7,800.00	15,600.00	10,904.07	17.40	89.67	-157.83	-918.26	-374.13	3,278.60	3,233.81	44.78	73.208	
7,900.00	7,900.00	15,600.00	10,904.07	17.62	89.67	-157.83	-918.26	-374.13	3,183.43	3,138.37	45.06	70.653	
8,000.00	8,000.00	15,600.00	10,904.07	17.85	89.67	-157.83	-918.26	-374.13	3,088.56	3,043.21	45.34	68.117	
8,100.00	8,100.00	15,600.00	10,904.07	18.07	89.67	-157.83	-918.26	-374.13	2,994.02	2,948.38	45.64	65.600	
8,200.00	8,200.00	15,600.00	10,904.07	18.30	89.67	-157.83	-918.26	-374.13	2,899.85	2,853.90	45.95	63.104	
8,300.00	8,300.00	15,600.00	10,904.07	18.52	89.67	-157.83	-918.26	-374.13	2,806.09	2,759.81	46.28	60.630	
8,400.00	8,400.00	15,600.00	10,904.07	18.75	89.67	-157.83	-918.26	-374.13	2,712.77	2,666.14	46.63	58.179	
8,500.00	8,500.00	15,600.00	10,904.07	18.97	89.67	-157.83	-918.26	-374.13	2,619.95	2,572.95	46.99	55.753	
8,600.00	8,600.00	15,600.00	10,904.07	19.20	89.67	-157.83	-918.26	-374.13	2,527.67	2,480.29	47.38	53.353	
8,700.00	8,700.00	15,600.00	10,904.07	19.42	89.67	-157.83	-918.26	-374.13	2,436.00	2,388.22	47.78	50.981	
8,800.00	8,800.00	15,600.00	10,904.07	19.65	89.67	-157.83	-918.26	-374.13	2,345.01	2,296.80	48.21	48.638	
8,900.00	8,900.00	15,600.00	10,904.07	19.87	89.67	-157.83	-918.26	-374.13	2,254.79	2,206.12	48.67	46.327	
9,000.00	9,000.00	15,600.00	10,904.07	20.10	89.67	-157.83	-918.26	-374.13	2,165.42	2,116.26	49.16	44.050	
9,100.00	9,100.00	15,600.00	10,904.07	20.32	89.67	-157.83	-918.26	-374.13	2,077.03	2,027.35	49.68	41.810	
9,200.00	9,200.00	15,600.00	10,904.07	20.55	89.67	-157.83	-918.26	-374.13	1,989.73	1,939.50	50.23	39.610	
9,300.00	9,300.00	15,600.00	10,904.07	20.77	89.67	-157.83	-918.26	-374.13	1,903.68	1,852.86	50.83	37.454	
9,400.00	9,400.00	15,600.00	10,904.07	21.00	89.67	-157.83	-918.26	-374.13	1,819.07	1,767.60	51.46	35.347	
9,500.00	9,500.00	15,600.00	10,904.07	21.22	89.67	-157.83	-918.26	-374.13	1,736.08	1,683.94	52.15	33.292	
9,600.00	9,600.00	15,600.00	10,904.07	21.44	89.67	-157.83	-918.26	-374.13	1,654.98	1,602.10	52.88	31.296	
9,627.04	9,627.04	15,600.00	10,904.07	21.51	89.67	-157.83	-918.26	-374.13	1,633.42	1,580.33	53.09	30.767	
9,650.00	9,649.99	15,600.00	10,904.07	21.55	89.67	22.79	-918.26	-374.13	1,614.97	1,561.70	53.27	30.317	
9,700.00	9,699.80	15,600.00	10,904.07	21.63	89.67	25.84	-918.26	-374.13	1,573.50	1,519.83	53.68	29.315	
9,750.00	9,749.06	15,600.00	10,904.07	21.72	89.67	29.82	-918.26	-374.13	1,530.40	1,476.28	54.11	28.282	
9,800.00	9,797.39	15,600.00	10,904.07	21.80	89.67	35.08	-918.26	-374.13	1,485.85	1,431.27	54.58	27.223	
9,850.00	9,844.42	15,600.00	10,904.07	21.88	89.67	42.17	-918.26	-374.13	1,440.08	1,385.00	55.08	26.144	
9,900.00	9,889.79	15,600.00	10,904.07	21.96	89.67	51.78	-918.26	-374.13	1,393.35	1,337.72	55.62	25.049	

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #33H - OH - OH														Offset Site Error:	0.00 usft
Survey Program: 100-VES-ISCWSA-GYRO-3, 5467-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			
9,950.00	9,933.17	15,600.00	10,904.07	22.04	89.67	64.49	-918.26	-374.13	1,345.91	1,289.70	56.21	23.945			
10,000.00	9,974.21	15,600.00	10,904.07	22.14	89.67	80.07	-918.26	-374.13	1,298.08	1,241.24	56.84	22.837			
10,050.00	10,012.62	15,600.00	10,904.07	22.25	89.67	96.64	-918.26	-374.13	1,250.20	1,192.68	57.52	21.735			
10,100.00	10,048.09	15,600.00	10,904.07	22.38	89.67	111.56	-918.26	-374.13	1,202.64	1,144.39	58.25	20.646			
10,150.00	10,080.35	15,600.00	10,904.07	22.53	89.67	123.38	-918.26	-374.13	1,155.83	1,096.81	59.03	19.581			
10,200.00	10,109.17	15,600.00	10,904.07	22.71	89.67	132.16	-918.26	-374.13	1,110.25	1,050.40	59.85	18.551			
10,250.00	10,134.31	15,600.00	10,904.07	22.91	89.67	138.58	-918.26	-374.13	1,066.41	1,005.70	60.71	17.566			
10,300.00	10,155.60	15,600.00	10,904.07	23.14	89.67	143.29	-918.26	-374.13	1,024.90	963.31	61.59	16.641			
10,350.00	10,172.86	15,600.00	10,904.07	23.39	89.67	146.77	-918.26	-374.13	986.34	923.87	62.47	15.789			
10,400.00	10,185.97	15,600.00	10,904.07	23.68	89.67	149.35	-918.26	-374.13	951.41	888.09	63.33	15.023			
10,450.00	10,194.83	15,600.00	10,904.07	24.00	89.67	151.28	-918.26	-374.13	920.80	856.67	64.13	14.359			
10,500.00	10,199.36	15,600.00	10,904.07	24.34	89.67	152.68	-918.26	-374.13	895.20	830.36	64.83	13.808			
10,527.04	10,200.00	15,600.00	10,904.07	24.53	89.67	153.26	-918.26	-374.13	883.66	818.51	65.16	13.562			
10,600.00	10,200.00	15,600.00	10,904.07	25.10	89.67	153.26	-918.26	-374.13	857.49	791.53	65.95	13.002			
10,700.00	10,200.00	15,600.00	10,904.07	25.96	89.67	153.26	-918.26	-374.13	830.72	763.84	66.88	12.421			
10,800.00	10,200.00	15,600.00	10,904.07	26.93	89.67	153.26	-918.26	-374.13	815.43	747.87	67.56	12.070			
10,900.00	10,200.00	15,572.34	10,904.36	27.97	89.18	153.32	-945.91	-373.55	811.78	744.13	67.64	12.001			
11,000.00	10,200.00	15,465.35	10,905.11	29.10	87.29	153.56	-1,052.88	-371.19	811.00	744.06	66.94	12.116			
11,100.00	10,200.00	15,355.99	10,904.70	30.29	85.37	153.78	-1,162.20	-368.58	809.18	742.90	66.28	12.209			
11,200.00	10,200.00	15,247.71	10,902.76	31.55	83.49	153.94	-1,270.43	-366.14	806.16	740.42	65.74	12.263			
11,300.00	10,200.00	15,147.34	10,900.13	32.85	81.79	154.04	-1,370.76	-364.26	802.56	737.18	65.38	12.276			
11,400.00	10,200.00	15,050.76	10,897.59	34.21	80.20	154.10	-1,467.30	-363.05	799.22	734.09	65.13	12.270			
11,500.00	10,200.00	14,963.40	10,896.03	35.61	78.73	154.16	-1,554.64	-362.19	796.78	731.81	64.97	12.264			
11,600.00	10,200.00	14,863.27	10,895.31	37.04	77.00	154.22	-1,654.76	-361.85	795.57	730.85	64.72	12.292			
11,700.00	10,200.00	14,756.60	10,893.53	38.51	75.18	154.24	-1,761.42	-361.72	793.60	729.09	64.51	12.303			
11,800.00	10,200.00	14,669.53	10,892.11	40.01	73.70	154.23	-1,848.47	-362.10	791.91	727.43	64.49	12.280			
11,900.00	10,200.00	14,564.59	10,891.10	41.53	71.93	154.19	-1,953.40	-363.22	791.11	726.72	64.40	12.285			
11,967.33	10,200.00	14,508.13	10,890.56	42.57	70.99	154.17	-2,009.85	-363.83	790.58	726.15	64.43	12.270			
12,000.00	10,200.00	14,481.58	10,890.61	43.08	70.55	154.16	-2,036.40	-364.22	790.71	726.26	64.45	12.268			
12,100.00	10,200.00	14,381.78	10,891.30	44.65	68.89	154.12	-2,136.18	-366.13	791.75	727.31	64.43	12.288			
12,200.00	10,200.00	14,282.38	10,891.55	46.24	67.26	154.04	-2,235.55	-368.38	792.54	728.07	64.47	12.293			
12,300.00	10,200.00	14,180.57	10,891.66	47.84	65.52	153.94	-2,337.33	-370.94	793.32	728.80	64.52	12.296			
12,400.00	10,200.00	14,078.63	10,891.38	49.46	63.81	153.82	-2,439.23	-373.69	793.84	729.23	64.61	12.286			
12,500.00	10,200.00	13,979.87	10,891.06	51.10	62.21	153.72	-2,537.96	-376.06	794.19	729.46	64.73	12.269			
12,600.00	10,200.00	13,894.41	10,892.09	52.74	60.83	153.69	-2,623.40	-377.74	795.70	730.87	64.83	12.273			
12,700.00	10,200.00	13,795.61	10,894.33	54.40	59.23	153.70	-2,722.15	-379.65	798.17	733.33	64.84	12.309			
12,800.00	10,200.00	13,696.47	10,896.70	56.07	57.67	153.72	-2,821.25	-381.51	800.72	735.85	64.87	12.344			
12,875.00	10,200.00	13,625.78	10,898.81	57.33	56.56	153.76	-2,891.91	-382.55	802.90	738.03	64.87	12.377			
12,900.00	10,200.00	13,602.21	10,899.63	57.73	56.18	153.77	-2,915.46	-382.85	803.64	738.80	64.84	12.394			
12,914.83	10,200.00	13,588.23	10,900.14	57.95	55.95	153.79	-2,929.42	-383.04	804.04	739.23	64.81	12.407			
13,000.00	10,200.00	13,502.23	10,903.43	59.31	54.53	153.98	-3,015.35	-384.38	806.40	741.80	64.60	12.484			
13,100.00	10,200.00	13,387.74	10,906.45	61.00	52.64	154.30	-3,129.80	-384.22	807.31	743.09	64.22	12.571			
13,200.00	10,200.00	13,285.13	10,908.99	62.70	50.91	154.58	-3,232.37	-384.15	808.22	744.29	63.92	12.644			
13,300.00	10,200.00	13,170.43	10,910.13	64.40	48.97	154.89	-3,347.07	-383.45	807.54	743.98	63.56	12.705			
13,400.00	10,200.00	13,051.00	10,910.08	66.11	47.07	155.41	-3,466.38	-378.90	804.57	741.61	62.96	12.780			
13,500.00	10,200.00	12,956.00	10,911.16	67.83	45.53	156.13	-3,561.06	-371.20	801.02	738.76	62.26	12.866			
13,600.00	10,200.00	12,862.00	10,912.88	69.55	43.96	156.87	-3,654.73	-363.58	798.24	736.69	61.55	12.968			
13,700.00	10,200.00	12,768.00	10,914.52	71.27	42.42	157.48	-3,748.54	-357.92	796.33	735.32	61.01	13.052			
13,800.00	10,200.00	12,674.00	10,916.24	73.01	40.92	157.96	-3,842.46	-354.32	795.40	734.76	60.64	13.117			
13,865.53	10,200.00	12,614.55	10,917.37	74.14	39.98	158.24	-3,901.86	-352.41	795.03	734.59	60.44	13.153			
13,900.00	10,200.00	12,580.00	10,918.29	74.74	39.43	158.40	-3,936.39	-351.45	795.15	734.83	60.32	13.182			
14,000.00	10,200.00	12,473.32	10,920.71	76.48	37.64	158.87	-4,043.00	-348.54	795.18	735.28	59.91	13.273			

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #33H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 100-VES-ISCWSA-GYRO-3, 5467-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)				
14,100.00	10,200.00	12,351.15	10,920.89	78.22	35.63	159.45	-4,165.07	-343.80	792.82	733.47	59.35	13.359		
14,200.00	10,200.00	12,246.70	10,918.92	79.97	33.98	159.88	-4,269.43	-339.88	788.68	729.63	59.04	13.357		
14,300.00	10,200.00	12,146.04	10,916.44	81.72	32.42	160.16	-4,370.04	-337.93	784.66	725.71	58.94	13.312		
14,400.00	10,200.00	12,045.02	10,913.49	83.47	30.93	160.42	-4,471.00	-336.19	780.30	721.40	58.90	13.248		
14,500.00	10,200.00	11,950.30	10,910.45	85.23	29.56	160.56	-4,565.67	-336.04	776.21	717.17	59.03	13.149		
14,600.00	10,200.00	11,850.81	10,907.88	86.98	28.13	160.72	-4,665.13	-335.87	772.70	713.56	59.15	13.065		
14,700.00	10,200.00	11,768.46	10,906.21	88.74	26.97	160.84	-4,747.46	-336.04	769.91	710.52	59.39	12.964		
14,800.00	10,200.00	11,674.57	10,906.43	90.51	25.62	160.96	-4,841.34	-337.30	769.55	709.94	59.61	12.910		
14,900.00	10,200.00	11,568.30	10,906.00	92.27	24.10	161.10	-4,947.61	-338.45	768.52	708.71	59.80	12.851		
15,000.00	10,200.00	11,463.31	10,904.98	94.04	22.68	161.24	-5,052.58	-339.24	766.86	706.82	60.04	12.773		
15,100.00	10,200.00	11,349.05	10,902.74	95.81	21.17	161.43	-5,166.82	-339.27	764.05	703.81	60.24	12.684		
15,200.00	10,200.00	10,197.99	10,192.97	97.58	14.06	93.83	-5,875.31	-326.38	670.68	617.96	52.72	12.721		
15,300.00	10,200.00	10,195.75	10,190.73	99.35	14.06	93.22	-5,875.36	-326.40	576.51	519.33	57.18	10.083		
15,400.00	10,200.00	10,193.63	10,188.60	101.13	14.06	92.63	-5,875.39	-326.42	484.67	421.16	63.51	7.632		
15,500.00	10,200.00	10,191.61	10,186.59	102.91	14.05	92.08	-5,875.43	-326.43	396.78	324.04	72.73	5.455		
15,534.54	10,200.00	10,190.94	10,185.92	103.52	14.05	91.90	-5,875.44	-326.44	367.86	291.01	76.84	4.787 CC, ES, SF		

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #7 - 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)					
0.00	0.00	0.00	0.00	0.00	0.00	-178.86	-5,249.70	-104.40	5,250.77						
100.00	100.00	87.62	87.62	0.09	0.06	-178.86	-5,249.65	-104.40	5,250.69	5,250.54	0.16	N/A			
183.10	183.10	165.10	165.10	0.28	0.19	-178.86	-5,249.60	-104.42	5,250.64	5,250.17	0.47	N/A			
200.00	200.00	180.49	180.49	0.32	0.21	-178.86	-5,249.60	-104.43	5,250.64	5,250.11	0.53	9,890.189			
300.00	300.00	282.14	282.14	0.54	0.40	-178.86	-5,249.63	-104.53	5,250.67	5,249.74	0.93	5,644.242			
400.00	400.00	400.00	400.00	0.77	0.61	-178.86	-5,249.45	-104.63	5,250.52	5,249.16	1.36	3,850.767			
463.72	463.72	445.72	445.72	0.91	0.69	-178.86	-5,249.37	-104.62	5,250.41	5,248.83	1.59	3,310.017			
500.00	500.00	471.75	471.75	0.99	0.73	-178.86	-5,249.40	-104.58	5,250.45	5,248.74	1.71	3,064.303			
600.00	600.00	610.15	610.14	1.22	0.97	-178.86	-5,249.37	-104.25	5,250.48	5,248.30	2.18	2,408.222			
700.00	700.00	700.00	700.00	1.44	1.13	-178.86	-5,248.90	-104.09	5,249.97	5,247.40	2.57	2,044.975			
800.00	800.00	785.84	785.83	1.67	1.28	-178.86	-5,248.65	-104.18	5,249.69	5,246.75	2.94	1,783.307			
818.00	818.00	800.00	800.00	1.71	1.31	-178.86	-5,248.65	-104.25	5,249.68	5,246.67	3.01	1,744.236			
900.00	900.00	878.31	878.31	1.89	1.44	-178.86	-5,248.67	-104.37	5,249.71	5,246.38	3.33	1,577.054			
1,000.00	1,000.00	968.89	968.88	2.12	1.59	-178.86	-5,248.81	-104.05	5,249.86	5,246.15	3.71	1,415.702			
1,100.00	1,100.00	1,095.12	1,095.12	2.34	1.81	-178.87	-5,248.94	-103.88	5,249.99	5,245.83	4.15	1,264.572			
1,200.00	1,200.00	1,184.50	1,184.49	2.56	1.97	-178.86	-5,248.79	-104.05	5,249.82	5,245.29	4.53	1,157.914			
1,300.00	1,300.00	1,286.39	1,286.39	2.79	2.15	-178.86	-5,248.75	-104.03	5,249.78	5,244.84	4.94	1,063.352			
1,400.00	1,400.00	1,387.26	1,387.25	3.01	2.33	-178.87	-5,248.65	-103.96	5,249.68	5,244.34	5.34	983.299			
1,500.00	1,500.00	1,485.37	1,485.36	3.24	2.50	-178.86	-5,248.57	-104.00	5,249.60	5,243.86	5.74	915.265			
1,600.00	1,600.00	1,605.53	1,605.52	3.46	2.71	-178.87	-5,248.28	-103.93	5,249.36	5,243.19	6.17	850.392			
1,700.00	1,700.00	1,700.00	1,699.99	3.69	2.88	-178.86	-5,247.83	-104.20	5,248.89	5,242.32	6.57	799.232			
1,800.00	1,800.00	1,782.43	1,782.42	3.91	3.03	-178.86	-5,247.61	-104.51	5,248.65	5,241.71	6.94	756.569			
1,801.76	1,801.76	1,783.77	1,783.76	3.92	3.03	-178.86	-5,247.61	-104.52	5,248.65	5,241.70	6.94	755.882			
1,900.00	1,900.00	1,868.46	1,868.45	4.14	3.18	-178.85	-5,247.73	-104.89	5,248.79	5,241.48	7.31	718.093			
2,000.00	2,000.00	1,967.09	1,967.08	4.36	3.34	-178.85	-5,248.03	-105.00	5,249.10	5,241.40	7.70	681.624			
2,100.00	2,100.00	2,099.30	2,099.29	4.59	3.57	-178.85	-5,248.08	-104.98	5,249.16	5,241.01	8.15	643.743			
2,165.80	2,165.80	2,147.81	2,147.80	4.74	3.66	-178.85	-5,248.00	-105.05	5,249.05	5,240.66	8.39	625.890			
2,200.00	2,200.00	2,172.85	2,172.83	4.81	3.70	-178.85	-5,248.02	-105.09	5,249.08	5,240.57	8.51	617.031			
2,300.00	2,300.00	2,261.24	2,261.23	5.04	3.85	-178.85	-5,248.32	-105.16	5,249.42	5,240.54	8.88	590.905			
2,400.00	2,400.00	2,377.63	2,377.61	5.26	4.05	-178.85	-5,248.68	-105.14	5,249.73	5,240.42	9.31	563.931			
2,500.00	2,500.00	2,487.32	2,487.30	5.49	4.25	-178.85	-5,248.62	-105.78	5,249.69	5,239.97	9.73	539.803			
2,600.00	2,600.00	2,581.81	2,581.80	5.71	4.42	-178.84	-5,248.55	-106.31	5,249.63	5,239.51	10.11	518.997			
2,648.26	2,648.26	2,640.08	2,640.06	5.82	4.52	-178.84	-5,248.52	-106.56	5,249.61	5,239.28	10.33	508.409			
2,700.00	2,700.00	2,712.27	2,712.26	5.94	4.65	-178.84	-5,248.24	-106.57	5,249.41	5,238.84	10.57	496.693			
2,800.00	2,800.00	2,850.76	2,850.73	6.16	4.89	-178.85	-5,246.97	-104.98	5,248.47	5,237.43	11.04	475.498			
2,900.00	2,900.00	2,969.22	2,969.15	6.39	5.10	-178.87	-5,245.18	-103.16	5,246.92	5,235.44	11.47	457.368			
3,000.00	3,000.00	3,092.37	3,092.28	6.61	5.31	-178.89	-5,242.94	-101.36	5,245.08	5,233.16	11.92	440.204			
3,100.00	3,100.00	3,180.82	3,180.70	6.84	5.47	-178.90	-5,241.17	-100.18	5,243.06	5,230.76	12.30	426.329			
3,200.00	3,200.00	3,273.76	3,273.62	7.06	5.63	-178.92	-5,239.53	-98.84	5,241.26	5,228.57	12.69	413.051			
3,300.00	3,300.00	3,375.18	3,375.01	7.28	5.81	-178.93	-5,237.78	-97.39	5,239.52	5,226.42	13.10	400.106			
3,400.00	3,400.00	3,491.03	3,490.83	7.51	6.02	-178.95	-5,235.60	-96.30	5,237.62	5,224.09	13.53	387.174			
3,500.00	3,500.00	3,583.63	3,583.41	7.73	6.19	-178.95	-5,233.73	-95.60	5,235.59	5,221.67	13.92	376.119			
3,600.00	3,600.00	3,675.33	3,675.09	7.96	6.35	-178.96	-5,232.05	-94.84	5,233.73	5,219.42	14.31	365.715			
3,700.00	3,700.00	3,797.83	3,797.57	8.18	6.58	-178.97	-5,229.70	-94.06	5,231.82	5,217.06	14.76	354.535			
3,800.00	3,800.00	3,915.60	3,915.30	8.41	6.79	-178.98	-5,226.85	-93.24	5,229.38	5,214.19	15.19	344.158			
3,900.00	3,900.00	4,001.49	4,001.16	8.63	6.95	-178.98	-5,224.79	-92.66	5,226.97	5,211.39	15.58	335.564			
4,000.00	4,000.00	4,100.00	4,099.64	8.86	7.13	-178.99	-5,222.54	-91.66	5,224.67	5,208.69	15.98	326.936			
4,100.00	4,100.00	4,183.79	4,183.41	9.08	7.28	-179.00	-5,220.77	-90.70	5,222.54	5,206.18	16.36	319.254			
4,200.00	4,200.00	4,297.54	4,297.13	9.31	7.49	-179.02	-5,218.50	-89.40	5,220.53	5,203.74	16.79	310.941			
4,300.00	4,300.00	4,380.77	4,380.34	9.53	7.64	-179.03	-5,216.81	-88.31	5,218.48	5,201.31	17.17	303.997			
4,400.00	4,400.00	4,485.02	4,484.56	9.76	7.83	-179.04	-5,214.87	-87.03	5,216.60	5,199.02	17.58	296.730			
4,500.00	4,500.00	4,569.58	4,569.10	9.98	7.98	-179.05	-5,213.31	-86.45	5,214.75	5,196.79	17.96	290.347			

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #7 - 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	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre	Between	Between	Minimum	Separation	Warning		
Depth	Depth	Depth	Depth			Tooface	+N-S	Centres	Ellipses	Separation	Factor			
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)				
4,600.00	4,600.00	4,664.85	4,664.36	10.21	8.16	-179.05	-5,211.81	-86.36	5,213.18	5,194.82	18.36	283.942		
4,700.00	4,700.00	4,786.97	4,786.46	10.43	8.38	-179.06	-5,209.69	-85.75	5,211.45	5,192.64	18.81	277.089		
4,800.00	4,800.00	4,875.15	4,874.62	10.66	8.54	-179.06	-5,207.98	-85.71	5,209.51	5,190.32	19.20	271.398		
4,900.00	4,900.00	4,987.94	4,987.39	10.88	8.75	-179.05	-5,205.91	-86.48	5,207.70	5,188.07	19.63	265.346		
5,000.00	5,000.00	5,092.23	5,091.68	11.11	8.94	-178.04	-5,203.73	-87.14	5,205.61	5,185.57	20.04	259.731		
5,100.00	5,100.00	5,165.75	5,165.16	11.33	9.08	-179.03	-5,202.34	-87.64	5,203.74	5,183.34	20.40	255.050		
5,200.00	5,200.00	5,299.07	5,298.46	11.56	9.32	-179.02	-5,200.04	-89.13	5,202.11	5,181.24	20.87	249.277		
5,300.00	5,300.00	5,386.84	5,386.20	11.78	9.48	-179.01	-5,198.16	-89.80	5,199.98	5,178.73	21.26	244.639		
5,400.00	5,400.00	5,457.25	5,456.60	12.00	9.61	-179.01	-5,196.92	-90.22	5,198.24	5,176.63	21.61	240.539		
5,500.00	5,500.00	5,550.45	5,549.78	12.23	9.78	-178.99	-5,195.78	-91.15	5,197.03	5,175.02	22.01	236.169		
5,600.00	5,600.00	5,668.70	5,668.01	12.45	9.99	-178.98	-5,193.95	-92.21	5,195.48	5,173.03	22.45	231.470		
5,700.00	5,700.00	5,755.00	5,754.31	12.68	10.15	-178.98	-5,192.56	-92.69	5,193.89	5,171.07	22.83	227.507		
5,800.00	5,800.00	5,848.99	5,848.28	12.90	10.32	-178.97	-5,191.39	-93.26	5,192.65	5,169.42	23.23	223.558		
5,900.00	5,900.00	5,944.14	5,943.43	13.13	10.50	-178.96	-5,190.12	-93.80	5,191.33	5,167.70	23.63	219.720		
6,000.00	6,000.00	6,025.52	6,024.80	13.35	10.65	-178.96	-5,189.31	-94.25	5,190.35	5,166.35	24.00	216.252		
6,100.00	6,100.00	6,100.00	6,099.28	13.58	10.79	-178.95	-5,188.76	-94.68	5,189.66	5,165.29	24.36	213.021		
6,170.94	6,170.94	6,153.66	6,152.94	13.74	10.88	-178.95	-5,188.59	-94.91	5,189.46	5,164.85	24.61	210.849		
6,200.00	6,200.00	6,171.68	6,170.96	13.80	10.91	-178.95	-5,188.61	-94.94	5,189.49	5,164.78	24.71	210.035		
6,300.00	6,300.00	6,299.48	6,298.76	14.03	11.12	-178.95	-5,188.83	-95.00	5,189.72	5,164.57	25.15	206.358		
6,400.00	6,400.00	6,384.50	6,383.77	14.25	11.27	-178.95	-5,188.67	-95.32	5,189.54	5,164.02	25.52	203.321		
6,500.00	6,500.00	6,519.96	6,519.24	14.48	11.52	-178.94	-5,188.17	-95.76	5,189.19	5,163.20	25.99	199.660		
6,600.00	6,600.00	6,615.07	6,614.33	14.70	11.69	-178.94	-5,187.48	-95.61	5,188.46	5,162.07	26.39	196.611		
6,700.00	6,700.00	6,700.00	6,699.27	14.93	11.84	-178.95	-5,187.26	-95.17	5,188.16	5,161.40	26.76	193.844		
6,800.00	6,800.00	6,820.33	6,819.59	15.15	12.05	-178.95	-5,186.68	-94.84	5,187.68	5,160.48	27.20	190.710		
6,900.00	6,900.00	6,900.00	6,899.26	15.38	12.19	-178.95	-5,186.41	-94.80	5,187.30	5,159.74	27.57	188.172		
6,917.26	6,917.26	6,900.00	6,899.26	15.42	12.19	-178.95	-5,186.41	-94.80	5,187.28	5,159.67	27.61	187.906		
7,000.00	7,000.00	6,972.64	6,971.90	15.60	12.31	-178.95	-5,186.50	-94.72	5,187.37	5,159.46	27.91	185.865		
7,100.00	7,100.00	7,090.96	7,090.23	15.83	12.50	-178.95	-5,186.60	-94.96	5,187.47	5,159.14	28.33	183.110		
7,200.00	7,200.00	7,200.00	7,199.26	16.05	12.70	-178.94	-5,186.30	-95.65	5,187.21	5,158.46	28.75	180.449		
7,300.00	7,300.00	7,294.54	7,293.80	16.28	12.87	-178.94	-5,186.03	-95.70	5,186.93	5,157.79	29.14	178.006		
7,400.00	7,400.00	7,385.73	7,384.99	16.50	13.02	-178.95	-5,185.91	-95.30	5,186.78	5,157.26	29.52	175.684		
7,500.00	7,500.00	7,500.00	7,499.26	16.72	13.23	-178.95	-5,185.60	-95.01	5,186.49	5,156.54	29.95	173.164		
7,572.65	7,572.65	7,555.39	7,554.65	16.89	13.32	-178.95	-5,185.43	-95.05	5,186.30	5,156.09	30.21	171.672		
7,600.00	7,600.00	7,572.98	7,572.24	16.95	13.35	-178.95	-5,185.45	-95.09	5,186.33	5,156.03	30.30	171.152		
7,700.00	7,700.00	7,673.36	7,672.61	17.17	13.52	-178.95	-5,185.77	-95.30	5,186.66	5,155.96	30.69	168.978		
7,800.00	7,800.00	7,779.49	7,778.74	17.40	13.70	-178.95	-5,185.86	-95.38	5,186.74	5,155.64	31.10	166.793		
7,900.00	7,900.00	7,869.42	7,868.68	17.62	13.85	-178.94	-5,185.97	-95.91	5,186.88	5,155.40	31.47	164.805		
8,000.00	8,000.00	7,972.21	7,971.46	17.85	14.02	-178.94	-5,186.26	-96.27	5,187.16	5,155.29	31.87	162.766		
8,100.00	8,100.00	8,103.73	8,102.98	18.07	14.25	-178.94	-5,186.16	-96.27	5,187.10	5,154.78	32.32	160.492		
8,200.00	8,200.00	8,200.00	8,199.25	18.30	14.42	-178.93	-5,185.81	-96.50	5,186.73	5,154.01	32.72	158.519		
8,300.00	8,300.00	8,298.72	8,297.97	18.52	14.60	-178.93	-5,185.49	-96.61	5,186.42	5,153.29	33.13	156.569		
8,395.34	8,395.34	8,378.09	8,377.34	18.74	14.74	-178.93	-5,185.37	-96.51	5,186.27	5,152.79	33.48	154.907		
8,400.00	8,400.00	8,381.96	8,381.21	18.75	14.75	-178.93	-5,185.37	-96.50	5,186.27	5,152.77	33.50	154.827		
8,500.00	8,500.00	8,479.51	8,478.76	18.97	14.92	-178.94	-5,185.44	-96.27	5,186.34	5,152.45	33.89	153.038		
8,600.00	8,600.00	8,562.26	8,561.51	19.20	15.06	-178.93	-5,185.59	-96.52	5,186.53	5,152.28	34.25	151.422		
8,700.00	8,700.00	8,667.55	8,666.80	19.42	15.23	-178.93	-5,186.08	-96.54	5,187.00	5,152.35	34.65	149.691		
8,800.00	8,800.00	8,765.73	8,764.98	19.65	15.40	-178.93	-5,186.29	-97.27	5,187.23	5,152.19	35.04	148.034		
8,900.00	8,900.00	8,868.96	8,868.20	19.87	15.57	-178.91	-5,186.64	-98.45	5,187.59	5,152.15	35.44	146.375		
9,000.00	9,000.00	8,958.32	8,957.55	20.10	15.73	-178.90	-5,186.88	-99.82	5,187.90	5,152.08	35.82	144.847		
9,100.00	9,100.00	9,056.21	9,055.43	20.32	15.89	-178.88	-5,187.42	-101.05	5,188.48	5,152.27	36.21	143.304		
9,200.00	9,200.00	9,164.79	9,164.00	20.55	16.08	-178.87	-5,187.83	-102.45	5,188.88	5,152.26	36.61	141.716		
9,300.00	9,300.00	9,250.63	9,249.82	20.77	16.23	-178.85	-5,188.16	-104.11	5,189.30	5,152.32	36.98	140.309		

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #7 - 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)					
9,400.00	9,400.00	9,404.00	9,403.17	21.00	16.49	-178.82	-5,188.71	-106.71	5,189.85	5,152.38	37.47	138.500	
9,421.17	9,421.17	9,404.00	9,403.17	21.04	16.49	-178.82	-5,188.71	-106.71	5,189.81	5,152.29	37.52	138.322	
9,500.00	9,500.00	9,404.00	9,403.17	21.22	16.49	-178.82	-5,188.71	-106.71	5,190.41	5,152.71	37.70	137.689	
9,600.00	9,600.00	9,404.00	9,403.17	21.44	16.49	-178.82	-5,188.71	-106.71	5,192.89	5,154.97	37.92	136.954	
9,627.04	9,627.04	9,404.00	9,403.17	21.51	16.49	-178.82	-5,188.71	-106.71	5,193.89	5,155.91	37.98	136.767	
9,650.00	9,649.99	9,404.00	9,403.17	21.55	16.49	0.63	-5,188.71	-106.71	5,194.39	5,156.37	38.02	136.626	
9,700.00	9,699.80	9,404.00	9,403.17	21.63	16.49	0.63	-5,188.71	-106.71	5,192.65	5,154.55	38.10	136.299	
9,750.00	9,749.06	9,404.00	9,403.17	21.72	16.49	0.64	-5,188.71	-106.71	5,187.04	5,148.86	38.18	135.874	
9,800.00	9,797.39	9,404.00	9,403.17	21.80	16.49	0.65	-5,188.71	-106.71	5,177.59	5,139.33	38.25	135.355	
9,850.00	9,844.42	9,404.00	9,403.17	21.88	16.49	0.66	-5,188.71	-106.71	5,164.35	5,126.02	38.33	134.747	
9,900.00	9,889.76	9,404.00	9,403.17	21.96	16.49	0.68	-5,188.71	-106.71	5,147.39	5,108.99	38.40	134.054	
9,950.00	9,933.17	9,404.00	9,403.17	22.04	16.49	0.71	-5,188.71	-106.71	5,126.81	5,088.34	38.47	133.281	
10,000.00	9,974.21	9,404.00	9,403.17	22.14	16.49	0.75	-5,188.71	-106.71	5,102.71	5,064.18	38.53	132.432	
10,050.00	10,012.62	9,404.00	9,403.17	22.25	16.49	0.79	-5,188.71	-106.71	5,075.24	5,036.65	38.59	131.512	
10,100.00	10,048.09	9,404.00	9,403.17	22.38	16.49	0.85	-5,188.71	-106.71	5,044.55	5,005.91	38.65	130.526	
10,150.00	10,080.35	9,404.00	9,403.17	22.53	16.49	0.92	-5,188.71	-106.71	5,010.82	4,972.12	38.70	129.480	
10,200.00	10,109.17	9,404.00	9,403.17	22.71	16.49	1.01	-5,188.71	-106.71	4,974.24	4,935.50	38.75	128.379	
10,250.00	10,134.31	9,404.00	9,403.17	22.91	16.49	1.12	-5,188.71	-106.71	4,935.04	4,896.25	38.79	127.231	
10,300.00	10,155.60	9,404.00	9,403.17	23.14	16.49	1.28	-5,188.71	-106.71	4,893.44	4,854.62	38.82	126.041	
10,350.00	10,172.86	9,404.00	9,403.17	23.39	16.49	1.50	-5,188.71	-106.71	4,849.72	4,810.87	38.85	124.818	
10,400.00	10,185.97	9,404.00	9,403.17	23.68	16.49	1.82	-5,188.71	-106.71	4,804.15	4,765.27	38.88	123.567	
10,450.00	10,194.83	9,404.00	9,403.17	24.00	16.49	2.33	-5,188.71	-106.71	4,757.02	4,718.13	38.90	122.297	
10,500.00	10,199.36	9,404.00	9,403.17	24.34	16.49	3.27	-5,188.71	-106.71	4,708.67	4,669.76	38.91	121.014	
10,527.04	10,200.00	9,404.00	9,403.17	24.53	16.49	4.18	-5,188.71	-106.71	4,682.12	4,643.20	38.92	120.313	
10,600.00	10,200.00	9,404.00	9,403.17	25.10	16.49	4.18	-5,188.71	-106.71	4,610.20	4,571.27	38.92	118.447	
10,700.00	10,200.00	9,404.00	9,403.17	25.96	16.49	4.18	-5,188.71	-106.71	4,511.67	4,472.74	38.93	115.891	
10,800.00	10,200.00	9,404.00	9,403.17	26.93	16.49	4.18	-5,188.71	-106.71	4,413.22	4,374.28	38.94	113.332	
10,900.00	10,200.00	9,404.00	9,403.17	27.97	16.49	4.18	-5,188.71	-106.71	4,314.83	4,275.88	38.95	110.772	
11,000.00	10,200.00	9,404.00	9,403.17	29.10	16.49	4.18	-5,188.71	-106.71	4,216.52	4,177.55	38.97	108.210	
11,100.00	10,200.00	9,404.00	9,403.17	30.29	16.49	4.18	-5,188.71	-106.71	4,118.29	4,079.31	38.98	105.646	
11,200.00	10,200.00	9,404.00	9,403.17	31.55	16.49	4.18	-5,188.71	-106.71	4,020.15	3,981.15	39.00	103.080	
11,300.00	10,200.00	9,404.00	9,403.17	32.85	16.49	4.18	-5,188.71	-106.71	3,922.10	3,883.08	39.02	100.513	
11,400.00	10,200.00	9,404.00	9,403.17	34.21	16.49	4.18	-5,188.71	-106.71	3,824.16	3,785.11	39.04	97.944	
11,500.00	10,200.00	9,404.00	9,403.17	35.61	16.49	4.18	-5,188.71	-106.71	3,726.32	3,687.25	39.07	95.375	
11,600.00	10,200.00	9,404.00	9,403.17	37.04	16.49	4.18	-5,188.71	-106.71	3,628.60	3,589.50	39.10	92.804	
11,700.00	10,200.00	9,404.00	9,403.17	38.51	16.49	4.18	-5,188.71	-106.71	3,531.01	3,491.88	39.13	90.232	
11,800.00	10,200.00	9,404.00	9,403.17	40.01	16.49	4.18	-5,188.71	-106.71	3,433.56	3,394.39	39.17	87.660	
11,900.00	10,200.00	9,404.00	9,403.17	41.53	16.49	4.18	-5,188.71	-106.71	3,336.26	3,297.05	39.21	85.087	
12,000.00	10,200.00	9,404.00	9,403.17	43.08	16.49	4.18	-5,188.71	-106.71	3,239.12	3,199.86	39.26	82.514	
12,100.00	10,200.00	9,404.00	9,403.17	44.65	16.49	4.18	-5,188.71	-106.71	3,142.16	3,102.85	39.31	79.940	
12,200.00	10,200.00	9,404.00	9,403.17	46.24	16.49	4.18	-5,188.71	-106.71	3,045.40	3,006.04	39.36	77.366	
12,300.00	10,200.00	9,404.00	9,403.17	47.84	16.49	4.18	-5,188.71	-106.71	2,948.86	2,909.43	39.43	74.792	
12,400.00	10,200.00	9,404.00	9,403.17	49.46	16.49	4.18	-5,188.71	-106.71	2,852.55	2,813.05	39.50	72.219	
12,500.00	10,200.00	9,404.00	9,403.17	51.10	16.49	4.18	-5,188.71	-106.71	2,756.50	2,716.92	39.58	69.645	
12,600.00	10,200.00	9,404.00	9,403.17	52.74	16.49	4.18	-5,188.71	-106.71	2,660.75	2,621.08	39.67	67.073	
12,700.00	10,200.00	9,404.00	9,403.17	54.40	16.49	4.18	-5,188.71	-106.71	2,565.32	2,525.55	39.77	64.501	
12,800.00	10,200.00	9,404.00	9,403.17	56.07	16.49	4.18	-5,188.71	-106.71	2,470.26	2,430.37	39.89	61.931	
12,875.00	10,200.00	9,404.00	9,403.17	57.33	16.49	4.18	-5,188.71	-106.71	2,399.22	2,359.24	39.98	60.004	
12,900.00	10,200.00	9,404.00	9,403.17	57.73	16.49	2.01	-5,188.71	-106.71	2,375.59	2,335.57	40.02	58.362	
12,914.83	10,200.00	9,404.00	9,403.17	57.95	16.49	0.74	-5,188.71	-106.71	2,361.59	2,321.55	40.04	58.982	
13,000.00	10,200.00	9,404.00	9,403.17	59.31	16.49	0.74	-5,188.71	-106.71	2,281.36	2,241.19	40.16	56.802	
13,100.00	10,200.00	9,404.00	9,403.17	61.00	16.49	0.74	-5,188.71	-106.71	2,187.63	2,147.30	40.33	54.244	

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 - #7 - 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)					
13,200.00	10,200.00	9,404.00	9,403.17	62.70	16.49	0.74	-5,188.71	-106.71	2,094.49	2,053.97	40.52	51.691			
13,300.00	10,200.00	9,404.00	9,403.17	64.40	16.49	0.74	-5,188.71	-106.71	2,002.00	1,961.27	40.74	49.144			
13,400.00	10,200.00	9,404.00	9,403.17	66.11	16.49	0.74	-5,188.71	-106.71	1,910.28	1,869.29	40.99	46.603			
13,500.00	10,200.00	9,404.00	9,403.17	67.83	16.49	0.74	-5,188.71	-106.71	1,819.43	1,778.14	41.28	44.071			
13,600.00	10,200.00	9,404.00	9,403.17	69.55	16.49	0.74	-5,188.71	-106.71	1,729.58	1,687.96	41.63	41.551			
13,700.00	10,200.00	9,404.00	9,403.17	71.27	16.49	0.74	-5,188.71	-106.71	1,640.92	1,598.89	42.03	39.046			
13,800.00	10,200.00	9,404.00	9,403.17	73.01	16.49	0.74	-5,188.71	-106.71	1,553.62	1,511.13	42.49	36.562			
13,900.00	10,200.00	9,404.00	9,403.17	74.74	16.49	0.74	-5,188.71	-106.71	1,467.96	1,424.91	43.04	34.104			
14,000.00	10,200.00	9,404.00	9,403.17	76.48	16.49	0.74	-5,188.71	-106.71	1,384.21	1,340.52	43.69	31.683			
14,100.00	10,200.00	9,404.00	9,403.17	78.22	16.49	0.74	-5,188.71	-106.71	1,302.76	1,258.31	44.45	29.308			
14,200.00	10,200.00	9,404.00	9,403.17	79.97	16.49	0.74	-5,188.71	-106.71	1,224.06	1,178.72	45.34	26.996			
14,300.00	10,200.00	9,404.00	9,403.17	81.72	16.49	0.74	-5,188.71	-106.71	1,148.69	1,102.30	46.38	24.764			
14,400.00	10,200.00	9,404.00	9,403.17	83.47	16.49	0.74	-5,188.71	-106.71	1,077.32	1,029.73	47.59	22.638			
14,500.00	10,200.00	9,404.00	9,403.17	85.23	16.49	0.74	-5,188.71	-106.71	1,010.83	961.86	48.96	20.644			
14,600.00	10,200.00	9,404.00	9,403.17	86.98	16.49	0.74	-5,188.71	-106.71	950.22	899.72	50.50	18.818			
14,700.00	10,200.00	9,404.00	9,403.17	88.74	16.49	0.74	-5,188.71	-106.71	896.69	844.55	52.15	17.196			
14,800.00	10,200.00	9,404.00	9,403.17	90.51	16.49	0.74	-5,188.71	-106.71	851.59	797.74	53.85	15.815			
14,900.00	10,200.00	9,404.00	9,403.17	92.27	16.49	0.74	-5,188.71	-106.71	816.30	760.82	55.48	14.713			
15,000.00	10,200.00	9,404.00	9,403.17	94.04	16.49	0.74	-5,188.71	-106.71	792.15	735.24	56.91	13.920			
15,100.00	10,200.00	9,404.00	9,403.17	95.81	16.49	0.74	-5,188.71	-106.71	780.15	722.17	57.98	13.455			
15,144.27	10,200.00	9,404.00	9,403.17	96.59	16.49	0.74	-5,188.71	-106.71	778.90	720.58	58.32	13.356 CC, ES			
15,200.00	10,200.00	9,404.00	9,403.17	97.58	16.49	0.74	-5,188.71	-106.71	780.89	722.29	58.60	13.326 SF			
15,300.00	10,200.00	9,404.00	9,403.17	99.35	16.49	0.74	-5,188.71	-106.71	794.31	735.59	58.72	13.527			
15,400.00	10,200.00	9,404.00	9,403.17	101.13	16.49	0.74	-5,188.71	-106.71	819.80	761.41	58.39	14.040			
15,500.00	10,200.00	9,404.00	9,403.17	102.91	16.49	0.74	-5,188.71	-106.71	856.28	798.57	57.71	14.838			
15,534.54	10,200.00	9,404.00	9,403.17	103.52	16.49	0.74	-5,188.71	-106.71	871.20	813.78	57.42	15.173			

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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)						
0.00	0.00	0.00	0.00	0.00	0.00	-157.64	-4,298.83	-1,768.10	4,648.37					
100.00	100.00	66.41	66.41	0.09	0.99	-157.64	-4,298.83	-1,768.08	4,648.23	4,647.16	1.07	4,337.241		
200.00	200.00	167.96	167.96	0.32	2.52	-157.64	-4,298.83	-1,767.98	4,648.19	4,645.40	2.79	1,663.668		
300.00	300.00	269.50	269.50	0.54	4.04	-157.65	-4,298.83	-1,767.79	4,648.12	4,643.60	4.52	1,029.213		
400.00	400.00	371.05	371.05	0.77	5.56	-157.65	-4,298.83	-1,767.51	4,648.02	4,641.78	6.24	745.060		
500.00	500.00	472.59	472.59	0.99	7.08	-157.65	-4,298.83	-1,767.14	4,647.88	4,639.92	7.96	583.852		
600.00	600.00	578.83	578.83	1.22	10.82	-157.66	-4,298.83	-1,766.56	4,647.67	4,635.96	11.72	396.683		
700.00	700.00	687.26	687.25	1.44	15.61	-157.67	-4,298.83	-1,765.47	4,647.29	4,630.85	16.44	282.624		
800.00	800.00	795.67	795.65	1.67	20.39	-157.69	-4,298.84	-1,763.86	4,646.73	4,625.55	21.18	219.402		
900.00	900.00	900.00	899.96	1.89	24.99	-157.71	-4,298.84	-1,761.83	4,645.99	4,620.24	25.75	180.430		
1,000.00	1,000.00	1,002.32	1,002.25	2.12	31.39	-157.74	-4,298.84	-1,759.64	4,645.18	4,613.28	31.90	145.618		
1,100.00	1,100.00	1,100.94	1,100.85	2.34	37.55	-157.76	-4,298.84	-1,757.60	4,644.40	4,606.55	37.85	122.704		
1,200.00	1,200.00	1,199.56	1,199.46	2.56	43.71	-157.78	-4,298.85	-1,755.65	4,643.66	4,599.85	43.81	105.996		
1,300.00	1,300.00	1,298.19	1,298.06	2.79	49.87	-157.81	-4,298.85	-1,753.76	4,642.94	4,593.16	49.77	93.279		
1,400.00	1,400.00	1,396.81	1,396.67	3.01	56.04	-157.83	-4,298.85	-1,751.96	4,642.25	4,586.50	55.74	83.277		
1,500.00	1,500.00	1,495.37	1,495.21	3.24	61.79	-157.85	-4,298.86	-1,750.23	4,641.59	4,580.24	61.36	75.651		
1,600.00	1,600.00	1,593.82	1,593.65	3.46	66.97	-157.87	-4,298.86	-1,748.59	4,640.97	4,574.52	66.44	69.847		
1,700.00	1,700.00	1,692.27	1,692.09	3.69	72.14	-157.88	-4,298.86	-1,747.04	4,640.37	4,568.84	71.53	64.869		
1,800.00	1,800.00	1,790.72	1,790.53	3.91	77.31	-157.90	-4,298.86	-1,745.58	4,639.81	4,563.19	76.63	60.552		
1,900.00	1,900.00	1,889.18	1,888.98	4.14	82.48	-157.92	-4,298.86	-1,744.20	4,639.29	4,557.57	81.72	56.772		
2,000.00	2,000.00	1,888.35	1,888.14	4.36	87.36	-157.93	-4,298.87	-1,742.89	4,638.79	4,552.26	86.54	53.606		
2,100.00	2,100.00	2,088.34	2,088.12	4.59	91.90	-157.95	-4,298.87	-1,741.58	4,638.30	4,547.27	91.04	50.949		
2,200.00	2,200.00	2,188.33	2,188.10	4.81	96.44	-157.96	-4,298.87	-1,740.27	4,637.82	4,542.27	95.54	48.543		
2,300.00	2,300.00	2,288.32	2,288.09	5.04	100.98	-157.98	-4,298.87	-1,738.96	4,637.33	4,537.28	100.04	46.352		
2,400.00	2,400.00	2,388.31	2,388.07	5.26	105.52	-157.99	-4,298.87	-1,737.65	4,636.84	4,532.29	104.55	44.351		
2,500.00	2,500.00	2,489.93	2,489.68	5.49	110.80	-158.01	-4,298.87	-1,736.30	4,636.34	4,526.60	109.74	42.248		
2,600.00	2,600.00	2,593.22	2,592.96	5.71	116.85	-158.02	-4,298.88	-1,734.75	4,635.78	4,520.14	115.64	40.087		
2,700.00	2,700.00	2,696.51	2,696.23	5.94	122.89	-158.04	-4,298.88	-1,733.01	4,635.15	4,513.61	121.54	38.136		
2,800.00	2,800.00	2,799.79	2,799.49	6.16	128.94	-158.07	-4,298.88	-1,731.06	4,634.45	4,507.00	127.45	36.363		
2,900.00	2,900.00	2,903.06	2,902.74	6.39	134.98	-158.09	-4,298.88	-1,728.92	4,633.68	4,500.32	133.36	34.746		
3,000.00	3,000.00	3,007.63	3,007.28	6.61	144.16	-158.12	-4,298.89	-1,726.52	4,632.83	4,490.68	142.14	32.593		
3,100.00	3,100.00	3,112.29	3,111.90	6.84	153.60	-158.15	-4,298.89	-1,723.83	4,631.87	4,480.70	151.17	30.639		
3,200.00	3,200.00	3,216.93	3,216.51	7.06	163.04	-158.18	-4,298.90	-1,720.86	4,630.82	4,470.61	160.21	28.904		
3,300.00	3,300.00	3,321.56	3,321.08	7.28	172.48	-158.22	-4,298.90	-1,717.60	4,629.66	4,460.41	169.26	27.353		
3,400.00	3,400.00	3,413.00	3,412.47	7.51	180.72	-158.26	-4,298.90	-1,714.52	4,628.43	4,451.23	177.20	26.119		
3,500.00	3,500.00	3,517.48	3,516.90	7.73	189.48	-158.30	-4,298.91	-1,711.12	4,627.22	4,441.59	185.63	24.927		
3,600.00	3,600.00	3,610.31	3,609.69	7.96	197.26	-158.33	-4,298.91	-1,708.51	4,626.19	4,433.04	193.15	23.952		
3,700.00	3,700.00	3,703.15	3,702.51	8.18	205.05	-158.35	-4,298.92	-1,706.29	4,625.31	4,424.64	200.66	23.050		
3,800.00	3,800.00	3,800.00	3,799.34	8.41	213.16	-158.37	-4,298.92	-1,704.39	4,624.59	4,416.10	208.49	22.181		
3,900.00	3,900.00	3,893.11	3,892.43	8.63	216.84	-158.39	-4,298.92	-1,702.83	4,623.97	4,411.74	212.23	21.788		
4,000.00	4,000.00	3,990.40	3,989.71	8.86	220.69	-158.41	-4,298.92	-1,701.36	4,623.41	4,407.30	216.12	21.393		
4,100.00	4,100.00	4,087.69	4,086.99	9.08	224.53	-158.42	-4,298.93	-1,700.04	4,622.92	4,402.91	220.01	21.013		
4,200.00	4,200.00	4,184.99	4,184.28	9.31	228.38	-158.44	-4,298.93	-1,698.88	4,622.48	4,398.58	223.89	20.646		
4,300.00	4,300.00	4,282.29	4,281.58	9.53	232.22	-158.45	-4,298.93	-1,697.87	4,622.10	4,394.32	227.78	20.292		
4,400.00	4,400.00	4,379.59	4,378.88	9.76	236.06	-158.46	-4,298.93	-1,697.02	4,621.78	4,390.11	231.67	19.950		
4,500.00	4,500.00	4,476.90	4,476.18	9.98	239.91	-158.47	-4,298.93	-1,696.32	4,621.52	4,385.97	235.55	19.620		
4,600.00	4,600.00	4,574.20	4,573.49	10.21	243.75	-158.47	-4,298.93	-1,695.78	4,621.31	4,381.88	239.43	19.301		
4,633.93	4,633.93	4,600.00	4,599.28	10.28	244.77	-158.47	-4,298.93	-1,695.66	4,621.26	4,380.78	240.48	19.217 CC, ES		
4,700.00	4,700.00	4,600.00	4,599.28	10.43	244.77	-158.47	-4,298.93	-1,695.66	4,621.74	4,381.13	240.60	19.209 SF		
4,800.00	4,800.00	4,600.00	4,599.28	10.66	244.77	-158.47	-4,298.93	-1,695.66	4,624.25	4,383.55	240.70	19.212		
4,900.00	4,900.00	4,600.00	4,599.28	10.88	244.77	-158.47	-4,298.93	-1,695.66	4,628.92	4,388.24	240.68	19.233		
5,000.00	5,000.00	4,600.00	4,599.28	11.11	244.77	-158.47	-4,298.93	-1,695.66	4,635.74	4,395.19	240.55	19.271		

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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)				
5,100.00	5,100.00	4,600.00	4,599.28	11.33	244.77	-158.47	-4,298.93	-1,695.66	4,644.71	4,404.40	240.31	19.328		
5,200.00	5,200.00	4,600.00	4,599.28	11.56	244.77	-158.47	-4,298.93	-1,695.66	4,655.81	4,415.85	239.96	19.402		
5,300.00	5,300.00	4,600.00	4,599.28	11.78	244.77	-158.47	-4,298.93	-1,695.66	4,669.02	4,429.52	239.51	19.494		
5,400.00	5,400.00	4,600.00	4,599.28	12.00	244.77	-158.47	-4,298.93	-1,695.66	4,684.34	4,445.39	238.95	19.604		
5,500.00	5,500.00	4,600.00	4,599.28	12.23	244.77	-158.47	-4,298.93	-1,695.66	4,701.73	4,463.44	238.29	19.731		
5,600.00	5,600.00	4,600.00	4,599.28	12.45	244.77	-158.47	-4,298.93	-1,695.66	4,721.17	4,483.64	237.53	19.876		
5,700.00	5,700.00	4,600.00	4,599.28	12.68	244.77	-158.47	-4,298.93	-1,695.66	4,742.64	4,505.97	236.68	20.038		
5,800.00	5,800.00	4,600.00	4,599.28	12.90	244.77	-158.47	-4,298.93	-1,695.66	4,766.12	4,530.39	235.73	20.218		
5,900.00	5,900.00	4,600.00	4,599.28	13.13	244.77	-158.47	-4,298.93	-1,695.66	4,791.57	4,556.86	234.70	20.415		
6,000.00	6,000.00	4,600.00	4,599.28	13.35	244.77	-158.47	-4,298.93	-1,695.66	4,818.96	4,585.37	233.59	20.630		
6,100.00	6,100.00	4,600.00	4,599.28	13.58	244.77	-158.47	-4,298.93	-1,695.66	4,848.25	4,615.85	232.40	20.862		
6,200.00	6,200.00	4,600.00	4,599.28	13.80	244.77	-158.47	-4,298.93	-1,695.66	4,879.43	4,648.29	231.13	21.111		
6,300.00	6,300.00	4,600.00	4,599.28	14.03	244.77	-158.47	-4,298.93	-1,695.66	4,912.43	4,682.63	229.80	21.377		
6,400.00	6,400.00	4,600.00	4,599.28	14.25	244.77	-158.47	-4,298.93	-1,695.66	4,947.25	4,718.84	228.40	21.660		
6,500.00	6,500.00	4,600.00	4,599.28	14.48	244.77	-158.47	-4,298.93	-1,695.66	4,983.82	4,756.88	226.94	21.961		
6,600.00	6,600.00	4,600.00	4,599.28	14.70	244.77	-158.47	-4,298.93	-1,695.66	5,022.12	4,796.69	225.43	22.278		
6,700.00	6,700.00	4,600.00	4,599.28	14.93	244.77	-158.47	-4,298.93	-1,695.66	5,062.11	4,838.24	223.87	22.612		
6,800.00	6,800.00	4,600.00	4,599.28	15.15	244.77	-158.47	-4,298.93	-1,695.66	5,103.74	4,881.48	222.26	22.963		
6,900.00	6,900.00	4,600.00	4,599.28	15.38	244.77	-158.47	-4,298.93	-1,695.66	5,146.98	4,926.37	220.61	23.331		
7,000.00	7,000.00	4,600.00	4,599.28	15.60	244.77	-158.47	-4,298.93	-1,695.66	5,191.78	4,972.86	218.92	23.715		
7,100.00	7,100.00	4,600.00	4,599.28	15.83	244.77	-158.47	-4,298.93	-1,695.66	5,238.11	5,020.91	217.20	24.117		
7,200.00	7,200.00	4,600.00	4,599.28	16.05	244.77	-158.47	-4,298.93	-1,695.66	5,285.93	5,070.48	215.45	24.534		
7,300.00	7,300.00	4,600.00	4,599.28	16.28	244.77	-158.47	-4,298.93	-1,695.66	5,335.19	5,121.51	213.68	24.969		
7,400.00	7,400.00	4,600.00	4,599.28	16.50	244.77	-158.47	-4,298.93	-1,695.66	5,385.86	5,173.98	211.88	25.419		
7,500.00	7,500.00	4,600.00	4,599.28	16.72	244.77	-158.47	-4,298.93	-1,695.66	5,437.89	5,227.83	210.07	25.886		
7,600.00	7,600.00	4,600.00	4,599.28	16.95	244.77	-158.47	-4,298.93	-1,695.66	5,491.26	5,283.02	208.24	26.369		
7,700.00	7,700.00	4,600.00	4,599.28	17.17	244.77	-158.47	-4,298.93	-1,695.66	5,545.91	5,339.51	206.41	26.869		
7,800.00	7,800.00	4,600.00	4,599.28	17.40	244.77	-158.47	-4,298.93	-1,695.66	5,601.82	5,397.25	204.56	27.384		
7,900.00	7,900.00	4,600.00	4,599.28	17.62	244.77	-158.47	-4,298.93	-1,695.66	5,658.94	5,456.22	202.72	27.916		
8,000.00	8,000.00	4,600.00	4,599.28	17.85	244.77	-158.47	-4,298.93	-1,695.66	5,717.24	5,516.37	200.87	28.463		
8,100.00	8,100.00	4,600.00	4,599.28	18.07	244.77	-158.47	-4,298.93	-1,695.66	5,776.68	5,577.66	199.02	29.026		
8,200.00	8,200.00	4,600.00	4,599.28	18.30	244.77	-158.47	-4,298.93	-1,695.66	5,837.23	5,640.06	197.17	29.605		
8,300.00	8,300.00	4,600.00	4,599.28	18.52	244.77	-158.47	-4,298.93	-1,695.66	5,898.85	5,703.52	195.33	30.199		
8,400.00	8,400.00	4,600.00	4,599.28	18.75	244.77	-158.47	-4,298.93	-1,695.66	5,961.52	5,768.02	193.50	30.809		
8,500.00	8,500.00	4,600.00	4,599.28	18.97	244.77	-158.47	-4,298.93	-1,695.66	6,025.19	5,833.51	191.68	31.434		
8,600.00	8,600.00	4,600.00	4,599.28	19.20	244.77	-158.47	-4,298.93	-1,695.66	6,089.84	5,899.97	189.87	32.074		
8,700.00	8,700.00	4,600.00	4,599.28	19.42	244.77	-158.47	-4,298.93	-1,695.66	6,155.44	5,967.36	188.07	32.729		
8,800.00	8,800.00	4,600.00	4,599.28	19.65	244.77	-158.47	-4,298.93	-1,695.66	6,221.95	6,035.66	186.29	33.400		
8,900.00	8,900.00	4,600.00	4,599.28	19.87	244.77	-158.47	-4,298.93	-1,695.66	6,289.34	6,104.82	184.52	34.085		
9,000.00	9,000.00	4,600.00	4,599.28	20.10	244.77	-158.47	-4,298.93	-1,695.66	6,357.60	6,174.83	182.77	34.785		
9,100.00	9,100.00	4,600.00	4,599.28	20.32	244.77	-158.47	-4,298.93	-1,695.66	6,426.68	6,245.65	181.04	35.499		
9,200.00	9,200.00	4,600.00	4,599.28	20.55	244.77	-158.47	-4,298.93	-1,695.66	6,496.58	6,317.25	179.32	36.228		
9,300.00	9,300.00	4,600.00	4,599.28	20.77	244.77	-158.47	-4,298.93	-1,695.66	6,567.25	6,389.61	177.63	36.971		
9,400.00	9,400.00	4,600.00	4,599.28	21.00	244.77	-158.47	-4,298.93	-1,695.66	6,638.67	6,462.71	175.96	37.728		
9,500.00	9,500.00	4,600.00	4,599.28	21.22	244.77	-158.47	-4,298.93	-1,695.66	6,710.82	6,536.51	174.31	38.499		
9,600.00	9,600.00	4,600.00	4,599.28	21.44	244.77	-158.47	-4,298.93	-1,695.66	6,783.69	6,611.00	172.68	39.284		
9,627.04	9,627.04	4,600.00	4,599.28	21.51	244.77	-158.47	-4,298.93	-1,695.66	6,803.51	6,631.26	172.25	39.498		
9,650.00	9,649.99	4,600.00	4,599.28	21.55	244.77	20.14	-4,298.93	-1,695.66	6,820.08	6,648.22	171.86	39.684		
9,700.00	9,699.80	4,600.00	4,599.28	21.63	244.77	18.59	-4,298.93	-1,695.66	6,854.17	6,683.22	170.95	40.096		
9,750.00	9,749.06	4,600.00	4,599.28	21.72	244.77	17.36	-4,298.93	-1,695.66	6,885.33	6,715.39	169.95	40.515		
9,800.00	9,797.39	4,600.00	4,599.28	21.80	244.77	16.37	-4,298.93	-1,695.66	6,913.39	6,744.51	168.87	40.939		
9,850.00	9,844.42	4,600.00	4,599.28	21.88	244.77	15.59	-4,298.93	-1,695.66	6,938.15	6,770.42	167.73	41.365		

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Between Centres (usft)	Between Ellipses (usft)					
9,900.00	9,889.79	4,600.00	4,599.28	21.96	244.77	14.97	-4,298.93	-1,695.66	6,959.46	6,792.93	166.53	41.791	
9,950.00	9,933.17	4,600.00	4,599.28	22.04	244.77	14.48	-4,298.93	-1,695.66	6,977.21	6,811.93	165.28	42.215	
10,000.00	9,974.21	4,600.00	4,599.28	22.14	244.77	14.12	-4,298.93	-1,695.66	6,991.27	6,827.29	163.98	42.635	
10,050.00	10,012.62	4,600.00	4,599.28	22.25	244.77	13.87	-4,298.93	-1,695.66	7,001.57	6,838.92	162.65	43.048	
10,100.00	10,048.08	4,600.00	4,599.28	22.38	244.77	13.71	-4,298.93	-1,695.66	7,008.03	6,846.75	161.29	43.451	
10,150.00	10,080.35	4,600.00	4,599.28	22.53	244.77	13.65	-4,298.93	-1,695.66	7,010.64	6,850.73	159.91	43.842	
10,200.00	10,109.17	4,600.00	4,599.28	22.71	244.77	13.68	-4,298.93	-1,695.66	7,009.36	6,850.84	158.52	44.217	
10,250.00	10,134.31	4,600.00	4,599.28	22.91	244.77	13.80	-4,298.93	-1,695.66	7,004.21	6,847.08	157.13	44.575	
10,300.00	10,155.60	4,600.00	4,599.28	23.14	244.77	14.02	-4,298.93	-1,695.66	6,995.22	6,839.46	155.76	44.910	
10,350.00	10,172.86	4,600.00	4,599.28	23.39	244.77	14.35	-4,298.93	-1,695.66	6,982.43	6,828.03	154.40	45.222	
10,400.00	10,185.97	4,600.00	4,599.28	23.68	244.77	14.79	-4,298.93	-1,695.66	6,965.94	6,812.86	153.07	45.507	
10,450.00	10,194.83	4,600.00	4,599.28	24.00	244.77	15.36	-4,298.93	-1,695.66	6,945.83	6,794.05	151.78	45.762	
10,500.00	10,199.36	4,600.00	4,599.28	24.34	244.77	16.09	-4,298.93	-1,695.66	6,922.23	6,771.69	150.54	45.984	
10,527.04	10,200.00	4,600.00	4,599.28	24.53	244.77	16.55	-4,298.93	-1,695.66	6,908.06	6,758.18	149.89	46.088	
10,600.00	10,200.00	4,600.00	4,599.28	25.10	244.77	16.55	-4,298.93	-1,695.66	6,868.82	6,720.68	148.13	46.370	
10,700.00	10,200.00	4,600.00	4,599.28	25.96	244.77	16.55	-4,298.93	-1,695.66	6,815.92	6,670.22	145.71	46.779	
10,800.00	10,200.00	4,600.00	4,599.28	26.93	244.77	16.55	-4,298.93	-1,695.66	6,764.10	6,620.83	143.26	47.215	
10,900.00	10,200.00	4,600.00	4,599.28	27.97	244.77	16.55	-4,298.93	-1,695.66	6,713.36	6,572.55	140.80	47.679	
11,000.00	10,200.00	4,600.00	4,599.28	29.10	244.77	16.55	-4,298.93	-1,695.66	6,663.73	6,525.41	138.33	48.173	
11,100.00	10,200.00	4,600.00	4,599.28	30.29	244.77	16.55	-4,298.93	-1,695.66	6,615.25	6,479.41	135.84	48.699	
11,200.00	10,200.00	4,600.00	4,599.28	31.55	244.77	16.55	-4,298.93	-1,695.66	6,567.93	6,434.60	133.33	49.260	
11,300.00	10,200.00	4,600.00	4,599.28	32.85	244.77	16.55	-4,298.93	-1,695.66	6,521.80	6,390.99	130.81	49.857	
11,400.00	10,200.00	4,600.00	4,599.28	34.21	244.77	16.55	-4,298.93	-1,695.66	6,476.89	6,348.62	128.27	50.494	
11,500.00	10,200.00	4,600.00	4,599.28	35.61	244.77	16.55	-4,298.93	-1,695.66	6,433.22	6,307.50	125.72	51.173	
11,600.00	10,200.00	4,600.00	4,599.28	37.04	244.77	16.55	-4,298.93	-1,695.66	6,390.81	6,267.67	123.14	51.898	
11,700.00	10,200.00	4,600.00	4,599.28	38.51	244.77	16.55	-4,298.93	-1,695.66	6,349.70	6,229.15	120.55	52.673	
11,800.00	10,200.00	4,600.00	4,599.28	40.01	244.77	16.55	-4,298.93	-1,695.66	6,309.90	6,191.96	117.94	53.501	
11,900.00	10,200.00	4,600.00	4,599.28	41.53	244.77	16.55	-4,298.93	-1,695.66	6,271.44	6,156.13	115.31	54.387	
12,000.00	10,200.00	4,600.00	4,599.28	43.08	244.77	16.55	-4,298.93	-1,695.66	6,234.35	6,121.69	112.66	55.336	
12,100.00	10,200.00	4,600.00	4,599.28	44.65	244.77	16.55	-4,298.93	-1,695.66	6,198.66	6,088.66	110.00	56.352	
12,200.00	10,200.00	4,600.00	4,599.28	46.24	244.77	16.55	-4,298.93	-1,695.66	6,164.38	6,057.06	107.32	57.441	
12,300.00	10,200.00	4,600.00	4,599.28	47.84	244.77	16.55	-4,298.93	-1,695.66	6,131.53	6,026.92	104.62	58.608	
12,400.00	10,200.00	4,600.00	4,599.28	49.46	244.77	16.55	-4,298.93	-1,695.66	6,100.16	5,998.25	101.91	59.860	
12,500.00	10,200.00	4,600.00	4,599.28	51.10	244.77	16.55	-4,298.93	-1,695.66	6,070.26	5,971.08	99.18	61.202	
12,600.00	10,200.00	4,600.00	4,599.28	52.74	244.77	16.55	-4,298.93	-1,695.66	6,041.88	5,945.42	96.45	62.641	
12,700.00	10,200.00	4,600.00	4,599.28	54.40	244.77	16.55	-4,298.93	-1,695.66	6,015.02	5,921.30	93.72	64.183	
12,800.00	10,200.00	4,600.00	4,599.28	56.07	244.77	16.55	-4,298.93	-1,695.66	5,989.71	5,898.73	90.98	65.834	
12,875.00	10,200.00	4,600.00	4,599.28	57.33	244.77	16.55	-4,298.93	-1,695.66	5,971.76	5,882.82	88.94	67.147	
12,900.00	10,200.00	4,600.00	4,599.28	57.73	244.77	16.38	-4,298.93	-1,695.66	5,965.93	5,877.68	88.25	67.602	
12,914.83	10,200.00	4,600.00	4,599.28	57.95	244.77	16.28	-4,298.93	-1,695.66	5,962.47	5,874.63	87.84	67.878	
13,000.00	10,200.00	4,600.00	4,599.28	59.31	244.77	16.28	-4,298.93	-1,695.66	5,943.21	5,857.71	85.50	69.509	
13,100.00	10,200.00	4,600.00	4,599.28	61.00	244.77	16.28	-4,298.93	-1,695.66	5,922.09	5,839.29	82.80	71.526	
13,200.00	10,200.00	4,600.00	4,599.28	62.70	244.77	16.28	-4,298.93	-1,695.66	5,902.58	5,822.45	80.13	73.664	
13,300.00	10,200.00	4,600.00	4,599.28	64.40	244.77	16.28	-4,298.93	-1,695.66	5,884.71	5,807.20	77.52	75.916	
13,400.00	10,200.00	4,600.00	4,599.28	66.11	244.77	16.28	-4,298.93	-1,695.66	5,868.49	5,793.51	74.98	78.267	
13,500.00	10,200.00	4,600.00	4,599.28	67.83	244.77	16.28	-4,298.93	-1,695.66	5,853.93	5,781.38	72.55	80.686	
13,600.00	10,200.00	4,600.00	4,599.28	69.55	244.77	16.28	-4,298.93	-1,695.66	5,841.05	5,770.78	70.27	83.126	
13,700.00	10,200.00	4,600.00	4,599.28	71.27	244.77	16.28	-4,298.93	-1,695.66	5,829.85	5,761.68	68.17	85.513	
13,800.00	10,200.00	4,600.00	4,599.28	73.01	244.77	16.28	-4,298.93	-1,695.66	5,820.36	5,754.02	66.34	87.739	
13,900.00	10,200.00	4,600.00	4,599.28	74.74	244.77	16.28	-4,298.93	-1,695.66	5,812.56	5,747.73	64.83	89.656	
14,000.00	10,200.00	4,600.00	4,599.28	76.48	244.77	16.28	-4,298.93	-1,695.66	5,806.48	5,742.73	63.75	91.078	
14,100.00	10,200.00	4,600.00	4,599.28	78.22	244.77	16.28	-4,298.93	-1,695.66	5,802.12	5,738.92	63.20	91.806	

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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	79.97	244.77	16.28	-4,298.93	-1,695.66	5,799.48	5,736.21	63.26	91.674			
14,300.00	10,200.00	4,600.00	4,599.28	81.72	244.77	16.28	-4,298.93	-1,695.66	5,798.56	5,734.56	64.00	90.606			
14,303.28	10,200.00	4,600.00	4,599.28	81.77	244.77	16.28	-4,298.93	-1,695.66	5,798.56	5,734.52	64.03	90.555			
14,400.00	10,200.00	4,600.00	4,599.28	83.47	244.77	16.28	-4,298.93	-1,695.66	5,799.36	5,733.95	65.41	88.658			
14,500.00	10,200.00	4,600.00	4,599.28	85.23	244.77	16.28	-4,298.93	-1,695.66	5,801.89	5,734.43	67.46	86.004			
14,600.00	10,200.00	4,600.00	4,599.28	86.98	244.77	16.28	-4,298.93	-1,695.66	5,806.14	5,736.09	70.05	82.882			
14,700.00	10,200.00	4,600.00	4,599.28	88.74	244.77	16.28	-4,298.93	-1,695.66	5,812.11	5,739.02	73.09	79.519			
14,800.00	10,200.00	4,600.00	4,599.28	90.51	244.77	16.28	-4,298.93	-1,695.66	5,819.79	5,743.32	76.47	76.101			
14,900.00	10,200.00	4,600.00	4,599.28	92.27	244.77	16.28	-4,298.93	-1,695.66	5,829.18	5,749.06	80.12	72.754			
15,000.00	10,200.00	4,600.00	4,599.28	94.04	244.77	16.28	-4,298.93	-1,695.66	5,840.26	5,756.30	83.96	69.557			
15,100.00	10,200.00	4,600.00	4,599.28	95.81	244.77	16.28	-4,298.93	-1,695.66	5,853.03	5,765.09	87.95	66.553			
15,200.00	10,200.00	4,600.00	4,599.28	97.58	244.77	16.28	-4,298.93	-1,695.66	5,867.48	5,775.46	92.03	63.758			
15,300.00	10,200.00	4,600.00	4,599.28	99.35	244.77	16.28	-4,298.93	-1,695.66	5,883.60	5,787.42	96.17	61.177			
15,400.00	10,200.00	4,600.00	4,599.28	101.13	244.77	16.28	-4,298.93	-1,695.66	5,901.36	5,801.00	100.36	58.801			
15,500.00	10,200.00	4,600.00	4,599.28	102.91	244.77	16.28	-4,298.93	-1,695.66	5,920.76	5,816.19	104.57	56.621			
15,534.54	10,200.00	4,600.00	4,599.28	103.52	244.77	16.28	-4,298.93	-1,695.66	5,927.84	5,821.81	106.02	55.911			



TDS
Anticollision Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 #48H - Lea Unit #48H - 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)							
0.00	0.00	0.00	0.00	0.00	0.00	89.43	0.50	50.00	50.00	49.82	0.18	271.298			
100.00	100.00	100.00	100.00	0.09	0.09	89.43	0.50	50.00	50.00	49.37	0.63	78.888			
200.00	200.00	200.00	200.00	0.32	0.32	89.43	0.50	50.00	50.00	48.92	1.08	46.154			
300.00	300.00	300.00	300.00	0.54	0.54	89.43	0.50	50.00	50.00	48.47	1.53	32.619			
400.00	400.00	400.00	400.00	0.77	0.77	89.43	0.50	50.00	50.00	48.02	1.98	25.223			
500.00	500.00	500.00	500.00	0.99	0.99	89.43	0.50	50.00	50.00	47.57	2.43	20.561			
600.00	600.00	600.00	600.00	1.22	1.22	89.43	0.50	50.00	50.00	47.12	2.88	17.353			
700.00	700.00	700.00	700.00	1.44	1.44	89.43	0.50	50.00	50.00	46.67	3.33	15.011			
800.00	800.00	800.00	800.00	1.67	1.67	89.43	0.50	50.00	50.00	46.22	3.78	13.226			
900.00	900.00	900.00	900.00	1.89	1.89	89.43	0.50	50.00	50.00	45.77	4.23	11.821			
1,000.00	1,000.00	1,000.00	1,000.00	2.12	2.12	89.43	0.50	50.00	50.00	45.32	4.68	10.685			
1,100.00	1,100.00	1,100.00	1,100.00	2.34	2.34	89.43	0.50	50.00	50.00	44.87	5.13	9.749			
1,200.00	1,200.00	1,200.00	1,200.00	2.56	2.56	89.43	0.50	50.00	50.00	44.42	5.58	8.963			
1,300.00	1,300.00	1,300.00	1,300.00	2.79	2.79	89.43	0.50	50.00	50.00	43.97	6.03	8.295			
1,400.00	1,400.00	1,400.00	1,400.00	3.01	3.01	89.43	0.50	50.00	50.00	43.52	6.48	7.719			
1,500.00	1,500.00	1,500.00	1,500.00	3.24	3.24	89.43	0.50	50.00	50.00	43.08	6.93	7.218			
1,600.00	1,600.00	1,600.00	1,600.00	3.46	3.46	89.43	0.50	50.00	50.00	42.63	7.38	6.778			
1,700.00	1,700.00	1,700.00	1,700.00	3.69	3.69	89.43	0.50	50.00	50.00	42.18	7.83	6.389			
1,800.00	1,800.00	1,800.00	1,800.00	3.91	3.91	89.43	0.50	50.00	50.00	41.73	8.28	6.042			
1,900.00	1,900.00	1,900.00	1,900.00	4.14	4.14	89.43	0.50	50.00	50.00	41.28	8.73	5.731			
2,000.00	2,000.00	2,000.00	2,000.00	4.36	4.36	89.43	0.50	50.00	50.00	40.83	9.17	5.450			
2,100.00	2,100.00	2,100.00	2,100.00	4.59	4.59	89.43	0.50	50.00	50.00	40.38	9.62	5.195			
2,200.00	2,200.00	2,200.00	2,200.00	4.81	4.81	89.43	0.50	50.00	50.00	39.93	10.07	4.964			
2,300.00	2,300.00	2,300.00	2,300.00	5.04	5.04	89.43	0.50	50.00	50.00	39.48	10.52	4.751			
2,400.00	2,400.00	2,400.00	2,400.00	5.26	5.26	89.43	0.50	50.00	50.00	39.03	10.97	4.557			
2,500.00	2,500.00	2,500.00	2,500.00	5.49	5.49	89.43	0.50	50.00	50.00	38.58	11.42	4.378			
2,600.00	2,600.00	2,600.00	2,600.00	5.71	5.71	89.43	0.50	50.00	50.00	38.13	11.87	4.212			
2,700.00	2,700.00	2,700.00	2,700.00	5.94	5.94	89.43	0.50	50.00	50.00	37.68	12.32	4.058			
2,800.00	2,800.00	2,800.00	2,800.00	6.16	6.16	89.43	0.50	50.00	50.00	37.23	12.77	3.915			
2,900.00	2,900.00	2,900.00	2,900.00	6.39	6.39	89.43	0.50	50.00	50.00	36.78	13.22	3.782			
3,000.00	3,000.00	3,000.00	3,000.00	6.61	6.61	89.43	0.50	50.00	50.00	36.33	13.67	3.658			
3,100.00	3,100.00	3,100.00	3,100.00	6.84	6.84	89.43	0.50	50.00	50.00	35.88	14.12	3.541			
3,200.00	3,200.00	3,200.00	3,200.00	7.06	7.06	89.43	0.50	50.00	50.00	35.43	14.57	3.432			
3,300.00	3,300.00	3,300.00	3,300.00	7.28	7.28	89.43	0.50	50.00	50.00	34.98	15.02	3.329			
3,400.00	3,400.00	3,400.00	3,400.00	7.51	7.51	89.43	0.50	50.00	50.00	34.53	15.47	3.233			
3,500.00	3,500.00	3,500.00	3,500.00	7.73	7.73	89.43	0.50	50.00	50.00	34.08	15.92	3.141			
3,600.00	3,600.00	3,600.00	3,600.00	7.96	7.96	89.43	0.50	50.00	50.00	33.64	16.37	3.055			
3,700.00	3,700.00	3,700.00	3,700.00	8.18	8.18	89.43	0.50	50.00	50.00	33.19	16.82	2.973			
3,800.00	3,800.00	3,800.00	3,800.00	8.41	8.41	89.43	0.50	50.00	50.00	32.74	17.27	2.896			
3,900.00	3,900.00	3,900.00	3,900.00	8.63	8.63	89.43	0.50	50.00	50.00	32.29	17.72	2.822			
4,000.00	4,000.00	4,000.00	4,000.00	8.86	8.86	89.43	0.50	50.00	50.00	31.84	18.17	2.753			
4,100.00	4,100.00	4,100.00	4,100.00	9.08	9.08	89.43	0.50	50.00	50.00	31.39	18.62	2.686			
4,200.00	4,200.00	4,200.00	4,200.00	9.31	9.31	89.43	0.50	50.00	50.00	30.94	19.06	2.623			
4,300.00	4,300.00	4,300.00	4,300.00	9.53	9.53	89.43	0.50	50.00	50.00	30.49	19.51	2.562			
4,400.00	4,400.00	4,400.00	4,400.00	9.76	9.76	89.43	0.50	50.00	50.00	30.04	19.96	2.505			
4,500.00	4,500.00	4,500.00	4,500.00	9.98	9.98	89.43	0.50	50.00	50.00	29.59	20.41	2.450			
4,600.00	4,600.00	4,600.00	4,600.00	10.21	10.21	89.43	0.50	50.00	50.00	29.14	20.86	2.397			
4,700.00	4,700.00	4,700.00	4,700.00	10.43	10.43	89.43	0.50	50.00	50.00	28.69	21.31	2.346			
4,800.00	4,800.00	4,800.00	4,800.00	10.66	10.66	89.43	0.50	50.00	50.00	28.24	21.76	2.298			
4,900.00	4,900.00	4,900.00	4,900.00	10.88	10.88	89.43	0.50	50.00	50.00	27.79	22.21	2.251			
5,000.00	5,000.00	5,000.00	5,000.00	11.11	11.11	89.43	0.50	50.00	50.00	27.34	22.66	2.207			
5,100.00	5,100.00	5,100.00	5,100.00	11.33	11.33	89.43	0.50	50.00	50.00						

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 #48H - Lea Unit #48H - 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)						
5,200.00	5,200.00	5,200.00	5,200.00	11.56	11.56	89.43	0.50	50.00	50.00	26.89	23.11	2.164		
5,300.00	5,300.00	5,300.00	5,300.00	11.78	11.78	89.43	0.50	50.00	50.00	26.44	23.56	2.122		
5,400.00	5,400.00	5,400.00	5,400.00	12.00	12.00	89.43	0.50	50.00	50.00	25.99	24.01	2.083		
5,500.00	5,500.00	5,500.00	5,500.00	12.23	12.23	89.43	0.50	50.00	50.00	25.54	24.46	2.044		
5,600.00	5,600.00	5,600.00	5,600.00	12.45	12.45	89.43	0.50	50.00	50.00	25.09	24.91	2.007		
5,700.00	5,700.00	5,700.00	5,700.00	12.68	12.68	89.43	0.50	50.00	50.00	24.64	25.36	1.972		
5,800.00	5,800.00	5,800.00	5,800.00	12.90	12.90	89.43	0.50	50.00	50.00	24.19	25.81	1.938		
5,900.00	5,900.00	5,900.00	5,900.00	13.13	13.13	89.43	0.50	50.00	50.00	23.75	26.26	1.904		
6,000.00	6,000.00	6,000.00	6,000.00	13.35	13.35	89.43	0.50	50.00	50.00	23.30	26.71	1.872		
6,100.00	6,100.00	6,100.00	6,100.00	13.58	13.58	89.43	0.50	50.00	50.00	22.85	27.16	1.841		
6,200.00	6,200.00	6,200.00	6,200.00	13.80	13.80	89.43	0.50	50.00	50.00	22.40	27.61	1.811		
6,300.00	6,300.00	6,300.00	6,300.00	14.03	14.03	89.43	0.50	50.00	50.00	21.95	28.06	1.782		
6,400.00	6,400.00	6,400.00	6,400.00	14.25	14.25	89.43	0.50	50.00	50.00	21.50	28.50	1.754		
6,500.00	6,500.00	6,500.00	6,500.00	14.48	14.48	89.43	0.50	50.00	50.00	21.05	28.95	1.727		
6,600.00	6,600.00	6,600.00	6,600.00	14.70	14.70	89.43	0.50	50.00	50.00	20.60	29.40	1.701		
6,700.00	6,700.00	6,700.00	6,700.00	14.93	14.93	89.43	0.50	50.00	50.00	20.15	29.85	1.675		
6,800.00	6,800.00	6,800.00	6,800.00	15.15	15.15	89.43	0.50	50.00	50.00	19.70	30.30	1.650		
6,900.00	6,900.00	6,900.00	6,900.00	15.38	15.38	89.43	0.50	50.00	50.00	19.25	30.75	1.626		
7,000.00	7,000.00	7,000.00	7,000.00	15.60	15.60	89.43	0.50	50.00	50.00	18.80	31.20	1.603		
7,100.00	7,100.00	7,100.00	7,100.00	15.83	15.83	89.43	0.50	50.00	50.00	18.35	31.65	1.580		
7,200.00	7,200.00	7,200.00	7,200.00	16.05	16.05	89.43	0.50	50.00	50.00	17.90	32.10	1.558		
7,300.00	7,300.00	7,300.00	7,300.00	16.28	16.28	89.43	0.50	50.00	50.00	17.45	32.55	1.536		
7,400.00	7,400.00	7,400.00	7,400.00	16.50	16.50	89.43	0.50	50.00	50.00	17.00	33.00	1.515		
7,500.00	7,500.00	7,500.00	7,500.00	16.72	16.72	89.43	0.50	50.00	50.00	16.55	33.45	1.495 Level 3		
7,600.00	7,600.00	7,600.00	7,600.00	16.95	16.95	89.43	0.50	50.00	50.00	16.10	33.90	1.475 Level 3		
7,700.00	7,700.00	7,700.00	7,700.00	17.17	17.17	89.43	0.50	50.00	50.00	15.65	34.35	1.456 Level 3		
7,800.00	7,800.00	7,800.00	7,800.00	17.40	17.40	89.43	0.50	50.00	50.00	15.20	34.80	1.437 Level 3		
7,900.00	7,900.00	7,900.00	7,900.00	17.62	17.62	89.43	0.50	50.00	50.00	14.75	35.25	1.419 Level 3		
8,000.00	8,000.00	8,000.00	8,000.00	17.85	17.85	89.43	0.50	50.00	50.00	14.31	35.70	1.401 Level 3		
8,100.00	8,100.00	8,100.00	8,100.00	18.07	18.07	89.43	0.50	50.00	50.00	13.86	36.15	1.383 Level 3		
8,200.00	8,200.00	8,200.00	8,200.00	18.30	18.30	89.43	0.50	50.00	50.00	13.41	36.60	1.366 Level 3		
8,300.00	8,300.00	8,300.00	8,300.00	18.52	18.52	89.43	0.50	50.00	50.00	12.96	37.05	1.350 Level 3		
8,400.00	8,400.00	8,400.00	8,400.00	18.75	18.75	89.43	0.50	50.00	50.00	12.51	37.50	1.334 Level 3		
8,500.00	8,500.00	8,500.00	8,500.00	18.97	18.97	89.43	0.50	50.00	50.00	12.06	37.94	1.318 Level 3		
8,600.00	8,600.00	8,600.00	8,600.00	19.20	19.20	89.43	0.50	50.00	50.00	11.61	38.39	1.302 Level 3		
8,700.00	8,700.00	8,700.00	8,700.00	19.42	19.42	89.43	0.50	50.00	50.00	11.16	38.84	1.287 Level 3		
8,800.00	8,800.00	8,800.00	8,800.00	19.65	19.65	89.43	0.50	50.00	50.00	10.71	39.29	1.273 Level 3		
8,900.00	8,900.00	8,900.00	8,900.00	19.87	19.87	89.43	0.50	50.00	50.00	10.26	39.74	1.258 Level 3		
8,905.47	8,905.47	8,905.47	8,905.47	19.88	19.88	89.43	0.50	50.00	50.00	10.23	39.77	1.257 Level 3, CC, ES		
9,000.00	9,000.00	8,999.35	8,999.15	20.10	20.06	94.61	-4.05	50.24	50.41	10.26	40.15	1.256 Level 3, SF		
9,100.00	9,100.00	9,094.43	9,092.06	20.32	20.22	114.85	-23.75	51.27	57.06	16.87	40.19	1.420 Level 3		
9,200.00	9,200.00	9,180.95	9,172.72	20.55	20.36	136.00	-54.77	52.90	80.88	42.05	38.83	2.083		
9,300.00	9,300.00	9,256.69	9,238.80	20.77	20.49	149.10	-91.62	54.83	123.07	86.47	36.59	3.363		
9,400.00	9,400.00	9,321.39	9,290.98	21.00	20.63	156.35	-129.76	56.83	178.75	144.44	34.31	5.210		
9,500.00	9,500.00	9,375.98	9,331.44	21.22	20.77	160.55	-166.34	58.74	244.00	211.76	32.24	7.568		
9,600.00	9,600.00	9,421.89	9,362.62	21.44	20.90	163.16	-199.96	60.51	316.22	285.78	30.44	10.389		
9,627.04	9,627.04	9,433.00	9,369.76	21.51	20.94	163.70	-208.46	60.95	336.70	306.70	30.00	11.224		
9,650.00	9,649.99	9,450.00	9,380.35	21.55	20.99	-15.41	-221.74	61.65	354.22	324.05	30.18	11.738		
9,700.00	9,699.80	9,462.70	9,388.01	21.63	21.04	-13.69	-231.86	62.18	390.79	362.00	28.79	13.573		
9,750.00	9,749.06	9,483.46	9,400.03	21.72	21.12	-12.15	-248.76	63.06	425.83	397.88	27.95	15.237		
9,800.00	9,797.39	9,500.00	9,409.17	21.80	21.18	-11.01	-262.53	63.78	459.13	432.30	26.84	17.109		
9,850.00	9,844.42	9,525.79	9,422.61	21.88	21.29	-10.02	-284.51	64.94	490.51	464.27	26.24	18.694		

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 #48H - Lea Unit #48H - 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)			
9,900.00	9,889.79	9,550.00	9,434.31	21.96	21.40	-9.26	-305.67	66.05	520.00	494.48	25.52	20.373	
9,950.00	9,933.17	9,568.94	9,442.84	22.04	21.49	-8.67	-322.55	66.93	547.48	522.93	24.54	22.305	
10,000.00	9,974.21	9,600.00	9,455.60	22.14	21.64	-8.18	-350.83	68.41	573.06	548.93	24.13	23.747	
10,050.00	10,012.62	9,600.00	9,455.60	22.25	21.64	-7.81	-350.83	68.41	596.51	574.10	22.41	26.617	
10,100.00	10,048.09	9,634.74	9,458.03	22.38	21.84	-7.50	-383.22	70.11	617.40	595.22	22.17	27.844	
10,150.00	10,080.35	9,650.00	9,472.86	22.53	21.92	-7.25	-397.68	70.87	636.43	615.20	21.23	29.976	
10,200.00	10,109.17	9,679.10	9,481.01	22.71	22.11	-7.07	-425.57	72.33	653.07	632.24	20.83	31.346	
10,250.00	10,134.31	9,700.00	9,485.97	22.91	22.24	-6.94	-445.84	73.39	667.51	647.27	20.24	32.985	
10,300.00	10,155.60	9,723.74	9,490.71	23.14	22.40	-6.85	-469.07	74.61	679.64	659.83	19.81	34.301	
10,350.00	10,172.86	9,750.00	9,494.83	23.39	22.58	-6.82	-494.97	75.97	689.47	669.93	19.54	35.290	
10,400.00	10,185.97	9,768.55	9,497.01	23.68	22.72	-6.80	-513.36	76.93	696.90	677.68	19.22	36.260	
10,450.00	10,194.83	9,800.00	9,499.36	24.00	22.95	-6.87	-544.68	78.57	702.12	682.89	19.23	36.516	
10,500.00	10,199.36	9,813.45	9,499.84	24.34	23.05	-6.90	-558.10	79.27	704.72	685.58	19.13	36.831	
10,527.04	10,200.00	9,827.04	9,500.00	24.53	23.16	-6.96	-571.67	79.99	705.20	685.99	19.21	36.706	
10,600.00	10,200.00	9,900.05	9,500.00	25.10	23.75	-7.21	-644.64	82.41	705.59	685.89	19.70	35.817	
10,700.00	10,200.00	10,000.59	9,500.00	25.96	24.64	-7.36	-745.17	83.24	705.81	685.40	20.42	34.572	
10,800.00	10,200.00	10,100.57	9,500.00	26.93	25.65	-7.50	-845.15	84.03	706.04	684.82	21.22	33.272	
10,900.00	10,200.00	10,200.56	9,500.00	27.97	26.75	-7.64	-945.13	84.82	706.27	684.16	22.11	31.947	
11,000.00	10,200.00	10,300.54	9,500.00	29.10	27.92	-7.78	-1,045.11	85.61	706.51	683.44	23.07	30.626	
11,100.00	10,200.00	10,400.52	9,500.00	30.29	29.17	-7.92	-1,145.10	86.40	706.74	682.65	24.10	29.329	
11,200.00	10,200.00	10,500.51	9,500.00	31.55	30.47	-8.06	-1,245.08	87.19	706.99	681.80	25.18	28.072	
11,300.00	10,200.00	10,600.49	9,500.00	32.85	31.82	-8.20	-1,345.06	87.98	707.23	680.91	26.33	26.865	
11,400.00	10,200.00	10,700.48	9,500.00	34.21	33.22	-8.34	-1,445.04	88.77	707.49	679.97	27.51	25.715	
11,500.00	10,200.00	10,800.46	9,500.00	35.61	34.66	-8.48	-1,545.02	89.56	707.74	679.00	28.74	24.623	
11,600.00	10,200.00	10,900.45	9,500.00	37.04	36.14	-8.62	-1,645.00	90.35	708.00	677.99	30.01	23.591	
11,700.00	10,200.00	11,000.43	9,500.00	38.51	37.65	-8.76	-1,744.99	91.14	708.27	676.95	31.32	22.617	
11,800.00	10,200.00	11,100.42	9,500.00	40.01	39.18	-8.90	-1,844.97	91.93	708.54	675.89	32.65	21.701	
11,900.00	10,200.00	11,200.40	9,500.00	41.53	40.74	-9.04	-1,944.95	92.72	708.81	674.79	34.01	20.839	
12,000.00	10,200.00	11,300.39	9,500.00	43.08	42.32	-9.18	-2,044.93	93.51	709.09	673.68	35.40	20.029	
12,100.00	10,200.00	11,400.37	9,500.00	44.65	43.92	-9.32	-2,144.91	94.30	709.37	672.55	36.82	19.267	
12,200.00	10,200.00	11,500.36	9,500.00	46.24	45.54	-9.46	-2,244.89	95.09	709.65	671.40	38.25	18.551	
12,300.00	10,200.00	11,600.34	9,500.00	47.84	47.18	-9.60	-2,344.88	95.88	709.94	670.23	39.71	17.878	
12,400.00	10,200.00	11,700.33	9,500.00	49.46	48.82	-9.74	-2,444.86	96.67	710.24	669.05	41.19	17.244	
12,500.00	10,200.00	11,800.31	9,500.00	51.10	50.48	-9.88	-2,544.84	97.46	710.53	667.85	42.68	16.647	
12,600.00	10,200.00	11,900.30	9,500.00	52.74	52.16	-10.02	-2,644.82	98.24	710.84	666.64	44.19	16.085	
12,700.00	10,200.00	12,000.28	9,500.00	54.40	53.84	-10.15	-2,744.80	99.03	711.14	665.42	45.72	15.554	
12,800.00	10,200.00	12,100.26	9,500.00	56.07	55.53	-10.29	-2,844.78	99.82	711.45	664.19	47.27	15.052	
12,875.00	10,200.00	12,175.25	9,500.00	57.33	56.81	-10.40	-2,919.77	100.42	711.69	663.26	48.43	14.694	
12,900.00	10,200.00	12,200.25	9,500.00	57.73	57.23	-10.44	-2,944.76	100.61	711.80	662.97	48.83	14.577	
12,914.83	10,200.00	12,215.06	9,500.00	57.95	57.48	-10.48	-2,959.58	100.73	711.89	662.81	49.08	14.506	
13,000.00	10,200.00	12,300.17	9,500.00	59.31	58.94	-10.74	-3,044.69	101.40	712.49	661.98	50.52	14.104	
13,100.00	10,200.00	12,400.10	9,500.00	61.00	60.65	-11.04	-3,144.61	102.19	713.22	660.98	52.24	13.654	
13,200.00	10,200.00	12,500.03	9,500.00	62.70	62.37	-11.34	-3,244.53	102.98	713.96	659.98	53.98	13.227	
13,300.00	10,200.00	12,599.95	9,500.00	64.40	64.10	-11.64	-3,344.46	103.77	714.73	658.98	55.75	12.821	
13,400.00	10,200.00	12,699.88	9,500.00	66.11	65.83	-11.94	-3,444.38	104.56	715.51	657.97	57.54	12.436	
13,500.00	10,200.00	12,799.81	9,500.00	67.83	67.57	-12.24	-3,544.30	105.35	716.31	656.96	59.35	12.069	
13,600.00	10,200.00	12,899.73	9,500.00	69.55	69.31	-12.54	-3,644.23	106.14	717.14	655.95	61.19	11.720	
13,700.00	10,200.00	12,999.66	9,500.00	71.27	71.06	-12.84	-3,744.15	106.93	717.98	654.93	63.05	11.387	
13,800.00	10,200.00	13,099.59	9,500.00	73.01	72.81	-13.14	-3,844.07	107.71	718.84	653.91	64.93	11.070	
13,900.00	10,200.00	13,199.51	9,500.00	74.74	74.57	-13.44	-3,944.00	108.50	719.72	652.88	66.84	10.768	
14,000.00	10,200.00	13,299.44	9,500.00	76.48	76.33	-13.73	-4,043.92	109.29	720.62	651.85	68.77	10.479	
14,100.00	10,200.00	13,399.37	9,500.00	78.22	78.09	-14.03	-4,143.84	110.08	721.55	650.82	70.72	10.202	

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 #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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

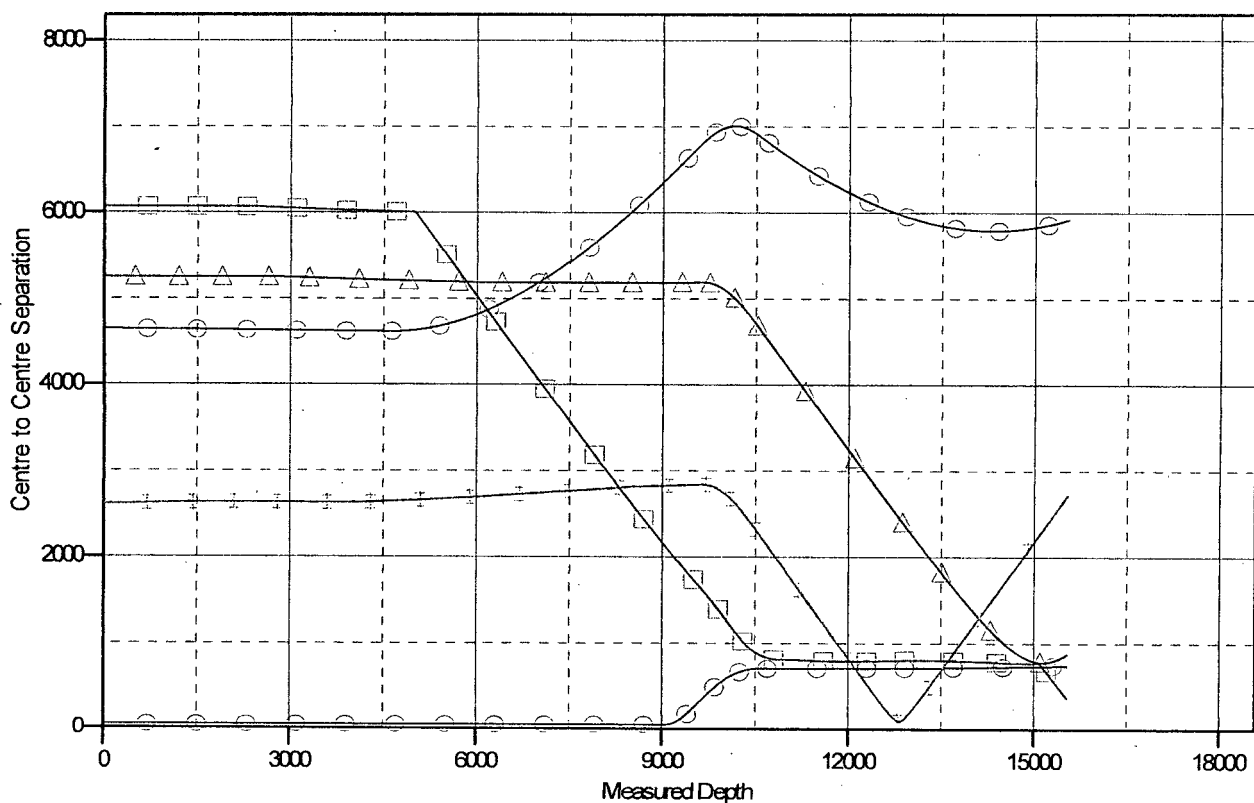
Offset Design Lea Unit #48H - Lea Unit #48H - OH - Plan #2													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	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)	Offset Wellbore Centre +E/-W (usft)						
14,200.00	10,200.00	13,499.29	9,500.00	79.97	79.85	-14.32	-4,243.77	110.87	722.48	649.78	72.70	9.938		
14,300.00	10,200.00	13,599.22	9,500.00	81.72	81.62	-14.62	-4,343.69	111.66	723.44	648.74	74.70	9.685		
14,400.00	10,200.00	13,699.14	9,500.00	83.47	83.39	-14.91	-4,443.61	112.45	724.42	647.70	76.72	9.442		
14,500.00	10,200.00	13,799.07	9,500.00	85.23	85.16	-15.20	-4,543.54	113.24	725.42	646.65	78.76	9.210		
14,600.00	10,200.00	13,899.00	9,500.00	86.98	86.94	-15.49	-4,643.46	114.03	726.43	645.60	80.83	8.987		
14,700.00	10,200.00	13,998.92	9,500.00	88.74	88.72	-15.78	-4,743.38	114.82	727.47	644.55	82.92	8.773		
14,800.00	10,200.00	14,098.85	9,500.00	90.51	90.50	-16.07	-4,843.31	115.61	728.52	643.49	85.03	8.568		
14,900.00	10,200.00	14,198.78	9,500.00	92.27	92.28	-16.36	-4,943.23	116.39	729.59	642.43	87.16	8.370		
15,000.00	10,200.00	14,298.70	9,500.00	94.04	94.06	-16.65	-5,043.15	117.18	730.68	641.36	89.32	8.180		
15,100.00	10,200.00	14,398.63	9,500.00	95.81	95.85	-16.94	-5,143.08	117.97	731.79	640.29	91.50	7.998		
15,200.00	10,200.00	14,498.56	9,500.00	97.58	97.64	-17.23	-5,243.00	118.76	732.92	639.22	93.70	7.822		
15,300.00	10,200.00	14,598.48	9,500.00	99.35	99.42	-17.51	-5,342.92	119.55	734.06	638.14	95.92	7.653		
15,400.00	10,200.00	14,698.41	9,500.00	101.13	101.21	-17.80	-5,442.85	120.34	735.23	637.06	98.17	7.489		
15,500.00	10,200.00	14,798.34	9,500.00	102.91	103.01	-18.08	-5,542.77	121.13	736.41	635.97	100.44	7.332		
15,534.54	10,200.00	14,832.67	9,500.00	103.52	103.62	-18.18	-5,577.10	121.40	736.82	635.60	101.22	7.279		

Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 @ 3694.00usft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Lea Unit #47H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.44°

Ladder Plot



LEGEND

- Lea Unit #48H, OH, Plan #2 V0
- #2, OH, OH V0
- ◇ SWD #2, OH, OH V0
- △ #7, OH, OH V0
- ✕ #33H, OH, OH V0

Company:	Legacy Reserves	Local Co-ordinate Reference:	Site Lea Unit #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Reference Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Lea Unit #47H	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 @ 3694.00usft (McVay 4)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Lea Unit #47H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.44°

