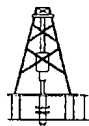




Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #61H
Well: Lea Unit #61H
Wellbore: Lateral #1
Plan: Design #1 (Lea Unit #61H/Lateral #1)



KB @ 3695.00usft (McVay 4)
Ground Level: 3677.00

Section Details											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Diag	TFace	Vsect	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	9227.04	0.00	0.00	9227.04	0.00	0.00	0.00	0.00	0.00		
3	10127.04	90.00	0.50	9800.00	572.94	5.03	10.00	0.50	572.96		
4	17509.89	90.00	0.50	9800.00	7955.50	69.90	0.00	0.00	7955.81	BHL-D1 (LU#61H/L1)	

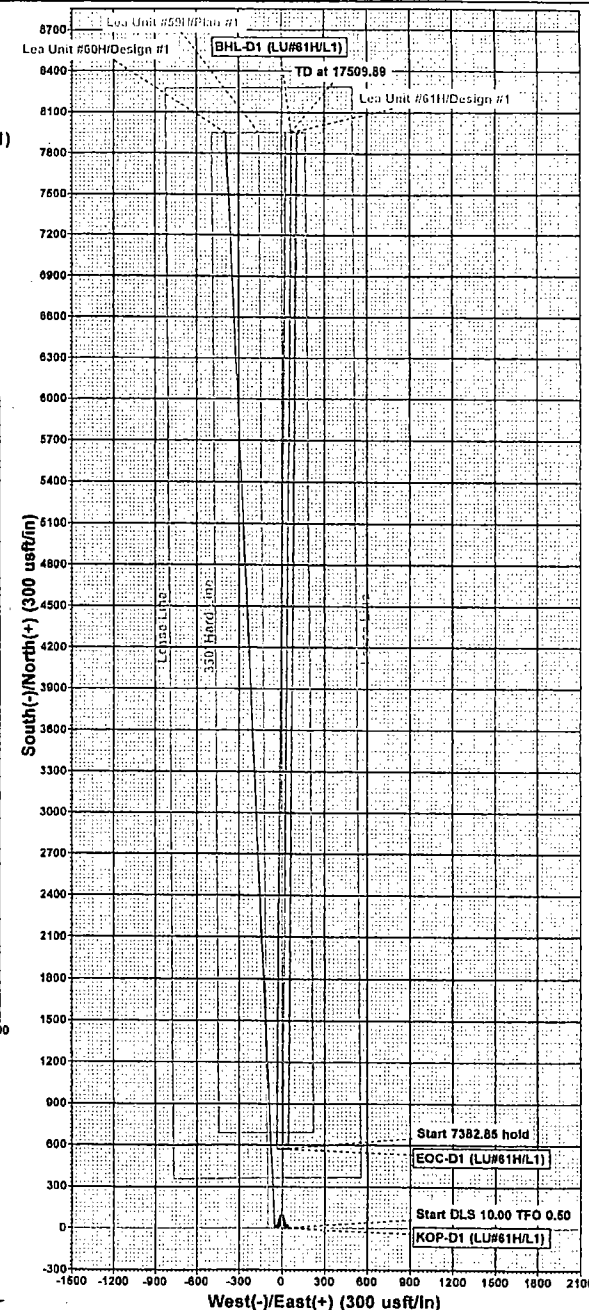
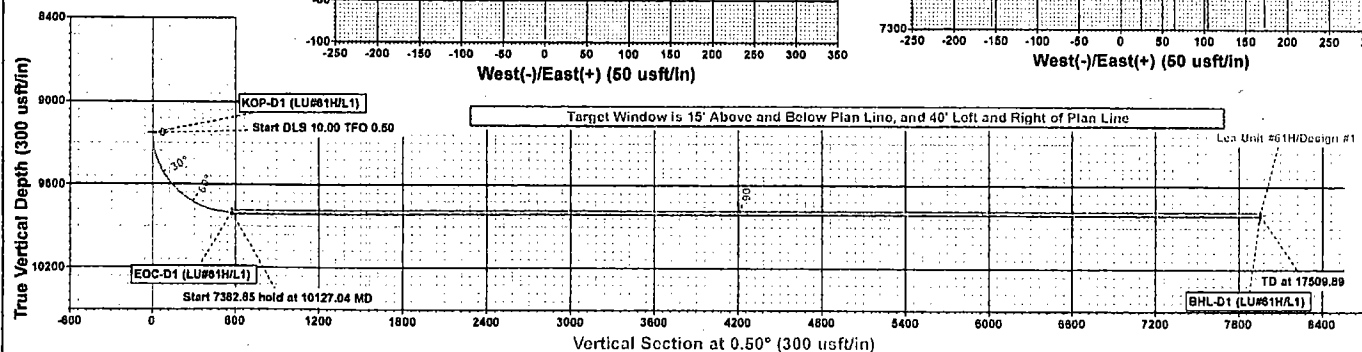
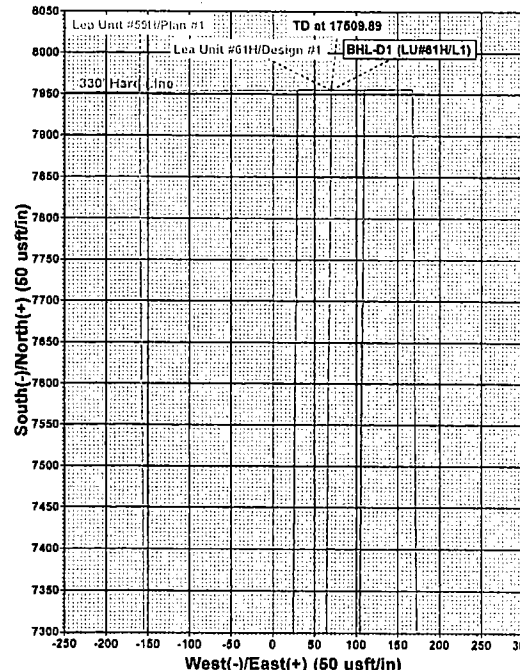
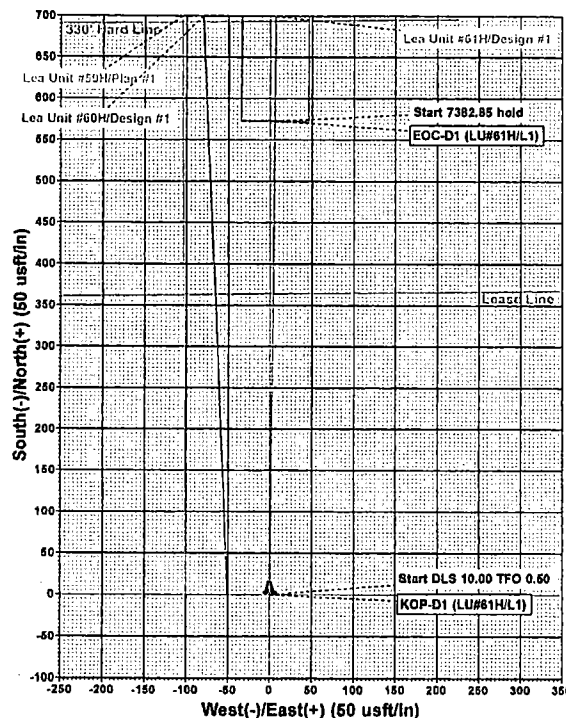
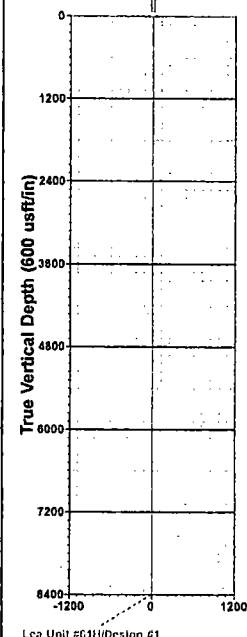
WELL DETAILS: Lea Unit #61H

Ground Elevation:: 3677.00
RKB Elevation: KB @ 3695.00usft (McVay 4)
Rig Name: McVay 4



Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.56°

Magnetic Field
Strength: 48201.0nT
Dip Angle: 60.39°
Date: 11/20/2016
Model: IGRF2015



Plan: Design #1 (Lea Unit #61H/Lateral #1)
dated By: Well Planner Date: 16:02, December 03 2016

Terra Directional Services
3705 South County Road 1210, Midland, TX 79706
Office: (432) 618-1210

PROJECT DETAILS: Lea County, NM (NAD-27 2015)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid



Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #61H

Lea Unit #61H

Lateral #1

Plan: Design #1

Standard Planning Report

03 December, 2016

HOBBS OCD

SEP 18 2017

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TDS
Planning Report



Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #61H
Well: Lea Unit #61H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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 #61H				
Site Position:		Northing:	567,524.50 usft	Latitude:	32° 33' 26.945 N
From:	Map	Easting:	756,074.80 usft	Longitude:	103° 30' 7.977 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.45 °

Well	Lea Unit #61H					
Well Position	+N/-S	0.00 usft	Northing:	567,524.50 usft	Latitude:	32° 33' 26.945 N
	+E/-W	0.00 usft	Easting:	756,074.80 usft	Longitude:	103° 30' 7.977 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,677.00 usft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/20/2016	7.01	60.39	48,201

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.50

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	
9,227.04	0.00	0.00	9,227.04	0.00	0.00	0.00	0.00	0.00	0.00	
10,127.04	90.00	0.50	9,800.00	572.94	5.03	10.00	10.00	0.06	0.50	
17,509.89	90.00	0.50	9,800.00	7,955.50	69.90	0.00	0.00	0.00	0.00	BHL-D1 (LU#61H/L1)



TDS
Planning Report



Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #61H
Well: Lea Unit #61H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
9,227.04	0.00	0.00	9,227.04	0.00	0.00	0.00	0.00	0.00	0.00
Start DLS 10.00 TFO 0.50									
9,250.00	2.30	0.50	9,249.99	0.46	0.00	0.46	10.00	10.00	0.00
9,300.00	7.30	0.50	9,299.80	4.64	0.04	4.64	10.00	10.00	0.00
9,350.00	12.30	0.50	9,349.06	13.14	0.12	13.14	10.00	10.00	0.00
9,400.00	17.30	0.50	9,397.39	25.91	0.23	25.91	10.00	10.00	0.00
9,450.00	22.30	0.50	9,444.42	42.83	0.38	42.84	10.00	10.00	0.00
9,500.00	27.30	0.50	9,489.79	63.80	0.56	63.80	10.00	10.00	0.00
9,550.00	32.30	0.50	9,533.17	88.63	0.78	88.64	10.00	10.00	0.00
9,600.00	37.30	0.50	9,574.21	117.16	1.03	117.16	10.00	10.00	0.00
9,650.00	42.30	0.50	9,612.62	149.15	1.31	149.15	10.00	10.00	0.00
9,700.00	47.30	0.50	9,648.09	184.36	1.62	184.37	10.00	10.00	0.00
9,750.00	52.30	0.50	9,680.35	222.54	1.96	222.55	10.00	10.00	0.00
9,800.00	57.30	0.50	9,709.17	263.38	2.31	263.39	10.00	10.00	0.00



TDS
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MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
9,850.00	62.30	0.50	9,734.31	306.58	2.69	306.59	10.00	10.00	0.00
9,900.00	67.30	0.50	9,755.60	351.80	3.09	351.81	10.00	10.00	0.00
9,950.00	72.30	0.50	9,772.86	398.71	3.50	398.72	10.00	10.00	0.00
10,000.00	77.30	0.50	9,785.97	446.94	3.93	446.96	10.00	10.00	0.00
10,050.00	82.30	0.50	9,794.83	496.13	4.36	496.15	10.00	10.00	0.00
10,100.00	87.30	0.50	9,799.36	545.91	4.80	545.93	10.00	10.00	0.00
10,127.04	90.00	0.50	9,800.00	572.94	5.03	572.96	10.00	10.00	0.00
Start 7382.85 hold at 10127.04 MD									
10,200.00	90.00	0.50	9,800.00	645.89	5.68	645.92	0.00	0.00	0.00
10,300.00	90.00	0.50	9,800.00	745.89	6.55	745.92	0.00	0.00	0.00
10,400.00	90.00	0.50	9,800.00	845.89	7.43	845.92	0.00	0.00	0.00
10,500.00	90.00	0.50	9,800.00	945.88	8.31	945.92	0.00	0.00	0.00
10,600.00	90.00	0.50	9,800.00	1,045.88	9.19	1,045.92	0.00	0.00	0.00
10,700.00	90.00	0.50	9,800.00	1,145.87	10.07	1,145.92	0.00	0.00	0.00
10,800.00	90.00	0.50	9,800.00	1,245.87	10.95	1,245.92	0.00	0.00	0.00
10,900.00	90.00	0.50	9,800.00	1,345.87	11.83	1,345.92	0.00	0.00	0.00
11,000.00	90.00	0.50	9,800.00	1,445.86	12.70	1,445.92	0.00	0.00	0.00
11,100.00	90.00	0.50	9,800.00	1,545.86	13.58	1,545.92	0.00	0.00	0.00
11,200.00	90.00	0.50	9,800.00	1,645.85	14.46	1,645.92	0.00	0.00	0.00
11,300.00	90.00	0.50	9,800.00	1,745.85	15.34	1,745.92	0.00	0.00	0.00
11,400.00	90.00	0.50	9,800.00	1,845.85	16.22	1,845.92	0.00	0.00	0.00
11,500.00	90.00	0.50	9,800.00	1,945.84	17.10	1,945.92	0.00	0.00	0.00
11,600.00	90.00	0.50	9,800.00	2,045.84	17.98	2,045.92	0.00	0.00	0.00
11,700.00	90.00	0.50	9,800.00	2,145.84	18.85	2,145.92	0.00	0.00	0.00
11,800.00	90.00	0.50	9,800.00	2,245.83	19.73	2,245.92	0.00	0.00	0.00
11,900.00	90.00	0.50	9,800.00	2,345.83	20.61	2,345.92	0.00	0.00	0.00
12,000.00	90.00	0.50	9,800.00	2,445.82	21.49	2,445.92	0.00	0.00	0.00
12,100.00	90.00	0.50	9,800.00	2,545.82	22.37	2,545.92	0.00	0.00	0.00
12,200.00	90.00	0.50	9,800.00	2,645.82	23.25	2,645.92	0.00	0.00	0.00
12,300.00	90.00	0.50	9,800.00	2,745.81	24.13	2,745.92	0.00	0.00	0.00
12,400.00	90.00	0.50	9,800.00	2,845.81	25.00	2,845.92	0.00	0.00	0.00
12,500.00	90.00	0.50	9,800.00	2,945.80	25.88	2,945.92	0.00	0.00	0.00
12,600.00	90.00	0.50	9,800.00	3,045.80	26.76	3,045.92	0.00	0.00	0.00
12,700.00	90.00	0.50	9,800.00	3,145.80	27.64	3,145.92	0.00	0.00	0.00
12,800.00	90.00	0.50	9,800.00	3,245.79	28.52	3,245.92	0.00	0.00	0.00
12,900.00	90.00	0.50	9,800.00	3,345.79	29.40	3,345.92	0.00	0.00	0.00
13,000.00	90.00	0.50	9,800.00	3,445.78	30.28	3,445.92	0.00	0.00	0.00
13,100.00	90.00	0.50	9,800.00	3,545.78	31.15	3,545.92	0.00	0.00	0.00
13,200.00	90.00	0.50	9,800.00	3,645.78	32.03	3,645.92	0.00	0.00	0.00
13,300.00	90.00	0.50	9,800.00	3,745.77	32.91	3,745.92	0.00	0.00	0.00
13,400.00	90.00	0.50	9,800.00	3,845.77	33.79	3,845.92	0.00	0.00	0.00
13,500.00	90.00	0.50	9,800.00	3,945.77	34.67	3,945.92	0.00	0.00	0.00
13,600.00	90.00	0.50	9,800.00	4,045.76	35.55	4,045.92	0.00	0.00	0.00
13,700.00	90.00	0.50	9,800.00	4,145.76	36.43	4,145.92	0.00	0.00	0.00
13,800.00	90.00	0.50	9,800.00	4,245.75	37.30	4,245.92	0.00	0.00	0.00
13,900.00	90.00	0.50	9,800.00	4,345.75	38.18	4,345.92	0.00	0.00	0.00
14,000.00	90.00	0.50	9,800.00	4,445.75	39.06	4,445.92	0.00	0.00	0.00
14,100.00	90.00	0.50	9,800.00	4,545.74	39.94	4,545.92	0.00	0.00	0.00
14,200.00	90.00	0.50	9,800.00	4,645.74	40.82	4,645.92	0.00	0.00	0.00
14,300.00	90.00	0.50	9,800.00	4,745.73	41.70	4,745.92	0.00	0.00	0.00
14,400.00	90.00	0.50	9,800.00	4,845.73	42.58	4,845.92	0.00	0.00	0.00
14,500.00	90.00	0.50	9,800.00	4,945.73	43.46	4,945.92	0.00	0.00	0.00
14,600.00	90.00	0.50	9,800.00	5,045.72	44.33	5,045.92	0.00	0.00	0.00
14,700.00	90.00	0.50	9,800.00	5,145.72	45.21	5,145.92	0.00	0.00	0.00



TDS
Planning Report



Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #61H
Well: Lea Unit #61H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
14,800.00	90.00	0.50	9,800.00	5,245.72	46.09	5,245.92	0.00	0.00	0.00
14,900.00	90.00	0.50	9,800.00	5,345.71	46.97	5,345.92	0.00	0.00	0.00
15,000.00	90.00	0.50	9,800.00	5,445.71	47.85	5,445.92	0.00	0.00	0.00
15,100.00	90.00	0.50	9,800.00	5,545.70	48.73	5,545.92	0.00	0.00	0.00
15,200.00	90.00	0.50	9,800.00	5,645.70	49.61	5,645.92	0.00	0.00	0.00
15,300.00	90.00	0.50	9,800.00	5,745.70	50.48	5,745.92	0.00	0.00	0.00
15,400.00	90.00	0.50	9,800.00	5,845.69	51.36	5,845.92	0.00	0.00	0.00
15,500.00	90.00	0.50	9,800.00	5,945.69	52.24	5,945.92	0.00	0.00	0.00
15,600.00	90.00	0.50	9,800.00	6,045.68	53.12	6,045.92	0.00	0.00	0.00
15,700.00	90.00	0.50	9,800.00	6,145.68	54.00	6,145.92	0.00	0.00	0.00
15,800.00	90.00	0.50	9,800.00	6,245.68	54.88	6,245.92	0.00	0.00	0.00
15,900.00	90.00	0.50	9,800.00	6,345.67	55.76	6,345.92	0.00	0.00	0.00
16,000.00	90.00	0.50	9,800.00	6,445.67	56.63	6,445.92	0.00	0.00	0.00
16,100.00	90.00	0.50	9,800.00	6,545.67	57.51	6,545.92	0.00	0.00	0.00
16,200.00	90.00	0.50	9,800.00	6,645.66	58.39	6,645.92	0.00	0.00	0.00
16,300.00	90.00	0.50	9,800.00	6,745.66	59.27	6,745.92	0.00	0.00	0.00
16,400.00	90.00	0.50	9,800.00	6,845.65	60.15	6,845.92	0.00	0.00	0.00
16,500.00	90.00	0.50	9,800.00	6,945.65	61.03	6,945.92	0.00	0.00	0.00
16,600.00	90.00	0.50	9,800.00	7,045.65	61.91	7,045.92	0.00	0.00	0.00
16,700.00	90.00	0.50	9,800.00	7,145.64	62.78	7,145.92	0.00	0.00	0.00
16,800.00	90.00	0.50	9,800.00	7,245.64	63.66	7,245.92	0.00	0.00	0.00
16,900.00	90.00	0.50	9,800.00	7,345.63	64.54	7,345.92	0.00	0.00	0.00
17,000.00	90.00	0.50	9,800.00	7,445.63	65.42	7,445.92	0.00	0.00	0.00
17,100.00	90.00	0.50	9,800.00	7,545.63	66.30	7,545.92	0.00	0.00	0.00
17,200.00	90.00	0.50	9,800.00	7,645.62	67.18	7,645.92	0.00	0.00	0.00
17,300.00	90.00	0.50	9,800.00	7,745.62	68.06	7,745.92	0.00	0.00	0.00
17,400.00	90.00	0.50	9,800.00	7,845.62	68.93	7,845.92	0.00	0.00	0.00
17,509.89	90.00	0.50	9,800.00	7,955.50	69.90	7,955.81	0.00	0.00	0.00

TD at 17509.89

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
KOP-D1 (LU#61H/L1)	0.00	0.00	9,227.04	0.00	0.00	567,524.50	756,074.80	32° 33' 26.945 N	103° 30' 7.977 W
- plan hits target center									
- Point									
EOC-D1 (LU#61H/L1)	0.00	0.00	9,800.00	572.94	5.03	568,097.44	756,079.83	32° 33' 32.614 N	103° 30' 7.866 W
- plan hits target center									
- Point									
BHL-D1 (LU#61H/L1)	0.00	0.50	9,800.00	7,955.50	69.90	575,480.00	756,144.70	32° 34' 45.658 N	103° 30' 6.434 W
- plan hits target center									
- Rectangle (sides W80.00 H7,382.85 D30.00)									



TDS
Planning Report



Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #61H
Well: Lea Unit #61H
Wellbore: Lateral #1
Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
9,227.04	9,227.04	0.00	0.00	Start DLS 10.00 TFO 0.50
10,127.04	9,800.00	572.94	5.03	Start 7382.85 hold at 10127.04 MD
17,509.89	9,800.00	7,955.50	69.90	TD at 17509.89



Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #61H

Lea Unit #61H

Lateral #1

Design #1

HOBBS OCD

SEP 18 2017

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Anticollision Report

03 December, 2016





TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

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

Survey Tool Program		Date 12/3/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	17,509.89	Design #1 (Lateral #1)	MWD	MWD - Standard

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Lea Unit #59H						
Lea Unit #59H - OH - Plan #1	9,227.04	9,226.04	100.10	58.89	2.429 CC	
Lea Unit #59H - OH - Plan #1	9,300.00	9,298.80	100.29	58.76	2.415 ES, SF	
Lea Unit #60H						
Lea Unit #60H - Lateral #1 - Design #1	9,227.04	9,226.04	50.10	8.89	1.216 Level 2, CC	
Lea Unit #60H - Lateral #1 - Design #1	9,250.00	9,248.99	50.11	8.80	1.213 Level 2, ES, SF	

Offset Design											Lea Unit #59H - Lea Unit #59H - OH - Plan #1		Offset Site Error:	0.00 usR
Survey Program: Q-MWD											Offset Well Error:	0.00 usR		
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 +N/-S (usft)	Centro +E/-W (usR)	Between Centres (usft)	Between Ellipses (usft)		Minimum Separation (usft)	Separation Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-90.52	-0.90	-100.10	100.11					
100.00	100.00	99.00	99.00	0.09	0.09	-90.52	-0.90	-100.10	100.10	99.92	0.18	545.863		
200.00	200.00	199.00	199.00	0.32	0.31	-90.52	-0.90	-100.10	100.10	99.47	0.63	158.495		
300.00	300.00	299.00	299.00	0.54	0.54	-90.52	-0.90	-100.10	100.10	99.02	1.08	92.592		
400.00	400.00	399.00	399.00	0.77	0.76	-90.52	-0.90	-100.10	100.10	98.57	1.53	65.399		
500.00	500.00	499.00	499.00	0.99	0.99	-90.52	-0.90	-100.10	100.10	98.12	1.98	50.553		
600.00	600.00	599.00	599.00	1.22	1.21	-90.52	-0.90	-100.10	100.10	97.67	2.43	41.200		
700.00	700.00	699.00	699.00	1.44	1.44	-90.52	-0.90	-100.10	100.10	97.22	2.88	34.767		
800.00	800.00	799.00	799.00	1.67	1.66	-90.52	-0.90	-100.10	100.10	96.78	3.33	30.072		
900.00	900.00	899.00	899.00	1.89	1.89	-90.52	-0.90	-100.10	100.10	96.33	3.78	26.494		
1,000.00	1,000.00	999.00	999.00	2.12	2.11	-90.52	-0.90	-100.10	100.10	95.88	4.23	23.677		
1,100.00	1,100.00	1,099.00	1,099.00	2.34	2.34	-90.52	-0.90	-100.10	100.10	95.43	4.68	21.402		
1,200.00	1,200.00	1,199.00	1,199.00	2.56	2.56	-90.52	-0.90	-100.10	100.10	94.98	5.13	19.525		
1,300.00	1,300.00	1,299.00	1,299.00	2.79	2.79	-90.52	-0.90	-100.10	100.10	94.53	5.58	17.951		
1,400.00	1,400.00	1,399.00	1,399.00	3.01	3.01	-90.52	-0.90	-100.10	100.10	94.08	6.03	16.612		
1,500.00	1,500.00	1,499.00	1,499.00	3.24	3.24	-90.52	-0.90	-100.10	100.10	93.63	6.48	15.459		
1,600.00	1,600.00	1,599.00	1,599.00	3.46	3.46	-90.52	-0.90	-100.10	100.10	93.18	6.93	14.455		
1,700.00	1,700.00	1,699.00	1,699.00	3.69	3.69	-90.52	-0.90	-100.10	100.10	92.73	7.37	13.574		
1,800.00	1,800.00	1,799.00	1,799.00	3.91	3.91	-90.52	-0.90	-100.10	100.10	92.28	7.82	12.794		
1,900.00	1,900.00	1,899.00	1,899.00	4.14	4.14	-90.52	-0.90	-100.10	100.10	91.83	8.27	12.099		
2,000.00	2,000.00	1,999.00	1,999.00	4.36	4.36	-90.52	-0.90	-100.10	100.10	91.38	8.72	11.476		

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



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Lea Unit #59H - Lea Unit #59H - OH - Plan #1												Offset Site Error: 0.00 usft
Survey Program: 0-MWD												Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N-S (usft)	+E-W (usft)				
2,100.00	2,100.00	2,099.00	2,099.00	4.59	4.59	-90.52	-0.90	-100.10	100.10	90.93	9.17	10.913
2,200.00	2,200.00	2,199.00	2,199.00	4.81	4.81	-90.52	-0.90	-100.10	100.10	90.48	9.62	10.403
2,300.00	2,300.00	2,299.00	2,299.00	5.04	5.03	-90.52	-0.90	-100.10	100.10	90.03	10.07	9.939
2,400.00	2,400.00	2,399.00	2,399.00	5.26	5.26	-90.52	-0.90	-100.10	100.10	89.58	10.52	9.514
2,500.00	2,500.00	2,499.00	2,499.00	5.49	5.48	-90.52	-0.90	-100.10	100.10	89.13	10.97	9.125
2,600.00	2,600.00	2,599.00	2,599.00	5.71	5.71	-90.52	-0.90	-100.10	100.10	88.68	11.42	8.765
2,700.00	2,700.00	2,699.00	2,699.00	5.94	5.93	-90.52	-0.90	-100.10	100.10	88.23	11.87	8.433
2,800.00	2,800.00	2,799.00	2,799.00	6.16	6.16	-90.52	-0.90	-100.10	100.10	87.78	12.32	8.126
2,900.00	2,900.00	2,899.00	2,899.00	6.39	6.38	-90.52	-0.90	-100.10	100.10	87.34	12.77	7.840
3,000.00	3,000.00	2,999.00	2,999.00	6.61	6.61	-90.52	-0.90	-100.10	100.10	86.89	13.22	7.573
3,100.00	3,100.00	3,099.00	3,099.00	6.84	6.83	-90.52	-0.90	-100.10	100.10	86.44	13.67	7.324
3,200.00	3,200.00	3,199.00	3,199.00	7.06	7.06	-90.52	-0.90	-100.10	100.10	85.99	14.12	7.091
3,300.00	3,300.00	3,299.00	3,299.00	7.28	7.28	-90.52	-0.90	-100.10	100.10	85.54	14.57	6.872
3,400.00	3,400.00	3,399.00	3,399.00	7.51	7.51	-90.52	-0.90	-100.10	100.10	85.09	15.02	6.666
3,500.00	3,500.00	3,499.00	3,499.00	7.73	7.73	-90.52	-0.90	-100.10	100.10	84.64	15.47	6.472
3,600.00	3,600.00	3,599.00	3,599.00	7.96	7.96	-90.52	-0.90	-100.10	100.10	84.19	15.92	6.290
3,700.00	3,700.00	3,699.00	3,699.00	8.18	8.18	-90.52	-0.90	-100.10	100.10	83.74	16.37	6.117
3,800.00	3,800.00	3,799.00	3,799.00	8.41	8.41	-90.52	-0.90	-100.10	100.10	83.29	16.81	5.953
3,900.00	3,900.00	3,899.00	3,899.00	8.63	8.63	-90.52	-0.90	-100.10	100.10	82.84	17.26	5.798
4,000.00	4,000.00	3,999.00	3,999.00	8.86	8.86	-90.52	-0.90	-100.10	100.10	82.39	17.71	5.651
4,100.00	4,100.00	4,099.00	4,099.00	9.08	9.08	-90.52	-0.90	-100.10	100.10	81.94	18.16	5.511
4,200.00	4,200.00	4,199.00	4,199.00	9.31	9.31	-90.52	-0.90	-100.10	100.10	81.49	18.61	5.378
4,300.00	4,300.00	4,299.00	4,299.00	9.53	9.53	-90.52	-0.90	-100.10	100.10	81.04	19.06	5.251
4,400.00	4,400.00	4,399.00	4,399.00	9.76	9.75	-90.52	-0.90	-100.10	100.10	80.59	19.51	5.130
4,500.00	4,500.00	4,499.00	4,499.00	9.98	9.98	-90.52	-0.90	-100.10	100.10	80.14	19.96	5.015
4,600.00	4,600.00	4,599.00	4,599.00	10.21	10.20	-90.52	-0.90	-100.10	100.10	79.69	20.41	4.904
4,700.00	4,700.00	4,699.00	4,699.00	10.43	10.43	-90.52	-0.90	-100.10	100.10	79.24	20.86	4.799
4,800.00	4,800.00	4,799.00	4,799.00	10.66	10.65	-90.52	-0.90	-100.10	100.10	78.79	21.31	4.698
4,900.00	4,900.00	4,899.00	4,899.00	10.88	10.88	-90.52	-0.90	-100.10	100.10	78.34	21.76	4.600
5,000.00	5,000.00	4,999.00	4,999.00	11.11	11.10	-90.52	-0.90	-100.10	100.10	77.89	22.21	4.507
5,100.00	5,100.00	5,099.00	5,099.00	11.33	11.33	-90.52	-0.90	-100.10	100.10	77.45	22.66	4.418
5,200.00	5,200.00	5,199.00	5,199.00	11.56	11.55	-90.52	-0.90	-100.10	100.10	77.00	23.11	4.332
5,300.00	5,300.00	5,299.00	5,299.00	11.78	11.78	-90.52	-0.90	-100.10	100.10	76.55	23.56	4.249
5,400.00	5,400.00	5,399.00	5,399.00	12.00	12.00	-90.52	-0.90	-100.10	100.10	76.10	24.01	4.170
5,500.00	5,500.00	5,499.00	5,499.00	12.23	12.23	-90.52	-0.90	-100.10	100.10	75.65	24.46	4.093
5,600.00	5,600.00	5,599.00	5,599.00	12.45	12.45	-90.52	-0.90	-100.10	100.10	75.20	24.91	4.019
5,700.00	5,700.00	5,699.00	5,699.00	12.68	12.68	-90.52	-0.90	-100.10	100.10	74.75	25.36	3.948
5,800.00	5,800.00	5,799.00	5,799.00	12.90	12.90	-90.52	-0.90	-100.10	100.10	74.30	25.81	3.879
5,900.00	5,900.00	5,899.00	5,899.00	13.13	13.13	-90.52	-0.90	-100.10	100.10	73.85	26.25	3.813
6,000.00	6,000.00	5,999.00	5,999.00	13.35	13.35	-90.52	-0.90	-100.10	100.10	73.40	26.70	3.749
6,100.00	6,100.00	6,099.00	6,099.00	13.58	13.58	-90.52	-0.90	-100.10	100.10	72.95	27.15	3.687
6,200.00	6,200.00	6,199.00	6,199.00	13.80	13.80	-90.52	-0.90	-100.10	100.10	72.50	27.60	3.626
6,300.00	6,300.00	6,299.00	6,299.00	14.03	14.03	-90.52	-0.90	-100.10	100.10	72.05	28.05	3.568
6,400.00	6,400.00	6,399.00	6,399.00	14.25	14.25	-90.52	-0.90	-100.10	100.10	71.60	28.50	3.512
6,500.00	6,500.00	6,499.00	6,499.00	14.48	14.47	-90.52	-0.90	-100.10	100.10	71.15	28.95	3.458
6,600.00	6,600.00	6,599.00	6,599.00	14.70	14.70	-90.52	-0.90	-100.10	100.10	70.70	29.40	3.405
6,700.00	6,700.00	6,699.00	6,699.00	14.93	14.92	-90.52	-0.90	-100.10	100.10	70.25	29.85	3.353
6,800.00	6,800.00	6,799.00	6,799.00	15.15	15.15	-90.52	-0.90	-100.10	100.10	69.80	30.30	3.304
6,900.00	6,900.00	6,899.00	6,899.00	15.38	15.37	-90.52	-0.90	-100.10	100.10	69.35	30.75	3.255
7,000.00	7,000.00	6,999.00	6,999.00	15.60	15.60	-90.52	-0.90	-100.10	100.10	68.90	31.20	3.208
7,100.00	7,100.00	7,099.00	7,099.00	15.83	15.82	-90.52	-0.90	-100.10	100.10	68.45	31.65	3.163
7,200.00	7,200.00	7,199.00	7,199.00	16.05	16.05	-90.52	-0.90	-100.10	100.10	68.01	32.10	3.119

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



TDS Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Lea Unit #59H - Lea Unit #59H - OH - Plan #1													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)			
7,300.00	7,300.00	7,299.00	7,299.00	16.28	16.27	-90.52	-0.90	-100.10	100.10	67.56	32.55	3.076	
7,400.00	7,400.00	7,399.00	7,399.00	16.50	16.50	-90.52	-0.90	-100.10	100.10	67.11	33.00	3.034	
7,500.00	7,500.00	7,499.00	7,499.00	16.72	16.72	-90.52	-0.90	-100.10	100.10	66.66	33.45	2.993	
7,600.00	7,600.00	7,599.00	7,599.00	16.95	16.95	-90.52	-0.90	-100.10	100.10	66.21	33.90	2.953	
7,700.00	7,700.00	7,699.00	7,699.00	17.17	17.17	-90.52	-0.90	-100.10	100.10	65.76	34.35	2.915	
7,800.00	7,800.00	7,799.00	7,799.00	17.40	17.40	-90.52	-0.90	-100.10	100.10	65.31	34.80	2.877	
7,900.00	7,900.00	7,899.00	7,899.00	17.62	17.62	-90.52	-0.90	-100.10	100.10	64.86	35.25	2.840	
8,000.00	8,000.00	7,999.00	7,999.00	17.85	17.85	-90.52	-0.90	-100.10	100.10	64.41	35.70	2.804	
8,100.00	8,100.00	8,099.00	8,099.00	18.07	18.07	-90.52	-0.90	-100.10	100.10	63.96	36.14	2.770	
8,200.00	8,200.00	8,199.00	8,199.00	18.30	18.30	-90.52	-0.90	-100.10	100.10	63.51	36.59	2.736	
8,300.00	8,300.00	8,299.00	8,299.00	18.52	18.52	-90.52	-0.90	-100.10	100.10	63.06	37.04	2.702	
8,400.00	8,400.00	8,399.00	8,399.00	18.75	18.75	-90.52	-0.90	-100.10	100.10	62.61	37.49	2.670	
8,500.00	8,500.00	8,499.00	8,499.00	18.97	18.97	-90.52	-0.90	-100.10	100.10	62.16	37.94	2.638	
8,600.00	8,600.00	8,599.00	8,599.00	19.20	19.20	-90.52	-0.90	-100.10	100.10	61.71	38.39	2.607	
8,700.00	8,700.00	8,699.00	8,699.00	19.42	19.42	-90.52	-0.90	-100.10	100.10	61.26	38.84	2.577	
8,800.00	8,800.00	8,799.00	8,799.00	19.65	19.64	-90.52	-0.90	-100.10	100.10	60.81	39.29	2.548	
8,900.00	8,900.00	8,899.00	8,899.00	19.87	19.87	-90.52	-0.90	-100.10	100.10	60.36	39.74	2.519	
9,000.00	9,000.00	8,999.00	8,999.00	20.10	20.09	-90.52	-0.90	-100.10	100.10	59.91	40.19	2.491	
9,100.00	9,100.00	9,099.00	9,099.00	20.32	20.32	-90.52	-0.90	-100.10	100.10	59.46	40.64	2.463	
9,200.00	9,200.00	9,199.00	9,199.00	20.55	20.54	-90.52	-0.90	-100.10	100.10	59.01	41.09	2.436	
9,227.04	9,227.04	9,226.04	9,226.04	20.61	20.60	-90.52	-0.90	-100.10	100.10	58.89	41.21	2.429 CC	
9,250.00	9,249.99	9,248.99	9,248.99	20.66	20.66	-91.28	-0.90	-100.10	100.11	58.80	41.31	2.423	
9,300.00	9,299.80	9,298.80	9,298.80	20.77	20.77	-93.64	-0.90	-100.10	100.29	58.76	41.54	2.415 ES, SF	
9,350.00	9,349.06	9,348.06	9,348.06	20.88	20.88	-98.29	-0.90	-100.10	101.19	59.44	41.75	2.424	
9,400.00	9,397.39	9,396.39	9,396.39	20.99	20.99	-104.80	-0.90	-100.10	103.85	61.88	41.97	2.474	
9,450.00	9,444.42	9,443.42	9,443.42	21.10	21.09	-112.41	-0.90	-100.10	109.58	67.40	42.18	2.598	
9,500.00	9,489.79	9,488.79	9,488.79	21.21	21.19	-120.21	-0.90	-100.10	119.66	77.26	42.40	2.822	
9,550.00	9,533.17	9,532.17	9,532.17	21.31	21.29	-127.37	-0.90	-100.10	134.88	92.28	42.60	3.166	
9,600.00	9,574.21	9,573.21	9,573.21	21.43	21.38	-133.39	-0.90	-100.10	155.45	112.65	42.80	3.632	
9,650.00	9,612.62	9,611.62	9,611.62	21.57	21.47	-138.12	-0.90	-100.10	181.10	138.12	42.98	4.214	
9,700.00	9,648.09	9,647.09	9,647.09	21.72	21.55	-141.59	-0.90	-100.10	211.35	168.20	43.15	4.898	
9,750.00	9,680.35	9,679.35	9,679.35	21.89	21.62	-143.89	-0.90	-100.10	245.64	202.34	43.30	5.673	
9,800.00	9,709.17	9,708.17	9,708.17	22.08	21.69	-145.06	-0.90	-100.10	283.43	240.00	43.43	6.526	
9,850.00	9,734.31	9,733.31	9,733.31	22.29	21.74	-145.08	-0.90	-100.10	324.20	280.66	43.54	7.446	
9,900.00	9,755.60	9,754.60	9,754.60	22.54	21.79	-143.74	-0.90	-100.10	367.49	323.85	43.64	8.422	
9,950.00	9,772.86	9,771.86	9,771.86	22.81	21.83	-140.59	-0.90	-100.10	412.82	369.11	43.71	9.444	
10,000.00	9,785.97	9,784.97	9,784.97	23.11	21.86	-134.60	-0.90	-100.10	459.76	415.99	43.77	10.505	
10,050.00	9,794.83	9,793.83	9,793.83	23.43	21.88	-123.70	-0.90	-100.10	507.89	464.08	43.81	11.594	
10,100.00	9,799.36	9,798.36	9,798.36	23.78	21.89	-104.48	-0.90	-100.10	556.78	512.95	43.83	12.704	
10,127.04	9,800.00	9,799.00	9,799.00	23.98	21.89	-90.00	-0.90	-100.10	593.39	539.55	43.83	13.309	
10,200.00	9,800.00	9,799.00	9,799.00	24.56	21.89	-90.00	-0.90	-100.10	655.38	611.55	43.84	14.950	
10,300.00	9,800.00	9,799.00	9,799.00	25.44	21.89	-90.00	-0.90	-100.10	754.37	710.52	43.85	17.204	
10,400.00	9,800.00	9,799.00	9,799.00	26.42	21.89	-90.00	-0.90	-100.10	853.59	809.73	43.86	19.463	
10,500.00	9,800.00	9,799.00	9,799.00	27.48	21.89	-90.00	-0.90	-100.10	952.97	909.10	43.87	21.724	
10,600.00	9,800.00	9,799.00	9,799.00	28.63	21.89	-90.00	-0.90	-100.10	1,052.47	1,008.59	43.88	23.987	
10,700.00	9,800.00	11,799.95	10,899.96	29.84	31.67	-173.84	1,144.97	-108.73	1,107.35	1,081.98	25.38	43.635	
10,800.00	9,800.00	11,899.93	10,899.96	31.11	32.87	-173.76	1,244.96	-109.48	1,107.53	1,081.18	26.36	42.022	
10,900.00	9,800.00	11,999.92	10,899.96	32.43	34.13	-173.67	1,344.94	-110.24	1,107.71	1,080.32	27.39	40.449	
11,000.00	9,800.00	12,099.91	10,899.96	33.80	35.44	-173.59	1,444.92	-110.99	1,107.89	1,079.43	28.46	38.926	
11,100.00	9,800.00	12,199.89	10,899.96	35.21	36.79	-173.51	1,544.91	-111.74	1,108.08	1,078.50	29.58	37.461	
11,200.00	9,800.00	12,299.88	10,899.96	36.66	38.18	-173.42	1,644.89	-112.50	1,108.26	1,077.53	30.74	36.058	
11,300.00	9,800.00	12,399.87	10,899.96	38.14	39.61	-173.34	1,744.88	-113.25	1,108.45	1,076.53	31.93	34.720	

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



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Lea Unit #59H - Lea Unit #59H - OH - Plan #1														Offset Site Error: 0.00 ush
Survey Program: O-MWD														Offset Well Error: 0.00 ush
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Minimum Separation (usft)	Separation Factor	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)						
11,400.00	9,800.00	12,499.85	10,899.97	39.65	-41.07	-173.26	1,844.86	-114.00	1,108.64	1,075.50	33.15	33.447		
11,500.00	9,800.00	12,599.84	10,899.97	41.19	42.56	-173.17	1,944.84	-114.75	1,108.83	1,074.44	34.39	32.238		
11,600.00	9,800.00	12,699.83	10,899.97	42.75	44.07	-173.09	2,044.83	-115.51	1,109.03	1,073.36	35.67	31.092		
11,700.00	9,800.00	12,799.81	10,899.97	44.33	45.61	-173.00	2,144.81	-116.26	1,109.23	1,072.26	36.97	30.006		
11,800.00	9,800.00	12,899.80	10,899.97	45.93	47.17	-172.92	2,244.79	-117.01	1,109.43	1,071.14	38.28	28.978		
11,900.00	9,800.00	12,999.79	10,899.97	47.54	48.74	-172.84	2,344.78	-117.77	1,109.63	1,070.01	39.62	28.005		
12,000.00	9,800.00	13,099.77	10,899.97	49.17	50.34	-172.75	2,444.76	-118.52	1,109.84	1,068.86	40.98	27.083		
12,100.00	9,800.00	13,199.76	10,899.97	50.81	51.95	-172.67	2,544.75	-119.27	1,110.04	1,067.69	42.35	26.210		
12,200.00	9,800.00	13,299.75	10,899.97	52.47	53.57	-172.59	2,644.73	-120.03	1,110.25	1,066.51	43.74	25.383		
12,300.00	9,800.00	13,399.73	10,899.97	54.13	55.21	-172.50	2,744.71	-120.78	1,110.47	1,065.32	45.14	24.599		
12,400.00	9,800.00	13,499.72	10,899.97	55.81	56.86	-172.42	2,844.70	-121.53	1,110.68	1,064.12	46.56	23.856		
12,500.00	9,800.00	13,599.71	10,899.97	57.50	58.52	-172.34	2,944.68	-122.28	1,110.90	1,062.91	47.99	23.150		
12,600.00	9,800.00	13,699.69	10,899.97	59.19	60.19	-172.25	3,044.67	-123.04	1,111.12	1,061.69	49.43	22.480		
12,700.00	9,800.00	13,799.68	10,899.97	60.89	61.87	-172.17	3,144.65	-123.79	1,111.34	1,060.46	50.88	21.843		
12,800.00	9,800.00	13,899.67	10,899.97	62.60	63.56	-172.09	3,244.63	-124.54	1,111.56	1,059.22	52.34	21.237		
12,900.00	9,800.00	13,999.65	10,899.97	64.31	65.25	-172.00	3,344.62	-125.30	1,111.79	1,057.98	53.81	20.660		
13,000.00	9,800.00	14,099.64	10,899.97	66.04	66.95	-171.92	3,444.60	-126.05	1,112.02	1,056.72	55.29	20.111		
13,100.00	9,800.00	14,199.63	10,899.98	67.76	68.66	-171.84	3,544.59	-126.80	1,112.25	1,055.46	56.79	19.587		
13,200.00	9,800.00	14,299.61	10,899.98	69.49	70.38	-171.75	3,644.57	-127.56	1,112.48	1,054.20	58.29	19.087		
13,300.00	9,800.00	14,399.60	10,899.98	71.23	72.10	-171.67	3,744.55	-128.31	1,112.72	1,052.93	59.79	18.609		
13,400.00	9,800.00	14,499.59	10,899.98	72.97	73.83	-171.59	3,844.54	-129.06	1,112.96	1,051.65	61.31	18.153		
13,500.00	9,800.00	14,599.57	10,899.98	74.72	75.56	-171.50	3,944.52	-129.81	1,113.20	1,050.36	62.83	17.717		
13,600.00	9,800.00	14,699.56	10,899.98	76.47	77.29	-171.42	4,044.50	-130.57	1,113.44	1,049.08	64.37	17.299		
13,700.00	9,800.00	14,799.55	10,899.98	78.22	79.03	-171.34	4,144.49	-131.32	1,113.69	1,047.78	65.90	16.899		
13,800.00	9,800.00	14,899.53	10,899.98	79.97	80.78	-171.25	4,244.47	-132.07	1,113.93	1,046.48	67.45	16.515		
13,900.00	9,800.00	14,999.52	10,899.98	81.73	82.52	-171.17	4,344.46	-132.83	1,114.18	1,045.18	69.00	16.147		
14,000.00	9,800.00	15,099.51	10,899.98	83.49	84.28	-171.09	4,444.44	-133.58	1,114.44	1,043.87	70.56	15.794		
14,100.00	9,800.00	15,199.49	10,899.98	85.26	86.03	-171.01	4,544.42	-134.33	1,114.69	1,042.56	72.13	15.454		
14,200.00	9,800.00	15,299.48	10,899.98	87.03	87.79	-170.92	4,644.41	-135.09	1,114.95	1,041.25	73.70	15.128		
14,300.00	9,800.00	15,399.47	10,899.98	88.80	89.55	-170.84	4,744.39	-135.84	1,115.21	1,039.93	75.28	14.814		
14,400.00	9,800.00	15,499.46	10,899.98	90.57	91.31	-170.76	4,844.38	-136.59	1,115.47	1,038.60	76.87	14.512		
14,500.00	9,800.00	15,599.44	10,899.98	92.34	93.08	-170.68	4,944.36	-137.34	1,115.73	1,037.27	78.46	14.221		
14,600.00	9,800.00	15,699.43	10,899.98	94.12	94.85	-170.59	5,044.34	-138.10	1,116.00	1,035.94	80.05	13.941		
14,700.00	9,800.00	15,799.42	10,899.98	95.90	96.62	-170.51	5,144.33	-138.85	1,116.27	1,034.61	81.66	13.670		
14,800.00	9,800.00	15,899.40	10,899.98	97.68	98.39	-170.43	5,244.31	-139.60	1,116.54	1,033.27	83.27	13.409		
14,900.00	9,800.00	15,999.39	10,899.99	99.46	100.17	-170.34	5,344.29	-140.36	1,116.81	1,031.93	84.88	13.157		
15,000.00	9,800.00	16,099.38	10,899.99	101.24	101.94	-170.26	5,444.28	-141.11	1,117.08	1,030.58	86.50	12.914		
15,100.00	9,800.00	16,199.36	10,899.99	103.03	103.72	-170.18	5,544.26	-141.86	1,117.36	1,029.23	88.13	12.679		
15,200.00	9,800.00	16,299.35	10,899.99	104.81	105.51	-170.10	5,644.25	-142.62	1,117.64	1,027.88	89.76	12.452		
15,300.00	9,800.00	16,399.34	10,899.99	106.60	107.29	-170.02	5,744.23	-143.37	1,117.92	1,026.53	91.40	12.232		
15,400.00	9,800.00	16,499.32	10,899.99	108.39	109.07	-169.93	5,844.21	-144.12	1,118.21	1,025.17	93.04	12.019		
15,500.00	9,800.00	16,599.31	10,899.99	110.18	110.86	-169.85	5,944.20	-144.87	1,118.50	1,023.81	94.69	11.812		
15,600.00	9,800.00	16,699.30	10,899.99	111.97	112.65	-169.77	6,044.18	-145.63	1,118.79	1,022.44	96.34	11.613		
15,700.00	9,800.00	16,799.28	10,899.99	113.76	114.43	-169.69	6,144.17	-146.38	1,119.08	1,021.08	98.00	11.419		
15,800.00	9,800.00	16,899.27	10,899.99	115.56	116.22	-169.60	6,244.15	-147.13	1,119.37	1,019.71	99.67	11.231		
15,900.00	9,800.00	16,999.26	10,899.99	117.35	118.01	-169.52	6,344.13	-147.89	1,119.67	1,018.33	101.34	11.049		
16,000.00	9,800.00	17,099.24	10,899.99	119.15	119.81	-169.44	6,444.12	-148.64	1,119.97	1,016.95	103.01	10.872		
16,100.00	9,800.00	17,199.23	10,899.99	120.94	121.60	-169.36	6,544.10	-149.39	1,120.27	1,015.58	104.69	10.701		
16,200.00	9,800.00	17,299.22	10,899.99	122.74	123.40	-169.28	6,644.08	-150.15	1,120.57	1,014.19	106.38	10.534		
16,300.00	9,800.00	17,399.20	10,899.99	124.54	125.19	-169.19	6,744.07	-150.90	1,120.87	1,012.81	108.07	10.372		
16,400.00	9,800.00	17,499.19	10,899.99	126.34	126.99	-169.11	6,844.05	-151.65	1,121.18	1,011.42	109.76	10.214		
16,500.00	9,800.00	17,599.18	10,899.99	128.14	128.79	-169.03	6,944.04	-152.40	1,121.49	1,010.03	111.47	10.061		

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



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Lea Unit #59H - Lea Unit #59H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-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)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,600.00	9,800.00	17,699.16	10,900.00	129.94	130.58	-168.95	7,044.02	-153.16	1,121.80	1,008.63	113.17	9.912	
16,700.00	9,800.00	17,799.15	10,900.00	131.74	132.38	-168.87	7,144.00	-153.91	1,122.12	1,007.23	114.89	9.767	
16,800.00	9,800.00	17,899.14	10,900.00	133.54	134.19	-168.78	7,243.99	-154.66	1,122.44	1,005.83	116.60	9.626	
16,900.00	9,800.00	17,999.12	10,900.00	135.35	135.99	-168.70	7,343.97	-155.42	1,122.75	1,004.43	118.33	9.489	
17,000.00	9,800.00	18,099.11	10,900.00	137.15	137.79	-168.62	7,443.96	-156.17	1,123.08	1,003.02	120.05	9.355	
17,100.00	9,800.00	18,199.10	10,900.00	138.95	139.59	-168.54	7,543.94	-156.92	1,123.40	1,001.61	121.79	9.224	
17,200.00	9,800.00	18,299.08	10,900.00	140.76	141.39	-168.46	7,643.92	-157.68	1,123.73	1,000.20	123.52	9.097	
17,300.00	9,800.00	18,399.07	10,900.00	142.56	143.20	-168.38	7,743.91	-158.43	1,124.05	998.79	125.27	8.973	
17,400.00	9,800.00	18,499.06	10,900.00	144.37	145.00	-168.30	7,843.89	-159.18	1,124.38	997.37	127.02	8.852	
17,509.89	9,800.00	18,607.67	10,900.00	146.35	146.97	-168.21	7,952.50	-160.00	1,124.75	995.82	128.93	8.724	

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



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Lea Unit #60H - Lea Unit #60H - Lateral #1 - Design #1												Offset Site Error:	0.00 usft
Survey Program: O-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	
0.00	0.00	0.00	0.00	0.00	0.00	-90.57	-0.50	-50.10	50.11				
100.00	100.00	99.00	99.00	0.09	0.09	-90.57	-0.50	-50.10	50.10	49.92	0.18	273.207	
200.00	200.00	199.00	199.00	0.32	0.31	-90.57	-0.50	-50.10	50.10	49.47	0.63	79.327	
300.00	300.00	299.00	299.00	0.54	0.54	-90.57	-0.50	-50.10	50.10	49.02	1.08	46.343	
400.00	400.00	399.00	399.00	0.77	0.76	-90.57	-0.50	-50.10	50.10	48.57	1.53	32.733	
500.00	500.00	499.00	499.00	0.99	0.99	-90.57	-0.50	-50.10	50.10	48.12	1.98	25.302	
600.00	600.00	599.00	599.00	1.22	1.21	-90.57	-0.50	-50.10	50.10	47.67	2.43	20.621	
700.00	700.00	699.00	699.00	1.44	1.44	-90.57	-0.50	-50.10	50.10	47.22	2.88	17.401	
800.00	800.00	799.00	799.00	1.67	1.66	-90.57	-0.50	-50.10	50.10	46.77	3.33	15.051	
900.00	900.00	899.00	899.00	1.89	1.89	-90.57	-0.50	-50.10	50.10	46.32	3.78	13.261	
1,000.00	1,000.00	999.00	999.00	2.12	2.11	-90.57	-0.50	-50.10	50.10	45.87	4.23	11.851	
1,100.00	1,100.00	1,099.00	1,099.00	2.34	2.34	-90.57	-0.50	-50.10	50.10	45.43	4.68	10.712	
1,200.00	1,200.00	1,199.00	1,199.00	2.56	2.56	-90.57	-0.50	-50.10	50.10	44.98	5.13	9.772	
1,300.00	1,300.00	1,299.00	1,299.00	2.79	2.79	-90.57	-0.50	-50.10	50.10	44.53	5.58	8.985	
1,400.00	1,400.00	1,399.00	1,399.00	3.01	3.01	-90.57	-0.50	-50.10	50.10	44.08	6.03	8.314	
1,500.00	1,500.00	1,499.00	1,499.00	3.24	3.24	-90.57	-0.50	-50.10	50.10	43.63	6.48	7.737	
1,600.00	1,600.00	1,599.00	1,599.00	3.46	3.46	-90.57	-0.50	-50.10	50.10	43.18	6.93	7.235	
1,700.00	1,700.00	1,699.00	1,699.00	3.69	3.69	-90.57	-0.50	-50.10	50.10	42.73	7.37	6.794	
1,800.00	1,800.00	1,799.00	1,799.00	3.91	3.91	-90.57	-0.50	-50.10	50.10	42.28	7.82	6.404	
1,900.00	1,900.00	1,899.00	1,899.00	4.14	4.14	-90.57	-0.50	-50.10	50.10	41.83	8.27	6.056	
2,000.00	2,000.00	1,999.00	1,999.00	4.36	4.36	-90.57	-0.50	-50.10	50.10	41.38	8.72	5.744	
2,100.00	2,100.00	2,099.00	2,099.00	4.59	4.59	-90.57	-0.50	-50.10	50.10	40.93	9.17	5.462	
2,200.00	2,200.00	2,199.00	2,199.00	4.81	4.81	-90.57	-0.50	-50.10	50.10	40.48	9.62	5.207	
2,300.00	2,300.00	2,299.00	2,299.00	5.04	5.03	-90.57	-0.50	-50.10	50.10	40.03	10.07	4.975	
2,400.00	2,400.00	2,399.00	2,399.00	5.26	5.26	-90.57	-0.50	-50.10	50.10	39.58	10.52	4.762	
2,500.00	2,500.00	2,499.00	2,499.00	5.49	5.48	-90.57	-0.50	-50.10	50.10	39.13	10.97	4.567	
2,600.00	2,600.00	2,599.00	2,599.00	5.71	5.71	-90.57	-0.50	-50.10	50.10	38.68	11.42	4.387	
2,700.00	2,700.00	2,699.00	2,699.00	5.94	5.93	-90.57	-0.50	-50.10	50.10	38.23	11.87	4.221	
2,800.00	2,800.00	2,799.00	2,799.00	6.16	6.16	-90.57	-0.50	-50.10	50.10	37.78	12.32	4.067	
2,900.00	2,900.00	2,899.00	2,899.00	6.39	6.38	-90.57	-0.50	-50.10	50.10	37.33	12.77	3.924	
3,000.00	3,000.00	2,999.00	2,999.00	6.61	6.61	-90.57	-0.50	-50.10	50.10	36.88	13.22	3.790	
3,100.00	3,100.00	3,099.00	3,099.00	6.84	6.83	-90.57	-0.50	-50.10	50.10	36.43	13.67	3.666	
3,200.00	3,200.00	3,199.00	3,199.00	7.06	7.06	-90.57	-0.50	-50.10	50.10	35.98	14.12	3.549	
3,300.00	3,300.00	3,299.00	3,299.00	7.28	7.28	-90.57	-0.50	-50.10	50.10	35.54	14.57	3.439	
3,400.00	3,400.00	3,399.00	3,399.00	7.51	7.51	-90.57	-0.50	-50.10	50.10	35.09	15.02	3.336	
3,500.00	3,500.00	3,499.00	3,499.00	7.73	7.73	-90.57	-0.50	-50.10	50.10	34.64	15.47	3.239	
3,600.00	3,600.00	3,599.00	3,599.00	7.96	7.96	-90.57	-0.50	-50.10	50.10	34.19	15.92	3.148	
3,700.00	3,700.00	3,699.00	3,699.00	8.18	8.18	-90.57	-0.50	-50.10	50.10	33.74	16.37	3.062	
3,800.00	3,800.00	3,799.00	3,799.00	8.41	8.41	-90.57	-0.50	-50.10	50.10	33.29	16.81	2.980	
3,900.00	3,900.00	3,899.00	3,899.00	8.63	8.63	-90.57	-0.50	-50.10	50.10	32.84	17.26	2.902	
4,000.00	4,000.00	3,999.00	3,999.00	8.86	8.86	-90.57	-0.50	-50.10	50.10	32.39	17.71	2.828	
4,100.00	4,100.00	4,099.00	4,099.00	9.08	9.08	-90.57	-0.50	-50.10	50.10	31.94	18.16	2.758	
4,200.00	4,200.00	4,199.00	4,199.00	9.31	9.31	-90.57	-0.50	-50.10	50.10	31.49	18.61	2.692	
4,300.00	4,300.00	4,299.00	4,299.00	9.53	9.53	-90.57	-0.50	-50.10	50.10	31.04	19.06	2.628	
4,400.00	4,400.00	4,399.00	4,399.00	9.76	9.75	-90.57	-0.50	-50.10	50.10	30.59	19.51	2.568	
4,500.00	4,500.00	4,499.00	4,499.00	9.98	9.98	-90.57	-0.50	-50.10	50.10	30.14	19.96	2.510	
4,600.00	4,600.00	4,599.00	4,599.00	10.21	10.20	-90.57	-0.50	-50.10	50.10	29.69	20.41	2.455	
4,700.00	4,700.00	4,699.00	4,699.00	10.43	10.43	-90.57	-0.50	-50.10	50.10	29.24	20.86	2.402	
4,800.00	4,800.00	4,799.00	4,799.00	10.66	10.65	-90.57	-0.50	-50.10	50.10	28.79	21.31	2.351	
4,900.00	4,900.00	4,899.00	4,899.00	10.88	10.88	-90.57	-0.50	-50.10	50.10	28.34	21.76	2.303	
5,000.00	5,000.00	4,999.00	4,999.00	11.11	11.10	-90.57	-0.50	-50.10	50.10	27.89	22.21	2.256	
5,100.00	5,100.00	5,099.00	5,099.00	11.33	11.33	-90.57	-0.50	-50.10	50.10	27.44	22.66	2.211	

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



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design														Offset Site Error:	0.00 usft
Lea Unit #60H - Lea Unit #60H - Lateral #1 - Design #1														Offset Well Error:	0.00 ush
Survey Program: O-MWD															
Reference															
Offset															
Semi Major Axis															
Distance															
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,200.00	5,200.00	5,199.00	5,199.00	11.56	11.55	-90.57	-0.50	-50.10	50.10	26.99	23.11	2.168			
5,300.00	5,300.00	5,299.00	5,299.00	11.78	11.78	-90.57	-0.50	-50.10	50.10	26.54	23.56	2.127			
5,400.00	5,400.00	5,399.00	5,399.00	12.00	12.00	-90.57	-0.50	-50.10	50.10	26.10	24.01	2.087			
5,500.00	5,500.00	5,499.00	5,499.00	12.23	12.23	-90.57	-0.50	-50.10	50.10	25.65	24.46	2.049			
5,600.00	5,600.00	5,599.00	5,599.00	12.45	12.45	-90.57	-0.50	-50.10	50.10	25.20	24.91	2.012			
5,700.00	5,700.00	5,699.00	5,699.00	12.68	12.68	-90.57	-0.50	-50.10	50.10	24.75	25.36	1.976			
5,800.00	5,800.00	5,799.00	5,799.00	12.90	12.90	-90.57	-0.50	-50.10	50.10	24.30	25.81	1.942			
5,900.00	5,900.00	5,899.00	5,899.00	13.13	13.13	-90.57	-0.50	-50.10	50.10	23.85	26.25	1.908			
6,000.00	6,000.00	5,999.00	5,999.00	13.35	13.35	-90.57	-0.50	-50.10	50.10	23.40	26.70	1.876			
6,100.00	6,100.00	6,099.00	6,099.00	13.58	13.58	-90.57	-0.50	-50.10	50.10	22.95	27.15	1.845			
6,200.00	6,200.00	6,199.00	6,199.00	13.80	13.80	-90.57	-0.50	-50.10	50.10	22.50	27.60	1.815			
6,300.00	6,300.00	6,299.00	6,299.00	14.03	14.03	-90.57	-0.50	-50.10	50.10	22.05	28.05	1.786			
6,400.00	6,400.00	6,399.00	6,399.00	14.25	14.25	-90.57	-0.50	-50.10	50.10	21.60	28.50	1.758			
6,500.00	6,500.00	6,499.00	6,499.00	14.48	14.47	-90.57	-0.50	-50.10	50.10	21.15	28.95	1.731			
6,600.00	6,600.00	6,599.00	6,599.00	14.70	14.70	-90.57	-0.50	-50.10	50.10	20.70	29.40	1.704			
6,700.00	6,700.00	6,699.00	6,699.00	14.93	14.92	-90.57	-0.50	-50.10	50.10	20.25	29.85	1.678			
6,800.00	6,800.00	6,799.00	6,799.00	15.15	15.15	-90.57	-0.50	-50.10	50.10	19.80	30.30	1.654			
6,900.00	6,900.00	6,899.00	6,899.00	15.38	15.37	-90.57	-0.50	-50.10	50.10	19.35	30.75	1.629			
7,000.00	7,000.00	6,999.00	6,999.00	15.60	15.60	-90.57	-0.50	-50.10	50.10	18.90	31.20	1.606			
7,100.00	7,100.00	7,099.00	7,099.00	15.83	15.82	-90.57	-0.50	-50.10	50.10	18.45	31.65	1.583			
7,200.00	7,200.00	7,199.00	7,199.00	16.05	16.05	-90.57	-0.50	-50.10	50.10	18.00	32.10	1.561			
7,300.00	7,300.00	7,299.00	7,299.00	16.28	16.27	-90.57	-0.50	-50.10	50.10	17.55	32.55	1.539			
7,400.00	7,400.00	7,399.00	7,399.00	16.50	16.50	-90.57	-0.50	-50.10	50.10	17.10	33.00	1.518			
7,500.00	7,500.00	7,499.00	7,499.00	16.72	16.72	-90.57	-0.50	-50.10	50.10	16.66	33.45	1.498 Level 3			
7,600.00	7,600.00	7,599.00	7,599.00	16.95	16.95	-90.57	-0.50	-50.10	50.10	16.21	33.90	1.478 Level 3			
7,700.00	7,700.00	7,699.00	7,699.00	17.17	17.17	-90.57	-0.50	-50.10	50.10	15.76	34.35	1.459 Level 3			
7,800.00	7,800.00	7,799.00	7,799.00	17.40	17.40	-90.57	-0.50	-50.10	50.10	15.31	34.80	1.440 Level 3			
7,900.00	7,900.00	7,899.00	7,899.00	17.62	17.62	-90.57	-0.50	-50.10	50.10	14.86	35.25	1.422 Level 3			
8,000.00	8,000.00	7,999.00	7,999.00	17.85	17.85	-90.57	-0.50	-50.10	50.10	14.41	35.70	1.404 Level 3			
8,100.00	8,100.00	8,099.00	8,099.00	18.07	18.07	-90.57	-0.50	-50.10	50.10	13.96	36.14	1.386 Level 3			
8,200.00	8,200.00	8,199.00	8,199.00	18.30	18.30	-90.57	-0.50	-50.10	50.10	13.51	36.59	1.369 Level 3			
8,300.00	8,300.00	8,299.00	8,299.00	18.52	18.52	-90.57	-0.50	-50.10	50.10	13.06	37.04	1.353 Level 3			
8,400.00	8,400.00	8,399.00	8,399.00	18.75	18.75	-90.57	-0.50	-50.10	50.10	12.61	37.49	1.336 Level 3			
8,500.00	8,500.00	8,499.00	8,499.00	18.97	18.97	-90.57	-0.50	-50.10	50.10	12.16	37.94	1.320 Level 3			
8,600.00	8,600.00	8,599.00	8,599.00	19.20	19.20	-90.57	-0.50	-50.10	50.10	11.71	38.39	1.305 Level 3			
8,700.00	8,700.00	8,699.00	8,699.00	19.42	19.42	-90.57	-0.50	-50.10	50.10	11.26	38.84	1.290 Level 3			
8,800.00	8,800.00	8,799.00	8,799.00	19.65	19.64	-90.57	-0.50	-50.10	50.10	10.81	39.29	1.275 Level 3			
8,900.00	8,900.00	8,899.00	8,899.00	19.87	19.87	-90.57	-0.50	-50.10	50.10	10.36	39.74	1.261 Level 3			
9,000.00	9,000.00	8,999.00	8,999.00	20.10	20.09	-90.57	-0.50	-50.10	50.10	9.91	40.19	1.247 Level 2			
9,100.00	9,100.00	9,099.00	9,099.00	20.32	20.32	-90.57	-0.50	-50.10	50.10	9.46	40.64	1.233 Level 2			
9,200.00	9,200.00	9,199.00	9,199.00	20.55	20.54	-90.57	-0.50	-50.10	50.10	9.01	41.09	1.219 Level 2			
9,227.04	9,227.04	9,226.04	9,226.04	20.61	20.60	-90.57	-0.50	-50.10	50.10	8.89	41.21	1.216 Level 2, CC			
9,250.00	9,249.99	9,248.99	9,248.99	20.66	20.66	-91.60	-0.50	-50.10	50.11	8.80	41.31	1.213 Level 2, ES, SF			
9,300.00	9,299.80	9,298.80	9,298.80	20.77	20.77	-96.30	-0.50	-50.10	50.40	8.87	41.54	1.213 Level 2			
9,350.00	9,349.06	9,348.06	9,348.06	20.88	20.88	-105.36	-0.50	-50.10	52.04	10.28	41.75	1.246 Level 2			
9,400.00	9,397.39	9,396.39	9,396.39	20.99	20.99	-117.10	-0.50	-50.10	56.83	14.86	41.97	1.354 Level 3			
9,450.00	9,444.42	9,443.42	9,443.42	21.10	21.09	-128.96	-0.50	-50.10	66.53	24.34	42.19	1.577			
9,500.00	9,489.79	9,488.79	9,488.79	21.21	21.19	-138.95	-0.50	-50.10	81.86	39.46	42.40	1.931			
9,550.00	9,533.17	9,532.17	9,532.17	21.31	21.29	-146.51	-0.50	-50.10	102.63	60.03	42.60	2.409			
9,600.00	9,574.21	9,573.21	9,573.21	21.43	21.38	-151.93	-0.50	-50.10	128.29	85.50	42.79	2.998			
9,650.00	9,612.62	9,611.62	9,611.62	21.57	21.47	-155.71	-0.50	-50.10	158.23	115.27	42.96	3.683			
9,700.00	9,648.09	9,647.09	9,647.09	21.72	21.55	-158.27	-0.50	-50.10	191.96	148.84	43.12	4.452			

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



TDS Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Lea Unit #60H - Lea Unit #60H - Lateral #1 - Design #1													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
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		
9,750.00	9,680.35	9,679.35	9,679.35	21.89	21.62	-159.87	-0.50	-50.10	229.03	185.77	43.27	5.294		
9,800.00	9,708.17	9,708.17	9,708.17	22.08	21.69	-160.67	-0.50	-50.10	269.03	225.64	43.39	6.200		
9,850.00	9,734.31	9,733.31	9,733.31	22.29	21.74	-160.69	-0.50	-50.10	311.58	268.08	43.50	7.162		
9,900.00	9,755.60	9,754.60	9,754.60	22.54	21.79	-159.80	-0.50	-50.10	356.29	312.70	43.59	8.173		
9,950.00	9,772.86	9,771.86	9,771.86	22.81	21.83	-157.60	-0.50	-50.10	402.79	359.12	43.67	9.224		
10,000.00	9,785.97	9,784.97	9,784.97	23.11	21.86	-153.04	-0.50	-50.10	450.69	406.97	43.72	10.308		
10,050.00	9,794.83	9,793.83	9,793.83	23.43	21.88	-143.07	-0.50	-50.10	499.61	455.85	43.76	11.417		
10,100.00	9,799.36	9,798.36	9,798.36	23.78	21.89	-117.25	-0.50	-50.10	549.16	505.38	43.78	12.544		
10,127.04	9,800.00	9,799.00	9,799.00	23.98	21.89	-90.00	-0.50	-50.10	576.08	532.30	43.78	13.157		
10,200.00	9,800.00	9,799.00	9,799.00	24.56	21.89	-90.00	-0.50	-50.10	648.79	605.01	43.79	14.817		
10,300.00	9,800.00	10,997.37	10,500.00	25.44	31.66	-172.82	742.11	-81.85	706.56	684.83	21.73	32.518		
10,400.00	9,800.00	11,097.24	10,500.00	26.42	33.78	-172.40	841.89	-86.12	707.23	684.59	22.64	31.244		
10,500.00	9,800.00	11,197.10	10,500.00	27.48	36.03	-171.99	941.66	-90.38	707.93	684.27	23.65	29.931		
10,600.00	9,800.00	11,296.97	10,500.00	28.63	38.39	-171.58	1,041.44	-94.65	708.66	683.89	24.77	28.608		
10,700.00	9,800.00	11,396.84	10,500.00	29.84	40.83	-171.17	1,141.21	-98.91	709.44	683.45	25.99	27.300		
10,800.00	9,800.00	11,496.71	10,500.00	31.11	43.35	-170.76	1,240.99	-103.18	710.25	682.95	27.29	26.021		
10,900.00	9,800.00	11,596.57	10,500.00	32.43	45.94	-170.35	1,340.77	-107.44	711.09	682.40	28.69	24.786		
11,000.00	9,800.00	11,696.44	10,500.00	33.80	48.57	-169.94	1,440.54	-111.71	711.97	681.81	30.17	23.602		
11,100.00	9,800.00	11,796.31	10,500.00	35.21	51.26	-169.53	1,540.32	-115.98	712.89	681.17	31.72	22.475		
11,200.00	9,800.00	11,896.18	10,500.00	36.66	53.97	-169.13	1,640.09	-120.24	713.85	680.50	33.35	21.405		
11,300.00	9,800.00	11,996.04	10,500.00	38.14	56.72	-168.72	1,739.87	-124.51	714.84	679.79	35.05	20.395		
11,400.00	9,800.00	12,095.91	10,500.00	39.65	59.50	-168.32	1,839.65	-128.77	715.86	679.05	36.82	19.443		
11,500.00	9,800.00	12,195.78	10,500.00	41.19	62.31	-167.92	1,939.42	-133.04	716.93	678.27	38.65	18.547		
11,600.00	9,800.00	12,295.65	10,500.00	42.75	65.13	-167.51	2,039.20	-137.31	718.02	677.47	40.55	17.706		
11,700.00	9,800.00	12,395.51	10,500.00	44.33	67.97	-167.11	2,138.98	-141.57	719.16	676.64	42.52	16.915		
11,800.00	9,800.00	12,495.38	10,500.00	45.93	70.83	-166.72	2,238.75	-145.84	720.32	675.79	44.54	16.174		
11,900.00	9,800.00	12,595.25	10,500.00	47.54	73.70	-166.32	2,338.53	-150.10	721.52	674.91	46.62	15.477		
12,000.00	9,800.00	12,695.11	10,500.00	49.17	76.59	-165.92	2,438.30	-154.37	722.76	674.00	48.76	14.824		
12,100.00	9,800.00	12,794.98	10,500.00	50.81	79.48	-165.53	2,538.08	-158.63	724.03	673.08	50.95	14.210		
12,200.00	9,800.00	12,894.85	10,500.00	52.47	82.39	-165.13	2,637.86	-162.90	725.34	672.13	53.20	13.633		
12,300.00	9,800.00	12,994.72	10,500.00	54.13	85.30	-164.74	2,737.63	-167.17	726.68	671.17	55.51	13.091		
12,400.00	9,800.00	13,094.58	10,500.00	55.81	88.23	-164.35	2,837.41	-171.43	728.05	670.18	57.87	12.581		
12,500.00	9,800.00	13,194.45	10,500.00	57.50	91.16	-163.96	2,937.19	-175.70	729.46	669.18	60.28	12.101		
12,600.00	9,800.00	13,294.32	10,500.00	59.19	94.10	-163.58	3,036.96	-179.96	730.90	668.16	62.74	11.649		
12,700.00	9,800.00	13,394.19	10,500.00	60.89	97.04	-163.19	3,136.74	-184.23	732.37	667.12	65.26	11.223		
12,800.00	9,800.00	13,494.05	10,500.00	62.60	99.99	-162.81	3,236.51	-188.50	733.88	666.06	67.82	10.820		
12,900.00	9,800.00	13,593.92	10,500.00	64.31	102.94	-162.42	3,336.29	-192.76	735.42	664.98	70.44	10.441		
13,000.00	9,800.00	13,693.79	10,500.00	66.04	105.90	-162.04	3,436.07	-197.03	737.00	663.89	73.10	10.082		
13,100.00	9,800.00	13,793.66	10,500.00	67.76	108.87	-161.66	3,535.84	-201.29	738.60	662.79	75.82	9.742		
13,200.00	9,800.00	13,893.52	10,500.00	69.49	111.83	-161.28	3,635.62	-205.56	740.24	661.66	78.58	9.421		
13,300.00	9,800.00	13,993.39	10,500.00	71.23	114.81	-160.91	3,735.40	-209.83	741.91	660.53	81.38	9.116		
13,400.00	9,800.00	14,093.26	10,500.00	72.97	117.78	-160.53	3,835.17	-214.09	743.61	659.37	84.24	8.827		
13,500.00	9,800.00	14,193.13	10,500.00	74.72	120.76	-160.16	3,934.95	-218.36	745.35	658.21	87.14	8.553		
13,600.00	9,800.00	14,292.99	10,500.00	76.47	123.74	-159.79	4,034.72	-222.62	747.11	657.02	90.09	8.293		
13,700.00	9,800.00	14,392.86	10,500.00	78.22	126.72	-159.42	4,134.50	-226.89	748.91	655.83	93.08	8.046		
13,800.00	9,800.00	14,492.73	10,500.00	79.97	129.71	-159.05	4,234.28	-231.15	750.74	654.62	96.11	7.811		
13,900.00	9,800.00	14,592.59	10,500.00	81.73	132.69	-158.69	4,334.05	-235.42	752.59	653.40	99.19	7.587		
14,000.00	9,800.00	14,692.46	10,500.00	83.49	135.68	-158.32	4,433.83	-239.69	754.48	652.17	102.32	7.374		
14,100.00	9,800.00	14,792.33	10,500.00	85.26	138.67	-157.95	4,533.60	-243.95	756.40	650.92	105.48	7.171		
14,200.00	9,800.00	14,892.20	10,500.00	87.03	141.67	-157.60	4,633.38	-248.22	758.35	649.66	108.69	6.977		
14,300.00	9,800.00	14,992.06	10,500.00	88.80	144.66	-157.24	4,733.16	-252.48	760.33	648.39	111.94	6.793		
14,400.00	9,800.00	15,091.93	10,500.00	90.57	147.66	-156.89	4,832.93	-256.75	762.34	647.11	115.23	6.616		

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



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design Lea Unit #60H - Lea Unit #60H - Lateral #1 - Design #1											Offset Site Error: 0.00 usft		
Survey Program: O-MWD											Offset Well Error: 0.00 usft		
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
14,500.00	9,800.00	15,191.80	10,500.00	92.34	150.66	-156.53	4,932.71	-261.02	764.38	645.82	118.56	6.447	
14,600.00	9,800.00	15,291.67	10,500.00	94.12	153.66	-156.18	5,032.49	-265.28	766.44	644.52	121.93	6.286	
14,700.00	9,800.00	15,391.53	10,500.00	95.90	156.66	-155.83	5,132.26	-269.55	768.54	643.21	125.34	6.132	
14,800.00	9,800.00	15,491.40	10,500.00	97.68	159.67	-155.48	5,232.04	-273.81	770.67	641.88	128.78	5.984	
14,900.00	9,800.00	15,591.27	10,500.00	99.46	162.67	-155.13	5,331.81	-278.08	772.82	640.55	132.27	5.843	
15,000.00	9,800.00	15,691.14	10,500.00	101.24	165.68	-154.79	5,431.59	-282.34	775.00	639.21	135.79	5.707	
15,100.00	9,800.00	15,791.00	10,500.00	103.03	168.68	-154.44	5,531.37	-286.61	777.21	637.86	139.35	5.577	
15,200.00	9,800.00	15,890.87	10,500.00	104.81	171.69	-154.10	5,631.14	-290.88	779.45	636.50	142.95	5.453	
15,300.00	9,800.00	15,990.74	10,500.00	106.60	174.70	-153.76	5,730.92	-295.14	781.71	635.13	146.58	5.333	
15,400.00	9,800.00	16,090.60	10,500.00	108.39	177.71	-153.43	5,830.70	-299.41	784.01	633.76	150.25	5.218	
15,500.00	9,800.00	16,190.47	10,500.00	110.18	180.72	-153.09	5,930.47	-303.67	786.33	632.38	153.95	5.108	
15,600.00	9,800.00	16,290.34	10,500.00	111.97	183.73	-152.76	6,030.25	-307.94	788.67	630.99	157.69	5.002	
15,700.00	9,800.00	16,390.21	10,500.00	113.76	186.74	-152.43	6,130.02	-312.21	791.04	629.59	161.46	4.899	
15,800.00	9,800.00	16,490.07	10,500.00	115.56	189.75	-152.10	6,229.80	-316.47	793.44	628.19	165.26	4.801	
15,900.00	9,800.00	16,589.94	10,500.00	117.35	192.77	-151.77	6,329.58	-320.74	795.87	626.78	169.09	4.707	
16,000.00	9,800.00	16,689.81	10,500.00	119.15	195.78	-151.45	6,429.35	-325.00	798.32	625.36	172.96	4.616	
16,100.00	9,800.00	16,789.68	10,500.00	120.94	198.80	-151.12	6,529.13	-329.27	800.80	623.94	176.86	4.528	
16,200.00	9,800.00	16,889.54	10,500.00	122.74	201.81	-150.80	6,628.90	-333.53	803.30	622.51	180.79	4.443	
16,300.00	9,800.00	16,989.41	10,500.00	124.54	204.83	-150.48	6,728.68	-337.80	805.83	621.08	184.74	4.362	
16,400.00	9,800.00	17,089.28	10,500.00	126.34	207.85	-150.16	6,828.46	-342.07	808.38	619.65	188.73	4.283	
16,500.00	9,800.00	17,189.15	10,500.00	128.14	210.86	-149.85	6,928.23	-346.33	810.95	618.20	192.75	4.207	
16,600.00	9,800.00	17,289.01	10,500.00	129.94	213.88	-149.54	7,028.01	-350.60	813.55	616.76	196.80	4.134	
16,700.00	9,800.00	17,388.88	10,500.00	131.74	216.90	-149.22	7,127.79	-354.86	816.18	615.31	200.87	4.063	
16,800.00	9,800.00	17,488.75	10,500.00	133.54	219.92	-148.92	7,227.56	-359.13	818.83	613.86	204.97	3.995	
16,900.00	9,800.00	17,588.61	10,500.00	135.35	222.94	-148.61	7,327.34	-363.40	821.50	612.40	209.10	3.929	
17,000.00	9,800.00	17,688.48	10,500.00	137.15	225.96	-148.30	7,427.11	-367.66	824.20	610.95	213.25	3.865	
17,100.00	9,800.00	17,788.35	10,500.00	138.95	228.98	-148.00	7,526.89	-371.93	826.92	609.48	217.43	3.803	
17,200.00	9,800.00	17,888.22	10,500.00	140.76	232.00	-147.70	7,626.67	-376.19	829.66	608.02	221.64	3.743	
17,300.00	9,800.00	17,988.08	10,500.00	142.56	235.02	-147.40	7,726.44	-380.46	832.43	606.56	225.87	3.685	
17,400.00	9,800.00	18,087.95	10,500.00	144.37	238.04	-147.10	7,826.22	-384.72	835.22	605.09	230.13	3.629	
17,509.89	9,800.00	18,197.70	10,500.00	146.35	241.36	-146.78	7,935.86	-389.41	838.30	603.47	234.83	3.570	

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

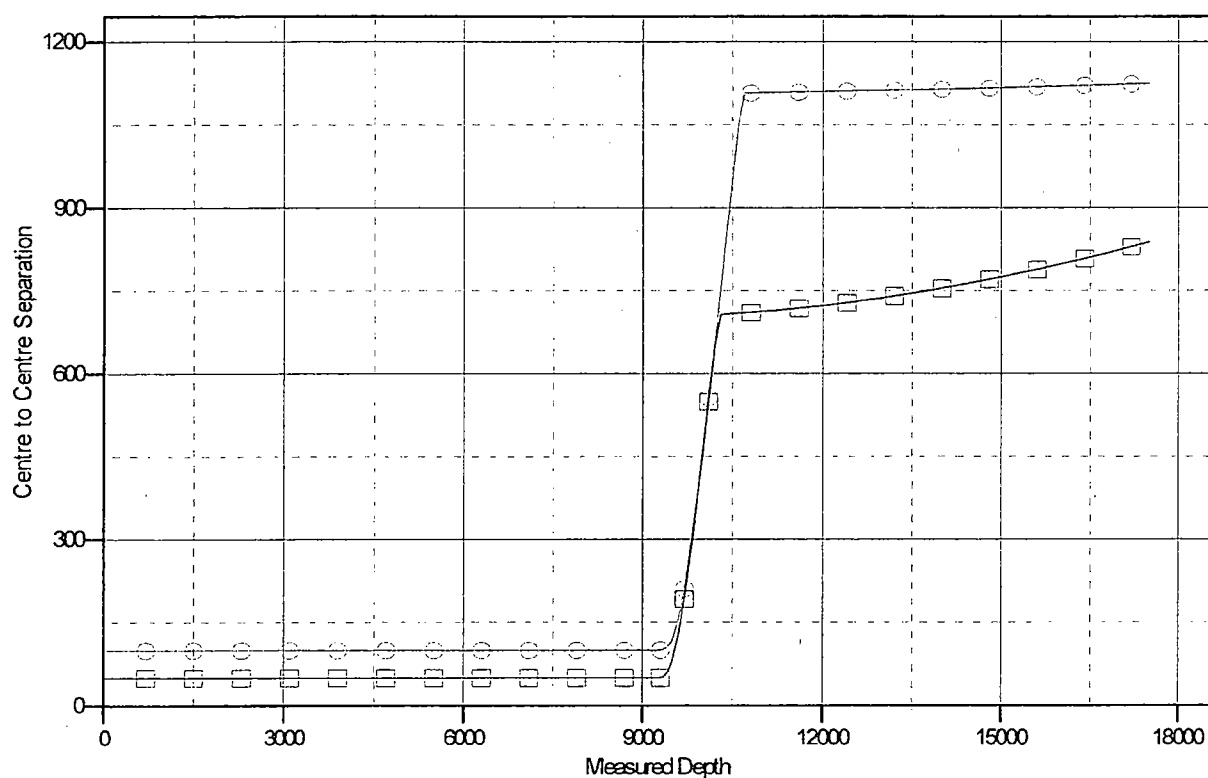
Company: Legacy Reserves
 Project: Lea County, NM (NAD-27 2015)
 Reference Site: Lea Unit #61H
 Site Error: 0.00 usft
 Reference Well: Lea Unit #61H
 Well Error: 0.00 usft
 Reference Wellbore: Lateral #1
 Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
 TVD Reference: KB @ 3695.00usft (McVay 4)
 MD Reference: KB @ 3695.00usft (McVay 4)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Output errors are at: 2.00 sigma
 Database: EDM 5000.1 Single User Db
 Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 3695.00usft (McVay 4)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Lea Unit #61H
 Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
 Grid Convergence at Surface is: 0.45°

Ladder Plot



LEGEND

○ Lea Unit#59H, OH, Plan #1 V0

□ Lea Unit#60H, Lateral #1, Design #1 V0



TDS
Anticollision Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Reference Site: Lea Unit #61H
Site Error: 0.00 usft
Reference Well: Lea Unit #61H
Well Error: 0.00 usft
Reference Wellbore: Lateral #1
Reference Design: Design #1

Local Co-ordinate Reference: Well Lea Unit #61H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000.1 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to KB @ 3695.00usft (McVay 4)
Offset Depths are relative to Offset Datum
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