



Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #47H

Lea Unit #47H

Lateral #1

Design: Lateral #1

Standard Survey Report

13 October, 2016

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TDS
Survey Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Well Lea Unit #47H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3694.00usft (McVay 4)
Site:	Lea Unit #47H	MD Reference:	KB @ 3694.00usft (McVay 4)
Well:	Lea Unit #47H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 5000.1 Single User Db

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	Latitude:	32° 35' 47.317 N
	+E-W	0.00 usft	Easting:	752,051.40 usft	Longitude:	103° 30' 53.711 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,676.00 usft

Wellbore	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	7/18/2015	7.16	60.44	48,362

Design		Lateral #1			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)	Direction (°)	
	0.00	0.00	0.00	181.12	

Survey Program		Date	10/13/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
170.00	15,757.00	TDS MWD #1 (Lateral #1)	MWD	MWD - Standard	

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
170.00	0.40	352.30	170.00	0.59	-0.08	-0.59	0.24	0.24	0.00
First TDS MWD Survey									
263.00	0.20	348.60	263.00	1.07	-0.16	-1.07	0.22	-0.22	-3.98
354.00	0.20	333.30	354.00	1.37	-0.26	-1.36	0.06	0.00	-16.81
472.00	0.20	273.30	472.00	1.56	-0.56	-1.55	0.17	0.00	-50.85
532.00	0.30	249.90	532.00	1.51	-0.81	-1.50	0.23	0.17	-39.00
624.00	0.00	317.30	624.00	1.43	-1.03	-1.41	0.33	-0.33	0.00
714.00	0.10	87.40	714.00	1.44	-0.96	-1.42	0.11	0.11	0.00
805.00	0.50	137.10	804.99	1.15	-0.61	-1.14	0.49	0.44	54.62
895.00	0.00	20.10	894.99	0.86	-0.34	-0.85	0.56	-0.56	0.00

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Well: Lea Unit #47H
Wellbore: Lateral #1
Design: Lateral #1

Local Co-ordinate Reference: Well Lea Unit #47H
TVD Reference: KB @ 3694.00usft (McVay 4)
MD Reference: KB @ 3694.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)
987.00	0.20	168.20	986.99	0.70	-0.31	-0.70	0.22	0.22	0.00
1,077.00	0.20	200.90	1,076.99	0.40	-0.33	-0.40	0.13	0.00	36.33
1,167.00	0.20	225.80	1,166.99	0.15	-0.50	-0.14	0.10	0.00	27.67
1,259.00	0.30	218.60	1,258.99	-0.15	-0.76	0.17	0.11	0.11	-7.83
1,350.00	0.20	276.20	1,349.99	-0.32	-1.07	0.34	0.28	-0.11	63.30
1,442.00	0.20	275.60	1,441.99	-0.29	-1.39	0.32	0.00	0.00	-0.65
1,533.00	0.50	250.80	1,532.99	-0.41	-1.92	0.44	0.36	0.33	-27.25
1,625.00	0.70	248.90	1,624.98	-0.74	-2.83	0.79	0.22	0.22	-2.07
1,720.00	0.80	249.80	1,719.97	-1.18	-3.99	1.26	0.11	0.11	0.95
1,839.00	0.80	273.40	1,838.96	-1.41	-5.60	1.52	0.27	0.00	19.83
1,899.00	0.70	300.50	1,898.96	-1.20	-6.33	1.33	0.61	-0.17	45.17
1,994.00	0.80	308.50	1,993.95	-0.50	-7.35	0.64	0.15	0.11	8.42
2,087.00	0.70	314.20	2,086.94	0.30	-8.27	-0.14	0.13	-0.11	6.13
2,181.00	0.60	304.40	2,180.94	0.98	-9.09	-0.80	0.16	-0.11	-10.43
2,276.00	0.70	326.00	2,275.93	1.74	-9.82	-1.55	0.28	0.11	22.74
2,370.00	0.60	334.20	2,369.92	2.66	-10.36	-2.46	0.15	-0.11	8.72
2,464.00	0.60	313.10	2,463.92	3.44	-10.93	-3.23	0.23	0.00	-22.45
2,558.00	0.50	324.80	2,557.91	4.11	-11.52	-3.89	0.16	-0.11	12.45
2,652.00	0.20	329.40	2,651.91	4.59	-11.84	-4.36	0.32	-0.32	4.89
2,747.00	0.50	349.20	2,746.91	5.14	-12.01	-4.90	0.34	0.32	20.84
2,841.00	0.50	15.10	2,840.91	5.94	-11.98	-5.70	0.24	0.00	27.55
2,935.00	0.70	37.30	2,934.90	6.79	-11.52	-6.57	0.32	0.21	23.62
3,030.00	0.60	53.10	3,029.90	7.55	-10.77	-7.34	0.22	-0.11	16.63
3,124.00	0.60	54.40	3,123.89	8.13	-9.98	-7.94	0.01	0.00	1.38
3,218.00	0.40	46.00	3,217.89	8.65	-9.34	-8.46	0.23	-0.21	-8.94
3,312.00	0.40	56.40	3,311.89	9.06	-8.83	-8.88	0.08	0.00	11.06
3,406.00	0.50	20.90	3,405.88	9.62	-8.41	-9.46	0.31	0.11	-37.77
3,501.00	0.40	37.80	3,500.88	10.27	-8.06	-10.11	0.17	-0.11	17.79
3,595.00	0.10	354.20	3,594.88	10.61	-7.87	-10.46	0.36	-0.32	-46.38
3,689.00	0.50	260.20	3,688.88	10.62	-8.28	-10.46	0.55	0.43	-100.00
3,783.00	0.60	250.40	3,782.87	10.39	-9.15	-10.21	0.15	0.11	-10.43
3,877.00	0.70	244.60	3,876.87	9.98	-10.13	-9.78	0.13	0.11	-6.17
3,972.00	1.10	226.40	3,971.86	9.10	-11.32	-8.88	0.51	0.42	-19.16
4,066.00	1.00	229.10	4,065.84	7.94	-12.59	-7.69	0.12	-0.11	2.87
4,160.00	1.10	249.10	4,159.82	7.08	-14.05	-6.81	0.40	0.11	21.28
4,254.00	1.30	227.90	4,253.80	6.05	-15.69	-5.74	0.51	0.21	-22.55
4,348.00	1.20	241.40	4,347.78	4.86	-17.34	-4.52	0.33	-0.11	14.36
4,443.00	1.80	225.80	4,442.75	3.34	-19.29	-2.97	0.76	0.63	-16.42
4,537.00	1.50	237.80	4,536.71	1.66	-21.39	-1.24	0.49	-0.32	12.77
4,631.00	1.10	234.40	4,630.69	0.48	-23.16	-0.02	0.43	-0.43	-3.62
4,725.00	1.30	247.60	4,724.67	-0.45	-24.88	0.94	0.36	0.21	14.04
4,820.00	0.90	240.60	4,819.65	-1.23	-26.53	1.75	0.44	-0.42	-7.37
4,914.00	1.10	234.10	4,913.63	-2.12	-27.90	2.67	0.24	0.21	-6.91

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5,008.00	1.40	243.50	5,007.61	-3.16	-29.66	3.74	0.39	0.32	10.00
5,103.00	1.40	237.40	5,102.58	-4.31	-31.67	4.93	0.16	0.00	-6.42
5,197.00	1.40	246.00	5,196.55	-5.39	-33.69	6.05	0.22	0.00	9.15
5,291.00	1.60	261.00	5,290.52	-6.06	-36.04	6.77	0.47	0.21	15.96
5,385.00	1.70	260.70	5,384.48	-6.50	-38.71	7.25	0.11	0.11	-0.32
5,479.00	1.80	259.80	5,478.44	-6.98	-41.54	7.79	0.11	0.11	-0.96
5,532.00	1.50	255.50	5,531.42	-7.30	-43.03	8.14	0.61	-0.57	-8.11
5,648.00	1.90	255.10	5,647.37	-8.18	-46.36	9.08	0.34	0.34	-0.34
5,742.00	1.60	268.90	5,741.32	-8.60	-49.17	9.56	0.55	-0.32	14.68
5,836.00	0.90	307.70	5,835.30	-8.18	-51.07	9.17	1.13	-0.74	41.28
5,931.00	0.70	347.40	5,930.29	-7.16	-51.79	8.17	0.61	-0.21	41.79
6,025.00	0.90	344.70	6,024.28	-5.88	-52.11	6.90	0.22	0.21	-2.87
6,119.00	0.50	4.80	6,118.28	-4.76	-52.27	5.78	0.49	-0.43	21.38
6,213.00	0.50	70.80	6,212.27	-4.22	-51.85	5.23	0.58	0.00	70.21
6,307.00	0.20	62.00	6,306.27	-4.01	-51.31	5.01	0.32	-0.32	-9.36
6,401.00	0.20	151.70	6,400.27	-4.07	-51.09	5.07	0.30	0.00	95.43
6,496.00	0.20	203.00	6,495.27	-4.37	-51.08	5.37	0.18	0.00	54.00
6,590.00	0.40	131.00	6,589.27	-4.74	-50.89	5.73	0.41	0.21	-76.60
6,684.00	0.40	214.30	6,683.27	-5.22	-50.83	6.22	0.57	0.00	88.62
6,778.00	0.30	174.10	6,777.27	-5.74	-50.99	6.74	0.27	-0.11	-42.77
6,872.00	0.40	192.10	6,871.27	-6.31	-51.03	7.30	0.16	0.11	19.15
6,966.00	0.50	164.90	6,965.26	-7.02	-51.00	8.02	0.25	0.11	-28.94
7,061.00	0.60	166.30	7,060.26	-7.91	-50.77	8.90	0.11	0.11	1.47
7,155.00	0.70	191.40	7,154.25	-8.95	-50.77	9.94	0.32	0.11	26.70
7,249.00	0.60	198.10	7,248.25	-9.98	-51.03	10.97	0.13	-0.11	7.13
7,343.00	0.60	198.80	7,342.24	-10.91	-51.35	11.91	0.01	0.00	0.74
7,438.00	0.80	211.60	7,437.23	-11.95	-51.85	12.96	0.27	0.21	13.47
7,532.00	0.80	199.60	7,531.22	-13.12	-52.42	14.15	0.18	0.00	-12.77
7,626.00	1.10	203.90	7,625.21	-14.57	-53.00	15.60	0.33	0.32	4.57
7,720.00	1.20	207.60	7,719.19	-16.27	-53.82	17.31	0.13	0.11	3.94
7,815.00	1.30	205.50	7,814.17	-18.12	-54.75	19.19	0.12	0.11	-2.21
7,909.00	1.30	211.70	7,908.15	-19.99	-55.77	21.08	0.15	0.00	6.60
8,003.00	1.30	213.90	8,002.12	-21.78	-56.92	22.89	0.05	0.00	2.34
8,097.00	1.00	216.60	8,096.10	-23.33	-58.01	24.45	0.32	-0.32	2.87
8,191.00	0.70	234.10	8,190.09	-24.32	-58.96	25.47	0.42	-0.32	18.62
8,285.00	0.40	313.10	8,284.09	-24.43	-59.67	25.59	0.78	-0.32	84.04
8,379.00	0.50	316.50	8,378.09	-23.91	-60.19	25.08	0.11	0.11	3.62
8,474.00	0.60	254.70	8,473.08	-23.74	-60.95	24.93	0.60	0.11	-65.05
8,568.00	0.60	251.00	8,567.08	-24.03	-61.89	25.24	0.04	0.00	-3.94
8,662.00	0.90	237.80	8,661.07	-24.59	-62.98	25.81	0.37	0.32	-14.04
8,756.00	0.60	228.60	8,755.06	-25.30	-63.98	26.55	0.34	-0.32	-9.79
8,851.00	1.10	269.20	8,850.05	-25.65	-65.26	26.92	0.79	0.53	42.74
8,945.00	1.50	260.50	8,944.03	-25.86	-67.38	27.17	0.47	0.43	-9.26

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9,039.00	1.30	293.20	9,038.00	-25.64	-69.57	27.00	0.86	-0.21	34.79
9,134.00	1.80	275.80	9,132.97	-25.07	-72.05	26.47	0.72	0.53	-18.32
9,228.00	1.70	272.10	9,226.92	-24.87	-74.91	26.33	0.16	-0.11	-3.94
9,323.00	0.90	288.60	9,321.90	-24.58	-77.02	26.08	0.92	-0.84	17.37
9,417.00	0.60	283.60	9,415.89	-24.23	-78.20	25.75	0.33	-0.32	-5.32
9,511.00	1.40	226.20	9,509.88	-24.91	-79.51	26.46	1.27	0.85	-61.06
9,605.00	2.10	222.20	9,603.83	-26.98	-81.50	28.57	0.76	0.74	-4.26
9,700.00	2.30	220.80	9,698.76	-29.71	-83.91	31.34	0.22	0.21	-1.47
9,825.00	2.90	218.20	9,823.63	-34.09	-87.50	35.80	0.49	0.48	-2.08
9,888.00	3.40	198.50	9,886.54	-37.12	-89.08	38.85	1.88	0.79	-31.27
9,935.00	7.20	177.90	9,933.33	-41.39	-89.42	43.13	8.92	8.09	-43.83
9,983.00	10.80	173.80	9,980.73	-48.86	-88.82	50.59	7.61	7.50	-8.54
10,030.00	15.90	171.10	10,026.45	-59.61	-87.35	61.31	10.93	10.85	-5.74
10,077.00	20.00	173.80	10,071.15	-73.97	-85.48	75.62	8.90	8.72	5.74
10,124.00	24.70	174.70	10,114.61	-91.75	-83.71	93.36	10.03	10.00	1.91
10,171.00	29.00	173.90	10,156.53	-112.86	-81.59	114.44	9.18	9.15	-1.70
10,218.00	32.40	175.20	10,196.94	-136.75	-79.32	138.27	7.37	7.23	2.77
10,266.00	37.70	178.40	10,236.23	-164.25	-77.84	165.74	11.68	11.04	6.67
10,313.00	42.20	182.10	10,272.25	-194.41	-78.01	195.90	10.82	9.57	7.87
10,360.00	47.00	180.70	10,305.71	-227.39	-78.80	228.89	10.42	10.21	-2.98
10,407.00	51.40	179.20	10,336.41	-262.96	-78.76	264.45	9.67	9.36	-3.19
10,454.00	57.60	177.10	10,363.69	-301.18	-77.49	302.64	13.68	13.19	-4.47
10,501.00	63.30	175.90	10,386.87	-341.97	-74.99	343.37	12.33	12.13	-2.55
10,549.00	65.90	173.90	10,407.45	-385.15	-71.13	386.47	6.60	5.42	-4.17
10,596.00	71.20	172.60	10,424.64	-428.58	-65.98	429.79	11.57	11.28	-2.77
10,643.00	75.20	172.80	10,438.22	-473.20	-60.26	474.29	8.52	8.51	0.43
10,690.00	78.50	173.10	10,448.91	-518.61	-54.65	519.58	7.05	7.02	0.64
10,737.00	81.80	173.30	10,456.95	-564.59	-49.16	565.44	7.03	7.02	0.43
10,767.00	84.40	172.70	10,460.55	-594.15	-45.53	594.92	8.89	8.67	-2.00
10,804.00	84.94	171.00	10,463.99	-630.61	-40.31	631.28	4.79	1.46	-4.58
As-Drilled FTP									
10,815.00	85.10	170.50	10,464.94	-641.43	-38.55	642.06	4.79	1.46	-4.58
10,862.00	87.00	172.10	10,468.18	-687.77	-31.46	688.26	5.28	4.04	3.40
10,956.00	87.60	176.00	10,472.61	-781.15	-21.73	781.42	4.19	0.64	4.15
11,050.00	88.90	176.80	10,475.48	-874.91	-15.83	875.06	1.62	1.38	0.85
11,145.00	89.20	177.00	10,477.06	-969.76	-10.69	969.79	0.38	0.32	0.21
11,239.00	89.50	177.80	10,478.12	-1,063.66	-6.43	1,063.58	0.91	0.32	0.85
11,333.00	90.40	179.30	10,478.21	-1,157.62	-4.05	1,157.48	1.86	0.96	1.60
11,428.00	90.20	180.90	10,477.71	-1,252.62	-4.22	1,252.46	1.70	-0.21	1.68
11,522.00	90.30	181.20	10,477.30	-1,346.60	-5.94	1,346.46	0.34	0.11	0.32
11,616.00	91.00	180.60	10,476.23	-1,440.58	-7.42	1,440.45	0.98	0.74	-0.64
11,710.00	91.40	181.00	10,474.26	-1,534.55	-8.73	1,534.43	0.60	0.43	0.43
11,805.00	90.50	182.00	10,472.69	-1,629.51	-11.22	1,629.41	1.42	-0.95	1.05
11,899.00	89.80	181.30	10,472.44	-1,723.47	-13.92	1,723.41	1.05	-0.74	-0.74



TDS Survey Report



Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #47H
Well: Lea Unit #47H
Wellbore: Lateral #1
Design: Lateral #1

Local Co-ordinate Reference: Well Lea Unit #47H
TVD Reference: KB @ 3694.00usft (McVay 4)
MD Reference: KB @ 3694.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

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)
11,993.00	90.90	180.70	10,471.87	-1,817.45	-15.56	1,817.41	1.33	1.17	-0.64
12,088.00	91.90	179.30	10,469.55	-1,912.42	-15.56	1,912.36	1.81	1.05	-1.47
12,182.00	92.50	179.60	10,465.94	-2,006.34	-14.66	2,006.25	0.71	0.64	0.32
12,276.00	90.70	179.50	10,463.31	-2,100.30	-13.92	2,100.17	1.92	-1.91	-0.11
12,370.00	90.80	180.00	10,462.08	-2,194.29	-13.51	2,194.13	0.54	0.11	0.53
12,465.00	91.70	179.60	10,460.01	-2,289.27	-13.18	2,289.09	1.04	0.95	-0.42
12,559.00	88.90	179.80	10,459.52	-2,383.25	-12.69	2,383.05	2.99	-2.98	0.21
12,653.00	88.20	180.40	10,461.90	-2,477.22	-12.85	2,477.00	0.98	-0.74	0.64
12,747.00	88.80	180.40	10,464.36	-2,571.19	-13.51	2,570.96	0.64	0.64	0.00
12,842.00	88.70	180.20	10,466.43	-2,666.16	-14.01	2,665.93	0.24	-0.11	-0.21
12,936.00	90.20	180.10	10,467.33	-2,760.16	-14.25	2,759.91	1.60	1.60	-0.11
13,030.00	90.20	180.70	10,467.00	-2,854.15	-14.91	2,853.90	0.64	0.00	0.64
13,124.00	90.80	181.20	10,466.18	-2,948.14	-16.47	2,947.89	0.83	0.64	0.53
13,218.00	92.50	181.90	10,463.48	-3,042.06	-19.01	3,041.85	1.96	1.81	0.74
13,312.00	91.90	181.80	10,459.87	-3,135.94	-22.04	3,135.77	0.65	-0.64	-0.11
13,406.00	90.40	182.10	10,457.98	-3,229.86	-25.24	3,229.74	1.63	-1.60	0.32
13,501.00	88.10	183.10	10,459.23	-3,324.75	-29.55	3,324.69	2.64	-2.42	1.05
13,595.00	88.10	182.60	10,462.34	-3,418.58	-34.22	3,418.60	0.53	0.00	-0.53
13,689.00	89.20	182.10	10,464.56	-3,512.47	-38.07	3,512.55	1.29	1.17	-0.53
13,783.00	90.30	182.50	10,464.97	-3,606.40	-41.84	3,606.53	1.25	1.17	0.43
13,878.00	91.00	183.10	10,463.89	-3,701.28	-46.48	3,701.48	0.97	0.74	0.63
13,972.00	89.70	182.50	10,463.32	-3,795.16	-51.08	3,795.43	1.52	-1.38	-0.64
14,066.00	89.90	182.80	10,463.64	-3,889.06	-55.42	3,889.40	0.38	0.21	0.32
14,160.00	89.10	183.30	10,464.46	-3,982.92	-60.42	3,983.34	1.00	-0.85	0.53
14,254.00	89.10	183.60	10,465.94	-4,076.74	-66.08	4,077.25	0.32	0.00	0.32
14,348.00	90.40	182.80	10,466.35	-4,170.59	-71.33	4,171.19	1.62	1.38	-0.85
14,443.00	91.30	181.70	10,464.94	-4,265.50	-75.06	4,266.15	1.50	0.95	-1.16
14,537.00	92.00	182.30	10,462.23	-4,359.40	-78.33	4,360.10	0.98	0.74	0.64
14,631.00	90.90	182.50	10,459.86	-4,453.29	-82.27	4,454.05	1.19	-1.17	0.21
14,725.00	91.60	182.00	10,457.81	-4,547.19	-85.96	4,548.01	0.92	0.74	-0.53
14,819.00	90.20	181.90	10,456.33	-4,641.13	-89.16	4,641.98	1.49	-1.49	-0.11
14,914.00	89.50	182.50	10,456.58	-4,736.06	-92.80	4,736.96	0.97	-0.74	0.63
15,008.00	88.40	182.90	10,458.30	-4,829.93	-97.23	4,830.91	1.25	-1.17	0.43
15,102.00	88.70	183.90	10,460.68	-4,923.74	-102.80	4,924.81	1.11	0.32	1.06
15,196.00	87.70	184.60	10,463.63	-5,017.43	-109.77	5,018.62	1.30	-1.06	0.74
15,290.00	87.70	185.10	10,467.40	-5,111.02	-117.71	5,112.34	0.53	0.00	0.53
15,384.00	86.50	186.40	10,472.16	-5,204.42	-127.11	5,205.91	1.88	-1.28	1.38
15,479.00	84.70	187.20	10,479.45	-5,298.47	-138.33	5,300.16	2.07	-1.89	0.84
15,573.00	82.50	188.60	10,489.93	-5,390.99	-151.16	5,392.92	2.77	-2.34	1.49
15,667.00	79.40	189.50	10,504.71	-5,482.65	-165.76	5,484.85	3.43	-3.30	0.96
Last TDS MWD Survey									
15,757.00	79.40	189.50	10,521.27	-5,569.90	-180.36	5,572.37	0.00	0.00	0.00
Projection to Bit/UD - As-Drilled LTP									



TDS
Survey Report



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Site: Lea Unit #47H
Well: Lea Unit #47H
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Design: Lateral #1

Local Co-ordinate Reference: Well Lea Unit #47H
TVD Reference: KB @ 3694.00usft (McVay 4)
MD Reference: KB @ 3694.00usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
170.00	170.00	0.59	-0.08	First TDS MWD Survey
10,804.00	10,463.99	-630.61	-40.31	As-Drilled FTP
15,667.00	10,504.71	-5,482.65	-165.76	Last TDS MWD Survey
15,757.00	10,521.27	-5,569.90	-180.36	Projection to Bit/TD
15,757.00	10,521.27	-5,569.90	-180.36	As-Drilled LTP

Checked By: _____ Approved By: _____ Date: _____