



Legacy Reserves

Lea County, NM (NAD-27 2015)

Lea Unit #36H

Lea Unit #36H

HOBBS OCD
APR 06 2018
RECEIVED

Lateral #1

Design: Lateral #1

Standard Survey Report

12 January, 2017





TDS
Survey Report



Company:	Legacy Reserves	Local Co-ordinate Reference:	Well Lea Unit #36H
Project:	Lea County, NM (NAD-27 2015)	TVD Reference:	KB @ 3695.00usft (McVay 4)
Site:	Lea Unit #36H	MD Reference:	KB @ 3695.00usft (McVay 4)
Well:	Lea Unit #36H	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 #36H									
Site Position:		Northing:		567,485.10 usft		Latitude:		32° 33' 26.901 N			
From:		Map		Easting:		751,558.90 usft		Longitude:		103° 31' 0.741 W	
Position Uncertainty:		0.00 usft		Slot Radius:		13.20 in		Grid Convergence:		0.44 °	

Well	Lea Unit #36H					
Well Position	+N/-S	0.00 usft	Northing:	567,485.10 usft	Latitude:	32° 33' 26.901 N
	+E/-W	0.00 usft	Easting:	751,558.90 usft	Longitude:	103° 31' 0.741 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	9/2/2015	7.15	60.40	48,325

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	1.15	

Survey Program	Date 1/12/2017			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.00	5,515.00	VES Gyro #1 (Lateral #1)	VES-ISCWSA-GYRO-3	Biaxial Semi-Cont. Gyro
5,660.00	18,200.00	TDS MWD #2 (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
200.00	0.56	2.23	200.00	0.98	0.04	0.98	0.28	0.28	0.00
400.00	0.47	349.36	399.99	2.76	-0.08	2.76	0.07	-0.05	-6.44
600.00	0.58	333.79	599.98	4.47	-0.67	4.46	0.09	0.06	-7.79
800.00	0.05	356.10	799.98	5.47	-1.13	5.45	0.27	-0.27	11.16
1,000.00	0.43	288.79	999.97	5.80	-1.84	5.76	0.21	0.19	-33.66
1,200.00	0.66	258.51	1,199.97	5.81	-3.68	5.74	0.18	0.12	-15.14
1,400.00	0.58	271.47	1,399.95	5.61	-5.82	5.49	0.08	-0.04	6.48
1,600.00	1.02	262.88	1,599.93	5.41	-8.60	5.24	0.23	0.22	-4.30
1,800.00	0.53	262.67	1,799.92	5.07	-11.29	4.85	0.25	-0.25	-0.11

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Design:	Lateral #1	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)
2,000.00	0.15	276.30	1,999.91	4.98	-12.46	4.73	0.19	-0.19	6.82
2,200.00	0.41	263.47	2,199.91	4.93	-13.43	4.66	0.13	0.13	-6.42
2,400.00	0.03	36.56	2,399.91	4.89	-14.11	4.61	0.22	-0.19	66.55
2,600.00	0.29	127.36	2,599.91	4.63	-13.68	4.35	0.15	0.13	45.40
2,800.00	0.18	40.46	2,799.91	4.56	-13.07	4.30	0.17	-0.06	-43.45
3,000.00	0.56	54.89	2,999.90	5.36	-12.07	5.12	0.19	0.19	7.22
3,200.00	0.72	51.57	3,199.89	6.70	-10.29	6.50	0.08	0.08	-1.66
3,400.00	0.84	49.45	3,399.87	8.44	-8.19	8.27	0.06	0.06	-1.06
3,600.00	0.56	69.15	3,599.86	9.74	-6.16	9.61	0.18	-0.14	9.85
3,800.00	0.36	70.86	3,799.85	10.29	-4.65	10.20	0.10	-0.10	0.86
4,000.00	0.26	60.10	3,999.85	10.72	-3.67	10.65	0.06	-0.05	-5.38
4,200.00	0.54	154.30	4,199.84	10.10	-2.87	10.04	0.31	0.14	47.10
4,400.00	0.40	183.98	4,399.84	8.56	-2.51	8.50	0.14	-0.07	14.84
4,600.00	0.12	185.70	4,599.83	7.65	-2.57	7.60	0.14	-0.14	0.86
4,800.00	0.25	272.29	4,799.83	7.46	-3.03	7.40	0.14	0.07	43.30
5,000.00	0.18	247.19	4,999.83	7.36	-3.76	7.28	0.06	-0.04	-12.55
5,100.00	0.38	332.55	5,099.83	7.59	-4.05	7.51	0.41	0.20	85.36
5,200.00	0.12	5.39	5,199.83	7.99	-4.20	7.90	0.29	-0.26	32.84
5,300.00	0.09	227.47	5,299.83	8.04	-4.25	7.95	0.20	-0.03	-137.92
5,400.00	0.38	267.82	5,399.83	7.97	-4.63	7.88	0.32	0.29	40.35
5,500.00	0.17	326.30	5,499.83	8.08	-5.05	7.98	0.33	-0.21	58.48
5,515.00	0.23	322.33	5,514.83	8.13	-5.08	8.02	0.41	0.40	-26.47
Tie-In to VES Gyro									
5,660.00	0.20	335.10	5,659.83	8.59	-5.36	8.48	0.04	-0.02	8.81
First TDS MWD Survey									
5,755.00	0.20	337.20	5,754.83	8.89	-5.50	8.78	0.01	0.00	2.21
5,849.00	0.20	11.20	5,848.82	9.20	-5.53	9.09	0.12	0.00	36.17
5,943.00	0.20	14.00	5,942.82	9.52	-5.46	9.41	0.01	0.00	2.98
6,038.00	0.30	357.40	6,037.82	9.93	-5.43	9.82	0.13	0.11	-17.47
6,132.00	0.20	19.00	6,131.82	10.33	-5.39	10.22	0.14	-0.11	22.98
6,226.00	0.10	47.70	6,225.82	10.54	-5.27	10.43	0.13	-0.11	30.53
6,320.00	0.10	45.50	6,319.82	10.65	-5.15	10.55	0.00	0.00	-2.34
6,414.00	0.10	83.90	6,413.82	10.72	-5.01	10.62	0.07	0.00	40.85
6,509.00	0.20	100.50	6,508.82	10.70	-4.77	10.60	0.11	0.11	17.47
6,603.00	0.40	120.70	6,602.82	10.50	-4.32	10.41	0.24	0.21	21.49
6,697.00	0.60	124.10	6,696.82	10.06	-3.64	9.98	0.22	0.21	3.62
6,792.00	0.50	124.10	6,791.81	9.55	-2.88	9.49	0.11	-0.11	0.00
6,886.00	0.30	134.90	6,885.81	9.14	-2.37	9.09	0.23	-0.21	11.49
6,980.00	0.20	131.50	6,979.81	8.86	-2.07	8.82	0.11	-0.11	-3.62
7,074.00	0.40	181.40	7,073.81	8.42	-1.95	8.38	0.33	0.21	53.09
7,169.00	0.50	187.70	7,168.80	7.68	-2.02	7.64	0.12	0.11	6.63
7,263.00	0.70	203.20	7,262.80	6.75	-2.30	6.70	0.27	0.21	16.49
7,357.00	0.60	228.30	7,356.79	5.89	-2.89	5.83	0.32	-0.11	26.70

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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)
7,452.00	0.70	242.00	7,451.79	5.29	-3.78	5.21	0.19	0.11	14.42
7,546.00	0.70	242.90	7,545.78	4.76	-4.79	4.66	0.01	0.00	0.96
7,641.00	0.70	242.90	7,640.77	4.23	-5.83	4.11	0.00	0.00	0.00
7,735.00	0.70	242.30	7,734.77	3.70	-6.85	3.56	0.01	0.00	-0.64
7,830.00	0.70	239.40	7,829.76	3.14	-7.86	2.98	0.04	0.00	-3.05
7,924.00	0.70	247.20	7,923.75	2.62	-8.88	2.44	0.10	0.00	8.30
8,018.00	0.70	234.40	8,017.75	2.06	-9.88	1.87	0.17	0.00	-13.62
8,112.00	0.70	237.70	8,111.74	1.42	-10.83	1.21	0.04	0.00	3.51
8,207.00	0.70	227.80	8,206.73	0.72	-11.75	0.49	0.13	0.00	-10.42
8,301.00	0.70	229.60	8,300.72	-0.03	-12.62	-0.29	0.02	0.00	1.91
8,395.00	0.50	171.90	8,394.72	-0.81	-12.99	-1.07	0.64	-0.21	-61.38
8,489.00	1.00	131.90	8,488.71	-1.77	-12.33	-2.01	0.74	0.53	-42.55
8,584.00	1.10	123.70	8,583.70	-2.83	-10.95	-3.05	0.19	0.11	-8.63
8,678.00	1.10	123.00	8,677.68	-3.82	-9.44	-4.01	0.01	0.00	-0.74
8,772.00	1.40	127.40	8,771.66	-5.01	-7.77	-5.16	0.33	0.32	4.68
8,866.00	1.60	124.50	8,865.62	-6.45	-5.78	-6.56	0.23	0.21	-3.09
8,961.00	1.70	136.50	8,960.59	-8.22	-3.72	-8.29	0.38	0.11	12.63
9,055.00	2.30	134.90	9,054.53	-10.56	-1.42	-10.59	0.64	0.64	-1.70
9,149.00	2.50	144.30	9,148.45	-13.56	1.11	-13.53	0.47	0.21	10.00
9,244.00	2.20	130.50	9,243.37	-16.43	3.71	-16.35	0.67	-0.32	-14.53
9,339.00	2.20	111.70	9,338.30	-18.29	6.79	-18.15	0.76	0.00	-19.79
9,433.00	2.50	112.70	9,432.22	-19.74	10.35	-19.53	0.32	0.32	1.06
9,527.00	2.50	118.80	9,526.13	-21.52	14.04	-21.24	0.28	0.00	6.49
9,621.00	2.40	119.90	9,620.04	-23.49	17.55	-23.13	0.12	-0.11	1.17
9,716.00	2.60	121.30	9,714.95	-25.60	21.11	-25.17	0.22	0.21	1.47
9,810.00	2.60	116.20	9,808.86	-27.65	24.85	-27.15	0.25	0.00	-5.43
9,905.00	4.50	37.00	9,903.72	-25.62	29.02	-25.04	5.01	2.00	-83.37
9,952.00	9.50	27.70	9,950.35	-20.71	31.94	-20.07	10.87	10.64	-19.79
10,000.00	13.80	19.50	9,997.35	-11.81	35.69	-11.09	9.58	8.96	-17.08
10,047.00	18.70	14.70	10,042.47	0.77	39.48	1.57	10.80	10.43	-10.21
10,094.00	23.30	13.40	10,086.33	17.11	43.55	17.98	9.84	9.79	-2.77
10,141.00	26.50	12.30	10,128.96	36.40	47.94	37.36	6.88	6.81	-2.34
10,188.00	30.70	12.00	10,170.21	58.40	52.67	59.44	8.94	8.94	-0.64
10,235.00	35.00	13.10	10,209.69	83.27	58.22	84.42	9.24	9.15	2.34
10,282.00	38.90	13.30	10,247.24	110.77	64.67	112.05	8.30	8.30	0.43
10,329.00	42.80	11.50	10,282.79	140.79	71.25	142.19	8.67	8.30	-3.83
10,376.00	46.80	10.10	10,316.13	173.32	77.44	174.84	8.77	8.51	-2.98
10,423.00	51.40	8.60	10,346.90	208.36	83.20	209.99	10.08	9.79	-3.19
10,470.00	56.60	7.00	10,374.52	246.02	88.34	247.74	11.40	11.06	-3.40
10,517.00	61.00	6.70	10,398.86	285.93	93.13	287.74	9.38	9.36	-0.64
10,564.00	67.20	7.50	10,419.38	327.86	98.36	329.77	13.28	13.19	1.70
10,611.00	72.80	9.10	10,435.45	371.54	104.74	373.57	12.34	11.91	3.40
10,659.00	77.50	10.40	10,447.75	417.25	112.60	419.43	10.14	9.79	2.71
10,706.00	82.60	8.80	10,455.86	462.88	120.32	465.20	11.36	10.85	-3.40

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10,777.00	88.90	5.90	10,461.12	533.06	129.36	535.55	9.76	8.87	-4.08
10,872.00	90.00	2.40	10,462.04	627.79	136.23	630.40	3.86	1.16	-3.68
10,945.00	91.32	1.55	10,461.20	700.74	138.75	703.39	2.15	1.81	-1.17
As-Drilled FTP									
10,966.00	91.70	1.30	10,460.64	721.73	139.27	724.38	2.15	1.81	-1.17
11,060.00	91.60	1.30	10,457.94	815.67	141.40	818.34	0.11	-0.11	0.00
11,155.00	90.70	2.40	10,456.03	910.60	144.47	913.31	1.50	-0.95	1.16
11,249.00	90.10	2.40	10,455.37	1,004.51	148.40	1,007.29	0.64	-0.64	0.00
11,344.00	90.10	1.20	10,455.21	1,099.46	151.39	1,102.28	1.26	0.00	-1.26
11,438.00	89.20	0.40	10,455.78	1,193.45	152.70	1,196.27	1.28	-0.96	-0.85
11,532.00	90.20	0.00	10,456.27	1,287.45	153.03	1,290.26	1.15	1.06	-0.43
11,626.00	89.30	359.90	10,456.68	1,381.44	152.94	1,384.24	0.96	-0.96	-0.11
11,720.00	90.40	0.10	10,456.93	1,475.44	152.94	1,478.21	1.19	1.17	0.21
11,815.00	90.10	0.30	10,456.52	1,570.44	153.28	1,573.20	0.38	-0.32	0.21
11,909.00	87.90	0.00	10,458.16	1,664.42	153.52	1,667.17	2.36	-2.34	-0.32
12,003.00	88.00	0.40	10,461.52	1,758.36	153.85	1,761.09	0.44	0.11	0.43
12,098.00	90.50	0.70	10,462.76	1,853.34	154.76	1,856.07	2.65	2.63	0.32
12,192.00	91.50	0.90	10,461.12	1,947.31	156.07	1,950.05	1.08	1.06	0.21
12,286.00	91.80	1.20	10,458.41	2,041.26	157.80	2,044.01	0.45	0.32	0.32
12,380.00	92.90	1.80	10,454.56	2,135.15	160.25	2,137.93	1.33	1.17	0.64
12,475.00	92.30	2.30	10,450.25	2,229.99	163.65	2,232.82	0.82	-0.63	0.53
12,569.00	91.50	2.20	10,447.13	2,323.86	167.34	2,326.75	0.86	-0.85	-0.11
12,663.00	90.90	0.60	10,445.17	2,417.81	169.63	2,420.73	1.82	-0.64	-1.70
12,758.00	90.00	359.10	10,444.42	2,512.80	169.38	2,515.70	1.84	-0.95	-1.58
12,852.00	89.00	358.70	10,445.24	2,606.78	167.58	2,609.62	1.15	-1.06	-0.43
12,946.00	89.80	358.70	10,446.22	2,700.75	165.45	2,703.53	0.85	0.85	0.00
13,040.00	89.10	358.80	10,447.13	2,794.72	163.40	2,797.44	0.75	-0.74	0.11
13,135.00	90.30	358.40	10,447.62	2,889.69	161.08	2,892.34	1.33	1.26	-0.42
13,229.00	90.70	358.50	10,446.80	2,983.65	158.53	2,986.23	0.44	0.43	0.11
13,323.00	89.60	359.20	10,446.56	3,077.63	156.65	3,080.16	1.39	-1.17	0.74
13,417.00	90.30	359.70	10,446.64	3,171.63	155.75	3,174.11	0.92	0.74	0.53
13,511.00	91.00	359.60	10,445.57	3,265.62	155.17	3,268.07	0.75	0.74	-0.11
13,606.00	90.90	359.20	10,444.00	3,360.60	154.18	3,363.02	0.43	-0.11	-0.42
13,700.00	90.30	358.50	10,443.01	3,454.57	152.29	3,456.94	0.98	-0.64	-0.74
13,794.00	89.70	358.60	10,443.01	3,548.54	149.91	3,550.84	0.65	-0.64	0.11
13,888.00	90.80	359.40	10,442.60	3,642.53	148.27	3,644.77	1.45	1.17	0.85
13,982.00	90.50	359.90	10,441.54	3,736.52	147.70	3,738.73	0.62	-0.32	0.53
14,076.00	89.90	0.60	10,441.21	3,830.52	148.11	3,832.72	0.98	-0.64	0.74
14,170.00	91.10	1.30	10,440.39	3,924.50	149.67	3,926.71	1.48	1.28	0.74
14,265.00	90.00	0.20	10,439.48	4,019.48	150.91	4,021.70	1.64	-1.16	-1.16
14,359.00	89.50	358.60	10,439.89	4,113.47	149.92	4,115.65	1.78	-0.53	-1.70
14,453.00	90.50	358.70	10,439.89	4,207.45	147.71	4,209.56	1.07	1.06	0.11
14,547.00	91.60	359.30	10,438.16	4,301.41	146.07	4,303.48	1.33	1.17	0.64

Company: Legacy Reserves
Project: Lea County, NM (NAD-27 2015)
Site: Lea Unit #36H
Well: Lea Unit #36H
Wellbore: Lateral #1
Design: Lateral #1

Local Co-ordinate Reference: Well Lea Unit #36H
TVD Reference: KB @ 3695.00usft (McVay 4)
MD Reference: KB @ 3695.00usft (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)
14,645.00	91.70	359.20	10,435.34	4,399.36	144.79	4,401.38	0.14	0.10	-0.10
14,740.00	92.00	359.90	10,432.28	4,494.31	144.04	4,496.30	0.80	0.32	0.74
14,834.00	90.90	0.20	10,429.90	4,588.28	144.12	4,590.25	1.21	-1.17	0.32
14,928.00	90.10	359.60	10,429.08	4,682.27	143.96	4,684.22	1.06	-0.85	-0.64
15,022.00	91.70	359.00	10,427.60	4,776.25	142.81	4,778.16	1.82	1.70	-0.64
15,117.00	91.30	359.90	10,425.11	4,871.21	141.90	4,873.08	1.04	-0.42	0.95
15,211.00	90.00	0.30	10,424.05	4,965.21	142.06	4,967.06	1.45	-1.38	0.43
15,305.00	88.70	0.20	10,425.11	5,059.20	142.47	5,061.04	1.39	-1.38	-0.11
15,399.00	89.40	359.90	10,426.67	5,153.18	142.56	5,155.01	0.81	0.74	-0.32
15,494.00	91.00	359.60	10,426.34	5,248.18	142.14	5,249.97	1.71	1.68	-0.32
15,588.00	90.20	359.80	10,425.36	5,342.17	141.65	5,343.94	0.88	-0.85	0.21
15,682.00	88.40	359.50	10,426.50	5,436.16	141.08	5,437.89	1.94	-1.91	-0.32
15,776.00	90.10	359.10	10,427.73	5,530.14	139.93	5,531.83	1.86	1.81	-0.43
15,871.00	89.00	359.20	10,428.48	5,625.12	138.52	5,626.77	1.16	-1.16	0.11
15,965.00	90.30	358.60	10,429.05	5,719.10	136.71	5,720.70	1.52	1.38	-0.64
16,053.00	90.30	0.10	10,428.59	5,807.09	135.71	5,808.65	1.70	0.00	1.70
16,142.00	89.90	0.70	10,428.44	5,896.09	136.34	5,897.64	0.81	-0.45	0.67
16,241.00	92.00	0.10	10,426.80	5,995.07	137.03	5,996.61	2.21	2.12	-0.61
16,336.00	91.10	359.60	10,424.23	6,090.03	136.78	6,091.55	1.08	-0.95	-0.53
16,430.00	90.80	0.10	10,422.67	6,184.02	136.53	6,185.51	0.62	-0.32	0.53
16,524.00	91.80	359.60	10,420.54	6,277.99	136.29	6,279.46	1.19	1.06	-0.53
16,618.00	90.80	0.40	10,418.40	6,371.97	136.29	6,373.42	1.36	-1.06	0.85
16,712.00	91.40	0.20	10,416.60	6,465.95	136.78	6,467.39	0.67	0.64	-0.21
16,807.00	90.90	0.80	10,414.69	6,560.92	137.61	6,562.36	0.82	-0.53	0.63
16,901.00	90.40	1.70	10,413.63	6,654.89	139.66	6,656.36	1.10	-0.53	0.96
16,995.00	89.10	2.10	10,414.04	6,748.84	142.77	6,750.35	1.45	-1.38	0.43
17,089.00	89.30	1.30	10,415.35	6,842.79	145.56	6,844.33	0.88	0.21	-0.85
17,183.00	91.20	0.60	10,414.94	6,936.77	147.12	6,938.33	2.15	2.02	-0.74
17,277.00	89.90	359.30	10,414.04	7,030.76	147.04	7,032.30	1.96	-1.38	-1.38
17,372.00	88.20	359.60	10,415.61	7,125.74	146.13	7,127.24	1.82	-1.79	0.32
17,466.00	89.10	358.50	10,417.83	7,219.70	144.57	7,221.15	1.51	0.96	-1.17
17,560.00	89.70	357.80	10,418.81	7,313.64	141.53	7,315.01	0.98	0.64	-0.74
17,654.00	90.70	358.90	10,418.48	7,407.60	138.83	7,408.90	1.58	1.06	1.17
17,748.00	91.90	358.40	10,416.35	7,501.55	136.61	7,502.78	1.38	1.28	-0.53
17,842.00	89.50	358.60	10,415.20	7,595.50	134.15	7,596.67	2.56	-2.55	0.21
17,937.00	89.90	357.80	10,415.70	7,690.45	131.17	7,691.54	0.94	0.42	-0.84
18,031.00	89.50	356.60	10,416.19	7,784.34	126.58	7,785.31	1.35	-0.43	-1.28
Last TDS MWD Survey									
18,200.00	89.50	356.60	10,417.67	7,953.03	116.56	7,953.77	0.00	0.00	0.00
As-Drilled LTP/Projection to Bit/TD									



TDS
Survey Report



Company: Legacy Reserves
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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)	
5,515.00	5,514.83	8.13	-5.08	Tie-In to VES Gyro
5,660.00	5,659.83	8.59	-5.36	First TDS MWD Survey
10,945.00	10,461.20	700.74	138.75	As-Drilled FTP
18,031.00	10,416.19	7,784.34	126.58	Last TDS MWD Survey
18,200.00	10,417.67	7,953.03	116.56	As-Drilled LTP/Projection to Bit/TD

Checked By: _____ Approved By: _____ Date: _____