

NM OIL CONSERVATION

ARTESIA DISTRICT

NOV 13 2018

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Devon Energy

Eddy County, New Mexico (NAD 83)

Lusitano 27-34 FED COM

536H

30.015-44427

OH

**Provide Signature Page for
Directional Survey**

Design: OH

Standard Survey Report

10 September, 2018

Survey Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Lusitano 27-34 FED COM
Well: 536H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well 536H
TVD Reference: GL 3336 + 26' KB @ 3362.00usft
MD Reference: GL 3336 + 26' KB @ 3362.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14 Single User Db

Project	Eddy County, New Mexico (NAD 83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Lusitano 27-34 FED COM		
Site Position:		Northing:	403,270.15 usft
From:	Map	Easting:	719,382.96 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.107364
		Longitude:	-103.758304
		Grid Convergence:	0.31 °

Well	536H		
Well Position	+N-S	0.00 usft	Northing:
	+E-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	
			usft
		Latitude:	32.107363
		Longitude:	-103.758401
		Ground Level:	3,336.00 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2015	6/26/2018	6.92
			Dip Angle
			(°)
			59.91
			Field Strength
			(nT)
			47,744.52255922

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N-S	+E-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			179.85

Survey Program	Date 9/10/2018		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
175.00	831.00	Invictus MWD (OH)	MWD
1,058.00	19,260.00	#2 Legacy MWD (OH)	MWD
			Description
			OWSG MWD - Standard
			OWSG MWD - Standard

Survey									
Measured	Inclination	Azimuth	Vertical	+N-S	+E-W	Vertical	Dogleg	Build	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
175.00	0.90	254.69	174.99	-0.36	-1.33	0.36	0.51	0.51	0.00
265.00	1.00	258.71	264.98	-0.70	-2.78	0.70	0.13	0.11	4.47
360.00	0.80	261.71	359.97	-0.96	-4.25	0.95	0.22	-0.21	3.16
454.00	0.70	247.71	453.96	-1.27	-5.43	1.26	0.22	-0.11	-14.89
549.00	0.90	257.71	548.95	-1.65	-6.69	1.64	0.26	0.21	10.53
643.00	1.30	265.71	642.93	-1.89	-8.48	1.87	0.45	0.43	8.51
737.00	0.80	252.71	736.92	-2.16	-10.17	2.14	0.59	-0.53	-13.83
831.00	1.30	265.71	830.90	-2.44	-11.86	2.41	0.59	0.53	13.83
1,058.00	1.77	283.08	1,057.82	-1.84	-17.84	1.79	0.29	0.21	7.65

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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)
1,151.00	1.92	309.64	1,150.77	-0.52	-20.44	0.47	0.92	0.16	28.56
1,244.00	2.57	330.96	1,243.70	2.30	-22.65	-2.36	1.13	0.70	22.92
1,337.00	3.37	339.08	1,336.58	6.67	-24.64	-6.74	0.97	0.86	8.73
1,430.00	4.20	335.38	1,429.38	12.32	-27.03	-12.39	0.93	0.89	-3.98
1,523.00	4.70	339.02	1,522.10	18.98	-29.82	-19.05	0.62	0.54	3.91
1,615.00	5.44	334.56	1,613.73	26.43	-33.04	-26.52	0.91	0.80	-4.85
1,709.00	6.07	336.41	1,707.26	35.01	-36.94	-35.11	0.70	0.67	1.97
1,802.00	7.03	331.17	1,799.65	44.50	-41.66	-44.61	1.21	1.03	-5.63
1,897.00	6.67	327.60	1,893.98	54.26	-47.41	-54.38	0.59	-0.38	-3.76
1,991.00	6.89	327.10	1,987.32	63.60	-53.40	-63.74	0.24	0.23	-0.53
2,085.00	6.71	320.14	2,080.66	72.55	-59.98	-72.71	0.90	-0.19	-7.40
2,178.00	6.37	315.39	2,173.05	80.39	-67.09	-80.57	0.69	-0.37	-5.11
2,272.00	6.00	316.24	2,266.51	87.65	-74.15	-87.85	0.41	-0.39	0.90
2,367.00	5.99	314.55	2,360.99	94.72	-81.12	-94.93	0.19	-0.01	-1.78
2,462.00	6.34	309.66	2,455.44	101.54	-88.69	-101.77	0.66	0.37	-5.15
2,556.00	6.28	308.22	2,548.87	108.04	-96.72	-108.29	0.18	-0.06	-1.53
2,651.00	6.02	309.03	2,643.32	114.39	-104.67	-114.66	0.29	-0.27	0.85
2,746.00	5.50	313.88	2,737.84	120.68	-111.83	-120.97	0.75	-0.55	5.11
2,841.00	5.38	314.55	2,832.41	126.96	-118.28	-127.27	0.14	-0.13	0.71
2,936.00	5.73	309.52	2,926.97	133.10	-125.11	-133.43	0.63	0.37	-5.29
3,031.00	5.96	306.12	3,021.48	139.03	-132.76	-139.37	0.44	0.24	-3.58
3,126.00	6.03	312.94	3,115.96	145.33	-140.39	-145.70	0.75	0.07	7.18
3,221.00	6.11	315.82	3,210.42	152.36	-147.57	-152.74	0.33	0.08	3.03
3,316.00	5.93	307.47	3,304.90	158.97	-154.99	-159.38	0.94	-0.19	-8.79
3,411.00	5.93	300.73	3,399.40	164.46	-163.10	-164.89	0.73	0.00	-7.09
3,505.00	6.01	297.45	3,492.89	169.21	-171.64	-169.66	0.37	0.09	-3.49
3,600.00	5.26	295.38	3,587.43	173.37	-179.99	-173.84	0.82	-0.79	-2.18
3,695.00	4.85	302.48	3,682.06	177.40	-187.31	-177.88	0.79	-0.43	7.47
3,790.00	4.49	308.27	3,776.74	181.86	-193.62	-182.36	0.62	-0.38	6.09
3,884.00	4.32	307.57	3,870.46	186.29	-199.31	-186.81	0.19	-0.18	-0.74
3,979.00	4.67	311.04	3,965.17	191.01	-205.07	-191.55	0.47	0.37	3.65
4,074.00	5.17	311.63	4,059.82	196.40	-211.18	-196.95	0.53	0.53	0.62
4,168.00	5.50	314.21	4,153.41	202.35	-217.58	-202.92	0.43	0.35	2.74
4,263.00	6.22	318.03	4,247.92	209.35	-224.28	-209.94	0.86	0.76	4.02
4,357.00	6.69	319.38	4,341.32	217.29	-231.25	-217.90	0.53	0.50	1.44
4,450.00	7.10	317.32	4,433.65	225.63	-238.68	-226.26	0.51	0.44	-2.22
4,544.00	6.68	316.94	4,526.97	233.90	-246.35	-234.54	0.45	-0.45	-0.40
4,639.00	7.39	311.17	4,621.26	241.96	-254.72	-242.62	1.05	0.75	-6.07
4,734.00	7.53	311.19	4,715.45	250.08	-264.00	-250.77	0.15	0.15	0.02
4,829.00	7.00	313.57	4,809.69	258.17	-272.88	-258.88	0.64	-0.56	2.51
4,924.00	6.79	313.11	4,904.00	265.99	-281.17	-266.73	0.23	-0.22	-0.48
5,019.00	6.88	311.48	4,998.33	273.60	-289.54	-274.36	0.23	0.09	-1.72
5,113.00	6.90	309.89	5,091.65	280.95	-298.09	-281.73	0.20	0.02	-1.69

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5,208.00	6.96	309.24	5,185.95	288.25	-306.92	-289.05	0.10	0.06	-0.68
5,303.00	6.77	307.64	5,280.27	295.31	-315.82	-296.14	0.28	-0.20	-1.68
5,398.00	6.23	304.70	5,374.66	301.67	-324.49	-302.51	0.67	-0.57	-3.09
5,493.00	6.78	312.61	5,469.05	308.40	-332.85	-309.27	1.11	0.58	8.33
5,588.00	7.01	311.74	5,563.36	316.05	-341.31	-316.95	0.27	0.24	-0.92
5,683.00	6.16	320.75	5,657.74	323.86	-348.86	-324.77	1.41	-0.89	9.48
5,778.00	6.12	318.72	5,752.20	331.61	-355.42	-332.54	0.23	-0.04	-2.14
5,873.00	5.87	316.60	5,846.68	338.95	-362.10	-339.89	0.35	-0.26	-2.23
5,968.00	6.02	313.84	5,941.16	345.93	-369.03	-346.89	0.34	0.16	-2.91
6,063.00	5.49	310.87	6,035.69	352.35	-376.06	-353.34	0.64	-0.56	-3.13
6,158.00	5.76	320.45	6,130.23	359.00	-382.53	-360.00	1.03	0.28	10.08
6,253.00	5.71	319.11	6,224.75	366.25	-388.66	-367.27	0.15	-0.05	-1.41
6,348.00	5.59	319.50	6,319.29	373.34	-394.76	-374.37	0.13	-0.13	0.41
6,442.00	5.22	317.91	6,412.88	380.00	-400.60	-381.04	0.42	-0.39	-1.69
6,537.00	4.86	317.06	6,507.51	386.15	-406.24	-387.21	0.39	-0.38	-0.89
6,631.00	5.02	316.98	6,601.16	392.07	-411.76	-393.15	0.17	0.17	-0.09
6,725.00	3.09	315.09	6,694.92	396.87	-416.35	-397.96	2.06	-2.05	-2.01
6,820.00	2.67	311.24	6,789.80	400.14	-419.82	-401.24	0.49	-0.44	-4.05
6,915.00	2.14	306.34	6,884.71	402.65	-422.92	-403.76	0.60	-0.56	-5.16
7,010.00	1.81	297.53	6,979.66	404.40	-425.68	-405.51	0.47	-0.35	-9.27
7,105.00	1.67	343.02	7,074.62	406.42	-427.41	-407.53	1.42	-0.15	47.88
7,200.00	1.44	331.17	7,169.58	408.79	-428.39	-409.91	0.41	-0.24	-12.47
7,295.00	1.08	321.01	7,264.56	410.53	-429.53	-411.65	0.44	-0.38	-10.69
7,389.00	0.94	308.04	7,358.55	411.69	-430.69	-412.82	0.28	-0.15	-13.80
7,484.00	0.80	286.28	7,453.54	412.36	-431.95	-413.49	0.37	-0.15	-22.91
7,578.00	0.48	263.83	7,547.53	412.50	-432.97	-413.63	0.43	-0.34	-23.88
7,673.00	0.14	234.58	7,642.53	412.39	-433.46	-413.52	0.38	-0.36	-30.79
7,768.00	0.24	187.36	7,737.53	412.12	-433.58	-413.26	0.19	0.11	-49.71
7,862.00	0.49	171.48	7,831.53	411.53	-433.54	-412.67	0.28	0.27	-16.89
7,957.00	0.14	81.59	7,926.53	411.15	-433.37	-412.28	0.54	-0.37	-94.62
8,052.00	0.20	145.51	8,021.52	411.03	-433.16	-412.16	0.20	0.06	67.28
8,147.00	0.48	172.43	8,116.52	410.50	-433.01	-411.63	0.33	0.29	28.34
8,241.00	0.66	178.16	8,210.52	409.56	-432.94	-410.70	0.20	0.19	6.10
8,336.00	0.75	334.82	8,305.52	409.58	-433.19	-410.71	1.45	0.09	164.91
8,431.00	0.64	314.98	8,400.51	410.52	-433.83	-411.65	0.28	-0.12	-20.88
8,493.00	0.51	290.60	8,462.51	410.86	-434.33	-412.00	0.44	-0.21	-39.32
8,533.00	0.67	286.41	8,502.50	410.99	-434.72	-412.13	0.41	0.40	-10.48
KOP 8533'MD / 8502.50'TVD									
8,558.00	1.63	219.40	8,527.50	410.76	-435.09	-411.89	6.00	3.84	-268.04
8,627.00	9.12	190.16	8,596.15	404.61	-436.68	-405.75	11.22	10.86	-42.38
8,722.00	20.58	186.31	8,687.83	380.52	-439.85	-381.67	12.10	12.06	-4.05
8,817.00	30.78	176.77	8,773.37	339.53	-440.32	-340.68	11.55	10.74	-10.04
8,912.00	39.98	179.47	8,850.75	284.62	-438.67	-285.77	9.82	9.68	2.84

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9,007.00	47.69	178.77	8,919.22	218.88	-437.63	-220.03	8.13	8.12	-0.74
9,102.00	54.43	184.99	8,978.93	145.14	-440.24	-146.30	8.73	7.09	6.55
9,197.00	60.58	188.01	9,029.95	65.59	-449.38	-66.77	7.01	6.47	3.18
LP - 536H									
9,291.00	73.17	180.59	9,066.84	-20.38	-455.58	19.19	15.22	13.39	-7.89
9,385.00	81.70	178.64	9,087.27	-112.04	-454.93	110.84	9.30	9.07	-2.07
9,480.00	86.75	179.25	9,096.83	-206.51	-453.20	205.32	5.35	5.32	0.64
9,528.00	88.21	179.54	9,098.94	-254.46	-452.69	253.27	3.10	3.04	0.60
9,573.00	90.59	178.97	9,099.41	-299.45	-452.10	298.26	5.44	5.29	-1.27
9,624.00	91.15	178.90	9,098.63	-350.43	-451.16	349.25	1.11	1.10	-0.14
9,719.00	90.03	178.49	9,097.66	-445.40	-448.99	444.22	1.26	-1.18	-0.43
9,814.00	90.06	178.27	9,097.58	-540.36	-446.31	539.19	0.23	0.03	-0.23
9,909.00	89.55	178.19	9,097.91	-635.32	-443.37	634.15	0.54	-0.54	-0.08
10,004.00	91.12	179.66	9,097.35	-730.29	-441.59	729.13	2.26	1.65	1.55
10,098.00	90.73	179.42	9,095.83	-824.28	-440.84	823.12	0.49	-0.41	-0.26
10,193.00	91.09	180.32	9,094.32	-919.26	-440.62	918.11	1.02	0.38	0.95
10,288.00	90.95	180.11	9,092.63	-1,014.25	-440.98	1,013.09	0.27	-0.15	-0.22
10,382.00	91.04	180.28	9,091.00	-1,108.23	-441.30	1,107.07	0.20	0.10	0.18
10,477.00	91.15	180.54	9,089.18	-1,203.21	-441.98	1,202.05	0.30	0.12	0.27
10,572.00	91.79	181.12	9,086.75	-1,298.17	-443.35	1,297.01	0.91	0.67	0.61
10,666.00	89.50	180.85	9,085.69	-1,392.14	-444.97	1,390.97	2.45	-2.44	-0.29
10,761.00	90.67	181.58	9,085.55	-1,487.12	-446.98	1,485.95	1.45	1.23	0.77
10,853.00	89.55	180.43	9,085.37	-1,579.10	-448.60	1,577.92	1.74	-1.22	-1.25
10,944.00	89.50	180.19	9,086.13	-1,670.10	-449.09	1,668.92	0.27	-0.05	-0.26
11,036.00	88.96	179.66	9,087.36	-1,762.09	-448.97	1,760.91	0.82	-0.59	-0.58
11,127.00	90.36	179.22	9,087.90	-1,853.08	-448.08	1,851.90	1.61	1.54	-0.48
11,219.00	91.40	178.79	9,086.49	-1,945.05	-446.48	1,943.88	1.22	1.13	-0.47
11,311.00	91.20	178.40	9,084.40	-2,037.00	-444.23	2,035.83	0.48	-0.22	-0.42
11,403.00	92.05	178.84	9,081.79	-2,128.94	-442.01	2,127.77	1.04	0.92	0.48
11,494.00	91.29	179.32	9,079.14	-2,219.89	-440.55	2,218.73	0.99	-0.84	0.53
11,587.00	90.50	179.09	9,077.69	-2,312.87	-439.26	2,311.71	0.88	-0.85	-0.25
11,680.00	90.25	179.15	9,077.08	-2,405.85	-437.83	2,404.70	0.28	-0.27	0.06
11,773.00	90.03	179.41	9,076.85	-2,498.85	-436.66	2,497.69	0.37	-0.24	0.28
11,866.00	90.70	179.34	9,076.26	-2,591.84	-435.65	2,590.69	0.72	0.72	-0.08
11,959.00	89.92	178.83	9,075.76	-2,684.82	-434.16	2,683.68	1.00	-0.84	-0.55
12,051.00	91.23	178.84	9,074.83	-2,776.80	-432.29	2,775.66	1.42	1.42	0.01
12,144.00	91.60	180.00	9,072.54	-2,869.76	-431.35	2,868.62	1.31	0.40	1.25
12,239.00	90.56	180.49	9,070.75	-2,964.74	-431.76	2,963.60	1.21	-1.09	0.52
12,334.00	90.28	180.15	9,070.05	-3,059.74	-432.29	3,058.60	0.46	-0.29	-0.36
12,429.00	90.31	179.99	9,069.56	-3,154.74	-432.41	3,153.59	0.17	0.03	-0.17
12,523.00	90.11	180.32	9,069.22	-3,248.74	-432.66	3,247.59	0.41	-0.21	0.35
12,617.00	90.42	180.69	9,068.78	-3,342.73	-433.49	3,341.59	0.51	0.33	0.39
12,712.00	90.64	180.75	9,067.90	-3,437.72	-434.68	3,436.57	0.24	0.23	0.06
12,807.00	91.09	180.98	9,066.47	-3,532.70	-436.12	3,531.54	0.53	0.47	0.24

Survey Report

Company: Devon Energy
 Project: Eddy County, New Mexico (NAD 83)
 Site: Lusitano 27-34 FED COM
 Well: 536H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well 536H
 TVD Reference: GL 3336 + 26' KB @ 3362.00usft
 MD Reference: GL 3336 + 26' KB @ 3362.00usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.14 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)
12,901.00	91.09	181.07	9,064.68	-3,626.67	-437.80	3,625.51	0.10	0.00	0.10
12,996.00	91.51	181.09	9,062.53	-3,721.62	-439.59	3,720.46	0.44	0.44	0.02
13,091.00	91.09	180.37	9,060.37	-3,816.59	-440.80	3,815.42	0.88	-0.44	-0.76
13,185.00	90.92	179.79	9,058.72	-3,910.58	-440.93	3,909.41	0.64	-0.18	-0.62
13,280.00	89.72	178.89	9,058.19	-4,005.57	-439.83	4,004.40	1.58	-1.26	-0.95
13,375.00	89.66	178.84	9,058.70	-4,100.55	-437.95	4,099.39	0.08	-0.06	-0.05
13,470.00	89.89	179.62	9,059.08	-4,195.54	-436.68	4,194.38	0.86	0.24	0.82
13,565.00	89.64	179.28	9,059.47	-4,290.53	-435.76	4,289.37	0.44	-0.26	-0.36
13,659.00	89.47	178.43	9,060.20	-4,384.51	-433.89	4,383.36	0.92	-0.18	-0.90
13,754.00	90.62	178.69	9,060.12	-4,479.48	-431.50	4,478.33	1.24	1.21	0.27
13,849.00	90.95	178.03	9,058.82	-4,574.43	-428.78	4,573.29	0.78	0.35	-0.69
13,944.00	91.40	180.26	9,056.87	-4,669.39	-427.36	4,668.26	2.39	0.47	2.35
14,039.00	91.71	180.59	9,054.30	-4,764.35	-428.07	4,763.22	0.48	0.33	0.35
14,134.00	90.90	180.86	9,052.13	-4,859.32	-429.27	4,858.18	0.90	-0.85	0.28
14,229.00	90.78	181.12	9,050.74	-4,954.30	-430.91	4,953.15	0.30	-0.13	0.27
14,324.00	89.47	181.07	9,050.53	-5,049.28	-432.73	5,048.13	1.38	-1.38	-0.05
14,418.00	89.55	180.62	9,051.34	-5,143.26	-434.11	5,142.11	0.49	0.09	-0.48
14,513.00	89.94	181.36	9,051.76	-5,238.25	-435.75	5,237.09	0.88	0.41	0.78
14,608.00	89.61	181.31	9,052.13	-5,333.22	-437.97	5,332.05	0.35	-0.35	-0.05
14,702.00	89.78	181.42	9,052.63	-5,427.19	-440.21	5,426.02	0.22	0.18	0.12
14,797.00	89.66	179.82	9,053.10	-5,522.18	-441.23	5,521.01	1.69	-0.13	-1.68
14,892.00	90.53	178.26	9,052.94	-5,617.16	-439.64	5,615.99	1.88	0.92	-1.64
14,987.00	90.78	178.06	9,051.85	-5,712.11	-436.59	5,710.95	0.34	0.26	-0.21
15,082.00	91.35	179.34	9,050.09	-5,807.07	-434.44	5,805.91	1.47	0.60	1.35
15,176.00	90.03	178.42	9,048.95	-5,901.04	-432.60	5,899.88	1.71	-1.40	-0.98
15,271.00	90.28	178.31	9,048.70	-5,996.00	-429.89	5,994.85	0.29	0.26	-0.12
15,366.00	90.39	179.17	9,048.14	-6,090.97	-427.80	6,089.83	0.91	0.12	0.91
15,461.00	91.99	181.37	9,046.17	-6,185.94	-428.25	6,184.80	2.86	1.68	2.32
15,556.00	90.42	181.79	9,044.17	-6,280.88	-430.87	6,279.73	1.71	-1.65	0.44
15,650.00	90.76	181.76	9,043.20	-6,374.83	-433.78	6,373.67	0.36	0.36	-0.03
15,745.00	90.50	180.21	9,042.16	-6,469.81	-435.41	6,468.65	1.65	-0.27	-1.63
15,840.00	90.64	180.19	9,041.21	-6,564.80	-435.74	6,563.64	0.15	0.15	-0.02
15,935.00	91.23	180.67	9,039.66	-6,659.79	-436.45	6,658.62	0.80	0.62	0.51
16,030.00	90.84	179.85	9,037.95	-6,754.77	-436.89	6,753.60	0.96	-0.41	-0.86
16,125.00	90.95	180.12	9,036.46	-6,849.76	-436.86	6,848.59	0.31	0.12	0.28
16,219.00	91.09	180.00	9,034.79	-6,943.74	-436.96	6,942.58	0.20	0.15	-0.13
16,314.00	90.98	179.50	9,033.07	-7,038.73	-436.54	7,037.56	0.54	-0.12	-0.53
16,409.00	90.67	179.09	9,031.71	-7,133.71	-435.38	7,132.55	0.54	-0.33	-0.43
16,504.00	90.64	179.02	9,030.62	-7,228.69	-433.81	7,227.53	0.08	-0.03	-0.07
16,599.00	90.78	178.94	9,029.44	-7,323.67	-432.12	7,322.51	0.17	0.15	-0.08
16,694.00	91.71	178.89	9,027.38	-7,418.63	-430.32	7,417.48	0.98	0.98	-0.05
16,788.00	89.89	179.34	9,026.07	-7,512.60	-428.87	7,511.45	1.99	-1.94	0.48
16,884.00	89.92	179.83	9,026.23	-7,608.60	-428.17	7,607.45	0.51	0.03	0.51

Survey Report

Company: Devon Energy
Project: Eddy County, New Mexico (NAD 83)
Site: Lusitano 27-34 FED COM
Well: 536H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well 536H
TVD Reference: GL 3336 + 26' KB @ 3362.00usft
MD Reference: GL 3336 + 26' KB @ 3362.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.14 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)
16,979.00	90.11	180.41	9,026.20	-7,703.60	-428.37	7,702.45	0.64	0.20	0.61
17,073.00	89.89	181.28	9,026.20	-7,797.59	-429.76	7,796.44	0.95	-0.23	0.93
17,168.00	90.31	180.86	9,026.04	-7,892.57	-431.53	7,891.41	0.63	0.44	-0.44
17,263.00	90.76	179.74	9,025.15	-7,987.56	-432.03	7,986.41	1.27	0.47	-1.18
17,357.00	88.82	178.17	9,025.49	-8,081.54	-430.32	8,080.39	2.65	-2.06	-1.67
17,451.00	87.79	177.83	9,028.27	-8,175.44	-427.04	8,174.29	1.15	-1.10	-0.36
17,546.00	88.91	178.21	9,031.01	-8,270.34	-423.76	8,269.21	1.24	1.18	0.40
17,640.00	90.53	178.69	9,031.47	-8,364.30	-421.21	8,363.17	1.80	1.72	0.51
17,735.00	91.18	179.19	9,030.05	-8,459.28	-419.46	8,458.15	0.86	0.68	0.53
17,830.00	91.71	179.50	9,027.65	-8,554.24	-418.37	8,553.11	0.65	0.56	0.33
17,924.00	91.65	179.27	9,024.90	-8,648.19	-417.36	8,647.07	0.25	-0.06	-0.24
18,019.00	92.30	179.64	9,021.62	-8,743.13	-416.46	8,742.01	0.79	0.68	0.39
18,114.00	91.49	180.11	9,018.48	-8,838.08	-416.25	8,836.96	0.99	-0.85	0.49
18,209.00	90.06	180.34	9,017.20	-8,933.07	-416.62	8,931.95	1.52	-1.51	0.24
18,303.00	90.64	180.68	9,016.62	-9,027.06	-417.46	9,025.94	0.72	0.62	0.36
18,398.00	90.08	180.70	9,016.03	-9,122.05	-418.61	9,120.92	0.59	-0.59	0.02
18,492.00	89.72	180.69	9,016.19	-9,216.04	-419.75	9,214.91	0.38	-0.38	-0.01
18,587.00	90.03	180.91	9,016.40	-9,311.03	-421.07	9,309.90	0.40	0.33	0.23
18,682.00	89.78	180.78	9,016.56	-9,406.02	-422.47	9,404.89	0.30	-0.26	-0.14
18,777.00	90.50	181.11	9,016.32	-9,501.01	-424.04	9,499.87	0.83	0.76	0.35
18,872.00	90.70	181.14	9,015.33	-9,595.99	-425.90	9,594.84	0.21	0.21	0.03
18,967.00	90.76	181.56	9,014.12	-9,690.95	-428.14	9,689.80	0.45	0.06	0.44
19,062.00	91.12	182.11	9,012.56	-9,785.89	-431.18	9,784.73	0.69	0.38	0.58
19,099.01	91.54	182.32	9,011.70	-9,822.86	-432.61	9,821.69	1.27	1.14	0.57
BHL - 536H									
19,156.00	92.19	182.65	9,009.85	-9,879.77	-435.09	9,878.60	1.27	1.14	0.57
Last Survey 19156'MD / 9009.85'TVD									
19,260.00	92.19	182.65	9,005.87	-9,983.58	-439.89	9,982.40	0.00	0.00	0.00
PTB 19260'MD / 9005.87'TVD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,533.00	8,502.50	410.99	-434.72	KOP 8533'MD / 8502.50'TVD
19,156.00	9,009.85	-9,879.77	-435.09	Last Survey 19156'MD / 9009.85'TVD
19,260.00	9,005.87	-9,983.58	-439.89	PTB 19260'MD / 9005.87'TVD

Checked By: _____ Approved By: _____ Date: _____

Company: Devon Energy
Field: Eddy County, New Mexico (NAD 83)
Location: Lusitano 27-34 FED COM
Well: 538H
OH
Plan: Plan 5
3336 + 26' KB @ 3362.00usft



Azimuths to Gnd North
 True North: -0.31°
 Magnetic North: 6.62°
 Magnetic Field
 Strength: 47744.5nT
 Dip Angle: 58.91°
 Date: 6/26/2018
 Model: IGRF2015

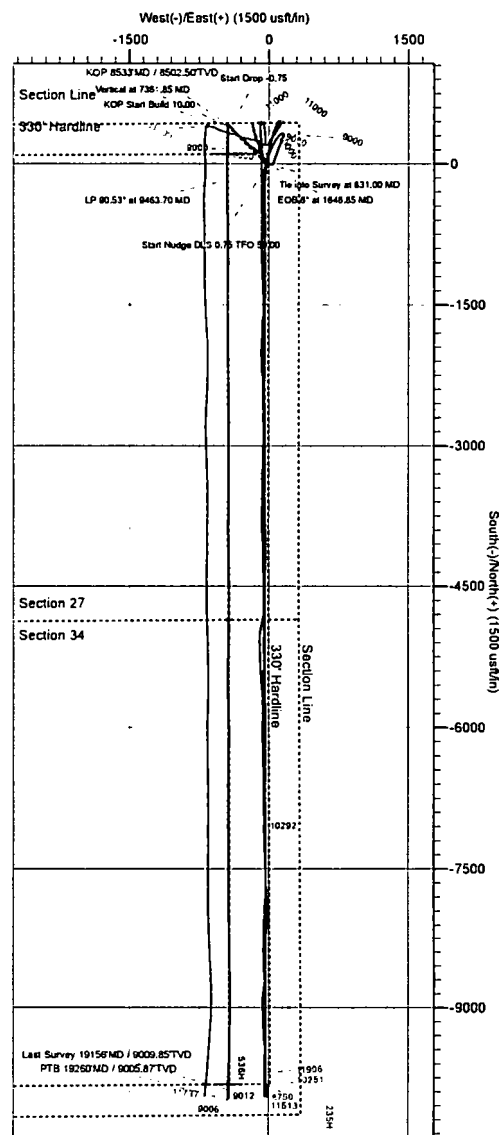
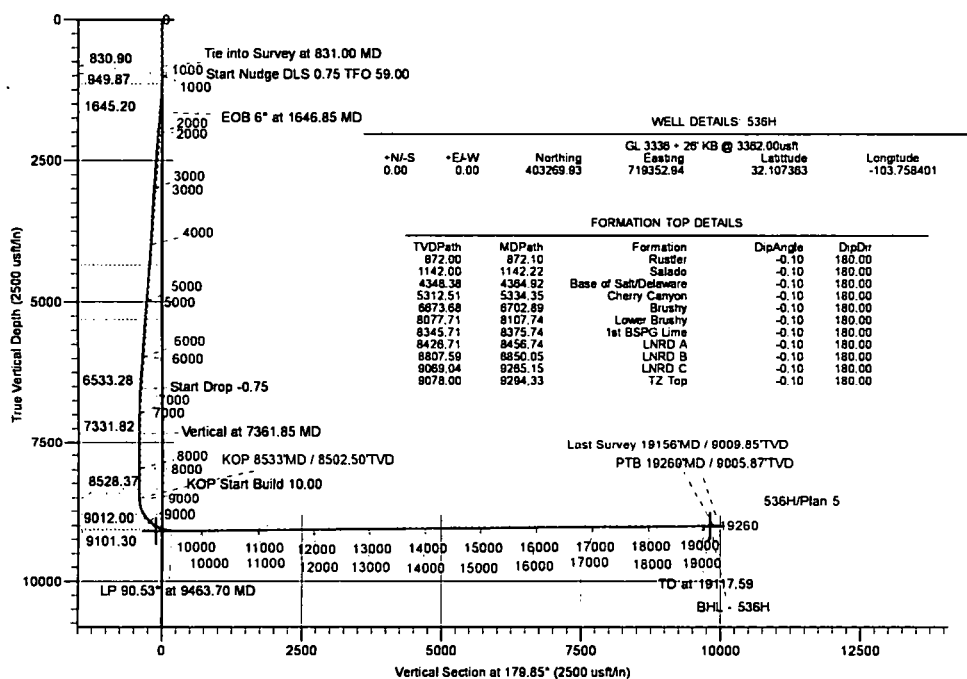


To convert a Magnetic Direction to a Grid Direction, Add 6.62°
To convert a True Direction to a Grid Direction, Subtract 0.31°

PROJECT DETAILS: Eddy County, New Mexico (NAD 83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

KOP 8553'MD / 8502.5'TVD
410.99'N / 434.72' W
Y 403680.92 / X 718918.21
Lat 32.108499 / Long -103.759798
25'FNL / 759.8'FEL Section 27



Created By Jerisa Kirkpatrick

Date: 11:31, September 19 2018