

**NM OIL CONSERVATION
ARTESIA DISTRICT**

FEB 05 2019

RECEIVED

Devon Energy

Eddy County, NM (NAD-83)

Coral

PWU 28-27 62H

30-015-44962

OH

Design: OH

Survey Report - Geographic

22 August, 2018

LEAM Drilling Services

Survey Report - Geographic

Company:	Devon Energy	Local Co-ordinate Reference:	Well PWU 28-27 62H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
Site:	Coral	MD Reference:	GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
Well:	PWU 28-27 62H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Multi User Db

Project	Eddy County, NM (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	Coral				
Site Position:		Northing:	595,949.65 usft	Latitude:	32° 38' 17.0628 N
From:	Lat/Long	Easting:	617,115.75 usft	Longitude:	104° 5' 13.7695 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13 °

Well	PWU 28-27 62H					
Well Position	+N/-S	0.00 usft	Northing:	592,241.10 usft	Latitude:	32° 37' 40.3123 N
	+E/-W	0.00 usft	Easting:	619,405.50 usft	Longitude:	104° 4' 47.0945 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,300.50 usft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	6/25/2018	7.37	60.43	48,089

Design	OH				
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	90.00	

Survey Program	Date	7/31/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	16,612.00	Survey #1 (OH)	LEAM MWD+HDGM	MWD+HDGM
16,693.00	16,693.00	Survey #2 (OH)	Project	Projection

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	592,241.10	619,405.50	32° 37' 40.3123 N	104° 4' 47.0945 W
SHL (Coral 62H) - 1220' FSL, 2601' FEL of Sec 28									
100.00	0.40	260.83	100.00	-0.06	-0.34	592,241.05	619,405.16	32° 37' 40.3117 N	104° 4' 47.0985 W
183.00	0.75	277.05	182.99	-0.04	-1.17	592,241.07	619,404.33	32° 37' 40.3120 N	104° 4' 47.1082 W
304.00	1.14	267.74	303.98	0.01	-3.16	592,241.12	619,402.35	32° 37' 40.3125 N	104° 4' 47.1314 W
397.00	1.23	277.23	396.96	0.10	-5.07	592,241.21	619,400.43	32° 37' 40.3134 N	104° 4' 47.1538 W
489.00	1.23	280.29	488.94	0.40	-7.02	592,241.51	619,398.48	32° 37' 40.3164 N	104° 4' 47.1766 W
582.00	1.36	283.38	581.91	0.84	-9.08	592,241.94	619,396.42	32° 37' 40.3208 N	104° 4' 47.2007 W
674.00	1.45	281.10	673.89	1.31	-11.28	592,242.42	619,394.22	32° 37' 40.3255 N	104° 4' 47.2264 W
767.00	0.97	262.73	766.87	1.44	-13.22	592,242.54	619,392.28	32° 37' 40.3268 N	104° 4' 47.2491 W
859.00	0.70	261.10	858.86	1.26	-14.55	592,242.36	619,390.96	32° 37' 40.3250 N	104° 4' 47.2646 W

LEAM Drilling Services

Survey Report - Geographic

Company: Devon Energy
Project: Eddy County, NM (NAD-83)
Site: Coral
Well: PWU 28-27 62H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well PWU 28-27 62H
TVD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
MD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
952.00	0.53	238.18	951.85	0.94	-15.47	592,242.04	619,390.03	32° 37' 40.3220 N	104° 4' 47.2754 W
1,044.00	0.35	237.24	1,043.85	0.57	-16.07	592,241.67	619,389.43	32° 37' 40.3182 N	104° 4' 47.2824 W
1,136.00	0.31	220.19	1,135.85	0.22	-16.47	592,241.33	619,389.03	32° 37' 40.3149 N	104° 4' 47.2871 W
1,229.00	0.40	207.09	1,228.84	-0.26	-16.78	592,240.85	619,388.72	32° 37' 40.3101 N	104° 4' 47.2907 W
1,321.00	0.31	218.34	1,320.84	-0.74	-17.08	592,240.36	619,388.42	32° 37' 40.3054 N	104° 4' 47.2943 W
1,414.00	0.31	225.64	1,413.84	-1.11	-17.42	592,239.99	619,388.09	32° 37' 40.3017 N	104° 4' 47.2982 W
1,506.00	0.35	231.61	1,505.84	-1.46	-17.81	592,239.64	619,387.69	32° 37' 40.2982 N	104° 4' 47.3029 W
1,599.00	0.48	226.49	1,598.84	-1.91	-18.32	592,239.20	619,387.18	32° 37' 40.2938 N	104° 4' 47.3088 W
1,693.00	0.31	232.58	1,692.83	-2.33	-18.81	592,238.77	619,386.70	32° 37' 40.2896 N	104° 4' 47.3145 W
1,787.00	0.31	204.63	1,786.83	-2.72	-19.11	592,238.39	619,386.39	32° 37' 40.2858 N	104° 4' 47.3181 W
1,882.00	0.44	207.62	1,881.83	-3.27	-19.39	592,237.83	619,386.11	32° 37' 40.2803 N	104° 4' 47.3213 W
1,976.00	0.31	212.37	1,975.83	-3.81	-19.69	592,237.29	619,385.81	32° 37' 40.2751 N	104° 4' 47.3249 W
2,070.00	0.26	207.80	2,069.83	-4.21	-19.93	592,236.89	619,385.57	32° 37' 40.2711 N	104° 4' 47.3277 W
2,165.00	0.26	203.31	2,164.83	-4.60	-20.12	592,236.50	619,385.39	32° 37' 40.2672 N	104° 4' 47.3299 W
2,259.00	0.35	186.44	2,258.83	-5.08	-20.23	592,236.02	619,385.27	32° 37' 40.2625 N	104° 4' 47.3312 W
2,354.00	0.40	190.22	2,353.82	-5.70	-20.32	592,235.41	619,385.18	32° 37' 40.2564 N	104° 4' 47.3323 W
2,448.00	0.44	198.57	2,447.82	-6.36	-20.50	592,234.74	619,385.01	32° 37' 40.2498 N	104° 4' 47.3344 W
2,542.00	0.57	191.89	2,541.82	-7.16	-20.71	592,233.94	619,384.80	32° 37' 40.2419 N	104° 4' 47.3369 W
2,637.00	0.53	194.35	2,636.81	-8.05	-20.91	592,233.05	619,384.59	32° 37' 40.2331 N	104° 4' 47.3393 W
2,731.00	0.62	192.59	2,730.81	-8.97	-21.13	592,232.14	619,384.37	32° 37' 40.2240 N	104° 4' 47.3419 W
2,825.00	0.62	197.16	2,824.80	-9.95	-21.39	592,231.15	619,384.11	32° 37' 40.2143 N	104° 4' 47.3450 W
2,920.00	0.88	199.62	2,919.79	-11.13	-21.79	592,229.98	619,383.71	32° 37' 40.2027 N	104° 4' 47.3496 W
3,014.00	0.83	200.94	3,013.78	-12.44	-22.28	592,228.66	619,383.23	32° 37' 40.1897 N	104° 4' 47.3553 W
3,108.00	0.70	205.16	3,107.78	-13.60	-22.76	592,227.50	619,382.74	32° 37' 40.1782 N	104° 4' 47.3611 W
3,203.00	0.83	203.23	3,202.77	-14.76	-23.28	592,226.35	619,382.22	32° 37' 40.1668 N	104° 4' 47.3672 W
3,297.00	0.83	212.19	3,296.76	-15.96	-23.91	592,225.15	619,381.59	32° 37' 40.1549 N	104° 4' 47.3746 W
3,384.00	0.70	203.31	3,383.75	-16.98	-24.46	592,224.12	619,381.04	32° 37' 40.1448 N	104° 4' 47.3810 W
3,484.00	0.70	199.10	3,483.74	-18.12	-24.90	592,222.99	619,380.60	32° 37' 40.1336 N	104° 4' 47.3862 W
3,579.00	0.60	210.50	3,578.74	-19.09	-25.34	592,222.01	619,380.16	32° 37' 40.1239 N	104° 4' 47.3914 W
3,672.00	0.50	204.70	3,671.73	-19.88	-25.76	592,221.22	619,379.74	32° 37' 40.1161 N	104° 4' 47.3963 W
3,767.00	0.50	234.80	3,766.73	-20.50	-26.27	592,220.61	619,379.23	32° 37' 40.1101 N	104° 4' 47.4023 W
3,861.00	0.50	277.50	3,860.73	-20.68	-27.01	592,220.42	619,378.49	32° 37' 40.1083 N	104° 4' 47.4110 W
3,954.00	0.50	299.80	3,953.72	-20.43	-27.77	592,220.68	619,377.74	32° 37' 40.1108 N	104° 4' 47.4198 W
4,048.00	0.40	226.70	4,047.72	-20.45	-28.36	592,220.66	619,377.14	32° 37' 40.1106 N	104° 4' 47.4267 W
4,143.00	0.50	228.60	4,142.72	-20.95	-28.91	592,220.15	619,376.59	32° 37' 40.1057 N	104° 4' 47.4332 W
4,238.00	0.70	225.50	4,237.71	-21.63	-29.64	592,219.47	619,375.86	32° 37' 40.0989 N	104° 4' 47.4417 W
4,332.00	0.30	217.90	4,331.71	-22.23	-30.20	592,218.88	619,375.30	32° 37' 40.0930 N	104° 4' 47.4483 W
4,426.00	0.10	246.20	4,425.71	-22.45	-30.43	592,218.65	619,375.08	32° 37' 40.0908 N	104° 4' 47.4509 W
4,520.00	0.30	78.50	4,519.71	-22.44	-30.26	592,218.67	619,375.24	32° 37' 40.0910 N	104° 4' 47.4490 W
4,615.00	0.26	59.88	4,614.71	-22.28	-29.83	592,218.82	619,375.67	32° 37' 40.0925 N	104° 4' 47.4440 W
4,710.00	0.97	37.03	4,709.70	-21.53	-29.16	592,219.57	619,376.34	32° 37' 40.0999 N	104° 4' 47.4361 W
4,804.00	1.76	27.01	4,803.67	-19.61	-28.02	592,221.49	619,377.48	32° 37' 40.1189 N	104° 4' 47.4228 W
4,898.00	1.49	32.98	4,897.63	-17.30	-26.70	592,223.81	619,378.80	32° 37' 40.1417 N	104° 4' 47.4073 W
4,993.00	1.32	22.09	4,992.61	-15.25	-25.62	592,225.86	619,379.88	32° 37' 40.1620 N	104° 4' 47.3945 W
5,087.00	1.67	15.23	5,086.57	-12.92	-24.85	592,228.18	619,380.65	32° 37' 40.1850 N	104° 4' 47.3855 W
5,181.00	1.06	1.34	5,180.55	-10.73	-24.47	592,230.37	619,381.03	32° 37' 40.2067 N	104° 4' 47.3810 W
5,276.00	0.88	279.61	5,275.54	-9.73	-25.17	592,231.37	619,380.33	32° 37' 40.2166 N	104° 4' 47.3891 W
5,370.00	1.41	275.56	5,369.52	-9.50	-27.03	592,231.60	619,378.47	32° 37' 40.2189 N	104° 4' 47.4109 W
5,465.00	0.35	258.86	5,464.51	-9.44	-28.48	592,231.66	619,377.02	32° 37' 40.2195 N	104° 4' 47.4278 W
5,559.00	0.26	277.14	5,558.50	-9.47	-28.98	592,231.63	619,376.53	32° 37' 40.2192 N	104° 4' 47.4336 W
5,653.00	0.79	349.21	5,652.50	-8.81	-29.31	592,232.30	619,376.19	32° 37' 40.2258 N	104° 4' 47.4375 W
5,748.00	1.23	10.84	5,747.49	-7.16	-29.24	592,233.94	619,376.26	32° 37' 40.2421 N	104° 4' 47.4366 W
5,842.00	1.58	19.10	5,841.46	-4.95	-28.63	592,236.16	619,376.88	32° 37' 40.2640 N	104° 4' 47.4294 W
5,936.00	0.70	347.28	5,935.44	-3.16	-28.33	592,237.94	619,377.18	32° 37' 40.2816 N	104° 4' 47.4259 W
6,030.00	0.26	19.45	6,029.44	-2.40	-28.38	592,238.70	619,377.12	32° 37' 40.2892 N	104° 4' 47.4265 W

LEAM Drilling Services

Survey Report - Geographic

Company: Devon Energy
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Site: Coral
Well: PWU 28-27 62H
Wellbore: OH
Design: OH

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Survey Calculation Method:
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Well PWU 28-27 62H
GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
Grid
Minimum Curvature
EDM 5000.1 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,125.00	0.70	70.07	6,124.43	-2.00	-27.77	592,239.10	619,377.74	32° 37' 40.2931 N	104° 4' 47.4193 W
6,219.00	1.23	61.81	6,218.42	-1.33	-26.34	592,239.78	619,379.17	32° 37' 40.2998 N	104° 4' 47.4025 W
6,313.00	1.58	56.19	6,312.39	-0.13	-24.37	592,240.97	619,381.13	32° 37' 40.3116 N	104° 4' 47.3795 W
6,408.00	2.02	64.27	6,407.34	1.33	-21.77	592,242.43	619,383.73	32° 37' 40.3259 N	104° 4' 47.3491 W
6,502.00	1.58	89.23	6,501.30	2.06	-18.99	592,243.17	619,386.52	32° 37' 40.3331 N	104° 4' 47.3165 W
6,597.00	1.93	109.80	6,596.25	1.54	-16.17	592,242.64	619,389.33	32° 37' 40.3279 N	104° 4' 47.2836 W
6,692.00	2.29	126.85	6,691.19	-0.14	-13.15	592,240.96	619,392.36	32° 37' 40.3112 N	104° 4' 47.2483 W
6,817.00	1.23	184.86	6,816.14	-2.98	-11.26	592,238.13	619,394.24	32° 37' 40.2831 N	104° 4' 47.2263 W
6,912.00	1.41	137.57	6,911.12	-4.86	-10.56	592,236.25	619,394.94	32° 37' 40.2645 N	104° 4' 47.2181 W
7,006.00	1.49	153.04	7,005.09	-6.80	-9.23	592,234.30	619,396.28	32° 37' 40.2452 N	104° 4' 47.2026 W
7,101.00	0.88	220.19	7,100.07	-8.46	-9.14	592,232.65	619,396.37	32° 37' 40.2288 N	104° 4' 47.2016 W
7,196.00	1.23	253.24	7,195.05	-9.31	-10.58	592,231.79	619,394.92	32° 37' 40.2204 N	104° 4' 47.2185 W
7,290.00	1.41	218.08	7,289.03	-10.51	-12.26	592,230.59	619,393.24	32° 37' 40.2086 N	104° 4' 47.2382 W
7,384.00	0.26	134.94	7,383.02	-11.57	-12.83	592,229.53	619,392.68	32° 37' 40.1981 N	104° 4' 47.2448 W
7,479.00	0.62	336.38	7,478.02	-11.25	-12.88	592,229.85	619,392.62	32° 37' 40.2012 N	104° 4' 47.2454 W
7,573.00	1.23	326.19	7,572.01	-9.95	-13.64	592,231.16	619,391.86	32° 37' 40.2142 N	104° 4' 47.2543 W
7,667.00	1.14	303.86	7,665.99	-8.59	-14.98	592,232.51	619,390.52	32° 37' 40.2276 N	104° 4' 47.2699 W
7,761.00	1.23	279.86	7,759.97	-7.89	-16.75	592,233.21	619,388.75	32° 37' 40.2345 N	104° 4' 47.2906 W
7,855.00	1.85	198.92	7,853.94	-9.16	-18.24	592,231.95	619,387.26	32° 37' 40.2221 N	104° 4' 47.3080 W
7,950.00	3.34	179.23	7,948.84	-13.38	-18.70	592,227.73	619,386.80	32° 37' 40.1804 N	104° 4' 47.3135 W
8,044.00	2.37	193.30	8,042.73	-18.01	-19.11	592,223.10	619,386.39	32° 37' 40.1346 N	104° 4' 47.3185 W
8,138.00	1.14	202.44	8,136.68	-20.76	-19.91	592,220.34	619,385.59	32° 37' 40.1073 N	104° 4' 47.3279 W
8,233.00	0.53	233.37	8,231.67	-21.90	-20.63	592,219.21	619,384.88	32° 37' 40.0961 N	104° 4' 47.3363 W
8,327.00	0.97	160.78	8,325.66	-22.91	-20.71	592,218.20	619,384.79	32° 37' 40.0861 N	104° 4' 47.3374 W
8,422.00	1.06	177.12	8,420.65	-24.54	-20.41	592,216.56	619,385.10	32° 37' 40.0699 N	104° 4' 47.3338 W
8,471.00	1.49	181.52	8,469.64	-25.63	-20.40	592,215.47	619,385.10	32° 37' 40.0591 N	104° 4' 47.3338 W
KOP (Coral 62H) - 1193' FSL, 2821' FEL of Sec 28									
8,518.00	3.43	120.70	8,516.60	-26.96	-19.21	592,214.14	619,386.30	32° 37' 40.0459 N	104° 4' 47.3199 W
8,565.00	8.79	106.99	8,563.32	-28.73	-14.56	592,212.37	619,390.94	32° 37' 40.0283 N	104° 4' 47.2656 W
8,613.00	14.16	102.95	8,610.34	-31.12	-5.32	592,209.98	619,400.18	32° 37' 40.0044 N	104° 4' 47.1576 W
8,660.00	19.43	95.03	8,655.33	-33.10	8.08	592,208.01	619,413.58	32° 37' 39.9846 N	104° 4' 47.0010 W
8,707.00	23.74	93.10	8,699.02	-34.29	25.32	592,206.81	619,430.82	32° 37' 39.9723 N	104° 4' 46.7994 W
8,754.00	28.05	96.97	8,741.29	-36.15	45.75	592,204.96	619,451.25	32° 37' 39.9535 N	104° 4' 46.5606 W
8,802.00	34.12	100.48	8,782.39	-39.97	70.21	592,201.13	619,475.72	32° 37' 39.9151 N	104° 4' 46.2746 W
8,849.00	38.60	98.73	8,820.23	-44.59	97.68	592,196.51	619,503.18	32° 37' 39.8687 N	104° 4' 45.9535 W
8,896.00	43.09	94.86	8,855.78	-48.18	128.19	592,192.92	619,533.69	32° 37' 39.8325 N	104° 4' 45.5969 W
8,943.00	47.22	90.82	8,888.92	-49.79	161.45	592,191.31	619,566.96	32° 37' 39.8158 N	104° 4' 45.2079 W
8,990.00	52.32	86.95	8,919.27	-49.05	197.30	592,192.06	619,602.81	32° 37' 39.8223 N	104° 4' 44.7887 W
9,037.00	57.42	87.65	8,946.31	-47.24	235.69	592,193.86	619,641.19	32° 37' 39.8392 N	104° 4' 44.3398 W
9,084.00	59.36	90.29	8,970.95	-46.53	275.70	592,194.57	619,681.20	32° 37' 39.8453 N	104° 4' 43.8719 W
9,131.00	64.19	89.94	8,993.17	-46.61	317.10	592,194.49	619,722.60	32° 37' 39.8435 N	104° 4' 43.3878 W
9,179.00	68.06	88.71	9,012.59	-46.09	360.98	592,195.01	619,766.48	32° 37' 39.8476 N	104° 4' 42.8746 W
9,226.00	71.14	87.65	9,028.97	-44.69	405.00	592,196.42	619,810.51	32° 37' 39.8605 N	104° 4' 42.3598 W
9,273.00	73.34	86.95	9,043.31	-42.58	449.71	592,198.53	619,855.21	32° 37' 39.8803 N	104° 4' 41.8370 W
9,320.00	75.53	88.18	9,055.92	-40.66	494.94	592,200.45	619,900.45	32° 37' 39.8982 N	104° 4' 41.3080 W
9,367.00	77.65	89.76	9,066.82	-39.84	540.65	592,201.27	619,946.15	32° 37' 39.9053 N	104° 4' 40.7735 W
9,414.00	81.07	88.00	9,075.50	-38.93	586.82	592,202.17	619,992.33	32° 37' 39.9131 N	104° 4' 40.2335 W
9,462.00	86.26	85.89	9,080.79	-36.39	634.44	592,204.72	620,039.95	32° 37' 39.9372 N	104° 4' 39.6766 W
9,576.00	90.04	87.00	9,084.47	-29.32	748.14	592,211.78	620,153.65	32° 37' 40.0044 N	104° 4' 38.3468 W
9,669.00	89.78	88.92	9,084.62	-26.01	841.08	592,215.09	620,246.58	32° 37' 40.0349 N	104° 4' 37.2600 W
9,761.00	89.78	89.45	9,084.97	-24.70	933.07	592,216.40	620,338.57	32° 37' 40.0457 N	104° 4' 36.1843 W
9,855.00	89.87	89.62	9,085.26	-23.94	1,027.06	592,217.16	620,432.57	32° 37' 40.0510 N	104° 4' 35.0851 W
9,949.00	89.96	89.80	9,085.40	-23.47	1,121.06	592,217.64	620,526.57	32° 37' 40.0534 N	104° 4' 33.9859 W
10,043.00	90.22	89.80	9,085.25	-23.14	1,215.06	592,217.97	620,620.57	32° 37' 40.0544 N	104° 4' 32.8867 W
10,137.00	88.64	89.45	9,086.19	-22.52	1,309.05	592,218.58	620,714.56	32° 37' 40.0582 N	104° 4' 31.7876 W

LEAM Drilling Services

Survey Report - Geographic

Company: Devon Energy
 Project: Eddy County, NM (NAD-83)
 Site: Coral
 Well: PWU 28-27 62H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well PWU 28-27 62H
 TVD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
 MD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,231.00	88.64	89.62	9,088.42	-21.76	1,403.02	592,219.34	620,808.53	32° 37' 40.0635 N	104° 4' 30.6887 W
10,326.00	88.81	89.80	9,090.53	-21.28	1,498.00	592,219.82	620,903.50	32° 37' 40.0660 N	104° 4' 29.5781 W
10,420.00	89.34	89.97	9,092.05	-21.09	1,591.99	592,220.01	620,997.49	32° 37' 40.0656 N	104° 4' 28.4790 W
10,515.00	89.60	89.97	9,092.93	-21.04	1,686.98	592,220.06	621,092.49	32° 37' 40.0638 N	104° 4' 27.3682 W
10,609.00	89.69	89.97	9,093.51	-20.99	1,780.98	592,220.11	621,186.48	32° 37' 40.0620 N	104° 4' 26.2690 W
10,704.00	90.04	89.97	9,093.73	-20.94	1,875.98	592,220.16	621,281.48	32° 37' 40.0602 N	104° 4' 25.1581 W
10,798.00	90.57	90.15	9,093.23	-21.04	1,969.98	592,220.06	621,375.48	32° 37' 40.0570 N	104° 4' 24.0589 W
10,892.00	89.78	89.80	9,092.95	-21.00	2,063.98	592,220.10	621,469.48	32° 37' 40.0551 N	104° 4' 22.9598 W
10,986.00	89.16	89.80	9,093.82	-20.67	2,157.97	592,220.43	621,563.47	32° 37' 40.0561 N	104° 4' 21.8606 W
11,081.00	89.08	89.62	9,095.27	-20.19	2,252.96	592,220.91	621,658.46	32° 37' 40.0585 N	104° 4' 20.7498 W
11,175.00	88.90	89.62	9,096.93	-19.57	2,346.94	592,221.54	621,752.45	32° 37' 40.0624 N	104° 4' 19.6508 W
11,269.00	89.43	89.80	9,098.30	-19.09	2,440.93	592,222.01	621,846.43	32° 37' 40.0648 N	104° 4' 18.5517 W
11,363.00	89.69	88.74	9,099.02	-17.89	2,534.92	592,223.21	621,940.42	32° 37' 40.0744 N	104° 4' 17.4527 W
11,430.51	90.39	88.74	9,098.98	-16.41	2,602.41	592,224.69	622,007.91	32° 37' 40.0874 N	104° 4' 16.6634 W
Sec 28/27 Crossing - 11430.51' MD									
11,457.00	90.66	88.74	9,098.74	-15.83	2,628.89	592,225.28	622,034.40	32° 37' 40.0925 N	104° 4' 16.3537 W
11,551.00	91.45	89.09	9,097.01	-14.05	2,722.86	592,227.06	622,128.36	32° 37' 40.1079 N	104° 4' 15.2548 W
11,646.00	91.28	88.39	9,094.74	-11.96	2,817.81	592,229.15	622,223.31	32° 37' 40.1262 N	104° 4' 14.1445 W
11,740.00	90.84	88.39	9,093.00	-9.32	2,911.76	592,231.79	622,317.26	32° 37' 40.1500 N	104° 4' 13.0458 W
11,834.00	90.48	89.97	9,091.92	-7.97	3,005.74	592,233.13	622,411.24	32° 37' 40.1610 N	104° 4' 11.9468 W
11,928.00	90.57	90.50	9,091.06	-8.36	3,099.73	592,232.75	622,505.24	32° 37' 40.1549 N	104° 4' 10.8477 W
12,022.00	90.57	90.15	9,090.12	-8.89	3,193.73	592,232.21	622,599.23	32° 37' 40.1473 N	104° 4' 9.7486 W
12,116.00	90.40	90.15	9,089.33	-9.14	3,287.72	592,231.97	622,693.23	32° 37' 40.1426 N	104° 4' 8.6494 W
12,210.00	89.96	91.03	9,089.03	-10.11	3,381.72	592,231.00	622,787.22	32° 37' 40.1307 N	104° 4' 7.5503 W
12,304.00	89.78	91.03	9,089.25	-11.79	3,475.70	592,229.31	622,881.20	32° 37' 40.1117 N	104° 4' 6.4513 W
12,399.00	89.43	91.20	9,089.90	-13.64	3,570.68	592,227.46	622,976.18	32° 37' 40.0910 N	104° 4' 5.3407 W
12,494.00	89.34	90.85	9,090.92	-15.34	3,665.66	592,225.76	623,071.16	32° 37' 40.0719 N	104° 4' 4.2301 W
12,589.00	88.20	91.20	9,092.96	-17.04	3,760.62	592,224.06	623,166.12	32° 37' 40.0527 N	104° 4' 3.1198 W
12,683.00	87.58	91.56	9,096.42	-19.30	3,854.53	592,221.80	623,260.03	32° 37' 40.0280 N	104° 4' 2.0217 W
12,778.00	88.11	91.38	9,099.99	-21.74	3,949.43	592,219.36	623,354.93	32° 37' 40.0015 N	104° 4' 0.9120 W
12,872.00	88.20	91.56	9,103.02	-24.15	4,043.35	592,216.95	623,448.85	32° 37' 39.9754 N	104° 3' 59.8138 W
12,967.00	88.11	91.73	9,106.08	-26.88	4,138.26	592,214.23	623,543.77	32° 37' 39.9460 N	104° 3' 58.7041 W
13,061.00	89.25	90.68	9,108.24	-28.85	4,232.21	592,212.25	623,637.72	32° 37' 39.9241 N	104° 3' 57.6055 W
13,156.00	89.08	90.85	9,109.63	-30.12	4,327.19	592,210.98	623,732.70	32° 37' 39.9092 N	104° 3' 56.4948 W
13,250.00	88.72	91.03	9,111.43	-31.66	4,421.16	592,209.44	623,826.67	32° 37' 39.8916 N	104° 3' 55.3960 W
13,344.00	88.81	89.80	9,113.46	-32.34	4,515.14	592,208.76	623,920.64	32° 37' 39.8825 N	104° 3' 54.2972 W
13,439.00	89.16	89.62	9,115.14	-31.86	4,610.12	592,209.24	624,015.63	32° 37' 39.8849 N	104° 3' 53.1865 W
13,533.00	89.43	89.80	9,116.30	-31.39	4,704.11	592,209.72	624,109.62	32° 37' 39.8873 N	104° 3' 52.0873 W
13,627.00	89.60	89.80	9,117.09	-31.06	4,798.11	592,210.05	624,203.61	32° 37' 39.8882 N	104° 3' 50.9882 W
13,722.00	89.87	89.80	9,117.53	-30.73	4,893.11	592,210.38	624,298.61	32° 37' 39.8891 N	104° 3' 49.8773 W
13,816.00	89.25	89.97	9,118.26	-30.54	4,987.10	592,210.57	624,392.61	32° 37' 39.8886 N	104° 3' 48.7781 W
13,911.00	89.16	89.97	9,119.57	-30.49	5,082.10	592,210.62	624,487.60	32° 37' 39.8867 N	104° 3' 47.6674 W
14,005.00	89.08	89.97	9,121.02	-30.44	5,176.08	592,210.67	624,581.59	32° 37' 39.8848 N	104° 3' 46.5683 W
14,099.00	88.99	90.32	9,122.60	-30.68	5,270.07	592,210.43	624,675.57	32° 37' 39.8801 N	104° 3' 45.4693 W
14,193.00	88.72	90.50	9,124.48	-31.35	5,364.05	592,209.75	624,769.55	32° 37' 39.8711 N	104° 3' 44.3703 W
14,287.00	88.55	90.50	9,126.72	-32.17	5,458.02	592,208.93	624,863.52	32° 37' 39.8606 N	104° 3' 43.2715 W
14,381.00	87.93	90.85	9,129.61	-33.28	5,551.97	592,207.83	624,957.47	32° 37' 39.8472 N	104° 3' 42.1729 W
14,475.00	88.64	90.32	9,132.42	-34.23	5,645.92	592,206.87	625,051.42	32° 37' 39.8354 N	104° 3' 41.0743 W
14,570.00	89.16	90.15	9,134.24	-34.62	5,740.90	592,206.48	625,146.40	32° 37' 39.8291 N	104° 3' 39.9637 W
14,665.00	89.25	89.97	9,135.56	-34.72	5,835.89	592,206.38	625,241.40	32° 37' 39.8257 N	104° 3' 38.8529 W
14,759.00	89.60	90.32	9,136.50	-34.96	5,929.89	592,206.14	625,335.39	32° 37' 39.8210 N	104° 3' 37.7538 W
14,854.00	89.78	89.45	9,137.02	-34.77	6,024.88	592,206.33	625,430.39	32° 37' 39.8204 N	104° 3' 36.6429 W
14,948.00	89.78	89.09	9,137.38	-33.57	6,118.88	592,207.53	625,524.38	32° 37' 39.8299 N	104° 3' 35.5438 W
15,042.00	89.96	89.45	9,137.59	-32.38	6,212.87	592,208.73	625,618.37	32° 37' 39.8394 N	104° 3' 34.4446 W
15,136.00	89.96	89.45	9,137.66	-31.47	6,306.86	592,209.63	625,712.37	32° 37' 39.8459 N	104° 3' 33.3455 W

LEAM Drilling Services

Survey Report - Geographic

Company: Devon Energy
Project: Eddy County, NM (NAD-83)
Site: Coral
Well: PWU 28-27 62H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well PWU 28-27 62H
TVD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
MD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,230.00	89.60	88.22	9,138.02	-29.56	6,400.84	592,211.54	625,806.34	32° 37' 39.8624 N	104° 3' 32.2465 W
15,324.00	87.49	88.57	9,140.41	-26.93	6,494.77	592,214.17	625,900.27	32° 37' 39.8860 N	104° 3' 31.1480 W
15,418.00	86.97	88.22	9,144.95	-24.30	6,588.62	592,216.80	625,994.12	32° 37' 39.9097 N	104° 3' 30.0505 W
15,512.00	86.53	88.57	9,150.28	-21.67	6,682.43	592,219.43	626,087.94	32° 37' 39.9333 N	104° 3' 28.9534 W
15,607.00	87.93	89.62	9,154.87	-20.17	6,777.31	592,220.93	626,182.81	32° 37' 39.9457 N	104° 3' 27.8439 W
15,701.00	88.37	89.80	9,157.90	-19.70	6,871.26	592,221.41	626,276.76	32° 37' 39.9480 N	104° 3' 26.7453 W
15,795.00	87.49	89.62	9,161.30	-19.22	6,965.19	592,221.88	626,370.70	32° 37' 39.9502 N	104° 3' 25.6469 W
15,889.00	88.64	90.50	9,164.47	-19.32	7,059.14	592,221.78	626,464.64	32° 37' 39.9469 N	104° 3' 24.5483 W
15,983.00	88.55	90.85	9,166.78	-20.43	7,153.10	592,220.67	626,558.60	32° 37' 39.9335 N	104° 3' 23.4496 W
16,077.00	89.60	91.56	9,168.29	-22.40	7,247.07	592,218.70	626,652.57	32° 37' 39.9115 N	104° 3' 22.3508 W
16,172.00	90.66	92.08	9,168.08	-25.42	7,342.02	592,215.68	626,747.52	32° 37' 39.8792 N	104° 3' 21.2406 W
16,266.00	90.66	91.91	9,167.00	-28.69	7,435.95	592,212.41	626,841.46	32° 37' 39.8444 N	104° 3' 20.1423 W
16,360.00	91.01	92.26	9,165.63	-32.11	7,529.88	592,208.99	626,935.38	32° 37' 39.8081 N	104° 3' 19.0440 W
16,387.15	91.04	92.11	9,165.14	-33.15	7,557.01	592,207.96	626,962.51	32° 37' 39.7972 N	104° 3' 18.7268 W
330' FEL HL Crossing - 16387.15' MD									
16,454.00	91.10	91.73	9,163.90	-35.39	7,623.81	592,205.72	627,029.31	32° 37' 39.7733 N	104° 3' 17.9458 W
16,549.00	89.87	90.68	9,163.09	-37.38	7,718.78	592,203.72	627,124.28	32° 37' 39.7511 N	104° 3' 16.8353 W
16,612.00	89.78	90.85	9,163.28	-38.22	7,781.77	592,202.88	627,187.28	32° 37' 39.7411 N	104° 3' 16.0987 W
LTP (Coral 62H) - 1198' FSL, 100' FEL of Sec 27									
16,693.00	89.78	90.85	9,163.59	-39.43	7,862.76	592,201.68	627,268.26	32° 37' 39.7271 N	104° 3' 15.1517 W
Projection - BHL (Coral 62H) - 1195' FSL, 24' FEL of Sec 27 - PBHL (Coral 62H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (Coral 62H) - 1220' - actual wellpath hits target center - Point	0.00	0.00	0.00	0.00	0.00	592,241.10	619,405.50	32° 37' 40.3123 N	104° 4' 47.0945 W
KOP (Coral 62H) - 1193' - actual wellpath hits target center - Point	0.00	0.00	8,469.64	-25.63	-20.40	592,215.47	619,385.10	32° 37' 40.0591 N	104° 4' 47.3338 W
Sec 28/27 Crossing - 11. - actual wellpath hits target center - Point	0.00	0.00	9,098.98	-16.41	2,602.41	592,224.69	622,007.91	32° 37' 40.0874 N	104° 4' 16.6634 W
LTP (Coral 62H) - 1198' - actual wellpath misses target center by 6.48usft at 16612.00usft MD (9163.28 TVD, -38.22 N, 7781.77 E) - Point	0.00	0.00	9,163.31	-38.32	7,788.25	592,202.78	627,193.75	32° 37' 39.7400 N	104° 3' 16.0229 W
BHL (Coral 62H) - 1195' - actual wellpath misses target center by 0.01usft at 16693.00usft MD (9163.59 TVD, -39.43 N, 7862.76 E) - Point	0.00	0.00	9,163.59	-39.43	7,862.76	592,201.67	627,268.26	32° 37' 39.7271 N	104° 3' 15.1517 W
330' FEL HL Crossing - - actual wellpath hits target center - Point	0.00	0.00	9,165.14	-33.15	7,557.01	592,207.95	626,962.51	32° 37' 39.7972 N	104° 3' 18.7268 W

LEAM Drilling Services

Survey Report - Geographic

Company: Devon Energy
Project: Eddy County, NM (NAD-83)
Site: Coral
Well: PWU 28-27 62H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well PWU 28-27 62H
TVD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
MD Reference: GE 3300.5' + KB 26' @ 3326.50usft (H&P 466)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
16,693.00	9,163.59	-39.43	7,862.76	Projection

Checked By: _____ Approved By: _____ Date: _____

Devon Energy

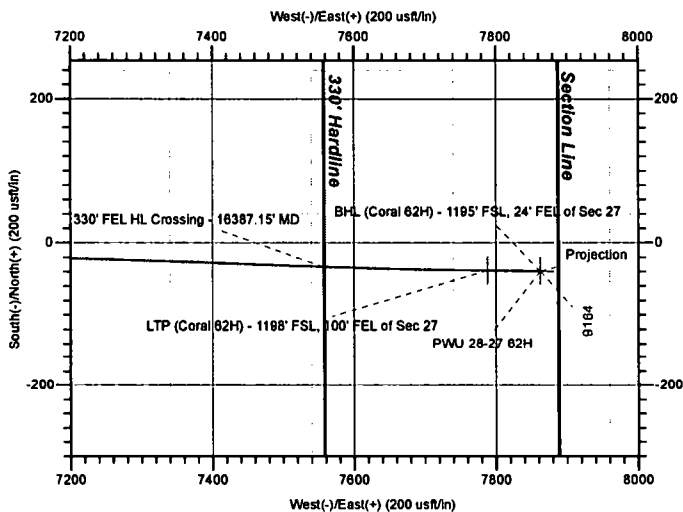
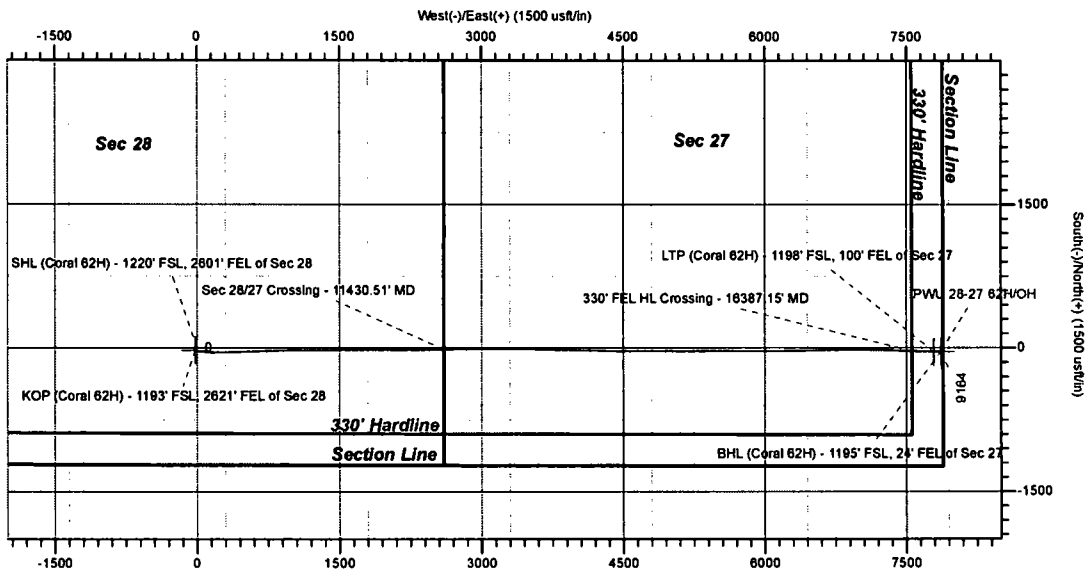
Project: Eddy County, NM (NAD-83)
Site: Coral
Well: PWU 28-27 62H
Wellbore: OH
Design: OH



Azimuths to Grid North
True North: -0.14°
Magnetic North: 7.23°

Magnetic Field
Strength: 48088.8nT
Dip Angle: 60.43°
Date: 6/25/2018
Model: HDGM

PROJECT DETAILS: Eddy County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone



DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
330' FEL HL Crossing	9165.14	-33.15	7557.01	592207.85	620982.51	32° 37' 38.7972 N	104° 3' 18.7258 W
BHL (Coral 62H)	9163.59	-39.43	7882.78	592201.87	627288.26	32° 37' 38.7271 N	104° 3' 15.1517 W
KOP (Coral 62H)	8469.64	-25.63	-20.40	592215.47	619385.10	32° 37' 40.0591 N	104° 4' 47.3338 W
LTP (Coral 62H)	9163.31	-38.32	7788.25	592202.78	627193.75	32° 37' 39.7400 N	104° 3' 16.0229 W
Sec 28/27 Crossing	9098.98	-18.41	2602.41	592224.89	622007.91	32° 37' 40.0874 N	104° 4' 16.6634 W
SHL (Coral 62H)	0.00	0.00	0.00	592241.10	619405.50	32° 37' 40.3123 N	104° 4' 47.0945 W

ACTUAL LINE CALLS
SHL: 1220' FSL, 2601' FEL of Sec 28
BHL: 1195' FSL, 24' FEL of Sec 27



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax: 936/756-7595

Design: OH (PWU 28-27 62H/OH)
Created By: Dustin Aull
Date: 1421, August 22 2016
Approved: _____
Date: _____