

Schlumberger

Marathon Madera 19 Fed Com 26-35-19 TB 1H MWD 0' to 20068' Survey Geodetic Report



(Def Survey)

Report Date: Client: Field:

Structure / Slot:

Survey Name:

Borehole: UWI / API#:

Survey Date: Tort / AHD / DDI / ERD Ratio:

Coordinate Reference System: Location Lat / Long: Location Grid N/E Y/X: CRS Grid Convergence Angle:

Grid Scale Factor:

Version / Patch:

January 31, 2019 - 04:04 PM Marathon Oil Corporation NM Lea County (NAD 27)

Marathon Madera 19 Federal Com 26 35 19 (1-2-5-6) / Madera 19 Federal Com 26 35 19 TB 1H Madera 19 Federal Com 26 35 19 TB 1H

Unknown / Unknown

Unknown / Unknown Marathon Madera 19 Fed Com 26-35-19 TB 1H MWD 0' to 20068' January 17, 2019 258.176 * / 8540.633 ft / 6.548 / 0.681 NAD27 New Mexico State Plane. Eastern Zone, US Feet N 32" 1' 20.55258", W 103" 24' 36.87693" N 373098.870 ft US E 786088.770 ft US 0.4895 * 1.0000734

1.00000284

2.10.753.0

Survey / DLS Computation: Vertical Section Azimuth: Vertical Section Origin:

TVD Reference Datum: TVD Reference Elevation:

Seabed / Ground Elevation: Magnetic Declination: Total Gravity Field Strength:

Gravity Model:
Total Magnetic Field Strength:
Magnetic Dip Angle:
Declination Date:
Magnetic Declination Model:

Grid Convergence Used: Total Corr Mag North->Grid

Minimum Curvature / Lubinski 359.480 ° (Grid North)

0.000 ft, 0.000 ft KB 26.50 ft

3211,500 ft above 3185.000 ft above

6.625 ° 998.4547mgn (9.80665 Based) GARM 47690.877 nT

59.671 * January 17, 2019 HDGM 2019 Grid North

0.4895 * 6 1354 * Head

North:	0.1354
Local Coord Referenced To:	Well H

Comments	MD (ft)	Incl (°)	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing		titude Longitude
urface	0.00	0.00	0.00	0.00	(ft) 0.00	(ft) 0.00	(ft) 0.00	(°/100ft) N/A	(ftUS) 373098.87	(ftUS) (N/5 786088.77 N 32 1	S * ' ") (E/W * ' ")
egin Third						0.00	0.00	IWA	3/3030.07	700000.77 N 32 1	20.65 W 103 24 36.88
Party MWD Survey	178.00	0.80	78.60	177.99	0.23	0.25	1.22	0.45	373099.12	786089.99 N 32 1	20.65 W 103 24 36.86
	239.00	0.90	84.60	238,99	0.36	0.37	2,11	0.22	373099,24	786090.88 N 32 1	20.66 W 103 24 36.85
	331,00 422,00	1.00	82.40	330.97	0.52	0.55	3.63	0.12	373099.42	786092.40 N 32 1	20.66 W 103 24 36.83
1	513.00	0.70 0.40	106.00	421.97 512.96	-0.02	0.50	4.95 5.44	0.50	373099.37	786093.72 N 32 1	20.66 W 103 24 36.82
	605.00	0.40	203.20	604.96	-0.63	-0.58	5.27	0.83	373098.90 373098.29		20.65 W 103 24 36.81
1	696.00	0.50	196.00	695.96	-1.30	-1.25	5.03	0.13	373097.62		20.65 W 103 24 36.82 20.64 W 103 24 36.82
	788.00 879.00	0.60	198.20 199.30	787.95 878.95	-2.14 -2.97	-2.10	4.77	0.11	373096.77	786093.54 N 32 1	20.63 W 103 24 36.82
1	970.00	0.50	211.00	969.94	-3.68	-2.92 -3.64	4.49 4.16	0.11	373095.95 373095.23		20.62 W 103 24 36.83
	1061.00	0.50	217.80	1060.94	-4.33	-4.29	3.71	0.07	373094.58		20.62 W 103 24 36.83 20.61 W 103 24 36.83
	1121,00 1245.00	0.50 0.10	225.10 279.10	1120.94	-4.72	-4.69	3.36	0.11	373094.18	786092.13 N 32 1	20.61 W 103 24 36.84
	1337.00	0.00	158.50	1244.94 1336.94	-5.08 -5.06	-5.05 -5.04	2.87 2.79	0.36	373093,82 373093,83		20,60 W 103 24 36,84
1	1431.00	0.10	63,00	1430.94	-5.03	-5.00	2.87	0.11	373093.87		20.60 W 103 24 36.84 20.60 W 103 24 36.84
1	1526.00 1620.00	0.10	132.10	1525.94	-5,05	-5.02	3.00	0.12	373093.85	786091,77 N 32 1:	20.60 W 103 24 36.84
	1715.00	0.10	151.10 159,60	1619.94 1714.94	-5.32 -5.61	-5.29 -5.58	3.18 3.33	0.22	373093.58		20.60 W 103 24 36.84
	1809,00	1.60	236.00	1808.92	-6.42	-6.39	2.27	1.68	373093.29 373092.48		20.60 W 103 24 36.84 20.59 W 103 24 36.85
	1904.00 1998.00	3.50 5.30	233.40	1903.83	-8.85	-8.87	-1.16	2.00	373090.00		20.56 W 103 24 36.89
	2093.00	6.60	236.70 243.30	1997.54 2092.03	-12.90 -17.68	-12.96 -17.82	-7.09	1.93	373085.91	786081.68 N 32 1	20.52 W 103 24 36.96
1	2187.00	8.80	249.80	2185.18	-22.49	-22.73	-15.64 -27.21	1.54 2.51	373081.05 373076.14		20.48 W 103 24 37.06 20.43 W 103 24 37.20
	2282.00 2376.00	9.20	250.10	2279.01	-27.45	-27.83	-41.17	0.42	373071.04		20.38 W 103 24 37.36
	2470.00	8.90 8.80	249.50	2371.84 2464.72	-32.43 -37.40	-32.93 -38.02	-55.05 -68.59	0.33	373065.94	786033.72 N 32 12	20.33 W 103 24 37.52
	2565.00	8.50	249.50	2558.64	-42,30	-43.05	-81,96	0.11	373060.85 373055.82		20.28 W 103 24 37.68 20.23 W 103 24 37.83
	2659.00	8.10	248.70	2651.66	-47.02	-47.89	-94.64	0.44	373050,98		20.19 W 103 24 37.88
	2754.00 2848.00	8.60 9.00	249.70 249.40	2745.65 2838.54	-51.80 -56.71	-52.78	-107,53	0.55	373046,09	785981.24 N 32 12	20.14 W 103 24 38.13
	2942,00	8.60	249.40	2931.43	-61.64	-57.81 -62,87	-121.01 -134.47	0.43	373041.06 373036.00		20.09 W 103 24 38.29
	3037.00 3131.00	8.90 10.30	250.00	3025,33	-66.53	-67.88	-148.02	0.33	373030,99		20.04 W 103 24 38,44 19.99 W 103 24 38,60
	3226.00	10.30	250.60 249.80	3118.01 3211.49	-71.68 -77.26	-73.16 -78.88	-162.78	1.49	373025.71	785925.99 N 32 1 1	19.94 W 103 24 38.77
1	3320.00	9.70	251.00	3304.08	-82.57	-84.33	-178.69 -193.99	0.18 0.58	373019.99 373014.54	785910.08 N 32 1 1	19.89 W 103 24 38.96
	3414.00	8.70	251.90	3396.87	-87.23	-89.12	-208.23	1.07	373009.75		19.83 W 103 24 39.14 19.79 W 103 24 39.30
1	3509.00 3603.00	8.40 9.80	248.90 250.30	3490.81 3583.63	-91.84 -96.88	-93.85	-221.54	0.57	373005.02	785867.23 N 32 11	19.74 W 103 24 39.46
	3698.00	9.20	253.10	3677.33	-101.68	-99.02 -103.95	-235.47 -250.35	1.51 0.80	372999.85 372994.92		19.69 W 103 24 39.62
	3792,00 3887,00	9.70	252.30	3770.05	-106.14	-108.55	-265.09	0.55	372990,32		9.65 W 103 24 39.79 9.60 W 103 24 39.97
	3981,00	10.60 11.40	252.30 253.10	3863,56 3955,83	-111.08 -116.25	-113.64	-281.04	0.95	372985.23	785807.73 N 32 11	9.55 W 103 24 40.15
1	4076.00	11.20	253.30	4048.99	-121.47	-118.97 -124.35	-298.16 -315.98	0.87	372979,90 372974.52	785790.61 N 32 11	
1	4170.00	9.70	256.80	4141.43	-125.76	-128.78	-332.44	1.73	372970.09		9.45 W 103 24 40.56 9.41 W 103 24 40.75
	4264.00 4359.00	10.10 11.50	257.30 254.20	4234.03 4327.35	-129.23	-132.40	-348.19	0.44	372966.47	785740.58 N 32 11	9.37 W 103 24 40.93
	4453.00	11.40	251.90	4419.48	-133.49 -138.76	-136.81 -142.25	-365.43 -383.27	1.59 0.50	372962.06 372956.62	785723.34 N 32 11	9.33 W 103 24 41.13
1	4547.00 4642.00	10.60	254.10	4511.75	-143.86	-147.50	-400.42	0.96	372951.37	785705.50 N 32 1 1 785688.35 N 32 1 1	9.28 W 103 24 41.34 9.23 W 103 24 41.54
	4736.00	10.30	250.90 247.00	4605.18 4697.65	-148.88	-152.67	-416.85	0.69	372946.20	785671.92 N 32 1 1	9.18 W 103 24 41.73
	4831.00	9.50	247.50	4791.22	-154.81 -161.02	-158.74 -165.09	-432.60 -447.73	0.75 0.95	372940.13 372933.78	785656.17 N 32 1 1	9.12 W 103 24 41.92
	4925.00	8.70	244.50	4884.03	-166.92	-171.12	-461.32	0.99	372927.75		9.06 W 103 24 42.09 9.00 W 103 24 42.25
	5020.00 5114.00	8.50 9.60	242,90	4977.97 5070.79	-173.10 -179.58	-177.41	-474.05	0.33	372921.46	785614.72 N 32 1 1	8.94 W 103 24 42,40
	5209.00	10.10	245.30	5164.39	-186.40	-184.01 -190.96	-487.28 -501.97	1.18	372914.86 372907.91	785601.49 N 32 1 1	8.87 W 103 24 42.55
1	5303.00	9.30	246.50	5257.05	-192.74	-197.44	-516.42	0.88	372901.43		8.81 W 103 24 42.73 8.74 W 103 24 42.89
	5352.00 5483.00	8,80 8.30	246.40 246.80	5305.44 5434.98	-195.76	-200.52	-523.49	1.02	372898.35	785565.28 N 32 1 18	8.71 W 103 24 42.98
	5578.00	9.70	250.60	5528.81	-203.33 -208.57	-208.25 -213.61	-541.36 -555.22	0.38	372890.62	785547.41 N 32 1 18	8.64 W 103 24 43.19
	5673.00	10.50	251.20	5622.34	-213.87	-219.06	-570.96	1.60	372885.26 372879.81		8.59 W 103 24 43.35 8.53 W 103 24 43.53
1	5767.00 5862.00	10.40	249.20 249.40	5714.78	-219.50	-224.83	-587.00	0.40	372874.04		8.48 W 103 24 43.72
	5956,00	9,80	249.90	5808.26 5900.85	-225.33 -230.84	-230.81 -236.46	-602.81 -618.04	0.32	372868.06	785485.96 N 32 1 18	8.42 W 103 24 43.90
1	6050.00	9.60	250.80	5993.51	-236.03	-241.79	-632.95	0.33	372862,41 372857,08	785470.73 N 32 1 18 785455.82 N 32 1 18	3.36 W 103 24 44.08 3.31 W 103 24 44.25
1	6145.00 6239.00	9.70 7.60	249.40 254.20	6087.16	-241.32	-247.21	-647.93	0.27	372851.66		3.26 W 103 24 44.23
	6333,00	6,60	246.50	6180.09 6273.37	-245.67 -249.42	-251,69 -255,53	-661.32 -672.36	2.36	372847.18	785427.45 N 32 1 18	3.22 W 103 24 44,58
	6428.00	4.70	247.30	6367.90	-253.02	-259.21	-672,26 -680.86	1.47 2.00	372843,34 372839.66		3.18 W 103 24 44.71
	6522.00 6617.00	2.60	248.50	6461.71	-255.24	-261.48	-686.39	2.24	372837.39		3.15 W 103 24 44,81 3.12 W 103 24 44,87
	6711.00	0.60	271.60 297.40	6556.67 6650.66	-255.99 -255.74	-262.26 -262.02	-688.90	2.17	372836.61	785399.87 N 32 1 18	1.12 W 103 24 44.90
	6805.00	0.50	267.10	6744,66	-255.53	-262.02	-689.82 -690.67	0.28	372836.85 372837.06	785398.94 N 32 1 18	3.12 W 103 24 44.91
	6900.00 6994.00	0.40	268.80	6839.65	-255.55	-261.84	-691.42	0.11	372837.03		I.12 W 103 24 44.92 I.12 W 103 24 44.93
	7088.00	0.50	273.70 267.90	6933.65 7037.65	-255.53	-261.82	-692.15	0.11	372837.05		1.12 W 103 24 44.94
	1000.00	0.30	201.30	7027.65	-255.51	-261.81	-692.97	0.05	372837.06	785395.80 N 32 1 18	.12 W 103 24 44.95

C	MD	Incl	Azim Grid	TVD	VSEC	NS	EW	DLS	Northing	Easting Latitude Longitude
Comments	(ft) 7183.00	0.90	(°) 8.00	(ft) 7122.64	(ft) -254.78	(ft) -261.08	(ft)	(°/100ft)	(ftUS)	(ftUS) (N/S * ' ") (E/W * ' ")
	7277.00	1.30	9.00	7216.63	-253.00	-259.30	-693.28 -693.01	1.16 0.43	372837.79 372839.57	785395.49 N 32 1 18.13 W 103 24 44.95 785395.76 N 32 1 18.15 W 103 24 44.95
	7372.00 7466.00	1.10 1.20	22.00 18.00	7311.60 7405.59	-251.09 -249.33	-257,39 -255,62	-692.50	0.35	372841.48	785396.27 N 32 1 18.16 W 103 24 44.95
	7561.00	1.10	10,60	7500.57	-247.49	-253.77	-691.86 -691.39	0.14 0.19	372843,25 372845,10	785396.91 N 32 1 18.18 W 103 24 44.94 785397.38 N 32 1 18.20 W 103 24 44.93
	7655,00 7749,00	0.80	15.70 16.30	7594,55 7688,54	-245.97	-252.26	-691,04	0.33	372846.61	785397.73 N 32 1 18.21 W 103 24 44.93
	7844,00	0.70	0.40	7783.54	-244.72 -243.50	-250.99 -249.78	-690.68 -690.49	0.01	372847,88 372849,09	785398.09 N 32 1 18.23 W 103 24 44.92 785398.28 N 32 1 18.24 W 103 24 44.92
	7938,00 8032,00	0.80	343.60 342.30	7877.53 7971.52	-242.29 -241.19	-248.57	-690,67	0.26	372850.30	785398.10 N 32 1 18.25 W 103 24 44.92
	8127,00	0.40	354.90	8066.52	-240.39	-247.48 -245.67	-691.01 -691.19	0.21 0.24	372851.39 372852.20	785397.76 N 32 1 18.26 W 103 24 44.93 785397.58 N 32 1 18.27 W 103 24 44.93
	8221.00 8316.00	0.40	6.30	8160.52	-239.73	-246.02	-691.18	0.08	372852.85	785397.59 N 32 1 18.28 W 103 24 44.93
	8410.00	0.50	1.60	8255.51 8349.51	-238.91 -238.02	-245.19 -244.30	-691.13 -691.02	0.21 0.16	372853.68 372854.57	785397.64 N 32 1 18.28 W 103 24 44.93 785397.75 N 32 1 18.29 W 103 24 44.93
	8505.00	0.80	16,30	8444.50	-236.98	-243.26	-690.74	0.32	372855.61	785398.03 N 32 1 18.30 W 103 24 44.92
	8600,00 8694,00	0.80	17,00	8539.49 8633.48	-235.79 -234.62	-242.07 -240.89	-690,39 -690,02	0,11 0,11	372856.80 372857.98	785398.38 N 32 1 18.32 W 103 24 44.92 785398.75 N 32 1 18.33 W 103 24 44.91
	8789.00 8883.00	0.60	15.40 15.60	8728.48 8822.47	-233,51	-239.78	-689.69	0.21	372859,09	785399.08 N 32 1 18.34 W 103 24 44.91
	8978.00	0.30	273,50	8917.47	-232.57 -232.07	-238.83 -238.34	-689.42 -689.54	0.00	372860.04 372860.53	785399.35 N 32 1 18.35 W 103 24 44,91 785399.23 N 32 1 18.35 W 103 24 44,91
	9072.00 9166.00	0.60 0.60	239.90 240.30	9011.47 9105.46	-232.30 -232.78	-238.57 -239.06	-690.21	0.41	372860.30	785398.56 N 32 1 18.35 W 103 24 44.92
	9261.00	0.50	239.50	9200.46	-233.23	-239.52	-691.06 -691.85	0.00	372859.81 372859.35	785397.71 N 32 1 18.35 W 103 24 44.93 785396.92 N 32 1 18.34 W 103 24 44.94
	9355.00 9449.00	0.30	230.20 144.90	9294.46 9388.46	-233.59 -233.88	-239.88 -240.18	-692.39 -692.49	0.22 0.37	372858.99 372858.69	785396.38 N 32 1 18.34 W 103 24 44.94
	9544.00	0.10	215.90	9483.45	-234.09	-240.38	-692.44	0.20	372858,49	785396.28 N 32 1 18.33 W 103 24 44.94 785396.33 N 32 1 18.33 W 103 24 44.94
	9638.00 9732.00	0.60 0.90	241.10 214.20	9577.45 9671.45	-234.39 -235.23	-240.68 -241.53	-692.92 -693.77	0.54	372858.19 372857.34	785395.85 N 32 1 18.33 W 103 24 44.95 785395.00 N 32 1 18.32 W 103 24 44.96
	9826.00	1.30	187.60	9765.43	-236.89	-243.20	-694.32	0.68	372855.67	785394.45 N 32 1 18,30 W 103 24 44,97
	9921.00 10015.00	0.90 0.90	186.20 185.50	9860.41 9954.40	-238.70 -240,16	-245.01 -246.48	-694.55 -694.70	0.42	372853.86 372852.39	785394.22 N 32 1 18.29 W 103 24 44.97 785394.07 N 32 1 18.27 W 103 24 44.97
	10110.00	0.80	180.90	10049,39	-241.57	-247.88	-694.78	0.13	372850.99	785393.99 N 32 1 18.26 W 103 24 44.97
	10204.00 10299.00	0.80	173.10 165.10	10143.38 10238.37	-243.04 -244.51	-249.35 -250.82	-694,69 -694,42	0.25	372849.52 372848.05	785394.08 N 32 1 18.24 W 103 24 44,97 785394.35 N 32 1 18.23 W 103 24 44,97
	10393.00	0.80	134.00	10332.36	-245.60	-251.91	-693.78	0.46	372846.96	785394.99 N 32 1 18.22 W 103 24 44.96
	10488.00 10582.00	1.30	118.60 116.30	10427.34 10521.31	-246.59 -247.74	-252.89 -254.01	-692.36 -690.17	0.60	372845,98 372844.86	785396.41 N 32 1 18.21 W 103 24 44.94 785398.60 N 32 1 18.20 W 103 24 44.92
	10677.00	2.50	96.30	10616.24	-248.62	-254.86	-686,85	1.13	372844.00	785401.92 N 32 1 18.19 W 103 24 44.88
	10771.00 10866.00	1.50	54.30 34.70	10710.19 10805.15	-248.16 -246.15	-254.37 -252.35	-683.81 -681.90	1.82 0.74	372844.50 372846.52	785404.96 N 32 1 18.19 W 103 24 44.84 785406.87 N 32 1 18.21 W 103 24 44.82
-	10960.00	2.20	27.00	10899.09	-243.28	-249.46	-680.20	0.43	372849,41	785408.57 N 32 1 18.24 W 103 24 44,80
	11054.00 11149.00	1.70	35.30 38.50	10993.01	-240.08 -237.38	-246,25 -243,52	-678.24 -676.21	0.41	372852.62 372855.35	785410.53 N 32 1 18.27 W 103 24 44.78 785412.56 N 32 1 18.30 W 103 24 44.75
	11243.00	1.60	50.20	11181.91	-235,46	-241.59	-674.34	0.37	372857.28	785414.43 N 32 1 18.32 W 103 24 44.73
	11337.00 11432.00	1.30	53.10 25.10	11275.88 11370.87	-234.00 -232.61	-240.11 -238.71	-672.48 -671.26	0.33 0.66	372858.76 372860.16	785416.29 N 32 1 18.33 W 103 24 44.71 785417.51 N 32 1 18.35 W 103 24 44.70
	11526.00	1.20	6.90	11464.85	-230.90	-236,99	-670.80	0.43	372861.88	785417.97 N 32 1 18.36 W 103 24 44.70
	11620.00 11715.00	1.50	357.30 354.60	11558.82 11653.79	-228.69 -226.37	-234.79 -232.47	-670.74 -670.90	0.40	372864.08 372866.40	785418.03 N 32 1 18.39 W 103 24 44.69 785417.87 N 32 1 18.41 W 103 24 44.69
	11809.00 11873.00	1.00	343.30	11747.77	-224.52	-230.63	-671.23	0.40	372868.24	785417.54 N 32 1 18.43 W 103 24 44.69
3	11949.00	1.10	348.20 343.80	11811.76 11887.75	-223.39 -221.84	-229.49 -227.95	-671.52 -671.91	0.21	372869.38 372870.92	785417.25 N 32 1 18.44 W 103 24 44.70 785416.86 N 32 1 18.45 W 103 24 44.70
	12012,00 12107.00	1.00	338,30	11950.73	-220.64	-226.75	-672.31	0.51	372872.12	785416.46 N 32 1 18.47 W 103 24 44.71
	12201,00	10.60	9.30	12045.72 12139.16	-219.33 -210.26	-225.45 -216.37	-673,02 -672.01	0.33 10.71	372873.42 372882.50	785415.75 N 32 1 18.48 W 103 24 44.72 785416.76 N 32 1 18.57 W 103 24 44.70
	12295.00 12390.00	23.90 38.30	4.50 2.20	12228.73 12309.87	-182.65 -133.82	-188.73	-669,11	14.22	372910.14	785419.66 N 32 1 18.84 W 103 24 44.67
	12484.00	52.00	359.70	12376.01	-67.36	-139.87 -73.40	-665.53	15.21 14.69	372959.00 373025.47	785422.31 N 32 1 19.32 W 103 24 44.63 785423.24 N 32 1 19.98 W 103 24 44.61
	12579.00 12674.00	56.60 67.30	355,50 355,50	12431.44 12476.05	9.69	3.62	-668.84	6.03	373102,49	785419.93 N 32 1 20.74 W 103 24 44.64
	12768.00	75.20	355.10	12506.24	93.21 181.91	87.09 175.73	-675.41 -682.70	11.26 8.41	373185.96 373274.60	785413.36 N 32 1 21.57 W 103 24 44.71 785406.07 N 32 1 22.45 W 103 24 44.79
	12863.00 12958.00	78.60 95.30	356.20 358.90	12527.77 12532.81	274.22 368.69	267.97 362.41	-689.71 -693.73	3.75	373366.84	785399.06 N 32 1 23.36 W 103 24 44.86
Last Third Party Survey	13052.00	89.20	358.00	12529.12	462.56	456.26	-696.28	17.80 6.56	373461.28 373555.13	785395.04 N 32 1 24.30 W 103 24 44.90
Begin SLB	13173.00	04.20	267.52							785392.49 N 32 1 25.23 W 103 24 44.92
MWD Survey	13173.00 13268.00	91.38	357.52	12528,51	583.49	577.15	-701.00	1.84	373676.02	785387.77 N 32 1 26.42 W 103 24 44.96
	13362.00	90.96 89.28	357.76 356.19	12526.57 12526.37	678.42 772.33	672.05 765.92	-704.92 -709.88	0.51 2.45	373770.92 373864.79	785383.85 N 32 1 27.36 W 103 24 45.00 785378.89 N 32 1 28.29 W 103 24 45.05
	13457.00 13552.00	89.35 89.35	356.02 357.03	12527.51 12528.59	867.16	860.69	-716.33	0.19	373959.56	785372.44 N 32 1 29.23 W 103 24 45.11
	13646.00	89.21	359.85	12529.77	962.02 1055.99	955.51 1049.46	-722.09 -724.64	1.06 3.00	374054.38 374148.33	785366.68 N 32 1 30.17 W 103 24 45.17 785364.12 N 32 1 31.10 W 103 24 45.19
	13741.00 13836.00	89.62 90.38	3.60	12530.74 12530.74	1150.89 1245.65	1144.39 1239.21	-721.79	3.97	374243.26	785366.98 N 32 1 32.04 W 103 24 45.15
	13930.00	89.11	3.18	12531.16	1339.44	1333.04	-715.89 -710.39	0.80 1.40	374338.08 374431.91	785372.88 N 32 1 32.98 W 103 24 45.07 785378.38 N 32 1 33.90 W 103 24 45.00
	14025.00 14119.00	90.24 89.83	4.15 3.51	12531.70 12531.64	1434.18 1527.91	1427.84 1521.63	-704.32 -698.04	1.57	374526.72	785384.45 N 32 1 34.84 W 103 24 44.92
	14214.00 14309.00	89.66	2.32	12532.06	1622.73	1616.51	-693.21	0.81 1.27	374620.51 374715.38	785390.73 N 32 1 35.77 W 103 24 44.83 785395.56 N 32 1 36.71 W 103 24 44.77
	14403.00	91.20 90.86	5.92 5.05	12531.35 12529.66	1717.40 1810.87	1711.24 1804.80	-686,39 -677,40	4.12 0.99	374810,11 374903,67	785402.38 N 32 1 37.64 W 103 24 44.68 785411.36 N 32 1 38.57 W 103 24 44.57
	14498.00 14592.00	90.48 89.24	3.15 0.88	12528.55	1905.55	1899.54	-670.61	2.04	374998.41	785418.16 N 32 1 39.51 W 103 24 44.48
	14687.00	89.48	0.53	12528.78 12529.84	1999,45 2094,42	1993.48 2088.46	-667,31 -666,14	2.75 0.45	375092.35 375187.33	785421.46 N 32 1 40.44 W 103 24 44.43 785422.63 N 32 1 41.38 W 103 24 44.41
	14781.00 14876.00	89.72 89.83	358.64	12530.49	2188.41	2182.45	-666.82	2.03	375281,32	785421.95 N 32 '1 42,31 W 103 24 44,41
	14971.00	89.79	357.40 357.81	12530.87 12531.18	2283.38 2378.33	2277.39 2372.31	-670.10 -674.07	1.31 0.43	375376.27 375471.18	785418.67 N 32 1 43.24 W 103 24 44.43 785414.70 N 32 1 44.18 W 103 24 44.47
	15065.00 15159.00	89.59 89.28	359.81 357.97	12531.69 12532.62	2472.32	2466.28	-676.02	2.14	375565.16	785412.75 N 32 1 45.11 W 103 24 44.48
	15254.00	89.14	355.64	12533.93	2566,30 2661,18	2560.26 2655.09	-677.85 -683.14	1.98 2.46	375659.13 375753,97	785410.92 N 32 1 46.04 W 103 24 44.50 785405.63 N 32 1 46.98 W 103 24 44.55
	15348.00 15443.00	88.97 89.72	354.39 357.33	12535.48 12536.56	2754.88	2748.72	-691.31	1.34	375847.60	785397.46 N 32 1 47.91 W 103 24 44.63
	15537,00	90.27	358,06	12536.57	2849.68 2943.63	2843,46 2937.38	-698.16 -701.94	3,19 0,97	375942.33 376036.25	785390.61 N 32 1 48.85 W 103 24 44.70 785386.83 N 32 1 49.78 W 103 24 44.74
	15632.00 15727.00	89.93 90.17	358.41 357.75	12536.41 12536.32	3038.61 3133.58	3032.34	-704.87	0.51	376131.21	785383.90 N 32 1 50.72 W 103 24 44.76
	15821.00	89.86	357.69	12536.30	3227.53	3127.28 3221.21	-708,05 -711.79	0.74 0.34	376226,15 376320,08	785380.72 N 32 1 51.66 W 103 24 44.79 785376.98 N 32 1 52.59 W 103 24 44.83
	15915.00 16010.00	90.52 90.00	358.24 357.93	12535.99 12535.56	3321.50 3416.47	3315.15 3410.09	-715.13 -718.30	0.91	376414.02	785373.64 N 32 1 53.52 W 103 24 44.85
	16104.00	90.28	358.38	12535,33	3510.44	3504.04	-721.33	0.64 0.56	376508.96 376602.92	785370.47 N 32 1 54.46 W 103 24 44.88 785367.44 N 32 1 55.39 W 103 24 44.91
	16199.00 16293.00	90.38 89.69	358.53 357.32	12534.78 12534.72	3605.43 3699.39	3599.01 3692.94	-723.89 -727.30	0.19	376697.88	785364.88 N 32 1 56.33 W 103 24 44.93
	16388.00 16482.00	90.52 90.48	357.98	12534.55	3794.34	3787.86	-731.19	1.48 1.12	376791.82 376886.73	785361.47 N 32 1 57.26 W 103 24 44.96 785357.58 N 32 1 58.20 W 103 24 44.99
	16577.00	90.03	359.71 357.85	12533.73 12533.31	3888.33 3983.32	3881.83 3976.81	-733.09 -735.11	1.84 2.01	376980.71 377075.68	785355.68 N 32 1 59.13 W 103 24 45.01 785353.66 N 32 2 0.07 W 103 24 45.02
	16672.00 16766.00	90.55 91.00	356.71 357.70	12532.82	4078.24	4071,70	-739,62	1.32	377170.57	785349.15 N 32 2 1.01 W 103 24 45.06
	16860.00	91.58	359.83	12531.55 12529.44	4172.16 4266.12	4165.58 4259.52	-744.20 -746.22	1.16 2.35	377264.45 377358.40	785344.57 N 32 2 1.94 W 103 24 45.11 785342.54 N 32 2 2.87 W 103 24 45.12
	16955.00 17050.00	91.17 92.45	0.30 1.91	12527.16 12524,16	4361.09	4354.50	-746,12	0.66	377453,37	785342.65 N 32 2 3.81 W 103 24 45,11
	17144.00	90,93	1.28	12524,16	4456.00 4549.89	4449.43 4543.35	-744.29 -741.67	2.16 1.75	377548.30 377642.22	785344.48 N 32 2 4.74 W 103 24 45.08 785347.10 N 32 2 5.67 W 103 24 45.04
			2,00001	TAY BOOKEN AT THE SAME	or new physics		THE PARTY OF THE P			, 555-7, 10 IN 32 2 3.07 VV 103 24 45.04

		Original Hole / Mara 19 Fed Com 26-39	DEG	D.T_DWM_JAN	30.000	30.000	ant2 toA	000.89002	000.87811	ı		
	Ethon Madera H1 BT e1-8	Original Hole / Mars 19 Fed Com 26-3		NAL_MWD-NO	30.000	30.000	ant2 toA	000.57811	Se.500	ı		
Original Hole / Marathon Madera 19 Fed Com 26-35-19 TB 1H MWD 0' to 20068'		SL8-Depth	MAL_MWD-400LSL8-Depth		000.00	ante foA	56.500	Se.500	ı			
	H1 8T 61-8	Original Hole / Mars 19 Fed Com 26-3	digaG-8J8	S_NON-GWM_JAN	30.000	000.0£	\$24.86\1	Se'200	000'0	ī		
Borehole / Survey		Lype	Survey Tool	ng Diameter (ni)	Hole Size Casi	EOU Freq (ft)	ot dM (ff)	MD From (ff)	ħsq		Description	
								smgis 22.7.5 sonat	onnoo %000.26	D-5 0 vsA A2	Iscw	Survey Error Model: Survey Program:
										Jet Survey	I-noM	Survey Type:
W 103 24 44,86			380565.40	00.0	18.027-	£8.99\$7	50.5747	12496,14	74,825	50.06	00.89002	Projection to Bit
W 103 24 44,85			380517.42	69 0	£8.647-	32.8147	7425.04	71,36451	74.835	50.08	20020,00	Survey
W 103 24 44.84			380474.44	22.0	82.847-	99.8757	7382,05	21,36451	61.888	56.68	00,77661	Final SLB MWD
W 103 24 44.81	32 2 32.76	785343,66 1	94.975085	80.0	11,247-	29.0827	80.7827	86,26+51	66,730	58.68	00,58801	
W 103 24 44,78			380283.55	21.0	89,147-	89.4817	11,1917	12495.7¢	19.725	38.68	00,38761	
W 103 24 44.75			380190.6Z	26.0	er.857-	\$7.1907	31.8907	72.895.51	67.788	29.98	00,88501	
W 103 24 44.72			89.360085	79.1	96.467-	08,7668	81,4007	04.86451	75.886 95.530	98.68	00,99391	
W 103 24 44.71	V 32 2 29.02	1 65.235.39 1	94,100085	2.12	85,557-	28,2069	61,6068	12494.94	58.635	62,68	19504.00	
W 103 24 44.73			379907.70	11.0	86,667-	68.8083	12,2188	59.56451	06.0	72.19	00,01461	
W 103 24 44,75			379813.73	2.36	94.257-	98,4178	6721.26	59.76451	06.0	71,18	00.81561	
W 103 24 44.76			37.9119.75	1.04	E4.25.43	78.0Z99	72,7299	32,86451	90,625	56.68	19222.00	
W 103 24 44.74	V 32 2 25.29	785355.72	379624,78	07.0	20.EET-	06'SZS9	6532.28	02,89421	70,885	00.08		
ST. 44 42 EOI W	N 32 2 24,36	14.835887	58,053675	44.1	90,0ET-	56,1543	15.8543	12499,00	358.29	Z9'06	19033,00	
17.44 45 CO1 W			38.354975	1.09	81.857-	66,7558	6344.33	12500.64	14,685	85.19	18939.00	
17.44 AS EOI W			379341,88	95.0	17.727-	6243.00	6249,35	12502.24	50.0	55.09	00,44881	
57.44 45 EOI W			379247,88	04.0	89.727-	10.6418	95,2519	12503.43	359.93	06.08	00,02781	
57,44 4S ED1 W			379153.89	44.1	S8. 727-	20.2503	75,1303	12504.74	\$2.0 \$2.0	69.06	00,9281	
57.44 AS EO! W			06.820675	16.1	52.727	20.0962	86,3868	12505.33	\$0.63E	50.09	00,19281	
47.44 45 EO! W			16.489878	79.0	18.827-	50.9983	5872,39	12506.29	94.0	51,19	00,73481	
37.44.75 EUT W 5			S6,63887¢	81.0	-727.80	20.1772	24.7778	88.70821	£7.0	55.08	00,27281	
87.44.78 W 103 24 44.78			£6.27787£	€8.0	98.857-	90.7798	5683,44	12508.56	95.0	28.09	00.87281	
67.44.75 Ed W 103 24 44.79	26.21 S SE N		378680.94	81.0	41.627-	5582,06	24.8822	12509,33	84.985	14.09	00,88181	
W 103 24 44.80			\$46,8885.B4	92.0	97.827-	70.7848	54,5648	12509.87	77.925	≱Z.09	00.88081	
8 W 103 24 44.80			46.164878	67.0	52.827-	70,5658	94,6653	12510.40	36,625	14.09	00.46671	
5 W 103 24 44.82			36 762875	7S.0	-729.03	5299.07	74,2053	12511.27	59.0	59'06	00.00971	
1 W 103 24 44,84			37830Z 96	24.0	76.62T-	80.4052	64.01S2	12512,18	22.0	S\$.00	00.20871	
8 W 103 24 44,86			378208 96	71.0	64.0ET-	60,0112	12,3118	17,21221	\$1.0	75.0e	00.11771	
78.44.87 W 103 24 44.87			36 A1187E	≯ 7.0	£8,0£7-	60,8102	18,5208	12,513,31	60.03	85.09	00.71971	
1 W 103 24 44,88			76 e1087£	⊅9°L	TT,05T-	01,1264	4927.53	12514,51	41.0	70.16	17522.00	
8 W 103 24 44.90			317925 99	88.1	-732.06	11.7284	4833.56	12515.58	44.1	⊅ Z'06	00.85471	
\$6.44 \$5 ED1 W \$			377831,05	44.0	-735.26	4732,18	4738.66	12516.92	24.2	85.19	17333.00	
1 W 103 24 45.00			91,757,75	£0.1	S9.867-	4638.28	08.4484	56.91351	2,04	82,16	17333.00	
	(s/N)		(รมห)	(11001/")	(11)	(11)	(14)	(4)	(1)	(*)	(11)	
e Longitude	Latitude	Easting	Northing	DES	EM	SN	ASEC	QVT	bin O misA	loni	GM (++)	Comments
						e3050)	00m 8848			47.77	GM.	

Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

1,	API Numbe	r		² Pool Code ³ Pool Name									
30-02	25-44	899		96672	V	WC-025 G-08 S263412K; BONE SPRING							
⁴ Property C	Code			⁵ Property Name									
OGRID 1 37209				*Operator Name *Elevation MARATHON OIL PERMIAN LLC 3185									
					" Surface Lo	ocation		The state of the s					
UL or lot no.		Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
N	19	T26S	R35E		351'	SOUTH	1368'	WEST LEA					
			" Bot	tom Hole	Location If I	Different From	Surface						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County				
L (LOT 3)	18	T26S	R35E		2542'	SOUTH	683'	WEST	LEA				
Dedicated Acres 245.60	13 Joint or	Infill 14	Consolidation Co	ode ¹⁵ Ord	er No.	Total Control of the							

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

SECTION 12	SECTION	, •	SECTION 8	"OPERATOR CERTIFICATION
SECTION 13	SECTION	В	SECTION 17	I hereby certify that the information contained herein is true and complete to
				the best of my knowledge and belief, and that this organization either owns a
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1	working interest or unleased mineral interest in the land including the
		LAST TAKE POINT/BOTTOM	HOLE LOCATION	proposed bottom hole location or has a right to drill this well at this location
	6	20,068' MEASURED DE NAD 83, SPCS NA		pursuant to a contract with an owner of such a mineral or working interest,
	A # B	X: 826526.24 / Y: 3		or to a voluntary pooling agreement or a compulsory pooling order
	683'	NAD 27, SPCS NA		heretofore entered by the division.
BHL/LAST		X: 785338.30 / Y: 38	80565.20	10/14/2019
TAKE POINT	r	LAT: 32.04294398N / LON:	103.41245940W	Signature Date
 	2542	+ -ı		Adrian Covarrubias
			1 1	Printed Name
SECTION 13		I CECTION AD	SECTION 17	
		SECTION 18		E-mail Address
SECTION 24 (FARTH		SECTION 19	SECTION 20	E-man Address
DEPTH =14	,781'			OVER THE STATE OF
KICK OFF POINT/FIRST TAKE POINT		SURFACE HOLE	LOCATION	*SURVEYOR CERTIFICATION
7,444 MEASURED DEPTH IN FEET		351' FSL 1368' FW		I hereby certify that the well location shown on this plat
NAD 83, SPCS NM EAST X: 826585.05 / Y: 372899.96		NAD 83, SPCS X: 827277.05 /	NM EAST	way loved from field notes of actual surveys made by
LAT: 32.02184227N / LON: 103.4129437		LAT: 32.02252978N / L	ON: 103.41070408W	me or solder my appervision, and that the same is true
NAD 27, SPCS NM EAST X: 785396.75 / Y: 372842.85	721'	NAD 27, SPCS X: 786088.77 / Y		and dorrected the best of my belief.
LAT: 32.02 71600N / LON: 103.4124832		LAT: 32.02240349N / L		Co. Co. Oo
<u> </u>	653'			WEST CULL
(NEAREST) —	111			Date of Sapar C
MEASURED DEPTH =13,646	1368	SHL	1	Signature and Sen of Professional Surveyor:
SECTION 24 DEFIN =13,646	674'	SECTION 19	SECTION 20	WOE OF WO TO
SECTION 25 FIRST 1	TAKE C	SECTION 30	SECTION 29	OF THE POST OF THE
CORNER COORDINATES POINT/		CORNER COORDINATES NAD 27, SPCS NM EAST	1 1	A SE A CORD SED
A - X: 825842.88 / Y: 380718.58	_พ พ	A - X: 784654.96 / Y: 380661.30		MITS ANDROP X
B - X: 827193.03 / Y: 380726.48 C - X: 827268.68 / Y: 372804.52	35-	B - X: 786005.09 / Y: 380669.16 C - X: 786080.38 / Y: 372747.40	1 1	Certificate Number
D - X: 825911.74 / Y: 372795.47	F F	D - X: 784723.45 / Y: 372738.37		Council Tuning
DISTANCES/AREAS RELATIVE TO NAD83 CONVERGENCE: 0.49063811'; NOTE; ALL	OMBINED SCALE FAC	TOR: 0.99985482 1	2/21/19 DEF	
The second of th	J21010110 114 0.3	RE	V. DATE BY	SHEET 1 OF 1
				JOB No. R3817_002