

MARATHON OIL

SURVEY REPORT

MARINER FEE 23-23-20 WA #14H

H&P 498

4/2/2018



The Ultimate Partner In Wellbore Placement

SURVEY REPORT

MARINER FEE 23-28-20 WA #14H

COMPUTED SURVEY

CUSTOMER **MARATHON OIL**
PROJECT **Mariner Fee**
FIELD **SPRAYBERRY**

SDI JOB NO. **OP.009062**
SDI DISTRICT **Midland**
SDI KIT/UNIT **KIT MUD PULSE**

SITE INFORMATION

Site Name **MARINER FEE**
Lat/Long **32° 17' 1.795" N, 104° 6' 48.067" W**
Northing **467,045.08 ft**
Easting **567,982.27 ft**

Section -
Township -
Range -

MAP INFORMATION

North Reference **Grid North**
Grid Correction **-0.12 deg**
System **US State Plane 1927**
Datum **North American Datum 1927 (Clarke 1866)**
Map Zone **New Mexico East: 3001**

**WELL INFORMATION**

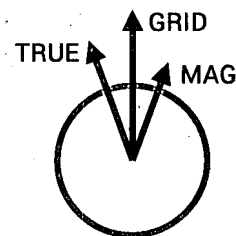
Lat/Long **32° 17' 1.794" N, 104° 6' 47.368" W**
Northing **467,045.09 ft**
Easting **568,042.27 ft**
UWI

DEPTH AND ELEVATION REFERENCE

Ground Level **3075 ft above Mean Sea Level**
Reference Datum **RKB**
Reference Height **26.5 ft above G.L.**
Reference Elevation **3101.5 ft**

VERTICAL SECTION REFERENCE

+N/-S **0 ft**
+E/-W **0 ft**
Proposal Direction **1.06°**
Calculation Method **Minimum Curvature**

**GEOMAGNETIC REFERENCE INFORMATION**Local Gravity: **998.537 mG [computed]**

MD	MODEL	DATE	DECLINATION	TRUE TO GRID	MAG TO GRID
0-14172 ft	HDGM2018	02 Apr 2018	7.28°	subtract 0.12°	add 7.16°

WELL NOTES**OPERATORS**

SDI Operator Name (Printed)

SIGNATURE

DATE

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/S ft	+E/W ft	DLS %/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
200.00	0.11	335.85	200.00	0.17	0.18	-0.08	0.05
337.00	0.99	312.91	336.99	1.08	1.10	-1.00	0.65
437.00	1.57	286.98	436.97	2.03	2.09	-2.94	0.81
608.00	2.42	304.92	607.86	4.69	4.84	-8.14	0.61
701.00	2.19	303.06	700.79	6.72	6.93	-11.24	0.26
793.00	1.36	288.06	792.74	7.97	8.23	-13.75	1.03
885.00	0.27	262.29	884.73	8.26	8.54	-15.01	1.22
977.00	0.68	52.51	976.73	8.57	8.84	-14.79	1.00
1069.00	1.23	64.78	1068.72	9.35	9.60	-13.46	0.63
1163.00	0.84	45.85	1162.70	10.28	10.51	-12.05	0.55
1257.00	0.67	28.82	1256.70	11.26	11.47	-11.29	0.30
1351.00	0.67	36.59	1350.69	12.19	12.39	-10.70	0.10
1446.00	0.61	35.18	1445.68	13.06	13.25	-10.08	0.07
1541.00	0.76	17.07	1540.68	14.09	14.27	-9.60	0.28
1636.00	0.95	15.41	1635.67	15.45	15.63	-9.21	0.20
1731.00	1.87	71.40	1730.64	16.74	16.88	-7.53	1.63
1826.00	3.62	116.42	1825.54	15.98	16.04	-3.38	2.79
1920.00	3.77	116.58	1919.34	13.37	13.34	2.05	0.16
2014.00	3.98	112.95	2013.13	10.83	10.68	7.81	0.34
2108.00	4.86	107.87	2106.85	8.46	8.19	14.61	1.02
2203.00	4.45	78.50	2201.55	8.09	7.69	22.05	2.52
2337.00	1.61	39.62	2335.36	10.70	10.18	28.35	2.50
2486.00	1.22	24.57	2484.31	13.79	13.23	30.34	0.36
2580.00	0.56	290.49	2578.30	14.86	14.30	30.33	1.47
2674.00	1.12	269.25	2672.29	14.98	14.45	28.98	0.67
2768.00	0.90	272.01	2766.28	14.97	14.46	27.32	0.24
2863.00	0.85	258.21	2861.27	14.82	14.35	25.89	0.23
2957.00	0.84	266.47	2955.26	14.61	14.16	24.52	0.13
3051.00	0.66	260.41	3049.25	14.46	14.03	23.29	0.21
3146.00	1.10	261.19	3144.24	14.20	13.80	21.85	0.46
3240.00	0.91	259.20	3238.22	13.89	13.52	20.23	0.21
3429.00	5.73	137.40	3426.93	6.75	6.29	25.15	3.31

SURVEY REPORT

MARINER FEE 23-28-20 WA #14H

COMPUTED SURVEY

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
3523.00	5.59	139.05	3520.47	-0.05	-0.63	31.32	0.23
3617.00	5.29	136.54	3614.04	-6.54	-7.23	37.30	0.41
3711.00	5.38	134.07	3707.64	-12.63	-13.44	43.45	0.26
3806.00	5.25	132.53	3802.23	-18.55	-19.47	49.85	0.20
3900.00	5.07	131.65	3895.85	-24.10	-25.14	56.13	0.21
3994.00	5.49	133.47	3989.45	-29.83	-31.00	62.49	0.48
4089.00	6.13	132.20	4083.96	-36.24	-37.53	69.55	0.69
4183.00	6.23	132.43	4177.41	-42.91	-44.34	77.03	0.11
4278.00	6.27	130.82	4271.85	-49.63	-51.21	84.76	0.19
4373.00	6.33	135.33	4366.28	-56.61	-58.33	92.37	0.52
4561.00	5.98	143.12	4553.20	-71.57	-73.53	105.53	0.48
4656.00	5.56	143.84	4647.71	-79.13	-81.21	111.22	0.45
4750.00	4.94	146.77	4741.32	-86.10	-88.27	116.12	0.72
4845.00	5.36	136.70	4835.94	-92.66	-94.92	121.41	1.05
4939.00	5.64	134.58	4929.50	-98.98	-101.36	127.71	0.37
5033.00	5.68	133.73	5023.05	-105.31	-107.81	134.36	0.10
5128.00	5.72	138.54	5117.58	-111.98	-114.61	140.89	0.50
5222.00	6.41	143.38	5211.05	-119.59	-122.33	147.12	0.91
5317.00	6.00	143.08	5305.49	-127.70	-130.56	153.27	0.43
5411.00	5.66	141.23	5399.01	-135.13	-138.10	159.12	0.41
5505.00	4.17	149.63	5492.66	-141.61	-144.66	163.75	1.76
5599.00	2.69	142.56	5586.49	-146.25	-149.36	166.82	1.63
5693.00	0.66	120.19	5680.45	-148.24	-151.39	168.63	2.23
5788.00	0.34	279.60	5775.44	-148.47	-151.62	168.83	1.04
5882.00	0.24	318.42	5869.44	-148.28	-151.42	168.42	0.23
5976.00	0.44	31.96	5963.44	-147.83	-150.97	168.48	0.47
6070.00	0.29	50.41	6057.44	-147.36	-150.51	168.86	0.20
6165.00	0.85	34.56	6152.44	-146.62	-149.78	169.44	0.61
6260.00	1.26	22.82	6247.42	-145.06	-148.23	170.25	0.49
6449.00	0.73	57.37	6436.39	-142.46	-145.67	172.07	0.41
6558.00	0.69	252.95	6545.39	-142.28	-145.49	172.02	1.29
6637.00	2.04	255.42	6624.36	-142.81	-145.98	170.21	1.71
6731.00	1.93	257.47	6718.31	-143.63	-146.75	167.04	0.14

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/S ft	+E/W ft	DLS %/100ft
6826.00	1.47	247.01	6813.27	-144.50	-147.57	164.36	0.58
6920.00	1.12	255.90	6907.24	-145.23	-148.26	162.36	0.43
7015.00	1.02	233.36	7002.23	-145.99	-148.99	160.78	0.45
7109.00	1.37	221.41	7096.21	-147.36	-150.34	159.37	0.46
7203.00	1.61	215.93	7190.17	-149.30	-152.25	157.85	0.30
7298.00	1.31	215.33	7285.14	-151.29	-154.22	156.44	0.32
7392.00	0.57	200.62	7379.13	-152.62	-155.53	155.65	0.82
7487.00	0.95	125.98	7474.12	-153.52	-156.43	156.12	1.02
7581.00	1.93	119.10	7568.09	-154.71	-157.66	158.14	1.06
7675.00	1.22	194.87	7662.06	-156.43	-159.40	159.26	2.14
7770.00	2.75	218.72	7757.01	-159.21	-162.16	157.58	1.80
7864.00	1.26	231.21	7850.95	-161.66	-164.56	155.36	1.64
7958.00	0.44	297.96	7944.94	-162.16	-165.04	154.24	1.23
8053.00	0.96	286.64	8039.93	-161.78	-164.64	153.15	0.56
8147.00	1.19	272.55	8133.91	-161.54	-164.37	151.42	0.37
8242.00	1.20	312.94	8228.89	-160.85	-163.65	149.71	0.87
8336.00	1.65	340.34	8322.87	-158.93	-161.71	148.53	0.86
8431.00	0.47	71.98	8417.85	-157.52	-160.30	148.44	1.82
8525.00	1.23	156.99	8511.84	-158.32	-161.11	149.20	1.36
8620.00	1.10	173.64	8606.82	-160.15	-162.95	149.70	0.38
8714.00	1.18	235.66	8700.81	-161.61	-164.39	149.00	1.25
8792.00	1.44	246.98	8778.79	-162.47	-165.23	147.44	0.47
8898.00	1.36	277.24	8884.76	-162.88	-165.59	144.96	0.69
8992.00	7.60	349.70	8978.46	-156.66	-159.33	142.74	7.77
9086.00	16.50	355.24	9070.30	-137.25	-139.87	140.52	9.54
9181.00	27.82	1.74	9158.15	-101.54	-104.15	140.07	12.17
9276.00	37.08	6.88	9238.24	-50.76	-53.44	144.19	10.16
9371.00	45.97	8.95	9309.30	11.69	8.86	152.95	9.47
9465.00	54.90	3.46	9369.14	83.76	80.80	160.54	10.51
9560.00	60.69	2.84	9419.75	164.06	161.03	164.95	6.12
9654.00	72.16	3.20	9457.28	250.01	246.92	169.49	12.21
9749.00	82.83	4.97	9477.82	342.49	339.29	176.11	11.38
9762.00	83.37	5.39	9479.39	355.36	352.15	177.28	5.25



MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N-S ft	+E-W ft	DLS %/100ft
9856.00	85.16	4.22	9488.78	448.69	445.34	185.11	2.27
9950.00	89.87	0.08	9492.85	542.54	539.14	188.63	6.67
10044.00	90.71	0.61	9492.38	636.53	633.14	189.19	1.06
10138.00	88.55	0.35	9492.99	730.52	727.12	189.98	2.31
10233.00	88.72	0.06	9495.25	825.48	822.10	190.32	0.35
10327.00	89.63	0.74	9496.60	919.46	916.08	190.98	1.21
10422.00	89.46	0.77	9497.36	1014.46	1011.07	192.23	0.18
10516.00	89.43	0.48	9498.27	1108.45	1105.06	193.25	0.31
10611.00	89.43	0.37	9499.21	1203.44	1200.05	193.96	0.12
10705.00	91.85	0.33	9498.16	1297.42	1294.04	194.53	2.57
10800.00	90.03	0.29	9496.60	1392.39	1389.02	195.05	1.92
10894.00	89.83	0.19	9496.72	1486.38	1483.02	195.44	0.24
10988.00	90.00	1.03	9496.86	1580.38	1577.01	196.44	0.91
11083.00	90.57	1.74	9496.39	1675.38	1671.99	198.74	0.96
11177.00	90.94	1.54	9495.15	1769.36	1765.94	201.43	0.45
11272.00	90.13	1.35	9494.26	1864.36	1860.90	203.82	0.88
11366.00	89.87	1.13	9494.26	1958.35	1954.88	205.86	0.36
11461.00	89.39	1.08	9494.87	2053.35	2049.86	207.69	0.51
11555.00	90.07	2.02	9495.32	2147.35	2143.82	210.23	1.23
11649.00	89.97	2.15	9495.28	2241.33	2237.76	213.65	0.17
11743.00	89.33	0.94	9495.86	2335.32	2331.72	216.19	1.46
11837.00	89.70	1.15	9496.65	2429.32	2425.70	217.90	0.45
11932.00	89.26	1.05	9497.52	2524.32	2520.68	219.72	0.47
12026.00	89.19	0.57	9498.79	2618.31	2614.66	221.05	0.52
12120.00	90.50	0.91	9499.04	2712.30	2708.65	222.27	1.44
12214.00	91.14	0.98	9497.70	2806.29	2802.63	223.82	0.68
12308.00	90.34	0.67	9496.48	2900.28	2896.61	225.17	0.91
12402.00	89.39	0.65	9496.70	2994.28	2990.60	226.25	1.01
12497.00	88.79	0.80	9498.21	3089.26	3085.58	227.46	0.65
12592.00	88.32	0.61	9500.61	3184.23	3180.55	228.62	0.53
12686.00	90.77	1.02	9501.35	3278.22	3274.53	229.96	2.64
12780.00	89.16	0.75	9501.41	3372.22	3368.51	231.41	1.74
12875.00	89.80	1.10	9502.27	3467.21	3463.50	232.95	0.77

MD ft	INC deg	AZIM deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS %/100ft
12971.00	89.56	0.80	9502.81	3563.21	3559.48	234.54	0.40
13064.00	90.17	0.51	9503.03	3656.21	3652.47	235.60	0.73
13159.00	90.17	0.20	9502.75	3751.20	3747.47	236.19	0.33
13253.00	89.33	0.14	9503.16	3845.19	3841.47	236.47	0.90
13348.00	89.36	359.74	9504.24	3940.16	3936.46	236.37	0.42
13442.00	88.99	0.53	9505.60	4034.14	4030.45	236.59	0.93
13536.00	88.49	1.57	9507.66	4128.12	4124.41	238.31	1.23
13630.00	91.55	2.00	9507.63	4222.10	4218.36	241.24	3.29
13725.00	91.14	2.14	9505.40	4317.06	4313.27	244.67	0.46
13819.00	91.01	1.75	9503.64	4411.03	4407.20	247.86	0.44
13915.00	91.41	1.67	9501.61	4507.00	4503.13	250.72	0.42
14009.00	91.58	2.03	9499.16	4600.96	4597.05	253.76	0.42
14103.00	92.12	2.14	9496.12	4694.89	4690.94	257.18	0.59
14172.00	92.28	2.43	9493.48	4763.83	4759.83	259.93	0.48