

Preliminary Horizontal Planning Worksheet

Fill in the Blue Boxes

Yellow Boxes are Calculated

11/30/2015

Well Name:		Pavo Macho 31/32 B2EH Fed Com #1H	
Surface Location:		1980 FNL & 185 FWL	
State/ County		NM/Eddy	
S-T-R or Section-Block-Survey (Texas)		Section 31/ 18S/ 29E	
Target Formation:		2nd Bone Spring "C" Sand	
Elevation of SL			
Ground Level:		3405	Plat
Height of KB:		27	
KB Elevation:		3432	
Landing Point			
Footing Calls		1996 FNL & 665 FWL Sec 31/18S/29E	
Subsea Depth		-4133	
TVD =		7565	
PBHL			
Footing Calls		2310 FNL & 330 FEL Sec 32/18S/29E	
Subsea Depth		-4264	
TVD =		7696	
Lateral Length:		9349.62	
Estimated KOP:		7087.54	
Est. Total Depth:		17180.46	

PBHL Offsets =	-318.72	NS
	9815.22	EW

Oil Conservation Division
Case No. 15420
Exhibit No. A

Mewbourne Oil Company

SURVEY CALCULATION REPORT Minimum Curvature Calculations

Operator: Mewbourne Oil Company
Lease Name: Macho 31/32 B2EH Fed Con
KOP 7087.54

SL: 150 FNL & 1400 FWL Sec 6-20S-29E
BHL: 330 FSL & 1400 FWL Sec 6-20S-29E

Target KBTVD: 7,565 Feet 7565.00
Target Angle: 89.20 Degrees 89 20
Section Plane: 91.86 Degrees
Declination Corrected to True North: 6.63 Degrees
Bit to Survey Offset: 44 Feet

Survey No.	Measured Depth-ft	Drift (Deg.)	Azimuth (Deg.)	Course Length	TVD (Feet)	Vertical Section	+N/-S (Feet)	+E/-W (Feet)	Closure Distance	Closure Direction	BUR	DLS	KBTVD	-Above -Below Target	DRIFT RADIANS	AZIMUTH (RADIANS)
T/I	7087.54	0.00	91.86	N/A	7087.5	0.0	0.0	0.0	0.0	0.0	N/A	N/A	7087.5	477.5	1E-12	1.60 #VALUE!
1	7161.87	8.92	91.86	74.331	7161.6	5.8	-0.2	5.8	5.8	91.9	12.0	12.0	7161.5	403.5	0.1556776	1.60 0.1556776
2	7236.20	17.84	91.86	74.331	7233.8	23.0	-0.7	22.9	23.0	91.9	12.0	12.0	7233.5	331.5	0.311355	1.60 0.1556776
3	7310.53	26.76	91.86	74.331	7302.5	51.1	-1.7	51.1	51.1	91.9	12.0	12.0	7301.8	263.2	0.467033	1.60 0.1556776
4	7384.86	35.68	91.86	74.331	7366.0	89.6	-2.9	89.6	89.6	91.9	12.0	12.0	7364.8	200.2	0.62271	1.60 0.1556776
5	7459.19	44.60	91.86	74.331	7422.8	137.5	-4.5	137.4	137.5	91.9	12.0	12.0	7420.9	144.1	0.778388	1.60 0.1556776
6	7533.52	53.52	91.86	74.331	7471.4	193.6	-6.3	193.5	193.6	91.9	12.0	12.0	7468.7	96.3	0.934066	1.60 0.1556776
7	7607.85	62.44	91.86	74.331	7510.8	256.5	-8.3	256.4	256.5	91.9	12.0	12.0	7507.2	57.8	1.089743	1.60 0.1556776
8	7682.18	71.36	91.86	74.331	7539.9	324.8	-10.5	324.7	324.8	91.9	12.0	12.0	7535.4	29.6	1.245421	1.60 0.1556776
9	7758.51	80.28	91.86	74.331	7558.1	396.8	-12.9	396.6	396.8	91.9	12.0	12.0	7552.6	12.4	1.401098	1.60 0.1556776
10	7830.84	89.20	91.86	74.331	7565.0	470.8	-15.3	470.5	470.8	91.9	12.0	12.0	7558.4	6.6	1.556776	1.60 0.1556776
11	7900.00	89.20	91.86	69.159	7565.9	539.9	-17.5	539.6	539.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
12	8000.00	89.20	91.86	100	7567.3	639.9	-20.8	639.6	639.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
13	8100.00	89.20	91.86	100	7568.7	739.9	-24.0	739.5	739.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
14	8200.00	89.20	91.86	100	7570.1	839.9	-27.3	839.5	839.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
15	8300.00	89.20	91.86	100	7571.5	939.9	-30.5	939.4	939.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
16	8400.00	89.20	91.86	100	7572.9	1039.9	-33.7	1039.3	1039.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
17	8500.00	89.20	91.86	100	7574.3	1139.9	-37.0	1139.3	1139.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
18	8600.00	89.20	91.86	100	7575.7	1239.9	-40.2	1239.2	1239.9	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
19	8700.00	89.20	91.86	100	7577.1	1339.8	-43.5	1339.1	1339.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
20	8800.00	89.20	91.86	100	7578.5	1439.8	-46.7	1439.1	1439.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
21	8900.00	89.20	91.86	100	7579.9	1539.8	-50.0	1539.0	1539.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
22	9000.00	89.20	91.86	100	7581.3	1639.8	-53.2	1639.0	1639.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
23	9100.00	89.20	91.86	100	7582.7	1739.8	-56.5	1738.9	1739.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
24	9200.00	89.20	91.86	100	7584.1	1839.8	-59.7	1838.8	1839.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
25	9300.00	89.20	91.86	100	7585.6	1939.8	-63.0	1938.8	1939.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
26	9400.00	89.20	91.86	100	7587.0	2039.8	-66.2	2038.7	2039.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
27	9500.00	89.20	91.86	100	7588.4	2139.8	-69.4	2138.6	2139.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
28	9600.00	89.20	91.86	100	7589.8	2239.8	-72.7	2238.6	2239.8	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
29	9700.00	89.20	91.86	100	7591.2	2339.7	-75.9	2338.5	2339.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
30	9800.00	89.20	91.86	100	7592.6	2439.7	-79.2	2438.5	2439.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
31	9900.00	89.20	91.86	100	7594.0	2539.7	-82.4	2538.4	2539.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
32	10000.00	89.20	91.86	100	7595.4	2639.7	-85.7	2638.3	2639.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
33	10100.00	89.20	91.86	100	7596.8	2739.7	-88.9	2738.3	2739.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
34	10200.00	89.20	91.86	100	7598.2	2839.7	-92.2	2838.2	2839.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
35	10300.00	89.20	91.86	100	7599.6	2939.7	-95.4	2938.1	2939.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
36	10400.00	89.20	91.86	100	7601.0	3039.7	-98.7	3038.1	3039.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
37	10500.00	89.20	91.86	100	7602.4	3139.7	-101.9	3138.0	3139.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
38	10600.00	89.20	91.86	100	7603.8	3239.7	-105.1	3238.0	3239.7	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
39	10700.00	89.20	91.86	100	7605.2	3339.6	-108.4	3337.9	3339.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
40	10800.00	89.20	91.86	100	7606.6	3439.6	-111.6	3437.8	3439.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
41	10900.00	89.20	91.86	100	7608.0	3539.6	-114.9	3537.8	3539.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
42	11000.00	89.20	91.86	100	7609.4	3639.6	-118.1	3637.7	3639.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10
43	11100.00	89.20	91.86	100	7610.8	3739.6	-121.4	3737.6	3739.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60 1E-10

44	11200.00	89.20	81.86	100	7612.2	3839.6	-124.6	3837.6	3839.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
45	11300.00	89.20	81.86	100	7613.6	3939.6	-127.9	3937.5	3939.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
46	11400.00	89.20	81.86	100	7615.0	4039.6	-131.1	4037.5	4039.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
47	11500.00	89.20	81.86	100	7616.4	4139.6	-134.3	4137.4	4139.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
48	11600.00	89.20	81.86	100	7617.8	4239.6	-137.6	4237.3	4239.6	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
49	11700.00	89.20	81.86	100	7619.2	4339.5	-140.8	4337.3	4339.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
50	11800.00	89.20	81.86	100	7620.6	4439.5	-144.1	4437.2	4439.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
51	11900.00	89.20	81.86	100	7622.0	4539.5	-147.3	4537.1	4539.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
52	12000.00	89.20	81.86	100	7623.4	4639.5	-150.6	4637.1	4639.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
53	12100.00	89.20	81.86	100	7624.8	4739.5	-153.8	4737.0	4739.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
54	12200.00	89.20	81.86	100	7626.2	4839.5	-157.1	4837.0	4839.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
55	12300.00	89.20	81.86	100	7627.6	4939.5	-160.3	4936.9	4939.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
56	12400.00	89.20	81.86	100	7629.0	5039.5	-163.6	5036.8	5039.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
57	12500.00	89.20	81.86	100	7630.4	5139.5	-166.8	5136.8	5139.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
58	12600.00	89.20	81.86	100	7631.8	5239.5	-170.0	5236.7	5239.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
59	12700.00	89.20	81.86	100	7633.2	5339.5	-173.3	5336.6	5339.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
60	12800.00	89.20	81.86	100	7634.6	5439.4	-176.5	5436.6	5439.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
61	12900.00	89.20	81.86	100	7636.0	5539.4	-179.8	5536.5	5539.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
62	13000.00	89.20	81.86	100	7637.4	5639.4	-183.0	5636.5	5639.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
63	13100.00	89.20	81.86	100	7638.8	5739.4	-186.3	5736.4	5739.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
64	13200.00	89.20	81.86	100	7640.2	5839.4	-189.5	5836.3	5839.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
65	13300.00	89.20	81.86	100	7641.6	5939.4	-192.8	5936.3	5939.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
66	13400.00	89.20	81.86	100	7643.0	6039.4	-196.0	6036.2	6039.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
67	13500.00	89.20	81.86	100	7644.4	6139.4	-199.3	6136.1	6139.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
68	13600.00	89.20	81.86	100	7645.8	6239.4	-202.5	6236.1	6239.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
69	13700.00	89.20	81.86	100	7647.2	6339.4	-205.7	6336.0	6339.4	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
70	13800.00	89.20	81.86	100	7648.6	6439.3	-209.0	6436.0	6439.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
71	13900.00	89.20	81.86	100	7650.0	6539.3	-212.2	6535.9	6539.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
72	14000.00	89.20	81.86	100	7651.4	6639.3	-215.5	6635.8	6639.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
73	14100.00	89.20	81.86	100	7652.8	6739.3	-218.7	6735.8	6739.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
74	14200.00	89.20	81.86	100	7654.2	6839.3	-222.0	6835.7	6839.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
75	14300.00	89.20	81.86	100	7655.7	6939.3	-225.2	6935.6	6939.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
76	14400.00	89.20	81.86	100	7657.1	7039.3	-228.5	7035.6	7039.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
77	14500.00	89.20	81.86	100	7658.5	7139.3	-231.7	7135.5	7139.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
78	14600.00	89.20	81.86	100	7659.9	7239.3	-234.9	7235.5	7239.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
79	14700.00	89.20	81.86	100	7661.3	7339.3	-238.2	7335.4	7339.3	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
80	14800.00	89.20	81.86	100	7662.7	7439.2	-241.4	7435.3	7439.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
81	14900.00	89.20	81.86	100	7664.1	7539.2	-244.7	7535.3	7539.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
82	15000.00	89.20	81.86	100	7665.5	7639.2	-247.9	7635.2	7639.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
83	15100.00	89.20	81.86	100	7666.9	7739.2	-251.2	7735.1	7739.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
84	15200.00	89.20	81.86	100	7668.3	7839.2	-254.4	7835.1	7839.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
85	15300.00	89.20	81.86	100	7669.7	7939.2	-257.7	7935.0	7939.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
86	15400.00	89.20	81.86	100	7671.1	8039.2	-260.9	8035.0	8039.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
87	15500.00	89.20	81.86	100	7672.5	8139.2	-264.2	8134.9	8139.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
88	15600.00	89.20	81.86	100	7673.9	8239.2	-267.4	8234.8	8239.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
89	15700.00	89.20	81.86	100	7675.3	8339.2	-270.6	8334.8	8339.2	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
90	15800.00	89.20	81.86	100	7676.7	8439.1	-273.9	8434.7	8439.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
91	15900.00	89.20	81.86	100	7678.1	8539.1	-277.1	8534.6	8539.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
92	16000.00	89.20	81.86	100	7679.5	8639.1	-280.4	8634.6	8639.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
93	16100.00	89.20	81.86	100	7680.9	8739.1	-283.6	8734.5	8739.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
94	16200.00	89.20	81.86	100	7682.3	8839.1	-286.9	8834.5	8839.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
95	16300.00	89.20	81.86	100	7683.7	8939.1	-290.1	8934.4	8939.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
96	16400.00	89.20	81.86	100	7685.1	9039.1	-293.4	9034.3	9039.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
97	16500.00	89.20	81.86	100	7686.5	9139.1	-296.6	9134.3	9139.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
98	16600.00	89.20	81.86	100	7687.9	9239.1	-299.9	9234.2	9239.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
99	16700.00	89.20	81.86	100	7689.3	9339.1	-303.1	9334.1	9339.1	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
100	16800.00	89.20	81.86	100	7690.7	9439.0	-306.3	9434.1	9439.0	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
101	16900.00	89.20	81.86	100	7692.1	9539.0	-309.6	9534.0	9539.0	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
102	17000.00	89.20	81.86	100	7693.5	9639.0	-312.8	9634.0	9639.0	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
103	17100.00	89.20	81.86	100	7694.9	9739.0	-316.1	9733.9	9739.0	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10
104	17180.46	89.20	81.86	80.463	7696.0	9819.5	-318.7	9814.3	9819.5	91.9	0.0	0.0	7558.4	6.6	1.556776	1.60	1E-10