

ARCO OIL AND GAS  
OSUDO STATE NO.1BOSS-6173  
NOVEMBER 27, 1982

TOTAL DEPTH	DIRECTION DEG	ANGLE DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
0	0.0	0.00	0.00	0.00 N	0.00 E	0.00	0.00
100	45.7	0.23	100.00	0.14 N	0.14 E	0.10	0.23
200	30.3	0.44	200.00	0.61 N	0.48 E	0.31	0.23
300	64.2	0.65	299.99	1.19 N	1.19 E	0.84	0.38
400	74.2	0.85	399.98	1.64 N	2.41 E	1.92	0.24
500	69.7	0.78	499.97	2.08 N	3.76 E	3.11	0.09
600	59.4	0.44	599.97	2.51 N	4.73 E	3.94	0.36
700	23.2	0.34	699.97	2.98 N	5.18 E	4.25	0.26
800	13.2	0.37	799.96	3.56 N	5.37 E	4.29	0.07
900	34.0	0.37	899.96	4.15 N	5.62 E	4.39	0.13
1000	38.5	0.32	999.96	4.63 N	5.98 E	4.61	0.06
1100	8.3	0.32	1099.96	5.13 N	6.19 E	4.69	0.17
1200	34.0	0.32	1199.96	5.63 N	6.39 E	4.75	0.14
1300	359.4	0.30	1299.95	6.13 N	6.54 E	4.77	0.19
1400	10.6	0.20	1399.95	6.56 N	6.57 E	4.69	0.11
1500	24.4	0.20	1499.95	6.89 N	6.68 E	4.71	0.05
1600	8.9	0.28	1599.95	7.29 N	6.78 E	4.71	0.10
1700	37.1	0.15	1699.95	7.64 N	6.90 E	4.74	0.16
1800	9.7	0.13	1799.95	7.85 N	7.00 E	4.78	0.07
1900	158.0	0.11	1899.95	7.88 N	7.05 E	4.83	0.23
2000	241.4	0.18	1999.95	7.71 N	6.95 E	4.77	0.20
2100	179.0	0.16	2099.95	7.50 N	6.82 E	4.69	0.18
2200	193.9	0.13	2199.95	7.25 N	6.79 E	4.73	0.05
2300	138.5	0.06	2299.95	7.10 N	6.80 E	4.78	0.11
2400	215.1	0.33	2399.95	6.82 N	6.67 E	4.72	0.32
2500	177.7	0.23	2499.95	6.39 N	6.51 E	4.68	0.20
2600	174.1	0.44	2599.94	5.81 N	6.56 E	4.87	0.21
2700	106.7	0.16	2699.94	5.38 N	6.73 E	5.15	0.41
2800	152.5	0.31	2799.94	5.10 N	6.99 E	5.47	0.23
2900	101.6	0.41	2899.94	4.79 N	7.47 E	6.01	0.32
3000	134.3	0.43	2999.94	4.46 N	8.09 E	6.69	0.24
3100	105.9	0.44	3099.93	4.09 N	8.72 E	7.40	0.21
3200	83.8	0.44	3199.93	4.03 N	9.47 E	8.14	0.17
3300	99.8	0.52	3299.93	3.99 N	10.30 E	8.95	0.16
3400	82.2	0.55	3399.92	3.98 N	11.23 E	9.85	0.17
3500	82.2	0.55	3499.92	4.11 N	12.18 E	10.74	0.00
3600	93.2	0.35	3599.91	4.16 N	12.96 E	11.48	0.22
3700	100.4	0.41	3699.91	4.08 N	13.61 E	12.14	0.08
3800	114.3	0.16	3799.91	3.95 N	14.09 E	12.63	0.26
3900	127.1	0.15	3899.91	3.77 N	14.57 E	13.12	0.30
4000	137.1	0.15	3999.91	3.54 N	15.05 E	13.61	0.34
4100	144.1	0.15	4099.91	3.27 N	15.53 E	14.10	0.38
4200	148.1	0.15	4199.91	2.95 N	16.01 E	14.59	0.42
4300	149.1	0.15	4299.91	2.59 N	16.49 E	15.08	0.46
4400	147.1	0.15	4399.91	2.19 N	16.97 E	15.57	0.50
4500	142.1	0.15	4499.91	1.76 N	17.45 E	16.06	0.54
4600	134.1	0.15	4599.91	1.30 N	17.93 E	16.55	0.58
4700	123.1	0.15	4699.91	0.81 N	18.41 E	17.04	0.62
4800	109.1	0.15	4799.91	0.30 N	18.89 E	17.53	0.66
4900	93.1	0.15	4899.91	-0.21 N	19.37 E	18.02	0.70
5000	75.1	0.15	4999.91	-0.72 N	19.85 E	18.51	0.74

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4000	150.6	0.13	3999.91	3.91 N	14.51 E	13.05	0.19
4100	130.0	0.11	4099.91	3.75 N	14.64 E	13.21	0.05
4200	171.0	0.11	4199.90	3.59 N	14.73 E	13.34	0.08
4300	139.8	0.30	4299.90	3.29 N	14.92 E	13.59	0.21
4400	135.5	0.20	4399.89	2.97 N	15.21 E	13.96	0.10
4500	102.7	0.22	4499.89	2.80 N	15.52 E	14.30	0.12
4600	130.6	0.35	4599.89	2.56 N	15.94 E	14.77	0.19
4700	121.4	0.23	4699.88	2.26 N	16.34 E	15.23	0.13
4800	106.8	0.21	4799.88	2.10 N	16.69 E	15.61	0.06
4900	124.2	0.24	4899.88	1.93 N	17.03 E	15.99	0.07
5000	154.2	0.17	4999.87	1.68 N	17.27 E	16.28	0.13
5100	49.5	0.28	5099.87	1.70 N	17.52 E	16.52	0.36
5200	186.9	0.18	5199.86	1.71 N	17.69 E	16.68	0.43
5300	182.7	0.23	5299.86	1.35 N	17.66 E	16.74	0.05
5400	177.2	0.54	5399.86	0.68 N	17.68 E	16.92	0.31
5500	226.0	0.15	5499.85	0.12 N	17.60 E	17.00	0.46
5600	228.0	0.13	5599.85	0.06 S	17.43 E	16.87	0.02
5700	184.2	0.49	5699.84	0.56 S	17.31 E	16.88	0.41
5800	195.3	0.26	5799.84	1.21 S	17.22 E	16.96	0.24
5900	179.0	0.22	5899.84	1.62 S	17.16 E	17.01	0.08
6000	198.2	0.21	5999.83	1.98 S	17.11 E	17.05	0.07
6100	182.5	0.01	6099.83	2.17 S	17.05 E	17.04	0.20
6200	210.6	0.07	6199.82	2.23 S	17.02 E	17.02	0.06
6300	262.5	0.13	6299.82	2.29 S	16.88 E	16.90	0.10
6400	232.9	0.27	6399.82	2.45 S	16.58 E	16.65	0.17
6500	211.8	0.35	6499.81	2.85 S	16.23 E	16.42	0.14
6600	186.2	0.20	6599.81	3.29 S	16.05 E	16.35	0.19
6700	185.9	0.22	6699.81	3.65 S	16.01 E	16.41	0.02
6800	146.2	0.52	6799.80	4.22 S	16.24 E	16.78	0.38
6900	126.0	0.58	6899.79	4.89 S	16.90 E	17.59	0.20
7000	124.4	0.95	6999.78	5.66 S	18.00 E	18.84	0.37
7100	130.7	1.33	7099.76	6.88 S	19.56 E	20.66	0.40
7200	125.1	1.15	7199.73	8.22 S	21.26 E	22.65	0.22
7300	122.0	1.14	7299.71	9.32 S	22.93 E	24.54	0.06
7400	124.6	1.45	7399.68	10.57 S	24.81 E	26.68	0.32
7500	120.7	1.35	7499.65	11.89 S	26.86 E	29.00	0.14
7600	107.6	1.51	7599.62	12.89 S	29.13 E	31.45	0.36
7700	106.0	1.17	7699.59	13.57 S	31.37 E	33.78	0.34
7800	106.4	1.51	7799.55	14.22 S	33.62 E	36.12	0.34
7900	107.3	1.55	7899.52	15.00 S	34.17 E	38.79	0.05

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8000	105.4	1.28	7999.48	15.69 S	38.54 E	41.26	0.27
8100	102.6	1.08	8099.46	16.20 S	40.54 E	43.32	0.21
8200	98.3	0.95	8199.44	16.52 S	42.28 E	45.08	0.15
8300	88.0	0.76	8299.43	16.62 S	43.76 E	46.54	0.24
8400	72.1	0.51	8399.42	16.46 S	44.85 E	47.55	0.30
8500	62.9	0.45	8499.42	16.14 S	45.62 E	48.22	0.10
8600	59.9	0.20	8599.41	15.88 S	46.12 E	48.64	0.25
8700	108.1	0.12	8699.41	15.82 S	46.37 E	48.86	0.15
8800	227.3	0.04	8799.41	15.88 S	46.44 E	48.95	0.14
8900	108.0	0.12	8899.40	15.93 S	46.52 E	49.03	0.14
9000	136.9	0.39	8999.40	16.21 S	46.85 E	49.43	0.29
9100	28.6	0.09	9099.39	16.39 S	47.12 E	49.73	0.43
9200	95.2	0.61	9199.39	16.37 S	47.69 E	50.28	0.58
9300	71.7	0.48	9299.38	16.29 S	48.62 E	51.15	0.26
9400	80.4	0.61	9399.38	16.07 S	49.54 E	51.99	0.15
9500	80.3	0.67	9499.37	15.88 S	50.64 E	53.01	0.06
9600	85.2	0.87	9599.36	15.72 S	51.97 E	54.26	0.21
9700	85.9	0.78	9699.34	15.61 S	53.41 E	55.62	0.09
9800	68.9	0.83	9799.33	15.30 S	54.76 E	56.85	0.24
9900	95.7	0.79	9899.32	15.11 S	56.12 E	58.12	0.38
10000	63.6	0.37	9999.31	15.03 S	57.10 E	59.04	0.52
10100	53.9	0.37	10099.31	14.70 S	57.65 E	59.49	0.06
10200	105.9	0.49	10199.31	14.62 S	58.32 E	60.12	0.39
10300	103.1	0.67	10299.31	14.87 S	59.30 E	61.13	0.18
10400	109.2	1.58	10399.28	15.46 S	61.17 E	63.09	0.92
10500	115.1	1.55	10499.24	16.49 S	63.70 E	65.80	0.16
10585	105.5	1.16	10584.22	17.20 S	65.57 E	67.79	0.53

THE DOGLEG SEVERITY IS IN DEGREES PER ONE HUNDRED FEET.  
THE VERTICAL SECTION WAS COMPUTED ALONG AZ. 104.7

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE  
DISPLACEMENT IS 67.79 FEET, IN THE DIRECTION OF AZ. 104.7  
BOTTOM HOLE DISPLACEMENT IS RELATIVE TO WELLHEAD.  
VERTICAL SECTION IS RELATIVE TO WELLHEAD.