

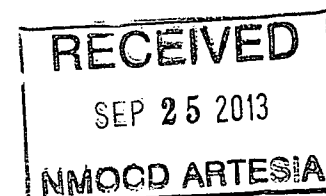
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A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

BOPCO



Lease: PKER LAKE UNIT Well: DELAWARE B-23 FED #1 SWD, 5 INCH DRILL PIPE
Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

gyrodata

Job Number: MD0613GDM401

Azimuth Correction:

Gyro: -0.26000 deg to Grid North

Run Date: 22 Jun 2013

Report Generated: 24 Jun 2013-09:59

Depth-Reference: Rotary Table

Surveyor: Che Garcia

Rotary Table Elevation: 26.00

Calculation Method: MINIMUM CURVATURE

Vertical Section Calculated from Well Head Location

Survey surface coordinates obtained from: Hand Held GPS

Closure Calculated from Well Head Location

Survey Latitude: 32.207444 deg. N Longitude: 103.852389 deg. W

Horizontal Coordinates Calculated from Well Head Location

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
0.00	0.00	0.00	N 0 0 E	0.00	0.00	0.0 0.0	0.00 N 0.00 E
0 - 16352.7FT RATE GYROSCOPIC MULTISHOT SHOT SURVEY TO RUN INSIDE 5 INCH DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO INDEPENDENCE 202 WITH A R.K.B HEIGHT OF 26 FT							
67.24	0.39	268.78	S 88 47 W	0.58	67.24	0.2 268.8	0.00 S 0.23 W
161.74	0.47	259.19	S 79 11 W	0.11	161.74	0.9 264.8	0.08 S 0.93 W
256.24	0.45	247.36	S 67 22 W	0.10	256.23	1.7 259.7	0.30 S 1.65 W
350.74	0.46	233.91	S 53 55 W	0.11	350.73	2.4 253.9	0.67 S 2.30 W
445.24	0.36	213.44	S 33 26 W	0.19	445.23	3.0 247.7	1.14 S 2.77 W
539.74	0.44	204.46	S 24 28 W	0.11	539.73	3.5 240.9	1.72 S 3.09 W
634.24	0.85	197.16	S 17 10 W	0.44	634.22	4.4 231.7	2.72 S 3.44 W
728.74	1.10	194.46	S 14 28 W	0.27	728.71	5.8 222.3	4.26 S 3.88 W
823.24	1.28	186.81	S 6 49 W	0.25	823.19	7.5 214.3	6.19 S 4.23 W
917.74	1.31	184.25	S 4 15 W	0.07	917.66	9.4 208.1	8.32 S 4.43 W
1012.24	1.32	183.71	S 3 43 W	0.02	1012.14	11.4 203.6	10.48 S 4.59 W
1106.74	1.29	182.92	S 2 55 W	0.04	1106.61	13.5 200.5	12.63 S 4.71 W
1201.24	1.22	182.14	S 2 8 W	0.08	1201.09	15.5 198.1	14.69 S 4.80 W
1232.74	1.01	177.96	S 2 2 E	0.71	1232.58	16.0 197.4	15.31 S 4.80 W
1327.24	0.93	177.82	S 2 11 E	0.08	1327.07	17.6 195.7	16.91 S 4.75 W
1421.74	0.93	178.44	S 1 34 E	0.01	1421.56	19.0 194.3	18.44 S 4.70 W
1516.24	0.75	175.27	S 4 44 E	0.20	1516.05	20.4 193.1	19.82 S 4.62 W
1610.74	0.54	173.28	S 6 43 E	0.22	1610.54	21.4 192.2	20.88 S 4.52 W

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1705.24	0.37	170.10	S 9 54 E	0.18	1705.04	22.1 191.5	21.62 S 4.42 W
1799.74	0.28	166.50	S 13 30 E	0.10	1799.54	22.6 191.0	22.15 S 4.31 W
1894.24	0.20	140.35	S 39 39 E	0.14	1894.04	22.9 190.5	22.50 S 4.15 W
1988.74	0.20	122.26	S 57 44 E	0.07	1988.54	23.0 189.8	22.72 S 3.91 W
2083.24	0.20	94.25	S 85 45 E	0.10	2083.03	23.1 189.0	22.82 S 3.60 W
2177.74	0.22	80.83	N 80 50 E	0.06	2177.53	23.0 188.1	22.80 S 3.26 W
2272.24	0.06	150.02	S 29 59 E	0.22	2272.03	23.0 187.6	22.81 S 3.05 W
2366.74	0.07	225.75	S 45 45 W	0.08	2366.53	23.1 187.6	22.90 S 3.07 W
2461.24	0.11	245.93	S 65 56 W	0.05	2461.03	23.2 187.9	22.97 S 3.19 W
2555.74	0.15	263.85	S 83 51 W	0.06	2555.53	23.3 188.4	23.02 S 3.40 W
2650.24	0.26	296.08	N 63 55 W	0.16	2650.03	23.2 189.2	22.94 S 3.72 W
2744.74	0.32	301.20	N 58 48 W	0.07	2744.53	23.1 190.3	22.71 S 4.13 W
2839.24	0.38	312.08	N 47 55 W	0.09	2839.03	22.8 191.6	22.36 S 4.59 W
2933.74	0.32	311.29	N 48 43 W	0.06	2933.53	22.5 192.9	21.98 S 5.02 W
3028.24	0.31	316.57	N 43 26 W	0.03	3028.03	22.3 194.0	21.62 S 5.40 W
3122.74	0.22	11.39	N 11 23 E	0.27	3122.53	22.0 194.6	21.26 S 5.54 W
3217.24	0.23	16.20	N 16 12 E	0.02	3217.03	21.6 194.6	20.90 S 5.45 W
3311.74	0.26	46.74	N 46 44 E	0.14	3311.52	21.2 194.3	20.57 S 5.24 W
3406.24	0.28	58.10	N 58 6 E	0.06	3406.02	20.9 193.5	20.30 S 4.89 W
3500.74	0.33	67.40	N 67 24 E	0.07	3500.52	20.6 192.5	20.07 S 4.44 W
3595.24	0.47	90.27	S 89 44 E	0.22	3595.02	20.3 190.8	19.97 S 3.80 W

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
3689.74	0.61	106.94	S 73 4 E	0.22	3689.52	20.3	188.3	20.12 S 2.93 W
3784.24	0.72	119.60	S 60 24 E	0.19	3784.01	20.6	185.4	20.56 S 1.94 W
3878.74	0.75	130.28	S 49 43 E	0.15	3878.50	21.3	182.6	21.25 S 0.95 W
3973.24	0.42	136.10	S 43 54 E	0.35	3973.00	21.9	180.6	21.90 S 0.24 W
4067.74	0.27	131.97	S 48 2 E	0.16	4067.49	22.3	179.6	22.30 S 0.17 E
4162.24	0.13	136.05	S 43 57 E	0.15	4161.99	22.5	179.0	22.53 S 0.41 E
4256.74	0.15	141.38	S 38 37 E	0.03	4256.49	22.7	178.6	22.70 S 0.56 E
4351.24	0.15	146.85	S 33 9 E	0.02	4350.99	22.9	178.2	22.90 S 0.71 E
4445.74	0.20	154.59	S 25 25 E	0.06	4445.49	23.2	177.9	23.15 S 0.85 E
4540.24	0.25	180.17	S 0 10 W	0.12	4539.99	23.5	177.8	23.51 S 0.92 E
4634.74	0.28	180.94	S 0 56 W	0.03	4634.49	24.0	177.8	23.94 S 0.91 E
4729.24	0.29	182.69	S 2 41 W	0.01	4728.99	24.4	177.9	24.41 S 0.90 E
4823.74	0.33	180.25	S 0 15 W	0.04	4823.49	24.9	178.0	24.92 S 0.88 E
4918.24	0.26	177.25	S 2 45 E	0.08	4917.99	25.4	178.0	25.41 S 0.89 E
5012.74	0.21	175.93	S 4 4 E	0.05	5012.49	25.8	178.0	25.80 S 0.92 E
5107.24	0.37	135.00	S 45 0 E	0.27	5106.99	26.2	177.5	26.19 S 1.14 E
5201.74	0.39	132.81	S 47 11 E	0.03	5201.48	26.7	176.6	26.62 S 1.60 E
5296.24	0.38	130.05	S 49 57 E	0.02	5295.98	27.1	175.6	27.04 S 2.07 E
5390.74	0.36	123.60	S 56 24 E	0.05	5390.48	27.5	174.7	27.41 S 2.56 E
5485.24	0.38	117.16	S 62 50 E	0.05	5484.98	27.9	173.6	27.71 S 3.08 E
5579.74	0.38	128.88	S 51 7 E	0.08	5579.48	28.3	172.7	28.05 S 3.61 E
5674.24	0.39	145.43	S 34 34 E	0.12	5673.97	28.8	171.9	28.52 S 4.03 E

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
5768.74	0.44	185.49	S 5 29 W	0.30	5768.47	29.4	171.8	29.14 S 4.18 E
5863.24	0.56	193.62	S 13 37 W	0.15	5862.97	30.2	172.3	29.95 S 4.04 E
5957.74	0.69	217.71	S 37 43 W	0.31	5957.46	31.1	173.4	30.85 S 3.58 E
6052.24	0.76	208.22	S 28 13 W	0.15	6051.95	32.0	174.7	31.85 S 2.94 E
6146.74	0.78	200.23	S 20 14 W	0.12	6146.45	33.1	175.8	33.01 S 2.42 E
6241.24	0.99	188.83	S 8 50 W	0.29	6240.93	34.5	176.6	34.42 S 2.07 E
6335.74	1.04	183.68	S 3 41 W	0.11	6335.42	36.1	177.0	36.08 S 1.89 E
6430.24	1.09	185.77	S 5 46 W	0.07	6429.90	37.9	177.4	37.83 S 1.74 E
6524.74	1.11	186.43	S 6 26 W	0.03	6524.39	39.7	177.8	39.64 S 1.55 E
6619.24	1.15	183.77	S 3 46 W	0.07	6618.87	41.5	178.1	41.49 S 1.39 E
6713.74	1.16	182.06	S 2 4 W	0.04	6713.35	43.4	178.3	43.39 S 1.29 E
6808.24	1.16	178.33	S 1 40 E	0.08	6807.83	45.3	178.4	45.31 S 1.28 E
6902.74	1.00	161.62	S 18 23 E	0.37	6902.31	47.1	178.1	47.04 S 1.57 E
6997.24	1.07	159.07	S 20 56 E	0.09	6996.80	48.7	177.5	48.65 S 2.15 E
7091.74	1.09	159.00	S 21 0 E	0.02	7091.28	50.4	176.8	50.31 S 2.78 E
7186.24	1.11	152.06	S 27 56 E	0.14	7185.76	52.1	176.1	51.96 S 3.53 E
7280.74	1.27	153.63	S 26 22 E	0.17	7280.24	53.9	175.3	53.71 S 4.43 E
7375.24	1.26	150.16	S 29 50 E	0.08	7374.72	55.8	174.4	55.55 S 5.41 E
7469.74	1.21	151.45	S 28 33 E	0.06	7469.20	57.7	173.6	57.33 S 6.40 E
7564.24	1.01	157.20	S 22 48 E	0.24	7563.68	59.4	173.0	58.97 S 7.20 E
7658.74	1.08	153.08	S 26 55 E	0.11	7658.16	61.0	172.5	60.53 S 7.93 E
7753.24	1.11	146.26	S 33 44 E	0.14	7752.65	62.7	171.9	62.09 S 8.84 E

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
7847.74	1.24	148.62	S 31 23 E	0.15	7847.13	64.5	171.2	63.72 S 9.88 E
7942.24	1.13	159.30	S 20 42 E	0.26	7941.61	66.3	170.7	65.47 S 10.74 E
8036.74	0.98	168.16	S 11 50 E	0.23	8036.09	68.1	170.5	67.13 S 11.24 E
8131.24	0.99	181.25	S 1 15 W	0.24	8130.58	69.7	170.6	68.74 S 11.39 E
8225.74	1.58	224.69	S 44 41 W	1.16	8225.05	71.2	171.6	70.48 S 10.45 E
8320.24	2.62	245.41	S 65 25 W	1.35	8319.49	72.7	174.0	72.30 S 7.57 E
8414.74	3.40	236.59	S 56 35 W	0.96	8413.86	74.8	177.5	74.75 S 3.27 E
8509.24	3.27	230.65	S 50 39 W	0.39	8508.20	78.0	180.8	78.00 S 1.15 W
8603.74	2.89	229.35	S 49 21 W	0.41	8602.56	81.4	183.6	81.26 S 5.04 W
8698.24	2.81	226.16	S 46 10 W	0.19	8696.95	84.8	185.8	84.41 S 8.52 W
8792.74	3.32	228.35	S 48 21 W	0.55	8791.31	88.7	187.9	87.84 S 12.24 W
8887.24	3.36	232.72	S 52 43 W	0.27	8885.65	92.8	190.2	91.33 S 16.49 W
8981.74	2.95	232.87	S 52 52 W	0.43	8980.01	96.7	192.3	94.48 S 20.63 W
9076.24	2.78	236.69	S 56 41 W	0.27	9074.39	100.2	194.1	97.20 S 24.48 W
9170.74	2.99	241.81	S 61 49 W	0.35	9168.77	103.6	196.0	99.63 S 28.57 W
9265.24	2.86	215.47	S 35 28 W	1.42	9263.15	107.6	197.4	102.71 S 32.11 W
9359.74	2.57	211.43	S 31 26 W	0.37	9357.55	111.9	198.0	106.44 S 34.58 W
9454.24	2.60	202.99	S 22 59 W	0.40	9451.95	116.1	198.3	110.22 S 36.53 W
9548.74	2.61	192.22	S 12 13 W	0.52	9546.35	120.4	198.3	114.30 S 37.82 W
9643.24	2.10	181.62	S 1 37 W	0.71	9640.77	124.2	198.0	118.13 S 38.32 W
9737.74	2.02	177.31	S 2 41 E	0.18	9735.21	127.4	197.5	121.53 S 38.29 W

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
9832.24	1.77	165.26	S 14 44 E	0.50	9829.66	130.2 196.9	124.60 S 37.84 W
9926.74	1.66	167.10	S 12 54 E	0.13	9924.12	132.7 196.3	127.35 S 37.17 W
10021.24	1.42	188.62	S 8 37 W	0.66	10018.58	135.0 195.9	129.84 S 37.04 W
10115.74	1.79	195.85	S 15 51 W	0.45	10113.05	137.7 195.9	132.42 S 37.62 W
10210.24	2.14	190.34	S 10 20 W	0.42	10207.49	140.9 195.8	135.57 S 38.34 W
10304.74	2.45	201.16	S 21 10 W	0.56	10301.92	144.7 195.8	139.19 S 39.38 W
10399.24	2.21	207.66	S 27 40 W	0.38	10396.34	148.4 196.0	142.69 S 40.96 W
10493.74	2.32	212.94	S 32 56 W	0.25	10490.76	152.1 196.4	145.91 S 42.84 W
10588.24	2.58	215.32	S 35 19 W	0.30	10585.18	155.9 196.8	149.25 S 45.11 W
10682.74	2.61	208.24	S 28 14 W	0.34	10679.58	160.0 197.2	152.88 S 47.36 W
10777.24	3.20	217.44	S 37 26 W	0.79	10773.96	164.6 197.7	156.87 S 49.98 W
10871.74	3.12	220.85	S 40 51 W	0.22	10868.32	169.5 198.3	160.91 S 53.27 W
10966.24	2.95	221.40	S 41 24 W	0.18	10962.68	174.1 199.0	164.68 S 56.56 W
11060.74	2.80	221.35	S 41 21 W	0.16	11057.07	178.5 199.5	168.23 S 59.69 W
11155.24	2.81	220.49	S 40 29 W	0.05	11151.45	182.8 200.1	171.73 S 62.72 W
11249.74	2.77	219.34	S 39 20 W	0.07	11245.84	187.2 200.5	175.26 S 65.67 W
11344.24	2.42	217.69	S 37 41 W	0.38	11340.24	191.2 200.9	178.60 S 68.34 W
11438.74	2.09	218.87	S 38 52 W	0.35	11434.67	194.8 201.3	181.52 S 70.64 W
11533.24	1.93	217.04	S 37 2 W	0.18	11529.11	198.0 201.5	184.13 S 72.68 W
11627.74	1.82	221.78	S 41 47 W	0.20	11623.56	200.9 201.8	186.52 S 74.64 W
11722.24	1.74	222.02	S 42 1 W	0.09	11718.02	203.7 202.1	188.71 S 76.60 W
11816.74	2.23	234.90	S 54 54 W	0.70	11812.46	206.6 202.5	190.83 S 79.06 W

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

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MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
11911.24	1.08	256.49	S 76 29 W	1.36	11906.92	208.6 203.0	192.10 S 81.43 W
12005.74	1.12	280.96	N 79 2 W	0.50	12001.40	209.4 203.4	192.13 S 83.20 W
12100.24	1.03	304.58	N 55 25 W	0.47	12095.89	209.4 203.9	191.47 S 84.81 W
12194.74	0.85	301.29	N 58 43 W	0.20	12190.37	209.2 204.3	190.62 S 86.11 W
12289.24	1.17	293.11	N 66 53 W	0.37	12284.86	209.1 204.8	189.88 S 87.60 W
12383.74	1.18	282.47	N 77 32 W	0.23	12379.34	209.4 205.3	189.29 S 89.43 W
12478.24	1.67	288.60	N 71 24 W	0.54	12473.81	209.7 205.9	188.64 S 91.69 W
12572.74	1.67	273.19	N 86 49 W	0.47	12568.27	210.5 206.6	188.13 S 94.37 W
12667.24	2.35	278.91	N 81 5 W	0.75	12662.71	211.6 207.5	187.75 S 97.66 W
12761.74	2.39	281.16	N 78 50 W	0.11	12757.13	212.8 208.5	187.07 S 101.50 W
12856.24	2.58	288.11	N 71 53 W	0.38	12851.54	213.8 209.5	186.03 S 105.46 W
12950.74	2.51	289.17	N 70 50 W	0.09	12945.95	214.7 210.6	184.69 S 109.44 W
13045.24	2.54	287.60	N 72 24 W	0.08	13040.36	215.6 211.7	183.37 S 113.39 W
13139.74	2.41	290.37	N 69 38 W	0.19	13134.77	216.5 212.8	182.05 S 117.24 W
13234.24	2.38	291.85	N 68 9 W	0.07	13229.19	217.4 213.8	180.63 S 120.93 W
13328.74	2.50	288.67	N 71 20 W	0.19	13323.60	218.3 214.8	179.24 S 124.70 W
13423.24	2.60	287.43	N 72 34 W	0.12	13418.01	219.6 215.9	177.93 S 128.70 W
13517.74	2.38	288.74	N 71 16 W	0.24	13512.42	220.9 216.9	176.66 S 132.60 W
13612.24	2.25	292.00	N 68 0 W	0.20	13606.84	222.0 217.8	175.34 S 136.18 W
13706.74	1.96	299.08	N 60 55 W	0.41	13701.28	222.8 218.7	173.86 S 139.31 W
13801.24	2.25	297.98	N 62 1 W	0.31	13795.71	223.4 219.6	172.20 S 142.36 W
13895.74	2.17	294.60	N 65 24 W	0.16	13890.14	224.3 220.5	170.59 S 145.63 W

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Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
13990.24	2.31	291.87	N 68 8 W	0.19	13984.57	225.4	221.4	169.13 S 149.02 W
14084.74	2.39	296.50	N 63 30 W	0.22	14078.99	226.6	222.3	167.54 S 152.55 W
14179.24	2.58	302.59	N 57 25 W	0.34	14173.40	227.5	223.3	165.52 S 156.11 W
14273.74	2.32	312.47	N 47 32 W	0.52	14267.82	228.0	224.3	163.08 S 159.31 W
14368.24	2.50	307.91	N 52 5 W	0.28	14362.23	228.3	225.3	160.52 S 162.35 W
14462.74	2.20	283.08	N 76 55 W	1.11	14456.65	229.6	226.2	158.85 S 165.74 W
14557.24	2.26	260.05	S 80 3 W	0.94	14551.09	232.1	226.8	158.76 S 169.34 W
14651.74	2.27	250.82	S 70 49 W	0.39	14645.51	235.4	227.3	159.69 S 172.95 W
14746.24	2.38	260.77	S 80 46 W	0.44	14739.93	238.8	227.7	160.62 S 176.65 W
14840.74	1.91	282.13	N 77 52 W	0.97	14834.37	241.3	228.3	160.61 S 180.13 W
14935.24	1.66	292.73	N 67 16 W	0.44	14928.82	242.9	228.9	159.75 S 182.93 W
15029.74	1.29	284.69	N 75 19 W	0.45	15023.29	244.1	229.4	158.95 S 185.22 W
15124.24	1.19	291.13	N 68 52 W	0.18	15117.77	245.1	229.8	158.33 S 187.16 W
15218.74	1.60	298.46	N 61 32 W	0.47	15212.24	246.1	230.3	157.34 S 189.24 W
15313.24	1.25	290.46	N 69 32 W	0.43	15306.71	247.1	230.7	156.35 S 191.37 W
15407.74	1.74	295.06	N 64 56 W	0.53	15401.18	248.3	231.3	155.39 S 193.63 W
15502.24	1.77	304.42	N 55 35 W	0.30	15495.64	249.3	231.9	153.95 S 196.13 W
15596.74	1.78	306.84	N 53 10 W	0.08	15590.09	250.2	232.5	152.25 S 198.51 W
15691.24	2.01	315.09	N 44 55 W	0.38	15684.54	250.8	233.2	150.20 S 200.86 W
15785.74	2.89	323.51	N 36 29 W	1.00	15778.95	251.1	234.1	147.11 S 203.44 W
15880.24	3.80	326.82	N 33 11 W	0.98	15873.29	251.0	235.4	142.57 S 206.58 W

A Gyrodata Directional Survey

BOPCO

Lease: PKER LAKE UNIT Well: DELAWARE B-23 FED #1 SWD, 5 INCH DRILL PIPE

Location: INDEPENDENCE 202, EDDY COUNTY, NEW MEXICO

Job Number: MD0613GDM401

MEASURED DEPTH feet	I N C L deg.	AZIMUTH deg.	BORE HOLE BEARING deg. min.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. feet	AZIMUTH deg.	HORIZONTAL COORDINATES feet
15974.74	5.74	322.86	N 37 8 W	2.08	15967.46	251.3	237.2	136.18 S 211.14 W
16069.24	6.73	320.22	N 39 47 W	1.09	16061.40	252.5	239.5	128.16 S 217.54 W
16163.74	5.56	313.92	N 46 5 W	1.43	16155.36	254.8	241.7	120.73 S 224.38 W
16258.24	5.09	313.37	N 46 38 W	0.50	16249.45	257.7	243.6	114.67 S 230.72 W
16352.74	4.56	311.55	N 48 27 W	0.58	16343.61	260.6	245.2	109.30 S 236.58 W

Final Station Closure: Distance: 260.61 ft Az: 245.20 deg.

