

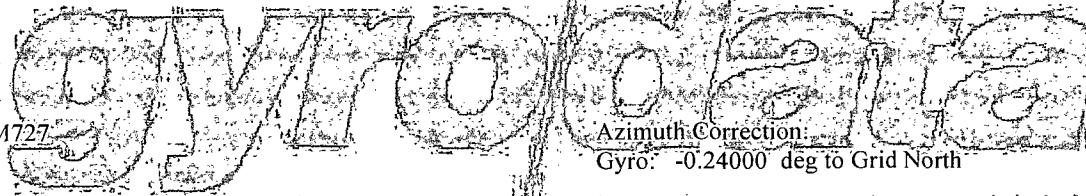
A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

BOPCO, LP

Lease: BIG EDDY UNIT D19 Well: 34H, 8" DRILL COLLARS
Location: INDEPENDENCE RIG #202, EDDY COUNTY, NEW MEXICO



Job Number: MD0714GDM727

Run Date: 19 Jul 2014

Report Generated: 23 Jul 2014 02:13

Azimuth Correction:
Gyro: -0.24000 deg to Grid North

Depth Reference: Rotary Table

Surveyor: Brandon Murphy, Jason Solomon

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Company Man
Survey Latitude: 32.457262 deg. N Longitude: 103.879087 deg. W

Air Gap (RKB to Ground / RKB to MSL): 26.00

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Well Head Location

30-D15-42008

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 24 2014

RECEIVED

A Gyrodata Directional Survey

BOPCO LP.

Lease: BIG EDDY UNIT DRILLING ISLAND Well: 34H, 5" DRILLPIPE

Location: INDEPENDANCE DRILLING RIG #202, EDDY COUNTY, NEW MEXICO

Job Number: MD0814GCM776

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
---------------------------	--------------	-----------------	--	---------------------------	---------------------------------------	-----------------------------------

0.00	0.00	0.00	0.00	0.00	0.0 0.0	0.00 N 0.00 E
------	------	------	------	------	---------	---------------

0 TO 9,375 FT. RATE GYROSCOPIC VERTICAL CONTINUOUS SURVEY RUN INSIDE 5" DRILLPIPE

ALL MEASURED DEPTHS AND COORDINATES ARE REFERENCED TO INDEPENDANCE DRILLING RIG #202 WITH A R.K.B. HEIGHT OF 26 FT.

100.00	0.87	273.93	0.87	100.00	0.8 273.9	0.05 N 0.76 W
200.00	0.20	284.61	0.68	199.99	1.7 275.0	0.15 N 1.69 W
300.00	0.05	43.45	0.22	299.99	1.8 276.9	0.22 N 1.83 W
400.00	0.04	59.46	0.01	399.99	1.8 278.7	0.27 N 1.76 W
500.00	0.13	81.03	0.09	499.99	1.6 280.7	0.31 N 1.62 W
600.00	0.21	82.64	0.08	599.99	1.4 284.8	0.35 N 1.32 W
700.00	0.31	84.13	0.09	699.99	1.0 294.7	0.40 N 0.87 W
800.00	0.62	89.91	0.31	799.99	0.4 351.1	0.43 N 0.07 W
900.00	0.72	94.18	0.12	899.98	1.2 70.8	0.38 N 1.10 E
1000.00	0.41	41.83	0.57	999.97	2.1 73.0	0.60 N 1.96 E
1100.00	0.58	8.70	0.33	1099.97	2.7 59.0	1.37 N 2.28 E
1200.00	0.82	6.56	0.24	1199.96	3.5 43.3	2.58 N 2.44 E
1300.00	0.32	13.96	0.50	1299.96	4.4 36.0	3.57 N 2.59 E
1400.00	0.16	12.26	0.17	1399.96	4.8 34.0	3.97 N 2.68 E
1500.00	0.66	255.19	0.75	1499.96	4.5 28.5	3.96 N 2.15 E
1600.00	2.42	255.96	1.76	1599.92	3.3 352.1	3.30 N 0.46 W
1700.00	3.77	256.16	1.35	1699.77	6.0 289.3	2.00 N 5.70 W

A Gyrodata Directional Survey

BOPCO LP.

Lease: BIG EDDY UNIT DRILLING ISLAND Well: 34H, 5" DRILLPIPE

Location: INDPENDANCE DRILLING RIG #202, EDDY COUNTY, NEW MEXICO

Job Number: MD0814GCM776

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
1800.00	4.38	257.22	0.61	1799.51	12.6 271.7	0.37 N 12.61 W
1900.00	4.96	258.78	0.60	1899.18	20.6 266.3	1.32 S 20.58 W
2000.00	5.74	258.91	0.78	1998.75	29.9 264.0	3.12 S 29.72 W
2100.00	6.58	258.74	0.84	2098.17	40.6 262.6	5.20 S 40.25 W
2200.00	6.54	258.17	0.07	2197.51	52.0 261.7	7.49 S 51.44 W
2300.00	5.50	255.01	1.09	2296.96	62.4 260.9	9.89 S 61.64 W
2400.00	5.61	254.83	0.11	2396.49	72.1 260.1	12.41 S 70.99 W
2500.00	5.97	254.15	0.37	2495.98	82.1 259.4	15.11 S 80.71 W
2600.00	5.62	252.27	0.40	2595.47	92.2 258.7	18.02 S 90.38 W
2700.00	5.48	249.64	0.29	2695.00	101.7 258.0	21.18 S 99.52 W
2800.00	5.67	250.17	0.20	2794.53	111.4 257.3	24.51 S 108.64 W
2900.00	4.70	243.89	1.12	2894.12	120.3 256.5	27.99 S 116.96 W
3000.00	4.33	240.66	0.45	2993.81	127.9 255.7	31.64 S 123.93 W
3100.00	4.66	241.83	0.35	3093.50	135.5 254.9	35.41 S 130.80 W
3200.00	5.34	245.74	0.76	3193.12	144.1 254.2	39.24 S 138.63 W
3300.00	5.53	247.21	0.23	3292.67	153.5 253.7	43.02 S 147.31 W
3400.00	4.91	249.65	0.66	3392.25	162.5 253.4	46.37 S 155.77 W
3500.00	4.94	250.94	0.12	3491.89	171.1 253.3	49.27 S 163.84 W
3600.00	4.94	251.24	0.03	3591.51	179.7 253.2	52.06 S 171.99 W
3700.00	4.93	249.95	0.11	3691.14	188.3 253.0	54.91 S 180.10 W
3800.00	5.01	248.93	0.11	3790.77	196.9 252.9	57.96 S 188.21 W
3900.00	5.04	248.91	0.03	3890.38	205.7 252.7	61.11 S 196.38 W

A Gyrodata Directional Survey

BOPCO LP.

Lease: BIG EDDY UNIT DRILLING ISLAND Well: 34H, 5" DRILLPIPE

Location: INDPENDANCE DRILLING RIG #202, EDDY COUNTY, NEW MEXICO

Job Number: MD0814GCM776

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
4000.00	4.99	248.07	0.09	3990.00	214.4 252.5	64.31 S 204.52 W
4100.00	5.01	247.86	0.03	4089.62	223.1 252.4	67.58 S 212.59 W
4200.00	5.00	247.24	0.05	4189.24	231.8 252.2	70.91 S 220.66 W
4300.00	4.95	246.34	0.10	4288.86	240.4 252.0	74.33 S 228.63 W
4400.00	5.02	245.37	0.11	4388.48	249.1 251.8	77.89 S 236.56 W
4500.00	5.01	244.56	0.07	4488.10	257.7 251.5	81.59 S 244.48 W
4600.00	4.93	244.01	0.09	4587.72	266.3 251.3	85.35 S 252.29 W
4700.00	4.99	243.67	0.07	4687.35	274.9 251.1	89.16 S 260.05 W
4800.00	5.02	242.87	0.07	4786.97	283.6 250.8	93.08 S 267.84 W
4900.00	4.98	240.80	0.18	4886.59	292.2 250.6	97.19 S 275.52 W
5000.00	5.05	239.86	0.11	4986.21	300.8 250.3	101.52 S 283.12 W
5100.00	5.02	246.08	0.55	5085.82	309.5 250.1	105.50 S 290.93 W
5200.00	4.97	256.13	0.88	5185.44	318.1 250.1	108.32 S 299.13 W
5300.00	4.92	259.00	0.25	5285.07	326.7 250.3	110.17 S 307.54 W
5400.00	5.03	257.98	0.14	5384.69	335.3 250.5	111.91 S 316.05 W
5500.00	4.98	251.45	0.57	5484.31	344.0 250.6	114.20 S 324.45 W
5600.00	4.72	249.59	0.30	5583.96	352.4 250.6	117.02 S 332.42 W
5700.00	4.56	249.51	0.16	5683.63	360.5 250.6	119.84 S 340.01 W
5800.00	4.50	249.29	0.07	5783.31	368.4 250.6	122.62 S 347.40 W
5900.00	4.54	249.52	0.04	5883.00	376.3 250.5	125.39 S 354.77 W
6000.00	4.52	250.27	0.06	5982.69	384.2 250.5	128.11 S 362.18 W

A Gyrodata Directional Survey

BOPCO LP.

Lease: BIG EDDY UNIT DRILLING ISLAND Well: 34H, 5" DRILLPIPE

Location: INDPENDANCE DRILLING RIG #202, EDDY COUNTY, NEW MEXICO

Job Number: MD0814GCM776

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
6100.00	4.47	249.99	0.05	6082.38	392.0 250.5	130.77 S 369.55 W
6200.00	4.53	249.20	0.08	6182.08	399.9 250.5	133.51 S 376.91 W
6300.00	4.49	247.97	0.10	6281.77	407.7 250.5	136.38 S 384.23 W
6400.00	4.49	248.92	0.07	6381.46	415.5 250.4	139.25 S 391.51 W
6500.00	4.50	246.61	0.18	6481.15	423.4 250.4	142.22 S 398.75 W
6600.00	4.62	246.98	0.13	6580.84	431.3 250.3	145.35 S 406.06 W
6700.00	4.49	245.27	0.19	6680.52	439.2 250.2	148.56 S 413.32 W
6800.00	4.51	244.34	0.08	6780.21	447.0 250.1	151.90 S 420.41 W
6900.00	4.48	244.68	0.04	6879.91	454.8 250.0	155.27 S 427.49 W
7000.00	4.35	251.15	0.51	6979.61	462.5 250.0	158.17 S 434.61 W
7100.00	4.52	255.49	0.38	7079.31	470.2 250.1	160.38 S 442.02 W
7200.00	4.47	252.96	0.20	7179.00	478.0 250.1	162.51 S 449.56 W
7300.00	4.38	252.18	0.11	7278.70	485.7 250.2	164.82 S 456.93 W
7400.00	4.44	252.82	0.08	7378.41	493.4 250.2	167.13 S 464.25 W
7500.00	4.30	260.14	0.57	7478.12	501.0 250.3	168.92 S 471.64 W
7600.00	4.63	265.93	0.56	7577.82	508.6 250.5	169.84 S 479.36 W
7700.00	4.87	249.86	1.35	7677.48	516.7 250.6	171.59 S 487.36 W
7800.00	5.02	235.29	1.26	7777.11	525.1 250.5	175.54 S 494.94 W
7900.00	5.00	232.95	0.21	7876.73	533.5 250.2	180.66 S 502.01 W
8000.00	5.04	232.74	0.04	7976.34	541.9 249.9	185.94 S 508.98 W
8100.00	5.24	232.28	0.21	8075.94	550.4 249.7	191.39 S 516.08 W
8200.00	4.93	239.09	0.68	8175.55	559.0 249.4	196.38 S 523.37 W

A Gyrodata Directional Survey

BOPCO LP.

Lease: BIG EDDY UNIT DRILLING ISLAND Well: 34H, 5" DRILLPIPE

Location: INDPENDANCE DRILLING RIG #202, EDDY COUNTY, NEW MEXICO

Job Number: MD0814GCM776

MEASURED DEPTH feet	INCL deg.	AZIMUTH deg.	DOGLEG SEVERITY deg./ 100 ft.	VERTICAL DEPTH feet	CLOSURE DIST. AZIMUTH feet deg.	HORIZONTAL COORDINATES feet
8300.00	8.57	251.75	3.92	8274.85	570.7 249.4	200.92 S 534.14 W
8400.00	16.20	260.50	7.83	8372.45	591.9 249.7	205.57 S 555.01 W
8500.00	22.52	260.84	6.32	8466.75	624.4 250.3	210.92 S 587.71 W
8600.00	24.16	255.53	2.67	8558.58	663.6 250.7	219.09 S 626.43 W
8700.00	24.25	249.29	2.56	8649.80	704.6 250.8	231.47 S 665.46 W
8800.00	25.65	240.36	4.01	8740.50	746.4 250.5	249.44 S 703.50 W
8900.00	29.68	238.09	4.16	8829.05	792.0 249.8	273.24 S 743.35 W
9000.00	38.48	240.67	8.92	8911.80	847.1 249.1	301.62 S 791.58 W
9100.00	52.24	245.26	14.14	8981.91	917.7 248.7	333.57 S 854.93 W
9200.00	62.81	246.69	10.64	9035.53	1001.9 248.5	367.81 S 931.90 W
9300.00	70.02	245.04	7.37	9075.52	1093.4 248.2	405.29 S 1015.46 W
9375.00	70.27	245.34	0.50	9100.99	1163.8 248.1	434.89 S 1079.49 W

Final Station Closure: Distance: 1163.80 ft. Az: 248.06 deg.