

30-015 -39293

Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: BOPCO, L.P. **Date:** 3/19/2012 **Time:** 07:05:01 **Page:** 1
Field: Eddy County, NM (Nad 27) **Co-ordinate(NE) Reference:** Well: 328H, Grid North
Site: Poker Lake Unit 328H **Vertical (TVD) Reference:** SITE 3531.0
Well: 328H **Section (VS) Reference:** Well (0.00N,0.00E,315.90Azi)
Wellpath: 1 **Survey Calculation Method:** Minimum Curvature **Db:** Sybase

Survey: Wft Svy **Start Date:** 3/1/2012
Company: Weatherford International Ltd **Engineer:** Russell W. Joyner
Tool: MWD;MWD - Standard **Tied-to:** User Defined

Field: Eddy County, NM (Nad 27)

Map System: US State Plane Coordinate System 1927 **Map Zone:** New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866) **Coordinate System:** Well Centre
Sys Datum: Mean Sea Level **Geomagnetic Model:** IGRF2010

Site: Poker Lake Unit 328H

Site Position: **Northing:** 448336.76 ft **Latitude:** 32 13 53.896 N
From: Map **Easting:** 652088.54 ft **Longitude:** 103 50 29.324 W
Position Uncertainty: 0.00 ft **North Reference:** Grid
Ground Level: 3509.00 ft **Grid Convergence:** 0.26 deg

Well: 328H **Slot Name:**
Well Position: **+N/-S** 0.00 ft **Northing:** 448336.76 ft **Latitude:** 32 13 53.896 N
+E/-W 0.00 ft **Easting:** 652088.54 ft **Longitude:** 103 50 29.324 W
Position Uncertainty: 0.00 ft

Wellpath: 1 **Drilled From:** Surface
Current Datum: SITE **Tie-on Depth:** 0.00 ft
Magnetic Data: 2/15/2012 **Above System Datum:** Mean Sea Level
Field Strength: 48549 nT **Declination:** 7.63 deg
Vertical Section: **Depth From (TVD)** **+N/-S** **+E/-W** **Mag Dip Angle:** 60.13 deg
ft **ft** **ft** **deg**
 0.00 0.00 0.00 315.90

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
831.00	0.69	153.16	830.99	-0.73	1.11	0.00	-1.30	448336.03	652089.66	Csg
4157.00	0.37	42.44	4156.90	-7.12	8.06	0.03	-10.72	448329.64	652096.60	Csg
7219.80	1.13	197.23	7219.55	-14.12	10.10	0.05	-17.17	448322.64	652098.64	Tie On Gyrodata
7233.00	1.22	192.12	7232.74	-14.38	10.03	1.05	-17.31	448322.38	652098.58	First Wft Svy
7264.00	1.14	214.17	7263.74	-14.96	9.79	1.48	-17.55	448321.80	652098.33	
7296.00	2.43	291.87	7295.72	-14.97	8.98	7.67	-17.00	448321.79	652097.52	
7327.00	5.66	309.87	7326.64	-13.74	7.20	11.07	-14.88	448323.02	652095.74	
7359.00	9.32	314.49	7358.37	-10.91	4.14	11.58	-10.72	448325.85	652092.68	
7390.00	13.04	317.60	7388.77	-6.57	-0.01	12.15	-4.71	448330.19	652088.53	
7422.00	17.26	320.03	7419.65	-0.26	-5.50	13.33	3.64	448336.50	652083.04	
7453.00	21.13	320.53	7448.93	7.58	-12.01	12.50	13.80	448344.34	652076.54	
7485.00	24.44	320.54	7478.42	17.14	-19.88	10.34	26.15	448353.90	652068.66	
7516.00	27.42	319.99	7506.30	27.56	-28.55	9.64	39.66	448364.32	652059.99	
7548.00	29.63	319.19	7534.41	39.20	-38.46	7.01	54.91	448375.96	652050.08	
7579.00	31.91	318.14	7561.05	51.10	-48.94	7.56	70.75	448387.86	652039.61	
7611.00	34.09	317.44	7587.88	64.01	-60.65	6.92	88.17	448400.77	652027.90	
7642.00	36.08	316.74	7613.25	77.05	-72.78	6.55	105.98	448413.81	652015.76	
7674.00	38.17	315.84	7638.76	91.01	-86.13	6.75	125.30	448427.77	652002.42	
7705.00	40.27	315.70	7662.78	105.06	-99.80	6.78	144.90	448441.82	651988.74	
7737.00	42.27	316.00	7686.83	120.20	-114.50	6.28	166.00	448456.96	651974.04	
7768.00	44.49	316.26	7709.36	135.55	-129.26	7.18	187.29	448472.31	651959.29	
7800.00	46.38	316.25	7731.81	152.02	-145.02	5.91	210.09	448488.78	651943.53	
7831.00	48.49	315.81	7752.78	168.45	-160.87	6.89	232.92	448505.21	651927.67	
7863.00	51.23	315.51	7773.41	185.94	-177.97	8.59	257.38	448522.70	651910.58	

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WFT Survey Report X & Y's



Weatherford

Company: BOPCO, L.P. Field: Eddy County, NM (Nad 27) Site: Poker Lake Unit 328H Well: 328H Wellpath: 1	Date: 3/19/2012 Co-ordinate(NE) Reference: Well: 328H, Grid North Vertical (TVD) Reference: SITE 3531.0 Section (VS) Reference: Well (0.00N,0.00E,315.90Azi) Survey Calculation Method: Minimum Curvature	Time: 07:05:01 Page: 2 Db: Sybase
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Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
7894.00	53.62	315.75	7792.31	203.51	-195.15	7.73	281.95	448540.27	651893.40	
7925.00	55.89	316.06	7810.20	221.69	-212.76	7.37	307.26	448558.45	651875.78	
7957.00	57.98	316.40	7827.66	241.05	-231.31	6.59	334.08	448577.81	651857.23	
7988.00	60.73	316.51	7843.46	260.38	-249.68	8.88	360.75	448597.14	651838.86	
8020.00	62.34	316.09	7858.71	280.72	-269.12	5.16	388.88	448617.48	651819.43	
8051.00	64.82	315.34	7872.50	300.59	-288.50	8.29	416.64	448637.35	651800.04	
8083.00	68.02	314.41	7885.30	321.28	-309.29	10.35	445.95	448658.04	651779.26	
8114.00	70.87	314.41	7896.18	341.59	-330.02	9.19	474.97	448678.35	651758.53	
8146.00	73.45	314.39	7905.99	362.90	-351.78	8.06	505.42	448699.66	651736.76	
8178.00	77.71	314.98	7913.95	384.69	-373.81	13.43	536.39	448721.45	651714.74	
8209.00	82.81	315.35	7919.20	406.35	-395.34	16.49	566.93	448743.11	651693.20	
8241.00	87.03	315.86	7922.03	429.12	-417.64	13.28	598.80	448765.88	651670.91	
8273.00	89.69	315.37	7922.94	451.98	-440.01	8.45	630.78	448788.74	651648.54	
8304.00	90.73	315.33	7922.83	474.03	-461.79	3.36	661.78	448810.79	651626.75	
8336.00	90.94	314.79	7922.36	496.68	-484.40	1.81	693.78	448833.44	651604.15	
8430.00	91.44	314.39	7920.41	562.66	-551.32	0.68	787.73	448899.42	651537.22	
8528.00	90.59	313.44	7918.68	630.62	-621.91	1.30	885.65	448967.38	651466.64	
8591.00	91.21	312.73	7917.69	673.65	-667.91	1.49	948.57	449010.41	651420.63	Csg
8628.00	91.57	312.32	7916.79	698.65	-695.17	1.49	985.49	449035.41	651393.37	
8670.00	90.66	312.80	7915.97	727.05	-726.10	2.45	1027.41	449063.81	651362.45	
8765.00	90.45	314.96	7915.05	792.89	-794.57	2.28	1122.35	449129.65	651293.98	
8860.00	90.59	315.65	7914.19	860.42	-861.38	0.74	1217.34	449197.18	651227.16	
8956.00	90.59	317.23	7913.20	929.98	-927.53	1.65	1313.32	449266.74	651161.01	
9051.00	89.48	316.52	7913.14	999.32	-992.47	1.39	1408.31	449336.08	651096.07	
9146.00	91.99	317.50	7911.93	1068.79	-1057.24	2.84	1503.27	449405.55	651031.31	
9242.00	90.31	317.29	7910.00	1139.44	-1122.21	1.76	1599.22	449476.20	650966.34	
9337.00	89.06	316.75	7910.52	1208.94	-1186.97	1.43	1694.20	449545.70	650901.57	
9432.00	88.71	317.78	7912.37	1278.70	-1251.42	1.14	1789.15	449615.46	650837.12	
9527.00	90.87	319.34	7912.72	1349.91	-1314.29	2.80	1884.04	449686.67	650774.25	
9623.00	90.38	318.45	7911.67	1422.24	-1377.40	1.06	1979.90	449759.00	650711.14	
9718.00	88.92	318.72	7912.25	1493.48	-1440.24	1.56	2074.79	449830.24	650648.30	
9813.00	90.17	319.06	7913.01	1565.05	-1502.70	1.36	2169.66	449901.81	650585.84	
9909.00	89.27	318.12	7913.48	1637.05	-1566.20	1.36	2265.55	449973.81	650522.34	
10004.00	89.69	315.72	7914.34	1706.43	-1631.08	2.56	2360.52	450043.19	650457.47	
10100.00	89.06	315.70	7915.38	1775.15	-1698.11	0.66	2456.51	450111.91	650390.43	
10195.00	90.45	316.30	7915.79	1843.48	-1764.10	1.59	2551.51	450180.24	650324.44	
10290.00	88.98	314.64	7916.26	1911.20	-1830.72	2.33	2646.50	450247.96	650257.83	
10385.00	89.97	315.72	7917.13	1978.58	-1897.68	1.54	2741.49	450315.34	650190.87	
10481.00	91.15	316.30	7916.20	2047.64	-1964.35	1.37	2837.48	450384.40	650124.20	
10576.00	91.08	314.13	7914.35	2115.05	-2031.25	2.28	2932.45	450451.81	650077.29	
10671.00	92.20	314.42	7911.63	2181.34	-2099.24	1.22	3027.37	450518.10	649989.30	
10767.00	92.77	315.17	7907.47	2248.92	-2167.30	0.98	3123.26	450585.68	649921.24	
10862.00	91.72	314.03	7903.74	2315.57	-2234.89	1.63	3218.16	450652.33	649853.65	
10957.00	90.87	312.77	7901.60	2380.82	-2303.90	1.60	3313.04	450717.58	649784.65	
11052.00	91.30	313.05	7899.80	2445.49	-2373.46	0.54	3407.90	450782.25	649715.08	
11148.00	88.49	311.97	7899.97	2510.36	-2444.22	3.14	3503.72	450847.12	649644.32	
11243.00	89.54	312.51	7901.61	2574.21	-2514.54	1.24	3598.51	450910.97	649574.00	
11339.00	90.87	311.90	7901.26	2638.70	-2585.65	1.52	3694.31	450975.46	649502.89	
11434.00	90.17	313.55	7900.40	2703.15	-2655.44	1.89	3789.15	451039.91	649433.11	
11460.00	90.10	312.03	7900.34	2720.81	-2674.52	5.85	3815.11	451057.57	649414.03	
11555.00	90.60	310.24	7899.76	2783.30	-2746.06	1.96	3909.78	451120.06	649342.48	
11651.00	89.41	310.07	7899.75	2845.20	-2819.43	1.25	4005.30	451181.96	649269.11	

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WFT Survey Report X & Y's



Weatherford

Company: BOPCO, L.P.

Field: Eddy County, NM (Nad 27)

Site: Poker Lake Unit 328H

Well: 328H

Wellpath: 1

Date: 3/19/2012

Time: 07:05.01

Page: 3

Co-ordinate(NE) Reference:

Well: 328H, Grid North

Vertical (TVD) Reference:

SITE 3531.0

Section (VS) Reference:

Well (0.00N,0.00E,315.90Azi)

Survey Calculation Method:

Minimum Curvature

Db: Sybase

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
11746.00	88.15	312.62	7901.77	2907.94	-2890.73	2.99	4099.96	451244.70	649197.81	
11841.00	87.93	314.32	7905.02	2973.26	-2959.63	1.80	4194.82	451310.02	649128.91	
11936.00	86.81	317.14	7909.38	3041.20	-3025.87	3.19	4289.71	451377.96	649062.67	
12031.00	95.08	317.94	7907.82	3111.22	-3089.94	8.75	4384.57	451447.98	648998.61	
12126.00	94.16	316.63	7900.17	3180.79	-3154.17	1.68	4479.23	451517.55	648934.37	
12221.00	94.24	315.74	7893.21	3249.15	-3219.76	0.94	4573.98	451585.91	648868.78	
12317.00	94.80	315.54	7885.64	3317.57	-3286.67	0.62	4669.68	451654.33	648801.87	
12412.00	93.04	315.96	7879.15	3385.46	-3352.81	1.90	4764.45	451722.22	648735.74	
12507.00	91.36	317.00	7875.50	3454.29	-3418.17	2.08	4859.37	451791.05	648670.37	
12603.00	91.01	315.11	7873.52	3523.40	-3484.78	2.00	4955.35	451860.16	648603.77	
12698.00	91.64	314.11	7871.32	3590.09	-3552.39	1.24	5050.29	451926.85	648536.16	
12793.00	90.87	315.33	7869.24	3656.92	-3619.87	1.52	5145.25	451993.68	648468.67	
12889.00	90.38	317.21	7868.19	3726.29	-3686.23	2.02	5241.24	452063.05	648402.32	
12984.00	90.24	317.03	7867.68	3795.90	-3750.87	0.24	5336.21	452132.66	648337.67	
13080.00	90.73	318.73	7866.86	3867.10	-3815.25	1.84	5432.15	452203.86	648273.29	
13175.00	91.64	319.11	7864.90	3938.69	-3877.66	1.04	5527.00	452275.45	648210.88	
13271.00	89.20	319.12	7864.20	4011.27	-3940.49	2.54	5622.83	452348.03	648148.05	
13366.00	90.80	317.91	7864.20	4082.43	-4003.42	2.11	5717.73	452419.19	648085.13	
13461.00	90.66	314.47	7862.99	4150.97	-4069.17	3.62	5812.71	452487.73	648019.37	
13557.00	89.97	312.12	7862.46	4216.80	-4139.03	2.55	5908.60	452553.56	647949.51	
13652.00	90.17	313.46	7862.34	4281.33	-4208.75	1.43	6003.46	452618.09	647879.80	
13747.00	91.29	315.00	7861.13	4347.59	-4276.81	2.00	6098.40	452684.35	647811.73	
13843.00	91.71	315.82	7858.62	4415.93	-4344.18	0.96	6194.37	452752.69	647744.36	
13938.00	91.08	314.39	7856.31	4483.20	-4411.21	1.64	6289.33	452819.96	647677.33	
14033.00	89.83	314.62	7855.55	4549.79	-4478.96	1.34	6384.29	452886.55	647609.58	
14129.00	91.23	320.20	7854.66	4620.44	-4543.90	5.99	6480.22	452957.20	647544.64	
14224.00	91.58	320.48	7852.33	4693.55	-4604.51	0.47	6574.90	453030.31	647484.03	
14319.00	91.44	320.23	7849.83	4766.68	-4665.11	0.30	6669.58	453103.44	647423.44	
14414.00	92.56	320.77	7846.51	4839.93	-4725.50	1.31	6764.22	453176.69	647363.05	
14509.00	91.57	320.63	7843.09	4913.40	-4785.63	1.05	6858.82	453250.16	647302.92	
14605.00	89.20	320.03	7842.45	4987.29	-4846.90	2.55	6954.52	453324.05	647241.64	
14657.00	89.13	320.14	7843.20	5027.17	-4880.27	0.25	7006.38	453363.93	647208.28	Last Wft Svy
14715.00	89.13	320.14	7844.08	5071.68	-4917.43	0.00	7064.21	453408.44	647171.11	Proj. To Bit

Annotation

MD ft	TVD ft	
7219.80	7219.55	Tie On Gyrodata
7233.00	7232.74	First Wft Svy
14657.00	7843.20	Last Wft Svy
14715.00	7844.08	Proj. To Bit

A Gyrodata Directional Survey

FINAL DEFINITIVE COPY

for

BASS ENTERPRISE PRODUCTION COMPANY

Lease: POKER LAKE UNIT Well: #328H, 5" DRILLPIPE
Location: AQUILA #4, EDDY COUNTY, NEW MEXICO

Job Number: MD0212GDM202

Run Date: 28 Feb 2012

Surveyor: Jason Solomon

Calculation Method: MINIMUM CURVATURE

Survey surface coordinates obtained from: Well Plan/Plot
Survey Latitude: 32.211400 deg. N Longitude: 103.841197 deg. W

Azimuth Correction:

Gyro: -0.26000 deg to Grid North

Vertical Section Calculated from Well Head Location

Closure Calculated from Well Head Location

Horizontal Coordinates Calculated from Local Horizontal Reference

A Gyrodata Directional Survey

BASS ENTERPRISE PRODUCTION COMPANY

Lease: POKER LAKE UNIT Well #328H, 5" DRILLPIPE

Location: AQUILA #4, EDDY COUNTY, NEW MEXICO

Job Number: MD0212GDM202

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 TO 7219 FT RATE GYROSCOPIC MULTISHOT DROP RUN INSIDE 5" DRILLPIPE							
ALL MEASURED DEPTHS AND COORDINATES REFERENCED TO AQUILA #4 RKB 22 FT							

100.00	0.11	8.99	N 8 59 E	0.11	100.00	0.1 9.0	0.09 N 0.02 E
200.00	0.02	185.61	S 5 37 W	0.13	200.00	0.2 9.3	0.17 N 0.03 E
300.00	0.12	347.48	N 12 31 W	0.14	300.00	0.3 0.9	0.26 N 0.00 E
400.00	0.21	339.60	N 20 24 W	0.09	400.00	0.5 351.2	0.53 N 0.08 W
500.00	0.15	272.20	N 87 48 W	0.21	500.00	0.8 338.6	0.71 N 0.28 W
554.90	0.11	40.90	N 40 54 E	0.43	554.90	0.8 337.3	0.75 N 0.31 W
649.20	0.35	113.08	S 66 55 E	0.35	649.20	0.7 0.8	0.71 N 0.01 E
743.50	0.66	145.06	S 34 56 E	0.43	743.49	0.6 75.8	0.15 N 0.59 E
837.80	0.69	153.76	S 26 14 E	0.11	837.79	1.4 125.1	0.81 S 1.15 E
932.10	0.43	181.15	S 1 9 W	0.39	932.08	2.2 140.2	1.67 S 1.39 E
1026.50	0.43	200.23	S 20 14 W	0.15	1026.48	2.7 151.8	2.36 S 1.26 E
1120.80	0.37	202.68	S 22 41 W	0.07	1120.78	3.1 161.0	2.97 S 1.02 E
1215.10	0.36	196.30	S 16 18 W	0.04	1215.08	3.6 166.9	3.53 S 0.82 E
1309.40	0.41	187.34	S 7 20 W	0.08	1309.37	4.2 170.5	4.15 S 0.70 E
1403.70	0.50	190.67	S 10 40 W	0.10	1403.67	4.9 173.3	4.89 S 0.58 E
1498.10	0.46	198.91	S 18 55 W	0.08	1498.07	5.7 176.2	5.66 S 0.38 E
1592.40	0.20	194.28	S 14 17 W	0.28	1592.37	6.2 178.0	6.17 S 0.21 E
1686.70	0.16	172.58	S 7 25 E	0.08	1686.67	6.5 178.3	6.46 S 0.19 E
1781.00	0.08	133.52	S 46 29 E	0.12	1780.97	6.6 177.8	6.64 S 0.25 E

A Gyrodata Directional Survey

BASS ENTERPRISE PRODUCTION COMPANY

Lease: POKER LAKE UNIT Well: #328H, 5" DRILLPIPE

Location: AQUILA #4, EDDY COUNTY, NEW MEXICO

Job Number: MD0212GDM202

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
1875.30	0.13	95.50	S 84 30 E	0.09	1875.27	6.7 176.5	6.69 S 0.41 E
1969.70	0.10	76.56	N 76 34 E	0.05	1969.67	6.7 174.9	6.69 S 0.60 E
2064.00	0.13	60.18	N 60 11 E	0.05	2063.97	6.7 173.4	6.61 S 0.77 E
2158.30	0.12	49.21	N 49 13 E	0.03	2158.27	6.6 171.8	6.50 S 0.94 E
2252.60	0.14	53.75	N 53 45 E	0.02	2252.57	6.5 170.2	6.36 S 1.10 E
2346.90	0.21	32.41	N 32 25 E	0.10	2346.86	6.3 168.2	6.15 S 1.29 E
2441.30	0.22	25.23	N 25 14 E	0.03	2441.26	6.0 166.0	5.84 S 1.46 E
2535.60	0.29	18.79	N 18 47 E	0.08	2535.56	5.7 163.5	5.45 S 1.61 E
2629.90	0.36	18.88	N 18 53 E	0.07	2629.86	5.3 160.1	4.94 S 1.79 E
2724.20	0.27	2.14	N 2 8 E	0.14	2724.16	4.8 156.9	4.44 S 1.89 E
2818.50	0.25	348.28	N 11 43 W	0.07	2818.46	4.4 155.2	4.02 S 1.86 E
2912.80	0.26	342.80	N 17 12 W	0.03	2912.76	4.0 154.1	3.61 S 1.75 E
3007.20	0.13	341.40	N 18 36 W	0.14	3007.16	3.7 153.4	3.31 S 1.65 E
3101.50	0.01	335.67	N 24 20 W	0.13	3101.46	3.6 153.2	3.20 S 1.62 E
3195.80	0.07	297.70	N 62 18 W	0.07	3195.76	3.5 153.7	3.16 S 1.56 E
3290.10	0.14	304.27	N 55 44 W	0.08	3290.06	3.4 155.2	3.07 S 1.42 E
3384.40	0.07	330.87	N 29 8 W	0.09	3384.36	3.2 156.4	2.96 S 1.29 E
3478.80	0.39	107.71	S 72 17 E	0.47	3478.76	3.4 152.4	3.00 S 1.57 E
3573.10	0.85	113.68	S 66 19 E	0.49	3573.05	4.2 143.3	3.38 S 2.52 E
3667.40	0.76	119.95	S 60 3 E	0.13	3667.34	5.4 137.1	3.97 S 3.70 E
3761.70	0.87	135.08	S 44 55 E	0.26	3761.63	6.7 135.3	4.79 S 4.75 E
3856.10	1.05	141.33	S 38 40 E	0.22	3856.02	8.3 135.9	5.98 S 5.79 E
3950.40	0.94	138.06	S 41 56 E	0.13	3950.30	10.0 136.5	7.23 S 6.85 E

A Gyrodata Directional Survey

BASS ENTERPRISE PRODUCTION COMPANY

Lease: POKER LAKE UNIT Well: #328H, 5" DRILLPIPE

Location: AQUILA #4, EDDY COUNTY, NEW MEXICO

Job Number: MD0212GDM202

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
4044.70	0.33	46.26	N 46 16 E	1.07	4044.60	10.7 135.2	7.61 S 7.56 E
4139.00	0.38	44.16	N 44 10 E	0.05	4138.90	10.7 132.1	7.20 S 7.98 E
4233.30	0.34	34.25	N 34 15 E	0.08	4233.20	10.7 128.9	6.75 S 8.35 E
4327.60	0.38	32.85	N 32 51 E	0.04	4327.49	10.7 125.8	6.25 S 8.68 E
4422.00	0.36	16.67	N 16 40 E	0.11	4421.89	10.6 122.6	5.71 S 8.94 E
4516.30	0.41	13.19	N 13 11 E	0.06	4516.19	10.4 119.2	5.09 S 9.10 E
4610.60	0.54	14.86	N 14 52 E	0.14	4610.49	10.2 115.0	4.34 S 9.29 E
4704.90	0.40	9.24	N 9 14 E	0.16	4704.78	10.1 110.7	3.58 S 9.45 E
4799.30	0.45	6.03	N 6 2 E	0.06	4799.18	10.0 106.8	2.89 S 9.55 E
4893.60	0.45	9.81	N 9 49 E	0.03	4893.48	9.9 102.6	2.15 S 9.65 E
4987.90	0.19	31.24	N 31 14 E	0.30	4987.78	9.9 99.6	1.66 S 9.79 E
5082.20	0.11	43.12	N 43 7 E	0.09	5082.08	10.0 98.3	1.46 S 9.94 E
5176.50	0.17	57.83	N 57 50 E	0.07	5176.38	10.2 97.4	1.32 S 10.11 E
5270.90	0.10	66.96	N 66 58 E	0.07	5270.78	10.4 96.7	1.21 S 10.31 E
5365.20	0.29	100.01	S 79 59 E	0.23	5365.08	10.7 96.6	1.22 S 10.62 E
5459.50	0.40	105.75	S 74 15 E	0.12	5459.37	11.2 96.9	1.35 S 11.17 E
5553.80	0.36	130.04	S 49 58 E	0.17	5553.67	11.8 97.9	1.63 S 11.71 E
5648.10	0.28	111.58	S 68 25 E	0.14	5647.97	12.3 98.9	1.91 S 12.15 E
5742.40	0.33	98.48	S 81 31 E	0.09	5742.27	12.8 99.1	2.03 S 12.64 E
5836.80	0.32	77.85	N 77 51 E	0.12	5836.67	13.3 98.7	2.02 S 13.16 E
5931.10	0.22	84.10	N 84 6 E	0.11	5930.97	13.7 98.1	1.94 S 13.60 E
6025.40	0.19	120.46	S 59 32 E	0.14	6025.27	14.1 98.2	2.00 S 13.91 E
6119.70	0.35	124.43	S 55 34 E	0.17	6119.56	14.5 98.9	2.24 S 14.29 E

A Gyrodata Directional Survey

BASS ENTERPRISE PRODUCTION COMPANY

Lease: POKER LAKE UNIT Well: #328H, 5" DRILLPIPE

Location: AQUILA #4, EDDY COUNTY, NEW MEXICO

Job Number: MD0212GDM202

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
6214.10	0.45	123.75	S 56 15 E	0.11	6213.96	15.1 100.0	2.61 S 14.83 E
6308.40	0.54	130.06	S 49 56 E	0.11	6308.26	15.8 101.3	3.11 S 15.48 E
6402.70	0.54	123.69	S 56 19 E	0.06	6402.55	16.6 102.7	3.64 S 16.19 E
6497.00	0.41	187.77	S 7 46 W	0.55	6496.85	17.0 104.3	4.22 S 16.52 E
6591.30	0.90	216.91	S 36 55 W	0.61	6591.15	16.8 107.8	5.14 S 16.02 E
6685.60	0.98	227.57	S 47 34 W	0.20	6685.43	16.2 112.7	6.28 S 14.98 E
6780.00	1.00	232.34	S 52 20 W	0.09	6779.82	15.6 118.1	7.33 S 13.74 E
6874.30	0.96	227.74	S 47 44 W	0.09	6874.11	15.0 123.8	8.36 S 12.50 E
6968.60	1.00	211.67	S 31 40 W	0.29	6968.39	15.0 129.9	9.59 S 11.48 E
7062.90	1.08	193.74	S 13 44 W	0.35	7062.68	15.6 135.8	11.16 S 10.84 E
7157.30	1.13	192.81	S 12 49 W	0.06	7157.06	16.6 141.1	12.93 S 10.42 E
7219.80	1.13	197.23	S 17 14 W	0.14	7219.55	17.4 144.4	14.12 S 10.10 E

Final Station Closure: Distance: 17.36 ft Az: 144.41 deg.



Weatherford®

SURVEY REPORT

Report Date: 3/16/2012
 Customer: Bopco
 Job Name: 4025623
 Well Name: Poker Lake Unit #328H

Field: Eddy County
 Rig: Aguila 4
 Rig Loc: Eddy County

Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
Grid North	315.90 deg	48546 nT	60.13 deg	7.63 deg	0.26 deg	7.37 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	7219.80 ft	1.13 deg	197.23 deg	7219.55 ft	-14.12 ft	10.10 ft

Depth (ft)	Inc (deg)	Azim (deg)	TVD (ft)	Well Head		Vsect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
7233.00	1.22	192.12	7232.75	-14.38	10.03	-17.31	1.07
7264.00	1.14	214.17	7263.74	-14.96	9.79	-17.56	1.48
7296.00	2.43	291.87	7295.73	-14.97	8.98	-17.00	7.68
7327.00	5.66	309.87	7326.65	-13.74	7.20	-14.88	11.08
7359.00	9.32	314.49	7358.37	-10.92	4.13	-10.72	11.56
7390.00	13.04	317.60	7388.78	-6.57	-0.02	-4.71	12.18
7422.00	17.26	320.03	7419.66	-0.26	-5.50	3.64	13.32
7453.00	21.13	320.53	7448.93	7.58	-12.01	13.80	12.48
7485.00	24.44	320.54	7478.43	17.14	-19.89	26.15	10.35
7516.00	27.42	319.99	7506.30	27.56	-28.55	39.66	9.64
7548.00	29.63	319.19	7534.42	39.19	-38.46	54.91	7.01
7579.00	31.91	318.14	7561.05	51.10	-48.94	70.75	7.58
7611.00	34.09	317.44	7587.89	64.00	-60.65	88.17	6.91
7642.00	36.08	316.74	7613.25	77.05	-72.78	105.98	6.55
7674.00	38.17	315.84	7638.77	91.01	-86.13	125.29	6.73
7705.00	40.27	315.70	7662.78	105.05	-99.80	144.89	6.80
7737.00	42.27	316.00	7686.83	120.20	-114.50	166.00	6.27
7768.00	44.49	316.26	7709.36	135.55	-129.26	187.29	7.20
7800.00	46.38	316.25	7731.81	152.02	-145.02	210.09	5.88
7831.00	48.49	315.81	7752.78	168.45	-160.87	232.92	6.91
7863.00	51.23	315.51	7773.41	185.94	-177.97	257.38	8.58
7894.00	53.62	315.75	7792.31	203.50	-195.15	281.95	7.72
7925.00	55.89	316.06	7810.20	221.68	-212.76	307.26	7.36
7957.00	57.98	316.40	7827.66	241.05	-231.31	334.08	6.60
7988.00	60.73	316.51	7843.46	260.38	-249.69	360.74	8.89
8020.00	62.34	316.09	7858.71	280.71	-269.12	388.87	5.17
8051.00	64.82	315.34	7872.50	300.59	-288.51	416.64	8.29
8083.00	68.02	314.41	7885.30	321.27	-309.29	445.95	10.32
8114.00	70.87	314.41	7896.19	341.59	-330.02	474.97	9.20
8146.00	73.45	314.39	7905.99	362.90	-351.78	505.42	8.07
8178.00	77.71	314.98	7913.96	384.69	-373.81	536.39	13.42
8209.00	82.81	315.35	7919.20	406.35	-395.34	566.93	16.49
8241.00	87.03	315.86	7922.03	429.12	-417.63	598.80	13.28
8273.00	89.69	315.37	7922.95	451.98	-440.00	630.78	8.44
8304.00	90.73	315.33	7922.84	474.04	-461.79	661.78	3.39

Depth (ft)	Inc (deg)	Azim (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
8336.00	90.94	314.79	7922.37	496.68	-484.39	693.77	1.80
8430.00	91.44	314.39	7920.42	562.66	-551.32	787.73	0.68
8528.00	90.59	313.44	7918.68	630.62	-621.90	885.65	1.29
8628.00	91.57	312.32	7916.79	698.65	-695.16	985.49	1.49
8670.00	90.66	312.80	7915.97	727.05	-726.09	1027.41	2.45
8765.00	90.45	314.96	7915.04	792.90	-794.56	1122.34	2.28
8860.00	90.59	315.65	7914.17	860.43	-861.37	1217.33	0.74
8956.00	90.59	317.23	7913.18	929.99	-927.52	1313.32	1.65
9051.00	89.48	316.52	7913.12	999.32	-992.46	1408.31	1.40
9146.00	91.99	317.50	7911.90	1068.80	-1057.23	1503.27	2.85
9242.00	90.31	317.29	7909.96	1139.44	-1122.20	1599.22	1.76
9337.00	89.06	316.75	7910.49	1208.94	-1186.96	1694.19	1.44
9432.00	88.71	317.78	7912.34	1278.70	-1251.42	1789.15	1.15
9527.00	90.87	319.34	7912.69	1349.92	-1314.28	1884.04	2.81
9623.00	90.38	318.45	7911.64	1422.25	-1377.39	1979.90	1.06
9718.00	88.92	318.72	7912.22	1493.49	-1440.23	2074.79	1.57
9813.00	90.17	319.06	7912.97	1565.07	-1502.69	2169.65	1.37
9909.00	89.27	318.12	7913.44	1637.07	-1566.18	2265.55	1.37
10004.00	89.69	315.72	7914.31	1706.45	-1631.06	2360.52	2.56
10100.00	89.06	315.70	7915.36	1775.16	-1698.09	2456.51	0.66
10195.00	90.45	316.30	7915.77	1843.50	-1764.08	2551.51	1.60
10290.00	88.98	314.64	7916.23	1911.21	-1830.70	2646.50	2.34
10385.00	89.97	315.72	7917.11	1978.59	-1897.66	2741.48	1.54
10481.00	91.15	316.30	7916.17	2047.66	-1964.33	2837.48	1.38
10576.00	91.08	314.13	7914.31	2115.06	-2031.24	2932.45	2.29
10671.00	92.20	314.42	7911.59	2181.35	-2099.23	3027.37	1.22
10767.00	92.77	315.17	7907.42	2248.93	-2167.29	3123.26	0.98
10862.00	91.72	314.03	7903.71	2315.58	-2234.88	3218.16	1.63
10957.00	90.87	312.77	7901.56	2380.83	-2303.89	3313.04	1.59
11052.00	91.30	313.05	7899.76	2445.50	-2373.46	3407.89	0.53
11148.00	88.49	311.97	7899.94	2510.36	-2444.22	3503.72	3.13
11243.00	89.54	312.51	7901.56	2574.21	-2514.54	3598.51	1.24
11339.00	90.87	311.90	7901.21	2638.70	-2585.65	3694.30	1.52
11434.00	90.17	313.55	7900.34	2703.15	-2655.43	3789.15	1.88
11460.00	90.10	312.03	7900.28	2720.81	-2674.51	3815.11	5.85
11555.00	90.60	310.24	7899.70	2783.30	-2746.06	3909.78	1.95
11651.00	89.41	310.07	7899.70	2845.20	-2819.43	4005.29	1.25
11746.00	88.15	312.62	7901.73	2907.94	-2890.72	4099.96	2.99
11841.00	87.93	314.33	7904.97	2973.26	-2969.62	4194.82	1.81
11873.00	87.59	315.54	7906.22	2995.85	-2982.26	4226.79	3.95
11936.00	86.81	317.14	7909.30	3041.37	-3025.70	4289.71	2.81
12031.00	95.08	317.94	7907.74	3111.39	-3089.76	4384.57	8.74
12126.00	94.16	316.63	7900.08	3180.96	-3153.99	4479.23	1.68
12221.00	94.24	315.74	7893.12	3249.32	-3219.59	4573.98	0.94
12317.00	94.80	315.54	7885.56	3317.74	-3286.50	4669.68	0.62
12412.00	93.04	315.96	7879.06	3385.63	-3352.63	4764.45	1.90
12507.00	91.36	317.00	7875.41	3454.46	-3418.00	4859.37	2.08
12603.00	91.01	315.11	7873.41	3523.56	-3484.60	4955.34	1.99
12698.00	91.64	314.11	7871.21	3590.27	-3552.21	5050.29	1.25
12793.00	90.87	315.33	7869.12	3657.10	-3619.69	5145.25	1.52

Depth (ft)	Inc (deg)	Azim (deg)	TVD (ft)	Well Head		VSect (ft)	Dogleg (deg/100ft)
				NS (ft)	EW (ft)		
12889.00	90.38	317.21	7868.07	3726.46	-3686.04	5241.23	2.02
12984.00	90.24	317.03	7867.55	3796.07	-3750.69	5336.21	0.24
13080.00	90.73	318.73	7866.73	3867.27	-3815.07	5432.15	1.84
13175.00	91.64	319.11	7864.75	3938.86	-3877.49	5526.99	1.04
13271.00	89.20	319.12	7864.05	4011.44	-3940.31	5622.83	2.55
13366.00	90.80	317.91	7864.05	4082.60	-4003.24	5717.73	2.12
13461.00	90.66	314.47	7862.83	4151.14	-4068.99	5812.71	3.62
13557.00	89.97	312.12	7862.31	4216.97	-4138.85	5908.60	2.55
13652.00	90.17	313.46	7862.19	4281.51	-4208.56	6003.46	1.42
13747.00	91.29	315.00	7860.97	4347.76	-4276.63	6098.40	2.00
13843.00	91.71	315.82	7858.45	4416.11	-4343.99	6194.37	0.96
13938.00	91.08	314.39	7856.13	4483.38	-4411.03	6289.33	1.65
14033.00	89.83	314.62	7855.38	4549.97	-4478.78	6384.29	1.35
14129.00	91.23	320.20	7854.50	4620.62	-4543.71	6480.21	5.99
14224.00	91.58	320.48	7852.18	4693.73	-4604.32	6574.90	0.47
14319.00	91.44	320.23	7849.68	4766.86	-4664.91	6669.58	0.30
14414.00	92.56	320.77	7846.37	4840.12	-4725.30	6764.21	1.31
14509.00	91.57	320.63	7842.95	4913.59	-4785.43	6858.82	1.05
14605.00	89.20	320.03	7842.31	4987.47	-4846.71	6954.52	2.55
14657.00	89.13	320.14	7843.07	5027.35	-4880.07	7006.38	0.25

Vertical Section is 7064.34 ft along the target direction of 315.90 deg at a measured depth of 14715.13 ft.
Horizontal Displacement is 7064.34 ft along the well bore azimuth of 315.89 deg.
The total correction is 7.37 deg relative to Grid North.

BOPCO, L.P.

Poker Lake Unit 328H
Eddy Co, NM

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	8591.00	90.59	313.44	7918.03	673.93	-667.65	0.00	0.00	948.59	
2	8676.86	90.63	316.02	7917.11	734.35	-728.64	3.00	89.01	1034.42	
3	14715.64	90.63	316.02	7850.28	5079.15	-4922.09	0.00	0.00	7072.82	Pbhl

FIELD DETAILS

Eddy County, NM (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

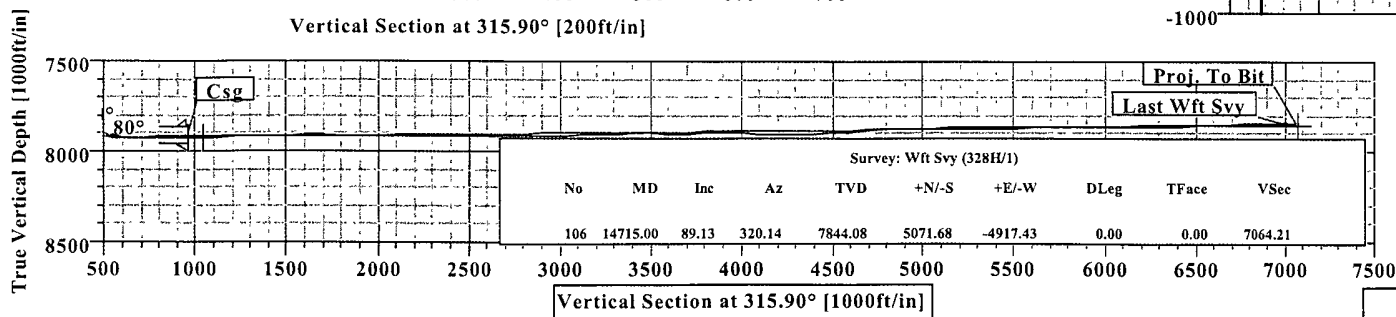
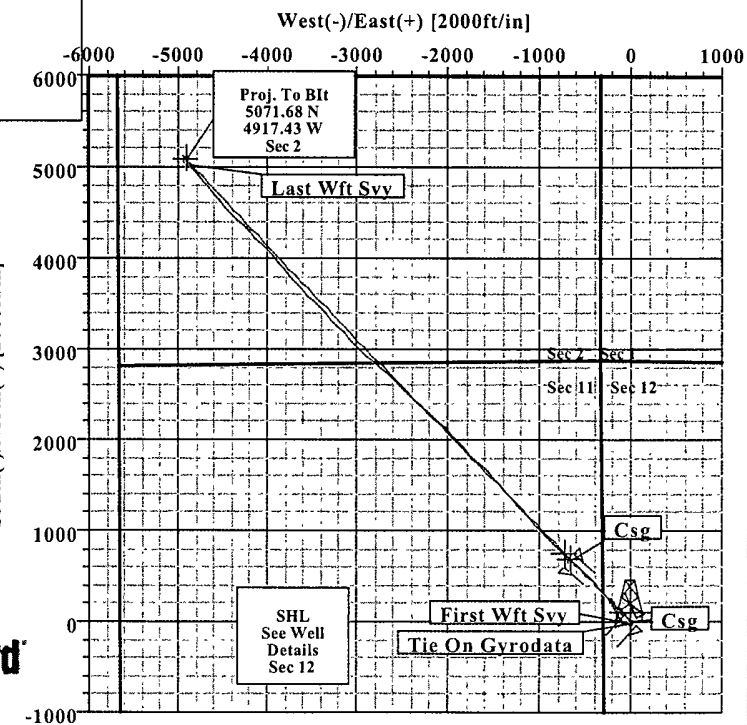
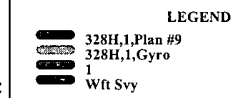
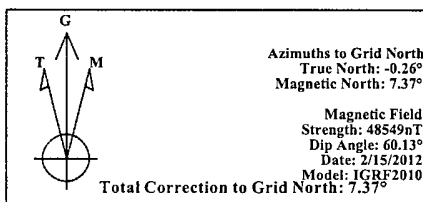
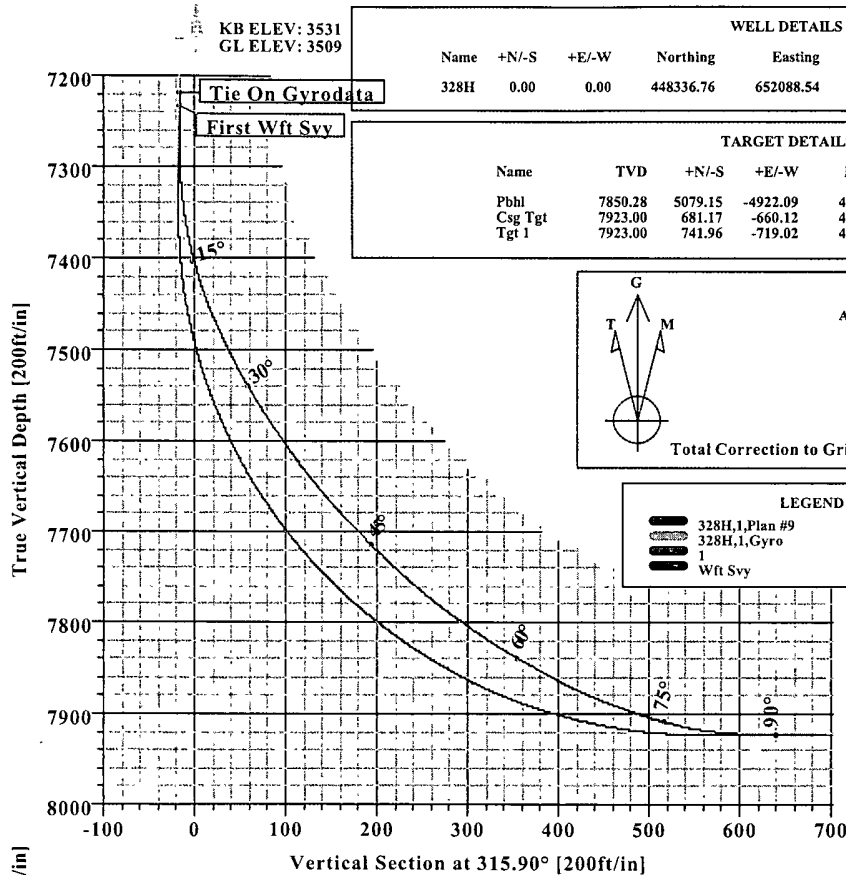
Poker Lake Unit 328H
Site Centre Northing: 448336.76
Easting: 652088.54
Ground Level: 3509.00
Positional Uncertainty: 0.00
Convergence: 0.26

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
328H	0.00	0.00	448336.76	652088.54	32°13'53.896N	103°50'29.324W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	7850.28	5079.15	-4922.09	453415.91	647166.45	Point
Csg Tgt	7923.00	681.17	-660.12	449017.93	651428.42	Point
Tgt 1	7923.00	741.96	-719.02	449078.72	651369.52	Point



Survey: Wft Svy (328H/1)

No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
106	14715.00	89.13	320.14	7844.08	5071.68	-4917.43	0.00	0.00	7064.21

FORMATION TOP DETAILS

No.	TVDPath	MDPath	Formation
1	7731.00	7798.82	LBC 8A
2	7901.00	8129.17	LBC 'Y' Sand

Survey: Wft Svy (328H/1)
Created By: Russell W. Joyner
Date: 3/19/2012