

Yates Petroleum Corp.

Eddy County

BUHO "BQH" STATE

1H

OH

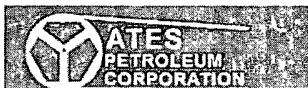
Design: OH

Pathfinder X & Y Report

28 September, 2011

PATHFINDER

A Schlumberger Company



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference	Well 1H
Project:	Eddy County	TVD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Site:	BUHO "BQH" STATE	MD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Project:	Eddy County	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	BUHO "BQH" STATE		
Site Position:		Northing:	365,765.031 usft
From:	Map	Easting:	629,291.945 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 0' 18.903 N
		Longitude:	104° 2' 58.498 W
		Grid Convergence:	0.15 °

Well		1H				
Well Position	+N/-S	0.0 usft	Northing:	365,765.031 usft	Latitude:	32° 0' 18.903 N
	+E/-W	0.0 usft	Easting:	629,291.945 usft	Longitude:	104° 2' 58.498 W
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,001.0 usft	

Wellbore		OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	8/30/2011	7.76	59.89	48,413

Design:	OH
Audit Notes:	
Version:	1 0
Phase:	ACTUAL
Tie On Depth:	0 0
Vertical Section:	
Depth From (TVD)	+N/-S
(usft)	(usft)
0 0	0 0
	+E/-W
	(usft)
	0 0
	Direction
	(°)
	89.51



Pathfinder Pathfinder X & Y Report

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Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well 1H
Project:	Eddy County	TVD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Site:	BUHO "BOH" STATE	MD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Well:	1H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	9/28/2011	100.0	500.0	Gyro #1 (OH)	CB-GYRO-MS	Camera based gyro multishot
		534.0	11,720.0	MWD #1 (OH)	MWD	MWD - Standard

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
	0.0	0.00	0.00	0.0	-3,027.5	0.0	0.0	0.0	0.00	365,765.03	629,291.95
	100.0	1.00	326.55	100.0	-2,927.5	0.7	-0.5	-0.5	1.00	365,765.76	629,291.46
	200.0	0.75	309.85	200.0	-2,827.5	1.9	-1.5	-1.4	0.35	365,766.91	629,290.48
	300.0	1.25	337.14	300.0	-2,727.5	3.3	-2.4	-2.4	0.68	365,768.33	629,289.55
	400.0	1.50	331.44	399.9	-2,627.6	5.5	-3.4	-3.4	0.28	365,770.49	629,288.50
	500.0	1.50	0.73	499.9	-2,527.6	7.9	-4.0	-4.0	0.76	365,772.94	629,287.90
	534.0	1.85	19.72	533.9	-2,493.6	8.9	-3.9	-3.8	1.92	365,773.91	629,288.09
	624.0	0.97	284.00	623.9	-2,403.6	10.4	-4.1	-4.0	2.41	365,775.46	629,287.84
	687.0	1.14	267.83	686.9	-2,340.6	10.5	-5.3	-5.2	0.54	365,775.56	629,286.69
	781.0	1.06	265.18	780.8	-2,246.7	10.4	-7.1	-7.0	0.10	365,775.45	629,284.89
	875.0	0.79	174.42	874.8	-2,152.7	9.7	-7.9	-7.8	1.42	365,774.74	629,284.09
	970.0	0.97	198.11	969.8	-2,057.7	8.3	-8.0	-8.0	0.42	365,773.32	629,283.90
	1,064.0	1.32	201.31	1,063.8	-1,963.7	6.5	-8.7	-8.6	0.38	365,771.56	629,283.26
	1,158.0	1.49	193.01	1,157.8	-1,869.7	4.3	-9.4	-9.3	0.28	365,769.36	629,282.59
	1,252.0	1.58	162.99	1,251.7	-1,775.8	1.9	-9.2	-9.2	0.85	365,766.93	629,282.70
	1,347.0	1.06	117.17	1,346.7	-1,680.8	0.2	-8.1	-8.1	1.19	365,765.27	629,283.86
	1,441.0	1.49	123.94	1,440.7	-1,586.8	-0.8	-6.3	-6.3	0.48	365,764.19	629,285.65
	1,535.0	1.93	113.60	1,534.7	-1,492.8	-2.2	-3.8	-3.8	0.57	365,762.88	629,288.11
	1,630.0	1.76	85.85	1,629.6	-1,397.9	-2.7	-0.9	-0.9	0.95	365,762.34	629,291.04
	1,725.0	1.85	50.66	1,724.6	-1,302.9	-1.6	1.7	1.7	1.15	365,763.42	629,293.68
	1,820.0	1.14	43.88	1,819.5	-1,208.0	0.0	3.6	3.6	0.77	365,765.07	629,295.52



Pathfinder Pathfinder X & Y Report

PATHFINDER
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Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well 1H
Project:	Eddy County	TVD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Site:	BUHO "BQH" STATE	MD Reference:	KB = 26 5' @ 3027.5usft (PATRIOT 5)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
1,915.0	1.06	13.17	1,914.5	-1,113.0	1.6	4.4	4.4	0.62	365,766.61	629,296.37	
1,962.0	1.14	27.63	1,961.5	-1,066.0	2.4	4.7	4.8	0.61	365,767.45	629,296.69	
2,011.0	1.58	48.81	2,010.5	-1,017.0	3.3	5.5	5.5	1.35	365,768.32	629,297.42	
2,059.0	1.76	59.09	2,058.5	-969.0	4.1	6.6	6.6	0.73	365,769.14	629,298.55	
2,106.0	1.67	70.00	2,105.5	-922.0	4.7	7.9	7.9	0.72	365,769.74	629,299.82	
2,155.0	1.14	75.17	2,154.4	-873.1	5.1	9.0	9.1	1.11	365,770.11	629,300.96	
2,199.0	0.88	88.57	2,198.4	-829.1	5.2	9.8	9.8	0.79	365,770.23	629,301.72	
2,247.0	1.58	86.66	2,246.4	-781.1	5.2	10.8	10.8	1.46	365,770.28	629,302.75	
2,294.0	2.02	88.41	2,293.4	-734.1	5.3	12.3	12.3	0.94	365,770.34	629,304.22	
2,388.0	1.76	88.63	2,387.3	-640.2	5.4	15.4	15.4	0.28	365,770.42	629,307.32	
2,437.0	2.29	90.04	2,436.3	-591.2	5.4	17.1	17.2	1.09	365,770.44	629,309.05	
2,482.0	1.06	92.50	2,481.3	-546.2	5.4	18.4	18.5	2.74	365,770.42	629,310.37	
2,562.0	0.44	19.09	2,561.3	-466.2	5.6	19.3	19.3	1.28	365,770.68	629,311.21	
2,739.0	0.88	248.66	2,738.3	-289.2	5.8	18.2	18.3	0.69	365,770.83	629,310.17	
2,930.0	0.18	338.05	2,929.3	-98.2	5.5	16.7	16.8	0.47	365,770.57	629,308.69	
3,120.0	0.09	347.95	3,119.3	91.8	6.0	16.6	16.6	0.05	365,770.99	629,308.54	
3,310.0	0.00	152.81	3,309.3	281.8	6.1	16.6	16.6	0.05	365,771.14	629,308.51	
3,501.0	0.09	204.93	3,500.3	472.8	6.0	16.5	16.6	0.05	365,771.00	629,308.45	
3,691.0	0.09	178.11	3,690.3	662.8	5.7	16.4	16.5	0.02	365,770.72	629,308.39	
3,882.0	0.18	202.55	3,881.3	853.8	5.3	16.3	16.4	0.05	365,770.29	629,308.28	
4,072.0	0.18	206.72	4,071.3	1,043.8	4.7	16.1	16.1	0.01	365,769.75	629,308.03	
4,261.0	0.44	211.24	4,260.3	1,232.8	3.8	15.6	15.6	0.14	365,768.86	629,307.52	
4,450.0	0.44	205.83	4,449.3	1,421.8	2.6	14.9	14.9	0.02	365,767.59	629,306.83	
4,638.0	0.44	196.49	4,637.3	1,609.8	1.2	14.4	14.4	0.04	365,766.25	629,306.31	
4,826.0	0.79	173.08	4,825.2	1,797.7	-0.8	14.3	14.3	0.23	365,764.27	629,306.26	
4,920.0	0.62	201.82	4,919.2	1,891.7	-1.9	14.2	14.2	0.41	365,763.15	629,306.15	
5,015.0	0.88	235.03	5,014.2	1,986.7	-2.8	13.4	13.4	0.52	365,762.26	629,305.36	



Pathfinder

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Project:	Eddy County	TVD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT.5)
Site:	BUHO "BQH" STATE	MD Reference:	KB = 26 5' @ 3027.5usft (PATRIOT 5)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db.

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
5,110.0	0.97	238.10	5,109.2	2,081.7	-3.6	12.1	12.1	0.11	365,761.42	629,304.08	
5,204.0	0.88	267.15	5,203.2	2,175.7	-4.1	10.7	10.7	0.50	365,760.96	629,302.69	
5,298.0	0.97	258.96	5,297.2	2,269.7	-4.3	9.2	9.2	0.17	365,760.77	629,301.18	
5,392.0	0.88	250.27	5,391.2	2,363.7	-4.7	7.8	7.7	0.18	365,760.38	629,299.72	
5,486.0	0.79	239.45	5,485.2	2,457.7	-5.2	6.5	6.5	0.19	365,759.80	629,298.49	
5,581.0	1.14	297.56	5,580.2	2,552.7	-5.1	5.1	5.1	1.04	365,759.91	629,297.08	
5,675.0	0.97	291.14	5,674.1	2,646.6	-4.4	3.6	3.5	0.22	365,760.63	629,295.51	
5,769.0	0.97	292.10	5,768.1	2,740.6	-3.8	2.1	2.1	0.02	365,761.21	629,294.03	
5,863.0	0.62	23.39	5,862.1	2,834.6	-3.1	1.6	1.5	1.24	365,761.98	629,293.50	
5,957.0	0.26	52.66	5,956.1	2,928.6	-2.5	1.9	1.9	0.44	365,762.57	629,293.87	
6,052.0	0.26	153.63	6,051.1	3,023.6	-2.5	2.2	2.2	0.42	365,762.51	629,294.14	
6,146.0	0.00	164.85	6,145.1	3,117.6	-2.7	2.3	2.3	0.28	365,762.32	629,294.23	
6,241.0	0.62	204.16	6,240.1	3,212.6	-3.2	2.1	2.0	0.65	365,761.85	629,294.02	
6,335.0	1.49	179.53	6,334.1	3,306.6	-4.9	1.9	1.8	1.02	365,760.17	629,293.82	
6,430.0	0.62	196.07	6,429.1	3,401.6	-6.6	1.7	1.7	0.96	365,758.44	629,293.69	
6,486.0	0.88	235.47	6,485.1	3,457.6	-7.1	1.3	1.2	1.00	365,757.90	629,293.25	
6,545.0	1.41	234.07	6,544.1	3,516.6	-7.8	0.3	0.3	0.90	365,757.22	629,292.29	
6,576.0	2.37	114.99	6,575.1	3,547.6	-8.3	0.6	0.5	10.63	365,756.72	629,292.56	
6,607.0	8.00	95.32	6,605.9	3,578.4	-8.8	3.4	3.3	18.78	365,756.25	629,295.30	
6,638.0	13.81	90.36	6,636.4	3,608.9	-9.0	9.2	9.1	18.97	365,756.03	629,301.15	
6,670.0	18.99	88.42	6,667.0	3,639.5	-8.9	18.2	18.2	16.28	365,756.15	629,310.18	
6,702.0	22.34	87.74	6,697.0	3,669.5	-8.5	29.5	29.4	10.50	365,756.53	629,321.46	
6,734.0	25.15	87.47	6,726.3	3,698.8	-8.0	42.4	42.3	8.79	365,757.07	629,334.34	
6,765.0	28.31	88.00	6,753.9	3,726.4	-7.4	56.3	56.3	10.22	365,757.62	629,348.27	
6,797.0	31.57	89.28	6,781.7	3,754.2	-7.0	72.3	72.2	10.38	365,757.99	629,364.23	
6,829.0	35.17	89.24	6,808.4	3,780.9	-6.8	89.9	89.8	11.25	365,758.22	629,381.83	
6,861.0	38.60	89.49	6,834.0	3,806.5	-6.6	109.1	109.0	10.73	365,758.43	629,401.03	



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Project:	Eddy County	TVD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Site:	BUHO "BOH" STATE	MD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Well:	1H	North Reference:	Grd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg. (°/100usft)	Northing (usft)	Easting (usft)	
6,892.0	41.77	89.71	6,857.7	3,830.2	-6.5	129.1	129.0	10.24	365,758.57	629,421.03	
6,924.0	44.76	89.39	6,881.0	3,853.5	-6.3	151.0	151.0	9.37	365,758.74	629,442.96	
6,956.0	47.48	89.19	6,903.1	3,875.6	-6.0	174.1	174.0	8.51	365,759.03	629,466.02	
6,988.0	51.00	88.65	6,924.0	3,896.5	-5.5	198.3	198.3	11.07	365,759.49	629,490.25	
7,019.0	53.99	88.60	6,942.9	3,915.4	-5.0	222.9	222.8	9.65	365,760.08	629,514.83	
7,051.0	56.63	89.45	6,961.1	3,933.6	-4.5	249.2	249.1	8.53	365,760.52	629,541.14	
7,083.0	59.09	90.59	6,978.1	3,950.6	-4.5	276.3	276.2	8.26	365,760.51	629,568.23	
7,115.0	63.93	90.31	6,993.4	3,965.9	-4.7	304.4	304.3	15.14	365,760.29	629,596.35	
7,146.0	68.68	90.34	7,005.9	3,978.4	-4.9	332.8	332.7	15.32	365,760.13	629,624.72	
7,178.0	73.34	89.91	7,016.3	3,988.8	-5.0	363.0	363.0	14.62	365,760.07	629,654.97	
7,216.0	77.65	89.17	7,025.8	3,998.3	-4.7	399.8	399.8	11.50	365,760.36	629,691.75	
7,248.0	82.83	88.30	7,031.2	4,003.7	-4.0	431.3	431.3	16.41	365,761.06	629,723.27	
7,279.0	86.53	88.27	7,034.1	4,006.6	-3.0	462.2	462.1	11.94	365,761.98	629,754.12	
7,311.0	88.29	89.22	7,035.5	4,008.0	-2.3	494.1	494.1	6.25	365,762.68	629,786.08	
7,343.0	88.64	89.34	7,036.4	4,008.9	-1.9	526.1	526.1	1.16	365,763.09	629,818.06	
7,406.0	88.29	89.68	7,038.1	4,010.6	-1.4	589.1	589.1	0.77	365,763.62	629,881.04	
7,438.0	87.85	89.30	7,039.1	4,011.6	-1.1	621.1	621.0	1.82	365,763.91	629,913.02	
7,533.0	88.20	88.86	7,042.4	4,014.9	0.4	716.0	716.0	0.59	365,765.43	630,007.95	
7,628.0	89.16	89.19	7,044.6	4,017.1	2.0	811.0	811.0	1.07	365,767.05	630,102.91	
7,723.0	90.13	88.90	7,045.2	4,017.7	3.6	905.9	905.9	1.07	365,768.63	630,197.89	
7,819.0	89.52	88.61	7,045.5	4,018.0	5.7	1,001.9	1,001.9	0.70	365,770.72	630,293.87	
7,914.0	90.22	88.47	7,045.7	4,018.2	8.1	1,096.9	1,096.9	0.75	365,773.14	630,388.84	
8,009.0	89.60	88.15	7,045.9	4,018.4	10.9	1,191.8	1,191.9	0.73	365,775.94	630,483.79	
8,105.0	89.52	88.37	7,046.6	4,019.1	13.8	1,287.8	1,287.9	0.24	365,778.86	630,579.75	
8,200.0	89.69	88.67	7,047.2	4,019.7	16.3	1,382.8	1,382.9	0.36	365,781.31	630,674.71	
8,295.0	89.78	89.05	7,047.7	4,020.2	18.2	1,477.7	1,477.8	0.41	365,783.20	630,769.69	
8,390.0	89.52	89.39	7,048.3	4,020.8	19.5	1,572.7	1,572.8	0.45	365,784.49	630,864.68	



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Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well 1H :
Project:	Eddy County	TVD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Site:	BUHO "BQH" STATE	MD Reference:	KB = 26.5' @ 3027.5usft (PATRIOT 5)
Well:	1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db.

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (%/100usft)	Northing (usft)	Easting (usft)	
8,485.0	88.64	89.35	7,049.8	4,022.3	20.5	1,667.7	1,667.8	0.93	365,785.54	630,959.66	
8,580.0	88.29	89.71	7,052.3	4,024.8	21.3	1,762.7	1,762.8	0.53	365,786.32	631,054.63	
8,676.0	88.29	89.81	7,055.2	4,027.7	21.7	1,858.6	1,858.8	0.10	365,786.72	631,150.58	
8,771.0	88.20	90.25	7,058.1	4,030.6	21.6	1,953.6	1,953.7	0.47	365,786.67	631,245.54	
8,866.0	88.81	90.00	7,060.6	4,033.1	21.4	2,048.6	2,048.7	0.69	365,786.46	631,340.50	
8,960.0	88.46	90.20	7,062.8	4,035.3	21.3	2,142.5	2,142.6	0.43	365,786.30	631,434.48	
9,055.0	89.52	89.97	7,064.5	4,037.0	21.1	2,237.5	2,237.6	1.14	365,786.16	631,529.46	
9,149.0	89.96	89.28	7,064.9	4,037.4	21.7	2,331.5	2,331.6	0.87	365,786.77	631,623.46	
9,243.0	89.52	89.76	7,065.4	4,037.9	22.5	2,425.5	2,425.6	0.69	365,787.56	631,717.45	
9,337.0	90.48	89.84	7,065.4	4,037.9	22.9	2,519.5	2,519.6	1.02	365,787.89	631,811.45	
9,432.0	90.48	89.84	7,064.6	4,037.1	23.1	2,614.5	2,614.6	0.00	365,788.15	631,906.45	
9,527.0	90.22	90.01	7,064.0	4,036.5	23.2	2,709.5	2,709.6	0.33	365,788.28	632,001.44	
9,621.0	90.84	89.83	7,063.1	4,035.6	23.4	2,803.5	2,803.6	0.69	365,788.41	632,095.44	
9,715.0	91.10	89.57	7,061.5	4,034.0	23.9	2,897.5	2,897.6	0.39	365,788.90	632,189.43	
9,809.0	91.10	89.36	7,059.7	4,032.2	24.7	2,991.5	2,991.6	0.22	365,789.78	632,283.40	
9,904.0	91.45	89.49	7,057.6	4,030.1	25.7	3,086.4	3,086.5	0.39	365,790.73	632,378.38	
9,998.0	90.13	89.63	7,056.3	4,028.8	26.4	3,180.4	3,180.5	1.41	365,791.45	632,472.36	
10,092.0	90.13	89.49	7,056.1	4,028.6	27.1	3,274.4	3,274.5	0.15	365,792.17	632,566.36	
10,186.0	89.87	90.09	7,056.1	4,028.6	27.5	3,368.4	3,368.5	0.70	365,792.52	632,660.36	
10,281.0	89.34	89.23	7,056.7	4,029.2	28.1	3,463.4	3,463.5	1.06	365,793.08	632,755.35	
10,374.0	89.16	89.31	7,058.0	4,030.5	29.2	3,556.4	3,556.5	0.21	365,794.27	632,848.34	
10,468.0	89.16	89.41	7,059.3	4,031.8	30.3	3,650.4	3,650.5	0.11	365,795.32	632,942.32	
10,562.0	90.31	88.49	7,059.8	4,032.3	32.0	3,744.4	3,744.5	1.57	365,797.04	633,036.30	
10,656.0	89.25	88.95	7,060.1	4,032.6	34.1	3,838.3	3,838.5	1.23	365,799.14	633,130.28	
10,750.0	87.67	87.76	7,062.7	4,035.2	36.8	3,932.3	3,932.4	2.10	365,801.84	633,224.20	
10,845.0	86.70	88.24	7,067.3	4,039.8	40.1	4,027.1	4,027.3	1.14	365,805.15	633,319.02	
10,939.0	87.93	88.26	7,071.7	4,044.2	43.0	4,120.9	4,121.1	1.31	365,808.02	633,412.88	



Pathfinder
Pathfinder X & Y Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp
Project: Eddy County
Site: BUHO "BQH" STATE
Well: 1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well 1H
TVD Reference: KB = 26 5' @ 3027.5usft (PATRIOT 5)
MD Reference: KB = 26 5' @ 3027.5usft (PATRIOT 5)
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Single User Db

Survey												
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)		
11,033.0	91.54	89.79	7,072.2	4,044.7	44.6	4,214.9	4,215.1	4.17	365,809.61	633,506.84		
11,128.0	91.89	90.29	7,069.3	4,041.8	44.5	4,309.9	4,310.1	0.64	365,809.55	633,601.80		
11,222.0	90.04	89.29	7,067.7	4,040.2	44.9	4,403.8	4,404.1	2.24	365,809.89	633,695.78		
11,316.0	91.71	89.79	7,066.3	4,038.8	45.6	4,497.8	4,498.0	1.85	365,810.65	633,789.76		
11,411.0	90.40	89.67	7,064.6	4,037.1	46.1	4,592.8	4,593.0	1.38	365,811.10	633,884.74		
11,505.0	91.54	89.69	7,063.0	4,035.5	46.6	4,686.8	4,687.0	1.21	365,811.62	633,978.73		
11,599.0	91.45	90.36	7,060.5	4,033.0	46.5	4,780.7	4,781.0	0.72	365,811.58	634,072.69		
11,638.0	91.36	90.58	7,059.6	4,032.1	46.2	4,819.7	4,820.0	0.61	365,811.26	634,111.68		
11,720.0	91.36	90.58	7,057.6	4,030.1	45.4	4,901.7	4,901.9	0.00	365,810.43	634,193.65		

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
6,607.0	6,605.9	-8.8	3.4	KOP - 6607.0 'MD, 6605.9 'TVD, -8.8 'N, 3.4 'E	
7,343.0	7,036.4	-1.9	526.1	LP - 7343.0 'MD, 7036.4 'TVD, -1.9 'N, 526.1 'E	
11,720.0	7,057.6	45.4	4,901.7	LP - 11720.0 'MD, 7057.6 'TVD, 45.4 'N, 4901.7 'E	

Checked By _____ Approved By _____ Date: _____



Project: Eddy County
Site: BUHO "BQH" STATE
Well: 1H
Wellbore: OH
Plan: Plan #2 (1H/OH)



Azimuths to Grid North
True North: -0.15°
Magnetic North: 7.61°

Magnetic Field
Strength: 48412.6snT
Dip Angle: 59.89°
Date: 8/30/2011
Model: IGRF2010

PATHFINDER

A Schlumberger Company

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

Sec	MD	Inc	Azi	TVD	SECTION DETAILS					Vsect	Target
					+N/-S	+E/-W	Dleg	TFace			
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00		0.0	
2	6564.6	0.00	0.00	6564.6	0.0	0.0	0.00	0.00		0.0	
3	7309.1	89.35	89.45	7042.0	4.5	472.0	12.00	89.45		472.0	
4	11778.2	89.35	89.45	7093.0	47.4	4940.6	0.00	0.00		4940.9	PBHL "BOHO 1H"

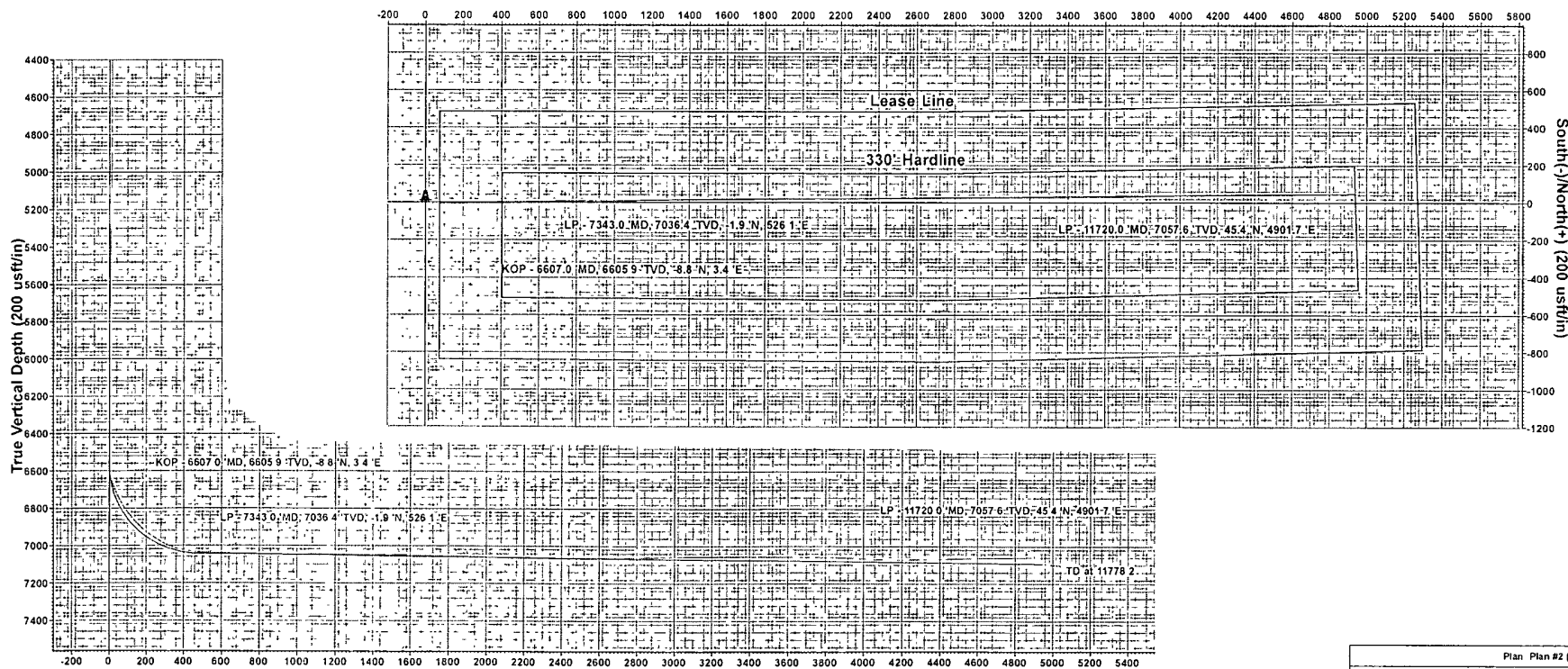
WELL DETAILS 1H

Ground Elevation: 3001.0							
RKB Elevation: KB = 26.5' @ 3027.5usft (PATRIOT 5)							
Rig Name: PATRIOT 5							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.0	0.0	365765.031	629291.945	32° 0' 18.903 N	104° 2' 58.498 W		

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL "BOHO 1H"	7093.0	47.4	4940.6	365812.446	634232.579	Point

West(-)/East(+) (200 usft/in)



Vertical Section at 89.51° (200 usft/in)

Plan Plan #2 (1H/OH)

Created By: Michael Trout Date: 9 02, September 28 2011

Checked: _____ Date: _____



Job Number: SVCO-111152
 Company: Yates Petroleum Corporation
 Lease/Well: BUHO BQH STATE 1H
 Location: Eddy County, NM
 Rig Name: Patriot #5
 RKB: 27'
 G.L. or M.S.L.: GL

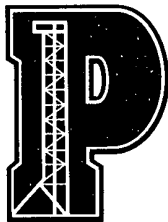
State/Country: New Mexico/USA
 Declination: 7.61°
 Grid: East To Grid
 File name: F:\SURVEY\2011SU~1\YATES\BUHO1H.SVY
 Date/Time: 19-Sep-11 / 09:48
 Curve Name: Surface - 500' M.D. (Gyroscopic)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 89.51
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 500' MD is, to the best of
 our knowledge a true and accurate account of the
 well bore.
 Dana Outter 9/19/11
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	1.00	326.55	99.99	.73	-.48	-.47	.87	326.55	1.00
200.00	.75	309.85	199.98	1.88	-1.46	-1.45	2.38	322.02	.35
300.00	1.25	337.14	299.97	3.30	-2.39	-2.36	4.07	324.08	.68
400.00	1.50	331.44	399.94	5.45	-3.44	-3.39	6.45	327.76	.28

Last Survey Depth Recorded									
500.00	1.50	.73	499.91	7.91	-4.05	-3.98	8.89	332.90	.76



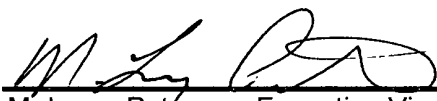
PATRIOT DRILLING, LLC

OPERATOR: Yates Petroleum Corp.
WELL/LEASE: BUHO BQH State # 1H
COUNTY: Eddy Co., New Mexico
Sec. 35, T26S, R28E

**STATE OF NEW MEXICO
DEVIATION REPORT**

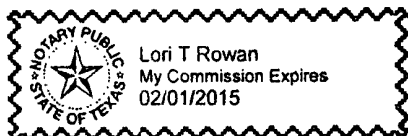
<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
317	1 1/2	2,739	1
473	1 1/2	2,930	1/4
781	1 1/4	3,120	1/4
1,064	1 1/2	3,310	1/4
1,441	1 1/2	3,501	1/4
1,535	2	4,072	1/4
1,630	2	4,261	1/4
1,725	2	4,450	1/2
1,962	1 1/4	4,826	1
2,011	1 3/4	5,015	1
2,059	2	5,392	1/4
2,106	1 3/4	5,581	1 1/4
2,247	1 3/4	5,957	1/2
2,294	2	6,025	1/2

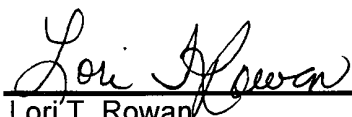
Patriot Drilling, LLC


M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 3rd day of October, 2011 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 02/01/2015




Lori T. Rowan
Notary Public for Ector Co., Texas