

Yates Petroleum Corp.

Eddy County

Link "BKT" Federal Com

#1Y

OH

Survey: MWD 2

Pathfinder X & Y Survey Report

09 February, 2009

Pathfinder Energy Services Pathfinder X & Y Survey Report

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #1Y
Project:	Eddy County	TVD Reference:	WELL @ 3568.00ft (Original Well Elev)
Site:	Link "BKT" Federal Com	MD Reference:	WELL @ 3568.00ft (Original Well Elev)
Well:	#1Y	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 2003 16 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	Link "BKT" Federal Com				
Site Position:		Northing:	697,709.859 ft	Latitude:	32° 55' 4.383 N
From:	Map	Easting:	484,983.100 ft	Longitude:	104° 31' 1.134 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	-0.10 °

Well	#1Y				
Well Position	+N/-S	0.00 ft	Northing:	700,316.098 ft	Latitude:
	+E/-W	0.00 ft	Easting:	484,989.372 ft	Longitude:
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:
					3,550.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF200510	1/29/2009	(°)	(°)	(nT)
			8.34	60.74	49,194

Design	OH				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	89.62	

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Well: #1Y
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1Y
TVD Reference: WELL @ 3568.00ft (Original Well Elev)
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North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey Program		Date 2/9/2009			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
96 00	4,110 00	MWD (OH)	MWD	MWD - Standard	
4,137 00	9,325 00	MWD 2 (OH)	MWD	MWD - Standard	

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (ft/100ft)	Northing (ft)	Easting (ft)
4,110 00	0.39	73 97	4,109.33	541 33	-10.37	23.61	23 54	0.00	700,305.73	485,012.98
4,137.00	0 53	57 28	4,136 33	568.33	-10.28	23.80	23 73	0.71	700,305 82	485,013.17
4,159.00	0 44	41 60	4,158 33	590 33	-10.16	23.94	23 88	0.73	700,305.94	485,013 32
4,191 00	1.14	65.50	4,190.32	622.32	-9.94	24.32	24.25	2.37	700,306.16	485,013 69
4,223.00	4 75	81 97	4,222 28	654.28	-9 62	25.92	25.85	11.47	700,306.48	485,015.29
4,254 00	8.79	87.32	4,253 05	685 05	-9.33	29.56	29 49	13.18	700,306 77	485,018.93
4,286 00	12 93	88 40	4,284 47	716.47	-9 11	35.58	35 52	12.95	700,306.98	485,024 95
4,318.00	17 06	89 21	4,315.38	747 38	-8.95	43.86	43.80	12.92	700,307 15	485,033.23
4,350 00	21.10	90 06	4,345 61	777.61	-8.89	54 31	54 25	12.65	700,307.21	485,043.69
4,382.00	25.24	90.41	4,375.03	807 03	-8.95	66 90	66.84	12 94	700,307.15	485,056 27
4,413 00	27 52	89.16	4,402 80	834.80	-8.89	80.67	80 61	7 57	700,307.21	485,070 05
4,445 00	29 63	88.75	4,430 90	862.90	-8.61	95.98	95.92	6.62	700,307 49	485,085 35
4,477 00	31 48	87 76	4,458 45	890.45	-8.11	112 23	112.18	5.99	700,307.99	485,101 61
4,508.00	33 94	86.13	4,484.54	916.54	-7.21	128.96	128 91	8.43	700,308.89	485,118.33
4,540.00	36 23	85 40	4,510 72	942.72	-5.85	147.30	147 26	7.28	700,310.25	485,136 67
4,572.00	39.22	84 07	4,536.03	968.03	-4.04	166.79	166.76	9.68	700,312.06	485,156 17
4,603 00	41.86	83 01	4,559.58	991.58	-1 77	186.81	186.80	8 80	700,314.33	485,176.19
4,635 00	44.93	83 61	4,582.83	1,014.83	0.79	208.65	208.65	9.68	700,316.89	485,198 02
4,667 00	47 57	83 52	4,604 96	1,036.96	3 38	231.61	231.63	8.25	700,319.48	485,220 99
4,698 00	50 65	83.75	4,625.25	1,057.25	5 98	254 90	254 94	9.95	700,322.07	485,244.27
4,730 00	53 99	84 05	4,644.81	1,076.81	8 67	280.08	280 13	10.46	700,324.76	485,269 45

Pathfinder Energy Services
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Project: Eddy County
Site: Link "BKT" Federal Com
Well: #1Y
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1Y
TVD Reference: WELL @ 3568.00ft (Original Well Elev)
MD Reference: WELL @ 3568.00ft (Original Well Elev)
North Reference: Gnd
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
4,762.00	57.86	84.67	4,662.73	1,094.73	11.27	306.45	306.52	12.20	700,327.36	485,295.83	
4,793.00	59.97	85.00	4,678.74	1,110.74	13.66	332.89	332.98	6.87	700,329.75	485,322.26	
4,825.00	62.78	84.86	4,694.07	1,126.07	16.14	360.87	360.97	8.79	700,332.24	485,350.24	
4,857.00	65.95	84.59	4,707.91	1,139.91	18.79	389.59	389.71	9.94	700,334.89	485,378.96	
4,889.00	69.82	83.62	4,719.95	1,151.95	21.84	419.08	419.21	12.42	700,337.94	485,408.45	
4,920.00	72.28	83.08	4,730.02	1,162.02	25.23	448.20	448.35	8.10	700,341.33	485,437.57	
4,984.00	78.44	81.16	4,746.19	1,178.19	33.73	509.50	509.71	10.05	700,349.83	485,498.87	
5,079.00	79.93	81.89	4,764.02	1,196.02	47.48	601.79	602.09	1.74	700,363.58	485,591.16	
5,111.00	79.84	81.89	4,769.64	1,201.64	51.93	632.98	633.31	0.28	700,368.03	485,622.35	
5,142.00	80.90	82.40	4,774.82	1,206.82	56.10	663.25	663.61	3.78	700,372.20	485,652.62	
5,174.00	82.48	82.80	4,779.45	1,211.45	60.18	694.65	695.04	5.09	700,376.28	485,684.02	
5,206.00	85.21	83.67	4,782.88	1,214.88	63.93	726.24	726.65	8.95	700,380.03	485,715.61	
5,237.00	85.65	83.91	4,785.35	1,217.35	67.27	756.96	757.39	1.62	700,383.37	485,746.33	
5,269.00	86.00	83.51	4,787.68	1,219.68	70.77	788.69	789.14	1.66	700,386.87	485,778.06	
5,300.00	87.76	83.93	4,789.36	1,221.36	74.15	819.45	819.93	5.84	700,390.25	485,808.82	
5,332.00	89.78	84.69	4,790.05	1,222.05	77.33	851.29	851.78	6.74	700,393.42	485,840.66	
5,396.00	89.87	84.75	4,790.25	1,222.25	83.22	915.01	915.55	0.17	700,399.31	485,904.39	
5,447.00	90.04	85.28	4,790.29	1,222.29	87.65	965.82	966.38	1.09	700,403.75	485,955.19	
5,541.00	87.49	85.44	4,792.31	1,224.31	95.25	1,059.48	1,060.09	2.72	700,411.35	486,048.85	
5,636.00	87.23	87.02	4,796.69	1,228.69	101.49	1,154.17	1,154.82	1.68	700,417.59	486,143.55	
5,700.00	86.97	87.78	4,799.93	1,231.93	104.39	1,218.03	1,218.69	1.25	700,420.49	486,207.40	
5,795.00	87.67	88.83	4,804.37	1,236.37	107.19	1,312.88	1,313.56	1.33	700,423.29	486,302.25	
5,890.00	88.64	90.62	4,807.43	1,239.43	107.65	1,407.82	1,408.51	2.14	700,423.75	486,397.19	
5,985.00	88.11	90.26	4,810.12	1,242.12	106.92	1,502.78	1,503.46	0.67	700,423.02	486,492.15	
6,080.00	90.57	91.58	4,811.21	1,243.21	105.40	1,597.75	1,598.42	2.94	700,421.49	486,587.12	
6,175.00	89.69	90.45	4,811.00	1,243.00	103.71	1,692.74	1,693.39	1.51	700,419.81	486,682.11	
6,270.00	87.58	89.15	4,813.26	1,245.26	104.04	1,787.70	1,788.35	2.61	700,420.14	486,777.07	

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Well: #1Y
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Design: OH

Local Co-ordinate Reference: Well #1Y
TVD Reference: WELL @ 3568.00ft (Original Well Elev)
MD Reference: WELL @ 3568.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)	
6,365.00	87.05	89.91	4,817.71	1,249.71	104.82	1,882.59	1,883.25	0.97	700,420.92	486,871.96	
6,461.00	90.48	93.54	4,819.78	1,251.78	101.93	1,978.50	1,979.13	5.20	700,418.03	486,967.87	
6,556.00	89.08	92.90	4,820.15	1,252.15	96.60	2,073.34	2,073.94	1.62	700,412.69	487,062.71	
6,651.00	89.78	94.28	4,821.09	1,253.09	90.65	2,168.15	2,168.70	1.63	700,406.75	487,157.52	
6,715.00	89.52	94.31	4,821.48	1,253.48	85.85	2,231.97	2,232.49	0.41	700,401.95	487,221.34	
6,810.00	90.57	95.57	4,821.41	1,253.41	77.67	2,326.61	2,327.07	1.73	700,393.77	487,315.98	
6,905.00	91.19	94.81	4,819.95	1,251.95	69.08	2,421.21	2,421.61	1.03	700,385.18	487,410.58	
7,000.00	90.57	94.06	4,818.49	1,250.49	61.74	2,515.91	2,516.27	1.02	700,377.83	487,505.28	
7,095.00	92.68	94.77	4,815.80	1,247.80	54.43	2,610.59	2,610.89	2.34	700,370.53	487,599.96	
7,190.00	92.51	94.96	4,811.50	1,243.50	46.38	2,705.15	2,705.40	0.27	700,362.48	487,694.52	
7,285.00	92.24	94.33	4,807.56	1,239.56	38.69	2,799.75	2,799.95	0.72	700,354.79	487,789.13	
7,380.00	90.57	93.19	4,805.23	1,237.23	32.47	2,894.52	2,894.67	2.13	700,348.56	487,883.89	
7,475.00	89.43	91.82	4,805.23	1,237.23	28.31	2,989.42	2,989.54	1.88	700,344.41	487,978.79	
7,570.00	86.35	89.75	4,808.73	1,240.73	27.01	3,084.33	3,084.44	3.91	700,343.11	488,073.70	
7,665.00	87.67	89.65	4,813.68	1,245.68	27.51	3,179.20	3,179.31	1.39	700,343.61	488,168.57	
7,760.00	87.32	89.06	4,817.83	1,249.83	28.58	3,274.10	3,274.22	0.72	700,344.67	488,263.47	
7,855.00	88.90	90.25	4,820.97	1,252.97	29.15	3,369.04	3,369.16	2.08	700,345.25	488,358.41	
7,919.00	88.11	89.89	4,822.64	1,254.64	29.07	3,433.02	3,433.14	1.36	700,345.17	488,422.39	
8,014.00	87.67	89.30	4,826.13	1,258.13	29.74	3,527.95	3,528.07	0.77	700,345.84	488,517.32	
8,109.00	89.16	89.22	4,828.76	1,260.76	30.97	3,622.91	3,623.03	1.57	700,347.06	488,612.28	
8,204.00	89.52	89.88	4,829.86	1,261.86	31.71	3,717.90	3,718.02	0.79	700,347.81	488,707.27	
8,300.00	88.64	88.27	4,831.40	1,263.40	33.26	3,813.87	3,814.00	1.91	700,349.36	488,803.24	
8,395.00	89.16	89.14	4,833.22	1,265.22	35.41	3,908.82	3,908.97	1.07	700,351.51	488,898.20	
8,490.00	87.49	87.31	4,836.00	1,268.00	38.35	4,003.73	4,003.90	2.61	700,354.45	488,993.10	
8,585.00	88.90	89.68	4,838.99	1,270.99	40.84	4,098.64	4,098.82	2.90	700,356.94	489,088.01	
8,680.00	89.78	90.42	4,840.09	1,272.09	40.76	4,193.63	4,193.81	1.21	700,356.86	489,183.01	
8,775.00	89.60	90.61	4,840.60	1,272.60	39.91	4,288.63	4,288.80	0.28	700,356.00	489,278.00	

Pathfinder Energy Services Pathfinder X & Y Survey Report

Company: Yates Petroleum Corp.
Project: Eddy County
Site: Link "BKT" Federal Com
Well: #1Y
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1Y
TVD Reference: WELL @ 3568.00ft (Original Well Elev)
MD Reference: WELL @ 3568.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,870.00	88.99	89.93	4,841.77	1,273.77	39.46	4,383.62	4,383.78	0.96	700,355.56	489,372.99
8,965.00	88.46	89.54	4,843.88	1,275.88	39.90	4,478.59	4,478.76	0.69	700,355.99	489,467.97
9,060.00	89.08	90.32	4,845.92	1,277.92	40.01	4,573.57	4,573.74	1.05	700,356.11	489,562.94
9,155.00	89.69	91.47	4,846.94	1,278.94	38.53	4,668.55	4,668.70	1.37	700,354.63	489,657.92
9,248.00	89.34	91.04	4,847.73	1,279.73	36.49	4,761.53	4,761.66	0.60	700,352.59	489,750.90
9,325.00	89.34	91.04	4,848.62	1,280.62	35.09	4,838.51	4,838.63	0.00	700,351.19	489,827.88

Straightline Projection to Bit @9325.00'MD, 4848.62'TVD, 89.34°INC, 91.04°AZI, 4838.63'VS

Targets

Target Name hit/miss target Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
PBHL OH(#1Y) - survey misses by 36.92ft at 9325.00ft MD (4848.62 TVD, 35.09 N, 4838.51 E) - Point	0.00	360.00	4,865.00	32.42	4,871.49	700,348.516	489,860.857	32° 55' 30.573 N	104° 30' 3.959 W

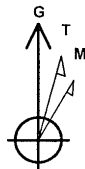
Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	+E/-W (ft)	Comment
9,325.00	4,848.62	35.09	4,838.51	Straightline Projection to Bit @9325.00'MD, 4848.62'TVD, 89.34°INC, 91.04°AZI, 4838.63'VS

Checked By: _____ Approved By: _____ Date: _____

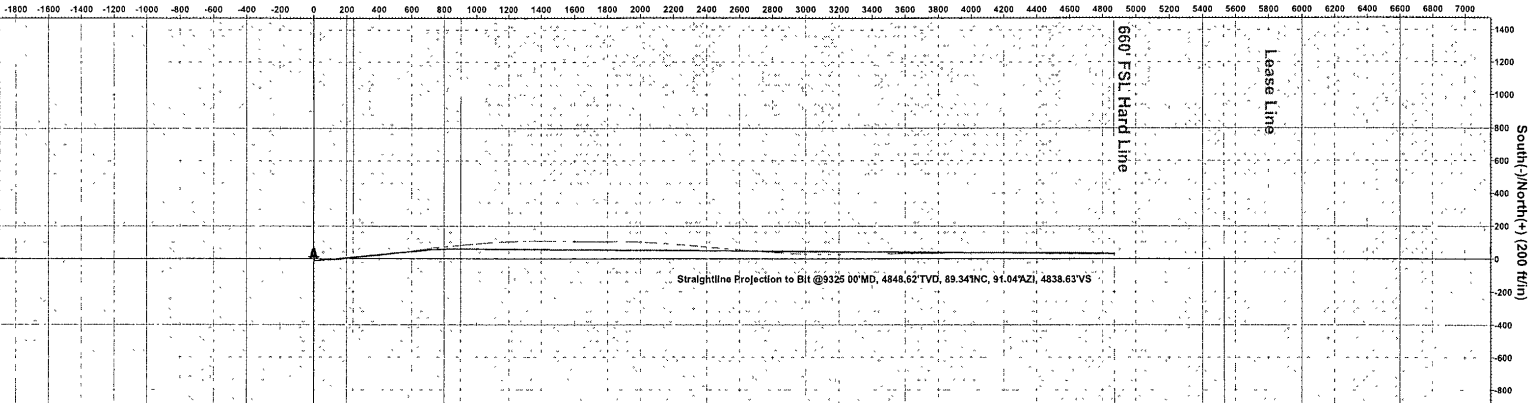
Yates Petroleum Corporation

Note: Hard Line/ Lease Line is subject to approval with Plan
Line is dictated by what is given on the Staking Plat



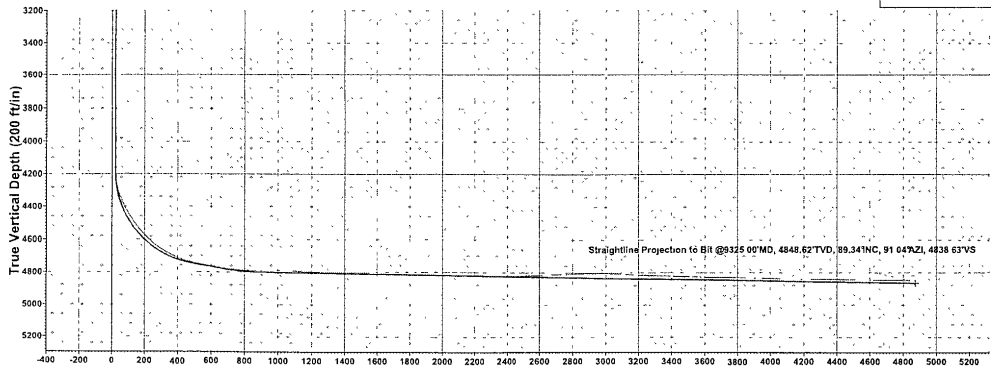
Azimuths to Grid North
True North: 0.10°
Magnetic North: 8.44°
Magnetic Field
Strength: 49193.9aT
Dip Angle: 60.74°
Date: 1/29/2009
Model: IGRF200510

EOW



NOTE: Cross 660' Hardline @
60' North, 900' East/ 900' V.Sect

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	4110.00	0.39	73.97	4109.33	-10.37	23.61	0.00	0.00	23.54	
2	4200.00	0.39	73.97	4199.33	-10.20	24.20	0.00	0.00	24.13	
3	4975.24	80.00	84.65	4745.01	33.37	483.14	10.27	10.69	483.35	
4	5160.24	80.00	84.65	4777.14	50.35	684.54	0.00	0.00	684.85	
5	5400.12	89.06	90.41	4800.00	60.54	902.76	4.47	32.65	903.14	
6	9369.48	89.06	90.41	4865.12	32.14	4871.49	0.00	0.00	4871.59	PBHL OH(#1Y)



WELL DETAILS #1Y						
Ground Elevation: 3550.00						
RKB Elevation: WELL @ 3568.00 ft (Original Well Elev)						
Rig Name: Original Well Elev						
+N/-S	+E/-W	Northing	Eastings	Latitude	Longitude	Slot
0.00	0.00	700316.098	484989.372	32°55'30.171 N	104°31'11.114 W	

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

Plan: Plan #2 (#1Y/OH)
Created By: Nate Bingham Date: 8/27/February 09 2009
Checked: _____ Date: _____