

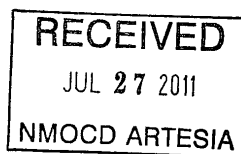


Yates Petroleum Corp.

Eddy County
Gem Dandy "BCG" State
#3H
OH

30-015-38401

Design: OH



Pathfinder X&Y Report

26 April, 2011

PATHFINDER
A Schlumberger Company



Pathfinder
Pathfinder X&Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 3442.00usft (18' KB Correction)
Site:	Gem Dandy "BCG" State	MD Reference:	WELL @ 3442.00usft (18' KB Correction)
Well:	#3H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

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

Site:		Gem Dandy "BCG" State			
Site Position:		Northing:	684,714.690 usft	Latitude:	32° 52' 56.195 N
From:	Map	Easting:	565,117.300 usft	Longitude:	104° 15' 21.134 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.04 °

Well:	#3H					
Well Position	+N-S	0.00 usft	Northing:	684,714.690 usft	Latitude:	32° 52' 56.195 N
	+E-W	0.00 usft	Easting:	565,117.300 usft	Longitude:	104° 15' 21.134 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,424.00 usft

Wellbore	OH
----------	----

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/15/2011	7.98	60.68	48,961

Design:	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	102.25



Pathfinder
Pathfinder X&Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 3442.00usft (18' KB Correction)
Site:	Gem Dandy "BCG" State	MD Reference:	WELL @ 3442.00usft (18' KB Correction)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.1 Single User Db

Survey Program		Date 4/26/2011		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
200.00	5,448.00	GYRO (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s
5,560.00	10,520.00	MWD (OH)	MWD	MWD - Standard

MD (usft)	Inc (")	Azi (azimuth) (")	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg ("/100usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	-3,442.00	0.00	0.00	0.00	0.00	684,714.69	565,117.30
200.00	0.50	316.78	200.00	-3,242.00	0.64	-0.60	-0.72	0.25	684,715.33	565,116.70
400.00	0.75	305.85	399.99	-3,042.01	2.04	-2.26	-2.64	0.14	684,716.73	565,115.04
600.00	0.25	319.92	599.98	-2,842.02	3.14	-3.60	-4.18	0.26	684,717.83	565,113.70
800.00	0.25	329.99	799.98	-2,642.02	3.85	-4.10	-4.82	0.02	684,718.54	565,113.20
1,000.00	0.25	22.06	999.97	-2,442.03	4.63	-4.15	-5.04	0.11	684,719.32	565,113.15
1,200.00	0.75	353.13	1,199.97	-2,242.03	6.34	-4.14	-5.39	0.27	684,721.03	565,113.16
1,400.00	0.50	352.20	1,399.95	-2,042.05	8.50	-4.42	-6.12	0.13	684,723.19	565,112.88
1,600.00	0.25	302.27	1,599.95	-1,842.05	9.60	-4.91	-6.83	0.19	684,724.29	565,112.39
1,800.00	1.00	312.34	1,799.94	-1,642.06	11.01	-6.57	-8.75	0.38	684,725.70	565,110.73
2,000.00	1.00	329.41	1,999.91	-1,442.09	13.68	-8.74	-11.45	0.15	684,728.37	565,108.56
2,200.00	1.00	297.48	2,199.88	-1,242.12	15.99	-11.18	-14.32	0.28	684,730.68	565,106.12
2,400.00	1.25	294.90	2,399.84	-1,042.16	17.72	-14.71	-18.13	0.13	684,732.41	565,102.59
2,600.00	1.50	298.96	2,599.78	-842.22	19.90	-18.98	-22.77	0.13	684,734.59	565,098.32
2,800.00	1.75	299.03	2,799.70	-642.30	22.65	-23.94	-28.20	0.13	684,737.34	565,093.36
3,000.00	2.00	301.10	2,999.59	-442.41	25.94	-29.60	-34.42	0.13	684,740.63	565,087.70
3,200.00	2.00	311.17	3,199.47	-242.53	30.04	-35.21	-40.78	0.18	684,744.73	565,082.09
3,400.00	2.25	298.23	3,399.34	-42.66	34.19	-41.30	-47.61	0.27	684,748.88	565,076.00
3,600.00	2.50	309.30	3,599.16	157.16	38.81	-48.13	-55.27	0.26	684,753.50	565,069.17
3,800.00	2.25	309.37	3,798.99	356.99	44.06	-54.54	-62.65	0.13	684,758.75	565,062.76
4,000.00	1.75	303.45	3,998.87	556.87	48.24	-60.13	-68.99	0.27	684,762.93	565,057.17



Pathfinder
Pathfinder X&Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 3442.00usft (18' KB Correction)
Site:	Gem Dandy "BCG" State	MD Reference:	WELL @ 3442.00usft (18' KB Correction)
Well:	#3H	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)	
4,200.00	1 50	303 53	4,198.79	756.79	51.37	-64.86	-74.28	0 13	684,766 06	565,052.44	
4,400.00	1 00	285.60	4,398 74	956.74	53.28	-68.72	-78.46	0.31	684,767.97	565,048.58	
4,600.00	1 00	303 67	4,598 71	1,156.71	54 72	-71 85	-81.83	0.16	684,769.41	565,045.45	
4,800.00	0 75	268.74	4,798.69	1,356.69	55.66	-74.61	-84.72	0.29	684,770.35	565,042.69	
5,000 00	0 50	256 89	4,998 68	1,556 68	55.43	-76.77	-86.78	0 14	684,770 12	565,040 53	
5,200.00	0 75	251.96	5,198.67	1,756.67	54.83	-78 87	-88 70	0 13	684,769.52	565,038.43	
5,400.00	0 25	177.03	5,398.66	1,956.66	53.99	-80.09	-89.72	0.36	684,768.68	565,037 21	
5,448.00	0 25	138.10	5,446.66	2,004 66	53.80	-80 01	-89.61	0 35	684,768 49	565,037.29	
5,560.00	0 62	116.95	5,558.66	2,116.66	53.35	-79.31	-88.82	0.35	684,768.04	565,037.99	
5,655.00	3 17	121.97	5,653 60	2,211.60	51.72	-76 62	-85.85	2.69	684,766 41	565,040 68	
5,687.00	7 83	122.67	5,685.44	2,243.44	50.08	-74.04	-82.98	14.56	684,764.77	565,043.26	
5,719.00	13 01	122.17	5,716.90	2,274 90	46.98	-69.15	-77.54	16 19	684,761.67	565,048.15	
5,750.00	18 29	121.56	5,746 74	2,304.74	42.57	-62 04	-69 67	17 04	684,757.26	565,055 26	
5,782.00	23.30	121.41	5,776 65	2,334.65	36.64	-52 36	-58.94	15.66	684,751 33	565,064.94	
5,813 00	26.82	120 51	5,804 72	2,362 72	29 90	-41.10	-46.51	11 42	684,744 59	565,076 20	
5,845.00	29.90	119.55	5,832.88	2,390.88	22.30	-27 94	-32 03	9.73	684,736.99	565,089 36	
5,877.00	32.98	119 48	5,860.18	2,418.18	14 07	-13.41	-16.09	9.63	684,728.76	565,103.89	
5,908.00	37.28	121 14	5,885.53	2,443 53	5 06	1 98	0.86	14 21	684,719 75	565,119 28	
5,940 00	41.24	123.23	5,910.30	2,468 30	-5.73	19 10	19 88	13.05	684,708 96	565,136 40	
5,971.00	44 58	126.59	5,933 01	2,491 01	-17.82	36.39	39.34	13.06	684,696.87	565,153 69	
6,003.00	46.87	130.60	5,955 35	2,513.35	-32.12	54 28	59.86	11 47	684,682 57	565,171.58	
6,035.00	49.15	134.56	5,976.76	2,534.76	-48 22	71.77	80.37	11.63	684,666 47	565,189.07	
6,066.00	53 90	135.85	5,996.04	2,554.04	-65 44	88.86	100 72	15 66	684,649 25	565,206 16	
6,102 00	59 53	135.54	6,015.79	2,573.79	-86 97	109 88	125 83	15 66	684,627 72	565,227 18	
6,133 00	64 63	134 74	6,030.30	2,588 30	-106.37	129 19	148 82	16 61	684,608.32	565,246 49	
6,165.00	69.64	133 87	6,042.73	2,600.73	-126.96	150.29	173.81	15 86	684,587.73	565,267.59	
6,195.00	73.60	133.73	6,052.19	2,610.19	-146.66	170.84	198 06	13.21	684,568.03	565,288.14	



Pathfinder
Pathfinder X&Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 3442.00usft (18' KB Correction)
Site:	Gem Dandy "BCG" State	MD Reference:	WELL @ 3442.00usft (18' KB Correction)
Well:	#3H	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)	
6,226.00	77.29	133.35	6,059.98	2,617.98	-167.32	192.58	223.70	11.96	684,547.37	565,309.88	
6,258.00	80.11	133.00	6,066.25	2,624.25	-188.79	215.46	250.62	8.88	684,525.90	565,332.76	
6,289.00	82.48	131.39	6,070.94	2,628.94	-209.37	238.17	277.17	9.21	684,505.32	565,355.47	
6,320.00	84.68	130.21	6,074.41	2,632.41	-229.50	261.48	304.22	8.04	684,485.19	565,378.78	
6,351.00	87.76	128.01	6,076.45	2,634.45	-249.01	285.48	331.82	12.20	684,465.68	565,402.78	
6,377.00	88.72	128.05	6,077.25	2,635.25	-265.02	305.95	355.22	3.70	684,449.67	565,423.25	
6,470.00	89.08	127.69	6,079.03	2,637.03	-322.10	379.35	439.06	0.55	684,392.59	565,496.65	
6,563.00	88.02	125.62	6,081.39	2,639.39	-377.60	453.93	523.71	2.50	684,337.09	565,571.23	
6,657.00	88.11	123.26	6,084.56	2,642.56	-430.72	531.41	610.70	2.51	684,283.97	565,648.71	
6,750.00	88.90	120.35	6,086.99	2,644.99	-479.71	610.41	698.29	3.24	684,234.98	565,727.71	
6,844.00	89.08	116.33	6,088.65	2,646.65	-524.32	693.11	788.58	4.28	684,190.37	565,810.41	
6,936.00	88.72	112.49	6,090.41	2,648.41	-562.33	776.85	878.48	4.19	684,152.36	565,894.15	
7,029.00	89.08	108.54	6,092.20	2,650.20	-594.90	863.92	970.48	4.26	684,119.79	565,981.22	
7,123.00	88.99	104.75	6,093.78	2,651.78	-621.82	953.96	1,064.17	4.03	684,092.87	566,071.26	
7,216.00	88.55	100.87	6,095.78	2,653.78	-642.43	1,044.60	1,157.13	4.20	684,072.26	566,161.90	
7,309.00	88.46	99.20	6,098.21	2,656.21	-658.63	1,136.14	1,250.02	1.80	684,056.06	566,253.44	
7,402.00	89.52	97.77	6,099.85	2,657.85	-672.35	1,228.11	1,342.80	1.91	684,042.34	566,345.41	
7,496.00	89.16	96.02	6,100.93	2,658.93	-683.63	1,321.42	1,436.38	1.90	684,031.06	566,438.72	
7,589.00	89.16	96.03	6,102.29	2,660.29	-693.40	1,413.90	1,528.83	0.01	684,021.29	566,531.20	
7,682.00	89.60	95.01	6,103.30	2,661.30	-702.34	1,506.46	1,621.18	1.19	684,012.35	566,623.76	
7,775.00	88.02	95.57	6,105.23	2,663.23	-710.91	1,599.04	1,713.47	1.80	684,003.78	566,716.34	
7,869.00	87.76	95.59	6,108.69	2,666.69	-720.05	1,692.53	1,806.77	0.28	683,994.64	566,809.83	
7,962.00	88.02	94.75	6,112.12	2,670.12	-728.42	1,785.09	1,899.00	0.94	683,986.27	566,902.39	
8,056.00	87.67	94.53	6,115.65	2,673.65	-736.02	1,878.71	1,992.10	0.44	683,978.67	566,996.01	
8,149.00	87.14	94.69	6,119.86	2,677.86	-743.49	1,971.32	2,084.18	0.60	683,971.20	567,088.62	
8,242.00	86.88	94.61	6,124.71	2,682.71	-751.02	2,063.88	2,176.24	0.29	683,963.67	567,181.18	
8,329.00	86.88	93.57	6,129.45	2,687.45	-757.21	2,150.53	2,262.23	1.19	683,957.48	567,267.83	



Pathfinder
Pathfinder X&Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 3442.00usft (18' KB Correction)
Site:	Gem Dandy "BCG" State	MD Reference:	WELL @ 3442.00usft (18' KB Correction)
Well:	#3H	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)	
8,422.00	86.26	94.20	6,135.01	2,693.01	-763.50	2,243.15	2,354.08	0.95	683,951.19	567,360.45	
8,515.00	85.65	95.41	6,141.57	2,699.57	-771.27	2,335.59	2,446.06	1.45	683,943.42	567,452.89	
8,608.00	86.00	95.64	6,148.34	2,706.34	-780.20	2,427.91	2,538.17	0.45	683,934.49	567,545.21	
8,701.00	87.58	95.55	6,153.55	2,711.55	-789.25	2,520.32	2,630.40	1.70	683,925.44	567,637.62	
8,794.00	88.37	95.45	6,156.84	2,714.84	-798.16	2,612.84	2,722.70	0.86	683,916.53	567,730.14	
8,887.00	88.72	95.31	6,159.20	2,717.20	-806.88	2,705.40	2,815.00	0.41	683,907.81	567,822.70	
8,980.00	88.64	95.53	6,161.34	2,719.34	-815.66	2,797.96	2,907.31	0.25	683,899.03	567,915.26	
9,074.00	88.72	96.03	6,163.50	2,721.50	-825.13	2,891.45	3,000.69	0.54	683,889.56	568,008.75	
9,167.00	88.64	95.99	6,165.65	2,723.65	-834.86	2,983.92	3,093.12	0.10	683,879.83	568,101.22	
9,260.00	88.55	96.10	6,167.93	2,725.93	-844.65	3,076.37	3,185.54	0.15	683,870.04	568,193.67	
9,354.00	88.81	95.11	6,170.09	2,728.09	-853.83	3,169.90	3,278.89	1.09	683,860.86	568,287.20	
9,447.00	88.37	95.68	6,172.38	2,730.38	-862.57	3,262.46	3,371.19	0.77	683,852.12	568,379.76	
9,540.00	88.29	95.17	6,175.09	2,733.09	-871.36	3,355.00	3,463.49	0.55	683,843.33	568,472.30	
9,633.00	88.02	95.55	6,178.09	2,736.09	-880.04	3,447.54	3,555.77	0.50	683,834.65	568,564.84	
9,726.00	88.02	94.75	6,181.30	2,739.30	-888.39	3,540.11	3,648.00	0.86	683,826.30	568,657.41	
9,819.00	88.90	95.49	6,183.80	2,741.80	-896.68	3,632.71	3,740.25	1.24	683,818.01	568,750.01	
9,911.00	89.08	95.66	6,185.42	2,743.42	-905.62	3,724.26	3,831.61	0.27	683,809.07	568,841.56	
10,004.00	88.99	96.23	6,186.99	2,744.99	-915.25	3,816.74	3,924.04	0.62	683,799.44	568,934.04	
10,097.00	89.08	96.46	6,188.55	2,746.55	-925.53	3,909.16	4,016.53	0.27	683,789.16	569,026.46	
10,190.00	89.16	96.15	6,189.98	2,747.98	-935.74	4,001.59	4,109.02	0.34	683,778.95	569,118.89	
10,284.00	89.08	96.48	6,191.42	2,749.42	-946.08	4,095.01	4,202.50	0.36	683,768.61	569,212.31	
10,377.00	88.99	96.96	6,192.99	2,750.99	-956.96	4,187.35	4,295.06	0.53	683,757.73	569,304.65	
10,440.00	88.72	97.08	6,194.25	2,752.25	-964.65	4,249.87	4,357.78	0.47	683,750.04	569,367.17	
10,520.00	88.72	97.08	6,196.04	2,754.04	-974.51	4,329.24	4,437.44	0.00	683,740.18	569,446.54	



Pathfinder
Pathfinder X&Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County	TVD Reference:	WELL @ 3442.00usft (18' KB Correction)
Site:	Gem Dandy "BCG" State	MD Reference:	WELL @ 3442 00usft (18' KB Correction)
Well:	#3H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM,5000.1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,560.00	5,558.66	53.35	-79.31	KOP - 5560.00'MD, 5558.66'TVD', 53.35'N, -79.31'E
6,470.00	6,079.03	-322.10	379.35	LP - 6470.00'MD, 6079.03'TVD', -322.10'N, 379.35'E
10,520.00	6,196.04	-974.51	4,329.24	BHL - 10520.00'MD, 6196.04'TVD', -974.51'N, 4329.24'E

Checked By: _____	Approved By: _____	Date: _____
-------------------	--------------------	-------------



Project: Eddy County
Site: Gem Dandy "BCG" State
Well: #3H
Wellbore: OH
Plan: Plan #4 (#3H/OH)



Azimuths to Grid North
True North: -0.04°
Magnetic North: 7.94°

Magnetic Field
Strength: 48960.9snT
Dip Angle: 60.68°
Date: 2011/03/15
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

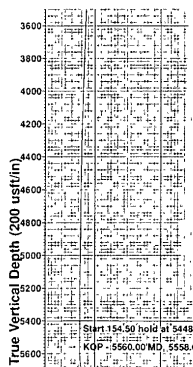
KOP - 5560.00' MD, 5558.66' TVD, 53.35° N, 79.31° E

LP - 6470.00' MD, 6079.03' TVD, -322.10° N, 379.35° E

Lease Line
330' Offset HL

Start 556.96 hold at 5517.94 MD
Start 1015.75 hold at 5942.90 MD
Start 1015.75 hold at 5942.90 MD
Start 1015.75 hold at 5942.90 MD

BHL - 10520.00' MD, 6196.04' TVD, -974.51° N, 4329.24° E



Vertical Section at 102.25° (200 usft/in)

WELL DETAILS #3H						
Ground Elevation 3424.00						
RXS Elevation WELL @ 3442.00usft (16' KB Correction)						
Rig Name 18' KB Correction						
N-S	E-W	Northing	Easting	Latitude	Longitude	Site
0.00	0.00	684714.69	565117.30	32° 52' 56.195 N	104° 15' 21.134 W	Site

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N-S	+E-W	Northing	Easting	Shape
PBHL(Gem Dandy "BCG" State #3H)	6200.00	-948.71	4359.85	683765.98	569487.15	Point
Dog Canyon 35G State #1 estimation	9340.00	-533.00	2918.00	684181.69	568035.30	Point

Plan Plan #4 (#3H/OH)

Created By Nate Bingham Date 16 16, April 26 2011

Checked _____ Date: _____