



A Schlumberger Company

Yates Petroleum Corp.

Eddy County
Trojans BQT State
#1H
OH

Survey: MWD

Pathfinder X & Y Survey Report

25 February, 2011

SUR: P-36-25s-28e, 660/S & 330/E
BHL: M-36-25s-28e, 642/S & 351/W
API # 30-015-38261



A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Patterson #75 @ 2935.00usft (Original Well Elev)
Site:	Trojans BQT State	MD Reference:	Patterson #75 @ 2935.00usft (Original Well Elev)
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:	Trojans BQT State		
Site Position:		Northing:	393,247.438 usft
From:	Map	Easting:	634,296.425 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 4' 50 741 N
		Longitude:	104° 1' 59.489 W
		Grid Convergence:	0.16 °

Well	#1H					
Well Position	+N/-S	0.00 usft	Northing:	393,247 438 usft	Latitude:	32° 4' 50.741 N
	+E/-W	0.00 usft	Easting:	634,296 425 usft	Longitude:	104° 1' 59.489 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	2,916.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	02/14/11	7 83	59.98	48,515

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	270.57

Survey Program	Date	02/25/11		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
7,317.00	11,342.00	MWD (OH)	MWD	MWD - Standard

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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 (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
7,274.00	85.90	268.00	6,922.34	-3,987.34	33.13	-590.63	590.93	0.00	393,280.57	633,705.80	
7,317.00	86.26	264.60	6,925.28	-3,990.28	30.36	-633.43	633.70	7.93	393,277.80	633,662.99	
7,349.00	88.81	265.11	6,926.66	-3,991.66	27.50	-665.27	665.51	8.13	393,274.93	633,631.15	
7,381.00	91.80	267.26	6,926.49	-3,991.49	25.37	-697.20	697.41	11.51	393,272.80	633,599.23	
7,412.00	92.51	267.48	6,925.32	-3,990.32	23.94	-728.14	728.34	2.40	393,271.38	633,568.28	
7,444.00	92.33	264.64	6,923.97	-3,988.97	21.75	-760.03	760.21	8.88	393,269.19	633,536.39	
7,474.00	92.33	267.28	6,922.75	-3,987.75	19.64	-789.93	790.09	8.79	393,267.07	633,506.49	
7,508.00	92.51	266.63	6,921.31	-3,986.31	17.83	-823.85	823.99	1.98	393,265.27	633,472.57	
7,537.00	92.95	265.10	6,919.93	-3,984.93	15.74	-852.74	852.86	5.48	393,263.18	633,443.68	
7,569.00	93.30	265.87	6,918.19	-3,983.19	13.23	-884.60	884.68	2.64	393,260.67	633,411.83	
7,601.00	93.21	268.53	6,916.37	-3,981.37	11.67	-916.50	916.57	8.30	393,259.11	633,379.92	
7,633.00	93.47	269.25	6,914.51	-3,979.51	11.05	-948.44	948.51	2.39	393,258.49	633,347.98	
7,730.00	93.74	268.22	6,908.41	-3,973.41	8.91	-1,045.23	1,045.26	1.10	393,256.35	633,251.20	
7,826.00	93.56	271.62	6,902.29	-3,967.29	8.78	-1,141.02	1,141.05	3.54	393,256.22	633,155.41	
7,889.00	92.15	270.77	6,899.16	-3,964.16	10.09	-1,203.92	1,203.96	2.61	393,257.53	633,092.50	
7,921.00	90.92	270.57	6,898.30	-3,963.30	10.46	-1,235.91	1,235.95	3.89	393,257.90	633,060.52	
7,953.00	90.92	270.45	6,897.78	-3,962.78	10.75	-1,267.90	1,267.95	0.37	393,258.19	633,028.52	
7,984.00	91.10	272.01	6,897.24	-3,962.24	11.41	-1,298.89	1,298.94	5.06	393,258.85	632,997.53	
8,016.00	91.01	271.79	6,896.65	-3,961.65	12.48	-1,330.87	1,330.93	0.74	393,259.91	632,965.56	
8,048.00	91.01	271.27	6,896.09	-3,961.09	13.33	-1,362.85	1,362.92	1.62	393,260.77	632,933.57	
8,079.00	91.71	270.75	6,895.35	-3,960.35	13.88	-1,393.84	1,393.91	2.81	393,261.31	632,902.59	
8,111.00	91.89	271.07	6,894.34	-3,959.34	14.38	-1,425.82	1,425.89	1.15	393,261.82	632,870.61	
8,143.00	92.51	270.40	6,893.12	-3,958.12	14.79	-1,457.79	1,457.87	2.85	393,262.23	632,838.63	
8,175.00	92.42	270.24	6,891.74	-3,956.74	14.97	-1,489.76	1,489.84	0.57	393,262.41	632,806.66	
8,207.00	92.15	269.88	6,890.46	-3,955.46	15.01	-1,521.74	1,521.81	1.41	393,262.44	632,774.69	
8,238.00	91.98	269.66	6,889.35	-3,954.35	14.88	-1,552.71	1,552.79	0.90	393,262.32	632,743.71	
8,270.00	92.33	269.54	6,888.14	-3,953.14	14.66	-1,584.69	1,584.76	1.16	393,262.10	632,711.73	

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Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000'1 Single User Db

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,302.00	92.33	268.95	6,886.84	-3,951.84	14.24	-1,616.66	1,616.72	1.84	393,261.68	632,679.76
8,334.00	92.42	268.13	6,885.52	-3,950.52	13.42	-1,648.62	1,648.68	2.58	393,260.86	632,647.80
8,365.00	92.59	267.54	6,884.16	-3,949.16	12.25	-1,679.57	1,679.61	1.98	393,259.69	632,616.85
8,397.00	92.42	267.44	6,882.76	-3,947.76	10.85	-1,711.51	1,711.53	0.62	393,258.29	632,584.91
8,429.00	91.28	267.67	6,881.73	-3,946.73	9.49	-1,743.46	1,743.47	3.63	393,256.93	632,552.96
8,461.00	91.45	267.87	6,880.97	-3,945.97	8.24	-1,775.43	1,775.43	0.82	393,255.68	632,520.99
8,493.00	91.28	268.13	6,880.21	-3,945.21	7.13	-1,807.40	1,807.38	0.97	393,254.56	632,489.02
8,525.00	91.36	268.10	6,879.47	-3,944.47	6.07	-1,839.38	1,839.35	0.27	393,253.51	632,457.05
8,588.00	91.71	268.44	6,877.78	-3,942.78	4.17	-1,902.33	1,902.27	0.77	393,251.61	632,394.10
8,652.00	92.15	268.08	6,875.62	-3,940.62	2.23	-1,966.26	1,966.18	0.89	393,249.67	632,330.17
8,715.00	92.24	268.02	6,873.21	-3,938.21	0.09	-2,029.18	2,029.08	0.17	393,247.53	632,267.25
8,779.00	92.07	267.15	6,870.81	-3,935.81	-2.61	-2,093.07	2,092.94	1.38	393,244.83	632,203.35
8,842.00	92.95	268.43	6,868.05	-3,933.05	-5.03	-2,155.96	2,155.81	2.46	393,242.40	632,140.46
8,906.00	92.86	268.10	6,864.80	-3,929.80	-6.97	-2,219.85	2,219.67	0.53	393,240.47	632,076.57
8,969.00	92.86	267.29	6,861.66	-3,926.66	-9.50	-2,282.72	2,282.52	1.28	393,237.94	632,013.70
9,033.00	93.12	267.29	6,858.32	-3,923.32	-12.52	-2,346.56	2,346.32	0.41	393,234.92	631,949.86
9,096.00	93.39	268.10	6,854.74	-3,919.74	-15.05	-2,409.41	2,409.14	1.35	393,232.39	631,887.01
9,160.00	91.54	267.35	6,851.99	-3,916.99	-17.59	-2,473.30	2,473.00	3.12	393,229.85	631,823.13
9,255.00	91.71	267.28	6,849.30	-3,914.30	-22.04	-2,568.16	2,567.81	0.19	393,225.40	631,728.27
9,360.00	91.10	266.35	6,846.72	-3,911.72	-27.87	-2,672.96	2,672.55	1.06	393,219.57	631,623.46
9,456.00	91.98	268.00	6,844.14	-3,909.14	-32.60	-2,768.80	2,768.34	1.95	393,214.84	631,527.62
9,551.00	93.21	268.92	6,839.84	-3,904.84	-35.15	-2,863.67	2,863.18	1.62	393,212.29	631,432.75
9,646.00	93.65	268.89	6,834.16	-3,899.16	-36.96	-2,958.48	2,957.97	0.46	393,210.48	631,337.94
9,742.00	93.30	269.36	6,828.34	-3,893.34	-38.43	-3,054.29	3,053.76	0.61	393,209.01	631,242.13
9,837.00	91.45	268.90	6,824.40	-3,889.40	-39.87	-3,149.20	3,148.64	2.01	393,207.57	631,147.23
9,933.00	91.28	268.50	6,822.12	-3,887.12	-42.04	-3,245.15	3,244.57	0.45	393,205.39	631,051.28
10,028.00	91.98	268.49	6,819.41	-3,884.41	-44.54	-3,340.07	3,339.46	0.74	393,202.90	630,956.35

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #1H
Project:	Eddy County	TVD Reference:	Patterson #75 @ 2935.00usft (Original Well Elev)
Site:	Trojans BQT State	MD Reference:	Patterson #75 @ 2935.00usft (Original Well Elev)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000 1 Single User Db

MD (usft)	Inc (°)	Azi (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
10,123.00	91.89	268.13	6,816.21	-3,881.21	-47.34	-3,434.98	3,434.34	0.39	393,200.10	630,861.45
10,219.00	92.64	269.56	6,812.41	-3,877.41	-49.27	-3,530.88	3,530.21	1.68	393,198.17	630,765.54
10,314.00	92.51	270.07	6,808.14	-3,873.14	-49.58	-3,625.78	3,625.11	0.55	393,197.86	630,670.64
10,409.00	93.30	270.02	6,803.33	-3,868.33	-49.50	-3,720.66	3,719.98	0.83	393,197.93	630,575.76
10,505.00	93.47	269.83	6,797.66	-3,862.66	-49.63	-3,816.49	3,815.81	0.27	393,197.81	630,479.93
10,600.00	91.80	270.30	6,793.29	-3,858.29	-49.52	-3,911.39	3,910.70	1.83	393,197.92	630,385.04
10,721.00	91.71	270.67	6,789.59	-3,854.59	-48.50	-4,032.33	4,031.65	0.31	393,198.94	630,264.10
10,817.00	91.71	270.35	6,786.72	-3,851.72	-47.64	-4,128.28	4,127.60	0.33	393,199.79	630,168.14
10,911.00	91.80	270.31	6,783.84	-3,848.84	-47.10	-4,222.24	4,221.56	0.10	393,200.34	630,074.19
11,007.00	91.36	270.75	6,781.20	-3,846.20	-46.22	-4,318.19	4,317.52	0.65	393,201.22	629,978.23
11,102.00	90.84	271.42	6,779.37	-3,844.37	-44.42	-4,413.16	4,412.50	0.89	393,203.02	629,883.27
11,197.00	90.92	271.02	6,777.91	-3,842.91	-42.39	-4,508.13	4,507.48	0.43	393,205.04	629,788.30
11,267.00	90.92	270.80	6,776.79	-3,841.79	-41.28	-4,578.11	4,577.47	0.31	393,206.16	629,718.32
11,342.00	90.92	270.80	6,775.59	-3,840.59	-40.24	-4,653.09	4,652.46	0.00	393,207.20	629,643.33

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
7,317.00	6,925.28	30.36	-633.43	EOC-7317.00'MD,86.26°INC,264.60°AZI,6925.28'TVD
11,342.00	6,775.59	-40.24	-4,653.09	BHL-11342.00'MD,90.92°INC,270.80°AZI, 6775.59'TVD, 4652.46'VS, -40.24°N,

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy County
Site: Trojans BQT State
Well: #1H
Wellbore: OH
Plan: Design #1 (#1H/OH)



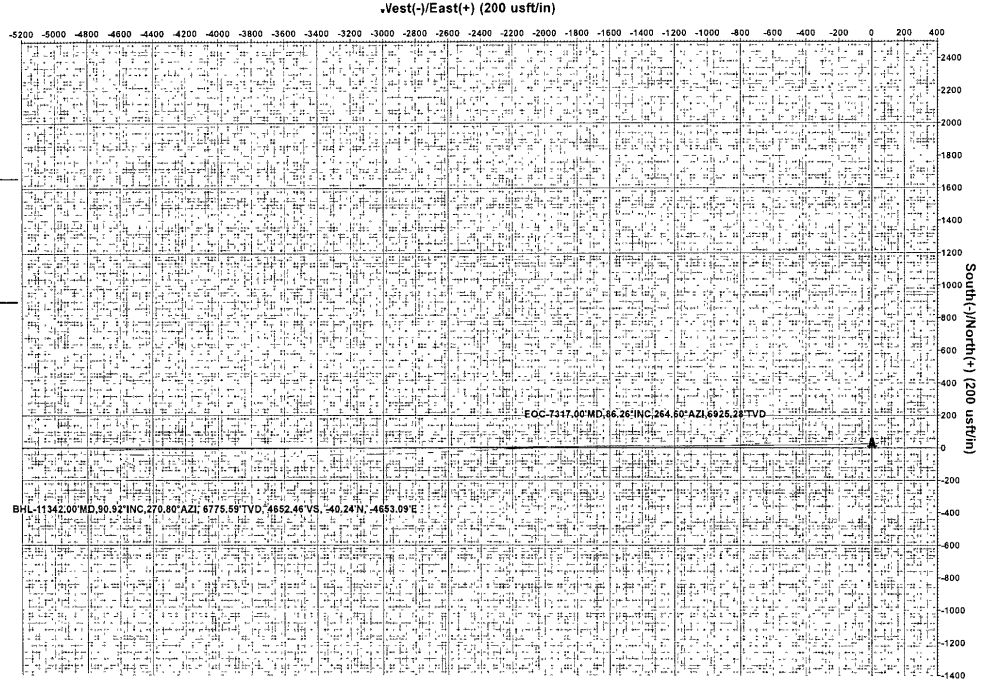
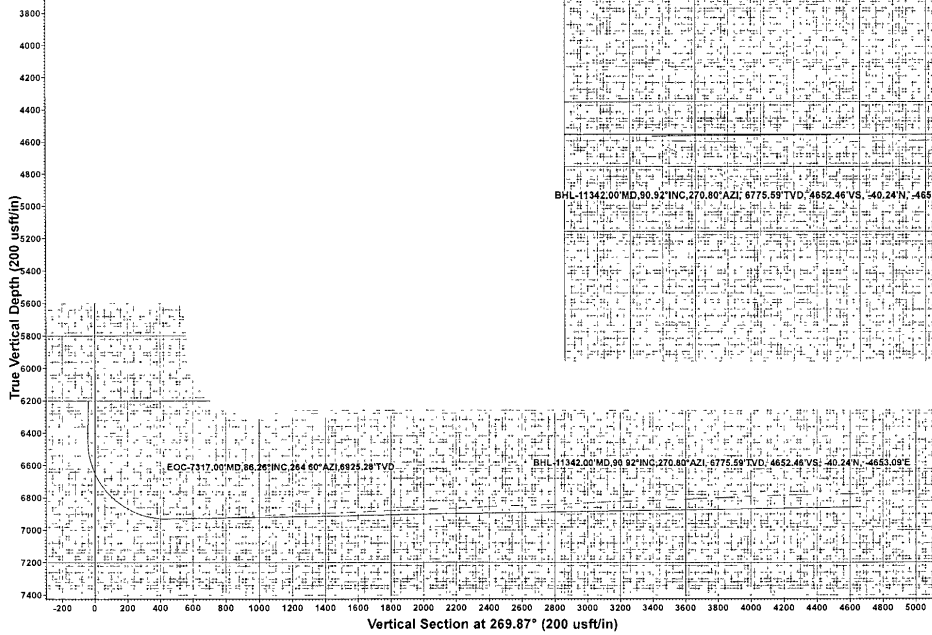
Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.67°

Magnetic Field
Strength: 48514.5nT
Dip Angle: 59.98°
Date: 02/14/2011
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

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	VSecl	Target
6200.00	1.25	151.16	6199.28	35.41	40.34	0.00	0.00	-40.42	
6400.00	1.25	152.19	6399.23	31.57	42.41	0.01	90.51	-42.48	
6448.58	1.25	152.19	6447.90	30.63	42.91	0.00	0.00	-42.98	
7211.81	91.00	269.61	6930.00	17.82	-442.79	12.00	117.40	442.75	
11438.01	91.00	269.61	6856.24	-10.94	-4668.25	0.00	0.00	4668.26	



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

No target data is available

WELL DETAILS #1H

Ground Elevation 2916.00
RKB Elevation Patterson #75 @ 2935.00usft (Original Well Elev)
Rig Name Original Well Elev

+N/S	+E/W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	393247.435	634295.425	32° 4' 50.741 N	104° 1' 59.459 W	

Plan Design #1 (#1H/OH)

Created By: Nate Bingham Date: 6/34, February 25 2011

Checked: _____ Date: _____