

OPERATOR: Yates Petroleum Corp.
WELL/LEASE: Canyon BJK State # 2H
COUNTY: Eddy Co., New Mexico
Sec. 6, T25S, R30E

PATRIOT DRILLING, LLC

30-015-39735

**STATE OF NEW MEXICO
DEVIATION REPORT**

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
643	1	4,908	2 1/2
777	1 1/4	5,216	1 3/4
872	3/4	5,524	3/4
967	1 1/4	5,833	3/4
1,161	3/4	6,145	3/4
1,354	1	6,456	1/2
1,650	2 1/4	6,765	1 1/4
1,981	3	7,076	1 1/4
2,335	3 1/2	7,385	1/2
2,746	3 1/4	7,693	1/4
2,952	3 1/4	8,005	1/4
3,261	2 3/4	8,313	1/2
3,569	2 3/4	8,622	3/4
3,877	2 3/4	8,930	3/4
3,979	2 3/4	9,242	1
4,291	3	9,550	1/2
4,599	2 1/2	9,858	3/4

RECEIVED

JUL 12 2012

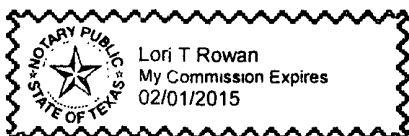
NMOCD ARTESIA

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 30th day of April, 2012 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



Yates Petroleum Corp.

Eddy County (NAD 83)
Canyon "BJK" State Com
#2H
ST #1

Design: ST #1

PathfinderX & Y Report

10 April, 2012

PATHFINDER[®]
A Schlumberger Company



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well: #2H
Project:	Eddy County (NAD:83)	TVD Reference:	KB = 26.5 @ 3215.5usft (OrglPatnot 5)
Site:	Canyon "BJK" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (OrglPatnot 5)
Well:	#2H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 Single User Db

Project: Eddy County (NAD:83)			
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:		Canyon "BJK" State Com									
Site Position:		Northing:		419,750 850 usft		Latitude:		32 153			
From:		Map		Easting:		669,388 780 usft		Longitude:		-103 920	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0 22 °	

Well		#2H				
Well Position	+N/-S	0.0 usft	Northing:	419,750 850 usft	Latitude:	32 153
	+E/-W	0.0 usft	Easting:	669,388 780 usft	Longitude:	-103 920
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,189 0 usft	

Wellbore		ST #1			
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF200510	4/2/2012	7 63	60 07	48,497

Design:		ST #1			
Audit Notes:					
Version:	1 0	Phase:	ACTUAL	Tie On Depth:	8,750.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0 0	0.0	0.0	269 62	



Pathfinder
PathfinderX & Y Report

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Well:	#2H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM 5000.1 Single User Db

Survey Program		Date: 4/10/2012			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
196 0	8,750 0	MWD #1 (OH)	MWD	MWD - Standard	
8,776 0	14,334 0	MWD #2 (ST #1)	MWD	MWD - Standard	

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DI Leg (°/100usft)	Northing (usft)	Easting (usft)	
0 0	0.00	0 00	0 0	-3,215.5	0 0	0.0	0 0	0.00	419,750.85	669,388.78	
196.0	0.97	54 05	196 0	-3,019.5	1 0	1 3	-1 3	0 49	419,751 82	669,390 12	
266.0	0 70	28 26	266 0	-2,949.5	1.7	2.0	-2 0	0.65	419,752 55	669,390.81	
325 0	0 70	357 07	325.0	-2,890.5	2 4	2.2	-2.2	0.64	419,753 23	669,390.96	
413.0	0.97	293.54	413.0	-2,802.5	3 2	1 5	-1.5	1.03	419,754 06	669,390.25	
503 0	2.02	277 57	502 9	-2,712.6	3 7	-0.8	0 8	1 24	419,754 57	669,387.98	
604 0	2.99	273 54	603 8	-2,611.7	4.1	-5 2	5 2	0 98	419,754 97	669,383 58	
712 0	3.43	272.80	711 7	-2,503.8	4.5	-11.2	11 2	0 41	419,755 30	669,377 54	
775 0	3.17	267 88	774 6	-2,440.9	4.5	-14.9	14 8	0 61	419,755 33	669,373.92	
837 0	3.08	262.51	836 5	-2,379.0	4.2	-18.2	18 2	0.49	419,755.05	669,370 56	
900 0	3.17	260.77	899 4	-2,316.1	3 7	-21.6	21 6	0.21	419,754 55	669,367 16	
994 0	2.73	251 64	993 3	-2,222.2	2.6	-26.3	26 3	0 68	419,753 43	669,362 47	
1,088 0	2 55	249 94	1,087 2	-2,128.3	1 2	-30 4	30 4	0 21	419,752 01	669,358.38	
1,213.0	2.73	247 24	1,212.0	-2,003.5	-1.0	-35 8	35.8	0.17	419,749 90	669,353 02	
1,308.0	2.90	246 88	1,306.9	-1,908.6	-2.8	-40.1	40 1	0 18	419,748.08	669,348 73	
1,402 0	2.29	237 41	1,400.8	-1,814.7	-4 7	-43 8	43 9	0 79	419,746.14	669,344 96	
1,496 0	2.29	231 73	1,494 7	-1,720.8	-6 9	-46 9	46 9	0 24	419,743.96	669,341 90	
1,590 0	1.76	207 62	1,588 7	-1,626.8	-9 3	-49 0	49 1	1 06	419,741 52	669,339 76	
1,684 0	0.70	174.65	1,682.7	-1,532.8	-11 2	-49.6	49.7	1 31	419,739 67	669,339 14	
1,778.0	0 53	172 18	1,776.7	-1,438.8	-12 2	-49 5	49 6	0 18	419,738 67	669,339.25	
1,873 0	0 70	162 72	1,871.6	-1,343.9	-13 2	-49.3	49.4	0.21	419,737 68	669,339.49	



Pathfinder

PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H-
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (OrglPatriot 5)
Site:	Canyon "BJK" State Com.	MD Reference:	KB = 26.5 @ 3215.5usft (OrglPatriot 5)
Well:	#2H-	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	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)	
1,968.0	0.70	162.72	1,966.6	-1,248.9	-14.3	-48.9	49.0	0.00	419,736.57	669,339.83	
2,062.0	1.23	286.88	2,060.6	-1,154.9	-14.5	-49.7	49.8	1.83	419,736.31	669,339.04	
2,157.0	1.06	315.20	2,155.6	-1,059.9	-13.6	-51.3	51.4	0.61	419,737.23	669,337.44	
2,251.0	0.35	35.50	2,249.6	-965.9	-12.8	-51.8	51.9	1.13	419,738.08	669,337.00	
2,345.0	0.18	68.41	2,343.6	-871.9	-12.5	-51.5	51.6	0.24	419,738.37	669,337.30	
2,440.0	0.18	208.61	2,438.6	-776.9	-12.6	-51.4	51.5	0.36	419,738.29	669,337.37	
2,534.0	0.44	322.38	2,532.6	-682.9	-12.4	-51.7	51.8	0.57	419,738.45	669,337.08	
2,628.0	0.62	322.53	2,626.6	-588.9	-11.7	-52.2	52.3	0.19	419,739.14	669,336.55	
2,722.0	0.70	299.04	2,720.6	-494.9	-11.0	-53.0	53.1	0.30	419,739.82	669,335.73	
2,817.0	0.88	312.40	2,815.6	-399.9	-10.3	-54.1	54.2	0.27	419,740.60	669,334.69	
2,911.0	0.44	343.44	2,909.6	-305.9	-9.4	-54.7	54.8	0.59	419,741.43	669,334.05	
3,005.0	0.62	83.63	3,003.6	-211.9	-9.0	-54.3	54.4	0.87	419,741.83	669,334.45	
3,099.0	0.70	54.07	3,097.6	-117.9	-8.6	-53.4	53.4	0.37	419,742.22	669,335.43	
3,194.0	0.44	93.33	3,192.6	-22.9	-8.3	-52.5	52.6	0.48	419,742.54	669,336.26	
3,288.0	0.88	122.38	3,286.6	71.1	-8.7	-51.6	51.6	0.57	419,742.14	669,337.23	
3,383.0	0.97	121.53	3,381.6	166.1	-9.5	-50.2	50.3	0.10	419,741.33	669,338.53	
3,478.0	1.14	112.70	3,476.5	261.0	-10.3	-48.7	48.8	0.25	419,740.54	669,340.09	
3,572.0	0.88	79.00	3,570.5	355.0	-10.5	-47.1	47.2	0.68	419,740.32	669,341.66	
3,667.0	1.49	22.14	3,665.5	450.0	-9.2	-45.9	46.0	1.32	419,741.60	669,342.84	
3,762.0	1.67	0.01	3,760.5	545.0	-6.7	-45.5	45.5	0.66	419,744.13	669,343.31	
3,856.0	1.67	1.75	3,854.4	638.9	-4.0	-45.4	45.5	0.05	419,746.87	669,343.35	
3,950.0	1.49	343.29	3,948.4	732.9	-1.4	-45.7	45.7	0.57	419,749.41	669,343.04	
4,044.0	1.76	333.52	4,042.4	826.9	1.0	-46.7	46.7	0.41	419,751.87	669,342.04	
4,138.0	1.06	337.98	4,136.3	920.8	3.1	-47.7	47.7	0.75	419,753.97	669,341.07	
4,232.0	0.70	346.77	4,230.3	1,014.8	4.5	-48.2	48.1	0.41	419,755.33	669,340.62	
4,326.0	0.62	350.21	4,324.3	1,108.8	5.5	-48.4	48.3	0.09	419,756.39	669,340.40	
4,420.0	0.62	358.45	4,418.3	1,202.8	6.6	-48.5	48.4	0.09	419,757.40	669,340.30	



Pathfinder
PathfinderX & Y Report

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Well:	#2H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	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)	
4,514.0	0.62	4.75	4,512.3	1,296.8	7.6	-48.5	48.4	0.07	419,758.42	669,340.33	
4,609.0	0.62	346.22	4,607.3	1,391.8	8.6	-48.5	48.5	0.21	419,759.43	669,340.25	
4,703.0	0.62	349.55	4,701.3	1,485.8	9.6	-48.7	48.7	0.04	419,760.42	669,340.03	
4,815.0	0.62	354.88	4,813.3	1,597.8	10.8	-48.9	48.8	0.05	419,761.62	669,339.87	
4,979.0	0.62	339.07	4,977.3	1,761.8	12.5	-49.3	49.2	0.10	419,763.34	669,339.47	
5,074.0	0.70	326.76	5,072.3	1,856.8	13.5	-49.8	49.7	0.17	419,764.30	669,338.97	
5,169.0	0.62	310.29	5,167.3	1,951.8	14.3	-50.5	50.4	0.22	419,765.12	669,338.26	
5,263.0	0.62	321.39	5,261.3	2,045.8	15.0	-51.2	51.1	0.13	419,765.84	669,337.56	
5,358.0	0.34	319.86	5,356.2	2,140.7	15.6	-51.7	51.6	0.30	419,766.46	669,337.05	
5,452.0	0.44	301.49	5,450.2	2,234.7	16.0	-52.2	52.1	0.17	419,766.86	669,336.57	
5,547.0	0.44	281.88	5,545.2	2,329.7	16.3	-52.9	52.8	0.16	419,767.13	669,335.90	
5,736.0	0.44	225.97	5,734.2	2,518.7	15.9	-54.1	54.0	0.22	419,766.77	669,334.67	
5,925.0	0.35	193.38	5,923.2	2,707.7	14.9	-54.8	54.7	0.13	419,765.71	669,334.01	
6,113.0	0.53	198.51	6,111.2	2,895.7	13.5	-55.2	55.1	0.10	419,764.33	669,333.60	
6,301.0	0.53	189.66	6,299.2	3,083.7	11.8	-55.6	55.5	0.04	419,762.64	669,333.18	
6,489.0	0.53	162.40	6,487.2	3,271.7	10.1	-55.5	55.4	0.13	419,760.96	669,333.30	
6,677.0	0.70	157.58	6,675.2	3,459.7	8.2	-54.8	54.7	0.09	419,759.07	669,334.00	
6,865.0	0.97	150.57	6,863.2	3,647.7	5.8	-53.6	53.5	0.15	419,756.62	669,335.22	
7,054.0	1.14	161.22	7,052.2	3,836.7	2.6	-52.2	52.2	0.14	419,753.45	669,336.61	
7,241.0	0.97	153.96	7,239.1	4,023.6	-0.6	-50.9	50.9	0.12	419,750.26	669,337.90	
7,335.0	1.06	153.94	7,333.1	4,117.6	-2.1	-50.1	50.2	0.10	419,748.77	669,338.63	
7,430.0	0.53	209.67	7,428.1	4,212.6	-3.3	-50.0	50.0	0.92	419,747.60	669,338.80	
7,524.0	0.79	222.63	7,522.1	4,306.6	-4.1	-50.6	50.7	0.32	419,746.74	669,338.15	
7,618.0	1.06	234.95	7,616.1	4,400.6	-5.1	-51.8	51.8	0.36	419,745.76	669,337.00	
7,710.0	1.23	214.10	7,708.1	4,492.6	-6.4	-53.0	53.1	0.49	419,744.46	669,335.75	
7,804.0	0.79	290.97	7,802.0	4,586.5	-7.0	-54.2	54.2	1.39	419,743.86	669,334.58	
7,899.0	0.70	244.44	7,897.0	4,681.5	-7.0	-55.3	55.4	0.63	419,743.84	669,333.44	



Pathfinder

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Design:	ST #1	Database:	EDM 5000.1 Single User Db

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MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLag (%/100usft)	Northing (usft)	Easting (usft)	
7,993.0	0.97	224.84	7,991.0	4,775.5	-7.8	-56.4	56.5	0.41	419,743.03	669,332.36	
8,088.0	0.97	147.37	8,086.0	4,870.5	-9.1	-56.6	56.6	1.28	419,741.78	669,332.23	
8,183.0	1.42	162.07	8,181.0	4,965.5	-10.9	-55.8	55.8	0.57	419,739.98	669,333.03	
8,277.0	0.97	200.46	8,275.0	5,059.5	-12.7	-55.7	55.8	0.95	419,738.13	669,333.11	
8,372.0	0.26	213.72	8,370.0	5,154.5	-13.7	-56.1	56.2	0.76	419,737.20	669,332.71	
8,467.0	0.26	166.72	8,465.0	5,249.5	-14.0	-56.1	56.2	0.22	419,736.81	669,332.64	
8,561.0	0.62	145.84	8,559.0	5,343.5	-14.7	-55.8	55.9	0.41	419,736.18	669,332.97	
8,656.0	1.76	35.60	8,654.0	5,438.5	-13.9	-54.7	54.8	2.17	419,736.94	669,334.11	
8,750.0	1.67	52.43	8,747.9	5,532.4	-11.9	-52.7	52.8	0.54	419,738.95	669,336.03	
8,776.0	1.23	357.83	8,773.9	5,558.4	-11.4	-52.5	52.5	5.33	419,739.46	669,336.32	
8,807.0	4.66	292.77	8,804.9	5,589.4	-10.6	-53.6	53.7	13.83	419,740.28	669,335.15	
KOP: 8807.0 MD: 8804.9 TVD: -10.6 N: -53.6 E											
8,839.0	9.58	286.03	8,836.6	5,621.1	-9.3	-57.4	57.5	15.57	419,741.52	669,331.39	
8,870.0	13.72	283.40	8,867.0	5,651.5	-7.8	-63.4	63.5	13.46	419,743.08	669,325.33	
8,902.0	17.41	282.25	8,897.8	5,682.3	-5.9	-71.8	71.9	11.57	419,744.98	669,316.96	
8,933.0	20.40	279.80	8,927.1	5,711.6	-4.0	-81.7	81.7	9.98	419,746.88	669,307.10	
8,965.0	23.13	274.93	8,956.8	5,741.3	-2.5	-93.4	93.5	10.22	419,748.37	669,295.34	
8,996.0	26.12	273.39	8,985.0	5,769.5	-1.6	-106.3	106.3	9.86	419,749.30	669,282.46	
9,027.0	29.37	272.41	9,012.4	5,796.9	-0.8	-120.7	120.7	10.59	419,750.02	669,268.05	
9,059.0	32.54	272.28	9,039.9	5,824.4	-0.2	-137.2	137.2	9.91	419,750.70	669,251.60	
9,090.0	35.44	272.15	9,065.6	5,850.1	0.5	-154.5	154.5	9.36	419,751.36	669,234.29	
9,122.0	39.04	270.61	9,091.1	5,875.6	1.0	-173.8	173.8	11.62	419,751.82	669,214.93	
9,154.0	43.00	268.00	9,115.2	5,899.7	0.7	-194.8	194.8	13.48	419,751.55	669,193.94	
9,185.0	47.75	266.08	9,137.0	5,921.5	-0.5	-216.9	216.9	15.94	419,750.39	669,171.91	
9,216.0	51.97	266.08	9,156.9	5,941.4	-2.1	-240.5	240.5	13.61	419,748.77	669,148.28	
9,248.0	55.22	266.40	9,175.9	5,960.4	-3.8	-266.2	266.2	10.19	419,747.09	669,122.58	
9,279.0	57.77	268.52	9,193.0	5,977.5	-4.9	-292.0	292.0	10.01	419,745.95	669,096.76	



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (OrglPatriot 5)
Site:	Canyon BJK State Com	MD Reference:	KB = 26.5 @ 3215.5usft (OrglPatriot 5)
Well:	#2H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	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)	
9,310.0	61.29	270.18	9,208.8	5,993.3	-5.2	-318.7	318.8	12.26	419,745.65	669,070.05	
9,341.0	64.10	272.51	9,223.0	6,007.5	-4.5	-346.3	346.3	11.26	419,746.30	669,042.52	
9,373.0	67.27	273.01	9,236.2	6,020.7	-3.1	-375.4	375.4	10.01	419,747.71	669,013.39	
9,404.0	71.75	272.46	9,247.0	6,031.5	-1.8	-404.4	404.4	14.55	419,749.09	668,984.40	
9,435.0	76.50	271.73	9,255.5	6,040.0	-0.7	-434.2	434.2	15.49	419,750.18	668,954.61	
9,466.0	80.72	271.45	9,261.6	6,046.1	0.2	-464.5	464.5	13.64	419,751.02	668,924.24	
9,497.0	82.83	271.19	9,266.0	6,050.5	0.9	-495.2	495.2	6.86	419,751.73	668,893.56	
9,529.0	84.15	270.87	9,269.7	6,054.2	1.5	-527.0	527.0	4.24	419,752.30	668,861.78	
9,560.0	84.24	270.79	9,272.8	6,057.3	1.9	-557.8	557.8	0.39	419,752.75	668,830.94	
9,623.0	88.81	270.16	9,276.6	6,061.1	2.4	-620.7	620.7	7.32	419,753.27	668,768.07	
9,654.0	89.78	270.10	9,277.0	6,061.5	2.5	-651.7	651.7	3.14	419,753.34	668,737.08	
9,748.0	90.92	270.72	9,276.4	6,060.9	3.2	-745.7	745.7	1.38	419,754.01	668,643.08	
LP: 9748.0 MD: 9276.4 TVD: 3.2 N: -745.7 E											
9,841.0	91.36	269.56	9,274.6	6,059.1	3.4	-838.7	838.6	1.33	419,754.24	668,550.10	
9,936.0	92.07	270.33	9,271.7	6,056.2	3.3	-933.6	933.6	1.10	419,754.15	668,455.15	
9,968.0	91.80	269.84	9,270.7	6,055.2	3.3	-965.6	965.6	1.75	419,754.19	668,423.17	
10,030.0	91.98	269.42	9,268.6	6,053.1	2.9	-1,027.6	1,027.5	0.74	419,753.79	668,361.20	
10,124.0	91.80	268.31	9,265.5	6,050.0	1.1	-1,121.5	1,121.5	1.20	419,751.93	668,267.27	
10,155.0	91.54	268.18	9,264.6	6,049.1	0.1	-1,152.5	1,152.5	0.94	419,750.98	668,236.30	
10,187.0	91.36	268.57	9,263.8	6,048.3	-0.8	-1,184.5	1,184.4	1.34	419,750.08	668,204.32	
10,218.0	90.57	268.97	9,263.3	6,047.8	-1.4	-1,215.4	1,215.4	2.86	419,749.41	668,173.33	
10,250.0	90.66	268.83	9,262.9	6,047.4	-2.1	-1,247.4	1,247.4	0.52	419,748.80	668,141.34	
10,281.0	90.40	267.68	9,262.6	6,047.1	-3.0	-1,278.4	1,278.4	3.80	419,747.85	668,110.36	
10,312.0	90.66	267.82	9,262.4	6,046.9	-4.2	-1,309.4	1,309.4	0.95	419,746.64	668,079.38	
10,344.0	90.92	267.93	9,261.9	6,046.4	-5.4	-1,341.4	1,341.4	0.88	419,745.45	668,047.41	
10,407.0	90.04	267.62	9,261.4	6,045.9	-7.8	-1,404.3	1,404.3	1.48	419,743.00	667,984.46	
10,469.0	90.40	267.86	9,261.1	6,045.6	-10.3	-1,466.3	1,466.3	0.70	419,740.56	667,922.51	



Pathfinder PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5' @ 3215.5usft (Orgl Patnot 5)
Site:	Canyon! BJK State Com:	MD Reference:	KB = 26.5' @ 3215.5usft (Orgl Patnot 5)
Well:	#2H	North Reference:	Grid:
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	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)
10,501.0	90.66	267.60	9,260.9	6,045.4	-11.6	-1,498.2	1,498.3	1.15	419,739.29	667,890.53
10,594.0	90.40	268.52	9,260.0	6,044.5	-14.7	-1,591.2	1,591.2	1.03	419,736.14	667,797.59
10,658.0	90.66	269.18	9,259.4	6,043.9	-16.0	-1,655.2	1,655.2	1.11	419,734.86	667,733.61
10,690.0	90.75	269.35	9,259.0	6,043.5	-16.4	-1,687.2	1,687.2	0.60	419,734.45	667,701.61
10,784.0	90.13	268.76	9,258.3	6,042.8	-18.0	-1,781.1	1,781.2	0.91	419,732.90	667,607.63
10,879.0	90.84	268.75	9,257.5	6,042.0	-20.0	-1,876.1	1,876.2	0.75	419,730.84	667,512.66
10,973.0	90.75	268.23	9,256.2	6,040.7	-22.5	-1,970.1	1,970.2	0.56	419,728.36	667,418.70
11,067.0	90.04	268.90	9,255.5	6,040.0	-24.8	-2,064.0	2,064.2	1.04	419,726.00	667,324.73
11,162.0	90.57	268.67	9,255.0	6,039.5	-26.9	-2,159.0	2,159.2	0.61	419,723.99	667,229.75
11,256.0	91.28	269.65	9,253.5	6,038.0	-28.2	-2,253.0	2,253.1	1.29	419,722.61	667,135.78
11,350.0	91.01	269.37	9,251.6	6,036.1	-29.0	-2,347.0	2,347.1	0.41	419,721.81	667,041.80
11,444.0	90.75	269.64	9,250.2	6,034.7	-29.9	-2,441.0	2,441.1	0.40	419,721.00	666,947.82
11,539.0	90.75	270.41	9,248.9	6,033.4	-29.8	-2,536.0	2,536.1	0.81	419,721.04	666,852.83
11,634.0	90.31	270.88	9,248.1	6,032.6	-28.7	-2,630.9	2,631.1	0.68	419,722.11	666,757.84
11,728.0	90.40	271.22	9,247.5	6,032.0	-27.0	-2,724.9	2,725.0	0.37	419,723.83	666,663.85
11,822.0	90.48	270.73	9,246.8	6,031.3	-25.4	-2,818.9	2,819.0	0.53	419,725.43	666,569.87
11,917.0	90.66	270.31	9,245.8	6,030.3	-24.6	-2,913.9	2,914.0	0.48	419,726.29	666,474.88
12,012.0	90.66	269.14	9,244.7	6,029.2	-25.0	-3,008.9	3,009.0	1.23	419,725.84	666,379.89
12,107.0	91.28	269.32	9,243.1	6,027.6	-26.3	-3,103.9	3,104.0	0.68	419,724.56	666,284.91
12,202.0	91.01	269.42	9,241.2	6,025.7	-27.3	-3,198.8	3,199.0	0.30	419,723.51	666,189.94
12,234.0	90.75	268.89	9,240.7	6,025.2	-27.8	-3,230.8	3,231.0	1.84	419,723.04	666,157.94
12,296.0	91.10	269.37	9,239.7	6,024.2	-28.7	-3,292.8	3,292.9	0.96	419,722.10	666,095.96
12,391.0	90.84	268.64	9,238.1	6,022.6	-30.4	-3,387.8	3,387.9	0.82	419,720.45	666,000.99
12,485.0	89.87	267.57	9,237.5	6,022.0	-33.5	-3,481.7	3,481.9	1.54	419,717.34	665,907.04
12,580.0	90.22	267.82	9,237.5	6,022.0	-37.3	-3,576.7	3,576.8	0.45	419,713.52	665,812.12
12,675.0	90.75	267.60	9,236.6	6,021.1	-41.1	-3,671.6	3,671.8	0.60	419,709.73	665,717.20
12,770.0	91.19	267.85	9,235.0	6,019.5	-44.9	-3,766.5	3,766.7	0.53	419,705.96	665,622.29



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County (NAD 83)
Site: Canyon "BJK" State Com
Well: #2H
Wellbore: ST #1
Design: ST #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well #2H:
KB = 26.5 @ 3215.5usft (Orgl Patriot 5)
KB = 26.5 @ 3215.5usft (Orgl Patriot 5)
Grid:
Minimum Curvature:
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)	
12,865.0	90.66	267.96	9,233.5	6,018.0	-48.4	-3,861.4	3,861.7	0.57	419,702.48	665,527.36	
12,960.0	89.96	268.68	9,233.0	6,017.5	-51.2	-3,956.4	3,956.6	1.06	419,699.70	665,432.41	
13,055.0	89.87	267.99	9,233.1	6,017.6	-53.9	-4,051.3	4,051.6	0.73	419,696.94	665,337.45	
13,150.0	89.87	267.83	9,233.4	6,017.9	-57.4	-4,146.3	4,146.6	0.17	419,693.47	665,242.51	
13,244.0	89.96	267.93	9,233.5	6,018.0	-60.9	-4,240.2	4,240.5	0.14	419,690.00	665,148.58	
13,339.0	90.57	268.84	9,233.1	6,017.6	-63.5	-4,335.2	4,335.5	1.15	419,687.32	665,053.62	
13,433.0	90.84	268.99	9,231.9	6,016.4	-65.3	-4,429.1	4,429.5	0.33	419,685.54	664,959.64	
13,528.0	90.75	269.52	9,230.6	6,015.1	-66.5	-4,524.1	4,524.5	0.57	419,684.30	664,864.66	
13,623.0	91.01	269.63	9,229.1	6,013.6	-67.2	-4,619.1	4,619.5	0.30	419,683.60	664,769.67	
13,717.0	89.60	268.94	9,228.6	6,013.1	-68.4	-4,713.1	4,713.4	1.67	419,682.43	664,675.68	
13,812.0	90.75	268.99	9,228.3	6,012.8	-70.1	-4,808.1	4,808.4	1.21	419,680.71	664,580.70	
13,907.0	92.24	268.45	9,225.8	6,010.3	-72.3	-4,903.0	4,903.4	1.67	419,678.59	664,485.76	
13,927.0	91.36	268.60	9,225.2	6,009.7	-72.8	-4,923.0	4,923.4	4.46	419,678.08	664,465.78	
13,970.0	90.92	267.78	9,224.4	6,008.9	-74.1	-4,966.0	4,966.4	2.16	419,676.72	664,422.81	
14,002.0	91.54	268.31	9,223.7	6,008.2	-75.2	-4,997.9	4,998.3	2.55	419,675.63	664,390.83	
14,065.0	93.74	268.75	9,220.8	6,005.3	-76.8	-5,060.9	5,061.3	3.56	419,674.01	664,327.93	
14,097.0	93.74	268.08	9,218.7	6,003.2	-77.7	-5,092.8	5,093.2	2.09	419,673.13	664,296.01	
14,192.0	94.35	268.52	9,212.0	5,996.5	-80.5	-5,187.5	5,187.9	0.79	419,670.32	664,201.29	
14,254.0	94.18	268.84	9,207.4	5,991.9	-82.0	-5,249.3	5,249.7	0.58	419,668.89	664,139.47	
14,334.0	94.18	268.84	9,201.5	5,986.0	-83.6	-5,329.1	5,329.5	0.00	419,667.28	664,059.70	
BHL = 14334.0 MD = 9201.5 TVD = 833.6 N = 5329.1 E											



Pathfinder
PathfinderX & Y Report

PATHFINDER
A Schlumberger Company

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3215.5usft (Orig Patriot 5)
Site:	Canyon "BJK" State Com	MD Reference:	KB = 26.5 @ 3215.5usft (Orig Patriot 5)
Well:	#2H	North Reference:	Grid
Wellbore:	ST #1	Survey Calculation Method:	Minimum Curvature
Design:	ST #1	Database:	EDM: 5000:1 Single User Db

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,807.0	8,804.9	-10.6	-53.6	KOP - 8807 0 'MD, 8804 9 'TVD, -10 6 'N, -53 6 'E
9,748.0	9,276.4	3.2	-745.7	LP - 9748 0 'MD, 9276.4 'TVD, 3.2 'N, -745 7 'E
14,334.0	9,201.5	-83.6	-5,329.1	BHL - 14334 0 'MD, 9201 5 'TVD, -83.6 'N, -5329 1 'E

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy County (NAD 83)
Site: Canyon "BJK" State Com
Well: #2H
Wellbore: OH
Plan: Plan #5

PROJECT DETAILS: Eddy County (NAD 83)
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

PATHFINDER
A Schlumberger Company

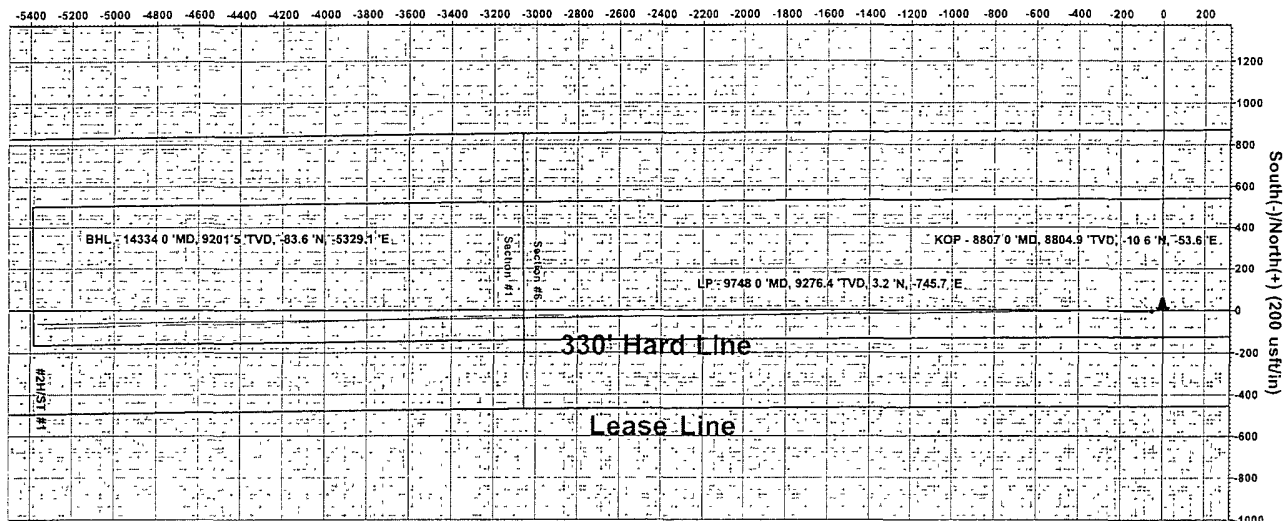
WELL DETAILS #2H

Ground Elevation: 3189.0
RKB Elevation: KB = 26.5 @ 3215.5usft (OrgiPatriot 5)
Rig Name: OrgiPatriot 5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 0	0 0	419750.850	669388.780	32.153	-103.920	

EOW

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

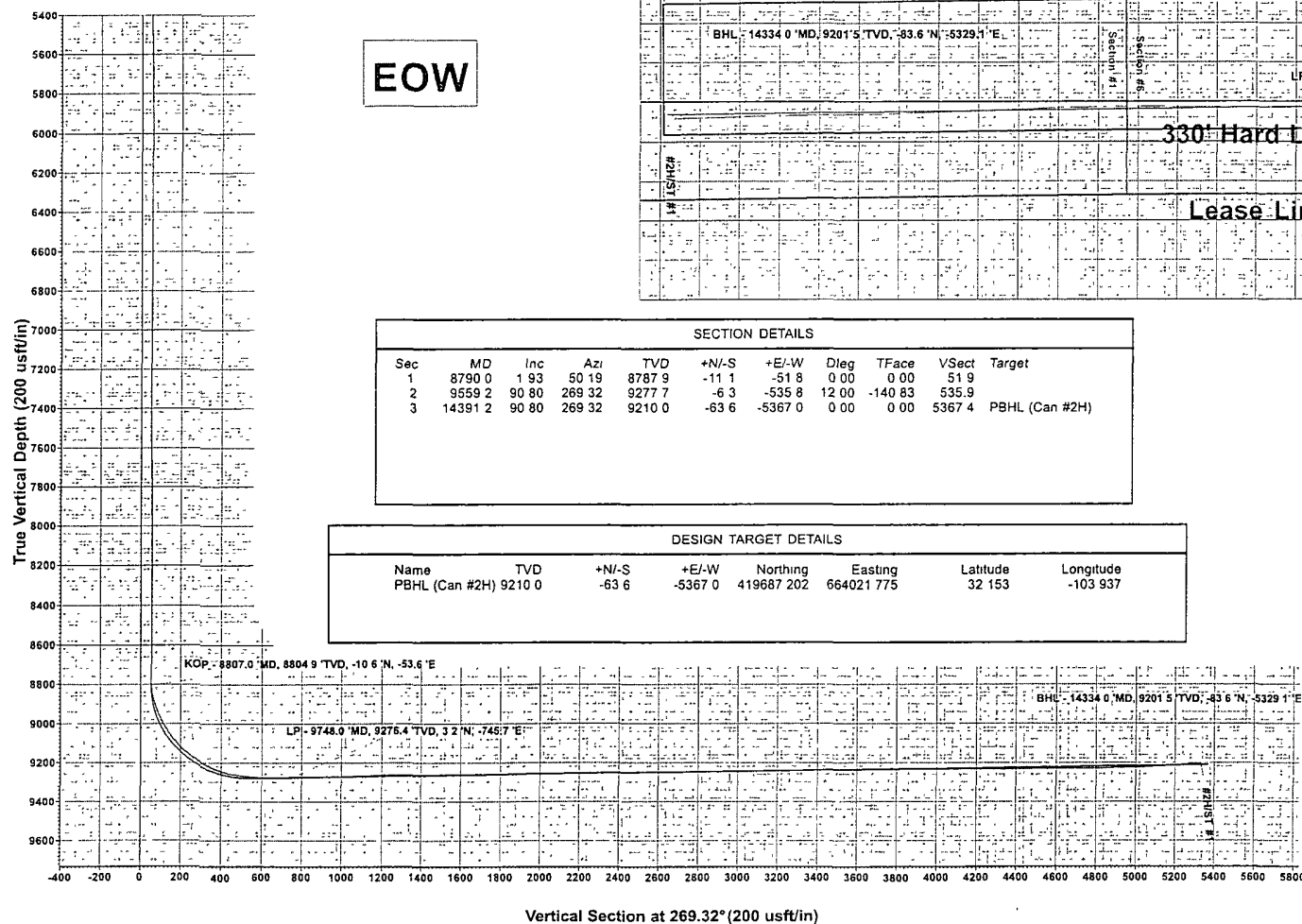


SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	8790 0	1 93	50 19	8787 9	-11 1	-51 8	0 00	0 00	51 9	
2	9559 2	90 80	269 32	9277 7	-6 3	-535 8	12 00	-140 83	535.9	
3	14391 2	90 80	269 32	9210 0	-63 6	-5367 0	0 00	0 00	5367 4	PBHL (Can #2H)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Can #2H)	9210 0	-63 6	-5367 0	419687 202	664021 775	32 153	-103 937



Azimuths to Grid North
True North -0.22°
Magnetic North: 7.44°

Magnetic Field
Strength 48519 IsnT
Dip Angle 60.07°
Date 1/10/2012
Model IGRF200510

Plan Plan #5 (#2H/OH)

Created By: Sam Bille Date: 9/10/2012

Checked: _____ Date: _____

Scale: 1" = 100' (Horizontal)
Scale: 1" = 100' (Vertical)