

Results of Directional Survey

API number:	30-025-40558		
OGRID:		Operator:	YATES PETROLEUM CORPORATION
		Property:	RIDER BRQ FEDERAL # 2H

surface	ULSTR:	M	13	T 25S	R 34E
				330 FSL	660 FWL

BH Loc	ULSTR:	P	13	T 25S	R 34E
14205	MD	9807.5	TVD	362 FNL	638 FWL
				4918 FSL	

Top Perf/OH	ULSTR:	M	13	T 25S	R 34E
10375	MD	9751.7	TVD	1093 FSL	708 FWL

Bot Perf/OH	ULSTR:	P	13	T 25S	R 34E
14102	MD	9801.5	TVD	465 FNL	636 FWL
				4815 FSL	

	MD	N/S	E/W	VD
	10320	707.90	49.40	9750.5
TOP PERFS/OH	10375	762.90	47.94	9751.73
	10414	801.90	46.90	9752.60
	14041	4424.00	-25.30	9797.80
BOT PERFS/OH	14102	4484.87	-24.28	9801.49
	14137	4519.80	-23.70	9803.60

NEXT TO LAST	14153	4535.80	-23.40	9804.60
LAST READING	14205	4587.70	-22.20	9807.50
TD	14205	4587.70	-22.20	9807.50

Surface Location	330	FS	660	FW
Projected BHL	4918	FS	638	FW
Location of				
Top Perfs/OH	1093	FS	708	FW
Bottom Perfs/OH	4815	FS	636	FW

SUMMARY of Subsurface Locations

Surface Location	M-13-25S-34E	330	FS	660	FW	Vert. Depth
Top Perfs/OH	M-13-25S-34E	1093	FS	708	FW	9751.73
Bottom Perfs/OH	P-13-25S-34E	4815	FS	636	FW	9801.49
Projected TD	P-13-25S-34E	4918	FS	638	FW	9807.50

MAR 21 2013

HOBBS OCD

30-025-40558

FEB 21 2013

RECEIVED

OPERATOR: Yates Petroleum Corp.
WELL/LEASE: Rider BRQ Federal # 2 H
COUNTY: Lea Co., New Mexico
Sec. 13, T25S, R34E

STATE OF NEW MEXICO
DEVIATION REPORT

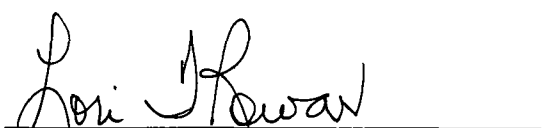
<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
216	1/2	4,165	1 1/2
426	1/2	4,260	1 3/4
667	1/2	4,355	2
856	1/2	4,449	2
951	1	4,544	2 1/4
1,046	3/4	4,636	3
1,236	1 3/4	4,730	3
1,424	1 1/2	4,825	2 1/4
1,518	1 1/4	4,920	2
1,707	1 1/4	5,014	2
1,801	1 1/2	5,108	2 1/2
1,895	1 1/2	5,202	1 1/2
1,990	1 1/2	5,297	1 1/4
2,084	1 1/4	5,378	3/4
2,179	1 1/4	5,423	1
2,369	1 1/4	5,655	1
2,557	1 3/4	5,844	1/2
2,746	1 1/2	6,032	1 3/4
2,936	2 1/4	6,128	3/4
3,029	1 3/4	6,316	1/4
3,123	2	6,505	3/4
3,218	2 1/4	6,694	1/2
3,312	2	6,883	1/2
3,407	2 3/4	7,134	1/2
3,502	2 1/4	7,417	1/4
3,597	2	7,702	1/2
3,692	1 3/4	8,268	2 1/2
3,786	1 1/2	8,300	1 1/2
3,881	2 1/4	8,552	2 1/2
3,976	2	8,740	2 3/4
4,070	1 1/2		

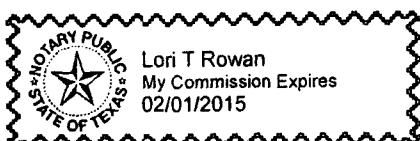
Patriot Drilling, LLC


M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 18th day of
December, 2012 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling,

My Commission Expires: 02/01/2015


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



MAR 21 2013



Job Number: SVMO-120060
 Company: Yates Petroleum Corporation
 Lease/Well: Rider BRQ Federal 2H
 Location: Lea County, NM
 Rig Name: Patriot #5
 RKB: 26.5'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 6.86°
 Grid: East To Grid North
 File name: F:\SURVEY\2012SU~1\YATES\MO\RIDERB~1\2H.SVY
 Date/Time: 12-Nov-12 / 11:37
 Curve Name: Surface - 9200' M.D. (SRG)

HOBBS OCD
 FEB 21 2013
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WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 359.54
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 9200' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Jared Mayers 11/12/12
 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	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.34	202.17	100.00	-.27	-.11	-.27	.30	202.17	.34
200.00	.40	223.20	200.00	-.80	-.46	-.80	.93	209.93	.15
300.00	.23	166.52	300.00	-1.25	-.66	-1.25	1.41	207.59	.33
400.00	.12	224.04	400.00	-1.52	-.68	-1.52	1.67	204.08	.19
500.00	.38	359.63	499.99	-1.27	-.76	-1.26	1.48	210.81	.47
600.00	.42	24.88	599.99	-.60	-.60	-.60	.85	225.01	.18
700.00	.22	284.24	699.99	-.22	-.64	-.22	.67	250.60	.51
800.00	.41	298.12	799.99	-.01	-1.14	.00	1.14	269.59	.20
900.00	.57	267.56	899.99	.14	-1.95	.16	1.95	274.09	.30

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	
1000.00	.53	261.50	999.98	.05	-2.90	.07	2.90	270.98	.07
1100.00	.69	205.98	1099.98	-.56	-3.63	-.53	3.67	261.22	.59
1200.00	1.72	185.96	1199.95	-2.59	-4.05	-2.56	4.81	237.33	1.10
1300.00	1.75	183.53	1299.91	-5.61	-4.30	-5.58	7.07	217.44	.08
1400.00	1.54	177.28	1399.87	-8.48	-4.33	-8.44	9.52	207.03	.28
1500.00	1.68	176.11	1499.83	-11.28	-4.16	-11.25	12.02	200.25	.14
1600.00	1.66	174.27	1599.78	-14.19	-3.92	-14.15	14.72	195.44	.06
1700.00	1.71	170.21	1699.74	-17.10	-3.52	-17.07	17.46	191.63	.13
1800.00	1.76	165.05	1799.70	-20.05	-2.87	-20.03	20.25	188.15	.16
1900.00	1.58	160.61	1899.65	-22.83	-2.02	-22.82	22.92	185.05	.22
2000.00	1.67	151.83	1999.61	-25.42	-.87	-25.41	25.43	181.96	.26
2100.00	1.30	145.17	2099.58	-27.64	.47	-27.64	27.64	179.04	.41
2200.00	1.46	138.00	2199.55	-29.51	1.97	-29.53	29.58	176.19	.24
2300.00	1.50	132.04	2299.52	-31.34	3.79	-31.37	31.56	173.10	.16
2400.00	1.79	125.56	2399.48	-33.12	6.03	-33.17	33.67	169.68	.34
2500.00	1.79	114.39	2499.43	-34.67	8.73	-34.74	35.76	165.87	.35
2600.00	1.76	112.24	2599.38	-35.90	11.57	-35.99	37.72	162.14	.07
2700.00	2.12	103.54	2699.32	-36.91	14.79	-37.03	39.77	158.17	.46
2800.00	2.11	98.78	2799.25	-37.63	18.41	-37.78	41.89	153.93	.18
2900.00	2.38	92.25	2899.18	-37.99	22.30	-38.17	44.05	149.59	.37
3000.00	2.34	90.65	2999.09	-38.10	26.42	-38.31	46.36	145.26	.08
3100.00	2.15	89.28	3099.02	-38.10	30.33	-38.34	48.70	141.47	.20
3200.00	2.24	84.91	3198.94	-37.90	34.16	-38.17	51.02	137.97	.19
3300.00	2.31	72.98	3298.86	-37.14	38.03	-37.44	53.15	134.32	.48
3400.00	2.54	67.47	3398.78	-35.70	42.00	-36.03	55.12	130.36	.33
3500.00	2.96	65.06	3498.66	-33.76	46.39	-34.13	57.37	126.04	.44
3600.00	2.82	59.72	3598.53	-31.43	50.86	-31.84	59.79	121.72	.30
3700.00	2.12	54.18	3698.44	-29.11	54.48	-29.54	61.77	118.11	.74
3800.00	1.76	60.96	3798.38	-27.28	57.32	-27.74	63.48	115.45	.43

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	
3900.00	2.20	79.87	3898.32	-26.20	60.56	-26.68	65.98	113.39	.78
4000.00	2.09	95.54	3998.25	-26.03	64.26	-26.55	69.33	112.05	.59
4100.00	1.94	97.77	4098.19	-26.44	67.75	-26.98	72.73	111.32	.17
4200.00	1.97	98.40	4198.13	-26.92	71.13	-27.49	76.05	110.73	.04
4300.00	1.95	103.25	4298.08	-27.56	74.49	-28.16	79.42	110.30	.17
4400.00	2.19	111.95	4398.01	-28.66	77.91	-29.29	83.02	110.20	.39
4500.00	3.07	117.72	4497.90	-30.62	82.06	-31.28	87.59	110.47	.92
4600.00	2.89	121.41	4597.77	-33.18	86.58	-33.88	92.72	110.97	.26
4700.00	3.65	123.61	4697.61	-36.26	91.38	-36.99	98.31	111.64	.77
4800.00	3.10	118.78	4797.43	-39.32	96.40	-40.10	104.11	112.19	.62
4900.00	2.35	113.97	4897.32	-41.46	100.65	-42.26	108.85	112.39	.78
5000.00	2.31	110.23	4997.24	-42.99	104.41	-43.82	112.91	112.38	.16
5100.00	2.59	120.52	5097.14	-44.83	108.25	-45.70	117.16	112.50	.52
5200.00	2.17	122.30	5197.06	-46.99	111.79	-47.89	121.27	112.80	.43
5300.00	1.52	118.72	5297.01	-48.64	114.56	-49.56	124.46	113.01	.66
5400.00	1.05	118.67	5396.98	-49.72	116.52	-50.65	126.69	113.11	.47
5500.00	.78	124.51	5496.97	-50.54	117.89	-51.49	128.27	113.21	.29
5600.00	.51	131.56	5596.96	-51.22	118.78	-52.18	129.36	113.33	.28
5700.00	.64	134.32	5696.96	-51.91	119.52	-52.87	130.30	113.48	.13
5800.00	.41	125.24	5796.95	-52.51	120.21	-53.47	131.17	113.60	.24
5900.00	.42	130.66	5896.95	-52.95	120.78	-53.92	131.88	113.67	.04
6000.00	.33	137.85	5996.95	-53.40	121.25	-54.37	132.49	113.77	.10
6100.00	.35	172.77	6096.95	-53.92	121.48	-54.89	132.91	113.93	.20
6200.00	.28	164.02	6196.94	-54.46	121.59	-55.43	133.23	114.13	.08
6300.00	.33	188.17	6296.94	-54.98	121.61	-55.95	133.46	114.33	.14
6400.00	.29	176.58	6396.94	-55.51	121.59	-56.49	133.66	114.54	.07
6500.00	.47	200.27	6496.94	-56.15	121.46	-57.13	133.81	114.81	.24
6600.00	.45	203.65	6596.94	-56.90	121.16	-57.87	133.86	115.15	.03
6700.00	.43	192.01	6696.93	-57.62	120.93	-58.59	133.95	115.48	.09

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	
6800.00	.21	194.96	6796.93	-58.17	120.80	-59.14	134.07	115.71	.22
6900.00	.21	191.58	6896.93	-58.52	120.72	-59.49	134.15	115.86	.01
7000.00	.18	236.75	6996.93	-58.79	120.55	-59.76	134.12	116.00	.15
7100.00	.16	237.92	7096.93	-58.95	120.30	-59.91	133.97	116.11	.02
7200.00	.15	225.69	7196.93	-59.12	120.09	-60.08	133.85	116.21	.03
7300.00	.22	214.00	7296.93	-59.37	119.88	-60.33	133.78	116.34	.08
7400.00	.22	211.67	7396.93	-59.69	119.68	-60.65	133.74	116.51	.01
7500.00	.23	219.23	7496.93	-60.01	119.45	-60.96	133.67	116.67	.03
7600.00	.28	228.67	7596.93	-60.32	119.14	-61.28	133.54	116.85	.07
7700.00	.55	228.71	7696.92	-60.80	118.59	-61.75	133.27	117.14	.27
7800.00	.78	231.64	7796.92	-61.54	117.70	-62.48	132.82	117.60	.23
7900.00	.82	233.53	7896.91	-62.39	116.59	-63.32	132.23	118.15	.05
8000.00	.97	231.48	7996.89	-63.34	115.35	-64.27	131.60	118.77	.15
8100.00	1.41	261.19	8096.87	-64.06	113.48	-64.97	130.31	119.44	.74
8200.00	1.78	257.43	8196.83	-64.58	110.74	-65.47	128.20	120.25	.38
8300.00	2.42	232.97	8296.77	-66.19	107.54	-67.05	126.28	121.61	1.09
8400.00	2.75	224.20	8396.67	-69.18	104.18	-70.02	125.06	123.59	.51
8500.00	2.72	220.63	8496.55	-72.71	100.97	-73.51	124.42	125.76	.17
8600.00	2.66	214.99	8596.44	-76.41	98.09	-77.19	124.34	127.92	.27
8700.00	2.77	217.02	8696.33	-80.24	95.31	-81.00	124.58	130.09	.15
8800.00	2.72	218.27	8796.22	-84.03	92.38	-84.77	124.88	132.29	.08
8900.00	2.76	216.80	8896.10	-87.82	89.47	-88.54	125.37	134.47	.08
9000.00	3.08	216.28	8995.97	-91.91	86.44	-92.60	126.17	136.76	.32
9100.00	2.97	216.54	9095.83	-96.16	83.31	-96.83	127.23	139.10	.11
Last Survey Depth Recorded									
9200.00	2.82	214.02	9195.71	-100.28	80.39	-100.92	128.52	141.28	.20



Yates Petroleum Corp.

Eddy County (NAD 83)

Rider BRQ Federal

#2H

OH

Design: OH

PathfinderX & Y Report

13 December, 2012

HOBBS OCD

FEB 21 2013

RECEIVED

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 @ 3390.5usft (Patnot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5 @ 3390.5usft (Patnot 5)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	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		Rider BRQ Federal									
Site Position:		Northing:		410,062.075 usft		Latitude:		32.124117			
From:		Map		Easting:		820,964.711 usft		Longitude:		-103.430073	
Position Uncertainty:		0.0 usft		Slot Radius:		13-3/16 "		Grid Convergence:		0.48 °	

Well:	#2H					
Well Position	+N/-S	0.0 usft	Northing:	410,062.075 usft	Latitude:	32.124117
	+E/-W	0.0 usft	Easting:	820,964.711 usft	Longitude:	-103.430073
Position Uncertainty	0.0 usft		Wellhead Elevation:	usft	Ground Level:	3,364.0 usft

Wellbore	OH																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</
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Design:		OH			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.0	0.0	0.0	359.54	



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 @ 3390.5usft. (Patnot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5 @ 3390.5usft. (Patnot 5)
Well:	#2H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM15000.1 Single User Db

Survey Program	Date: 12/13/2012			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	9,200.0	Gyro #1 (OH)	CTG-SR-SS	Continuous gyro - surface ref. s/s
9,251.0	14,205.0	MWD #1 (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)
0.0	0.00	0.00	0.0	-3,390.5	0.0	0.0	0.0	0.00	410,062.08	820,964.71
100.0	0.34	202.17	100.0	-3,290.5	-0.3	-0.1	-0.3	0.34	410,061.80	820,964.60
200.0	0.40	223.20	200.0	-3,190.5	-0.8	-0.5	-0.8	0.15	410,061.27	820,964.25
300.0	0.23	166.52	300.0	-3,090.5	-1.3	-0.7	-1.2	0.33	410,060.82	820,964.06
400.0	0.12	224.04	400.0	-2,990.5	-1.5	-0.7	-1.5	0.19	410,060.55	820,964.03
500.0	0.38	359.63	500.0	-2,890.5	-1.3	-0.8	-1.3	0.47	410,060.81	820,963.96
600.0	0.42	24.88	600.0	-2,790.5	-0.6	-0.6	-0.6	0.18	410,061.47	820,964.11
700.0	0.22	284.24	700.0	-2,690.5	-0.2	-0.6	-0.2	0.51	410,061.85	820,964.08
800.0	0.41	298.12	800.0	-2,590.5	0.0	-1.1	0.0	0.20	410,062.07	820,963.57
900.0	0.57	267.56	900.0	-2,490.5	0.1	-1.9	0.2	0.30	410,062.21	820,962.76
1,000.0	0.53	261.50	1,000.0	-2,390.5	0.0	-2.9	0.1	0.07	410,062.12	820,961.81
1,100.0	0.69	205.98	1,100.0	-2,290.5	-0.6	-3.6	-0.5	0.59	410,061.52	820,961.09
1,200.0	1.72	185.96	1,200.0	-2,190.5	-2.6	-4.0	-2.6	1.10	410,059.48	820,960.67
1,300.0	1.75	183.53	1,299.9	-2,090.6	-5.6	-4.3	-5.6	0.08	410,056.46	820,960.42
1,400.0	1.54	177.28	1,399.9	-1,990.6	-8.5	-4.3	-8.4	0.28	410,053.60	820,960.39
1,500.0	1.68	176.11	1,499.8	-1,890.7	-11.3	-4.2	-11.2	0.14	410,050.79	820,960.55
1,600.0	1.66	174.27	1,599.8	-1,790.7	-14.2	-3.9	-14.2	0.06	410,047.89	820,960.79
1,700.0	1.71	170.21	1,699.7	-1,690.8	-17.1	-3.5	-17.1	0.13	410,044.98	820,961.19
1,800.0	1.76	165.05	1,799.7	-1,590.8	-20.1	-2.9	-20.0	0.16	410,042.02	820,961.84
1,900.0	1.58	160.61	1,899.7	-1,490.8	-22.8	-2.0	-22.8	0.22	410,039.24	820,962.70
2,000.0	1.67	151.83	1,999.6	-1,390.9	-25.4	-0.9	-25.4	0.26	410,036.66	820,963.84



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 @ 3390.5usft (Patriot 5)
Site:	Rider BRO Federal	MD Reference:	KB = 26.5 @ 3390.5usft (Patriot 5)
Well:	#2H	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)	
2,100.0	1.30	145.17	2,099.6	-1,290.9	-27.6	0.5	-27.6	0.41	410,034.44	820,965.18	
2,200.0	1.46	138.00	2,199.6	-1,190.9	-29.5	2.0	-29.5	0.24	410,032.56	820,966.68	
2,300.0	1.50	132.04	2,299.5	-1,091.0	-31.3	3.8	-31.4	0.16	410,030.74	820,968.50	
2,400.0	1.79	125.56	2,399.5	-991.0	-33.1	6.0	-33.2	0.34	410,028.95	820,970.74	
2,500.0	1.79	114.39	2,499.4	-891.1	-34.7	8.7	-34.7	0.35	410,027.40	820,973.44	
2,600.0	1.76	112.24	2,599.4	-791.1	-35.9	11.6	-36.0	0.07	410,026.17	820,976.28	
2,700.0	2.12	103.54	2,699.3	-691.2	-36.9	14.8	-37.0	0.48	410,025.16	820,979.50	
2,800.0	2.11	98.78	2,799.3	-591.2	-37.6	18.4	-37.8	0.18	410,024.45	820,983.12	
2,900.0	2.38	92.25	2,899.2	-491.3	-38.0	22.3	-38.2	0.37	410,024.08	820,987.01	
3,000.0	2.34	90.65	2,999.1	-391.4	-38.1	26.4	-38.3	0.08	410,023.98	820,991.13	
3,100.0	2.15	89.28	3,099.0	-291.5	-38.1	30.3	-38.3	0.20	410,023.98	820,995.05	
3,200.0	2.24	84.91	3,198.9	-191.6	-37.9	34.2	-38.2	0.19	410,024.18	820,998.87	
3,300.0	2.31	72.98	3,298.9	-91.6	-37.1	38.0	-37.4	0.48	410,024.94	821,002.74	
3,400.0	2.54	67.47	3,398.8	8.3	-35.7	42.0	-36.0	0.33	410,026.38	821,006.71	
3,500.0	2.96	65.06	3,498.7	108.2	-33.8	46.4	-34.1	0.44	410,028.32	821,011.10	
3,600.0	2.82	59.72	3,598.5	208.0	-31.4	50.9	-31.8	0.30	410,030.65	821,015.57	
3,700.0	2.12	54.18	3,698.4	307.9	-29.1	54.5	-29.5	0.74	410,032.97	821,019.19	
3,800.0	1.76	60.96	3,798.4	407.9	-27.3	57.3	-27.7	0.43	410,034.80	821,022.03	
3,900.0	2.20	79.87	3,898.3	507.8	-26.2	60.6	-26.7	0.78	410,035.88	821,025.27	
4,000.0	2.09	95.54	3,998.3	607.8	-26.0	64.3	-26.5	0.59	410,036.04	821,028.97	
4,100.0	1.94	97.77	4,098.2	707.7	-26.4	67.8	-27.0	0.17	410,035.64	821,032.46	
4,200.0	1.97	98.40	4,198.1	807.6	-26.9	71.1	-27.5	0.04	410,035.16	821,035.84	
4,300.0	1.95	103.25	4,298.1	907.6	-27.6	74.5	-28.2	0.17	410,034.51	821,039.20	
4,400.0	2.19	111.95	4,398.0	1,007.5	-28.7	77.9	-29.3	0.39	410,033.41	821,042.63	
4,500.0	3.07	117.72	4,497.9	1,107.4	-30.6	82.1	-31.3	0.92	410,031.45	821,046.77	
4,600.0	2.89	121.41	4,597.8	1,207.3	-33.2	86.6	-33.9	0.26	410,028.89	821,051.29	
4,700.0	3.65	123.61	4,697.6	1,307.1	-36.3	91.4	-37.0	0.77	410,025.82	821,056.09	



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 @ 3390.5usft (Patriot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5 @ 3390.5usft (Patriot 5)
Well:	#2H	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)	
4,800.0	3.10	118.78	4,797.4	1,406.9	-39.3	96.4	-40.1	0.62	410,022.75	821,061.11	
4,900.0	2.35	113.97	4,897.3	1,506.8	-41.5	100.6	-42.3	0.78	410,020.62	821,065.36	
5,000.0	2.31	110.23	4,997.2	1,606.7	-43.0	104.4	-43.8	0.16	410,019.09	821,069.12	
5,100.0	2.59	120.52	5,097.1	1,706.6	-44.8	108.2	-45.7	0.52	410,017.24	821,072.96	
5,200.0	2.17	122.30	5,197.1	1,806.6	-47.0	111.8	-47.9	0.43	410,015.08	821,076.51	
5,300.0	1.52	118.72	5,297.0	1,906.5	-48.6	114.6	-49.6	0.66	410,013.43	821,079.27	
5,400.0	1.05	118.67	5,397.0	2,006.5	-49.7	116.5	-50.6	0.47	410,012.36	821,081.24	
5,500.0	0.78	124.51	5,497.0	2,106.5	-50.5	117.9	-51.5	0.29	410,011.53	821,082.60	
5,600.0	0.51	131.56	5,597.0	2,206.5	-51.2	118.8	-52.2	0.28	410,010.85	821,083.49	
5,700.0	0.64	134.32	5,697.0	2,306.5	-51.9	119.5	-52.9	0.13	410,010.17	821,084.23	
5,800.0	0.41	125.24	5,797.0	2,406.5	-52.5	120.2	-53.5	0.24	410,009.57	821,084.92	
5,900.0	0.42	130.66	5,896.9	2,506.4	-53.0	120.8	-53.9	0.04	410,009.12	821,085.49	
6,000.0	0.33	137.85	5,996.9	2,606.4	-53.4	121.2	-54.4	0.10	410,008.67	821,085.96	
6,100.0	0.35	172.77	6,096.9	2,706.4	-53.9	121.5	-54.9	0.20	410,008.16	821,086.19	
6,200.0	0.28	164.02	6,196.9	2,806.4	-54.5	121.6	-55.4	0.08	410,007.62	821,086.30	
6,300.0	0.33	188.17	6,296.9	2,906.4	-55.0	121.6	-55.9	0.14	410,007.10	821,086.32	
6,400.0	0.29	176.58	6,396.9	3,006.4	-55.5	121.6	-56.5	0.07	410,006.56	821,086.30	
6,500.0	0.47	200.27	6,496.9	3,106.4	-56.2	121.5	-57.1	0.24	410,005.92	821,086.17	
6,600.0	0.45	203.65	6,596.9	3,206.4	-56.9	121.2	-57.9	0.03	410,005.18	821,085.87	
6,700.0	0.43	192.01	6,696.9	3,306.4	-57.6	120.9	-58.6	0.09	410,004.45	821,085.64	
6,800.0	0.21	194.96	6,796.9	3,406.4	-58.2	120.8	-59.1	0.22	410,003.91	821,085.51	
6,900.0	0.21	191.58	6,896.9	3,506.4	-58.5	120.7	-59.5	0.01	410,003.55	821,085.43	
7,000.0	0.18	236.75	6,996.9	3,606.4	-58.8	120.5	-59.8	0.15	410,003.29	821,085.26	
7,100.0	0.16	237.92	7,096.9	3,706.4	-58.9	120.3	-59.9	0.02	410,003.13	821,085.01	
7,200.0	0.15	225.69	7,196.9	3,806.4	-59.1	120.1	-60.1	0.03	410,002.96	821,084.80	
7,300.0	0.22	214.00	7,296.9	3,906.4	-59.4	119.9	-60.3	0.08	410,002.71	821,084.60	
7,400.0	0.22	211.67	7,396.9	4,006.4	-59.7	119.7	-60.6	0.01	410,002.39	821,084.39	



Pathfinder

PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5' @ 3390.5usft (Patnot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5' @ 3390.5usft (Patnot 5)
Well:	#2H	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)	
7,500.0	0.23	219.23	7,496.9	4,106.4	-60.0	119.4	-61.0	0.03	410,002.07	821,084.16	
7,600.0	0.28	228.67	7,596.9	4,206.4	-60.3	119.1	-61.3	0.07	410,001.75	821,083.85	
7,700.0	0.55	228.71	7,696.9	4,306.4	-60.8	118.6	-61.8	0.27	410,001.27	821,083.31	
7,800.0	0.78	231.64	7,796.9	4,406.4	-61.5	117.7	-62.5	0.23	410,000.53	821,082.41	
7,900.0	0.82	233.53	7,896.9	4,506.4	-62.4	116.6	-63.3	0.05	409,999.69	821,081.30	
8,000.0	0.97	231.48	7,996.9	4,606.4	-63.3	115.4	-64.3	0.15	409,998.73	821,080.06	
8,100.0	1.41	261.19	8,096.9	4,706.4	-64.1	113.5	-65.0	0.74	409,998.02	821,078.19	
8,200.0	1.78	257.43	8,196.8	4,806.3	-64.6	110.7	-65.5	0.38	409,997.49	821,075.45	
8,300.0	2.42	232.97	8,296.8	4,906.3	-66.2	107.5	-67.1	1.09	409,995.88	821,072.25	
8,400.0	2.75	224.20	8,396.7	5,006.2	-69.2	104.2	-70.0	0.51	409,992.89	821,068.90	
8,500.0	2.72	220.63	8,496.6	5,106.1	-72.7	101.0	-73.5	0.17	409,989.37	821,065.68	
8,600.0	2.66	214.99	8,596.4	5,205.9	-76.4	98.1	-77.2	0.27	409,985.67	821,062.80	
8,700.0	2.77	217.02	8,696.3	5,305.8	-80.2	95.3	-81.0	0.15	409,981.84	821,060.02	
8,800.0	2.72	218.27	8,796.2	5,405.7	-84.0	92.4	-84.8	0.08	409,978.05	821,057.09	
8,900.0	2.76	216.80	8,896.1	5,505.6	-87.8	89.5	-88.5	0.08	409,974.25	821,054.18	
9,000.0	3.08	216.28	8,996.0	5,605.5	-91.9	86.4	-92.6	0.32	409,970.16	821,051.15	
9,100.0	2.97	216.54	9,095.8	5,705.3	-96.2	83.3	-96.8	0.11	409,965.91	821,048.02	
9,200.0	2.82	214.02	9,195.7	5,805.2	-100.3	80.4	-100.9	0.20	409,961.79	821,045.10	
9,251.0	1.23	209.82	9,246.7	5,856.2	-101.8	79.4	-102.4	3.13	409,960.28	821,044.12	
9,282.0	3.43	349.72	9,277.7	5,887.2	-101.2	79.1	-101.8	14.33	409,960.90	821,043.79	
KOP: 9282.0 MD: 9277.7 TVD: 101.2 N: 79.1 E											
9,314.0	9.06	357.19	9,309.5	5,919.0	-97.7	78.8	-98.3	17.74	409,964.36	821,043.50	
9,345.0	14.77	358.95	9,339.8	5,949.3	-91.3	78.6	-91.9	18.45	409,970.76	821,043.31	
9,377.0	19.70	359.13	9,370.3	5,979.8	-81.8	78.4	-82.5	15.41	409,980.24	821,043.15	
9,408.0	23.65	358.07	9,399.1	6,008.6	-70.4	78.1	-71.0	12.80	409,991.68	821,042.86	
9,440.0	27.35	357.19	9,428.0	6,037.5	-56.6	77.6	-57.3	11.62	410,005.44	821,042.28	
9,472.0	30.60	357.10	9,456.0	6,065.5	-41.2	76.8	-41.8	10.16	410,020.92	821,041.51	



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 @ 3390.5usft (Patriot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5 @ 3390.5usft (Patriot 5)
Well:	#2H	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)	
9,503.0	33.33	357.63	9,482.3	6,091.8	-24.8	76.0	-25.4	8.85	410,037.31	821,040.76	
9,533.0	37.02	357.37	9,506.8	6,116.3	-7.5	75.3	-8.1	12.31	410,054.58	821,040.00	
9,565.0	41.50	357.81	9,531.6	6,141.1	12.7	74.4	12.1	14.03	410,074.80	821,039.16	
9,596.0	45.37	358.07	9,554.1	6,163.6	34.0	73.7	33.4	12.50	410,096.10	821,038.39	
9,628.0	48.10	358.25	9,576.0	6,185.5	57.3	72.9	56.7	8.54	410,119.39	821,037.64	
9,659.0	50.91	358.60	9,596.1	6,205.6	80.9	72.3	80.3	9.11	410,142.95	821,037.00	
9,691.0	54.43	357.63	9,615.6	6,225.1	106.3	71.4	105.7	11.26	410,168.38	821,036.16	
9,723.0	57.60	356.75	9,633.4	6,242.9	132.8	70.1	132.2	10.17	410,194.87	821,034.85	
9,754.0	60.06	355.96	9,649.5	6,259.0	159.3	68.5	158.7	8.23	410,221.34	821,033.16	
9,786.0	62.70	355.43	9,664.8	6,274.3	187.3	66.3	186.7	8.38	410,249.35	821,031.05	
9,817.0	65.86	355.35	9,678.3	6,287.8	215.1	64.1	214.6	10.20	410,277.19	821,028.81	
9,849.0	68.41	355.87	9,690.7	6,300.2	244.5	61.8	244.0	8.11	410,306.58	821,026.55	
9,880.0	71.14	356.05	9,701.4	6,310.9	273.5	59.8	273.0	8.82	410,335.60	821,024.50	
9,912.0	72.72	356.93	9,711.3	6,320.8	303.9	57.9	303.4	5.59	410,365.96	821,022.64	
9,944.0	73.42	358.16	9,720.7	6,330.2	334.5	56.6	334.0	4.28	410,396.54	821,021.33	
9,975.0	75.89	359.04	9,728.9	6,338.4	364.4	55.9	363.9	8.42	410,426.43	821,020.60	
10,007.0	79.49	359.30	9,735.7	6,345.2	395.6	55.4	395.2	11.28	410,457.68	821,020.15	
10,038.0	83.27	359.21	9,740.3	6,349.8	426.2	55.0	425.8	12.20	410,488.32	821,019.75	
10,069.0	86.09	359.30	9,743.2	6,352.7	457.1	54.6	456.7	9.10	410,519.19	821,019.35	
10,132.0	88.72	358.77	9,746.0	6,355.5	520.0	53.6	519.6	4.26	410,582.11	821,018.29	
10,226.0	88.90	358.95	9,748.0	6,357.5	614.0	51.7	613.6	0.27	410,676.07	821,016.42	
10,320.0	88.11	358.25	9,750.5	6,360.0	707.9	49.4	707.5	1.12	410,770.01	821,014.13	
10,414.0	89.25	358.69	9,752.6	6,362.1	801.9	46.9	801.5	1.30	410,863.95	821,011.62	
LP: 10414.0 MD: 9752.6 TVD: 8019.9 N: 46.9 E											
10,508.0	88.29	359.30	9,754.6	6,364.1	895.8	45.3	895.4	1.21	410,957.91	821,009.97	
10,603.0	87.85	359.74	9,757.8	6,367.3	990.8	44.5	990.4	0.65	411,052.85	821,009.17	
10,697.0	87.93	0.27	9,761.3	6,370.8	1,084.7	44.5	1,084.3	0.57	411,146.79	821,009.18	



Pathfinder

PathfinderX & Y Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County (NAD 83)	TVD Reference:	KB = 26.5 @ 3390.5usft (Patriot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5 @ 3390.5usft (Patriot 5)
Well:	#2H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM:5000.1 Single User Db

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V: Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
10,792.0	89.08	0.39	9,763.8	6,373.3	1,179.7	45.0	1,179.3	1.22	411,241.75	821,009.73
10,887.0	89.16	0.68	9,765.2	6,374.7	1,274.7	45.9	1,274.3	0.32	411,336.74	821,010.61
10,981.0	89.52	0.98	9,766.3	6,375.8	1,368.6	47.3	1,368.2	0.50	411,430.72	821,011.98
11,076.0	89.43	0.33	9,767.2	6,376.7	1,463.6	48.4	1,463.2	0.69	411,525.71	821,013.06
11,173.0	89.25	358.88	9,768.3	6,377.8	1,560.6	47.7	1,560.2	1.51	411,622.70	821,012.39
11,268.0	90.73	359.23	9,768.3	6,377.8	1,655.6	46.1	1,655.2	1.60	411,717.68	821,010.83
11,362.0	91.45	358.04	9,766.5	6,376.0	1,749.6	43.9	1,749.2	1.48	411,811.64	821,008.59
11,456.0	90.92	357.21	9,764.6	6,374.1	1,843.5	40.0	1,843.1	1.05	411,905.53	821,004.69
11,551.0	88.99	355.99	9,764.7	6,374.2	1,938.3	34.3	1,937.9	2.40	412,000.36	820,999.06
11,645.0	89.60	355.88	9,765.8	6,375.3	2,032.0	27.7	2,031.8	0.66	412,094.12	820,992.40
11,740.0	89.43	355.65	9,766.6	6,376.1	2,126.8	20.7	2,126.5	0.30	412,188.85	820,985.38
11,834.0	89.34	356.07	9,767.6	6,377.1	2,220.5	13.9	2,220.3	0.46	412,282.60	820,978.60
11,928.0	90.31	356.31	9,767.9	6,377.4	2,314.3	7.6	2,314.2	1.06	412,376.39	820,972.35
12,054.0	89.87	355.02	9,767.7	6,377.2	2,440.0	-1.9	2,439.9	1.08	412,502.03	820,962.83
12,148.0	91.63	355.57	9,766.5	6,376.0	2,533.6	-9.6	2,533.6	1.96	412,595.70	820,955.12
12,246.0	90.22	356.11	9,764.9	6,374.4	2,631.4	-16.7	2,631.4	1.54	412,693.43	820,948.01
12,341.0	90.04	356.39	9,764.7	6,374.2	2,726.1	-22.9	2,726.2	0.35	412,788.22	820,941.80
12,436.0	89.96	355.98	9,764.7	6,374.2	2,820.9	-29.2	2,821.1	0.44	412,883.01	820,935.47
12,532.0	89.25	355.64	9,765.4	6,374.9	2,916.7	-36.3	2,916.9	0.82	412,978.75	820,928.46
12,625.0	89.16	356.11	9,766.6	6,376.1	3,009.4	-42.9	3,009.7	0.51	413,071.50	820,921.77
12,720.0	89.25	358.34	9,768.0	6,377.5	3,104.3	-47.5	3,104.6	2.35	413,166.38	820,917.17
12,815.0	89.87	359.37	9,768.7	6,378.2	3,199.3	-49.4	3,199.6	1.27	413,261.35	820,915.27
12,910.0	88.64	359.82	9,769.9	6,379.4	3,294.3	-50.1	3,294.6	1.38	413,356.34	820,914.60
13,005.0	88.55	358.50	9,772.3	6,381.8	3,389.2	-51.5	3,389.5	1.39	413,451.30	820,913.21
13,099.0	89.52	0.32	9,773.8	6,383.3	3,483.2	-52.5	3,483.5	2.19	413,545.28	820,912.24
13,194.0	89.52	358.96	9,774.6	6,384.1	3,578.2	-53.1	3,578.5	1.43	413,640.27	820,911.65
13,289.0	89.78	1.23	9,775.2	6,384.7	3,673.2	-52.9	3,673.5	2.41	413,735.26	820,911.80



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 @ 3390.5usft (Patriot 5)
Site:	Rider BRQ Federal	MD Reference:	KB = 26.5 @ 3390.5usft (Patriot 5)
Well:	#2H	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)	
13,384.0	89.52	0.89	9,775.8	6,385.3	3,768.2	-51.1	3,768.5	0.45	413,830.24	820,913.56	
13,479.0	90.84	3.03	9,775.5	6,385.0	3,863.1	-47.9	3,863.4	2.65	413,925.18	820,916.81	
13,566.0	89.78	3.43	9,775.0	6,384.5	3,950.0	-43.0	3,950.2	1.30	414,012.04	820,921.71	
13,661.0	86.88	2.64	9,777.8	6,387.3	4,044.8	-38.0	4,045.0	3.16	414,106.85	820,926.74	
13,756.0	87.58	2.11	9,782.4	6,391.9	4,139.6	-34.0	4,139.7	0.92	414,201.66	820,930.67	
13,851.0	87.32	1.94	9,786.6	6,396.1	4,234.4	-30.7	4,234.5	0.33	414,296.51	820,934.03	
13,947.0	86.44	1.85	9,791.8	6,401.3	4,330.2	-27.5	4,330.3	0.92	414,392.31	820,937.20	
14,041.0	86.35	0.88	9,797.8	6,407.3	4,424.0	-25.3	4,424.1	1.03	414,486.10	820,939.43	
14,137.0	86.61	0.97	9,803.6	6,413.1	4,519.8	-23.7	4,519.9	0.29	414,581.90	820,940.98	
14,153.0	86.79	1.32	9,804.6	6,414.1	4,535.8	-23.4	4,535.8	2.46	414,597.87	820,941.30	
14,205.0	86.79	1.32	9,807.5	6,417.0	4,587.7	-22.2	4,587.7	0.00	414,649.78	820,942.49	
PROJECTED BHL - 14205.0 'MD, 9807.5 'TVD, 4587.7 'N, -22.2 'E - FEL:647' FNL:362' FWL:677'											

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,282.0	9,277.7	-101.2	79.1	KOP - 9282.0 'MD, 9277.7 'TVD, -101.2 'N, 79.1 'E
10,414.0	9,752.6	801.9	46.9	LP - 10414.0 'MD, 9752.6 'TVD, 801.9 'N, 46.9 'E
14,205.0	9,807.5	4,587.7	-22.2	PROJECTED BHL - 14205.0 'MD, 9807.5 'TVD, 4587.7 'N, -22.2 'E
14,205.0	9,807.5	4,587.7	-22.2	FEL:647' FNL:362' FWL:677'

Checked By: _____ Approved By: _____ Date: _____



**ATES
PETROLEUM
CORPORATION**

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

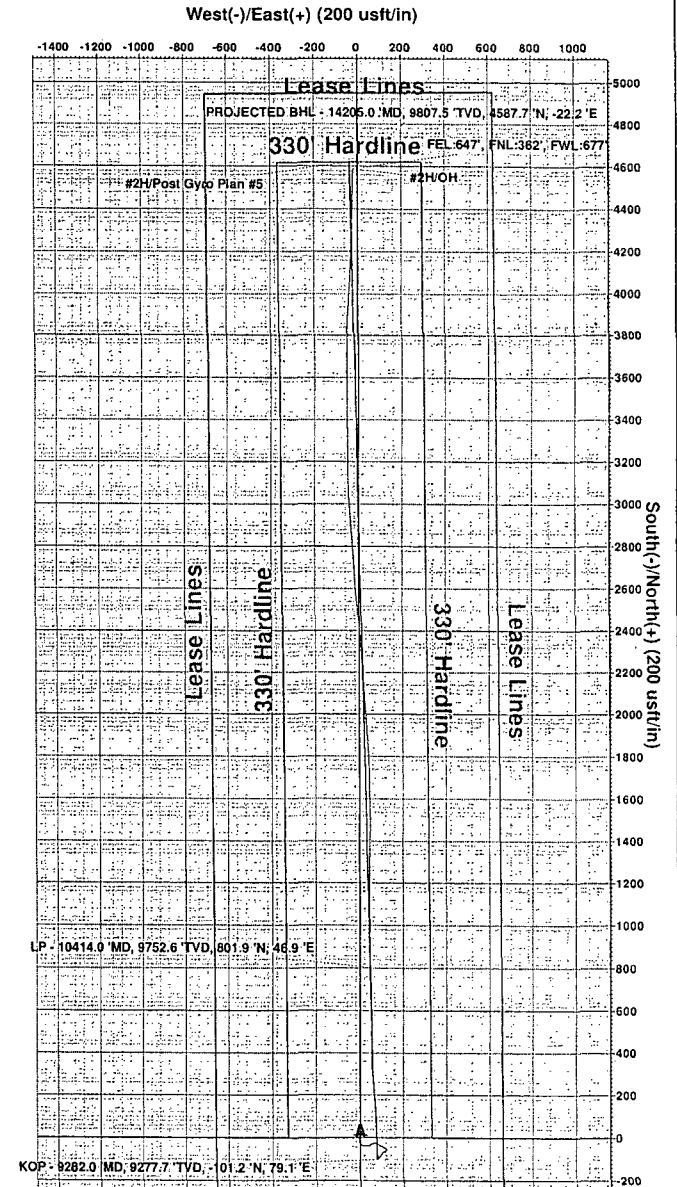
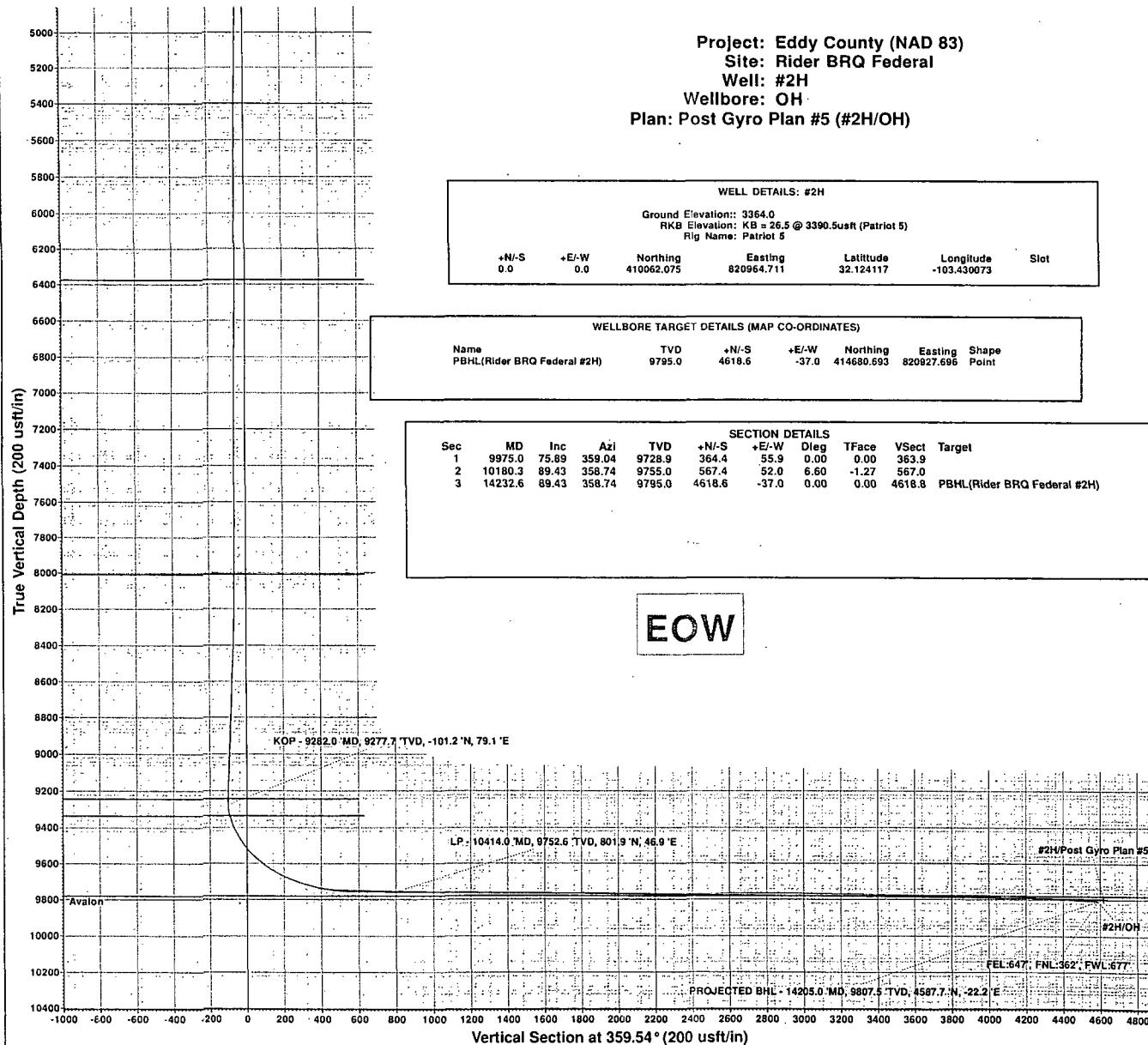


Azimuths to Grid North
True North: -0.48°
Magnetic North: 6.87°

Magnetic Field
Strength: 48484.1snT
Dip Angle: 60.11°
Date: 9/28/2012
Model: IGRF200510

PATHFINDER

A Schlumberger Company



Plan: Post Gyro Plan #5 (#2H/OH)

Created By: Sam Bittle Date: 10/13, December 13 2012

Checked: _____ Date: _____

Pathfinder
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