

Results of Directional Survey

API number:	30-025-33341		
OGRID:		Operator:	YATES PETROLEUM CORP
		Property:	BARGAIN BQA FEDERAL # 1H

surface	ULSTR:	J	22	T	22S	R	33E
				1980	FSL	1980	FEL

BH Loc	ULSTR:	J	21	T	22S	R	33E
15010	MD	9518.2	TVD	1857	FSL	7569	FEL
(2289 FEL)							

Top Perf/OH	ULSTR:	J	22	T	22S	R	33E
9949	MD	9594.7	TVD	1981	FSL	2516	FEL

Bot Perf/OH	ULSTR:	J	21	T	22S	R	33E
14940	MD	9523.2	TVD	1867	FSL	7500	FEL
(2220 FEL)							

	MD	N/S	E/W	VD
	9948	0.69	-535.37	9594.7
TOP PERFS/OH	9949	0.68	-536.37	9594.69
	10043	-0.31	-630.36	9593.76
	14834	-97.43	-5415.32	9530.73
BOT PERFS/OH	14940	-112.73	-5519.94	9523.16
	14929	-111.14	-5509.08	9523.95

NEXT TO LAST	14834	-97.43	-5415.32	9530.73
LAST READING	14929	-111.14	-5509.08	9523.95
TD	15010	-122.83	-5589.02	9518.17

Surface Location	1980	FS	1980	FE
Projected BHL	1857	FS	7569	FE
Location of				
Top Perfs/OH	1981	FS	2516	FE
Bottom Perfs/OH	1867	FS	7500	FE

SUMMARY of Subsurface Locations

Surface Location	J-22-22S-33E	1980	FS	1980	FE	Vert. Depth
Top Perfs/OH	J-22-22S-33E	1981	FS	2516	FE	9594.69
Bottom Perfs/OH	J-21-22S-33E	1867	FS	7500	FE	9523.16
Projected TD	J-21-22S-33E	1857	FS	7569	FE	9518.17



An Operating Unit of Smith International, Inc.

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DIRECTIONAL SURVEY REPORT

YATES PETROLEUM
BARGAIN BQA FEDERAL #1H - SHC
LEA COUNTY, NEW MEXICO

SUR: J-22-22s-33e, 1980/S & 1980/E
BHL: J-21-22s-33e, 1857/S & 7569/E
API # 30-025-33341

PREPARED BY: FRANCISCO SINISTERRA

Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JAY FULTON
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 08-16-10 TO 08-17-10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
BARGAIN "BQA" FEDERAL #1H - SHC
EDDY COUNTY, NM
RIG: PATRIOT #5

9. SURVEY CERTIFIED FROM: 10105 TO 10445 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 22.61 FEET ON A BEARING OF 212.38 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 10500 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



FRANCISCO SINISTERRA
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 08/16/2010
Date Completed: 08/17/2010

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NEW MEXICO
Rig: PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: JAY FULTON
BRENT ARMER

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.22.31.6645 N LON: 103.33.29.4102 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 780647.8210 Y: 501191.6670
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.28° EAST TO GRID
Vertical Section Plane: 269.74
Survey Vert. Reference: 26.50' Rotary Table To Ground
Altitude: 3555.00' Ground To MSL

Measured Depth	10500.00	(feet)
Inclination	2.55	(deg)
Azimuth	240.51	(deg)
True Vertical Depth	10496.78	(feet)
Vertical Section	12.19	(feet)
Survey X cord	780635.69	(feet)
Survey Y cord	501172.56	(feet)
Survey Lat	32.37541008 N	(deg)
Survey Lon	103.55820924 W	(deg)
Rectangular Corr. N/S	19.09 S	(feet)
Rectangular Corr. E/W	12.11 W	(feet)
Closure Distance	22.61	(feet)
Direction of Closure	212.38	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NEW MEXICO
Rig: PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
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Total Magnetic Correction: 7.28° EAST TO GRID
Vertical Section Plane: 269.74
Survey Vert. Reference: 26.50' Rotary Table To Ground
Altitude: 3555.00' Ground To MSL

Survey Calculations by RX5 V6.03A using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE MULTI-SHOT GYRO SURVEYS.										
200.00	0.25	7.64	200.00	200.00	-0.06	0.43 N	0.06 E	0.44@	7.64	0.13
400.00	0.25	232.67	400.00	200.00	0.23	0.60 N	0.23 W	0.64@	338.96	0.23
600.00	2.25	195.70	599.94	200.00	1.66	3.44 S	1.64 W	3.81@	205.47	1.03
800.00	3.00	191.73	799.73	200.00	3.82	12.35 S	3.77 W	12.91@	196.96	0.39
1000.00	2.75	191.76	999.48	200.00	5.91	22.17 S	5.81 W	22.92@	194.68	0.13
1200.00	2.00	201.79	1199.31	200.00	8.22	30.11 S	8.08 W	31.17@	195.03	0.43
1400.00	1.50	199.82	1399.21	200.00	10.43	35.81 S	10.27 W	37.25@	195.99	0.25
1600.00	1.25	190.93	1599.16	200.00	11.75	40.42 S	11.57 W	42.04@	195.97	0.16
1800.00	0.75	197.96	1799.12	200.00	12.58	43.80 S	12.38 W	45.52@	195.79	0.26
2000.00	0.25	160.99	1999.12	200.00	12.85	45.46 S	12.65 W	47.19@	195.54	0.28
2200.00	0.25	127.02	2199.11	200.00	12.36	46.14 S	12.15 W	47.71@	194.76	0.07
2400.00	1.00	96.05	2399.10	200.00	10.28	46.58 S	10.07 W	47.66@	192.20	0.40
2600.00	1.25	77.98	2599.06	200.00	6.41	46.31 S	6.20 W	46.72@	187.63	0.21
2800.00	2.00	69.90	2798.98	200.00	0.99	44.66 S	0.79 W	44.66@	181.01	0.39
3000.00	2.25	74.83	2998.84	200.00	-6.08	42.43 S	6.28 E	42.89@	171.59	0.16
3200.00	2.50	71.75	3198.67	200.00	-14.03	40.04 S	14.21 E	42.48@	160.46	0.14
3400.00	1.50	64.70	3398.55	200.00	-20.55	37.55 S	20.72 E	42.89@	151.12	0.51
3600.00	3.25	52.38	3598.37	200.00	-27.43	32.97 S	27.58 E	42.98@	140.09	0.91
3800.00	1.50	33.35	3798.19	200.00	-33.38	27.33 S	33.51 E	43.24@	129.20	0.95
4000.00	0.25	295.29	3998.17	200.00	-34.44	24.95 S	34.55 E	42.62@	125.84	0.78
4200.00	1.00	185.22	4198.16	200.00	-33.88	26.50 S	34.00 E	43.11@	127.94	0.56
4400.00	1.00	114.18	4398.14	200.00	-35.30	28.96 S	35.43 E	45.76@	129.26	0.58
4600.00	2.50	57.18	4598.05	200.00	-40.56	27.31 S	40.69 E	49.00@	123.87	1.06
4800.00	1.75	61.22	4797.91	200.00	-46.92	23.47 S	47.03 E	52.56@	116.52	0.38
5000.00	1.00	66.26	4997.85	200.00	-51.21	21.30 S	51.30 E	55.55@	112.55	0.38

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NEW MEXICO
RIG:PATRIOT 5

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
5200.00	0.50	63.30	5197.83	200.00	-53.59	20.21 S	53.68 E	57.36@	110.63	0.25
5400.00	0.25	57.33	5397.83	200.00	-54.74	19.58 S	54.83 E	58.22@	109.65	0.13
5600.00	0.25	43.43	5597.83	200.00	-55.41	19.03 S	55.50 E	58.67@	108.92	0.03
5800.00	0.25	285.46	5797.83	200.00	-55.29	18.59 S	55.38 E	58.41@	108.56	0.21
6000.00	0.25	19.50	5997.82	200.00	-55.02	18.06 S	55.10 E	57.99@	108.15	0.18
6200.00	0.25	352.53	6197.82	200.00	-55.11	17.22 S	55.19 E	57.81@	107.33	0.06
6400.00	0.50	332.56	6397.82	200.00	-54.66	16.01 S	54.73 E	57.03@	106.31	0.14
6600.00	0.75	340.49	6597.81	200.00	-53.83	14.01 S	53.89 E	55.68@	104.57	0.13
6800.00	0.50	342.42	6797.79	200.00	-53.14	11.94 S	53.19 E	54.51@	102.65	0.13
7000.00	0.50	341.35	6997.79	200.00	-52.60	10.28 S	52.65 E	53.64@	101.05	0.01
7200.00	0.75	336.28	7197.78	200.00	-51.80	8.26 S	51.84 E	52.50@	99.05	0.13
7400.00	0.50	327.21	7397.76	200.00	-50.81	6.32 S	50.84 E	51.24@	97.09	0.13
7600.00	0.50	321.97	7597.76	200.00	-49.81	4.90 S	49.83 E	50.07@	95.62	0.02
7800.00	0.50	297.90	7797.75	200.00	-48.51	3.81 S	48.52 E	48.67@	94.49	0.10
8000.00	0.75	285.83	7997.74	200.00	-46.48	3.04 S	46.49 E	46.59@	93.74	0.14
8200.00	0.50	284.76	8197.72	200.00	-44.38	2.46 S	44.39 E	44.46@	93.17	0.13
8400.00	0.75	269.69	8397.71	200.00	-42.23	2.25 S	42.24 E	42.30@	93.04	0.15
8600.00	1.00	259.02	8597.69	200.00	-39.20	2.59 S	39.22 E	39.30@	93.77	0.15
8800.00	0.75	266.35	8797.67	200.00	-36.18	3.00 S	36.20 E	36.32@	94.74	0.14
9000.00	1.00	254.68	8997.64	200.00	-33.19	3.55 S	33.21 E	33.40@	96.10	0.15
9200.00	1.75	268.01	9197.58	200.00	-28.45	4.11 S	28.47 E	28.77@	98.22	0.41
9400.00	2.00	264.33	9397.48	200.00	-21.93	4.56 S	21.95 E	22.42@	101.75	0.14
9600.00	1.75	256.49	9597.37	200.00	-15.48	5.62 S	15.50 E	16.49@	109.93	0.18
9800.00	1.00	264.83	9797.31	200.00	-10.77	6.49 S	10.80 E	12.60@	121.02	0.39
TIE INTO MS ENERGY SERVICE GYRO SURVEY @ 10000' MD.										
10000.00	1.50	239.15	9997.26	200.00	-6.77	7.99 S	6.81 E	10.50@	139.57	0.37
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
10105.00	2.81	232.98	10102.19	105.00	-3.53	10.25 S	3.58 E	10.85@	160.76	1.26

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NEW MEXICO
RIG:PATRIOT 5

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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
10161.00	2.73	239.98	10158.12	56.00	-1.27	11.74 S	1.33 E	11.82@	173.56	0.62
10232.00	2.64	239.98	10229.04	71.00	1.62	13.41 S	1.55 W	13.50@	186.61	0.13
10295.00	2.46	243.32	10291.98	63.00	4.09	14.74 S	4.02 W	15.28@	195.25	0.37
10359.00	2.64	242.55	10355.92	64.00	6.63	16.03 S	6.55 W	17.32@	202.23	0.29
10445.00	2.55	240.51	10441.83	86.00	10.06	17.89 S	9.98 W	20.48@	209.15	0.15
STRAIGHT LINE PROJECTION TO BIT @ 10500' MD.										
10500.00	2.55	240.51	10496.78	55.00	12.19	19.09 S	12.11 W	22.61@	212.38	0.00

MS ENERGY SERVICE
ODESSA, TEXAS

JOB NUMBER: SVCO-100711

WELL NAME: BARGAIN BQA FEDERAL #1

INRUN SURVEY
BY MINIMUM CURVATURE

MEAS. DEPTH	VERT. DEPTH	VERT. SECT.	L/R PROP.	INCL	BEARING AZIMUTH	COORDINATES LATITUDE DEPARTURE	D-LEG /100	D-LEG /CL	STATION DISP.	DISPLACEMENT DIRECTION
0.0	0.00	0.00	0.000	00.00	000.00	0.00 N 0.00 E	0.00		0.00	AT 000.00
200.0	200.00	-0.06	0.432	00.25	007.64	0.43 N 0.06 E	0.13	0.25	0.44	AT 007.64
400.0	400.00	0.23	0.601	00.25	232.67	0.60 N 0.23 W	0.23	0.46	0.64	AT 338.96
600.0	599.94	1.66	-3.437	02.25	195.70	3.44 S 1.64 W	1.03	2.06	3.81	AT 205.47
800.0	799.73	3.82	-12.331	03.00	191.73	12.35 S 3.77 W	0.39	0.77	12.91	AT 196.96
1000.0	999.48	5.91	-22.143	02.75	191.76	22.17 S 5.81 W	0.13	0.25	22.92	AT 194.68
1200.0	1199.31	8.22	-30.070	02.00	201.79	30.11 S 8.08 W	0.43	0.85	31.17	AT 195.03
1400.0	1399.21	10.43	-35.764	01.50	199.82	35.81 S 10.27 W	0.25	0.50	37.25	AT 195.99
1600.0	1599.16	11.75	-40.362	01.25	190.93	40.42 S 11.57 W	0.16	0.33	42.04	AT 195.97
1800.0	1799.12	12.58	-43.746	00.75	197.96	43.80 S 12.38 W	0.26	0.51	45.52	AT 195.79
2000.0	1999.12	12.85	-45.402	00.25	160.99	45.46 S 12.65 W	0.29	0.57	47.19	AT 195.54
2200.0	2199.12	12.36	-46.080	00.25	127.02	46.14 S 12.15 W	0.07	0.15	47.71	AT 194.76
2400.0	2399.10	10.28	-46.536	01.00	096.05	46.58 S 10.07 W	0.40	0.80	47.66	AT 192.20
2600.0	2599.06	6.41	-46.283	01.25	077.98	46.31 S 6.20 W	0.22	0.43	46.72	AT 187.63
2800.0	2798.98	0.99	-44.654	02.00	069.90	44.66 S 0.79 W	0.39	0.78	44.66	AT 181.01
3000.0	2998.85	-6.08	-42.459	02.25	074.83	42.43 S 6.28 E	0.15	0.31	42.89	AT 171.59
3200.0	3198.67	-14.03	-40.102	02.50	071.75	40.04 S 14.21 E	0.14	0.28	42.48	AT 160.46
3400.0	3398.55	-20.55	-37.647	01.50	064.70	37.55 S 20.72 E	0.51	1.03	42.89	AT 151.12
3600.0	3598.37	-27.43	-33.098	03.25	052.38	32.97 S 27.58 E	0.91	1.81	42.98	AT 140.09
3800.0	3798.19	-33.38	-27.477	01.50	033.35	27.33 S 33.51 E	0.95	1.90	43.24	AT 129.20
4000.0	3998.17	-34.44	-25.109	00.25	295.29	24.95 S 34.55 E	0.78	1.55	42.62	AT 125.84
4200.0	4198.16	-33.88	-26.658	01.00	185.22	26.50 S 34.00 E	0.56	1.11	43.11	AT 127.94
4400.0	4398.14	-35.30	-29.117	01.00	114.18	28.96 S 35.43 E	0.58	1.16	45.76	AT 129.26
4600.0	4598.05	-40.56	-27.492	02.50	057.18	27.31 S 40.69 E	1.06	2.13	49.00	AT 123.87
4800.0	4797.91	-46.92	-23.686	01.75	061.22	23.47 S 47.03 E	0.38	0.76	52.56	AT 116.52
5000.0	4997.85	-51.21	-21.533	01.00	066.26	21.30 S 51.30 E	0.38	0.76	55.55	AT 112.55
5200.0	5197.83	-53.59	-20.449	00.50	063.30	20.21 S 53.68 E	0.25	0.50	57.36	AT 110.63
5400.0	5397.83	-54.74	-19.826	00.25	057.33	19.58 S 54.83 E	0.13	0.25	58.22	AT 109.65
5600.0	5597.83	-55.41	-19.277	00.25	043.43	19.03 S 55.50 E	0.03	0.06	58.67	AT 108.92
5800.0	5797.83	-55.29	-18.843	00.25	285.46	18.59 S 55.38 E	0.21	0.43	58.41	AT 108.56
6000.0	5997.83	-55.02	-18.314	00.25	019.50	18.06 S 55.10 E	0.18	0.37	57.99	AT 108.15
6200.0	6197.82	-55.11	-17.471	00.25	352.53	17.22 S 55.19 E	0.06	0.12	57.81	AT 107.33
6400.0	6397.82	-54.66	-16.262	00.50	332.56	16.01 S 54.73 E	0.14	0.28	57.03	AT 106.31
6600.0	6597.81	-53.83	-14.250	00.75	340.49	14.01 S 53.89 E	0.13	0.26	55.68	AT 104.57
6800.0	6797.80	-53.14	-12.181	00.50	342.42	11.94 S 53.19 E	0.13	0.25	54.51	AT 102.65
7000.0	6997.79	-52.60	-10.520	00.50	341.35	10.28 S 52.65 E	0.00	0.01	53.64	AT 101.05
7200.0	7197.78	-51.80	-8.491	00.75	336.28	8.26 S 51.84 E	0.13	0.26	52.50	AT 099.05
7400.0	7397.76	-50.81	-6.554	00.50	327.21	6.32 S 50.84 E	0.13	0.27	51.24	AT 097.09
7600.0	7597.76	-49.81	-5.129	00.50	321.97	4.90 S 49.83 E	0.02	0.05	50.07	AT 095.62
7800.0	7797.75	-48.51	-4.027	00.50	297.90	3.81 S 48.52 E	0.10	0.21	48.67	AT 094.49
8000.0	7997.74	-46.48	-3.252	00.75	285.83	3.04 S 46.49 E	0.14	0.28	46.59	AT 093.74
8200.0	8197.72	-44.38	-2.663	00.50	284.76	2.46 S 44.39 E	0.13	0.25	44.46	AT 093.17
8400.0	8397.71	-42.23	-2.438	00.75	269.69	2.25 S 42.24 E	0.15	0.30	42.30	AT 093.04
8600.0	8597.69	-39.20	-2.764	01.00	259.02	2.59 S 39.22 E	0.15	0.30	39.30	AT 093.77
8800.0	8797.67	-36.18	-3.166	00.75	266.35	3.00 S 36.20 E	0.14	0.27	36.32	AT 094.74
9000.0	8997.64	-33.19	-3.697	01.00	254.68	3.55 S 33.21 E	0.15	0.31	33.40	AT 096.10
9200.0	9197.58	-28.45	-4.243	01.75	268.01	4.11 S 28.47 E	0.41	0.81	28.77	AT 098.22
9400.0	9397.48	-21.93	-4.664	02.00	264.33	4.56 S 21.95 E	0.14	0.28	22.42	AT 101.75
9600.0	9597.37	-15.48	-5.693	01.75	256.49	5.62 S 15.50 E	0.18	0.36	16.49	AT 109.93
9800.0	9797.31	-10.77	-6.542	01.00	264.83	6.49 S 10.80 E	0.39	0.77	12.60	AT 121.02
10000.0	9997.26	-6.77	-8.024	01.50	239.15	7.99 S 6.81 E	0.37	0.74	10.50	AT 139.57

 * THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
 * ***** *
 *10000.00 FEET EQUALS 10.50 FEET AT 139.57 *

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NEW MEXICO
Rig: PATRIOT 5

Thu Aug 12 16:15:08 2010

Coordinates

Latitude: 32.375462 N (32 deg. 22 min. 31.6645 sec.)
Longitude: 103.558169 W (-103 deg. 33 min. 29.4102 sec.)
Elevation: 3581.50 feet.
Calculation Date: Aug/12/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.3514 degrees
Total Magnetic Field: 0.48793 gauss
Magnetic Declination: 7.693942 degrees
Horizontal Intensity: 0.241369 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.693942 Degr.

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 780647.8210 feet
Y: 501191.6670 feet
True to Grid: (convergence) -0.415092 degrees
Magnetic to Grid: 7.278850 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.278850 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Field
Calculations

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY
Rig: PATRIOT 5

Tue Aug 17 16:09:24 2010

Coordinates

Latitude: 32.375462 N (32 deg. 22 min. 31.6645 sec.)
Longitude: 103.558169 W (-103 deg. 33 min. 29.4102 sec.)
Elevation: 3581.50 feet.
Calculation Date: Aug/17/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.3511 degrees
Total Magnetic Field: 0.48792 gauss
Magnetic Declination: 7.692265 degrees
Horizontal Intensity: 0.241364 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.692265 Degs

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 780647.8210 feet
Y: 501191.6670 feet
True to Grid: (convergence) -0.415092 degrees
Magnetic to Grid: 7.277174 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.277174 Degs.



An Operating Unit of Smith International, Inc.

RECEIVED

MAR 22 2011

HOBBSOCD

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM

***BARGAIN BQA FEDERAL #1H -
HORIZONTAL***

LEA COUNTY, NEW MEXICO

SUR: J-22-22s-33e, 1980/S & 1980/E

BHL: J-21-22s-33e, 1857/S & 7569/E

API # 30-025-33341

PREPARED BY: FRANCISCO SINISTERRA

Pathfinder Energy Services, Inc.
6213 W. Interstate 20 • Midland, TX • 79706
(432) 681-6000

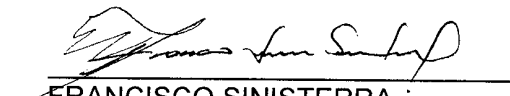
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) JAY FULTON
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 08-20-10 TO 09-11-10
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
BARGAIN "BQA" FEDERAL #1H - HORIZONTAL
EDDY COUNTY, NM
RIG: PATRIOT #5

9. SURVEY CERTIFIED FROM: 8982 TO 14929 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 5590.26 FEET ON A BEARING OF 268.74 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 15010 FEET,
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


FRANCISCO SINISTERRA
MWD COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 08/20/2010
Date Completed: 09/11/2010

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NM
Rig: PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: PRITHWISH DAS
BRENT ARMER
JAY FULTON

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.22.31.6645 N LON: 103.33.29.4102 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 780647.8210 Y: 501191.6670
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.28° EAST TO GRID
Vertical Section Plane: 269.74
Survey Vert. Reference: 26.50' Rotary Table To Ground
Altitude: 3555.00' Ground To MSL

Measured Depth	15010.00	(feet)
Inclination	94.79	(deg)
Azimuth	261.48	(deg)
True Vertical Depth	9517.19	(feet)
Vertical Section	5589.41	(feet)
Survey X cord	775058.89	(feet)
Survey Y cord	501068.56	(feet)
Survey Lat	32.37523397 N	(deg)
Survey Lon	103.57627436 W	(deg)
Rectangular Corr. N/S	123.10 S	(feet)
Rectangular Corr. E/W	5588.90 W	(feet)
Closure Distance	5590.26	(feet)
Direction of Closure	268.74	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NM
Rig: PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: PRITHWISH DAS
BRENT ARMER
JAY FULTON

Survey Calculations by RX5 V6.03A using Minimum Curvature

Page 01/04
Tie-in Date: 08/20/2010
Date Completed: 09/11/2010

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.22.31.6645 N LON: 103.33.29.4102 W
GRID Reference: NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 780647.8210 Y: 501191.6670
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.28° EAST TO GRID
Vertical Section Plane: 269.74
Survey Vert. Reference: 26.50' Rotary Table To Ground
Altitude: 3555.00' Ground To MSL

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
TIE-IN TO MS ENERGY SERVICES GYRO SURVEY @ 8800' MD.										
8800.00	0.75	266.35	8797.67	0.00	-36.19	3.00 S	36.20 E	36.32@	94.74	0.00
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
8982.00	1.93	268.76	8979.62	182.00	-31.93	3.14 S	31.95 E	32.10@	95.62	0.65
9077.00	1.76	273.03	9074.57	95.00	-28.88	3.10 S	28.89 E	29.06@	96.12	0.23
9141.00	6.33	257.33	9138.39	64.00	-24.45	3.82 S	24.46 E	24.76@	98.88	7.28
9173.00	10.46	265.28	9170.04	32.00	-19.83	4.45 S	19.85 E	20.34@	102.63	13.38
9205.00	14.33	269.99	9201.29	32.00	-12.97	4.69 S	12.99 E	13.81@	109.85	12.49
9237.00	17.50	271.84	9232.06	32.00	-4.20	4.53 S	4.22 E	6.19@	137.07	10.03
9269.00	20.58	273.50	9262.31	32.00	6.23	4.04 S	6.21 W	7.40@	236.97	9.77
9300.00	24.27	273.57	9290.96	31.00	18.02	3.31 S	18.01 W	18.31@	259.60	11.90
9332.00	27.35	273.87	9319.76	32.00	31.92	2.40 S	31.91 W	32.00@	265.70	9.63
9364.00	29.90	273.83	9347.85	32.00	47.21	1.37 S	47.20 W	47.22@	268.34	7.97
9396.00	32.89	273.47	9375.16	32.00	63.84	0.31 S	63.84 W	63.84@	269.72	9.36
9427.00	35.70	272.85	9400.77	31.00	81.27	0.65 N	81.28 W	81.28@	270.46	9.13
9458.00	38.25	271.79	9425.53	31.00	99.90	1.40 N	99.91 W	99.92@	270.80	8.48
9490.00	41.50	270.83	9450.09	32.00	120.40	1.86 N	120.41 W	120.43@	270.88	10.34
9522.00	45.55	270.31	9473.29	32.00	142.43	2.07 N	142.44 W	142.46@	270.83	12.70
9554.00	49.07	270.80	9494.98	32.00	165.95	2.31 N	165.96 W	165.98@	270.80	11.06
9585.00	53.20	271.17	9514.43	31.00	190.08	2.72 N	190.09 W	190.11@	270.82	13.35
9617.00	57.33	270.58	9532.66	32.00	216.36	3.12 N	216.38 W	216.40@	270.83	12.99
9649.00	61.11	270.49	9549.03	32.00	243.85	3.38 N	243.86 W	243.89@	270.79	11.81
9680.00	65.86	270.27	9562.87	31.00	271.58	3.56 N	271.59 W	271.62@	270.75	15.34
9712.00	71.23	270.70	9574.57	32.00	301.34	3.81 N	301.37 W	301.39@	270.73	16.83
9758.00	79.32	270.69	9586.25	46.00	345.79	4.35 N	345.81 W	345.84@	270.72	17.59
9789.00	85.30	269.54	9590.40	31.00	376.50	4.41 N	376.52 W	376.55@	270.67	19.64
9821.00	87.76	268.11	9592.33	32.00	408.43	3.76 N	408.45 W	408.47@	270.53	8.89

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NM
RIG:PATRIOT 5

Page 02/04

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
9853.00	87.93	268.18	9593.54	32.00	440.40	2.72 N	440.41 W	440.42@	270.35	0.57
9948.00	90.66	269.37	9594.70	95.00	535.36	0.69 N	535.37 W	535.37@	270.07	3.13
10043.00	90.48	269.42	9593.76	95.00	630.36	0.31 S	630.36 W	630.36@	269.97	0.20
10138.00	90.75	269.07	9592.74	95.00	725.35	1.56 S	725.35 W	725.35@	269.88	0.46
10233.00	91.89	268.97	9590.55	95.00	820.31	3.19 S	820.31 W	820.31@	269.78	1.20
10328.00	91.28	268.79	9587.92	95.00	915.27	5.04 S	915.25 W	915.27@	269.68	0.67
10424.00	91.01	269.36	9586.01	96.00	1011.24	6.59 S	1011.22 W	1011.24@	269.63	0.66
10519.00	90.13	268.69	9585.06	95.00	1106.23	8.21 S	1106.20 W	1106.23@	269.57	1.16
10614.00	90.75	268.99	9584.33	95.00	1201.21	10.13 S	1201.18 W	1201.22@	269.52	0.72
10709.00	90.31	268.49	9583.45	95.00	1296.19	12.22 S	1296.15 W	1296.21@	269.46	0.70
10804.00	89.87	268.33	9583.30	95.00	1391.17	14.86 S	1391.11 W	1391.19@	269.39	0.49
10899.00	89.87	267.99	9583.52	95.00	1486.13	17.91 S	1486.06 W	1486.17@	269.31	0.36
10994.00	89.87	268.24	9583.73	95.00	1581.09	21.03 S	1581.01 W	1581.15@	269.24	0.26
11089.00	89.60	267.56	9584.17	95.00	1676.04	24.51 S	1675.95 W	1676.13@	269.16	0.77
11184.00	89.78	268.68	9584.69	95.00	1771.00	27.63 S	1770.89 W	1771.11@	269.11	1.19
11274.00	89.69	269.43	9585.10	90.00	1860.99	29.12 S	1860.88 W	1861.11@	269.10	0.84
11369.00	89.25	270.12	9585.98	95.00	1955.99	29.49 S	1955.87 W	1956.10@	269.14	0.86
11464.00	90.13	270.33	9586.50	95.00	2050.98	29.12 S	2050.87 W	2051.08@	269.19	0.95
11559.00	89.43	270.88	9586.86	95.00	2145.97	28.11 S	2145.86 W	2146.05@	269.25	0.94
11654.00	91.89	270.85	9585.77	95.00	2240.94	26.68 S	2240.84 W	2241.00@	269.32	2.59
11701.00	91.89	270.74	9584.22	47.00	2287.90	26.03 S	2287.81 W	2287.96@	269.35	0.23
11750.00	91.63	271.72	9582.71	49.00	2336.86	24.98 S	2336.77 W	2336.91@	269.39	2.07
11845.00	92.51	271.43	9579.28	95.00	2431.75	22.37 S	2431.68 W	2431.78@	269.47	0.97
11896.00	92.24	270.75	9577.17	51.00	2482.69	21.40 S	2482.62 W	2482.71@	269.51	1.43
11967.00	89.60	266.64	9576.03	71.00	2553.65	23.01 S	2553.57 W	2553.68@	269.48	6.88
12062.00	90.66	266.71	9575.81	95.00	2648.51	28.52 S	2648.41 W	2648.57@	269.38	1.12
12157.00	90.40	266.84	9574.93	95.00	2743.38	33.87 S	2743.26 W	2743.47@	269.29	0.31
12252.00	91.10	266.67	9573.69	95.00	2838.25	39.24 S	2838.10 W	2838.37@	269.21	0.76
12347.00	90.84	267.34	9572.08	95.00	2933.12	44.21 S	2932.95 W	2933.28@	269.14	0.76

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NM
RIG: PATRIOT 5

Page 03/04

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
12379.00	91.80	268.50	9571.34	32.00	2965.10	45.37 S	2964.92 W	2965.27@	269.12	4.70
12412.00	91.80	269.45	9570.31	33.00	2998.08	45.96 S	2997.90 W	2998.25@	269.12	2.88
12458.00	91.54	269.42	9568.97	46.00	3044.06	46.41 S	3043.88 W	3044.23@	269.13	0.57
12507.00	91.28	269.55	9567.76	49.00	3093.04	46.85 S	3092.86 W	3093.22@	269.13	0.59
12557.00	89.78	271.80	9567.30	50.00	3143.03	46.26 S	3142.85 W	3143.19@	269.16	5.41
12603.00	89.25	272.55	9567.69	46.00	3188.98	44.52 S	3188.81 W	3189.13@	269.20	2.00
12698.00	89.08	273.99	9569.07	95.00	3283.79	39.10 S	3283.65 W	3283.88@	269.32	1.53
12793.00	91.19	273.68	9568.85	95.00	3378.54	32.75 S	3378.43 W	3378.59@	269.44	2.24
12888.00	91.60	270.76	9566.53	95.00	3473.42	29.07 S	3473.32 W	3473.44@	269.52	3.10
12984.00	88.90	267.65	9566.12	96.00	3569.39	30.40 S	3569.29 W	3569.42@	269.51	4.29
13079.00	92.59	265.36	9564.88	95.00	3664.21	36.19 S	3664.08 W	3664.26@	269.43	4.57
13174.00	94.18	270.19	9559.27	95.00	3758.95	39.87 S	3758.81 W	3759.02@	269.39	5.34
13269.00	88.72	269.25	9556.86	95.00	3853.89	40.34 S	3853.74 W	3853.96@	269.40	5.83
13364.00	89.96	272.32	9557.96	95.00	3948.85	39.04 S	3948.72 W	3948.91@	269.43	3.49
13459.00	91.28	270.76	9556.93	95.00	4043.79	36.48 S	4043.67 W	4043.84@	269.48	2.15
13555.00	92.33	271.06	9553.91	96.00	4139.73	34.96 S	4139.61 W	4139.76@	269.52	1.14
13650.00	93.83	270.57	9548.80	95.00	4234.57	33.61 S	4234.46 W	4234.59@	269.55	1.66
13746.00	93.30	268.65	9542.83	96.00	4330.38	34.26 S	4330.27 W	4330.40@	269.55	2.07
13841.00	92.95	267.35	9537.65	95.00	4425.19	37.57 S	4425.07 W	4425.23@	269.51	1.41
13910.00	91.45	268.32	9535.01	69.00	4494.10	40.18 S	4493.96 W	4494.14@	269.49	2.59
14004.00	89.43	269.47	9534.28	94.00	4588.08	41.99 S	4587.94 W	4588.13@	269.48	2.47
14100.00	88.72	267.95	9535.83	96.00	4684.05	44.15 S	4683.90 W	4684.10@	269.46	1.75
14195.00	88.29	267.75	9538.31	95.00	4778.96	47.71 S	4778.80 W	4779.03@	269.43	0.50
14290.00	90.04	268.02	9539.70	95.00	4873.90	51.22 S	4873.72 W	4873.99@	269.40	1.86
14385.00	91.01	266.98	9538.83	95.00	4968.82	55.36 S	4968.62 W	4968.93@	269.36	1.50
14481.00	92.51	266.51	9535.88	96.00	5064.64	60.81 S	5064.42 W	5064.78@	269.31	1.64
14576.00	90.57	265.63	9533.32	95.00	5159.41	67.32 S	5159.15 W	5159.59@	269.25	2.24
14671.00	89.78	263.35	9533.03	95.00	5254.00	76.44 S	5253.71 W	5254.26@	269.17	2.54
14766.00	91.10	262.23	9532.30	95.00	5348.30	88.36 S	5347.95 W	5348.68@	269.05	1.82

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NM
RIG: PATRIOT 5

Page 04/04

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
14810.00	90.75	262.55	9531.59	44.00	5391.93	94.19 S	5391.56 W	5392.38@	269.00	1.08
14834.00	93.39	261.89	9530.73	24.00	5415.71	97.43 S	5415.32 W	5416.20@	268.97	11.34
14929.00	94.79	261.48	9523.95	95.00	5509.53	111.14 S	5509.08 W	5510.20@	268.84	1.54
STRAIGHT-LINE PROJECTION TO BIT @ 15010' MD (9517.19' TVD).										
15010.00	94.79	261.48	9517.19	81.00	5589.41	123.10 S	5588.90 W	5590.26@	268.74	0.00

PATHFINDER

ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM CORPORATION		
LEASE / WELL No.:	BARGAIN "BQA" FEDERAL	1H	
WELL LOCATION:	LEA COUNTY		
COUNTY / STATE / COUNTRY:	LEA	NEW MEXICO	USA
RIG:	PATRIOT 5		
API WELL No:	30-025-33341		
JOB No:	101011198 WT-WT		
P.O. / AFE No.	101650		
DIRECTIONAL COMPANY:	PATHFINDER ENERGY		

WELL SITE INFORMATION

MAGNETIC DECLINATION:			
On Wall Plat:	7.27	LWD Calculated:	7.28
		Agreed Upon:	7.28
X =	780647.821000	Feet	Y = 501191.667000
			Feet
SITE LATITUDE:	32.375462 N	SITE LONGITUDE:	103.558169 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	New Mexico East
PROPOSED DRIFT DIRECTION:	269.74		
KELLY BUSHING ELEVATION:	26.5		
ALTITUDE:	3555	Feet	WATER DEPTH:
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	8800		
DRIFT ANGLE:	0.75		
DRIFT DIRECTION:	266.35		
TRUE VERTICAL DEPTH:	8797.67		
VERTICAL SECTION:	-36.18		
RECTANGULAR COORDINATE (N / S):	-3		
RECTANGULAR COORDINATE (E / W):	36.2		
CLOSURE DISTANCE / DIRECTION:	36.32	94.74	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	MS ENERGY SERVICE		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH:	9137	TOTAL DEPTH:	15033
KICKOFF ANGLE:	1.61	MAX ANGLE:	90.56

PES Engineers:

JAY FULTON

BRENT ARMER

**Signature of both field engineers required if applicable

Directional Driller: IRBY LEJEUNE

DATE: 20-Aug-2010



CUSTOMER: YATES PETROLEUM

JOB NUMBER: SVCO-100711

WELL NAME: BARGAIN BQA FEDERAL #1

LOCATION: LEA COUNTY, NEW MEXICO

SURVEY DATE: 8/17/2010

SURVEYOR: S. SMITH

VERTICAL SEC: 269.74

DECLINATION: 7.27

COMMENTS: PATRIOT 5

RKB 27'

MIKEL@YATESPETROLEUM.COM

TBUSSELL@YATESPETROLEUM.COM

SUR: J-22-22s-33e, 1980/S & 1980/E

BHL: J-21-22s-33e, 1857/S & 7569/E

API # 30-025-33341

MEASURED DEPTH	VERTICAL DEPTH	VERTICAL SECTION	INCLINATION ANGLE	BEARING AZIMUTH	COORDINATES		DOG-LEG PER 100	STATION DISPLACEMENT	DISPLACEMENT DIRECTION
					LATITUDE	DEPARTURE			
0	0	0	0	0	0	0	0	0	0
200	200	-0.06	0.25	7.64	0.43	0.06	0.13	0.44	7.64
400	400	0.23	0.25	232.67	0.6	-0.23	0.23	0.64	338.96
600	599.94	1.66	2.25	195.7	-3.44	-1.64	1.03	3.81	205.47
800	799.73	3.82	3	191.73	-12.35	-3.77	0.39	12.91	196.96
1000	999.48	5.91	2.75	191.76	-22.17	-5.81	0.13	22.92	194.68
1200	1199.31	8.22	2	201.79	-30.11	-8.08	0.43	31.17	195.03
1400	1399.21	10.43	1.5	199.82	-35.81	-10.27	0.25	37.25	195.99
1600	1599.16	11.75	1.25	190.93	-40.42	-11.57	0.16	42.04	195.97
1800	1799.12	12.58	0.75	197.96	-43.8	-12.38	0.26	45.52	195.79
2000	1999.12	12.85	0.25	160.99	-45.46	-12.65	0.29	47.19	195.54
2200	2199.12	12.36	0.25	127.02	-46.14	-12.15	0.07	47.71	194.76
2400	2399.1	10.28	1	96.05	-46.58	-10.07	0.4	47.66	192.2
2600	2599.06	6.41	1.25	77.98	-46.31	-6.2	0.22	46.72	187.63
2800	2798.98	0.99	2	69.9	-44.66	-0.79	0.39	44.66	181.01
3000	2998.85	-6.06	2.25	74.83	-42.43	6.28	0.15	42.89	171.59
3200	3198.67	-14.03	2.5	71.75	-40.04	14.21	0.14	42.48	160.46
3400	3398.55	-20.55	1.5	64.7	-37.55	20.72	0.51	42.89	151.12
3600	3598.37	-27.43	3.25	52.38	-32.97	27.58	0.91	42.98	140.09
3800	3798.19	-33.38	1.5	33.35	-27.33	33.51	0.95	43.24	129.2
4000	3998.17	-34.44	0.25	295.29	-24.95	34.55	0.78	42.62	125.84
4200	4198.16	-33.88	1	185.22	-26.5	34	0.56	43.11	127.94
4400	4398.14	-35.3	1	114.18	-28.96	35.43	0.58	45.76	129.26
4600	4598.05	-40.56	2.5	57.18	-27.31	40.69	1.06	49	123.87
4800	4797.91	-46.92	1.75	81.22	-23.47	47.03	0.38	52.56	116.52
5000	4997.85	-51.21	1	66.26	-21.3	51.3	0.38	55.55	112.55
5200	5197.83	-53.59	0.5	63.3	-20.21	53.68	0.25	57.36	110.63
5400	5397.83	-54.74	0.25	57.33	-19.58	54.83	0.13	58.22	109.65
5600	5597.83	-55.41	0.25	43.43	-19.03	55.5	0.03	58.67	108.92
5800	5797.83	-55.29	0.25	285.46	-18.59	55.38	0.21	58.41	108.56
6000	5997.83	-55.02	0.25	19.5	-18.06	55.1	0.18	57.99	108.15
6200	6197.82	-55.11	0.25	352.53	-17.22	55.19	0.06	57.81	107.33
6400	6397.82	-54.66	0.5	332.56	-16.01	54.73	0.14	57.03	106.31
6600	6597.81	-53.83	0.75	340.49	-14.01	53.89	0.13	55.68	104.57
6800	6797.8	-53.14	0.5	342.42	-11.94	53.19	0.13	54.51	102.65
7000	6997.79	-52.6	0.5	341.35	-10.28	52.65	0	53.64	101.05
7200	7197.78	-51.8	0.75	336.28	-8.26	51.84	0.13	52.5	99.05
7400	7397.76	-50.81	0.5	327.21	-6.32	50.84	0.13	51.24	97.09
7600	7597.76	-49.81	0.5	321.97	-4.9	49.83	0.02	50.07	95.62
7800	7797.75	-48.51	0.5	297.9	-3.81	48.52	0.1	48.67	94.49
8000	7997.74	-46.48	0.75	285.83	-3.04	46.49	0.14	46.59	93.74
8200	8197.72	-44.38	0.5	284.76	-2.46	44.39	0.13	44.46	93.17
8400	8397.71	-42.23	0.75	269.69	-2.25	42.24	0.15	42.3	93.04
8600	8597.69	-39.2	1	259.02	-2.59	39.22	0.15	39.3	93.77
8800	8797.67	-36.18	0.75	266.35	-3	36.2	0.14	36.32	94.74
9000	8997.64	-33.19	1	254.68	-3.55	33.21	0.15	33.4	96.1
9200	9197.58	-28.45	1.75	268.01	-4.11	28.47	0.41	28.77	98.22
9400	9397.48	-21.93	2	264.33	-4.56	21.95	0.14	22.42	101.75
9600	9597.37	-15.48	1.75	256.49	-5.62	15.5	0.18	16.49	109.93
9800	9797.31	-10.77	1	264.83	-6.49	10.8	0.39	12.6	121.02
10000	9997.26	-6.77	1.5	239.15	-7.99	6.81	0.37	10.5	139.57

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY, NEW MEXICO
Rig: PATRIOT 5

Thu Aug 12 16:15:08 2010

Coordinates

Latitude: 32.375462 N (32 deg. 22 min. 31.6645 sec.)
Longitude: 103.558169 W (-103 deg. 33 min. 29.4102 sec.)
Elevation: 3581.50 feet.
Calculation Date: Aug/12/2010

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.3514 degrees
Total Magnetic Field: 0.48793 gauss
Magnetic Declination: 7.693942 degrees
Horizontal Intensity: 0.241369 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.693942 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 780647.8210 feet
Y: 501191.6670 feet
True to Grid: (convergence) -0.415092 degrees
Magnetic to Grid: 7.278850 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.278850 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Field
Calculations

YATES PETROLEUM CORPORATION
BARGAIN "BQA" FEDERAL #1H
LEA COUNTY
Rig: PATRIOT 5

Tue Aug 17 16:09:24 2010

Coordinates

Latitude: 32.375462 N (32 deg. 22 min. 31.6645 sec.)
Longitude: 103.558169 W (-103 deg. 33 min. 29.4102 sec.)
Elevation: 3581.50 feet.
Calculation Date: Aug/17/2010

Magnetic Calculations

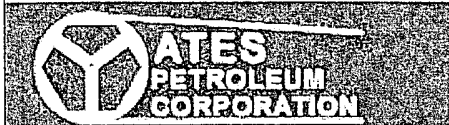
Model: IGRF2010
Dip Angle: 60.3511 degrees
Total Magnetic Field: 0.48792 gauss
Magnetic Declination: 7.692265 degrees
Horizontal Intensity: 0.241364 gauss

To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.692265 Degr.

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 780647.8210 feet
Y: 501191.6670 feet
True to Grid: (convergence) -0.415092 degrees
Magnetic to Grid: 7.277174 degrees

To Convert a Magnetic Dir. to a GRID dir. Add 7.277174 Degr.



Project: Eddy County
 Site: Bargain "BQA" Federa
 Well: #1H
 Wellbore: OH
 Plan: Plan #2 (#1H/OH)



Azimuths to Grid North
 True North: -0.41°
 Magnetic North: 7.27°
 Magnetic Field
 Strength: 48783.8snT
 Dip Angle: 60.35°
 Date: 09/15/2010
 Model: IGRF2010

RECEIVED

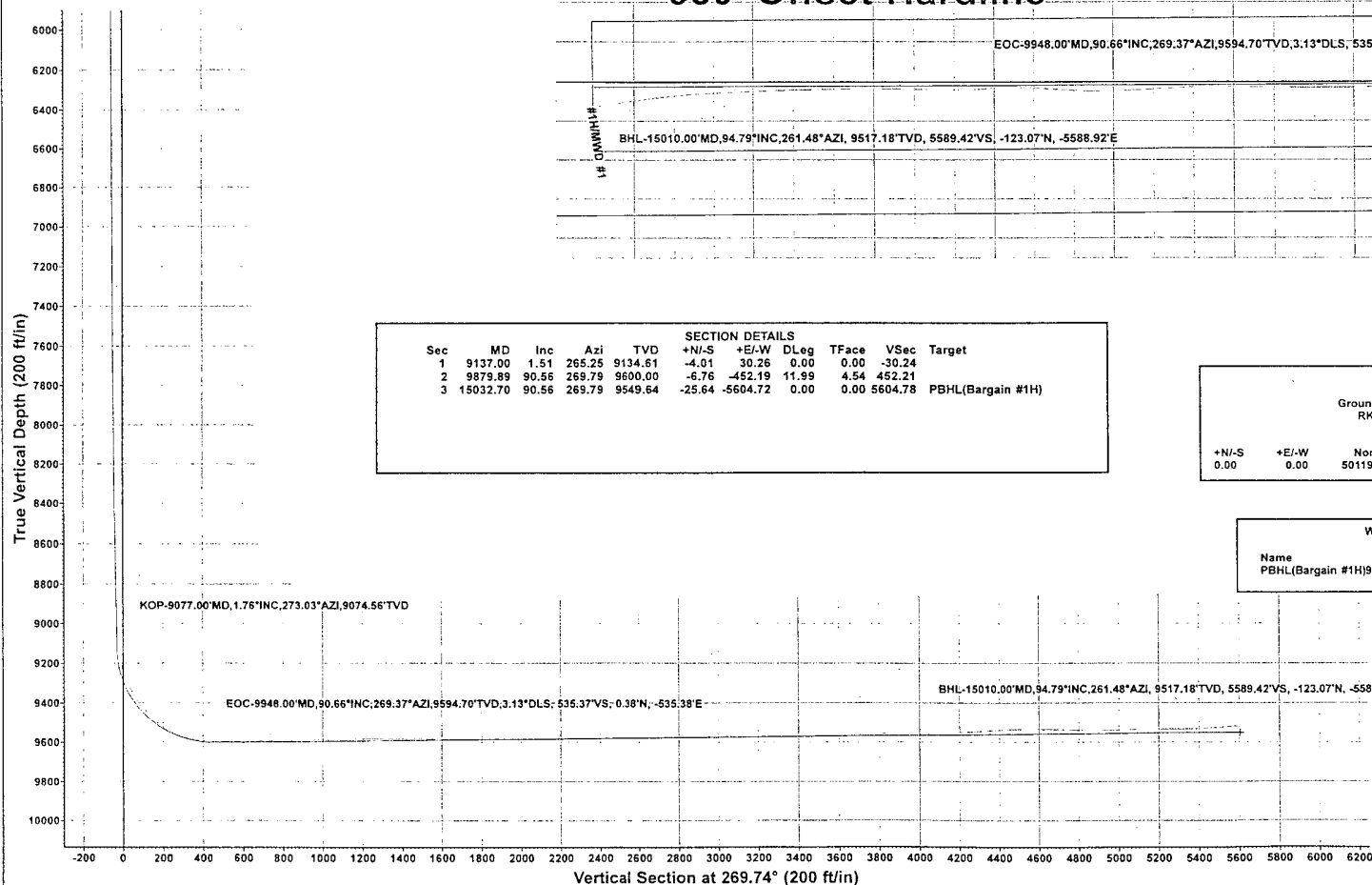
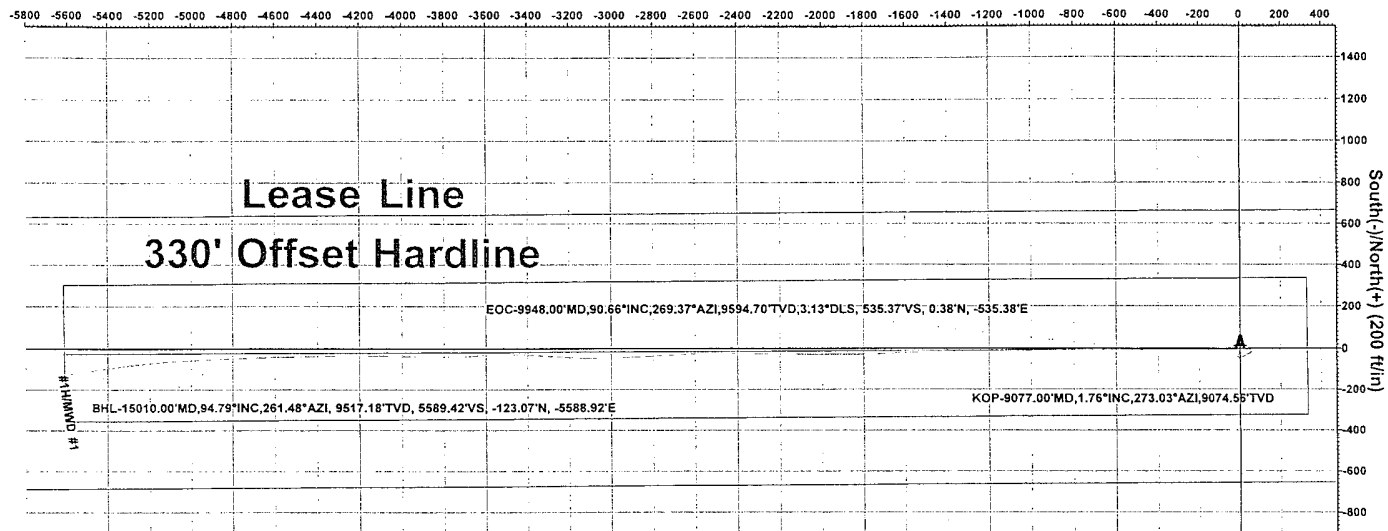
MAR 22 2011

HOBBSD

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



Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	9137.00	1.51	265.25	9134.61	-4.01	30.26	0.00	0.00	-30.24	
2	9879.89	90.56	269.79	9600.00	-6.76	-452.19	11.99	4.54	452.21	
3	15032.70	90.56	269.79	9549.64	-25.64	-5604.72	0.00	0.00	5604.78	PBHL(Bargain #1H)

WELL DETAILS: #1H						
Ground Elevation: 3555.00						
RKB Elevation: WELL @ 3581.50ft (26.5' KB Correction)						
Rig Name: 26.5' KB Correction						
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	501191.667	780647.821	32° 22' 31.665 N	103° 33' 29.410 W	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape Point
PBHL(Bargain #1H)	9550.00	-25.83	-5604.72	501165.835	775043.105	

Plan: Plan #2 (#1H/OH)
 Created By: Nate Bingham Date: 13:58, September 13 2010
 Checked: _____ Date: _____



Yates Petroleum Corp.

Eddy County
Bargain "BQA" Federal
#1H
OH

Survey: MWD #1

SUR: J-22-22s-33e, 1980/S & 1980/E
BHL: J-21-22s-33e, 1857/S & 7569/E
API # 30-025-33341

Pathfinder X & Y Survey Report

13 September, 2010



A Schlumberger Company



Pathfinder Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Bargain "BQA" Federal
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3581.50ft (26.5' KB Correction)
MD Reference: WELL @ 3581.50ft (26.5' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

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	Bargain "BQA" Federal		
Site Position:		Northing:	501,191.667 ft
From: Map		Easting:	780,647.821 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 22' 31.665 N
		Longitude:	103° 33' 29.410 W
		Grid Convergence:	0.42 °

Well	#1H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 22' 31.665 N
		Longitude:	103° 33' 29.410 W
		Ground Level:	3,555.00ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	09/15/2010	(°)
			7.68
			Dip Angle
			(°)
			60.35
			Field Strength
			(nT)
			48,784

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			269.74



Pathfinder

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Bargain "BQA" Federal
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3581.50ft (26.5' KB Correction)
MD Reference: WELL @ 3581.50ft (26.5' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey Program Date 09/13/2010

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
200.00	10,000.00	Pilot Hole (OH)	CB-GYRO-MS	Camera based gyro multishot
10,105.00	15,010.00	MWD #1 (OH)	MWD	MWD - Standard

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
8,800.00	0.75	266.35	8,797.67	5,216.17	-3.00	36.20	-36.18	0.00	501,188.66	780,684.02
8,982.00	1.93	268.76	8,979.61	5,398.11	-3.14	31.94	-31.93	0.65	501,188.52	780,679.76
9,077.00	1.76	273.03	9,074.56	5,493.06	-3.10	28.89	-28.87	0.23	501,188.57	780,676.71
KOP-9077.00°MD,1.76°INC,273.03°AZI,9074.56°TVD										
9,141.00	6.33	257.33	9,138.39	5,556.89	-3.82	24.46	-24.44	7.28	501,187.84	780,672.28
9,173.00	10.46	265.28	9,170.04	5,588.54	-4.45	19.84	-19.82	13.38	501,187.22	780,667.66
9,205.00	14.33	269.99	9,201.29	5,619.79	-4.69	12.98	-12.96	12.49	501,186.98	780,660.81
9,237.00	17.50	271.84	9,232.06	5,650.56	-4.54	4.21	-4.19	10.03	501,187.13	780,652.03
9,269.00	20.58	273.50	9,262.30	5,680.80	-4.04	-6.21	6.23	9.77	501,187.63	780,641.61
9,300.00	24.27	273.57	9,290.95	5,709.45	-3.31	-18.01	18.03	11.90	501,188.36	780,629.81
9,332.00	27.35	273.87	9,319.76	5,738.26	-2.40	-31.91	31.92	9.63	501,189.26	780,615.91
9,364.00	29.90	273.83	9,347.85	5,766.35	-1.37	-47.21	47.21	7.97	501,190.29	780,600.61
9,396.00	32.89	273.47	9,375.16	5,793.66	-0.31	-63.84	63.84	9.36	501,191.35	780,583.98
9,427.00	35.70	272.85	9,400.77	5,819.27	0.64	-81.28	81.28	9.13	501,192.31	780,566.54
9,458.00	38.25	271.79	9,425.53	5,844.03	1.39	-99.91	99.90	8.48	501,193.06	780,547.91
9,490.00	41.50	270.83	9,450.08	5,868.58	1.86	-120.42	120.41	10.34	501,193.52	780,527.40
9,522.00	45.55	270.31	9,473.28	5,891.78	2.07	-142.45	142.44	12.71	501,193.74	780,505.37
9,554.00	49.07	270.80	9,494.98	5,913.48	2.30	-165.96	165.95	11.06	501,193.97	780,481.86
9,585.00	53.20	271.17	9,514.42	5,932.92	2.72	-190.09	190.08	13.35	501,194.39	780,457.73
9,617.00	57.33	270.58	9,532.65	5,951.15	3.12	-216.38	216.37	12.99	501,194.79	780,431.44
9,649.00	61.11	270.49	9,549.03	5,967.53	3.37	-243.87	243.85	11.81	501,195.04	780,403.95



Pathfinder

Pathfinder X & Y Survey Report

PATHFINDER
A Schlumberger Company

Company: Yates Petroleum Corp.
Project: Eddy County
Site: Bargain "BQA" Federal
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3581.50ft (26.5' KB Correction)
MD Reference: WELL @ 3581.50ft (26.5' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
9,680.00	65.86	270.27	9,562.86	5,981.36	3.56	-271.60	271.58	15.34	501,195.22	780,376.22
9,712.00	71.23	270.22	9,574.56	5,993.06	3.68	-301.37	301.35	16.78	501,195.35	780,346.45
9,758.00	79.32	270.69	9,586.24	6,004.74	4.04	-345.82	345.80	17.61	501,195.71	780,302.00
9,789.00	85.30	269.54	9,590.39	6,008.89	4.10	-376.53	376.51	19.64	501,195.77	780,271.29
9,821.00	87.76	268.11	9,592.33	6,010.83	3.45	-408.46	408.44	8.89	501,195.11	780,239.36
9,853.00	87.93	268.18	9,593.53	6,012.03	2.41	-440.42	440.40	0.57	501,194.08	780,207.40
9,948.00	90.66	269.37	9,594.70	6,013.20	0.38	-535.38	535.37	3.13	501,192.05	780,112.44
EOC-9948.00°MD,90.66°INC,269.37°AZI,9594.70°TVD,3.13°DLS, 535.37°VS, 0.38°N, -535.38°E										
10,043.00	90.48	269.42	9,593.75	6,012.25	-0.62	-630.37	630.37	0.20	501,191.04	780,017.45
10,138.00	90.75	269.07	9,592.74	6,011.24	-1.88	-725.36	725.36	0.47	501,189.79	779,922.47
10,233.00	91.89	268.97	9,590.55	6,009.05	-3.50	-820.32	820.32	1.20	501,188.17	779,827.51
10,328.00	91.28	268.79	9,587.92	6,006.42	-5.36	-915.26	915.28	0.67	501,186.31	779,732.56
10,424.00	91.01	269.36	9,586.00	6,004.50	-6.91	-1,011.23	1,011.25	0.66	501,184.76	779,636.59
10,519.00	90.13	268.89	9,585.06	6,003.56	-8.36	-1,106.21	1,106.24	1.05	501,183.31	779,541.61
10,614.00	90.75	268.99	9,584.33	6,002.83	-10.11	-1,201.19	1,201.23	0.66	501,181.55	779,446.63
10,709.00	90.31	268.49	9,583.45	6,001.95	-12.20	-1,296.16	1,296.21	0.70	501,179.46	779,351.66
10,804.00	89.87	268.33	9,583.30	6,001.80	-14.84	-1,391.13	1,391.18	0.49	501,176.83	779,256.69
10,899.00	89.87	267.99	9,583.51	6,002.01	-17.89	-1,486.08	1,486.14	0.36	501,173.78	779,161.74
10,994.00	89.87	268.24	9,583.73	6,002.23	-21.01	-1,581.03	1,581.11	0.26	501,170.65	779,066.80
11,089.00	89.60	267.56	9,584.17	6,002.67	-24.49	-1,675.96	1,676.05	0.77	501,167.17	778,971.86
11,184.00	89.78	268.68	9,584.68	6,003.18	-27.61	-1,770.91	1,771.01	1.19	501,164.06	778,876.91
11,274.00	89.69	269.43	9,585.10	6,003.60	-29.10	-1,860.89	1,861.01	0.84	501,162.57	778,786.93
11,369.00	89.25	270.12	9,585.98	6,004.48	-29.47	-1,955.89	1,956.00	0.86	501,162.20	778,691.93
11,464.00	90.13	270.33	9,586.49	6,004.99	-29.10	-2,050.88	2,050.99	0.95	501,162.57	778,596.94
11,559.00	89.43	270.88	9,586.86	6,005.36	-28.09	-2,145.88	2,145.98	0.94	501,163.57	778,501.94
11,654.00	91.89	270.85	9,585.76	6,004.26	-26.66	-2,240.85	2,240.95	2.59	501,165.01	778,406.97
11,701.00	91.89	270.74	9,584.21	6,002.71	-26.01	-2,287.82	2,287.92	0.23	501,165.66	778,360.00



Pathfinder

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
 Project: Eddy County
 Site: Bargain "BQA" Federal
 Well: #1H
 Wellbore: OH
 Design: OH

Local Co-ordinate Reference: Well #1H
 TVD Reference: WELL @ 3581.50ft (26.5' KB Correction)
 MD Reference: WELL @ 3581.50ft (26.5' KB Correction)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
11,750.00	91.63	271.72	9,582.71	6,001.21	-24.95	-2,336.79	2,336.88	2.07	501,166.71	778,311.03
11,845.00	92.51	271.43	9,579.28	5,997.78	-22.35	-2,431.69	2,431.76	0.98	501,169.32	778,216.13
11,896.00	92.24	270.75	9,577.16	5,995.66	-21.38	-2,482.64	2,482.71	1.43	501,170.29	778,165.19
11,967.00	89.60	266.64	9,576.02	5,994.52	-22.99	-2,553.59	2,553.66	6.88	501,168.67	778,094.23
12,062.00	90.66	266.71	9,575.81	5,994.31	-28.50	-2,648.42	2,648.53	1.12	501,163.16	777,999.40
12,157.00	90.40	266.84	9,574.93	5,993.43	-33.85	-2,743.27	2,743.40	0.31	501,157.82	777,904.55
12,252.00	91.10	266.67	9,573.68	5,992.18	-39.22	-2,838.11	2,838.26	0.76	501,152.44	777,809.71
12,347.00	90.84	267.34	9,572.08	5,990.58	-44.19	-2,932.96	2,933.14	0.76	501,147.48	777,714.86
12,379.00	91.80	268.50	9,571.34	5,989.84	-45.35	-2,964.93	2,965.11	4.70	501,146.32	777,682.89
12,412.00	91.80	269.45	9,570.30	5,988.80	-45.94	-2,997.91	2,998.09	2.88	501,145.73	777,649.91
12,458.00	91.54	269.42	9,568.96	5,987.46	-46.39	-3,043.89	3,044.07	0.57	501,145.27	777,603.93
12,507.00	91.28	269.55	9,567.76	5,986.26	-46.83	-3,092.87	3,093.05	0.59	501,144.83	777,554.95
12,557.00	89.78	271.80	9,567.29	5,985.79	-46.24	-3,142.86	3,143.04	5.41	501,145.42	777,504.96
12,603.00	89.25	272.55	9,567.68	5,986.18	-44.50	-3,188.83	3,189.00	2.00	501,147.17	777,458.99
12,698.00	89.08	273.99	9,569.07	5,987.57	-39.08	-3,283.66	3,283.80	1.53	501,152.59	777,364.16
12,793.00	91.19	273.68	9,568.84	5,987.34	-32.73	-3,378.44	3,378.56	2.24	501,158.94	777,269.38
12,888.00	91.60	270.76	9,566.53	5,985.03	-29.05	-3,473.33	3,473.43	3.10	501,162.62	777,174.49
12,984.00	88.90	267.65	9,566.11	5,984.61	-30.38	-3,569.30	3,569.40	4.29	501,161.29	777,078.52
13,079.00	92.59	265.36	9,564.88	5,983.38	-36.17	-3,664.09	3,664.22	4.57	501,155.50	776,983.73
13,174.00	94.18	270.19	9,559.26	5,977.76	-39.85	-3,758.83	3,758.97	5.34	501,151.82	776,889.00
13,269.00	88.72	269.25	9,556.86	5,975.36	-40.32	-3,853.76	3,853.90	5.83	501,151.35	776,794.06
13,364.00	89.96	272.32	9,557.95	5,976.45	-39.01	-3,948.73	3,948.87	3.48	501,152.65	776,699.09
13,459.00	91.28	270.76	9,556.93	5,975.43	-36.46	-4,043.68	4,043.81	2.15	501,155.21	776,604.14
13,555.00	92.33	271.06	9,553.90	5,972.40	-34.94	-4,139.62	4,139.74	1.14	501,156.73	776,508.20
13,650.00	93.83	270.57	9,548.80	5,967.30	-33.59	-4,234.47	4,234.58	1.66	501,158.08	776,413.35
13,746.00	93.30	268.65	9,542.83	5,961.33	-34.24	-4,330.28	4,330.39	2.07	501,157.43	776,317.54
13,841.00	92.95	267.35	9,537.65	5,956.15	-37.55	-4,425.08	4,425.20	1.42	501,154.12	776,222.74



Pathfinder

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Bargain "BQA" Federal
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3581.50ft (26.5' KB Correction)
MD Reference: WELL @ 3581.50ft (26.5' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
13,910.00	91.45	268.32	9,535.00	5,953.50	-40.16	-4,493.98	4,494.11	2.59	501,151.51	776,153.85
14,004.00	89.43	269.47	9,534.28	5,952.78	-41.97	-4,587.95	4,588.09	2.47	501,149.70	776,059.87
14,100.00	88.72	267.95	9,535.83	5,954.33	-44.13	-4,683.91	4,684.06	1.75	501,147.54	775,963.91
14,195.00	88.29	267.75	9,538.31	5,956.81	-47.69	-4,778.81	4,778.98	0.50	501,143.97	775,869.01
14,290.00	90.04	268.02	9,539.69	5,958.19	-51.20	-4,873.73	4,873.91	1.86	501,140.47	775,774.09
14,385.00	91.01	266.98	9,538.82	5,957.32	-55.34	-4,968.63	4,968.83	1.50	501,136.33	775,679.19
14,481.00	92.51	266.51	9,535.87	5,954.37	-60.79	-5,064.43	5,064.65	1.64	501,130.88	775,583.39
14,576.00	90.57	265.63	9,533.32	5,951.82	-67.30	-5,159.17	5,159.42	2.24	501,124.37	775,488.65
14,671.00	89.78	263.35	9,533.03	5,951.53	-76.42	-5,253.72	5,254.01	2.54	501,115.25	775,394.10
14,766.00	91.10	262.23	9,532.30	5,950.80	-88.34	-5,347.96	5,348.31	1.82	501,103.33	775,299.86
14,810.00	90.75	262.55	9,531.59	5,950.09	-94.17	-5,391.57	5,391.94	1.08	501,097.50	775,256.25
14,834.00	93.39	261.89	9,530.72	5,949.22	-97.41	-5,415.33	5,415.72	11.34	501,094.25	775,232.49
14,929.00	94.79	261.48	9,523.95	5,942.45	-111.12	-5,509.09	5,509.54	1.54	501,080.55	775,138.73
15,010.00	94.79	261.48	9,517.18	5,935.68	-123.07	-5,588.92	5,589.42	0.00	501,068.59	775,058.90

BHL-15010.00'MD,94.79°INC,261.48°AZI, 9517.18'TVD, 5589.42'VS, -123.07°N, -5588.92'E

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(Bargain #1H)	0.00	0.00	9,550.00	-25.83	-5,604.72	501,165.835	775,043.105	32° 22' 31.806 N	103° 34' 34.764 W
- survey misses target center by 103.83ft at 15008.47ft MD (9517.31 TVD, -122.85 N, -5587.41 E)									
- Point									



Pathfinder
Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Eddy County
Site: Bargain "BQA" Federal
Well: #1H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #1H
TVD Reference: WELL @ 3581.50ft (26.5' KB Correction)
MD Reference: WELL @ 3581.50ft (26.5' KB Correction)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
9,077.00	9,074.56	-3.10	28.89	KOP-9077.00'MD,1.76°INC,273.03°AZI,9074.56'TVD
9,948.00	9,594.70	0.38	-535.38	EOC-9948.00'MD,90.66°INC,269.37°AZI,9594.70'TVD,3.13°DLS, 535.3
15,010.00	9,517.18	-123.07	-5,588.92	BHL-15010.00'MD,94.79°INC,261.48°AZI, 9517.18'TVD, 5589.42'VS, -

Checked By: _____ Approved By: _____ Date: _____



Job Number: SVCO-100711
 Company: Yates Petroleum
 Lease/Well: Bargain BQA Federal 1
 Location: Lea County, NM
 Rig Name: Patriot #5
 RKB: 27'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.27°
 Grid: East To Grid
 File name: F:\SURVEY\2010SU~1\YATESP~1\BARGAIN1.SVY
 Date/Time: 18-Aug-10 / 08:40
 Curve Name: Surface - 10000' M.D. (Gyroscopic)

RECEIVED

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 HOBBSOCD

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 269.74
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 10,000' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Dana Outtelle 8/18/10
 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
200.00	.25	7.64	200.00	.43	.06	-.06	.44	7.64	.12
400.00	.25	232.67	400.00	.60	-.23	.23	.64	338.96	.23
600.00	2.25	195.70	599.94	-3.44	-1.64	1.66	3.81	205.47	1.03
800.00	3.00	191.73	799.73	-12.35	-3.77	3.82	12.91	196.96	.39
1000.00	2.75	191.76	999.48	-22.17	-5.81	5.91	22.92	194.68	.13
1200.00	2.00	201.79	1199.31	-30.11	-8.08	8.22	31.17	195.03	.43
1400.00	1.50	199.82	1399.21	-35.81	-10.27	10.43	37.25	195.99	.25
1600.00	1.25	190.93	1599.16	-40.42	-11.57	11.75	42.04	195.97	.16
1800.00	.75	197.96	1799.12	-43.80	-12.38	12.58	45.52	195.79	.26

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	
2000.00	.25	160.99	1999.12	-45.46	-12.65	12.85	47.19	195.54	.29
2200.00	.25	127.02	2199.11	-46.14	-12.15	12.36	47.71	194.76	.07
2400.00	1.00	96.05	2399.10	-46.58	-10.07	10.28	47.66	192.20	.40
2600.00	1.25	77.98	2599.06	-46.31	-6.20	6.41	46.72	187.63	.22
2800.00	2.00	69.90	2798.98	-44.66	-.79	.99	44.66	181.01	.39
3000.00	2.25	74.83	2998.84	-42.43	6.28	-6.08	42.89	171.59	.15
3200.00	2.50	71.75	3198.67	-40.04	14.21	-14.03	42.48	160.46	.14
3400.00	1.50	64.70	3398.55	-37.55	20.72	-20.55	42.89	151.12	.51
3600.00	3.25	52.38	3598.37	-32.97	27.58	-27.43	42.98	140.09	.91
3800.00	1.50	33.35	3798.19	-27.33	33.51	-33.38	43.24	129.20	.95
4000.00	.25	295.29	3998.17	-24.95	34.55	-34.44	42.62	125.84	.78
4200.00	1.00	185.22	4198.16	-26.50	34.00	-33.88	43.11	127.94	.56
4400.00	1.00	114.18	4398.14	-28.96	35.43	-35.30	45.76	129.26	.58
4600.00	2.50	57.18	4598.05	-27.31	40.69	-40.56	49.00	123.87	1.06
4800.00	1.75	61.22	4797.91	-23.47	47.03	-46.92	52.56	116.52	.38
5000.00	1.00	66.26	4997.85	-21.30	51.30	-51.21	55.55	112.55	.38
5200.00	.50	63.30	5197.83	-20.21	53.68	-53.59	57.36	110.63	.25
5400.00	.25	57.33	5397.83	-19.58	54.83	-54.74	58.22	109.65	.13
5600.00	.25	43.43	5597.83	-19.03	55.50	-55.41	58.67	108.92	.03
5800.00	.25	285.46	5797.83	-18.59	55.38	-55.29	58.41	108.56	.21
6000.00	.25	19.50	5997.83	-18.06	55.10	-55.02	57.99	108.15	.18
6200.00	.25	352.53	6197.82	-17.22	55.19	-55.11	57.81	107.33	.06
6400.00	.50	332.56	6397.82	-16.01	54.73	-54.66	57.03	106.31	.14
6600.00	.75	340.49	6597.81	-14.01	53.89	-53.83	55.68	104.57	.13
6800.00	.50	342.42	6797.79	-11.94	53.19	-53.14	54.51	102.65	.13
7000.00	.50	341.35	6997.79	-10.28	52.65	-52.60	53.64	101.05	.00
7200.00	.75	336.28	7197.78	-8.26	51.84	-51.80	52.50	99.05	.13
7400.00	.50	327.21	7397.76	-6.32	50.84	-50.81	51.24	97.09	.13
7600.00	.50	321.97	7597.76	-4.90	49.83	-49.81	50.07	95.62	.02
7800.00	.50	297.90	7797.75	-3.81	48.52	-48.51	48.67	94.49	.10

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	
8000.00	.75	285.83	7997.74	-3.04	46.49	-46.48	46.59	93.74	.14
8200.00	.50	284.76	8197.72	-2.46	44.39	-44.38	44.46	93.17	.13
8400.00	.75	269.69	8397.71	-2.25	42.24	-42.23	42.30	93.04	.15
8600.00	1.00	259.02	8597.69	-2.59	39.22	-39.20	39.30	93.77	.15
8800.00	.75	266.35	8797.67	-3.00	36.20	-36.18	36.32	94.74	.14
9000.00	1.00	254.68	8997.64	-3.55	33.21	-33.19	33.40	96.10	.15
9200.00	1.75	268.01	9197.58	-4.11	28.47	-28.45	28.77	98.22	.41
9400.00	2.00	264.33	9397.48	-4.56	21.95	-21.93	22.42	101.75	.14
9600.00	1.75	256.49	9597.37	-5.62	15.50	-15.48	16.49	109.93	.18
9800.00	1.00	264.83	9797.31	-6.49	10.80	-10.77	12.60	121.02	.39
Last Survey Depth Recorded									
10000.00	1.50	239.15	9997.26	-7.99	6.81	-6.77	10.50	139.57	.37