

Results of Directional Survey

API number:	30-025-38091		
OGRID:		Operator:	YATES PETROLEUM CORP
		Property:	CAPER BFE FEDERAL # 6H

surface	ULSTR:	A	17	T	21S	R	32E
				330	FNL	330	FEL

BH Loc	ULSTR:	I	17	T	21S	R	32E
11603	MD	8481.1	TVD	3627	FNL	655	FEL

Top Perf/OH	ULSTR:	A	17	T	21S	R	32E
8803	MD	8489.5	TVD	843	FNL	373	FEL

Bot Perf/OH	ULSTR:	I	17	T	21S	R	32E
11540	MD	8480.0	TVD	3565	FNL	646	FEL

	MD	N/S	E/W	VD
	8784	-493.91	-40.02	8488.62
TOP PERFS/OH	8803	-512.70	-42.66	8489.54
	8815	-524.57	-44.32	8490.12
	11515	-3209.93	-312.81	8479.64
BOT PERFS/OH	11540	-3234.67	-316.34	8480.04
	11546	-3240.61	-317.19	8480.14

NEXT TO LAST	11515	-3209.93	-312.81	8479.64
LAST READING	11546	-3240.61	-317.19	8480.14
TD	11603	-3297.02	-325.24	8481.06

Surface Location	330	FN	330	FE
Projected BHL	3627	FN	655	FE
Location of				
Top Perfs/OH	843	FN	373	FE
Bottom Perfs/OH	3565	FN	646	FE

SUMMARY of Subsurface Locations

Surface Location	A-17-21S-32E	330	FN	330	FE	Vert. Depth
Top Perfs/OH	A-17-21S-32E	843	FN	373	FE	8489.54
Bottom Perfs/OH	I-17-21S-32E	3565	FN	646	FE	8480.04
Projected TD	I-17-21S-32E	3627	FN	655	FE	8481.06

COUNTY:

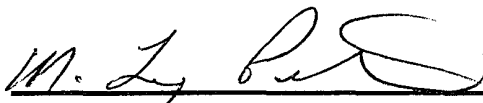
Lea County, New Mexico
Cooper BFE Sec #6H

STATE OF NEW MEXICO DEVIATION REPORT
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<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
208	1/4	4,899	..50
420	1/2	4,993	1/4
602	1/4	5,118	1/2
821	1	5,276	1/4
1,041	3/4	5,370	3/4
1,198	3/4	5,464	1 1/2
1,318	1	5,558	1 1/4
1,506	1/2	5,653	1 1/4
1,697	1/2	5,747	1 1/4
2,070	1/2	5,841	1 1/4
2,259	1 1/4	5,935	1
2,447	1 1/4	6,030	2 1/4
2,636	1 3/4	6,124	2
2,824	1 1/4	6,218	1
3,013	1	6,593	1/2
3,201	3/4	6,716	1/2
3,766	1 1/2	6,999	3/4
3,955	3/4	7,092	3/4
4,153	1/2	7,185	1/4
4,332	1/4	7,279	1
4,584	1/2	7,372	2
4,711	1/2	7,561	2

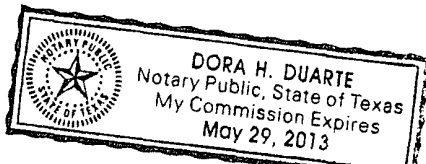
RECEIVEDOCT 14 2010
HOBBSOCD

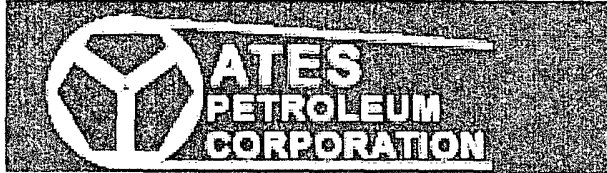
SUR: A-17-21s-32e, 330/N & 330/E
 BHL: 1-17-21s-32e, 3627/N & 655/E
 API # 30-025-38091

Patriot Drilling, LLC

M. Leroy Peterson, Executive Vice-
President

The foregoing instrument was acknowledged before me on this 14th day of July,
2010 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 5/29/2013


Dora H. Duarte
Notary Public for Midland Co., Texas



Yates Petroleum Corp.

Lea County
Caper "BFE" Federal
#6H
OH

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Survey: MWD #1

Pathfinder X & Y Survey Report

08 July, 2010

SUR: A-17-21s-32e, 330/N & 330/E
BHL: I-17-21s-32e, 3627/N & 655/E
API # 30-025-38091

PATHFINDER



Pathfinder

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Lea County
Site: Caper "BFE" Federal
Well: #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #6H
TVD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
MD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Project	Lea 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	Caper "BFE" Federal		
Site Position:		Northing:	540,809.186 ft
From: Map		Easting:	739,905.599 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 29' 6.357 N
		Longitude:	103° 41' 21.691 W
		Grid Convergence:	0.35 °

Well		#6H				
Well Position	+N/-S	0.00 ft	Northing:	540,809.186 ft	Latitude:	32° 29' 6.357 N
	+E/-W	0.00 ft	Easting:	739,905.599 ft	Longitude:	103° 41' 21.691 W
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level:	3,698.00ft	

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	06/08/2010	7.77	60.45	48,893

Design	OH			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	185.40

Survey Program	Date	07/08/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
200.00	11,603.00	MWD #1 (OH)	MWD	MWD - Standard



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Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,724.50	0.00	0.00	0.00	0.00	540,809.19	739,905.60
200.00	0.25	195.28	200.00	-3,524.50	-0.42	-0.11	0.43	0.12	540,808.77	739,905.48
400.00	0.25	217.35	400.00	-3,324.50	-1.19	-0.49	1.23	0.05	540,808.00	739,905.10
600.00	0.50	199.42	599.99	-3,124.51	-2.36	-1.05	2.45	0.14	540,806.83	739,904.55
800.00	0.25	170.49	799.99	-2,924.51	-3.61	-1.27	3.72	0.15	540,805.57	739,904.33
1,000.00	0.50	224.55	999.98	-2,724.52	-4.66	-1.81	4.81	0.20	540,804.52	739,903.79
1,200.00	1.25	236.62	1,199.96	-2,524.54	-6.49	-4.24	6.86	0.38	540,802.70	739,901.36
1,318.00	0.79	242.66	1,317.94	-2,406.56	-7.57	-6.04	8.10	0.40	540,801.62	739,899.56
1,506.00	0.35	177.20	1,505.93	-2,218.57	-8.74	-7.16	9.37	0.38	540,800.45	739,898.44
1,696.00	0.35	219.27	1,695.93	-2,028.57	-9.77	-7.50	10.43	0.13	540,799.42	739,898.10
1,882.00	0.35	179.29	1,881.93	-1,842.57	-10.77	-7.85	11.46	0.13	540,798.41	739,897.75
2,070.00	0.35	95.57	2,069.92	-1,654.58	-11.40	-7.28	12.04	0.25	540,797.78	739,898.32
2,259.00	1.23	93.46	2,258.90	-1,465.60	-11.58	-4.68	11.97	0.47	540,797.60	739,900.92
2,447.00	1.14	76.26	2,446.86	-1,277.64	-11.26	-0.84	11.29	0.19	540,797.93	739,904.75
2,636.00	1.67	82.92	2,635.81	-1,088.69	-10.47	3.71	10.08	0.29	540,798.71	739,909.31
2,824.00	1.23	48.55	2,823.75	-900.75	-8.80	7.95	8.01	0.51	540,800.39	739,913.54
3,013.00	0.79	49.87	3,012.72	-711.78	-6.62	10.46	5.60	0.23	540,802.57	739,916.06
3,201.00	0.62	58.13	3,200.71	-523.79	-5.25	12.32	4.06	0.11	540,803.94	739,917.92
3,390.00	1.06	22.69	3,389.69	-334.81	-3.09	13.86	1.77	0.35	540,806.09	739,919.46
3,578.00	1.06	36.58	3,577.65	-146.85	-0.09	15.57	-1.37	0.14	540,809.09	739,921.17
3,766.00	1.49	22.95	3,765.61	41.11	3.56	17.56	-5.19	0.28	540,812.74	739,923.16
3,955.00	0.62	180.99	3,954.59	230.09	4.80	18.50	-6.52	1.10	540,813.98	739,924.10
4,143.00	0.35	142.83	4,142.58	418.08	3.32	18.83	-5.08	0.22	540,812.51	739,924.43
4,331.00	0.09	343.31	4,330.58	606.08	3.01	19.13	-4.79	0.23	540,812.19	739,924.73
4,394.00	0.09	128.24	4,393.58	669.08	3.02	19.16	-4.81	0.27	540,812.21	739,924.75
4,584.00	0.44	147.44	4,583.58	859.08	2.32	19.67	-4.16	0.19	540,811.50	739,925.26
4,711.00	0.35	112.06	4,710.58	986.08	1.76	20.29	-3.66	0.20	540,810.94	739,925.89



Pathfinder

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Lea County
Site: Capex "BFE" Federal
Well: #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #6H
TVD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
MD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
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)
4,899.00	0.26	143.28	4,898.58	1,174.08	1.20	21.07	-3.18	0.10	540,810.39	739,926.67
4,993.00	0.18	153.69	4,992.58	1,268.08	0.90	21.27	-2.89	0.09	540,810.08	739,926.87
5,181.00	0.44	111.01	5,180.57	1,456.07	0.37	22.07	-2.45	0.18	540,809.56	739,927.67
5,276.00	0.18	288.02	5,275.57	1,551.07	0.29	22.27	-2.38	0.65	540,809.48	739,927.87
5,370.00	0.62	268.60	5,369.57	1,645.07	0.32	21.62	-2.36	0.48	540,809.51	739,927.22
5,464.00	1.41	295.56	5,463.55	1,739.05	0.81	20.07	-2.69	0.96	540,810.00	739,925.67
5,558.00	1.06	295.84	5,557.53	1,833.03	1.69	18.24	-3.40	0.37	540,810.87	739,923.84
5,653.00	1.23	284.87	5,652.51	1,928.01	2.33	16.47	-3.87	0.29	540,811.52	739,922.07
5,747.00	1.23	294.32	5,746.49	2,021.99	3.01	14.57	-4.36	0.22	540,812.19	739,920.17
5,841.00	1.14	297.53	5,840.47	2,115.97	3.85	12.82	-5.04	0.12	540,813.04	739,918.42
5,935.00	0.88	274.89	5,934.46	2,209.96	4.35	11.28	-5.39	0.50	540,813.53	739,916.88
6,030.00	2.02	264.70	6,029.43	2,304.93	4.26	8.88	-5.07	1.23	540,813.44	739,914.48
6,124.00	1.76	264.65	6,123.37	2,398.87	3.97	5.80	-4.50	0.28	540,813.15	739,911.39
6,218.00	1.76	270.85	6,217.33	2,492.83	3.85	2.91	-4.11	0.20	540,813.04	739,908.51
6,312.00	1.93	267.32	6,311.28	2,586.78	3.80	-0.11	-3.77	0.22	540,812.99	739,905.49
6,406.00	1.67	297.80	6,405.24	2,680.74	4.37	-2.90	-4.07	1.04	540,813.55	739,902.70
6,500.00	0.09	302.58	6,499.22	2,774.72	5.05	-4.18	-4.63	1.68	540,814.23	739,901.42
6,593.00	0.35	186.06	6,592.22	2,867.72	4.80	-4.27	-4.38	0.43	540,813.99	739,901.33
6,716.00	0.35	210.37	6,715.22	2,990.72	4.10	-4.50	-3.66	0.12	540,813.29	739,901.10
6,904.00	0.18	58.09	6,903.22	3,178.72	3.77	-4.54	-3.32	0.27	540,812.95	739,901.06
6,999.00	0.62	206.31	6,998.22	3,273.72	3.38	-4.64	-2.93	0.82	540,812.57	739,900.96
7,092.00	0.70	205.79	7,091.21	3,366.71	2.42	-5.11	-1.93	0.09	540,811.61	739,900.49
7,185.00	0.79	200.32	7,184.20	3,459.70	1.31	-5.58	-0.78	0.12	540,810.49	739,900.02
7,279.00	0.79	185.26	7,278.19	3,553.69	0.05	-5.86	0.50	0.22	540,809.24	739,899.74
7,372.00	1.93	27.55	7,371.18	3,646.68	0.81	-5.20	-0.31	2.88	540,809.99	739,900.40
7,466.00	2.11	25.52	7,465.12	3,740.62	3.77	-3.72	-3.40	0.21	540,812.96	739,901.88
7,561.00	1.85	30.29	7,560.07	3,835.57	6.67	-2.19	-6.44	0.32	540,815.86	739,903.41



Pathfinder Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Lea County
Site: Caper "BFE" Federal
Well: #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #6H
TVD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
MD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
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)
7,655.00	2.02	39.76	7,654.01	3,929.51	9.26	-0.37	-9.18	0.38	540,818.44	739,905.23
7,749.00	0.53	63.04	7,747.99	4,023.49	10.73	1.08	-10.78	1.65	540,819.91	739,906.68
7,843.00	0.53	93.99	7,841.98	4,117.48	10.89	1.90	-11.02	0.30	540,820.08	739,907.50
7,938.00	0.62	104.05	7,936.98	4,212.48	10.74	2.84	-10.96	0.14	540,819.92	739,908.44
8,031.00	3.52	169.72	8,029.91	4,305.41	7.81	3.84	-8.13	3.56	540,816.99	739,909.43
8,063.00	5.63	184.98	8,061.81	4,337.31	5.28	3.87	-5.62	7.56	540,814.46	739,909.47
8,094.00	8.35	191.34	8,092.58	4,368.08	1.55	3.30	-1.86	9.11	540,810.74	739,908.90
8,126.00	12.75	189.51	8,124.03	4,399.53	-4.21	2.26	3.98	13.79	540,804.98	739,907.86
8,157.00	17.59	186.09	8,153.94	4,429.44	-12.25	1.20	12.08	15.87	540,796.94	739,906.80
8,189.00	22.25	182.62	8,184.02	4,459.52	-23.11	0.41	22.97	15.02	540,786.07	739,906.00
8,220.00	26.38	180.22	8,212.26	4,487.76	-35.87	0.11	35.70	13.70	540,773.32	739,905.71
8,252.00	30.42	179.51	8,240.41	4,515.91	-51.09	0.15	50.84	12.67	540,758.10	739,905.75
8,283.00	34.21	179.97	8,266.60	4,542.10	-67.65	0.22	67.33	12.25	540,741.53	739,905.82
8,315.00	37.46	181.25	8,292.54	4,568.04	-86.38	0.02	86.00	10.42	540,722.80	739,905.62
8,346.00	40.54	181.90	8,316.63	4,592.13	-105.88	-0.52	105.46	10.02	540,703.30	739,905.08
8,377.00	44.67	182.19	8,339.44	4,614.94	-126.85	-1.27	126.41	13.34	540,682.34	739,904.33
8,409.00	49.59	182.78	8,361.21	4,636.71	-150.27	-2.29	149.82	15.43	540,658.91	739,903.30
8,440.00	53.64	182.81	8,380.45	4,655.95	-174.54	-3.48	174.09	13.06	540,634.65	739,902.12
8,471.00	56.98	183.08	8,398.09	4,673.59	-199.99	-4.79	199.55	10.80	540,609.19	739,900.81
8,503.00	60.23	183.94	8,414.76	4,690.26	-227.25	-6.47	226.85	10.41	540,581.94	739,899.13
8,534.00	63.66	185.23	8,429.34	4,704.84	-254.52	-8.66	254.20	11.66	540,554.67	739,896.94
8,552.00	65.77	185.85	8,437.03	4,712.53	-270.71	-10.23	270.47	12.13	540,538.47	739,895.37
8,563.00	66.74	186.19	8,441.46	4,716.96	-280.73	-11.29	280.54	9.26	540,528.46	739,894.31
8,595.00	71.58	187.40	8,452.84	4,728.34	-310.41	-14.83	310.43	15.53	540,498.77	739,890.77
8,627.00	75.27	187.60	8,461.96	4,737.46	-340.82	-18.83	341.08	11.55	540,468.37	739,886.77
8,658.00	78.17	187.15	8,469.08	4,744.58	-370.73	-22.70	371.22	9.46	540,438.45	739,882.90
8,690.00	79.76	187.83	8,475.21	4,750.71	-401.87	-26.80	402.61	5.39	540,407.31	739,878.80



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8,721.00	80.11	188.47	8,480.63	4,756.13	-432.09	-31.12	433.10	2.33	540,377.10	739,874.47
8,752.00	82.22	188.17	8,485.39	4,760.89	-462.40	-35.56	463.69	6.87	540,346.79	739,870.04
8,784.00	86.17	187.95	8,488.62	4,764.12	-493.91	-40.02	495.48	12.36	540,315.28	739,865.58
8,815.00	88.29	188.02	8,490.12	4,765.62	-524.57	-44.32	526.42	6.84	540,284.61	739,861.28
8,847.00	88.02	187.97	8,491.15	4,766.65	-556.24	-48.77	558.37	0.86	540,252.94	739,856.83
8,878.00	88.29	188.21	8,492.15	4,767.65	-586.92	-53.13	589.32	1.17	540,222.27	739,852.47
8,910.00	89.52	186.85	8,492.76	4,768.26	-618.64	-57.32	621.29	5.73	540,190.55	739,848.28
8,941.00	90.57	184.91	8,492.74	4,768.24	-649.47	-60.50	652.28	7.12	540,159.71	739,845.10
8,972.00	90.13	184.37	8,492.55	4,768.05	-680.37	-63.00	683.28	2.25	540,128.82	739,842.59
9,035.00	88.20	185.25	8,493.47	4,768.97	-743.14	-68.29	746.27	3.37	540,066.05	739,837.31
9,066.00	87.85	185.40	8,494.53	4,770.03	-773.99	-71.16	777.25	1.23	540,035.20	739,834.44
9,129.00	91.54	186.34	8,494.87	4,770.37	-836.64	-77.60	840.23	6.04	539,972.54	739,828.00
9,161.00	91.98	186.44	8,493.89	4,769.39	-868.43	-81.16	872.21	1.41	539,940.76	739,824.44
9,192.00	91.63	186.44	8,492.91	4,768.41	-899.22	-84.64	903.19	1.13	539,909.97	739,820.96
9,224.00	91.63	186.71	8,492.00	4,767.50	-930.99	-88.30	935.17	0.84	539,878.19	739,817.30
9,255.00	91.71	186.98	8,491.10	4,766.60	-961.76	-91.99	966.15	0.91	539,847.43	739,813.61
9,286.00	91.10	186.73	8,490.34	4,765.84	-992.53	-95.69	997.13	2.13	539,816.66	739,809.91
9,318.00	91.28	186.99	8,489.67	4,765.17	-1,024.29	-99.51	1,029.11	0.99	539,784.89	739,806.08
9,349.00	91.36	187.32	8,488.96	4,764.46	-1,055.04	-103.37	1,060.09	1.10	539,754.14	739,802.22
9,381.00	89.87	186.08	8,488.61	4,764.11	-1,086.82	-107.11	1,092.08	6.06	539,722.36	739,798.49
9,444.00	89.96	184.77	8,488.71	4,764.21	-1,149.54	-113.06	1,155.08	2.08	539,659.65	739,792.54
9,538.00	90.40	185.05	8,488.41	4,763.91	-1,243.19	-121.11	1,249.07	0.55	539,565.99	739,784.49
9,632.00	90.92	185.48	8,487.33	4,762.83	-1,336.79	-129.73	1,343.07	0.72	539,472.40	739,775.87
9,726.00	90.04	185.25	8,486.54	4,762.04	-1,430.37	-138.52	1,437.06	0.97	539,378.81	739,767.08
9,820.00	90.31	185.10	8,486.25	4,761.75	-1,523.99	-147.00	1,531.06	0.33	539,285.20	739,758.60
9,914.00	89.78	184.88	8,486.18	4,761.68	-1,617.63	-155.18	1,625.06	0.61	539,191.55	739,750.42
10,009.00	88.81	184.48	8,487.35	4,762.85	-1,712.31	-162.93	1,720.04	1.10	539,096.88	739,742.67



Pathfinder

Pathfinder X & Y Survey Report



Company: Yates Petroleum Corp.
Project: Lea County
Site: Caper "BFE" Federal
Well: #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #6H
TVD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
MD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
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)
10,103.00	91.10	185.43	8,487.42	4,762.92	-1,805.95	-171.05	1,814.03	2.64	539,003.24	739,734.55
10,197.00	91.36	185.94	8,485.41	4,760.91	-1,899.46	-180.36	1,908.01	0.61	538,909.72	739,725.24
10,291.00	91.28	186.38	8,483.24	4,758.74	-1,992.90	-190.44	2,001.97	0.48	538,816.29	739,715.16
10,385.00	90.40	184.35	8,481.86	4,757.36	-2,086.47	-199.23	2,095.96	2.35	538,722.72	739,706.37
10,479.00	89.69	183.91	8,481.79	4,757.29	-2,180.22	-206.00	2,189.93	0.89	538,628.96	739,699.60
10,573.00	89.69	182.95	8,482.30	4,757.80	-2,274.05	-211.62	2,283.88	1.02	538,535.13	739,693.98
10,667.00	89.69	183.91	8,482.81	4,758.31	-2,367.88	-217.24	2,377.82	1.02	538,441.30	739,688.35
10,761.00	90.84	183.48	8,482.37	4,757.87	-2,461.68	-223.30	2,471.77	1.31	538,347.50	739,682.30
10,855.00	90.92	184.18	8,480.93	4,756.43	-2,555.46	-229.58	2,565.73	0.75	538,253.72	739,676.02
10,949.00	90.92	185.76	8,479.42	4,754.92	-2,649.09	-237.72	2,659.71	1.68	538,160.09	739,667.88
11,043.00	90.40	185.85	8,478.34	4,753.84	-2,742.61	-247.23	2,753.70	0.56	538,066.58	739,658.37
11,138.00	90.75	187.25	8,477.38	4,752.88	-2,836.98	-258.07	2,848.67	1.52	537,972.21	739,647.53
11,232.00	90.57	189.10	8,476.30	4,751.80	-2,930.01	-271.43	2,942.55	1.98	537,879.17	739,634.17
11,326.00	89.52	188.75	8,476.23	4,751.73	-3,022.87	-286.01	3,036.37	1.18	537,786.31	739,619.59
11,420.00	88.72	188.04	8,477.67	4,753.17	-3,115.85	-299.74	3,130.23	1.14	537,693.33	739,605.86
11,515.00	88.90	187.78	8,479.64	4,755.14	-3,209.93	-312.81	3,225.12	0.33	537,599.26	739,592.79
11,546.00	89.25	188.49	8,480.14	4,755.64	-3,240.61	-317.19	3,256.08	2.55	537,568.57	739,588.41
11,603.00	89.25	188.49	8,480.89	4,756.39	-3,296.98	-325.61	3,312.99	0.00	537,512.20	739,579.99

BHL-11603.00°MD,89.25°INC,188.49°AZI, 8480.89°TVD, 3312.99°VS, -3296.98°N, -325.61°E - PBHL(Caper#6H)

Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL(Caper#6H)	0.00	0.00	8,508.00	-3,311.66	-313.28	537,497.526	739,592.316	32° 28' 33.606 N	103° 41' 25.581 W
- survey misses target center by 33.20ft at 11603.00ft MD (8480.89 TVD, -3296.98 N, -325.61 E)									
- Point									



Pathfinder
Pathfinder X & Y Survey Report



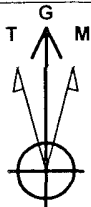
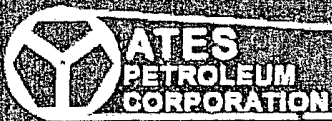
Company: Yates Petroleum Corp.
Project: Lea County
Site: Caper "BFE" Federal
Well: #6H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well #6H
TVD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
MD Reference: RKBtoGL-26.5 @ 3724.50ft (Patriot #5)
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)	
11,603.00	8,480.89	-3,296.98	-325.61	BHL-11603.00'MD,89.25°INC,188.49°AZI, 8480.89'TVD, 3312.99'VS, -:

Checked By: _____ Approved By: _____ Date: _____



Azimuths to Grid North
True North: -0.35°
Magnetic North: 7.42°

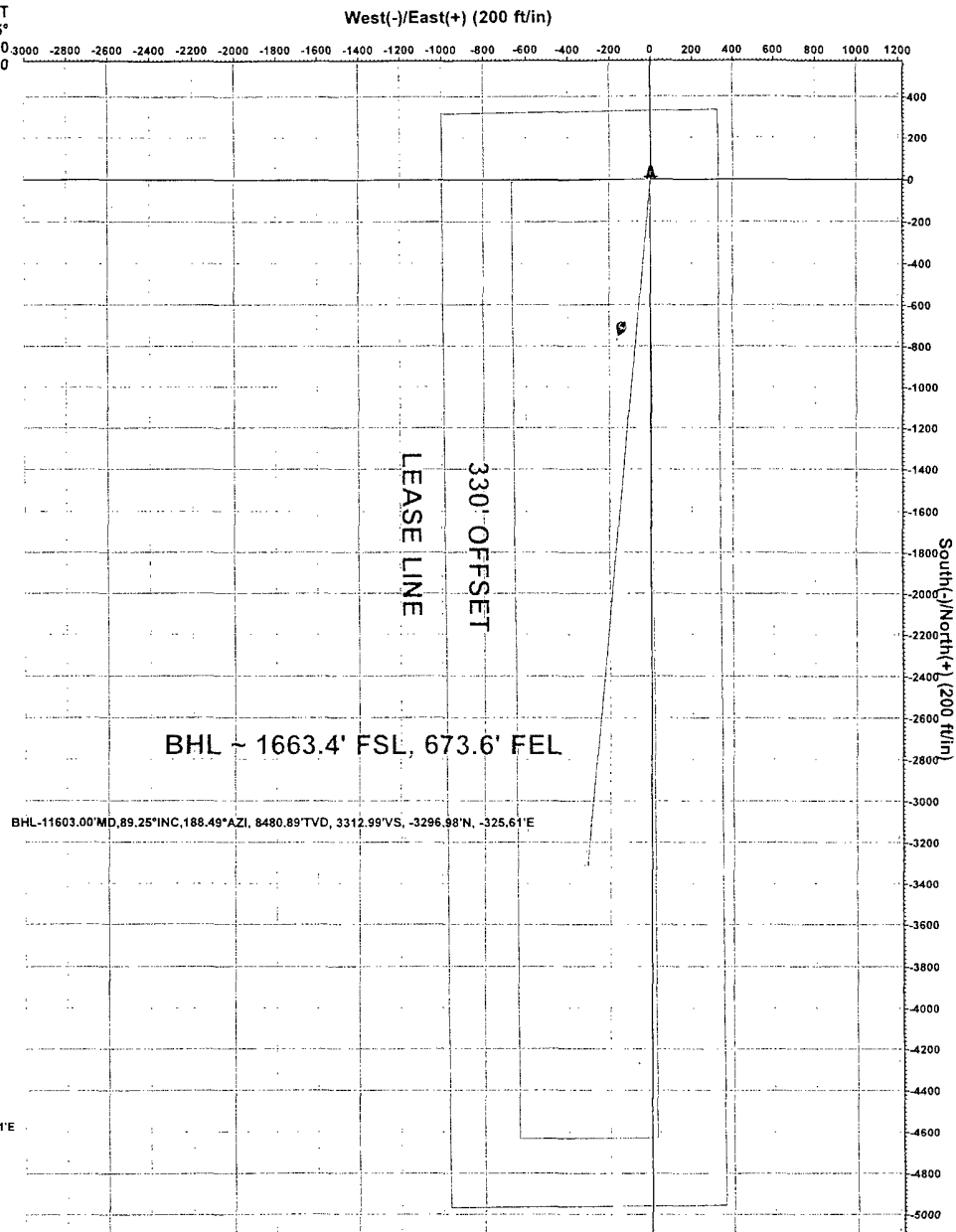
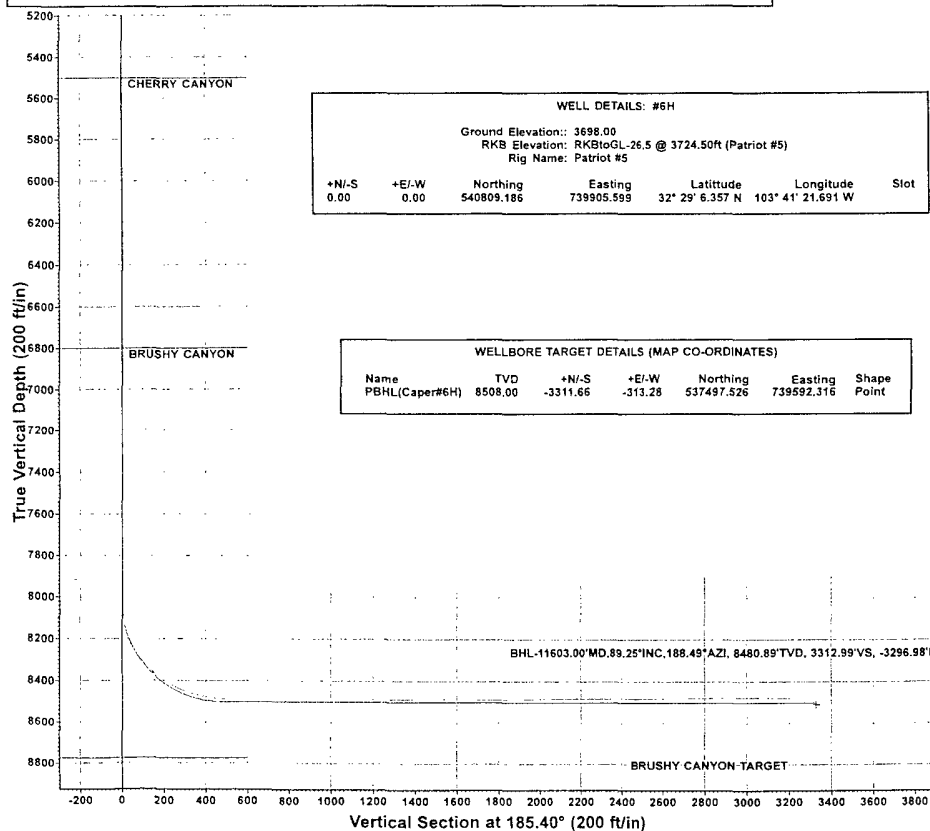
Magnetic Field
Strength: 48893.3nT
Dip Angle: 60.45°
Date: 06/08/2010
Model: IGRF200510

PATHFINDER

PROJECT DETAILS: Lea County
Geodetic System: US State Plane #983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

Project: Lea County
Site: Caper "BFE" Federal
Well: #6H
Wellbore: OH
Plan: Plan #1 (#6H/OH)

SECTION DETAILS											
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	8023.00	0.00	0.00	8023.00	0.00	0.00	0.00	0.00	0.00		
3	8772.27	90.00	185.40	8500.00	-474.88	-44.89	12.01	185.40	477.00		
4	11621.72	90.00	185.40	8500.00	-3311.68	-313.05	0.00	0.00	3326.45	PBHL(Caper#6H)	



Plan: Plan #1 (#6H/OH)
Created By: Nate Bingham Date: 8:29, July 08 2010
Checked: _____ Date: _____



Job Number: SVCO-100524
 Company: Yates Petroleum
 Lease/Well: Capar BFE Federal 6H
 Location: Lea County, NM
 Rig Name: Patriot #5
 RKB: 25'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.43°
 Grid: East To Grid
 File name: F:\SURVEY\2010SU~1\YATESP~1\CAPER6H.SVY
 Date/Time: 28-Jun-10 / 10:10
 Curve Name: Surface - 1200' M.D. (Gyroscopic)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 185.40
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 1,200' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
 Dana Outlee 6/28/10
 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 Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
200.00	.25	195.28	200.00	-.42	-.11	.43	.44	195.28	.12
400.00	.25	217.35	400.00	-1.19	-.49	1.23	1.29	202.60	.05
600.00	.50	199.42	599.99	-2.36	-1.05	2.45	2.58	203.99	.14
800.00	.25	170.49	799.99	-3.61	-1.27	3.72	3.83	199.34	.15
1000.00	.50	224.55	999.98	-4.66	-1.81	4.81	5.00	201.19	.20
Last Survey Depth Recorded									
1200.00	1.25	236.62	1199.96	-6.49	-4.24	6.86	7.75	213.18	.38



An Operating Unit of Smith International, Inc.

RECEIVED

OCT 14 2010

HOBBSOCD

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM

CAPER "BFE" FEDERAL #6H

LEA COUNTY, NEW MEXICO

SUR: A-17-21s-32e, 330/N & 330/E
BHL: I-17-21s-32e, 3627/N & 655/E
API # 30-025-38091

PREPARED BY: FRANCISCO SINISTERRA

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

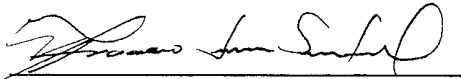
DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) SAM BIFFLE
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 06-22-10 TO 07-08-10
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
CAPER "BFE" FEDERAL #6H
LEA COUNTY, NM
RIG: PATRIOT 5

9. SURVEY CERTIFIED FROM: 1318 TO 11546 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 3313.03 FEET ON A BEARING OF 185.64 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 11603 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: 06/27/2010
Date Completed: 07/07/2010

YATES PETROLEUM
CAPER"BFE" FEDERAL #6H
LEA COUNTY, NM
Rig:PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:SAM BIFFLE
LUIS HERRERA

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.29.6.3565 N LON:103.41.21.6909 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 739905.5990 Y: 540809.1860
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.43° EAST TO GRID
Vertical Section Plane: 185.40
Survey Vert. Reference: 27.00' Rotary Table To Ground
Altitude:3698.00' Ground To MSL

Measured Depth	11603.00	(feet)
Inclination	89.25	(deg)
Azimuth	188.49	(deg)
True Vertical Depth	8480.89	(feet)
Vertical Section	3313.00	(feet)
Survey X cord	739579.99	(feet)
Survey Y cord	537512.19	(feet)
Survey Lat	32.47604225 N	(deg)
Survey Lon	103.69047893 W	(deg)
Rectangular Corr. N/S	3296.99 S	(feet)
Rectangular Corr. E/W	325.61 W	(feet)
Closure Distance	3313.03	(feet)
Direction of Closure	185.64	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

Page 01/05
Tie-in Date: 06/27/2010
Date Completed: 07/07/2010

YATES PETROLEUM
CAPER"BFE" FEDERAL #6H
LEA COUNTY, NM
Rig:PATRIOT 5
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: SAM BIFFLE
LUIS HERRERA

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.29.6.3565 N LON:103.41.21.6909 W
GRID Reference:NAD83 new mexico east Transverse Mercator
Ref GRID Coord: X: 739905.5990 Y: 540809.1860
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.43° EAST TO GRID
Vertical Section Plane: 185.40
Survey Vert. Reference: 27.00' Rotary Table To Ground
Altitude:3698.00' 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 MUTI-SHOT GYRO SURVEYS @ 200'MD.										
200.00	0.25	195.28	200.00	200.00	0.43	0.42 S	0.11 W	0.44@	195.28	0.12
400.00	0.25	217.35	400.00	200.00	1.23	1.19 S	0.49 W	1.29@	202.60	0.05
600.00	0.50	199.42	599.99	200.00	2.45	2.36 S	1.05 W	2.58@	203.99	0.14
800.00	0.25	170.49	799.99	200.00	3.72	3.61 S	1.27 W	3.83@	199.34	0.15
1000.00	0.50	224.55	999.98	200.00	4.81	4.66 S	1.81 W	5.00@	201.19	0.20
TIE IN TO MS ENERGY GYRO SURVEY @ 1200' MD										
1200.00	1.25	236.62	1199.96	200.00	6.86	6.49 S	4.24 W	7.75@	213.18	0.38
THE FOLLOWING ARE PATHFINDER MWD SURVEYS @ 1318'MD.										
1318.00	0.79	242.66	1317.94	118.00	8.10	7.57 S	6.04 W	9.68@	218.59	0.40
1506.00	0.35	177.20	1505.93	188.00	9.37	8.74 S	7.16 W	11.30@	219.34	0.38
1694.00	0.35	219.27	1693.93	188.00	10.42	9.75 S	7.50 W	12.30@	217.55	0.13
1882.00	0.35	179.29	1881.93	188.00	11.46	10.77 S	7.85 W	13.33@	216.09	0.13
2070.00	0.35	95.57	2069.92	188.00	12.04	11.40 S	7.28 W	13.53@	212.54	0.25
2259.00	1.23	93.46	2258.90	189.00	11.97	11.58 S	4.68 W	12.49@	201.99	0.47
2447.00	1.14	76.26	2446.86	188.00	11.29	11.26 S	0.85 W	11.29@	184.29	0.19
2636.00	1.67	82.92	2635.81	189.00	10.08	10.47 S	3.71 E	11.11@	160.47	0.29
2824.00	1.23	48.55	2823.75	188.00	8.01	8.80 S	7.95 E	11.86@	137.92	0.51
3013.00	0.79	49.87	3012.72	189.00	5.60	6.62 S	10.46 E	12.38@	122.31	0.23
3201.00	0.62	58.13	3200.71	188.00	4.06	5.25 S	12.32 E	13.39@	113.07	0.11
3390.00	1.06	22.69	3389.69	189.00	1.77	3.09 S	13.86 E	14.20@	102.58	0.35
3578.00	1.06	36.58	3577.65	188.00	-1.37	0.09 S	15.57 E	15.57@	90.34	0.14
3766.00	1.49	22.95	3765.61	188.00	-5.19	3.56 N	17.56 E	17.91@	78.55	0.28
3955.00	0.62	180.99	3954.59	189.00	-6.52	4.80 N	18.50 E	19.11@	75.46	1.10
4143.00	0.35	142.83	4142.58	188.00	-5.08	3.32 N	18.83 E	19.12@	79.99	0.22
4332.00	0.09	343.31	4331.58	189.00	-4.79	3.00 N	19.13 E	19.37@	81.08	0.23

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
CAPER"BFE" FEDERAL #6H
LEA COUNTY, NM
RIG:PATRIOT 5

Page 02/05

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)
4394.00	0.09	128.24	4393.58	62.00	-4.81	3.02 N	19.16 E	19.39@	81.04	0.28
4584.00	0.44	147.44	4583.58	190.00	-4.15	2.31 N	19.67 E	19.80@	83.29	0.19
4711.00	0.35	112.06	4710.58	127.00	-3.66	1.76 N	20.29 E	20.36@	85.05	0.20
4899.00	0.26	143.28	4898.58	188.00	-3.18	1.20 N	21.08 E	21.11@	86.74	0.10
4993.00	0.18	153.69	4992.58	94.00	-2.89	0.90 N	21.27 E	21.29@	87.59	0.09
5181.00	0.44	111.01	5180.57	188.00	-2.45	0.37 N	22.07 E	22.08@	89.03	0.18
5276.00	0.18	288.02	5275.57	95.00	-2.38	0.29 N	22.27 E	22.27@	89.26	0.65
5370.00	0.62	268.30	5369.57	94.00	-2.35	0.32 N	21.62 E	21.63@	89.16	0.48
5464.00	1.41	295.56	5463.55	94.00	-2.69	0.80 N	20.07 E	20.09@	87.71	0.96
5558.00	1.06	295.84	5557.53	94.00	-3.39	1.68 N	18.25 E	18.32@	84.74	0.37
5653.00	1.23	284.87	5652.51	95.00	-3.86	2.32 N	16.47 E	16.63@	81.97	0.29
5747.00	1.23	294.32	5746.49	94.00	-4.36	3.00 N	14.57 E	14.88@	78.37	0.22
5841.00	1.14	297.53	5840.47	94.00	-5.04	3.85 N	12.83 E	13.39@	73.31	0.12
5935.00	0.88	274.89	5934.46	94.00	-5.38	4.34 N	11.28 E	12.08@	68.95	0.50
6030.00	2.02	264.70	6029.43	95.00	-5.07	4.25 N	8.88 E	9.85@	64.44	1.23
6124.00	1.76	264.65	6123.37	94.00	-4.49	3.96 N	5.80 E	7.02@	55.66	0.28
6218.00	1.76	270.85	6217.33	94.00	-4.10	3.85 N	2.92 E	4.83@	37.16	0.20
6312.00	1.93	267.32	6311.28	94.00	-3.77	3.79 N	0.11 W	3.80@	358.36	0.22
6406.00	1.67	297.80	6405.24	94.00	-4.07	4.36 N	2.90 W	5.24@	326.35	1.04
6500.00	0.09	302.58	6499.22	94.00	-4.62	5.04 N	4.18 W	6.54@	320.35	1.68
6593.00	0.35	186.06	6592.22	93.00	-4.37	4.79 N	4.27 W	6.42@	318.33	0.43
6716.00	0.35	210.37	6715.22	123.00	-3.66	4.10 N	4.50 W	6.08@	312.34	0.12
6904.00	0.18	58.09	6903.22	188.00	-3.31	3.76 N	4.54 W	5.89@	309.64	0.27
6999.00	0.62	206.31	6998.22	95.00	-2.92	3.38 N	4.64 W	5.74@	306.05	0.82
7092.00	0.70	205.79	7091.21	93.00	-1.92	2.41 N	5.11 W	5.65@	295.29	0.09
7185.00	0.79	200.32	7184.20	93.00	-0.77	1.30 N	5.58 W	5.73@	283.13	0.12
7279.00	0.79	185.26	7278.20	94.00	0.50	0.05 N	5.86 W	5.86@	270.47	0.22
7372.00	1.93	27.55	7371.18	93.00	-0.31	0.80 N	5.20 W	5.26@	278.73	2.88

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
CAPER"BFE" FEDERAL #6H
LEA COUNTY, NM
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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)
7466.00	2.11	25.52	7465.12	94.00	-3.40	3.76 N	3.72 W	5.29@	315.34	0.21
7561.00	1.85	30.29	7560.07	95.00	-6.43	6.67 N	2.19 W	7.02@	341.80	0.32
7655.00	2.02	39.76	7654.01	94.00	-9.17	9.25 N	0.37 W	9.26@	357.73	0.38
7749.00	0.53	63.04	7747.99	94.00	-10.77	10.72 N	1.08 E	10.77@	5.76	1.65
7843.00	0.53	93.99	7841.98	94.00	-11.02	10.89 N	1.90 E	11.05@	9.91	0.30
7938.00	0.62	104.05	7936.98	95.00	-10.95	10.73 N	2.84 E	11.10@	14.82	0.14
8031.00	3.52	169.72	8029.91	93.00	-8.13	7.80 N	3.84 E	8.69@	26.19	3.56
8063.00	5.63	184.98	8061.81	32.00	-5.61	5.27 N	3.88 E	6.54@	36.34	7.56
8094.00	8.35	191.34	8092.58	31.00	-1.85	1.55 N	3.30 E	3.64@	64.91	9.11
8126.00	12.75	189.51	8124.03	32.00	3.99	4.22 S	2.26 E	4.79@	151.82	13.79
8157.00	17.59	186.09	8153.94	31.00	12.09	12.25 S	1.20 E	12.31@	174.42	15.87
8189.00	22.25	182.62	8184.02	32.00	22.98	23.12 S	0.41 E	23.12@	178.99	15.02
8220.00	26.38	180.22	8212.26	31.00	35.71	35.88 S	0.11 E	35.88@	179.82	13.70
8252.00	30.42	179.51	8240.41	32.00	50.85	51.09 S	0.15 E	51.09@	179.83	12.67
8283.00	34.21	179.97	8266.60	31.00	67.34	67.66 S	0.23 E	67.66@	179.81	12.25
8315.00	37.46	181.25	8292.54	32.00	86.01	86.39 S	0.02 E	86.39@	179.99	10.42
8346.00	40.54	181.90	8316.63	31.00	105.47	105.89 S	0.52 W	105.89@	180.28	10.02
8377.00	44.67	182.19	8339.44	31.00	126.41	126.86 S	1.27 W	126.86@	180.57	13.34
8409.00	49.59	182.78	8361.21	32.00	149.83	150.28 S	2.29 W	150.30@	180.87	15.43
8440.00	53.64	182.81	8380.45	31.00	174.10	174.55 S	3.48 W	174.58@	181.14	13.06
8471.00	56.98	183.08	8398.09	31.00	199.56	200.00 S	4.79 W	200.06@	181.37	10.80
8503.00	60.23	183.94	8414.76	32.00	226.86	227.26 S	6.46 W	227.35@	181.63	10.41
8534.00	63.66	185.23	8429.34	31.00	254.21	254.52 S	8.66 W	254.67@	181.95	11.66
8552.00	65.77	185.85	8437.03	18.00	270.48	270.72 S	10.23 W	270.91@	182.16	12.13
8563.00	66.74	186.19	8441.46	11.00	280.55	280.73 S	11.28 W	280.96@	182.30	9.26
8595.00	71.58	187.40	8452.84	32.00	310.44	310.42 S	14.83 W	310.77@	182.73	15.53
8627.00	75.27	187.60	8461.96	32.00	341.08	340.82 S	18.83 W	341.34@	183.16	11.55
8658.00	78.17	187.15	8469.08	31.00	371.23	370.74 S	22.70 W	371.44@	183.50	9.46

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
CAPER"BFE" FEDERAL #6H
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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)
8690.00	79.76	187.83	8475.21	32.00	402.62	401.88 S	26.80 W	402.77@	183.81	5.39
8721.00	80.11	188.47	8480.63	31.00	433.11	432.09 S	31.12 W	433.21@	184.12	2.33
8752.00	82.22	188.17	8485.39	31.00	463.70	462.40 S	35.56 W	463.77@	184.40	6.87
8784.00	86.17	187.95	8488.62	32.00	495.49	493.92 S	40.02 W	495.54@	184.63	12.36
8815.00	88.29	188.02	8490.12	31.00	526.42	524.58 S	44.32 W	526.45@	184.83	6.84
8847.00	88.02	187.97	8491.15	32.00	558.37	556.25 S	48.77 W	558.39@	185.01	0.86
8878.00	88.29	188.21	8492.15	31.00	589.32	586.93 S	53.13 W	589.33@	185.17	1.17
8910.00	89.52	186.85	8492.76	32.00	621.29	618.64 S	57.32 W	621.29@	185.29	5.73
8941.00	90.57	184.91	8492.74	31.00	652.29	649.48 S	60.50 W	652.29@	185.32	7.12
8972.00	90.13	184.37	8492.55	31.00	683.29	680.38 S	63.00 W	683.29@	185.29	2.25
9035.00	88.20	185.25	8493.47	63.00	746.27	743.14 S	68.28 W	746.28@	185.25	3.37
9066.00	87.85	185.40	8494.53	31.00	777.26	773.99 S	71.16 W	777.26@	185.25	1.23
9129.00	91.54	186.34	8494.87	63.00	840.24	836.65 S	77.60 W	840.24@	185.30	6.04
9161.00	91.98	186.44	8493.89	32.00	872.22	868.44 S	81.16 W	872.22@	185.34	1.41
9192.00	91.63	186.44	8492.91	31.00	903.20	899.23 S	84.64 W	903.20@	185.38	1.13
9224.00	91.63	186.71	8492.00	32.00	935.18	931.00 S	88.30 W	935.18@	185.42	0.84
9255.00	91.71	186.98	8491.10	31.00	966.16	961.77 S	91.99 W	966.16@	185.46	0.91
9286.00	91.10	186.73	8490.34	31.00	997.14	992.54 S	95.69 W	997.14@	185.51	2.13
9318.00	91.28	186.99	8489.67	32.00	1029.12	1024.30 S	99.51 W	1029.12@	185.55	0.99
9349.00	91.36	187.32	8488.96	31.00	1060.10	1055.05 S	103.37 W	1060.10@	185.60	1.10
9381.00	89.87	186.08	8488.61	32.00	1092.09	1086.83 S	107.11 W	1092.09@	185.63	6.06
9444.00	89.96	184.77	8488.71	63.00	1155.08	1149.55 S	113.06 W	1155.09@	185.62	2.08
9538.00	90.40	185.05	8488.41	94.00	1249.08	1243.20 S	121.11 W	1249.09@	185.56	0.55
9632.00	90.92	185.48	8487.33	94.00	1343.07	1336.80 S	129.73 W	1343.08@	185.54	0.72
9726.00	90.04	185.25	8486.54	94.00	1437.07	1430.38 S	138.52 W	1437.07@	185.53	0.97
9820.00	90.31	185.10	8486.26	94.00	1531.07	1524.00 S	147.00 W	1531.07@	185.51	0.33
9914.00	89.78	184.88	8486.18	94.00	1625.06	1617.64 S	155.18 W	1625.07@	185.48	0.61
10009.00	88.81	184.48	8487.35	95.00	1720.05	1712.31 S	162.93 W	1720.05@	185.44	1.10

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM
CAPER"BFE" FEDERAL #6H
LEA COUNTY, NM
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Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir		DLS (dg/100ft)
(ft)	(deg)	(deg)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(deg)	(dg/100ft)
10103.00	91.10	185.43	8487.42	94.00	1814.04	1805.96 S	171.05 W	1814.04@	185.41	2.64
10197.00	91.36	185.94	8485.41	94.00	1908.02	1899.47 S	180.35 W	1908.02@	185.42	0.61
10291.00	91.28	186.38	8483.24	94.00	2001.98	1992.90 S	190.44 W	2001.98@	185.46	0.48
10385.00	90.40	184.35	8481.86	94.00	2095.97	2086.48 S	199.23 W	2095.97@	185.45	2.35
10479.00	89.69	183.91	8481.79	94.00	2189.94	2180.23 S	206.00 W	2189.94@	185.40	0.89
10573.00	89.69	182.95	8482.30	94.00	2283.88	2274.06 S	211.62 W	2283.89@	185.32	1.02
10667.00	89.69	183.91	8482.81	94.00	2377.83	2367.89 S	217.24 W	2377.83@	185.24	1.02
10761.00	90.84	183.48	8482.37	94.00	2471.78	2461.69 S	223.30 W	2471.80@	185.18	1.31
10855.00	90.92	184.18	8480.93	94.00	2565.73	2555.47 S	229.58 W	2565.76@	185.13	0.75
10949.00	90.92	185.76	8479.42	94.00	2659.72	2649.10 S	237.72 W	2659.75@	185.13	1.68
11043.00	90.40	185.85	8478.34	94.00	2753.71	2742.61 S	247.23 W	2753.73@	185.15	0.56
11138.00	90.75	187.25	8477.38	95.00	2848.68	2836.99 S	258.06 W	2848.70@	185.20	1.52
11232.00	90.57	189.10	8476.30	94.00	2942.56	2930.02 S	271.43 W	2942.57@	185.29	1.98
11326.00	89.52	188.75	8476.23	94.00	3036.38	3022.88 S	286.01 W	3036.38@	185.40	1.18
11420.00	88.72	188.04	8477.67	94.00	3130.24	3115.86 S	299.73 W	3130.24@	185.49	1.14
11515.00	88.90	187.78	8479.64	95.00	3225.13	3209.94 S	312.80 W	3225.14@	185.57	0.33
11546.00	89.25	188.49	8480.14	31.00	3256.09	3240.62 S	317.19 W	3256.11@	185.59	2.55
STRAIGHT LINE PROJECTION TO BIT @ 11603'MD.										
11603.00	89.25	188.49	8480.89	57.00	3313.00	3296.99 S	325.61 W	3313.03@	185.64	0.00

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM		
LEASE / WELL No.:	CAPER BFE FEDERAL #6H	ORIGINAL WELLBORE	
WELL LOCATION:	LEA COUNTY		
COUNTY / STATE / COUNTRY:	LEA	NEW MEXICO	USA
RIG:	PATRIOT 5		
API WELL No:	30-025-38091		
JOB No:	101010758 WT-WT		
P.O. / AFE No.	101110		
DIRECTIONAL COMPANY:	PATHFINDER ENERGY SERVICES		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.43	LWD Calculated:	7.43
		Agreed Upon:	7.43
X =	739905.599000	Feet	Y = 540809.186000
			Feet
SITE LATITUDE:	32.485099	SITE LONGITUDE:	103.689359
GRID SYSTEM:	TRUE ☐ UTM ☐ LAMBERT ☒	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	185.4		
KELLY BUSHING ELEVATION:	27'		
ALTITUDE:	3698	Feet	WATER DEPTH:
			Feet

TIE-IN SURVEY

MEASURED DEPTH:	0		
DRIFT ANGLE:	0		
DRIFT DIRECTION:	0		
TRUE VERTICAL DEPTH:	0		
VERTICAL SECTION:	185.4		
RECTANGULAR COORDINATE (N / S) :	0		
RECTANGULAR COORDINATE (E / W) :	0		
CLOSURE DISTANCE / DIRECTION:	0	0	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):			
COPY OF TIE-IN SURVEY REPORT	☐ YES ☒ NO		

WELL PLAN

KICKOFF DEPTH:	8023	TOTAL DEPTH:	11621
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers: _____

**Signature of both field engineers required if applicable

Directional Driller: _____

DATE: _____

MS ENERGY SERVICES
ODESSA, TEXAS

GYROSCOPIC DIRECTIONAL SURVEY
BY MINIMUM CURVATURE

FOR

* **YATES PETROLEUM** *

JOB NUMBER: SVCO-100524

WELL NAME: CAPER BFE FEDERAL #6H

LOCATION: LEA COUNTY, NEW MEXICO

SURVEY DATE: JUNE 27,2010

SURVEY ENGINEER: S. SMITH

MAGNETIC DECLINATION: 07.43 GRID NORTH

GYRO REFERENCE BEARING: GRID NORTH

VERTICAL SECTION CALCULATED IN A
PROPOSAL DIRECTION OF: 185.40
SURF. ELEVATION: 25

***** DEPTH MEASURED IN FEET *****

***** THIS DIRECTIONAL SURVEY REPORT IS *****
***** ** CORRECT TO THE BEST OF MY KNOWLEDGE **
***** * AND IS SUPPORTED BY ACTUAL FIELD DATA! *
COMMENTS: PATRIOT 5
EMAIL TBUSSELL@YATESPETROLEUM.COM**
BRENT PATTERSON
RKB 25'

***** COMPANY REPRESENTATIVE *****

**

MS ENERGY SERVICES
ODESSA, TEXAS

JOB NUMBER: SVCO-100524

WELL NAME: CAPER BFE FEDERAL #6H

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	0.43	0.075	00.25	195.28	0.42 S	0.11 W	0.13	0.25	0.44 AT	195.28
400.0	400.00	1.23	0.381	00.25	217.35	1.19 S	0.49 W	0.05	0.10	1.29 AT	202.60
600.0	599.99	2.45	0.823	00.50	199.42	2.36 S	1.05 W	0.14	0.27	2.58 AT	203.99
800.0	799.99	3.72	0.922	00.25	170.49	3.61 S	1.27 W	0.15	0.31	3.83 AT	199.34
1000.0	999.99	4.81	1.361	00.50	224.55	4.66 S	1.81 W	0.20	0.41	5.00 AT	201.19
1200.0	1199.96	6.86	3.612	01.25	236.62	6.49 S	4.24 W	0.38	0.77	7.75 AT	213.18

 * THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
 * 1200.00 FEET EQUALS 7.75 FEET AT 213.18 *
 * *****
