



HOBBS OCD

DEC 09 2011

RECEIVED

A Schlumberger Company

DIRECTIONAL SURVEY REPORT

YATES PETROLEUM
ZAPATA "BQZ" STATE COM #1H - H2
LEA COUNTY, NEW MEXICO

SUR: N-2-26s-32e, 330/S & 2180/W
BHL: C-2-26s-32e, 4960/S & 1943/W
API # 30-025-40001

PREPARED BY: FRANCISCO SINISTERRA

JAN 12 2012

Pathfinder

6213 WCR 112
Midland Texas 79706
Tel (432)687-1647
Fax (432)687 1544



DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) MURAD ALIYEV
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 06-25-11 TO 07-13-11
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: LEA COUNTY, NM
7. TYPE OF SURVEY(S) PERFORMED: MWD
8. COMPLETE IDENTIFICATION OF WELL:

YATES PETROLEUM
ZAPATA "BQZ" STATE COM #1H – H2
LEA COUNTY, NM
RIG: PATTERSON #36

9. SURVEY CERTIFIED FROM: 8674 TO 13611 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE
DISPLACED AT 4641.03 FEET ON A BEARING OF 357.05 DEGREES FROM THE
CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13660 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: 06/24/2011
Date Completed: 07/13/2011

YATES PETROLEUM CORPORATION

ZAPATA "BQZ" STATE COM #1H

LEA COUNTY, NM

Rig: PATTERSON 36

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: MURAD ALIYEV

LUQMAN BISIRIYU

Survey Horiz. Reference: WELLHEAD

Ref Coordinates: LAT: 32.3.57.3069 N LON: 103.38.49.9404 W

GRID Reference: NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 753878.8100 Y: 388394.3700

North Aligned To: GRID NORTH

Total Magnetic Correction: 7.24° EAST TO GRID

Vertical Section Plane: 357.02

Survey Vert. Reference: 21.50' Kelly Bushing To Ground

Altitude: 3256.00' Ground To MSL

Measured Depth	13660.00	(feet)
Inclination	90.13	(deg)
Azimuth	356.95	(deg)
True Vertical Depth	9130.94	(feet)
Vertical Section	4641.03	(feet)
Survey X cord	753640.35	(feet)
Survey Y cord	393029.27	(feet)
Survey Lat	32.07866303 N	(deg)
Survey Lon	103.64788039 W	(deg)
Rectangular Corr. N/S	4634.90 N	(feet)
Rectangular Corr. E/W	238.46 W	(feet)
Closure Distance	4641.03	(feet)
Direction of Closure	357.05	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION

ZAPATA "BQZ" STATE COM #1H

LEA COUNTY, NM

Rig:PATTERSON 36

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: MURAD ALIYEV

LUQMAN BISIRIYU

Survey Horiz. Reference:WELLHEAD

Ref Coordinates: LAT:32.3.57.3069 N LON:103.38.49.9404 W

GRID Reference:NAD83 new mexico east Transverse Mercator

Ref GRID Coord: X: 753878.8100 Y: 388394.3700

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.24° EAST TO GRID

Vertical Section Plane: 357.02

Survey Vert. Reference: 21.50' Kelly Bushing To Ground

Altitude:3256.00' Ground To MSL

Survey Calculations by RX5 V6.03E 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 MS ENERGY SERVICES GYRO SURVEYS.										
0.00	0.00	0.00	0.00	0.00	0.00	0.01 N	0.00 E	0.01@	32.39	0.00
200.00	0.25	13.32	200.00	200.00	0.42	0.43 N	0.10 E	0.44@	13.58	0.13
400.00	0.50	228.39	400.00	200.00	0.30	0.27 N	0.45 W	0.53@	301.50	0.36
600.00	0.25	252.46	599.99	200.00	-0.36	0.44 S	1.52 W	1.58@	253.95	0.14
800.00	0.50	239.52	799.99	200.00	-0.87	1.01 S	2.68 W	2.87@	249.38	0.13
1000.00	0.25	200.59	999.99	200.00	-1.67	1.86 S	3.59 W	4.04@	242.59	0.17
1200.00	0.50	209.66	1199.98	200.00	-2.81	3.03 S	4.18 W	5.16@	234.05	0.13
1400.00	0.75	154.73	1399.97	200.00	-4.75	4.97 S	4.05 W	6.41@	219.17	0.31
1600.00	1.00	215.79	1599.95	200.00	-7.33	7.57 S	4.51 W	8.81@	210.79	0.46
1800.00	0.75	205.86	1799.93	200.00	-9.83	10.16 S	6.10 W	11.85@	210.98	0.14
2000.00	1.50	221.91	1999.89	200.00	-12.83	13.29 S	8.42 W	15.73@	212.36	0.40
2200.00	2.00	221.31	2199.79	200.00	-17.19	17.86 S	12.47 W	21.78@	214.93	0.25
2400.00	1.75	231.38	2399.69	200.00	-21.46	22.39 S	17.16 W	28.21@	217.48	0.21
2600.00	1.25	235.45	2599.62	200.00	-24.39	25.53 S	21.35 W	33.28@	219.90	0.25
2800.00	1.25	230.52	2799.57	200.00	-26.83	28.15 S	24.83 W	37.54@	221.41	0.05
3000.00	1.25	233.58	2999.52	200.00	-29.33	30.84 S	28.27 W	41.83@	222.51	0.03
3200.00	0.25	61.66	3199.51	200.00	-30.34	31.92 S	29.64 W	43.56@	222.87	0.75
3400.00	1.25	34.72	3399.49	200.00	-28.43	29.92 S	28.01 W	40.99@	223.11	0.52
3600.00	1.25	34.79	3599.44	200.00	-24.98	26.34 S	25.52 W	36.68@	224.10	0.00
3800.00	1.00	38.85	3799.40	200.00	-21.95	23.19 S	23.18 W	32.79@	225.00	0.13
4000.00	1.25	106.92	3999.37	200.00	-21.39	22.46 S	20.00 W	30.08@	221.68	0.64
4200.00	1.50	121.00	4199.32	200.00	-23.60	24.45 S	15.67 W	29.04@	212.66	0.21
4400.00	1.25	130.06	4399.26	200.00	-26.55	27.20 S	11.76 W	29.63@	203.38	0.17
4600.00	0.25	122.12	4599.24	200.00	-28.29	28.84 S	9.72 W	30.43@	198.63	0.50
4800.00	0.75	212.19	4799.23	200.00	-29.61	30.18 S	10.05 W	31.80@	198.42	0.39

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
ZAPATA "BQZ" STATE COM #1H
LEA COUNTY, NM
RIG:PATTERSON 36

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)
5000.00	0.50	266.26	4999.22	200.00	-30.69	31.34 S	11.62 W	33.42@	200.34	0.31
5200.00	0.25	210.32	5199.22	200.00	-31.07	31.77 S	12.71 W	34.22@	201.80	0.21
5400.00	0.50	219.39	5399.21	200.00	-32.08	32.82 S	13.48 W	35.49@	202.33	0.13
5600.00	0.50	249.46	5599.21	200.00	-32.99	33.81 S	14.85 W	36.92@	203.72	0.13
5800.00	0.25	275.52	5799.20	200.00	-33.19	34.07 S	16.10 W	37.68@	205.30	0.15
6000.00	0.25	233.59	5999.20	200.00	-33.36	34.29 S	16.89 W	38.22@	206.22	0.09
6200.00	0.25	287.99	6199.20	200.00	-33.45	34.41 S	17.65 W	38.68@	207.16	0.11
6400.00	0.50	201.06	6399.20	200.00	-34.09	35.09 S	18.38 W	39.61@	207.65	0.27
6600.00	0.50	196.12	6599.19	200.00	-35.71	36.74 S	18.94 W	41.34@	207.27	0.02
6800.00	0.50	232.19	6799.18	200.00	-37.03	38.12 S	19.87 W	42.99@	207.53	0.16
7000.00	0.25	199.26	6999.18	200.00	-37.93	39.06 S	20.70 W	44.21@	207.92	0.16
7200.00	0.50	204.32	7199.17	200.00	-39.11	40.27 S	21.21 W	45.51@	207.77	0.13
7400.00	1.00	226.39	7399.16	200.00	-41.03	42.27 S	22.83 W	48.04@	208.37	0.28
7600.00	0.75	190.46	7599.13	200.00	-43.44	44.76 S	24.33 W	50.95@	208.53	0.30
7800.00	0.75	192.52	7799.12	200.00	-45.97	47.33 S	24.85 W	53.45@	207.71	0.01
8000.00	0.50	191.59	7999.10	200.00	-48.08	49.46 S	25.31 W	55.56@	207.10	0.13
8200.00	1.00	156.66	8199.09	200.00	-50.56	51.92 S	24.80 W	57.53@	205.53	0.33
8400.00	0.75	186.72	8399.06	200.00	-53.48	54.82 S	24.26 W	59.95@	203.87	0.26
** TIE INTO MS ENERGY SERVICES GYRO SURVEY AT 8576'MD.										
8576.00	0.75	184.86	8575.05	176.00	-55.76	57.11 S	24.49 W	62.14@	203.21	0.01
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
8674.00	1.32	339.89	8673.04	98.00	-55.32	56.69 S	24.93 W	61.93@	203.74	2.07
8706.00	3.43	343.38	8705.01	32.00	-54.03	55.43 S	25.33 W	60.94@	204.56	6.61
8738.00	5.72	346.00	8736.91	32.00	-51.54	52.96 S	25.99 W	59.00@	206.14	7.18
8769.00	8.79	350.83	8767.66	31.00	-47.67	49.12 S	26.74 W	55.93@	208.57	10.09
8801.00	12.22	353.49	8799.12	32.00	-41.85	43.34 S	27.52 W	51.34@	212.41	10.82
8832.00	15.83	354.65	8829.19	31.00	-34.35	35.87 S	28.28 W	45.68@	218.26	11.68
8864.00	19.43	356.36	8859.68	32.00	-24.67	26.21 S	29.03 W	39.11@	227.92	11.37

PathFinder Energy Services, Inc.

Survey Report

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LEA COUNTY, NM
RIG:PATTERSON 36

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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)
8897.00	22.60	356.97	8890.48	33.00	-12.83	14.40 S	29.71 W	33.02@	244.15	9.63
8928.00	26.29	357.33	8918.70	31.00	-0.01	1.59 S	30.35 W	30.39@	267.01	11.91
8959.00	29.90	355.95	8946.04	31.00	14.59	12.98 N	31.21 W	33.81@	292.58	11.83
8991.00	33.59	355.57	8973.25	32.00	31.42	29.77 N	32.46 W	44.05@	312.52	11.55
9023.00	37.55	356.01	8999.27	32.00	50.02	48.33 N	33.82 W	58.99@	325.01	12.40
9054.00	42.03	357.64	9023.09	31.00	69.86	68.13 N	34.91 W	76.56@	332.87	14.84
9086.00	47.13	356.00	9045.87	32.00	92.31	90.55 N	36.17 W	97.51@	338.23	16.34
9118.00	52.23	354.74	9066.57	32.00	116.69	114.86 N	38.15 W	121.03@	341.63	16.22
9149.00	57.68	354.88	9084.37	31.00	142.04	140.13 N	40.44 W	145.85@	343.90	17.58
9181.00	63.40	355.49	9100.10	32.00	169.88	167.88 N	42.78 W	173.24@	345.71	17.95
9220.00	70.35	357.02	9115.41	39.00	205.71	203.65 N	45.10 W	208.58@	347.51	18.18
9252.00	75.53	357.13	9124.79	32.00	236.30	234.19 N	46.66 W	238.79@	348.73	16.19
9284.00	78.61	356.92	9131.95	32.00	267.48	265.33 N	48.28 W	269.69@	349.69	9.65
9315.00	81.34	355.99	9137.35	31.00	298.00	295.80 N	50.17 W	300.02@	350.37	9.29
9347.00	84.06	354.72	9141.41	32.00	329.73	327.43 N	52.74 W	331.65@	350.85	9.37
9378.00	87.76	355.02	9143.62	31.00	360.62	358.22 N	55.51 W	362.49@	351.19	11.97
9410.00	91.10	354.99	9143.94	32.00	392.60	390.09 N	58.29 W	394.42@	351.50	10.44
9473.00	92.59	355.05	9141.91	63.00	455.52	452.82 N	63.76 W	457.29@	351.99	2.37
9567.00	93.56	355.98	9136.87	94.00	549.35	546.39 N	71.10 W	551.00@	352.59	1.43
9662.00	91.89	357.03	9132.35	95.00	644.24	641.11 N	76.88 W	645.70@	353.16	2.08
9757.00	91.01	357.63	9129.95	95.00	739.20	735.97 N	81.31 W	740.45@	353.70	1.12
9851.00	90.57	0.34	9128.65	94.00	833.13	829.94 N	82.97 W	834.08@	354.29	2.92
9946.00	90.22	0.79	9128.00	95.00	927.95	924.93 N	82.03 W	928.56@	354.93	0.60
10042.00	90.04	0.38	9127.78	96.00	1023.76	1020.93 N	81.05 W	1024.14@	355.46	0.47
10135.00	89.25	359.97	9128.36	93.00	1116.62	1113.92 N	80.77 W	1116.85@	355.85	0.96
10229.00	89.96	358.18	9129.01	94.00	1210.55	1207.90 N	82.29 W	1210.70@	356.10	2.05
10324.00	87.85	356.61	9130.82	95.00	1305.52	1302.78 N	86.60 W	1305.66@	356.20	2.77
10418.00	88.64	357.38	9133.70	94.00	1399.48	1396.61 N	91.53 W	1399.60@	356.25	1.17

PathFinder Energy Services, Inc.

Survey Report

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LEA COUNTY, NM
RIG:PATTERSON 36

Page 04/05

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)
10513.00	90.04	357.26	9134.79	95.00	1494.47	1491.49 N	95.97 W	1494.58@	356.32	1.48
10606.00	89.25	357.35	9135.37	93.00	1587.46	1584.39 N	100.34 W	1587.56@	356.38	0.86
10700.00	90.22	358.12	9135.80	94.00	1681.45	1678.31 N	104.06 W	1681.53@	356.45	1.32
10795.00	89.87	358.14	9135.73	95.00	1776.43	1773.26 N	107.16 W	1776.50@	356.54	0.37
10889.00	91.10	358.07	9134.94	94.00	1870.41	1867.20 N	110.27 W	1870.46@	356.62	1.31
10983.00	90.48	357.78	9133.64	94.00	1964.39	1961.13 N	113.67 W	1964.42@	356.68	0.73
11078.00	90.31	357.37	9132.98	95.00	2059.38	2056.05 N	117.69 W	2059.41@	356.72	0.47
11172.00	89.52	357.29	9133.12	94.00	2153.38	2149.94 N	122.07 W	2153.41@	356.75	0.85
11267.00	89.16	357.16	9134.22	95.00	2248.37	2244.82 N	126.67 W	2248.40@	356.77	0.40
11361.00	90.04	357.18	9134.87	94.00	2342.37	2338.71 N	131.31 W	2342.39@	356.79	0.94
11456.00	91.36	358.09	9133.71	95.00	2437.35	2433.62 N	135.23 W	2437.37@	356.82	1.69
11550.00	90.04	358.41	9132.56	94.00	2531.32	2527.56 N	138.10 W	2531.33@	356.87	1.44
11664.00	91.10	359.02	9131.43	114.00	2645.27	2641.53 N	140.66 W	2645.27@	356.95	1.07
11759.00	89.25	358.29	9131.14	95.00	2740.22	2736.49 N	142.88 W	2740.22@	357.01	2.09
11853.00	89.43	358.10	9132.22	94.00	2834.20	2830.44 N	145.85 W	2834.20@	357.05	0.28
11947.00	89.87	357.36	9132.80	94.00	2928.19	2924.37 N	149.57 W	2928.19@	357.07	0.92
12042.00	90.48	358.25	9132.51	95.00	3023.18	3019.29 N	153.21 W	3023.18@	357.10	1.14
12137.00	91.19	358.00	9131.12	95.00	3118.15	3114.23 N	156.31 W	3118.15@	357.13	0.79
12231.00	89.78	357.71	9130.33	94.00	3212.13	3208.16 N	159.83 W	3212.14@	357.15	1.53
12336.00	89.87	358.17	9130.65	105.00	3317.12	3313.09 N	163.61 W	3317.13@	357.17	0.45
12430.00	90.57	357.71	9130.29	94.00	3411.10	3407.03 N	166.99 W	3411.12@	357.19	0.89
12505.00	90.22	357.36	9129.77	75.00	3486.10	3481.96 N	170.21 W	3486.12@	357.20	0.66
12599.00	89.69	357.17	9129.84	94.00	3580.10	3575.85 N	174.70 W	3580.11@	357.20	0.60
12694.00	89.60	356.71	9130.43	95.00	3675.09	3670.71 N	179.77 W	3675.11@	357.20	0.49
12788.00	90.04	357.00	9130.73	94.00	3769.09	3764.57 N	184.93 W	3769.11@	357.19	0.56
12882.00	90.40	356.93	9130.37	94.00	3863.09	3858.44 N	189.90 W	3863.11@	357.18	0.39
12977.00	90.40	356.89	9129.70	95.00	3958.09	3953.30 N	195.02 W	3958.11@	357.18	0.04
13072.00	89.52	356.33	9129.77	95.00	4053.09	4048.13 N	200.64 W	4053.10@	357.16	1.10

PathFinder Energy Services, Inc.

Survey Report

YATES PETROLEUM CORPORATION
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LEA COUNTY, NM
RIG:PATTERSON 36

Page 05/05

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)
13167.00	89.87	356.27	9130.28	95.00	4148.08	4142.93 N	206.77 W	4148.09@	357.14	0.37
13261.00	89.34	356.05	9130.92	94.00	4242.06	4236.72 N	213.07 W	4242.07@	357.12	0.61
13356.00	89.78	355.99	9131.65	95.00	4337.05	4331.48 N	219.66 W	4337.05@	357.10	0.47
13419.00	89.96	356.25	9131.80	63.00	4400.04	4394.34 N	223.92 W	4400.04@	357.08	0.50
13514.00	90.40	356.27	9131.50	95.00	4495.03	4489.14 N	230.12 W	4495.03@	357.07	0.46
13611.00	90.13	356.95	9131.05	97.00	4592.03	4585.97 N	235.86 W	4592.03@	357.06	0.75
STRAIGHT LINE PROJECTION TO BIT AT 13660'MD.										
13660.00	90.13	356.95	9130.94	49.00	4641.03	4634.90 N	238.46 W	4641.03@	357.05	0.00

** The survey data at tie-in point was furnished by a recognized survey company and entered as submitted. Survey stations above the tie-in point represent recalculated data by PathFinder Energy Services, Inc. and may reflect minor changes due to rounding differences between survey programs. Only survey stations taken by qualified PathFinder personnel are subject to certification.



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	YATES PETROLEUM CORP.		
LEASE / WELL No.:	ZAPATA "BQZ" STATE COM	#1H	
WELL LOCATION:	LEA COUNTY, NM		
COUNTY / STATE / COUNTRY:	LEA	NM	USA
RIG:	PATTERSON 36		
API WELL No:	30-025-40001		
JOB No:	700002769 WT-WT		
P.O. / AFE No.	10-340-0		
DIRECTIONAL COMPANY:	PATHFINDER		

WELL SITE INFORMATION

TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.24	LWD Calculated:	7.24
		Agreed Upon:	7.24
X =	753878.810000	Feet	Y = 388394.370000
			Feet
SITE LATITUDE:	32.065919 N	SITE LONGITUDE:	103.647206 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	357.02		
KELLY BUSHING ELEVATION:	21.50'		
ALTITUDE:	3256	Feet	WATER DEPTH: N/A
			Feet

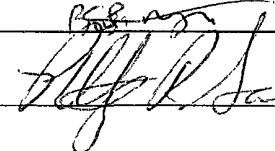
TIE-IN SURVEY

MEASURED DEPTH:	8576		
DRIFT ANGLE:	0.75		
DRIFT DIRECTION:	184.86		
TRUE VERTICAL DEPTH:	8575.05		
VERTICAL SECTION:	-55.76		
RECTANGULAR COORDINATE (N / S) :	-57.11		
RECTANGULAR COORDINATE (E / W) :	-24.49		
CLOSURE DISTANCE / DIRECTION:	62.14	203.21	
SURVEY CALCULATION METHOD:	AA ☐	MC ☒	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	MS ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	☒ YES ☐ NO		

WELL PLAN

KICKOFF DEPTH:	8658.54	TOTAL DEPTH:	13624.18
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-110733

WELL NAME: ZAPATA BQZ STATE COM #1H

LOCATION: LEA COUNTY, NEW MEXICO

SURVEY DATE: JUNE 24, 2011

SURVEY ENGINEER: S. SMITH

MAGNETIC DECLINATION: 07.24 GRID NORTH

GYRO REFERENCE BEARING: GRID NORTH

VERTICAL SECTION CALCULATED IN A
PROPOSAL DIRECTION OF: 357.02
SURF. ELEVATION: 20

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

***** THIS DIRECTIONAL SURVEY REPORT IS *****
***** CORRECT TO THE BEST OF MY KNOWLEDGE *****
***** AND IS SUPPORTED BY ACTUAL FIELD DATA! *****

COMMENTS: PATTERSON 36
RKB 20'
EMAIL MIKEL@YATESPETROLEUM.COM**
TBUSSELL@YATESPETROLEUM.COM**

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

**

MS ENERGY SERVICES
ODESSA, TEXAS

JOB NUMBER: SVCO-110733

WELL NAME: ZAPATA BQZ STATE COM #1H

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	0.42	0.122	00.25	013.32	0.42 N	0.10 E	0.13	0.25	0.44	AT 013.32
400.0	400.00	0.29	-0.437	00.50	228.39	0.27 N	0.45 W	0.36	0.72	0.53	AT 300.86
600.0	599.99	-0.36	-1.541	00.25	252.46	0.44 S	1.52 W	0.15	0.29	1.58	AT 253.81
800.0	799.99	-0.87	-2.737	00.50	239.52	1.02 S	2.69 W	0.13	0.26	2.87	AT 249.31
1000.0	999.98	-1.68	-3.686	00.25	200.59	1.87 S	3.59 W	0.17	0.34	4.05	AT 242.55
1200.0	1199.98	-2.81	-4.331	00.50	209.66	3.03 S	4.18 W	0.13	0.26	5.16	AT 234.02
1400.0	1399.97	-4.76	-4.305	00.75	154.73	4.98 S	4.05 W	0.31	0.62	6.42	AT 219.16
1600.0	1599.95	-7.33	-4.901	01.00	215.79	7.57 S	4.51 W	0.46	0.91	8.82	AT 210.79
1800.0	1799.93	-9.84	-6.626	00.75	205.86	10.17 S	6.11 W	0.15	0.29	11.86	AT 210.98
2000.0	1999.89	-12.84	-9.105	01.50	221.91	13.29 S	8.42 W	0.40	0.81	15.74	AT 212.36
2200.0	2199.79	-17.19	-13.389	02.00	221.31	17.86 S	12.48 W	0.25	0.50	21.79	AT 214.93
2400.0	2399.69	-21.47	-18.308	01.75	231.38	22.39 S	17.17 W	0.21	0.41	28.22	AT 217.48
2600.0	2599.62	-24.39	-22.648	01.25	235.45	25.53 S	21.35 W	0.26	0.51	33.28	AT 219.90
2800.0	2799.57	-26.83	-26.261	01.25	230.52	28.16 S	24.83 W	0.05	0.11	37.54	AT 221.41
3000.0	2999.52	-29.33	-29.835	01.25	233.58	30.84 S	28.27 W	0.03	0.07	41.84	AT 222.51
3200.0	3199.51	-30.35	-31.261	00.25	061.66	31.93 S	29.64 W	0.75	1.50	43.57	AT 222.87
3400.0	3399.49	-28.43	-29.532	01.25	034.72	29.93 S	28.01 W	0.52	1.03	40.99	AT 223.11
3600.0	3599.44	-24.98	-26.862	01.25	034.79	26.34 S	25.53 W	0.00	0.00	36.68	AT 224.10
3800.0	3799.40	-21.96	-24.362	01.00	038.85	23.19 S	23.19 W	0.13	0.26	32.80	AT 224.99
4000.0	3999.37	-21.40	-21.147	01.25	106.92	22.47 S	20.01 W	0.64	1.28	30.08	AT 221.68
4200.0	4199.32	-23.60	-16.925	01.50	121.00	24.45 S	15.67 W	0.21	0.42	29.05	AT 212.66
4400.0	4399.26	-26.56	-13.160	01.25	130.06	27.20 S	11.76 W	0.17	0.33	29.64	AT 203.38
4600.0	4599.24	-28.30	-11.208	00.25	122.12	28.84 S	9.72 W	0.50	1.00	30.44	AT 198.63
4800.0	4799.23	-29.62	-11.605	00.75	212.19	30.18 S	10.05 W	0.40	0.79	31.81	AT 198.42
5000.0	4999.22	-30.70	-13.232	00.50	266.26	31.35 S	11.62 W	0.31	0.61	33.43	AT 200.34
5200.0	5199.22	-31.07	-14.344	00.25	210.32	31.78 S	12.71 W	0.21	0.42	34.23	AT 201.80
5400.0	5399.21	-32.08	-15.172	00.50	219.39	32.83 S	13.48 W	0.13	0.26	35.49	AT 202.33
5600.0	5599.21	-32.99	-16.592	00.50	249.46	33.81 S	14.85 W	0.13	0.26	36.93	AT 203.72
5800.0	5799.20	-33.19	-17.855	00.25	275.52	34.07 S	16.11 W	0.15	0.30	37.69	AT 205.30
6000.0	5999.20	-33.37	-18.651	00.25	233.59	34.29 S	16.89 W	0.09	0.18	38.23	AT 206.22
6200.0	6199.20	-33.45	-19.423	00.25	287.99	34.42 S	17.66 W	0.11	0.23	38.68	AT 207.16
6400.0	6399.19	-34.09	-20.186	00.50	201.06	35.10 S	18.39 W	0.27	0.55	39.62	AT 207.65
6600.0	6599.19	-35.71	-20.827	00.50	196.12	36.75 S	18.94 W	0.02	0.04	41.34	AT 207.27
6800.0	6799.18	-37.04	-21.828	00.50	232.19	38.12 S	19.87 W	0.15	0.31	42.99	AT 207.53
7000.0	6999.18	-37.94	-22.710	00.25	199.26	39.07 S	20.71 W	0.16	0.32	44.22	AT 207.92
7200.0	7199.17	-39.12	-23.275	00.50	204.32	40.28 S	21.21 W	0.13	0.25	45.52	AT 207.77
7400.0	7399.15	-41.03	-25.000	01.00	226.39	42.27 S	22.83 W	0.28	0.57	48.05	AT 208.37
7600.0	7599.13	-43.44	-26.629	00.75	190.46	44.77 S	24.33 W	0.29	0.59	50.95	AT 208.53
7800.0	7799.11	-45.97	-27.283	00.75	192.52	47.33 S	24.86 W	0.01	0.03	53.46	AT 207.71
8000.0	7999.10	-48.08	-27.852	00.50	191.59	49.46 S	25.32 W	0.13	0.25	55.56	AT 207.10
8200.0	8199.09	-50.56	-27.465	01.00	156.66	51.92 S	24.80 W	0.33	0.66	57.54	AT 205.53
8400.0	8399.06	-53.49	-27.078	00.75	186.72	54.82 S	24.26 W	0.26	0.51	59.95	AT 203.87
8576.0	8575.05	-55.76	-27.429	00.75	184.86	57.11 S	24.49 W	0.01	0.02	62.14	AT 203.21

 * THE HORIZONTAL DISPLACEMENT AT THE DEPTH OF *
 * ***** *
 * 8576.00 FEET EQUALS 62.14 FEET AT 203.21 *
 * ***** *

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

YATES PETROLEUM CORPORATION
ZAPATA "BQZ" STATE COM #1H
LEA COUNTY, NEW MEXICO
Rig: PATTEROSN 36

Wed Jun 08 17:51:23 2011

Coordinates

Latitude: 32.065919 N (32 deg. 3 min. 57.3069 sec.)
Longitude: 103.647206 W (-103 deg. 38 min. 49.9404 sec.)
Elevation: 3277.50 feet.
Calculation Date: Jun/08/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.0273 degrees
Total Magnetic Field: 0.48515 gauss
Magnetic Declination: 7.611005 degrees
Horizontal Intensity: 0.242377 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.611005 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 753878.8100 feet
Y: 388394.3700 feet
True to Grid: (convergence) -0.364274 degrees
Magnetic to Grid: 7.246731 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.246731 Degr.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

Fri Jun 24 05:02:33 2011

Coordinates

Latitude: 32.065919 N (32 deg. 3 min. 57.3069 sec.)
Longitude: 103.647206 W (-103 deg. 38 min. 49.9404 sec.)
Elevation: 3256.00 feet.
Calculation Date: Jun/24/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.0262 degrees
Total Magnetic Field: 0.48511 gauss
Magnetic Declination: 7.605664 degrees
Horizontal Intensity: 0.242363 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.605664 Degr

Transverse Mercator Grid Calculations NAD83

Grid System: Transverse Mercator: new mexico east
Ellipsoid: GRS80
X: 753878.8100 feet
Y: 388394.3700 feet
True to Grid: (convergence) -0.364274 degrees
Magnetic to Grid: 7.241390 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.241390 Degr.