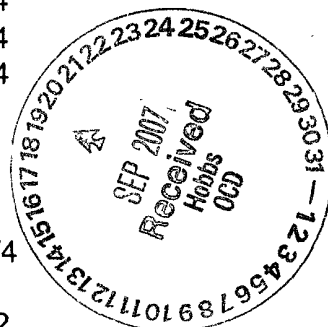


OPERATOR: Marbob Energy Corp.
 WELL/LEASE: George Fed #2
 COUNTY: ~~Eddy~~ Lea County, NM
 Sec. 5 T20S R32E

30-025-38115
 C-5-20s-32e
 570/N + 1700/W

STATE OF NEW MEXICO
DEVIATION REPORT

<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
290	3/4	5,150	1 1/4
550	1 1/4	5,635	1
913	3/4	6,112	3/4
1,234	1/2	6,589	3/4
1,521	3/4	7,080	1/4
1,806	1/2	7,574	1
2,124	3/4	7,967	1
2,440	1 1/4	8,464	0
2,636	3/4	8,941	1
2,919	1 1/4	9,078	1 1/4
3,201	1/2	9,481	1
3,618	2 1/4	9,957	1/2
3,745	1 3/4	10,434	3/4
3,904	1 3/4	10,922	2
4,095	1 1/4	11,133	3
4,348	2	11,225	3
4,650	1 1/4	11,323	3 3/4



Patriot Drilling, LLC

Daniel Campbell

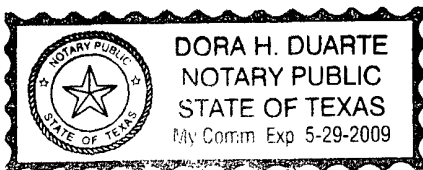
Daniel Campbell for M. Leroy Peterson,
 Executive Vice-President

The foregoing instrument was acknowledged before me on this 14th day of August, 2007 by Daniel Campbell for M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 5/29/2009

Dora H. Duarte

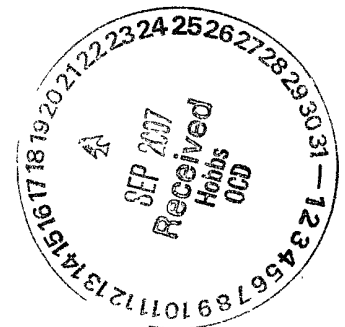
Dora H. Duarte
 Notary Public for Midland Co., Texas



DIRECTIONAL SURVEY REPORT

MARBOB ENERGY
GEORGE FED COM #2
LEA COUNTY, NEW MEXICO

PREPARED BY: CODY MEBANE

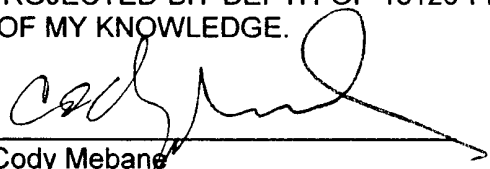


DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) CAESAR DAVILA
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 7-21-07 TO 7-28-07
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:

MARBOB ENERGY CORPORATION.
GEORGE FED COM #2
LEA COUNTY, NM
RIG: PATRIOT #2
9. SURVEY CERTIFIED FROM: 11309 TO 13072 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 85.84 FEET ON A BEARING OF 27.98 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 13120 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.


Cody Mebane
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 07/20/2007
Date Completed: 07/28/2007

MARBOB ENERGY
GEORGE FED COM #2
LEA COUNTY, NEW MEXICO
Rig: PATRIOT 2
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers: CAESAR DAVILA

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.36.28.4976 N LON: 103.47.27.6612 W
GRID Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 666997.6219 Y: 585297.2744
North Aligned To: GRID NORTH
Total Magnetic Correction: 7.88° EAST TO GRID
Vertical Section Plane: 0.00
Survey Vert. Reference: 15.00' Rotary Table To Ground
Altitude: 3517.00' Ground To MSL

Measured Depth	13120.00	(feet)
Inclination	3.34	(deg)
Azimuth	4.54	(deg)
True Vertical Depth	13117.84	(feet)
Vertical Section	75.81	(feet)
Survey X cord	667037.89	(feet)
Survey Y cord	585373.08	(feet)
Survey Lat	32.60812382 N	(deg)
Survey Lon	103.79088498 W	(deg)
Rectangular Corr. N/S	75.81 N	(feet)
Rectangular Corr. E/W	40.27 E	(feet)
Closure Distance	85.84	(feet)
Direction of Closure	27.98	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

MARBOB ENERGY
 GEORGE FED COM #2
 LEA COUNTY, NEW MEXICO
 Rig: PATRIOT 2
 PathFinder Office Supervisor: FRANCISCO SINISTERRA
 PathFinder Field Engineers: CAESAR DAVILA

Survey Horiz. Reference: WELLHEAD
 Ref Coordinates: LAT: 32.36.28.4976 N LON: 103.47.27.6612 W
 Reference: NAD27 new mexico east Transverse Mercator
 Ref GRID Coord: X: 666997.6219 Y: 585297.2744
 North Aligned To: GRID NORTH
 Total Magnetic Correction: 7.88° EAST TO GRID
 Vertical Section Plane: 0.00
 Survey Vert. Reference: 15.00' Rotary Table To Ground
 Altitude: 3517.00' Ground To MSL

Survey Calculations by PathCalc v1.96 using Minimum Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft) (ft)		Closure Dist Dir (ft) (deg)	DLS (dg/100ft)	
NO TIE IN PROVIDED. ASSUME VERTICAL @ 11249' MD.										
11249.00	0.00	0.00	11249.00	0.00	0.00	0.00	0.00	0.00@ 0.00	0.00	
THE FOLLOWING ARE PATHFINDER MWD SURVEYS.										
11309.00	3.52	28.36	11308.96	60.00	1.62	1.62 N	0.88 E	1.84@ 28.36	5.87	
11349.00	3.96	24.58	11348.88	40.00	3.96	3.96 N	2.03 E	4.45@ 27.19	1.26	
11444.00	4.04	20.18	11443.65	95.00	10.08	10.08 N	4.55 E	11.06@ 24.30	0.33	
11476.00	2.73	13.77	11475.59	32.00	11.88	11.88 N	5.12 E	12.94@ 23.32	4.25	
11508.00	2.29	21.06	11507.56	32.00	13.22	13.22 N	5.53 E	14.33@ 22.72	1.70	
11539.00	2.46	12.89	11538.53	31.00	14.44	14.44 N	5.90 E	15.60@ 22.23	1.22	
11571.00	2.90	16.93	11570.50	32.00	15.89	15.89 N	6.29 E	17.09@ 21.61	1.50	
11603.00	2.55	18.51	11602.46	32.00	17.34	17.34 N	6.76 E	18.61@ 21.29	1.12	
11635.00	2.46	17.81	11634.43	32.00	18.67	18.67 N	7.19 E	20.00@ 21.07	0.30	
11666.00	2.64	14.47	11665.40	31.00	19.99	19.99 N	7.57 E	21.38@ 20.75	0.75	
11730.00	2.55	16.41	11729.33	64.00	22.78	22.78 N	8.34 E	24.26@ 20.11	0.20	
11793.00	2.73	18.78	11792.27	63.00	25.55	25.55 N	9.22 E	27.16@ 19.85	0.33	
11825.00	2.73	20.36	11824.23	32.00	26.98	26.98 N	9.73 E	28.69@ 19.83	0.24	
11857.00	2.81	16.14	11856.19	32.00	28.45	28.45 N	10.22 E	30.23@ 19.75	0.68	
11888.00	3.17	23.79	11887.15	31.00	29.97	29.97 N	10.77 E	31.84@ 19.77	1.73	
11920.00	3.17	21.68	11919.10	32.00	31.60	31.60 N	11.46 E	33.61@ 19.93	0.36	
11952.00	2.37	27.30	11951.06	32.00	33.01	33.01 N	12.09 E	35.15@ 20.11	2.64	
12015.00	2.81	20.01	12014.00	63.00	35.62	35.62 N	13.21 E	37.99@ 20.35	0.87	
12047.00	3.08	22.38	12045.96	32.00	37.15	37.15 N	13.81 E	39.63@ 20.39	0.93	
12110.00	2.73	34.86	12108.88	63.00	39.95	39.95 N	15.31 E	42.78@ 20.97	1.14	
12142.00	2.81	31.87	12140.84	32.00	41.24	41.24 N	16.16 E	44.29@ 21.40	0.52	

PathFinder Energy Services, Inc.

Survey Report

MARBOB ENERGY
GEORGE FED COM #2
LEA COUNTY, NEW MEXICO
RIG:PATRIOT 2

Page 02/02

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets		Closure Dist Dir		DLS
						(ft)	(ft)	(ft)	(deg)	(dg/100ft)
12174.00	3.25	38.47	12172.80	32.00	42.61	42.61 N	17.14 E	45.93@	21.91	1.75
12237.00	2.29	46.29	12235.72	63.00	44.88	44.88 N	19.16 E	48.80@	23.12	1.63
12301.00	2.11	31.00	12299.68	64.00	46.77	46.77 N	20.69 E	51.15@	23.86	0.96
12364.00	2.55	43.39	12362.62	63.00	48.79	48.79 N	22.25 E	53.62@	24.52	1.06
12427.00	2.90	41.10	12425.55	63.00	51.01	51.01 N	24.26 E	56.48@	25.44	0.58
12459.00	2.99	41.54	12457.51	32.00	52.24	52.24 N	25.35 E	58.07@	25.88	0.29
12491.00	2.73	36.97	12489.47	32.00	53.47	53.47 N	26.36 E	59.62@	26.24	1.08
12523.00	2.55	42.51	12521.44	32.00	54.61	54.61 N	27.30 E	61.05@	26.56	0.98
12555.00	2.37	41.81	12553.41	32.00	55.63	55.63 N	28.22 E	62.37@	26.90	0.57
12618.00	2.90	46.73	12616.34	63.00	57.69	57.69 N	30.25 E	65.14@	27.67	0.91
12650.00	2.90	47.78	12648.30	32.00	58.79	58.79 N	31.44 E	66.67@	28.14	0.17
12681.00	2.02	54.99	12679.27	31.00	59.63	59.63 N	32.47 E	67.89@	28.57	3.00
12713.00	1.85	65.10	12711.25	32.00	60.17	60.17 N	33.40 E	68.82@	29.03	1.19
12776.00	2.11	49.63	12774.21	63.00	61.35	61.35 N	35.20 E	70.73@	29.85	0.94
12840.00	2.64	38.11	12838.16	64.00	63.27	63.27 N	37.01 E	73.30@	30.32	1.11
12872.00	2.55	31.08	12870.13	32.00	64.46	64.46 N	37.83 E	74.74@	30.41	1.03
12903.00	2.46	25.55	12901.10	31.00	65.65	65.65 N	38.48 E	76.10@	30.37	0.83
12935.00	2.46	22.03	12933.07	32.00	66.91	66.91 N	39.03 E	77.46@	30.26	0.47
12967.00	2.46	9.99	12965.04	32.00	68.22	68.22 N	39.41 E	78.78@	30.01	1.61
12999.00	2.29	11.75	12997.01	32.00	69.52	69.52 N	39.65 E	80.04@	29.70	0.58
13030.00	2.64	5.77	13027.98	31.00	70.84	70.84 N	39.85 E	81.28@	29.36	1.40
13072.00	3.34	4.54	13069.92	42.00	73.02	73.02 N	40.05 E	83.28@	28.74	1.67
STRAIGHT LINE PROJECTION TO BIT @ 13120FT MD.										
13120.00	3.34	4.54	13117.84	48.00	75.81	75.81 N	40.27 E	85.84@	27.98	0.00

FINDER

ENERGY SERVICES

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	Marbob Energy		
LEASE / WELL No.:	George Fed Com	#2	
WELL LOCATION:	Greenwood Morrow SouthEast		
COUNTY / STATE / COUNTRY:	Lea	New Mexico	USA
RIG:	Patriot 2		
API WELL No:	30-025-38115		
JOB No:	101006629		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	Pathfinder		

WELL SITE INFORMATION

MAGNETIC DECLINATION:			
On Wall Plat:	7.88	LWD Calculated:	Agreed Upon: 7.88
X =	666997.500000	Feet	Y = 585297.300000 Feet
SITE LATITUDE:	32.607916 N	SITE LONGITUDE:	103.791017 W
GRID SYSTEM:	TRUE ☐ UTM ☒ LAMBERT ☐	ZONE:	New Mexico East
PROPOSED DRIFT DIRECTION:	0		
KELLY BUSHING ELEVATION:	15		
ALTITUDE:	3517	Feet	WATER DEPTH: Feet

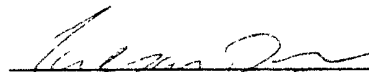
TIE-IN SURVEY

MEASURED DEPTH:	0		
DRIFT ANGLE:	0		
DRIFT DIRECTION:	0		
TRUE VERTICAL DEPTH:	0		
VERTICAL SECTION:	0		
RECTANGULAR COORDINATE (N / S) :	32 607916 N		
RECTANGULAR COORDINATE (E / W) :	103.791017 W		
CLOSURE DISTANCE / DIRECTION:	0	0	
SURVEY CALCULATION METHOD:	AA ☐	MC ☐	RC ☐ BT ☐
SOURCE OF TIE-IN DATA (COMPANY):	N/A		
COPY OF TIE-IN SURVEY REPORT	☐ YES ☐ NO		

WELL PLAN

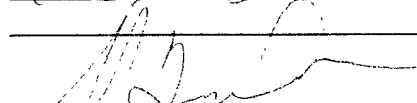
KICKOFF DEPTH.	11350	TOTAL DEPTH:	13200
KICKOFF ANGLE:		MAX ANGLE:	

PES Engineers:



**Signature of both field engineers required if applicable

Directional Driller:



DATE: _____

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MARBOB ENERGY CORPORATION
GEORGE FEDERAL COM. # 2
LEA Co., NM
Rig:PATRIOT 2

Fri Jul 20 13:37:02 2007

Coordinates

Latitude: 32.607916 N (32 deg. 36 min. 28.4979 sec.)
Longitude: 103.791017 W (-103 deg. 47 min. 27.6626 sec.)
Elevation: 3517.00 feet.
Calculation Date: Jul/20/2007

Magnetic Calculations

Model: IGRF2005
Dip Angle: 60.6115 degrees
Total Magnetic Field: 0.49236 gauss
Magnetic Declination: 8.171193 degrees
Horizontal Intensity: 0.241614 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 8.171193 Degr

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 666997.5000 feet
Y: 585297.3000 feet
True to Grid: (convergence) -0.292253 degrees
Magnetic to Grid: 7.878939 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.878939 Degr.

PATHFINDER

ENERGY SERVICES

MAGNETIC DECLINATION / TOOLFACE OFFSET WORKSHEET

Client:	Marbob Energy	LWD Run No:	1
Well:	George Fed Com #2	DTA No:	
Location:	Greenwood Morrow SouthEast	HDAS No:	JTDAS 2030
Rig:	Patriot 2	TrkrElec No:	
Job No:	010100-6629		

Magnetic Declination:

GRID SYSTEM USED: TRUE ☐ UTM ☒ LAMBERT ☐ ZONE: New Mexico East

X = 666997.5 Y = 585297.3

SITE LATITUDE: 32.607916 N SITE LONGITUDE: 103.791017 W

Magnetic Declination:

On Wall Plat: 7.88

LWD Calculated: 7.88

Directional Driller Approval: Mark Snelson

LWD Engineers Approval: Caesar Davila

Supervisor Approval:

Agreed Upon: 7.88

ToolFace Offset Calculation:

- 1: Ensure all connections between M/LWD are torqued correctly.
- 2: Estimate toolface offset.
- 3: Measure the distance from the M/LWD scribe line to the motor scribe line in a clockwise direction looking down hole.
- 4: Measure the circumference of the tool.
- 5: Calculate Tool Face Offset using.

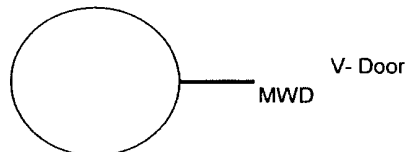
$$\text{TOOL FACE OFFSET} = \frac{\text{Distance from M/LWD to Motor}}{\text{Circumference}} \times 360^\circ$$

ToolFace Offset Using Protractor:

- 1: Hook protractor onto the M/LWD tool.
- 2: Read Tool Face Offset from top of protractor where the motor scribe line intersects protractor.
- 3: If motor scribe line does not intersect protractor flip protractor over and repeat steps 1 and 2.

Distance from M/LWD to Motor: 0

Circumference: 0



OTF Estimate: 0

OTF Calculated: 0

OTF Protractor: 0

Offset Tool Face Used = 0

M/LWD Engineer #1: *Caesar Davila*

M/LWD Engineer #2: *[Signature]*

Directional Driller: *[Signature]*