

30-015-38286

Pathfinder

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

PATHFINDER

A Schlumberger Company

DIRECTIONAL SURVEY COMPANY REPORT:

1. NAME OF SURVEYING COMPANY: PATHFINDER ENERGY SERVICES
2. NAME OF PERSON(S) PERFORMING SURVEY:
A) ZACH VEST
3. POSITION OF SAID PERSON(S): (A-F) SURVEYORS (FIELD ENGINEERS)
4. DATE(S) ON WHICH SURVEY WAS PERFORMED: 09-01-11 TO 09-21-11
5. STATE IN WHICH SURVEY WAS PERFORMED: NEW MEXICO
6. LOCATION OF WELL: EDDY COUNTY
7. TYPE OF SURVEY(S) PERFORMED: GAMMA-RAY
8. COMPLETE IDENTIFICATION OF WELL:

MEWBOURNE OIL CO
TAMANO 10 FEDERAL COM #6H
EDDY COUNTY, NM
RIG: PATTERSON 75
9. SURVEY CERTIFIED FROM: 6768 TO 12647 FEET MEASURED DEPTH.

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOWING THE WELL TO BE DISPLACED AT 4588.00 FEET ON A BEARING OF 87.57 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT A PROJECTED BIT DEPTH OF 12714 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.



STEVE BIBB
M/LWD SERVICE COORDINATOR

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 09/01/2011
Date Completed: 09/21/2011

MEWBOURNE OIL COMPANY
TAMANO 10 FEDERAL COM #6H
EDDY COUNTY, NM
Rig:PATTERSON 75
PathFinder Office Supervisor: FRANCISCO SINISTERRA
PathFinder Field Engineers:ZACH VEST
JESUS BARRAZA

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.46.3.0246 N LON:103.51.51.5658 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 644167.0520 Y: 643249.2930
North Aligned To:GRID NORTH
Total Magnetic Correction: 7.48° EAST TO GRID
Vertical Section Plane: 87.31
Survey Vert. Reference: 23.00' Rotary Table To Ground
Altitude:3719.00' Ground To MSL

Measured Depth	12714.00	(feet)
Inclination	90.57	(deg)
Azimuth	90.35	(deg)
True Vertical Depth	8386.67	(feet)
Vertical Section	4587.95	(feet)
Survey X cord	648750.92	(feet)
Survey Y cord	643443.45	(feet)
Survey Lat	32.76798380 N	(deg)
Survey Lon	103.84940900 W	(deg)
Rectangular Corr. N/S	194.18 N	(feet)
Rectangular Corr. E/W	4583.89 E	(feet)
Closure Distance	4588.00	(feet)
Direction of Closure	87.57	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
TAMANO 10 FEDERAL COM #6H
EDDY COUNTY, NM

Rig:PATTERSON 75

PathFinder Office Supervisor: FRANCISCO SINISTERRA

PathFinder Field Engineers: ZACH VEST

JESUS BARRAZA

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.46.3.0246 N LON:103.51.51.5658 W
GRID Reference:NAD27 new mexico east Transverse Mercator

Ref GRID Coord: X: 644167.0520 Y: 643249.2930

North Aligned To:GRID NORTH

Total Magnetic Correction: 7.48° EAST TO GRID

Vertical Section Plane: 87.31

Survey Vert. Reference: 23.00' Rotary Table To Ground

Altitude:3719.00' 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)		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
THE FOLLOWING ARE VAUGHN ENERGY SERVICES GYRO SURVEYS.										
0.00	0.00	0.00	0.00	0.00	-0.02	0.01 N	0.02 W	0.02@	282.97	0.00
100.00	0.55	134.32	100.00	100.00	0.30	0.33 S	0.32 E	0.46@	135.86	0.55
200.00	0.83	141.22	199.99	100.00	1.06	1.23 S	1.12 E	1.66@	137.75	0.29
300.00	0.82	153.55	299.98	100.00	1.77	2.44 S	1.89 E	3.08@	142.19	0.18
400.00	0.79	175.03	399.97	100.00	2.09	3.76 S	2.27 E	4.39@	148.92	0.30
500.00	0.78	192.59	499.96	100.00	1.94	5.11 S	2.18 E	5.56@	156.92	0.24
600.00	0.70	208.28	599.95	100.00	1.44	6.32 S	1.74 E	6.55@	164.58	0.22
700.00	0.71	226.46	699.95	100.00	0.66	7.28 S	1.00 E	7.35@	172.16	0.22
800.00	0.44	242.88	799.94	100.00	-0.16	7.88 S	0.21 E	7.89@	178.46	0.31
900.00	0.87	252.74	899.93	100.00	-1.24	8.28 S	0.85 W	8.33@	185.89	0.44
1000.00	0.92	260.70	999.92	100.00	-2.77	8.64 S	2.37 W	8.96@	195.35	0.13
1100.00	0.60	285.02	1099.91	100.00	-4.07	8.63 S	3.67 W	9.38@	203.03	0.45
1200.00	0.33	301.78	1199.91	100.00	-4.81	8.34 S	4.42 W	9.44@	207.91	0.30
1300.00	0.11	324.63	1299.91	100.00	-5.10	8.11 S	4.72 W	9.39@	210.19	0.23
1400.00	0.15	330.58	1399.91	100.00	-5.21	7.92 S	4.84 W	9.28@	211.43	0.04
1500.00	0.31	348.89	1499.91	100.00	-5.31	7.54 S	4.96 W	9.03@	213.31	0.17
1600.00	0.40	7.70	1599.91	100.00	-5.28	6.93 S	4.96 W	8.52@	215.60	0.15
1700.00	0.74	21.89	1699.90	100.00	-4.95	5.99 S	4.67 W	7.60@	217.99	0.36
1800.00	1.45	46.11	1799.88	100.00	-3.73	4.51 S	3.52 W	5.72@	217.99	0.83
1900.00	1.59	57.58	1899.85	100.00	-1.57	2.89 S	1.44 W	3.23@	206.48	0.33
2000.00	1.84	62.87	1999.80	100.00	1.09	1.41 S	1.16 E	1.83@	140.60	0.30
2100.00	1.37	53.32	2099.76	100.00	3.55	0.03 N	3.55 E	3.55@	89.47	0.54
2200.00	0.66	62.32	2199.75	100.00	5.06	1.01 N	5.02 E	5.12@	78.57	0.72
2300.00	0.52	74.76	2299.74	100.00	6.02	1.40 N	5.96 E	6.13@	76.78	0.19
2400.00	0.79	85.49	2399.74	100.00	7.16	1.58 N	7.09 E	7.26@	77.47	0.30

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
TAMANO 10 FEDERAL COM #6H
EDDY COUNTY, NM
RIG:PATTERSON 75

Page 02/08

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)	(ft)	(ft)	(deg)	
2500.00	0.56	96.25	2499.73	100.00	8.33	1.58 N	8.26 E	8.41@	79.20	0.26
2600.00	0.36	114.31	2599.73	100.00	9.09	1.39 N	9.03 E	9.14@	81.23	0.24
2700.00	0.34	139.65	2699.72	100.00	9.55	1.04 N	9.51 E	9.57@	83.77	0.16
2800.00	0.28	151.65	2799.72	100.00	9.84	0.60 N	9.82 E	9.84@	86.52	0.09
2900.00	0.34	190.23	2899.72	100.00	9.88	0.09 N	9.88 E	9.89@	89.48	0.21
3000.00	0.54	219.73	2999.72	100.00	9.49	0.56 S	9.53 E	9.55@	93.39	0.30
3100.00	0.56	231.63	3099.71	100.00	8.78	1.23 S	8.85 E	8.93@	97.92	0.12
3200.00	0.69	252.21	3199.71	100.00	7.80	1.72 S	7.89 E	8.07@	102.28	0.26
3300.00	0.79	277.95	3299.70	100.00	6.54	1.81 S	6.63 E	6.88@	105.23	0.34
3400.00	0.79	268.25	3399.69	100.00	5.18	1.73 S	5.26 E	5.54@	108.22	0.13
3500.00	0.52	254.33	3499.68	100.00	4.04	1.88 S	4.14 E	4.54@	114.39	0.31
3600.00	0.71	247.06	3599.68	100.00	3.02	2.24 S	3.13 E	3.85@	125.60	0.20
3700.00	0.77	261.38	3699.67	100.00	1.77	2.58 S	1.89 E	3.20@	143.74	0.19
3800.00	0.69	274.93	3799.66	100.00	0.51	2.63 S	0.63 E	2.71@	166.54	0.19
3900.00	0.82	290.56	3899.65	100.00	-0.75	2.33 S	0.64 W	2.41@	195.38	0.24
4000.00	0.43	296.71	3999.65	100.00	-1.73	1.91 S	1.65 W	2.52@	220.78	0.39
4100.00	0.39	305.90	4099.64	100.00	-2.33	1.54 S	2.26 W	2.73@	235.70	0.08
4200.00	0.51	303.40	4199.64	100.00	-2.95	1.09 S	2.90 W	3.10@	249.34	0.12
4300.00	0.52	294.37	4299.64	100.00	-3.72	0.66 S	3.69 W	3.75@	259.81	0.08
4400.00	0.95	301.36	4399.63	100.00	-4.81	0.04 S	4.81 W	4.81@	269.48	0.44
4500.00	1.01	308.59	4499.61	100.00	-6.16	0.94 N	6.21 W	6.28@	278.59	0.14
4600.00	1.13	313.99	4599.60	100.00	-7.49	2.17 N	7.61 W	7.91@	285.94	0.16
4700.00	0.79	306.29	4699.58	100.00	-8.71	3.26 N	8.87 W	9.45@	290.21	0.36
4800.00	1.25	291.01	4799.57	100.00	-10.24	4.06 N	10.44 W	11.21@	291.26	0.53
4900.00	1.23	285.97	4899.54	100.00	-12.26	4.75 N	12.49 W	13.37@	290.82	0.11
5000.00	1.33	287.56	4999.52	100.00	-14.36	5.40 N	14.63 W	15.60@	290.24	0.11
5100.00	1.32	294.48	5099.49	100.00	-16.48	6.22 N	16.79 W	17.90@	290.34	0.16
5200.00	1.11	301.08	5199.47	100.00	-18.31	7.20 N	18.67 W	20.01@	291.09	0.25

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
 TAMANO 10 FEDERAL COM #6H
 EDDY COUNTY, NM
 RIG:PATTERSON 75

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)
5300.00	1.16	307.04	5299.45	100.00	-19.89	8.31 N	20.30 W	21.94@	292.26	0.13
5400.00	1.45	311.09	5399.42	100.00	-21.58	9.75 N	22.06 W	24.12@	293.84	0.30
5500.00	1.75	318.91	5499.38	100.00	-23.44	11.73 N	24.02 W	26.73@	296.03	0.37
5600.00	1.69	326.05	5599.34	100.00	-25.16	14.11 N	25.85 W	29.45@	298.63	0.22
5700.00	1.82	338.78	5699.29	100.00	-26.43	16.81 N	27.25 W	32.02@	301.67	0.41
5800.00	2.02	345.05	5799.24	100.00	-27.31	19.99 N	28.28 W	34.63@	305.26	0.29
5900.00	2.11	348.90	5899.17	100.00	-27.95	23.50 N	29.09 W	37.39@	308.94	0.17
6000.00	2.91	350.85	5999.08	100.00	-28.50	27.82 N	29.84 W	40.80@	312.99	0.81
6100.00	4.20	341.01	6098.88	100.00	-29.82	33.79 N	31.44 W	46.15@	317.06	1.42
6200.00	5.50	337.98	6198.52	100.00	-32.43	41.69 N	34.43 W	54.07@	320.45	1.32
6300.00	5.30	331.09	6298.08	100.00	-36.06	50.18 N	38.46 W	63.22@	322.53	0.68
6400.00	4.58	328.32	6397.71	100.00	-40.03	57.62 N	42.79 W	71.77@	323.40	0.76
6500.00	3.66	326.76	6497.45	100.00	-43.59	63.68 N	46.63 W	78.93@	323.79	0.93
6600.00	3.24	322.34	6597.27	100.00	-46.83	68.59 N	50.11 W	84.94@	323.85	0.50
6700.00	2.71	326.48	6697.13	100.00	-49.67	72.80 N	53.14 W	90.13@	323.87	0.57
**	TIE INTO VAUGHN ENERGY SERVICES GYRO SURVEY AT 6727'MD.									
6727.00	2.84	323.63	6724.10	27.00	-50.36	73.87 N	53.89 W	91.44@	323.89	0.70
	THE FOLLOWING ARE PATHFINDER MWD SURVEYS.									
6768.00	2.46	321.15	6765.06	41.00	-51.45	75.37 N	55.04 W	93.33@	323.86	0.97
6800.00	1.93	331.35	6797.03	32.00	-52.09	76.38 N	55.73 W	94.55@	323.88	2.05
6895.00	0.88	350.48	6892.00	95.00	-52.87	78.50 N	56.62 W	96.79@	324.20	1.20
6958.00	0.70	4.40	6955.00	63.00	-52.88	79.37 N	56.67 W	97.52@	324.47	0.42
7022.00	0.70	20.55	7018.99	64.00	-52.68	80.12 N	56.50 W	98.04@	324.81	0.31
7150.00	0.70	23.66	7146.98	128.00	-52.03	81.57 N	55.92 W	98.89@	325.57	0.03
7213.00	0.79	43.69	7209.98	63.00	-51.54	82.24 N	55.46 W	99.19@	326.00	0.43
7277.00	0.62	56.91	7273.97	64.00	-50.92	82.74 N	54.87 W	99.28@	326.45	0.37
7340.00	0.88	44.96	7336.97	63.00	-50.27	83.27 N	54.24 W	99.38@	326.92	0.48
7403.00	0.79	60.02	7399.96	63.00	-49.53	83.83 N	53.52 W	99.46@	327.44	0.38
7467.00	0.97	57.96	7463.95	64.00	-48.66	84.34 N	52.68 W	99.44@	328.01	0.28

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
 TAMANO 10 FEDERAL COM #6H
 EDDY COUNTY, NM
 RIG:PATTERSON 75

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)	(ft)	(ft)	(deg)	
7530.00	1.14	63.67	7526.94	63.00	-47.62	84.90 N	51.67 W	99.39@	328.68	0.32
7562.00	1.06	61.80	7558.94	32.00	-47.07	85.18 N	51.12 W	99.34@	329.03	0.27
7594.00	1.06	54.92	7590.93	32.00	-46.55	85.49 N	50.62 W	99.35@	329.37	0.40
7626.00	0.88	85.09	7622.93	32.00	-46.05	85.68 N	50.13 W	99.27@	329.67	1.67
7657.00	1.06	106.45	7653.92	31.00	-45.54	85.62 N	49.62 W	98.96@	329.91	1.29
7689.00	1.67	102.79	7685.91	32.00	-44.82	85.43 N	48.88 W	98.43@	330.23	1.92
7721.00	3.87	100.89	7717.87	32.00	-43.32	85.13 N	47.36 W	97.42@	330.91	6.88
7753.00	6.60	98.80	7749.74	32.00	-40.46	84.64 N	44.49 W	95.62@	332.27	8.55
7785.00	9.67	97.19	7781.41	32.00	-36.01	84.02 N	40.00 W	93.06@	334.54	9.62
7817.00	12.66	96.19	7812.80	32.00	-29.90	83.31 N	33.85 W	89.92@	337.89	9.36
7848.00	15.39	95.22	7842.88	31.00	-22.47	82.57 N	26.37 W	86.68@	342.29	8.84
7880.00	18.11	94.10	7873.51	32.00	-13.32	81.83 N	17.18 W	83.61@	348.14	8.56
7912.00	20.84	93.61	7903.68	32.00	-2.72	81.11 N	6.54 W	81.38@	355.39	8.55
7944.00	23.48	93.56	7933.32	32.00	9.27	80.36 N	5.51 E	80.55@	3.92	8.25
7976.00	26.20	93.51	7962.35	32.00	22.64	79.53 N	18.92 E	81.75@	13.38	8.50
8010.00	29.37	94.35	7992.43	34.00	38.38	78.44 N	34.73 E	85.78@	23.88	9.39
8042.00	32.01	94.83	8019.94	32.00	54.58	77.13 N	51.01 E	92.47@	33.48	8.28
8074.00	34.12	93.99	8046.76	32.00	71.90	75.79 N	68.42 E	102.10@	42.07	6.75
8106.00	36.05	93.31	8072.94	32.00	90.18	74.62 N	86.77 E	114.45@	49.31	6.15
8138.00	37.90	92.30	8098.51	32.00	109.34	73.68 N	106.00 E	129.09@	55.20	6.08
8170.00	39.48	91.11	8123.49	32.00	129.28	73.09 N	125.99 E	145.66@	59.88	5.46
8202.00	40.98	89.84	8147.91	32.00	149.92	72.92 N	146.65 E	163.78@	63.56	5.34
8233.00	42.56	88.70	8171.04	31.00	170.55	73.19 N	167.30 E	182.61@	66.37	5.65
8265.00	45.46	87.88	8194.05	32.00	192.78	73.86 N	189.52 E	203.40@	68.71	9.24
8297.00	47.84	87.89	8216.01	32.00	216.05	74.72 N	212.77 E	225.51@	70.65	7.44
8328.00	50.74	88.17	8236.23	31.00	239.54	75.52 N	236.26 E	248.03@	72.27	9.38
8360.00	53.38	88.42	8255.90	32.00	264.77	76.27 N	261.48 E	272.38@	73.74	8.27
8391.00	56.19	88.28	8273.78	31.00	290.09	77.00 N	286.79 E	296.95@	74.97	9.07

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
 TAMANO 10 FEDERAL COM #6H
 EDDY COUNTY, NM
 RIG:PATTERSON 75

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)	(ft)	(ft)	(deg)	
8423.00	58.65	88.84	8291.01	32.00	317.05	77.68 N	313.75 E	323.22@	76.09	7.83
8455.00	61.20	88.04	8307.04	32.00	344.73	78.43 N	341.43 E	350.32@	77.06	8.26
8487.00	63.84	87.92	8321.81	32.00	373.12	79.43 N	369.80 E	378.23@	77.88	8.26
8519.00	68.32	88.09	8334.78	32.00	402.36	80.45 N	399.02 E	407.05@	78.60	14.01
8551.00	72.11	88.20	8345.61	32.00	432.46	81.43 N	429.11 E	436.77@	79.26	11.85
8583.00	75.36	88.22	8354.57	32.00	463.17	82.39 N	459.81 E	467.13@	79.84	10.16
8615.00	77.21	88.96	8362.16	32.00	494.25	83.15 N	490.89 E	497.88@	80.39	6.20
8647.00	79.05	88.85	8368.74	32.00	525.55	83.75 N	522.20 E	528.87@	80.89	5.76
8679.00	80.46	88.91	8374.43	32.00	557.03	84.36 N	553.68 E	560.07@	81.34	4.41
8711.00	81.25	88.78	8379.52	32.00	588.61	85.00 N	585.27 E	591.41@	81.74	2.50
8743.00	82.75	89.00	8383.97	32.00	620.29	85.61 N	616.95 E	622.86@	82.10	4.74
8758.00	83.89	88.90	8385.71	15.00	635.18	85.89 N	631.84 E	637.66@	82.26	7.63
8864.00	87.41	88.08	8393.75	106.00	740.83	88.67 N	737.48 E	742.80@	83.14	3.41
8896.00	87.49	88.98	8395.18	32.00	772.79	89.49 N	769.44 E	774.63@	83.37	2.82
8928.00	88.02	89.37	8396.43	32.00	804.75	89.95 N	801.41 E	806.45@	83.60	2.06
8959.00	89.43	89.54	8397.12	31.00	835.72	90.25 N	832.40 E	837.28@	83.81	4.58
8992.00	90.22	89.79	8397.22	33.00	868.69	90.44 N	865.40 E	870.12@	84.03	2.51
9023.00	91.10	90.04	8396.86	31.00	899.66	90.49 N	896.40 E	900.96@	84.24	2.95
9055.00	91.98	90.32	8396.00	32.00	931.61	90.39 N	928.39 E	932.78@	84.44	2.89
9087.00	92.42	89.95	8394.77	32.00	963.54	90.31 N	960.36 E	964.60@	84.63	1.80
9119.00	93.12	89.79	8393.23	32.00	995.48	90.38 N	992.33 E	996.44@	84.80	2.24
9152.00	93.12	89.68	8391.43	33.00	1028.40	90.54 N	1025.28 E	1029.27@	84.95	0.33
9184.00	92.59	89.29	8389.84	32.00	1060.33	90.82 N	1057.24 E	1061.13@	85.09	2.06
9248.00	93.21	89.94	8386.60	64.00	1124.20	91.25 N	1121.15 E	1124.86@	85.35	1.40
9312.00	93.03	89.78	8383.12	64.00	1188.04	91.41 N	1185.06 E	1188.58@	85.59	0.38
9343.00	92.15	89.28	8381.72	31.00	1218.99	91.66 N	1216.02 E	1219.47@	85.69	3.26
9374.00	91.54	88.75	8380.72	31.00	1249.96	92.20 N	1247.00 E	1250.41@	85.77	2.61
9407.00	91.19	88.10	8379.93	33.00	1282.94	93.10 N	1279.98 E	1283.36@	85.84	2.24

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
 TAMANO 10 FEDERAL COM #6H
 EDDY COUNTY, NM
 RIG:PATTERSON 75

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets		Closure Dist Dir (ft) (deg)		DLS (dg/100ft)
						(ft)	(ft)	(ft)	(deg)	
9439.00	91.10	87.18	8379.29	32.00	1314.93	94.42 N	1311.95 E	1315.34@	85.88	2.89
9470.00	90.75	86.71	8378.79	31.00	1345.93	96.07 N	1342.90 E	1346.33@	85.91	1.89
9502.00	90.22	86.06	8378.52	32.00	1377.92	98.09 N	1374.83 E	1378.33@	85.92	2.62
9534.00	89.78	85.86	8378.52	32.00	1409.91	100.35 N	1406.75 E	1410.33@	85.92	1.51
9566.00	89.43	85.84	8378.74	32.00	1441.90	102.66 N	1438.67 E	1442.33@	85.92	1.09
9598.00	89.25	85.66	8379.11	32.00	1473.89	105.03 N	1470.58 E	1474.33@	85.91	0.79
9630.00	89.34	86.07	8379.50	32.00	1505.88	107.34 N	1502.49 E	1506.32@	85.91	1.31
9662.00	89.34	86.43	8379.87	32.00	1537.87	109.43 N	1534.42 E	1538.32@	85.92	1.12
9694.00	89.60	86.55	8380.17	32.00	1569.86	111.39 N	1566.36 E	1570.32@	85.93	0.89
9725.00	89.87	87.18	8380.31	31.00	1600.86	113.09 N	1597.31 E	1601.31@	85.95	2.21
9757.00	89.52	87.15	8380.48	32.00	1632.86	114.67 N	1629.28 E	1633.31@	85.97	1.10
9789.00	88.64	87.64	8381.00	32.00	1664.86	116.12 N	1661.24 E	1665.29@	86.00	3.15
9821.00	88.20	87.62	8381.88	32.00	1696.84	117.45 N	1693.20 E	1697.27@	86.03	1.38
9883.00	88.81	87.71	8383.50	62.00	1758.82	119.97 N	1755.13 E	1759.22@	86.09	0.99
9947.00	88.55	88.05	8384.97	64.00	1822.80	122.34 N	1819.06 E	1823.17@	86.15	0.67
10010.00	88.46	88.31	8386.61	63.00	1885.77	124.34 N	1882.01 E	1886.11@	86.22	0.44
10073.00	88.72	88.61	8388.16	63.00	1948.74	126.03 N	1944.97 E	1949.05@	86.29	0.63
10137.00	89.43	88.70	8389.20	64.00	2012.71	127.53 N	2008.94 E	2012.99@	86.37	1.12
10200.00	90.04	88.43	8389.49	63.00	2075.70	129.11 N	2071.92 E	2075.94@	86.43	1.06
10264.00	90.84	88.72	8389.00	64.00	2139.68	130.70 N	2135.90 E	2139.90@	86.50	1.33
10327.00	92.42	89.36	8387.21	63.00	2202.62	131.76 N	2198.86 E	2202.81@	86.57	2.71
10391.00	92.86	89.73	8384.26	64.00	2266.51	132.27 N	2262.79 E	2266.66@	86.65	0.90
10454.00	91.63	89.00	8381.79	63.00	2329.42	132.96 N	2325.74 E	2329.54@	86.73	2.27
10518.00	91.28	88.53	8380.16	64.00	2393.38	134.34 N	2389.70 E	2393.48@	86.78	0.92
10581.00	90.66	88.72	8379.10	63.00	2456.35	135.85 N	2452.68 E	2456.44@	86.83	1.03
10645.00	90.22	87.99	8378.61	64.00	2520.34	137.69 N	2516.65 E	2520.41@	86.87	1.33
10709.00	87.85	86.39	8379.68	64.00	2584.32	140.83 N	2580.55 E	2584.39@	86.88	4.47
10772.00	86.79	86.45	8382.63	63.00	2647.24	144.76 N	2643.36 E	2647.32@	86.87	1.69

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
TAMANO 10 FEDERAL COM #6H
EDDY COUNTY, NM
RIG:PATTERSON 75

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL		Closure		DLS (dg/100ft)
						Rectangular (ft)	Offsets (ft)	Dist (ft)	Dir (deg)	
10835.00	87.41	86.53	8385.82	63.00	2710.16	148.61 N	2706.16 E	2710.24@	86.86	0.99
10899.00	88.02	87.22	8388.37	64.00	2774.10	152.09 N	2770.02 E	2774.19@	86.86	1.44
10963.00	88.99	87.25	8390.04	64.00	2838.08	155.18 N	2833.92 E	2838.16@	86.87	1.52
11026.00	88.29	86.30	8391.53	63.00	2901.06	158.72 N	2896.80 E	2901.15@	86.86	1.87
11090.00	89.43	86.66	8392.81	64.00	2965.04	162.65 N	2960.67 E	2965.13@	86.86	1.87
11153.00	89.96	87.22	8393.14	63.00	3028.03	166.02 N	3023.57 E	3028.13@	86.86	1.22
11217.00	89.60	87.17	8393.39	64.00	3092.03	169.15 N	3087.50 E	3092.13@	86.86	0.57
11281.00	90.40	86.97	8393.39	64.00	3156.03	172.42 N	3151.41 E	3156.13@	86.87	1.29
11344.00	90.13	87.00	8393.10	63.00	3219.03	175.73 N	3214.32 E	3219.13@	86.87	0.43
11407.00	90.57	87.39	8392.71	63.00	3282.03	178.82 N	3277.25 E	3282.12@	86.88	0.93
11470.00	90.13	87.38	8392.33	63.00	3345.03	181.69 N	3340.18 E	3345.12@	86.89	0.70
11534.00	90.57	87.63	8391.94	64.00	3409.03	184.48 N	3404.12 E	3409.11@	86.90	0.79
11597.00	90.31	88.12	8391.45	63.00	3472.02	186.81 N	3467.07 E	3472.10@	86.92	0.88
11661.00	90.48	89.04	8391.01	64.00	3536.00	188.40 N	3531.05 E	3536.07@	86.95	1.46
11725.00	90.04	88.77	8390.72	64.00	3599.98	189.62 N	3595.04 E	3600.04@	86.98	0.81
11789.00	90.22	88.92	8390.58	64.00	3663.95	190.91 N	3659.03 E	3664.00@	87.01	0.37
11852.00	89.87	89.31	8390.53	63.00	3726.92	191.88 N	3722.02 E	3726.96@	87.05	0.83
11916.00	89.69	89.39	8390.77	64.00	3790.88	192.61 N	3786.01 E	3790.91@	87.09	0.31
11979.00	89.16	89.32	8391.40	63.00	3853.84	193.32 N	3849.01 E	3853.86@	87.12	0.85
12043.00	89.08	89.55	8392.39	64.00	3917.79	193.95 N	3913.00 E	3917.80@	87.16	0.38
12107.00	89.34	89.73	8393.27	64.00	3981.73	194.35 N	3976.99 E	3981.73@	87.20	0.49
12170.00	89.43	89.75	8393.95	63.00	4044.67	194.64 N	4039.98 E	4044.67@	87.24	0.15
12234.00	90.22	89.74	8394.14	64.00	4108.61	194.92 N	4103.98 E	4108.61@	87.28	1.23
12297.00	90.04	89.93	8394.00	63.00	4171.55	195.10 N	4166.98 E	4171.55@	87.32	0.42
12361.00	90.75	90.30	8393.56	64.00	4235.47	194.98 N	4230.98 E	4235.47@	87.36	1.25
12425.00	91.98	90.40	8392.03	64.00	4299.36	194.59 N	4294.96 E	4299.36@	87.41	1.93
12488.00	91.71	90.20	8390.00	63.00	4362.24	194.26 N	4357.93 E	4362.25@	87.45	0.53
12551.00	91.45	89.82	8388.27	63.00	4425.15	194.24 N	4420.90 E	4425.17@	87.48	0.73

PathFinder Energy Services, Inc.

Survey Report

MEWBOURNE OIL COMPANY
 TAMANO 10 FEDERAL COM #6H
 EDDY COUNTY, NM
 RIG:PATTERSON 75

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL		Closure		DLS (dg/100ft)
						Rectangular (ft)	Offsets (ft)	Dist (ft)	Dir (deg)	
12615.00	89.96	89.59	8387.48	64.00	4489.08	194.57 N	4484.89 E	4489.11@	87.52	2.36
12647.00	90.57	90.35	8387.33	32.00	4521.05	194.59 N	4516.89 E	4521.08@	87.53	3.05
STRAIGHT LINE PROJECTION TO BIT @ 12714' MD.										
12714.00	90.57	90.35	8386.67	67.00	4587.95	194.18 N	4583.89 E	4588.00@	87.57	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.

Mewbourne



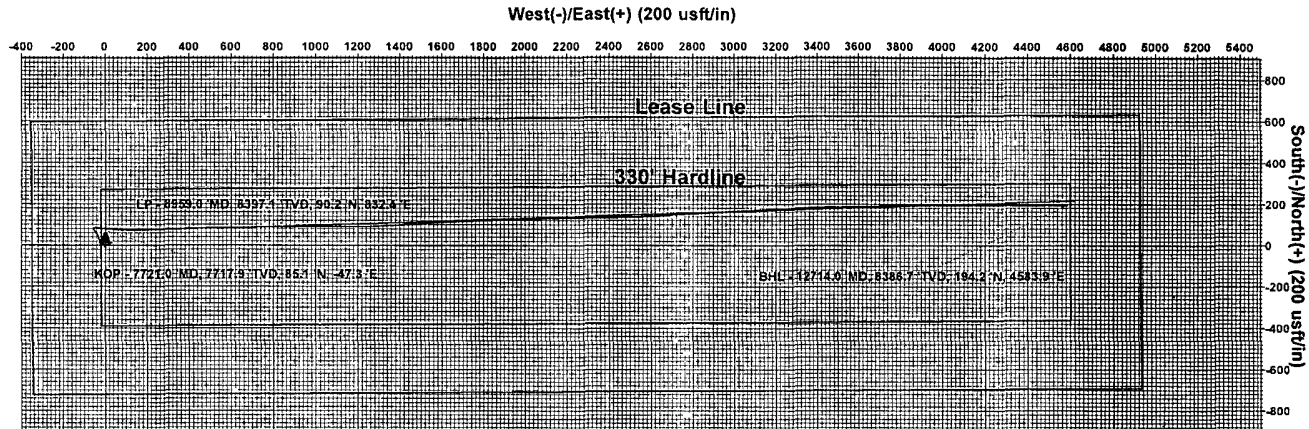
Azimuths to Grid North
 True North: -0.25°
 Magnetic North: 7.49°

Magnetic Field
 Strength: 48897.6snT
 Dip Angle: 60.64°
 Date: 7/28/2011
 Model: IGRF2010



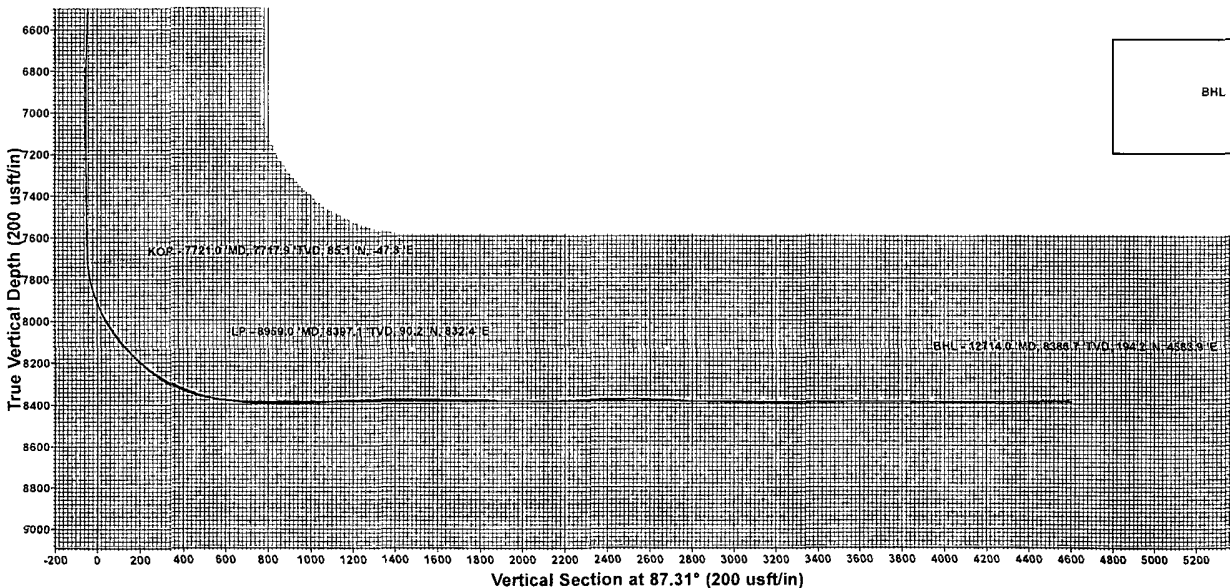
A Schlumberger Company

Project: Eddy County
 Site: Tamano "10" Fed Com
 Well: 6H
 Wellbore: OH
 Plan: Post Gyro Plan #2 (6H/OH)



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
7880.0	18.11	94.10	7873.5	81.8	-17.2	0.00	0.00	-13.3	
8814.1	89.93	88.12	8387.3	87.6	689.8	7.70	-6.29	693.1	
12723.2	89.93	88.12	8392.0	215.9	4596.8	0.00	0.00	4601.9	BHL (Tamano #6)

WELL DETAILS 6H							
Ground Elevation 3719.0							
RKB Elevation KB = 23 @ 3742.0usft (Patterson 75)							
Rig Name Patterson 75							
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.0	0.0	643249.293	644167.052	32° 46' 3.025 N	103° 51' 51.566 W		



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)						
BHL (Tamano #6)	TVD	+N/-S	+E/-W	Northing	Easting	Shape
	8392.0	215.9	4596.8	643465.203	648763.882	Point

PROJECT DETAILS: Eddy County
 Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1886
 Zone: New Mexico East 3001
 System Datum: Mean Sea Level
 Local North: Grid

Plan: Post Gyro Plan #2 (6H/OH)	
Created By: Michael Trout	Date: 14:47, September 23 2011
Checked: _____	Date: _____



A Schlumberger Company

TIE-IN SURVEY INFORMATION SHEET

CLIENT INFORMATION

CLIENT:	MEWBOURNE OIL CO.		
LEASE / WELL No.:	TAMANO 10 FEDERAL COM	#6H	
WELL LOCATION:	EDDY COUNTY		
COUNTY / STATE / COUNTRY:	EDDY COUNTY	NM	USA
RIG:	PATTERSON 75		
API WELL No:	30-015-38286		
JOB No:	#700003565 WT-WT		
P.O. / AFE No.			
DIRECTIONAL COMPANY:	PATHFINDER ENERGY SERVICES		

WELL SITE INFORMATION

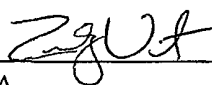
TOTAL MAGNETIC CORRECTION (TMC):			
On Wall Plat:	7.49	LWD Calculated:	7.48
		Agreed Upon:	7.48
X =	644167 052000	Feet	Y = 643249.293000
			Feet
SITE LATITUDE:	32.767507	SITE LONGITUDE:	103.864324
GRID SYSTEM:	TRUE <input type="checkbox"/>	UTM <input checked="" type="checkbox"/>	LAMBERT <input type="checkbox"/>
		ZONE:	NEW MEXICO EAST
PROPOSED DRIFT DIRECTION:	87.31		
KELLY BUSHING ELEVATION:	23		
ALTITUDE:	3719	Feet	WATER DEPTH: N/A
			Feet

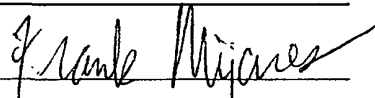
TIE-IN SURVEY

MEASURED DEPTH:	6727		
DRIFT ANGLE:	2.84		
DRIFT DIRECTION:	323.63		
TRUE VERTICAL DEPTH:	6724.1		
VERTICAL SECTION:	-50.36		
RECTANGULAR COORDINATE (N / S) :	73.87		
RECTANGULAR COORDINATE (E / W) :	53.89		
CLOSURE DISTANCE / DIRECTION:	91.44	323.89	
SURVEY CALCULATION METHOD:	AA <input type="checkbox"/>	MC <input checked="" type="checkbox"/>	RC <input type="checkbox"/> BT <input type="checkbox"/>
SOURCE OF TIE-IN DATA (COMPANY):	VAUGHN ENERGY SERVICES		
COPY OF TIE-IN SURVEY REPORT	<input checked="" type="checkbox"/> YES		<input type="checkbox"/> NO

WELL PLAN

KICKOFF DEPTH:	7814	TOTAL DEPTH:	12742.98
KICKOFF ANGLE:	0	MAX ANGLE:	90

PES Engineers: ZACH VEST  ****Signature of both field engineers required if applicable**
JESUS BARRAZA

Directional Driller: Frank Mijarez  DATE: 1-Sep-2011



PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MEWBOURNE OIL GAS
TAMANO 10 FED COM #6H
EDDY COUNTY, NEW MEXICO
Rig:PATTERSON 75

Wed Aug 31 09:21:09 2011

Coordinates

Latitude: 32.767507 N (32 deg. 46 min. 3.0246 sec.)
Longitude: 103.864324 W (-103 deg. 51 min. 51.5658 sec.)
Elevation: 3742.00 feet.
Calculation Date: Aug/31/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.6340 degrees
Total Magnetic Field: 0.48888 gauss
Magnetic Declination: 7.736162 degrees
Horizontal Intensity: 0.239740 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.736162 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 644167.0520 feet
Y: 643249.2930 feet
True to Grid: (convergence) -0.253847 degrees
Magnetic to Grid: 7.482316 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.482316 Degs.

PathFinder Energy Services, Inc.

Magnetic & Grid Calculations

MEWBOURNE OIL COMPANY
TAMANO 10 FEDERAL COM #6H
TAMANO; BONE SPRING
Rig:PATTERSON 75

Wed Sep 21 17:28:08 2011

Coordinates

Latitude: 32.767507 N (32 deg. 46 min. 3.0246 sec.)
Longitude: 103.864324 W (-103 deg. 51 min. 51.5658 sec.)
Elevation: 3742.00 feet.
Calculation Date: Sep/01/2011

Magnetic Calculations

Model: IGRF2010
Dip Angle: 60.6339 degrees
Total Magnetic Field: 0.48888 gauss
Magnetic Declination: 7.735827 degrees
Horizontal Intensity: 0.239740 gauss
To Convert a Magnetic Dir. to a TRUE North Dir. Add 7.735827 Degs

Transverse Mercator Grid Calculations NAD27

Grid System: Transverse Mercator: new mexico east
Ellipsoid: Clarke 1866
X: 644167.0520 feet
Y: 643249.2930 feet
True to Grid: (convergence) -0.253847 degrees
Magnetic to Grid: 7.481980 degrees
To Convert a Magnetic Dir. to a GRID dir. Add 7.481980 Degs.