

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE*
(See other in-
struction on
reverse side)

FOR APPROVED
OMB NO. 1004-0137
Expires: December 31, 1991

5. LEASE DESIGNATION AND SERIAL NO.
NM-97849

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Pecos Federal #1

9. API WELL NO.

35232
30-015-34075

10. FIELD AND POOL, OR WILDCAT

Penasco Draw; Wolfcamp

11. SEC., T., R., M., OR BLOCK AND SURVEY
OR AREA

Sec. 12 T18S R23E

12. COUNTY OR
PARISH
Eddy

13. STATE
NM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other _____

b. TYPE OF COMPLETION:
NEW WELL ☒ WORK OVER ☐ DEEPEN ☐ PLUG BACK ☐ DIFF. RESVR. ☐ Other _____

2. NAME OF OPERATOR

Mack Energy Corporation

3. ADDRESS AND TELEPHONE NO.

P.O. Box 960, Artesia, NM 88211-0960

(505) 748-1288

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*

At surface

660 FSL & 1980 FEL

At top prod. interval reported below

1510 FSL & 1957 FEL

At total depth

671 FNL & 1994 FEL

14. PERMIT NO.

DATE ISSUED

12. COUNTY OR
PARISH
Eddy

13. STATE
NM

15. DATE SPUDDED
11/25/06

16. DATE T.D. REACHED
12/24/06

17. DATE COMPL. (Ready to prod.)
2/1/07

18. ELEVATIONS (DF, RKB, RT, GR, ETC.)*
3910' RKB

19. ELEV. CASING HEAD
3894' GR

20. TOTAL DEPTH, MD & TVD
8387

21. PLUG, BACK T.D., MD & TVD
8371

22. IF MULTIPLE COMPL.,
HOW MANY*

23. INTERVALS
DRILLED BY
→

ROTARY TOOLS
Yes

CABLE TOOLS

24. PRODUCING INTERVAL (S), OF THIS COMPLETION - TOP, BOTTOM, NAME (MD AND TVD)*

5275-8194', Wolfcamp

25. WAS DIRECTIONAL
SURVEY MADE
Yes

26. TYPE ELECTRIC AND OTHER LOGS RUN

Gamma Ray, Neutron, Density, Lateralog, Spectral Gamma Ray

27. WAS WELL CORED
No

28. **CASING RECORD** (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
13 3/8, H-40	48	475	17 1/2	500sx	None
9 5/8, J-55	36	1481	12 1/4	800sx	None
5 1/2, L-80	17	8387	7 7/8	2100sx	None

29. **LINER RECORD**

SIZE	T O P (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)

30. **TUBING RECORD**

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2 3/8	4250	4250

31. PERFORATION RECORD (Interval, size and number)

5275-8194', .41, 186

32. **ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC**

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5275-8194'	See 3160-5 for detail

33. **PRODUCTION**

DATE FIRST PRODUCTION 2/20/07		PRODUCTION METHOD (Flowing, gas lift, pumping - size and type of pump) Flowing				WELL STATUS (Producing or shut-in) Shut-in	
DATE OF TEST 3/3/07	HOURS TESTED 24 hours	CHOKE SIZE	PROD'N FOR TEST PERIOD →	OIL-BBL. 0	GAS-MCF. 596	WATER-BBL. 21	GAS-OIL RATIO 0
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE →	OIL-BBL. 0	GAS-MCF. 596	WATER - BBL. 21	OIL GRAVITY - API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

Sold

35. LIST OF ATTACHMENTS

Deviation Survey and Logs

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Jerry W. Sherrill

TITLE

Production Clerk

DATE

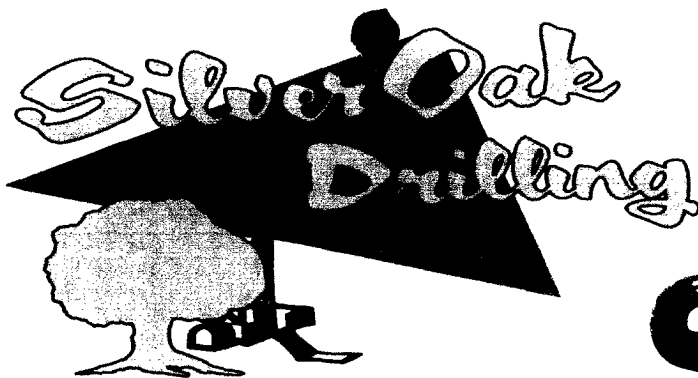
4/4/07

*(See Instructions and spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

37. SUMMARY OF POROUS ZONES- (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	38. GEOLOGIC MARKERS		
				NAME	MEAS. DEPTH	TOP TRUE VERT. DEPTH
Wolfcamp	5275	8194		Glorietta	1732	
				Tubb	3046	
				Abo	3712	
				Wolfcamp	4770	



PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288

S



December 29, 2006

Mack Energy Corporation
PO Box 960
Artesia, NM 88211-0960

RE: Pecos Federal #1
660' FSL & 980' FEL
Sec. 12, T18S, R23E
Eddy County, New Mexico

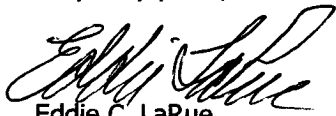
Dear Sir,

The following is the Deviation Survey for the above captioned well.

DEPTH	DEVIATION	DEPTH	DEVIATION
189'	1°	1221'	2 3/4°
435'	1°	1360'	2°
703'	5 1/2°	1760'	2 1/4°
762'	5°	2055'	1°
822'	4 3/4°	2555'	3/4°
882'	4 1/2°	2977'	1°
974'	4°	3467'	3/4°
1035'	3°	3949'	3/4°
1096'	3°	4441'	2°
1158'	2 3/4°		

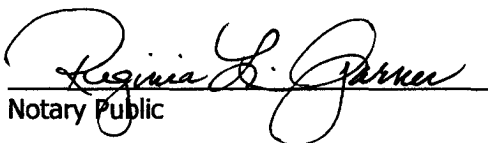
Thereafter, the well was drilled directionally and Pathfinder will supply that information.

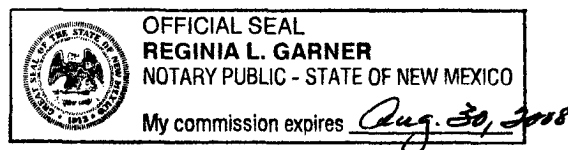
Very truly yours,


Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 29th day of December, 2006.

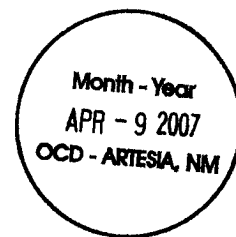

Notary Public





Scientific
Drilling

S



MACK ENERGY

Field: Penasco
Site: Eddy County, NM
Well: Pecos Federal #1
Wellpath: VH - Job #32K12061007
Survey: 12/12/06

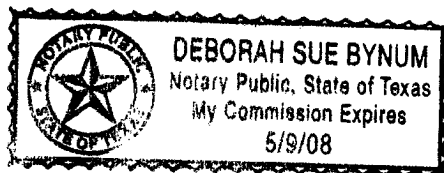
This survey is correct to the best of my knowledge
and is supported by actual field data.

.....*Rehanna*.....Company Representative

Notorized this date 11th of January, 2007.

Deborah Sue Bynum

Notary Signature
County of Midland
State of Texas





Scientific Drilling International Survey Report

Company: MACK ENERGY
Field: Penasco
Site: Eddy County, NM
Well: Pecos Federal #1
Wellpath: VH - Job #32K12061007

Date: 01/10/2007 Time: 16:18:04 Page: 1
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,24.43Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: 12/12/06 Start Date: 12/12/2006
KSRG 0'-5092'
Company: Scientific Drilling Internatio Engineer: Madrid w/P&M
Tool: Keeper, Keeper Gyro Tied-to: From Surface

Survey

MD ft	Incl deg	Azim deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ChD ft	ChA deg
0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.56	27.36	100.00	0.49	0.43	0.22	0.56	0.49	27.36
200.00	1.08	15.63	199.99	1.91	1.78	0.70	0.54	1.91	21.60
300.00	2.13	16.22	299.95	4.68	4.47	1.48	1.05	4.71	18.28
400.00	3.80	13.41	399.81	9.77	9.48	2.76	1.68	9.87	16.26
500.00	5.10	15.22	499.51	17.41	16.99	4.70	1.31	17.63	15.46
600.00	5.68	20.69	599.06	26.74	25.91	7.61	0.77	27.00	16.38
700.00	5.67	20.90	698.57	36.60	35.15	11.13	0.02	36.87	17.56
800.00	5.07	20.47	798.13	45.94	43.91	14.43	0.60	46.22	18.20
900.00	4.38	20.63	897.79	54.16	51.62	17.32	0.69	54.45	18.55
1000.00	3.68	20.62	997.55	61.17	58.20	19.80	0.70	61.47	18.79
1100.00	2.97	20.52	1097.38	66.96	63.63	21.84	0.71	67.27	18.94
1200.00	2.39	16.49	1197.27	71.61	68.05	23.34	0.61	71.94	18.93
1300.00	2.41	17.26	1297.18	75.76	72.06	24.55	0.04	76.13	18.82
1400.00	2.30	17.92	1397.10	79.84	75.98	25.79	0.11	80.24	18.75
1500.00	2.31	21.15	1497.01	83.85	79.76	27.14	0.13	84.26	18.79
1600.00	2.45	21.01	1596.93	87.99	83.64	28.63	0.14	88.40	18.90
1700.00	2.32	17.32	1696.84	92.13	87.57	30.00	0.20	92.56	18.91
1800.00	1.79	23.94	1796.78	95.71	90.93	31.24	0.58	96.14	18.96
1900.00	1.37	28.22	1896.74	98.46	93.41	32.44	0.44	98.88	19.15
2000.00	1.05	29.62	1996.72	100.57	95.26	33.45	0.32	100.96	19.35
2100.00	0.98	30.73	2096.70	102.33	96.79	34.34	0.07	102.70	19.54
2200.00	0.73	29.39	2196.69	103.81	98.08	35.09	0.25	104.17	19.69
2300.00	0.73	21.69	2296.68	105.08	99.23	35.64	0.10	105.43	19.76
2400.00	0.78	14.79	2396.67	106.39	100.48	36.05	0.10	106.75	19.74
2500.00	0.77	18.22	2496.66	107.73	101.77	36.44	0.05	108.10	19.70
2600.00	0.75	9.16	2596.66	109.03	103.06	36.75	0.12	109.41	19.63
2700.00	0.83	15.96	2696.65	110.38	104.40	37.05	0.12	110.78	19.54
2800.00	0.72	8.72	2796.64	111.70	105.72	37.35	0.15	112.12	19.46
2900.00	0.56	346.15	2896.63	112.69	106.81	37.33	0.30	113.15	19.26
3000.00	0.54	6.85	2996.63	113.52	107.75	37.26	0.20	114.02	19.08
3100.00	0.73	350.84	3096.62	114.50	108.85	37.22	0.26	115.04	18.88
3200.00	0.43	338.56	3196.61	115.29	109.83	36.98	0.32	115.89	18.61
3300.00	0.47	319.61	3296.61	115.73	110.49	36.58	0.15	116.39	18.32
3400.00	0.52	322.24	3396.61	116.11	111.16	36.03	0.05	116.86	17.96
3500.00	0.61	322.37	3496.60	116.57	111.94	35.43	0.09	117.42	17.56
3600.00	0.39	332.70	3596.60	117.03	112.67	34.95	0.24	117.96	17.23
3700.00	0.41	355.40	3696.60	117.56	113.33	34.77	0.16	118.54	17.05
3800.00	0.43	350.21	3796.59	118.18	114.05	34.67	0.04	119.21	16.91
3900.00	0.37	12.84	3896.59	118.81	114.74	34.68	0.17	119.86	16.82
4000.00	0.39	43.07	3996.59	119.45	115.30	34.99	0.20	120.49	16.88
4100.00	0.74	64.13	4096.58	120.27	115.83	35.80	0.40	121.24	17.17
4200.00	1.34	65.51	4196.57	121.64	116.60	37.44	0.60	122.46	17.80
4300.00	1.49	72.99	4296.54	123.39	117.46	39.75	0.24	124.01	18.70
4400.00	1.67	70.00	4396.50	125.27	118.34	42.36	0.20	125.70	19.70
4500.00	1.53	64.22	4496.46	127.31	119.42	44.94	0.21	127.59	20.62
4600.00	1.55	66.85	4596.42	129.34	120.53	47.38	0.07	129.51	21.46
4700.00	1.26	66.65	4696.39	131.15	121.50	49.63	0.29	131.25	22.22
4800.00	1.53	67.00	4796.36	132.95	122.46	51.87	0.27	132.99	22.96



Scientific Drilling International

Survey Report

Company: MACK ENERGY
Field: Penasco
Site: Eddy County, NM
Well: Pecos Federal #1
Wellpath: VH - Job #32K12061007

Date: 01/10/2007 Time: 16:18:04 Page: 2
Co-ordinate(NE) Reference: Site: Eddy County, NM, Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,24.43Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey

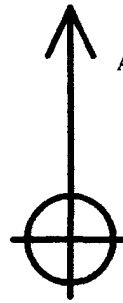
MD ft	Incl deg	Azima deg	TVD ft	VS ft	N/S ft	E/W ft	DLS deg/100ft	ChD ft	ChA deg
4900.00	0.97	66.68	4896.34	134.56	123.31	53.88	0.56	134.57	23.60
5000.00	0.79	71.17	4996.33	135.66	123.87	55.31	0.19	135.66	24.06
5092.00	0.84	62.61	5088.32	136.62	124.39	56.51	0.14	136.62	24.43



Scientific
Drilling

Field: Penasco
Site: Eddy County, NM
Well: Pecos Federal #1
Wellpath: VH - Job #32K12061007
Survey: 12/12/06

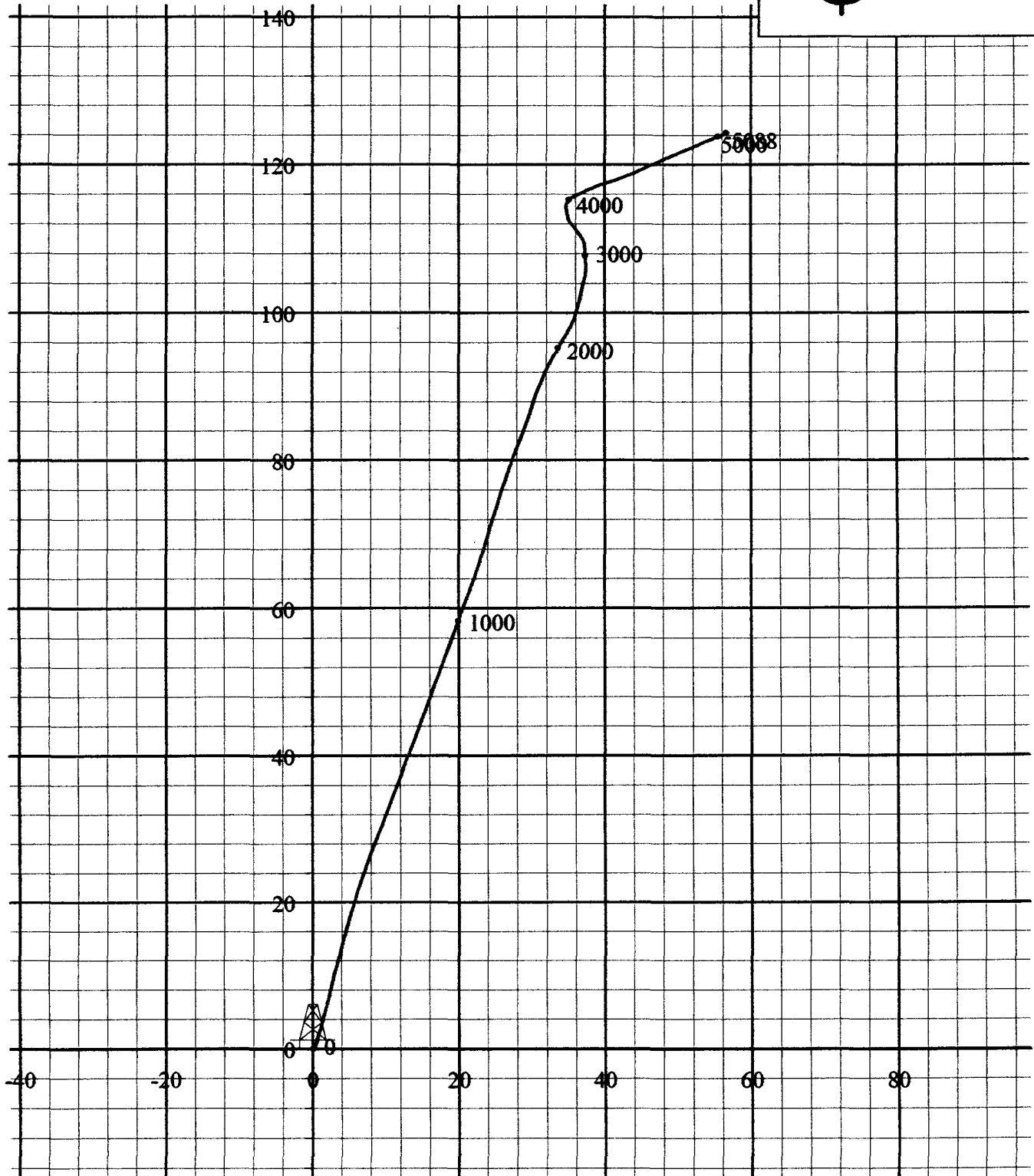
G/T/M



Azimuths to Grid North
True North: 0.00°
Magnetic North: 0.00°

Magnetic Field
Strength: 0nT
Dip Angle: 0.00°
Date: 01/08/2007
Model: igrf2000

South(-)/North(+) [20ft/in]



West(-)/East(+) [20ft/in]

RECEIVED
APR 03 2007

Record for Survey

Mack Energy Corporation

Pecos Fed #1
Eddy County, New Mexico

Sec. 12, T-18-S, R-23-E
1980' FEL & 660'FSL
API No. 30-015-34075

January 12, 2007



3201 East Loop 250 North
Midland, Texas 79705

January 12, 2007

Phone: 432-687-1647

Fax: 432-687-1544

SURVEY CERTIFICATION SHEET

STATE OF NEW MEXICO
COUNTY OF EDDY

I, Matt Shipp certify that; I am employed by Pathfinder Energy Service; that I did on the days of 12-14-06 to 12-24-06 conduct or supervise the taking of a MWD survey from a depth of 4223 feet to a depth of 8340 feet; that the data is true, correct, complete and within the limitations of the tool as set forth by Pathfinder Energy Service; that I am authorized and qualified to make this report; that this survey was conducted at the request of Mack Energy Corporation for the Pecos Federal #1 Well API No. 30-015-34075 in Eddy County, New Mexico and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by Pathfinder Energy Service.

A handwritten signature in black ink, appearing to read "Matt Shipp".

Matt Shipp
MWD

PathFinder Energy Services, Inc.

BHL Report

Page 01/01
Tie-in Date: 12/16/2006
Date Completed: 12/16/2006

MAC ENERGY
PECOS FED #1
EDDY County, NEW MEXICO
Rig:SILVER OAK #3
PathFinder Office Supervisor: MARCUS MITCHAM
PathFinder Field Engineers:MATT SHIPP
SHALON HEARD

Survey Horiz. Reference:WELLHEAD
Ref Coordinates: LAT:32.45.25.3512 N LON:104.38.33.4572 W
GRID Reference:NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 404916.5204 Y: 639261.6818
North Aligned To:GRID NORTH
Total Magnetic Correction: 8.80° EAST TO GRID
Vertical Section Plane: 0.00
Survey Vert. Reference: 17.00' Kelly Bushing To Ground
Altitude:3894.00' Ground To MSL

Measured Depth	8387.00	(feet)
Inclination	89.96	(deg)
Azimuth	0.01	(deg)
True Vertical Depth	4789.18	(feet)
Vertical Section	3949.87	(feet)
Survey X cord	404902.65	(feet)
Survey Y cord	643211.55	(feet)
Survey Lat	32.76789896 N	(deg)
Survey Lon	104.64270965 W	(deg)
Rectangular Corr. N/S	3949.87 N	(feet)
Rectangular Corr. E/W	13.87 W	(feet)
Closure Distance	3949.89	(feet)
Direction of Closure	359.80	(deg)
Dogleg Severity	0.00	(deg/100ft)

PathFinder Energy Services, Inc.

Survey Report

MAC ENERGY
PECOS FED #1
EDDY County, NEW MEXICO
Rig: SILVER OAK #3
PathFinder Office Supervisor: MARCUS MITCHAM
PathFinder Field Engineers: MATT SHIPP
SHALON HEARD

Survey Horiz. Reference: WELLHEAD
Ref Coordinates: LAT: 32.45.25.3512 N LON: 104.38.33.4572 W
Reference: NAD27 new mexico east Transverse Mercator
Ref GRID Coord: X: 404916.5204 Y: 639261.6818
North Aligned To: GRID NORTH
Total Magnetic Correction: 8.80° EAST TO GRID
Vertical Section Plane: 0.00
Survey Vert. Reference: 17.00' Kelly Bushing To Ground
Altitude: 3894.00' Ground To MSL

Survey Calculations by PathCalc v1.95 using Radius of Curvature

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	Retangular Offsets (ft)	TOTAL (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
TIE-IN FROM PREVIOUS GYRO SURVEY.									
4200.00	1.34	65.51	4196.57	0.00	116.60	116.60 N	37.44 E	122.46@ 17.80	0.00
4223.00	1.41	65.58	4219.56	23.00	116.83	116.83 N	37.94 E	122.84@ 17.99	0.30
4254.00	1.93	43.43	4250.55	31.00	117.35	117.35 N	38.67 E	123.56@ 18.24	2.64
4285.00	5.36	14.43	4281.48	31.00	119.06	119.06 N	39.62 E	125.47@ 18.41	12.22
4315.00	9.50	8.36	4311.22	30.00	122.86	122.86 N	40.38 E	129.32@ 18.20	14.03
4346.00	12.49	8.10	4341.65	31.00	128.71	128.71 N	41.23 E	135.15@ 17.76	9.65
4377.00	15.39	7.66	4371.74	31.00	136.10	136.10 N	42.25 E	142.51@ 17.25	9.36
4407.00	19.08	6.78	4400.38	30.00	144.92	144.92 N	43.37 E	151.27@ 16.66	12.33
4438.00	23.30	5.64	4429.28	31.00	156.06	156.06 N	44.58 E	162.30@ 15.94	13.68
4468.00	26.47	4.58	4456.49	30.00	168.63	168.63 N	45.71 E	174.71@ 15.17	10.67
4500.00	29.02	4.14	4484.81	32.00	183.48	183.48 N	46.84 E	189.37@ 14.32	7.99
4531.00	32.18	2.74	4511.49	31.00	199.23	199.23 N	47.78 E	204.88@ 13.49	10.45
4562.00	35.17	2.21	4537.29	31.00	216.40	216.40 N	48.53 E	221.78@ 12.64	9.69
4594.00	37.81	2.30	4563.01	32.00	235.42	235.42 N	49.28 E	240.52@ 11.82	8.25
4626.00	40.19	2.03	4587.88	32.00	255.54	255.54 N	50.04 E	260.39@ 11.08	7.46
4657.00	43.09	1.24	4611.04	31.00	276.13	276.13 N	50.62 E	280.73@ 10.39	9.51
4687.00	45.55	0.63	4632.50	30.00	297.08	297.08 N	50.97 E	301.42@ 9.73	8.32
4719.00	48.36	0.54	4654.34	32.00	320.46	320.46 N	51.20 E	324.53@ 9.08	8.78
4750.00	51.79	359.84	4674.24	31.00	344.23	344.23 N	51.28 E	348.03@ 8.47	11.20
4781.00	54.96	358.78	4692.73	31.00	369.11	369.11 N	50.98 E	372.61@ 7.86	10.59
4812.00	57.68	357.99	4709.92	31.00	394.89	394.89 N	50.26 E	398.08@ 7.25	9.03
4843.00	60.50	357.73	4725.84	31.00	421.47	421.47 N	49.26 E	424.34@ 6.67	9.13

THE FOLLOWING ARE PATHFINDER MWD SURVEYS.

PathFinder Energy Services, Inc.

Survey Report

MAC ENERGY
PECOS FED #1
EDDY County, NEW MEXICO
RIG:SILVER OAK #3

Page 02/04

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Retangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
4874.00	63.93	356.94	4740.29	31.00	448.86	448.86 N	451.42@ 6.10	11.29
4905.00	66.65	356.76	4753.25	31.00	476.98	476.98 N	479.23@ 5.56	8.79
4936.00	69.38	356.32	4764.85	31.00	505.67	505.67 N	507.64@ 5.05	8.90
4967.00	72.80	356.06	4774.90	31.00	534.92	534.92 N	536.63@ 4.57	11.06
4999.00	75.27	355.71	4783.70	32.00	565.61	565.61 N	567.06@ 4.10	7.79
5030.00	77.21	355.18	4791.07	31.00	595.62	595.62 N	596.84@ 3.67	6.47
5061.00	80.11	355.18	4797.16	31.00	625.91	625.91 N	626.92@ 3.26	9.35
5092.00	81.69	355.62	4802.07	31.00	656.42	656.42 N	657.25@ 2.89	5.29
5123.00	84.24	356.94	4805.86	31.00	687.11	687.11 N	687.82@ 2.60	9.25
5154.00	87.23	357.20	4808.17	31.00	717.98	717.98 N	718.59@ 2.36	9.68
5185.00	89.08	356.94	4809.17	31.00	748.93	748.93 N	749.45@ 2.14	6.03
5216.00	89.69	357.46	4809.50	31.00	779.89	779.89 N	780.34@ 1.94	2.59
5247.00	90.04	357.38	4809.57	31.00	810.86	810.86 N	811.24@ 1.77	1.16
5339.00	91.80	359.22	4808.10	92.00	902.80	902.80 N	903.07@ 1.42	2.77
5369.00	91.36	359.22	4807.27	30.00	932.78	932.78 N	933.04@ 1.35	1.47
5400.00	91.45	359.22	4806.51	31.00	963.77	963.77 N	964.01@ 1.28	0.29
5431.00	91.10	359.22	4805.82	31.00	994.76	994.76 N	994.98@ 1.22	1.13
5492.00	90.92	359.40	4804.74	61.00	1055.74	1055.74 N	1055.94@ 1.11	0.42
5523.00	90.57	359.13	4804.34	31.00	1086.74	1086.74 N	1086.92@ 1.05	1.43
5554.00	90.40	359.05	4804.08	31.00	1117.73	1117.73 N	1117.90@ 1.00	0.61
5615.00	90.40	358.70	4803.65	61.00	1178.72	1178.72 N	1178.86@ 0.89	0.57
5677.00	90.84	359.40	4802.98	62.00	1240.71	1240.71 N	1240.83@ 0.80	1.33
5738.00	91.19	359.75	4801.90	61.00	1301.70	1301.70 N	1301.81@ 0.74	0.81
5800.00	91.36	359.93	4800.52	62.00	1363.68	1363.68 N	1363.78@ 0.70	0.40
5861.00	90.31	358.26	4799.63	61.00	1424.66	1424.66 N	1424.75@ 0.63	3.23
5923.00	89.87	357.64	4799.53	62.00	1486.62	1486.62 N	1486.68@ 0.52	1.23
5984.00	90.84	358.52	4799.16	61.00	1547.59	1547.59 N	1547.63@ 0.42	2.15

PathFinder Energy Services, Inc.

Survey Report

MAC ENERGY
PECOS FED #1
EDDY County, NEW MEXICO
RIG:SILVER OAK #3

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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)
6046.00	90.48	357.90	4798.44	62.00	1609.55	1609.55 N 9.46 E	1609.58@ 0.34	1.16
6107.00	91.45	359.05	4797.42	61.00	1670.52	1670.52 N 7.84 E	1670.54@ 0.27	2.47
6169.00	91.54	359.05	4795.80	62.00	1732.49	1732.49 N 6.81 E	1732.50@ 0.23	0.15
6230.00	90.75	359.05	4794.58	61.00	1793.47	1793.47 N 5.80 E	1793.48@ 0.19	1.30
6292.00	89.96	359.13	4794.19	62.00	1855.46	1855.46 N 4.82 E	1855.47@ 0.15	1.28
6353.00	89.52	359.40	4794.47	61.00	1916.45	1916.45 N 4.04 E	1916.46@ 0.12	0.85
6415.00	89.16	359.22	4795.19	62.00	1978.45	1978.45 N 3.29 E	1978.45@ 0.10	0.65
6476.00	88.81	359.31	4796.27	61.00	2039.43	2039.43 N 2.51 E	2039.43@ 0.07	0.59
6538.00	87.85	359.13	4798.07	62.00	2101.40	2101.40 N 1.66 E	2101.40@ 0.05	1.58
6599.00	87.67	359.13	4800.46	61.00	2162.34	2162.34 N 0.74 E	2162.34@ 0.02	0.30
6661.00	87.05	359.05	4803.31	62.00	2224.27	2224.27 N 0.25 W	2224.27@ 359.99	1.01
6723.00	88.29	359.57	4805.83	62.00	2286.21	2286.21 N 0.99 W	2286.21@ 359.98	2.17
6785.00	89.87	359.93	4806.83	62.00	2348.20	2348.20 N 1.26 W	2348.20@ 359.97	2.61
6848.00	91.28	0.28	4806.20	63.00	2411.20	2411.20 N 1.15 W	2411.20@ 359.97	2.31
6910.00	91.36	0.54	4804.77	62.00	2473.18	2473.18 N 0.70 W	2473.18@ 359.98	0.44
6972.00	91.19	0.28	4803.39	62.00	2535.16	2535.16 N 0.26 W	2535.16@ 359.99	0.50
7034.00	91.19	0.36	4802.10	62.00	2597.15	2597.15 N 0.09 E	2597.15@ 0.00	0.13
7096.00	91.10	0.19	4800.86	62.00	2659.14	2659.14 N 0.38 E	2659.14@ 0.01	0.31
7190.00	91.19	0.45	4798.98	94.00	2753.11	2753.11 N 0.91 E	2753.12@ 0.02	0.29
7283.00	91.28	0.19	4796.98	93.00	2846.09	2846.09 N 1.43 E	2846.09@ 0.03	0.30
7376.00	90.75	0.10	4795.33	93.00	2939.08	2939.08 N 1.66 E	2939.08@ 0.03	0.58
7470.00	89.52	0.36	4795.11	94.00	3033.07	3033.07 N 2.04 E	3033.07@ 0.04	1.34
7563.00	90.40	358.70	4795.18	93.00	3126.07	3126.07 N 1.28 E	3126.07@ 0.02	2.02
7657.00	90.75	358.34	4794.23	94.00	3220.03	3220.03 N 1.15 W	3220.03@ 359.98	0.53
7750.00	90.31	358.61	4793.37	93.00	3312.99	3312.99 N 3.63 W	3312.99@ 359.94	0.56
7843.00	89.87	358.78	4793.23	93.00	3405.97	3405.97 N 5.74 W	3405.97@ 359.90	0.51
7937.00	91.01	358.61	4792.50	94.00	3499.94	3499.94 N 7.88 W	3499.95@ 359.87	1.23

PathFinder Energy Services, Inc.

Survey Report

MAC ENERGY
 PECOS FED #1
 EDDY County, NEW MEXICO
 RIG:SILVER OAK #3

Page 04/04

Measured Depth (ft)	Incl (deg)	Drift Dir. (deg)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	Closure Dist Dir (ft) (deg)	DLS (dg/100ft)
8030.00	90.66	358.87	4791.15	93.00	3592.91	3592.91 N 9.93 W	3592.92@ 359.84	0.47
8124.00	90.57	358.96	4790.14	94.00	3686.88	3686.88 N 11.71 W	3686.90@ 359.82	0.14
8311.00	90.04	359.75	4789.14	187.00	3873.87	3873.87 N 13.81 W	3873.89@ 359.80	0.51
8340.00	89.96	0.01	4789.14	29.00	3902.87	3902.87 N 13.87 W	3902.89@ 359.80	0.94
STRAIGHT LINE TO BIT PROJECTION.								
8387.00	89.96	0.01	4789.18	47.00	3949.87	3949.87 N 13.87 W	3949.89@ 359.80	0.00

PATHFINDER

ENERGY SERVICES

DIRECTIONAL SURVEY INFORMATION

Prepared By: MARCUS MITCHAM

Name of Client: MACK ENERGY

Attention: _____

☒ Directional Only Job OR ☐ Logging Job

Name(s) of Persons Performing Surveys:

A) MATT SHIPP D) _____
B) _____ E) _____
C) _____ F) _____

Positions of Said Persons: Surveyors / Field Engineers: Other _____

Date(s) Survey was Performed: From 12/14/2006 To 12/24/2006

Type of Survey Performed: (Specify if other than MWD) _____

IDENTIFICATION OF WELL:

Client:	<u>MACK ENERGY CORPORATION</u>	Rig Name:	<u>SILVER OAK #3</u>
Well No.:	<u>PECOS FEDERAL #1</u>	API No.:	<u>30-015-34075</u>
Location:	<u>EDDY COUNTY</u>	Job No.:	<u>101006047-WT-WT</u>
State:	<u>NEW MEXICO</u>		

TEXAS RAILROAD COMMISSION INFORMATION:

Field: PENASCO DRAW; WOLFCAMP

Abstract No.: N/A
Well Plat Survey Co.: RONALD J. EDISON PROFESSIONAL SURVEYOR

Surveys Performed From 4223 Feet TO 8340 Feet

MMS / ASCII / LAS Diskette Filename: _____

THIS IS TO VERIFY THAT ATTACHED DOCUMENTS SHOW THE WELL TO BE DISPLACED AT 3949.89 FEET ON A BEARING OF 359.8 DEGREES FROM THE CENTER OF THE ROTARY TABLE AT 8387 DEPTH OF 4789 FEET, ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE.