

OPERATOR SOUTHWESTERN ENERGY PRODUCTION CO.
WELL/LEASE KARLSBAD CORRAL FLY 11 #3-H
COUNTY EDDY

495-5098

STATE OF NEW MEXICO
DEVIATION REPORT

30-015-34449

201	0.25
418	0.75
669	0.50
775	0.50

RECEIVED

MAY 05 2006

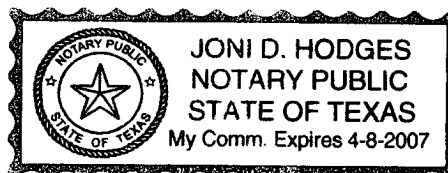
OCU-ARTERIA

BY: Steve Moore

STATE OF TEXAS
COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on March 27, 2006, by Steve Moore on behalf of Patterson-UTI Drilling Company LP, LLLP.

Joni D. Hodges
Notary Public for Midland County, Texas
My Commission Expires: 4/08/07



Pathfinder Energy

Survey Report - Geographic

Company: Southwestern Energy Production	Date: 4/21/2006	Time: 09:18:00	Page: 1
Field: Karlsbad Corral Section 11	Co-ordinate(NE) Reference: Site: Karlsbad Corral 11 #3-H, Grid Nort		
Site: Karlsbad Corral 11 #3-H	Vertical (TVD) Reference: SITE 0.0		
Well: Karlsbad Corral 11 #3-H	Section (VS) Reference: Well (0.00N,0.00E,179.59Azi)		
Wellpath: Karlsbad Corral 11 #3H	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Field: Karlsbad Corral Section 11

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: igrf2005

Site: Karlsbad Corral 11 #3-H
 Eddy County, New Mexico
 10' FNL & 1980' FEL Sec. 11, T25-S, R29-E

Site Position:	Northing: 419155.50 ft	Latitude: 32 9 6.488 N
From: Map	Easting: 617855.20 ft	Longitude: 103 57 9.076 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3065.00 ft		Grid Convergence: 0.20 deg

Well: Karlsbad Corral 11 #3-H

Slot Name:

Well Position:	+N/-S 0.00 ft	Northing: 419155.50 ft	Latitude: 32 9 6.488 N
	+E/-W 0.00 ft	Easting: 617855.20 ft	Longitude: 103 57 9.076 W
Position Uncertainty: 0.00 ft			

Wellpath: Karlsbad Corral 11 #3H

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 8.42 deg
Mag Dip Angle: 60.19 deg
+E/-W ft
Direction deg

Current Datum: SITE
Magnetic Data: 10/13/2005
Field Strength: 49136 nT
Vertical Section: Depth From (TVD) ft
 0.00 0.00 0.00 179.59

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 MAY 05 2006
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Survey: Pathfinder MWD Surveys

Start Date: 2/14/2006

Company: PathFinder Energy Services
Tool:

Engineer: Travis Elliot
Tied-to: From Surface

Survey: Pathfinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec	Longitude Deg Min Sec
0.00	0.00	0.00	0.00	0.00	0.00	419155.50	617855.20	32 9 6.488 N	103 57 9.076 W
815.00	0.62	336.79	814.98	4.05	-1.74	419159.55	617853.46	32 9 6.528 N	103 57 9.097 W
908.00	0.44	6.94	907.98	4.87	-1.89	419160.37	617853.31	32 9 6.537 N	103 57 9.098 W
1002.00	0.70	7.64	1001.98	5.80	-1.77	419161.30	617853.43	32 9 6.546 N	103 57 9.097 W
1097.00	0.62	18.72	1096.97	6.86	-1.53	419162.36	617853.67	32 9 6.556 N	103 57 9.094 W
1191.00	0.79	6.50	1190.96	7.98	-1.29	419163.48	617853.91	32 9 6.567 N	103 57 9.091 W
1285.00	0.97	339.87	1284.95	9.38	-1.49	419164.88	617853.71	32 9 6.581 N	103 57 9.093 W
1378.00	1.14	329.32	1377.94	10.91	-2.24	419166.41	617852.96	32 9 6.596 N	103 57 9.102 W
1472.00	1.41	312.10	1471.91	12.49	-3.57	419167.99	617851.63	32 9 6.612 N	103 57 9.118 W
1567.00	1.32	307.29	1566.89	13.94	-5.31	419169.44	617849.89	32 9 6.626 N	103 57 9.138 W
1660.00	1.67	296.88	1659.85	15.20	-7.37	419170.70	617847.83	32 9 6.639 N	103 57 9.162 W
1754.00	2.45	287.61	1753.79	16.43	-10.51	419171.93	617844.69	32 9 6.651 N	103 57 9.198 W
1848.00	3.08	275.44	1847.68	17.27	-14.94	419172.77	617840.26	32 9 6.660 N	103 57 9.250 W
1879.00	3.55	275.97	1878.63	17.45	-16.72	419172.95	617838.48	32 9 6.662 N	103 57 9.270 W
1911.00	3.54	273.08	1910.57	17.61	-18.69	419173.11	617836.51	32 9 6.663 N	103 57 9.293 W
1942.00	2.90	265.10	1941.52	17.59	-20.43	419173.09	617834.77	32 9 6.663 N	103 57 9.313 W
1973.00	2.11	254.60	1972.49	17.37	-21.76	419172.87	617833.44	32 9 6.661 N	103 57 9.329 W
2004.00	1.58	242.98	2003.48	17.03	-22.69	419172.53	617832.51	32 9 6.658 N	103 57 9.340 W
2036.00	1.14	232.79	2035.47	16.63	-23.34	419172.13	617831.86	32 9 6.654 N	103 57 9.347 W
2067.00	0.79	225.93	2066.46	16.30	-23.74	419171.80	617831.46	32 9 6.650 N	103 57 9.352 W
2098.00	0.62	224.27	2097.46	16.03	-24.01	419171.53	617831.19	32 9 6.648 N	103 57 9.355 W
2161.00	0.88	226.34	2160.45	15.45	-24.60	419170.95	617830.60	32 9 6.642 N	103 57 9.362 W
2223.00	0.70	209.30	2222.45	14.79	-25.13	419170.29	617830.07	32 9 6.636 N	103 57 9.368 W

Pathfinder Energy

Survey Report - Geographic

Company: Southwestern Energy Production
Field: Karlsbad Corral Section 11
Site: Karlsbad Corral 11 #3-H
Well: Karlsbad Corral 11 #3-H
Wellpath: Karlsbad Corral 11 #3H

Date: 4/21/2006 **Time:** 09:18:00 **Page:** 2
Co-ordinate(NE) Reference: Site: Karlsbad Corral 11 #3-H, Grid Nort
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,179.59Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey: Pathfinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N-S ft	+E-W ft	Map Northing ft	Map Easting ft	Latitude Deg Min Sec			Longitude Deg Min Sec		
2286.00	0.70	173.89	2285.44	14.08	-25.27	419169.58	617829.93	32	9	6.628 N	103	57	9.370 W
2380.00	1.06	159.43	2379.43	12.69	-24.91	419168.19	617830.29	32	9	6.615 N	103	57	9.366 W
2474.00	1.23	138.44	2473.41	11.12	-23.93	419166.62	617831.27	32	9	6.599 N	103	57	9.354 W
2568.00	2.20	137.24	2567.37	9.04	-22.04	419164.54	617833.16	32	9	6.579 N	103	57	9.332 W
2631.00	2.46	125.39	2630.32	7.37	-20.11	419162.87	617835.09	32	9	6.562 N	103	57	9.310 W
2694.00	1.06	91.65	2693.29	6.57	-18.43	419162.07	617836.77	32	9	6.554 N	103	57	9.291 W
2756.00	0.79	46.82	2755.28	6.85	-17.55	419162.35	617837.65	32	9	6.557 N	103	57	9.280 W
2818.00	1.41	47.73	2817.27	7.65	-16.67	419163.15	617838.53	32	9	6.565 N	103	57	9.270 W
2882.00	1.14	100.09	2881.26	8.07	-15.46	419163.57	617839.74	32	9	6.569 N	103	57	9.256 W
2944.00	1.58	114.18	2943.24	7.61	-14.07	419163.11	617841.13	32	9	6.564 N	103	57	9.240 W
3007.00	1.67	114.43	3006.21	6.88	-12.44	419162.38	617842.76	32	9	6.557 N	103	57	9.221 W
3070.00	0.88	196.46	3069.20	6.03	-11.75	419161.53	617843.45	32	9	6.548 N	103	57	9.213 W
3133.00	0.97	213.60	3132.19	5.13	-12.18	419160.63	617843.02	32	9	6.539 N	103	57	9.218 W
3195.00	1.23	230.70	3194.18	4.27	-12.98	419159.77	617842.22	32	9	6.531 N	103	57	9.227 W
3258.00	1.85	231.73	3257.16	3.21	-14.30	419158.71	617840.90	32	9	6.521 N	103	57	9.243 W
3321.00	1.49	238.09	3320.13	2.15	-15.80	419157.65	617839.40	32	9	6.510 N	103	57	9.260 W
3384.00	1.49	233.57	3383.11	1.23	-17.15	419156.73	617838.05	32	9	6.501 N	103	57	9.276 W
3447.00	1.58	238.96	3446.09	0.29	-18.56	419155.79	617836.64	32	9	6.492 N	103	57	9.292 W
3509.00	1.49	238.35	3508.07	-0.57	-19.97	419154.93	617835.23	32	9	6.483 N	103	57	9.309 W
3572.00	1.49	238.86	3571.05	-1.42	-21.37	419154.08	617833.83	32	9	6.475 N	103	57	9.325 W
3634.00	1.58	238.73	3633.02	-2.29	-22.79	419153.21	617832.41	32	9	6.466 N	103	57	9.342 W
3697.00	1.49	247.12	3696.00	-3.05	-24.29	419152.45	617830.91	32	9	6.459 N	103	57	9.359 W
3761.00	1.23	242.80	3759.98	-3.69	-25.67	419151.81	617829.53	32	9	6.453 N	103	57	9.375 W
3823.00	1.58	245.26	3821.96	-4.35	-27.04	419151.15	617828.16	32	9	6.446 N	103	57	9.391 W
3886.00	1.49	243.57	3884.94	-5.08	-28.56	419150.42	617826.64	32	9	6.439 N	103	57	9.409 W
3949.00	1.76	246.25	3947.92	-5.84	-30.18	419149.66	617825.02	32	9	6.432 N	103	57	9.428 W
4012.00	1.67	249.44	4010.89	-6.55	-31.92	419148.95	617823.28	32	9	6.425 N	103	57	9.448 W
4075.00	1.67	247.25	4073.86	-7.23	-33.63	419148.27	617821.57	32	9	6.418 N	103	57	9.468 W
4139.00	1.76	252.12	4137.83	-7.89	-35.42	419147.61	617819.78	32	9	6.411 N	103	57	9.489 W
4202.00	1.85	252.71	4200.80	-8.49	-37.32	419147.01	617817.88	32	9	6.406 N	103	57	9.511 W
4265.00	1.76	251.65	4263.77	-9.09	-39.20	419146.41	617816.00	32	9	6.400 N	103	57	9.533 W
4327.00	1.93	249.23	4325.74	-9.76	-41.08	419145.74	617814.12	32	9	6.393 N	103	57	9.555 W
4390.00	1.85	256.39	4388.70	-10.38	-43.06	419145.12	617812.14	32	9	6.387 N	103	57	9.578 W
4453.00	1.85	258.63	4451.67	-10.82	-45.05	419144.68	617810.15	32	9	6.383 N	103	57	9.601 W
4516.00	1.76	258.85	4514.64	-11.21	-47.00	419144.29	617808.20	32	9	6.379 N	103	57	9.624 W
4578.00	1.76	257.46	4576.61	-11.60	-48.86	419143.90	617806.34	32	9	6.375 N	103	57	9.645 W
4641.00	1.85	260.49	4639.58	-11.98	-50.81	419143.52	617804.39	32	9	6.372 N	103	57	9.668 W
4704.00	1.85	262.53	4702.55	-12.28	-52.82	419143.22	617802.38	32	9	6.369 N	103	57	9.691 W
4767.00	1.85	265.54	4765.51	-12.49	-54.84	419143.01	617800.36	32	9	6.367 N	103	57	9.715 W
4783.00	2.03	268.06	4781.50	-12.52	-55.38	419142.98	617799.82	32	9	6.366 N	103	57	9.721 W
4818.00	2.29	249.08	4816.48	-12.79	-56.65	419142.71	617798.55	32	9	6.364 N	103	57	9.736 W
4839.50	3.96	217.19	4837.95	-13.53	-57.50	419141.97	617797.70	32	9	6.356 N	103	57	9.746 W
4845.00	4.48	213.22	4843.43	-13.86	-57.74	419141.64	617797.46	32	9	6.353 N	103	57	9.749 W
4876.00	8.27	201.00	4874.24	-16.96	-59.20	419138.54	617796.00	32	9	6.322 N	103	57	9.766 W
4907.00	12.31	198.98	4904.73	-22.17	-61.07	419133.33	617794.13	32	9	6.271 N	103	57	9.788 W
4939.00	16.62	198.45	4935.71	-29.74	-63.63	419125.76	617791.57	32	9	6.196 N	103	57	9.818 W
4970.00	19.87	197.37	4965.15	-38.97	-66.61	419116.53	617788.59	32	9	6.105 N	103	57	9.853 W
5002.00	23.21	196.61	4994.91	-50.21	-70.04	419105.29	617785.16	32	9	5.994 N	103	57	9.893 W
5034.00	26.73	194.94	5023.91	-63.21	-73.69	419092.29	617781.51	32	9	5.865 N	103	57	9.936 W
5065.00	30.25	193.36	5051.16	-77.55	-77.30	419077.95	617777.90	32	9	5.724 N	103	57	9.979 W
5096.00	33.41	191.60	5077.49	-93.51	-80.82	419061.99	617774.38	32	9	5.566 N	103	57	10.020 W
5128.00	36.32	190.02	5103.75	-111.48	-84.24	419044.02	617770.96	32	9	5.388 N	103	57	10.061 W

Pathfinder Energy

Survey Report - Geographic

Company: Southwestern Energy Production
 Field: Karlsbad Corral Section 11
 Site: Karlsbad Corral 11 #3-H
 Well: Karlsbad Corral 11 #3-H
 Wellpath: Karlsbad Corral 11 #3H

Date: 4/21/2006 Time: 09:18:00 Page: 3
 Co-ordinate(NE) Reference: Site: Karlsbad Corral 11 #3-H, Grid Nort
 Vertical (TVD) Reference: SITE 0.0
 Section (VS) Reference: Well (0.00N,0.00E,179.59Azi)
 Survey Calculation Method: Minimum Curvature Db: Sybase

Survey: Pathfinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec			<--- Longitude ---> Deg Min Sec		
5159.00	39.75	188.08	5128.16	-130.34	-87.23	419025.16	617767.97	32	9	5.201 N	103	57	10.097 W
5190.00	43.35	186.41	5151.36	-150.73	-89.81	419004.77	617765.39	32	9	5.000 N	103	57	10.127 W
5222.00	46.43	185.01	5174.02	-173.20	-92.05	418982.30	617763.15	32	9	4.777 N	103	57	10.154 W
5253.00	49.42	184.04	5194.80	-196.13	-93.86	418959.37	617761.34	32	9	4.551 N	103	57	10.176 W
5285.00	52.32	183.16	5214.99	-220.91	-95.42	418934.59	617759.78	32	9	4.305 N	103	57	10.195 W
5316.00	55.13	182.11	5233.33	-245.87	-96.56	418909.63	617758.64	32	9	4.058 N	103	57	10.210 W
5348.00	58.12	180.88	5250.93	-272.58	-97.25	418882.92	617757.95	32	9	3.794 N	103	57	10.219 W
5380.00	61.29	179.65	5267.07	-300.20	-97.38	418855.30	617757.82	32	9	3.521 N	103	57	10.222 W
5411.00	64.46	178.85	5281.20	-327.79	-97.01	418827.71	617758.19	32	9	3.248 N	103	57	10.218 W
5443.00	67.01	178.41	5294.35	-356.95	-96.32	418798.55	617758.88	32	9	2.959 N	103	57	10.212 W
5474.00	70.08	178.33	5305.69	-385.79	-95.49	418769.71	617759.71	32	9	2.674 N	103	57	10.203 W
5506.00	73.16	178.85	5315.78	-416.14	-94.75	418739.36	617760.45	32	9	2.373 N	103	57	10.196 W
5538.00	77.29	178.94	5323.94	-447.07	-94.15	418708.43	617761.05	32	9	2.067 N	103	57	10.190 W
5570.00	82.13	178.15	5329.65	-478.54	-93.35	418676.96	617761.85	32	9	1.756 N	103	57	10.182 W
5600.00	84.24	177.62	5333.21	-508.30	-92.25	418647.20	617762.95	32	9	1.461 N	103	57	10.170 W
5606.00	84.36	177.70	5333.81	-514.27	-92.01	418641.23	617763.19	32	9	1.402 N	103	57	10.168 W
5632.00	84.86	178.06	5336.25	-540.13	-91.05	418615.37	617764.15	32	9	1.146 N	103	57	10.158 W
5664.00	87.05	177.62	5338.51	-572.03	-89.85	418583.47	617765.35	32	9	0.830 N	103	57	10.145 W
5696.00	87.58	178.68	5340.01	-603.98	-88.82	418551.52	617766.38	32	9	0.514 N	103	57	10.134 W
5728.00	87.93	178.85	5341.26	-635.95	-88.13	418519.55	617767.07	32	9	0.198 N	103	57	10.128 W
5760.00	88.55	177.36	5342.25	-667.91	-87.07	418487.59	617768.13	32	8	59.881 N	103	57	10.117 W
5791.00	88.90	178.85	5342.94	-698.89	-86.04	418456.61	617769.16	32	8	59.575 N	103	57	10.106 W
5823.00	87.93	178.68	5343.82	-730.87	-85.36	418424.63	617769.84	32	8	59.258 N	103	57	10.099 W
5852.00	85.74	179.82	5345.42	-759.82	-84.98	418395.68	617770.22	32	8	58.972 N	103	57	10.096 W
5884.00	85.74	178.77	5347.80	-791.73	-84.58	418363.77	617770.62	32	8	58.656 N	103	57	10.093 W
5916.00	85.65	178.94	5350.20	-823.63	-83.95	418331.87	617771.25	32	8	58.340 N	103	57	10.087 W
5947.00	86.09	179.47	5352.43	-854.55	-83.52	418300.95	617771.68	32	8	58.034 N	103	57	10.083 W
5978.00	86.44	180.00	5354.45	-885.48	-83.37	418270.02	617771.83	32	8	57.728 N	103	57	10.083 W
6010.00	86.35	179.38	5356.46	-917.42	-83.20	418238.08	617772.00	32	8	57.412 N	103	57	10.082 W
6039.00	86.79	179.12	5358.20	-946.36	-82.82	418209.14	617772.38	32	8	57.126 N	103	57	10.079 W
6070.00	88.02	179.03	5359.60	-977.32	-82.32	418178.18	617772.88	32	8	56.819 N	103	57	10.074 W
6102.00	89.25	179.91	5360.37	-1009.31	-82.03	418146.19	617773.17	32	8	56.503 N	103	57	10.072 W
6133.00	90.13	180.61	5360.53	-1040.31	-82.17	418115.19	617773.03	32	8	56.196 N	103	57	10.075 W
6164.00	90.57	181.32	5360.34	-1071.31	-82.69	418084.19	617772.51	32	8	55.889 N	103	57	10.082 W
6196.00	90.92	180.00	5359.93	-1103.30	-83.06	418052.20	617772.14	32	8	55.573 N	103	57	10.088 W
6227.00	90.75	179.47	5359.48	-1134.30	-82.91	418021.20	617772.29	32	8	55.266 N	103	57	10.088 W
6258.00	90.40	179.91	5359.16	-1165.29	-82.75	417990.21	617772.45	32	8	54.959 N	103	57	10.087 W
6290.00	90.04	178.94	5359.04	-1197.29	-82.43	417958.21	617772.77	32	8	54.642 N	103	57	10.084 W
6322.00	91.28	179.56	5358.67	-1229.29	-82.01	417926.21	617773.19	32	8	54.326 N	103	57	10.081 W
6355.00	91.01	179.29	5358.01	-1262.28	-81.68	417893.22	617773.52	32	8	53.999 N	103	57	10.078 W
6387.00	92.33	180.08	5357.08	-1294.26	-81.50	417861.24	617773.70	32	8	53.683 N	103	57	10.078 W
6419.00	92.24	179.91	5355.81	-1326.24	-81.50	417829.26	617773.70	32	8	53.366 N	103	57	10.079 W
6475.00	93.30	180.26	5353.10	-1382.17	-81.58	417773.33	617773.62	32	8	52.813 N	103	57	10.082 W
6507.00	92.51	179.93	5351.48	-1414.13	-81.63	417741.37	617773.57	32	8	52.496 N	103	57	10.084 W
6539.00	91.28	179.56	5350.42	-1446.11	-81.49	417709.39	617773.71	32	8	52.180 N	103	57	10.084 W
6571.00	90.75	179.73	5349.85	-1478.11	-81.29	417677.39	617773.91	32	8	51.863 N	103	57	10.083 W
6603.00	90.75	179.29	5349.43	-1510.10	-81.02	417645.40	617774.18	32	8	51.547 N	103	57	10.081 W
6635.00	90.84	179.12	5348.99	-1542.10	-80.57	417613.40	617774.63	32	8	51.230 N	103	57	10.077 W
6667.00	90.48	178.77	5348.62	-1574.09	-79.99	417581.41	617775.21	32	8	50.913 N	103	57	10.072 W
6699.00	88.81	178.41	5348.82	-1606.08	-79.20	417549.42	617776.00	32	8	50.597 N	103	57	10.064 W
6730.00	87.76	177.80	5349.75	-1637.05	-78.17	417518.45	617777.03	32	8	50.290 N	103	57	10.053 W
6761.00	88.29	178.26	5350.82	-1668.01	-77.11	417487.49	617778.09	32	8	49.984 N	103	57	10.042 W
6793.00	87.49	178.06	5351.99	-1699.97	-76.08	417455.53	617779.12	32	8	49.668 N	103	57	10.031 W

Pathfinder Energy

Survey Report - Geographic

Company: Southwestern Energy Production
Field: Karlsbad Corral Section 11
Site: Karlsbad Corral 11 #3-H
Well: Karlsbad Corral 11 #3-H
Wellpath: Karlsbad Corral 11 #3H

Date: 4/21/2006

Time: 09:18:00

Page: 4

Co-ordinate(N/E) Reference:

Site: Karlsbad Corral 11 #3-H, Grid Nort

Vertical (TVD) Reference:

SITE: 0.0

Section (VS) Reference:

Well: (0.00N,0.00E,179.59Azi)

Survey Calculation Method:

Minimum Curvature

Db: Sybase

Survey: Pathfinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	Latitude			Longitude		
								Deg	Min	Sec	Deg	Min	Sec
6824.00	87.67	177.27	5353.30	-1730.92	-74.82	417424.58	617780.38	32	8	49.361 N	103	57	10.018 W
6856.00	88.55	177.71	5354.36	-1762.87	-73.42	417392.63	617781.78	32	8	49.045 N	103	57	10.003 W
6888.00	89.52	177.98	5354.90	-1794.84	-72.22	417360.66	617782.98	32	8	48.729 N	103	57	9.990 W
6920.00	89.08	177.18	5355.29	-1826.81	-70.86	417328.69	617784.34	32	8	48.412 N	103	57	9.976 W
6951.00	89.78	177.27	5355.60	-1857.77	-69.36	417297.73	617785.84	32	8	48.106 N	103	57	9.960 W
6983.00	90.31	177.71	5355.57	-1889.74	-67.96	417265.76	617787.24	32	8	47.789 N	103	57	9.945 W
7015.00	89.60	177.71	5355.60	-1921.71	-66.68	417233.79	617788.52	32	8	47.473 N	103	57	9.931 W
7047.00	88.90	177.10	5356.02	-1953.68	-65.24	417201.82	617789.96	32	8	47.156 N	103	57	9.916 W
7078.00	88.37	176.57	5356.75	-1984.62	-63.52	417170.88	617791.68	32	8	46.850 N	103	57	9.897 W
7110.00	88.81	176.39	5357.54	-2016.55	-61.56	417138.95	617793.64	32	8	46.534 N	103	57	9.875 W
7142.00	88.81	176.74	5358.21	-2048.49	-59.64	417107.01	617795.56	32	8	46.218 N	103	57	9.854 W
7174.00	88.46	176.13	5358.97	-2080.42	-57.65	417075.08	617797.55	32	8	45.902 N	103	57	9.833 W
7206.00	86.88	175.16	5360.27	-2112.30	-55.23	417043.20	617799.97	32	8	45.586 N	103	57	9.806 W
7238.00	86.17	174.81	5362.21	-2144.11	-52.43	417011.39	617802.77	32	8	45.271 N	103	57	9.775 W
7269.00	86.17	174.90	5364.28	-2174.92	-49.66	416980.58	617805.54	32	8	44.966 N	103	57	9.744 W
7301.00	87.05	174.90	5366.17	-2206.74	-46.82	416948.76	617808.38	32	8	44.651 N	103	57	9.712 W
7332.00	86.79	176.22	5367.84	-2237.60	-44.42	416917.90	617810.78	32	8	44.346 N	103	57	9.685 W
7364.00	86.88	176.66	5369.60	-2269.49	-42.44	416886.01	617812.76	32	8	44.030 N	103	57	9.663 W
7396.00	87.05	176.66	5371.30	-2301.39	-40.58	416854.11	617814.62	32	8	43.714 N	103	57	9.643 W
7428.00	87.58	177.18	5372.80	-2333.31	-38.86	416822.19	617816.34	32	8	43.399 N	103	57	9.624 W
7460.00	87.67	177.71	5374.12	-2365.25	-37.44	416790.25	617817.76	32	8	43.082 N	103	57	9.609 W
7492.00	87.76	177.71	5375.40	-2397.20	-36.16	416758.30	617819.04	32	8	42.766 N	103	57	9.596 W
7523.00	87.85	177.71	5376.59	-2428.15	-34.92	416727.35	617820.28	32	8	42.460 N	103	57	9.583 W
7555.00	88.29	177.98	5377.66	-2460.11	-33.72	416695.39	617821.48	32	8	42.143 N	103	57	9.570 W
7587.00	89.96	178.41	5378.15	-2492.09	-32.71	416663.41	617822.49	32	8	41.827 N	103	57	9.559 W
7619.00	90.92	178.94	5377.91	-2524.08	-31.97	416631.42	617823.23	32	8	41.510 N	103	57	9.552 W
7651.00	91.10	179.03	5377.34	-2556.07	-31.40	416599.43	617823.80	32	8	41.194 N	103	57	9.547 W
7682.00	89.87	178.33	5377.08	-2587.06	-30.69	416568.44	617824.51	32	8	40.887 N	103	57	9.540 W
7714.00	89.60	178.41	5377.23	-2619.05	-29.78	416536.45	617825.42	32	8	40.570 N	103	57	9.531 W
7745.00	89.69	178.94	5377.42	-2650.04	-29.06	416505.46	617826.14	32	8	40.264 N	103	57	9.524 W
7776.00	90.40	179.38	5377.40	-2681.03	-28.61	416474.47	617826.59	32	8	39.957 N	103	57	9.520 W
7807.00	89.52	179.82	5377.42	-2712.03	-28.39	416443.47	617826.81	32	8	39.650 N	103	57	9.518 W
7839.00	89.34	179.56	5377.74	-2744.03	-28.22	416411.47	617826.98	32	8	39.334 N	103	57	9.518 W
7870.00	87.85	179.47	5378.50	-2775.02	-27.96	416380.48	617827.24	32	8	39.027 N	103	57	9.516 W
7902.00	87.41	179.21	5379.82	-2806.99	-27.59	416348.51	617827.61	32	8	38.710 N	103	57	9.513 W
7933.00	87.76	179.65	5381.13	-2837.96	-27.28	416317.54	617827.92	32	8	38.404 N	103	57	9.511 W
7965.00	87.76	179.29	5382.38	-2869.93	-26.98	416285.57	617828.22	32	8	38.088 N	103	57	9.508 W
7997.00	88.81	179.73	5383.33	-2901.92	-26.71	416253.58	617828.49	32	8	37.771 N	103	57	9.507 W
8028.00	89.16	179.91	5383.88	-2932.91	-26.61	416222.59	617828.59	32	8	37.464 N	103	57	9.507 W
8060.00	89.69	179.93	5384.20	-2964.91	-26.57	416190.59	617828.63	32	8	37.148 N	103	57	9.507 W
8093.00	89.36	179.29	5384.48	-2997.91	-26.34	416157.59	617828.86	32	8	36.821 N	103	57	9.506 W
8124.00	88.90	179.03	5384.95	-3028.90	-25.89	416126.60	617829.31	32	8	36.514 N	103	57	9.502 W
8156.00	90.84	179.12	5385.02	-3060.90	-25.37	416094.60	617829.83	32	8	36.198 N	103	57	9.498 W
8188.00	92.33	178.15	5384.14	-3092.87	-24.61	416062.63	617830.59	32	8	35.881 N	103	57	9.490 W
8220.00	91.98	177.18	5382.93	-3124.82	-23.31	416030.68	617831.89	32	8	35.565 N	103	57	9.476 W
8252.00	91.80	176.92	5381.88	-3156.76	-21.66	415998.74	617833.54	32	8	35.249 N	103	57	9.458 W
8284.00	91.80	176.83	5380.87	-3188.70	-19.92	415966.80	617835.28	32	8	34.933 N	103	57	9.439 W
8315.00	91.63	176.66	5379.94	-3219.64	-18.16	415935.86	617837.04	32	8	34.626 N	103	57	9.420 W
8347.00	90.57	176.39	5379.33	-3251.57	-16.22	415903.93	617838.98	32	8	34.310 N	103	57	9.399 W
8379.00	89.60	175.60	5379.28	-3283.49	-13.98	415872.01	617841.22	32	8	33.994 N	103	57	9.374 W
8410.00	90.13	175.51	5379.36	-3314.40	-11.58	415841.10	617843.62	32	8	33.688 N	103	57	9.348 W
8442.00	90.31	175.69	5379.23	-3346.30	-9.13	415809.20	617846.07	32	8	33.373 N	103	57	9.320 W

Pathfinder Energy

Survey Report - Geographic

Company: Southwestern Energy Production
Field: Karlsbad Corral Section 11
Site: Karlsbad Corral 11 #3-H
Well: Karlsbad Corral 11 #3-H
Wellpath: Karlsbad Corral 11 #3H

Date: 4/21/2006 **Time:** 09:18:00 **Page:** 5
Co-ordinate(NE) Reference: Site: Karlsbad Corral 11 #3-H, Grid Nort
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,179.59Azi)
Survey Calculation Method: Minimum Curvature **Db:** Sybase

Survey: Pathfinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<-- Latitude --> Deg Min Sec			<-- Longitude --> Deg Min Sec		
8474.00	90.75	175.43	5378.94	-3378.21	-6.65	415777.29	617848.55	32	8	33.057 N	103	57	9.293 W
8506.00	91.19	176.13	5378.40	-3410.12	-4.30	415745.38	617850.90	32	8	32.741 N	103	57	9.267 W
8538.00	90.57	175.51	5377.90	-3442.03	-1.96	415713.47	617853.24	32	8	32.425 N	103	57	9.241 W
8570.00	90.04	174.81	5377.73	-3473.91	0.74	415681.59	617855.94	32	8	32.109 N	103	57	9.211 W
8602.00	89.34	174.20	5377.91	-3505.76	3.80	415649.74	617859.00	32	8	31.794 N	103	57	9.176 W
8633.00	89.60	174.20	5378.19	-3536.60	6.93	415618.90	617862.13	32	8	31.489 N	103	57	9.141 W
8685.00	89.60	174.20	5378.56	-3588.34	12.19	415567.16	617867.39	32	8	30.977 N	103	57	9.082 W

Targets

Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<-- Latitude --> Deg Min Sec			<-- Longitude --> Deg Min Sec		
PBHL 11 #3-H			5327.50	-2474.60	17.80	416680.90	617873.00	32	8	41.998 N	103	57	8.971 W

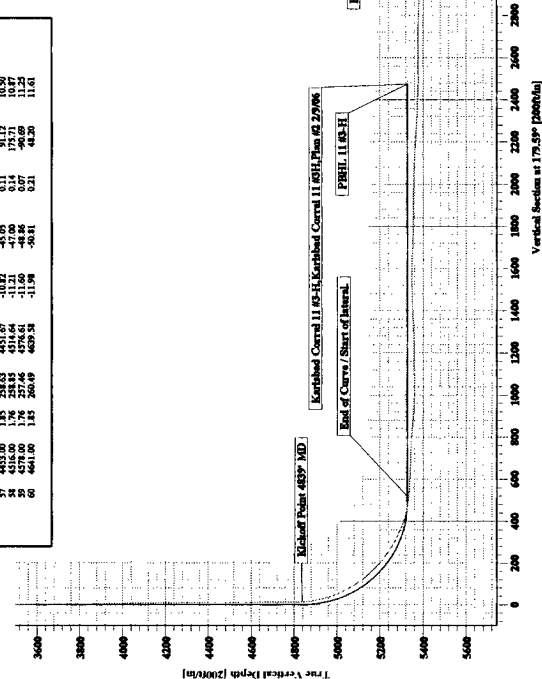
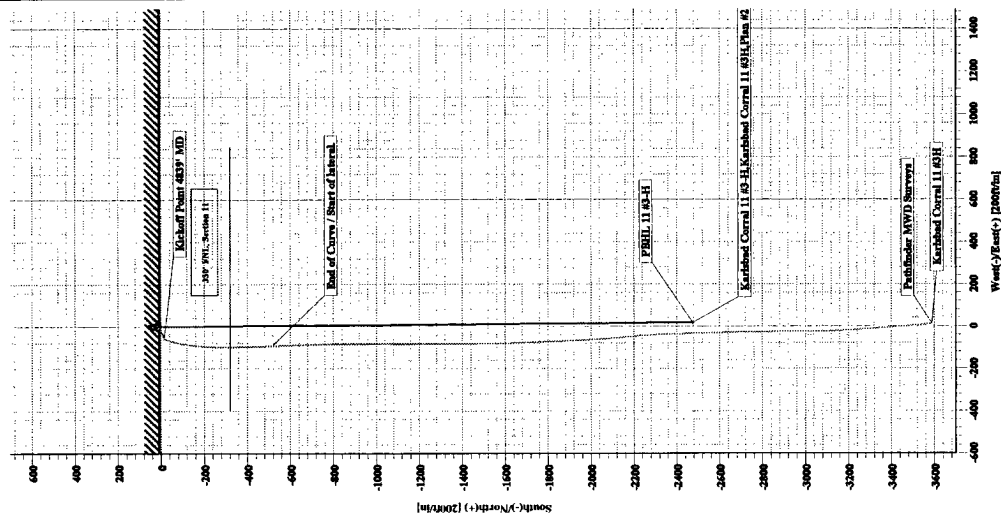
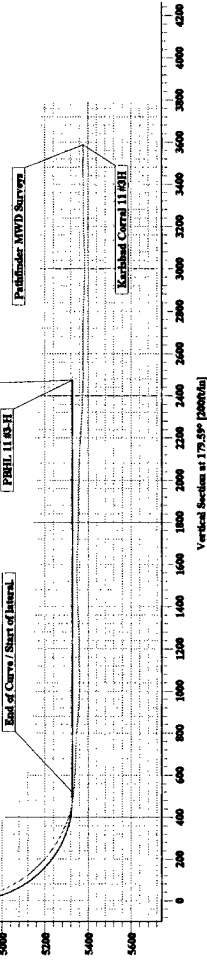
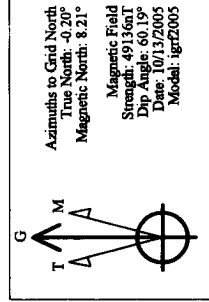
Annotation

MD ft	TVD ft	
4839.50	4837.95	Kickoff Point 4839' MD
5606.00	5333.81	End of Curve / Start of lateral.

Southwestern Energy Production Co.

**Karlsbad Corral 11 #3-H
Section 11, T25-S, R29-E
Eddy County, New Mexico
Final MWD Surveys**

Survey: Palestine NTD Survey (Refused Consent 11 @ HW-related Count 1									
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HEADER INFORMATION

Company: Southwestern Energy Production Co.
 Field: Karlsbad Corral Section 11
 Site Name: Karlsbad Corral 11 #3-H Mag Dec.Corr. +8.21 EAST TO GRID
 Well Name: Karlsbad Corral 11 #3-H
 Wellpath Name: Karlsbad Corral 11 #3H AFE / OCS:
 Survey Name: Pathfinder MWD Surveys Survey Date: 2/14/2006 Survey Type: 815 - 8685
 Depth Units: ft

SURFACE LOCATION

Site Northing 419155.5
 Site Easting 617855.2

BOTTOM HOLE LOCATION

BHL MD 8685
 BHL TVD 5378.56

WELL INFORMATION

Well Northing: 419155.5
 Well Easting: 617855.2
 Rig K.B: 0
 Vsec Angle: 179.59
 Vsec North: 0
 Vsec East: 0

SURVEY LIST

MD	INC	AZI	TVD	NS	EW	VSEC
0	0	0	0	0	0	0
815	0.62	336.79	814.98	4.05	-1.74	-4.07
908	0.44	6.94	907.98	4.87	-1.89	-4.88
1002	0.7	7.64	1001.98	5.8	-1.77	-5.81
1097	0.62	18.72	1096.97	6.86	-1.53	-6.87
1191	0.79	6.5	1190.96	7.98	-1.29	-7.99
1285	0.97	339.87	1284.95	9.38	-1.49	-9.39
1378	1.14	329.32	1377.94	10.91	-2.24	-10.93
1472	1.41	312.1	1471.91	12.49	-3.57	-12.52
1567	1.32	307.29	1566.89	13.94	-5.31	-13.97
1660	1.67	296.88	1659.85	15.2	-7.37	-15.25
1754	2.45	287.61	1753.79	16.43	-10.51	-16.5
1848	3.08	275.44	1847.68	17.27	-14.94	-17.38
1879	3.55	275.97	1878.63	17.45	-16.72	-17.57
1911	3.54	273.08	1910.57	17.61	-18.69	-17.74
1942	2.9	265.1	1941.52	17.59	-20.43	-17.74
1973	2.11	254.6	1972.49	17.37	-21.76	-17.53
2004	1.58	242.98	2003.48	17.03	-22.69	-17.19
2036	1.14	232.79	2035.47	16.63	-23.34	-16.8
2067	0.79	225.93	2066.46	16.3	-23.74	-16.47
2098	0.62	224.27	2097.46	16.03	-24.01	-16.2
2161	0.88	226.34	2160.45	15.45	-24.6	-15.63
2223	0.7	209.3	2222.45	14.79	-25.13	-14.97
2286	0.7	173.89	2285.44	14.08	-25.27	-14.26