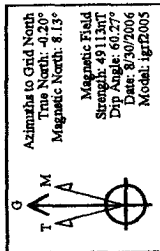


PATHFINDER



SITE DETAILS

Wildcat-Bone Spring

Ground Level: 3097.00
Positional Uncertainty: 0.00
Convergence: 0.20

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Shape
PBHL	7916.00	200.00	-3960.00	Point

WEIIPATHDETAILS

Ref. Datum:	Rig:	SITE	3097.00ft
V. Section Angle	Origin +N-S	Origin +E-W	Starting From T.V.D
272.80°	0.00	0.00	0.00

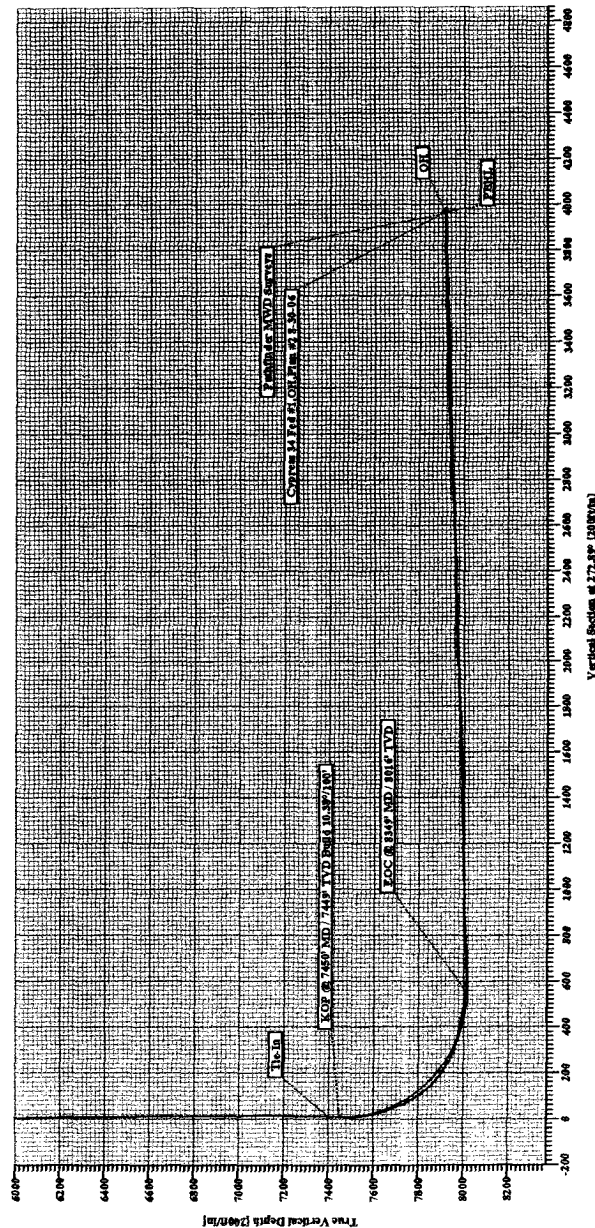
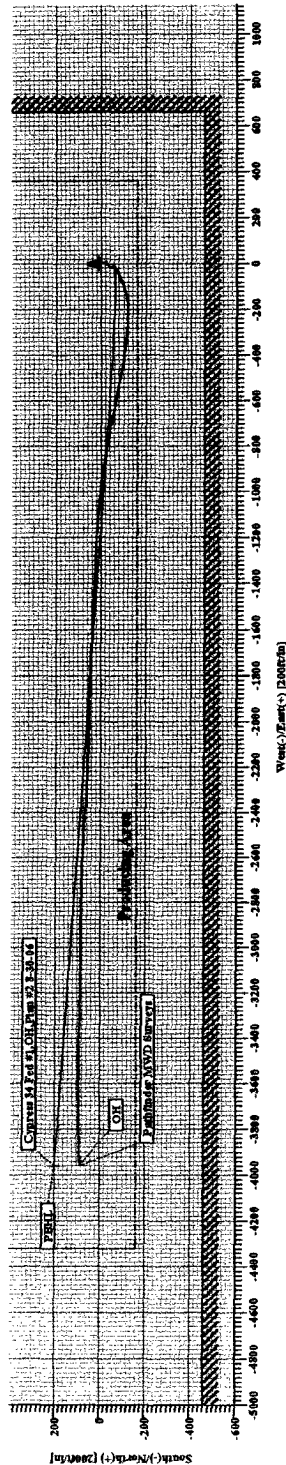
ANNOTATIONS

No.	TVD	MD	Annotation
1	7448.71	7450.00	KOP @ 7450' MD / 7449' TVD Build 10.38°/100'
2	8011.13	8349.42	EOC @ 8349' MD / 8016' TVD
3	7708.80	7400.00	Tie-In

During



	No	MD	Inc	Az	TVD	+N/-S	+E/-W	DLag	TFace	VSec
80	11126.00	91.36	270.92	7924.85	90.68	-337.19	0.27	90.00	3327.52	
81	11190.00	91.63	271.27	7921.18	91.90	-339.15	0.69	92.34	3391.47	
82	11254.00	91.71	270.33	7921.32	93.08	-345.55	0.53	92.68	3425.32	
83	11319.00	91.63	270.13	7919.42	93.62	-3520.03	1.08	93.42	3482.52	
84	11383.00	91.89	269.87	7917.46	93.62	-3584.03	0.97	94.58	3584.21	
85	11447.00	90.31	269.96	7916.23	93.53	-3648.04	2.47	176.74	3648.11	
86	11511.00	89.96	269.69	7916.08	93.33	-3712.04	0.79	-142.35	3712.02	
87	11575.00	90.13	269.25	7916.03	92.74	-3776.04	0.64	-48.88	3775.91	
88	11639.00	90.22	268.59	7915.83	91.76	-3840.03	0.73	-70.91	3839.77	
89	11705.00	90.48	268.64	7915.43	90.39	-3906.01	0.66	-93.39	3905.60	
90	11759.00	90.48	268.64	7914.98	89.11	-3959.99	0.00	180.00	3959.45	



Pathfinder Energy

Survey Report

Company: Pogo Field: Eddy County, NM NAD-83 Site: Wildcat-Bone Spring Well: Cypress 34 Fed #1 Wellpath: OH	Date: 9/25/2006 Time: 14:30:17 Page: 1 Co-ordinate(NE) Reference: Well: Cypress 34 Fed #1, Grid North Vertical (TVD) Reference: SITE 3097.0 Section (VS) Reference: Well (0.00N,0.00E,272.89Azi) Survey Calculation Method: Minimum Curvature Db: Sybase
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Field: Eddy County, NM NAD-83

Map System: US State Plane Coordinate System 1983
Geo Datum: GRS 1980
Sys Datum: Mean Sea Level

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

Site: Wildcat-Bone Spring

Site Position:	Northing:	Latitude:
From: Lease Line	Easting:	Longitude:
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3097.00 ft		Grid Convergence: 0.20 deg

Well: Cypress 34 Fed #1

Slot Name:

Well Position: +N/-S 0.00 ft	Northing: 456788.33 ft	Latitude: 32 15 18.900 N
+E/-W 0.00 ft	Easting: 654874.34 ft	Longitude: 103 57 57.800 W
Position Uncertainty: 0.00 ft		

Wellpath: OH

Current Datum: SITE
Magnetic Data: 8/30/2006
Field Strength: 49113 nT
Vertical Section: Depth From (TVD)

Height 3097.00 ft

Drilled From: Surface
Tie-on Depth: 0.00 ft
Above System Datum: Mean Sea Level
Declination: 8.33 deg
Mag Dip Angle: 60.27 deg
+E/-W **Direction**

0.00	0.00	0.00 272.89
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Survey: Pathfinder MWD Surveys

Start Date: 9/13/2006

Company: Pathfinder Energy
Tool:

Engineer: Midwellplan
Tied-to: From: Definitive Path

Survey: Pathfinder MWD Surveys

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
7400.00	2.83	148.48	7398.80	-52.82	-11.70	9.03	0.00	0.00	0.00	
7420.00	3.43	146.93	7418.77	-53.75	-11.12	8.39	3.03	3.00	-7.75	
7451.00	3.78	152.64	7449.71	-55.43	-10.14	7.34	1.62	1.13	18.42	
7484.00	3.61	172.15	7482.64	-57.43	-9.50	6.59	3.83	-0.52	59.12	
7516.00	4.84	217.42	7514.56	-59.50	-10.19	7.17	10.76	3.84	141.47	
7548.00	8.09	238.42	7546.36	-61.75	-12.92	9.79	12.40	10.16	65.62	
7579.00	11.87	244.22	7576.88	-64.28	-17.66	14.39	12.60	12.19	18.71	
7611.00	15.48	244.31	7607.97	-67.56	-24.47	21.03	11.28	11.28	0.28	
7643.00	18.55	243.26	7638.57	-71.70	-32.87	29.21	9.64	9.59	-3.28	
7675.00	20.93	245.28	7668.69	-76.39	-42.61	38.70	7.74	7.44	6.31	
7707.00	23.39	246.33	7698.32	-81.33	-53.62	49.45	7.79	7.69	3.28	
7739.00	26.38	247.48	7727.35	-86.60	-66.00	61.55	9.46	9.34	3.59	
7771.00	29.19	249.32	7755.65	-92.08	-79.87	75.13	9.18	8.78	5.75	
7803.00	32.54	250.29	7783.12	-97.74	-95.28	90.23	10.58	10.47	3.03	
7835.00	35.53	252.31	7809.63	-103.47	-112.25	106.88	9.99	9.34	6.31	
7867.00	39.39	255.12	7835.03	-108.91	-130.93	125.27	13.19	12.06	8.78	
7899.00	44.14	259.60	7858.90	-113.53	-151.72	145.80	17.52	14.84	14.00	
7931.00	48.80	263.65	7880.94	-116.87	-174.66	168.54	17.21	14.56	12.66	
7962.00	53.20	267.16	7900.45	-118.78	-198.66	192.42	16.70	14.19	11.32	
7994.00	57.24	271.10	7918.70	-119.16	-224.93	218.63	16.17	12.62	12.31	
8026.00	61.73	273.12	7934.95	-118.13	-252.47	246.19	15.05	14.03	6.31	
8058.00	66.92	274.70	7948.81	-116.16	-281.23	275.01	16.82	16.22	4.94	
8090.00	71.23	275.93	7960.23	-113.38	-310.98	304.87	13.94	13.47	3.84	
8122.00	74.48	277.25	7969.66	-109.87	-341.35	335.38	10.89	10.16	4.12	

Pathfinder Energy

Survey Report

Company: Pogo
Field: Eddy County, NM NAD-83
Site: Wildcat-Bone Spring
Well: Cypress 34 Fed #1
Wellpath: OH

Date: 9/25/2006 Time: 14:30:17 Page: 2
Co-ordinate(N/E) Reference: Well: Cypress 34 Fed #1, Grid North
Vertical (TVD) Reference: SITE 3097.0
Section (VS) Reference: Well (0.00N,0.00E,272.89Azi)
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	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
8154.00	76.94	278.85	7977.56	-105.53	-372.05	366.26	9.09	7.69	5.00	
8186.00	79.05	279.20	7984.22	-100.62	-402.96	397.38	6.68	6.59	1.09	
8218.00	79.14	279.29	7990.27	-95.57	-433.98	428.60	0.39	0.28	0.28	
8250.00	79.14	279.29	7996.30	-90.50	-464.99	459.84	0.00	0.00	0.00	
8282.00	80.90	280.00	8001.85	-85.22	-496.06	491.13	5.92	5.50	2.22	
8314.00	82.04	280.96	8006.59	-79.46	-527.18	522.50	4.64	3.56	3.00	
8346.00	83.10	281.21	8010.73	-73.36	-558.32	553.91	3.40	3.31	0.78	
8378.00	85.65	281.82	8013.87	-67.00	-589.52	585.39	8.19	7.97	1.91	
8410.00	89.34	281.47	8015.27	-60.55	-620.82	616.98	11.58	11.53	-1.09	
8442.00	92.24	281.47	8014.83	-54.19	-652.18	648.62	9.06	9.06	0.00	
8474.00	93.12	280.85	8013.33	-48.00	-683.54	680.25	3.36	2.75	-1.94	
8506.00	93.30	280.77	8011.54	-42.01	-714.92	711.89	0.62	0.56	-0.25	
8538.00	93.12	280.50	8009.75	-36.11	-746.32	743.55	1.01	-0.56	-0.84	
8570.00	92.51	280.41	8008.17	-30.31	-777.75	775.23	1.93	-1.91	-0.28	
8602.00	92.33	280.24	8006.82	-24.58	-809.21	806.94	0.77	-0.56	-0.53	
8633.00	91.80	279.45	8005.71	-19.28	-839.73	837.69	3.07	-1.71	-2.55	
8665.00	91.63	279.18	8004.75	-14.11	-871.29	869.47	1.00	-0.53	-0.84	
8730.00	91.45	277.69	8003.00	-4.58	-935.57	934.14	2.31	-0.28	-2.29	
8792.00	91.71	276.64	8001.29	3.15	-997.06	995.95	1.74	0.42	-1.69	
8856.00	92.07	275.45	7999.18	9.89	-1060.67	1059.81	1.94	0.56	-1.86	
8920.00	90.84	274.44	7997.56	15.40	-1124.41	1123.75	2.49	-1.92	-1.58	
8984.00	90.92	273.47	7996.57	19.82	-1188.24	1187.73	1.52	0.12	-1.52	
9048.00	90.92	272.94	7995.54	23.40	-1252.14	1251.72	0.83	0.00	-0.83	
9112.00	90.75	272.33	7994.61	26.34	-1316.06	1315.71	0.99	-0.27	-0.95	
9176.00	90.40	272.41	7993.97	28.98	-1380.00	1379.71	0.56	-0.55	0.12	
9240.00	90.57	272.68	7993.43	31.83	-1443.94	1443.71	0.50	0.27	0.42	
9304.00	90.57	272.33	7992.79	34.62	-1507.87	1507.70	0.55	0.00	-0.55	
9368.00	91.98	273.21	7991.37	37.71	-1571.78	1571.68	2.60	2.20	1.37	
9432.00	92.42	273.12	7988.91	41.25	-1635.64	1635.63	0.70	0.69	-0.14	
9496.00	92.15	272.68	7986.36	44.48	-1699.50	1699.58	0.81	-0.42	-0.69	
9560.00	92.59	271.54	7983.71	46.84	-1763.40	1763.52	1.91	0.69	-1.78	
9624.00	92.42	271.36	7980.92	48.45	-1827.32	1827.44	0.39	-0.27	-0.28	
9687.00	92.59	270.92	7978.16	49.71	-1890.25	1890.35	0.75	0.27	-0.70	
9751.00	92.77	271.36	7975.17	50.98	-1954.17	1954.25	0.74	0.28	0.69	
9815.00	92.95	271.01	7971.98	52.30	-2018.07	2018.14	0.61	0.28	-0.55	
9879.00	91.10	271.36	7969.71	53.62	-2082.02	2082.07	2.94	-2.89	0.55	
9943.00	91.10	271.36	7968.49	55.14	-2145.99	2146.04	0.00	0.00	0.00	
10007.00	90.57	272.77	7967.55	57.45	-2209.94	2210.02	2.35	-0.83	2.20	
10070.00	90.48	273.30	7966.98	60.78	-2272.84	2273.02	0.85	-0.14	0.84	
10135.00	91.10	273.83	7966.08	64.82	-2337.71	2338.01	1.25	0.95	0.82	
10199.00	91.36	273.91	7964.71	69.14	-2401.55	2401.98	0.43	0.41	0.12	
10263.00	91.98	274.09	7962.84	73.60	-2465.37	2465.94	1.01	0.97	0.28	
10327.00	92.24	272.86	7960.48	77.48	-2529.21	2529.89	1.96	0.41	-1.92	
10391.00	92.33	272.24	7957.93	80.33	-2593.09	2593.84	0.98	0.14	-0.97	
10455.00	92.42	271.71	7955.28	82.53	-2657.00	2657.78	0.84	0.14	-0.83	
10519.00	92.68	271.80	7952.43	84.49	-2720.90	2721.70	0.43	0.41	0.14	
10583.00	92.86	271.19	7949.34	86.16	-2784.81	2785.61	0.99	0.28	-0.95	
10646.00	93.03	270.66	7946.10	87.17	-2847.72	2848.49	0.88	0.27	-0.84	
10710.00	93.30	270.57	7942.57	87.86	-2911.61	2912.34	0.44	0.42	-0.14	
10774.00	93.21	270.40	7938.94	88.40	-2975.51	2976.18	0.30	-0.14	-0.27	
10806.00	93.12	270.22	7937.17	88.57	-3007.46	3008.10	0.63	-0.28	-0.56	
10870.00	93.12	269.43	7933.69	88.38	-3071.36	3071.91	1.23	0.00	-1.23	
10934.00	92.07	270.31	7930.79	88.23	-3135.30	3135.76	2.14	-1.64	1.37	

Pathfinder Energy

Survey Report

Company: Pogo
Field: Eddy County, NM NAD-83
Site: Wildcat-Bone Spring
Well: Cypress 34 Fed #1
Wellpath: OH

Date: 9/25/2006 **Time:** 14:30:17 **Page:** 3
Co-ordinate(NE) Reference: Well: Cypress 34 Fed #1, Grid North
Vertical (TVD) Reference: SITE 3097.0
Section (VS) Reference: Well (0.00N,0.00E,272.89Azi)
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	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
10998.00	92.24	270.83	7928.38	88.87	-3199.25	3199.66	0.85	0.27	0.81	
11062.00	91.36	270.75	7926.37	89.75	-3263.21	3263.58	1.38	-1.37	-0.12	
11126.00	91.36	270.92	7924.85	90.68	-3327.19	3327.52	0.27	0.00	0.27	
11190.00	91.63	271.27	7923.18	91.90	-3391.15	3391.47	0.69	0.42	0.55	
11254.00	91.71	270.83	7921.32	93.08	-3455.11	3455.41	0.70	0.12	-0.69	
11319.00	91.63	270.13	7919.42	93.62	-3520.08	3520.32	1.08	-0.12	-1.08	
11383.00	91.89	269.87	7917.46	93.62	-3584.05	3584.21	0.57	0.41	-0.41	
11447.00	90.31	269.96	7916.23	93.53	-3648.04	3648.11	2.47	-2.47	0.14	
11511.00	89.96	269.69	7916.08	93.33	-3712.04	3712.02	0.69	-0.55	-0.42	
11575.00	90.13	269.25	7916.03	92.74	-3776.04	3775.91	0.74	0.27	-0.69	
11639.00	90.22	268.99	7915.83	91.76	-3840.03	3839.77	0.43	0.14	-0.41	
11705.00	90.48	268.64	7915.43	90.39	-3906.01	3905.60	0.66	0.39	-0.53	
11759.00	90.48	268.64	7914.98	89.11	-3959.99	3959.45	0.00	0.00	0.00	