

PathFinder Energy Services

Survey Report

Page 1
 Job No: JWT-0512-0225-WTWT
 Date: 12/11/2005
 Time: 4:55 am
 Wellpath ID: 05120225
 Data Created: 12/8/2005
 Last Revision: 12/11/2005

Calculated using the Minimum Curvature Method
 Computed using PDS VER2.2.6
 Vertical Section Plane: 0.03 deg.

Survey Reference: WELLHEAD
 Vertical Section Reference: WELLHEAD
 Closure Reference: WELLHEAD
 TVD Reference: WELLHEAD

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Build Rate (dg/100ft)	Walk Rate (dg/100ft)	DLS (dg/100ft)
TIE-IN IS A SCIENTIFIC GYRO										
4400.00	4.44	101.38	4398.59	0.00	-9.40	9.41 S	19.72 E	0.00	0.00	0.00
THE FOLLOWING ARE PATHFINDER SURVEYS										
4479.00	4.84	97.46	4477.33	79.00	-10.43	10.45 S	26.02 E	0.51	-4.96	0.65
4511.00	7.03	89.99	4509.16	32.00	-10.61	10.62 S	29.32 E	6.84	-23.34	7.24
4543.00	12.13	71.89	4540.71	32.00	-9.56	9.57 S	34.48 E	15.94	-56.56	16.32
4575.00	17.41	63.10	4571.64	32.00	-8.34	8.36 S	41.95 E	16.50	-27.47	17.88
4607.00	21.63	56.95	4601.80	32.00	-0.95	0.98 S	51.17 E	13.19	-19.22	14.65
4638.00	24.89	50.35	4630.28	31.00	6.34	6.31 N	60.98 E	10.52	-21.29	13.45
4669.00	28.05	42.97	4658.04	31.00	15.84	15.81 N	70.98 E	10.19	-23.81	14.70
4701.00	31.74	37.96	4685.78	32.00	28.00	27.95 N	81.29 E	11.53	-15.68	13.91
4732.00	34.91	31.99	4711.68	31.00	41.96	41.91 N	91.01 E	10.23	-19.26	14.70
4764.00	37.81	25.57	4737.46	32.00	58.59	58.54 N	100.10 E	9.06	-20.08	14.94
4796.00	41.06	19.86	4762.18	32.00	77.34	77.28 N	107.91 E	10.16	-17.84	15.21
4827.00	44.58	15.64	4784.92	31.00	97.41	97.35 N	114.30 E	11.35	-13.61	14.64
4859.00	47.66	10.80	4807.11	32.00	119.85	119.79 N	119.55 E	9.62	-15.13	14.54
4891.00	49.77	5.44	4828.23	32.00	143.64	143.58 N	122.93 E	6.59	-16.75	14.21
4922.00	53.11	1.58	4847.55	31.00	167.83	167.78 N	124.39 E	10.77	-12.45	14.52
4954.00	57.60	1.31	4865.74	32.00	194.14	194.07 N	125.05 E	14.03	-0.84	14.05
4986.00	61.03	1.66	4882.07	32.00	221.66	221.58 N	125.77 E	10.72	1.09	10.76
5017.00	64.10	0.96	4896.35	31.00	249.15	249.08 N	126.39 E	9.90	-2.26	10.10
5049.00	67.53	0.70	4909.46	32.00	278.33	278.27 N	126.82 E	10.72	-0.81	10.74
5081.00	70.79	359.55	4920.84	32.00	308.24	308.17 N	126.88 E	10.19	-3.59	10.73
5120.00	72.98	359.47	4932.96	39.00	345.30	345.23 N	126.56 E	5.62	-0.21	5.62
5151.00	76.94	359.38	4941.01	31.00	375.23	375.16 N	126.26 E	12.77	-0.29	12.78
5183.00	81.60	359.20	4946.96	32.00	406.66	406.59 N	125.87 E	14.56	-0.56	14.57
5215.00	84.15	359.03	4950.93	32.00	438.40	438.34 N	125.38 E	7.97	-0.53	7.99
5247.00	86.26	359.38	4953.61	32.00	470.29	470.22 N	124.94 E	6.59	1.09	6.68

PathFinder Energy Services**Survey Report**

Page 1
 Job No: JWT-0512-0225-WTWT
 Date: 12/12/2005
 Time: 4:22 am
 Wellpath ID: 05120225
 Date Created: 12/8/2005
 Last Revision: 12/12/2005

*Calculated using the Minimum Curvature Method
 Computed using PDS VER2.2.6
 Vertical Section Plane: 0.03 deg.*

Survey Reference: WELLHEAD
 Vertical Section Reference: WELLHEAD
 Closure Reference: WELLHEAD
 TVD Reference: WELLHEAD

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Build Rate (dg/100ft)	Walk Rate (dg/100ft)	DLS (dg/100ft)
5120.00	72.98	359.47	4932.96	39.00	345.30	345.23 N	126.56 E	5.62	-0.21	5.82
5151.00	76.94	359.38	4941.01	31.00	375.23	375.16 N	126.26 E	12.77	-0.29	12.78
5183.00	81.60	359.20	4946.96	32.00	406.88	406.59 N	125.87 E	14.56	-0.56	14.57
5215.00	84.15	359.03	4950.93	32.00	438.40	438.34 N	125.38 E	7.97	-0.53	7.99
5247.00	86.26	359.38	4953.61	32.00	470.29	470.22 N	124.94 E	6.59	1.09	6.68
5278.00	86.44	359.20	4955.58	31.00	501.22	501.16 N	124.55 E	0.58	-0.58	0.82
5310.00	87.49	358.15	4957.27	32.00	533.17	533.10 N	123.82 E	3.28	-3.28	4.64
5341.00	89.08	357.71	4958.20	31.00	564.13	564.07 N	122.70 E	5.13	-1.42	5.32
5373.00	90.31	358.59	4958.37	32.00	596.11	596.05 N	121.66 E	3.84	2.75	4.73
5437.00	92.15	359.29	4957.00	64.00	660.08	660.02 N	120.48 E	2.88	1.09	3.08
5501.00	92.07	359.29	4954.64	64.00	724.03	723.97 N	119.69 E	-0.13	0.00	0.13
5564.00	91.89	359.20	4952.47	63.00	786.99	786.93 N	118.86 E	-0.29	-0.14	0.32
5627.00	91.89	359.20	4950.39	63.00	849.95	849.89 N	117.98 E	0.00	0.00	0.00
5691.00	91.63	359.47	4948.42	64.00	913.92	913.85 N	117.24 E	-0.41	0.42	0.59
5754.00	90.57	358.67	4947.21	63.00	978.89	978.83 N	116.21 E	-1.68	-1.27	2.11
5818.00	90.22	358.76	4946.77	64.00	1040.88	1040.82 N	114.78 E	-0.55	0.14	0.56
5881.00	89.96	358.67	4946.87	63.00	1103.86	1103.80 N	113.37 E	-0.41	-0.14	0.44
5945.00	90.04	358.23	4946.67	64.00	1167.83	1167.78 N	111.63 E	0.13	-0.69	0.70
6008.00	89.96	358.41	4946.67	63.00	1230.81	1230.75 N	109.79 E	-0.13	0.29	0.31

PathFinder Energy Services**Survey Report**

Page 1
 Job No: JWT-0512-0225-WTWT
 Date: 12/13/2005
 Time: 4:31 am
 Wellpath ID: 05120225
 Date Created: 12/6/2005
 Last Revision: 12/13/2005

*Calculated using the Minimum Curvature Method
 Computed using PDS VER2.2.6
 Vertical Section Plane: 0.03 deg.*

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Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Build Rate (dg/100ft)	Walk Rate (dg/100ft)	DLS (dg/100ft)
6008.00	89.98	358.41	4946.67	63.00	1230.81	1230.75 N	109.79 E	-0.13	0.29	0.31
6073.00	89.78	358.06	4946.82	65.00	1295.77	1295.72 N	107.78 E	-0.28	-0.54	0.61
6136.00	90.57	357.97	4946.63	63.00	1358.73	1358.68 N	105.60 E	1.25	-0.14	1.26
6199.00	90.84	357.71	4945.85	63.00	1421.68	1421.63 N	103.23 E	0.43	-0.41	0.59
6263.00	90.92	357.71	4944.87	64.00	1485.62	1485.57 N	100.67 E	0.13	0.00	0.13
6327.00	90.92	357.88	4943.84	64.00	1549.57	1549.51 N	98.21 E	0.00	0.27	0.27
6390.00	90.92	357.88	4942.83	63.00	1612.51	1612.46 N	95.88 E	0.00	0.00	0.00
6454.00	91.01	357.80	4941.76	64.00	1676.48	1676.41 N	93.47 E	0.14	-0.13	0.19
6517.00	90.86	357.62	4940.83	63.00	1739.40	1739.35 N	90.95 E	-0.56	-0.29	0.62
6581.00	90.75	357.62	4940.05	64.00	1803.34	1803.29 N	88.29 E	0.14	0.00	0.14
6649.00	90.66	357.44	4939.21	68.00	1871.27	1871.22 N	85.36 E	-0.13	-0.26	0.30
6712.00	90.04	357.44	4938.82	63.00	1934.20	1934.16 N	82.56 E	-0.98	0.00	0.98
6774.00	90.84	357.80	4938.35	62.00	1996.14	1996.10 N	79.97 E	1.29	0.58	1.41
6837.00	90.84	357.71	4937.42	63.00	2059.09	2059.05 N	77.51 E	0.00	-0.14	0.14

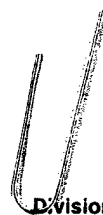
PathFinder Energy Services**Survey Report**

Page 1
 Job No: JWT-0512-0225-WTWT
 Date: 12/14/2005
 Time: 4:54 am
 Wellpath ID: 05120225
 Date Created: 12/6/2005
 Last Revision: 12/14/2005

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Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	TVD (ft)	Course Length (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)		Build Rate (dg/100ft)	Walk Rate (dg/100ft)	DLS (dg/100ft)
8712.00	90.04	357.44	4938.82	63.00	1934.20	1934.16 N	82.55 E	-0.98	0.00	0.98
8774.00	90.84	357.80	4938.35	62.00	1996.14	1996.10 N	79.97 E	1.29	0.58	1.41
8837.00	90.84	357.71	4937.42	63.00	2059.09	2059.06 N	77.51 E	0.00	-0.14	0.14
6899.00	90.92	357.62	4938.47	62.00	2121.03	2120.99 N	74.98 E	0.13	-0.15	0.19
6962.00	90.92	357.44	4935.46	63.00	2183.96	2183.92 N	72.27 E	0.00	-0.29	0.29
7024.00	91.10	357.38	4934.37	62.00	2245.89	2245.85 N	69.45 E	0.29	-0.13	0.32
7087.00	91.01	357.01	4933.21	63.00	2308.80	2308.76 N	66.36 E	-0.14	-0.56	0.57
7150.00	91.19	358.92	4932.00	63.00	2371.69	2371.66 N	63.03 E	0.29	-0.14	0.32
7212.00	90.92	358.48	4930.86	62.00	2433.58	2433.55 N	58.46 E	-0.44	-0.71	0.83
7275.00	90.92	356.21	4929.85	63.00	2496.44	2496.41 N	55.44 E	0.00	-0.43	0.43
7338.00	91.01	358.13	4928.78	63.00	2559.29	2559.28 N	51.23 E	0.14	-0.13	0.19
7400.00	90.84	356.21	4927.78	62.00	2621.14	2621.12 N	47.09 E	-0.27	0.13	0.30
7463.00	90.84	355.69	4926.86	63.00	2683.97	2683.95 N	42.64 E	0.00	-0.83	0.83



Well Name NILE 22 STATE COM #2H Division MIDLAND County, St EDDY, NM
Well ID 042866 Well Type DEVG Well Class COMP



EXPORT

Type	MD	Inclination	Azimuth	TVD	VS	NS	EW	DL
MWD-0	4,474	4.84	97.46	4,472	-10.79	-10.38	25.62	.69
MWD-0	4,479	4.84	97.46	4,477	-10.86	-10.45	26.02	.65
MWD-0	4,506	7.03	89.99	4,504	-11.02	-10.56	28.92	7.24
MWD-0	4,511	7.03	89.99	4,509	-11.09	-10.62	29.32	7.24
MWD-0	4,538	12.13	71.89	4,536	-10.06	-9.51	34.08	18.32
MWD-0	4,543	12.13	71.89	4,541	-10.13	-9.58	34.48	18.32
MWD-0	4,570	17.41	63.10	4,567	-6.96	-6.30	41.55	17.88
MWD-0	4,575	17.41	63.10	4,572	-7.03	-6.36	41.95	17.88
MWD-0	4,602	21.63	56.95	4,597	-1.72	-.91	50.77	14.65
MWD-0	4,607	21.63	56.95	4,602	-1.80	-.98	51.17	14.65
MWD-0	4,633	24.89	50.35	4,625	5.40	6.37	60.58	13.45
MWD-0	4,638	24.89	50.35	4,630	5.33	6.31	60.98	13.45
MWD-0	4,664	28.05	42.97	4,653	14.74	15.87	70.58	14.70
MWD-0	4,669	28.05	42.97	4,658	14.67	15.81	70.98	14.70
MWD-0	4,696	31.74	37.69	4,681	26.74	28.04	80.86	14.15
MWD-0	4,701	31.74	37.69	4,686	26.67	27.98	81.26	14.15
MWD-0	4,727	34.91	31.99	4,707	40.57	42.03	90.55	14.36
MWD-0	4,732	34.91	31.99	4,712	40.50	41.96	90.95	14.36
MWD-0	4,764	37.81	25.57	4,737	56.97	58.59	100.04	14.94
MWD-0	4,796	41.06	19.86	4,762	75.59	77.33	107.85	15.21
MWD-0	4,827	44.58	15.64	4,785	95.55	97.39	114.24	14.64
MWD-0	4,859	47.66	10.80	4,807	117.90	119.84	119.49	14.54
MWD-0	4,891	49.77	5.44	4,828	141.64	143.63	122.86	14.20
MWD-0	4,922	53.11	1.58	4,848	165.79	167.81	124.33	14.52
MWD-0	4,954	57.60	1.31	4,866	192.09	194.12	124.99	14.05
MWD-0	4,986	61.03	1.66	4,882	219.58	221.63	125.71	10.76
MWD-0	5,017	64.10	.96	4,896	247.07	249.13	126.33	10.10
MWD-0	5,049	67.53	.70	4,909	276.24	278.32	126.75	10.74
MWD-0	5,081	70.79	359.55	4,921	306.14	308.22	126.82	10.73
MWD-0	5,120	72.98	359.47	4,933	343.20	345.28	126.50	5.62
MWD-0	5,151	76.94	359.38	4,941	373.14	375.21	126.20	12.78
MWD-0	5,183	81.60	359.20	4,947	404.57	406.64	125.81	14.57
MWD-0	5,215	84.15	359.03	4,951	436.32	438.39	125.32	7.99
MWD-0	5,247	86.26	359.38	4,954	468.20	470.27	124.88	6.68
MWD-0	5,278	86.40	359.20	4,956	499.14	501.20	124.49	.74
MWD-0	5,310	87.49	358.15	4,957	531.09	533.15	123.75	4.73
MWD-0	5,341	88.08	357.71	4,958	562.06	564.11	122.64	2.37
MWD-0	5,373	90.31	358.59	4,959	594.05	596.08	121.60	7.49
MWD-0	5,437	92.15	359.29	4,958	658.04	660.06	120.42	3.08
MWD-0	5,501	92.07	359.29	4,955	721.99	724.01	119.62	.12
MWD-0	5,564	91.89	359.20	4,953	784.95	786.96	118.80	.32
MWD-0	5,627	91.89	359.20	4,951	847.92	849.92	117.92	.00
MWD-0	5,691	91.63	359.47	4,949	911.89	913.89	117.17	.59
MWD-0	5,754	90.57	358.67	4,948	974.88	976.87	116.15	2.11
MWD-0	5,818	90.22	358.76	4,947	1,038.87	1,040.85	114.72	.56
MWD-0	5,881	89.96	358.67	4,947	1,101.87	1,103.83	113.30	.44
MWD-0	5,945	90.04	358.23	4,947	1,165.87	1,167.81	111.57	.70
MWD-0	6,008	89.96	358.41	4,947	1,228.86	1,230.78	109.73	.31
MWD-0	6,073	89.78	358.06	4,947	1,293.86	1,295.75	107.72	.60
MWD-0	6,136	90.57	357.97	4,947	1,356.84	1,358.71	105.54	1.26

MWD-0	6,199	90.84	357.71	4,946	1,419.82	1,421.66	103.17	.60
MWD-0	6,263	90.92	357.71	4,945	1,483.80	1,485.60	100.61	.12
MWD-0	6,327	90.92	357.88	4,944	1,547.77	1,549.55	98.15	.27
MWD-0	6,390	90.92	357.88	4,943	1,610.75	1,612.50	95.82	.00
MWD-0	6,454	91.01	357.80	4,942	1,674.73	1,676.44	93.41	.19
MWD-0	6,517	90.66	357.62	4,941	1,737.70	1,739.39	90.89	.62
MWD-0	6,581	90.75	357.62	4,941	1,801.68	1,803.33	88.23	.14
MWD-0	6,649	90.66	357.44	4,940	1,869.65	1,871.26	85.30	.30
MWD-0	6,712	90.04	357.44	4,939	1,932.62	1,934.19	82.49	.98
MWD-0	6,774	90.84	357.80	4,939	1,994.60	1,996.14	79.91	1.42
MWD-0	6,837	90.84	357.71	4,938	2,057.57	2,059.08	77.44	.14
MWD-0	6,899	90.92	357.62	4,937	2,119.55	2,121.02	74.92	.19
MWD-0	6,962	90.92	357.44	4,936	2,182.52	2,183.96	72.20	.29
MWD-0	7,024	91.10	357.36	4,935	2,244.48	2,245.88	69.39	.32
MWD-0	7,087	91.01	357.01	4,934	2,307.43	2,308.80	66.30	.57
MWD-0	7,150	91.19	356.92	4,933	2,370.38	2,371.70	62.96	.32
MWD-0	7,212	90.92	356.48	4,931	2,432.32	2,433.58	59.40	.83
MWD-0	7,275	90.92	356.21	4,930	2,495.24	2,496.45	55.38	.43
MWD-0	7,338	91.01	356.13	4,929	2,558.14	2,559.30	51.17	.19
MWD-0	7,400	90.84	356.21	4,928	2,620.06	2,621.15	47.03	.30
MWD-0	7,463	90.84	355.69	4,927	2,682.96	2,683.99	42.58	.82
MWD-0	7,526	91.28	356.13	4,926	2,745.85	2,746.82	38.09	.99
MWD-0	7,588	91.28	356.04	4,925	2,807.75	2,808.65	33.86	.14
MWD-0	7,650	90.84	355.77	4,924	2,869.64	2,870.48	29.43	.83
MWD-0	7,713	90.48	356.04	4,923	2,932.54	2,933.32	24.93	.71
MWD-0	7,776	90.04	355.77	4,923	2,995.44	2,996.16	20.43	.82
MWD-0	7,838	90.31	355.51	4,923	3,057.33	3,057.98	15.72	.60
MWD-0	7,900	90.48	354.89	4,922	3,119.19	3,119.76	10.53	1.04
MWD-0	7,962	90.40	354.10	4,922	3,180.99	3,181.47	4.58	1.28
MWD-0	8,024	90.13	352.96	4,921	3,242.70	3,243.08	-2.40	1.89
MWD-0	8,087	90.13	351.99	4,921	3,305.28	3,305.53	-10.65	1.54
MWD-0	8,150	90.48	351.29	4,921	3,367.74	3,367.86	-19.81	1.24
MWD-0	8,330	90.48	351.29	4,919	3,546.08	3,545.78	-47.07	.00
TSS-0	221	1.00	.00	221	1.93	1.93	.00	.45
TSS-0	452	.50	.00	452	4.95	4.95	.00	.22
TSS-0	704	.75	.00	704	7.70	7.70	.00	.10
TSS-0	1,189	1.00	.00	1,189	15.11	15.11	.00	.05
TSS-0	1,663	1.00	.00	1,663	23.38	23.38	.00	.00
TSS-0	2,076	.25	.00	2,076	27.88	27.88	.00	.18
TSS-0	2,551	1.00	.00	2,551	33.07	33.07	.00	.16
TSS-0	3,026	1.25	.00	3,026	42.39	42.39	.00	.05
TSS-0	3,502	1.50	.00	3,502	53.81	53.81	.00	.05
TSS-0	3,978	1.50	.00	3,977	66.28	66.28	.00	.00
TSS-0	4,454	5.00	.00	4,453	93.26	93.26	.00	.74
TSS-0	4,486	5.00	101.50	4,484	94.37	94.37	1.37	24.19
TSS-0	4,775	2.80	108.00	4,773	89.68	89.68	20.42	.78