

PathFinder Energy Services

Survey Report

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Job No: JWT-0512-0235-WTWT
Date: 1/4/2006
Time: 10:32 am
Wellpath ID: 05120235
Date Created: 12/16/2005
Last Revision: 1/4/2006

Calculated using the Minimum Curvature Method
Computed using PDS VER2.2.6
Vertical Section Plane: 359.94 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)	TOTAL Rectangular Offsets (ft)		DLS (dg/100ft)	Vertical Section (ft)
4468.00	1.49	102.14	4467.83	0.00	0.86 N	3.72W	0.00	0.86
4507.00	5.01	5.61	4506.78	39.00	2.45 N	3.06W	13.81	2.45
4538.00	9.85	359.19	4537.51	31.00	6.45 N	2.96W	15.82	6.45
4570.00	15.39	0.60	4568.72	32.00	13.44 N	2.96W	17.34	13.44
4601.00	20.14	1.74	4598.24	31.00	22.89 N	2.75W	15.38	22.89
4633.00	23.48	1.39	4627.94	32.00	34.77 N	2.43W	10.45	34.78
4665.00	26.12	0.69	4656.99	32.00	48.19 N	2.19W	8.30	48.20
4696.00	28.58	0.69	4684.52	31.00	62.43 N	2.02W	7.94	62.44
4728.00	32.80	0.34	4712.03	32.00	78.76 N	1.87W	13.20	78.76
4760.00	37.02	0.95	4738.27	32.00	97.07 N	1.66W	13.23	97.07
4791.00	40.63	1.30	4762.42	31.00	116.50 N	1.28W	11.67	116.50
4823.00	44.58	0.86	4785.98	32.00	138.15 N	0.87W	12.38	138.15
4855.00	48.28	0.86	4808.02	32.00	161.33 N	0.53W	11.56	161.33
4887.00	52.23	1.30	4828.47	32.00	185.93 N	0.06W	12.39	185.93
4919.00	55.93	1.48	4847.24	32.00	211.83 N	0.57 E	11.57	211.83
4950.00	59.53	2.09	4863.79	31.00	238.02 N	1.39 E	11.73	238.02
4982.00	63.58	0.86	4879.03	32.00	266.14 N	2.11 E	13.10	266.14
5014.00	67.62	0.07	4892.25	32.00	295.28 N	2.34 E	12.82	295.28
5046.00	71.40	359.98	4903.45	32.00	325.25 N	2.35 E	11.82	325.25
5071.00	74.04	0.69	4910.87	25.00	349.12 N	2.49 E	10.90	349.11
5103.00	77.29	0.69	4918.79	32.00	380.11 N	2.87 E	10.18	380.11
5134.00	80.90	0.25	4924.66	31.00	410.55 N	3.12 E	11.73	410.54
5166.00	83.01	359.72	4929.14	32.00	442.23 N	3.11 E	6.79	442.23
5198.00	84.68	359.37	4932.57	32.00	474.04 N	2.85 E	5.33	474.04
5229.00	87.14	359.19	4934.78	31.00	504.96 N	2.47 E	7.96	504.96
5261.00	90.84	358.31	4935.34	32.00	536.94 N	1.77 E	11.88	536.94
5293.00	92.51	358.05	4934.41	32.00	568.91 N	0.75 E	5.28	568.91
5324.00	92.59	357.96	4933.03	31.00	599.86 N	0.33W	0.39	599.86
5356.00	93.30	357.52	4931.38	32.00	631.79 N	1.59W	2.61	631.80
5388.00	91.98	358.75	4929.91	32.00	663.74 N	2.63W	5.64	663.74
5419.00	91.19	359.83	4929.05	31.00	694.73 N	3.06W	3.81	694.73

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5451.00	90.13	358.75	4928.68	32.00	726.72 N	3.52W	4.31	726.72
5482.00	89.43	358.05	4928.80	31.00	757.71 N	4.38W	3.19	757.71
5514.00	89.96	358.84	4928.97	32.00	789.70 N	5.25W	2.97	789.70
5546.00	90.92	359.28	4928.73	32.00	821.69 N	5.78W	3.30	821.70
5577.00	91.36	358.84	4928.11	31.00	852.68 N	6.28W	2.01	852.69
5609.00	91.10	358.67	4927.42	32.00	884.66 N	6.98W	0.97	884.67
5641.00	90.40	358.75	4927.00	32.00	916.65 N	7.70W	2.20	916.66
5673.00	90.04	358.23	4926.88	32.00	948.64 N	8.54W	1.98	948.65
5704.00	91.19	357.79	4926.55	31.00	979.62 N	9.62W	3.97	979.63
5736.00	91.45	357.61	4925.81	32.00	1011.59 N	10.90W	0.99	1011.60
5768.00	90.75	357.79	4925.20	32.00	1043.55 N	12.19W	2.26	1043.57
5800.00	90.40	357.79	4924.87	32.00	1075.53 N	13.42W	1.09	1075.54
5831.00	90.31	356.91	4924.68	31.00	1108.49 N	14.85W	2.85	1108.51
5863.00	90.66	356.73	4924.41	32.00	1138.44 N	16.63W	1.23	1138.46
5894.00	90.40	356.73	4924.13	31.00	1169.39 N	18.40W	0.84	1169.41
5926.00	90.57	355.94	4923.85	32.00	1201.33 N	20.44W	2.53	1201.35
5958.00	90.92	355.94	4923.44	32.00	1233.24 N	22.71W	1.09	1233.27
5990.00	90.13	355.41	4923.15	32.00	1265.15 N	25.12W	2.97	1265.18
6021.00	88.99	355.33	4923.38	31.00	1296.05 N	27.62W	3.69	1296.08
6053.00	89.96	355.94	4923.68	32.00	1327.95 N	30.06W	3.58	1327.98
6085.00	90.66	356.29	4923.50	32.00	1359.88 N	32.23W	2.45	1359.91
6116.00	90.13	355.76	4923.29	31.00	1390.80 N	34.38W	2.42	1390.84
6148.00	89.52	355.50	4923.39	32.00	1422.71 N	36.81W	2.07	1422.75
6180.00	89.87	356.47	4923.58	32.00	1454.63 N	39.06W	3.22	1454.67
6211.00	90.22	356.47	4923.53	31.00	1485.57 N	40.96W	1.13	1485.61
6243.00	91.10	356.73	4923.16	32.00	1517.51 N	42.86W	2.87	1517.56
6275.00	90.31	356.64	4922.77	32.00	1549.46 N	44.71W	2.46	1549.50
6307.00	89.87	356.99	4922.72	32.00	1581.41 N	46.49W	1.76	1581.45
6339.00	89.43	358.05	4922.92	32.00	1613.38 N	47.87W	3.59	1613.42
6370.00	90.31	358.14	4922.99	31.00	1644.38 N	48.90W	2.85	1644.41
6402.00	89.87	358.67	4922.94	32.00	1676.35 N	49.80W	2.15	1676.40
6433.00	90.40	358.58	4922.86	31.00	1707.34 N	50.54W	1.73	1707.39
6465.00	91.10	359.28	4922.44	32.00	1739.33 N	51.14W	3.09	1739.38
6496.00	91.10	359.81	4921.85	31.00	1770.32 N	51.38W	1.71	1770.37
6528.00	91.28	0.34	4921.18	32.00	1802.31 N	51.34W	1.75	1802.37
6559.00	91.54	2.01	4920.42	31.00	1833.30 N	50.71W	5.45	1833.35
6591.00	92.07	2.53	4919.41	32.00	1865.28 N	49.44W	2.32	1865.31
6623.00	91.63	3.06	4918.38	32.00	1897.20 N	47.88W	2.15	1897.25
6654.00	91.54	2.80	4917.52	31.00	1928.15 N	46.30W	0.89	1928.20
6686.00	91.54	2.62	4916.66	32.00	1960.10 N	44.78W	0.56	1960.15

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6717.00	91.71	2.88	4915.78	31.00	1991.05 N	43.30W	1.00	1991.10
6749.00	91.54	2.80	4914.88	32.00	2023.00 N	41.71W	0.59	2023.04
6781.00	91.45	2.88	4914.04	32.00	2054.95 N	40.13W	0.38	2054.99
6812.00	91.36	2.53	4913.26	31.00	2085.91 N	38.66W	1.17	2085.95
6844.00	91.28	2.53	4912.54	32.00	2117.87 N	37.25W	0.25	2117.90
6876.00	91.19	2.18	4911.85	32.00	2149.83 N	35.94W	1.13	2149.87
6907.00	90.84	1.92	4911.30	31.00	2180.81 N	34.83W	1.41	2180.84
6938.00	90.66	1.83	4910.90	31.00	2211.79 N	33.81W	0.65	2211.82
6970.00	90.66	2.88	4910.53	32.00	2243.76 N	32.50W	3.28	2243.79
7002.00	91.01	2.97	4910.06	32.00	2275.71 N	30.87W	1.13	2275.74
7034.00	91.01	2.88	4909.50	32.00	2307.67 N	29.23W	0.28	2307.70
7065.00	90.84	2.88	4909.00	31.00	2338.62 N	27.88W	0.55	2338.65
7097.00	90.84	3.06	4908.53	32.00	2370.58 N	26.02W	0.56	2370.60
7128.00	90.84	2.88	4908.08	31.00	2401.53 N	24.41W	0.58	2401.56
7160.00	90.40	2.80	4907.73	32.00	2433.49 N	22.83W	1.40	2433.51
7191.00	90.48	2.71	4907.49	31.00	2464.45 N	21.34W	0.39	2464.47
7223.00	90.40	2.53	4907.25	32.00	2496.42 N	19.87W	0.62	2496.44
7255.00	90.57	2.44	4906.97	32.00	2528.39 N	18.48W	0.60	2528.41
7286.00	90.66	2.44	4906.64	31.00	2559.36 N	17.17W	0.29	2559.38
7318.00	89.87	2.09	4906.49	32.00	2591.33 N	15.90W	2.70	2591.35
7350.00	88.90	1.48	4906.84	32.00	2623.31 N	14.91W	3.58	2623.33
7382.00	91.98	3.41	4906.59	32.00	2655.28 N	13.54W	11.36	2655.29
7413.00	93.21	4.55	4905.19	31.00	2686.17 N	11.39W	5.41	2686.18
7445.00	92.86	4.47	4903.49	32.00	2718.03 N	8.88W	1.12	2718.04
7476.00	93.03	4.29	4901.90	31.00	2748.90 N	6.51W	0.80	2748.90
7508.00	92.59	4.20	4900.33	32.00	2780.77 N	4.15W	1.40	2780.77
7539.00	92.59	4.29	4898.93	31.00	2811.65 N	1.86W	0.29	2811.66
7571.00	92.42	4.29	4897.53	32.00	2843.53 N	0.53 E	0.53	2843.53
7602.00	92.15	4.29	4896.30	31.00	2874.42 N	2.85 E	0.87	2874.42
7634.00	91.98	4.55	4895.14	32.00	2906.31 N	5.32 E	0.97	2906.30
7665.00	91.36	4.11	4894.24	31.00	2937.20 N	7.66 E	2.45	2937.19
7697.00	90.75	3.15	4893.65	32.00	2969.13 N	9.68 E	3.55	2969.12
7729.00	90.48	3.06	4893.31	32.00	3001.09 N	11.41 E	0.89	3001.07
7760.00	90.04	3.06	4893.17	31.00	3032.04 N	13.07 E	1.42	3032.03
7792.00	89.87	2.88	4893.19	32.00	3064.00 N	14.73 E	0.77	3063.98
7824.00	89.96	3.06	4893.24	32.00	3095.95 N	16.39 E	0.63	3095.94
7855.00	89.78	3.23	4893.31	31.00	3126.91 N	18.09 E	0.80	3126.89
7887.00	89.87	3.50	4893.41	32.00	3158.85 N	19.96 E	0.89	3158.83
7918.00	89.78	2.97	4893.50	31.00	3189.80 N	21.71 E	1.73	3189.78
7950.00	89.69	2.36	4893.65	32.00	3221.77 N	23.20 E	1.93	3221.74

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7981.00	89.16	2.27	4893.98	31.00	3252.74 N	24.45 E	1.73	3252.71
8013.00	88.72	2.88	4894.55	32.00	3284.70 N	25.89 E	2.35	3284.87
8044.00	88.46	2.18	4895.32	31.00	3315.66 N	27.26 E	2.41	3315.63
8076.00	88.20	2.44	4896.25	32.00	3347.62 N	28.55 E	1.15	3347.59
8108.00	90.04	3.15	4896.74	32.00	3379.58 N	30.11 E	6.16	3379.55
8139.00	89.96	3.59	4896.74	31.00	3410.53 N	31.93 E	1.44	3410.49
8171.00	89.69	3.23	4896.84	32.00	3442.47 N	33.83 E	1.41	3442.43
8203.00	89.25	2.97	4897.13	32.00	3474.42 N	35.56 E	1.60	3474.38
8234.00	89.52	3.50	4897.47	31.00	3505.37 N	37.31 E	1.92	3505.33
8266.00	90.57	2.88	4897.44	32.00	3537.32 N	39.09 E	3.81	3537.28
8298.00	90.57	3.15	4897.12	32.00	3569.27 N	40.78 E	0.84	3569.23
8329.00	90.31	3.15	4896.88	31.00	3600.23 N	42.48 E	0.84	3600.18
8361.00	90.31	2.36	4896.71	32.00	3632.19 N	44.02 E	2.47	3632.14
8387.00	90.04	1.57	4896.63	26.00	3658.17 N	44.91 E	3.21	3658.12
PROJECTED TO BIT								
8440.00	90.04	1.57	4896.59	53.00	3711.15 N	46.36 E	0.00	3711.10