

Condor Energy

Well Name: **State 16-7-60-1H**

Surface Location: State 16-7-60-1H Pad Sec.16-T7N-R60W
North American Datum 1983 , US State Plane 1983 , Colorado Northern Zone

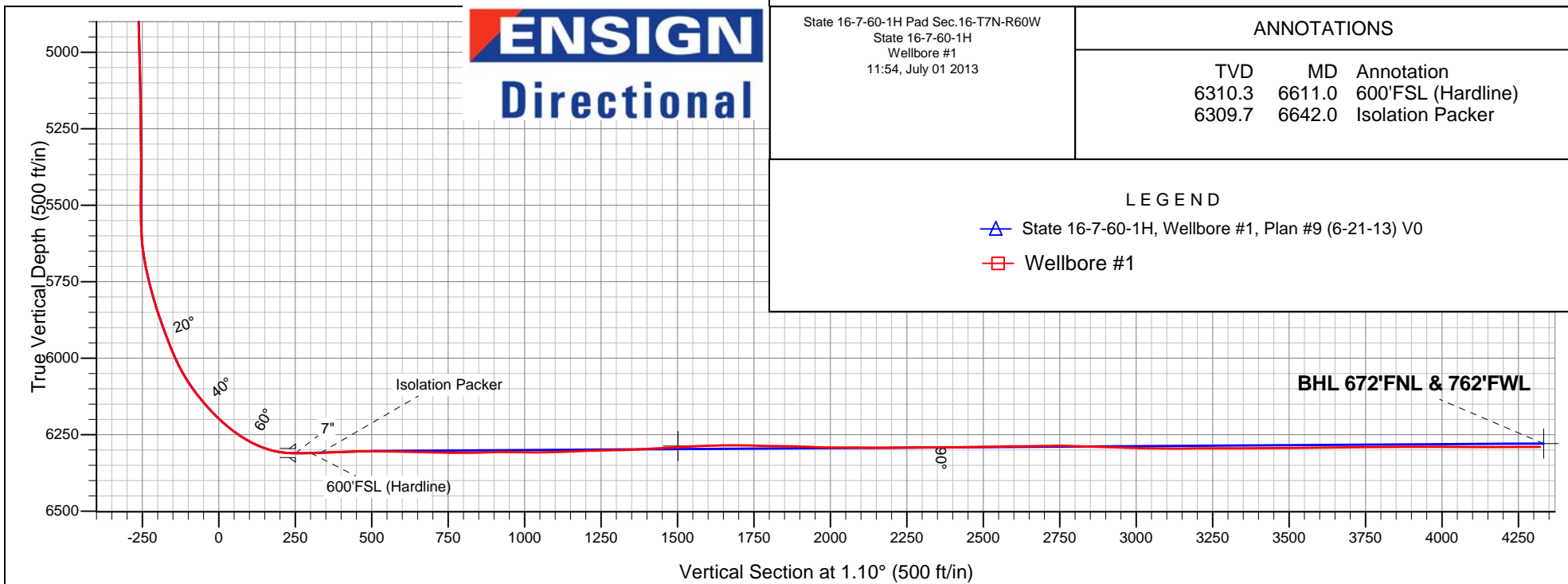
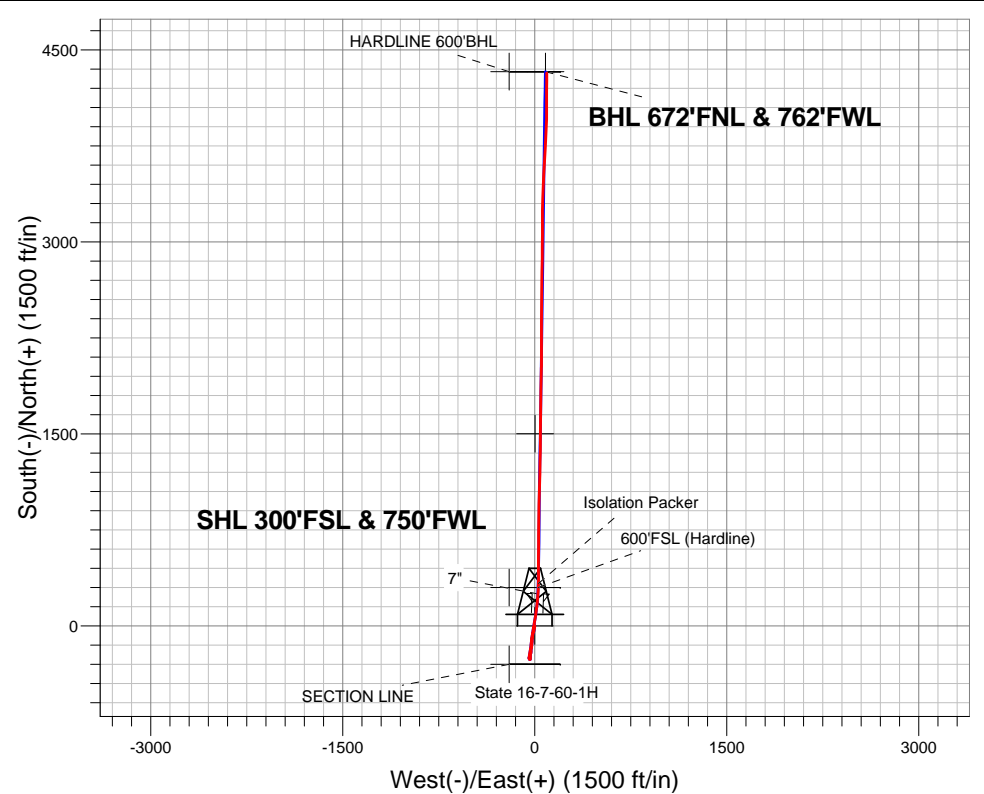
Ground Elevation: 4886.1

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	1453076.52	3387458.40	40.568730	-104.105290	

RKB - 18.5' WELL @ 4904.6ft (RKB - 18.5')

SURVEY

Projected Bottom Hole Location
10632'MD 6291'TVD 4319'N & 95'E of SHL
90.3 degree Incl @ 0.20 degree AZM



State 16-7-60-1H Pad Sec.16-T7N-R60W
State 16-7-60-1H
Wellbore #1
11:54, July 01 2013

ANNOTATIONS

TVD	MD	Annotation
6310.3	6611.0	600'FSL (Hardline)
6309.7	6642.0	Isolation Packer

LEGEND

- State 16-7-60-1H, Wellbore #1, Plan #9 (6-21-13) V0
- Wellbore #1



Condor Energy

SEC.16-T7N-R60W

State 16-7-60-1H Pad Sec.16-T7N-R60W

State 16-7-60-1H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

01 July, 2013

Survey										
	Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
	0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
	0.4	0.00	137.60	0.4	0.0	0.0	0.0	0.00	0.00	0.00
HARDLINE 600'SHL - HARDLINE 600'BHL										
	1.0	0.00	137.60	1.0	0.0	0.0	0.0	0.00	0.00	0.00
SHL 300'FSL & 750'FWL										
	1.2	0.00	137.60	1.2	0.0	0.0	0.0	0.00	0.00	0.00
SECTION LINE										
	222.0	0.20	137.60	222.0	-0.3	0.3	-0.3	0.09	0.09	0.00
	499.0	0.20	192.30	499.0	-1.1	0.5	-1.1	0.07	0.00	19.75
	722.0	0.40	215.10	722.0	-2.1	0.0	-2.1	0.10	0.09	10.22
	975.0	0.60	222.00	975.0	-3.8	-1.4	-3.9	0.08	0.08	2.73
	1,187.0	0.40	258.60	1,187.0	-4.8	-2.9	-4.9	0.17	-0.09	17.26
	1,231.0	0.40	249.40	1,231.0	-4.9	-3.2	-5.0	0.15	0.00	-20.91

Company:	Condor Energy	Local Co-ordinate Reference:	Well State 16-7-60-1H
Project:	SEC.16-T7N-R60W	TVD Reference:	WELL @ 4904.6ft (RKB - 18.5')
Site:	State 16-7-60-1H Pad Sec.16-T7N-R60W	MD Reference:	WELL @ 4904.6ft (RKB - 18.5')
Well:	State 16-7-60-1H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,291.0	0.40	253.10	1,291.0	-5.0	-3.6	-5.1	0.04	0.00	6.17
1,380.0	0.40	302.30	1,380.0	-5.0	-4.2	-5.0	0.37	0.00	55.28
1,470.0	0.50	317.40	1,470.0	-4.5	-4.7	-4.6	0.17	0.11	16.78
1,560.0	0.60	324.50	1,560.0	-3.8	-5.2	-3.9	0.13	0.11	7.89
1,658.0	0.30	240.60	1,658.0	-3.5	-5.8	-3.6	0.65	-0.31	-85.61
1,750.0	0.60	180.20	1,750.0	-4.1	-6.0	-4.2	0.57	0.33	-65.65
1,844.0	1.20	142.50	1,844.0	-5.4	-5.4	-5.5	0.86	0.64	-40.11
1,937.0	1.00	136.40	1,936.9	-6.8	-4.2	-6.8	0.25	-0.22	-6.56
2,030.0	1.80	146.40	2,029.9	-8.6	-2.8	-8.6	0.90	0.86	10.75
2,125.0	2.30	183.50	2,124.8	-11.7	-2.1	-11.8	1.46	0.53	39.05
2,220.0	3.90	179.10	2,219.7	-16.8	-2.2	-16.9	1.70	1.68	-4.63
2,312.0	5.20	190.40	2,311.4	-24.1	-2.9	-24.1	1.71	1.41	12.28
2,406.0	5.50	192.80	2,405.0	-32.7	-4.7	-32.7	0.40	0.32	2.55
2,499.0	5.20	201.40	2,497.6	-40.9	-7.2	-41.1	0.92	-0.32	9.25
2,591.0	6.50	195.30	2,589.1	-49.8	-10.1	-50.0	1.56	1.41	-6.63
2,685.0	6.20	195.50	2,682.5	-59.9	-12.9	-60.1	0.32	-0.32	0.21
2,779.0	6.90	195.50	2,775.9	-70.2	-15.7	-70.5	0.74	0.74	0.00
2,871.0	6.30	186.70	2,867.3	-80.5	-17.8	-80.9	1.28	-0.65	-9.57
2,964.0	5.80	183.90	2,959.8	-90.3	-18.7	-90.6	0.62	-0.54	-3.01
3,058.0	6.00	181.00	3,053.3	-99.9	-19.1	-100.3	0.38	0.21	-3.09
3,151.0	5.90	182.30	3,145.8	-109.6	-19.4	-109.9	0.18	-0.11	1.40
3,245.0	5.90	182.10	3,239.3	-119.2	-19.8	-119.6	0.02	0.00	-0.21
3,339.0	7.50	186.70	3,332.7	-130.2	-20.6	-130.5	1.79	1.70	4.89
3,434.0	7.60	190.00	3,426.8	-142.5	-22.5	-142.9	0.47	0.11	3.47
3,528.0	7.70	189.80	3,520.0	-154.8	-24.6	-155.3	0.11	0.11	-0.21
3,621.0	7.50	181.20	3,612.2	-167.0	-25.8	-167.5	1.24	-0.22	-9.25
3,716.0	6.20	188.10	3,706.5	-178.3	-26.7	-178.8	1.62	-1.37	7.26
3,807.0	6.90	186.10	3,796.9	-188.6	-27.9	-189.1	0.81	0.77	-2.20
3,901.0	6.80	183.50	3,890.2	-199.8	-28.9	-200.3	0.35	-0.11	-2.77
3,995.0	6.70	191.90	3,983.6	-210.7	-30.3	-211.2	1.05	-0.11	8.94
4,089.0	6.60	191.60	4,077.0	-221.4	-32.6	-221.9	0.11	-0.11	-0.32
4,182.0	4.80	179.30	4,169.5	-230.5	-33.6	-231.1	2.33	-1.94	-13.23
4,277.0	5.20	177.50	4,264.1	-238.8	-33.3	-239.4	0.45	0.42	-1.89
4,371.0	4.40	183.20	4,357.8	-246.6	-33.4	-247.2	0.99	-0.85	6.06
4,465.0	3.20	163.30	4,451.6	-252.7	-32.8	-253.3	1.88	-1.28	-21.17
4,559.0	2.60	197.60	4,545.5	-257.3	-32.7	-257.9	1.92	-0.64	36.49
4,653.0	1.80	222.50	4,639.4	-260.4	-34.3	-261.0	1.31	-0.85	26.49
4,748.0	1.50	271.90	4,734.4	-261.5	-36.6	-262.1	1.48	-0.32	52.00
4,842.0	1.50	267.40	4,828.4	-261.5	-39.1	-262.2	0.13	0.00	-4.79
4,935.0	1.50	343.60	4,921.3	-260.4	-40.6	-261.1	1.99	0.00	81.94
5,029.0	1.70	345.40	5,015.3	-257.8	-41.3	-258.6	0.22	0.21	1.91
5,123.0	1.00	328.50	5,109.3	-255.8	-42.1	-256.5	0.85	-0.74	-17.98
5,216.0	1.00	318.70	5,202.3	-254.5	-43.0	-255.3	0.18	0.00	-10.54
5,309.0	1.00	316.00	5,295.2	-253.3	-44.1	-254.1	0.05	0.00	-2.90
5,402.0	0.40	202.80	5,388.2	-253.0	-44.8	-253.8	1.31	-0.65	-121.72
5,496.0	0.30	228.00	5,482.2	-253.5	-45.1	-254.3	0.19	-0.11	26.81
5,589.0	1.40	22.10	5,575.2	-252.6	-44.9	-253.4	1.80	1.18	165.70
5,683.0	9.40	7.70	5,668.7	-243.9	-43.4	-244.7	8.57	8.51	-15.32
5,778.0	14.60	10.20	5,761.6	-224.4	-40.3	-225.1	5.50	5.47	2.63
5,871.0	18.70	9.80	5,850.7	-198.2	-35.7	-198.8	4.41	4.41	-0.43
5,964.0	20.80	8.60	5,938.2	-167.1	-30.7	-167.7	2.30	2.26	-1.29
6,027.0	23.90	4.90	5,996.5	-143.4	-27.9	-143.9	5.40	4.92	-5.87
6,122.0	33.20	6.80	6,079.9	-98.3	-23.2	-98.7	9.83	9.79	2.00
6,168.0	38.30	9.50	6,117.2	-71.7	-19.3	-72.0	11.60	11.09	5.87

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Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
6,215.0	41.60	10.40	6,153.2	-42.0	-14.1	-42.2	7.13	7.02	1.91
6,246.0	43.60	10.40	6,176.0	-21.3	-10.3	-21.5	6.45	6.45	0.00
6,278.0	46.56	9.80	6,198.6	1.0	-6.3	0.9	9.34	9.25	-1.88
6,309.0	50.10	8.80	6,219.2	23.8	-2.6	23.8	11.67	11.42	-3.23
6,340.0	53.50	8.80	6,238.4	47.9	1.1	47.9	10.97	10.97	0.00
6,371.0	57.00	9.00	6,256.1	73.1	5.1	73.1	11.30	11.29	0.65
6,465.0	71.60	7.00	6,296.7	156.7	16.7	157.0	15.65	15.53	-2.13
6,496.0	78.20	6.80	6,304.8	186.4	20.3	186.8	21.30	21.29	-0.65
6,519.0	83.60	6.70	6,308.4	209.0	23.0	209.4	23.48	23.48	-0.43
6,561.0	89.39	1.91	6,311.0	250.7	26.1	251.2	17.89	13.80	-11.41
7"									
6,569.0	90.50	1.00	6,311.0	258.7	26.3	259.2	17.89	13.82	-11.36
6,590.0	91.00	1.40	6,310.7	279.7	26.8	280.2	3.05	2.38	1.90
6,611.0	91.07	1.13	6,310.3	300.7	27.2	301.2	1.33	0.32	-1.29
600'FSL (Hardline)									
6,621.0	91.10	1.00	6,310.2	310.7	27.4	311.2	1.33	0.32	-1.29
6,642.0	91.37	0.80	6,309.7	331.7	27.8	332.2	1.61	1.29	-0.97
Isolation Packer									
6,652.0	91.50	0.70	6,309.5	341.7	27.9	342.2	1.61	1.29	-0.97
6,683.0	92.60	0.20	6,308.3	372.7	28.1	373.2	3.90	3.55	-1.61
6,714.0	92.80	0.20	6,306.9	403.6	28.2	404.1	0.65	0.65	0.00
6,745.0	92.70	0.30	6,305.4	434.6	28.4	435.1	0.46	-0.32	0.32
6,776.0	91.20	0.70	6,304.3	465.6	28.6	466.1	5.01	-4.84	1.29
6,808.0	90.00	0.30	6,304.0	497.6	28.9	498.1	3.95	-3.75	-1.25
6,839.0	88.90	0.00	6,304.3	528.6	29.0	529.0	3.68	-3.55	-0.97
6,933.0	88.50	0.30	6,306.4	622.6	29.3	623.0	0.53	-0.43	0.32
7,027.0	88.60	0.30	6,308.8	716.5	29.7	717.0	0.11	0.11	0.00
7,058.0	88.80	0.50	6,309.5	747.5	30.0	748.0	0.91	0.65	0.65
7,089.0	90.30	0.90	6,309.8	778.5	30.3	779.0	5.01	4.84	1.29
7,121.0	91.20	1.40	6,309.3	810.5	31.0	811.0	3.22	2.81	1.56
7,152.0	91.80	1.40	6,308.5	841.5	31.7	841.9	1.94	1.94	0.00
7,183.0	91.70	1.40	6,307.6	872.5	32.5	872.9	0.32	-0.32	0.00
7,215.0	90.80	1.40	6,306.9	904.4	33.3	904.9	2.81	-2.81	0.00
7,246.0	89.50	1.20	6,306.8	935.4	34.0	935.9	4.24	-4.19	-0.65
7,277.0	88.80	1.20	6,307.3	966.4	34.6	966.9	2.26	-2.26	0.00
7,308.0	88.80	1.00	6,307.9	997.4	35.2	997.9	0.65	0.00	-0.65
7,340.0	90.60	1.60	6,308.1	1,029.4	36.0	1,029.9	5.93	5.63	1.88
7,371.0	90.90	1.00	6,307.7	1,060.4	36.7	1,060.9	2.16	0.97	-1.94
7,403.0	91.50	1.60	6,307.0	1,092.4	37.4	1,092.9	2.65	1.88	1.88
7,434.0	91.70	1.40	6,306.1	1,123.4	38.2	1,123.9	0.91	0.65	-0.65
7,466.0	92.20	1.40	6,305.1	1,155.3	39.0	1,155.9	1.56	1.56	0.00
7,497.0	92.30	1.60	6,303.8	1,186.3	39.8	1,186.8	0.72	0.32	0.65
7,591.0	90.80	0.90	6,301.3	1,280.2	41.8	1,280.8	1.76	-1.60	-0.74
7,685.0	93.00	1.00	6,298.2	1,374.2	43.4	1,374.7	2.34	2.34	0.11
7,779.0	93.50	0.50	6,292.8	1,468.0	44.6	1,468.6	0.75	0.53	-0.53
7,871.0	92.50	0.00	6,288.0	1,559.9	45.0	1,560.5	1.21	-1.09	-0.54
7,902.0	92.40	0.00	6,286.7	1,590.8	45.0	1,591.4	0.32	-0.32	0.00
7,934.0	91.60	0.20	6,285.6	1,622.8	45.1	1,623.4	2.58	-2.50	0.63
7,965.0	90.70	0.30	6,285.0	1,653.8	45.2	1,654.4	2.92	-2.90	0.32
7,996.0	89.60	0.30	6,284.9	1,684.8	45.4	1,685.4	3.55	-3.55	0.00
8,027.0	89.20	1.20	6,285.2	1,715.8	45.8	1,716.4	3.18	-1.29	2.90
8,059.0	88.60	1.40	6,285.8	1,747.8	46.5	1,748.4	1.98	-1.88	0.63
8,090.0	88.80	1.40	6,286.5	1,778.8	47.3	1,779.4	0.65	0.65	0.00
8,121.0	88.70	0.50	6,287.2	1,809.8	47.8	1,810.4	2.92	-0.32	-2.90

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Site:	State 16-7-60-1H Pad Sec.16-T7N-R60W	MD Reference:	WELL @ 4904.6ft (RKB - 18.5')
Well:	State 16-7-60-1H	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	Landmark

Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,152.0	89.00	1.40	6,287.8	1,840.8	48.3	1,841.3	3.06	0.97	2.90
8,183.0	88.80	1.60	6,288.4	1,871.7	49.1	1,872.3	0.91	-0.65	0.65
8,246.0	88.00	1.00	6,290.2	1,934.7	50.5	1,935.3	1.59	-1.27	-0.95
8,277.0	88.50	0.90	6,291.1	1,965.7	51.0	1,966.3	1.64	1.61	-0.32
8,308.0	88.20	0.20	6,292.0	1,996.7	51.3	1,997.3	2.46	-0.97	-2.26
8,339.0	90.50	1.40	6,292.4	2,027.7	51.8	2,028.3	8.37	7.42	3.87
8,371.0	90.10	0.50	6,292.2	2,059.7	52.3	2,060.3	3.08	-1.25	-2.81
8,402.0	89.30	359.60	6,292.4	2,090.7	52.3	2,091.3	3.88	-2.58	-2.90
8,433.0	88.50	359.60	6,293.0	2,121.6	52.1	2,122.3	2.58	-2.58	0.00
8,465.0	90.00	359.60	6,293.4	2,153.6	51.9	2,154.2	4.69	4.69	0.00
8,496.0	90.80	0.70	6,293.2	2,184.6	52.0	2,185.2	4.39	2.58	3.55
8,527.0	91.50	0.70	6,292.5	2,215.6	52.4	2,216.2	2.26	2.26	0.00
8,558.0	91.10	0.30	6,291.8	2,246.6	52.6	2,247.2	1.82	-1.29	-1.29
8,589.0	89.80	359.50	6,291.6	2,277.6	52.6	2,278.2	4.92	-4.19	-2.58
8,620.0	89.60	0.20	6,291.8	2,308.6	52.5	2,309.2	2.35	-0.65	2.26
8,714.0	90.70	0.30	6,291.5	2,402.6	52.9	2,403.2	1.18	1.17	0.11
8,808.0	91.60	0.30	6,289.6	2,496.6	53.4	2,497.2	0.96	0.96	0.00
8,902.0	90.00	0.90	6,288.3	2,590.6	54.4	2,591.1	1.82	-1.70	0.64
8,995.0	91.50	1.20	6,287.1	2,683.6	56.1	2,684.1	1.64	1.61	0.32
9,088.0	89.00	0.50	6,286.7	2,776.5	57.5	2,777.1	2.79	-2.69	-0.75
9,183.0	87.30	0.20	6,289.8	2,871.5	58.0	2,872.1	1.82	-1.79	-0.32
9,276.0	88.40	0.70	6,293.2	2,964.4	58.8	2,965.0	1.30	1.18	0.54
9,370.0	89.40	0.20	6,295.1	3,058.4	59.5	3,059.0	1.19	1.06	-0.53
9,464.0	90.70	0.50	6,295.0	3,152.4	60.1	3,153.0	1.42	1.38	0.32
9,557.0	89.60	0.30	6,294.7	3,245.4	60.7	3,245.9	1.20	-1.18	-0.22
9,651.0	90.50	1.90	6,294.6	3,339.4	62.5	3,339.9	1.95	0.96	1.70
9,744.0	90.30	2.60	6,294.0	3,432.3	66.2	3,432.9	0.78	-0.22	0.75
9,837.0	90.00	2.60	6,293.8	3,525.2	70.4	3,525.9	0.32	-0.32	0.00
9,930.0	91.50	3.50	6,292.5	3,618.0	75.4	3,618.8	1.88	1.61	0.97
10,024.0	90.20	2.80	6,291.1	3,711.9	80.5	3,712.8	1.57	-1.38	-0.74
10,117.0	90.70	3.30	6,290.4	3,804.8	85.5	3,805.7	0.76	0.54	0.54
10,211.0	90.30	2.60	6,289.6	3,898.6	90.3	3,899.6	0.86	-0.43	-0.74
10,304.0	89.30	0.70	6,289.9	3,991.6	93.0	3,992.6	2.31	-1.08	-2.04
10,398.0	89.90	0.00	6,290.6	4,085.6	93.6	4,086.6	0.98	0.64	-0.74
10,494.0	90.00	0.20	6,290.7	4,181.6	93.7	4,182.6	0.23	0.10	0.21
10,575.0	90.30	0.20	6,290.4	4,262.6	94.0	4,263.6	0.37	0.37	0.00
10,632.0	90.30	0.20	6,290.1	4,319.6	94.2	4,320.6	0.00	0.00	0.00
BHL 660'FNL & 750'FWL									

