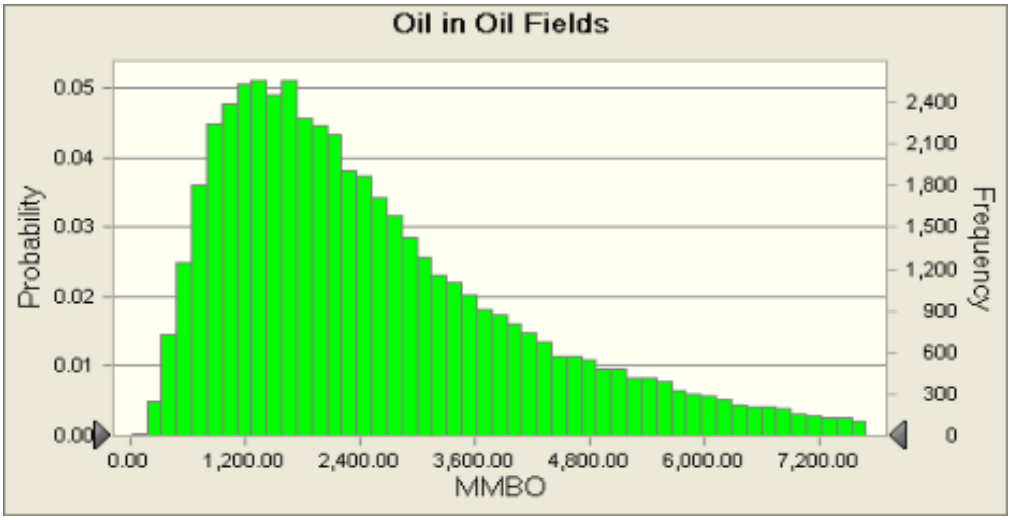
10160104
South Margin Subsalt
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 10.92 to 20,152.75
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 8.06



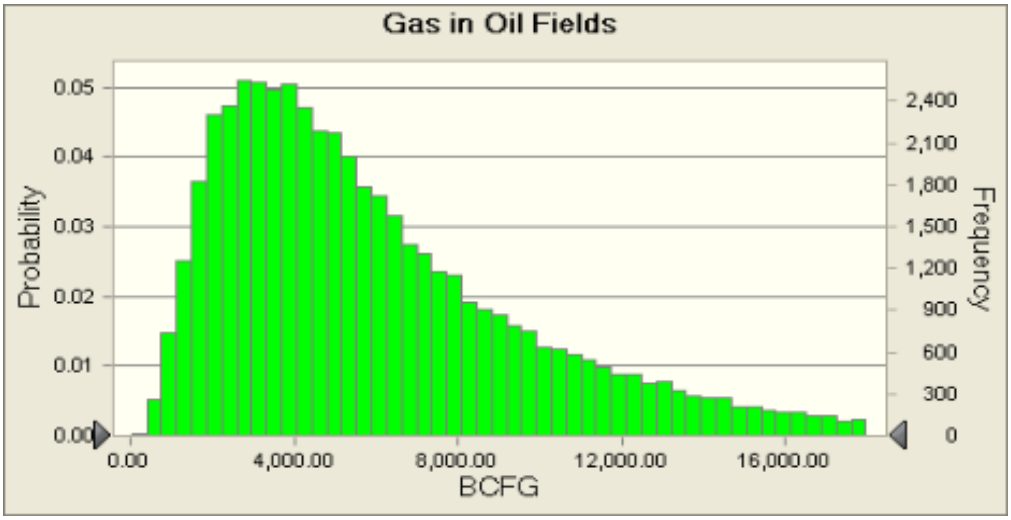
Statistics:	Forecast values
Trials	50,000
Mean	2,646.21
Median	2,172.76
Mode	---
Standard Deviation	1,802.08
Variance	3,247,494.43
Skewness	1.52
Kurtosis	6.18
Coefficient of Variability	0.6810
Minimum	10.92
Maximum	20,152.75
Range Width	20,141.82
Mean Standard Error	8.06

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	10.92
95%	663.27
90%	865.72
85%	1,031.39
80%	1,189.93
75%	1,346.22
70%	1,500.11
65%	1,658.60
60%	1,819.26
55%	1,994.42
50%	2,172.72
45%	2,371.39
40%	2,587.83
35%	2,831.71
30%	3,117.83
25%	3,461.01
20%	3,875.88
15%	4,396.08
10%	5,127.16
5%	6,245.78
0%	20,152.75

Forecast: Gas in Oil Fields

Summary:
Entire range is from 26.99 to 44,633.69
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 18.85



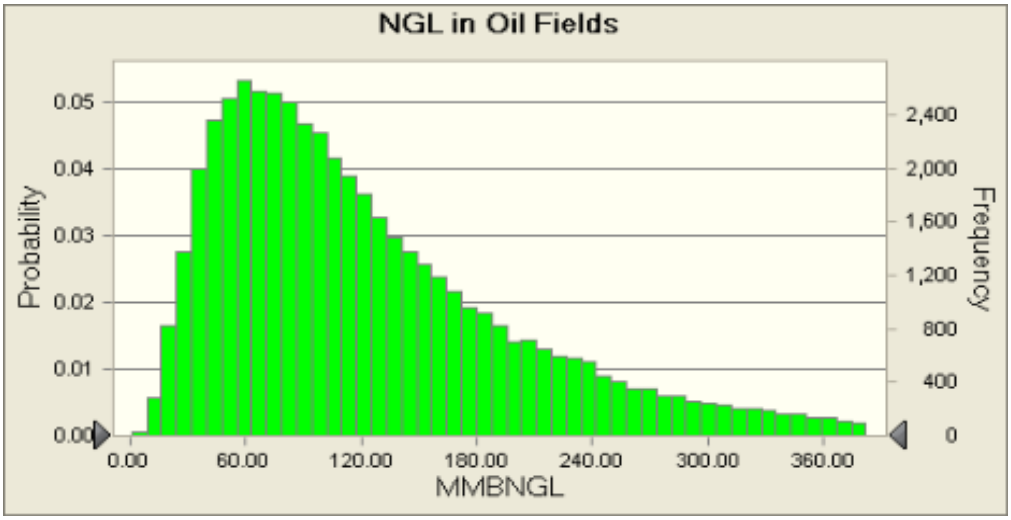
Statistics:	Forecast values
Trials	50,000
Mean	6,159.74
Median	5,051.19
Mode	---
Standard Deviation	4,215.07
Variance	17,766,793.87
Skewness	1.54
Kurtosis	6.29
Coefficient of Variability	0.6843
Minimum	26.99
Maximum	44,633.69
Range Width	44,606.70
Mean Standard Error	18.85

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	26.99
95%	1,543.57
90%	2,012.01
85%	2,392.52
80%	2,767.51
75%	3,120.30
70%	3,489.84
65%	3,848.43
60%	4,222.95
55%	4,637.73
50%	5,051.02
45%	5,505.60
40%	6,023.25
35%	6,580.09
30%	7,249.07
25%	8,035.30
20%	9,012.77
15%	10,250.62
10%	11,920.51
5%	14,549.71
0%	44,633.69

Forecast: NGL in Oil Fields

Summary:
Entire range is from 0.44 to 915.61
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.41



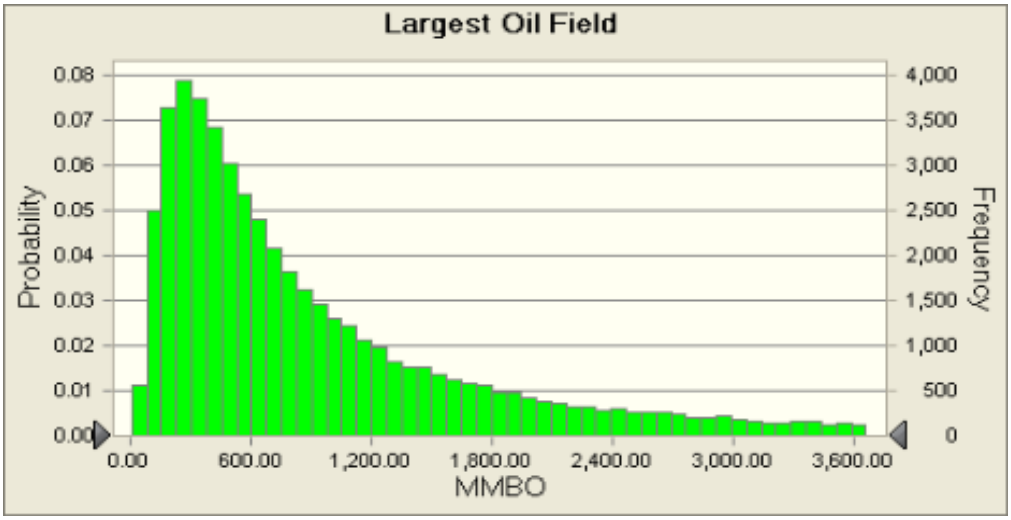
Statistics:	Forecast values
Trials	50,000
Mean	128.59
Median	104.38
Mode	---
Standard Deviation	90.62
Variance	8,212.87
Skewness	1.67
Kurtosis	6.93
Coefficient of Variability	0.7048
Minimum	0.44
Maximum	915.61
Range Width	915.17
Mean Standard Error	0.41

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	0.44
95%	31.68
90%	41.18
85%	49.21
80%	56.76
75%	64.14
70%	71.79
65%	79.38
60%	87.25
55%	95.45
50%	104.37
45%	114.04
40%	124.50
35%	136.68
30%	150.60
25%	167.01
20%	187.09
15%	213.51
10%	248.13
5%	310.75
0%	915.61

Forecast: Largest Oil Field

Summary:
Entire range is from 8.90 to 4,999.53
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 4.25



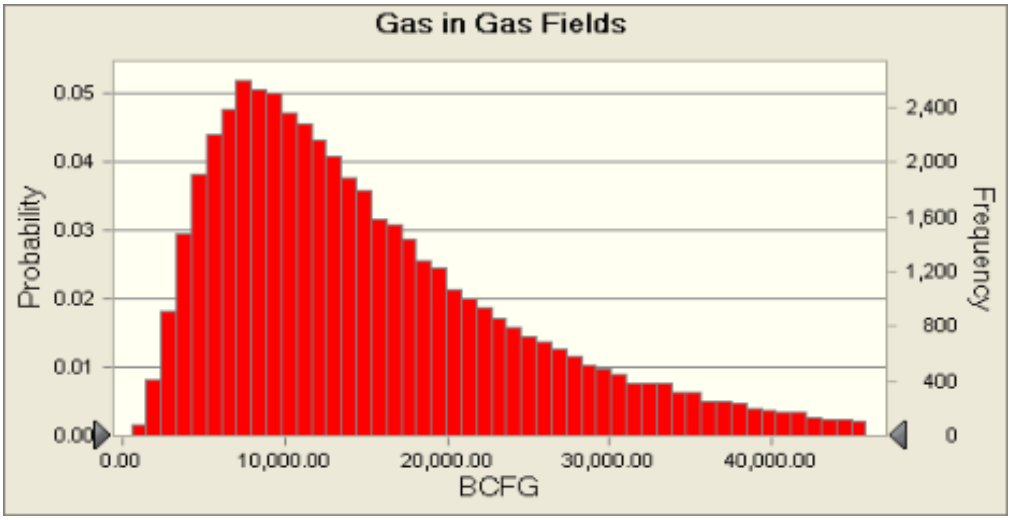
Statistics:	Forecast values
Trials	50,000
Mean	993.04
Median	650.93
Mode	---
Standard Deviation	951.20
Variance	904,789.78
Skewness	1.80
Kurtosis	6.14
Coefficient of Variability	0.9579
Minimum	8.90
Maximum	4,999.53
Range Width	4,990.64
Mean Standard Error	4.25

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	8.90
95%	143.93
90%	199.60
85%	247.31
80%	294.97
75%	343.07
70%	394.47
65%	449.42
60%	508.62
55%	575.88
50%	650.93
45%	737.53
40%	838.15
35%	958.82
30%	1,102.07
25%	1,283.51
20%	1,526.39
15%	1,843.68
10%	2,333.57
5%	3,121.07
0%	4,999.53

Forecast: Gas in Gas Fields

Summary:
Entire range is from 489.21 to 103,353.36
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 47.98



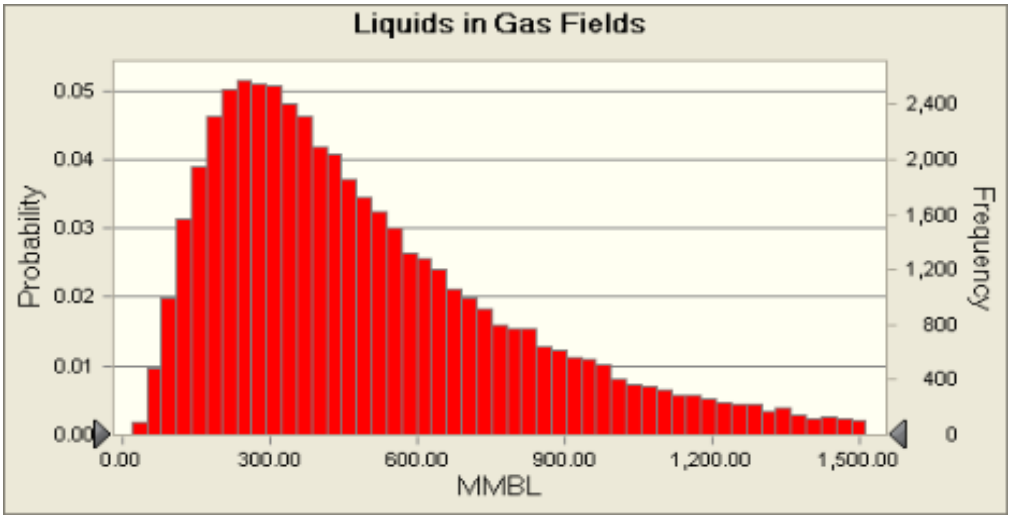
Statistics:	Forecast values
Trials	50,000
Mean	15,858.15
Median	13,069.82
Mode	---
Standard Deviation	10,728.81
Variance	115,107,346.06
Skewness	1.52
Kurtosis	6.24
Coefficient of Variability	0.6765
Minimum	489.21
Maximum	103,353.36
Range Width	102,864.15
Mean Standard Error	47.98

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	489.21
95%	3,975.05
90%	5,214.81
85%	6,253.00
80%	7,202.85
75%	8,100.00
70%	9,021.55
65%	9,942.91
60%	10,942.82
55%	11,991.30
50%	13,069.54
45%	14,265.98
40%	15,598.75
35%	17,070.96
30%	18,750.21
25%	20,750.57
20%	23,168.39
15%	26,243.53
10%	30,413.35
5%	37,193.88
0%	103,353.36

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 17.99 to 3,441.60
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.59



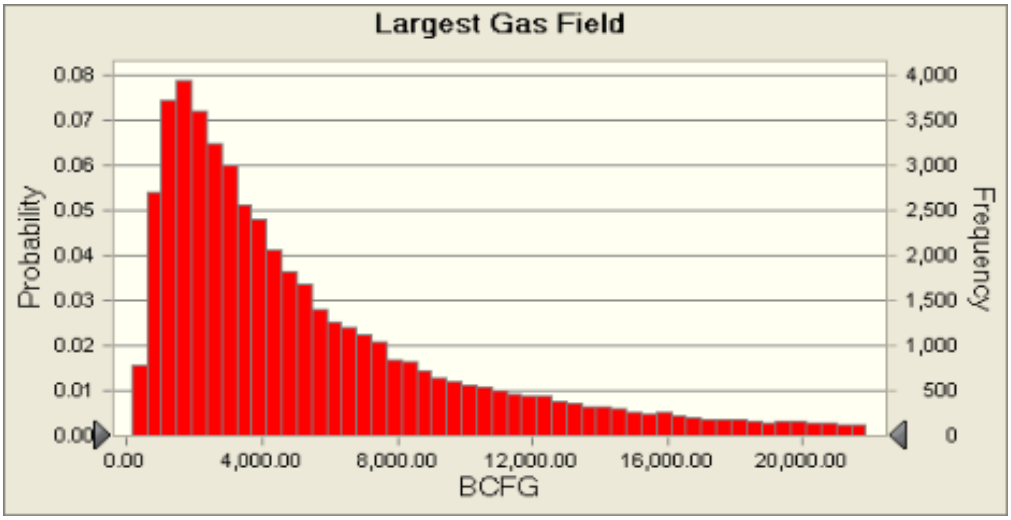
Statistics:	Forecast values
Trials	50,000
Mean	517.80
Median	423.94
Mode	---
Standard Deviation	355.85
Variance	126,625.69
Skewness	1.59
Kurtosis	6.61
Coefficient of Variability	0.6872
Minimum	17.99
Maximum	3,441.60
Range Width	3,423.61
Mean Standard Error	1.59

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	17.99
95%	129.21
90%	169.38
85%	202.74
80%	232.97
75%	262.46
70%	292.55
65%	322.34
60%	354.31
55%	387.70
50%	423.93
45%	463.10
40%	506.68
35%	554.57
30%	611.45
25%	675.46
20%	755.16
15%	856.83
10%	991.14
5%	1,227.24
0%	3,441.60

Forecast: Largest Gas Field

Summary:
Entire range is from 120.49 to 29,992.00
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 25.41



Statistics:	Forecast values
Trials	50,000
Mean	5,953.93
Median	3,942.34
Mode	---
Standard Deviation	5,682.22
Variance	32,287,623.53
Skewness	1.82
Kurtosis	6.23
Coefficient of Variability	0.9544
Minimum	120.49
Maximum	29,992.00
Range Width	29,871.51
Mean Standard Error	25.41

Forecast: Largest Gas Field (continued)

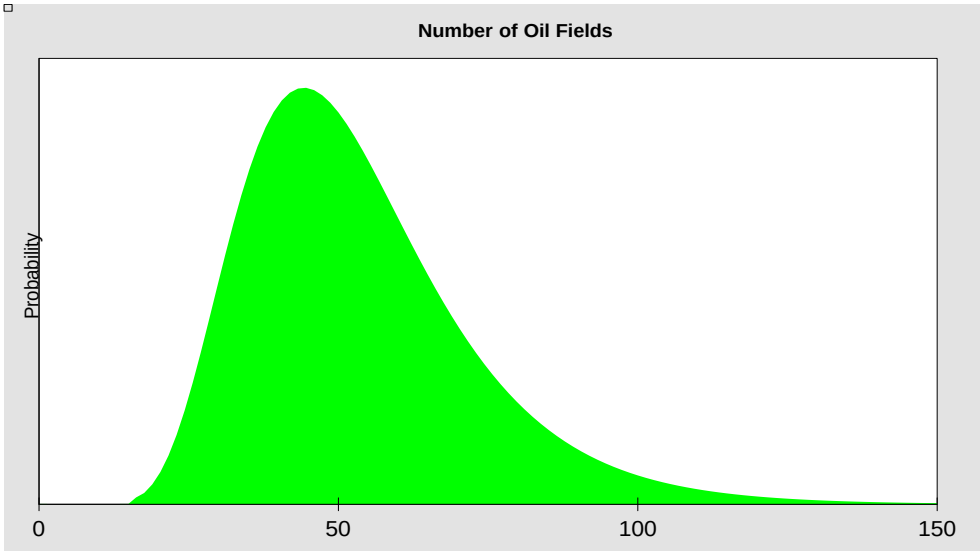
Percentiles:	BCFG
100%	120.49
95%	877.48
90%	1,195.15
85%	1,483.66
80%	1,759.15
75%	2,063.15
70%	2,370.93
65%	2,713.81
60%	3,077.42
55%	3,494.56
50%	3,942.20
45%	4,453.97
40%	5,059.82
35%	5,777.37
30%	6,661.75
25%	7,678.66
20%	9,102.90
15%	11,069.32
10%	13,809.16
5%	18,738.62
0%	29,992.00

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	52.28	53.28
Standard Deviation	19.44	19.44
Selected range is from -Infinity to 149.00		1.00 to 150.00



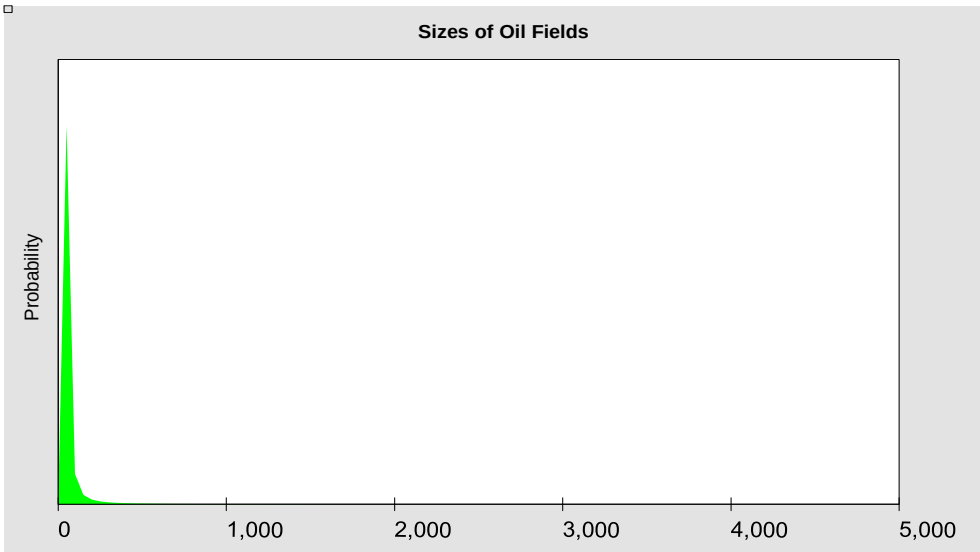
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	53.15	53.17
Median	49.96	49.98
Mode	---	---
Standard Deviation	19.13	19.11
Variance	365.87	365.27
Skewness	1.05	1.02
Kurtosis	4.58	4.50
Coefficient of Variability	0.3599	0.3595
Minimum	13.37	1.00
Maximum	149.99	150.00
Range Width	136.62	149.00
Mean Standard Error	0.09	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	13.37	1.00
95%	28.19	28.10
90%	31.85	31.89
85%	34.77	34.74
80%	37.19	37.19
75%	39.41	39.43
70%	41.56	41.56
65%	43.59	43.64
60%	45.71	45.71
55%	47.77	47.81
50%	49.96	49.98
45%	52.15	52.24
40%	54.53	54.65
35%	57.16	57.25
30%	60.05	60.14
25%	63.34	63.41
20%	67.14	67.27
15%	71.85	72.06
10%	78.44	78.57
5%	89.49	89.28
0%	149.99	150.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	60.83	61.83
Standard Deviation	737.53	737.53
Selected range is from -Infinity to 4,999.00		1.00 to 5,000.00



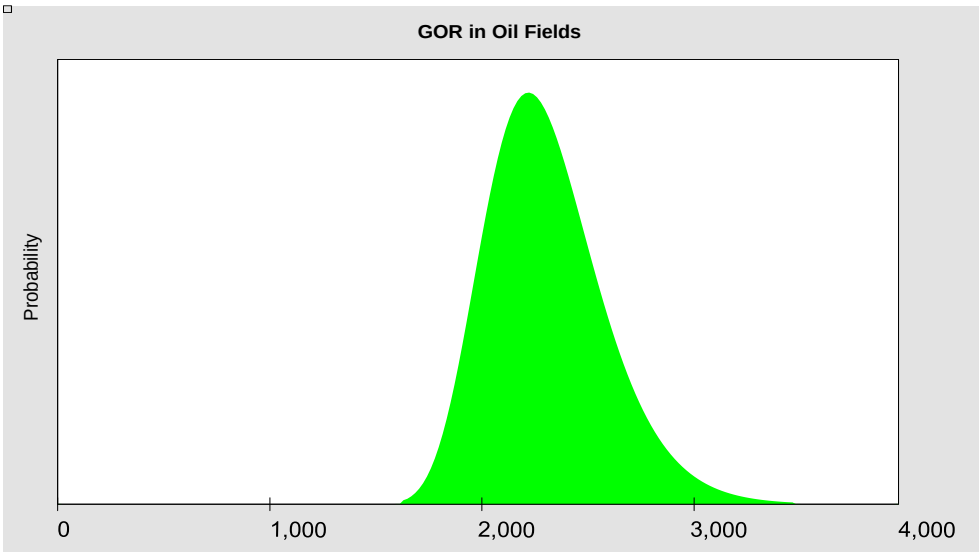
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	49.72	53.28
Median	5.99	5.99
Mode	---	---
Standard Deviation	206.80	207.76
Variance	42,765.49	43,163.83
Skewness	11.08	11.38
Kurtosis	166.26	175.82
Coefficient of Variability	4.16	3.90
Minimum	1.00	1.00
Maximum	4,965.84	5,000.00
Range Width	4,964.84	4,999.00
Mean Standard Error	0.92	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	1.00	1.00
95%	1.12	1.13
90%	1.28	1.28
85%	1.49	1.49
80%	1.76	1.76
75%	2.09	2.11
70%	2.53	2.55
65%	3.09	3.11
60%	3.82	3.83
55%	4.76	4.77
50%	5.99	5.99
45%	7.59	7.60
40%	9.62	9.78
35%	12.53	12.79
30%	16.74	17.07
25%	23.12	23.46
20%	33.22	33.60
15%	50.34	51.31
10%	87.07	87.73
5%	194.17	194.64
0%	4,965.84	5,000.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	1,329.44	2,329.44
Standard Deviation	284.52	284.52
Selected range is from -Infinity to 2,500.00		1000.00 to 3,500.00



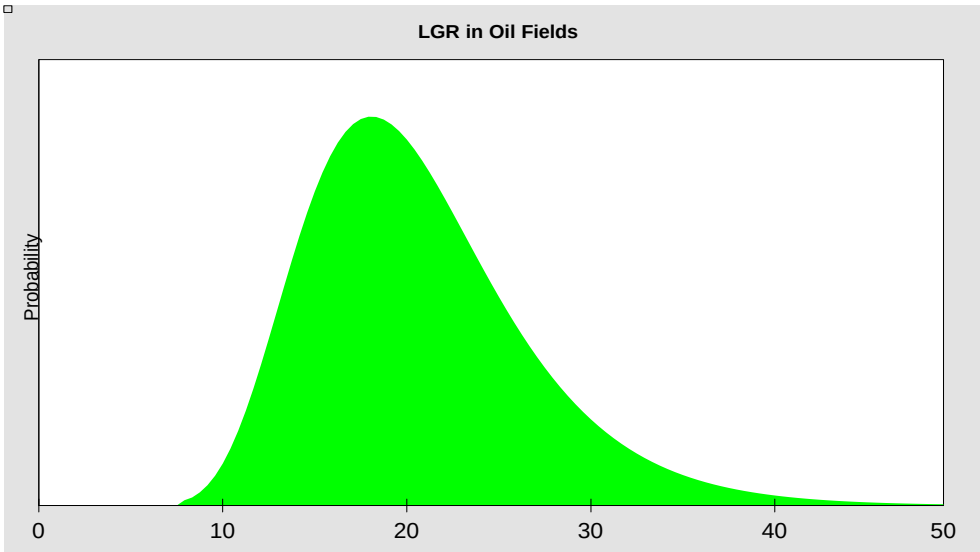
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	2,326.14	2,328.11
Median	2,297.39	2,299.65
Mode	---	---
Standard Deviation	281.12	281.52
Variance	79,027.35	79,255.14
Skewness	0.5883	0.5786
Kurtosis	3.48	3.40
Coefficient of Variability	0.1209	0.1209
Minimum	1,524.75	1,000.00
Maximum	3,494.52	3,500.00
Range Width	1,969.77	2,500.00
Mean Standard Error	1.26	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	1,524.75	1,000.00
95%	1,915.92	1,917.75
90%	1,990.04	1,991.07
85%	2,043.39	2,043.82
80%	2,088.59	2,087.74
75%	2,127.70	2,126.89
70%	2,163.91	2,163.23
65%	2,197.65	2,197.96
60%	2,231.36	2,231.87
55%	2,263.83	2,265.58
50%	2,297.39	2,299.65
45%	2,331.80	2,334.64
40%	2,367.58	2,371.15
35%	2,406.66	2,409.93
30%	2,448.19	2,451.96
25%	2,495.56	2,498.71
20%	2,549.62	2,552.50
15%	2,613.63	2,617.58
10%	2,699.60	2,703.17
5%	2,833.02	2,837.71
0%	3,494.52	3,500.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	19.91	20.91
Standard Deviation	6.25	6.25
Selected range is from -Infinity to 49.00		1.00 to 50.00



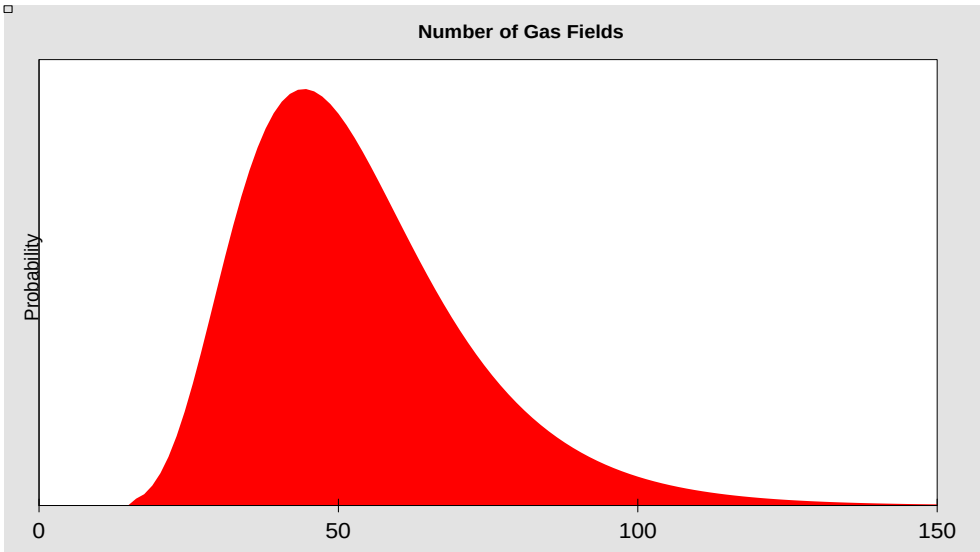
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	20.86	20.88
Median	19.97	19.99
Mode	---	---
Standard Deviation	6.18	6.16
Variance	38.25	37.98
Skewness	0.8609	0.8607
Kurtosis	4.01	4.03
Coefficient of Variability	0.2965	0.2951
Minimum	5.82	1.00
Maximum	49.91	50.00
Range Width	44.09	49.00
Mean Standard Error	0.03	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	5.82	1.00
95%	12.43	12.47
90%	13.76	13.82
85%	14.78	14.82
80%	15.64	15.68
75%	16.41	16.45
70%	17.14	17.17
65%	17.83	17.88
60%	18.55	18.57
55%	19.25	19.28
50%	19.97	19.99
45%	20.72	20.74
40%	21.52	21.52
35%	22.36	22.37
30%	23.26	23.30
25%	24.29	24.35
20%	25.56	25.57
15%	27.12	27.08
10%	29.10	29.10
5%	32.39	32.37
0%	49.91	50.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	52.28	53.28
Standard Deviation	19.44	19.44
Selected range is from -Infinity to 149.00		1.00 to 150.00



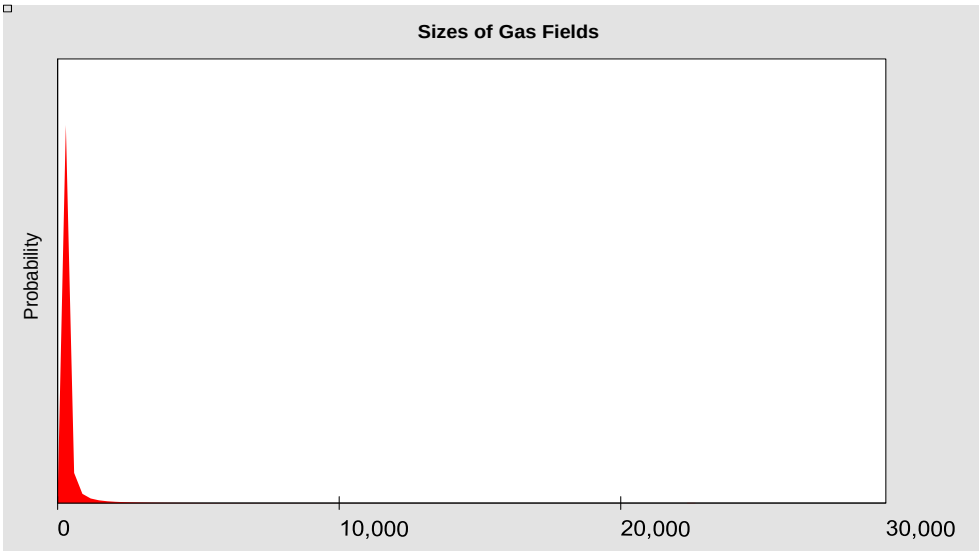
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	53.14	53.17
Median	49.93	49.98
Mode	---	---
Standard Deviation	19.05	19.11
Variance	362.72	365.27
Skewness	1.03	1.02
Kurtosis	4.49	4.50
Coefficient of Variability	0.3584	0.3595
Minimum	11.55	1.00
Maximum	149.60	150.00
Range Width	138.05	149.00
Mean Standard Error	0.09	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	11.55	1.00
95%	28.20	28.10
90%	31.96	31.89
85%	34.84	34.74
80%	37.22	37.19
75%	39.45	39.43
70%	41.54	41.56
65%	43.66	43.64
60%	45.73	45.71
55%	47.78	47.81
50%	49.93	49.98
45%	52.29	52.24
40%	54.61	54.65
35%	57.21	57.25
30%	60.04	60.14
25%	63.33	63.41
20%	67.11	67.27
15%	71.81	72.06
10%	78.38	78.57
5%	89.22	89.28
0%	149.60	150.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	364.97	370.97
Standard Deviation	4,425.18	4,425.18
Selected range is from -Infinity to 29,994.00		6.00 to 30,000.00



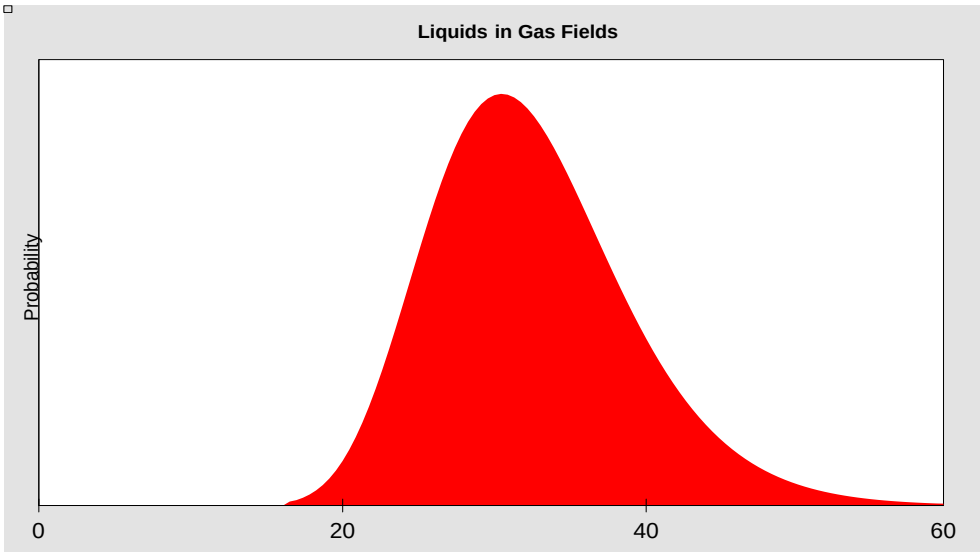
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	307.21	319.67
Median	35.43	35.92
Mode	---	---
Standard Deviation	1,286.24	1,246.55
Variance	1,654,421.28	1,553,897.73
Skewness	11.06	11.38
Kurtosis	166.39	175.82
Coefficient of Variability	4.19	3.90
Minimum	6.00	6.00
Maximum	29,782.51	30,000.00
Range Width	29,776.51	29,994.00
Mean Standard Error	5.75	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	6.00	6.00
95%	6.77	6.76
90%	7.73	7.71
85%	8.95	8.95
80%	10.56	10.56
75%	12.59	12.63
70%	15.15	15.27
65%	18.55	18.65
60%	22.85	22.99
55%	28.38	28.60
50%	35.43	35.92
45%	44.92	45.61
40%	57.71	58.67
35%	75.36	76.71
30%	101.17	102.44
25%	139.44	140.79
20%	201.57	201.63
15%	311.65	307.86
10%	531.84	526.41
5%	1,207.74	1,167.82
0%	29,782.51	30,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	31.68	32.68
Standard Deviation	6.67	6.67
Selected range is from -Infinity to 59.00		1.00 to 60.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	32.69	32.65
Median	32.03	31.99
Mode	---	---
Standard Deviation	6.60	6.60
Variance	43.55	43.57
Skewness	0.5693	0.5688
Kurtosis	3.37	3.39
Coefficient of Variability	0.2019	0.2022
Minimum	13.44	1.00
Maximum	59.93	60.00
Range Width	46.49	59.00
Mean Standard Error	0.03	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	13.44	1.00
95%	23.06	23.01
90%	24.83	24.74
85%	26.02	25.98
80%	27.07	27.01
75%	27.98	27.93
70%	28.82	28.79
65%	29.63	29.60
60%	30.43	30.40
55%	31.23	31.19
50%	32.03	31.99
45%	32.86	32.81
40%	33.73	33.67
35%	34.58	34.58
30%	35.55	35.56
25%	36.66	36.66
20%	37.96	37.92
15%	39.52	39.44
10%	41.50	41.44
5%	44.69	44.58
0%	59.93	60.00

End of Assumptions

Simulation started on 11/12/2009 at 9:05:19
Simulation stopped on 11/12/2009 at 9:34:23