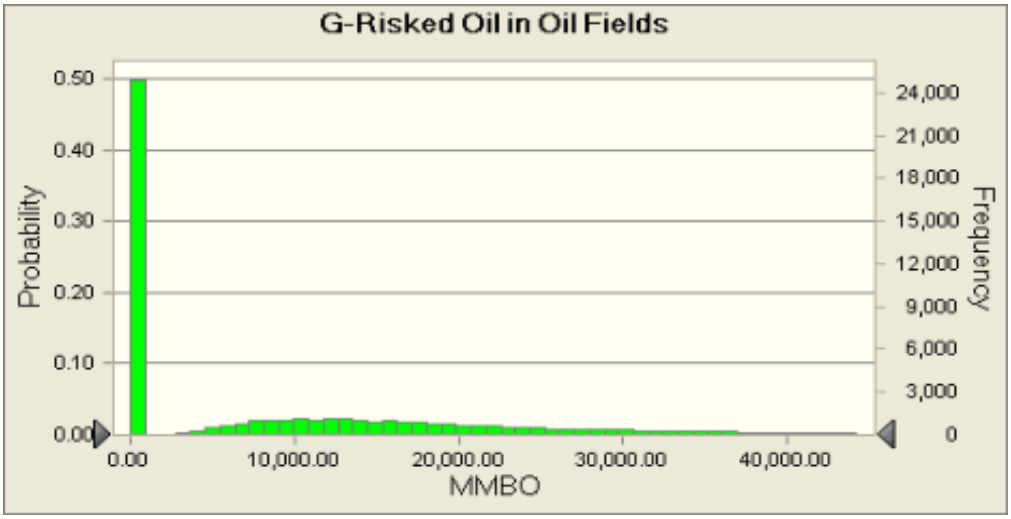
60350103
Pre-Salt Reservoirs
Monte Carlo Results

Forecast: G-Risked Oil in Oil Fields

Summary:
Entire range is from 0.00 to 128,210.74
After 50,000 trials, the standard error of the mean is 55.46



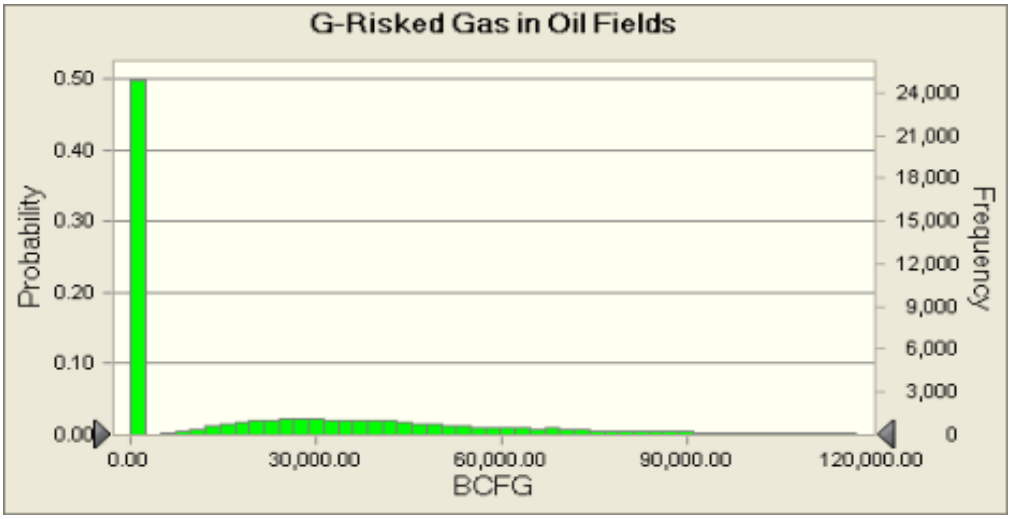
Statistics:	Forecast values
Trials	50,000
Mean	9,464.50
Median	3,103.32
Mode	0.00
Standard Deviation	12,401.50
Variance	153,797,233.59
Skewness	1.52
Kurtosis	5.72
Coefficient of Variability	1.31
Minimum	0.00
Maximum	128,210.74
Range Width	128,210.74
Mean Standard Error	55.46

Forecast: G-Risked Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	3,103.18
45%	7,376.95
40%	9,639.97
35%	11,737.36
30%	13,851.19
25%	16,170.37
20%	18,846.47
15%	22,182.58
10%	26,925.16
5%	34,234.26
0%	128,210.74

Forecast: G-Risked Gas in Oil Fields

Summary:
Entire range is from 0.00 to 360,609.16
After 50,000 trials, the standard error of the mean is 148.42



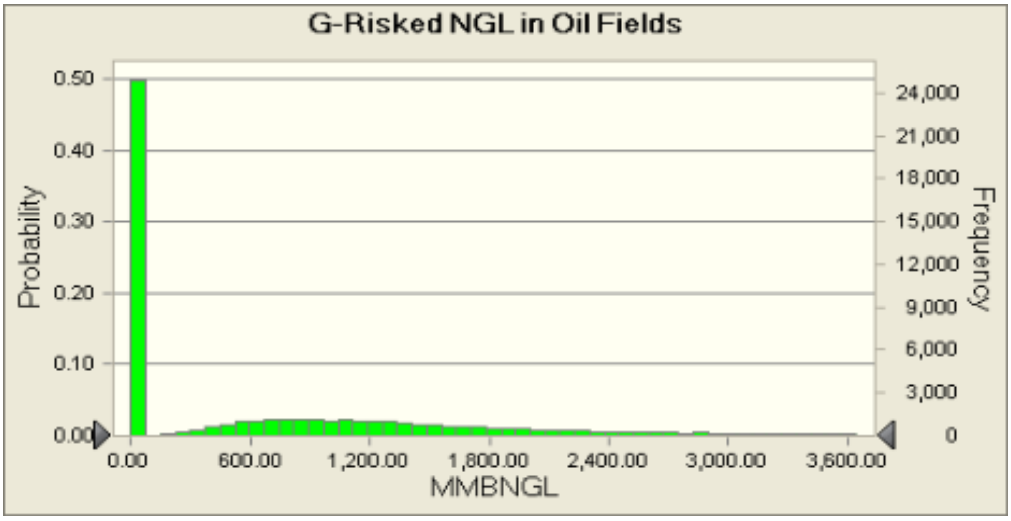
Statistics:	Forecast values
Trials	50,000
Mean	24,143.39
Median	7,256.11
Mode	0.00
Standard Deviation	33,187.45
Variance	1,101,406,948.78
Skewness	1.97
Kurtosis	9.13
Coefficient of Variability	1.37
Minimum	0.00
Maximum	360,609.16
Range Width	360,609.16
Mean Standard Error	148.42

Forecast: G-Risked Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	7,222.38
45%	17,890.84
40%	23,543.41
35%	28,726.68
30%	34,279.40
25%	40,092.38
20%	46,904.59
15%	55,528.01
10%	67,769.46
5%	88,156.07
0%	360,609.16

Forecast: G-Risked NGL in Oil Fields

Summary:
Entire range is from 0.00 to 13,958.35
After 50,000 trials, the standard error of the mean is 4.62



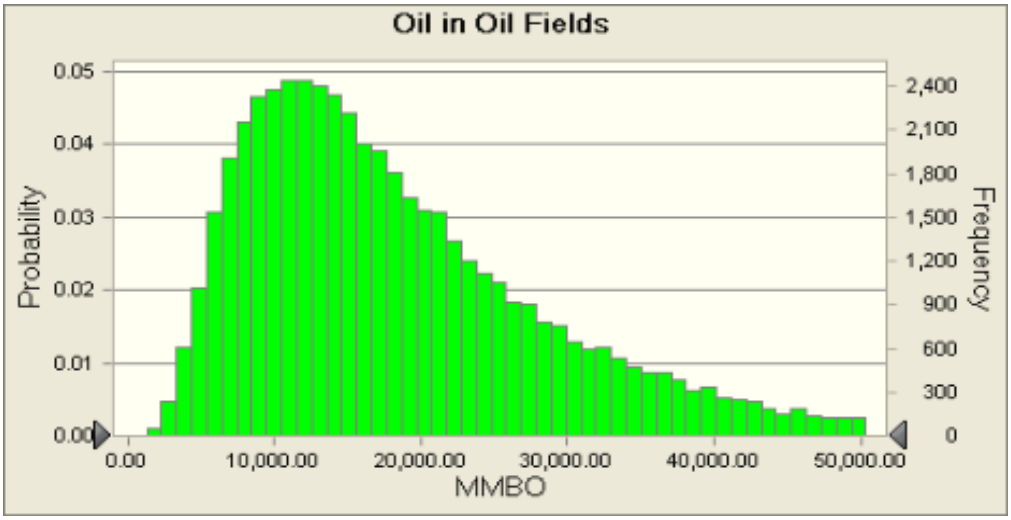
Statistics:	Forecast values
Trials	50,000
Mean	745.15
Median	224.08
Mode	0.00
Standard Deviation	1,032.15
Variance	1,065,325.32
Skewness	2.07
Kurtosis	10.13
Coefficient of Variability	1.39
Minimum	0.00
Maximum	13,958.35
Range Width	13,958.35
Mean Standard Error	4.62

Forecast: G-Risked NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	223.66
45%	546.73
40%	721.18
35%	884.36
30%	1,053.34
25%	1,235.12
20%	1,441.72
15%	1,712.49
10%	2,087.95
5%	2,718.08
0%	13,958.35

Forecast: Oil in Oil Fields

Summary:
Entire range is from 242.50 to 128,210.74
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 50.47



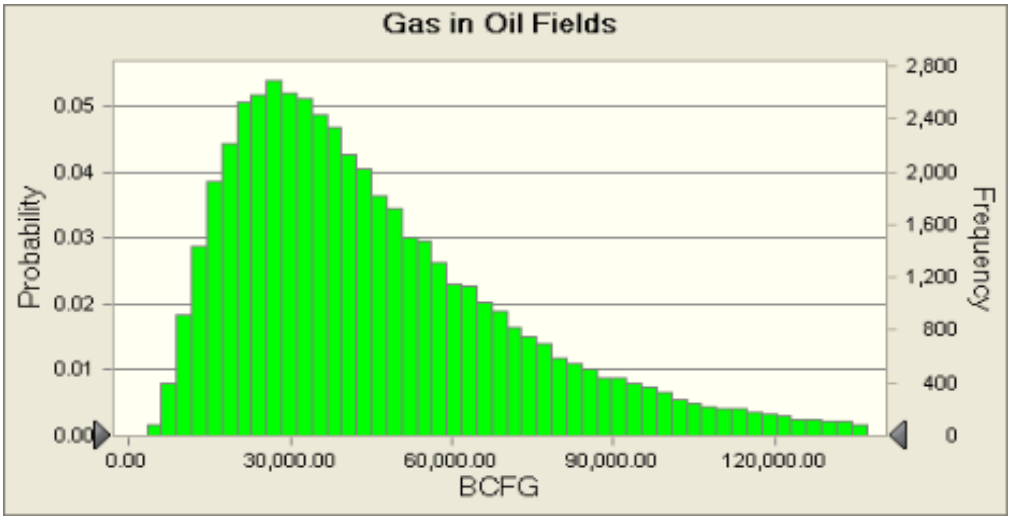
Statistics:	Forecast values
Trials	50,000
Mean	18,775.80
Median	16,081.98
Mode	---
Standard Deviation	11,285.23
Variance	127,356,518.77
Skewness	1.43
Kurtosis	6.02
Coefficient of Variability	0.6011
Minimum	242.50
Maximum	128,210.74
Range Width	127,968.24
Mean Standard Error	50.47

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	242.50
95%	5,778.14
90%	7,247.26
85%	8,423.68
80%	9,521.20
75%	10,586.99
70%	11,645.67
65%	12,707.59
60%	13,770.23
55%	14,881.78
50%	16,081.58
45%	17,379.42
40%	18,772.31
35%	20,373.86
30%	22,066.11
25%	24,170.52
20%	26,664.52
15%	29,788.70
10%	34,060.66
5%	40,828.32
0%	128,210.74

Forecast: Gas in Oil Fields

Summary:
Entire range is from 429.81 to 440,259.29
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 142.21



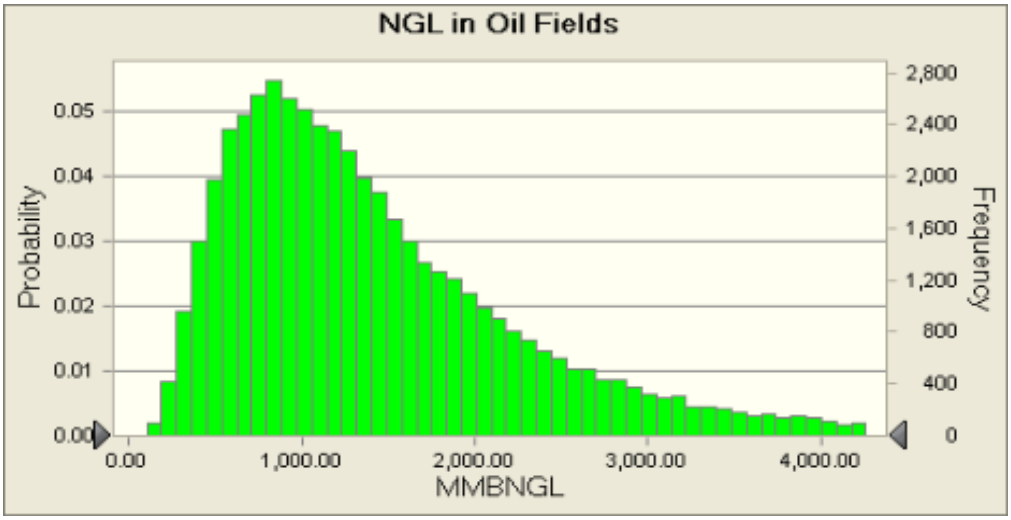
Statistics:	Forecast values
Trials	50,000
Mean	47,868.60
Median	39,840.36
Mode	---
Standard Deviation	31,799.79
Variance	1,011,226,922.81
Skewness	1.96
Kurtosis	9.73
Coefficient of Variability	0.6643
Minimum	429.81
Maximum	440,259.29
Range Width	439,829.48
Mean Standard Error	142.21

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	429.81
95%	13,832.09
90%	17,496.88
85%	20,494.76
80%	23,287.24
75%	25,979.64
70%	28,546.21
65%	31,243.29
60%	33,975.47
55%	36,843.78
50%	39,839.71
45%	43,165.02
40%	46,781.64
35%	50,800.81
30%	55,421.14
25%	60,936.67
20%	67,440.12
15%	75,823.49
10%	88,001.72
5%	108,823.71
0%	440,259.29

Forecast: NGL in Oil Fields

Summary:
Entire range is from 15.37 to 13,958.35
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 4.45



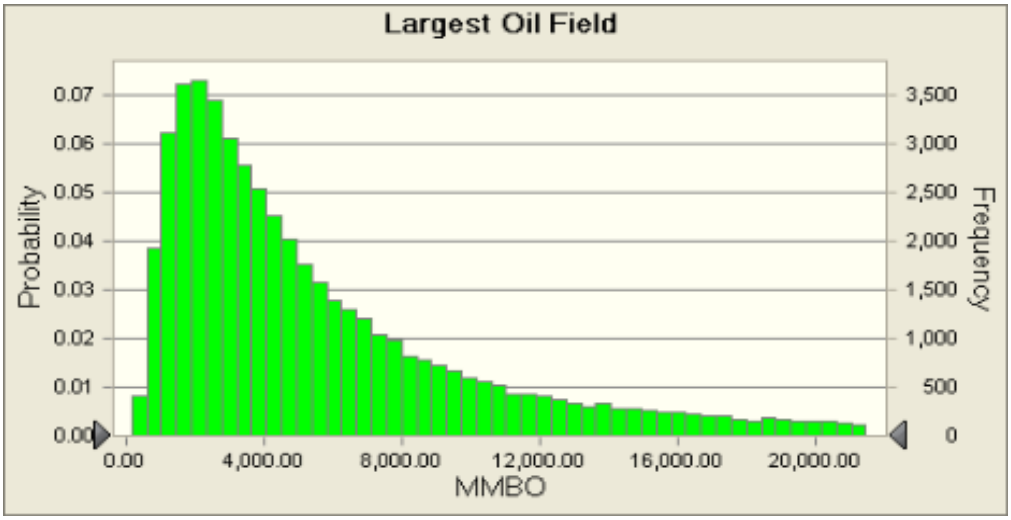
Statistics:	Forecast values
Trials	50,000
Mean	1,477.18
Median	1,227.18
Mode	---
Standard Deviation	994.79
Variance	989,608.71
Skewness	2.05
Kurtosis	10.58
Coefficient of Variability	0.6734
Minimum	15.37
Maximum	13,958.35
Range Width	13,942.98
Mean Standard Error	4.45

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	15.37
95%	423.66
90%	536.57
85%	628.16
80%	715.07
75%	797.25
70%	876.00
65%	959.59
60%	1,044.59
55%	1,135.50
50%	1,227.16
45%	1,327.32
40%	1,436.70
35%	1,559.26
30%	1,708.73
25%	1,877.02
20%	2,077.64
15%	2,340.38
10%	2,716.09
5%	3,379.16
0%	13,958.35

Forecast: Largest Oil Field

Summary:
Entire range is from 154.70 to 29,997.57
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 24.64



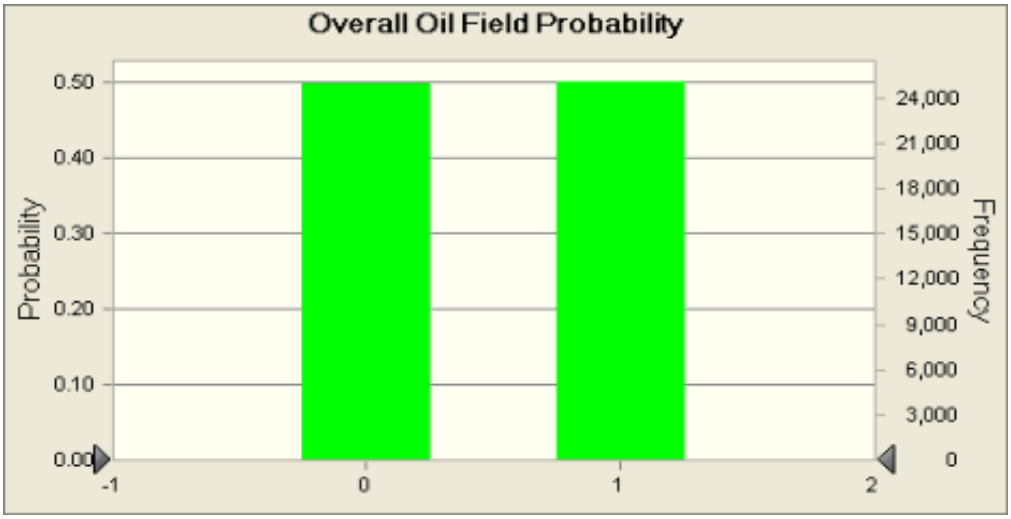
Statistics:	Forecast values
Trials	50,000
Mean	6,071.15
Median	4,172.63
Mode	---
Standard Deviation	5,508.56
Variance	30,344,213.68
Skewness	1.81
Kurtosis	6.25
Coefficient of Variability	0.9073
Minimum	154.70
Maximum	29,997.57
Range Width	29,842.87
Mean Standard Error	24.64

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	154.70
95%	1,050.48
90%	1,407.11
85%	1,711.90
80%	2,010.54
75%	2,306.38
70%	2,619.78
65%	2,956.39
60%	3,321.90
55%	3,729.33
50%	4,172.51
45%	4,669.69
40%	5,255.72
35%	5,939.09
30%	6,762.46
25%	7,781.90
20%	9,122.66
15%	10,936.61
10%	13,783.57
5%	18,471.23
0%	29,997.57

Forecast: Overall Oil Field Probability

Summary:
Entire range is from 0.00 to 1.00
After 50,000 trials, the standard error of the mean is 0.00



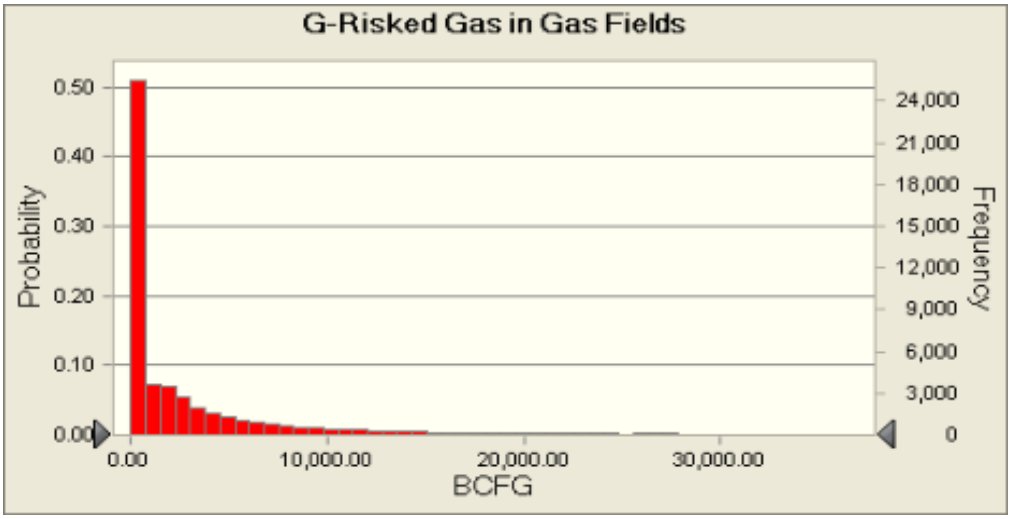
Statistics:	Forecast values
Trials	50,000
Mean	0.50
Median	1.00
Mode	1.00
Standard Deviation	0.50
Variance	0.25
Skewness	-0.0086
Kurtosis	1.00
Coefficient of Variability	0.9957
Minimum	0.00
Maximum	1.00
Range Width	1.00
Mean Standard Error	0.00

Forecast: Overall Oil Field Probability (continued)

Percentiles:	Forecast values
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	1.00
45%	1.00
40%	1.00
35%	1.00
30%	1.00
25%	1.00
20%	1.00
15%	1.00
10%	1.00
5%	1.00
0%	1.00

Forecast: G-Risked Gas in Gas Fields

Summary:
Entire range is from 0.00 to 224,879.47
After 50,000 trials, the standard error of the mean is 51.95



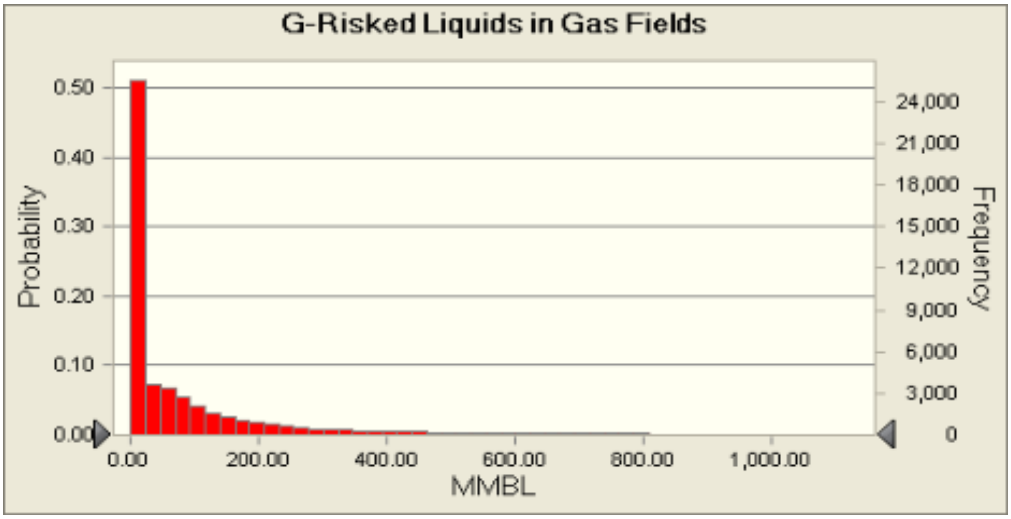
Statistics:	Forecast values
Trials	50,000
Mean	4,335.83
Median	637.98
Mode	0.00
Standard Deviation	11,616.39
Variance	134,940,479.26
Skewness	6.72
Kurtosis	65.29
Coefficient of Variability	2.68
Minimum	0.00
Maximum	224,879.47
Range Width	224,879.47
Mean Standard Error	51.95

Forecast: G-Risked Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	637.71
45%	1,186.38
40%	1,684.04
35%	2,249.71
30%	2,941.43
25%	3,904.66
20%	5,198.03
15%	7,140.11
10%	10,601.00
5%	19,137.97
0%	224,879.47

Forecast: G-Risked Liquids in Gas Fields

Summary:
Entire range is from 0.00 to 6,738.63
After 50,000 trials, the standard error of the mean is 1.59



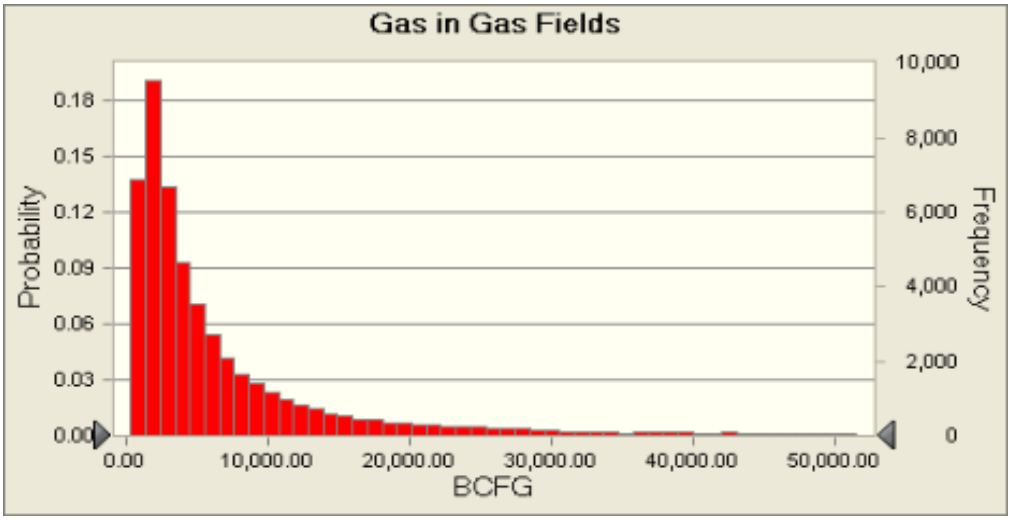
Statistics:	Forecast values
Trials	50,000
Mean	131.90
Median	18.04
Mode	0.00
Standard Deviation	356.64
Variance	127,190.04
Skewness	7.00
Kurtosis	72.89
Coefficient of Variability	2.70
Minimum	0.00
Maximum	6,738.63
Range Width	6,738.63
Mean Standard Error	1.59

Forecast: G-Risked Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	18.04
45%	35.73
40%	50.98
35%	68.47
30%	89.44
25%	118.27
20%	157.17
15%	215.75
10%	321.43
5%	579.87
0%	6,738.63

Forecast: Gas in Gas Fields

Summary:
Entire range is from 300.74 to 237,664.82
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 68.43



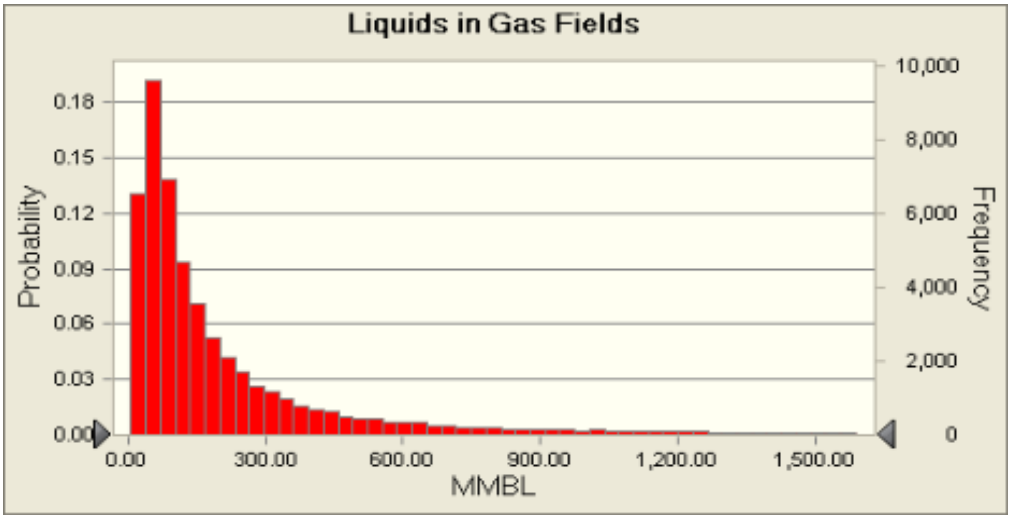
Statistics:	Forecast values
Trials	50,000
Mean	8,635.21
Median	3,829.74
Mode	---
Standard Deviation	15,301.44
Variance	234,134,144.66
Skewness	5.17
Kurtosis	39.15
Coefficient of Variability	1.77
Minimum	300.74
Maximum	237,664.82
Range Width	237,364.08
Mean Standard Error	68.43

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	300.74
95%	903.48
90%	1,164.89
85%	1,405.74
80%	1,653.81
75%	1,919.52
70%	2,220.82
65%	2,537.38
60%	2,905.50
55%	3,328.55
50%	3,829.49
45%	4,420.86
40%	5,109.53
35%	5,974.05
30%	7,075.24
25%	8,546.14
20%	10,591.82
15%	13,653.24
10%	19,193.95
5%	31,633.67
0%	237,664.82

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 7.49 to 8,019.42
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.11



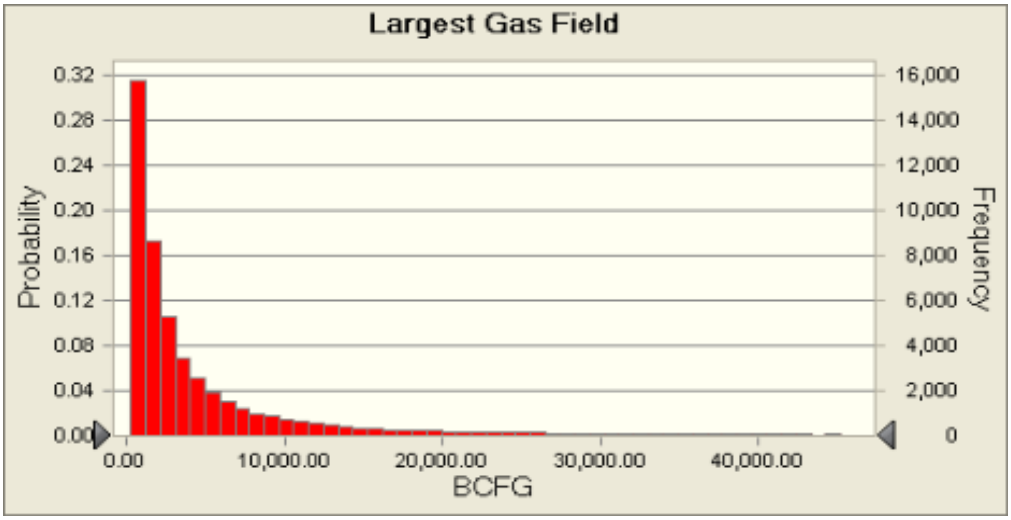
Statistics:	Forecast values
Trials	50,000
Mean	263.12
Median	115.88
Mode	---
Standard Deviation	472.32
Variance	223,090.88
Skewness	5.42
Kurtosis	44.05
Coefficient of Variability	1.80
Minimum	7.49
Maximum	8,019.42
Range Width	8,011.94
Mean Standard Error	2.11

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	7.49
95%	27.27
90%	35.20
85%	42.43
80%	50.08
75%	58.44
70%	67.39
65%	77.14
60%	87.98
55%	100.78
50%	115.87
45%	134.25
40%	155.21
35%	181.65
30%	214.63
25%	259.66
20%	320.67
15%	416.40
10%	585.08
5%	969.86
0%	8,019.42

Forecast: Largest Gas Field

Summary:
Entire range is from 300.74 to 179,441.22
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 63.00



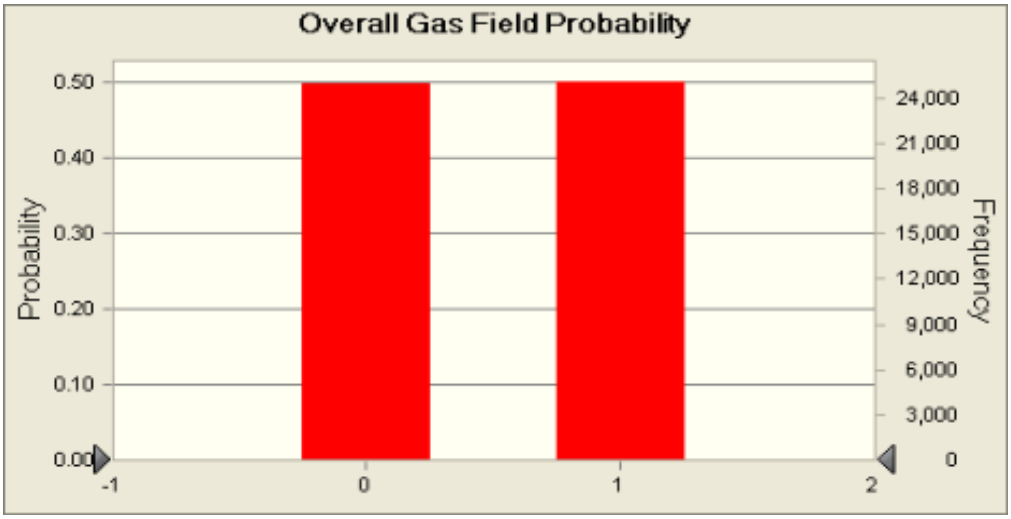
Statistics:	Forecast values
Trials	50,000
Mean	6,620.14
Median	2,260.40
Mode	---
Standard Deviation	14,086.19
Variance	198,420,813.89
Skewness	5.64
Kurtosis	44.91
Coefficient of Variability	2.13
Minimum	300.74
Maximum	179,441.22
Range Width	179,140.48
Mean Standard Error	63.00

Forecast: Largest Gas Field (continued)

Percentiles:	BCFG
100%	300.74
95%	448.86
90%	564.16
85%	690.46
80%	834.92
75%	994.56
70%	1,175.83
65%	1,381.21
60%	1,623.01
55%	1,915.99
50%	2,260.17
45%	2,666.56
40%	3,203.48
35%	3,867.48
30%	4,725.43
25%	5,892.31
20%	7,565.43
15%	10,196.10
10%	14,902.95
5%	26,246.48
0%	179,441.22

Forecast: Overall Gas Field Probability

Summary:
Entire range is from 0.00 to 1.00
After 50,000 trials, the standard error of the mean is 0.00



Statistics:	Forecast values
Trials	50,000
Mean	0.50
Median	1.00
Mode	1.00
Standard Deviation	0.50
Variance	0.25
Skewness	-0.0086
Kurtosis	1.00
Coefficient of Variability	0.9957
Minimum	0.00
Maximum	1.00
Range Width	1.00
Mean Standard Error	0.00

Forecast: Overall Gas Field Probability (continued)

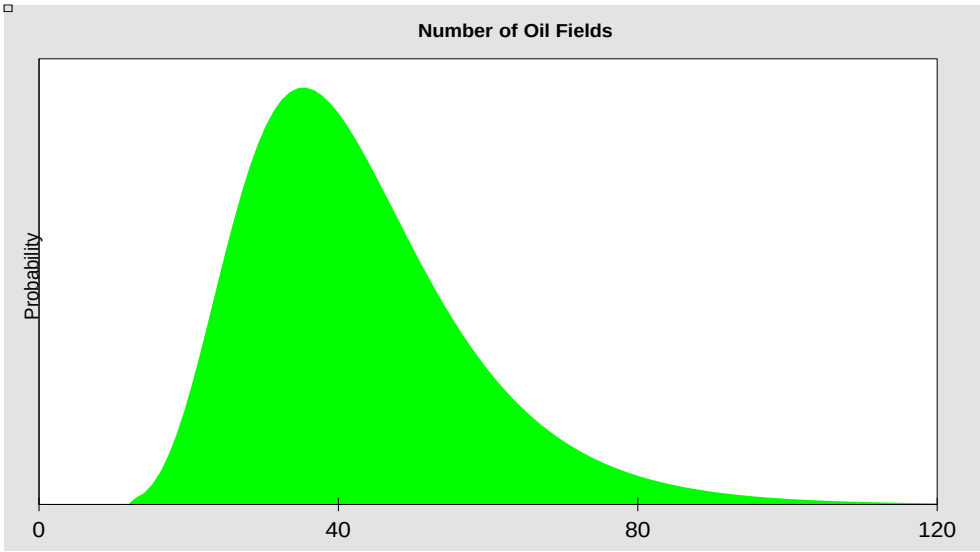
Percentiles:	Forecast values
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	1.00
45%	1.00
40%	1.00
35%	1.00
30%	1.00
25%	1.00
20%	1.00
15%	1.00
10%	1.00
5%	1.00
0%	1.00

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	41.63	42.63
Standard Deviation	15.53	15.53
Selected range is from -Infinity to 119.00		1.00 to 120.00



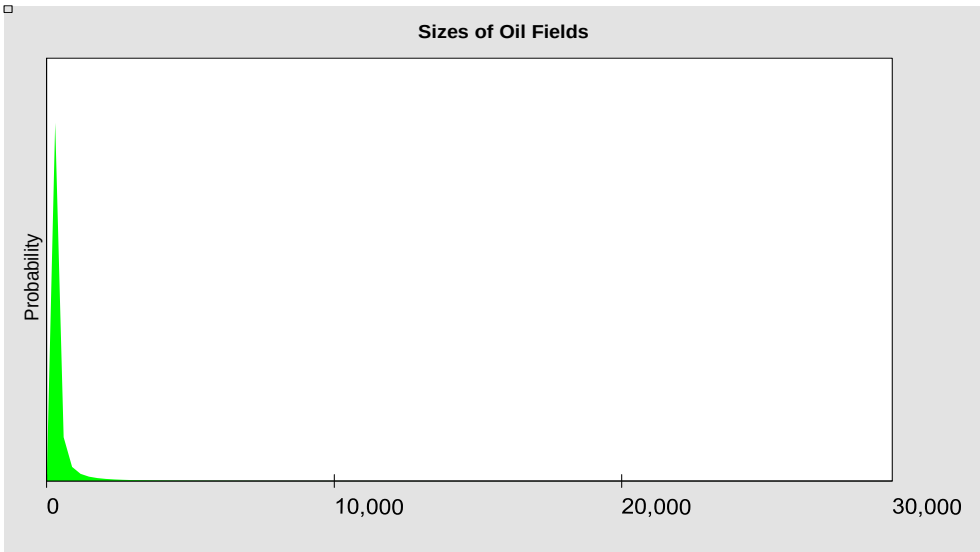
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	42.64	42.54
Median	40.06	39.98
Mode	---	---
Standard Deviation	15.42	15.27
Variance	237.66	233.08
Skewness	1.05	1.03
Kurtosis	4.57	4.51
Coefficient of Variability	0.3615	0.3589
Minimum	10.52	1.00
Maximum	119.48	120.00
Range Width	108.96	119.00
Mean Standard Error	0.07	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	10.52	1.00
95%	22.59	22.53
90%	25.61	25.55
85%	27.83	27.82
80%	29.80	29.77
75%	31.60	31.56
70%	33.26	33.26
65%	34.89	34.92
60%	36.58	36.58
55%	38.26	38.25
50%	40.06	39.98
45%	41.85	41.79
40%	43.70	43.71
35%	45.86	45.79
30%	48.13	48.09
25%	50.73	50.71
20%	53.92	53.79
15%	57.76	57.62
10%	63.15	62.83
5%	71.90	71.39
0%	119.48	120.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	452.92	502.92
Standard Deviation	3,388.85	3,388.85
Selected range is from -Infinity to 29,950.00		50.00 to 30,000.00



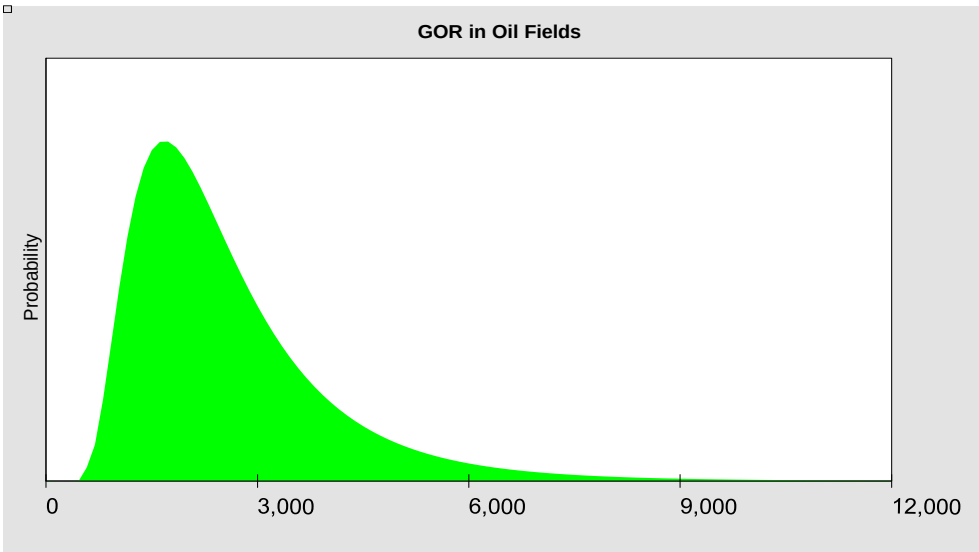
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	453.42	453.42
Median	108.79	109.85
Mode	---	---
Standard Deviation	1,439.71	1,376.94
Variance	2,072,759.37	1,895,954.57
Skewness	9.35	9.83
Kurtosis	119.78	134.59
Coefficient of Variability	3.18	3.04
Minimum	50.01	50.00
Maximum	29,419.38	30,000.00
Range Width	29,369.37	29,950.00
Mean Standard Error	6.44	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	50.01	50.00
95%	52.12	52.19
90%	54.44	54.56
85%	57.31	57.46
80%	60.69	61.03
75%	64.98	65.43
70%	70.36	70.87
65%	77.24	77.60
60%	85.49	85.98
55%	95.92	96.50
50%	108.79	109.85
45%	125.81	127.03
40%	148.33	149.55
35%	179.73	179.74
30%	220.51	221.52
25%	280.71	281.78
20%	376.72	374.02
15%	535.68	528.63
10%	841.75	831.19
5%	1,715.29	1,658.71
0%	29,419.38	30,000.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	2,308.85	2,558.85
Standard Deviation	1,463.73	1,463.73
Selected range is from -Infinity to 11,750.00		250.00 to 12,000.00



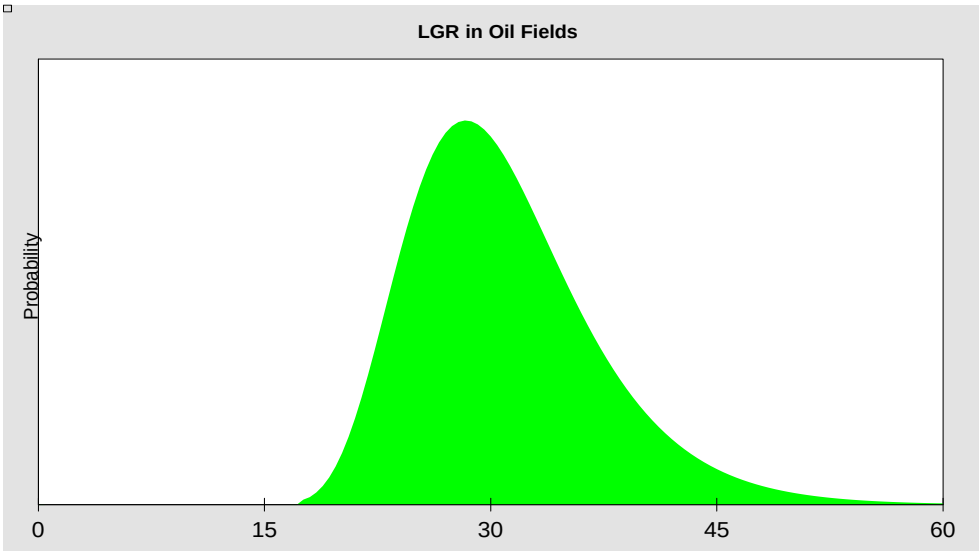
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	2,548.39	2,547.15
Median	2,198.50	2,198.58
Mode	---	---
Standard Deviation	1,420.16	1,415.03
Variance	2,016,852.10	2,002,319.00
Skewness	1.78	1.76
Kurtosis	7.73	7.68
Coefficient of Variability	0.5573	0.5555
Minimum	350.58	250.00
Maximum	11,967.16	12,000.00
Range Width	11,616.58	11,750.00
Mean Standard Error	6.35	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	350.58	250.00
95%	1,003.34	999.38
90%	1,180.60	1,175.53
85%	1,319.94	1,317.20
80%	1,446.11	1,445.10
75%	1,567.04	1,566.97
70%	1,685.77	1,686.95
65%	1,807.03	1,807.87
60%	1,929.44	1,931.98
55%	2,062.38	2,061.45
50%	2,198.47	2,198.58
45%	2,340.32	2,346.06
40%	2,497.68	2,507.33
35%	2,683.24	2,687.01
30%	2,883.65	2,891.80
25%	3,132.88	3,132.03
20%	3,421.54	3,425.14
15%	3,808.68	3,804.19
10%	4,345.26	4,344.90
5%	5,333.40	5,295.83
0%	11,967.16	12,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	20.90	30.9
Standard Deviation	6.34	6.34
Selected range is from -Infinity to 50.00		10.00 to 60.00



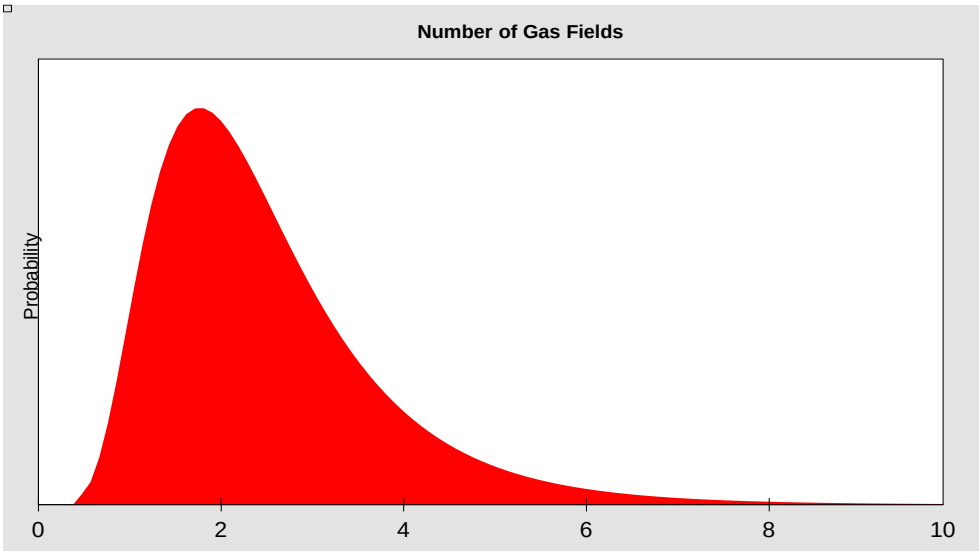
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	30.85	30.87
Median	30.00	29.99
Mode	---	---
Standard Deviation	6.20	6.25
Variance	38.45	39.04
Skewness	0.8193	0.8303
Kurtosis	3.94	3.95
Coefficient of Variability	0.2010	0.2024
Minimum	15.59	10.00
Maximum	60.00	60.00
Range Width	44.40	50.00
Mean Standard Error	0.03	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	15.59	10.00
95%	22.28	22.28
90%	23.69	23.67
85%	24.73	24.71
80%	25.61	25.58
75%	26.41	26.37
70%	27.15	27.12
65%	27.87	27.84
60%	28.58	28.55
55%	29.28	29.26
50%	30.00	29.99
45%	30.75	30.75
40%	31.54	31.55
35%	32.37	32.41
30%	33.32	33.35
25%	34.38	34.41
20%	35.60	35.65
15%	37.10	37.17
10%	39.08	39.20
5%	42.39	42.48
0%	60.00	60.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	2.25	3.25
Standard Deviation	1.16	1.16
Selected range is from -Infinity to 9.00		1.00 to 10.00



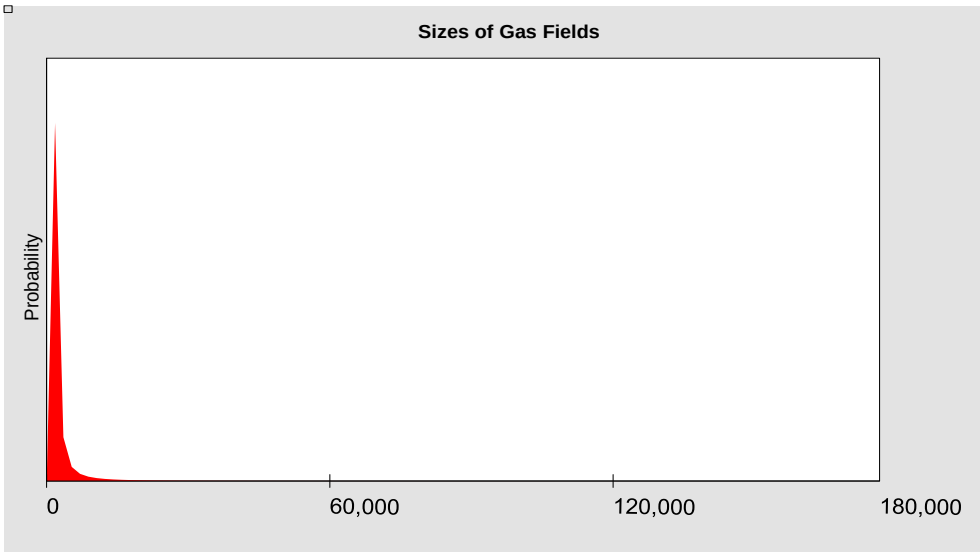
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	3.25	3.24
Median	3.00	3.00
Mode	---	---
Standard Deviation	1.14	1.13
Variance	1.30	1.29
Skewness	1.42	1.44
Kurtosis	5.94	6.06
Coefficient of Variability	0.3516	0.3499
Minimum	1.30	1.00
Maximum	9.97	10.00
Range Width	8.67	9.00
Mean Standard Error	0.01	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	1.30	1.00
95%	1.89	1.90
90%	2.07	2.07
85%	2.21	2.21
80%	2.32	2.33
75%	2.44	2.44
70%	2.55	2.55
65%	2.66	2.66
60%	2.77	2.77
55%	2.88	2.88
50%	3.00	3.00
45%	3.13	3.12
40%	3.26	3.26
35%	3.42	3.41
30%	3.59	3.58
25%	3.78	3.77
20%	4.02	4.01
15%	4.33	4.31
10%	4.74	4.72
5%	5.45	5.43
0%	9.97	10.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	2,717.54	3,017.54
Standard Deviation	20,333.11	20,333.11
Selected range is from -Infinity to 179,700.00		300.00 to 180,000.00



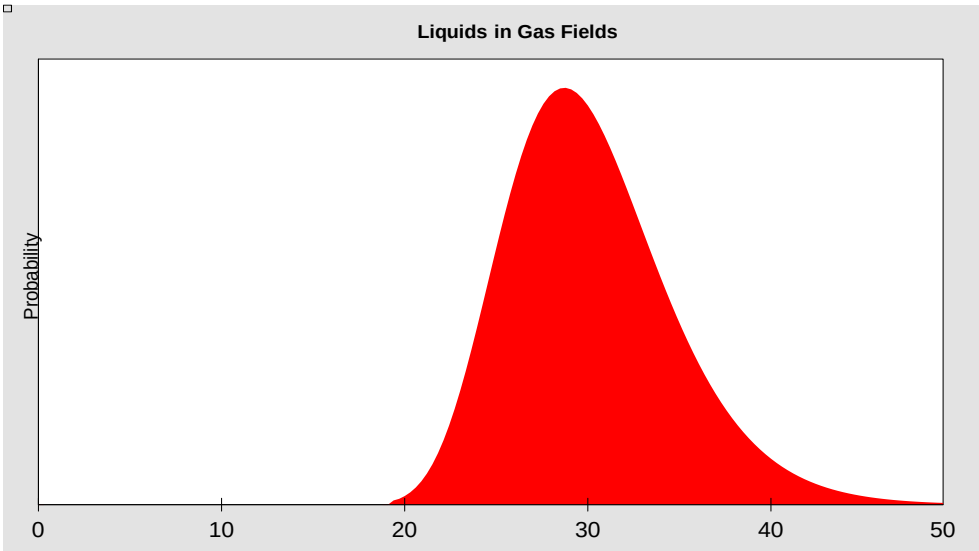
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	2,691.43	2,720.53
Median	660.97	659.09
Mode	---	---
Standard Deviation	8,455.01	8,261.62
Variance	71,487,268.23	68,254,364.38
Skewness	9.48	9.83
Kurtosis	124.20	134.59
Coefficient of Variability	3.14	3.04
Minimum	300.07	300.00
Maximum	178,662.05	180,000.00
Range Width	178,361.99	179,700.00
Mean Standard Error	37.81	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	300.07	300.00
95%	313.19	313.17
90%	327.07	327.34
85%	343.61	344.74
80%	365.00	366.18
75%	391.73	392.61
70%	425.06	425.21
65%	465.34	465.58
60%	516.10	515.86
55%	581.32	578.98
50%	660.95	659.09
45%	763.70	762.19
40%	902.60	897.27
35%	1,084.87	1,078.46
30%	1,341.78	1,329.11
25%	1,700.21	1,690.65
20%	2,258.32	2,244.14
15%	3,193.66	3,171.81
10%	5,054.60	4,987.17
5%	10,093.43	9,952.28
0%	178,662.05	180,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	20.51	30.51
Standard Deviation	4.66	4.66
Selected range is from -Infinity to 40.00		10.00 to 50.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	30.51	30.49
Median	30.04	29.99
Mode	---	---
Standard Deviation	4.60	4.61
Variance	21.13	21.23
Skewness	0.6028	0.6157
Kurtosis	3.46	3.47
Coefficient of Variability	0.1507	0.1511
Minimum	18.39	10.00
Maximum	49.99	50.00
Range Width	31.61	40.00
Mean Standard Error	0.02	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	18.39	10.00
95%	23.86	23.83
90%	25.00	25.00
85%	25.87	25.85
80%	26.57	26.56
75%	27.21	27.19
70%	27.81	27.78
65%	28.38	28.34
60%	28.94	28.89
55%	29.49	29.44
50%	30.04	29.99
45%	30.61	30.57
40%	31.20	31.16
35%	31.83	31.80
30%	32.51	32.49
25%	33.27	33.25
20%	34.14	34.14
15%	35.23	35.21
10%	36.64	36.63
5%	38.82	38.87
0%	49.99	50.00

End of Assumptions

Simulation started on 8/24/2009 at 15:29:13
Simulation stopped on 8/24/2009 at 15:50:11