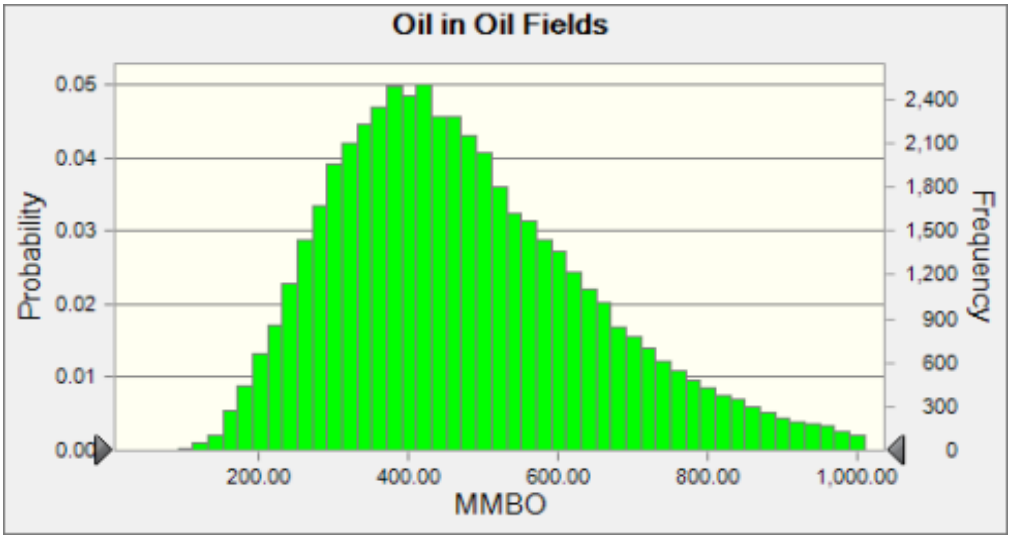
80440102
Mannar Basin
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 32.45 to 1,622.18
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.84



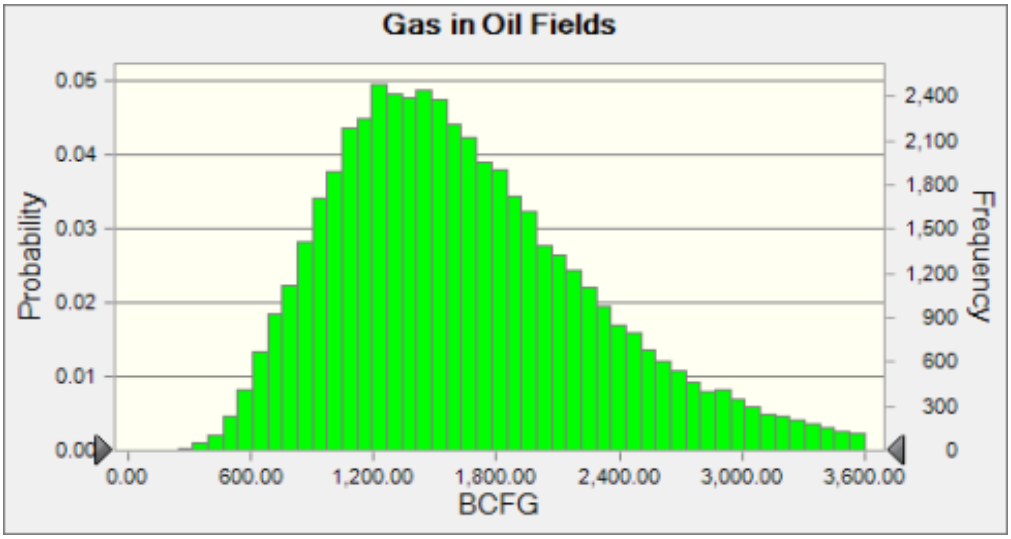
Statistics:	Forecast values
Trials	50,000
Mean	482.55
Median	451.42
Mode	---
Standard Deviation	188.49
Variance	35,528.35
Skewness	1.02
Kurtosis	4.58
Coefficient of Variability	0.3906
Minimum	32.45
Maximum	1,622.18
Range Width	1,589.72
Mean Standard Error	0.84

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	32.45
95%	233.54
90%	272.12
85%	300.45
80%	325.18
75%	347.61
70%	369.06
65%	389.19
60%	409.95
55%	429.92
50%	451.42
45%	473.24
40%	496.55
35%	522.54
30%	552.24
25%	585.38
20%	622.18
15%	668.45
10%	732.52
5%	837.32
0%	1,622.18

Forecast: Gas in Oil Fields

Summary:
Entire range is from 26.24 to 6,449.78
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 3.08



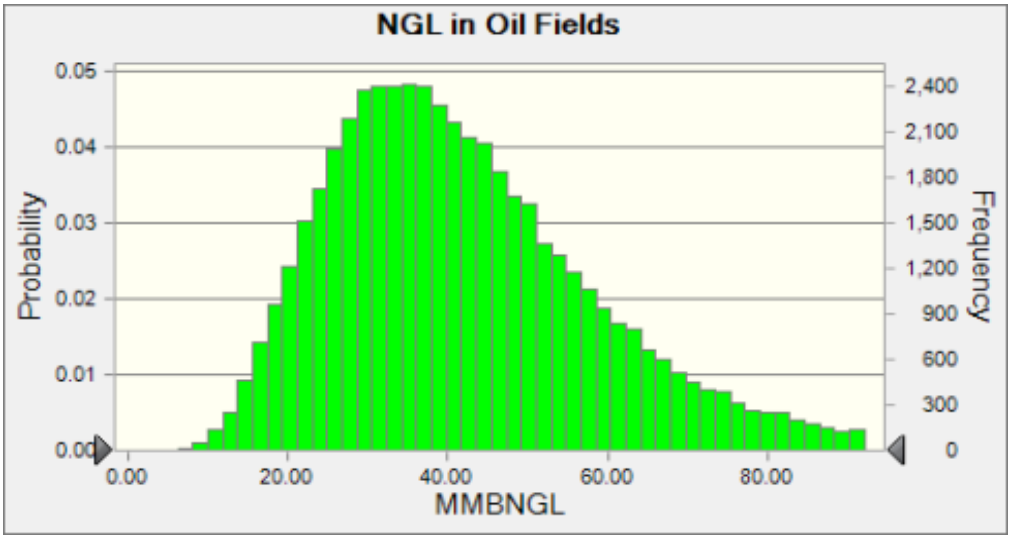
Statistics:	Forecast values
Trials	50,000
Mean	1,669.52
Median	1,553.70
Mode	---
Standard Deviation	687.61
Variance	472,805.47
Skewness	1.03
Kurtosis	4.61
Coefficient of Variability	0.4119
Minimum	26.24
Maximum	6,449.78
Range Width	6,423.54
Mean Standard Error	3.08

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	26.24
95%	761.83
90%	903.46
85%	1,006.70
80%	1,095.84
75%	1,176.41
70%	1,251.89
65%	1,326.29
60%	1,401.95
55%	1,476.89
50%	1,553.70
45%	1,636.29
40%	1,723.22
35%	1,816.44
30%	1,920.83
25%	2,040.42
20%	2,178.91
15%	2,349.08
10%	2,582.60
5%	2,969.07
0%	6,449.78

Forecast: NGL in Oil Fields

Summary:
Entire range is from 0.63 to 164.83
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.08



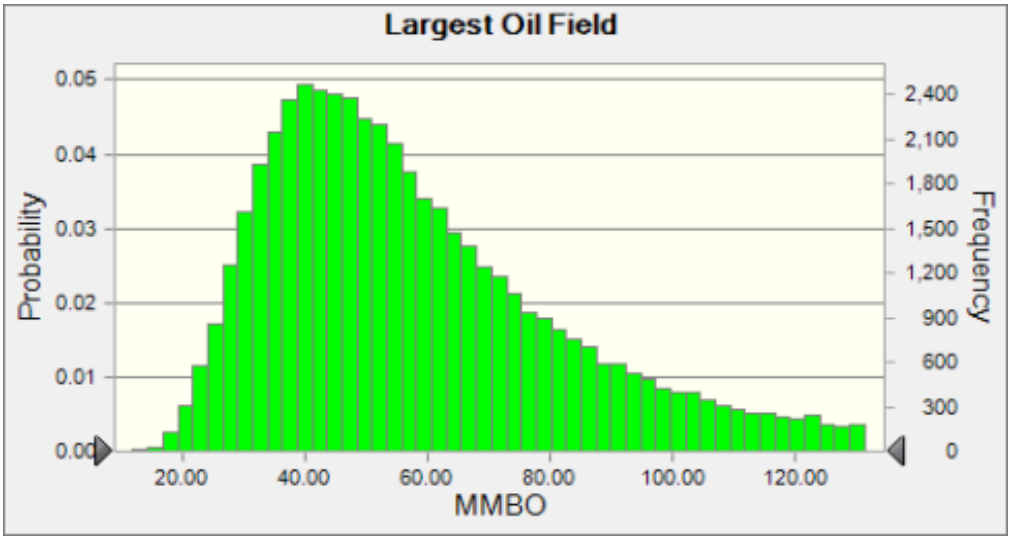
Statistics:	Forecast values
Trials	50,000
Mean	42.40
Median	39.41
Mode	---
Standard Deviation	17.75
Variance	315.04
Skewness	1.05
Kurtosis	4.70
Coefficient of Variability	0.4186
Minimum	0.63
Maximum	164.83
Range Width	164.20
Mean Standard Error	0.08

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	0.63
95%	19.15
90%	22.68
85%	25.34
80%	27.63
75%	29.65
70%	31.57
65%	33.53
60%	35.50
55%	37.39
50%	39.41
45%	41.56
40%	43.81
35%	46.17
30%	48.84
25%	51.86
20%	55.48
15%	59.97
10%	65.91
5%	75.94
0%	164.83

Forecast: Largest Oil Field

Summary:
Entire range is from 11.97 to 149.99
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.12



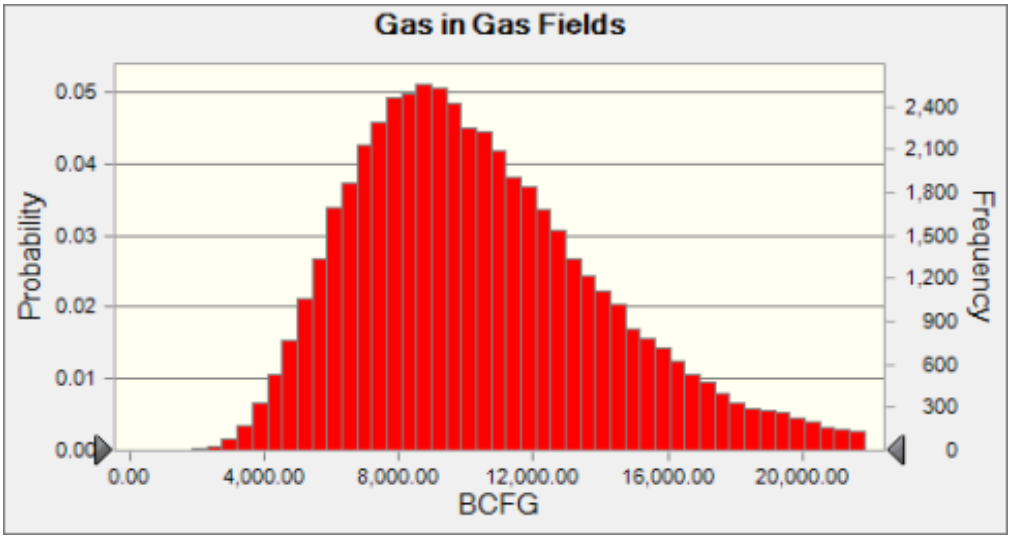
Statistics:	Forecast values
Trials	50,000
Mean	58.96
Median	52.94
Mode	---
Standard Deviation	25.81
Variance	666.08
Skewness	1.08
Kurtosis	3.90
Coefficient of Variability	0.4377
Minimum	11.97
Maximum	149.99
Range Width	138.02
Mean Standard Error	0.12

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	11.97
95%	27.76
90%	31.73
85%	34.83
80%	37.49
75%	39.96
70%	42.48
65%	44.97
60%	47.55
55%	50.19
50%	52.94
45%	55.87
40%	59.19
35%	62.84
30%	67.06
25%	71.90
20%	77.93
15%	85.43
10%	96.07
5%	112.81
0%	149.99

Forecast: Gas in Gas Fields

Summary:
Entire range is from 72.06 to 34,098.02
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 18.03



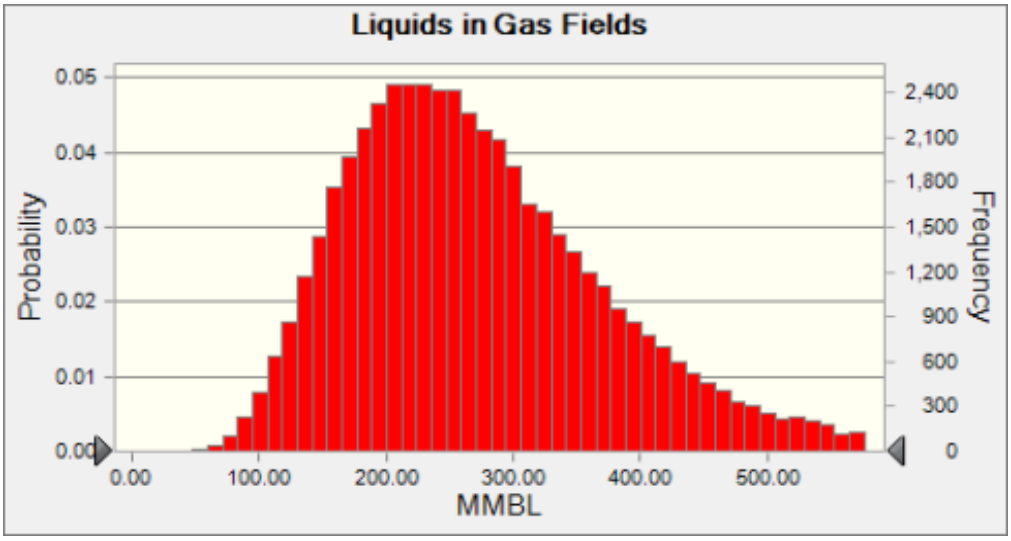
Statistics:	Forecast values
Trials	50,000
Mean	10,558.99
Median	9,897.26
Mode	---
Standard Deviation	4,030.68
Variance	16,246,407.45
Skewness	0.9926
Kurtosis	4.43
Coefficient of Variability	0.3817
Minimum	72.06
Maximum	34,098.02
Range Width	34,025.96
Mean Standard Error	18.03

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	72.06
95%	5,222.05
90%	6,047.20
85%	6,650.15
80%	7,183.59
75%	7,661.60
70%	8,113.61
65%	8,560.26
60%	8,999.57
55%	9,436.53
50%	9,897.11
45%	10,396.31
40%	10,902.37
35%	11,458.28
30%	12,063.43
25%	12,738.92
20%	13,553.84
15%	14,557.87
10%	15,905.09
5%	18,152.69
0%	34,098.02

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 1.08 to 944.72
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.48



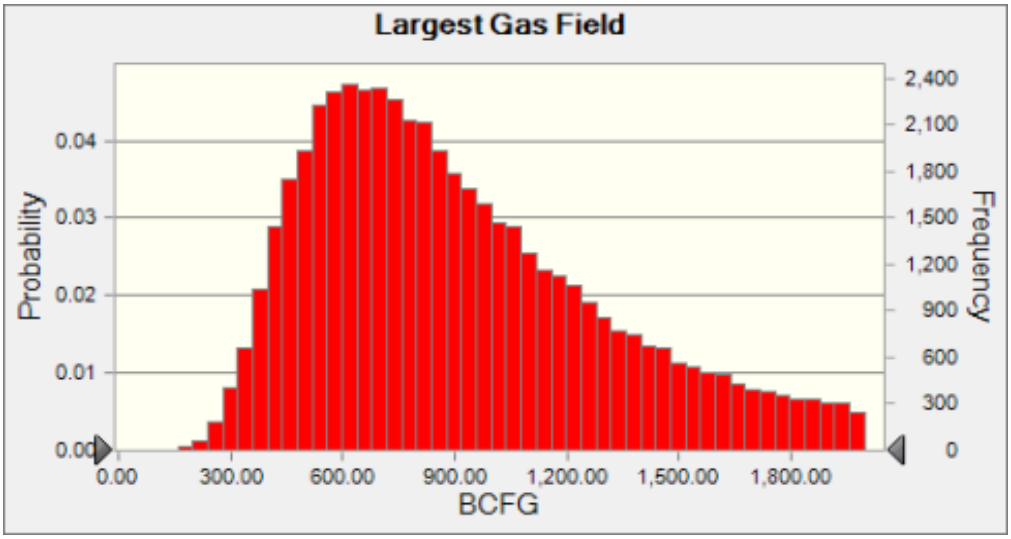
Statistics:	Forecast values
Trials	50,000
Mean	275.04
Median	257.76
Mode	---
Standard Deviation	107.58
Variance	11,574.28
Skewness	0.9896
Kurtosis	4.42
Coefficient of Variability	0.3912
Minimum	1.08
Maximum	944.72
Range Width	943.64
Mean Standard Error	0.48

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	1.08
95%	132.93
90%	154.42
85%	170.54
80%	184.53
75%	197.27
70%	209.48
65%	221.41
60%	233.41
55%	245.46
50%	257.76
45%	270.50
40%	284.48
35%	298.75
30%	315.31
25%	333.98
20%	355.24
15%	382.00
10%	417.68
5%	476.98
0%	944.72

Forecast: Largest Gas Field

Summary:
Entire range is from 37.96 to 1,999.88
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.74



Statistics:	Forecast values
Trials	50,000
Mean	905.32
Median	826.44
Mode	---
Standard Deviation	389.29
Variance	151,545.05
Skewness	0.7426
Kurtosis	2.89
Coefficient of Variability	0.4300
Minimum	37.96
Maximum	1,999.88
Range Width	1,961.92
Mean Standard Error	1.74

Forecast: Largest Gas Field (continued)

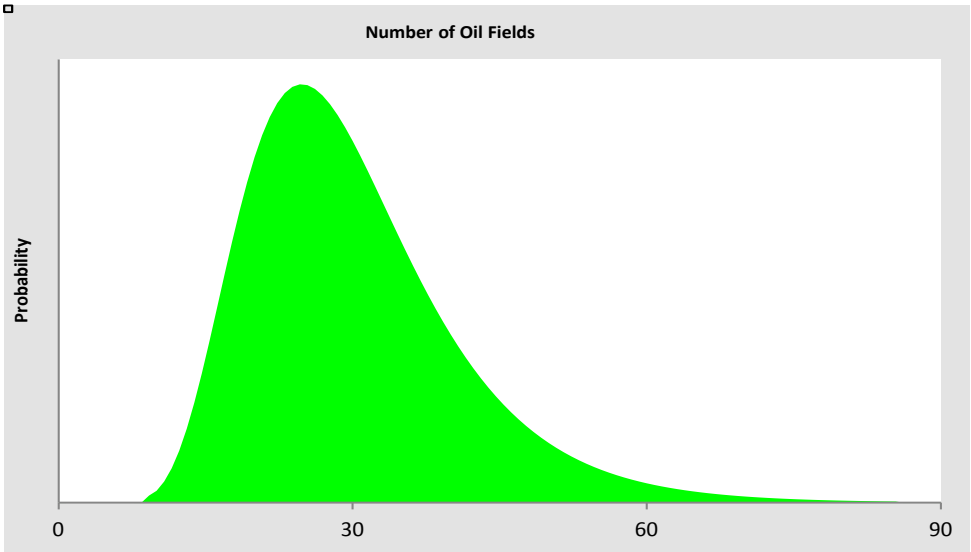
Percentiles:	BCFG
100%	37.96
95%	401.52
90%	465.97
85%	517.60
80%	562.48
75%	605.14
70%	646.58
65%	690.57
60%	733.32
55%	778.90
50%	826.44
45%	876.62
40%	933.21
35%	994.88
30%	1,063.29
25%	1,141.74
20%	1,231.06
15%	1,342.70
10%	1,488.40
5%	1,691.68
0%	1,999.88

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	28.88	29.88
Standard Deviation	10.98	10.98
Selected range is from -Infinity to 84.00		1.00 to 85.00



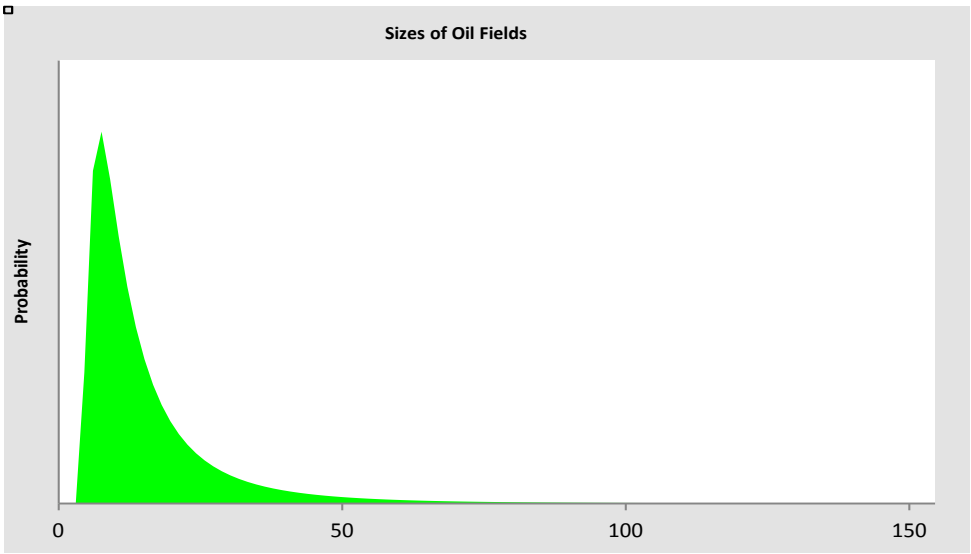
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	29.88	29.82
Median	28.08	27.99
Mode	---	---
Standard Deviation	10.80	10.79
Variance	116.56	116.36
Skewness	1.06	1.05
Kurtosis	4.66	4.57
Coefficient of Variability	0.3613	0.3617
Minimum	7.42	1.00
Maximum	84.97	85.00
Range Width	77.55	84.00
Mean Standard Error	0.05	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	7.42	1.00
95%	15.77	15.75
90%	17.87	17.86
85%	19.49	19.45
80%	20.88	20.82
75%	22.19	22.07
70%	23.40	23.26
65%	24.54	24.43
60%	25.69	25.59
55%	26.84	26.77
50%	28.07	27.99
45%	29.34	29.26
40%	30.65	30.62
35%	32.12	32.08
30%	33.75	33.71
25%	35.57	35.56
20%	37.71	37.74
15%	40.45	40.46
10%	44.14	44.15
5%	50.35	50.24
0%	84.97	85.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	11.32	16.32
Standard Deviation	14.40	14.4
Selected range is from -Infinity to 145.00		5.00 to 150.00



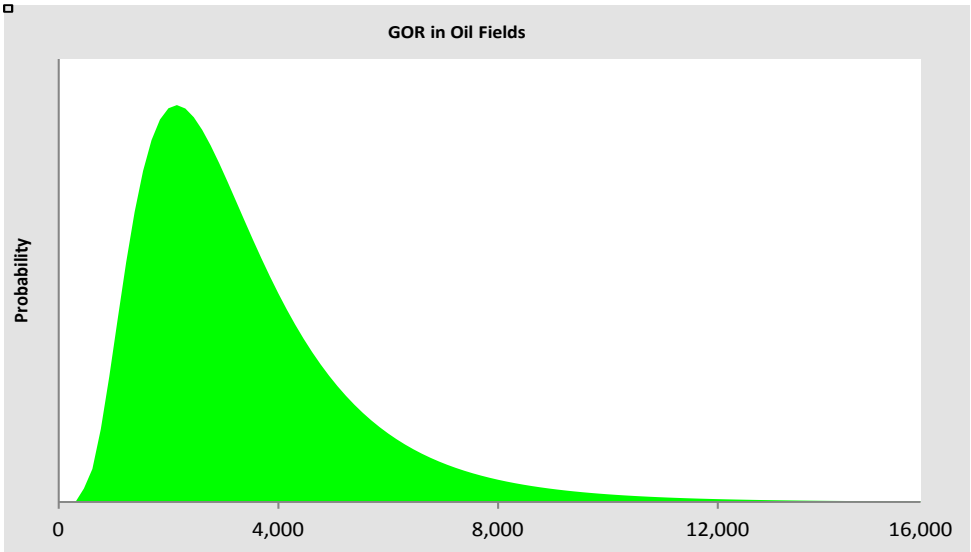
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	16.12	16.14
Median	12.08	11.99
Mode	---	---
Standard Deviation	12.86	12.98
Variance	165.25	168.39
Skewness	3.43	3.45
Kurtosis	20.68	20.91
Coefficient of Variability	0.80	0.80
Minimum	5.10	5.00
Maximum	149.98	150.00
Range Width	144.89	145.00
Mean Standard Error	0.06	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	5.10	5.00
95%	6.39	6.39
90%	6.99	6.99
85%	7.56	7.53
80%	8.08	8.06
75%	8.62	8.61
70%	9.21	9.18
65%	9.85	9.79
60%	10.51	10.45
55%	11.26	11.18
50%	12.08	11.99
45%	13.01	12.91
40%	14.02	13.96
35%	15.23	15.20
30%	16.66	16.68
25%	18.52	18.53
20%	20.83	20.94
15%	24.09	24.28
10%	29.48	29.48
5%	39.58	39.82
0%	149.98	150.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	36
Mean	3,438.40	3,474.40
Standard Deviation	2,021.74	2,021.74
Selected range is from -Infinity to 15,964.00		36.00 to 16,000.00



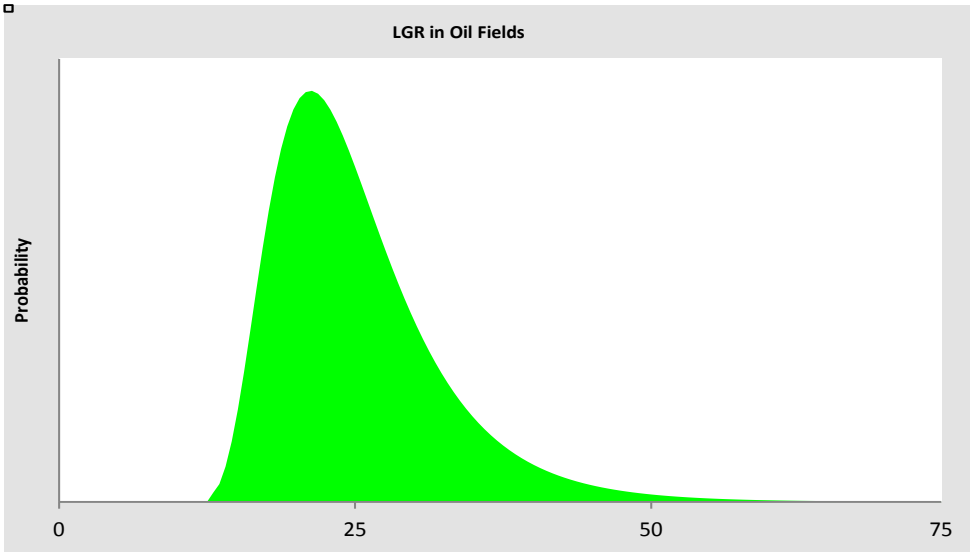
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	3,461.97	3,459.04
Median	3,005.84	2,997.97
Mode	---	---
Standard Deviation	1,949.15	1,961.34
Variance	3,799,189.07	3,846,847.85
Skewness	1.61	1.64
Kurtosis	6.82	7.00
Coefficient of Variability	0.5630	0.5670
Minimum	398.19	36.00
Maximum	15,987.54	16,000.00
Range Width	15,589.35	15,964.00
Mean Standard Error	8.72	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	398.19	36.00
95%	1,259.53	1,245.21
90%	1,515.56	1,509.87
85%	1,726.05	1,720.41
80%	1,909.71	1,908.99
75%	2,088.43	2,087.50
70%	2,265.76	2,262.24
65%	2,439.12	2,437.41
60%	2,624.14	2,616.34
55%	2,809.18	2,802.12
50%	3,005.82	2,997.97
45%	3,220.37	3,207.67
40%	3,449.09	3,435.90
35%	3,695.46	3,689.01
30%	3,984.24	3,976.07
25%	4,327.47	4,311.05
20%	4,730.48	4,717.40
15%	5,240.34	5,239.47
10%	5,953.90	5,978.28
5%	7,261.60	7,263.29
0%	15,987.54	16,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	10
Mean	15.44	25.44
Standard Deviation	7.19	7.19
Selected range is from -Infinity to 55.00		10.00 to 65.00



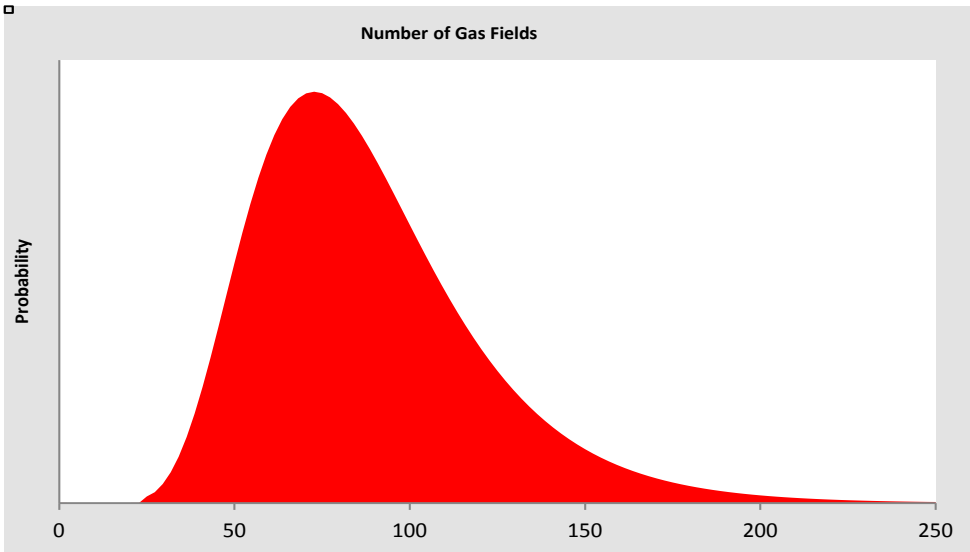
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	25.38	25.39
Median	23.99	23.99
Mode	---	---
Standard Deviation	6.99	7.03
Variance	48.80	49.41
Skewness	1.30	1.29
Kurtosis	5.59	5.44
Coefficient of Variability	0.2752	0.2768
Minimum	12.65	10.00
Maximum	64.93	65.00
Range Width	52.28	55.00
Mean Standard Error	0.03	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	12.65	10.00
95%	16.78	16.76
90%	17.98	17.94
85%	18.88	18.84
80%	19.67	19.64
75%	20.41	20.38
70%	21.12	21.09
65%	21.83	21.80
60%	22.52	22.51
55%	23.25	23.24
50%	23.99	23.99
45%	24.77	24.79
40%	25.64	25.65
35%	26.58	26.59
30%	27.63	27.64
25%	28.82	28.85
20%	30.25	30.30
15%	32.10	32.12
10%	34.54	34.64
5%	38.67	38.89
0%	64.93	65.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	88.42	89.42
Standard Deviation	32.46	32.46
Selected range is from -Infinity to 249.00		1.00 to 250.00



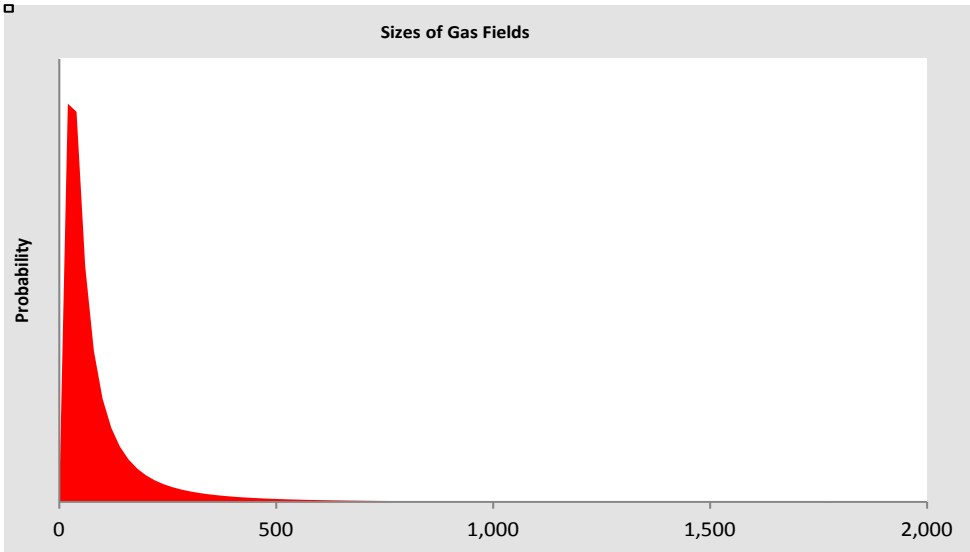
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	89.25	89.23
Median	83.87	83.96
Mode	---	---
Standard Deviation	32.08	31.91
Variance	1,028.82	1,018.39
Skewness	1.03	1.01
Kurtosis	4.51	4.46
Coefficient of Variability	0.3594	0.3577
Minimum	19.06	1.00
Maximum	249.53	250.00
Range Width	230.47	249.00
Mean Standard Error	0.14	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	19.06	1.00
95%	47.11	47.24
90%	53.46	53.61
85%	58.34	58.40
80%	62.44	62.52
75%	66.26	66.28
70%	69.84	69.86
65%	73.27	73.35
60%	76.77	76.82
55%	80.30	80.34
50%	83.87	83.96
45%	87.73	87.75
40%	91.77	91.77
35%	96.29	96.13
30%	100.97	100.94
25%	106.33	106.40
20%	112.87	112.84
15%	120.90	120.83
10%	132.02	131.67
5%	149.52	149.47
0%	249.53	250.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	30
Mean	91.21	121.21
Standard Deviation	175.81	175.81
Selected range is from -Infinity to 1,970.00		30.00 to 2,000.00



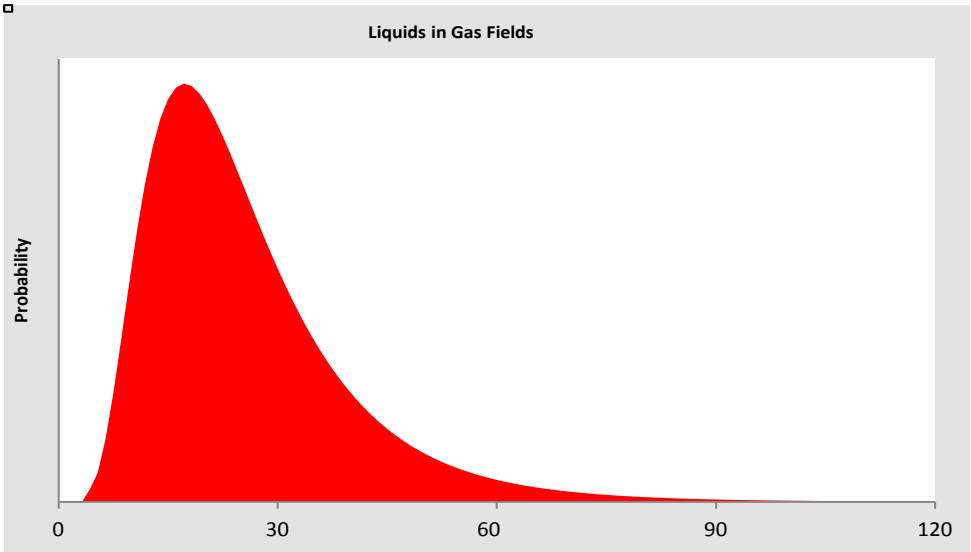
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	117.99	118.32
Median	71.90	71.93
Mode	---	---
Standard Deviation	143.01	143.84
Variance	20,453.01	20,690.29
Skewness	4.88	4.86
Kurtosis	38.06	37.74
Coefficient of Variability	1.21	1.22
Minimum	30.17	30.00
Maximum	1,990.89	2,000.00
Range Width	1,960.72	1,970.00
Mean Standard Error	0.64	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	30.17	30.00
95%	35.45	35.41
90%	38.50	38.51
85%	41.61	41.54
80%	44.81	44.71
75%	48.22	48.11
70%	51.80	51.84
65%	55.96	55.96
60%	60.60	60.60
55%	65.82	65.86
50%	71.90	71.93
45%	79.18	79.03
40%	87.60	87.47
35%	98.03	97.72
30%	110.73	110.50
25%	126.93	127.00
20%	148.94	149.37
15%	180.40	182.00
10%	235.07	235.88
5%	349.12	352.04
0%	1,990.89	2,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	25.16	26.16
Standard Deviation	13.95	13.95
Selected range is from -Infinity to 109.00		1.00 to 110.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	26.14	26.06
Median	23.12	22.99
Mode	---	---
Standard Deviation	13.58	13.57
Variance	184.28	184.12
Skewness	1.55	1.54
Kurtosis	6.62	6.54
Coefficient of Variability	0.5194	0.5208
Minimum	2.90	1.00
Maximum	109.36	110.00
Range Width	106.46	109.00
Mean Standard Error	0.06	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	2.90	1.00
95%	10.48	10.38
90%	12.39	12.33
85%	13.92	13.86
80%	15.30	15.22
75%	16.59	16.51
70%	17.85	17.76
65%	19.11	19.01
60%	20.40	20.28
55%	21.73	21.60
50%	23.12	22.99
45%	24.52	24.46
40%	26.15	26.06
35%	27.91	27.83
30%	29.87	29.83
25%	32.22	32.16
20%	34.99	34.97
15%	38.62	38.56
10%	43.66	43.61
5%	52.44	52.32
0%	109.36	110.00

End of Assumptions

Simulation started on 12/2/2011 at 8:34 AM
Simulation stopped on 12/2/2011 at 8:43 AM