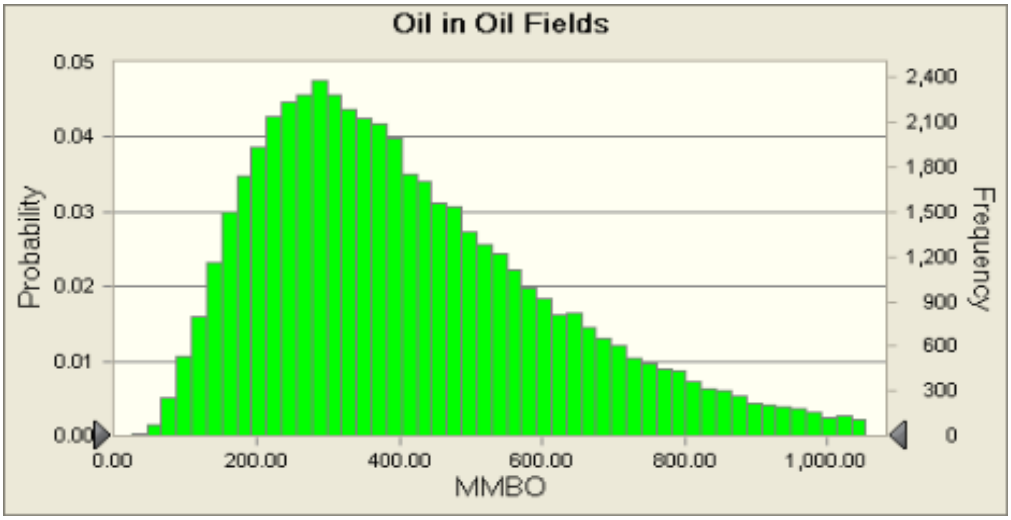
11090201
South Mangyshlak
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 23.97 to 2,225.13
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.01



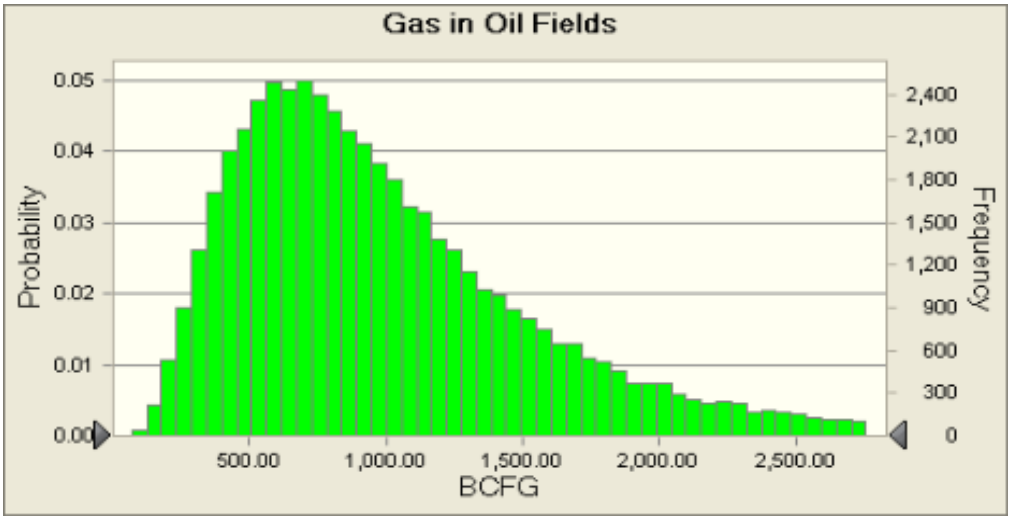
Statistics:	Forecast values
Trials	50,000
Mean	421.70
Median	374.49
Mode	---
Standard Deviation	226.06
Variance	51,103.31
Skewness	1.22
Kurtosis	5.12
Coefficient of Variability	0.5361
Minimum	23.97
Maximum	2,225.13
Range Width	2,201.16
Mean Standard Error	1.01

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	23.97
95%	145.05
90%	180.15
85%	208.09
80%	233.10
75%	256.62
70%	279.76
65%	301.74
60%	324.85
55%	349.28
50%	374.49
45%	400.46
40%	430.14
35%	462.70
30%	497.69
25%	538.78
20%	587.42
15%	648.14
10%	727.48
5%	855.42
0%	2,225.13

Forecast: Gas in Oil Fields

Summary:
Entire range is from 68.74 to 8,072.93
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.77



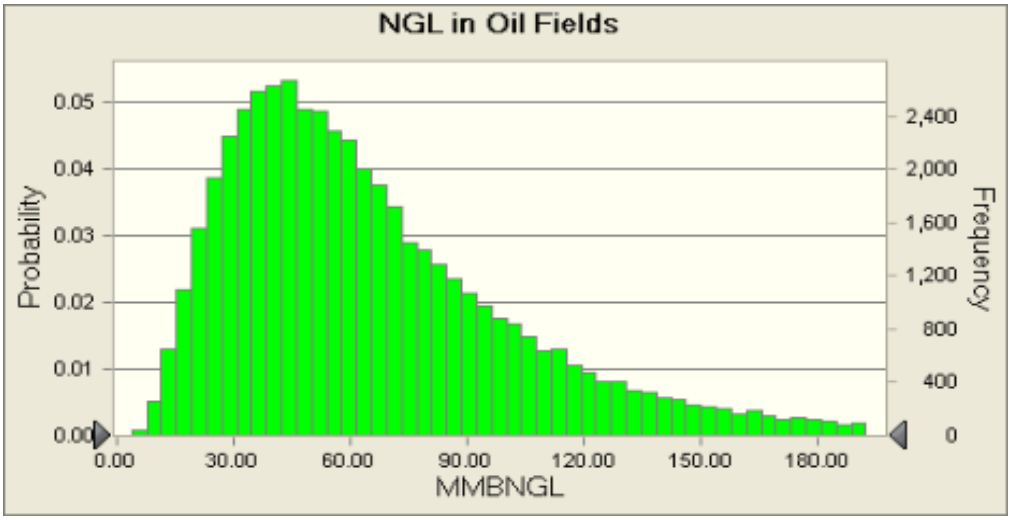
Statistics:	Forecast values
Trials	50,000
Mean	1,022.99
Median	878.71
Mode	---
Standard Deviation	618.85
Variance	382,974.66
Skewness	1.72
Kurtosis	8.24
Coefficient of Variability	0.6049
Minimum	68.74
Maximum	8,072.93
Range Width	8,004.18
Mean Standard Error	2.77

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	68.74
95%	323.66
90%	407.10
85%	473.25
80%	534.49
75%	590.32
70%	646.17
65%	702.00
60%	757.81
55%	816.19
50%	878.70
45%	945.46
40%	1,017.91
35%	1,098.01
30%	1,188.01
25%	1,292.35
20%	1,423.25
15%	1,585.26
10%	1,813.30
5%	2,223.42
0%	8,072.93

Forecast: NGL in Oil Fields

Summary:
Entire range is from 3.89 to 703.90
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.20



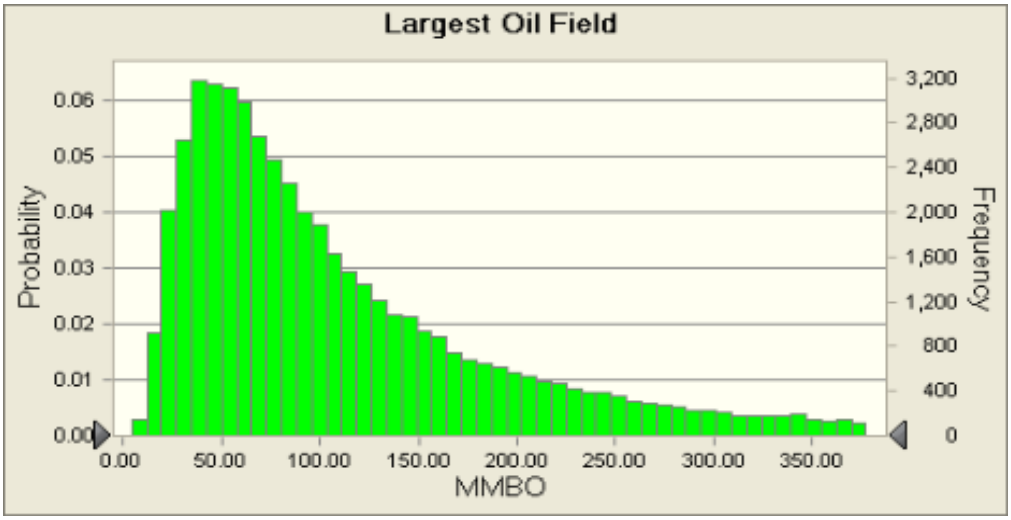
Statistics:	Forecast values
Trials	50,000
Mean	68.09
Median	57.36
Mode	---
Standard Deviation	44.48
Variance	1,978.87
Skewness	2.20
Kurtosis	12.59
Coefficient of Variability	0.6534
Minimum	3.89
Maximum	703.90
Range Width	700.01
Mean Standard Error	0.20

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	3.89
95%	20.54
90%	26.04
85%	30.41
80%	34.38
75%	38.11
70%	41.85
65%	45.43
60%	49.26
55%	53.21
50%	57.35
45%	61.75
40%	66.64
35%	71.88
30%	78.36
25%	85.76
20%	94.59
15%	105.73
10%	121.86
5%	151.70
0%	703.90

Forecast: Largest Oil Field

Summary:
Entire range is from 4.00 to 499.76
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.42



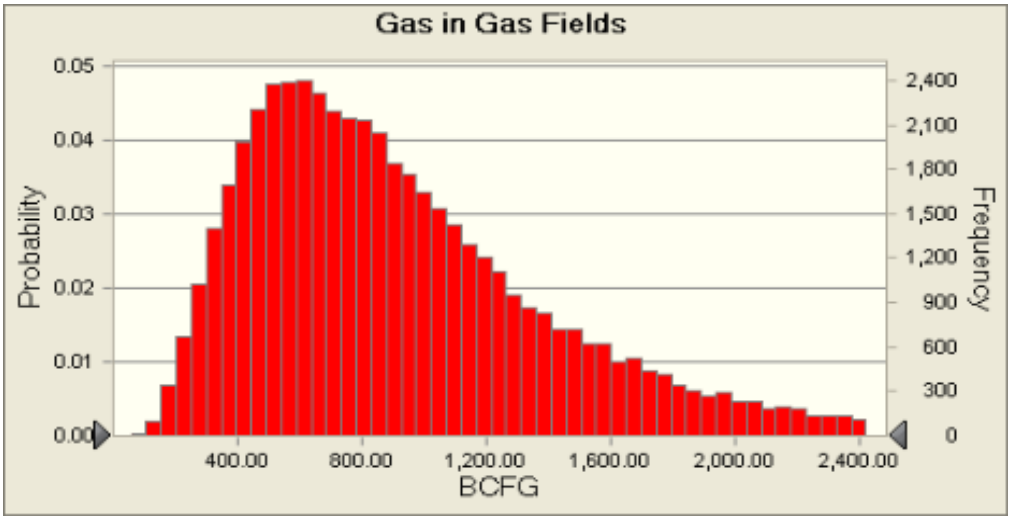
Statistics:	Forecast values
Trials	50,000
Mean	116.31
Median	85.87
Mode	---
Standard Deviation	93.33
Variance	8,709.65
Skewness	1.63
Kurtosis	5.55
Coefficient of Variability	0.8024
Minimum	4.00
Maximum	499.76
Range Width	495.76
Mean Standard Error	0.42

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	4.00
95%	24.97
90%	32.48
85%	38.85
80%	44.69
75%	50.76
70%	56.94
65%	63.23
60%	70.31
55%	77.56
50%	85.87
45%	95.23
40%	105.62
35%	118.07
30%	132.74
25%	150.58
20%	172.91
15%	203.73
10%	247.14
5%	323.50
0%	499.76

Forecast: Gas in Gas Fields

Summary:
Entire range is from 60.85 to 5,357.29
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.37



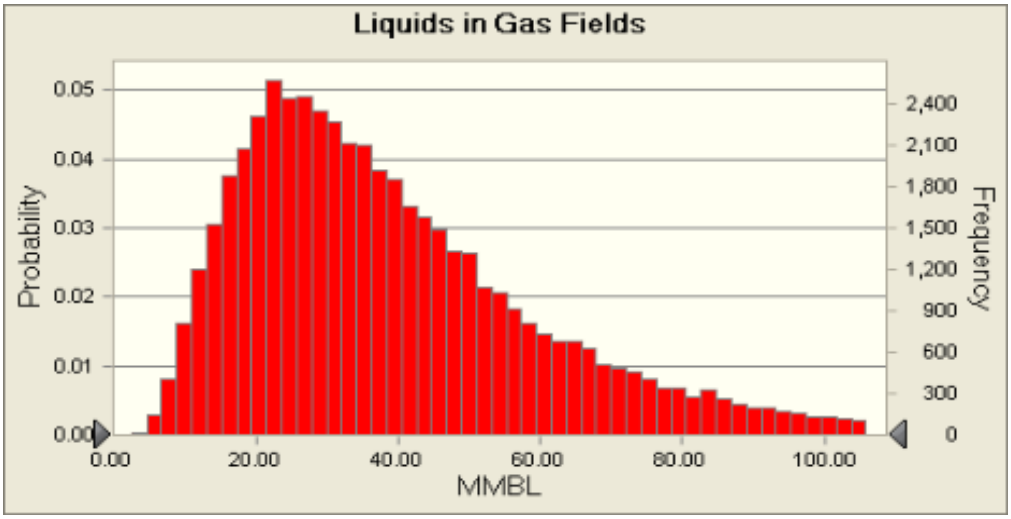
Statistics:	Forecast values
Trials	50,000
Mean	939.98
Median	824.08
Mode	---
Standard Deviation	529.34
Variance	280,204.21
Skewness	1.40
Kurtosis	5.97
Coefficient of Variability	0.5631
Minimum	60.85
Maximum	5,357.29
Range Width	5,296.44
Mean Standard Error	2.37

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	60.85
95%	315.40
90%	392.17
85%	452.37
80%	507.53
75%	556.27
70%	606.71
65%	658.28
60%	711.57
55%	766.57
50%	824.07
45%	882.73
40%	948.15
35%	1,020.24
30%	1,100.07
25%	1,193.17
20%	1,306.23
15%	1,454.36
10%	1,648.55
5%	1,971.87
0%	5,357.29

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 2.49 to 253.21
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.11



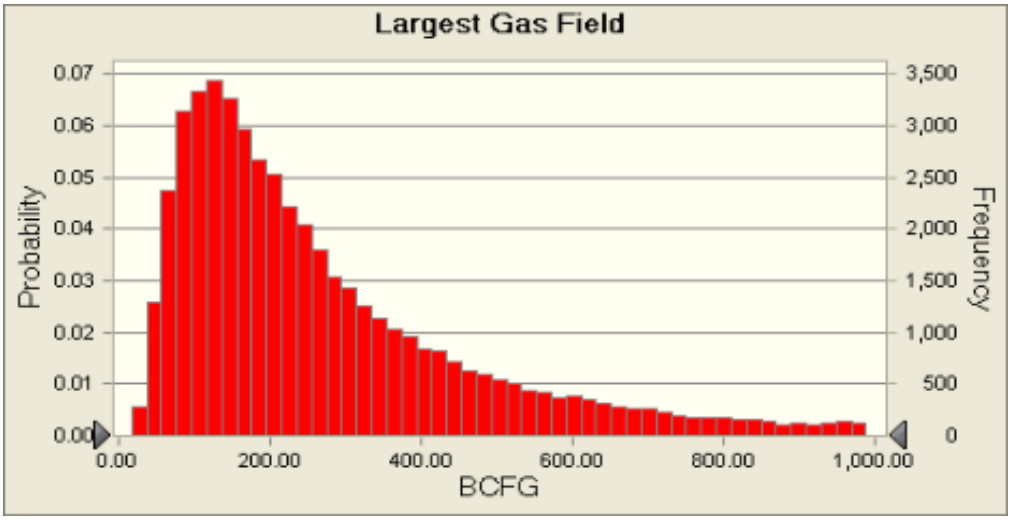
Statistics:	Forecast values
Trials	50,000
Mean	40.00
Median	34.62
Mode	---
Standard Deviation	23.54
Variance	554.00
Skewness	1.57
Kurtosis	7.00
Coefficient of Variability	0.5885
Minimum	2.49
Maximum	253.21
Range Width	250.72
Mean Standard Error	0.11

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	2.49
95%	12.93
90%	16.19
85%	18.82
80%	21.18
75%	23.24
70%	25.42
65%	27.53
60%	29.77
55%	32.12
50%	34.62
45%	37.22
40%	40.01
35%	43.20
30%	46.63
25%	50.62
20%	55.54
15%	62.16
10%	70.92
5%	85.57
0%	253.21

Forecast: Largest Gas Field

Summary:
Entire range is from 16.74 to 1,499.03
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.11



Statistics:	Forecast values
Trials	50,000
Mean	293.33
Median	212.88
Mode	---
Standard Deviation	248.09
Variance	61,546.49
Skewness	1.97
Kurtosis	7.38
Coefficient of Variability	0.8458
Minimum	16.74
Maximum	1,499.03
Range Width	1,482.29
Mean Standard Error	1.11

Forecast: Largest Gas Field (continued)

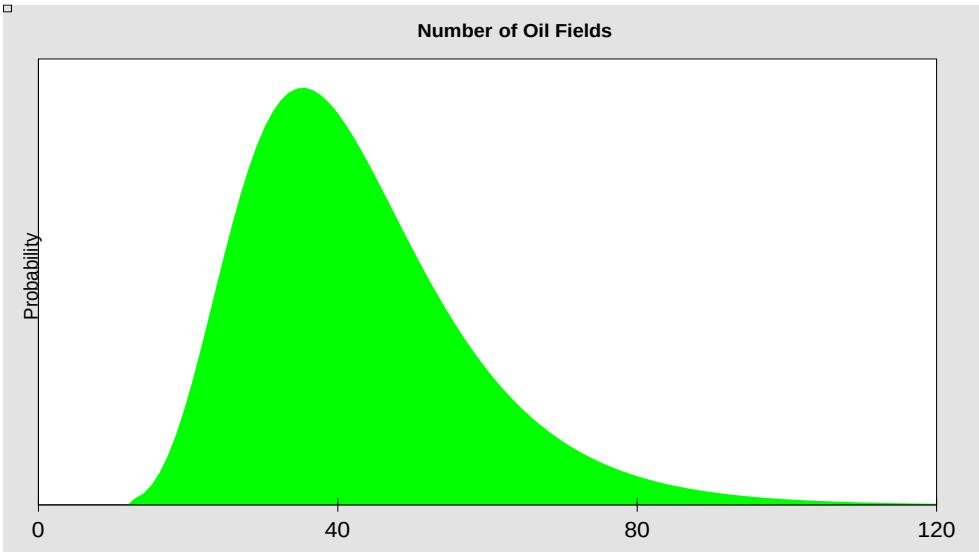
Percentiles:	BCFG
100%	16.74
95%	64.78
90%	83.23
85%	98.60
80%	113.27
75%	127.66
70%	142.59
65%	157.94
60%	174.78
55%	193.14
50%	212.88
45%	234.92
40%	259.30
35%	289.09
30%	325.23
25%	368.60
20%	424.29
15%	499.89
10%	614.72
5%	825.27
0%	1,499.03

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



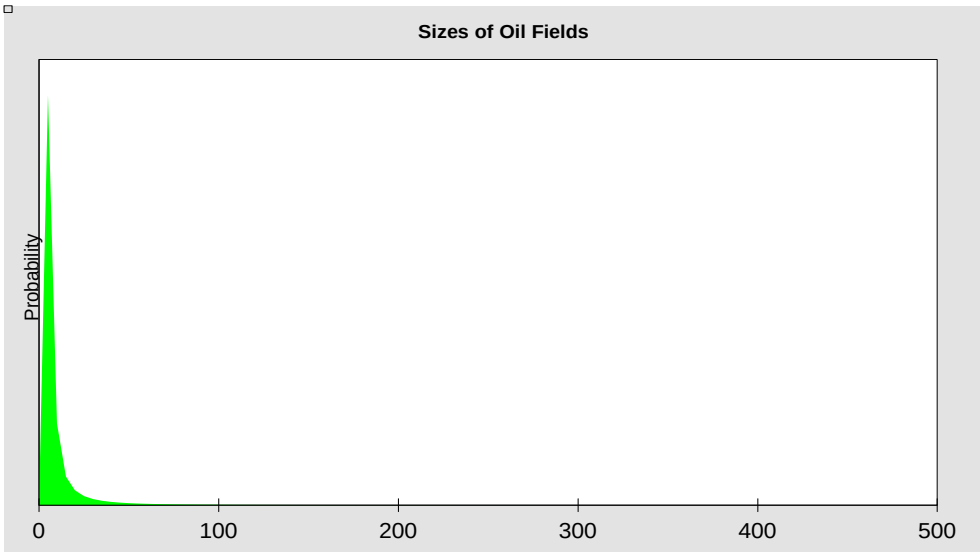
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	42.55	42.54
Median	39.94	39.98
Mode	---	---
Standard Deviation	15.34	15.27
Variance	235.27	233.08
Skewness	1.03	1.03
Kurtosis	4.54	4.51
Coefficient of Variability	0.3605	0.3589
Minimum	8.83	1.00
Maximum	119.34	120.00
Range Width	110.51	119.00
Mean Standard Error	0.07	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	8.83	1.00
95%	22.43	22.53
90%	25.46	25.55
85%	27.78	27.82
80%	29.81	29.77
75%	31.55	31.56
70%	33.29	33.26
65%	34.94	34.92
60%	36.62	36.58
55%	38.26	38.25
50%	39.94	39.98
45%	41.75	41.79
40%	43.65	43.71
35%	45.77	45.79
30%	48.10	48.09
25%	50.71	50.71
20%	53.85	53.79
15%	57.64	57.62
10%	62.98	62.83
5%	71.77	71.39
0%	119.34	120.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	9.86	10.86
Standard Deviation	47.60	47.6
Selected range is from -Infinity to 499.00		1.00 to 500.00



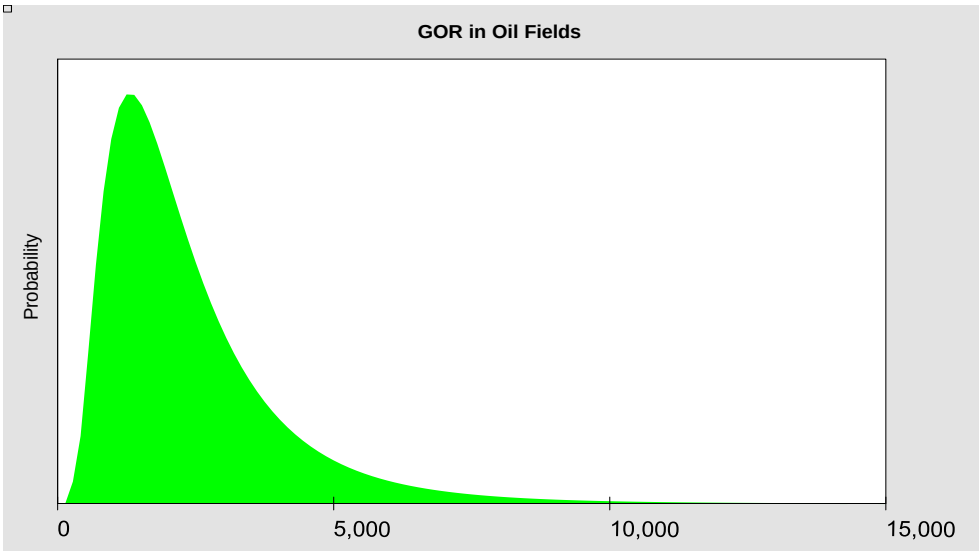
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	10.00	10.04
Median	3.01	3.00
Mode	---	---
Standard Deviation	26.44	25.75
Variance	698.84	662.86
Skewness	8.42	8.29
Kurtosis	100.52	98.71
Coefficient of Variability	2.64	2.56
Minimum	1.00	1.00
Maximum	493.88	500.00
Range Width	492.88	499.00
Mean Standard Error	0.12	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	1.00	1.00
95%	1.11	1.11
90%	1.21	1.20
85%	1.32	1.31
80%	1.45	1.44
75%	1.61	1.60
70%	1.79	1.78
65%	2.01	2.00
60%	2.28	2.27
55%	2.61	2.59
50%	3.01	3.00
45%	3.50	3.50
40%	4.11	4.14
35%	4.94	4.97
30%	6.08	6.08
25%	7.65	7.64
20%	9.89	9.95
15%	13.64	13.65
10%	20.67	20.55
5%	38.27	38.15
0%	493.88	500.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	2,337.86	2,437.86
Standard Deviation	1,676.13	1,676.13
Selected range is from -Infinity to 13,900.00		100.00 to 14,000.00



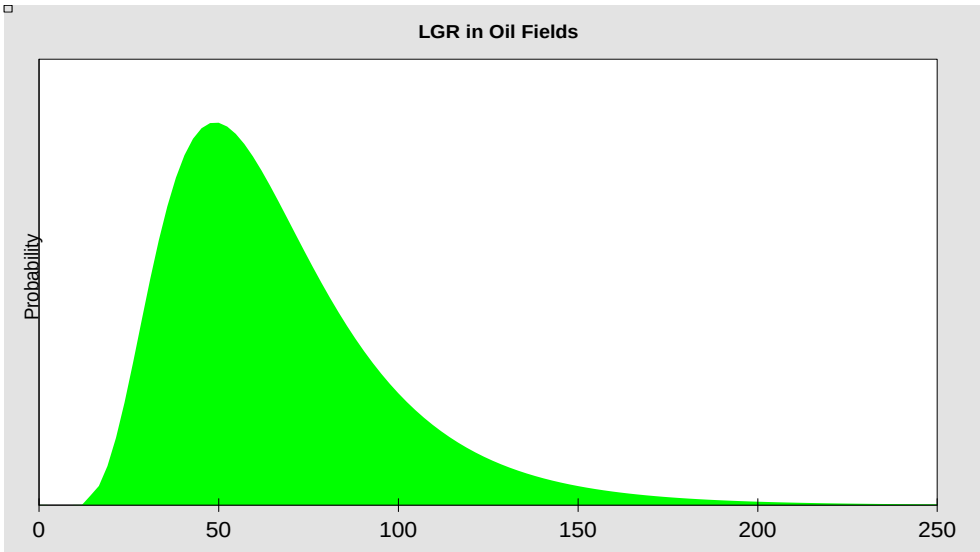
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	2,426.12	2,423.29
Median	2,003.91	1,998.47
Mode	---	---
Standard Deviation	1,605.89	1,609.18
Variance	2,578,873.40	2,589,453.61
Skewness	1.93	2.00
Kurtosis	8.56	9.01
Coefficient of Variability	0.6619	0.6640
Minimum	187.37	100.00
Maximum	13,980.91	14,000.00
Range Width	13,793.55	13,900.00
Mean Standard Error	7.18	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	187.37	100.00
95%	751.97	758.50
90%	927.78	932.05
85%	1,069.32	1,074.29
80%	1,203.26	1,204.47
75%	1,330.09	1,329.93
70%	1,449.39	1,454.69
65%	1,581.97	1,581.55
60%	1,720.45	1,712.89
55%	1,856.87	1,851.01
50%	2,003.83	1,998.47
45%	2,162.40	2,158.31
40%	2,341.14	2,334.49
35%	2,546.52	2,532.40
30%	2,766.25	2,759.89
25%	3,032.42	3,029.18
20%	3,376.78	3,361.02
15%	3,811.19	3,795.06
10%	4,439.93	4,422.83
5%	5,567.03	5,548.21
0%	13,980.91	14,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	65.77	66.77
Standard Deviation	32.39	32.39
Selected range is from -Infinity to 249.00		1.00 to 250.00



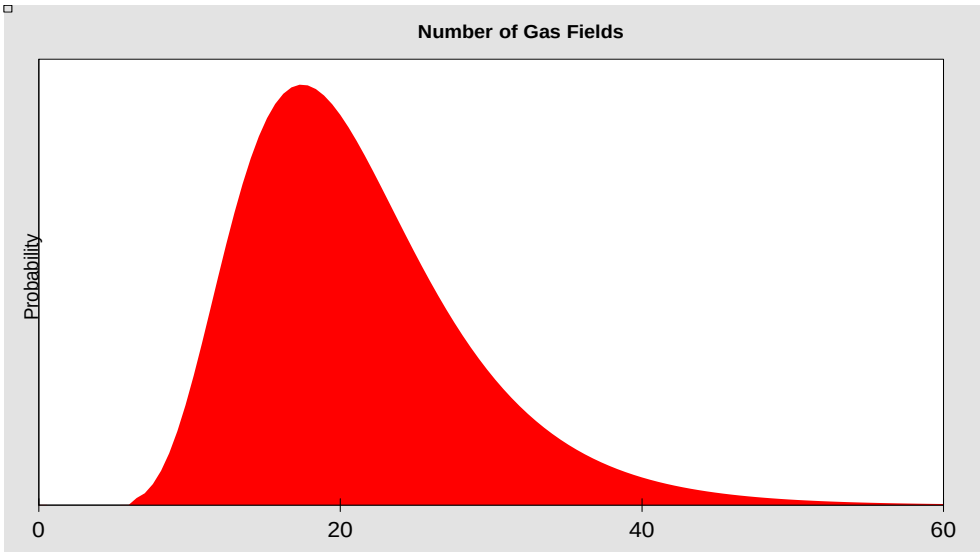
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	66.65	66.55
Median	60.12	59.97
Mode	---	---
Standard Deviation	31.67	31.63
Variance	1,003.12	1,000.18
Skewness	1.38	1.37
Kurtosis	5.81	5.76
Coefficient of Variability	0.4752	0.4752
Minimum	8.99	1.00
Maximum	247.55	250.00
Range Width	238.56	249.00
Mean Standard Error	0.14	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	8.99	1.00
95%	28.62	28.41
90%	33.55	33.46
85%	37.49	37.39
80%	41.06	40.85
75%	44.14	44.07
70%	47.25	47.19
65%	50.30	50.28
60%	53.44	53.40
55%	56.72	56.61
50%	60.12	59.97
45%	63.57	63.52
40%	67.25	67.35
35%	71.58	71.55
30%	76.34	76.26
25%	81.86	81.70
20%	88.33	88.22
15%	96.68	96.47
10%	107.98	107.95
5%	127.46	127.44
0%	247.55	250.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	20.32	21.32
Standard Deviation	7.71	7.71
Selected range is from -Infinity to 59.00		1.00 to 60.00



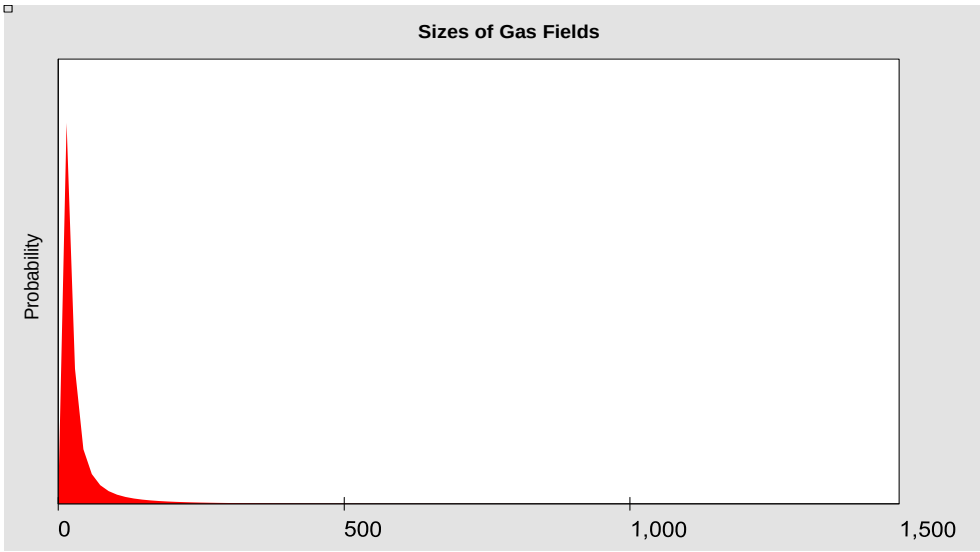
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	21.29	21.28
Median	20.01	19.99
Mode	---	---
Standard Deviation	7.57	7.58
Variance	57.31	57.40
Skewness	1.04	1.05
Kurtosis	4.54	4.57
Coefficient of Variability	0.3555	0.3561
Minimum	5.14	1.00
Maximum	59.80	60.00
Range Width	54.67	59.00
Mean Standard Error	0.03	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	5.14	1.00
95%	11.41	11.39
90%	12.89	12.87
85%	14.02	13.99
80%	14.98	14.95
75%	15.85	15.83
70%	16.69	16.67
65%	17.51	17.49
60%	18.32	18.31
55%	19.17	19.14
50%	20.01	19.99
45%	20.91	20.89
40%	21.87	21.84
35%	22.90	22.87
30%	24.03	24.01
25%	25.33	25.31
20%	26.84	26.84
15%	28.77	28.75
10%	31.38	31.34
5%	35.59	35.61
0%	59.80	60.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	40.60	46.6
Standard Deviation	131.20	131.2
Selected range is from -Infinity to 1,494.00		6.00 to 1,500.00



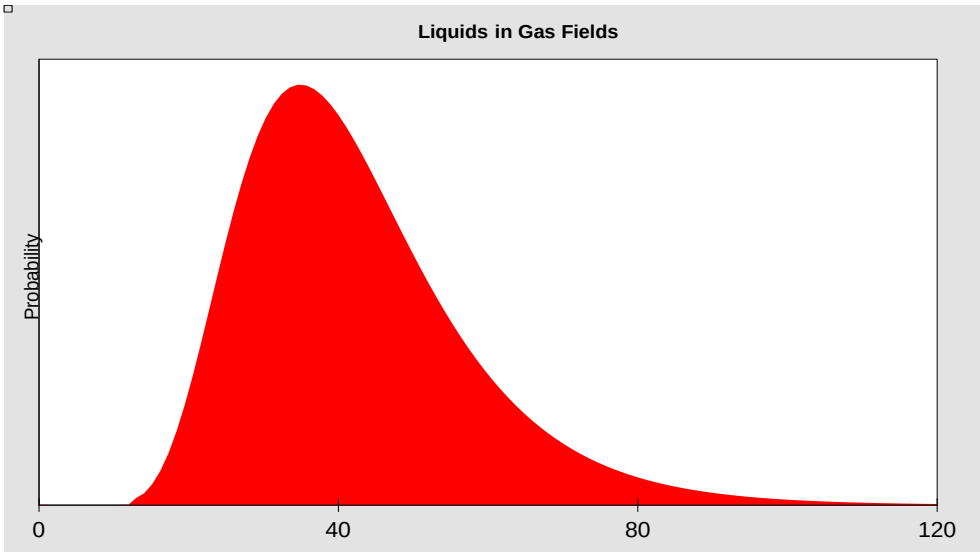
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	44.32	44.19
Median	18.16	17.98
Mode	---	---
Standard Deviation	86.50	87.97
Variance	7,482.20	7,738.80
Skewness	6.54	6.80
Kurtosis	64.37	68.81
Coefficient of Variability	1.95	1.99
Minimum	6.01	6.00
Maximum	1,490.01	1,500.00
Range Width	1,484.00	1,494.00
Mean Standard Error	0.39	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	6.01	6.00
95%	6.94	6.92
90%	7.63	7.62
85%	8.41	8.38
80%	9.26	9.22
75%	10.25	10.18
70%	11.38	11.28
65%	12.67	12.57
60%	14.18	14.07
55%	15.97	15.84
50%	18.16	17.98
45%	20.80	20.57
40%	24.03	23.78
35%	28.22	27.84
30%	33.70	33.13
25%	40.81	40.27
20%	51.49	50.45
15%	67.83	66.18
10%	95.67	94.04
5%	161.67	160.27
0%	1,490.01	1,500.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	40.64	42.64
Standard Deviation	15.42	15.42
Selected range is from -Infinity to 118.00		2.00 to 120.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	42.50	42.55
Median	39.93	39.98
Mode	---	---
Standard Deviation	15.18	15.15
Variance	230.58	229.58
Skewness	1.04	1.05
Kurtosis	4.52	4.57
Coefficient of Variability	0.3573	0.3561
Minimum	9.82	2.00
Maximum	119.63	120.00
Range Width	109.80	118.00
Mean Standard Error	0.07	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	9.82	2.00
95%	22.65	22.79
90%	25.64	25.75
85%	27.82	27.98
80%	29.79	29.90
75%	31.54	31.66
70%	33.27	33.34
65%	34.91	34.98
60%	36.56	36.62
55%	38.21	38.27
50%	39.93	39.98
45%	41.75	41.77
40%	43.64	43.68
35%	45.69	45.74
30%	47.97	48.02
25%	50.51	50.62
20%	53.63	53.68
15%	57.55	57.50
10%	62.70	62.68
5%	71.14	71.23
0%	119.63	120.00

End of Assumptions

Simulation started on 11/12/2009 at 10:57:53
Simulation stopped on 11/12/2009 at 11:58:09