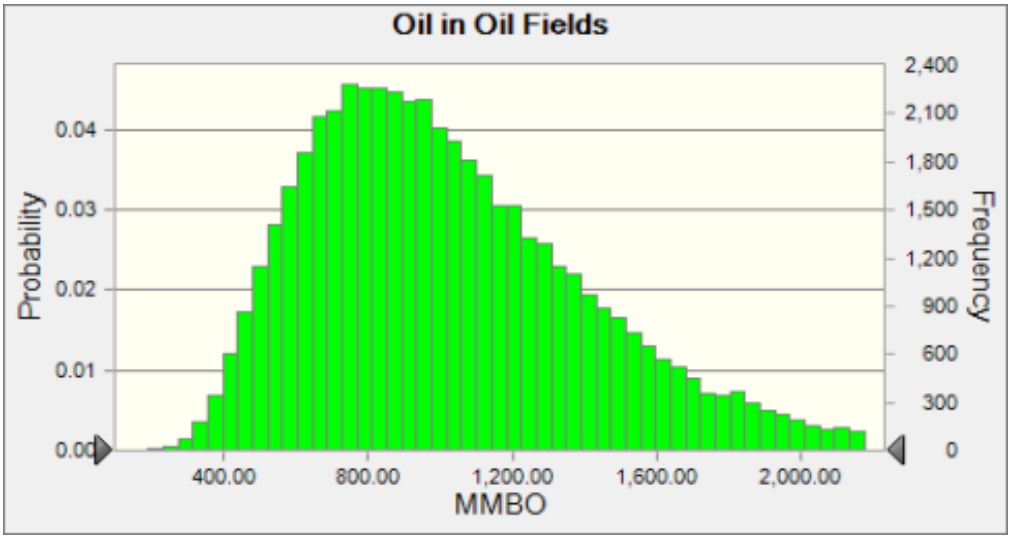
40250102
Moray Firth
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 147.68 to 4,191.27
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.83



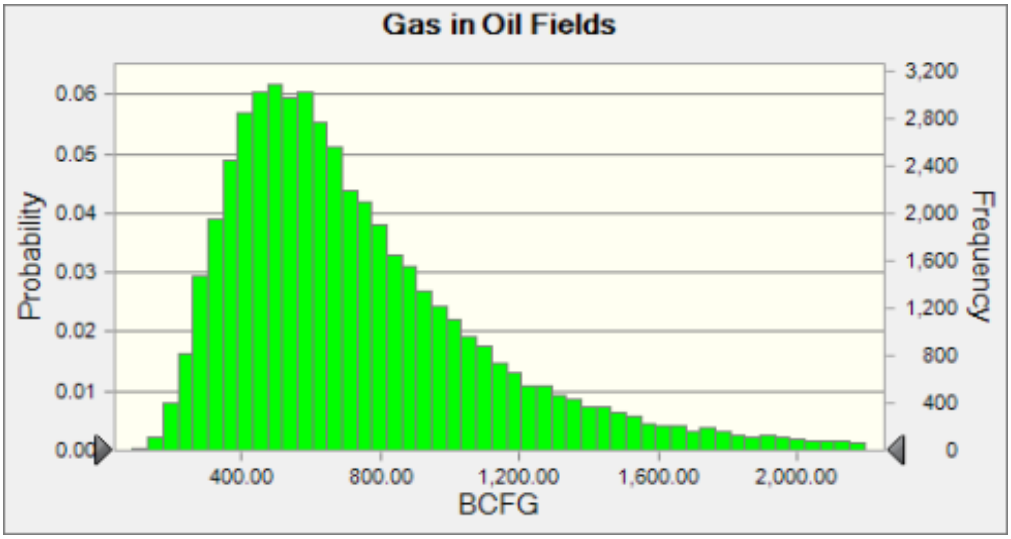
Statistics:	Forecast values
Trials	50,000
Mean	1,030.58
Median	960.15
Mode	---
Standard Deviation	409.08
Variance	167,350.38
Skewness	0.9747
Kurtosis	4.33
Coefficient of Variability	0.3969
Minimum	147.68
Maximum	4,191.27
Range Width	4,043.60
Mean Standard Error	1.83

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	147.68
95%	494.28
90%	570.47
85%	629.72
80%	681.44
75%	729.92
70%	775.46
65%	821.33
60%	866.91
55%	913.93
50%	960.14
45%	1,010.94
40%	1,065.10
35%	1,123.43
30%	1,188.59
25%	1,261.66
20%	1,346.18
15%	1,446.77
10%	1,583.06
5%	1,808.00
0%	4,191.27

Forecast: Gas in Oil Fields

Summary:
Entire range is from 86.88 to 10,849.81
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.27



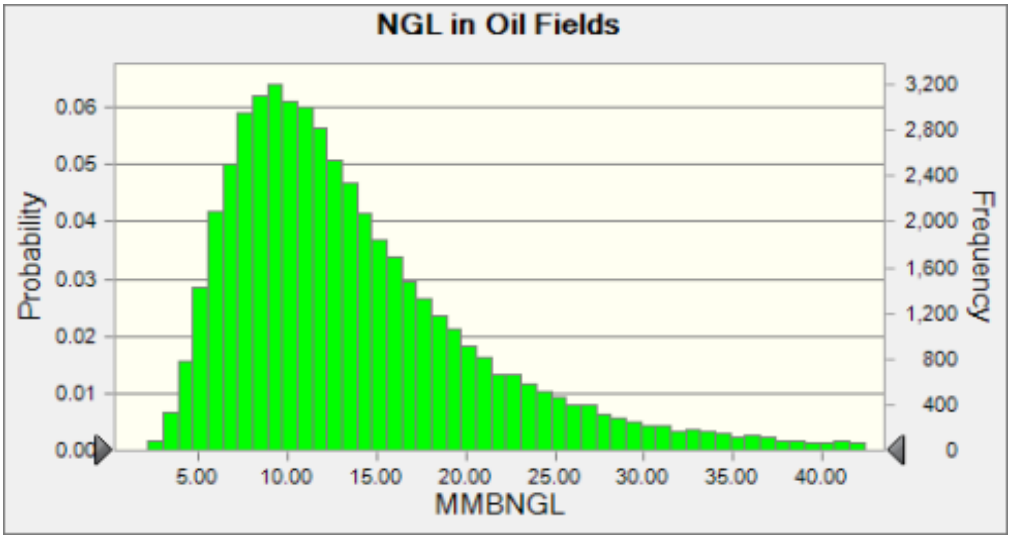
Statistics:	Forecast values
Trials	50,000
Mean	772.23
Median	647.81
Mode	---
Standard Deviation	507.83
Variance	257,890.48
Skewness	3.85
Kurtosis	35.72
Coefficient of Variability	0.6576
Minimum	86.88
Maximum	10,849.81
Range Width	10,762.94
Mean Standard Error	2.27

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	86.88
95%	294.54
90%	349.46
85%	392.57
80%	430.11
75%	465.73
70%	501.48
65%	536.78
60%	572.42
55%	608.42
50%	647.81
45%	689.91
40%	739.00
35%	791.69
30%	852.89
25%	924.03
20%	1,012.81
15%	1,128.22
10%	1,308.06
5%	1,640.12
0%	10,849.81

Forecast: NGL in Oil Fields

Summary:
Entire range is from 1.32 to 325.51
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.04



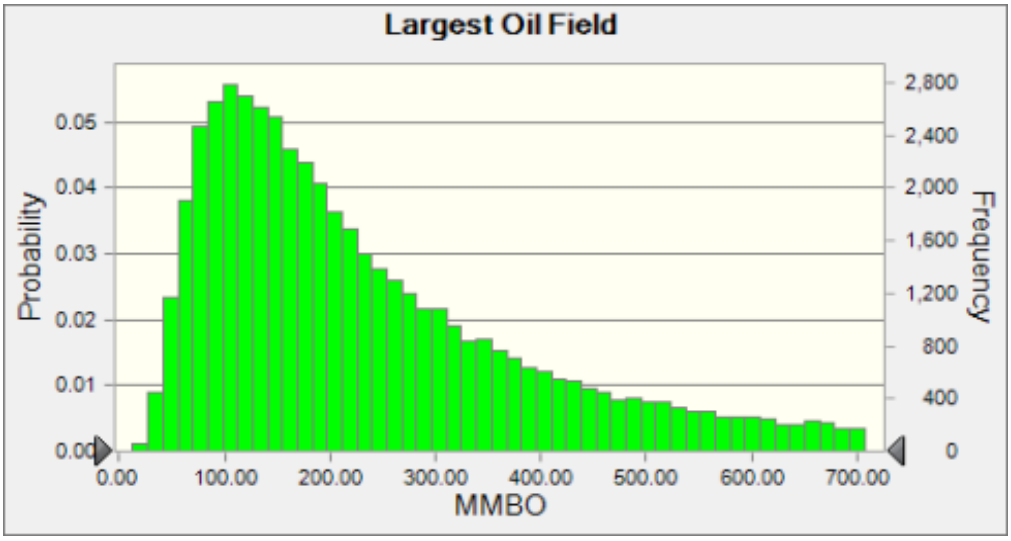
Statistics:	Forecast values
Trials	50,000
Mean	14.51
Median	12.09
Mode	---
Standard Deviation	9.94
Variance	98.87
Skewness	4.67
Kurtosis	61.89
Coefficient of Variability	0.6851
Minimum	1.32
Maximum	325.51
Range Width	324.19
Mean Standard Error	0.04

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	1.32
95%	5.45
90%	6.45
85%	7.26
80%	7.97
75%	8.65
70%	9.30
65%	9.96
60%	10.65
55%	11.35
50%	12.09
45%	12.89
40%	13.79
35%	14.80
30%	15.96
25%	17.32
20%	19.03
15%	21.30
10%	24.70
5%	31.12
0%	325.51

Forecast: Largest Oil Field

Summary:
Entire range is from 13.04 to 799.88
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.74



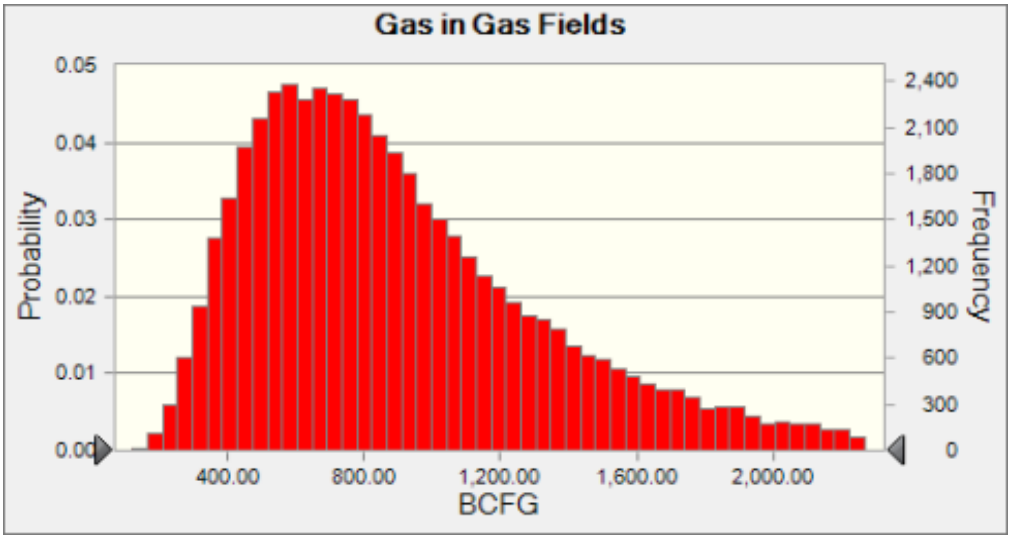
Statistics:	Forecast values
Trials	50,000
Mean	241.34
Median	190.85
Mode	---
Standard Deviation	166.20
Variance	27,623.55
Skewness	1.24
Kurtosis	4.01
Coefficient of Variability	0.6887
Minimum	13.04
Maximum	799.88
Range Width	786.85
Mean Standard Error	0.74

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	13.04
95%	62.48
90%	78.31
85%	91.71
80%	104.59
75%	117.54
70%	130.69
65%	144.31
60%	158.33
55%	174.21
50%	190.85
45%	209.78
40%	231.07
35%	256.42
30%	285.17
25%	319.02
20%	360.91
15%	415.29
10%	492.37
5%	605.69
0%	799.88

Forecast: Gas in Gas Fields

Summary:
Entire range is from 126.08 to 4,997.48
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.14



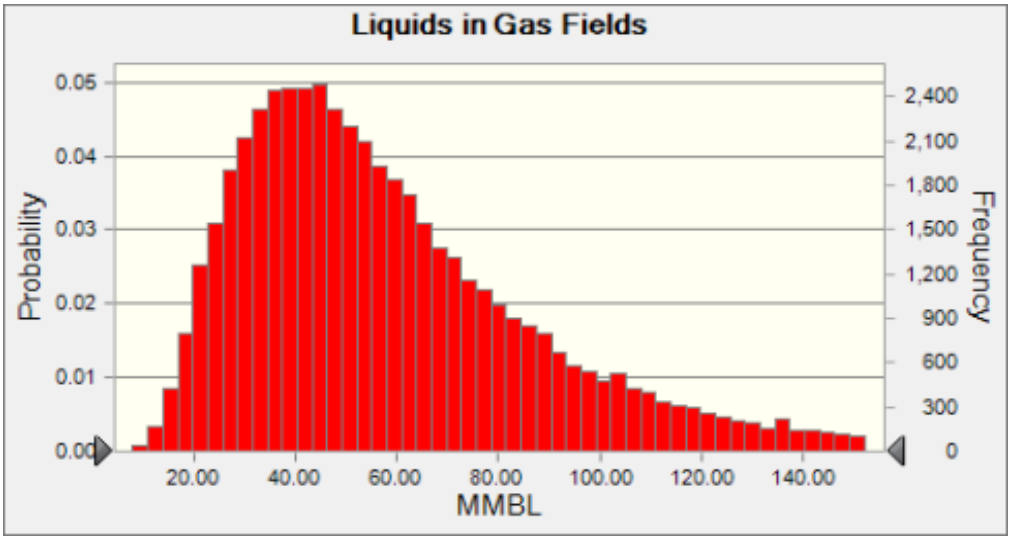
Statistics:	Forecast values
Trials	50,000
Mean	927.01
Median	818.68
Mode	---
Standard Deviation	477.60
Variance	228,103.86
Skewness	1.35
Kurtosis	5.60
Coefficient of Variability	0.5152
Minimum	126.08
Maximum	4,997.48
Range Width	4,871.40
Mean Standard Error	2.14

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	126.08
95%	363.32
90%	432.13
85%	486.76
80%	535.10
75%	582.13
70%	629.05
65%	675.34
60%	721.76
55%	769.70
50%	818.68
45%	872.47
40%	929.08
35%	994.95
30%	1,068.96
25%	1,155.96
20%	1,262.41
15%	1,392.53
10%	1,574.27
5%	1,869.23
0%	4,997.48

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 8.04 to 505.85
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.15



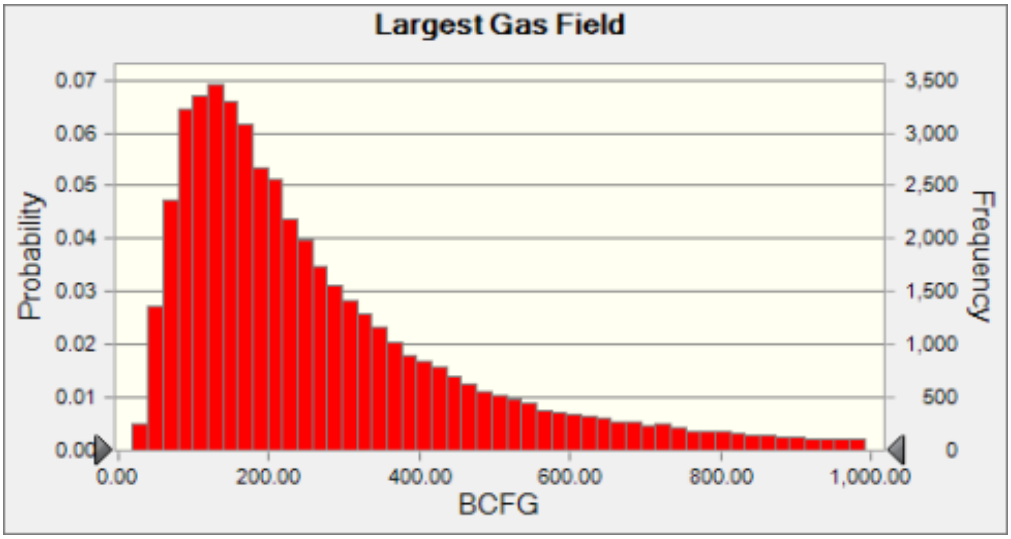
Statistics:	Forecast values
Trials	50,000
Mean	59.90
Median	52.20
Mode	---
Standard Deviation	32.88
Variance	1,081.33
Skewness	1.62
Kurtosis	7.47
Coefficient of Variability	0.5490
Minimum	8.04
Maximum	505.85
Range Width	497.81
Mean Standard Error	0.15

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	8.04
95%	22.42
90%	26.85
85%	30.53
80%	33.79
75%	36.79
70%	39.77
65%	42.73
60%	45.70
55%	48.90
50%	52.20
45%	55.75
40%	59.58
35%	63.79
30%	68.78
25%	74.51
20%	81.45
15%	90.10
10%	102.97
5%	123.95
0%	505.85

Forecast: Largest Gas Field

Summary:
Entire range is from 20.08 to 1,499.68
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	294.76
Median	213.28
Mode	---
Standard Deviation	248.55
Variance	61,778.25
Skewness	2.00
Kurtosis	7.50
Coefficient of Variability	0.8432
Minimum	20.08
Maximum	1,499.68
Range Width	1,479.60
Mean Standard Error	1.11

Forecast: Largest Gas Field (continued)

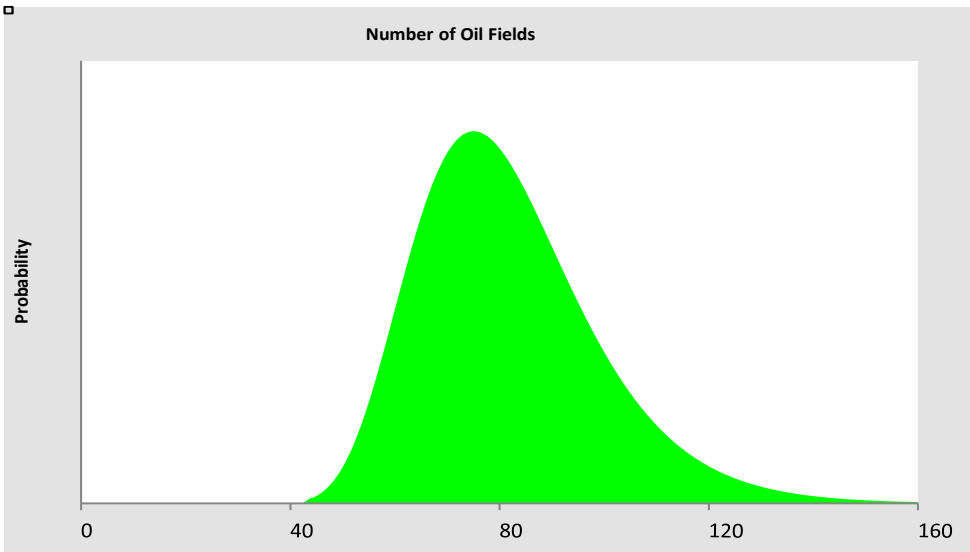
Percentiles:	BCFG
100%	20.08
95%	68.44
90%	85.87
85%	101.03
80%	115.91
75%	129.97
70%	144.78
65%	159.79
60%	175.93
55%	193.75
50%	213.28
45%	235.08
40%	259.92
35%	289.80
30%	324.19
25%	366.69
20%	422.90
15%	498.77
10%	618.33
5%	829.48
0%	1,499.68

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	20
Mean	62.30	82.3
Standard Deviation	17.41	17.41
Selected range is from -Infinity to 140.00		20.00 to 160.00



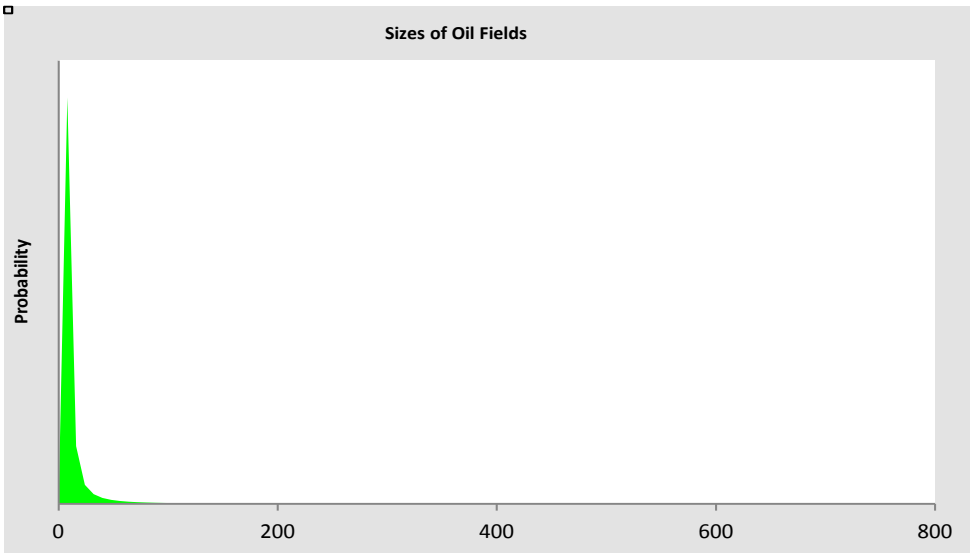
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	82.32	82.21
Median	80.03	79.98
Mode	---	---
Standard Deviation	17.33	17.18
Variance	300.25	295.29
Skewness	0.8027	0.7633
Kurtosis	3.88	3.78
Coefficient of Variability	0.2105	0.2090
Minimum	40.53	20.00
Maximum	159.93	160.00
Range Width	119.40	140.00
Mean Standard Error	0.08	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	40.53	20.00
95%	58.38	58.21
90%	62.34	62.22
85%	65.20	65.15
80%	67.65	67.63
75%	69.93	69.86
70%	72.00	71.95
65%	74.02	73.97
60%	75.99	75.96
55%	78.01	77.95
50%	80.03	79.98
45%	82.11	82.08
40%	84.28	84.29
35%	86.58	86.65
30%	89.07	89.24
25%	92.09	92.14
20%	95.54	95.52
15%	99.79	99.64
10%	105.42	105.14
5%	114.71	113.96
0%	159.93	160.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	13.09	14.09
Standard Deviation	84.73	84.73
Selected range is from -Infinity to 799.00		1.00 to 800.00



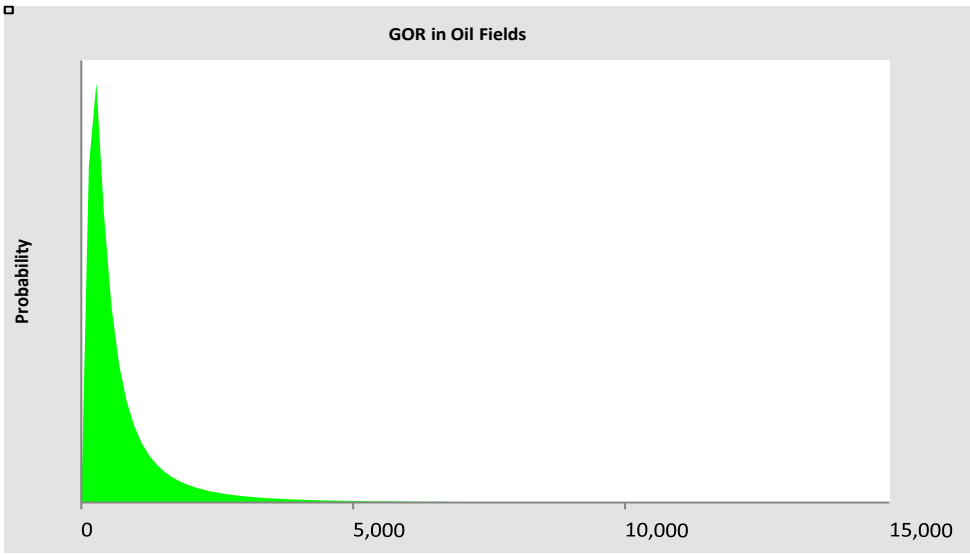
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	12.15	12.78
Median	2.98	3.00
Mode	---	---
Standard Deviation	36.85	38.06
Variance	1,357.65	1,448.24
Skewness	9.46	9.34
Kurtosis	126.07	122.45
Coefficient of Variability	3.03	2.98
Minimum	1.00	1.00
Maximum	780.71	800.00
Range Width	779.71	799.00
Mean Standard Error	0.16	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	1.00	1.00
95%	1.08	1.08
90%	1.17	1.17
85%	1.27	1.27
80%	1.39	1.39
75%	1.54	1.54
70%	1.72	1.72
65%	1.94	1.95
60%	2.22	2.22
55%	2.56	2.56
50%	2.98	3.00
45%	3.53	3.54
40%	4.24	4.26
35%	5.15	5.21
30%	6.46	6.51
25%	8.29	8.36
20%	11.02	11.17
15%	15.64	15.81
10%	24.53	24.75
5%	47.66	48.66
0%	780.71	800.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	35
Mean	731.73	766.73
Standard Deviation	1,271.41	1,271.41
Selected range is from -Infinity to 13,965.00		35.00 to 14,000.00



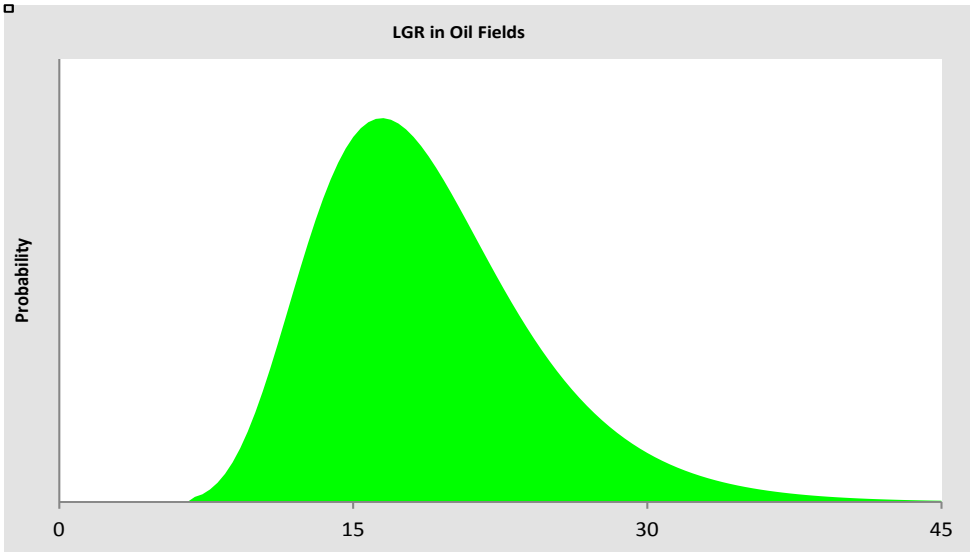
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	758.69	746.90
Median	399.02	399.46
Mode	---	---
Standard Deviation	1,109.90	1,070.95
Variance	1,231,871.90	1,146,941.86
Skewness	4.58	4.49
Kurtosis	33.55	32.81
Coefficient of Variability	1.46	1.43
Minimum	36.49	35.00
Maximum	13,894.64	14,000.00
Range Width	13,858.14	13,965.00
Mean Standard Error	4.96	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	36.49	35.00
95%	87.42	87.42
90%	115.51	115.46
85%	142.91	142.42
80%	170.40	170.16
75%	200.30	199.59
70%	231.79	231.45
65%	266.15	266.44
60%	305.12	305.39
55%	349.52	349.30
50%	399.02	399.46
45%	460.33	457.62
40%	531.45	526.21
35%	614.31	608.80
30%	717.53	710.88
25%	851.57	841.43
20%	1,025.43	1,016.57
15%	1,282.60	1,268.97
10%	1,698.10	1,679.77
5%	2,584.10	2,547.62
0%	13,894.64	14,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	0.4
Mean	18.42	18.82
Standard Deviation	5.67	5.67
Selected range is from -Infinity to 44.60		0.40 to 45.00



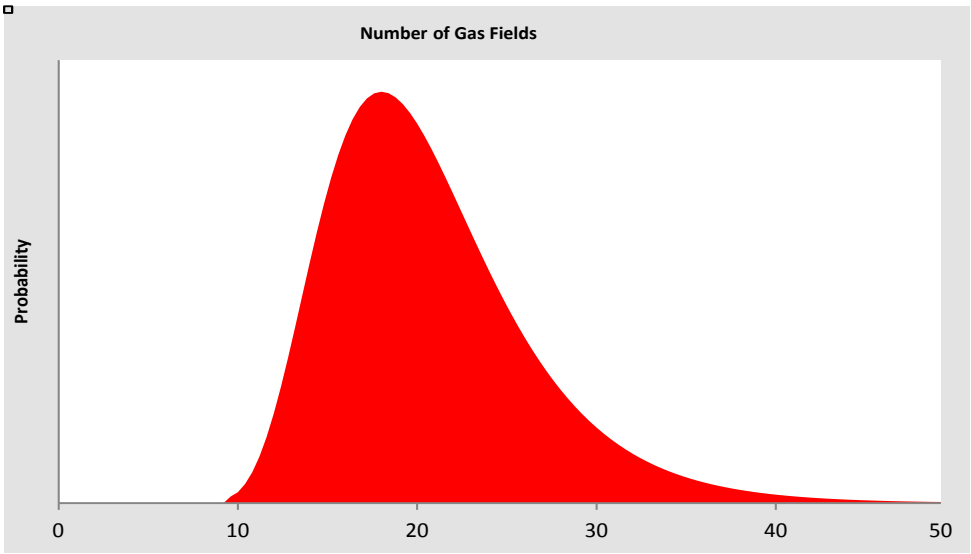
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	18.78	18.78
Median	17.98	17.99
Mode	---	---
Standard Deviation	5.64	5.59
Variance	31.79	31.24
Skewness	0.8797	0.8435
Kurtosis	4.10	3.98
Coefficient of Variability	0.3002	0.2976
Minimum	5.92	0.40
Maximum	44.96	45.00
Range Width	39.04	44.60
Mean Standard Error	0.03	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	5.92	0.40
95%	11.09	11.13
90%	12.31	12.37
85%	13.26	13.28
80%	14.05	14.06
75%	14.75	14.76
70%	15.41	15.43
65%	16.07	16.07
60%	16.68	16.70
55%	17.33	17.34
50%	17.98	17.99
45%	18.65	18.67
40%	19.36	19.39
35%	20.14	20.15
30%	20.98	21.00
25%	21.93	21.95
20%	23.02	23.05
15%	24.40	24.42
10%	26.28	26.24
5%	29.29	29.19
0%	44.96	45.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	15.98	20.98
Standard Deviation	5.87	5.87
Selected range is from -Infinity to 45.00		5.00 to 50.00



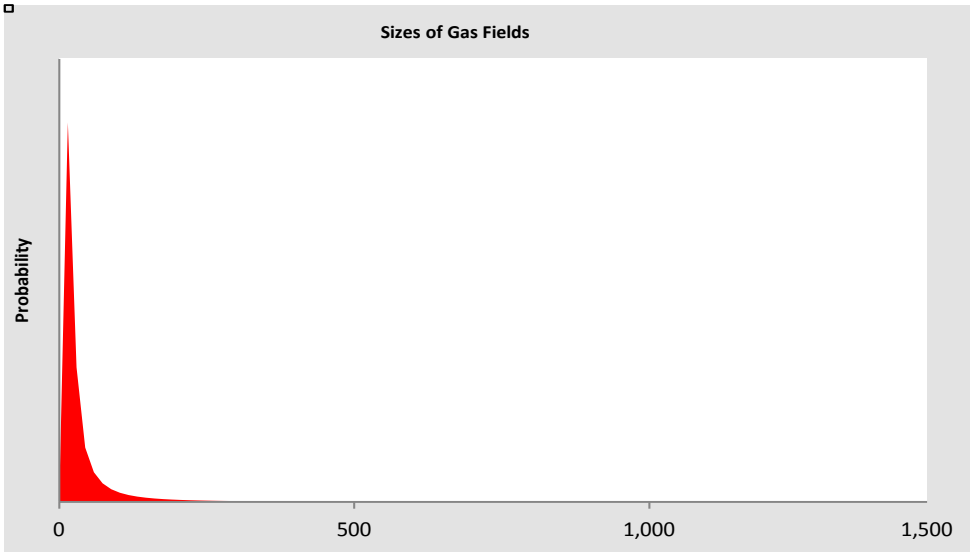
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	20.99	20.94
Median	20.05	19.99
Mode	---	---
Standard Deviation	5.79	5.77
Variance	33.47	33.26
Skewness	1.02	1.01
Kurtosis	4.49	4.46
Coefficient of Variability	0.2756	0.2754
Minimum	7.85	5.00
Maximum	49.88	50.00
Range Width	42.03	45.00
Mean Standard Error	0.03	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	7.85	5.00
95%	13.40	13.36
90%	14.53	14.51
85%	15.39	15.37
80%	16.15	16.12
75%	16.84	16.80
70%	17.48	17.44
65%	18.11	18.08
60%	18.75	18.70
55%	19.39	19.34
50%	20.05	19.99
45%	20.72	20.68
40%	21.43	21.40
35%	22.24	22.19
30%	23.14	23.06
25%	24.10	24.05
20%	25.25	25.21
15%	26.70	26.66
10%	28.68	28.61
5%	31.93	31.83
0%	49.88	50.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	6
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



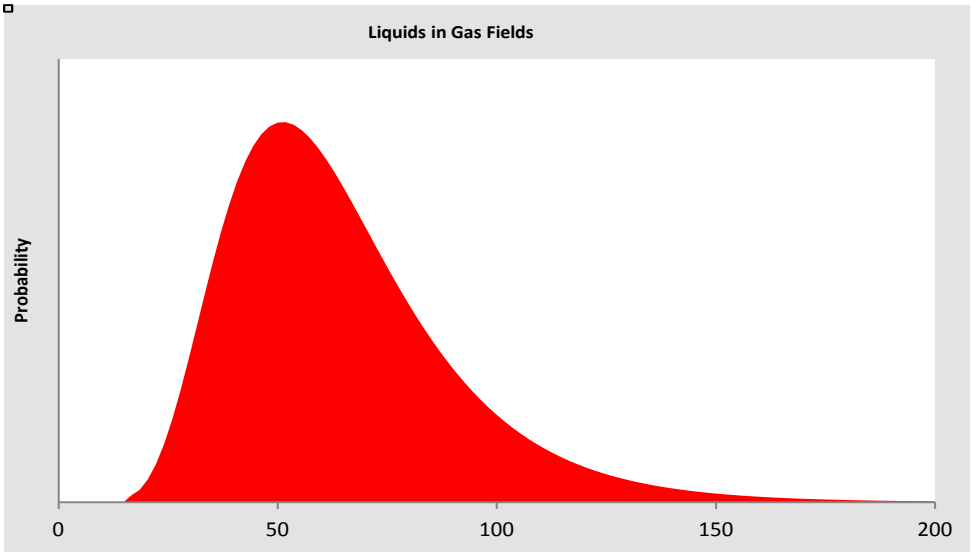
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	43.93	44.19
Median	18.05	17.98
Mode	---	---
Standard Deviation	88.66	87.97
Variance	7,859.74	7,738.80
Skewness	7.05	6.80
Kurtosis	73.63	68.81
Coefficient of Variability	2.02	1.99
Minimum	6.01	6.00
Maximum	1,499.07	1,500.00
Range Width	1,493.06	1,494.00
Mean Standard Error	0.40	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	6.01	6.00
95%	6.92	6.92
90%	7.63	7.62
85%	8.39	8.38
80%	9.23	9.22
75%	10.21	10.18
70%	11.33	11.28
65%	12.63	12.57
60%	14.15	14.07
55%	15.90	15.84
50%	18.05	17.98
45%	20.59	20.57
40%	23.79	23.78
35%	27.96	27.84
30%	33.23	33.13
25%	40.23	40.27
20%	50.49	50.45
15%	65.66	66.18
10%	93.14	94.04
5%	156.71	160.27
0%	1,499.07	1,500.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	63.75	64.75
Standard Deviation	26.08	26.08
Selected range is from -Infinity to 199.00		1.00 to 200.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	64.40	64.59
Median	59.65	59.97
Mode	---	---
Standard Deviation	25.63	25.59
Variance	656.82	655.02
Skewness	1.14	1.13
Kurtosis	4.86	4.85
Coefficient of Variability	0.3980	0.3963
Minimum	9.93	1.00
Maximum	199.92	200.00
Range Width	189.99	199.00
Mean Standard Error	0.11	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	9.93	1.00
95%	31.87	31.88
90%	36.48	36.63
85%	40.07	40.23
80%	43.19	43.36
75%	46.13	46.23
70%	48.75	48.98
65%	51.41	51.68
60%	54.01	54.38
55%	56.85	57.13
50%	59.65	59.97
45%	62.67	62.96
40%	65.95	66.14
35%	69.36	69.61
30%	73.11	73.46
25%	77.56	77.86
20%	82.71	83.07
15%	89.22	89.58
10%	98.33	98.49
5%	113.50	113.29
0%	199.92	200.00

End of Assumptions

Simulation started on 1/30/2012 at 1:36 PM
Simulation stopped on 1/30/2012 at 1:43 PM