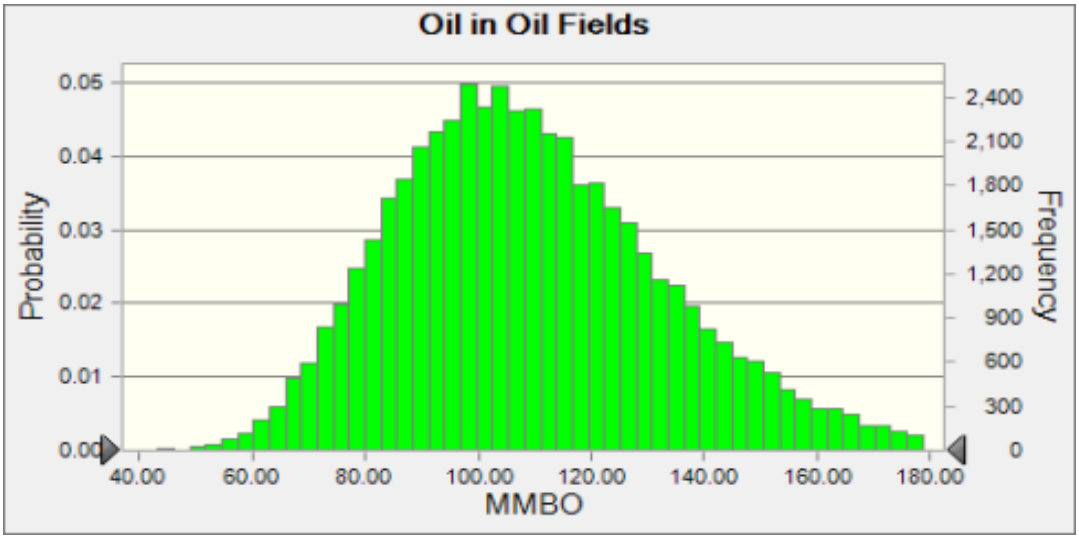
52430101
Middle and Upper Cretaceous Reservoirs
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 0.77 to 219.08
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.11



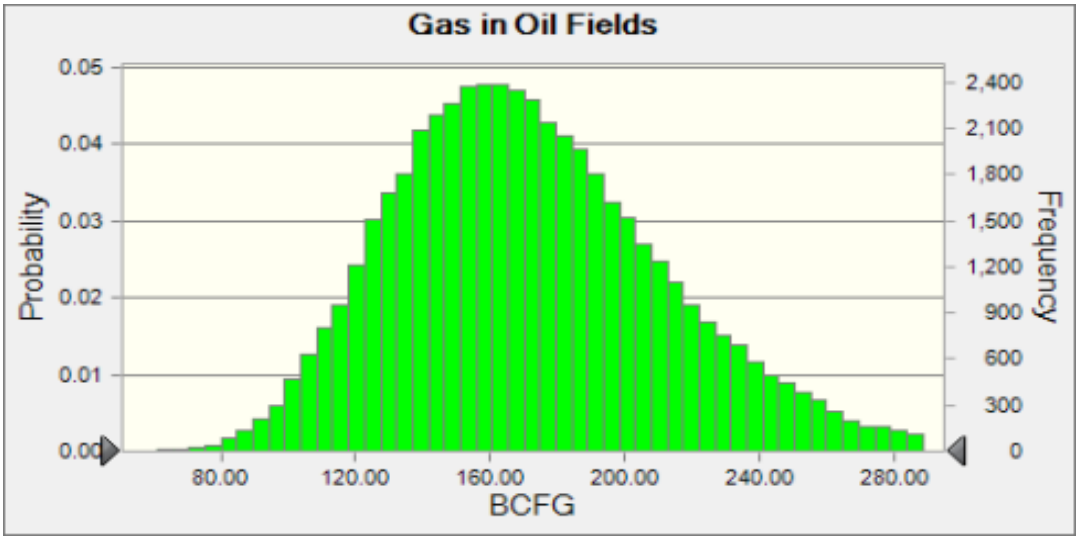
Statistics:	Forecast values
Trials	50,000
Mean	109.52
Median	106.88
Mode	---
Standard Deviation	24.70
Variance	610.21
Skewness	0.6081
Kurtosis	3.48
Coefficient of Variability	0.2256
Minimum	0.77
Maximum	219.08
Range Width	218.31
Mean Standard Error	0.11

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	0.77
95%	73.60
90%	80.05
85%	84.62
80%	88.51
75%	91.88
70%	95.10
65%	98.15
60%	100.93
55%	103.92
50%	106.88
45%	109.92
40%	113.11
35%	116.43
30%	120.31
25%	124.34
20%	129.01
15%	134.94
10%	142.47
5%	154.16
0%	219.08

Forecast: Gas in Oil Fields

Summary:
Entire range is from 0.87 to 382.72
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.19



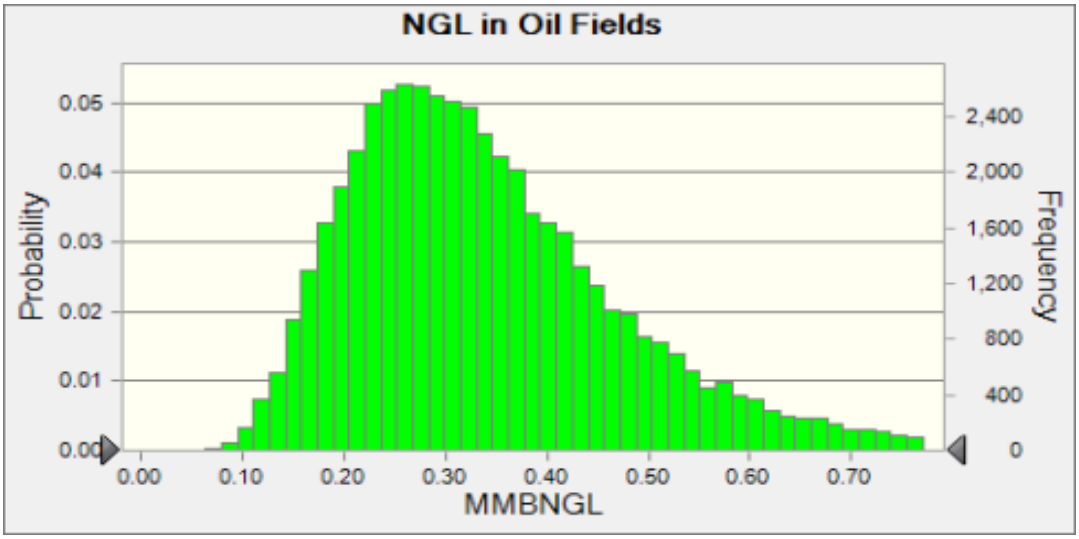
Statistics:	Forecast values
Trials	50,000
Mean	172.46
Median	168.21
Mode	---
Standard Deviation	41.44
Variance	1,717.39
Skewness	0.5870
Kurtosis	3.45
Coefficient of Variability	0.2403
Minimum	0.87
Maximum	382.72
Range Width	381.86
Mean Standard Error	0.19

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	0.87
95%	112.01
90%	123.12
85%	130.62
80%	137.16
75%	142.78
70%	148.13
65%	153.27
60%	158.13
55%	163.19
50%	168.21
45%	173.28
40%	178.73
35%	184.47
30%	190.67
25%	197.62
20%	205.56
15%	215.12
10%	228.00
5%	247.37
0%	382.72

Forecast: NGL in Oil Fields

Summary:
Entire range is from 0.00 to 1.84
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.00



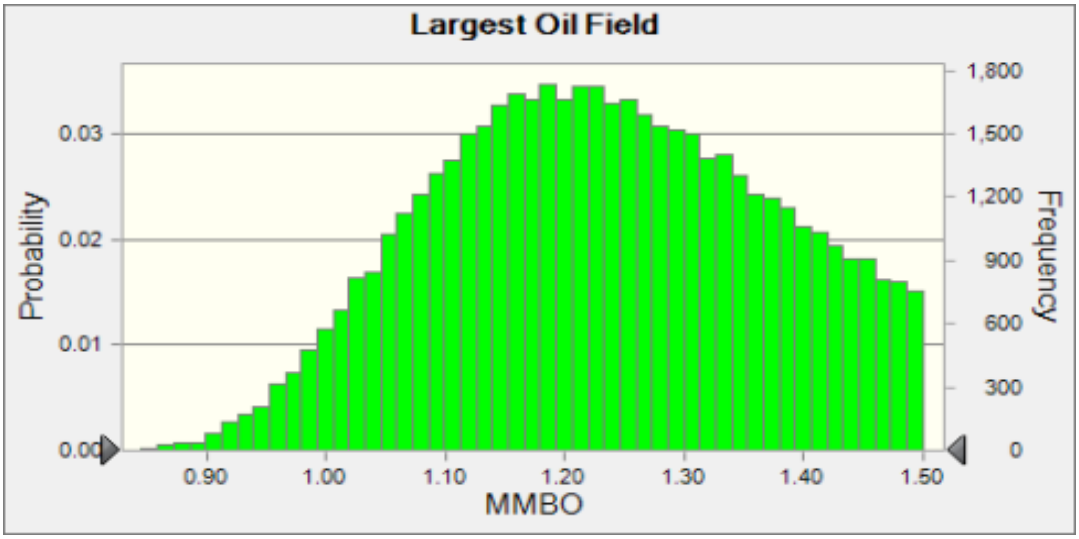
Statistics:	Forecast values
Trials	50,000
Mean	0.35
Median	0.32
Mode	---
Standard Deviation	0.15
Variance	0.02
Skewness	1.65
Kurtosis	8.66
Coefficient of Variability	0.4369
Minimum	0.00
Maximum	1.84
Range Width	1.84
Mean Standard Error	0.00

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	0.00
95%	0.16
90%	0.19
85%	0.21
80%	0.23
75%	0.24
70%	0.26
65%	0.27
60%	0.29
55%	0.30
50%	0.32
45%	0.33
40%	0.35
35%	0.37
30%	0.39
25%	0.42
20%	0.45
15%	0.48
10%	0.53
5%	0.62
0%	1.84

Forecast: Largest Oil Field

Summary:
Entire range is from 0.45 to 1.50
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.00



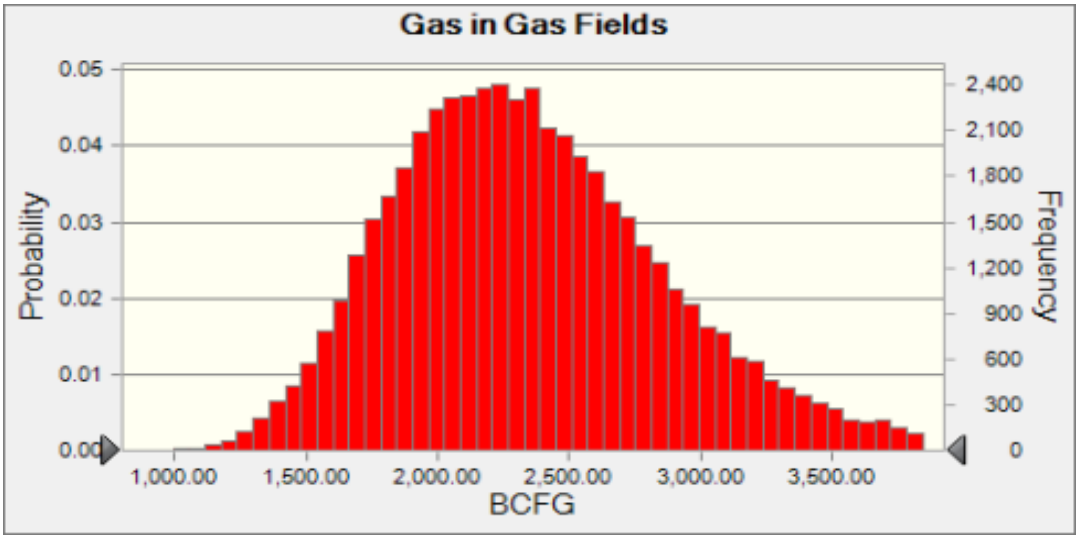
Statistics:	Forecast values
Trials	50,000
Mean	1.23
Median	1.23
Mode	---
Standard Deviation	0.14
Variance	0.02
Skewness	-0.0343
Kurtosis	2.27
Coefficient of Variability	0.1117
Minimum	0.45
Maximum	1.50
Range Width	1.05
Mean Standard Error	0.00

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	0.45
95%	1.01
90%	1.05
85%	1.08
80%	1.10
75%	1.13
70%	1.15
65%	1.17
60%	1.19
55%	1.21
50%	1.23
45%	1.25
40%	1.27
35%	1.29
30%	1.31
25%	1.34
20%	1.36
15%	1.39
10%	1.42
5%	1.46
0%	1.50

Forecast: Gas in Gas Fields

Summary:
Entire range is from 4.47 to 4,667.79
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.37



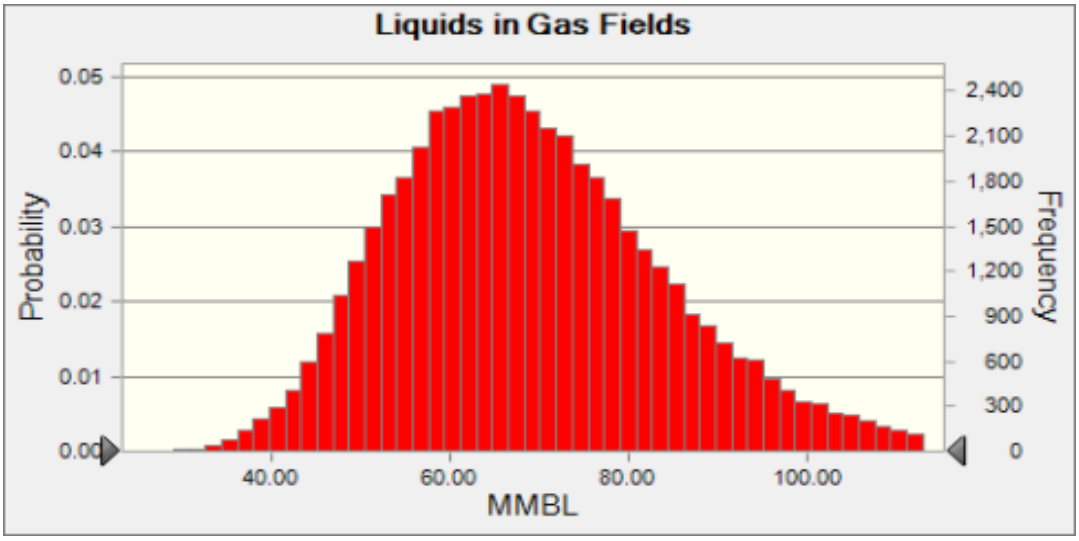
Statistics:	Forecast values
Trials	50,000
Mean	2,358.47
Median	2,302.37
Mode	---
Standard Deviation	530.28
Variance	281,200.70
Skewness	0.6185
Kurtosis	3.48
Coefficient of Variability	0.2248
Minimum	4.47
Maximum	4,667.79
Range Width	4,663.32
Mean Standard Error	2.37

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	4.47
95%	1,595.50
90%	1,728.53
85%	1,823.74
80%	1,907.65
75%	1,979.00
70%	2,046.06
65%	2,110.98
60%	2,174.21
55%	2,238.51
50%	2,302.35
45%	2,366.62
40%	2,435.73
35%	2,508.71
30%	2,586.82
25%	2,675.61
20%	2,775.48
15%	2,898.99
10%	3,066.48
5%	3,327.19
0%	4,667.79

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 0.03 to 139.53
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.07



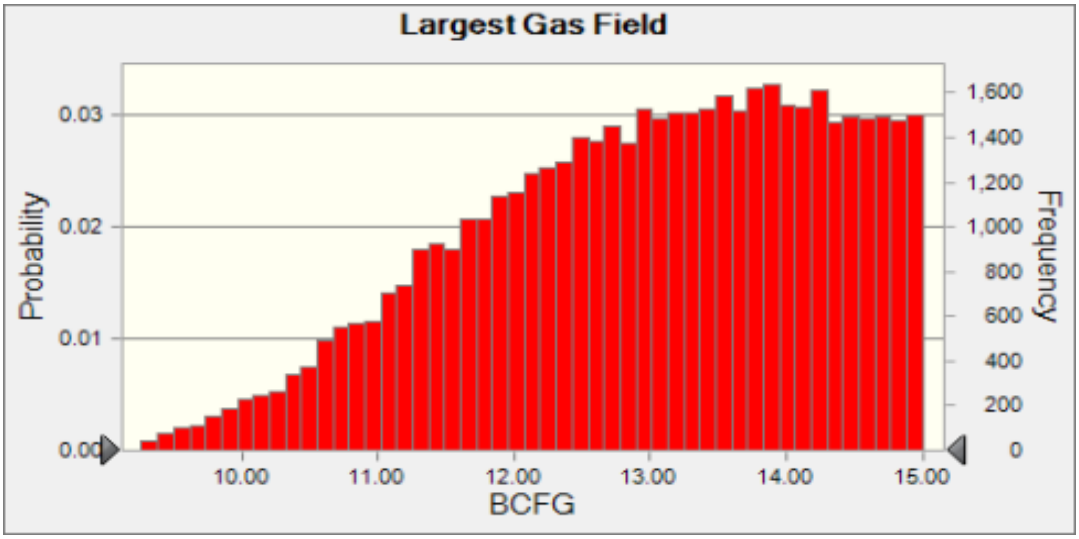
Statistics:	Forecast values
Trials	50,000
Mean	69.15
Median	67.45
Mode	---
Standard Deviation	15.66
Variance	245.29
Skewness	0.6203
Kurtosis	3.50
Coefficient of Variability	0.2265
Minimum	0.03
Maximum	139.53
Range Width	139.49
Mean Standard Error	0.07

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	0.03
95%	46.64
90%	50.50
85%	53.35
80%	55.80
75%	57.97
70%	59.98
65%	61.87
60%	63.74
55%	65.61
50%	67.45
45%	69.39
40%	71.43
35%	73.57
30%	75.91
25%	78.50
20%	81.52
15%	85.10
10%	89.99
5%	97.62
0%	139.53

Forecast: Largest Gas Field

Summary:
Entire range is from 2.37 to 15.00
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.01



Statistics:	Forecast values
Trials	50,000
Mean	12.95
Median	13.09
Mode	---
Standard Deviation	1.32
Variance	1.73
Skewness	-0.4805
Kurtosis	2.59
Coefficient of Variability	0.1016
Minimum	2.37
Maximum	15.00
Range Width	12.63
Mean Standard Error	0.01

Forecast: Largest Gas Field (continued)

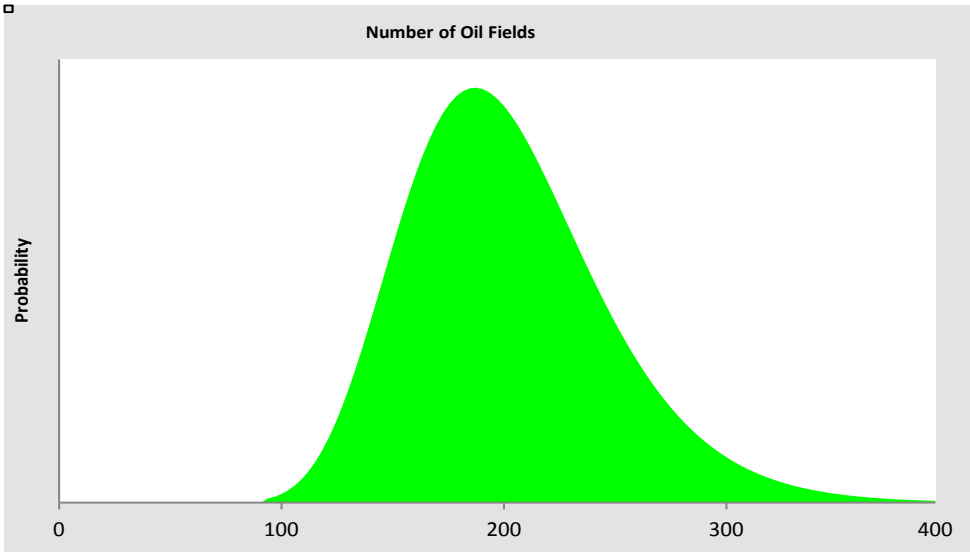
Percentiles:	BCFG
100%	2.37
95%	10.60
90%	11.10
85%	11.45
80%	11.76
75%	12.02
70%	12.26
65%	12.48
60%	12.69
55%	12.90
50%	13.09
45%	13.29
40%	13.48
35%	13.67
30%	13.85
25%	14.03
20%	14.22
15%	14.41
10%	14.61
5%	14.80
0%	15.00

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	204.11	205.11
Standard Deviation	46.54	46.54
Selected range is from -Infinity to 399.00		1.00 to 400.00



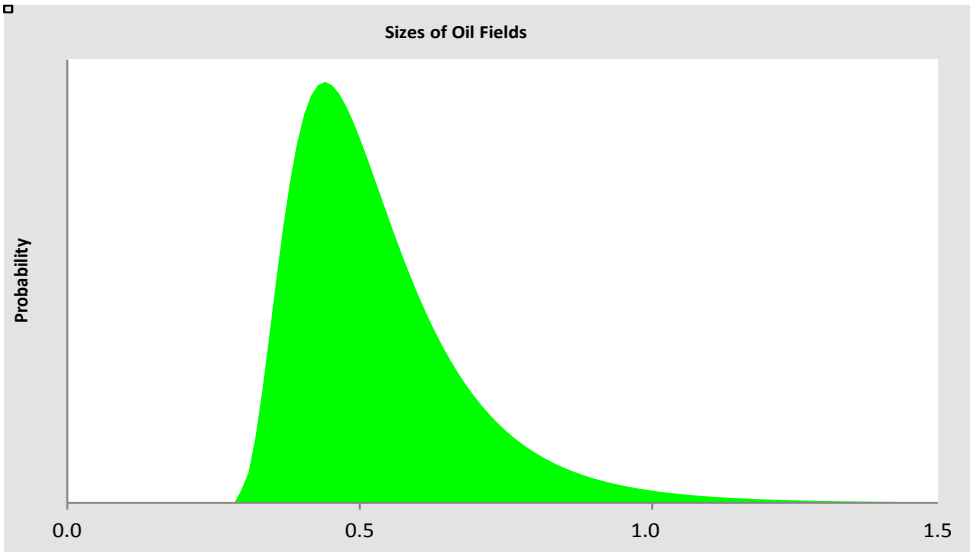
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	204.66	204.89
Median	199.70	199.94
Mode	---	---
Standard Deviation	45.96	46.03
Variance	2,112.55	2,118.44
Skewness	0.6138	0.6181
Kurtosis	3.47	3.48
Coefficient of Variability	0.2246	0.2246
Minimum	81.41	1.00
Maximum	399.79	400.00
Range Width	318.38	399.00
Mean Standard Error	0.21	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	81.41	1.00
95%	137.88	138.40
90%	149.94	150.11
85%	158.38	158.56
80%	165.46	165.62
75%	171.78	171.93
70%	177.77	177.81
65%	183.35	183.43
60%	188.69	188.92
55%	194.27	194.40
50%	199.69	199.94
45%	205.48	205.65
40%	211.32	211.61
35%	217.79	217.95
30%	224.69	224.84
25%	232.23	232.51
20%	241.05	241.36
15%	251.86	252.09
10%	266.08	266.25
5%	287.90	288.60
0%	399.79	400.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	0.25
Mean	0.29	0.54
Standard Deviation	0.16	0.16
Selected range is from -Infinity to 1.25		0.25 to 1.50



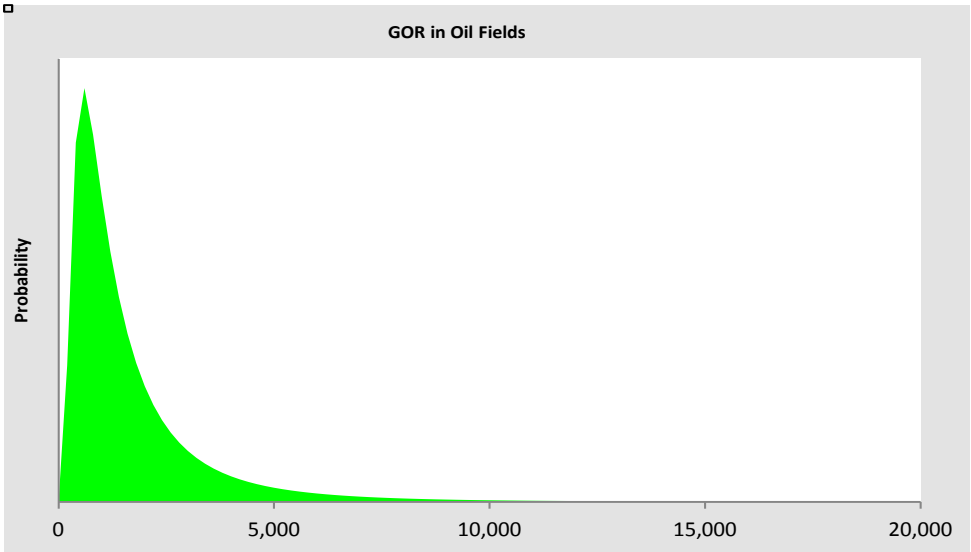
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	0.54	0.54
Median	0.50	0.50
Mode	---	---
Standard Deviation	0.15	0.16
Variance	0.02	0.02
Skewness	1.50	1.55
Kurtosis	6.27	6.59
Coefficient of Variability	0.2891	0.2904
Minimum	0.28	0.25
Maximum	1.50	1.50
Range Width	1.22	1.25
Mean Standard Error	0.00	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	0.28	0.25
95%	0.36	0.36
90%	0.38	0.38
85%	0.40	0.40
80%	0.41	0.41
75%	0.43	0.43
70%	0.44	0.44
65%	0.45	0.45
60%	0.47	0.47
55%	0.48	0.48
50%	0.50	0.50
45%	0.52	0.52
40%	0.54	0.54
35%	0.56	0.56
30%	0.58	0.58
25%	0.61	0.60
20%	0.64	0.64
15%	0.68	0.68
10%	0.74	0.74
5%	0.84	0.84
0%	1.50	1.50

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	1,598.80	1,599.80
Standard Deviation	1,997.73	1,997.73
Selected range is from -Infinity to 19,999.00		1.00 to 20,000.00



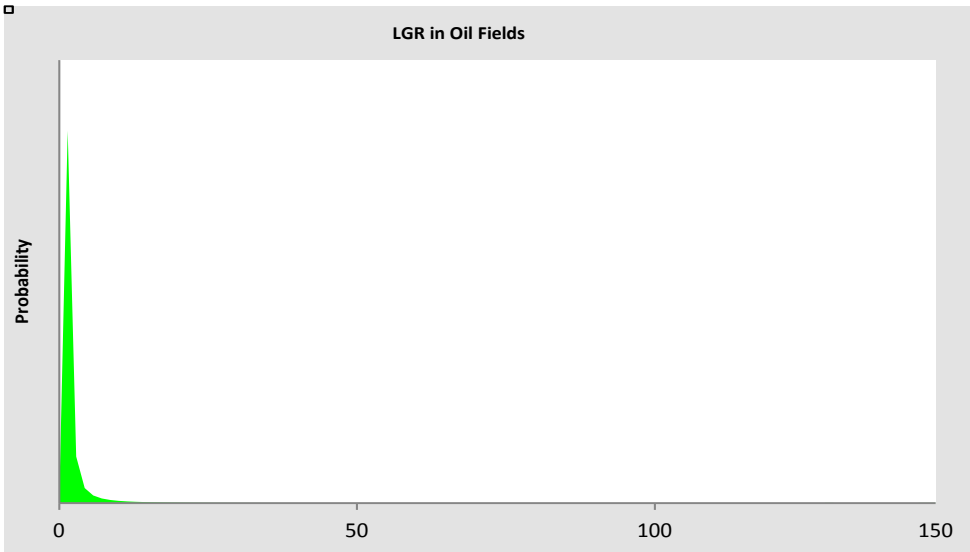
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	1,562.70	1,574.19
Median	998.00	998.79
Mode	---	---
Standard Deviation	1,777.20	1,805.54
Variance	3,158,457.34	3,259,958.79
Skewness	3.38	3.40
Kurtosis	20.34	20.36
Coefficient of Variability	1.14	1.15
Minimum	10.96	1.00
Maximum	19,957.42	20,000.00
Range Width	19,946.46	19,999.00
Mean Standard Error	7.95	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	10.96	1.00
95%	201.92	203.57
90%	287.83	289.11
85%	363.54	366.40
80%	439.95	442.36
75%	517.20	519.98
70%	601.59	601.25
65%	688.28	687.88
60%	782.91	781.59
55%	884.33	884.41
50%	997.98	998.79
45%	1,124.24	1,127.95
40%	1,270.40	1,276.31
35%	1,442.94	1,450.16
30%	1,654.31	1,659.00
25%	1,911.91	1,918.13
20%	2,246.18	2,254.39
15%	2,720.28	2,720.92
10%	3,417.13	3,445.87
5%	4,822.46	4,881.78
0%	19,957.42	20,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	0.1
Mean	2.22	2.32
Standard Deviation	16.23	16.23
Selected range is from -Infinity to 144.90		0.10 to 145.00



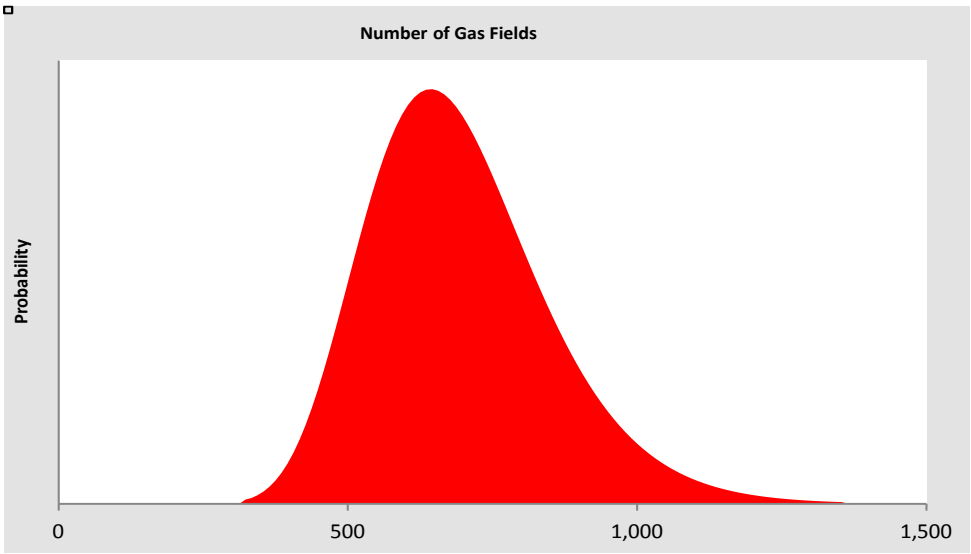
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	2.00	2.08
Median	0.40	0.40
Mode	---	---
Standard Deviation	6.65	6.70
Variance	44.16	44.84
Skewness	9.92	9.76
Kurtosis	137.93	132.77
Coefficient of Variability	3.33	3.22
Minimum	0.10	0.10
Maximum	141.30	145.00
Range Width	141.19	144.90
Mean Standard Error	0.03	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	0.10	0.10
95%	0.11	0.11
90%	0.12	0.12
85%	0.14	0.14
80%	0.16	0.16
75%	0.18	0.18
70%	0.21	0.20
65%	0.24	0.24
60%	0.28	0.28
55%	0.33	0.33
50%	0.40	0.40
45%	0.49	0.48
40%	0.60	0.60
35%	0.74	0.75
30%	0.95	0.95
25%	1.25	1.25
20%	1.70	1.71
15%	2.45	2.47
10%	3.92	3.95
5%	7.98	8.00
0%	141.30	145.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	691.21	692.21
Standard Deviation	157.20	157.2
Selected range is from -Infinity to 1,349.00		1.00 to 1,350.00



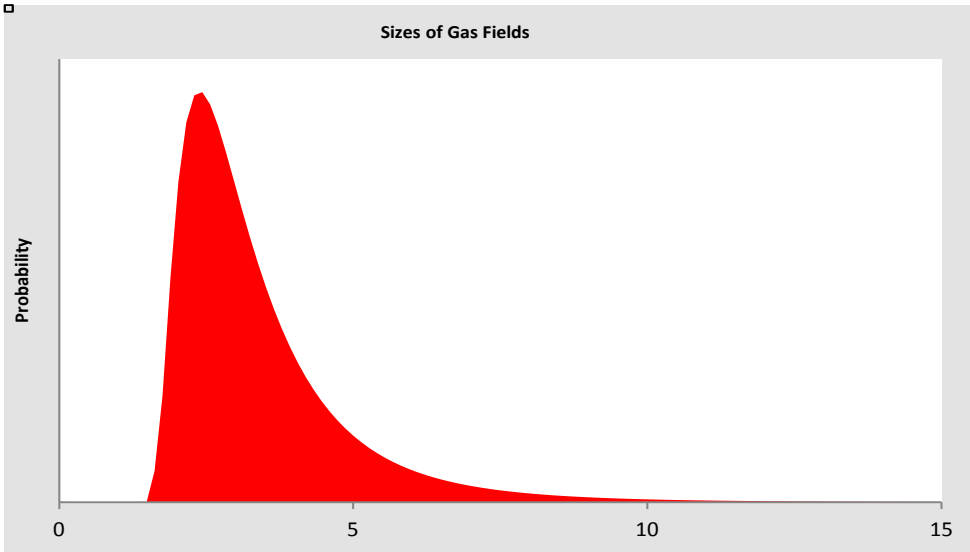
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	690.35	691.46
Median	673.95	674.81
Mode	---	---
Standard Deviation	154.80	155.47
Variance	23,961.84	24,169.57
Skewness	0.6219	0.6164
Kurtosis	3.47	3.47
Coefficient of Variability	0.2242	0.2248
Minimum	240.36	1.00
Maximum	1,345.71	1,350.00
Range Width	1,105.35	1,349.00
Mean Standard Error	0.69	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	240.36	1.00
95%	467.97	466.80
90%	506.26	506.38
85%	534.45	534.97
80%	558.49	558.84
75%	579.51	580.17
70%	599.42	600.01
65%	618.12	619.00
60%	636.79	637.58
55%	655.38	656.08
50%	673.94	674.81
45%	692.89	694.07
40%	712.80	714.21
35%	733.53	735.63
30%	756.56	758.89
25%	782.91	784.81
20%	812.62	814.69
15%	849.12	850.93
10%	896.28	898.73
5%	972.94	974.15
0%	1,345.71	1,350.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1.5
Mean	1.93	3.43
Standard Deviation	1.57	1.57
Selected range is from -Infinity to 13.50		1.50 to 15.00



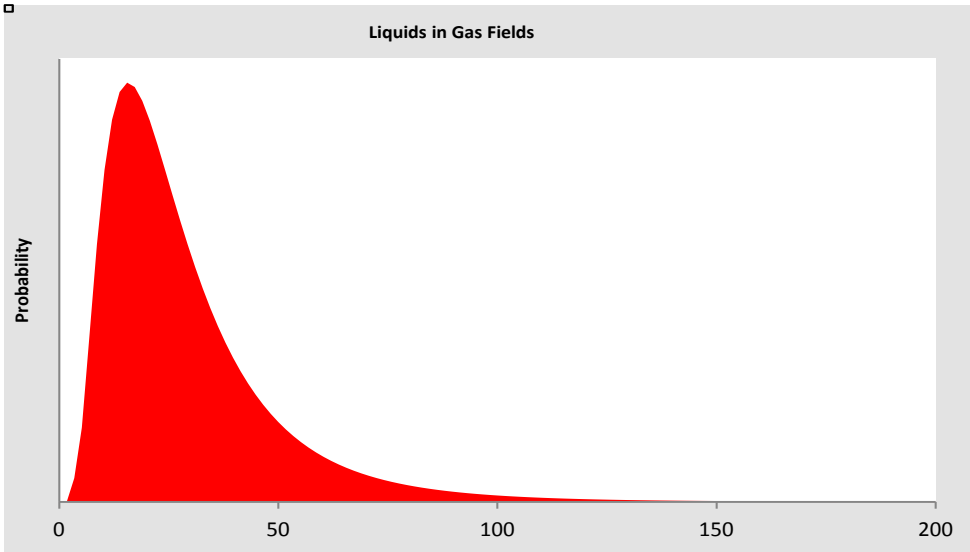
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	3.41	3.42
Median	2.99	3.00
Mode	---	---
Standard Deviation	1.48	1.49
Variance	2.20	2.22
Skewness	2.23	2.26
Kurtosis	10.42	10.70
Coefficient of Variability	0.4350	0.4364
Minimum	1.58	1.50
Maximum	14.96	15.00
Range Width	13.38	13.50
Mean Standard Error	0.01	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	1.58	1.50
95%	1.97	1.97
90%	2.10	2.10
85%	2.21	2.22
80%	2.32	2.32
75%	2.42	2.43
70%	2.53	2.53
65%	2.64	2.64
60%	2.75	2.75
55%	2.87	2.87
50%	2.99	3.00
45%	3.13	3.14
40%	3.29	3.29
35%	3.46	3.47
30%	3.67	3.67
25%	3.91	3.92
20%	4.22	4.22
15%	4.62	4.63
10%	5.21	5.22
5%	6.29	6.30
0%	14.96	15.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	28.50	29.5
Standard Deviation	20.86	20.86
Selected range is from -Infinity to 174.00		1.00 to 175.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	29.41	29.32
Median	24.14	23.98
Mode	---	---
Standard Deviation	20.10	20.00
Variance	404.15	399.87
Skewness	2.07	2.04
Kurtosis	9.53	9.27
Coefficient of Variability	0.6836	0.6821
Minimum	2.32	1.00
Maximum	174.25	175.00
Range Width	171.93	174.00
Mean Standard Error	0.09	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	2.32	1.00
95%	8.78	8.83
90%	10.97	10.93
85%	12.74	12.66
80%	14.32	14.25
75%	15.86	15.78
70%	17.36	17.31
65%	18.94	18.86
60%	20.57	20.47
55%	22.23	22.17
50%	24.14	23.98
45%	26.04	25.95
40%	28.19	28.12
35%	30.67	30.57
30%	33.46	33.38
25%	36.75	36.72
20%	40.95	40.84
15%	46.36	46.23
10%	54.27	54.06
5%	68.02	68.13
0%	174.25	175.00

End of Assumptions

Oil field simulation:
Simulation started on 2/8/2012 at 9:40 AM
Simulation stopped on 2/8/2012 at 9:49 AM

Gas field simulation:
Simulation started on 2/7/2012 at 3:56 PM
Simulation stopped on 2/7/2012 at 4:12 PM