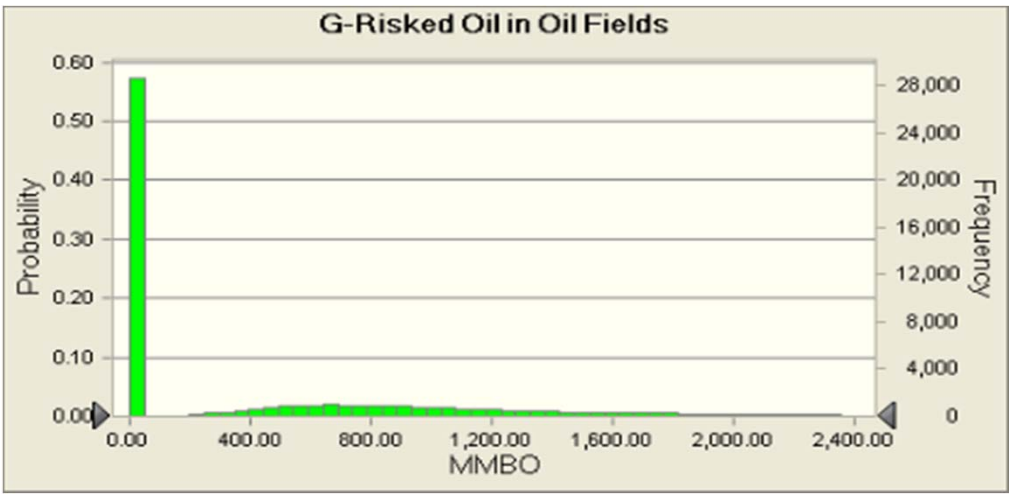
12180201
Anisin-Novosibirsk Basins
Monte Carlo Results

Forecast: G-Risked Oil in Oil Fields

Summary:
Entire range is from 0.00 to 5,968.60
After 50,000 trials, the standard error of the mean is 3.09



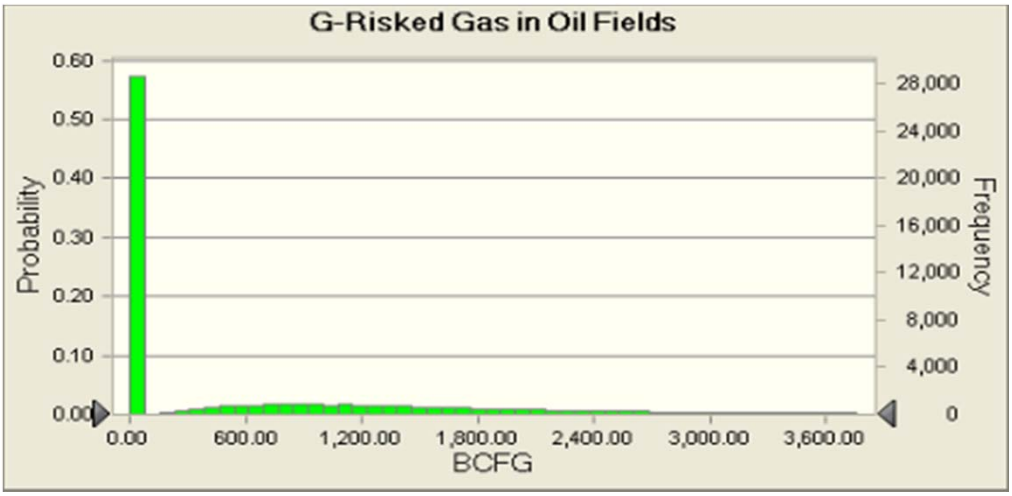
Statistics:	Forecast values
Trials	50,000
Mean	469.22
Median	0.00
Mode	0.00
Standard Deviation	691.62
Variance	478,341.84
Skewness	1.82
Kurtosis	7.28
Coefficient of Variability	1.47
Minimum	0.00
Maximum	5,968.60
Range Width	5,968.60
Mean Standard Error	3.09

Forecast: G-Risked Oil in Oil Fields (cont'd)

Percentiles:	MMBO
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	400.84
P35	564.18
P30	696.95
P25	831.80
P20	985.05
P15	1,168.66
P10	1,414.53
P5	1,837.35
P0	5,968.60

Forecast: G-Risked Gas in Oil Fields

Summary:
Entire range is from 0.00 to 11,715.73
After 50,000 trials, the standard error of the mean is 4.88



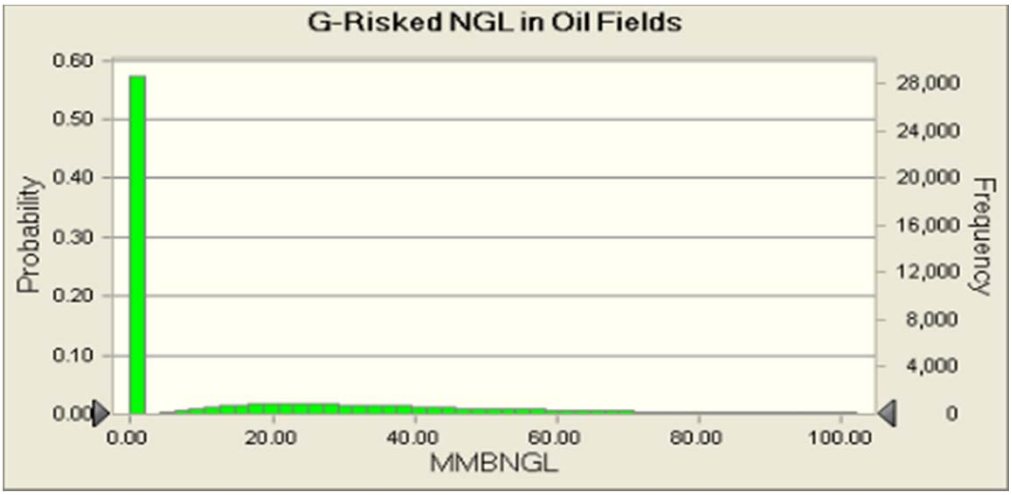
Statistics:	Forecast values
Trials	50,000
Mean	693.00
Median	0.00
Mode	0.00
Standard Deviation	1,091.99
Variance	1,192,444.95
Skewness	2.17
Kurtosis	9.49
Coefficient of Variability	1.58
Minimum	0.00
Maximum	11,715.73
Range Width	11,715.73
Mean Standard Error	4.88

Forecast: G-Risked Gas in Oil Fields (cont'd)

Percentiles:	BCFG
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	442.69
P35	701.72
P30	923.50
P25	1,153.92
P20	1,408.66
P15	1,724.37
P10	2,150.42
P5	2,900.69
P0	11,715.73

Forecast: G-Risked NGL in Oil Fields

Summary:
Entire range is from 0.00 to 373.18
After 50,000 trials, the standard error of the mean is 0.13



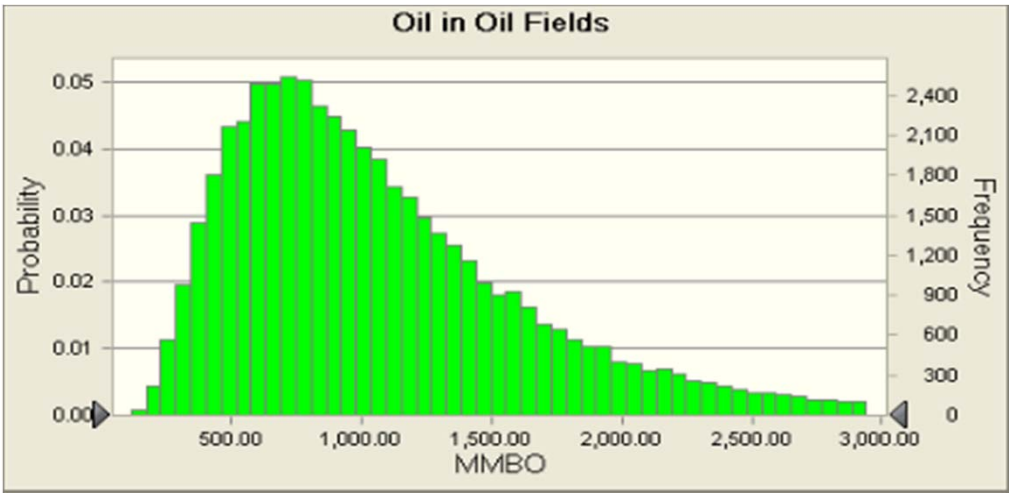
Statistics:	Forecast values
Trials	50,000
Mean	18.63
Median	0.00
Mode	0.00
Standard Deviation	29.76
Variance	885.84
Skewness	2.26
Kurtosis	10.39
Coefficient of Variability	1.60
Minimum	0.00
Maximum	373.18
Range Width	373.18
Mean Standard Error	0.13

Forecast: G-Risked NGL in Oil Fields (cont'd)

Percentiles:	MMBNGL
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	11.44
P35	18.20
P30	24.06
P25	30.52
P20	37.74
P15	46.42
P10	58.13
P5	78.88
P0	373.18

Forecast: Conditional Oil in Oil Fields

Summary:
Entire range is from 112.82 to 5,968.60
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 2.94



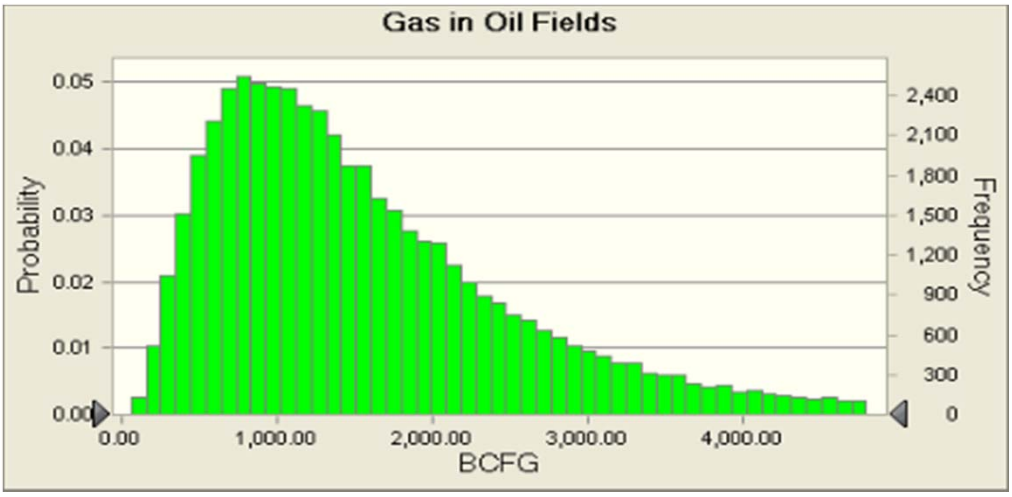
Statistics:	Forecast values
Trials	50,000
Mean	1,102.59
Median	947.61
Mode	---
Standard Deviation	656.45
Variance	430,922.21
Skewness	1.74
Kurtosis	7.74
Coefficient of Variability	0.5954
Minimum	112.82
Maximum	5,968.60
Range Width	5,855.79
Mean Standard Error	2.94

Forecast: Conditional Oil in Oil Fields (cont'd)

Percentiles:	MMBO
P100	112.82
P95	374.42
P90	457.61
P85	523.42
P80	587.61
P75	645.46
P70	704.06
P65	761.15
P60	818.21
P55	881.05
P50	947.60
P45	1,016.40
P40	1,091.24
P35	1,176.57
P30	1,272.21
P25	1,381.06
P20	1,519.12
P15	1,685.62
P10	1,932.49
P5	2,362.01
P0	5,968.60

Forecast: Conditional Gas in Oil Fields

Summary:
Entire range is from 56.12 to 11,968.37
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 5.07



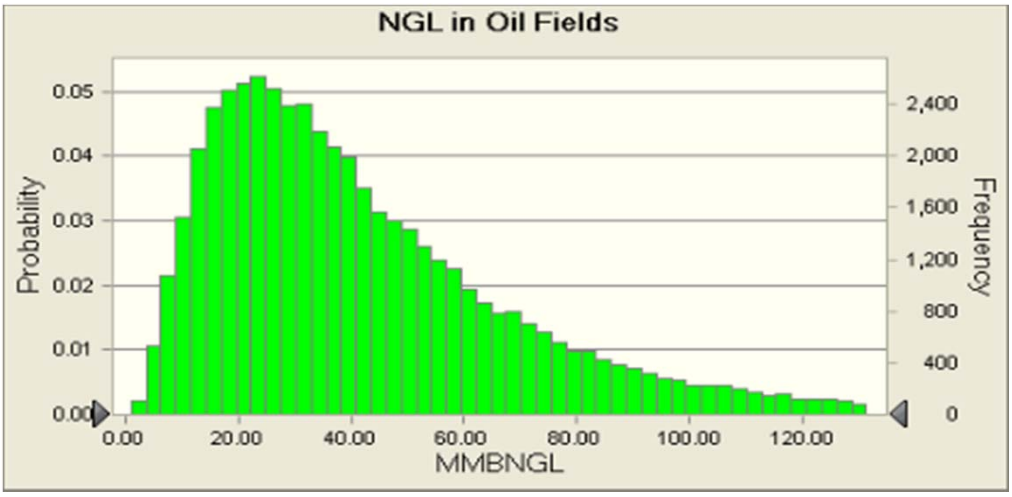
Statistics:	Forecast values
Trials	50,000
Mean	1,626.87
Median	1,341.58
Mode	---
Standard Deviation	1,132.60
Variance	1,282,786.27
Skewness	1.82
Kurtosis	8.34
Coefficient of Variability	0.6962
Minimum	56.12
Maximum	11,968.37
Range Width	11,912.25
Mean Standard Error	5.07

Forecast: Conditional Gas in Oil Fields (cont'd)

Percentiles:	BCFG
P100	56.12
P95	401.32
P90	533.21
P85	642.53
P80	739.95
P75	834.91
P70	932.12
P65	1,030.32
P60	1,129.22
P55	1,234.32
P50	1,341.57
P45	1,461.56
P40	1,590.50
P35	1,739.39
P30	1,907.69
P25	2,096.39
P20	2,331.16
P15	2,638.27
P10	3,071.66
P5	3,828.81
P0	11,968.37

Forecast: Conditional NGL in Oil Fields

Summary:
Entire range is from 0.83 to 373.18
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.14



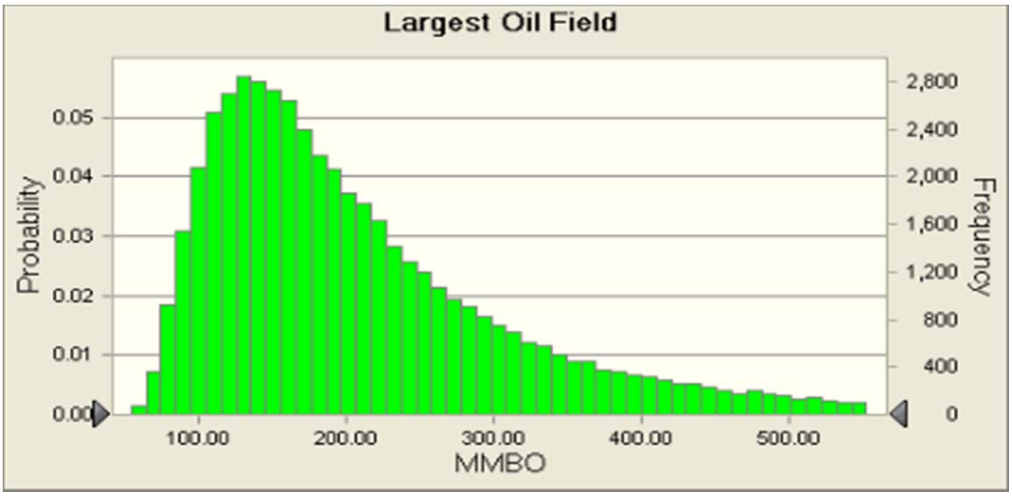
Statistics:	Forecast values
Trials	50,000
Mean	43.71
Median	35.72
Mode	---
Standard Deviation	31.37
Variance	983.81
Skewness	1.90
Kurtosis	8.95
Coefficient of Variability	0.7176
Minimum	0.83
Maximum	373.18
Range Width	372.35
Mean Standard Error	0.14

Forecast: Conditional NGL in Oil Fields (cont'd)

Percentiles:	MMBNGL
P100	0.83
P95	10.35
P90	13.82
P85	16.66
P80	19.30
P75	21.91
P70	24.44
P65	27.11
P60	29.87
P55	32.67
P50	35.72
P45	38.90
P40	42.50
P35	46.66
P30	51.27
P25	56.58
P20	63.02
P15	71.40
P10	83.28
P5	104.78
P0	373.18

Forecast: Largest Oil Field

Summary:
Entire range is from 54.21 to 799.62
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.54



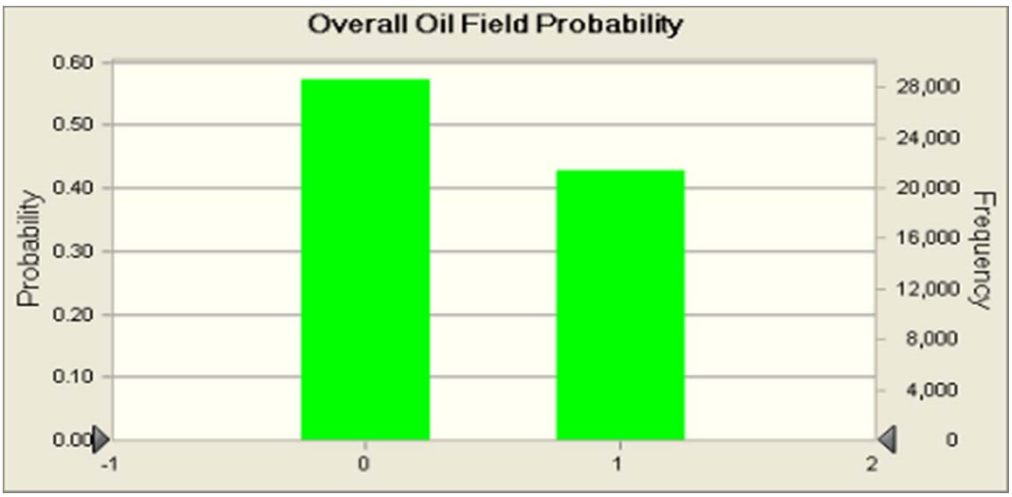
Statistics:	Forecast values
Trials	50,000
Mean	216.65
Median	182.62
Mode	---
Standard Deviation	119.89
Variance	14,374.38
Skewness	1.70
Kurtosis	6.42
Coefficient of Variability	0.5534
Minimum	54.21
Maximum	799.62
Range Width	745.41
Mean Standard Error	0.54

Forecast: Largest Oil Field (cont'd)

Percentiles:	MMBO
P100	54.21
P95	92.55
P90	105.18
P85	115.15
P80	124.57
P75	133.56
P70	142.53
P65	151.77
P60	161.25
P55	171.41
P50	182.62
P45	194.84
P40	208.33
P35	223.03
P30	240.69
P25	262.45
P20	288.60
P15	323.68
P10	374.94
P5	466.58
P0	799.62

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



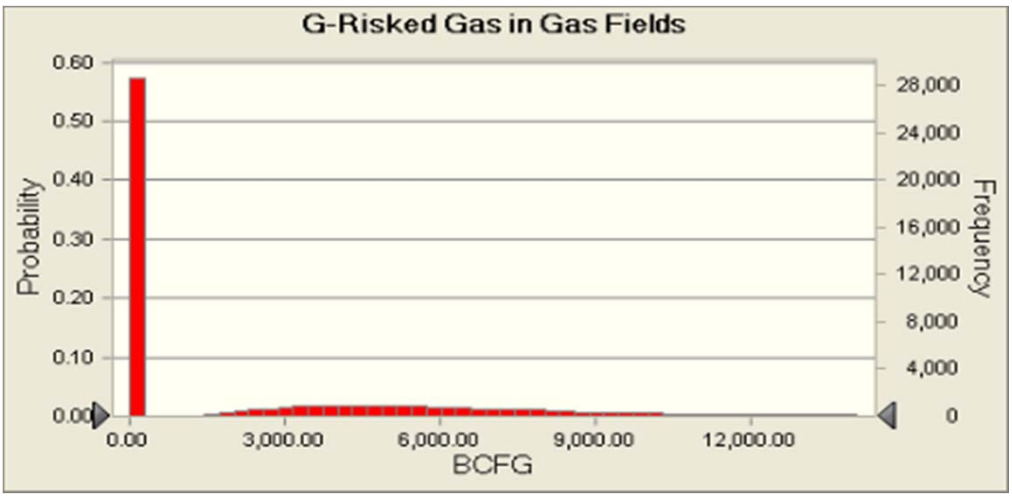
Statistics:	Forecast values	
Trials	50,000	
Mean	0.4269	= the probability of at least one undiscovered oil accumulation of minimum size or larger
Median	0.00	
Mode	0.00	
Standard Deviation	0.49	
Variance	0.24	
Skewness	0.2955	
Kurtosis	1.09	
Coefficient of Variability	1.16	
Minimum	0.00	
Maximum	1.00	
Range Width	1.00	
Mean Standard Error	0.00	

Forecast: Overall Oil Field Probability (cont'd)

Percentiles:	Forecast values
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	1.00
P35	1.00
P30	1.00
P25	1.00
P20	1.00
P15	1.00
P10	1.00
P5	1.00
P0	1.00

Forecast: G-Risked Gas in Gas Fields

Summary:
Entire range is from 0.00 to 34,486.47
After 50,000 trials, the standard error of the mean is 17.93



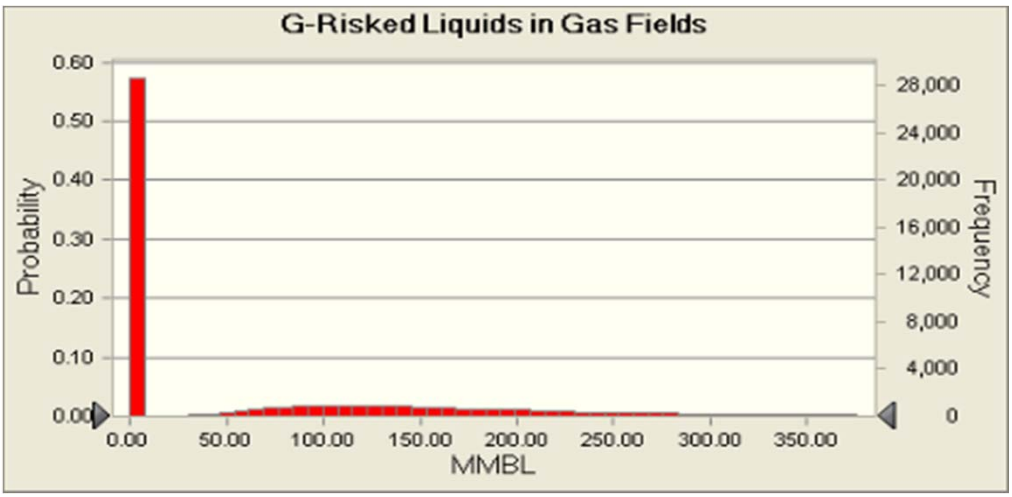
Statistics:	Forecast values
Trials	50,000
Mean	2,779.04
Median	0.00
Mode	0.00
Standard Deviation	4,009.43
Variance	16,075,506.55
Skewness	1.68
Kurtosis	6.41
Coefficient of Variability	1.44
Minimum	0.00
Maximum	34,486.47
Range Width	34,486.47
Mean Standard Error	17.93

Forecast: G-Risked Gas in Gas Fields (cont'd)

Percentiles:	BCFG
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	2,483.16
P35	3,466.71
P30	4,252.34
P25	5,065.54
P20	5,926.48
P15	6,953.73
P10	8,328.14
P5	10,694.29
P0	34,486.47

Forecast: G-Risked Liquids in Gas Fields

Summary:
Entire range is from 0.00 to 866.64
After 50,000 trials, the standard error of the mean is 0.48



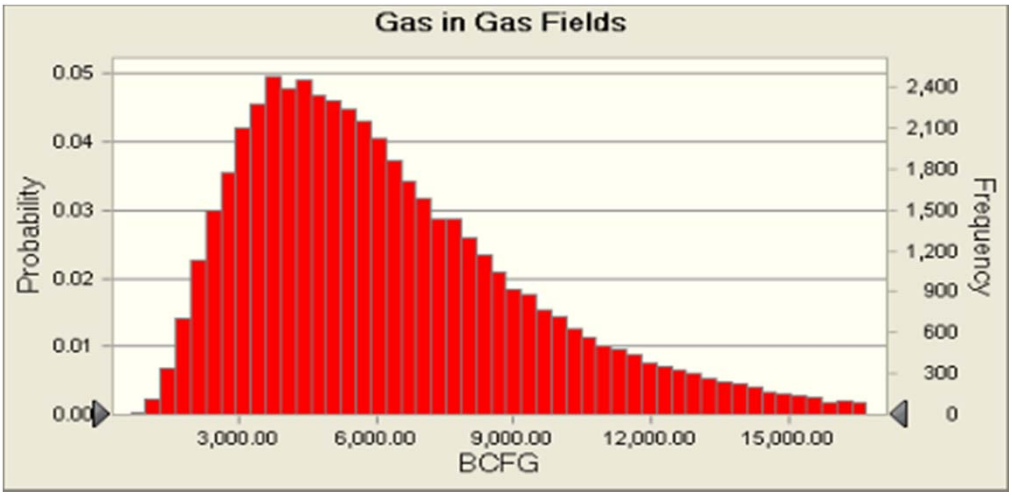
Statistics:	Forecast values
Trials	50,000
Mean	74.02
Median	0.00
Mode	0.00
Standard Deviation	107.62
Variance	11,581.46
Skewness	1.70
Kurtosis	6.50
Coefficient of Variability	1.45
Minimum	0.00
Maximum	866.64
Range Width	866.64
Mean Standard Error	0.48

Forecast: G-Risked Liquids in Gas Fields (cont'd)

Percentiles:	MMBL
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	63.66
P35	90.19
P30	112.32
P25	133.82
P20	156.67
P15	186.15
P10	223.57
P5	286.48
P0	866.64

Forecast: Conditional Gas in Gas Fields

Summary:
Entire range is from 643.91 to 34,486.47
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 16.29



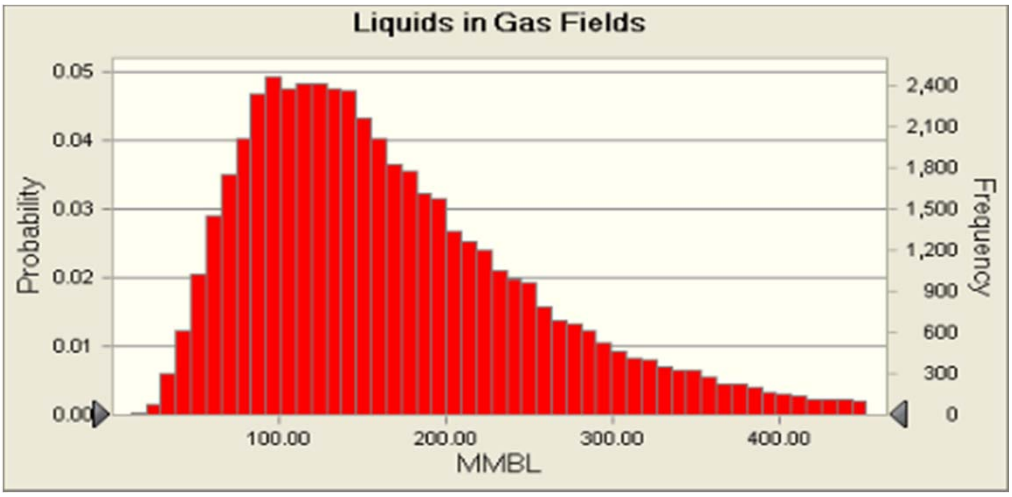
Statistics:	Forecast values
Trials	50,000
Mean	6,506.25
Median	5,682.79
Mode	---
Standard Deviation	3,643.26
Variance	13,273,318.09
Skewness	1.60
Kurtosis	6.98
Coefficient of Variability	0.5600
Minimum	643.91
Maximum	34,486.47
Range Width	33,842.56
Mean Standard Error	16.29

Forecast: Conditional Gas in Gas Fields (cont'd)

Percentiles:	BCFG
P100	643.91
P95	2,329.16
P90	2,837.42
P85	3,235.75
P80	3,596.09
P75	3,929.13
P70	4,269.75
P65	4,604.82
P60	4,957.23
P55	5,306.27
P50	5,682.76
P45	6,074.24
P40	6,509.80
P35	6,986.45
P30	7,534.64
P25	8,132.51
P20	8,870.87
P15	9,831.32
P10	11,204.70
P5	13,502.66
P0	34,486.47

Forecast: Conditional Liquids in Gas Fields

Summary:
Entire range is from 11.27 to 875.43
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.44



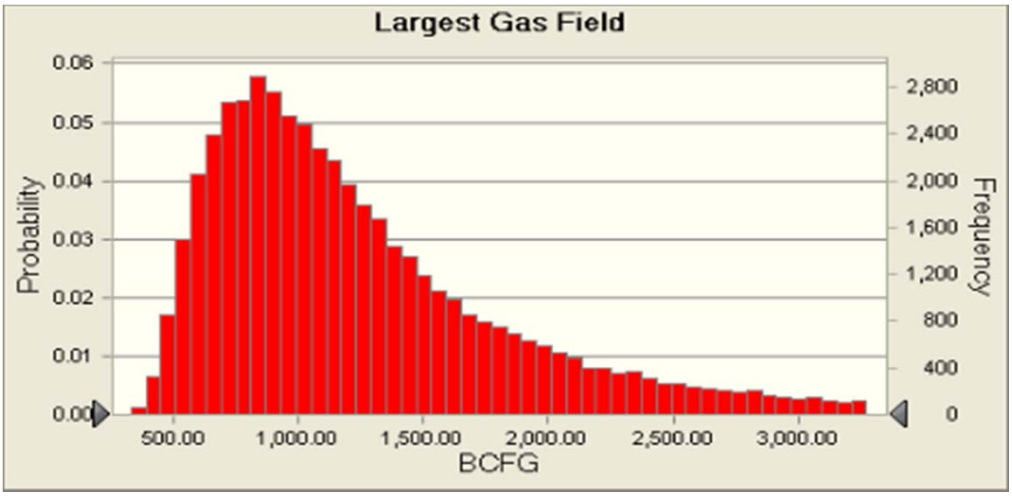
Statistics:	Forecast values
Trials	50,000
Mean	173.41
Median	150.59
Mode	---
Standard Deviation	99.45
Variance	9,890.14
Skewness	1.59
Kurtosis	6.93
Coefficient of Variability	0.5735
Minimum	11.27
Maximum	875.43
Range Width	864.16
Mean Standard Error	0.44

Forecast: Conditional Liquids in Gas Fields (cont'd)

Percentiles:	MMBL
P100	11.27
P95	59.37
P90	73.24
P85	84.25
P80	93.88
P75	103.02
P70	112.39
P65	121.85
P60	131.08
P55	140.43
P50	150.59
P45	161.50
P40	173.54
P35	186.87
P30	200.90
P25	218.45
P20	238.78
P15	264.08
P10	300.62
P5	363.63
P0	875.43

Forecast: Largest Gas Field

Summary:
Entire range is from 328.61 to 4,797.36
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 3.16



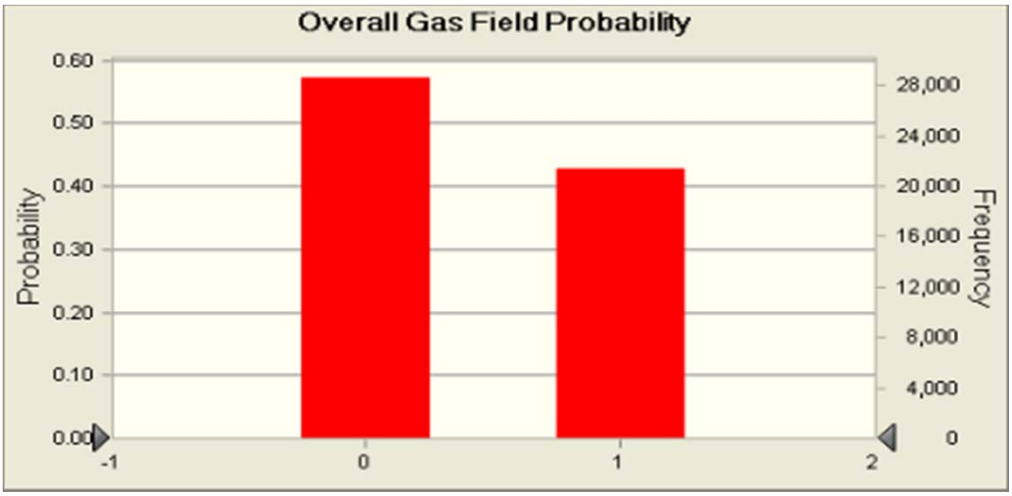
Statistics:	Forecast values
Trials	50,000
Mean	1,294.29
Median	1,096.18
Mode	---
Standard Deviation	706.71
Variance	499,434.57
Skewness	1.72
Kurtosis	6.49
Coefficient of Variability	0.5460
Minimum	328.61
Maximum	4,797.36
Range Width	4,468.75
Mean Standard Error	3.16

Forecast: Largest Gas Field (cont'd)

Percentiles:	BCFG
P100	328.61
P95	562.25
P90	635.38
P85	696.70
P80	752.82
P75	808.98
P70	861.22
P65	914.54
P60	971.58
P55	1,031.36
P50	1,096.16
P45	1,165.75
P40	1,241.81
P35	1,329.26
P30	1,431.94
P25	1,557.10
P20	1,716.36
P15	1,923.70
P10	2,223.24
P5	2,765.14
P0	4,797.36

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	0.4269	= the probability of at least one undiscovered gas accumulation of minimum size or larger
Median	0.00	
Mode	0.00	
Standard Deviation	0.49	
Variance	0.24	
Skewness	0.2955	
Kurtosis	1.09	
Coefficient of Variability	1.16	
Minimum	0.00	
Maximum	1.00	
Range Width	1.00	
Mean Standard Error	0.00	

Forecast: Overall Gas Field Probability (cont'd)

Percentiles:	Forecast values
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	1.00
P35	1.00
P30	1.00
P25	1.00
P20	1.00
P15	1.00
P10	1.00
P5	1.00
P0	1.00

End of Forecasts

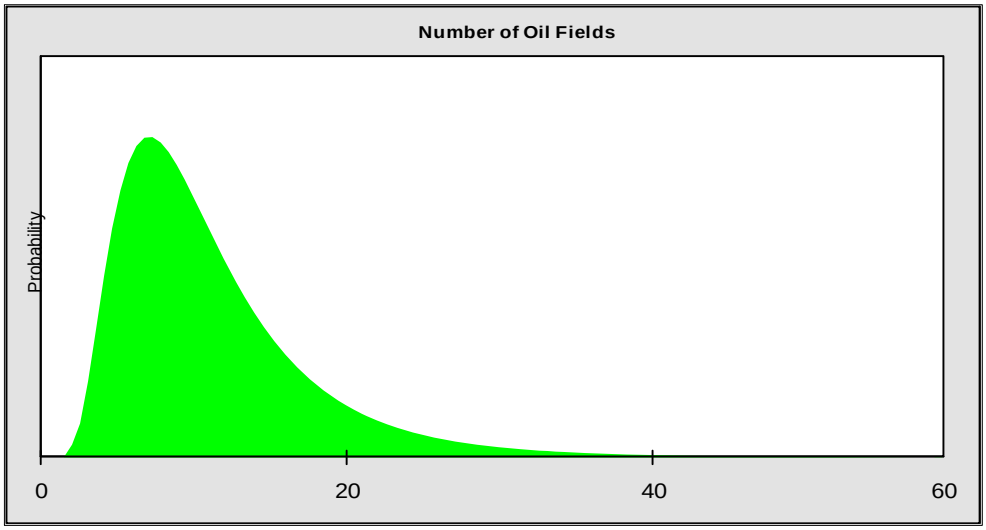
Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:

Mean	11.65
Standard Deviation	6.73

Selected range is from 1.00 to 55.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	11.62	11.59
Median	10.01	9.99
Mode	---	---
Standard Deviation	6.55	6.51
Variance	42.91	42.36
Skewness	1.80	1.76
Kurtosis	7.96	7.65
Coefficient of Variability	0.5636	0.5614
Minimum	1.75	1.00
Maximum	54.85	55.00
Range Width	53.10	54.00
Mean Standard Error	0.03	---

Assumption: Number of Oil Fields (cont'd)

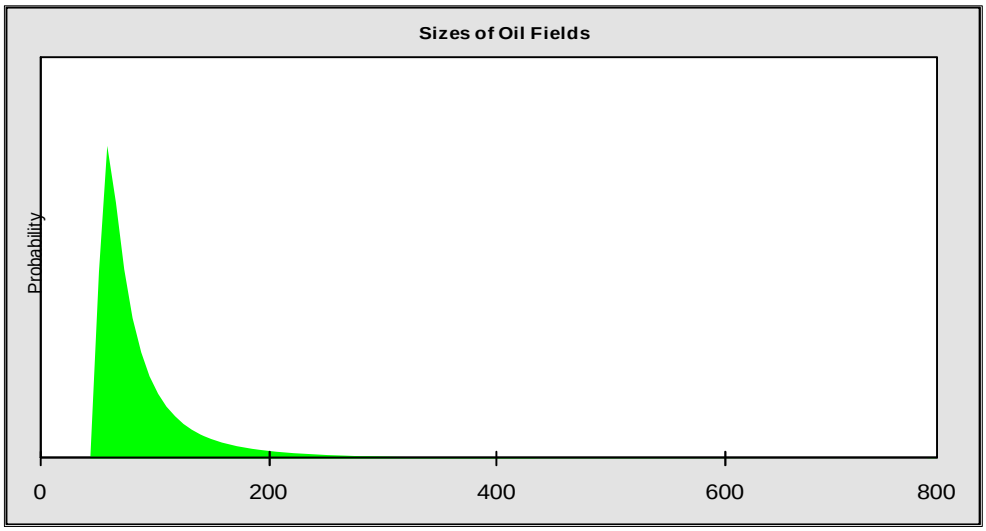
Percentiles:	Simulated values	Theoretical values
P100	1.75	1.00
P95	4.47	4.47
P90	5.29	5.28
P85	5.96	5.93
P80	6.54	6.52
P75	7.11	7.08
P70	7.67	7.64
P65	8.22	8.19
P60	8.80	8.77
P55	9.39	9.36
P50	10.01	9.99
P45	10.68	10.67
P40	11.43	11.41
P35	12.25	12.24
P30	13.18	13.18
P25	14.30	14.29
P20	15.68	15.64
P15	17.41	17.38
P10	19.85	19.87
P5	24.42	24.24
P0	54.85	55.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	95.82
Standard Deviation	70.37

Selected range is from 50.00 to 800.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	95.16	94.79
Median	75.11	74.97
Mode	---	---
Standard Deviation	61.99	61.08
Variance	3,842.40	3,731.36
Skewness	4.06	4.06
Kurtosis	27.10	27.59
Coefficient of Variability	0.65	0.64
Minimum	50.19	50.00
Maximum	796.45	800.00
Range Width	746.25	750.00
Mean Standard Error	0.28	---

Assumption: Sizes of Oil Fields (cont'd)

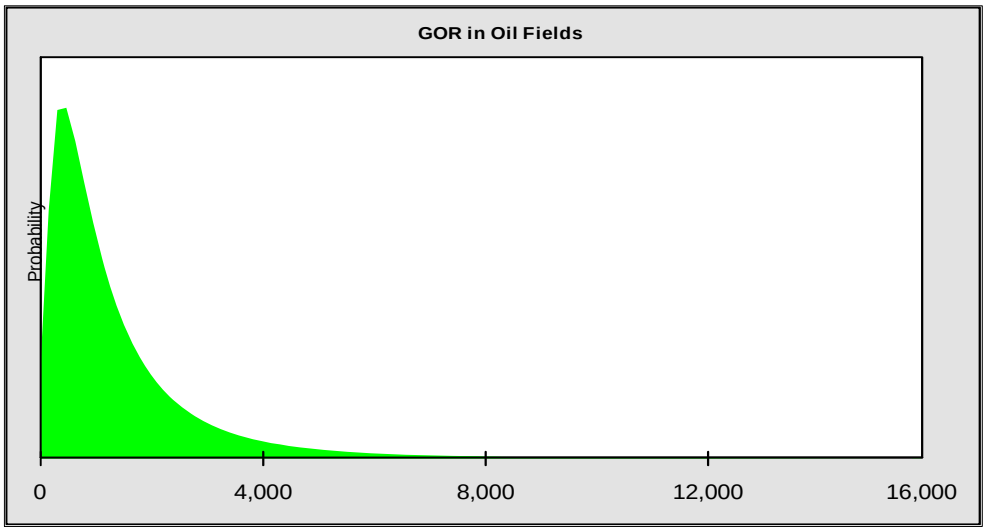
Percentiles:	Simulated values	Theoretical values
P100	50.19	50.00
P95	54.14	54.09
P90	56.10	56.10
P85	57.98	57.98
P80	59.96	59.89
P75	61.99	61.89
P70	64.20	64.02
P65	66.51	66.34
P60	69.03	68.89
P55	71.93	71.74
P50	75.11	74.97
P45	78.93	78.66
P40	83.23	82.98
P35	88.31	88.13
P30	94.36	94.43
P25	102.50	102.39
P20	112.86	112.94
P15	127.85	127.92
P10	152.39	151.89
P5	202.77	201.31
P0	796.45	800.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:

Mean	1,495.55
Standard Deviation	1,663.02

Selected range is from 1.00 to 16,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	1,474.99	1,475.83
Median	997.57	998.88
Mode	---	---
Standard Deviation	1,519.16	1,529.89
Variance	2,307,859.21	2,340,578.38
Skewness	2.98	3.06
Kurtosis	16.14	17.10
Coefficient of Variability	1.03	1.04
Minimum	21.21	1.00
Maximum	15,572.87	16,000.00
Range Width	15,551.66	15,999.00
Mean Standard Error	6.79	---

Assumption: GOR in Oil Fields (cont'd)

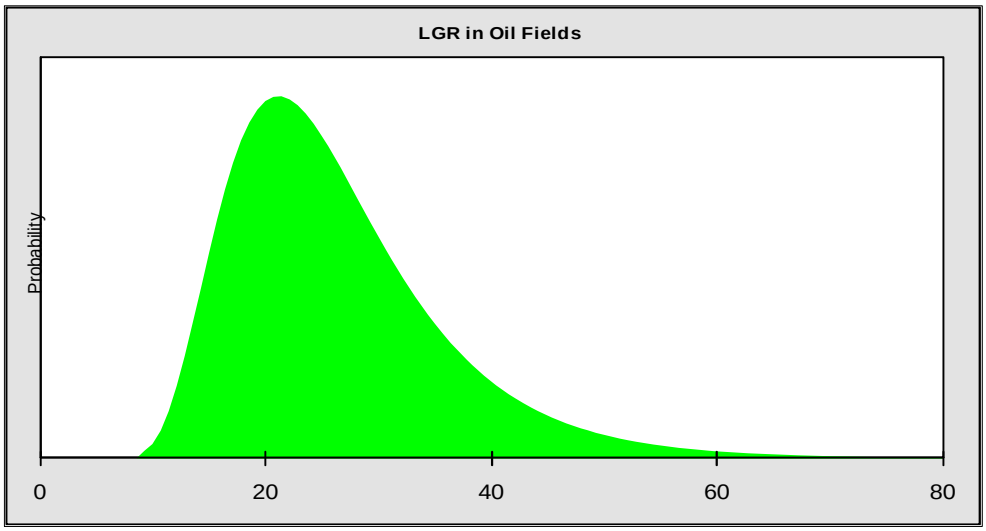
Percentiles:	Simulated values	Theoretical values
P100	21.21	1.00
P95	228.26	229.13
P90	316.79	317.06
P85	394.58	394.82
P80	469.25	470.04
P75	545.06	545.92
P70	623.91	624.46
P65	706.64	707.31
P60	797.09	796.07
P55	893.14	892.53
P50	997.55	998.88
P45	1,118.33	1,117.88
P40	1,258.84	1,253.33
P35	1,414.57	1,410.56
P30	1,606.12	1,597.61
P25	1,834.16	1,827.30
P20	2,122.07	2,121.94
P15	2,516.31	2,525.43
P10	3,139.16	3,142.51
P5	4,345.47	4,337.98
P0	15,572.87	16,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:

Mean	26.92
Standard Deviation	9.82

Selected range is from 5.00 to 80.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	26.80	26.85
Median	24.95	24.99
Mode	---	---
Standard Deviation	9.53	9.61
Variance	90.77	92.44
Skewness	1.23	1.24
Kurtosis	5.24	5.25
Coefficient of Variability	0.3556	0.3580
Minimum	8.99	5.00
Maximum	79.75	80.00
Range Width	70.76	75.00
Mean Standard Error	0.04	---

Assumption: LGR in Oil Fields (cont'd)

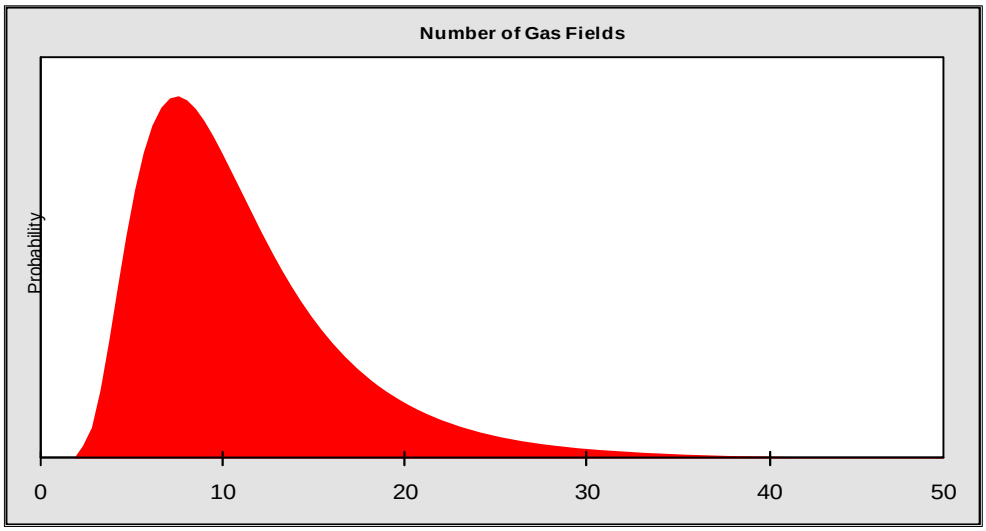
Percentiles:	Simulated values	Theoretical values
P100	8.99	5.00
P95	14.87	14.89
P90	16.54	16.56
P85	17.84	17.83
P80	18.93	18.95
P75	19.97	19.98
P70	20.96	20.98
P65	21.95	21.95
P60	22.94	22.94
P55	23.92	23.94
P50	24.95	24.99
P45	26.07	26.09
P40	27.27	27.27
P35	28.54	28.57
P30	29.97	30.01
P25	31.65	31.66
P20	33.61	33.63
P15	35.93	36.11
P10	39.35	39.53
P5	44.95	45.26
P0	79.75	80.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:

Mean	11.46
Standard Deviation	6.20

Selected range is from 1.00 to 50.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	11.44	11.41
Median	10.03	9.99
Mode	---	---
Standard Deviation	6.01	6.01
Variance	36.17	36.11
Skewness	1.67	1.65
Kurtosis	7.23	7.06
Coefficient of Variability	0.5259	0.5265
Minimum	1.91	1.00
Maximum	49.96	50.00
Range Width	48.05	49.00
Mean Standard Error	0.03	---

Assumption: Number of Gas Fields (cont'd)

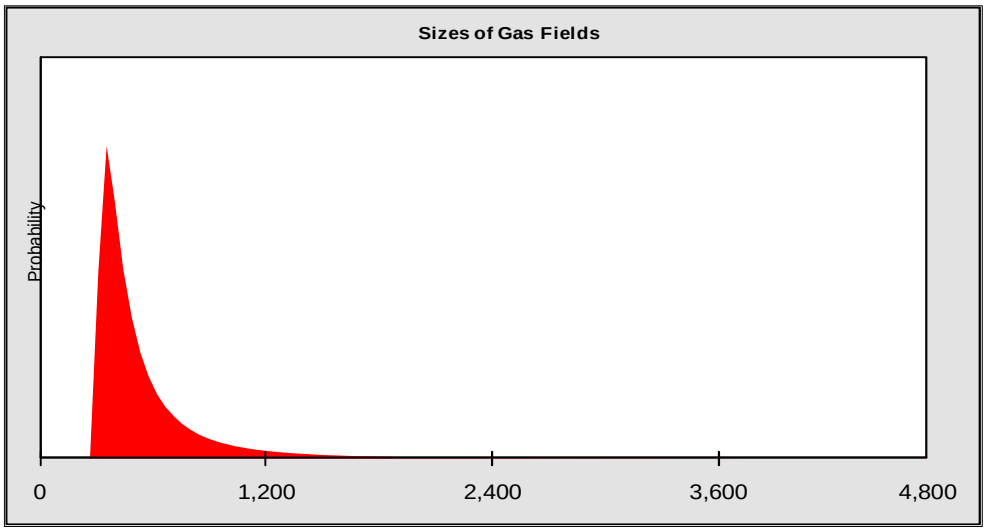
Percentiles:	Simulated values	Theoretical values
P100	1.91	1.00
P95	4.67	4.65
P90	5.47	5.46
P85	6.12	6.10
P80	6.69	6.67
P75	7.25	7.21
P70	7.77	7.75
P65	8.29	8.28
P60	8.84	8.83
P55	9.42	9.40
P50	10.03	9.99
P45	10.66	10.63
P40	11.37	11.33
P35	12.17	12.11
P30	13.04	12.99
P25	14.06	14.01
P20	15.27	15.26
P15	16.83	16.86
P10	19.05	19.12
P5	23.01	23.07
P0	49.96	50.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:

Mean	574.90
Standard Deviation	422.20

Selected range is from 300.00 to 4,800.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	568.68	568.75
Median	448.93	449.79
Mode	---	---
Standard Deviation	365.48	366.51
Variance	133,573.59	134,328.82
Skewness	3.95	4.06
Kurtosis	25.95	27.59
Coefficient of Variability	0.64	0.64
Minimum	301.47	300.00
Maximum	4,750.74	4,800.00
Range Width	4,449.27	4,500.00
Mean Standard Error	1.63	---

Assumption: Sizes of Gas Fields (cont'd)

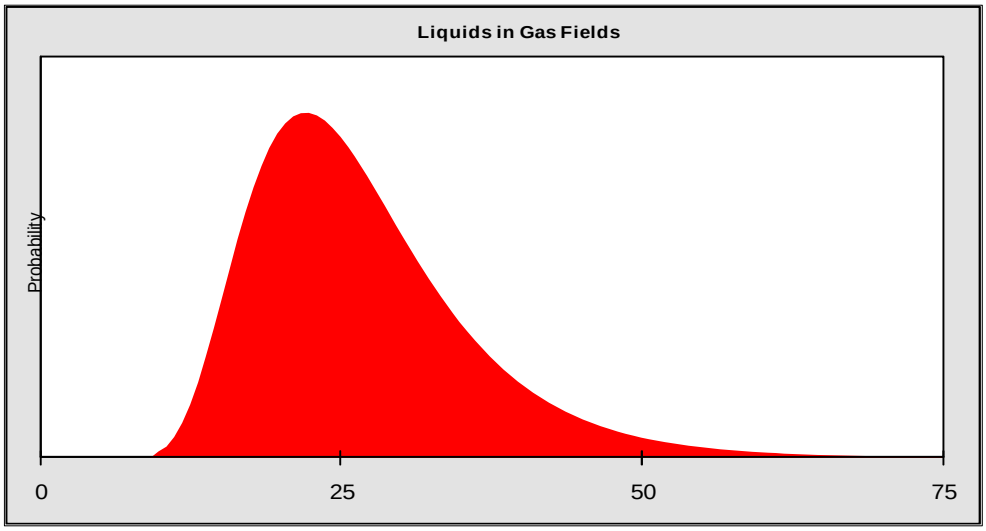
Percentiles:	Simulated values	Theoretical values
P100	301.47	300.00
P95	324.54	324.52
P90	336.84	336.58
P85	347.92	347.90
P80	359.39	359.35
P75	371.25	371.33
P70	383.99	384.14
P65	397.98	398.05
P60	413.64	413.37
P55	430.08	430.46
P50	448.93	449.79
P45	470.60	471.99
P40	496.97	497.90
P35	528.05	528.80
P30	565.22	566.57
P25	611.49	614.33
P20	676.22	677.61
P15	767.14	767.52
P10	913.86	911.32
P5	1,213.66	1,207.84
P0	4,750.74	4,800.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:

Mean	26.70
Standard Deviation	9.31

Selected range is from 4.00 to 75.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	26.65	26.64
Median	25.02	24.99
Mode	---	---
Standard Deviation	9.08	9.13
Variance	82.51	83.38
Skewness	1.12	1.13
Kurtosis	4.84	4.86
Coefficient of Variability	0.3408	0.3428
Minimum	7.76	4.00
Maximum	74.82	75.00
Range Width	67.06	71.00
Mean Standard Error	0.04	---

Assumption: Liquids in Gas Fields (cont'd)

Percentiles:	Simulated values	Theoretical values
P100	7.76	4.00
P95	14.99	14.98
P90	16.69	16.67
P85	18.03	17.95
P80	19.13	19.07
P75	20.15	20.09
P70	21.12	21.07
P65	22.07	22.03
P60	23.02	23.00
P55	24.01	23.98
P50	25.02	24.99
P45	26.09	26.05
P40	27.22	27.19
P35	28.48	28.43
P30	29.85	29.80
P25	31.39	31.37
P20	33.23	33.23
P15	35.50	35.55
P10	38.66	38.73
P5	43.88	44.02
P0	74.82	75.00

End of Assumptions

Simulation started on 6/14/2007 at 11:31:28
Simulation stopped on 6/14/2007 at 11:49:30