

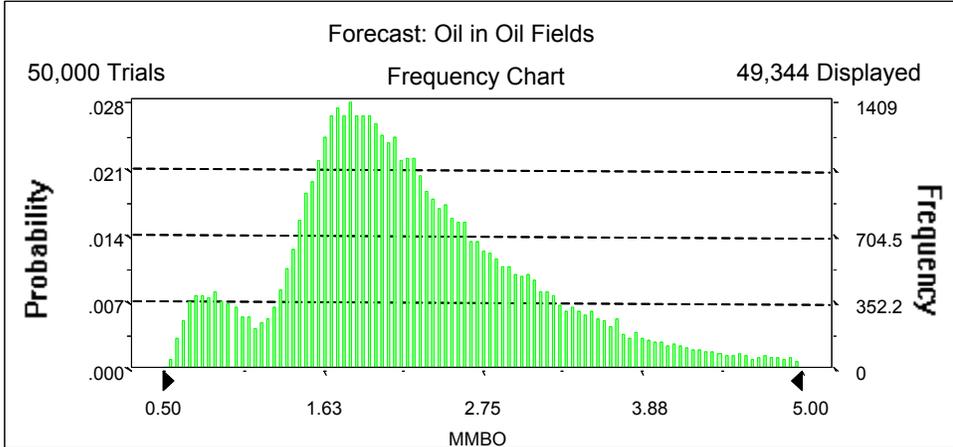
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.50 to 5.00 MMBO
Entire range is from 0.53 to 8.39 MMBO
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	2.28
Median	2.13
Mode	---
Standard Deviation	0.91
Variance	0.83
Skewness	1.06
Kurtosis	5.15
Coefficient of Variability	0.40
Range Minimum	0.53
Range Maximum	8.39
Range Width	7.87
Mean Standard Error	0.00



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.53
95%	0.92
90%	1.31
85%	1.50
80%	1.61
75%	1.70
70%	1.78
65%	1.86
60%	1.95
55%	2.03
50%	2.13
45%	2.22
40%	2.33
35%	2.45
30%	2.58
25%	2.74
20%	2.93
15%	3.15
10%	3.47
5%	3.98
0%	8.39

End of Forecast

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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Gas in Oil Fields

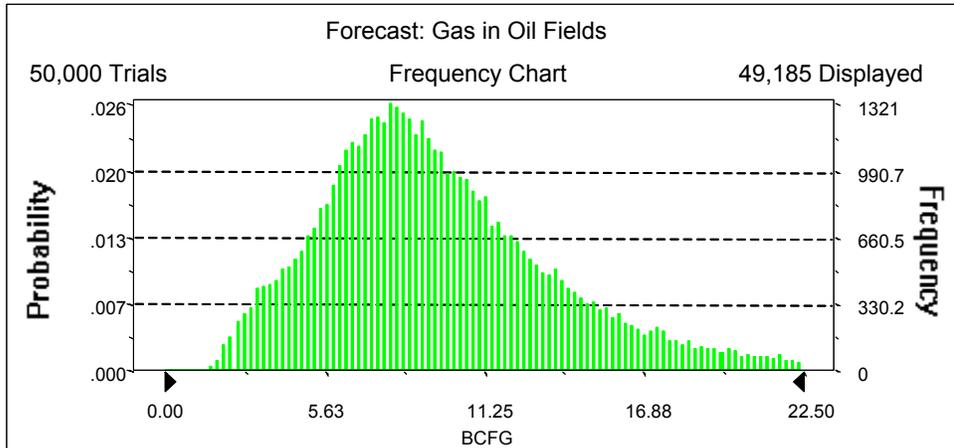
Summary:

Display range is from 0.00 to 22.50 BCFG

Entire range is from 1.29 to 42.03 BCFG

After 50,000 trials, the standard error of the mean is 0.02

Statistics:	Value
Trials	50000
Mean	9.84
Median	9.07
Mode	---
Standard Deviation	4.49
Variance	20.19
Skewness	1.23
Kurtosis	5.75
Coefficient of Variability	0.46
Range Minimum	1.29
Range Maximum	42.03
Range Width	40.74
Mean Standard Error	0.02



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	1.29
95%	3.83
90%	4.90
85%	5.68
80%	6.29
75%	6.79
70%	7.28
65%	7.73
60%	8.16
55%	8.60
50%	9.07
45%	9.55
40%	10.08
35%	10.66
30%	11.29
25%	12.04
20%	12.94
15%	14.07
10%	15.64
5%	18.30
0%	42.03

End of Forecast

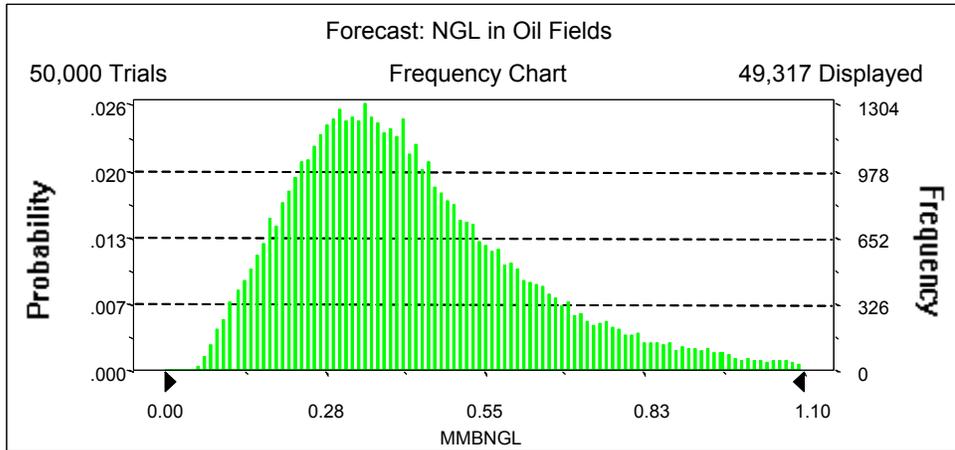
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 1.10 MMBNGL
Entire range is from 0.05 to 2.11 MMBNGL
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	0.43
Median	0.39
Mode	---
Standard Deviation	0.22
Variance	0.05
Skewness	1.36
Kurtosis	6.17
Coefficient. of Variability	0.51
Range Minimum	0.05
Range Maximum	2.11
Range Width	2.06
Mean Standard Error	0.00



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.05
95%	0.16
90%	0.20
85%	0.23
80%	0.26
75%	0.28
70%	0.30
65%	0.32
60%	0.35
55%	0.37
50%	0.39
45%	0.41
40%	0.44
35%	0.47
30%	0.50
25%	0.54
20%	0.58
15%	0.64
10%	0.72
5%	0.85
0%	2.11

End of Forecast

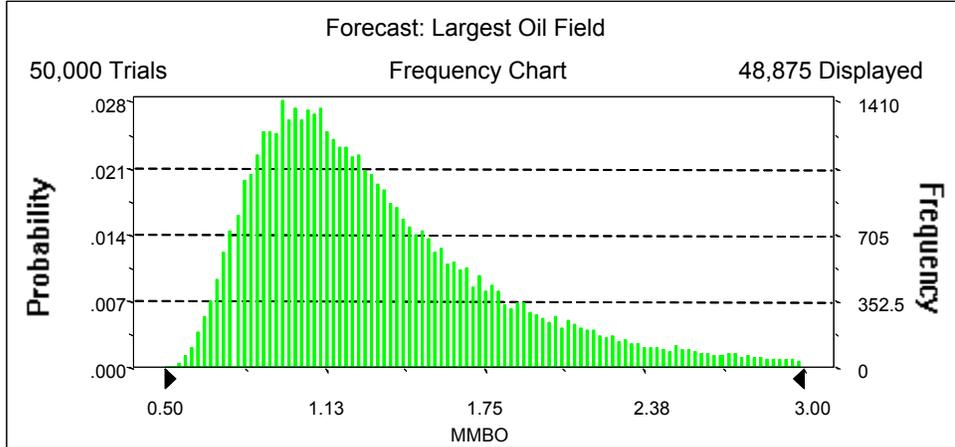
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.50 to 3.00 MMBO
Entire range is from 0.53 to 4.99 MMBO
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	1.37
Median	1.23
Mode	---
Standard Deviation	0.57
Variance	0.33
Skewness	1.89
Kurtosis	8.17
Coefficient of Variability	0.42
Range Minimum	0.53
Range Maximum	4.99
Range Width	4.47
Mean Standard Error	0.00



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.53
95%	0.76
90%	0.84
85%	0.89
80%	0.94
75%	0.99
70%	1.03
65%	1.08
60%	1.12
55%	1.18
50%	1.23
45%	1.29
40%	1.35
35%	1.42
30%	1.50
25%	1.59
20%	1.71
15%	1.87
10%	2.09
5%	2.50
0%	4.99

End of Forecast

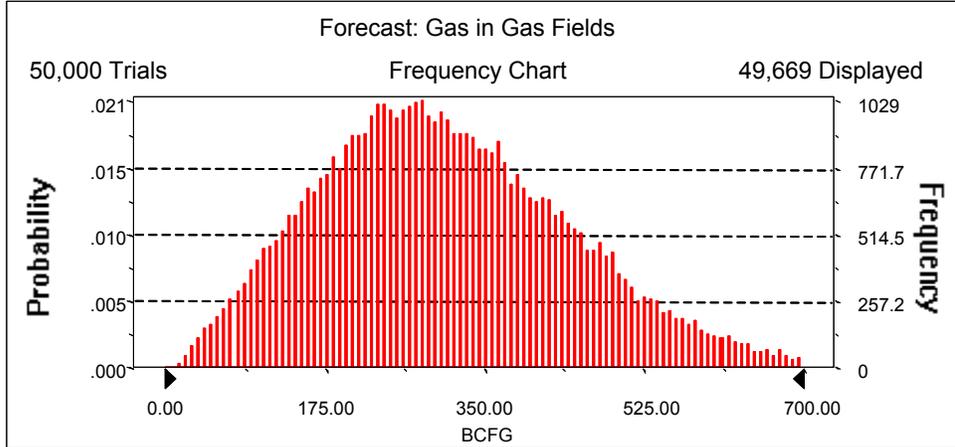
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 700.00 BCFG
Entire range is from 9.09 to 1,073.14 BCFG
After 50,000 trials, the standard error of the mean is 0.62

Statistics:	Value
Trials	50000
Mean	310.38
Median	297.67
Mode	---
Standard Deviation	139.59
Variance	19,484.02
Skewness	0.48
Kurtosis	3.09
Coefficient of Variability	0.45
Range Minimum	9.09
Range Maximum	1,073.14
Range Width	1,064.05
Mean Standard Error	0.62



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	9.09
95%	101.40
90%	136.89
85%	164.58
80%	187.53
75%	208.43
70%	227.50
65%	244.88
60%	262.90
55%	280.02
50%	297.67
45%	315.68
40%	335.25
35%	355.39
30%	376.33
25%	400.72
20%	427.79
15%	458.74
10%	496.49
5%	558.75
0%	1,073.14

End of Forecast

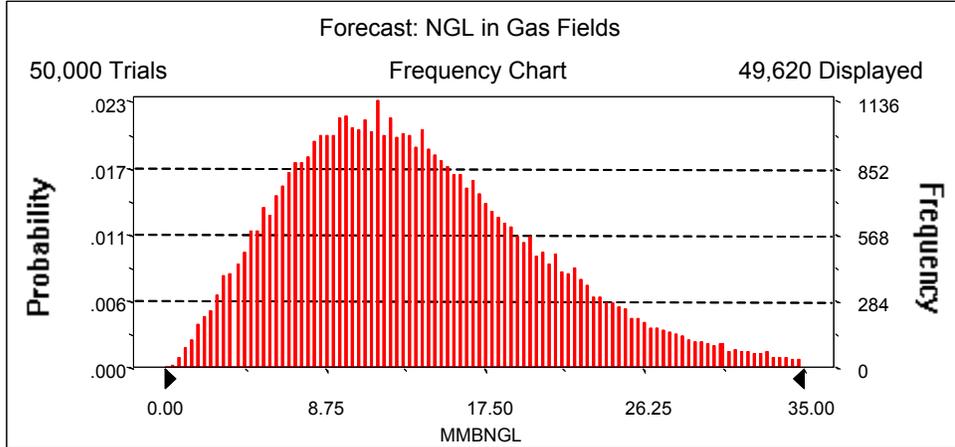
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 35.00 MMBNGL
Entire range is from 0.29 to 61.87 MMBNGL
After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	13.96
Median	13.01
Mode	---
Standard Deviation	7.02
Variance	49.25
Skewness	0.79
Kurtosis	3.80
Coefficient of Variability	0.50
Range Minimum	0.29
Range Maximum	61.87
Range Width	61.58
Mean Standard Error	0.03



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.29
95%	4.23
90%	5.71
85%	6.89
80%	7.87
75%	8.78
70%	9.65
65%	10.48
60%	11.32
55%	12.14
50%	13.01
45%	13.91
40%	14.82
35%	15.80
30%	16.89
25%	18.10
20%	19.52
15%	21.25
10%	23.37
5%	26.93
0%	61.87

End of Forecast

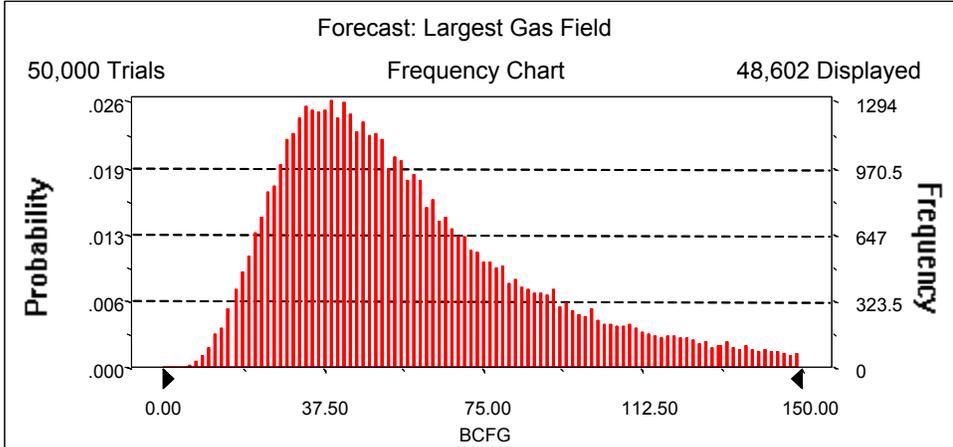
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 150.00 BCFG
Entire range is from 4.83 to 199.83 BCFG
After 50,000 trials, the standard error of the mean is 0.15

Statistics:	Value
Trials	50000
Mean	60.31
Median	51.70
Mode	---
Standard Deviation	33.96
Variance	1,153.55
Skewness	1.36
Kurtosis	4.95
Coefficient of Variability	0.56
Range Minimum	4.83
Range Maximum	199.83
Range Width	195.00
Mean Standard Error	0.15



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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	4.83
95%	21.69
90%	26.39
85%	30.04
80%	33.22
75%	36.19
70%	39.19
65%	42.18
60%	45.18
55%	48.36
50%	51.70
45%	55.39
40%	59.34
35%	63.70
30%	68.86
25%	75.10
20%	82.95
15%	92.82
10%	107.13
5%	131.18
0%	199.83

End of Forecast

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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

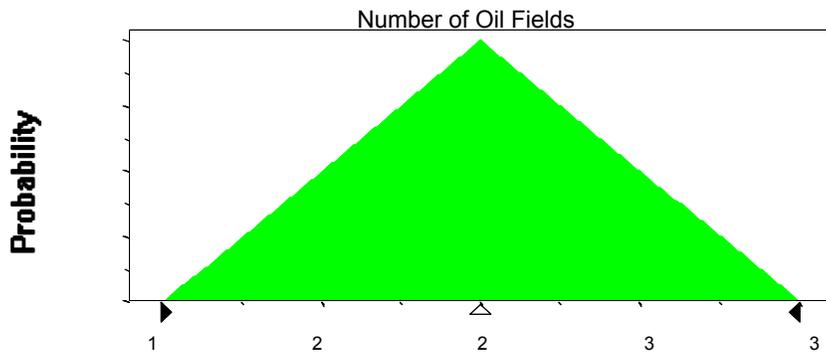
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	2
Maximum	3

Selected range is from 1 to 3



Assumption: Sizes of Oil Fields

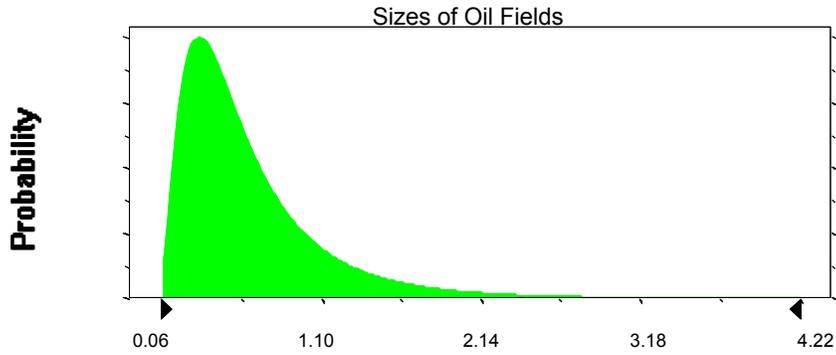
Lognormal distribution with parameters:	Shifted parameters	
Mean	0.64	1.14
Standard Dev.	0.52	0.52

Selected range is from 0.00 to 4.50

0.50 to 5.00

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Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)

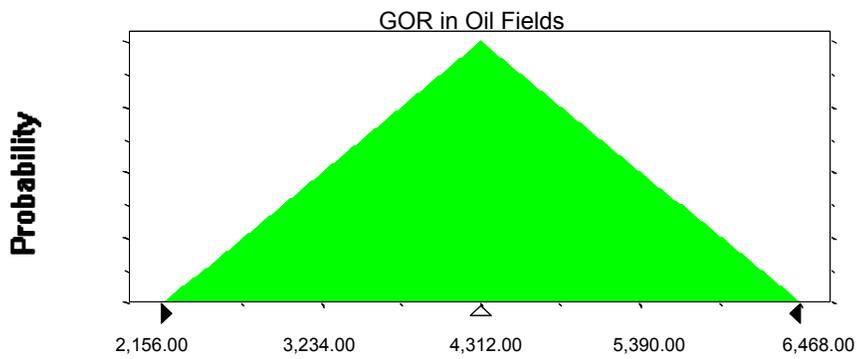


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	2,156.00
Likeliest	4,312.00
Maximum	6,468.00

Selected range is from 2,156.00 to 6,468.00



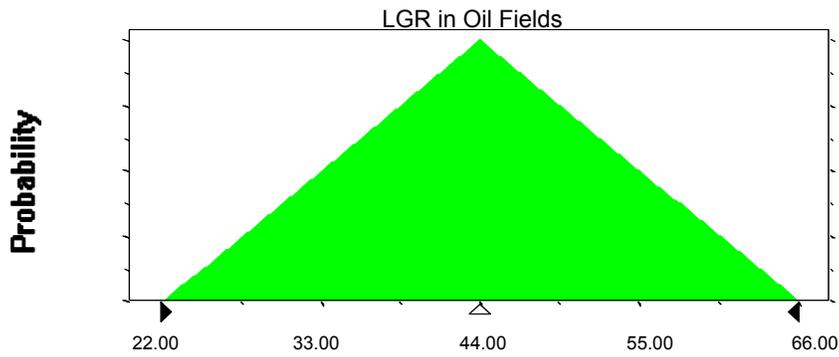
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00



Assumption: Number of Gas Fields

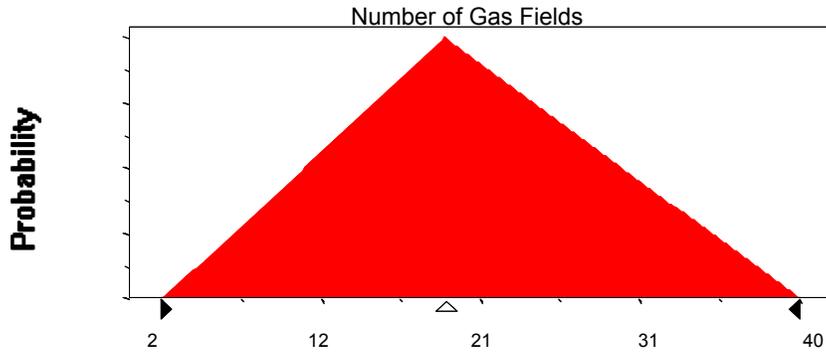
Triangular distribution with parameters:

Minimum	2
Likeliest	19
Maximum	40

Selected range is from 2 to 40

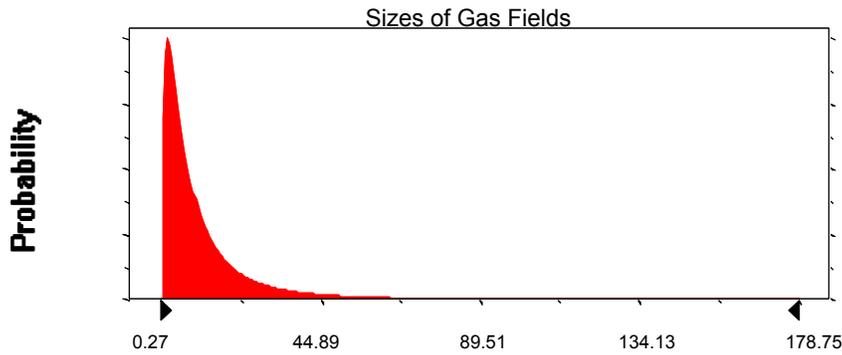
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	12.54	15.54
Standard Dev.	18.65	18.65
Selected range is from 0.00 to 197.00	3.00 to 200.00	



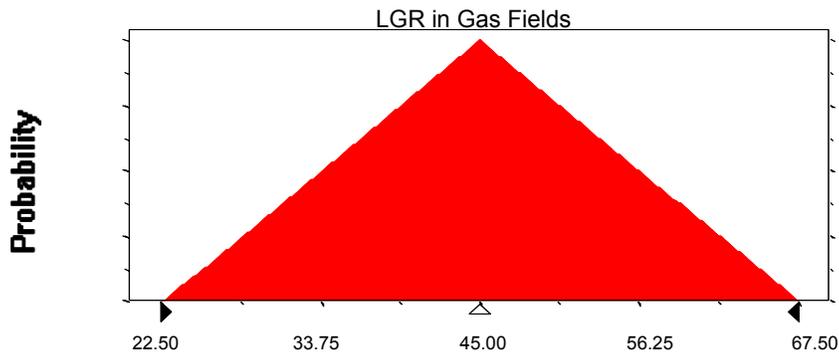
50370601
Mesaverde-Lance-Fort Union Conventional Oil and Gas
Monte Carlo Results

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.50
Likeliest	45.00
Maximum	67.50

Selected range is from 22.50 to 67.50



End of Assumptions

Simulation started on 8/27/02 at 17:07:15

Simulation started on 8/27/02 at 17:07:16



Click here to return to
Chapter 28