

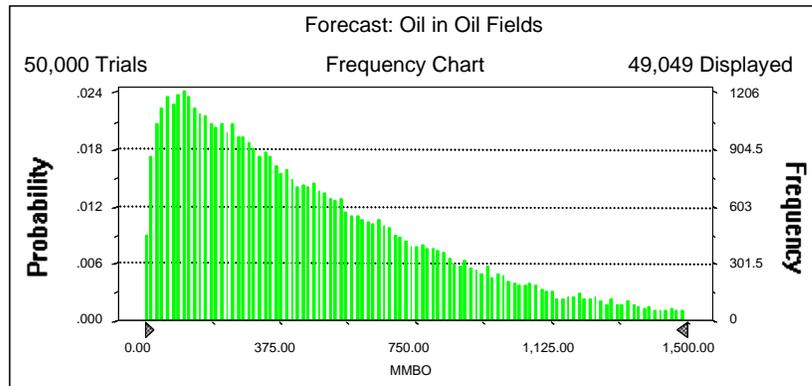
50190102
Ranges and Other Structures
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 1,500.00 MMBO
Entire range is from 0.72 to 3,135.46 MMBO
After 50,000 trials, the standard error of the mean is 1.69

Statistics:	Value
Trials	50000
Mean	470.32
Median	375.13
Mode	---
Standard Deviation	378.82
Variance	143,501.98
Skewness	1.31
Kurtosis	5.12
Coefficient of Variability	0.81
Range Minimum	0.72
Range Maximum	3,135.46
Range Width	3,134.74
Mean Standard Error	1.69



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.72
95%	46.99
90%	78.71
85%	111.14
80%	142.98
75%	177.36
70%	213.95
65%	250.97
60%	289.42
55%	331.22
50%	375.13
45%	423.88
40%	475.73
35%	532.23
30%	596.32
25%	668.13
20%	753.81
15%	854.06
10%	992.02
5%	1,216.09
0%	3,135.46

End of Forecast

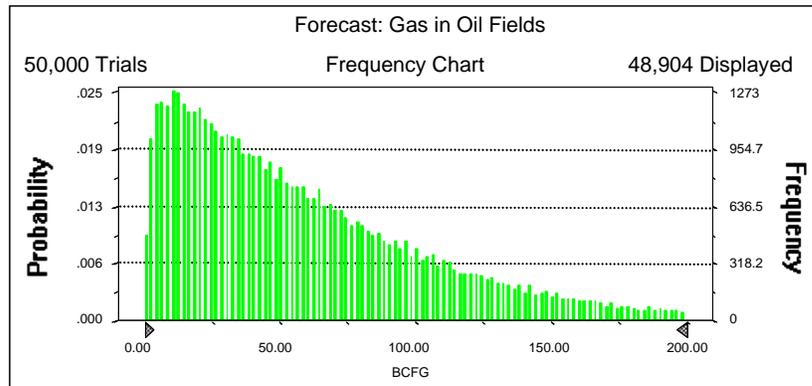
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Ranges and Other Structures
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 200.00 BCFG
Entire range is from 0.06 to 527.57 BCFG
After 50,000 trials, the standard error of the mean is 0.23

Statistics:	Value
Trials	50000
Mean	61.18
Median	47.72
Mode	---
Standard Deviation	51.47
Variance	2,649.59
Skewness	1.51
Kurtosis	6.16
Coefficient of Variability	0.84
Range Minimum	0.06
Range Maximum	527.57
Range Width	527.50
Mean Standard Error	0.23



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	0.06
95%	5.69
90%	9.85
85%	13.79
80%	17.97
75%	22.27
70%	26.81
65%	31.65
60%	36.64
55%	42.04
50%	47.72
45%	53.91
40%	60.71
35%	68.04
30%	76.28
25%	86.02
20%	97.42
15%	111.55
10%	130.70
5%	162.31
0%	527.57

End of Forecast

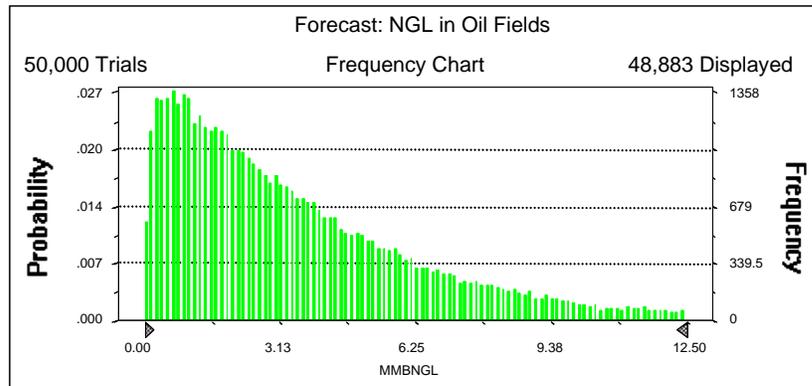
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Ranges and Other Structures
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 12.50 MMBNGL
Entire range is from 0.00 to 36.25 MMBNGL
After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	3.68
Median	2.78
Mode	---
Standard Deviation	3.25
Variance	10.55
Skewness	1.73
Kurtosis	7.51
Coefficient of Variability	0.88
Range Minimum	0.00
Range Maximum	36.25
Range Width	36.25
Mean Standard Error	0.01



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.00
95%	0.32
90%	0.56
85%	0.80
80%	1.03
75%	1.29
70%	1.56
65%	1.83
60%	2.13
55%	2.44
50%	2.78
45%	3.15
40%	3.55
35%	4.00
30%	4.50
25%	5.10
20%	5.81
15%	6.72
10%	8.00
5%	10.06
0%	36.25

End of Forecast

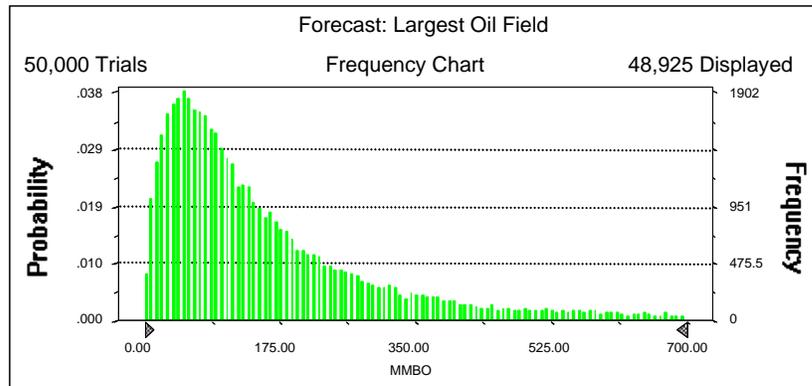
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Ranges and Other Structures
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 700.00 MMBO
Entire range is from 0.72 to 999.94 MMBO
After 50,000 trials, the standard error of the mean is 0.74

Statistics:	Value
Trials	50000
Mean	169.31
Median	114.87
Mode	---
Standard Deviation	165.82
Variance	27,496.02
Skewness	2.06
Kurtosis	7.85
Coefficient of Variability	0.98
Range Minimum	0.72
Range Maximum	999.94
Range Width	999.21
Mean Standard Error	0.74



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.72
95%	19.75
90%	30.95
85%	40.93
80%	50.33
75%	59.55
70%	69.48
65%	79.62
60%	90.37
55%	101.80
50%	114.87
45%	129.78
40%	146.12
35%	165.66
30%	187.91
25%	217.01
20%	253.84
15%	303.37
10%	378.28
5%	525.46
0%	999.94

End of Forecast

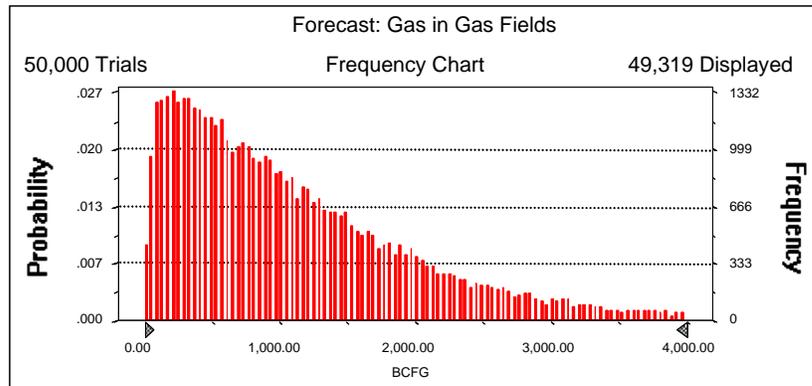
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Ranges and Other Structures
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 4,000.00 BCFG
Entire range is from 3.76 to 7,841.61 BCFG
After 50,000 trials, the standard error of the mean is 4.16

Statistics:	Value
Trials	50000
Mean	1,133.26
Median	898.06
Mode	---
Standard Deviation	931.29
Variance	867,295.63
Skewness	1.43
Kurtosis	5.64
Coefficient of Variability	0.82
Range Minimum	3.76
Range Maximum	7,841.61
Range Width	7,837.85
Mean Standard Error	4.16



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Ranges and Other Structures
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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	3.76
95%	114.50
90%	191.24
85%	268.99
80%	345.38
75%	425.82
70%	509.91
65%	597.13
60%	694.69
55%	792.94
50%	898.06
45%	1,009.05
40%	1,129.62
35%	1,265.22
30%	1,416.72
25%	1,586.47
20%	1,796.49
15%	2,041.80
10%	2,396.85
5%	2,981.05
0%	7,841.61

End of Forecast

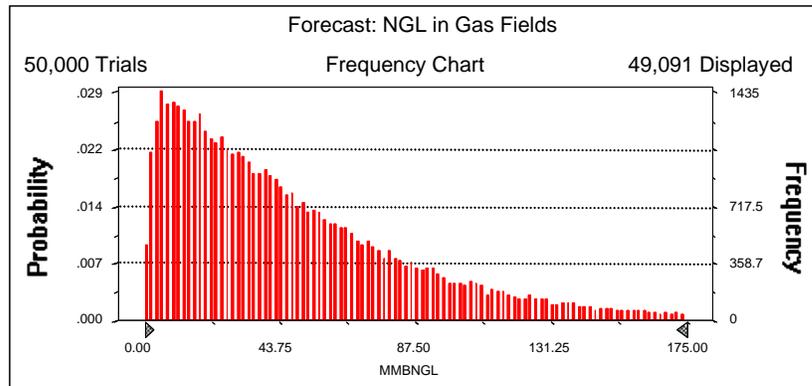
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Ranges and Other Structures
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 175.00 MMBNGL
Entire range is from 0.11 to 436.63 MMBNGL
After 50,000 trials, the standard error of the mean is 0.19

Statistics:	Value
Trials	50000
Mean	49.89
Median	38.46
Mode	---
Standard Deviation	43.15
Variance	1,861.71
Skewness	1.69
Kurtosis	7.20
Coefficient of Variability	0.86
Range Minimum	0.11
Range Maximum	436.63
Range Width	436.51
Mean Standard Error	0.19



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Ranges and Other Structures
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.11
95%	4.91
90%	8.06
85%	11.24
80%	14.55
75%	18.04
70%	21.61
65%	25.50
60%	29.57
55%	33.74
50%	38.46
45%	43.20
40%	48.54
35%	54.66
30%	61.40
25%	69.15
20%	78.67
15%	90.70
10%	107.20
5%	134.80
0%	436.63

End of Forecast

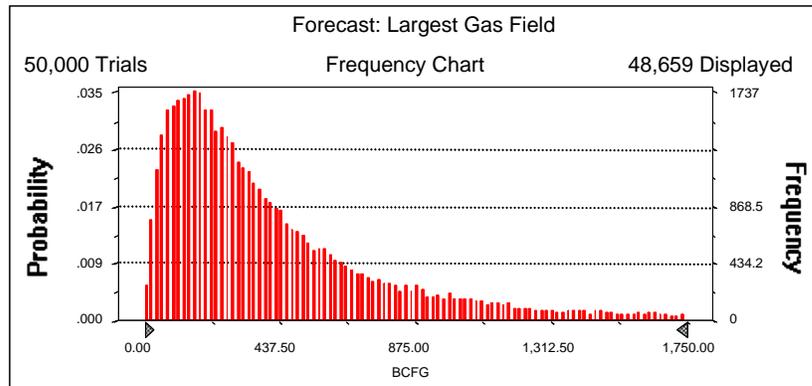
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Ranges and Other Structures
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 1,750.00 BCFG
Entire range is from 3.76 to 2,998.29 BCFG
After 50,000 trials, the standard error of the mean is 2.00

Statistics:	Value
Trials	50000
Mean	451.77
Median	308.60
Mode	---
Standard Deviation	447.09
Variance	199,887.82
Skewness	2.27
Kurtosis	9.40
Coefficient of Variability	0.99
Range Minimum	3.76
Range Maximum	2,998.29
Range Width	2,994.53
Mean Standard Error	2.00



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Ranges and Other Structures
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	3.76
95%	56.62
90%	85.56
85%	111.85
80%	138.46
75%	163.65
70%	188.64
65%	215.83
60%	244.89
55%	274.99
50%	308.60
45%	346.49
40%	389.39
35%	438.91
30%	498.03
25%	571.65
20%	663.99
15%	797.84
10%	993.02
5%	1,378.51
0%	2,998.29

End of Forecast

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Ranges and Other Structures
Monte Carlo Results

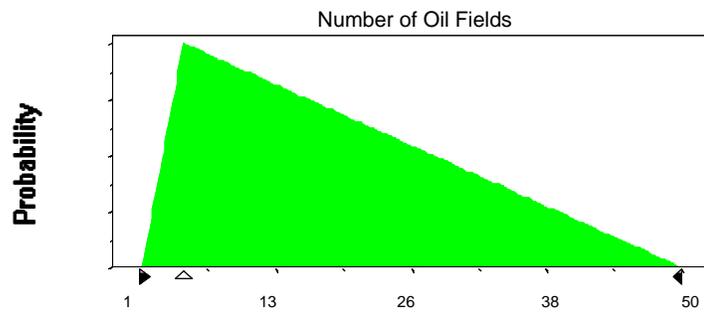
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	5
Maximum	50

Selected range is from 1 to 50



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	26.27
Standard Deviation	88.16

Shifted parameters

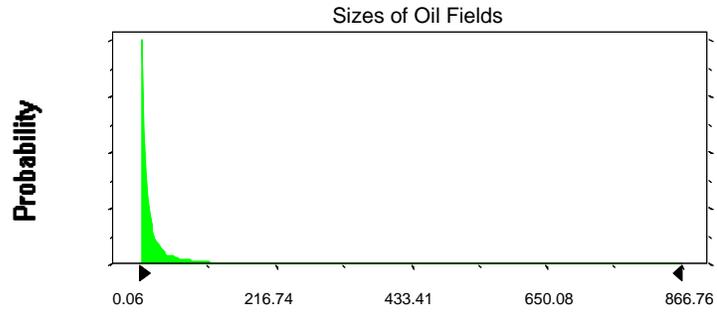
26.77
88.16

Selected range is from 0.00 to 999.50

0.50 to 1,000.00

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Ranges and Other Structures
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Assumption: Sizes of Oil Fields (cont'd)

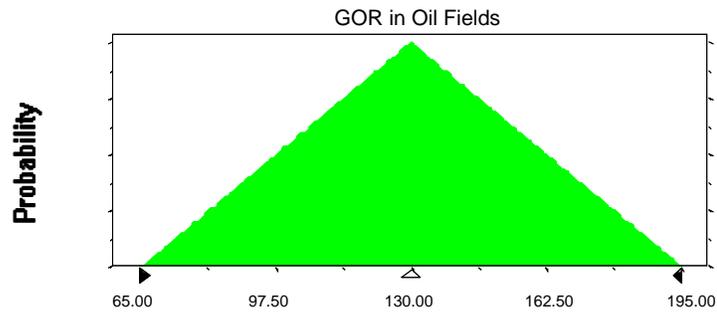


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	65.00
Likeliest	130.00
Maximum	195.00

Selected range is from 65.00 to 195.00



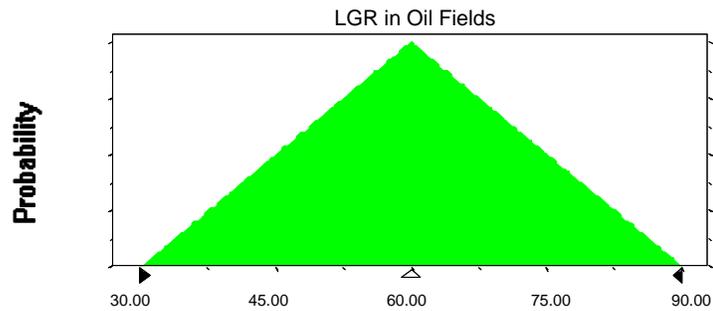
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00



Assumption: Number of Gas Fields

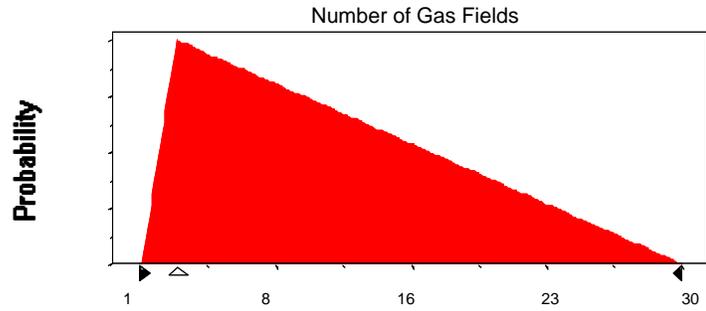
Triangular distribution with parameters:

Minimum	1
Likeliest	3
Maximum	30

Selected range is from 1 to 30

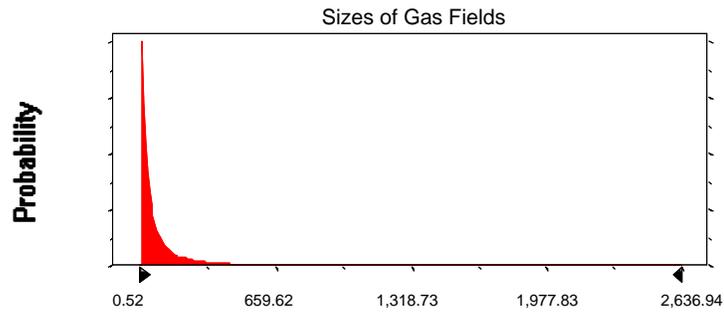
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Ranges and Other Structures
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	101.72	104.72
Standard Deviation	260.46	260.46
Selected range is from 0.00 to 2,997.00	3.00 to 3,000.00	



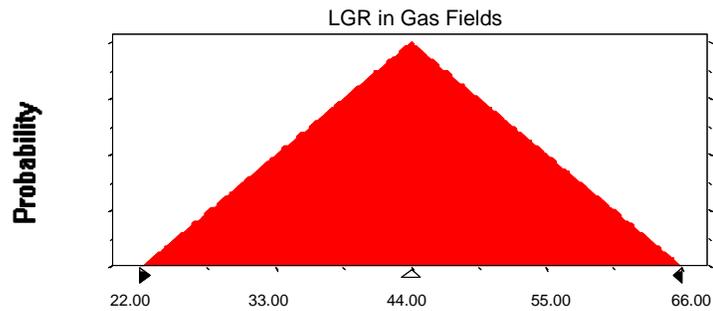
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Ranges and Other Structures
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00



End of Assumptions

Simulation started on 12/15/04 at 13:27:47

Simulation stopped on 12/15/04 at 13:30:08



***Click here to return to
Chapter 3***