

50220302
Gallup Sandstone Conventional Oil and Gas
Monte Carlo Results

Forecast: Oil in Oil Fields

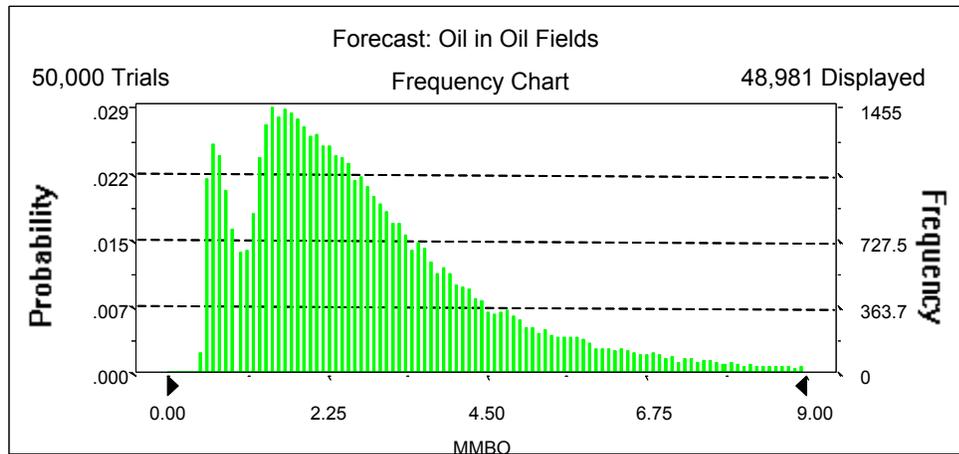
Summary:

Display range is from 0.00 to 9.00 MMBO

Entire range is from 0.51 to 26.42 MMBO

After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	2.92
Median	2.43
Mode	---
Standard Deviation	2.05
Variance	4.19
Skewness	2.19
Kurtosis	10.77
Coefficient of Variability	0.70
Range Minimum	0.51
Range Maximum	26.42
Range Width	25.91
Mean Standard Error	0.01



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.51
95%	0.72
90%	0.94
85%	1.25
80%	1.43
75%	1.59
70%	1.74
65%	1.90
60%	2.07
55%	2.25
50%	2.43
45%	2.62
40%	2.84
35%	3.07
30%	3.34
25%	3.66
20%	4.05
15%	4.56
10%	5.34
5%	6.75
0%	26.42

End of Forecast

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Forecast: Gas in Oil Fields

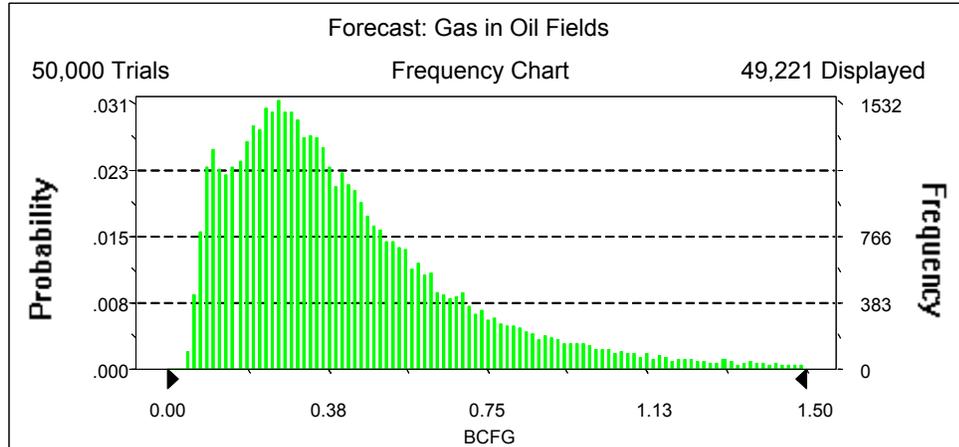
Summary:

Display range is from 0.00 to 1.50 BCFG

Entire range is from 0.04 to 4.38 BCFG

After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	0.44
Median	0.36
Mode	---
Standard Deviation	0.33
Variance	0.11
Skewness	2.36
Kurtosis	12.35
Coefficient of Variability	0.74
Range Minimum	0.04
Range Maximum	4.38
Range Width	4.34
Mean Standard Error	0.00



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	0.04
95%	0.11
90%	0.14
85%	0.17
80%	0.20
75%	0.23
70%	0.25
65%	0.28
60%	0.30
55%	0.33
50%	0.36
45%	0.39
40%	0.42
35%	0.46
30%	0.50
25%	0.55
20%	0.62
15%	0.70
10%	0.82
5%	1.04
0%	4.38

End of Forecast

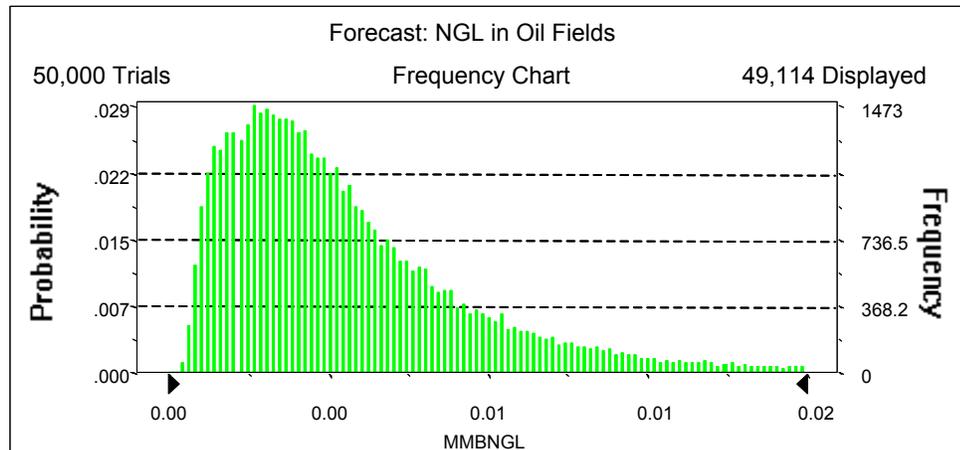
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 0.02 MMBNGL
Entire range is from 0.00 to 0.05 MMBNGL
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	0.00
Median	0.00
Mode	---
Standard Deviation	0.00
Variance	0.00
Skewness	2.54
Kurtosis	14.14
Coefficient of Variability	0.79
Range Minimum	0.00
Range Maximum	0.05
Range Width	0.05
Mean Standard Error	0.00



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	0.00
35%	0.00
30%	0.01
25%	0.01
20%	0.01
15%	0.01
10%	0.01
5%	0.01
0%	0.05

End of Forecast

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Forecast: Largest Oil Field

Summary:

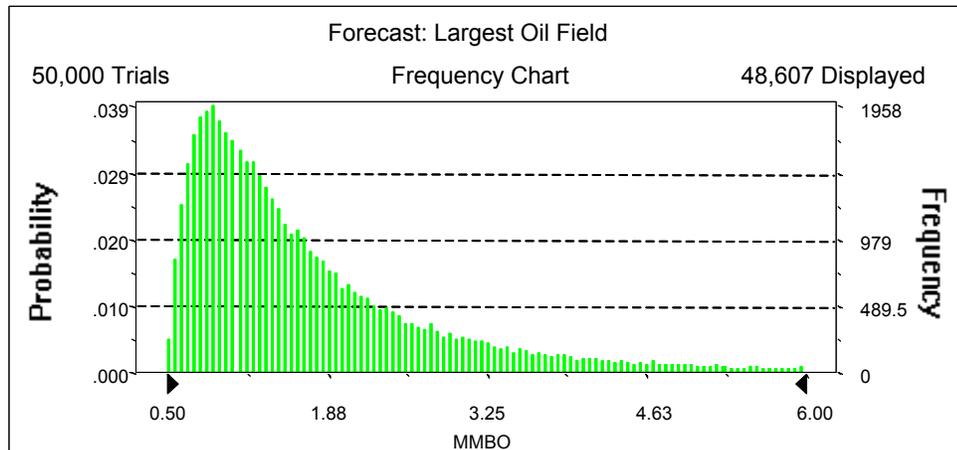
Display range is from 0.50 to 6.00 MMBO

Entire range is from 0.51 to 14.92 MMBO

After 50,000 trials, the standard error of the mean is 0.01

Statistics:

	<u>Value</u>
Trials	50000
Mean	1.89
Median	1.41
Mode	---
Standard Deviation	1.54
Variance	2.36
Skewness	3.09
Kurtosis	16.63
Coefficient of Variability	0.81
Range Minimum	0.51
Range Maximum	14.92
Range Width	14.41
Mean Standard Error	0.01



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.51
95%	0.67
90%	0.76
85%	0.83
80%	0.90
75%	0.97
70%	1.05
65%	1.13
60%	1.22
55%	1.31
50%	1.41
45%	1.53
40%	1.66
35%	1.81
30%	1.99
25%	2.22
20%	2.50
15%	2.91
10%	3.51
5%	4.76
0%	14.92

End of Forecast

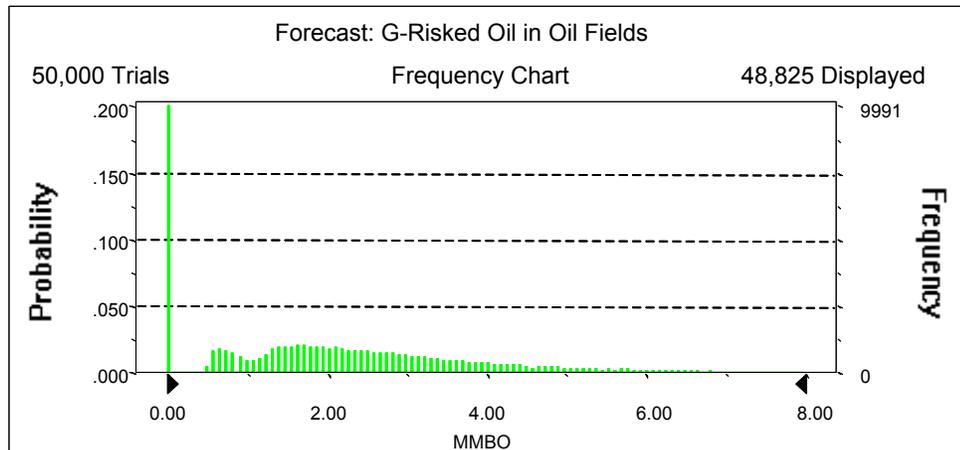
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Forecast: G-Riskied Oil in Oil Fields

Summary:

Display range is from 0.00 to 8.00 MMBO
Entire range is from 0.00 to 20.31 MMBO
After 50,000 trials, the standard error of the mean is 0.01

Statistics:	<u>Value</u>
Trials	50000
Mean	2.34
Median	1.98
Mode	0.00
Standard Deviation	2.17
Variance	4.72
Skewness	1.78
Kurtosis	8.58
Coefficient of Variability	0.93
Range Minimum	0.00
Range Maximum	20.31
Range Width	20.31
Mean Standard Error	0.01



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

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.52
75%	0.77
70%	1.10
65%	1.39
60%	1.58
55%	1.78
50%	1.98
45%	2.20
40%	2.43
35%	2.68
30%	2.95
25%	3.27
20%	3.66
15%	4.16
10%	4.92
5%	6.29
0%	20.31

End of Forecast

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Forecast: G-Risked Gas in Oil Fields

Summary:

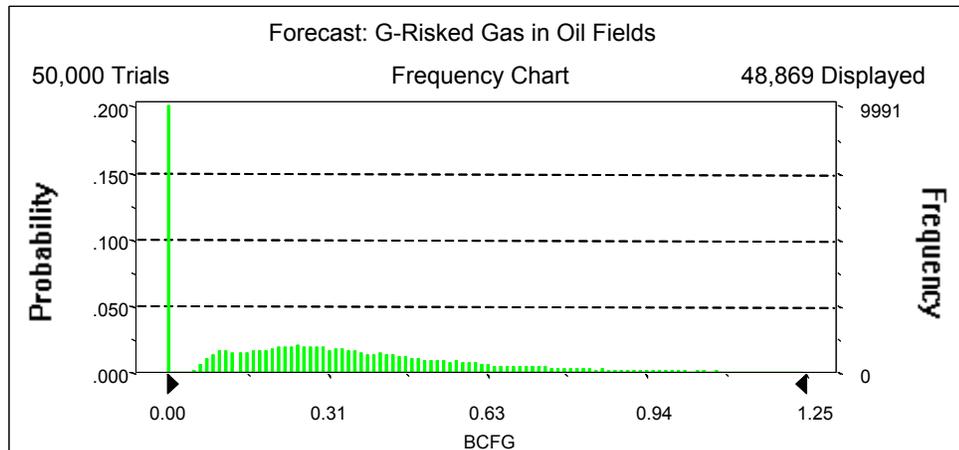
Display range is from 0.00 to 1.25 BCFG

Entire range is from 0.00 to 3.64 BCFG

After 50,000 trials, the standard error of the mean is 0.00

Statistics:

	<u>Value</u>
Trials	50000
Mean	0.35
Median	0.29
Mode	0.00
Standard Deviation	0.34
Variance	0.12
Skewness	1.98
Kurtosis	9.98
Coefficient of Variability	0.97
Range Minimum	0.00
Range Maximum	3.64
Range Width	3.64
Mean Standard Error	0.00



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.05
75%	0.11
70%	0.15
65%	0.19
60%	0.23
55%	0.26
50%	0.29
45%	0.32
40%	0.36
35%	0.40
30%	0.44
25%	0.49
20%	0.55
15%	0.63
10%	0.75
5%	0.98
0%	3.64

End of Forecast

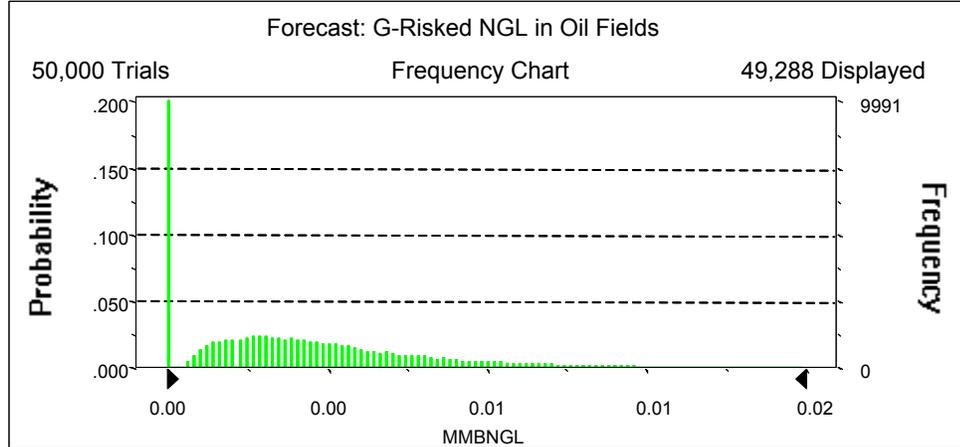
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Forecast: G-Risked NGL in Oil Fields

Summary:

Display range is from 0.00 to 0.02 MMBNGL
Entire range is from 0.00 to 0.04 MMBNGL
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	<u>Value</u>
Trials	50000
Mean	0.00
Median	0.00
Mode	0.00
Standard Deviation	0.00
Variance	0.00
Skewness	2.19
Kurtosis	11.72
Coefficient of Variability	1.01
Range Minimum	0.00
Range Maximum	0.04
Range Width	0.04
Mean Standard Error	0.00



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

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	0.00
35%	0.00
30%	0.00
25%	0.00
20%	0.01
15%	0.01
10%	0.01
5%	0.01
0%	0.04

End of Forecast

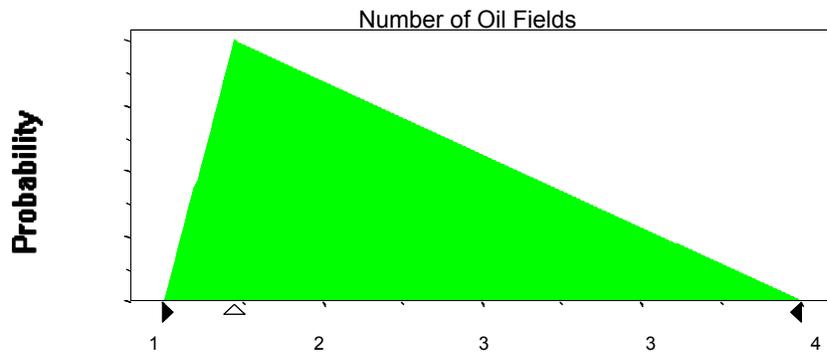
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	1
Maximum	4

Selected range is from 1 to 4



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

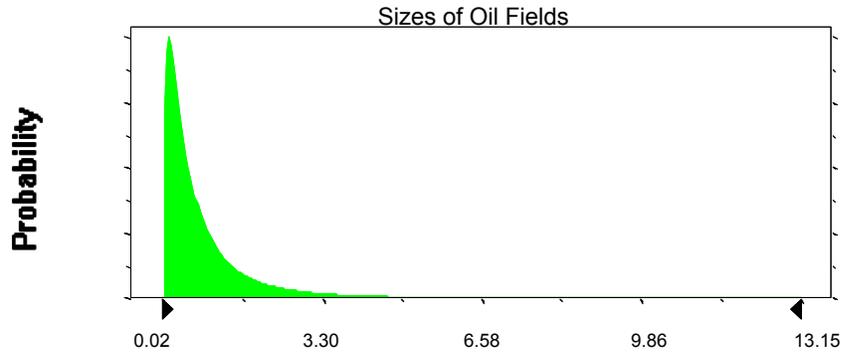
Mean	0.91	Shifted parameters	1.41
Standard Deviation	1.37		1.37

Selected range is from 0.00 to 14.50

0.50 to 15.00

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Assumption: Sizes of Oil Fields (cont'd)

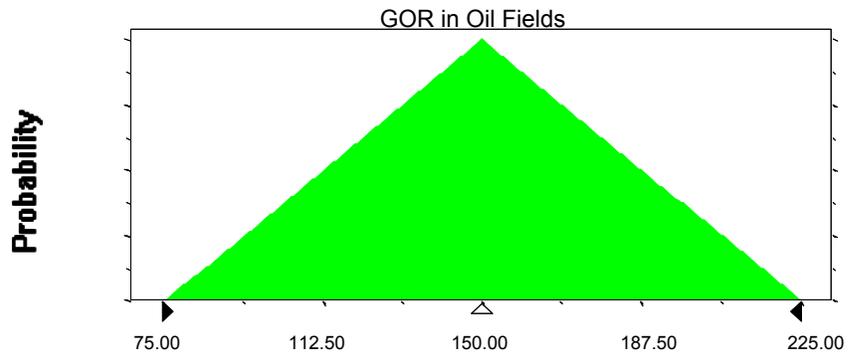


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	75.00
Likeliest	150.00
Maximum	225.00

Selected range is from 75.00 to 225.00



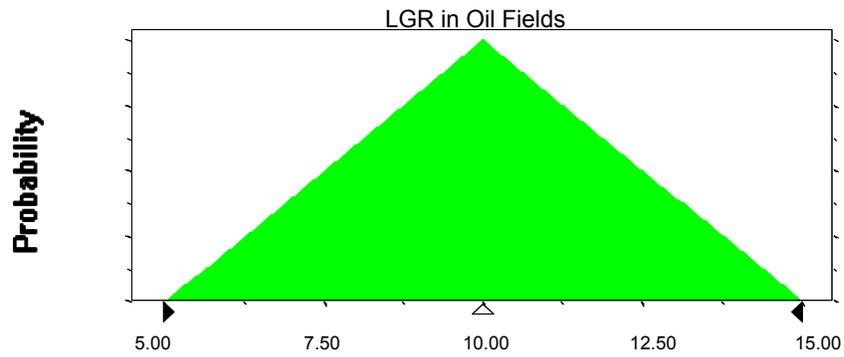
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	5.00
Likeliest	10.00
Maximum	15.00

Selected range is from 5.00 to 15.00



End of Assumptions

Simulation started on 9/25/02 at 9:24:29
Simulation stopped on 9/25/02 at 9:33:38