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Southern Permian Basin-Europe Onshore, Assessment Unit 40360102
Assessment Results Summary

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)							
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	1	1.00	23	67	148	74	19	59	141	67	0	0	0	0	7	16	38	18
Gas Fields	6						5,025	12,190	21,629	12,663	9	24	54	27	519	1,256	2,623	1,374
Total		1.00	23	67	148	74	5,044	12,249	21,770	12,730	9	24	54	27				

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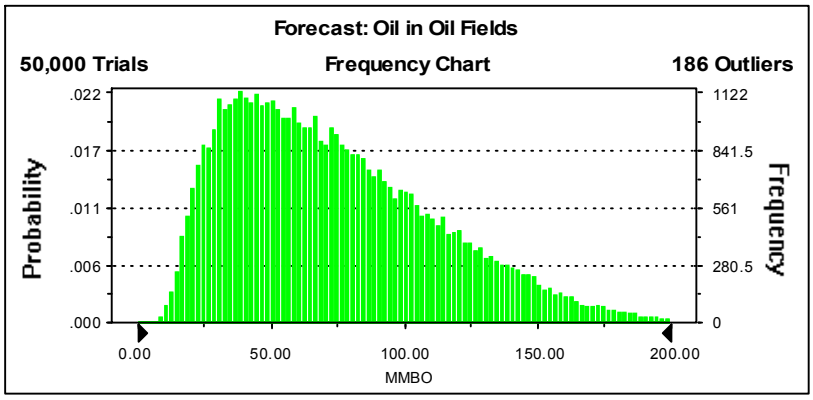
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 200.00 MMBO
Entire range is from 5.23 to 273.79 MMBO
After 50,000 trials, the standard error of the mean is 0.18

Statistics:	Value
Trials	50000
Mean	74.04
Median	67.32
Mode	---
Standard Deviation	39.18
Variance	1,535.40
Skewness	0.77
Kurtosis	3.23
Coefficient of Variability	0.53
Range Minimum	5.23
Range Maximum	273.79
Range Width	268.55
Mean Standard Error	0.18



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	5.23
95%	23.08
90%	28.84
85%	33.70
80%	38.32
75%	42.94
70%	47.50
65%	52.17
60%	57.14
55%	62.14
50%	67.32
45%	72.82
40%	78.47
35%	84.48
30%	91.21
25%	98.82
20%	107.12
15%	117.19
10%	129.73
5%	147.60
0%	273.79

End of Forecast

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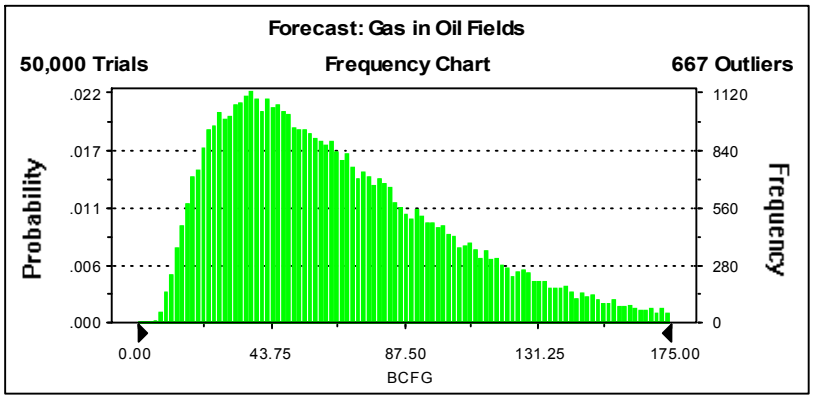
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 175.00 BCFG
Entire range is from 4.69 to 317.34 BCFG
After 50,000 trials, the standard error of the mean is 0.17

Statistics:	Value
Trials	50000
Mean	66.66
Median	58.76
Mode	---
Standard Deviation	38.50
Variance	1,482.09
Skewness	1.03
Kurtosis	4.09
Coefficient of Variability	0.58
Range Minimum	4.69
Range Maximum	317.34
Range Width	312.66
Mean Standard Error	0.17



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Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	4.69
95%	19.08
90%	24.32
85%	28.77
80%	33.07
75%	37.10
70%	41.16
65%	45.29
60%	49.49
55%	54.01
50%	58.76
45%	63.76
40%	69.12
35%	74.95
30%	81.26
25%	88.54
20%	97.12
15%	107.14
10%	120.20
5%	140.80
0%	317.34

End of Forecast

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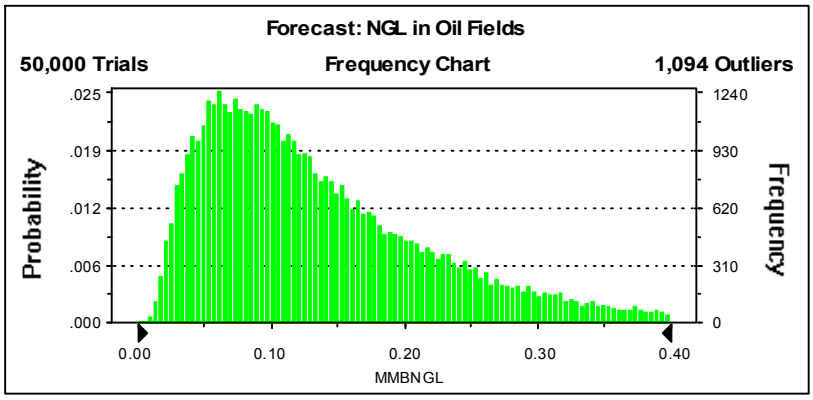
Forecast: NGL in Oil Fields

Summary:
Display range is from 0.00 to 0.40 MMBNGL
Entire range is from 0.01 to 1.02 MMBNGL
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	0.14
Median	0.12
Mode	---
Standard Deviation	0.10
Variance	0.01
Skewness	1.58
Kurtosis	6.73
Coefficient of Variability	0.68
Range Minimum	0.01
Range Maximum	1.02
Range Width	1.01
Mean Standard Error	0.00



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Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.01
95%	0.03
90%	0.04
85%	0.05
80%	0.06
75%	0.07
70%	0.08
65%	0.09
60%	0.10
55%	0.11
50%	0.12
45%	0.13
40%	0.14
35%	0.15
30%	0.17
25%	0.19
20%	0.21
15%	0.23
10%	0.27
5%	0.33
0%	1.02

End of Forecast

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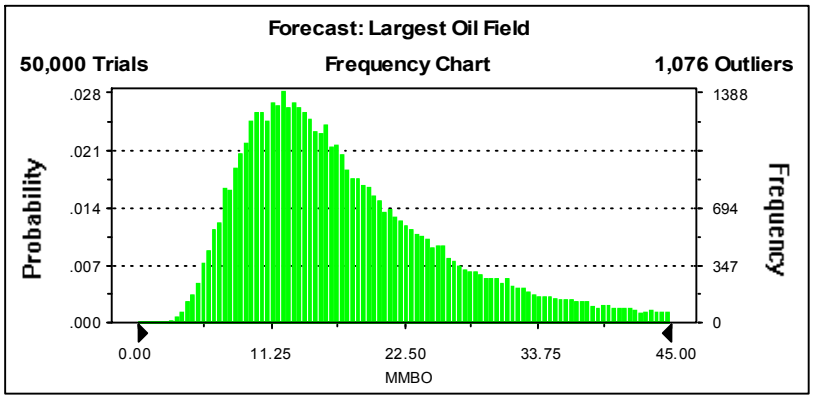
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 45.00 MMBO
Entire range is from 2.25 to 59.97 MMBO
After 50,000 trials, the standard error of the mean is 0.04

Statistics:	Value
Trials	50000
Mean	18.09
Median	15.79
Mode	---
Standard Deviation	9.51
Variance	90.50
Skewness	1.37
Kurtosis	5.13
Coefficient of Variability	0.53
Range Minimum	2.25
Range Maximum	59.97
Range Width	57.72
Mean Standard Error	0.04



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Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	2.25
95%	7.11
90%	8.47
85%	9.55
80%	10.44
75%	11.35
70%	12.21
65%	13.05
60%	13.90
55%	14.81
50%	15.79
45%	16.80
40%	17.93
35%	19.23
30%	20.68
25%	22.40
20%	24.47
15%	27.06
10%	30.97
5%	37.51
0%	59.97

End of Forecast

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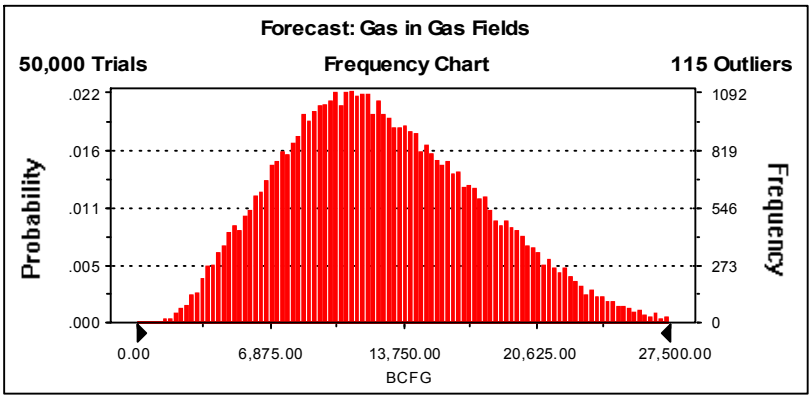
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:
Display range is from 0.00 to 27,500.00 BCFG
Entire range is from 1,183.85 to 35,863.71 BCFG
After 50,000 trials, the standard error of the mean is 22.54

Statistics:	Value
Trials	50000
Mean	12,663.39
Median	12,190.15
Mode	---
Standard Deviation	5,039.53
Variance	25,396,875.06
Skewness	0.38
Kurtosis	2.75
Coefficient of Variability	0.40
Range Minimum	1,183.85
Range Maximum	35,863.71
Range Width	34,679.86
Mean Standard Error	22.54



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	1,183.85
95%	5,025.40
90%	6,367.93
85%	7,343.54
80%	8,189.85
75%	8,940.62
70%	9,617.89
65%	10,273.56
60%	10,919.65
55%	11,553.95
50%	12,190.15
45%	12,873.43
40%	13,604.53
35%	14,357.77
30%	15,178.40
25%	16,070.12
20%	17,052.95
15%	18,174.81
10%	19,607.08
5%	21,628.85
0%	35,863.71

End of Forecast

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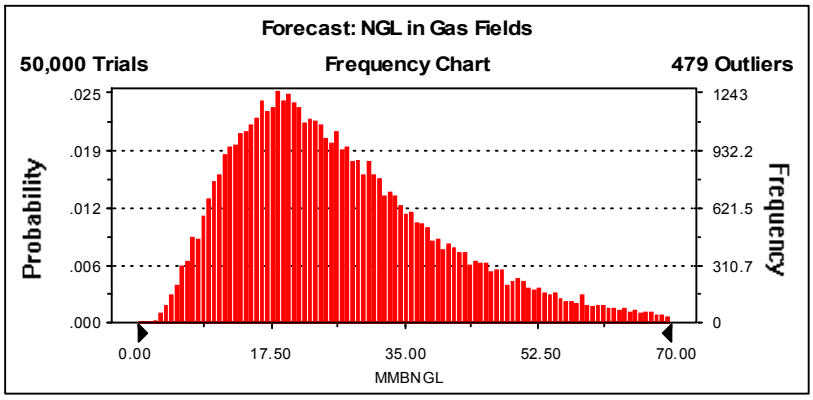
Southern Permian Basin-Europe Onshore
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:
Display range is from 0.00 to 70.00 MMBNGL
Entire range is from 1.78 to 118.67 MMBNGL
After 50,000 trials, the standard error of the mean is 0.06

Statistics:	Value
Trials	50000
Mean	26.73
Median	24.04
Mode	---
Standard Deviation	14.01
Variance	196.35
Skewness	1.06
Kurtosis	4.41
Coefficient of Variability	0.52
Range Minimum	1.78
Range Maximum	118.67
Range Width	116.89
Mean Standard Error	0.06



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Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	1.78
95%	8.91
90%	11.30
85%	13.18
80%	14.88
75%	16.46
70%	17.98
65%	19.42
60%	20.87
55%	22.44
50%	24.04
45%	25.80
40%	27.59
35%	29.57
30%	31.73
25%	34.21
20%	37.18
15%	41.02
10%	45.93
5%	53.71
0%	118.67

End of Forecast

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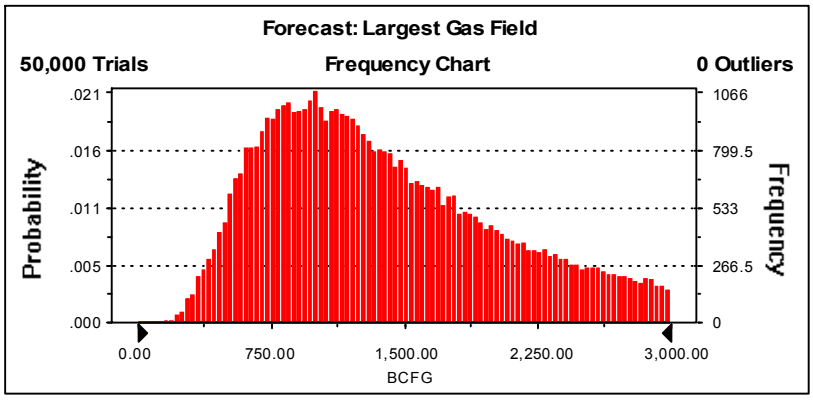
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 3,000.00 BCFG
Entire range is from 126.01 to 2,999.54 BCFG
After 50,000 trials, the standard error of the mean is 2.85

Statistics:	Value
Trials	50000
Mean	1,373.82
Median	1,255.86
Mode	---
Standard Deviation	638.11
Variance	407,185.49
Skewness	0.59
Kurtosis	2.55
Coefficient of Variability	0.46
Range Minimum	126.01
Range Maximum	2,999.54
Range Width	2,873.53
Mean Standard Error	2.85



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Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	126.01
95%	519.03
90%	626.66
85%	717.56
80%	796.44
75%	871.09
70%	948.03
65%	1,020.65
60%	1,098.40
55%	1,175.47
50%	1,255.86
45%	1,345.63
40%	1,440.84
35%	1,545.50
30%	1,664.43
25%	1,790.22
20%	1,941.71
15%	2,120.64
10%	2,342.51
5%	2,623.24
0%	2,999.54

End of Forecast

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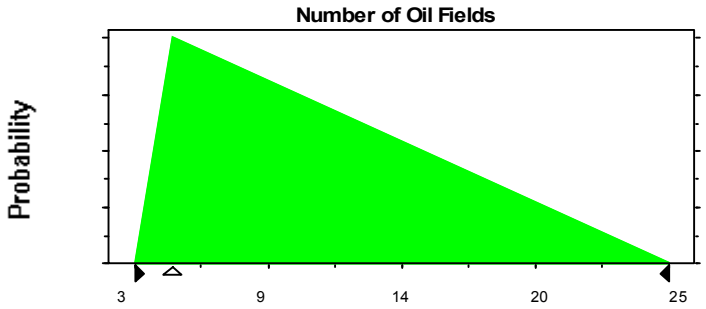
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	3
Likeliest	5
Maximum	25

Selected range is from 3 to 25
Mean value in simulation was 11



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	5.84	6.84
Standard Deviation	6.23	6.23
Selected range is from 0.00 to 59.00		1.00 to 60.00
Mean value in simulation was 5.76		6.76

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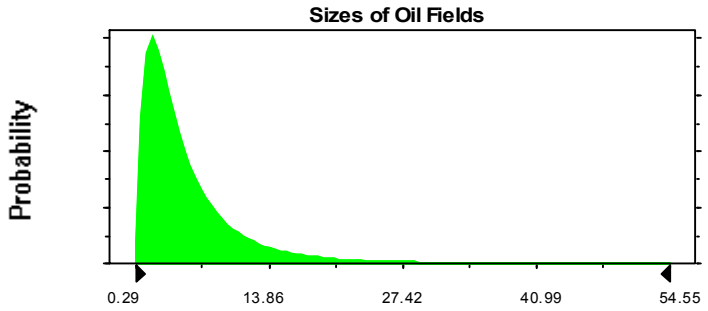
Assumption: Sizes of Oil Fields (cont'd)

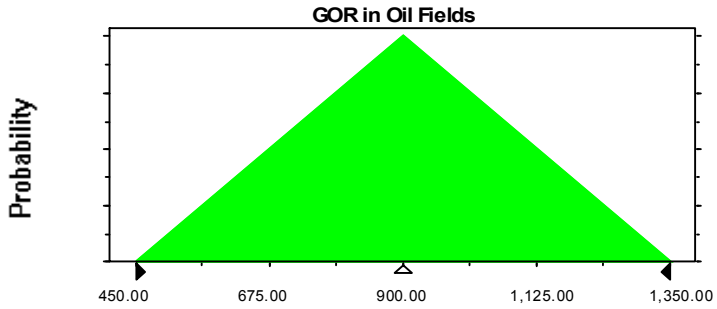


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	450.00
Likeliest	900.00
Maximum	1,350.00

Selected range is from 450.00 to 1,350.00
Mean value in simulation was 900.18



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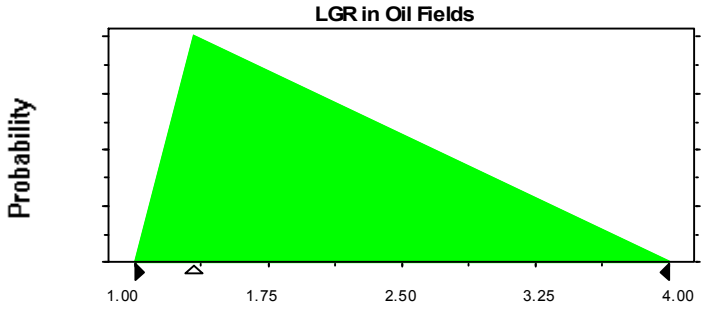
Monte Carlo Results

Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	1.00
Likeliest	1.33
Maximum	4.00

Selected range is from 1.00 to 4.00
Mean value in simulation was 2.12



Assumption: Number of Gas Fields

Triangular distribution with parameters:

Minimum	30
Likeliest	133
Maximum	300

Selected range is from 30 to 300
Mean value in simulation was 154

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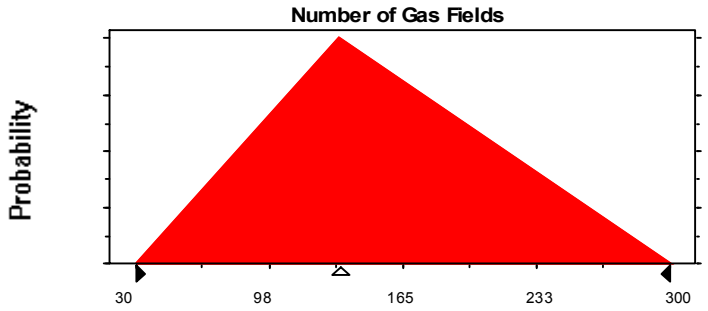
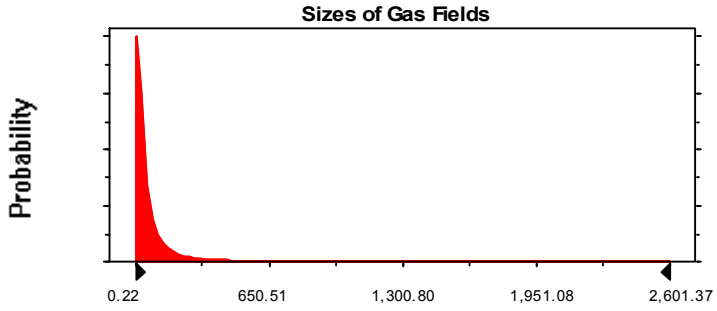
Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	81.28	87.28
Standard Deviation	262.96	262.96
Selected range is from 0.00 to 2,994.00		6.00 to 3,000.00
Mean value in simulation was 77.78		83.78



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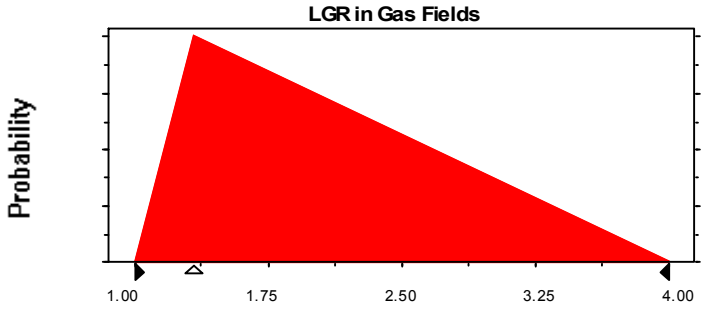
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	1.00
Likeliest	1.33
Maximum	4.00

Selected range is from 1.00 to 4.00
Mean value in simulation was 2.11



End of Assumptions

Simulation started on 12/2/98 at 16:27:05
Simulation stopped on 12/2/98 at 22:45:00