

**Jurassic-Cretaceous Structural/Stratigraphic, Assessment Unit 20480201
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	96	363	841	403	180	703	1,786	807	3	10	27	12	20	56	149	66
Gas Fields	6						294	1,312	3,181	1,473	3	13	34	15	74	235	684	285
Total		1.00	96	363	841	403	473	2,015	4,967	2,280	5	23	61	27				

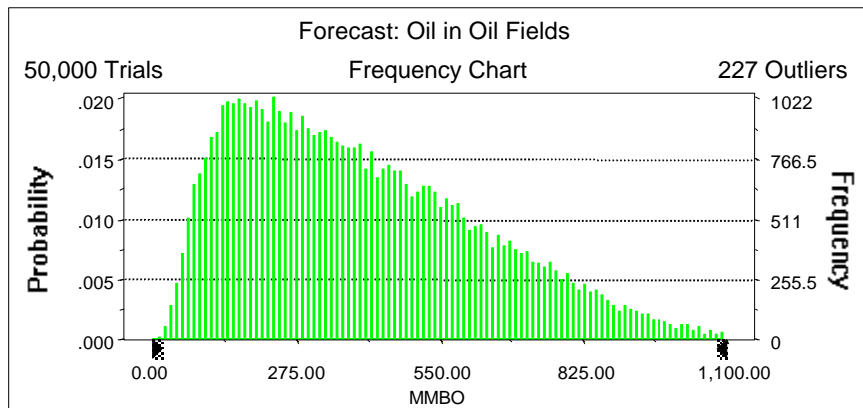
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 1,100.00 MMBO
Entire range is from 16.65 to 1,456.57 MMBO
After 50,000 trials, the standard error of the mean is 1.05

Statistics:	Value
Trials	50000
Mean	403.01
Median	363.35
Mode	---
Standard Deviation	234.57
Variance	55,020.84
Skewness	0.69
Kurtosis	2.94
Coefficient of Variability	0.58
Range Minimum	16.65
Range Maximum	1,456.57
Range Width	1,439.92
Mean Standard Error	1.05



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	16.65
95%	95.85
90%	129.60
85%	157.32
80%	184.61
75%	212.43
70%	240.72
65%	269.49
60%	299.70
55%	331.13
50%	363.35
45%	397.12
40%	432.69
35%	471.38
30%	513.34
25%	557.72
20%	607.17
15%	667.68
10%	739.49
5%	840.74
0%	1,456.57

End of Forecast

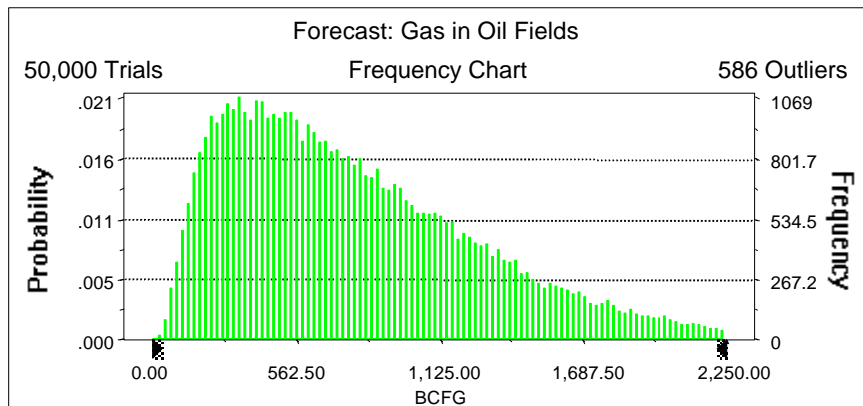
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 2,250.00 BCFG
 Entire range is from 25.52 to 3,637.11 BCFG
 After 50,000 trials, the standard error of the mean is 2.27

Statistics:	<u>Value</u>
Trials	50000
Mean	806.53
Median	703.19
Mode	---
Standard Deviation	507.78
Variance	257,845.27
Skewness	0.98
Kurtosis	3.86
Coefficient of Variability	0.63
Range Minimum	25.52
Range Maximum	3,637.11
Range Width	3,611.59
Mean Standard Error	2.27



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	25.52
95%	179.74
90%	243.08
85%	299.37
80%	354.00
75%	409.25
70%	464.51
65%	521.19
60%	577.13
55%	639.38
50%	703.19
45%	771.07
40%	843.58
35%	922.34
30%	1,008.16
25%	1,106.12
20%	1,214.20
15%	1,344.24
10%	1,516.04
5%	1,786.03
0%	3,637.11

End of Forecast

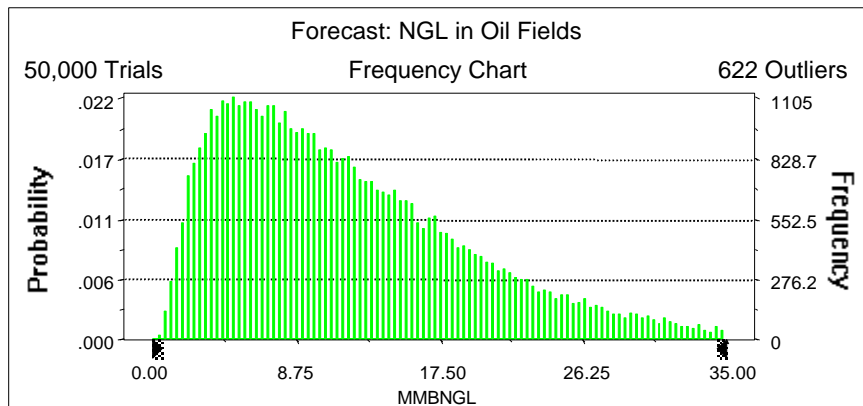
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 35.00 MMBNGL
Entire range is from 0.38 to 67.19 MMBNGL
After 50,000 trials, the standard error of the mean is 0.04

Statistics:	Value
Trials	50000
Mean	12.10
Median	10.42
Mode	---
Standard Deviation	7.86
Variance	61.78
Skewness	1.10
Kurtosis	4.36
Coefficient of Variability	0.65
Range Minimum	0.38
Range Maximum	67.19
Range Width	66.81
Mean Standard Error	0.04



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.38
95%	2.61
90%	3.58
85%	4.42
80%	5.21
75%	6.03
70%	6.87
65%	7.68
60%	8.55
55%	9.47
50%	10.42
45%	11.44
40%	12.51
35%	13.72
30%	15.02
25%	16.47
20%	18.12
15%	20.20
10%	22.96
5%	27.37
0%	67.19

End of Forecast

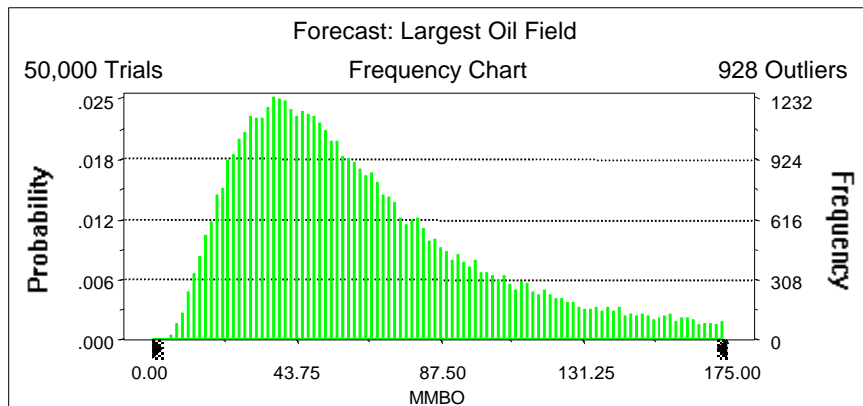
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 175.00 MMBO
Entire range is from 4.38 to 199.91 MMBO
After 50,000 trials, the standard error of the mean is 0.17

Statistics:	Value
Trials	50000
Mean	65.60
Median	55.96
Mode	---
Standard Deviation	39.00
Variance	1,521.07
Skewness	1.12
Kurtosis	3.91
Coefficient of Variability	0.59
Range Minimum	4.38
Range Maximum	199.91
Range Width	195.53
Mean Standard Error	0.17



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	4.38
95%	19.51
90%	24.87
85%	29.19
80%	33.12
75%	36.87
70%	40.42
65%	44.10
60%	47.97
55%	51.83
50%	55.96
45%	60.49
40%	65.41
35%	70.87
30%	77.27
25%	84.66
20%	94.00
15%	105.89
10%	121.92
5%	148.52
0%	199.91

End of Forecast

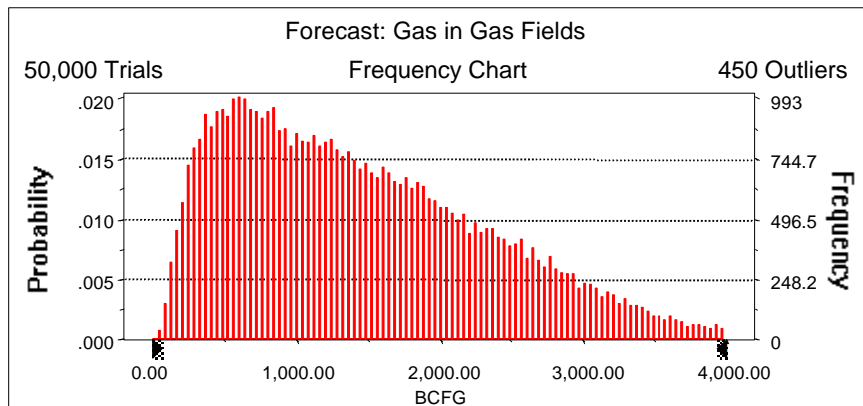
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 4,000.00 BCFG
Entire range is from 38.39 to 6,174.34 BCFG
After 50,000 trials, the standard error of the mean is 4.10

Statistics:	Value
Trials	50000
Mean	1,473.17
Median	1,311.85
Mode	---
Standard Deviation	915.81
Variance	838,702.80
Skewness	0.74
Kurtosis	3.08
Coefficient of Variability	0.62
Range Minimum	38.39
Range Maximum	6,174.34
Range Width	6,135.96
Mean Standard Error	4.10



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	38.39
95%	293.55
90%	410.95
85%	518.46
80%	622.29
75%	724.56
70%	833.56
65%	943.86
60%	1,065.21
55%	1,187.92
50%	1,311.85
45%	1,444.52
40%	1,588.97
35%	1,737.79
30%	1,892.81
25%	2,069.96
20%	2,271.32
15%	2,497.48
10%	2,776.58
5%	3,181.17
0%	6,174.34

End of Forecast

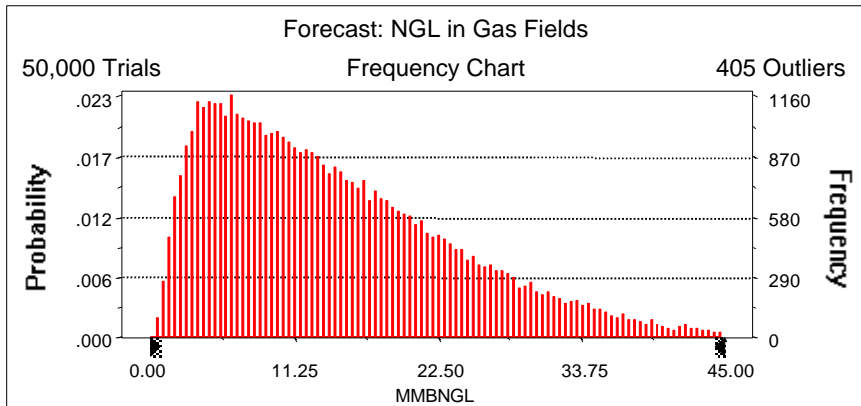
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 45.00 MMBNGL
Entire range is from 0.34 to 78.82 MMBNGL
After 50,000 trials, the standard error of the mean is 0.04

Statistics:	Value
Trials	50000
Mean	14.72
Median	12.71
Mode	---
Standard Deviation	9.80
Variance	96.07
Skewness	1.01
Kurtosis	3.98
Coefficient of Variability	0.67
Range Minimum	0.34
Range Maximum	78.82
Range Width	78.48
Mean Standard Error	0.04



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.34
95%	2.78
90%	3.91
85%	4.92
80%	5.92
75%	6.94
70%	8.00
65%	9.10
60%	10.26
55%	11.45
50%	12.71
45%	14.03
40%	15.44
35%	16.98
30%	18.64
25%	20.46
20%	22.58
15%	25.12
10%	28.38
5%	33.53
0%	78.82

End of Forecast

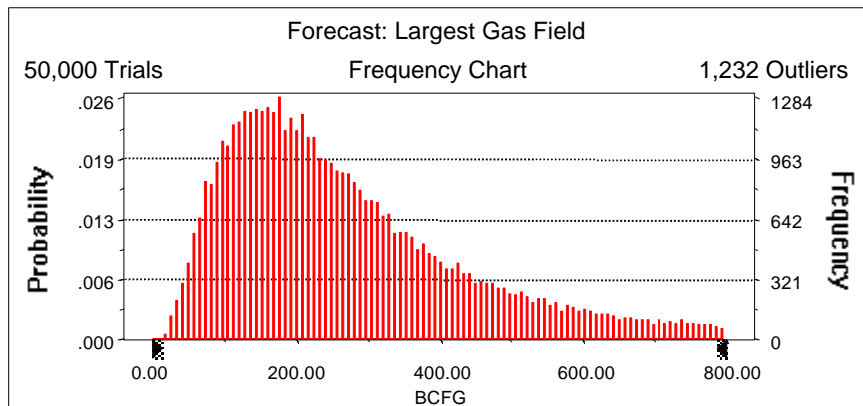
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 800.00 BCFG
Entire range is from 12.00 to 999.75 BCFG
After 50,000 trials, the standard error of the mean is 0.84

Statistics:	Value
Trials	50000
Mean	284.97
Median	235.36
Mode	---
Standard Deviation	187.31
Variance	35,083.97
Skewness	1.31
Kurtosis	4.59
Coefficient of Variability	0.66
Range Minimum	12.00
Range Maximum	999.75
Range Width	987.75
Mean Standard Error	0.84



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	12.00
95%	74.04
90%	96.82
85%	115.65
80%	132.75
75%	149.23
70%	165.72
65%	182.00
60%	199.03
55%	216.58
50%	235.36
45%	256.64
40%	279.34
35%	304.86
30%	333.24
25%	368.02
20%	411.48
15%	468.76
10%	548.79
5%	684.45
0%	999.75

End of Forecast

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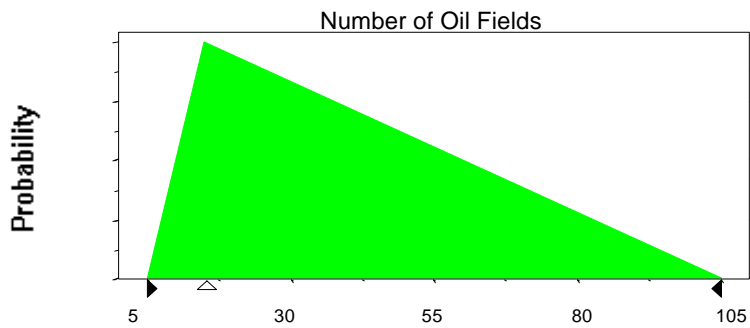
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	5
Likeliest	15
Maximum	105

Selected range is from 5 to 105
Mean value in simulation was 42



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	8.90
Standard Deviation	17.67

Shifted parameters

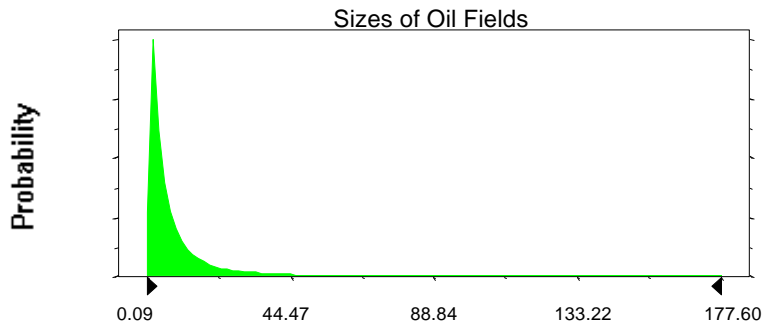
9.9
17.67

Selected range is from 0.00 to 199.00
Mean value in simulation was 8.64

1.00 to 200.00
9.64

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Assumption: Sizes of Oil Fields (cont'd)



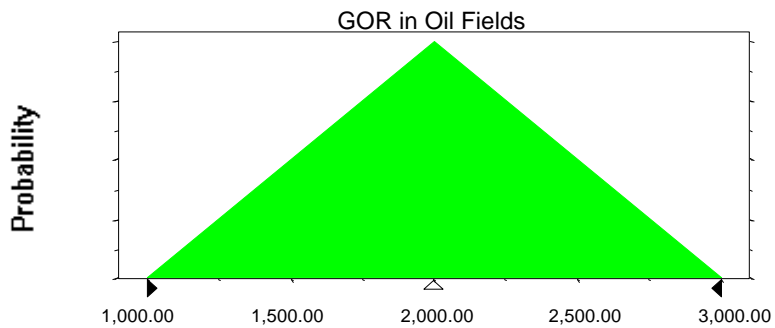
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,000.00
Likeliest	2,000.00
Maximum	3,000.00

Selected range is from 1,000.00 to 3,000.00

Mean value in simulation was 2,000.35



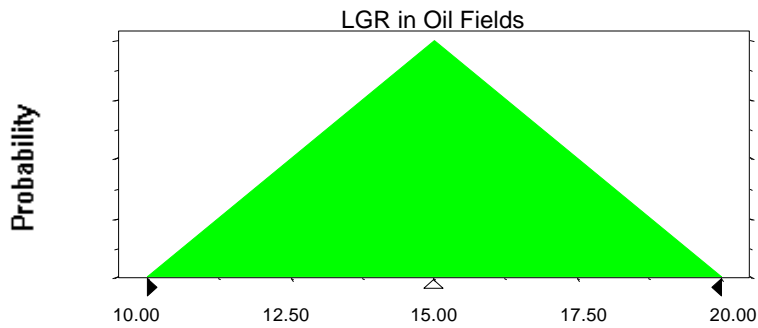
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	10.00
Likeliest	15.00
Maximum	20.00

Selected range is from 10.00 to 20.00
Mean value in simulation was 15.01



Assumption: Number of Gas Fields

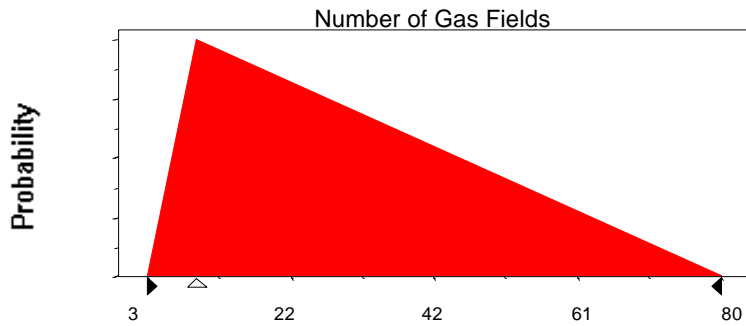
Triangular distribution with parameters:

Minimum	3
Likeliest	10
Maximum	80

Selected range is from 3 to 80
Mean value in simulation was 31

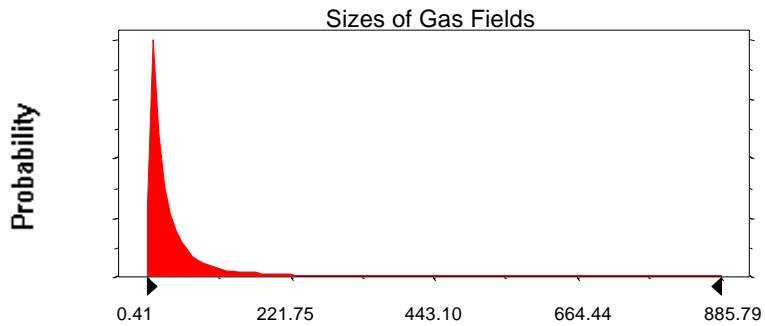
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	43.14	49.14
Standard Deviation	87.95	87.95
Selected range is from 0.00 to 994.00	6.00 to 1,000.00	
Mean value in simulation was 41.77	47.77	



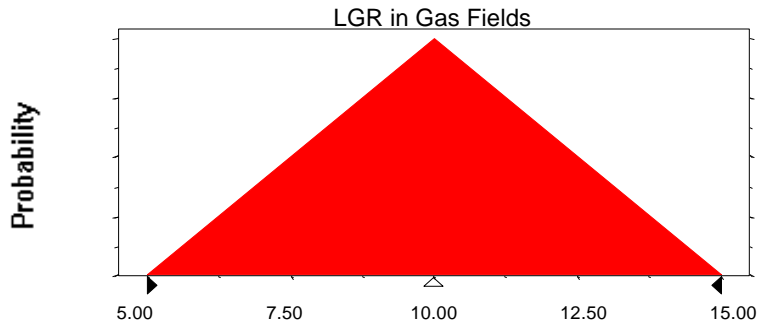
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	5.00
Likeliest	10.00
Maximum	15.00

Selected range is from 5.00 to 15.00
Mean value in simulation was 9.99



End of Assumptions

Simulation started on 10/8/99 at 15:48:27
Simulation stopped on 10/8/99 at 16:35:55