

Central Congo Turbidites, Assessment Unit 72030302
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	10	1.00	5,778	17,561	34,409	18,522	11,999	38,265	83,026	41,605	564	1,859	4,341	2,080	829	2,353	5,773	2,698
Gas Fields	60						2,644	12,026	30,195	13,663	109	513	1,398	602	773	2,724	9,018	3,483
Total		1.00	5,778	17,561	34,409	18,522	14,643	50,290	113,220	55,268	673	2,372	5,739	2,682				

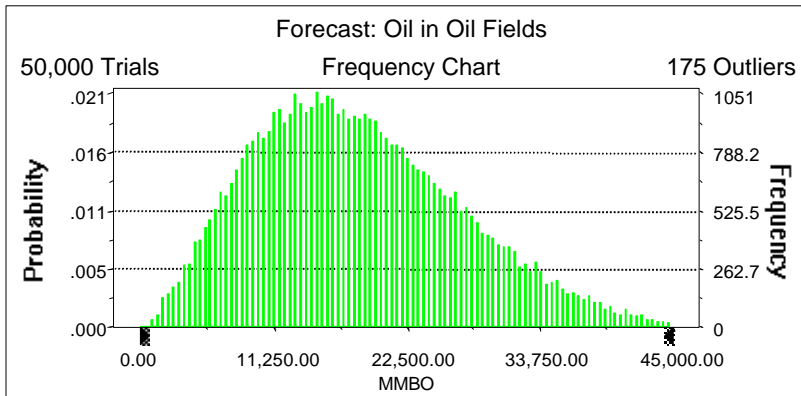
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 45,000.00 MMBO
Entire range is from 624.65 to 60,822.46 MMBO
After 50,000 trials, the standard error of the mean is 39.19

Statistics:	Value
Trials	50000
Mean	18,521.68
Median	17,560.56
Mode	---
Standard Deviation	8,764.02
Variance	76,807,972.98
Skewness	0.53
Kurtosis	2.98
Coefficient of Variability	0.47
Range Minimum	624.65
Range Maximum	60,822.46
Range Width	60,197.82
Mean Standard Error	39.19



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	624.65
95%	5,777.64
90%	7,815.37
85%	9,344.99
80%	10,673.98
75%	11,900.14
70%	13,088.00
65%	14,200.71
60%	15,312.36
55%	16,417.14
50%	17,560.56
45%	18,761.81
40%	19,958.52
35%	21,252.39
30%	22,638.33
25%	24,222.94
20%	25,980.98
15%	27,980.95
10%	30,604.12
5%	34,408.75
0%	60,822.46

End of Forecast

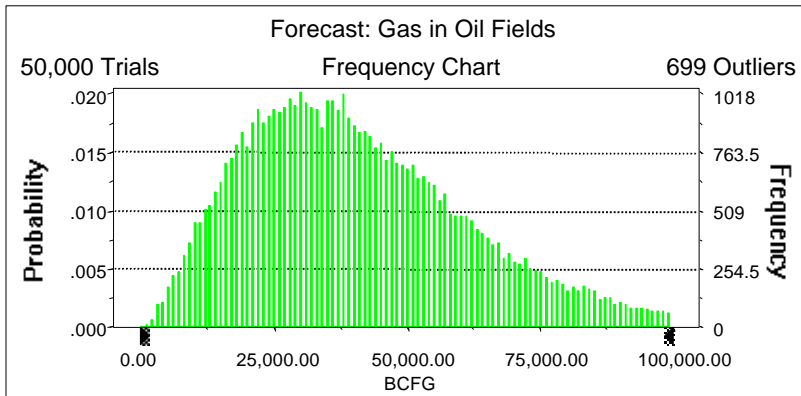
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 100,000.00 BCFG
Entire range is from 1,501.45 to 169,105.95 BCFG
After 50,000 trials, the standard error of the mean is 97.63

Statistics:	<u>Value</u>
Trials	50000
Mean	41,605.47
Median	38,264.54
Mode	---
Standard Deviation	21,831.83
Variance	476,628,671.23
Skewness	0.82
Kurtosis	3.69
Coefficient of Variability	0.52
Range Minimum	1,501.45
Range Maximum	169,105.95
Range Width	167,604.50
Mean Standard Error	97.63



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	1,501.45
95%	11,999.23
90%	16,352.38
85%	19,592.96
80%	22,501.33
75%	25,233.98
70%	27,900.66
65%	30,427.39
60%	33,010.48
55%	35,702.94
50%	38,264.54
45%	40,980.17
40%	43,956.02
35%	47,203.39
30%	50,677.36
25%	54,459.48
20%	58,903.69
15%	64,246.88
10%	71,490.05
5%	83,025.72
0%	169,105.95

End of Forecast

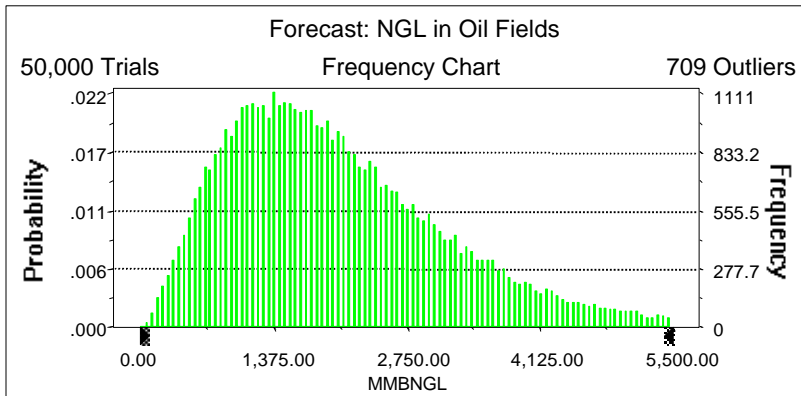
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 5,500.00 MMBNGL
Entire range is from 63.29 to 10,184.55 MMBNGL
After 50,000 trials, the standard error of the mean is 5.33

Statistics:	Value
Trials	50000
Mean	2,080.07
Median	1,859.31
Mode	---
Standard Deviation	1,192.24
Variance	1,421,447.82
Skewness	1.08
Kurtosis	4.57
Coefficient of Variability	0.57
Range Minimum	63.29
Range Maximum	10,184.55
Range Width	10,121.26
Mean Standard Error	5.33



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	63.29
95%	563.87
90%	761.09
85%	922.66
80%	1,066.77
75%	1,196.60
70%	1,329.09
65%	1,457.68
60%	1,588.29
55%	1,722.11
50%	1,859.31
45%	2,004.16
40%	2,155.76
35%	2,329.00
30%	2,515.61
25%	2,729.48
20%	2,979.19
15%	3,279.77
10%	3,680.36
5%	4,340.76
0%	10,184.55

End of Forecast

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Forecast: Largest Oil Field

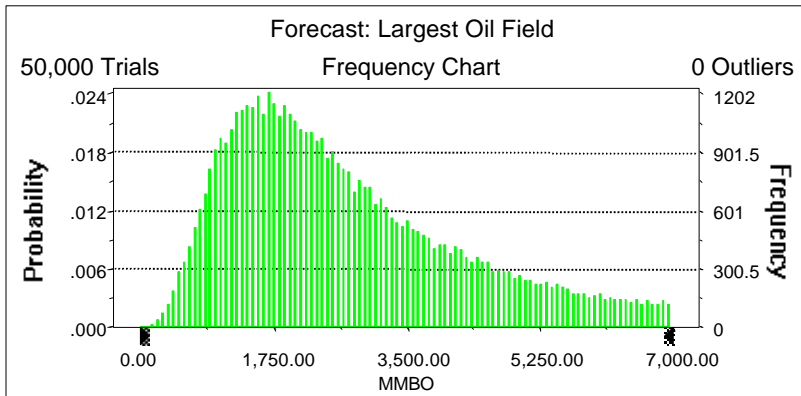
Summary:

Display range is from 0.00 to 7,000.00 MMBO

Entire range is from 103.00 to 6,999.90 MMBO

After 50,000 trials, the standard error of the mean is 6.70

Statistics:	<u>Value</u>
Trials	50000
Mean	2,698.41
Median	2,352.53
Mode	---
Standard Deviation	1,497.90
Variance	2,243,708.82
Skewness	0.83
Kurtosis	3.01
Coefficient of Variability	0.56
Range Minimum	103.00
Range Maximum	6,999.90
Range Width	6,896.90
Mean Standard Error	6.70



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	103.00
95%	829.16
90%	1,051.36
85%	1,231.09
80%	1,391.81
75%	1,546.51
70%	1,699.30
65%	1,851.03
60%	2,007.23
55%	2,178.65
50%	2,352.53
45%	2,545.34
40%	2,753.00
35%	2,994.31
30%	3,258.92
25%	3,573.71
20%	3,949.08
15%	4,398.29
10%	4,972.37
5%	5,773.48
0%	6,999.90

End of Forecast

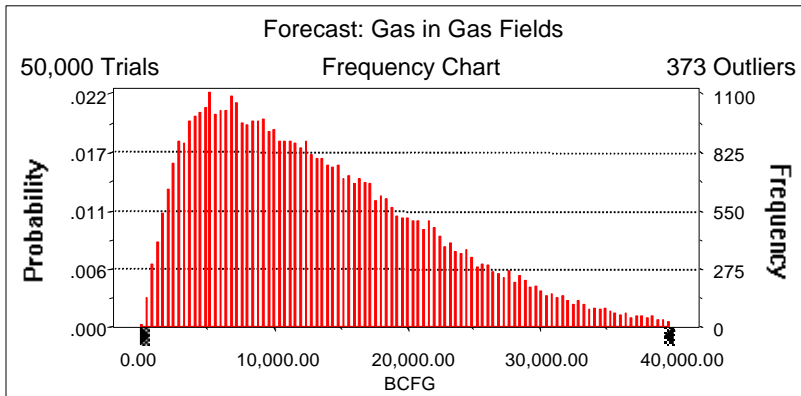
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 40,000.00 BCFG
Entire range is from 220.46 to 67,131.59 BCFG
After 50,000 trials, the standard error of the mean is 39.12

Statistics:	<u>Value</u>
Trials	50000
Mean	13,662.67
Median	12,025.92
Mode	---
Standard Deviation	8,747.15
Variance	76,512,714.06
Skewness	0.89
Kurtosis	3.61
Coefficient of Variability	0.64
Range Minimum	220.46
Range Maximum	67,131.59
Range Width	66,911.13
Mean Standard Error	39.12



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	220.46
95%	2,644.02
90%	3,795.67
85%	4,792.98
80%	5,747.08
75%	6,726.02
70%	7,674.84
65%	8,715.02
60%	9,759.78
55%	10,859.18
50%	12,025.92
45%	13,215.03
40%	14,493.72
35%	15,877.41
30%	17,339.33
25%	18,970.82
20%	20,901.16
15%	23,068.55
10%	25,969.66
5%	30,194.76
0%	67,131.59

End of Forecast

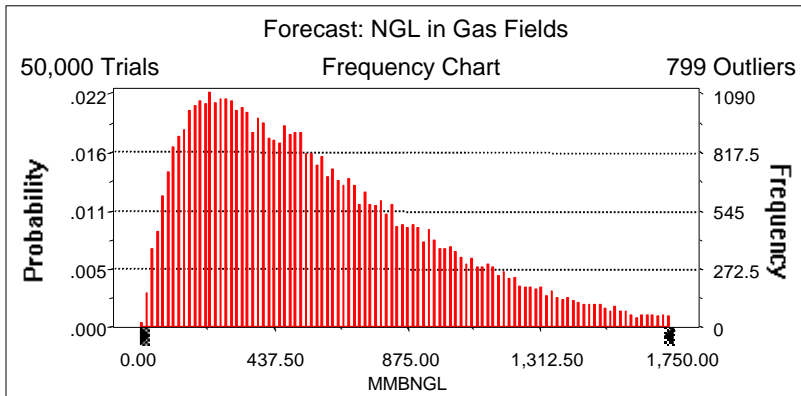
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 1,750.00 MMBNGL
 Entire range is from 6.04 to 3,207.96 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.85

Statistics:	<u>Value</u>
Trials	50000
Mean	602.10
Median	513.10
Mode	---
Standard Deviation	412.79
Variance	170,399.06
Skewness	1.14
Kurtosis	4.50
Coefficient of Variability	0.69
Range Minimum	6.04
Range Maximum	3,207.96
Range Width	3,201.92
Mean Standard Error	1.85



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	6.04
95%	108.68
90%	158.01
85%	201.19
80%	242.17
75%	283.29
70%	325.35
65%	368.88
60%	414.94
55%	464.74
50%	513.10
45%	563.80
40%	621.47
35%	684.15
30%	752.99
25%	829.60
20%	919.51
15%	1,027.64
10%	1,170.26
5%	1,398.08
0%	3,207.96

End of Forecast

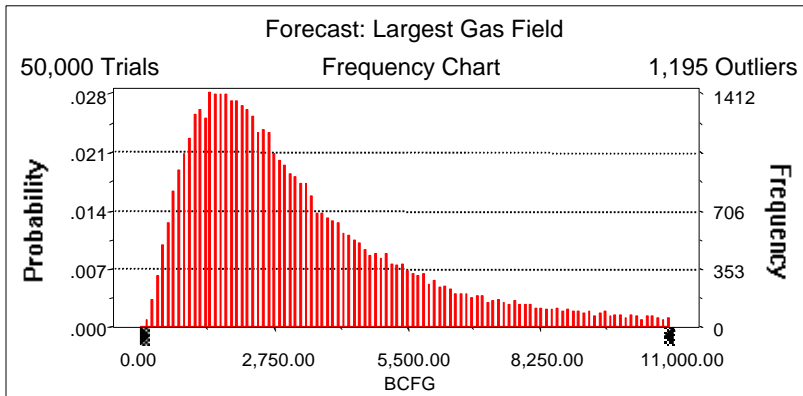
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 11,000.00 BCFG
Entire range is from 113.10 to 14,997.94 BCFG
After 50,000 trials, the standard error of the mean is 11.66

Statistics:	Value
Trials	50000
Mean	3,482.76
Median	2,723.56
Mode	---
Standard Deviation	2,607.65
Variance	6,799,819.73
Skewness	1.64
Kurtosis	5.93
Coefficient of Variability	0.75
Range Minimum	113.10
Range Maximum	14,997.94
Range Width	14,884.84
Mean Standard Error	11.66



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	113.10
95%	773.15
90%	1,043.38
85%	1,262.24
80%	1,473.29
75%	1,667.09
70%	1,862.81
65%	2,064.23
60%	2,267.96
55%	2,487.97
50%	2,723.56
45%	2,987.98
40%	3,284.22
35%	3,610.90
30%	4,009.49
25%	4,482.30
20%	5,081.77
15%	5,828.81
10%	6,992.54
5%	9,018.09
0%	14,997.94

End of Forecast

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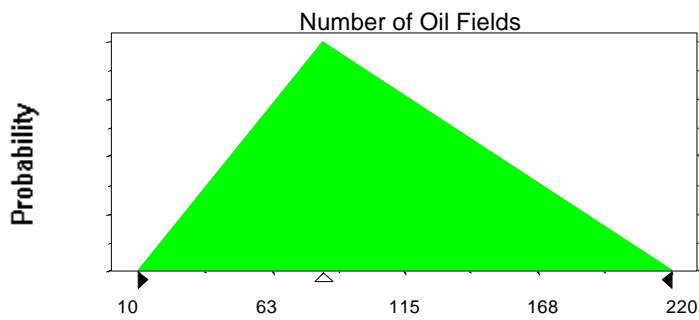
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	10
Likeliest	83
Maximum	220

Selected range is from 10 to 220
Mean value in simulation was 105



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	179.48
Standard Deviation	618.76

Shifted parameters

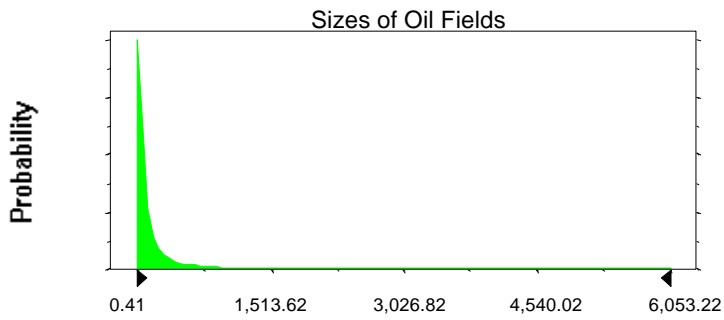
189.48
618.76

Selected range is from 0.00 to 6,990.00
Mean value in simulation was 165.60

10.00 to 7,000.00
175.6

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Assumption: Sizes of Oil Fields (cont'd)

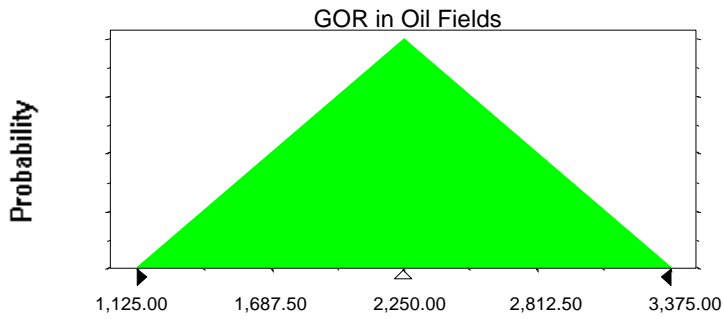


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,125.00
Likeliest	2,250.00
Maximum	3,375.00

Selected range is from 1,125.00 to 3,375.00
Mean value in simulation was 2,246.11



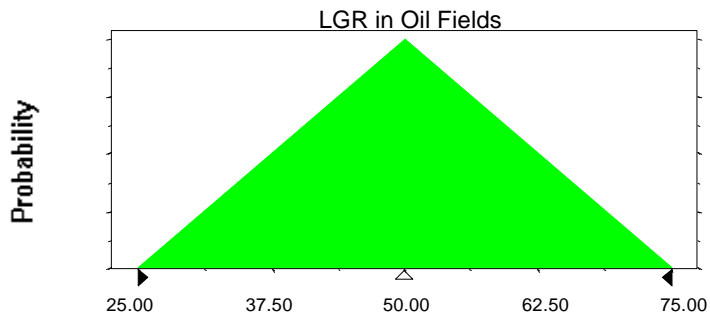
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	25.00
Likeliest	50.00
Maximum	75.00

Selected range is from 25.00 to 75.00
Mean value in simulation was 50.01



Assumption: Number of Gas Fields

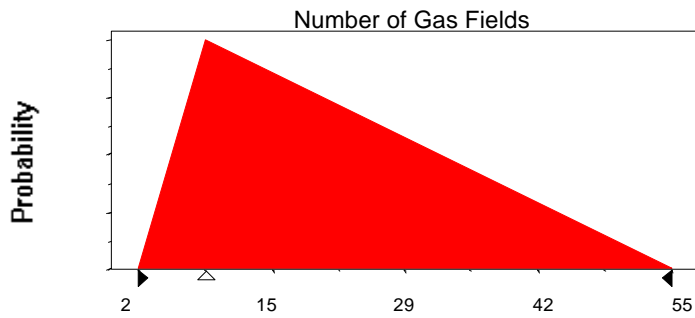
Triangular distribution with parameters:

Minimum	2
Likeliest	9
Maximum	55

Selected range is from 2 to 55
Mean value in simulation was 22

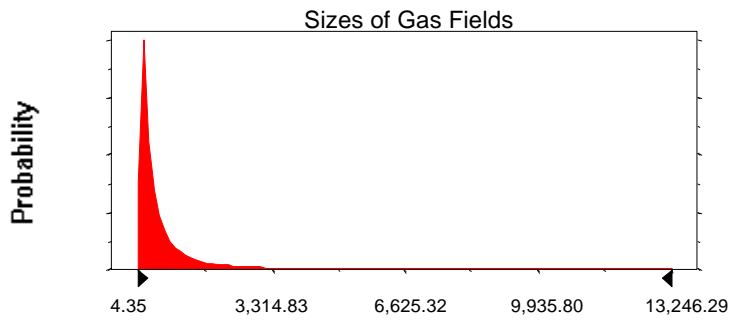
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	586.60	646.6
Standard Deviation	1,308.27	1,308.27
Selected range is from 0.00 to 14,940.00	60.00 to 15,000.00	
Mean value in simulation was 565.56	625.56	



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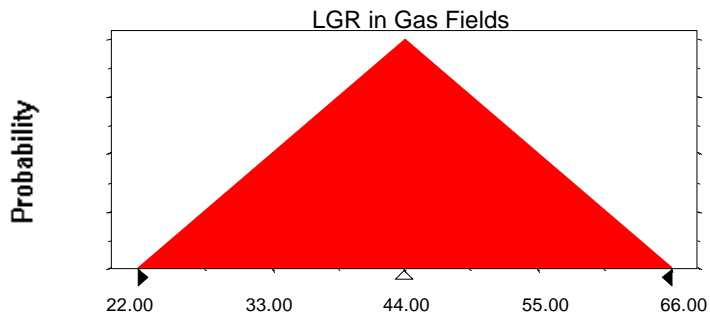
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00

Mean value in simulation was 44.04



End of Assumptions

Simulation started on 10/8/99 at 13:07:50
Simulation stopped on 10/8/99 at 14:12:34