

**Central Congo Delta and Carbonate Platform, Assessment Unit 72030301**  
**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	1,717	4,522	8,097	4,677	3,556	9,855	19,748	10,527	164	478	1,047	525	195	509	1,065	557
Gas Fields	6						1,057	3,507	7,495	3,787	43	149	350	166	218	752	2,612	983
Total		1.00	1,717	4,522	8,097	4,677	4,614	13,361	27,243	14,314	207	627	1,397	692				

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**Forecast: Oil in Oil Fields**

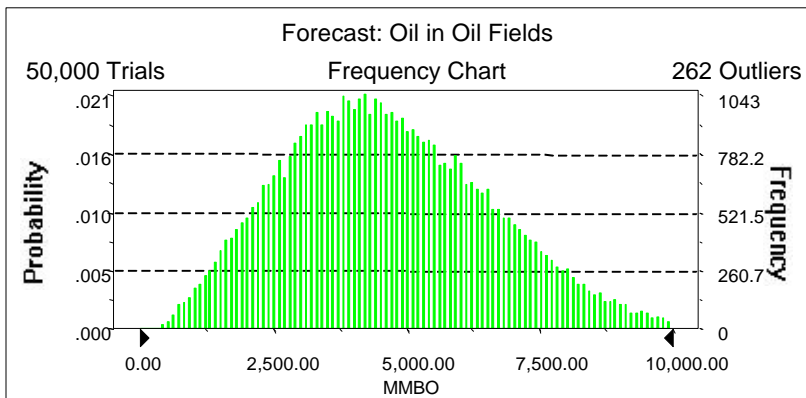
Summary:

Display range is from 0.00 to 10,000.00 MMBO

Entire range is from 197.97 to 13,331.07 MMBO

After 50,000 trials, the standard error of the mean is 8.69

Statistics:	Value
Trials	50000
Mean	4,676.74
Median	4,522.05
Mode	---
Standard Deviation	1,942.23
Variance	3,772,240.64
Skewness	0.38
Kurtosis	2.81
Coefficient of Variability	0.42
Range Minimum	197.97
Range Maximum	13,331.07
Range Width	13,133.10
Mean Standard Error	8.69



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**Forecast: Oil in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	197.97
95%	1,717.43
90%	2,229.87
85%	2,622.06
80%	2,957.55
75%	3,244.42
70%	3,512.59
65%	3,774.31
60%	4,024.35
55%	4,270.19
50%	4,522.05
45%	4,773.56
40%	5,045.79
35%	5,336.58
30%	5,638.45
25%	5,981.01
20%	6,355.07
15%	6,780.09
10%	7,318.36
5%	8,096.68
0%	13,331.07

End of Forecast

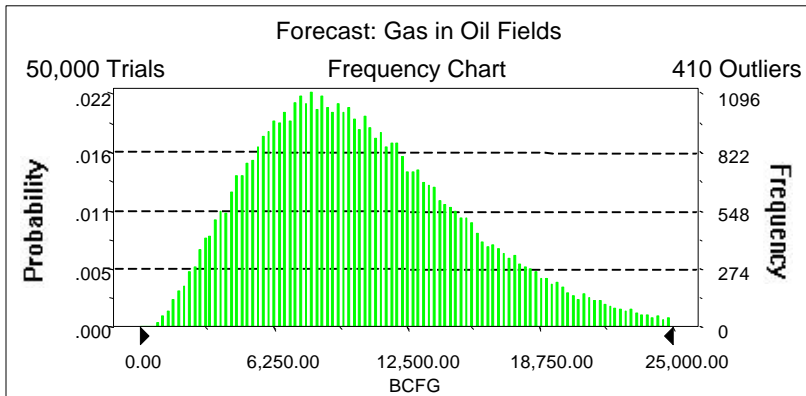
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**Forecast: Gas in Oil Fields**

Summary:

Display range is from 0.00 to 25,000.00 BCFG  
 Entire range is from 437.92 to 39,500.08 BCFG  
 After 50,000 trials, the standard error of the mean is 22.27

Statistics:	<u>Value</u>
Trials	50000
Mean	10,526.84
Median	9,854.64
Mode	---
Standard Deviation	4,979.69
Variance	24,797,341.52
Skewness	0.72
Kurtosis	3.49
Coefficient of Variability	0.47
Range Minimum	437.92
Range Maximum	39,500.08
Range Width	39,062.16
Mean Standard Error	22.27



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**Forecast: Gas in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	437.92
95%	3,556.47
90%	4,635.51
85%	5,474.85
80%	6,192.86
75%	6,844.81
70%	7,465.11
65%	8,052.80
60%	8,638.23
55%	9,245.59
50%	9,854.64
45%	10,500.16
40%	11,165.82
35%	11,885.68
30%	12,647.48
25%	13,535.56
20%	14,547.97
15%	15,737.01
10%	17,359.73
5%	19,748.10
0%	39,500.08

End of Forecast

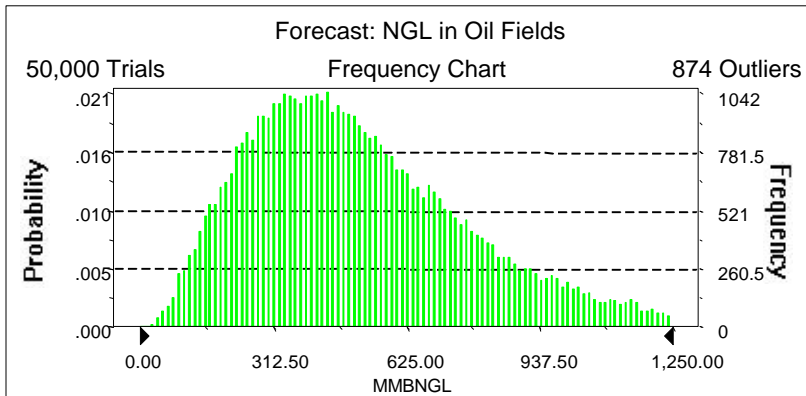
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**Forecast: NGL in Oil Fields**

Summary:

Display range is from 0.00 to 1,250.00 MMBNGL  
Entire range is from 17.38 to 2,219.64 MMBNGL  
After 50,000 trials, the standard error of the mean is 1.23

Statistics:	Value
Trials	50000
Mean	525.43
Median	477.95
Mode	---
Standard Deviation	274.58
Variance	75,395.02
Skewness	0.97
Kurtosis	4.19
Coefficient of Variability	0.52
Range Minimum	17.38
Range Maximum	2,219.64
Range Width	2,202.26
Mean Standard Error	1.23



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**Forecast: NGL in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	17.38
95%	163.90
90%	216.16
85%	256.05
80%	291.23
75%	323.80
70%	354.76
65%	385.37
60%	415.43
55%	446.06
50%	477.95
45%	510.80
40%	546.83
35%	585.50
30%	629.10
25%	679.84
20%	734.85
15%	804.07
10%	899.51
5%	1,047.16
0%	2,219.64

End of Forecast

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**Forecast: Largest Oil Field**

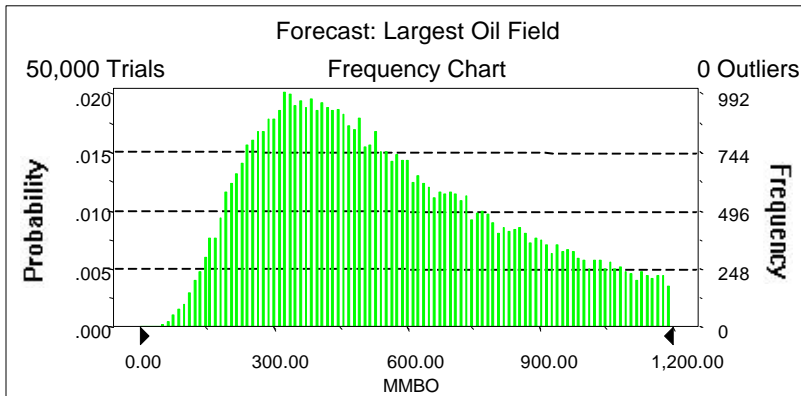
Summary:

Display range is from 0.00 to 1,200.00 MMBO

Entire range is from 22.89 to 1,199.72 MMBO

After 50,000 trials, the standard error of the mean is 1.19

Statistics:	Value
Trials	50000
Mean	556.60
Median	509.14
Mode	---
Standard Deviation	266.22
Variance	70,874.25
Skewness	0.52
Kurtosis	2.39
Coefficient of Variability	0.48
Range Minimum	22.89
Range Maximum	1,199.72
Range Width	1,176.83
Mean Standard Error	1.19





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**Forecast: Largest Oil Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	22.89
95%	194.53
90%	241.74
85%	278.84
80%	313.61
75%	344.95
70%	376.02
65%	408.32
60%	440.17
55%	473.34
50%	509.14
45%	547.19
40%	589.31
35%	634.24
30%	686.09
25%	739.68
20%	802.66
15%	875.44
10%	961.07
5%	1,064.95
0%	1,199.72

End of Forecast

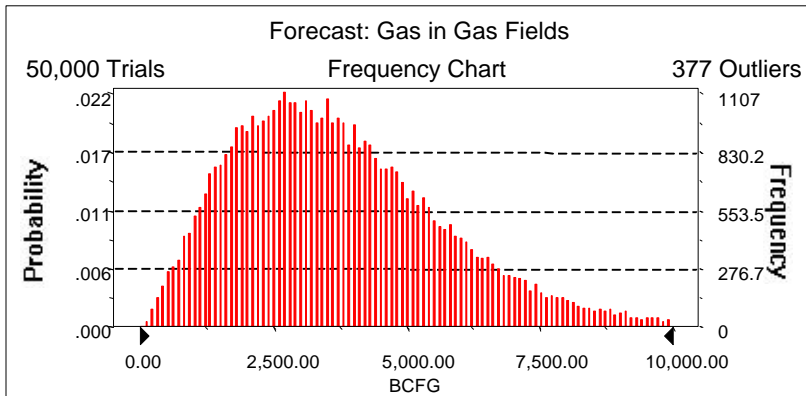
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**Forecast: Gas in Gas Fields**

Summary:

Display range is from 0.00 to 10,000.00 BCFG  
 Entire range is from 91.59 to 17,240.63 BCFG  
 After 50,000 trials, the standard error of the mean is 8.99

Statistics:	<u>Value</u>
Trials	50000
Mean	3,786.74
Median	3,506.56
Mode	---
Standard Deviation	2,010.05
Variance	4,040,295.06
Skewness	0.86
Kurtosis	3.99
Coefficient of Variability	0.53
Range Minimum	91.59
Range Maximum	17,240.63
Range Width	17,149.05
Mean Standard Error	8.99



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**Forecast: Gas in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	91.59
95%	1,057.49
90%	1,443.61
85%	1,762.07
80%	2,030.49
75%	2,290.28
70%	2,542.49
65%	2,777.58
60%	3,010.04
55%	3,252.91
50%	3,506.56
45%	3,752.73
40%	4,020.30
35%	4,303.59
30%	4,618.93
25%	4,955.46
20%	5,358.33
15%	5,853.16
10%	6,490.61
5%	7,494.93
0%	17,240.63

End of Forecast

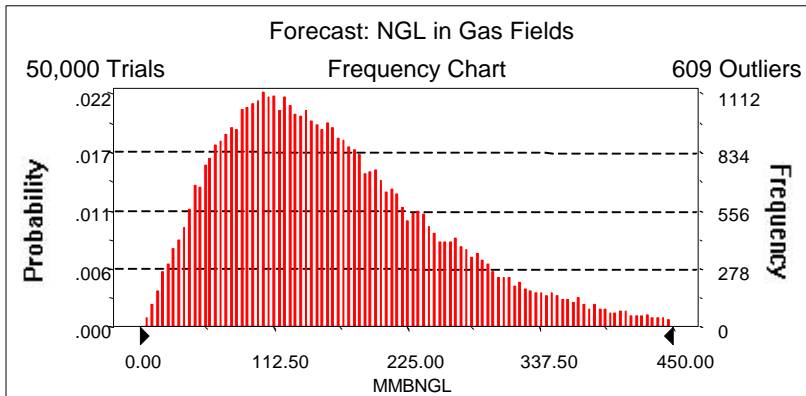
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**Forecast: NGL in Gas Fields**

Summary:

Display range is from 0.00 to 450.00 MMBNGL  
Entire range is from 2.88 to 959.13 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.43

Statistics:	Value
Trials	50000
Mean	166.40
Median	149.22
Mode	---
Standard Deviation	96.32
Variance	9,277.30
Skewness	1.11
Kurtosis	4.89
Coefficient of Variability	0.58
Range Minimum	2.88
Range Maximum	959.13
Range Width	956.25
Mean Standard Error	0.43



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**Forecast: NGL in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	2.88
95%	43.22
90%	59.63
85%	72.71
80%	84.70
75%	95.75
70%	106.07
65%	116.31
60%	126.97
55%	137.99
50%	149.22
45%	160.91
40%	173.19
35%	186.30
30%	201.30
25%	218.33
20%	238.84
15%	263.73
10%	294.74
5%	349.85
0%	959.13

End of Forecast

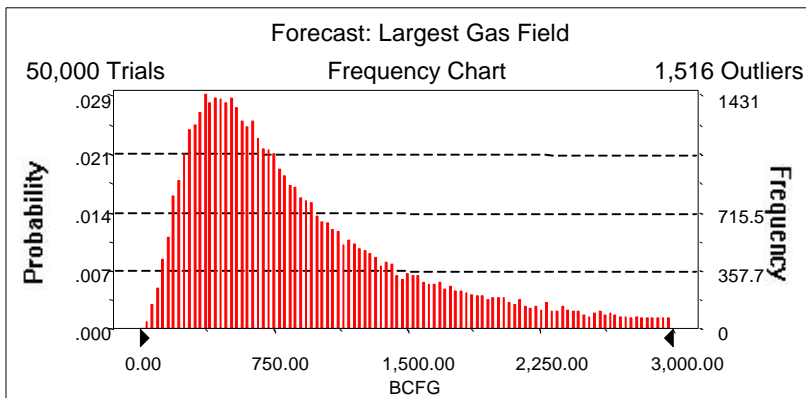
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**Forecast: Largest Gas Field**

Summary:

Display range is from 0.00 to 3,000.00 BCFG  
Entire range is from 31.05 to 3,998.86 BCFG  
After 50,000 trials, the standard error of the mean is 3.35

Statistics:	Value
Trials	50000
Mean	982.97
Median	751.84
Mode	---
Standard Deviation	748.97
Variance	560,951.91
Skewness	1.55
Kurtosis	5.33
Coefficient of Variability	0.76
Range Minimum	31.05
Range Maximum	3,998.86
Range Width	3,967.81
Mean Standard Error	3.35



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**Forecast: Largest Gas Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	31.05
95%	217.92
90%	288.51
85%	348.53
80%	401.26
75%	455.04
70%	509.00
65%	563.06
60%	621.86
55%	683.11
50%	751.84
45%	826.77
40%	913.48
35%	1,012.07
30%	1,128.32
25%	1,273.37
20%	1,450.79
15%	1,693.89
10%	2,034.86
5%	2,612.49
0%	3,998.86

End of Forecast

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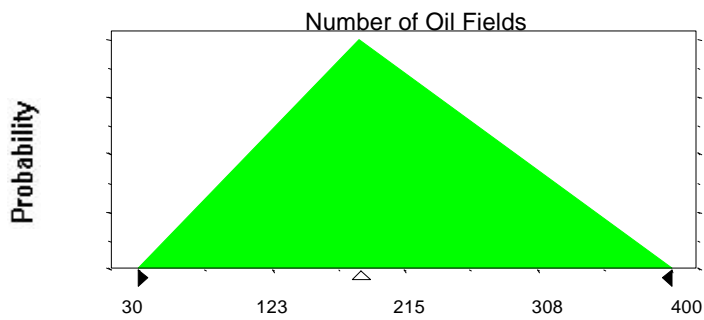
Assumptions

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	30
Likeliest	184
Maximum	400

Selected range is from 30 to 400  
Mean value in simulation was 205



**Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:

Mean	24.09
Standard Deviation	113.56

Shifted parameters

25.09
113.56

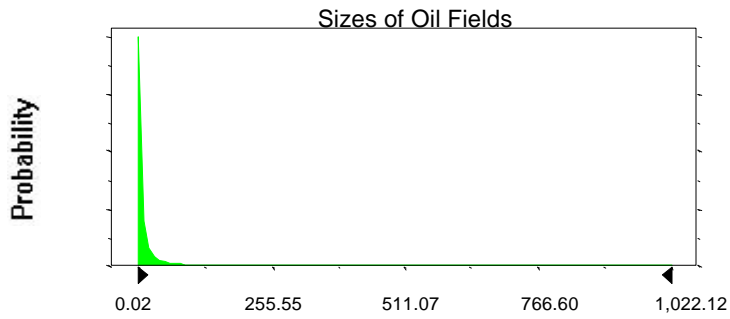
Selected range is from 0.00 to 1,199.00  
Mean value in simulation was 22.00

1.00 to 1,200.00  
23



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Assumption: Sizes of Oil Fields (cont'd)

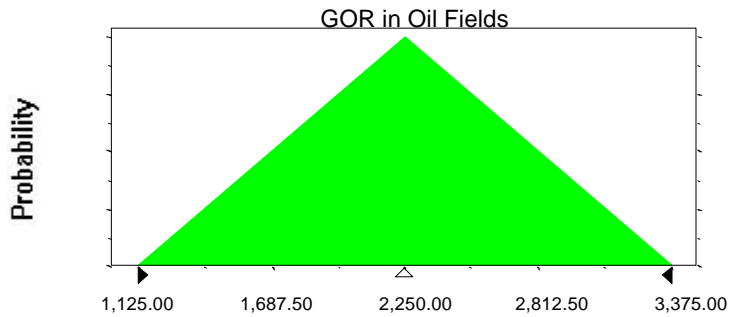


Assumption: GOR in Oil Fields

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 2,248.88



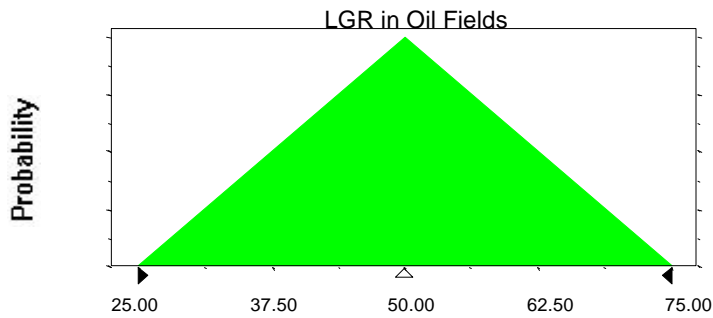
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**Assumption: LGR in Oil Fields**

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 49.95



**Assumption: Number of Gas Fields**

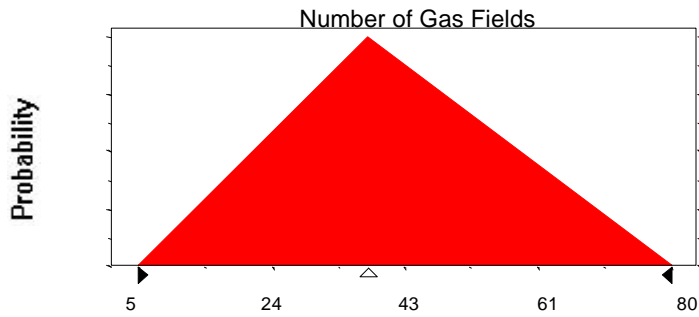
Triangular distribution with parameters:

Minimum	5
Likeliest	37
Maximum	80

Selected range is from 5 to 80  
Mean value in simulation was 41

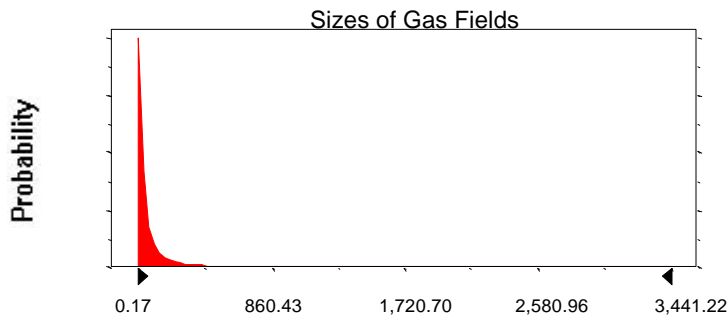
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	94.43	100.43
Standard Deviation	359.34	359.34
Selected range is from 0.00 to 3,994.00	6.00 to 4,000.00	
Mean value in simulation was 88.18	94.18	



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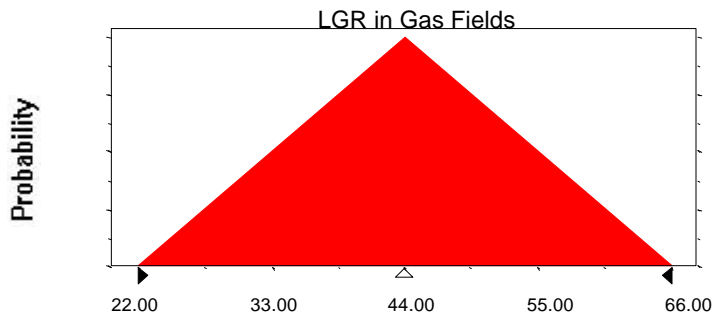
**Assumption: LGR in Gas Fields**

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 43.95



End of Assumptions

Simulation started on 10/8/99 at 10:52:32  
Simulation stopped on 10/8/99 at 12:36:23