

**Main Maracaibo Basin, Assessment Unit 60990101
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	4	1.00	3,028	7,546	13,558	7,842	4,376	11,176	21,072	11,770	244	653	1,357	707	357	886	2,010	994
Gas Fields	24						1,061	3,935	8,797	4,315	43	168	409	190	245	789	2,519	995
Total		1.00	3,028	7,546	13,558	7,842	5,437	15,111	29,869	16,085	287	821	1,766	896				

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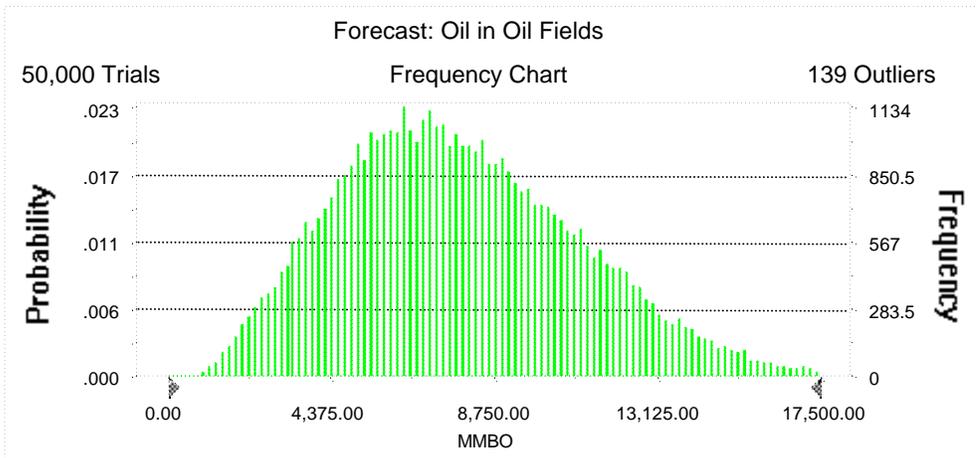
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 17,500.00 MMBO
Entire range is from 654.05 to 22,325.49 MMBO
After 50,000 trials, the standard error of the mean is 14.36

Statistics:

	<u>Value</u>
Trials	50000
Mean	7,842.33
Median	7,545.67
Mode	---
Standard Deviation	3,211.84
Variance	10,315,945.13
Skewness	0.42
Kurtosis	2.85
Coefficient of Variability	0.41
Range Minimum	654.05
Range Maximum	22,325.49
Range Width	21,671.44
Mean Standard Error	14.36



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	654.05
95%	3,027.90
90%	3,824.79
85%	4,469.52
80%	4,999.18
75%	5,458.58
70%	5,889.57
65%	6,311.09
60%	6,720.40
55%	7,133.66
50%	7,545.67
45%	7,983.86
40%	8,438.69
35%	8,911.25
30%	9,410.57
25%	9,981.54
20%	10,609.93
15%	11,325.97
10%	12,222.23
5%	13,558.15
0%	22,325.49

End of Forecast

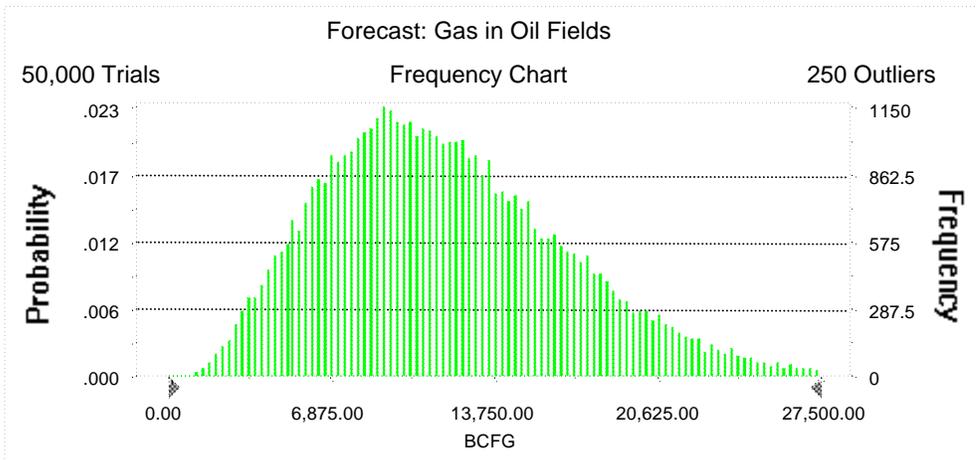
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 27,500.00 BCFG
Entire range is from 870.97 to 42,410.86 BCFG
After 50,000 trials, the standard error of the mean is 22.93

Statistics:	<u>Value</u>
Trials	50000
Mean	11,769.83
Median	11,175.59
Mode	---
Standard Deviation	5,127.40
Variance	26,290,267.28
Skewness	0.62
Kurtosis	3.31
Coefficient of Variability	0.44
Range Minimum	870.97
Range Maximum	42,410.86
Range Width	41,539.88
Mean Standard Error	22.93



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	870.97
95%	4,375.96
90%	5,574.23
85%	6,491.15
80%	7,268.81
75%	7,991.51
70%	8,653.04
65%	9,270.26
60%	9,887.63
55%	10,526.94
50%	11,175.59
45%	11,853.87
40%	12,545.61
35%	13,266.59
30%	14,073.75
25%	14,972.03
20%	16,006.08
15%	17,219.20
10%	18,699.13
5%	21,071.75
0%	42,410.86

End of Forecast

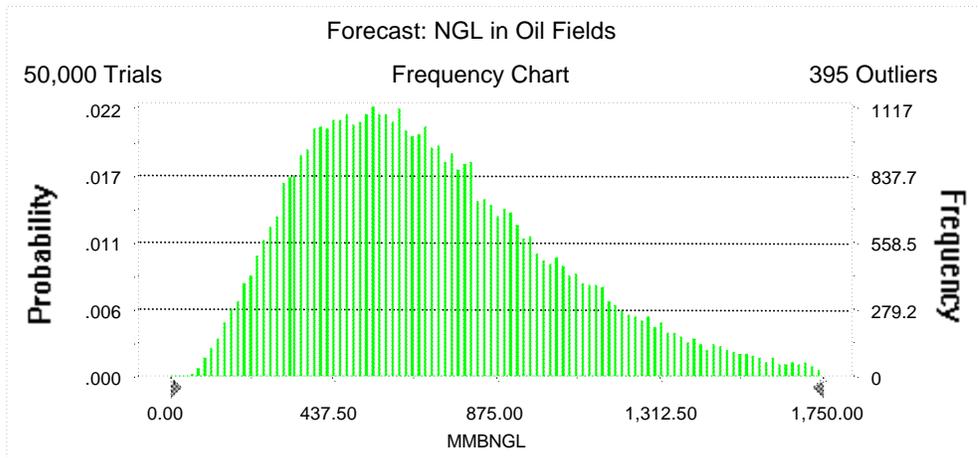
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 1,750.00 MMBNGL
 Entire range is from 43.39 to 2,721.78 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.55

Statistics:	<u>Value</u>
Trials	50000
Mean	706.57
Median	652.53
Mode	---
Standard Deviation	346.23
Variance	119,876.59
Skewness	0.88
Kurtosis	3.97
Coefficient of Variability	0.49
Range Minimum	43.39
Range Maximum	2,721.78
Range Width	2,678.39
Mean Standard Error	1.55



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	43.39
95%	243.55
90%	310.92
85%	362.72
80%	406.51
75%	448.58
70%	489.24
65%	530.27
60%	570.18
55%	611.19
50%	652.53
45%	695.47
40%	741.22
35%	790.54
30%	843.68
25%	905.45
20%	976.12
15%	1,065.57
10%	1,177.59
5%	1,356.94
0%	2,721.78

End of Forecast

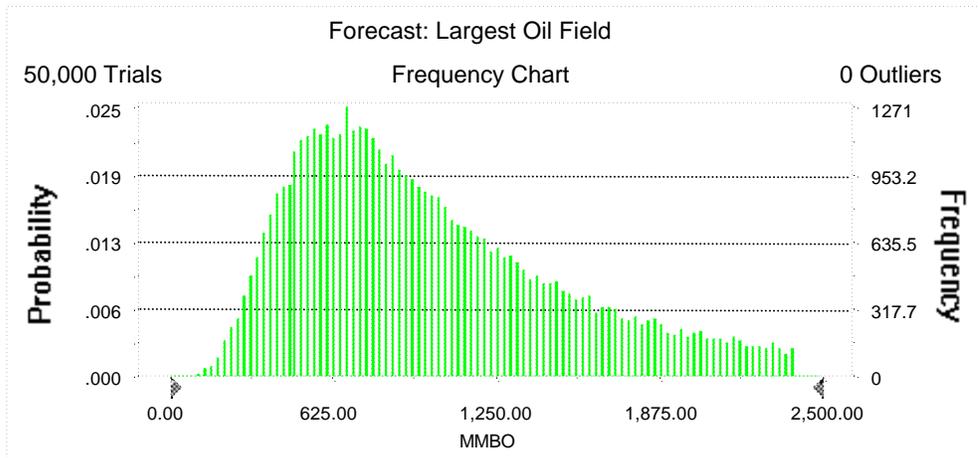
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 2,500.00 MMBO
 Entire range is from 71.61 to 2,399.68 MMBO
 After 50,000 trials, the standard error of the mean is 2.23

Statistics:	<u>Value</u>
Trials	50000
Mean	994.29
Median	886.08
Mode	---
Standard Deviation	499.20
Variance	249,197.28
Skewness	0.77
Kurtosis	2.91
Coefficient of Variability	0.50
Range Minimum	71.61
Range Maximum	2,399.68
Range Width	2,328.08
Mean Standard Error	2.23



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	71.61
95%	357.15
90%	436.20
85%	500.32
80%	555.25
75%	608.97
70%	663.25
65%	715.50
60%	768.37
55%	824.56
50%	886.08
45%	952.19
40%	1,023.00
35%	1,102.13
30%	1,191.85
25%	1,293.76
20%	1,414.30
15%	1,561.78
10%	1,748.87
5%	2,009.73
0%	2,399.68

End of Forecast

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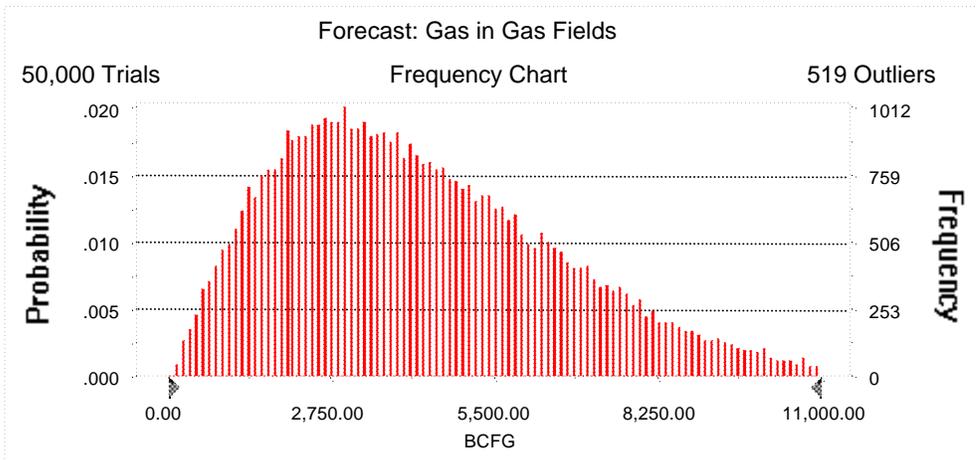
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 11,000.00 BCFG
 Entire range is from 56.73 to 17,746.49 BCFG
 After 50,000 trials, the standard error of the mean is 10.76

Statistics:

	<u>Value</u>
Trials	50000
Mean	4,314.70
Median	3,935.30
Mode	---
Standard Deviation	2,405.67
Variance	5,787,247.49
Skewness	0.77
Kurtosis	3.44
Coefficient of Variability	0.56
Range Minimum	56.73
Range Maximum	17,746.49
Range Width	17,689.75
Mean Standard Error	10.76



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	56.73
95%	1,060.84
90%	1,500.50
85%	1,858.17
80%	2,175.83
75%	2,472.90
70%	2,763.82
65%	3,047.26
60%	3,333.78
55%	3,636.89
50%	3,935.30
45%	4,263.20
40%	4,606.67
35%	4,970.82
30%	5,368.47
25%	5,794.29
20%	6,308.57
15%	6,883.12
10%	7,637.89
5%	8,797.40
0%	17,746.49

End of Forecast

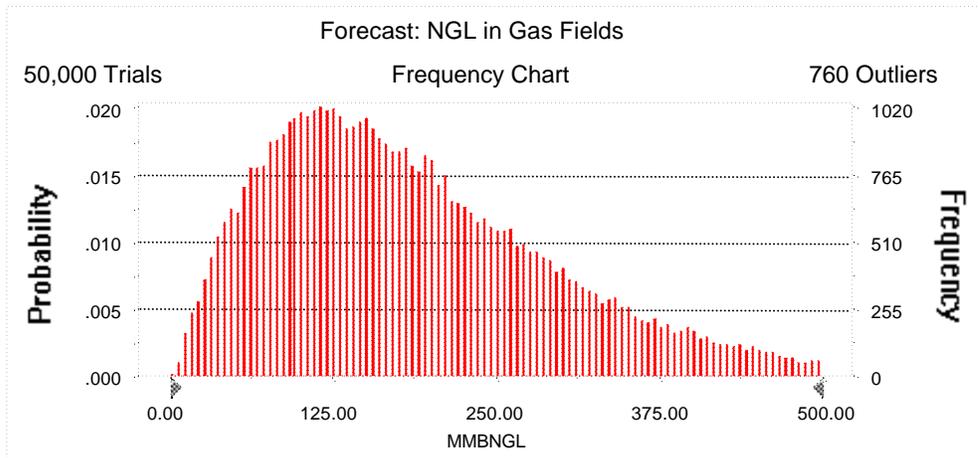
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 500.00 MMBNGL
Entire range is from 2.43 to 1,053.71 MMBNGL
After 50,000 trials, the standard error of the mean is 0.51

Statistics:	<u>Value</u>
Trials	50000
Mean	189.90
Median	168.31
Mode	---
Standard Deviation	114.80
Variance	13,177.93
Skewness	1.03
Kurtosis	4.37
Coefficient of Variability	0.60
Range Minimum	2.43
Range Maximum	1,053.71
Range Width	1,051.29
Mean Standard Error	0.51



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	2.43
95%	43.00
90%	62.12
85%	77.33
80%	91.13
75%	103.79
70%	116.38
65%	128.67
60%	141.47
55%	154.53
50%	168.31
45%	182.71
40%	198.21
35%	214.16
30%	233.24
25%	254.77
20%	279.01
15%	307.56
10%	347.10
5%	409.10
0%	1,053.71

End of Forecast

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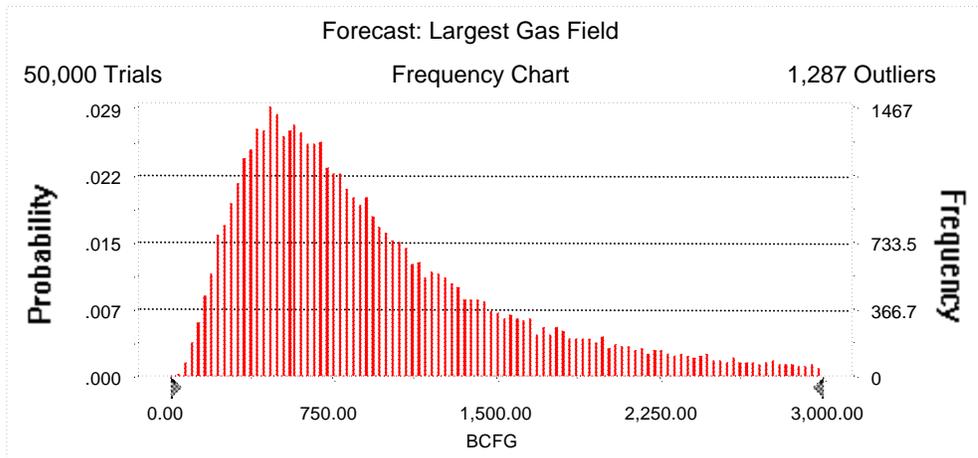
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 3,000.00 BCFG
 Entire range is from 30.06 to 3,999.22 BCFG
 After 50,000 trials, the standard error of the mean is 3.18

Statistics:

	<u>Value</u>
Trials	50000
Mean	995.20
Median	789.41
Mode	---
Standard Deviation	711.27
Variance	505,906.30
Skewness	1.56
Kurtosis	5.51
Coefficient of Variability	0.71
Range Minimum	30.06
Range Maximum	3,999.22
Range Width	3,969.17
Mean Standard Error	3.18



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	30.06
95%	244.97
90%	324.97
85%	387.48
80%	442.81
75%	495.30
70%	550.16
65%	605.83
60%	663.67
55%	722.62
50%	789.41
45%	862.33
40%	941.07
35%	1,034.31
30%	1,143.11
25%	1,274.89
20%	1,436.32
15%	1,656.44
10%	1,973.88
5%	2,518.59
0%	3,999.22

End of Forecast

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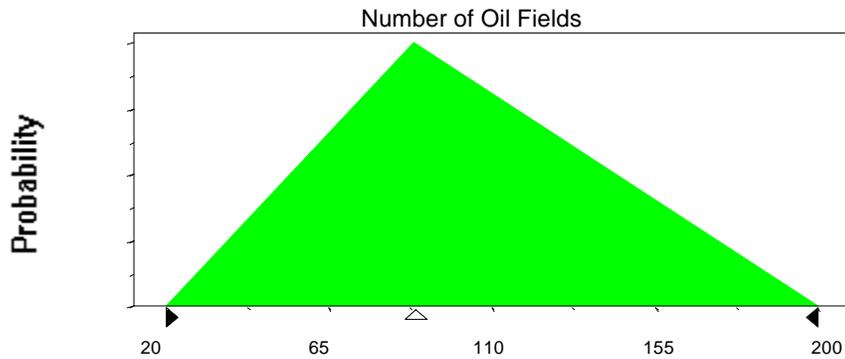
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	20
Likeliest	89
Maximum	200

Selected range is from 20 to 200
Mean value in simulation was 103



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	75.91
Standard Deviation	208.25

Shifted parameters

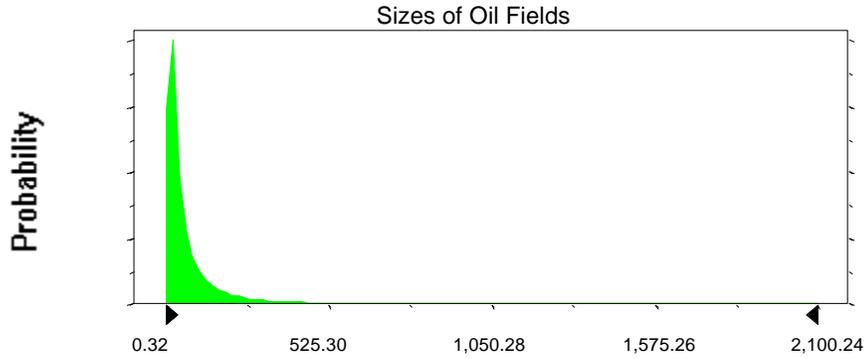
79.91
208.25

Selected range is from 0.00 to 2,396.00
Mean value in simulation was 71.88

4.00 to 2,400.00
75.88

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Assumption: Sizes of Oil Fields (cont'd)



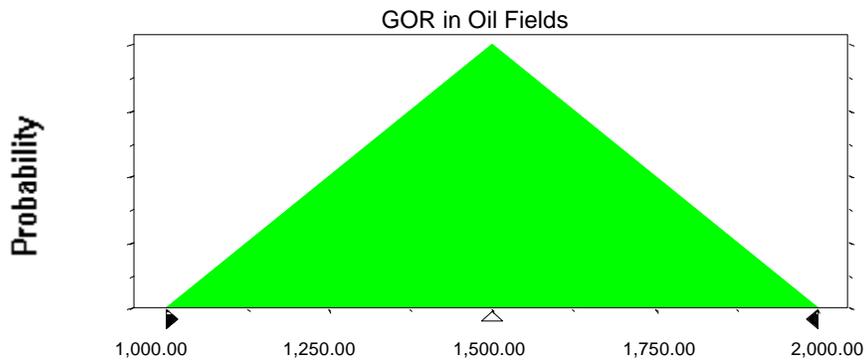
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,000.00
Likeliest	1,500.00
Maximum	2,000.00

Selected range is from 1,000.00 to 2,000.00

Mean value in simulation was 1,500.85



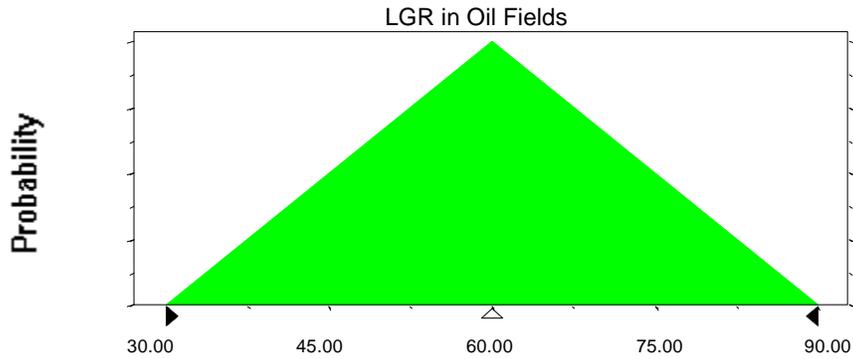
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00
Mean value in simulation was 60.02



Assumption: Number of Gas Fields

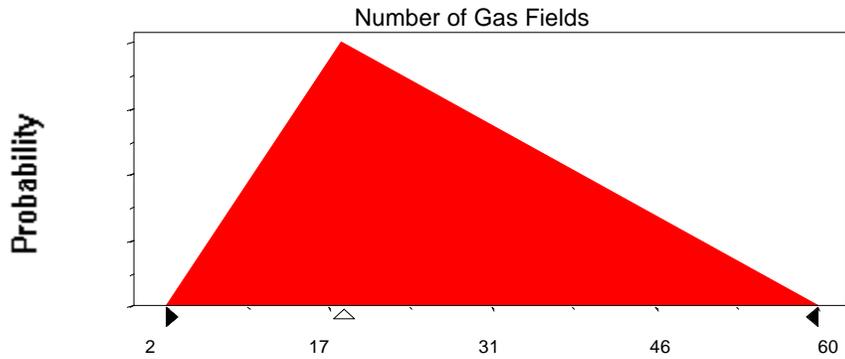
Triangular distribution with parameters:

Minimum	2
Likeliest	18
Maximum	60

Selected range is from 2 to 60
Mean value in simulation was 27

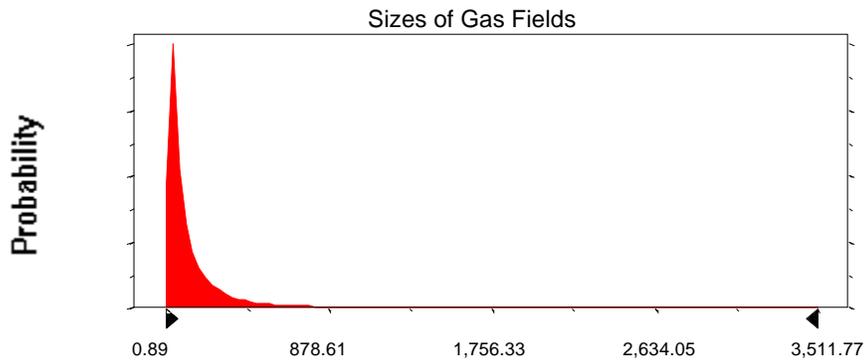
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	145.02	169.02
Standard Deviation	346.42	346.42
Selected range is from 0.00 to 3,976.00		24.00 to 4,000.00
Mean value in simulation was 139.91		163.91



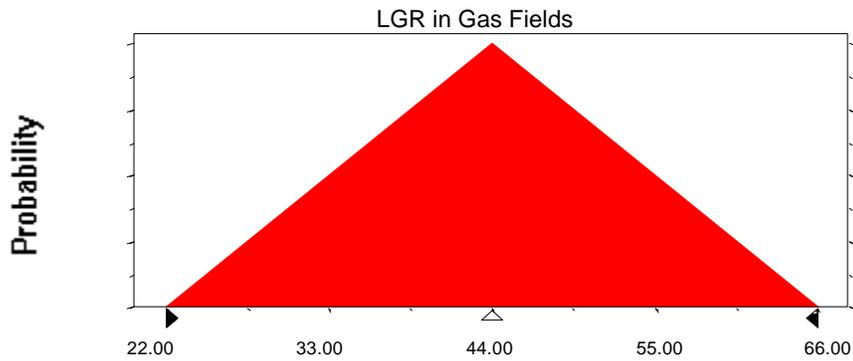
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Assumption: LGR in Gas Fields

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 44.02



End of Assumptions

Simulation started on 5/24/99 at 10:22:13
Simulation stopped on 5/24/99 at 11:22:06