

Moesian Platform, Assessment Unit 40610101
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	67	160	310	171	74	187	399	205	2	5	13	6	9	20	45	22
Gas Fields	6						103	323	726	356	4	13	31	14	29	74	208	89
Total		1.00	67	160	310	171	176	509	1,125	561	6	18	43	20				

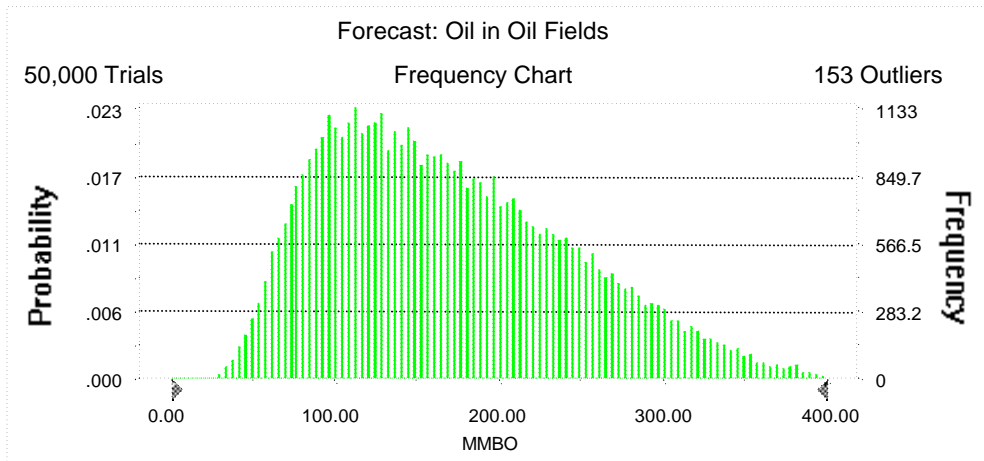
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Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 400.00 MMBO
Entire range is from 24.66 to 554.58 MMBO
After 50,000 trials, the standard error of the mean is 0.34

Statistics:	Value
Trials	50000
Mean	170.85
Median	159.85
Mode	---
Standard Deviation	75.59
Variance	5,713.92
Skewness	0.59
Kurtosis	2.82
Coefficient of Variability	0.44
Range Minimum	24.66
Range Maximum	554.58
Range Width	529.92
Mean Standard Error	0.34



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	24.66
95%	67.41
90%	81.07
85%	91.90
80%	101.42
75%	110.95
70%	120.27
65%	129.52
60%	139.35
55%	149.15
50%	159.85
45%	170.65
40%	182.02
35%	194.23
30%	207.18
25%	221.43
20%	237.68
15%	255.70
10%	278.20
5%	309.84
0%	554.58

End of Forecast

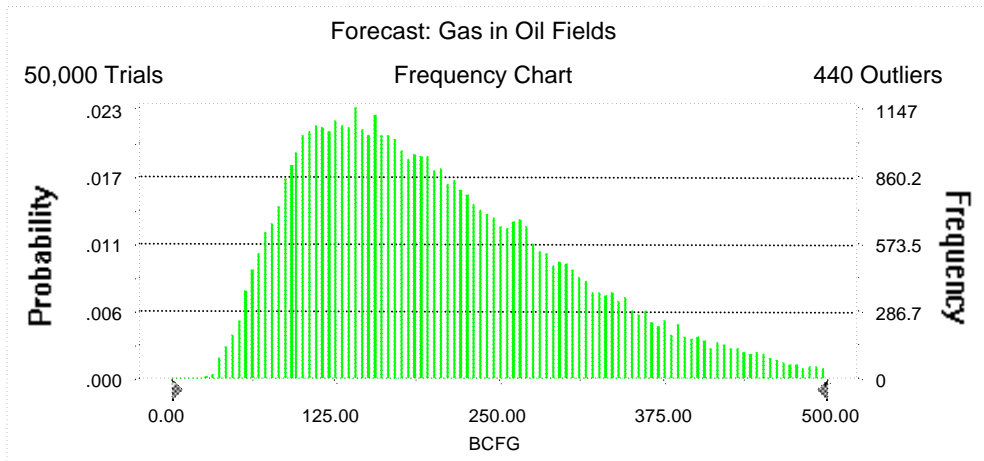
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 500.00 BCFG
Entire range is from 23.49 to 821.55 BCFG
After 50,000 trials, the standard error of the mean is 0.45

Statistics:	Value
Trials	50000
Mean	205.09
Median	186.72
Mode	---
Standard Deviation	101.48
Variance	10,297.92
Skewness	0.87
Kurtosis	3.61
Coefficient of Variability	0.49
Range Minimum	23.49
Range Maximum	821.55
Range Width	798.07
Mean Standard Error	0.45



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	23.49
95%	73.52
90%	90.45
85%	103.45
80%	115.17
75%	126.81
70%	138.54
65%	149.93
60%	161.66
55%	173.61
50%	186.72
45%	200.04
40%	214.39
35%	229.82
30%	247.30
25%	266.37
20%	287.22
15%	313.17
10%	347.11
5%	398.81
0%	821.55

End of Forecast

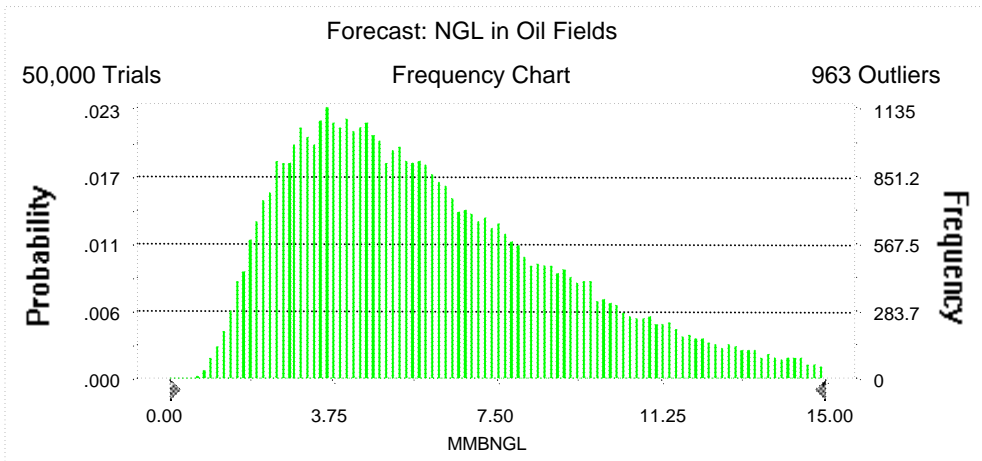
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 15.00 MMBNGL
Entire range is from 0.62 to 28.34 MMBNGL
After 50,000 trials, the standard error of the mean is 0.02

Statistics:	Value
Trials	50000
Mean	6.15
Median	5.46
Mode	---
Standard Deviation	3.37
Variance	11.33
Skewness	1.14
Kurtosis	4.68
Coefficient of Variability	0.55
Range Minimum	0.62
Range Maximum	28.34
Range Width	27.72
Mean Standard Error	0.02



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.62
95%	2.01
90%	2.50
85%	2.91
80%	3.27
75%	3.63
70%	3.98
65%	4.33
60%	4.69
55%	5.06
50%	5.46
45%	5.87
40%	6.31
35%	6.81
30%	7.36
25%	7.97
20%	8.72
15%	9.58
10%	10.76
5%	12.64
0%	28.34

End of Forecast

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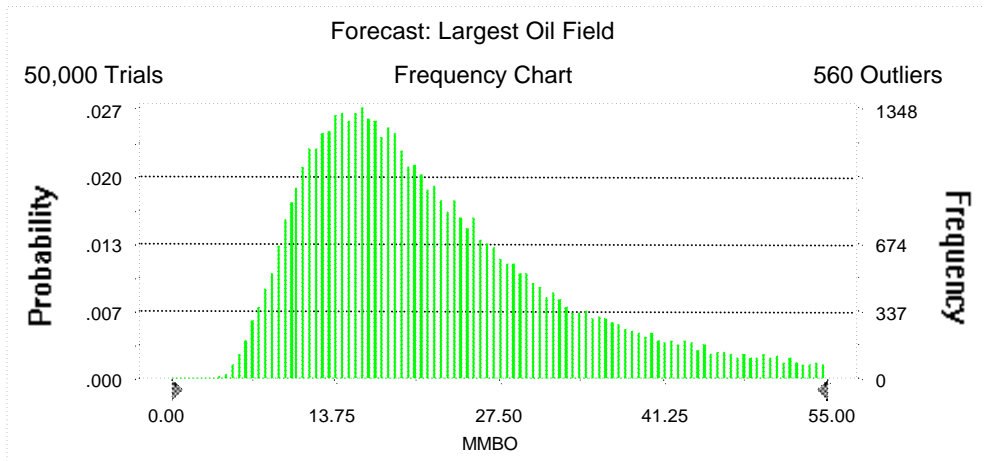
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 55.00 MMBO
Entire range is from 2.68 to 60.00 MMBO
After 50,000 trials, the standard error of the mean is 0.05

Statistics:

	<u>Value</u>
Trials	50000
Mean	22.31
Median	19.72
Mode	---
Standard Deviation	10.87
Variance	118.23
Skewness	1.07
Kurtosis	3.83
Coefficient of Variability	0.49
Range Minimum	2.68
Range Maximum	60.00
Range Width	57.31
Mean Standard Error	0.05



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	2.68
95%	9.17
90%	10.79
85%	12.07
80%	13.24
75%	14.31
70%	15.36
65%	16.40
60%	17.47
55%	18.58
50%	19.72
45%	21.04
40%	22.45
35%	24.02
30%	25.76
25%	27.81
20%	30.27
15%	33.53
10%	38.02
5%	44.87
0%	60.00

End of Forecast

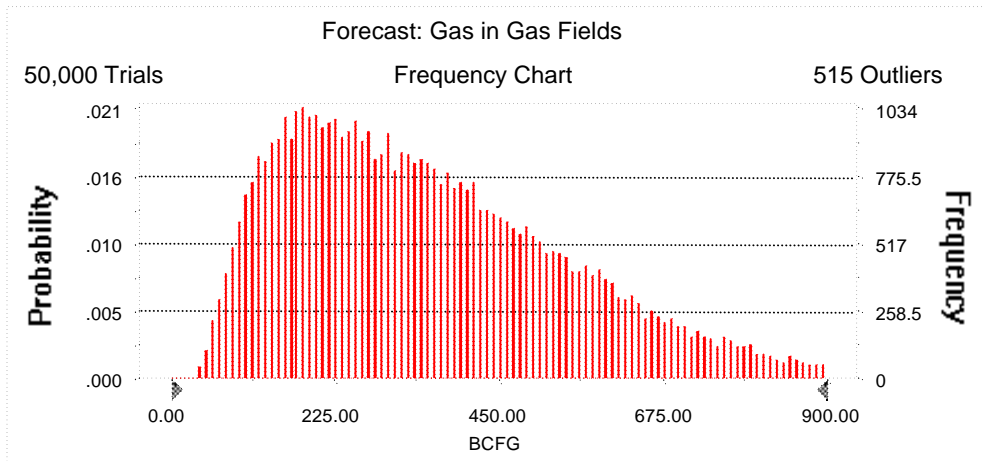
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 900.00 BCFG
Entire range is from 30.93 to 1,465.65 BCFG
After 50,000 trials, the standard error of the mean is 0.88

Statistics:	Value
Trials	50000
Mean	356.15
Median	322.66
Mode	---
Standard Deviation	196.06
Variance	38,438.70
Skewness	0.83
Kurtosis	3.50
Coefficient of Variability	0.55
Range Minimum	30.93
Range Maximum	1,465.65
Range Width	1,434.72
Mean Standard Error	0.88



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	30.93
95%	102.64
90%	131.46
85%	156.03
80%	178.64
75%	200.97
70%	224.05
65%	247.50
60%	271.38
55%	296.86
50%	322.66
45%	349.43
40%	377.90
35%	407.57
30%	440.48
25%	477.49
20%	518.97
15%	568.63
10%	629.00
5%	725.97
0%	1,465.65

End of Forecast

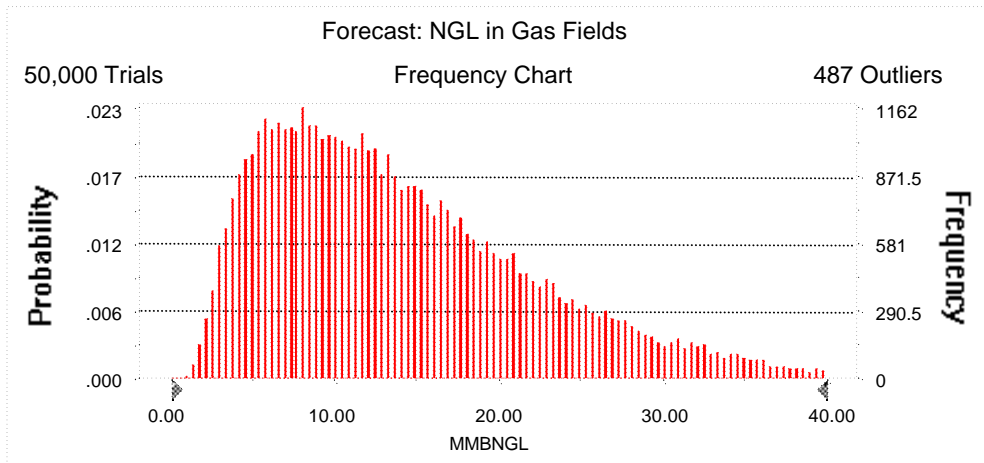
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 40.00 MMBNGL
Entire range is from 0.83 to 69.61 MMBNGL
After 50,000 trials, the standard error of the mean is 0.04

Statistics:	<u>Value</u>
Trials	50000
Mean	14.26
Median	12.50
Mode	---
Standard Deviation	8.51
Variance	72.42
Skewness	1.07
Kurtosis	4.32
Coefficient of Variability	0.60
Range Minimum	0.83
Range Maximum	69.61
Range Width	68.78
Mean Standard Error	0.04



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.83
95%	3.82
90%	4.93
85%	5.89
80%	6.80
75%	7.74
70%	8.62
65%	9.57
60%	10.52
55%	11.53
50%	12.50
45%	13.58
40%	14.78
35%	16.04
30%	17.42
25%	19.02
20%	20.87
15%	23.10
10%	26.11
5%	30.80
0%	69.61

End of Forecast

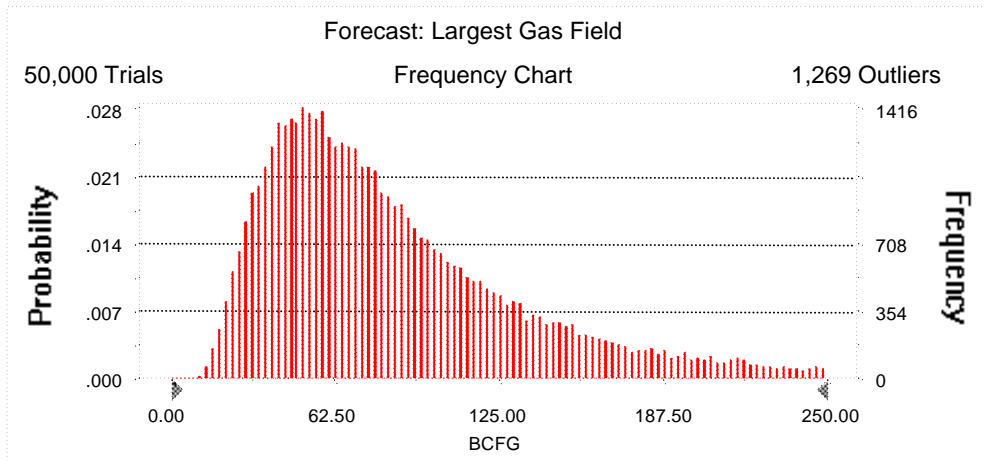
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 250.00 BCFG
Entire range is from 10.68 to 359.58 BCFG
After 50,000 trials, the standard error of the mean is 0.26

Statistics:	Value
Trials	50000
Mean	89.47
Median	73.94
Mode	---
Standard Deviation	57.28
Variance	3,281.50
Skewness	1.65
Kurtosis	6.25
Coefficient of Variability	0.64
Range Minimum	10.68
Range Maximum	359.58
Range Width	348.91
Mean Standard Error	0.26



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	10.68
95%	28.53
90%	35.13
85%	40.44
80%	45.12
75%	49.72
70%	54.14
65%	58.74
60%	63.55
55%	68.72
50%	73.94
45%	79.62
40%	86.20
35%	93.25
30%	101.76
25%	111.87
20%	124.25
15%	140.80
10%	164.28
5%	208.38
0%	359.58

End of Forecast

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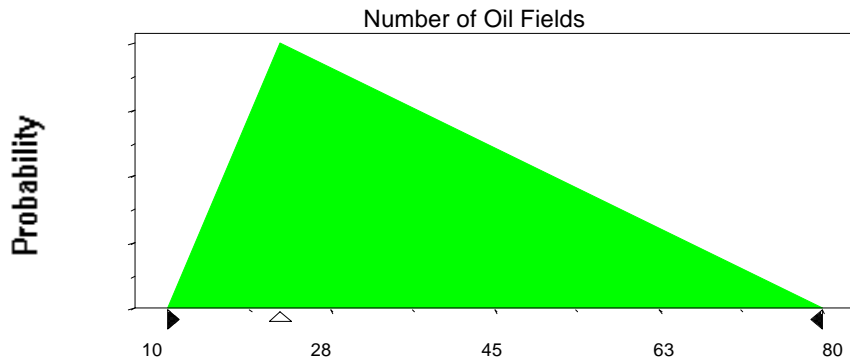
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	10
Likeliest	22
Maximum	80

Selected range is from 10 to 80
Mean value in simulation was 37



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	3.64
Standard Deviation	5.55

Shifted parameters

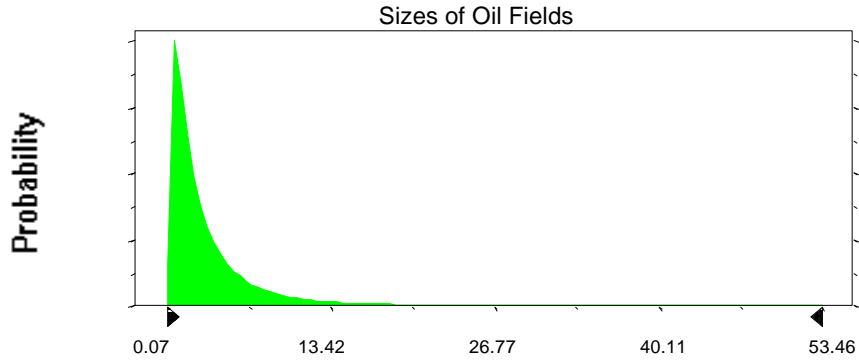
4.64
5.55

Selected range is from 0.00 to 59.00
Mean value in simulation was 3.55

1.00 to 60.00
4.55

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Assumption: Sizes of Oil Fields (cont'd)



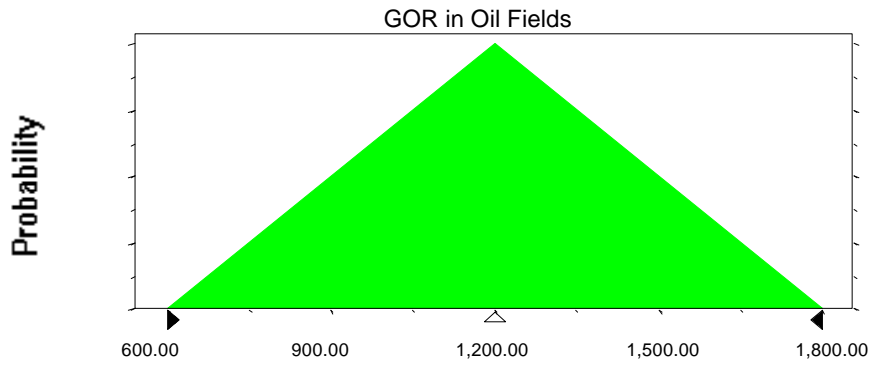
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	600.00
Likeliest	1,200.00
Maximum	1,800.00

Selected range is from 600.00 to 1,800.00

Mean value in simulation was 1,200.47



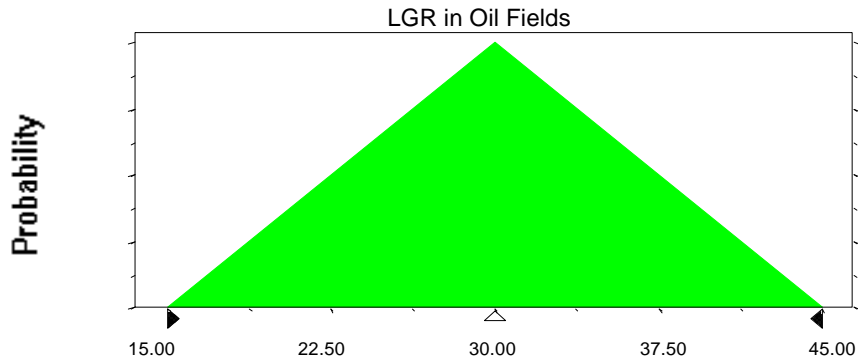
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	30.00
Maximum	45.00

Selected range is from 15.00 to 45.00
Mean value in simulation was 29.97



Assumption: Number of Gas Fields

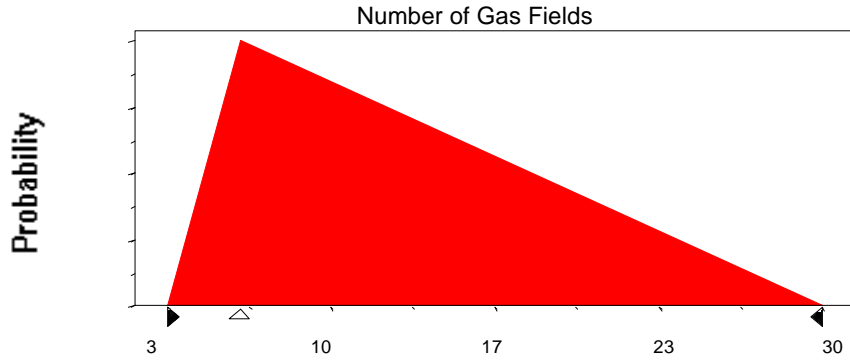
Triangular distribution with parameters:

Minimum	3
Likeliest	6
Maximum	30

Selected range is from 3 to 30
Mean value in simulation was 13

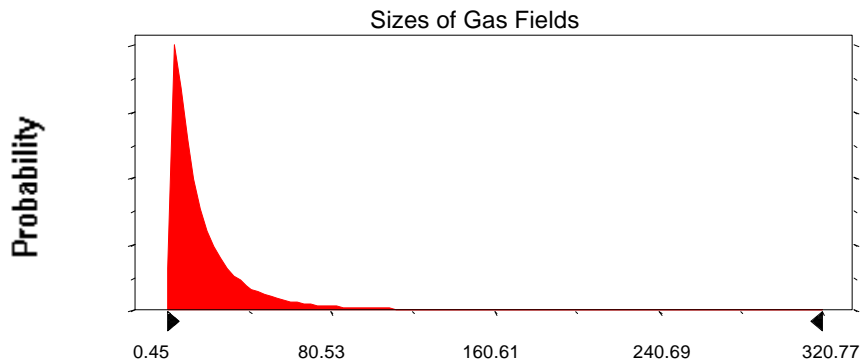
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	21.86		27.86
Standard Deviation	33.29		33.29
Selected range is from 0.00 to 354.00		6.00 to 360.00	
Mean value in simulation was 21.41		27.41	



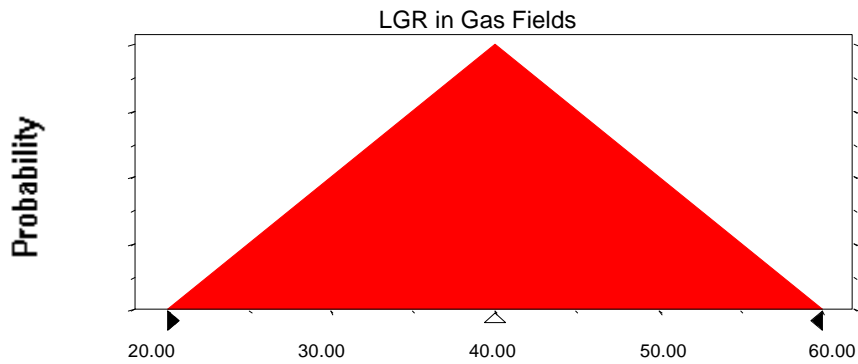
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	20.00
Likeliest	40.00
Maximum	60.00

Selected range is from 20.00 to 60.00
Mean value in simulation was 40.04



End of Assumptions

Simulation started on 5/24/99 at 13:37:59
Simulation stopped on 5/24/99 at 14:07:20