

**Tertiary Foredeep, Assessment Unit 11080101
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	2	1.00	89	266	512	280	108	381	1,027	450	6	22	64	27	16	45	131	55
Gas Fields	12						954	2,600	4,707	2,688	14	39	80	42	154	358	878	413
Total		1.00	89	266	512	280	1,061	2,981	5,733	3,139	20	61	143	69				

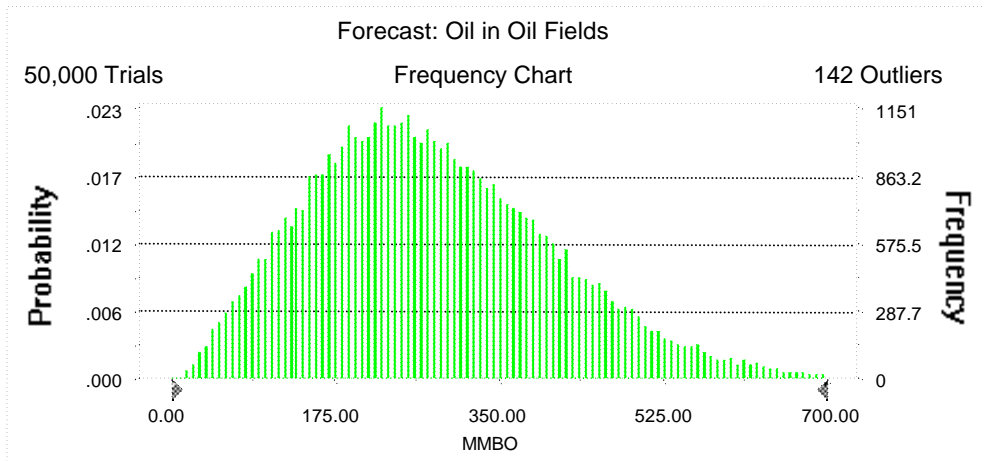
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 700.00 MMBO
Entire range is from 12.71 to 1,068.42 MMBO
After 50,000 trials, the standard error of the mean is 0.58

Statistics:	Value
Trials	50000
Mean	279.77
Median	266.30
Mode	---
Standard Deviation	129.68
Variance	16,817.48
Skewness	0.56
Kurtosis	3.21
Coefficient of Variability	0.46
Range Minimum	12.71
Range Maximum	1,068.42
Range Width	1,055.71
Mean Standard Error	0.58



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	12.71
95%	89.29
90%	120.24
85%	145.31
80%	165.67
75%	184.64
70%	201.20
65%	218.45
60%	233.85
55%	249.99
50%	266.30
45%	283.42
40%	300.96
35%	319.88
30%	340.31
25%	362.47
20%	387.43
15%	416.77
10%	455.22
5%	511.54
0%	1,068.42

End of Forecast

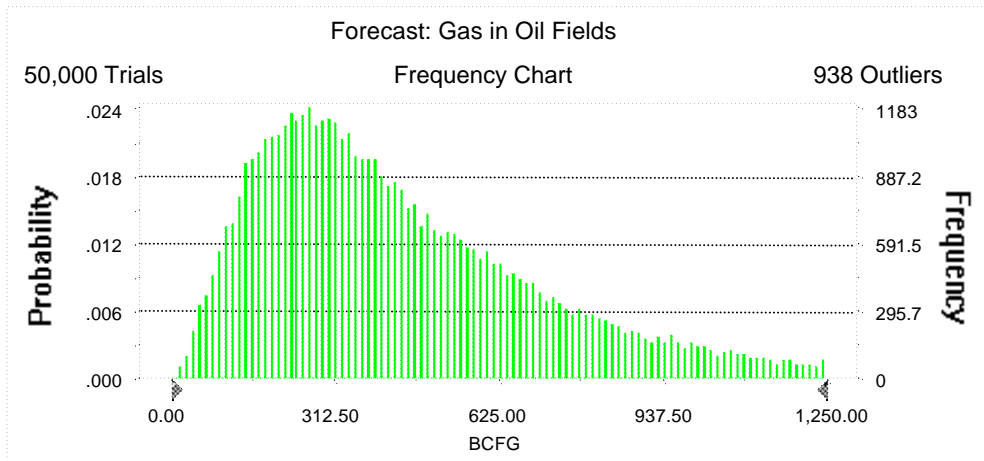
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 1,250.00 BCFG
 Entire range is from 9.13 to 2,864.93 BCFG
 After 50,000 trials, the standard error of the mean is 1.31

Statistics:	<u>Value</u>
Trials	50000
Mean	450.24
Median	380.66
Mode	---
Standard Deviation	292.30
Variance	85,439.22
Skewness	1.34
Kurtosis	5.43
Coefficient of Variability	0.65
Range Minimum	9.13
Range Maximum	2,864.93
Range Width	2,855.80
Mean Standard Error	1.31



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	9.13
95%	107.80
90%	148.17
85%	179.74
80%	209.06
75%	236.97
70%	264.01
65%	291.47
60%	319.46
55%	348.08
50%	380.66
45%	414.24
40%	451.24
35%	494.36
30%	542.19
25%	595.96
20%	658.79
15%	738.69
10%	848.90
5%	1,026.70
0%	2,864.93

End of Forecast

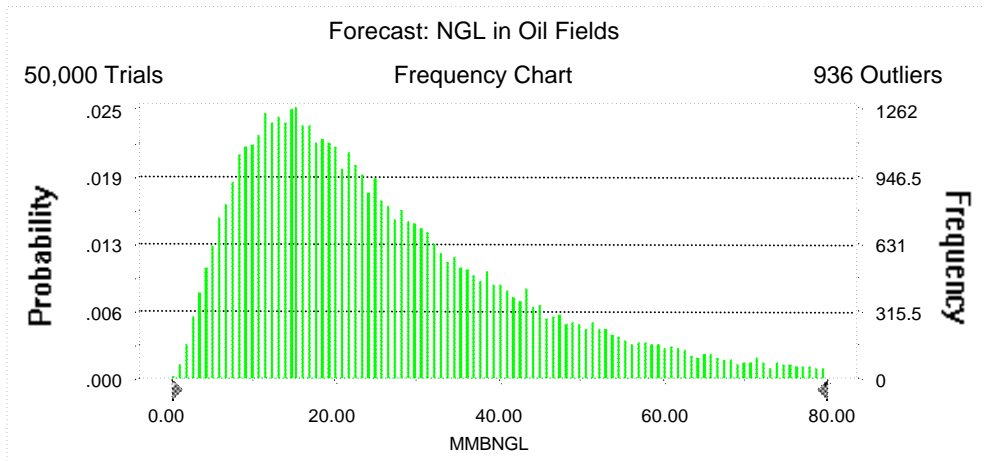
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 80.00 MMBNGL
Entire range is from 0.41 to 183.35 MMBNGL
After 50,000 trials, the standard error of the mean is 0.08

Statistics:	Value
Trials	50000
Mean	27.04
Median	22.32
Mode	---
Standard Deviation	18.78
Variance	352.70
Skewness	1.55
Kurtosis	6.55
Coefficient of Variability	0.69
Range Minimum	0.41
Range Maximum	183.35
Range Width	182.95
Mean Standard Error	0.08



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.41
95%	6.07
90%	8.33
85%	10.19
80%	11.88
75%	13.54
70%	15.18
65%	16.81
60%	18.57
55%	20.36
50%	22.32
45%	24.39
40%	26.70
35%	29.31
30%	32.16
25%	35.66
20%	39.76
15%	44.89
10%	52.13
5%	63.91
0%	183.35

End of Forecast

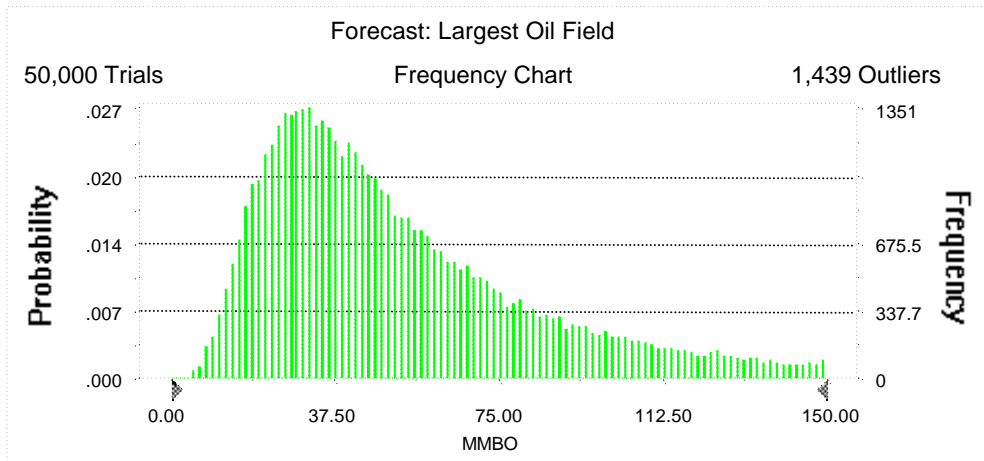
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 150.00 MMBO
Entire range is from 3.50 to 199.96 MMBO
After 50,000 trials, the standard error of the mean is 0.16

Statistics:	Value
Trials	50000
Mean	55.02
Median	44.89
Mode	---
Standard Deviation	35.74
Variance	1,277.36
Skewness	1.43
Kurtosis	5.01
Coefficient of Variability	0.65
Range Minimum	3.50
Range Maximum	199.96
Range Width	196.46
Mean Standard Error	0.16



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	3.50
95%	16.43
90%	20.47
85%	23.80
80%	26.72
75%	29.55
70%	32.35
65%	35.26
60%	38.22
55%	41.47
50%	44.89
45%	48.63
40%	52.91
35%	57.79
30%	63.38
25%	70.03
20%	78.42
15%	89.50
10%	105.07
5%	131.27
0%	199.96

End of Forecast

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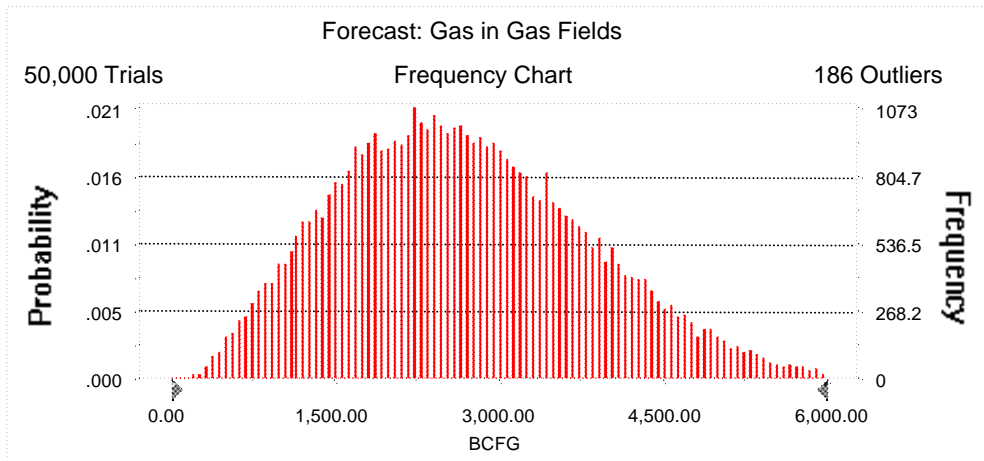
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 6,000.00 BCFG
 Entire range is from 144.20 to 8,527.64 BCFG
 After 50,000 trials, the standard error of the mean is 5.12

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,688.28
Median	2,599.93
Mode	---
Standard Deviation	1,145.98
Variance	1,313,262.92
Skewness	0.41
Kurtosis	2.86
Coefficient of Variability	0.43
Range Minimum	144.20
Range Maximum	8,527.64
Range Width	8,383.44
Mean Standard Error	5.12



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	144.20
95%	953.62
90%	1,246.73
85%	1,475.46
80%	1,666.75
75%	1,832.75
70%	1,993.03
65%	2,154.89
60%	2,302.38
55%	2,448.96
50%	2,599.93
45%	2,750.61
40%	2,910.07
35%	3,075.39
30%	3,253.12
25%	3,451.30
20%	3,667.98
15%	3,923.73
10%	4,247.47
5%	4,706.77
0%	8,527.64

End of Forecast

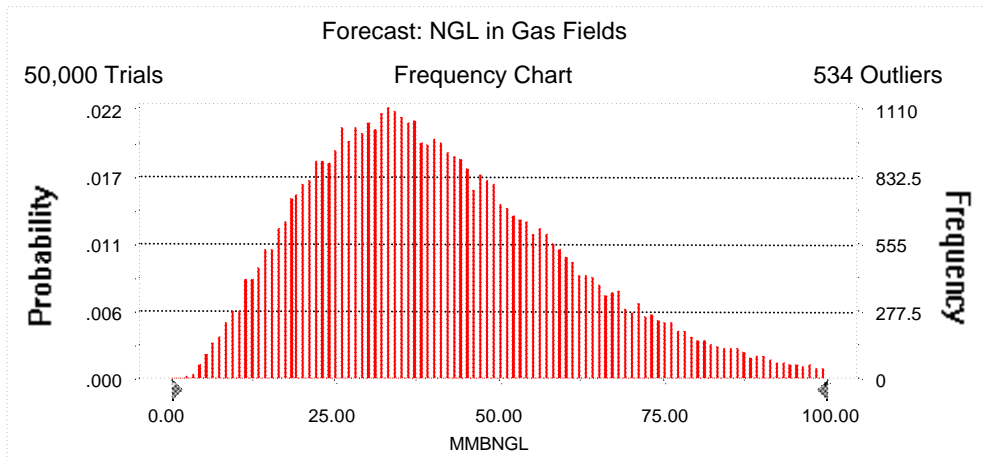
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 100.00 MMBNGL
Entire range is from 1.89 to 156.54 MMBNGL
After 50,000 trials, the standard error of the mean is 0.09

Statistics:	<u>Value</u>
Trials	50000
Mean	41.79
Median	38.79
Mode	---
Standard Deviation	20.38
Variance	415.49
Skewness	0.83
Kurtosis	3.91
Coefficient of Variability	0.49
Range Minimum	1.89
Range Maximum	156.54
Range Width	154.65
Mean Standard Error	0.09



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.89
95%	13.81
90%	18.15
85%	21.41
80%	24.23
75%	26.80
70%	29.32
65%	31.75
60%	34.04
55%	36.35
50%	38.79
45%	41.33
40%	44.06
35%	47.01
30%	50.09
25%	53.73
20%	57.77
15%	62.74
10%	69.28
5%	79.58
0%	156.54

End of Forecast

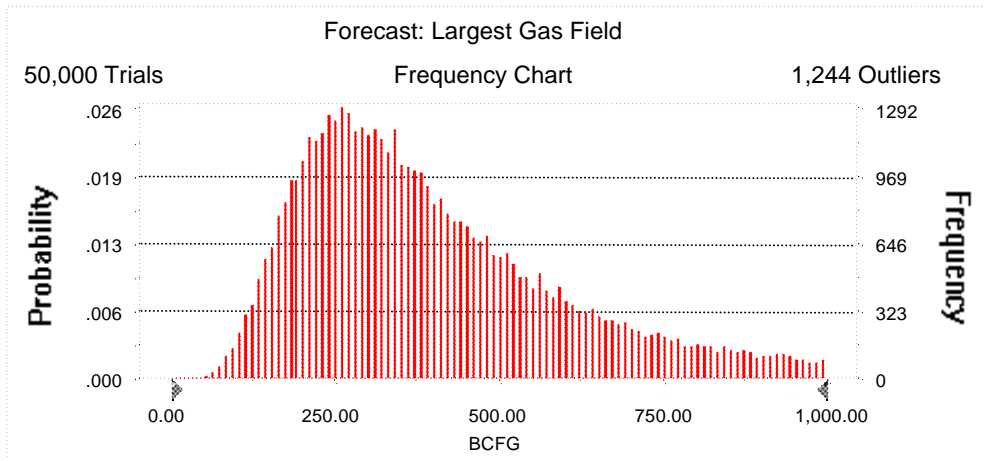
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 1,000.00 BCFG
Entire range is from 33.54 to 1,199.97 BCFG
After 50,000 trials, the standard error of the mean is 0.98

Statistics:	Value
Trials	50000
Mean	412.75
Median	358.33
Mode	---
Standard Deviation	220.09
Variance	48,437.68
Skewness	1.16
Kurtosis	4.10
Coefficient of Variability	0.53
Range Minimum	33.54
Range Maximum	1,199.97
Range Width	1,166.43
Mean Standard Error	0.98



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	33.54
95%	153.52
90%	185.09
85%	210.25
80%	232.20
75%	252.26
70%	272.19
65%	292.62
60%	313.65
55%	335.84
50%	358.33
45%	383.27
40%	411.29
35%	442.65
30%	477.88
25%	518.97
20%	569.48
15%	634.49
10%	727.63
5%	877.78
0%	1,199.97

End of Forecast

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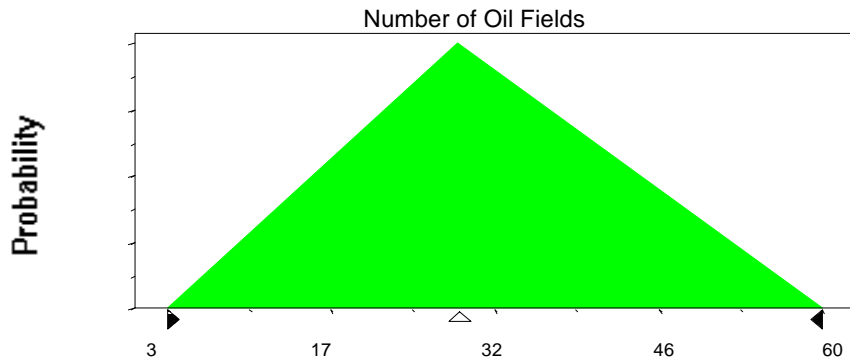
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	3
Likeliest	28
Maximum	60

Selected range is from 3 to 60
Mean value in simulation was 30



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	7.52
Standard Deviation	17.29

Shifted parameters

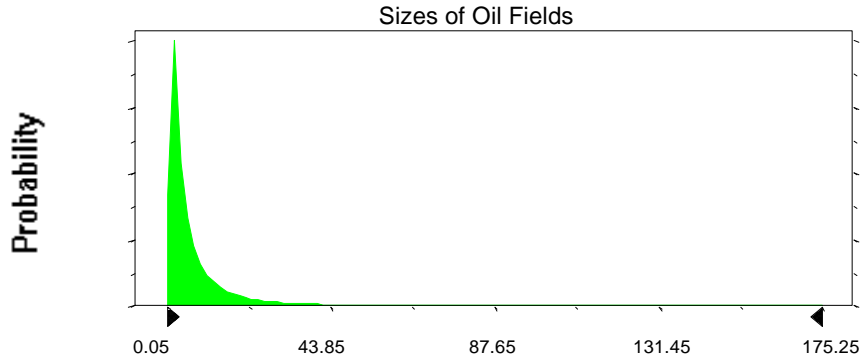
9.52
17.29

Selected range is from 0.00 to 198.00
Mean value in simulation was 7.22

2.00 to 200.00
9.22

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Assumption: Sizes of Oil Fields (cont'd)



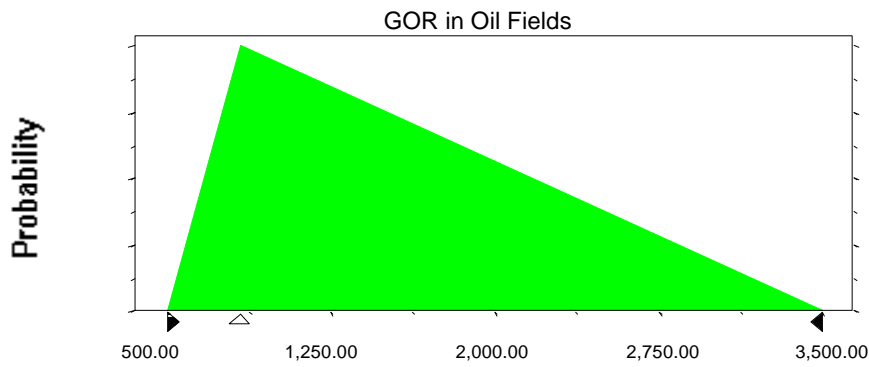
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	500.00
Likeliest	833.33
Maximum	3,500.00

Selected range is from 500.00 to 3,500.00

Mean value in simulation was 1,611.41



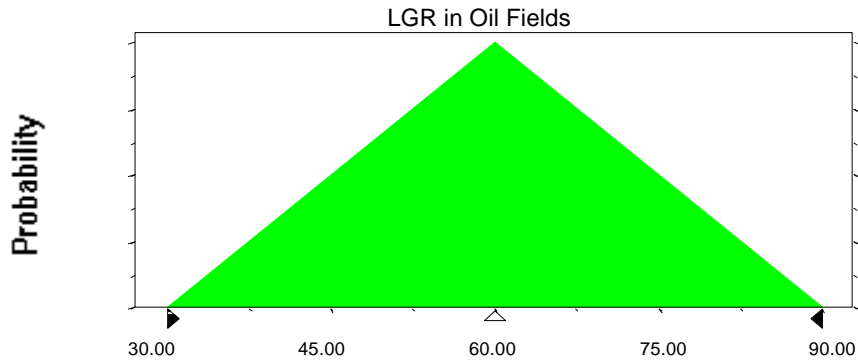
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Assumption: LGR in Oil Fields

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

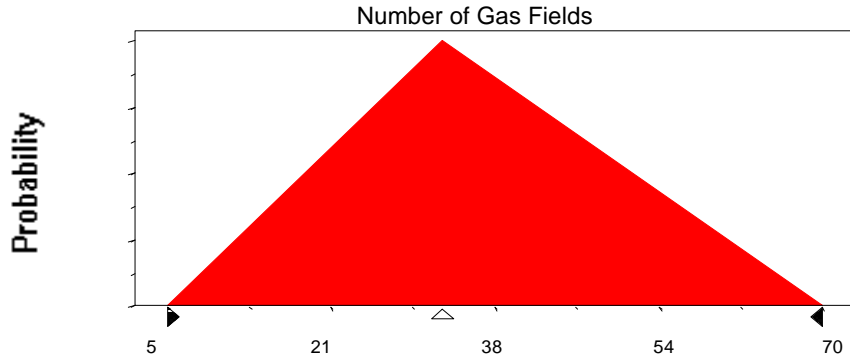
Triangular distribution with parameters:

Minimum	5
Likeliest	32
Maximum	70

Selected range is from 5 to 70
Mean value in simulation was 36

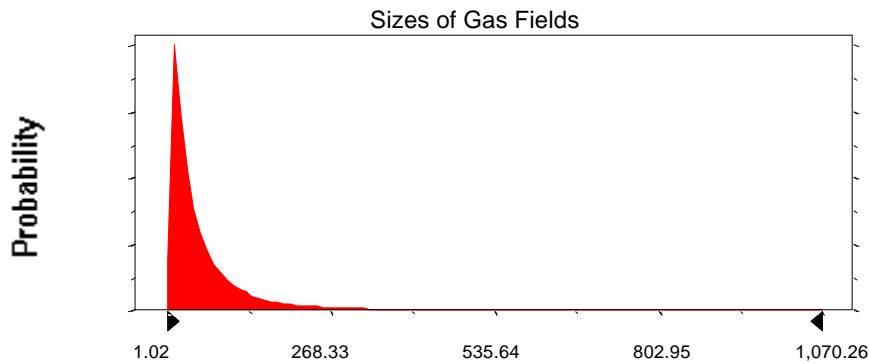
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	64.65		76.65
Standard Deviation	108.91		108.91
Selected range is from 0.00 to 1,188.00		12.00 to 1,200.00	
Mean value in simulation was 62.78		74.78	



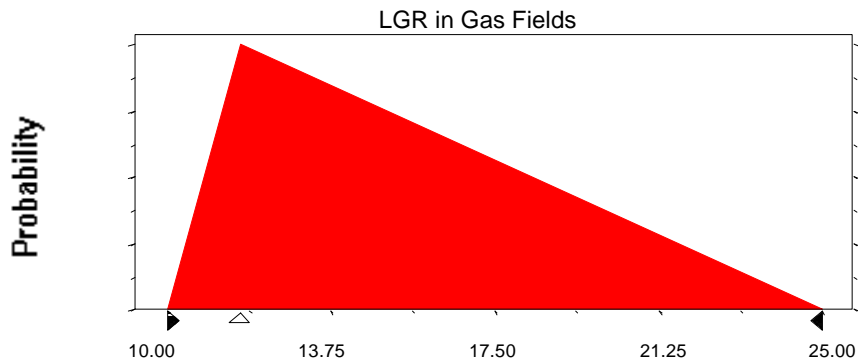
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	10.00
Likeliest	11.67
Maximum	25.00

Selected range is from 10.00 to 25.00
Mean value in simulation was 15.54



End of Assumptions

Simulation started on 6/25/99 at 13:02:56
Simulation stopped on 6/25/99 at 13:35:21