

Southern Gulf of Suez, Assessment Unit 20710103
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	29	282	871	344	140	1,381	4,463	1,719	10	96	313	120	15	83	318	112
Gas Fields	6						621	3,705	9,712	4,255	27	165	441	191	202	769	2,356	947
Total		1.00	29	282	871	344	761	5,086	14,175	5,974	37	262	754	312				

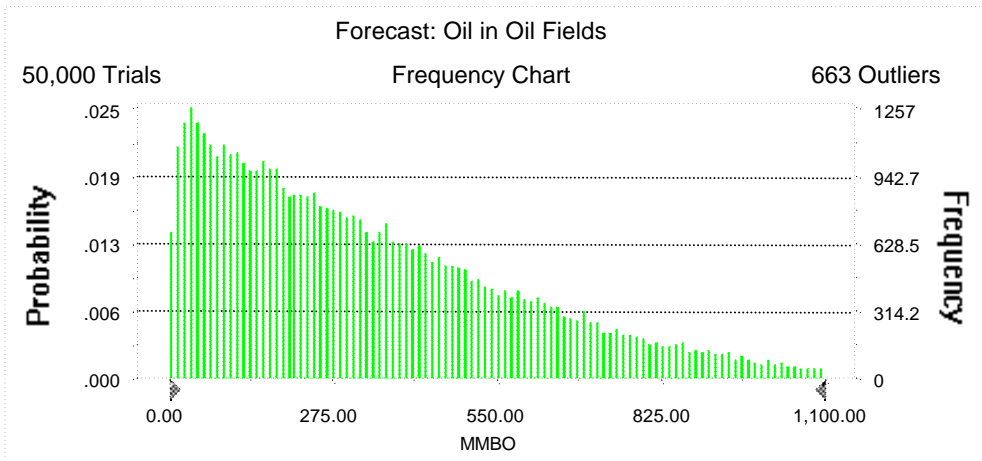
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 1,100.00 MMBO
Entire range is from 1.32 to 1,929.52 MMBO
After 50,000 trials, the standard error of the mean is 1.21

Statistics:	Value
Trials	50000
Mean	343.83
Median	282.00
Mode	---
Standard Deviation	270.49
Variance	73,165.50
Skewness	1.10
Kurtosis	4.19
Coefficient of Variability	0.79
Range Minimum	1.32
Range Maximum	1,929.52
Range Width	1,928.20
Mean Standard Error	1.21



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	1.32
95%	28.76
90%	51.43
85%	75.78
80%	101.73
75%	128.04
70%	156.37
65%	184.27
60%	215.76
55%	247.58
50%	282.00
45%	318.07
40%	358.72
35%	399.51
30%	445.66
25%	497.37
20%	559.33
15%	631.02
10%	723.48
5%	870.96
0%	1,929.52

End of Forecast

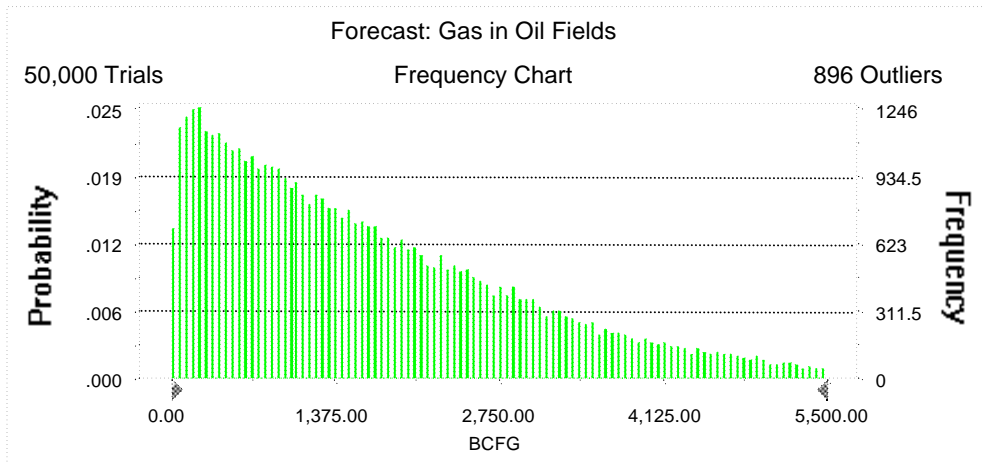
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 5,500.00 BCFG
Entire range is from 5.44 to 11,476.53 BCFG
After 50,000 trials, the standard error of the mean is 6.25

Statistics:	Value
Trials	50000
Mean	1,718.56
Median	1,381.42
Mode	---
Standard Deviation	1,398.59
Variance	1,956,061.01
Skewness	1.26
Kurtosis	4.92
Coefficient of Variability	0.81
Range Minimum	5.44
Range Maximum	11,476.53
Range Width	11,471.09
Mean Standard Error	6.25



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	5.44
95%	140.27
90%	249.51
85%	369.56
80%	493.64
75%	626.08
70%	760.30
65%	903.46
60%	1,051.69
55%	1,213.76
50%	1,381.42
45%	1,559.60
40%	1,754.27
35%	1,969.89
30%	2,207.80
25%	2,472.78
20%	2,780.37
15%	3,149.21
10%	3,654.39
5%	4,463.23
0%	11,476.53

End of Forecast

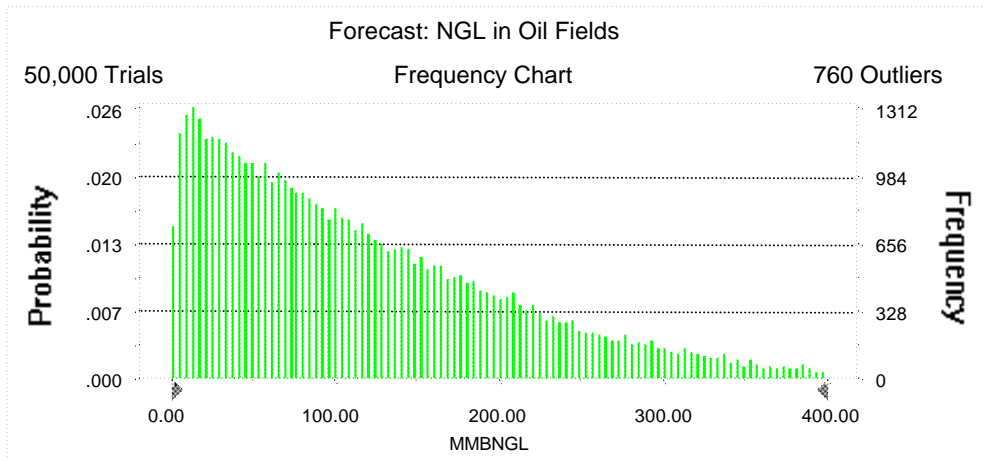
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 400.00 MMBNGL
Entire range is from 0.41 to 825.95 MMBNGL
After 50,000 trials, the standard error of the mean is 0.44

Statistics:	Value
Trials	50000
Mean	120.30
Median	96.33
Mode	---
Standard Deviation	98.26
Variance	9,654.26
Skewness	1.27
Kurtosis	4.99
Coefficient of Variability	0.82
Range Minimum	0.41
Range Maximum	825.95
Range Width	825.54
Mean Standard Error	0.44



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.41
95%	9.73
90%	17.45
85%	25.86
80%	34.35
75%	43.62
70%	53.16
65%	63.09
60%	73.50
55%	84.55
50%	96.33
45%	108.90
40%	122.56
35%	137.85
30%	154.32
25%	173.06
20%	194.62
15%	220.72
10%	256.19
5%	312.94
0%	825.95

End of Forecast

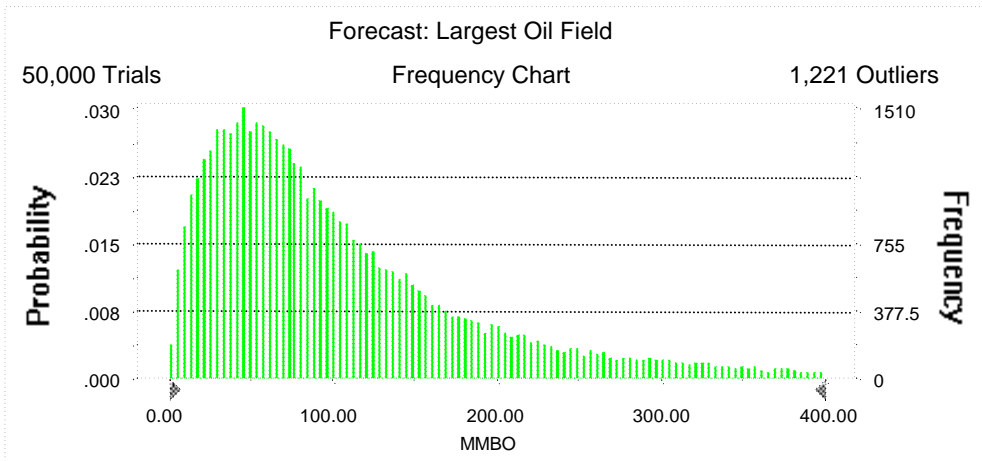
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 400.00 MMBO
Entire range is from 1.32 to 599.84 MMBO
After 50,000 trials, the standard error of the mean is 0.44

Statistics:	Value
Trials	50000
Mean	111.95
Median	82.95
Mode	---
Standard Deviation	97.84
Variance	9,572.26
Skewness	1.88
Kurtosis	7.17
Coefficient of Variability	0.87
Range Minimum	1.32
Range Maximum	599.84
Range Width	598.52
Mean Standard Error	0.44



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	1.32
95%	15.31
90%	23.86
85%	31.42
80%	38.47
75%	45.56
70%	52.55
65%	59.68
60%	66.93
55%	74.56
50%	82.95
45%	92.37
40%	102.70
35%	114.34
30%	128.15
25%	144.88
20%	165.46
15%	195.20
10%	237.74
5%	318.20
0%	599.84

End of Forecast

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Forecast: Gas in Gas Fields

Summary:

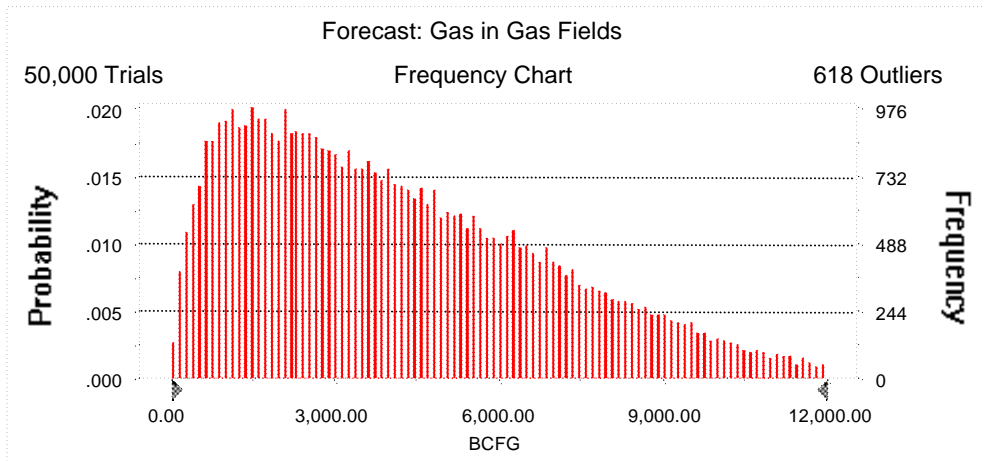
Display range is from 0.00 to 12,000.00 BCFG

Entire range is from 11.50 to 20,334.37 BCFG

After 50,000 trials, the standard error of the mean is 12.91

Statistics:

	<u>Value</u>
Trials	50000
Mean	4,255.28
Median	3,704.99
Mode	---
Standard Deviation	2,887.81
Variance	8,339,429.28
Skewness	0.82
Kurtosis	3.29
Coefficient of Variability	0.68
Range Minimum	11.50
Range Maximum	20,334.37
Range Width	20,322.86
Mean Standard Error	12.91



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	11.50
95%	620.61
90%	958.09
85%	1,277.72
80%	1,595.76
75%	1,923.77
70%	2,251.40
65%	2,591.29
60%	2,941.26
55%	3,316.46
50%	3,704.99
45%	4,113.06
40%	4,554.73
35%	5,015.23
30%	5,531.94
25%	6,094.07
20%	6,700.38
15%	7,419.44
10%	8,377.42
5%	9,711.75
0%	20,334.37

End of Forecast

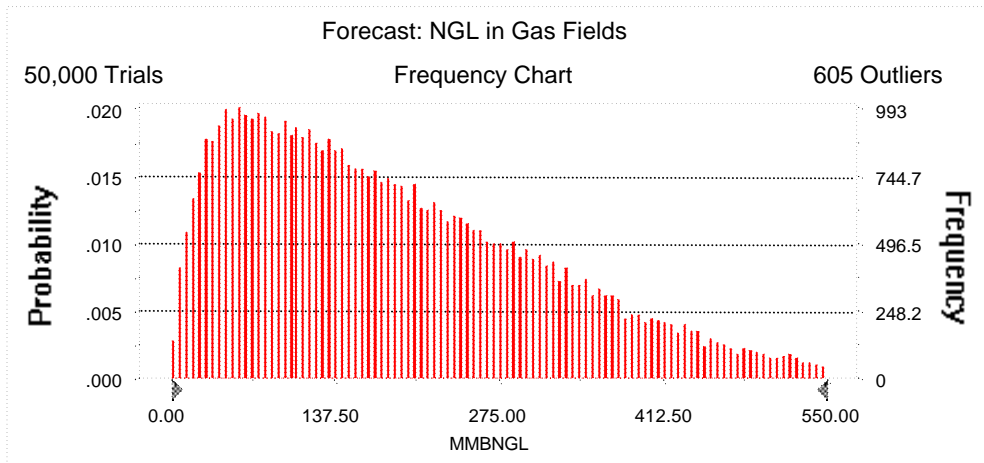
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 550.00 MMBNGL
 Entire range is from 0.50 to 1,080.77 MMBNGL
 After 50,000 trials, the standard error of the mean is 0.59

Statistics:	<u>Value</u>
Trials	50000
Mean	191.43
Median	165.34
Mode	---
Standard Deviation	131.62
Variance	17,322.73
Skewness	0.88
Kurtosis	3.48
Coefficient of Variability	0.69
Range Minimum	0.50
Range Maximum	1,080.77
Range Width	1,080.27
Mean Standard Error	0.59



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.50
95%	27.47
90%	43.00
85%	57.15
80%	71.30
75%	85.57
70%	100.67
65%	115.94
60%	131.61
55%	147.73
50%	165.34
45%	183.95
40%	203.61
35%	224.61
30%	247.62
25%	273.38
20%	301.85
15%	334.76
10%	376.43
5%	441.23
0%	1,080.77

End of Forecast

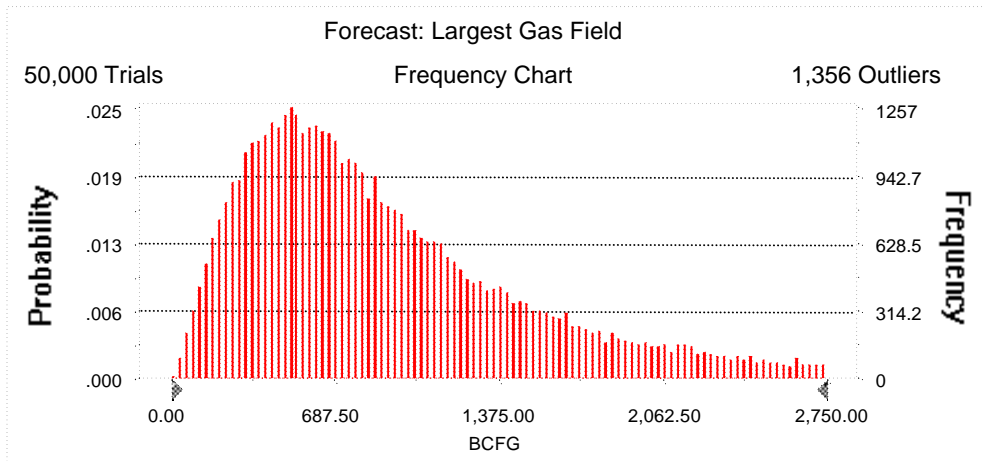
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 2,750.00 BCFG
 Entire range is from 10.79 to 3,599.91 BCFG
 After 50,000 trials, the standard error of the mean is 2.99

Statistics:	<u>Value</u>
Trials	50000
Mean	946.52
Median	768.61
Mode	---
Standard Deviation	667.50
Variance	445,561.07
Skewness	1.38
Kurtosis	4.90
Coefficient of Variability	0.71
Range Minimum	10.79
Range Maximum	3,599.91
Range Width	3,589.12
Mean Standard Error	2.99



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	10.79
95%	201.80
90%	282.77
85%	349.88
80%	410.76
75%	469.19
70%	524.76
65%	582.76
60%	641.75
55%	701.91
50%	768.61
45%	840.63
40%	921.48
35%	1,011.54
30%	1,114.90
25%	1,235.34
20%	1,391.47
15%	1,590.90
10%	1,872.28
5%	2,355.93
0%	3,599.91

End of Forecast

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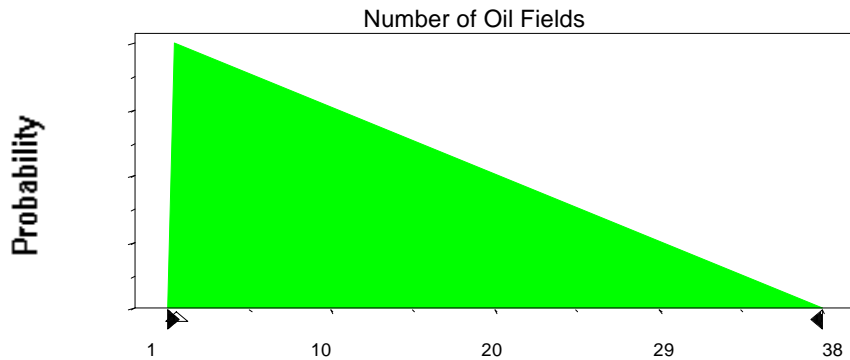
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	1
Maximum	38

Selected range is from 1 to 38
Mean value in simulation was 14



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	25.40
Standard Deviation	52.85

Shifted parameters

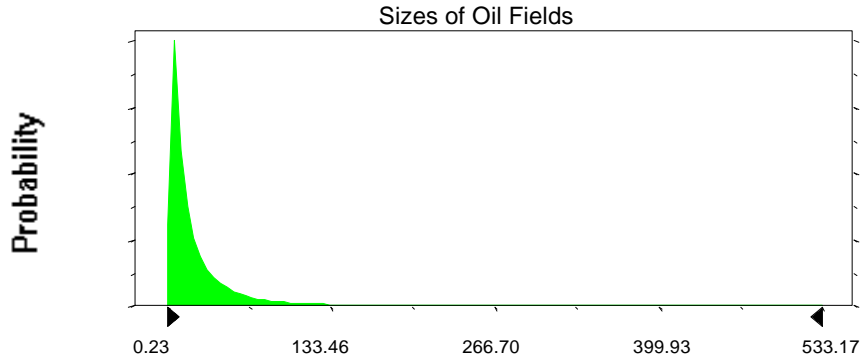
26.4
52.85

Selected range is from 0.00 to 599.00
Mean value in simulation was 24.28

1.00 to 600.00
25.28

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Assumption: Sizes of Oil Fields (cont'd)



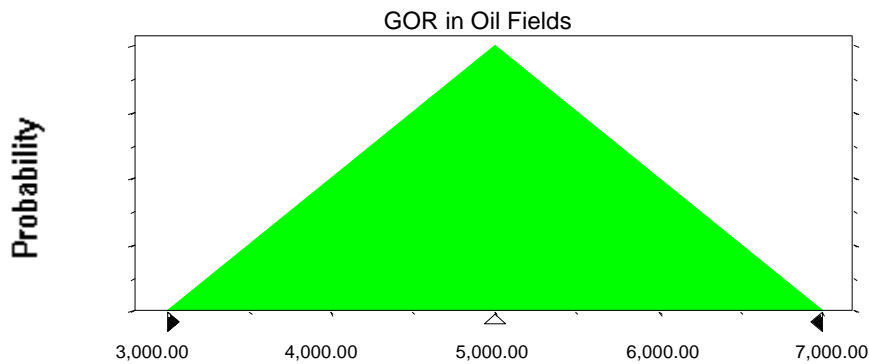
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	3,000.00
Likeliest	5,000.00
Maximum	7,000.00

Selected range is from 3,000.00 to 7,000.00

Mean value in simulation was 4,998.99



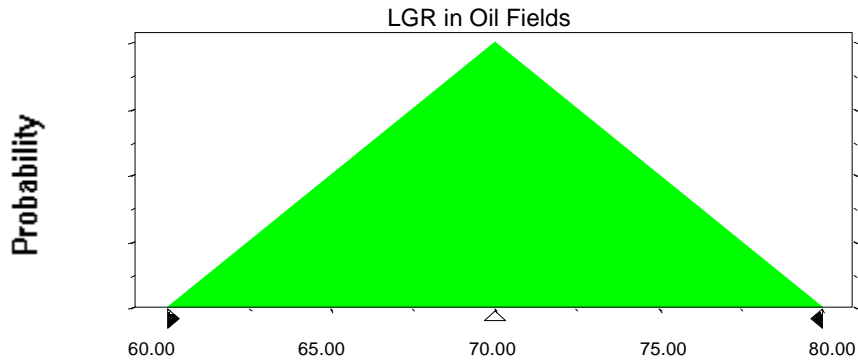
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	60.00
Likeliest	70.00
Maximum	80.00

Selected range is from 60.00 to 80.00
Mean value in simulation was 70.01



Assumption: Number of Gas Fields

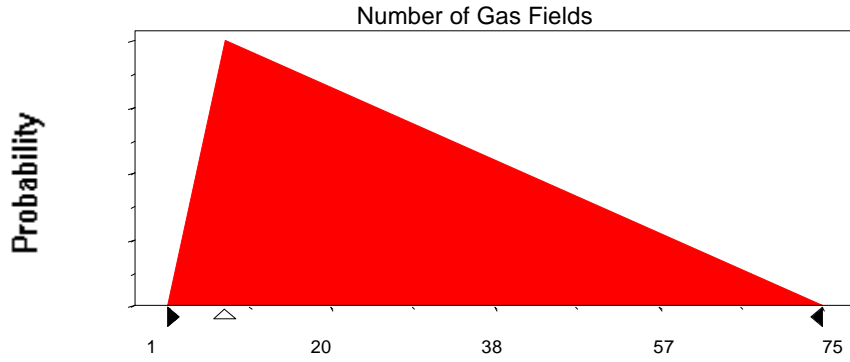
Triangular distribution with parameters:

Minimum	1
Likeliest	7
Maximum	75

Selected range is from 1 to 75
Mean value in simulation was 28

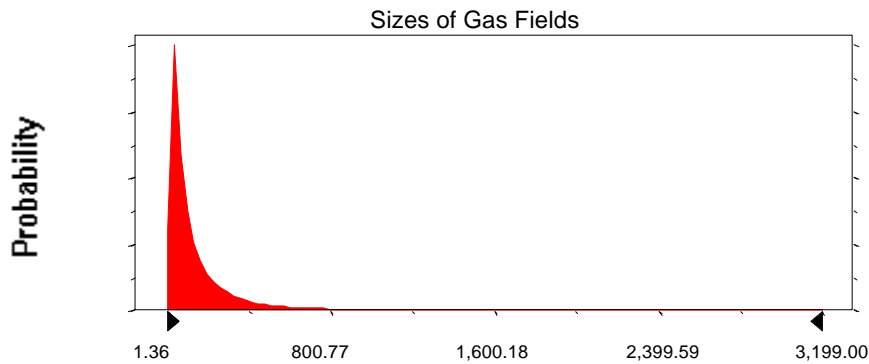
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	152.39	158.39
Standard Deviation	317.13	317.13
Selected range is from 0.00 to 3,594.00		6.00 to 3,600.00
Mean value in simulation was 145.87		151.87



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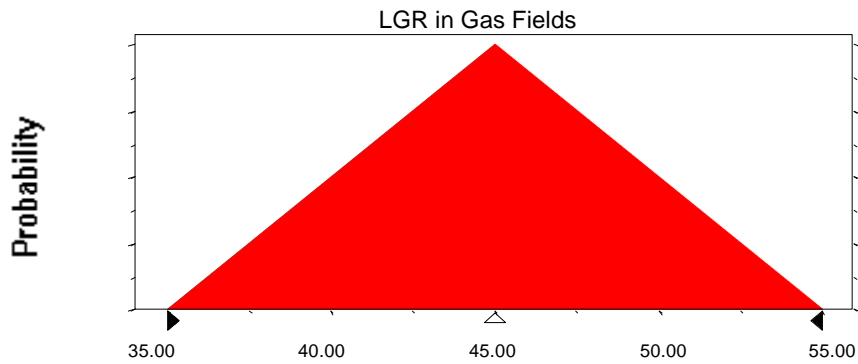
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	35.00
Likeliest	45.00
Maximum	55.00

Selected range is from 35.00 to 55.00

Mean value in simulation was 44.98



End of Assumptions

Simulation started on 12/3/98 at 16:08:18

Simulation stopped on 12/3/98 at 16:39:28