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Fahud-Huqf Combined Structural, Assessment Unit 20160101
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	341	1,166	2,738	1,304	498	1,724	4,231	1,958	17	60	149	69	79	268	930	349
Gas Fields	24						2,064	5,764	11,967	6,247	70	200	427	218	395	912	2,121	1,033
Total		1.00	341	1,166	2,738	1,304	2,562	7,489	16,197	8,206	87	260	576	287				

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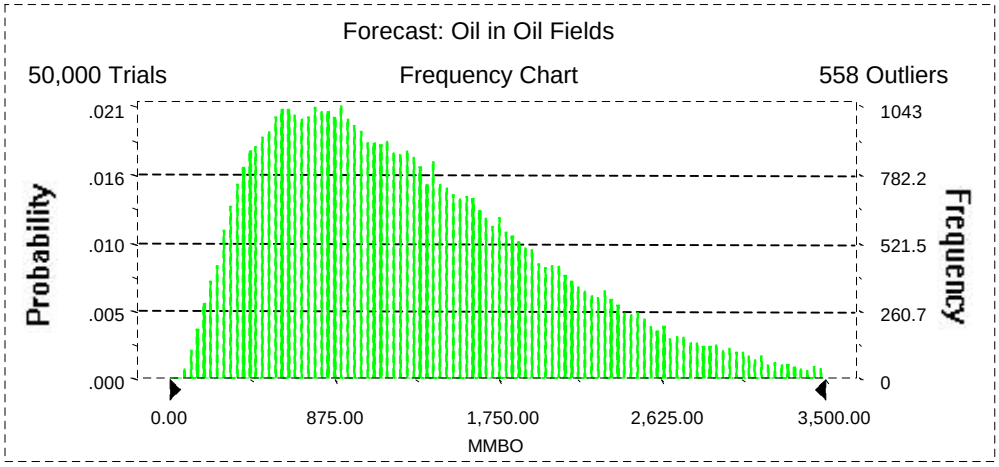
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 3,500.00 MMBO
Entire range is from 50.35 to 6,495.70 MMBO
After 50,000 trials, the standard error of the mean is 3.39

Statistics:	Value
Trials	50000
Mean	1,304.50
Median	1,166.49
Mode	---
Standard Deviation	757.34
Variance	573,559.55
Skewness	0.95
Kurtosis	3.94
Coefficient of Variability	0.58
Range Minimum	50.35
Range Maximum	6,495.70
Range Width	6,445.35
Mean Standard Error	3.39



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	50.35
95%	340.51
90%	450.92
85%	546.74
80%	633.58
75%	719.03
70%	805.85
65%	891.05
60%	977.68
55%	1,070.15
50%	1,166.49
45%	1,268.19
40%	1,371.51
35%	1,486.59
30%	1,610.77
25%	1,749.23
20%	1,906.09
15%	2,099.02
10%	2,349.60
5%	2,738.16
0%	6,495.70

End of Forecast

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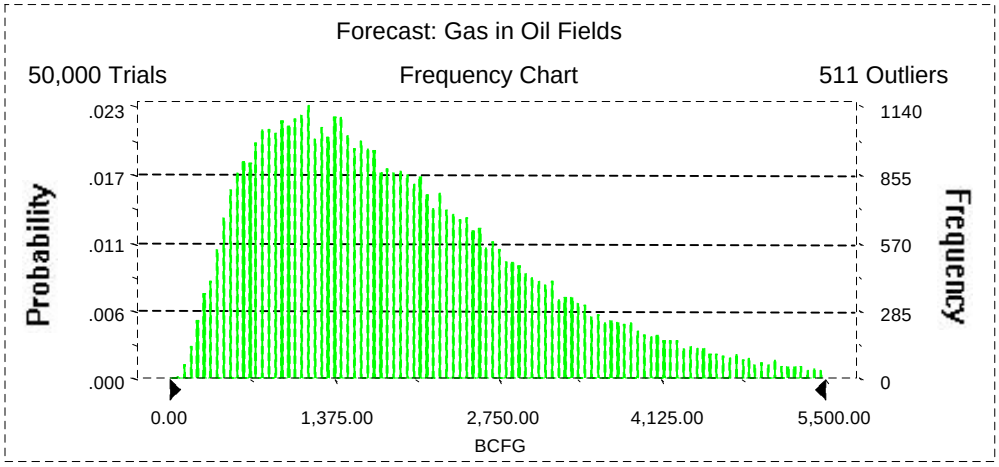
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 5,500.00 BCFG
Entire range is from 74.21 to 9,686.86 BCFG
After 50,000 trials, the standard error of the mean is 5.27

Statistics:	Value
Trials	50000
Mean	1,958.45
Median	1,724.29
Mode	---
Standard Deviation	1,179.17
Variance	1,390,441.10
Skewness	1.07
Kurtosis	4.40
Coefficient of Variability	0.60
Range Minimum	74.21
Range Maximum	9,686.86
Range Width	9,612.65
Mean Standard Error	5.27



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	74.21
95%	497.84
90%	658.87
85%	799.83
80%	933.52
75%	1,062.46
70%	1,187.74
65%	1,317.32
60%	1,447.91
55%	1,582.85
50%	1,724.29
45%	1,878.94
40%	2,039.24
35%	2,208.16
30%	2,398.74
25%	2,609.96
20%	2,860.58
15%	3,168.47
10%	3,577.90
5%	4,230.59
0%	9,686.86

End of Forecast

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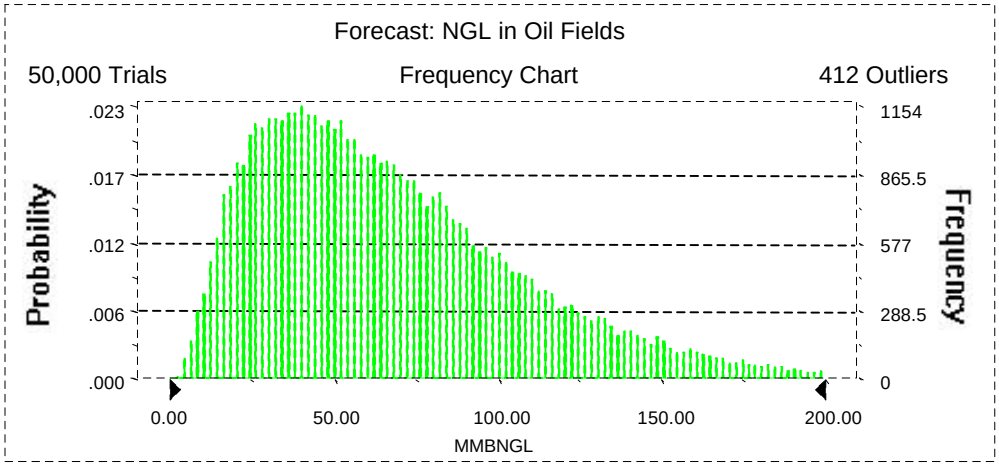
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 200.00 MMBNGL
Entire range is from 2.42 to 341.65 MMBNGL
After 50,000 trials, the standard error of the mean is 0.19

Statistics:	Value
Trials	50000
Mean	68.51
Median	60.31
Mode	---
Standard Deviation	41.48
Variance	1,720.45
Skewness	1.09
Kurtosis	4.47
Coefficient of Variability	0.61
Range Minimum	2.42
Range Maximum	341.65
Range Width	339.23
Mean Standard Error	0.19



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	2.42
95%	17.27
90%	23.06
85%	27.91
80%	32.52
75%	36.98
70%	41.45
65%	45.92
60%	50.50
55%	55.22
50%	60.31
45%	65.69
40%	71.23
35%	77.24
30%	83.76
25%	91.11
20%	100.14
15%	110.76
10%	125.41
5%	148.56
0%	341.65

End of Forecast

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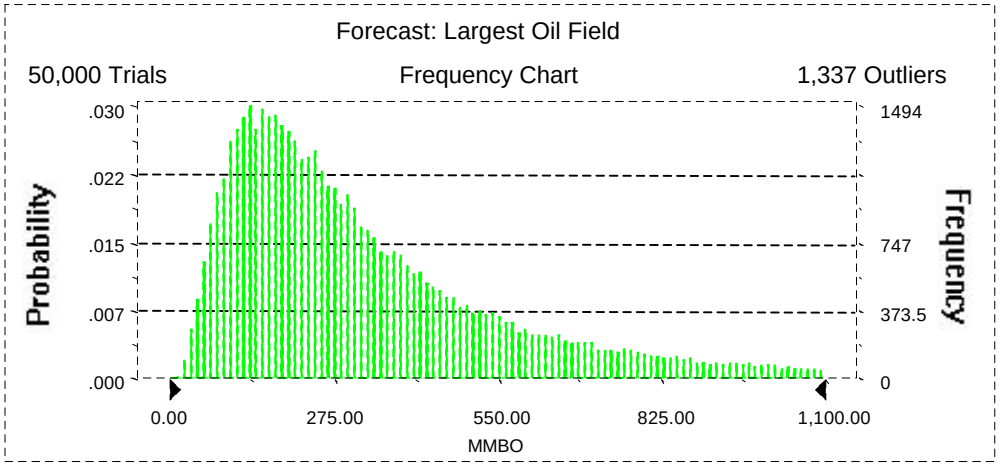
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 1,100.00 MMBO
Entire range is from 11.27 to 1,499.69 MMBO
After 50,000 trials, the standard error of the mean is 1.20

Statistics:	Value
Trials	50000
Mean	349.02
Median	268.01
Mode	---
Standard Deviation	267.34
Variance	71,469.74
Skewness	1.64
Kurtosis	5.81
Coefficient of Variability	0.77
Range Minimum	11.27
Range Maximum	1,499.69
Range Width	1,488.42
Mean Standard Error	1.20



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Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	11.27
95%	78.87
90%	103.72
85%	124.07
80%	142.77
75%	162.14
70%	181.20
65%	200.77
60%	221.76
55%	244.18
50%	268.01
45%	295.26
40%	324.31
35%	359.36
30%	399.66
25%	447.68
20%	510.27
15%	593.20
10%	713.21
5%	930.14
0%	1,499.69

End of Forecast

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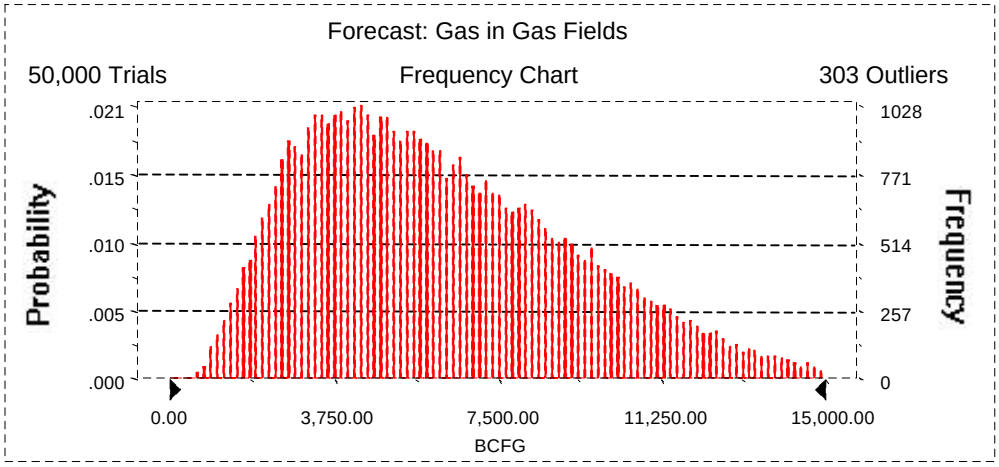
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 15,000.00 BCFG
Entire range is from 389.01 to 21,339.34 BCFG
After 50,000 trials, the standard error of the mean is 13.79

Statistics:	Value
Trials	50000
Mean	6,247.17
Median	5,764.29
Mode	---
Standard Deviation	3,083.34
Variance	9,506,990.94
Skewness	0.64
Kurtosis	2.95
Coefficient of Variability	0.49
Range Minimum	389.01
Range Maximum	21,339.34
Range Width	20,950.33
Mean Standard Error	13.79



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	389.01
95%	2,063.84
90%	2,615.68
85%	3,048.61
80%	3,446.33
75%	3,830.96
70%	4,206.18
65%	4,575.24
60%	4,965.45
55%	5,364.48
50%	5,764.29
45%	6,192.66
40%	6,656.08
35%	7,157.22
30%	7,684.48
25%	8,270.72
20%	8,918.35
15%	9,669.58
10%	10,611.46
5%	11,966.79
0%	21,339.34

End of Forecast

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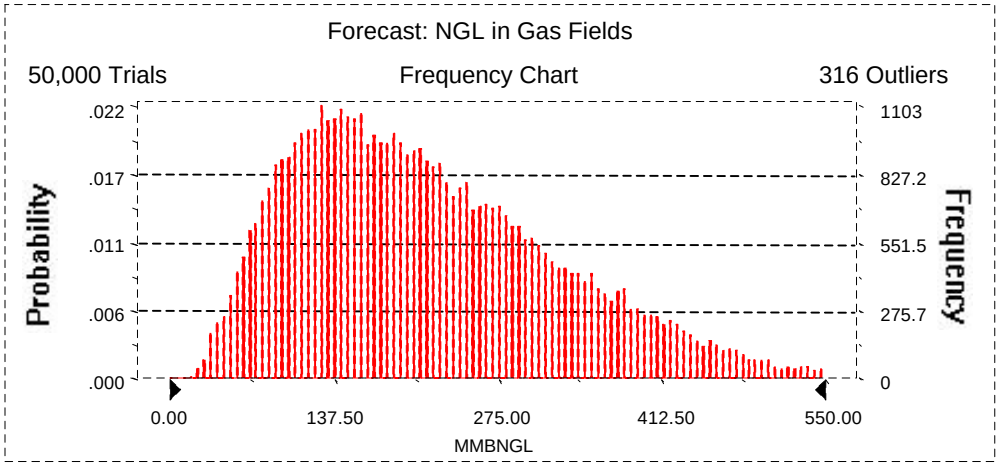
Fahud-Huqf Combined Structural
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 550.00 MMBNGL
Entire range is from 12.25 to 788.56 MMBNGL
After 50,000 trials, the standard error of the mean is 0.50

Statistics:	Value
Trials	50000
Mean	218.47
Median	200.02
Mode	---
Standard Deviation	111.54
Variance	12,442.24
Skewness	0.75
Kurtosis	3.24
Coefficient of Variability	0.51
Range Minimum	12.25
Range Maximum	788.56
Range Width	776.31
Mean Standard Error	0.50



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	12.25
95%	69.83
90%	89.16
85%	104.85
80%	118.86
75%	131.91
70%	144.90
65%	157.78
60%	171.50
55%	185.74
50%	200.02
45%	214.90
40%	230.69
35%	248.70
30%	267.67
25%	288.20
20%	311.75
15%	340.79
10%	376.74
5%	427.32
0%	788.56

End of Forecast

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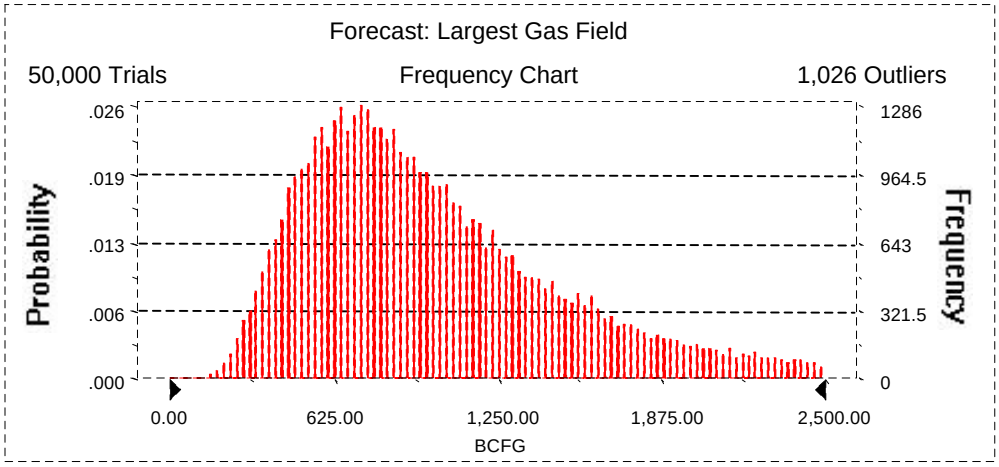
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 2,500.00 BCFG
Entire range is from 101.88 to 2,999.87 BCFG
After 50,000 trials, the standard error of the mean is 2.36

Statistics:	Value
Trials	50000
Mean	1,033.15
Median	911.53
Mode	---
Standard Deviation	528.29
Variance	279,094.67
Skewness	1.14
Kurtosis	4.19
Coefficient of Variability	0.51
Range Minimum	101.88
Range Maximum	2,999.87
Range Width	2,897.99
Mean Standard Error	2.36



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Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	101.88
95%	394.62
90%	477.07
85%	540.73
80%	596.00
75%	649.59
70%	700.47
65%	749.93
60%	800.79
55%	854.58
50%	911.53
45%	972.73
40%	1,039.31
35%	1,111.89
30%	1,196.64
25%	1,293.86
20%	1,414.88
15%	1,566.06
10%	1,769.36
5%	2,121.14
0%	2,999.87

End of Forecast

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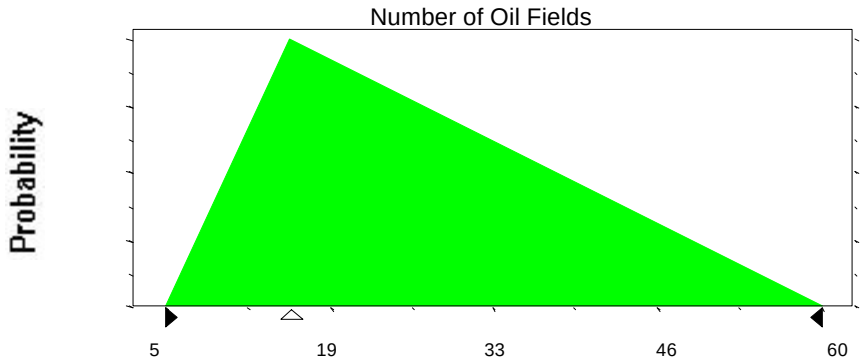
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	5
Likeliest	15
Maximum	60

Selected range is from 5 to 60
Mean value in simulation was 27



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	47.04	51.04
Standard Deviation	130.05	130.05
Selected range is from	0.00 to 1,496.00	4.00 to 1,500.00
Mean value in simulation was	45.45	49.45

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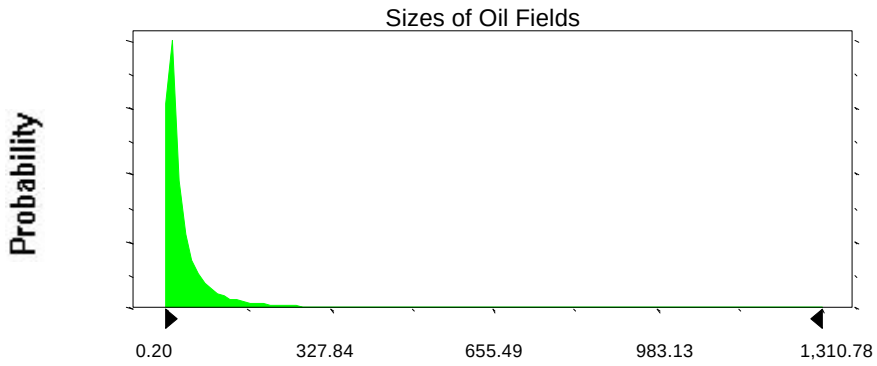
Assumption: Sizes of Oil Fields (cont'd)

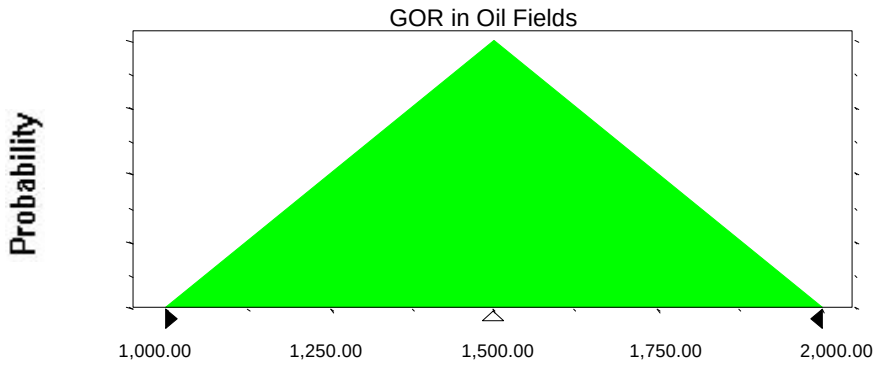


Assumption: GOR in Oil Fields

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 1,501.07



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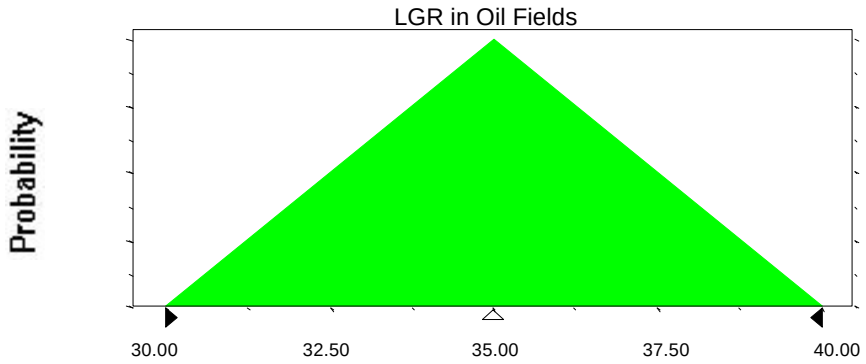
Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	35.00
Maximum	40.00

Selected range is from 30.00 to 40.00
Mean value in simulation was 34.99



Assumption: Number of Gas Fields

Triangular distribution with parameters:

Minimum	5
Likeliest	15
Maximum	60

Selected range is from 5 to 60
Mean value in simulation was 27

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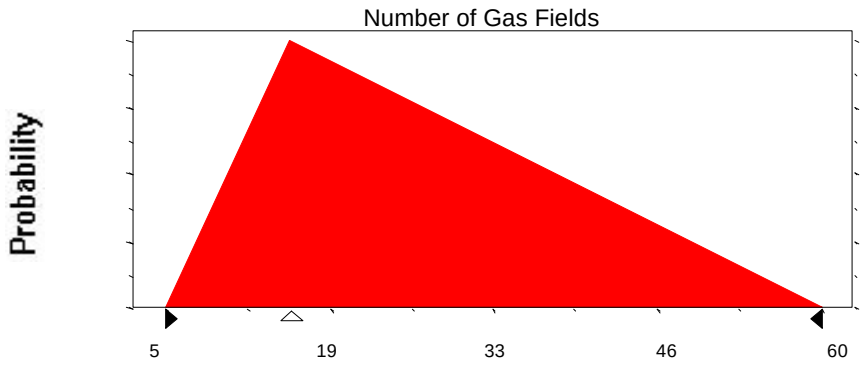
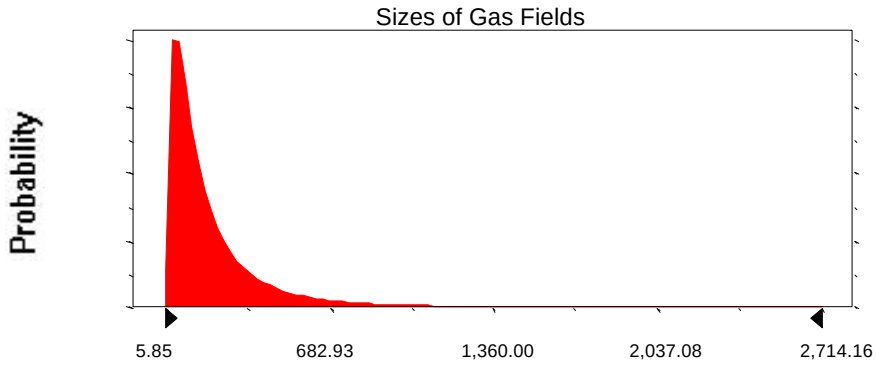
Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	212.70	236.7
Standard Deviation	289.27	289.27
Selected range is from 0.00 to 2,976.00		24.00 to 3,000.00
Mean value in simulation was 208.76		232.76



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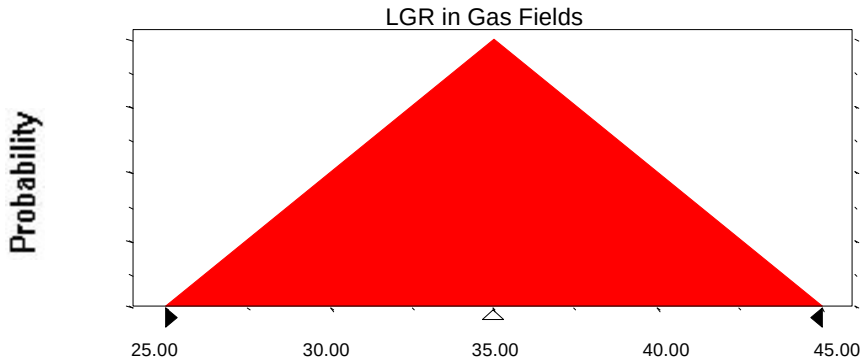
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	25.00
Likeliest	35.00
Maximum	45.00

Selected range is from 25.00 to 45.00
Mean value in simulation was 34.96



End of Assumptions

Simulation started on 12/9/98 at 12:09:34
Simulation stopped on 12/9/98 at 12:39:39