

Halten Terrace-Trondelag Platform, Assessment Unit 40170101
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	10	1.00	1,349	5,557	13,135	6,204	3,772	16,124	41,853	18,630	284	1,259	3,512	1,491	300	795	1,874	897
Gas Fields	60		1,349	5,557	13,135	6,204	8,430	34,686	82,058	38,739	555	2,355	6,056	2,711	1,864	4,869	11,331	5,473
Total		1.00	1,349	5,557	13,135	6,204	12,202	50,810	123,911	57,369	838	3,614	9,568	4,202				

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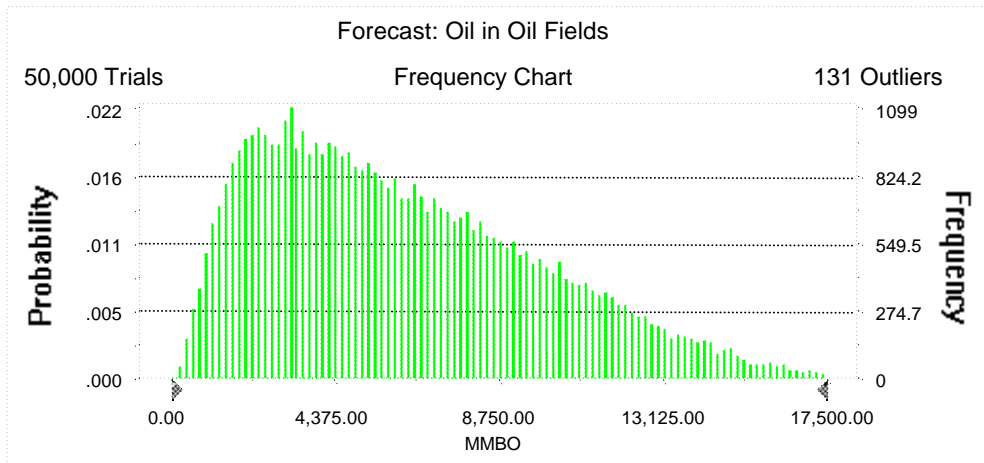
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 17,500.00 MMBO
 Entire range is from 117.75 to 23,822.21 MMBO
 After 50,000 trials, the standard error of the mean is 16.58

Statistics:

	<u>Value</u>
Trials	50000
Mean	6,203.94
Median	5,557.40
Mode	---
Standard Deviation	3,706.36
Variance	13,737,129.84
Skewness	0.67
Kurtosis	2.82
Coefficient of Variability	0.60
Range Minimum	117.75
Range Maximum	23,822.21
Range Width	23,704.46
Mean Standard Error	16.58



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	117.75
95%	1,349.36
90%	1,864.89
85%	2,310.18
80%	2,754.35
75%	3,191.90
70%	3,624.50
65%	4,084.59
60%	4,559.55
55%	5,048.57
50%	5,557.40
45%	6,108.30
40%	6,684.89
35%	7,299.57
30%	7,957.42
25%	8,669.57
20%	9,489.50
15%	10,420.81
10%	11,552.20
5%	13,135.43
0%	23,822.21

End of Forecast

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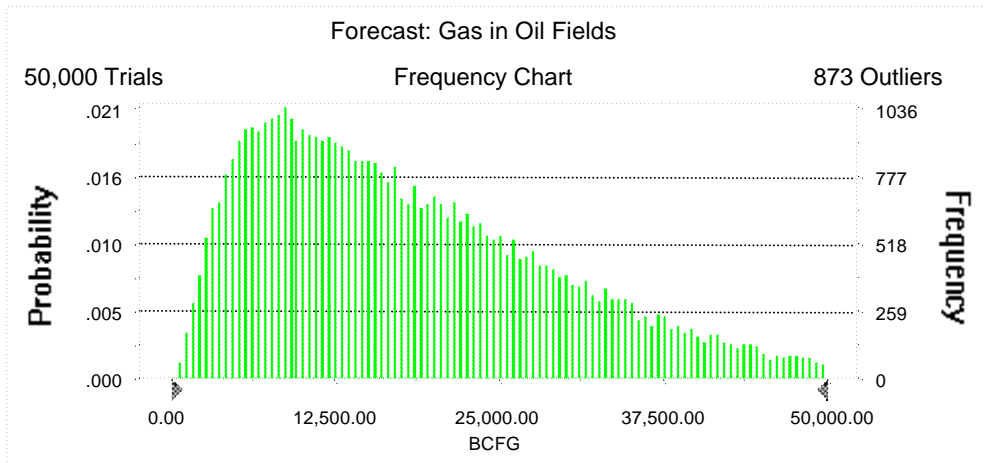
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 50,000.00 BCFG
 Entire range is from 254.93 to 84,787.75 BCFG
 After 50,000 trials, the standard error of the mean is 53.76

Statistics:

	<u>Value</u>
Trials	50000
Mean	18,630.46
Median	16,123.90
Mode	---
Standard Deviation	12,020.31
Variance	144,487,859.19
Skewness	0.95
Kurtosis	3.69
Coefficient of Variability	0.65
Range Minimum	254.93
Range Maximum	84,787.75
Range Width	84,532.83
Mean Standard Error	53.76



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	254.93
95%	3,772.11
90%	5,305.63
85%	6,633.79
80%	7,907.67
75%	9,128.15
70%	10,449.29
65%	11,791.96
60%	13,177.15
55%	14,623.49
50%	16,123.90
45%	17,769.74
40%	19,569.25
35%	21,461.30
30%	23,464.18
25%	25,756.76
20%	28,377.54
15%	31,553.25
10%	35,485.37
5%	41,853.35
0%	84,787.75

End of Forecast

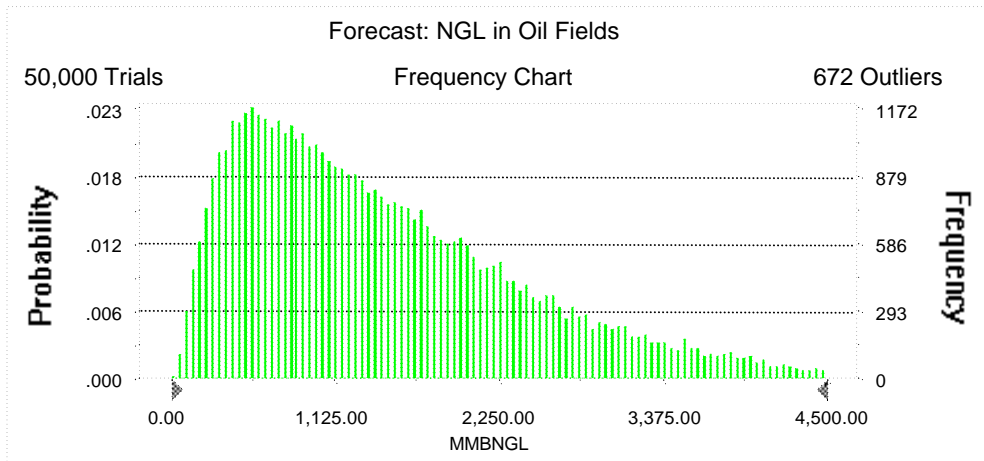
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 4,500.00 MMBNGL
Entire range is from 19.42 to 8,756.48 MMBNGL
After 50,000 trials, the standard error of the mean is 4.61

Statistics:	<u>Value</u>
Trials	50000
Mean	1,491.44
Median	1,259.30
Mode	---
Standard Deviation	1,029.75
Variance	1,060,387.53
Skewness	1.21
Kurtosis	4.77
Coefficient of Variability	0.69
Range Minimum	19.42
Range Maximum	8,756.48
Range Width	8,737.06
Mean Standard Error	4.61



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	19.42
95%	283.71
90%	402.16
85%	502.65
80%	599.89
75%	700.33
70%	803.88
65%	908.30
60%	1,018.49
55%	1,134.53
50%	1,259.30
45%	1,391.41
40%	1,533.47
35%	1,687.24
30%	1,853.76
25%	2,042.08
20%	2,265.04
15%	2,541.81
10%	2,912.18
5%	3,512.10
0%	8,756.48

End of Forecast

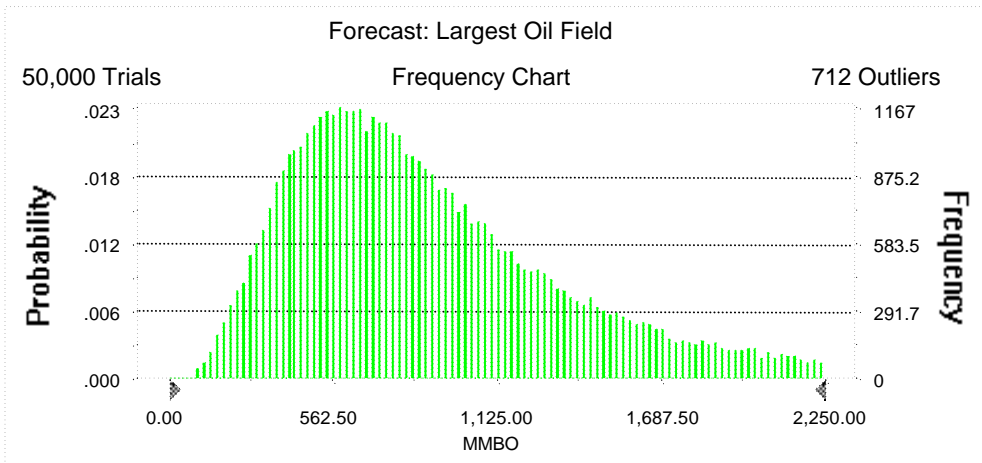
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 2,250.00 MMBO
 Entire range is from 38.64 to 2,499.65 MMBO
 After 50,000 trials, the standard error of the mean is 2.13

Statistics:	<u>Value</u>
Trials	50000
Mean	896.63
Median	794.65
Mode	---
Standard Deviation	475.60
Variance	226,199.64
Skewness	0.97
Kurtosis	3.62
Coefficient of Variability	0.53
Range Minimum	38.64
Range Maximum	2,499.65
Range Width	2,461.01
Mean Standard Error	2.13



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	38.64
95%	299.89
90%	378.86
85%	438.83
80%	494.23
75%	544.99
70%	593.75
65%	642.79
60%	691.68
55%	742.71
50%	794.65
45%	851.97
40%	912.77
35%	981.49
30%	1,058.85
25%	1,148.06
20%	1,258.59
15%	1,394.21
10%	1,580.64
5%	1,873.89
0%	2,499.65

End of Forecast

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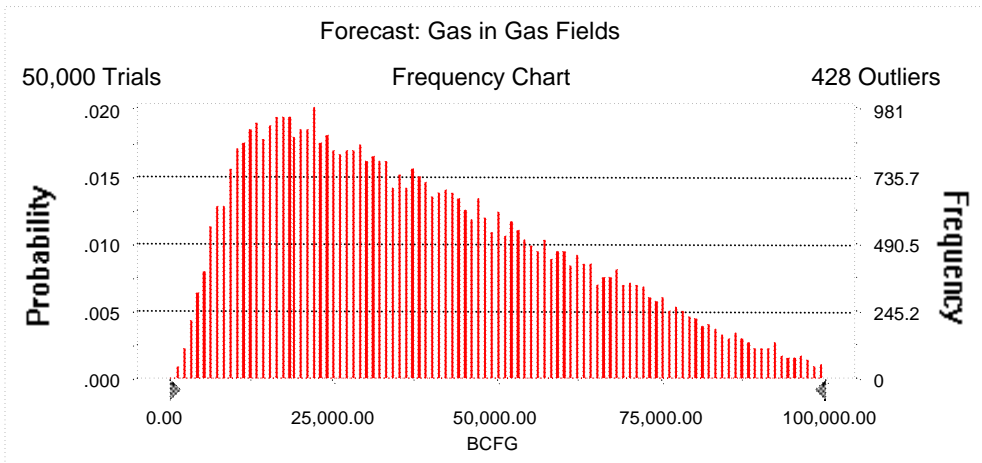
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 100,000.00 BCFG
 Entire range is from 871.44 to 141,762.11 BCFG
 After 50,000 trials, the standard error of the mean is 103.75

Statistics:

	<u>Value</u>
Trials	50000
Mean	38,738.80
Median	34,685.66
Mode	---
Standard Deviation	23,200.00
Variance	538,240,079.76
Skewness	0.66
Kurtosis	2.79
Coefficient of Variability	0.60
Range Minimum	871.44
Range Maximum	141,762.11
Range Width	140,890.67
Mean Standard Error	103.75



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	871.44
95%	8,430.14
90%	11,634.18
85%	14,412.74
80%	17,094.83
75%	19,799.76
70%	22,559.04
65%	25,396.45
60%	28,401.36
55%	31,472.18
50%	34,685.66
45%	38,161.80
40%	41,731.59
35%	45,504.23
30%	49,727.64
25%	54,217.32
20%	59,485.14
15%	65,331.29
10%	72,314.90
5%	82,058.07
0%	141,762.11

End of Forecast

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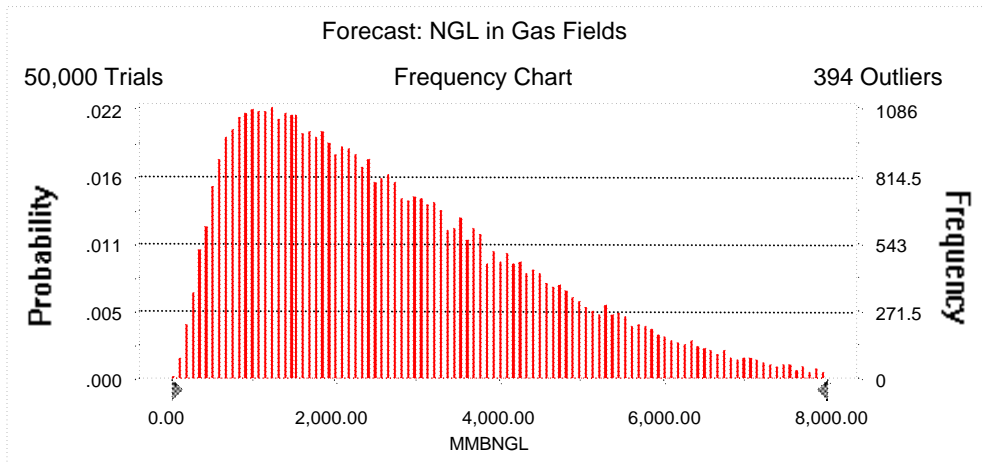
Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 8,000.00 MMBNGL
 Entire range is from 41.47 to 11,717.69 MMBNGL
 After 50,000 trials, the standard error of the mean is 7.80

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,710.63
Median	2,355.06
Mode	---
Standard Deviation	1,745.19
Variance	3,045,701.71
Skewness	0.93
Kurtosis	3.62
Coefficient of Variability	0.64
Range Minimum	41.47
Range Maximum	11,717.69
Range Width	11,676.23
Mean Standard Error	7.80



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	41.47
95%	554.73
90%	769.02
85%	957.08
80%	1,143.67
75%	1,329.39
70%	1,519.46
65%	1,714.58
60%	1,918.02
55%	2,135.89
50%	2,355.06
45%	2,595.56
40%	2,845.21
35%	3,122.49
30%	3,419.26
25%	3,748.78
20%	4,141.28
15%	4,588.49
10%	5,191.81
5%	6,055.55
0%	11,717.69

End of Forecast

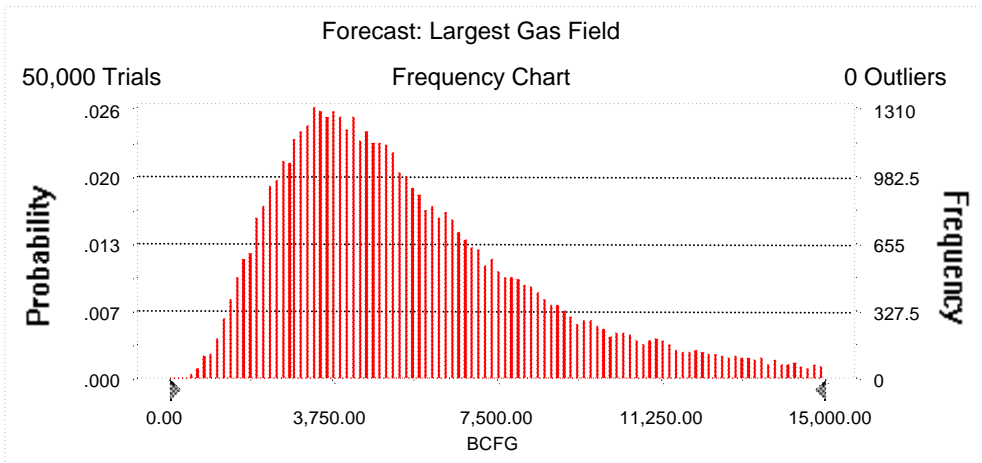
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 15,000.00 BCFG
Entire range is from 272.68 to 14,999.94 BCFG
After 50,000 trials, the standard error of the mean is 12.81

Statistics:	Value
Trials	50000
Mean	5,473.43
Median	4,868.57
Mode	---
Standard Deviation	2,864.44
Variance	8,205,031.96
Skewness	0.95
Kurtosis	3.55
Coefficient of Variability	0.52
Range Minimum	272.68
Range Maximum	14,999.94
Range Width	14,727.26
Mean Standard Error	12.81



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	272.68
95%	1,863.80
90%	2,336.89
85%	2,711.36
80%	3,050.49
75%	3,349.16
70%	3,640.21
65%	3,932.58
60%	4,232.00
55%	4,548.48
50%	4,868.57
45%	5,200.86
40%	5,581.86
35%	6,010.54
30%	6,475.15
25%	7,014.48
20%	7,666.37
15%	8,471.49
10%	9,588.94
5%	11,330.94
0%	14,999.94

End of Forecast

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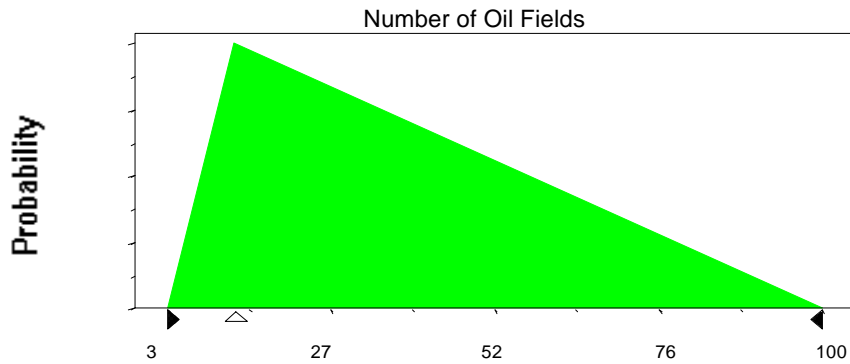
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	3
Likeliest	13
Maximum	100

Selected range is from 3 to 100
Mean value in simulation was 39



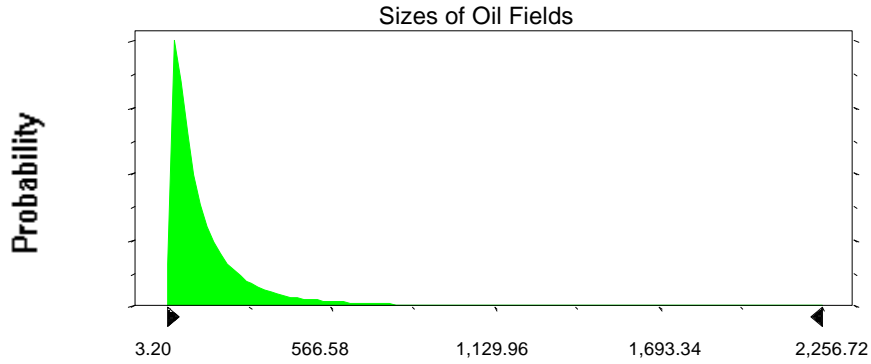
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	154.47	164.47
Standard Deviation	234.39	234.39

Selected range is from 0.00 to 2,490.00 10.00 to 2,500.00
Mean value in simulation was 150.83 160.83

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Assumption: Sizes of Oil Fields (cont'd)



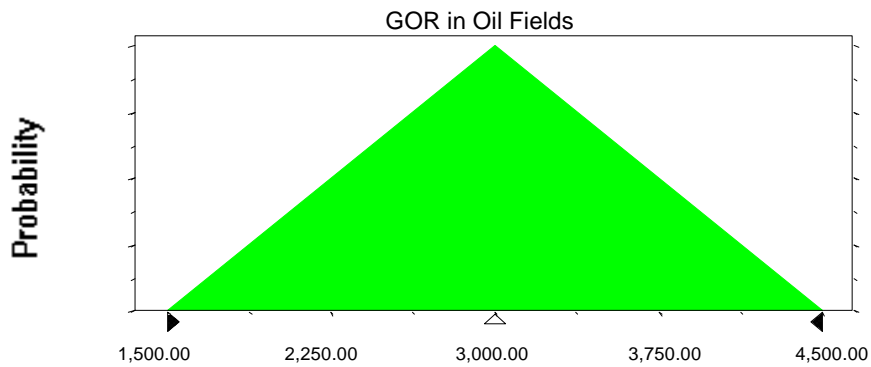
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,500.00
Likeliest	3,000.00
Maximum	4,500.00

Selected range is from 1,500.00 to 4,500.00

Mean value in simulation was 3,000.80



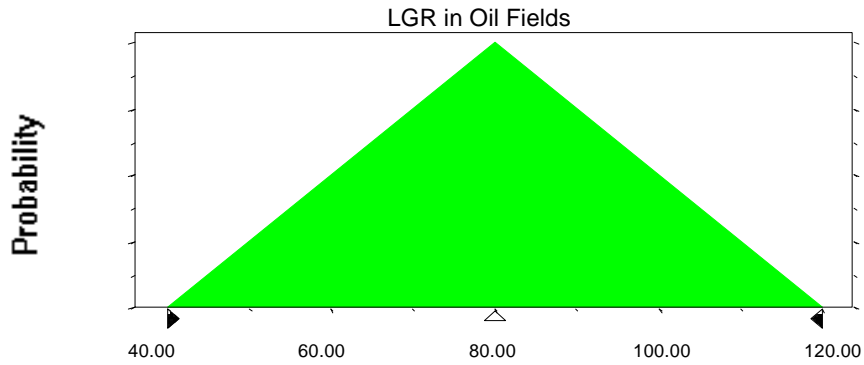
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	40.00
Likeliest	80.00
Maximum	120.00

Selected range is from 40.00 to 120.00
Mean value in simulation was 80.00



Assumption: Number of Gas Fields

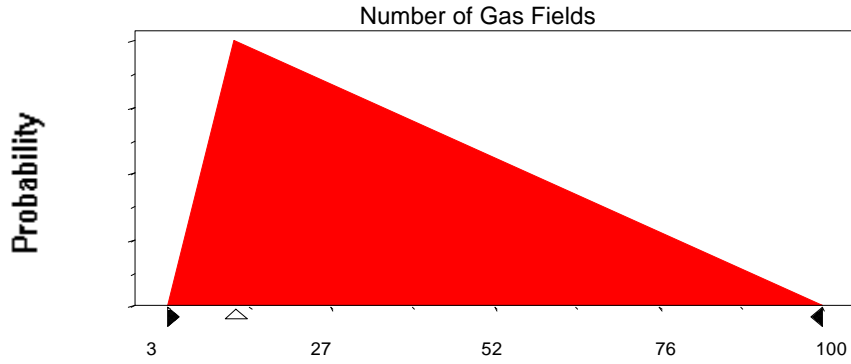
Triangular distribution with parameters:

Minimum	3
Likeliest	13
Maximum	100

Selected range is from 3 to 100
Mean value in simulation was 39

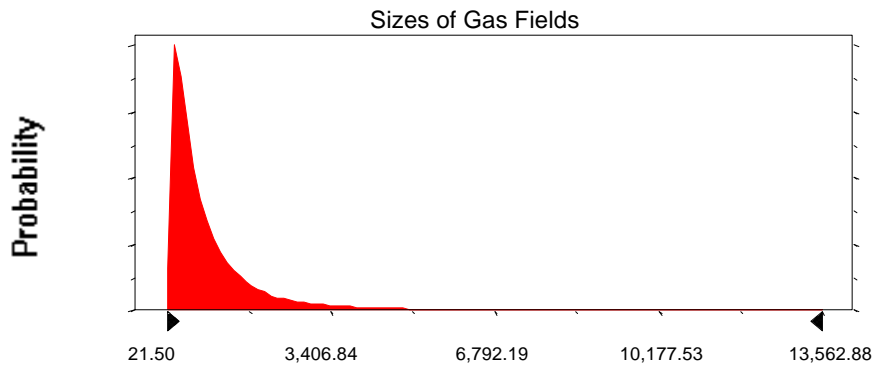
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	961.84	1,021.84
Standard Deviation	1,417.75	1,417.75
Selected range is from 0.00 to 14,940.00		60.00 to 15,000.00
Mean value in simulation was 942.67		1,002.67



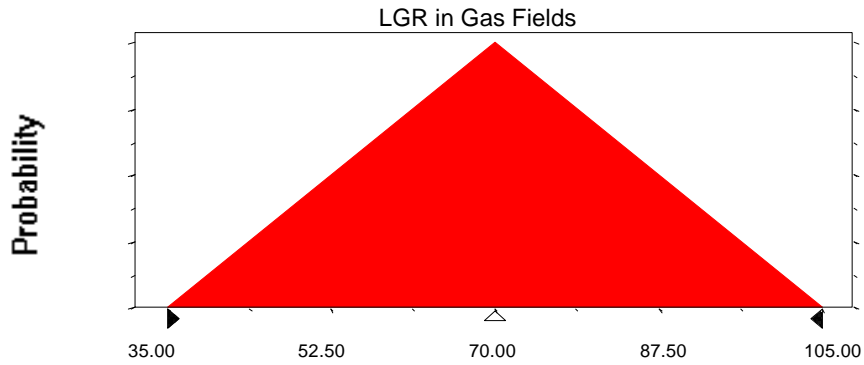
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	35.00
Likeliest	70.00
Maximum	105.00

Selected range is from 35.00 to 105.00
Mean value in simulation was 69.98



End of Assumptions

Simulation started on 11/9/99 at 15:01:13
Simulation stopped on 11/9/99 at 15:50:43