

Foldbelt-Foothills, Assessment Unit 11090101
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	7	1.00	1,100	2,000	3,415	2,094	2,686	5,050	9,012	5,350	159	302	547	321	155	327	777	375
Gas Fields	42		1,100	2,000	3,415	2,094	4,718	8,810	14,843	9,162	134	261	463	275	739	1,511	3,428	1,710
Total		1.00	1,100	2,000	3,415	2,094	7,404	13,859	23,855	14,512	293	563	1,010	596				

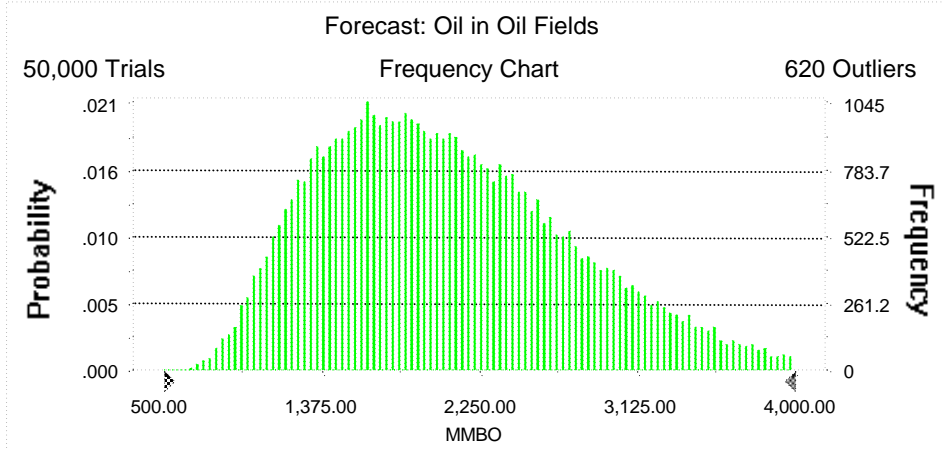
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Forecast: Oil in Oil Fields

Summary:

Display range is from 500.00 to 4,000.00 MMBO
 Entire range is from 537.53 to 5,890.85 MMBO
 After 50,000 trials, the standard error of the mean is 3.21

Statistics:	<u>Value</u>
Trials	50000
Mean	2,094.11
Median	2,000.29
Mode	---
Standard Deviation	717.91
Variance	515,401.19
Skewness	0.69
Kurtosis	3.37
Coefficient of Variability	0.34
Range Minimum	537.53
Range Maximum	5,890.85
Range Width	5,353.33
Mean Standard Error	3.21



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	537.53
95%	1,099.76
90%	1,243.23
85%	1,354.51
80%	1,455.85
75%	1,551.51
70%	1,640.47
65%	1,728.91
60%	1,817.79
55%	1,906.52
50%	2,000.29
45%	2,095.91
40%	2,195.00
35%	2,303.46
30%	2,414.48
25%	2,537.28
20%	2,679.97
15%	2,855.67
10%	3,079.24
5%	3,415.13
0%	5,890.85

End of Forecast

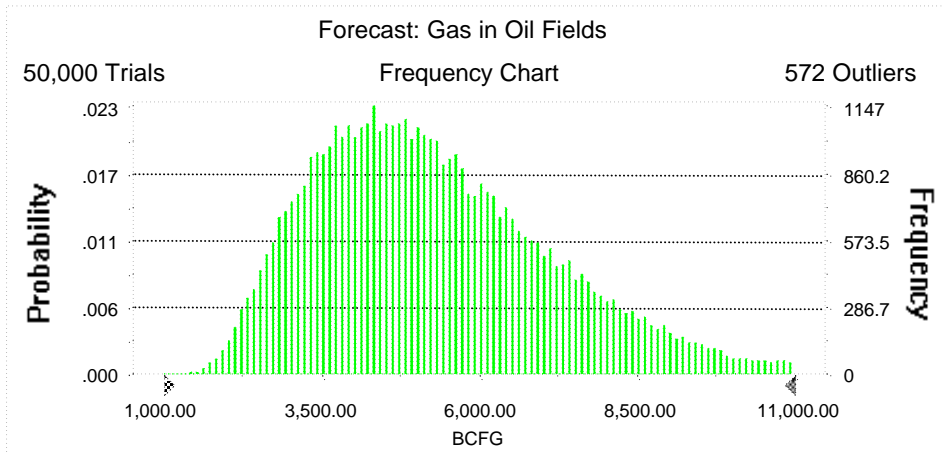
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Forecast: Gas in Oil Fields

Summary:

Display range is from 1,000.00 to 11,000.00 BCFG
Entire range is from 1,244.49 to 16,505.57 BCFG
After 50,000 trials, the standard error of the mean is 8.86

Statistics:	Value
Trials	50000
Mean	5,349.66
Median	5,049.91
Mode	---
Standard Deviation	1,981.81
Variance	3,927,576.44
Skewness	0.87
Kurtosis	3.98
Coefficient of Variability	0.37
Range Minimum	1,244.49
Range Maximum	16,505.57
Range Width	15,261.08
Mean Standard Error	8.86



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	1,244.49
95%	2,685.86
90%	3,065.43
85%	3,370.18
80%	3,637.33
75%	3,878.41
70%	4,116.38
65%	4,347.33
60%	4,578.99
55%	4,811.52
50%	5,049.91
45%	5,293.01
40%	5,560.92
35%	5,844.32
30%	6,154.50
25%	6,497.84
20%	6,909.08
15%	7,398.12
10%	8,017.45
5%	9,012.11
0%	16,505.57

End of Forecast

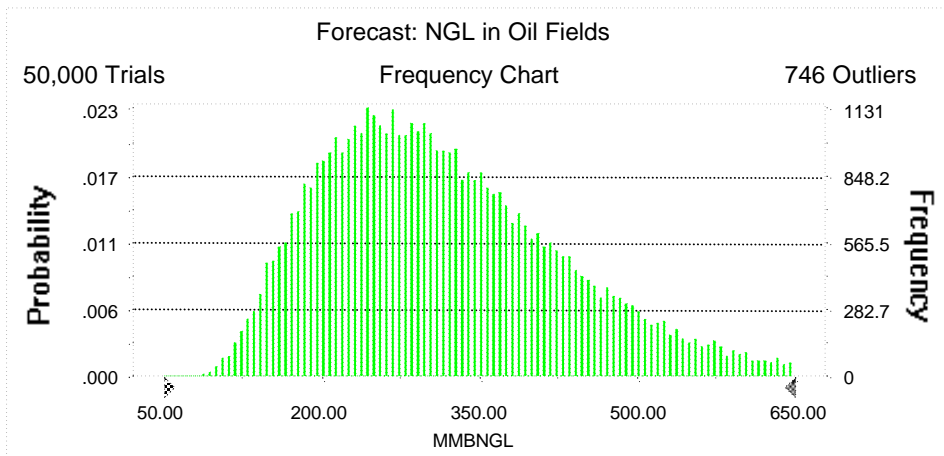
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Forecast: NGL in Oil Fields

Summary:

Display range is from 50.00 to 650.00 MMBNGL
 Entire range is from 72.87 to 1,059.93 MMBNGL
 After 50,000 trials, the standard error of the mean is 0.54

Statistics:	<u>Value</u>
Trials	50000
Mean	320.97
Median	301.90
Mode	---
Standard Deviation	121.26
Variance	14,704.59
Skewness	0.91
Kurtosis	4.09
Coefficient of Variability	0.38
Range Minimum	72.87
Range Maximum	1,059.93
Range Width	987.05
Mean Standard Error	0.54



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	72.87
95%	158.91
90%	182.57
85%	200.34
80%	216.05
75%	231.29
70%	245.64
65%	259.26
60%	273.22
55%	287.75
50%	301.90
45%	316.98
40%	332.89
35%	350.82
30%	369.32
25%	390.48
20%	415.60
15%	444.72
10%	484.25
5%	546.93
0%	1,059.93

End of Forecast

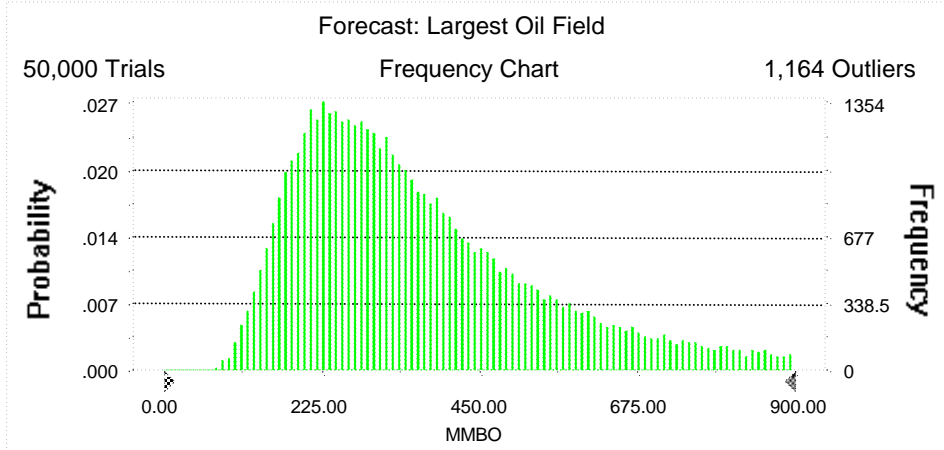
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 900.00 MMBO
 Entire range is from 65.34 to 1,099.86 MMBO
 After 50,000 trials, the standard error of the mean is 0.86

Statistics:	<u>Value</u>
Trials	50000
Mean	375.18
Median	326.90
Mode	---
Standard Deviation	191.31
Variance	36,597.62
Skewness	1.25
Kurtosis	4.42
Coefficient of Variability	0.51
Range Minimum	65.34
Range Maximum	1,099.86
Range Width	1,034.53
Mean Standard Error	0.86



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	65.34
95%	154.98
90%	180.30
85%	200.83
80%	218.46
75%	235.41
70%	252.84
65%	270.66
60%	288.53
55%	307.23
50%	326.90
45%	348.37
40%	372.52
35%	398.38
30%	428.83
25%	465.35
20%	508.82
15%	564.88
10%	644.11
5%	777.11
0%	1,099.86

End of Forecast

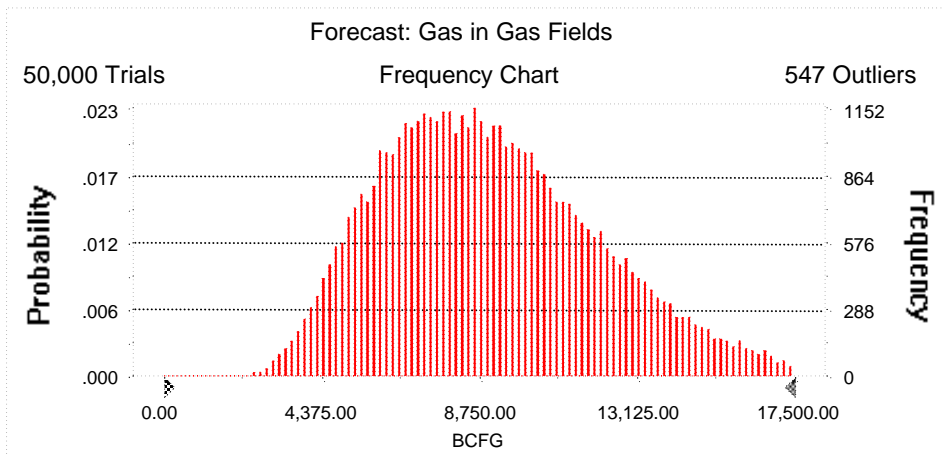
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 17,500.00 BCFG
Entire range is from 1,839.77 to 28,133.28 BCFG
After 50,000 trials, the standard error of the mean is 13.94

Statistics:	Value
Trials	50000
Mean	9,161.84
Median	8,809.57
Mode	---
Standard Deviation	3,117.45
Variance	9,718,465.69
Skewness	0.61
Kurtosis	3.27
Coefficient of Variability	0.34
Range Minimum	1,839.77
Range Maximum	28,133.28
Range Width	26,293.51
Mean Standard Error	13.94



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	1,839.77
95%	4,718.48
90%	5,409.44
85%	5,963.05
80%	6,410.85
75%	6,838.41
70%	7,232.93
65%	7,626.21
60%	8,013.93
55%	8,413.65
50%	8,809.57
45%	9,223.45
40%	9,643.69
35%	10,086.37
30%	10,563.82
25%	11,114.80
20%	11,729.39
15%	12,460.15
10%	13,399.95
5%	14,843.02
0%	28,133.28

End of Forecast

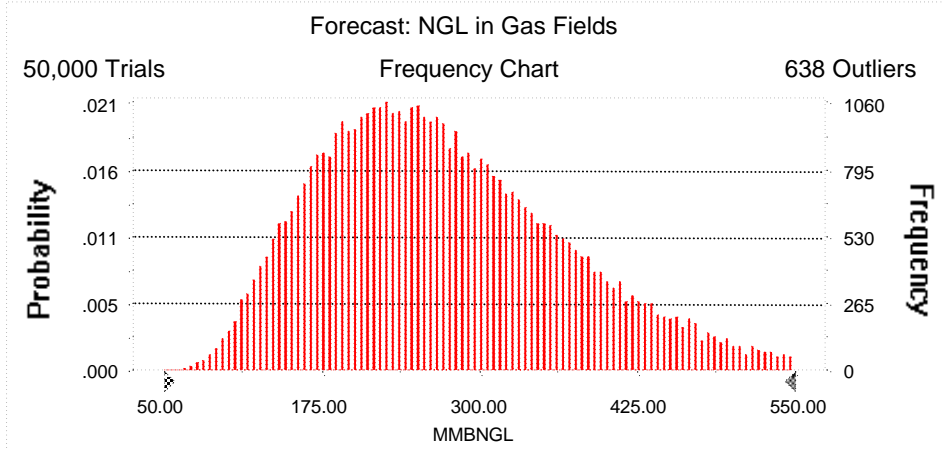
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Forecast: NGL in Gas Fields

Summary:

Display range is from 50.00 to 550.00 MMBNGL
Entire range is from 50.86 to 887.98 MMBNGL
After 50,000 trials, the standard error of the mean is 0.45

Statistics:	Value
Trials	50000
Mean	274.85
Median	260.94
Mode	---
Standard Deviation	101.53
Variance	10,307.75
Skewness	0.75
Kurtosis	3.60
Coefficient of Variability	0.37
Range Minimum	50.86
Range Maximum	887.98
Range Width	837.12
Mean Standard Error	0.45



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	50.86
95%	134.11
90%	155.66
85%	172.12
80%	186.68
75%	199.63
70%	212.29
65%	224.35
60%	236.41
55%	248.59
50%	260.94
45%	273.25
40%	287.30
35%	302.28
30%	317.85
25%	335.74
20%	356.56
15%	380.57
10%	412.64
5%	462.99
0%	887.98

End of Forecast

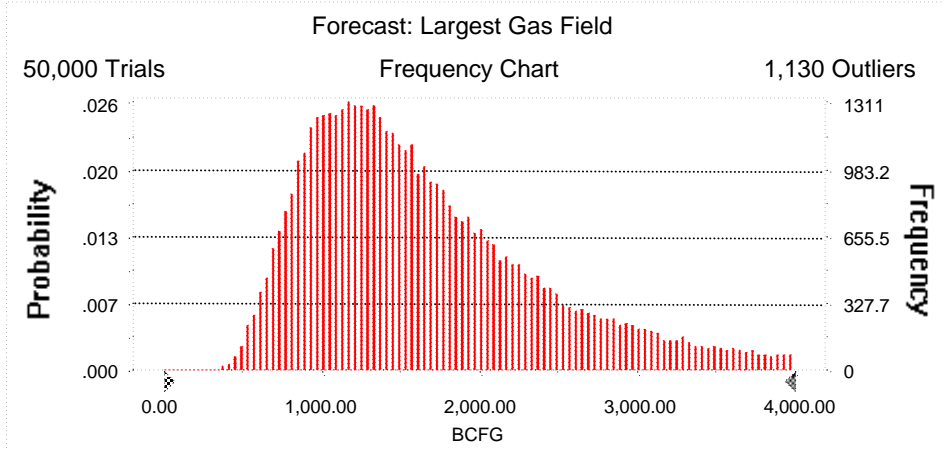
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 4,000.00 BCFG
 Entire range is from 281.08 to 4,996.96 BCFG
 After 50,000 trials, the standard error of the mean is 3.72

Statistics:	<u>Value</u>
Trials	50000
Mean	1,710.35
Median	1,510.87
Mode	---
Standard Deviation	830.72
Variance	690,095.53
Skewness	1.25
Kurtosis	4.56
Coefficient of Variability	0.49
Range Minimum	281.08
Range Maximum	4,996.96
Range Width	4,715.88
Mean Standard Error	3.72



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	281.08
95%	739.10
90%	858.32
85%	949.52
80%	1,030.15
75%	1,109.58
70%	1,187.11
65%	1,264.38
60%	1,341.51
55%	1,424.64
50%	1,510.87
45%	1,602.42
40%	1,704.75
35%	1,816.98
30%	1,950.20
25%	2,100.56
20%	2,284.44
15%	2,516.56
10%	2,869.84
5%	3,428.48
0%	4,996.96

End of Forecast

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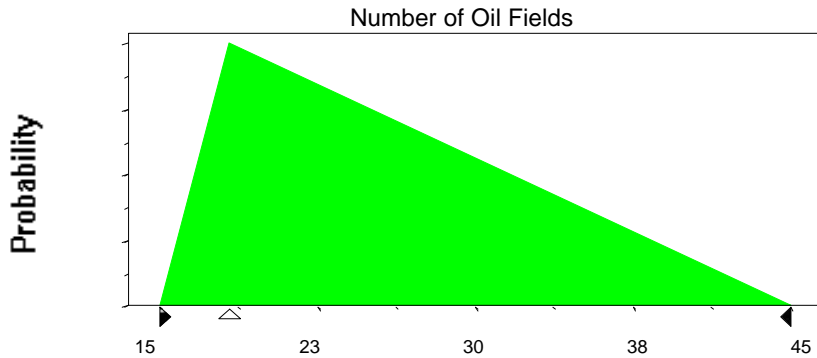
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	15
Likeliest	18
Maximum	45

Selected range is from 15 to 45
Mean value in simulation was 26



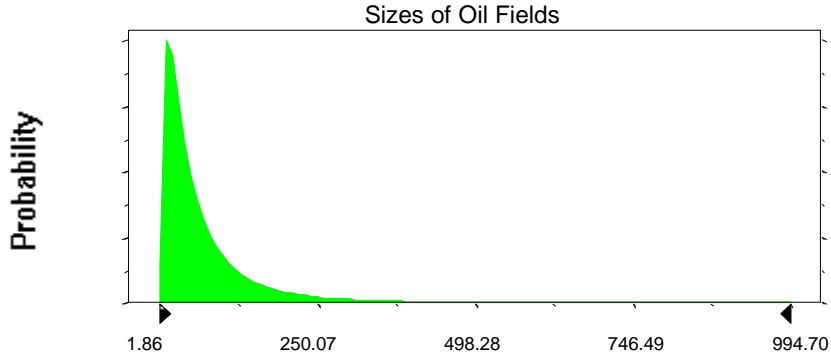
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	74.40	81.4
Standard Deviation	105.03	105.03

Selected range is from 0.00 to 1,093.00 7.00 to 1,100.00
Mean value in simulation was 73.35 80.35

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Assumption: Sizes of Oil Fields (cont'd)



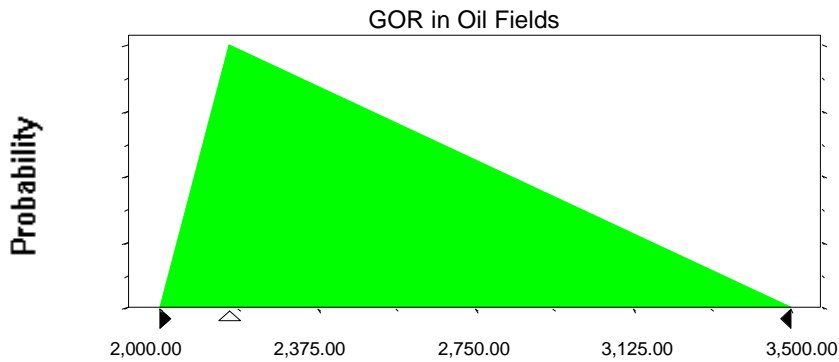
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	2,000.00
Likeliest	2,166.67
Maximum	3,500.00

Selected range is from 2,000.00 to 3,500.00

Mean value in simulation was 2,554.75



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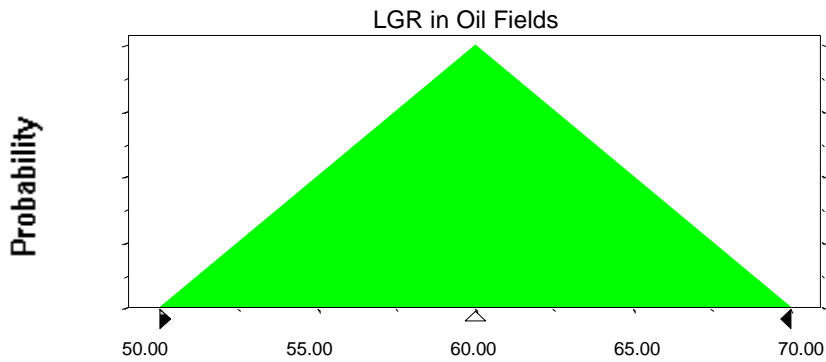
Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	50.00
Likeliest	60.00
Maximum	70.00

Selected range is from 50.00 to 70.00

Mean value in simulation was 59.99



Assumption: Number of Gas Fields

Triangular distribution with parameters:

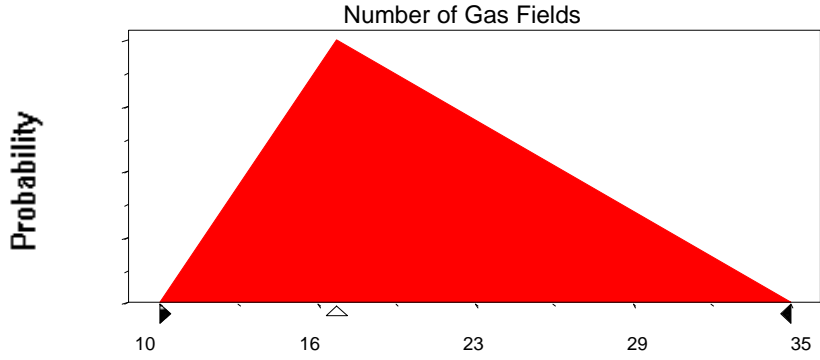
Minimum	10
Likeliest	17
Maximum	35

Selected range is from 10 to 35

Mean value in simulation was 21

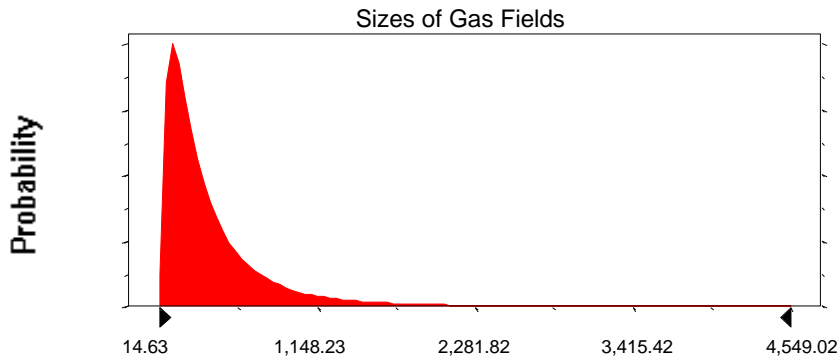
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	407.68	449.68
Standard Deviation	498.77	498.77
Selected range is from 0.00 to 4,958.00	42.00 to 5,000.00	
Mean value in simulation was 401.90	443.9	



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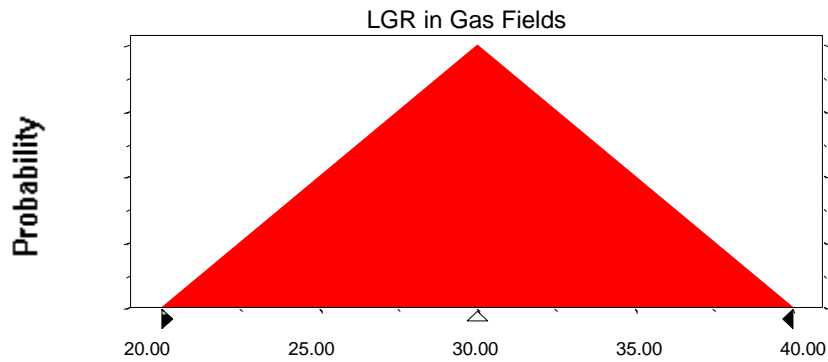
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	20.00
Likeliest	30.00
Maximum	40.00

Selected range is from 20.00 to 40.00

Mean value in simulation was 30.00



End of Assumptions

Simulation started on 12/7/98 at 14:12:04
Simulation stopped on 12/7/98 at 16:05:02