

**Yenisey Foldbelt Riphean-Craton Margin Riphean, Assessment Unit 12070101
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	5	1.00	147	1,007	2,979	1,213	695	4,864	15,456	6,054	40	282	958	362	52	264	1,116	374
Gas Fields	30						1,109	9,284	26,350	10,929	49	407	1,232	492	381	2,039	7,569	2,709
Total		1.00	147	1,007	2,979	1,213	1,804	14,147	41,806	16,983	88	689	2,190	854				

12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

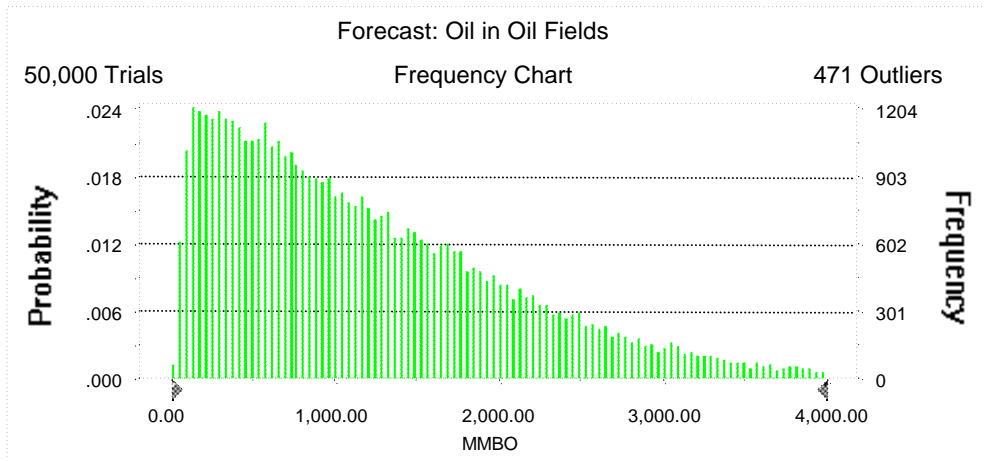
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 4,000.00 MMBO
Entire range is from 21.70 to 6,995.51 MMBO
After 50,000 trials, the standard error of the mean is 4.07

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,212.65
Median	1,006.53
Mode	---
Standard Deviation	909.85
Variance	827,818.09
Skewness	1.12
Kurtosis	4.36
Coefficient of Variability	0.75
Range Minimum	21.70
Range Maximum	6,995.51
Range Width	6,973.82
Mean Standard Error	4.07



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	21.70
95%	146.96
90%	231.22
85%	316.29
80%	403.12
75%	495.07
70%	586.91
65%	681.77
60%	782.69
55%	892.33
50%	1,006.53
45%	1,129.45
40%	1,258.76
35%	1,402.38
30%	1,557.83
25%	1,729.20
20%	1,922.82
15%	2,162.87
10%	2,481.60
5%	2,978.84
0%	6,995.51

End of Forecast

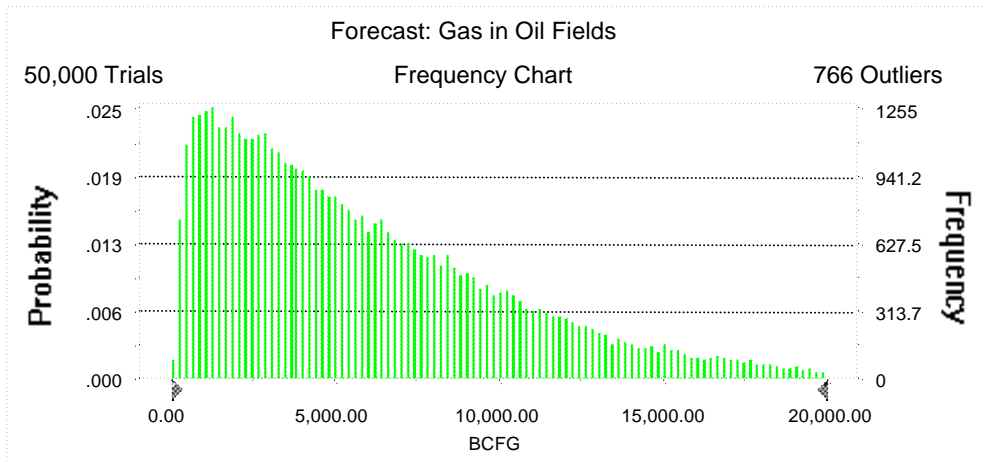
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 20,000.00 BCFG
 Entire range is from 81.88 to 46,006.11 BCFG
 After 50,000 trials, the standard error of the mean is 21.41

Statistics:	<u>Value</u>
Trials	50000
Mean	6,053.69
Median	4,863.73
Mode	---
Standard Deviation	4,786.58
Variance	22,911,394.72
Skewness	1.33
Kurtosis	5.20
Coefficient of Variability	0.79
Range Minimum	81.88
Range Maximum	46,006.11
Range Width	45,924.23
Mean Standard Error	21.41



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	81.88
95%	695.43
90%	1,109.61
85%	1,512.10
80%	1,934.90
75%	2,376.12
70%	2,819.94
65%	3,277.07
60%	3,771.91
55%	4,287.71
50%	4,863.73
45%	5,465.17
40%	6,143.77
35%	6,851.20
30%	7,651.59
25%	8,552.15
20%	9,592.16
15%	10,854.83
10%	12,574.54
5%	15,455.89
0%	46,006.11

End of Forecast

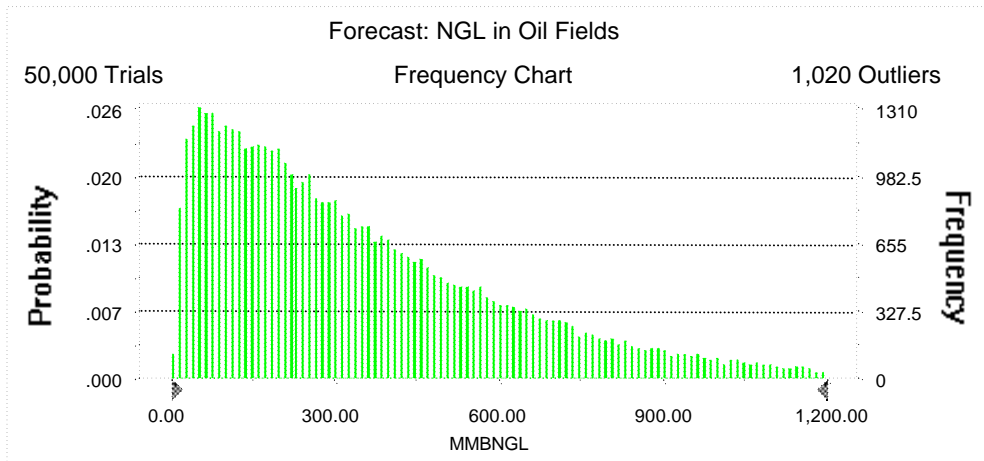
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 1,200.00 MMBNGL
 Entire range is from 3.92 to 2,830.98 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.35

Statistics:	<u>Value</u>
Trials	50000
Mean	362.38
Median	282.27
Mode	---
Standard Deviation	301.49
Variance	90,898.55
Skewness	1.55
Kurtosis	6.36
Coefficient of Variability	0.83
Range Minimum	3.92
Range Maximum	2,830.98
Range Width	2,827.06
Mean Standard Error	1.35



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	3.92
95%	39.77
90%	63.30
85%	86.83
80%	111.45
75%	136.51
70%	163.48
65%	190.26
60%	218.07
55%	249.83
50%	282.27
45%	317.76
40%	357.12
35%	400.12
30%	448.94
25%	505.52
20%	572.63
15%	654.55
10%	766.06
5%	957.90
0%	2,830.98

End of Forecast

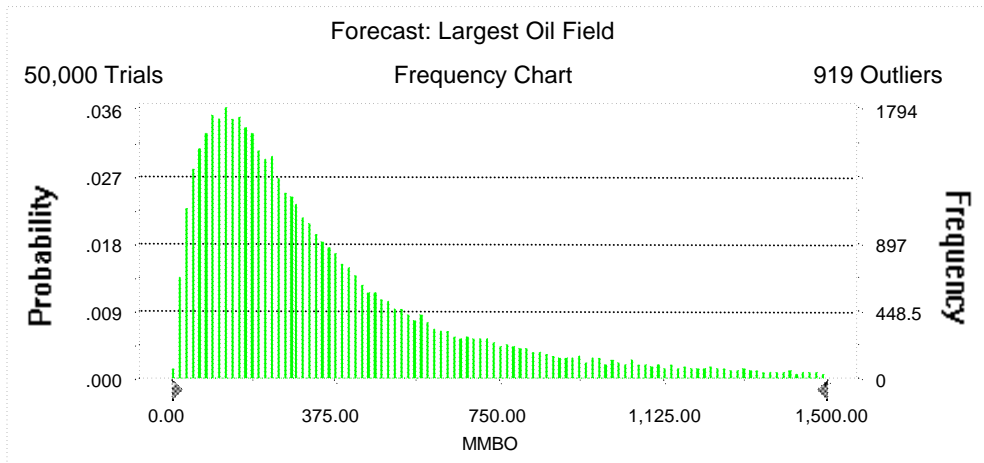
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 1,500.00 MMBO
 Entire range is from 8.56 to 1,999.89 MMBO
 After 50,000 trials, the standard error of the mean is 1.53

Statistics:	<u>Value</u>
Trials	50000
Mean	374.09
Median	264.18
Mode	---
Standard Deviation	343.09
Variance	117,710.47
Skewness	1.89
Kurtosis	6.94
Coefficient of Variability	0.92
Range Minimum	8.56
Range Maximum	1,999.89
Range Width	1,991.33
Mean Standard Error	1.53



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	8.56
95%	51.90
90%	76.94
85%	99.21
80%	120.76
75%	142.11
70%	163.64
65%	185.99
60%	210.41
55%	236.22
50%	264.18
45%	295.58
40%	330.93
35%	372.02
30%	419.46
25%	480.37
20%	559.45
15%	669.62
10%	824.62
5%	1,115.98
0%	1,999.89

End of Forecast

12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

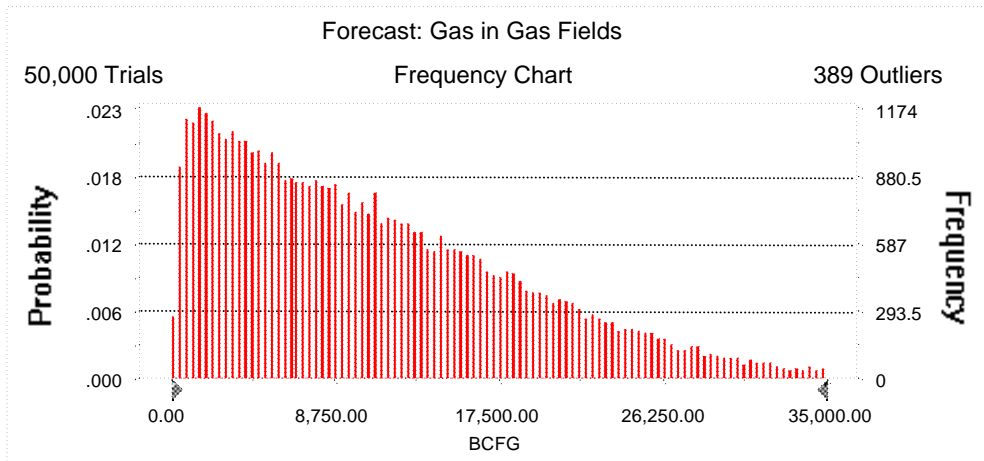
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 35,000.00 BCFG
 Entire range is from 103.99 to 54,087.83 BCFG
 After 50,000 trials, the standard error of the mean is 36.12

Statistics:

	<u>Value</u>
Trials	50000
Mean	10,929.30
Median	9,283.66
Mode	---
Standard Deviation	8,076.99
Variance	65,237,760.00
Skewness	0.91
Kurtosis	3.51
Coefficient of Variability	0.74
Range Minimum	103.99
Range Maximum	54,087.83
Range Width	53,983.84
Mean Standard Error	36.12



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	103.99
95%	1,108.69
90%	1,865.41
85%	2,654.54
80%	3,483.01
75%	4,321.12
70%	5,235.86
65%	6,165.91
60%	7,185.50
55%	8,237.14
50%	9,283.66
45%	10,430.98
40%	11,615.89
35%	12,901.75
30%	14,352.65
25%	15,882.85
20%	17,667.77
15%	19,764.53
10%	22,418.78
5%	26,349.98
0%	54,087.83

End of Forecast

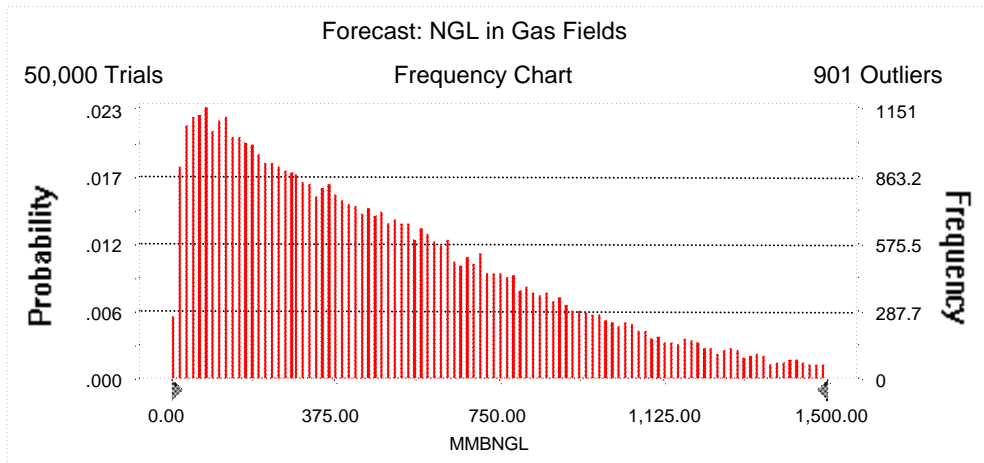
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 1,500.00 MMBNGL
 Entire range is from 4.35 to 2,845.95 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.70

Statistics:	<u>Value</u>
Trials	50000
Mean	491.62
Median	406.56
Mode	---
Standard Deviation	380.28
Variance	144,615.31
Skewness	1.11
Kurtosis	4.27
Coefficient of Variability	0.77
Range Minimum	4.35
Range Maximum	2,845.95
Range Width	2,841.60
Mean Standard Error	1.70



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	4.35
95%	48.63
90%	81.54
85%	115.86
80%	151.12
75%	188.19
70%	227.40
65%	269.32
60%	313.06
55%	359.32
50%	406.56
45%	458.13
40%	512.50
35%	570.72
30%	633.39
25%	706.09
20%	789.03
15%	890.17
10%	1,023.88
5%	1,231.82
0%	2,845.95

End of Forecast

12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

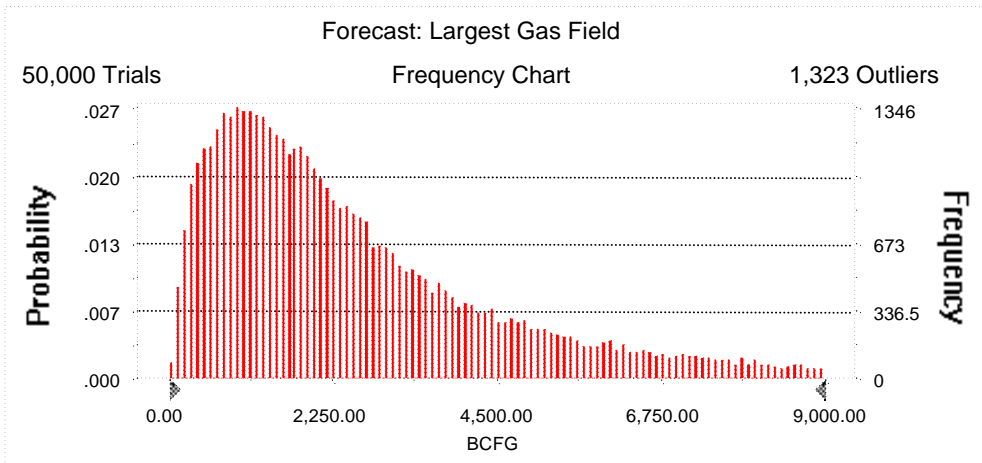
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 9,000.00 BCFG
 Entire range is from 36.77 to 11,998.48 BCFG
 After 50,000 trials, the standard error of the mean is 10.09

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,709.32
Median	2,039.17
Mode	---
Standard Deviation	2,256.05
Variance	5,089,758.61
Skewness	1.55
Kurtosis	5.40
Coefficient of Variability	0.83
Range Minimum	36.77
Range Maximum	11,998.48
Range Width	11,961.71
Mean Standard Error	10.09



12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	36.77
95%	380.80
90%	583.48
85%	761.16
80%	932.07
75%	1,101.85
70%	1,271.07
65%	1,448.56
60%	1,637.56
55%	1,832.94
50%	2,039.17
45%	2,270.41
40%	2,531.05
35%	2,817.07
30%	3,163.77
25%	3,590.61
20%	4,132.60
15%	4,839.86
10%	5,853.49
5%	7,569.20
0%	11,998.48

End of Forecast

12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

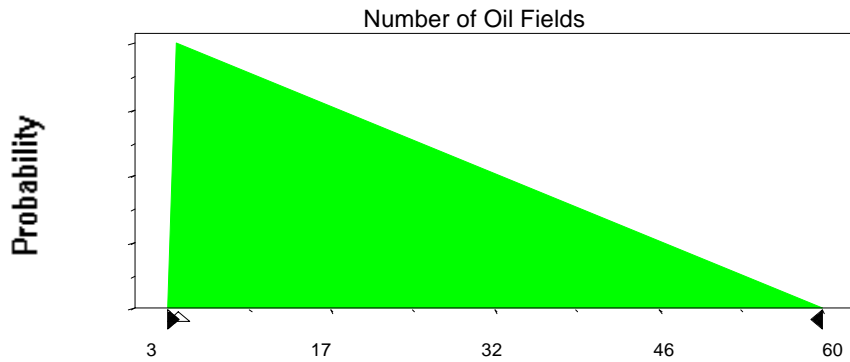
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	3
Likeliest	4
Maximum	60

Selected range is from 3 to 60
Mean value in simulation was 22



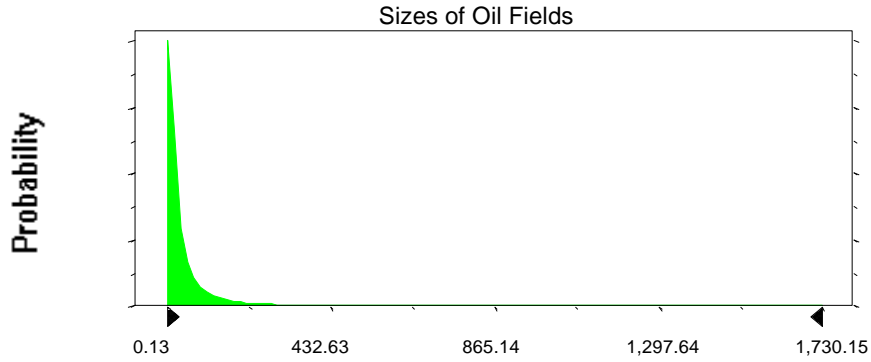
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	52.48	57.48
Standard Deviation	175.95	175.95

Selected range is from 0.00 to 1,995.00 5.00 to 2,000.00
Mean value in simulation was 49.29 54.29

12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)



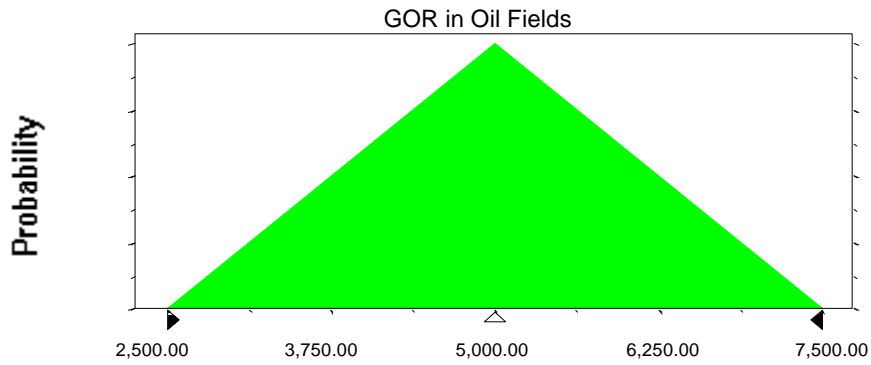
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	2,500.00
Likeliest	5,000.00
Maximum	7,500.00

Selected range is from 2,500.00 to 7,500.00

Mean value in simulation was 4,993.97



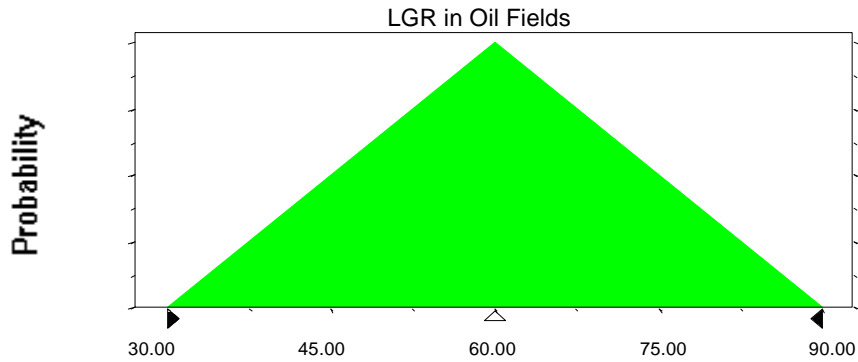
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

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 59.90



Assumption: Number of Gas Fields

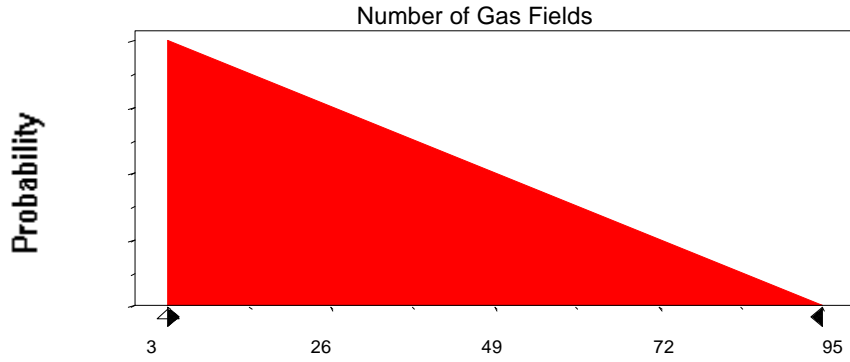
Triangular distribution with parameters:

Minimum	3
Likeliest	3
Maximum	95

Selected range is from 3 to 95
Mean value in simulation was 34

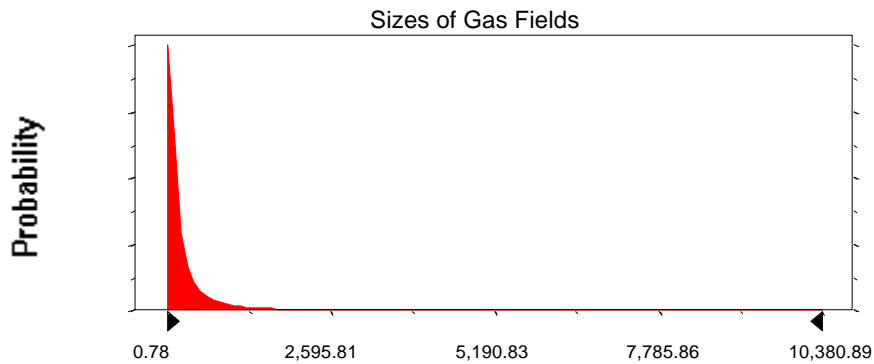
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	314.88	344.88
Standard Deviation	1,055.68	1,055.68
Selected range is from 0.00 to 11,970.00		30.00 to 12,000.00
Mean value in simulation was 290.59		320.59



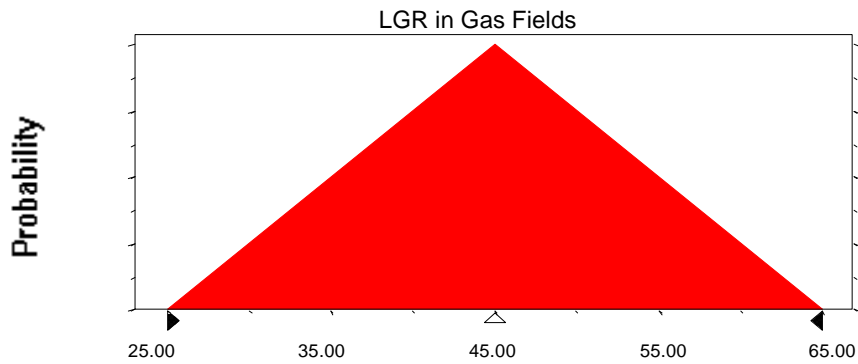
12070101
Yenisey Foldbelt Riphean-Craton Margin Riphean
Monte Carlo Results

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	25.00
Likeliest	45.00
Maximum	65.00

Selected range is from 25.00 to 65.00
Mean value in simulation was 44.97



End of Assumptions

Simulation started on 4/26/99 at 12:44:26
Simulation stopped on 4/26/99 at 13:26:51