Go to Table of Contents

Go to index map

Paleozoic Reservoirs, Assessment Unit 40470301
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	12	42	96	47	25	91	223	103	1	5	14	6	4	10	28	12
Gas Fields	6						71	254	576	280	3	11	27	12	24	62	170	74
Total		1.00	12	42	96	47	95	345	800	383	4	16	41	19				

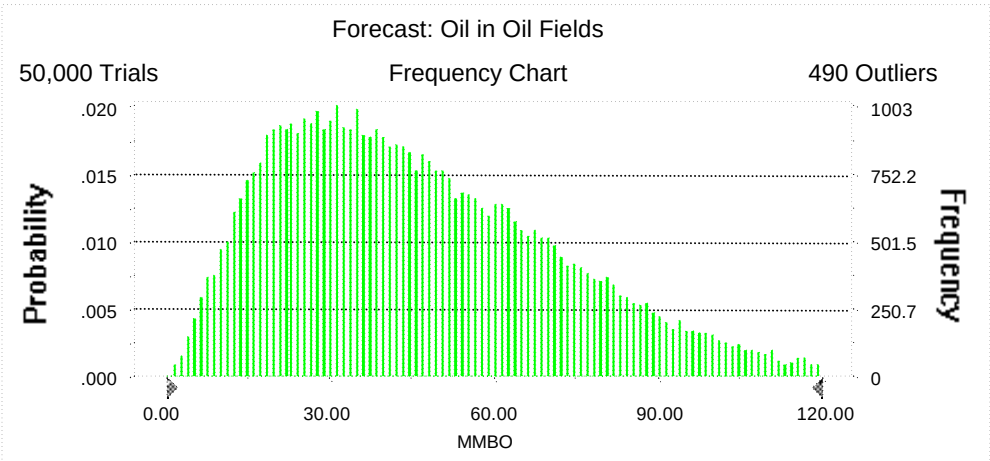
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 120.00 MMBO
Entire range is from 1.11 to 189.93 MMBO
After 50,000 trials, the standard error of the mean is 0.12

Statistics:	Value
Trials	50000
Mean	46.85
Median	42.49
Mode	---
Standard Deviation	26.32
Variance	692.82
Skewness	0.77
Kurtosis	3.38
Coefficient of Variability	0.56
Range Minimum	1.11
Range Maximum	189.93
Range Width	188.82
Mean Standard Error	0.12



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	1.11
95%	11.97
90%	16.39
85%	19.94
80%	23.16
75%	26.36
70%	29.49
65%	32.63
60%	35.81
55%	39.08
50%	42.49
45%	46.06
40%	49.91
35%	54.02
30%	58.53
25%	63.31
20%	68.83
15%	75.29
10%	83.44
5%	96.16
0%	189.93

End of Forecast

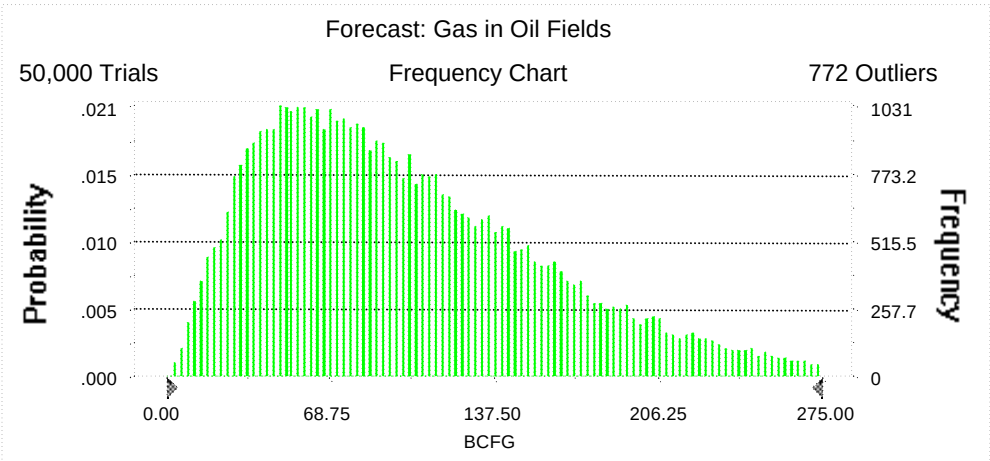
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 275.00 BCFG
Entire range is from 1.92 to 503.75 BCFG
After 50,000 trials, the standard error of the mean is 0.28

Statistics:	Value
Trials	50000
Mean	103.11
Median	90.75
Mode	---
Standard Deviation	62.77
Variance	3,940.35
Skewness	1.04
Kurtosis	4.32
Coefficient of Variability	0.61
Range Minimum	1.92
Range Maximum	503.75
Range Width	501.83
Mean Standard Error	0.28



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	1.92
95%	24.70
90%	33.97
85%	41.48
80%	48.64
75%	55.27
70%	62.14
65%	69.04
60%	75.99
55%	83.14
50%	90.75
45%	98.86
40%	107.69
35%	116.71
30%	127.15
25%	138.71
20%	151.82
15%	167.48
10%	189.56
5%	223.21
0%	503.75

End of Forecast

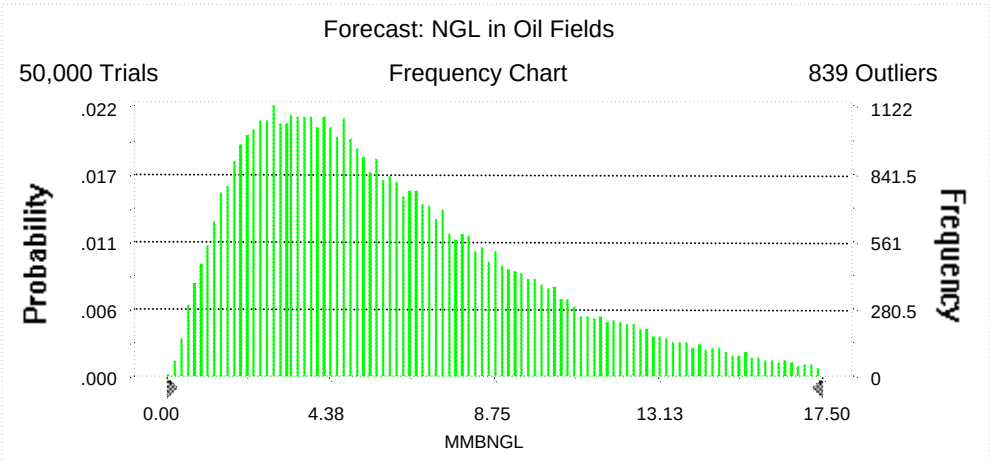
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 17.50 MMBNGL
Entire range is from 0.07 to 38.83 MMBNGL
After 50,000 trials, the standard error of the mean is 0.02

Statistics:	Value
Trials	50000
Mean	6.19
Median	5.28
Mode	---
Standard Deviation	4.04
Variance	16.36
Skewness	1.27
Kurtosis	5.24
Coefficient of Variability	0.65
Range Minimum	0.07
Range Maximum	38.83
Range Width	38.77
Mean Standard Error	0.02



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.07
95%	1.38
90%	1.92
85%	2.36
80%	2.78
75%	3.18
70%	3.59
65%	3.99
60%	4.40
55%	4.84
50%	5.28
45%	5.78
40%	6.31
35%	6.88
30%	7.52
25%	8.27
20%	9.15
15%	10.21
10%	11.70
5%	14.02
0%	38.83

End of Forecast

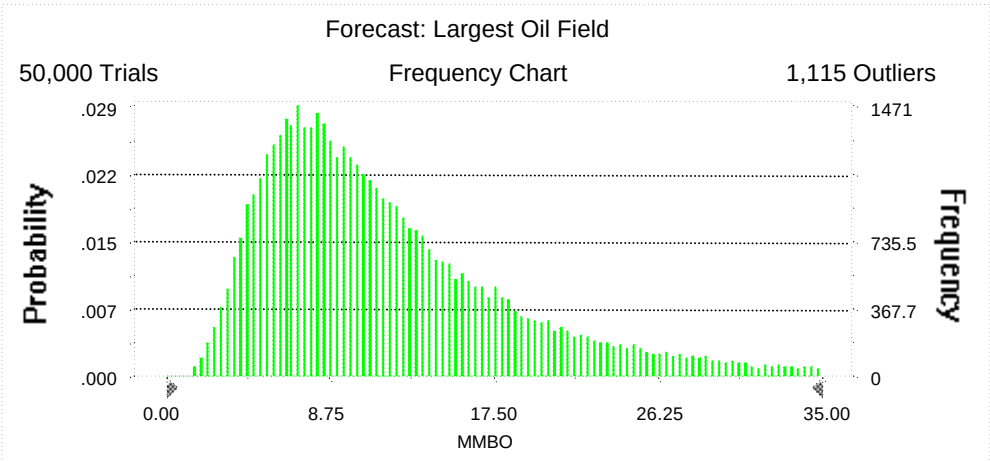
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 35.00 MMBO
Entire range is from 1.11 to 49.98 MMBO
After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	12.38
Median	10.34
Mode	---
Standard Deviation	7.75
Variance	60.10
Skewness	1.64
Kurtosis	6.25
Coefficient of Variability	0.63
Range Minimum	1.11
Range Maximum	49.98
Range Width	48.87
Mean Standard Error	0.03



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	1.11
95%	4.03
90%	4.97
85%	5.71
80%	6.37
75%	7.01
70%	7.63
65%	8.25
60%	8.89
55%	9.60
50%	10.34
45%	11.13
40%	12.00
35%	12.97
30%	14.07
25%	15.45
20%	17.13
15%	19.27
10%	22.51
5%	28.31
0%	49.98

End of Forecast

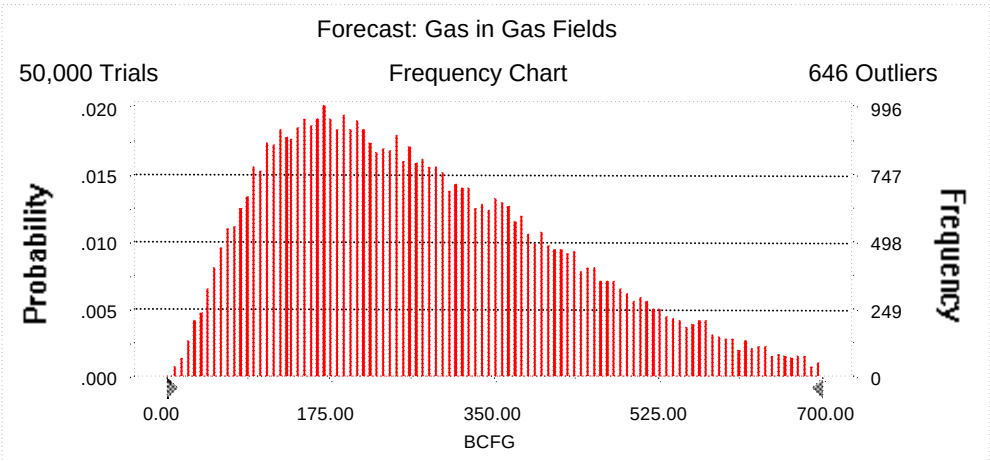
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 700.00 BCFG
Entire range is from 6.90 to 1,219.42 BCFG
After 50,000 trials, the standard error of the mean is 0.71

Statistics:	Value
Trials	50000
Mean	280.24
Median	253.79
Mode	---
Standard Deviation	158.10
Variance	24,995.37
Skewness	0.78
Kurtosis	3.40
Coefficient of Variability	0.56
Range Minimum	6.90
Range Maximum	1,219.42
Range Width	1,212.53
Mean Standard Error	0.71



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	6.90
95%	70.76
90%	97.61
85%	118.77
80%	138.45
75%	157.31
70%	175.51
65%	194.17
60%	212.99
55%	233.38
50%	253.79
45%	275.64
40%	298.10
35%	323.05
30%	350.36
25%	378.35
20%	411.70
15%	450.68
10%	501.44
5%	576.37
0%	1,219.42

End of Forecast

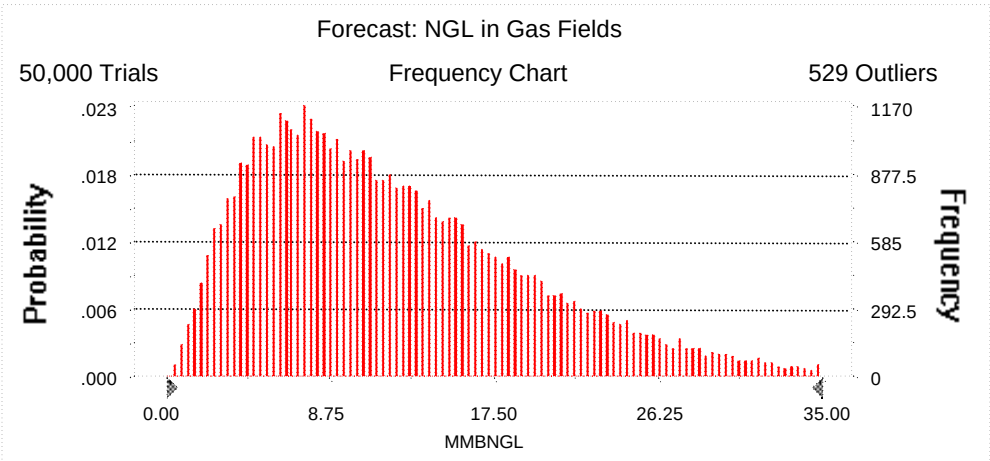
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 35.00 MMBNGL
Entire range is from 0.23 to 60.17 MMBNGL
After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	12.33
Median	10.83
Mode	---
Standard Deviation	7.55
Variance	57.06
Skewness	1.06
Kurtosis	4.34
Coefficient of Variability	0.61
Range Minimum	0.23
Range Maximum	60.17
Range Width	59.93
Mean Standard Error	0.03



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.23
95%	2.90
90%	4.03
85%	4.93
80%	5.79
75%	6.59
70%	7.40
65%	8.19
60%	9.03
55%	9.92
50%	10.83
45%	11.81
40%	12.86
35%	13.97
30%	15.19
25%	16.57
20%	18.22
15%	20.16
10%	22.76
5%	26.75
0%	60.17

End of Forecast

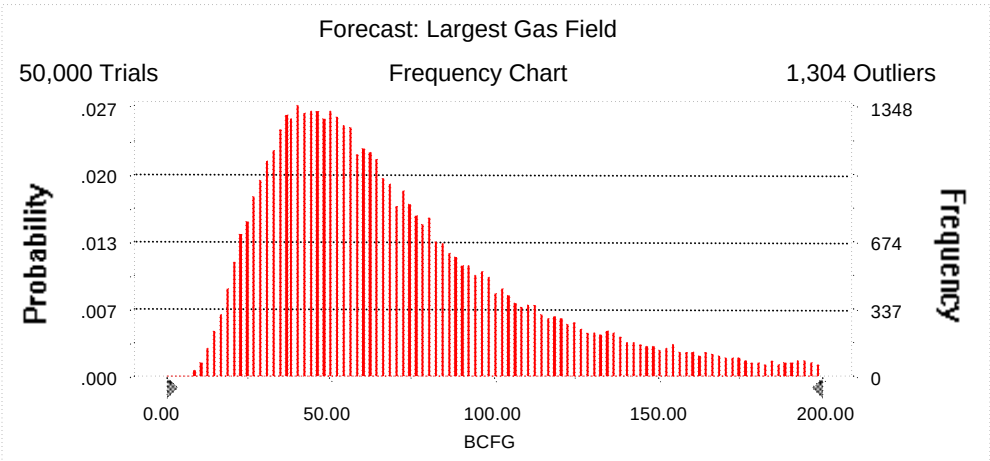
40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 200.00 BCFG
Entire range is from 6.90 to 299.06 BCFG
After 50,000 trials, the standard error of the mean is 0.21

Statistics:	Value
Trials	50000
Mean	74.08
Median	61.67
Mode	---
Standard Deviation	46.48
Variance	2,160.28
Skewness	1.63
Kurtosis	6.21
Coefficient of Variability	0.63
Range Minimum	6.90
Range Maximum	299.06
Range Width	292.16
Mean Standard Error	0.21



40470301
Paleozoic Reservoirs
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	6.90
95%	23.93
90%	29.66
85%	34.23
80%	38.15
75%	41.91
70%	45.72
65%	49.56
60%	53.32
55%	57.32
50%	61.67
45%	66.26
40%	71.56
35%	77.33
30%	84.06
25%	92.29
20%	102.38
15%	115.96
10%	135.62
5%	169.71
0%	299.06

End of Forecast

40470301
Paleozoic Reservoirs
Monte Carlo Results

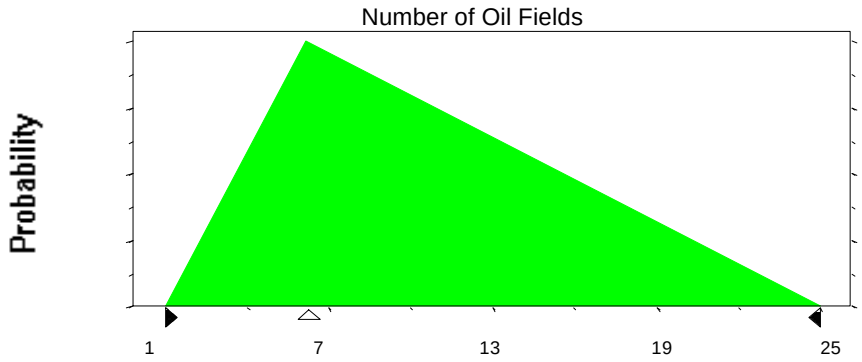
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	6
Maximum	25

Selected range is from 1 to 25
Mean value in simulation was 11



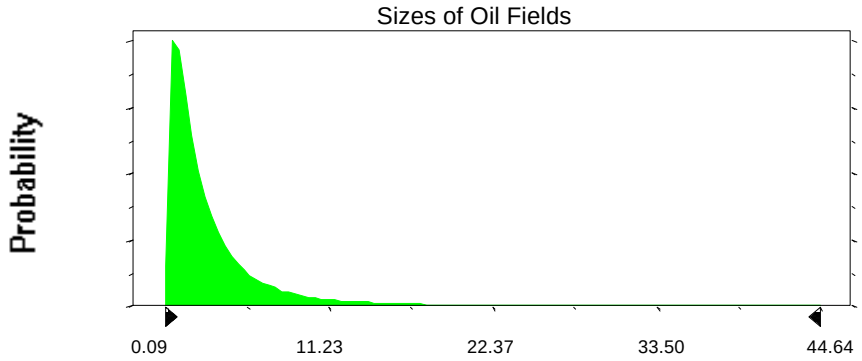
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	3.42	4.42
Standard Deviation	4.74	4.74

Selected range is from 0.00 to 49.00	1.00 to 50.00
Mean value in simulation was 3.33	4.33

40470301
Paleozoic Reservoirs
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)

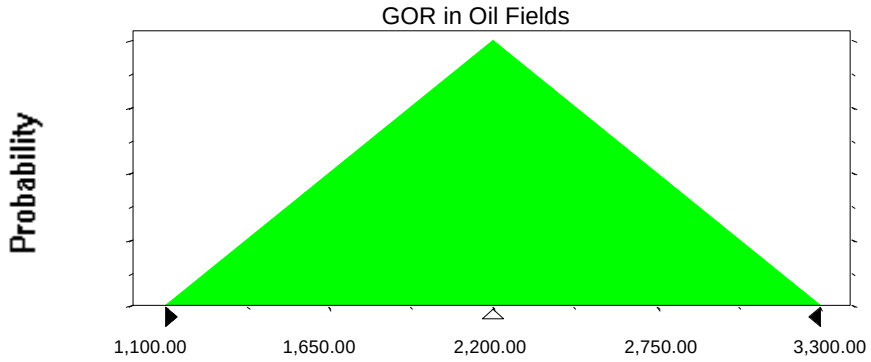


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,100.00
Likeliest	2,200.00
Maximum	3,300.00

Selected range is from 1,100.00 to 3,300.00
Mean value in simulation was 2,201.06



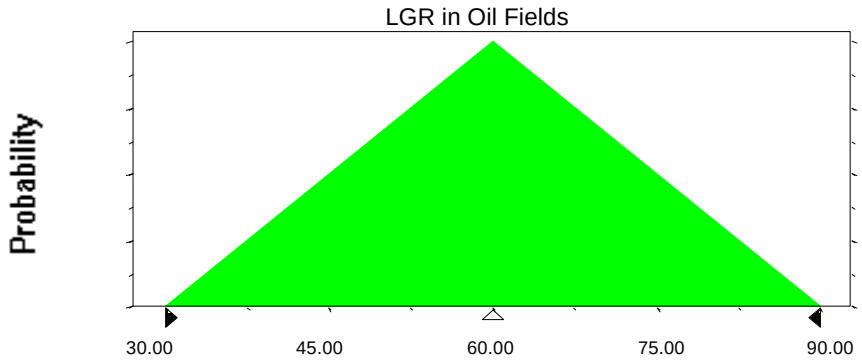
40470301
Paleozoic Reservoirs
Monte Carlo Results

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 60.01



Assumption: Number of Gas Fields

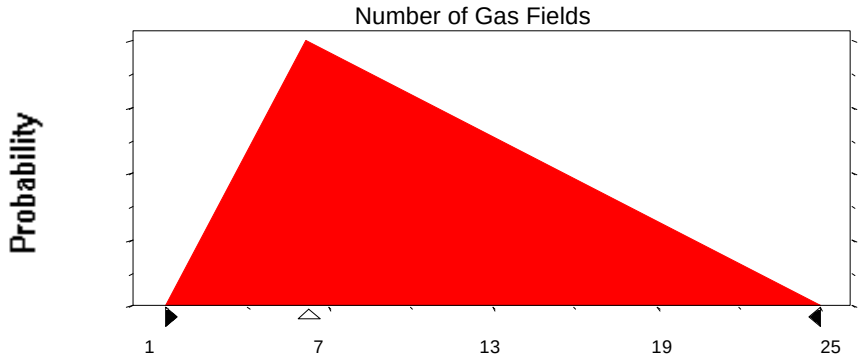
Triangular distribution with parameters:

Minimum	1
Likeliest	6
Maximum	25

Selected range is from 1 to 25
Mean value in simulation was 11

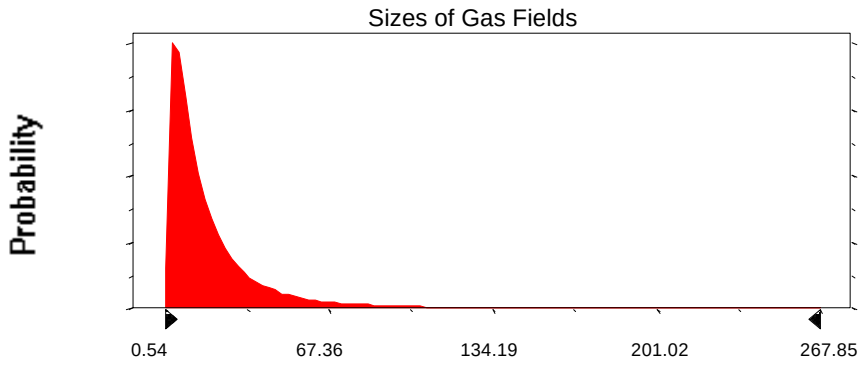
40470301
Paleozoic Reservoirs
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	20.51	26.51
Standard Deviation	28.41	28.41
Selected range is from 0.00 to 294.00		6.00 to 300.00
Mean value in simulation was 20.03		26.03



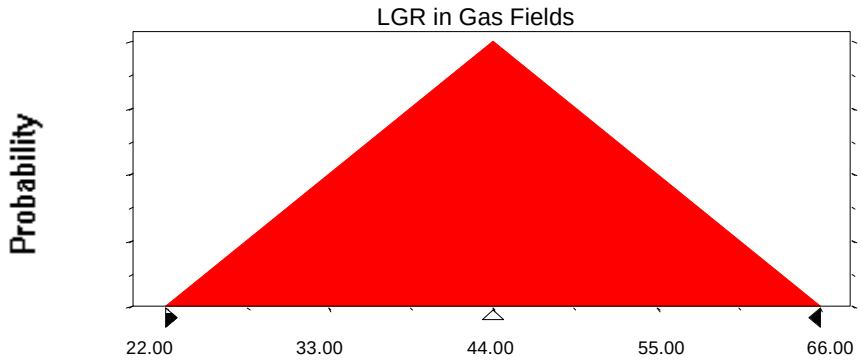
40470301
Paleozoic Reservoirs
Monte Carlo Results

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00
Mean value in simulation was 43.99



End of Assumptions

Simulation started on 9/10/99 at 14:38:48
Simulation stopped on 9/10/99 at 14:58:33