North Malay Lacustrine, Assessment Unit 37030102
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	28	106	279	124	125	495	1,393	594	2	7	20	8	16	44	135	55
Gas Fields	30						353	1,060	2,359	1,168	7	21	50	23	121	276	685	321
Total		1.00	28	106	279	124	477	1,556	3,751	1,762	8	27	70	32				

Forecast: Oil in Oil Fields

Summary:
    Display range is from 0.00 to 350.00 MMBO
    Entire range is from 5.63 to 834.47 MMBO
    After 50,000 trials, the standard error of the mean is 0.36

Statistics:	Value
Trials	50000
Mean	123.62
Median	106.18
Mode	---
Standard Deviation	80.67
Variance	6,507.55
Skewness	1.24
Kurtosis	5.15
Coefficient of Variability	0.65
Range Minimum	5.63
Range Maximum	834.47
Range Width	828.84
Mean Standard Error	0.36
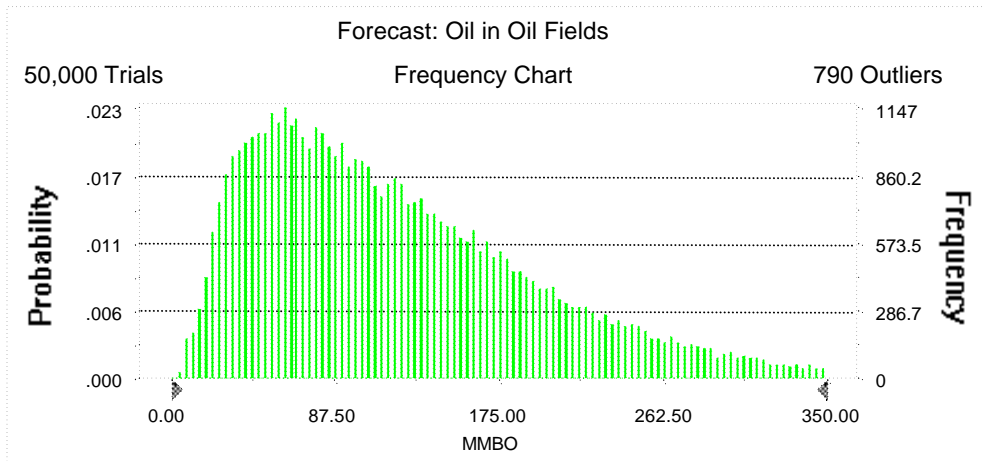
Forecast: Oil in Oil Fields

50,000 Trials   Frequency Chart   790 Outliers

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

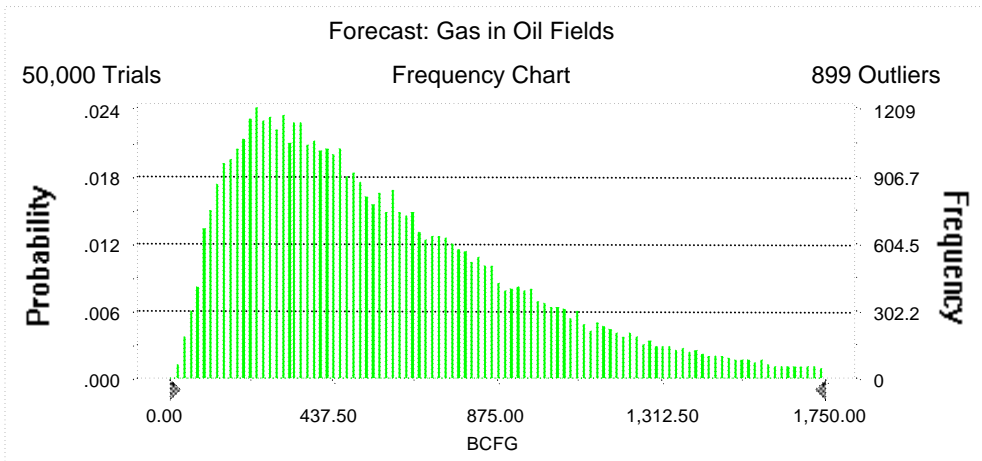| Percentile	MMBO
100%	5.63
95%	27.96
90%	37.54
85%	46.14
80%	54.34
75%	62.33
70%	70.23
65%	78.84
60%	87.43
55%	96.60
50%	106.18
45%	116.74
40%	127.36
35%	139.14
30%	152.16
25%	166.81
20%	183.50
15%	204.62
10%	233.34
5%	278.51
0%	834.47

End of Forecast

Forecast: Gas in Oil Fields

Summary:
  Display range is from 0.00 to 1,750.00 BCFG
  Entire range is from 18.71 to 4,278.55 BCFG
  After 50,000 trials, the standard error of the mean is 1.84

Statistics:	Value
Trials	50000
Mean	594.07
Median	495.27
Mode	---
Standard Deviation	412.46
Variance	170,121.62
Skewness	1.45
Kurtosis	6.16
Coefficient of Variability	0.69
Range Minimum	18.71
Range Maximum	4,278.55
Range Width	4,259.83
Mean Standard Error	1.84

Forecast: Gas in Oil Fields

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	18.71
95%	124.67
90%	171.32
85%	212.50
80%	249.55
75%	287.26
70%	326.69
65%	365.26
60%	406.59
55%	450.05
50%	495.27
45%	545.70
40%	601.23
35%	658.76
30%	726.25
25%	799.26
20%	883.83
15%	994.61
10%	1,145.46
5%	1,392.60
0%	4,278.55

End of Forecast

Forecast: NGL in Oil Fields

Summary:
Display range is from 0.00 to 25.00 MMBNGL
Entire range is from 0.23 to 66.74 MMBNGL
After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	8.33
Median	6.77
Mode	---
Standard Deviation	6.16
Variance	38.00
Skewness	1.69
Kurtosis	7.49
Coefficient of Variability	0.74
Range Minimum	0.23
Range Maximum	66.74
Range Width	66.51
Mean Standard Error	0.03
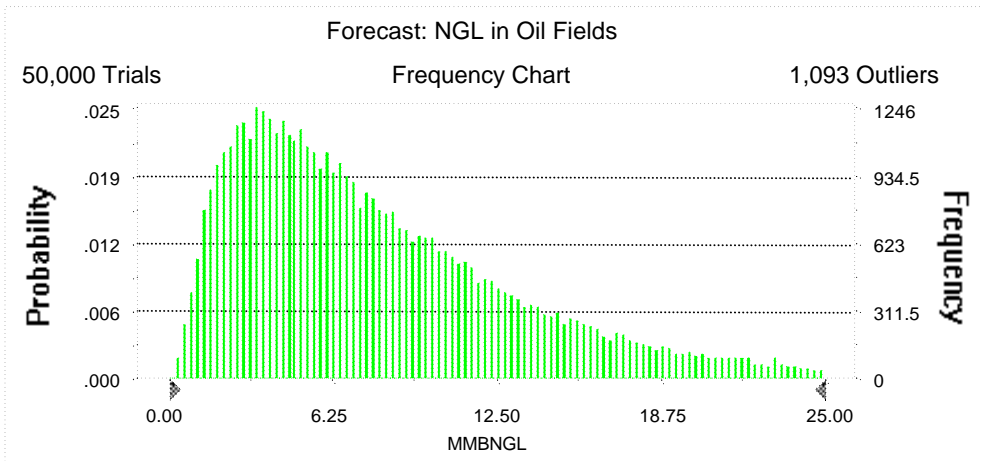
Forecast: NGL in Oil Fields

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.23
95%	1.63
90%	2.26
85%	2.81
80%	3.35
75%	3.86
70%	4.39
65%	4.96
60%	5.52
55%	6.14
50%	6.77
45%	7.48
40%	8.25
35%	9.10
30%	10.05
25%	11.12
20%	12.41
15%	14.06
10%	16.33
5%	20.30
0%	66.74

End of Forecast

Forecast: Largest Oil Field

Summary:
    Display range is from 0.00 to 175.00 MMBO
    Entire range is from 5.63 to 299.41 MMBO
    After 50,000 trials, the standard error of the mean is 0.18

Statistics:	Value
Trials	50000
Mean	55.33
Median	44.13
Mode	---
Standard Deviation	39.97
Variance	1,597.93
Skewness	2.09
Kurtosis	8.96
Coefficient of Variability	0.72
Range Minimum	5.63
Range Maximum	299.41
Range Width	293.78
Mean Standard Error	0.18

Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   1,095 Outliers
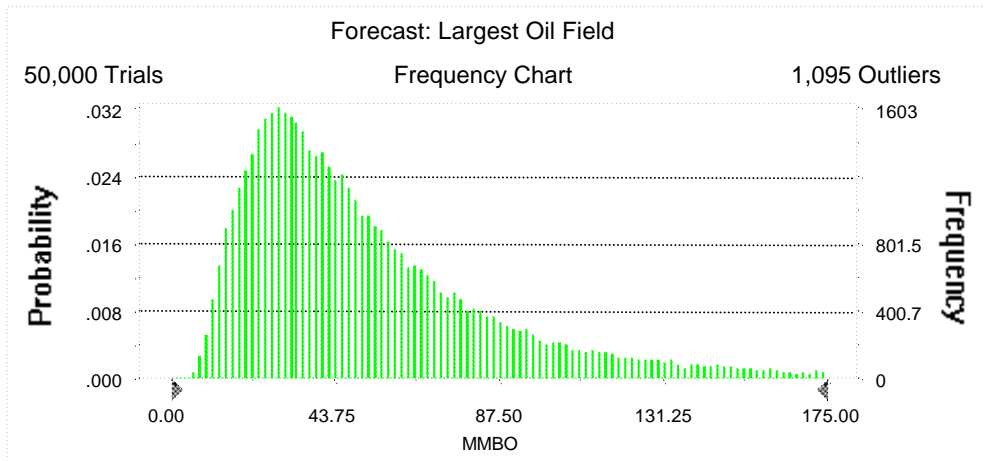
Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	5.63
95%	15.83
90%	19.87
85%	23.17
80%	26.03
75%	28.83
70%	31.58
65%	34.39
60%	37.45
55%	40.68
50%	44.13
45%	47.83
40%	52.00
35%	56.63
30%	62.07
25%	68.64
20%	76.83
15%	87.63
10%	103.89
5%	134.80
0%	299.41

End of Forecast

Forecast: Gas in Gas Fields

Summary:
　　Display range is from 0.00 to 3,000.00 BCFG
　　Entire range is from 135.31 to 4,847.54 BCFG
　　After 50,000 trials, the standard error of the mean is 2.82

Statistics:	Value
Trials	50000
Mean	1,167.71
Median	1,060.26
Mode	---
Standard Deviation	629.83
Variance	396,690.42
Skewness	0.79
Kurtosis	3.30
Coefficient of Variability	0.54
Range Minimum	135.31
Range Maximum	4,847.54
Range Width	4,712.23
Mean Standard Error	2.82
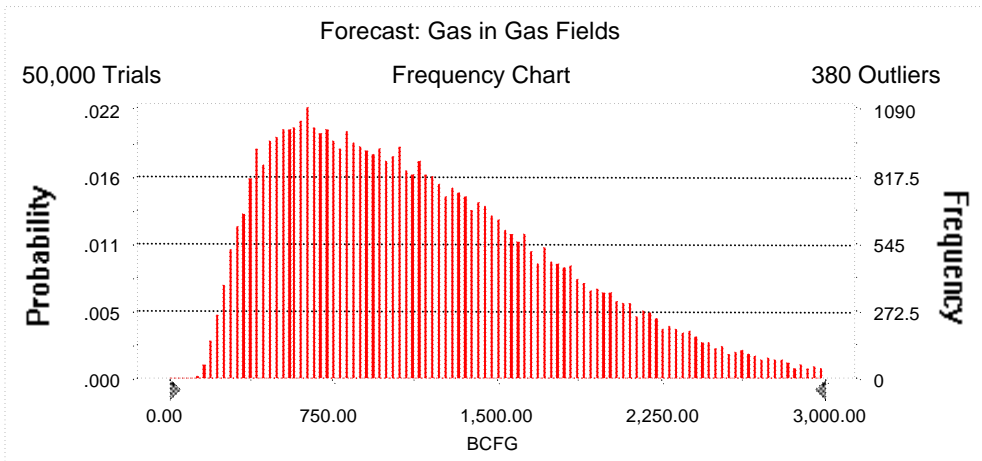
Forecast: Gas in Gas Fields

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	135.31
95%	352.70
90%	441.63
85%	520.01
80%	593.62
75%	664.30
70%	739.56
65%	817.27
60%	896.02
55%	977.02
50%	1,060.26
45%	1,148.32
40%	1,239.23
35%	1,336.67
30%	1,442.09
25%	1,557.97
20%	1,692.73
15%	1,851.94
10%	2,057.66
5%	2,358.60
0%	4,847.54

End of Forecast

Forecast: NGL in Gas Fields

Summary:
Display range is from 0.00 to 60.00 MMBNGL
Entire range is from 1.73 to 108.26 MMBNGL
After 50,000 trials, the standard error of the mean is 0.06

Statistics:	Value
Trials	50000
Mean	23.32
Median	20.52
Mode	---
Standard Deviation	13.68
Variance	187.11
Skewness	1.05
Kurtosis	4.18
Coefficient of Variability	0.59
Range Minimum	1.73
Range Maximum	108.26
Range Width	106.53
Mean Standard Error	0.06
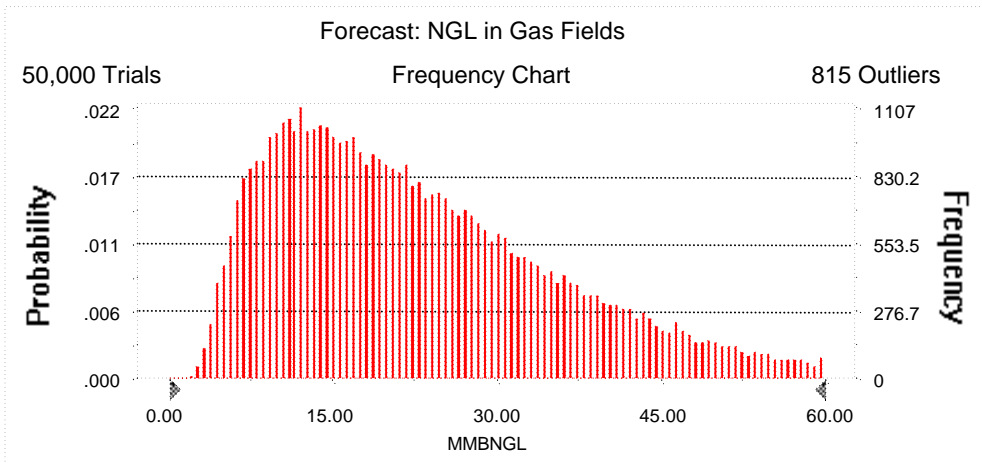
Forecast: NGL in Gas Fields

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	1.73
95%	6.53
90%	8.29
85%	9.89
80%	11.32
75%	12.73
70%	14.20
65%	15.66
60%	17.19
55%	18.84
50%	20.52
45%	22.28
40%	24.21
35%	26.26
30%	28.49
25%	31.01
20%	34.04
15%	37.63
10%	42.37
5%	49.65
0%	108.26

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 0.00 to 800.00 BCFG
Entire range is from 50.91 to 1,199.56 BCFG
After 50,000 trials, the standard error of the mean is 0.80

Statistics:	Value
Trials	50000
Mean	320.85
Median	275.85
Mode	---
Standard Deviation	179.43
Variance	32,195.35
Skewness	1.56
Kurtosis	6.04
Coefficient of Variability	0.56
Range Minimum	50.91
Range Maximum	1,199.56
Range Width	1,148.64
Mean Standard Error	0.80

Forecast: Largest Gas Field

50,000 Trials   Frequency Chart   1,347 Outliers
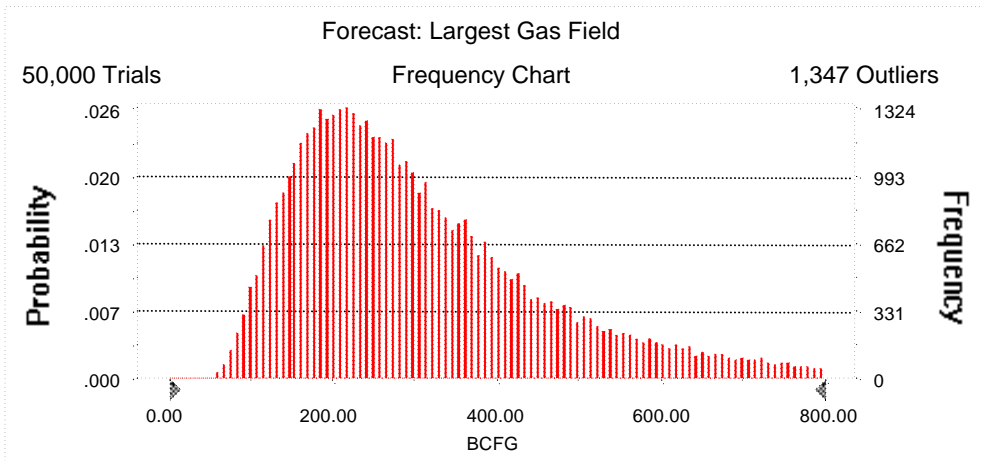
Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	50.91
95%	121.16
90%	144.40
85%	163.47
80%	180.28
75%	195.80
70%	211.31
65%	226.40
60%	242.21
55%	258.67
50%	275.85
45%	294.44
40%	314.76
35%	338.39
30%	364.61
25%	394.59
20%	432.63
15%	483.86
10%	557.17
5%	684.62
0%	1,199.56

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	2
Maximum	10

Selected range is from 1 to 10
Mean value in simulation was 4

Number of Oil Fields
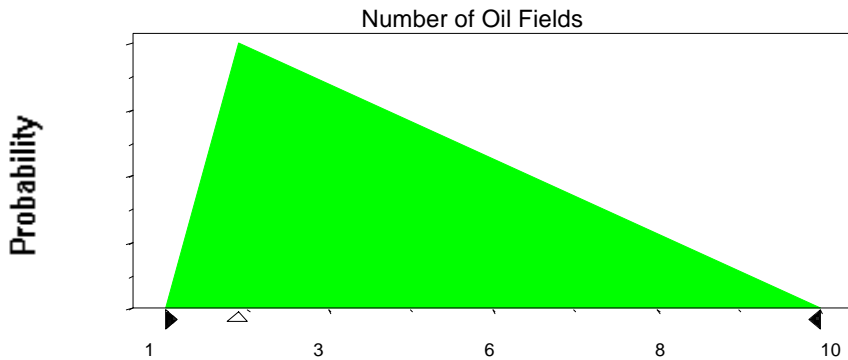
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	23.87		28.87
Standard Deviation	29.56		29.56
Selected range is from 0.00 to 295.00			5.00 to 300.00
Mean value in simulation was 23.67			28.67

Assumption: Sizes of Oil Fields (cont'd)
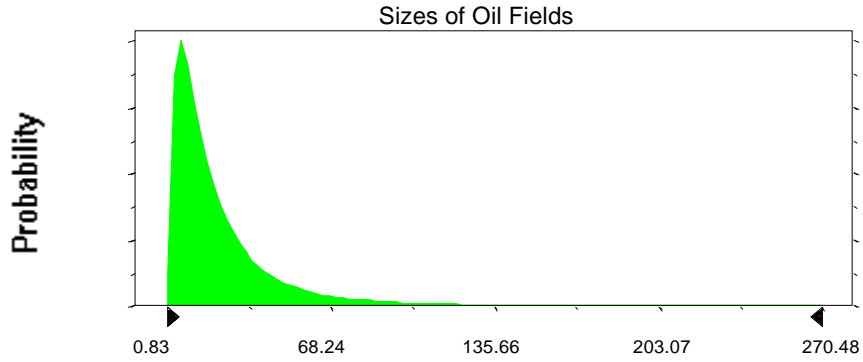
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	2,400.00
Likeliest	4,800.00
Maximum	7,200.00

Selected range is from 2,400.00 to 7,200.00
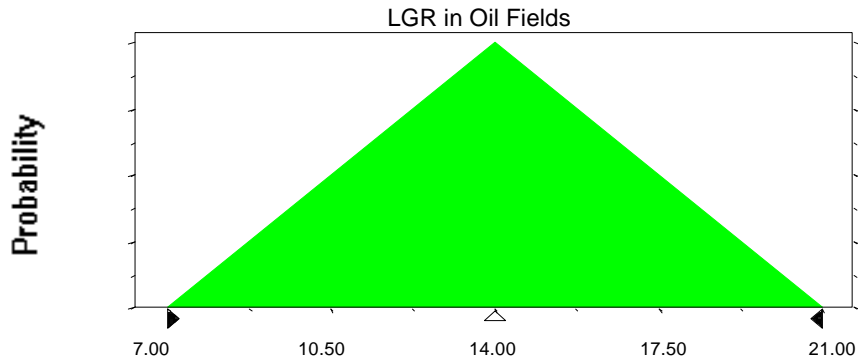Mean value in simulation was 4,809.26
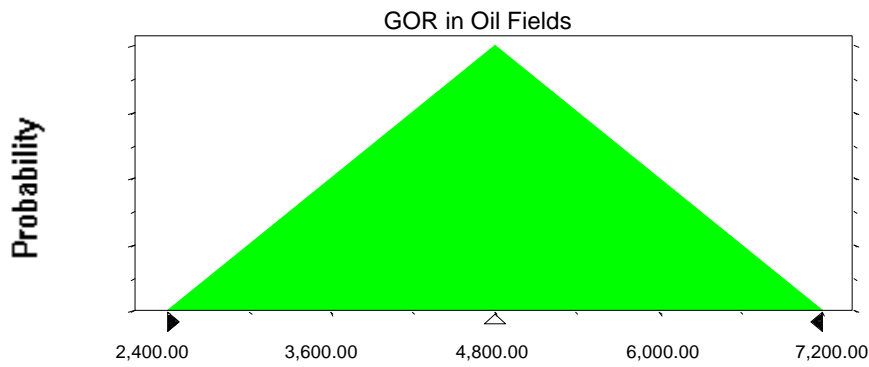
Assumption: LGR in Oil Fields

Triangular distribution with parameters:
Minimum	7.00
Likeliest	14.00
Maximum	21.00

Selected range is from 7.00 to 21.00
Mean value in simulation was 14.01

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	3
Likeliest	3
Maximum	20

Selected range is from 3 to 20
Mean value in simulation was 9

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields
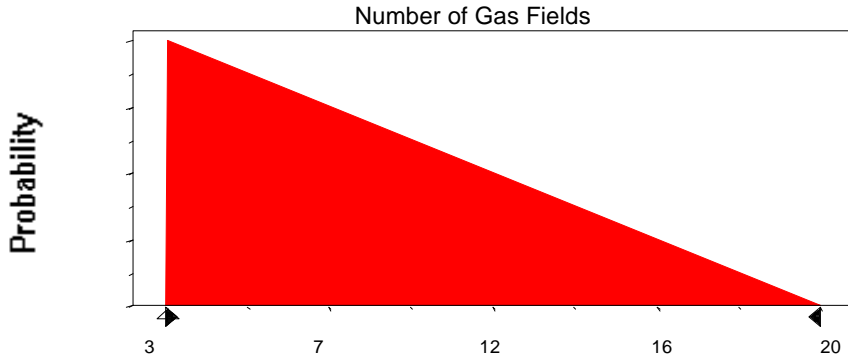
Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	106.04		136.04
Standard Deviation	120.67		120.67

Selected range is from 0.00 to 1,170.00   30.00 to 1,200.00
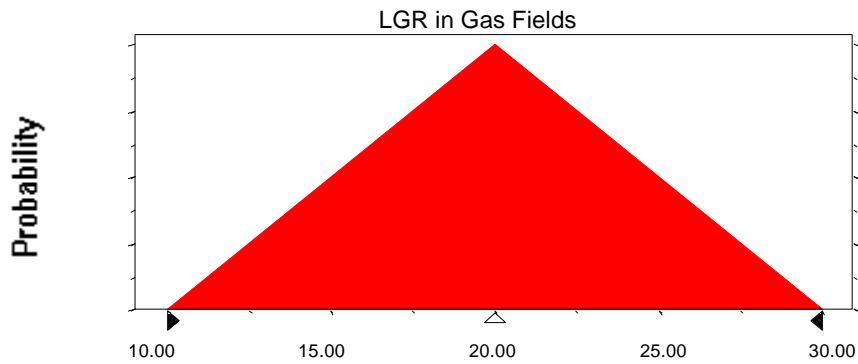Mean value in simulation was 104.46   134.46
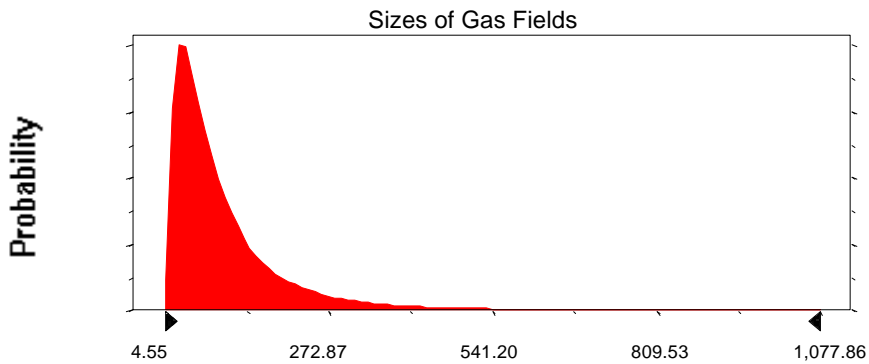
Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:
Minimum	10.00
Likeliest	20.00
Maximum	30.00

Selected range is from 10.00 to 30.00
Mean value in simulation was 19.98

End of Assumptions

Simulation started on 10/7/99 at 12:48:55
Simulation stopped on 10/7/99 at 13:03:32