Santos Shelf, Assessment Unit 60360101
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]

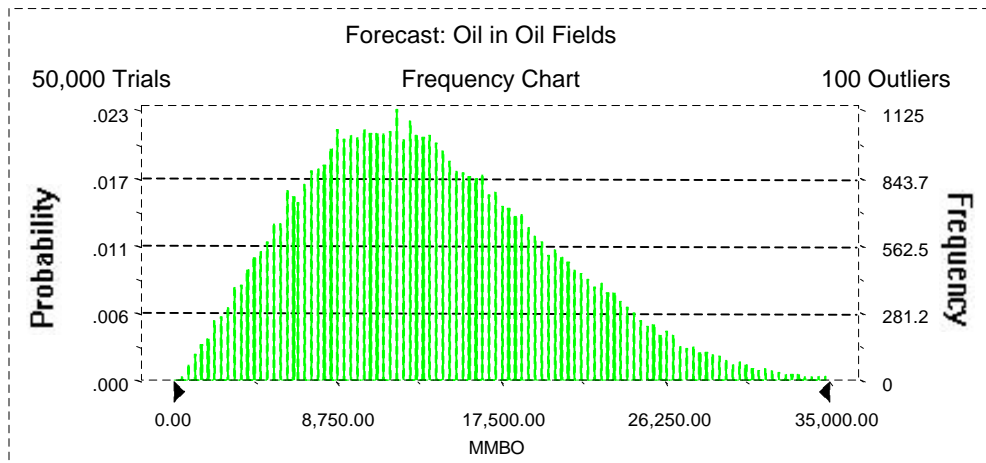| Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				(MMBO or BCFG)			
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	4	1.00	4,117	13,034	25,548	13,723	7,645	25,256	54,452	27,463	429	1,475	3,458	1,647	595	1,756	4,198	1,989
Gas Fields	24						9,955	33,433	67,106	35,411	407	1,428	3,132	1,559	1,798	5,410	15,251	6,507
Total		1.00	4,117	13,034	25,548	13,723	17,600	58,689	121,558	62,874	837	2,903	6,589	3,205				

Forecast: Oil in Oil Fields

Summary:
    Display range is from 0.00 to 35,000.00 MMBO
    Entire range is from 267.10 to 42,882.19 MMBO
    After 50,000 trials, the standard error of the mean is 29.34

Statistics:	Value
Trials	50000
Mean	13,723.15
Median	13,033.73
Mode	---
Standard Deviation	6,559.57
Variance	43,027,896.32
Skewness	0.51
Kurtosis	2.97
Coefficient of Variability	0.48
Range Minimum	267.10
Range Maximum	42,882.19
Range Width	42,615.09
Mean Standard Error	29.34

Forecast: Oil in Oil Fields

50,000 Trials   Frequency Chart   100 Outliers

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	267.10
95%	4,116.59
90%	5,652.20
85%	6,841.08
80%	7,873.04
75%	8,819.53
70%	9,682.18
65%	10,529.46
60%	11,370.58
55%	12,197.00
50%	13,033.73
45%	13,895.70
40%	14,796.96
35%	15,789.84
30%	16,823.40
25%	17,975.38
20%	19,260.87
15%	20,824.45
10%	22,774.30
5%	25,547.98
0%	42,882.19

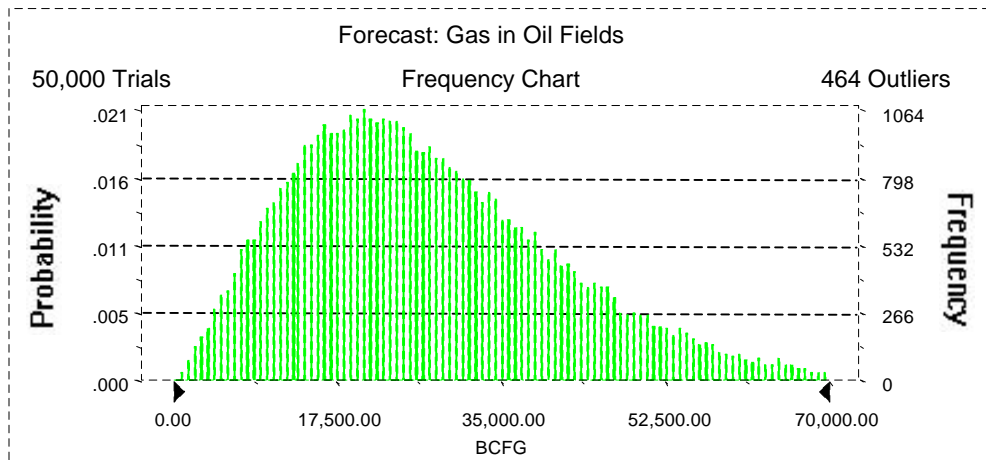End of Forecast

Forecast: Gas in Oil Fields

Summary:
    Display range is from 0.00 to 70,000.00 BCFG
    Entire range is from 384.80 to 103,169.52 BCFG
    After 50,000 trials, the standard error of the mean is 64.85

Statistics:	Value
Trials	50000
Mean	27,462.61
Median	25,256.29
Mode	---
Standard Deviation	14,501.19
Variance	210,284,442.58
Skewness	0.80
Kurtosis	3.68
Coefficient of Variability	0.53
Range Minimum	384.80
Range Maximum	103,169.52
Range Width	102,784.73
Mean Standard Error	64.85

Forecast: Gas in Oil Fields

50,000 Trials   Frequency Chart   464 Outliers

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	384.80
95%	7,644.73
90%	10,531.30
85%	12,850.70
80%	14,831.45
75%	16,656.86
70%	18,425.72
65%	20,146.96
60%	21,805.11
55%	23,531.89
50%	25,256.29
45%	27,141.40
40%	29,105.86
35%	31,212.20
30%	33,543.37
25%	36,074.86
20%	39,041.65
15%	42,602.63
10%	47,162.29
5%	54,451.94
0%	103,169.52

End of Forecast

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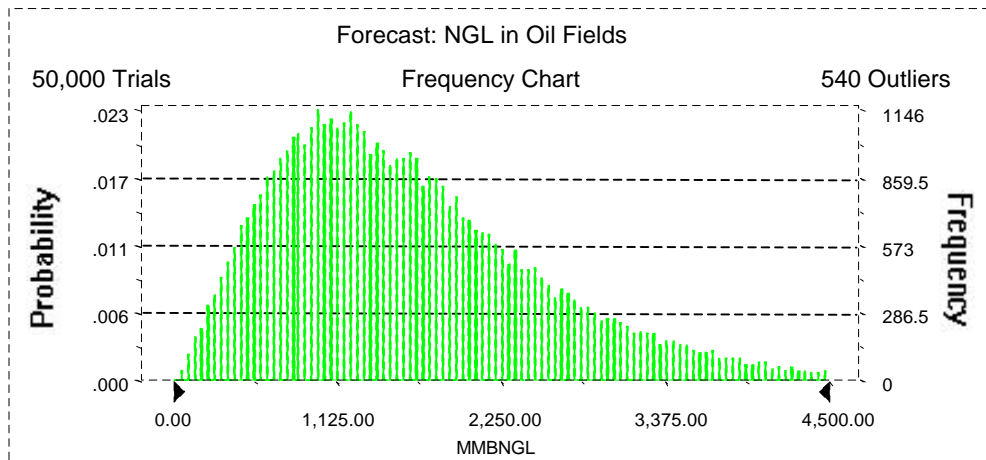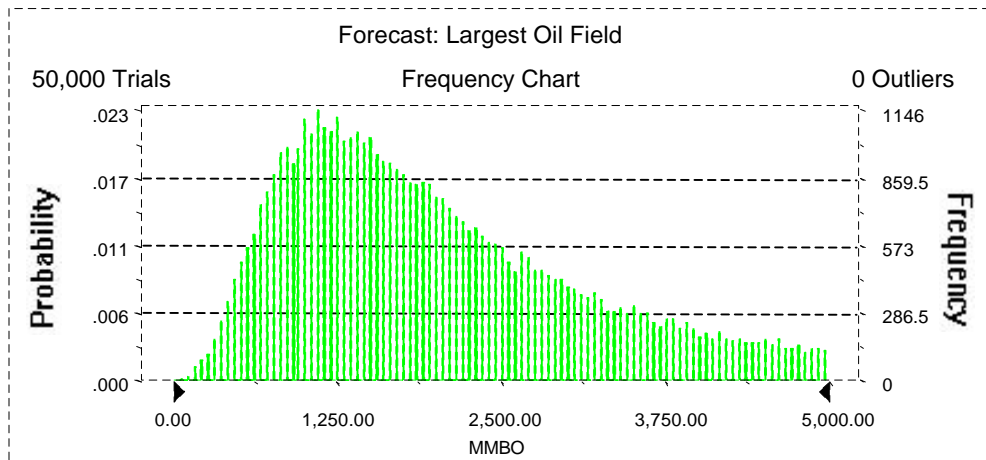**Santos Shelf**
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:
Display range is from 0.00 to 4,500.00 MMBNGL
Entire range is from 16.57 to 7,924.93 MMBNGL
After 50,000 trials, the standard error of the mean is 4.24

Statistics:	Value
Trials	50000
Mean	1,646.72
Median	1,475.10
Mode	---
Standard Deviation	948.90
Variance	900,409.62
Skewness	1.06
Kurtosis	4.51
Coefficient of Variability	0.58
Range Minimum	16.57
Range Maximum	7,924.93
Range Width	7,908.36
Mean Standard Error	4.24

Forecast: NGL in Oil Fields

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	16.57
95%	429.35
90%	591.34
85%	723.25
80%	837.83
75%	948.97
70%	1,051.95
65%	1,153.70
60%	1,253.60
55%	1,359.30
50%	1,475.10
45%	1,594.73
40%	1,714.43
35%	1,846.61
30%	1,990.59
25%	2,162.68
20%	2,361.61
15%	2,603.20
10%	2,934.43
5%	3,457.66
0%	7,924.93

End of Forecast

Forecast: Largest Oil Field

Summary:
Display range is from 0.00 to 5,000.00 MMBO
Entire range is from 76.47 to 4,999.34 MMBO
After 50,000 trials, the standard error of the mean is 4.88

Statistics:	Value
Trials	50000
Mean	1,988.56
Median	1,755.69
Mode	---
Standard Deviation	1,091.85
Variance	1,192,134.34
Skewness	0.75
Kurtosis	2.84
Coefficient of Variability	0.55
Range Minimum	76.47
Range Maximum	4,999.34
Range Width	4,922.87
Mean Standard Error	4.88

Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   0 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

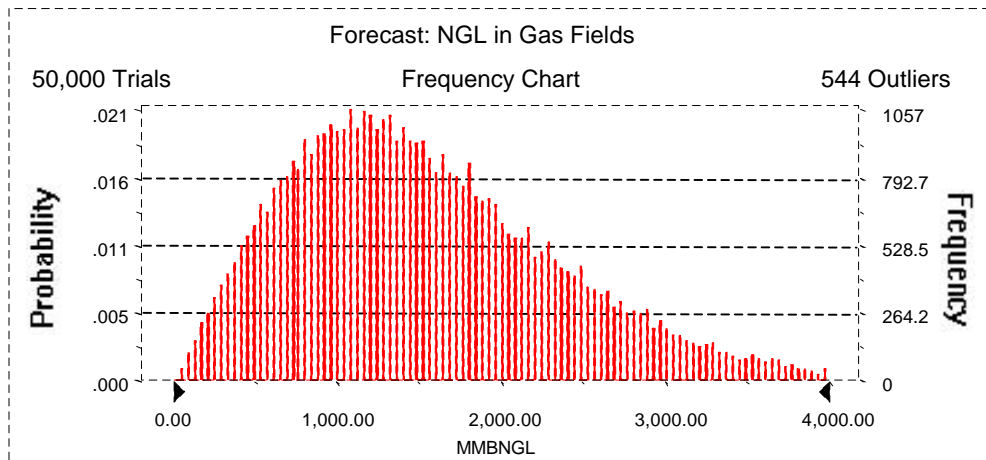| Percentile	MMBO
100%	76.47
95%	594.53
90%	765.47
85%	896.27
80%	1,022.31
75%	1,137.61
70%	1,254.07
65%	1,371.07
60%	1,492.80
55%	1,618.74
50%	1,755.69
45%	1,903.73
40%	2,056.62
35%	2,227.87
30%	2,427.16
25%	2,661.45
20%	2,915.82
15%	3,236.51
10%	3,642.24
5%	4,197.67
0%	4,999.34

End of Forecast

Forecast: Gas in Gas Fields

Summary:
  Display range is from 0.00 to 90,000.00 BCFG
  Entire range is from 623.50 to 118,981.38 BCFG
  After 50,000 trials, the standard error of the mean is 78.42

Statistics:	Value
Trials	50000
Mean	35,411.05
Median	33,432.89
Mode	---
Standard Deviation	17,535.33
Variance	307,487,649.52
Skewness	0.57
Kurtosis	3.14
Coefficient of Variability	0.50
Range Minimum	623.50
Range Maximum	118,981.38
Range Width	118,357.88
Mean Standard Error	78.42

Forecast: Gas in Gas Fields
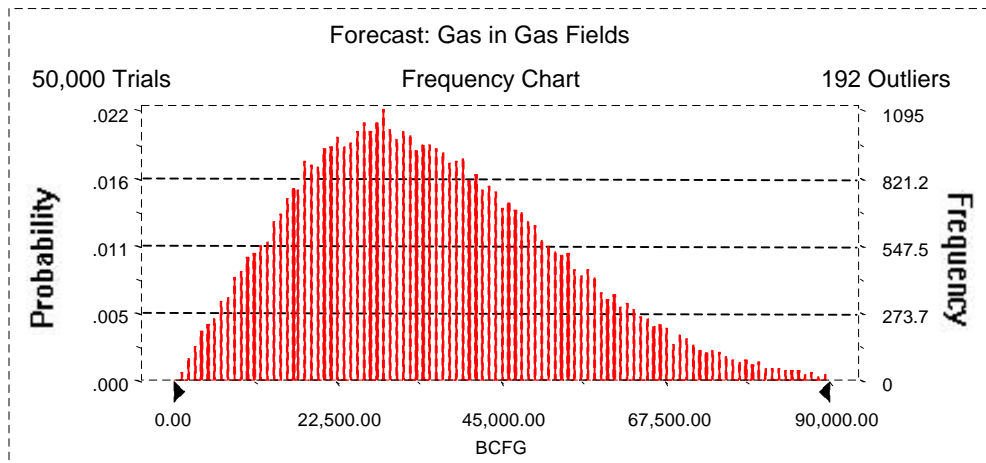
50,000 Trials   Frequency Chart   192 Outliers

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	623.50
95%	9,954.78
90%	14,097.70
85%	17,156.93
80%	19,829.09
75%	22,280.29
70%	24,609.43
65%	26,843.38
60%	29,017.02
55%	31,182.22
50%	33,432.89
45%	35,807.72
40%	38,240.95
35%	40,787.90
30%	43,575.51
25%	46,616.28
20%	49,976.70
15%	54,104.05
10%	59,232.98
5%	67,106.31
0%	118,981.38

End of Forecast

Forecast: NGL in Gas Fields

Summary:
    Display range is from 0.00 to 4,000.00 MMBNGL
    Entire range is from 21.16 to 6,393.50 MMBNGL
    After 50,000 trials, the standard error of the mean is 3.79

Statistics:	Value
Trials	50000
Mean	1,558.57
Median	1,428.31
Mode	---
Standard Deviation	848.01
Variance	719,119.02
Skewness	0.85
Kurtosis	3.82
Coefficient of Variability	0.54
Range Minimum	21.16
Range Maximum	6,393.50
Range Width	6,372.34
Mean Standard Error	3.79

Forecast: NGL in Gas Fields

50,000 Trials   Frequency Chart   544 Outliers

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	21.16
95%	407.17
90%	573.59
85%	705.93
80%	823.10
75%	929.68
70%	1,031.63
65%	1,131.55
60%	1,227.26
55%	1,326.36
50%	1,428.31
45%	1,534.62
40%	1,650.79
35%	1,773.31
30%	1,903.67
25%	2,052.62
20%	2,232.90
15%	2,441.45
10%	2,715.06
5%	3,131.65
0%	6,393.50

End of Forecast

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 17,500.00 BCFG
Entire range is from 157.66 to 19,998.36 BCFG
After 50,000 trials, the standard error of the mean is 18.27

Statistics:	Value
Trials	50000
Mean	6,506.87
Median	5,410.19
Mode	---
Standard Deviation	4,084.73
Variance	16,685,037.50
Skewness	1.11
Kurtosis	3.76
Coefficient of Variability	0.63
Range Minimum	157.66
Range Maximum	19,998.36
Range Width	19,840.70
Mean Standard Error	18.27
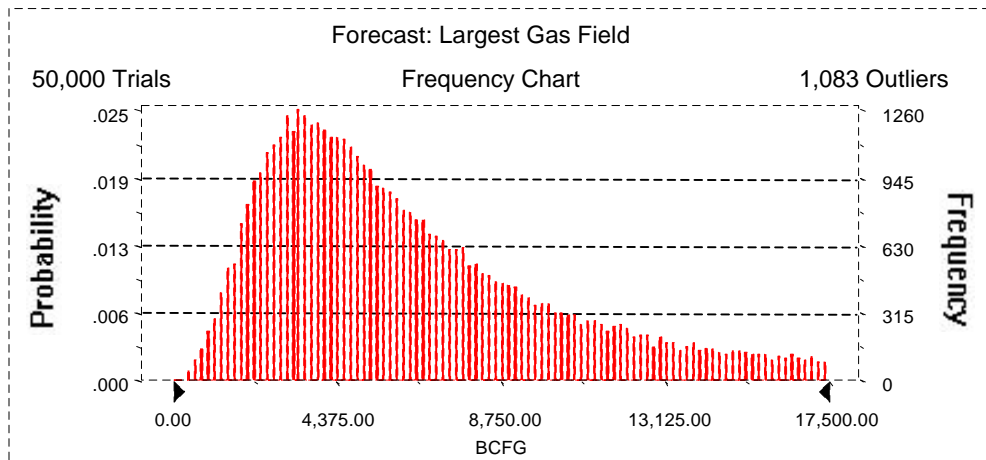
Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	157.66
95%	1,797.55
90%	2,309.88
85%	2,726.76
80%	3,106.20
75%	3,464.74
70%	3,826.79
65%	4,194.80
60%	4,580.45
55%	4,980.79
50%	5,410.19
45%	5,897.63
40%	6,432.59
35%	7,034.53
30%	7,722.23
25%	8,526.17
20%	9,529.95
15%	10,824.45
10%	12,567.66
5%	15,250.88
0%	19,998.36

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum	10
Likeliest	105
Maximum	275

Selected range is from 10 to 275
Mean value in simulation was 130

Number of Oil Fields
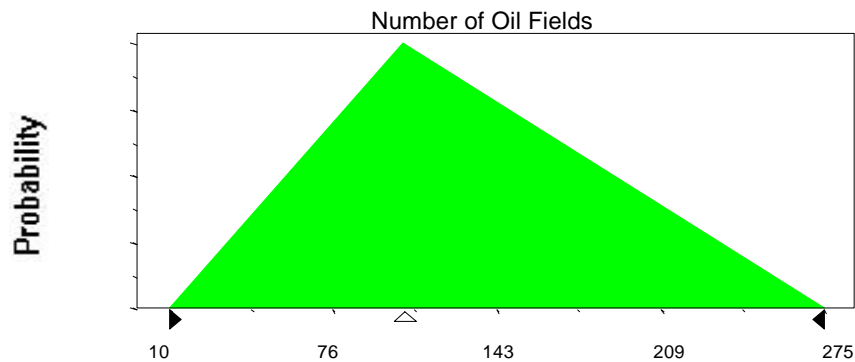
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters: Shifted parameters
Mean	110.61	114.61
Standard Deviation	457.38	457.38

Selected range is from 0.00 to 4,996.00   4.00 to 5,000.00
Mean value in simulation was 102.55   106.55

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields
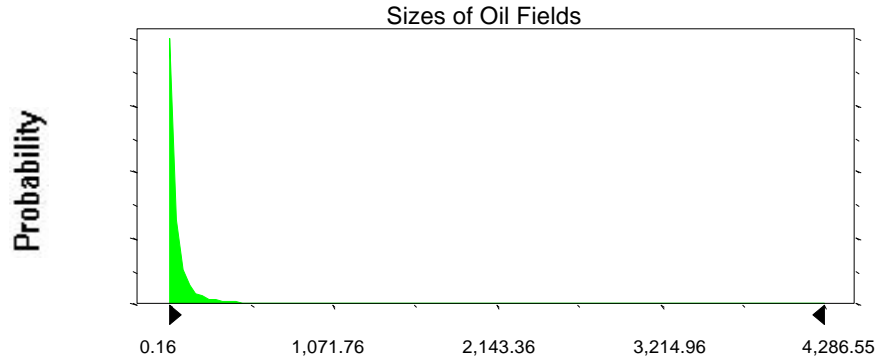
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,000.00
Likeliest	2,000.00
Maximum	3,000.00

Selected range is from 1,000.00 to 3,000.00
Mean value in simulation was 2,001.25
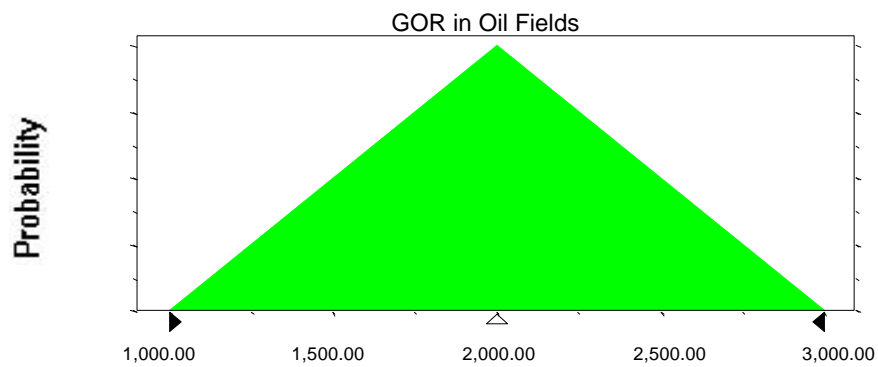
GOR in Oil Fields

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 59.97

LGR in Oil Fields

30.00	45.00	60.00	75.00	90.00
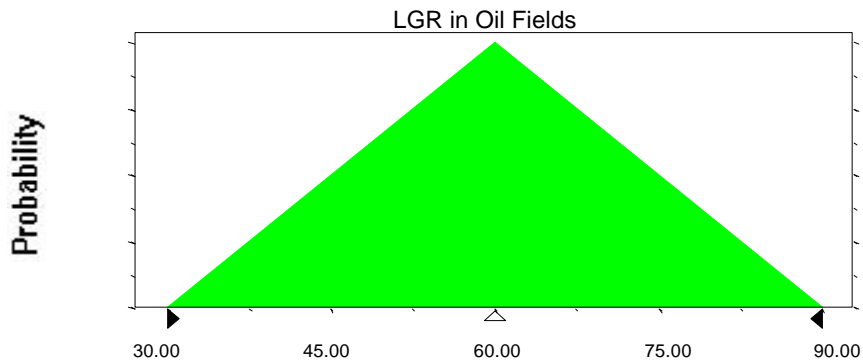
Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	5
Likeliest	57
Maximum	140

Selected range is from 5 to 140
Mean value in simulation was 67

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields
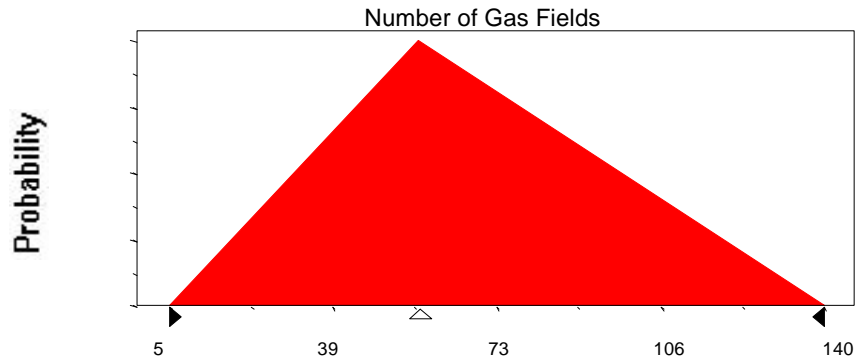
Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	535.33		559.33
Standard Deviation	1,757.30		1,757.30

Selected range is from 0.00 to 19,976.00   24.00 to 20,000.00
Mean value in simulation was 501.73   525.73

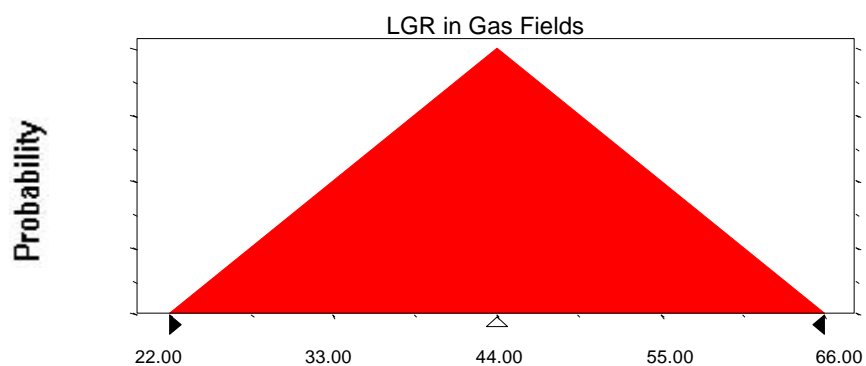Sizes of Gas Fields
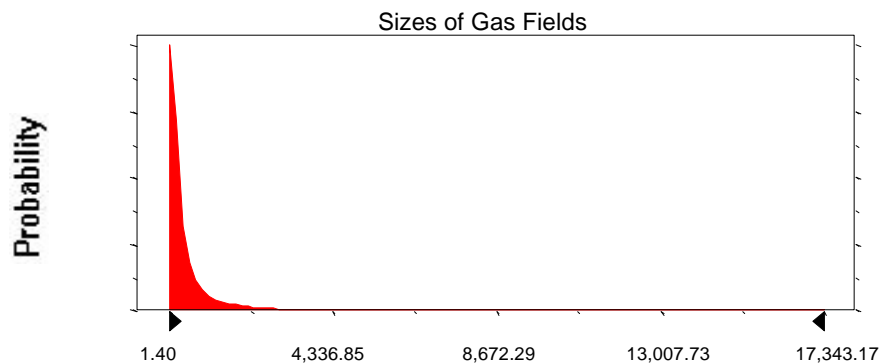
Assumption: LGR in Gas Fields

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 44.02

LGR in Gas Fields

End of Assumptions

Simulation started on 11/8/99 at 14:48:49
Simulation stopped on 11/8/99 at 16:15:37