Go to Table of Contents

Go to index map

Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites, Assessment Unit 53050102
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	3	1.00	3,342	9,624	17,160	9,857	6,196	18,632	36,985	19,683	344	1,083	2,357	1,181	403	1,008	2,148	1,105
Gas Fields	18						79	488	2,380	766	3	21	107	34	65	339	1,908	583
Total		1.00	3,342	9,624	17,160	9,857	6,274	19,119	39,365	20,450	348	1,103	2,464	1,214				

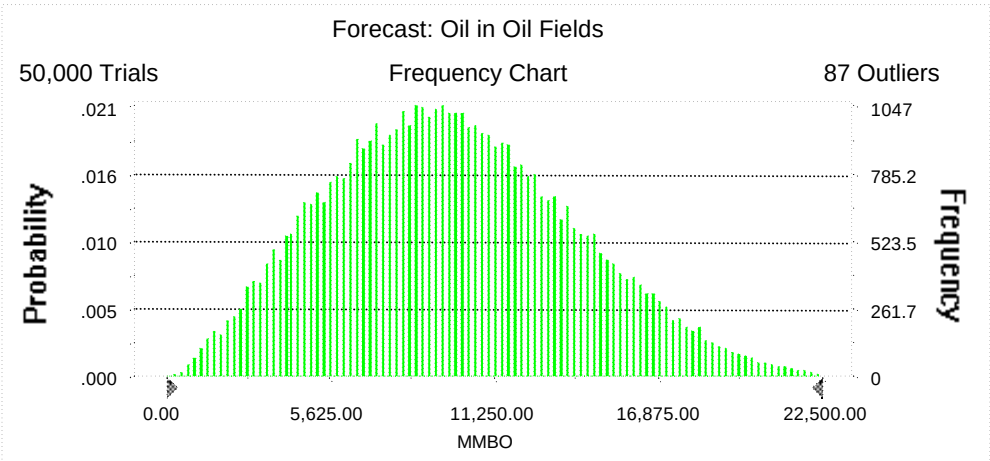
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 22,500.00 MMBO
Entire range is from 274.00 to 27,171.94 MMBO
After 50,000 trials, the standard error of the mean is 18.78

Statistics:	Value
Trials	50000
Mean	9,856.97
Median	9,623.89
Mode	---
Standard Deviation	4,200.38
Variance	17,643,196.25
Skewness	0.30
Kurtosis	2.70
Coefficient of Variability	0.43
Range Minimum	274.00
Range Maximum	27,171.94
Range Width	26,897.94
Mean Standard Error	18.78



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	274.00
95%	3,342.19
90%	4,485.04
85%	5,320.62
80%	6,095.26
75%	6,760.67
70%	7,366.98
65%	7,968.68
60%	8,541.46
55%	9,073.45
50%	9,623.89
45%	10,179.69
40%	10,744.11
35%	11,350.56
30%	11,974.92
25%	12,680.47
20%	13,473.62
15%	14,413.82
10%	15,549.03
5%	17,160.16
0%	27,171.94

End of Forecast

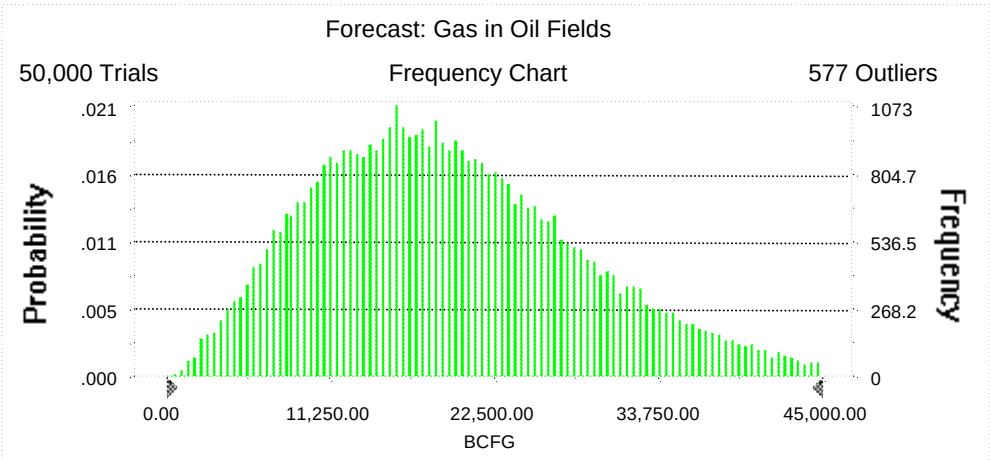
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 45,000.00 BCFG
Entire range is from 490.04 to 70,008.94 BCFG
After 50,000 trials, the standard error of the mean is 42.17

Statistics:	Value
Trials	50000
Mean	19,683.48
Median	18,631.65
Mode	---
Standard Deviation	9,428.94
Variance	88,904,867.14
Skewness	0.65
Kurtosis	3.36
Coefficient of Variability	0.48
Range Minimum	490.04
Range Maximum	70,008.94
Range Width	69,518.90
Mean Standard Error	42.17



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	490.04
95%	6,195.76
90%	8,300.97
85%	9,980.78
80%	11,381.49
75%	12,668.97
70%	13,946.22
65%	15,173.38
60%	16,279.19
55%	17,446.81
50%	18,631.65
45%	19,817.59
40%	21,066.19
35%	22,394.14
30%	23,826.53
25%	25,453.85
20%	27,262.21
15%	29,513.30
10%	32,454.57
5%	36,984.89
0%	70,008.94

End of Forecast

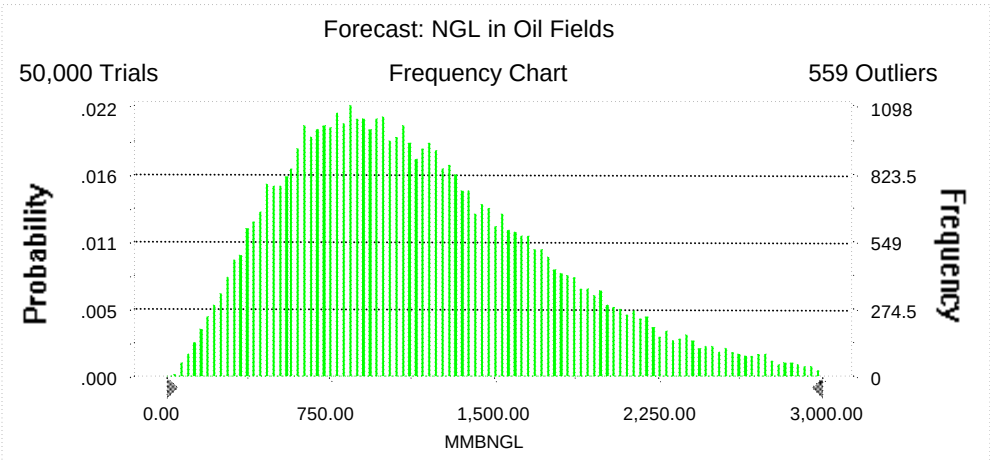
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 3,000.00 MMBNGL
Entire range is from 20.21 to 4,793.70 MMBNGL
After 50,000 trials, the standard error of the mean is 2.80

Statistics:	Value
Trials	50000
Mean	1,180.77
Median	1,082.56
Mode	---
Standard Deviation	626.26
Variance	392,201.79
Skewness	0.91
Kurtosis	4.06
Coefficient of Variability	0.53
Range Minimum	20.21
Range Maximum	4,793.70
Range Width	4,773.49
Mean Standard Error	2.80



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	20.21
95%	344.46
90%	463.85
85%	559.65
80%	642.68
75%	717.81
70%	791.72
65%	861.85
60%	933.61
55%	1,005.52
50%	1,082.56
45%	1,160.99
40%	1,241.54
35%	1,327.66
30%	1,426.95
25%	1,540.61
20%	1,666.21
15%	1,819.58
10%	2,027.11
5%	2,357.38
0%	4,793.70

End of Forecast

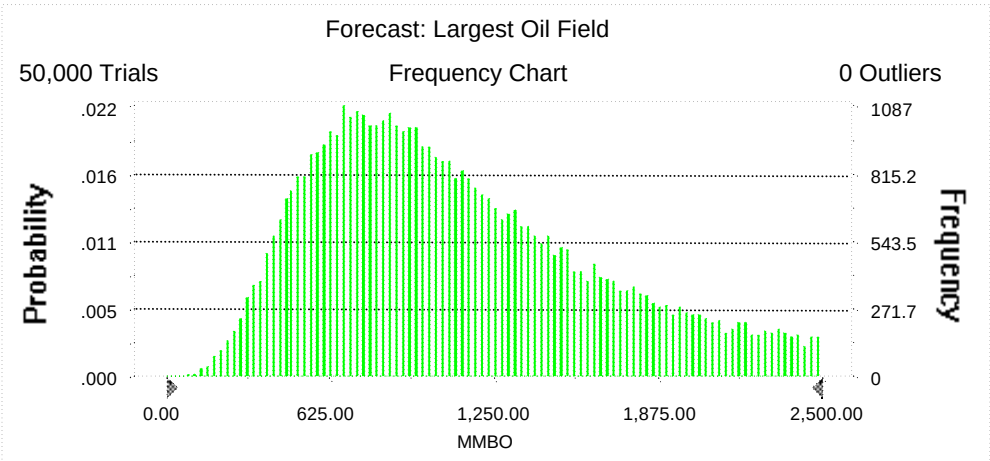
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 2,500.00 MMBO
Entire range is from 46.64 to 2,499.84 MMBO
After 50,000 trials, the standard error of the mean is 2.35

Statistics:	Value
Trials	50000
Mean	1,105.08
Median	1,007.72
Mode	---
Standard Deviation	524.99
Variance	275,619.71
Skewness	0.64
Kurtosis	2.70
Coefficient of Variability	0.48
Range Minimum	46.64
Range Maximum	2,499.84
Range Width	2,453.20
Mean Standard Error	2.35



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	46.64
95%	402.68
90%	497.18
85%	572.37
80%	639.30
75%	700.34
70%	759.62
65%	821.03
60%	880.33
55%	943.23
50%	1,007.72
45%	1,078.33
40%	1,154.27
35%	1,236.68
30%	1,331.21
25%	1,434.33
20%	1,555.35
15%	1,706.62
10%	1,893.18
5%	2,148.16
0%	2,499.84

End of Forecast

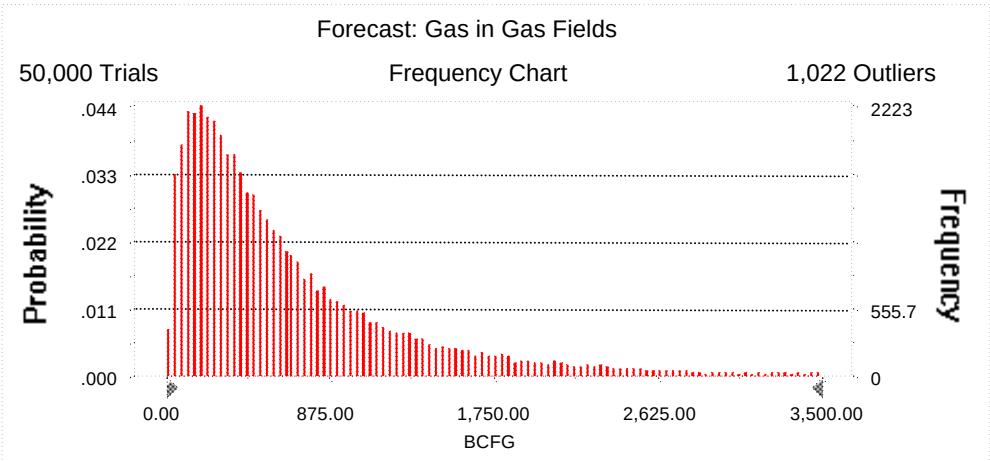
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 3,500.00 BCFG
Entire range is from 19.01 to 11,441.40 BCFG
After 50,000 trials, the standard error of the mean is 3.96

Statistics:	Value
Trials	50000
Mean	766.10
Median	487.82
Mode	---
Standard Deviation	885.42
Variance	783,963.83
Skewness	3.28
Kurtosis	19.02
Coefficient of Variability	1.16
Range Minimum	19.01
Range Maximum	11,441.40
Range Width	11,422.39
Mean Standard Error	3.96



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	19.01
95%	78.71
90%	122.27
85%	161.61
80%	201.47
75%	242.13
70%	283.69
65%	328.39
60%	376.64
55%	429.13
50%	487.82
45%	552.31
40%	625.31
35%	712.56
30%	815.57
25%	946.49
20%	1,110.40
15%	1,335.47
10%	1,691.88
5%	2,380.24
0%	11,441.40

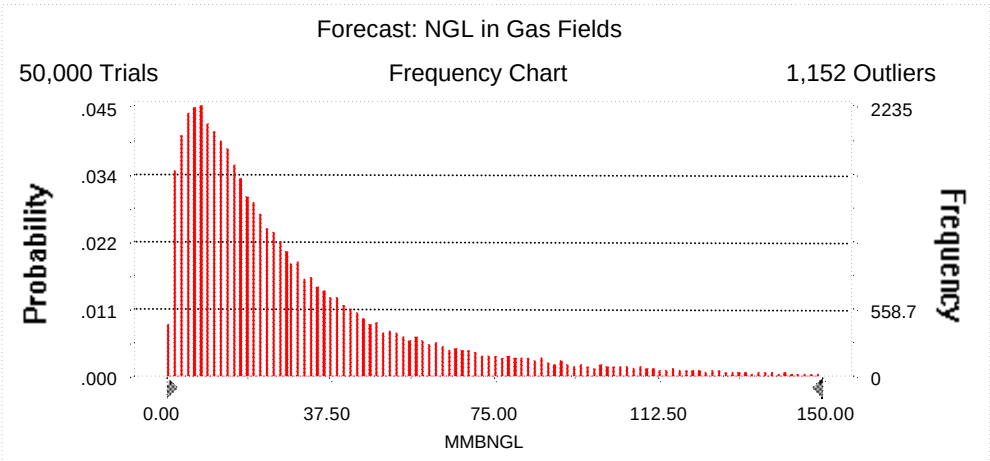
End of Forecast

53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:
Display range is from 0.00 to 150.00 MMBNGL
Entire range is from 0.57 to 586.59 MMBNGL
After 50,000 trials, the standard error of the mean is 0.18

Statistics:	Value
Trials	50000
Mean	33.66
Median	20.92
Mode	---
Standard Deviation	40.42
Variance	1,633.88
Skewness	3.58
Kurtosis	23.15
Coefficient of Variability	1.20
Range Minimum	0.57
Range Maximum	586.59
Range Width	586.02
Mean Standard Error	0.18



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.57
95%	3.31
90%	5.09
85%	6.81
80%	8.47
75%	10.24
70%	12.06
65%	13.98
60%	16.08
55%	18.36
50%	20.92
45%	23.81
40%	27.06
35%	30.89
30%	35.52
25%	41.08
20%	48.44
15%	59.02
10%	75.34
5%	106.58
0%	586.59

End of Forecast

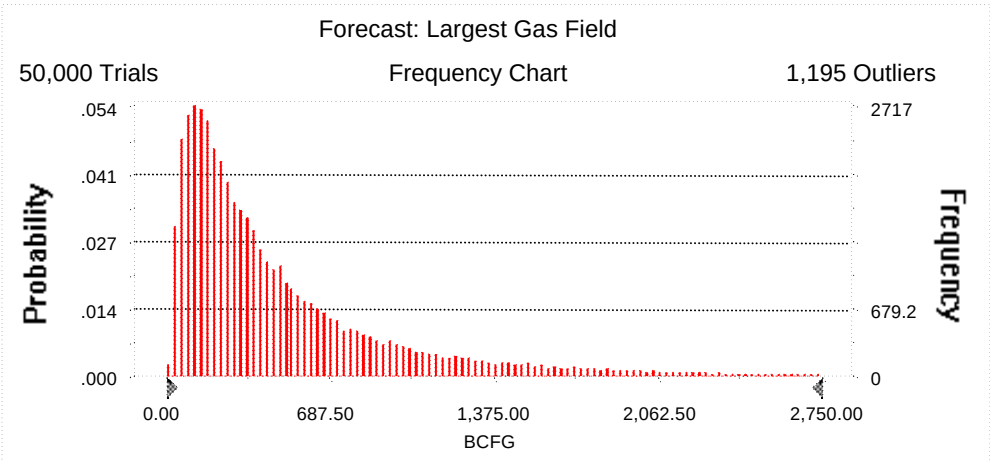
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 2,750.00 BCFG
Entire range is from 19.01 to 7,965.48 BCFG
After 50,000 trials, the standard error of the mean is 3.40

Statistics:	Value
Trials	50000
Mean	583.44
Median	338.82
Mode	---
Standard Deviation	759.27
Variance	576,494.11
Skewness	3.82
Kurtosis	23.69
Coefficient of Variability	1.30
Range Minimum	19.01
Range Maximum	7,965.48
Range Width	7,946.46
Mean Standard Error	3.40



53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	19.01
95%	65.48
90%	92.80
85%	118.36
80%	143.46
75%	169.51
70%	197.07
65%	227.45
60%	260.19
55%	297.25
50%	338.82
45%	384.08
40%	440.46
35%	504.52
30%	583.70
25%	679.75
20%	811.00
15%	996.87
10%	1,302.88
5%	1,908.46
0%	7,965.48

End of Forecast

53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

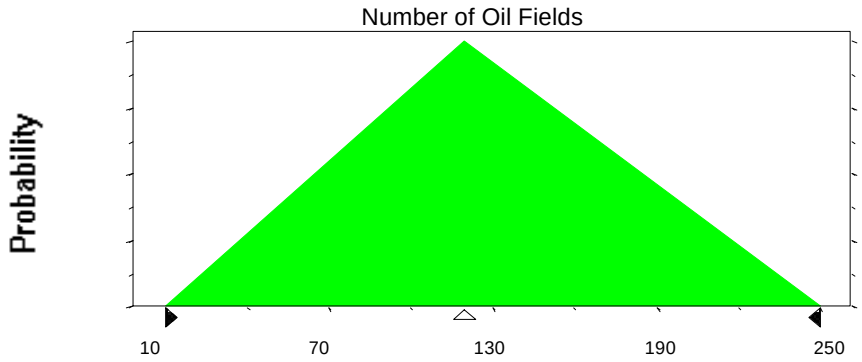
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	10
Likeliest	120
Maximum	250

Selected range is from 10 to 250
Mean value in simulation was 127

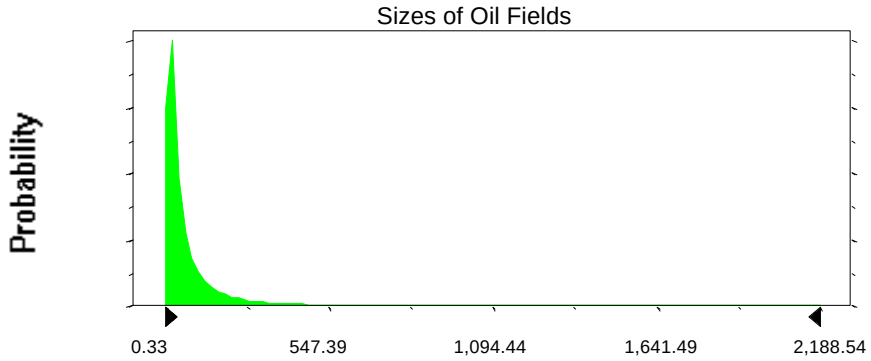


Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	78.97	81.97
Standard Deviation	217.03	217.03
Selected range is from	0.00 to 2,497.00	3.00 to 2,500.00
Mean value in simulation was	75.21	78.21

53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)

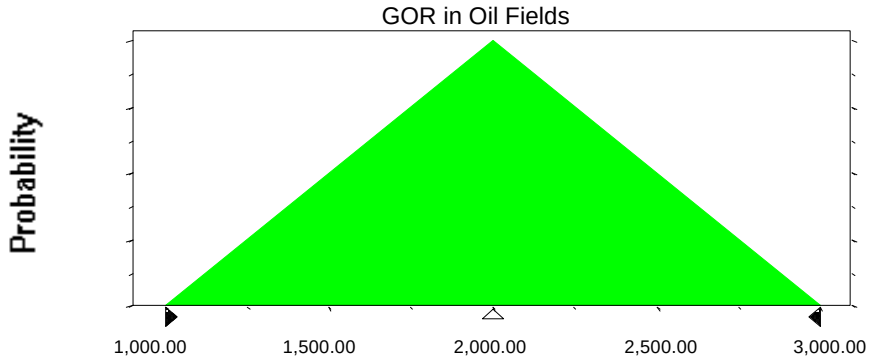


Assumption: GOR in Oil Fields

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 1,998.90



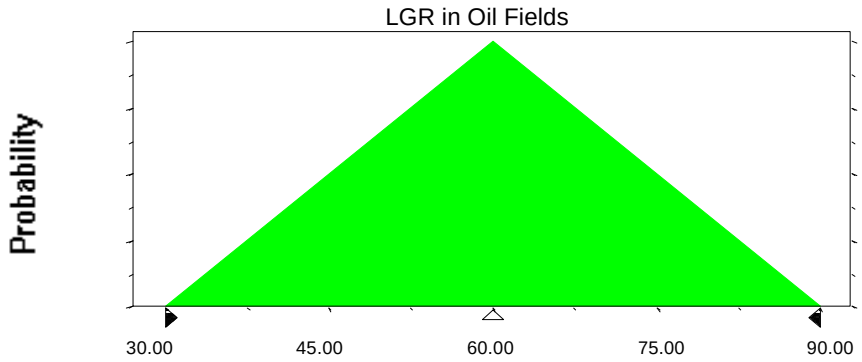
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

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 59.98



Assumption: Number of Gas Fields

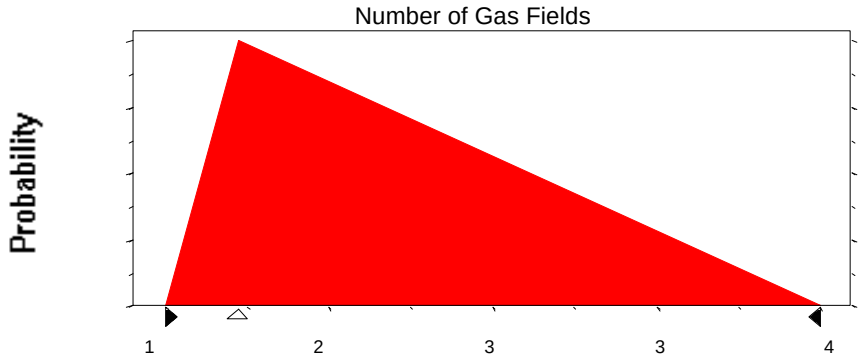
Triangular distribution with parameters:

Minimum	1
Likeliest	1
Maximum	4

Selected range is from 1 to 4
Mean value in simulation was 2

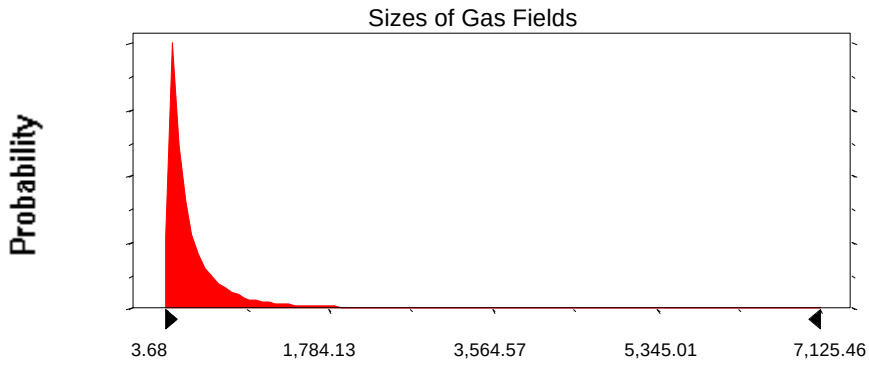
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	358.89	376.89
Standard Deviation	709.45	709.45
Selected range is from 0.00 to 7,982.00		18.00 to 8,000.00
Mean value in simulation was 347.67		365.67



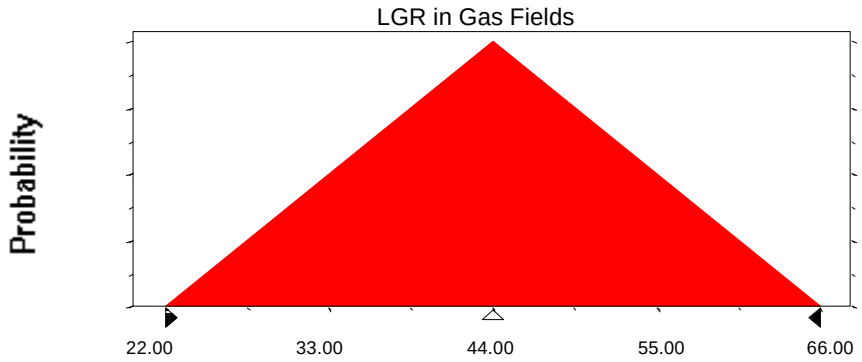
53050102
Tamabra-Like Debris-Flow-Breccia Limestone Overlying Evaporites
Monte Carlo Results

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 43.95



End of Assumptions

Simulation started on 12/2/99 at 10:17:06
Simulation stopped on 12/2/99 at 11:17:43