Northwest Izhma-Pechora Depression, Assessment Unit 10080101
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	0.40	0	0	76	18	0	0	54	13	0	0	3	1	8	17	55	23
Gas Fields	30						0	0	459	107	0	0	19	4	46	103	333	135
Total		0.40	0	0	76	18	0	0	513	120	0	0	22	5				

Forecast: Oil in Oil Fields

Summary:
  Display range is from 0.00 to 120.00 MMBO
  Entire range is from 5.09 to 314.51 MMBO
  After 50,000 trials, the standard error of the mean is 0.13

Statistics:	Value
Trials	50000
Mean	44.75
Median	38.37
Mode	---
Standard Deviation	28.55
Variance	815.02
Skewness	1.58
Kurtosis	7.04
Coefficient of Variability	0.64
Range Minimum	5.09
Range Maximum	314.51
Range Width	309.42
Mean Standard Error	0.13

Forecast: Oil in Oil Fields

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	5.09
95%	12.82
90%	15.91
85%	18.69
80%	21.50
75%	24.09
70%	26.71
65%	29.49
60%	32.28
55%	35.29
50%	38.37
45%	41.66
40%	45.12
35%	48.87
30%	53.25
25%	58.04
20%	63.92
15%	71.12
10%	81.69
5%	99.16
0%	314.51

End of Forecast

Forecast: Gas in Oil Fields

Summary:
Display range is from 0.00 to 90.00 BCFG
Entire range is from 2.37 to 247.67 BCFG
After 50,000 trials, the standard error of the mean is 0.09

Statistics:	Value
Trials	50000
Mean	31.33
Median	26.27
Mode	---
Standard Deviation	21.12
Variance	445.95
Skewness	1.76
Kurtosis	8.19
Coefficient of Variability	0.67
Range Minimum	2.37
Range Maximum	247.67
Range Width	245.30
Mean Standard Error	0.09
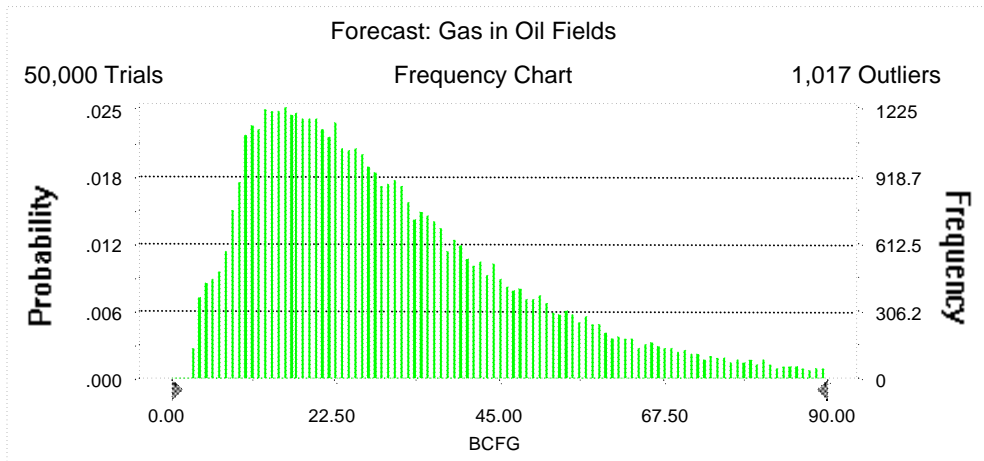
Forecast: Gas in Oil Fields

50,000 Trials   Frequency Chart   1,017 Outliers

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	2.37
95%	8.15
90%	10.64
85%	12.60
80%	14.45
75%	16.29
70%	18.17
65%	20.10
60%	22.08
55%	24.11
50%	26.27
45%	28.60
40%	31.15
35%	33.93
30%	36.97
25%	40.63
20%	44.98
15%	50.61
10%	58.10
5%	71.40
0%	247.67

End of Forecast

Forecast: NGL in Oil Fields

Summary:
  Display range is from 0.00 to 5.50 MMBNGL
  Entire range is from 0.09 to 16.27 MMBNGL
  After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	1.88
Median	1.53
Mode	---
Standard Deviation	1.36
Variance	1.84
Skewness	1.95
Kurtosis	9.30
Coefficient of Variability	0.72
Range Minimum	0.09
Range Maximum	16.27
Range Width	16.18
Mean Standard Error	0.01
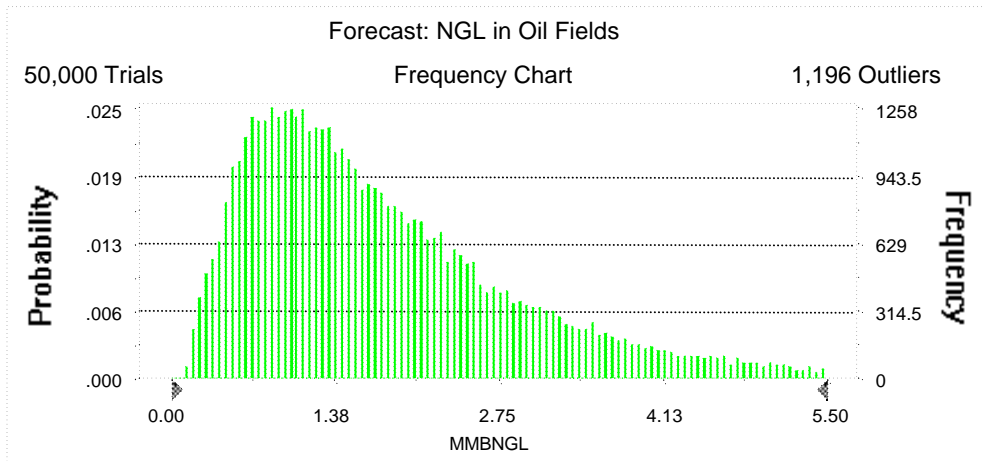
Forecast: NGL in Oil Fields

50,000 Trials	Frequency Chart	1,196 Outliers

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.09
95%	0.45
90%	0.60
85%	0.71
80%	0.83
75%	0.94
70%	1.05
65%	1.16
60%	1.28
55%	1.40
50%	1.53
45%	1.68
40%	1.84
35%	2.01
30%	2.21
25%	2.43
20%	2.71
15%	3.08
10%	3.58
5%	4.49
0%	16.27

End of Forecast

Forecast: Largest Oil Field

Summary:
Display range is from 0.00 to 70.00 MMBO
Entire range is from 5.09 to 149.68 MMBO
After 50,000 trials, the standard error of the mean is 0.08

Statistics:	Value
Trials	50000
Mean	22.53
Median	17.34
Mode	---
Standard Deviation	17.15
Variance	294.14
Skewness	2.72
Kurtosis	13.38
Coefficient of Variability	0.76
Range Minimum	5.09
Range Maximum	149.68
Range Width	144.59
Mean Standard Error	0.08
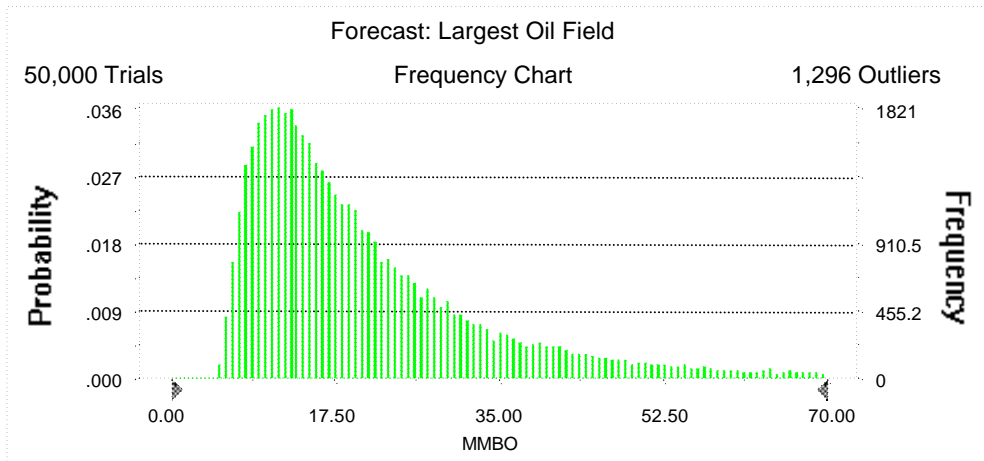
Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   1,296 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	5.09
95%	7.74
90%	8.92
85%	9.93
80%	10.91
75%	11.88
70%	12.85
65%	13.84
60%	14.91
55%	16.07
50%	17.34
45%	18.77
40%	20.30
35%	22.08
30%	24.25
25%	26.83
20%	30.09
15%	34.70
10%	41.60
5%	55.24
0%	149.68

End of Forecast

Forecast: Gas in Gas Fields

Summary:
   Display range is from 0.00 to 800.00 BCFG
   Entire range is from 30.63 to 1,633.92 BCFG
   After 50,000 trials, the standard error of the mean is 0.77

Statistics:	Value
Trials	50000
Mean	267.85
Median	228.68
Mode	---
Standard Deviation	171.09
Variance	29,273.32
Skewness	1.52
Kurtosis	6.49
Coefficient of Variability	0.64
Range Minimum	30.63
Range Maximum	1,633.92
Range Width	1,603.29
Mean Standard Error	0.77
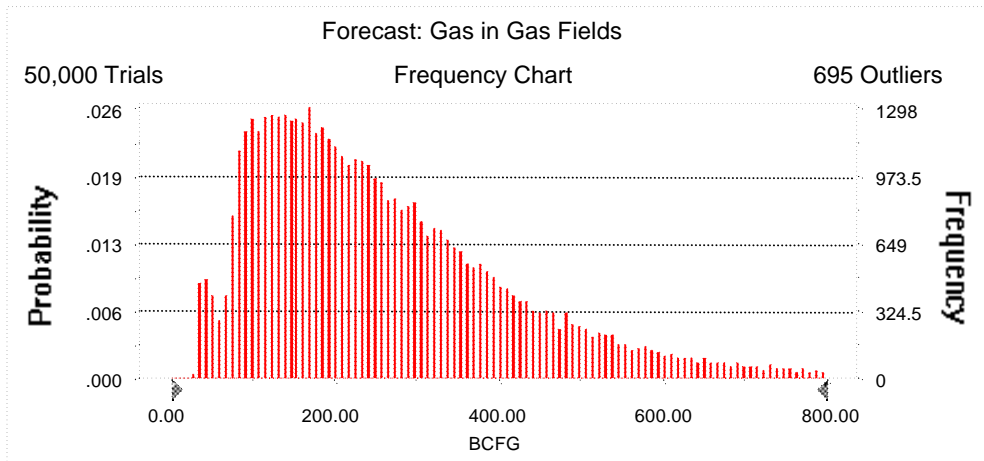
Forecast: Gas in Gas Fields

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	30.63
95%	76.87
90%	95.24
85%	111.51
80%	127.49
75%	143.36
70%	159.36
65%	175.16
60%	191.96
55%	209.81
50%	228.68
45%	248.02
40%	269.48
35%	293.52
30%	319.40
25%	348.34
20%	383.10
15%	427.53
10%	490.57
5%	596.26
0%	1,633.92

End of Forecast

Forecast: NGL in Gas Fields

Summary:
>   Display range is from 0.00 to 30.00 MMBNGL
>   Entire range is from 0.69 to 75.69 MMBNGL
>   After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	10.70
Median	8.88
Mode	---
Standard Deviation	7.29
Variance	53.09
Skewness	1.69
Kurtosis	7.42
Coefficient of Variability	0.68
Range Minimum	0.69
Range Maximum	75.69
Range Width	75.00
Mean Standard Error	0.03
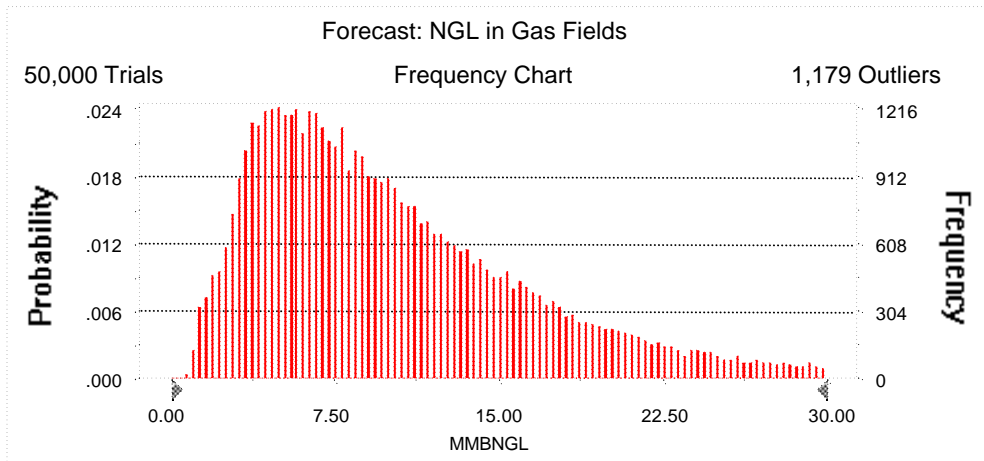
Forecast: NGL in Gas Fields

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.69
95%	2.74
90%	3.58
85%	4.24
80%	4.86
75%	5.49
70%	6.13
65%	6.76
60%	7.43
55%	8.13
50%	8.88
45%	9.71
40%	10.56
35%	11.53
30%	12.65
25%	13.94
20%	15.48
15%	17.35
10%	20.11
5%	24.77
0%	75.69

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 0.00 to 450.00 BCFG
Entire range is from 30.63 to 899.46 BCFG
After 50,000 trials, the standard error of the mean is 0.46

Statistics:	Value
Trials	50000
Mean	134.97
Median	103.25
Mode	---
Standard Deviation	102.83
Variance	10,573.41
Skewness	2.67
Kurtosis	12.97
Coefficient of Variability	0.76
Range Minimum	30.63
Range Maximum	899.46
Range Width	868.83
Mean Standard Error	0.46
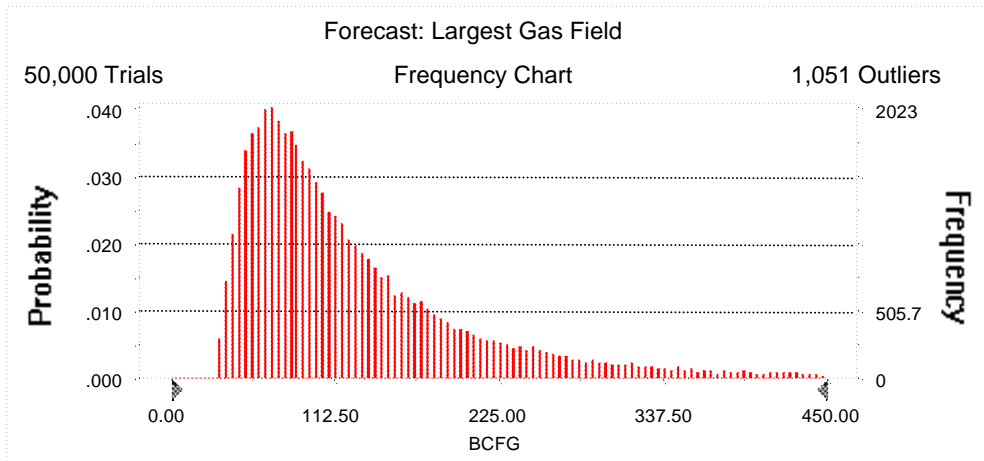
Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	30.63
95%	46.12
90%	53.27
85%	59.41
80%	65.26
75%	70.78
70%	76.56
65%	82.63
60%	88.99
55%	95.86
50%	103.25
45%	111.61
40%	121.10
35%	132.28
30%	145.24
25%	161.29
20%	181.00
15%	208.93
10%	251.21
5%	332.90
0%	899.46

End of Forecast

Forecast: G-Risked Oil in Oil Fields

Summary:
Display range is from 0.00 to 100.00 MMBO
Entire range is from 0.00 to 297.08 MMBO
After 50,000 trials, the standard error of the mean is 0.13

Statistics:	Value
Trials	50000
Mean	17.89
Median	0.00
Mode	0.00
Standard Deviation	28.38
Variance	805.15
Skewness	1.97
Kurtosis	7.81
Coefficient of Variability	1.59
Range Minimum	0.00
Range Maximum	297.08
Range Width	297.08
Mean Standard Error	0.13
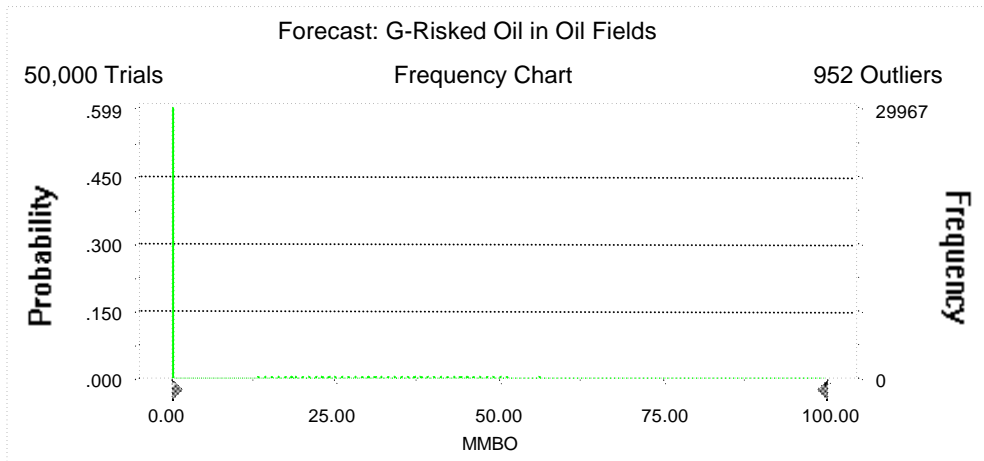
Forecast: G-Risked Oil in Oil Fields

50,000 Trials   Frequency Chart   952 Outliers

Forecast: G-Risked Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	5.61
35%	17.29
30%	23.99
25%	30.71
20%	38.37
15%	46.94
10%	57.99
5%	75.69
0%	297.08

End of Forecast

Forecast: G-Risked Gas in Oil Fields

Summary:
Display range is from 0.00 to 70.00 BCFG
Entire range is from 0.00 to 244.65 BCFG
After 50,000 trials, the standard error of the mean is 0.09

Statistics:	Value
Trials	50000
Mean	12.52
Median	0.00
Mode	0.00
Standard Deviation	20.32
Variance	413.02
Skewness	2.15
Kurtosis	9.25
Coefficient of Variability	1.62
Range Minimum	0.00
Range Maximum	244.65
Range Width	244.65
Mean Standard Error	0.09

Forecast: G-Risked Gas in Oil Fields

50,000 Trials   Frequency Chart   1,062 Outliers

Forecast: G-Risked Gas in Oil Fields (cont'd)

Percentiles:

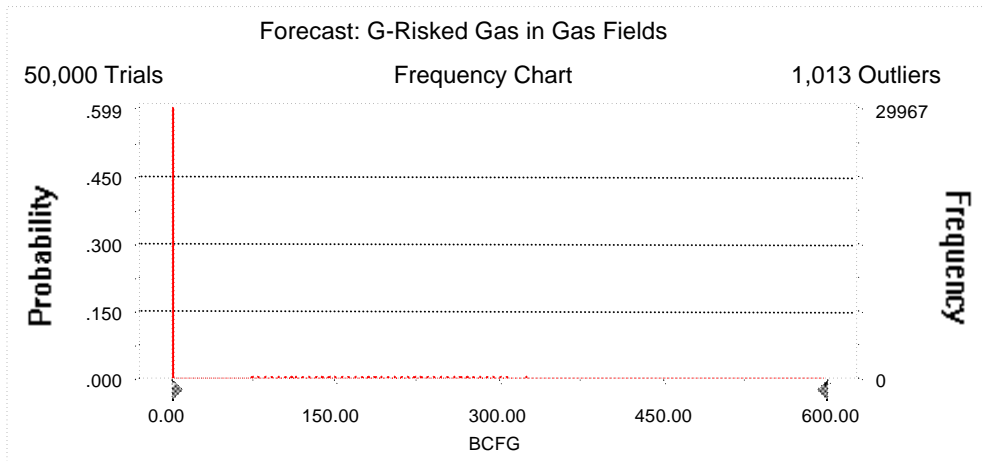| Percentile	BCFG
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	3.34
35%	11.71
30%	16.13
25%	20.92
20%	26.23
15%	32.45
10%	40.56
5%	54.01
0%	244.65

End of Forecast

Forecast: G-Risked NGL in Oil Fields

Summary:
Display range is from 0.00 to 4.50 MMBNGL
Entire range is from 0.00 to 13.72 MMBNGL
After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	0.75
Median	0.00
Mode	0.00
Standard Deviation	1.26
Variance	1.59
Skewness	2.39
Kurtosis	10.98
Coefficient of Variability	1.68
Range Minimum	0.00
Range Maximum	13.72
Range Width	13.72
Mean Standard Error	0.01

Forecast: G-Risked NGL in Oil Fields

50,000 Trials	Frequency Chart	1,010 Outliers

Forecast: G-Risked NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	0.17
35%	0.65
30%	0.94
25%	1.22
20%	1.53
15%	1.92
10%	2.42
5%	3.28
0%	13.72

End of Forecast

Forecast: G-Risked Gas in Gas Fields

Summary:
>   Display range is from 0.00 to 600.00 BCFG
>   Entire range is from 0.00 to 1,412.66 BCFG
>   After 50,000 trials, the standard error of the mean is 0.76

Statistics:	Value
Trials	50000
Mean	107.45
Median	0.00
Mode	0.00
Standard Deviation	170.91
Variance	29,210.93
Skewness	1.98
Kurtosis	7.73
Coefficient of Variability	1.59
Range Minimum	0.00
Range Maximum	1,412.66
Range Width	1,412.66
Mean Standard Error	0.76

Forecast: G-Risked Gas in Gas Fields

50,000 Trials	Frequency Chart	1,013 Outliers

Forecast: G-Risked Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	33.56
35%	104.15
30%	143.61
25%	183.39
20%	228.24
15%	280.98
10%	347.92
5%	458.71
0%	1,412.66

End of Forecast

Forecast: G-Risked NGL in Gas Fields

Summary:
Display range is from 0.00 to 25.00 MMBNGL
Entire range is from 0.00 to 66.55 MMBNGL
After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	4.30
Median	0.00
Mode	0.00
Standard Deviation	7.03
Variance	49.37
Skewness	2.18
Kurtosis	9.17
Coefficient of Variability	1.64
Range Minimum	0.00
Range Maximum	66.55
Range Width	66.55
Mean Standard Error	0.03

Forecast: G-Risked NGL in Gas Fields

Forecast: G-Risked NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	1.06
35%	3.93
30%	5.52
25%	7.10
20%	8.86
15%	11.04
10%	13.93
5%	18.59
0%	66.55

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum	1
Likeliest	2
Maximum	7

Selected range is from 1 to 7
Mean value in simulation was 3

Number of Oil Fields
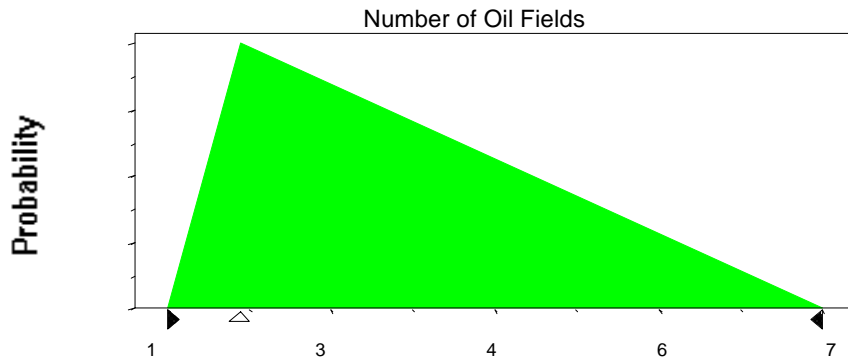
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	9.05		14.05
Standard Deviation	13.67		13.67
Selected range is from 0.00 to 145.00			5.00 to 150.00
Mean value in simulation was 8.88			13.88

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields

| 0.19 | 33.01 | 65.82 | 98.64 | 131.45 |
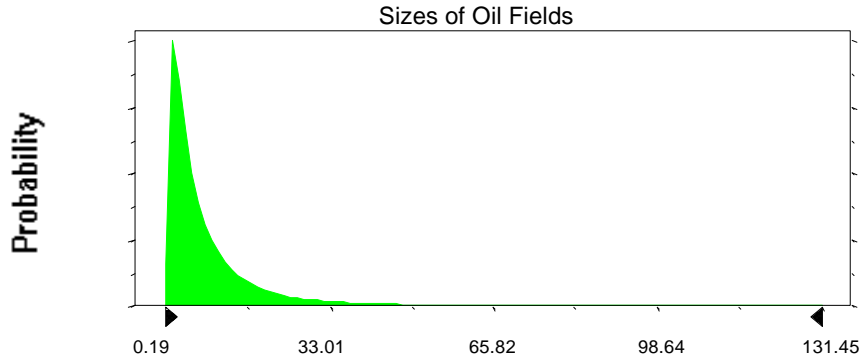
Assumption: GOR in Oil Fields

Triangular distribution with parameters:
Minimum	400.00
Likeliest	700.00
Maximum	1,000.00

Selected range is from 400.00 to 1,000.00
Mean value in simulation was 699.24

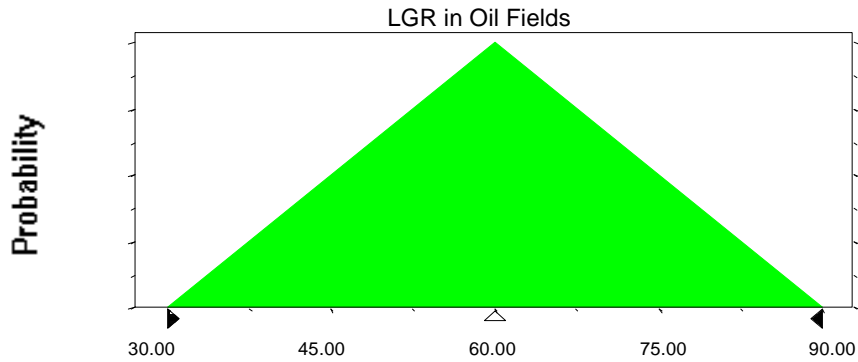GOR in Oil Fields

| 400.00 | 550.00 | 700.00 | 850.00 | 1,000.00 |
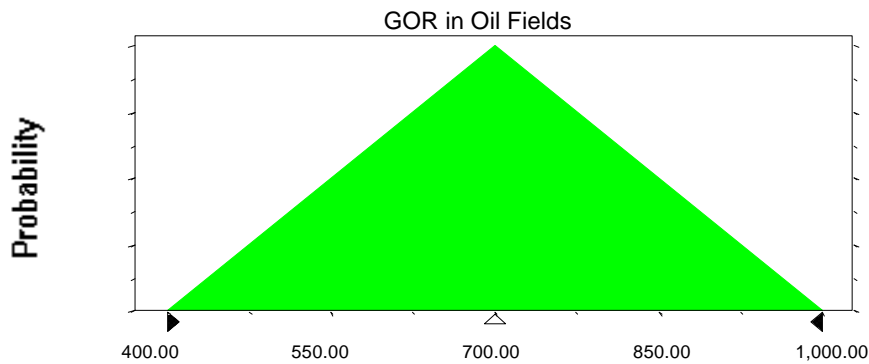
Assumption: LGR in Oil Fields

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 59.99

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	1
Likeliest	2
Maximum	7

Selected range is from 1 to 7
Mean value in simulation was 3

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields
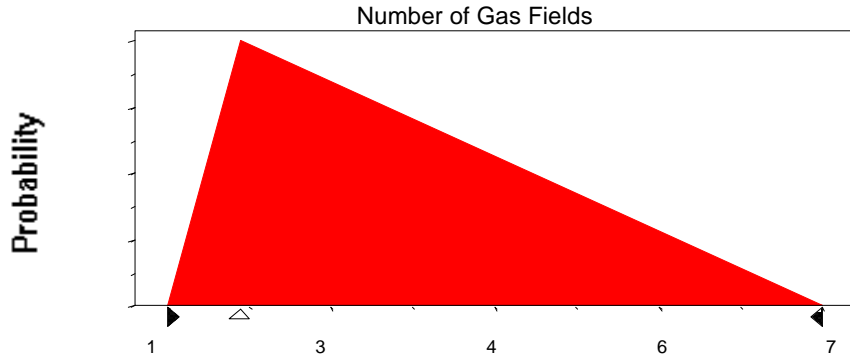
Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	54.32		84.32
Standard Deviation	82.01		82.01

Selected range is from 0.00 to 870.00   30.00 to 900.00
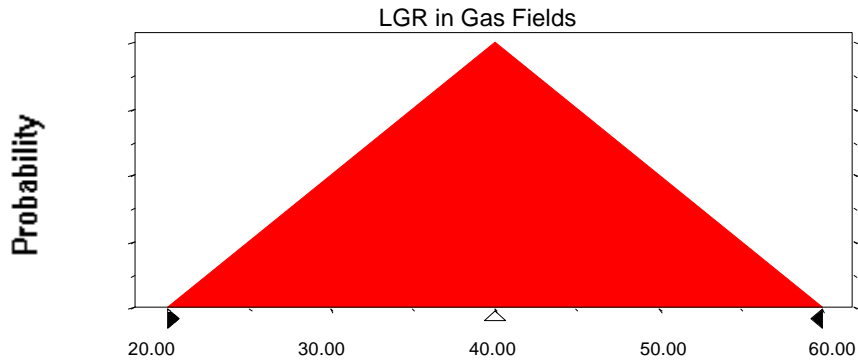Mean value in simulation was 52.87   82.87
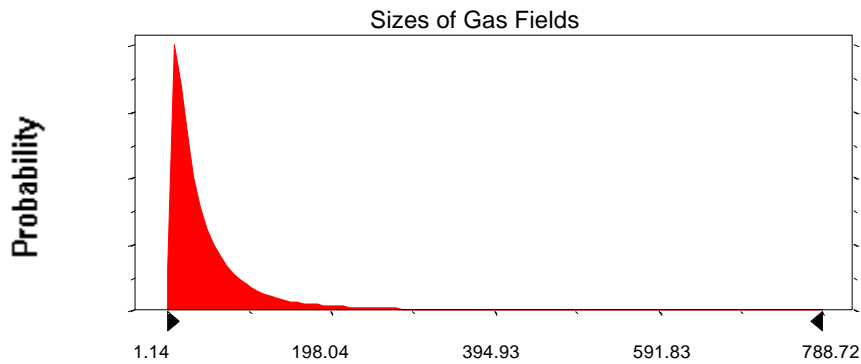
Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:
Minimum	20.00
Likeliest	40.00
Maximum	60.00

Selected range is from 20.00 to 60.00
Mean value in simulation was 39.95

LGR in Gas Fields

End of Assumptions

Simulation started on 4/20/99 at 15:19:11
Simulation stopped on 4/20/99 at 15:31:21