

Kutei Basin Fold and Thrust Belt, Assessment Unit 38170103
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	38	269	762	318	102	728	2,226	890	6	42	139	53	17	69	256	93
Gas Fields	30		38	269	762	318	352	2,095	5,625	2,423	9	51	145	61	127	484	1,682	629
Total		1.00	38	269	762	318	454	2,823	7,851	3,313	14	94	284	114				

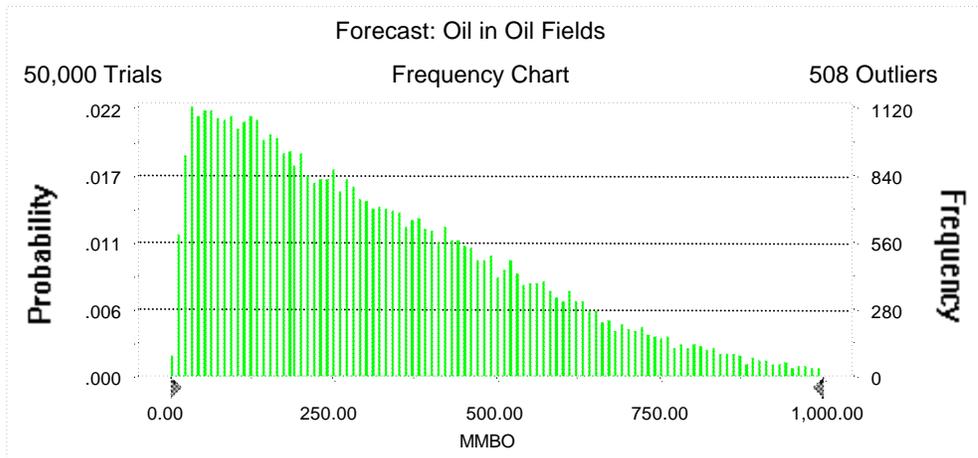
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 1,000.00 MMBO
Entire range is from 5.12 to 1,795.60 MMBO
After 50,000 trials, the standard error of the mean is 1.04

Statistics:	Value
Trials	50000
Mean	317.74
Median	268.84
Mode	---
Standard Deviation	232.20
Variance	53,915.00
Skewness	0.99
Kurtosis	3.84
Coefficient of Variability	0.73
Range Minimum	5.12
Range Maximum	1,795.60
Range Width	1,790.48
Mean Standard Error	1.04



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	5.12
95%	37.93
90%	60.69
85%	83.70
80%	107.20
75%	130.69
70%	155.43
65%	181.04
60%	208.22
55%	238.50
50%	268.84
45%	301.01
40%	336.05
35%	373.74
30%	413.60
25%	457.25
20%	508.14
15%	567.66
10%	641.44
5%	762.10
0%	1,795.60

End of Forecast

38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

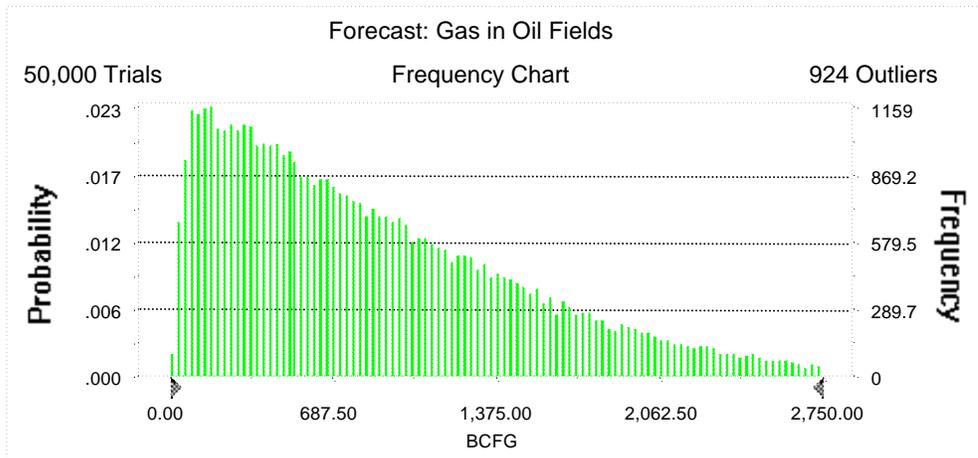
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 2,750.00 BCFG
 Entire range is from 11.30 to 5,238.50 BCFG
 After 50,000 trials, the standard error of the mean is 3.08

Statistics:

	<u>Value</u>
Trials	50000
Mean	889.88
Median	727.73
Mode	---
Standard Deviation	689.19
Variance	474,976.80
Skewness	1.24
Kurtosis	4.86
Coefficient of Variability	0.77
Range Minimum	11.30
Range Maximum	5,238.50
Range Width	5,227.20
Mean Standard Error	3.08



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	11.30
95%	102.09
90%	161.69
85%	223.74
80%	286.96
75%	351.46
70%	420.34
65%	490.43
60%	564.21
55%	645.41
50%	727.73
45%	815.31
40%	913.70
35%	1,017.08
30%	1,133.89
25%	1,265.08
20%	1,414.35
15%	1,593.89
10%	1,837.90
5%	2,225.83
0%	5,238.50

End of Forecast

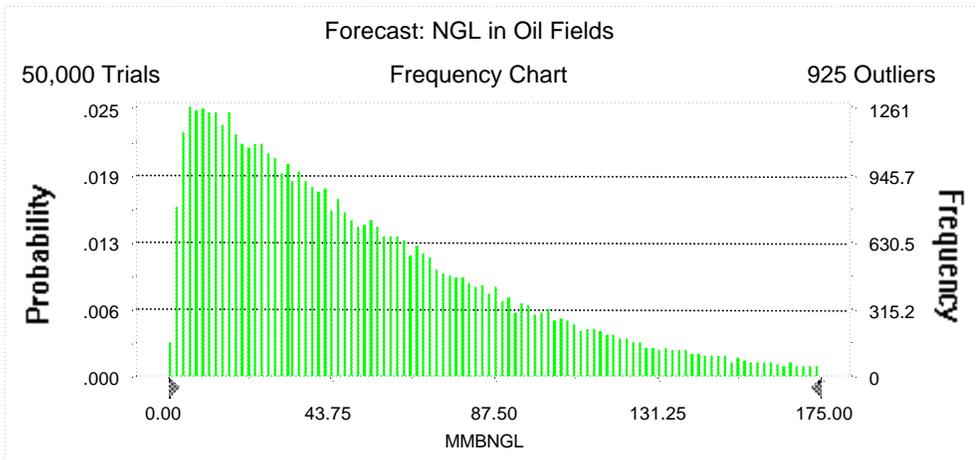
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 175.00 MMBNGL
Entire range is from 0.59 to 423.27 MMBNGL
After 50,000 trials, the standard error of the mean is 0.20

Statistics:	<u>Value</u>
Trials	50000
Mean	53.43
Median	42.32
Mode	---
Standard Deviation	43.62
Variance	1,903.13
Skewness	1.48
Kurtosis	6.13
Coefficient of Variability	0.82
Range Minimum	0.59
Range Maximum	423.27
Range Width	422.68
Mean Standard Error	0.20



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.59
95%	5.85
90%	9.33
85%	12.83
80%	16.47
75%	20.17
70%	24.22
65%	28.40
60%	32.82
55%	37.46
50%	42.32
45%	47.70
40%	53.69
35%	59.96
30%	66.93
25%	74.96
20%	84.55
15%	96.54
10%	112.33
5%	138.65
0%	423.27

End of Forecast

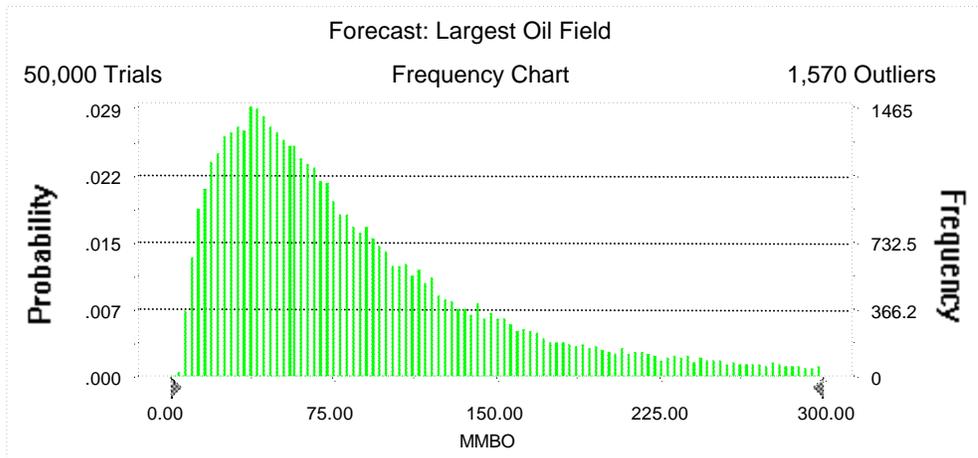
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 300.00 MMBO
Entire range is from 5.12 to 499.81 MMBO
After 50,000 trials, the standard error of the mean is 0.35

Statistics:	Value
Trials	50000
Mean	92.53
Median	69.03
Mode	---
Standard Deviation	78.45
Variance	6,154.70
Skewness	1.97
Kurtosis	7.68
Coefficient of Variability	0.85
Range Minimum	5.12
Range Maximum	499.81
Range Width	494.69
Mean Standard Error	0.35



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	5.12
95%	16.71
90%	23.24
85%	28.96
80%	34.57
75%	39.72
70%	44.99
65%	50.55
60%	56.39
55%	62.48
50%	69.03
45%	76.34
40%	84.60
35%	94.03
30%	105.04
25%	117.85
20%	134.72
15%	156.70
10%	191.70
5%	256.21
0%	499.81

End of Forecast

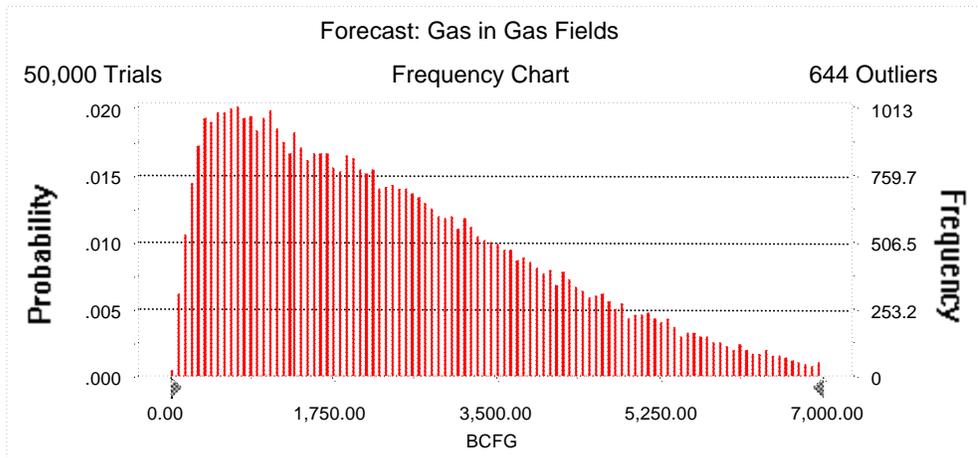
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 7,000.00 BCFG
 Entire range is from 31.73 to 12,779.97 BCFG
 After 50,000 trials, the standard error of the mean is 7.52

Statistics:	<u>Value</u>
Trials	50000
Mean	2,423.01
Median	2,094.85
Mode	---
Standard Deviation	1,680.41
Variance	2,823,782.00
Skewness	0.91
Kurtosis	3.63
Coefficient of Variability	0.69
Range Minimum	31.73
Range Maximum	12,779.97
Range Width	12,748.25
Mean Standard Error	7.52



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	31.73
95%	351.98
90%	531.50
85%	704.69
80%	883.02
75%	1,066.31
70%	1,252.29
65%	1,451.25
60%	1,660.88
55%	1,877.90
50%	2,094.85
45%	2,327.25
40%	2,575.76
35%	2,836.94
30%	3,128.53
25%	3,448.77
20%	3,815.44
15%	4,245.96
10%	4,802.12
5%	5,624.77
0%	12,779.97

End of Forecast

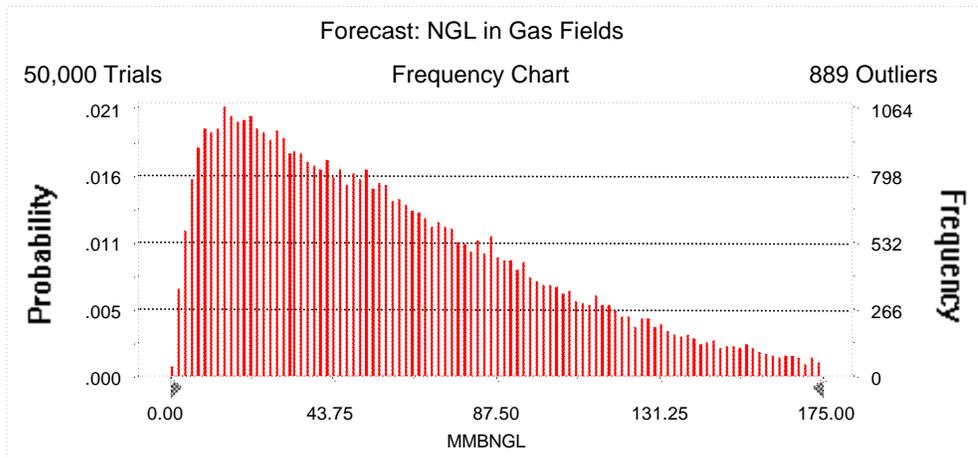
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 175.00 MMBNGL
Entire range is from 0.62 to 350.93 MMBNGL
After 50,000 trials, the standard error of the mean is 0.20

Statistics:	Value
Trials	50000
Mean	60.56
Median	51.49
Mode	---
Standard Deviation	43.65
Variance	1,905.27
Skewness	1.07
Kurtosis	4.23
Coefficient of Variability	0.72
Range Minimum	0.62
Range Maximum	350.93
Range Width	350.31
Mean Standard Error	0.20



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.62
95%	8.50
90%	12.96
85%	17.21
80%	21.60
75%	25.98
70%	30.58
65%	35.45
60%	40.56
55%	45.85
50%	51.49
45%	57.07
40%	63.11
35%	69.74
30%	77.13
25%	85.65
20%	94.90
15%	106.64
10%	121.63
5%	145.19
0%	350.93

End of Forecast

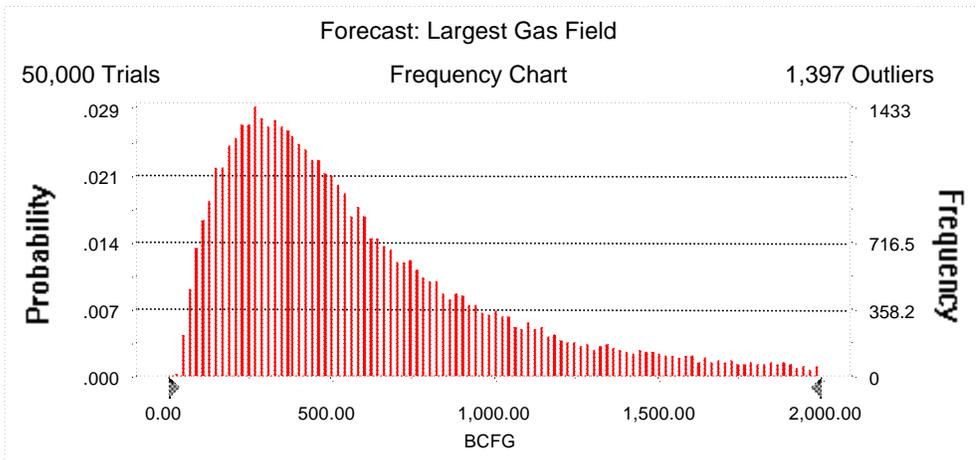
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 2,000.00 BCFG
Entire range is from 31.73 to 2,999.59 BCFG
After 50,000 trials, the standard error of the mean is 2.22

Statistics:	<u>Value</u>
Trials	50000
Mean	629.00
Median	484.44
Mode	---
Standard Deviation	496.00
Variance	246,016.74
Skewness	1.75
Kurtosis	6.53
Coefficient of Variability	0.79
Range Minimum	31.73
Range Maximum	2,999.59
Range Width	2,967.86
Mean Standard Error	2.22



38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	31.73
95%	126.63
90%	173.24
85%	214.04
80%	250.96
75%	286.93
70%	324.11
65%	361.14
60%	400.08
55%	441.29
50%	484.44
45%	531.18
40%	585.17
35%	646.41
30%	721.32
25%	807.75
20%	917.53
15%	1,061.53
10%	1,282.43
5%	1,681.61
0%	2,999.59

End of Forecast

38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

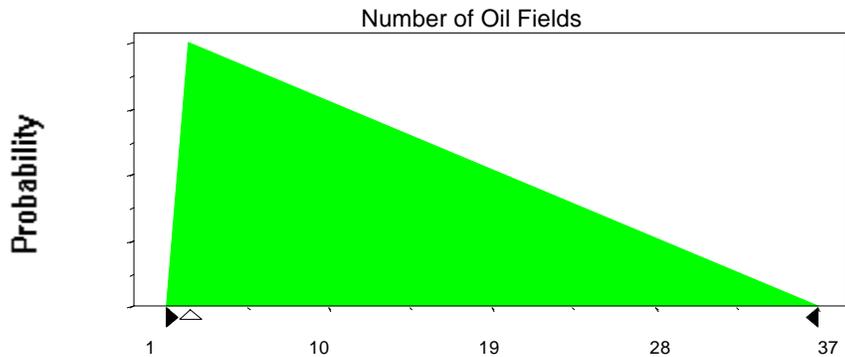
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	2
Maximum	37

Selected range is from 1 to 37
Mean value in simulation was 13



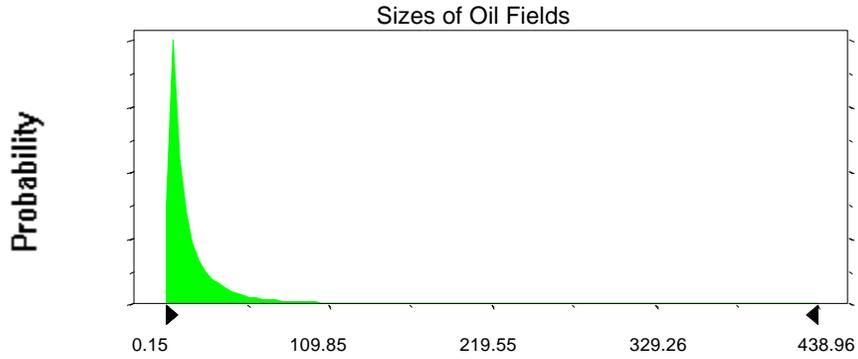
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	19.50	24.5
Standard Deviation	43.36	43.36

Selected range is from 0.00 to 495.00 5.00 to 500.00
Mean value in simulation was 19.02 24.02

38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)



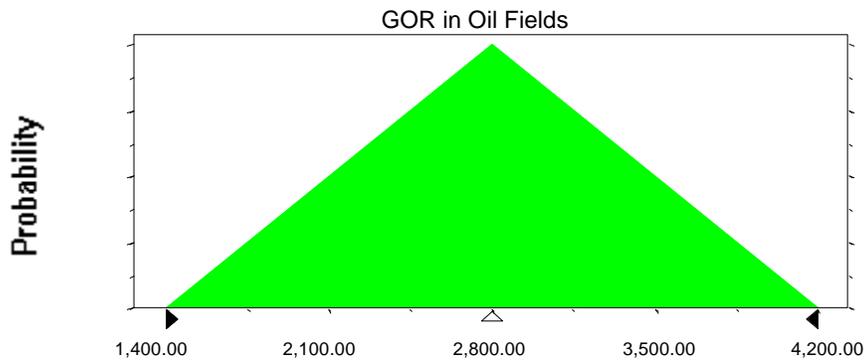
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,400.00
Likeliest	2,800.00
Maximum	4,200.00

Selected range is from 1,400.00 to 4,200.00

Mean value in simulation was 2,800.12



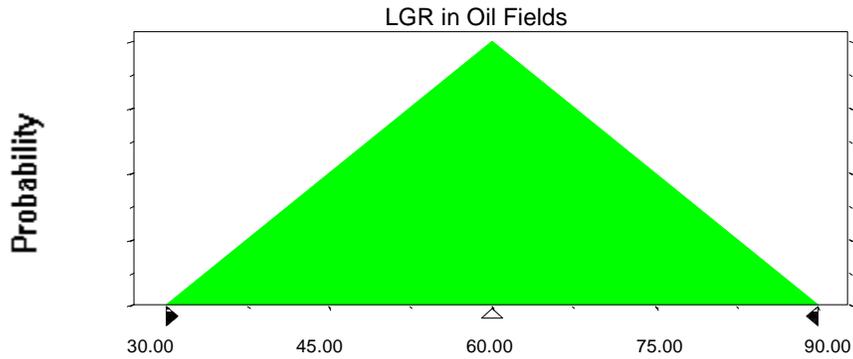
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

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 60.03



Assumption: Number of Gas Fields

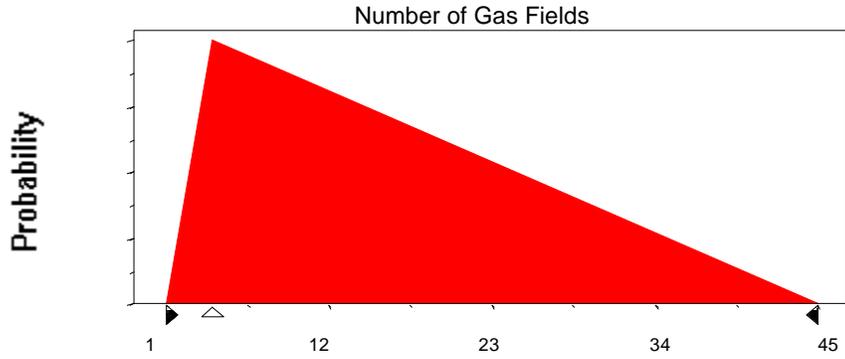
Triangular distribution with parameters:

Minimum	1
Likeliest	4
Maximum	45

Selected range is from 1 to 45
Mean value in simulation was 17

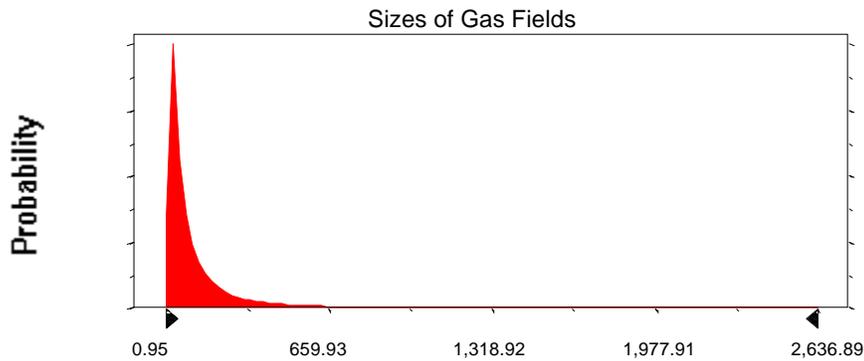
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	119.77	149.77
Standard Deviation	260.70	260.7
Selected range is from 0.00 to 2,970.00		30.00 to 3,000.00
Mean value in simulation was 115.34		145.34



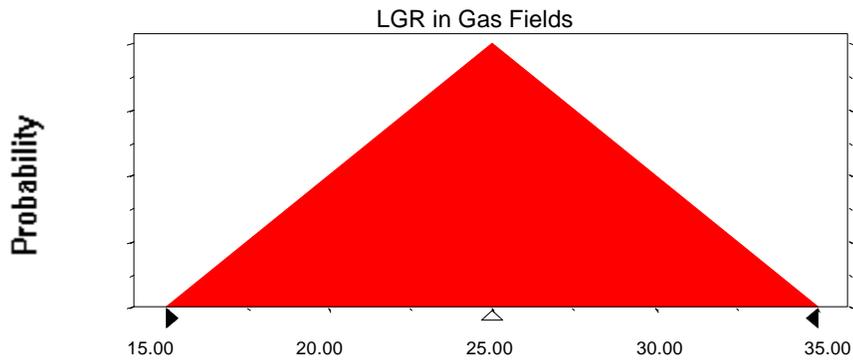
38170103
Kutei Basin Fold and Thrust Belt
Monte Carlo Results

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	25.00
Maximum	35.00

Selected range is from 15.00 to 35.00
Mean value in simulation was 25.00



End of Assumptions

Simulation started on 8/4/99 at 13:40:12
Simulation stopped on 8/4/99 at 14:04:41