Central Basin, Assessment Unit 80470301
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	2	1.00	5	13	32	15	9	28	74	33	0	2	5	2	3	6	17	7
Gas Fields	12						6,136	21,726	48,543	23,952	22	86	235	101	821	2,410	5,237	2,645
Total		1.00	5	13	32	15	6,145	21,754	48,617	23,985	23	87	240	103				

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 40.00 MMBO
Entire range is from 2.04 to 89.62 MMBO
After 50,000 trials, the standard error of the mean is 0.04

Statistics:	Value
Trials	50000
Mean	14.99
Median	13.09
Mode	---
Standard Deviation	8.97
Variance	80.41
Skewness	1.39
Kurtosis	6.03
Coefficient of Variability	0.60
Range Minimum	2.04
Range Maximum	89.62
Range Width	87.59
Mean Standard Error	0.04
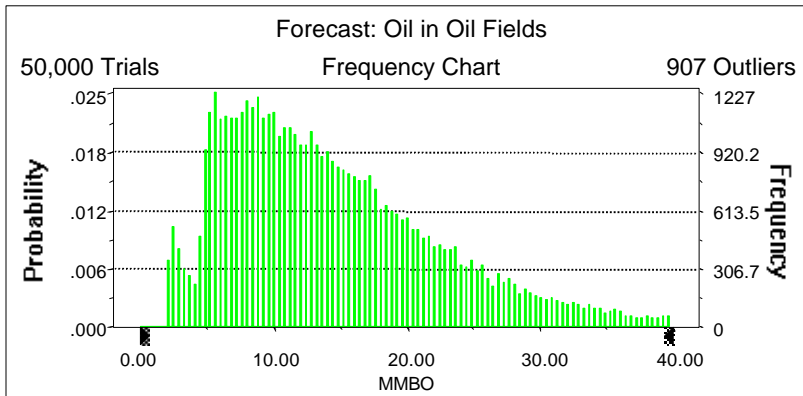
Forecast: Oil in Oil Fields

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

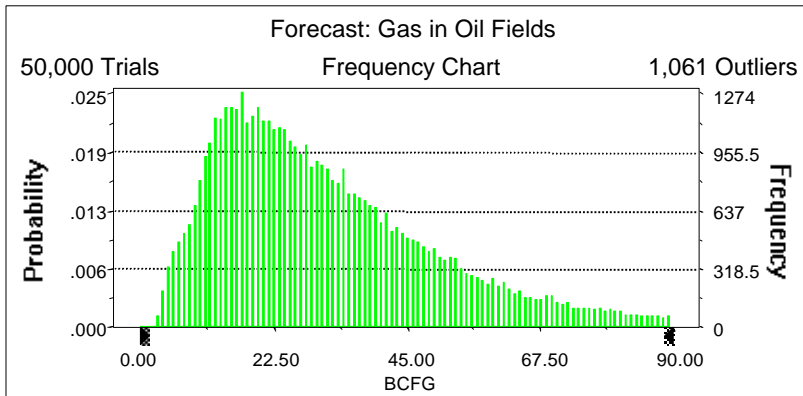| Percentile	MMBO
100%	2.04
95%	4.74
90%	5.71
85%	6.60
80%	7.49
75%	8.37
70%	9.23
65%	10.13
60%	11.07
55%	12.06
50%	13.09
45%	14.17
40%	15.33
35%	16.58
30%	17.89
25%	19.49
20%	21.32
15%	23.62
10%	26.78
5%	32.11
0%	89.62

End of Forecast

Forecast: Gas in Oil Fields

Summary:
Display range is from 0.00 to 90.00 BCFG
Entire range is from 2.74 to 218.08 BCFG
After 50,000 trials, the standard error of the mean is 0.09

Statistics:	Value
Trials	50000
Mean	32.92
Median	27.99
Mode	---
Standard Deviation	21.13
Variance	446.40
Skewness	1.56
Kurtosis	6.86
Coefficient of Variability	0.64
Range Minimum	2.74
Range Maximum	218.08
Range Width	215.34
Mean Standard Error	0.09

Forecast: Gas in Oil Fields
50,000 Trials   Frequency Chart   1,061 Outliers

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

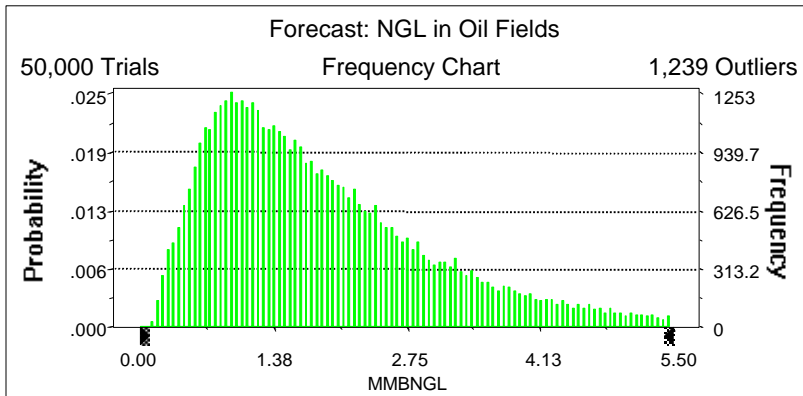| Percentile	BCFG
100%	2.74
95%	8.93
90%	11.76
85%	13.84
80%	15.74
75%	17.62
70%	19.55
65%	21.48
60%	23.55
55%	25.64
50%	27.99
45%	30.41
40%	33.08
35%	35.92
30%	39.16
25%	42.78
20%	47.23
15%	52.70
10%	60.45
5%	73.93
0%	218.08

End of Forecast

Forecast: NGL in Oil Fields

Summary:
Display range is from 0.00 to 5.50 MMBNGL
Entire range is from 0.11 to 18.29 MMBNGL
After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	1.98
Median	1.64
Mode	---
Standard Deviation	1.35
Variance	1.83
Skewness	1.76
Kurtosis	8.24
Coefficient of Variability	0.69
Range Minimum	0.11
Range Maximum	18.29
Range Width	18.18
Mean Standard Error	0.01

Forecast: NGL in Oil Fields

50,000 Trials   Frequency Chart   1,239 Outliers

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.11
95%	0.49
90%	0.66
85%	0.79
80%	0.90
75%	1.01
70%	1.13
65%	1.24
60%	1.37
55%	1.50
50%	1.64
45%	1.79
40%	1.96
35%	2.14
30%	2.34
25%	2.56
20%	2.85
15%	3.22
10%	3.72
5%	4.59
0%	18.29

End of Forecast

Forecast: Largest Oil Field

Summary:
Display range is from 0.00 to 22.50 MMBO
Entire range is from 2.04 to 44.82 MMBO
After 50,000 trials, the standard error of the mean is 0.02

Statistics:	Value
Trials	50000
Mean	7.22
Median	5.69
Mode	---
Standard Deviation	5.07
Variance	25.66
Skewness	2.66
Kurtosis	12.96
Coefficient of Variability	0.70
Range Minimum	2.04
Range Maximum	44.82
Range Width	42.78
Mean Standard Error	0.02
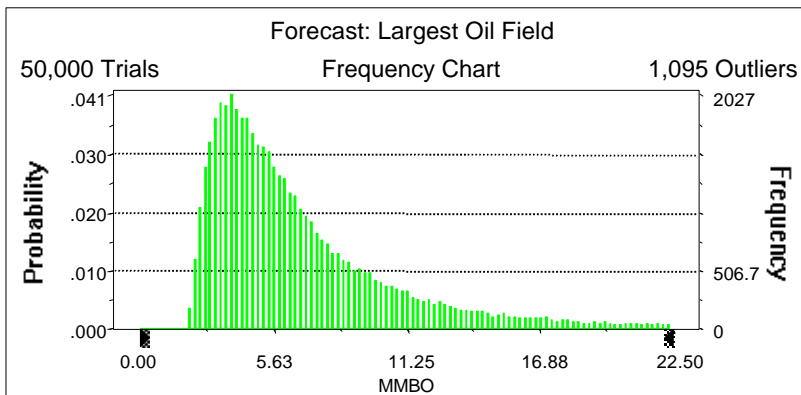
Forecast: Largest Oil Field
50,000 Trials — Frequency Chart — 1,095 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	2.04
95%	2.81
90%	3.17
85%	3.46
80%	3.75
75%	4.04
70%	4.34
65%	4.64
60%	4.96
55%	5.32
50%	5.69
45%	6.11
40%	6.56
35%	7.10
30%	7.73
25%	8.53
20%	9.54
15%	10.88
10%	12.93
5%	17.03
0%	44.82

End of Forecast
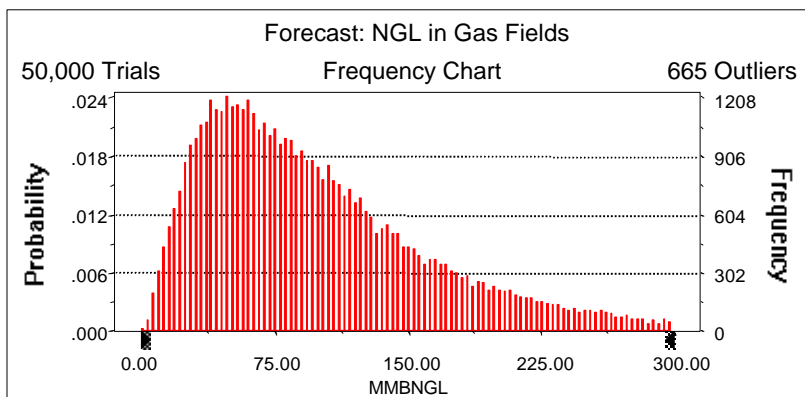
Forecast: Gas in Gas Fields

Summary:
Display range is from 0.00 to 60,000.00 BCFG
Entire range is from 540.43 to 81,610.25 BCFG
After 50,000 trials, the standard error of the mean is 59.27

Statistics:	Value
Trials	50000
Mean	23,951.74
Median	21,725.82
Mode	---
Standard Deviation	13,254.20
Variance	175,673,799.90
Skewness	0.61
Kurtosis	2.72
Coefficient of Variability	0.55
Range Minimum	540.43
Range Maximum	81,610.25
Range Width	81,069.82
Mean Standard Error	59.27

Forecast: Gas in Gas Fields
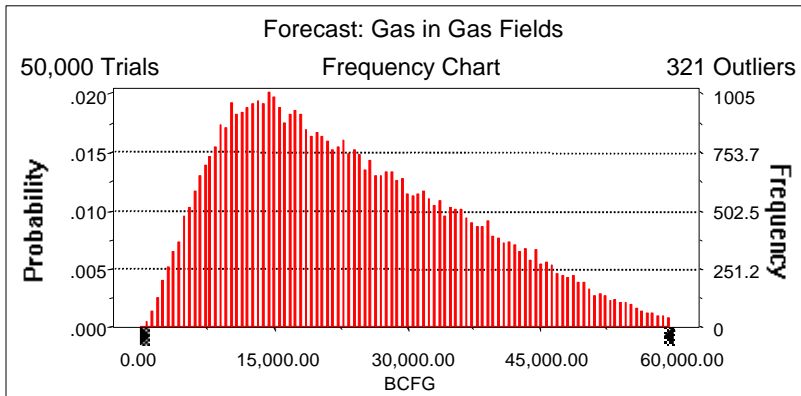
50,000 Trials   Frequency Chart   321 Outliers

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

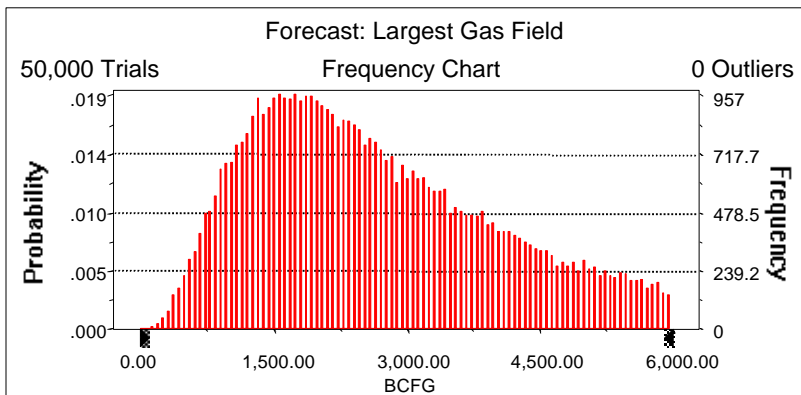| Percentile	BCFG
100%	540.43
95%	6,136.42
90%	8,368.10
85%	10,174.61
80%	11,785.03
75%	13,364.19
70%	14,903.04
65%	16,498.23
60%	18,127.01
55%	19,882.64
50%	21,725.82
45%	23,656.43
40%	25,720.73
35%	27,970.93
30%	30,346.99
25%	32,979.74
20%	35,899.05
15%	39,130.12
10%	43,084.43
5%	48,543.18
0%	81,610.25

End of Forecast

Forecast: NGL in Gas Fields

Summary:
  Display range is from 0.00 to 300.00 MMBNGL
  Entire range is from 1.85 to 573.69 MMBNGL
  After 50,000 trials, the standard error of the mean is 0.30

Statistics:	Value
Trials	50000
Mean	101.07
Median	85.62
Mode	---
Standard Deviation	67.06
Variance	4,497.25
Skewness	1.23
Kurtosis	4.72
Coefficient of Variability	0.66
Range Minimum	1.85
Range Maximum	573.69
Range Width	571.83
Mean Standard Error	0.30

Forecast: NGL in Gas Fields

50,000 Trials · Frequency Chart · 665 Outliers

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	1.85
95%	22.43
90%	30.78
85%	37.96
80%	44.48
75%	50.85
70%	57.32
65%	63.88
60%	70.74
55%	78.01
50%	85.62
45%	93.65
40%	102.53
35%	111.81
30%	122.48
25%	134.87
20%	149.58
15%	168.55
10%	194.49
5%	234.96
0%	573.69

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 0.00 to 6,000.00 BCFG
Entire range is from 144.80 to 5,999.99 BCFG
After 50,000 trials, the standard error of the mean is 5.99

Statistics:	Value
Trials	50000
Mean	2,645.16
Median	2,409.61
Mode	---
Standard Deviation	1,338.90
Variance	1,792,646.87
Skewness	0.55
Kurtosis	2.48
Coefficient of Variability	0.51
Range Minimum	144.80
Range Maximum	5,999.99
Range Width	5,855.18
Mean Standard Error	5.99

Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	144.80
95%	820.72
90%	1,063.69
85%	1,259.82
80%	1,425.28
75%	1,588.31
70%	1,744.32
65%	1,906.22
60%	2,062.17
55%	2,233.55
50%	2,409.61
45%	2,599.19
40%	2,801.17
35%	3,029.33
30%	3,275.03
25%	3,547.10
20%	3,861.93
15%	4,222.22
10%	4,657.20
5%	5,237.16
0%	5,999.99

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
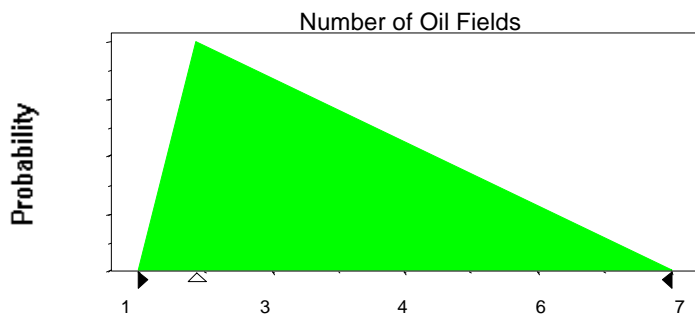
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	2.71		4.71
Standard Deviation	4.06		4.06

Selected range is from 0.00 to 43.00		2.00 to 45.00
Mean value in simulation was 2.64		4.64

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields

0.06	9.79	19.53	29.26	39.00
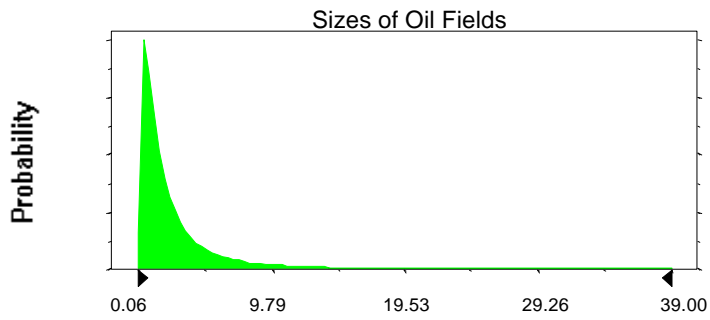
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,100.00
Likeliest	2,200.00
Maximum	3,300.00

Selected range is from 1,100.00 to 3,300.00
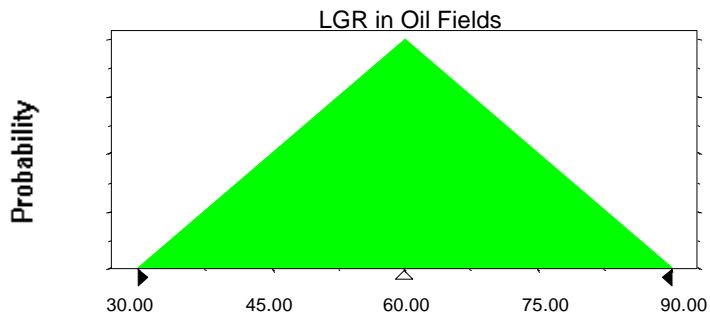Mean value in simulation was 2,196.85

GOR in Oil Fields

1,100.00	1,650.00	2,200.00	2,750.00	3,300.00
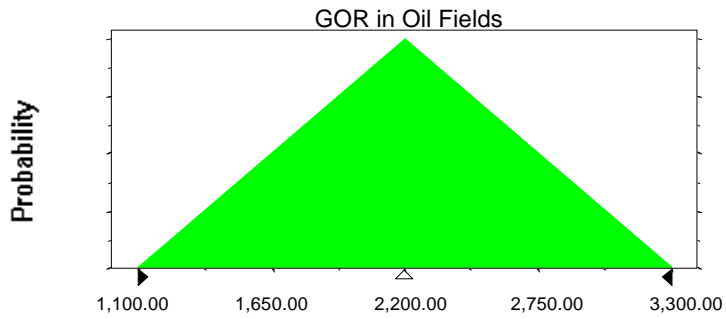
Assumption: LGR in Oil Fields

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 60.02
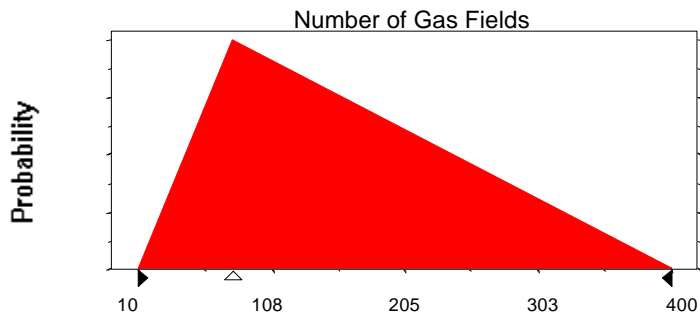
LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	10
Likeliest	79
Maximum	400

Selected range is from 10 to 400
Mean value in simulation was 163

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	145.23		157.23
Standard Deviation	535.71		535.71

Selected range is from 0.00 to 5,988.00		12.00 to 6,000.00	
Mean value in simulation was 134.90		146.9	
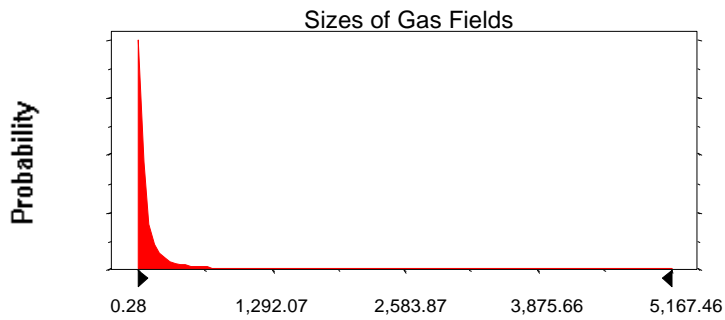
Sizes of Gas Fields

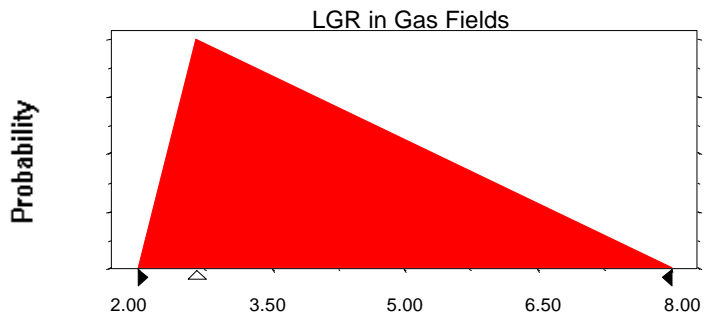**Assumption: LGR in Gas Fields**

Triangular distribution with parameters:
Minimum   2.00
Likeliest   2.67
Maximum   8.00

Selected range is from 2.00 to 8.00
Mean value in simulation was 4.22

LGR in Gas Fields

End of Assumptions

Simulation started on 8/24/99 at 14:17:42
Simulation stopped on 8/24/99 at 15:48:26