APPENDIX

ASSESSED RESOURCES FOR REGIONS AND PROVINCES

The assessed results for the four OCS Regions, up to the province level are presented in the columns on the following pages. For each region/subregion and province, the undiscovered conventionally recoverable resources and undiscovered economically recoverable resources are shown in each column.

CUMULATIVE RESOURCE DISTRIBUTION (*S* CURVES)

An *S* curve as illustrated in figure A-1 depicts resource volumes of oil or gas on the x axis and percentiles on the y axis. A percentile corresponds to a point on the distribution with a percent chance of that amount or greater occurring. An *S* curve showing cumulative resource distribution is presented for each region/subregion and province. The mean value is also presented, and it is usually accepted as the best indicator of central tendency. The mean of a distribution is the arithmetic average of all the values in the distribution. Another unique attribute of the mean is that, when it is multiplied by its appropriate probabilities, it can be added or subtracted. This attribute is only valid for the mean case, appropriately conditioned, and is not applicable to estimates at other percentiles. Assessors frequently report estimates at 95th and 5th percentile levels, as well as the mean estimate. The 95th percentile estimate (sometimes called the *low* or *conservative* estimate) reflects the resource quantity having a 95-percent probability that the ultimate resources will equal or exceed, whereas the 5th percentile estimate (sometimes called the *high* or *optimistic* estimate) reflects the level at which there is a 5-percent probability that the ultimate resources will be greater than or equal.

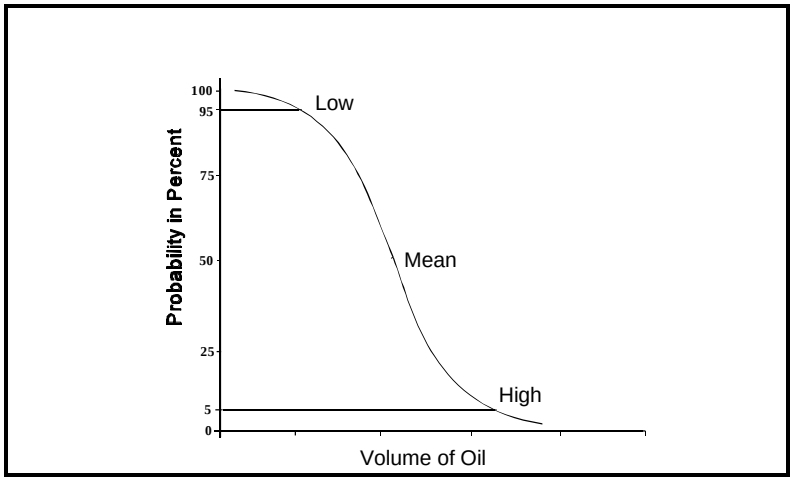


Figure A-1. Sample *S* Curve Showing Cumulative Resource Distribution

PRICE-SUPPLY CURVES

A price-supply curve shows the relationship of price to economically recoverable resource volumes (i.e., a horizontal line from the price axis to the curve yields the quantity of economically recoverable resource at the selected price). (See fig. A-2.)

The price-supply curve for each region/subregion and province shows two curves and two price scales, one for oil and one for gas. The curves represent mean values at any specific price. They are not independent of each other; that is, one specific oil price cannot be used to obtain an oil resource and a separate gas price used to get a gas resource. The gas price is dependent on the oil price and must be used in conjunction with the oil price on the opposite axis to calculate resources. The reason for this situation is that these two hydrocarbons frequently occur together and the individual pool economics are calculated using the coupled pricing. A different gas price associated with the oil price would result in a different resource number than that shown on the curve.

Two horizontal lines within the graph indicate critical price and marginal price. Values above the critical price indicate that at least one economic pool exists in the play. The play always has economic pools above the critical price. Below the marginal price, no resources can be obtained economically. Values between the critical price and the marginal price involve both economic and geologic risks.

The two vertical lines (solid for oil and dashed for natural gas) indicate the mean estimates of conventionally recoverable oil and natural gas resources.

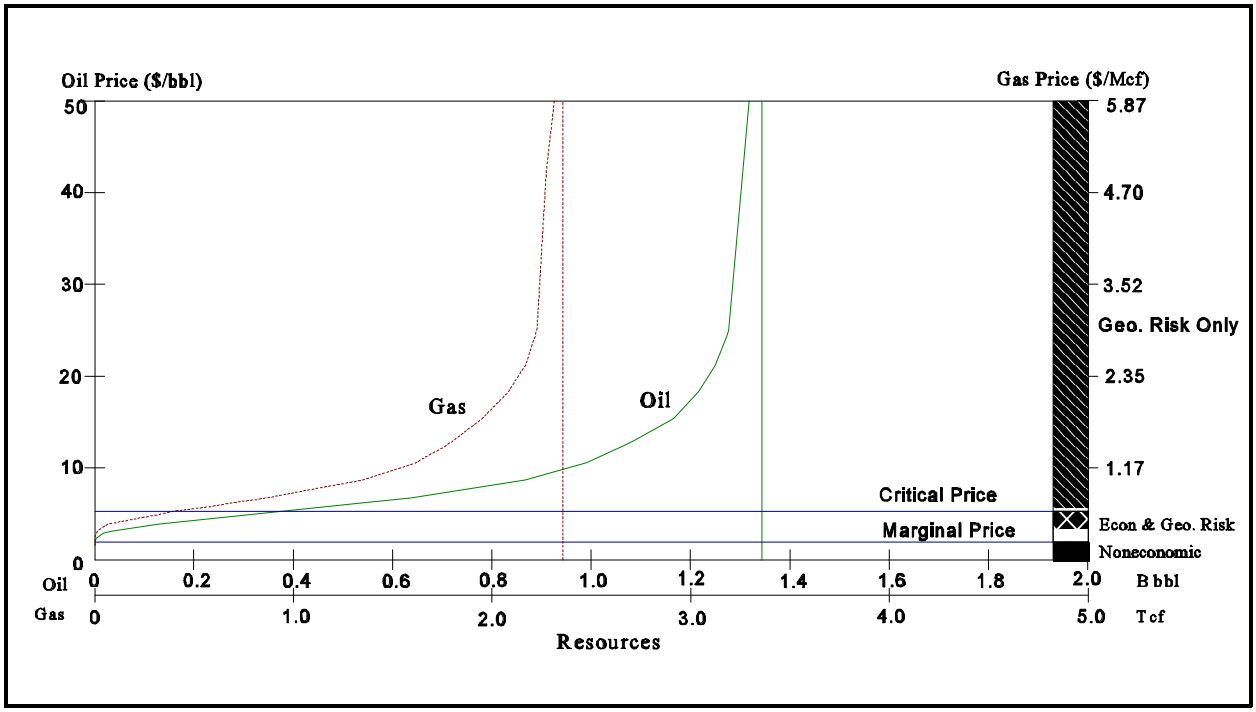


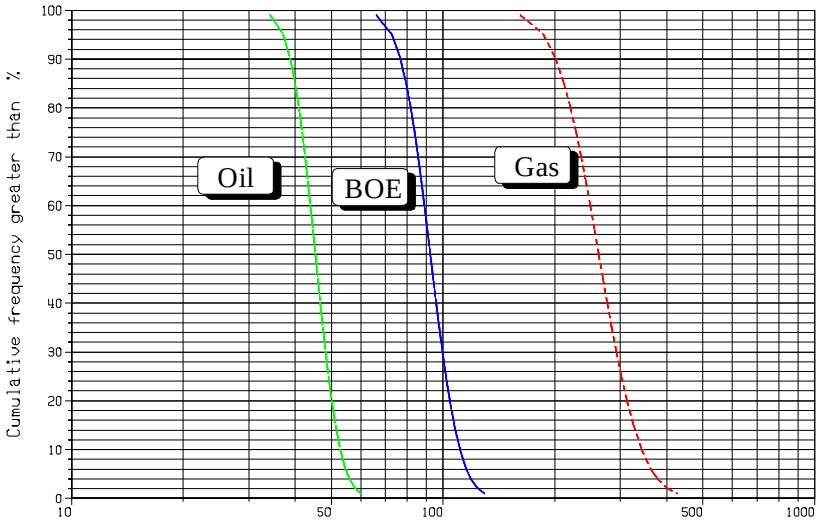
Figure A-2. Sample Price-Supply Curve

LEGEND FOR COLUMN RESULTS

Bbbl = billion barrels
BOE = barrels of oil equivalent
Mcf = thousand cubic feet
Tcf = trillion cubic feet

UNITED STATES OCS

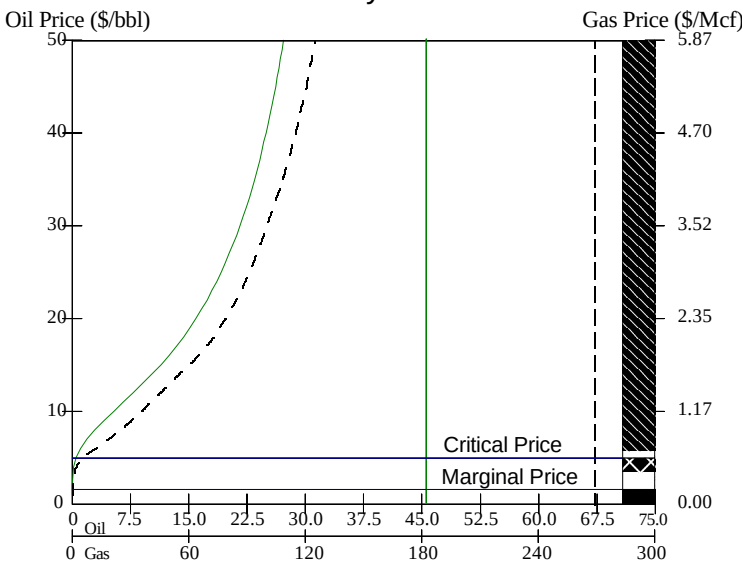
Undiscovered Conventionally Recoverable Resources



Oil, BOE (Bbbl) Gas (Tcf)

Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	45.6	268.0
Economically Recoverable	14.4	72.5

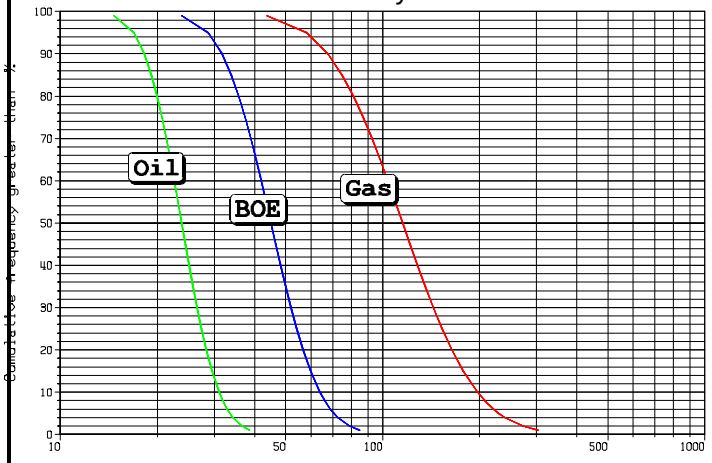
Undiscovered Economically Recoverable Resources



— Oil (Bbbl) - - - Gas (Tcf)

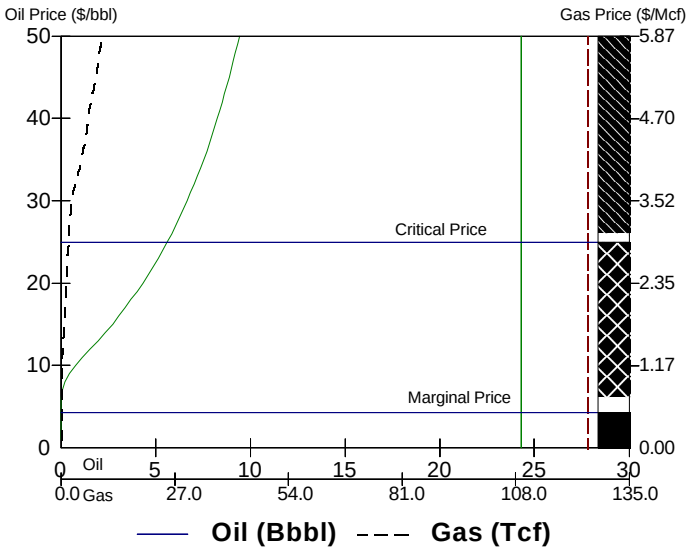
ALASKA OCS REGIONAL TOTAL

Undiscovered Conventionally Recoverable Resources



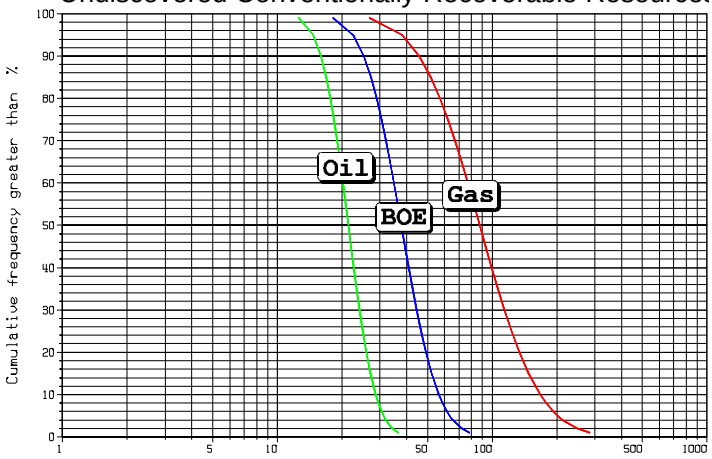
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	24.3	125.9
Economically Recoverable	3.8	1.1

Undiscovered Economically Recoverable Resources



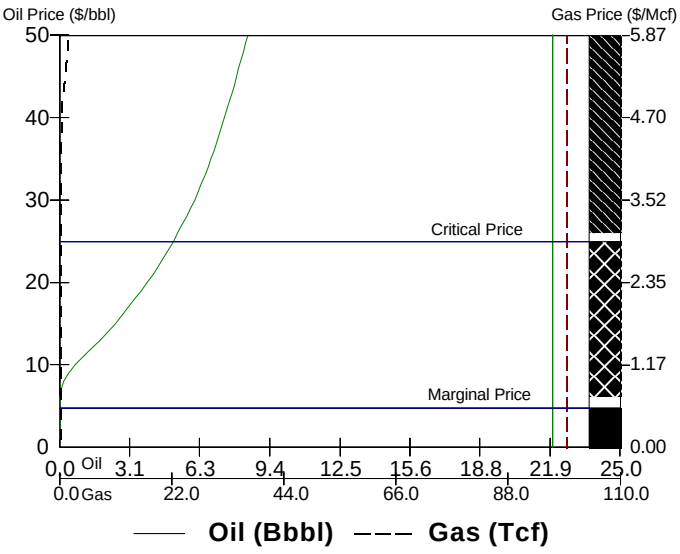
Arctic Subregion

Undiscovered Conventionally Recoverable Resources



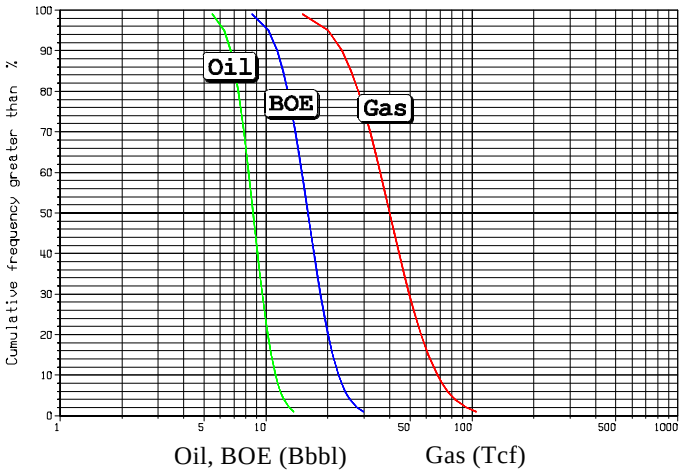
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	22.0	99.4
Economically Recoverable	3.4	0.2

Undiscovered Economically Recoverable Resources



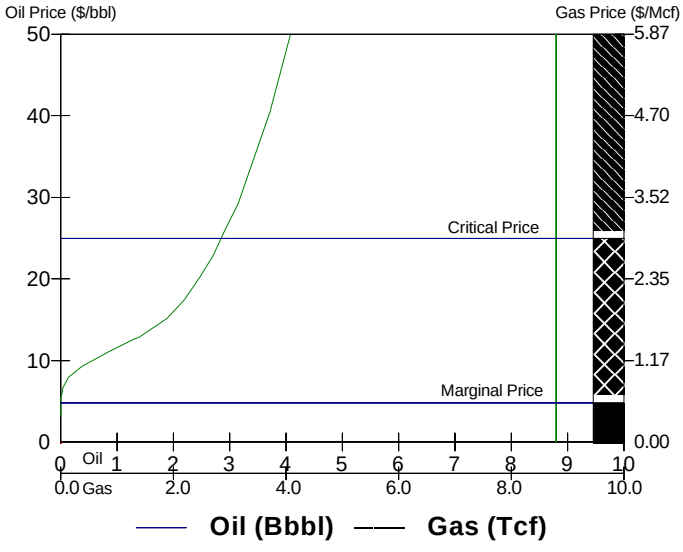
Beaufort Shelf Province

Undiscovered Conventionally Recoverable Resources



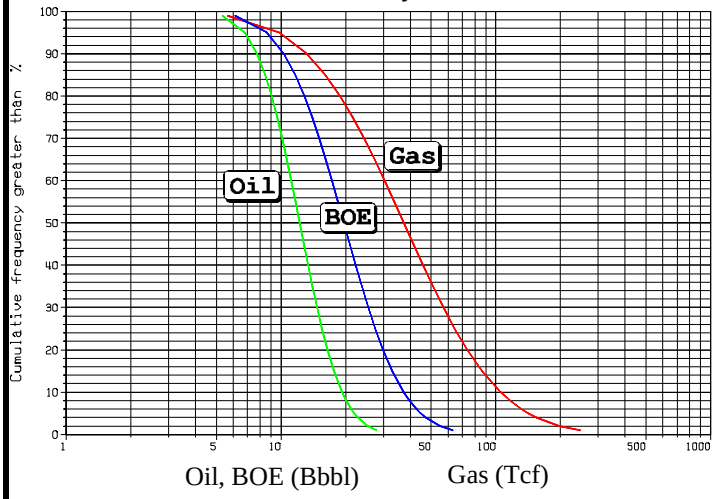
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	8.8	43.5
Economically Recoverable	2.3	N/A

Undiscovered Economically Recoverable Resources



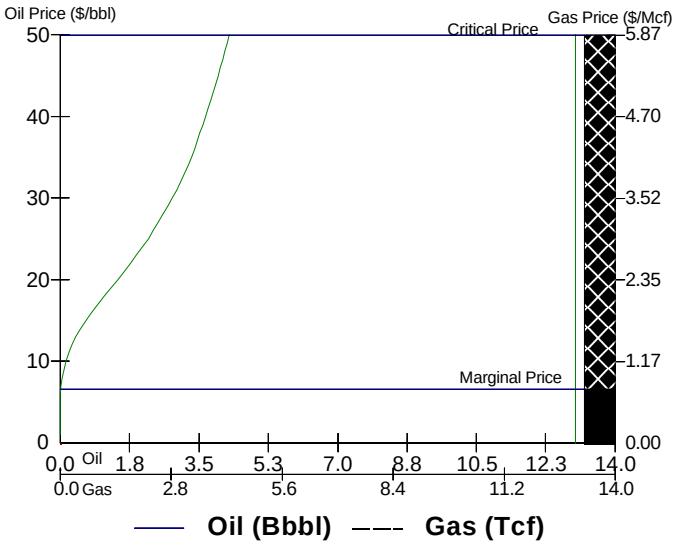
Chukchi Shelf Province

Undiscovered Conventionally Recoverable Resources



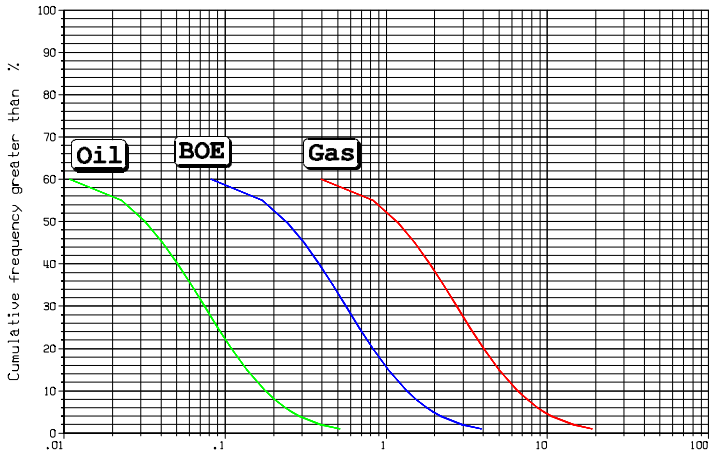
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	13.0	51.8
Economically Recoverable	1.1	N/A

Undiscovered Economically Recoverable Resources



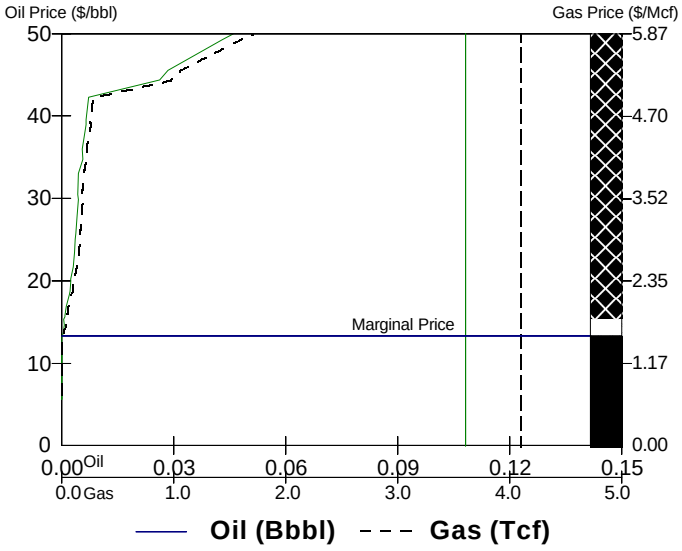
Hope Basin Province

Undiscovered Conventionally Recoverable Resources



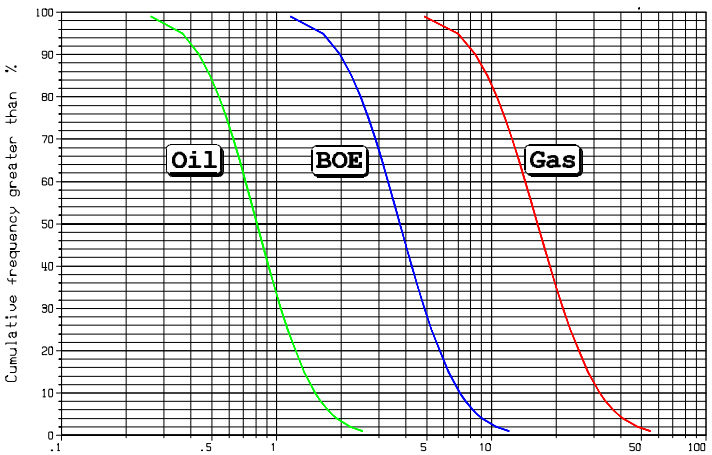
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.1	4.1
Economically Recoverable	Negligible	0.2

Undiscovered Economically Recoverable Resources



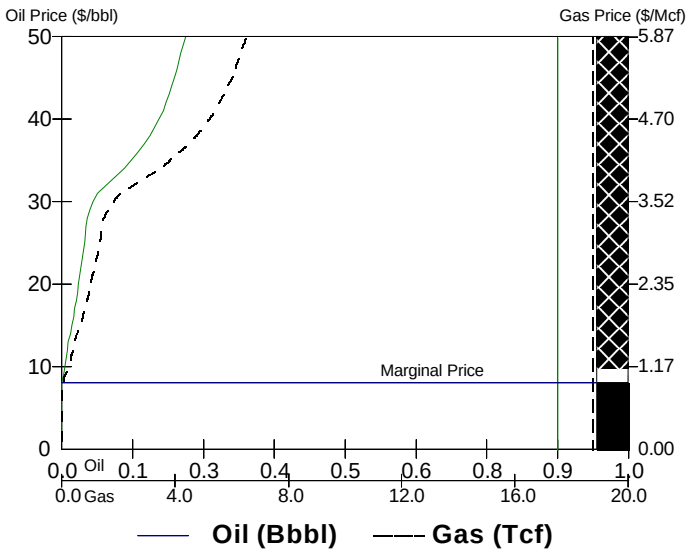
Bering Shelf Subregion

Undiscovered Conventionally Recoverable Resources



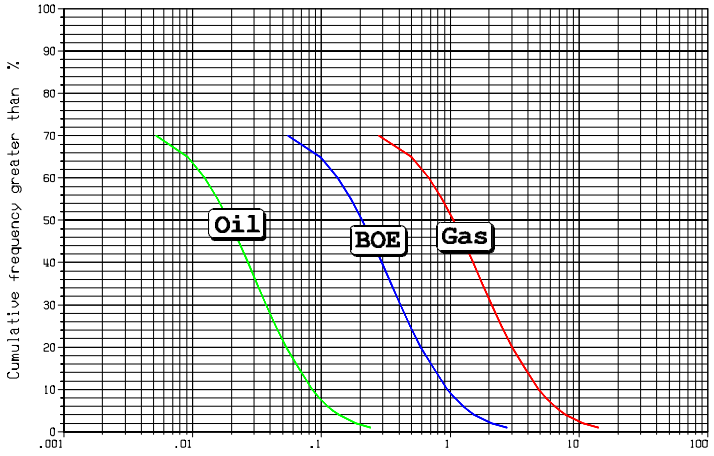
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.9	18.8
Economically Recoverable	Negligible	0.9

Undiscovered Economically Recoverable Resources



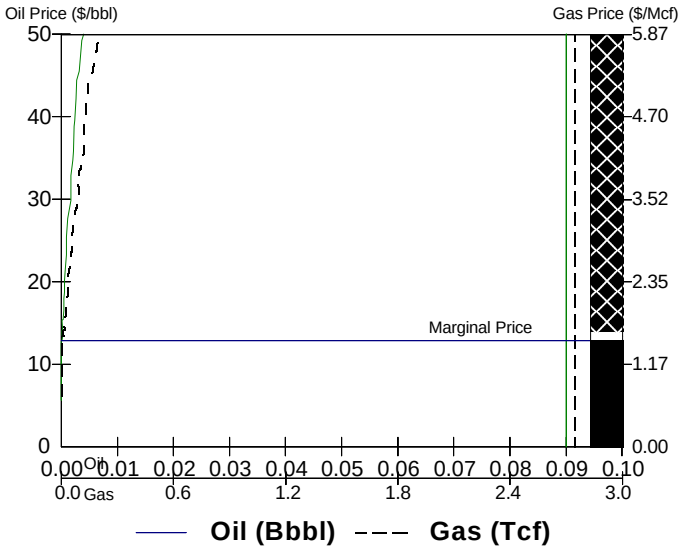
Norton Basin Province

Undiscovered Conventionally Recoverable Resources



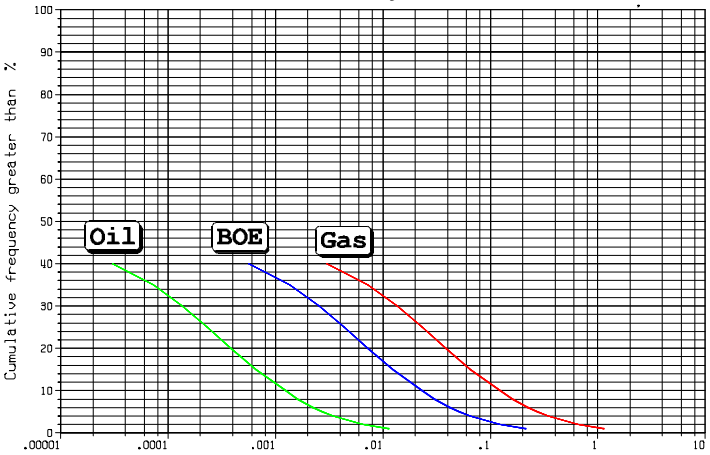
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	Negligible	2.7
Economically Recoverable	Negligible	Negligible

Undiscovered Economically Recoverable Resources



St. Matthew-Hall Basin Province

Undiscovered Conventionally Recoverable Resources

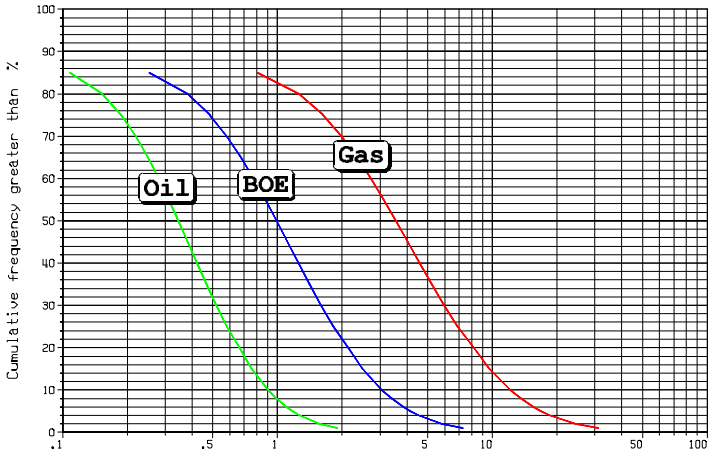


Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.0	0.2
Economically Recoverable	Negligible	Negligible

Negligible Economic Resources

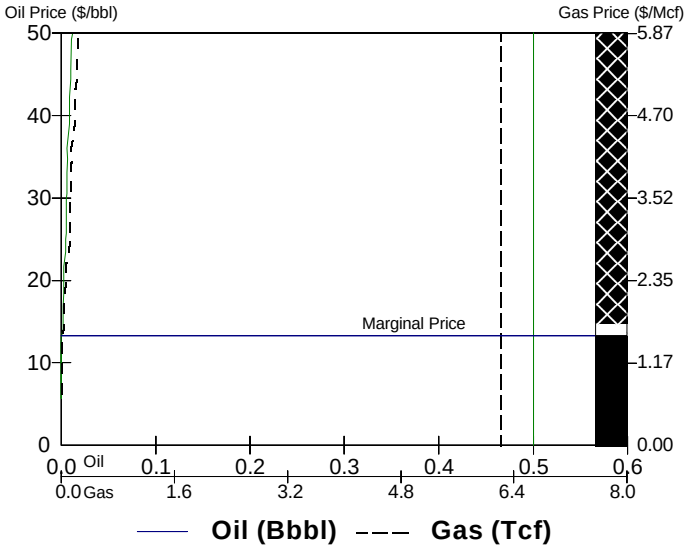
Navarin Basin Province

Undiscovered Conventionally Recoverable Resources



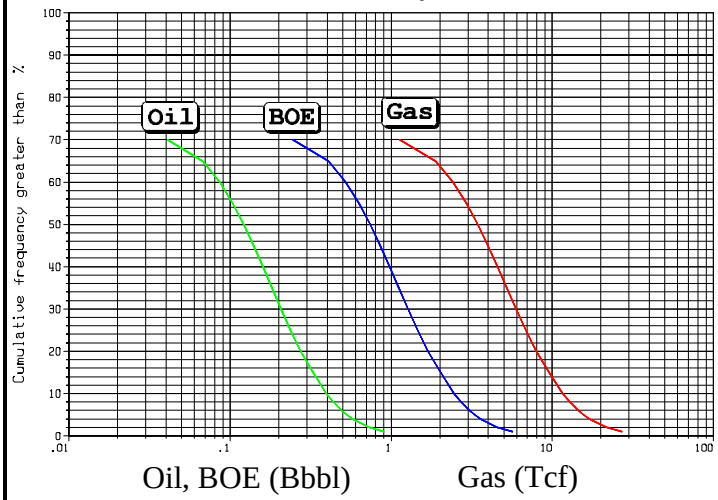
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.5	6.2
Economically Recoverable	Negligible	Negligible

Undiscovered Economically Recoverable Resources



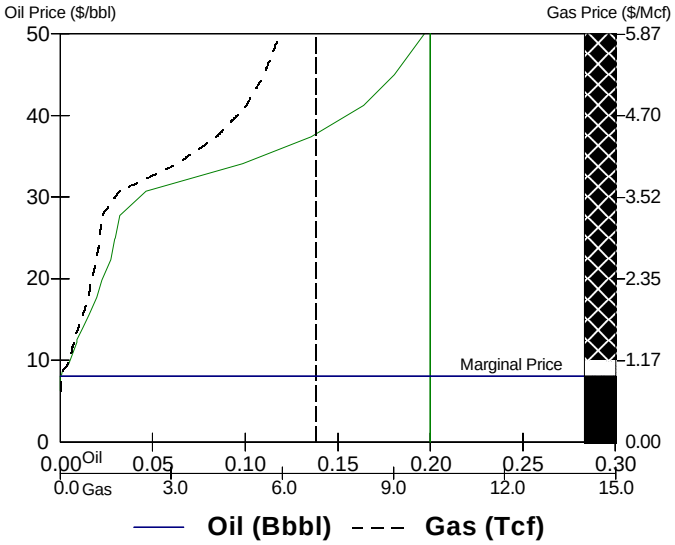
North Aleutian Basin Province

Undiscovered Conventionally Recoverable Resource



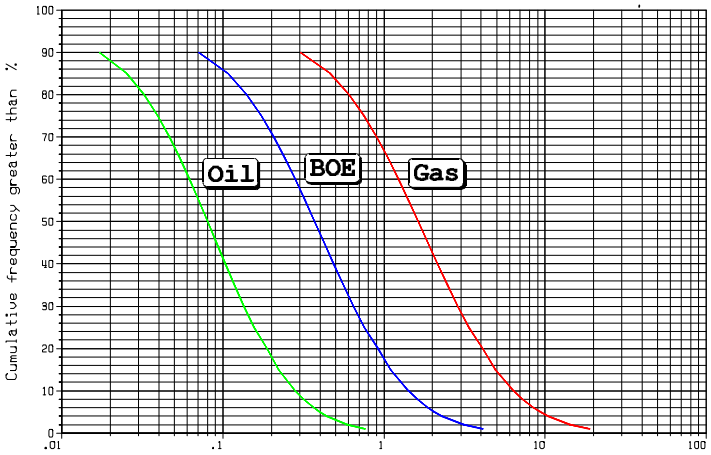
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.2	6.8
Economically Recoverable	Negligible	0.9

Undiscovered Economically Recoverable Resources



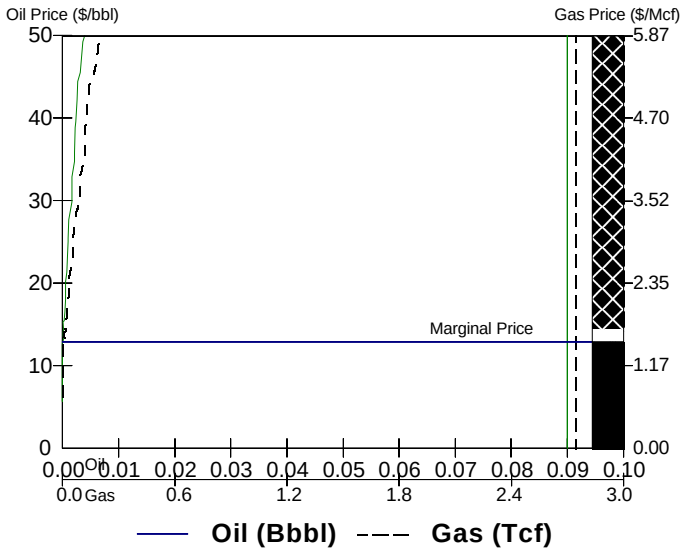
St. George Basin Province

Undiscovered Conventionally Recoverable Resources



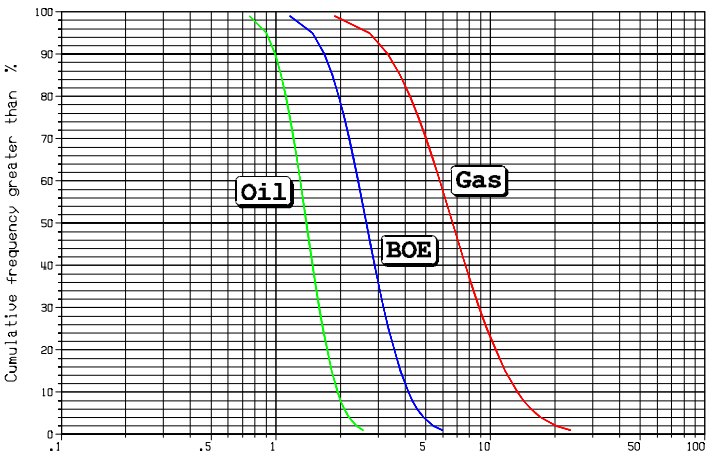
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.1	3
Economically Recoverable	Negligible	Negligible

Undiscovered Economically Recoverable Resources



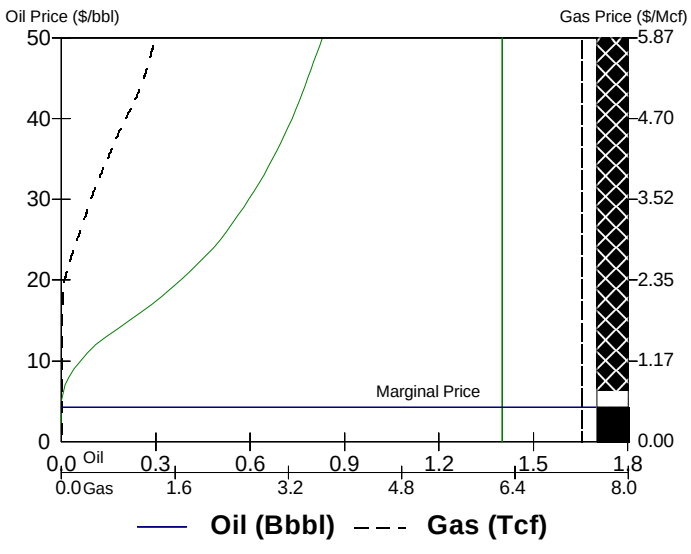
Pacific Margin Subregion

Undiscovered Conventionally Recoverable Resources



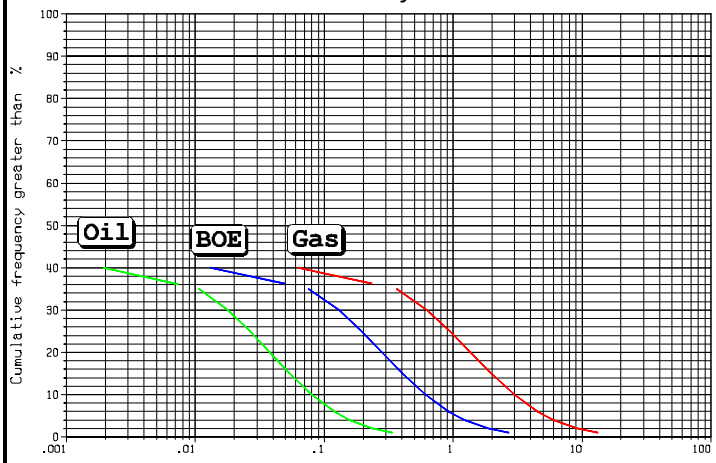
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	1.4	7.7
Economically Recoverable	0.3	Negligible

Undiscovered Economically Recoverable Resources



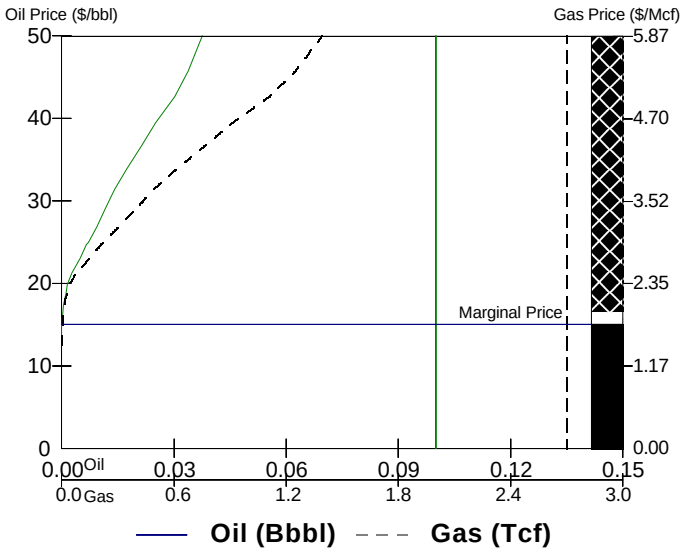
Shumagin-Kodiak Shelf Province

Undiscovered Conventionally Recoverable Resources



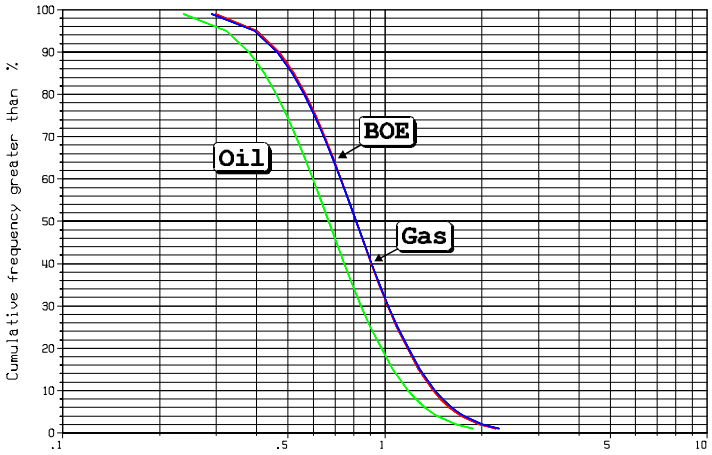
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.1	2.7
Economically Recoverable	Negligible	Negligible

Undiscovered Economically Recoverable Resources



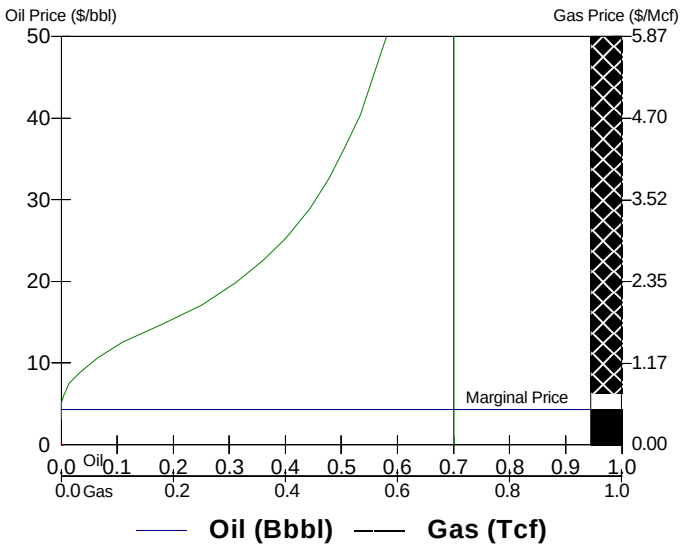
Cook Inlet Province

Undiscovered Conventionally Recoverable Resource



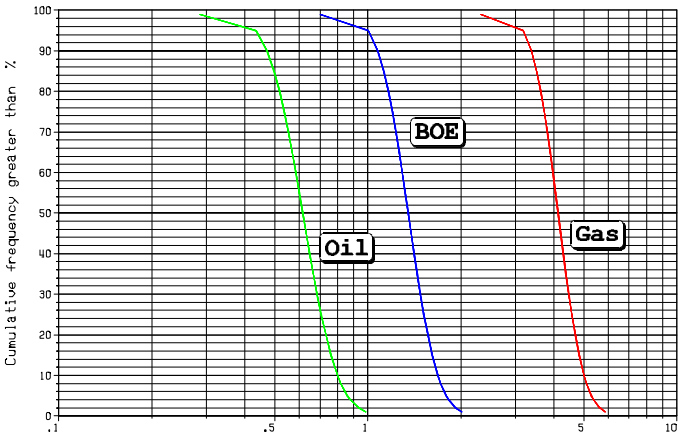
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.7	0.9
Economically Recoverable	0.3	N/A

Undiscovered Economically Recoverable Resources



Gulf of Alaska Province

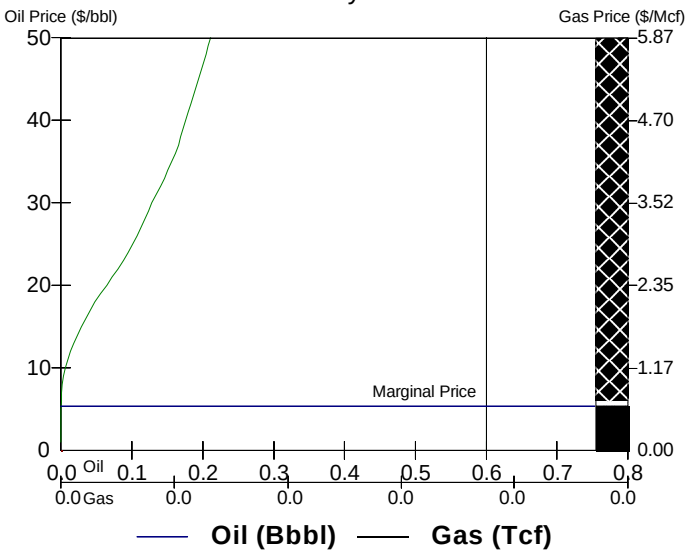
Undiscovered Conventionally Recoverable Resources



Oil, BOE (Bbbl) Gas (Tcf)

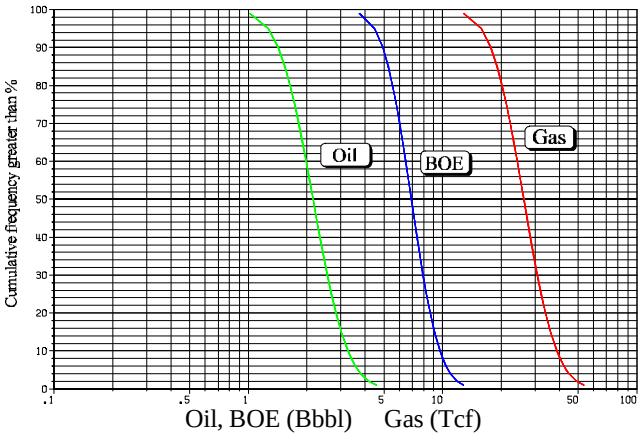
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.6	4.2
Economically Recoverable	Negligible	Negligible

Undiscovered Economically Recoverable Resources



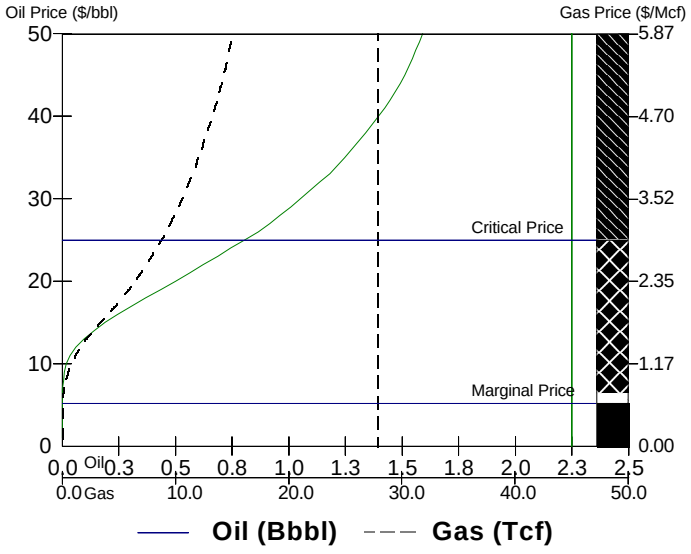
ATLANTIC OCS REGIONAL TOTAL

Undiscovered Conventionally Recoverable Resources



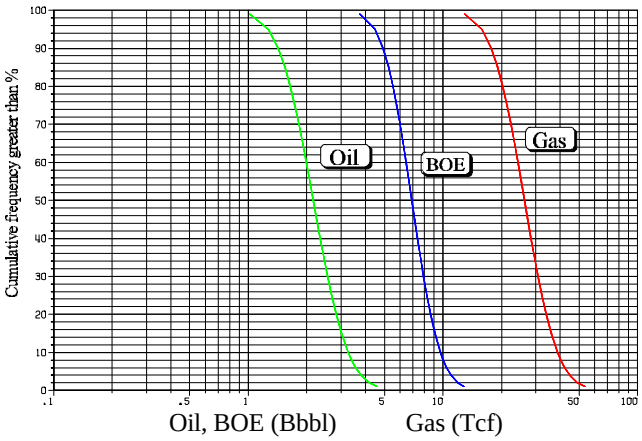
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	2.3	27.5
Economically Recoverable	0.4	5.2

Undiscovered Economically Recoverable Resources



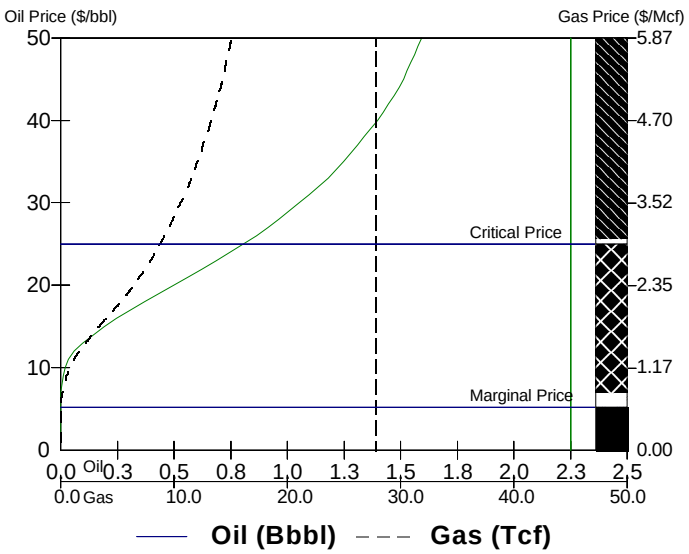
Mesozoic Province

Undiscovered Conventionally Recoverable Resources



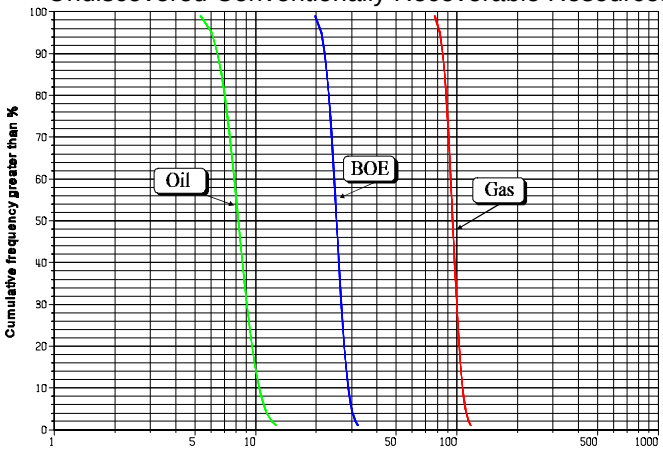
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	2.3	27.5
Economically Recoverable	0.4	5.2

Undiscovered Economically Recoverable Resources



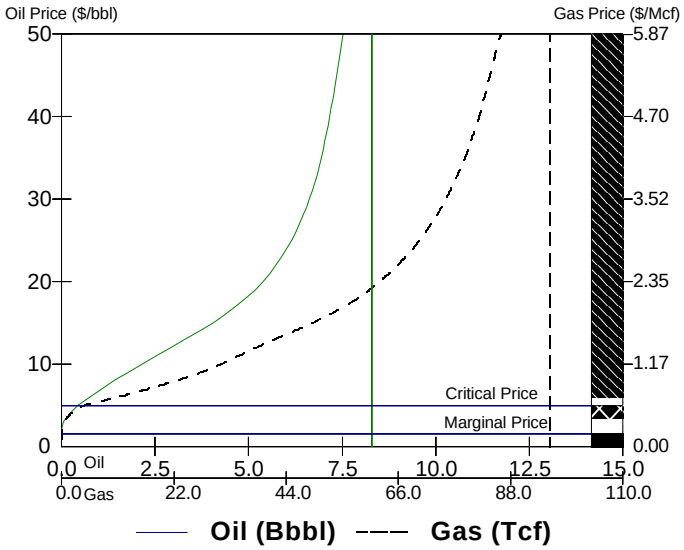
GULF OF MEXICO OCS REGIONAL TOTAL

Undiscovered Conventionally Recoverable Resources



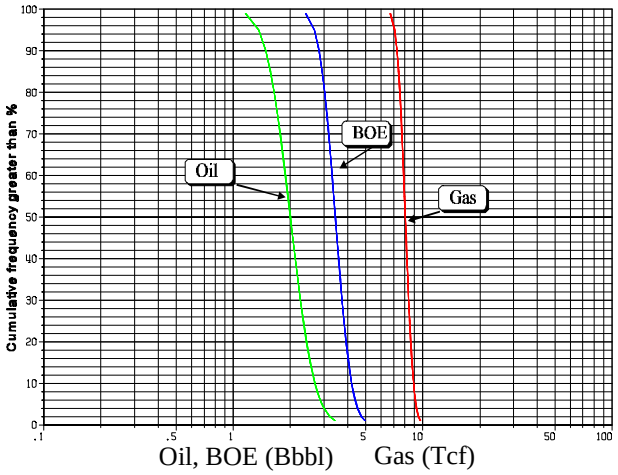
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	8.3	95.7
Economically Recoverable	4.9	57.9

Undiscovered Economically Recoverable Resources



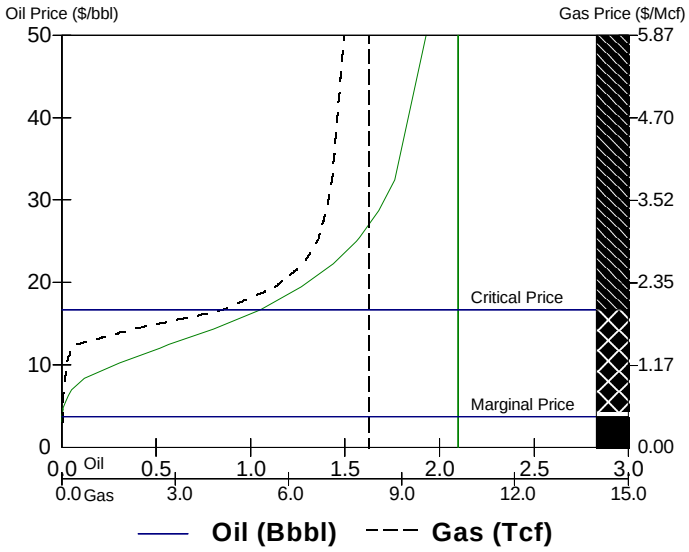
Mesozoic Province

Undiscovered Conventionally Recoverable Resources



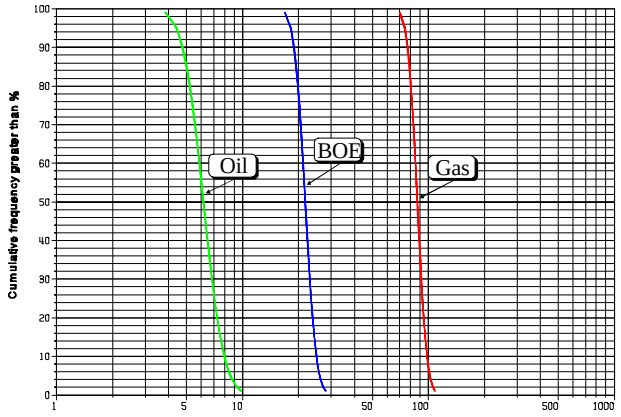
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	2.1	8.1
Economically Recoverable	1.1	4.9

Undiscovered Economically Recoverable Resources



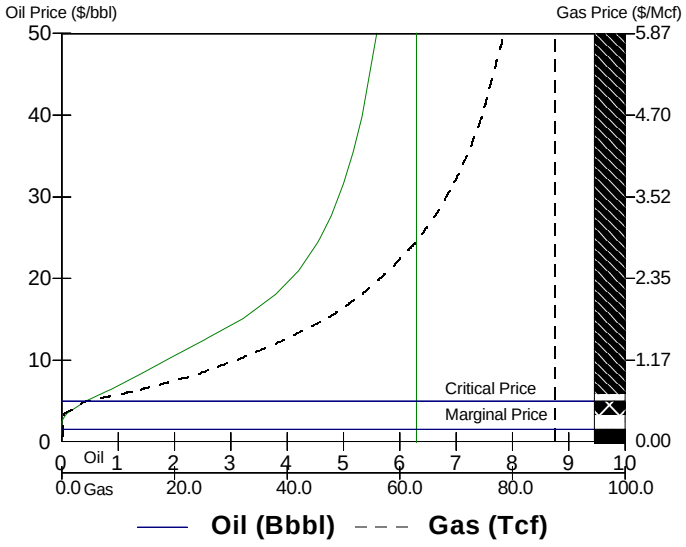
Cenozoic Province

Undiscovered Conventionally Recoverable Resources



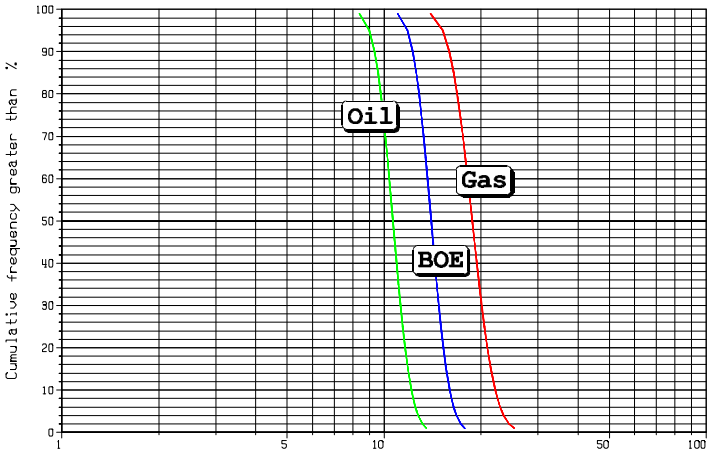
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	6.3	87.6
Economically Recoverable	3.8	53.0

Undiscovered Economically Recoverable Resources



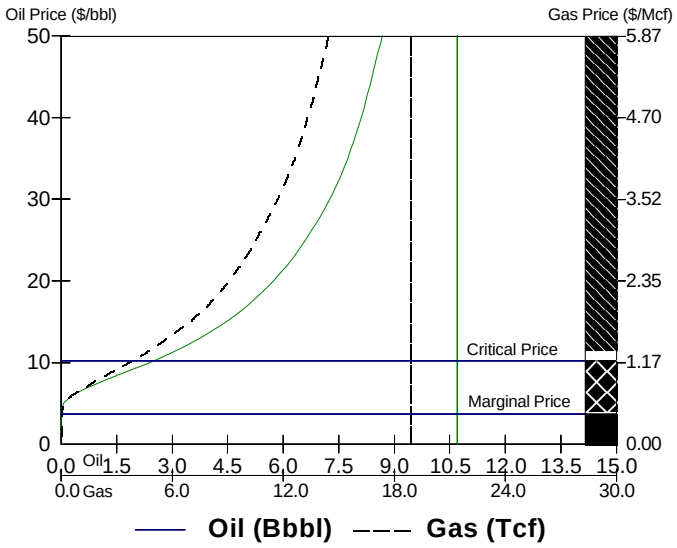
PACIFIC OCS REGIONAL TOTAL

Undiscovered Conventionally Recoverable Resources



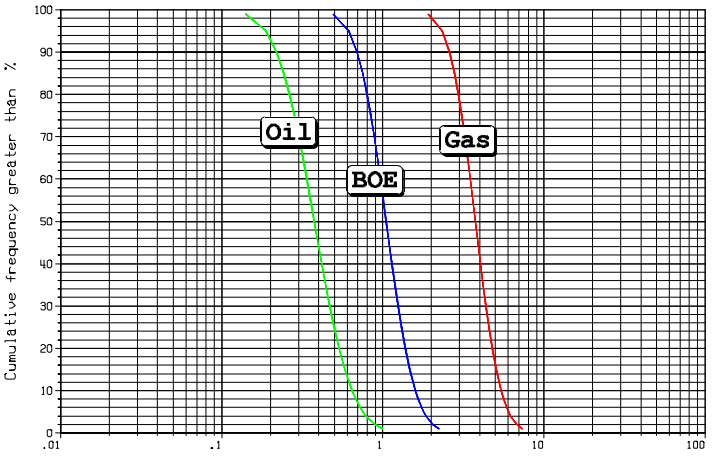
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	10.7	18.9
Economically Recoverable	5.3	8.3

Undiscovered Economically Recoverable Resources



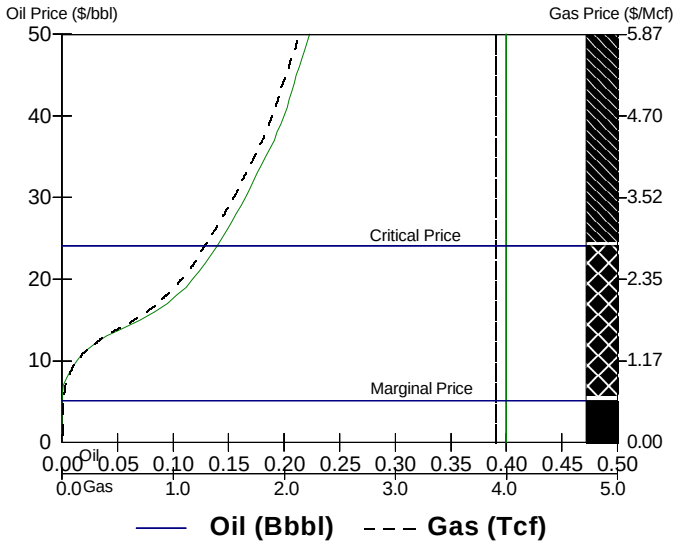
Pacific Northwest Province

Undiscovered Conventionally Recoverable Resource



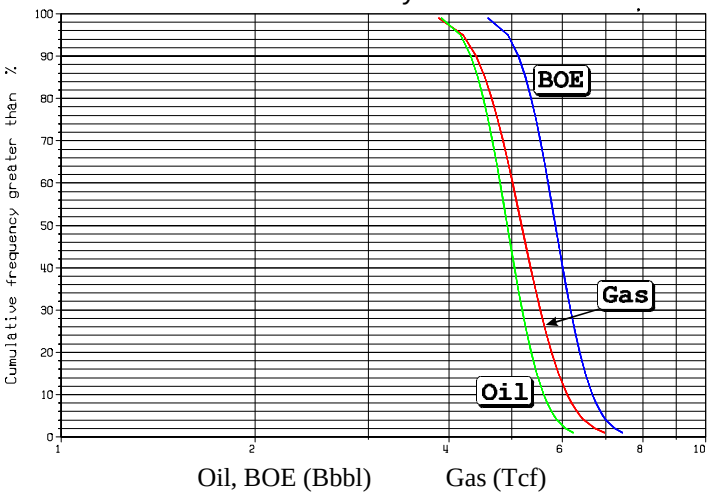
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.4	3.9
Economically Recoverable	0.1	1.0

Undiscovered Economically Recoverable Resources



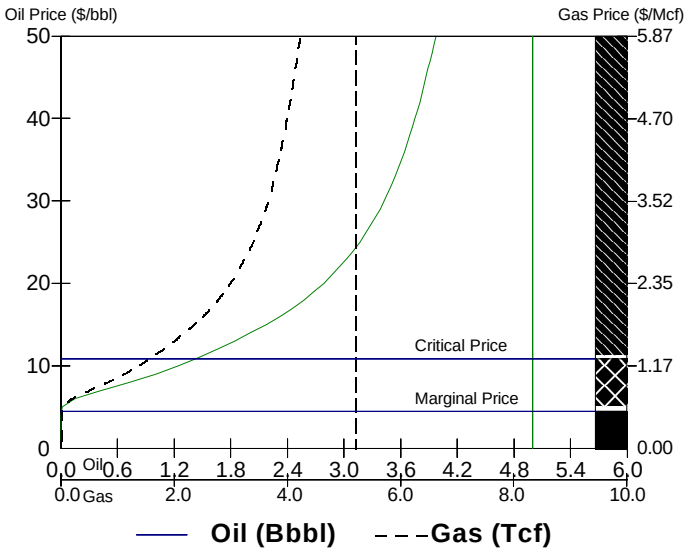
Central California Province

Undiscovered Conventionally Recoverable Resources



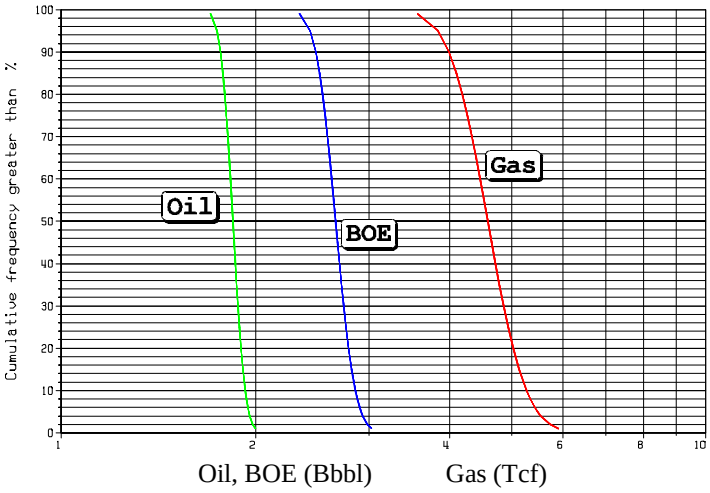
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	5.0	5.2
Economically Recoverable	2.6	2.7

Undiscovered Economically Recoverable Resources



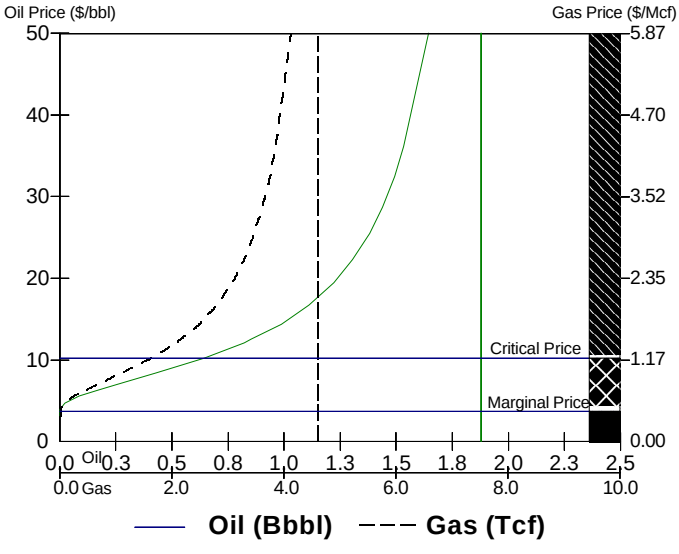
Santa Barbara - Ventura Basin & Province

Undiscovered Conventionally Recoverable Resources



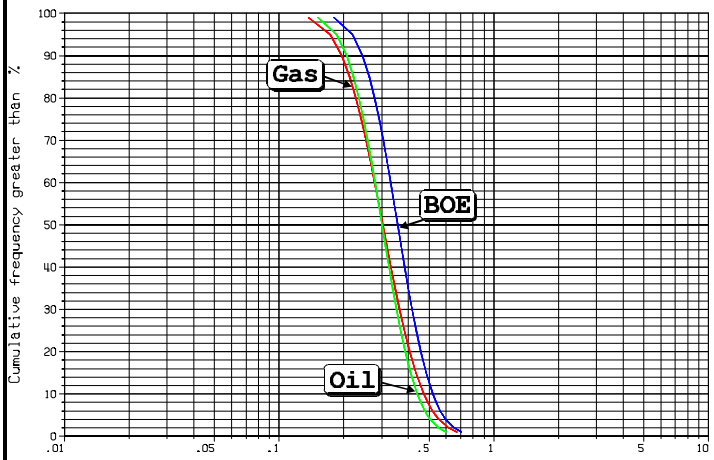
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	1.9	4.6
Economically Recoverable	1.2	2.9

Undiscovered Economically Recoverable Resources



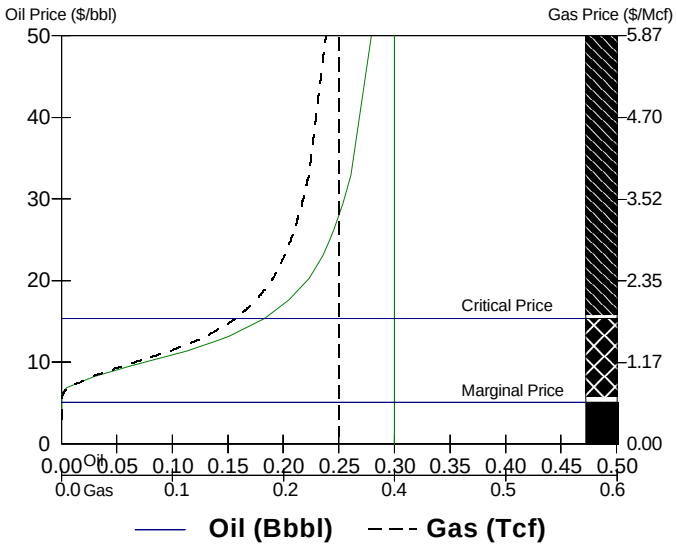
Los Angeles Basin & Province

Undiscovered Conventionally Recoverable Resources



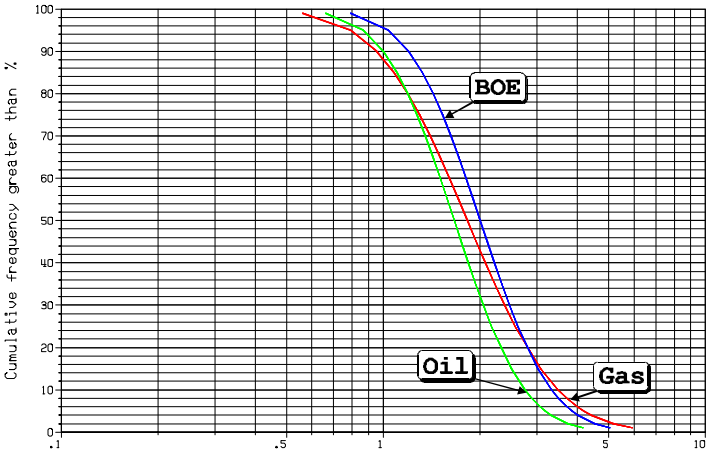
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	0.3	0.3
Economically Recoverable	0.2	0.2

Undiscovered Economically Recoverable Resources



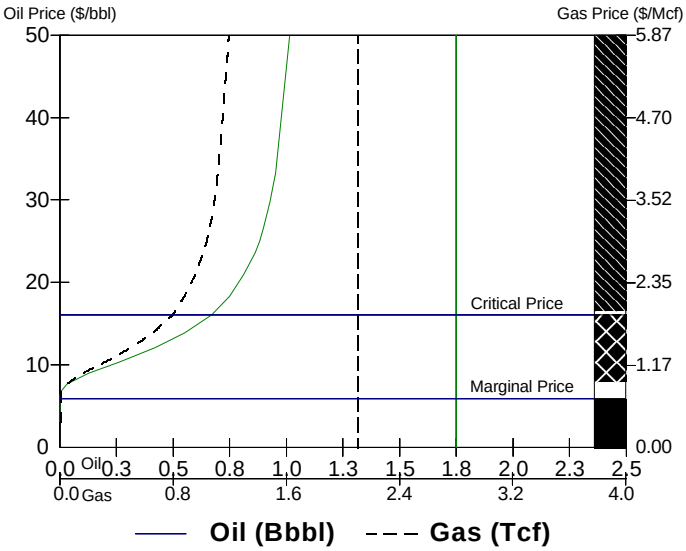
Inner Borderland Province

Undiscovered Conventionally Recoverable Resources



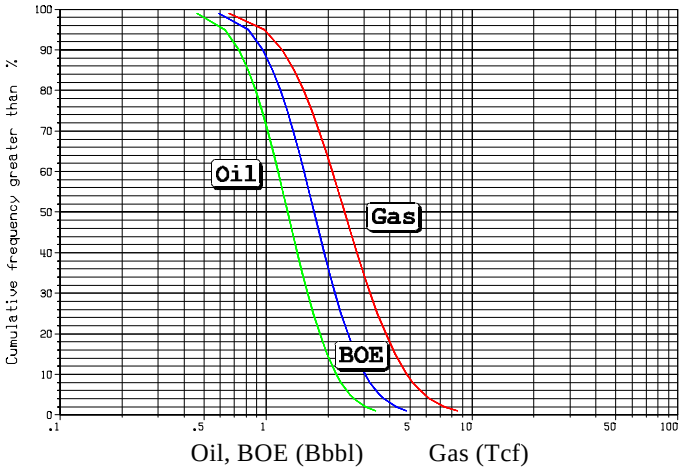
Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	1.8	2.1
Economically Recoverable	1.1	1.4

Undiscovered Economically Recoverable Resources



Outer Borderland Province

Undiscovered Conventionally Recoverable Resources



Undiscovered Resources	Mean Oil	Mean Gas
Conventionally Recoverable	1.4	2.8
Economically Recoverable	0.1	0.1

Undiscovered Economically Recoverable Resources