

## Planning Area Resources Addendum to Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, 2006



Figure 1. Federal OCS Planning Areas.

This report is an addendum to MMS Fact Sheet RED-2006-01 (*Assessment of Undiscovered Technically Recoverable Oil and Gas Resources of the Nation's Outer Continental Shelf, 2006*), and it summarizes the planning area level technically recoverable oil and gas resources for the U.S. Outer Continental Shelf (OCS) (see Figure 1). The OCS comprises that portion of the submerged seabed whose mineral estate is subject to Federal jurisdiction. Planning areas are administrative subdivisions of the OCS used in the Department of Interior's offshore oil and gas leasing program. Planning area boundaries were redefined in 2006, and therefore the planning area level results of this study are not directly comparable with previous MMS resource assessments. The 2006 assessment represents a comprehensive appraisal that considered relevant data and information available as of January 1, 2003, incorporated advances in petroleum exploration and development technologies, and employed new methods of resource assessment.

This assessment provides estimates of the undiscovered, recoverable oil and natural gas resources located outside of known oil and gas fields on the OCS. Estimates of undiscovered recoverable resources are presented in two categories, undiscovered technically recoverable resources (UTRR), and undiscovered economically recoverable resources (UERR) (see Table 1). UTRR estimates are presented at 95<sup>th</sup> and 5<sup>th</sup> percentile levels, as well as the mean estimate. This range of estimates corresponds to a 95-

percent probability (a 19 in 20 chance) and a 5-percent probability (a 1 in 20 chance) of there being more than those amounts present, respectively. The 95- and 5-percent probabilities are considered reasonable minimum and maximum values, and the mean is the average or expected value.

Estimates of UERR are presented for three discrete oil/gas price pairs, \$46/bbl and \$6.96/Mcf, \$60/bbl and \$9.07/Mcf, and \$80/bbl and \$12.10/Mcf respectively. They are based on mean resource values and the oil/gas price pairs are not independent of each other; that is, one specific oil price cannot be used to obtain an oil resource estimate and a separate gas price used to obtain a gas resource estimate. The gas price is dependent on the oil price and must be used in conjunction with the oil price to calculate resources. The reason for this condition is that oil and gas 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 in the table.

For further information on this study, please refer to MMS Fact Sheet RED-2006-01 or contact Gary Lore at 703-787-1628 or [gary.lore@mms.gov](mailto:gary.lore@mms.gov). Supporting geological studies, previous assessment results, and methodologies used by MMS for resource assessment can be found on MMS's web site, [www.mms.gov/offshore](http://www.mms.gov/offshore).

**Table 1.** Undiscovered Technically and Economically Recoverable Resources of OCS Planning Areas.

Resource values are in billion barrels of oil (Bbo), and trillion cubic of gas (Tcf). 95% indicates a 95 percent chance of at least the amount listed, 5% indicates a 5 percent chance of at least the amount listed. Only mean values are additive. Some total mean values may not equal the sum of the component values due to independent rounding. Prices are in dollars per barrel(\$/Bbl) for oil, and dollars per thousand cubic feet (\$/Mcf) for gas.

Region  Planning Area	Undiscovered Technically Recoverable Oil and Gas Resources (UTRR)									Undiscovered Economically Recoverable Oil and Gas Resources (UERR)					
	Oil (Bbo)			Gas (Tcfg)			BOE (Bbo)			\$46/Bbl \$6.96/Mcf		\$60/Bbl \$9.07/Mcf		\$80/Bbl \$12.10/Mcf	
	95%	Mean	5%	95%	Mean	5%	95%	Mean	5%	Oil (Bbo)	Gas (Tcfg)	Oil (Bbo)	Gas (Tcfg)	Oil (Bbo)	Gas (Tcfg)
										Mean	Mean	Mean			
<b>Alaska OCS*</b>	<b>8.66</b>	<b>26.61</b>	<b>55.14</b>	<b>48.28</b>	<b>132.06</b>	<b>279.62</b>	<b>17.25</b>	<b>50.11</b>	<b>104.89</b>	<b>8.35</b>	<b>26.86</b>	<b>16.62</b>	<b>64.91</b>	<b>21.50</b>	<b>93.99</b>
Chukchi Sea	2.32	15.38	40.08	10.32	76.77	209.53	4.15	29.04	77.36	2.37	7.91	8.38	34.43	12.00	54.44
Beaufort Sea	0.41	8.22	23.24	0.65	27.64	72.18	0.53	13.14	36.08	4.12	8.79	5.97	15.94	6.92	19.97
Hope Basin	0.00	0.15	0.60	0.00	3.77	14.98	0.00	0.82	3.27	0.02	0.04	0.04	0.34	0.09	1.53
Navarin Basin	0.00	0.13	0.62	0.00	1.22	5.80	0.00	0.35	1.65	0.01	0.04	0.03	0.16	0.06	0.37
North Aleutian Basin	0.02	0.75	2.50	0.40	8.62	23.28	0.09	2.29	6.65	0.63	5.85	0.71	7.65	0.74	8.40
St. George Basin	0.00	0.21	0.79	0.00	2.80	11.15	0.00	0.71	2.77	0.04	0.06	0.08	0.37	0.13	1.05
Norton Basin	0.00	0.06	0.24	0.00	3.06	13.27	0.00	0.60	2.61	0.00	0.04	0.01	0.64	0.04	1.97
Cook Inlet	0.06	1.01	2.85	0.03	1.20	3.48	0.06	1.23	3.47	0.82	1.02	0.92	1.11	0.97	1.16
Gulf of Alaska	0.00	0.63	2.04	0.00	4.65	16.00	0.00	1.45	4.89	0.31	1.88	0.43	2.66	0.52	3.21
Shumagin	0.00	0.01	0.05	0.00	0.49	2.04	0.00	0.10	0.42	0.00	0.04	0.00	0.13	0.01	0.25
Kodiak	0.00	0.05	0.20	0.00	1.84	7.62	0.00	0.38	1.55	0.03	1.19	0.04	1.48	0.04	1.65
*The Aleutian Arc, Aleutian Basin, Bowers Basin, and St. Matthew-Hall Planning Areas in the Alaska OCS Region were not evaluated in this study as their petroleum potential is negligible.															
<b>Atlantic OCS</b>	<b>1.12</b>	<b>3.82</b>	<b>7.57</b>	<b>14.30</b>	<b>36.99</b>	<b>66.46</b>	<b>3.67</b>	<b>10.40</b>	<b>19.39</b>	<b>2.23</b>	<b>13.70</b>	<b>2.57</b>	<b>17.28</b>	<b>2.84</b>	<b>20.75</b>
North Atlantic	0.57	1.91	3.80	7.18	17.99	32.17	1.85	5.12	9.52	1.15	6.91	1.32	8.65	1.45	10.32
Mid-Atlantic	0.43	1.50	2.96	5.44	15.13	27.53	1.39	4.19	7.85	0.81	5.12	0.94	6.60	1.06	8.05
South Atlantic	0.13	0.41	0.81	1.67	3.86	6.76	0.43	1.10	2.01	0.27	1.67	0.30	2.04	0.33	2.38
<b>Gulf of Mexico OCS</b>	<b>41.21</b>	<b>44.92</b>	<b>49.11</b>	<b>218.83</b>	<b>232.54</b>	<b>249.08</b>	<b>80.15</b>	<b>86.30</b>	<b>93.43</b>	<b>35.79</b>	<b>162.83</b>	<b>38.20</b>	<b>184.79</b>	<b>40.21</b>	<b>201.55</b>
Western Gulf of Mexico	9.80	10.70	11.80	62.65	66.25	70.17	20.95	22.49	24.28	8.69	51.86	9.25	56.47	9.71	59.87
Central Gulf of Mexico	28.41	30.32	32.77	134.49	144.77	156.56	52.33	56.08	60.62	24.23	101.00	25.82	114.98	27.16	125.67
Eastern Gulf of Mexico	2.76	3.88	5.51	18.06	21.51	25.98	5.97	7.71	10.13	2.85	9.96	3.11	13.32	3.33	16.00
Straits of Florida	0.01	0.02	0.03	0.01	0.02	0.02	0.01	0.02	0.04	0.01	0.01	0.01	0.01	0.01	0.01
<b>Pacific OCS</b>	<b>7.55</b>	<b>10.53</b>	<b>13.94</b>	<b>13.28</b>	<b>18.29</b>	<b>24.12</b>	<b>9.91</b>	<b>13.79</b>	<b>18.24</b>	<b>7.52</b>	<b>11.70</b>	<b>8.22</b>	<b>13.02</b>	<b>8.85</b>	<b>14.25</b>
Washington/Oregon	0.00	0.40	0.94	0.03	2.28	4.89	0.01	0.81	1.81	0.19	0.79	0.23	0.95	0.26	1.12
Northern California	1.08	2.08	3.55	2.30	3.58	5.17	1.49	2.71	4.47	1.53	2.01	1.65	2.27	1.77	2.54
Central California	1.17	2.31	3.76	1.10	2.41	4.06	1.37	2.74	4.49	1.90	2.01	2.04	2.14	2.13	2.24
Southern California	3.51	5.74	8.53	6.41	10.03	14.69	4.65	7.52	11.14	3.90	6.89	4.30	7.65	4.69	8.35
<b>Total U.S. OCS</b>	<b>66.60</b>	<b>85.88</b>	<b>115.13</b>	<b>326.40</b>	<b>419.88</b>	<b>565.87</b>	<b>124.68</b>	<b>160.60</b>	<b>215.82</b>	<b>53.89</b>	<b>215.09</b>	<b>65.61</b>	<b>280.00</b>	<b>73.40</b>	<b>330.54</b>