

Resource Summary

For the Illinois Basin, the USGS estimated the quantities of undiscovered, technically recoverable oil and gas resources as follows (table 1):

- (1) a mean of 214 million barrels of oil,
- (2) a mean of 4.65 trillion cubic feet of natural gas, and
- (3) a mean of 24 million barrels of natural gas liquids.

The Ordovician Dutchtown to Galena AU has the greatest potential for undiscovered oil, with an estimated mean of 72 million barrels of undiscovered, technically recoverable oil. The Upper Silurian Carbonates (Reef) AU and the Middle Devonian Carbonates AU also have substantial potential for undiscovered, technically recover-

able oil. The Devonian to Mississippian New Albany Continuous AU has the greatest potential for undiscovered gas, with an estimated mean of 3.79 trillion cubic feet of undiscovered, technically recoverable gas.

Additional Information

Supporting geologic studies of the Illinois Basin total petroleum systems and assessment units are in progress. Assessment results, as well as information on the assessment methodology, are posted on the USGS web site <http://energy.cr.usgs.gov/oilgas/noga> as they become available.

Illinois Basin Assessment Team

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Table 1. Illinois Basin oil and gas assessment results.

[All tabulated results are for technically recoverable resources. MMBO is million barrels of oil. BCFG is billion cubic feet of gas. MMBNGL is million barrels of natural gas liquids. Results shown are fully risked estimates. For gas accumulations, 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. TPS is Total Petroleum System. AU is Assessment Unit. CBG is Coal Bed Gas. Gray shade indicates not applicable or not assessed quantitatively]

	Field Type	Total Undiscovered Resources											
		Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)			
		F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Devonian to Mississippian New Albany TPS													
Pennsylvanian Sandstones AU	Oil	0	1	5	2	0	2	8	3	0	0	1	0
	Gas					0	0	0	0	0	0	0	0
Upper Mississippian Sandstones AU	Oil	2	6	11	6	2	7	15	8	0	0	1	1
	Gas					0	0	0	0	0	0	0	0
Lower Mississippian Carbonates AU	Oil	5	13	23	13	4	14	28	15	0	1	2	1
	Gas					0	0	0	0	0	0	0	0
Lower Mississippian Borden AU	Oil	0	1	5	1	0	0	6	2	0	0	0	0
	Gas					0	0	0	0	0	0	0	0
Middle Devonian Carbonates AU	Oil	6	26	64	29	6	27	75	32	0	1	5	2
	Gas					0	0	0	0	0	0	0	0
Middle Devonian Dutch Creek Sandstone AU	Oil	0	7	21	8	0	7	25	9	0	0	1	0
	Gas					0	0	0	0	0	0	0	0
Lower Devonian Carbonates AU	Oil	0	5	16	6	0	5	18	7	0	0	1	0
	Gas					0	0	0	0	0	0	0	0
Upper Silurian Carbonates (Reef) AU	Oil	13	46	102	51	13	49	122	56	1	3	7	3
	Gas					0	0	0	0	0	0	0	0
Upper Silurian Calcareous Siltstones AU	Oil	0	0	61	10	0	0	45	8	0	0	2	0
	Gas					0	0	0	0	0	0	0	0
Lower Silurian Carbonates AU	Oil	2	10	25	11	2	8	25	10	0	0	1	1
	Gas					0	0	0	0	0	0	0	0
Cambrian to Ordovician Carbonates Cumberland Saddle AU	Oil	2	4	10	5	2	5	12	6	0	0	1	0
	Gas					0	0	0	0	0	0	0	0
Ordovician Ancell/Maquoketa TPS													
Ordovician Dutchtown to Galena AU	Oil	11	63	162	72	13	78	205	86	1	5	15	6
	Gas					25	150	419	177	0	3	9	4
Ordovician St. Peter/Everton AU	Not assessed quantitatively												
Precambrian to Cambrian TPS													
Cambrian to Ordovician Knox Group AU	Not assessed quantitatively												
Cambrian Mount Simon to Eau Claire AU	Not assessed quantitatively												
Precambrian to Cambrian Rift-Fill AU	Not assessed quantitatively												
Total Conventional Resources		41	182	505	214	67	352	1,003	419	2	13	46	18
Continuous Oil and Gas Resources													
Pennsylvanian Coal and Shale TPS													
Pennsylvanian Coal Bed Gas AU	CBG	0	0	0	0	182	396	861	443	0	0	1	1
Devonian to Mississippian New Albany TPS													
Devonian to Mississippian New Albany Continuous AU	Gas	0	0	0	0	1,300	3,248	8,116	3,792	1	4	13	5
Ordovician Ancell/Maquoketa TPS													
Ordovician Maquoketa Continuous AU	Gas	Not assessed quantitatively											
Total Continuous Resources		0	0	0	0	1,482	3,644	8,977	4,235	1	4	14	6
Total Undiscovered Oil and Gas Resources		41	182	505	214	1,549	3,996	9,980	4,654	3	17	60	24