



**Table 1.** Dnieper–Donets Basin Province and Pripjat Basin Province assessment results (technically recoverable, conventional undiscovered resources).

[MMB, million barrels; BCF, billion cubic feet. Results shown are fully risked estimates. For gas fields, all liquids are included under the natural gas liquids (NGL) category. F95 denotes 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, total petroleum system; AU, assessment unit. Gray shading indicates not applicable]

Total petroleum systems (TPS) and assessment units (AU)	Field type	Mean (expected) largest field size (MMB or BCF)	Total undiscovered resources											
			Oil (MMB)				Gas (BCF)				NGL (MMB)			
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
<b>Dnieper–Donets Basin Province, Paleozoic Composite TPS</b>														
Clastic and Carbonate Reservoirs AU	Oil	16	46	80	134	84	142	267	492	286	4	9	17	9
	Gas	1,141					1,957	4,115	8,055	4,453	47	105	243	120
<b>Pripjat Basin Province, Paleozoic Composite TPS</b>														
Carbonate Reservoirs AU	Oil	6	20	36	64	39	11	28	63	31	0	1	2	1
	Gas	16					0	13	42	17	0	0	1	<1
<b>Total undiscovered petroleum resources</b>						<b>123</b>				<b>4,787</b>				<b>130</b>

are in the northern part of the Carbonate Reservoirs AU (fig. 1), probably because of an underlying magmatic body that increased thermal maturation of the source rocks. Undiscovered accumulations could exist in traps similar to those already discovered in the northern part of the AU.

### Assessment Results

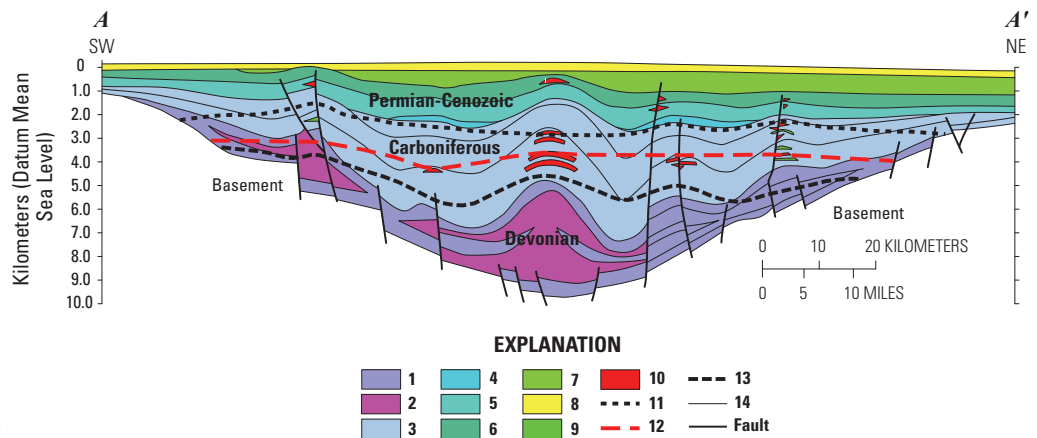
Estimates of volumes of technically recoverable, conventional, and undiscovered oil and gas resources are shown in table 1. No attempt was made to estimate economically recoverable resources because it is beyond the scope of this study. The mean volumes of undiscovered petroleum in the Dnieper–Donets Basin Province are estimated at approximately 84 million barrels (MMB) of crude oil, 4,739 billion cubic feet (BCF) of natural gas (286 BCF of associated and dissolved natural gas and 4,453 BCF of nonassociated natural gas), and 130 MMB of natural gas liquids. The mean volumes of undiscovered petroleum in the Pripjat Basin Province are estimated at approximately 39 MMB of crude oil, 48 BCF of natural gas (31 BCF of associated and dissolved natural gas and 17 BCF of nonassociated natural gas), and 1 MMB of natural gas liquids. The mean volumes of undiscovered petroleum for both provinces combined are approximately 123 MMB of crude oil, 4,787 BCF of natural gas (317 BCF of associated and dissolved natural gas and 4,470 BCF of nonassociated natural gas), and 130 MMB of natural gas liquids.

### References Cited

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Persits, F.M., Ulmishek, G.F., and Steinshouer, D.W., 1998, Map showing geology, oil and gas fields, and geologic provinces of the former Soviet Union: U.S. Geological Survey Open-File Report 97–470E, CD-ROM.



**Figure 2.** Geologic cross section for the Dnieper–Donets Basin. See figure 1 for location. Modified from Ulmishek (2001) and Law and others (1998). Explanation: 1, Upper Devonian; 2, Devonian evaporites; 3, Carboniferous; 4, Permian; 5, Triassic; 6, Jurassic; 7, Cretaceous; 8, Cenozoic; 9, oil accumulation; 10, gas accumulation; 11, top of overpressure; 12, 100° C isotherm; 13, 0.9 percent vitrinite reflectance isochore; 14, stratigraphic boundary.

Ulmishek, G.F., 2001, Petroleum geology and resources of the Dnieper–Donets Basin, Ukraine and Russia: U.S. Geological Survey Bulletin 2201–E, 14 p.

Ulmishek, G.F., Bogino, V.A., Keller, M.B., and Poznyakevich, Z.L., 1994, Structure, stratigraphy, and petroleum geology of the Pripjat and Dnieper–Donets Basins, Byelarus (sic) and Ukraine, in Landon, S.M., ed., Interior rift basins: American Association of Petroleum Geologists Memoir 59, p. 125–156.

### For Further Information

Publications detailing the geology for the Dnieper–Donets Basin Province, Pripjat Basin Province, and the assessment methodology and results are available at the USGS Central Energy Resources Science Center web site, <http://energy.cr.usgs.gov/oilgas/>.

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