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Carbonate Content of Dnieper-Donetsk Basin

Data of carbonate content obtained while exploring oil fields and gas fields in DDB, studies of paleogeographic and paleotectonic conditions of carbonous deposit formations as well as studies of coal metamorphism coal within west of basin help to justify ability of resource enhancement of Donbass metallurgical coal and thermal coal at the expense of its western boundary shift, and development of areas and fields in DDB.

During Visean period conditions of marine climate and transient climate prevailed in DDB. Continental conditions originated sporadically within separate areas, on the edges of the basin where one to five coal seams with 0.5 to 1.5m thickness were accumulated (Videltsevskaia, Glukhovskaia, Oboianskaia areas).

During Serpukhov period marine conditions stayed ruling on the north edge. Continental conditions were restrictedly occurred in northwest and wider on the south edge where transient conditions prevailed too. 7 to 30 coal seams with 0.7-2m thickness were forming during Serpukhov time within vast area of south edge and further west from Poltava meridian. Within western part of the basin peat accumulation took part at local areas where one to five seams with working thickness were accumulated.

During Bashkir and then Moscow period after long Pre-Bashkir hiatus both continental and transient periods of deposition was registered only in the central part of DDB. There, under favourable for peat accumulation conditions within local but rather vast areas (hundreds and thousands square kilometers) 2-5 to 7 coal seams with 0.6-2.2m were forming.

Expected coal reserves in Dnieper-Donetsk basin to a depth of 1800m are estimated up to 25bln tons of which 50 per cent are coals of Γ grade being attractive as batch component for coking. From the viewpoint DDB may be considered as basis of Donbass metallurgical coal and thermal coal expanding under its west boundary shift.