Coal seams in marginal sea basins: Oligocene Yacheng Formation coal measures, Qiongdongnan Basin, northern region of the South China Sea

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Supplementary paper

Appendix 1. Test data of Oligocene coal quality and maximum vitrinite reflectivity in Qiongdongnan Basin.

Appendix 2. Test data of Oligocene coal petrography in Qiongdongnan Basin.

Appendix 1. Test data of Oligocene coal quality and maximum vitrinite reflectivity in Qiongdongnan Basin.

Well	**Formation**	**Depth (m)**	**C_d (%)**	**$S_{t,d}$ (%)**	**V_d (%)**	**A_d (%)**	**$R_{o\,max}$ (%)**
Y15a	Lingshui Formation	3748.3	65.6	1.36	26.31	20.83	1.16
		3751.8	61.65	6.02	33.53	13.59	1.09
		3753.3	25.29	4.38	19.84	58.33	1.04
		3753.9	28.19	5.48	20.24	53.91	1.06
Y16a	Yacheng Formation	4016.2	44.49	5.77	22.71	37.29	1.15
		4021.6	37.32	2.63	23.83	49.64	1.11
		4023	59.54	2.73	24.20	25.66	1.2
		4023.7	25.53	7.57	26.99	49.87	1.17
		4070.4	31.82	6.39	21.97	49.42	1.23
		4071.5	65.82	6.23	27.42	16.73	1.21
		4081.4	34.87	1.07	18.18	55	1.11

Notes: C_d, Carbon content in dry basis; $S_{t,d}$, Total sulfur content in dry basis; V_d, Volatile content in dry basis; A_d, Ash content in dry basis; $R_{o\,max}$, Maximum vitrinite reflectivity under oil immersion condition.
The test unit: Shandong Taishan Mineral Resources Inspection and Research Institute
The test on the basis of *General rules for analytical and testing methods of coal* GB 483—87 and *Method for determination of vitrinite reflectivity of coal by microscope* GB/T 6948-2008

Appendix 2. Test data of Oligocene coal petrography in Qiongdongnan Basin.

Well	Formation	Depth (m)	Organic components (%)			Inorganic component (%)		
			Vitrinite	Inertinite	Total organic matter	Clays	Sulfides	Oxides
Y15a	Lingshui Formation	3748.3	97.2	2.8				
			89.7	2.6	92.3	6.9	0.4	0.4
		3751.8	97.8	2.2				
			94.0	2.1	96.1	3.5	0.4	
		3753.3	96.5	3.5				
			59.5	2.2	61.7	34.4	0.8	3.1
		3753.9	97.7	2.3				
			67.2	1.6	68.8	25.5	2.3	3.4
Y16a	Yacheng Formation	4016.2	98.2	1.8				
			80.2	1.4	81.6	13.7	1.8	2.9
		4021.6	98.2	1.8				
			77.2	1.4	78.6	12.3	1.1	8.0
		4023.0	96.9	3.1				
			81.5	2.6	84.1	12.7	0.8	2.4
		4023.7	97.8	2.2				
			77.4	1.7	79.1	16.8	1.2	3.1
		4070.4	97.2	2.8				
			66.7	2.0	68.7	20.8	3.8	6.7
		4071.5	97.2	2.8				
			86.0	2.5	88.5	7.7	1.9	1.9
		4081.4	97.7	2.3				
			71.9	1.7	73.6	21.5	1.2	3.7

Notes:
The test unit: Shandong Taishan Mineral Resources Inspection and Research Institute
The test on the basis of *Coal maceral and mineral determination method* GB/T8899-2013 and *Classification of bituminous coal macerals* GB/T15588-2013