

APPENDIX 1

Mineral composition and boron content of mudstones of Lidzbark and Malbork formations of Bartoszyce IG 1 borehole

Sample number	depth	Quartz	Feldspars	Calcite	Dolomite	Other minerals		Clay minerals (%)			B (after HCl treatment)	B (after aqua regia treatment)
	(m)	(wt.%)	(wt.%)	(wt.%)	(wt.%)	name	(wt.%)	Chlorite	other (name)	other (wt.%)	(mg/kg)	(mg/kg)
Bar 1L	899.11	27	8	0	0			20	Illite+Smectite	45	51	100
Bar 2L	904.26	31	9	7	9	Goethite + Analcime	4	18	Illite+Smectite	21	56	105
Bar 3L	908.5	28	10	0	11	Goethite + Analcime	4	17	Illite+Smectite	29	51	70
Bar 4L	913	33	9	10	10	Goethite + Analcime	2	19	Illite+Smectite	16	44	93
Bar 5L	918.32	36	9	0	0	Goethite	traces	22	Illite+Smectite	33	75	119
Bar 6L	922.63	32	11	10	0			25	Smectite+Illite	22	76	94
Bar 7L	934.3	28	7	9	0	Hematite + Goethite	2	21	Illite+Smectite	33	54	121
Bar 8L	941.55	34	10	5	0	Hematite	3	27	Illite+Smectite	21	62	97
Bar 9L	950.72	26	9	7	0	Hematite + Goethite	2	28	Illite+Smectite	28	85	104
Bar 10L	954.6	29	10	2	0	Hematite	2	29	Illite	28	84	91
Bar 11L	963.28	32	10	12	9			19	Illite	18	61	88
Bar 12L	965.77	24	8	8	14			17	Illite	29	70	98
Bar 13L	968.77	25	8	12	8			16	Illite	30	65	76
Bar 14L	977.29	26	8	10	4			24	Illite	28	97	109
Bar 15L	985.55	29	10	6	4			19	Illite	32	78	81
Bar 16L	989.84	20	8	11	8			17	Illite	36	78	118
Bar 17L	991.79	22	9	11	7			17	Illite+I/Sm	34	85	84
Bar 18L	1000.88	20	9	12	7			19	Illite	33	79	112
Bar 19L	1017.7	21	9	0	18	Gypsum	3	19	Illite	30	112	112
Bar 20L	1021.48	17	7	11	12			15	Illite+I/Sm	38	70	81
Bar 21L	1033.66	20	11	10	9			18	Illite	32	67	77
Bar 22L	1040.95	18	9	8	13			19	Illite	33	74	90

All data in % were recalculated to 100% per sample

I/Sm - illite/smectite mixed-layers