

APPENDIX 1

Detrital modes and petrographic parameters for the Silurian greywackes of Holy Cross Mountains

Modal composition	Łysogóry Region Greywackes (ŁRG)														Kielce Region Greywackes (KRG)														Barro sandstone						
	Dębniak W	Dębniak	Dębniak E	Ciekoty S	Wilków	Kajetanów	Jeleniów	Ciekoty N	Serwis	Dębno	Łężyce				Kierdony	Gustak	Zalesie	Zbylutka	Kędziorka	Sadków	Wielki	Piskrzyn	Niestachów 1	Niestachów 2	Niestachów 3	Mójca	Międzygórz	Gołębiów		Niewachłów	Gruchawka 1	Gruchawka 2			
	Samples																																		
	41	42	43	44	45	46	47	48	49	50	51	av.	SD	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75		76	77	av.	SD	BS	
Matrix [%]	8	15	12	12	17	22	13	18	16	12	16	15	4	12	12	4	11	10	15	3	19	11	10	11	7	7	13	13	19	13	11	4	6		
Average grain size [mm; n = 100]	32	36	21	24	18	14	26	12	17	20	27	22	7	11	1.1	51	1.4	23	31	43	1.2	14	1.3	12	18	11	29	1	12	10	59	58	38		
Average grain size [phi; n = 100]	1.7	1.5	2.3	2.1	2.5	2.8	1.9	3.1	2.6	2.3	1.9	2.2	48	3.2	-0.2	1.0	-0.5	2.1	-0.4	-0.5	-0.4	2.9	-0.5	3.1	2.5	3.2	1.8	3.2	3.0	3.3	1.6	1.6	1.4		
SD of grain size [%]	71	53	29	27	38	27	26	48	35	30	115	89	27	87	49	46	54	49	53	86	58	32	41	63	72	36	448	53	86	41	80	96	34		
Skewness of grain size	1.9	8.4	0.7	0.4	0.7	2.0	0.9	1.5	1.0	0.7	2.4	1.9	2.2	1.7	0.7	2.3	2.0	1.1	0.9	6.8	1.7	0.8	0.5	1.8	2.2	0.1	8.3	1.8	4.0	1.2	2.2	2.2	1.3		
Grains counting, (100%) modal composition:																																			
monocrystalline quartz [%] Qm	57	64	53	46	44	55	66	73	37	40	47	53	11	33	36	24	9	28	10	9	24	56	19	65	56	26	38	60	61	46	35	19	63		
polycrystalline quartz (without cherts) [%] Qp-ch	14	5	12	10	10	14	12	16	22	11	15	13	4	7	9	11	10	7	8	4	11	20	3	10	8	6	18	10	20	14	10	5	22		
cherts in grains [%] ch	5	8	5	11	17	11	9	8	12	8	14	10	4	7	3	2	1	10	0	6	4	8	2	7	5	6	9	7	7	9	5	3	3		
plagioclase [%] P	4	4	3	6	9	6	1	0	10	8	6	5	3	12	12	15	9	12	11	9	6	3	4	5	4	8	9	5	5	5	8	4	2		
alkali feldspar [%] K	2	3	3	2	4	3	1	1	2	9	3	3	2	11	13	11	11	19	8	4	3	10	4	5	12	3	5	4	5	5	8	5	6		
volcanic lithic grains [%] Lv	13	14	17	15	11	8	3	0	7	13	6	10	5	22	15	9	15	16	37	36	18	2	44	3	10	27	12	9	0	7	17	13	0		
sedimentary lithic grains [%] Ls	3	2	6	8	5	2	4	2	7	7	2	4	2	6	6	8	36	2	7	27	22	1	18	4	4	20	4	4	1	10	11	10	4		
metasedimentary lithic grains [%] Lms	2	0	1	2	0	1	4	0	3	4	7	2	2	2	6	20	9	6	19	5	12	0	6	1	1	4	5	1	1	4	6	6	0		
Calculated parameters:																																			
quartz total [%] Q = Qm + Qp	76	77	70	67	71	80	87	97	71	59	76	76	10	47	48	37	20	45	18	19	39	84	24	82	69	38	65	77	88	69	51	24	88		
monocrystalline quartz in quartz [%] Qm in Q	57	83	76	68	62	68	76	75	52	67	62	68	9	69	77	63	43	59	54	44	60	67	78	79	81	59	58	76	70	66	65	12	72		
undulatory quartz in Qm [%] Qu in Qm	90	84	67	84	75	70	83	55	74	81	89	77	11	73	25	59	38	91	61	9	61	92	22	89	92	20	88	90	93	89	64	30	85		
polycrystalline quartz (including cherts) [%] Qp	19	13	17	21	27	25	21	24	34	19	29	23	6	14	12	13	11	17	8	10	15	28	5	17	13	12	27	17	27	23	16	7	25		
cherts in Qp [%] ch in Qp	26	62	29	52	63	44	43	33	35	42	48	43	12	50	25	15	9	59	0	60	27	29	40	41	38	50	33	41	26	39	34	16	12		
feldspar total [%] F = P + K	6	7	6	8	13	9	2	1	12	17	9	8	5	23	25	26	20	31	19	13	9	13	8	10	16	11	14	9	10	10	16	7	8		
plagioclase in feldspar [%] P in F	62	51	46	75	66	69	25	0	80	45	63	53	24	53	48	58	42	40	59	73	63	24	55	55	21	66	62	55	49	50	51	14	23		
sedimentary and metasedimentary grains [%] Lsm = Lms + Ls	5	2	7	10	5	3	8	2	10	11	9	7	3	8	12	28	45	8	26	32	34	1	24	5	5	24	9	5	2	14	17	13	4		
total clasts [%] L = Lv + Lsm	18	16	24	25	16	11	11	2	17	24	15	16	7	30	27	37	60	24	63	68	52	3	68	8	15	51	21	14	2	21	33	23	4		
total lithics [%] Lt = L + Qp	37	29	41	46	43	36	32	26	51	43	44	39	8	44	39	50	71	41	71	78	67	31	73	25	28	63	48	31	29	44	49	18	29		
sedimentary grains in clasts [%] Ls in L	17	13	25	32	31	18	36	100	41	29	13	32	24	20	22	22	60	8	11	40	42	33	26	50	27	39	19	29	50	48	32	15	100		
metasedimentary grains in clasts [%] Lms in L	11	0	4	8	0	9	36	0	18	17	47	14	15	7	22	54	15	25	30	7	23	0	9	13	7	8	24	7	50	19	19	15	0		
volcanic grains in clasts [%] Lv in L	72	88	71	60	69	73	27	0	41	54	40	54	25	73	56	24	25	67	59	53	35	67	65	38	67	53	57	64	0	33	49	20	0		
cherts in lithics	14	28	12	24	40	31	28	31	24	19	32	25	8	16	8	4	1	24	0	8	6	26	3	28	18	10	19	23	24	20	14	10	10		