

APPENDIX 1

Lithology and concentrations of selected metals in studied samples of the Kupferschiefer series

Borehole	Sample	Depth [m]	Litho-strat.	Lithology	Redox zone	Metallic zone	Mineralization zone	Cu	Zn	Pb	Ag	Co	Mo	Ni	V	Au	Pt	Pd
								%			ppm					ppb		
Czmoń 11	7	3157.45	T1	grey clay shale with red spots	O	Fe ³⁺	hematite	0.09	0.01	0.00	<3	16	<2	57	428	16	10	20
Czmoń 11	8	3157.50	T1	dark grey clay shale	O	Fe ³⁺	hematite	0.18	0.01	0.00	5	26	<2	101	1240	165	10	18
Grochowice 3	11	1643.00	T1	black clay shale	R	Fe ²⁺ -Cu	copper	1.46	0.03	0.01	58	50	<2	166	781	19		
Grochowice 3	12	1643.05	Ws	grey sandstone	R	Fe ²⁺ -Cu-Zn	Pb-Zn	4.02	1.37	0.02	100	3	45	<3	124	134		
Grochowice 3	13	1643.35	Ws	grey sandstone	R	Fe ²⁺ -Cu	copper	1.26	0.31	0.00	26	3	21	<3	61			
Grochowice 3	14	1644.35	Ws	grey sandstone	R	Fe ²⁺	pyrite	0.04	0.01	0.00	<3	3	<2	5	33			
Henrykowice 8	42	1547.37	T1	black clay shale	R	Fe ²⁺ -Cu	copper	6.64	0.01	0.00	48	107	80	325	1468	8	39	3
Henrykowice 8	43	1547.45	Ca0	dark grey marlstone	R	Fe ²⁺	pyrite	0.15	0.00	0.00	<3	6	76	15	107	2		
Henrykowice 8	44	1547.50	Ca0	grey dolostone	T	Fe ³⁺	hematite	0.00	0.00	0.00	<3	4	34	13	47	1		
Henrykowice 8	45	1547.61	Ws	grey sandstone with red spots	O	Fe ³⁺	hematite	0.01	0.00	0.00	<3	3	4	10	39	110	27	3
Jawor 3	14	1615.99	Ca1	grey limestone	O	Fe ³⁺	hematite	0.00	0.01	0.01	<3	5	10	5		1	2	1
Jawor 3	15	1616.00	T1	dark grey clay shale	O	Fe ³⁺	hematite	0.00	0.01	0.01	<3	5	10	40				
Jawor 3	16	1616.04	Ws	dark grey sandstone	O	Fe ³⁺	hematite	0.00	0.01	0.01	<3	5	5	5		19	5	1
Kalwy 2	5	5304.35	Ca1	grey limestone with red spots	O	Fe ³⁺ -Cu	hematite	0.70	0.01	0.00	19	17	10	125	1164			
Kalwy 2	7	5304.50	T1	dark grey marlstone	T	Fe ³⁺	hematite	0.24	0.01	0.00	7	22	2	109	1309	33	16	13
Kalwy 2	8	5304.80	Ws	grey sandstone	T	Fe ³⁺	hematite	0.05	0.00	0.00	<3	3	<2	9	101	33	5	3
Lelechów 6	13	1474.50	T1	red marlstone	O	Fe ³⁺	hematite	0.01	0.01	0.02	<3	20	10	60		4	82	15
Mozów 1	28	2369.64	T1	black clay shale	R	Fe ²⁺ -Cu	copper	13.75	0.01	0.00	3	30	5	133	596	3	5	3
Mozów 1	29	2369.71	T1	reddish-grey clay shale	T	Fe ³⁺	hematite	0.49	0.01	0.00	<3	9	9	61	823	3840	70	30
Święciechowa 2	5	2044.50	T1	black clay shale	R	Fe ²⁺ -Cu-Zn-Pb	Pb-Zn	1.29	0.76	0.51	96	94	233	270	996	5	5	5
Święciechowa 2	6	2044.70	Ws	grey sandstone	R	Fe ²⁺	pyrite	0.04	0.01	0.02	<3	16	23	21	86	5	5	5
Święciechowa 2	7	2045.00	Ws	reddish-grey sandstone	T	Fe ³⁺	hematite	0.00	0.00	0.00	<3	3	16	6	42	5	5	5
Wilcze 2	6	2435.00	T1	black clayshale	R	Fe ²⁺ -Pb-Zn-Cu	Pb-Zn	0.58	1.15	1.94	48	186	215	327	1203	1	5	26
Wilcze 2	7	2435.05	Ws	grey sandstone	R	Fe ²⁺ -Cu	copper	1.51	0.01	1.35	201	13	26	7	125	4	5	12
Zdrada IG 8	3	1026.83	T1	black clayshale	R	Fe ²⁺	pyrite	0.01	0.01	0.02	<3	66	340	234	670	5	5	6
Żabno 2	13	2866.18	T1	black clayshale	R	Fe ²⁺ -Cu	copper	1.95	0.01	0.00	12	48	8	132	532	<1		
Żabno 2	14	2866.20	T1	dark grey clayshale	T	Fe ³⁺	hematite	0.44	0.00	0.00	21	262	23	108	597	2		

Lithostratigraphy: Ca1 – Zechstein Limestone, T1 – Kupferschiefer, Ca0 – Basal Limestone, Ws – Weissliegend; Redox zones: O – oxidized, T – transition, R – reduced