

TABLE DR1. ISOTOPIC DATA FOR SW AZLAND CHERTS

Symbols: C = Chert; SV = Silicified volcanic and volcanoclastic materials; Cg = Conglomerate cherts; SM = Silicified alteration zones along tops of mafic and ultramafic lavas; HV = Veins crosscutting strata and interpreted as hydrothermal veins. Meters are in reference to the Middle Marker horizon in the stratigraphically coherent Songin veib structural block (Lowe, 1999). Ages are estimated in relation to radiometrically age-dated horizons shown in Fig. 2.

FORMAT/DN	HORIZON	Sample	AGE	METERS	DELTA O-18	NOTE	Type
Moodies	Basal	381-24 slab1-a	3200		12.6	In Eureka Syncline	Cg
Moodies	Basal	381-24 slab1-b	3200		13.2	In Eureka Syncline	Cg
Moodies	Basal	381-24 slab1-c	3200		12.6	In Eureka Syncline	Cg
Moodies	Basal	381-24 slab2-a	3200		11.4	In Eureka Syncline	Cg
Moodies	Basal	381-24 slab2-b	3200		13	In Eureka Syncline	Cg
Moodies	Basal	381-24 slab2-d	3200		12	In Eureka Syncline	Cg
Moodies	Basal	381-24 slab2-e	3200		11.5	In Eureka Syncline	Cg
Moodies	Basal	463-1-7b	3200		16	From Sheba Mine, Eureka Syncline	Cg
Moodies	Basal	463-1-7c	3200		13	From Sheba Mine, Eureka Syncline	Cg
Moodies	Basal	463-1-7e	3200		14	From Sheba Mine, Eureka Syncline	Cg
Moodies	Basal	463-1-7f	3200		13.6	From Sheba Mine, Eureka Syncline	Cg
Moodies	Basal	463-1-7g	3200		13.4	From Sheba Mine, Eureka Syncline	Cg
Schoongezicht		418-22	3225		19	Interbedded with fine dacitic volcanoclastic sediments	C
Fig Tree		275-5		6600	19.2	Just above basal spherule bed	C
Mapepe	Upper	BM L-15-12a	3230		15.9	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12b	3230		16.7	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12c	3230		15.4	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12d	3230		16	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12e	3230		16.7	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12f	3230		15.4	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12g	3230		15.9	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12h	3230		15.5	Conglomerate chert of BM L-15-12	Cg
Mapepe	Upper	BM L-15-12i	3230		17	Conglomerate chert of BM L-15-12	Cg
Mapepe	Mid-Upper	105-9	3230		18.4		C
Mapepe	Mid	568	3230		18.9	Knauth and Lowe (1978)	C
Mapepe	Mid	594	3230		20.8	Knauth and Lowe (1978)	C
Mapepe	Mid	595	3230		20	Knauth and Lowe (1978)	C
Mapepe	Mid	597	3230		19.6	Knauth and Lowe (1978)	C
Mapepe	Mid	599	3230		19.4	Knauth and Lowe (1978)	C
Mapepe	Mid	600	3230		20.1	Knauth and Lowe (1978)	C
Mapepe	Mid	617	3230		17.8	Knauth and Lowe (1978)	C
Mapepe	Mid	618	3230		18	Knauth and Lowe (1978)	C
Mapepe	Mid	620	3230		17.7	Knauth and Lowe (1978)	C
Mapepe	Mid	621	3230		17.8	Knauth and Lowe (1978)	C
Mapepe	Mid	623	3230		18.3	Knauth and Lowe (1978)	C

FORMATDN	HORIZON	Sample	AGE	METERS	DELTA O-18	NOTE	Type
M apepe	M idde	624	3230		19.8	Knauth and Lowe (1978)	C
M apepe	M idde	622a	3230		18	Knauth and Lowe (1978)	C
M apepe	M idde	622b	3230		18.1	Knauth and Lowe (1978)	C
M apepe	M idde	73-21	3230		17.7	Katrinak (1987)	C
M apepe	M idde	73-7	3230		17.9	Katrinak (1987)	C
M apepe	M idde	594a	3230		20.9	Katrinak (1987)	Cg
M apepe	M idde	594b	3230		21	Katrinak (1987)	Cg
M apepe	M idde	594d	3230		21	Katrinak (1987)	Cg
M apepe	M idde	594e	3230		20.8	Katrinak (1987)	Cg
M apepe	M idde	594f	3230		20.5	Katrinak (1987)	Cg
M apepe	M idde	594g	3230		20.9	Katrinak (1987)	Cg
M apepe	M idde	594h	3230		21	Katrinak (1987)	Cg
M apepe	M idde	594i	3230		20	Katrinak (1987)	Cg
M apepe	M idde	594j	3230		21	Katrinak (1987)	Cg
M apepe	M idde	594k	3230		20.8	Katrinak (1987)	Cg
M apepe	M idde	594l	3230		20.9	Katrinak (1987)	Cg
M apepe	M idde	594m	3230		21.1	Katrinak (1987)	Cg
M apepe	M idde	594n	3230		20.7	Katrinak (1987)	Cg
M apepe	Lower	611	3250		17.9	Knauth and Lowe (1978)	C
M apepe	Lower	615	3250		19.6	Knauth and Lowe (1978)	C
M apepe	Lower	614a	3250		17.5	Knauth and Lowe (1978)	C
M apepe	Lower	614b	3250		17.6	Knauth and Lowe (1978)	C
M apepe	Lowest	145-3-1	3258	6650	15.5	white band,near intusbn	C
M apepe	Lowest	145-3-2	3258	6650	14.8	black band,near intusbn	C
M endon	M 2 orM 3	186-30	3275	6500	18.7	21 m above M saulicheit, W .Lim b Onv. Ant	C
M endon	M 2 orM 3	186-31	3275	6500	17.9	15 m above M saulicheit, W .Lim b Onv. Ant	C
M endon	M 2c orM 3c	187-7-1wh	3275	6550	17.2	white band, Katrinak (1987)	C
M endon	M 2c orM 3c	187-7-2bl	3275	6550	16.3	black band, Katrinak (1987)	C
M endon	M 2c orM 3c	199-10-1	3275	6550	18	white band, near intusbn, Katrinak (1987)	C
M endon	M 2c orM 3c	199-10-2	3275	6550	17.4	black band, near intusbn, Katrinak (1987)	C
M endon	M 2c orM 3c	199-8-1	3275	6550	16.5	white band, near intusbn, Katrinak (1987)	C
M endon	M 2c orM 3c	199-8-2	3275	6550	14.9	black band, near intusbn, Katrinak (1987)	C
M endon	M 2c orM 3c	167-2-1wh	3275	6600	20.1	white cavity-fill; Katrinak (1987)	C
M endon	M 2c orM 3c	167-2-2bl	3275	6600	20.4	black, Katrinak (1987)	C
M endon	M 3c	186-10-1	3275	6600	19.5	white band, Katrinak (1987)	C
M endon	M 3c	186-10-2	3275	6600	18.6	black band, Katrinak (1987)	C
M endon	M 2c	186-20-1	3275	6600	18.2	white band, Katrinak (1987)	C
M endon	M 2c	186-20-2	3275	6600	17.9	black band, Katrinak (1987)	C
M endon	M 2v	FSA BS-3	3275	6600	19.6	Alt. Zone ofm affc lavas, Katrinak (1987)	SM
M endon	Upper	98-7	3275		17.1	Barite syncline, no MM below	C
M apepe	M idde	567	3275		22.1	Knauth and Lowe (1978)	C

FORMATDN	HORIZON	Sample	AGE	METERS	DELTA O -18	NOTE	Type
Mendon	Upper	601	3275		21.3	Knauth and Lowe (1978)	C
Mendon	Upper	602	3275		21.2	Knauth and Lowe (1978)	C
Mendon	Upper	603	3275		20.9	Knauth and Lowe (1978)	C
Mendon	Upper	604	3275		21.7	Knauth and Lowe (1978)	C
Mendon	Upper	608	3275		21.8	Knauth and Lowe (1978)	C
Mendon	Upper	610	3275		21	Knauth and Lowe (1978)	C
Mendon	Upper	16-91	3275		19		C
Mendon	Upper	16-92	3275		19.7		C
Mendon	Upper	16-94	3275		19.7		C
Mendon	Upper	16-95	3275		18		C
Mendon	Upper	16-97	3275		19.8		C
Mendon	Upper	16-98	3275		19.4		C
Mendon	M 2v	181-1	3275		18.2	Qtz replaced evap (?) in alt zone of mafic lava, Katrinak (1987)	C
Mendon	Upper	50-3	3275		20.6		C
Mendon	Upper	594a	3275		19.7	Knauth and Lowe (1978)	C
Mendon	Upper	602a	3275		20.6	Knauth and Lowe (1978)	C
Mendon	Upper	606a	3275		20.7	Knauth and Lowe (1978)	C
Mendon	Upper	606b	3275		20.9	Knauth and Lowe (1978)	C
Mendon	Upper	609a	3275		20.9	Knauth and Lowe (1978)	C
Mendon	M 2v	155-10	3275		14	Alt. Zone of mafic lavas, Katrinak (1987)	SV
Mendon	M 2v	155-9	3275		13.5	Alt. Zone of mafic lavas, Katrinak (1987)	SV
Mendon	M 2v	155-Byerly	3275		21	Alt. Zone of mafic lavas, Katrinak (1987)	SV
Mendon	M 1c or M 2	186-23	3290	6500	18.9	1 m above M saulichert, W. Limb Onv. Ant	C
Mendon	M 1c or M 2	186-32	3290	6500	18.7	2 m above M saulichert, W. Limb Onv. Ant	C
Mendon	M 1c	570	3300	6500	15.2	Knauth and Lowe (1978)	SV
Mendon	M 1c	571	3300	6500	15.5	Knauth and Lowe (1978)	SV
Mendon	M 1c	573	3300	6500	14.8	Knauth and Lowe (1978)	SV
Mendon	M 1c	574	3300	6500	13.9	Knauth and Lowe (1978)	SV
Mendon	M 1c	10-10	3300	6500	15	Alt. Zone of mafic lavas, Katrinak (1987)	SV
Mendon	M 1v	127-31	3300	6500	14.7	Alt. Zone of mafic lavas, Katrinak (1987)	SV
Mendon	M 1v	127-33	3300	6500	15.3	Alt. Zone of mafic lavas, Katrinak (1987)	SV
Mendon	M 1c	572a	3300	6500	15.4	Knauth and Lowe (1978)	SV
Mendon	M 1c	572b	3300	6500	15.2	Knauth and Lowe (1978)	SV
Mendon	M 1c	575a	3300	6500	14.1	Knauth and Lowe (1978)	SV
Mendon	M 1c	575b	3300	6500	14.3	Knauth and Lowe (1978)	SV
Mendon	M 1c	576a	3300	6500	15.3	Knauth and Lowe (1978)	SV
Mendon	M 1c	576b	3300	6500	14.7	Knauth and Lowe (1978)	SV
Kromberg	K3c	23-161	3340	6100	14	Footbridge Chert	C
Kromberg	K3c	626	3340	6200	16.1	Footbridge Chert	C
Kromberg	K3	FSA 24-2A	3350	5900	13	Katrinak (1987)	SM
Kromberg	K3c	627	3350	5950	15	Knauth and Lowe (1978)	SV

FORMATDN	HORIZON	Sample	AGE	METERS	DELTA O -18	NOTE	Type
Kromberg	K2c	75-11	3375	5000	18.9	Katrinak (1987)	C
Kromberg	K2?	23-107-1	3375	5500	13.3	Katrinak (1987)	SM
Kromberg	K2?	23-107-2	3375	5500	13.3	Katrinak (1987)	SM
Kromberg	K2?	23-108	3375	5500	13	Katrinak (1987)	SM
Kromberg	K2?	23-109	3375	5500	13.1	Katrinak (1987)	SM
Kromberg	K3v	FSA 24-4	3375	5500	13.4	Katrinak (1987)	SM
Kromberg	K1	107-3	3400	4550	18.9	Katrinak (1987)	C
Kromberg	K1	107-4	3400	4550	19.9	Katrinak (1987)	C
Kromberg	K1	107-8-1	3400	4550	19.9	Katrinak (1987)	C
Kromberg	K1c1	23-71	3400	4550	17.1		C
Kromberg	K1c2	589	3400	4600	19.8	Knauth and Lowe (1978)	C
Kromberg	K1c1	23-77	3400	4600	15.2	E. Limb, Onv. Anticline, Statequiv Buck Reef	C
Kromberg	K1c2	589a	3400	4600	20.3	Knauth and Lowe (1978)	C
Kromberg	K1c2	589b	3400	4600	20.6	Knauth and Lowe (1978)	C
Kromberg	K1	76-5	3400	4600	16.8	E. Limb, Onv. Anticline	C
Kromberg	K1	577	3400	4600	18.5	Knauth and Lowe (1978)	C
Kromberg	K1	579	3400	4600	17	Knauth and Lowe (1978)	C
Kromberg	K1c2	586	3400	4600	18	Knauth and Lowe (1978)	C
Kromberg	K1c2	587	3400	4600	16.7	Knauth and Lowe (1978)	C
Kromberg	K1c2	588	3400	4600	19.7	Knauth and Lowe (1978)	C
Kromberg	K1	134-5-1	3400	4600	17.9	White, Katrinak (1987)	C
Kromberg	K1	134-5-2	3400	4600	18	Black, Katrinak (1987)	C
Kromberg	K1c2	23-91	3400	4600	13.7		SV
Kromberg	K1	131-11-1	3400	4650	19.9	White, Katrinak (1987)	C
Kromberg	K1	131-11-2	3400	4650	19.6	Black, Katrinak (1987)	C
Kromberg	K1	131-12-1	3400	4650	20.2	White, Katrinak (1987)	C
Kromberg	K1	131-12-2	3400	4650	20.2	Black, Katrinak (1987)	C
Kromberg	K1	131-12-3	3400	4650	19.8	Silica stalactite, Katrinak (1987)	C
Kromberg	K1	131-2-1	3400	4650	17	White, Katrinak (1987)	C
Kromberg	K1	160-7-1	3400	4650	18.8	White, Katrinak (1987)	C
Kromberg	K1	160-7-2	3400	4650	17.9	Black, Katrinak (1987)	C
Kromberg	K1	22-6	3400	4650	18.8	White, Katrinak (1987)	C
Kromberg	K1	577a	3400	4650	20.1	Knauth and Lowe (1978)	C
Kromberg	K1	577b	3400	4650	19.4	Knauth and Lowe (1978)	C
Kromberg	K1	578a	3400	4650	19	Knauth and Lowe (1978)	C
Kromberg	K1	578b	3400	4650	19.3	Knauth and Lowe (1978)	C
Kromberg	K1	580a	3400	4650	17.2	Knauth and Lowe (1978)	C
Kromberg	K1	580b	3400	4650	16.7	Knauth and Lowe (1978)	C
Kromberg	K1	580c	3400	4650	16.8	Knauth and Lowe (1978)	C
Kromberg	K1	580s	3400	4650	16.7	Knauth and Lowe (1978)	C
Kromberg	K1	580w	3400	4650	16.8	Knauth and Lowe (1978)	C

FORMATDN	HORIZON	Sample	AGE	METERS	DELTA O-18	NOTE	Type
Kromberg	K1C1	76-1	3400	4650	17.6	Katrhak (1987)	C
Kromberg	K1C1	76-2	3400	4650	17	Katrhak (1987)	C
Kromberg	K1C1	76-7	3400	4650	18.4	Katrhak (1987)	C
Kromberg	K1	46-1	3400	4650	21	Coll<1 km 3 216 Ga intrusion	C
Kromberg	K1	46-2	3400	4650	20.9	Coll<6 Km . from surrounding granite intrusives	C
Kromberg	K1	133-4-1	3425	4500	15.7	Katrhak (1987)	C
Kromberg	K1	133-4-2	3425	4500	14.2	Dmsy fillofevap cavities, Katrhak (1987)	C
Kromberg	K1	160-13	3425	4500	20	Katrhak (1987)	C
Kromberg	K1	160-4-1	3425	4500	19.5	Dmsy fillofevap cavities, Katrhak (1987)	C
Kromberg	K1	160-4-2	3425	4500	21.4	Dmsy fillofevap cavities, Katrhak (1987)	C
Hooggenoeg	H6	581	3440	4400	17.4	Knauth and Lowe (1978)	SV
Hooggenoeg	H6	583	3440	4400	16.9	Knauth and Lowe (1978)	SV
Hooggenoeg	H6	584	3440	4400	15.6	Knauth and Lowe (1978)	SV
Hooggenoeg	H6	585	3440	4400	17.3	Knauth and Lowe (1978)	SV
Hooggenoeg	H6	59-12	3440	4400	14.3	Ven in felsic tuff	HV
Hooggenoeg	H4c	96-1-1	3459	2600	14.1	White chert resting on altered komatiite	C
Hooggenoeg	H3c	36-21	3462	2250	12.8	Finely laminated black chert	C
Hooggenoeg	H3c	36-29	3462	2250	14.1	Knauth and Lowe (1978)	C
Hooggenoeg	H3c	38-5	3462	2250	12.2	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	38-6	3462	2250	12.1	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	38-7	3462	2250	9.4	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	42-2	3462	2250	12.8	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	434-15	3462	2250	14.9	Metachert	SV
Hooggenoeg	H3c	44-2	3462	2250	12.3	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	44-6	3462	2250	13.5	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	36-20	3462	2250	12.7	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	36-23	3462	2250	13.3	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	36-27	3462	2250	10.6	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	36-3	3462	2250	11.6	Knauth and Lowe (1978)	SV
Hooggenoeg	H3c	36-18	3462	2250	14.7	Knauth and Lowe (1978)	SV
Hooggenoeg	H2c	54-2	3465	1800	13.4		C
Hooggenoeg	H2c	434-16	3465	1800	15.9	Metachert	C
Hooggenoeg	H2	52-8 black	3468	1200	13.9	Katrhak (1987)	C
Hooggenoeg	H2	52-8 white	3468	1200	14	Katrhak (1987)	C
Hooggenoeg	H2v	434-1	3468	1200	13.7	Metachert	C
Hooggenoeg	H2v	434-2	3468	1200	14.2	Metachert	C
Hooggenoeg	H2v	434-3	3468	1250	13.7	Metachert	C
Hooggenoeg	H1;MM	32-12	3472	0	11.9	Metachert	C
Hooggenoeg	H1;MM	32-9	3472	0	12.9	Knauth and Lowe (1978)	SV
Hooggenoeg	H1;MM	32-11	3472	0	13.2	Knauth and Lowe (1978)	C
Hooggenoeg	H1;MM	32-10	3472	0	13.2	Knauth and Lowe (1978)	SV

FORMATDN	HORIZON	Sample	AGE	METERS	DELTA O -18	NOTE	Type
Hooggenoeg	H 1;MM	37-11-2	3472	0	12	Knauth and Lowe (1978)	SV
Hooggenoeg	H 1;MM	37-2	3472	0	12.5	Knauth and Lowe (1978)	SV
Hooggenoeg	H 1;MM	43-5-A	3472	0	13.3	Knauth and Lowe (1978)	SV
Hooggenoeg	H 1;MM	43-5-B	3472	0	13	Knauth and Lowe (1978)	SV
Hooggenoeg	H 1;MM	625a	3472	0	15.3	Knauth and Lowe (1978)	C
Hooggenoeg	H 1;MM	625b	3472	0	14.4	Knauth and Lowe (1978)	C
Hooggenoeg		VN			15.5	Veh	HV
Hooggenoeg		59-14			13.9	Veh	HV
Hooggenoeg		59-15			13.4	Veh	HV
Hooggenoeg		59-4			14	Veh	HV
Hooggenoeg		59-10			13.5	Veh	HV